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OF THE

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VOLUME CCXLVI.

JANUARY,

1918.

WASHINGTON
GOVERNMENT PRINTING OFFICE
1918

ERRATA.

1,251,526, page 23, in heading, assignment, name of first-mentioned assignee, for "W. Everitt" read *W. Everitt Rundle.*

1,252,325, page 255, figure, for reference-numerals "1^b, 2^b, 6^b" read *1, 2, 3.*

1,252,473, page 333, in heading, assignment, strike out the words "assignors of one-half" and insert the words *said Ruggles assignor.*

1,253,300, page 602, second claim, line 4, for the word "operating" read *arranged to be operated.*

1,254,946, page 1129, in heading, after residence of patentee insert *assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis., a Corporation of Delaware.*

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THE

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Designs	40	No. 51,629 to No. 51,668, inclusive.
Trade-Marks	46	No. 120,005 to No. 120,050, inclusive.
Labels	None.	
Prints	None.	
Reissues	1	No. 14,417.
Total	1009	

Interference Notice.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., December 29, 1917.

Eckman & Peterson, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of the West Indies Packing Company, of McKinley, Isle of Pines, West Indies, for registration of a trade-mark and trade-mark registered September 14, 1886, No. 13,658, to Eckman & Peterson, of Philadelphia, Pa., and a notice of such declaration sent by registered mail to said Eckman & Peterson at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Eckman & Peterson, their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD,
First Assistant Commissioner.

Adverse Decisions in Interference.

PATENT No. 1,122,626.

On November 27, 1917, a decision was rendered that James L. McQuarrie was not the first inventor of the subject-matter covered by claim 8 of his Patent No. 1,122,626, subject, "Sector-switches," and no appeal having been taken within the time allowed such decision has become final.

PATENT No. 1,160,376.

On November 10, 1917, a decision was rendered that John Dominick Canale was not the first inventor of the subject-matter covered by claims 5, 6, and 7 of his Patent No. 1,160,376, subject, "Nut-cracking machines," and no appeal having been taken within the time allowed such decision has become final.

PATENT No. 1,179,883.

On November 28, 1917, a decision was rendered that Benjamin Wexler was not the first inventor of the subject-matter covered by the claim of his Patent No. 1,179,883, subject, "Elevator-shaft doors," and no appeal having been taken within the time allowed such decision has become final.

Applications Made to the Federal Trade Commission for Licenses under Enemy-Controlled Patents and Trade-Marks Pursuant to the "Trading with the Enemy Act."

Trade-Mark registration No. 40,115, April 14, 1903, to E. Merck, of Darmstadt, Germany. For a certain named chemical product. License applied for by Abbott Laboratories, of Chicago, Ill.

Patent No. 812,554, February 13, 1906, to Alfred Einhorn, of Munich, Germany, assignor to Farbwerke vorm. Meister Lucius & Brüning, of Höchst-on-the-Main, Germany, a corporation of Germany. Alkamin esters of para-aminobenzoic acid. License applied for by The Abbott Laboratories, of Chicago, Ill.

Copyright registration No. 3,163, class A, XXc. to Langenscheidtsche Verlagsbuchhandlung (Prof. G. Langenscheidt), of Berlin-Schöneberg, Germany, January 5, 1911. Pocket dictionary of the Greek and English languages. License applied for by David McKay, of Philadelphia, Pa.

Trade-Mark No. 42,942, July 5, 1904, to Ungarische Gummiwarenfabriks Actiengesellschaft, of Budapest, Hungary. Rubber and asbestos packing. License applied for by Anchor Packing Company, of Philadelphia, Pa.

Application of Clinton Harby Levy, of 2 Duane street, New York, N. Y., for a license under certain copyrights issued and prospective of German periodicals and books.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business December 28, 1917.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended.	No. of applications awaiting action.
314	1. Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Railway Gates; Planting; Scattering Unloaders; Trees, Plants, and Flowers.	Oct. 22	Oct. 6	308
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	Aug. 17	Oct. 5	316
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Heating; Metal-Founding; Metallurgical Apparatus; Metallurgy; Plastic Metal Working.	Nov. 28	Nov. 3	92
224	4. Conveyers; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Pushing and Pulling Implements; Railway Mail Delivery; Store-Service; Traversing Hoists.	Nov. 3	Dec. 14	154
167	5. Bookbinding; Harvesters; Jewelry; Music	Sept. 20	Nov. 12	281
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Substance Preparation.	May 18	July 23	540
312	7. Educational Appliances; Games and Toys; Optics; Velocipedes	Sept. 10	Oct. 2	532
133	8. Beds; Chairs; Flexible-Sheet Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Sept. 4	Nov. 8	571
221	9. Air and Gas Pumps; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Marine Propulsion.	May 26	Nov. 9	538
235	10. Carriages and Wagons; Motor Vehicles	July 16	Nov. 8	792
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Spring Devices; Whips and Whip Apparatus.	Sept. 24	Nov. 16	288
322	12. Journal-Boxes, Pulleys, and Shafting; Machine Elements	Aug. 30	Oct. 22	576
329	13. Ammunition and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Aug. 17	Nov. 16	511
323	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Sept. 7	Nov. 8	291
306	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Nov. 10	Nov. 24	272
112	16. Electric Signaling-A; Radiant Energy; Telegraphy; Telephony	June 16	Nov. 5	467
307	17. Ornamentation; Paper Manufactures; Printing; Type Casting; Sheet Material Associating or Folding; Sheet Feeding or Delivering; Type Setting.	Oct. 11	Nov. 17	108
220	18. Fluid-Pressure Regulators; Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Aug. 23	Oct. 15	349
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels	July 13	Oct. 13	466
179	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Nov. 23	Nov. 21	239
212	21. Brakes and Gins; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	July 2	Oct. 18	269
240	22. Aeronautics; Firearms; Ordnance	Oct. 1	Oct. 18	298
219	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	Aug. 14	Oct. 24	373
144	24. Apparel; Apparel Apparatus; Sewing-Machines; Garment Supporters	Nov. 5	Nov. 15	185
315	25. Agitating; Butchering; Centrifugal Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers; Gas Separation.	Nov. 12	Nov. 19	186
106	26. Electricity, Generation; Motive Power	June 23	July 9	589
214	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus	Oct. 1	Oct. 16	374
225	28. Internal-Combustion Engines	Aug. 17	Sept. 21	579
147	29. Coopering; Fire-Escapes; Ladders; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking Tools.	Aug. 18	Oct. 1	418
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines	Sept. 4	Nov. 13	450
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Sugar and Salt.	Oct. 18	Oct. 19	194
278	32. Gas and Liquid Contact Apparatus; Heat Exchange; Packaging Liquids; Refrigeration	June 1	Nov. 22	728
70	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	Oct. 24	Nov. 12	280
304	34. Railways; Railway Rails and Joints; Railway Rolling Stock; Railway Ties and Fasteners	Nov. 2	Nov. 30	87
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Signals; Toilet	Aug. 2	Sept. 13	645
204	36. Driers; Geometrical Instruments; Measuring Instruments; Photography; Force Measuring	Oct. 11	Nov. 17	520
107	37. Electric Lamps; Electricity, Circuit Makers and Breakers; Electricity, Conduits; Electricity, General Applications.	July 9	Aug. 29	693
278	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells	Nov. 19	Nov. 26	142
220	39. Water Distribution; Multiple Valves	June 25	Sept. 27	436
275	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Sept. 20	Nov. 20	501
125	41. Railway Draft Appliances; Resilient Tires and Wheels	Aug. 21	Sept. 15	385
114	42. Electricity, Conductors; Railway Signaling; Electricity-Transmission to Vehicles; Electric Signaling	July 7	Oct. 3	639
382	43. Baths and Closets; Dispensing; Dispensing Beverages; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Oct. 11	Oct. 15	376
253	44. Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Ships	Sept. 12	Nov. 17	316
370	45. Clutches; Lubrication; Motors; Railway Brakes	Aug. 16	Aug. 27	464

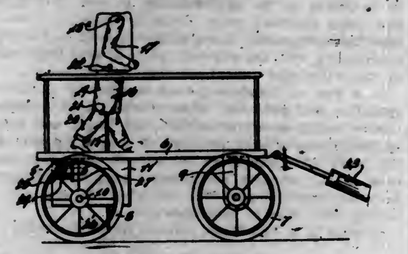
Oldest new case, May 18; oldest amended, July 9.
Total number of applications awaiting action 17,866

168	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Oct. 25	Dec. 6	339
	Designs	Nov. 10	Nov. 17	220
	Labels and Prints	Nov. 17	Nov. 8	122

PATENTS

GRANTED JANUARY 1, 1918.

1,251,458. PUSH-TOY JIGGER. FRANK T. AHERN, New York, N. Y., assignor to Ferdinand Strauss, Yonkers, N. Y. Filed Feb. 28, 1917. Serial No. 151,885. (Cl. 46—45.)

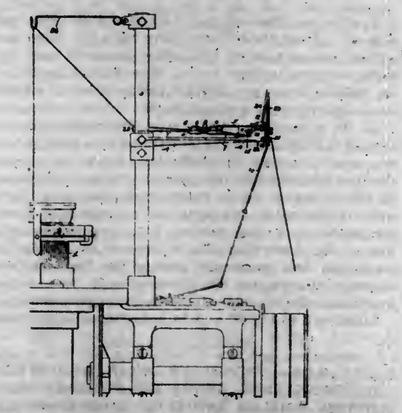


1. The combination of a support, rotatable ground wheels therefor, a dancing figure carried by said support, operating means for regularly rotating and lifting said figure, and means operable by the said wheels to actuate the figure operating means.

2. The combination of a support, rotatable ground wheels therefor, a dancing figure carried by said support, operating means for said figure, means operable by the said wheels to actuate the figure operating means, and means to permit the rotation of said wheels in one direction only.

[Claims 3 to 7 not printed in the Gazette.]

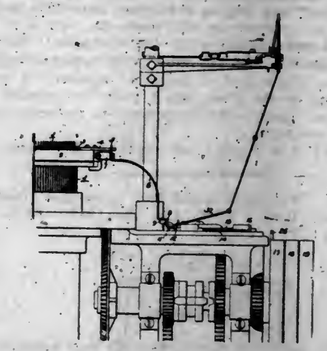
1,251,459. DEFECTIVE-YARN DETECTOR FOR KNITTING-MACHINES. FRANK APPLETON, Philadelphia, Pa., assignor, by mesne assignments, to Scott & Williams, Incorporated, a Corporation of Massachusetts. Filed Mar. 10, 1916. Serial No. 83,251. (Cl. 66—7.)



1. The combination of the needles of a knitting machine, yarn guides including a trigger engaging the yarn at a point relatively remote from the needles, a rock shaft carrying said trigger and having a duplex cam formation thereon, a stop motion operating lever, and a bolt for locking said lever in inoperative position, said bolt being under control of said cam formation whereby the stop mechanism will be operated by movement of the trigger in either direction.

2. The combination of the needles of a knitting machine, yarn guides including a trigger engaging the yarn at a point relatively remote from the needles, a rock shaft carrying said trigger, and having on one end face of the same a flat sided rib projecting from said face and extending diametrically across the same, a locking bolt normally pressing against an end of said rib, and means for moving said locking bolt so as to cause it to press against a flat side of the rib when the latter is turned from its normal position.

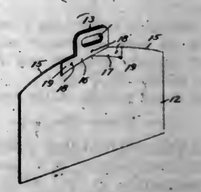
1,251,460. DEFECTIVE-NEEDLE DETECTOR FOR KNITTING-MACHINES. FRANK APPLETON, Philadelphia, Pa., assignor, by mesne assignments, to Scott & Williams, Incorporated, a Corporation of Massachusetts. Filed Mar. 10, 1916. Serial No. 83,252. (Cl. 66—7.)



1. In a knitting machine, the combination of the needles and web holders, a member mounted so as to engage displaced web holders, a clutch releasing member, means for moving the same into releasing position, a retainer for holding it out of such position, and means whereby the movement of said web holder engaging member is caused to release said retainer.

[Claims 2 and 3 not printed in the Gazette.]

1,251,461. COAT-HANGER. SIEGMUND BACHMANN, Chicago, Ill. Filed Feb. 6, 1917. Serial No. 146,933. (Cl. 211—13.)



A garment-hanger comprising a body section of sheet material, and having a relatively narrow section at its

upper end, and reinforcing members carried by the hanger and arranged flatwise relative to said section and the adjacent part of said body portion, said reinforcing members being each provided with a part which projects from one end only thereof, with said members so arranged that said projecting portions extend in opposite directions from and beyond said section.

1,251,462. TOY PISTOL. CHARLES ALEXANDER BAILEY, Cromwell, Conn. Filed May 12, 1917. Serial No. 168,246. (Cl. 42—54.)

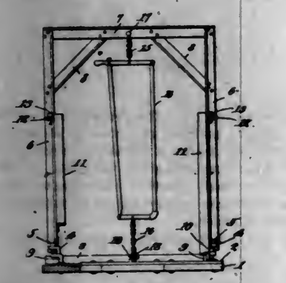


2. In a toy-pistol, a frame structure for operatively housing a hammer member and a spring, and the said structure comprising in a unitary piece, means for receiving the said hammer member and spring, an anvil, and a trigger guard in the form of a loop and coöperating fulcrums on the said hammer member and frame, the said means comprising guide-wall portions on both sides of the said hammer member and spring.

7. In a toy-pistol, a body, a hammer member housed in the said body and having a fulcrum projection engaged with the end wall of the said body, the said body having lateral guide members for coöperating with the said hammer member, and the said guide members comprising on one side a pair of guide bar members in spaced relation and on the other side a guide bar member that is positioned opposite the space between the said pair of guide bar members.

[Claims 1, 3 to 6, and 8 not printed in the Gazette.]

1,251,463. WAGON-STANCHION. ARTHUR BARTELS, Westgate, Iowa. Filed Apr. 20, 1917. Serial No. 163,521. (Cl. 119—147.)



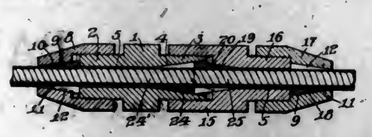
2. A wagon stanchion, comprising a base, a frame pivoted to the base, struts pivoted to the base and detachably secured to the frame, and means for securing a stanchion within the frame.

4. A wagon stanchion, comprising a base, a frame pivotally secured to the base, detachable means for securing the frame in an upright position, and means for securing a stanchion within the frame.

[Claims 1 and 3 not printed in the Gazette.]

1,251,464. TRANSMISSION-LINE CONNECTOR. ROBERT A. BECKER, Poughkeepsie, N. Y., assignor to Charles Tremain, Poughkeepsie, N. Y. Filed Nov. 27, 1916. Serial No. 133,634. (Cl. 173—303.)

1. A pair of interlocking members, gripping means within said members, members adapted to be secured to the opposite ends of said pair, and gripping means within said last-mentioned members.

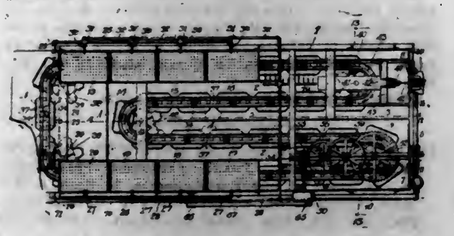


4. A pair of interlocking members provided with oppositely tapering bores, tapering contractible means within each of said bores and coöperating with each other as said members are joined together, members adapted to be joined to the opposite ends of said first members and being provided with outwardly tapering bores, and tapering contractible means within each of said bores and coöperating with the adjacent walls of said first members as the latter said second members are joined.

6. A pair of members joined together in threaded cooperation and provided with tapering bores, coöperating tapered gripping means within said bores, and actuated by the joining of said members, caps provided with tapering bores and adapted to be screwed upon the opposite ends of said members, and tapered gripping means within said last-named bores and operative to contract upon joining said caps to said members.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,251,465. PASTEURIZING APPARATUS. RICHARD F. BRUTLICH, Chicago, Ill., assignor to The 20th Century Machinery Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 6, 1915. Serial No. 6,460. (Cl. 126—272.)



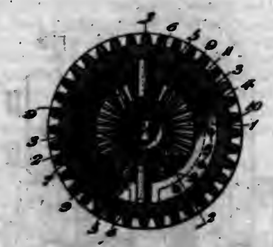
1. In a machine of the class described, the combination of a tank divided vertically into two non-communicating compartments occupying opposite ends of the tank and overlapping as to their middle portions, and an endless conveyer having bottle carriers adapted to be drawn through a liquid in one of the compartments.

12. In a machine of the class described, the combination of a tank divided by partitions into first and second non-communicating compartments, means on one side of the first compartment to gradually raise the temperature of the substance to be pasteurized, means on the other side of the same compartment to gradually lower the temperature of the substance to be pasteurized, and means for conveying the substance to be pasteurized along the first mentioned side of the first compartment through the second compartment and then along the second-mentioned side of the first compartment.

[Claims 2 to 11, 13, and 14 not printed in the Gazette.]

1,251,466. AUTOMATIC BRAKING DEVICE FOR COMPENSATION-GEARS OF AUTOMOBILES AND OTHER SIMILAR VEHICLES. HUGO BILGRAM, Philadelphia, Pa. Filed July 7, 1917. Serial No. 179,126. (Cl. 74—99.)

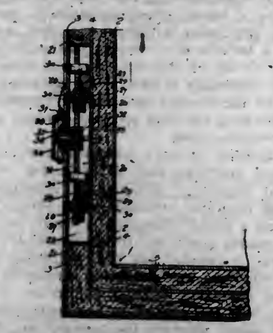
2. In a device for causing a retarding force to be exerted against the rotation of a pair of gear wheels, the combination with such gear wheels of a guard composed of one or more parts inclosing the tooth spaces of said wheels in the angle of approach with tooth spaces elsewhere left unenveloped, and an inclosure



adapted to be filled partly with oil, grease, or other fluid or semi fluid.

[Claims 1 and 3 not printed in the Gazette.]

1,251,467. DOOR-WEDGING MECHANISM. TERRY BLIXT and ERNST EMIL FROZETH, Minneapolis, Minn.; said Blixt assignor to Nils Edgar Frozeth, Chicago, Ill. Filed Apr. 24, 1917. Serial No. 164,272. (Cl. 109—3.)



1. The combination with a floatable vault having a door opening in one wall, said opening having stepped edges, packing strips on said steps, a door mounted in said opening, and having steps on the edge thereof, packing strips on the steps to contact with those on the edge of the opening, a lock on the door to prevent opening thereof by unauthorized persons, a door wedging mechanism including a pair of vertically spaced horizontal reciprocable bolts mounted in the wall adjacent the free edge of the door and having their outer ends wedge-shaped for reception in sockets in said edge, rack teeth on the lower edges of said bolts, pinions engaging said teeth, a vertically reciprocable rack for engaging said pinions, a horizontally disposed spindle rotatably mounted between said bolts, a main driving pinion on said spindle for engagement with the vertical rack bar, an operating wheel keyed to the outer end of said spindle, said wheel having its rim inturned and disposed adjacent the wall of the vault, and means engaging said rim whereby when the wedge-shaped ends of the bolts have been forced into the sockets, the wheel is held against rotation.

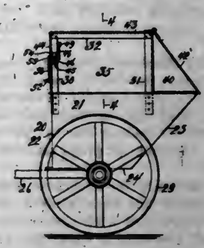
2. A vault having a door opening, a door for said opening, a lock for said door, a wedging mechanism for said door including reciprocable bolts, a horizontal operating shaft disposed between said bolts and extending through the outer walls of said vault, an operating wheel on the outer end of said shaft, said wheel having an inturned annular rim, said rim being provided with a series of radial apertures, a U-shaped bracket secured to the outer face of said vault and adapted to receive said rims between its arms, said arms having a pair of vertically alined apertures therein, and a pin to be received in said vertically alined apertures and one of said radial apertures to lock the operating wheel against movement.

1,251,468. CHAFING-SHIELD. MARIE BOUVIER, Paris, France. Filed May 12, 1913. Serial No. 767,195. (Cl. 128—3.)



A chafing shield comprising a substantially triangular flexible member having an elongated base forming the lower edge of the shield, the apex of said member being arranged nearer one end than the other with the edge between said apex and the adjacent end of the member inclined abruptly, the edge between said apex and the remote end of said member being gradually inclined and curved slightly inward, a fastening strap secured to said remote end and extending longitudinally therefrom, an adjustable suspension strap extending upwardly at right angles from said end, a fastening element on the other end of said member for coöperation with said fastening strap, an adjustable suspension strap extending upwardly from said apex and a waist band engaged with said suspension straps.

1,251,469. DUMP-CART. TOM BRABSON, Brooklyn, N. Y. Filed Mar. 20, 1915. Serial No. 15,685. (Cl. 21—20.)



In a dump cart the combination of a body, a door for each side of said body, a rear flap door for said body, a locking device for each side door, comprising a bracket extending from said body, a pin pivoted in said bracket, an arm fastened to the pin and carrying a roller to engage its coacting door, a second arm with one end fastened to said pin, an auxiliary bracket on said bracket, a stop pin carried by the auxiliary bracket to engage the second arm to keep the door in an open position.

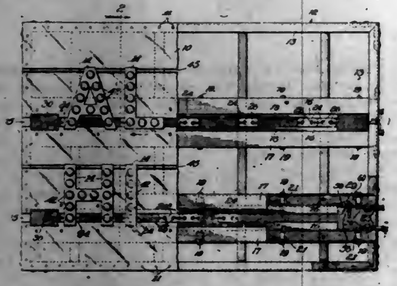
1,251,470. PACKAGE AND BAGGAGE TIE. VIRGINIA B. BRIGHT, Fayetteville, Tenn. Filed Feb. 26, 1916. Serial No. 80,616. (Cl. 24—130.)



A package and baggage tie, or fastener, comprising a flat body having two cord engaging tongues formed upon

one side thereof, and shaped to extend parallel with, and slightly above said body and forming opposing shoulders, or bearings, against which a cord is adapted to be drawn in changing directions, said tongues being of equal size, parallel to each other, pointing in opposite directions and having a V-shaped, cord engaging opening, or notch in the free ends thereof and a cord engaging perforation in said body—as described.

1,251,471. ELECTRIC SIGN. JESSE M. BROOKS, Chicago, Ill. Filed Aug. 5, 1916. Serial No. 113,246. (Cl. 40—130.)



1. A sign of the character described, comprising a pair of oppositely disposed bus bars, a block slidably mounted therebetween and provided with two contact members adapted to have electrical connection with said bus bars, and a sign member provided with at least one lamp socket, said sign member being provided with two contact members adapted to removably engage the contact members of said block.

5. A sign of the character described, comprising a pair of oppositely disposed bus bars, a block slidably mounted therebetween, and a sign member provided with at least one lamp socket, said sign member and said block being provided with contact means, one in the form of sockets and the other in the form of plugs adapted to be inserted into said sockets.

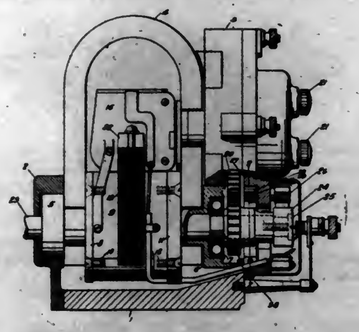
7. A sign of the character described, comprising a pair of oppositely disposed bus bars, a block slidably mounted therebetween and provided with contact members adapted to have electrical connection with said bus bars, means adjacent the ends of said bars for preventing the block from being moved endwise therefrom, and a member provided with contact plugs adapted to removably engage the contact members of said block.

9. A sign of the character described, comprising a pair of oppositely disposed bus bars, a block provided with grooved edges to receive the adjacent edges of said bus bars, two contact tubes in said block, and resilient conductor strips, one connected with each of said tubes and bearing against said bus bars.

[Claims 2 to 4, 6, 8, and 10 to 12 not printed in the Gazette.]

1,251,472. ATTACHING MEANS FOR IGNITION BREAKER-BOXES. WILLIAM J. BROWN, Newark, N. J., assignor to Splitdorf Electrical Company, Newark, N. J. Filed May 14, 1917. Serial No. 168,582. (Cl. 123—149.)

1. In an ignition device, a source of magnetic flux, an ignition coil having primary and secondary windings and relatively stationary means for directing the flux through said coil windings, a timing member for adjusting the time of action of the primary of said coil and the passage of flux through the windings, said timing means having an element fastened to the flux directing means, a divided ring mounted within the extremity of said element, said timing member being mounted on the exterior of said element adjacent said divided ring and means mounted in the timing member and coöperating with said ring for drawing said ring securely against the inner periphery of said element for the purpose described.

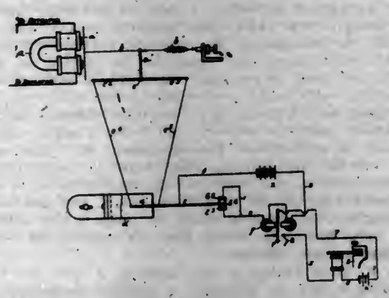


2. In an ignition device, a revoluble structure carrying flux directing members and an induction coil having primary and secondary windings in operative relation thereto, said revoluble structure also having a bearing holder having a sleeve extending laterally therefrom, a divided ring positioned within and at the extremity of said sleeve, a breaker box carrying means for controlling the primary circuit of the coil, said box being mounted on the outer extremity of said sleeve adjacent said ring and means on the breaker box passing through the said sleeve for drawing the ring securely against said sleeve for the purpose described.

3. In an ignition device, a revoluble structure carrying flux directing members and an induction coil having primary and secondary windings in operative relation thereto, said revoluble structure also having a bearing holder having a sleeve extending laterally therefrom, an expansible member positioned within and at the extremity of said sleeve, a breaker box for controlling the action of said coil windings, said box being carried on the sleeve adjacent the expansible member and means fastened to the breaker box for expanding the expansible member against the sleeve whereby the breaker box is securely fastened thereto.

[Claims 4 to 7 not printed in the Gazette.]

1,251,473. WIRELESS TELEGRAPHY. WILLIAM M. BRUCE, Jr., Springfield, Ohio. Filed Dec. 8, 1915. Serial No. 65,771. (Cl. 175—321.)



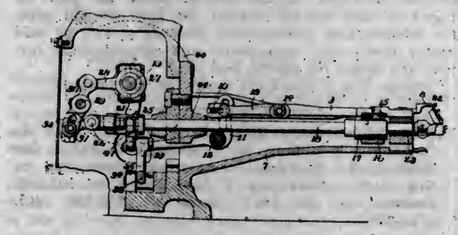
1. The combination of a diaphragm operatively connected to a wireless circuit, a suspended cradle, an intermediate operating arm connected with said diaphragm and said cradle, an electro-magnetic vibrating device, and a contacting arm connected to said cradle and vibrated by said vibrating device in unison therewith and in a different direction from that vibrated by the said diaphragm, substantially as specified.

4. In a telegraph apparatus, a suspended contacting arm, and contacting devices adjacent thereto, a neutral or zero point between said contacting devices adjacent to which the said arm is normally located so it vibrates to and from said neutral point, a diaphragm receiver and a connection from said diaphragm to said suspended bridle to cause it to vibrate to a position adjacent to either of said contacts whereby the vibration of said diaphragm causes the arm to move to position adjacent to said contact and the independent vibration of said arm causes it to vibrate in contact therewith to complete the circuit as and for the purpose specified.

5. In an apparatus for wireless telegraphy, and in combination with a vibrating receiver, a connection from said receiver to a vibrating contact, means for causing said contact to independently vibrate in one direction and to vibrate in unison with the receiver in the other direction, said means involving devices for tuning the period of vibration of the contacting arm to coincide with the vibrations actuating the receiver, and contacting devices in circuit with a telegraph instrument whose circuit is closed by the combined movements of the contact arm.

[Claims 2 and 3 not printed in the Gazette.]

1,251,474. LOOPER MECHANISM FOR SEWING-MACHINES. NELSON D. CLARK, Chicago, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 31, 1914. Serial No. 879,928. (Cl. 112—5.)



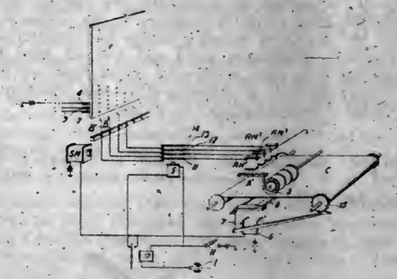
1. The combination of a standard, a cylindrical work support carried thereby, a cross-shaft mounted in said standard, means whereby said shaft may be rotated, a looper support extending lengthwise of said cylindrical work support, a looper fixed to said looper support, an eccentric carried by said cross shaft, and means operated by said eccentric for moving said looper shaft endwise to give the looper a lateral movement, a second eccentric carried by said cross-shaft, and means operated thereby for oscillating said looper shaft to move the looper into and out of the needle loop, said last named means including devices for giving said looper an extended dwell at the forward end of its stroke.

2. The combination of a standard, a cylindrical work support carried thereby, a cross shaft mounted in said standard, means whereby said shaft may be rotated, a looper support extending lengthwise of said cylindrical work support, a looper fixed to said looper support, an eccentric carried by said cross shaft, a swinging frame oscillated by said eccentric, means for connecting said swinging frame to said looper shaft for moving the same endwise, a second eccentric carried by said cross shaft, a swinging frame operated by said second eccentric, and means operated by said last named swinging frame for oscillating the looper shaft.

[Claims 3 to 5 not printed in the Gazette.]

1,251,475. TELEPHONE-EXCHANGE SYSTEM. HENRY P. CLAUSEN, Mount Vernon, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Dec. 13, 1916. Serial No. 136,626. (Cl. 179—9.)

1. In a recording device, a bank of terminals, a plurality of brushes arranged to travel over and make contact with said terminals, a plurality of recording magnets associated with said brushes, each arranged to be responsive to a characteristic electrical condition which may exist on said terminals, a chart for receiving a record under control of said recording magnets, and means for successively and automatically moving said brushes into association with said terminals.



2. In a telephone exchange, line switches, means for making a peg count of traffic conditions therein, comprising a plurality of recording devices responsive to the busy condition of said line switches, and means for successively and automatically moving said recording devices into association with said switches.

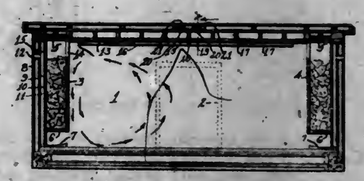
3. In a telephone exchange system, line switches, connector switches, and foreign office trunks, means for making a peg count of traffic conditions therein comprising a plurality of recording devices, said recording devices being responsive to the busy condition of such pieces of apparatus, and means for successively and automatically bringing said recording devices into association with said pieces of apparatus.

4. In a telephone exchange system, means for making a peg count of traffic conditions within a particular group of automatic switches comprising a recording device responsive to the busy condition of such switches, and means for successively and automatically bringing said recording device into electrical connection with such switches.

5. In a telephone exchange, means for making a peg count of traffic conditions within such exchange at a given time comprising a plurality of recording devices arranged in association with the organisms of said exchange and responsive to the busy condition of said organisms, and means for successively and automatically bringing said recording devices into electrical connection with the particular groups of organisms over which each of said recording devices has supervision.

[Claims 6 to 9 not printed in the Gazette.]

1,251,476. METHOD OF PRESERVING PERISHABLE PRODUCTS. THOMAS J. CLINTON, Detroit, Mich., assignor to United Refrigerators Company, Detroit, Mich., a Corporation of Michigan. Substitute for abandoned application Serial No. 855,582, filed Aug. 7, 1914. This application filed Apr. 16, 1917. Serial No. 162,425. (Cl. 99—14.)



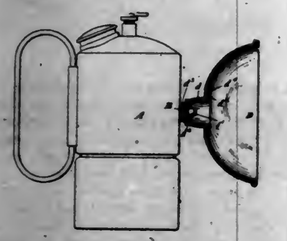
1. The herein described method of preventing deterioration of perishable products which consists in subjecting the product, while segregated from the atmosphere, to the influence of air naturally circulating by influence of

a cooling medium, separating the gases and foul air from the circulating body by means of a vent to atmosphere in the upper part of the compartment, the circulation causing movement of the gases toward the vent, and introducing fresh air into the compartment by influence of the movement of gases and air through the vent.

7. The method of preventing deterioration of perishable products, consisting in subjecting the product while segregated from normal atmosphere to the influence of cooled air caused to circulate within the compartment, continuously discharging gases and foul air from the circulating body, and introducing cooled fresh air into the circulating body by influence of the said discharge.

[Claims 2 to 6 not printed in the Gazette.]

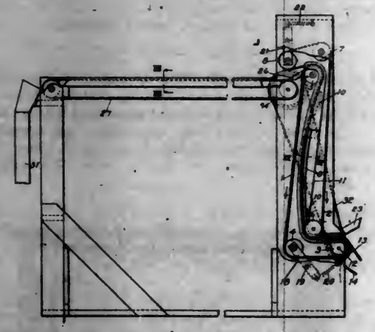
1,251,477. REFLECTOR. WILBUR A. COCHRANE, Sea Cliff, N. Y. Filed May 25, 1915. Serial No. 30,294. (Cl. 240—105.)



1. A reflector device for gas lamps comprising a reflector, a burner-receiving chamber back of the reflector, and having imperforate walls, said chamber having its interior in communication with the space within the reflector, a baffle-device around the front end of the chamber and projecting forward from the reflector, said baffle-device having a sloping wall arranged to deflect air drafts from the front toward the front, and means for attaching the reflector device to a burner.

[Claims 2 to 6 not printed in the Gazette.]

1,251,478. DEVICE FOR MOVING ARTICLES FROM ONE LEVEL TO ANOTHER. JAMES T. COWLEY, Minot, Mass., assignor to The Lamson Company, Boston, Mass., a Corporation of New Jersey. Filed Oct. 8, 1915. Serial No. 54,885. (Cl. 193—4.)



1. In means for elevating stoppers and the like, the combination of two tensioned belts driven at substantially the same speed, said belts having upwardly traveling extended portions thereof opposed to receive therebetween the articles being conveyed, and immovably mounted means to bow said opposed extended portions of said belts continuously both in the same direction to prevent slippage of said articles during transit.

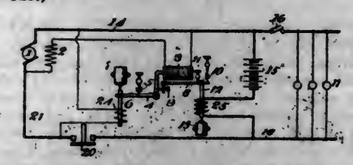
8. In means for conveying stoppers and the like from one level to another, the combination of two tensioned belts driven at substantially the same speed, said belts having extended opposed and substantially vertical portions between which the articles to be carried are received, said portions each having a tendency to move into a determined and substantially vertical plane, and means to curvilinearly deform said portions from the shape that they tend to assume in said plane, from substantially end to end thereof and continuously in a determined direction, to prevent downward slippage of the articles being carried between said portions.

6. In means for conveying articles, the combination of two belts driven at substantially the same speed, said belts having opposed portions between which the articles to be carried are received, one at least of said portions having therein a continuous groove extending longitudinally thereof, for the reception of parts of said articles thereinto, means, in sliding engagement with and acting upon at least one of said belts, to press a wall of said groove firmly into engagement with articles being carried past said pressing means, the latter being located along the line of travel of said articles but out of their path, and means for driving said belts.

8. In means for conveying articles, the combination of two belts driven at substantially the same speed, said belts having opposed portions between which the articles to be carried are received, one at least of said portions having therein a continuous groove extending longitudinally thereof, for the reception of parts of said articles thereinto, means, located along the path of travel of said articles between the ends of said path, for substantially continuously pressing a wall of said groove firmly into engagement with articles being carried, and means for driving said belts.

[Claims 2, 4, 5, and 7 not printed in the Gazette.]

1,251,479. CAR-LIGHTING SYSTEM. JOHN L. CREVELING, New York, N. Y., assignor to Safety Car Heating and Lighting Company, a Corporation of New Jersey. Filed Aug. 7, 1911, Serial No. 642,583. Renewed Nov. 24, 1917. Serial No. 203,696. (Cl. 171—318.)



1. In an electric lighting system, the combination with a generator, a main circuit, and a storage battery; of means for regulating the generator comprising a regulating element in series with the field winding of the generator, a pair of coöperating rigid levers for varying the action of the regulating element, one of which is arranged to cooperate with said regulating element and the other to act directly upon the first lever; and means for operating said levers dependent upon conditions in the circuit.

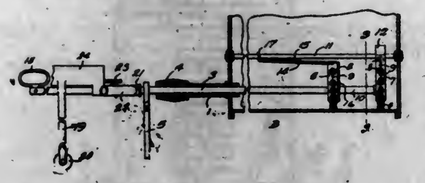
4. In an electric lighting system, in combination, a variable speed generator, a main circuit, a storage battery arranged to be charged by said generator, means for regulating the generator comprising an element varying in its effect according to the pressure exerted thereon, and means for operating said element comprising a pair of levers arranged to vary the pressure upon said element, said levers being separately movable, and current and voltage coils adapted respectively to control said levers.

7. The combination of a main generator, a work circuit and storage battery supplied thereby, rheostatic apparatus for regulating the voltage of the generator, and two electro-magnets acting to control said apparatus to regulate its action, one of said electro-magnets being arranged to regulate responsive to current changes of the system and the other electro-magnet being arranged to regulate responsive to voltage changes of the battery, one of said electro-magnets being arranged to remain substantially inoperative during a substantial part of the charging of the battery.

19. In an electrical system of distribution, a main generator driven at a variable speed, a storage battery and work circuit arranged to be supplied thereby, carbon pile rheostatic apparatus for regulating the field of the generator, an electro-magnet regulating responsive to current changes for controlling said apparatus to limit the charging current while the battery is charging, and an electro-magnet regulating responsive to voltage changes of the battery, arranged to be brought into operation for controlling said apparatus to limit the voltage of the generator, one of said electromagnets having no effect on the apparatus when the other electromagnet is controlling the regulation.

[Claims 2, 3, 5, 6, 8 to 18, and 20 not printed in the Gazette.]

1,251,480. BOILER-CLEANER. WILLIAM G. CROAS, Olney, Tex. Filed Mar. 23, 1917. Serial No. 156,964. (Cl. 122—387.)

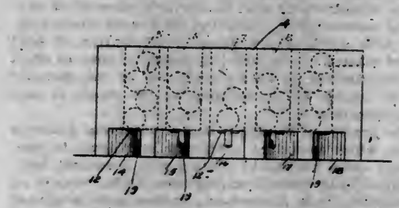


1. The combination with a boiler, of a pipe slidable through one end thereof, a longitudinal rod mounted within the boiler, an apertured cleaning head connected to said pipe and movable along the bottom of the boiler, said head slidably engaging said rod, and spring means between said rod and head for depressing the latter.

2. The combination with a boiler, of a pipe slidable through one end thereof, a longitudinal rod mounted within the boiler, an apertured cleaning head connected to the pipe and movable along the bottom of the boiler, bristles carried by said head to bear against the bottom of the boiler, said head slidably engaging said rod, and spring means between the rod and head for depressing the latter.

3. The combination with a boiler, of a member slidable through one end thereof, a longitudinal rod mounted within the boiler, a cleaning head connected to said member and movable along the bottom of the boiler, bristles carried by said head to engage the bottom of the boiler, and a guard carried by said head and projecting in one direction therefrom, said guard having means at its free end slidably engaging said rod.

1,251,481. GAME APPARATUS. JOHN W. CUTHBERT, Bay City, Mich., assignor of one-fourth to Charles M. Bump and one-fourth to Belle L. Bump, Bay City, Mich. Filed June 4, 1917. Serial No. 172,719. (Cl. 46—61.)

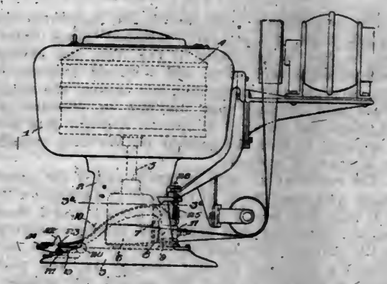


2. A game apparatus comprising a body having a plurality of vertically disposed open-ended containers and a passage under each container, means secured to the body and normally lying adjacent the lower ends of the containers to support objects therein, and means whereby upon the entry of a moving article in one passage the said supporting means may be actuated to release the objects from the respective container.

4. A game apparatus comprising a body having a plurality of open-ended containers therein, the outer ends of the containers opening through the body, said body also having passages formed in its lower portion in intersecting relation to said containers, movable means projecting into the passages adjacent the lower ends of the containers to support objects in the containers, said movable members being displaced by contact therewith of an article entering the respective passage to effect a discharge of the objects from the respective container.

[Claims 1 and 3 not printed in the Gazette.]

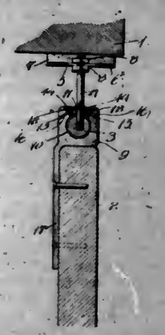
1,251,482. BRAKE FOR CENTRIFUGAL MACHINES. MICHAEL DALY, Cincinnati, Ohio, assignor to The American Laundry Machinery Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Sept. 25, 1915. Serial No. 52,590. (Cl. 74—13.)



2. A brake mechanism including a brake shoe, a pivoted carrier, an operating lever connected to the carrier, a rod connected to the brake shoe and slidably disposed in the carrier, the rod having an enlargement, and a spring arranged between said enlargement and the carrier, and serving to apply yieldable pressure to the shoe.

[Claim 1 not printed in the Gazette.]

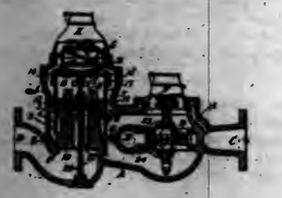
1,251,483. SLIDING-DOOR HANGER. WILLIAM J. DAYS, Dorchester, Mass. Filed Oct. 25, 1917. Serial No. 198,527. (Cl. 16—7.)



A door hanger comprising a horizontally elongated block having a longitudinal circular bore to receive an elevated track, and a longitudinal slot leading from said bore to the upper side of the block to straddle the suspending means of said track, said block also having a pair of short downwardly converging slots on opposite sides

of the first named slot and leading from the upper side of the block to said bore, a pair of downwardly converging wheels mounted rotatably in said short slots to travel on the track, and an attaching plate depending from said block for connection to the door.

1,251,484. COMPOUND METER. CARL GEORGE DE LAVAL, Orange, N. J., and ROLAND HEIMBECKER, New York, N. Y., assignors to Henry R. Worthington, a Corporation of New Jersey. Filed Aug. 12, 1915. Serial No. 45,148. (Cl. 73—167.)



1. The combination, with meters for registering large and small flows, of a pressure controlled change valve to direct the flow to one meter or the other and having a passage through said valve, and a second pressure controlled valve movably mounted in said passage and adapted to close said passage upon decrease in pressure to a point below that required to operate said low duty meter and operated to open the passage for low duty operation upon increase of pressure.

6. The combination, with meters D and G for registering large and small flows, of cylinder 17 having low duty port 1, high duty port 2 and relief ports 5 and 3, change valve 10 controlling said ports and having central passage 12, chamber 13 above said change valve 10, valve 19 movably mounted in said passage 12, and having shoulder 6 adapted to close the passage 12, passage 18 connected with relief port 5, and annular passage 4 in the change valve 10 adapted to connect the lower portion of said passage 18 with relief port 3.

[Claims 2 to 5 and 7 not printed in the Gazette.]

1,251,485. PROCESS OF TREATING SULFID ORES OF LEAD. ROBERT DU LUCE, Oakland, Cal. Filed May 8, 1917. Serial No. 167,334. (Cl. 204—15.)

1. A process of treating sulfid ores of lead, comprising decomposing the ore by a solution containing ferric chlorid, leaching the residue with an electrically conductive solution having a practicable solvent capacity for lead chlorid, and free from ferric compounds, and subjecting said solutions respectively as electrolytes to anodic and cathodic action.

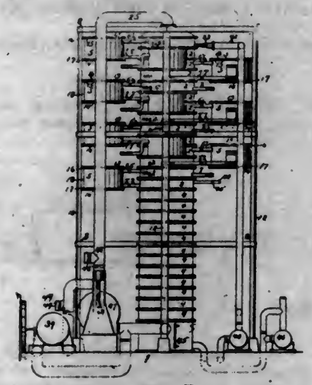
2. A process of treating sulfid ores of lead, comprising decomposing the ore by a solution containing ferric chlorid, leaching the residue with an electrically conductive solution having a practicable solvent capacity for lead chlorid and free from ferric chlorid, and simultaneously electrolyzing said solutions in the anode and cathode compartments respectively of an electrolytic cell having a porous diaphragm.

5. A cyclical process of treating sulfid ores of lead, comprising decomposing the ore by a solution containing ferric chlorid, leaching the residue with an electrically conductive solution having a practicable solvent capacity for lead chlorid, and free from ferric chlorid, subjecting said solutions respectively as electrolytes to anodic and cathodic action to effect their regeneration and to deposit lead, and re-using said solutions for the decomposition and leaching of fresh batches of ore in a repetition of the cycle.

8. A process of treating sulfid ores of lead containing silver or copper, comprising decomposing the ore by a solution containing ferric chlorid, leaching the residue with an electrically conductive solution having a practicable solvent capacity for lead chlorid, and free from ferric chlorid, depositing the less electropositive metals from said second solution by electrolysis with a soluble anode, and subjecting said solutions respectively as electrolytes to anodic and cathodic action to effect their regeneration and to deposit lead.

[Claims 3, 4, 6, and 7 not printed in the Gazette.]

1,251,486. METHOD OF TREATING LIQUIDS TO REMOVE DISSOLVED SALTS. HENRY L. DOHERTY, New York, N. Y. Filed July 16, 1912, Serial No. 709,795. Renewed June 7, 1917. Serial No. 173,420. (Cl. 210—1.)



1. The process of treating liquids containing substances in solution, which comprises, subjecting said liquids to a plurality of heating steps at successively increasing temperature, and after each of said heating steps, contacting the said liquids at substantially the temperature communicated to the same during the preceding heating step and before crystallization of the impurities separable at the temperature communicated to said liquid during said heating step with surfaces comprising materials promoting crystallization of dissolved substances.

2. The process of treating a liquid containing dissolved material, which comprises, subjecting said liquid to comparatively quick heating by contacting said liquid with a gaseous medium which has been heated by contact with a previously treated portion of said liquid, withdrawing said liquid from the heating medium before the separation of any considerable amount of said dissolved material and contacting the heated liquid withdrawn with surfaces promoting crystallization of said dissolved material.

3. The process of treating a liquid containing dissolved material, which comprises, subjecting said liquid to comparatively quick heating by contacting said liquid with a gaseous medium which has been heated by contact with a previously treated portion of said liquid, withdrawing said liquid from contact with the heating medium, before the separation of any considerable amount of said dissolved material, and contacting the heated liquid withdrawn with surfaces promoting crystallization of said dissolved material for a sufficient length of time to effect the crystallization of substantially all of the material which is capable of crystallizing as the result of said heating operation.

4. The process of heating a liquid containing dissolved material, which comprises, subjecting said liquid to comparatively quick heating by contact with a suitable heating medium, said medium having been heated in part by heat recovered from a previously treated portion of said liquid, withdrawing the heated liquid from contact with said heating medium before the separation of any considerable amount of said dissolved material, and causing the heated liquid withdrawn to flow over surfaces comprising substances promoting crystallization of said dissolved material, the area of said surfaces and the rate of flow of the heated liquid over them being so regulated as to permit the crystallization of substantially all of the material which is capable of crystallizing as a result of said heating operation.

5. The process of treating a liquid containing dissolved material, which comprises, subjecting said liquid to comparatively quick heating by contact with a suitable heating medium, said medium having been heated in part by heat recovered from a previously treated portion of said liquid, withdrawing the heated liquid from contact with said heating medium before the separation of any considerable amount of said dissolved material, and causing the heated liquid withdrawn to pass as a relatively thin film in contact with surfaces comprising substances promoting the separation of said material, the rate of passage of said liquid over said surfaces being such as will permit of the separation of substantially all of the said material which is capable of crystallizing as a result of said heating operation.

[Claims 6 to 22 not printed in the Gazette.]

1,251,487. BUSHING FOR ELECTRIC WIRING. JOHN J. DUCK, Toledo, Ohio. Filed May 12, 1917. Serial No. 168,268. (Cl. 24—141.)

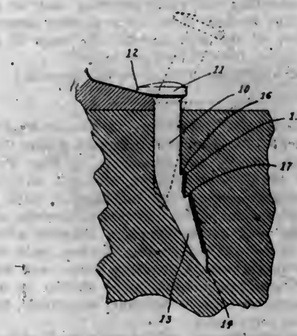


3. A bushing of the class described, comprising a wire receiving collar having a compressible flange flaring outward in inwardly spaced relation to the outer edge of the collar to adapt it to be snapped into a receiving opening.

4. A bushing of the class described, comprising a wire receiving collar having the edge wall of its opening rounded and having a split compressible flange flaring outward from one side of the collar adjacent to its outer edge and then rolling inward in reëntrant form, said flange adapted to be snapped into a receiving opening.

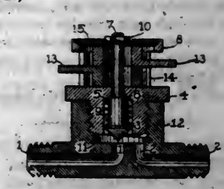
[Claims 1 and 2 not printed in the Gazette.]

1,251,488. RAIL-SPIKE. FREDERICK F. ECKERT, Ragersville, Ohio. Filed June 26, 1914. Serial No. 847,490. (Cl. 85—21.)



A substantially elbow-shaped railroad spike comprising a shank rectilinear for a portion of its length, with a head at its free end projecting laterally on one side thereof, the other portion of said shank being bent at an obtuse angle forming an elbow with the point of the shank extending laterally on the side opposite to that on which the head projects to insure the jamming of said head on the rail flange when applied, and a plurality of teeth disposed on the inside of said elbow at the bend thereof, said teeth being inclined toward the head of the spike to facilitate the insertion of the spike and to prevent its withdrawal, said spike being sufficiently thick at its bend or elbow to prevent its bending when driven into a tie.

1,251,489. FIRE-CHECK VALVE. ERIC E. ESSEN, Brooklyn, N. Y. Filed Dec. 2, 1916. Serial No. 134,737. (Cl. 137—92.)

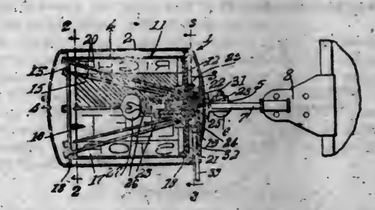


1. A valve including a casing and a cap therefor, a valve piston in said casing having a shank extending through said cap, a fusible disk supported upon said cap retaining said valve piston in open position and combustible material beneath said disk as auxiliary support and to fuse the same.

2. In a valve, a casing provided with posts upon its exterior, a valve piston having a shank mounted in said casing, a fusible bridge between said posts and shank normally retaining said valve piston in open position, and means for fusing said bridge comprising inflammable blocks arranged about said shank.

3. In a valve, a casing provided with posts upon its exterior, a valve piston having a shank mounted in said casing, a fusible bridge between said posts and shank normally retaining said valve in open position, and means for fusing said bridge comprising inflammable collars arranged about said shank, and extensions upon said collars projecting outwardly between said posts.

1,251,490. SAFETY-SIGNAL. OWEN JAMES EVANS and ATLEE OWEN EVANS, Canton, Ohio. Filed Jan. 9, 1917. Serial No. 141,425. (Cl. 40—77.)



1. A signal device embodying a drum composed of end members and panels disposed therebetween, and members connecting the end members for drawing them toward one another to clamp the panels therebetween and to serve as stays and braces for the drum.

3. A signal device embodying a supporting member having a bearing, a signal drum composed of a plate at one end, a ring at the other end and signal panels between said plate and ring, said plate having a hub projecting toward said ring and journaled upon said bearing, a lamp carried by said hub within the drum, and members engaged through said ring and converging toward one another and engaged with said plate to draw the ring toward the plate for clamping the panels therebetween.

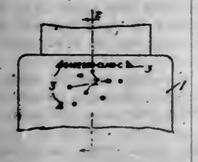
4. A signal device embodying a supporting member having a bearing, a signal drum, one end of which is provided with a hub projecting toward the other end, said hub being journaled upon said bearing and having a re-

entrant tubular portion extending through the bearing, and means connected to said portion for holding the hub upon the bearing and for oscillating the drum.

6. A signal device embodying a casing having a window, a supporting plate within the casing having a bearing, a drum within the casing composed of a disk at one end, a ring at the other end and signal panels between said disk and ring, said disk having a hub projecting toward the ring and journaled upon said bearing, members extending through said ring and engaged with said disk for clamping the panels between said disk and ring, the hub having a reëntrant tubular portion extending through said bearing, a lamp carried by the hub, conductors for the lamp extending through said tubular portion, and a member secured to said tubular portion and bearing against said plate for holding the hub upon the bearing and operable for oscillating the drum.

[Claims 2 and 5 not printed in the Gazette.]

1,251,491. INDESTRUCTIBLE MARKING DEVICE FOR CASTINGS. EDWARD FERRISS, Minneapolis, Minn., assignor to William J. Schwab, Minneapolis, Minn. Filed Sept. 11, 1916. Serial No. 119,442. (Cl. 40—2.)



1. A casting having cast in the body thereof, a multiplicity of character forming elements in a relative arrangement indicating an identifying character.

4. A casting having cast therein, a multiplicity of character indicating elements in bifactored arrangement and having scale alining elements located outside of and parallel with the alined rows in said bifactored elements.

[Claims 2 and 3 not printed in the Gazette.]

1,251,492. HORSE HAY-RAKE. CHARLES F. FINLEY, Fort Collins, Colo. Filed Aug. 2, 1917. Serial No. 184,091. (Cl. 56—67.)



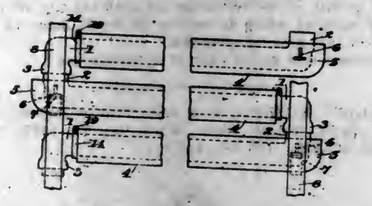
1. The combination with a hay rake having supporting wheels and a rake between the wheels, of a pair of vertical fenders, one arranged between each wheel and the adjacent end of the rake, hangers for suspending the fenders, and a hoop vertically supported and disposed against the outer face of each fender to prevent outward lateral displacement thereof.

3. The combination with a wheeled rake having a vertically swinging rake and a support for a cleaning rail, of fenders located between the wheels and adjacent ends of the swinging rake, hangers engaging the support and the fenders for suspending the same, and hoops vertically disposed and fixed beyond the swinging rake and engaging against the outer sides of the fenders to hold the same against outward lateral displacement.

4. The combination with a wheeled rake having a vertical swinging rake and a support for a cleaning rail, of vertically disposed plates constituting fenders located between the wheels and adjacent the ends of the swinging rake, hangers engaging this support and each fender for suspending the same, and hoops vertically disposed and having their ends fixed to the frame of the rake and engaging against the outer sides of the fenders to hold the same against outward lateral displacement, the fixed ends of each hoop being spaced from each other with one end disposed inwardly from the vertical plane of the fender, while the other end is located outside of said vertical plane of the fender to prevent end thrust of the fender and hoop.

[Claim 2 not printed in the Gazette.]

1,251,493. COIL-BOX FOR CONDENSERS. WILLIAM L. FINNE, Elizabeth, N. J. Filed Apr. 18, 1917. Serial No. 163,028. (Cl. 257—241.)



1. The combination with a horizontal pipe section of a condenser coil having a turned up end, of a trough having a turned up end to fit around the corresponding end of the pipe section, means in the trough for supporting said pipe section in spaced relation therewith, means for supporting that end of the trough around the pipe section, a collar on the other end of the trough, said collar fitting around the under portion of the pipe section, and means carried by said collar for supporting that end of the trough on the pipe section.

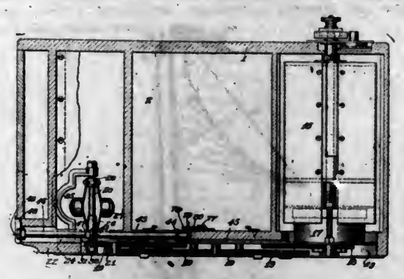
7. The combination with a horizontal pipe section of a condenser coil, of a trough arranged around said pipe, means for supporting one end of the pipe in proper position around the pipe section, a collar on the other end of the trough fitting around the under surface of the pipe section and extending above said pipe section at the sides thereof, a bridge fitting over the upper surface of the pipe section and having means to permit the escape of a cooling liquid from the trough at a level above the pipe section, and inclined bolts carried by the upper ends of the collar and engaging the bridge for holding the latter closely down around the upper surface of the pipe section, and supporting the collar-carrying end of the trough on said pipe section, there being packing between the under surface of the pipe section, the ends of the bridge and the collar, for the purpose specified.

[Claims 2 to 6 and 8 not printed in the Gazette.]

1,251,494. PANORAMIC CAMERA. WILLIAM F. FOLMER, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed July 24, 1915. Serial No. 41,768. (Cl. 95—15.)

1. In a panoramic camera, the combination with an exposure chamber and automatic film feeding devices, of a diaphragm at the back of the exposure chamber across which the film is fed by the feeding devices, said diaphragm being provided with a focusing screen and with an exposure aperture and adapted to be shifted so that said screen or aperture may be brought, selectively, into the optical axis of the camera.

2. In a panoramic camera, the combination with an exposure chamber and automatic film feeding devices, of a sliding diaphragm at the back of the exposure chamber across which the film is fed by the feeding devices, said diaphragm being provided with a focusing screen and with an exposure aperture fixed relatively to each other and either of which may be shifted, selectively, into the optical axis of the camera by a sliding adjustment of the diaphragm.



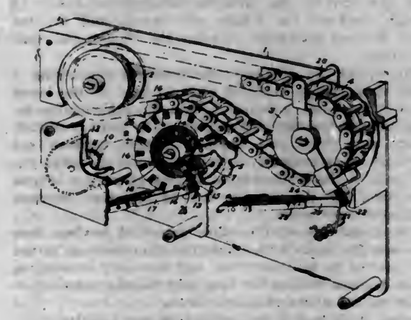
6. In a panoramic camera, the combination with an exposure chamber and automatic film feeding devices, of a shiftable diaphragm at the back of the exposure chamber provided with a focusing screen and with an exposure aperture either of which may be shifted, selectively, into operative position in the optical axis of the camera, a back for the latter adapted to be opened and closed and means preventing the closing of the back when the exposure aperture is in inoperative position.

9. In a panoramic camera, the combination with an exposure chamber, a diaphragm at the back thereof having an exposure aperture therein, and mechanism for automatically feeding film across the rear face of the diaphragm, of a sliding safety cover for the aperture, a shaft extending parallel therewith and geared with the same at both ends, and an operating member for driving the cover and shaft connected to one of said members at only one of its ends.

11. In a panoramic camera, the combination with an exposure chamber, a diaphragm at the back thereof having an exposure aperture therein, and mechanism for automatically feeding film across the rear face of the diaphragm and embodying a brake, of a safety cover for the aperture, a bell crank lever arranged to actuate the same, and a rotary operating member for oscillating the crank and actuating the brake.

[Claims 3 to 5, 7, 8, and 10 not printed in the Gazette.]

1,251,495. IMPULSE-SENDING MECHANISM. OSCAR F. FORSBERG, Yonkers, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed July 19, 1917. Serial No. 181,589. (Cl. 179—90.)
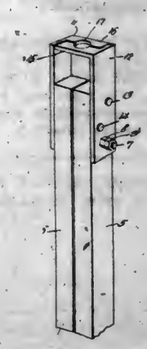


1. In an impulse sender, the combination with an impulse transmitting mechanism having no definite normal position, of an endless chain movable in a single direction for operating said mechanism to transmit impulses.

2. In an impulse sender, the combination with an impulse transmitting mechanism, of an endless chain movable in a single direction for operating said mechanism to transmit impulses, the links of said chain being arranged to serve as finger holds for said sender.

3. In an impulse sender, the combination with a rotatable sprocket and an impulse wheel fastened to said sprocket and adjustable in relation thereto, of an endless chain movable in a single direction for engaging said sprocket to operate said impulse wheel to transmit impulses.

4. In an impulse sender, the combination with an impulse transmitting mechanism and an endless chain for operating said mechanism, of a movable finger stop lever, and contact springs controlled by the movement of said lever.

1,251,496. SAFETY CUT-OUT-PLUG PULLER. JOEL JACKSON FOWLER, Athens, Ga. Filed Apr. 7, 1917. Serial No. 160,582. (Cl. 57—118.)



1. A cut-out plug puller comprising pivotally connected handles, jaws fixedly connected to and supported beyond one end of the handles, said jaws being extended in opposite direction respectively and adapted to meet on a line intersecting the longitudinal axis of the plug puller and parallel with the pivot or axis of rotation of the handles, said jaws being recessed to engage the handle of a cut-out inserted between the jaws, and to hold the cut-out in line with the longitudinal axis of plug puller.

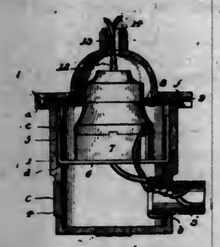
2. A cut-out plug puller comprising a pair of handles pivotally connected together, a substantially L-shaped jaw carried by each handle and rigidly secured thereto, the horizontal portions of the jaws when brought into abutting engagement adapted to interlock and are formed with a central opening whose axis is the same as that of the handle, said opening being adapted to engage with the handle of a cut-out plug.

1,251,497. FLOOR OUTLET-BOX. JAMES M. G. FULLMAN, Pittsburgh, Pa. Filed Nov. 17, 1908, Serial No. 463,051. Renewed June 13, 1916. Serial No. 103,586. (Cl. 247—5.)

1. A floor outlet box for electric wiring having a recess around the interior edge or rim thereof adapted to be closed by a cover having an opening, and a projecting cap secured at said opening, in combination with a plate having an opening therein, the outer edge of said plate being seated in said recess, the said plate between the opening therein and the outer edge thereof being of greater width than said recess.

3. A floor outlet box having a vertically disposed slot in opposite sides of the box on the interior thereof, extending from the upper edge thereof a distance approximately one-half the height thereof, a yoke seated in said slots and a receptacle secured upon said yoke for carrying the electric contacts or terminals.

4. In combination, a floor box, an annular floor ring secured to the top thereof and provided with a screw threaded inner periphery, a relatively rigidly supported annular gasket interposed between the floor ring and the rim of the floor box and projecting inwardly beyond the threaded inner periphery of the floor ring, a cap having



screw threaded engagement with the threaded inner periphery of the floor ring and adapted to be screwed down into engagement with that portion of the gasket which projects inwardly beyond the inner edge of the floor ring and an electrical fixture mounted in the box.

[Claim 2 not printed in the Gazette.]

1,251,498. TRACTOR-PLOW. JAMES F. FULTON, Anderson, Ind. Filed May 6, 1916. Serial No. 95,792. (Cl. 97—30.)



1. The combination with a plow carriage, and a plow, of means on the carriage for moving said plow directly backward before raising it from the ground, and then withdrawing it therefrom rearwardly and upwardly, and draft means for hitching said plow to the carriage which permits such movement thereof.

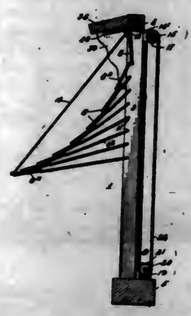
4. The combination with a plow carriage, and a plow, of means on the carriage for withdrawing said plow rearward from the ground, a draft bar pivoted at one end to the plow beam and at the other end to the carriage, and releasable bracing means for holding said draft bar in rigid position while plowing and adapted to yield when the plow is drawn rearward.

9. The combination with a tractor, and a plow having a beam, of a hand operated lever mounted on said carriage between its end, a cam actuated by said lever, flexible means secured to said cam and passing over the periphery thereof and connected with the plow for withdrawing the same from the ground, a flexible draft connection between the plow beam and carriage, toggle links pivoted at one end to the carriage, and at the other end at the lower end of the draft connection, and a bar pivoted at one end to the toggle joint and at the other end to said lever.

[Claims 2, 3, and 5 to 8 not printed in the Gazette.]

1,251,499. AWNING-BLIND. DAVID J. GAMPP, Kane, Pa. Filed Apr. 8, 1915. Serial No. 19,886. (Cl. 156—43.)

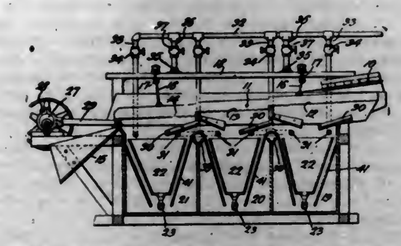
8. An awning comprising a series of slats each pivoted about an axis above the slat, the axes of said slats lying consecutively substantially in a plane, the distances between the slats and their axes progressively increasing from top to bottom whereby the slats when in lowered position lie consecutively in a plane and when swung upwardly about their axes, they terminate in a folded position, wherein the lower edge of each panel will lie in a plane common to all, with means for interlocking



the contiguous edges of the panels, becoming operative as the panels assume their unfolded position.

[Claims 1 and 2 not printed in the Gazette.]

1,251,500. SLIME SEPARATOR AND CLASSIFIER. JACOB J. GENTES and DAN O. GENTES, Miami, Okla. Filed Oct. 12, 1916. Serial No. 125,297. (Cl. 83—82.)



1. An apparatus of the class described embodying a settling tank, a trap extending to one side therefrom near its bottom, a hydraulically concentrating funnel within the tank to overflow therein, and a discharge nozzle communicating with the bottom of the funnel and extending to one side into said trap.

3. An apparatus of the class described embodying a settling tank, a trap at the lower portion of the tank, a concentrating funnel within the tank having a discharge nozzle projecting into the trap, and a fender between the funnel and wall of the tank for the downward flow of materials between the fender and funnel and for the upward flow of materials between the fender and wall of the tank.

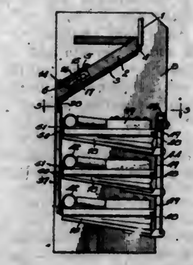
4. An apparatus of the class described embodying a settling tank having inclined sides, a trap at the lower portion of the tank, a funnel within the tank having inclined walls and a discharge nozzle at its bottom extending into said trap, and inclined fenders between the funnel and those walls of the tank between the sides, the lower ends of the fenders being spaced above the bottom of the tank for the upward flow of materials between said fenders and walls.

6. An apparatus of the class described having companion settling tanks with a partition therebetween, outlet means carried by said partition, and upwardly converging inclined fenders within the tank and having their upper portions united above the partition.

[Claims 2, 5, and 7 not printed in the Gazette.]

1,251,501. PNEUMATIC ACTION. CHARLES G. GILBERG, Rockford, Ill. Filed Aug. 17, 1914. Serial No. 857,012. (Cl. 84—178.)

1. The combination of a pneumatic and a valve casing containing valve mechanism for said pneumatic, said casing being secured to said pneumatic, a wind trunk and a supporting member provided at opposite ends of said pneumatic, said pneumatic being supported by said wind trunk, and a detachable connection between the wind trunk and valve casing.

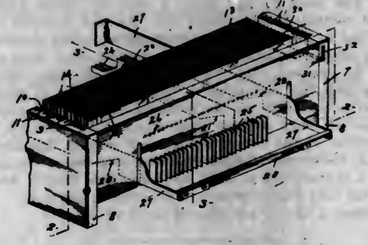


3. The combination of a pneumatic and a valve casing, containing a valve mechanism for said pneumatic, a wind trunk and a supporting member provided at opposite ends of said pneumatic, said wind trunk forming a support for one end of said pneumatic and having a connection with said valve casing, and means whereby said pneumatic and valve casing may be removed from said wind trunk.

12. The combination of a pneumatic, a valve casing and a wind trunk, a detachable connection between the wind trunk and the valve casing, a pair of members disposed relative to each other to form a channel between them, said members forming a means whereby the pneumatic may be removably supported within said channel.

[Claims 2 and 4 to 11 not printed in the Gazette]

1,251,502. CARD-SELECTING APPARATUS FOR CARD SYSTEMS. SHERMAN L. GILFILLAN, Minneapolis, Minn. Filed June 4, 1917. Serial No. 172,763. (Cl. 129—16.1.)



1. The combination with information cards having selective characteristics, of a holder therefor, a plurality of selecting bars mounted in said holder and adapted, when operated, to coöperate with said characteristics and impart steps of endwise movement to said cards.

2. The combination with information cards having selective characteristics, of a holder therefor, a plurality of selecting bars mounted in said holder and adapted, when operated, to coöperate with said characteristics and impart steps of endwise movement to said cards, and means for lifting said cards at the limit of their endwise movement.

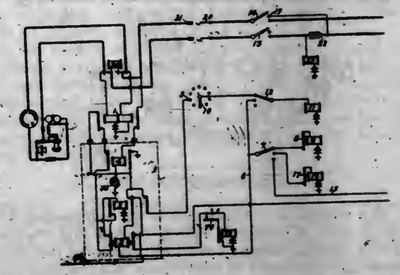
5. The combination with information cards having selective characteristics, of a holder therefor, a plurality of selecting bars mounted in said holder and adapted, when operated, to coöperate with said characteristics and impart steps of movement to the cards, said cards not having all of the characteristics of a predetermined card being progressively eliminated as the selecting bars representing the characteristics of said predetermined card are successively operated, means independent of said selecting bars for imparting further movement to said predetermined card, and means for returning all of the moved cards to their original positions.

6. The combination with information cards, each having a plurality of identifying characters and a plurality of shoulders representing said characters, of a holder for said cards, and a plurality of selecting bars mounted in said holder, each representing one of the identifying characters of the cards and adapted, when operated, to cooperate with said shoulders and impart steps of movement to the cards.

9. The combination with information cards having selective characteristics, of a holder therefor, and a plurality of selecting bars mounted in said holder for compound endwise and lateral movements and adapted, when operated, to coöperate with said characteristics and impart steps of movement to said cards.

[Claims 3, 4, 7, 8, 10, and 11 not printed in the Gazette.]

1,251,503. TWO-WIRE MULTIPLE AUTOMATIC TELEPHONE SYSTEM. CHARLES L. GOODRUM, New York, N. Y., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed June 21, 1915. Serial No. 35,826. (Cl. 179—18.)



1. In a telephone exchange system, a switch having a movable terminal and a series of fixed terminals, lines terminating in said fixed terminals, a line terminating in said movable terminal, a test relay, means for joining said test relay to the fixed terminal of any of said first mentioned lines, and means for completing the circuit of said relay upon engagement of said movable terminal with said fixed terminal.

2. In a telephone exchange system, a switch having a series of sets of fixed terminals and movable terminals arranged to traverse said fixed terminals, lines terminating in said sets of fixed terminals, a line terminating in said movable terminals, a test relay and a source of current, means for joining said relay and source of current to any of the fixed terminals of said first mentioned lines prior to the engagement of said terminals by said movable terminals, and means for completing the circuit of said relay upon the engagement of said movable terminals with said fixed terminals.

3. In a telephone exchange system, a switch having a series of fixed terminals and a movable terminal arranged to traverse said fixed terminals, lines terminating in said fixed terminals, a line terminating in said movable terminals, means for automatically moving said movable terminals over said fixed terminals, a test relay and a source of current, means actuated on the initiation of a call for joining said relay and source of current to the terminals of said first mentioned lines throughout the operation of said switch, and means for completing the circuit of said relay through the movable terminal of said switch upon the engagement of said movable terminal with the fixed terminal of said line.

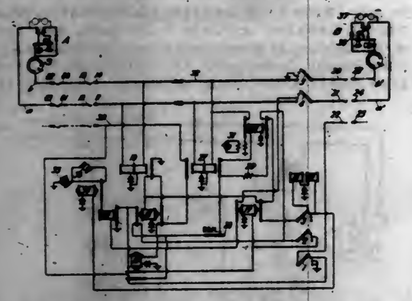
4. In a telephone system, a pair of lines, an automatic finder switch for joining one of said lines to the other, the first one of said lines terminating in fixed contacts of said switch and the second line terminating in the movable contacts of said switch, a test relay, means actuated on the initiation of a call for joining said relay to one of

the fixed terminal contacts of said first line throughout the automatic hunting operation of said switch, and means actuated upon one of said movable terminals engaging said fixed contact for stopping the movement of said switch.

5. In a telephone system, a subscriber's line, a trunk line, an automatic finder switch for connecting said line to said trunk, terminal contacts of the talking conductors of said line at said switch, a test relay for stopping said switch, and means for temporarily joining said test relay to one of said terminal contacts during a call.

[Claims 6 to 23 not printed in the Gazette.]

1,251,504. MACHINE-SWITCHING TELEPHONE-EXCHANGE SYSTEM. CHARLES L. GOODRUM, New York, N. Y., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed Aug. 23, 1915. Serial No. 46,890. (Cl. 179—20.)



1. In a telephone exchange system the combination with telephone lines, a connector switch wherein said lines terminate, a ringing current generator associated therewith, an interrupter normally in circuit with said generator, and means for setting said connector switch on said lines, of means operated due to the connector switch being set on a selected line for instantly applying ringing current from said generator to said line irrespective of the position of said interrupter, and a relay arranged to disconnect said generator from said line upon the response of the called party.

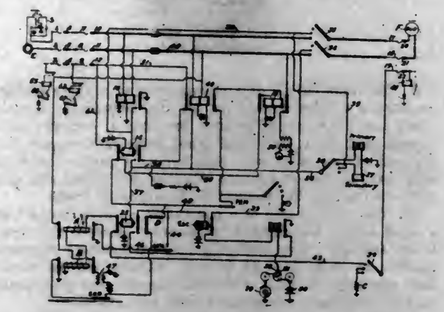
5. In a telephone exchange system, the combination with telephone lines, a connector wherein said lines terminate, a stepping magnet for setting the same on said lines, a stepping relay adapted to deliver impulses to said stepping magnet, a ringing generator associated with said connector, and an interrupter normally in circuit with said generator, of a slow-acting relay in parallel with said magnet and adapted to connect said generator without said interrupter to the selected line at its armature and front contact, and at its armature and back contact to connect said generator with said line through said interrupter.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,251,505. TELEPHONE-EXCHANGE SYSTEM. CHARLES L. GOODRUM, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Dec. 30, 1916. Serial No. 139,803. (Cl. 179—20.)

1. In a telephone exchange system, the combination with telephone lines, automatic switches, senders associated with said lines for setting said switches to interconnect said lines, means for causing the selected line to test busy, means actuated when a switch is set on a busy line to give a signal of one character to the calling party and to maintain said switch on said line, means actuated when another switch is set on said busy line to give a signal of another character to the calling party initiating the last connection, and means actuated when said busy line becomes idle for signaling the same and for connecting the line first connected thereto.

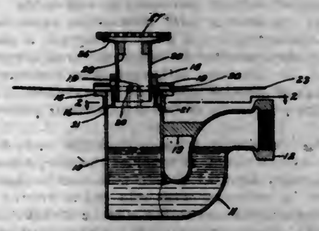
3. In a telephone exchange system, the combination with telephone lines, automatic switches, senders associated with said lines for setting said switches to interconnect said lines, a source of signaling current, means for automatically connecting the same to the called line if idle, means for causing the selected line to test busy, means actuated when connection is made to a busy line for maintaining the connection thereto, for preventing the connection of said source thereto and for giving a busy signal of one character to the calling party, means actuated when a second connection is made to said busy line to release such connection and to give a signal of another character to the calling party initiating such second connection, and means actuated when said busy line becomes idle for automatically connecting said source to said line and for connecting the first calling line thereto.



5. In a telephone exchange system, the combination with telephone lines, means for interconnecting said lines including a connector, senders associated with said lines for setting said connectors on said lines, a resistance C, means for connecting said resistance to the test multiples of the selected line when connection is made thereto to cause the same to test busy, a pair of relays A, B, a circuit including said relays and the test multiple of a busy line in parallel with the circuit including resistance C, the circuit conditions being such that relay B is energized to connect said source of waiting busy tone to the calling line and relay A remaining inert to provide a substitute circuit for the escape magnet to prevent the side switch from passing from the ringing position, the restoration of the connector first set on said line disconnecting resistance C from the test terminal, whereupon relay A is energized to open said substitute circuit, whereupon the side switch passes to the ringing position.

[Claims 2 and 4 not printed in the Gazette.]

1,251,506. TRAP FOR FLOOR-DRAINS, SHOWER-BATHS, AND THE LIKE. JOHN I. GORMAN, Cleveland, Ohio. Filed July 21, 1917. Serial No. 181,952. (Cl. 182—13.)



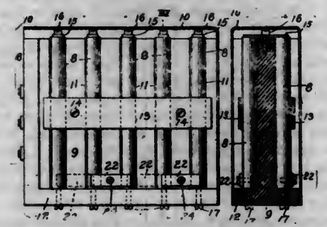
1. The combination with a trap having a horizontal annular flange around the rim of the body portion, said body portion being provided with an interior screw thread

of a thimble adapted to screw into the body portion, said thimble comprising an exterior screw-threaded sleeve having a horizontal annular flange, said thimble being provided with a series of L-shaped grooves in the exterior surface thereof, said grooves extending vertically from the bottom of the sleeve to the flange and then horizontally along the under side of the flange and a drip pan having an opening registering with the opening in the trap body clamped between the trap body and the flange on the thimble.

2. The combination with a trap having a leg portion and a body portion, the body portion being provided with an annular horizontal flange at its rim and an interior screw thread adjacent to the rim of a thimble adapted to screw into the body portion of the trap, said thimble having a horizontal annular flange intermediate of its ends and being provided with L-shaped grooves in its exterior surface, said grooves extending vertically up the lower end of the thimble and horizontally along the bottom surafce of the flange, and a sheet metal plate having an opening registering with the opening in the body portion of the trap arranged on the body portion and overlapping the flange on the body portion and forming a pan for catching the seepage water and conducting it to the L-shaped grooves in the thimble.

3. The combination with a trap having a leg portion and a body portion, said body portion having an annular flange at its rim and an interior screw thread of a thimble arranged to screw into said body portion, said thimble having an annular flange corresponding to the flange on the body portion and an interior screw-thread, said thimble being provided with a series of L-shaped grooves on the exterior surface thereof, said grooves extending vertically upward from the lower end of the thimble to the flange and horizontally along the bottom of the flange, a dish-shaped sheet of lead arranged on top of the body portion, said sheet of lead having an opening registering with the opening at the top of the body portion, the portion of the lead sheet which overlaps the flange on the body portion forming a gasket and the dish-portion of the sheet of lead providing means for catching the seepage water and returning it to the trap by way of the L-shaped grooves and a drip pipe adapted to screw into the thimble so as to be adjustable therein.

1,251,507. CURRENT-CONTROLLING MECHANISM FOR AUTOMOBILE-LIGHTS. WILBUR A. GRAY, Canonsburg, Pa. Filed Sept. 8, 1916. Serial No. 119,026. (Cl. 219—75.)



1. A unitary resistance member consisting of an insulating base having carbon supports and recesses, individual carbons therein, resilient contact strips contacting with the ends of said carbons in pairs, alternating conducting strips connecting adjacent carbons of different pairs, and means for providing for connecting said resistance in a circuit.

4. A unitary resistance member consisting of a rectangular base portion having carbon supports and recesses arranged on each side, individual carbons therein, retaining strips on each side of said base for holding said carbons in said recesses, resilient contact strips detachably and revolubly mounted on the top of said base and removably contacting with the ends of said carbons in pairs, alternating conducting strips connecting adjacent carbons of different pairs, adjustable screw members mounted in said base for engaging said carbons for holding them in firm engagement with said contact strips, means for connecting said resistance in a circuit, and a casing inclosing the whole of said device.

[Claims 2 and 3 not printed in the Gazette.]

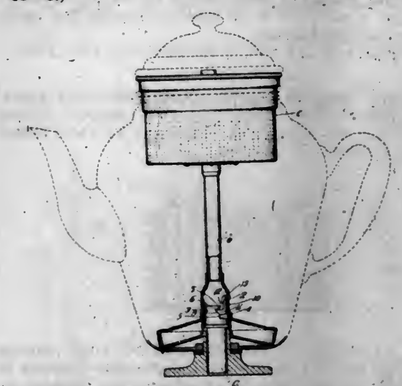
1,251,508. METALLIC CROSS-TIE. OTIS TIFFANY GREGG, Hackensack, N. J., assignor to The Gregg Company, Limited, Hackensack, N. J., a Corporation of New York. Filed Feb. 3, 1917. Serial No. 146,408. (Cl. 238—5.)



1. An arched or hollow metallic cross-tie formed with a central portion having greater depth than the end portions, the end portions having greater width than the middle portion, the side walls being sloped outwardly from top to bottom, and flanges extending laterally from the base of the side walls from end to end of the tie.

2. An arched or hollow metallic cross-tie formed with a central portion of greater depth than the end portions, the end portions having greater width than the middle portion, and portions inclining from the middle to the end portions, the tie throughout its length having sloping side walls and flanges extending laterally from the base of the side walls.

1,251,509. PERCOLATOR-PUMP. JOHN B. GRIFFIN, New Britain, Conn., assignor to Landers, Frary & Clark, New Britain, Conn., a Corporation of Connecticut. Filed June 8, 1916. Serial No. 102,488. (Cl. 53—3.)



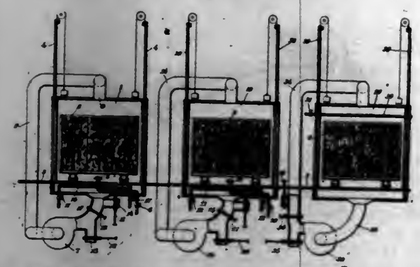
1. In a percolator pump, a tube having an orifice in its wall, a sleeve fitted within said tube and cut away at opposite points to form bearing surfaces, a valve fitting the contour of said tube to close the orifice, oppositely extended circumferential projections at the lower edge of said valve fitted to and adapted to rock upon the bearing surfaces of said sleeve.

3. In a percolator pump, a tube having an orifice in its side, a valve for the orifice located inside of said tube and provided with wings extending from opposite sides and lying against the wall of the tube, a support arranged circumferentially within said tube and provided with opposite rounded bearing surfaces upon which said wings rest, and tips on said support overlying a portion of said wings.

5. In a percolator pump, a tube having an orifice in its side, a sleeve fitted in the lower end of said tube cut away in its upper part for a distance slightly less than half its circumference, notches in the vertical edge of said cut-away portion, and a valve located within said tube and operatively positioned with respect to the orifice and provided with side projections entering said notches.

[Claims 2 and 4 not printed in the Gazette.]

1,251,510. HAY-DRYING AND THE LIKE. WILLIAM M. GROSVENOR, Grantwood, N. J. Filed Oct. 11, 1910. Serial No. 586,501. (Cl. 34—24.)



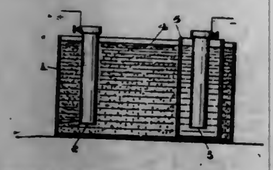
1. The process of curing and drying hay or the like which consists in submitting the substantially fresh cut grass to a moist atmosphere heated to a temperature in excess of 120 deg. F. for a period in order to secure the distribution of moisture to the leaves, then drying the hay.

4. The process of curing hay or the like which consists in subjecting it to the action of steam and air at a high temperature, then subjecting it to the action of drying medium accompanied by a smaller quantity of steam and finally subjecting it while still hot to the action of a drying medium alone and until substantially dry.

14. The process of curing hay or the like in which the material is subjected to the action of superheated steam to cure and dry the hay.

[Claims 2, 3, and 5 to 13 not printed in the Gazette.]

1,251,511. PROCESS OF ELECTROLYTICALLY SEPARATING NICKEL FROM COPPER. GEORGE A. GUESS, Oakville, Ontario, Canada. Filed Aug. 14, 1917. Serial No. 186,147. (Cl. 204—14.)



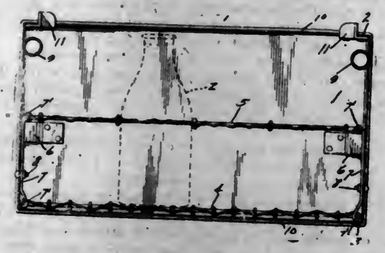
1. A process of electrolyzing a nickel sulfate solution with the use of a copper-nickel anode which consists in employing in the electrolyte a substantially insoluble re-agent capable of forming with copper an insoluble compound and a sulfate whose presence in the electrolyte is not detrimental, while screening the cathode from contact with such re-agent.

2. A process of electrolyzing a nickel sulfate solution with the use of a copper-nickel anode which consists in employing in the electrolyte interposing between the anode and cathode an insoluble carbonate of a metal whose sulfate when formed in the electrolyte is not detrimental, while screening the cathode from contact with said carbonate.

3. A process of electrolyzing a nickel sulfate solution with the use of a copper-nickel anode which consists in maintaining in contact with the anode a substantially insoluble re-agent capable of forming with copper an insoluble compound and a sulfate whose presence in the electrolyte is not detrimental, while screening the cathode from contact with such re-agent.

4. A process of electrolyzing a nickel sulfate solution with the use of a copper-nickel anode, which consists in interposing between the anode and cathode carbonate of calcium, while screening the cathode from contact with said carbonate.

1,251,512. BOTTLE-CARRYING CASE. MATHIAS N. HAGEN and GEORGE H. KARSTEDT, Minneapolis, Minn. Filed Sept. 3, 1915. Serial No. 48,786. (Cl. 220—111.)



1. A bottle carrying case having a removable bottom and a removable bottle spacing partition, said case having means on which said bottom and partition are removably supported, and common means for holding said bottom and partition against removal from the case and for locking the same to the sides thereof.

3. A bottle carrying case having an inwardly projecting bottom flange, side brackets, a bottom removably seated on said flange, a bottle spacing partition removably seated on said brackets, and retaining straps intermediately bolted to said case and having hooked ends interlocked with said bottom and partition.

[Claim 2 not printed in the Gazette.]

1,251,513. FENCE-POST AND METHOD OF CUTTING THE SAME. JACOB HAISH, De Kalb, Ill. Filed May 11, 1917. Serial No. 168,010. (Cl. 20—99.)

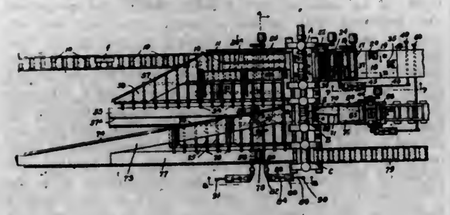


1. A one-piece fence post of rectangular cross-section having one long straight edge and the opposite edge slanting from both ends toward an intermediate portion nearer one end than the other and there formed with a shoulder.

2. A one-piece fence post of rectangular cross-section having one long straight edge, a basic portion, and a stem portion with a shoulder where joining the basic portion and tapering toward the end of the stem remote from the basic portion, and there shaped in accordance with the shoulder at the intermediate portion.

3. The method of cutting timber into one-piece fence posts which consists in cutting a long timber of rectangular cross-section by oppositely directed diagonal cuts with the adjacent cuts each extending from one edge of the timber and approaching and meeting at the other edge of the timber, one of the cuts being straight and the other being straight throughout the greater portion of its length and then trending toward the edge from which the cut emerges.

1,251,514. ROLLING-MILL. WILLIAM J. HAMPTON, Pittsburgh, and WILLIAM H. RITTS, Etna, Pa., assignors to Spang, Chalfant and Co., Incorporated, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Dec. 18, 1916. Serial No. 137,491. (Cl. 80—47.)



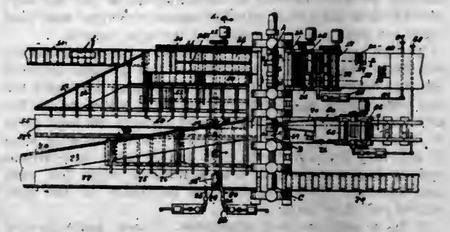
5. In a rolling mill, the combination with a set of rolls comprising three rolls having a pass between the lower pair and a pass between the upper pair, of a device for changing the direction of movement of the billet coming through the lower pass and causing it to return through the upper pass, said device including a forwarding roll coöperating with the pass of said lower pair of rolls, a returning roll coöperating with the pass of said upper pair of rolls, another returning roll beyond said forwarding roll and located on a horizontal plane between the horizontal planes of said forwarding roll and said first-named returning roll, and a buffer disposed beyond said second-named returning roll.

7. In a rolling mill, the combination with a set of rolls comprising three rolls having a pass between the lower pair and a pass between the upper pair, of a device for changing the direction of movement of the billet coming through the lower pass and causing it to return through the upper pass, said device including a forwarding roll coöperating with the pass of said lower pair of rolls, a returning roll coöperating with the pass of said upper pair of rolls, another returning roll beyond said forwarding roll and located on a horizontal plane between the horizontal planes of said forwarding roll and said first-named returning roll, a longitudinally adjustable resilient buffer disposed beyond said second-named returning roll, and a guide roll for directing the billet from said second-named returning roll to said first-named returning roll.

12. In a rolling mill, the combination with a set of rolls comprising three rolls having a pass between the lower pair and a pass between the upper pair, of a device for changing the direction of movement of the billet coming through the lower pass and causing it to return through the upper pass, said device including means for moving the billet forward from the lower pair of rolls to a higher plane, means, disposed above said first-named means, for moving the billet into said upper pair of rolls, and means, disposed intermediate the horizontal planes of said first and second-named means, for directing the billet to said second-named means.

[Claims 1 to 4, 6, 8 to 11, and 13 to 15 not printed in the Gazette.]

1,251,515. ROLLING-MILL. WILLIAM J. HAMPTON, Pittsburgh, and WILLIAM H. RITTS, Etna, Pa., assignors to Spang, Chalfant and Co., Incorporated, Pittsburgh, Pa., a Corporation of Pennsylvania. Original application filed Dec. 18, 1916, Serial No. 137,491. Divided and this application filed May 29, 1917. Serial No. 171,676. (Cl. 80—48.)



1. A rolling mill comprising a set of rolls arranged so as to present a plurality of passes, some of said passes being above other of said passes, and a transferring device for bringing the article being rolled from an upper pass to a lower pass, said transferring device comprising a shelf of less width than the article being rolled, whereby, when said article comes upon said shaft, it falls therefrom after being released by said rolls.

2. A rolling mill comprising a set of rolls arranged so as to present a plurality of passes, some of said passes being above other of said passes, and a transferring device for bringing the article being rolled from the plane of an upper pass to the plane of a lower pass, said transferring device comprising a shelf of less width than the article being rolled and an inclined portion depending from said shelf, for the purposes set forth.

5. In a rolling mill having rolls arranged so as to present a plurality of passes, some of said passes being above other of said passes, a transferring device for bringing an article being rolled from an upper pass to a lower pass, said transferring device comprising a shelf of less width than the article being rolled, and a slideway portion depending from said shelf.

[Claims 3, 4, and 6 to 8 not printed in the Gazette.]

1,251,516. SIGN-MAKING APPARATUS. RUDD HARDESTY, Denver, Colo. Filed Apr. 21, 1915. Serial No. 22,765. (Cl. 219—4.)



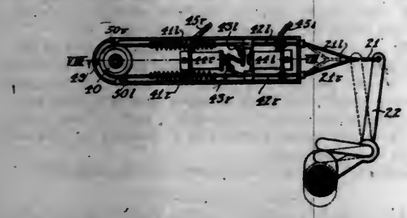
1. In sign making apparatus, the combination of a base plate having a ledge adapted to receive one edge of a sign plate and having a reduced part beyond the ledge, which reduced part the lower surface of a part of the sign plate is adapted to engage, an auxiliary plate adjustably secured to the heavier part of the base plate and adapted to overlap the sign plate in opposing relation to the reduced part of the base plate, the overlapping edge of the auxiliary plate being adapted to form a guide for one extremity of each of the sign letters, and clamping devices connected with the base and auxiliary plates and adapted to overlap the sign letters adjacent the extremities which engage the edge of the auxiliary plate.

2. The combination of a base plate having relatively thick and reduced parts, and a ledge or shoulder marking the line between said parts and forming an abutment for one edge of the sign plate, an auxiliary plate having slots formed therein, securing devices passed through these slots and entering the base plate, the auxiliary plate being adapted to overlap the sign plate, the edge of its overlapping portion forming an abutting guide for the sign letters, and clamping devices secured to the base and auxiliary plates and overlapping the sign letters.

3. Sign making apparatus including a base plate having relatively heavy and reduced parts and a ledge marking the line between said parts and forming an abutment for one edge of the sign plate, an auxiliary plate, means for adjustably securing the last named plate to the base plate to overlap the sign plate and with its overlapping edge in abutting relation to the sign letters when in position, and spring clamping devices connected with the base and auxiliary plates in suitable proximity to the sign letters and sign plate.

4. In a sign making apparatus, a base plate having relatively thick and reduced parts and a ledge marking the line between the said parts and adapted to form an abutment for one edge of a sign plate, an auxiliary plate, means for adjustably securing the last named plate to the base plate to overlap a sign plate and with its overlapping edge in abutting relation to the sign letters when in position, and clamping devices for retaining the sign letters in position for attaching to said sign plate.

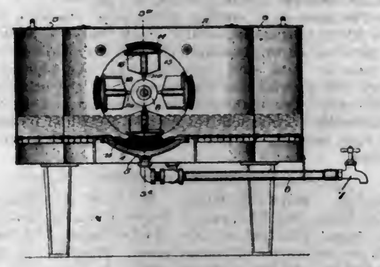
1,251,517. AUTOMOBILE-SIGNAL. GEORGE L. HARRIS, Memphis, Tenn. Filed Aug. 30, 1916. Serial No. 117,583. (Cl. 177—337.)



1. In an automobile warning signal, the combination with a case adapted to be attached to the body of an automobile, a post rotatably mounted in said case, a signal hand attached to said post above said case, an oscillating member attached to said post, a pair of opposed actuating springs under strain to oscillate said member in opposite directions, a latch holding each of said springs under strain, electromagnets each adapted to actuate one of said latches, individual circuits leading from said electromagnets to opposite sides of the steering wheel, and switches in each of said circuits to release said latches, of means of resetting said actuating springs when the steering wheel is rotated in either direction.

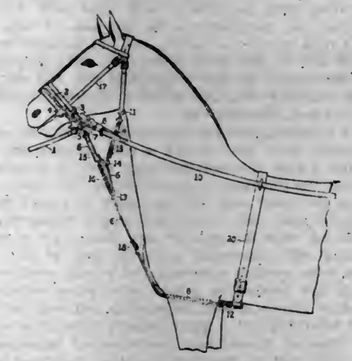
2. In an automobile warning signal, the combination with a case adapted to be attached to the body of an automobile, a post rotatably mounted in said case, a signal hand attached to said post above said case, an oscillating member attached to said post, a pair of opposed actuating springs under strain to oscillate said wheel in opposite directions, a latch holding each of said springs under strain, electromagnets each adapted to actuate one of said latches, individual circuits leading from said electromagnets to opposite sides of the steering wheel, and switches in each of said circuits to release said latches, of a cam mounted on and rotating with the steering post, a bell crank lever system actuated by said cam, and a flexible connector from the lever system to the actuating springs, to reset same under strain when the steering wheel is rotated in either direction.

1,251,518. GLOVE-CLEANING MACHINE. HUGO A. HECKER, Cincinnati, Ohio, assignor to American Laundry Machinery Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Oct. 11, 1915. Serial No. 55,139. (Cl. 68—37.)



In a cleaning machine, the combination with a receptacle, of an annular carrier journaled in the receptacle and provided with guides arranged interiorly and extending radially, a cleaning surface located at the bottom of the receptacle, a cleaning member having guideways engaging the aforementioned guides for permitting radial movement of the cleaning member with reference to the carrier, the cleaning member having openings extending radially therethrough, guide rods movably arranged in said openings and having enlargements at their inner ends loosely engaging the carrier, and springs surrounding said guide rods having engagement with the enlargements at one end and shoulders on the cleaning member at the opposite end and acting to effect outward movement of the cleaning member on the carrier.

1,251,519. ANIMAL-CONTROL DEVICE. JOHN G. HEIVNER, Orland, Cal. Filed Feb. 20, 1917. Serial No. 149,794. (Cl. 54—15.)

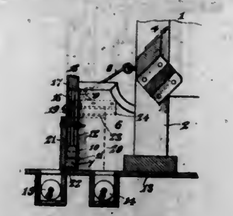


1. In an animal control device the combination of a tightening-strap loosely applied around the nose and jaw of the animal with a martingale having both an elastically yielding and a non-yieldable connection with the tightening-strap, the elastically yielding connection being arranged to be first operated and the non-yieldable connection to be subsequently operated, for the purposes set forth.

3. In an animal control device the combination of a bridle, a mouth bit, a throat strap of the bridle, a tightening-strap applied around the nose and jaw of the animal, a martingale having a combined elastically yieldable and a non-yieldable connection with the tightening-strap, and an elastically yieldable connection with the throat strap, and of guiding and controlling reins having an elastically yieldable connection with the mouth bit and a non-yieldable connection with the tightening-strap, substantially as shown and described.

[Claim 2 not printed in the Gazette.]

1,251,520. SEED SCREENING AND SELECTING MEANS FOR COTTON-GINS. WILLIAM MARION HENSON, Savoy, Tex. Filed Mar. 6, 1917. Serial No. 152,857. (Cl. 13—1.)



1. An attachment for cotton gins provided with means movable into and out of the path of cotton seed issuing from the gin to direct the seed to one or the other of different conveyers, said means having a screen portion for separating the cotton seed from accompanying burs or other trash, and means for closing one of the conveyers to access of cotton seed directed theretoward.

3. An attachment for cotton gins comprising a hopper structure for interposition in the path of cotton seed issuing from the gin, said hopper structure having a wall movable from an upright position in spaced relation to the gin to a tilted position approaching the gin and then in the path of cotton seed issuing from the gin whereby, when the wall is upright, the cotton seed issuing from the gin is directed toward the gin and when the wall is tilted the cotton seed is directed away from the gin.

6. An attachment for cotton gins comprising a hopper for interposition in the path of cotton seed issuing from the gin, said hopper having a wall on the side remote from the gin movable toward the gin into inclined relation thereto, and another wall exterior to the first-named wall and movable bodily away from the first-named wall on the side thereof remote from the gin and also movable from an upright to a horizontal position.

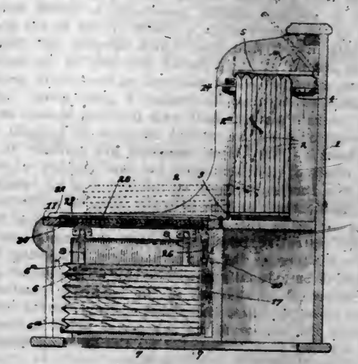
9. An attachment for cotton gins comprising a hopper with end walls and another wall connecting the end walls and located on the side of the hopper remote from the gin in the installed position, means for securing the hopper to the gin, and a supplemental structure comprising end walls slidable along corresponding end walls of the hopper toward and from the gin and provided with a wall extending lengthwise of the hopper and hinged to move from an upright to a horizontal position, said wall of the hopper remote from the gin being hinged to the hopper, at its lower edge for movement from an upright position to a tilted position toward the gin, said tiltable wall having screen means therein and a removable cover member for the screen means.

[Claims 2, 4, 5, 7, and 8 not printed in the Gazette.]

1,251,521. FILING APPLIANCE. HARRY J. HICK, Alliance, Ohio, assignor, by mesne assignments, to The McCaskey Register Company, (incorporated in 1914,) Alliance, Ohio, a Corporation of Ohio. Filed Jan. 7, 1914. Serial No. 810,767. (Cl. 45—2.)

1. A filing appliance including a casing having two sets of holders mounted therein, and a spring controlled index member hinged to the casing and having two sets of index facets, said member being movable into either one of two selected positions for the coördination of the index facets to the sets of holders and adapted to remain in one position until moved into the other position.

2. A filing appliance including a casing having a normally upright set of holders and a normally reclined set of holders mounted therein, an intermediate member hinged to the casing having index devices on its opposite sides for the respective sets of holders, and abutments in the casing adapted to engage the member, without interfering with the index devices, for supporting the holders of either set when operated from their normal positions.

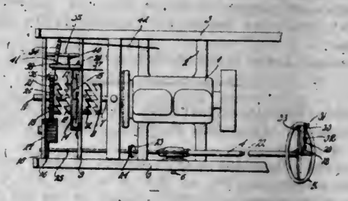


3. A filing appliance including a case having two sets of holders mounted therein and an index member hinged to the casing and having a set of inclined index facets for each set of holders, the facets for the two sets of holders being inclined in opposite directions toward the hinged end of the member for coördination with the sets of holders.

1,251,522. PROCESS OF MAKING IRON PIGMENT. ADDISON F. HOFFMAN, Pittsburgh, Pa. Filed Apr. 5, 1916. Serial No. 89,196. (Cl. 134—59.)

The herein described process which comprises heating a mixture of niter cake and siliceous material, whereby a soluble silicate is produced and sulfur trioxid and sulfuric acid vapors liberated; treating a solution of ferrous sulfate with said soluble silicate in such proportions that the reacting materials contain about one atom of iron to four atoms of silicon, and sufficient to precipitate at least the major part of the iron content of said solution, separating the precipitate from the liquor and oxidizing the said precipitate, and thereafter calcining the oxidized precipitate at a sufficiently high temperature to effect substantially complete dehydration thereof.

1,251,523. ENGINE-STARTER. FRANK HOFFMAN, Sorum, S. D. Filed Jan. 11, 1916. Serial No. 71,552. (Cl. 123—185.)



1. An engine starter including a starter shaft journaled in line with the engine shaft and mounted to be capable of endwise sliding movement, clutch members carried by the engine shaft and starter shaft, a shaft extending through the steering post of the vehicle on which the

engine is mounted as a power plant, a gear connection from said last mentioned shaft to the starter shaft, means by which the starter shaft is moved endwise to bring the clutch member thereof into interfitting engagement with the clutch member of the engine shaft, and a handle connected with the shaft extending through the steering post to be used in turning the shaft.

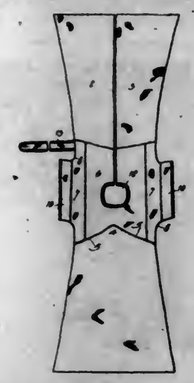
3. An engine starter comprising a starter shaft journaled in line with the engine shaft and mounted to be capable of endwise sliding movement, a clutch member carried by the starter shaft, a clutch carried by the engine shaft with which said first clutch member has engagement as starter shaft is moved into one of its extreme positions, a ratchet wheel mounted on the starter shaft to be capable of turning movement, a gear wheel rigidly secured on said starter shaft, cam portions formed on the gear wheel and on the ratchet wheel to be brought into engagement as the clutch members are brought to the locked relation, dogs arranged for said ratchet wheel to permit the turning thereof in the direction of operation of the engine shaft and to hold the same in a stationary relation to cause the withdrawal of the starting shaft from the operative relation through the engagement of the cam portions as the engine backfires, a shifting lever arranged to be manually moved to cause the starter shaft to be thrown into and out of the operative position, a steering wheel by which the course of travel of the vehicle for which the engine forms the power plant is steered, and a starting handle mounted on the steering wheel to cause the turning of the starter shaft.

6. An engine starter comprising a starter shaft journaled in line with the engine shaft and mounted to be capable of endwise sliding movement, a steering wheel mounted on a steering post by which the course of travel of the vehicle for which the engine is a power plant is directed, a clutch member connected to the end of the engine shaft, a clutch member carried by the inner end of the starter shaft to mesh with the clutch member of the engine shaft when the starter shaft is given movement in one direction, a gear wheel rigidly secured on the starter shaft, an operating shaft passed through the steering post, a driving connection from the operating shaft to said gear wheel, means by which the gear wheel may be shifted to move the starter shaft to bring the clutch members into mesh, a folding handle connected with the operating shaft to be moved adjacent the steering wheel to cause the engine shaft to be turned through the connecting part, a ratchet wheel revolubly mounted on the starting shaft, a sleeve carried by said ratchet wheel and provided with cam faces, a sleeve mounted as a part of the gear wheel and provided with cam faces meshing with the cam faces of the sleeve of the ratchet wheel, dogs arranged to permit operation of the ratchet wheel in a direction to start the engine and to stop rotation thereof in the direction of the backfiring of the engine and through the engagement of the cam faces to cause the starter shaft to be moved to a position that the clutch portions of the starter shaft and the engine shaft are disengaged, means by which the shifting lever through which the starter shaft is moved is held against accidental displacement, and means connected with the carbureter to open the throttle as the parts are shifted to the starting position.

[Claims 2, 4, and 5 not printed in the Gazette.]

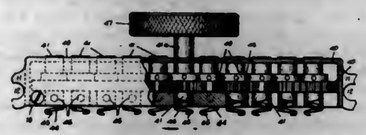
1,251,524. BUNGALOW-APRON. KATHERINE V. HOGAN, Chicago, Ill. Filed Jan. 29, 1917. Serial No. 145,266. (Cl. 2—54.)

An apron comprising a skirt formed of front and rear sections seamed together at their side edges and a separate body-encompassing portion seamed to the top of said skirt, said body being formed of a one-piece central member having its side edges spaced inwardly from the side edges of said front and rear sections and having a neck opening therein, said skirt and body portion having an opening extending from the neck opening down through the lower end of the skirt, shoulder strips united along their inner edges to said side edges of said central member, the outer edges of said shoulder sections being flush with the side edges of said front and rear sections and



shaped to form armholes with curved side seams below the arm holes, and sleeves seamed to the edges of said arm holes.

1,251,525. LAST-SLICE HOLDER. JOSEPH HOPKINSON, Dayton, Ohio, assignor to The Computing Scale Company, Dayton, Ohio, a Corporation of Ohio. Original application filed Aug. 6, 1915, Serial No. 43,914. Divided and this application filed Mar. 20, 1917. Serial No. 155,998. (Cl. 17—24.)



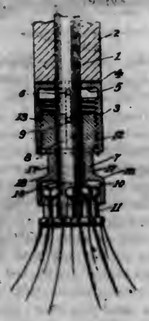
1. In a last slice holder, in combination, a meat plate having a plurality of rows of apertures therein, a plurality of revoluble and axially slidable studs in said apertures, spiral tangs integral with said studs and projecting forwardly therefrom, a pinion on each of said studs, each said pinion intermeshing with another pinion upon another stud in such a manner as cause rotation of the studs in adjacent rows in opposite directions and rotation of all the studs of one row in the same direction, and means cooperating with the convolutions of the tangs to cause a co-axial advancing movement of the studs upon the rotation thereof and a concurrent rotation and projection of the tangs without the apertures in the meat plate.

3. In a last slice holder, in combination, a meat plate, a back plate, studs journaled in said plates, spiral tangs associated with said studs, intermeshing pinions secured to said studs to cause a unison rotation of said studs and tangs upon the rotation of a single stud, and means for rotating said studs in unison, said means comprising a stud projecting through the rear plate, a handle thereon adapted to be manually rotated, and means for advancing the points of the tangs relatively to the meat plate, said means comprising fixed pins coöperating with the convolutions of the tangs, and means whereby all the studs in an adjacent row are rotated in the reverse direction.

6. In a last slice holder, in combination, a plurality of rows of studs, the studs in one of the said rows being staggered in respect to the studs in the other row, pinions on each of the studs, each pinion intermeshing with a corresponding pinion in the adjacent row and therethrough transmitting movement to an adjacent stud and pinion in the same row, means for rotating said pinions, spiral meat holding tangs associated with said studs, a meat plate through which the tangs are adapted to be projected, and means associated with the meat plate and coöperating with the convolutions of the tangs for advancing the points of the tangs forwardly relative to the plane of the meat surface of the plate upon the rotation of the studs.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,251,526. ATTACHMENT FOR UMBRELLAS. CHARLES A. HORN, Woodhaven, N. Y., assignor of one-fourth to W. Everitt, East Orange, N. J., and one-fourth to Harold E. Lombard, Bloomfield, N. J. Filed June 30, 1917. Serial No. 177,918. (Cl. 135—44.)



1. An attachment for umbrellas comprising in combination, an umbrella stick, a cylindrical member rotatably secured to the same near the point where the ends of the ribs lie when the umbrella is closed, a member with a cup shaped end in threaded engagement with the cylindrical member and means for preventing its rotation about the stock but permitting its longitudinal movement thereon whereby it may be moved into or out of the position where it incloses the ends of the ribs by the rotation of the cylindrical member.

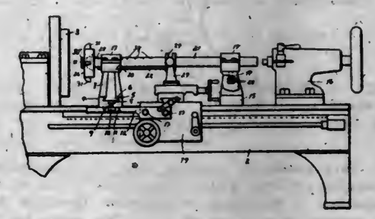
3. An attachment for umbrellas comprising, in combination, a rod, a handle secured to the rod, means mounted on the said rod and forming therewith a seat for a rotatable member, a cup-shaped member rotatably secured in the said seat, a member mounted on the rod having its lower end flared forming a recess for receiving and securing the free ends of the ribs of an umbrella, screw-threads on the adjacent faces of the said sleeve and cup-shaped member adapted to coöperate upon rotation of the cup-shaped member to move the sleeve up or down out of or into engagement with the free ends of the umbrella when in closed position, the sleeve formed with a recess therein, means secured on the rod adapted to engage in the said recess and prevent rotation of the sleeve and means on the said rod adapted to limit the downward movement of the sleeve.

[Claim 2 not printed in the Gazette.]

1,251,527. ADJUSTABLE AND IMPROVED CUTTING-HEAD FOR BORING OUT SHELLS. SAMUEL HOUGH, Atco, N. J., assignor of one-half to Thomas A. Schmitt, Philadelphia, Pa. Filed Aug. 24, 1916. Serial No. 116,715. (Cl. 77—57.)

1. In combination a lathe provided with a carriage, a block having an undercut slot therein secured to the lathe bed adjacent the head thereof, a support carrying a journal box or bearing, the latter having a key-way therein, a dove-tailed foot carried by the support and mounted in the undercut slot, whereby said slot may be moved transversely, another support secured to the lathe bed adjacent the tail end thereof, a journal box or bearing swiveled to said support, a tool spindle slidably mounted in the journal boxes and arranged to move laterally of the lathe, a longitudinal key carried by the spindle and registering with the key-way in the journal box of the support at the head of the lathe, and means carried by the carriage and engaging the spindle for moving said spindle laterally in unison with the carriage.

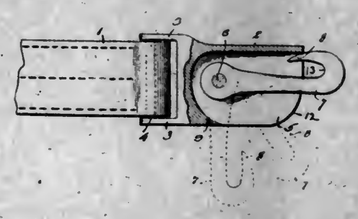
4. In combination a lathe provided with a carriage, a block having an undercut slot therein secured to the lathe bed adjacent the head thereof, a support carrying a journal box or bearing, the latter having a key-way therein, a dove-tailed foot carried by the support and mounted in the undercut slot, whereby said slot may be moved transversely, another support secured to the lathe bed adjacent the tail end thereof, a journal box or bearing swiveled to said support, a tool spindle slidably mounted in the journal boxes and arranged to move laterally of the lathe, a longitudinal key carried by the spindle and registering with the key-way in the journal box of the support at the head of the lathe, a yoke carried by the



spindle intermediate its ends, a fork carried by the carriage and engaging said yoke for moving the spindle laterally with the carriage, a taper attachment removably and adjustably secured to the carriage, and adapted to move laterally therewith, said attachment having a slot therein shaped to produce the desired taper, a lever or connecting member carried by the head support, a depending pin or trunnion carried by the outer end of said lever, and a roller journaled on said pin and registering with the slot of the taper attachment, whereby the lateral movement of the carriage will move the head support transversely to position the tool spindle for cutting a taper.

[Claims 2 and 3 not printed in the Gazette.]

1,251,528. TUG-HOOK FOR HARNESS. JOHN H. HOWARD, Colfax, Wash. Filed Apr. 24, 1916. Serial No. 93,190. (Cl. 24—232.)

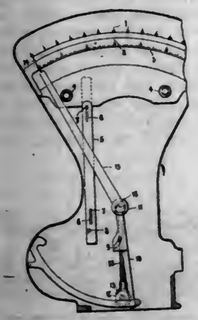


1. The combination of a tug hook having a relatively large loop portion and an extended pointed end, a tug hook housing within which the tug hook is pivotally mounted, the aforesaid housing having extended side wings shaped to inclose the point of the tug hook when it is in a horizontal position and through an arc of over 45 degrees from said position, and having a portion positioned to limit the movement of the tug hook to an arc of 90 degrees, substantially as shown.

3. The combination of a tug-hook having a relatively large loop portion and an extended end, a tug hook housing within which the tug hook is pivotally mounted, said housing having extended side wings shaped to inclose the point of the tug hook when it is in a horizontal position and until it assumes a depending nearly vertical position, the upper portion of the housing being closed, the housing having a rear portion adapted to be secured to a piece of harness, substantially as shown.

[Claim 2 not printed in the Gazette.]

1,251,529. PENDULUM WEIGHING-SCALE. WALTER RICHARD HOWLES, Smethwick, England, assignor to W. & T. Avery, Limited, Smethwick, England. Filed Oct. 22, 1915. Serial No. 57,347. (Cl. 265—36.)



1. In a pendulum weighing scale, the combination of a member provided with a plurality of series of weight indications, a pendulum, an indicator controlled thereby for coöperation with any of said series, means for changing the effective weight of the pendulum, manual means operatively connected to said weight changing means for alternatively exposing and obscuring part of the said series so as to coördinate the exposed series with the effective weight of the pendulum.

2. In a pendulum weighing scale, the combination of a member provided with weight indications arranged in rows or series, a pendulum, an indicator controlled thereby for coöperation with any of said series, means for changing the effective weight of the pendulum, manual means operatively connected to said weight changing means for alternatively exposing or obscuring one of said rows or series, the exposed indications corresponding with the weight or weighing capacity of the pendulum.

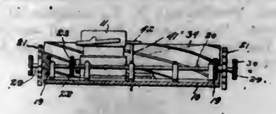
3. In a pendulum weighing scale, the combination of a member provided with weight indications arranged in rows or series, a pendulum, an indicator controlled thereby for coöperation with any of said series, a shutter adapted to alternatively expose or obscure part of said rows or series, means operatively connected with said shutter for changing the effective weight of the pendulum of the scale whereby the exposed indications correspond with the weight or weighing capacity of the pendulum.

4. In an automatic pendulum weighing scale, the combination with a casing, of a shutter adapted to alternatively expose and cover weight indications of the scale, a member provided with a vertically slidable arm mounted on the casing of the scale and secured to the said shutter, a projecting pin secured to said arm, a rocking arm adapted to engage said pin, means, external of the casing of the scale, to operate said arm, and means for changing the effective weight of the pendulum operatively connected to said shutter.

5. A pendulum weighing scale having in combination, with a casing, a member provided with a duplex series of weight indications, an index pointer coöperating with said indications, a variable pendulum adapted to automatically counterbalance the load upon the scale and to control said pointer, a rocking arm adapted to be operated by means external to the casing of the scale, a projecting pin, a slotted arm to which said pin is secured, and a shutter secured to the upper end of said slotted arm and adapted to expose or obscure one or the other of said duplex series of weight indications in coördination with the variation in the effective weight of the pendulum.

1,251,530. MOTOR-SLED. MARION A. HUGHES, Benkelman, Nebr. Filed June 4, 1917. Serial No. 172,753. (Cl. 180—6.)

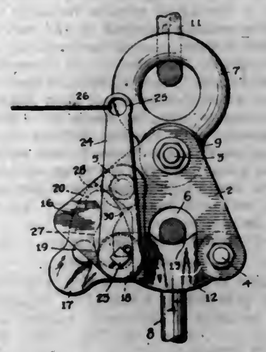
1. A device of the character described comprising in combination, a toboggan, a plurality of shafts extending transversely of said toboggan, traction wheels mounted on the opposite ends of each of said shafts, sprocket wheels carried by said shafts, chains connecting said sprocket wheels, a sprocket wheel secured to one of said shafts intermediate of its ends, and means for driving said last mentioned sprocket wheel to rotate all of said shafts.



2. A device of the character described comprising in combination, a toboggan, a motor carried by the toboggan, a shaft extending transversely of the forward portion of said toboggan, a sprocket secured to said shaft intermediate of its ends, a chain connecting said sprocket with said motor, a traction wheel carried by each end of said shaft, a sprocket carried by the shaft adjacent each of said traction wheels, a plurality of shafts extending transversely of the toboggan, traction wheels carried by each of said shafts, sprocket wheels carried by each of said shafts, chains connecting one of said shafts with the first mentioned shaft, chains connecting said shafts to each other, a traction roller pivotally supported by the rear end of the toboggan, and means connecting one of the last mentioned shafts with said traction roller for driving the latter.

3. A device of the character described comprising in combination, a toboggan, a motor carried by said toboggan, a plurality of transversely extending shafts rotatably mounted on the toboggan, traction wheels carried by the opposite ends of said shafts, a traction roller pivotally mounted on the rear end of said toboggan, and means for driving said traction wheels and said traction roller.

1,251,531. DETACHING-HOOK. CHARLES HUNT, New York, N. Y. Filed May 17, 1916. Serial No. 98,008. (Cl. 9—23.)



1. A detaching hook having, in combination, a supporting frame; a gravital holding member pivotally carried by said frame and adapted to automatically open without pressure thereon; a gravital latch pivotally supported by said frame and adapted to automatically engage the supporting member; and a controlling member for shifting the latch to disengage the same from the holding member.

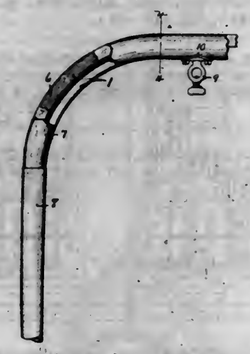
2. A detaching hook comprising a supporting frame, said frame having a recess; a gravital holding member adapted to close said recess; a gravital latch adapted to automatically engage the holding member when the latter is in position to close the recess; and controlling means for breaking the connection between the latch and the holding member.

4. A detaching hook comprising a supporting frame; a pivotally supported gravital holding member; a gravital latch having means for engaging the holding member to support the latter in operative position; and a controlling cam member having means for shifting the gravital latch to release the holding member.

6. A detaching hook comprising a supporting frame; means for suspending the same; a gravital holding member carried by the frame and adapted to normally swing open; a gravital latch for sustaining the holding member in operative position; and controlling means for tripping the latch to release the holding member.

[Claims 3 and 5 not printed in the Gazette.]

1,251,532. SHEET-METAL BOW. JESSE JENNISON and GEORGE H. HIGGINS, Cortland, N. Y. Filed Feb. 12, 1917. Serial No. 148,099. (Cl. 21—62.)



1. A U shaped bow formed of a rigid complete metallic tube having a longitudinal groove extending throughout its entire length and interrupting the continuity of the exterior contour of the tube, a wooden insert secured in and substantially fitting the groove and exposed upon the outer face of the tube, the ends of the tube being contractible and adapted to be tapered by driving fit with the upper ends of tapered respective bow sockets to constitute a substantially rigid frictional engagement between the bow and the bow sockets, said complete metallic tube formed of a strip of sheet metal having its longitudinal edges rigidly united to form a seam extending longitudinally of the bow.

2. A U shaped bow formed of a rigid complete metallic tube of oval cross section having its opposite ends adapted for insertion within and frictional engagement with opposite tubular bow sockets of tapered form, said metallic tubular bow having a longitudinal groove extending throughout substantially its entire length and interrupting the continuity of the exterior contour of the tube, a wooden insert secured in and substantially fitting the groove and exposed upon the outer face of the tube, said tube formed of a strip of sheet metal having its longitudinal edges rigidly and permanently united to form a seam extending longitudinally of the bow.

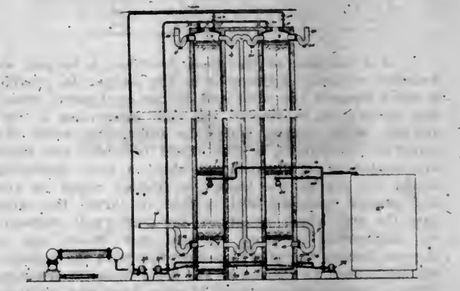
3. A U shaped bow formed of a rigid complete metallic tube of oval cross section having a longitudinal groove of inverted keystone shape extending throughout its entire length and interrupting the continuity of the exterior contour of the tube, a wooden insert secured in and substantially fitting the groove and exposed upon the outer face of the tube, the ends of the tube being contractible and adapted to be tapered by driving fit with the upper ends of tapered respective bow sockets to constitute a substantially rigid frictional engagement between the bow and the bow sockets, said complete metallic tube formed of a strip of sheet metal having its longitudinal edges rigidly united to form a seam in the wall of the keystone groove and extending longitudinally of the bow.

6. A tubular sheet metal bow having a longitudinal channel, a wooden insert in the channel, an attachment secured to the bow by means extending through the tubular sheet metal and the wooden insert, and means for bracing the channel wall against the attachment.

8. The combination with bow sockets having tapered seats in their upper ends, of a bow comprising a rigid, complete metallic tube tapered at its opposite ends for engagement with said bow sockets, said tube having a longitudinal groove of inverted keystone shape extending throughout substantially its entire length and interrupting the continuity of the exterior contour of the tube, and a wooden insert secured in and substantially fitting the groove and exposed upon the outer surface of the tube and forming a substantially symmetrical continuation of the exterior contour of the tube.

[Claims 4, 5, and 7 not printed in the Gazette.]

1,251,533. MEANS FOR MAKING SULFITE ACID LIQUOR AND THE LIKE. GUNNAR DAHRE JENSSEN, New York, N. Y. Filed Mar. 24, 1917. Serial No. 157,225. (Cl. 23—13.)



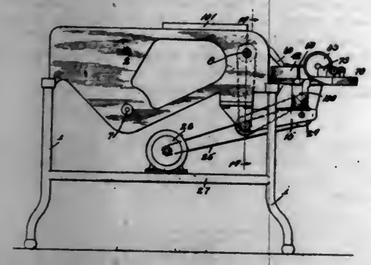
1. In an apparatus for making bisulfite liquor, a plurality of towers having suitable inlets and outlets and in the interior a material supported intermediate of their height from which an ingredient of the liquor is obtained and a material supported intermediate of the distance between the support of the aforesaid material and the lower ends solely for retarding the liquor in its downward course to the lower ends of said towers, a sulfur dioxid plant and pipes forming connections from said dioxid plant, between towers and to and from said inlets and outlets and controlled by valves, certain of said pipes being adapted to direct the acid liquor over said lower retarding material for retreatment.

4. In an apparatus for making bisulfite liquor, a sulfur dioxid plant, a water pump, a transfer acid liquor pump, a discharge acid liquor pump, a main feed gas pipe leading from said gas plant, a pair of towers containing on a second stage limestone in pieces and on a lower stage blocks of acid proof material, a pair of inlet pipes communicating with said towers below said lower stage and connected to said main feed pipe through closable traps, a pair of inlet gas pipes communicating with said towers below said lower stage and connected through closable traps to a main gas transfer pipe, a pair of outlet gas pipes communicating with said towers at the upper end and connected with said transfer pipe at the upper end through closable traps, a pair of vent pipes connected with said towers at the upper end through closable traps, a pipe from said water pump connected to said towers at the upper end, valves in said water pipe, a pipe connecting the upper ends of said towers with said transfer acid liquor pump, valves in said acid liquor pipe, pipes connecting said towers at their lower ends to said transfer acid liquor pump, valves in said lower liquor pipes to the pump, discharge pipes from the lower ends of said towers to said discharge acid liquor pump, an elevating pipe from the latter pump, a storage tank connected to said elevating pipe, return pipes leading from

said elevating pipe to said towers beneath the limestone stages, spray nozzles on the ends of said return pipes, and valves in said return pipes.

[Claims 2 and 3 not printed in the Gazette.]

1,251,534. COIN INSPECTION AND COUNTING MACHINE. JAY M. JOHNSON, Chicago, Ill., assignor to Johnson Coin Counting Machine Company, a Corporation of New York. Filed Feb. 20, 1917. Serial 149,926. (Cl. 133—8.)



1. In a machine of the class described a hopper, an annulus vertically adjustable in the hopper to provide a space beneath the same and bottom of hopper, counting mechanism to receive the coin comprising a centrifugal wheel rotating below the annulus on which the coins are discharged, a star wheel to which the coins are carried by said centrifugal wheel, a shaft extending across the top of the hopper, a friction wheel on the end thereof co-acting with a coin to thrust the same past the star wheel to actuate the star wheel, registering mechanism actuated by said star wheel, and a stop mechanism operated in conjunction with the registering mechanism to disconnect the drive from the machine after a predetermined number of coins have been counted.

5. In a machine of the class described a hopper, a centrifugal coin carrying wheel therein, an annulus adjustable in said hopper, means rotatably connected to said annulus for adjusting the same to and from said coin carrying wheel, a shaft journaled in said hopper, a friction wheel thereon adapted to engage coins from said carrying wheel, a star wheel adapted to be actuated by said coins, a shaft rotated by said star wheel, a register, a shaft rotated by the star wheel shaft adapted to actuate said register, a pivotally mounted bar, a gear on said bar driven from one of said shafts, a stop mechanism pivoted on said bar adapted to be operated by said gear and mechanism on the second named shaft co-acting therewith to disconnect the drive for the machine.

11. In a machine of the class described a hopper, a coin wheel therein, a shaft extending centrally into the hopper connected to rotate the wheel, a shaft extending across the top of the hopper, intermeshing gears on said shafts, a friction wheel on the end of the second named shaft, an annulus in the hopper, members pivoted thereto adapted to vary the vertical adjustment of the annulus, a registering mechanism actuated by coins as they pass beneath the friction wheel, a clutch shifting mechanism, means for actuating the same, a pivoted bar, a plurality of studs secured thereto, and a timing mechanism mounted on said studs adapted to shift the cam at the end of a predetermined count by the register.

[Claims 2 to 4 and 6 to 10 not printed in the Gazette.]

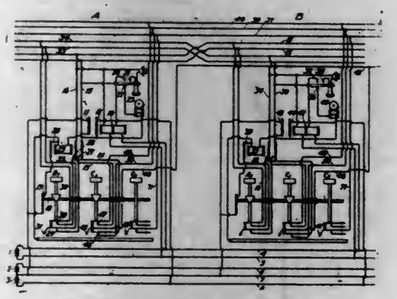
1,251,535. FURNACE-LINING MATERIAL AND THE PROCESS OF PRODUCING SAME. FRED A. JONES, Lakewood, Ohio. Filed Nov. 15. 1915. Serial No. 61,529. (Cl. 106—9.)

1. The herein described process, which consists in crushing a material containing magnesium oxid so that the particles will pass over a screen the mesh of which in one-eighth inch and through a screen the mesh of which is one-half inch, mixing said material with a substance which is unacted upon by moisture, and heating the mixture until the last mentioned material adheres to the surface of the particles of the material containing magnesium oxid.

3. The herein described process which consists in crushing dolomite to form granules, mixing the same with a wet paste containing furnace flue dust, and heating the mixture until the dolomite is calcined and the flue dust adheres to the surface of the granules of calcined dolomite.

[Claim 2 not printed in the Gazette.]

1,251,536. TELEPHONE SYSTEM. CHARLES W. KECKLER, Newark, N. J., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed Nov. 16, 1915. Serial No. 61,744. (Cl. 179—39.)



1. In a telephone system, a plurality of line circuits, a telephone set associated with each line circuit, relays for each line circuit, centralized sources of current for said telephone system, and manually operated switching means for each line circuit adapted to control and cooperate with relay action on each one of two line circuits in completing a connection therebetween.

8. In a telephone system, a plurality of line circuits, a telephone set associated with each line circuit, relays for each line circuit, centralized sources of current for said telephone system, switching keys for each line circuit adapted to coöperate with action of said relays on each one of two lines in completing a connection therebetween, locking means operated by the keys for retaining said keys in an effective position, and circuit controlling contacts operated by said locking means to retain one of said relays energized during the time a connection is continued between two line circuits.

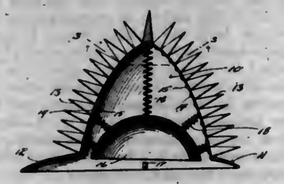
12. In a telephone system, a plurality of line circuits, a telephone set associated with each line circuit, centralized sources of current for said telephone system, circuit connections individual to each of said line circuits through which other line circuits seeking connection with such individual line circuit obtain connection therewith, manually operated switching means for each line circuit, and means operated immediately upon the actuation of said switching means to interrupt the circuit connection individual to the particular line circuit called to protect such particular line circuit from seizure by other of said other line circuits.

13. In a telephone system, a plurality of line circuits composed of two conductors only, a telephone set associated with each line circuit, a plurality of relays for each line circuit, centralized sources of current for said telephone system, test circuits for each of said line circuits extending over one of the line wires of the respective line circuit and conditioned by the operation of one of the relays of the respective line circuit called, another of said plurality of relays of each of said line circuits controlling the association of a calling line circuit with a called line circuit and included in said test circuit, and manually-operated switching means for each line circuit governing the first mentioned of said plurality of relays of its respective line circuit to condition said test circuit.

17. In a telephone system, a plurality of local lines, a telephone set associated with each local line, a trunk line, means at each set to effect connection with said trunk line, means to render a set obtaining connection with said trunk line free from seizure by other lines, means for each of said telephone sets to secure connection with other of said telephone sets, means to seize said other sets and render them inaccessible to lines other than the calling line, means to bring the telephone set of another local line into telephonic connection with the set of a local line connected to said trunk line, means to connect the telephone set of said other local line telephonically with said trunk line to establish a mutual telephonic connection between said trunk line and the telephone sets of the connected local lines, and means to enable the telephone set of one of said connected local lines being disconnected without disturbing the telephonic connection between the trunk line and the other of said local lines connected thereto.

[Claims 2 to 7, 9 to 11, and 14 to 16 not printed in the Gazette.]

1,251,537. BULLET-PROOF HELMET. KARL KEMPNY, Cleveland, Ohio. Filed Feb. 1, 1917. Serial No. 146,003. (Cl. 2—117.)



1. A bullet-proof helmet consisting of a metallic body and a plurality of tapered metallic members projecting from the body in juxtaposition; a cap within the body adapted to fit the head of the user; and spiral springs arranged between the cap and body to permit yielding movement of the body under influence of a blow upon said metallic members.

2. A bullet proof helmet consisting of a metallic body, and a multiplicity of pyramidal spikes projecting from the body and having the sides of their bases contacting with each other and covering the entire outer surface of the body, a cap within the body adapted to fit the head of a user, and spiral springs arranged radially between the cap and body to permit yielding movement of the body under influence of a blow in any direction on said spikes.

1,251,538. REFRIGERATION. FREDERICK G. KEYES, Hoboken, N. J., assignor to National Automatic Refrigerator Company, a Corporation of New Jersey. Filed May 27, 1916. Serial No. 100,379. (Cl. 252.)

1. A liquid refrigerating composition comprising water as a solvent, an active absorbent component, and a volatile refrigerating component, said components having widely different vapor pressures and their proportions being such that the absorbent remains in liquid form upon the vaporization of substantially all of the refrigerant component.

2. A liquid refrigerating composition comprising a solvent component, an active absorbent and a more volatile component constituting a refrigerant, the proportions of each being such that by application of heat thereto a vapor is given off consisting of the solvent and the refrigerant, the ratio of the former to the latter not being greater than the critical boiling ratio thereof under refrigerating conditions.

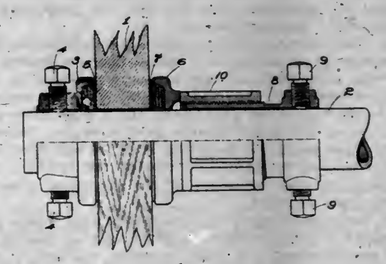
3. A liquid refrigerating composition comprising ammonium nitrate, water and ammonia, the proportion of each being such that upon the application thereto of a vaporizing temperature of the order of 100° C. the vapor comprises water and ammonia in such proportion that the ratio of water to ammonia is not greater than the critical boiling mixture thereof at a temperature of the order of 0° C.

5. A liquid refrigerating composition comprising water, ammonium nitrate and ammonia combined in such proportions that a temperature above the boiling point of the ammonia, but considerably below the boiling point of the water in the solution the volatile ammonia may be completely vaporized by ebullition.

6. A refrigerating liquid comprising water as a solvent, ammonium nitrate as an absorbent and ammonia as a refrigerant, combined in a ratio in which the water and ammonia remains constant upon converting the same from a liquid to a gaseous state.

[Claim 4 not printed in the Gazette.]

1,251,539. PIPE-CONNECTING DEVICE. CURTIN G. KISER, Washington township, Clarion county, Pa. Filed Oct. 18, 1916. Serial No. 126,428. (Cl. 137—130.)



1. A pipe-connecting device, comprising in combination, a pipe having a plain periphery, a flange adapted to be rigidly mounted upon said pipe, an additional flange adapted to be loosely mounted upon said pipe and movable longitudinally thereof, and means adapted to cause said flanges to exert, coöperatively, a clamping action between the adjacent faces thereof.

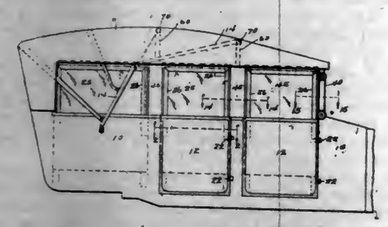
2. A pipe-connecting device comprising in combination, a pipe having a plain periphery, a flange rigidly secured to said pipe, an additional flange arranged in juxtaposition to said first-mentioned flange, the opposing faces of said flanges being adapted to coöperatively exert a clamping action between them, and a jack rigidly secured to said pipe adapted and operable to cause said clamping action.

3. A pipe-connecting device comprising in combination, a pipe having a plain periphery, a wall through which said pipe is loosely inserted, a flange rigidly mounted upon said pipe with one face thereof in juxtaposition to said wall, a packing substance interposed between said face and said wall, an additional flange loosely mounted upon said pipe and positioned upon the opposite side of said wall from said other flange, one face of said flange being in juxtaposition to said wall, a packing substance interposed between said last-mentioned face and said wall, and a jack mounted upon and rigidly secured to said pipe operable to actuate said flanges into firm contact with their respective sides of said wall.

1,251,540. AUTOMOBILE-INCLOSURE. ANTHONY F. KLEINSCHMIDT, Indianapolis, Ind. Filed May 22, 1916. Serial No. 99,103. (Cl. 21—62.)

1. The combination of the body of an automobile, a folding top therefor, rigid vertically telescoping extensions for closing the side spaces between the body and the top of the automobile, the side portions of the body being

provided with telescoping tubes in which said extensions normally lie and the walls of which guide the extensions in their vertical movement, and means for supporting said extensions in their upper position.



3. The combination of an automobile body with a door opening, a door hinged thereto, an upwardly movable extension for said door, tubular guideways secured in said door and extending laterally beyond each lateral edge thereof, the adjacent edges of the automobile being recessed to receive said guideways of the door, circular frame members at the lateral edges of the extension adapted to fit and move vertically in said guideways, and means in connection with the door for supporting the extension in elevated position.

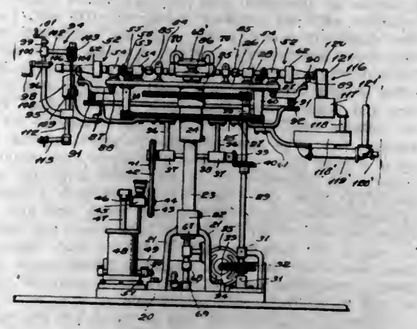
5. The combination of an automobile body having door openings in the side thereof spaced apart, a folding top for the automobile, a rigid extension mounted in connection with each door so as to be vertically movable, up to the top of the automobile, and a rigid filler plate for closing the space between said extensions when in their upper positions, the lateral edges of said filler plate being grooved longitudinally thereof for receiving and holding the adjacent edges of the extensions when in their upper positions.

7. The combination of an automobile body having door openings in the side thereof spaced apart, a folding top for the automobile, a rigid extension mounted in connection with each door so as to be vertically movable up to the top of the automobile, a rigid filler plate for closing the space between said extensions when in their upper positions, a tubular construction secured to the top and extending transversely and having a longitudinal slot in the lower and underside thereof and the outer ends of said tubular construction being curved downward and having a slotted space across their lower ends, head projections extending from the ends of said filler plate adapted to extend through said slot and be moved along said tubes and supported thereby, the head on the projection at the lower end of said filler plate being smaller than the head on the projection at the upper end thereof, and an enlargement in the slot in the upper end of the curved portion of said guide so that the headed projection on the lower end of said filler plate can be disengaged from the guide as the filler plate is being moved down in position for use while the headed projection on the upper end of said filler plate will be held in the lower end of said tubular construction.

9. The combination of an automobile body having door openings in the side thereof spaced apart, a folding top for the automobile, a rigid extension mounted in connection with each door so as to be vertically movable up to the top of the automobile, a rigid filler plate for closing the space between said extensions when in their upper positions, a tubular guideway secured to the top with a slot along the lower side thereof, a cross bar on the upper end of the filler plate, a frame slidable on said cross bar, a set screw for clamping it to the cross bar in adjusted position, and a headed projection from said frame that extends into the slot in said guide, whereby said filler plate may be moved along said guide and be supported thereby and when it is desired to fold the top, the connection between said headed projection and the filler plate may be readjusted to enable the filler plate to fold properly in with said top.

[Claims 2, 4, 6, and 8 not printed in the Gazette.]

1,251,541. MACHINE FOR SCORING, CRACKING OFF, AND GLAZING ELECTRIC BULBS OR OTHER ARTICLES OF GLASSWARE. ALBERT B. KNIGHT, Toledo, Ohio. Filed Nov. 28, 1916. Serial No. 133,939. (Cl. 49—50.)



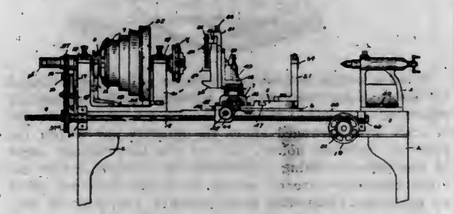
1. In apparatus of the character described, the combination with a pivoted support; a holding device carried by the pivoted support and adapted to receive one end of an article of glass-ware; means to render the holding device active and inactive; a movable support-member connected with the pivoted support and adapted to engage the lower side of the article of glass-ware at a point a suitable distance from the holding device to prevent the article of glass-ware from moving downwardly; a scoring device arranged to contact with the upper side of the article of glass-ware and to force the same downwardly in opposition to the movable support-member; and means for retaining the movable support-member in the upper active position when the scoring device is contacting with the article of glass-ware and to allow the support-member to move downwardly after such action.

2. In apparatus of the character described, the combination with a rotatable substantially horizontal table; of a tubular spindle connected with the table for rotation therewith and being rotatable upon its longitudinal axis; means to rotate the tubular spindle upon its longitudinal axis; a suction cup carried by the outer portion of the tubular spindle; a vertically swinging arm pivotally connected with the table beneath the suction cup and adapted to engage the lower side of the article of glass-ware held in the suction cup at a point spaced from the suction cup to prevent downward movement of the article of glass-ware; a scoring device disposed to contact with the upper side of the article of glass-ware and to force the same downwardly in opposition to the vertically swinging arm; means including a track having an elevated portion for retaining the vertically swinging arm in the upper position when the scoring device is acting upon the article of glass-ware and a depressed portion for causing the arm to move downwardly after such action; means for creating a suitable degree of vacuum within the tubular spindle and to break such vacuum at a suitable time; and means to rotate the table.

3. In a machine of the character described, the combination with a support; of a rotatable table connected with the support; a tubular spindle connected with the table for rotation therewith and being rotatable upon its longitudinal axis and held against substantial longitudinal movement with respect to the table; a suction cup carried by the outer portion of the spindle for the reception of an article of glass-ware; a rotatable vacuum shell arranged near the inner end of the tubular spindle; a conduit connecting the rotatable vacuum shell with the tubular spindle; a valve connected in the conduit and having a crank; a relatively stationary cam arranged to contact with the crank to open and close the valve in proper timed order; a vertically swinging lever pivoted to the table beneath the tubular spindle; antifriction means carried by the outer end of the lever to contact with the article of glass-ware; a track arranged near and beneath the pivoted lever for controlling its vertical movement and having raised and depressed portions; an article of glass-ware treating means arranged in proximity to the path of travel of the article; means to rotate the table; and means to rotate the spindle upon its longitudinal axis.

4. In a machine of the class described, means for releasably holding a work piece and revolving the same about a vertical axis and rotating it about a reclining axis, means for acting on the work piece at a predetermined point in a revolution thereof to annularly scratch its surface, and means for supporting a part of the work piece in opposition to said scratching means and automatically movable into and out of work supporting position at predetermined points in a revolution of said holding means, and separate heating means for heating the work piece to crack off the same and for glazing the end thereof.

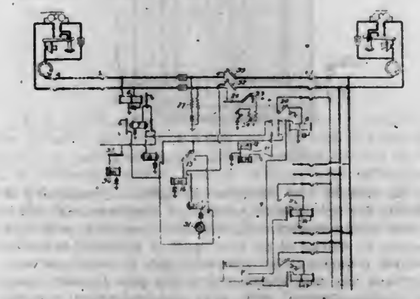
1,251,542. COMBINATION TURRET-LATHE. SAMUEL K. LANDIS, Lancaster, Pa. Filed July 30, 1915. Serial No. 42,710. (Cl. 29—47.)



3. In a lathe of the class described, the combination with a bed having a head stock integral therewith and a chuck therein, of a turret-carriage mounted on said bed with longitudinal movement and a turret pivoted upon said carriage having means for adjusting the same by a cross tool feeding means mounted on said turret, a tool post mounted thereon, and an angle block detachably secured to said tool post; with a vise detachably and adjustably secured to said angle block for presenting work to be operated upon by a tool carried by said chuck.

[Claims 1, 2, 4, and 5 not printed in the Gazette.]

1,251,543. AUTOMATIC TELEPHONE SYSTEM. JACOB W. LATTIG, Glenside, Pa., and CHARLES L. GOODRUM, New York, N. Y., assignors to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Apr. 25, 1916. Serial No. 93,385. (Cl. 179—20.)

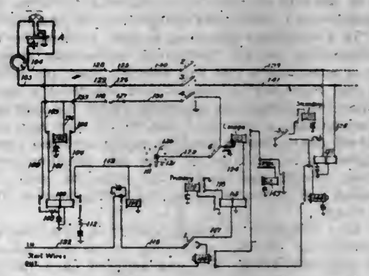


1. In an automatic telephone system, the combination with a plurality of calling subscribers' lines, of engaged subscribers' lines, means to switch said calling lines to the terminals of an engaged subscriber's line, means to maintain the conversational circuits of said lines to said busy subscriber's line open when so connected, and means when said called subscriber's line becomes idle to automatically complete the conversational circuit of one only of said plurality of calling subscribers' lines to said called subscriber's line.

4. In an automatic telephone system, the combination with a plurality of calling subscribers' lines, of engaged subscribers' lines, means to switch said calling lines to the terminals of an engaged subscriber's line, test relays operated to maintain the conversational circuit of said lines to said busy line open, and means to deenergize one only of said test relays when the called subscriber's line becomes idle to complete the conversational circuit of the associated calling line with said called subscriber's line.

[Claims 2, 3, and 5 not printed in the Gazette.]

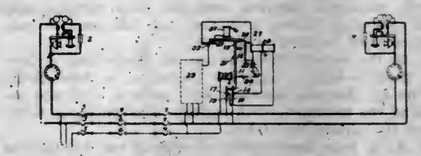
1,251,544. MACHINE-SWITCHING TELEPHONE-EXCHANGE SYSTEM. ALBEN E. LUNDELL, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Apr. 26, 1916. Serial No. 93,639. (Cl. 179—18.)



1. In a telephone exchange system, the combination with telephone lines, automatic line finder switches to which said lines are multipled in groups, a starter wire for associating an idle finder with said lines, means adapted upon the initiation of a call to give said finder a primary movement to place the same in operative relation to multiples of the calling group, and means for automatically giving said finder a secondary movement to connect with the calling line multiples, of means actuated upon the termination of the primary movement to extend the starter wire to the next idle finder.

[Claims 2 to 4 not printed in the Gazette.]

1,251,545. TELEPHONE SWITCHING SYSTEM. FRANK A. LUNDQUIST, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Nov. 15, 1916. Serial No. 131,457. (Cl. 179—18.)



1. In a telephone switching system, calling and called lines, switching mechanism associated with each of said lines and operating automatically upon the closure of a calling line to connect said calling line with an idle connecting circuit, line and cut-off relays associated with each of said lines, and means controlled by said line and cut-off relays for preventing the operation of the switching mechanism of a called line when said called line is held closed after disconnection of the calling line.

2. In a telephone switching system, calling and called lines, switching mechanism associated with each of said lines adapted upon the initiation of a call to connect the calling line with an idle connecting circuit, a cut-off relay associated with the called line and adapted to be

energized and deënergized upon the connection and disconnection of a calling line with the called line, a line relay associated with said called line and adapted to be operated through normally closed contacts of said cut-off relay when the line associated therewith is closed, an operating circuit for said switching mechanism controlled by said line relay, and means controlled by said cut-off relay over the calling line to disable said switching mechanism operating circuit until the called line is opened.

3. In a telephone switching system, subscribers' lines, a connecting circuit common to a plurality of subscribers' lines, switching mechanism associated with said subscriber's line for connecting it with an idle connecting circuit upon the initiation of a call thereover, an operating circuit for said switching mechanism, a line relay for controlling said operating circuit, a cut-off relay for normally controlling the operation of said line relay, and means controlled by the energization of said cut-off relay for disabling the operating circuit of said switching mechanism and by a subsequent deënergization thereof and of the line relay for rendering said operating circuit responsive to a subsequent energization of said line relay.

4. In a telephone switching system, a subscriber's line, a connecting circuit, switching mechanism associated with a subscriber's line and adapted upon the initiation of a call thereover to connect said subscriber's line with a connecting circuit, an operating circuit for said switching mechanism, a line relay adapted to close said circuit, a cut-off relay, circuit breaking means operated upon the energization of said cut-off relay for disabling said operating circuit, and means for restoring said circuit breaking means controlled by the deënergization of said line relay.

5. In a telephone switching system, a subscriber's line, a connecting circuit, switching mechanism associated with said subscriber's line and adapted upon the initiation of a call thereover to connect said subscriber's line with a connecting circuit, an operating circuit for said switching mechanism, a line relay adapted to close said circuit, a pivotal lever contact controlled thereby for disabling said operating circuit, a cut-off relay, a second lever, controlled by the energization of said cut-off relay for causing the operation of said first mentioned lever to open its contacts, an electromagnet for restoring said first mentioned lever to circuit closing position, and an energizing circuit for said electromagnet closed through the armature of said line relay in its normal position and including said levers.

1,251,546. PROCESS OF MAKING DECOLORIZING AGENTS AND THE PRODUCTS THEREOF. HAROLD LLOYD LYON and SAMUEL STODDLE PECK, Honolulu, Hawaii. Filed Sept. 20, 1915, Serial No. 51,646. Renewed May 26, 1917. Serial No. 171,305. (Cl. 127—2.)

1. The process of producing a decolorizing material which comprises treating molasses with sulfuric acid until charring ensues and removing the soluble substances from the char so formed.

7. In the manufacture and use of decolorizing carbon, the process which comprises producing a decolorizing carbon by charring molasses with sulfuric acid and repeating the treatment with sulfuric acid whenever activity of the carbon diminishes.

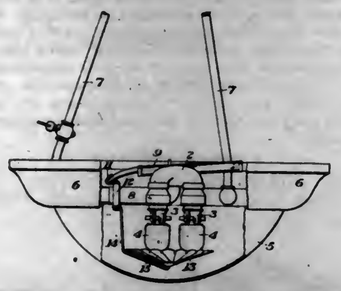
9. As a new composition of matter for decolorizing purposes, an acid-charred molasses carbon free of soluble matter.

10. As a new composition of matter for decolorizing purposes, a body-giving agent coated or impregnated with an acid-charred molasses carbon.

[Claims 2 to 6, 8, and 11 not printed in the Gazette.]

1,251,547. PROTECTING DEVICE FOR INCANDESCENT GAS-LAMPS. HOWARD LYON, Gloucester City, N. J., assignor to Welsbach Light Company, Gloucester, N. J., a Corporation of New Jersey. Filed July 23, 1914. Serial No. 852,619. (Cl. 240—120.)

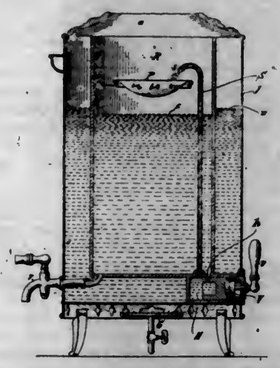
1. An inverted incandescent cluster lamp having glassware extending below its mantles, a protecting device or canopy arranged between the lower ends of the mantles and the glassware independently of the glassware and having transverse dimensions greater than the mantle cluster, the upper edge of the protecting device being below the body portions of the mantles, said protecting device being of heat-insulating material and arranged to protect the glassware below said protector from the heat of the mantle, said protector being without any substantial openings therein; substantially as described.



4. An inverted incandescent cluster gas lamp, arranged for indirect or semi-indirect lighting having depending separated suspension members, and a canopy or deflector of arch form arranged above the burners but within the globe or deflector holder, two of the longitudinal edges of the deflector being approximately straight, while the other two edges are of curved form, the deflector being so positioned that the heat currents are directed outwardly over one of the curved edges between the depending suspension members; substantially as described.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,251,548. COFFEE-URN. HARRY C. LYONS, New York, N. Y. Filed Dec. 14, 1916. Serial No. 136,835. (Cl. 53—3.)

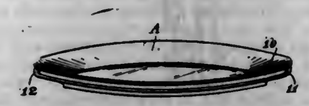


1. An urn of the character designated, comprising a reservoir for an infusive solution, a supplementary heating and pressure-generating chamber connected with said reservoir by means of an inlet port, a manually-operated valve for governing the communication between said reservoir and the said chamber, a stand pipe in said reservoir communicating with said supplementary heating chamber and adapted to discharge into a percolator, said percolator supported in the reservoir above the level of the infusive solution contained therein, and means for heating said infusive solution in said supplementary heating chamber, whereby an automatic gravity circulation of said infusive solution is attained as and for the purpose set forth.

3. An urn of the character designated, comprising a reservoir for an infusive solution, a percolator in the upper portion of said reservoir, a water jacket surrounding said reservoir, a supplementary heating and pressure-generating chamber in the lower portion of said reservoir and communicating therewith by means of an inlet port, said supplementary heating chamber being independent of and out of communication with said water jacket, a manually-operated valve for governing the communication between said reservoir and the said chamber, and a stand pipe connected with said supplementary heating chamber and extended upward to discharge liquid from said supplementary heating chamber to said percolator.

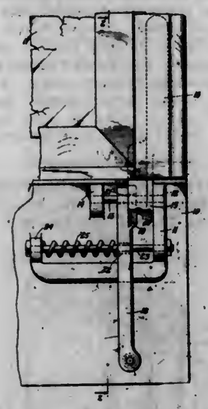
[Claim 2 not printed in the Gazette.]

1,251,549. TABLE-DISH. ALEXANDER Y. MCDONALD and DANIEL SULLIVAN, Glace Bay, Nova Scotia, Canada. Filed Dec. 1, 1913. Serial No. 804,042. (Cl. 65—15.)



A table dish having an inclined margin with a groove in its edge, adapted to receive and retain a small amount of drip or overflow.

1,251,550. HINGE FOR VEHICLE-BODIES. HERMAN C. MAISE, Springfield, Mass., assignor to Springfield Body Corporation of New York, Springfield, Mass., a Corporation of New York. Filed Aug. 23, 1916. Serial No. 116,416. (Cl. 21—125.)



1. In a device of the kind described, a plate, an attachment member having a cammed surface formed thereon pivotally mounted upon said plate, a locking member having a cammed surface formed thereon also pivotally mounted upon said plate and adapted to coöperate with said attaching member, and means connected to the plate and locking member for varying the angular relation of the plate and locking member.

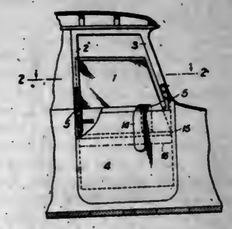
2. In a device of the kind described, an attachment member having a cammed surface formed thereon, a pivot mounted upon said plate and passing through said member, a locking member through which said pivot passes pivotally mounted upon said plate, and means for varying the angular position of the locking member and attaching member upon said pivot.

4. A locking hinge comprising a pair of pivotally connected attachment members, a locking member adapted to coöperate with one of said attachment members to normally maintain said attachment members in a predetermined angular relation to each other, and means for adjusting the locking member to determine the normal angular relation of said attachment members.

7. A locking hinge comprising an attachment member provided with a recess, a second attachment member pivoted to said first attachment member, a locking member adapted to be yieldingly retained in said recess to normally maintain the attachment members in a predetermined angular relation to each other, said recess and locking member being beveled so that forcible movement of one attachment member with respect to the other will normally cam the locking member out of the recess, and means whereby the attachment members may be moved slightly from this predetermined angular relation without effecting any camming action between the recess and locking member.

[Claims 3, 5, and 6 not printed in the Gazette.]

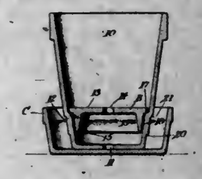
1,251,551. DROP-WINDOW. HERMAN C. MAISE, Detroit, Mich., assignor to Springfield Body Corporation of New York, New York, N. Y., a Corporation of New York. Filed Feb. 28, 1917. Serial No. 151,390. (Cl. 21—125.)



1. A drop window for vehicles, comprising a frame, including one vertical and one inclined stile, a sheet of glass adapted to close the opening between said stiles and means attached to the vertical edge of the window and coöperating with the vertical stile to prevent longitudinal movement of the window.

2. A drop window for vehicles, comprising a frame, including one vretical and one inclined stile, a sheet of glass adapted to close the opening between said stiles, an enlarged edge member carried by the vertical edge of the glass and means carried by the vertical stile for engaging the edge member to prevent movement of the glass, when lowered, toward the inclined stile.

1,251,552. FLOWER-POT. JOHN C. MARKS, Chicago, Ill. Filed Dec. 16, 1916. Serial No. 137,391. (Cl. 47—19.)



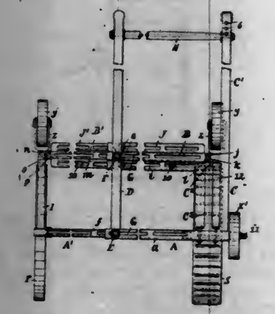
1. The combination with a flower pot, of a porous false bottom therein having a soil-supporting surface on its upper side and a projection on its under side adapted to feed water to the soil by capillary action, said flower pot having two vertically spaced marks on the outside wall thereof, said marks being respectively above and below the lower end of said projection to serve as means for indicating the water level in the pot and also the relation of the water level to the lower end of the projection on the false bottom.

3. A new article of manufacture comprising a false bottom for flower pots consisting of a body of porous material adapted to fit into a flower pot of the usual tapering form and having a substantially flat upper soil supporting surface and an annular imperforate flange on its lower side, said flange being of sufficient depth to form the sides of a plant starting pot and said false bottom being adapted and designed to be inverted and used as a small pot for starting plants, in which use the annular flange constitutes the side wall and said soil-supporting surface the bottom face of the small pot.

5. The combination of a flower pot having the usual perforation in its bottom, an internal shoulder above the bottom and an external water indicating mark below said shoulder, of a saucer or receptacle adapted to receive the flower pot and to hold water up to the level of said mark and a false bottom of porous material adapted to rest on said shoulder and having an integral porous flange extending downward below said external water mark and adapted to conduct water by capillary action to soil resting upon said false bottom, substantially as described.

[Claims 2 and 4 not printed in the Gazette.]

1,251,553. TRACTION-MACHINE. FREDERICK B. MARVIN, New York, N. Y. Filed Mar. 30, 1916. Serial No. 87,714. (Cl. 21—114.)



1. In a traction machine, the combination of a traction wheel, a frame in which the wheel is held to rotate in a single upright plane, said frame projecting rigid to the rear of the wheel, a motor on the frame operatively connected with the wheel, a trailer wheel pivotally connected to the frame behind the traction wheel to swivel on an upright pivot, and an auxiliary freely rotating wheel journaled in the frame beside the traction wheel, said frame affording back of the traction wheel means to grip and turn the machine about by hand.

3. In combination, a frame including a bifurcated portion and having a part thereof extending laterally from said bifurcated portion and being laterally adjustable, a traction wheel journaled in said bifurcated portion of the frame, means to drive the traction wheel, and another wheel journaled beside the traction wheel in the laterally extending part of the frame.

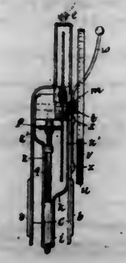
5. In combination, a forward upright structure, a rearward upright structure comprising upright spaced members, and a vertically adjustable supporting member connecting said members, means to rigidly connect said upright members with the forward structure, a traction wheel journaled in the forward structure and means, attached to the forward structure, for driving the traction wheel.

7. In combination, a frame, a hollow traction wheel journaled therein, said wheel having in one side a central opening, an engine housed in the wheel and attached to the frame at said opening, a rotary fan arranged opposite said opening, and power transmitting connections between the engine and said wheel and fan.

8. In combination, a hollow traction wheel, a frame in which said wheel is journaled, an element to be rotated journaled coaxially with and projecting from said wheel, a motor in the wheel attached to the frame, and independent power transmitting connections between the motor and the wheel and said element.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,251,554. TREE-SURGERY IMPLEMENT. FREDERICK B. MARVIN, New York, N. Y. Filed Apr. 24, 1916. Serial No. 93,039. (Cl. 30—11.)

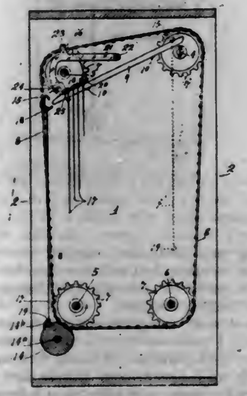


1. In combination, an elongated handle member, the same having at one end a handle proper and in its other end-portion a rest-extension adapted to bear against and afford a purchase for the implement against the tree or the like being operated upon, a hand-moved carrier member slidable in and longitudinally of the handle member, and having a handle adjacent the handle proper of the handle member and a train of moving parts arranged in the carrier member and including a tool holder.

4. In combination, a handle member including an elongated handle and a forked guiding portion substantially parallel with the longitudinal axis of said handle, a carrier member longitudinally slidable in and guided by said handle and having a guiding portion between and in guiding contact with the guiding arms of said forked portion of the handle member, and a train of moving parts arranged in the carrier member and including a tool holder.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,251,555. ADVERTISING-DISPLAYING MACHINE. LOUIS F. W. MEESE, Minneapolis, Minn. Filed Jan. 5, 1916. Serial No. 70,393. (Cl. 40—78.)



1. In a machine of the kind described, the combination with an endless carrier having means for carrying display cards with portions suspended therefrom, of a roller operative to wind up the suspended lower portions of the cards when the latter approach the same and to let the same out after the cards have moved past the same.

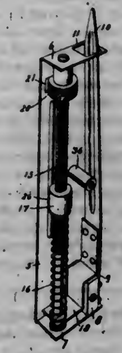
2. The combination with a case having sight openings at its opposite sides, of endless carrier belts working within said case and provided with means for carrying display cards with their lower portions suspended therefrom, of a take-up roller operative to wind up the suspended lower portions of said cards as the latter approach the same and to let the same out after the said cards have passed the same.

4. The combination with a case having sight openings at its opposite sides, of endless carrier belts working within said case and provided with means for carrying display cards with their lower portions suspended therefrom, of a take-up roller operative to wind up the suspended lower portions of said cards as the latter approach the same and to let the same out after the said cards have passed the same, and inclined tracks adapted to receive the cards from the upper portions of said belts and to deliver the same back to the said belts, and escapement mechanism controlling the delivery of said cards, one at a time, from said tracks back onto said belts.

6. In a machine of the kind described, the combination with display cards having rods projecting from the sides of their upper and lower edges, of inclined tracks on which the uppermost rods of said display cards normally rest, endless carrier belts movable around said inclined tracks, hooks on said belts for receiving the ends of the upper rods as they pass from said tracks to said belts and operative to deliver the said upper rods back onto said tracks, an intermittently driven roller having hooks engageable with the lower rods of said cards to wind up the same while the cards are being rolled by said belt toward said roller, but to release the same when the cards have been moved past the said roller, and belt actuated escapement devices controlling the delivery of said cards from said tracks to the catch hooks of said belts.

[Claims 3 and 5 not printed in the Gazette.]

1,251,556. TESTING DEVICE. DANIEL D. MILLER, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Nov. 17, 1916. Serial No. 131,929. (Cl. 265—68.)



1. A testing device comprising a base, one end portion thereof bent at substantially right angles thereto and having an opening therein, a lever pivotally mounted on the base operative independently of the position of said base and having a long and a short arm, the long arm thereof projecting through such opening in such end portion, tensioning means attached to the short arm of the lever, and means for increasing or decreasing the tension of said means.

3. A testing device comprising a base having end portions bent at substantially right angles thereto, one of said portions having an opening therein, a block secured to the base near the other end thereof, a lever flexibly mounted intermediate its ends upon the block operative independently of the position of said base and having the longer arm thereof extending along the length of the base plate through said opening in the first mentioned end portion, a movable block, a spiral spring connected at one end to the movable block and at the other end to the short arm of the lever, a stop on the base against which the longer arm of the lever is normally held by the tension of the spring, and means supported by the base for varying the position of the movable block to increase or decrease the tension on the lever.

4. A testing device comprising a base plate having end portions bent at substantially right angles thereto, a block secured to the base plate near one end thereof, one of said end portions having an opening therein, a lever flexibly mounted intermediate its ends upon the block and having the longer arm thereof extending along the length of the base plate through said opening in the first mentioned end portion, a movable block, a spiral spring connected at one end to the movable block and at the other end to the short arm of the lever for holding the longer arm of the lever against an edge of the opening through which it extends, a rotatable rod mounted on the base plate and having threaded engagement with the movable block, whereby the position of the movable block may be varied to vary the tension on the lever, and a cover plate having side portions bent at substantially right angles thereto for registering with end portions of the base plate to form an inclosure for the working parts.

5. A testing device comprising a base plate having longitudinal and transverse slots therein and having the end portions of said base plate bent at substantially right angles thereto, one of said end portions having an aperture therein, a block secured to said base near the other of said end portions, a lever flexibly mounted intermediate its ends upon said block with the longer arm thereof extending along the length of said base through said aperture, a movable block, a spiral spring connecting at one end to said block and at the other end to the shorter arm of said lever for holding the longer arm of the lever against an edge of said aperture, a rotatable rod supported by said end portion of said base and having threaded engagement with said movable block, whereby the position of said block may be varied to vary the tension of the lever, a pointer carried by said block and traveling in said longitudinal slot for indicating the tension of said lever, a cover plate with a transverse slot and having side portions bent at substantially right angles thereto for registering with said end portions of said base plate to form an inclosure for the working parts, a knurled collar secured to said rod and a portion of the edge thereof extending through each of said transverse slots in said base and cover plates for rotating such rod, and a bracket pivoted to the said side portions of said cover plate for protecting the exposed end of the longer arm of said lever when not in use.

7. A testing device comprising an inclosing casing having an aperture in one end thereof, a pointed spring tensioned lever mounted within said casing and the point thereof projecting through said aperture, means operable externally of said casing for adjusting the tension of said spring, and a movable bracket attached to the exterior of said casing adapted to be positioned to protect said point of said lever.

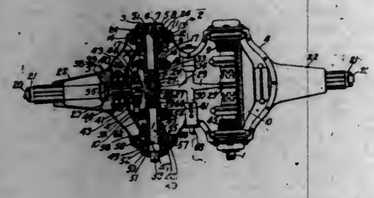
[Claims 2 and 6 not printed in the Gazette.]

1,251,557. DRIVING MECHANISM. WILLIAM J. P. MOORE, New York, N. Y. Filed Mar. 10, 1916. Serial No. 83,341. (Cl. 74—59.)

1. In a device of the class described, the combination of parallel main shafts, right-angled drive shafts, means for supporting the shafts, gearing connections between the right-angled shafts and the main shafts, and clutch devices for throwing these gears into and out of action, together with a central clutch-operating member between the two main shafts, and means for controlling said member from any desired point.

3. In a device of the class described, the combination of parallel main shafts, right-angled drive shafts, means

for supporting the shafts consisting of a casing, ball bearings at the ends of the portions of the main shafts within the casing and also at the ends of right-angled shafts within the casing, bevel pinions on each main shaft, bevel gears engaged by said pinions and carried on the right-angled shafts, clutch sections sliding on the main shafts and adapted to respectively engage the pinions and clutch the same to the shafts in a forward or reverse motion of the latter, and means for actuating said clutches.

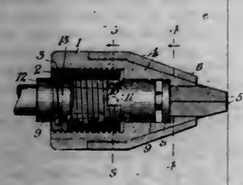


5. In a device of the class described, the combination of parallel main shafts, right-angled drive shafts, a casing surrounding portions of these shafts, ball bearings supported by the casing and carrying the ends of the portions of the main shafts within said casing, and other ball bearings supported by the casing and carrying the inner ends of the right-angled shafts, a pair of bevel pinions on each main shaft, a bevel gear wheel on the inner ends of the right-angled shafts meshing with said pinions, ball bearings for supporting the inner ends of said shafts, sliding clutch members on the main shafts engaging said pinions adjacent to the inner ball bearings, and means for shifting said clutches so that the motion of the main shafts may be communicated to the right-angled shafts to drive them forward or back.

8. In a twin driving mechanism for automobiles and the like, the combination of parallel main shafts, right-angled drive shafts, gearing between the main shafts and the drive shafts consisting essentially of a pair of pinions on each main shaft and the gear wheel on the adjacent end of the right-angled shaft intermeshing with said pinions so that when one pinion acts to drive the bevel gear wheel, the other pinion will be driven idly, ball bearings supported by the pinions, and ball bearings for supporting the right-angled shafts and also the rear ends of the main driving shafts, and clutch devices for operating the sets of gears.

[Claims 2, 4, 6, and 7 not printed in the Gazette.]

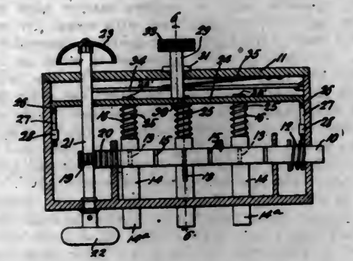
1,251,558. CHUCK. ALEXANDER P. MORROW, Elmira, N. Y., assignor to E. Horton & Son Company, Windsor Locks, Conn., a Corporation of Connecticut. Filed May 11, 1911. Serial No. 626,504. (Cl. 29—115.)



1. In a chuck, the combination of a spindle, a threaded head journaled thereon and having a slight axial movement relatively thereto, radially movable jaws engaging the spindle, and a threaded case screwed upon the head and operatively connected to the jaws to move the latter radially as the case is rotated on the head, and means including a cam on the head for defecting relative axial movement between the head and the spindle and jaws as the case is rotated, said cam having threads inclined in the same direction as the threads of the case and head, the threads of the cam having a steeper pitch than those of the case and head.

[Claims 2 to 11 not printed in the Gazette.]

1,251,559. PERMUTATION-LOCK. HOMER F. MORSE and ERNE A. MORSE, Fort Morgan, Colo., assignors to The Morse Door Lock Company, Fort Morgan, Colo., a Corporation of Colorado. Filed Aug. 17, 1916. Serial No. 115,453. (Cl. 70—54.)



1. In a lock, a casing, a bolt slidable therein, pins slidable through one side of the casing transversely of the bolt and having means engageable therewith to prevent the movement thereof, a release bar parallel with the bolt and movable toward and away from the same, springs between the pins and release bar, and a pin connected to the release bar and slidable through the opposite side of the casing, the casing and pin having coöperable means for preventing the movement of said pin.

2. In a lock, a casing, a bolt slidable therein, pins slidable through one side of the casing transversely of the bolt and having means engageable therewith to prevent the movement thereof, a release bar parallel with the bolt and movable toward and away from the same, springs between the pins and release bar, a pin swiveled to the release bar and slidable through the opposite side of the casing, the last mentioned side of the casing having a slot, and a lug carried by the last mentioned pin movable through said slot in one position of said pin.

3. In a lock, a bolt, a plurality of tumbler members movable transversely of the bolt and engageable therewith to prevent movement thereof, said members extending to one side of the lock to be operated to release the bolt, and means for simultaneously moving the tumbler members out of engagement with the bolt and having operating means extending to another side of the lock.

4. In a lock, a casing, a bolt slidable therein, tumbler members movable within the casing transversely of the bolt and operable from one side of the casing, a release member within the casing movable to and from the bolt, and having operating means extending to another side of the casing, springs between the tumbler members and release member, and means for preventing the movement of the release member when in one position.

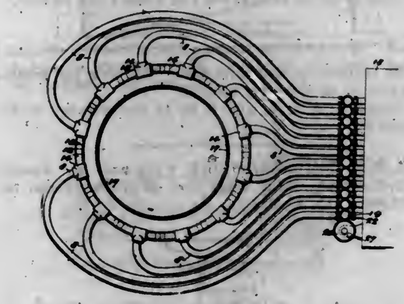
1,251,560. WIRE BASKET FOR BOILERS. THEODORE MYSKOW, Detroit, Mich. Filed Aug. 6, 1917. Serial No. 184,716. (Cl. 224—45.)



A carrier comprising a tube, a twisted wire cable transversely therethrough, the strands of said cable being

up-turned at their opposite free ends in the form of struts, U-shaped frame members arranged adjacent the opposite ends of said tube having upright portions slidably connected to the said struts, extensions upon said frame members slidably arranged within the opposite ends of said tube, spring connections between the inner ends of said extensions and said cable within the tube and oppositely projecting rods centrally carried by said frame members in axial alinement with the said tube and with each other and arranged with up-turned terminal engaging hooks.

1,251,561. STRENGTH-REGULATOR FOR TANK-DRAWN MACHINE WINDOW-GLASS. OCTAVE C. NATALIS, Charleston, W. Va. Filed Feb. 28, 1917. Serial No. 151,474. (Cl. 49—53.)



1. In an apparatus of the class described, a cylinder encircling tubular body having separate pockets that are provided with discharge ports directed toward the cylinder, a tank, a set of ducts connecting the respective pockets with the tank, individually operatable control valves for each pocket duct, and a common operating mechanism for simultaneously opening or closing said valves.

2. In an apparatus of the class described, a cylinder encircling tubular body having separate pockets that are provided with discharge ports directed toward the cylinder, a tank, a set of ducts connecting the respective pockets with the tank, individually operatable control valves for each pocket duct, each valve having a stem, means coöperative with all of the stems for simultaneously turning the same to open or close the valves as a set.

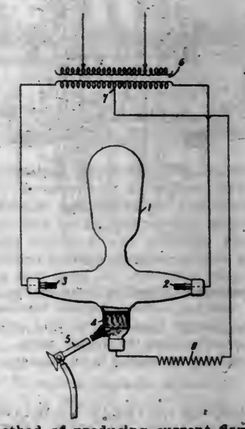
3. In an apparatus of the class described, a cylinder encircling tubular body having separate pockets that are provided with discharge ports directed toward the cylinder, a tank, a set of ducts connecting the respective pockets with the tank, individually operatable control valves for each pocket duct, each valve having a stem, means coöperative with all of the stems for simultaneously turning the same to open or close the valves as a set, each valve having provision for individual adjustment independently of the others.

4. In an apparatus of the class described, a cylinder encircling tubular body having separate pockets that are provided with discharge ports directed toward the cylinder, a tank, a set of ducts connecting the respective pockets with the tank, individual control valves for each pocket duct, each valve having a stem, a gear wheel on each stem slidably keyed to the respective stem, means for holding the said gear wheels in mesh, and means for simultaneously turning said valve stem gear wheels.

7. In an apparatus of the class described, a cylinder encircling body having separate pockets that are provided with discharge ports directed toward the cylinder, a tank, a set of ducts conecting the respective pockets with the tank, individual control valves for each pocket duct, each valve having a stem, a gear wheel on each stem slidably keyed to the respective stem, a spring on each stem for holding the respective gear wheels in the same plane and in a meshing train, and a master gear meshing with one of said gear wheels for turning the entire gear train.

[Claims 5 and 6 not printed in the Gazette.]

1,251,562. VACUUM REGULATION FOR RECTIFIERS. HAROLD A. NEWCOMB, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 3, 1915. Serial No. 5,889. (Cl. 176—42.)



2. The method of producing current flow between two anodes of a multi-anode vapor converter which comprises connecting a source of electromotive force between said anodes and heating the cathode without breaking down the negative-electrode reluctance thereof.

5. The method of regulating the vacuum in a vapor-arc device which comprises producing a flow of current between two electrodes thereof, and adjusting the amount of said current flow by supplying carriers to the arc path from a source which is adjustable independent of the current flowing in said arc.

6. The method of raising the vacuum in a multi-anode vapor converter which comprises producing a current flow between two anodes thereof of sufficiently high voltage and small amperage to cause the elimination of gas particles from the arc space at a faster rate than they are evolved from the electrodes, and adjusting the amount of current in said arc by supplying the arc path with carriers from an independently adjustable source.

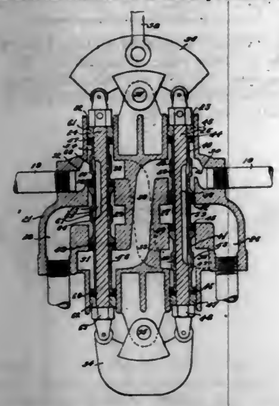
[Claims 1, 3, and 4 not printed in the Gazette.]

1,251,563. VALVE MECHANISM. JOHN F. O'DONNELL, Midland, Pa. Filed Oct. 16, 1916. Serial No. 126,048. (Cl. 138—14.)

1. A valve mechanism comprising in combination, a main valve, means for normally centering the main valve, fluid operated motor pistons mounted in suitable cylinders for moving the main valve out of central position in either direction, constantly open exhaust ports in communication with the cylinders for relieving the pressure on the motor pistons, fluid supply ports in communication with the cylinders having greater capacity than the exhaust ports for admitting pressure to the motor pistons, and a pilot valve for controlling the supply ports adapted to close them when the pilot valve is in central position.

2. A valve mechanism comprising in combination, a main valve, means for normally centering the main valve, fluid operated motor pistons mounted in suitable cylinders for moving the main valve out of central position in either direction, fluid supply ports in communication with the cylinders for admitting pressure to the motor pistons, a pilot valve having a supply passage and an exhaust passage controlled by a pair of coöperating pistons

for controlling the fluid pressure to the motor piston cylinders, adapted to close the supply ports from communication with the supply and exhaust chambers when the valve pistons are in central or neutral position, and a pair



of exhaust passages extending through the valve pistons establishing constant communication between the supply ports and the exhaust chamber, the said exhaust passages having less capacity than the supply ports.

[Claims 3 and 4 not printed in the Gazette.]

1,251,564. METHOD OF TREATING WATER CONTAINING SULFURIC ACID AND IRON SALTS. WILLIAM METCALF PARKIN, Pittsburgh, Pa. Filed Apr. 5, 1916. Serial No. 89,216. (Cl. 23—13.)

1. A method of treating mine waters and other like waters containing iron salts and free acid, which comprises adding finely divided calcium carbonate material thereto, in amount sufficient to neutralize all the free acid and to react with at least the major portion of the iron salts, whereby a precipitate is formed, thereafter separating the precipitate from the remaining liquid and subjecting such precipitate to a temperature of between 179° C. and 338° C., whereby it is converted into a finely divided pigment without undergoing any grinding operation.

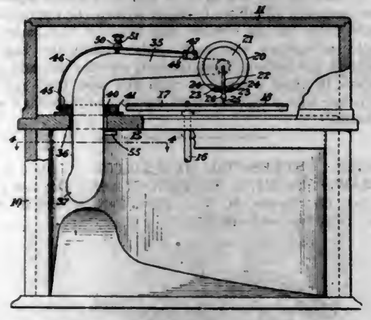
2. A method of treating mine waters and other waste liquors containing ferrous and ferric sulfates and free sulfuric acid which comprises adding thereto an amount of pulverized limestone sufficient to neutralize all the free acid and to react with at least the major portion of the iron sulfates present and to produce a precipitate containing basic iron sulfates which are insoluble, separating said precipitate from the remaining liquor and heating the same to a temperature of between 179° C. and 338° C., substantially as and for the purpose described.

1,251,565. TALKING-MACHINE. EMILE PATHÉ, Paris, France, assignor to Pathe Freres Phonograph Company, New York, N. Y. Filed Sept. 28, 1916. Serial No. 122,605. (Cl. 274—23.)

1. In a talking machine, sound reproducing means arranged to coöperate with a sound record, and spring means forming the sole support of said sound reproducing means excepting such support as is provided by the sound record when said sound reproducing means is in operation.

5. In a talking machine, the combination with means providing an opening, of a tubular sound conveying arm extending through said opening, sound reproducing means carried by said arm, yielding means for supporting said arm, and means for adjusting said arm in a direction transverse to the longitudinal axis of said opening to centralize said arm with respect to said opening when said arm is in operation.

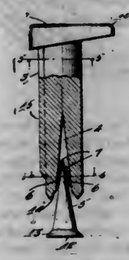
7. In a talking machine, the combination with a stationary substantially vertical cylindrical sleeve, of a hollow sound box arm having a portion extending freely through said sleeve, a sound box carried by said arm, an annular carrier rotatably surrounding said sleeve, and a



spring connecting said carrier and said arm for holding said arm in an operative position.

[Claims 2 to 4, 6, and 8 to 14 not printed in the Gazette.]

1,251,566. RAILROAD-SPIKE. GEORGE W. PIGOTT, Harrisonville, Ohio. Filed Nov. 21, 1916. Serial No. 132,660. (Cl. 85—26.)



1. In a device of the class described, the combination of a spike with a wedge, said spike provided with an inner opening, spring lips provided upon the inner faces of said opening, spring lips provided upon the faces of said wedge, whereby the lips of said wedge may engage the lips of said spike for allowing said wedge to hang from said spike.

2. In a device of the class described, the combination of a spike with a wedge, said spike provided with an inner opening, spring lips provided upon the inner faces of said opening, spring lips provided upon said wedge, a head provided upon said wedge, said head provided with beveled portions, the lower end of said spike provided with beveled portions adapted to register with the beveled portions provided upon the head of said wedge, whereby the spike may be easily driven thereover.

1,251,567. TUMBLING APPARATUS. LOUIS POTTHOFF, Flushing, N. Y. Filed Nov. 14, 1916. Serial No. 131,351. (Cl. 266—7.)

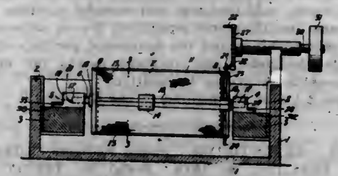


1. In tumbling apparatus for treating material by passing it through a series of tanks, the combination with a unitary rotary member comprising a plurality of drums connected so as to form a single container adapted to tumble the material in each tank and carry it through the tanks in succession, of means for supporting said member in tilted position to incline the axes of said drums so that the material will be fed therethrough by gravity, and means for adjusting said supporting means to vary the rate of progress of the material and the tumbling effect irrespective of the speed of rotation of the drums.

5. The combination with a plurality of tanks, of a unitary rotary member for transferring material through said tanks in succession comprising a rotatable shaft member, a plurality of open ended drum containers spaced along said shaft and rigid therewith, connecting cylinders between successive drums, compartments in said drums opening into said cylinders and coaxial therewith, and scoop blades connected to said compartments for lifting material thereinto by the rotation of said unitary member.

[Claims 2 to 4 and 6 to 8 not printed in the Gazette.]

1,251,568. ELECTROPLATING APPARATUS. LOUIS POTTHOFF, Flushing, N. Y. Filed Dec. 14, 1916. Serial No. 136,889. (Cl. 204—5.)



1. In an electroplating apparatus, a tank for the electrolyte, a tumbling barrel for the articles to be plated, a rod for said barrel, pins carried by said barrel, driving means comprising a movable chain engaging said pins, and stationary means on said tank supporting said barrel and permitting endwise movement of said rod to disengage said driving means.

2. In an electroplating apparatus, a rotatable barrel comprising separable members, pins carried by said members for rotating said barrel, a rod supporting said barrel and carrying cathode arms, a chain engaging said pins, and stationary bearings holding said rod against rotation and permitting endwise movement of the barrel to disengage said pins from said chain.

5. An electroplating barrel comprising separable members holding a cathode rod between them, and releasable clamping means locking said members and rod together.

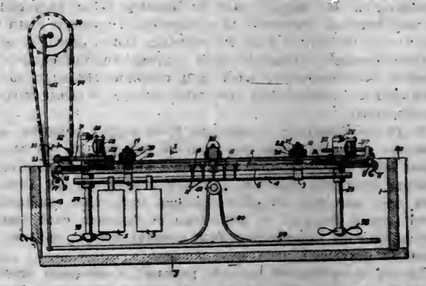
7. In an electroplating barrel comprising separable members having opposite heads, cathode plates in said heads having peripheral flanges and central bushings, and a supporting shaft for said barrel having bearings in said bushings.

9. An electroplating barrel comprising separable halves adapted to be assembled to form a container, clamping means for locking said halves in assembled position, a plurality of peripheral cathode tracks of conducting material continuous within the periphery of the barrel in assembled position, supporting the articles to be plated and rotating with the barrel to vary the points of contact between the articles and the tracks, and means for conducting the current from said tracks comprising a cathode rod held between said separable barrel halves.

[Claims 3, 4, 6, and 8 not printed in the Gazette.]

1,251,569. ELECTROPLATING APPARATUS. LOUIS POTTHOFF, Montclair, N. J., and GEORGE W. SCHWEINSBERG, Brooklyn, N. Y.; said Schweinsberg assignor to said Potthoff. Filed May 12, 1917. Serial No. 168,092. (Cl. 204—5.)

1. In electroplating apparatus, the combination with a tank for containing the electrolyte, of an endless linked chain adapted to convey the articles to be plated in a closed path in said tank, a single rail track for supporting said chain and slidingly fitted to the links thereof, and hook members carried by the links of said chain and adapted to support the articles to be plated clear of said track.



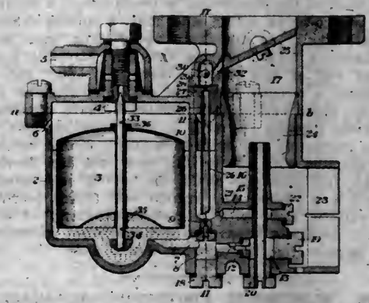
3. In electroplating apparatus, the combination with a tank for the electrolyte, of an endless conveyer moving the articles through said electrolyte and comprising links having vertical and horizontal bearing surfaces, a track supporting said conveyer and slidingly fitted to horizontal and vertical bearing surfaces of said links, a guide strip engaging said links and retaining them in place on said track, and article supporting members carried by said conveyer.

4. In an electroplating apparatus, the combination with a tank for the electrolyte, of a movable conveyer for suspending the articles to be plated in said electrolyte and moving them in series through said tank, a series of anodes in said tank parallel to the line of movement of said articles, agitating means for the electrolyte comprising a longitudinal, pivoted bar member near the bottom of said tank and substantially parallel to said anodes, and means for vertically oscillating said bar back and forth beneath the anode surfaces to cause movement of the electrolyte between said articles and said anodes and across the line of feed of said articles, so as to renew the electrolyte and penetrate the recesses of said articles.

5. In electroplating apparatus, the combination with a single track, of a conveyer on said track for moving the articles through an electrolyte, and hooks rigid with the conveyer for supporting the articles to be plated so that their centers of gravity are in a vertical line below said track.

[Claims 2 and 6 not printed in the Gazette.]

1,251,570. CARBURETER. ENOCAT C. PRADIER, Detroit, Mich., assignor to Société Anonyme Du Carburateur Zenith, Lyon, France, a Corporation of France. Filed Nov. 3, 1914. Serial No. 870,053. (Cl. 261—41.)



1. A carbureter having a constant level chamber and an atmospheric well open to the air, a common chamber supplying the jet opening, two channels having controlling openings leading from the constant level chamber, one leading to the well and the other to the common chamber, and a channel having a control opening and leading from

the well to the common chamber; substantially as described.

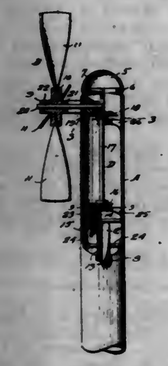
3. A carbureter having an annular jet opening surrounding an air supply, said jet opening being arranged to feed gasolene upwardly therethrough, a common chamber at the bottom of said jet opening, and a plurality of gasolene supply channels each having an independent control communicating with said common chamber and arranged to continuously feed fuel thereto; substantially as described.

6. In a carbureter, a constant level supply chamber, a common chamber below the level of the fuel in the constant level supply chamber, a single annular jet opening leading from the common chamber around an air tube, and two gasolene supplies leading from the constant level supply chamber to said common chamber, each supply having an independent feed control device; substantially as described.

13. In a carbureter, an air passage, a constant level fuel chamber, an atmospheric well open to the air, a fuel supply to said well, an outlet from the lower part of the well, an L-shaped fuel supply passage communicating at one end with said outlet and terminating at the other end in said air passage, and an additional fuel supply leading from the constant level chamber and discharging into said L-shaped passage below the normal level of the fuel, substantially as described.

[Claims 2, 4, 5, 7 to 12, and 14 not printed in the Gazette.]

1,251,571. MECHANICAL HAND-FAN. IVAN PREMBU, South Norwalk, Conn. Filed Jan. 5, 1916. Serial No. 70,371. (Cl. 230—33.)



A mechanical fan comprising in combination, a tubular body, a step bearing within said body, a spindle extending longitudinally of said body and resting upon said step bearing, a forked bearing extending laterally from the inner wall of said body, receiving the upper end of said spindle, a beveled gear rigid with and disposed adjacent the upper end of said spindle, a shaft extending transversely through the wall of said body opposite to the open portion of said forked bearing, a second beveled gear co-meshing with and resting upon said first beveled gear, and rigid with said shaft, for holding said spindle upon said step bearing and against said forked bearing, an air agitator rigid with said shaft exteriorly of said body, and means for imparting circumferential movement to said spindle from the exterior of said body.

1,251,572. ELECTRICAL PROTECTIVE APPARATUS. CHARLES S. PRICE, Rutherford, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Nov. 13, 1916. Serial No. 131,045. (Cl. 175—30.)

1. In a protective device, a tubular container, a fixed electrode therein, a removable electrode having a reduced portion adapted to coöperate with said fixed electrode, a spacing means surrounding said reduced portion, and resilient means for holding said removable electrode in position.

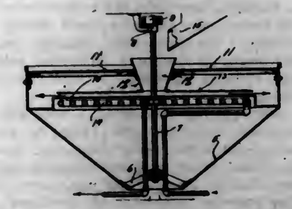


2. In a protective device, a fixed electrode, a removable electrode having a reduced portion, an insulating bushing of the same length as and surrounding said reduced portion, and a separator placed between the end of said bushing and the unreduced portion of said removable electrode.

5. In a protective device, a tubular container of insulating material, metal caps inclosing the ends of said container, a fixed electrode centrally located within said container, a pair of removable electrodes each having a reduced portion and a recessed portion, insulating bushings through which the reduced portions of said removable electrodes extend into operative relation with said fixed electrode, said bushings and reduced portions being of the same length, metal separators placed between the ends of said bushings and the unreduced portions of said removable electrodes, and resilient means for holding said removable electrodes in position.

[Claims 3 and 4 not printed in the Gazette.]

1,251,573. GRAIN-DRIER. PETER PROVOST, Milwaukee, Wis. Filed Dec. 29, 1916. Serial No. 139,517. (Cl. 34—34.)



1. A grain drier including a casing, baffle means in the casing, means for procuring a flow of heated air in the casing, a horizontal rotative plate above the casing, means for supplying grain to the central portion of the plate, and means for directing grain from the peripheral portion of the plate to the casing.

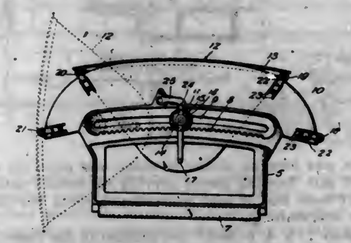
2. A grain drier including a casing, baffle means in the casing, means for procuring a flow of heated air in the casing, a horizontal rotary plate disposed above the casing, a stationary heating means under the plate, means for supplying grain to the central portion of the plate, a funnel shaped casing disposed about said plate and heating means adapted to direct grain from the peripheral portion of the plate to the casing.

[Claims 3 to 9 not printed in the Gazette.]

1,251,574. DUMPING MECHANISM FOR VEHICLE-CONTAINERS. CHARLES F. RANDALL, Chicago, Ill. Filed Sept. 5, 1916. Serial No. 118,439. (Cl. 21—20.)

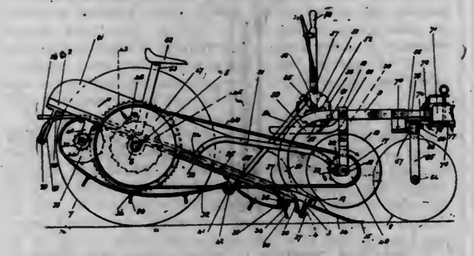
1. In an apparatus of the character described the combination of two stationary end frames, a rack on each frame, a receptacle positioned between the frames, a shaft extending through the receptacle and journaled therein, a pinion on each end of the shaft for engagement with the adjacent racks, means for rotating the shaft, flanges projecting outwardly from each end of the receptacle and positioned to bear upon the upper edges of the frames when the receptacle is in its normal position, and rollers carried by each frame for engagement with the flanges when the receptacle is moved from normal position.

2. In an apparatus of the character described the combination of two stationary end frames having slots in substantially the same horizontal plane, a rack on each frame, adjacent the slot, a receptacle positioned between the frames, a shaft extending through the receptacle and journaled therein, its end portions extending through the slots in the frame; a pinion on each end of the shaft for engagement with the adjacent racks, means rotating the shaft, flanges projecting outwardly from each end of the receptacle and positioned to bear upon the upper edges of the frames when the receptacle is in its normal position, and rollers carried by each frame for engagement with the flanges when the receptacle is moved from normal position.



3. In an apparatus of the character described the combination of two stationary end frames, a rack on each frame; a receptacle positioned between the frames, a shaft extending through the receptacle and journaled therein, a pinion on each end of the shaft for engagement with the adjacent racks, means for rotating the shaft, flanges projecting outwardly from the upper edges of each end of the receptacle, and rollers carried by the frames for cooperation with the flanges.

1,251,575. POTATO-DIGGER. JOHN A. RANDALL, Minneapolis, Minn. Filed Oct. 20, 1916. Serial No. 126,716. (Cl. 55—133.)



1. In a potato digger, a wheeled frame, a conveyer carried by the frame, a yoke pivoted to the front end portion of the frame and arranged in advance of the conveyer, a digging blade secured to and extending between the lower end portions of the said yoke and projecting forwardly of its pivot, and means for adjustably locking the yoke to the frame.

3. In a potato digger, a wheeled frame, a conveyer bed formed of longitudinal bars supported by the said frame and provided with downwardly curved front end portions, means for moving the potatoes rearwardly over the said bed, a yoke pivoted to the front end portion of the frame and arranged in advance of the curved end portions of the conveyer bars, a digging blade secured to and extending between the lower end portions of the said yoke and projecting forwardly of its pivots, and means for adjustably locking the yoke to the frame.

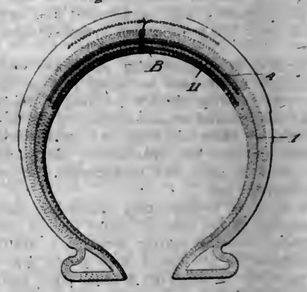
4. In a potato digger, a wheeled frame, a crossbar secured to the front end portion of the frame and provided with vertical slots, a conveyer bed formed of longitudinal bars supported in the said frame and provided with downwardly curved front end portions having extensions which are slidable in the said slots, means for moving the potatoes rearwardly over the said bed, a yoke pivoted to the front end portion of the frame and arranged in advance of the curved end portions of the conveyer bars, a digging blade secured to the lower end portions of the said yoke and projecting forwardly of its pivots, and means for adjustably locking the yoke to the frame.

5. In a potato digger, a wheeled frame, a conveyer carried by the frame, a yoke pivoted to the front end portion of the frame and arranged in advance of the conveyer, a digging blade secured to and extending between the lower end portion of the said yoke and projecting forwardly of its pivot, means for adjustably locking the yoke to the frame, revoluble soil-guiding disks supported from the said yoke and arranged over the said blade, and means for pivotally supporting the front end portion of the said yoke.

6. In a potato digger, a wheeled frame, a conveyer carried by the frame, a yoke pivoted to the front end portion of the frame and arranged in advance of the conveyer, a digging blade secured to and extending between the lower end portion of the said yoke and projecting forwardly of its pivot, means for adjustably locking the yoke to the frame, uprights secured to and depending from the upper portion of the yoke, a shaft journaled in the lower parts of the said uprights, soil-guiding disks secured on the said shaft and arranged over the said blade, and means for pivotally supporting the front end of the said yoke.

[Claim 2 not printed in the Gazette.]

1,251,576. TIRE OR INTERLINER STRUCTURE. WILLIAM F. RAY, Chicago, Ill. Filed July 20, 1917. Serial No. 181,694. (Cl. 152—18.)



1. A tire structure comprising a pair of rubber strips extending through the great curcumference of the structure, a series of interposed transversely extending resilient spaced steel strips having a vulcanized coating thereon, a second pair of similar rubber strips, a second series of interposed resilient steel strips having a vulcanized coating thereon, covering the spaces between the strips of the first-mentioned series, fabric interposed between the pairs of rubber strips and extending laterally beyond the same, circumferential fabric strips flanking each pair of rubber strips, and outer and inner plies of fabric enveloping the elements mentioned, the structure being suitably shaped and vulcanized together.

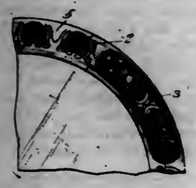
3. A tire structure comprising resilient steel strips having a vulcanized coating thereon, thicknesses of elastic rubber between which said steel strips are interposed, and fabric plies enveloping said thickness of rubber and interposed steel strips, the structure being suitably shaped and vulcanized together.

4. In a tire structure, an inter-liner, comprising an outer ply of fabric of a width corresponding with the transverse outer circumference of the inter-liner, a pair of elastic rubber sheets adjacent thereto and corresponding with the tread portion of the tire, a series of spaced, transverse resilient steel strips interposed between the rubber sheets, said steel strips having a rubber compound vulcanized thereon, fabric strips in the spaces between

said steel strips, circumferential fabric strips flanking the rubber strips, fabric plies adjacent the inner rubber sheet and of greater width than the combined width of said rubber sheet and the flanking fabric strips, a second pair of rubber sheets adjacent the inner ply of fabric, transverse resilient steel strips between said last-mentioned rubber sheets, said last-mentioned steel strips having a rubber compound vulcanized thereon, fabric strips in the spaces between said second-mentioned steel strips, fabric strips flanking said second-named pair of rubber strips, and an inner fabric strip of greater width than the rubber strips and the flanking fabric strips, the structure being suitably shaped and vulcanized together.

[Claim 2 not printed in the Gazette.]

1,251,577. METHOD OF DECORATING GLASSWARE. CHARLES L. REIZENSTEIN, Pittsburgh, Pa. Filed July 16, 1917, Serial No. 180,786. (Cl. 41—22.)



1. The method of ornamenting glassware which consists in applying to the rear or under face of the glassware a suitable coloring matter covering a desired field thereof, applying colored ornamentation to the face of said glassware opposite said background and baking the same to give said background and ornamentation a permanent set.

2. The method of ornamenting glassware which consists in applying to the rear or under face of the glassware a suitable coloring matter covering a desired field thereof, applying colored ornamentation to the outer face of the glassware while omitting the ornamentation in certain parts opposite the ornamental background, and baking the same to give said background and ornamentation a permanent set.

3. The method of ornamenting glassware which consists in applying to the rear or under face of the glassware a suitable coloring matter covering a desired field thereof, ornamenting the outer face above said colored glass field partially by applying a foundation material to certain areas which are to be ornamented, then baking the vessel to set the background and ornamented face thereof, applying suitable coloring to the foundation material in said colored glass areas, and again baking the vessel to set such coloring matter.

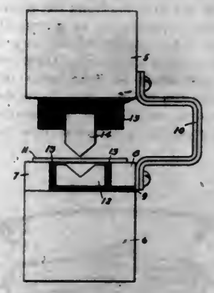
[Claims 4 to 6 not printed in the Gazette.]

1,251,578. SHAPING-MACHINE. WILLIAM E. RIECKEN, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Nov. 1, 1916. Serial No. 128,873. (Cl. 219—3.)

2. An attachment for electric-welding machines having a pair of relatively movable electrode-holders comprising a conducting block for engagement with one of said electrode-holders, an electrode on said block and conductively associated therewith, a second electrode carried by said block and insulated therefrom, a second conducting block for engagement with the other of said electrode-holders and conductively associated with said second electrode, and coöperating former elements, one of said former elements being carried by one of said blocks and another of said former elements carried by the other of said blocks.

5. In an apparatus for shaping parts and the like, the combination of means for heating said part, and means whereby the shaping of said part discontinues the operation of said heating means.

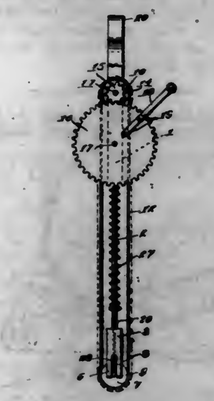
8. In an apparatus for shaping conducting parts and the like, the combination of electrodes between which the part to be shaped is placed, an electrical heating circuit including said electrodes and the part to be shaped



therein, and forming means to shape said part, the operation of said forming means serving to remove said part from at least one of said electrodes to break the heating circuit therethrough.

[Claims 1, 3, 4, 6, and 7 not printed in the Gazette.]

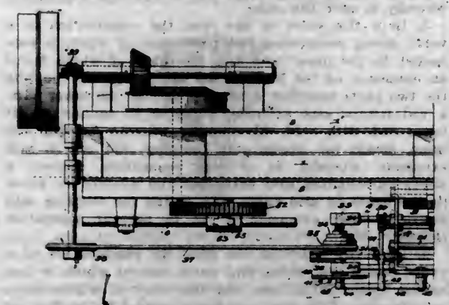
1,251,579. MORTISING-MACHINE. ERNEST RIEDER, Lake Forest, Ill. Filed June 12, 1914. Serial No. 844,782. (Cl. 144—73.)



1. A mortising machine including upper and lower bearing blocks, the lower block being bifurcated, a pulley having stub axles movable in the bifurcated portions, adjusting bolts engaging the said axles, a connecting rod between the bearing blocks, a pulley on the upper block, a supporting bar having an opening for receiving the connecting rod, a spring disposed between the supporting bar and the upper block for forcing the supporting bar normally outwardly, a belt applied to the pulleys the belt having cutting knives, and supporting legs pivoted to the ends of the supporting bar said legs being capable of adjustment by reason of the pivotal connection for regulating the tension of the spring when the mortising machine is applied to the work.

2. In a mortising machine, spaced bearing blocks having pulleys rotatably carried thereby, an endless belt passing over said pulleys, cutting knives mounted upon the outer surface of said belt, a bar, a rod connecting said bearing blocks slidably mounted in the bar, supporting legs pivotally connected to said bar, a spring wound about said rod and engaging said bar and one of said blocks for normally holding said cutting knives out of engagement with the timber to be mortised.

1,251,580. APPARATUS FOR DISTRIBUTING COTTON OR OTHER MATERIALS. CHARLES E. RILEY, Newton, Mass., assignor to H & B American Machine Company, Pawtucket, R. I., a Corporation of Maine. Filed July 22, 1916. Serial No. 110,097. (Cl. 193—4.)



1. In a distributing apparatus, a plurality of delivery-point-operating members, an actuator movable to operate said members selectively, means for selectively moving the actuator including an escapement device for predeterminedly arresting said actuator-moving means to position the actuator relative to a selected one of said members, and means for enabling the escapement device to be set in different positions to allow the delivery-point-operating members to be actuated at variable intervals.

8. In a distributing apparatus, a conveyer mechanism including a plurality of delivery points, an opening means for each delivery point, means for actuating the opening means selectively, said actuating means comprising an actuator movable to operate any opening means, a rotatable member connected to the actuator for moving the latter, and means for stopping the rotation of said member at predetermined intervals.

10. In a distributing apparatus, a conveyer mechanism including a plurality of delivery points, an opening means for each delivery point, means for actuating the opening means selectively, said actuating means comprising an actuator movable to operate any opening means, a rotatable member connected to the actuator for moving the latter, and an escapement mechanism operable to intermittently stop the rotation of the member.

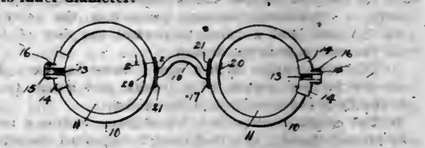
15. In a distributing apparatus, a plurality of delivery-point-actuating levers each pivoted between its ends and having one end weighted to fall by gravity, a freely pivoted dog normally resting in its inoperative position on each lever when the latter is inoperative and adapted to move to a position for holding the respective lever depressed when the latter is depressed, and means common to all of the levers and engageable with any selected one thereof for depressing the same.

29. In a distributing apparatus, a plurality of delivery points, opening means including a movable element for each point, an actuator shiftable to a predetermined position for moving the adjacent element for opening the corresponding delivery point, a shifter for the actuator, a continuously operable drive for the shifter, a plurality of pre-arranged stops for the shifter, an escapement lever for engaging with the stops to locate the actuator relative to the corresponding element, a rocking lever having a fork receiving the escapement lever to oscillate the latter for alternately positioning the escapement lever to arrest and free the stops.

[Claims 2 to 7, 9, 11 to 14, 16 to 28, and 30 to 41 not printed in the Gazette.]

1,251,581. EYEGLASS-MOUNTING. JOSEPH ROSENBLATT, Providence, R. I. Filed Jan. 26, 1917. Serial No. 144,574. (Cl. 88—42.)

1. An attachment for eyeglass mountings comprising a pair of non-metallic lens frames connected by a nose-bridge member, a short section of metallic tubing embracing each frame, that portion of the tubing wall on the outer diameter of the frame being much thicker than that on its inner diameter.



2. An attachment for eyeglass mountings comprising a pair of non-metallic lens frames connected by a nose-bridge member, a short section of metallic tubing on each frame to which the ends of the nose-bridge are attached, the walls of said tubing being thicker on the side attached to the bridge than on its opposite side.

[Claim 3 not printed in the Gazette.]

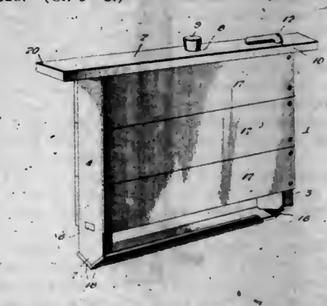
1,251,582. VAPORIZER. ANTON I. SANDBO, Rock Island, Ill. Filed Feb. 9, 1917. Serial No. 147,668. (Cl. 263—5.)



1. The combination with an intake pipe, of a vaporizer adapted to be attached thereto and comprising inner and outer walls, a bottom wall connecting said inner and outer walls to form a trough, said inner wall being half the height of the outer wall, and said outer wall being provided at points below the upper edge of the inner wall with air inlet openings, and a wick arranged within the said trough between the inner and outer walls.

2. The combination with the carbureter hot air intake pipe having an opening therein, of a vaporizer adapted to be attached to said intake pipe over said opening and comprising inner and outer walls, the outer wall having its upper end curved inwardly so as to snugly fit the circumference of the intake pipe, said wall being provided adjacent its lower end with air inlet openings, a bottom wall connecting said inner and outer walls to form a trough, and a wick arranged within said trough and adapted to be saturated with a combustible liquid, whereby when it is ignited, the flames will pass upwardly of the vaporizer and into the hot air intake pipe through the opening therein.

1,251,583. BEE-FEEDER. CHARLES BOONE SAUNDERS, Barrington, Ill. Filed Aug. 22, 1917. Serial No. 187,613. (Cl. 6—5.)



1. A bee feeder comprising a frame, a reservoir formed therein, a feeding trough below the reservoir, a duct formed in the end of said frame connecting the reservoir with the trough and a valve to control the duct.

3. A bee feeder comprising a frame, a reservoir formed therein, a trough beneath the reservoir, a longitudinal duct in the end of the frame communicating with the trough, a transverse passage connecting the reservoir with the duct and a valve to control the flow of fluid from the reservoir to the trough.

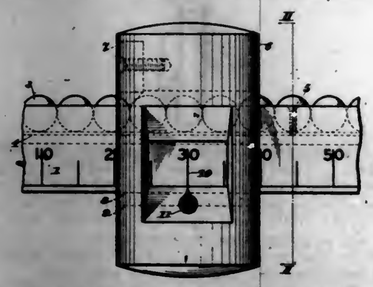
4. The combination with a brood frame having a fluid reservoir formed therein, of a trough, and means to admit the fluid under control to the trough.

5. The combination with a brood frame having a reservoir formed therein, of a feed trough suspended therefrom, a passage in the end of the frame communicating with the reservoir and the trough, and a valve to control said passage.

6. The combination of a brood frame having a fluid reservoir and a feed trough formed therein, means to admit fluid from the reservoir to the trough, and means carried by the frame to control said admission.

[Claim 2 not printed in the Gazette.]

1,251,584. SCALE-BEAM. FREDERICK J. SCHLINK, Washington, D. C. Filed Sept. 14, 1917. Serial No. 191,411. (Cl. 265—49.) (Dedicated to the public.)



A scale-beam having a series of balls arranged fixedly in a row longitudinally of the beam and affording by the gaps between adjacent balls at one side of their common line of closest approach, notches which serve to establish the several positions of the poise along the beam.

1,251,585. TIRE-VALVE. MAXIMILIAN CHARLES SCHWEINERT, West Hoboken, and HENRY P. KRAFT, Ridgewood, N. J. Filed Aug. 21, 1915. Serial No. 46,639. (Cl. 152—12.)



1. In a tire valve or the like, the combination of a valve casing comprising two parts, one of which is connected to the inner tube and the other of which forms an extension of the first, and has a passage for leading air to said other part which is connected to the air-tube, means for detachably coupling the two parts together, a valve proper in the lower part having a stem shorter than the valve casing, and a rod within said extension adapted to contact at its lower end with said valve proper whereby to open the same.

5. In a tire valve or the like, the combination of a valve casing comprising two parts, one of which is connected to the inner tube and the other of which forms an extension of the first, means for detachably coupling the two parts together, a valve proper in the lower part, a rod within said extension adapted to contact at its lower end with said valve proper whereby to open the same, means for irremovably coupling said rod to said extension whereby to prevent separation thereof, a sleeve surrounding said extension and adapted to screw in the lower of said parts, and means for coupling said sleeve to said extension so as to prevent separation thereof.

9. In a tire valve or the like, the combination of a valve casing comprising two parts, one of which is connected to the inner tube and the other of which forms an extension of the first, and has a passage for leading air to said other part which is connected to the air-tube, means for detachably coupling the two parts together, a valve proper in the lower part, having a stem shorter than the valve casing, and a loosely-held rod within said extension adapted to contact at its lower end with said valve stem whereby to open said valve proper.

[Claims 2 to 4 and 6 to 8 not printed in the Gazette.]

1,251,586. KNITTING-MACHINE. ROBERT W. SCOTT, Leeds Point, N. J., assignor to Scott & Williams, Incorporated, a Corporation of Massachusetts. Filed Mar. 17, 1911. Serial No. 615,163. (Cl. 66—21.)



1. The combination, in a knitting machine, of spring beard needles having their beard-carrying portions offset in advance of the main stems, with a yarn guide bearing such relation to said offset portions of the needles that the knitting yarn is laid below said offset beards when the needles have been projected to the yarn-receiving point.

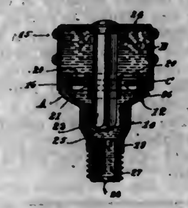
3. The combination, in a reversible knitting machine, of spring beard needles, cams for reciprocating the same, a yarn guide carrier movable in respect to the cams so as to properly feed the yarn to the needles whether the machine is running to the right or to the left, and a beard presser mounted upon said yarn guide carrier and moving with it.

[Claims 2 and 4 not printed in the Gazette.]

1,251,587. GREASE-CUP. CHARLES F. SPERY, Chicago, Ill. Filed Apr. 2, 1917. Serial No. 159,184. (Cl. 184—48.)

1. A grease cup, comprising, a male part having at one extremity an externally screw-threaded, cylindrical portion with an annular bore, and its other extremity externally screw-threaded for attachment of the device to a part of a machine, a cup in screw-threaded engagement with said male part, an angular pilot pin in said cup, and a brake ring in said annular bore and in engagement with said pilot pin, said brake ring being expansible and constructed to engage the inner, smooth, wall of the cylindrical bore of the upper portion of the male member to frictionally resist the rotation of said cup.

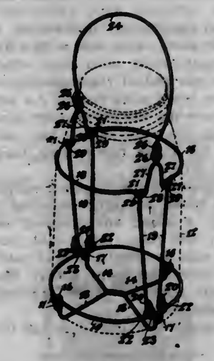
4. A grease cup, comprising a male part, said male part having at one extremity an externally screw-threaded, cylindrical portion, said portion having a circular bore, a cup in screw-threaded engagement with said circular bore, an angular pilot pin in said cup, and a split ring rotatably mounted in said circular bore, said split ring comprising a web and a rim, there being in said web a



central angular passage for the reception of the angular pilot pin, and one or more openings surrounding said angular bore, a portion of said rim being outwardly bent or distorted to offer resistance to the rotation of said split ring.

[Claims 2 and 3 not printed in the Gazette.]

1,251,588. CARRIER FOR FRUIT-JARS. FREDERICK A. STAMM, Grand Rapids, Mich. Filed Apr. 8, 1916. Serial No. 89,864. (Cl. 65—26.)



1. A carrier for receptacles comprising an adjustable frame adapted to be opened at the top to receive a receptacle and having receptacle engaging jaws and vertically extending arms at opposite sides thereof, and a handle having a sliding connection with the vertically extending arms and extending from one side to the other to draw up the receptacle engaging jaws against the receptacle when the carrier is lifted by the handle.

3. A carrier for receptacles comprising a frame having an adjustable upper end adapted to be opened, vertically slidable ears carried on the frame for contracting the upper end when raised, and a handle connected to said ears for drawing the same upwardly to close the frame when the handle is raised for carrying the frame.

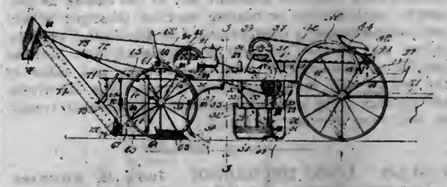
5. A carrier for receptacles comprising a base portion adapted to receive the lower end of a receptacle therein, a pair of jaws hinged to the opposite sides of the base portion and extending upwardly therefrom for engagement against the opposite sides of the receptacle, slidable members connected to the jaws for drawing the same together against the receptacle when the members are raised, and a handle connected to said members to raise the same and to support the frame and the receptacle clamped therein.

6. A carrier for receptacles comprising a base adapted to receive the lower end of a receptacle therein, opposed jaws hinged upon the base and extending upwardly therefrom and having pairs of opposed arms at their adjacent edges, diametrically opposed members slidably mounted on the arms, a bail hinged upon said members to slide the same upwardly and draw the arms together for clamping the jaws against the receptacle and for supporting the carrier and the receptacle, said jaws comprising means for supporting said members in raised position.

7. A carrier for receptacles comprising a base ring, bottom braces twisted together at their intermediate portions and having their ends diverged and turned upwardly, said upturned ends being looped about the base ring to provide a bottom for the carrier and to receive a receptacle, a pair of U-shaped jaws hinged at their lower open ends to the opposite sides of said base ring and having their upper intermediate portions bulged outwardly to provide substantially semi-circular rings for engagement against the opposite sides of the receptacle, and members slidably connected to the adjacent arms of the opposite U-shaped jaws for binding the same against the receptacle upon the upward movement of the members.

[Claims 2, 4, and 8 not printed in the Gazette.]

1,251,589. BEET TOPPER, DIGGER, AND LOADER. PETER STEIL, Fairbanks, Alaska. Filed Mar. 3, 1915. Serial No. 11,794. (Cl. 55—9.)



1. A beet harvester comprising a wheel-supported frame, plows grouped in pairs of oppositely inclined members for unearthing topped beets, rods secured directly to the mold boards of said plows to form a semi-cylindrical passageway leading rearwardly through which passageway the beets pass for delivery, a pivoted beam for each plow, means for controlling the vertical adjustment of all the plows simultaneously, a horizontally suspended beet receiving platform at the delivery end of said passageway, and an upwardly inclined elevator located rearwardly of said frame for exteriorly disposing of the beets unearthed by said plows.

2. A beet harvester comprising a wheel-supported frame, plows grouped in pairs of oppositely inclined members for unearthing topped beets, each pair being oppositely disposed, beams pivotally mounting each of said plows, manually operable means controlling the swinging movement of said plow beams, manually operable locking means for preventing movement of said plow beams, and means for delivering from the machine beets unearthed by said plows.

3. A beet harvester comprising a wheel-supported frame, plows grouped in pairs of oppositely disposed members, rods secured to said plows and extending rearwardly in a semi-circular arrangement to form a passageway for beets unearthed by said plows, beams pivotally mounting said plows, means manually controlling movement of said plows, an arcuate lever on each side of the machine, a rod pivoted to said levers and passing through each of said plow beams, means for locking said levers to the frame for holding the plows immovable, and means for disposing of unearthed beets.

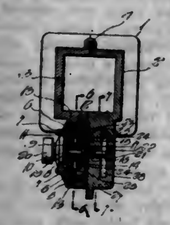
4. A beet harvester including a wheel-supported frame, plows pivoted intermediate of said frame to unearth topped beets, means mounted on said frame and flexibly connected to said plows for controlling the movement thereof, means for locking said plows in position after adjustment, rods secured to pairs of adjacent plows and arranged to form a rearwardly directed semi-cylindrical passageway to guide the beets unearthed by the plows, a platform upon which said beets are deposited after passing through said passageway, and means for removing the beets after being deposited on said platform from the machine.

1,251,590. STOCK-WATERING TROUGH. GEORGE T. STEWART, Larrabee, Iowa. Filed Dec. 14, 1916. Serial No. 136,967. (Cl. 119—73.)



A water trough comprising an elongated trough casing having a vent opening in one of its vertical walls, an elongated water trough having an open upper end positioned within and in spaced relation to the bottom, side and end walls of the casing, means connecting the upper circumferential edge of the water trough to the upper circumferential edge of said casing to close the air space between said trough and casing, one end of said trough being spaced from the adjacent end of the casing to provide a compartment, a heating medium arranged within said compartment, a door arranged in the casing whereby access may be had to said compartment, and vertical partitions arranged between the bottoms and sides of the trough and the trough casing to form a circuitous air passage from said compartment around said trough to the vent opening thereof.

1,251,591. LOCK MECHANISM. JOHN H. STODDART, Jamestown, N. D. Filed June 18, 1917. Serial No. 175,472. (Cl. 70—60.)

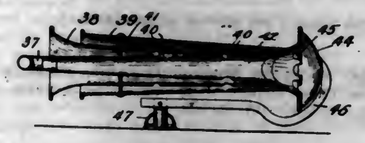


1. A device of the class described comprising a casing, a rotatable member mounted in said casing and provided with a locking bar, a stationary member mounted within said casing, a plurality of radially disposed detents movably mounted upon said stationary member and adapted to engage said rotatable member to lock the latter against movement, one of said detents being of a different length from the others, a rotatable cam member operated independently of said rotatable member for operating said detents and provided at its periphery with recesses for receiving said detents, one of said recesses being of a different depth from the others to receive the detent which is of different length from the other detents, and a keeper to receive said locking bar.

2. A device of the class described comprising a casing, a rotatable member mounted therein and having a locking bar and a knob attached thereto, said bar and said knob being disposed on the exterior of said casing, a stationary member mounted within said casing, a detent movably mounted on said stationary member and adapted to engage said movable member to lock the latter against movement, a cam member rotatably mounted within said casing for actuating said detent and having a dial attached thereto for operating it independently of said rotatable member, and a keeper to receive said locking bar.

3. A device of the class described comprising an annular casing, a circular rotatable member mounted within said casing and having a recess on one side and a stem projecting from the other side thereof, a cross bar on the free end of said stem, an annular stationary member disposed within said recess and having lugs extending laterally from the sides thereof, said lugs engaging said casing to lock said stationary member against movement, a detent slidably mounted in one side of said stationary member and adapted to engage said rotatable member, a cam member rotatable within said recess for actuating said detent and having an opening extending centrally therethrough, a dial connected to said cam member for rotating the same and having an opening alined with the opening in the latter, a knob provided with a stem extending through said alined openings and attached to said rotatable member to operate the same independently of said cam member, and a keeper to receive said cross bar.

1,251,592. PHONOGRAPH. REINHOLD THOMAS, Brooklyn, N. Y. Filed June 8, 1916. Serial No. 102,377. (Cl. 274—16.)

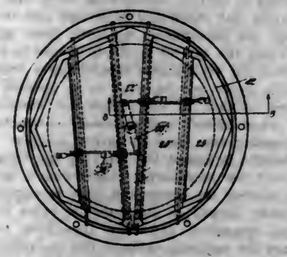


1. In a sound-reproducing instrument, a sound conduit with two or more tubes, one within another, spaced apart and communicating with each other, the sound box mounted on one end of the innermost of said tubes, the outer tube or tubes being formed for sound discharge at the end toward the sound box, the inner tube being tapered widening from the sound box end toward the other end, and the outer tubes being tapered widening in the opposite direction.

3. A sound-reproducing instrument comprising in combination with a sound conduit, consisting of a series of concentric tubes; a sound box mounted on one end of the innermost of said tubes, all of said tubes being open at the opposite end, a reflector facing said open end of the tubes and extending more widely than said open ends, whereby the sound is partly reflected outside the outermost of said tubes.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,251,593. SHUTTER. JOSEPH E. TRUITT and EMIL ACKERMAN, Chicago, Ill. Filed July 2, 1917. Serial No. 178,094. (Cl. 98—27.)



1. A shutter mechanism for ventilating fans, comprising in combination with a frame structure having a shutter opening, a plurality of oscillatory vanes located when in closed position in a plane slanting with respect to the plane of said opening, and a plurality of pivotal supports for said vanes permitting a swinging movement of the same about lines inclined with respect to other of said lines and with respect to a vertical line across said opening.

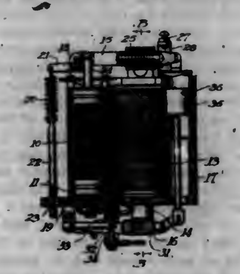
5. In a shutter mechanism for ventilating fans, the combination of a frame structure having a shutter opening and polygonal flange, a bridge spanning said flange, a plurality of vanes located on each side of said bridge and adapted to close the said opening, a plurality of pivots extending in slanting direction from upper and inner portions of the flange to lower and outer portions of the same, and means for transmitting motion of a vane from one side of said bridge to the symmetrically located vane on the other side of said bridge.

7. In a shutter mechanism for ventilating fans, the combination of a frame structure having an opening, a bridge slanting in direction from the inner surface of said frame structure to the outer surface of the same and spanning the opening in vertical direction, the lateral edges of the bridge converging downwardly, a plurality of vanes, and pivots supporting said vanes, the pivots on each side of said bridge being parallel to the lateral edge to which they are adjacent.

11. In a shutter mechanism for ventilating fans, the combination of a frame structure having a central circular opening surrounded by a flange which has a circular outer circumference and an octagonal inner circumference, a bridge spanning said opening and slanting in direction from one plane of the flange toward the other plane of the same, said bridge being provided with converging lateral edges, two pivots at each side of said bridge and extending in a direction parallel to the lateral edge of the bridge near which they are located, vanes loosely supported on said pivots, brackets rigidly attached to the vanes, links connecting said brackets, a double-armed lever pivotally mounted on the bridge, and links connecting free ends of said lever with the first mentioned links.

[Claims 2 to 4, 6, and 8 to 10 not printed in the Gazette.]

1,251,594. RHEOSTAT AND OPERATING MEANS THEREFOR. WILLIAM A. TURBAYNE, Niagara Falls, N. Y., assignor to U. S. Light & Heat Corporation, Niagara Falls, N. Y., a Corporation of New York. Filed Aug. 19, 1914. Serial No. 857,478. (Cl. 171—229.)



1. Regulating means including a compressible rheostat, a movable member for compressing said rheostat, an electro-magnetic winding provided with parallel cores having oppositely beveled ends, a wedge shaped armature carried by said movable member and adapted to coöperate with the beveled ends of said cores, said armature being normally outside the radius of influence of said winding, and means under control of said winding to bring said armature within the influence of said winding.

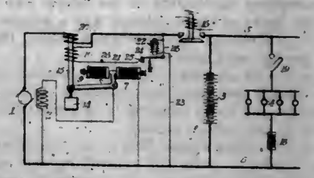
4. Regulating means for an electric circuit including a rheostat, means for varying the resistance of said rheostat, an electro-magnetic winding normally ineffective to operate said means and means operated by said winding for increasing the radius of influence of said winding to bring said rheostat operating means within the influence of said winding.

5. In a regulator, an electro-magnetic winding, a pair of armatures, separately movable thereby, and a dash pot for steadying the operation of said armatures, one of said armatures being connected to the piston of said dash pot and the other armature being connected to the cylinder of the dash pot.

9. A compressible rheostat including a resistance element adapted to be compressed, an electro-magnetic winding for controlling the compression of said element, said winding having an armature normally uninfluenced by current through said winding, said armature being mechanically connected to the resistance element to compress the same, said winding also having a second armature adapted to be attracted by said winding to reduce the reluctance of the magnetic circuit of said winding and thereby to cause the first armature to be operated by said winding, and a single dash pot for steadying the operation of both of said armatures, one of said armatures being mechanically connected to the movable piston of said dash pot and the other armature being connected to the movable cylinder within which said piston operates, said second armature having means for adjusting the point at which it may be operated by said winding.

[Claims 2, 3, and 6 to 8 not printed in the Gazette.]

1,251,595. GENERATOR-REGULATOR. WILLIAM A. TURBAYNE, Niagara Falls, N. Y., assignor, by mesne assignments, to U. S. Light & Heat Corporation, Niagara Falls, N. Y., a Corporation of New York. Filed Nov. 23, 1912, Serial No. 733,037. Renewed Nov. 26, 1917. Serial No. 204,096. (Cl. 171—313.)



1. In combination, a generator, provided with a shunt field, a variable resistance in circuit with said shunt field, a variable resistance in shunt to said shunt field, and an operating coil for said variable resistances, said coil connected in series with said first mentioned resistance.

3. In combination with a generator provided with a shunt field, a variable resistance in circuit with said field, a variable resistance in shunt to said field, a common operating means therefor adapted to increase one of said resistances and simultaneously decrease the other in proportion, said operating means being controlled by a coil in series with said first mentioned resistance.

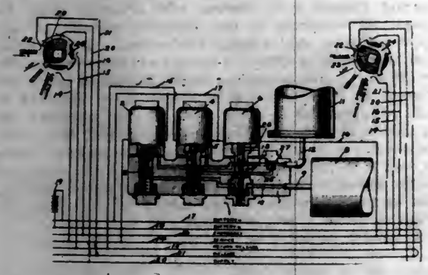
9. In combination, a variable speed generator and a circuit across the terminals of said generator, said circuit including a variable resistance and an operating coil therefor, connected in series, said circuit having parallel branches, one branch including the generator field windings and the other branch including a second resistance, said second resistance being varied inversely in proportion to variations in said first resistance.

15. In combination with a shunt wound generator, a battery and lamps supplied thereby, regulating means for said generator comprising a compressible rheostat in circuit with the shunt field of said generator, a second compressible rheostat in shunt to said field, a common operating means for said rheostats, a series coil controlling said operating means, a coil in circuit with said shunt field adapted when energized to assist said series coil, a short circuit normally closed around said last mentioned coil, and a relay responsive to battery voltage for controlling said short circuit.

16. In combination, a generator provided with a shunt field winding, a variable resistance in shunt to said winding, and means for maintaining substantially constant the total current flow through said field winding and said resistance.

[Claims 2, 4 to 8, 10 to 14, and 17 to 19 not printed in the Gazette.]

1,251,596. ELECTROPNEUMATIC BRAKE. WALTER V. TURNER, Wilkinsburg, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Dec. 6, 1916. Serial No. 135,365. (Cl. 188—4.)



1. In an electro-pneumatic brake, the combination with a brake cylinder, of an emergency magnet valve for effecting an emergency application of the brakes and adapted to control the exhaust from the brake cylinder.

2. In an electro-pneumatic brake, the combination with a brake cylinder, of an emergency magnet valve for effecting an emergency application of the brakes and for controlling the brake cylinder exhaust and a release magnet valve for controlling communication from the brake cylinder through said exhaust.

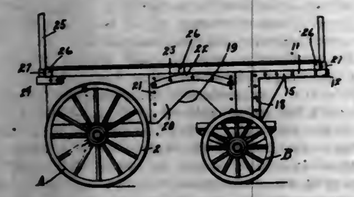
3. In an electro-pneumatic brake, the combination with a release magnet and valve, of a normally energized emergency magnet and valve adapted to be energized through the circuit of the release magnet.

4. In an electro-pneumatic brake, the combination with a brake cylinder, a valve for controlling the release of fluid from the brake cylinder, and a normally deënergized magnet for controlling said valve, of an emergency valve for controlling the admission of fluid to the brake cylinder and a magnet energized through the circuit of the release magnet for controlling the emergency valve.

5. In an electro-pneumatic brake, the combination with a magnet for controlling the release of the brakes and adapted upon energization to close the release, of a normally energized emergency magnet and means for connecting said magnet to the release circuit when the release circuit is energized, to thereby cause an emergency application of the brakes upon failure of the release circuit.

[Claims 6 to 8 not printed in the Gazette.]

1,251,597. WAGON-RACK. WILLIAM UPTHEGROVE, Vernon township, Isabella county, Mich. Filed Oct. 25, 1916. Serial No. 127,722. (Cl. 21—74.)



1. In a wagon rack, the combination with the trucks, front and rear bolsters mounted upon the front and rear trucks respectively, side frame members attached to the said rear bolster, the side frame members being provided with a cross piece having its ends joined to the said side frame members, a pair of contacting rings mounted upon the said front bolster, a front cross piece having connection with the side frame members near the front end of the latter the said front piece being mounted upon the uppermost ring, forward brace members secured to the ends of each of the said side frame members and provided with heads having apertures formed therein, a vertical standard fastened in each of the openings, yokes embracing the ends of the said frame members, and attached to the said brace members, lips formed at the terminals of the said yokes and contacting with the lower edges of each side frame member at the forward ends thereof.

4. In a wagon rack, the combination with the trucks of a wagon, each truck having a bolster mounted between the wheels, side frame members mounted upon the bolsters, cross pieces fastened to the side frame members and mounted lengthwise upon the bolsters, the said front truck being pivotally engaged with one of the cross pieces, cross beams mounted upon the said side frame members, a flooring carried by the said cross beams, the rear end of each side frame member being provided with a supporting brace, clips mounted upon the terminals of the rearmost cross beams and resting upon the said rear supporting braces, standards carried by the said clips, a forward brace member carried by the forward ends of the said side frame members, the said cross beam at the forward end of the said rack being also provided with vertical standards and resting upon the said forward supporting braces.

[Claims 2 and 3 not printed in the Gazette.]

1,251,598. TOBACCO-PACKAGE. ALFRED G. VALE, New York, N. Y., assignor to The American Tobacco Company, New York, N. Y., a Corporation of New Jersey. Filed June 19, 1917. Serial No. 175,609. (Cl. 229—87.)



1. A wrapped package including a rectangular wrapper sheet of flexible pliable material having a continuous marginal edge provided with a plurality of interfolded portions normally closing an end of the package, and a seal overlying such closed end and maintaining certain of the interfolded portions intact, but leaving one of such interfolded portions free to provide a grasping and tearing tab located at an end edge of the package.

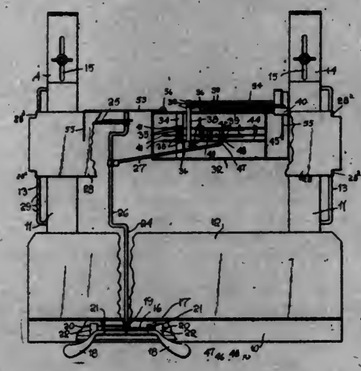
6. A cigarette package including a shell of relatively stiff material embracing the cigarettes of the package, said shell being of less depth than the length of the cigarettes whereby the latter will project beyond one end of the shell, a flexible pliable blank wrapped about the shell and cigarettes to inclose the same, said blank being interfolded at one edge portion to constitute a closed end for the package, a portion of said closed end being adapted to be torn away to form an opening of less dimensions than the area of such closed end, to permit the grasping of the ends of the cigarettes projecting beyond the shell and allow such cigarettes to be withdrawn from the package.

[Claims 2 to 5 not printed in the Gazette.]

1,251,599. MUSIC-LEAF TURNER. CALVIN C. VAUGHAN, Onaway, Mich. Filed June 30, 1917. Serial No. 177,915. (Cl. 84—17.)

1. A music leaf turner including a plurality of swingingly mounted leaf engaging arms, a single manually actuatable member manually shiftable in opposite directions, and means operatively connecting the member with the arms for causing a swinging movement successively of the said arms upon successive manual actuations of the member in one direction and causing a simultaneous swinging of the arms in the opposite direction upon a single actuation of said member in a reverse direction to that in which it was first moved.

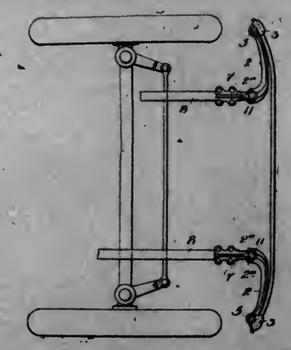
8. A music leaf turner including a plurality of swingingly mounted leaf engaging arms, each arm being provided with a sector gear, a plurality of longitudinally movable racks engaging said sector gears, the racks being arranged in superimposed relation, the lowermost rack carrying an inwardly projecting fixed detent tooth, pivoted angular latches mounted upon each of the other racks and each latch having a detent tooth, fingers carried by each rack extending upward and engaging over the edge of the latch above and movable along the said latch to thereby cause the projection or retraction of the detent end of the latch, a lug on each rack, a longitudinally movable slide mounted behind the racks and having a



catch engageable with any projected detent tooth upon a movement of the slide in one direction from a neutral position, said slide engaging the lugs on the racks upon a movement of the slide from a neutral position in the other direction, a vertically disposed cranked shaft, a connecting rod between the cranked portion of the shaft and said slide, a manually oscillatable sector gear, a gear wheel on the cranked shaft meshing with said sector gear, and springs holding the sector gear in a neutral position.

[Claims 2 to 7 and 9 to 12 not printed in the Gazette.]

1,251,600. BUMPER FOR AUTOMOBILES. THOMAS S. VIEROW, Jersey City, N. J. Filed Apr. 17, 1917. Serial No. 162,638. (Cl. 213—39.)

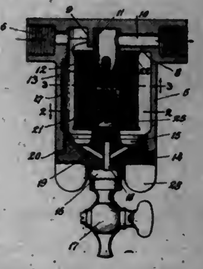


1. A bumper for motor vehicles comprising a flexible and resilient bar, and pivotal supporting means pivotally connected adjacent to opposite ends of the bar and pivotally supported between the ends of the bar limiting longitudinal displacement of the bar and permitting the bar and the pivotal means to move relatively to the axes of the pivots.

5. A bumper for motor vehicles comprising a resilient bar adapted to extend across the vehicle and to bend in a horizontal direction, rigid arms spaced apart upon the bar and adjustable along the bar, means to secure said arms in adjusted positions on the bar, means to pivotally support said arms to swing horizontally with the bar when the latter bends horizontally, and means to support said pivotal means upon the vehicle.

[Claims 2 to 4, 6, and 7 not printed in the Gazette.]

1,251,601. COMBINATION STRAINER AND SEPARATOR. MATHIAS WEIWODA, Brooklyn, N. Y., assignor to Frieda Lina Weiwoda, Brooklyn, N. Y. Filed Mar. 12, 1915. Serial No. 13,992. (Cl. 210—16.)



1. A strainer for gasolene and the like comprising a casing having an inlet and an outlet at its upper end, and a trap at its lower end, a projection in said casing at the lower end thereof and provided with a drain passage and channels connecting said passage with said trap, a straining unit having its one end detachably secured to said projection and having an axial aperture at its other end, and a stationary depending tubular element extending through the axial aperture of the straining unit whereby the interior of the latter is connected with the outlet and whereby said unit is centered and its upper end is maintained in operative position.

2. A liquid strainer and separator comprising a casing having an inlet at its upper end and an outlet at the same end extending into the casing, a hollow straining unit spaced from the inner surface of said casing and extending downwardly from the inwardly-extending outlet, said strainer presenting a plate at the top thereof through which the outlet projects, a baffle for the inlet above the straining unit to direct the entering liquid on the top plate of the straining unit whereby the entering liquid is spread over the outer surface of the straining unit, and a trap in said casing below the straining unit.

3. A liquid strainer and separator comprising a casing having an inlet and an outlet at its upper end, a lower end plate in said casing, a tubular straining element secured to the end plate, and a tubular member from the outlet projecting into the tubular straining element and having therewith a sliding fit, said tubular member having a slot in the end thereof entering the straining unit to prevent any portion of said straining unit from becoming air bound.

[Claims 4 and 5 not printed in the Gazette.]

1,251,602. TEST-VALVE MECHANISM FOR DRYING-CYLINDERS. AMBROSE H. WHITE, Brooklyn, N. Y., assignor to International Paper Company, a Corporation of New York. Filed July 17, 1916. Serial No. 109,825. (Cl. 34—4.)

1. In combination with a rotary cylinder having means for the introduction of steam thereinto and provided with a vent opening, a valve applied to said opening, and a rotary valve actuating member sustained by the cylinder and provided with a plurality of actuating arms adapted in the successive rotations of the cylinder to be engaged successively with an abutment to actuate the valve, said arms being disposed at such intervals that the movement of one arm by engagement with the abutment in one ro-

tation of the cylinder will bring another arm in position for actuation.



2. In combination with a rotary cylinder having means for the introduction of steam thereinto and provided with a vent opening, a valve applied to said opening, and a valve actuating member sustained by the cylinder and rotatable relatively thereto about an axis parallel or substantially so with the axis of rotation of the cylinder, said actuating member being adapted by the rotation of the cylinder to be engaged with an abutment and moved relatively to actuate the valve.

3. In combination with a rotary cylinder having means for the introduction of steam thereinto and provided with a vent opening, a valve applied to said opening, and a valve actuating member comprising a rotary star wheel sustained by the cylinder and adapted by the rotation of the cylinder to be engaged with an abutment and moved relatively to actuate the valve.

[Claims 4 to 8 not printed in the Gazette.]

1,251,603. ADJUSTABLE MUSIC-ROLL SPOOL FOR AUTOMATIC MUSICAL INSTRUMENTS. CLINTON EVANS WHITE, Irvington, N. J. Filed Aug. 8, 1916. Serial No. 113,683. (Cl. 242—69.)



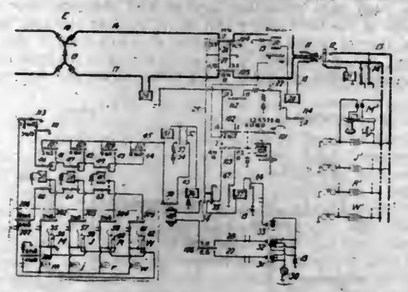
1. A music-roll spool comprising a cylindrical body with heads at each end, one end of the body being tubular, and the head which is adjacent to said end being formed with a projection extending inwardly from the flange of the head into said tubular end portion of the body, the outer surface of said projection being cylindrical and out of contact with the inner surface of the body end, and the end of said projection being formed with a flange or stop projecting toward the inner surface of the tubular body end, and a sleeve secured to the said inner surface of the tubular body end and fitted between said stop and the flange of the head, in sliding engagement with the cylindrical outer surface of said projection on the head, whereby said head may be adjusted relatively to the spool body lengthwise.

[Claim 2 not printed in the Gazette.]

1,251,604. RINGING CONTROL SYSTEM FOR TELEPHONE-EXCHANGES. SAMUEL B. WILLIAMS, Jr., Brooklyn, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Dec. 28, 1915. Serial No. 69,066. (Cl. 179—27.)

1. The combination with a telephone connecting circuit, of a ringing circuit having a plurality of branches a controlling circuit having a corresponding number of branches with a key in each branch for closing the same, and an automatic switch adapted in its movement successively to establish the branches of said ringing circuit and simultaneously bring itself under the control of the corresponding branch of said controlling circuit.

2. In a telephone system, the combination with a plurality of connecting circuits, of a plurality of electromagnetic ringing control switches for each connecting circuit, operator's means common to said connecting circuits for selectively operating the electromagnetic ringing control switches of any one of the connecting circuits, and signals associated with said operator's means, said signals being selectively controlled by the electromagnetic switches of an associated connecting circuit.



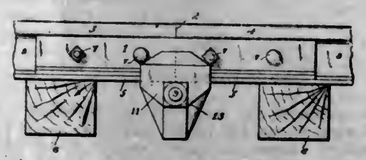
3. In a telephone system, the combination with a plurality of connecting circuits each having a plurality of ringing control switches associated therewith, of operators' indicating means common to said connecting circuits, said indicating means being selectively responsive to said ringing control switches to indicate which one of said switches is operated, and means for bringing said indicating means into operative relation with any of said connecting circuits.

4. In a telephone system, the combination with telephone lines, of a connecting circuit for establishing connection therewith, a switch closed while the connection is established, means for supplying ringing current of different characteristics, switching mechanism for selectively controlling the application of ringing current of said different characteristics to said connecting circuit, selecting keys for setting said switching mechanism to apply current of one sort or another, and holding means for maintaining the setting of said switching mechanism, said holding means being under the alternative control of said first mentioned switch and said selecting keys.

5. In a telephone system, the combination with a connecting circuit, means for supplying ringing current of different characteristics, switching mechanism for applying ringing current of said different characteristics to said connecting circuit, a plurality of electromagnetic switches for selectively controlling said switching mechanism, a selecting key associated with each of said electromagnetic switches, an energizing circuit for each electromagnetic switch adapted to be completed by the associated key, and locking circuits for said electromagnetic switches having a common branch controlled in contacts of each of said keys.

[Claims 6 to 14 not printed in the Gazette.]

1,251,605. RAIL-JOINT CLAMP. WILLIS D. WILLIAMS, St. Louis, Mo., assignor to Williams Boltless Rail Joint Manufacturing Company, Prescott, Ariz., a Corporation of Arizona. Filed Jan. 16, 1917. Serial No. 142,692. (Cl. 239—6.)



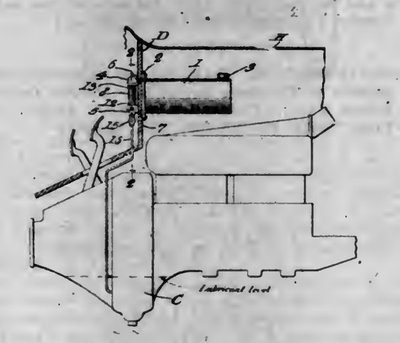
1. In a rail joint, the combination with a pair of spaced sleepers, of alining rail sections supported on said sleepers and having their abutting ends disposed in a plane medially of the space therebetween, angle plates secured at opposite sides of the web of the rail, and a memebr supported on the roadbed between said sleepers and underlying the joint to form a seat therefor.

6. In a rail joint, the combination with spaced sleepers, of alining rail sections supported on said sleepers and having their abutting ends disposed in a plane medially of the space therebetween, a pair of angle plates formed with laterally extending flanges adapted to engage the adjacent base flange of the rail, means for securing said angle plates at opposite sides of the web of the rail, and a clamping member positioned on the roadbed intermediate said sleepers and rising therefrom into engagement with the rail joint to form a seat therefor, said clamping member being provided with jaws adapted to engage the flange portion of said angle plates and to extend therebeyond into engagement with the walls of said plates.

7. In a rail joint, the combination with spaced sleepers of alining rail sections supported on said sleepers and having their abutting ends disposed in a plane medially of the space therebetween, angle plates secured at opposite sides of the web of the rail and spanning said sleepers, and a clamping member engaging said plates and depending therefrom into the plane of the lower face of said sleepers and into engagement with the roadbed.

[Claims 2 to 5 not printed in the Gazette.]

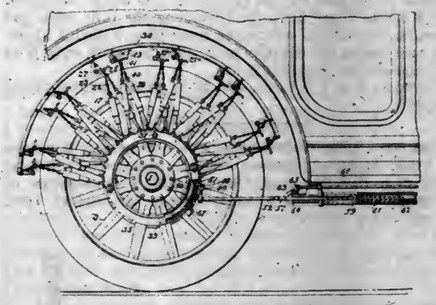
1,251,606. LUBRICANT-SUPPLYING DEVICE FOR ENGINES. JAMES C. WILLIAMSON, Cordele, Ga. Filed June 20, 1917. Serial No. 175,903. (Cl. 184—103.)



1. A lubricant supplying device, embodying in combination with the crank casing of an engine, of a lubricant reservoir at a higher level, a lubricant outlet connection connected to the reservoir adjacent to the lower portion thereof, an air inlet connection connected to the reservoir adjacent to the upper portion thereof, a gage between said connections for indicating the level of lubricant in the reservoir, a lubricant conducting pipe connected at its upper end to the lubricant connection and at its lower end to the crank casing below the lubricant level, and an air pipe connected at its lower end to the crank casing at the lubricant level and at its upper end to the rear connection of the reservoir.

2. In a lubricant supplying device, the combination with a crank casing of an automobile engine and a supporting member, of a lubricant reservoir at one side of said supporting member, a lubricant nipple connected to the reservoir adjacent to the bottom portion thereof and extending through the supporting member, an air nipple connected to the reservoir adjacent to the upper portion thereof and extending through the supporting member, disks connected to said nipple at the opposite side of the supporting member, a gage tube between said heads, a lubricant pipe connected at its upper end to the lowermost head and at its lower end to the crank casing below the lubricant level, and a second pipe connected at its lower end to the crank casing at the lubricant level and at its upper end to the upper head.

1,251,607. ANTISKID-CHAIN APPLICATOR. LEONARD B. WILSON, Bellevue, Pa. Filed Feb. 25, 1914. Serial No. 821,076. (Cl. 152—14.)

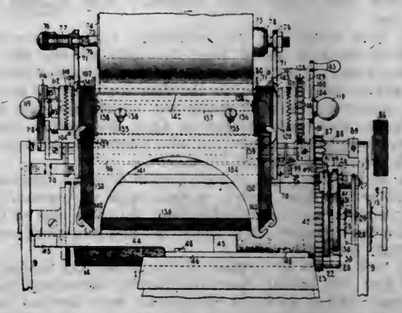


1. The combination with a wheel having a bearing ring secured thereto, a chain supporting means spaced from the periphery of the wheel, means for applying anti-skid chains to the tire of the wheel including a ring member detachably engaging the bearing ring, means for connecting and disconnecting said ring members, and spring controlled radial members mounted on the second ring member and engaging the chain.

3. In a device of the class described, the combination of a chain support, spring fingers carried by said support, anti-skid chains engaged by said fingers, means responsive to a part of the vehicle wheel for removing said chains from said fingers, and causing them to contact with the tire of the wheel.

[Claims 2 and 4 not printed in the Gazette.]

1,251,608. TYPE-WRITING MACHINE. CLIO B. YAW, Arlington, N. J., assignor to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed Sept. 16, 1914. Serial No. 861,966. (Cl. 197—132.)



1. In a typewriting machine, the combination of a platen carriage; a platen mounted thereon and adapted to receive a plurality of work sheets; sets of devices for advancing said work sheets, each set comprising a wheel, engaging members one for each of said wheels, and a single means for actuating said members; a device for preventing the operation of one of said members; and mechanism operating at predetermined points in the traveling movements of said carriage to render said preventive device inoperative, said means being restricted thereafter to a single actuation.

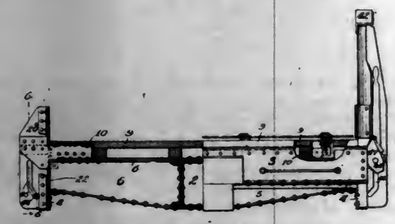
8. In a typewriting machine, the combination of two lines or sets of feed rolls arranged in independent parallel pairs, releasing devices for said feed rolls, and means requiring the manual use of a tool distinct from the machine for fixing in a position of disuse selected feed rolls and

withdrawing such rolls from the effective control of said releasing devices.

22. In a typewriting machine, the combination of a carriage, a platen, tally strip devices on said carriage, ribbon mechanism for the tally strip, and means controlled by a single finger piece for advancing the tally strip and feeding the ribbon, said means comprising a device whereby said means are effective only when the tally strip is at or opposite the printing point.

[Claims 2 to 7, 9 to 21, and 23 to 44 not printed in the Gazette.]

1,251,609. CAR CONSTRUCTION. WINFIELD HANCOCK YOST, Montreal, Quebec, Canada, assignor to Rodger Ballast Car Company, Chicago, Ill., a Corporation of Maine. Filed June 4, 1914. Serial No. 842,900. (Cl. 105—14.)



1. In a ballast car, a floor spaced from the sides of the car, plates secured to the car, spaced from the edges of the floor and having offset portions, convertible sections extending from the edges of the floor and members upon the convertible sections adapted to hook over such offset portions; said plates being stationary with relation to the car.

2. In a ballast car, an underframe, a floor upon the underframe and spaced from the sides of the car, floor sections extending outwardly from the floor and movable up and down with relation thereto and ledges located above the underframe, adjacent to the outer edges of the sections and adapted to have the latter, when up, rest thereon, said ledges being stationary with relation to the car.

3. In a ballast car, an underframe, a floor above the underframe and spaced from the sides of the car, a convertible floor section movable up and down and bodily outwardly with relation to the floor and a ledge above the underframe and normally out of the path of the swinging door and adapted to have the section when moved outwardly, rest thereon, said ledge being stationary with relation to the car.

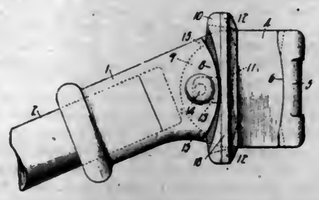
4. In a ballast car, a floor formed with an aperture, a convertible floor section, a strip upon the convertible floor sections and extending beyond the inner side of the latter, the extended end of the strip being bent and passed through said aperture.

5. In a ballast car, a floor, a metallic member bordering the floor and having apertures therein, convertible floor sections, strips upon the convertible floor sections and extending beyond the inner edges of the latter, the extended end of each strip being bent at an angle to its main length and passed through one of said apertures.

[Claims 6 to 8 not printed in the Gazette.]

1,251,610. PIPE-BENDING TOOL. FRED E. YOUNGS, Detroit, Mich. Filed July 8, 1915. Serial No. 38,744. (Cl. 81—15.)

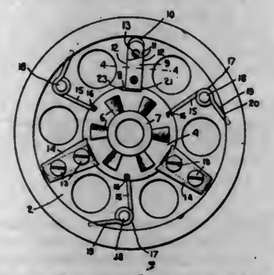
1. A pipe bending tool comprising a base including a body portion and a fixed jaw extending at an angle therefrom, and a movable jaw spaced from the fixed jaw to allow the tool to be slipped onto a pipe from the side, said movable jaw being arranged to normally swing in respect to the fixed jaw in the plane in which the pipe is to be bent and having two gripping surfaces arranged on opposite sides of the axis about which the jaw swings, whereby, when the base is swung longitudinally of the pipe, contact of the pipe with one of the gripping surfaces swings the movable jaw and causes its other surface to grip the pipe against the corresponding end portion of the movable jaw to insure a strong frictional engagement of the tool thereon.



7. A pipe bending tool including a base comprising a body portion and a fixed jaw, a movable jaw spaced from the fixed jaw to allow the tool to be slipped onto the tool from the side, said movable jaw being arranged to normally swing in the plane in which the pipe is to be bent and about an axis substantially opposite the mid-point in the length of the movable jaw, said movable jaw and said fixed jaws having coöperating gripping surfaces at each end, and a handle for the tool arranged substantially in the plane in which the pipe is to be bent and at an acute angle to the line joining the center of the fixed jaw and the axis about which the movable jaw swings.

[Claims 2 to 6 not printed in the Gazette.]

1,251,611. CLUTCH. FRANK ZALESKI, Somerville, Mass., assignor to The Reece Button Hole Machine Company, Boston, Mass., a Corporation of Maine. Filed July 14, 1916. Serial No. 109,369. (Cl. 192—9.)



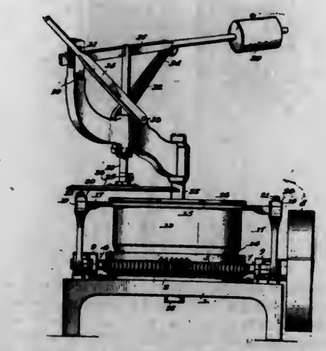
1. In a clutch, the combination with a rotatable driving element, of a clutch member situated co-axially thereof and capable of turning movement relative thereto, a plurality of radially-extending spring arms secured to the driving element and engaging the clutch element, said spring arms resisting the turning movement of said clutch element in one direction, means to limit the turning movement of the clutch member relative to the driving element and a driven clutch member adapted to be clutched to the driving clutch member.

3. In a clutch, the combination with a rotatable driving element having a hub, of a driving clutch member loosely mounted on said hub, said driving clutch member having recesses in its periphery, a plurality of radially-extending spring arms carried by the driving element and having their ends situated in said recesses, means to limit the rotative movement of the driving clutch member relative to the driving element, and a driven clutch member adapted to be clutched to the driving clutch member.

6. In a clutch, the combination with a rotatable driving element having a hub, of a driving clutch member loosely mounted on said hub and provided with recesses in its periphery, radially-extending stop projections carried by the driving element and having their inner ends occupying said recesses, said recesses being larger than the stop projections to permit a limited rotative movement of said clutch member relative to the hub, radially-extending spring arms secured to the driving element and acting on said driving clutch member, said spring arms tending to rotate said clutch member in one direction relative to the driving element, and a driven clutch member adapted to be clutched to the driving clutch member.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,251,612. MACHINE FOR MAKING MAGNESIA IN GRANULAR FORM. AUGUSTO ZANVETTOR, West Hoboken, N. J. Filed Apr. 25, 1916. Serial No. 93,560. (Cl. 146—9.)

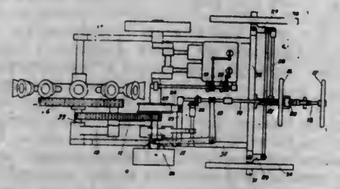


1. A machine for forming elongated granules of magnesia comprising a rotary ring formed with gear teeth, a ball-bearing race for supporting the ring, a gear for transmitting motion to the ring, a perforated plate carried by the ring, an open-bottomed pot or vessel supported above the perforated plate, a weighted follower for pressing material in the pot through the perforated plate, and a horizontally swinging bracket for carrying the follower.

4. A machine for forming elongated granules of magnesia, comprising a pot or vessel for containing material, a perforated plate at the bottom of the pot, a bracket carrying a reciprocating follower to act on the material in the pot, a weighted arm pivotally connected to the follower rod and fulcrumed on a part of the bracket, and a crank-arm and operating handle positioned for the crank arm to bear against the weighted arm to lift it and the follower.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,251,613. TRACTION-MACHINE. MORRIS ALVA ZOOK, Wilkinsburg, Pa. Filed Dec. 26, 1914. Serial No. 879,150. (Cl. 180—78.)



1. In a traction machine, the combination of a steering handwheel or handle; a shaft with steering handwheel or handle fastened thereon; a lever connection which operates the clutch controlling the propelling of the tractor, operated by shaft; a lever operating steering and having above named shaft passing through its hub and hub fitted with means whereby said lever cannot turn on shaft and can slide on shaft in the direction of the axis of the shaft.

2. In a traction machine, the combination of a handwheel; a shaft on which handwheel is fastened; means for operating clutch controlling propelling of tractor by moving shaft in the direction of its axis; means for operating steering of tractor by turning shaft on its axis.

3. In a traction machine, the combination of a handwheel; a shaft on which the handwheel is fastened; means for operating clutch controlling propelling of tractor by moving shaft in the direction of its axis; means for operating steering of tractor by turning shaft on its axis; means for operating a brake by moving shaft.

4. In a traction machine, the combination of a handwheel; a shaft on which the handwheel is fastened; means for operating clutch controlling propelling of tractor by moving shaft in the direction of its axis; means for operating steering of tractor by turning shaft on its axis; means for operating reverse motion of tractor by moving shaft.

5. In a traction machine, the combination of a shaft; means for operating clutch controlling propelling of tractor by moving shaft in the direction of its axis; means for operating steering of tractor by turning shaft on its axis.

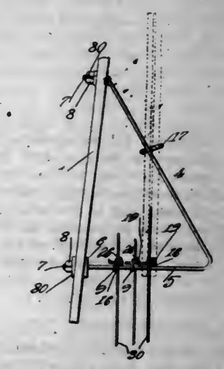
[Claims 6 to 11 not printed in the Gazette.]

1,251,614. BLEACHING PROCESS. HANNS R. ANDERS, Perth Amboy, N. J., assignor to The Roessler & Hasslacher Chemical Co., New York, N. Y., a Corporation of New York. Filed Mar. 24, 1917. Serial No. 157,142. (Cl. 8—2.)

1. The process of bleaching industrial fibers and fibrous materials, consisting in preparing the fibers by wetting-out the same, at an elevated temperature, in lime water, and then bleaching them in a bath of a substance carrying active oxygen rendered alkaline by means of an hydroxid of an alkali earth metal.

2. The process of bleaching industrial fibers and fibrous materials, consisting in preparing the fibers by wetting-out the same, at an elevated temperature, in lime water and then bleaching them in a bath of a substance carrying active oxygen rendered alkaline by means of calcium hydroxid.

1,251,615. SUCKER-ROD HANGER. SAMUEL E. AREY, Fellows, Cal., assignor of one-half to Jay J. Hern, Fellows, Cal. Filed Feb. 3, 1917. Serial No. 146,455. (Cl. 211—17.)



1. In a device for holding sucker rods, a support, and coöperating elements comprising a flange on the support and a carrier mounted on the flange; and a pair of coacting rod-gripping cams pivoted on the carrier, one of said coöperating elements being downwardly and rearwardly inclined, to give a downward and rearward in-

clination to the cams, to prevent the rods from moving forwardly out of the grip of the cams.

2. In a device for holding sucker rods, a pair of brackets each comprising a base and a top; supports pivoted to the base of one bracket and adapted to rest on the base of the other bracket, the supports being adapted to be swung upwardly to coöperate with the top of the first specified bracket, and being adapted to be slid rearwardly on the bases of both brackets; means for holding the supports in upturned positions adjacent the top of the first specified bracket; and rod-holding means carried by the supports.

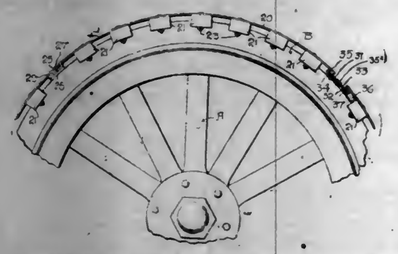
1,251,616. GRAVE-LINING. GEORGE G. BABICH, New York, N. Y. Filed Oct. 20, 1915, Serial No. 56,851. Renewed June 6, 1917. Serial No. 173,231. (Cl. 27—2.)



1. A grave lining consisting of separate rigid wall sections to fit the inner surfaces of a grave and rest upon the bottom of the grave around a coffin box, and separate rigid flanges, one hinged to the upper edge of each of the wall sections and adapted to cover the ground around the mouth of the grave.

2. A grave lining consisting of separate rigid wall sections to fit the inner surfaces of a grave, and separate rigid flanges, one hinged to the upper edge of each of the wall sections and adapted to cover the ground around the mouth of the grave, said flanges having meeting lateral edges for the purpose specified.

1,251,617. TRACTOR ATTACHMENT FOR AUTOMOBILE-WHEELS. CARL E. BAGLEY, Welcome, Minn. Filed May 12, 1917. Serial No. 168,247. (Cl. 152—14.)

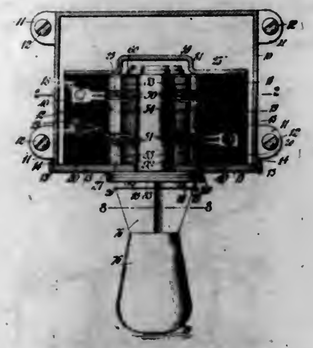


1. A tread attachment for automobile wheels including an annulus formed in sections, each section at one end having a tongue provided with a slot and at the opposite end having an outwardly extending hook adapted to engage in said slot, and a pivoted locking member mounted upon the slotted section and shiftable into position beneath the hooked shaped end of an adjacent section to thereby hold the sections in engagement with each other.

[Claim 2 not printed in the Gazette.]

1,251,618. PLUG FOR ELECTRIC CONDUCTORS. OTTO BAHLS and THEODORE SIEBERT, Jr., New York, N. Y., assignors of one-half to said Bahls and one-half to said Siebert, Jr. Filed June 6, 1914, Serial No. 843,388. Renewed Oct. 19, 1916. Serial No. 126,625. (Cl. 173—338.)

1. An electric switch, comprising a receptacle, a laterally disposed insulated contact plate therein, a conductor connected to said plate, and a plug of insulated material provided with a laterally disposed recess therein, a contact plate disposed within said insulated recess, and providing a lateral space within said recess adjacent said contact plate, and a conductor connected to said plug contact plate, said plug contact plate being arranged in a plane relatively to the contact plate of the receptacle so as to frictionally engage the same within said lateral space adjacent said contact plate when the plug is turned, to lock the said plug and receptacle against separation.

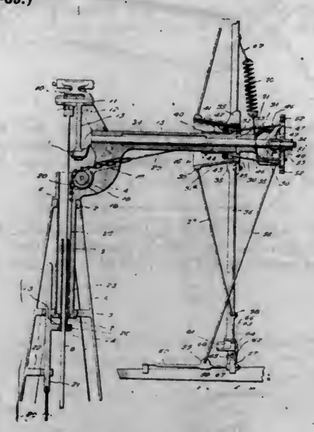


7. An electric switch, comprising a receptacle provided with a cover, having an opening therein having a central circular portion and a pair of radially disposed, diametrically opposite segmental portions, a plurality of transverse insulated contact plates, provided with openings similar to and registering with the openings of said cover, and an insulated plug of insulated material of a cross-section, similar in shape to the said openings and provided with a plurality of transverse, insulated recesses in the segmental portions thereof, a plurality of contact plates disposed within said insulated recesses, and independent conductors, connected to said plug contact plates, said plug contact plates being arranged on planes corresponding to the plates of the receptacle, so as to frictionally engage the same when the plug is turned, and longitudinal guide plates provided on the circular portions of said plug, provided with longitudinal flanges along the sides thereof, adapted to partially close the said recessed portion, to prevent turning of the said plug within the receptacle during its insertion therein.

10. An electric switch, comprising a receptacle having a removable cover, a plurality of transverse superposed blocks of insulation therein, each block having a central circular opening, tranverse contact-plates, one each between adjacent blocks, each plate having an opening, a portion of said opening following the contour of the adjacent block-opening, and opposed segments of said plates projecting inwardly therefrom, the segments of the successive plates being arranged in line, means clamping the blocks and plates to the cover at the inside of the receptacle, said cover having an opening of the same shape as and in line with the openings in the contact-plates, independent conductors connected to each contact-plate, and a plug comprising a base-plate having an annular groove, a plurality of transverse superposed blocks of insulation, and a plurality of transverse contact-plates between said blocks, and means clamping said blocks and plates to said base-plate, a handle at the opposite side of the base-plate, said plug-blocks and plates and the portion of said base-plate at the inner side of said annular groove being of the same general cross-section as the opening in said receptacle-cap, but of slightly smaller size, and independent conductors connected to said plug-plates, said plug-plates being spaced apart so as to frictionally engage the receptacle-plates when the plug is turned, and said inner portion of the base-plate having its leading edge angularly in advance of the plug contact-plates, so as to engage the cover-plate before said contact-plates engage the contact-plates of the receptacle.

[Claims 2 to 6, 8, 9, and 11 to 13 not printed in the Gazette.]

1,251,619. WINDMILL. JOHN S. BAKER, Evansville, Wis. Filed June 30, 1916. Serial No. 106,908. (Cl. 170—69.)



4. A wind-mill comprising a tower having a casting pivotally mounted thereon to receive a wheel shaft, a wheel provided with a plurality of movable sections mounted on said shaft, a spider carried by the shaft, means of connection between the spider and the movable sections, coöperating gear members carried by the shaft and spider, a sleeve slidably mounted upon the casting and connected with said gear members, and manually operated means carried by the tower to shift the sleeve upon the casting to thereby rotate the spider relative to the shaft, said rotation operating to move the sections of the wheel.

7. A windmill comprising a shaft, a casing therefor, a wheel mounted on the shaft and having a plurality of movable sections, a shipper spider rotatable on the shaft and having means of connection with said sections, a plurality of levers pivoted to the shaft for rotation therewith, said levers having gear segments to mesh with a toothed surface of the shipper spider, said spider having a plurality of fat teeth adapted to mesh with a corresponding wider space of each lever, gear segment to insure proper meshing of the teeth, and manually controlled instrumentalities to move said levers and shift the wheel sections to a plurality of positions.

11. In a windmill, a wheel comprising a plurality of movable sections, a toothed spider to move the sections and toothed levers to move the spider.

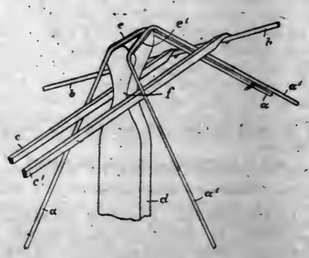
14. A windmill provided with a wheel comprising a plurality of movable sections, mounted upon a hub provided with a shield, a shipper spider, and pivotal elements mounted within the shield of the hub to coöperate with the spider to move the sections.

[Claims 1 to 3, 5, 6, 8 to 10, 12, 13, and 15 not printed in the Gazette.]

1,251,620. PROCESS AND DEVICE FOR THE MANUFACTURE OF REAL ORIENTAL CARPETS. MÓR BÁNYAI, Toina, Hungary. Filed Feb. 2, 1914. Serial No. 815,954. (Cl. 139—66.)

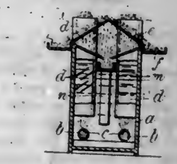
1, The method of manufacturing oriental rugs which consists in raising, by means of a bar having spaced grooves, two adjacent warp threads, and then passing a pile thread first around and then between the said two warp threads, substantially as described.

2. In mechanism for manufacturing oriental rugs, a bar having a reduced neck portion and formed with converging grooves at the end to receive two threads



and capable of raising the threads into position to allow a pile warp to be drawn transversely around and then between the threads to form a Smyrna knot.

1,251,621. METHOD FOR THE RECOVERY OF FATTY AND OTHER MATTERS FROM LIQUIDS. THOMAS WALTER BARBER, Westminster, London, England. Filed Dec. 8, 1915. Serial No. 65,782. (Cl. 87—26.)



1. The method of separating and recovering wool fat, (lanolin), or other fats of a similar chemical nature, which consists in forcefully projecting air in fine streams through wool washing liquid and against obstructions in the liquid in the paths of the air streams to agglomerate fine particles of wool fat contained in the liquid and separate such fine particles of wool fat from the liquid in a condition to remain on the surface of the liquid.

3. The method of separating and recovering wool fat, (lanolin), or fats of a similar chemical nature, which consists in forcing fine streams of air or gas under pressure through circumscribed bodies of wool washing liquid free from acid, with the passage of the fine streams of gas through the liquid impeded by baffles and with the pressure of the gas such as to agglomerate the fine particles of wool fat and localize them to the surface of the liquid.

5. The method of recovering wool fat, (lanolin), or fats of a similar chemical nature which consists in directing fine streams of air or gas under pressure through tortuous paths in the liquid, whereby the wool fat is broken up into minute particles and agglomerated at the surface of the liquid by impact by the gas streams and against impediments offered by the tortuous passage, and the broken up wool fat is agglomerated and localized on the surface of the liquid in a condition to remain thereat while other matters and fats of other nature contained in the liquid drain back thereinto.

[Claims 2 and 4 not printed in the Gazette.]

1,251,622. METAL RAKE-TOOTH TIP. THOMAS K. BARLEY, Sedalia, Mo. Filed May 12, 1917. Serial No. 168,248. (Cl. 56—69.)

1. A rake tooth having a blunt end, and a tip having rearwardly extending straps secured to the top and bottom of said tooth and connected by a V-shaped yoke spaced beyond the end of the tooth to provide a transverse opening from side to side between the tooth and yoke.

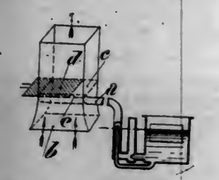
4. A rake tooth tip embodying rearwardly extending straps having side flanges, a yoke connecting the for-



ward ends of said straps and having side webs united with said flanges.

[Claims 2 and 3 not printed in the Gazette.]

1,251,623. CARBURETER. FRANÇOIS BAVEREY, Oullins, France, assignor to Societe du Carburateur Zenith, Lyon, France, a Corporation of France. Filed Feb. 7, 1914. Serial No. 817,277. (Cl. 261—41.)



1. In a carbureter, the combination of an air intake arranged to supply a fuel mixture to the engine, a jet having an emulsion passage leading therefrom into the air intake, said jet opening below the level of the liquid in the constant level reservoir into a well communicating with the atmosphere, and a throttle arranged to simultaneously vary the area of the air intake and the area of the opening from the emulsion passage into said intake.

3. In a carbureter, the combination of a constant level reservoir, an air intake arranged to supply a fuel mixture to the engine, a fuel jet having an emulsion passage leading therefrom into the air intake, said passage having a venturi into which said jet opens, a well communicating with the atmosphere and with the constant level reservoir, said jet communicating with said well at a point below the level of the liquid in the constant level reservoir, and a throttle arranged to simultaneously vary the air intake and the area of the opening from the emulsion passage to the said intake, substantially as described.

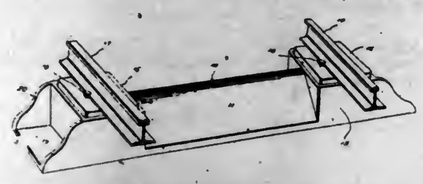
4. In a carbureter, an air conduit, a fuel conduit discharging thereinto, said fuel conduit being provided with two sources of fuel supply, one providing a supply variable per unit of time, and one constant per unit of time, and a throttle arranged to simultaneously vary the area of the air conduit and the area of the opening from the fuel conduit thereinto.

7. A carbureter, comprising a casing, an air intake extending through said casing, an emulsion tube extending into said air intake and having an elongated opening therethrough, means for feeding both air and oil to said tube, a reciprocating throttle valve mounted within said casing and arranged to slide across the air intake opening and the opening from the emulsion tube, to simultaneously increase or decrease the feed of air and emulsion.

[Claims 2, 5, 6, and 8 not printed in the Gazette.]

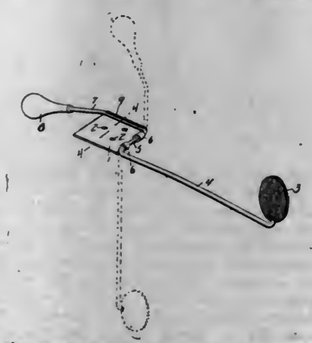
1,251,624. METALLIC RAILWAY-TIE. ALONZO H. BERKLITE, Waynesboro, Pa., assignor of one-half to John B. Eader, Waynesboro, Pa. Filed Apr. 28, 1916. Serial No. 94,215. (Cl. 238—5.)

The herein described metallic railroad tie, including an integral metallic body having an intermediate triangular in cross section connecting portion having a longitudinal opening through the lower wall thereof, with the longitudinal rims thereof beveled to provide an earth biting and holding medium, two tapered boxes one formed at each end of the triangular portion with the end walls of the triangular portion forming one of the walls of each box, the side walls of each box being extended to pro-



vide reinforced ends therefor and the tie, and the bottom of each receptacle being projected outwardly beyond its outer wall and terminating at a point adjacent the ends of the reinforcements.

1,251,625. AUTOMOBILE-CARRIED SIGNAL MECHANISM. EDWARD BEVINGTON, Hamilton, Ohio. Filed Sept. 13, 1916. Serial No. 119,858. (Cl. 116—31.)



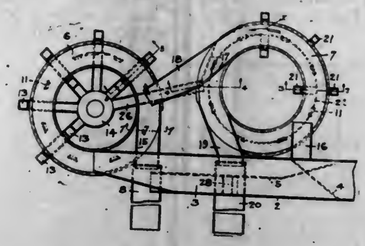
1. In signal-mechanism adapted to be carried by an automobile, a supporting plate having a flange, and a rod of spring material having an angled portion rotatably carried by said plate, a portion of said rod springing under said flange when the rod is moved to the limit of its movement in one direction, whereby said rod is yieldingly retained in position, said rod also having a portion constituting a lever.

2. In signal mechanism adapted to be carried by an automobile, a rod adapted to carry a signal and having an angled portion, constituting a rock-shaft, a supporting plate having bearings in which said angled portion is rotatably mounted, a member, of spring material, united to said rock-shaft for rocking the same, and a flange carried by said supporting-plate for yieldingly locking said member of spring material at the limit of its range of movement in one direction.

1,251,626. APPARATUS FOR HANDLING COAL. ROSS M. BICKLEY, Pittsburgh, Pa., assignor to Heyl & Patterson, Inc., Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 13, 1915. Serial No. 14,156. (Cl. 83—54.)

1. In coal handling apparatus of the character described, the combination of a rotary picking table, means for delivering the coal thereto, chutes for the refuse, a common chute with which said chutes communicate, a second picking table at a higher level than said first table, means for delivering coal to said second table, a chute leading from said second table to said first table, chutes for the refuse adjacent to said second table, a pan below said second table and carried thereby communicating with said last named chutes, and means for directing the refuse from said pan to the common refuse chute of said first table.

4. In coal handling apparatus of the character described, the combination of a rotary picking table, means for delivering coal thereto, a loading conveyer adjacent said table, means for directing the coal from said table to said loading-conveyer, a second rotary picking-table, means for delivering coal thereto, a loading conveyer adjacent said second table, means for directing the coal from said second table to said last-named loading conveyer, and a slack-chute having its forward end in communication with said first-named loading conveyer, and having an opening registering with said second loading-conveyer, and a door controlling said opening.



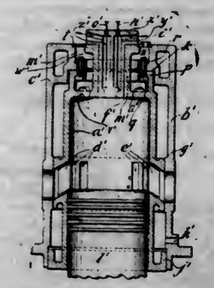
6. In coal handling apparatus, the combination of a rotary picking-table, means for supplying coal thereto, chutes for refuse adjacent said table, an annular plate extending below said table having openings therein, and a pan carried by said table, said refuse chutes extending down in close proximity to said plate.

8. In apparatus for handling coal of the character described, the combination of a rotary picking-table, impurity chutes, an annular plate carried by said table below the same and having openings therein, a pan carried by said table, said impurity chutes extending down in close proxiмtiy to said plate, and a guard-plate carried by said table on said plate.

9. In apparatus for handling coal of the character described, the combination of a rotary picking-table, means for delivering coal thereto, a second rotary picking-table at a higher level than said first table and non-concentric therewith, means for delivering coal to said second table, and a chute leading from said second table to said first table.

[Claims 2, 3, 5, and 7 not printed in the Gazette.]

1,251,627. ENGINE-CYLINDER. ALBERT BIB, Winterthur, Switzerland, assignor to Busch-Sulzer Bros.-Diesel Engine Company, St. Louis, Mo., a Corporation of Missouri. Filed Feb. 16, 1916. Serial No. 78,579. (Cl. 123—193.)



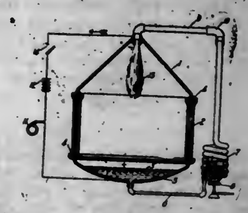
1. A cylinder for internal combustion engines comprising a jacket, and a liner insertible from the crank-shaft end of the jacket and having abutment against the head end thereof, the said liner being formed with a single concentric neck containing air starting and fuel injection valves.

4. In an internal combustion engine, the combination of a jacket having a head provided with a concentric opening, a liner having lateral contact with the jacket and abutting against the head thereof to form an intervening water space with said jacket, a tubular neck formed concentrically with the end of the liner and disposed in the opening of the head, the said opening affording a water-jacket space encircling the neck, and having means of communication between said space and the main water-jacket space, and a plurality of injection valves contained in said neck.

7. In a cylinder for internal combustion engines, the combination of a jacket having a centrally open head, a liner insertible from the crank-shaft end of the jacket and having an end wall formed with a concentric neck and an encircling flange having abutment against the head, the flange and neck being separated by a water space, and openings through said flange placing the water space around the neck in communication with the main water space between the jacket and liner.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,251,628. VAPOR APPARATUS. WILFRED T. BIRDSALL, Montclair, N. J., assignor, by mesne assignments, to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed May 4, 1915. Serial No. 25,866. (Cl. 175—354.)



1. The combination with an evacuated container, of means for introducing a blast of conducting vapor thereinto, an electrode insulated from said blast, and connections from a source of alternating current to said blast and to said additional electrode, whereby all waves of one polarity of said alternating current will be suppressed.

3. The combination with an evacuated container, of a pool of vaporizable reconstructing conducting material therein, means for introducing a jet of conducting vapor of said reconstructing material into said container, means for insulating said blast from said pool, and a source of alternating current connected between said jet and said pool, whereby all waves of one polarity of said alternating current will be suppressed.

6. A cathode for vapor electric apparatus comprising solely a jet of conducting vapor.

9. A vapor rectifier provided with an anode comprising a pool of mercury and with a cathode comprising a jet of mercury vapor.

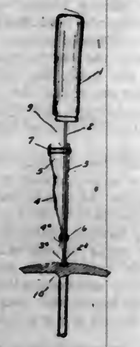
[Claims 2, 4, 5, 7, 8, and 10 to 12 not printed in the Gazette.]

1,251,629. VALVE-LIFTING TOOL. CHARLES J. BOUSFIELD, Bay City, Mich. Filed Aug. 7, 1916. Serial No. 113,584. (Cl. 81—44.)

1. In a device of the character described, a main member terminating in a pair of jaws, a second member terminating in a jaw and pivoted to the main member, and means for yieldably holding said members normally parallel and the jaws diverging.

5. In a device of the class described, a main member provided with a pair of jaws, a second member provided with a jaw and pivoted to the main member, a spring

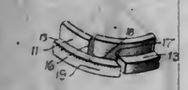
attached to the main member, and a pin passing through said main member and connecting the spring and the second member, whereby when the spring is in normal position the two members are held against each other



and the respective jaws separated and when the spring is put under tension the two members will be separated and the respective jaws brought into alinement.

[Claims 2 to 4 not printed in the Gazette.]

1,251,630. PISTON-RING. EMMET C. BRANDUM, Frazee, Minn. Filed Apr. 14, 1917. Serial No. 162,093. (Cl. 121—108.)

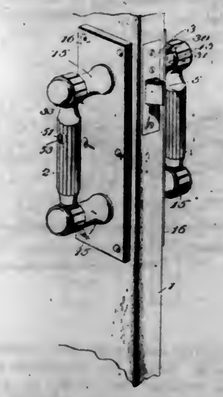


1. As an article of manufacture, a piston ring made in two mating annular sections, each section being split at one point, one section having an outwardly extending marginal flange, the other having an inwardly extending marginal flange, the body of one section having sliding engagement over the body of the other section, with the flanges abutting against the adjacent ends of said body portions, the flanges on each section being split at a distance remote from the split in the body of the section and there being a kerf extending from the split in the body of the section for a distance along the flange to the split in the flange, to thereby provide a tongue on the flange extending over the body of the section, and means on the sections holding them from relative rotation.

2. As an article of manufacture, a piston ring made in two mating annular sections, each section being split at one point, one section having an outwardly extending marginal flange, the other having an inwardly extending marginal flange, the body of one section having sliding engagement over the body of the other section, with the flanges abutting against the adjacent ends of said body portion, the flanges on each section being split at a distance remote from the split in the body of the section, and there being a kerf extending from the split in the body of the section for a distance along the flange to the split in the flange to thereby provide a tongue on the flange extending over the body of the section, and means on the sections holding the sections in such relation that the splits in the bodies of the sections and in the flanges are diametrically opposite.

3. A piston having a piston ring groove, and a piston ring disposed in said groove and composed of two mating sections, each of said sections being formed with a body portion and a flange, the body portion of one section fitting over and having sliding engagement with the body portion of the other section, each of said sections being split at one point and each flange split at a point remote from the split in the body of the section and being connected to said last named split by a kerf extending between the flange and the body of the section to thereby provide a lapped joint in each section, one of the sections being provided with a lug and the other with a recess into which the lug engages, whereby to hold these recesses with their split points in diametrically opposite relation.

1,251,631. DOOR LATCH AND LOCK. JOSEPH BRANSFORD, Fellows, Cal. Filed July 6, 1917. Serial No. 178,993. (Cl. 70—29.)



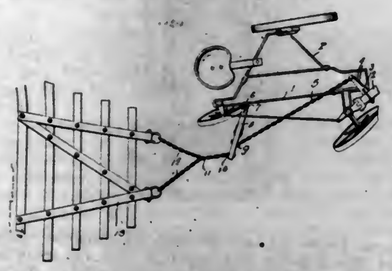
1. In a door latching mechanism, the combination of a door bolt, a handle, a plug rotatably fitted in the handle, means actuated by the plug to retract the door bolt, a key-controlled locking bolt mounted in the handle and constructed to engage said plug, and means within the handle whereby the rotation of the same will be imparted to said locking bolt.

2. In a door locking mechanism, the combination of a door bolt, a handle, a plug rotatably fitted in the handle, means whereby rotation of the plug may retract the door bolt, means for holding said plug against longitudinal movement, a key-controlled bolt slidably mounted in the handle and constructed to engage said plug, and retaining plugs fitted within the handle and engaging the said bolt whereby to prevent rotation of the same relative to the handle.

3. In a door locking mechanism, the combination of a door bolt, a handle, a plug rotatably fitted in the handle, means whereby rotation of the plug may retract the bolt, a transverse rib on the end of the plug within the handle, a bolt slidably fitted in the handle and having a groove in its end adapted to engage said rib, and means within the handle to prevent rotation of the said bolt relative to the handle.

[Claims 4 to 6 not printed in the Gazette.]

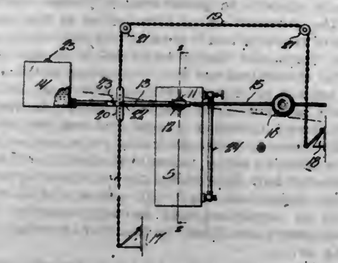
1,251,632. DRAG ATTACHMENT FOR PLOWS. ORVILLE V. BREESE, Scottsbluff, Nebr. Filed Apr. 12, 1917. Serial No. 161,568. (Cl. 97—44.)



1. A plow attachment, comprising a drag, an arm secured to the drag and pivotally connected to the plow frame, a tongue secured to the plow, and means connecting the tongue and arm for holding the arm in its extended position during forward travel of the plow and releasing the arm to swing rearwardly when the plow is turning.

2. A drag attachment for plows, comprising a bracket attachable to the tongue of a plow and to extend laterally therefrom, an arm adapted to be pivoted to the plow frame and to extend laterally therefrom in a direction opposite to the bracket, means for connecting the arm and bracket, a drag, and means for connecting the drag to the arm.

1,251,633. AUTOMATIC DAMPER CONTROL. JOHN S. BRENNAN, Milwaukee, Wis. Filed Mar. 6, 1917. Serial No. 152,558. (Cl. 236—1.)



1. A controlling device of the class described comprising the combination with a boiler of a closed tank communicating at its upper end with the steam space of the boiler, a partition extending from the top of the tank to a point adjacent its bottom, a lever including a pipe arm and a lateral pipe section communicating with the arm and pivoted to and communicating with the upper portion of the tank at the side of the partition opposite its communication with the boiler, a tank carried by and communicating with said pipe arm of the lever and heat control means for the boiler connected with said lever.

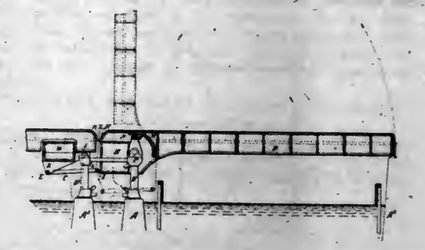
4. A controlling device of the class described comprising the combination with a boiler of a closed tank, a partition extending from the top of the tank to a point adjacent its bottom whereby to provide two communicating compartments, a pipe connecting the top of one compartment with the steam space of the boiler, a pivot mounted upon the wall of said tank and communicating with the other compartment, a lever swiveled to said pivot and including a pipe arm communicating with said other compartment through the pivot and a rod arm, a counterbalanced weight adjustably carried by the rod arm, a tank carried by and communicating with said pipe arm, the volumes of said tank and the first mentioned compartment being equal, and heat controlled means for the boiler and adjustably connected with said lever, the water of the first mentioned compartment being adapted upon entrance thereto from the boiler of excessive steam pressure to force the water in said other compartment into the tank carried by said lever whereby to operate the heat controlled means, substantially as described.

[Claims 2 and 3 not printed in the Gazette.]

1,251,634. BASCULE-BRIDGE. THOMAS ELLIS BROWN, Jr., Morristown, N. J. Filed Dec. 8, 1916. Serial No. 135,785. (Cl. 14—36.)

1. In a bascule bridge, the combination of a counterweight pivoted to a fixed portion of the bridge structure, and an operative connection from said counter-weight to the rearwardly extended end of the movable part of said bridge, said connection being parallel to the line joining the pivot of the counter-weight and the pivot of the bridge in all positions of said bridge.

2. In a bascule bridge, the combination of a counterweight pivoted to a fixed portion of the bridge, and an operative connection between said counter-weight and the heel or rearwardly projecting end of the movable portion of said bridge, adapted to move said counter-weight with the same angular motion as the angular motion of said heel end of said bridge.

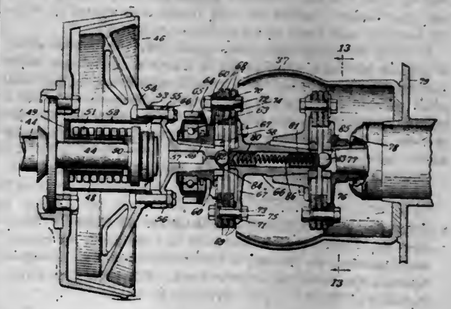


3. The combination in a bascule bridge, having one end extended rearwardly beyond the pivot of said bridge, of a counter-weight pivoted to a fixed portion of the structure, and an operative strut connection between said counter-weight and said rearwardly extended end of said bridge.

4. The combination in a bascule bridge having one end extended rearwardly beyond its pivot, of a counter-weight pivoted to a fixed portion of the structure, said counter-weight being located below the floor of said fixed portion, and an operative strut connection between said counter-weight and the rearwardly extended end of said bridge.

[Claims 5 to 10 not printed in the Gazette.]

1,251,635. SHAFT-COUPLING FOR MOTOR-CARS. ALFRED L. CAMPBELL, Elmhurst, N. Y., assignor to Brewster & Co., a Corporation of New York. Filed Aug. 22, 1916. Serial No. 116,303. (Cl. 64—13.)

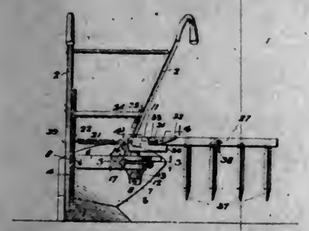


The combination, with the clutch shaft section and the transmission shaft section, of a tubular medial shaft section, axially and universally flexible connections between said medial shaft section and the clutch and transmission shaft sections, centering plungers working in the ends of the tubular medial section, ball and socket connections between said plungers and the clutch and transmission shaft sections, and a spring interposed in said tubular medial section between the plungers.

1,251,636. HARROW ATTACHMENT. MELVEN A. CAUDLE, Mabscott, W. Va., assignor of one-half to Rufus A. Hill, Mabscott, W. Va. Filed May 24, 1917. Serial No. 170,700. (Cl. 97—44.)

1. In a device of the class described the combination of a plow having a mold board, a frame comprising a body having diverging arms extending therefrom, said arms engaging said plow, means for securing said frame in a fixed position, a block pivotally mounted upon said body, means for normally urging said block in one direction, a tooth bar pivotally mounted upon said block, means for yieldably urging said tooth bar in one direction, harrowing elements carried by said tooth bar whereby said har-

rowing elements will harrow or pulverize a furrow turned by said mold board, and said tooth bar capable of upward or rearward movement when undue pressure is applied thereto.



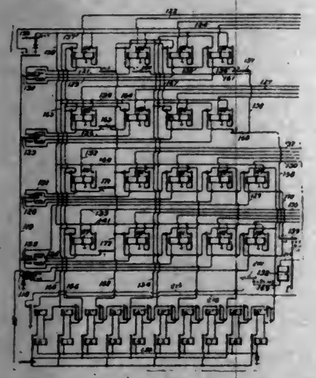
4. In a device of the class described the combination of a plow having a mold board, a frame carried by said plow, a block pivotally mounted upon said frame, means for normally urging said block to pivot in one direction, said block having a tongue and flange formed thereon, a tooth bar having a bifurcated end, said tongue extending into said bifurcated end causing said tooth bar to rest upon said flange, a pivoting means passing through said bifurcated tongue end, thereby pivotally securing said tooth bar upon said block, harrowing means mounted on said tooth bar, and means for normally urging said tooth in one direction, whereby said tooth bar may yield by independent movement or by movement in unison with said block when undue pressure is imparted thereto.

5. In the device of the class described, the combination of a plow having a mold board, a frame carried by said plow, a block having a stem projecting therefrom, said stem being mounted upon said frame, a tooth bar carried by said block, harrowing means carried by said tooth bar, and means carried by said frame and engaging stem for holding said stem at an adjusted height.

8. In a device of the class described, the combination of a plow having a mold board, a frame comprising a body having arms projecting therefrom, means for securing said arms to said plow, a block pivotally mounted upon said frame, means for normally urging said block in one direction, a tooth bar carried by said block, and pulverizing means carried by said tooth bar.

[Claims 2, 3, 6, and 7 not printed in the Gazette.]

1,251,637. TELEPHONE-EXCHANGE SYSTEM. WARREN W. CARPENTER, Newark, N. J., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed Oct. 21, 1915. Serial No. 57,070. (Cl. 179—27.)



1. A series of counting relays normally operating in sequence to transmit a number of impulses in succession, the number of impulses sent ordinarily depending upon the position of the counting relay of the series first operated, in combination with a register relay circuit having a plurality of relays therein arranged in series, said register relay circuit under certain conditions causing the normal operation of said series of counting relays, whereby the number of impulses sent corresponds to the position of the relay of the series first operated, and under certain other conditions causing the number of impulses sent to be less than the number corresponding to the position of the relay of the series first operated.

2. In a semi-automatic telephone system, the combination with keys adapted to be set by the operator in combinations to represent any line number of the system, of a register relay circuit associated with said keys and having a plurality of series of relays therein, said relays being selectively operable in predetermined groups corresponding to the combinations of keys set up by the operator, a series of counting relays governed by the setting of said register relays, and means associated with said register relays for eliminating one pair of counting relays whereby a less number of impulses will be sent than ordinarily.

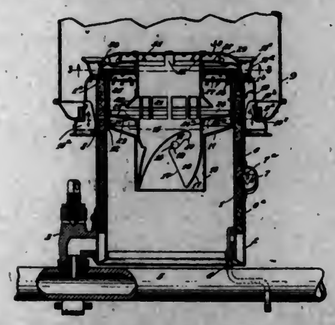
3. In a semi-automatic telephone system, an operator's sending device including a group of register relays, a manually operated device governing the operation of such relays, a counting device, means controlled by said register relays for initially determining the extent of the counting operation of said counting device, and an additional relay governed by certain of said manually operable devices for subsequently modifying the counting operation of such counting device.

4. In a controlling device for semi-automatic telephone systems, a plurality of relays arranged in groups, manually operable keys for controlling the operation of said relays, a series of counting relays governed in its operation by said plurality of relays, means associated with said plurality of relays under certain conditions for altering the operation of said series of counting relays as determined by said keys.

5. In a semi-automatic telephone system, an operator's sending device comprising a plurality of series of register relays, a cut-out relay associated with each series of register relays, a keyboard having a plurality of series of keys corresponding in number to the series of register relays and adapted to be depressed by the operator in combinations to represent any line number of the system, said combination of keys when depressed energizing a predetermined group of register relays and under certain conditions one of said cut-out relays, a switch-controlling means governed in its operation by said register relays, said control by the register relays being altered when one of said cut-out relays are energized.

[Claims 6 to 8 not printed in the Gazette.]

1,251,638. OIL-BURNER. LEE S. CHADWICK, East Cleveland, Ohio, assignor to The Cleveland Metal Products Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 6, 1915. Serial No. 12,649. (Cl. 158—94.)

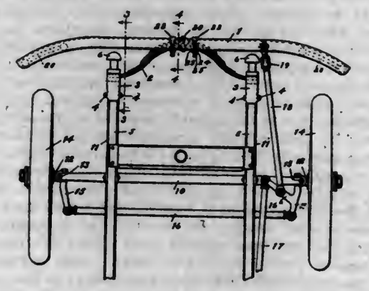


5. In a burner of the character described, the combination of outer and inner wick tubes, a wick therebetween, a spreader plate extending in operative relation to the top of the wick, a second spreader plate above the first mentioned spreader plate and forming therewith a passageway for supplying air to the space above the top of the wick, the second spreader plate being provided with openings between the central and peripheral portions thereof, some of said openings being formed by providing tongues or prongs projecting downwardly from the second spreader plate and arranged with their webs substantially radial and adapted to engage the first mentioned spreader plate thereby to preserve a substantially uniform width of passageway between the peripheral or discharge portions thereof without materially obstructing the flow of air to such portions.

8. In a burner of the character described, the combination of an outer wick tube member, an inner wick tube member, a wick therebetween, an air distributer comprising a spreader adapted to extend in operative relation to the top of the wick, a draft tube connected to the spreader and having a series of locking devices, an air barrier member surrounding the draft tube and in close proximity to the inner wick tube member, one of the two last mentioned members having a series of projections adapted to engage the other thereby to center the air distributer, a perforated spanner plate connecting the air barrier member and the draft tube, and a series of anchoring devices within the inner wick tube and cooperating with said series of locking devices.

[Claims 1 to 4, 6, 7, and 9 to 16 not printed in the Gazette.]

1,251,639. AUTOMATIC CONTROL MECHANISM FOR VEHICLES. LEE S. CHADWICK, East Cleveland, Ohio. Filed Aug. 26, 1915. Serial No. 47,417. (Cl. 21—192.)



1. The combination with a vehicle, of a bumper located beyond and swingably connected to one end of the vehicle, a spring for maintaining the bumper in normal position with respect to the vehicle, and operative connections between the bumper and the steering gear of the vehicle.

5. The combination with a vehicle of the class described, of a pair of brackets that are arranged for attachment to the forward end of the vehicle frame, a semi-elliptic spring having one of its ends attached to each of the brackets, a bumper extending across the front of the vehicle and having its central portions connected to said spring, means for adjusting the angle between the spring and bumper, and an adjustable link connecting one end of the bumper with one of the steering knuckles of the vehicle.

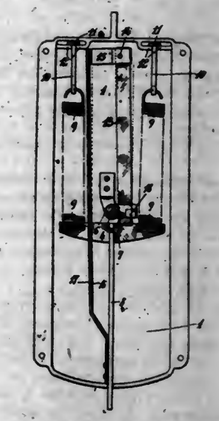
7. The combination with a vehicle of the class described, of a pair of brackets that are arranged for attachment to the forward end of the vehicle frame, a semi-elliptic spring having one of its ends attached to each of the brackets, a bumper extending across the front of the vehicle and having its central portions connected to said spring, and an adjustable link connecting one end of the bumper with one of the steering knuckles of the vehicle.

9. The combination with a vehicle, of a semi-elliptic spring having its ends attached to the vehicle, and a bumper having its central portion connected to the corresponding portion of the spring wherefore the bumper may rock with respect to the spring.

11. The combination of a vehicle, a bumper, a semi-elliptic spring having its ends attached to one and its central portion attached to the other, the bumper and spring being spaced apart except where connected, and means for adjusting the angular relation between the spring and the element to which its central portion is attached.

[Claims 2 to 4, 6, 8, and 10 not printed in the Gazette.]

1,251,640. SCALE. RALPH F. CHATILLON, Greenburg, N. Y., assignor to John Chatillon & Sons, a Corporation of New York. Filed Apr. 24, 1912. Serial No. 692,990. (Cl. 265—69.)



1. A scale comprising weight supporting mechanism, indicating means, an operating pinion therefor, a rigid rack for actuating said pinion, and a thermostat connecting the weight supporting mechanism and the rack for moving the rack bodily according to temperature and transmitting the actuating force between the weight supporting mechanism and the pinion.

2. A scale comprising a weighing spring, a weight supporting member carried by said spring, weight indicating means, an operating pinion therefor, a rigid rack for rotating said pinion, and connections in part rigid and in part thermostatic connecting the weight supporting mechanism and the rack for moving the rack bodily according to temperature and transmitting the actuating force between the weight supporting mechanism and the pinion.

3. A scale comprising a spring, a movable beam connected to the spring, a pointer having an operating pinion, a movable gear element for actuating said pinion, and a thermostat connecting the beam and said movable gear element for maintaining a predetermined movement of the pointer with a movement of the gear element varying with the temperature.

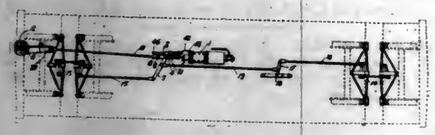
4. A scale comprising a spring, a movable beam connected to the spring, a pointer having an operating pinion, a rigid rack and meshing with said pinion, and a thermostat for automatically moving the rack angularly relatively to the pinion.

5. A scale comprising a spring, a movable beam connected to the spring, a pointer having an operating pinion, a rack engaging the pinion, and a thermostat connected to the beam and to the opposite end of the rack.

1,251,641. SLACK-TAKE-UP FOR FLUID-PRESSURE BRAKE SYSTEMS. GEORGE CHRISTENSON, Jamaica, N. Y., assignor to H. W. Johns-Manville Company, a Corporation of New York. Filed July 22, 1916. Serial No. 110,802. (Cl. 188—50.)

1. In a take-up device for railway brake systems and the like the combination, with a frame and a plunger rod

mounted to slide longitudinally in said frame, of a series of perforated shims mounted in said frame in line with said plunger rod, certain of said shims being held against motion transversely of the plunger and with their perforations in line with said plunger, and others of said shims being capable of limited motion transversely of the plunger so as to bring their perforations either into line with the plunger or out of line therewith.



5. A push rod adapted for use in railway brake systems which has a telescoping plunger adapted to be connected to the brake rigging, a rack mounted on the push rod, a pinion journaled on the plunger engaging the rack, manually operated means for rotating the pinion to adjust the position of adjustment and independent automatic means for holding the plunger in different positions of adjustment.

9. In a take-up apparatus for fluid pressure brakes the combination, with means for taking up excess piston travel capable of manual operation while the brake system is set under tension, of an attachment for operating said means automatically when the brakes are released after any application in which a predetermined amount of excess piston travel has occurred.

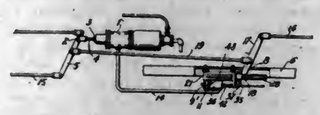
13. In a take-up system for fluid pressure brakes the combination, with two members capable of sliding longitudinally one upon the other and automatic means for holding them in different positions of relative adjustment, of a ratchet bar mounted and movable on one member in guides holding it substantially parallel to both but permitting a slight transverse movement toward and from the second member, a projection on the second member capable of engaging with or disengaging from the ratchet bar by virtue of said transverse to and fro movement, a light spring normally tending to force said ratchet bar toward the second member and into engagement with the projection thereon, a cam bearing between the first member and ratchet bar adapted to move the ratchet teeth away from the second member and out of engagement therewith when the ratchet bar is forced along and toward the second member, and a second more powerful spring normally tending to so move said ratchet bar and engage said cam bearing, whereby said ratchet teeth are normally held out of engagement with the said projection but when the ratchet bar is moved longitudinally toward the first member the teeth are forced into engagement with the said projection and when the ratchet bar is released the more powerful spring forces it back, the lighter spring holding the teeth engaged until the cam bearing disengages them at the end of the return movement.

16. A telescoping rod comprising in combination a shim holding frame, a plunger therein, a spring controlled ratchet bar mounted on the frame, adapted to feed the plunger outward with a step by step motion, passing through a housing on said plunger, and a stop on the end of the ratchet bar coöperating with the housing to prevent the plunger being entirely withdrawn from the shim-holding frame.

[Claims 2 to 4, 6 to 8, 10 to 12, 14, 15, and 17 not printed in the Gazette.]

1,251,642. SLACK-TAKE-UP FOR FLUID-PRESSURE BRAKE SYSTEMS. GEORGE CHRISTENSON, Jamaica, N. Y., assignor to H. W. Johns-Manville Company, a Corporation of New York. Filed Aug. 3, 1916. Serial No. 113,017. (Cl. 188—50.)

1. The combination, with a standard brake rigging comprising a multiplying lever fulcrumed on the car and an adjustable fulcrum for said lever, of manually operated means for adjusting the position of said fulcrum while the brake rigging is under tension, and automatically operated means for adjusting said fulcrum when the brakes have been released after an application in which a predetermined amount of piston travel has occurred.



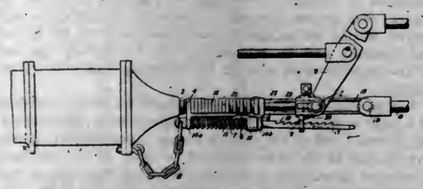
2. The combination, with a standard brake rigging comprising a multiplying lever fulcrumed on the car and an adjustable fulcrum for said lever, of means for adjusting said fulcrum comprising a rack fastened to the car, a pinion meshing with the rack and connected to the fulcrum, and manually operated means for rotating said pinion, together with a plunger and series of coöperating shims for holding said fulcrum in different positions of adjustment.

3. The combination, with a standard brake rigging comprising a multiplying lever fulcrumed on the car and an adjustable fulcrum for said lever, of means for adjusting said fulcrum and maintaining it in adjustment comprising a rack fastened to the car, a pinion meshing with the rack and connected to the fulcrum, manually operated means for rotating said pinion, a plunger and series of coöperating shims for holding said fulcrum in different positions of adjustment, together with a reciprocating ratchet mechanism also adapted to produce said adjustment, a cylinder having a piston connected to said ratchet mechanism and a pipe connecting said cylinder with the brake cylinder and adapted to be thrown into communication with the compressed air in said brake cylinder when the brake piston makes a stroke of predetermined distance.

7. As an element of an automatic slack adjuster for railway brakes a ratchet mechanism comprising the combination of a projection on the brake rigging, a reciprocating ratchet bar adapted to engage said projection, guiding means for said ratchet bar permitting longitudinal movement and sufficient lateral movement to free it from such engagement, a take-up cylinder mounted on the car body, a piston in said cylinder connected to the ratchet bar, a spring normally tending to force the piston in one direction, connections for admitting compressed air from the brake cylinder to that end of the take-up cylinder toward which the take-up piston is normally pressed by the spring, and mechanism causing the ratchet bar to engage the projection on the brake rigging when moved in a direction to compress the spring and to free it from engagement upon the completion of the return movement of the ratchet bar, together with an adjustable stop for limiting the movement of the ratchet bar.

[Claims 4 to 6 not printed in the Gazette.]

1,251,643. AUTOMATIC SLACK-ADJUSTER FOR BRAKE SYSTEMS. GEORGE CHRISTENSON, Jamaica, N. Y., assignor to H. W. Johns-Manville Company, a Corporation of New York. Filed Jan. 4, 1917. Serial No. 140,608. (Cl. 188—50.)



1. In an automatic slack adjuster for power brakes the combination with the usual cylinder, piston and brake rigging, of an adjustable member included in said rigging, comprising a series of shims and a plunger coöperating therewith, and means for automatically moving said plunger away from the shims just far enough on any movement of the piston beyond a predetermined limit to permit only a predetermined number of shims to drop behind the plunger, said means comprising a projection on the plunger, a ratchet rod movable relative to the plunger and having teeth adapted to engage said projection, and mechanism permitting an engagement of said projection by said teeth during any such relative movement just long enough to move the plunger away from the shim a distance equal to the thickness of the predetermined number of shims.

2. In an automatic slack adjuster for fluid pressure brakes having a series of vertically movable shims carried by the piston rod and a plunger pivoted to the floating lever, mounted on the piston rod and abutting against said shims, the combination with said piston rod and plunger of a ratchet bar mounted and movable on the piston rod in a direction parallel to the plunger and adapted to engage a projection on the plunger, a spring forcing said teeth toward engagement with said projection, a rib on the piston rod having a depression therein, a collar on said ratchet rod engaging said rib under pressure from said spring, and means for moving said ratchet rod relative to the piston rod on the occurrence of excess piston travel so that the collar will move along the rib and be forced by the spring into the depression therein and thereby permit the ratchet teeth to engage the projection on the plunger, the length of the depression being such that the possible travel of the ratchet rod collar therein will slightly exceed the thickness of one shim.

1,251,644. TELEPHONE-EXCHANGE SYSTEM. HENRY P. CLAUSEN, Mount Vernon, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Dec. 29, 1916. Serial No. 139,565. (Cl. 179—7.)

1. In a call metering system, a counting device, and means to operate said counting device to record calls in excess of those made at a predetermined rate per unit of time.

2. In a call metering system, a counting device, means to prevent operation of said counting device when calls are made at a certain rate per unit of time, and means to operate said counting device when calls are made at a more rapid rate.

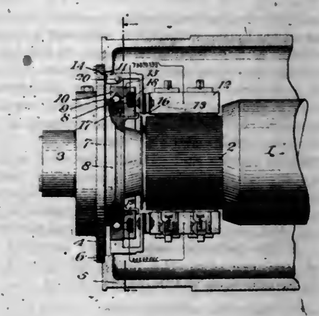
3. In a call metering system, a pair of counting devices, means to operate one of said counting devices to record each call made, means to prevent operation of the other of said counting devices when calls are made at a certain rate per unit of time, and means to operate said other counting device when calls are made at a more rapid rate.

9. In a metering device, a counting device, a rotatable shaft, means to permit the rotation of said shaft in one direction only, means to operate said counting device upon rotation of said shaft, an engaging member mounted on said shaft, a ratchet wheel, projections mounted on said ratchet wheel, means to rotate said ratchet wheel in one direction, means to rotate said ratchet wheel in the opposite direction, means to actuate said counting device upon rotation of said ratchet wheel in one direction when one of the projections carried by said ratchet wheel engages said shaft-carried engagement member, and means to prevent rotation of said ratchet wheel in the opposite direction when the second of said projections engages said shaft-carried engagement member.

10. In a metering system, a device whose operations are to be counted, a pair of counting devices, a magnet operable upon each operation of the device whose operations are to be counted, a ratchet wheel, means to rotate said ratchet wheel in one direction upon each energization of said magnet, a second magnet, means to energize said second magnet at desired time intervals, means to rotate said wheel in an opposite direction upon each energization of said magnet, means to actuate one of said counting devices upon each energization of said first magnet, and means to actuate the other of said counting devices upon rotation of said ratchet wheel in one direction when said ratchet wheel and said last-mentioned counting device are in certain relative positions.

[Claims 4 to 8 not printed in the Gazette.]

1,251,645. REVERSIBLE BRUSH-HOLDER FOR USE WITH DYNAMOS. JOHN L. CREVELING, New York, N. Y., assignor to Safety Car Heating and Lighting Company, a Corporation of New Jersey. Filed Aug. 19, 1911. Serial No. 644,983. (Cl. 171—318.)



1. The combination of a dynamo electric machine having an armature; a commutator; and commutator brushes resting thereon; brush-holders therefor; movable means for supporting said brush-holders, and to which the latter are fixed in predetermined relation; yielding means for limiting the movement of the movable means; and magnetic means for holding the brushes when they have reached the limit of movement.

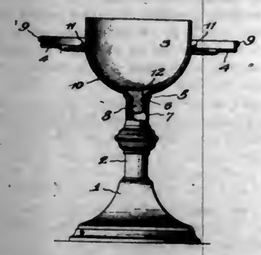
3. A dynamo comprehending an armature subject to reversals in direction of rotation, coöperating means movable with said armature for maintaining a constant polarity of the current delivered upon said reversals, a yielding stop coöperating therewith, and magnetic means for firmly holding said first-named means.

5. A dynamo having an armature, a commutator and brushes therefor; means for holding said brushes in operative relation to said commutator; means for supporting said brush-holding means whereby the same may be rotated; yielding means for limiting rotation thereof; and magnetic means for engaging and holding said brush holding means.

8. The combination with a dynamo electric machine, having an armature, a commutator, and commutator brushes resting thereon; brush-holders therefor; rotatable means for supporting said brush-holders including a fixed arm; and yielding means carried by the frame of the machine in a fixed position for limiting the movement of the rotatable means by engagement with said arm; and additional means for holding the brushes when they have reached the limit of rotation.

[Claims 2, 4, 6, and 7 not printed in the Gazette.]

1,251,646. COMBINED CHALICE AND PATEN. WILLIAM A. DAY, Providence, R. I., assignor to Gorham Manufacturing Company, Providence, R. I., a Corporation of Rhode Island. Filed June 16, 1917. Serial No. 175,062. (Cl. 65—13.)

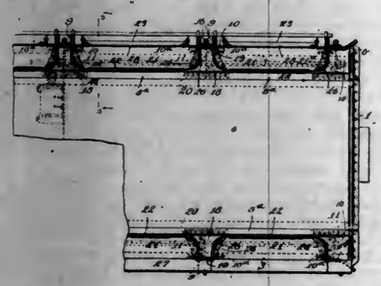


1. In a combined chalice and paten, a pedestal having a hollow stem formed at its upper end with an annular seat, an inner concaved seat and an internal depending sleeve, a paten engaging on the annular seat of the stem and provided with a central opening, and a cup having a depending screw passing through the opening of the paten and threadedly engaging the sleeve of the stem for drawing the cup down onto the paten to clamp the latter to its seat.

2. In a combined chalice and paten, a pedestal having a stem formed at its upper end with a seat and a central threaded opening, a cup having a screw engagable in the stem opening for securing the cup thereto, and a paten having a central cup-like extension conformably receiving the cup and provided with a central opening through which the cup screw passes for clamping the paten extension between its seat and the cup.

3. In a combined chalice and paten, a pedestal support having an annular seat, a concaved seat and a central screw threaded opening, a paten engaging on the annular seat and provided with an opening, and a chalice having a screw formed with an enlarged base conformable to the concave seat of the pedestal support for entering the paten opening and centering the paten relative to the chalice, the latter clamping the paten to its seat.

1,251,647. CAR CONSTRUCTION. GEORGE BINET DOREY, Montreal Quebec, Canada, assignor to Rodger Ballast Car Company, Chicago, Ill., a Corporation of Maine. Filed June 11, 1914. Serial No. 844,524. (Cl. 105—14.)



1. In a ballast car adapted to have a plow passed therethrough, a floor, a discharge depression at the side and flaring outwardly, the inner corners of such depression being rounded concavely in the horizontal plane of the car and a hinged side door controlling the discharge from the car.

2. In a ballast car, the underframe, a floor upon the underframe and spaced from the sides thereof, stakes at the sides of the underframe, gussets extending between the underframe and stakes and side floor portions sloping downwardly from the floor and being secured at their ends to said gussets.

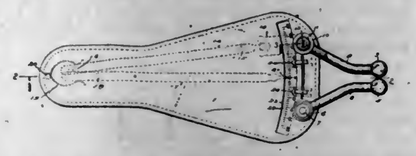
3. In a ballast car, a stake, a horizontal transverse gusset for securing the stake to the car and angularly disposed extensions formed with said gusset and extending longitudinally of and secured to the car.

4. In a ballast car, the underframe including cross-bearers and side sills, a horizontal floor upon the underframe and spaced from the sides of the latter, stakes at the ends of the cross-bearers, transverse braces secured to the top of the underframe and to the stakes, downwardly inclined side floor portions extending between the cross-bearers from the horizontal floor to the side sills, horizontal gussets extending outwardly along the top of the transverse braces and secured to the stakes, such horizontal gussets being downwardly flared and secured to the ends of the inclined floor portions.

5. In a ballast car, the underframe including cross-bearers, a floor spaced from the sides of the under frame, stakes secured to the cross-bearers, longitudinally disposed vertical gussets located between and secured to the stakes and cross-bearers, the edges of such gusset being inclined away from the stake and having inwardly extending flanges, side floor portions inclined downwardly and outwardly between the cross-bearers and secured at their ends to said flanges.

[Claims 6 to 8 not printed in the Gazette.]

1,251,648. CALIPERS. RAYMOND J. DUNN, Hartford, Conn. Filed May 23, 1917. Serial No. 170,356. (Cl. 33—148.)



2. A caliper having a casing, a feeler finger adjustably fixed upon the casing, a feeler finger pivoted upon the casing, a finger lever adjustably attached to the pivoted finger, a pivoted pointer, a spring retaining the pointer in normal position, a multiplying lever with one end engaged with the finger lever and the other end engaged with the pointer and adapted to trasmit movement from the finger lever to the pointer, and a scale over which the end of the pointer travels to indicate the movement of the pivoted finger.

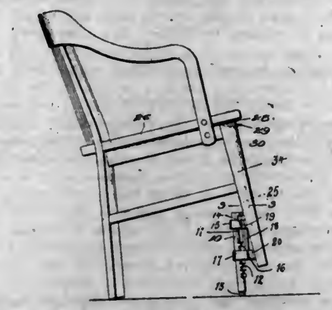
3. A caliper having a casing, a feeler finger fixed on the casing, a feeler finger pivoted to the casing, a finger lever attached to the pivoted finger, a pivoted pointer, a multiplying lever with one end engaging the finger lever and the other end engaging the pointer, a spring holding the multiplying lever and the pointer in engagement and retaining the pointer in normal position, and a scale over which the end of the pointer travels to indicate the movement of the pivoted finger.

4. A caliper having a casing, a curved finger with a rounded end detachably fixed upon the casing, a lever pivotally mounted in the casing, a curved finger with a rounded end detachably fixed upon said lever, an oscillatory pointer, a lever connecting the first mentioned lever with said pointer and transmitting the movement of the finger to the pointer, a spring retaining the pointer in normal position, and a scale over which the end of the pointer travels to indicate the movement of the pivoted finger.

[Claims 1 and 5 not printed in the Gazette.]

1,251,649. CHAIR-LEG EXTENSION. HILMER N. ENHOLM, Lomax, Ill. Filed June 1, 1917. Serial No. 172,239. (Cl. 155—26.)

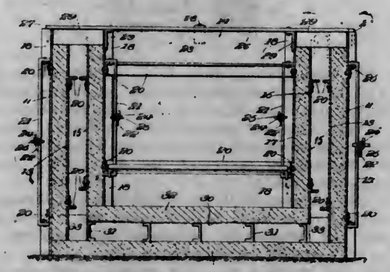
1. A device of the class described, comprising a bracket including a connecting member and upper and lower members of unequal length and adapted to be connected to a chair leg and each provided with a guideway, a stock slidable through said guideways and maintained in a substantially vertical position when the chair is tilted, and means for locking said stock in position relative to said bracket.



2. A device of the class described comprising a bracket including upper and lower connected members adapted to be attached to a chair leg and each having a guideway, a stock member movable through said guideways and having a longitudinally directed guide rib operating through one of the guideways and preventing the rotation of the stock and with a plurality of notches operating through the other guideway, a pawl device carried by one of said bracket members and engaging said notches one at a time, and a pull member connected to said pawl.

3. A device of the class described comprising a bracket including upper and lower connected members each having a guideway and diverging inner ends, forming sockets to engage the leg of a chair, one of said sockets having a guide recess, a stock member slidable through said guideways and having a plurality of notches, a pawl device carried by one of said bracket members and engageable with said notches one at a time, and a pull member connected to said pawl device and extending through said guide recess.

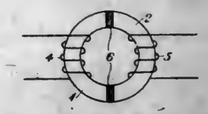
1,251,650. MOLD FOR WEATHERPROOF WATERING-TROUGHS. HILMER N. ENHOLM, Burlington, Iowa, assignor, by direct and mesne assignments, to Weather-Proof Watering Trough and Tank Mfg. Co., Inc., Burlington, Iowa. Filed July 6, 1917. Serial No. 178,945. (Cl. 25—130.)



1. A molding apparatus of the class described comprising an outer shell adapted to bear upon a supporting base, an inner shell spaced at its lower edge from the support and in transverse alinement at its upper edge with the upper line of the outer shell, an outer intermediate shell spaced from the outer shell and spaced at its upper and lower edges respectively above the support and below the line of the upper edge of the outer shell, an inner intermediate shell spaced from the inner shell with its upper edge in transverse alinement with the upper edges of the outer intermediate shell and extending at its lower edge above the line of the lower edge of the outer intermediate shell, and a retaining member adapted to be disposed between the outer and inner shells and below the upper line of the same, said shells adapted to receive cementitious material between them and above the retaining member.

[Claims 2 to 6 not printed in the Gazette.]

1,251,651. CORE FOR MAGNETIC COILS. LLOYD ESPENSCHIED, Hollis, N. Y., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed Sept. 17, 1917. Serial No. 191,775. (Cl. 175—21.)



1. A magnetic coil having a core the magnetic circuit of which is discontinuous, and means for bridging the discontinuities of said circuit consisting of particles of magnetic material separated by non-magnetic spaces.

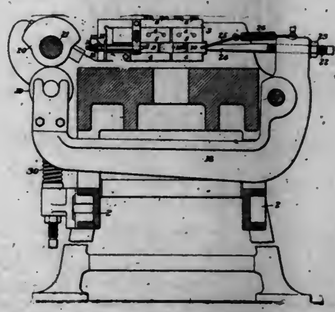
5. A magnetic coil having a core of magnetic material, a gap in said core to render said core self demagnetizing so that the impedance constants of the coil will readily return to their normal value after the coil has been subjected to the effect of magnetizing current, and means to reduce the reluctance of the air gap without materially reducing the self-demagnetizing effect of the core, comprising particles of magnetic material arranged in said gap, said particles being separated by non-magnetic spaces.

7. A magnetic coil having a ring core, said core being formed of segments of magnetic material, the ends of the segments being separated by gaps, and filler members for said gaps consisting of particles of magnetic material separated by non-magnetic spaces.

10. A loading coil having a core provided with a gap, and means to fill the gap comprising minute particles of magnetic material separated by non-magnetic spaces.

[Claims 2 to 4, 6, 8, 9, and 11 not printed in the Gazette.]

1,251,652. DIE FOR RIVET AND NAIL MACHINES. EDWARD E. FARMER, Struthers, Ohio, assignor to The Youngstown Sheet & Tube Company, Youngstown, Ohio, a Corporation of Ohio. Filed Jan. 26, 1917. Serial No. 144,649. (Cl. 10—24.)



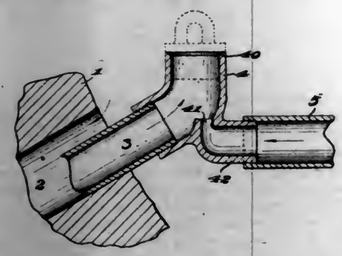
1. A device of the character described comprising a die block having an opening therethrough for the stock and adapted to be removably secured to a machine frame, movable dies in the block, removable guides on said block for the dies, said dies being arranged to be moved laterally with relation to the opening through the block to shear a blank from the stock, a stop for limiting the movement of both dies in one direction, and means carried by the block to return the dies in position in front of the opening, substantially as described.

3. A device of the character described, comprising a die block having an opening therethrough for the stock and

adapted to be removably secured to a machine frame, movable dies in said block, said dies being arranged to be moved laterally with relation to the opening through the block to shear a blank from the stock, an adjustable stop carried by the die block for limiting the movement of the dies in one direction, and spring means carried by the block to return the dies in position in front of the opening, substantially as described.

[Claims 2, 4, and 5 not printed in the Gazette.]

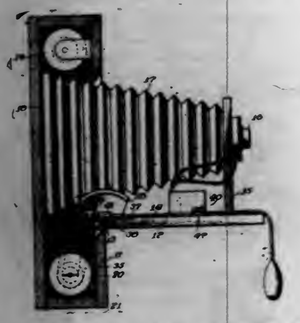
1,251,653. STUMP-BURNER. ALBERT S. GOODWIN and CHARLES C. HURD, Tacoma, Wash. Filed Apr. 30, 1917. Serial No. 165,574. (Cl. 110—21.)



1. A stump burning device comprising a blast pipe adapted to enter a hole formed in the stump, means for inducing a draft of air in said pipe, and means for reversing the direction of said draft.

2. A stump burning device comprising a pipe, a head secured on one end of said pipe and containing a discharge opening and nozzle discharging into said head in a manner to induce discharge through said opening and means for closing the discharge at this end of the pipe.

1,251,654. CAMERA. FRANK GREENE, Chicago, Ill. Filed Feb. 4, 1916. Serial No. 76,076. (Cl. 95—32.)



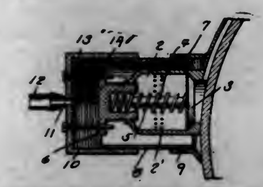
1. In a camera, the combination with the film spool, the lens, and the shutter, of means for winding the spool of film to present a fresh sensitized surface to the lens, and a driving connection between the film winding means and the door of the camera, said film winding means including normally uncoupled elements, and means actuated by the shutter in the act of making an exposure to couple the said elements of the driving connection whereby the film winding means will be actuated automatically by the door movement of the camera only after the making of an exposure.

6. In a camera, the combination with the film spool, the lens, and the shutter, of a shaft, a drive connection between the shaft and spool, a pinion on the shaft, a toothed sector mounted on the camera bed to oscillate about its center in the opening and closing of the camera, a rock shaft carrying the sector to bring the same into and out of mesh with the pinion, spring means to yieldingly hold the sector in mesh with the pinion, a trip arm carried by the shaft, means to engage the arm as the camera is opened to rock the sector in opposition to the spring out of mesh with the pinion, a detent included in the shutter mechanism and engaging the trip to hold the sector out of mesh with the pinion, said detent arranged to release the trip as the exposure is made and permit the spring means to restore the sector into mesh with the pinion.

9. In a camera, the combination with a film spool, the lens, and the shutter, of a shaft, a pinion on the shaft, a one-way drive connection between the pinion and spool, a toothed sector mounted on the camera bed to oscillate about its center in the opening and closing of the camera, a rock shaft carrying the sector to bring the same into and out of mesh with the pinion, spring means to rock the shaft in one direction to swing the sector into meshing position with the pinion, a trip arm carried by the shaft and provided with three lips, means to engage the first lip as the camera is opened to rock the sector in opposition with the spring out of mesh with the pinion, shutter setting mechanism comprising a setting lever, a bar swinging therefrom and having an upper flat surface and a lower beveled surface, the flat surface of the bar arranged in the path of the second lip whereby the tilting of the trip will operate the lever to set the shutter and the lower beveled surface of the bar arranged in the set position of the shutter to overlie the second lip and to permit the bar to be pushed out of the way to allow the return of the lip, a shutter releasing mechanism comprising a release lever, a detent adapted to be pushed out of the way by the third lip as the shaft is rocked in the setting of the shutter and to snap over the third lip to hold the trip in said position, the release lever operated by the making of the exposure to cause the detent to release the third lip whereby to permit the spring means to restore the sector to its original position in mesh with the pinion after an exposure is made.

[Claims 2 to 5, 7, and 8 not printed in the Gazette.]

1,251,655. EXHAUST-VALVE MUFFLER. ENOCH CONRAD GUNNARSON, New York, N. Y. Filed Nov. 3, 1915. Serial No. 59,448. (Cl. 61—7.)



1. The combination with a diver's helmet including an exhaust valve and an adjusting nut for the valve, of a collar secured to the helmet, a sleeve mounted in the collar, a cap adjustably engaged with the sleeve, pins adjustably and removably carried by the cap and engaging said adjusting nut to actuate the same, and a flexible tube leading from the cap.

2. The combination with a diver's helmet including an exhaust valve, a casing for said valve, and a tension adjusting nut threaded in the casing and engaging said valve, of a muffler consisting of a sleeve secured to the helmet and inclosing the valve casing, a cap adjustably carried by the sleeve and provided with an air outlet and means fixed to the cap and engaging said adjusting nut to actuate the same as the cap is adjusted on the sleeve.

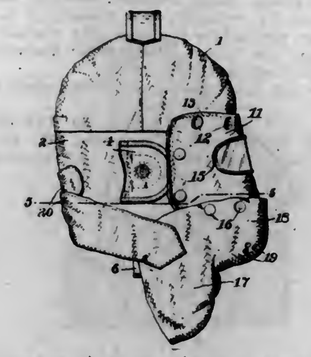
1,251,656. CIGAR-WRAPPER CUTTER. JAMES S. HAGERTY and LAWRENCE N. BEATY, Mannington, W. Va. Filed May 18, 1917. Serial No. 169,539. (Cl. 131—49.)

A cigar wrapper cutter comprising a disk cutter and a housing for the same formed of a plate folded to lie on each side of the cutter and enlarged on the line of folding to provide a substantial cylindrical hand-hold, the ends of the housing being closed and tapered downwardly



from the housing to adjacent the cutter edges, to prevent contact of the operator's fingers with the cutter.

1,251,657. HELMET FOR USE OF AVIATORS AND THE LIKE. HENRY RIDGEWAY HART, New York, N. Y. Filed Apr. 7, 1917. Serial No. 160,396. (Cl. 2—118.)



1. In combination a crown portion having a skirt extending down the back of the head and down the sides of the face but terminating in rear of the front of the crown, a mask portion having eye shields and detachably secured to the front edge of the crown and to the front edges of the skirt, and a shield for the neck detachably secured to the lower edge of the mask and depending therefrom.

2. In combination a crown portion having a skirt, a mask detachably secured to the crown portion and skirt and a shield detachably secured to the mask and depending therefrom, substantially as described.

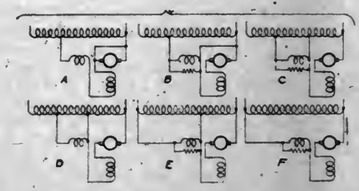
6. In combination a crown and mask with a shield depending from the mask, said shield being detachably secured to the mask on the outside of and above its lower edge, the middle portion of the said shield at its upper edge being bulged forwardly, in relation to the lower edge of the mask and thereby spaced therefrom, substantially as described.

7. In combination, a crown portion having a skirt depending along the back and sides of the head, and having fastening means to pass under the chin, a mask detachably secured to the crown at its front part and to the front parts of the depending skirt, and a shield detachably secured to and extending below the mask and having rearward extensions with means for detachably securing the same to the skirt, substantially as described.

[Claims 3 to 5 not printed in the Gazette.]

1,251,658. SYSTEM OF CONTROL. RUDOLF E. HELLMUND, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Sept. 25, 1914. Serial No. 863,505. (Cl. 172—276.)

1. In a control system, the combination with a transformer winding, of an alternating-current commutator motor having an inducing field winding, an impedance device, means for connecting said motor initially as a repulsion motor, means for subsequently establishing a doubly-fed connection for said motor, means for temporarily inserting said impedance device in parallel with said inducing field winding during the change from repulsion to doubly-fed motor connections, and means for temporarily connecting said impedance device across a certain portion of said transformer winding for changing the voltage applied to said motor without short circuiting said transformer.

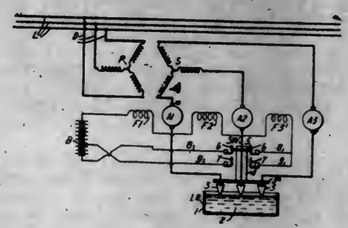


2. In a control system, the combination with a transformer winding, of an alternating-current commutator motor having an inducing winding, means for connecting said motor initially as a repulsion motor, means for subsequently establishing a doubly-fed connection for said motor, an impedance device, means for temporarily inserting said impedance device in parallel with said inducing-field winding during the change from repulsion to doubly-fed motor connections, and means for finally connecting said motor for series operation, with said impedance device in parallel with said inducing-field winding.

3. The method of securing uniform acceleration and a plurality of satisfactory operating positions with an alternating-current motor of the series commutating type provided with an inducing field winding which comprises operating said motor at low speeds as a doubly-fed motor and at high speeds as a doubly-fed motor with a device having ohmic resistance in parallel with said inducing field winding.

4. The method of securing uniform acceleration and a plurality of satisfactory operating positions for an alternating-current motor of the series commutating type provided with an inducing field winding which comprises operating said motor at low speeds as a doubly-fed motor, at medium speeds as a doubly-fed motor, with a device having ohmic resistance in parallel with said inducing field winding, and at high speeds as a series motor, with said device in parallel with said inducing field winding.

1,251,659. CONTROL SYSTEM. RUDOLF E. HELLMUND, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Jan. 23, 1915. Serial No. 3,918. (Cl. 172—274.)



1. In a system of control, the combination with an induction motor having a primary and a secondary winding, of a phase-advancing machine disposed to energize said secondary winding, a driving motor for said machine, switching means for varying the resistance of the secondary winding circuits, speed-regulating connections for said driving motor, and means energized in accordance with said switching means for varying said connections.

2. In a system of control, the combination with an induction motor having a primary and a secondary winding,

of a phase-advancing machine disposed to energize said secondary winding, a driving motor for said machine, switching means for varying the resistance of the secondary winding circuits, speed-regulating connections for said driving motor, and conducting means energized in accordance with said switching means for changing said connections to vary the phase-regulating effect of said machine in predetermined direct proportion to the value of active secondary winding-circuit resistance.

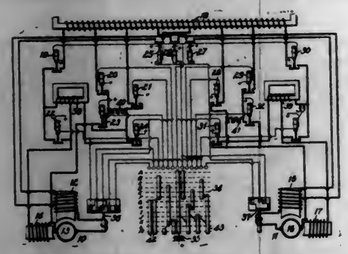
3. In a system of control, the combination with an induction motor having primary and secondary windings, of a phase-advancing dynamo-electric machine connected to said secondary winding, driving means for said machine, means for inserting different amounts of resistance in circuit with said secondary winding, and means for controlling the speed of said driving means in accordance with the adjustment of said resistance-controlling means.

4. In a system of control, the combination with an induction motor having primary and secondary windings, of a phase-advancing dynamo-electric machine connected to said secondary winding, driving means for said machine, means for inserting different amounts of resistance in circuit with said secondary winding, and means for controlling the speed of said driving means to vary the phase-regulating effect of said machine in predetermined direct proportion to the value of active secondary-winding-circuit resistance.

5. In a system of control, the combination with an induction machine having primary and secondary windings and subject to operation either as a motor or as a generator, of a phase-advancing dynamo-electric machine connected to said secondary winding, driving means for said machine, means for inserting different amounts of resistance in circuit with said secondary winding, means for controlling the speed of said driving means in accordance with the adjustment of said resistance-controlling means, and means whereby the phase order of said phase advancer may be reversed when said induction machine reverses in function.

[Claim 6 not printed in the Gazette.]

1,251,660. CONTROL SYSTEM FOR ALTERNATING-CURRENT MOTORS. RUDOLF E. HELLMUND, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Nov. 29, 1915. Serial No. 63,974. (Cl. 172—276.)



1. The combination with an alternating-current motor of the commutator type, of a source of alternating current, means for adjusting the speed of said motor by altering the connections thereof to said source, and means for automatically weakening the main field of said motor when the load current exceeds a predetermined amount and for simultaneously reducing the motor voltage.

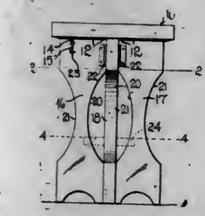
3. The combination with a source of alternating current having a mid point, of two alternating-current motors of the commutator type connected in series relation across said source, said motors having main field windings, means for interconnecting points in said main field windings, and alternative means for connecting said main field windings to separate points beyond the mid point of said source in such manner that the field connections overlap and the sum of the voltages applied to said motors is greater than the total voltage of said source.

5. The combination with a source of alternating current, of two alternating-current motors of the commutator type, means for connecting said motors in series across said source for low-speed operation and for connecting each motor across more than half of said source for high-speed operation, and automatic means for reverting from the latter connection to the former connection if the load current exceeds certain predetermined amounts during high-speed operation.

7. The combination with a source of alternating current, of an alternating-current motor of the compensated, commutator type having cross field windings connected to said source, an auxiliary transformer, means for connecting a portion of said transformer as a choke coil to reduce the motor voltage during low-speed operation, and automatic means for connecting said transformer to reduce the voltage supplied to the cross field winding if the load current falls below a predetermined minimum value during high-speed operation.

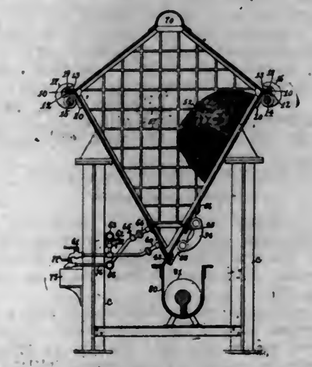
[Claims 2, 4, and 6 not printed in the Gazette.]

1,251,661. COLLAPSIBLE STAND OR TABLE. WILLIAM H. HENDERSHOTT, Parkersburg, W. Va. Filed Dec. 2, 1916. Serial No. 134,727. (Cl. 45—11.)



As an article of manufacture, a table of the character described comprising a top formed upon its under face with depending flanges, defining a cruciform groove, and a base for the support of said top composed of four legs hinged to each other for movement into a cruciform or a parallel relation, two of the legs having a width greater than the other two legs and when in a cruciform relation abutting against each other and extending in the same plane, the other two relatively narrow legs being disposed in the same plane, but abutting against the side faces of the first two legs, and means carried by the table top detachably engaging the table top to the legs.

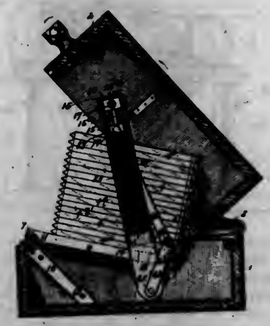
1,251,662. FILTERING APPARATUS. CARL F. HETTINGER, Boston, Mass. Filed Mar. 2, 1915. Serial No. 11,562. (Cl. 210—13.)



1. In a filtering apparatus, in combination, a casing provided with an inlet for the material to be filtered, a plurality of hollow filter members extended transversely of the casing, and a plurality of hollow water supplying members located in said casing and extended transversely of the casing between said filter members to form chambers between the latter, said water supplying members being of substantially the same area as the said filter members and provided with a plurality of water outlets opposing said filter members, a water inlet for said water supplying members, and a filtrate outlet for said filter members.

[Claims 2 to 4 not printed in the Gazette.]

1,251,663. FILING APPLIANCE. HARRY J. HICK, Alliance, Ohio, assignor to The McCaskey Register Company, (incorporated in 1914,) Alliance, Ohio, a Corporation of Ohio. Filed July 24, 1914. Serial No. 852,835. (Cl. 45—2.)



1. A filing case including similar base and cover sections with guiding hinge connections for swinging and shifting the cover section upon the base section, a plurality of hinged holders mounted in the case having their hinged ends depending from a pivotal connection with the rear end of the cover section, means for supporting and guiding the free ends of the holders upward and forward from within the base section over the forward rim thereof including inclined tracks having rollers on their upper ends for bearing the forward ends of the holders when extending over the base rim.

3. A filing case including similar base and cover sections with guiding hinge connections for swinging and shifting the cover section upon the base section, a plurality of hinged holders mounted in the case having their hinged ends depending from a pivotal connection with the rear end of the cover section, means for supporting and guiding the free ends of the holders upward and forward from within the base section over the forward rim thereof, and means inoperative when the cover section is in and near its upright position for counterbalancing the same and the rearward thrust of the holders when swung downward into intermediate and closed positions.

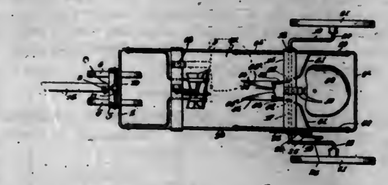
5. A filing case including similar base and cover sections with guiding hinge connections for swinging and shifting the cover sections upon the base section, a plurality of hinged holders mounted in the case having their hinged ends depending from a pivotal connection with the rear end of the cover section, means for supporting and guiding the free ends of the holders upward and forward from within the base section over the forward rim thereof, means inoperative when the cover section is in and near its upright position for counterbalancing the same when swung downward into intermediate and closed positions, and means for elevating and sustaining the hinged ends of the holders coördinated with and supplementing the cover counterbalance means when the cover section is in and near its closed position.

6. A filing case including similar base and cover sections with guiding hinge connections for swinging and shifting the cover sections upon the base section, a plurality of hinged holders mounted in the case, having their hinged ends depending from a pivotal connection with the rear end of the cover section, means for supporting and guiding the free ends of the holders upward and forward from within the base section over the forward rim thereof, a frame including a bearing member with a plurality of slide rods extending upward therefrom having stop pins on their upper ends, a main head pivoted to the case cover having sliding engagement with the rods, a minor head in the path of the main head having sliding engagement with certain of the rods, compression springs around the rods between the bearing member and the respective sliding heads, a pendent link pivoted to the base and the bearing member and having the case pivot extended to form a pivotal abutment for the bearing member, and a swinging link pivotally connected with the minor head and the hinged end of the lower holder.

8. A filing appliance including a case having base and cover sections hinged together, a plurality of bill holders operatively mounted within the case, and counterbalancing and sustaining means for the cover section and bill holders, the counterbalancing means for the cover section being inoperative when the cover section is in and near its upright position and being operative when swung downward into intermediate or closed position.

[Claims 2, 4, 7, 9, and 10 not printed in the Gazette.]

1,251,664. BEET-HARVESTING MACHINE. WILHELM HIRNING, Rupert, Idaho. Filed Jan. 11, 1917. Serial No. 141,843. (Cl. 55—106.)



1. A beet topping and digging machine, having a wheel mounted frame, a pair of spaced inwardly and downwardly and forwardly directed arms secured to the frame adjacent the rearward end thereof, spaced forwardly tapering digging members secured on the lower ends of said arms, a tripping rod connecting said digging members adjacent their upper ends, braces secured to said arms and the side bars of said frame, and means for adjusting said digging members vertically.

3. In beet harvesting machines, a frame, downwardly and forwardly inclined digging members carried thereby, each of said members having an outer vertical arm and an upper horizontal arm, said horizontal arm being tapered forwardly whereby a rearwardly converging beet receiving passage is provided between said digging members, and a tripping rod secured to the digging members and extending across said passage adjacent the upper end thereof whereby beets forced between the digging members will be turned so as to be caused to lie flat upon the ground after being discharged from the digging members.

[Claim 2 not printed in the Gazette.]

1,251,665. ELECTRIC RIVETING-TOOL. LEO HIRSH, Chillicothe, Mo., assignor of one-half to Robert James Chamberlain, Chillicothe, Mo. Filed July 31, 1916. Serial No. 112,409. (Cl. 172—126.)



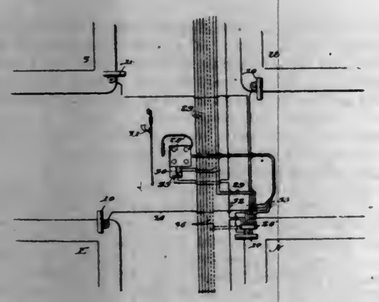
1. An impact tool including a substantially cylindrical casing, a double spool of insulating material disposed

within the casing and including a tubular body and spaced annular flanges, the flanges engaging the inner wall of the casing to centralize the body, solenoid windings one on each part of the spool with their other convolutions within the circumferences of the flanges and consequently out of engagement with the casing, metallic bushings engaging in the ends of the spool and of less internal diameter than the internal diameter of the body, a plunger reciprocally mounted in and journaled by the bushings whereby the bushings hold them in spaced relation to the body, and means operable by reciprocation of the plunger for alternately opening a circuit through one solenoid winding and closing it through the other.

2. In an apparatus of the class described, the combination with a pair of circuits and a reciprocating member carrying an abutment, of a bracket forming a portion of both circuits, a pair of brushes carried by and insulated from the bracket and each forming a portion of one of the circuits, a contact member reciprocally mounted in the bracket, spaced collars adjustably mounted upon the contact member and engageable by the abutment of the reciprocating member whereby to cause reciprocation of the contact member, and insulating sleeves carried by the contact member whereby during movement of such member each brush will alternately engage a sleeve or a metallic part of the member.

3. In an apparatus of the class described a bracket, a contact member slidable in the bracket, spaced sleeves of insulating material carried by the contact member, spaced collars carried by the contact member and adjustable toward and away from each other and contact brushes carried by the bracket and insulated therefrom, the contact brushes alternately engaging the contact member or an insulated sleeve thereof during reciprocation of the contact member.

1,251,666. MUNICIPAL TRAFFIC-CONTROL SYSTEM. JAMES B. HOGE, Cleveland, Ohio. Filed Sept. 22, 1913. Serial No. 791,222. (Cl. 177—333.)



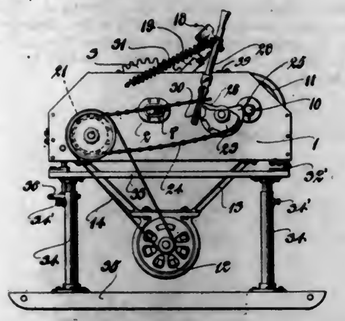
1. In a municipal traffic control system, traffic control signals above a roadway, and actuating means therefor comprising pedals mounted flush with the roadway, whereby the operator may control the signals while on his feet.

6. In a traffic control system, signal devices positioned above two intersecting roadways in proximity to their intersection, one set of signals visible along and controlling traffic in both directions through one road, and the other set in both directions through the other road, a source of current and separate circuit connections therefrom to said signals, with interlocking circuit closing means for the respective pairs of circuit connections, so arranged that the circuits of only one set of signals, appropriate to one road, can be closed at the same time, whereby confusion of traffic is prevented.

7. In a traffic control system, elevated electric signals in two sets, respectively associated with and visible along each of two intersecting roadways, a source of current and circuit connections therefrom to each of said signals, a circuit closer for each signal, and a master circuit controlling device associated with said circuit closers and adapted to supply current therethrough to only one set of similar signals at the same time, whereby confusion in traffic is avoided.

[Claims 2 to 5 and 8 to 10 not printed in the Gazette.]

1,251,667. POWER-DRIVEN HAMMER. ALBERT HUNTER, Spokane, Wash. Filed Apr. 4, 1917. Serial No. 159,827. (Cl. 61—40.)



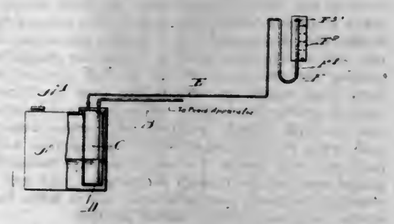
1. A machine of the character described, comprising a shiftable shaft, a hammer wheel mounted thereon, an impact element carried by the wheel, a rotatable gear wheel adapted to engage said hammer wheel to rotate the same, and an additional gear wheel adapted to engage said hammer wheel to impart reverse rotation thereto.

2. A machine of the character described, comprising a shiftable shaft, a hammer wheel mounted thereon, an impact element carried by the wheel, a rotatable gear wheel adapted to engage said hammer carrying wheel to rotate the same in one direction of rotation, an additional gear wheel adapted to engage said hammer carrying wheel to rotate the same in an opposite or reverse direction of rotation from that induced by the first mentioned gear wheel, and means for manually shifting said shiftable shaft.

5. An apparatus of the character described, comprising a machine hammer, a portable stand, a casing having one end hingedly mounted on said stand the casing serving to support the hammer, and threaded adjusting elements adapted to elevate and depress the opposite end of said casing to position said hammer.

[Claims 3 and 4 not printed in the Gazette.]

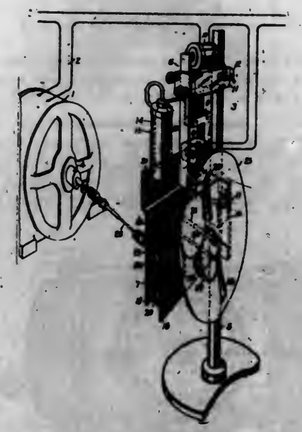
1,251,668. LIQUID-SUPPLY GAGE. WEBB JAY, Chicago, Ill. Filed Oct. 21, 1916, Serial No. 126,886. Renewed Nov. 9, 1917. Serial No. 201,183. (Cl. 73—54.)



1. In combination with a liquid supply receptacle having an atmosphere inlet at the upper part; a fitting inserted down through the top of the receptacle, and having a screened intake mouth at its lower end; a liquid discharge tube extending air tight through the top of said fitting, and down within the same and open at the lower part for liquid intake; an air tube connected to the top of the fitting and a pressure gage to which said tube leads.

[Claims 2 and 3 not printed in the Gazette.]

1,251,669. STROBOSCOPIC DEVICE. GUNNAR JENSEN. Swissvale, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Oct. 9, 1915. Serial No. 54,949. (Cl. 172—245.)



1. In a stroboscopic device for an alternating-current motor, the combination with a supporting standard, a vibratory member, and means adjustable along the standard for supporting the vibratory member and for actuating the same in synchronism with the alternating current, of a rotatable disk adjustably mounted on the standard and operatively connected to the motor.

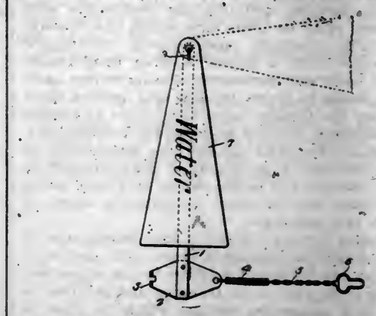
6. In a stroboscopic device for an alternating-current motor, the combination with a supporting standard, a vibratory member adapted to be vibrated in synchronism with the alternating current, and means for attaching the vibratory member to the supporting standard, of a rotatable disk, a gear mechanism operatively connected between the disk and the movable member of the motor, and means for adjusting the position of the disk with respect to the supporting standard.

7. In a stroboscopic device for an alternating-current motor, the combination with a supporting standard, a vibratory member adapted to be vibrated in synchronism with the alternating current, and means for attaching the vibratory member to the supporting standard, of a gear box, a disk rotatably mounted on the gear box, a gear mechanism within the gear box, means for connecting the gear mechanism to the rotatable member of the motor, and means for shifting the position of the gear box along the supporting standard.

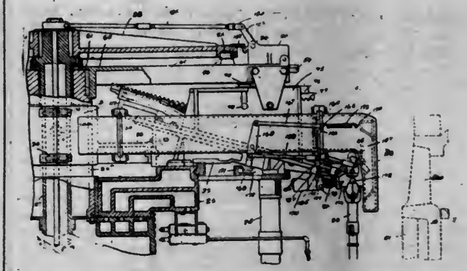
[Claims 2 to 5 not printed in the Gazette.]

1,251,670. INDICATOR. JOHN H. JUST, Syracuse, N. Y. Filed May 26, 1916. Serial No. 100,140. (Cl. 40—67.)

An indicator comprising a bar having offset ends, a plate attached to one end of the bar, and having spaced hooks, a spring attached to the plate, a chain attached to the spring and adapted to engage the hooks, and a series of vanes pivoted upon the bar at a point in common to all of the vanes and at the end of the bar opposite that end at which the plate is mounted, the adjacent vanes having frictional contact with each other.



1,251,671. GLASS-FORMING MACHINE. AUGUST KADOW, Toledo, Ohio, assignor to The Westlake Machine Company, Toledo, Ohio, a Corporation of Ohio. Filed Jan. 11, 1917. Serial No. 141,885. (Cl. 49—62.)



1. The combination with a plurality of constantly traveling glass forming units, of a single gathering unit common to said forming units, and means for periodically and automatically projecting said gathering device at regular intervals into a glass furnace so as to make successive gathers directly from a body of glass therein and to deliver a gather successively to each of said forming units.

5. An automatic glass working machine comprising a stationary support, a gathering device operating in a fixed radial relation to said support from the gathering position to discharging position, a shield carried by said support and interposed between the discharging position of the gathering device and the point from which a gather is to be made, means coördinated with the movements of said gathering device whereby said shield is automatically removed from the path of travel of the gathering device during the gathering operation and is returned to its original position when the gathering device is withdrawn from its gathering operation, a plurality of glass-forming units, and means coördinated with the operations of the gathering device whereby each of the glass forming units is successively and in a regular order and time brought into register with the glass-gathering device and is caused to receive a gather of glass from the gathering device.

8. In glass forming apparatus, the combination with a glass furnace, of an air trunk terminating in a substantially vertically arranged, approximately rectangular, hollow structure with a central opening therethrough and with its inner wall perforated, a reciprocating gathering device which is drawn through said opening when retracted from the furnace, and mechanism timed to operate when said gathering device is retracted for directing

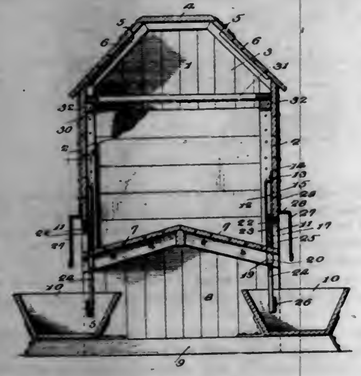
cooling fluid against the same through the perforations of said hollow structure.

10. In glass forming apparatus, the combination with a glass furnace, of an air trunk terminating in a substantially vertically arranged, approximately rectangular, hollow structure with a central opening therethrough and with its inner wall perforated, a reciprocating gathering device which is drawn through said opening when retracted from the furnace, mechanism timed to operate when said gathering device is retracted for directing cooling fluid against the same through the perforations of said hollow structure, a gravity-closed door arranged in said central opening, and means on the gathering device which opens said door to allow the gathering device to pass through said opening.

12. In a glass forming apparatus, the combination of a gathering device comprising an upper mold section, a lower mold section in hinged relation to the upper section so as to swing away from the same and provided in the bottom with an opening through which the glass is drawn in making a gather, and an element adapted to project into said opening when the lower section swings away from the upper section, said element comprising a nozzle whereby a cooling fluid may be forced against the interior of the lower mold section therethrough.

[Claims 2 to 4, 6, 7, 9, 11, and 13 to 24 not printed in the Gazette.]

1,251,672. HOG-FEEDER. CECIL L. KIRKPATRICK, Wagner, S. D. Filed May 10, 1917. Serial No. 167,798. (Cl. 119—54.)



1. In a feeding device, a hopper having a discharge opening, a valve plate casing within the hopper having a wall spaced from the wall of the hopper above the opening therein, a valve plate mounted for sliding movement within the said casing and arranged when in elevated position to lie behind the said wall of the casing, and an abutment element carried by the valve plate and extending below the said opening.

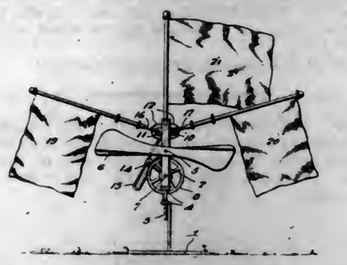
[Claim 2 not printed in the Gazette.]

1,251,673. AIR-OPERATED TOY. CHARLES KOSHALKO, Cleveland, Ohio. Filed May 22, 1917. Serial No. 170,213. (Cl. 46—14.)

1. In an air operated toy, the combination with a rockable holder and a flag or the like removably held thereby, of air operated means for rocking said holder.

2. In an air operated toy, the combination with a frame having a holder for a flag or the like, of a pair of rockable holders for flags or the like arranged to wave on opposite sides of the first named flag holder, and air operated means for rocking said last named flag holders.

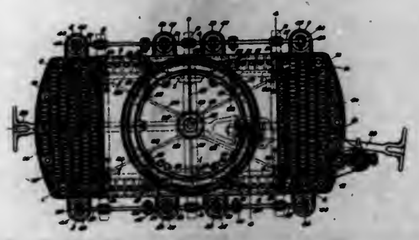
3. In a toy, the combination with a rockable holder for a flag or the like, of a motor therefor having a main shaft, gearing, and a crank and slotted arm introduced between



the gearing and the rockable holder whereby the rotation of the main shaft will cause rocking of said holder.

[Claims 4 and 5 not printed in the Gazette.]

1,251,674. SIX-WHEEL TRUCK. BURNS D. LOCKWOOD, Bellevue, Pa., assignor to Pressed Steel Car Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Oct. 4, 1917. Serial No. 194,694. (Cl. 105—244.)



1. In a truck, spaced side frames each comprising a plurality of sections, a center member connecting said frames and said sections, and transverse plates secured to the said center member and extending between and secured to said sections.

2. In a truck, a side frame comprising a plurality of connected parts, each of said parts having a pedestal jaw formed therein, journal boxes movably mounted in said jaws, axles journaled in said boxes, an equalizing lever rockably mounted on each of said boxes, links connecting said levers with said side frame, and yieldable means between the last mentioned links and side frame.

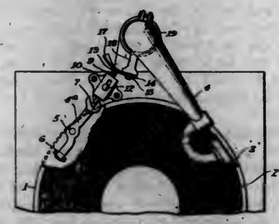
3. In a truck, spaced side frames, each comprising a plurality of sections, a center member connecting said side frames and sections, lugs on the end sections of said side frames, and lugs on said center member adapted to engage the lugs on said end sections to hold said side frames and center member in proper relative positions.

[Claims 4 to 12 not printed in the Gazette.]

1,251,675. TALKING-MACHINE. ADAM A. LONG, Rochester, N. Y. Filed Feb. 1, 1917. Serial No. 145,876. (Cl. 74—46.)

1. In combination with a rotary part and a traveling part of a talking machine, a brake for the rotary part, and means for controlling the operation of the brake embodying two coöperating elements, one connected to the brake and the other to the traveling part, and one of said elements being frictionally mounted to turn about an axis parallel with the plane of movement of the traveling part.

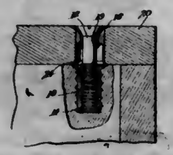
3. In combination with a rotary part and a traveling part of a talking machine, a brake mechanism for the rotary part, and means for controlling the operation of said brake mechanism comprising a frictionally mounted element arranged to turn about an axis parallel with the plane of movement of the traveling part and provided with an opening eccentrically arranged with reference to said axis, and an element controlling the brake, coöperating with the frictionally mounted element to one side of the opening to hold the brake against movement, and movable into the opening to release the brake and to interlock with the frictionally mounted element.



5. The combination with a rotary part and a traveling part of a talking machine, a brake for the rotary part, a spring for moving the brake to braking position, a frictionally mounted element arranged to move with the traveling part, and to turn thereon about an axis substantially parallel with the plane of the path of travel of said traveling part, said element being provided with a recess to one side of its axis and with a curved portion to one side of the recess, and an element connected to the brake, coöperating with the curved part of the frictionally mounted element during the travel of the latter, and adapted to move into said recess to effect the operation of the brake to stop the rotary part.

[Claims 2 and 4 not printed in the Gazette.]

1,251,676. SCREW-BUSHING FOR FASTENING BOXES. EDMUND MCCAFFRAY, Mount Washington, Md., assignor to Hamilton Cassard, Baltimore, Md. Filed Nov. 30, 1915. Serial No. 64,330. (Cl. 85—1.)



The combination of a wooden box member, a wooden lid member therefor, a self-retaining internally threaded metal socket in one of said members, a bushing permanently secured in the other member, and a screw extending through the bushing and adapted to the socket, said bushing having a flange on its inner wall adapted to be swaged inwardly to interlock with the screw to prevent loss of the latter while permitting free longitudinal movement thereof.

1,251,677. TEMPLET FOR THE MANUFACTURE OF CUFFS. JOHN I. MCDONALD, St. Joseph, Mo. Filed July 28, 1915. Serial No. 42,322. (Cl. 112—24.)

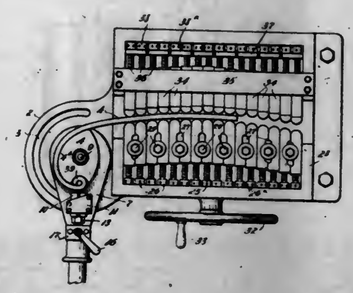


1. A templet for the manufacture of cuffs and the like, comprising plates, one of which is sufficiently thick to provide a fullness in the material held by said plates and has a beveled edge along one side and across both ends.

5. A templet device for holding the several layers of cloth which compose a cuff or the like while the same are being stitched together, comprising an inner fulling member and external clamping means disposed beyond the fulling member on three sides thereof adapted to so hold certain of said layers that a predetermined fullness will result therein along three sides thereof after they are sewn to the other layers.

[Claims 2 to 4 not printed in the Gazette.]

1,251,678. PLATE-BENDING MACHINE. MICHAEL M. MCINTYRE, Cleveland, Ohio, assignor, by mesne assignments, to The Standard Parts Company, Cleveland, Ohio, a Corporation of Ohio. Filed Aug. 4, 1913. Serial No. 782,822. (Cl. 153—40.)



2. In a machine of the character set forth, the combination, with a scroll form having a recess, means for forcing the eye of a spring plate into said recess, and means coöperating with said form to bend the plate thereabout to produce a scroll therein.

5. In a machine of the character set forth, the combination, with a rotary scroll form having a recess, of a block movable toward and from the recess and adapted to force the eye of a spring plate thereinto, said block being rotatable with said form, scroll engaging studs carried by said block, means for rotating said form and block, and means coöperating with the form to exert a frictional drag upon a spring plate whereby the latter will be bent around the form.

8. In a machine of the character set forth, the combination of plate bending mechanism for engaging the opposite sides of a spring plate to bend the same and to exert a frictional drag thereupon, scroll-forming mechanism adjacent to the first mentioned mechanism, and means for rotating one of said mechanisms to draw the plate through the engaging means and bend the same about the scroll form.

10. In a machine of the character set forth, the combination, with a series of adjustable plate engaging members, of a carrier opposed to said members, a series of plate engaging members adjustably mounted in said carrier, means for moving the carrier toward and from the first series, and scroll forming mechanism coöperating with the aforesaid plate-engaging members.

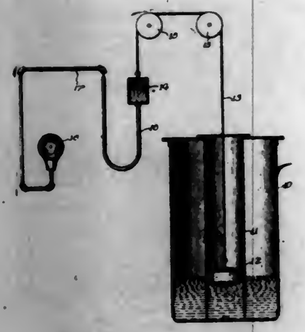
15. In a machine of the character set forth, the combination of a rotary spring forming device, means whereby a spring plate may be secured thereto, a friction device mounted adjacent to the first mentioned device and comprising two opposed series of plate engaging members and means whereby said members may be adjusted, and means for rotating one of said devices whereby a spring plate secured to the first mentioned device may be drawn through the series of plate engaging members and bent about the form on the first mentioned device.

[Claims 1, 3, 4, 6, 7, 9, and 11 to 14 not printed in the Gazette.]

1,251,679. TANK-LEVEL RECORDER. LENOX S. MASON, Birmingham, Ala. Filed Feb. 7, 1917. Serial No. 147,129. (Cl. 73—82.)

1. In a level recording device for liquids, the combination of a float, a liquid container connected thereto for

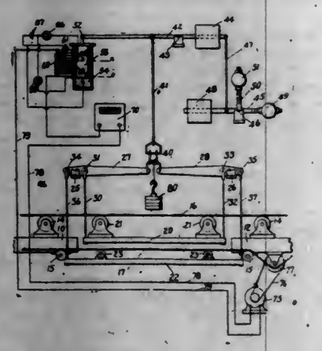
corresponding vertical movement, a recording pressure gage, and a flexible tubular connection between the gage and container, the arrangement being such that variations in elevation of the float produce corresponding variations in head of the liquid acting on the gage which variations in head are recorded by said gage, substantially as described.



5. In a level recorder for liquid tanks, the combination of a liquid container, a float, means for connecting said container to said float whereby the container is adapted to rise and fall according to the changes in the level of the liquid in the tank and a gage under pressure of the liquid in said container and acted on by the changes in head due to rise and fall of the container.

[Claims 2 to 4 not printed in the Gazette.]

1,251,680. COMPENSATOR FOR AUTOMATIC WEIGHING-MACHINES. EDWIN H. MESSITER, Brooklyn, N. Y., assignor to Electric Weighing Company, New York, N. Y., a Corporation of New York. Filed Aug. 26, 1913. Serial No. 786,673. (Cl. 265—43.)



1. In apparatus of the character described, the combination with a conveyer belt, a scale beam and interposed means for affecting the scale beam in proportion to the load carried by the belt, of means including a member pivoted to exert a variable force for so acting upon the scale beam as to automatically compensate for the effect of the tension in the belt.

4. In apparatus of the character described, the combination with a conveyer belt, a pivoted scale beam and interposed means for affecting the scale beam in proportion to the load carried by the belt, of a weighted arm extending upwardly from the scale beam pivot and adapted to counteract the effect of the belt tension on the scale beam.

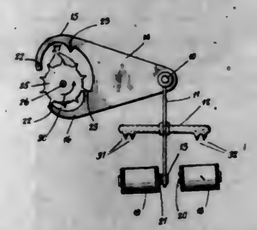
7. In apparatus of the character described, the combination with a conveyer belt, and a scale beam, connected to be oppositely influenced by a load bearing and an unloaded section of the belt, of a weighted arm extending vertically from the scale beam pivot when the beam is balanced and adapted to swing to one side or the other from the vertical and to exert an influence on the beam in opposition to the belt tension when the load on the belt is varied to unbalance the beam in one direction or the other.

10. In apparatus of the character described, the combination with a conveyer belt, and a scale beam connected to be influenced by a section of the belt, of a weight associated with the scale beam and adapted to be automatically shifted to offset the effect of the belt tension, as the position of the aforesaid belt section varies under varying load conditions.

14. In apparatus of the character described, the combination with a conveyer belt and a scale beam connected to be oppositely influenced by a load bearing and an unloaded section of the belt, of a recording or registering instrument, means dependent upon the position of the scale beam for automatically regulating the instrument and automatic means dependent upon the positions of said belt sections relative to the adjacent belt sections for compensating for the belt tension in the device under varying load conditions.

[Claims 2, 3, 5, 6, 8, 9, and 11 to 13 not printed in the Gazette.]

1,251,681. VIBRATORY ACTUATOR. EDWIN H. MESSITER, Brooklyn, N. Y., assignor to Electric Weighing Company, New York, N. Y., a Corporation of New York. Original application filed Aug. 12, 1913, Serial No. 784,342. Divided and this application filed Mar. 30, 1917. Serial No. 158,747. (Cl. 74—54.)

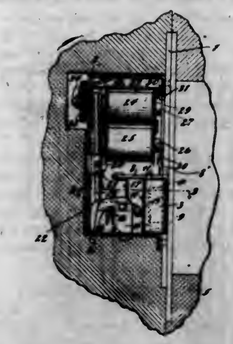


1. An escapement mechanism comprising a pivoted star wheel, and a lever in the same plane as that of the wheel, pivoted at one side of said wheel, said lever having two rigid fingers extending on opposite sides of the wheel, each of said fingers being fashioned to form an integral actuating abutment and a stop abutment coöperating with the actuating abutment on its finger.

[Claims 2 and 3 not printed in the Gazette.]

1,251,682. DOOR-RELEASER. CHRISTIAN MILLER, New York, N. Y., assignor to Edwards & Co., a Corporation of New York. Filed Apr. 15, 1916. Serial No. 91,266. (Cl. 70—52.)

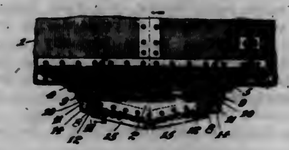
1. In an electrically controlled keeper, a keeper plate, a pivotally mounted keeper, said keeper comprising a plate having a hook adapted to engage the latch bolt, a spring normally urging said keeper to a position to engage with the latch bolt, a detent pivoted intermediate its ends and having one end normally bearing against and angularly disposed to the face of said keeper with its point of engagement with the keeper offset from its pivotal point, a spring acting on said detent urging it into engagement with said keeper, an armature engaging the other end of said detent preventing movement of said detent when pressure is applied to the keeper, and an electro-magnet for moving said armature out of the path of said detent and permitting the same to turn when pressure is applied to the pivoted keeper to move it upon its pivot.



2. In an electrically controlled keeper, a keeper plate, a pivotally mounted keeper on said plate, said keeper comprising a member having a hook adapted to engage the latch bolt and having a curved surface, a detent pivoted intermediate its ends and having one end curved and normally bearing against the fact of said keeper with its point of engagement with the keeper offset from its pivotal point, an armature engaging the other end of said detent preventing movement of said detent when pressure is applied to the detent, and an electromagnet moving said armature out of the path of said detent and permitting the same to turn when pressure is applied to the keeper to cause the curved surface on said keeper to bear against the curved surface on said detent.

[Claims 3 and 4 not printed in the Gazette.]

1,251,683. REINFORCING AND HINGE PLATE FOR CARS. LOUIS G. MILLER and EDWARD C. LONG, Westmont borough, Pa. Filed Sept. 4, 1917. Serial No. 189,479. (Cl. 105—185.)



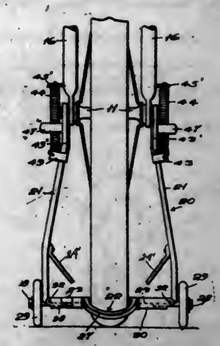
1. The combination with the floor sheet of a car, of a reinforcing hinge plate secured near the edge thereof, said plate being provided with a flat portion contiguous to said floor sheet with downwardly projecting flanges on the longitudinal edges thereof, and transversely extending ribs provided with openings therein adapted to receive the hinge pin.

4. A combined reinforcing and hinge plate for cars, comprising a flat portion arranged contiguous to the lower side of the car bottom adjacent to the discharge opening thereof, said plate being provided with downwardly projecting flanges extending around the edges thereof, a pair of transverse downwardly extending ribs spaced apart and provided with registering holes therethrough near each end of said plate, the portions of said plate adjacent said ribs being wider than the other portions.

[Claims 2 and 3 not printed in the Gazette.]

1,251,684. DEVICE FOR SUPPORTING CYCLES. JOHN G. MURRAY, Chester, Pa. Filed May 22, 1917. Serial No. 170,246. (Cl. 208—75.)

8. A supporting device for a cycle, comprising an approximately U-shaped frame adapted for pivotal connection with the cycle and including spaced sides, an operating lever rigidly connected with the inner portion of one side and extending transversely thereof, a spring associated with the inner portion of the frame and serving to retain the same in the upper or lower position when moved thereto, means for holding the frame in the upper position, and wheels carried by the outer end of the frame.



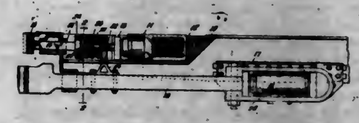
10. A supporting device for a cycle, comprising a support adapted for pivotal connection therewith, wheels carried by the outer portion of the support, a stop carried by the support and adapted to contact with a portion of the cycle when the support is moved to the active position, and yielding means for normally retaining the support in the lower active position.

11. The combination with the frame of a cycle having openings formed therein, of bushings arranged within the openings and receiving the axle of the cycle and having pivotal portions, and a support comprising sides having openings formed therein for receiving the pivotal portions.

14. A support for a cycle; comprising spaced side-members disposed upon opposite sides of the wheel of a cycle, and pivotally connected with the frame of the cycle; a connecting member including spaced longitudinal elements and a transverse element, the longitudinal elements being disposed upon the opposite sides of said wheel and secured to the side-members, the transverse element being adapted to be disposed at a substantial distance from the point of contact between the wheel and road-bed and out of engagement with the road-bed, when the side-members are swung to the lowermost position; axles secured to the connecting member; and wheels carried by the axles.

[Claims 1 to 7, 9, 12, and 13 not printed in the Gazette.]

1,251,685. BUFFER MECHANISM FOR PASSENGER-CARS. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Mar. 30, 1917. Serial No. 158,495. (Cl. 213—39.)



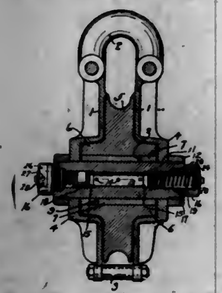
1. In car construction, the combination with a buffer plate and a shock absorbing buffer, of a draw bar, shock absorbing means coöperable with the draw bar, and means, governed by the position of the draw bar, interposed between the buffer plate and the shock absorbing buffer, for yieldingly controlling the position of the buffer plate.

3. In car construction, the combination with a buffer plate having a plunger extending inwardly therefrom, of a draw bar, cushioning means interposed between said plunger and draw bar, a shock absorbing buffing mechanism, and a thrust member interposed between said plunger and mechanism and adapted to actuate the buffer mechanism after a predetermined movement of the buffer plate.

6. In car construction, the combination with a draw bar and draft gear to which it is operatively connected, of a buffer plate, shock absorbing buffing mechanism, yielding means interposed between the draw bar and said buffer plate, and means interposed between the buffer plate and said mechanism arranged to actuate the latter after said yielding means have been compressed a predetermined amount.

[Claims 2, 4, 5, and 7 not printed in the Gazette.]

1,251,686. LOGGING-BLOCK BEARING. JAMES C. OLLARD, Tacoma, Wash., assignor to Ollard Trolley Wheel Company, Dover, Del. Filed Feb. 8, 1917. Serial No. 147,361. (Cl. 64—26.)



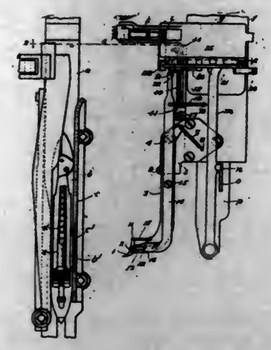
1. In a device of the class described, the combination with a pair of side plates and a sheave mounted between them; of a pin passing through the sheave and secured to said side plates and having an oil reservoir therein, said reservoir being of smaller diameter under the center of the sheave; oil passages leading from the small central reservoir to the outer surface of the pin to lubricate the sheave; and spring pressed pistons in the outer larger oil reservoirs and acting inward toward the center whereby the oil in said reservoirs is placed under pressure to lubricate the sheave.

4. In a device of the class described, the combination with a pair of side plates and a sheave mounted between them; of a pin passing through the sheave and secured to said side plates and having an oil reservoir therein, said reservoir being of smaller diameter under the center of the sheave affording two outer reservoirs and a smaller reservoir; oil passages leading from the small central reservoir to the outer surface of the pin to lubricate the sheave; caps closing the ends of said pin to close the reservoirs therein and each having a cavity of corresponding size with said adjacent reservoir and communicating freely therewith; a pair of pistons each adapted to be housed within said cavity in the adjacent cap and to move therefrom into said outer reservoirs toward said central smaller reservoir; a spring interposed between each said cap and piston to press the piston, whereby the oil in said reservoirs is placed under pressure to lubricate the sheave; and means mounted in said caps to engage said pistons whereby said pistons may be releasably locked within said caps against the action of said springs.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,251,687. WEFT-FEELER MECHANISM FOR LOOMS. HENRY A. OWEN, Whitinsville, Mass., assignor to The Whitin Machine Works, Whitinsville, Mass., a Corporation of Massachusetts. Filed Sept. 23, 1916. Serial No. 121,714. (Cl. 139—85.)

1. The combination with a loom having mechanism for producing a change therein including a shiftable dog forming part of the actuating train of said mechanism, of a controller for said dog subject to a force urging it in the direction to call the change and means normally sustaining the controller against said force including a side-slipping feeler having its support offset from the direction of pushing movement on its contact end whereby it is caused to slip by the push of the shuttle contents and adapted by its slipping to release the controller to call the change.

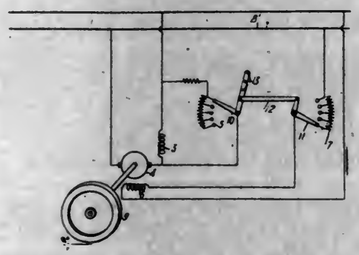


4. The combination in a loom of a call-transmitting controller adapted to control the actuating train for producing a change in the loom's operation and being itself independent of said train, a spring adapted to operate said controller in the direction to call the change, feeler mechanism comprising a member normally sustaining said controller in its non-operating position with respect to said train, a side-slipping feeler adapted to shift said member to its non-sustaining position and having a pivotal support offset from the line of push on its contact terminal whereby it may slip on the filling carrier to shift said member, and a carrier for said feeler adapted to yield to the push of the filling carrier on said feeler.

7. The combination with a loom having a train of actuating mechanism for producing a change in the operation thereof, of a controller for said train independent thereof and mounted to yield to the push of the filling, said controller being subject to a force urging it to an extreme position wherein it renders said train active to effect the change, means normally sustaining the controller against said force and yielding therewith, a side-slipping feeler caused to slip by the push of the filling carrier and by such slipping to release the controller and thereby permit it to call the change.

[Claims 2, 3, 5, 6, and 8 not printed in the Gazette.]

1,251,688. CONTROL SYSTEM FOR FLY-WHEEL MOTORS. JOHN SEDGWICK PECK, Altrincham, and SIEGMUND ECKMANN, Whalley Range, England, assignors to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Jan. 15, 1913. Serial No. 742,249. (Cl. 172—179.)



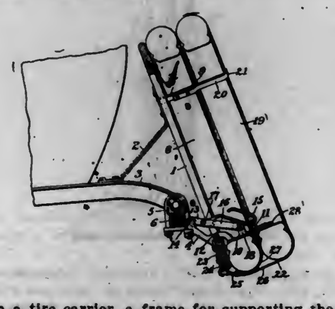
1. The combination with a compound wound dynamo-electric machine, of means for simultaneously varying

the excitation of the shunt and the series field windings, and means for adjusting the relative amount of said simultaneous variations.

2. The combination with a dynamo-electric machine having a plurality of field windings, of two controlling devices associated therewith, each of said devices comprising a pivotally mounted member, of means connected to one of said members and adapted to be connected to the other of said members at varying distances from its pivotal support for varying the relative positions of said members.

3. The combination with a compound wound motor, of a controller for the series field winding, a controller for the shunt field winding, means for causing the simultaneous operation of said controllers for a like effect on said field windings, and means for varying the relative amount of movement of said controllers.

1,251,689. TIRE-CARRIER FOR AUTOMOBILES. JOHN G. PERRIN, Detroit, Mich. Filed Nov. 11, 1912, Serial No. 730,603. Renewed May 22, 1917. Serial No. 170,270. (Cl. 224—29.)



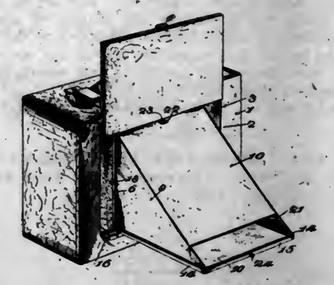
7. In a tire carrier, a frame for supporting the tire on one side thereof, rigid supports extending from the frame for engaging the inner sides of the tire, a movable support for the tire secured to the frame and having a pivotal connection, a lever secured to the frame and having a pivotal connection, a link having one of its ends pivotally connected to the movable support and its other end pivotally connected to the lever and a stop for arresting the movement of the said lever when the pivotal connection of the link and lever has been moved below its alinement with the other pivotal connection of the link and pivotal connection of the lever.

20. In a tire carrier for vehicles, the combination of supporting means for engaging the inner periphery of a tire at a plurality of points about the upper portion thereof, a continuous circular member fixed relative to said means, extending in a plane inclined from the vertical and designed to engage the supported tire on one side thereof, and fastening means fixed circumferentially of the circular member and positioned adjacent the lower portion thereof, said fastening means being adjustable manually from the side of the tire into engagement with the tire in a direction to force the upper portion of the same downwardly into firm engagement with the supporting means and to force the lower portion of the tire laterally into engagement with the circular member.

[Claims 1 to 6, 8 to 19, and 21 to 30 not printed in the Gazette.]

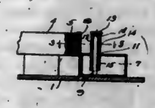
1,251,690. FOCUSING ATTACHMENT FOR CAMERAS. MILES E. PETERSON, Pemeta, Okla. Filed Mar. 29, 1917. Serial No. 158,314. (Cl. 95—47.)

1. In a focusing attachment for cameras, an open attaching frame, a second frame hingedly connected with the lower side of the first-mentioned frame, the second-mentioned frame being adapted to be swung to position substantially perpendicular to the plane of the first-mentioned frame, a mirror supported within the second-mentioned frame, and a hood of flexible material including sides and a connecting wall secured to and extending between the said frames, the connecting wall of the hood having an opening in its portion next adjacent the second-mentioned frame.



2. In an attachment of the class described, an attaching frame having resilient sides, attaching fingers carried by the said sides and designed to engage the spaced members of a support and to be brought into and out of such engagement by inward springing of the said sides of the frame, a second frame disposed at an angle to the first-mentioned frame, a mirror mounted in the second-mentioned frame, and a hood extending between the frames.

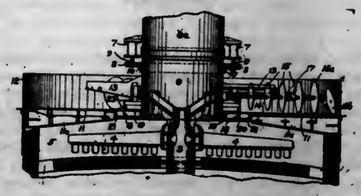
1,251,691. MOISTENING ATTACHMENT FOR TYPEWRITER RIBBONS. JOHN C. PHELAN and HERMANN B. MACALPINE, Cleveland, Ohio. Filed July 13, 1917. Serial No. 180,487. (Cl. 91—38.)



2. A ribbon moistening attachment comprising a fluid box having a hole in the top, a vertical pin projecting through said hole, a moistening roller mounted on the pin and extending through said hole and projecting above the box in position to contact with the ribbon, said roller having a cap bearing upon the top of the pin to support said roller for rotation.

[Claims 1 and 3 not printed in the Gazette.]

1,251,692. ROASTER-FURNACE TOP. RALPH E. H. POMEROY, McGill, Nev. Filed Apr. 4, 1917. Serial No. 159,619. (Cl. 263—26.)



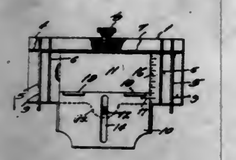
1. The combination with a metallurgical furnace having a series of working chambers with a central discharge gas flue, of a drying hearth having a floor constituting also the roof of the uppermost working chamber around the gas flue, mechanism for mixing and stirring the ore or concentrate upon said drying hearth, and means for feeding the same from the central portion of the drying hearth around the gas flue into the upper chamber of the furnace.

3. The combination with a metallurgical furnace having a series of superimposed working chambers, a vertical rotatable shaft or column, and a central discharge gas

flue of a drying hearth having a floor constituting also the roof of the uppermost working chamber around the gas flue, mechanism operated by the rotatable shaft for mixing the ore or concentrate and moving it from the peripheral to the inner or central portion of said drying hearth, sealing means for preventing the passage of gases or vapor between the upper furnace chamber and the top of the drying hearth, and means for feeding the ore or concentrate from the central portion of said hearth into the upper chamber of the furnace.

[Claims 2 and 4 to 9 not printed in the Gazette.]

1,251,693. HINGE GAGE AND MARKING TOOL. GEORGE R. PUMMILL, Corsicana, Tex. Filed Apr. 25, 1916. Serial No. 93,358. (Cl. 145—26.)



1. A hinge gage and marking tool comprising a rectangular heading a single longitudinal groove in its under surface and a plurality of parallel transverse grooves at each end of the head intersecting the longitudinal groove at right angles thereto, U-shaped cutters all fitting in the single longitudinal groove and each cutter having its ends fitting in a pair of transverse grooves, the cutters being of different lengths and the transverse grooves being spaced apart, means for fastening the cutters in the longitudinal groove, and a gage on the head for limiting the width of the mortise outlined by the cutters.

2. A head for hinge gages and marking tools having a single longitudinal groove in its under surface near one longitudinal edge and a plurality of parallel transverse grooves adjacent each transverse edge of the head and intersecting the longitudinal groove, and said head also having a gage receiving portion inclosed by the longitudinal and transverse grooves.

1,251,694. GUN-SIGHT AND MOUNTING THEREFOR. MYRON R. RANDALL, Waupaca, Wis. Filed June 5, 1916. Serial No. 101,658. (Cl. 33—53.)



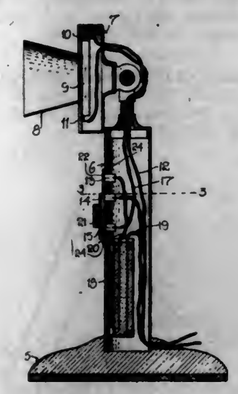
1. In a device of the described class, the combination with a gun barrel, of a mounting thereon provided with a channel adapted to receive any one of a plurality of interchangeable sight supporting plates, and a locking device in the mounting adapted to hold a sight plate in fixed relation to the gun barrel when the sight plate is properly adjusted in said channel, said locking device comprising a spring actuated plunger provided with a locking cone adapted to engage in a conically tapered socket in the sight plate.

3. In a device of the described class, the combination with a gun barrel, a mounting adapted to be carried by said barrel, a plurality of sight plates, said mounting being provided with a vertical slot for the reception of said sight plate, a longitudinal socket for the reception of a spring, a spring, and a spring actuated plunger located in said socket, said plunger being adapted to be moved longitudinally in said socket by said spring, and thereby thrown into engagement with said sight plate and to be manually moved in the opposite direction against said spring, whereby said sight plate may be removed.

6. In a device of the described class, the combination with a gun barrel, of a mounting provided with a vertical slot, for the reception of a vertical sight plate, a vertical sight plate provided with a tapered aperture, a longitudinal socket for the reception of a spring, a spring, a spring actuated plunger, said plunger being provided with a cone adapted to engage the tapered aperture of said sight plate.

[Claims 2, 4, and 5 not printed in the Gazette.]

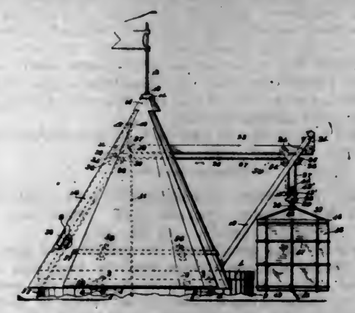
1,251,695. CUT-OUT DEVICE FOR TELEPHONE-TRANSMITTERS. LEON E. RENNELLS, Albany, Oreg. Filed Mar. 31, 1917. Serial No. 158,939. (Cl. 179—158.)



2. The combination with a telephone transmitter and circuit therefor, of spaced contacts interposed in the transmitter circuit, a shunt for the transmitter circuit including a resistance, an additional contact connected to the resistance, and a movable switch element adapted to be engaged either with the first named contacts to render the transmitter circuit operative or with one of said first named contacts and the last named contact to shut the circuit through the resistance and cut the transmiter out of the circuit, said switch element engaging the latter contact prior to the breaking of the transmitter circuit through the first named contact.

[Claims 1 and 3 not printed in the Gazette.]

1,251,696. SILO-FILLING FIXTURE. ANDREAN G. RONNING and ADOLPH RONNING, Boyd, Minn., assignors to United States Ensilage Harvester Company, Minneapolis, Minn., a Corporation of Minnesota. Filed Feb. 24, 1914. Serial No. 820,696. (Cl. 214—4.)

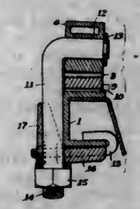


2. A silo plate, means for anchoring the said silo plate, a roof attached to said silo plate, means for opening and closing a portion of the said roof, hoisting means attached to said silo plate and to said roof, means for bringing the said hoisting means into a desirable position for service together with means for releasing the hoisted material from the said hoisting means so as to drop the same into the silo.

4. A silo plate, means for anchoring said silo plate, a silo roof attached to said silo plate, means for opening and closing a portion of said roof, hoisting means pivotally attached to said silo roof and said silo plate, means for telescoping the said hoisting means into the said silo roof, a second hoisting means for bringing the said first hoisting means into a position for service, latch pieces pivotally attached to said first hoisting means together with carrying means incorporated in said first hoisting means substantially as and for the purposes specified.

[Claims 1 and 3 not printed in the Gazette.]

1,251,697. BUMPER FOR AUTOMOBILES. JAMES H. SAGER, Rochester, N. Y., assignor to J. H. Sager Company, Rochester, N. Y., a Corporation. Filed Apr. 13, 1917. Serial No. 161,748. (Cl. 213—39.)



4. In combination with a channeled frame bar opening horizontally with a bumper supporting arm, means for securing the arm to the channeled frame bar comprising an L-shaped fastening bolt having one arm thereof engaging the bumper supporting arm to hold the latter to the vehicle frame bar, and the other arm lying on a vertical side of the frame bar, and a clamping member guided on the vertical frame of the bolt, the longitudinal axis of the clamping member, and the longitudinal axis of the arm of the bolt which engages the bumper supporting arm, converging with reference to each other, so as to produce a greater compression action on the frame bar near the free edges of the flanges of said bar.

6. In combination with a vehicle frame, a bumper supporting arm, and a block interposed between the arm and the frame to permit the arm to swing on the block to assume a horizontal position, means for securing the arm of the vehicle comprising an L-shaped fastening bolt having one arm passed through said bumper supporting arm, and a clamping member adjustable on the other arm of the bolt to engage the frame to hold the block to the frame and the supporting arm to the block.

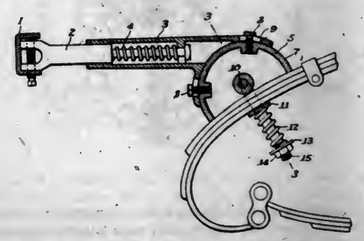
7. In combination with a channeled frame bar opening horizontally and a bumper supporting arm, means for securing the arm to the vehicle comprising an L-shaped fastening bolt having one arm thereof engaging the bumper supporting arm, a clamping member adjustable on the other arm of the bolt, and a hooked bolt carried by said clamping member and engaging the lower flange of the vehicle bar.

[Claims 1 to 3, 5, and 8 not printed in the Gazette.]

1,251,698. BUMPER FOR AUTOMOBILES. JAMES H. SAGER, Rochester, N. Y., assignor to J. H. Sager Company, Rochester, N. Y., a Corporation. Filed Apr. 23, 1917. Serial No. 163,998. (Cl. 213—39.)

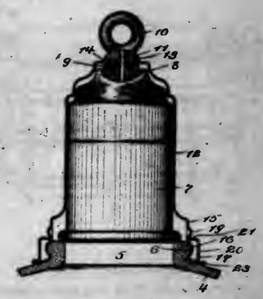
1. In combination with a curved spring formed of a plurality of overlapping leaves, and a bumper supporting arm having a portion at the inner end thereof abutting the upper curved leaf of the spring, and a clip connected to said arm and passing beneath the spring to engage the under leaf, said clip having a resilient portion which causes the clip to expand and contract with the relative movement of the leaves of the spring to maintain the bumper in its secured position on the spring.

2. In combination with a curved spring formed of a plurality of overlapping leaves, a bumper supporting arm having its inner end bearing against the upper leaf of said spring, a bar engaging the under side of said spring, and connections between the bumper supporting arm and the bar having resilient means holding the bar and the arm to the spring with resilient pressure.



3. In combination with a curved spring formed of a plurality of overlapping leaves, a bumper supporting arm engaging the upper leaf of the spring, a U-shaped device passed through the arm and lying on opposite sides of the spring, a bar arranged on the clip and engaging the under surface of the spring, and a coil spring surrounding the arms of the U-shaped member and holding the bar to the under side of the leaf spring.

1,251,699. ELECTRIC-LIGHT FIXTURE. AUGUST SEIM, St. Louis, Mo., assignor to Missouri Lamp and Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed May 10, 1916. Serial No. 96,610. (Cl. 240—115.)

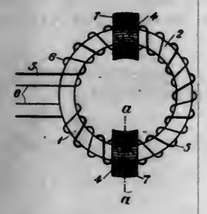


An electric light fixture comprising a socket, a suspending loop provided with a threaded stem, mounted in said socket, the said stem being provided with opening for the passage of an electric conductor, a cylindrical cover for said socket having its upper end mounted over said stem, a nut for securing the cover to said stem, the said cover for the socket being provided at its lower end with a downwardly and outwardly flaring portion, the same being slitted, beaded and provided with bosses and with a downwardly and outwardly extending flange below the beaded portion, and a collar provided with a notched inturned flange, and a downwardly projecting flange adapted to be positioned over the flaring portion of the cover, and the inturned notched flange adapted to engage with the bosses of said flaring portion to hold the collar on the outwardly extending flange for exerting a downward and inward pressure on the neck of a lamp shade.

1,251,700. SHIELD FOR MAGNETIC COILS. THOMAS SHAW, Hackensack, N. J., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed Sept. 17, 1917. Serial No. 191,776. (Cl. 175—21.)

1. A magnetic coil, having a discontinuous core, and means for bridging the discontinuities thereof comprising a shield of magnetic material.

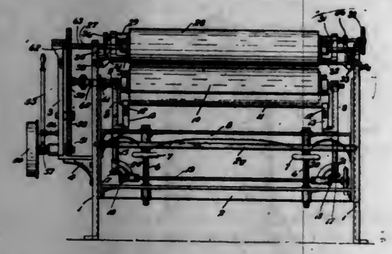
4. A magnetic coil having a discontinuous core, and means for bridging discontinuous portions thereof comprising a shield formed of laminated strips extending in a direction parallel to the core.



7. A magnetic coil having a core of magnetic material, a gap in said core to render said core self-demagnetizing so that the impedance constants of the coil will readily return to their normal value after the coil has been subjected to the effect of magnetizing current, and means to reduce the reluctance of the gap without materially reducing the self-demagnetizing effect of the core comprising a shield formed at least in part of magnetic material and arranged about the core.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,251,701. PAINTING, VARNISHING, OR COATING MACHINE. WILLIAM WALLACE SHERWOOD, Grand Rapids, Mich. Filed Mar. 21, 1916. Serial No. 85,604. (Cl. 91—51.)

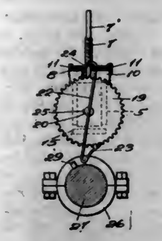


1. In combination, spaced apart supports, a vertical member positioned adjacent each support, means for raising and lowering said members, a pair of spaced apart rolls carried by and between said members, a roll mounted above each of the first mentioned rolls and carried by said spaced apart supports, and a pan partially inclosing the lower part of each of said first mentioned rolls, said pans being supported by and movable with said vertical members.

[Claims 2 to 5 not printed in the Gazette.]

1,251,702. AUTOMATIC FEEDING MECHANISM FOR HARD-GREASE CUPS. ROBERT H. SILCOCK, Buffalo Gap, S. D. Filed Mar. 26, 1917. Serial No. 157,385. (Cl. 184—37.)

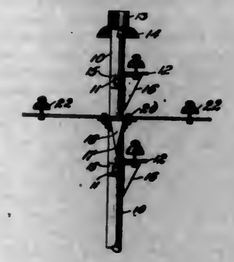
1. A device of the character described, comprising a plunger to be moved, a threaded stem for said plunger, a toothed nut upon said stem, a shaft extending parallel with the stem and provided with a tooth for engaging the teeth of said nut, a ratchet wheel, the axis of which is at right angle to the axis of said shaft, a ratchet wheel upon said shaft, a tooth carried by the first named ratchet wheel and adapted to impart a step by step movement to the last named ratchet wheel and automatic means actuating the first named ratchet wheel, said means comprising a fixed post upon which the first named ratchet wheel rotates, means for adjusting said post about its axis, a spring steel strip carried by said post bent to form a pawl for engaging the first named ratchet wheel, and a tappet carried by the part to be lubricated, said strip being adjustable from and toward said tappet by the rotative adjustment of said post.



3. The combination with a moving part to be lubricated, of a grease cup therefor, a plunger disposed in said grease cup and actuating mechanism for said plunger comprising a ratchet wheel, a spring pawl and a member carried by the moving part adapted to contact with said spring pawl once in each revolution of the moving part, a post by which the spring pawl is carried and means for adjusting said post about its axis.

[Claims 2 and 4 not printed in the Gazette.]

1,251,703. CROSS-ARM BRACKET FOR TELEGRAPH-POLES. SAMUEL M. SPENCER, Eutaw, Ala. Filed June 17, 1916. Serial No. 104,281. (Cl. 189—33.)



1. In a supporting bracket for the cross arm for telegraph poles, a vertically disposed wedgelike body and curved arms attached to the body and forming a cuff to substantially embrace the post, means to attach said arms to the post, the top of said wedge being laterally extended to form a bracket support for a cross arm, and means to fasten a cross arm on top of said wedgelike body.

2. In combination, a post, a cross arm supporting bracket comprising a body portion, wedge shaped in side elevation, terminating at its upper end in a flat horizontal ledge having end perforated flanges forming extensions of the ledge, integral thin clamp wings perforated and adapted to embrace the post, and fastening means to attach said wings to the post, the bottom of said wedge member terminating in an inturned point adapted to engage and be forced into the post a substantial distance below the point of connection therewith of said fastening wings, substantially as described.

1,251,704. SHINGLE. ALEXANDER S. SPIEGEL, Chicago, Ill. Filed May 25, 1917. Serial No. 171,047. (Cl. 108—8.)

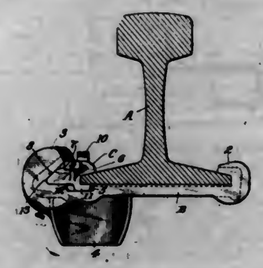
A self spacing shingle having each of its side walls notched to form a space, the notches being centrally arranged of the shingle whereby a series of shingles may

be cut from a sheet of material in reverse position so as to prevent all waste, the shingle having a narrow and a



wide part with the edges extending in parallel lines, substantially as described.

1,251,705. RAIL-ANCHOR. JOHN W. STEPHENSON, Toledo, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed Sept. 19, 1916. Serial No. 120,918. (Cl. 238—4.)



1. In a rail anchor, a base member and a rail engaging member adapted to be driven between one part of the base member and the rail, the rail engaging member having a jaw engaging upper and lower faces of the rail base and being held from twisting by a horizontal face in substantial alinement with the bottom of the rail.

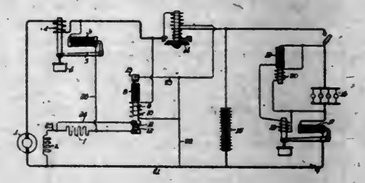
2. In a rail anchor, a base member and a rail-engaging member adapted to be driven between one part of the base member and the rail, said rail-engaging member comprising a rail-engaging jaw extending within a depression in said base member, and a body portion seated upon a horizontal surface of said base member in substantial alinement with the bottom of the rail.

3. In a rail anchor, a base member having oppositely disposed jaws, one of said jaws having a face inclined both to the longitudinal axis of the rail and to a horizontal plane, a wedge having a corresponding face bearing against the face on said jaw and being adapted to be forced thereby against the face of the rail flange, said jaw also having a horizontal bearing substantially in horizontal alinement with the bottom of the rail and engaging a corresponding horizontal bearing on the wedge.

1,251,706. AUTOMATIC REGULATOR. WILLIAM A. TURBAYNE, Buffalo, N. Y., assignor, by mesne assignments, to U. S. Light & Heat Corporation, Niagara Falls, N. Y., a Corporation of New York. Filed Sept. 25, 1912. Serial No. 722,276. (Cl. 171—229.)

1. Means for regulating a generator comprising a current operated resistance in series with the field thereof, and a voltage operated resistance in a circuit in shunt to the field.

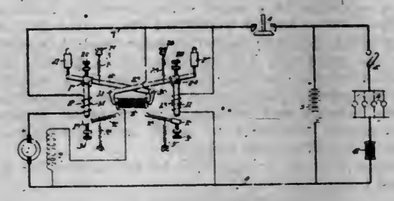
3. Regulating means for a variable speed shunt wound generator including in combination with the shunt field winding a variable resistance in series therewith, and means for connecting a second variable resistance in shunt to said winding under predetermined conditions, whereby the stability of operation of the generator at high speeds is increased and the output thereof regulated.



11. In a regulating system, a variable speed generator provided with a shunt field, a storage battery charged thereby, a compressible rheostat in series with said field, a series coil for controlling said rheostat, a second compressible rheostat normally open circuited, adapted to be connected in shunt to said field, and a coil connected across the system, adapted to close the circuit for said second compressible rheostat and to vary the compression thereon upon predetermined rise in voltage of the system.

[Claims 2, 4 to 10, and 12 to 14 not printed in the Gazette.]

1,251,707. REGULATOR FOR ELECTRIC GENERATORS. WILLIAM A. TURBAYNE, Niagara Falls, N. Y., assignor, by mesne assignments, to U. S. Light & Heat Corporation, Niagara Falls, N. Y., a Corporation of New York. Filed Apr. 20, 1914. Serial No. 833,285. (Cl. 171—313.)



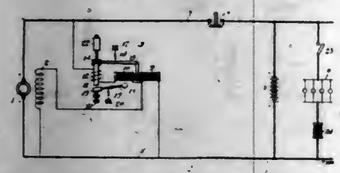
2. A regulator for a shunt-wound generator comprising a variable resistance, two regulating magnets for controlling said resistance, said magnets being normally incapable of controlling said resistance, and means for each magnet to render the same capable of controlling the resistance.

5. In a system of the class described having a variable speed shunt-wound generator, a regulator, an automatic switch and a storage battery, said regulator including a variable resistance in series with the shunt winding of said generator, a current-controlled regulating magnet therefor and a voltage-controlled regulating magnet therefor, said magnets being incapable of controlling said variable resistance, means controlled by a current of predetermined value to cause said current-controlling magnet to become capable of controlling said resistance, and means thereafter operating to render the voltage-controlled regulating magnet capable of controlling said variable resistance and for rendering said current-controlled regulating magnet inoperative to control said resistance.

11. Regulating means for a variable speed generator including a regulating medium and operating means therefor, said operating means having a current responsive coil and a voltage responsive coil, said operating means having spring means opposing the effects of said coils, and means for rendering each of said coils ineffective to control said regulating medium until the attainment of a predetermined current value in the respective coils.

[Claims 1, 3, 4, and 6 to 10 not printed in the Gazette.]

1,251,708. REGULATOR FOR ELECTRIC GENERATORS. WILLIAM A. TURBAYNE, Niagara Falls, N. Y., assignor, by mesne assignments, to U. S. Light & Heat Corporation, Niagara Falls, N. Y., a Corporation of New York. Filed May 13, 1914. Serial No. 838,231. (Cl. 171—313.)



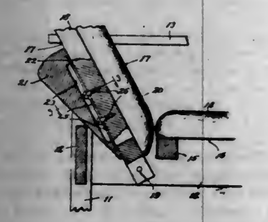
1. In combination with a generator provided with a shunt field, a variable resistance in circuit with said field, a variable resistance in shunt to said field, common operating means therefor adapted to increase one of said resistances and simultaneously decrease the other in proportion, said operating means being controlled by a coil in series with said first mentioned resistance and being normally insensitive to current flowing through said coil, and means to render said operating means sensitive.

6. In combination with a shunt wound generator, a storage battery and lamps supplied thereby, regulating means for the generator, operating means for said regulating means comprising a coil in circuit with the shunt field winding and a coil in series with the generator, said coils being normally ineffective to operate said regulator, and means to render said coils effective to operate said regulator upon the attainment of predetermined current through either of said coils.

8. A regulator for a shunt wound generator including a variable resistance for controlling the current through said winding, an electromagnet having a winding in series with said resistance, and an armature to control said variable resistance, said electro-magnet having a magnetic reluctance whereby said armature is insensitive to current changes through said winding, and means to decrease said magnetic reluctance to render said electromagnet operative to control said armature.

[Claims 2 to 5, 7, and 9 to 12 not printed in the Gazette.]

1,251,709. ADJUSTMENT FOR RECLINING-CHAIRS. CHARLES P. TURNER, Chicago, Ill. Filed Apr. 20, 1917. Serial No. 163,338. (Cl. 155—27.)



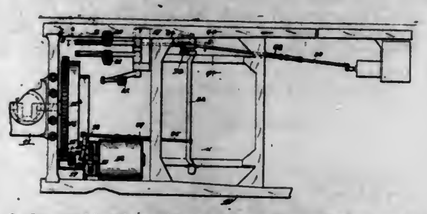
4. A wedge shaped block for the purpose set forth, having a flat inner face adapted to bear against the back of a chair and an inclined outer face adapted to bear against a part of the chair body, a plate secured to the inner face of said block, said plate being provided with an elongated slot having at least one enlarged portion in the length thereof, and said block being provided in that portion of its inner face covered by said plate with an elongated groove registering with said slot.

[Claims 1 to 3 not printed in the Gazette.]

1,251,710. ENAMELING COMPOSITION. BENJAMIN A. VIENT, Buffalo, N. Y., assignor to Belco Sanitary Mfg. Co., Buffalo, N. Y., a Corporation of New York. Filed Jan. 3, 1916. Serial No. 69,771. (Cl. 134—79.)

The herein described composition for enameling articles which is made by first taking three-fourths of a pound of dry celluloid, adding thereto three quarts of wood alcohol having a hydrometer test of 95 per cent. to 97 per cent. and stirring the same until the celluloid is completely dissolved, then adding one quart of solvent containing ether 40 per cent., wood alcohol 40 per cent. and amyl acetate 20 per cent., and then adding one ounce of gum camphor.

1,251,711. STARTER FOR INTERNAL-COMBUSTION ENGINES. GEORGE R. WADSWORTH, Cleveland, Ohio, assignor to The Peerless Motor Car Company, Cleveland, Ohio, a Corporation of Ohio. Filed May 24, 1912. Serial No. 699,399. (Cl. 172—239.)



1. In combination with an internal combustion engine, a starter comprising a motor, a battery, a switch having two operative positions and adapted to connect the battery to the motor so that the motor will be operated first at low speed and then at high speed, power transmitting mechanism between the motor and engine comprising two members, one adapted to be shifted into and out of engagement with the other, a starter controlling member connected to said switch so as to move the latter to its first, and then to its second operative position, said controlling member having a loose connection with the shiftable part of the power transmitting mechanism whereby, when said controlling member is moved, the switch is moved to its first operative position before driving relationship is established between the motor and engine.

3. In combination with an internal combustion engine, a starter comprising an electric motor for starting purposes, a battery, a switch for connecting the battery and motor, and for causing the latter to operate first at low speed and then at higher speed, power transmitting gearing between the motor and engine comprising a gear adapted to be shifted into and out of engagement with another gear, a starter controlling member, mechanism intermediate said member and movable part of the switch, mechanism connected to said shiftable gear, said last named mechanism being operated by the first named mechanism, when the motor is operating at low speed.

4. In combination with an internal combustion engine, a starter comprising a motor, a battery, a switch for connecting the battery and motor and for causing the motor to operate first at a low speed and then at a higher speed, gearing between the motor and engine comprising a gear adapted to be shifted into and out of engagement with another gear, a starter controlling member, mechanism intermediate said controlling member and the movable member of the switch for controlling said switch and the motor, mechanism for shifting said gear, including a rock shaft and an arm adapted to be rocked by said first named mechanism when the motor is operating at low speed.

5. In combination with an internal combustion engine, a starter including an electric motor, a battery, a switch comprising a movable member having two operative positions, and serving when in one position to start the motor and when in another position to accelerate the speed of the motor, gearing between the motor and engine, comprising a gear adapted to be shifted into and out of engagement with another gear, and starter operating mechanism comprising a starter controlling member having a connection with said movable member of the switch, a rock shaft having a connection with said movable gear, and having a lost motion connection with said mechanism, whereby the rock shaft is rocked after a predetermined movement of said mechanism.

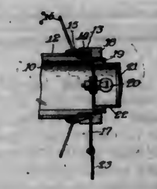
[Claims 2, 6, and 7 not printed in the Gazette.]

1,251,712. CHALK-LINE HOLDER AND REEL. JOHN S. WAKIMOTO, Grand Island, Nebr. Filed June 1, 1917. Serial No. 172,311. (Cl. 33—87.)



A device of the class described comprising an oblong body having upwardly opening rearward and forward recesses and a downwardly and transversely opening recess, said forward recess having a line passage leading therefrom, said forward and rearward recesses being connected by a line passage, and said downwardly and transversely opening recess and said rearward recess having a communicating opening, a line reel mounted in said rearward recess, a line leading from said reel and through said passages and through the forward recess, and means for maintaining powdered chalk within the forward recess and in contact with the line therein, said communicating opening providing means for the escape of surplus chalk which may be carried by the line when being wound upon the reel and said downwardly opening transverse recess coacting with the portion of the body rearwardly thereof to form a hand grip for supporting the body.

1,251,713. SPARE-WHEEL SUPPORT. GEORGE M. Walker, Chicago, Ill., assignor of one-half to Hermann A. Brassert, Chicago, Ill. Filed Sept. 29, 1916, Serial No. 122,800. Renewed Nov. 22, 1917. Serial No. 203,462. (Cl. 224—29.)



1. A spare wheel support for vehicles comprising a stub shaft for connection at one end with a vehicle the exterior of said stub shaft being of a shape and dimensions to receive the hub of a spare wheel, and means carried by the other end of the stub shaft for engagement with one end of the hub of a spare wheel to hold the latter in place on the stub shaft, said means including a nut embracing and threaded upon said other end of the stub shaft, and a tail lamp carried by said other end of the stub shaft, the external transverse dimensions of the tail lamp being less than the bore of the nut whereby the latter and the spare wheel may be applied to and removed from the stub shaft without requiring removal of the tail lamp.

2. A spare wheel support for vehicles comprising a stub shaft for connection at one end with a vehicle, the exterior of said stub shaft being of a shape and dimensions to receive the hub of a spare wheel, means carried by the other end of the stub shaft to hold a spare wheel in place on the stub shaft, said other end of the stub shaft having a socket whereby the spare wheel may be applied and removed without disturbing the lamp.

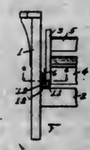
3. A spare wheel support for vehicles comprising a stub shaft for connection at one end with a vehicle, the exterior of said stub shaft being of a shape and dimensions to receive the hub of a spare wheel, means carried by the other end of the stub shaft holding a spare wheel in place on the stub shaft, and means for securing a license on said other end of the stub shaft.

4. A spare wheel support for vehicles comprising a stub shaft for connection at one end with a vehicle, the exterior of said stub shaft being of a shape and dimensions to receive the hub of a spare wheel, means carried by the other end of the stub shaft to hold the spare wheel in place on the stub shaft, means for securing a license bracket on said other end of the stub shaft outside of the means for holding the spare wheel in place, and a tail lamp carried by said other end of the stub shaft, said tail lamp and said license bracket securing means being disposed for illumination of a license by the tail lamp.

5. A spare wheel support for vehicles comprising a tubular cylindrical stub shaft for connection at one end with a vehicle, the exterior of said stub shaft being of a shape and dimensions to receive the hub of a spare wheel with its other end projecting exteriorly of the hub, said end portion of the stub shaft being exteriorly threaded, a pair of nuts on said threaded portion of the stub shaft, the inner nut constituting an adjustable abutment for engagement with the adjacent end of the hub of a spare wheel, a license bracket embracing the threaded portion of the stub shaft and held between the nuts, and a tail lamp fitted within said other end of the stub shaft and having its transverse dimensions less than the bore of each nut, and said tail lamp having a lateral opening for illuminating a license carried by the license bracket.

[Claims 6 and 7 not printed in the Gazette.]

1,251,714. ADJUSTABLE CHAIR. JEROLD F. WALTON, Sturgis, Mich. Original application filed Jan. 29, 1912, Serial No. 674,024. Patented Apr. 27, 1915, No. 1,137,246. Divided and this application filed Apr. 26, 1915. Serial No. 23,833. (Cl. 155—27.)



1. In a chair, the combination of the frame, a seat, a hinged back comprising sides and cross pieces, separable hinge members comprising a plate with a key-hole slot secured to the said chair frame, a plate with a suitable pivot pin for engaging the slot of said plate having a cylindrical boss projecting opposite said pin into the framework of the said chair back; and suitable reinforce means for the side piece of the said chair back disposed therethrough adjacent to and transversely of said boss, coacting for the purpose specified.

2. In a chair, the combination of a frame comprising rear posts and rear rail, of a hinged back provided with T-shaped pivot studs, angle plate sheet metal members having offsets therein with upwardly pointing keyhole slots adapted to receive said studs, said members being arranged in the angle formed by the posts and rear rail and secured to both by screws arranged above and below the offset and in the arm resting on the rail.

1,251,715. MANUFACTURE OF CHAIR-SEATS. ALBERT WANNER, Jr., New York, N. Y. Filed Nov. 19, 1915. Serial No. 62,344. (Cl. 155—4.)

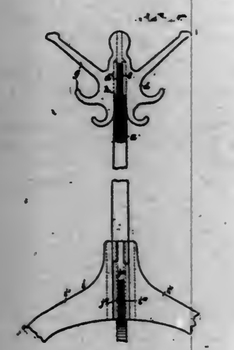
The method herein described consisting in forming a bent-wood endless member, attaching a piece of sheet material to one plane surface of said member continu-

ously thereof and so that said piece will be held uniformly taut by said member, and finally dividing said



member in a plane between its plane surfaces and close to but not through said piece of sheet material.

1,251,716. JOINT. ALBERT WANNER, Jr., New York, N. Y. Filed June 12, 1916. Serial No. 103,048. (Cl. 20—92.)



1. A structure of the class described including a staff bifurcated at one end in intersecting longitudinal planes, and radiating members consisting of a plurality of intersecting members one of which is notched into the other to form a joint, the joint forming portions of the intersecting members being received respectively in the bifurcations of the staff and each intersecting member having a recess receiving and fitting snugly the unbifurcated part of the staff immediately inward of its bifurcated end.

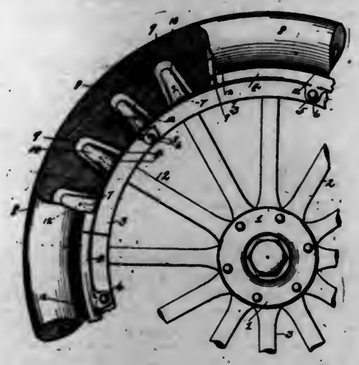
3. A structure of the class described including a staff bifurcated at one end in intersecting longitudinal planes, and radiating members consisting of a plurality of intersecting members one of which is notched into the other to form a joint, the joint forming portions of the intersecting members being received respectively in the bifurcations of the staff and each intersecting member having opposite inwardly facing fixed bearing surfaces bearing against opposite sides of the bifurcated part of the staff.

5. A structure of the class described including a staff bifurcated at one end in intersecting longitudinal planes, and radiating members consisting of a plurality of intersecting members, each member including a pair of outer portions having opposed grooves and a connecting web fitted into said grooves, one of said webs being notched into the other to form a joint and such joint having the webs respectively received in the bifurcations of the staff and each web being thinner than said outer portions, whereby to form inwardly facing bearing surfaces bearing against opposite sides of the bifurcated part of the staff.

[Claims 2 and 4 not printed in the Gazette.]

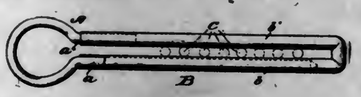
1,251,717. VEHICLE-TIRE. THOMAS C. WATKINS, Ingram, Pa., assignor of one-third to Theodore A. Sprague, Bellevue, Pa., and one-third to Charles M. McFarland, Ingram, Pa. Filed Sept. 13, 1915, Serial No. 50,301. Renewed Mar. 31, 1917. Serial No. 158,880. (Cl. 152—5.)

1. A vehicle tire comprising an annular body formed from rubber, a holder for attaching the same to the felly of the wheel, a series of compartments formed within the said body and open toward the inner periphery, vent openings leading to each of said compartments, a rubber block within each compartment arranged to leave a surrounding air space, said blocks formed from a rubber having a greater coefficient of elasticity than that of the body, and a means for attaching said blocks rigidly in position on the periphery of the tire holder.



2. A vehicle tire comprising an annular body formed from rubber, a holder for attaching the same to the felly of the wheel, a series of compartments formed within the said body and open toward the inner periphery, vent openings leading to each of said compartments, a rubber block within each compartment arranged to leave a surrounding air space, said blocks formed from a rubber having a greater coefficient or ratio of elasticity than that of the body, and a means for attaching said blocks in position and centrally located within said compartments.

1,251,718. POWDER-PUNCH AND FUSE-HOLDER. DANIEL JAMES WATTS, Iron River, Mich. Filed July 16, 1917. Serial No. 180,827. (Cl. 86—22.)



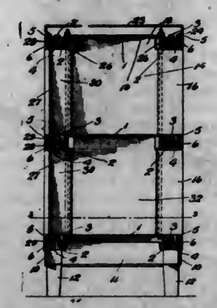
1. A fuse holder and powder punch consisting of a round bar bent over on itself forming diverging resilient arms of unequal length, and a U-shaped tube the arms of which are adapted to receive said arms; whereby the arms of said bar and tube may be detachably connected.

2. A fuse holder and powder punch consisting of a bar bent over on itself forming non-parallel arms and a U-shaped tube the arms of which are adapted to receive the exterior of said arms whereby the arms of said bar and tube may be detachably connected.

1,251,719. METAL FURNITURE. PETER M. WEGE, Grand Rapids, Mich., assignor to Metal Office Furniture Company, Grand Rapids, Mich. Filed Feb. 23, 1915. Serial No. 9,919. (Cl. 45—78.)

1. Metal furniture including a shelf member formed from sheet metal and having a plurality of corrugations at each side thereof extending the full length of the shelf and a transverse bar secured at its ends at each end of the shelf member and slightly spaced from its ends, substantially as described.

3. Metal furniture comprised of a plurality of spaced apart shelf members, each formed of sheet metal with a plurality of corrugations at each side thereof and having at each end a transverse bar connected at its ends to the shelf member, sheet metal end members at each end of the shelf members spacing them apart and having extensions at their lower ends passing between the transverse bars and the ends of the shelf members, means detachably connecting the shelf and end members together, and backs of sheet metal located between the shelf members at one side thereof, each having an inturned lower edge and an out-turned upper edge seated in the grooves formed by the corrugations on the under and upper sides respectively of the shelf members, substantially as described.



5. Metal furniture comprised of shelf members and end members spacing said shelf members apart, means connecting the shelf and end members together, corrugations formed in the shelf members at each side and extending the full length thereof, a base having upstanding sides received in the grooves formed by said corrugations on the underside of the lowermost shelf member and a top having downwardly extending side edges received in the grooves formed by said corrugations in the upper side of the uppermost shelf member.

6. In combination, shelf members, end members for vertically spacing the shelf members apart, means detachably connecting the shelf and end members together, supporting posts positioned between the shelf members between the end members, each post comprised of a channel of sheet metal having the edges of the flanges thereof formed into beads, and rods extending through the shelf members and beads of said posts detachably connecting them together.

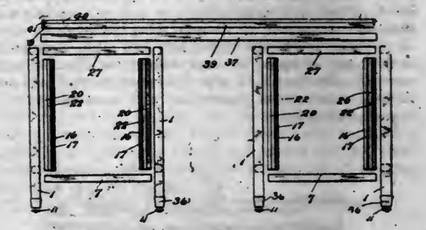
8. In combination, shelf members, end members spacing said shelf members apart one above the other each end member being comprised of a body of sheet metal having sections at the front and rear edges bent at right angles to the body for a distance and then inwardly parallel to said body and terminating in vertical beads, rods extending through the shelf members and beads to connect said shelf and end members together, and a panel filling the space between the beads of each end member and interlocked therewith between the shelf members.

[Claims 2, 4, and 7 not printed in the Gazette.]

1,251,720. DESK. PETER M. WEGE, Grand Rapids, Mich., assignor to Metal Office Furniture Company, Grand Rapids, Mich. Filed Mar. 25, 1915. Serial No. 17,017. (Cl. 45—6.)

1. In a desk, the combination of desk pedestals spaced apart, an angle iron frame with vertical legs extending upwardly from the outer edges of the horizontal legs of the frame and located above the pedestals, a top disposed within said frame, and means for detachably connecting the pedestals, frame and top together, substantially as described.

2. In a desk, the combination of two desk pedestals, spaced apart, rods extending upwardly from the pedestals, and angle iron frame positioned above and over the pedestals, said frame having horizontal legs provided with openings through which the rods pass and vertical legs extending upwardly at the outer edges of said horizontal legs, means on the rods for detachably securing the frame in place, and a top removably connected to said frame within said vertical legs, substantially as described.



4. In a desk, two desk pedestals located a distance apart, each comprised of posts formed of sheet metal and including vertical cylindrical loops having portions thereof removed at the upper ends and intermediate the ends of the posts, shelves supported by the posts with parts of the shelves received in the spaces provided by said removed portions, rods extending lengthwise of the posts through the cylindrical loops and through the shelves to detachably connect the posts and shelves together, an angle iron frame positioned above the said pedestals through which the upper ends of the rods pass, means on the rods for securing the frame to the pedestals, and a top carried by the frame, substantially as described.

6. In a desk, two spaced apart pedestals each comprised of corner posts, upper and lower shelves, sides each including an inner and an outer panel, and a back, an angle frame positioned above and bridging the space between the pedestals, means to detachably connect the parts of each pedestal together, and means to detachably connect the angle frame to the said pedestal connecting means, substantially as described.

8. In a desk, a pedestal comprised of sheet metal corner posts, upper and lower shelves formed of sheet metal, sides each including a sheet metal inner panel and a sheet metal outer panel, and a sheet metal back, means on the panels and back for interlocking them between the posts, and a single means for detachably connecting the shelves, posts, panels and back together.

[Claims 3, 5, and 7 not printed in the Gazette.]

1,251,721. INKING-PAD. MAURICE L. WILLARD, Chicago, Ill., assignor to The Superior Type Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 11, 1916. Serial No. 90,425. (Cl. 91—54.5.)



1. In a stamp pad, a base formed of relatively soft material having a recess for the pad, and a stiff plate located in said base, substantially as described.

5. In a stamp pad, a base formed of relatively soft material having a stiff plate therein, walls projecting from said base and forming a recess for the pad, lugs at the rear of the same, a cover, and a pintle projecting from said cover and into said lugs, substantially as described.

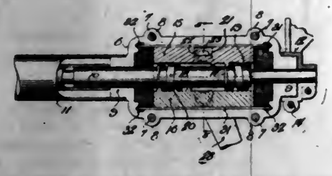
6. In a stamp pad, a base formed of relatively soft material having a recess or opening for the pad, and a pad located in said recess and having a stiff plate therein, substantially as described.

[Claims 2 to 4, 7, and 8 not printed in the Gazette.]

1,251,722. STEERING-SHAFT TRANSMISSION. PAUL B. WOHLRAB, Racine, Wis. Filed May 13, 1916. Serial No. 97,238. (Cl. 74—79.)

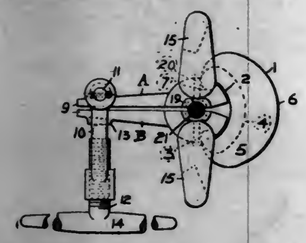
1. A steering gear transmission mechanism comprising a steering post, a casing surrounding one end of said post,

two series of oppositely inclined screw threads on said post within said casing, a pair of independently movable blocks disposed in said casing and surrounding said screw threads, one series of threads being adapted to operate each block, relatively stationary leaf springs secured in said casing at opposite sides thereof for slidable engagement by said blocks to urge the latter toward said screw threads, and means connected with said blocks to be operated thereby.



2. A steering gear transmission mechanism comprising a steering post, a casing surrounding one end of said post, a pair of series of oppositely inclined screw threads on said post within said casing, a pair of independently movable blocks surrounding said series of screw threads and disposed within the casing, one of said blocks being operated by each series of screw threads, a pair of leaf springs, one being disposed between the outer face of each block and the adjacent wall of the casing, whereby to force said blocks into engagement with said screw threads, the opposite ends of said casing being provided with notches to receive the ends of said springs to hold the same in position, and means connected with said blocks to be operated thereby.

1,251,723. WIRE-ROPE CLAMP. CLYDE S. WRIGHT, Toledo, Ohio, assignor to The National Supply Company, Toledo, Ohio, a Corporation of Ohio. Filed Apr. 27, 1917. Serial No. 164,872. (Cl. 24—135.)



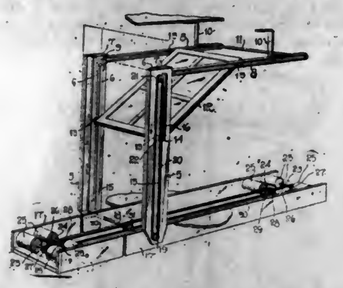
2. In a rope clamp, a body having a channel with opposing edges, a pair of levers fulcrumed on the said edges by a rib and groove connection, pins in the levers and extending into the groove to support the body, opposing rope-gripping surfaces on the levers, means for suspending the clamp, and means for operating the levers.

4. In a rope clamp, a body having a channel with opposing ribs at the edges thereof, a pair of levers having grooves in which the ribs are seated, means on the levers for suspending the same, pins insertible in the levers, across the grooves and beneath the body to support the latter, opposing rope-gripping surfaces close to a line joining the ribs but external to the channel, and means for moving the outer ends of the levers one toward the other.

[Claims 1 and 3 not printed in the Gazette.]

1,251,724. MECHANISM FOR AUTOMATICALLY OPERATING DOORS. RINK WRIGHT, Omaha, Nebr., assignor of one-half to William M. King, Omaha, Nebr. Filed June 13, 1917. Serial No. 174,578. (Cl. 268—1.)

1. The combination with a vertically movable door and trackways therefor, of rollers mounted in spaced relation to the door opening interiorly and exteriorly thereof and adapted to be driven by the frictional engagement of the drive wheels of a motor vehicle therewith, means connected to the door to move the same to its open or closed positions, and operating connections between said rollers and said door operating means.

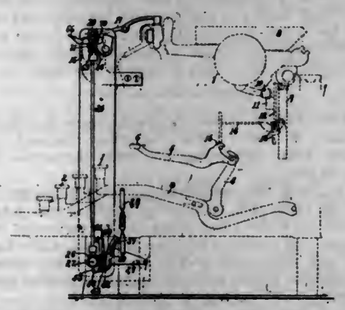


3. The combination with a vertically movable door and trackways therefor, of rollers mounted in spaced relation to the door opening interiorly and exteriorly thereof and adapted to be driven by the frictional engagement of the drive wheels of a motor vehicle therewith, a shaft mounted in the lower ends of the door jambs, vertically disposed endless chains operatively connected to the ends of said shaft, one stretch of each chain being connected to the lower end of the door, and actuating means for said shaft operatively connected to the rollers.

5. In door operating mechanism, spaced door jambs having guideways, tracks extending from the upper ends of the guideways, a door movable upon the tracks in the guideways, said jambs having vertically extending slots therein, trunnions fixed to the lower end of the door and movable in said slots, an endless chain mounted upon the under side of each jamb and having one of its stretches connected to one of said trunnions, rollers mounted in spaced relation to the door opening interiorly and exteriorly thereof and adapted to be driven by the frictional engagement of the drive wheels of the vehicle therewith, and operating connections between said rollers and the endless chains.

[Claims 2 and 4 not printed in the Gazette.]

1,251,725. COMBINED TYPE-WRITING AND COMPUTING MACHINE. WALTER WRIGHT, New York, N. Y., assignor to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Filed Feb. 12, 1912. Serial No. 677,046. (Cl. 235—59.)



1. The combination with a master wheel, and computing wheels selectively operated by said master wheel, of keys, a shaft for driving said master wheel turned by said keys, a universal lock for holding said shaft locked, said lock released by the operation of any key, and key controlled locks holding said shaft locked during the movement of any numeral key while not positively turning said shaft.

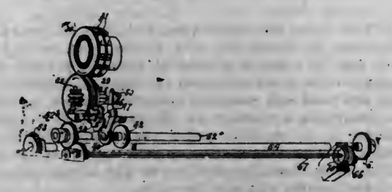
3. The combination with computing wheels, of keys, a partly toothed driver moving with each key, a driving gear wheel turned by the toothed portion of said driver and locked by the remaining portion and inoperative on the up stroke of said key, and a bar moved by said key to positively move said gear wheel to mesh with said driver.

37. In a computing machine, the combination with a plurality of full-revolution digit-determining wheels having teeth proportional to the digits they represent, of a single shaft to be rotated thereby, a plurality of gears fast on said shaft, one gear for each wheel, said gears having teeth to be engaged by the teeth on said wheels to effect a rotation of said shaft during a part of the rotation of each wheel, a pair of Geneva locking elements for each gear and its wheel to lock said shaft after being rotated by said wheel, one element of each pair being fixed with respect to its associated gear and the other element of the same pair being fixed with respect to its associated wheel, and a pair of universal Geneva locking elements, one element of said pair being fixed to said shaft and the other element being normally held in locking relation therewith but moved to ineffective position during the rotation of any of said wheels.

55. The combination of a toothed gear, a driver having means thereon engageable with the teeth on said gear to effect a partial rotation of the latter, and also having means for rendering said gear ineffective to be rotated by the first mentioned means after such partial rotation has been completed, a key for actuating said driver, and means on said driver engageable with means carried by said gear to effect a further rotation of the gear to a position such that it may again be rotated by said first-mentioned means.

[Claims 2, 4 to 36, and 38 to 54 not printed in the Gazette.]

1,251,726. COMBINED TYPE-WRITING AND COMPUTING MACHINE. WALTER WRIGHT, New York, N. Y., assignor to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Filed Dec. 24, 1910. Serial No. 599,184. Renewed Aug. 19, 1912. Serial No. 715,916. (Cl. 235—139.)



1. In a computing device, the combination with a set of computing wheels, of tens-carrying mechanism comprising a rotary member connected to a wheel of high denomination and having a part intermittently operable by a wheel of low denomination, said rotary member including a lobed wheel, a roll normally occupying a depression in said lobed wheel and constructed to ride upon the periphery of a lobe at the tens-carrying operation, and a constantly revolving driver with which said roll engages and by which it is driven when riding upon said periphery, whereby said driver is caused to assist said rotary member.

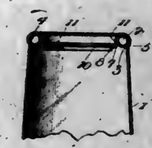
3. In combination, a pinion, a constantly revolving driver, and a lobed carry-over wheel having teeth on the periphery of its lobes for engagement with the pinion when the latter is moved into mesh with the constantly revolving driver.

5. In a computing device, the combination with a set of computing wheels and a constantly revolving gear, of normally idle gear trains between said computing wheels and said revolving driver, and means to enable the computing wheels to call said gear trains into action and cause them to aid in carrying tens from one computing wheel to the next; each train comprising a toothed wheel and a transmitter out of mesh therewith; means being provided for moving said transmitter into mesh with both said toothed wheel and said constantly revolving gear.

22. In a computing machine, the combination with a series of computing wheels, and a master wheel, of a computing escapement for controlling said master wheel, toothed detents for holding said computing wheels, and means independent of the master wheel and computing wheels for driving said computing wheels by the teeth on said detents to effect a carry-over onto one computing wheel from the one below.

[Claims 2, 4, and 6 to 21 not printed in the Gazette.]

1,251,727. PAPER BOTTLE AND THE LIKE. WILBUR L. WRIGHT, Baltimore, Md., assignor to Seabright Co., Inc., Fulton, N. Y., a Corporation of New York. Filed Nov. 1, 1916. Serial No. 128,980. (Cl. 229—3.)

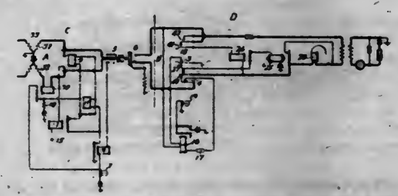


1. A thin-wall paper milk bottle of truncated cone shape having a standard rated capacity, the diameter of the large lower end and the vertical length of said bottle being approximately equal to the lower end diameter and the vertical length of a standard glass milk bottle of like rated capacity, said bottle at its small upper end having an internal disk seat of a diameter to receive a standard size milk-bottle sealing disk, the upper end of said bottle having a permanent roll within the surrounding wall of the bottle formed by rolling the top edge of the paper wall inwardly and downwardly, and a metal rim approximately inclosing said roll and permanently fixed thereto and extending down within the contracted space within said roll and at its inner portion forming said seat, substantially as described.

3. A truncated-cone paper bottle having the top edge of its paper wall rolled inwardly and downwardly and forming a rigid top supporting rim within and surrounded by the exterior wall of the bottle and an annular external indentation, and a metal rim fitted down over said rim and depending at the inner and outer faces thereof and having its outer edge turned into said indentation and permanently securing the metal rim on the paper rim, the inner depending portion of said rim forming the throat and sealing seat of the bottle.

[Claim 2 not printed in the Gazette.]

1,251,728. TELEPHONE-EXCHANGE SYSTEM. FREDERICK V. YOUNG, Newark, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Feb. 17, 1917. Serial No. 149,215. (Cl. 179—44.)



1. A telephone exchange system comprising a trunk circuit extending from one telephone switchboard to a second board, means at one of said boards for applying ringing current over said trunk to the other board, an

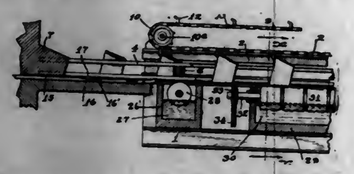
operator's telephone set at said other board, a switch thereat actuated by the operator for connecting the operator's telephone set to the trunk and for disconnecting the ringing current from the trunk, means for disabling the receiver of the operator's telephone set during the period in which ringing current is being removed, and a relay connected with and operated over the trunk while the switch is actuated to render and maintain the disabling means ineffective after ringing current has been removed.

2. A telephone exchange system comprising a trunk circuit extending from one telephone switchboard to a second board, means at one of said boards for applying ringing current over said trunk to the other board, an operator's telephone set at said other board, a switch thereat actuated by the operator for connecting the operator's telephone set to the trunk and for disconnecting the ringing current from the trunk, a relay for disabling the receiver of the operator's telephone set during the period in which ringing current is being removed, an operating circuit for the relay completed by the actuation of the switch, and a relay bridged across and operated over the trunk while the switch is actuated to open the operating circuit of and to maintain the first mentioned relay deenergized after ringing current has been removed.

3. A telephone exchange system comprising a trunk circuit extending from one telephone switchboard to a second board, means at one of said boards for applying ringing current over said trunk to the other board, an operator's telephone set at said other board, a switch thereat actuated by the operator for connecting the operator's telephone set to the trunk and for disconnecting the ringing current from the trunk, a slow releasing relay for disabling the receiver of the operator's telephone set during the period in which ringing current is being removed, an operating circuit therefor completed by the actuation of the switch, and a relay bridged across the trunk by the actuation of the switch and energized while the switch remains actuated to open the operating circuit of and to maintain the slow releasing relay deenergized after ringing current has been removed.

4. A telephone exchange system comprising a trunk circuit extending from one telephone switchboard to a second board, means at one of said boards for applying ringing current over said trunk to the other board, an operator's telephone set at said other board, a switch thereat actuated by the operator for connecting the operator's telephone set to the trunk and for disconnecting ringing current from the trunk, means for disabling the receiver of the operator's telephone set during the period in which ringing current is being removed, and a relay bridged across the trunk by the actuation of the switch and energized while the switch remains actuated to maintain the disabling means ineffective after ringing current has been removed.

1,251,729. CAN-SOLDERING APPARATUS. JOHN M. YOUNG, San Francisco, Cal., assignor to American Can Company, San Francisco, Cal., a Corporation of New Jersey. Filed May 28, 1914, Serial No. 841,609. Renewed Oct. 23, 1916. Serial No. 127,312. (Cl. 113—9.)

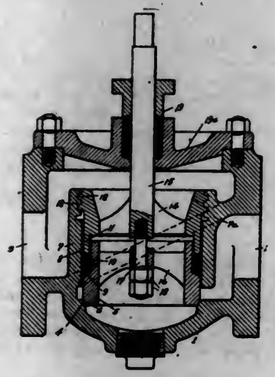


1. An apparatus for soldering the side seam of flat sided tapered can bodies and in combination with associated soldering devices comprising a can body guide frame over which said can bodies are conveyed, said guide frame being of a size and configuration of the small end of said can bodies, a guide casing carried by said supporting frame and surrounding said guide frame and through which said can bodies are conveyed, said guide casing being of a size and configuration of the large end of said can bodies, means for conveying the can bodies longitudinally of said guide frame and casing, said guide frame and guide casing serving to maintain the can body side seam in coöperative relation with the associated soldering devices.

4. An apparatus for soldering the side seam of tapered can bodies and in combination with soldering mechanism, a guide for coöperation with the small end of the can body and over which the body passes, a guide casing surrounding said first mentioned guide and through which the large end of the can body passes in contact therewith, and means for propelling can bodies relative to said guide and guide casing, said guide and guide casing maintaining the can seam in coöperative relation with the soldering mechanism.

[Claims 2 and 3 not printed in the Gazette.]

1,251,730. VALVE. LEWIS E. YOUNIE and POWERS A. WICKES, Portland, Oreg. Filed Sept. 7, 1916. Serial No. 118,832. (Cl. 137—4.)



1. In a valve, the combination of a body having an annular seat by which the flow through the valve takes place and an interior cylindrical surface; a valve head having a valve face closing and opening by a movement toward and from said seat, said valve head having a stuffing box comprising a shoulder on the valve head; a packing arranged on the shoulder, and a follower operating on the packing, said packing seating on said cylindrical surface; and means for exerting pressure on the follower to compress the packing and seat the valve.

3. In a valve, the combination of a body having an annular seat by which the flow through the valve takes place and an interior cylindrical surface; a valve head having a valve face closing and opening by a movement toward and from said seat, said valve having a stuffing box comprising a shoulder on the valve head, a packing arranged on the shoulder, and a follower operating on the packing, said packing seating on said cylindrical surface; and a screw for exerting pressure on the follower to compress the packing and seat the valve.

4. In a valve, the combination of a body having an annular seat by which the flow through the valve takes place and an interior cylindrical surface; a valve head having a valve face closing and opening by a movement toward and from said seat, said valve head having a stuffing box comprising a shoulder on the valve head, a packing arranged on the shoulder, and a follower operating on the packing, said packing seating on said cylindrical surface; a screw for exerting pressure on the follower to compress the packing and seat the valve; and a stem for actuating the valve and follower.

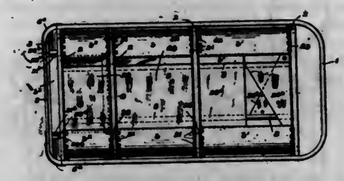
5. In a valve, the combination of a body having an annular seat by which the flow through the valve takes place

and a diaphragm through which extends a cylindrical surface; a valve head having a face closing and opening by a movement toward and from said seat, said valve head having a shoulder; a packing on the shoulder operating on the cylinder and forming a closure; a follower acting on the packing; a screw-threaded connection between the follower and the cylinder; a stem operating on the follower; and means connecting the follower and the valve.

6. In a valve, the combination of a body having an interior cylindrical surface; valve members comprising a seat and a valve-head, the valve head being movable toward and from the seat and closing and opening the valve by contact with and separation from said seat; a stuffing box arranged on one of said members and having a packing operating on said cylindrical surface; and means for seating the head and exerting pressure on the packing as the head is seated.

[Claim 2 not printed in the Gazette.]

1,251,731. AUTOMOBILE-TOP. BENJAMIN H. ALVEY, Louisville, Ky. Filed Mar. 24, 1916. Serial No. 86,414. (Cl. 21—62.)



1. In a vehicle top, a curtain arranged to be raised or lowered, and means forming channels at opposite sides of the curtain openings to receive the longitudinal edges of the curtain, the means forming each of said channels including two series of short rollers relatively disposed to present a laterally open, arcuate passage having rolling walls to engage the adjacent portions of the curtains.

2. In a vehicle top, the combination with standards and bows, the latter having arcuate portions, of a curtain arranged to be raised or lowered, and means for guiding the curtain in an arcuate path while it is being raised or lowered, comprising two sets of stub shafts, having idler rollers thereon, one set being mounted at each side of the curtain opening and upon the side faces of the arcuate portions of the bows, the rollers of each set lying in two concentric rows, and the rollers of one row being spaced from the rollers of the other row to thereby constitute a laterally open passage by which the adjacent portion of the curtain is guided.

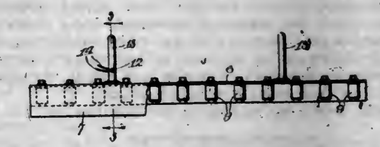
4. In a vehicle top, a curtain arranged to be raised or lowered and having enlarged longitudinal edge portions, and two series of short freely rotatable rollers at each side of the curtain opening, the rollers of each two series being correlated to provide an arcuate space having a laterally open restricted mouth, the said spaces being disposed to receive the adjacent enlarged longitudinal edge portions of the curtain, and the portions of the curtain contiguous to said edges extending through the mouth, whereby accidental displacement of the curtain is avoided and said curtain is guided in an arcuate path.

7. In a vehicle top, the combination of standards and bows, the standards having channels, two complementary series of independently rotatable idlers spaced along the curved portion of each bow, each idler having an outwardly tapered body and a flange at its outer end, the idlers of each two series being relatively arranged substantially to provide an arcuate passage, said passages communicating with the channels in the standards, respectively, and a curtain having reinforced longitudinal edges respectively arranged to travel in the grooves of the standards and between the complementary series of idlers, and to be guided thereby.

10. In a vehicle top, a roller, a curtain disposed at the juncture of the front and side portions of the vehicle and lying partly along the side and partly across the front and connections whereby said curtain may be wound upon said roller, said connections comprising two flexible strips of material connecting opposite end portions of the roller with corresponding portions of the curtain, one of said strips being cut on a bias.

[Claims 3, 5, 6, 8, 9, and 11 not printed in the Gazette.]

1,251,732. MAGNETIC LIFTER FOR CANS. ARTHUR L. ANDERSON, Juneau, Wis. Filed Apr. 2, 1917. Serial No. 159,124. (Cl. 57—9.)

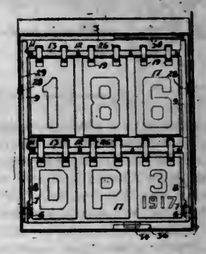


2. A magnetic lifter for cans consisting of a body having at one of its edges a forwardly extended flange, a plurality of electro-magnets mounted on said body in a row longitudinally with respect to said flange and electrically connected in series, handles on the body, and a switch on one of said handles and in the electric circuit.

4. A magnetic lifter for cans, consisting of a body having a forwardly extending flange at or near each of its edges, one of said flanges being of greater width than the other, a plurality of electro-magnets mounted on the body between said flanges and electrically connected in series, the length of said magnets being less than the width of the wider flange and substantially the same as the width of the narrower flange, and a switch in the electric circuit.

[Claims 1 and 3 not printed in the Gazette.]

1,251,733. CHANGEABLE SIGN. CLARENCE C. BAKER, Alameda, and EARL A. CHANDLER, San Francisco, Cal. Filed Sept. 30, 1916. Serial No. 123,034. (Cl. 40—102.)



1. In a device of the character described, the combination of a plate provided with means for securing it to a board or the like, arms pivoted to swing to and from said plate, cross bars carried by said arms, rings carried by said cross bars, sheets exhibiting characters revoluble on said rings, a cover for said sheets having openings through which said characters are visible, and arms pivotally connected to said cover and to said plate.

2. In a device of the character described, the combination of a plate provided with means for securing it to a board or the like, arms pivoted to swing to and from said plate, cross bars carried by said arms, rings carried by said cross bars, said plate having recesses to receive said rings, sheets exhibinting characters revoluble on said rings, a cover for said sheets having openings through which said characters are visible, and arms pivotally connected to said cover and to said plate.

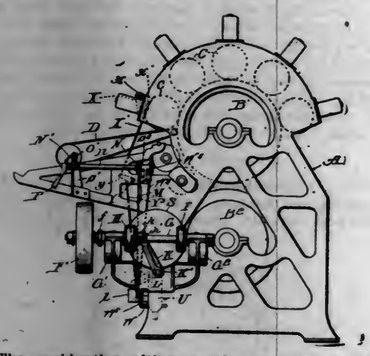
6. In a device of the character described, the combination of a plate provided with means for securing it to a board or the like, arms pivoted to swing to and from said plate, cross bars carried by said arms, rings carried by said cross bars, sheets exhibiting characters revoluble on

said rings, a cover for said sheets having openings through which said characters are visible, arms pivotally connected to said cover and to said plate, latches secured movably in unison on the back of said plate, one of said latches having a part adapted to be moved by a thin blade inserted between said cover and the board upon which the plate is secured, and lips on the under side of said cover engaged by said latches.

7. In a device of the character described, the combination of a plate provided with means for securing it to a board or the like, arms pivoted to swing to and from said plate, cross bars carried by said arms, rings carried by said cross bars, sheets exhibiting characters revoluble on said rings, a cover for said sheets having openings through which said characters are visible, arms pivotally connected to said cover and to said plate, latches secured movably in unison on the back of said plate, a spring for operatively moving said latches, and lips on the under side of said cover engaged by said latches.

[Claims 3 to 5 not printed in the Gazette.]

1,251,734. PNEUMATICALLY-CONTROLLED FRICTION DRIVING MECHANISM FOR IRONING-MACHINES. FRITZ BALZER, Chicago, Ill., assignor to Troy Laundry Machinery Company, Ltd., Chicago, Ill., a Corporation of New York. Filed Nov. 1, 1913, Serial No. 798,764. Renewed Nov. 22, 1917. Serial No. 203,464. (Cl. 74—26.)



1. The combination with a machine comprising rotating parts, of friction power transmission mechanism comprising driving and driven elements, pneumatically actuated means for moving said elements into and out of frictional engagement, means for moving one of said elements radially with respect to the other, and interlocking mechanism for preventing the operation of said latter means until after said first means have operated to separate said elements.

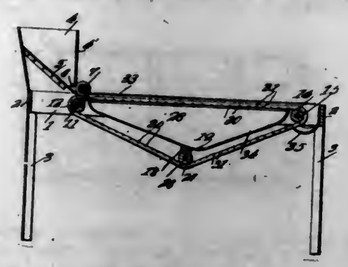
5. The combination with a machine comprising rotating parts, of friction power transmission mechanism comprising driving and driven elements, fluid pressure operated mechanism for relatively moving said elements into and retaining them in frictional contact, means for relatively radially adjusting said elements, and a coöperating mechanism for releasing fluid pressure from said mechanism prior to and during the relative radial movement of the elements.

6. The combination with a machine comprising rotating parts, of friction power transmission mechanism comprising driving and driven elements, means for relatively moving said elements into and out of engagement, a cylinder, a piston therein operatively connected to said means, valve mechanism controlling the supply and exhaust of fluid pressure to and from said cylinder, means for relatively radially adjusting said elements, and an operating device connected with said valve mechanism and with said last-named means for operating said valve mechanism to effect the separation of said elements prior to and during the operation of said means.

7. The combination with a machine comprising rotating parts, of a driving shaft, a friction pinion axially movable on said shaft, a driven shaft operatively connected with the rotating parts of the machine and extending at right-angles to the driving shaft, a friction disk axially movable on said driven shaft, a fluid pressure cylinder, a piston therein operatively connected with said disk for retaining the same in contact with said pinion, means for automatically disengaging said disk from said pinion upon the release of fluid pressure from said cylinder, valve mechanism for controlling the supply and exhaust of fluid pressure to and from said cylinder, means for normally retaining said valve mechanism in position to supply fluid pressure to said cylinder, and means for operating said valve mechanism to exhaust fluid pressure from said cylinder.

[Claims 2 to 4, 8, and 9 not printed in the Gazette.]

1,251,735. BEAN-SORTER. JOSEPH B. BANNON and NAPE C. RHODES, Grawn, Mich. Filed Apr. 14, 1917. Serial No. 162,095. (Cl. 130—18.)

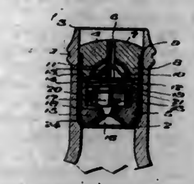


1. A sorter, comprising a frame, a hopper on the frame, an endless carrier in the frame consisting of spaced longitudinal strands, rods extending transversely of the strands, flexible connections between the rods and strands, and means for delivering from the hopper in rows between the strands.

2. A sorter, comprising a frame, a hopper on the frame, means for delivering from the hopper, and an endless carrier traveling in the frame and consisting of spaced longitudinal strands, flexible material placed over each strand, and rods piercing the free edges of the flexible material to bind the strand between the rods and the material, the said rods extending transversely of the carrier, and means for operating the carrier.

3. An endless carrier for sorters, comprising longitudinal strands, flexible material over each strand, and rods piercing the free edges of the flexible material to bind the strands between the rods and flexible material, said rod extending transversely of the carrier.

1,251,736. NON-REFILLABLE BOTTLE. JOSEPH BART, Arlington, N. J., assignor of one-half to Peter Habenschaden, New York, N. Y. Filed Apr. 4, 1917. Serial No. 159,641. (Cl. 215—61.)

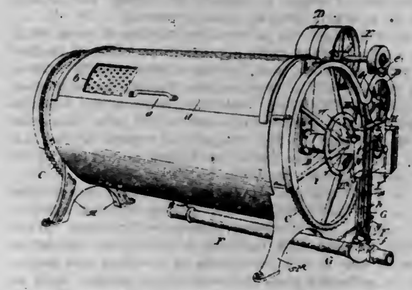


1. A bottle stopper comprising a nozzle provided with a central discharge aperture, a lower member to coöperate therewith, said lower member being provided with a chamber having a conical port communicating with the interior of the bottle, a conical valve to coöperate therewith, an upstanding collar carried by the valve, a spring mounted thereon to engage the nozzle and to thereby retain the valve in a normally closed position, a plurality of longitudinal notches on the periphery of the valve to allow the passage of fluid around said valve, and a plurality of fluid conducting ducts on the receiving end of the nozzle, said ducts radially converging to said central discharge aperture.

2. In combination with a bottle stopper, a valve provided with a plurality of longitudinal notches in its periphery, a concave discharge nozzle provided with a central aperture extending axially therethrough, a plurality of open radial ducts positioned in the concave face of the nozzle and communicating with the central aperture, said ducts operating to facilitate the discharge of fluid escaping around the valve when the same is in close proximity to the nozzle.

3. The combination with a liquid container having a neck provided with an internal shoulder, of a stopper therefor comprising a nozzle having a convex discharge end and a concave receiving end, a cylindrical aperture extending axially through said nozzle, a plurality of radial ducts communicating with said aperture, a valve chamber beneath said nozzle, a conical port therein, a conical valve to engage said port, resilient means to retain the valve normally in the port, means to intermittently admit a liquid through said port from the container into the chamber, and a plurality of angular notches in the periphery of the valve body to permit the passage of the liquid around the valve and out of the nozzle.

1,251,737. TIME-CONTROLLED MECHANISM FOR CYLINDER WASHING-MACHINES. WILLIAM BARTHOLOMEW and FRITZ BALZER, Chicago, Ill., assignors to Troy Laundry Machinery Company, Ltd., Chicago, Ill., a Corporation of New York. Filed Apr. 5, 1912, Serial No. 688,746. Renewed Nov. 22, 1917. Serial No. 203,465. (Cl. 68—18.)



1. In a washing machine comprising a tank and a rotary cylinder therein, the combination with an operating means for rotating said cylinder, of a valve controlling a discharge opening from the tank, a single pivotally mounted tripping device actuated by said means, a member adapted to be engaged by said tripping device and controlling the operation of said valve, means for adjusting said tripping device to vary the interval of time which must elapse before it engages the said member, and means for moving said member out of the path of said tripping device during the adjustment of the latter.

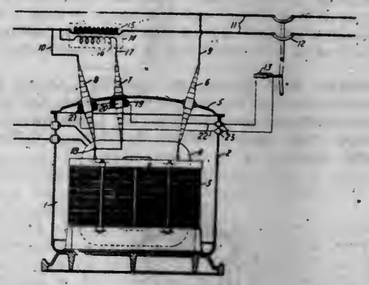
2. In a washing machine comprising a tank and a rotary cylinder therein, the combination with means for rotating said cylinder, of a valve controlling an outlet from said tank, a wheel rotated by said means, a single pivotally mounted tripping device rotating with and oscillating relatively to said wheel into different fixed angular positions thereon, and a member adapted to be engaged by said tripping device and controlling the operation of said valve.

6. In a machine of the character described, the combination with an operating element, of an operated element, a worm, a shaft upon which said worm is fixed, a reciprocating plunger operatively connected to said shaft to rotate the same, a cam carried by said operating element and intermittently engaging said plunger to reciprocate the same, a worm wheel in mesh with said worm, a tripping lever rotating with and adjustable relatively to said worm wheel, and a member adapted to be engaged by said tripping lever for controlling the operation of said second element.

8. In a washing machine, the combination with a tank, of a valve controlling an outlet from said tank, a cylinder in said tank, means for rotating said cylinder, a rod connected to said valve, a spring for normally opening said valve, a detent adapted to engage said rod to hold said valve closed, and mechanism operated by said rotating means to actuate said detent to release said rod and permit said valve to open, said mechanism comprising means for adjusting the operation of said detent to vary the interval of time which must elapse prior to the opening of said valve.

[Claims 3 to 5, 7, and 9 not printed in the Gazette.]

1,251,738. PROTECTIVE SYSTEM FOR TRANSFORMERS. ALLAN P. BENDER, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 29, 1915. Serial No. 69,193. (Cl. 175—361.)



1. The combination with a lead conducting a high-potential alternating current of low value, an insulating bushing surrounding said lead, a support for said bushing, and an auxiliary bushing likewise supported thereby, of a series transformer having a primary winding adapted for connection in circuit with said high-potential lead and a secondary winding connected in closed circuit with that portion thereof which is threaded through said bushing by means of a conductor threaded through said auxiliary bushing, and a secondary winding embracing at least one of said bushings in order to have induced therein a low-potential current of relatively high value.

2. The combination with a lead conducting a high-potential alternating current of low value, an insulating bushing surrounding a portion of said lead, a support for said bushing, and an auxiliary bushing supported thereupon, of a series transformer having a primary winding of a relatively large number of turns and a secondary winding of a relatively small number of turns, one terminal of both windings being connected to said high-potential lead, a conductor threaded through said auxiliary bushing and connecting said secondary transformer winding in a closed circuit with a portion of said high-potential lead, and a secondary coil embracing one of said bushings in order to be under the inductive influence of the current flowing through said secondary winding.

3. The combination with a high-potential electrical apparatus, insulating bushings surrounding the high-potential leads thereof, a support for said bushings, and an auxiliary bushing likewise supported thereby, of a series transformer having one terminal of both its primary and secondary windings connected to one of said high-potential leads, a conductor threaded through said auxil-

lary bushing and connecting the other terminal of said secondary winding to the primary lead connected to the first said terminal thereof, and a secondary coil under the inductive influence of the current flow in said secondary winding embracing said auxiliary bushing.

4. The combination with an electrical apparatus, insulating bushings surrounding the high-potential leads thereof, a support for said bushings, and an auxiliary insulating bushing likewise supported thereby, of a series transformer having a primary winding that is adapted for connection in series circuit with one of said high-potential leads and a secondary winding connected in closed circuit with that portion of the high-potential lead connected to said primary winding which is threaded in the insulating bushing by means of a conductor threaded through said auxiliary bushing, and a secondary coil subject to the influence of the current flow in said closed circuit embracing one of said bushings.

5. The combination with an electrical apparatus, a containing case therefor, and at least two insulating bushings projecting through said case one of which surrounds a high-potential lead extending from the apparatus, of a series transformer having a primary winding that is adapted to be connected in series with one of said high-potential leads and a secondary winding connected in series with a conductor threaded through the other insulating bushing which conductor, in combination with said secondary winding and the high-potential lead connected to said primary winding, constitutes a closed circuit of high current capacity, and a secondary winding embracing at least one of said insulating bushings and influenced by the current flow in said closed circuit.

1,251,739. ELECTRIC-LAMP SOCKET. REUBEN B. BENJAMIN, Chicago, Ill., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 9, 1914. Serial No. 876,200. (Cl. 173—358.)



1. An electric lamp socket including an insulating base, a shell contact supported by said base, a casing forming a housing for said base and shell, said casing having a flange integral therewith adjacent said base and on the opposite side of said base from said shell, and means for securing said base within said casing, and including a screw having its head located within said shell.

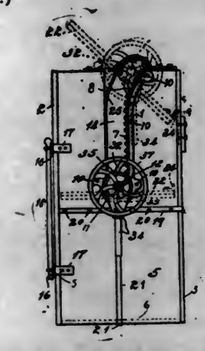
3. An electric lamp socket including an insulating base, a shell contact supported by said base, a casing forming a housing for said base and shell, said casing having a flange integral therewith adjacent said base and on the opposite side of said base from said shell, and means for securing said base within said casing, and including a screw having its head located within said shell, an expansible ring engaged by said screw engaging the walls of said casing.

7. A lamp socket including an insulating base, a shell contact supported by said base, a casing forming a housing for said base and shell, said casing having an inwardly extending flange integral therewith adjacent said base and on the opposite side of the base from said shell, and means for securing said base within said casing and for securing said shell to said base, comprising a screw extending through said shell and base, and having its head within said shell, and an expansible ring with which said screw engages, said casing having a groove into which said ring expands.

9. An electric lamp socket including an insulating base, a shell contact supported by said base, a casing forming a housing for said base and shell, said casing having a flange integral therewith adjacent said base and on the opposite side of said base from said shell and means for securing said base within said casing including a screw having its head accessible from within said shell.

[Claims 2, 4 to 6, and 8 not printed in the Gazette.]

1,251,740. BALING-PRESS. AXLE BENSON and EDWARD C. SHAW, Galesburg, Ill., assignors to The Crane Manufacturing Company, Galesburg, Ill., a Corporation of Illinois. Filed Nov. 28, 1916. Serial No. 133,960. (Cl. 100—5.)



1. In a baling-press, a press-box having in each of its sides a slot, toothed racks arranged one adjacent each of said slots, each of said racks having its upper portion continuously curved, a platen-carrying shaft working in said slots, a platen carried thereby, pinions fixed one on each outer portion of the shaft, and a dog having two ends either of which is adapted to engage one of said racks to lock said pinions from movement.

5. In a baling-press, a press-box having in each of its sides a slot, toothed racks arranged one adjacent each of said slots and each rack having a substantially vertical lower portion and a continuously curved upper portion, a platen-carrying shaft traversing said slots, a platen carried thereby, pinions fixed one to and near each outer end of the shaft, a dog adapted to engage one of said racks, and means for throwing the dog into or out of engagement with said rack.

9. In a baling-press, a press-box, a toothed rack secured thereto, the lower portion of the rack being substantially vertical and the upper portion continuously curved, a pinion in mesh with the rack, a platen, and means operated by said pinion for raising or lowering said platen.

10. In a baling-press, a press-box, a toothed rack secured thereto, the lower portion of the rack being substantially vertical and the upper portion forming the arc of a circle, a pinion in mesh with the rack, and a platen to which rising and falling movements are imparted by reason of similar movements of the pinion.

13. In a press, a press-box having in one of its sides a slot the lower portion of which is substantially vertical and the upper portion of which is continuously curved, a shaft one end of which travels in said slot, the other end of the shaft traveling likewise, means for raising and lowering the shaft, and a platen carried by the shaft.

[Claims 2 to 4, 6 to 8, 11, and 12 not printed in the Gazette.]

1,251,741. PROCESS OF TREATING PHOSPHATE MATERIALS. HENRY BLUMENBERG, Jr., Los Angeles, Cal., assignor, by direct and mesne assignments, to Carroll Allen, Los Angeles, Cal. Filed June 7, 1917. Serial No. 173,422. (Cl. 71—7.)

A process of treating phosphate material, comprising subjecting ground tri-calcium phosphate to sulfur dioxid in the presence of water to form calcium sulfite and phosphoric acid, and separating said products.

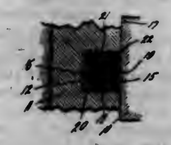
1,251,742. PROCESS OF TREATING PHOSPHATE MATERIAL. HENRY BLUMENBERG, Jr., Los Angeles, Cal., assignor, by direct and mesne assignments, to Carroll Allen, Los Angeles, Cal. Filed June 21, 1917. Serial No. 176,154. (Cl. 71—7.)

1. A process of treating phosphate material comprising intimately mixing finely powdered phosphate rock and an ammonium salt, and heating the same to form ammonium phosphate.

6. A fertilizer comprising pulverized phosphate rock and ammonium sulfate.

[Claims 2 to 5 not printed in the Gazette.]

1,251,743. PISTON-RING. OSCAR M. BOSART, Indianapolis, Ind. Filed Mar. 13, 1916. Serial No. 83,713. (Cl. 121—108.)

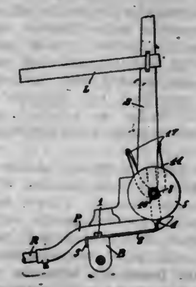


1. A piston ring construction, comprising a split outer ring for engaging the cylinder wall, and a split inner ring tending to expand, said outer and inner rings engaging on frusto-conical surfaces the angle of which to the axis of the rings is greater than the angle of repose of the material of the rings, being free of any interconnection which prevents them from moving axially on each other on such frusto-conical surfaces, and having respectively toward the smaller and larger ends of said frusto-conical surfaces plane end surfaces perpendicular to the axis of the rings, and a third split ring against which the plane end surface of said inner ring at the large end of said frusto-conical surface bears, said third ring engaging the inner ring on plane surfaces perpendicular to the axis of the rings, and said inner ring being confined between said outer ring and said third ring so that it cannot engage the cylinder wall.

4. A piston ring construction, comprising three split rings, one of which tends to expand and acts as a wedge between the other two tending to force them apart against the side walls of the piston groove, said first split ring being held from engaging the cylinder wall by the other two rings and engaging one of the other rings on frusto-conical surfaces and the other on substantially plane surfaces perpendicular to the axis of the rings.

[Claims 2 and 3 not printed in the Gazette.]

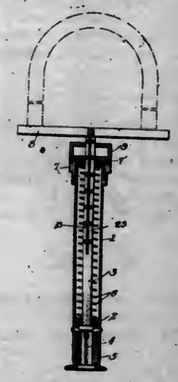
1,251,744. SHUTTLE-CHECK. JOHN W. BOUNDS and THOMAS J. MCDANIEL, Kannapolis, N. C. Filed Apr. 12, 1917. Serial No. 161,625. (Cl. 139—22.)



2. A shuttle check, comprising a bracket arm formed with an upstanding end, a disk provided with a diametrical slot adapted to receive said end, a stud for clamping the disk to the arm, said stud provided with a longitudinal extension, a friction disk mounted on the extension of the stud and engaging the first mentioned disk, another disk loose on the extension, picker-stick engaging shoes carried by said disk, a spring engaging the face of the said disk, and means for adjusting the tension of the spring to adjust the pressure of the last mentioned disk on the friction disk.

[Claim 1 not printed in the Gazette.]

1,251,745. COMBINED AIR-GAGE AND MAGNET-TESTER. BENJAMIN S. BOWERS, Grand Rapids, Minn. Filed June 4, 1917. Serial No. 172,823. (Cl. 73—111.)

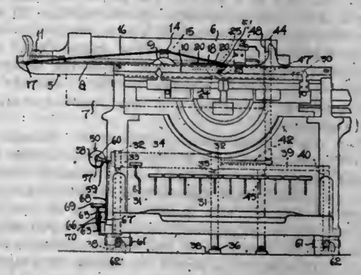


1. A combined air gage and magnet tester comprising a frame member, a movable element in the frame member, resilient means for restraining the movement of the movable element in one direction, means for admitting fluid pressure to act on one end of the movable element against the action of the resilient means and a magnetic armature connected with the movable element to act on the opposite end thereof.

5. A combined air gage and magnet tester comprising a frame member, a movable element in the frame member, resilient means for restraining the movement of the movable element in one direction, means for admitting fluid pressure to act on one end of the movable element against the action of the resilient means, a magnetic armature connected with the movable element to act on the opposite end thereof, means for temporarily locking the movable means against return movement after it has been moved and scales for separately indicating the force applied to either side of the movable element to move it.

[Claims 2 to 4 not printed in the Gazette.]

1,251,746. CARRIAGE-RETURN MECHANISM FOR TYPE-WRITERS. FRANKLIN C. BREUCKMAN, Mackinac Island, Mich., assignor of one-half to George Thomas Arnold, Mackinac Island, Mich. Filed July 7, 1917. Serial No. 179,170. (Cl. 197—67.)

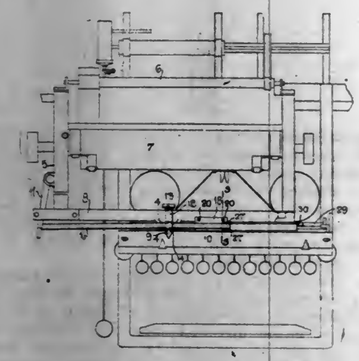


1. The combination with a typewriter carriage, of a cylinder, a guideway extending longitudinally from one

end of the cylinder, a fluid actuated piston in the cylinder having a rod, means mounted to travel in said guideway and rigidly connecting the rod to the typewriter carriage, and key actuated means for controlling the admission of a pressure fluid to said cylinder.

2. The combination with a typewriter carriage, of a cylinder mounted at the rear thereof, a fluid actuated piston in the cylinder having rod, a hollow rail, an arm fixed to the end of the piston rod and operatively connected to the carriage, antifriction means on the lower end of said arm to travel longitudinally in the hollow rail, a rotary valve adapted in one position to connect the cylinder with a source of fluid under pressure, and means for operating said valve to admit the pressure fluid to the cylinder, whereby the carriage is returned to its initial writing position.

1,251,747. LINE-SPACING ATTACHMENT FOR TYPEWRITERS. FRANKLIN CLAIR BRUCKMAN, Mackinac Island, Mich., assignor of one-half to George Thomas Arnold, Mackinac Island, Mich. Original application filed July 7, 1917, Serial No. 179,170. Divided and this application filed Sept. 24, 1917. Serial No. 193,003. (Cl. 197—120.)



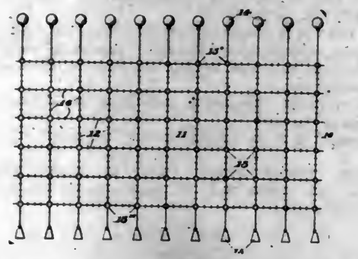
1. The combination with a typewriter carriage provided with platen rotating mechanism, means mounted entirely upon the carriage for rotating the platen and including a member connected to a part of the platen rotating mechanism, a part movable upon the carriage to which said member is operatively connected, and a relatively fixed element mounted on the typewriter frame to actuate said movable part when the carriage is returned to its initial writing position whereby said member is operated to rotate the platen.

2. The combination with a typewriter carriage provided with platen rotating mechanism, of a flexible element longitudinally movable on the carriage and operatively connected to a part of the platen rotating mechanism, a slide member mounted on the carriage to which said flexible member is attached, and a relatively stationary lug mounted on the typewriter frame with which said member is adapted to engage when the carriage is returned to its initial writing position, whereby said flexible member is moved and said part operated to rotate the platen.

3. The combination with a typewriter carriage provided with platen rotating mechanism, of a member longitudinally slidable on the carriage, a flexible operative connection between said member and a part of the platen rotating mechanism, and means mounted in the frame of the machine for engagement by said slide member when the carriage is returned to its initial writing position, whereby said member is moved to operate said part and rotate the platen.

[Claims 4 to 6 not printed in the Gazette.]

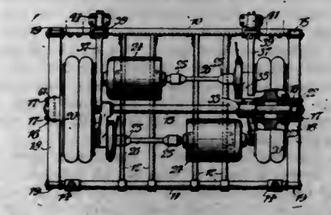
1,251,748. SUBMARINE-CATCHING NET. FIORAVANTE LUIGI CALGARO, Claridge, Pa. Filed Oct. 4, 1917. Serial No. 194,746. (Cl. 114—241.)



2. A device of the class described comprising resilient rods of equal length positioned in rectangular arrangement, connecting rings for said rods at the ends thereof, the rods and rings forming a net, weights attached to the rings at one edge of the net, supporting floats attached to the rings at the opposite edge of the net, a plurality of pointed engaging star wheels journaled upon each of the said rods, and stop washers upon the rods adjacent the opposite sides of each star wheel.

[Claims 1 and 3 not printed in the Gazette.]

1,251,749. POWER-TRUCK FOR VEHICLES. RAYMOND CILLEY, Brooklyn, N. Y. Filed Dec. 18, 1913. Serial No. 807,410. (Cl. 180—65.)



1. A truck including a frame having front and rear transverse members, an axle disposed therebetween and substantially parallel thereto, wheels mounted on said axle, springs having their opposite ends connected to said frame members and having their intermediate portions secured to said axle, two separate electric motors supported on said frame one adjacent each wheel, and driving connections between each motor and the opposite wheel.

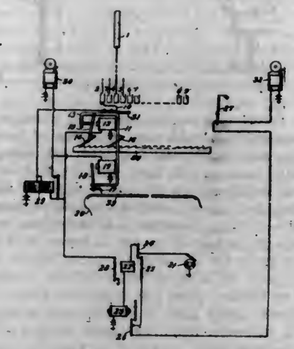
2. A truck including a frame having front and rear transverse members, an axle disposed therebetween and substantially parallel thereto, wheels mounted on said axle, springs having their opposite ends connected to said frame members and having their intermediate portions suspended from said axle, two separate electric motors supported on said frame one adjacent each wheel, and driving connections between each motor and the opposite wheel.

3. A truck including a frame having front and rear transverse members, an axle disposed therebetween and substantially parallel thereto, wheels mounted on said axle, springs having their opposite ends connected to said frame members and having their intermediate portions secured to said axle, two separate electric motors supported on said frame one adjacent each wheel, and driving connections between each motor and the opposite wheel, said springs being disposed adjacent the outer sides of said wheels.

4. A truck including a frame having front and rear transverse members, an axle disposed therebetween and substantially parallel thereto, wheels mounted on said axle, springs having their opposite ends connected to said frame members and having their intermediate portions rigidly secured to the terminal portions of said axle and disposed beneath the latter, two separate electric motors supported on said frame one adjacent each wheel, and driving connections between each motor and the opposite wheel.

5. In combination, an axle, a traction wheel mounted thereon, a gear secured thereto, a plate adjacent one end of said wheel and having a sleeve mounted on said axle, a second sleeve parallel thereto, and radially disposed tubular connection between said sleeves, a shaft journaled in said second sleeve, a pinion on one end of said shaft meshing with said gear and means for applying power to the opposite end of said shaft.

1,251,750. TESTING ARRANGEMENT. HENRY P. CLAUSEN, Mount Vernon, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed July 24, 1916. Serial No. 110,969. (Cl. 175—183.)



1. A testing arrangement for testing telephone apparatus for unstandard conditions comprising a series of contacts connected to the apparatus to be tested, a testing relay provided with differentially arranged windings, an electrical circuit and source of potential for maintaining the windings of such testing relay in balanced condition, and automatic means for associating the junction point of the windings of such differential relay with said contacts.

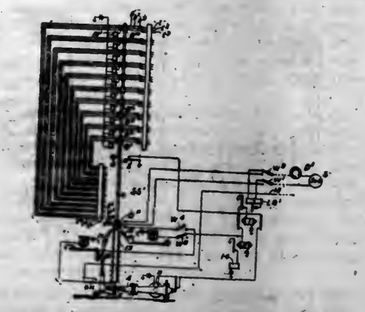
2. A device for testing telephone apparatus for unstandard conditions, comprising a series of contacts connected to the apparatus to be tested, a testing relay provided with differentially arranged windings responsive to the existence of an electrical potential on said contacts, an electrical circuit and source of potential for maintaining the windings of said testing relay in a balanced condition, and means for successively and automatically associating said relay with said contacts.

[Claims 3 and 4 not printed in the Gazette.]

1,251,751. SELECTIVE SWITCH. HENRY P. CLAUSEN, Mount Vernon, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Dec. 29, 1916. Serial No. 139,563. (Cl. 179—27.5.)

1. In a selective switch, rows of fixed circuit terminals, a set of brushes arranged to travel over and make contact with the terminals of each of said rows, means for driving said brushes over said terminals, means responsive to an electrical condition denoting an idle condition for disengaging a set of brushes from said driving means, and means for selectively extending a connection through any one of said sets of brushes.

2. In a selective switch, rows of fixed circuit terminals, an individual set of brushes arranged to travel over and make contact with the terminals of each of said rows of terminals, a common actuating means for all of said brushes, an individual means for each of said sets of brushes for disengaging said brushes from said actuating means, an auxiliary set of terminals connected to said sets of brushes, an auxiliary set of brushes arranged to travel over and make contact with said auxiliary terminals, and means for selectively setting said auxiliary brushes on any set of said auxiliary terminals.



3. In a selective switch, rows of fixed circuit terminals, an individual set of brushes arranged to travel over and make contact with the terminals of each of said rows, means common to all of said sets of brushes for actuating the same, means responsive to the idle condition of said circuit terminals individual to said sets of brushes for disengaging the same from said actuating means, and means for selectively extending a circuit through any one of said sets of brushes.

4. In a selective switch, rows of fixed circuit terminals, an individual set of brushes arranged to travel over and make contact with the terminals of each of said rows, actuating means common to and mechanically coupled with each of said sets of brushes, means individual to each of said sets of brushes for disengaging them from said actuating means, said disengaging means being responsive to the idle condition of said circuit terminals, an auxiliary set of fixed terminals connected to said brushes, an auxiliary set of brushes arranged to travel over and make contact with said auxiliary terminals, actuating means for said auxiliary brushes, and directively controlled means for extending a circuit through said switch via said auxiliary brushes, said auxiliary terminals, said brushes and said terminals.

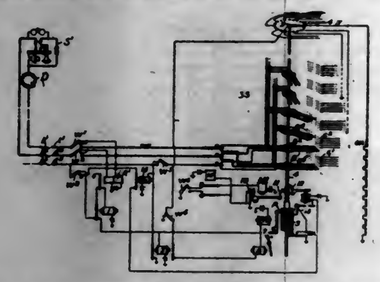
5. In a selective switch, rows of fixed circuit terminals, brushes arranged to travel over and make contact with said terminals, actuating means for said brushes, means responsive to the idle condition of said terminals for setting said brushes on a set of said idle terminal in any of said rows of terminals, and means independently operable for extending a circuit through said switch in a particular row of said terminals.

1,251,752. TELEPHONE SYSTEM. HENRY P. CLAUSEN, Mount Vernon, and CHARLES L. GOODRUM, New York, N. Y., assignors to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Dec. 29, 1916. Serial No. 139,525. (Cl. 179—18.)

1. In a telephone system, a selective switch, groups of circuits terminating therein, means for testing the busy condition of said circuits by groups, means for moving said switch into a plurality of testing positions, and means for successively testing the busy condition of a plurality of circuits in each of said positions.

2. In a telephone system, a selective switch, groups of circuits terminating therein, and the combination with means for testing the busy condition of said circuits by groups, of means for successively testing the busy condition of said circuits at a higher speed than the speed of said switch.

3. In a telephone system, a selective switch, groups of fixed terminals, circuits connected thereto, brushes arranged in operative relation to said terminals, motive means for said brushes, testing means responsive to a characteristic electrical condition on said terminals indicating an idle condition of said circuits, said testing means being constructed and arranged to operate at a higher speed than the speed of said switch, and means for determining the busy condition of said circuits by groups before said brushes are set in motion.

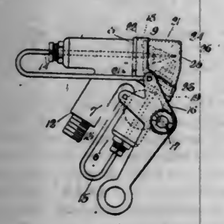


14. In a telephone switching system, a switch including a plurality of brushes, a group of circuit terminals, means for simultaneously moving said brushes over said terminals, a test circuit, and means for successively including said brushes separately in said test circuit during the time required to move said brushes between adjacent terminals.

15. In a telephone switching system, a switch including a plurality of brushes, a group of circuit terminals, motive means for simultaneously moving said brushes over said terminals, a test circuit, and switching means coöperating with said motive means for separately and successively including said brushes in said test circuit during the time required to move said brushes between adjacent terminals.

[Claims 4 to 13 and 16 to 19 not printed in the Gazette.]

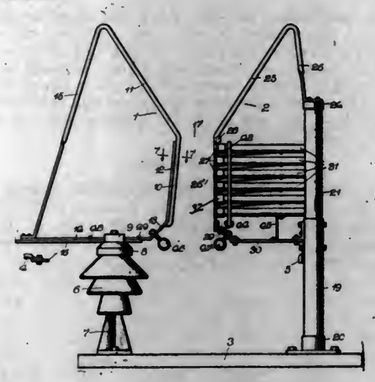
1,251,753. ATOMIZER. FRANK B. COMINS, Newton, Mass., assignor to American Moistening Company, a Corporation of Maine. Filed May 29, 1916. Serial No. 100,649. (Cl. 137—80.)



An atomizer comprising a pair of angularly converging nozzles, mounted on a union member having a shoulder having a peripheral rib and diametrically located pins which extend divergently, and a casing having a rim, to fit said shoulder and against said rib, and having perforations to receive said pins, said casing having a discharge outlet spaced from said nozzles.

1,251,754. LIGHTNING-ARRESTER. NICHOLAS J. CONRAD, Chicago, Ill., assignor to Schweitzer & Conrad, Inc., Chicago, Ill., a Corporation of Illinois. Filed Mar. 30, 1917. Serial No. 158,550. (Cl. 175—30.)

1. In an arrester, a pair of horn gap electrodes having a spark forming gap converging upward to a throat, said electrodes having each a divergent horn above the throat for breaking the arc, one of the electrodes below the throat comprising a series of short metallic sections separated from each other in the direction of the length of the electrode, substantially horizontal resistance members connected between said sections, and a plurality of individual substantially horizontal supporting members each member supporting one of said metallic sections and one of said resistance members and conductors connecting the rear end of one resistance with the front of an adjacent resistance.



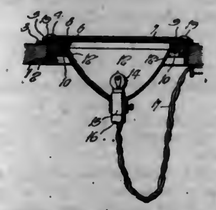
9. In an arrester, a supporting base, a column of insulation supported on said base, a series of hollow rods of insulating material projecting from the sides of said post, metallic caps on the free ends of said rods, a divergent horn connected to the upper cap and having its free end connected to said column, resistance means lying in said rods and connections for said resistance means and caps to place the resistance means in series with the caps.

17. An arrester for the dissipation of excess electrical energy composed of a multiplicity of arc extinguishing gaps part of which gaps are made of a horn shaped member and the other part of disk shaped members, said disk shaped members being arranged in a vertical row and being independently rotatable to present fresh arcing surfaces.

23. In combination, horngap having one horn consisting in part of a plurality of cylindrical electrodes having their axes lying parallel, and having their circular edges separated to form spark gaps, a pair of electrodes having spherical faces presented toward each other, said spherical electrodes being adapted to have less break-down resistance for certain types of disturbances and being adapted to transfer an arc after it is formed to the adjacent horngaps.

[Claims 2 to 8, 10 to 16, 18 to 22, and 24 not printed in the Gazette.]

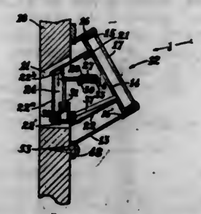
1,251,755. ADVERTISING DEVICE. CARROL A. CORBETT, Grand Rapids, Mich. Filed June 20, 1917. Serial No. 175,922. (Cl. 40—132.)



An advertising device comprising a ring positioned removably in a side walk coal hole and carrying a panel permeable to light, a substantially parabolic reflector below said ring and having an outstanding flange on its edge, said flange contacting with said ring and having keyhole slots, headed studs depending from said ring and received removably in said slots to support said reflector,

an electric light socket carried by said reflector, and flexible current conducting wires below the side walk and having a plug detachably engaged with said socket.

1,251,756. GRADE-INDICATOR FOR VEHICLES. DELBERT H. CROOK, San Pedro, Cal. Filed July 26, 1917. Serial No. 183,002. (Cl. 33—220.)



2. In a grade indicator, a dial plate, a housing extending backwardly from the dial plate, hand operating mechanism in the housing, a dash-pot in the housing for steadying the hand operating mechanism; there being a rearwardly extending vent in the dash-pot; a stem inserted through the dial plate for regulating the vent, a bezel screw-seated upon the dial plate, and a crystal held in place by the bezel; so that by removing the bezel the dash-pot may be regulated.

3. In a grade indicator, an attaching plate having an opening, a housing loosely mounted in the opening and pivotally connected to the attaching plate on a horizontal plane, a guide indicator mechanism mounted in the housing, and means for holding the housing in an adjusted position upon the pivotal connection.

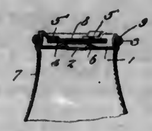
[Claims 1, 4, and 5 not printed in the Gazette.]

1,251,757. HOLDER FOR WATCHES AND THE LIKE. AMEDEUS DALMAS, Oakland, Cal. Filed Feb. 28, 1916. Serial No. 81,036. (Cl. 24—3.)



A watch holder comprising a flat portion adapted to rest against the outer surface of the front wall of a pocket near its upper edge and having a downwardly tapering extension from its top adapted to lie against the inner surface of said wall and having also an upward and rearward extension having a loop at its upper end adapted to surround the upper portion of the ring of a watch stem, and having a tongue extending downwardly and forwardly from the first-named extension in the same plane as the second-named extension, its lower edge engaging the inner surface of said wall.

1,251,758. TOY-BALLOON VALVE. FREDERICK M. DAYTON, New York, N. Y. Filed Feb. 24, 1917. Serial No. 150,795. (Cl. 137—32.)



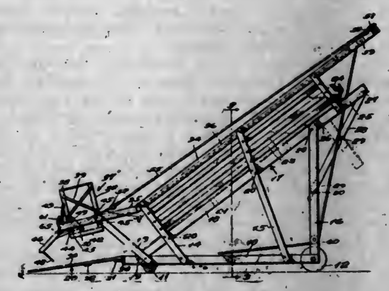
1. A valve embodying a seat member having an aperture and rim, a pliant valve member within said rim seatable against the seat member to close said aperture, said rim having inturned means spaced from said seat member for limiting the bodily movement of the valve member away from the seat member, and said rim being concaved transversely between said seat member and means for the reception of an elastic member within which the valve is inserted.

2. A valve embodying a sheet metal disk having an aperture and a marginal flange extending to one side, a pliant valve disk movable within said flange and seatable against the aforesaid disk to close said aperture, said flange having inturned ears spaced from said valve disk for limiting the bodily movement of the valve disk away from the first mentioned disk, and said flange being concaved transversely between said disk and ears for the reception of an elastic member within which the valve is inserted.

3. A valve embodying a sheet metal disk having a central aperture, a corrugation surrounding said aperture, and a marginal flange, a pliant valve disk movable within said flange and seatable against the aforesaid disk and its corrugation to close said aperture, and a stiff disk within said flange to bear against the valve disk, the edge of said flange having inturned ears for limiting the bodily movement of the valve and stiff disks away from the first mentioned disk, the valve and stiff disks being of greater diameter than the corrugation.

4. A valve embodying a seat member having an aperture and a rim, a pliant valve member within said rim seatable against the seat member to close said aperture, and a stiff member within the rim seatable against the valve member to press it against the seat member and prevent excessive bulging thereof, said rim having inturned means spaced from the seat member for limiting the bodily movement of the stiff member away from the seat member.

1,251,759. HAY-STACKER. MICHAEL J. DENDINGER, Rapid City, S. D. Filed Mar. 30, 1917. Serial No. 158,576. (Cl. 57—53.)



1. In apparatus of the character described, the combination with an inclined chute, of a carriage to travel longitudinally of the chute, a movable hay engaging member connected with the carriage, and means to lock the carriage against upward movement until the hay engaging member has been moved to the lower active position.

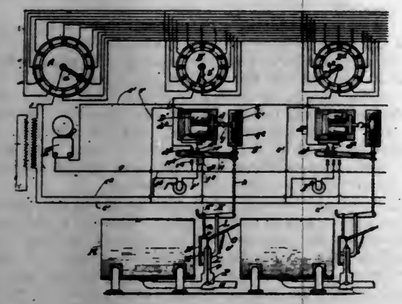
3. In apparatus of the character described, the combination with an inclined support for straw or the like, of a carriage mounted to travel longitudinally of the support, a hay engaging member pivoted to the carriage to swing in a substantially vertical plane, means to move the hay engaging member upwardly, contact devices carried by the hay engaging member, relatively stationary devices disposed in the path of travel of the contact devices to engage and disengage the contact devices whereby the carriage may be temporarily locked in the lowermost position, and means to move the hay engaging member downwardly and the carriage longitudinally of the support.

6. In apparatus of the character described, the combination with an inclined chute, of a carriage to travel

longitudinally thereof, a vertically movable rake connected with the carriage, means to lock the carriage against upward movement before the vertically movable rake has moved downwardly for a predetermined distance and to release the carriage after the rake has moved downwardly for the predetermined distance, automatic means to move the rake upwardly, and means having detachable connection with the rake to move it downwardly.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,251,760. TIME-CONTROLLED MECHANISM. MARCUS L. DOUGHTY and JOHN W. FERGUSON, Chicago, Ill. Filed May 5, 1916. Serial No. 95,685. (Cl. 161—1.)



1. The combination with a plurality of machines, of an operating part controlling each of said machines and adapted for selective movement into alternate positions, means for automatically and independently moving each of said operating parts into a selected position at any predetermined time, an individual signal for each of said machines, means for operating said signal upon movement of said operating part into said position, a master signal, and means for operating said master signal upon operation of any of said individual signals.

2. The combination with a plurality of machines, of an operating part controlling each of said machines and adapted for selective movement into alternate positions, means for automatically and independently moving each of said operating parts into a selected position at any predetermined time, a signal light for each of said machines, an electric circuit, means for closing said circuit through said light while said operating part is in said selected position, a master signal, and means for closing said circuit through said master signal upon operation of any of said signal lights.

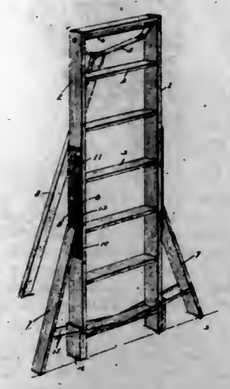
3. The combination with a plurality of washing machines, of an outlet valve for each of said machines, means for automatically and independently moving each of said valves into a selected position at any predetermined time, an individual signal at each of said machines, means for operating said signal when the valve of said machine is moved to said selected position, a master signal, and means for operating said master signal upon operation of any of said individual signals.

4. The combination with a plurality of washing machines, of an outlet valve for each of said machines, means for automatically and independently moving each of said valves into a selected position at a predetermined time, a signal light at each of said machines, means for operating said light while said valve is in said selected position, a signal bell, and means for ringing said bell for a predetermined length of time upon operation of any of said signal lights.

6. In combination with a plurality of washing machines, an outlet valve for each of said machines, a source of current, means electrically connected with said source for automatically and independently moving each of said valves to a selected position at a predetermined time, a master signal, means for connecting said master signal in series with said valve-moving means, a secondary signal at each of said machines, and means for connecting said secondary signal with said source in parallel with said valve-moving means upon movement of said valve to said selected position.

[Claim 5 not printed in the Gazette.]

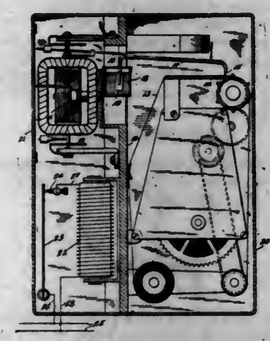
1,251,761. LADDER. MARTIN F. ENKE, Oakland, Cal. Filed Apr. 15, 1916. Serial No. 91,481. (Cl. 228—5.)



1. An improved ladder comprising a ladder body having side bars provided with longitudinal slots therein, bolts slidable in said slots, auxiliary legs, outwardly curved plates attached to the upper ends of said auxiliary legs and having slots to receive said bolts, whereby said auxiliary legs may be adjusted to swing in an arc from the ladder body and links connecting said legs and the ladder body.

2. An improved ladder comprising a ladder body, auxiliary legs provided with outwardly curved plates at their upper ends, means for detachably connecting said plates to the ladder body, said means being adjustable longitudinally of said body, and links connecting said auxiliary legs and the ladder body.

1,251,762. CONSTANT-TEMPERATURE RECORDING INSTRUMENT. JOHN W. ESTERLINE, Indianapolis, Ind. Filed June 8, 1916. Serial No. 102,405. (Cl. 234—5.5.)

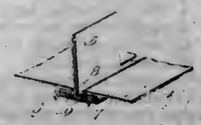


5. In a recording meter, the combination of a record sheet, a marking device movable over such record sheet, mechanism for moving such marking device, said marking device being supplied through a feed tube, a well into which the intake end of said feed tube dips, a paddle movable with said marking device and dipping into said well, an inclosing casing for said parts, an electric heating coil within said casing, and a thermostat responsive to the temperature within said casing and controlling said heating coil to maintain a substantially constant temperature within said casing.

9. In a meter, the combination of metering parts controlled in accordance with the condition, other than temperature, to be measured, an inclosing casing for said parts, an electric heating coil located within said casing, and a thermostat responsive to the temperature within said casing and controlling the supply of current to said heating coil to maintain a substantially constant temperature within said casing.

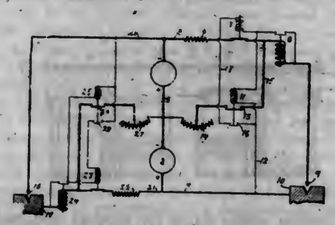
[Claims 1 to 4 and 6 to 8 not printed in the Gazette.]

1,251,763. SYRUP-EVAPORATOR. PAUL S. EVANS, Mobile, Ala., assignor to Mobile Steel Company, Mobile, Ala., a Corporation. Filed Apr. 21, 1917. Serial No. 163,596. (Cl. 127—9.)



In an evaporator, the combination of a sheet-metal bottom wall having at intervals of its length pairs of opposite folds and a throat between the folds of each pair, and transverse partition walls carried by the bottom wall, each of said partition walls being formed of a single piece of sheet-metal folded upon itself to form an upstanding portion and each having oppositely reaching flanges at the base of its upstanding portion sheathed in opposite folds of the bottom wall, and the folds of the bottom wall and the base flanges of the partition walls being clamped together, whereby the upstanding portions of the partition walls are strongly clamped and held between the upper opposed bights of the bottom wall folds and the partition walls are held at both sides thereof against movement in the direction of the length of the bottom wall.

1,251,764. ELECTRIC WELDING. CHARLES H. FLORANDIN and ALAN M. BENNETT, Westfield, N. J., assignors to William E. Tuttle, Jr., receiver for C & C Electric and Manufacturing Company, Garwood, N. J., a Corporation of New Jersey. Filed Oct. 5, 1917. Serial No. 194,842. (Cl. 219—15.)



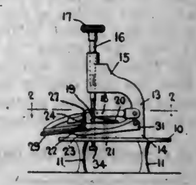
1. In an arc system for welding, repairing and otherwise treating metals, the combination with means for supplying electromotive force, electrodes for a plurality of arcs; means for connecting certain of said arcs across said electromotive force to supply a high striking voltage thereto, means for cutting out a portion of said electromotive force from the circuit of said certain arcs and means for connecting other of said arcs to receive electromotive force from said cut out portion to supply welding current thereto.

3. In an arc system for welding, repairing and otherwise treating metals, the combination with a plurality of generators, of a plurality of arcs, means for connecting the two generators and the arcs respectively in series and means for connecting different arcs respectively across different generators.

12. The method of operating a system for welding, repairing or otherwise treating metals which consists in connecting a plurality of arcs respectively across a plurality of generators in series to provide a high striking voltage for the arcs and cutting one of said generators out of each arc circuit, one of said generators being cut out of one of said circuits and another of said generators being cut out of another of said circuits, the generators cut out of some circuits remaining connected in others to supply welding current.

[Claims 2 and 4 to 11 not printed in the Gazette.]

1,251,765. DEVICE FOR BENDING HAIR-SPRINGS. LEON FONNESBECK and WALLACE B. ENGLAND, Logan, Utah. Filed June 1, 1917. Serial No. 172,219. (Cl. 153—53.)



1. A device of the character described including a body block, a fixed jaw carried thereby, a work supporting table connected with the block and shiftable to a position with the said jaw intersecting the line of the outer edge of the table, and a movable jaw supported to coact with the fixed jaw, the work supporting table being movable independently of said jaws.

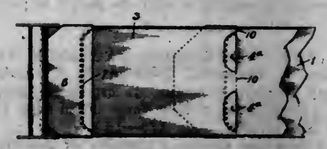
3. A device of the character described including a body block, a work supporting table swingingly connected thereto and provided at its outer edge with a flange, there being a slot formed in the table and opening through the said flange, a fixed jaw connected to said block, the table being shiftable to a position with the said jaw received within said slot to intersect the line of said flange, and a movable jaw mounted to coöperate with the fixed jaw.

6. In a watchmaker's implement for bending watch springs, the combination of a body member, spaced fixed jaw terminals carried thereby, a movable jaw shiftable between the said terminals, and means adjustable for limiting the movable jaw in its movement between the said terminals.

8. In a watchmaker's implement, the combination with complemental fixed and movable jaws operable for bending a convolution of a watch spring, of means projecting between the jaws for limiting the angle of such bend.

[Claims 2, 4, 5, and 7 not printed in the Gazette.]

1,251,766. METHOD OF PREPARING PHOTOGRAPHIC-FILM CARTRIDGES. HARRISON GINDELE, Cincinnati, Ohio. Original application filed Sept. 14, 1915, Serial No. 50,586. Divided and this application filed Feb. 24, 1916. Serial No. 80,222. (Cl. 95—9.)



1. The method of preparing a sensitized photographic film so that an exposed section may be removed from a film strip adapted to receive a plurality of exposures, which consists in perforating the film strip intermediate

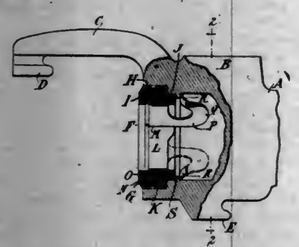
its ends, and sealing the film strip to the protecting backing strip at a plurality of points throughout the length of the film by an adhesive strip to facilitate the detachment of the exposed section from the backing strip and from the film strip on the lines of perforations.

3. The method of preparing photographic films having a slitted backing strip which comprises cutting out the sensitized film at substantially the division lines of the exposed sections thereof, passing a portion of a winged adhesive strip through the cut-out portions of the film and sealing said strip to the film at the cut-out portions thereof, sealing the backing strip at predetermined points to correspond with an end of an exposure section of the film, and passing the free ends of the wings of the adhesive strip through the slits of the backing strip.

5. The method of preparing photographic films having a backing strip comprising cutting out a portion of the film to leave film tab sections, and to receive a part of the body of an adhesive winged strip through said cut-out portions, providing the adhesive strip with a row of perforations in alinement with the cut-out portions of the film, sealing the part of the adhesive strip which is extended through the cut-out portion of the film to the surface of the film at the tabs thereof, folding the wings of the adhesive strip over the exterior of a film backing strip and sealing the wings thereto, and removing the film exposure section from the film strip by severing the film sections on the line of their cut-out portions and severing the adhesive strip from the backing strip on its perforated portion.

[Claims 2 and 4 not printed in the Gazette.]

1,251,767. GASKET FOR HOSE-COUPLINGS. EDWARD E. GOLD, New York, N. Y., assignor to Gold Car Heating & Lighting Company, New York, N. Y., a Corporation of New York. Filed July 24, 1916. Serial No. 110,939. (Cl. 137—89.)

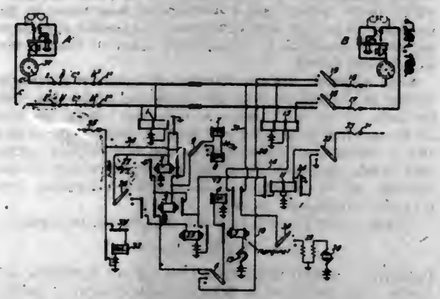


1. A device for retaining a gasket in a hose coupler, comprising a ring having means for retaining it in a gasket and tongues projecting rearwardly from said ring, said tongues having their inner portions turned circumferentially and their end portions bent outward and adapted to engage behind a shoulder in the bore of a coupler to hold the gasket in place.

2. A device for retaining a gasket in a hose coupler, comprising a spring ring having means for retaining it in a gasket and spring tongues projecting rearwardly from said ring, said tongues having their inner portions curved circumferentially and forwardly, and their ends bent outwardly and adapted to engage behind a shoulder in the bore of a coupler to hold the gasket in place.

1,251,768. TELEPHONE-EXCHANGE SYSTEM. CHARLES L. GOODRUM, Brooklyn, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Sept. 11, 1916. Serial No. 119,508. (Cl. 179—18.)

1. In a telephone system, a plurality of incoming lines, an outgoing line, a selectively operable switching device for extending any one of said incoming lines to the outgoing line, an impulse device for controlling the setting of said selectively operable switching device, and means for retaining said switching device under the control of said impulse device after it has been set on to the outgoing line.



2. In a telephone system, incoming lines, an outgoing line, a switch for extending any of said incoming lines to said outgoing line, a relay controlling, upon its actuation, the seizure of the outgoing line by the switch, and means jointly controlled over an incoming line and the outgoing line for actuating said relay.

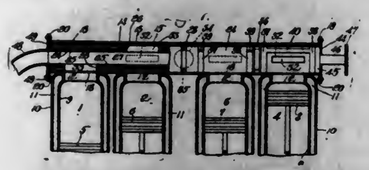
3. In a telephone system, incoming lines, an outgoing line, a switch for extending any one of said incoming lines to said outgoing line, a relay controlling, upon its actuation, the seizure of the outgoing line by the switch, means jointly controlled and successively actuated, first over an outgoing line and then over the incoming line for actuating said relay.

4. In a telephone system, incoming lines, an outgoing line, a switch for extending any one of said incoming lines to said outgoing line, a relay controlling, upon its de-energization, the seizure of the outgoing line by the switch, and means jointly controlled over an incoming and the outgoing line for actuating said relay.

5. In a telephone system, incoming lines, an outgoing line, a switch for extending any one of said incoming lines to said outgoing line, a relay controlling, upon its de-energization, the seizure of the outgoing line by the switch, and means jointly controlled and successively actuated, first over an outgoing and then over the incoming line for actuating said relay.

[Claims 6 to 14 not printed in the Gazette.]

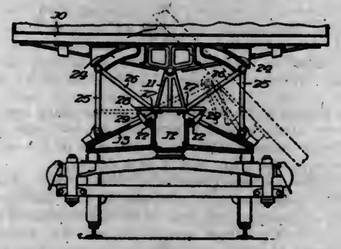
1,251,769. ROTARY VALVE FOR INTERNAL-COMBUSTION ENGINES. HENRY H. GOVE, Biddeford, Me., assignor of one-half to John F. Dean, Biddeford, Me. Filed Apr. 10, 1914. Serial No. 830,906. (Cl. 123—59.)



1. A hollow rotary valve for internal combustion engines having a longitudinal exhaust pipe therethrough, a port opening from said exhaust pipe through the exterior of the rotary valve, in position to register with the exhaust port of a cylinder, circumferential recesses in the outer valve walls adjacent two sides of the exhaust port, a single longitudinal recess adjacent a third side of said port connecting the two circumferential recesses, and a combined carbon shearing, compression packing, and oil distributing member housed within said recesses, consisting in a single squared crossbar fitting within the longitudinal recess and having expansible split rings adapted to fit within said circumferential recesses, said crossbar having a sharp carbon shearing edge held in carbon scraping position by the expansion of said rings.

2. A hollow rotary valve for internal combustion engines having a plurality of interior passages, separate ports opening from separate passages therein, and in line with each other, one of said connecting ports and passages to supply fuel and the other to receive the exhaust from a cylinder, both ports being in line with each other during the rotation of the valve, and an automatic packing device arranged between said ports and comprising automatic expansible rings rigidly united by a bar adapted to be housed within a corresponding depression in the outer face of the valve.

1,251,770. DUMP-CAR. ALEXANDER M. GOW, Duluth, Minn. Filed July 26, 1916. Serial No. 111,382. (Cl. 105—191.)



1. In a dump car, the combination of a car frame, a car body mounted for oscillation thereon and having guiding means, and a releasable member for normally holding the car body in an upright position and coöperating with said guiding means whereby said member is moved by said guiding means to a holding position when the car body is moved toward an upright position.

5. In a dump car, the combination of a car frame, a car body mounted for oscillation thereon and having a slotted guideway, two pivotally connected members connected at a point adjacent said guideway, one of said members being pivotally connected to the frame and the other of said members being releasably connected to the frame to hold the car body in an upright position.

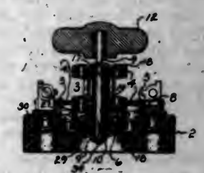
7. In a dump car, the combination of a car frame, a car body mounted for oscillation thereon and having a guideway, two pivotally connected members connected at a point adjacent said guideway, one of said members being pivotally connected to the frame and the other of said members being releasably connected to the frame to hold the car body in an upright position, and means for releasing the releasable member to permit the car body to move to a dumping position, said guideway returning said second member to a position to hold the car body in an upright position.

9. In a dump car, the combination of a frame, a body pivoted to said frame, a pair of struts located one on each side of the pivot point of said body, the lower end of said struts having a fixed pivot on the frame, the upper end of said struts being adapted for movement in a confined arcuate space, means in the form of a rigid link for maintaining each of said struts in a vertical position, and a trip for operating said last-named means, substantially as described.

[Claims 2 to 4, 6, and 8 not printed in the Gazette.]

1,251,771. ELECTRIC SNAP-SWITCH. MONROE GUETT, Hartford, Conn., assignor to The Hart & Hegeman Manufacturing Company, Hartford, Conn., a Corporation of Connecticut. Filed Oct. 12, 1916. Serial No. 125,134. (Cl. 175—290.)

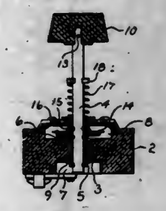
1. A switch comprising a switching member, a detent, a plurality of stop elements slidably supported by the switching member, an annular spring surrounding and acting against the stop elements to hold the same normally in engagement with said detent, spring means to apply its effect to the switching member, and means for moving the stop elements to switch member releasing position and at



the same time tensioning the spring means, said tensioned spring means when the stop elements free the switching member shifting the latter.

[Claims 2 to 5 not printed in the Gazette.]

1,251,772. SPINDLE CONSTRUCTION FOR ELECTRIC SWITCHES. MONROE GUETT, Hartford, Conn., assignor to The Hart & Hegeman Manufacturing Company, Hartford, Conn., a Corporation of Connecticut. Filed Oct. 25, 1916. Serial No. 127,537. (Cl. 64—25.)



1. A flat spindle of the class described having stops at different points in its length and in hugging engagement therewith.

3. A washer having an elliptical opening, the wall of which has diagonally opposite interior projections.

7. A flat spindle of the class described having notches in its side edges, a washer fitted in the notches, hugging the inner walls thereof and having diagonally opposite projections provided with flat faces fitting flatwise against opposite faces of the spindle.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,251,773. HINGE. MONROE GUETT, Hartford, Conn., assignor to The Hart & Hegeman Manufacturing Company, Hartford, Conn., a Corporation of Connecticut. Filed Jan. 5, 1917. Serial No. 140,684. (Cl. 16—104.)



The combination of a door and its support, both of which are made from sheet metal, the support having an opening, the door fitting in the opening and when closed having its front face in the plane of the front face of the support, the door having distinct grooves and the support also having grooves at opposite sides of the opening, the several grooves being in alinement transversely of the support and their outer ends being open, the inner

ends of the grooves in the door being closed and spaced from each other, the grooves being arranged respectively in pairs, and the open ends of the grooves of the respective pairs being in register, and pivot pins set in the grooves of the doors and the support respectively, the skin portion of both the door and the support being cut therefrom at points removed from the respective grooves, the skinning cuts being on forwardly converging angles which are acute to the rear face of the door and the support, and the skin portions being bent over the pins on both the door and the support.

1,251,774. SMOKING-PIPE CLEANER. ENOCH C. GUNNARSON, U. S. Navy. Filed Dec. 16, 1914. Serial No. 877,551. (Cl. 131—12.)



A holder for pipe cleaners consisting of a flexible tubular scabbard adapted to be entwined about the bowl of a smoking pipe, said scabbard being provided at its ends with integral sharpened projections designed to be forced into the bowl of the pipe to secure the scabbard applied to the latter.

1,251,775. WIND-SHIELD CLEANER. JOSEPH GYSLER, San Francisco, Cal. Filed June 29, 1917. Serial No. 178,306. (Cl. 15—59.)

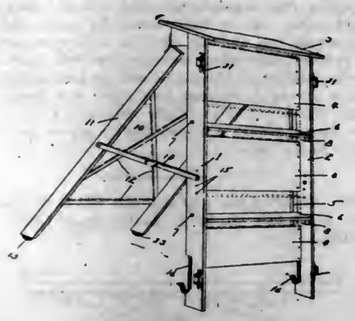


1. The combination of a rotatable moisture removing element mounted to move across a windshield and in contact with the glass thereof when moved in one direction and apart from said glass when moved in the opposite direction; and means for rotating the said element when moved in contact with said glass.

3. The combination of an endless belt mounted upon each side of a windshield; a rotatable moisture removing element rotatably mounted between the belts and carried by said belts against the glass of the windshield when moved in one direction and away from said glass when moved in the opposite direction; a pair of pinions secured to the rotatable element; suitable racks to engage the pinions to rotate the moisture removing element when the said element is moved in contact with the glass; and means for retaining the engagement of the pinions with the racks while the rotatable moisture removing element is moving in contact with the glass.

[Claim 2 not printed in the Gazette.]

1,251,776. STEP-LADDER. YOSHISUKE HIROSE, Berkeley, Cal. Filed Apr. 25, 1916. Serial No. 93,876. (Cl. 228—32.)

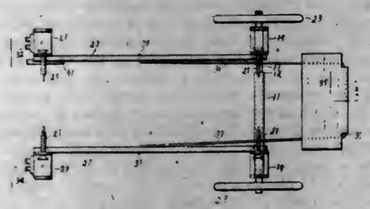


1. A combined step-ladder and window-jack comprising side bars, steps pivotally attached to said side bars, a brace frame connected to the upper ends of the side bars, and hooks on the lower end of said side bars.

2. A combined step-ladder and window-jack comprising side bars, steps pivotally attached to said side bars, flat members connecting said side bars, cleats adapted to hold said steps in a position parallel to said flat members or substantially at right angles thereto, a brace frame hinged to the top of said side bars, and hooks attached to the lower end of said side bars.

3. A combined step ladder and window jack comprising side bars, steps pivotally supported by said side bars, flat members rigidly supported by said side bars, means for selectively supporting said steps parallel with said flat members or at an angle with respect thereto, means whereby said side bars may be engaged with a window frame, and means for bracing said side bars.

1,251,777. CHAIR-SUPPORTING TRUCK. JENNIE M. HOSICK and ADOLPH D. LOWENTHAL, Louisville, Ky.; said Lowenthal assignor to said Hosick. Filed Dec. 16, 1916. Serial No. 137,346. (Cl. 21—65.)



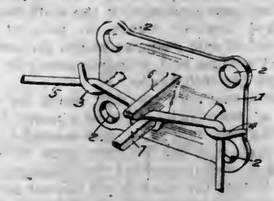
1. In a chair supporting truck, an extensible separable axle, and side bars with which the respective portions of the axle are pivotally associated.

2. In a chair supporting truck, an extensible axle comprising separable parts, side bars with which said parts are pivotally associated and means for mounting a rocking chair thereon.

3. An extensible separable axle, wheels mounted thereon, side bars pivotally connected with said axle, casters carried by said bars and means for mounting a rocking chair upon said axle and bars.

4. An extensible axle comprising separable parts, a bracket carried by each of said parts near the outer end thereof, side bars with which said brackets are pivotally associated, brackets attached to said side bars and means for securing the rockers of a chair in said brackets.

1,251,778. CLOTHES-LINE FASTENER. CHARLES B. HUMBLE, Erie, Pa. Filed Mar. 28, 1917. Serial No. 158,034. (Cl. 24—130.)



A clothes line fastener including an attachment plate, hooks extending outwardly from the front face of the plate adjacent the respective ends and projecting in opposite directions to each other, and a grip consisting of a body integral with the front face of the plate intermediate the hooks and extending from the plate and having a V-shaped slot in the outer edge and extending therethrough at an inclination so as to frictionally receive a clothes line subsequent to engaging the clothes line on one of the hooks and preparatory to engaging it on the opposite hook.

1,251,779. DOOR CONSTRUCTION. CARL JOKAN JACKSON, Superior, Wis. Filed May 26, 1917. Serial No. 171,164. (Cl. 20—36.)



1. A casing having a window opening therein, a sliding sash within the casing comprising a bottom piece and two uprights, a pane of glass between the uprights having its upper edge portion intermediately of the sash, a screen carried between the uprights in a plane parallel to the glass and fixed with its lower edge in spaced partial overlapped relation therewith, said sash being movable to present the glass over the whole of said window opening, at one position, to dispose the screen before the opening and to leave a clear way in the opening above the glass at another position, said casing including an element adapted to fit snugly between said uprights of the sash and between the screen and glass, and means to releasably secure the sash in raised position.

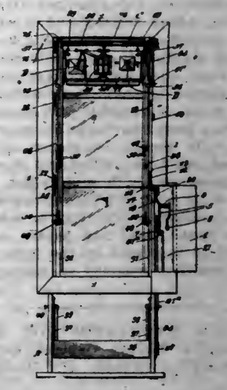
2. A door construction comprising stiles and rails, casing elements mounted thereon to form a housing and having alined window openings therethrough intermediately of the height of the housing, a sliding sash in the door having a pane of glass adapted to close said openings when in one position, said sash having a clear way therein over the upper edge of the glass for a distance, a screen carried by the sash across said clear way and spaced inwardly of the glass in overlapped relation, and means to hold the sash in raised position.

4. In a sash of the character described a bottom cross piece, uprights at each end thereof, a pane of glass set in the cross piece and uprights closely adjacent the outer side of the sash, said uprights extending a distance above the glass, and a portion of screen material secured between the uprights extending in spaced parallel relation to the plane of the glass from a distance slightly below the upper edge of the glass to the upper part of the uprights, said screen material being under tension between the uprights to hold them in snug compressing engagement with the glass whereby the sash frame is stiffened without requiring a top rail.

5. In a sash of the character described, a bottom cross piece and uprights, a pane of glass set in the cross piece and uprights having an uncovered upper edge portion stopping short of the upper end of the uprights, said uprights having kerfs therethrough in a plane parallel to the glass and spaced inwardly thereof, extending from below the upper edge of the glass, a portion of screen material set in the kerf, and screws engaged across the kerfs and in the material of the uprights on each side thereof to clamp the screen as described.

[Claim 3 not printed in the Gazette.]

1,251,780. FIRE-ESCAPE. JOHN B. JAKSCH, Milwaukee, Wis. Filed Nov. 12, 1914. Serial No. 871,738. (Cl. 227—11.)



1. In a fire-escape, a fixed frame, a projectable frame supported thereon, a brace pivoted to the projecting portion of the frame, a keeper on the stationary frame for the brace, and means for urging the brace into engagement with the keeper to anchor the brace when the projectable frame assumes the final position.

2. In a fire escape, a fixed frame, a projectable frame pivotally carried by the fixed frame, a lever mechanism for initiating the projection of the pivoted frame, a prop for holding the pivoted frame in a projected position, a revoluble shaft having a projection for abutting the pivoted frame when closed in the fixed frame, and means for actuating the revoluble shaft by the operation of the lever mechanism.

3. In a fire escape, a sash, bolt means to lock said sash in a closed position, a second sash, a receptacle for receiving said second sash, a sill for locking said second sash in a closed position, a movable frame, escape means carried by said frame, an operating member, and means to shift said bolt means, sill, and frame through movement of said operating member in one direction.

4. In a fire escape, a frame, a frame movable relatively thereto, escape means carried by the second frame and adapted to be moved into an operative position by movement of said second frame, fastening means for said escape means, said fastening means normally holding the escape means against movement, and means for releasing said fastening means through movement of said movable frame.

5. In a fire escape, the combination with a frame, a frame movable relatively thereto, a movable truck on the second frame adapted to be moved into an operative position by movement of the second frame, an escape carriage carried by the truck, means for fastening the truck against movement relatively to the second frame, and means for releasing the fastening means through movement of the second frame.

[Claims 6 to 33 not printed in the Gazette.]

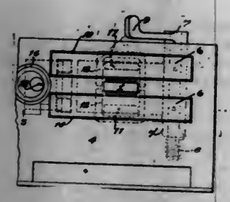
1,251,781. LATCH. PERRY C. JAMES, Macomb, Ill., assignor to George G. Bayne, Bushnell, Ill. Filed Jan. 24, 1917. Serial No. 144,164. (Cl. 70—45.)



1. In a latch, a keeper having a substantially U-shaped lower portion provided with apertures arranged one near each of its ends, a hook the free end of which is adapted to be directed toward either side of said keeper and to selectively engage the distant one of said apertures, accordingly as it is hung, and a swinging hook-locking dog having a locking portion arranged to lie normally above said hook and at a point intermediate said apertures.

2. In a latch, a keeper having at its upper end a detent, a hook adapted to engage the keeper, and a reversible gravity-returned locking-dog either end of which is adapted for hinge-connection with said keeper, said dog provided at each of its ends with shoulders adapted to strike said detent, accordingly as its upper or lower end is connected to the keeper, said dog having an outstanding branch adapted to be struck by the hook as it assumes the operative position, whereby to temporarily displace the dog.

1,251,782. LOCK MECHANISM FOR MOTOR-VEHICLES. GEORGE C. JENSEN, Oakland, Cal. Filed Sept. 10, 1917. Serial No. 190,548. (Cl. 70—126.)



1. In combination with a support having a shift lever mounted therein for free swinging movement, of shift blocks adapted to be engaged by said lever for actuating the same to shift the variable gears of a motor driven vehicle, pivotally mounted spring held arms carrying extensions adapted to be moved into engagement with said shift blocks to hold the same against operative movement, a spring held lock bolt for automatically engaging and holding said arms in engagement with said shift blocks, and lock controlled means for actuating said lock bolt to release the said lock means.

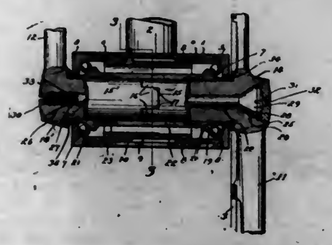
2. In combination with the shift blocks for controlling the shifting of the variable gears of a motor driven vehicle, of pressure actuated block locking means capable of swinging movement for engaging said shift blocks to hold the same against movement, a lock controlled locking bolt within the path of movement of said locking means for engaging and holding the block locking means in locked engagement with said blocks, and means for moving the locking means out of engagement with the shift blocks and restoring the same to normal position on a release of the lock controlled lock bolt from engagement with said block-locking means.

3. In combination with the shift blocks for controlling the shifting of the variable gears of a motor driven vehicle, of pivotally mounted spring held swinging means for engaging said blocks and holding the same locked against movement, foot actuated means for throwing said swinging means into engagement with the shift blocks, and a lock controlled lock-bolt within the path of movement of the free end of said swinging means for automatically engaging and holding said swinging means in locked engagement with the shift blocks.

4. In combination with the shift blocks for controlling the shifting of the variable gears of a motor driven vehicle, of a spring held rock shaft, foot controlled means for throwing said shaft in one direction, arms carried by said shaft provided with extensions for engaging with the shift blocks to hold the same locked against movement on the arms being moved in one direction, a spring held slide lock bolt for holding the said arms in locked engagement with the shift blocks, and lock controlled means for actuating said lock bolt to release the lock arms and permit the return thereof to a normal position.

5. The combination with the shift blocks for controlling the shifting of the variable gears of a motor driven vehicle, of spring held foot actuated pivotally mounted means adapted to be swung into locked engagement with said blocks to hold same against movement, an automatically controlled lock bolt within the path of movement of the free end of said foot actuated means for engaging and holding the same in locked engagement with the said shift blocks, and mechanism for withdrawing said bolt from engagement with the free end of said foot actuated means to permit the said means to move out of engagement with the shift blocks.

1,251,783. BICYCLE-HANGER. FRANCIS M. JONES, Oakland, Cal. Filed Mar. 30, 1915. Serial No. 17,997. (Cl. 64—36.)

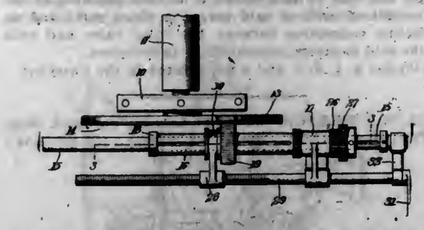


1. A crank hanger comprising a socket having an axial slit, ball race members held in said socket and adapted to be clamped against rotation, a sleeve in threaded engagement with the inner end of the race members whereby said race members are held in adjustable spaced relation, a pair of cranks having shafts revolubly mounted in said socket, ball race members carried by said shafts and coacting with the ball race members held on said socket, a sleeve surrounding said crank shafts and holding said last mentioned race members in spaced relation, intermeshing clutch teeth formed on the inner ends of said crank shafts, a flanged hub on the outer ends of said crank shaft, and a spring washer abutting against said flange and said ball races on said crank shafts.

4. A crank hanger comprising a socket, ball race members adjustably held therein, a pair of cranks having shafts extending into said socket, said shafts having complemental interengaged ends, said cranks having conical recesses therein, ball race members carried by said shafts and cooperating with the race members of said socket, a bolt passed longitudinally through said shafts and having a conical head fitting in the recess in one of the cranks, a conical nut within the recess of the other crank and engaging said bolt, and a locking device working in the recess containing said head and engaging the head to prevent rotation of the bolt.

[Claims 2 and 3 not printed in the Gazette.]

1,251,784. GEARING. FRANK M. JOSLIN, Amsterdam, N. Y., assignor to Inman Manufacturing Company, Inc., Amsterdam, N. Y., a Corporation of New York. Filed Oct. 12, 1914. Serial No. 866,371. (Cl. 74—26.)

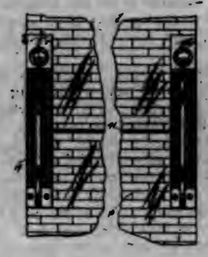


1. In a variable speed device, the combination of a disk wheel, a driving shaft arranged with its axis at right angles to the axis of the disk wheel, a sleeve rotatably mounted on said shaft and secured against axial movement, a wheel slidingly splined on said sleeve and adapted to coöperate with said disk, and means for connecting said shaft and sleeve to rotate at any one of a plurality of angular velocity ratios.

2. In a variable speed device, the combination of a disk wheel, a driving shaft arranged with its axis at right angles to the axis of the disk wheel, a sleeve rotatably mounted on said shaft and secured against axial movement and carrying a gear fast therewith and a wheel slidingly splined thereto adapted to coöperate with said disk, a countershaft, a gear secured to said countershaft and meshing with the gear on the sleeve, other gears of different diameters secured on said countershaft, a plurality of gears of varying diameters slidingly splined to the driving shaft and any one of which is adapted to be selectively engaged with a complemental gear on the countershaft.

[Claims 3 and 4 not printed in the Gazette.]

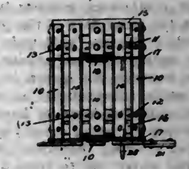
1,251,785. BUILDER'S LEVEL AND GUIDE. JOHN M. KEMP, Des Moines, Iowa. Filed Dec. 15, 1913. Serial No. 807,350. (Cl. 33—207.)



1. In a device of the class described, a frame member, a pair of laterally projecting teeth secured to the lower end thereof, a pair of spirit levels mounted on the upper portion of the frame in parallel horizontal planes and arranged with their axial lines lying in planes perpendicular to each other whereby said frame may be adjusted to a true vertical position, a pair of pins adjustably mounted on said frame whereby they may be secured in a plurality of positions relative to a vertical line through the frame and means for securing said pins in their adjusted positions.

2. In a device of the class described, a pair of spaced frames adapted to be detachably secured thereto, indicating devices mounted on each frame whereby they may be adjusted to a true vertical position, a pin slidably mounted on each frame whereby said pins may be adjusted vertically, means for securing said pins in their adjusted positions and a flexible device having each end secured to one of said pins.

1,251,786. TREE-PROTECTING DEVICE. JOHN S. KIRFMAN, Des Moines, Iowa. Filed Apr. 5, 1917. Serial No. 160,019. (Cl. 47—38.)



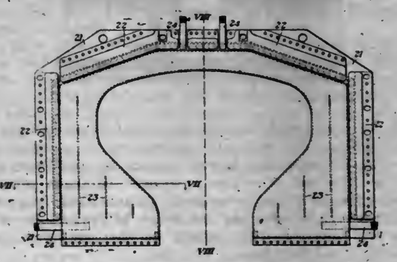
3. In a tree protector, a plurality of upright members arranged in succession in a circle, and a plurality of annular members each having a plurality of detachably mounted strips each secured to one of said upright members and slidably mounted on an adjacent strip.

4. A tree protecting device, comprising a plurality of upright members arranged in succession around the tree, an annular member comprising a plurality of sections connected with said upright members to permit horizontal sliding movement of said upright members, the device being so constructed as to permit the enlargement or reduction of the device, and the adding or taking out of some upright members and sections, said device having at its lower edge a flat outwardly extending segmental flange member adapted to rest on the ground and permit a mower or the like to pass over it.

5. In a device of the class described, a plurality of upright members arranged in succession in a circle, means for adjustably, slidably connecting said members together, said means comprising strips secured in succession to said upright members, each strip being made of resilient material and having slots of irregular outline, and bolts secured to said upright members and extended through said slots, the parts being so arranged that the strips must be sprung slightly for moving said bolts from one part of said slots to other parts thereof.

[Claims 1, 2, and 6 not printed in the Gazette.]

1,251,787. CHILL FOR OPEN-HEARTH FURNACES. LUTHER L. KNOX, Avalon, Pa., assignor to Blaw-Knox Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Mar. 14, 1916. Serial No. 84,051. (Cl. 122—6.5.)



1. A removable chill for furnaces comprising a water box, one wall of the water box being formed of a sheet or plate, said plate extending beyond the water box to form a securing flange, and a separate reinforcing and supporting member secured to the inner side of said plate adjacent to the water box, a portion of such reinforcing member lying between the parallel planes of the inner side of said plate and an adjacent wall of the water box, substantially as described.

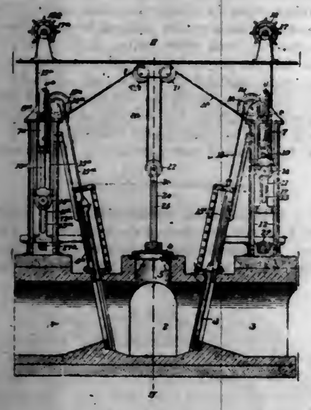
8. An open hearth furnace having a mouth at one end and an air and gas port leading to said mouth, a plurality of chills between the mouth of the furnace and the air and gas port, each chill having a water box, one wall of each chill being formed of a sheet or plate, a second wall

of each of said water boxes lying parallel to the planes of the plates, such plates extending beyond the water box, and a reinforcing member or frame connected to the inner side of each plate adjacent to the water box on said chill, a portion of each reinforcing member lying between the vertical planes of the inner face of the plate and the wall of the box parallel thereto, said reinforcing members lying adjacent to each other, and means for securing the chills in position between the mouth of the furnace and the air and gas ports, substantially as described.

4. A removable chill for furnaces having a water box, one wall of the water box being formed of a plate member having a T-shaped opening therethrough, said plate extending beyond the water box to form a securing flange, a second plate having a body portion extending parallel to the main plate which forms a second wall of the water box, the last mentioned plate having flanges which extend at right angles to the body thereof, and which are secured to the main plate, said flanges forming the other walls of the water box, and a plurality of separate reinforcing and supporting members secured to the inner side of the main plate adjacent to the water box, portions of said reinforcing members lying between the vertical planes of the inner side of the main plate and the body of the second plate, substantially as described.

[Claim 2 not printed in the Gazette.]

1,251,788. VALVE-OPERATING SYSTEM. LUTHER L. KNOX, Avalon, Pa., assignor to Blaw-Knox Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Dec. 21, 1916. Serial No. 138,290. (Cl. 277—6.)



1. In valve mechanism of the character described, the combination of a vertically movable valve, a cross-head, a vertically positioned hydraulic cylinder operatively connected with said cross-head, a member having a shiftable connection with said cross-head, an actuating connection between said member and the valve, and means for shifting said member with respect to the cross-head, substantially as described.

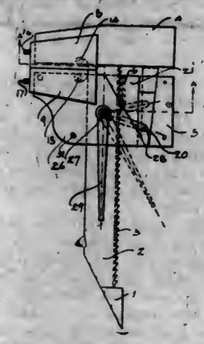
3. In valve mechanism of the character described, the combination with a vertically movable valve, of a single acting hydraulic cylinder for actuating the valve, a member having a movable connection with the plunger of said cylinder, an actuating cable connected to the valve and engaging said member, and means for varying the length of said cable, substantially as described.

6. In valve mechanism of the character described, the combination of a vertically movable valve member, a hydraulic cylinder for actuating said valve member, a flexible connection between the plunger of said cylinder and said valve member, a sheave over which said connection passes, a second valve member and an actuating connection for the second valve and itself actuated by said sheave, there being a lost motion connection between the second named valve member and its actuating connection, substantially as described.

9. In valve mechanism of the character described, the combination of two movable valves, a separate actuating motor for each of said valves, a member actuated by the movement of each of said valves, a third valve and an actuating connection between the third valve and each of the said members, substantially as described.

[Claims 2, 4, 5, 7, and 8 not printed in the Gazette.]

1,251,789. WRENCH. HANS P. LARSEN, Portland, Oreg. Filed Mar. 19, 1917. Serial No. 155,860. (Cl. 81—154.)



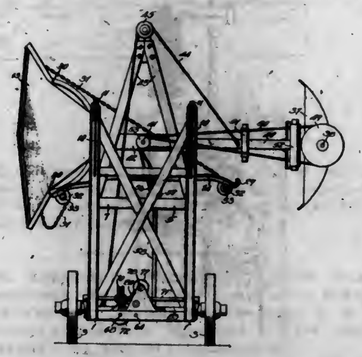
1. A wrench comprising in a combination shank having ratchet teeth thereon a movable jaw slidably mounted on said shank, a tooth member adapted to coöperate with the teeth on said shank for fixing the position of said movable jaw, a wedge carried by said movable jaw for throwing said tooth member into position to fix the movable jaw, said wedge being mounted to move in a line parallel to said shank, a bell lever mounted on said movable jaw, one portion of said bell lever serving as a handle and the other portion of said bell lever being connected to said wedge to move the same, said handle portion of the bell lever laying substantially parallel with the shank of the wrench when said tooth member is in the gripping position, and spring means for throwing said tooth member away from said shank when said tooth member is released by said wedge.

2. A combination wrench comprising in combination fixed and movable jaws having gripping teeth thereon, shield members for covering said teeth when desired, said jaws having sockets extending inwardly from the faces on which said teeth are provided, said jaws having also front faces extending substantially at right angles to the surfaces provided with said teeth, said front faces having recesses therein, pins carried by said shield members for contacting with the front faces of the said first mentioned sockets to resist forward sliding of said shield member, and screws carried by said shield members and seating in said recesses in said front faces, said screws exerting pressure perpendicular to said front faces whereby said shield members are held against movement rearwardly of said jaws and also against movement parallel to said shank.

1,251,790. LOADING DEVICE. ALBERT P. LEE, Chicago, Ill., assignor to Lee Loader & Body Co., Chicago, Ill. Filed May 10, 1915. Serial No. 27,232. (Cl. 37—16.)

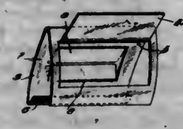
2. In a device of the character described the combination with a rolling hopper, of a framework for said hopper on which said hopper is adapted to roll to either side of its central position, a loading bucket carried by said framework on swinging arms pivoted to said framework at opposite ends of said hopper, means for moving said bucket from a charge receiving position to a charge delivering position over the hopper, means for rotating said bucket to scoop and take on a charge, and means for raising and lowering said framework.

5. In a device of the character described the combination with a rolling hopper, a framework for said hopper on which said hopper is adapted to roll to either side of its central position, a loading bucket adapted to scoop and deposit material in said hopper carried by said framework on swinging arms pivoted to said framework at opposite ends of said hopper, means to operate said bucket, means for raising and lowering said framework, a runway on said framework for said hopper, and means for tilting said runway.



[Claims 1, 3, 4, 6, and 7 not printed in the Gazette.]

1,251,791. COMBINATION AUTOGRAPH, PORTRAIT, AND CALENDAR MOUNT. OLE S. LEELAND, Pierre, S. D. Filed Dec. 13, 1916. Serial No. 136,717. (Cl. 40—152.)



1. A mount of the character described comprising a base board and a cover board, a folder including a strip of material folded to provide a casing open at both ends, a flap for the front of the casing, the latter being provided with a calendar card and a name card adapted to be thrust inwardly of the casing from either end thereof, and attaching flanges on the rear of the casing and engageable with the cover board for supporting the said folder.

2. A mount of the character described comprising a base board and a cover board, a folder including a strip of material folded to provide a casing open at both ends, a flap for the front of the casing, the latter being provided with a calendar card and a name card adapted to be thrust inwardly of the casing from either end thereof, and attaching flanges on the rear of the casing and engageable with the cover board for supporting the said folder, the said folder having a longitudinal and two transverse slits, the ends of the longitudinal slit communicating with the transverse slit for forming the said flanges and adapted for engagement with the said cover board.

1,251,792. VALVE. HERBERT M. LOFTON, Chattanooga, Tenn. Filed Aug. 21, 1915. Serial No. 46,727. (Cl. 137—13.)

1. In a device of the character stated, the valve, rotatable means for opening and closing the valve, a target casting connected to be raised and lowered by the rotatable means, indicating targets secured upon the target casting and relatively adjustable to and from each other, and a casing or head inclosing the targets and target casting having a window or opening through which one or the other of the targets may be seen when the valve is open or closed.

2. In a device of the character stated, the valve, rotatable means for opening and closing the valve, a target casting connected to be raised and lowered by the rotatable means said casting having transverse teeth, indicating targets secured upon the target casting and relatively adjustable to and from each other said targets also having transverse teeth engaging the teeth of the casting and vertical slots, screws extending through the slots and engaging the target casting to hold the targets in position, and a casing or head inclosing the targets and target casting having a window or opening through which one or the other of the targets may be seen when the valve is open or closed.



3. In a device of the character stated, the valve, rotatable means for opening and closing the valve including a nut having a screw threaded exterior, a target casting connected to be raised and lowered by the screw threaded portion of the nut of the rotatable means, two independent indicating targets secured upon the target casting and relatively adjustable to and from each other, clamping means for holding the targets in adjusted positions upon the casting, and a casing or head inclosing the targets and target casting having a window or opening through which one or the other of the targets may be seen when the valve is open or closed.

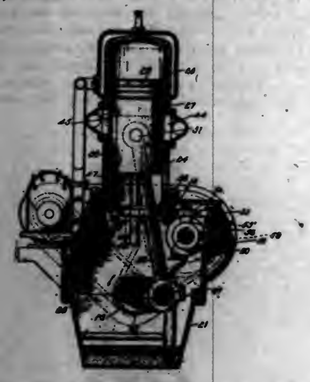
4. In a device of the character stated, a head adapted for a valve having a window or opening, rotatable means in the head for opening and closing the valve, a target casting guided in the head and movable longitudinally by the rotatable means, and targets carried by the target casting and relatively adjustable to or from each other and arranged to be respectively moved into position back of the windows or opening to indicate when the valve is open and closed.

5. In a device of the character stated, a head adapted for a valve having a window or opening, rotatable means in the head for opening and closing the valve, a target casting guided in the head and movable longitudinally by the rotatable means, and independent targets carried by the target casting and relatively adjustable and reversible upon the casting and to or from each other and arranged to be respectively moved into position back of the window or opening to indicate when the valve is open and closed.

1,251,793. INTERNAL-COMBUSTION ENGINE. BENJAMIN T. MCCANNA and FRANK C. HEINEN, Chicago, Ill., assignors of one-half to Nathan F. Leopold, Chicago, Ill. Filed Sept. 29, 1913. Serial No. 792,304. (Cl. 123—45.)

1. In an internal combustion engine, the combination of a combustion cylinder having intake and exhaust ports, a piston reciprocable in the cylinder, said piston compris-

ing a body portion and an oscillatory portion turnable upon the axis of the piston, and mechanism for oscilating the oscillatory portion of the piston to cyclicly establish and shut off communication between the combustion cylinder and the intake and exhaust ports.



5. In an internal combustion engine, a crank case, a cylinder mounted on the case and having ports in its side a piston member reciprocable within the cylinder and adapted to be turned on its axis, said piston member controlling the passage of combustible gas from the inlet port to the cylinder and the passage of fired gases from the cylinder to the atmosphere, a crank shaft in the case connected with the piston member, a member within the crank case movable in a plane normal to the axis of the piston member for operating the piston, means for actuating said movable member from the crank shaft, and means connected with the piston member passing freely through an opening in said movable member.

6. An internal combustion engine comprising a crank case, a cylinder, a crank shaft within the crank case, a piston within the cylinder, a rod connecting the piston and crank shaft, intake and exhaust ports in the cylinder, intake and exhaust passages in the body portion of the piston, an oscillatory piston portion carried by the body portion arranged to control said intake and exhaust passages, mechanism driven from the crank shaft for oscillating said oscillatory portion, said mechanism comprising an annular member within the crank case, a rod secured to said oscillatory portion of the piston having sliding engagement with said annular member, and a cam driven from the crank shaft controlling the angular position of said annular member.

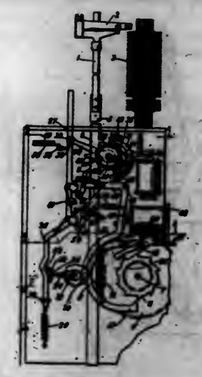
[Claims 2 to 4 not printed in the Gazette.]

1,251,794. NECKWEAR ATTACHMENT DEVICE. WILLIAM JAMES MCDONAGH, Concord, New South Wales, Australia. Filed Aug. 4, 1916. Serial No. 113,139. (Cl. 2—84.)



A neckwear attachment device consisting of a frame with laterally extending wings for insertion between the folds of a double collar, characterized in that the ends of the wires from said wings are brought together, and bent downwardly in opposite curves and the extreme ends cross and are joined to form a spring loop to engage a collar stud, said loop being expansible by upward pressure applied to said ends; and a clip device for conjoining said extreme ends of the wires, whereby said spring loop may be conveniently pressed upward to release the studs.

1,251,795. SELECTOR-SWITCH. MAURICE K. MCGRATH, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed June 12, 1916. Serial No. 103,228. (Cl. 179—27.5.)



1. In an electrically operated switch, a movable contact, a support therefor, groups of stationary contacts engaged by said movable contact, means for moving said support, means for stopping said support when said movable contact has reached the desired group, means to move said support to the desired contact in said group, means to return said support to its normal position, and common operating means to actuate all of said means.

2. In an electrically operated switch, a movable contact, a support therefor, groups of stationary contacts engaged by said movable contact, means for moving said support, means for stopping said support when said movable contact has reached the desired group, means to move said movable contact to the desired contact in said group, means to return said support to its normal position and a common electro-magnet for operating said means.

3. In an electrically operated switch, an auxiliary rotatable switch, a movable brush-supporting bar, electromagnetic means to rotate said auxiliary switch out of normal position, means mechanically controlled thereby to release said bar, means to restore said bar to normal position, and means controlled by return movement of said bar to rotate said auxiliary switch to normal position.

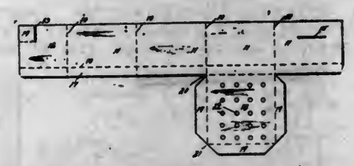
4. In an electrically operated switch, an auxiliary switch, a movable brush-supporting member, mechanism to actuate said member, and a bar actuated by said auxiliary switch to control the operation of said mechanism, said bar being reset to normal position by said auxiliary switch on its return to normal.

5. In an electrically operated switch, a movable brush-supporting member, an auxiliary switch, means normally engaging said member to hold it in normal position, means to move said member toward said position when it is out of normal, and means mechanically actuated by said auxiliary switch to disengage said engaging means from said member to release said member, said disengaging means being reset to normal position by said auxiliary switch.

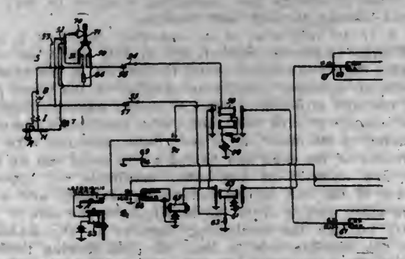
[Claims 6 to 20 not printed in the Gazette.]

1,251,796. SANITARY COLLAPSIBLE FRUIT-BOX. ROBERT B. MCKEE, Des Moines, Iowa. Filed Oct. 20, 1915. Serial No. 57,007. (Cl. 229—16.)

A collapsible fruit box comprising a single blank folded to form the four walls of the box, one wall having at one end an extension overlapping another wall, said extension being provided at its upper edge near its free end with a vertical slit, the overlapped wall being provided with a horizontal slit to receive the tongue formed adjacent to said first slit, whereby the upper end of the first slit will be inside of and adjacent to the top of the completed box in the assembled device, one of the walls of said box having a portion folded upwardly on the inside, and a bottom secured to the upper edge of said last named portion, the bottom and the other side walls being provided with coacting members for limiting the downward movement of the bottom.



1,251,797. ELECTRICAL SIGNALING SYSTEM. JAMES L. MCQUARRIE, Montclair, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Nov. 15, 1916. Serial No. 131,455. (Cl. 179—27.)



1. In a signaling system, a line circuit extending between stations, sources of both alternating and direct current supplying said line circuit, means at one station for interrupting said circuit and for interposing therein an impedance, and means at the other station for registering individually the impulses thus produced and for recording combinations of such impulses.

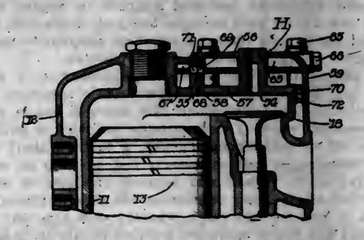
2. In a signaling system, a line circuit extending between stations, sources of both alternating and direct current at one station supplying said line circuit, means at the other station for interrupting said circuit and for interposing therein an impedance, and means at the first-mentioned station for registering individually the impulses thus produced and for recording combinations of such impulses.

3. In a signaling system, a line circuit extending between stations, sources of both alternating and direct current supplying said line circuit, means at one station for momentarily interrupting said circuit and for momentarily interposing therein an impedance so as to produce impulses of different character arranged in combinations, and apparatus at the other station responsive to the impulses thus produced in the circuit for registering them individually and for recording the combinations of said impulses according to a numerical system.

4. In a signaling system, a line circuit extending between stations, sources of both alternating and direct current supplying said line circuit, means at one station for producing in said circuit combinations of impulses by interruptions of the circuit and by interposing therein an impedance, and means at the other station for registering each impulse individually and recording each combination of impulses comprising a plurality of electrically operated devices both responsive to the impulses caused by interrupting said circuit and one also responsive to the impulses resulting from the interposition in said circuit of said impedance, registers controlled by said devices, each register being arranged to record a combination of impulses, and means for connecting said registers successively with said devices.

5. In a signaling system, a line circuit extending between stations, sources of both alternating and direct current associated with said line circuit, means at one station for producing in said circuit combinations of impulses by interruptions of the circuit and by interposing therein an impedance, means at the other station for registering each impulse individually and for recording each combination of impulses, said means comprising a plurality of electrically operated devices responsive to the impulses caused by interrupting said circuit, and one also responsive to the impulses resulting from the interposition in said circuit of said impedance, registers comprising a combination of sets of contact springs, disks and controlling magnets so arranged that only one of said sets of contact springs may be actuated at a time under control of said disks, said controlling magnets being controlled by said devices to record a combination of impulses, and means for connecting said registers successively with said devices.

1,251,798. INTERNAL-COMBUSTION ENGINE. MITCHELL MACKIE and JAMES B. FISHER, Waukesha, Wis., assignors to Waukesha Motor Company, Waukesha, Wis., a Corporation of Wisconsin. Filed Feb. 5, 1917. Serial No. 146,612. (Cl. 123—173.)



2. In combination, an engine structure having cylinders and jackets, said jackets having circulating openings, adjacent inlet and exhaust valves and a combustion chamber adjacent thereto, and a cooling head mounted on the engine structure over the combustion chambers and provided with openings communicating with said jackets, circulation of liquid between the head and jackets being had adjacent the exhaust valve.

4. In combination, an engine structure having cylinders and jackets, said jackets having circulating openings, adjacent inlet and exhaust valves, and a combustion chamber adjacent thereto, a head mounted on the engine structure and provided with openings communicating with said jacket openings, said openings in the jackets and head being located whereby communication between the head and jackets is had adjacent the exhaust valve and from the highest point in the jackets to prevent pocketing steam.

6. In combination, an engine structure having cylinders, combustion chambers, and inlet and exhaust valves adjacent the latter, the upper portion of said structure being cut away adjacent the combustion chamber and valve to form a ledge and a shoulder, a cooling liquid circulating plate receivable on said ledge and to abut said shoulder, said plate communicating with the cooling system of the engine structure.

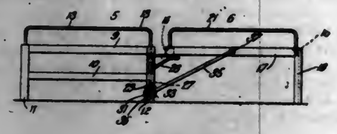
8. In combination, an engine structure having cylinders, combustion chambers, and inlet and exhaust valves adjacent the latter, the upper portion of said structure being cut away adjacent the combustion chamber and valve to form a ledge and shoulder, a hollow head receivable on said ledge and adapted to abut said shoulder, said head communicating with said jacket to circulate a cooling medium, and a plurality of horizontal and vertical bolts engaging through said head with the shoulder and ledge to maintain the head rigidly in position thereon.

10. In combination, an internal combustion engine comprising a cylinder structure having cooling jackets and

combustion chambers open at their upper ends, a head therefor comprising a hollow body mounted upon the combustion chambers and extending over said chambers only, means on the head to maintain the cubical contents of the combustion chambers fixed, means to afford communication between the jackets and the head, and means to fasten said head on the cylinder structure.

[Claims 1, 3, 5, 7, and 9 not printed in the Gazette.]

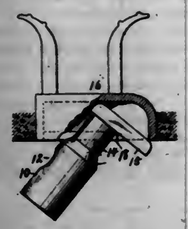
1,251,799. FOLDING TWIN BED. CHARLES B. MALCHOW, Warner, N. H. Filed Feb. 16, 1917. Serial No. 149,114. (Cl. 5—46.)



1. A folding twin bed having, in combination, a stationary bed and a movable bed, rotatable members on said stationary bed upon which said movable bed is pivotally mounted, whereby said movable bed may be guided onto and off of said stationary bed, a support movably mounted on said stationary bed and adapted to engage and support one side of said movable bed and mechanism operated by one of said rotatable members adapted to move said support into and out of operative position.

2. A folding twin bed having, in combination, a stationary bed and a movable bed, rotatable members on said stationary bed upon which said movable bed is pivotally mounted, whereby said movable bed may be guided onto and off of said stationary bed, a vertical shaft rotatably mounted on said stationary bed, an arm on said shaft adapted to engage and support one side of said movable bed and gearing connecting one of said rotatable members to said vertical shaft, whereby said arm may be moved into and out of operative position relatively to said movable bed.

1,251,800. HANGER. WILLIAM V. B. MARQUETTE, Yonkers, N. Y. Filed Apr. 4, 1917. Serial No. 159,812. (Cl. 248—80.)

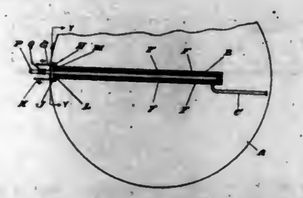


1. The combination with an insert adapted to be embedded in a ceiling with its lower face substantially flush with said ceiling and having a keyhole slot in the bottom, of a hanger having its upper part sufficiently narrow to slide in the narrow part of the keyhole slot, and having a head broader than the narrow part of the keyhole slot and elongated in one direction so as to project across the wider part of the slot and strike the end wall thereof.

4. The combination with an insert adapted to be embedded in a ceiling with its lower face substantially flush with said ceiling, and having a key hole slot in the bottom, of a hanger having its upper or head portion wider than the narrow part of the key hole slot and broad enough to span the wider part of the key hole slot, whereby it is necessary to tilt the hanger to place it in or remove it from the said key hole slot.

[Claims 2 and 3 not printed in the Gazette.]

1,251,801. OIL-TANK. WILLIS C. MERRILL, Boston, Mass., assignor, by mesne assignments, to The Merrill Process Company, Boston, Mass., a Corporation of Massachusetts. Filed Mar. 31, 1915. Serial No. 18,253. (Cl. 257—198.)

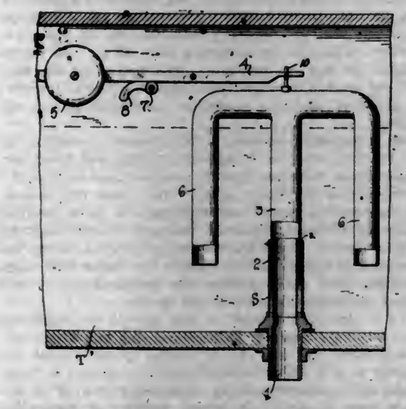


1. In an apparatus of the character described, a tank of large volumetric capacity for storing liquid, an elongated casing extending across the bottom of the tank to form an extended conducting chamber in the lower part of the tank with said chamber of small volumetric capacity as compared with the tank, said conducting chamber having at its inner end a port communicating with the interior of the tank and having at its outer end an exit to the exterior of the tank, and heating pipes extending through the conducting chamber to heat the fluid flowing through said chamber.

3. In an apparatus of the character described, a tank of large volumetric capacity for storing liquid, an elongated casing extending across the bottom of the tank to form an extended conducting chamber in the lower part of the tank with said chamber of small volumetric capacity as compared with the tank, said conducting chamber having at its inner end a port communicating with the interior of the tank and having at its outer end an exit to the exterior of the tank, manifolds on opposite sides of the exit of the conducting chamber, and heating pipes leading from the manifold on one side of the exit through the conducting chamber to the manifold on the opposite side to heat the fluid flowing through the conducting chamber.

[Claim 2 not printed in the Gazette.]

1,251,802. FLUSHING-VALVE. CHARLES THOMAS MILLER, Macon, Ga. Filed Feb. 21, 1916. Serial No. 79,719. (Cl. 4—5.)

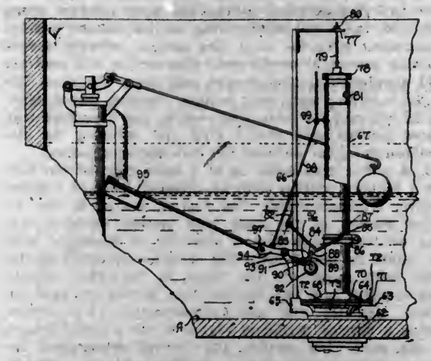


1. A flushing apparatus comprising a tank, a siphon having an inlet leg and an outlet leg, the outlet leg being made in two sections, one section being connected to the tank and formed with double upwardly extending walls providing a sealing cup, containing liquid sealing material, the other section having sliding engagement in said cup and dipping into said sealing material,

and manually actuatable means for positively depressing the inlet leg and the upper section of the outlet leg of the siphon.

[Claim 2 not printed in the Gazette.]

1,251,803. INTERMITTENTLY-OPERATED FLUSH-TANK VALVE. CHARLES T. MILLER, Macon, Ga. Filed Apr. 18, 1917. Serial No. 163,065. (Cl. 4—5.)



2. In a flush tank having a discharge opening formed with a seat, a vertically movable overflow pipe, the lower end of which constitutes a valve preventing the outlet of water through said seat, a lever having a float at one end, a latch normally disposed beneath the end of said lever remote from the float and hindering the float from moving upward under its own buoyancy, said lever being operatively connected to the overflow pipe to raise it as the float moves upward, and hold it raised upon its successive downward movement due to the discharge of water from the tank, the latch being shiftable out of operative engagement with the lever to thereby permit the float to actuate the lever and being again shiftable into the path of movement of the lever when the float is dropped to its lowest position.

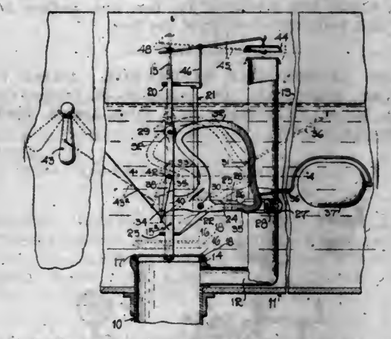
6. In a flush tank having a discharge opening, a vertically movable overflow pipe, the lower end of which constitutes the valve normally closing said opening, a support extending upward adjacent the overflow pipe, arms pivotally mounted upon the support embracing the overflow pipe and pivotally connected thereto, a lever pivoted intermediate its ends upon said support, the outer end of the lever having a float, the inner end of the lever having a beveled under face, a rod pivotally connected to the lever outward of its pivotal point, extending inward and upward toward the overflow pipe and then extending directly upward and being formed with a collar, a lug on the overflow pipe having an eye through which the upwardly extending portion of said rod passes, the collar being below the eye, and a latch swingingly mounted upon said arms and normally depending in the path of movement of the lever and urged by gravity into said position, the beveled end of the lever engaging said latch, when the overflow pipe is in its closed position, to thereby exert a downward pressure on the overflow pipe through said arms and latch, the beveled face of the lever acting to urge the latch out of said engagement when the flotative force on the float exceeds a predetermined point to thereby permit the float to rise and vertically raise the overflow pipe through said rod, said latch then swinging into position above the inner end of the lever whereby when the float falls, the lever, by its engagement with the latch and arms, will further lift the overflow pipe, said lever when the float has fallen to a predetermined extent slipping past the latch to permit the overflow pipe to fall.

7. In a flush tank having a discharge opening, a vertically movable overflow pipe constituting a valve and normally closing the discharge opening, float operated means for initially raising the overflow pipe when the water in the tank has reached a predetermined level, and still further raising the overflow pipe when the water in the tank decreases, said float operated means disengaging from its operative connection with the overflow pipe to permit the overflow pipe to drop to its closed position when the water has been discharged from the tank.

9. A flush tank having a discharge opening, a valve controlling flow through said opening, and float operated means urging the valve to its seat until the liquid in the tank has reached a predetermined height and then acting to lift the valve from its seat until the liquid in the tank has lowered a predetermined degree.

[Claims 1, 3 to 5, 8, 10, and 11 not printed in the Gazette.]

1,251,804. ACTUATING DEVICE FOR AUTOMATIC FLUSH-TANK VALVES. CHARLES T. MILLER, Macon, Ga. Filed June 4, 1917. Serial No. 172,779. (Cl. 4—5.)



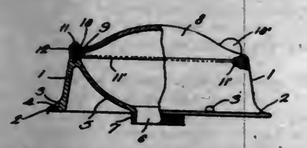
1. A flush tank including a valve, a valve seat, a vertically disposed member disposed in the tank, a valve stem extending from the valve, a valve stem guide carried by said member, a float operated valve lifting lever operatively mounted upon said member, and a latch normally hindering the operation of the valve lifting lever, but shiftable out of engagement with the lever to permit the raising of the valve.

2. In a flush tank, a valve and valve stem, a vertically disposed member, a vertically extending guide carried by said member and through which the stem passes, a valve lifting lever operatively mounted upon said member and operatively engaging the valve stem to lift it upon a movement of the lever under the action of its float, and a latch operatively mounted upon the valve stem and normally hindering the operation of said lever, but shiftable out of operative engagement with the lever to permit the lever to lift the valve.

6. In a flush tank, a valve seat and a valve, a lever pivoted intermediate its ends and carrying a float at its outer extremity, a valve stem extending upward from the valve and carrying a roller, the inner end of the lever being formed to provide a nose projecting beyond the valve stem, and an upwardly extending portion formed with a rearwardly curved face adapted to engage with the roller as the outer end of the lever moves upward under the action of the float, a latch swingingly mounted upon the valve stem and normally engaging beneath the nose of the lever whereby the lever acts to hold the valve to its seat, said latch being shiftable out of such a position to thereby release the lever and permit it to rotate under the action of the float to thereby initially engage the roller and lift the valve stem, the latch then swinging back to a position above the nose of the lever whereby when the float end of the lever falls, the valve stem and valve will be further lifted until the nose of the lever disengages from the latch to permit the valve to fall to its closed position.

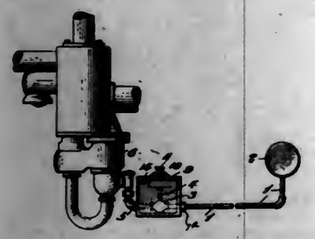
[Claims 3 to 5 and 7 to 9 not printed in the Gazette.]

1,251,805. SANITARY CUSPIDOR. ISAAC N. MILLER, Mount Vernon, Ill. Filed May 2, 1917. Serial No. 166,011. (Cl. 4—39.)



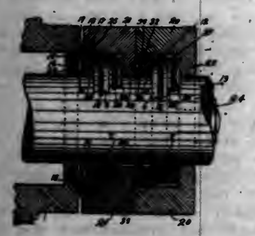
A cuspidor comprising an annular base and receptacle depending therein, a cover seating on the base and having a beveled portion fitting within the receptacle, said cover having a double diametered bore adjacent to its edge with the larger portion uppermost, a pivot member extending downwardly through said bore and engaging the upper edge of the base to pivot the cover to the base, said member having an upper head to work within the upper larger portion of said bore, and a coiled spring housed within said portion of the bore and confined between said head and shoulder of the bore.

1,251,806. AUTOMOBILE SAFETY-BOX. JOSEPH P. MILLER, Philadelphia, Pa., assignor of one-half to Ellen Miller, Philadelphia, Pa. Filed Aug. 4, 1916. Serial No. 113,066. (Cl. 137—7.)



The combination of a gasolene tank, a pipe leading therefrom, a carbureter, a pipe complementary to the first-named pipe, a flanged elbow connecting the second-named pipe with the carbureter, cut-off means interposed between and connecting said pipes, a case surrounding the cut-off means and slidably mounted on said pipes and abutting the flanged elbow, a lid on the case and carrying a lock for securing the lid in closed position, a nut threaded on the first named pipe and adapted to hold the case against turning with respect to the elbow.

1,251,807. PISTON-RING. JOHN P. MONGAN, Minneapolis, Minn., assignor of one-half to George H. Schindeldecker, Jr., St. Paul, Minn. Filed Feb. 26, 1917. Serial No. 150,961. (Cl. 137—116.)



1. A piston ring made up of a main ring section and a supplemental ring section fitted, the latter into the former, and each comprising a plurality of segments, said two ring sections having the same internal diameter and the supplemental ring section having beveled engagement with the main ring section, whereby a contracting movement of the main ring section will contract said supplemental ring section and draw the same laterally onto the main ring section, and yielding means tending to contract the main ring section.

3. A piston ring made up of a main ring section and a supplemental ring section fitted, the latter into the former, and each comprising a plurality of segments, said two ring sections having the same internal diameter and the supplemental ring section having beveled engagement with the main ring section, whereby a contracting movement of the main ring section will contract said supplemental ring section and draw the same laterally onto the main ring section, yielding means tending to contract the main ring section, and a packing ring seated against said piston ring and covering the circumferential joint between the two sections thereof.

4. A piston ring made up of a main ring section having a reduced portion with an undercut beveled annular groove, a supplemental ring section seated in the reduced portion of the main ring section, each of said ring sections comprising a plurality of segments with the joints in one of said ring sections circumferentially offset with respect to the joints in the other of said ring sections, said two ring sections having the same internal diameter and said supplemental ring section having a beveled periphery seated in the annular groove of the main ring section, the beveled engagement between said two ring sections tending, under a contracting movement of the main ring section, to contract the supplemental ring section and draw the same laterally onto the main ring section, and yielding means tending to contract the main ring section.

[Claims 2 and 5 not printed in the Gazette.]

1,251,808. LOW-PRESSURE GAS-ALARM AND AUTOMATIC SHUT-OFF. PAUL MURCHEK, Sharon, Pa. Filed Aug. 10, 1917. Serial No. 185,621. (Cl. 67—115.)

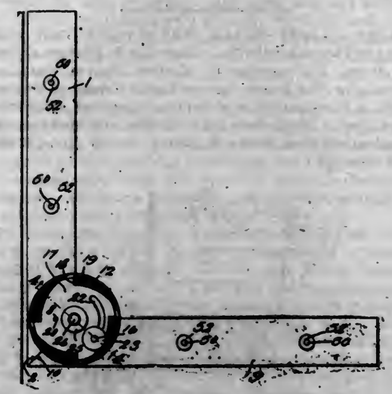


1. A device of the class described comprising a casing, a gas bag arranged therein, a gas inlet supply pipe extending within the casing connected to the bag, a house distributing gas pipe connected to said inlet pipe within the casing, a controlling valve arranged in the inlet pipe, a controlling lever operatively connected to the said valve, a flexible connection between the said lever and bag adapted for maintaining the valve in its open position when the bag is inflated, a turn crank for said valve, and a retaining latch for said crank adapted for automatic disengagement therefrom, upon the complete inflation of the bag.

2. A device of the class described comprising a casing, a gas bag arranged therein, a gas inlet supply pipe extending within the casing connected to the bag, a house distributing gas pipe connected to said inlet pipe within the casing, a controlling valve arranged in the inlet pipe, a controlling lever operatively connected to the said valve, a flexible connection between the said lever and bag adapted for maintaining the valve in its open position when the bag is inflated, a turn crank for said valve, a retaining latch for said crank adapted for automatic disengagement therefrom upon the complete inflation of the bag, an electric contact carried by said crank, a companion contact mounted within the casing within the path of movement of said crank carried contact during the closing of the valve and a source of electrical supply, and a plurality of distantly positioned alarms arranged in circuit with the said contacts.

3. A device of the class described comprising a casing, a gas bag arranged therein, a gas inlet supply pipe extending within the casing connected to the bag, a house distributing gas pipe connected to said inlet pipe within the casing, a controlling valve arranged in the inlet pipe, a controlling lever operatively connected to the said valve, a flexible connection between the said lever and bag adapted for maintaining the valve in its open position when the bag is inflated, a valve in the inlet pipe adjacent its connection with the bag adapted for controlling the flow of gas to and from the bag, manually operated opening means for the first mentioned supply valve, and a temporary automatically releasable latch for the said opening means.

1,251,809. ADJUSTABLE TRIANGLE AND GEAR-TOOTH PLOTTER. JOHN NASH, Dryden, Oreg. Filed Mar. 1, 1917. Serial No. 151,803. (Cl. 33—116.)



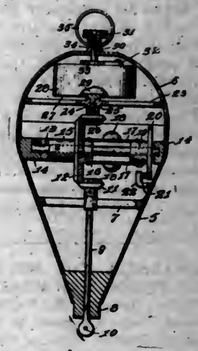
1. A device of the class described comprising a first arm provided at its inner end with a hub; a second arm provided at its inner end with an annular head surrounding the hub, the head having circumferential graduations; an indicator superposed on the head, the indicator and the hub being provided with detachably interlocking elements, the indicator having a fiducial edge coöperating with the scale on the head; and means carried by the head and coacting with the indicator for holding the arms at adjusted angles with respect to each other.

2. In a device of the class described, a first arm having a hub; a second arm having a head surrounding the hub and provided with a scale; an indicator superposed on the head, the indicator and the hub being provided with detachably interlocking elements, the indicator having a fiducial edge coacting with the scale of the head, and being provided with an arcuate slot; a stud carried by the head and movable in the slot; and clamping means carried by the stud and coacting with the indicator to hold the arms at adjusted angles with respect to each other.

1,251,810. SUBMARINE MINNOW. JOHN G. OEHLER, St. Louis, Mo. Filed Mar. 9, 1917. Serial No. 153,566. (Cl. 43—4.)

1. A device of the character described comprising a float, a spring controlled rotating mechanism mounted in the float, a governor forming part of the mechanism for controlling the speed of the same, a minnow supporting tackle attached to the rotating mechanism whereby the minnow is operated in a circular movement around its center, a ring attached to the top of the float, an auxiliary float and line attached to the ring and a fishing line attached to the auxiliary float by which the minnow supporting float is prevented from rotating in the water, substantially as specified.

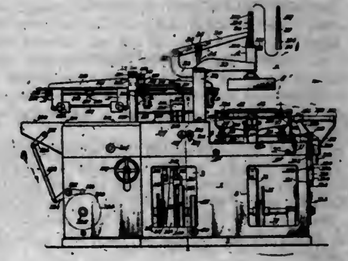
3. A device of the class described comprising a hollow water type float composed of top and lower sections, a spring motor mounted in the top section, a vertical shaft mounted in the bottom section and extending through the lower end thereof, an eye formed in the projecting end of the vertical shaft, a means for winding the motor located outside of and above the top section, a horizontal shaft located in the lower section, a governor mounted on the horizontal shaft for regulating the speed of the motor,



bevel gears for imparting rotation to the horizontal and vertical shafts and an angular bait suspending means attached to the eye of the vertical shaft, substantially as specified.

[Claims 2 and 4 not printed in the Gazette.]

1,251,811. BOX-COVERING MACHINE. MELVILLE E. PETERS, GEORGE H. FATH, and ALBERT F. MILLER, Denver, Colo., assignors to The Peters Patent Rights Company, Denver, Colo., a Corporation of Colorado. Filed Nov. 5, 1915. Serial No. 59,860. (Cl. 93—54.)



1. In a multiple stage box wrapping machine, the combination of the table frame, the vertical blank and box supporting plungers, and the side, corner and end wipers, with a horizontally reciprocating member arranged to engage the partially wrapped box at the first stage treatment station and transmit it to the second stage treatment station, said plungers being provided with a variable stroke for transmitting boxes of different lengths, and means for reciprocating said plungers.

4. In a box wrapping machine, the combination of the frame and the first stage box wrapping machine, with the second stage wrapping mechanism comprising means including box engaging and positioning mechanism adapted to engage said box and move it from its stop arm to its treatment position in the center of said station, and means including vertically reciprocating box end edge engaging members for clamping said box in its treatment position to said table.

6. In a box wrapping machine, the combination with the table frame and the plungers, of means including a reciprocating gummed blank supporting member for feeding a gummed blank centrally over said plunger, and means including air suction gripping disks and resiliently yielding

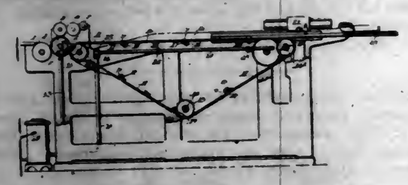
points for gripping said blank when fed over said plunger and operatively holding it until engaged in box wrapping relation by said plungers.

12. In a box wrapping machine, the combination with the table frame and the plungers, of air inlet air suction blank gripping disks reciprocally mounted at one side of said plungers, means for adjustably moving said disks to and from the centers of said plungers, and means including air suction operating inlet apertures in said disks.

13. In a box wrapping machine, the combination with side and end wrapping means, side and end turn-in means, and end finishing means arranged at separated stations, and blank and box supporting means at the first station, of means for conveying partially wrapped boxes from the first to the second station, and means for conveying boxes from the second to the third station and from the third station to a point of discharge simultaneously.

[Claims 2, 3, 5, 7 to 11, and 14 to 24 not printed in the Gazette.]

1,251,812. APPARATUS FOR NEUTRALIZING THE CURLING OF FRESHLY-GUMMED BLANKS. MELVILLE E. PETERS, GEORGE H. FATH, and ALBERT F. MILLER, Denver, Colo., assignors to The Peters Patent Rights Company, Denver, Colo., a Corporation of Colorado. Filed Apr. 28, 1916. Serial No. 94,203. (Cl. 91—50.)



3. An apparatus for neutralizing the curling tendency of freshly gummed blanks, said apparatus comprising means including blank feeding and gumming mechanisms adapted to apply a coat of gum to the top side of said blanks, and an endless blank supporting conveyer, and means including a group of perforated piping arranged to apply to the ungummed side of the blanks a continuous flow of moist low pressure steam for a predetermined period of time.

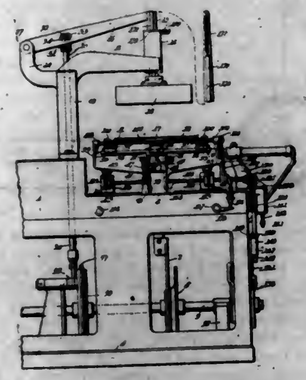
4. In an apparatus for neutralizing the curling tendency of freshly gummed blanks, means including an endless conveyer having an intermittent movement, and parallel rows of perforated piping placed below said conveyer and arranged to discharge the combined heat and moisture of low pressure steam to the blanks as they are conveyed over said piping.

8. The herein described apparatus for neutralizing the curling tendency of freshly gummed blanks to curl immediately after they leave their gumming mechanism, said mechanism comprising an operative gumming mechanism, a conveyer adapted to receive and support the blanks, said conveyer being provided with perforated aprons arranged to receive the blanks from their gumming mechanism, a plurality of steam pipes arranged below said aprons and provided with rows of apertures arranged to direct jets of steam against the bottom of the blank through the apertures in said aprons and means for connecting said steam discharging pipes to a supply of low pressure moist steam of moderate temperature, said aprons being provided with blank gripping fingers arranged at the head of each apron and arranged to grip each blank at its gumming mechanism and draw it onto its adjacent apron, and means including a small steam generating boiler positioned adjacent to said steam discharging pipes and connected thereto in such a manner that the steam will circulate through said pipes from said boiler and back to said boiler.

10. In an apparatus for neutralizing the curling tendency of freshly gummed blanks to curl toward their freshly gum-coated side immediately after they leave their gumming mechanism, the combination of the conveyer, said conveyer being provided with blank supporting aprons, and with blank gripping fingers for gripping and holding said blanks on said aprons, said aprons being made of flexible, impervious material and being provided with numerous perforations, with a plurality of steam discharging pipes arranged under said aprons, said pipes being provided with rows of small steam jet discharging apertures, the row of each pipe being arranged in sets of several holes in a set, means for stopping the aprons over each set of steam discharging apertures, and for advancing said aprons by intermittent step movements over all of the sets of steam discharging apertures of the plurality of pipes under said aprons, said pipes being provided with a steam inlet pipe, and a steam generating boiler connected to said inlet pipes.

[Claims 1, 2, 5 to 7, 9, and 11 to 13 not printed in the Gazette.]

1,251,813. FIRST-STAGE TREATMENT FOR BOX-WRAPPING MACHINES. MELVILLE E. PETERS, GEORGE H. FATH, and ALBERT F. MILLER, Denver, Colo., assignors to The Peters Patent Rights Company, Denver, Colo, a Corporation of Colorado. Original application filed Nov. 5, 1915, Serial No. 59,860. Divided and this application filed Sept. 25, 1916. Serial No. 122,054. (Cl. 93—54.)



2. In a first stage wrapping machine, the combination with a table frame and vertically reciprocating blank and box gripping and feeding plungers, of two oppositely arranged brackets secured on said table, the blank and box side wipers, a rack bar reciprocally supporting said side wipers and a segment toothed ended rock arm in mesh with said rack bar, a rod resiliently connected to said rock arm and arranged to permit said side wipers to engage the sides of the blank and box with a resilient cushioning pressure, and means including a cam operated lever connected to said rock arm for reciprocating said rod.

4. In a first stage box wrapping machine, the combination with a frame and vertically reciprocating box and blank supporting plungers, of end wipers comprising suitable blocks, slide blocks for supporting said wiper blocks, and head blocks for supporting said slide blocks, a rack bar and a smooth bar pivotally connected to each head block, power operated pinions in mesh with the said rack bars, frictional means for retarding the movements of the smooth bars in both directions of their movements, whereby the head blocks are tilted to cause the wiper blocks to engage the ends of a box, springs operating on said slide blocks which cause a yielding pressure of said wipers, said head blocks being tilted to cause the wipers to engage the ends of the box on their upward movements, and to move them out of engagement therewith, on their reverse movements.

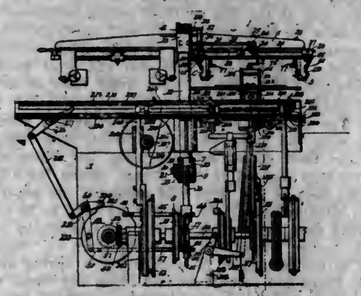
5. In a first stage wrapping machine, the combination of the table frame, the vertically reciprocating blank and box supporting plunger with oppositely arranged blank and box end vertically reciprocating wipers comprising pressure cushioning blocks, tilting means including a positive pushing bar and a frictional dragging bar arranged to oppose the positive pushing bar for tilting said wipers, and means including cam actuated gearing for reciprocally moving and tilting said wiper simultaneously against the opposite ends of said box.

6. In a first stage wrapping machine, the combination of the table frame, and the vertically moving blank and box supporting gripping and feeding plungers, with the side wipers arranged to wrap the sides of the blank against the opposite sides of the box simultaneously as said blank and box are fed down between them, means including cam controlled gearing for reciprocating said side wipers against said box, with the corner wipers arranged to move to engage said blank and box at their end corners the instant said plungers have fed said blank and box to the end of its downward movement between said side wipers, means for operatively reciprocating said corner wipers to wrap the blank against the end corners of said box, and the end wipers arranged to engage and move vertically up against the opposite ends of said blank and box simultaneously and thereby wrap the ends of said blank against the ends of said box, and resilient means connected to said side and corner and end wipers whereby they engage said blank and box with yielding cushioning pressures, and means including cam actuated gearing for operatively moving said end wipers.

10. In a first stage box wrapping machine, the combination with a table, oppositely positioned standards mounted thereon, laterally movable side wipers mounted on said standards, vertically movable end wipers mounted on said table, of blocks slidably mounted on said standards, corner wipers pivotally connected to said blocks, means for reciprocating said corner wipers, means for tilting said blocks to cause said corner wipers to swing inward on their forward movements and outward on their backward movements, and vertically movable plungers for receiving a box and blank and moving them down between said side wipers in position to be acted upon by the end and corner wipers, all of said wipers being adapted to engage a box with resilient pressure.

[Claims 1, 3, 7 to 9, and 11 to 18 not printed in the Gazette.]

1,251,814. SECOND-STAGE TREATMENT FOR BOX-WRAPPING MACHINES. MELVILLE E. PETERS, GEORGE H. FATH, and ALBERT F. MILLER, Denver, Colo., assignors to The Peters Patent Rights Company, Denver, Colo., a Corporation of Colorado. Original application filed Nov. 5, 1915, Serial No. 59,860. Divided and this application filed Sept. 25, 1916. Serial No. 122,055. (Cl. 93—54.)



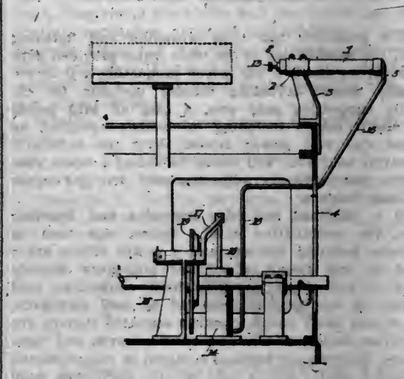
1. In a box edge wrapping machine, the combination with a support having a vertical movement and end-turn-in mechanisms on said support, of side-turn-in mechanisms which act in coöperation with the end-turn-in mechanisms, and means for operating said mechanisms.

2. In a box edge wrapping machine, the combination with a table and side-turn-in mechanisms mounted thereon, of a support having a vertical movement with respect to the table, and coöperating end-turn-in mechanisms mounted thereon.

3. In a box edge wrapping machine, the combination with a table and oppositely positioned side-turn-in mechanisms mounted thereon, of a horizontal support vertically movable with respect to said table and oppositely positioned end-turn-in mechanisms on said support.

4. In a box edge wrapping machine, the combination with a table and oppositely positioned side-turn-in mechanisms adjustably mounted thereon, of a horizontal support vertically movable with respect to said table, and oppositely positioned end-turn-in mechanisms adjustably mounted on said support in position to coöperate with the side-turn-in mechanisms.

1,251,815. BOX-TRANSFERRING MECHANISM FOR BOX-WRAPPING MACHINES. MELVILLE E. PETERS, GEORGE H. FATH, and ALBERT F. MILLER, Denver, Colo., assignors to The Peters Patent Rights Company, Denver, Colo., a Corporation of Colorado. Filed Sept. 25, 1915. Serial No. 122,057. (Cl. 138—10.)



1. In a box transfer mechanism, the combination with a supporting frame, and a power actuated shaft in said frame provided with a cam, of a pneumatically operated plunger in a cylinder, an air cylinder and piston, a pipe connecting said cylinders, and a lever operated by said cam for reciprocating said piston.

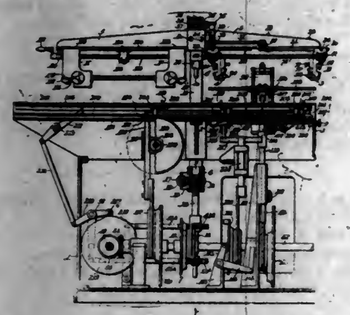
4. In a box transferring mechanism, the combination with a frame, a power driven shaft mounted therein, a cam on said shaft, an air cylinder and piston in said frame, means including a lever arranged to be actuated by said cam for operating said piston, a two-part telescopically connected cylindrical tubular housing supported on said frame, a pipe connecting said housing and said cylinder, and an air actuated plunger slidably mounted in said housing, said plunger being arranged to be forced out by the air pressure of said cylinders to transmit a box and to draw back said plunger by suction.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,251,816. COMBINED SECOND AND THIRD STAGE TURN-IN AND FINISHING TREATMENT FOR BOX-WRAPPING MACHINES. MELVILLE E. PETERS, GEORGE H. FATH, and ALBERT F. MILLER, Denver, Colo., assignors to The Peters Patent Rights Company, Denver, Colo., a Corporation of Colorado. Original application filed Nov. 5, 1915, Serial No. 59,860. Divided and this application filed Sept. 25, 1916. Serial No. 122,059. (Cl. 93—54.)

2. In a combined box edge wrapping and finishing machine, the combination of vertically movable and horizontally adjustable heads having end-turn-in wipers, horizontally adjustable chucks having vertically adjustable

side-turn-in-wipers, with vertically movable and horizontally adjustable end finishing heads having clamping mechanisms, and means for simultaneously transferring boxes from the side and end-turn-in position to the finishing position and from the finishing position away from the machine.



5. In a combined box edge wrapping and finishing machine, the combination of the table frame provided with a power driven shaft, a box wiper supporting arm above said table, means including tubular uprights for reciprocally supporting said arm, a cam on said power driven shaft, means including mechanism operated by said cam and said power driven shaft for vertically reciprocating said arm, and means including a worm gear mechanism for vertically adjusting said arm for boxes of different heights.

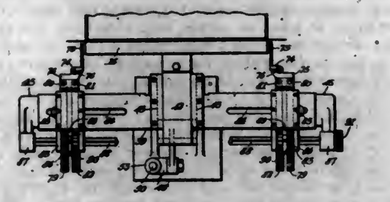
10. In a combined box edge wrapping and finishing machine, the combination with a frame, side-turn-in mechanisms mounted thereon, and a power driven shaft mounted in said frame, of tubular standards slidably mounted in said frame, a cross head connecting said standards, an overhead arm carried by said standards, a cam on said shaft and mechanism operated thereby for reciprocating said standards and overhead arm, end turn-in and end finishing mechanisms mounted on said overhead arm, tubular shafts within said tubular standards, solid shafts within said tubular shafts, means operated by the power shaft for operating said solid and hollow shafts, and means operated by said hollow and solid shafts for operating said end-turn-in and said finishing mechanisms.

14. In a combined box edge wrapping and finishing machine, the combination of a table frame, an overhead arm and its reciprocating mechanisms, end turn-in heads and their mechanism, and finishing heads having clamping mechanisms, side-turn-in mechanisms mounted on said table and comprising horizontally adjustable bases having vertically adjustable turn-in members which face each other and are spaced to correspond with the width of a box, and positioned to act in concert with the end turn-in mechanisms, means for operating said mechanisms in predetermined order, and reciprocating means for transferring boxes from the side and end turn-in position to the finishing position, and simultaneously from the finishing position to a point of discharge from the machine.

19. In a combined box edge wrapping and finishing machine, the combination with a frame, and adjustable side turn-in mechanisms thereon, of tubular standards slidably mounted in the frame, an arm supported on said standards having end turn-in and end finishing mechanisms, a cross head connecting said standards, and cam operated means connected with the cross head for raising and lowering the arm, spaced pinions mounted on said frame in axial line with said tubular standards having square apertures, square hollow shafts extending through said tubular standards and slidably through the uppermost pinions, solid square shafts extending through the hollow shafts and slidably through the lowermost pinions, cam operated rack bars for rotating said pinions, gears on the upper ends of said shafts, and gearing operated by the gear on the ends of said shafts for actuating the end turn-in and finishing mechanisms.

[Claims 1, 3, 4, 6 to 9, 11 to 13, 15 to 18, and 20 not printed in the Gazette.]

1,251,817. GUMMED-BLANK WIPER FOR TIGHT AND LOOSE TYPES OF BLANK-WRAPPING WORK. MELVILLE E. PETERS, GEORGE H. FATH, and ALBERT F. MILLER, Denver, Colo., assignors to The Peters Patent Rights Company, Denver, Colo., a Corporation of Colorado. Original application filed Nov. 5, 1915, Serial No. 59,860. Divided and this application filed Sept. 25, 1916. Serial No. 122,061. (Cl. 93—54.)



3. Box and blank corner wipers comprising reciprocating and tilting wipers arranged to advance on their forward strokes at a slight distance from and clear of the ends of the boxes, and then to tilt against the ends of the blanks and resiliently press them against the ends of the boxes, and means including cam actuated gearing and resiliently controlled tilting wipers for effecting these movements of the wipers in loose wrap blank wrapping work.

6. In box and gummed blank corner tight and loose wrapping work, the combination of operative horizontally reciprocating movement wipers provided with a resiliently controlled tilting hinge movement, a block arranged to support each wiper and its hinges at one end, a pair of rack bars pivoted at one end to said block, a gear arranged to be shifted from one rack bar to the other as desired, and means including cam actuated lever mechanism for operating said wipers as desired to effect either tight or loose wrap work.

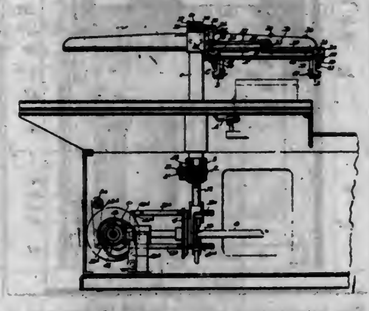
8. Box and blank corner wipers for tight and loose wrap work, comprising supporting mechanism, reciprocating wipers arranged to engage the corners of blanks on their inner reciprocal strokes for tight wrap work and to back off on their return stroke on tight wrap work, and that will advance on their forward stroke without pressing the ends of the blank against the corners and ends of the box, but will move against and press the ends of the blanks against the ends of the box and will continuously exert pressure against the ends of the blanks and the end of the box on their return reciprocal stroke movements for loose wrap work, said mechanism comprising means including a pair of differently moving rack bars and a shifting gear and cam and lever mechanism for operating the same to effect either class of wrapping work when desired.

10. The combination of the supporting box frame provided with the upper and lower blank supporting plungers and their operating mechanism, the wiper supporting brackets secured to said frame, means for adjusting said brackets to and from said plungers, the wiper mechanism slidably adjustable on said brackets to fit boxes of different sizes, said wiper mechanism comprising suitable blank corner engaging wiper members, a supporting block pivotally hinged to each wiper, a spring arranged at the hinge end secured to said block and wiper to hold each wiper under a blank engaging resilient pressure, a pair of rack bars at each end of each wiper supporting brackets, each rack bar of each pair being pivotally connected at one end to said block in such a manner that when one rack bar is moved it tilts the block and moves the other rack bar to follow the movement of the moved rack bar which tilting movement of said block also tilts the wiper pivoted to it and means including a gear slidable laterally from one rack bar to the other, and including cam actuated lever controlled gearing for operatively reciprocating said rack bars.

11. The combination with a frame and standards mounted thereon, which are adjustable toward and away from each other, of pairs of brackets mounted on said standards, the brackets of each pair being adjustable toward and away from each other in directions at right angles to the direction of movement of the standards, slidable elements in said brackets, spring-pressed wipers pivotally connected to said sliding elements, and means for reciprocating said sliding elements, said sliding elements being arranged to effect an inward tilting of the wipers in one direction of their movement, and an outward tilting in the opposite direction of movement.

[Claims 1, 2, 4, 5, 7, 9, 12, and 13 not printed in the Gazette.]

1,251,818. END-TURN-IN WIPER FOR WRAPPING THE END EDGES OF BOXES WITH GUMMED BLANKS. MELVILLE E. PETERS, GEORGE H. FATH, and ALBERT F. MILLER, Denver, Colo., assignors to The Peters Patent Rights Company, Denver, Colo., a Corporation of Colorado. Original application filed Nov. 5, 1915, Serial No. 59,860. Divided and this application filed Sept. 25, 1916. Serial No. 122,064. (Cl. 93—54.)



3. An end turn-in wiper mechanism for partially wrapped paste-board boxes and their gummed blanks, comprising the table provided with opposing and jointly and simultaneously inwardly and outwardly moving turn-in wiper heads, said heads consisting of the finger blades arranged and adapted to wrap the blanks to the inside surface of the opposite ends of said box simultaneously, with the adjustable overhead arm and its actuating mechanism arranged to position, seat and wrap the opposite ends of the partially wrapped boxes, and means including a cam controlled lever operated rock bar mechanism for intermittently reciprocating said arm.

5. In box end turn-in wiper mechanism, the combination of the table frame, the adjustable vertically reciprocating overhead arm and its operating mechanism, with the box and turn-in heads depending from said arm, the plate reciprocally mounted in each head, and the blades pivotally connected to the top of said plates to swing outwardly at their bottom ends.

7. In a box end edge wiper mechanism, the combination with a table frame, of an overhead arm supported in said frame, a power shaft in said frame, and means operated thereby and connected with the arm for imparting a reciprocating movement to the same, wiper mechanism supported on said arm, means for operating said mechanism, and mechanism operated by the power shaft for actuating said wiper-mechanism operating means.

8. In a box end edge wiper mechanism, the combination with the table frame, of the wiper heads, the reciprocating and adjustable overhead arm and its supporting tubular standards and operative mechanism, a square tubular shaft concentrically and rotatably journaled in and extending through each of said standards and overhead arm, a spur gear mounted on the upper end of each tubular shaft, each of said gears meshing with one of the ends of two rack arms, the opposite ends of said rack bars meshing with pinions arranged with vertical shafts depending from them, and the horizontal square shafts and the bevel gears connecting with and driven by said vertical shafts.

11. In a box and edge wrapping mechanism, the combination with the table frame, the power driven longitudinal shaft and cross shafts within said table frame, the cam on said longitudinal shaft and the fork connected to said cam, and the cross head intermittently and reciprocally moved by said cam and fork, the vertical tubular standards connected at their lower ends to said cross head, the overhead arm mounted on said standards, means including a cam mounted on said cross shaft and gearing operatively connected to said cam for reciprocating said standards and overhead arm, the turning tubular shafts within said standards, the square solid shaft within said square tubular turning shaft, means including cam and gearing actuated coöperating members for rotating said square solid and tubular shafts, with the oppositely arranged box edge wiper heads on said overhead arm, and the opposite box edge engaging wiper mechanism of each head, comprising the plates and the blades and their operating mechanism arranged and adapted to engage the opposite blank and box ends and operatively wrap said blank ends over the edges of and into the interior of and against the inside surfaces of the opposite ends of said box simultaneously.

[Claims 1, 2, 4, 6, 9, 10, and 12 not printed in the Gazette.]

1,251,819. NON-SKIDDING TRACTION-WHEEL. CHARLES A. PETTIE, Brooklyn, N. Y. Filed Feb. 3, 1917. Serial No. 146,349. (Cl. 21—207.)



1. A tread for vehicle wheels embodying a plurality of annular members each composed of twisted metal presenting a multiplicity of road contact points.

2. A tread for vehicle wheels embodying a rim band, and a plurality of annular members positioned exteriorly to said rim band, each annular member being composed of twisted metal.

3. A tread for vehicle wheels embodying a rim band, a plurality of annular members each composed of twisted metal, and marginal bands positioned at the edge portions of the rim band.

4. A tread for vehicle wheels embodying a rim head, a plurality of annular members composed of spirally twisted metal, said annular members being positioned in close relation to each other, and marginal members united to the rim band, said plurality of annular members being positioned intermediate the marginal members and the spiral material of said annular members presenting a multiplicity of road contact points or surfaces adapted for securing a grip upon the road surface.

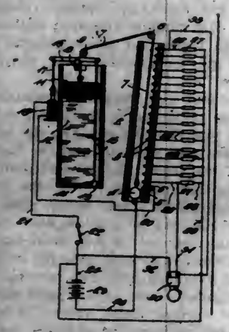
8. A wheel tread comprising metal rings each composed of spirally twisted metal, said metal rings being positioned in close relation to each other and producing intermediate spaces for the reception of a filling material.

[Claims 5 to 7 not printed in the Gazette.]

1,251,820. SHOT-FIRING DEVICE. ELMER PORPHIR, Pittsburg, Kans. Filed Sept. 13, 1917. Serial No. 191,219. (Cl. 161—1.)

1. The combination of a fixed contact, a traveling contact normally resting against said fixed contact, means for moving said traveling contact from engagement with said fixed contact, means for normally holding said moving means against operation, electric means for releasing

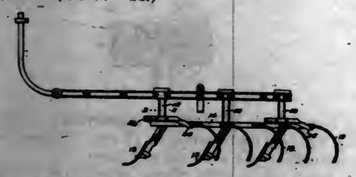
said holding means, and a circuit for said releasing means including said contacts.



2. A device of the class described comprising a metal weight, an inclined guideway for said weight, a plurality of fixed contacts spaced along the lower side of said guideway, and means for moving said weight within said guideway for successive engagement with said contacts.

3. A device of the class described comprising a metal weight, an inclined guideway for said weight, a plurality of contacts extending across the lower side of said guideway for engagement successively by said weight, said contacts having means for the attachment of current conducting wires, and means for moving said weight within said guideway.

1,251,821. CULTIVATOR ATTACHMENT. NATHAN C. PRALL, Carlisle, Iowa. Filed May 7, 1917. Serial No. 167,117. (Cl. 97—44.)

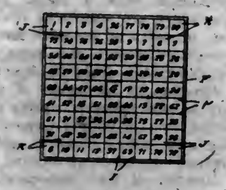


1. In a device of the class described, an angle iron bar, a plurality of weeder devices mounted thereon, a plurality of brackets for securing said bar to the shanks of a cultivator, each comprising an angle bar having one flange adapted to rest adjacent to one flange of said first named angle iron bar, and having a downwardly extending flange arranged to rest adjacent to the other flange of said first angle iron bar, and provided at its lower portion with a channel for receiving the edge of said last named flange, and a bolt extended through each of said brackets adjacent to one edge of said first angle iron bar.

2. In a device of the class described, an angle iron bar, a plurality of weeder devices mounted thereon, a plurality of brackets for securing said bar to the shanks of a cultivator, each comprising an angle bar having one flange adapted to rest adjacent to one flange of said first named angle iron bar, and having a downwardly extending flange arranged to rest adjacent to the other flange of said first angle iron bar, and provided at its lower portion with a channel for receiving the edge of said last named flange, and a bolt extended through each of said brackets adjacent to one edge of said first angle iron bar, a nut on said bolt, and a mutilated washer on said bolt, adapted to engage said first angle iron bar.

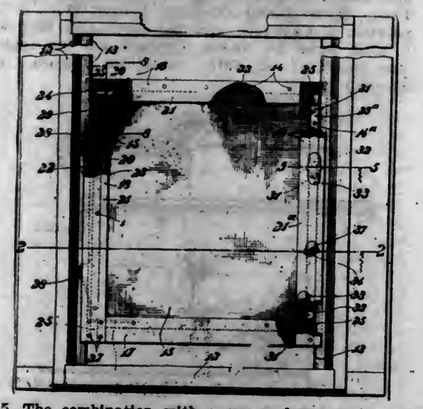
1,251,822. PUZZLE. JAMES PRENDERGAST, Syracuse, N. Y. Filed Dec. 4, 1915. Serial No. 65,040. (Cl. 46—41.)

A puzzle comprising a casing, a series of rectangular blocks having numerals indicated thereon in consecutive order, the blocks being so arranged in rectangular formation within the casing that a space is left for one block at substantially the center of the rectangular formation of



blocks, whereby the sum of each vertical and horizontal row represented by the blocks and of the two main diagonal rows will equal a predetermined amount.

1,251,823. WINDOW-SCREEN. WILLIE S. PRICE, Thomasville, Ga. Filed Sept. 13, 1916. Serial No. 119,918. (Cl. 156—14.)



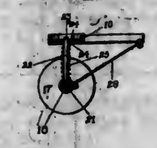
5. The combination with a screen frame and a guide therefor, said frame being grooved to receive said guide, of a spring retaining member carried by said frame and engaging said guide, said member comprising a looped strip of resilient material having its ends secured at closely adjacent points to said frame, the side portions of said member diverging from said points and yieldingly embracing and grasping said guide, and the looped extremity thereof being bent toward said frame and engaging the outer edge of said guide.

7. A window screen comprising a frame having top, bottom, and side members, and a screen fabric inclosed by said frame, each of said frame members being divided longitudinally into two parts of unequal thickness and between which the adjacent edge of said fabric is clamped, the thicker part of each of said members having an angular, longitudinal groove to receive said fabric, and an angular strip fitting each of said grooves to retain said fabric therein, the thicker part of each of said side members being rabbeted to form the bottom and one side of a guide-receiving channel, the other side of which is formed by the corresponding thinner part of said side member, and said frame members being connected at the corners of the frame by mortise and tenon joints, the tenon of each of said joints being formed on the thicker part of one of the frame members, and the mortise being formed in part in the thicker part of the other member and completed by the thinner part thereof.

[Claims 1 to 4 and 6 not printed in the Gazette.]

1,251,824. STALK-CUTTER. ARIE ROOS, Newton, Iowa. Filed Mar. 13, 1917. Serial No. 154,616. (Cl. 55—30.)

1. A stalk cutter, comprising a frame including a receptacle, a transverse member spaced forwardly from said receptacle and secured thereto, a plurality of shafts arranged in alinement below said receptacle, a plurality of disks mounted on each shaft, means for connecting each end of each shaft with the forward transverse frame member, upright members operatively connected with each end of each shaft, and slidably extended through the bottom of said receptacle, and a strong coil spring on each upright member between its shaft and the receptacle, whereby



the disk on each shaft may move up and down with relation to the disks on the other shafts, and whereby each end of each shaft may yieldingly move up and down with relation to the other end of the same shaft, and weights in said receptacle having openings to receive said upright members, whereby the weights are held in position and free play is permitted for the upright members.

[Claim 2 not printed in the Gazette.]

1,251,825. MAGNET THERMAL ELECTRIC-LIGHT FLASHER. MICHAEL C. RYAN, Phoenix, N. Y. Filed June 29, 1914. Serial No. 848,055. (Cl. 177—347.)



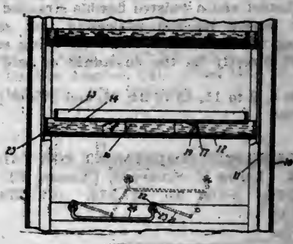
1. In a flasher, in combination, several light circuits, several solenoids, light circuit switches controlling said light circuits, respectively, and respectively operated by said solenoids to make and break said light circuits, a thermal switch in shunt with respect to said light circuits, said solenoids being in shunt with respect to said light circuits and including and being controlled by the contacts of said thermal switch, the circuit through one of said solenoids being controlled by the light circuit switch operated by another of said solenoids.

4. In combination, a support, a switch, a thermal switch controlling said first mentioned switch, and a flexible cushioning supporting connection between the thermal switch and said support.

10. In combination; several work circuits; work circuit switches controlling said circuits, respectively; electro-responsive operating means for said switches, respectively; a thermal switch; and parallel shunt actuating circuits for and including said operating means, respectively; said thermal switch being included in and directly controlling the actuating circuit of an electro-responsive operating means; another electro-responsive operating means being directly included in circuit with and controlled by the contacts of the work circuit switch directly controlled by said thermal switch.

[Claims 2, 3, and 5 to 9 not printed in the Gazette.]

1,251,826. SEED-SPROUTER. CARL H. SCHROEDER, Des Moines, Iowa. Filed June 2, 1917. Serial No. 172,536. (Cl. 47—30.)



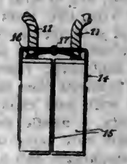
1. A pan, a perforated tray of smaller size than said pan received in the pan, raising and lowering means comprising rods extending across said pan below said tray, crank devices on said rods, and means for simultaneously operating the crank devices on the rods.

2. A pan, a perforated tray of smaller size than said pan received in the pan, raising and lowering means comprising rods extending across said pan below said tray, crank devices on said rods, means for simultaneously operating the crank devices on the rods, said means comprising parallel arms connected with said crank devices, and a handle device for operatively connecting said parallel arms.

4. In a device of the class described, a frame comprising upright members, a plurality of pans arranged in spaced, vertical succession on said frame, a perforated tray received in each pan, and means adapted to be operated from outside the pans for raising and lowering the respective trays.

[Claims 3 and 5 not printed in the Gazette.]

1,251,827. BRUSH FOR ELECTRICAL MACHINERY. EDMUND O. SCHWEITZER, Chicago, Ill. Filed Feb. 8, 1915. Serial No. 6,674. (Cl. 200—24.)



1. In a brush for electrical machinery, a plurality of independent rigid brush sections, a stationary holder for supporting said individual sections laterally, said sections being longitudinally movable in said holder, a spring pressed arm for imposing a definite total pressure upon all of the sections, equalizing means contacting with said sections for subdividing and distributing the total pressure upon said independent sections, said arm having a single central connection with said equalizing means, and leads connected to said individual sections.

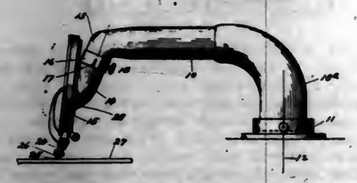
7. In a brush for electrical machinery, a relatively stationary holder, a plurality of independent conducting brush sections longitudinally movable in said holder, a spring-pressed arm mounted on said holder for imposing pressure upon said sections, a rocking spider plate above said sections, said plate adapted to receive the pressure of said arm, said plate having spring means for distributing the pressure among said sections.

12. In combination, a stationary brush holder, a plurality of rigid individual brush sections, a spring arm common to said sections, and a common rocking spring spider plate for said sections, said arm having its end resting centrally upon said plate to form a pivotal connection.

25. In combination, a rigid prismatic brush section, said section consisting of a substance comprising an intimate mixture of carbon and a metal, said brush section having a recess projecting substantially along the longitudinal axis thereof and a twisted flexible stranded metallic conductor having its end projecting into said recess and filling the same, said conductor being soldered in said recess directly to the substance of said brush section.

[Claims 2 to 6, 8 to 11, 13 to 24, 26, and 27 not printed in the Gazette.]

1,251,828. SOUND-BOX ADJUSTMENT FOR TALKING-MACHINES. LOUIS K. SCOTFORD, Chicago, Ill. Filed Oct. 26, 1916. Serial No. 127,914. (Cl. 274—24.)



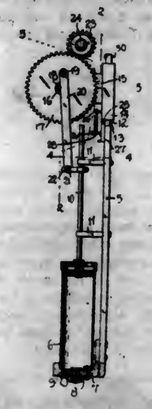
1. In a talking machine, a tone-arm having a tubular extension, a sound box connected to said tubular extension and containing a diaphragm, a coupling for permitting said sound box to be moved to either of two operative positions with respect to the tone-arm, the plane of said diaphragm being inclined with respect to the axis of said tubular extension, a needle holder having a bore to receive a needle, said bore being inclined with respect to the plane of said diaphragm and alining with the axis of said tubular extension in both positions of the sound box, and means for operatively connecting said needle holder and diaphragm.

2. In a talking machine, a tone-arm having a tubular extension, a sound box having a diaphragm therein inclined with respect to the axis of said tubular extension, a tubular member attached to said sound box, said tubular member and said tubular extension on the tone-arm having a telescopic engagement, one of said last mentioned members being provided with two slots extending substantially longitudinally of said tubular member, a clamping member carried by the other of said members and adapted to engage either of said slots, thereby permitting said tubular member to be removed from said tubular extension and replaced thereon with said clamping member engaging either of said slots, a needle holder having a bore to receive a needle, said bore being inclined with respect to the plane of said diaphragm and alining with the axis of said tubular extension in both positions of the sound box, and means for operatively connecting said needle holder and diaphragm.

1,251,829. TIRE-INFLATING DEVICE. SHERMAN T. SHULTS, McCammon, Idaho. Filed Nov. 1, 1916. Serial No. 128,953. (Cl. 230—27.)

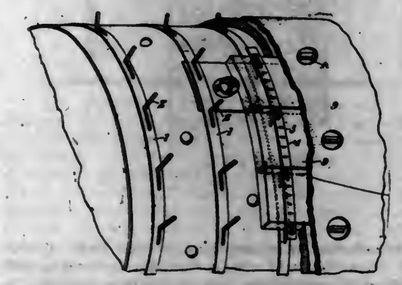
1. The combination with a support and an air pump mounted thereon, of a member longitudinally slidable on the support, a driven element rotatably mounted upon said member, means operatively connecting said element to the pump piston, a driving element, a spring connected to the slide member and urging the same in one direction upon the support to normally hold the driven element out of operative engagement with the driving element, and manually operable means mounted upon the support to co-act with said shiftable member and move the same against the action of the spring to engage the driven element with the driving element.

2. The combination with a support and an air pump mounted thereon, of a member longitudinally slidable upon the support, said support having stop shoulders limiting the movement of said member in one direction, a driven element rotatably mounted upon said member, means to operatively connect said element to the pump piston, means yieldingly urging the slide member into engagement with the stop shoulders and normally holding the driven element out of operative engagement with the driving element, a manually operable cam mounted upon the



support and adapted to co-act with said slidable member to shift the same and operatively engage the driven element with the driving element, and means fixed to the support with which the cam co-acts to limit the movement of the latter and retain the same in its effective position.

1,251,830. HEAT-INSULATING COVERING. IRA D. SIEGFRIED, Cleveland, Ohio. Filed Apr. 14, 1917. Serial No. 162,048. (Cl. 154—45.)



1. A heat insulating covering for boilers and the like, comprising heat insulating material, means engaging the article to be covered provided with projections, and means engaging said heat insulating material and coacting with said projections to hold the insulating material on said article.

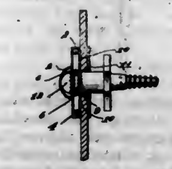
5. A heat insulating covering for boilers and the like, comprising heat insulating material in sections and means to support said sections on a boiler when assembling and after assembling, composed of a sectional boiler encircling supporting band provided with tongues so spaced as to receive the sections of insulating material between them, and a retaining band provided with slots to engage said tongues to fixedly support said sections between them and on said boiler.

6. A heat insulating covering for boilers and the like, comprising heat insulating material in blocks, strips having integral tongues bent up therefrom and spaced at intervals of substantially the width of said blocks, said strips adapted to be united end to end to form supporting bands upon which said blocks are laid between the tongues, and retaining strips having slots adapted to coact with said tongues to clamp the blocks between said supporting bands and retaining strips and hold them in fixed relation to the boiler, the whole being covered with a finish coating of plastic material.

10. In a heat insulating covering for boilers and the like, the combination with blocks of non-heat-conducting material, of supporting means applied to the boiler and having tongues, and retaining means applied to said blocks and coacting with the tongues of said supporting means to retain said blocks in fixed relation to the boiler, and means coacting with said supporting means for providing an air space between said boiler and covering.

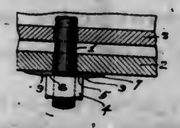
[Claims 2 to 4, 7 to 9, and 11 not printed in the Gazette.]

1,251,831. SEPARABLE FASTENER. WILLIAM J. SMITH, Waterbury, Conn. Filed July 2, 1917. Serial No. 178,232. (Cl. 24—218.)



A separable fastener, comprising in combination, a socket member comprising a comparatively wide plate having a dome rising from its center, a flange on the plate extending in the opposite direction to said dome, a spring retaining member contacting said flange throughout its inner surface and having resilient arms extended across the dome, a plate apertured to register with the concavity of the dome and secured within the free edge of the flange surrounding the first mentioned plate so as to secure said spring retaining member, an annular outwardly directed flange surrounding the aperture in the last mentioned plate, a plurality of prongs projected from the outer face of the second mentioned plate, and a securing plate centrally apertured to receive said annular flange and to have the latter swaged thereover.
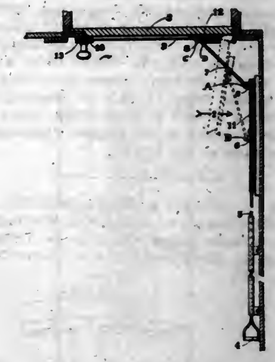
1,251,832. SPRING NUT-LOCK. FRANK E. SPENCER, Thornburg, Pa. Filed Mar. 28, 1914. Serial No. 827,837. (Cl. 151—50.).



1. A combined nut lock and washer having a curved body portion, the central part of which is of uniform thickness throughout, having opposite side edges reduced in thickness to form resilient wings, locking ribs extending along opposite sides of the bolt receiving aperture, the curvature of the outer face of the washer being such that the said ribs normally lie below the plane of the highest part thereof so that the under side of the nut will contact first with the transverse central line of the washer before engaging the locking shoulders, the curvature of the washer being such that the inner side thereof will lie flat against the part to be clamped when the nut is screwed home.

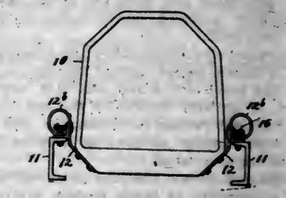
2. A combined nut lock and washer comprising a plate having its central portion forming a nut seat of uniform thickness, and having opposite side edges reduced in thickness said washer having locking shoulders upon either side of the bolt receiving aperture, parallel with the reduced edges of the washer, the curvature of the nut seat being such that the said ribs normally lie below the plane of the highest part thereof so that the bottom of the nut will first contact therewith along a transverse line parallel with the locking shoulders, as the nut is being screwed home, and the curvature of the under side of the washer being such that said side will lie flat against the part to be secured when the nut is screwed home.

1,251,833. DOOR OPENER AND CLOSER. ELI S. STRAUB, Los Angeles, Cal. Filed Mar. 19, 1917. Serial No. 155,922. (Cl. 268—9.)



A door opener and closer comprising the combination with a door, a door-knob shaft and a wall at right angles to the door, of a crank fixed on the shaft and having a slot in its outer end concentric with the shaft, a rigid link provided with a pin at one end which seats within said slotted opening and formed at its other end with a portion of reduced diameter, a casing fastened upon the face of the door and adjacent the hinged side thereof within which the reduced end portion is slidably supported horizontally, a clevis disposed around the reduced portion of the link, a helical expansion spring positioned within the casing and adapted to bear against the end wall thereof and the clevis, a connecting link pivotally secured to the clevis at one end, a sliding bolt to which the opposite end of the connecting link is pivotally secured, a slotted guide casing secured along the wall and within which the bolt slides, an actuating rod pivotally secured to the opposite end of said bolt and extending to a remote point, and a handle upon the end of said rod whereby the device may be actuated.

1,251,834. RADIATOR-SUPPORT. WILLIAM R. STRICKLAND, Cleveland, Ohio, assignor to The Peerless Motor Car Company, Cleveland, Ohio, a Corporation of Ohio. Filed May 2, 1914. Serial No. 835,834. (Cl. 180—68.)



1. In combination with a chassis frame and radiator, of a motor vehicle, flat springs connecting the radiator to the chassis frame, and means yieldingly slidingly engaging the springs between the radiator and frame to dampen the oscillations thereof.

2. In combination with the chassis frame and radiator of a motor vehicle, flat yieldable members connecting

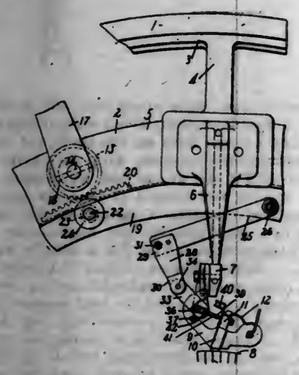
the radiator to the chassis frame, and means frictionally and slidingly engaging said members between the radiator and frame to dampen the oscillations thereof.

3. In combination with the chassis frame and radiator of a motor vehicle, straps secured to the radiator and to the chassis frame provided with loops, and means frictionally and slidingly engaging said straps between the radiator and the frame to dampen the oscillation thereof.

4. In combination with the chassis frame and radiator of a motor vehicle, flat straps provided with loops connecting the radiator to the frame and each secured at one end to the radiator, and at its other end to the frame, and devices supported on the frame and frictionally engaging the straps between their points of connection with the radiator and frame to dampen the oscillations thereof.

5. In combination with the chassis frame and radiator of a motor vehicle, resilient straps connecting the radiator to the chassis frame, a pair of clamping means engaging a portion of each of said straps, and a spring for causing said members to be pressed yieldingsly against the opposite sides of the strap.

1,251,835. BRUSH-RAISING DEVICE. WILLIAM STRUTT, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 18, 1914. Serial No. 877,962. (Cl. 200—24.)



1. A brush-raising mechanism for dynamo-electric machines comprising a brush holder, a cam device one member of which is carried by the brush and the other member of which is rotatably mounted, and means for actuating said rotatably mounted member to cause it to slidably engage said brush-carried member and raise the brush.

3. A brush-raising device for dynamo-electric machines comprising a brush holder, a projection carried by the brush, a cam member adapted to engage the projection, and means for actuating the cam member to cause it to engage the projection and raise the brush, the said cam being adjustably mounted whereby the travel of the brush may be varied.

5. In a dynamo-electric machine, the combination with a support, a brush holder carried thereby, a projection carried by the brush and a rod rotatably mounted upon the support, of an arm carried by the rod for engaging said projection and raising the brush, the said arm being adjustable with respect to the rod whereby the travel of the brush may be varied.

7. In a dynamo-electric machine, the combination with a support, a plurality of brush holders carried thereby, projections carried by the respective brushes and a rod rotatably mounted upon the support, of a U-shaped arm, the end portions of which are secured to the rod and the intermediate portion of which is adapted to engage the said projections and to simultaneously raise all of the brushes.

[Claims 2, 4, and 6 not printed in the Gazette.]

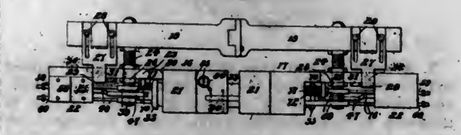
1,251,836. SHAFT-COUPLING. ALBERT STUPPLEBEAM, Paris, Ark. Filed May 2, 1914. Serial No. 836,016. (Cl. 64—13.)



1. In a shaft coupling, a shaft having an upper and lower portion, said lower portion provided with an enlarged head at the upper end thereof having a socket formed therein, the upper portion of said shaft having a projection positioned in said socket, a sleeve mounted upon the lower portion of said shaft, a second sleeve positioned upon the upper portion of said shaft, and having its lower edge in abutment with the upper face of said lower portion of the shaft, a collar having openings formed adjacent the upper and lower ends thereof, and set screws in said openings having the ends thereof positioned against said sleeves for rigidly securing the same as and for the purpose set forth.

2. In a shaft coupling, a shaft having an enlarged head at one end thereof forming a shoulder, a second shaft engaging the enlarged head of said first mentioned shaft, a sleeve on said first mentioned shaft, a second sleeve on said second shaft, the upper end of said first mentioned sleeve being in engagement with the shoulder formed by said enlarged head of said first mentioned shaft, means engaging said sleeves whereby said first mentioned shaft and said sleeves are held together, said shafts being supported by means of said first mentioned sleeve in engagement with said shoulder on said first mentioned shaft as and for the purpose set forth.

1,251,837. TRAIN-PIPE COUPLING. JOHN C. SWAYKUS and ALEX TKACZ, Lackawanna, N. Y. Filed Nov. 17, 1916. Serial No. 131,899. (Cl. 188—13.)



1. A train pipe coupler comprising in combination with car couplers, pipe coupler heads shiftably suspended therefrom, fluid conduits tapped into the rear ends of said heads, the said heads having a plurality of passages therethrough terminating with each of said conduits and fluid-tight interengaging conducting members for said passages carried by said heads, and including a nipple block and nozzle each having a pair of passages therethrough.

5. A train pipe coupler comprising two similar oppositely positioned heads, fluid conduits attached to the opposite ends of said heads, nipple blocks and nozzles each having a plurality of passages therethrough carried by said heads adjacent opposite sides thereof with the nozzle of one head engaging the nipple block of the other head when the device is coupled, and a plurality of fluid conductors arranged between each of said conduits and the nipple blocks and nozzles.

6. A train pipe coupler comprising in combination with engaging car couplers, heads carried by said couplers having complementally formed adjacent faces, means for locking said heads together, loosely connected, with fluid-tight engaging faces therebetween, said heads adapted for automatic releasing and disengagement upon a separation of said car couplers, and locking means for the heads including a pair of pivoted levers and sliding mechanism for operating the same.

12. A nozzle for train pipe couplers comprising a body having a chamber therein, an anchor member extending within said chamber, a cover plate for the latter, having a slot through which the anchor extends, and further having an opening in its forward end, a pivoted latch within said plate having one end abuttingly arranged with respect to said anchor and its opposite end lying inwardly of said opening, a locking yoke slidably overlying said anchor within the chamber and a locking hook pivotally carried by the body within the restraining path of movement of said yoke.

15. A train pipe coupler comprising complementally formed interengaging heads each including a body portion, and a nozzle and a nipple block slidably mounted therein for limited movements, said nozzle and nipple block having a pair of fluid passages therethrough, and a source of fluid supply and valve mechanism for regulating the fluid supply carried by said head and automatically operated by said sliding nozzle when said heads are coupled and uncoupled, the said valve carrying an apertured block through which the stem carried by said nozzle is adapted to project for limited sliding movement.

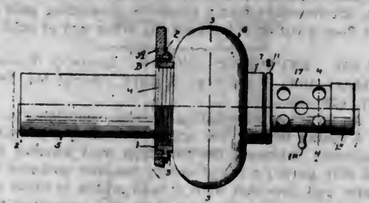
[Claims 2 to 4, 7 to 11, 13, 14, and 16 to 20 not printed in the Gazette.]

1,251,838. CALENDAR. BROOK SYKES, Toronto, Ontario, Canada. Filed Sept. 2, 1916. Serial No. 118,309. (Cl. 40—1.)

1. A device of the class described, comprising a rotary disk, a casing within which said disk is located, said casing and said disk being centrally orificed, and resilient means forming the peripheral wall of said orifice and supporting said disk.

[Claim 2 not printed in the Gazette.]

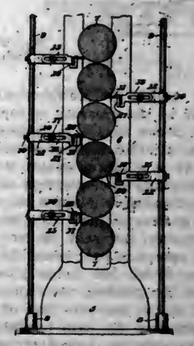
1,251,839. OIL-BURNER. EDGAR G. TEED, Butte, Mont. Filed Mar. 23, 1917. Serial No. 156,972. (Cl. 158—74.)



1. An oil burner comprising a mixing chamber having central openings formed in each end, a steam inlet pipe extending into the chamber, an oil inlet pipe extending through the said steam inlet pipe, an outlet pipe mounted in one of the said central openings and communicating with the interior of the said chamber, an air pipe mounted in the other of said central openings and extending through the center of the said chamber and through the said outlet pipe, the said casing having a retaining ring embracing the end of the said outlet pipe, and means for receiving the said retaining ring for supporting the said casing.

[Claims 2 to 6 not printed in the Gazette.]

1,251,840. GUARD FOR CALENDER-MACHINES. MIKE TELESZKY, Jenners, Pa. Filed Sept. 5, 1917. Serial No. 189,773. (Cl. 92—74.)



1. A guard for paper making machines comprising vertical standards, brackets adjustably secured thereto, each bracket including two parts, a bolt carried by one part, the other part being slotted for the adjustable reception of said bolt, a recess formed in the outer end of the slotted part, and an angle guard plate having an end extension on its vertical wall received in said socket with the end of the horizontal wall thereof adapted for engagement with the end of the slotted part.

[Claim 2 not printed in the Gazette.]

1,251,841. PLASTER OR CEMENT COMPOSITION AND METHOD OF MAKING THE SAME. HARRY S. THATCHER, Los Angeles, Cal., assignor to Celite Products Company, Los Angeles, Cal., a Corporation of California. Filed June 17, 1916. Serial No. 104,166. (Cl. 106.—34.)

1. A plaster or cement composition comprising finely divided porous non-crystaline silica and calcined gypsum, in a state of intimate contact and mixture.

2. A plaster or cement composition comprising porous non-crystalline silica having colloidal properties and calcined gypsum ground together to form an intimate mixture.

3. The process of making a plaster or cement composition which consists in intergrinding calcined gypsum with porous non-crystalline silica.

4. A plaster or cement composition comprising kieselguhr interground with calcined gypsum.

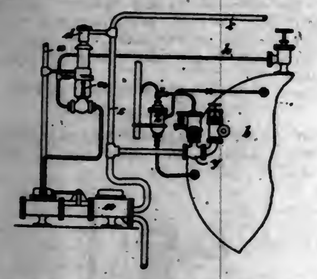
1,251,842. PLASTER COMPOSITION. HARRY S. THATCHER, Los Angeles, Cal., assignor to Celite Products Company, Los Angeles, Cal., a Corporation of California. Filed Aug. 8, 1916. Serial No. 113,708. (Cl. 106—34.)

1. A plaster composition comprising uncalcined kieselguhr and calcined gypsum both in state of fine division and mixed together in dry condition.

5. A plaster composition comprising calcined gypsum mixed with non-crystalline silica having colloidal properties.

[Claims 2 to 4 not printed in the Gazette.]

1,251,843. GOVERNING DEVICE FOR AUTOMATICALLY CONTROLLING THE SUPPLY OF FEED-WATER TO STEAM-BOILERS AND FOR LIKE PURPOSES. ARTHUR RONALD TRIST, London, England. Filed June 12, 1914. Serial No. 844,755. (Cl. 103—91.)

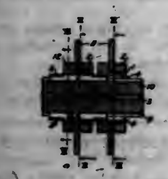


1. A governing device for automatically controlling the supply of fluids by the pressure of supply comprising in combination, a power device in connection with the supply pressure, a yielding resistance adapted to operate in opposition to said power device, a fluid operated control device controlling the operation of the supplying device of fluid under pressure adapted to co-act with said power device, an automatic positively locking retaining device for maintaining the said control device closed adapted to become operative only when the maximum motion of the power device has taken place against the maximum effort of the yielding resistance and a releasing device carried by the movable part of the power device adapted to withdraw the said retaining device from its locking co-action with the control device when a given variation of pressure of the fluid under supply has been attained, substantially as described.

2. A governing device for automatically controlling the supply of fluids by the pressure of supply comprising in combination a cylinder in connection with the supply pressure, a piston in said cylinder, a spring adapted to act on said piston against the supply pressure, a fluid supply device, a control device, controlling the supply of energy to the fluid supply device, an independent retaining device adapted to positively lock the control device in its inoperative position after maximum motion of the said piston and a releasing device carried by the piston or its rod adapted to withdraw the positive lock of the retaining device on a given variation of pressure of supply, substantially as described.

[Claim 3 not printed in the Gazette.]

1,251,844. SAW-MOUNT. WILLIAM HENRY TROUT, Milwaukee, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis., a Corporation of Delaware. Original application filed Mar. 5, 1910, Serial No. 547,388. Divided and this application filed Nov. 4, 1916. Serial No. 129,904. (Cl. 143—155.)

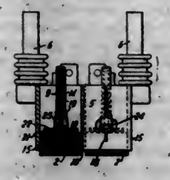


1. In combination, a shaft, a saw-collar slidably mounted thereon, a circular saw mounted on said collar, and one or more keys fixed in grooves in said collar and sliding in grooves in the shaft, said key or keys being longer than said collar.

7. In combination, a saw-shaft having four equally spaced longitudinal grooves therein, a pair of saw-collars slidably mounted on said shaft and each having four corresponding grooves in their naves, and four keys which are longer than the saw-collars and two of which are mounted in one pair of diametrically opposite grooves in one collar and the other two in the other pair of diametrically opposite grooves in the other collar, whereby each pair of keys carried by one collar is adapted to be received within the vacant grooves of the other one as said collars are approached.

[Claims 2 to 6 not printed in the Gazette.]

1,251,845. BRUSH-HOLDING DEVICE. LAWRENCE W. TURNBULL, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Nov. 6, 1914. Serial No. 870,619. (Cl. 200—24.)

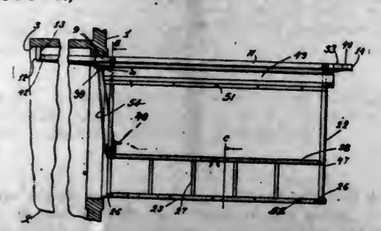


1. In a brush-holding device, the combination with a brush, and a contact-hammer therefor, of a brush-biasing carriage connected to said hammer by a flexible conductor and adapted to move laterally with respect thereto as the brush moves in said device.

2. In a brush-holding device, the combination with a brush, and a contact-hammer therefor, adapted to remain stationary thereon, of a brush-biasing carriage flexibly connected to said hammer by a current-carrying conductor and adapted to compensate for brush movement by sliding on the hammer.

3. In a brush-holding device, the combination with a brush, and a contact-hammer therefor, of relatively large contact area, of a brush-biasing carriage having said hammer flexibly secured thereto by a current-carrying conductor and adapted to slide on the hammer as the brush moves, whereby the hammer remains substantially stationary relative to said brush.

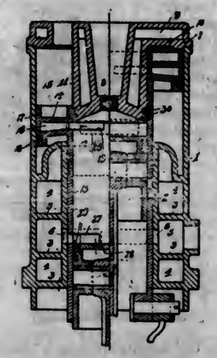
1,251,846. FRESH-AIR BED. ORLAN S. VANCAMP, Kansas City, Mo. Filed Apr. 22, 1915. Serial No. 23,044. (Cl. 5—4.)



In fresh air beds, the outer wall of a building, a window opening in said wall, a track secured to said wall in the upper side of said window opening, said track extending into the building and outward from said wall, wheel supported trucks mounted on said track, posts depending from said trucks, bottom frame members connecting said posts, intermediate frame members connecting said posts, and a floor positioned between the lower end of said posts.

1,251,847. EXPLOSION-ENGINE. LOUIS C. VANDERLIP, Elkhart, Ind. Filed Sept. 4, 1913. Serial No. 788,069. (Cl. 123—65.)

3. An internal combustion engine comprising a cylinder; a casing beyond the cylinder forming a plurality of compression chambers the partition wall whereof is provided with ports; a reciprocatory member mounted in the cylinder and provided with a head which is fitted within one of said compression chambers and operative therein as a piston, said head having a chamber therein which is provided with ports adapted to register with said partition wall ports, said head chamber being provided also with ports adapted to place the head chamber and the explosion chamber in communication; an inlet port in communication with one of said compression chambers; and means carried by the head of said reciprocatory member for governing said inlet port.

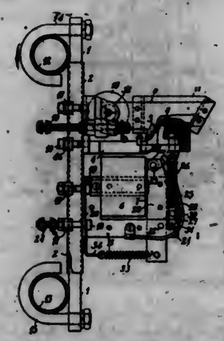


7. An explosion engine comprising a cylinder, a casing partitioned to provide intercommunicating inner and outer compression chambers, the partition being formed with outlet ports, an intake member having an inlet port formed in said partition to provide communication between said member and the inner compression chamber, a control element provided with a head to control said inlet port and operating as a piston in the inner compression chamber, ports formed in said head and adapted to register with the outlet ports to establish communication between the outer compression chamber and the cylinder, a piston, and means for relatively operating said piston and control element.

13. In an internal combustion engine, the combination of a cylinder; a casing provided with a plurality of intercommunicating compression chambers, one of said chambers being extended downward around and encompassing the outer periphery of the upper end of the cylinder; a reciprocatory member arranged within the cylinder and provided with a head operative as a piston and fitted within one of said compression chambers; a piston; and means for relatively operating said piston and reciprocatory member.

[Claims 1, 2, 4 to 6, 8 to 12, and 14 to 28 not printed in the Gazette.]

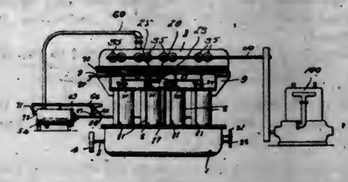
1,251,848. ELECTRICALLY-OPERATED SWITCH. THEODORE VARNEY, Pittsburgh, and HOWARD L. BEACH, Edgewood Park, Pa., assignors to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed June 28, 1911. Serial No. 635,905. (Cl. 175—298.)



3. A switch board structure comprising a plurality of spaced and parallel supporting members, a switch-carrying member associated therewith and longitudinally adjustable with respect thereto, coöperating stationary and movable switch members independently and adjustably mounted upon said switch-carrying member, and means for insulating said switch members from said switch-carrying member.

[Claims 1 and 2 not printed in the Gazette.]

1,251,849. COMPRESSED-AIR-POWER PLANT. SEWARD S. VERNON, Paterson, N. J. Filed May 5, 1917. Serial No. 166,681. (Cl. 230—35.)



1. In a compressed air power plant, the combination, of a cylinder, a piston reciprocably mounted in the cylinder, a compressed air retaining reservoir supported above said cylinder, a pipe leading from the reservoir to the inlet of the cylinder, a valve positioned within said pipe for controlling the passage of air into said cylinder, a stem connected to said valve, a sleeve supported by said engine and rotatable by the reciprocatory movement of said pistons, and means carried by said sleeve for engagement with said valve stem for operating said valves.

3. In a compressed air power plant, the combination, of a cylinder, a piston reciprocably mounted in the cylinder, a compressed air retaining reservoir supported above said cylinder, a pipe leading from the reservoir to the inlet of the cylinder, a valve positioned within said pipe for controlling the passage of air into said cylinder, a stem connected to said valve, a sleeve carried by said engine and rotatable by the reciprocatory movement of said pistons, means carried by said sleeve for engagement with said valve stem for operating said valves, means for adjusting the position of said valve stem engaging means for regulating the scope of movement of said valve for regulating the quantity of air admitted to said cylinders, an exhaust port formed in said cylinder, a valve normally closing said exhaust port, a valve stem projecting upwardly from said valve, a pivotally mounted arm carried by said cylinder for engagement with said valve stem for unseating said exhaust valve, and means operable upon reciprocatory movement of said piston for rocking said pivoted arm.

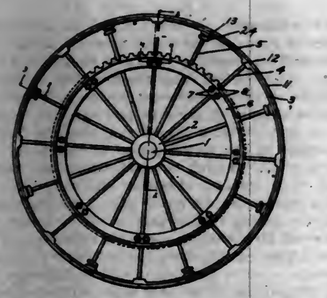
5. In a compressed air power plant, the combination, of a cylinder, a piston reciprocably mounted in the cylinder, a compressed air retaining reservoir supported above said cylinder, a pipe leading from the reservoir to the inlet of the cylinder, a valve positioned within said pipe for controlling the passage of air into said cylinder, a stem connected to said valve, a sleeve carried by the engine and rotatable by the reciprocatory movement of said piston, means carried by said sleeve for engagement with said valve stem for operating said valve, means for adjusting the position of said valve stem engaging means for regulating the opening of said valve for regulating the quantity of air admitted to said cylinder, an exhaust port formed in said cylinder, a valve normally closing said exhaust port, a valve stem projecting upwardly from said valve, a pivotally mounted arm carried by said cylinder for engagement with said valve stem for unseating said exhaust valve, means operable upon reciprocatory movement of said piston for rocking said pivoted arm, air compressors for charging said air reservoir, means operable under the excessive air pressure in said reservoir for automatically arresting operation of said air compressors, and means automatically operated upon decreasing of excessive air pressure within said reservoir for restarting said air compressor.

10. In a compressed air power plant, the combination of a compressed air engine, an air reservoir supported by said engine, air supply pipes communicating with said

reservoir and said engine, means for controlling the inlet of air into the engine through said pipes, air compressors communicating with said reservoir, means for operating said compressors, means operated by an excessive air pressure in the reservoir to arrest the operation of said compressors, said last named means including, a clutch, a cylinder having communication with said air reservoir, a pressure valve for controlling the entrance of air into said cylinder, a piston mounted within said cylinder and operable upon entrance of air into said cylinder to operate said clutch for arresting operation of said compressors, means for returning said piston to its normal position upon the arresting of air entrance into said cylinder for operating said clutch to permit of restarting the said compressors.

[Claims 2, 4, 6 to 9, and 11 not printed in the Gazette.]

1,251,850. WHEEL FOR TRACTORS. GEORGE W. WALLICK, Sturgis, Mich. Filed June 8, 1916. Serial No. 102,522. (Cl. 21—213.)



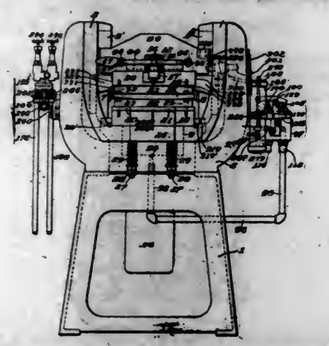
1. In a structure of the class described, the combination of an axle provided with a spindle, of a pair of wheel members each comprising a hub, a rim and spokes, the rims of said members being disposed edge to edge, a sleeve adapted to be substituted for the hub of the outer member when the outer member is removed and fitting against said inner member hub, and means for detachably securing said members together.

2. In a structure of the class described, the combination of an axle provided with a spindle, a main member, and a detachable auxiliary member, each comprising a hub, a rim and spokes, the rims of said members being disposed edge to edge, spoke bosses on the auxiliary member rim extended to provide lugs lapping the inner side of the main member rim, tread lugs for said rims disposed in zig zag relation thereon, the inner ends of the tread lugs of the auxiliary member rim being extended to overlap the outer edge of the main member rim and meeting the inner ends of the tread lugs thereof, and clips uniting adjacent spokes of said main and auxiliary members.

3. In a structure of the class described, the combination with an axle, of a main wheel member and a detachable auxiliary wheel member, each comprising a hub, a rim and spokes, the rims being disposed edge to edge, lugs on the rim of said auxiliary member overlapping the inner and outer sides of the rim of said main member, the rims of said members being provided with tread lugs disposed in a zig zag relation with their adjacent ends meeting, the inner ends of the tread lugs of said auxiliary member rim constituting the outer rim engaging lugs thereof, and means for clamping said rims together.

4. In a structure of the class described, the combination with an axle, of a main wheel member and a detachable auxiliary wheel member, each comprising a hub, a rim and spokes, the rims being disposed edge to edge, the rim of the auxiliary member being provided with projecting lugs engaging the inner and outer sides of the rim of the main wheel member, and means for securing the members together engaging spokes thereof.

1,251,851. MOLDING-PRESS. CLARENCE S. WICKES, Merchantville borough, N. J., assignor to Victor Talking Machine Company, a Corporation of New Jersey. Filed Dec. 11, 1913. Serial No. 806,007. (Cl. 18—17.)

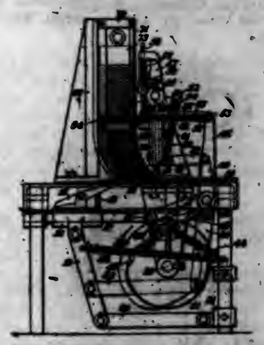


1. In a press, the combination of a bed, a cylinder rigid with respect to said bed, a plunger mounted in said cylinder, a mold operatively connected to said plunger, a second mold, a member to which said second mold is operatively connected, said member being movable with respect to said bed to bring said second mold into and out of alinement with said first mold, means to lock said member rigid with respect to said bed, means to supply a fluid under pressure to said cylinder, a valve for controlling the flow of said fluid under pressure to and from said cylinder, means to supply a heating and cooling fluid to said molds and a valve for controlling the flow of said heating and cooling fluids.

10. In a press, the combination of a bed, a cylinder rigid with respect to said bed, a plunger mounted in said cylinder, a mold operatively connected with said plunger, a second mold, a movable member on which said second mold is mounted, a center pin operatively passing through one of said molds and arranged to enter into the other of said molds, and means independent of said center pin to position said second mold in alinement with said mold mounted on said plunger.

[Claims 2 to 9 and 11 to 47 not printed in the Gazette.]

1,251,852. FEED MECHANISM. ERASTUS E. WINKLEY, Lynn, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 1, 1915. Serial No. 18,494. (Cl. 12—42.)



1. Feed-mechanism, having, in combination, means for holding a stack of blanks with the first and second blank in overlapping relation, and means for separating the first blank from the second and removing the first blank from the stack, the separating means operating automatically on the blanks by movement into and out of the angular space between the edge of one of the blanks and the adjacent marginal surface of one of them which is exposed by reason of said overlapping.

2. Feed-mechanism, having, in combination, means for holding a stack of blanks with the first and second blank in overlapping relation; means for applying pressure to the projecting margin of the first blank, to flatten the material of the blank; mechanism for moving said means into and out of operative position; and means for expelling the first blank from the stack while so flattened.

9. Feed-mechanism, having, in combination, means for holding a stack of blanks with the first blank in a position in which its margin projects beyond the second blank; means for expelling the first blank in the direction of its projecting margin; a stop for retaining the second blank while the first blank is expelled, said stop comprising two fingers; and means for moving the fingers alternatively to advanced and retracted positions, and for moving the fingers simultaneously in inward and outward directions.

[Claims 3 to 8 and 10 to 19 not printed in the Gazette.]

1,251,853. WINDOW-CLEANER. JOHN F. ZELBER and LITTLETON W. SWEETMAN, New York, N. Y. Filed Dec. 14, 1916. Serial No. 136,911. (Cl. 15—59.)

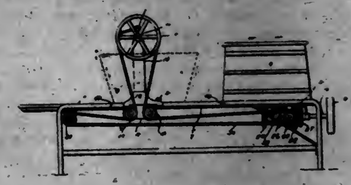


Window cleaning apparatus comprising scrapers adapted to fit closely against the window glass on opposite sides thereof and connected together around the edges of the sash, weights connected with the scrapers at the points where said scrapers are thus connected together, a cord extending from weight to weight and leading from the weights upward along the sash edges and thence through guide holes to one face of the sash near its upper end and thence depending in a loop, and guard channels attached to opposite edges of the sash and formed to inclose and guard the cord and the weights and allow entrance of the connecting ends of the scrapers, substantially as described.

1,251,854. DRIVING MECHANISM. ALPHEUS W. ALTORFER, Roanoke, Ill., assignor to Power Washing Machine Co., Peoria, Ill., a Corporation of Illinois. Filed Feb. 24, 1913. Serial No. 750,295. (Cl. 74—59.)

1. In a device of the character described, in combination, a frame, a wringer, a support for said wringer movable to two or more predetermined positions, in which positions said support will be stationary, a driving means, connections between said driving means and said support, adapted to move said support to said predetermined stationary positions, said connections arranged to operate said wringer when said support is in its predetermined stationary positions, and means for reversing the direction of movement of said wringer as desired.

4. In a device of the character described, in combination, a frame, a wringer, a support for said wringer movable to two or more predetermined positions on said frame, a driving means, connections between said driving means and said support, said connections adapted to transfer the support to its different positions, and adapted to operate said wringer when said support is stationary in its different positions, means to lock the support in its different positions, and means to reverse the movement of said connections, as desired, so as to reverse the movement of the support and to change the direction of rotation of said wringer.

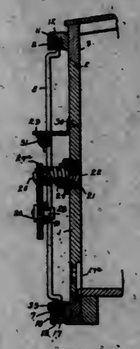


5. In a device of the character described, in combination, a frame, a wringer, a support for said wringer movable to position the wringer in two or more different positions on said frame, a driving means, connections between said driving means and said support, said connections being so arranged that said support may be moved by said driving means, and said wringer driven thereby, and reversing means to change the direction of movement of said wringer, whereby the material to be treated by said wringer may be moved in different directions, as desired.

6. In a device of the character described, in combination, a frame forming a rest for a washing machine and one or more receptacles, a wringer, a support for said wringer movable to cause the wringer to register with the position of said washing machine or receptacles, a driving means, connections between said driving means and said support, said connections being arranged so that said support may be moved by said driving means to cause the wringer to register with the position of said washing machine or receptacles, and to operate said wringer when registering with the washing machine or receptacles, and means to reverse the direction of movement of the support, and to change the direction of movement of said wringer, as described, during the period when said wringer is registered with the position of said washing machine or said receptacles.

[Claims 2 and 3 not printed in the Gazette.]

1,251,855. WATERPROOF CAR-DOOR. GEORGE C. ATKINSON, Georgetown, Tex. Filed Feb. 27, 1917. Serial No. 151,296. (Cl. 20—23.)

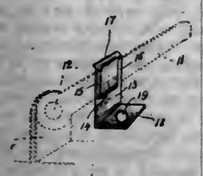


1. The combination with a car body having a door opening, and upper and lower guides located at the top and bottom of the door opening, of slides operating in the said guides, a frame rigid with the slides, a car door

movable into and out of the door opening and provided with a nut, a screw mounted on the sliding frame and engaging the nut for moving the door inwardly and outwardly, a pinion fixed to the screw, a gear wheel mounted for rotary movement on the said frame and meshing with the pinion, and an operating arm or lever connected with the gear wheel and arranged to swing from one side of the frame to the other to move the door inwardly and outwardly.

2. The combination with a car body having a door opening, of upper and lower guides, a slidable frame operating in the guides, a door mechanism mounted on the frame and connected with the door for moving the same inwardly and outwardly into and out of the opening of the car body, a horizontal roller mounted on the frame and extending along the same above the said mechanism, and a weather guard or strip secured to the door and extending outwardly therefrom and having its outer portion arranged upon the said roller, said weather guard or strip being movable over the roller when the door is moved inwardly and outwardly.

1,251,856. ELECTRIC SWITCH. CARL BARR, Chicago, Ill. Filed Mar. 26, 1917. Serial No. 157,333. (Cl. 175—282.)



A clip comprising the unbroken marginal portion only of a strip of resilient metal, and a resilient metal finger attached by one end to said strip, positioned opposite the interior aperture of said marginal portion, spaced from the plane of the strip and approaching said plane at its free end, the tip of said end receding from the strip and the strip being bent away from said tip.

1,251,857. DISPLAY-FIGURE. FRANK O. BRANT, San Francisco, Cal. Filed Mar. 6, 1917. Serial No. 152,502. (Cl. 211—13.)



1. A lay figure for the display of wearing apparel comprising a form of flat material shaped to the contour of the human figure and comprising a standard, independent upper and lower half members of a body supported by said standard, one of said half members overlapping the other at the waist portion of said figure, means for detachably and adjustably securing the lower half body member to said standard whereby the same may be adjusted lineally thereof, and means for detachably and adjustably securing the upper half body member to said support whereby the same may be adjusted lineally and laterally of said support and said lower half member to enable the upper half body portion of said figure to assume different positions.

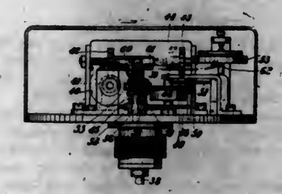
2. A lay figure for the display of wearing apparel comprising a form shaped to the contour of the human figure and comprising upper and lower half detached members of a body adapted to overlap at the lower and upper portions thereof and formed of flat material, arm members formed of flat material pivotally connected to the shoulder portions of the upper half member of the body, a vertical support provided with slotted portions for sustaining the figure in given positions, adjustable attaching members for detachably connecting the lower half member of the body to said standard, adjustable body braces pivoted at one end to the shoulder portions of the upper member of the body through the pivotal connections for the arm members, said braces being slotted at their inner end portions, and adjustable means extended through the vertical support and coöperating with the slotted ends of the body braces for detachably connecting the same to said support.

1,251,858. BOX-STRAP SEAL. WINFRED MUDGE BROOKS, East Orange, N. J., assignor to E. J. Brooks & Co., New York, N. Y., a Corporation of New York. Filed Oct. 15, 1917. Serial No. 196,652. (Cl. 70—101.)



An improved guide-seal for box straps, constructed of one piece sheet metal and having in combination, a flat base part, two parallel slots cut in said base, nail holes in said base adjacent to said slots, a flat raised part between said slots, said raised part being above but in a plane parallel with said base and having a central hole punched therein with downwardly projecting burs, said guide seal being adapted to be secured by nails through said nail holes in its base to a plank of a box, to have a metal box strap, or strap ends, passed over the heads of such nails, through said slots and under said raised part and then to be sealed and permanently interlocked with said box strap, or strap ends, by having said raised part with its downwardly projecting bur stamped down upon said strap, or strap ends, while a punch driven through said central hole is further driven through the strap, or strap ends, producing closely interlocked burs, all substantially as hereinbefore specified.

1,251,859. INDICATING APPARATUS FOR SHAFTS. FRIEDRICH WILHELM GUSTAV BRUHN, Berlin, Germany. Filed Mar. 28, 1916. Serial No. 87,234. (Cl. 235—104.)



1. In a device of the character described, the combination of a rotary shaft, mechanism for indicating the duration of rotation of said shaft, clock mechanism for driving the indicating mechanism, a spindle, a wheel thereon driven by the shaft and adapted to rotate the spindle, a wheel on the latter adapted to be driven by the clock mechanism, and movable axially on the spindle by the rotation of the latter, and means operated by said axial movement to release the clock mechanism.

2. In a device of the character described, the combination of a rotary shaft, mechanism for indicating the duration of rotation of said shaft, clock mechanism for driving the indicating mechanism, a spindle, a wheel thereon driven by the shaft and adapted to rotate the spindle, a stop member for the clock mechanism, and a wheel axially movable on the spindle in driving connection with the clock mechanism to actuate the stop member to lock the clock mechanism.

3. In a device of the character described, the combination of a rotary shaft, mechanism for indicating the duration of rotation of said shaft, clock mechanism for driving the indicating mechanism, a spindle, a wheel thereon in driving connection with said shaft, a friction clutch connecting the wheel and spindle, a wheel on the spindle in driving connection with the clock mechanism and movable axially on the spindle by a relative movement of the wheel and spindle and a stopping device for the clock mechanism actuated by the axial movement of said axially movable wheel.

4. In a device of the character described, the combination of a rotary shaft, mechanism for indicating the duration of rotation of said shaft, clock mechanism for driving the indicating mechanism, a spindle, a pinion thereon in gear with said shaft, a friction clutch connecting the pinion and spindle, an internally threaded pinion mounted on a threaded portion of the spindle, a gear included in the clock mechanism in mesh with the threaded pinion, and a stopping device for the clock mechanism adapted to be actuated by said threaded pinion to stop and start the clock mechanism.

1,251,860. PIE-PAN COVER. ROSANNA M. BURNS, Manitowoc, Wis. Filed Oct. 23, 1914. Serial No. 868,259. (Cl. 53—6.)

A pie pan cover comprising a body having a plurality of openings formed therein, a downwardly extending thimble struck from said body and a handle on said body as and for the purpose set forth.

1,251,861. WASHBOARD-HOLDER. JOHN T. CALDWELL, Menan, Idaho. Filed Apr. 5, 1917. Serial No. 160,026. (Cl. 68—29.)

1. A wash board holder comprising an elastic member, means for connecting the ends of the member to the sides of a wash board, and means for connecting the member to the wash tub to hold the wash board within the wash tub and which will permit movement of the wash board in relation to the wash tub.

4. A wash board holder comprising a coiled-spring, means for detachably connecting the coiled spring to a wash board, and a hook slidably mounted upon the coiled spring and adapted to engage a wash tub to cause said spring to hold the wash board within the wash tub and which will permit the wash board to be moved with relation to the wash tub.

[Claims 2 and 3 not printed in the Gazette.]

1,251,862. RUBBER SUBSTITUTE AND PROCESS OF MAKING THE SAME. WILLIAM W. CARTER, Needham, Mass. Filed Mar. 29, 1917. Serial No. 158,403. (Cl. 106—23.)

1. A process of producing a composition adapted for use as a rubber substitute, which includes the thorough mixing of a sulfonate and a polymerizable oil and allowing the mixture to stand until their reaction product has been formed, substantially as described.

4. A process of producing a composition adapted for use as a rubber substitute, which includes the thorough mixing of a sulfonate and a polymerizable oil to which has been added a substance adapted to neutralize any free sulfonate and acid remaining in the mixture, said neutralizing substance being provided with a protective coating which is penetrated after the main reaction has taken place, substantially as described.

8. A composition adapted for use as a rubber substitute, containing the reaction product of a polymerizable oil and a sulfonate.

12. A composition adapted for use as a rubber substitute, containing the reaction product of a polymerizable oil and a sulfonate, together with a neutral compound derived from free sulfonates and a neutralizing agent.

[Claims 2, 3, 5 to 7, and 9 to 11 not printed in the Gazette.]

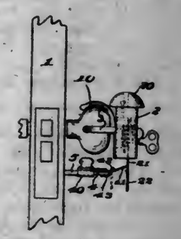
1,251,863. RUBBER SUBSTITUTE AND PROCESS OF MAKING THE SAME. WILLIAM W. CARTER, Needham, Mass. Filed Mar. 30, 1917. Serial No. 158,750. (Cl. 106—23.)

1. A process of producing a composition adapted for use as a rubber substitute, which includes the thorough mixing of a sulfonate, a polymerizable oil and a convertible diluent, allowing the mixture to stand until the reaction product of the oil and sulfonate has been formed, subjecting the product to the action of formaldehyde or its equivalent, and washing and drying the resulting composition, substantially as described.

11. A composition adapted for use as a rubber substitute, containing the washed and dried product resulting from the action of formaldehyde on the re-action product of a mixture of sulfonates derived from tar acids with China wood oil to which free tar acids have been added.

[Claims 2 to 10 not printed in the Gazette.]

1,251,864. BURGLAR-ALARM. JAMES M. CODY, Seattle, Wash., assignor, by direct and mesne assignments, to Cody Burglar Alarm Company, a Corporation of Washington. Filed Mar. 26, 1917. Serial No. 157,380. (Cl. 116—44.)

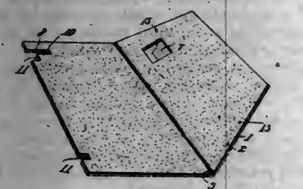


1. An alarm device provided with means for securing it to a door knob and a restraining mechanism provided with means for securing it upon the door independently of the door knob.

5. A burglar alarm comprising a spring actuated alarm bell mechanism, clamping fingers carried thereby and adapted for supporting engagement with a door knob, said alarm mechanism having a projecting bar actuated by the bell actuating mechanism, and a restraining mechanism for said bar provided with means for supporting it independently of the door knob.

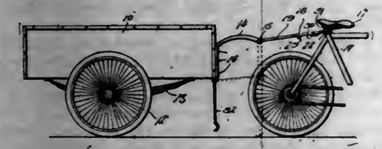
[Claims 2 to 4 not printed in the Gazette.]

1,251,865. AUTOMOBILE-SHIELD. LAWRENCE L. COLVIN, Louisville, Ky. Filed Sept. 5, 1917. Serial No. 189,813. (Cl. 74—81.)



An automobile shield, comprising a heat insulating plate adapted to underlie the foot board and contiguous portions of the bottom of an automobile body, said plate provided with apertures for the reception of the operative levers, and deflecting members depending from the plate adjacent the apertures.

1,251,866. CARRIER. GIUSEPPE CORDARO, Brooklyn, N. Y. Filed Jan. 19, 1917. Serial No. 143,384. (Cl. 208—45.)



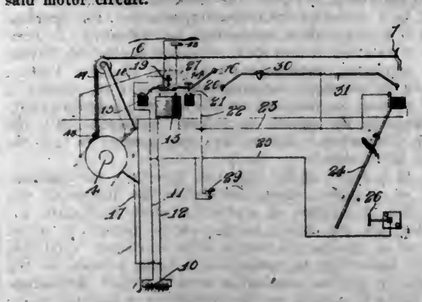
1. A vehicle including a body, a handle for said body having side bars, a cross bar connecting said bars, a standard, arms extending from said standard and pivotally mounted upon the cross bar of the handle, means for connecting the free end of said standard with the frame of a cycle, and means carried by the body of said vehicle for engaging said standard and releasably holding the same in an upright position.

4. A vehicle including a body, a handle for said body, and a yoke pivotally connected with said handle and including a hollow standard provided with a longitudinally extending slot, a core fitting in said standard and provided with a tongue extending through the slot and terminating in a hook, a latch including eye for engaging said hook to releasably hold the core in an extended position, and means on the standard for connecting said standard with the frame of a cycle with the core positioned within the standard.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,251,867. AUTOMATIC CARRIAGE-RETURN FOR TYPE-WRITERS, LINE-SPACERS, AND REVERSE TABULATORS. THOMAS F. CRAWLEY, Newton, Miss. Filed Oct. 16, 1915. Serial No. 56,278. (Cl. 197—66.)

1. A carriage return for typewriters, including, in combination with a typewriter having the usual carriage, an electric motor mounted on said typewriter and having connection with said carriage, said motor being embraced in a branch circuit communicating with a main circuit, means on the typewriter carriage for automatically closing said main circuit, and means embraced in said main circuit for maintaining the same closed and for closing said motor circuit.



2. A carriage return for typewriters, including, in combination with a typewriter having the usual carriage, an electric motor mounted on said typewriter and having connection with said carriage, a motor embraced in a branch circuit communicating with a main circuit, means on the typewriter carriage for automatically closing said main circuit, means embraced in said main circuit for maintaining the same closed and for closing said motor circuit, and means carried by the carriage for automatically opening said circuit closer when the carriage is returned to the starting position.

3. A carriage return for typewriters, including, in combination with a typewriter having the usual carriage thereon, a main circuit, said main circuit embracing an electromagnet and circuit closer, a branch circuit embracing an electric motor and having electric connection with said main circuit, a circuit closer for said branch circuit adapted for actuation by said electro-magnet, whereby to close said main circuit and said branch circuit when said main circuit is initially closed.

4. A carriage return for typewriters, including, in combination with a typewriter having the usual carriage thereon, an electric motor on said typewriter having connection with said carriage, a motor circuit embracing said motor and a circuit closer, a main circuit having an electro-magnet embraced therein, and a circuit closer carried by the carriage, said electro-magnet being adapted to actuate said circuit closer in the motor circuit to maintain said motor circuit closed until the carriage has been returned to the starting position.

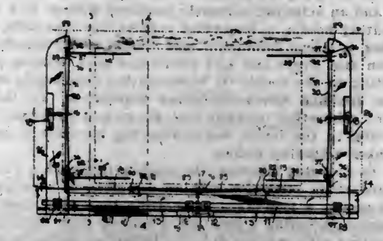
5. A carriage return for typewriters, including an electric motor, a circuit therefor, a main circuit electrically connected with said motor circuit, an electro-magnet interposed in said motor circuit, a circuit closer adapted to be actuated by said electro-magnet, adjustable means carried by the carriage to close said main circuit, said circuit closer serving to maintain said main circuit and said motor circuit closed throughout the return travel of said carriage.

[Claim 6 not printed in the Gazette.]

1,251,868. GRIPPING MEANS FOR JOB-PRESSES. LYMAN G. CRUM, Jamestown, N. D. Filed Sept. 15, 1917. Serial No. 191,611. (Cl. 101—408.)

1. A paper gripping device for printing press beds, comprising a base, members slidably mounted on the base and extending at right angles thereto, the members being adjustable toward or from each other, fingers carried by the base and by said members, said fingers on the base being adjustable longitudinally thereaiong and the fingers on said members being adjustable along said members in a direction at right angles to the direction of adjustment of the fingers on the base, all of said fingers being mounted for movement into or out of a parallel relation to the part upon which the fingers are mounted and means holding the fingers in adjusted position.

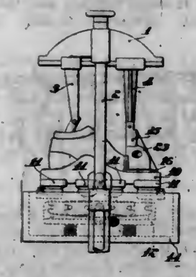
6. A device of the character described comprising a longitudinally slotted supporting bar formed upon its upper face with a longitudinally extending groove, grippers disposed upon the face of the bar and having tongues engaging in the groove, bolts passing through said grippers and through the slot of the bar whereby the grippers may be adjusted along the bar, gripping fingers slidably mounted upon the bar and pivotally supported



for movement into or out of a position at right angles to the bar, and gripping fingers slidably mounted upon the grippers and pivotally supported for movement into or out of position at right angles to the grippers.

[Claims 2 to 5 not printed in the Gazette.]

1,251,869. SOLE-PRESSING MACHINE. HERMAN A. DAVENPORT, Brockton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 24, 1916. Serial No. 93,171. (Cl. 12—33.)



1. A sole laying machine comprising a shoe supporting jack, a flexible pressing pad, means for yieldingly supporting the pad arranged to equalize the pressure exerted by all portions of the pad, and a pressure regulating member carried by the jack and engaging with the pad adjacent to a portion of the shoe sole to relieve the pressure exerted by the pad upon that portion of the sole.

[Claims 2 to 5 not printed in the Gazette.]

1,251,870. GARBAGE-CAN. GOTTFRIED DENZER, Glendale, N. Y. Filed Mar. 16, 1917. Serial No. 155,173. (Cl. 220—47.)

1. The combination with a garbage can, and a cover suited thereto, of a cylindrical shell adapted to be secured upon the upper surface of the can, said shell having a semi-circumferential slot, a bracket extending outwardly from said shell, a circular plate hinged to said bracket operable in the mentioned slot, an operating means for said plate, and a scraper arranged within said shell adapted to contact with the upper surface of said plate when operated.

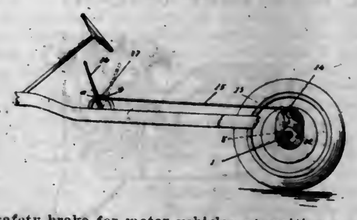
4. The combination with a garbage can and a cover therefor, of a cylindrical shell suited to be received between said can and said cover, said shell having a semi-circumferential slot in the side wall thereof, a plate hinged off the center of said can adapted to operate in and out of said slot, means for actuating said plate, a bar fixed diametrically across said shell, the lower side of said bar being adapted to engage with the surface of said plate, a semi-circular rigid scraper secured within said shell adapted to engage the upper surface of said plate, and a pliable scraper contained in the space between the walls of said rigid scraper and said shell adapted to



close the slot when said plate is extended outwardly, and to press closely upon its surface when said plate is moved in the mentioned slot.

[Claims 2 and 3 not printed in the Gazette.]

1,251,871. AUTOMATIC SAFETY-BRAKE. FRED J. DE SOTO, Valley Springs, Cal., assignor of one-third to Conrad Frederick Kaiser and one-third to William H. Morris, Valley Springs, Cal. Filed June 25, 1917. Serial No. 176,681. (Cl. 21—8.)



A safety brake for motor vehicles comprising a ratchet wheel fixed to the rear axle of the vehicle, a dog mounted for engagement with the ratchet wheel to prevent backward movement thereof, and means for normally holding the dog out of engagement with said ratchet wheel, such means including a turnable pin projecting through the dog, a square shoulder on the pin adjacent the dog, a collar mounted on the square shoulder whereby it will move with the pin, a finger member on the collar extending underneath the dog, and means for turning the pin to cause the finger member to engage the under side of the dog and lift it out of engagement with the ratchet wheel.

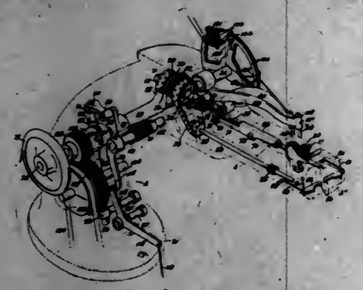
1,251,872. SEWING-MACHINE. ALBERT H. DE VOE, Westfield, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed July 22, 1914. Serial No. 852,845. (Cl. 112—24.)

1. A sewing machine frame composed exclusively of an upright member or standard, a lateral or intermediate member connected therewith and extending outwardly therefrom, and a work-supporting arm depending from said intermediate member and disposed transversely to both of the other members with a clear space above the plane of the base of the standard, said work supporting arm being extended away from said standard.

3. A sewing machine frame comprising a standard and a lateral work-supporting member sustained thereby and constructed with two reciprocally movable sections.

5. A sewing machine constructed with a frame comprising a standard and a lateral work-supporting member sustained thereby and constructed with a laterally movable section, a loop-taker sustained by and bodily movable

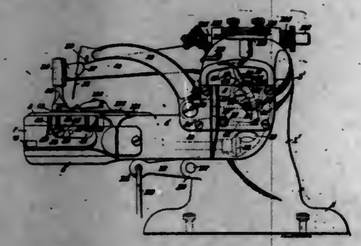
with said section, and a reciprocating needle coöperating with said loop-taker.



11. A sewing machine constructed with a frame comprising a standard and an arm including a laterally extending work-supporting member arranged out of alinement with the standard and a rigid connecting member between said standard and work supporting member from which the latter depends, in combination with stitch-forming mechanism sustained wholly by said arm.

[Claims 2, 4, 6 to 10, and 12 to 41 not printed in the Gazette.]

1,251,873. SEWING-MACHINE. ALBERT H. DE VOE, Westfield, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Nov. 25, 1914. Serial No. 873,872. (Cl. 112—24.)



1. A sewing machine constructed with a frame comprising a standard, an intermediate member extending laterally therefrom and spaced above the base thereof, and a lateral work-supporting member sustained by said intermediate member and disposed transversely to and laterally offset from said standard with the lower side and the ends thereof exposed and unobstructed for free movement of tubular articles to, along and from the same, said member sustaining a loop-taker in its end portion farthest from the standard and being contracted in girth between such portion and the opposite end, and feeding mechanism incorporated in said frame and adapted to feed the work off the free end of said arm.

11. A sewing machine constructed with a frame comprising a standard, an intermediate member extending laterally therefrom and spaced above the base thereof, and a work supporting member sustained by the intermediate member and offset from and extending in a direction transverse to said standard, a presser foot opposed to the face of the work-supporting member in the portion thereof farthest from the intermediate member, and a support for said presser-foot movably mounted on the intermediate member and extending therefrom at an inclination to and spaced above the work-supporting member.

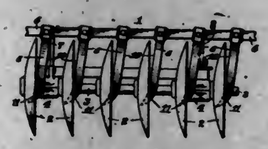
15. In a sewing machine, the combination with a shaft provided with an actuating element, of a reciprocating needle, a loop-taker coöperating therewith, feeding mechanism including a feed-dog, means including a common element engaging said actuating element and connected with said needle and with said feeding mechanism for imparting to the needle its reciprocating movements and to the feed-dog its work-advancing and rising-and-falling movements, and a connection between said shaft and the loop-taker for imparting operative movements to the latter.

17. In a sewing machine, the combination with a rotary shaft and an actuating eccentric mounted thereon, of a reciprocating needle, a loop-taker coöperating therewith, a feed-dog, a sleeve embracing said eccentric, a connection between said sleeve and said needle and said feed-dog for imparting to the needle its reciprocating movements and to the feed-dog rising-and-falling movements, an independent connection between said sleeve and feed-dog for imparting to the latter work-advancing movements, and loop-taker actuating means.

20. In a sewing machine, the combination with a shaft provided at its extremity with an eccentric, of a reciprocating needle, a loop-taker coöperating therewith, feeding mechanism including a feed-dog, a take-up arm, operative connections with said eccentric for imparting reciprocatory movements to the needle, work-advancing and rising-and-falling movements to the feed-dog, and vibratory movements to the take-up arm, and a connection between said shaft and the loop-taker for imparting to the latter operative movements.

[Claims 2 to 10, 12 to 14, 16, 18, 19, and 21 to 24 not printed in the Gazette.]

1,251,874. DISK-SCRAPER. HARRY S. DICKINSON, Moline, Ill., assignor to Moline Plow Company, a Corporation of Illinois. Original application filed June 5, 1915, Serial No. 32,266. Divided and this application filed Nov. 15, 1915. Serial No. 61,465. (Cl. 97—79.)

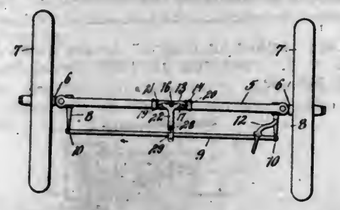


In combination with a disk having a concave face, a scraper blade therefor fixed at its upper end relatively to the disk and disposed generally edgewise relatively to the disk, the said blade extending from its upper end obliquely toward the face of the disk and curving rearwardly and downwardly from its upper end for some distance coincident with the curved edge of the disk and intersecting said edge at a point in rear of the disk's axis, and then curving forwardly and downwardly, terminates at its lower end adjacent the face of the disk in rear of and below the axis of the same with its inner edge at the lower end arranged closely adjacent the face of the disk to act with a scraping function, the portion of the blade within the disk's area being inclined from its inner edge outwardly and forwardly so that its outer edge will be in advance of its inner edge, and so that it will present to the adhering soil carried upwardly and rearwardly by the disk, a forwardly and outwardly inclined deflecting surface.

1,251,875. STEERING-GEAR ATTACHMENT. JOHN E. DILGER, Yankton, S. D. Filed Mar. 1, 1915. Serial No. 11,309. (Cl. 21—200.)

1. A steering gear attachment, comprising a body portion adapted to be secured to the axle of a vehicle, a pair of independently movable arms extending longitudinally of the body portion with their inner ends arranged near each other and pivotally connected with the body portion, an operating arm extending transversely of the body portion and having one end arranged near the inner ends of said arms and pivotally connected with the body portion and carrying lateral extensions engaging said arms, yielding elements opposing the movement of said arms in one direction, and means pivotally connecting the free end of the operating arm with a connecting rod or drag link.

2. A steering gear attachment, comprising a body portion adapted to be secured to the axle of a vehicle, a pair of independently movable arms extending longitudinally of the body portion with their inner ends arranged adjacent each other, an operating arm having one end arranged ad-



jacent the inner ends of said arms and provided with lateral extensions engaging said arms, a common pivot element connecting all of the arms with the body portion, and means pivotally connecting the operating arm with a connecting rod or drag link.

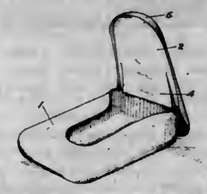
1,251,876. FAN. ALBERT J. DUGAN, Crowley, La. Filed Feb. 9, 1916. Serial No. 77,289. (Cl. 185—37.)



1. In a device of the character described an arbor, a drum fixedly mounted on said arbor, a plate rotatably mounted on said arbor, a spring having one end connected to the drum and its other end connected to the plate, tongues formed on said drum, an arm for engagement with said tongues, and a rotatable element operable by the plate.

2. In a device of the character described an arbor and manual means for rotating the same, a drum fixed on said arbor to rotate therewith, an outwardly projecting flange on the peripheral surface of said drum, a circular series of equally spaced teeth on said flange, said teeth being formed by pressing outwardly from said flange tongues punched from the material forming the same, a head for said drum rotatably mounted on said arbor and carrying driving means, a coiled spring connected at one end to the drum and at the other end to said plate, and a spring arm fixed at one end and engageable at its other end with said teeth to prevent backward rotation of the drum.

1,251,877. BED-PAN. NELLIE M. ERICKSON, Portland, Oreg. Filed Oct. 4, 1915. Serial No. 53,964. (Cl. 4—19.)



1. A bed pan of the character shown and described comprising a pan, a guard, a hinge connection attaching said guard to said pan, and a combination support and overhanging deflector upon the face of said guard adapted to hook over the upper edge of said pan, whereby to hold the same in an upright operative position.

[Claims 2 to 4 not printed in the Gazette.]

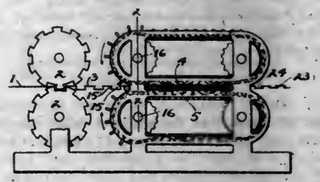
1,251,878. MEANS FOR PREPARING FOOD PRODUCTS. ALPHEUS FAY, Louisville, Ky. Filed July 25, 1917. Serial No. 182,676. (Cl. 259—113.)



1. In a device of the character described, in combination with a comparatively tall and narrow container with an opening in its top, an element constituting a combined dasher and disintegrator lying across the interior of said container, a stem fixed to said element substantially centrally thereof and extending through said opening in said top of said container for reciprocating said element up and down in said container, and flat triangular sharp teeth extending from said element substantially parallel with said stem throughout the length of each of said teeth.

2. In a device of the character described, in combination with a comparatively tall and narrow container with an opening in its top, an element constituting a combined dasher and disintegrator lying across the interior of said container, a stem fixed to said element substantially centrally thereof and extending through said opening in said top of said container for reciprocating said element up and down in said container, and flat triangular sharp teeth turned out from the interior of said element between the attachment of said stem thereto and the periphery of said element, leaving triangular openings in said element adjacent to the respective teeth, for the purpose set forth.

1,251,879. MACHINE FOR MAKING LATH-BOARD. SILAS M. FORD, St. Paul, Minn. Filed May 11, 1917. Serial No. 168,056. (Cl. 154—30.)



1. In a machine for making lath board, a gathering chain having fixed slats carried thereon, and slidable slats mounted on said fixed slats.

4. In gathering means for making lath board, the combination of a pair of sprocket wheels, a chain carried by said sprocket wheels, fixed slats mounted on said chain, slidable slats mounted on said fixed slats, and cams for controlling the sliding motion of said slidable slats.

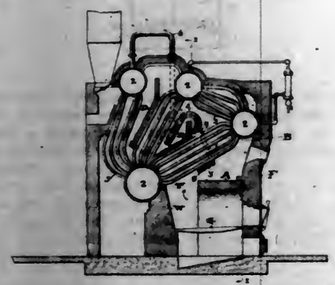
6. In a machine for making lath board, a pair of frame members, a pair of shafts journaled in said frame members, a sprocket wheel on each of said shafts, a sprocket chain carried by said sprocket wheels, a series of fixed slats carried by said chain, movable slats mounted on said fixed slats and having a lug extending

from one end of each of said movable slats, and a cam carried by one of said frame members for controlling the position of said movable slats.

7. In a machine for making lath board, a gathering chain comprising in combination a frame member, a flexible chain having fixed slats thereon, slidable slats mounted on said fixed slats, cams on said frame member for controlling the motion of said slidable slats, one of said cam members being so timed as to quickly extend the slats in synchronism with the corrugations of suitable material fed to said gathering chain.

[Claims 2, 3, and 5 not printed in the Gazette.]

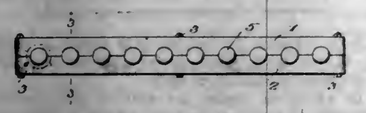
1,251,880. COMBINED FURNACE AND BOILER AND STEAM-SUPERHEATER. CHAUNCEY B. FORWARD, Urbana, Ohio. Filed June 13, 1917. Serial No. 174,456. (Cl. 122—478.)



1. A furnace having an inclosing wall and a steam boiler therein having a plurality of banks of steam circulating tubes and baffles between the same successively, in combination with steam superheating units consisting each of coils of pipe having pipe connection and one of said coils located behind the front bank of boiler tubes and relatively over the first of said baffles and the other coil in the throat of the furnace across the front of said first bank of tubes.

2. A furnace having an inclosing wall and a steam boiler therein comprising a series of banks of steam circulating tubes and baffle walls between the same, in combination with a primary and a secondary superheating unit consisting each of coils of pipe having pipe connection and the said primary unit disposed between the first and the second banks of tubes and over the top of the baffle intervening said tubes and with a portion at either side thereof, and the secondary coil disposed across the front of the first bank of tubes at the inner end of the wall over the fire grate and relatively at the point of greatest heat.

1,251,881. SKID. WILLIS N. GOODWIN, McKenna, Wash., assignor of one-half to Valentine H. May, Seattle, Wash. Filed May 26, 1917. Serial No. 171,216. (Cl. 57—18.)

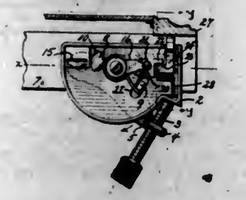


1. A skid comprising a pair of mating body members provided in their inner opposed faces with recesses forming bearings, freely movable weight-supporting devices mounted in said bearings and projecting above the body members from between the opposed meeting faces thereof, and means for securing the body members together about said bearings.

3. A skid comprising a pair of body members provided with recesses in their opposed inner faces, one of said body members having cavities below said recesses, cups upon the other body member adapted to project into said cavities, means for establishing communication between adjacent cups, freely movable weight-supporting devices fitted in the recesses and extending into said cups, and means for securing the body members together.

[Claim 2 not printed in the Gazette.]

1,251,882. BURGLAR-ALARM. ALBERT HAGEL, Jr., Newark, N. J. Filed July 19, 1915. Serial No. 40,573. (Cl. 116—42.)

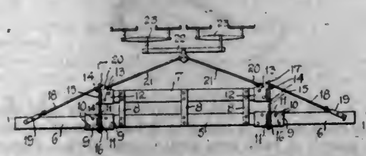


1. A burglar alarm comprising a stationary base, provided with a headed stud and a pair of integral lugs on its upper surface, a chambered casing, provided with an integral cap chamber and a curved slot, pivotally mounted on said base and being adjustably positioned by said headed stud, lugs and curved slot, a spring-actuated hammer pivotally secured within said casing, provided with an engaging projection at its free end, a pivoted lever, provided with a segmental end, located within said casing and projecting therefrom, the opposite end thereof operatively connected with the engaging projection on said hammer, whereby movement of said segmental end will release said spring-actuated hammer.

5. A burglar alarm comprising a stationary base, provided on its upper surface with a headed stud, an integral lug located approximately opposite said headed stud, and a further integral screw-threaded lug located on that end of the base formed by the converging sides thereof, a chambered casing provided with an integral cap chamber, and further provided with an aperture and a curved slot formed in the base thereof, pivotally mounted on said base and being positioned by said headed stud, the casing being adapted to swing in the arc of a circle by means of said lug and curved slot, said chambered casing being further provided with an adjusting face, an adjusting screw passing through said screw-threaded lug of the base and engaging said adjusting face, a spring-actuated hammer pivotally secured within said casing, provided with an engaging projection at its free end, the free bottom end of the spring being held in position by means of the first-mentioned lug formed on the base, a pivoted lever, provided with a segmental end, located in said casing and projecting therefrom, the opposite end thereof being operatively connected with the engaging projection on said hammer, whereby movement of said segmental end will release said spring-actuated hammer.

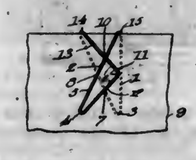
[Claims 2 to 4 not printed in the Gazette.]

1,251,883. FOLDING DRAW-BAR FOR HARROWS. CHARLEY M. HAIR, Grundy Center, Iowa. Filed Mar. 21, 1917. Serial No. 156,358. (Cl. 55—84.)



The herein described draw bar for harrows including intermediate and end sections, hinge rods connecting said sections for relative folding movement, a front bar disposed in spaced relation to the intermediate draw bar section and rigidly connected thereto, bearings secured to the ends of said front bar, said hinge rods being mounted in said bearings, rigid brace rods connected to the end sections of the draw bar at one of their ends and loosely connected at their other ends to the forward ends of said hinge rods, and draft attachments connected to said front bar.

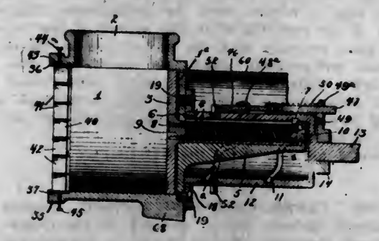
1,251,884. PAPER-CLIP. FRANK V. HANN, Carlstadt, N. J. Filed Jan. 16, 1914. Serial No. 812,541. (Cl. 24—261.)



1. A paper clip comprising a longitudinal body member, crossed diverging gripping jaws connected with the opposite ends of said longitudinal body member and with one another between their crossed portions and adjacent the central portion of said longitudinal body member, the connected portions of said jaws and said longitudinal body member also forming gripping jaws, whereby a pair of gripping jaws is formed at each of the opposite ends of said clip, the connected portions of the first mentioned jaws serving to clamp and buckle the clip upon the sheets with which it is engaged when either end of the clip is forced over said sheets.

2. A clip comprising a body member, an independent pair of gripping jaws located at either end of said body member, each end of said body member forming a part of one of said jaws, the remaining jaws of said pairs having arms extended toward said body member and connected to coöperate with said body member and the main arms of said remaining jaws to cause a buckling action of said clip upon the paper sheets with which it is engaged, said clip being constructed for engagement of either end thereof with the paper sheets without previous bending or adjusting of the clip.

1,251,885. FOOD-CUTTER. FREDERICK HANUSCH, Grasstree, Queensland, Australia. Filed June 27, 1917. Serial No. 177,356. (Cl. 146—7.)



1. In food cutters, a receiving casing, a head mounted in the casing and movable axially of the same, a sleeve rotatably mounted on the casing, connections between the sleeve and head for imparting intermittent forward movement to said head when the sleeve is rotated, oppositely movable cutting blades slidably mounted on the front of the casing for reciprocation transversely of the same, and means for reciprocating said blades after each forward movement of the head when said sleeve is rotated.

3. In food cutters, a receiving casing, a head mounted in the casing and movable axially of the same, means for imparting intermittent forward movement to said head, oppositely movable cutting blades slidably mounted at the front of the casing for movement across the same, means for reciprocating said blades after each forward movement of the head, and means for returning the head to its initial position when said head has been moved into its most forward position.

5. In food cutters, a receiving casing, a head mounted in the casing and movable axially of the same, a sleeve rotatably mounted on the casing and provided in its inner face with a continuous helical groove, said head being provided with a neck extending into the sleeve and having an integral lug fitting into the groove, said groove having a straight portion so disposed as to permit return of the head to its innermost position when said head has been moved into its most forward position, oppositely movable cutting blades mounted at each side of the front of the casing for movement transversely of the same, means for reciprocating said blades when the sleeve is rotated, and means for returning the head to its initial position.

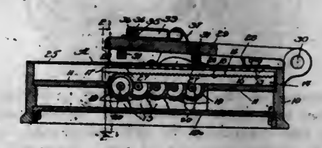
[Claims 2, 4, and 6 to 9 not printed in the Gazette.]

1,251,886. COLT-WEANER. MAY HAWKINS, Tar Kiln, Ark. Filed May 25, 1916. Serial No. 99,861. (Cl. 119—146.)



A colt weaner, comprising a substantially rectangular flat strip of flexible material having one end formed with a V-shaped cut away portion, straps integrally formed on the terminals of the cut away portion, a band connected to the opposite end of the strip, the straps being connected to said band, a second band, and a strap connecting the second band with the first, whereby the strip may be tightly bound on the body of the animal and secured thereto against movement.

1,251,887. COUPON-TICKET-PRINTING MACHINE. MORRIS J. HOFFMAN, Chicago, Ill. Filed July 2, 1917. Serial No. 178,107. (Cl. 101—90.)



1. In a printing machine of the character described, lengthwise movable type bars having type characters thereon, said type bars being arranged in groups, a support for said type bars, and means for moving the type bars occupying corresponding locations in the several groups, whereby said corresponding type bars of the several groups may be simultaneously moved to bring the type characters thereon into printing position.

2. In a printing machine, lengthwise movable type bars having type characters thereon, and provided with tooth racks, said type bars being arranged in groups, a support for said type bars, setting shafts corresponding in number to the number of type bars in a group, and pinions fixedly secured to said shafts, the pinions on each shaft meshing with the tooth racks of the type bars occupying corresponding locations in the several groups, whereby said corresponding type bars of the several groups may be moved lengthwise by turning the shaft, to thereby bring the corresponding type characters thereof into printing position.

11. In a coupon ticket printing machine, independently movable type bars having type characters thereon, and provided with rack teeth, said type bars being arranged in groups, a support for said type bars, and independently operable setting means for correspondingly located type bars of each group, having pinions meshing with the racks of said correspondingly located type bars.

[Claims 3 to 10 not printed in the Gazette.]

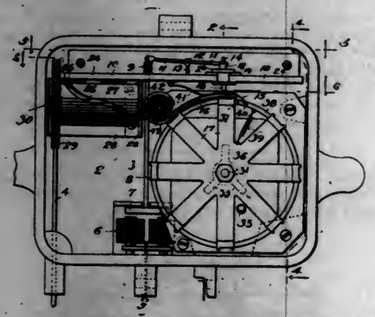
1,251,888. CERAMIC MOLDABLE COMPOSITION. WALTER MAX WILHELM HÖRN, Teplitz, Austria. Filed June 9, 1913. Serial No. 772,572. (Cl. 106—10.)

1. An argillaceous composition, containing a relative high proportion of alumina, and capable, when moistened, molded and baked of producing a finely porous, strong article, said mixture comprising finely powdered burnt clay and lean clay, in a state of intimate admixture.

2. An argillaceous composition, containing a relative high proportion of alumina, and capable, when moistened, molded and bake of producing a finely porous, strong article, said mixture comprising substantially equal parts of finely powdered burnt clay and lean clay, in a state of intimate admixture.

3. An argillaceous composition, containing a relative high proportion of alumina, and capable, when moistened, molded and baked of producing a finely porous, strong article, said mixture comprising finely powdered burnt fire clay and lean clay, in a state of intimate admixture, said materials being low in quartz, lime, magnesia and alkalis.

1,251,889. RECORDING-REGISTER. JUNIUS ALLEN HOWE, New York, N. Y., assignor to Junius Jack Howe, New York, N. Y. Filed Feb. 24, 1917. Serial No. 150,639. (Cl. 234—32.)



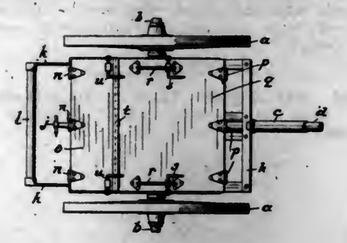
In a device of the class described, a driving shaft, a worm on said shaft, a worm-gear meshing with said worm, a cam connected to said worm-gear, a pintle adapted to engage said cam, a plate connected to said pintle, guides for said plate, a diagonally disposed groove in said plate, guides and a pintle holder in said guides, whereby the movement of the slide makes a transverse movement of the pencil guide.

1,251,890. LIMBER. HERMAN JAKOBSSON, Philadelphia, Pa. Filed Feb. 28, 1917. Serial No. 151,409. (Cl. 89—40.)

1. An ammunition carrier comprising a limber, a chest mounted thereon and turnable relatively thereto, a cover hinged to the forward end of said chest, and means independent of said chest to maintain said cover in open position to form a shield when the chest is turned toward a vertical position.

3. An ammunition carrier comprising a limber, a chest mounted thereon and turnable from a horizontal toward a vertical position, covers hinged to the ends of said chest and adapted to be opened to extend beyond the ends thereof and form shields.

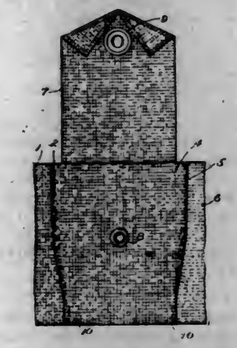
5. An ammunition carrier comprising a limber, a chest mounted thereon and turnable from a horizontal toward a vertical position, covers hinged to the ends of said chest and adapted to be opened to extend beyond the ends



thereof and form shields, a pole, a latch on said pole, said latch retaining one of said covers in upright position when open.

[Claims 2 and 4 not printed in the Gazette.]

1,251,891. WOVEN CARRIER. VICTOR H. JENNINGS, Worcester, Mass., assignor to Universal Patents Company, Woonsocket, R. I., a Corporation of Rhode Island. Filed Apr. 23, 1917. Serial No. 163,797. (Cl. 224—23.)



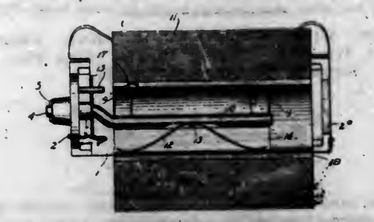
2. The improved woven pocketed carrier having a pocket that is formed with the pocket-front integrally joined to the pocket-back at the bottom of the pocket, and united laterally with the pocket-back by means of side-wall web-portions which, as woven, are free at their lower ends, with the said lower ends tucked inwardly between the pocket-front and pocket-back and secured in place by stitches passing through the pocket-front, tucks, and pocket-back.

[Claim 1 not printed in the Gazette.]

1,251,892. PAPER-DISPENSING DEVICE. GEORGE T. JOHNSON, Melrose, Mass., assignor to The George T. Johnson Company, Boston, Mass., a Corporation of Massachusetts. Filed Feb. 3, 1917. Serial No. 146,403. (Cl. 211—31.)

1. A dispensing fixture having a gravitating oscillatory holder for a wound mass or roll and constructed to provide for a supplementary spring-resisted radial movement of the said holder in response to the pull upon the free end of the strip of wound material, when the holder reaches the limit of its delivery turning movement, and for a reversely-radial spring-reaction of the holder when the strip parts, adapted to loosen and separate the outer end of the said strip.

2. A dispensing fixture having a gravitating oscillatory roll-holder comprising a receiver for the roll and a mounting for said receiver, said receiver and mounting adapted to have in unison a turning movement of limited extent, and said receiver having in addition capacity for independent spring-resisted radial movement relative to the mounting.



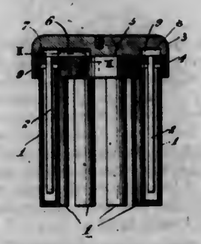
3. A dispensing fixture having a gravitating oscillatory roll-holder comprising a receiver for the wound material to be dispensed, a crank-shaft-mounting for said receiver turning in unison with the receiver and relative to which the receiver is adapted to move radially, said roll-holder having its center of gravity eccentrically-disposed with reference to the journals of the crank-shaft, and a spring which resists radial movement of the receiver in one direction and reacts to produce reverse radial movement thereof.

1,251,893. SCISSORS ATTACHMENT. FRED H. L. JUHL, Stuttgart, Ark. Filed June 28, 1915. Serial No. 36,740. (Cl. 30—13.)



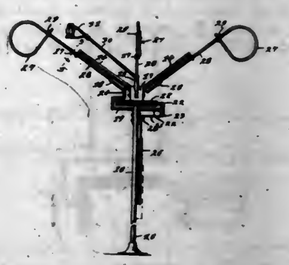
The combination with a pair of scissors having an elongated pivot bolt and a recess in the outer face of one blade adjacent to and elongated in line with its bolt-opening; of a bow spring whose arch is mounted on said bolt beneath its head, one end of the spring bearing on said blade and having an upbent lip, and the other end also bearing on the blade and having a projection engaging and shorter than said recess, and upbent beyond the projection and continued into a penetrating prong offset from the face of the blade and standing substantially parallel with its length, for the purpose set forth.

1,251,894. CONDENSER. JOHN C. KITTON, Chicago, Ill. Filed Sept. 11, 1916. Serial No. 119,344. (Cl. 257—254.)



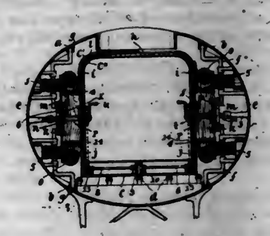
A device of the type described, comprising superposed distributing disk-like head sections, the lower head section having a central inlet opening, inner and outer conduits carried by the lower section with the outer conduits inclosing the inner conduits and having lower communicating ends, said conduits being disposed circumferentially of the axis of said distributing head sections so that a compressor may be placed within said device and connected to the central inlet openings of the distributing heads, the upper section having recesses in communication with the upper ends of the inner conduits, and both sections having ports establishing communication between the upper ends of the outer conduits and the recesses of the upper section.

1,251,895. TRAIN-ORDER-DELIVERING DEVICE. GOTTFRED A. KLEFSAAS, Sanborn, N. D. Filed Aug. 20, 1915. Serial No. 46,550. (Cl. 258—2.)



A train-order delivering device comprising a support, a member rotatably mounted on the support, radial arms carried by the member, a stop immovable with respect to the member, a socket-member carried by each arm, said socket-members being pivoted to the arms for movement with respect to the arms into and out of position for engagement with the stop, order-carrying elements detachably connected with the arms and removably engaged in the sockets in a way to hold the sockets against movement out of position to engage the stop, said socket-members being free to move out of support position when the order-carrying elements are disengaged therefrom, and means for rotating the rotatable member to bring the socket-members successively into engagement with the stop.

1,251,896. SAFETY APPLIANCE FOR AEROPLANES. GUSTAVE KROGEL, Paterson, N. J. Filed Sept. 7, 1917. Serial No. 190,156. (Cl. 244—21.)



1. In combination, the fuselage of an aerial machine, a car to receive the occupant arranged therein and ejectable therefrom, a parachute attached to the car, and means, controllable by the occupant, to eject the car from the fuselage laterally thereof.

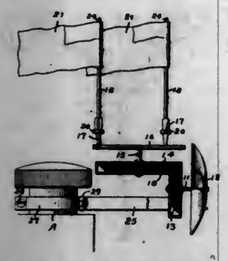
5. In combination, the hollow fuselage of an aerial machine having a delivery opening, a car to receive the occupants arranged in the fuselage and ejectable therefrom through said opening, elastic means normally pressing the car toward the opening, means, including a releasable closure for the opening, normally obstructing ejecting movement of said car, a parachute unfoldably packed between said car and a wall of the fuselage opposite said opening, and releasable means, operative from within the car, to maintain the parachute folded until the car clears the fuselage.

6. A parachute including, in combination, a flexible parachute cover, and a frame attached to the cover and consisting of radial spring ribs each normally adapted to

extend but capable of being rolled toward its inner end into a helix and a center member to which said arms are affixed and from which they radiate.

[Claims 2 to 4 not printed in the Gazette.]

1,251,897. REVOLVING FLAG-HOLDER. EMERY LESLIE LAWLOR, Youngstown, Ohio. Filed July 18, 1917. Serial No. 181,368. (Cl. 46—14.)

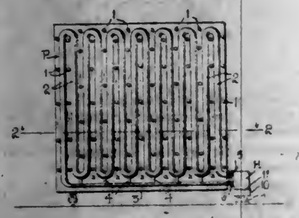


1. In a flag holder, the combination of a frame, means for securing the frame to a support, a table mounted to turn in substantially a horizontal plane on the frame, sockets carried by the table to receive flag staffs therein, a spindle projecting from the frame and having connection with the table to turn the same, and a wind wheel mounted on the spindle to rotate the latter.

2. In a flag holder, the combination of a frame, means for securing the frame to a support, a table mounted to turn on the frame, a wind wheel carried by the frame and having connection with the table to turn the latter, flag staffs rising from the table, sleeves rotatable on the flag staffs, and flag bodies secured to said sleeves.

3. In a flag holder, the combination of a frame, a bracket arm projecting rearwardly from the frame, a pair of clamping jaws carried upon the bracket arm adapted to engage the neck of a radiator, a spindle projecting from the frame, a wind wheel mounted on the forward end of the spindle, a pinion fixed upon the inner end of the spindle, a gear wheel mounted in the frame meshing with the pinion, a shaft extending upwardly from the gear wheel, a table mounted on the upper end of the shaft, and a plurality of flag holders mounted on the table.

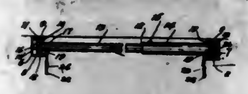
1,251,898. RADIATOR. HIRAM D. LAYMAN, Portage, Pa., assignor of one-half to Florence P. Layman, Portage, Pa. Filed Sept. 16, 1916. Serial No. 120,513. (Cl. 257—162.)



1. In combination with a steam radiator and a stationary steam supply pipe, a head mounted for turning movement relative to the steam supply pipe and operatively engaged with the radiator, said head affording communication between the radiator and the supply pipe, and a return leading from the radiator and extending through the head and within the supply pipe.

2. In combination with a steam radiator and a stationary steam supply pipe, a head mounted for turning movement relative to the steam supply pipe and operatively engaged with the radiator, said head affording communication between the radiator and the supply pipe, a return leading from the radiator and extending within the head, and a check valve interposed in the portion of the return within the head.

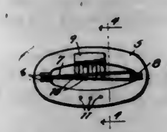
1,251,899. WINDOW-BLIND ATTACHMENT. ARTHUR LEVIN, Winnipeg, Manitoba, Canada. Filed Mar. 1, 1917. Serial No. 151,780. (Cl. 156—27.)



1. The combination with a window frame, upright opposing channel-iron guides secured to the frame and a vertically disposed rack associated with one of the flanges of each guide, of a cross member extending between the guides and presenting end spindles reduced in diameter in respect to the body of the cross member, thereby forming shoulders, a pinion permanently secured to each spindle and operating on the adjacent rack and a traveler mounted freely on each spindle between the pinion and the shoulder and with the sides thereof making sliding contact with the flanges of the guides and fitted with outstanding horizontally disposed blind holders.

2. The combination with a window frame, upright opposing channel iron guides secured to the frame and a vertically disposed rack associated with one of the flanges of each guide, of a tube extending between the guides, end spindles permanently secured within the ends of the tubes and extending between the flanges of the guides, a pinion permanently secured to each spindle and operating on the adjacent rack and a traveler mounted freely on each spindle between the pinion and the end of the tube and slidably received between the flanges of the guides and provided with a substantially L-shaped horizontally disposed extension forming a blind holder and with the neck of the extension riding the inner face of the adjoining guide flange.

1,251,900. HAIR-BINDER. MALLE LITTLE, (now by marriage Malle Little Russell,) Cleveland, Ohio. Filed Apr. 26, 1916. Serial No. 93,684. (Cl. 132—22.).



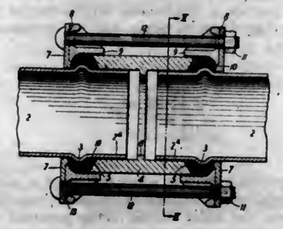
A barrette of the character described, comprising a longitudinally curved body portion, a pair of posts secured to the rear side of the body portion near one end thereof and connected by a transverse pin, a hook secured to the rear side of the body portion near the opposite end thereof and having its hooked end facing outwardly, an elastic band passed about the transverse pin and adapted to be passed over the hook, and a comb-like structure secured to the rear side of the body portion near the longitudinal edge thereof and having teeth projecting inwardly in proximity to the elastic band.

1,251,901. PIPE-JOINT. JOHN A. MCCULLOCH, McKeesport, Pa., assignor to National Tube Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Feb. 26, 1913. Serial No. 750,856. (Cl. 137—28.)

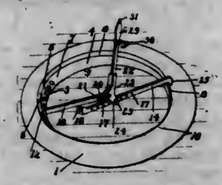
1. In a pipe joint, the combination of a sleeve, pipes having integral beads adjacent to the ends thereof with said ends telescoping within the sleeve, flanges having tubular projections telescoping over the ends of said sleeve, said pipe ends, flanges, and sleeve coacting to form packing recesses at the ends of the sleeve, a compressible packing covering the annular bead within each recess, and bolts connecting said flanges, said bolts being arranged to cause a relative approach of said flanges and thereby compress the packing material around the beads and form a tight joint between the connected pipe ends and sleeve.

2. In a pipe joint, the combination of a sleeve, pipes having integral beads adjacent to the ends thereof with said ends telescoping within the sleeve, transversely divided sectional flanges having tubular projections telescoping over the ends of said sleeve, said pipe ends, flanges, and sleeves coacting to form packing recesses at the ends of the sleeve, a compressible packing covering the annular bead within each recess, and bolts connecting said flanges, said bolts being arranged to cause a relative approach of said flanges and compress the packing material around the beads and thereby form a tight joint between the connected pipe ends and sleeve.

3. In a pipe joint, the combination of a sleeve, pipes having integral beads adjacent to the ends thereof with said ends telescoping within the sleeve, means on the interior of said sleeve extending between the abutting ends of said pipes to limit lengthwise movement of the sleeve on said pipe ends, flanges having tubular projections telescoping over the ends of said sleeve, said pipe ends, flanges, and sleeve coacting to form packing recesses at the ends of the sleeve, a compressible packing covering the annular bead within each recess, and bolts connecting said flanges, said bolts being arranged to cause a relative approach of said flanges and thereby compress the packing material around the beads and thereby form a tight joint between the connected pipe ends and sleeve.



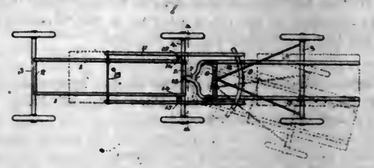
1,251,902. DEMOUNTABLE-SPLIT-RIM TOOL. JOHN J. MCLANE, Boston, Mass. Filed Dec. 1, 1915. Serial No. 64,554. (Cl. 157—1.)



1. A rim tool, consisting of an operating lever, having a forked end provided with opposite intermediate and opposite end bearings in the fork of said lever; a long arm terminating in a downwardly disposed hook at the extreme outer end thereof, provided with a series of intermediate adjusting and fulcruming holes and a forked guide-member at the extreme inner end thereof having the fork projecting upwardly and opposed to said hook; a short arm terminating in a hook at the extreme outer end thereof projecting upwardly and opposed to the aforesaid hook of said long arm and provided with an elongated hole near the extreme inner end thereof for affording the tool the adjustable feature for operating the tool on a given size of rim either as a contracting tool or as an expanding tool; a coupling-stud rigidly secured within said opposite intermediate bearings of said operating lever and adapted to slidably and pivotally engage said short arm with said operating lever; and a detachable coupling and fulcruming member detachably secured in said opposite end bearings of said lever and adapted to detachably couple said long arm with said operating lever, substantially as shown.

[Claim 2 not printed in the Gazette.]

1,251,903. SELF-PROPELLED VEHICLE. WILLIAM HORACE MACKAY, Andover, Me., assignor to William A. Arnold and William H. Fletcher, Paterson, N. J. Filed July 27, 1914. Serial No. 853,397. (Cl. 21—137.)



1. A road vehicle comprising front, intermediate and rear axles, a main frame supported thereby and including front and rear portions having a universal pivotal connection there-between adapted to permit upward, downward, lateral and twisting movements of one portion relative to the other and a superframe supported by said portions of the main frame in front of and behind said pivotal connection and between the axles.

2. A road vehicle comprising front, intermediate and rear axles, a main frame supported thereby and including front and rear portions having a universal pivotal connection adjacent to and midway between the ends of the intermediate axle and a superframe supported in part by the front portion of the main frame at a point between the front and intermediate axles and in part by the rear portion of the main frame at a point between the intermediate and rear axles.

4. A road vehicle comprising front, intermediate and rear axles, a main frame including a front portion supported by the front and intermediate axles and a trailer portion supported by the rear axle and having a universal-joint connection with said front portion, a superframe supported in part by the front portion and in part by the trailer portion of the main frame and movable laterally with relation to the latter, and guides for maintaining the superframe in longitudinal alinement with the front portion of the main frame and permitting relative upward and downward movements thereof.

5. A road vehicle comprising a main frame having front and rear portions connected by a universal joint, in combination with a superframe pivoted to one portion of the main frame and having a sliding support on the other portion of the main frame.

6. A road vehicle comprising a main frame including a front portion and a trailer portion pivotally connected thereto and adapted to travel in or out of the path thereof, a superframe trunnioned on the front portion of the main frame, a support carried by the trailer portion and having a sidewise sliding connection with the superframe, and guides carried by the front portion of the main frame and having a sliding connection with the superframe in an upward and downward direction.

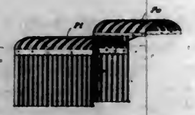
[Claim 3 not printed in the Gazette.]

1,251,904. CANOPY. JOHN J. MAMAUX, Pittsburgh, Pa. Filed Aug. 23, 1916. Serial No. 116,461. (Cl. 135—9.)

1. In combination with the vertical rods of one end of a canopy passage inclosure of the class described, an extension canopy comprising a rear arch section including two part supports detachably connected to the tops of said rods, hinges connecting the parts together, a front arch section adjustably connected to the rear arch section and a covering for both sections.

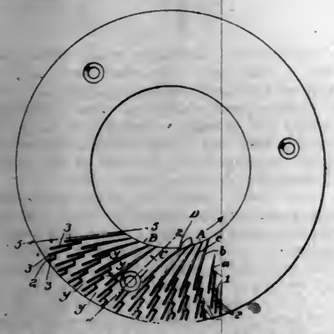
2. In combination with the vertical rods of a canopy passage inclosure of the class described, an extension canopy comprising a rear arch section including two part sup-

ports detachably connected to the tops of said rods, hinges connecting the parts together in alinement, tubes extending horizontally from certain of said parts and a front



arch section having portions slidable in said tubes, thumb screws mounted in the tubes adapted to bind against said portions and a covering for the sections.

1,251,905. GRINDING DISK OR BUR. MYRON R. MARTIN, St. Louis Park, Minn. Filed May 18, 1916. Serial No. 98,374. (Cl. 83—3.)



1. A grinding disk having main ribs inclined from their inner ends backwardly in relation to the direction of rotation and serrated on their front edges, said ribs having branches in rear of the serrated main portion, which branches extend from the points where the serrations occur and lie substantially parallel with the main part of the rib, thereby forming grooves, said grooves being opened at their outer ends which are directed backwardly in relation to the direction of rotation, substantially as described.

2. A grinding disk having main ribs inclining backwardly in relation to the direction of rotation and provided with a stepped formation forming serrations or shoulders on their front edges with branches in rear of the main portions extending from the points where the steps begin, said branches being coincident with parts of the main rib and parallel with adjacent parts of the main rib and also parallel with adjacent branches, said main ribs and branches forming grooves with their open ends directed backwardly in relation to the rotative movement of the disk, substantially as described.

3. A grinding disk having main ribs inclining backwardly in relation to the direction of rotation and provided with a stepped formation forming serrations or shoulders on their front edges with branches in rear of the main portions extending from the points where the steps begin, said branches being coincident with parts of the main rib and parallel with adjacent parts of the main rib and also parallel with adjacent branches, said main ribs and branches forming grooves with their open ends directed backwardly in relation to the rotative movement of the disk, said branches terminating at different distances from the center of the disk, substantially as described.

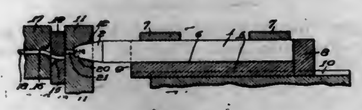
1,251,906. PISTON PACKING-RING. MATHEW MORATTA, Princeton, Ind. Filed Jan. 15, 1917. Serial No. 142,508. (Cl. 121—108.)

1. In a piston ring, the combination of a pair of interfitting annular split sections in circumferentially overlapping relation, the outer section being provided with a reduced inner portion, and the inner section being provided with opposed spring flanges adapted for engagement with the inner portion of said outer section for interlocking the sections together.

3. In a piston ring, the combination of a pair of interfitting annular split sections in circumferentially overlapping relation, the inner section being provided at its opposite edges with substantially S-shaped portions providing a pair of inner flanges adapted for engagement with the opposite sides of the outer section and with a pair of outer flanges adapted to bear against the walls of the [illegible] groove of a piston.

4. In a piston ring, the combination of a pair of interfitting annular split sections in circumferentially overlapping relation, the outer section being provided with a tongue upon its inner side, and the inner section being provided with a pair of outwardly extending flanges for engagement against the opposite sides of the tongue for interlocking the sections together and for yieldable engagement against the opposite walls of the ring groove in a piston.

1,251,907. METHOD OF MAKING STYLI, &c. WILLIAM W. MOYER, Camden, N. J., assignor to Victor Talking Machine Company, a Corporation of New Jersey. Filed Dec. 11, 1915. Serial No. 66,260. (Cl. 29—148.)



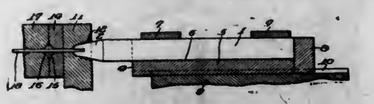
2. The method of joining a tip to a shank to make a sound reproducing stylus which consists in providing a shank of malleable metal with a tapered end, providing a recess in said tapered end, inserting and holding the tip forming material in said recess, and swaging the end of the malleable shank by endwise and lateral pressure to permanently secure the tip to said shank by closing the recess in the shank around the tip.

4. The method of joining a metal tip to a shank to make a sound reproducing stylus which consists in providing the end of a rod of malleable metal with a recess, inserting and holding a length of wire in said recess, swaging the end of the malleable metal by endwise and lateral pressure to close said recess around said wire, cutting off the wire at a short distance from the point where it protrudes from the end of the malleable rod and beveling the free end of said wire tip.

6. The method of joining a tip to a shank to make a sound reproducing stylus which consists in transversely slotting the free end of the rod of malleable metal to form an open kerf, inserting and holding a length of wire of substantially the same diameter as the width of said kerf into said kerf with the end of the wire seated against the bottom of said kerf and with the axis of the wire in substantially co-axial alinement with the axis of said malleable metal, confining the kerfed end of said rod against lateral movement, and delivering an endwise blow to said metal while thus confined to thereby swage the kerfed end of the rod around the wire to tightly unite the tip to the shank.

[Claims 1, 3, 5, and 7 not printed in the Gazette.]

1,251,908. STYLUS FOR SOUND-REPRODUCING MACHINES. WILLIAM W. MOYER, Camden, N. J., assignor to Victor Talking Machine Company, a Corporation of New Jersey. Filed Jan. 15, 1916. Serial No. 72,210. (Cl. 274—38.)

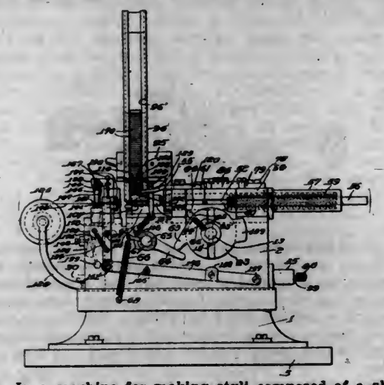


1. A stylus for sound reproducing machines comprising a tungsten wire tip and a shank of malleable metal swaged over and around said tip.

4. A stylus for sound reproducing machines comprising a shank of malleable metal and an insert of tungsten wire projecting from the end of said shank, the metal of said shank surrounding said insert being forced into permanent frictional holding engagement with said insert.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,251,909. MACHINE FOR MAKING STYLI. WILLIAM W. MOYER, Camden, N. J., assignor to Victor Talking Machine Company, a Corporation of New Jersey. Filed Apr. 28, 1916. Serial No. 94,105. (Cl. 29—1.)



1. In a machine for making styli composed of a shank and a tip, the combination of a die, means for supporting and holding the shank forming material, means for holding the tip forming material, means for causing a relative movement between the respective holding means in the direction of the length of said shank material and in a line with the center of the die to bring said tip forming and shank forming material into endwise engagement, and means to deliver a swaging blow to join the tip and shank when the materials are in said engaging position.

6. In a machine for making styli for sound reproducing machines, the combination of a carrier, means for feeding a stylus shank to said carrier, a hollow die having an opening through the bottom thereof, means for moving said carrier to bring said shank into alined engagement with the interior of said die, said shank having a recess in the end thereof, means to insert a length of wire through said opening in said die into said recess in said shank, and means to impart a blow to said shank to force the material of the end of the said shank into tight holding engagement with said wire.

7. In a machine for making styli for sound reproducing machines, the combination of a carrier, means for feeding a stylus shank to said carrier, a hollow die having an opening through the bottom thereof, means for moving said carrier to bring said shank into alined engagement with the interior of said die, said shank having a recess in the end thereof, means to insert a length of wire through said opening in said die into said recess in said shank, means to impart a blow to said shank to force the material of the end of the said shank into tight holding engagement with said wire, and means to sever said wire at a short distance from the end of said shank.

10. In a machine for making styli for sound reproducing machines, the combination of a stylus carrier, having a groove therein, means to feed a stylus shank into said groove, said groove being of a shape to fit and conform to the shape of one-half of said stylus and of a depth equal to the thickness of said stylus, means to hold said stylus in said groove, a die in alinement with said stylus in said groove and provided with an opening in the bottom thereof, means to move said die to bring the end of said stylus into engagement with the interior of said die, means to feed a fine tungsten wire through the opening in said die and into a recess in the adjacent end of said stylus, and means to strike a swaging blow against said carrier and stylus carried thereby to force the end of said stylus within said die into tight holding relation with respect to said tungsten wire.

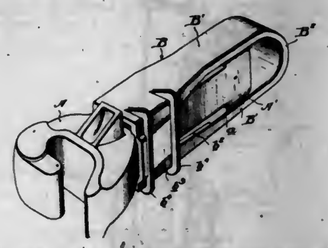
[Claims 2 to 5, 8, 9, and 11 to 14 not printed in the Gazette.]

1,251,910. INDICATOR FOR MAGAZINES. CHARLES W. MURPHY, Logansport, Ind. Filed Oct. 29, 1915. Serial No. 58,665. (Cl. 42—49.)



The combination in a gun having a magazine with an opening therein, of a hollow follower having one end closed and its other end open and being slidable in said magazine, and a compression spring having one end extended into the open end of said follower and seated against said closed end and being effective for moving said follower with relation to said opening each time a load is expelled from the magazine, so that different parts of the follower appear through said opening for indicating the number of loads in said magazine.

1,251,911. DRAFT-GEAR FOR RAILROAD-CARS. JOHN O. NEIKIRK, Lombard, Ill. Filed Apr. 9, 1917. Serial No. 160,706. (Cl. 213—42.)



1. A draft gear comprising a yoke and a coupler, integral parts upon the yoke and coupler adapted for interlocking engagement upon longitudinal movement of the coupler in the yoke, a member connecting the forward ends of the yoke members at one side, a mass of metal on the outside face of said connecting member and overlying a yoke member, all of said parts being an integral casting.

2. A draft gear comprising a yoke and a coupler, integral parts upon the yoke and coupler adapted for interlocking engagement upon longitudinal movement of the coupler in the yoke, a plate integral with the forward ends of the yoke members connecting the yoke members on one side of the yoke and strengthening ribs each rib being integral with said plate and both yoke members.

1,251,912. REMOVABLE DENTURE. NILS W. NORDSTROM, Brooklyn, N. Y. Filed Nov. 18, 1916. Serial No. 132,094. (Cl. 32—12.)



1. A dental attachment including a member applicable to the alveolar ridge in a vertical direction, a guide anchored to an adjacent tooth opposite one end of said member, means on the latter for engaging said guide, and a fulcrumed binding element adapted to bear positively on the guide so as to hold the member away from said tooth.

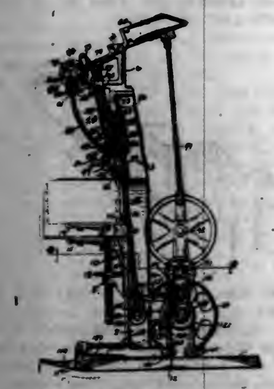
2. A dental attachment including a member capable of self-adjustment upon the alveolar ridge, a guide post adjoining one end of said member, means for rigidly holding said post from an adjacent tooth, a pair of jaws at said end of the member engaging opposite sides of said post, and a binding element arranged to bear positively on the latter oppositely to said jaws from the same end of the member.

3. A dental attachment including a member overlying the alveolar ridge, means for anchoring said member to an adjacent tooth, a positively actuated binding element operating to press the member oppositely to said means, and a brace extending past said tooth from the anchored end of the member in a direction opposite to said bind element.

4. A dental attachment including a member adapted to overlie the alveolar ridge and having a recess above the latter, means for holding said member to an adjacent tooth, a laterally open box in said recess, and a locking lever pivotally mounted in said box in position for engagement with said anchoring means in a longitudinal direction.

[Claim 5 not printed in the Gazette.]

1,251,913. TWO-TABLE NAILING-MACHINE. ELMER C. NORTHRUP, San Francisco, Cal., assignor, by mesne assignments, to Savings Union Bank and Trust Company, San Francisco, Cal., a Corporation of California. Filed May 28, 1915. Serial No. 30,984. (Cl. 1—10.)



1. A box nailing machine comprising a frame, two adjustable tables carried thereby, sets of chucks for the tables, the set of chucks for each table being alined at the back of the tables, chutes leading to said chucks, means to feed nails into said chutes, a cam to deliver two series of nails in one set of said chucks over one table and then to deliver a series of nails for a set of chucks over the second table, and means to drive the nails after they have been fed to the chucks.

[Claims 2 to 6 not printed in the Gazette.]

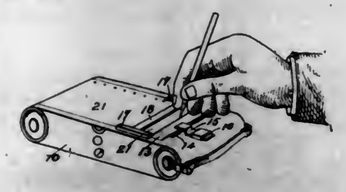
1,251,914. MEANS FOR STIFFENING BOX-TOES. JOSEPH H. ORDWAY, Brookline, Mass. Filed Jan. 26, 1917. Serial No. 144,659. (Cl. 36—77.)



1. As an article of manufacture, a box toe stiffener in the form of a sheet having a size and shape appropriate for insertion into an unlasted shoe upper and comprising a layer of woven wire embedded in a self-hardening stiffening compound which is adapted to be softened to enable the upper to conform to the last.

[Claims 2 to 5 not printed in the Gazette.]

1,251,915. AUTOGRAPHIC CAMERA. PERCY C. OSTEEN, Anderson, S. C. Filed Feb. 5, 1915. Serial No. 6,819. (Cl. 95—1.1.)



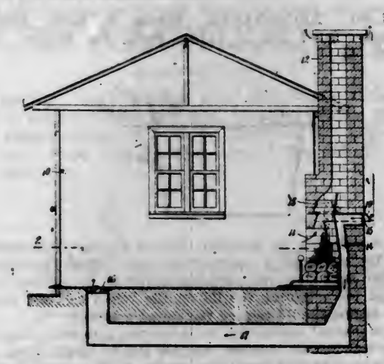
1. In an autographic camera, a body having an opening and in the back thereof, a closure for said opening, and a plate slidably secured to said body and arranged laterally of said opening, a pair of guides secured to the camera back, and a writing sheet including a transparent body and an opaque coating thereon slidably engaged between said guides and movable under said closure and into said opening.

4. In an autographic camera, a body having an opening in the back thereof, a film movably disposed in said body, a backing strip interposed between said film and the back of said body and having a plurality of transverse openings adapted to be successively moved into registration with the opening in the camera back, a closure for said opening, a plate slidably secured to said body and movable against said closure, a writing sheet slidably secured to the exterior surface of the camera back and including a transparent body sheet, and an opaque coating on the writing surface thereof, said writing sheet being movable under said closure and plate and into the opening in the camera back.

[Claims 2 and 3 not printed in the Gazette.].

1,251,916. FIREPLACE HEATING SYSTEM. JOSEPH PARSONS, Lakeville, Conn. Filed Aug. 17, 1916. Serial No. 115,371. (Cl. 126—131.)

1. Heating apparatus for a room, comprising a fireplace open to the room and provided with a flue forming an outlet from the room, an air heating chamber disposed in heat receiving relation to the fireplace, said air heating chamber having a fresh air inlet outside the room and provided with an outlet for heated air opening into the room at a lower leved than the fireplace and at a point remote from the fireplace to thereby deliver fresh air heated by the fireplace to a point within the room removed from the fireplace, from which point such heated fresh air will traverse the room back to the fireplace and escape through the flue thereof, thereby creating throughout the room a circulation of fresh air heated from the fireplace.



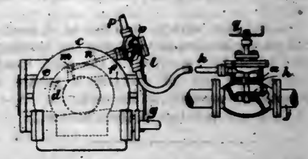
2. Heating apparatus for a room, comprising a fireplace open to the room and provided with a flue forming an outlet from the room, an air heating chamber disposed in heat receiving relation to the fireplace, said air heating chamber having a fresh air inlet outside the room and provided with an outlet for heated air opening into the room at a lower level than the fireplace and at a point remote from the fireplace to thereby deliver fresh air heated by the fireplace to a point within the room removed from the fireplace, from which point such heated air will traverse the room back to the fireplace and escape through the flue thereof, thereby creating throughout the room a circulation of fresh air heated from the fireplace, and means controlling the heated air delivered by said air heating chamber to the before mentioned lower remote portion of the room.

3. Heating apparatus for a room, comprising a fireplace opening into the room and provided with an outlet flue, an air heating chamber at the back of said fireplace having a fresh air inlet and a passage extending downwardly therefrom across the back of the fireplace, said air heating chamber having an outlet conduit in communication with said downwardly extending passage and opening into the lower portion of the room at a point remot from the fireplace.

4. Heating apparatus comprising the combination of a room with an open fireplace, and a heating back for the fireplace, said back having an upwardly extending flue and a downwardly extending flue communicating therewith and having a fresh air inlet leading to the lower end of the upwardly extending flue, and a conduit for the heated air leading from the lower end of said downwardly extending flue and discharging heated air into the lower part of the room at a point remote from the fireplace whence said heated air circulates through the room and augments the draft through the fireplace.

1,251,917. REFUSE-EJECTOR FOR SHIPS. WILLIAM STEEL PARSONS, Grove Park, England, assignor to J. Stone & Company Limited, Deptford, England. Filed July 30, 1915. Serial No. 42,853. (Cl. 114—186.)

1. Means for controlling the sequence of operations in apparatus for hydraulic discharge of refuse from ships, comprising a passage for refuse and water, a positively operated main valve for the passage, water supply means for moving refuse toward said valve, a fluid pressure transmission device connecting said valve with the control of said water supply means and normally resisting movement of said control in advance of the movement of said valve, and means operable by said valve in completing its opening movement for controlling said fluid pressure, whereby the movement of the said control may take place in succession to that of the said valve, substantially as set forth.



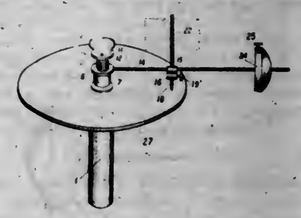
4. In an apparatus for hydraulically discharging refuse from ships, the combination with a discharge casing, a manually operated discharge valve, a flushing device, and a controlling valve for the flushing device, of means for controlling the sequence of operations of said valve and said flushing device, comprising a fluid pressure device between said valves normally resisting the operation of said controlling valve, and means operated during the operation of said discharge valve and at the completion of the opening thereof to influence the fluid pressure device, whereby at the desired moment the operation of the flushing control valve may take place, substantially as set forth.

5. Means for insuring the correct sequence of operations in an apparatus for discharging refuse from ships, comprising a manually operated discharge valve, water supply means, hydraulically operated means controlling said water supply means, fluid pressure control means, means on the discharge valve to operate the fluid pressure control means at the conclusion of the opening of the discharge valve, and a fluid pressure connection between the fluid pressure control means and said hydraulically operated means, substantially as set forth.

6. Means for insuring the correct sequence of operations in an apparatus for hydraulically discharging ashes and refuse from ships, comprising a manually operated discharge valve, a flushing valve, a fluid pressure piston connected with said flushing valve, and a leakage passage from one side of said piston to the other, a striking device connected with said discharge valve, a sliding rod in the path of said striking device, fluid pressure control means connected with said rod, and a pipe connecting the last named means with the cylinder of said piston on the one hand and with an exhaust on the other hand, substantially as described.

[Claims 2 and 3 not printed in the Gazette.]

1,251,918. SOUND-PRODUCING DEVICE. HARRY H. PRATLEY, Kansas City, Mo. Filed Jan. 10, 1916. Serial No. 71,212. (Cl. 274—9.)



1. The combination with a disk holder, of a needle carrying device rotatably mounted relative to the disk holder, and yielding means for retaining the said device in functional position.

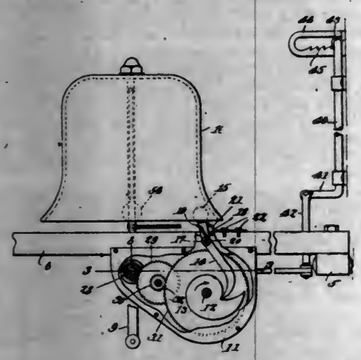
9. The combination with a handle, having a screw threaded socket, of a post having a threaded shank adapted

for seating in said socket, a protuberance on said post adapted for binding a disk against the handle, a collar loosely mounted on the post and seated on said protuberance, a member on the outer end of the post, a spring surrounding the post and bearing against said member and against the collar, a rod on said collar, a sleeve slidably mounted on the rod and adapted for carrying a needle, and a shoe on said sleeve adapted for wiping engagement with the disk when the device is in operation.

10. The combination with a handle, of a post removably mounted on the handle and adapted for binding a disk thereto, a rod pivotally mounted on the post, means slidably mounted on the rod for carrying a needle, and an amplifier adjustably mounted on the rod.

[Claims 2 to 8 not printed in the Gazette.]

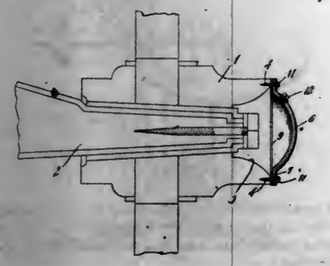
1,251,919. ALARM-BELL. PHILIP G. PRIESTER, Catonsville, Md. Filed Jan. 23, 1917. Serial No. 143,894. (Cl. 116—40.)



1. The combination with the engine shaft of a motor vehicle, and a starting shaft therefor; of a hollow shaft loosely and slidably mounted on the starting shaft, cooperating clutch members on the hollow shaft and the engine shaft, clutch controlling means, an alarm mechanism, and means actuated by the hollow shaft for operating said mechanism.

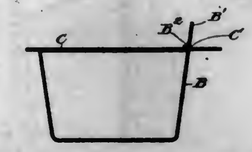
2. The combination with the engine shaft of a motor vehicle and a starting shaft therefor; of a hollow shaft supported by the starting shaft and rotatable independently thereof, means for coupling the hollow shaft and the engine shaft together, an alarm mechanism, and means actuated by the hollow shaft for operating said mechanism.

1,251,920. HUB ATTACHMENT. LEO H. REICHENBERGER, Mount Hope, Kans. Filed Feb. 12, 1916. Serial No. 78,040. (Cl. 64—26.)



The combination with a vehicle wheel hub of a cap for closing the end thereof to form an oil receptacle, said cap having a horizontal outwardly projecting flange at the open end provided with a plurality of spaced holes therein, of a plurality of studs each having a wood engaging screw formed on one end for holding the stud in the end of the hub and projecting a short distance therefrom to engage the holes in the flange of said cap, a metal engaging screw threaded on the projecting outer end of each of said studs, a nut screwed on each of said projecting ends, for holding the cap on the hub, and a packing ring between the end of the hub and said flange.

1,251,921. RECEPTACLE. HOMER B. RICH, Allston, Mass. Filed Apr. 5, 1916. Serial No. 88,979. (Cl. 229—44.)

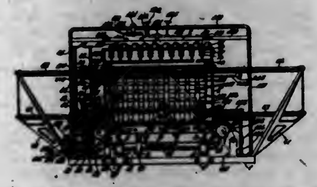


1. A vessel, a lid therefor, the lid having a transverse slot therein, and a member on said vessel projecting through said slot, and yielding means at the pivotal connection for retaining the lid on the vessel and for yieldingly urging the lid toward the closed position.

5. A pivotal connection between two members comprising a slot in one member, and an elastic means disposed on one of said members in operative relation to the other of said members so as yieldingly to urge the members toward each other.

[Claims 2 to 4 and 6 to 8 not printed in the Gazette.]

1,251,922. MACHINE FOR WRITING MUSICAL CHARACTERS AND INDICATIONS. JOSÉ SANAHUJA RIVERA, Habana, Cuba. Filed Dec. 6, 1916. Serial No. 135,437. (Cl. 197—8.)



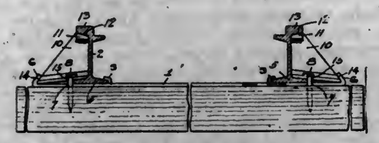
3. In a machine for writing musical characters, in combination with a platform, a type carriage movable in transverse direction, keys arranged in transverse and longitudinal series thereon, arms connected with said keys, double face type blocks journaled in said arms, means for imparting a slight turn to each block prior to reaching the printing position, a paper carriage movable in longitudinal direction, a graduated bar extending transversely with respect to the paper carriage, staff drawing means adjustable on said graduated bar, spacing means for the paper carriage, means for setting the type blocks with respect to the printing zone of the paper carriage, means for subsequently adjusting the types of each longitudinal series with respect to the printing zone, and a second graduated bar parallel to the first named bar and slidably carrying said setting and adjusting means, the divisions of both graduated bars corresponding and registering with each other.

5. In a machine for writing musical characters, in combination with a platform, a paper carriage movable thereon, a key carriage movable in direction perpendicular to the direction of movement of said paper carriage, keys arranged on said key carriage to form transverse and longitudinal series, means for setting the longitudinal series in proper relation with respect to the printing zone on the paper carriage, said means comprising a graduated bar, a

frame supporting said graduated bar, a movable frame carried by said bar, a plurality of longitudinal series of keys arranged on said movable frame, a plurality of spaced longitudinal shafts, arms connecting said keys with said shafts, springs surrounding said shafts and maintaining the keys in elevated position, said arms having downwardly extending lugs provided with V-shaped grooves of varying width, a plurality of diagonal bars having a beveled upper edge arranged on said key carriage and adapted to be received within the V-shaped grooves of said arms, and an indicator bar arranged between the series of keys of the movable frame with respect to which the longitudinal series of said key carriage are adjusted.

[Claims 1, 2, 4, and 6 to 17 not printed in the Gazette.]

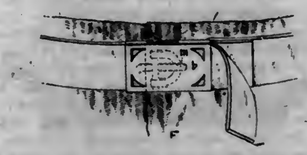
1,251,923. RAIL-BRACE AND TIE-PLATE. BERNARD J. SAMMON, Penn township, Allegheny county, Pa., assignor of one-half to Fritz Uhlenhaut, Jr., Pittsburgh, Pa. Filed July 1, 1914. Serial No. 848,441. (Cl. 238—5.)



1. A combined rail and tie plate having a rail seat, stop shoulders on either side of said seat, the outer stop shoulder being flush with the rail base and having a supporting face extending laterally therefrom, a stop shoulder at the outer extremity of said supporting face and a combined rail clamp and brace adapted to be seated on said supporting face and against the stop shoulder thereof and adapted to extend over the rail base flange, and means for securing said combined clamp and brace in clamping position upon the rail and to secure said rail clamp and brace and said tie plate with the rail clamp thereby to the tie.

2. A rail and tie plate having rail base receiving seats at opposite ends thereof, stop shoulders at opposite sides of said seats respectively, the outer extremities of said tie plate having inclined bearing faces adapted to extend flush with the inclined upper faces of the rail flanges, stop shoulders at the outer extremities of said inclined faces respectively, and combined rail clamping and bracing members adapted to be supported upon said inclined faces and upon the rail flanges respectively, to clamp the rails and the tie plate and tie and to give lateral support at the outer sides of the webs of the rails to hold the rails against outward tipping and to prevent spreading of the rails.

1,251,924. BELT ATTACHMENT. JOHN SAMUEL, Montreal, Quebec, Canada, assignor to Henri Beaudry, Montreal, Quebec, Canada. Filed Dec. 14, 1914. Serial No. 877,142. (Cl. 24—73.)

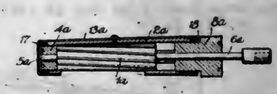


1. A belt buckle comprising means for fastening the same to one end of a belt and means adjustably fastening the opposite end of the belt thereto, and the said buckle having as a component part a plate-like member with a hook for the purpose described within the boundaries of the member and formed by a tongue-like piece of the plate partially separated therefrom and offset relatively thereto.

4. A garment supporting tongueless sheet-metal belt buckle consisting of a unitary member of box-like form oblong in longitudinal section and adapted to have one end of the belt fastened thereto and the opposite end passed longitudinally therethrough, the sides of the buckle having slots each presenting an edge oblique to the rear side of the buckle, the said rear side extending parallel to the length of the belt, a transverse belt gripper carried loosely within the slots, and the back of the said box-like member being of plate-like form with a hook adapted to engage a fastening of the garment and consisting of a tongue-like piece partially separated therefrom and offset relatively to the back of the buckle.

[Claims 2 and 3 not printed in the Gazette.]

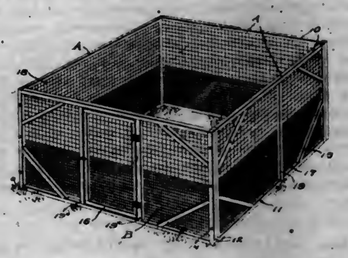
1,251,925. HAIR-CUTTING TOOL. ARTHUR C. SCHEITHE, Chicago, Ill. Filed Mar. 2, 1914. Serial No. 821,869. (Cl. 30—1.)



1. In a shearing tool, the combination of a tapered cutter, a housing for said cutter, bearings in the ends of said housing for rotatably supporting said cutter, and means for holding the bearings in desired positions longitudinally in said housing to determine the relation of the cutter relatively to the housing, said housing having a slot therethrough for receiving the hair to be cut.

[Claim 2 not printed in the Gazette.]

1,251,926. PORTABLE FENCE. ALEXANDER H. SCHLESINGER, New York, N. Y. Filed May 26, 1915. Serial No. 30,567. (Cl. 256—24.)



A poultry run consisting of a series of rectangular frames each covered with a fine and coarse wire mesh, each of the frames being bolted at its ends to adjacent frames to form a rectangular structure, the arrangement being such that added units may be included to increase the size of the run, and each of the frames having diagonally arranged corner braces identically positioned whereby the braces of one frame oppose those of the adjacent frames, the side and rear frames being provided with vertical braces disposed intermediate of the ends of the diagonal braces, whereby to stabilize the wire meshes throughout practically their entire area, the front frame being provided with two vertical braces forming a doorway and a door swingingly mounted therebetween, and all of the frames having their lower edges in the same plane and resting directly on the ground.

1,251,927. BUTTON. PHILIPP SCHNEIDER, St. Louis, Mo. Filed May 12, 1916. Serial No. 97,039. (Cl. 24—111.)

3. In a button a head comprising an annular flange having spaced ends, an element having segmental margins for positioning within said flange whereby the element may be rotatably and detachably secured within said flange, a tongue having its one end secured to said element and its other end free whereby when said element

is rotated the free end of the tongue may be either brought in a position permitting the insertion of a loop over the tongue or moved to a position with the free end



of the tongue held by said flange whereby to prevent the withdrawal of said loop.

[Claims 1 and 2 not printed in the Gazette.]

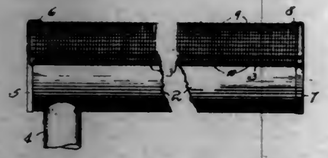
1,251,928. HORIZONTAL ROTATING SWING. FREDERICK SCHWARZ, Berne, Ind. Filed Aug. 24, 1916. Serial No. 116,688. (Cl. 46—27.)



1. A device of the character described including a support, a horizontally swinging beam mounted thereon, guide runners connected to the opposite extremities of the beam and each including spaced bars connected to the said beam, sprockets mounted between the said bars, a passenger seat carried by one extremity of the beam, a counterpoise adjustable upon the opposite extremity of the beam, and means trained over said sprockets and connected to the said counterpoise for adjusting the said counterpoise in opposite directions upon the beam.

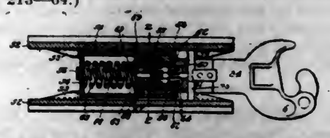
2. A device of the character described including a support, a horizontal swinging beam mounted thereon, a passenger seat carried by one extremity of the beam, a counterpoise for the said seat mounted upon the opposite extremity of the beam, and means operable from the seat for adjusting the said counterpoise toward or away from the seat.

1,251,929. EAVES-TROUGH PROTECTOR. EMILY A. SEACORD, Galesburg, Ill. Filed Aug. 8, 1916. Serial No. 113,767. (Cl. 108—30.)



An eaves trough including a gutter, a cylindrical longitudinal bead formed at each side edge thereof, the said gutter being substantially U-shaped in cross-section, closed end walls for the gutter, each having a portion extending upward and beyond the upper edge of the gutter and curved on a coincident radius, an upwardly curved wire screen positioned above said trough and having inturned side edges substantially frictionally engaging the beaded edges of the trough, the said screen being curved substantially coincident to the upper curved edges of the closed end walls, and a tab carried by the central portion of the edge of each end wall originally extending in the planes of the ends so that the screen may be applied to the gutter between the ends, but said tabs adapted to be bent inwardly to overlie the screen to prevent longitudinal movement thereof, the transverse movement of the screen being prevented by the inter-locking connection between the side beaded edges of the trough and the cover screen.

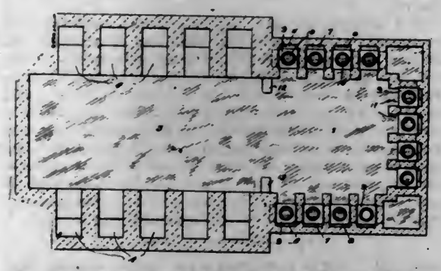
1,251,930. FRICTION DRAFT-GEAR. CLIFTON W. SHERMAN, Buffalo, N. Y. Original application filed Apr. 23, 1914, Serial No. 833,898. Divided and this application filed Aug. 13, 1917. Serial No. 185,887. (Cl. 213—64.)



1. A frictional draft gear comprising a member having a friction surface, a set of friction shoes in frictional engagement with said member, a wedge movable forwardly and rearwardly between the several shoes, longitudinally operating spring means which resist the rearward movement of said friction shoes and wedge, and transversely operating spring means which are flexed by the rearward movement of said wedge relatively to said shoes and cause the latter to be pressed transversely against said friction member, said wedge having an inclined rear part which engages a similar rear part on said shoes and an inclined front part which engages a similar front part on said shoes, the angle of wedging engagement of said rear parts being more acute than the angle of wedging engagement of said front parts.

[Claim 2 not printed in the Gazette.]

1,251,931. GLASS-TANK. HARRY G. SLINGLUFF, Mount Vernon, Ohio, assignor to Pittsburgh Plate Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Jan. 20, 1914. Serial No. 813,197. (Cl. 49—56.)

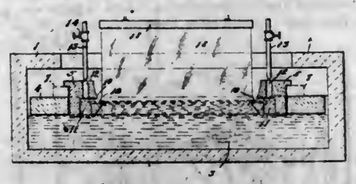


In combination, a glass melting tank, regenerator heating means at one end of the tank, a series of drawing tanks with open tops arranged along the sides of the other end of the tank and opening into the tank, and deflecting walls projecting inwardly into the tank from the opposite sides of the tank adjacent the drawing tanks nearest the said heating means and having their upper surfaces above the surface of the glass but spaced below the roof of the tank, whereby the glass flowing from the heated end of the tank is deflected away from openings into the said drawing tanks, said deflecting walls being relatively short as compared with the width of the tank, so that the major portion of the width of the tank at these walls is unobstructed.

1,251,932. GLASS-DRAWING APPARATUS. HARRY G. SLINGLUFF, Mount Vernon, Ohio, assignor to Pittsburgh Plate Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 16, 1916. Serial No. 97,797. (Cl. 49—17.)

1. In glass drawing apparatus employing a glass bath from which a sheet of glass is to be drawn, refractory

means at the edges of the glass provided with passages lying in the molten glass and extending laterally from the edges of the sheet and then downwardly and adapted to supply molten glass to the sheet at the edges thereof.



3. In glass drawing apparatus employing a glass bath from which a sheet of glass is to be drawn, refractory means at the edges of the sheet provided with projecting ledges lying beneath the edges of the sheet being drawn, and provided with passages whereby a flow of air may be directed against the edges of the sheet adjacent the surface of the glass bath.

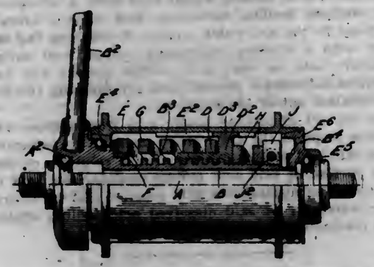
5. In glass drawing apparatus employing a glass bath from which a sheet of glass is to be drawn, refractory means at the edges of the sheet provided with grooved projecting ledges lying beneath the sheet being drawn, and means for applying a cooling medium to the edges of the glass adjacent the ledges.

8. In glass drawing apparatus employing a glass bath from which a sheet of glass is to be drawn, a refractory block in the glass having an elongated drawing opening, and separate blocks mounted at the ends of the opening and provided with drawing ledges adapted to lie beneath the edges of the glass sheet being drawn, the said separate blocks being adjustable vertically.

11. In glass drawing apparatus employing a glass bath from which a sheet of glass is to be drawn, refractory means at the edges of the sheet provided with lateral passages at the surface of the glass partially filled thereby and with downwardly extending passages communicating with the first passages and with the glass bath beneath, and means for applying air to the said passages to cause a flow of air through the lateral passages and against the edges of the glass sheet being drawn.

[Claims 2, 4, 6, 7, 9, and 10 not printed in the Gazette.]

1,251,933. DRIVING MECHANISM OF MOTOR-CYCLES AND THE LIKE. GEORGE ENOCH STANLEY, Coventry, England. Filed Nov. 28, 1916. Serial No. 133,876. (Cl. 74—13.)

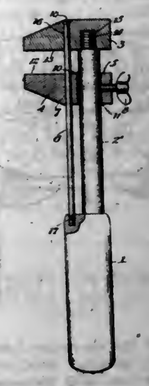


1. In the driving mechanism of a motor cycle, the combination of a driving sleeve, a hub shell driven therefrom, bearings therefor, a nut between said sleeve and said hub shell, the said nut having a thread connection with said sleeve, and a splined connection with said hub shell, a spring acting on said nut, and an abutment for said spring, substantially as set forth.

3. In the driving mechanism of a motor cycle, the combination of a driving sleeve, a hub shell driven therefrom, bearings therefor, a nut between said sleeve and said hub shell, the said nut having a thread connection with said sleeve, and a splined connection with said hub shell, an abutment on said driving sleeve, a spring between said abutment and said nut, a cushion spring behind said nut and an abutment for said cushion spring which is adjustable on said driving sleeve, substantially as set forth.

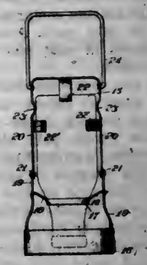
[Claim 2 not printed in the Gazette.]

1,251,934. WRENCH. WALLACE A. STEINMETZ, Thurston, Ohio. Filed Apr. 14, 1917. Serial No. 162,003. (Cl. 81—177.)



The herein described wrench structure comprising a handle, a shank projecting integrally therefrom and having its outer end reduced and threaded, and a fixed jaw having a socket in its inner face screwed onto the threaded end of the shank and an opening completely through its body parallel with the axis of said socket and countersunk in the outer face of said jaw; combined with a round lock rod passing through said opening and having a nicked head fitting said countersink, its body standing parallel with the shank, and its inner end being screwed into the handle, a traveling jaw having two openings respectively of the size and shape of the shank and the rod and mounted loosely thereon, and means for fastening the traveling jaw in adjusted position on said shank, for the purpose set forth.

1,251,935. WATER-FOUNTAIN AND FEED-HOPPER. HARRY A. STEVENS, Batavia, Ill. Filed Apr. 16, 1917. Serial No. 162,239. (Cl. 119—52.)

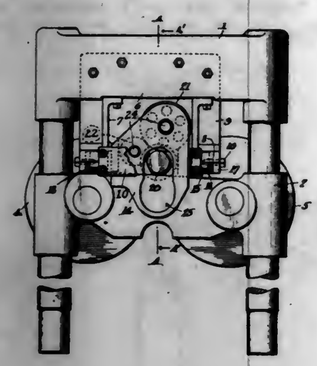


5. A device of the character described, comprising an inverted shouldered glass container, a pan, upright members secured to said pan, a collar supported on said upright members and embracing said container below the

shoulder thereon, a U-shaped member hingedly secured to said upright members, and a spring clip on said U-shaped member to prevent lateral displacement of said container.

[Claims 1 to 4 not printed in the Gazette.]

1,251,936. BEARING FOR BALING-PRESSES. JOHN A. TAFT, San Antonio, Tex., assignor to Reagan Bale Company, San Antonio, Tex., a Corporation of Texas. Filed Dec. 29, 1916. Serial No. 139,597. (Cl. 100—1.)



1. In a device of the character described, in combination, a main frame, pressure rollers supported by said main frame, a core bar, said pressure rollers and said core bar being relatively movable, a bearing for said core bar constructed to maintain said core bar in a position whereby the axis of said core bar is self adjustable at all times thereby substantially equalizing the baling energy between said pressure rolls, said bearing comprising a bearing frame pivotally mounted relative to said main frame, anti-friction rolls carried by said bearing frame, and thrust bearing mounted stationary relative to said main frame.

3. In a device of the class described, a main frame, a cross-head mounted for movement and adapted to be guided by said main frame, pressure rollers mounted within said cross-head, a bearing bracket carried by said main frame, a bearing frame provided with trunnions adapted to be seated in bearings in said bracket and to rotate relative thereto, anti-friction rollers mounted in said bearing frame, and a thrust bearing carried by said bracket.

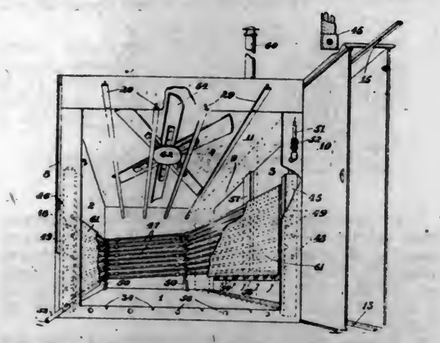
5. In a bearing for baling presses, in combination, a main frame, a cross-head mounted to reciprocate in a vertical direction relative to said main frame, pressure rollers carried by said cross-head, a core bar and a bearing for said core bar, said bearing comprising a bearing frame pivotally mounted on said main frame, and a pair of bearing rollers mounted in said pivoted bearing frame, substantially as described.

7. In a device of the character described, in combination, a main frame, pressure rollers carried by said main frame, a core bar, a bearing frame pivotally mounted relative to said main frame, said bearing frame being provided with trunnions, anti-friction rolls mounted in said bearing frame and adapted to support said core bar in such manner that the axis of said core bar and the axis of said trunnions lie in substantially the same plane and intersect at substantially right angles.

9. A device of the character described, comprising a relatively large bearing roller, a relatively small bearing roller, and a core bar adapted to be supported by said bearing rollers in such manner that the points of contact therewith lie on opposite sides of the line of pressure through said core bar and at unequal distances therefrom.

[Claims 2, 4, 6, and 8 not printed in the Gazette.]

1,251,937. DRYING-ROOM. JOSEPH HILAIRE THERIEN, San Francisco, Cal. Filed Nov. 8, 1907, Serial No. 401,842. Renewed Aug. 16, 1917. Serial No. 186,652. (Cl. 34—40.)



1. A drying-room having a space wherein moist articles may be exposed, a raised heater at one side thereof, means isolating said heater so as to lead the heat therefrom into said space above said articles, a fan operating to drive the heat and moisture downwardly past said isolating means, and a flue drawing from the underside of the heater.

2. A drying-room provided with heating means disposed at certain levels on two sides and at one end thereof, one or more open-sided racks for moist articles closed relatively to the heating means at said end of the room, a fan rotatable above said articles, and shields isolating the sides of said racks so as to prevent the moisture spreading directly from the articles to the side heating means.

3. In a drying structure, a main room adapted to contain moist articles, heating means on plural sides thereof, a compartment in communication with one of said sides, a rotary fan centrally located adjacent to the ceiling of the room above the space bordered by said heating means, in position to drive down the rising heat directly into said space and laterally into said compartment, and means serving to isolate the heating means from the lower part of the room so as first to lead up the heat therein under said fan.

[Claims 4 to 10 not printed in the Gazette.]

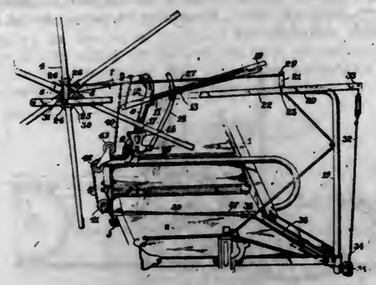
1,251,938. PROCESS FOR THE PRODUCTION OF OXALIC ACID. CARL THEODOR THORSSELL and HARALD LUDVIG REINHOLD LUNDÉN, Goitenborg, Sweden. Filed Aug. 13, 1915. Serial No. 45,411. (Cl. 23—24.)

1. In the art of making oxalic acid from a mixture of sodium oxalate, sodium carbonate, and sodium hydrate, those steps in the art which consist in treating the said mixture with a solution containing sodium acid sulfate and sulfurc acid, so that acid sodium oxalate and neutral sodium sulfate are formed, and crystallizing the acid sodium oxalate out of the solution.

2. In the art of making oxalic acid from sodium oxalate, those steps in the art which consist in transforming the said salt acid sodium oxalate held in solution, crystallizing a portion of said acid sodium oxalate from said solution, and then neutralizing said solution and transforming the remainder of said dissolved acid sodium oxalate into an insoluble salt of oxalic acid.

1,251,939. HARVESTER-REEL SUPPORT. ISAAC TROLLEY, Poughkeepsie, N. Y., assignor to Moline Plow Company, a Corporation of Illinois. Filed Aug. 25, 1916. Serial No. 116,763. (Cl. 56—22.)

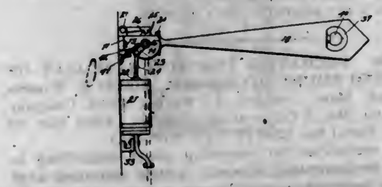
1. In a harvester, the combination of a frame, a harvester reel, an inner support for the reel adjustably sustained by the frame, an up and down movable member mounted in the frame for supporting the outer end of the reel, a horizontal supporting guide movably mounted on said member, a support for the outer end of the reel movable freely on said supporting guide, a parallel linkage operatively connected with said guide and with the frame for maintaining the horizontal position of the supporting guide in the up and down movements of said member, and operative connections between said member and said inner support.



2. In a harvester, the combination of a frame, a harvester reel provided with a reel shaft, an inner bearing in which the reel shaft is mounted, said bearing being adjustably sustained by the frame to move vertically and horizontally, an up and down movable lever pivoted to the frame for supporting the outer end of the reel shaft, a horizontal supporting guide pivoted to the lever on an axis parallel with the axis of the lever and provided with an upwardly extending arm, a slide movable freely on the supporting guide and provided with a bearing in which the outer end of the reel shaft is mounted, a link extending parallel with the lever and jointed at its ends respectively to said arm and frame, and operative connections between the lever and said inner support.

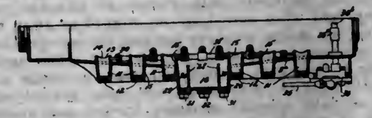
3. In a harvester, the combination of a frame, a reel provided with a reel shaft, an inner bearing in which the reel shaft is rotatably mounted, said bearing being mounted on the frame and being adjustable vertically and horizontally, an upwardly extending standard mounted on the frame and provided with an upright arm, an up and down movable lever pivoted between its ends on said standard, a horizontal supporting guide plate pivoted to the forward end of the lever on an axis parallel with the axis of the lever and provided with a vertical arm, a slide movable horizontally on said plate and having a bearing in which the outer end of the reel shaft is journaled, a link extending parallel with the lever and jointed at its ends respectively to said vertical arm and said upright arm on horizontal axes parallel with the axis of the lever, and flexible connections between the rear end of the lever and the said inner support.

1,251,940. AUTOMOBILE-SIGNAL. JAMES J. ULCH, Des Moines, Iowa. Filed July 13, 1916. Serial No. 109,016. (Cl. 177—329.)



In a signal device having an indicating arm adapted to be moved to operative position and to drop by gravity to inoperative position, a frame, a bracket mounted thereon, a block pivoted in said bracket, a signal arm having one end pivotally mounted in said block, a magnet mounted on the frame adjacent to the bracket, a lever comprising portions extending at an angle relative to each other and pivotally supported on the frame at the apex of the angle formed by the extending portions, one of said extending portions being adapted to form an armature for said magnet and the other extending portion being adapted to coact with the signal arm to hold the latter in operative position, a second magnet mounted on the frame, an armature therefor, means for operatively connecting the last described armature with the signal arm for moving the latter from inoperative to operative position, a second lever comprising two portions extending at an angle to each other and pivoted at the apex of the angle formed by the extending portions to the frame, one of said extending portions being adapted to form an armature for the second end of the last described magnet and the other extending portion being adapted to coact with the signal arm to hold the latter in inoperative position, and means for rotating the signal arm a quarter of a turn during its movement from either of its positions to the other position.

1,251,941. APPARATUS FOR LUBRICATING. JOHN G. UTZ, Cleveland, Ohio, assignor, by mesne assignments, to The Standard Parts Company, Cleveland, Ohio, a Corporation of Ohio. Filed July 30, 1913. Serial No. 782,006. (Cl. 184—13.)

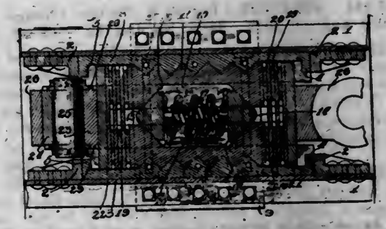


1. The combination, with a plurality of cranks and connecting rods of a multi-cylinder engine of a crank case having above its bottom a plurality of transversely extending troughs or receptacles, one for each crank, an oil receptacle at and within the central portion of the crank case, said case having walls sloping downwardly to said receptacle, means for forcing oil from said receptacle into said troughs, a supply connection communicating with said receptacle, and means for maintaining in said receptacle a level of oil below the level in said troughs.

3. The combination, with a crank case having a receptacle at the central portion thereof and having its bottom inclined downwardly from each end toward said receptacle and discharging thereinto, partitions in said receptacle forming settling chambers adjacent to the inclined portions of the bottom, an oil supply connection communicating with the central portion of the receptacle between said partitions, means for maintaining a level of oil in the central portion of the receptacle below the tops of the said partitions, a pump communicating with the central portion of the receptacle, and a supply connection extending from said pump into the crank case.

[Claims 2 and 4 to 12 not printed in the Gazette.]

1,251,942. DRAFT AND BUFFING GEAR. HERBERT E. VAN DORN, Chicago, Ill. Filed Nov. 26, 1915. Serial No. 63,632. (Cl. 213—64.)



1. In a draft gear of the class described stationary members, a series of inclined abutments on each thereof,

movable members disposed therebetween, a series of inclined abutments on each of said movable members adapted to frictionally interfit with the inclined abutments of said stationary members, wedge members interposed between said movable members independently of said stationary members, and springs disposed between said wedge members to resist compression thereof by movement of said movable members with respect to said stationary members.

2. In a draft gear of the class described stationary members having inclined friction surfaces thereon, movable members complementally shaped to interfit with said stationary members and when moved with respect thereto to ride upon the inclined surfaces thereof, said movable members when so moved, moving toward one another, wedge members disposed between said movable members arranged to be thrust toward one another when said movable members move toward one another, springs disposed between said wedge members to resist movement thereof toward one another, and a plurality of groups of friction plates mounted at the ends of said movable members adapted to slide on one another and acting to frictionally assist in resisting movement of the parts of the gear.

3. In a draft gear of the class described stationary members, movable members disposed therebetween capable of diagonal movement with respect to said stationary members and when moved moving toward or away from one another, wedge members disposed between said movable members, a plurality of groups of coiled springs bearing at their ends against said respective wedge members to thrust the same apart and resist inward movement of said movable members toward one another, groups of friction plates at each end of said movable members adapted to slide upon one another with frictional resistance when said movable members move inwardly toward one another, and eccentric means adjustable to take up for wear on the parts of the gear.

[Claims 4 to 14 not printed in the Gazette.]

1,251,943. DRAW-BAR CARRIER. HERBERT E. VAN DORN, Chicago, Ill. Filed Nov. 26, 1915. Serial No. 63,630. (Cl. 213—42.)



1. In a device of the class described the combination with a car and its draft gear and drawbar mounted thereon, of a curved track member secured to the car, a block channeled for engagement therewith to slide thereon, and a T-shaped portion formed on said drawbar slidably engaging through another channeled portion of said block whereby said drawbar is supported from said track in all positions of adjustment of the drawbar.

[Claims 2 to 5 not printed in the Gazette.]

1,251,944. GOLF-TEE. OLIVER R. VEOELY, Chicago, Ill. Filed Aug. 11, 1917. Serial No. 185,752. (Cl. 46—4.)

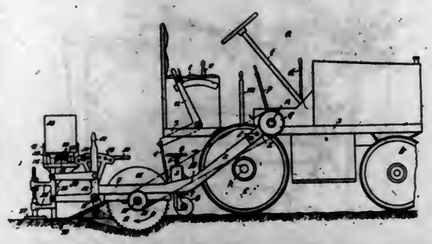


1. As an article of manufacture, a golf tee formed of a strip of relatively thick fibrous material bent upon itself and having its ends connected.

2. As an article of manufacture, a golf tee formed of a strip of felt folded upon itself and having its ends connected.

[Claims 3 and 4 not printed in the Gazette.]

1,251,945. AGRICULTURAL MACHINE. LOUIS WAGNER, Newberg, Oreg., assignor of one-half to Edward Crede, Newberg, Oreg. Filed May 16, 1916. Serial No. 97,955. (Cl. 111—1.)



1. A machine of the character described comprising a wheel mounted body, a rearwardly extending frame hinged to such body, earth working means rotatably mounted in the free end of said frame, means for supporting the free end of said frame above the ground, a baffle board supported by said frame behind said earth working means and adapted to confine and level again the earth thrown up by said earth working means, means for driving the earth working means at a high rate, and a seeder supported by said frame behind the baffle board adapted to discharge its seed in the furrow of the pulverized soil prepared by the earth working means, the supporting means of the seeder being adapted to permit vertical movement of said seeder and including a support bearing on the ground.

3. A machine of the character described comprising a wheel mounted body, a rearwardly extending frame hinged to such body, earth working means, means for supporting the free end of said frame above the ground, a baffle board supported by said frame behind said earth working means and adapted to confine, and level again, the earth thrown up by the earth working means, means for driving the earth working means at a high rate, a bell crank fulcrumed to the free end of said frame, means for limiting the movement of the bell crank on its fulcrum, a seeder pivotally connected to said bell crank, and a vertically adjustable support for said seeder, such support bearing on the ground.

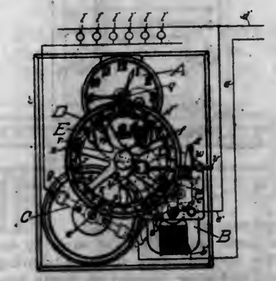
4. In a machine of the character described, the combination of revolving earth pulverizing means, a baffle board behind said means and adapted to confine, and level again, the earth thrown up by the same, and a seeder behind the baffle board adapted to discharge its seed down in the furrow of pulverized soil prepared by said earth pulverizing means, the supporting means of the seeder being adapted to permit vertical movement of said seeder and including a support bearing on the ground.

[Claim 2 not printed in the Gazette.]

1,251,946. MECHANISM FOR AUTOMATICALLY OPERATING TIMING MECHANISM. HENRY E. WARREN, Ashland, Mass., assignor to Warren Clock Company, Portland, Me., a Corporation of Maine. Filed Mar. 30, 1914. Serial No. 828,117. (Cl. 161—27.)

1. In mechanism for operating power controlling devices at predetermined intervals, a time indicating apparatus, an individual motor therefor, a time graduated dial upon said indicating apparatus, electrical contacts carried thereby and adapted to be adjusted circumferentially and radially thereof, a circuit closer and an electric motor which prepares said closer to be engaged by said electrical contacts, and thereby supply energy to the motor at predetermined times.

3. In mechanism for automatically operating service apparatus at predetermined intervals, a timing device, a plurality of series of electric contacts given movement in a prescribed path by the timing device, a contactor adapted to be moved into the path of movement of either series of contacts, an electric circuit closed by the contiguity of the contactor with one of said contacts, a motor in the circuit, service apparatus operated by the motor, means actuated by the motor to move the contactor from the path of one series of contacts to that of another, and thereby stop the motor, and adjust the mechanism for a succeeding operation of the service apparatus.



4. In mechanism for automatically operating service apparatus at predetermined intervals, a timing device, a plurality of series of electric contacts given movement in a prescribed path by the timing device, a single contactor adapted to be moved into the path of travel of either series of contacts, an electric circuit closed by the contiguity of the contactor with one of said contacts, a motor in the circuit, service apparatus operated by the motor, means actuated by the motor to move the contactor from the path of one series of contacts to that of another, and thereby stop the motor and adjust the mechanism for a succeeding operation of the service apparatus, and auxiliary mechanism for restoring energy to the spring motor of the timing device, which is actuated by each operation of the electric motor.

[Claim 2 not printed in the Gazette.]

1,251,947. WARDROBE-CABINET. GEORGE HENRY WHEARY, Racine, Wis. Filed July 24, 1914. Serial No. 852,803. (Cl. 211—16.)



1. A wardrobe cabinet, comprising a casing having an open side and a hinged door therefor and a front garment space and a rear drawer space, a plurality of drawers slidably positioned within the casing and normally positioned in the rear drawer space thereof but independently movable forwardly therefrom and supported in the garment space, parallel track members mounted on the door and extending into the garment space in front of the drawers, extension tracks connected to the outer ends of the track members, and garment hangers slidably mounted on the tracks for supporting garments in the garment space and movable therefrom when the door is swung to open position to permit the drawers to be moved into the garment space.

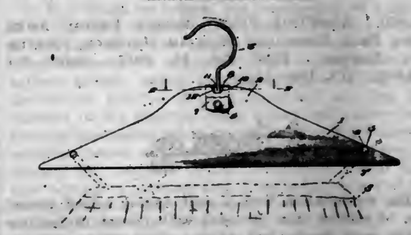
7. A wardrobe cabinet, comprising a casing having a front and a top opening and a front garment space and a rear drawer space, track bars mounted on the opposite inner side portions of the casing and extending approximately from the front to the rear portion of the casing, drawers slidably supported on said track bars and normally positioned in the drawer space of the casing and movable to the garment space of the casing and supported in said position, a door for the front opening of the casing, a door for the top opening of the casing which overlaps the front door, a U-shaped member mounted on and extending inwardly into the garment space from the front door, extensible tracks hinged to the free ends of the inwardly extending ends of the U-shaped member, and garment hangers slidably mounted on the U-shaped member and the tracks for supporting garments in said garment space and movable therefrom when the door is swung to open position to permit the drawers to be moved into the garment space.

9. A wardrobe cabinet, comprising a casing having a front and a top opening, a door for the front opening, a door for the top opening and having a portion which overlaps the front door, a plurality of drawers within the casing, a hanger device mounted on the front door and extending into the casing, a bolt means for locking the front door to the casing, a member controlling the bolt means and extending to an operable position adjacent the top door, and a locking means for the top door.

10. A wardrobe cabinet, comprising a casing having a front and a top opening, a door for the front opening, a door for the top opening and having a portion which overlaps the front door, a plurality of drawers within the casing, a hanger device mounted on the front door and extending into the casing, a plurality of bolts locking the front door to the casing, a bar connected to the bolts and extending to a position adjacent to the top door, said bar moving the bolts to open position when moved and controlled by the position of the top door, and a keyed locking means for the top door.

[Claims 2 to 6 and 8 not printed in the Gazette.]

1,251,948. GARMENT-HANGER. GEORGE WORDINGHAM, Milwaukee, Wis. Filed Aug. 23, 1917. Serial No. 187,831. (Cl. 211—13.)



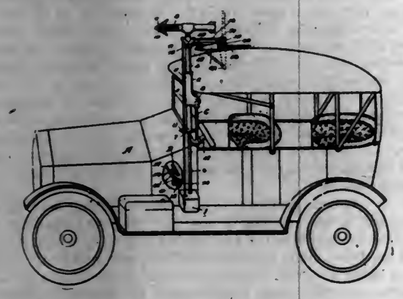
1. In a garment hanger, a flat body provided with a perforation for the engagement therein of a part of a garment, the perforation having a wall substantially touching one edge of the said body whereby the material of the body between the said edge and the wall of the perforation may be readily broken down to provide for ingress of the said part of the garment into the perforation.

3. In a garment hanger, a flat body provided with a notch in its upper edge, a clip disposed to straddle the upper edge of the body thus closing the notch, a suspension hook for the body having a shank fitted through the clip and extending at its lower end into the notch, the said lower end of the shank being bent upon itself to form

a broad flat sided head confined within the notch and between the sides of the clip, the head occupying the plane of the body and being of a width substantially equal to the width of the notch and of a thickness substantially equal to the distance between the sides of the clip, whereby the hook as a whole is prevented from rotation with relation to the body.

[Claim 2 not printed in the Gazette.]

1,251,949. TRAFFIC-SIGNAL. JOSEPH G. ANTHONY, St. Louis, Mo. Filed May 8, 1916. Serial No. 96,059. (Cl. 116—31.)



A caution-signal for vehicles comprising in combination with a clutch-pedal, of a rotatable horizontally supported shaft, a vertically disposed supporting post, a caution-signal pivotally connected to said supporting post, a connection between said caution-signal and said horizontally disposed rotatable shaft, a clutch-pedal engaging arm fixed at one end to said shaft and adapted to be moved in an arcuate path when depressing the clutch-pedal to impart a partial rotary movement to said horizontally supported rotatable shaft and thereby lift said caution-signal from its normal horizontal position to its upright signal position, independent foot actuated means having connection with said clutch-pedal engaging arm for imparting a slight rotary movement to said horizontally supported rotatable shaft to lift said caution-signal to its upright signal position without depressing the clutch-pedal, and resilient means for returning said caution-signal to its normal horizontal position from its upright signal position.

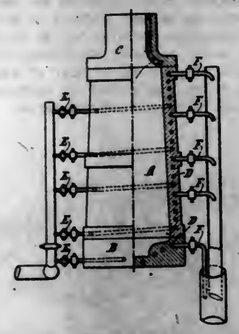
1,251,950. ROOFING-TILE. ROBERT YETTON AMES, Gidea Park, Essex, and WILLIAM HAYWOOD, Birmingham, England. Filed Feb. 14, 1917. Serial No. 148,563. (Cl. 108—10.)



1. The combination with a roof having alined spaced blocks, of roofing tiles provided with lateral projections engaging said blocks and having their upper portions sufficiently large to permit the insertion of the lower ends of the tiles above, and overlapping curved tiles nailed to said blocks and having their lower edges resting on the first mentioned tiles for preventing the same from moving away from the roof.

2. The combination with a roof having alined spaced blocks, of upwardly curved tiles provided at their lateral edges with projections engaging said blocks and having their upper ends sufficiently large to permit the insertion of the lower ends of the tiles above, and overlapping downwardly curved tiles covering the spaces between the lateral edges of the other tiles and having their lower edges resting on the upwardly curved tiles for preventing the same from moving away from the roof.

1,251,951. CASTING STEEL INGOTS. HERBERT HENRY ASHDOWN, Newcastle-upon-Tyne, England, assignor to Sir W. G. Armstrong, Whitworth and Company, Limited, Newcastle-upon-Tyne, England. Filed June 18, 1917. Serial No. 175,487. (Cl. 22—216.)



1. The process of casting ingots, which consists in pouring the ingot, subjecting the same to an advancing cooling action corresponding to the advancing formation of said ingot, and after completion, again submitting the ingot to a further cooling action.

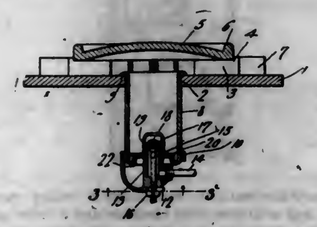
2. The process of casting ingots, which consists in pouring the ingots, and during the pouring action subjecting the successive accretions to a correspondingly advancing cooling action.

3. The process of casting ingots, which consists in pouring the ingot, during the pouring action subjecting the successive accretions to a correspondingly advancing cooling action, and after the completion of the ingot again subjecting said ingot to an additional cooling action extending from one end toward the other.

4. The process of casting ingots, which consists in pouring the metal into a mold, subjecting the mold to a cooling action during the pouring operation, and after the completion of the pouring action again subjecting the mold to a cooling action that advances from the bottom toward the top.

5. The process of casting ingots, which consists in pouring the metal into a mold, subjecting the mold to a cooling action during the pouring operation, said cooling action being advanced along the mold as the filling takes place, and afterward again subjecting the mold to a cooling action that advances from the bottom toward the top.

1,251,952. HYDROCARBON-BURNER. GUY M. BARBER, Los Angeles, Cal., assignor of one-third to William McDonald Wootten, Los Angeles, Cal. Filed Mar. 22, 1917. Serial No. 156,695. (Cl. 158—9.)



1. A hydrocarbon burner embodying a sleeve, a nozzle projecting into it and having a tip, and a nipple adjustable on the nozzle adjacent to the tip thereof for controlling the discharge from the nozzle and having an outstanding flange providing a valve for controlling the flow of air into the sleeve.

2. A hydrocarbon burner embodying a sleeve having an inturned flange at one end surrounding an air inlet opening, a nozzle projecting into said end of the sleeve, and a valve adjustable upon said nozzle to and from said flange.

3. A hydrocarbon burner embodying a sleeve having an inturned flange at one end, a nozzle projecting into said end of the sleeve and a second nozzle within the aforesaid nozzle, a tip between said nozzles, and a nipple adjustable upon the first mention nozzle and having a contracted end overhanging said tip and an outstanding annular flange providing a valve adjustable to and from the aforesaid flange.

1,251,953. ROTARY VALVE FOR EXPLOSIVE-ENGINES. RUBEN F. BARKER, Portland, Oreg. Filed Sept. 17, 1915. Serial No. 51,499. (Cl. 123—177.)



1. In a gas engine having water-jacketed cylinders, a cylindrical valve chamber, a port connecting said valve chamber and cylinder, a water-jacketed rotary valve mounted in said valve chamber, said valve comprising concentric inlet and exhaust conduits, a water-jacket encompassing the latter, and valve ports connecting said conduits with the exterior of the valve, adapted to be brought into registration with the cylinder port by the rotation of the valve.

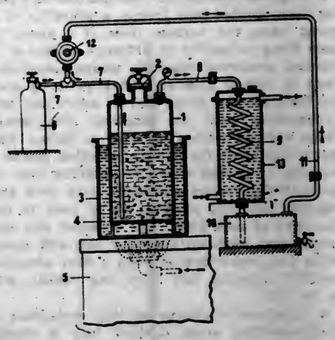
2. In a gas engine having water-jacketed cylinders, a water-jacketed cylindrical valve chamber, a port connecting said valve chamber and cylinder, a water-jacketed rotary valve mounted in said valve chamber, said valve comprising concentric inlet and exhaust conduits, a water-jacket encompassing the latter, valve ports connecting said conduits with the exterior of the valve, adapted to be brought into registration with the cylinder port by the rotation of the valve, and means for maintaining the water-jacket of the valve in constant communication with the water-jacket of the cylinders.

5. In a gas engine having water-jacketed cylinders, valve mechanism comprising a water-jacketed cylindrical valve chamber, a port connecting said valve chamber and cylinder, a water-jacketed rotary valve mounted in said valve chamber, said valve comprising concentric inlet and exhaust conduits, a water-jacket encompassing the latter, valve ports connecting said conduits with the exterior of the valve, adapted to be brought into registration with the cylinder port by the rotation of the valve, an exhaust manifold, registering ports for maintaining the exhaust conduit of the valve in constant communication with the exhaust manifold, an inlet manifold, and means for maintaining the inlet conduit in constant communication with the inlet manifold, and registering ports for maintaining the water-jacket of the valve in constant communication with the water-jacket of the cylinders.

[Claims 3, 4, and 6 not printed in the Gazette.]

1,251,954. PROCESS FOR PRODUCING LIQUID OR SOLUBLE ORGANIC COMBINATIONS FROM HARD COAL AND THE LIKE. FRIEDRICH BERGIUS and JOHN BILLWILLER, Hanover, Germany. Filed Aug. 3, 1914. Serial No. 854,825. (Cl. 196—21.)

1. The process of treating products of carbonization of vegetable matter which consists in subjecting them to the action of hydrogen at elevated temperature of less than 600° centigrade and at high pressure of more than 20 atmospheres until liquid or low-melting-point reaction products of the solid carbonaceous matter are formed.



[Claims 2 to 14 not printed in the Gazette.]

1,251,955. AUTOMATIC OR SEMI-AUTOMATIC TELEPHONE-EXCHANGE SYSTEM. GOTTHILF ANSGARIUS BETULANDER, Södertörns Villastad, Sweden, and NILS GUNNAR PALMGREN, London, England, assignors to The Relay Automatic Telephone Company, Limited, London, England. Filed July 6, 1915. Serial No. 38,173. (Cl. 179—18.)

1. In a telephone system, the combination of a plurality of calling lines divided into groups, a plurality of groups of junction lines, the various junction lines of a group being accessible in common to the calling lines of the various groups, means for connecting a calling line to one of the junction lines, a numerical selecting device common to the junction lines, means for connecting the junction line connected to the calling line to the numerical selecting device, a plurality of outgoing lines, means for causing the selecting device to establish initial connection between a junction and an outgoing line and means for maintaining the connection so established when the numerical selecting device is cut out of circuit.

2. In a telephone system, the combination of a plurality of calling lines divided into groups, a plurality of groups of outgoing lines, common numerical selecting means to which each line of each group of calling lines has access and adapted to be used in common by all the lines of such groups to select and establish initial connection between an incoming and an outgoing line, means for maintaining the connection between the calling lines and the outgoing line when the selecting means is cut off, a plurality of groups of second outgoing lines, second numerical selecting means associated with each group of first outgoing lines and adapted to be used in common by all the lines of said group to select and establish initial connection with an outgoing line, and means for maintaining a connection between a first outgoing line

and a second outgoing line after the common selecting means is cut off.

3. In a telephone system, the combination of a plurality of calling lines divided into groups, a plurality of groups of outgoing lines, the various lines of a group of outgoing lines being accessible to different groups of calling lines, common numerical selecting means associated with each group of calling lines and adapted to be accessible to all the lines of said group and to select and establish initial connection with an outgoing line, means for maintaining the connection between a calling line and an outgoing line after the calling selecting means is cut off, a plurality of groups of second outgoing lines, second numerical selecting means associated with each group of first outgoing lines and adapted to be used in common by all the lines of such group and to select and establish initial connection with an outgoing line and means for maintaining the connection between a first outgoing line and a second outgoing line after the calling selecting means is cut off.

4. In a telephone exchange system, switching means of a group-selecting stage divided into a number of switching units, each comprising a plurality of incoming and outgoing lines, means for connecting said lines and common selecting means associated with the incoming lines, junction lines accessible in common to a group of subscribers' lines and leading to different switching units of the group selecting stage, and means for blocking a switching unit when there is a certain maximum number of non-effectuated calls in that unit.

5. In a telephone exchange system, switching means of a group-selecting stage divided into a number of switching units, each comprising a plurality of incoming and outgoing lines, means for connecting said lines and common selecting means associated with the incoming lines, means for blocking an engaged switching unit and means for connecting a calling line to an engaged switching unit after it has been ascertained that there are no selecting means immediately available in any of a number of switching units.

[Claims 6 to 8 not printed in the Gazette.]

1,251,956. SILENCER. RALPH E. BLETCHER, Spokane, Wash. Filed Apr. 23, 1914, Serial No. 833,905. Renewed May 25, 1917. Serial No. 170,985. (Cl. 137—4.)



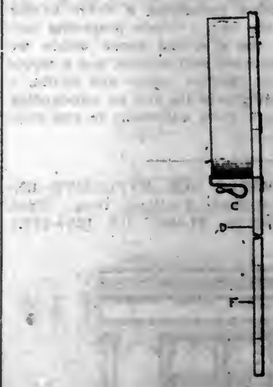
1. A silencer for faucets or the like, comprising a housing, a spiral member therein comprising a screw having elongated threads, and closure means carried by said screw for one end of said housing.

2. A silencer for faucets or the like comprising a housing, a spiral member therein of screw shape and closure means carried by said spiral member for one end of said housing, substantially as described.

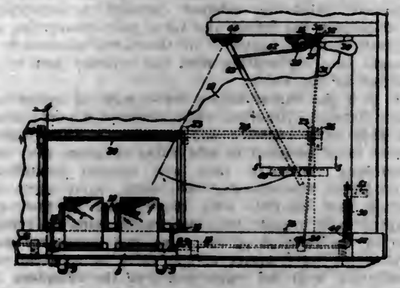
3. A silencer for faucets or the like comprising a housing, a spiral member therein comprising a screw, closure means carried by said screw for one end of said housing and a spring for placing tension upon the screw, substantially as described.

1,251,957. DISPLAY-FORM. HOWARD G. BLUMRICK, Auburn, N. Y. Filed Nov. 15, 1916. Serial No. 131,602. (Cl. 211—18.)

A display form for garments comprising a flat support, the shaping of said support substantially conforming to the shape of a shirt when flat, said support having apertures therein, a collar display form having tabs connected thereto, said tabs being adapted for insertion in said apertures, and a clasp connected to said collar display form to hold a garment in position.



1,251,958. TREADLE AND LOWER-DOOR OPERATING MECHANISM. ANTHONY WALTER BORCYK, Rochester, N. Y., assignor to American Piano Company, New York, N. Y., a Corporation of New Jersey. Filed July 27, 1916. Serial No. 111,594. (Cl. 84—169.)



1. In a musical instrument, the combination of a removable base panel having a door-way; a door connected to said panel and removable therewith; door operating means connected to another part of the instrument, and two interengaging members connected respectively to said door and said door operating means, one of said members having a recess for engagement with the other.

6. In a musical instrument, the combination of treadles movable between operative and inoperative positions; a door to inclose the treadles in inoperative position; a rock shaft for moving said door and treadles; a bent link connecting a crank arm upon said shaft with a door moving member; and a slotted crank arm connecting said shaft with a treadle operating member, whereby the door and treadles are moved in sequence by a continuous movement of the rock shaft.

[Claims 2 to 5 not printed in the Gazette.]

1,251,959. HELMET OR HEAD-SHIELD. JOHN LEOPOLD BOODIN, London, England. Filed June 27, 1916. Serial No. 106,278. (Cl. 2—117.)

1. A helmet or head shield consisting of a metal shell and a loose buffer lining, secured at one point only of its crown to the crown of said shell by detachable means.

2. A helmet or head shield consisting of a metal shell and a loose buffer lining which contains absorbent material and is secured at one point only of its crown to the crown of said shell by detachable means.



5. A helmet or head shield consisting of a metal shell and a loose buffer lining provided with resilient pads at intervals between the lower edge of said lining and said shell, said lining being secured at one point only of its crown to the crown of said shell by detachable means.

9. A helmet or head shield consisting of a metal shell and a loose buffer lining composed of an outer layer of felt, an inner layer of canvas, and an intermediate layer of absorbent material and secured at one point only of its crown to the crown of said shell by detachable means.

12. A helmet or head shield consisting of a metal shell, strap buckles on said shell and a loose buffer lining spaced away from said shell at the lower edge, a chin strap passed through said buckles and over said lining which is secured at one point only of its crown to the crown of said shell by detachable means.

[Claims 3, 4, 6 to 8, 10, 11, 13, and 14 not printed in the Gazette.]

1,251,960. INCENDIARY BULLET AND SHELL. JAMES FRANK BUCKINGHAM, Coventry, England. Filed June 4, 1917. Serial No. 172,800. (Cl. 102—29.)

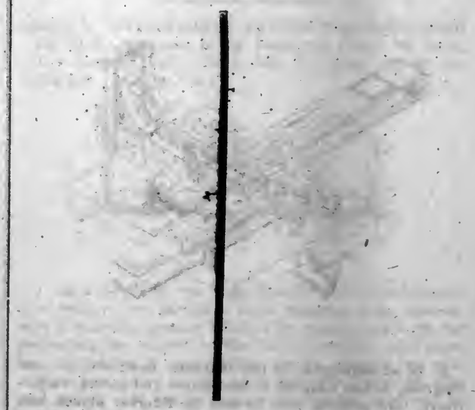


1. A bullet or shell, comprising a case with an outlet in the rear of its side, incendiary substance in the front of the case and a plug at the rear of the case provided with longitudinal grooves and an annular recess in rear of the grooves whereby the incendiary substance can reach the outlet.

2. A bullet or shell, comprising a case with an outlet in its side, incendiary substance in the front of the case and a two part plug at the rear of the case, the forward part being provided with longitudinal grooves and the rear part with an annular recess whereby the incendiary substance can reach the outlet.

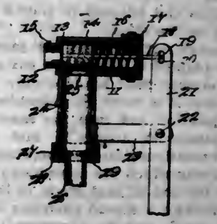
3. A bullet or shell, comprising a case with an outlet in the rear of its side, incendiary substance in the front of the case, a plug at the rear of the incendiary substance provided with longitudinal grooves, a plug having an annular chamfered part at the rear of the first plug, whereby after the incendiary substance has flowed through the grooves it can flow out through the outlet.

1,251,961. SCREEN FOR CINEMATOGRAPHIC PROJECTION. FRANK BUTTERWORTH, London, England. Filed May 25, 1915. Serial No. 30,965. (Cl. 88—24.)



A screen for projecting purposes comprising a front reflector composed of wood pulp and scintillating material intimately mixed and a flexible backing to which the reflector is attached.

1,251,962. AUXILIARY AIR-VALVE FOR GAS-ENGINES. MARTIN CARABALLO, Tampa, Fla. Filed Oct. 20, 1916. Serial No. 126,720. (Cl. 48—180.)

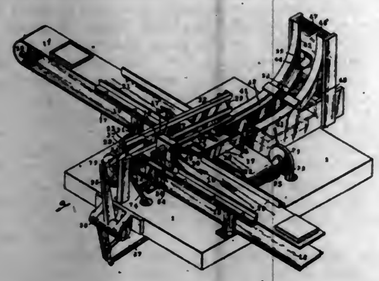


1. The combination of a movable element, a valve, a lever connected to actuate said valve, and a loose connection on said movable element engaging said lever to shift the valve, said connection including a plate having a slot for receiving said lever, and means for clamping said plate on said movable element, substantially as described.

2. The combination of a movable element, a valve, a lever for moving said valve, and a loose connection mounted on said movable element and including a plate having a slot therein for receiving said lever, and blocks clamped over said plate and said movable element, substantially as described.

3. The combination with an operating rod of a valve, a lever for actuating said valve, a loose connection between said lever and operating rod including a plate having its lower longitudinal edge bent about said operating rod, opposed blocks clamped together on opposite sides of said plate and having recesses therein conforming to said operating rod and received thereby, said plate having a lug cut therefrom and bent to provide a slot for loosely receiving said lever, said lug provided with a slot at one end to engage the lever and move the same when the operating rod is shifted in one direction only, substantially as described.

1,251,963. BOX-ASSEMBLING MACHINE. HAROLD CARLB, Buffalo, N. Y., assignor to F. N. Burt Company, Limited, Toronto, Canada, a Corporation of Canada. Filed May 16, 1916. Serial No. 97,773. (Cl. 93—55.)



2. In an apparatus of the character described, in combination, means adapted to feed boxes and covers, respectively, into position side by side in different planes, and means adapted to effect the insertion of successive boxes in successive covers, respectively, comprising a reciprocatory picker finger movable in alinement with the respective box and cover to be assembled, the path of movement of said finger being inclined relative to said planes.

5. In an apparatus of the character described, in combination, means adapted to feed boxes and covers, respectively, into position side by side in different planes, comprising overlapping continuously movable supporting belts, stops to aline the respective boxes and covers transversely of the belts, and a reciprocatory picker movable transversely of the belts and adapted to slide a box from one belt into a cover on the other.

10. In an apparatus of the character described, in combination, means adapted to assemble a box and a cover in closed relation so that their heads occupy predetermined planes, means adapted to move the assembled box elements from assembly position and turn the same so that said heads occupy planes at angles to said predetermined planes, said last-mentioned means comprising a guideway having a track along which the assembled elements move, means adjacent the end of said track to limit the movement in said guideway, a second guideway disposed transversely of said track, and an abutment in said second guideway spaced from the end of said track.

16. In an apparatus of the character described, in combination, a passageway for boxes having a horizontal and a vertically curved portion, a second passageway vertically disposed and communicating with the curved portion of said first-mentioned passageway, a tracq in the curved portion of said first-mentioned passageway, said track terminating adjacent the vertically disposed passageway, an abutment in said vertically disposed passageway spaced from the end of said track, a spring adapted to press the boxes from said curved passageway toward the abutment in said vertical passageway, a platform at the bottom of said vertically disposed passageway, and a reciprocatory plunger adapted to deliver boxes, respectively, from said vertical passageway out of the path of succeeding boxes.

20. In an apparatus of the character described, in combination, a pair of movable endless supports adapted to convey boxes and covers into positions adjacent each other, stops adapted to arrest the movement of said box elements with said supports, and means adapted to move a box element from said respective arrested position on one support onto a box element in said arrested position on the other support for assembly of said elements comprising a reciprocatory picker.

[Claims 1, 3, 4, 6 to 9, 11 to 15, 17 to 19, and 21 to 23 not printed in the Gazette.]

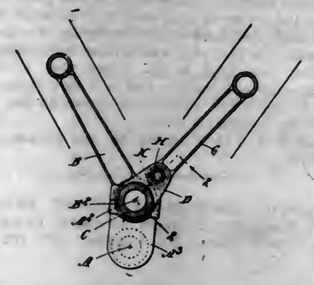
1,251,964. CUSHION-PAD. FREDERICK W. CLARK, Rochester, N. Y., assignor to Clark Paper & Manufacturing Company, Rochester, N. Y., a Corporation of New York. Filed May 28, 1917. Serial No. 171,553. (Cl. 154—54.)



1. A cushion comprising a layer of binding material and a layer of corrugated paper strips suitably inclosed in a wrapper.

[Claim 2 not printed in the Gazette.]

1,251,965. JOINT FOR USE IN LINKWORK. LOUIS COATALEN, Wolverhampton, England, assignor of one-half to Sunbeam Motor Car Company Limited, Wolverhampton, England. Filed Dec. 4, 1916. Serial No. 135,049. (Cl. 74—17.)



1. In linkwork, the combination of a crank pin, a master rod bearing thereon, lugs on said master rod having openings therethrough, a bearing pin free to float in said openings, and a rod upon said bearing pin substantially as set forth.

3. In linkwork, the combination of a crank pin, a master rod, a bush for said rod bearing upon said crank pin, lugs on said master rod, a hollow bearing pin free to float in said lugs, said bush having an oil passage to said hollow pin, a bolt through said pin, washers on said bolt engaging said pin, a rod bearing on said bearing pin, a bush to said pin, said bearing pin having oil passages, substantially as set forth.

[Claim 2 not printed in the Gazette.]

1,251,966. SHOE. ANTONIO CONTE, Syracuse, N. Y. Filed Oct. 17, 1917. Serial No. 197,168. (Cl. 36—48.)

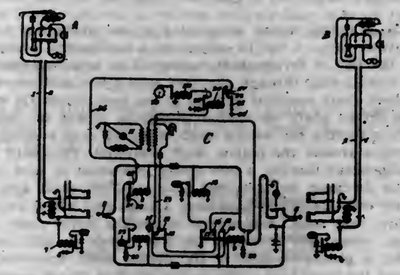


1. A shoe upper made from a single piece, comprising a main body portion, a heel-flap depending from the body, a flap extending rearwardly from the toe portion of the body, a central flap adapted to be secured to one margin of the body by a lace, and a series of buttons for securing said central flap to an adjacent margin of the body.

2. A shoe comprising a one-piece upper consisting of a main body portion, having a curved flap extending backwardly from the toe-portion, and having a curved central flap, said central flap having lacing perforations along one margin, and having button-holes along the opposite margin, a lace for adjustably securing one edge of said central flap to one margin of said body, and a series of buttons carried by an adjacent margin of said body for securing the opposite edge of said central flap.

[Claim 3 not printed in the Gazette.]

1,251,967. CALL-ANSWERING METER FOR CORD-CIRCUITS. HIRAM D. CURRIER, Chicago, Ill., assignor to Kellogg Switchboard & Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 19, 1914, Serial No. 862,465. Renewed July 7, 1916. Serial No. 107,974. (Cl. 179—9.)



1. A system of the character described comprising a subscriber's line, a cord circuit adapted for association therewith, a meter for the answering side of said cord circuit, means including a self-locking relay controlled by the insertion of a plug in a jack and by the operative condition of the calling subscriber's line to actuate said meter, and a relay associated with said cord circuit controlled by the insertion of the calling plug in a jack to prevent reactuation of said relay during the continuance of said connection.

2. A system of the character described comprising a subscriber's line, a cord circuit adapted for association therewith, a meter for the answering side of said cord circuit, means including a self-locking relay controlled by the insertion of a plug in a jack and by the operative condition of the calling subscriber's line to actuate said meter, and a relay associated with said cord circuit controlled by the insertion of the calling plug in a jack to prevent reactuation of said relay during the continuance of said connection, said means including a calling supervisory relay.

3. A telephone system comprising a subscriber's line, a link circuit for connection therewith, a meter for said link circuit, a relay for controlling said meter, automatic means including a pair of answering supervisory relays for actuating said relay, and means controlled by the insertion of the calling plug of said link circuit in a jack to prevent reactuation of said meter control relay.

17. A telephone system including an operator's link circuit, an operator's telephone associated with said link circuit, a service meter, means responsive to the connection of said operator's telephone with said link circuit to operate said service meter, means controlled by the disconnection of said operator's set from said link circuit for rendering inoperative the control circuit of said service meter, and means for reconnecting said operator's telephone to said link circuit for re-operating said service meter.

18. A telephone system including an operator's link circuit, an operator's telephone for connection with said link circuit, a service meter, means for operating said service meter controlled by the connection of said operator's telephone with said link circuit, and means for disconnecting said operator's telephone from said link circuit thereby rendering the operating circuit for said service meter inoperative.

[Claims 4 to 16 not printed in the Gazette.]

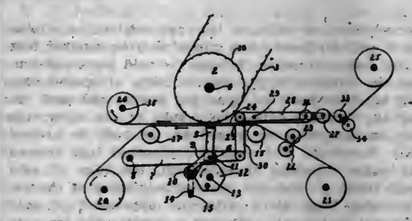
1,251,968. SWINGLETREE SAFETY TRACE-HOLDING DEVICE. CHARLES L. DE BOLT and DAVID DE BOLT, Des Moines, Iowa. Filed July 13, 1916. Serial No. 109,196. (Cl. 21—79.)



1. In a device of the class described, the combination of a swingle tree having a trace engaging hook thereon, with a movable member adapted to engage said hook for preventing the removal of the trace therefrom, said member comprising a contractible spring secured to said swingle tree, and a leather strip pivotally connected with said spring, said leather strip having at its outer end an elongated slot.

2. In a device of the class described, the combination of a swingle tree having a trace engaging hook thereon, with means for preventing the removal of a trace from said hook, said means comprising a contractible spring and a flexible strip pivotally connected with said spring, having at its outer end an elongated slot.

1,251,969. PRINTING MECHANISM. FRANK DE MINICO, New York, N. Y., assignor to Pollard-Alling Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Oct. 28, 1916. Serial No. 128,146. (Cl. 101—212.)



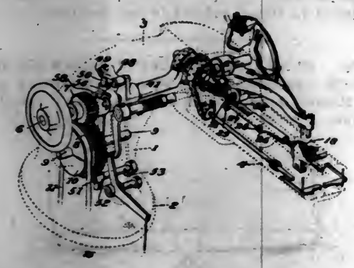
1. In a printing mechanism the combination of a type-form and a platen actuated for intermittent coaction and for forward movement during their coaction, an ink-ribbon between said type-form and said platen traveling in the same direction as said type-form but at a slower speed, and means operable during the coaction of said type-form and platen for paying out said ribbon for permitting it to travel at the speed of the type-form and platen and for retrieving a portion of said ribbon when the type-form and platen have relinquished their grip thereon.

[Claims 2 to 12 not printed in the Gazette.]

1,251,970. SEWING-MACHINE. ALBERT H. DE VOE, Westfield, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Original application filed July 22, 1914, Serial No. 852,845. Divided and this application filed Apr. 1, 1916. Serial No. 88,206. (Cl. 112—8.)

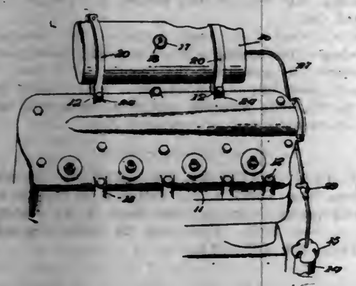
1. In a sewing machine, in combination, a main-shaft, a needle, a needle-supporting and -actuating element, a

feed-dog, a feed-dog supporting and actuating element, a single link directly connecting said elements, and a driving connection between said main-shaft and one of said elements.



[Claims 2 to 13 not printed in the Gazette.]

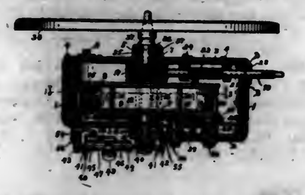
1,251,971. AUXILIARY OIL-RESERVOIR. JOHN KNELL, North Robinson, Ohio. Filed Mar. 1, 1917. Serial No. 151,824. (Cl. 184—65.)



The combination with an internal combustion engine having a cylinder head block provided with squared bolt seats, and bolts extending through the said seats and connecting the block with the engine body, of spaced supporting brackets mounted upon the engine and each including an integral annular body split at the outer side thereof, an integral arm formed on the body to project laterally therefrom, and angularly disposed lugs formed on the outer terminal of said arm, the lugs of said brackets fitting around the squared bolt seats of the engine cylinder head block with the uppermost of said lugs engaged by the said bolts for connecting the brackets with the engine to project laterally therefrom, means for adjustably contracting the said bracket bodies, and means mounted upon the brackets and adapted to provide an auxiliary oil reservoir for the engine, the said last mentioned means being supported by the brackets at one side of the engine.

1,251,972. SPRING-MOTOR. GEORGE E. KUNKLE, Richmond, Ind. Filed Jan. 24, 1917. Serial No. 144,285. (Cl. 185—39.)

1. A spring motor comprising an inclosed case, a vertical hollow shaft located entirely within the case, a spring-cage revolubly mounted around and concentric of said shaft, a coil spring located in said cage with its inner end secured to said shaft and its outer end secured to the cage, a main drive gear located below said cage and secured thereto, a driven shaft extending through the hollow shaft and without contact therewith and projecting through the case both above and below, a ball-bearing carried by the upper part of the case by which the driven shaft is suspended, a turn-table secured to the upper projecting end of the driven shaft, a governor connected to the lower projecting end of the driven shaft, a spiral gear located in the case above said cage and secured to the hollow shaft, a spiral gear meshing at right-angles with the first mentioned spiral gear, a winding shaft extending outside the case from the second spiral gear, a pinion secured to the driven shaft below the hollow shaft, and a train of gears connecting said pinion with said main drive gear, all substantially as set forth.

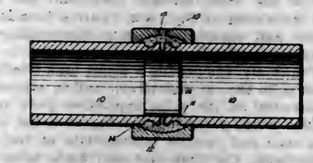


2. A spring motor comprising a case including a removable cover, a hub in said cover, a ball-bearing mounted in the hub, a driven-shaft supported by said ball-bearing and projecting through the case both above and below, a hollow shaft mounted entirely in the case concentric with the driven shaft but spaced therefrom, means for manually revolving the hollow shaft, a spring cage adapted to revolve around the hollow shaft concentric therewith but independent thereof, a coil spring contained in said cage with its inner end attached to the hollow shaft and its outer end attached to said cage, a main gear wheel located below said cage, depressions extending down from the cage, means for securing the depressions to said main gear, a pinion secured to the driven shaft immediately below the lower end of the hollow shaft, a pinion meshing with the main gear, a second gear integral with the last mentioned pinion, a pinion meshing with said second gear, a third integral with the last mentioned pinion and meshing with the said pinion attached to the driven shaft, all of the intermediate gears and pinions being located to one side of the driven shaft, and a governor located below the case and on the side of the driven shaft opposite to that of said gears and pinions, all substantially as set forth.

3. A spring motor including a case having a removable cover, a hub integral with the cover, a driven shaft projecting through the hub and the interior of the case and projecting below the case, means for suspending the said shaft in vertical rotative position, a turn-table attached to the upper projecting end of said shaft, a governor geared to the lower projecting end of said shaft, a hollow shaft concentric of the driven shaft and spaced therefrom and having its ends located in bearing within the case and adapted to rotate in one direction only, means for manually rotating the hollow shaft, a spring cage concentric of and having the hollow shaft as its axis, said cage comprising an upper disk, a lower disk spaced from the upper disk, a post connecting the peripheries of said disks, a spring contained in said cage with its inner end connected to the hollow shaft and with its outer end connected to one of said posts, a main gear connected concentric of and below said cage and carried thereby, a pinion secured to the driven shaft and adjoining the lower end of the hollow shaft, a pair of intermediate pinions, and a pair of intermediate gears, meshing together and with the main gear and the first mentioned pinion, axles for said intermediate gears and pinions which axles are secured in the bottom of the case, and spiral gears connecting the driven shaft and the governor, all substantially as shown and described.

1,251,973. CONDUIT-COUPLING AND PROCESS FOR MAKING SAME. SAMUEL E. KURTZ, Sac City, Iowa. Filed Feb. 9, 1914. Serial No. 817,629. (Cl. 137—29.)

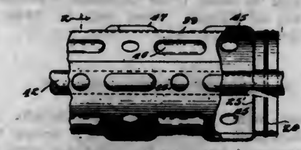
1. In a device of the class described, a pair of pipes of substantially the same shape arranged in alinement with one end of each pipe adjacent to one end of the other pipe, the ends of the pipes, which are adjacent having annular rounded grooves formed in their outer surfaces, a cylindrical retaining member having an end of each pipe received therein, the ends of said cylindrical member being of such size as to fit against the outer surfaces of the pipes, the central inner portion of the retaining member having an annular groove adapted to receive slush concrete, said retaining member also having a passage from



the groove to the outer surface, and a collapsible form adapted to be received within the pipes with its outer surface against the inner surface of the pipes whereby when slush concrete is poured between the ends of the pipes it may be retained in place until set to form a smooth inner surface at the point.

[Claim 2 not printed in the Gazette.]

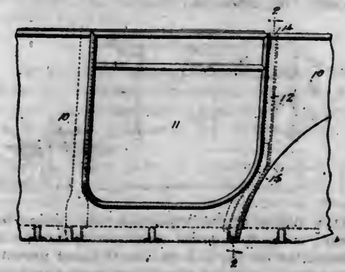
1,251,974. MOPPING APPLIANCE. SIMEON C. LAWLOR, Chicago, Ill. Filed Mar. 25, 1914. Serial No. 827,178. (Cl. 68—33.)



1. In a wringer roll, the combination of a cylindrical body having longitudinally spaced apart reinforcing means, a cap fitting in the end of the body and being centrally apertured to receive a shaft, the cap having inner and outer marginal flanges extending in the same direction and adapted to engage the shaft and the body, and and a cross pin adapted for engagement through the body and through the flanges of the cap for retaining the latter in the body and holding the roll from sliding on the shaft.

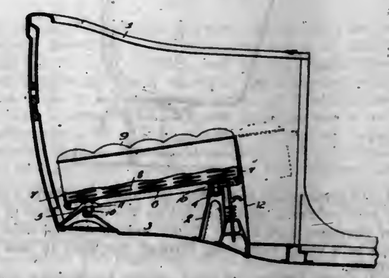
2. In a wringer roll, the combination of a cylindrical body provided in the periphery thereof with longitudinally and circumferentially spaced apart apertures, indentations and projections arranged substantially in longitudinal and circumferential rows, and a cap fitting within the end of the cylinder for supporting the same.

1,251,975. RIB FOR AUTOMOBILE-BODIES. JOSEPH LEDWINKA, Philadelphia, Pa., assignor to Edward G. Budd Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 25, 1913. Serial No. 750,524. (Cl. 21—7.)



In an automobile body, a body frame, a strengthening rib formed of sheet metal pressed into channel shape in cross section and bent into substantially U-shape in the direction of its length, said rib applied to the frame and forming a one piece strengthening member therefor to extend from the top edge of one side of the frame downwardly alongside and transversely across the bottom and thence upwardly to the top edge of the other side of said frame and auxiliary reinforcing members corresponding in cross section to the channel shape of the strengthening rib and fitted into the channel of said rib at the bends thereof, the vertical portions of said rib constituting door posts to receive the hinge connections of the body doors.

1,251,976. REMOVABLE SEAT FOR VEHICLES. JOSEPH LEDWINKA, Philadelphia, Pa., assignor to Edward G. Budd Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Original application filed Oct. 20, 1915, Serial No. 56,967. Divided and this application filed Mar. 21, 1916. Serial No. 85,597. (Cl. 21—42.)



1. An automobile body shell including a floor and seat back and side portions, in combination with vertically extending supporting standards secured to the forward portion of the floor on opposite sides of the seat space and formed into bearing seats at their upper ends, and a removable seat frame resting at its front edge in said bearing seats.

2. An automobile body shell including a floor and seat back and side portions, in combination with vertically extending supporting standards secured to the forward portion of the floor adjacent the seat side portions and having bearing seats at their upper ends, a removable seat frame detachably supported at its front edge in said bearing seats, and means carried at the rear portion of the floor to be detachably engaged with and to support the rear edge of the seat frame.

3. An automobile body shell having vertically extending supporting standards secured to the forward portion of the floor thereof and formed with bearing seats at their upper ends, and a removable seat frame supported at its front edge in said bearing seats, and hook members carried by the body floor at its rear portion and means to detachably engage the rear edge of said frame with said hook members.

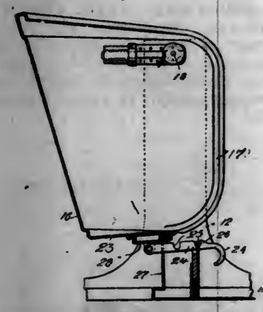
4. The combination with an automobile body shell having a floor and seat back and side portions, vertically extending supporting standards carried by the floor at opposite sides of the front portion of the seat space of the body adjacent the seat side portions and supporting brackets also carried by the floor on opposite sides of the seating space adjacent the seat back portion of the body, of a seat frame having longitudinally extending ribs secured to the underside thereof at its front and rear edges, the rib at the front edge being received on and supported by said standards and means carried by the brackets to detachably engage and support the rear rib.

5. An automobile body shell including side seat back and floor portions, said floor having vertically extending supporting standards secured thereto on opposite sides of the seat space at the front portion thereof, adjacent the seat side portions, a seat frame detachably supported at its front edge on said standards and means also carried

by the floor at the rear portion thereof adjacent the seat back portion to detachably engage with and support the rear portion of said seat frame.

[Claims 6 and 7 not printed in the Gazette.]

1,251,977. ADJUSTABLE-SEAT STRUCTURE. JOSEPH LEDWINKA, Philadelphia, Pa., assignor to Edward G. Budd Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Original application filed Oct. 20, 1915, Serial No. 56,967. Divided and this application filed Mar. 21, 1916. Serial No. 85,598. (Cl. 21—43.)



1. An automobile body shell including vertically extending post portions, studs carried by the upper ends of said post portions, and a seat frame having slotted side portions, said studs extending through the slots in said side portions.

2. The combination with a vehicle body having vertical posts at the sides thereof, of a seat back frame having side portions and studs carried by the upper ends of said vertical posts, said side portions being supported upon said studs for tilting movement thereon and also for shifting movement relatively thereto.

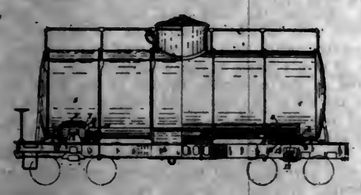
3. A vehicle body having vertically extending post portions at the sides thereof and a seat frame adjustably connected at its sides to the upper ends of said post portions for tilting forward and backward adjustment thereon.

4. A vehicle body having vertically extending side posts and a seat frame tiltably connected at the upper forward portions of its sides to the upper ends of said posts.

5. The combination with a vehicle body having vertically extending side posts and studs carried thereby at the upper ends thereof, of a seat frame having integral side and back portions, the upper forward parts of said side portions engaging said studs for forward and backward and tilting adjustment thereon and means for securing the seat frame in adjusted position.

[Claims 6 to 10 not printed in the Gazette.]

1,251,978. TANK-CAR. EDWARD D. LEVY, Springfield, Mo., and HENRY W. JACOBS, Topeka, Kans. Filed Apr. 23, 1917. Serial No. 163,808. (Cl. 105—264.)



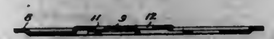
1. In combination with a tank-car and the cradle therefor, an expansion bearing comprising a member interposed between the tank and the cradle, and means intermediate of said member and the tank-shell whereby movement of the member relative to the tank is prevented and frictional contact confined to the outer surface of said member.

6. The combination of a tank, a supporting cradle therefor, with a bearing plate shaped to conform with the contour of the lower part of the tank-shell, means intermediate of the sides of said plate and the tank-shell whereby movement of the tank, relative to said plate, is prevented, and cushioning means intermediate of said plate and the cradle.

10. A tank car, comprising a metal tank fixedly secured at its center to the car underframe and in expansible relation therewith at its ends, expansion pads comprising rectangular metal plates conforming with the contour of the tank-shell and located intermediate of the tank and the underframe, the tank and said plate being provided with correlated surfaces having abutting relation whereby longitudinal and transverse movement of the tank, relative to said plates, is prevented and expansion of the tank permitted, cradles secured on the underframe adjacent the ends of the tank, said cradles being provided with enlarged upper surfaces, and resilient means interposed between said surfaces of the cradles and said plates.

[Claims 2 to 5, 7 to 9, and 11 not printed in the Gazette.]

1,251,979. SPROCKET. GEORGE S. LEWIS, Oak Park, Ill., assignor to Mead Cycle Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 27, 1916. Serial No. 128,050. (Cl. 74—41.)

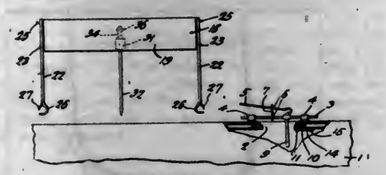


1. A sheet metal sprocket of substantially uniform thickness throughout its extent having a central hub portion, an outer peripheral portion provided with radially extending teeth lying substantially in the medial plane of the sprocket, and an intermediate body portion, said body portion and hub portion lying in planes offset with respect to the medial plane.

2. A sprocket of substantially uniform thickness having a central hub portion, a peripheral portion with teeth extending radially therefrom at substantially right angles to the axis of the sprocket, and an intermediate body portion, said body portion and hub portion lying in planes at opposite sides respectively of the plane of said radially extending teeth.

3. A sprocket of substantially uniform thickness throughout its extent and having its outer edge portion offset relatively to the plane of the adjacent portion of the body of the sprocket and its central portion offset, said outer edge portion extending in a plane substantially at a right angle to the axis of the sprocket, and containing teeth, extending substantially at a right angle to said axis.

1,251,980. MAIL-DELIVERY APPARATUS. WILLIAM LEWIS, Norfolk, Va. Filed Feb. 23, 1917. Serial No. 150,495. (Cl. 258—18.)

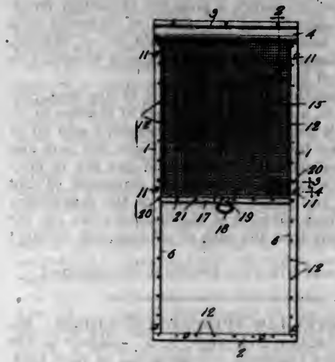


1. In a device of the class described, a car having a doorway; a shaft disposed transversely of the doorway and journaled on the car, the shaft being provided with mail handling means; a handle projecting into the doorway from the shaft; a rigid main latch pivotally supported on the car for swinging movement and provided with means for engaging the handle; spring means for advancing the main latch to cause the same to coact with the handle; and an auxiliary latch movably mounted on the car and coacting with the main latch, to hold the main latch retracted with respect to the handle, against the action of the spring means.

2. In a device of the class described, a car having a doorway; a shaft disposed transversely of the doorway and journaled on the car; a rod projecting from the shaft at an angle thereto; spring fingers on the rod and the shaft and extended longitudinally of the rod and the shaft; and a mail bag support bridging the space between the shaft and the rod, one end of the mail bag support being wedged between one finger and the rod, and the other end of the mail bag support being wedged between the other finger and the shaft.

3. In a device of the class described, a car having a doorway; a shaft disposed transversely of the doorway and journaled on the car; a rod projecting from the shaft at an angle thereto; spring fingers on the rod and on the shaft and extended longitudinally of the rod and the shaft; a flexible element having its ends engaged, respectively, between one finger and the rod, upon the one hand, and between the other finger and the shaft on the other hand; and a bag-holding ring secured to the intermediate portion of the flexible element and located between the shaft and the rod.

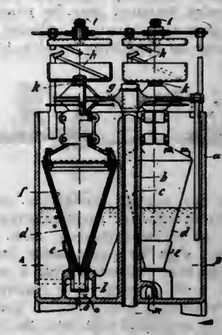
1,251,981. WINDOW-SCREEN. WILLIAM J. LEWIS, Dunlap, Kans. Filed Sept. 25, 1916. Serial No. 122,106. (Cl. 156—89.)



In a window screen, a frame including vertical side members and a lower horizontal connecting member, each member comprising a pair of strips, apertured ears on the strips, pins entering the ears to connect the strips for relative movement, one strip of each pair having a plurality of threaded openings, and the other strip having registering smooth openings, to receive screws therein which also enter the threaded openings, whereby to clamp the strips together.

1,251,982. MULTIPLE-PHASE-MOTOR REGULATING RESISTANCE. FREDRIK LJUNGSTRÖM, Finspong, Sweden, assignor to Aktiebolaget Ljungströms Ångturbin, Finspong, Sweden. Filed Apr. 16, 1915. Serial No. 21,885. (Cl. 219—57.)

1. A series of nested pairs of inverted conical electrically conducting terminal parts, those of each pair being permanently nested together, leaving at all times a space between them for a similarly formed film of electrically resisting fluid, the space above each pair of nested terminals being free of such fluid, in combination with means for raising or lowering one member of each pair to vary the thickness of said film and consequently the degree of resistance, and means for supplying such fluid to the said spaces, these variable films of fluid constituting the entire resistance except that of the conductors and said terminals.



2. In combination with an inlet for liquid and a series of conduits therefrom, a corresponding series of chambers supplied by said conduits, and tubular funnel-form pedestals supported by said chambers and communicating with the same, a corresponding series of fixed funnels having their lower ends held by said pedestals and a corresponding series of conical elements of similar taper permanently located within said funnels respectively but movable up and down therein to vary the thickness of the sheet of liquid between said parts and the area of their surface in contact therewith to regulate the resistance to multiple-phase electric currents.

3. In combination with a series of upright fixed funnels and means for supplying them equally and simultaneously with liquid which does not extend above the tops of said funnels, a series of conical elements of corresponding taper, respectively suspended permanently in said funnels and means for raising and lowering said conical elements simultaneously and equally to regulate the thickness of the layers of liquid between said conical elements and said funnels, said layers constituting the entire resistance to the electrical currents flowing between the fixed funnels and the movable elements in the several pairs of such parts.

4. In combination with a series of upright fixed funnels and means for supplying them equally and simultaneously with liquid, a series of conical elements of corresponding taper, respectively suspended in said funnels, means for raising and lowering said conical elements equally and simultaneously to regulate the thickness of the layers of liquid between said conical elements and said funnels, the liquid being admitted by a common inlet and flowing upward through the interspace of each pair of funnels and over the upper edges of the immovable funnels and through an outlet.

5. In combination with an inlet for liquid and a series of conduits therefor, a corresponding series of chambers supplied by said conduits, and tubular funnel-form pedestals supported by said chambers and communicating with the same, a corresponding series of fixed funnels having their lower ends held by said pedestals and a corresponding series of conical elements of similar taper permanently located within said funnels respectively but movable up and down therein to vary the thickness of the sheet of liquid between said parts and the area of their surface in contact therewith to regulate the resistance to multiple-phase electric currents, the said movable elements being always situated partly above the level of the liquid.

1,251,983. CONNECTION FOR ELECTRIC CONDUCTORS. JAMES H. LOCKWOOD, Bridgeport, Conn. Filed Jan. 29, 1917. Serial No. 145,066. (Cl. 173—263.)

1. A connection for electric conductors comprising a body having threaded portions, correspondingly threaded members adapted to be screwed threon, each of said body

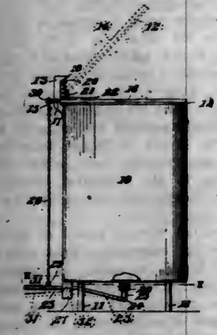
portions being provided with an eccentrically located bore and the member thereon having a passage through the same adapted to be brought into register with said bore, whereby a wire terminal may be passed through said passage and into said bore and engaged therein by turning said member on said body portion to offset the wire therebetween.



3. A connection for electric conductors comprising a rod having threaded extremities, correspondingly threaded heads adapted to be screwed thereon, each of the rod ends being provided with an eccentrically located longitudinal bore and the head thereon having a bore through the same adapted to be brought into register with the bore in said rod, whereby a wire terminal may be passed through the bore in said head and into the bore in said rod and engaged therein by turning said head on said rod to offset the wire therebetween, and lock nuts on the threaded rod portions to engage and lock said heads against relative movement on said rod.

[Claim 2 not printed in the Gazette.]

1,251,984. GARBAGE-CAN. JOZSEF LOSONCY, Reading, Pa., assignor of one-half to Louis Bedecs, Reading, Pa. Filed Mar. 22, 1917. Serial No. 156,600. (Cl. 220—115.)



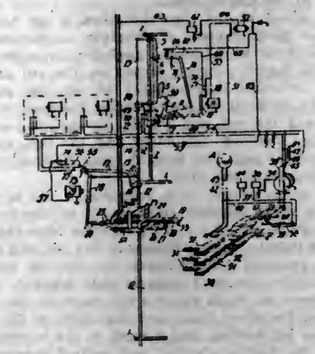
1. A garbage device comprising a can, a closure hinged thereto, a post swiveled to the bottom of the can, and an operating foot lever for the lid pivoted to the said post.

3. A garbage device comprising a can, a closure hinged thereto, a post swiveled to the bottom of the can, an operating foot lever for the lid pivoted to the said post, and angular retaining brackets oppositely arranged with respect to the lever having horizontal portions adjacent thereto.

6. A device of the class described comprising a can, elevating legs for the can, a bracket carried by the can having an overlying top flange, a closure lid for the said can, a cleat secured to the said lid having an extension pivoted to the said bracket, a closure spring tensioned between the said cleat and flange, a centrally depending boss carried by the can, a post swivelly mounted in the said boss, a lever pivoted to the said boss radially extending outwardly of the can having a tread plate at its free end, a pivoting link between the said lever and extension, angular retaining racks arranged in spaced relations at the opposite sides of the lever having horizontal receiving portions adapted for detachably receiving said lever therebeneath when in its depressed laterally displaced position with the lid in its open arrangement.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,251,985. AUTOMATIC SWITCH. FRANK A. LUNDQUIST, Chicago, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Feb. 12, 1917. Serial No. 148,228. (Cl. 179—27.5.)



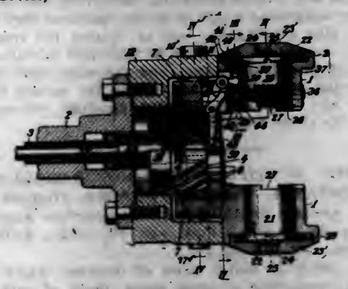
1. In an automatic switch, a plurality of line bars, contacts on said line bars, a gravity operated set of brushes to coöperate with said contacts, means for releasing said set of brushes, and means for longitudinally displacing a line bar to position its contacts to arrest the movement of said set of brushes.

4. In an automatic switch, a plurality of contact terminals, a gravity operated set of brushes to coöperate with said terminals, means for releasing said set of brushes, and means for longitudinally displacing said terminals to engage said set of brushes.

9. In an automatic switch, a plurality of line bars, contacts on said bars, a gravity operated set of brushes to cooperate with said contacts, means for releasing said set of brushes, a magnet individual to each of said line bars and arranged to longitudinally displace said line bar to position the contacts thereof to arrest the movement of said set of brushes, and means responsive to the engagement of the brushes with contacts of the displaced line bar for removing said line from the path of subsequently operated brushes.

[Claims 2, 3, and 5 to 8 not printed in the Gazette.]

1,251,986. SWIVEL-JAW SPINDLE AND CHUCK. EDWARD J. MCCLELLAN, New York, N. Y., assignor to The Garvin Machine Company, a Corporation of New York. Filed July 30, 1914. Serial No. 854,042. (Cl. 29—107.5.)

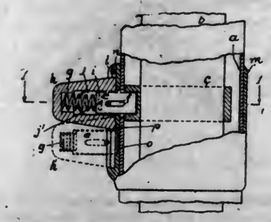


1. The combination of jaws, displaceable heads in said jaws, means for clamping the jaws on a piece of work, a spindle, and means extending through the spindle for changing the position of said heads in the jaws while the latter are clamped upon the work.

42. The combination of a chuck casing, jaws extending clear across the diameter of the chuck casing, a lateral extension of each jaw bearing on the guides of the other jaw, swiveling heads in each jaw, and a gear coaxial with the chuck for rotating said swivel heads in said jaws.

[Claims 2 to 41 not printed in the Gazette.]

1,251,987. AUTOMOBILE-LOCKING MEANS. FRANK J. MCFARLAND, Portland, Oreg. Filed Mar. 22, 1917. Serial No. 156,784. (Cl. 70—90.)



1. The combination with the steering column and its post, of a collar rigidly secured on the steering post and provided with one or more sockets, circumferentially disposed, a collar affixed on the steering column, a housing mounted longitudinally slidable on said collar of the column, a spring-controlled bolt reciprocable in said housing, key-operated means for retracting said bolt, said housing having a movement permitting the same to be so arranged as to place said bolt in and also out of registration with the socket, and means for holding the housing against movement when so arranged that its bolt is out of registration with its socket.

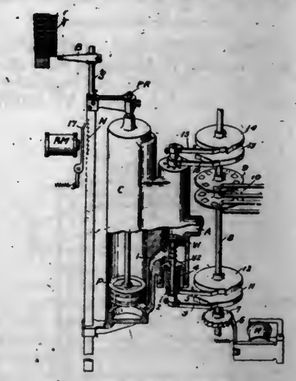
2. The combination with the steering column and its post, of a collar rigidly secured on the steering post and provided with one or more sockets, circumferentially disposed, a collar affixed on the steering column and provided with a longitudinal guide-way, a housing mounted longitudinally slidable on said collar of the column, a spring-controlled bolt reciprocable in said housing, key-operated means for retracting said bolt, said housing having a movement permitting the same to be so arranged as to place said bolt in and also out of registration with the socket, and means for holding the housing against movement when so arranged that its bolt is out of registration with its socket.

3. The combination with the steering column and its post, of a collar rigidly secured on the steering post and provided with one or more sockets, circumferentially disposed, a collar affixed on the steering column and provided with a longitudinal guide-way, a housing mounted longitudinally slidable in said guide-way, a spring-controlled bolt reciprocable in said housing, key-operated means for retracting said bolt, said housing having a movement permitting the same to be so arranged as to place said bolt in and also out of registration with the socket, a bar at the upper end of said guide-way, and a recess on the steering column for receiving the bolt and thereby hold the latter out of registration with its socket, such recess adapted to permit the bolt to be disengaged therefrom by the forcible movement of the housing.

1,251,988. AUTOMATIC SELECTIVE SWITCH. JAMES L. MCQUARRIE, Montclair, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Nov. 15, 1916. Serial No. 131,456. (Cl. 179—27.5.)

1. An automatic switch having fixed circuit terminals and brushes arranged to move over and make contact with said terminals, fluid controlled means for actuating said brushes, a sequence switch having electrical contacts for controlling said automatic switch, and means carried by said sequence switch for mechanically controlling said actuating means.

2. An automatic switch having fixed circuit terminals and brushes arranged to travel over and make contact with said terminals, pneumatically controlled means for actuating said switch, a sequence switch comprising a motor magnet, a spindle arranged to be rotated by said motor magnet, a plurality of electrical contactors mounted on said spindle, and a plurality of cams for mechanically controlling said pneumatic means mounted on said spindle.



3. An automatic switch having fixed circuit terminals, and brushes arranged to travel over and make contact with said terminals, a cylinder, a piston movable in said cylinder, a connection between said piston and said brushes comprising a piston rod and a brush carriage, a source of fluid under pressure, ports for the admission and exhaust of said fluid, and valves for controlling said ports, a sequence switch comprising a motor magnet, and a spindle adapted to be rotated by said magnet, said spindle carrying a plurality of electrical contactors, and a plurality of cams for mechanically operating said valves in predetermined positions of said sequence switch.

4. An automatic switch, fixed circuit terminals, brushes arranged to travel over and make contact with said terminals, means for actuating said brushes, a sequence switch for controlling said actuating means comprising rotatably mounted electrical contactors and cams, said cams having direct mechanical control over said actuating means.

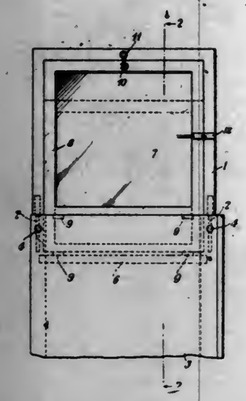
1,251,989. DOUGHNUT-LIFTER. BERT C. MAGOON, New Castle, N. H. Filed Jan. 6, 1916. Serial No. 70,633. (Cl. 65—12.)



An implement for lifting doughnuts comprising an elongated tapering shank having an eye on its enlarged end, a head integral with the opposite end of said shank and of a diameter greater than that of the portion of the shank to which it is attached, an annular inclined face connecting the larger diameter of the integral head with the

shank, a curved outer face on the annular head, a vertical annular wall connecting the curved outer face to the annular inclined face, the diameter of the shank at its larger end being of a size to be conveniently grasped by the hands of the operator and the diameter of the shank at its opposite end adjacent said head being of a size to engage a doughnut or the like whereby it can be lifted from a pan.

1,251,990. AUTOMOBILE-BODY. HERMAN C. MAISE, Detroit, Mich., assignor to Springfield Body Corporation of New York, New York, N. Y., a Corporation of New York. Filed Feb. 23, 1917. Serial No. 150,372. (Cl. 21—125.)



1. In a device of the kind described, a body portion containing a recess, a window frame detachably secured thereto above the recess and a window slidably mounted in and adapted to be lowered from the window frame into the recess.

2. In a device of the kind described, a body portion containing a recess, a window frame detachably secured thereto above the recess and a window slidably mounted in the window frame for lowering into said recess and adapted to be removed with the window frame when it is removed from the body portion.

3. In a device of the kind described, a body portion containing a recess, a window frame detachably secured thereto above the recess, a window slidably mounted in the window frame for lowering into the recess, and means to hold the window in the frame when the latter is detached.

4. In a device of the kind described, a body portion having a recess, a window frame carrying a stud adapted to enter a corresponding depression in the body portion and a window slidably mounted in the window frame and adapted to be lowered into the recess.

5. In a device of the kind described, a body portion having a plurality of depressions and a recess, a window frame having a plurality of studs at its lower edge adapted to coöperate with said depressions and a window slidably mounted in said frame and adapted to be lowered into said recess.

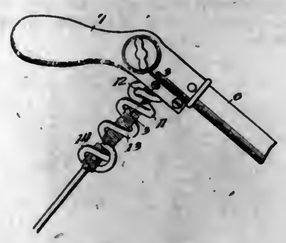
[Claims 6 to 11 not printed in the Gazette.]

1,251,991. ELECTRIC-CORD PROTECTOR. CLAUD R. DODGE, Salt Lake City, Utah. Filed Nov. 2, 1916. Serial No. 129,206. (Cl. 173—322.)

1. A device of the class described, including end and intermedinte coils and open turns connecting the same.

2. A device of the class described, including an expansible resilient coil and means at the ends of the coil for connection with a flexible conductor cord.
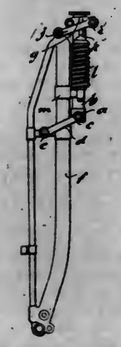
5. The combination with an appliance to be supplied with electric current and a flexible conductor cord electrically connected therewith, of a flexible resilient element extending from the appliance and constituting a support for the cord, the said cord being attached to the said element adjacent the inner end thereof and being also attached to the said element at the outer end thereof and between its attached portions being coiled about the said element.



9. The combination with an appliance to be supplied with electric current and a flexible conductor cord electrically connected therewith, of a supporting element connected with the appliance, said supporting element being rigid where it connects with the appliance and resilient and flexible a distance from the appliance, the said support having an opening therein, and the said cord being wound around the flexible portion of the support and connected therewith at the outer end of the wound portion, the cord entering the said support through said opening and extending through the interior thereof a short distance to the end thereof, the portion of the supporting element through which the cord passes being less flexible than the portion around which the cord is wound, whereby the supporting element for the conductor cord is more flexible along the intermediate portion thereof where the conductor cord is wound about it, than it is at the outer end thereof.

[Claims 3, 4, 6 to 8, and 10 not printed in the Gazette.]

1,251,992. SPRING-FORK FOR CYCLES, MOTOR-CYCLES, AND THE LIKE. ARTHUR DREW, deceased, Wythall, England, by Samuel Nield, Wythall, near Alvechurch, England, and Edith A. Osborne, Wythall, England, executors, assignors of one-half to William Holder Osborne and one-half to Edith Augusta Osborne, Wythall, near Alvechurch, England. Filed May 27, 1916. Serial No. 100,397. (Cl. 208—97.)

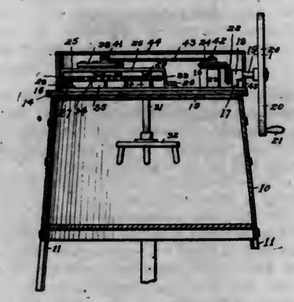


1. A spring fork comprising a fork, a steering head, links adapted to connect the fork to the steering head, a two arm bracket secured thereto, a support secured to each of the prongs of the fork, a pair of springs positioned below the upper extremities of the fork, said springs being further positioned one to each side of the steering head and to the rear of the prongs of the fork, each of said springs being interposed between one of the arms of the bracket and one of the supports and having opposite extremities secured one to each respectively.

3. A spring fork, comprising a fork, a steering head, links adapted to connect the fork to the steering head, a bracket comprising a clamping ring, a pair of downwardly extending arms, and a transverse bearing member secured to the ring, the upper of said links having one of their ends engaging the extremities of the bearing member, their opposite ends being pivotally secured to the upper end of the fork, supports secured one to each of the prongs of the fork, a pair of springs positioned below the upper end of the fork, and being further mounted one to each side of the steering head and to the rear of the prongs of the fork, each of said springs being interposed between one of the arms of the bracket, one of the supports having its opposite extremities secured one to each respectively.

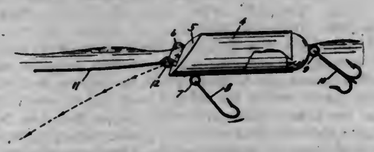
[Claim 2 not printed in the Gazette.]

1,251,993. WASHING-MACHINE GEARING. STEVEN DUICH, Colfax, Iowa, assignor of one-half to William Hughes, Colfax, Iowa. Filed Aug. 30, 1916. Serial No. 117,637. (Cl. 74—50.)



In a device of the class described, a support, three spaced parallel shafts mounted thereon and arranged in the same vertical plane, a pinion mounted on the central shaft, a larger pinion and a disk mounted on one of the other shafts, the pinion being adapted to mesh with the first described pinion and the disk having a plurality of spaced openings therein, removed varying distances from the periphery of said disk, a detachable wrist pin selectively mounted in one of said openings, a pinion mounted on the third shaft, a crank pin fixed in said pinion, a pitman having one end pivoted to the crank pin and the other end pivoted to said wrist pin, and means for imparting rotation to the last described pinion, the parts being so arranged that rotation of the last described pinion imparts to the disk oscillating movement of varying degree according to which of the several openings the wrist pin is received in.

1,251,994. ARTIFICIAL BAIT. CHARLES FARMES, Minneapolis, Minn., assignor of one-half to Joseph M. Martin, Minneapolis, Minn. Filed Sept. 4, 1917. Serial No. 189,429. (Cl. 43—30.)

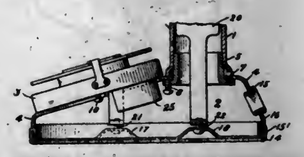


1. An artificial bait having a cylindrical body with a downwardly inclined convex head, the axis of which obliquely intersects the axis of said body.

2. An artificial bait having a cylindrical body with a downwardly inclined convex head, the axis of which obliquely intersects the axis of said body, and a pair of wings on said head.

3. An artificial bait having a cylindrical body with a head end that is inclined from the top to the bottom of said body, and a pair of outwardly diverging and upwardly converging wings on the head.

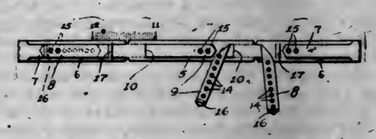
1,251,995. TELEPHONE DESK-STAND. OSCAR F. FORSBERG, Yonkers, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Dec. 30, 1916. Serial No. 139,892. (Cl. 179—147.)



1. In a telephone desk stand, a base comprising a bell and a bottom plate, an impulse transmitter mounted on said bell, said bell having an opening therein for receiving any projections on the bottom of said transmitter, lugs integral with said bell extending downward from the edge of said opening, and screws extending upward through the bottom plate and engaging said lugs to hold said bell and bottom plate together.

2. In a telephone desk stand, a base comprising a bell and a bottom plate, a standard eccentrically mounted on said bell, a clamping nut for fastening said standard to said bell, an impulse transmitter mounted on said bell, screws extending upward through said bell and the bottom of said impulse transmitter, said bell having a hole therein for receiving projections on the bottom of said transmitter, lugs integral with said bell extending downward from the edge of said hole, and screws extending upward through the bottom plate and engaging said lugs to hold said bell and bottom plate together.

1,251,996. ADJUSTABLE GARMENT. ALFRED FUERST, New York, N. Y. Filed Apr. 14, 1917. Serial No. 161,960. (Cl. 2—143.)



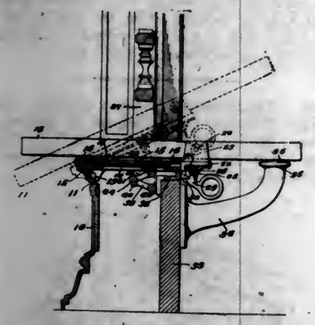
1. The combination with a garment comprising transversely extensible and inextensible sections, the extensible part being gathered, of an adjusting waistband comprising overlapping strips adapted to be displaced longitudinally with respect to each other, two strips being secured respectively to the opposite lateral portions of the same extensible gathered section and extending reversely across the same and terminating in end portions, drawing upon which contracts the extensible section while shifting them in the opposite directions lets it out, one of said strips crossing through the other so that both said end portions are positioned at the same side of the waistband, and means for fastening these end portions to other portions of the waistband in successive and corresponding positions.

[Claims 2 and 3 not printed in the Gazette.]

1,251,997. DEAL-PLATE. CLARENCE A. FULLERTON, New York, N. Y. Filed June 28, 1916. Serial No. 106,516. (Cl. 211—12.)

1. In a deal plate, a wall having an opening therein, a frame pivotally carried by said wall, a pocket formed in said frame to receive a display card and a transparent

plate having portions thereof rendered opaque carried by said swinging frame.



2. In a deal plate, a wall having an opening therein, trunnions carried by said wall, a frame pivotally carried by said trunnions, said frame having a pocket formed therein to receive a display card, a plate carried by said frame, said plate having portions thereof transparent to expose the display card, extensions from said frame for engaging and holding said plate to said frame and means for holding said frame and plate in an inclined position to expose the display card.

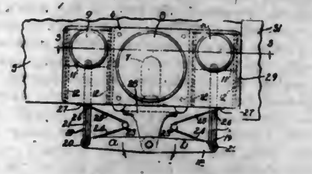
3. In a deal plate, a wall having an opening therein, a frame pivotally mounted in said wall, said frame having a pocket formed therein to receive a display card or name plate, cushions carried by said frame, extensions from said frame, a plate carried by said frame on said cushions between said extensions, said plate having a transparent portion overlying the name plate carried by the pocket in said frame, a latch carried by said frame for holding said frame in a locked lower position and links carried by said frame and said wall for holding said frame and plate in an inclined position to display the name plate.

4. In a deal plate, a wall having an opening therein, a frame pivotally mounted in said opening, said frame having a pocket formed therein, a name plate interchangeably inserted in said pocket, extensions from said frame, ears rising from said extensions, a plate carried by said frame between said ears, said plate being recessed between said ears, screws carried by said ears engaging in said recessed portion of said plate, a spring pressed latch member carried by one of said extensions, said latch coacting with the projection carried by said wall to lock said frame in its lower position and links carried by said wall and said swinging frame having a limited movement in one direction, serving to maintain said frame and plate in an inclined position in one position of said links and said links permitting the lowering of said frame by a forward motion of the knuckle of said links.

5. In a deal plate, a wall having an opening therein, a frame pivotally mounted at the lower portion of said opening, said pivotal mounting being in advance of the center of gravity of said frame, a plate carried by said frame, and means carried by said wall and frame for holding said frame in inclined position to close said opening by said plate.

1,251,998. SIGNALING DEVICE. JOHN L. GLEASON, Jamaica Plain, Mass. Filed Nov. 22, 1917. Serial No. 62,839. (Cl. 116—31.7.)

3. A signaling device for vehicles having, in combination, a plurality of shutters, a plurality of links, one pivotally attached to each of said shutters, said links each having a slot extending longitudinally thereof, an actuating member, pins on said actuating member adapted to enter the slots in said links, and a plurality of V-shaped springs, one interposed between each of the pins on said actuating member and the opposite end of the slot within which said pin is arranged, whereby when said actuating members operate said slide will be positively moved in one direction and yieldingly moved in the opposite di-



rection for a portion of the movement of said actuating member.

[Claims 1 and 2 not printed in the Gazette.]

1,251,999. PEDAL ATTACHMENT FOR AUTOMOBILES. FREDERICK C. GRANT, Denver, Colo. Filed Apr. 9, 1917. Serial No. 160,767. (Cl. 74—81.)



1. In a pedal attachment of the character described, a plate having a pedal engaging lip on one end thereof, a stop on its opposite end, and a clamping element spaced from said lip and supported in said plate and adapted to coöperate with said lip in engaging a pedal.

2. In a pedal attachment of the character described, a plate having a pedal engaging lip on one end, a stop on its opposite end, and a clamping element spaced from said lip, and comprising a screw extending through said plate, a clamping member on said screw adapted to cooperate with said lip in engaging a pedal, and a nut on said screw for engaging said clamping member.

3. In a pedal attachment of the character described, a plate, having a lug on one end which is recessed to form an engaging lip, for one edge portion of a pedal, a foot engaging stop on the other end thereof, abutments on said plate including an apertured lug for engaging the opposite edge portion of a pedal, a screw extending through said apertured lug, a clamping member on said screw and a nut on said screw for engaging said clamping member, said clamping member and said lip acting to secure said plate to a pedal.

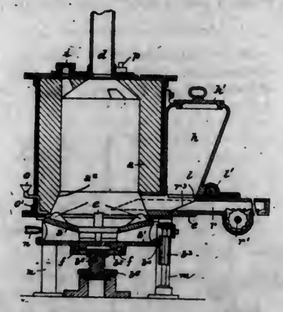
4. In a pedal attachment of the character described, the combination with a pedal of a plate having an introverted lip on one end for overlapping one edge portion of the pedal, abutments including an apertured lug on said plate, for engaging the opposite edge portion of the pedal, a screw extending down through and beyond said apertured lug, a clamping member on said screw for overlapping the adjacent edge portion of the pedal, and a nut on said screw for engaging and clamping said clamping member against said pedal, said attachment having a foot engaging stop on the end thereof opposite its pedal-engaging lip.

1,252,000. GAS-PRODUCER. HAROLD JAMES GREEN, Bolton, England. Filed July 26, 1915. Serial No. 41,929. (Cl. 48—66.)

1. In a gas producer, in combination; a producer for containing fuel; having an upper part separate and rotatable and a lower fixed part; means for rotating the upper part; means for feeding raw fuel in small charges into the lower fixed part and through the side thereof; a fixed delivery pipe from the upper rotary part; water seals between the delivery pipe and the rotary upper part; and such rotary upper part and the fixed lower part; and a rotary grate for rotating the fuel past the feeding point.

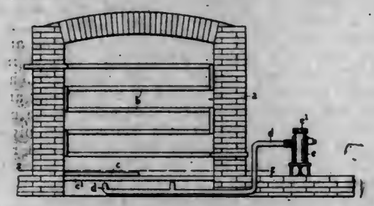
2. In a gas producer, a producing chamber for containing fuel, a rotary hollow grate in the producing chamber,

means for rotating the grate, means for adjusting the grate vertically, a hopper supported adjacent the gas producer and in communication therewith, a reciprocating conveyer operating adjacent the lower end of the hopper for forcing material from the hopper into the



producing chamber, means for forcing air under the grate, ribs on the upper surface of the grate for agitating the material in the producing chamber and a gas exhaust pipe in the upper part of the gas producer for exhausting gas therefrom.

1,252,001. TREATMENT OF DECORATIVE SURFACES. GEORGE H. HADFIELD, Mitcham, and ALFRED E. BAWTREE, Sutton, England, assignors to Hadfields (Merton) Limited, Mitcham, England, a Corporation of Great Britain. Filed Sept. 18, 1917. Serial No. 191,978. (Cl. 41—41.)



1. A process for controlling the crystalline structure, color, and hardness of decorative surfaces coated with varnish and like fluids, which consists in exposing such coated surfaces to the action of a vapor equivalent to nitric acid vapor, substantially as set forth.

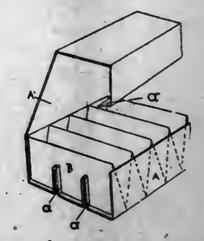
9. The process for controlling the crystalline structure, color and hardness of decorative surfaces coated with varnish and like fluids, which consists in exposing such coated surfaces to the action of the equivalent of nitric acid vapor and in adjusting the composition of the varnish and like fluids to suit the action of the said vapor, substantially as set forth.

[Claims 2 to 8 not printed in the Gazette.]

1,252,002. FOLDING CARDBOARD EGG BOX OR CARRIER. EDWARD E. HALE, Guelph, Ontario, Canada. Filed June 21, 1917. Serial No. 176,149. (Cl. 229—29.)

1. In an egg carrier or container formed of cardboard or other such like material provided with V shaped egg carrying troughs, downwardly projecting tongues cut or stamped in the sides of the V shaped troughs extending completely to the bottom of the same, said tongues being adapted to be pressed outward by the contained eggs thus raising the said V shaped troughs and the eggs contained therein from and out of contact with the bottom of the box for the purpose of holding the eggs out of contact with any part of the outer casing of the box or carrier substantially, as hereinbefore described and illustrated in the drawings.

2. The method of securing the ends of the V shaped egg troughs in a vertical position consisting in vertical slots at the ends of the upwardly projecting infolds into which the end fold of the V shaped filling sits, the lower portion of said end fold being provided with a corresponding vertical slot so as to allow said end fold to project to the bottom of the box for the purpose of providing a self-adjusting egg carrier filling which shall be rigidly secured at the ends so as to form part of the egg box or container substantially, as hereinbefore described and illustrated in the drawings.



3. In combination with the creased and folded cardboard casing of my egg carrier, the locking flap consisting of an extension of the lid of the box folded under and tucked into the first upwardly projecting infolded partition, as hereinbefore described and illustrated in the drawings.

1,252,003. PORTABLE DOOR-SECURING DEVICE. WILLIAM D. HALL, West Philadelphia, Pa., assignor of one-half to J. Ernest Bonichou. Filed Feb. 27, 1917. Serial No. 151,219. (Cl. 16—8.)



A portable door securing device comprising a bar having its opposite ends bent at approximately right angles to the body of the bar to extend into the bolt receiving aperture of the striker on the door jamb and having a series of detents upon its edge to be engaged by a link hinged to a sleeve mounted to slide upon said bar, a sleeve mounted upon said bar to slide thereon and provided at each of its opposite ends at each side thereof with laterally projecting flanges to bear respectively against a door and the architrave about said door and having slots formed therein at each end thereof to permit a detent upon the bar to be engaged by a locking device carried by said sleeve, and a locking device comprising a link hinged to said sleeve and adapted to be moved into engagement within one of the slots in the sleeve with a detent on the bar.

1,252,004. FLUSH CAR-DOOR. EDWARD W. HARTOUGH, St. Louis, Mo., assignor, by direct and mesne assignments, to Camel Company, Chicago, Ill., a Corporation of Maine. Filed June 14, 1915. Serial No. 33,918. (Cl. 20—23.)

1. A car door construction for freight cars comprising door posts having their adjacent sides substantially at right angles to the side of the car and forming a door opening, a track spaced from the side of the car above said opening and slanting out to one side thereof, a sliding door having its upper edge freely suspended from said track between it and the car side and adapted to slide lengthwise thereon into and out of said door opening, the lower edge of said door in closed position hanging out from the car side clear of said posts, and means for swinging the lower edge of said door sidewise into said

opening and holding it between said door posts to retain the door flush in said opening in closed position.



4. A sliding freight car door construction comprising a continuous track member secured above the door opening and extending to one side thereof, said track member being spaced from the side of the car and having a clear space between it and the car for a door hanger and having its end bent toward the car at the front side of the door opening, and a switch track member secured to said continuous track member and running from said track member toward the car at the back side of the door opening.

10. A sliding car door freely supported on hangers from a track arranged above the door, the bottom of said door having an angle bar secured below it, one flange of said angle bar projecting down along the inside face of said door, a securing rod arranged in the space below said door in front of said angle bar, and means for securing said rod against the downwardly projecting flange of said angle bar, said securing means being arranged within the outside face of the door in closed position.

[Claims 2, 3, 5 to 3, and 11 to 14 not printed in the Gazette.]

1,252,005. METHOD OF COATING ARTICLES. HENRY HESS, Philadelphia, Pa. Filed June 23, 1916. Serial No. 105,403. (Cl. 91—70.1.)

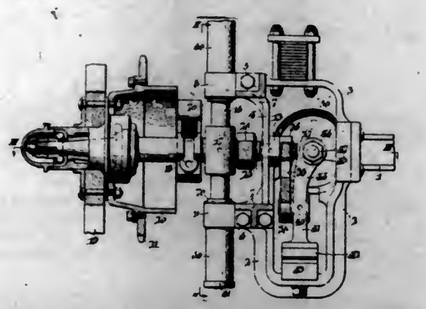
1. The method of coating articles, which consists in covering the articles *en masse* with a liquid coating composition containing an unmolten metal capable of fusion with the metal of the articles, manipulating the mass of articles to remove the surplus composition, and subjecting the covered articles *en masse* to heat sufficient to cause the metal of the composition to fuse with the metal of the articles.

3. The method of coating articles, which consists in arranging said articles *en masse* in a suitable container, immersing the container in a liquid bath of coating composition containing an unmolten metal capable of fusion with the metal of the articles, removing the container from the bath and manipulating the same to remove the surplus composition, and finally subjecting the mass of articles while in the container to heat sufficient to melt the metal of the composition and cause it to fuse with the metal of the articles.

5. The method of coating articles, which consists in arranging said articles *en masse* in a suitable container, immersing the container in a liquid bath of a composition containing an unmolten metal capable of fusion with the metal of the articles, removing the container and articles from the bath, manipulating the container and articles to throw off the surplus coating composition, subjecting the coated articles *en masse* to heat sufficient to melt the metal of the composition and cause it to fuse with the metal of the articles, and removing the coated articles from the container and subjecting the same to a tumbling action to smooth down the coating.

[Claims 2 and 4 not printed in the Gazette.]

1,252,006. SHOCK-ABSORBER. WILLIAM H. HORSTMANN, Overbrook, Pa. Filed Feb. 26, 1916, Serial No. 80,556. Renewed June 7, 1917. Serial No. 173,419. (Cl. 21—187.)



1. In a shock-absorber, the combination of a fixed axle; a wheel-carrying stud-axle, a plurality of guide rods connected to said stud-axle; a housing intervening between said fixed axle and said guide rods, and provided with bearings for said guide rods; a substantially horizontal radius arm pivotally connected with said guide rods; a sector gear carried by said radius-arm; a substantially vertical rack mounted in said housing and engaging said sector gear; a substantially vertical radius-arm; a sector gear carried by said radius-arm, a substantially horizontal rack carried by said housing and engaging said second sector gear; a swinging frame mounted upon a fixed bearing in said housing, and pivotally connected in quadrant relation with each of said radius-arms; a rod connected with said vertical radius-arm; and a spring mounted upon the housing and operatively connected with said rod, substantially as set forth.

2. In a shock-absorber system comprising a vertically movable guide rod, a fixed bearing therefor, and associated floating mechanism for converting the direction of motion of said guide rod; the combination, with said guide rod, of a casing inclosing the extremity thereof; and a longitudinally grooved bushing arranged within said casing and surrounding said rod, the openings of said grooves communicating with the interior of the casing and leading through said bearing, substantially as set forth.

1,252,007. CAGE FOR ANTIFRICTION-BEARINGS. EMIL HOTTINGER, Philadelphia, Pa. Filed May 21, 1917. Serial No. 169,827. (Cl. 64—59.)
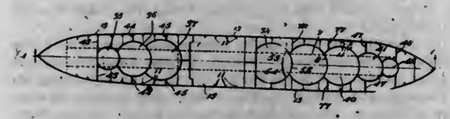


1. A spacing cage for ball bearings comprising a base ring having open notches in its edge to receive the balls, and flanges projecting from one side of the ring at the edges of the notches and extending beyond the edge of the ring and constituting pairs of deformable ball holding fingers adapted to be bent down on the individual balls to confine them in the notches, said pairs of fingers being separated from each other a sufficient distance circumferentially of the ring to admit of the insertion of a bending tool between the pairs and its engagement with the fingers to bend them down on the ball, the portions of the base ring between the pairs of fingers being included in planes connecting the centers of adjacent balls.

5. A spacing cage for ball bearings comprising inner and outer parallel base rings having alined notches in their edges to receive the balls, and flanges extending between the rings at the edges of said notches, said flanges projecting beyond the edges of the rings and constituting ball holding fingers adapted to be bent down on the balls to confine them in place, said pairs of fingers being separated from each other a sufficient distance circumferentially to admit of the insertion between the rings of a bending tool and its engagement with the projecting fingers to bend them down on the balls.

[Claims 2 to 4 not printed in the Gazette.]

1,252,008. CONSTRUCTION OF TANK VESSELS. JOSEPH WILLIAM ISHERWOOD and JOHN WILLIAM STEWART, London, England. Filed Aug. 17, 1916. Serial No. 115,519. (Cl. 114—74.)



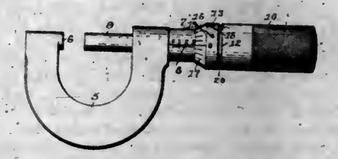
5. In a ship the combination of a plurality of overlapping tanks circular in cross section, a portion of the walls of the one tank being omitted to provide a pair of vertically disposed edges a portion of the walls of an adjacent tank located between said edges to form a common end wall; rigid connections between said tanks at said omitted portions; rigid connections between the bottom edges of said tanks and the bottom structure of the vessel; rigid connections between the top portions of said tanks and the top structure of the vessel; rigid connections between the sides of said tanks and the sides of said vessel; and connections separating off a portion of the space inside said tanks to form a pump room or other oil tight space, said tanks and connections constituting a material portion of the longitudinal strength of the vessel and thereby enabling the architect to employ a less total weight of metal in the ship than has been heretofore customary in tank vessels, substantially as described.

7. In a ship provided with a double bottom having a top plating, the combination of a plurality of overlapping tanks circular in cross section open at their bottoms and overlying said plating, a portion of the walls of the one tank being omitted to form vertically disposed edges; a portion of the walls of an adjacent tank located between said edges; rigid connections between said tanks at said omitted portions; rigid connections between the bottom edges of said tanks and the bottom structure of the vessel; rigid connections between the top portions of said tanks and the top structure of the vessel; and rigid connections between the sides of said tanks and the sides of said vessel; said tanks and connections constituting a material portion of the longitudinal strength of the vessel and the whole enabling the architect to employ a less total weight of metal in the ship than has been heretofore customary in tank vessels, substantially as described.

11. In a ship the combination of a plurality of longitudinally disposed tanks extending on each side of the keel, located in contact with each other and having a common transverse wall of a cylindrical contour between adjacent tanks; fastening and stiffening connections between the contacting walls of said tanks; and additional fastening and stiffening connections between said tanks and the hull of the vessel, whereby said tanks constitute a portion of the longitudinal stiffening of the vessel, substantially as described.

[Claims 1 to 4, 6, and 8 to 10 not printed in the Gazette.]

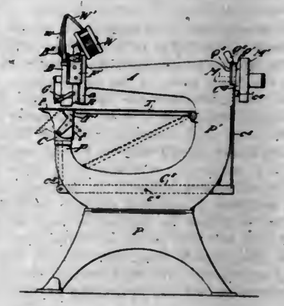
1,252,009. MICROMETER-CALIPER THIMBLE. FERNANDO OSCAR JAQUES, Sr., Providence, R. I., assignor to The Central Tool Company, Auburn, R. I. Filed Feb. 17, 1917. Serial No. 149,346. (Cl. 33—164.)



In a micrometer caliper having a frame, an anvil on the frame, a sleeve on the frame and having lines and numerals for indicating units of measurement, a screw-threaded spindle through the frame and sleeve, a thimble fast to the spindle and having an end beveled at approximately fifteen degrees and an outer annular groove, an indicating cylinder inwardly beveled at approximately fifteen degrees and frictionally fitting over the beveled end of the thimble, said indicating cylinder having a beveled end on which are lines for indicating units of measurement, a series of numerals on its side for indicating units of measurement, a portion which enters the annular groove in the thimble and means for turning the indicating cylinder on the thimble.

1,252,010. SOLDER. JOHN R. KINDER, Jr., Ladd, Ill. Filed May 31, 1917. Serial No. 172,002. (Cl. 75—1.) The herein described solder consisting of lead 35.7%, pure zinc 24.5% and tin 39.8%.

1,252,011. WIRE-STITCHING MACHINE. ARTHUR H. MAYNARD, Warwick, R. I., assignor to Boston Wire Stitcher Company, Augusta, Me., a Corporation of Maine. Filed Apr. 5, 1916. Serial No. 89,205. (Cl. 1—7.)



1. In a wire-stitching or stapling machine, the combination with a plurality of stitcher-heads containing coordinated staple-forming and driving mechanisms, of means to mount said heads in series, means to connect the mechanisms of the several heads to operate together in unison, a horizontal drive-shaft arranged to reciprocate said connecting-means, and means to adjust said shaft vertically to regulate the position of all of the several mechanisms in the several heads in relation to the work to be stitched.

25. In a wire-stitching machine, the combination with a stitcher-head, of a wire-feeding device vertically reciprocable in said head, a staple-former also reciprocable in the head, a reciprocable staple-driver, means to adjust the stroke of the wire-feeding device to regulate the length of the staple, and means to simultaneously adjust the stroke of the staple-driver in accordance with the thickness of the stock being operated upon.

35. In a wire-stitching or stapling machine, the combination with a reciprocable slide, of a bender-bar reciprocable from said slide, a rotatable anvil for coöperating with the bender-bar to form the staples, a hub rotated

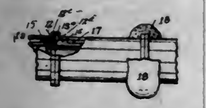
from the movement of the slide, a crank on said hub, and a link connecting said crank with the anvil to impart rotation thereto.

37. In a wire-stitching machine, the combination with a plurality of stitcher-heads, of means to mount said heads in series, wire-feeding devices in each head, staple-forming and driving devices in each head, means for simultaneously adjusting the range of action of the several wire-feeding devices to regulate the length of the staples, means for operating the staple-forming and driving devices of the several heads in unison, and means for adjusting said operating-means to regulate the operative position of all of the staple-forming and driving devices, said means connected to operate the adjusting-means for the wire-feeding devices.

42. In a wire-stitching machine, the combination with a vertically reciprocating bender-bar, of means coöperating therewith to form the staple from a length of wire fed thereto, a staple-driver for driving the staple through the work, a staple-supporter pivoted on the bender-bar to adapt it to move into position between the legs of the formed staple, means for controlling the action of the staple-supporter to allow it to move into operative position as the bender-bar descends and to retract it from said position as the bender-bar moves upward, and resiliently-operated means adapted to engage the staple-supporter to yieldingly maintain it in its operative position.

[Claims 2 to 24, 26 to 34, 36, and 38 to 41 not printed in the Gazette.]

1,252,012. SECTIONAL-BLOCK TILE. FREDRICK H. MEIER, Marshalltown, Iowa. Filed July 24, 1916. Serial No. 111,058. (Cl. 72—38.)



1. A tile comprising a plurality of outer blocks or sections arranged side by side in a circle, a plurality of inner blocks similarly arranged with their outer faces adjacent to the inner faces of the outer blocks, and overlapping the joints between the outer blocks, said outer and inner blocks being provided on their inner and outer faces, respectively, with coacting ribs and lugs, whereby the inner and outer blocks may be locked together when assembled in a completed tile, said ribs being so spaced as to leave open spaces between the sections, each outer block being provided at one end with an inwardly extending flange for covering the joints between the blocks at one end of the tile and with an outwardly extending flange, each inner block being provided at the opposite end with an outwardly extending flange for covering the joints between said blocks, projecting beyond the outer sections.

2. A tile, comprising a plurality of outer sections curved from side to side arranged edge to edge in succession around a tile, each outer block having on its inner surface spaced longitudinally arranged ribs with their adjacent edges lying in planes radial of the tile, and with their outer side edges beveled toward the bodies of said sections, each outer block having at one end a flange projecting inwardly beyond said ribs, and having adjacent to said flange between said ribs an inwardly projecting lug having its side edges beveled toward the bodies of the sections, and a plurality of inner sections, each having on its outer surface spaced ribs, the adjacent edges of said ribs being arranged in planes radial of the tile, the outer side edges of said last ribs being beveled toward the bodies of said inner sections, said inner sections being arranged in a circle inside the outer sections with said first described edges of the ribs of each inner section arranged adjacent to the first described edges of ribs of two outer sections, each inner section having at one end an outwardly extending flange adapted to be at the opposite end of the tile from the inwardly extending flanges of the outer sections, each inner section having between its ribs adjacent to its outwardly extending flange, an outwardly extending lug having its side edges beveled toward the body of said inner section, whereby the inner and outer sections may be assembled by placing the inner sections against the outer sections, and moving them a slight distance longitudinally, for causing the ribs of the inner and outer sections to interlock with the lugs of the outer and inner sections.

3. A sectional tile, comprising a plurality of outer sections arranged in a circle around the tile, a plurality of inner sections similarly arranged and staggered with relation to the outer sections, each outer section being provided with inwardly extending ribs and with an inwardly extending lug near one end, each inner section being provided with outwardly extending ribs and with an outwardly extending lug near its opposite end, the coacting faces of the ribs and lugs being beveled to permit the inner and outer sections to be placed together and moved slightly longitudinally for causing the ribs and lugs of the sections to interlock, and for leaving spaces between the inner and outer sections.

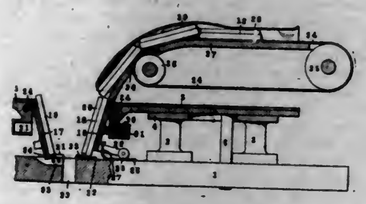
1,252,013. MANUFACTURE OF ACID AND WATER PROOF CEMENT. CURTIS C. MEIGS, Philadelphia, Pa., assignor to Electro-Chemical Supply & Engineering Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 3, 1916. Serial No. 69,916. (Cl. 106—30.)

1. As an improvement in the manufacture of acid and water proof cement by mixing silicious material and sodium silicate, the mode herein described of increasing the hardness and density of the cement, said mode consisting in adding to the silicious material a salt which, when acted upon by water, will produce an acid reaction.

4. As an improvement in the manufacture of acid and water proof cement by mixing silicious material and sodium silicate, the mode herein described of increasing the hardness and density of the cement, said mode consisting in adding to the silicious material before the addition of the sodium silicate a chlorid which, on the subsequent addition of the sodium silicate, will be acted upon by the water in the latter to produce throughout the mass a hydrochloric acid reaction.

[Claims 2 and 3 not printed in the Gazette.]

1,252,014. BOX-ASSEMBLING MACHINE. JOHN J. MILLER, Buffalo, N. Y., assignor to F. N. Burt Company, Limited, Toronto, Canada, a Corporation of Ontario, Canada. Filed May 16, 1916. Serial No. 97,788. (Cl. 93—55.)



4. In an apparatus of the character described, in combination, devices adapted to support a box and a cover with the planes of their peripheral edges at an angle to each other, means adapted to cause relative approaching movement between said box and said cover to effect the insertion of an edge of said box within said cover while said planes are at an angle to each other, means adapted to decrease the angular relationship between said planes after said insertion and effect the insertion of the remainder of the edge of said box in said cover, means adapted to deflect inwardly the portion of said last mentioned edge opposite said first mentioned edge so as to ease said last mentioned edge into said cover, means adapted to center the box and cover in planes transverse to that of said approaching movement and prior to said first mentioned insertion, means adapted to operate said centering means to relieve the assembled box elements from coöperation therewith, and means adapted to maintain pressure of said deflecting means on the box elements during said relieving operation.

5. A box covering machine comprising, in combination, a pair of box element supporting abutments, slides on which said abutments are mounted, means adapted to move said slides to cause said abutments to approach and recede from each other, a bed on which said box elements are moved by said abutments, and means adapted automatically to feed boxes and covers onto said bed between said abutments.

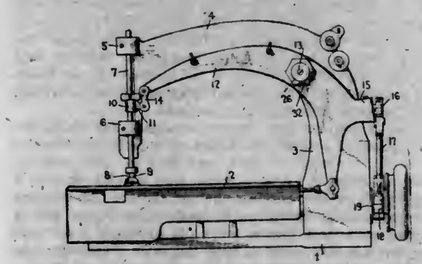
17. A box covering machine comprising, in combination, a frame, a reciprocatory slide supported thereby, a box element supporting abutment pivoted on said slide, a dog on said abutment, a stop in the path of said dog, and a second box element supporting abutment toward and from which said first-mentioned abutment is moved by said slide, said stop being disposed to coöperate with said dog to effect pivotal movement of said first-mentioned abutment at a predetermined point in its reciprocatory path, said first-mentioned abutment having means adapted to limit its pivotal movement in one direction.

22. In an apparatus of the character described, in combination, a pair of pivotally supported box element supporting abutments, means to cause the supporting faces of said abutments to occupy planes at an angle to each other, means adapted to cause said abutments to approach and recede from each other, means adapted to limit the approach of the pivotal axes of said abutments, means whereby the approach of said abutments causes them to turn on their pivotal axes and approach parallel position relatively to each other, and means adapted automatically to deliver boxes and covers to said supporting surface opposite said abutments, respectively, when said abutments occupy the said relatively angular position.

29. In an apparatus of the character described, in combination, devices adapted to support a box and a cover with the planes of their peripheral edges at an angle to each other, means adapted to reciprocate said devices and cause relative translatory movement between said box and said cover to effect the insertion of an edge of said box within said cover while said planes are at an angle to each other, means adapted to decrease the angular relationship between said planes after said insertion and effect the insertion of the remainder of the edge of said box in said cover, a stationary and a movable plate between which the box and cover are assembled, and means adapted to move the movable plate toward said stationary plate in a plane transverse to that of said approaching movement and prior to said first mentioned insertion to laterally center the box and cover.

[Claims 1 to 3, 6 to 16, 18 to 21, and 23 to 28 not printed in the Gazette.]

1,252,015. NEEDLE-OPERATING MECHANISM FOR SEWING-MACHINES. JAMES R. MOFFATT, Chicago, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 7, 1915. Serial No. 938. (Cl. 112—29.)

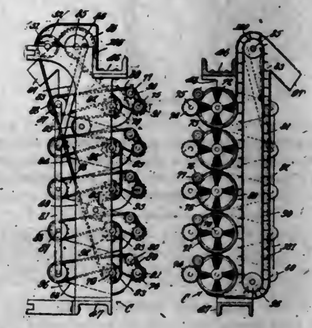


1. In a sewing machine, the combination of an overhanging arm, a needle bar reciprocating in said arm, a needle carried thereby, a needle lever for reciprocating said needle bar, and means for pivotally supporting the needle lever, whereby the latter may be adjusted transversely of its plane of oscillation for alining the needle lever with the needle bar.

6. The combination of a needle lever, a needle bar reciprocated thereby, and means for pivotally supporting the same whereby said needle lever may be adjusted transversely of its plane of oscillation for alining the same with the needle bar.

[Claims 2 to 5 and 7 to 9 not printed in the Gazette.]

1,252,016. COTTON-PICKER. JOSEPH B. NEIL, Filbert, S. C. Filed Dec. 23, 1915. Serial No. 68,392. (Cl. 56—6.)



4. A cotton picker including a substantially horizontal picking unit, a pivotal support for said unit, and means for imparting an up and down movement to said unit, said unit including a picking roll and means for continuously operating the roll during said up and down movement of the unit.

8. A cotton picker including superposed picking units, each including a housing having a rounded exterior, said housings extending close together and constituting deflectors, and means for simultaneously swinging the units about individual parallel axes.

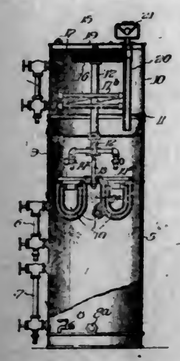
18. A cotton picker including a vertical housing, an elevator disposed vertically within the housing, a horizontally extending picking unit extending transversely of the elevator, said picking unit including a picking element, doffing means for removing cotton from the picking element and throwing it against the elevator, and means for swinging the picking unit upwardly and downwardly relative to the elevator.

[Claims 1 to 3, 5 to 7, and 9 to 17 not printed in the Gazette.]

1,252,017. COMBINED FILTER AND WATER-SEPARATOR. WILLIAM WASHBURN NUGENT, Chicago, Ill. Filed Mar. 4, 1914. Serial No. 822,251. (Cl. 210—10.)

In a combined filter and separator, the combination with a receptacle open at the top having draw-off means adjacent the bottom and a door adjacent the top, of a separator receptacle adapted to be inserted in the open top with a ridge for holding it in position with respect thereto, an upright tubular member secured to the separator receptacle and extending through the bottom thereof, the lower end forming a support, a plurality of separate groups of interchangeable filter elements rotatably mounted on said support, stop-cocks in connection with the tubular member for discharging fluid therefrom into the filter elements, the said stop-cocks and filter elements being adjustable through the open door of the first named receptacle, a base plate secured to the tubular member at a point adjacent the top thereof, a filter screen

extending upwardly from the edge of the base plate, a tubular inlet with a sight-feed extending through the top of the separator receptacle to a point adjacent the bottom, and an automatic water discharge comprising a tubu-

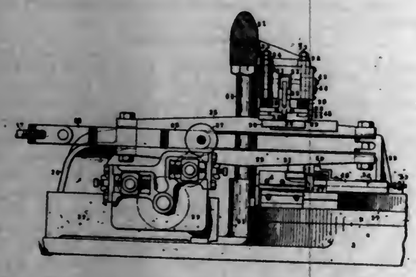


lar member extending from a point adjacent the top of the separator receptacle to a point adjacent the bottom and having a lateral outlet with its top substantially at the height of the bottom of the base plate.

1,252,018. FABRIC. WILLIAM S. NUTTER, Sanford, Me., assignor to Goodall Worsted Company, Sanford, Me., a Corporation of Maine. Filed Mar. 28, 1916. Serial No. 87,322. (Cl. 139—9.)

A woven fabric comprising interwoven warp and weft threads, the weft thread being made by spinning together the undyed fibers of the Angora fleece including the kemp fibers thereof and a fibrous material having a darker shade than said Angora fleece fibers, and the warp being a variegated thread which operates to break up the streaky appearance due to the presence of the kemp fibers in the weft, the amount of fibrous material of darker shade which is used in the weft having such relation to the variegated warp and the kemp fibers as to appreciably darken the shade of the fabric without, however, destroying the effect of the variegated warp in breaking up the streaky appearance due to the presence of the kemp fibers.

1,252,019. COATING MECHANISM. LYNDON C. PALMER, Buffalo, N. Y., assignor to F. N. Burt Company, Limited, Buffalo, N. Y., a Corporation of Ontario, Canada. Original application filed Dec. 9, 1911, Serial No. 664,774. Divided and this application filed Apr. 11, 1916. Serial No. 90,410. (Cl. 91—47.)



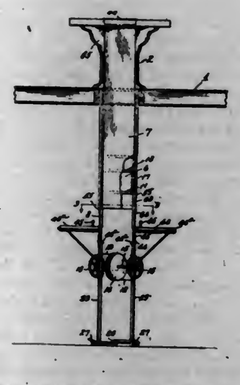
1. In an apparatus of the character described, in combination, a yieldingly supported glue carrying surface, a support for an article to be glued, means adapted to cause relative approaching movement between said surface and support to apply glue to an article on said support, and means adapted to adjust said surface transversely of the path of said movement.

12. In an apparatus of the character described, in combination, a box support, a glue pad support, means to reciprocate the glue pad support toward and from the box support, a glue pad movably mounted on the pad support, a detent connected to said pad, and a stop adapted to move into and out of the path of the detent to control the extent of movement of the pad.

18. In an apparatus of the character described, in combination, a support for an article to be coated, coating means, means adapted to cause relative approaching and receding movements between said support and said coating means, and means adapted to limit the amount of said approaching movement comprising a slidable stop rod, a spring adapted to urge said rod toward stopping position, a pivoted arm having a slot, an anti-friction roller on said arm adapted to coöperate with an article on said support, and a pin on said rod in engagement with said slot.

[Claims 2 to 11, 13 to 17, and 19 not printed in the Gazette.]

1,252,020. SERVING-TABLE. LEON D. PLATT, Cleveland, Ohio. Filed July 15, 1916. Serial No. 109,521. (Cl. 186—1.)



3. In a device of the character described, the combination with a table located at one level and having a plurality of serving stations spaced around its center, of means for conveying a lunch from another level along the axis of said table to its center and delivering it selectively to any one of the stations thereof.

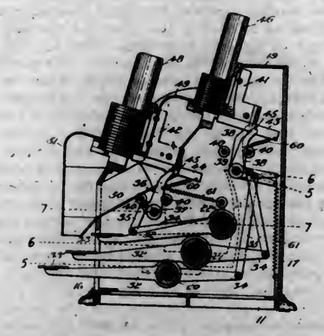
8. In a device of the character described, in combination, a table having a central open well, a carrier movable vertically in said well for receiving articles from said table, and means on said table for moving articles from the sides of said table toward said carrier when located at the center of said table.

16. In combination, a table having communication with an open well, a carrier movable vertically in said well and provided with supports at different levels, means for moving said carrier vertically, means for holding said carrier in said well with any of its supports in the plane of the table top, and means for releasing said holding means to allow the carrier to descend.

21. In a construction of the character described, the combination of a table having an open well, a cover for said well, a carrier movable vertically in said well for delivering articles to said table, said carrier having a plurality of article holding shelves thereon, and means for causing said carrier as it rises to the table top to lift said cover to a higher level and arranged when said cover reaches said level to hold the same stationary and allow the table to move upwardly to a second position.

[Claims 1, 2, 4 to 7, 9 to 15, and 17 to 20 not printed in the Gazette.]

1,252,021. COIN-DELIVERING MACHINE. THOMAS IRVING POTTER, Portland, Oreg., assignor to Coin Machine Manufacturing Company, Portland, Oreg., a Corporation of Oregon. Filed Aug. 26, 1912. Serial No. 717,058. (Cl. 133—4.)



1. In a coin delivering machine, the combination with coin ejecting mechanism and keys controlling the operation of the same, of a series of coin holders from which the coins are ejected, arranged in parallelism in banks, one bank in a plane in rear of the plane of the other bank, and with the front bank at a lower level than the rear bank, and a chute having a branch extending down from the upper rear bank of holders forwardly under the central portion of the front lower bank of holders, and a branch extending down in front of the front bank of holders for conducting the coins ejected from the several holders to a single point of delivery.

3. In a coin delivering machine, the combination with a series of groups of coin holders arranged in parallel rows, and a series of keys arranged in parallel rows, of a series of parallel shafts, one for each group of holders and each formed of a plurality of angularly movable concentric members one for each holder of its group, an ejector for each holder, and connections intermediate each ejector and one of the shaft members and intermediate each shaft member and one of the keys.

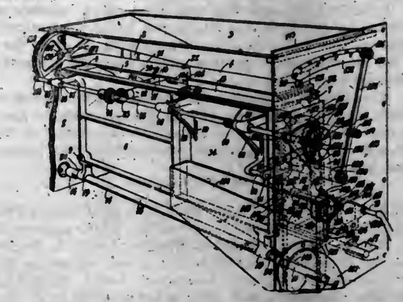
9. In a coin delivering machine, the combination with coin holders having ejector guideways intersecting their lower ends and reciprocatory ejectors working in said guideways and movable downwardly with respect to their line of reciprocation, whereby they may be depressed by the weight of coins above them, of upwardly extending oscillatory actuating supports on which the ejectors are pivotally mounted on axes intermediate the ends of the ejectors, springs connecting the supports and rear ends of the ejectors, whereby the forward ends are held up in operative position, key levers and connections intermediate said key levers and ejector actuating supports, whereby said ejectors may be reciprocated to discharge coins in succession from the holders, and the return of said ejectors to normal position is facilitated.

[Claims 2 and 4 to 8 not printed in the Gazette.]

1,252,022. DISPENSING APPARATUS. WILLIAM PATTON, Cincinnati, Ohio, assignor to The Patton Bin & Fixture Company, Cincinnati, Ohio, a Corporation of Ohio. Filed July 28, 1916. Serial No. 111,865. (Cl. 221—111.)

1. In dispensing apparatus, a normally empty measuring compartment comprising a bottom, an end adjustable over said bottom in said compartment from rear to front and from front to rear of the apparatus while said compartment is empty, to create and define an empty measuring space in said compartment, and inlet means and discharge means for the empty measuring space thus created and defined.

7. In dispensing apparatus, dispensing mechanism, an inclosure in which said dispensing mechanism is inclosed, a supporting bar fixed inside said inclosure, an extension bar mounted on said supporting bar, and means supporting said dispensing mechanism on said extension bar for withdrawal of said dispensing mechanism from said inclosure.



15. In dispensing apparatus, a frame composed of upright sides and an upright end fixed to said sides, a bottom having its edges closely adjoining the inner surfaces of said sides and end, a main slide slidable along the upper edges of said sides and over said end, supply means above said main slide, a neck interposed between said main slide and said supply means, attached to said frame and making close detachable connection with said supply means, an auxiliary slide to close said neck, an adjustable end defining a measuring compartment under said main slide, and means for discharging commodity from said compartment.

34. In dispensing apparatus, a normally empty measuring compartment comprising a bottom, and an end adjustable over said bottom in said compartment from rear to front and from front to rear of the apparatus while said compartment is empty, to create and define an empty measuring space in said compartment, a discharge outlet at one side of said compartment, inlet and cut-off means for admitting, under the action of gravity, a commodity to the empty measuring space thus created and defined, operated by sliding from rear to front and from front to rear of the apparatus, operating means for said inlet and cut-off means, a rack connected to said adjustable end parallel with its direction of adjustment, a shaft journaled on said apparatus and extending toward the front and rear thereof, a bevel gear fixed on said shaft, another bevel gear meshing with this bevel gear, and a spur gear turning with this other bevel gear and meshing with said rack, handle means for turning said shaft, a discharge door hinged on said shaft to close said discharge outlet, and an operative connection from the operating means of the inlet and cut-off means to said door, whereby the opening and closing of said outlet is controlled by said operating means.

[Claims 2 to 6, 8 to 14, and 16 to 33 not printed in the Gazette.]

1,252,023. METHOD OF TREATING IRON OR STEEL. NAPOLEON G. PETINOT, New York, N. Y., assignor to United States Alloys Corporation, New York, N. Y., a Corporation of New York. Filed Mar. 7, 1917. Serial No. 152,980. (Cl. 75—27.)

1. A method of treating iron or steel comprising the addition thereto, while molten, of an alloy of iron, titanium and silicon, in which iron is in the largest proportion and silicon is in such less proportion to the titanium that on oxidation, a low fusing silico-titanate is formed.

2. A method of treating iron or steel comprising the addition thereto, while molten, of an alloy of iron, titanium and silicon, in which the iron amounts to from 60% to 80% of the total weight of the alloy, and in which the silicon is about one-quarter of the weight of the titanium in the alloy.

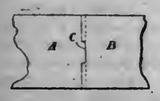
1,252,024. METHOD OF MANUFACTURING IRON SULFID. NAPOLEON G. PETINOT, New York, N. Y., assignor to United States Alloys Corporation, a Corporation of New York. Filed Mar. 7, 1917. Serial No. 153,174. (Cl. 23—13.)

1. A method of producing iron sulfid which consists in melting together a mixture of iron pyrites and iron oxid.

2. A method of producing iron sulfid which consists in continuously charging into an electric furnace, a mixture of iron pyrites and iron oxid, and drawing off from time to time the iron sulfid, without interrupting the operation of the furnace.

3. A method of producing iron sulfid which consists in melting together a mixture of iron pyrites, metallic iron, and iron oxid, and utilizing a part of the sulfur of the pyrites as a reducing agent to combine with the oxygen of the iron oxid.

1,252,025. LAP-WELD AND METHOD OF PRODUCING SAME. JOHN H. PLOEHN, Davenport, Iowa, assignor to G. Watson French, Nathaniel French, Joseph L. Hecht, and W. H. Stackhouse, Davenport, Iowa, composing the Firm of French & Hecht, Davenport, Iowa. Filed July 6, 1916. Serial No. 107,747. (Cl. 78—92.)

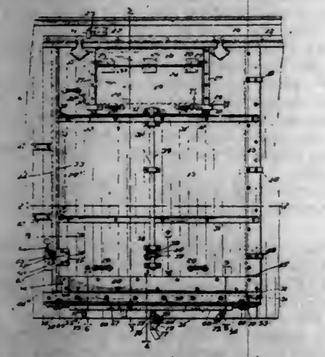


1. The method of welding the ends of sheets or plates, which consists in bringing the same into welding relations to each other, subjecting said ends, previously heated, to a welding operation to cause the metal to flow and unite said ends, and controlling said flow of the metal to evenly distribute the same in the weld.

3. The method of lap welding the ends of sheets or plates, which consists in forming in one of the ends to be welded a relief cavity to control the flow of the metal of the weld, overlapping said ends, and subjecting the overlapping ends at opposite sides of the relief cavity, while heated, successively to welding pressures to unite them.

[Claims 2 and 4 to 7 not printed in the Gazette.]

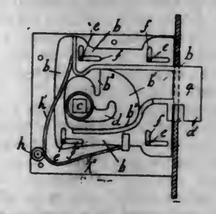
1,252,026. DOOR FOR FREIGHT-CARS. WILLIAM QUEENAN and CHARLES FARWELL, Aurora, Ill. Filed Mar. 6, 1916. Serial No. 82,420. (Cl. 20—22.)



1. A door slidably mounted on the car-side so as to have spaced relation therewith, the bottom of the door being provided with a depending element, means secured to the car-side and extending lengthwise beneath the door-opening and disposed upwardly in front of said depending element so as to effect a moisture-proof connection, and correlated means at the sides of the door for inducing a self-sealing of the door when the latter is slid into closed position, the portion of said last mentioned means secured to the rear end of the door and said first means arranged to have interlocking relation when the door is closed.

2. In a door of the class described, the combination of a door slidably mounted on the car-side, an angular stop-member secured adjacent the front end of the door-opening and extending throughout the height of the door, said stop-member having a portion arranged parallel with the door and adapted to overlap the front end thereof, while the front end of the door is provided with an outwardly presented flange adapted to take against said portion of the stop-member when the door is closed, means secured to the car-side at the rear end of the door-opening, in spaced relation and parallel with the car-side, a plate secured to the rear end of the door having a portion disposed toward the front end of the door and parallel with the back of the door, arranged to overlap said means, a member mounted beneath the door-opening in spaced relation with the car-side, and a plate secured at the bottom end of the door and having a right angular portion adapted to extend rearward beneath the door and overlap said last mentioned member, said stop-member being provided with a portion adapted to extend beneath the angularly bent portion of said last mentioned plate, while the plate secured to the rear end of the door and the member beneath the door-opening are provided with correlated surfaces adapted to interlock when the door is in closed position.

1,252,027. DOOR-FASTENING FOR MOTOR-CARS, CARRIAGES, AND OTHER VEHICLES. JAMES CHARLES RALLS, Sheffield, England. Filed Aug. 11, 1915. Serial No. 44,903. (Cl. 70—42.)



1. In door fastenings for motor cars, carriages, and other vehicles, the improved formation and construction, comprising a bolt head provided with an extension on its underside to grip the striking plate of the door post, a bolt having right angled slots engaging with fixed pins on the casing, and having a central opening provided with a depending lug and a flange, a single armed follow adapted to engage with said lug and flange, and a double armed spring to give a forward and also an upward movement to the bolt, substantially as herein described and illustrated on the accompanying drawings.

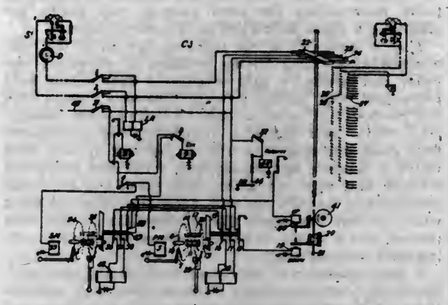
2. In door fastenings for motor cars, carriages, and other vehicles, the improved means, consisting of pins in the casing, a bolt having right angled slots engaging said pins and adapted to move in right angular directions, and an extension on the underside of the bolt head to engage behind the striking plate when the said bolt is in its fastened position, substantially as herein described and illustrated on the accompanying drawings.

4. In a spring latch, a bolt, means for normally returning said bolt automatically to protracted position, a projection on the head of said bolt at right angles to the direction of said motion, and means for moving said bolt in the direction of said projection whereby said projection engages the striking plate and is positively held in locked position.

[Claim 3 not printed in the Gazette.]

1,252,028. TELEPHONE-EXCHANGE SYSTEM. OSVALD E. RASMUSSEN, West Hoboken, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Nov. 17, 1916. Serial No. 131,859. (Cl. 179—18.)

1. In an electrical switching system, sets of fixed terminals, movable brushes arranged to travel over and make contact with said terminals, means for moving said brushes, and a circuit including an electro-mechanism and two of said brushes, said circuit being closed through one of said terminals in each set to control the movement of said brushes.



2. In an electrical switching system, an impulse transmitter, sets of fixed terminals, movable brushes arranged to travel over and make contact with said terminals, means for moving said brushes, a circuit including an electromechanism and two of said brushes, said circuit being closed through one of said terminals in each set, and an escapement mechanism controlled by said impulse transmitter and said electromechanism to control the movement of said brushes.

3. In an electrical switching system, an impulse transmitter, sets of fixed terminals, movable brushes arranged to travel over and make contact with said terminals, means for moving said brushes, a circuit including an electromechanism and two of said brushes, said circuit being closed through one of said terminals in each set, a ratchet member controlled by said impulse transmitter, and an escape member associated with said ratchet member and controlled by said electro-mechanism to control the movement of said brushes.

4. In an electrical switching system, an impulse transmitter, sets of fixed terminals, movable brushes arranged to travel over and make contact with said terminals, a circuit including an electromechanism and two of said brushes, said circuit being closed through one of said terminals in each set, a ratchet member controlled by said impulse transmitter, an escape member associated with said ratchet member and controlled by said electromechanism, means to drive said brushes, and a circuit controlling device associated with said ratchet member and said escape member to control said driving means.

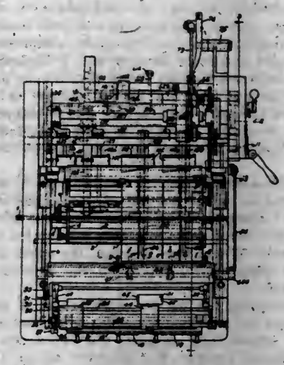
1,252,029. FOOD COMPOUND. HENRY J. RHODES, Rochester, N. Y. Filed Sept. 7, 1917. Serial No. 190,127. (Cl. 99—11.)

1. A food compound comprising meat and eggs ground fine and heated with butter to make fine granules and then mixed without further cooking with ground cereals, fruit, nuts and spices.

[Claim 2 not printed in the Gazette.]

1,252,030. CARTON-BLANK-FEEDING MACHINE. GEORGE A. ROBINSON, Wollaston, Mass., assignor to Pneumatic Scale Corporation, Limited, Quincy, Mass., a Corporation of Maine. Original application filed July 7, 1914, Serial No. 849,396. Divided and this application filed May 10, 1916. Serial No. 96,520. (Cl. 271—33.)

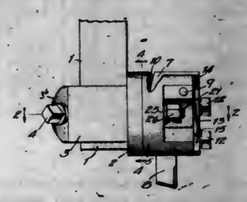
3. In a machine for feeding carton blanks, a magazine to hold a stack of blanks superposed upon one another in registration with each other, means for extracting the blanks from the stack one at a time, each blank withdrawn being always the lowermost blank in the stack for the time being, means for supplying blanks to the top of the stack, and means whereby the height of the stack of blanks in the magazine controls the actuation of the supply.



7. In a machine for feeding carton blanks, a magazine to hold a stack of blanks in such manner that the flap ends of the blanks project out of the magazine, a gluing device, means for moving the gluing device across the under face of a portion of the projecting part of the lowermost blank, thus causing the said projecting portion to bend slightly downward, said gluing device then moving away from engagement with the said lowermost blank, a movable separator device which enters between the said bent down portion of the lowermost blank and the superposed blanks and slightly lifts the projecting ends of the superposed blanks, and movable gripping mechanism which moves bodily toward the bent down portion of the lowermost blank and seizes it, and then bodily retreats, withdrawing the said blank from the magazine.

[Claims 1, 2, 4 to 6, and 8 to 10 not printed in the Gazette.]

1,252,031. PLANER-TOOL HOLDER. WILLIAM S. ROBINSON, Chicago, Ill., assignor to Armstrong Bros. Tool Co., Chicago, Ill., a Corporation of Illinois. Filed Dec. 26, 1916. Serial No. 138,735. (Cl. 90—52.)



1. A tool-holder having, in combination, a supporting shank; a base member slidable thereon and adapted to be rigidly secured thereto, said base member having a central opening, an annular T-slot concentric with said opening, and an insert hole communicating with said T-slot; securing means comprising a pair of clamping jaws rigid with said base member and a clamping screw; a clapper box structure comprising a base portion having a transverse slot therein and a hole extending through the base portion and communicating with said T-slot, a central pivot rigid with said base portion and seated in said central opening, and a clapper tongue tool-holder pivotally mounted in said transverse slot comprising a body portion having a tool slot, a rounded end portion opposite said pivotal mounting, and means for securing a tool in said tool slot; and means for rigidly securing said clapper box structure to said base member comprising a T-bolt insertible through said insert hole and having a flanged head adapted to underlie the walls of said T-slot and a body portion insertible through said communicating hole

and means for securing said bolt in said communicating hole.

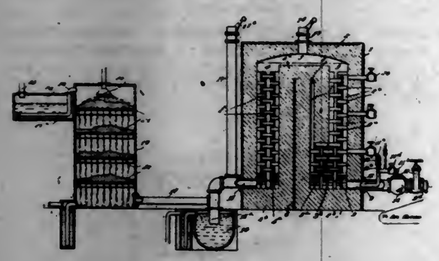
2. A tool-holder having, in combination, a supporting shank, a base member slidable thereon and adapted to be rigidly secured thereto, securing means comprising clamping jaws rigid with said member and a clamping screw, and a clapper box structure comprising a base portion rotatably adjustable upon and rigidly secured to said base member and having a slot therein and a clapper tongue tool-holder pivotally mounted in said slot, said clapper tongue having an arcuately rounded end portion and a tool slot.

3. A tool-holder having, in combination, a supporting shank having an offset portion, a base member slidable thereon and adapted to be rigidly secured thereto, and a clapper box tool-holder rotatably adjustable upon and rigidly secured to said base member, the point of support of the tool lying approximately in the axis of the supporting shank.

4. A tool-holder having, in combination, a supporting shank having an intermediate transverse portion having an arcuate surface and an offset portion, a circular base member slidable thereon and adapted to be rigidly secured thereto, and a circular clapper box tool-holder rotatably adjustable upon and rigidly secured to said base member, the point of support of the tool lying approximately in the axis of the supporting shank, the circular base member abutting against said arcuate surface.

5. A tool-holder having, in combination, a rectangular shank, a rectangular socket member having inclosing walls adapted to surround the shank, said socket member being split at one corner, ears on the socket member at opposite sides of the split, and a clamping screw for drawing the ears together and thus drawing all of the walls of the socket member into engagement with the shank to secure the socket-member in adjusted position.

1,252,032. APPARATUS FOR PRODUCING COMBUSTIBLE FUEL. JAMES R. ROSE, Edgeworth, Pa. Filed Nov. 29, 1915. Serial No. 64,100. (Cl. 48—74.)



1. A generator of the character set forth comprising a pair of spaced flues having refractory material therein, said flues being connected by a passageway, a connection for combustible fluid arranged to discharge into one of said flues at a point remote from said passageway, a chamber arranged in proximity to one of said flues to be heated thereby and communicating with the last mentioned flue, and means for supplying a hydro-carbon fluid to said chamber.

2. A generator of the character set forth comprising a pair of spaced flues having refractory material therein, said flues being connected by a passageway, a connection for combustible fluid arranged to discharge into one of said flues at a point remote from said passageway, a chamber arranged in proximity to one of said flues to be heated thereby and communicating with the last mentioned flue at a point intermediate the passageway and the point at which the connection for combustible fluid communicates with said flue, and means for supplying a hydro-carbon fluid to said chamber.

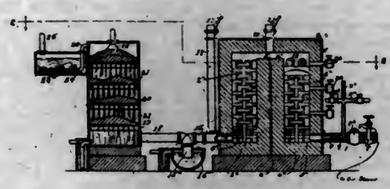
3. A generator of the character set forth comprising a pair of vertically extending spaced flues having refractory material therewithin, said flues being connected at adjacent ends by a transverse passageway, a connection for combustible fluid communicating with one of said flues adjacent the end opposite said passageway, a chamber arranged in heating relation to one of said flues and communicating with the last mentioned flue at a point intermediate the ends thereof, and means for supplying a liquid hydro-carbon to said chamber.

4. In a generator of the character set forth, the combination of a casing having a filling of refractory material therewithin, a pair of parallel flues within said filling and each having refractory material therewithin and connected at adjacent ends by a transverse passageway within said filling, a connection for combustible fluid communicating with the end of one of said flues which is opposite said passageway, a chamber interposed between said flues and within said filling and extending substantially parallel to said flues and communicating with the last mentioned flue intermediate of the ends thereof, and a supply of liquid hydro-carbon communicating with said chamber.

5. In a generator of the character set forth, the combination of a casing having a filling of refractory material therewithin, a pair of parallel flues within said filling and having refractory material in checker-work formation therewithin and connected at adjacent ends by a transverse passageway within said filling, one of said flues having a chamber at the end opposite said passageway and said chamber having refractory material therewithin, a chamber interposed between said flues and extending from the first-mentioned chamber in a direction substantially parallel to said flues, and a supply for liquid hydro-carbon communicating with the last mentioned chamber at a point remote from the first-mentioned chamber.

[Claims 6 to 8 not printed in the Gazette.]

1,252,033. PROCESS OF MANUFACTURING GASEOUS FUEL. JAMES R. ROSE, Edgeworth, Pa. Original application filed Dec. 9, 1915, Serial No. 65,954. Divided and this application filed May 19, 1916. Serial No. 98,553. (Cl. 48—198.)



1. The process of producing gaseous fuel which comprises subjecting steam and a hydro-carbon fluid to a temperature sufficient to dissociate the same, adding hydro-carbon fluid to the mixture thus produced, and subjecting the resultant mixture to a temperature not materially lower than 2200° F.

2. The process of producing gaseous fuel which comprises subjecting steam and a hydro-carbon fluid to a temperature sufficient to dissociate the same, adding hydro-carbon fluid to the mixture thus produced, subjecting the resultant mixture to a temperature not materially lower than 2200° F., and removing CO_2 from the gaseous product thus formed.

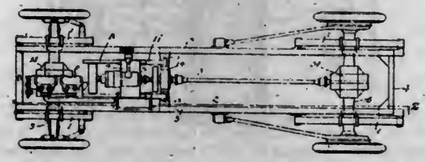
3. The process of producing gaseous fuel which comprises subjecting superheated steam and a hydro-carbon fluid to a temperature sufficient to dissociate the same, adding to the mixture thus produced a heated mixture of a second hydro-carbon fluid and dried or superheated steam, subjecting the resultant mixture to a temperature not materially lower than 2200° F., and removing CO_2 from the gaseous product thus formed.

4. The process of producing gaseous fuel which comprises conducting a mixture of steam and a hydro-carbon fluid through a duct containing refractory material heated to a temperature not materially lower than 2200° F., to dissociate the fluids comprised in said mixture, adding to the mixture thus produced a heated mixture of steam and hydro-carbon fluid, and conducting the resultant mixture through a duct containing refractory material heated to a temperature not materially lower than 2200° F.

5. The process of producing gaseous fuel which comprises conducting a mixture of superheated steam and a hydro-carbon fluid through a duct containing refractory material heated to a temperature not materially lower than 2200° F., to dissociate the fluids comprised in said mixture, adding to the mixture thus produced a heated mixture of liquid hydro-carbon and superheated or dried steam, conducting the resultant mixture through a duct containing refractory material heated to a temperature not materially lower than 2200° F., and removing CO_2 from the gaseous product thus formed.

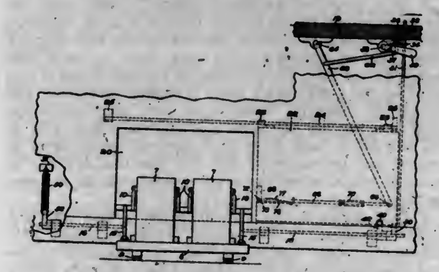
[Claims 6 and 7 not printed in the Gazette.]

1,252,034. DRIVING MECHANISM FOR AUTOMOBILES. RALPH H. ROSENBERG, Columbus, Ohio, assignor to The Kinnear Manufacturing Company, Columbus, Ohio, a Corporation of West Virginia. Filed Feb. 14, 1912, Serial No. 677,553. Renewed June 15, 1917. Serial No. 175,041. (Cl. 21—90.)



In a motor vehicle, the combination with a spring supported main frame and an axle driving shaft, of a spring supported sub-frame superposed on the main frame, a motor and a change speed gear, supported on said sub-frame, a transmission gear rigidly supported on the main frame and connected with the axle driving shaft, and a flexible driving connection between said change speed gear and the transmission gear.

1,252,035. TREADLE-SHIFTING AND DOOR-OPERATING MECHANISM FOR AUTOMATIC PLAYER-PIANOS. GUY M. RUSSELL, Rochester, N. Y., assignor to American Piano Company, New York, N. Y., a Corporation of New Jersey. Filed June 2, 1914. Serial No. 842,499. (Cl. 84—169.)



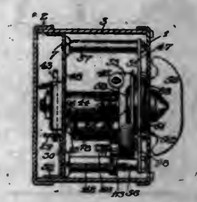
1. In a musical instrument, the combination of a removable base panel having a door-way; a door connected to said panel and removable therewith; door operating means connected to another part of the instrument; and connections between said mechanism and the door permitting removal of the base panel from its normal position while maintaining said connections.

2. In a musical instrument, the combination of a removable base panel having a door-way; a door connected to said panel and removable therewith; door operating means connected to another part of the instrument; and detachable connections between said mechanism and the door.

3. In a musical instrument, the combination of a removable base panel having a door-way; a door connected to said panel and removable therewith; door operating means connected to another part of the instrument; and detachable resiliently engaged connections between said mechanism and said door.

[Claims 4 and 5 not printed in the Gazette.]

1,252,036. CHECK-CONTROLLED APPARATUS. ADOLPH RYDQUIST, Rochester, N. Y. Filed May 15, 1915. Serial No. 28,255. (Cl. 194—93.)



1. In a check controlled apparatus, the combination with a check carrier having a recess to receive a check, of an actuator operatively connected to the carrier, a locking abutment, and a check controlled positioning and locking member consisting of a spring actuated pin projecting through said recess of the carrier and operating when a proper coin is not inserted so as to engage the abutment after a limited movement of the carrier.

4. In a check controlled apparatus, the combination with a check carrier having a recess to receive a check, of an actuator operatively connected to the carrier, a locking abutment, and a spring actuated check controlled positioning and locking member comprising two rigidly connected parallel shafts, one of which is disposed near the center of said recess and the other outside thereof and operating when a proper coin is not inserted to engage the abutment after a limited movement of the carrier.

8. In a check controlled apparatus, the combination with an oscillatory check carrier having a recess therein to receive a check, of an actuator operatively connected with the carrier, a check ejecting slide movable on the carrier within said recess to eject a check, operating means movable in one direction to actuate the slide independently of the carrier and in the opposite direction to operate the carrier, a stop arranged to engage the slide during the movement of the carrier to effect movement of the slide within said recess, a plurality of notches on the periphery of the carrier, and a reversible pawl coacting therewith to insure a complete movement of the carrier during the discharge of the check therefrom.

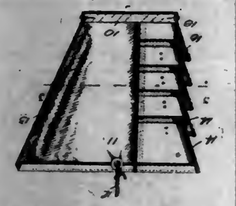
10. In a check controlled apparatus, the combination with a movable check carrier having a recess therein to receive a check, of an actuator operatively connected with the carrier, a projection on the carrier, a spring controlled movable locking device mounted in the path of the projection, a check ejecting slide movable on the carrier within said recess to eject a check, and a stationary portion disposed adjacent the periphery of the carrier and adapted to engage the check during the movement of the carrier so as to hold the ejecting slide in releasing engagement with the locking member.

[Claims 2, 3, 5 to 7, 9, and 11 not printed in the Gazette.]

1,252,037. FEED-BAG FOR HORSES. WILLIAM H. SANBORN, Larchmont, N. Y., assignor of one-half to Herbert L. Gray, Washington, D. C. Filed June 13, 1917. Serial No. 174,606. (Cl. 119—65.)

1. A feed bag having a base, side and rear portions in one piece attached to the base, a front portion consisting

of a vertical series of sections extending horizontally between the side portions and connected at their ends to said side portions, the lower edge of each of said sections depending inwardly of, and downwardly below, the upper edge of the next lowermost section, members connecting the said upper and lower edges of the sections in spaced apart relation and disposed therebetween at intervals



thereabout, the said lower inner edges of the several sections depending freely below the said spacing members and movable outwardly against the inner surfaces of the next lowermost sections to close the openings between the sections.

[Claims 2 to 4 not printed in the Gazette.]

1,252,038. DENTAL ALLOY. HENRY K. SANDELL, Chicago, Ill., assignor to Herbert S. Mills, Chicago, Ill. Filed June 18, 1917. Serial No. 175,369. (Cl. 75—1.)

1. An alloy comprising 80 parts by weight of gold, 10 parts by weight of tungsten, 7 parts by weight of nickel and a relatively small proportion of carbon.

2. The method of alloying gold with tungsten and a lower melting-point metal which comprises, first, preparing an alloy of the tungsten and lower melting-point metal in an electric arc, and subsequently alloying such primary alloy with gold.

3. The method of preparing an alloy of gold, tungsten and nickel, which comprises melting the tungsten, adding the nickel to the molten tungsten, and incorporating the primary alloy thus produced in the molten gold.

1,252,039. SOUND-CONCENTRATING DEVICE. CHARLES E. SARGENT, Indianapolis, Ind. Filed Mar. 19, 1917. Serial No. 155,708. (Cl. 181—25.)

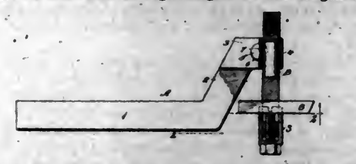


1. As an article of manufacture the hereindescribed sound concentrator having means whereby to attach it to the side bow of a pair of spectacles.

2. As an article of manufacture the hereindescribed conical sound concentrator of light material and of a suitable length and provided with a curved end to enter the ear and with means whereby to attach it to the side bow of a pair of spectacles.

1,252,040. COMBINATION-SPRING-TOOL HOLDER. MAX SCHONBRUNN, New York, N. Y. Filed June 21, 1917. Serial No. 176,071. (Cl. 29—98.)

A tool comprising a holder formed of a bar-like shank having an upwardly forwardly inclined neck integral with one end of the shank, and a head on the neck extending horizontally therefrom in a direction away from the shank and located wholly above the latter, there being a passage in the head at right-angles to the length of the



shank, and a spring cutter-carrying post in the form of a single-piece resilient rod clamped in the said passage of the head and having means for supporting a cutter in line with the shank while the portion of the post between the cutter and the head is free to swing.

1,252,041. REFUSE AND LOW-GRADE-FUEL BURNING APPARATUS. THEOSIS C. SEBRING, Pueblo, Colo. Filed Nov. 10, 1913. Serial No. 800,143. (Cl. 126—58.)



1. In a device of the class described, a base plate imperforate except for its central portion, a cylindrical draft regulator substantially closing the central opening in the base plate and extending thereabove, a stove body supported on said base plate, a fire pot supported by the base plate and in spaced relation thereto, a shaking grate closing the bottom of said fire pot, said shaking grate, having a central, perforated dome projecting thereabove and located in operative relation to said draft regulator, means for moving said draft regulator to control the openings in said dome, openings in said stove body disposed substantially throughout the circumference thereof and communicating with the space below the fire pot, dampers independently controlling said openings, a bustle pipe communicating with said openings, and a stack communicating with said bustle pipe.

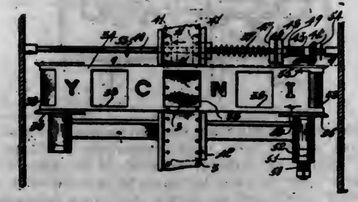
2. In a device of the class described, a base plate imperforate except for its central portion, a draft regulator passing through the central portion of the base plate, a stove body supported on the base plate, a grate supported by the base plate in spaced relation thereto, said grate having a perforated dome extending thereabove and located in operative relation to said draft regulator, means for moving the draft regulator vertically, and an ash pan below said draft regulator, the parts being so located and proportioned that the ash pan can not be removed except when the draft regulator is in elevated position.

3. In a device of the class described, a base plate imperforate except for its central portion, a stove body supported on said base plate, a fire pot supported by the base plate and in spaced relation thereto, a grate closing the bottom of said fire pot, said grate having a central, perforated dome projecting thereabove, a tubular member affording communication between the central opening in the base plate and said dome but closed to the space between the base plate and the grate, openings in the stove body disposed substantially throughout the circumference thereof and communicating with the space below the fire pot, dampers independently controlling said openings, a bustle pipe communicating with said openings, and a stack communicating with said bustle pipe.

4. In a stove structure the combination with a body and a door in said body, said door having an upper and lower set of draft openings therethrough, of a fire pot, supporting legs for said fire pot, said fire pot having a hinged section between a pair of said supporting legs, a horizontal stationary ledge against which the lower edge of the hinged section is adapted to rest, said ledge extending from the fire pot to said door and from one of said pair of supporting legs to the other, whereby the draft from the upper openings through said door will be conveyed through the bed of fire in the fire pot and the draft through the lower openings conveyed to a point below the fire pot, said ledge engaging said door between said sets of draft openings.

[Claims 5 to 7 not printed in the Gazette.]

1,252,042. AUXILIARY-FILM-FEED MECHANISM. MICHAEL SEGEL, New York, N. Y., assignor to Elizabeth Mehlfelder Uebelmesser, Bayside, Long Island, N. Y. Filed Feb. 18, 1914. Serial No. 819,393. (Cl. 88—17.)



1. In combination with a motion picture machine carrying a motion picture film, an auxiliary film, and means controlled by the regular film adapted to move said auxiliary film to a line with the aperture at or about the time when the exhibition of the regular film ceases.

2. In combination with a motion picture machine carrying a film to be exhibited, an auxiliary film, an advancing device therefor, and means controlled by the picture film to allow said auxiliary film advancing device to operate at or about the time when the exhibition of the regular film ceases.

3. In a motion picture machine, a carrier adapted to support an auxiliary film or the like, said carrier being out of alinement with the picture aperture, and means controlled by the picture film adapted to cause the film or the like in said carrier to aline with the picture aperture when the picture film runs out.

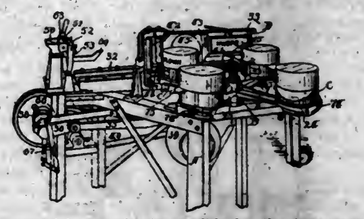
4. In a motion picture machine having an aperture, the combination of a picture film and an auxiliary film moving transversely across the picture aperture and auxiliary feed mechanism therefor and controlled by the film and adapted to operate when said aperture has become vacant.

5. In a motion picture machine having an aperture, a picture film adjacent thereto, an auxiliary film adjacent thereto and an auxiliary film advancing mechanism controlled by the regular film in the aperture for bringing said auxiliary film into the aperture at or about the time the exhibit of the regular film ceases.

1,252,043. CAP-PRINTING MACHINE. JAMES M. SHOURT, St. Paul, Minn., assignor to Brown & Bigelow, St. Paul, Minn., a Corporation of Minnesota. Filed Sept. 14, 1915. Serial No. 50,623. (Cl. 101—38.)

1. A cap printing machine of the class described comprising a plurality of cap supporting blocks mounted on a rotatable frame, slidably supported printing mechanism, means for carrying said printing mechanism successively past said blocks with the printing type in engagement with a block supported cap, and means for rotating said block during the printing operation.

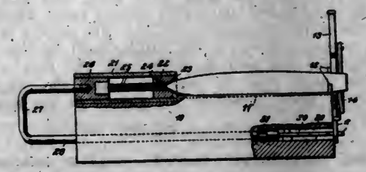
7. A cap printing machine of the class described comprising a plurality of cap supporting blocks having independent rotatable support upon a rotatable frame, a slidably supported type carrier, means for sliding said carrier successively past said blocks with the printing type in engagement with a block supported cap, and mechanism actuatable by the type carrier to hold the block frame locked in stationary position during the printing opera-



tion, comprising a pin depressible by the type carrier, a connected pin upwardly slidable into locking engagement with the block frame by the depression of said first mentioned pin, and controlling springs for said pins releasing said locking pin after the printing operation.

[Claims 2 to 6 and 8 to 11 not printed in the Gazette.]

1,252,044. CIGAR TUCK-CUTTER AND PERFORATOR. HOWARD NEWTON SHRIVER, Beachmont, Mass. Filed Sept. 18, 1916. Serial No. 120,738. (Cl. 131—37.)



1. In a machine of the class described, a base having a recess opening at one side and end thereof, a bell crank lever pivoted upon the base for horizontal movement and arranged within said recess, a rod arranged longitudinally of the base and having an opening at one end for the reception of the adjacent extremity of said lever, whereby said rod is reciprocated upon movement of the lever, means for trimming the tucks of cigars, said means including a fixed blade and a movable blade pivoted upon the base, said movable blade being directly connected with the opposite end of said lever for controlling the movements of the latter, and means on the opposite ends of said rod for perforating the small end of the cigar in the direction of its length simultaneously with the trimming of the tuck thereof.

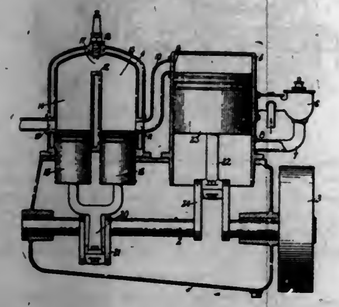
4. In a machine of the class described, a base having an enlarged transverse recess opening at one side and end thereof, and a longitudinally extending bore communicating with the recess and opening at the opposite end of the base, a bell crank lever pivoted within said recess for horizontal movement, means for trimming the tucks of cigars, said means including a fixed blade and a movable blade pivoted upon the base, said movable blade being directly connected with the adjacent end of said lever for controlling the movements thereof, a rod movable longitudinally of the base and arranged within said bore, said rod being connected with the opposite end of the lever, an elbow formed on one end of the rod and terminating above the base, and means carried by said elbow for perforating the small end of the cigar in a direction of its length simultaneously with the trimming of the tuck thereof.

[Claims 2 and 3 not printed in the Gazette.]

1,252,045. INTERNAL-COMBUSTION ENGINE. MARTINUS SIEVEKING, Lake Mahopac, N. Y. Filed Aug. 14, 1917. Serial No. 186,164. (Cl. 123—53.)

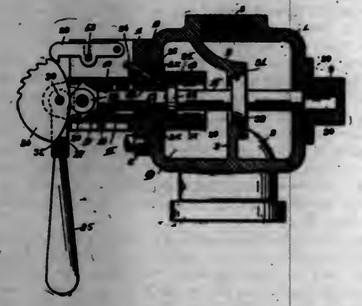
In an internal combustion engine of the character described, a power cylinder divided into a plurality of

chambers, said cylinder having an inlet and an outlet port at one end, a piston for each of said chambers, said pistons closing said ports when compressing and during most of the power stroke, a compression cylinder having a closed end, a carbureter connected with the compression cylinder at the end opposite the closed end, means for connecting the closed end of said compression cylinder with said inlet port, and means for connecting the



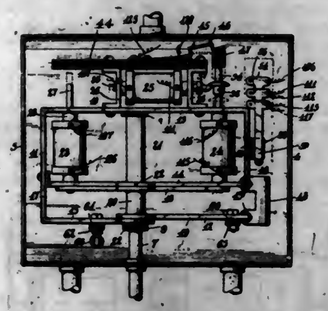
piston of the compression cylinder and the pistons of the said chambers with the same crank shaft, said pistons being set one hundred and eighty degrees apart whereby the piston in the compression chamber will cause a rarefaction in the closed end of the cylinder until the inlet to the carbureter has been uncovered and will then compress the charge from the carbureter until the completion of the power stroke of the pistons in the power cylinder.

1,252,046. AUTOMATIC VALVE. JOHN P. SINGISER, Rochester, N. Y. Filed Feb. 2, 1916. Serial No. 75,856. (Cl. 137—93.)



The combination of a valve casing, a partition therein, a valve seat on one side of said partition, a valve adapted to seat itself on said seat, a valve stem projecting from either side of said valve, guides at each end of said casing to guide said valve stem in a straight line movement, a piston on said valve stem, a cylinder having an open end and a closed end in said casing, said piston being adapted to slide in said cylinder, a by-pass connecting the closed end of said cylinder with said casing, an opening through said piston, a spring pressed valve on said piston, closing said opening when the piston moves in one direction, guides on the outside of said casing, a cross head mounted to slide between said guides, said cross head being fastened to the end of said valve stem, an antifriction roller mounted on said cross head, bearings on the outer ends of said guides, a cam mounted between said guides, said cam being adapted to rest on said antifriction roller and open said valve on the rotation thereof, a handle mounted to rotate in said bearings and independently of said cam, said handle being adapted to engage said cam and rotate said cam, a ratchet provided on the periphery of said cam, a pawl mounted on said casing, said pawl being adapted to successively engage the teeth of said ratchet on the rotation of said cam.

1,252,047. TRAIN-CONTROLLING MECHANISM. JULES SPIESS, Buffalo, N. Y. Filed Jan. 22, 1916. Serial No. 73,623. (Cl. 246—59.)



2. Means for controlling the movements of trains over a curved portion of a track, comprising a circuit controller having an actuator adapted to be engaged by a part of a train to move the same in one direction, time-controlled mechanism regulating the return movement of said actuator, a switch controlled by said actuator, a stop mechanism at a distant point having a stop or trip member, an actuator adapted to be engaged by a part of the train, electrical means for connecting said last-mentioned actuator with said stop or trip member, and electrical connection between said electrical means and the switch in said circuit controller.

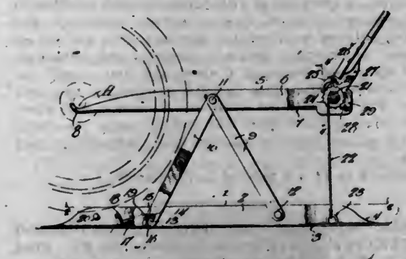
3. Means for controlling the movements of trains over a curved portion of a track comprising a circuit controller having an actuator adapted to be engaged by a part of a train to move the same in one direction, time-controlled mechanism regulating the return movement of said actuator, a pair of switches with which the actuator coöperates to make and break electrical current, a stop mechanism at a distant point having two swinging members, an actuator secured to one of said swinging members and adapted to be engaged by a part of the train, a stop or trip member secured to the other swinging member, an unlocking solenoid and a locking solenoid carried by one of said members, each solenoid having a central pin movable therein, a spring surrounding the pin of said unlocking solenoid to force the same in one direction in contact with the other frame or through the same, a spring surrounding the pin of said locking solenoid to engage the pin of said unlocking solenoid and hold the latter in retracted position, electrical connection between the locking solenoid and one of the pair of contacts of said circuit controller, and electrical connection between the unlocking solenoid and the other contact of said circuit controller.

8. In a train controlling apparatus, a train-actuated device comprising two swinging members having their pivots coincident, an actuator for one of said members, a stop or trip device for the other member, an unlocking solenoid adapted to connect said members to cause them to swing together, a locking solenoid adapted to hold said unlocking solenoid in unlocking position, a visible signal coöperating with said solenoids and operatively connected so that when said swinging members are disconnected said signaling member indicates a clear track ahead and when said swinging members are connected said signaling member indicates a train ahead.

10. Means for controlling train movements, comprising spaced devices arranged along the track adapted to be actuated by a train traveling on the track, each device having a stop element adapted under certain conditions to actuate the air brake system of a train to stop the same, electrical means embodied in each of said devices to control the operativeness of its stop element, electrical connection between said devices for controlling the stop element of a distant device in accordance with that of the actuated device, and safety means in said devices for causing actuation of the stop elements of all devices when the source of electrical power fails.

[Claims 1, 4 to 7, 9, and 11 not printed in the Gazette.]

1,252,048. VEHICLE LIFTING-JACK. AUGUST STECKER, Osborn, Wis. Filed Apr. 20, 1917. Serial No. 163,328. (Cl. 254—127.)

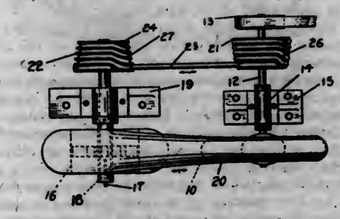


3. In a jack of the class described, a support including a base, a lifting member, a connection between the lifting member and base, a link pivoted to the member adjacent one end, the free end of the link having an open end longitudinally extending slot, the end of the link adjacent the slot having a notch, a pin on the base to slidably receive the slotted end of the link, a crank pivoted to the base, one arm of the crank being cutaway, said arm being engaged with the notch when the crank is disposed in one position, said link being movable past the cutaway portion when the crank is disposed in another position to permit the lifting member to be folded against the base, and means for elevating one end of the lifting member.

5. In a jack of the class described, a support including a base and means for mounting a lever thereon, a lever pivoted to the means and having a pair of spaced flanges, a drum pivoted between said flanges, each end of said drum having an annular flange provided with ratchet teeth, an operating handle having a pair of flanges adapted to straddle the drum and fulcrumed on the pivot shaft thereof, a pair of spaced ears on the handle, a pair of dogs pivoted between said ears, one dog being disposed in advance of the other and each being adapted to engage the teeth on both of said annular flanges, and a flexible member disposed around said drum and secured at one end to said base.

[Claims 1, 2, and 4 not printed in the Gazette.]

1,252,049. TIRE-BUILDING MACHINE. WILLIAM J. STEINLE, Elmhurst Heights, N. Y., assignor to Rubber Regenerating Company, a Corporation of Indiana. Filed Sept. 24, 1915. Serial No. 52,851. (Cl. 154—10.)



1. A tire building machine comprising a power driven ring core, a fabric feed roll adapted to be driven by the feeding of the fabric therefrom to the ring core, and means for positively retarding the speed of the feed roll relative to the ring core when the fabric is being applied, said means independently operating to increase the speed of said feed roll relative to the said ring core at each revolution of the latter.

2. A tire building machine comprising a power driven ring core, a fabric feed roll adapted to be driven by the feeding of the fabric therefrom to the ring core, and means mounted independently of the fabric for positively retarding the speed of the feed roll relative to the ring core when the fabric is being applied, said means independently operating to increase the speed of said feed roll relative to the said ring core at each revolution of the latter.

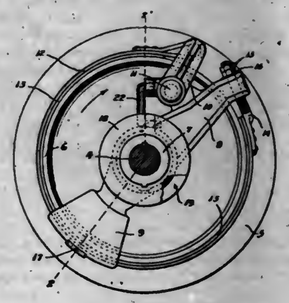
4. A tire building machine embodying a power driven ring core, a fabric feeding roll, a cone operatively connected with the core, a cone operatively connected with the feeding roll, said cones tapering oppositely from each other, and an inextensible flexible connector unwinding from the core cone and winding up on the feeding roll cone.

5. A tire building machine embodying a power driven ring core, a fabric feeding roll, a step cone operatively connected with the core having steps which increase in diameter progressively in a direction outwardly from the core, a step cone operatively connected with the feeding roll and having steps which decrease progressively in diameter in a direction outwardly from the feeding roll, and an inextensible cable unwinding from the core cone and winding up on the feeding roll cone.

6. A tire building machine embodying a power driven ring core, a fabric feeding roll, a step cone operatively connected with the ring core, a step cone operatively connected with the feeding roll, an inextensible flexible connector unwinding from the core cone and winding up on the feeding roll cone, and guide grooves formed in the steps of each step cone to direct the connector from one set of steps to the next succeeding set at the completion of each revolution made by the core.

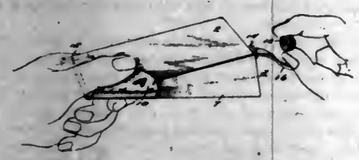
[Claim 3 not printed in the Gazette.]

1,252,050. CLUTCH MECHANISM. CHARLES H. STINSON, Watertown, S. D. Filed Aug. 11, 1916. Serial No. 114,378. (Cl. 192—14.)



A friction clutch comprising co-axial driving and driven members, an annular clutch surface carried by one of said members, an arm carried by the other member, a lever pivoted to said arm, a clutch band having one end attached to said lever and the other to said arm, a shipper sleeve mounted to slide toward and from said arm, and a link having laterally projected ends, the inner thereof being pivotally seated in said sleeve and thereby held against movement circumferentially of said sleeve, but free for pivotal movements in a plane that intersects said sleeve longitudinally, the said lever having a short projecting arm formed with an open seat in which the outer laterally projecting end of said link is loosely seated.

1,252,051. CARTON-CASE FOR COLLAPSIBLE TUBES. ALBERT F. STONE, Montclair, N. J. Filed Jan. 8, 1915, Serial No. 1,123. Renewed May 25, 1917. Serial No. 170,986. (Cl. 229—17.)

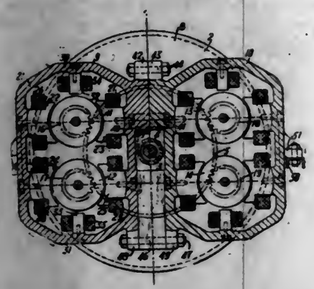


1. A carton casing or cover for collapsible tubes, comprising a fiber-board blank folded into a wedge-shaped box and having its edge members provided with longitudinal crease lines upon which said members may fold when pressure is exerted upon the faces of the wedge, while its end or base member maintains its shape due to its stiffness or rigidity.

4. A carton casing or cover for collapsible tubes, comprising a blank foldable into a wedge-shaped box, said blank having rectangular portions adapted to form the opposite face members of the wedge, an intermediate rectangular portion having an aperture to receive the neck of a collapsible tube and connected by folding joints upon opposite sides with said rectangular portions and having flaps united to the other opposite sides, and triangular portions having outer marginal flaps and united at their inner longitudinal edges by folding joints with the opposite edges of one of said rectangular portions, said triangular portions having longitudinal crease lines causing the triangular portions to bulge outwardly when pressure is applied to the outer margins thereof.

[Claims 2 and 3 not printed in the Gazette.]

1,252,052. LOCOMOTIVE. NORMAN W. STORER, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Aug. 10, 1915. Serial No. 44,811. (Cl. 105—220.)



1. In a vehicle, the combination with a supporting frame, and a plurality of twin motors rigidly associated together and supported upon said frame as a single driving unit, of a wheel axle and a quill interposed between the parts of said driving unit, a gear wheel fixed to said quill and mechanically associated with the several motor armatures, and a flexible driving mechanism between said gear wheel and said driving wheels.

2. In an electric locomotive, the combination with a running-gear frame, and a plurality of twin motors detachably fixed together and supported upon said frame, of a driving axle and a quill disposed between the two twin motors, means for mechanically associating the several armatures of the twin motors with said quill, and driving wheels associated with said axle and resiliently connected to said quill.

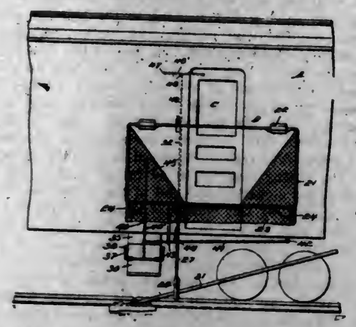
3. The combination with a locomotive frame, an axle and wheels fixed thereto, a quill surrounding said axle and having a gear wheel positioned thereon and resiliently associated with one of said wheels, of a pair of twin motors severally disposed on opposite sides of said axle and said quill and severally provided with a pair of armature shafts and pinions, said twin motors being rigidly secured together and the pinions of the several armatures meshing with said gear wheels.

4. In an electric locomotive, the combination with a running-gear frame, a driving wheel axle and associated wheels, of a pair of twin motors severally disposed on opposite sides of said axle and rigidly bolted together, two armatures for each of said motors, and shell frames provided with pole pieces which are associated with said armatures, said twin motors being supported upon said running-gear frame.

5. In a locomotive, the combination with a running-gear frame, a plurality of twin motors bolted together in side-by-side relation to form a unitary structure and provided with an intermediate opening, said twin motors severally comprising a pair of armatures and being supported upon said frame, of a wheel axle and a quill disposed in said intermediate opening between the two twin motors, wheels associated with the axle and a gear wheel rigidly fixed to said quill and mechanically associated with all of the motor armatures and with one of said wheels.

[Claims 6 to 14 not printed in the Gazette.]

1,252,053. MAIL-BAG CATCHING AND DELIVERING APPARATUS. JESSE STRATTON, Lexington, Ky. Filed Mar. 7, 1917. Serial No. 153,102. (Cl. 258—6.)



1. The combination with a car having a doorway, and a door closing the same, of an apparatus of the class described comprising a frame hinged exteriorly of the car and having a net, a track instrument having movable switch points, means for advancing them toward the track at will, means engaged by the advanced point and the body of the track instrument to automatically move the frame to operative position, a delivery chute leading from the interior of the car laterally therefrom to one side of the same, a gate for closing the chute connected with the first-named means for the automatic opening of said gate on movement of the frame to operative position, and an extension slide at the bottom of the chute and operated by movement of the gate.

2. The combination with a car having a doorway, and a door closing the same, of an apparatus of the class described comprising a hinged frame, a net connected with the frame, a track instrument having movable switch points, means for advancing them toward the track at will, means connected with the frame and engaged by the advanced point and the body of the track instrument to automatically swing the frame to operative position, a delivery chute leading from the interior of the car, a gate for the chute, means connected with the first-named means for the automatic opening of the said gate on movement of the frame to operative position, an extension slide at the bottom of the chute, means for operating the slide by the movement of the gate, and means coöperative with the track instrument to render it inoperative or operative relative to the first-named means.

3. The combination with a car having a doorway, and a door closing the same, of an apparatus of the class described comprising a frame pivoted for swinging movement exteriorly of the car, a net connected with the frame and sides, respectively, of the car for communication with the doorway, a track instrument adapted to be located on one side of a track over which the car travels, means connected with the frame and engaged by the track instrument to automatically move the frame to operative position, means connected with the frame and the door, respectively, for automatically moving the said door on movement of the frame to operative position, a delivery chute leading from the interior of the car laterally therefrom to one side of the same, a gate for closing the chute connected with the first-named means for the automatic opening of said gate on movement of the frame to operative position, and an extension slide at the bottom of the chute and operated by movement of the gate.

[Claim 4 not printed in the Gazette.]

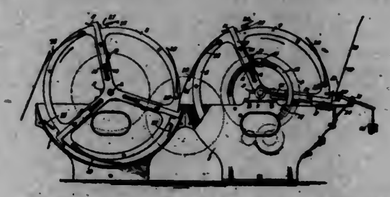
1,252,054. GARMENT. LOUIS STRAUSS, Brooklyn, N. Y. Filed Jan. 31, 1917. Serial No. 145,620. (Cl. 2—92.)



1. A garment having in combination, a knitted body portion comprising front and back panels arranged to form sleeve and collar openings, said panels being united to form an exposed shoulder seam extending from said sleeve to said collar opening, and a plurality of knitted sleeves integrally connected by a knitted extension; and means for incorporating said extension and sleeves in the completed structure of the garment, said extension being disposed at the inner side of said garment.

[Claims 2 and 3 not printed in the Gazette.]

1,252,055. MACHINE FOR CLEANING AND BRANNING TIN PLATES AND TERNE PLATES. JOHN HENRY STRICK and JAMES PROPERT REES, Neath, South Wales. Filed May 31, 1917. Serial No. 172,133. (Cl. 51—15.)



1. In machines of the kind hereinbefore specified for cleaning and branning tinplates and terneplates; the combination therewith of a paddle consisting of a blade extending across the trough containing the cleaning material, and means for fixing said blade to the rotary carrying members in advance of and adjacent to the clips which grip the leading end of the plate, to carry and disturb the cleaning material in said trough in advance of the leading end of said plate being cleaned.

2. In machines of the kind hereinbefore specified for cleaning and branning tinplates and terneplates; the combination therewith of paddles each consisting of a blade, one of said blades being located in advance of each set of the clips for gripping the leading ends of the plates to be cleaned, said blades extending across the trough parallel with the shaft of the carrying members, and means for fixing said blades to said carrying members near the peripheries thereof to carry and disturb the cleaning material in the trough in advance of the leading ends of the plates gripped by said clips.

3. In machines of the kind hereinbefore specified for cleaning and branning tinplates and terneplates; the combination therewith of paddles each consisting of a blade, one of said blades being located in advance of each set of the clips for gripping the leading ends of the plates to be cleaned, said blades extending across the trough parallel with the shaft of the carrying members, and means for fixing said blades to said carrying members near the peripheries thereof with the surfaces of said blades at an angle to the direction of motion to carry and disturb the cleaning material in the trough in advance of the leading ends of the plates gripped by said clips.

4. In machines of the kind hereinbefore specified for cleaning and branning tinplates and terneplates; the combination therewith of a paddle consisting of a blade extending across the trough containing the cleaning material, means for fixing said blade to the rotary carrying member in advance of and adjacent to the clips which grip the leading end of the plate, to carry and disturb the cleaning material in said trough in advance of the leading end of said plate being cleaned, spring deflecting rods, and means for rigidly fixing one end of each of said rods to the rotary carrying members near to and rearward of said clips, said rods extending rearwardly of said clips and eccentrically to the axis of said carrying members with the rearward free ends of said deflecting rods supporting the trailing portion of the plates and resiliently holding same eccentric to the center about which the carrying members revolve.

5. In machines of the kind hereinbefore specified for cleaning and branning tinplates and terneplates having a plurality of troughs to contain the cleaning material located end to end and adjacent to each other, rotary carrying members entering each trough, means for revolving each set of carrying members, clips carried by each set of carrying members, and means for operating said clips to grip the leading end of a tinplate at one end of one trough to draw said plate through the cleaning material and to release same upon leaving the other end of the trough; the combination therewith of spring deflecting rods on said carrying members fixed near to and extending rearward of said clips, said deflecting rods extending eccentrically to the axis of said carrying members to resiliently hold the plates eccentric to the center about which the carrying members revolve and calculated as the trailing end of each plate leaves the delivery end of the first trough to throw said end of said plate forward into the next trough, paddles each consisting of a blade, and means for fixing said blades near the peripheries of said carrying members so that said blades extend across said trough parallel with said shaft one of said blades being located forward of each set of clips to carry and disturb the cleaning material in said trough in advance of the leading end of said plate.

1,252,056. TELEPHONE-RECEIVER. NAHO TANNAKA, Boston, Mass. Filed Dec. 19, 1916. Serial No. 137,775. (Cl. 179—115.)



1. In a telephone receiver, a cell and a diaphragm in coöperative relation with electrical means for translating

electrical impulses into sound, stiff rings on opposite sides of the diaphragm, and cushioning washers disposed in contact with sides of the rings and pressed therewith together between the cell and the diaphragm, the said sides of the rings being shaped and related to the washers, in such manner that small part of each washer is effectually under pressure.

2. In a telephone apparatus, a vibrator mounting, comprising heaving members which terminate with small surface ends on opposite sides of a vibrator, and a yielding element in contact with the vibrator and held therewith together between the heaving members, so that a minor portion of the yielding element is effectually under pressure.

16. In a sonorous apparatus, a vibrator mounting, provided with opposing shoulders, at least one of which has a narrow edge projection, pliable members disposed on opposite sides of a vibrator and pressed therewith together between the shoulders.

17. In a telephonic apparatus, a diaphragm mounting, comprising a casing provided with heaving parts terminating with small top surfaces on opposite sides of a diaphragm, and elastic members held between the diaphragm and the heaving parts, and so related to the heaving parts that small part of each of the elastic members is effectually under pressure.

[Claims 3 to 15 not printed in the Gazette.]

1,252,057. TELEPHONE-TRANSMITTER. NAHO TANNAKA, Boston, Mass. Filed Feb. 14, 1917. Serial No. 148,496. (Cl. 179—122.)



1. In a telephone transmitter, the combination with a casing; of front and back electrodes bearing units, cushions between the casing and the said two units, the units being independently attached to the casing through the cushions, and parts constituting therewith a variable resistance device.

2. In a telephone transmitter, a yielding mounting for the working parts thereof, comprising a casing, a back support, and cushions separately held between the working parts and the casing, and between the back support and the casing, the working parts and the supports being independently attached to the casing.

21. In a telephone transmitter, a casing, a vibratory unit elastically held thereby, a support yieldingly attached to the casing, a back unit held by the support, cushions, and a flexible sheeting attached to one of the said two units, which has cups or cases containing electrodes and granular carbon, and yieldingly connected to the other unit through the cushions.

22. In a telephone transmitter, a casing, a vibratory unit cushioned against the casing and held thereby, cushioning washers, a back unit elastically mounted on the casing through the washers, a carbon containing case carried by one of the said two units, a sheeting attached to the case, and pads held together with the sheeting by the other of the said units.

[Claims 3 to 20 not printed in the Gazette.]

1,252,058. PROCESS OF EXTRACTING ROSIN, TURPENTINE, AND OILS. JOHN E. TEEPLE, Montclair, N. J. Filed Jan. 12, 1914. Serial No. 811,626. (Cl. 203—6.)

1. In the extraction of rosin and turpentine from coniferous wood the process which comprises simultaneously treating such wood in a comminuted state with water and spirits of turpentine at their joint boiling point till the rosin, turpentine and oils are dissolved and extracted by such spirits of turpentine, the amount of spirits of turpentine present in such operation being greater than the amount normally present in such wood.

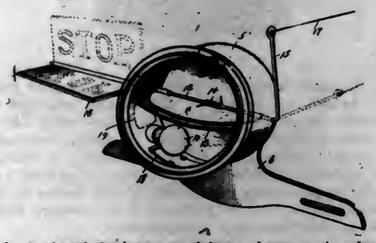
3. In the extraction of rosin and turpentine from coniferous wood the process which comprises heating such wood at a temperature below 100° C. in the presence of water vapor and vapors of spirits of turpentine till the rosin and oils are dissolved and extracted by the turpentine, the amount of such turpentine present being greater than that naturally present in the wood.

6. In the extracting of valuable products from coniferous wood the process that comprises heating a bath of turpentine and water to the boiling point, causing the mixed vapors to pass through the wood to be extracted, condensing the vapors in such manner as to expose the wood to the simultaneous action of both at their boiling point till rosin and oils are sufficiently extracted, removing the water and solution and recovering the turpentine.

7. In the extraction of valuable products from coniferous wood the process which comprises passing steam through a bath of turpentine, causing the mixed vapors to pass through the wood, condensing the vapors and passing the condensate back through the wood till resin and oils are sufficiently extracted, removing the water and solution and recovering the turpentine.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,252,059. SIGNAL DEVICE. HENRY C. THIEL, Chicago, Ill. Filed Mar. 6, 1917. Serial No. 152,704. (Cl. 116—31.)



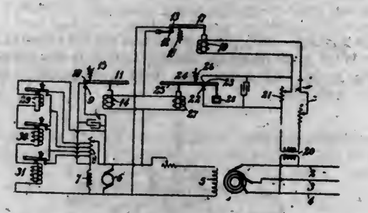
1. A signal device comprising a lamp casing having a lens face divided into two differently colored sections, a movable partition in the casing and dividing the same into separate compartments, one of the lens sections coinciding with one compartment, and the other lens section coinciding with the other compartment, a light source in one of the compartments, and means for moving the partition to place the compartments in communication.

4. A signal device comprising a lamp casing having a lens face divided into two differently colored sections, a movable partition in the casing and dividing the same into separate compartments, one of the lens sections coinciding with one compartment, and the other lens section coinciding with the other compartment, a light source in one of the compartments, means for moving the partition to place the compartments in communication, a rod journaled in the wall of the lamp casing and carrying the partition, one end of the rod projecting from the lamp casing, an indicator carried by said projecting end of the rod, and actuating means for the rod.

[Claims 2 and 3 not printed in the Gazette.]

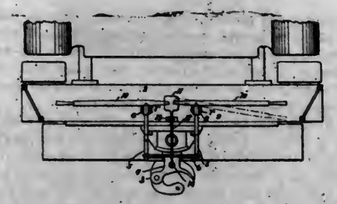
1,252,060. ELECTRICAL REGULATOR. ALLEN A. TIRRILL, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Oct. 5, 1911. Serial No. 653,012. (Cl. 171—229.)

The combination with an electrical circuit, and a dynamo-electric machine associated therewith, of a regulator for the dynamo-electric machine comprising coöperating contact members, an actuating winding therefor energized from said circuit, and relay devices controlled by the contact members for governing the field excitation



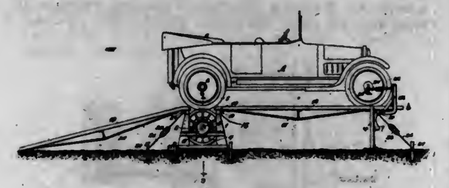
of the dynamo-electric machine and the degree of energization of the said winding, the latter relay device being retarded in its operation.

1,252,061. DEVICE FOR OPERATING CAR-COUPLINGS. FRANK M. TURNER and JOHN DAHLSTROM, Pittsburgh, Pa. Filed Nov. 2, 1916. Serial No. 129,057. (Cl. 213—59.)



In a device for operating car couplers, an adjusting member spanning the coupler and disconnected therewith, an uncoupling member connected with the coupling pin, and an operating member capable of movements to operate both the adjusting and the coupling members.

1,252,062. POWER-TRANSMITTING DEVICE. JOHN S. WALLACE, deceased, Burlington, N. D., by Barbara Wallace, executrix, Burlington, N. D. Filed May 26, 1917. Serial No. 171,123. (Cl. 74—106.)

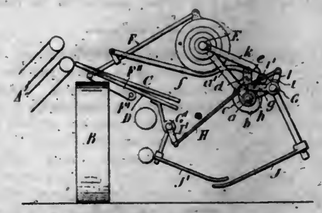


1. A device for transmitting power from a self-propelled vehicle, comprising a pair of spaced supports, elevated tracks resting on the supports, means for removably fastening the tracks to the supports, a buffer frame removably fastened to the tracks, inclined tracks having their upper ends resting on one of the supports in alinement with and spaced from the first-mentioned tracks, wheels mounted on one of the supports and disposed between the tracks, whereby the power wheels of the vehicle can rest on the said wheels, and means for delivering power from the said wheels.

[Claim 2 not printed in the Gazette.]

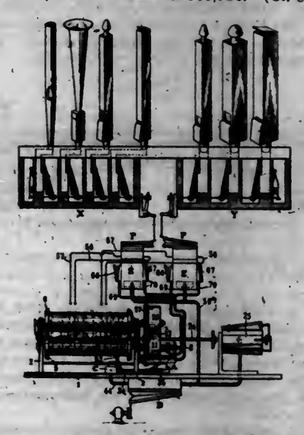
1,252,063. SHEAF-BINDER HARVESTING-MACHINE. FREDRICK BRUTON WELLS, Stevenage, England. Filed Mar. 20, 1917. Serial No. 155,986. (Cl. 56—120.)

1. In a sheaf binder harvesting machine, the combination with a cradle rock shaft, of cradle arms dependent therefrom, rotary knotting mechanism, a reciprocal member actuated by said knotting mechanism, a cam shaft supported in proximity to said cradle rock shaft, a ratchet removably carried adjacent one end of said cam shaft, a link adapted to be actuated by said reciprocal member, a lever pivotally carried at one end of said link, a pawl adjustably supported by said lever and adapted to engage the teeth of said ratchet to advance the latter, and means adjacent the end of the cam shaft opposite that on which the ratchet is carried for rocking said cradle rock shaft and releasing the cradle after the ratchet has been turned a distance defined by a predetermined number of teeth.



2. In a sheaf binder harvesting machine, the combination with oppositely disposed cradle shafts, of a connection therebetween whereby said shafts are rocked in unison, rotary knotting mechanism, a reciprocal member actuated by said knotting mechanism, a cam shaft supported in proximity to one of said cradle shafts, a ratchet removably carried adjacent one end of said cam shaft, a link adapted to be actuated by said reciprocal member, adjustable means pivotally carried by said link for advancing said ratchet on its shaft, a cam adjacent the opposite end of said cam shaft, a stop arm loosely mounted on said cam shaft, an arm loosely mounted on the adjacent cradle shaft and adapted to engage said stop arm, and an arm rigid on said last named cradle shaft and adapted either to engage with or be disengaged from said stop arm to close the cradle or permit the same to open.

1,252,064. CONTROLLER MECHANISM FOR MECHANICAL MUSICAL INSTRUMENTS. CARL M. WELTE, New York, N. Y., assignor to M. Welte & Sons, Inc., New York, N. Y., a Corporation of New York. Filed Dec. 11, 1913. Serial No. 805,916. (Cl. 84—161.)



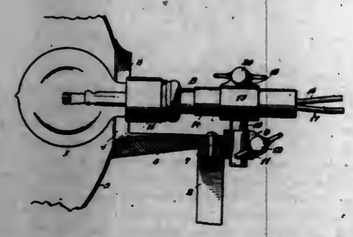
9. In a device of the character described, a pair of music rolls each having a driving shaft, a driving gear on the shaft of each music roll, a ratchet and pawl intermediate each of said gears and its respective shaft, a friction disk controlling the position of the pawls with

reference to the ratchets, a friciton member controlling the movement of the friction disk and a pneumatic for automatically controlling the friction member.

10. In a device of the character described, a pair of music rolls each having a driving shaft, a driving gear on the shaft of each music roll, a ratchet and pawl intermediate each of said gears and its respective shaft, a friction disk controlling the position of the pawls with reference to the ratchets, a friction member controlling the movement of the friction disks and a pneumatic for automatically controlling the friction member and valve connections operable from the music roll for controlling a pneumatic.

[Claims 1 to 8 and 11 to 13 not printed in the Gazette.]

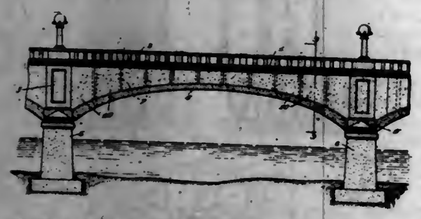
1,252,065. HEADLIGHT. EDWARD H. WERZNER, Evansville, Ind., assignor to Schroeder Headlight Co., Inc., Evansville, Ind., a Corporation of Indiana. Filed Apr. 17, 1917. Serial No. 162,656. (Cl. 240—44.)



1. The combination of a reflector having an enlarged opening therein, a lamp in the reflector and having a member of considerably less size than the opening of the reflector and extending through the said opening, said member carrying a stem, a split bearing in which the stem is mounted to turn and slide, said bearing being provided with a stem projecting at right angles therefrom, a screw for securing the first named stem in the bearing, a support adjacent the reflector and having a split bearing in which the second stem is mounted to turn and slide, and a screw for securing the said stem in its bearing.

[Claims 2 and 3 not printed in the Gazette.]

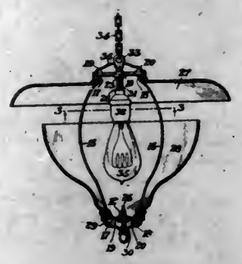
1,252,066. SIDE-PANELED BRIDGE. OLIVER J. WESTCOTT, Maywood, Ill., assignor to Westcott Engineering Co., Chicago, Ill., a Corporation of Illinois. Filed May 17, 1916. Serial No. 97,988. (Cl. 72—56.)



1. In a bridge, an arch, a roadway, rigid supporting members interposed therebetween; and spandrel walls including sections movable in all directions with respect to, but interengaged with, both the arch and certain of the supporting members; the roadway being supported entirely by the said rigid members independently of the spandrel walls.

2. In a reinforced concrete bridge, laterally spaced arches, a series of risers on each arch spaced and independent from the risers of the adjacent lateral arch, transversely arranged girders common to and capping the risers of all the series and spanning the space between the series, and spandrel wall sections movably interlocked with the outer arches and with the risers to conceal the latter, the wall sections being bordered by expansion joints whereby the sections are permitted to move relative to each other and to the adjacent bridge portions.

1,252,067. HOLDER FOR LIGHT-TRANSMITTING BOWLS AND REFLECTORS. EDWIN L. WHITE, Brooklyn, N. Y. Filed June 13, 1917. Serial No. 174,425. (Cl. 240—78.)

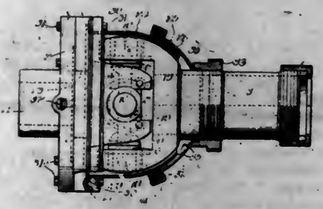


1. A holder for glassware in lighting fixtures, comprising two rings in spaced vertical alinement, each provided with grooves, arms extending between the same and secured thereto within said grooves, the upper ends of said arms extending therefrom in opposite directions and bent to form spaced seats for a dome or reflector.

6. In a lighting fixture and in combination, a dome or reflector, a bowl, a holder for said reflector and bowl comprising two interiorly threaded rings in spaced vertical alinement, each provided with grooves, arms extending between the same and secured thereto within said grooves, the upper ends of said arms extending from the ring in opposite directions and bent to form spaced seats for said dome or reflector, the lower portion of the arms being within the bowl and shaped to fit into its neck and contact with its lower inner surface, a cup fitted over the bottom of the bowl, a screw connecting said cup with the lower ring, and an adjustable socket support fitted within the threaded opening in said upper ring.

[Claims 2 to 5 not printed in the Gazette.]

1,252,068. UNIVERSAL JOINT FOR POWER TRANSMISSION. WILLIAM ERASTUS WILLIAMS, Chicago, Ill. Filed May 24, 1916. Serial No. 99,617. (Cl. 74—19.)



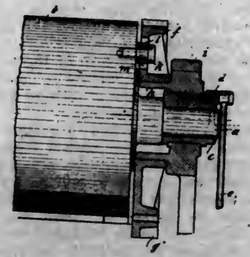
7. The combination with two yokes provided with trunnion bushing openings and with flange-receiving recesses, of a trunnion block having trunnions smaller than said openings, externally flattened trunnion bushings mounted on the trunnions, fitting as to non-flattened portions in said openings, and provided with flanges to engage in said recesses, resisting radial displacement and strengthening the yokes.

12. In a device of the class described, a driving yoke, a trunnion block, a driven yoke and bearing bushings connecting the parts, said yokes being provided with seats open to receive the bushings when they are in place on their trunnions, the parts being assembled and being so shaped that partial rotation of the bushings locks them in place.

14. In a device of the class described, a driving yoke, a trunnion block, a driven yoke and bearing bushings connecting the parts, said yokes being provided with seats open to receive the bushings when they are in place on their trunnions, the parts being assembled and being so shaped that partial rotation of the bushings locks them in place, and means extending across the bushing seats for locking the bushings against displacement.

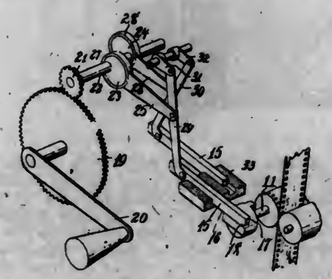
[Claims 1 to 6, 8 to 11, 13, 15, and 16 not printed in the Gazette.]

1,252,069. DEVICE FOR DRIVING THE IMPRESSION-CYLINDERS OF PRINTING-MACHINES. CARL WINKLER, Berne, Switzerland. Filed Apr. 25, 1916. Serial No. 93,507. (Cl. 101—283.)



A printing machine comprising in combination an impression cylinder, eccentrically bored sleeves in which said cylinder is journaled, frames carrying said sleeves, means to turn said sleeves in said frame to raise and lower said impression cylinder, a hub on one of said frames directed toward said cylinder, a spur-wheel supported on said hub close against the end of said cylinder and concentric to said impression cylinder during the printing period, a toothed element adapted to rotate said spur-wheel and always remaining in engagement with said spur-wheel, and a radially sliding connection between said spur-wheel and cylinder adapted to transfer the rotary motion of said spur-wheel to said cylinder and to simultaneously permit said spur-wheel and cylinder to turn about axes eccentric to each other, substantially as, and for the purpose set forth.

1,252,070. MECHANICAL MOVEMENT. LOUIS ZIEGLER, Lyndhurst, N. J. Filed Aug. 18, 1917. Serial No. 186,864. (Cl. 74—54.)



1. A rotary member having a flat face and a right line reciprocating member adapted to produce rotation of said rotary member by terminal contact with said face and to hold said rotary member against rotation by longitudinal contact with said face.

4. The combination of a rotary member having a plurality of flat faces, a plurality of members reciprocable in a right line, said reciprocable members being adapted to cause rotation of said rotary member by contact of their ends therewith and to hold said rotary member against rotation by longitudinal contact therewith and operating alternately to rotate said rotary member through a portion of a revolution and to hold it stationary.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,252,071. CABLE TAKE-UP. HENRY L. ZIMMERMAN and FREDRICK W. ZIMMERMAN, Lone Tree, Iowa, assignors to Zimmerman Steel Co., Lone Tree, Iowa. Filed Dec. 29, 1913. Serial No. 809,252. (Cl. 24—133.)



1. In a cable take-up, the combination of a plate provided with two separated upstanding parts each of which has an inwardly facing longitudinal rope groove, and independent means carried by the plate for engaging a rope leading from one of the grooves, the said rope engaging means being separate from and adapted to retain the rope independently of either groove.

3. In a cable take-up, a plate, cable gripping means carried thereby, an outstanding hook portion disposed at one side of said gripping means, the plate extending beyond said hook, and a hook extending from the last-mentioned portion of the plate toward the first-mentioned hook and forming a restricted passage-way therebetween.

4. In a cable take-up, a plate, cable gripping means carried thereby, an outstanding hook portion disposed at one side of said gripping means, the plate extending beyond said hook, and a hook extending from the last-mentioned portion of the plate toward the first-mentioned hook and forming a restricted passage-way therebetween, the bights of the respective hooks being shaped to form a converging passage-way between the hooks.

[Claim 2 not printed in the Gazette.]

1,252,072. APPARATUS FOR CLEANING THE INTERIOR OF TUBULAR MEMBERS. WILLIAM GEORGE ABBOTT, Jr., Wilton, N. H. Filed Sept. 13, 1916. Serial No. 119,974. (Cl. 83—64.)



1. Apparatus for cleaning the interior of tubular members comprising a supporting member, a cleaning head mounted on the supporting member at the forward end of the apparatus, the cleaning head having unobstructed fluid ducts directed forwardly and tangentially in the region of its periphery so as to project jets of fluid forwardly and tangentially from the cleaning head directly against the interior surface of the tubular member, and means for passing fluid through the fluid ducts.

2. Apparatus for cleansing the interior of tubular members comprising a supporting member, a cleaning head mounted thereon, and angularly disposed ribs on the periphery of the cleaning head, the cleaning head having apertures in the forward end thereof, the apertures communicating with the interior of the cleaning head and supporting member and opening at the front of said head so that fluid may be projected therethrough in advance of the ribs.

3. Apparatus for cleansing the interior of tubular members comprising a hollow support, a cleaning head on the forward end of the support, and overlapping ribs angularly disposed on the periphery of the cleaning head, the forward end of the ribs having apertures communicating with the interior of the head, the apertures being so dis-

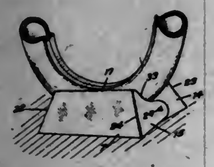
posed as to project jets of fluid obliquely to the face of the cleaning head.

4. Apparatus for cleaning the interior of tubular members comprising a supporting member, a cleaning head mounted on the forward end of the apparatus, the cleaning head having unobstructed apertures in its forward end near its upper periphery and fluid ducts communicating with the apertures, and means for passing fluid through the fluid ducts, the ducts and apertures being directed forwardly and tangentially so that the fluid is projected in jets from the apertures both forwardly and tangentially with respect to the cleaning head directly against the interior surface of the tubular member.

5. Apparatus for cleansing the interior of tubular members comprising a hollow support, a cleaning head rotatably mounted on the end of the support, and angularly disposed ribs on the periphery of the cleaning head, the forward end of the cleaning head having apertures for introducing fluid to the tubular member so that the fluid flowing backwardly along the angularly disposed ribs will cause the cleaning head to rotate.

[Claims 6 and 7 not printed in the Gazette.]

1,252,073. DISPLAY-SUPPORT. WILLIAM K. ACHERT, Cincinnati, Ohio, assignor to The United States Printing and Lithograph Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Feb. 19, 1917. Serial No. 149,422. (Cl. 211—24.)



1. A display support comprising oppositely disposed sides, oppositely disposed end flaps attached to opposite edges of the sides, adapted to be connected to form ends extending from side to side, a bottom, and inner walls extending between the bottom and tops of the sides, said sides, end flaps, bottom, and walls being formed integrally and suitably distinguished from each other by scoring.

6. In combination in a display support, a bottom consisting of a series of portions adapted to be folded with relation to one another, sides, inner walls connecting the bottom and top edges of the sides, end flaps attached to opposite end edges of the sides, adapted to be pivotally connected to form ends extending from side to side and having their side engaging edges converging from their bottoms to their tops, whereby the top edges of the sides will move into gripping engagement with an object located in the support, and whereby the inner walls will move into substantially parallel positions with relation to one another and into engagement with the sides of the object when the object engages the bottom to cause its portions to fold with relation to one another.

[Claims 2 to 5 not printed in the Gazette.]

1,252,074. [WITHDRAWN.]

1,252,075. AUTOMATIC NUMBERING DEVICE FOR PHOTOPRINTING-MACHINES. PHILIP E. HAMILTON and PAUL W. HAMILTON, Beaver Falls, Pa. Filed May 18, 1917. Serial No. 169,513. (Cl. 95—73.)

1. In a photo printing machine, movable means for holding photo sensitive paper in contact with negatives while being light printed, other movable means for engaging the first-named movable means to clamp the latter against the located photo sensitive paper, and a numbering device carried by the first-named movable means into and out of operative relation to the paper during the printing operation and located in the path of the second-named movable means for actuation thereby to produce imprints upon the paper on the face thereof remote from the photo sensitive face by the movement of the second-named movable means into clamping position with relation to the first-named movable means.



2. A photo printing machine provided with holding means for photo sensitive paper upon a negative while being light printed, presser means for the paper holding means, and a numbering device carried by the paper holding means and located in the path of the presser means for actuation by the latter to produce an imprint upon the paper when the presser means is brought into operative relation to the paper holding means.

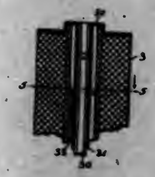
3. In a photo printing machine, a holding member for clamping photo sensitive paper upon a negative in position to be light printed through the negative, a presser member movable into and out of holding relation to the paper holding means, and a numbering device responsive to the movement of the presser means into and out of holding relation to the paper clamping means for producing imprints upon the face of the photo sensitive paper remote from the sensitive side thereof during the printing operation.

7. In combination with a photographic frame of the class described having a removable closure plate, of adjustable means associated with said plate and adapted to automatically stamp the reverse side of a print when the closure plate is in closed position on the frame.

8. In combination with a photographic printing frame of the class described having a removable closure plate, said plate having an opening therethrough, of type carried by the back of said plate and projecting through said opening.

[Claims 4 to 6 not printed in the Gazette.]

1,252,076. ELECTRICALLY-OPERATED GOLD-BEATING MACHINE. MORRIS M. KUPPERSTEIN, Hartford, Conn. Filed Dec. 23, 1914, Serial No. 878,689. Renewed Nov. 23, 1917. Serial No. 203,626. (Cl. 175—341.)



1. In a machine of the class described, a solenoid provided with a lining projecting from one end thereof, a tube removably situated in the lining, having a cap fitted over said projecting portion, and a hammer disposed in the tube, constituting the armature of the solenoid, the capped end of the tube having an opening through which the armature extends when in one of its attracted positions.

2. In a machine of the class described, a solenoid provided with a lining projecting from one end thereof, a tube removably situated in the lining having a cap fitted over said projecting portion of the lining and also flanged between its ends to engage the inner surface of the lining, and a hammer slidable in the tube, constituting the armature of the solenoid and extending through the capped end of the tube when in one of its attracted positions.

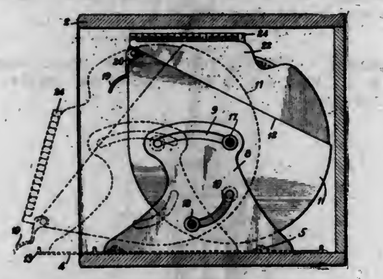
[Claims 3 and 4 not printed in the Gazette.]

1,252,077. REVERSIBLE WHEEL-RIM. SAMUEL M. BEERY, Eagle township, Boone county, Ind., assignor to Tilford A. Merriman and Eddie E. Merriman, Brown township, Ind. Filed Feb. 3, 1916. Serial No. 76,045. (Cl. 152—21.)



In a reversible wheel-rim, the combination with an annular main part and an outwardly-extending flange on one edge portion and an inward-extending flange on the opposite edge portion thereof, said outwardly-extending flange having a gripper portion, and an annular clamp plate continuously engaging and secured to said inward-extending flange and having a continuous gripper portion, of a pair of improved clencher-rings on said main part, each clencher-ring being continuous and comprising a base portion with a bore of uniform diameter, said base portion having two convex faces on opposite sides respectively thereof extending from said bore, the convex faces being uniform in contour, each of the two opposite sides of the clencher-ring having an annular groove therein, said grooves being uniform in contour to receive either one of said gripper portions, said clencher-ring having a flaring portion extending outward beyond said grooves that is relatively thicker transversely than the portion between the grooves and has a convex face on one side and a concave face on the opposite side thereof, the circumferential portion of said thicker portion being relatively thinner transversely than the body of the flaring portion.

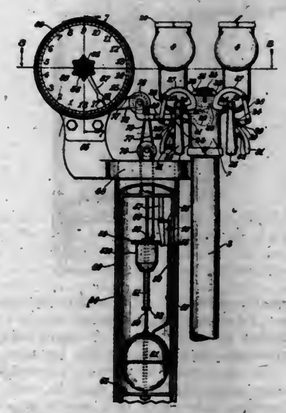
1,252,078. DISK-RECORD-FILING DEVICE. GEORGE E. BENDER, Chicago, Ill., assignor of one-third to Fred G. Rapp, Chicago, Ill. Filed June 28, 1915. Serial No. 36,681. (Cl. 211—16.)



1. In a filing device, the combination of a support, a tray slidably mounted thereon for a limited movement forward and back, a pair of standards mounted on said tray, and a holder pivotally mounted between said standards, comprising a pair of side plates and cross bars connecting said plates adjacent the edges thereof, each side plate having a pair of pins and each adjacent standard having a pair of slots comprising a supporting slot and a cam-curved guiding slot coacting with said pins so arranged that oscillation of said holder both rotates the same about a horizontal axis and advances its center of rotation between said standards, said holder having a hand grip for both oscillating said holder and advancing said tray, substantially as set forth.

2. In a record filing device, the combination of a pair of standards, and a holder mounted between the same, comprising a pair of side plates and cross-bars connecting said plates, including a front frame member secured to the upper portions of said side plates, in the normal position of the device, said plates having pivot pins at their normal centers of gravity and rotation and said standards having forwardly-directed tracks on which said pivot pins bear, said plates also having other pins extending therefrom and said standards having curved guiding slots in which said last-named pins travel, so arranged as to cause continuous and regular circular movement of said holder about its axis as said pivot pins advance on their tracks, said holder being adapted to rotate through an arc of approximately 90° while said pivot pins travel from one end to the other of said tracks so that records may be removed from the holder above said front frame, in the depressed and forward position of the latter, by an approximately horizontal movement, substantially as set forth.

1,252,079. WATER-CONTROLLING MECHANISM FOR LAUNDRY-TUBS. THEODORE BIRKENMAIER, St. Louis, Mo. Filed May 15, 1916. Serial No. 97,734. (Cl. 137—68.)



1. In fluid controlling mechanism of the class described, a fluid connection adapted to deliver the fluid to a receptacle, a valve in said connection, means for actuating said valve, means for setting said valve, a gravity member connected with said setting means for actuating the same, means for setting and retaining said gravity member in suspension with said valve set, and mechanical means governed by the rise of fluid in the receptacle for mechanically releasing said member, adapted to release said valve when the fluid in said receptacle reaches a predetermined maximum level.

5. In fluid controlling mechanism of the class described, a fluid connection adapted to deliver the fluid to a receptacle, a valve in said connection, means for setting said valve, an actuator for said setting means adapted to actuate the same to release the valve, means for retaining said actuator in suspension, mechanical means governed by the rise of fluid in the receptacle for mechanically releasing said actuator to release said valve, and means for adjusting said retaining means for a predetermined maximum level in the receptacle.

11. In fluid controlling mechanism of the class described, a fluid connection adapted to deliver fluid to a receptacle, a valve in said connection, means for setting said valve, an actuator for said setting means, means for retaining said actuator in position with the valves set, means governed by the fluid in the receptacle for releasing said actuator to release said valve, a carrier for said retaining means and for its releasing means, and means for adjusting said carrier.

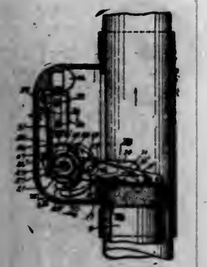
16. In fluid controlling mechanism of the class described, a fluid connection adapted to deliver fluid to a receptacle, a valve in said connection, means for setting

said valve, a carrier, an actuator for said setting means mounted on said carrier, a retainer mounted on said carrier for holding said actuator in position with the valve set, and a float adapted to engage said retainer to release said actuator.

26. In fluid controlling mechanism of the class described, a fluid connection adapted to deliver fluid to a receptacle, a valve casing in said connection, a valve in said casing, a segment operatively connected with said valve, a latch engaging said segment adapted to adjustably set said valve, means for moving said segment into and out of engagement with said latch, and means governed by the fluid in the receptacle adapted to release said latch.

[Claims 2 to 4, 6 to 10, 12 to 15, and 17 to 25 not printed in the Gazette.]

1,252,080. SELECTIVELY-ACTUATED MECHANISM. WALTER BIXBY, Dorchester, Mass., assignor to The Lamson Company, Boston, Mass., a Corporation of New Jersey. Filed Apr. 12, 1916. Serial No. 90,637. (Cl. 235—91.)



1. Pneumatic despatch tube apparatus comprising in combination, a transit tube, elongated carriers of different classes adapted for transmission through said tube, with their longitudinal axes substantially parallel to that of the tube, the respective transverse dimensions of said carriers being substantially the same in each, means for rendering evident the arrival of a carrier at a determined point in its path of travel, and selective mechanism having parts thereof in the path of said carriers of different classes, for causing said means to responsively operate in one determined manner for carriers of one of said classes and in a different manner for carriers of another of said classes.

2. Pneumatic despatch tube apparatus comprising in combination a transit tube, elongated carriers of different classes adapted for transmission endwise through said tube, means for rendering evident the arrival of a carrier at a determined point in its path of travel, and selective mechanism having a part thereof in the path of said carriers of different classes when the latter are traveling endwise, for causing said means to act in a determined manner responsively only for carriers of one of said classes.

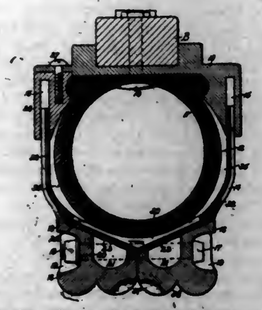
3. Pneumatic despatch tube apparatus comprising in combination, a transit tube, elongated carriers of different classes adapted for transmission endwise through said tube, a plurality of electro-magnetic devices, mechanism operated thereby, and means coacting with and controlled by said carriers, when said carriers are traveling endwise, for selectively rendering one or another of said devices operative in accordance with the class of the carrier co-acting with said means at any given time.

4. Pneumatic despatch tube apparatus comprising in combination, a transit tube, elongated carriers of different classes adapted for transmission endwise through said tube, an electro-magnetic device, mechanism operated thereby, and means selectively controlled by endwise moving carriers of but one of said classes, for causing said device to actuate said mechanism in a determined manner.

5. Pneumatic despatch tube apparatus comprising in combination, a transit tube, elongated carriers of different classes adapted for transmission endwise through said tube, an electro-magnetic device, tally-keeping mechanism operated thereby, and means, selectively controlled by endwise moving carriers of but one of said classes, for causing said mechanism to keep tally of carriers of said class which traverse a part of said tube.

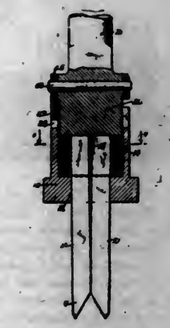
[Claims 6 to 27 not printed in the Gazette.]

1,252,081. COMBINED PNEUMATIC AND STEEL TIRE. JOHN BLAIR, Jr., Rock Springs, Wyo. Filed Mar. 7, 1917. Serial No. 152,988. (Cl. 152—34.)



In a tire of the class described employing a resilient inner tire and protective means therefor; a shell adapted to cover the inner tire at the sides and periphery, said shell being formed of semi-circular sections, the one section presenting a broad central tongue, and the opposed end of the other section having a depression to receive said tongue, the said opposed ends of the sections at the sides of the tongue and depression presenting overlapping rabbeted tongues; together with a rim on which said tire is seated, said rim being formed with annular channels receiving the side edges of the said shell, the overlapped side members of the said shell being accommodated in said channels.

1,252,082. CUTTING-TOOL. ADAM BOCK, Brooklyn, N. Y. Filed Feb. 6, 1917. Serial No. 146,877. (Cl. 125—19.)



4. A cutting tool comprising a tool holder having a square socket provided with tapering sides, a plurality of assembled chisels square in cross section and fitting the said socket, the butt ends of the chisels projecting into the holder and the pointed ends of the chisels projecting beyond the said holder, a cross shaped spacer fitting between the butt ends of the chisels, a stock screwing in the said holder against the end faces of the butt ends of the said chisels, and a locking sleeve removably held on the said stock and having a lug, the said holder having a recess into which projects the said lug to lock the stock and holder together.

[Claims 1 to 3 and 5 not printed in the Gazette.]

1,252,083. TYPE-COMPOSING APPARATUS. EDWARD HUGO BOOS, Missoula, Mont. Filed May 18, 1917. Serial No. 169,412. (Cl. 276—39.)

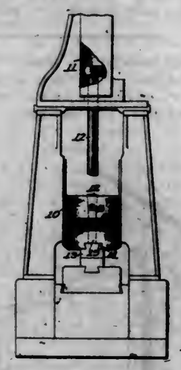


1. An apparatus as characterized comprising a stick plate having a series of parallel rectangular top-opening type-holding grooves, said grooves having an entrance guide terminal recess; and means for determining the length of lines of composite type.

4. An apparatus as characterized comprising a stick plate having a series of parallel rectangular top-opening, type-holding grooves, said grooves having an entrance guide terminal recess; means for determining the length of lines of composite type, said means embodying a gage blade, and a clamp mounted in said blade for gripping the plate to hold said blade rigid thereon; and means for determining the position of said blade, said means embodying a rack bar rigidly mounted on said blade, and a spring-actuated latch member adapted for normally engaging the teeth of said rack bar.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,252,084. REPAIRING DEVICE FOR STEAM-HAMMERS. CHARLES T. BURLIN, Whitinsville, Mass., assignor of one-half to Wilson L. Goodrich, Springfield, Mass. Filed Mar. 30, 1917. Serial No. 158,763. (Cl. 29—86.1.)



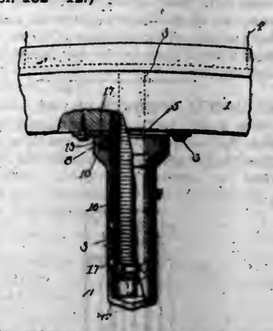
1. In a device of the character described, the combination of means for temporarily connecting the end of a broken piston rod with a hammer head to permit the head to be lifted by the broken rod, and means adapted to project up through the hammer head for loosening the broken end therefrom.

9. In a device of the character described, the combination of a yoke for temporarily connecting the end of a broken piston rod with a hammer head, a loosening plug adapted to enter the bottom of the hammer, two flexible connections connected therewith, and hooks on their ends for engaging said hammer to hold the loosening plug temporarily in position.

10. The method of loosening the end of a piston rod from a hammer which consists in moving the piston rod down near the top of the hammer, connecting it loosely with the hammer so that it will raise it when elevated, raising the piston rod with the hammer, placing a loosening plug below the hammer, centrally alined therewith, lowering the piston rod and hammer over said loosening plug to insert the plug in the hammer, connecting the loosening plug temporarily with the hammer so that it will necessarily move therewith, and then raising the hammer by means of the piston rod and forcing it down to bring the projecting end of the plug into contact with a stationary surface.

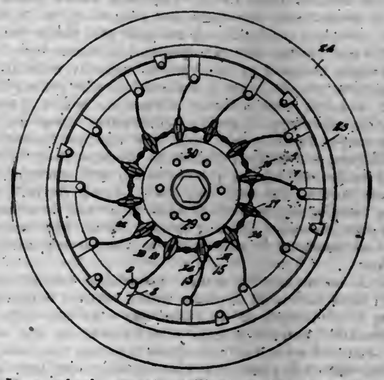
[Claims 2 to 8 not printed in the Gazette.]

1,252,085. DUST-CAP FOR VALVE-STEMS. HENRY G. BUTZOW, Sycamore, Ill. Filed Apr. 25, 1917. Serial No. 164,328. (Cl. 152—12.)



A dust-cap for valve-stems comprising a fixed base-plate surrounding the stem, a cap, said plate and cap having interengaging lips which prevent movement of the cap from the tongue axially of the stem, and yieldable means for preventing rotation of the cap on the plate comprising a leaf-spring secured against the inner surface of the cap, substantially paralleling the axis thereof and engaging a recess formed in the plate, the sides of the spring and recess being beveled and in contact laterally to facilitate disengagement.

1,252,086. RESILIENT WHEEL. DUNCAN CAMERON, White Sulphur Springs, Mont., assignor of one-third to Wm. J. Jackson and one-third to James N. Conro, White Sulphur Springs, Mont. Filed May 28, 1917. Serial No. 171,558. (Cl. 152—50.)



1. In a wheel, curved resilient spokes extending between the hub and the felly, and longitudinally adjustable braces extending between the spokes intermediate the ends thereof, and connecting the same in a continuous series.

5. In a wheel, curved resilient spokes extending between the hub and the felly, braces extending between the

spokes intermediate the ends thereof, and connecting the same in a continuous series, anchoring means for the braces, said anchoring means comprising opposite plates between which the spoke is positioned and clamped, and cushion blocks carried by the opposing faces of the plates and engaging opposite sides of the spoke.

6. In a spring wheel, a hub having spaced flanges, a plate separate from the hub and seating thereon between the flanges and having radial notches opening through its periphery, curved spring spokes seating at their inner ends in the notches, cover plates on the sides of the plate over the notched portion thereof, and fasteners passing through the plates and the aforesaid hub flanges.

7. In a wheel, curved resilient spokes extending between the hub and the felly, said spokes being spaced from each other throughout their entire length, and braces extending between the spokes intermediate the ends thereof, and connecting the same in a continuous series.

[Claims 2 to 4 not printed in the Gazette.]

1,252,087. METAL WINDOW-FRAME. HARRY E. CAMPBELL, New York, N. Y. Original application filed Nov. 13, 1916, Serial No. 131,060. Divided and this application filed July 13, 1917. Serial No. 180,262. (Cl. 189—72.)



1. A metal window-frame, comprising hollow jambs and a sill formed with end walls and a concavity on its front side extending longitudinally between said walls, the said end walls having vertical openings communicating with the space inclosed by said jambs, whereby moisture accumulated in said jambs is drained into said concavity.

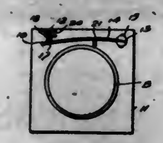
2. A metal window-frame, comprising hollow jambs, a sill, an upwardly extending longitudinal flange on said sill, and, in front of said flange and adjacent thereto, end walls, and a concavity extending longitudinally between said walls and having a downwardly and outwardly inclined bottom, the said end walls having vertical openings immediately in front of said flange and communicating with the space inclosed by said jambs, whereby moisture accumulated in said jambs is drained into said concavity.

3. A metal window-frame, comprising hollow jambs, each jamb having in its inner wall a vertical longitudinal slot, a sill formed on its front side with end walls and a concavity extending longitudinally between said walls, the said end walls having vertical openings into said concavity registering with the lower ends of said jamb slots, whereby moisture accumulated in said jambs is drained into said concavity.

4. A metal window-frame, comprising hollow jambs, a sill comprising a horizontal upper wall having integrally formed transverse pockets extending below said upper wall, end walls, and a concavity on the front side of said sill extending longitudinally between said end walls, the said pockets opening through said end walls and into said concavity, whereby moisture accumulating in said jambs is drained into said pockets and from said pockets into said concavity.

5. A metal window-frame, as in claim 4, the said jambs having vertical guide slots in their inner walls registering with said pockets.

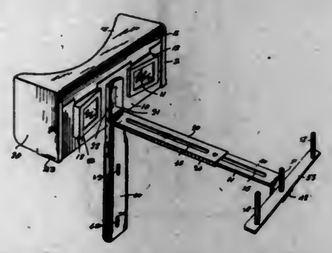
1,252,088. NUT-LOCK. WILLIAM J. CHISM, Charles City, Iowa. Filed Apr. 7, 1917. Serial No. 160,525. (Cl. 151—25.)



1. The combination with a bolt, a nut having a groove in one side thereof positioned on said bolt, of a spring pawl having one end secured to the outer face of the nut and movable transversely across the same for normal engagement with the bolt, and an angular locking member pivotally associated with the free end of the spring pawl and adapted to be positioned in the groove in the side of the nut to lock the pawl in inoperative position when the same is swung outwardly.

2. The combination with a bolt, a nut having a semicircular groove in one side thereof positioned on said bolt, of a spring pawl having one end secured to the outer face of the nut and movable transversely across the same, a projection on the inner side of said pawl adapted to be normally held in engagement with the bolt, a guide member secured to the outer free end of the pawl and projecting laterally therefrom, and an angular locking member pivoted on one end of the guide member and adapted to be positioned in the groove to lock the pawl in inoperative position when the same is swung outwardly.

1,252,089. STEREOSCOPE. HARRY N. CLARKE, Cleveland, Ohio, assignor to The Corte-Scope Company, Cleveland, Ohio, a Corporation of Ohio. Filed Feb. 23, 1917. Serial No. 150,295. (Cl. 88—29.)



2. In a hood for stereoscopes, the combination of a lens plate, a top vizor plate, a downwardly extending flange at the rear edge of said vizor plate and rigid with it, said flange being hinged at its lower edge to the upper edge of the lens plate, and end flaps carried by one of said plates.

7. The combination of a lens plate, a vizor hinged to the upper edge thereof, a spring tending to swing the vizor into normal position, end flaps rigidly carried by the vizor, and a detent connection between such end flaps and the lens plate.

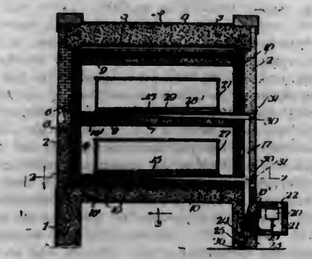
12. The combination, with a lens carrier, of a pocket carried thereby and open at its lower end, and a handle having a hinge adjacent to its upper end which is shiftable into and out of the pocket, the wall of the pocket being adapted to engage and rigidly confine the handle when the hinge is in the pocket.

20. In a stereoscope, the combination with a lens carrier and view holder, of a telescoping shaft connecting the same and comprising two bars each having a slot and each bar carrying a pin extending through the slot of the other bar, and springs held by said pins.

26. The combination of a lens carrier, an extensible shaft comprising two mutually slidable connected bars, one of which is secured to the lens carrier, a step made by downwardly offsetting the rear end of the other bar, a transverse bar secured to said step, and three vertical pins carried by said bar, the middle pin being positioned slightly out of the plane connecting the other two pins.

[Claims 1, 3 to 6, 8 to 11, 13 to 19, and 21 to 25 not printed in the Gazette.]

1,252,090. METHOD OF PRESERVATION. WILLIAM R. CLAYTON, Evanston, Ill. Filed Dec. 2, 1915. Serial No. 64,668. (Cl. 99—5.)



1. The method of desiccating bodies which comprises subjecting said bodies through the medium of the surrounding atmosphere to the desiccating action of calcined gypsum, and causing a circulation of the atmosphere between said bodies and calcined gypsum.

7. A method of desiccating bodies which comprises depositing a body in a sealed chamber, heating the atmosphere surrounding the body in said chamber, and subjecting the body through the medium of said atmosphere to the action of the desiccating material.

9. A method of desiccating bodies which comprises subjecting a body to a primary desiccation to remove a portion of the moisture, depositing the body in a sealed chamber, heating the atmosphere surrounding the body in said chamber, subjecting the body through the medium of said atmosphere to the action of a desiccating material, and causing a circulation of said atmosphere between said body and desiccating material.

10. The method of desiccating bodies which comprises subjecting said bodies in a sealed chamber through the medium of the surrounding atmosphere to the action of a desiccating material and causing a circulation of the atmosphere between said bodies and desiccating material.

[Claims 2 to 6 and 8 not printed in the Gazette.]

1,252,091. BRACKET FOR KITCHEN-CABINETS. FRANK COSS, Greencastle, Ind. Filed Oct. 12, 1916. Serial No. 125,189. (Cl. 45—16.)
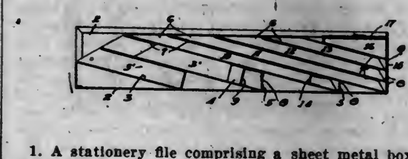


1. A kitchen cabinet, comprising the combination of a base, a table top slidably mounted on such base, a superstructure above the table top and beneath which the table top is slidable, and supports for supporting the superstructure from the base without interfering with the sliding of the table top, each of such supports comprising a plurality of U-shaped strips extending around the edges of the slidable table top and supported upon the base and upon which the superstructure rests and a sheet metal cover U-shaped in cross section and mounted over said strips and the space between them.

2. A kitchen cabinet, comprising the combination of a base, a table top slidably mounted on such base, a superstructure above the table top and beneath which the table top is slidable, and supports for supporting the superstructure from the base without interfering with the sliding of the table top, each of such supports comprising a plurality of strips supported upon the base and upon which the superstructure rests and a sheet metal cover mounted over said strips and the space between them, said strips projecting under the superstructure and said cover having an upwardly extending flange which bears against a side face of the superstructure.

3. A support for the superstructure of a kitchen cabinet, comprising a plurality of strips, and a sheet metal cover mounted over said strips and the space between them, said strips having a horizontally projecting portion for projecting under the superstructure and said cover having an upwardly extending flange for bearing against the side face of the superstructure.

1,252,092. STATIONERY-FILE. HARRY C. CURRIER, Minneapolis, Minn. Filed July 15, 1915. Serial No. 40,098. (Cl. 45—7.)



1. A stationery file comprising a sheet metal box having a floor, side walls, an end wall and open at the opposite end and top, a sheet metal plate having an upright front wall and inclined inwardly and downwardly therefrom fitting within said box at the open end thereof and forming the floor of a pocket adapted to receive envelops and the like, and a series of pockets arranged above said plate and downwardly and inwardly inclined between said first named pocket and said end wall, said pockets being loosely arranged in said box and having their upper ends on substantially the same level.

2. A stationery file comprising a box open at the front end and closed at the rear end and having side and rear walls of substantially the same height and an open top, pockets fitting one above the other within said box and rearwardly and downwardly inclined therein and of varying length, the upper ends of said pockets being open and those in the rear of the forward pocket being on substantially the same level, the open end of the forward pocket being below the level of the others and accessible through the open end of said box, said pockets being comparatively shallow and adapted to contain articles, such as stationery.

3. A stationery file comprising a box having an open top and stops struck up out of the bottom of said box, pockets fitting within said box and resting upon one another, the lower pockets being seated against said stops and the upper pockets being seated against the inner wall of said box, and all of said pockets being inclined backwardly and downwardly from the front to the rear of said box.

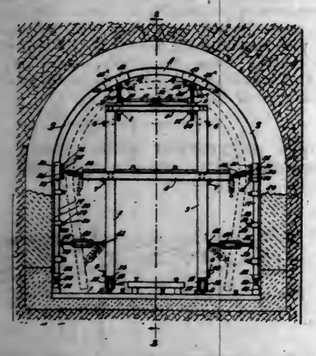
5. A stationery file comprising a sheet metal box having side walls and an end wall of substantially the same height and an open top, a series of sheet metal pockets fitting within said box, one above the other, and rearwardly and downwardly inclined therein, the upper inner pocket being seated against said end wall, there being a triangular space formed between said pocket and the top of said side and end walls and a correspondingly shaped

stamp box fitting within said space and having the top thereof flush substantially with the tops of said pockets.

9. A stationery file comprising a sheet metal box, rectangular substantially in form, for fitting within a desk drawer and extending from side to side therein and having a closed inner end, an open top and front end, a series of sheet metal pockets fitting within said box and downwardly and inwardly inclined thereon, the lower pockets having their inner ends seated on the bottom of said box and the upper pockets having their lower ends seated against the rear end wall of said box, the forward ends of the upper pockets being on substantially the same level and open for the insertion of stationery and the like, and said pockets fitting loosely between the side walls of the box and removable one from the other therein.

[Claims 4 and 6 to 8 not printed in the Gazette.]

1,252,093. CONCRETE-FORM. HARRY O. DAVIDSON, Cleveland, Ohio, assignor to The Hydraulic Pressed Steel Company, Cleveland, Ohio, a Corporation of Ohio. Filed Apr. 23, 1915. Serial No. 23,498. (Cl. 25—131.6.)



3. The combination, with a carrier frame, of a mold frame, a vertically adjustable support connected to the carrier frame and adapted to engage the upper portion of the mold frame, said vertically adjustable support being laterally adjustable upon said carrier frame, and laterally adjustable means having engagement with the carrier frame and with the side portions of the mold frame.

7. The combination, with a carrier, of a mold frame comprising a top section and side sections hinged thereto, means connected with the carrier and with the side sections for moving the same about their hinges, and a pair of vertically adjustable supports on the carrier and operatively engaging said hinges.

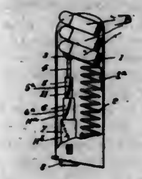
9. In a mold, the combination of a pair of sections, each comprising pairs of ribs, a hinge lug detachably connected with the ends of each pair of ribs of one section, a hinge lug connected with each pair of ribs of the adjacent section, and a pintle supporting said lugs whereby the mold sections are hingedly connected.

13. In a mold, the combination with a pair of ribs located side by side, each rib of each pair having a lateral seat, a mold board adapted to engage each rib, and a clamping means for each rib for securing said mold boards to their respective seats.

18. In a mold, the combination of pairs of hollow metallic ribs placed side by side and each having a pair of lateral flanges at its outer side, a plate common to and closing the outer sides of both of said ribs, a mold plate having a portion adapted to engage one of the flanges of each of said ribs, and a clamping device associated with each of said ribs and comprising a yoke, and means for securing said yokes in operative relation to their mold plate.

[Claims 1, 2, 4 to 6, 8, 10 to 12, 14 to 17, 19, and 20 not printed in the Gazette.]

1,252,094. CARTRIDGE-INDICATOR FOR REPEATING OR AUTOMATIC SMALL-ARMS. ADOLPHE HENRI ROCHETTE DE LEMPDES, Senonches, France. Filed Oct. 7, 1916. Serial No. 124,228. (Cl. 42—1.)

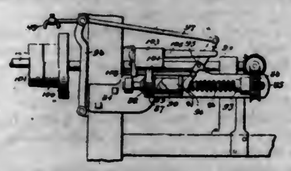


2. In a device of the character described, the combination with a casing having a peripheral opening therein, of a cartridge carrier movable longitudinally within said casing, said carrier comprising a shelf for receiving cartridges and a depending flange slidable along a wall of the casing, means tending to normally force said carrier toward one end of said casing, a revoluble member extending lengthwise of said casing therein, indicating means on said revoluble member contained wholly within said casing and in line with the opening therein, and a connection between said carrier and said revoluble member whereby the latter is revolved coincidentally with the longitudinal movement of the carrier in the casing.

4. In a device of the character described, the combination with a casing having an opening therein, of a cartridge carrier movable longitudinally within said casing, means tending to normally force said carrier toward one end of the casing, a plurality of telescoping cylinders within said casing and revoluble therein, a connection between one end cylinder and said carrier, and an indicating number carried by the other end cylinder in line with the opening in the casing.

[Claims 1, 3, and 5 not printed in the Gazette.]

1,252,095. STOP-MOTION FOR COMBERS AND THE LIKE. PETER J. DOCKRAY, Woonsocket, R. I. Filed Sept. 5, 1914. Serial No. 860,401. (Cl. 64—4.)



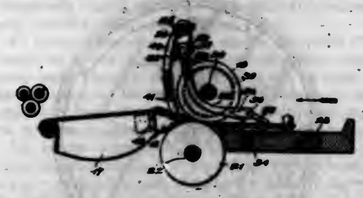
1. A stop mechanism comprising a member normally having continuous movement, a stop member movable into engagement with and thereby stopping said member, a power-shifting device arranged to be moved by coaction with said member when stopped, a stop-releaser, and means causing said stop-releaser to push in releasing direction against said stop member after institution of action of said power-shifting device.

2. A stop mechanism comprising a member normally having continuous movement, a pawl movable into stopping engagement with and normally disengaged from said member, a power-shifting device arranged to be moved by coaction with said member when stopped, and a spring connected with said device and arranged to be tensioned in releasing direction against said pawl by movement of said device.

4. A stop mechanism comprising a member normally having continuous movement, a pawl movable into stopping engagement with and normally disengaged from said member, a power-shifting device arranged to be moved by coaction with said member when stopped, a spring connected with said device and arranged to be tensioned in releasing direction against said pawl by movement of said device, an electric circuit, an electro-magnet controlled by said circuit and arranged to move said pawl to stopping position, and a circuit-closer for said circuit.

[Claims 3 and 5 to 8 not printed in the Gazette.]

1,252,096. STOP-MOTION FOR COMBERS AND THE LIKE. PETER J. DOCKRAY, deceased, Woonsocket, R. I., by Mary J. Dockray, administratrix, Woonsocket, R. I. Original application filed Sept. 5, 1914, Serial No. 860,401. Divided and this application filed Oct. 23, 1916. Serial No. 127,295. (Cl. 19—25.)



1. In a machine in which material treated continuously moves, a stop-motion comprising the combination, with a roll effecting movement of the material and a shaft upon which the roll is mounted, of a pivotally-mounted arm, a member thereon at the side of the roll from which material is delivered and adjacent to the path of movement of the material and arranged to be moved by choking of material between it and the roll, an electric circuit having said arm as one of its poles and having another pole positioned to be contacted by said arm on its movement under choking influence, and a power-shifting device controlled by said circuit.

2. In a machine in which material treated continuously moves, a stop-motion comprising the combination, with a roll effecting movement of the material and a shaft upon which the roll is mounted, of a pivotally-mounted arm, a plate thereon at the side of the roll from which the material is delivered and adjacent to the path of movement of the material and arranged to be moved by choking of material between it and the roll whereby said arm contacts with said roll-shaft, an electric circuit having said arm as one of its poles and the roll-shaft as its other pole, and a power-shifting device controlled by said circuit.

6. In a circuit-closer for a stop-motion of the class described comprising a supporting-rod, a boxing on said rod, arms extending from said boxing and arranged to straddle the ends of a roll effecting movement of material, a depending plate fixed to one of said arms and arranged to extend over the path of material moving from the roll, and a fixed stop carried by said rod and arranged to limit the downward movement of said plate.

[Claims 3 to 5 not printed in the Gazette.]

1,252,097. STOP-MOTION FOR COMBERS AND THE LIKE. PETER J. DOCKRAY, deceased, Woonsocket, R. I., by Mary J. Dockray, administratrix, Woonsocket, R. I. Original application filed Sept. 5, 1914, Serial No. 860,401. Divided and this application filed Oct. 23, 1916. Serial No. 127,296. (Cl. 19—25.)



1. In a machine in which material treated continuously moves, a stop-motion comprising the combination, with a roll affecting movement of the material and a shaft upon which the roll is mounted, of a ratchet-wheel loose on the roll-shaft, a pivoted member arranged to trail on the material, a pawl on said member arranged to engage said ratchet-wheel on occurrence of an abnormal condition in the material, an electric circuit having said pawl as one pole and said ratchet-wheel as another pole, and a power-shifting device controlled by said circuit.

3. In a machine in which material treated continuously moves, a stop-motion comprising the combination, with a roll affecting movement of the material and a shaft upon which the roll is mounted, of a pivoted member arranged to trail on the material, a pawl controlled by said member, a rotatably-mounted member having a roughened surface arranged to be engaged by said pawl on occurrence of an abnormal condition in the material, an electric circuit having said pawl as one pole and said rotatably-mounted member as another pole, and a power-shifting device controlled by said circuit.

[Claims 2 and 4 not printed in the Gazette.]

1,252,098. STOP-MOTION FOR COMBERS AND THE LIKE. PETER J. DOCKRAY, deceased, Woonsocket, R. I., by Mary J. Dockray, administratrix, Woonsocket, R. I. Original application filed Sept. 5, 1914, Serial No. 860,401. Divided and this application filed Oct. 23, 1916. Serial No. 127,297. (Cl. 19—25.)

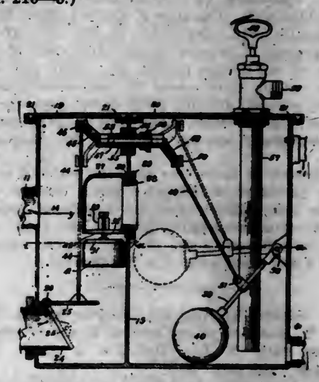


1. In a fiber-treating machine, the combination of a sliver-pan, a trumpet hingedly mounted thereon, a spring restraining said trumpet from swinging movement, a support mounted on the machine above said trumpet, an arm mounted on said support and having a bifurcated end straddling said trumpet and susceptive of contact thereby upon movement thereof from normal position, an electric circuit having said trumpet and arm as terminals, and a power-shifting device controlled by said circuit.

3. In a fiber-treating machine, the combination of a sliver-pan, a trumpet hingedly mounted thereon, a spring restraining said trumpet from swinging movement, a fixed terminal at the side of said trumpet and susceptive of contact therewith upon movement thereof from normal position, an electric circuit having said trumpet as one pole and said terminal as another pole, and a power-shifting device controlled by said circuit.

[Claims 2 and 4 to 7 not printed in the Gazette.]

1,252,099. SEPARATOR-TRAP. JOHN J. DONOVAN, Boston, Mass. Filed Oct. 5, 1916. Serial No. 123,895. (Cl. 210—5.)

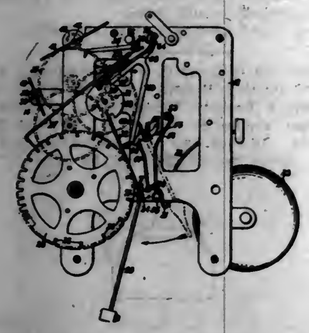


1. A separator trap comprising a trap chamber having an inlet, an outlet for water and an outlet for liquid

lighter than water, the latter one of said outlets being above the level of the highest portion of the water outlet, and a float valve responsive to the buoyancy of water in said chamber but non-responsive to a liquid lighter than water, said valve being arranged to close the upper one of said outlets when the water in said chamber is above said level but below the upper outlet.

[Claims 2 and 3 not printed in the Gazette.]

1,252,100. CLOCK STRIKING MECHANISM. MORRIS DOWLIN, Henniker, N. H. Filed June 14, 1917. Serial No. 174,648. (Cl. 58—10.)



1. In a clock striking mechanism, hour repeating means sounding the full hour and repeating the full hour on a fraction of the full hour, and automatic governing means for the said repeating means whereby the repeated full hour at the fraction of the hour is sounded at an accelerated speed relative to the sounding of the full hour.

8. In a clock striking mechanism, a striking train having a counting wheel provided with hour repeating means, a pinion in mesh with one of the gears of the train and carrying a governor, a second pinion carrying a governor and meshing with the said gear, a pivoted and spring pressed member in which one end of the arbor of the second pinion is mounted, and means for swinging the said member from the hour arbor at the fraction of the full hour to move said second pinion out of mesh with the said gear at the fraction of the full hour.

[Claims 2 to 7 not printed in the Gazette.]

1,252,101. PROCESS OF INCREASING THE YIELD OF SUGAR-CANE. CHARLES F. ECKART, Olaa, Hawaii. Filed May 18, 1916. Serial No. 98,423. (Cl. 47—36.)

1. The process of increasing the total yield of sugar from rows of sugar-cane plants, on a unit area which consists in cutting away, above the uppermost immature node or the terminal growing point of the stem, the leafy tops of only those stalks which are in predetermined rows systematically spaced apart for the purpose described.

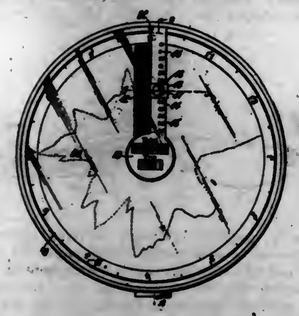
4. The process of increasing the total yield of rows of sugar-cane plants on a unit area which consists in removing the leafy tops, above the uppermost immature node or the terminal growing point of the stem, of the plants in certain rows only, for the purpose described.

[Claims 2 and 3 not printed in the Gazette.]

1,252,102. SPEED-RECORDER. REINER EADLE, Brooklyn, N. Y., assignor of one-half to Henry W. Sagazel, Ridgefield Park, N. J. Filed Feb. 5, 1916. Serial No. 76,400. (Cl. 234—30.)

1. A speed recorder, comprising a rotatable member provided with movable members normally projecting above its surface, means for depressing sundry of the said movable members, whereby to produce a visible record, and means for returning the depressed members to normal position.

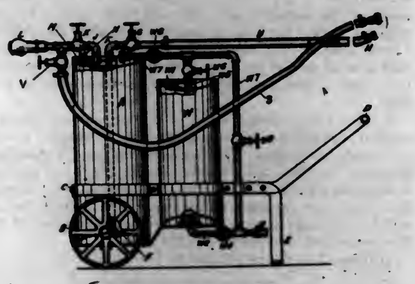
4. A speed recorder, comprising a clock driven member provided with movable pins arranged in close relation to each other, a finger movable across the said surface and controlled by a speedometer, the finger engaging the pins moving into the path of the finger to shift such pins



relatively to the pins out of reach of the finger to produce a visible record, means for holding the pins in either of the two positions, and a fixed means for returning the shifted pins to normal position thus obliterating the record prior to the pins reaching the path of the finger.

[Claims 2, 3, and 5 to 8 not printed in the Gazette.]

1,252,103. PAINTING APPARATUS. JAMES S. GILMER, Knoxville, Tenn. Filed Apr. 6, 1916. Serial No. 89,443. (Cl. 91—45.)



3. In an apparatus of the nature described, the combination with a gun comprising means forming an air passage and means forming a paint passage and valves for controlling said passages, of a tank adapted to contain paint under pressure, a tank adapted to contain cleaning liquid under pressure, detachable tubular means normally connecting the paint tank with the means forming the paint passage of the gun, a pipe leading from the lower portion of the cleaning liquid tank and having its outer end adapted for connection with the rear end of said tubular means, a cut-off valve on said pipe, a pipe having one end connected to the last-mentioned pipe between the outer end thereof and said valve and having its other end adapted to receive air under pressure, a branch leading from said pipe into the upper portion of said tank, a valve on said branch, a valve on said pipe between said branch and said end, and a valve on said pipe between said branch and the pipe leading from the lower portion of said tank, whereby said apparatus is adapted for the detaching of the rear end of said

tubular means normally connecting the paint tank with the means forming the paint passage of the gun and connecting said rear end with the outer end of the pipe leading from the lower portion of the cleaning liquid tank and then alternately driving air and cleaning liquid through said tubular means and the paint passage of the gun, substantially as described.

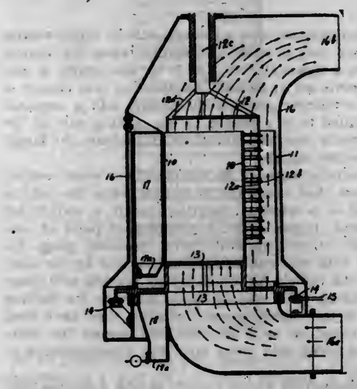
4. In an apparatus of the nature described, the combination of a paint tank, an air inlet, a cleaning-liquid tank, a gun comprising an air barrel and a paint barrel and valves for controlling admission to said barrels, and means for interchangeably forming communication between said tanks, air inlet and the paint barrel of said gun, substantially as described.

7. In an apparatus of the nature described, the combination of a gun body comprising two valve chambers, a valve stem slidably extending into one of said chambers and adapted to be engaged by the operator, and means applied to said stem and adjustable thereon for limiting its rearward movement, substantially as described.

10. In an apparatus of the nature described, a gun comprising a handle and pipes and valve chambers forming air and paint passages, and a pair of barrels joined to each other between their ends and one of said barrels having its rear end threaded to the gun body for communication with one of said passages and the other of said barrels being secured to the gun body by means of a union coupling for communication with the other of said passages, substantially as described.

[Claims 1, 2, 5, 6, 8, and 9 not printed in the Gazette.]

1,252,104. ART OF ELECTRICAL PRECIPITATION OF PARTICLES FROM FLUID STREAMS. CHARLES W. GIRVIN, Philadelphia, Pa., assignor of one-tenth to Valentine G. Scott, Philadelphia, Pa., and one-tenth to Horace G. Seitz, New York, N. Y. Filed Mar. 22, 1917. Serial No. 156,565. (Cl. 183—7.)

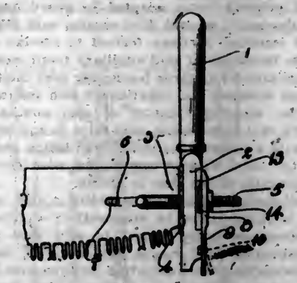


1. In the art of electrical precipitation from flowing fluid streams and in which deposits are collected on a stream boundary, the method of removing such deposits which consists in establishing a permanently inactive zone in the electric field, shifting the deposit-laden boundary to such zone, and removing the deposits from the boundary while the latter is within the zone.

6. In the art of electrical precipitation from fluid streams, opposing electrode systems adapted to produce an electric field having permanently-located active and inactive portions, means for rotating the collecting electrode system on its axis to shift a deposit-collecting face between such field portions, and means active within such inactive portion for removing the deposits from the face.

[Claims 2 to 5 and 7 not printed in the Gazette.]

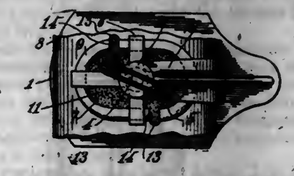
1,252,105. CROSSCUT-SAW HANDLE. KARL G. GUSTAFSON, Mullan, Idaho. Filed Mar. 6, 1917. Serial No. 152,650. (Cl. 145—112.)



1. The combination with a saw blade of a detachable perforated handle and a screw engaging the blade and passed through the handle, a clamp nut on the screw, a yieldable lever integral with the nut, and a locking pin on said lever adapted to engage a socket on the handle.

[Claim 2 not printed in the Gazette.]

1,252,106. PNEUMATIC-TUBE VULCANIZER. ROBERT HAGEN, Dayton, Ohio. Filed July 30, 1917. Serial No. 183,395. (Cl. 18—18.)



1. In a device of the character specified, a vulcanizing element comprising a shallow receptacle provided with a concavo-convex bottom and the margin of which is provided with an opening, an inflammable pad secured within the receptacle against the bottom thereof by being formed of slightly larger area than the bottom of said receptacle and forced therein, said inflammable pad having a portion extended from the margin thereof in the form of a tongue which penetrates the opening in the margin of the receptacle, and a patch piece secured to the outer side of the bottom of said receptacle, substantially as specified.

2. In a device of the character specified, a heat-generating element comprising a shallow oval receptacle having a concavo-convex bottom to the inner side of which an inflammable pad is secured, and to the outer side of which a patch to be applied is secured, said inflammable pad having marginal extensions which project through openings in the margin of the receptacle by means of which the inflammable pad is ignited.

1,252,107. PNEUMATIC VEHICLE-TIRE. WILLIAM G. HAIGLER, Colorado Springs, Colo. Filed May 8, 1916. Serial No. 96,094. (Cl. 152—18.)

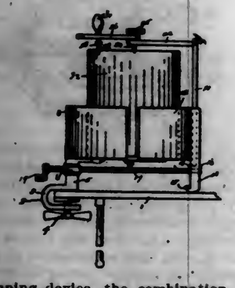


1. A pneumatic vehicle tire, including a casing or shoe, an inner inflatable tube, an intermediary auxiliary tread

member, cushioning filler means adapted to fill in between and contact with the rim attaching terminals of said shoe or casing, the contacting surfaces of said filler means and said tread member being adapted to guard against the radial displacement of said filler means, said filler means having its terminal portions formed to receive and conform to the terminals of said auxiliary tread member, the terminals of said filler means feathering past the terminals of the tread member, the inflating of said inflatable tube effecting the wedging together of said auxiliary tread member and said filler means, said filler means being itself provided with a plurality of radial ventilating grooves disposed in the sides thereof contacting with the rim attaching terminals of the shoe or casing.
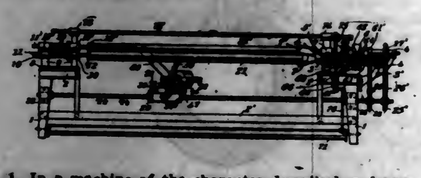
2. A pneumatic vehicle tire, including a shoe or casing, an innner inflatable tube, an intermediary auxiliary tread member interposed with respect to said shoe and said tube, a cushioning filler means having radial ventilating grooves establishing communication between said inflatable tube and the outside and having radial ventilating grooves establishing communication between the inside of the shoe or casing and the outside, said filler means having attached thereto a member positioned at the inner ends of the first mentioned radial grooves and between said inflatable tube and said filler means to allow ventilation of the tube and to prevent said inflatable tube from blowing out through the first mentioned radial grooves.

1,252,108. CAN HOLDING AND OPENING DEVICE. SAMUEL P. HARTMAN, Kansas City, Mo. Filed July 7, 1917. Serial No. 179,242. (Cl. 30—3.)



In a can clamping device, the combination of a fixed member having a vertical back portion extending in the form of an ellipse and provided at its lower edge with an inwardly extending flange provided with projecting arms fixed on its terminal portions, a movable member having a vertical back portion extending in the form of a circle provided at its lower edge with an inwardly projecting flange adapted to lie in the plane of the flange on said fixed member, the terminal portions of the flange being slidably engaged by the arms on said first mentioned flange, and means connected between said members and adapted to adjust the movable member to the fixed member.

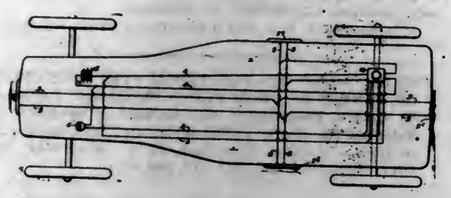
1,252,109. CROSS-WRAPPING MACHINE. ORA E. HUCKMAN, Akron, Ohio. Filed May 18, 1917. Serial No. 169,478. (Cl. 242—11



1. In a machine of the character described, a frame, a pair of mandrels rotatably mounted upon said frame, a shaft arranged to rotate each mandrel independently of the other mandrel, means for rotating each of said shafts independently of the other shaft, a carriage slidably mounted upon said frame, a tape spool carried by said carriage, a screw threaded shaft arranged to move said carriage in a path parallel to said mandrels, and means operatively connecting said screw threaded shaft to each of said first mentioned shafts.

2. In a machine of the character described, a frame, a pair of mandrels rotatably supported upon said frame, a shaft arranged to rotate each mandrel independently of the other, a sprocket wheel loosely mounted upon each shaft, a drive pulley loosely mounted upon each shaft, a clutch member slidably mounted upon each shaft, means for operating each clutch member independently of the other to fixedly engage the accompanying drive pulley and sprocket wheel upon the shaft, a carriage slidably mounted upon said frame, a tape spool mounted upon said carriage in a path parallel to said mandrels, a pair of sprocket wheels fixedly mounted upon said screw threaded shaft, and a chain connecting each of said last named sprocket wheels with one of said first mentioned sprocket wheels.

1,252,110. THEFT-DETECTOR FOR AUTOMOBILES AND OTHER VEHICLES. JOHN H. HILLS and JOSEPH M. MASON, Philadelphia, Pa. Filed Jan. 9, 1917. Serial No. 141,385. (Cl. 177—314.)



2. The combination with an automobile or other vehicle having a part that is always in motion when the vehicle is in motion, a signal circuit carried by the vehicle, a plurality of signals set at definite positions in said circuit, a switch for rendering said circuit active, and a movable member adapted to be actuated by the moving part of the vehicle to finally close the circuit and illuminate the lamps of the respective signals.

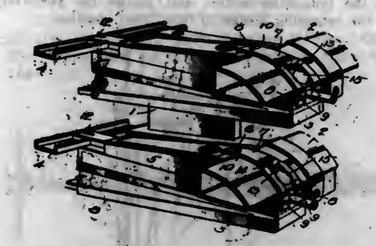
5. The combination with an automobile or other vehicle having a part that is always in motion when the vehicle is in motion as a whole, a lighting circuit, a switch for rendering said circuit active, a plurality of pairs of contacts in said circuit normally open, movable plugs for engagement with said contacts, means carried by the moving part of the vehicle for mechanically moving said plugs into engagement with said contacts, magnets for holding said plugs in the engaging position after they have been positively moved to such position, and means for automatically releasing said plugs upon the deënergization of the magnets.

9. The combination with a vehicle having a moving part that is always in motion when the vehicle is in motion, of a signal circuit carried by said vehicle and normally open, a switch for rendering said circuit active, movable means adapted to be actuated by the moving part of the vehicle to finally close the circuit and energize the signals, and means for holding said movable means in circuit-closing position.

11. The combination with an automobile or other vehicle having a part that is always in motion when the vehicle is in motion, of a signal circuit, signals set at intervals in said circuit, a switch for closing said circuit at one point, a movable member for closing the circuit at another point: said movable member being actuated by the moving part of the vehicle, and means controlled by the switch for holding said movable member in circuit-closing position.

[Claims 1, 3, 4, 6 to 8, 10, and 12 not printed in the Gazette.]

1,252,111. PLAYER-PIANO. THOMAS HOLVMASON, Washington, D. C. Filed Aug. 17, 1917. Serial No. 186,770. (Cl. 84—178.)



1. In a player piano, the combination with the pneumatics, the wind trunks, and the supporting frame for the trunks, the frame having channel plates for engagement by the rear ends of the pneumatics, each channel plate having a notch in the side wall and bottom at each pneumatic and the pneumatic having an extension extending into the notch above the bottom of the channel plate, and a clasp plate passing over the wind trunk at the front end of the pneumatic and having a detachable connection at each end with the pneumatic, said connection comprising pins on the pneumatic and openings in the clasp plate for engagement by the pins.

[Claim 2 not printed in the Gazette.]

1,252,112. PORCH-SHADE. AZEL C. HOUGH, Janesville, Wis. Filed Nov. 7, 1913. Serial No. 799,804. (Cl. 156—16.)

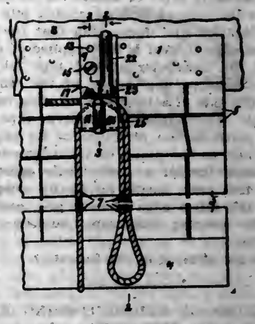


As an improved article of manufacture, a porch shade consisting of a plurality of warp strands, a plurality of wide flat-sided weft units in the warp at intervals, and a plurality of narrow flat-sided weft units arranged in said warp in the intervals between said wide units, said weft units being separated from each other by said warp strands.

1,252,113. SHADE-FIXTURE. AZEL C. HOUGH, Janesville, Wis., assignor to Hough Shade Corporation, Janesville, Wis., a Corporation of Connecticut. Filed July 19, 1917. Serial No. 181,535. (Cl. 156—16.)

1. As an improved article of manufacture, a shade fixture comprising a member attachable to a shade, and being hollowed inside to form a knot-receiving recess and a cord-receiving groove.

2. As an improved article of manufacture, a shade fixture comprising a hook-provided member adapted to engage the top portion of a shade and extend down in front of said portion, and provided with a cord-runner, said member having in its downwardly-extending part a hollow portion which forms a knot-receiving recess, and also having a cord-receiving groove, the latter extending from said recess upwardly, rearwardly, and downwardly.

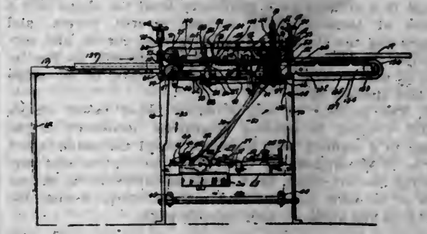


3. The combination, with a flexible shade having a projection adjacent to the top thereof, and a knotted cord, of a fixture comprising a member attachable to the top part of said shade, and having therein a knot-receiving recess contiguous to said shade projection, and also having a cord-receiving groove leading from said recess, the arrangement of parts being such that the knot on such cord is held by said projection and the recessed portion of said shade member.

4. As an improved article of manufacture, a shade fixture comprising a member attachable to a shade, and having a part bent to form a holder and into interlocking engagement with said member, the latter being slotted to permit of such engagement, and an independent anti-friction non-rotary glide in and and attached to said holder, for a roll-up cord.

5. The combination, in a shade fixture, with a member consisting of a body attachable to a shade, and a holder at the bottom of said body, said holder having intermediate vertical and horizontal engaging parts, of an independent anti-friction non-rotary cord glide receivable in said holder and provided with intermediate vertical and horizontal engaging parts to interlock with said first-named engaging parts.

1,252,114. BOOK-BACKING MACHINE. JOSEPH HREN, Brooklyn, N. Y. Filed Sept. 11, 1914. Serial No. 861,158. (Cl. 11—2.)

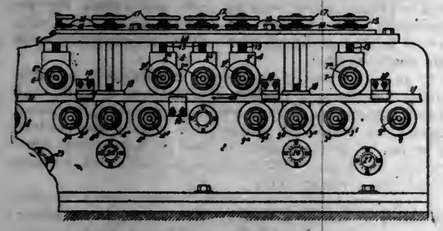


1. In a machine of the character described, the combination, with means for progressively advancing the work into and through the machine, and means for correspondingly advancing a strip of adhesive tape, of means for directing the advancing tape to the edge of the advancing work in such relative location and disposition that the portion of the tape at one edge thereof is first applied to one side of said work-edge and the remainder of said tape folded rectangularly for subsequent application of the other edge thereof to the other side of said work-edge, and yielding means for folding said rectangularly disposed tape-portion over the work and wiping the same in the direction of its edge.

9. In a machine of the character described, the combination, with means for progressively advancing individual piles of assembled sheets into and through the machine, and means for correspondingly advancing a continuous strip of adhesive tape, of means for directing the advancing tape to the edge of each advancing pile in turn in such relative location and disposition that the portion of the tape of one edge thereof is first applied to one side of said pile and the remainder of said tape folded rectangularly for subsequent application of the other edge thereof to the other side of said pile, a rotating brush for folding over said rectangularly disposed tape-portion and wiping the same in the direction of its edge, said brush being inclined to the plane of the advancing piles whereby the bristles thereof are effectively operative in one general direction only, means for finally compressing and compacting the taped edge of each pile, and means for automatically severing said tape between the advancing taped piles.

[Claims 2 to 8 not printed in the Gazette.]

1,252,115. METHOD OF STRAIGHTENING ROLLED METAL BARS AND THE LIKE. ISAAC LAMONT HUGHES, Youngstown, Ohio. Original application filed Apr. 26, 1909, Serial No. 492,255. Divided and this application filed May 21, 1912. Serial No. 698,711. (Cl. 153—54.)



1. The method of straightening rolled metal shapes which consists in passing the shape lengthwise between sets of positively rotated straightening rollers in a sinuous path and supporting the lengthwise moving shape simultaneously at a plurality of longitudinally separated points on the inside of each curve in the sinuously bent shape during the passage thereof between the straightening rollers.

2. The method of straightening rolled metal shapes which consists in causing lengthwise movement of the shape in a sinuous path to thereby bend the shape into a series of simultaneously formed reverse curves, and supporting the sinuously formed reverse curves, and supporting the sinuously bent shape at intervals on the inside of said reverse curves during the travel of the shape in said sinuous path.

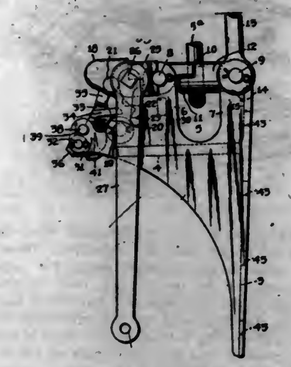
3. The method of straightening rolled metal shapes which consists in causing lengthwise movement of the shape in a sinuous path to thereby bend the shape into a series of simultaneously formed reverse curves, and supporting the sinuously bent shape at intervals on the inside of at least part of said reverse curves during the travel of the shape in said sinuous path.

1,252,116. DETACHING-GEAR. CHARLES HUNT, New York, N. Y. Filed May 17, 1916. Serial No. 98,007. (Cl. 9—23.)

1. A releasing-gear for life-boats comprising holding means, locking means, a latch to release the latter, means for supporting the latch, and means for positively holding the latch from movement.

2. A releasing-gear for life-boats comprising holding means, locking means, a latch to release the latter, means for supporting the latch, and a locking-pin for engaging the supporting means for positively holding the latter in its functional position.

3. A detaching-gear for life-boats comprising a holding-bar and means for holding the same in its functional position; means coöperating with the holding-bar for retaining the launching-tackle; and means for positively holding the retaining means in functional position.



4. A detaching-device for life-boats comprising means for retaining the launching-tackle, a latch for holding the retaining means in functional position, a tripping means for the latch comprising a tripping-dog provided with a hook and cam-surface, and a pin carried by the latch for coöperation with the cam-surface and with the hook to prevent the latch from losing coöperative engagement with the said dog.

5. In combination with a boat, a duplex pulley or drum; a pair of cables connected at substantially oposite points to the pulley and extending in opposite directions around the same; means for adjusting th parts of the pulley relatively to take up the slack of the cable; detaching-devices secured at opposite ends to the boat; and means connecting the cables with the detaching-devices whereby the latter may be operated by the cables.

[Claim 6 not printed in the Gazette.]

1,252,117. BLASTING-GUN. ERNEST HUTTON, Wayland, Ky. Filed Mar. 28, 1917. Serial No. 158,073. (Cl. 102—11.)



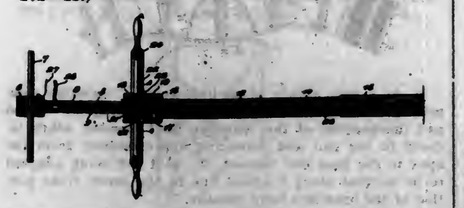
1. A blasting-gun comprising a rod having an intermediate portion that tapers gradually to less diameter toward its inner end and a shank, a barrel freely slidable longitudinally on said shank, an expansible tubular portion extending from said barrel and arranged to be pressed against the wall of a hole on movement in contact with said tapered portion, and charge-firing means at the free end of said barrel.

2. A blasting-gun comprising a rod having an intermediate portion that tapers gradually to less diameter toward its inner end and a shank, a barrel freely slidable longitudinally on said shank, fingers extending from said barrel and arranged to be pressed against the wall of a hole on movement in contact with said tapered portion, and charge-firing means at the free end of said barrel.

4. A blasting-gun comprising a rod having an intermediate portion that tapers gradually to less diameter toward its inner end and an inner terminal shank portion formed with a longitudinally-disposed slot having a lateral offset, a barrel freely slidable longitudinally on said shank portion and having a pin coactable with said slot and offset to limit respectively relative rotary and longitudinal movement of said rod and barrel, an expansible tubular portion extending from said barrel and arranged to be pressed against the wall of a hole on movement in contact with said tapered portion, and charge-firing means at the free end of said barrel.

[Claims 3, 5, and 6 not printed in the Gazette.]

1,252,118. BLASTING-GUN. ERNEST HUTTON, Wayland, Ky. Filed Mar. 28, 1917. Serial No. 158,074. (Cl. 102—11.)

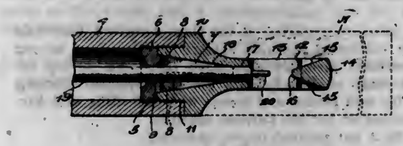


1. A blasting-gun comprising a rod that tapers gradually to less diameter from its inner end to a place intermediate its ends and having an intermediate shank portion, a sleeve freely slidable longitudinally on said shank, an expansible tubular portion extending from said sleeve and arranged to be pressed against the wall of a hole on movement in contact with said tapered portion, and charge-firing means at the inner end of said rod.

7. A blasting-gun comprising a rod that tapers to less diameter from its inner end to a place intermediate its ends and having an intermediate shank and a screw-threaded portion extending therefrom, a sleeve slidable and rotatable on said shank, an expansible exteriorly screw-threaded member extending from one end of said sleeve and arranged to be pressed against the wall of a hole on movement in contact with said tapered portion, a clutch member on the other end of said sleeve, an interiorly threaded bushing on the threaded portion of said rod, a clutch member having turning means cooperable with said sleeve clutch member and axially movable on said bushing, means whereby relative movement of said bushing and clutch member thereon is limited, and charge-firing means at the inner end of said rod.

[Claims 2 to 6 not printed in the Gazette.]

1,252,119. FIRING-TERMINAL OF BLASTING-GUNS. ERNEST HUTTON, Wayland, Ky. Filed Mar. 28, 1917. Serial No. 158,076. (Cl. 102—10.)



1. A firing member for blasting-guns having a flattened free end portion adapted to be inserted into an explosive charge and having an opening extending therethrough in the line of its lesser dimension, there being oppositely-disposed grooves in said end portion leading to said opening in gradually increasing depth whereby a spark-point is provided at the edge of the opening.

4. The combination, with a blasting-gun having a screw-threaded recess in its end, of a firing-device comprising a member in said recess having contractible exteriorly tapered fingers extending outwardly therefrom, and a firing member screwed at one end into said recess and having a transverse opening in its outer portion and a passage extending from the inner end to said opening, said passage having a tapered portion arranged to receive said fingers and to press them toward one another, and an electric conductor held between said fingers and extending to said opening.

[Claims 2 and 3 not printed in the Gazette.]

1,252,120. BOX AND METHOD OF MAKING THE SAME. RICHARD G. INWOOD, South Bend, Ind.; Mary C. Inwood administratrix of said Richard G. Inwood, deceased. Filed Nov. 20, 1914. Serial No. 873,168. (Cl. 217—12.)



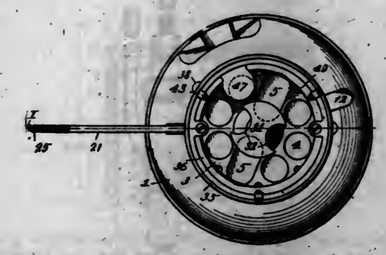
1. A wire-bound box comprising substantially circular ends; and a side unit wrapped about said ends comprising side material, reinforcing cleats therefor having a series of notches therein extending transversely to the length thereof permitting the flexing of said cleats to conform to the curved contour of said ends, said cleats supporting said ends, and binding wires for said unit.

5. An improvement in the art of making boxes characterized by forming cuts transversely in and partially through cleats; assembling said cleats with side material; applying and securing binding wires thereto; applying substantially circular ends adjacent said cleats, and wrapping said parts as a unit about said circular ends.

6. A box comprising curvilinear ends, side members substantially corresponding to cylindric surfaces, separate interior cleats therefor having provision whereby they may assume an arc shape, wires secured to said members and disposed for joinder to form box-embracing binders.

[Claims 2 to 4 and 7 to 14 not printed in the Gazette.]

1,252,121. VENDING-MACHINE. ALONZO JACOBS, Kansas City, Mo., assignor to Jacobs Gum Company, a Corporation of Missouri. Filed Nov. 15, 1916. Serial No. 131,547. (Cl. 211—8.)



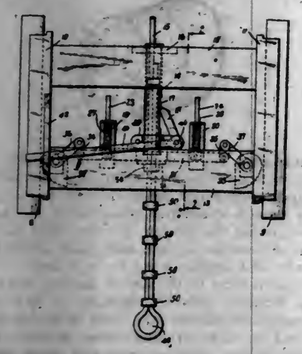
1. In a vending machine, a base having a delivery chute, an actuating plate having an article outlet for register with said chute, a delivery tray above and connected to the actuating plate and having a central conical part flared downwardly with a series of article receiving chambers and a series of larger article receiving chambers the inner ends of which latter extend into said conical part, and a stud extending through the plate and having an enlarged head engaging the top of the tray, said head having recesses extending through its periphery for register with the larger tray chambers to admit articles to the latter said recesses exposing the underlying portions of the conical part so that the latter will cause the balls to roll into the smaller chambers upon the latter being positioned opposite said recesses.

[Claim 2 not printed in the Gazette.]

1,252,122. SAFETY CROSS-HEAD FOR MINE-HOISTS. SAMUEL JEWELL, Negaunee, Mich. Filed Jan. 25, 1915. Serial No. 4,196. (Cl. 187—96.)

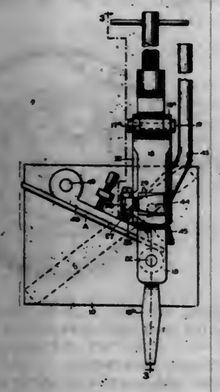
A safety cross-head comprising a frame having shoes adapted to coöperate with stationary guideways, a rope

guide sleeve having a slot, a latch pivotally mounted on the sleeve and extending through the slot, a hand lever for releasing the latch, a transverse yoke having an opening for the rope and yieldingly suspended from the frame, springs tending to force the yoke downwardly, a pair of



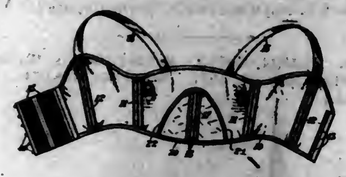
clutch jaws oppositely connected to the yoke at its respective ends and adapted to be forced outwardly into engagement with the guideways by the springs, the weight of the cross-head being applied to the yoke to release the clutch jaws under normal operating conditions.

1,252,123. DEVICE FOR FORMING EYES ON SPRINGS. FERDINAND J. KITOWSKI, St. Cloud, Minn. Filed Aug. 2, 1917. Serial No. 184,086. (Cl. 153—40.)



An eye-forming device including a swingable frame presenting a shorter and a longer arm, said arms being in rigid relation and spaced from each other, a hinged extension member on the said shorter arm, a forming pin engaged at one of its ends by the said hinged extension member and engaged at its opposite end with the longer arm of the frame, a yoke having sliding engagement with the said shorter and longer arms, a forming lever fulcrumed on the said slidable yoke and adapted to coöperate with the said forming pin, a latch carried by said hinged extension member to swing therewith, said latch being pivoted on said extension member to swing transversely to the plane of swinging of the said extension member, and a spring mounted on the extension member to bear against said latch and adapted to move the same into latching engagement with the said yoke when the extension member is positioned parallel with the longer arm of the frame.

1,252,124. BRASSIÈRE. DANIEL KORS, New York, N. Y. Filed May 7, 1917. Serial No. 166,835. (Cl. 2—73.)

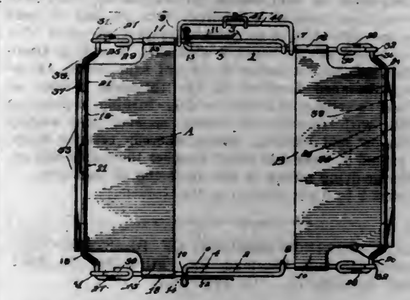


1. As a new article of manufacture, a brassière comprising a body member, a substantially triangular shaped pad independent of the brassière body member, stays secured in the pad and extending approximately from the apex to the base line thereof, the said pad being adapted to be secured along its base line to the lower front portion of the brassière body member.

2. As a new article of manufacture a brassière pad comprising a substantially triangular body member, stays extending approximately from the apex thereof to the base line in a central position, and stays also secured in the opposite inclined edges thereof, the said brassière pad being adapted to be secured at its lower side to the lower front portion of a brassière.

[Claim 3 not printed in the Gazette.]

1,252,125. GARMENT SUPPORTER AND STRETCHER. FREDERICK W. KRAFFT, Berkeley, Cal. Filed Aug. 5, 1916. Serial No. 113,824. (Cl. 223—19.)



1. A garment stretcher of the class described, including slidably connected sections comprising side bars having plate portions pivotally associated therewith, spring expanded wings carried by said plates, movement limiting means for said plates, and means for suspending said garment supporter for the purpose specified.

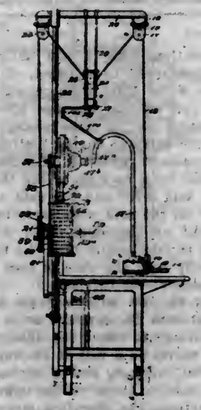
[Claim 2 not printed in the Gazette.]

1,252,126. SPECTACLES. LOUIS LETZBISEN, Hartford, Conn. Filed Mar. 16, 1917. Serial No. 155,190. (Cl. 88—52.)



In a device of the character described, the combination with a lens frame and temples, of members having a hinge connection with the ends of said lens frame, each of said members being provided with a centrally pierced disk, strap members provided with centrally pierced disks for coöperation with the first mentioned disks, means for securing said disks together face to face, means on the contacting faces of said disks to hold them in position of adjustment, and means on said straps for securing said temples thereto.

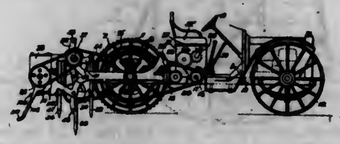
1,252,127. CLEANING-MACHINE. ADAM A. LONG, Rochester, N. Y., assignor to The Tailors' Accessories Company, Rochester, N. Y., a Corporation of New York. Filed Jan. 3, 1910. Serial No. 536,087. (Cl. 15—8.)



1. The combination with a supporting frame, of a pair of pulleys mounted on the supporting frame, an endless cable passing over the pulleys, a brush suspended from the pulleys by said cable and driven by the latter, suction-producing means fixedly mounted on the frame, a flexible conductor connecting the brush with said suction-producing means, and a yielding support for the flexible conductor.

2. In a cleaning machine, the combination with a supporting frame embodying a table upon which garments may be spread, of a fan fixedly mounted on said frame, a brush, a casing carried with the brush and having an air intake, flexible suspending means connected to the brush and adapted to permit free movement of the latter in all directions over the surface of the table, a flexible conductor between the intake and fan, the latter being arranged at a central point with reference to the swinging path of the brush, and a counterbalance for the brush and casing.

1,252,128. CULTIVATOR. INGERSOLL W. MCCALLUM, Cambridge, Mass. Filed July 5, 1912. Serial No. 707,863. (Cl. 97—53.)

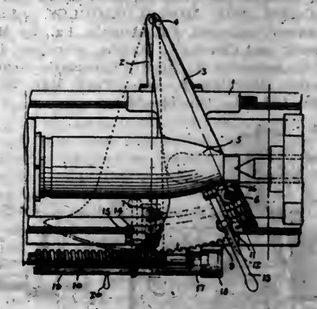


2. In an apparatus of the class described, the combination of a vehicle, earth cultivating means carried by said vehicle and adapted to throw the earth in a generally horizontal direction, means forming a barrier against which the earth is thrown, and yielding means tending to move said barrier in a forward and downward direction.

[Claims 1 and 3 not printed in the Gazette.]

1,252,129. SHELL-TURNING MACHINE. JOHN C. MCLACHLAN, Toronto, Ontario, Canada. Filed Mar. 26, 1917. Serial No. 157,292. (Cl. 82—11.)

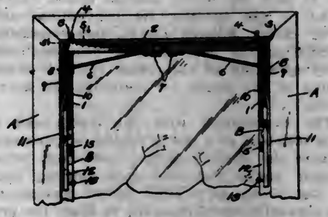
2. In a shell turning machine, the combination with the lathe bed and longitudinally sliding tool carriage, of a supplemental tool carriage pivotally connected to a fixed pivot arranged upon said sliding carriage and adapted to extend beneath the work and to swing in an arc on the radius of the curved taper of the shell, and means adapted to first swing said pivotal carriage to effect the cutting of the tapered end of the shell then to operate the carriage to move longitudinally.



4. In a shell turning machine, the combination with the lathe bed and sliding tool carriage, of a supplemental tool carriage pivotally mounted on said sliding carriage, and having gear teeth formed on the arc of its pivotal movement, a screw shaft adapted to mesh with said teeth, a stop arranged on the sliding carriage, a pin arranged on said swinging carriage adapted to engage said stop to move the sliding carriage longitudinally.

[Claims 1, 3, 5, and 6 not printed in the Gazette.]

1,252,130. SHADE-HANGER. JAMES M. MCLESKEY, Memphis, Tenn. Filed Nov. 16, 1916. Serial No. 131,728. (Cl. 156—27.)



1. A window shade fixture including a horizontal shade supporting bar, and flat spring members secured thereto and normally extending substantially parallel thereto with the ends of the members projecting beyond the ends of the bar whereby when the fixture is placed in a window the members are required to be bent downward at an angle to the bar whereby downward pressure on the bar is transmitted longitudinally through the members to urge them more tightly into engagement with the window casing.

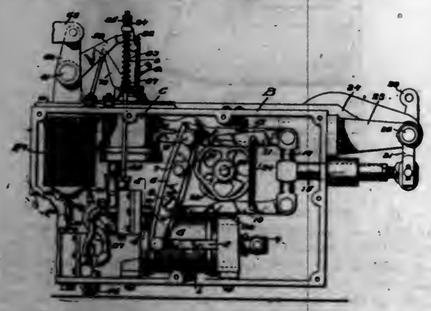
3. A window shade fixture including a horizontal shade supporting bar, flat spring members secured to the bar and extending beyond the ends thereof and bent downward at said ends of the bar at substantially right angles, the flat spring members being curved inward at depending points and provided with a facing at the outer side of the bending points to engage the casement of a window.

5. A window shade fixture including a shade supporting bar, flat spring members secured to the bar with their ends projected beyond the ends of the bar whereby when the fixture is placed in a window the members are required to be bent at an angle to the bar to engage the adjacent faces of the window casement whereby downward pressure on the bar will be transmitted longitudinally along the members to engage the ends thereof

tightly against the casement, the lower ends of the members having longitudinal slots, extension members having bolts passing through the slots and nuts on the bolts for securing the extensions to the members subsequent to adjustment.

[Claims 2 and 4 not printed in the Gazette.]

1,252,131. COMBINED CLUTCH AND GEAR SHIFTING MECHANISM FOR MOTOR-VEHICLES. JOHN G. MACPHERSON, deceased, Philadelphia, Pa., by Mary L. MacPherson and Charles L. Harsha, executors, Canonsburg, Pa., assignors to Electro-Pneumatic Gear Shift Corporation, Wilmington, Del. Filed Mar. 26, 1917. Serial No. 157,511. (Cl. 74—58.)



1. The combination with the clutch and the gear shifting members of a motor vehicle, of pneumatic means to actuate the gear shifting members, pneumatic means to shift the clutch, and means whereby the operation of the clutch shifting means effects operation of the pneumatic means for actuating the gear shifting members.

4. The combination with the clutch and the gear shifting members of a motor vehicle, of power-operated means to shift the clutch, manual means adapted to be actuated by the operator for controlling said power-operated clutch shifting means, power-operated means for actuating the gear shifting members, and means whereby operation of the clutch shifting means effects operation of the means for actuating the gear shifting members.

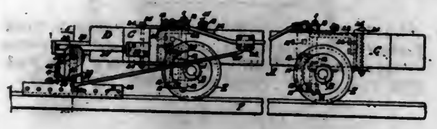
6. The combination with the clutch and the gear shifting members of a motor vehicle, of pneumatic means to actuate the latter, selective connections between said pneumatic means and said gear shifting members to cause the former to produce proper movements of the latter, manually operable means to select the proper connections between the pneumatic means and the gear shifting members to produce the desired shifting of the gears, a valve to control the supply of compressed air to said pneumatic means, pneumatic means for shifting the clutch, and means whereby operation of said last-named pneumatic means effects operation of the pneumatic means for actuating the gear shifting members.

9. The combination with the clutch of a motor vehicle, of pneumatic means for shifting said clutch, and means to regulate the speed of operation of said pneumatic means, for the purpose described.

'11. The combination with the clutch and the gear shifting members of a motor vehicle, of pneumatic means to actuate the latter, selective connections between said pneumatic means and said gear shifting members to cause the former to produce proper movements of the latter, manually operable means to select the proper connections between the pneumatic means and the gear shifting members to produce the desired shifting of the gears, pneumatic means for shifting the clutch, electrical means to control said last-named pneumatic means, means associated with said manually operable means to operate said electrical means, and means whereby operation of the pneumatic clutch shifting means effects operation of the pneumatic gear shifting means.

[Claims 2, 3, 5, 7, 8, and 10 not printed in the Gazette.]

1,252,132. OFFSET FOR SAWMILL-CARRIAGES. CARL MATHIAS MADSEN, Sunburst, N. C. Filed Mar. 27, 1917. Serial No. 157,704. (Cl. 143—113.)

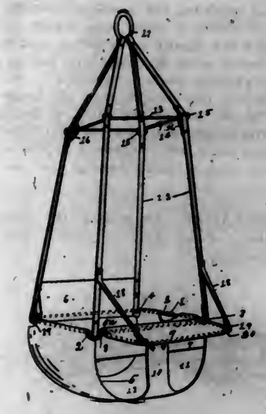


1. The combination with a saw mill carriage, and a carriage frame adapted to be offset, of a shoe adapted to travel on one of the track rails on which the carriage runs, a second rail on the carriage above the shoe, a spring-pressed wheel on the shoe engaging said second rail, a lever on the carriage having limited rocking movement thereon, means to cause an offsetting movement of the carriage frame by a rocking of the lever, and a connection between said lever and the said shoe, the spring pressure exerted on the said wheel serving to cause frictional engagement of the said wheel with the second rail and tending to frictionally bind the shoe on the first rail, to temporarily hold the shoe to rock the lever upon a reverse movement of the carriage.

3. In an offset for saw mill carriages involving means adapted to travel with the carriage or to permit relative travel of the carriage to effect the offsetting; a friction shoe adapted to travel on a rail of the carriage track, an upper rail on the carriage, and a spring-pressed wheel mounted on the shoe, to travel on the upper rail, together with means to actuate the offsetting means by the movement of the carriage relatively to the shoe.

[Claims 2 and 4 not printed in the Gazette.]

1,252,133. BABY-SWING. ALBERTA MARTIN, Portland, Me. Filed Aug. 6, 1917. Serial No. 184,576. (Cl. 155—44.)

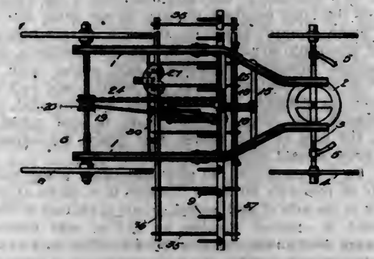


1. In a device of the character described, a main frame of bent wire, a flexible seat secured thereto, a tray of bent wire pivotally secured to the main frame and free to fold upwardly or downwardly, suspending straps secured to the main frame and flexible brace straps secured to the front of the tray and to the front suspending straps.

3. In a device of the character described, a main frame, a flexible seat comprising a middle piece, secured to the sides of the frame, a back piece secured to the middle piece and to the back of the frame and terminating in an upwardly extending head rest, a front piece secured at its sides to the middle piece and terminating in a tray cover, a tray frame pivotally secured to the main frame by said front piece and cover, suspending straps attached to the main frame and brace straps connecting the front of the main frame to the suspending straps.

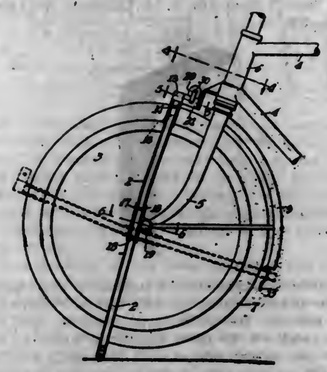
[Claim 2 not printed in the Gazette.]

1,252,134. RAKE. HARRY CHARLES MASTERSON, Cle Elum, Wash. Filed June 21, 1917. Serial No. 176,130. (Cl. 56—65.)



In a hay rake, the combination with the frame, the axle and the wheels secured to the axle, a rake mounted to swing on the frame, a drum on the axle, a brake band having its intermediate portion wound about the drum and connected at its front end to the rake to dump the same when the band is tightened on the drum, and manually operated means for tightening the band.

1,252,135. VEHICLE-SUPPORT. AUGUST D. MEISELBACH, Chicago, Ill. Filed Sept. 27, 1915. Serial No. 52,769. (Cl. 208—75.)



1. A support for vehicles having a steering wheel, comprising a member adapted to be pivotally mounted on the steering frame of the vehicle adjacent to the center of the steering wheel and of a length to span the same, provided at its lower end with transversely separated feet and at its upper end with a part adapted to coöperate with a part rigid with the main frame of the vehicle, when the support is in supporting position to hold the steering frame against movement relatively to the main frame.

2. A support for vehicles having two wheels one in front of the other and one thereof being a steering wheel, said support comprising a supporting frame adapted to be pivotally mounted upon the steering frame and of a length to span the steering wheel, the lower end of the support, when it is in supporting position being adapted to project beyond the center of the steering wheel, and provided at its upper end with a locking part adapted to coöperate with a similar part rigid with the main frame to hold the steering wheel frame against movement relatively to the main frame, the upper end of the support being heavier than the lower end, whereby, when the lower part is swung within the center line of the steering wheel it automatically rises out of contact with the ground.

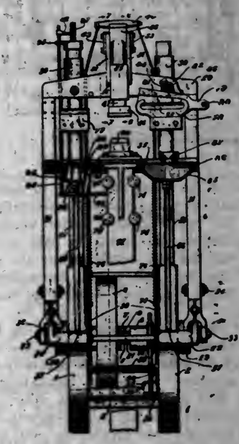
7. A support for a two wheeled vehicle adapted to be associated with the steering wheel thereof, and comprising a supporting frame pivotally mounted upon the lower end of the steering frame to swing substantially concentric with the steering wheel provided at its lower end with transversely spaced feet adapted to contact with the ground, and at its upper end with a rearwardly projecting locking part adapted to coöperate with a similar locking part rigid with the main frame of the vehicle for holding the steering frame against movement relatively to the main frame when the support is in supporting position, said coöperating parts being provided with openings adapted to register when the supporting frame is in a supporting position and adapted to receive a locking rod to prevent their separation.

19. A bicycle in combination with a support comprising an elongated frame wider at one end than at the other, and long enough to diametrically span the steering wheel of the bicycle, said frame adapted to be pivotally mounted upon the steering frame thereof to swing around the wheel into and out of supporting position, the wide end adapted to contact with the ground when the support is in supporting position and hold the steering wheel free of the ground, and means for locking the steering frame against steering motion.

28. A vehicle having a steering wheel in combination with a wheel support pivotally mounted adjacent to the center of the steering wheel to swing around the wheel and adapted, when swung to supporting position, to hold the steering wheel clear of the ground, said support being adapted when in supporting position to interlock with the frame of the vehicle and thus lock the steering wheel against steering motion.

[Claims 3 to 6, 8 to 18, and 20 to 22 not printed in the Gazette.]

1,252,136. MACHINE FOR CUTTING PIECED LIFTS AND FOR BUILDING LOGS OR HEEL-BLANKS THEREFROM. JOHN E. MITCHELL, St. Louis, Mo. Filed Sept. 30, 1916. Serial No. 122,984. (Cl. 164—28.)



1. In a machine of the class described, the combination of a die, a reciprocable member, a depressible member carrying a cutting block, a one-revolution clutch for actuating said reciprocable member, a manually actuated member for moving said depressible member, interlocking means for automatically interlocking said depressible member with said reciprocable member when said depressible member is moved by said manually actuated

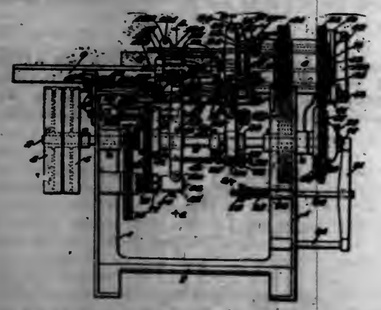
member to enable said reciprocable member to reciprocate said cutting block, and means for closing said one-revolution clutch operated by said manually actuated member when the latter is actuated.

3. In a machine of the class described, the combination of a frame, a transversely disposed driving shaft, an elevated die supported on said frame out of alinement with said shaft, a reciprocable cross head, a cutting block to be actuated by said cross head and thereby coöperate with said die, rocking levers pivotally supported on said frame and connected with said shaft so as to be rocked when said shaft rotates, connecting rods connecting said levers with said cross-head, and a straight holder for the blanks in alinement with said die and cutter block, and operating to conduct the blanks from the die continuously and uninterruptedly in a line extending past and to the side of said shaft.

8. In a machine of the class described, in combination with a die for cutting blanks, a reciprocable member, a cutting block movable independently of and also in conjunction with said reciprocable member, the conjoint movement being effective to carry the cutting block into contact with the cutting die, a driving shaft located out of line with said die, a straight holder for conducting the blanks uninterruptedly in a continuous log, lever mechanism pivotally mounted on the machine and to which said reciprocable member is operatively connected, and means operatively connecting said lever mechanism with said driving shaft whereby when the latter is operated said lever mechanism will cause the reciprocation of said reciprocable member.

[Claims 2 and 4 to 7 not printed in the Gazette.]

1,252,137. LOG-CUTTING MACHINE. JOHN E. MITCHELL and DENNIS PARKS, St. Louis, Mo. Filed Oct. 4, 1916. Serial No. 123,618. (Cl. 164—34.)



1. In a machine of the class described, in combination with a relatively stationary log holder, a pivotally mounted cutter, means for rotating said cutter around a log held against longitudinal movement in said holder and for progressively turning the cutter about its pivot toward the axis of the log, and means for automatically withdrawing said cutter when its cutting edge has crossed the axis of the log.

5. In a machine of the class described, a log holder, a pair of rotatable members movable in a plane at right angles to the axis of the holder, a cutter pivotally mounted on one of said members, actuating mechanism operatively connecting said cutter with the other member, means for simultaneously driving said members at different rates of speed whereby said mechanism will be caused to move said cutter toward the axis of said holder, and means for accelerating the movement of the slower moving member to cause said mechanism to restore the cutter to its normal position.

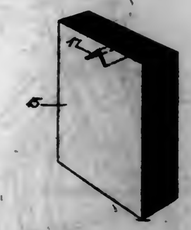
10. In a machine of the class described, a log holder, a pair of rotatable members movable in a plane at right angles to the axis of said holder, a cutter pivotally mounted on one of said members, actuating mechanism operatively connecting said cutter with the other rotatable member, means for driving said rotatable members at different rates of speed whereby said mechanism will be caused to move said cutter toward the axis of said holder, a tension device resisting the differential movement between said rotatable members, and means for disengaging the driving means from one of said rotatable members whereby said tension device will advance the slower moving member and restore the cutter to normal position.

16. In a machine of the class described, a log holder, a pair of rotatable members movable in the same direction in a plane at right angles to the axis of said holder, a cutter pivotally mounted on one of said members, lever mechanism pivotally connecting said cutter with the other of said members, means for driving said rotatable members at different rates of speed whereby said lever mechanism will cause the movement of said cutter toward the axis of said holder, and means for adjusting the throw of said lever mechanism.

30. In a machine of the class described, a log holder, a pair of rotatable members movable in a plane at right angles to the axis of said holder, a pair of cutters pivotally mounted in opposed relation on one of said members, actuating mechanism operatively connecting said cutters with the other rotatable member, means for driving said rotatable members in the same direction at different rates of speed whereby said mechanism will be caused to move said cutters toward each other until their cutting edges are brought in line at the axis of the log being cut, and means for automatically accelerating the movement of the slower of said driven members whereby said mechanism will be caused to reverse the pivotal movement of said cutters.

[Claims 2 to 4, 6 to 9, 11 to 15, and 17 to 29 not printed in the Gazette.]

1,252,138. PAPER-PACKAGE. FREDERICK H. MOORE, Melrose, Mass. Filed Apr. 5, 1917. Serial No. 159,908. (Cl. 206—57.)



As an article of manufacture, a package of superimposed paper sheets provided near one end with a V-shaped slot extending through the pack from front to back, and adapted to receive a V-shaped supporting arm, the angle formed by the salient side of said slot being relatively near one end of the pack, so that one end portion of each sheet is adapted to be split by said arm.

1,252,139. EYEGLASSES. WILLIAM N. MOORE, Washington, D. C., assignor to American Optical Company, Southbridge, Mass., a Voluntary Association of Massachusetts. Filed Dec. 23, 1912. Serial No. 738,219. (Cl. 88—50.)



1. In an eyeglass, the combination with the lenses, the bridge connection formed with a pair of platforms, supports mounted in said platforms and adjustable therein,

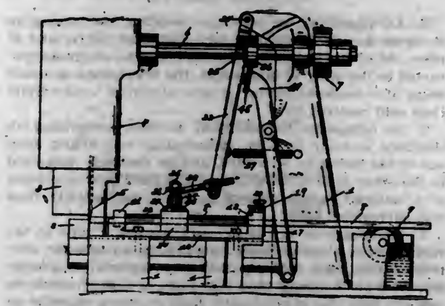
levers having cases surrounding said supports, and operating springs inclosed in said cases and engaging supports and levers.

5. In an eyeglass, the combination with the lenses, bridge connection, and levers provided with spring receiving cases, of posts or supports mounted in the bridge connection and formed with enlarged heads to entirely cover the spring receiving cases of the levers, and actuating springs arranged in said cases and having engagement with said cases and supports, said levers being in the same plane as the body of the actuating springs.

11. In an eyeglass, the combination with the lenses, the bridge connection provided with teeth, the supports mounted on the bridge connection and having at one end a head or enlargement and at the other end a threaded stem, adjusting caps engaging said threaded stems and formed with teeth to engage the teeth of the bridge connection, levers having open cases surrounding said supports, and springs having engagement with the supports and cases for actuating the levers.

[Claims 2 to 4, 6 to 10, and 12 to 14 not printed in the Gazette.]

1,252,140. STRIP-FEEDING MEANS. AUGUSTUS H. MORRISON, Amsterdam, N. Y. Filed Feb. 26, 1916. Serial No. 80,731. (Cl. 273.)



1. In a machine of the class described and in combination reciprocatory mechanism for imparting a step-by-step feed-movement to a stay-strip angular in cross-section coated with adhesive on its inner side; a guide provided with an angular channel for the stay-strip; and a rack having forwardly-facing strip-engaging ratchet-teeth yieldingly supported adjacent to the apex of said angular channel.

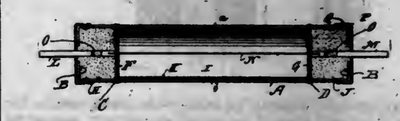
7. In a machine of the class described and in combination, a reciprocatory feed-carriage; convergent wings on the feed-carriage adapted to engage the inner side of a stay-strip angular in cross-section; a dog movably mounted upon said feed-carriage having separated jaws coöperative with said wings respectively to clamp the stay-strip on opposite sides of its apex; a fixed guide provided with an angular channel for the stay-strip; and a rack having forwardly-facing stay-strip-engaging ratchet-teeth yieldingly supported adjacent to the apex of said angular channel, said rack extending between said convergent wings adjacent to the space between the jaws of said dog.

10. In a machine of the class described and in combination, a pair of stationary slideway rods; a feed-carriage having a split bearing for one of said rods; and a freely fitting bearing for the other of said rods; means including a screw and a spring for drawing together the members of said split-bearing; a lever-brake carried by said carriage engageable with said other rod; strip-clamping mechanism carried by said carriage having a movable clamp-member; a rock-shaft mounted upon said carriage in operative connection with said movable clamp-member; a rocker-arm on said rock-shaft for rocking said shaft and reciprocating the feed-carriage, said rocker-arm having means whereby it is adapted to be connected with a reciprocatory member of the machine; and a spring-connection between said rocker-arm and said lever, tending to exert a greater force upon said lever during the return movement, than during the forward movement, of the feed-carriage.

13. In a machine of the class described and in combination, a pair of stationary slideway members; a feed-carriage having a divided-bearing for one of said slideway members and a freely-fitting bearing for the other of said slideway members; adjustable means for regulating the pressure of said divided-bearing upon the adjacent slideway member; a lever-actuated brake carried by said carriage engageable with said other slideway member; strip-clamping mechanism carried by said carriage; a carriage-reciprocating member mounted upon the carriage with provision for lost motion of said member having means whereby it is adapted to be connected with a reciprocatory member of the machine; and a bearing-connection between said carriage-reciprocating member and said brake-lever tending to exert a greater force upon said lever during the return movement than during the forward movement of the feed-carriage.

[Claims 2 to 6, 8, 9, 11, 12, and 14 not printed in the Gazette.]

1,252,141. ELECTRIC FUSE. THOMAS E. MURRAY, New York, N. Y. Filed Dec. 23, 1916. Serial No. 138,598. (Cl. 175—273.)

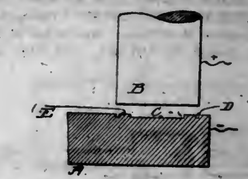


2. A fuse case, comprising a tubular wall and end walls integral therewith, formed of sheet metal and extending transversely across the ends of said tubular wall, there being an opening between the approximating edges of said end walls.

6. A fuse case, comprising a tubular wall and end walls integral therewith, formed of sheet metal, transverse partitions of insulating material in said case, conducting rods entering said case through openings in said end walls, there being a clearance between said rods and the edges of said openings, a fuse strip connected at its ends to said rods, and a filling of insulating material in said clearance and between said partitions and said end walls.

[Claims 1 and 3 to 5 not printed in the Gazette.]

1,252,142. METHOD OF ELECTRICAL WELDING. THOMAS E. MURRAY, New York, N. Y. Filed Jan. 10, 1917. Serial No. 141,543. (Cl. 219—10.)



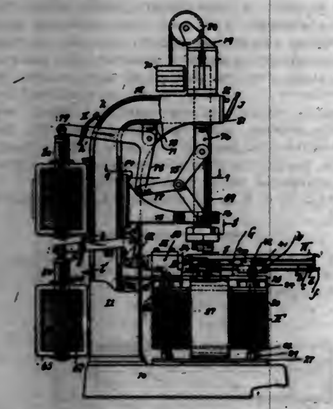
1. The method of electrically welding two bodies, each body having a normally flat welding face, all points of said face lying in the same plane, which consists in forming in one of said faces a recess, bringing the flat face of the other of said bodies into contact with said recessed face to cover said recess, and establishing the welding current; whereby the molten metal at the joint is caused to flow into and fill said recess.

3. The method of electrically welding two bodies, which consists in forming in a face of one of said bodies a cup-shaped cavity, bringing the face of the other of said bodies into contact with the face of said first-named body sur-

rounding said cup-shaped cavity, and establishing the welding current; whereby the molten metal at the joint is caused to flow into and fill said cavity.

[Claims 2 and 4 not printed in the Gazette.]

1,252,143. ELECTRIC WELDING-MACHINE. THOMAS E. MURRAY and HARRY R. WOODROW, New York, N. Y.; said Woodrow assignor to said Murray. Filed Feb. 19, 1917. Serial No. 149,499. (Cl. 219—4.)

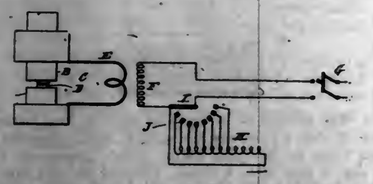


1. An electric welding machine, comprising means for holding a body having joints to be welded, means for establishing a welding current, and automatically operating means for closing welding circuit successively through said joints.

34. An electric welding machine, comprising means for holding bodies having a plurality of joints to be welded, electrically operating mechanism for establishing welding current at one of said joints, automatic means for retracting and cutting out said mechanism when said joint is welded, electrically actuated mechanism automatically operating upon the completion of said joint for establishing welding current at another of said joints, automatic means for retracting and cutting out said second-named welding mechanism when said second joint is welded, and a single switch controlling all of said electrically operated mechanisms.

[Claims 2 to 33 and 35 to 45 not printed in the Gazette.]

1,252,144. PROCESS OF AND APPARATUS FOR WELDING METAL BODIES AND FOR ANNEALING SAID BODIES AT THE WELDED JOINT. THOMAS E. MURRAY, Jr., and JOSEPH B. MURRAY, Brooklyn, N. Y. Filed Apr. 24, 1917. Serial No. 164,133. (Cl. 219—1.)

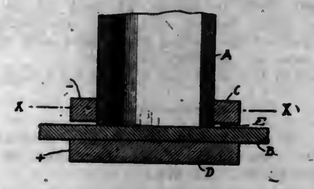


1. The process of electrical welding and annealing which consists in first, electrically welding the bodies together and then while said bodies are still heated, subjecting them to a current of reduced strength to cause said bodies to cool slowly.

2. An apparatus for electrical welding and annealing comprising welding electrodes, means for delivering a welding current to said electrodes, and means for reducing the strength of said current in the circuit including said electrodes to retard the cooling of the metal at the welded joint.

3. An apparatus for electrical welding and for annealing the welded joint, comprising a transformer, welding electrodes in the secondary circuit thereof, and a variable reactance in the primary circuit of said transformer, whereby after the welded joint is formed and the metal thereof is still hot, a current of reduced strength may be delivered to said metal to retard the cooling thereof.

1,252,145. APPARATUS FOR ELECTRICAL WELDING. THOMAS E. MURRAY, Jr., Brooklyn, N. Y. Filed May 5, 1917. Serial No. 166,565. (Cl. 219—4.)

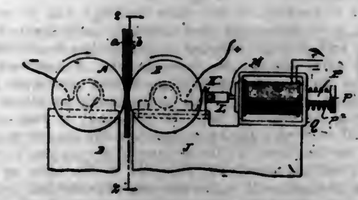


1. An apparatus for electrical welding, comprising an electrode having an opening constructed to receive and fit upon one of the bodies to be welded, and an electrode connected to the other of said bodies, the first-named electrode being of a material having greater electrical conductivity than said received body.

2. An apparatus for electrical welding, comprising an electrode annular in form surrounding and fitting upon one of the bodies to be welded, and an electrode connected to the other of said bodies; the first-named electrode being of a material having greater electrical conductivity than said surrounded body.

3. An apparatus for electrically welding a pipe to the surface of a plate or block, comprising an annular electrode fitting upon said pipe and of a material of greater electrical conductivity than said pipe, and an electrode in contact with the side of said plate or block opposite to that upon which the welded joint is made.

1,252,146. METHOD OF AND APPARATUS FOR ELECTRICALLY WELDING PLATES OR BARS TOGETHER. THOMAS E. MURRAY, Jr., Brooklyn, N. Y. Filed July 13, 1917. Serial No. 180,285. (Cl. 219—10.)

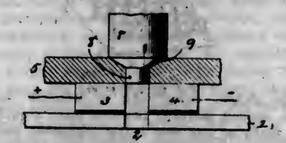


2. An apparatus for welding together bars or plates, comprising two roll electrodes receiving said plates between them, means for rotating said electrodes in opposite directions, and means for moving one of said electrodes to compress said plates to a reduced thickness during the passage of said plates between said electrodes.

5. The method of uniting metal plates, which consists in subjecting said plates disposed in juxtaposition to incremental softening to a plastic state over an elongated fractional area extending from edge to edge of said juxtaposed plates, and simultaneously compressing said plates to condense the metal and to reduce the thickness of said plates over said area.

[Claims 1, 3, and 4 not printed in the Gazette.]

1,252,147. METHOD OF ELECTRICALLY MAKING OPENINGS OF DESIRED CONFIGURATION IN METAL PLATES. THOMAS E. MURRAY, Jr., Brooklyn, N. Y. Filed Oct. 10, 1917. Serial No. 195,738. (Cl. 219—1.)



1. The method of making an opening of predetermined configuration in a metal plate, which consists in electrically heating said plate to a plastic condition, embedding therein a tool of varying cross sectional area and of configuration corresponding to the desired configuration of said opening, and then withdrawing said tool.

2. The method of making a countersunk hole through a metal plate, which consists in electrically heating said plate to a plastic condition, embedding therein a tool of configuration corresponding to said countersunk hole, and then withdrawing said tool.

1,252,148. METHOD OF AND APPARATUS FOR ELECTRICALLY DIVIDING METAL PLATES. THOMAS E. MURRAY, Jr., Brooklyn, N. Y. Filed Oct. 10, 1917. Serial No. 195,739. (Cl. 219—1.)



1. Apparatus for electrically dividing a metal plate, comprising a supporting electrode for said plate, a disk electrode having a narrow circumferential edge bearing upon the upper surface of said plate, and means for causing said disk to travel over said surface in a line parallel to the edge of said support.

2. Apparatus for electrically dividing a metal plate, as in claim 1, the said supporting electrode being circular in shape, and the said means for causing said disk to travel being constructed to move said disk in a circular path, parallel to the circumferential edge of said electrode.

3. The method of electrically dividing a metal plate, which consists in placing said plate upon a supporting electrode to overlap the same, and then moving over and in contact with the surface of the overlapping portion of said plate, a second electrode in a path parallel to the edge of said first-named electrode.

1,252,149. DETACHABLE ADJUSTABLE SLIPPER-STRAP. CLAUDE MUSE, St. Louis, Mo. Filed May 14, 1917. Serial No. 168,555. (Cl. 36—58.5.)



1. A detachable slipper-strap, comprising sections which are arranged to slide upon each other beneath the sole of the slipper or other foot-covering and to overlap thereat; hooks fixed on the free overlapping ends of said sections, to embrace the opposite edges of the sole of the slipper; and suitable fastening-means for securing the upper ends of said sections.

2. A detachable and adjustable slipper strap, comprising a member which embraces the instep of the wearer and passes around the sole of the slipper; means for adjustably securing the ends of said member after it has been placed in position for use; and metallic hooks secured to said member and adapted to embrace the sole of the slipper or other foot-covering on its opposite edges at the arch.

4. A slipper-strap constructed with means for fastening its ends at a point above the sole, and having means for clamping the sole of the slipper, to secure the strap to said sole.

6. The combination with a slipper-strap, of fastening-means for uniting the ends thereof adjacent the wearer's instep, and opposite clamping hooks carried by the strap and adapted to clamp the sole of the slipper between them.

[Claims 3, 5, and 7 to 9 not printed in the Gazette.]

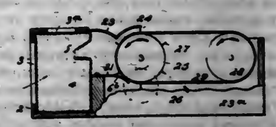
1,252,150. METHOD OF FORMING STITCHES. CHARLES E. MYERS, St. Louis, Mo., assignor, by direct and mesne assignments, of one-half to John Wellacher and one-half to Thomas J. Lavin, William A. Rheinheimer, and Gus Bauer, St. Louis, Mo. Filed Mar. 29, 1917. Serial No. 158,298. (Cl. 112—34.)



1. The method of forming a stitch which comprises the projection of a thread through a puncture in the layers of material to be united, forming a loop upon the opposite side of said material, passing through said loop a loop of another thread, inserting through the second loop in advance of the loop first formed a third or locking thread, next severing the locking thread on either side of said second loop, and finally drawing the loops of said threads into said puncture.

2. The method of forming a stitch which comprises the projection of a thread through a puncture in the layers of material to be united, forming a loop upon the opposite side of said material, passing through said loop a loop of another thread, inserting through the second loop in advance of the loop first formed a third or locking thread, next severing the locking thread on either side of said second loop, subsequently successively retracting the first and second loops, and finally drawing the loops of said threads into said puncture.

1,252,151. FLY-TRAP. TETSUSHIRO NAKAMIGAWA, New York, N. Y. Filed Dec. 18, 1915. Serial No. 67,662. (Cl. 43—32.)

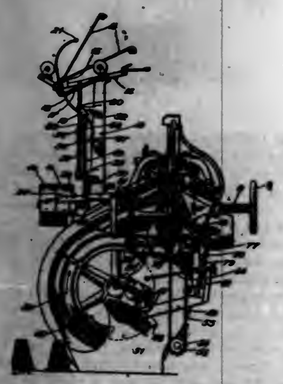


1. In a fly trap an open top casing provided with a hood adjacent one end thereof, and said hood having an arcuate inlet, a roller journaled in the casing below the hood, radially disposed spaced pins arranged in rows on the periphery of the roller, a paneled cage having a transparent front and a transparent top connected with the hood and disposed outward of the roller, the inner wall of said cage having a transversely arranged, inwardly extending runway, a horizontally disposed ledge below the said runway and having its outer portion rounded downwardly and frictionally engaged with the roller and the belt carried thereby, and the said rounded portion of the

ledge having openings through which the pins of the roller pass when the said roller is rotated and means for imparting such rotary movement to said roller.

2. In a fly trap, a casing having an open top, a hood having an arcuate inlet arranged transversely of the top adjacent one of the ends of the casing, a roller journaled in the casing below the hood, radially disposed spaced pins on the periphery of the roller, a second roller journaled in the casing, an endless belt having spaced rows of openings trained around both rollers and the pins of the first mentioned roller passing through the said openings in the said belt, a paneled cage having a transparent front and a transparent top connected with the hood and secured to the casing and disposed outward of the first mentioned roller, the inner wall of the hood having a transverse inwardly extending runway, a horizontally disposed spring ledge below said runway and having its outer portion rounded downwardly to frictionally engage beneath the first mentioned roller and the belt carried thereby, said rounded end of the ledge having openings through which the pins of the first mentioned roller pass when the said roller is rotated, and means for imparting a rotary movement to the said roller.

1,252,152. KNITTING-MACHINE. FRITHIOF NELSON, Rockford, Ill. Filed Oct. 9, 1914. Serial No. 865,852. (Cl. 66—7.)



1. In a machine of the class described operating on repeating cycles of movement, the combination with power controlling mechanism, of tension mechanism adapted to exert a pull on an article being fabricated at a predetermined time in the cycle of fabrication, and means for carrying the power controlling mechanism into off position at said predetermined time in the cycle of fabrication when the article being fabricated is not engaged with the tension mechanism.

13. In a machine of the class described, the combination with suitable knitting mechanism operating on repeating cycles of movement, and a tension roll having fixed points of bearing, of another tension roll adjacent to the first mentioned tension roll, arms swingingly mounted with respect to the frame of the machine, bearings in said arms for said last mentioned tension roll, a feeler device pivoted adjacent to the first mentioned tension roll, a finger connected to one of said arms and swinging with the same, suitable power drive mechanism for the machine, means tending to carry said power drive mechanism into inoperative position, means for locking said carrying means against operation, and means for disengaging said locking means, said disengaging means including a pin operatively connected to said feeler and adapted when the feeler is in operative position to render inoperative the disengaging means, and when the feeler is in inoperative position to render operative said disengaging means, said finger constituting a portion of the disengaging means.

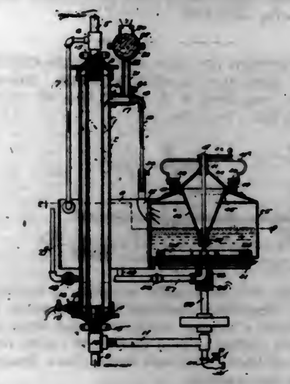
[Claims 2 to 12 not printed in the Gazette.]

1,252,153. CATTLE-GUARD. JOHN NELSON, Rathdrum, Idaho. Filed Apr. 21, 1917. Serial No. 163,673. (Cl. 256—14.)



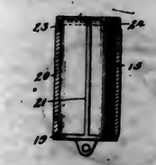
A cattle guard, comprising a metallic base having transverse, spaced, parallel rows of teeth struck up therefrom, the teeth of one row being staggered and similarly disposed with regard to the teeth of the adjacent rows, and each tooth having an arrow shaped extremity, the lateral adjacent arrow points of the teeth in adjacent rows lying substantially in alinement longitudinally of the plate.

1,252,154. CONDENSER AND DISTILLING DEVICE. OSCAR ALFRED NENNINGER, Newark, N. J. Filed Nov. 4, 1916. Serial No. 129,513. (Cl. 203—5.)



In a device of the character specified, a condenser consisting of concentric casings, fittings connecting the casings at the ends thereof and holding them in spaced relation, said fittings having water conducting pipes passing through the same for supplying cold water to the inner casing, and a discharge faucet connected with the lowermost fitting and in communication with the space between the casings, a boiler delivering to the space between the casings, and means for controlling the level of the water in the boiler.

1,252,155. ENGINE-VALVE. MILTON GEORGE NEWMAN and HAROLD JOHN NEWMAN, Huron, S. D. Filed Feb. 7, 1916. Serial No. 76,828. (Cl. 123—64.)

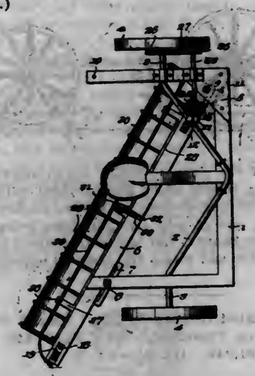


1. In combination, a piston, a flange projecting therefrom and coextensive in length therewith, a second circumferentially disposed flange surrounding one end of the piston, a split expansible sleeve-like member embracing the piston and resting upon the circumferential flange,

the adjacent edges of said sleeve contacting the opposed faces of the first mentioned flange whereby circumferential movement of the sleeve is prevented, and means for holding the sleeve seated upon the circumferential flange and preventing vertical movement of the sleeve.

2. In combination, a piston, a flange projecting therefrom and coextensive in length therewith, said piston having a transverse restricted bore adjacent one end, a circumferential flange surrounding the opposite end of the piston, a split expansible sleeve embracing the piston and seated upon the latter mentioned flange, the adjacent edges of said sleeve being disposed at opposite sides of the first mentioned flange, a flanged cap fitting upon one end of the piston and having diametrically opposed apertures registering with the said bore, and a pin passed through said apertures and bore for holding the cap immovably associated with the piston, said cap cooperating with the circumferential flange to prevent longitudinal movement of the sleeve with respect to the piston.

1,252,156. HAY-RAKE. JOHN M. OBERHOLTZER, Wooster, Ohio. Filed May 19, 1916. Serial No. 98,591. (Cl. 56—115.)



A rake comprising a wheel mounted frame, a beam attached to the frame, a shaft journaled upon the beam, resilient tines fixed to the shaft, a shield carried by the tines and normally movable with the same and having openings through which the lower portions of the tines pass, the edges of the openings completely surrounding the tines, a rod bearing against the upper portions of all of the tines, and resilient means carried by the beam and bearing against the rod to hold the same in contact with the tines, and means for rocking the shaft.

1,252,157. PRIMING-COCK. WALTER I. OESCHGER, Detroit, Mich. Filed Mar. 28 1917. Serial No. 157,910. (Cl. 137—7.)

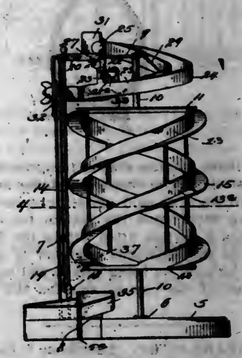


2. In a priming cock, the combination of a body having one end polygonal in cross section, a sheet metal cup having a polygonal shank fitting around the polygonal end of the body, said body having a transverse tapering hole intermediate its ends and longitudinal passages extending from said tapering hole to its ends, a plug provided with a transverse passage and fitted into said tapering hole, and means to hold said plug in position.

3. In a priming-cock, the combination of a body having one end threaded and the opposite end formed polygonally, a cup having a polygonal shank of less length than the polygonal portion of the body, said shank fitting over the polygonal portion of the body and the outer end of the polygonal portion of the body being expanded to hold the cup in position, said body being formed with a longitudinal passage and a transverse hole, and a plug in said hole to open and close the passage.

[Claim 1 not printed in the Gazette.]

1,252,158. TOY. FRED OKEL, Wheeling, W. Va. Filed Aug. 13, 1917. Serial No. 185,975. (Cl. 46—37.)



1. In a toy of the class described, a base, a rotatable cylinder supported in upright position on the base and having spiral track means extending downwardly thereover provided with a lower flange, a spiral chute held above the cylinder and also downwardly inclined toward a lower outlet end thereof, an upright guide adjacent to the cylinder with which the flange of the track means adjacently coöperates, a trip device at the lower portion of the outlet guide, a combined check and release means cooperating with the chute and connected to the trip device for automatic operation, a lower tray adjacent to the trip device and supported on the base, and movable playing pieces which are deposited in the chute and successively movable downwardly over the upright guide in engagement with the flange of the track means and operating the trip device to control the feed of the playing pieces from above.

2. In a toy of the class described, a base, a rotatable cylinder supported in upright position on the base and having spiral track means extending downwardly thereover provided with a lower flange, upright guide means with which the flange of the track means adjacently cooperates, and means for feeding playing pieces at the upper part of the cylinder and upright guide, said playing pieces being movable downwardly over the guide means in engagement with the track means flange and operating to successively release subsequent playing pieces from engagement with the cylinder and guide.

4. In a toy of the class described, a base, a rotatable cylinder supported in upright position on the base and having spiral track means extending downwardly thereover, an upright guide adjacent to the cylinder and consisting of a pair of rods spaced apart and with which the track means adjacently coöperates, means for feeding playing pieces disposed above the cylinder, connected devices for regulating the feed of the playing pieces, and a lower tray for receiving the playing pieces from the guide.

[Claims 3, 5, and 6 not printed in the Gazette.]

1,252,159. CONDIMENT-HOLDER. MICHAEL PAGE, Schuylkill Haven, Pa. Filed Mar. 2, 1917. Serial No. 152,105. (Cl. 65—45.)

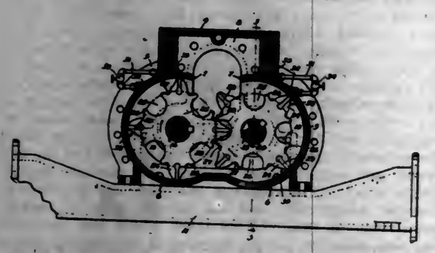
A condiment holder comprising a receptacle having a depression in the bottom thereof and an opening inter-

secting said depression, an agitating element comprising an elongated member split longitudinally for a portion of its length throughout one end to provide spaced parallel limbs, a disk fixed to said member adjacent the closed extremity of the split portion, the remaining portion of the agitating element beneath said disk being passed through said opening in the bottom, whereby said disk rests upon the bottom surrounding said opening, the said parallel limb being separated at their free extremities,



whereby said limbs may be shaped to accommodate themselves to the receptacle to engage the inner surface thereof, the opposite ends of said agitating element being bifurcated, a cap fitted upon the bottom for rotation and having an instruck portion fitted within the depression of the bottom, and the separated portions of said element defined by the bifurcation being spread and secured to the instruck portion of the cap as and for the purpose described.

1,252,160. ROTARY PUMP. THEODORE J. PAGEL, Minneapolis, Minn. Filed Mar. 28, 1917. Serial No. 157,909. (Cl. 103—44.)



6. The combination with a casing provided with intersecting cylindrical piston chambers, of coöperating rotary pistons working within said chambers, said pistons having peripheral toothed members and coöperating toothed cavities arranged alternately and extended across the periphery of said pistons, to the side walls of said piston chambers, the said toothed members, on their backward sides, being cut away or reduced to afford clearance radially outward of their pitch lines, the said casing having intake and discharge ports, the said toothed members and toothed cavities, on both sides, having close engagement substantially on their pitch lines when turned to a line intersecting the axes of said pistons.

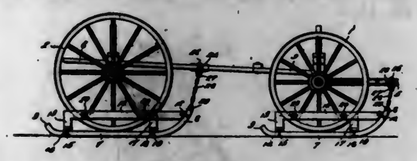
9. The combination with a casing having intersecting cylindrical piston chambers provided with intake and discharge ports, of coöperating rotary pistons working within said chambers having coöperating teeth and teeth cavities, the teeth being cut away on their rear sides and in cavities deeper than the teeth and wider than the teeth inward of the pitch line, substantially as described.

11. The combination with a casing provided with intersecting cylindrical piston chambers, of coöperating rotary pistons working within the said chambers, the said pistons having peripheral tooth members and coöperating tooth cavities arranged alternately and extending across the periphery of the said pistons to the side walls of the said piston chambers, and by-passages connecting the high pressure discharge passage of said casing with portions of the respective piston chambers intermediate the intake cut-off and the opening to exhaust.

13. The combination with a casing having intersecting cylindrical piston chambers provided with lateral intake and discharge ports and bridges separating said intake and discharge ports, of coöperating rotary pistons within said chambers having coöperating teeth and teeth cavities extending entirely across the peripheries of said pistons, the said lateral intake ports extending from the plane of the intermediate connection of said piston chambers along the opposite lines of travel of the teeth of said respective pistons and located radially inward of the outer ends of the piston teeth at points past which the teeth of said pistons sweep and said chambers having peripheral walls which abut the main teeth of the pistons throughout the major portion of the travel thereof.

[Claims 1 to 5, 7, 8, 10, and 12 not printed in the Gazette.]

1,252,161. SLED-RUNNER ATTACHMENT. THOMAS P. PATCHEN, Dunlap, Iowa. Filed Apr. 11, 1917. Serial No. 161,230. (Cl. 21—96.)



A runner of the class described for attachment to the under side of a vehicle wheel and provided with a pair of longitudinally arranged clamping bars to receive the wheel between them, one of said clamping bars being pivotally mounted on the runner, and means to connect said clamping bars together and clamp the same on opposite sides of the wheel.

1,252,162. GRINDING-MACHINE. JOSEPH PAUER and EMIL BAHNIK, Cleveland, Ohio. Filed Apr. 14, 1917. Serial No. 161,944. (Cl. 51—4.)



1. In a cylinder grinding machine, the combination of a housing, a rotatable cylinder therein, a spindle extending through the cylinder with its axis parallel to that of the cylinder, bearings at each end of the cylinder movably connected therewith, a longitudinal shaft carried by the cylinder and geared with said bearings for simultaneously shifting the same, and means for turning said last named shaft.

2. In a cylinder grinding machine, the combination of a housing, a rotatable cylinder therein, end members rigid with the cylinder, a spindle extending through said members with its axis parallel to the cylinder, bearings embracing the spindle at separated points, means carried by the end members for laterally shifting said bearings simultaneously including a longitudinal member geared to the bearings, and a screw for actuating the longitudinal member to simultaneously move said members.

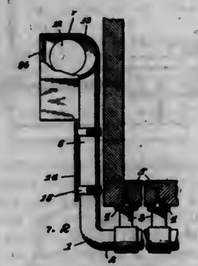
3. In a cylinder grinding machine, the combination of a work support, guideways projecting therefrom, a head movable along said guideways, a spindle carried by said head and adjustable eccentrically thereof, a screw for advancing the head, a shaft parallel to the spindle, a gear for causing the revolution of the spindle, a gear for driving the same splined to said shaft, means for rotating the shaft and screw, and separate means for rotating the spindle.

8. In a cylinder grinding machine, the combination of a frame comprising a table and guideways at right angles thereto, a traveling head on said guideways, a spindle carried by said traveling head and adjustable in eccentric relation thereto, a work support, parallel ways on which the work support is slidable, means securing said ways to the table, means for sliding the work support along the ways, and means for laterally shifting the ways with relation to the table.

9. In a cylinder grinding machine, the combination of a table and ways at right angles thereto, of an operating head slidable along the ways, a spindle carried by the head and adjustable in eccentric relation thereto, means for rotating the spindle and means for moving the head along the ways, a work support having parallel slots, ways engaging said slots, means securing the ways to the table extending through elongated openings, a screw for laterally moving the ways and work support with relation to the table, and means for moving the work support along the ways, said table having openings permitting access to the cylinder secured to the work support.

[Claims 4 to 7 not printed in the Gazette.]

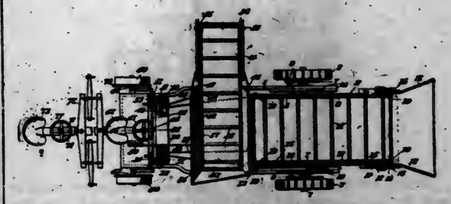
1,252,163. SIGNALING APPARATUS. EARL W. PELL, Cleveland, Ohio. Filed July 11, 1916. Serial No. 108,669. (Cl. 40—132.)



In a device of the character described, a signal comprising an L-shaped cylindrical tubular supporting member disposed in a vertical position at the rear of a vehicle, the short arm of the member being disposed beneath the vehicle body, hangers in encircling engagement with said short arm and secured to the underside of the vehicle body, a casing secured upon the upper end of the long arm of said supporting member, the upper portion of said casing being semi-circular in cross-section and divided into three horizontally alining compartments, the lower portion of said casing comprising a single compartment having its ends outwardly inclined and terminating short of the ends of said upper portion, and transparent plates covering said compartments, the three upper plates bearing legends, said tubular member further serving as a support for a license plate and as a conduit for wires leading to incandescent lamps disposed within said compartments.

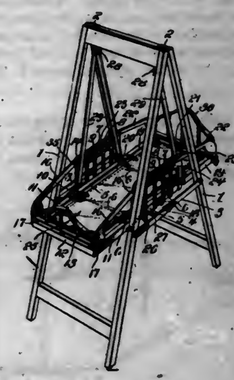
1,252,164. SNOW-ELEVATING MACHINE. ALFRED PELTIER, St. Paul, Minn. Filed July 24, 1917. Serial No. 182,505. (Cl. 37—32.)

A machine of the character stated comprising a frame, traction wheels supporting the forward portion thereof, arch members mounted on the frame and having their ends located beyond the opposite sides of the centers of the traction wheels, an elevator frame pivoted on the arch members at points between the ends thereof and approximately in vertical alinement with the centers of the traction wheels, a blade carried by the elevator frame, a con-



veyer belt mounted for movement along the elevator frame, means for swinging the elevator frame upon the arch members shoes carried at the forward portion of the elevator frame, and adapted to have contact with the ground and means for operating the conveyer belt from the traction wheels.

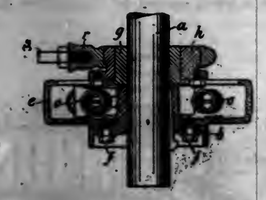
1,252,165. COMBINATION ARTICLE OF FURNITURE. DAVID G. PERLMUTTER, New York, N. Y. Filed Jan. 5, 1917. Serial No. 140,811. (Cl. 155—6.)



1. The herein described combination article of furniture comprising a central section having upright sides slotted longitudinally near their upper edges and provided with pins near their lower edges, a foot frame hinged to the central section, a foot frame also hinged to the central section, L-shaped side bars pivoted at the ends of their shorter arms, to the outer sides of said frames, the ends of the longer arms of the front bars having slots engaging said pins when the foot frame is pendant, other pins on the sides of the central section engaging said slots when the foot frame is raised, cross-heads sliding in the slots of said sides, and bolts connecting said cross-heads with the ends of the longer arms of the rear bars, for the purpose set forth.

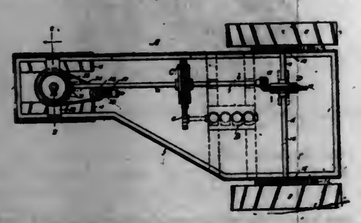
2. The herein described article of furniture convertible from a chair to a crib, the same comprising a main section having upright sides slotted longitudinally near their upper edges, a head frame hinged to said section, L-shaped side bars pivoted at the ends of their shorter arms to the corners of said frame and with their longer arms extending along the sides of the main section, and bolts adjustably connecting the ends of said longer arms with points in the slots of the sides according as the article of furniture is to be used.

1,252,166. MEANS FOR CONTROLLING THE SUPPLY OF LIQUID FUEL TO INTERNAL-COMBUSTION ENGINES. ERNEST WILLOUGHBY PETTER, London, England. Filed May 3, 1916. Serial No. 95,032. (Cl. 123—140.)



Means for delivering fuel to internal combustion engines and for regulating the amount of fuel delivered comprising a reciprocating pump, means for actuating said pump comprising a rotary shaft, a carrier keyed to the said shaft, a member adjustably mounted on said carrier, an eccentric on said member, means for adjusting said inner eccentric angularly in relation to the carrier for the purpose of adjusting the moment of injection of the fuel, means for fixing the said member to the carrier, an outer eccentric mounted on the eccentric disposed on the said member, centrifugal means for moving the outer eccentric angularly in relation to the said member and to the eccentric thereon, a strap on said outer eccentric, and means for connecting said strap to the portion of said reciprocating pump, said centrifugal means comprising weights pivotally mounted on said member and free to move in a plane vertical to the shaft, lugs on said outer eccentric, links connecting said lugs to said weights and springs adapted to keep the weight toward the shaft.

1,252,167. TRACTOR FOR PLOWS AND THE LIKE. CHARLES A. PETTIT, St. Louis, Mo. Filed Apr. 17, 1913, Serial No. 761,686. Renewed June 7, 1917. Serial No. 173,435. (Cl. 21—114.)



In a traction machine, a frame, a tubular and downwardly projecting king post on the underside of the frame, a yoke having a socket extending to the under side of the frame and in which the king post is mounted and provided with bearings at its lower end, tubular axles mounted in the bearings of the yoke and provided with gear wheels at their inner ends, wheels on the axles, means for securing the wheels on the axles, a toothed carrier mounted between the gear wheels of the axles, pinions mounted on the carrier and meshing with the gear wheels of the axles, a vertical shaft mounted in the king post and provided at its lower end with a pinion meshing with the carrier, means for operating said shaft, a steering post, and means for turning the yoke from said steering post.

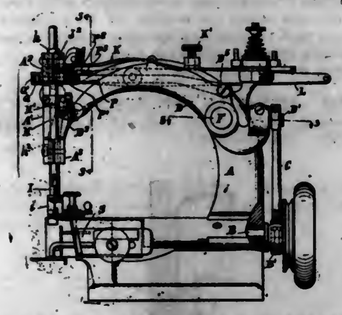
1,252,168. GARMENT-SUPPORTER. ROBERT F. PIKE, Fall River, Mass. Filed Mar. 2, 1917. Serial No. 151,872. (Cl. 24—245.)

1. A device of the character stated, comprising a metal base plate having a hole and a flexible inelastic tongue, and a button composed of a head and shank formed to enter said hole, and having an enlarged inner end portion adapted to engage the inner side of the plate, and prevent endwise movement of the button in one direction, the said tongue being adapted to be bent outwardly to permit the insertion of the button in the hole, and inwardly to engage the inner end portion of the inserted shank and prevent endwise movement of the button in the opposite direction.



2. A device of the character stated, comprising a metal base plate having a hole and a flexible inelastic tongue adapted to be bent outwardly and inwardly relatively to the plate, and a button composed of a head and a shank formed to enter the hole and provided with oppositely projecting ears forming a shank enlargement adapted to engage the inner side of the plate, said shank being provided also with a socket between said ears arranged to receive the said tongue when the latter is bent inwardly.

1,252,169. STRAW-SEWING MACHINE. RAYMOND L. PLUMLEY, Wilmington, Del., assignor to Frederick Osann Company, New York, N. Y., a Corporation of New York. Filed Apr. 17, 1915. Serial No. 21,985. (Cl. 112—13.)



1. In a sewing machine the combination with the frame and oscillating needle lever pivotally connected thereto, of a presser foot, a member having one end pivotally connected to the said lever adjacent the pivotal axis of the latter and its other end in guided relation with said frame whereby said member is reciprocated in the direction of its length by the oscillation of said lever, and a tipping mechanism mounted on said frame and adapted to be actuated by said member to lift said presser foot off the work once during each stitch forming operation.

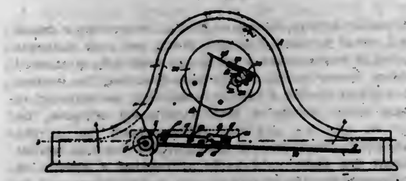
3. In a sewing machine, the combination with the frame and the oscillating needle lever pivotally connected thereto, of a presser bar mounted in said frame, a tension device mounted on said frame, a tension releasing device comprising a member having one end pivotally connected to the said lever adjacent and above the pivotal axis of the latter and its other end in guided relation with said frame whereby said member is reciprocated in the direction of its length by the oscillation of said lever, a tipping lever mounted on said frame and axially adjustable in a direction transverse to the line of movement of said member into and out of the position in which said lever is engaged and oscillated by said member as the latter reciprocates and a yoke secured to the upper end of said presser bar and engaged by the lever and thereby oscillated as said tipping lever is oscillated.

5. In a sewing machine, the combination with the frame and the needle bar mounted therein, of a bushing forming a bearing for the needle bar and mounted in said frame and projecting above the upper end of the latter, a presser bar mounted in said frame parallel to the needle bar, a yoke adjustably secured to the upper end of the presser bar and formed with a bearing slidingly receiving the projecting upper end of the bushing, a needle lever, a tipping mechanism for engaging said yoke and lifting said presser bar comprising a lever pivotally mounted in said frame and having an arm adapted to engage said yoke, and an operating connection between said lever and the needle lever.

7. In a sewing machine, the combination with the frame and the needle bar mounted therein, of a bushing forming a bearing sleeve for the needle bar and mounted in said frame and projecting above the upper end of the latter, a presser bar mounted in said frame parallel to the needle bar, and a yoke secured to the upper end of the presser bar and formed with an adjustable split bearing slidingly receiving the projecting upper end of the bushing.

[Claims 2, 4, and 6 not printed in the Gazette.]

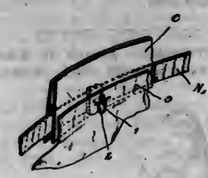
1,252,170. MANTEL CHIME-CLOCK. WILSON E. PORTER, New Haven, Conn., assignor to New Haven Clock Co., New Haven, Conn., a Corporation. Filed Oct. 17, 1917. Serial No. 197,151. (Cl. 58—13.)



1. In a mantel-chime clock, the combination with the case thereof, of a chime-movement, a separately organized rod-chime mechanism adapted to be installed in horizontal position within the bottom of the case, and means for connecting the respective hammers of the said mechanism with the chime-movement.

[Claims 2 and 3 not printed in the Gazette.]

1,252,171. COLLAR-BUTTON. GDALIE PORTNOY, Lynchburg, Va. Filed May 26, 1917. Serial No. 171,177. (Cl. 24—99.)

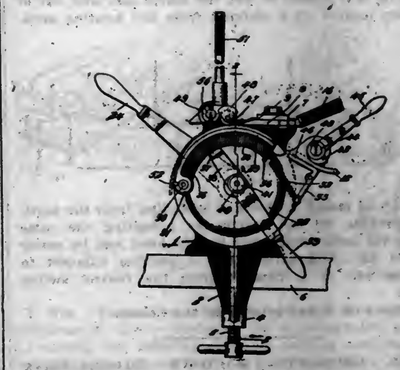


As a new article of manufacture, a collar button comprising a stem, leaves hinged to one end of the stem, a substantially rectangular plate fastened across the other end of the stem and having ears at top and bottom, and a roller journaled in said ears with its axis at right angles to the pintle of said hinge, the whole for use substantially as described.

1,252,172. LEATHER-CUTTING MACHINE. JOSEPH C. PRIMS, Hornell, N. Y. Filed Apr. 25, 1917. Serial No. 164,427. (Cl. 69—11.)

1. The combination with a supporting frame and a stationary knife of a work carrier rotatably supported in the frame and adapted to present the work to the knife edge, and an abutment carried by the carrier and composed of comparatively soft material to engage the knife edge at the end of the carrier movement.

3. The combination with a supporting frame and fixed knife, of a carrier adapted to support a leather belt, means for moving the belt to position to permit an elongated bevel cut to be produced therein by the knife, and means for submerging the edge of the knife in the belt prior to the cutting operation of the knife.



5. The combination of a fixed knife, a rotatable carrier, a movably-mounted platen, means for moving the same to permit a beveled cut to be produced by the knife in the belt, and means for causing the knife edge to take a course nearly perpendicularly through the body of the belt as it emerges therefrom.

7. In a leather cutting machine, the combination of a fixed support, a rotatable carrier, a movable platen, means for moving said platen, and a knife having a fixed longitudinal relation to said platen and capable of a transverse movement to start the knife in the leather.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,252,173. INFLATED APPARATUS FOR PREVENTING DROWNING AND ASSISTING SWIMMING. JOHN JAMES PRITCHARD, Birmingham, England. Filed Oct. 9, 1915. Serial No. 55,044. (Cl. 9—17.)



1. An apparatus of the class specified, comprising two endless inflatable bands which are both bodily stretchable lengthwise and of differing diameters to respectively independently fit the wearer around the neck and around the body under the arms, the bands being permanently connected at one portion and having separable fastening means at diametrically opposite portions thereof.

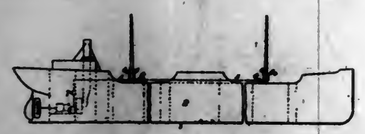
2. An apparatus of the class specified, comprising two endless inflatable bands which are both bodily stretchable lengthwise and of differing diameters to respectively independently fit the wearer around the neck and around the body under the arms, the bands being permanently secured to each other at one portion by an air conveying connection to provide communication between the two bands, the bands at points diametrically opposite the said connection also having separable fastening devices.

[Claim 3 not printed in the Gazette.]

1,252,174. HOISTING APPARATUS. HUGH VERNON RAMSAY, Gloucester City, N. J. Filed Apr. 14, 1917. Serial No. 161,969. (Cl. 254—186.)

1. The combination with a ship of a hoisting apparatus on the deck thereof comprising a mechanically controlled

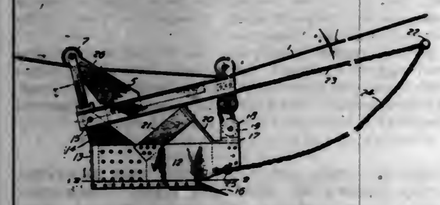
manually operated hoisting device, and a constant-speed electric motor therefor, a source of electric energy for operating the motor in the engine room of the ship, a circuit leading from the source of energy to the motor, a switch in said circuit to put the motor into and out of operation located at a distance from the hoisting appa-



ratus and its motor, and means extending from the hoisting apparatus to the switch for actuating the same whereby the hoist-tender may put the hoist and its motor into and out of operation from a position adjacent to the hoist and at a distance from the control switch therefor.

[Claims 2 to 5 not printed in the Gazette.]

1,252,175. EXCAVATING-MACHINE. CHARLES FRANK RAYBURN, Moscow, Idaho. Filed June 18, 1917. Serial No. 175,347. (Cl. 37—19.)



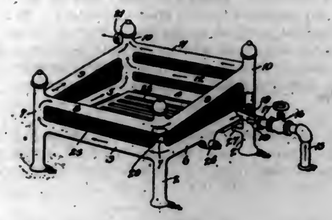
2. In an excavating machine with a cable supported traveling platform, a rectangular excavating bucket depending from the rear end of said platform and hinged thereto, a stirrup shaped piece secured to the upper part of the rear portion of said bucket and extending across the top thereof, a shield piece secured to the upper front portion of said bucket and extending across the top thereof, a cross piece secured to the upper front corners of said bucket and extending across the top thereof, secured to the central portion of said cross piece, a pair of brackets having a grooved wheel journaled between their upper ends, cable connection between said wheel and a similar wheel depending from said traveling platform, and a bridle having its ends secured to the front end of said bucket and its center in articulation with said cable connection.

[Claim 1 not printed in the Gazette.]

1,252,176. WATER-HEATING FIREPLACE GRATE AND BASKET. MARION G. READ, New York, N. Y. Filed July 9, 1917. Serial No. 179,518. (Cl. 126—132.)

1. A water-heating, fire-place basket comprising a frame having a set of tubular side, end, front and rear elements in upper and lower courses which are vertically connected by tubular corner posts, corner legs elevating the basket, one of said legs having a supply connection communicating with the lower course, a baffle interposed between the chamber in said leg and the relative post, one of the elements of the lower course opening into the post behind and above the baffle, said baffle preventing a circuit of water through the lower course, and a baffle in one of the posts and between the two courses to prevent flow of water directly up through the post.

2. A water-heating, fire-place basket comprising a frame having a set of tubular side, end, front, and rear elements in upper and lower courses which are vertically connected by tubular corner posts, the lower course being horizontal, carrying a grate and the upper course being inclined downwardly and forwardly, corner legs elevating the basket, one of said legs having a supply connection communicating with the lower course, a baffle interposed between the chamber in said leg and the relative post, one of the elements of the lower course opening into the post behind and above the baffle, said baffle preventing a circuit of water through the lower course, and a baffle in one of the posts and between the two courses to prevent flow of water directly up through the post.



3. A water-heating, fire-place basket comprising a frame having a set of tubular side, end, front, and rear elements in upper and lower courses which are vertically connected by tubular corner posts, corner legs elevating the basket, one of said legs having a supply connection communicating with the lower course, a baffle interposed between the chamber in said leg and the relative post, one of the elements of the lower course opening into the post behind and above the baffle, said baffle preventing a circuit of water through the lower course, and means interposed in the channel between the lower end of the upper course and the lower course to divert water through the lower course.

4. A water-heating, fire-place basket comprising a lower course of communicating tubes having corner legs and an inclined upper course of communicating tubes, a baffle in one of the posts for preventing flow of water from the lower course into the lower end of the upper course, one of the legs having an intake passage leading to one of the members of the lower course, and a baffle interposed at the junction of said leg and its respective post and on one side of which one member of the lower course communicates with said post.

1,252,177. MOUTH-GAG. JOSIAH B. REDFIELD, North Platte, Nebr. Filed July 23, 1917. Serial No. 182,191. (Cl. 128—24.)

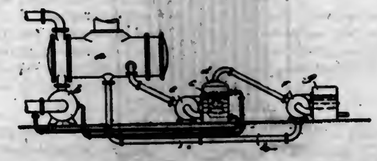


1. In an instrument of the character set forth, the combination with relatively movable jaw separating members, of a tongue depressor member including a stem provided with a curved portion that is slidably engaged with one of the jaw separating members to cause the member to assume different angular relations upon its sliding movement.

4. In an instrument of the character set forth, the combination with pivotally conected jaw separating members having central inset jaw and lip engaging loops, one of said loops having a fixed guideway, a tongue depressor plate having a curved stem portion slidable in the guideway to cause the plate to assume different angular relations with respect to the jaw carrying it, and a set screw threaded into the inner side of the guideway and engaging the stem portion for holding it in different positions, said set screw being accessible in the loop of the other member when the jaws are closed.

[Claims 2 and 3 not printed in the Gazette.]

1,252,178. EVACUATION AND COMPRESSION OF GASES. EDMUND SCOTT GUSTAVE REES, Stafford, England. Filed May 17, 1915. Serial No. 28,794. (Cl. 230—14.)



1. Multi-stage apparatus for the production of vacua comprising a rotary air pump connected with the space to be evacuated, a sealed receptacle containing water, means for maintaining said water at a comparatively low temperature, a second rotary air pump connected with the air space of the sealed receptacle, a water circuit for the first pump fed from the sealed receptacle and a separate water circuit for the second pump.

2. Apparatus for the production of vacua comprising a sealed receptacle containing water, means for maintaining said water at a comparatively low temperature, a rotary air pump, connections to the suction side of the pump from the water in the sealed receptacle and from the space to be evacuated, a second rotary air pump delivering to the atmosphere, connections to the suction side of said pump from the air space of the sealed receptacle and from a water supply.

3. Apparatus for the production of vacua comprising a sealed receptacle containing water, means for maintaining said water at a comparatively low temperature, a rotary air pump, connections to the suction side of the pump from the water in the sealed receptacle and from the space to be evacuated, an open receptacle containing water, a second rotary air pump delivering to said open receptacle, connections to the suction side of the second air pump from the air space of the closed receptacle, from the water space of the vessel to be evacuated and from the water space of the open receptacle.

1,252,179. DENTAL TOOL. SHERIDAN RISLEY, Cleveland, Ohio, assignor to The Cleveland Dental Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 18, 1916. Serial No. 137,584. (Cl. 32—10.)

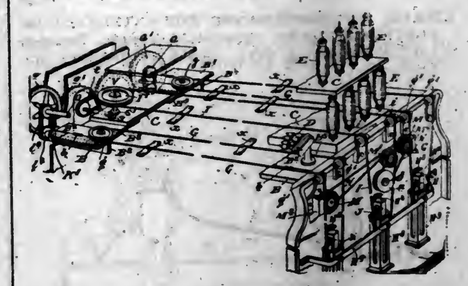


1. A condensing tool having a working face provided with a groove parallel with its side edge and extending entirely around the same, the central portion of said face being smooth and uninterrupted.

2. A condensing tool having a working face provided with a groove parallel with its side edge, the central portion of said face being smooth and uninterrupted.

1,252,180. CLEANER FOR SPINNING-MACHINES. GUS F. ROBERTS, Fries, Va. Filed Aug. 16, 1915. Serial No. 45,753. (Cl. 118—19.)

1. The combination with the machine frame, of an endless cleaning cord traversing the frame carrying laterally projecting wipers and having a vertically disposed portion at one end of the frame, a brush mounted on one end of the frame for cleaning the wipers on the vertically disposed portion of the cord, and a shield for holding the wipers in engagement with the brush.



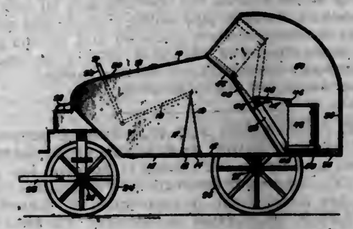
2. The combination with the machine frame of the thread-board, the roller-beam, the drawing-rolls, gearing for driving the drawing rolls, an endless cleaning cord traversing the thread-board and roller-beam, a horizontally arranged pulley for guiding and driving the cord the axis of which extends through the roller-beam and the edge of which overlies the thread-board and holds one side of the endless cord over the thread-board, a support for said pulley mounted to turn about a vertical axis for moving the pulley sidewise, and gearing arranged below the roller-beam and which is connected with the drawing-roll driving mechanism for actuating said pulley.

3. The combination with the machine frame and its thread-board of an endless cleaning cord traversing the frame, a pulley for the cord overlying the thread-board, and a support for said pulley which is shiftable sidewise for moving the pulley out of the way of the thread-board when the latter is raised.

8. The combination with the roller-beam, back-board and hinged thread-board of a spinning machine, of an endless cleaning cord therefor, a horizontally arranged pulley for guiding the cord at one end of the machine and for holding parallel portions of the cord over the back-board and thread-board, driving mechanism for said pulley, and a swinging bracket which supports the pulley and permits it to moye sidewise away from the thread-board.

[Claims 4 to 7 and 9 not printed in the Gazette.]

1,252,181. WAGON FOR COLLECTING AND CONVEYING ASHES. JOSEPH RUZICKA and FRANK KUBOVY, Prince George county, Va. Filed Apr. 6, 1917. Serial No. 160,188. (Cl. 214—1.)

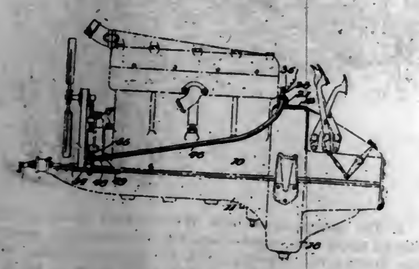


2. In a device of the class described, a wagon provided with a dust-proof receiving chamber, an elevating device mounted within said chamber and comprising a plurality of arms, a plate member having an unobstructed rear edge connecting said arms at their lower ends, flanges upwardly and inwardly turned and formed on the sides of the plate, a receptacle having a flanged portion on the base thereof, engaging the flanges first named, a shaft for rigidly mount-

ing said arms, a pinion carried by the shaft, a gear wheel meshing with the pinion and means for rotating said gear wheel.

[Claim 1 not printed in the Gazette.]

1,252,182. OIL-DISTRIBUTER FOR INTERNAL-COMBUSTION ENGINES. EDMUND O. SATHER, Berkeley, Cal. Filed Mar. 9, 1917. Serial No. 153,789. (Cl. 123—198.)



1. An oil distributer for internal combustion engines having a magneto for the engine mounted upon the engine flywheel, said distributer including a magneto contact mounting connected to the crank case of the engine over the flywheel and forming an intake, a scoop extending from the said intake and communicating interiorly of the casing for collecting oil thrown up by the flywheel and directing such oil into the intake, and a discharge terminal connected with the intake and communicating with the crank case of the engine at the extremity thereof opposite the said fly wheel.

2. An oil distributer for internal combustion engines having a magneto for the engine mounted upon the engine flywheel, said distributer including a magneto contact mounting connected with the crank case of the engine over the flywheel, a scoop extending from the said intake and provided at its inner extremity with a reduced intake pipe communicating interiorly of the crank case of the engine for collecting oil thrown up by the flywheel and directing such oil into the intake, and a discharge terminal connected with the intake and communicating with the crank case of the engine at the extremity thereof opposite the said flywheel.

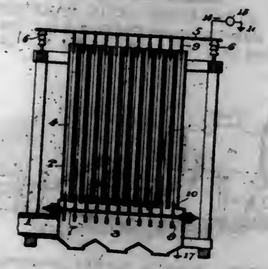
3. An oil distributer for internal combustion engines having a magneto for the engine mounted upon the engine flywheel, said distributer including a contact mounting having a hollow body forming an intake and provided with an oil receiving chamber, a scoop entering through the bottom wall of the body into the said chamber and communicating interiorly of the crank casing for collecting oil thrown up by the flywheel and directing such oil into the said chamber, a discharge pipe leading from the said chamber, and a discharge terminal connected with the said pipe and communicating with the crank case of the engine at the extremity thereof opposite the said flywheel.

[Claims 4 to 12 not printed in the Gazette.]

1,252,183. APPARATUS FOR ELECTRICAL SEPARATION OF SUSPENDED PARTICLES FROM GASES. WALTER A. SCHMIDT and GEORGE C. ROBERTS, Los Angeles, Cal., assignors to International Precipitation Company, Los Angeles, Cal., a Corporation of California. Filed Sept. 9, 1913. Serial No. 788,817. (Cl. 183—7.)

2. Apparatus for electrical separation of suspended particles from gases, comprising a chamber provided with a gas flue connection, a multiplicity of collecting electrodes in the form of vertically extending tubes opening at one of their ends into said chamber, and open at their other ends, a support extending over said tubes and insulated therefrom, and discharge electrodes formed as flexible members hung from said support and extending axially in the respective tubes.

6. An apparatus for electrical separation of suspended particles from gases, comprising a header provided with a gas inlet, a multiplicity of vertically extending pipes connected to said header, a supporting means extending over said pipes, and spaced and insulated therefrom, discharge electrodes formed as flexible members hung from said supporting means and extending axially in the respective pipes, and means extending below said pipes and insulated therefrom and engaging said flexible members to hold the same from lateral movement.



12. In an apparatus for electrical separation of suspended particles from gases, a collecting electrode having an extended surface, an ionizing electrode formed as a filament parallel to the collecting electrode and extending at one end beyond the edge of said collecting electrode, the space between the two electrodes adjacent to such edge, being open, for free passage of gas, and said ionizing electrode having an enlargement, adjacent to such edge, to reduce the surface field intensity at the adjacent portion of the ionizing electrode.

[Claims 1, 3 to 5, 7 to 11, and 13 to 15 not printed in the Gazette.]

1,252,184. DETACHABLE LINK. WALTER B. SCHREYER, Detroit, Mich. Filed Dec. 13, 1915, Serial No. 66,530. Renewed Sept. 22, 1917. Serial No. 192,830. (Cl. 59—88.)



1. A device of the character described comprising a pair of superposed link elements pivotally supported at their centers, each being formed to provide a pair of oppositely disposed J-shaped hook members integrally connected intermediate their ends by a transverse plate.

2. A device of the character described comprising a pair of substantially oval shaped link elements, each being formed to provide a pair of oppositely disposed hook members integral with a transverse plate, and an inset pin pivotally connecting said plates.

3. A device of the character described comprising a pair of elongated link-elements, each having openings disposed at opposite sides of the longitudinal center thereof, and obliquely with respect to each other, alining transverse bars centrally disposed of each link-element, a pivot pin connecting said transverse bars, and abutments carried by each link-element and adapted to be engaged by the walls of said openings.

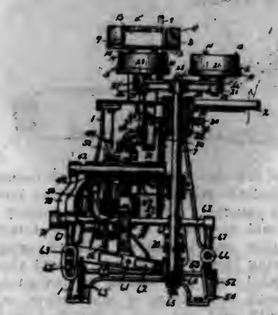
4. A device of the character described comprising a pair of elongated link-elements each formed to provide oppositely disposed J-shaped members having bevel walled openings disposed at opposite sides of the longitudinal center thereof, and obliquely with respect to each other, centrally disposed alining transverse bars connecting the J-shaped members, a pivot pin connecting said transverse bars, and abutments, having their opposite ends beveled, carried by each link-element and adapted to be engaged by the beveled walls of said openings.

1,252,185. DIAPHRAGM FOR ELECTROLYTICAL AND ELECTRO-OSMOTICAL PURPOSES. BOTHO SCHWERIN, Frankfort-on-the-Main, Germany, assignor to Gesellschaft für Elektro-Osmose M. B. H., Frankfort-on-the-Main, Germany, a Corporation. Filed Jan. 4, 1913. Serial No. 740,260. (Cl. 204—28.)

1. A diaphragm for electrolytical and electro-osmotic purposes comprising a molded article of carborundum and corundum in a porous, coherent form, substantially free from impurities and oxidation products.

2. A diaphragm for electrolytical and electro-osmotic purposes comprising a molded article of carborundum and corundum made up of particles of a colloidal nature in a porous coherent and refractory form, substantially free from impurities and binding media.

1,252,186. COLLAR-MOLDING MACHINE. JOHN J. SELTENREICH, Chicago, Ill., assignor to National Chemical Co., Syracuse, N. Y., a Corporation of New York. Filed June 21, 1915. Serial No. 35,317. (Cl. 68—9.)

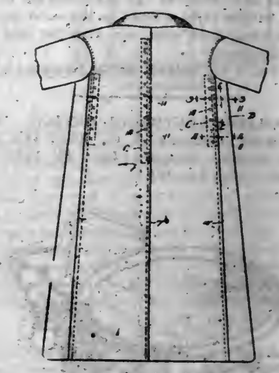


1. In a collar molding and edging machine, a frame, a shaping head carried by the frame, a rotary and vertically movable shaft carried by the frame, a carriage mounted on the shaft, a collar receiving ring eccentrically mounted on said carriage, a lever having one end connected to said shaft and its opposite end provided with a slidable pivotal connection to the frame, a yoke connected to said lever intermediate the connections of the lever to the frame and shaft, respectively, means for raising and lowering the yoke, and a spring secured to the frame and to the lever intermediate the connection of the yoke to the lever and the pivotal slidable connection of the lever to the frame.

2. In a collar molding and edging machine, a shaping head, a rotary and vertically movable shaft, a carriage mounted on said shaft, a collar receiving ring eccentrically mounted on said carriage, a lever for moving said shaft vertically, a yoke connected to said lever, means allowing the yoke and lever to move vertically after the ring has been brought into pressing coaction with the shaping head by vertical movement of said shaft, means actuated by said yoke for applying pressure beneath the collar supporting ring when the ring is in pressing coaction with the head, and means for producing relative rotary movement of the collar receiving ring and the shaping head while they are in pressing coaction.

3. In a collar molding and edging machine, a shaping head, a rotary and vertically movable shaft, a carriage mounted on said shaft, a collar receiving ring eccentrically mounted on said carriage, a lever for moving said shaft vertically, a yoke connected to said lever, means allowing the yoke and lever to move vertically after the ring has been brought into pressing coaction with the shaping head by vertical movement of said shaft, and means actuated by said yoke for applying pressure beneath the collar supporting ring when the ring is in pressing coaction with the head.

1,252,187. GARMENT. CONRAD B. SHANE, Chicago, Ill. Filed May 5, 1917. Serial No. 166,555. (Cl. 2—65.)



1. In a garment, a seam between adjoining fabric sections consisting of an edge of each overlapped by the other, the inner fabric edge turned toward the outer fabric to provide a channel normally open for the length of the seam and disposed entirely beneath the outer fabric edge, and connections between the outer fabric edge and the adjoining fabric section at intervals throughout the length of the seam free of the turned edge of the under fabric, substantially as described.

2. A garment seam between adjoining fabric sections comprising a turned edge on one section facing the other and providing an open channel for the length of the seam, connections at intervals between the edge of the other section and the body of the first mentioned section, the connections being removed from the turned edge to not interfere with the channel therein formed, and a third fabric section connected to the under side of each of the first two mentioned sections, there being a plurality of openings in the third section communicating with the under side of the garment, substantially as described.

3. A garment seam between adjoining fabric sections comprising a lining of waterproof material applied around the edge of one garment section and extending back on one side thereof substantially twice as far as on the other side, the edge being turned on the side having the greater portion of the lining to provide a channel whose walls are protected by the lining, and the other garment section being laid over the turned edge of the first mentioned section and secured thereto at intervals at points removed from the turned edge to not interfere with the channel therein formed, substantially as described.

[Claim 4 not printed in the Gazette.]

1,252,188. GARMENT. CONRAD B. SHANE, Chicago, Ill. Filed July 17, 1917. Serial No. 180,988. (Cl. 2—65.)



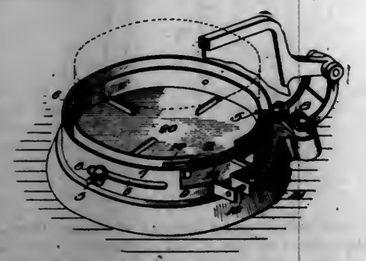
1. A garment seam between adjoining fabric sections comprising a barrier strip on one fabric edge underlying

the other fabric edge, a detachable connection between the edges of the two fabric sections, and a third fabric section connected to the underside of each of the first two mentioned sections, there being a plurality of openings in the third section communicating with the underside of the garment, substantially as described.

3. As a new article of manufacture, a garment comprising front and back sections suitably joined together on a seam line, one of said sections projecting beyond said seam line and overlying the other section to provide a flap, and a barrier strip secured to the outer face of the other section adapted to coöperate with the said flap for the purpose specified.

[Claims 2 and 4 not printed in the Gazette.]

1,252,189. CHEESE-CENTERING DEVICE. WILLIAM THOMAS SMITH, Columbia, S. C. Filed Jan. 3, 1916, Serial No. 69,849. Renewed June 26, 1917. Serial No. 177,151. (Cl. 33—191.)

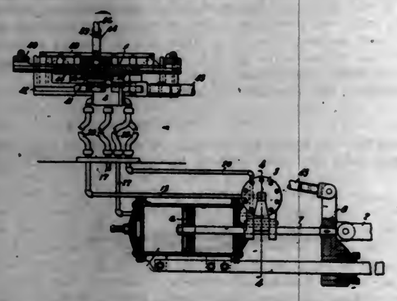


1. A centering attachment for cheese cutters comprising an inner member, means by which the diameter of said member may be adjusted, an outer member, means for adjusting the diameter of said outer member, and means adapted to effect a movement of said inner member relatively to said outer member.

5. A centering attachment for cheese cutters comprising a cheese engaging member having spaced-apart ends, an adjustable connection between said ends, threaded rods projecting outwardly from said engaging member, a second member adapted to encircle said cheese engaging member and to be clamped to a cheese cutter platform, said last mentioned member having a series of longitudinal slots through which said bolts are designed to project, and thumb nuts on said bolts for effecting a movement of said inner member relatively to said outer member.

[Claims 2 to 4 not printed in the Gazette.]

1,252,190. STEAM-ENGINE REVERSING-GEAR. JACOB RUSH SNYDER, Pittsburgh, Pa., assignor to Percy E. Donner, Pittsburgh, Pa. Filed Aug. 15, 1916. Serial No. 115,074. (Cl. 121—98.)

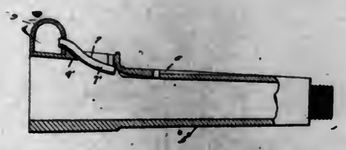


1. In valve reversing mechanism, a fluid pressure motor for operating a reversing rod, fluid pressure locking means for locking said rod, valve mechanism for controlling the supply of fluid to the motor and the locking means, means for operating the valve so that the locking means is unlocked and motive fluid is admitted to the motor to operate it, and connections between the valve mechanism and the reversing rod for moving said mechanism bodily to thereby actuate it to exhaust the motive fluid from the motor and admit motive fluid to the locking means when the reversing rod has traveled the desired extent.

6. A power reverse gear for locomotives including a reversing rod, a fluid pressure motor for operating said rod, fluid pressure locking means for locking the rod, valvular mechanism for controlling the supply of motive fluid to and from the motor and the locking means and arranged so that normally motive fluid is exhausted from the motor and the lock applied, means for manually operating the valve to unlock the lock and admit motive fluid to the motor to operate it, and connections between the valvular mechanism and the reversing rod to move said mechanism bodily to actuate it to exhaust the motive fluid from the motor and lock the rod when the reversing rod has traveled the desired extent.

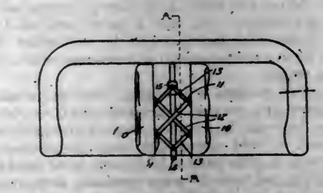
[Claims 2 to 5 not printed in the Gazette.]

1,252,191. SPINDLE-LUBRICATOR. OSCAR H. STAIR, Flatonia, Tex. Filed Sept. 15, 1916. Serial No. 120,306. (Cl. 64—27.)



In a device of the class described, a spindle formed with an outer longitudinal groove, an oil receiving receptacle carried by said spindle, a cap removably secured to the outer end of said receptacle, a ledge formed integrally upon said spindle and having an inclined outer wall, said spindle being formed in advance of said receptacle with an elongated slot, said spindle having an opening extending through the bottom of said groove so as to communicate with said slot, and a flexible tube resting upon the inclined wall of said ledge and having one end projecting into said receptacle and its opposite end projecting into said slot.

1,252,192. AUTOMOBILE-SEAT ATTACHMENT. CHARLES D. STANFORD, Bangor, Me. Filed Mar. 10, 1917. Serial No. 153,883. (Cl. 155—26.)

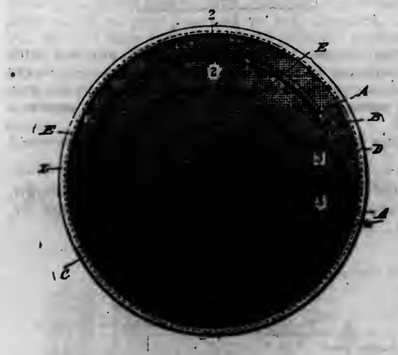


1. In combination with the seat of a vehicle of a spacing attachment comprising, a pair of cushion members, adjustably related to each other, means for locking said members in their adjusted positions, a supporting member adapted to be removably and adjustably secured to the seat and means for locking the same in its vertically adjusted positions.

2. In combination with the seat of a vehicle of a spacing attachment, comprising a substantially U shaped supporting member adjustable vertically, means for locking the same in its adjusted position, a pair of cushion spacing members adjustable relative to each other, and means for locking said cushion members in their adjusted positions.

3. In combination with the seat of a vehicle of a spacing attachment comprising, a vertically adjustable U shaped supporting member, guide bearings attached to said seat to receive the legs of said supporting member, means mounted on said guide bearings for locking the supporting member in its vertically adjusted positions, a pair of substantially rectangular cushion members, bearings provided upon the opposed faces of said cushion members, links pivotally connected to said bearings, two of the end links connected pivotally to the supporting member, a slide mounted on the supporting member, the two remaining end links pivoted to said slide and means for locking said slide to said supporting member.

1,252,193. GLARE-DIMMER. ELIAL M. STAPLES, Elizabeth, N. J. Filed Dec. 5, 1916. Serial No. 135,228. (Cl. 240—48.4.)



1. A dimmer for lamps adapted to replace the glass of the front of the lamp, comprising screens, a sheet of dimming material intermediate the same, said screens being provided with corrugations for holding the parts together.

6. A dimmer for lamps comprising two sheets of wire mesh work, adapted to replace the glass at the front of a lamp, a sheet of dimming material incorporated between said screens and fastened thereto, a binding about the marginal edges of said screens and the sheet of screening material and stitched thereto, said screens and sheet of dimming material being further held together by corrugating the same.

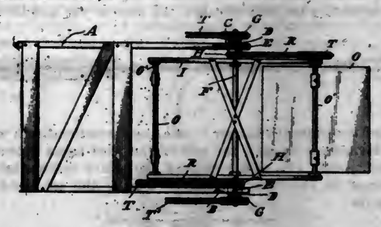
[Claims 2 to 5 not printed in the Gazette.]

1,252,194. SANITARY CLOSURE FOR CONTAINERS. ROBERT HARRY STEVENS, Newark, N. J. Filed Jan. 22, 1917. Serial No. 143,807. (Cl. 215—80.)



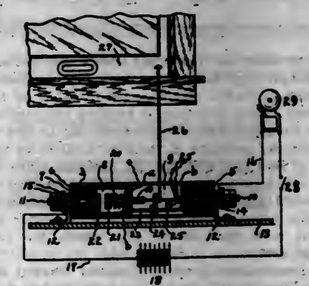
In a closure the combination of a lower member having a pouring orifice located within the circumferential limits of the member, an integral, angularly disposed circumferential pouring spout having an upper beaded edge, with an upper member having a depressed portion to snugly engage the opening in lower member and a portion of said upper member being formed into a closure flap to completely cover the pouring spout when in closed position, and provided with a circumferential bead to coact with bead on the pouring spout to form a fastener for the closure flap.

1,252,195. FAN-PROPELLER. LEONARD STUDY, Thurman, Iowa. Filed Nov. 17, 1915. Serial No. 62,045. (Cl. 170—148.)



A fan propelling apparatus, comprising a stationary frame with two parallel bars recessed at their ends, bearing sleeves adjustably held in said recesses and each having a series of sprocket teeth about its circumference, a driving shaft mounted in said bearings, sprocket wheels fixed to said shaft, a rectangular outlined frame journaled centrally upon said shaft, fan shafts journaled in the rectangular frame and each having an end projecting through the latter in opposite directions, sprocket wheels keyed to the projecting ends of the fan shafts and having sprocket chain connections with the teeth upon said bearing sleeves.

1,252,196. COMBINED FIRE AND BURGLAR ALARM. ARTHUR A. TAYLOR and HENRY J. SCHATZ, Omaha, Nebr. Filed Mar. 2, 1917. Serial No. 151,972. (Cl. 200—33.)



3. In devices for the purpose described, a sleeve, an insulating block within the sleeve, a second insulating block provided with a chamber and disposed within the sleeve, a bracket connected with the sleeve and disposed between the insulating blocks, an electrical conductor stationary with and circumscribed by the first named insulating block, a second electrical conductor circumscribed by the second insulating block and having a stationary part within the chamber thereof, a third electrical conductor in electrical communication with the first named electrical conductor, said third electrical conductor being slidably mounted in a part of the second insulating block and projecting within said chamber, resilient means tending to cause a movement of the third electrical conductor into engagement with the second electrical conductor, and a fusible strand in the sleeve traversing the bracket, said strand having its respective ends connected with the first and third electrical conductors to control said resilient means for maintaining the second and third electrical conductors in disengaged relation.

[Claims 1 and 2 not printed in the Gazette.]

1,252,197. COVER-HOLDER AND STOVE-LID LIFTER. EGBERT S. THOMAS, Nevada City, Cal. Filed Apr. 18, 1916. Serial No. 91,944. (Cl. 65—12.)

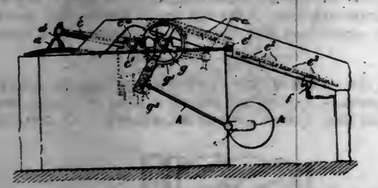
A combination cover holder and stove lid lifter including two pairs of wire strands twisted together to form a shank or stem, and having outer projecting engaging por-

tions, and a handle having a bore or opening enlarged to receive the inner portion of the stem or shank, one of the wires of the said stem or shank being extended inwardly or rearwardly entirely through the bore of the handle and



having a terminal exterior loop or eye constituting a stop and forming a hanger, the end of the wire being extended inwardly into the said bore and the latter being slightly enlarged at the rear portion to receive the said end of the wire.

1,252,198. APPARATUS FOR MANIPULATING METALLIC ARTICLES. RICHARD BEAUMONT THOMAS, London, England, HUBERT SPENCE THOMAS, Llandaff, and WILLIAM ROBERT DAVIES, Whitchurch, Wales; Nora Constance Beaumont Thomas, Henry Robert William Anderson, and Charles Bathurst administrators of said Richard Beaumont Thomas, deceased. Filed June 20, 1914. Serial No. 846,305. (Cl. 271—27.)



1. Mechanism for removing sheets one by one from a stack comprising, in combination, a journaled arm provided with an elastic cup the edge of which, by the motion of the arm in one direction, is brought onto the uppermost sheet in the stack and is spread out flat or approximately flat under the pressure of the arm so that on the reverse motion of said arm atmospheric pressure alone causes the cup to act as a sucker on the uppermost sheet which is thus picked up and removed from the stacked sheets, means for wetting the edge of the cup prior to the engagement with each sheet, and means for moving the journaled arm.

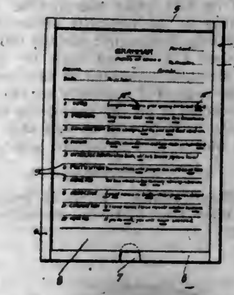
4. In mechanism for manipulating stacked sheets and removing the sheets one by one from the stack, the combination of means comprising an arm fixed on a rocking shaft and having on its free end an elastic cup having a suction releasing valve and an actuating lever for said valve, said arm and cup receiving an overthrow swinging motion due to the forward and backward partial rotation of the said shaft, the elastic cup at the end of the swinging of the arm in one direction being brought onto the uppermost sheet in the stack on which it is flattened or spread out so that on the arm commencing its reverse motion atmospheric pressure causes the sheet to adhere to the cup and to be picked up and carried over, a chute embodying bars between which the arm and cup pass and to which the sheet is transferred, and a support or pressure bar below the chute with which the valve-opening lever carried by the swinging arm is made to contact and thereby effect the opening of the valve in the cup and the release of the suction in the cup by the time the sheet reaches or nearly reaches the surface of the chute.

[Claims 2 and 3 not printed in the Gazette.]

1,252,199. METHOD OF AND MEANS FOR CORRECTING TEST-PAPERS. OLIVER S. THOMPSON, Compton, Cal. Filed Apr. 28, 1917. Serial No. 163,783. (Cl. 35—12.)

papers and a stamp for making marks on a test paper while in the holder at points adjacent to and for the purpose of indicating the characters of the test which represent the correct answers.

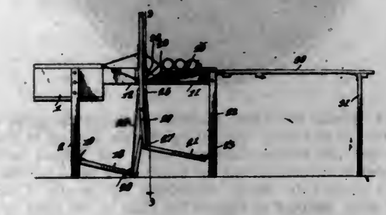
5. In means for correcting test papers, a holder adapted to contain a test paper and a correction sheet adapted to be placed within the holder upon the test paper, said sheet having openings extending transversely thereof which are adapted to aline with and reveal the questions



appearing on the test paper and being provided with marks adjacent to the edges of the openings, said marks adapted to appear adjacent to the characters of the test which represent the correct answers to the questions thereof.

[Claims 1, 3, 4, and 6 to 8 not printed in the Gazette.]

1,252,200. MACHINE FOR STRINGING SEED-CORN. REINERT THOMPSON, Wautoma, Wis. Filed Sept. 27, 1916. Serial No. 122,450. (Cl. 139—32.)



1. A machine for stringing seed corn having a frame, a pair of bars slidable therein, a treadle hingedly secured at one end to the frame and pivotally connected at the other end to the lower ends of said bars, a second pair of bars slidable in the frame closely adjacent the first mentioned pair of bars, a treadle hingedly secured at one end to the frame and pivotally connected at the other end to the said second pair of bars, and connections between the said treadles whereby when one treadle is depressed the other treadle is simultaneously raised.

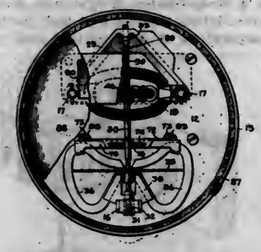
[Claims 2 and 3 not printed in the Gazette.]

1,252,201. ELECTRIC METER. ELIHU THOMSON, Swampscott, Mass., assignor to General Electric Company, a Corporation of New York. Filed Oct. 10, 1914. Serial No. 866,043. (Cl. 171—265.)

1. In an electric meter, a supporting back, two supporting members secured to said supporting back, a rotatable armature, two field coils mounted on said supporting members, a bracket mounted on said supporting members in a plane between said field coils, and a pivot bearing for said armature carried by said bracket.

8. In an electric meter, a supporting back, two supporting members secured to said supporting back, a field coil, and clamps having an ear with an aperture therein secured to said field coil, the apertures of said clamps operatively engaging said supporting members.

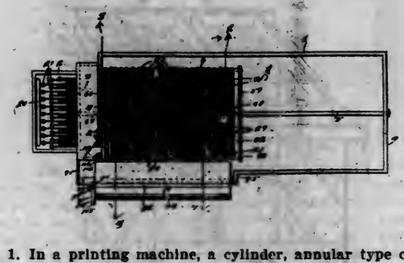
12. In an electric meter, a rotatable armature, a pair of permanent magnets presenting respectively poles of opposite polarity toward said armature, and magnetic means equalizing the effects of the two magnets upon the armature.



17. In an electric meter, a rotatable armature, a pair of permanent magnets presenting respectively poles of opposite polarity toward said armature, a non-magnetic sheet metal member clamped to said magnets, a soft iron member supported by said non-magnetic member and adjustable in a horizontal direction toward and away from the two magnets respectively, and means for securing the iron member to the non-magnetic member.

[Claims 2 to 7, 9 to 11, and 13 to 16 not printed in the Gazette.]

1,252,202. CHECK WRITER. CARL M. TJOSVOLD, Kramer, N. D. Filed Sept. 6, 1917. Serial No. 189,934. (Cl. 101—95.)



1. In a printing machine, a cylinder, annular type carrying members movably surrounding the same, and means for imparting longitudinally intermittent motion to the cylinder and pre-determinedly selecting certain type of said members.

3. In a printing machine, a printing cylinder, annularly movable type carrying elements thereon carrying devices to be actuated radially outwardly, whereby certain type are selected, means carried by the cylinder to contact with said devices for lining up the selected type opposite an impression member, and means for returning said devices to their initial position.

26. In a printing machine, a printing cylinder having a printing line of type, camming means on one end of the cylinder, a platen roller provided with a radially movable tensioned impression segment, and means carried by the segment to engage the camming means to move the segment toward the printing line.

[Claims 2, 4 to 25, 27, and 28 not printed in the Gazette.]

1,252,203. RHEOSTAT. WILLIAM F. VALCKE, Jr., Chicago, Ill. Filed Oct. 30, 1916. Serial No. 128,582. (Cl. 219—49.)

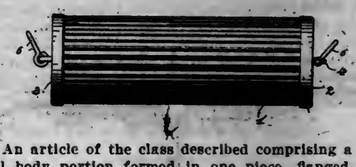
1. In a lamp socket, the combination of a porcelain having an annular shoulder formed at its upper end, a resistance coil wound around said shoulder, a swinging arm centrally mounted upon the porcelain and having a brush wiping on said coil, plug contacts associated with the socket, one of said contacts being connected to one end of said coil, and means for connecting electric wires to the opposite contact and to said swinging arm.

2. In a lamp socket, the combination of a porcelain having an annular shoulder formed at its upper end, a resistance coil seated on said shoulder and having its turns exposed in a substantially semi-circular contact strip, a swinging arm mounted on said porcelain and



having a brush movably bearing on said strip, plug contacts associated with the socket, one of said contacts being connected to one end of said coil, and means for connecting electric wires to the opposite contact and to said arm.

1,252,204. METAL BAG. OLINDO VALERI, Genoa, Italy. Filed Jan. 25, 1917. Serial No. 144,465. (Cl. 220—2.)



1. An article of the class described comprising a cylindrical body portion formed in one piece, flanged heads fitted on the ends of the cylindrical body portion, a rod extending centrally through the heads and cylindrical body portion, means on the rod for securing same in position to lock the heads and cylindrical body portions together, and handles pivotally mounted on the last mentioned means by which the article can be lifted.

[Claim 2 not printed in the Gazette.]

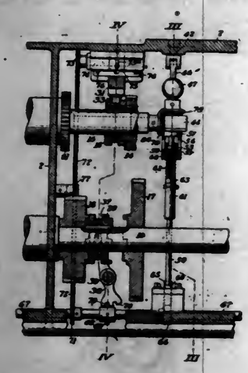
1,252,205. LOCKING MECHANISM FOR GEAR-SHIFTS. JOHN VAN HAMERSVELD, Avalon, Pa., assignor to The Duff Manufacturing Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Apr. 5, 1917. Serial No. 159,868. (Cl. 74—58.)

1. In mechanism of the character described, the combination of a centrifugal governor, a driving connection between the governor and a moving part of the machine to which the mechanism is applied, a gear shifting member, and a lock for said member, said lock having an actuating engagement with the governor, substantially as described.

3. In mechanism of the character described, the combination with a plurality of sets of change gears, and separate means for shifting each set of such gears, of a locking device for each shifting means, a centrifugal governor, a driving connection for the governor, and means actuated by the governor for simultaneously actuating said devices, substantially as described.

6. In mechanism of the character described, the combination of a rotatable shaft, a governor, a driving connection for the governor, connections actuated by the

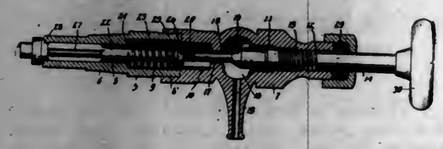
governor for rotating the shaft, a plurality of gear shifting members, and means actuated by said shaft for simultaneously locking and releasing the gear shifting members, substantially as described.



7. In mechanism of the character described, the combination of a governor, a driving connection therefor, a rack member arranged to be actuated by the governor, a spring opposing the action of the governor in one direction, and a locking shaft geared to said rack member, substantially as described.

[Claims 2, 4, and 5 not printed in the Gazette.]

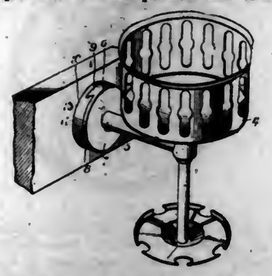
1,252,206. GAGE-COCK. HENRY A. VORMENG, Rochester, N. Y. Filed Apr. 19, 1917. Serial No. 163,266. (Cl. 137—138.)



A valve, comprising a casing with a chambered portion from which leads an exit nozzle and having a chambered portion at its inner end, a shell having threaded connection with said casing, and having a chambered portion in registration with the chambered end of the casing in which said shell engages, a valve stem extending through said casing and shell, and having a beveled shoulder forming a valve, the wall of the casing which separates the chamber from which the nozzle leads and the chambered portion at the end of the casing having a beveled valve seat engaged by the beveled valve upon said stem, a valve upon the end of the stem which projects beyond the end of the shell and adapted to seat against the end of the latter, said stem having a threaded portion and having guiding members radiating therefrom and adapted to hold the valve stem in position to cause the valves to seat properly, the inner surface of said shell having a shoulder, a coiled spring mounted upon the stem and bearing against said shoulder, and a washer mounted upon the threaded portion of the stem against which the other end of the spring bears.

1,252,207. BATH-ROOM FIXTURE. FRANK O. WALKER, Chicago, Ill., assignor to Central Specialty Manufacturing Co., Chicago, Ill., a Corporation of Illinois. Filed Feb. 16, 1917. Serial No. 148,989. (Cl. 248—18.)

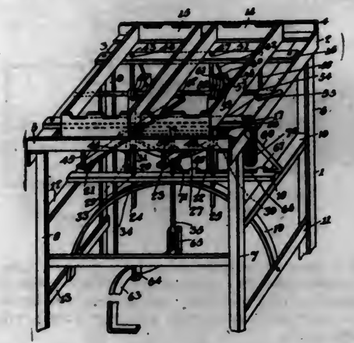
2. A bath-room fixture comprising a wall portion adapted to receive attaching members, a member secured to the fixture body and adapted to overlie said wall portion when the fixture is positioned and conceal the attaching members, a wedge-shaped tongue and groove connection between the fixture member and wall portion adapted to prevent separation of said portion and member in one



direction, a resilient lock for preventing such separation in the opposite direction, and said portion and member when assembled presenting a finished surface in accordance with the finish of the fixture, substantially as described.

[Claim 1 not printed in the Gazette.]

1,252,208. ROOFING-TILE MACHINE. OTTO WALTER, Jr., De Kalb, Ill. Filed Apr. 6. 1917. Serial No. 160,200. (Cl. 25—42.)



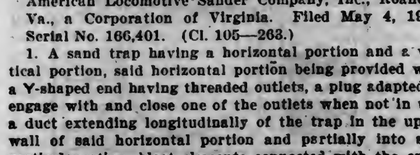
1. In a roofing tile machine, the combination with a plurality of open bottomed molds, of raisable means for supporting a pallet within each open bottomed mold, means connecting such raisable means together to operate simultaneously, and a finger swingably supported at its lower end and adapted to automatically assume a vertical position beneath the connecting means to support the raisable means in the raised position.

3. In a roofing tile machine, a perforating device comprising a suitably journaled rocking rod, a crank handle at one end and arms comprising two portions having opposing grooves adapted to receive an arc-shaped perforating needle, and a bolt connecting such portions together to clamp the needles within the grooves.

[Claim 2 not printed in the Gazette.]

1,252,209. POWER-TRANSMISSION MECHANISM. WILLIAM L. WARD, Saguache, Colo. Filed Sept. 5, 1916. Serial No. 118,522. (Cl. 180—53.)

In a device of the class described, in combination, a drive and a driven shaft, the driven shaft being mounted at right angles to the drive shaft, bearings for said respective shafts, a yoke formed upon one end of said drive shaft, a shaft extension universally connected in said head at one end and having a polygonal socket portion at its opposite end, a crank receiving socket member carried by said drive shaft at its opposite end, gears fixed upon both shafts and adapted to intermesh, a power transmitting device having a shaft, the socket portion of said extension shaft rotatably fitting the shaft of said power transmitting device being limited in movement thereagainst by the gear on said drive shaft when the latter



engages the gear on the driven shaft, a throttle valve carried by said power transmitting device, a governor carried by said driven shaft and formed with a slidable lug, a crank arm secured to said valve, and a connecting rod pivotally connectible to said lug and connected to said last-named crank arm.

1,252,210. FURNACE. GEORGE P. WHITE, Parsons, Kans., assignor of one-half to S. P. Alquist, Detroit, Mich. Filed July 18, 1914. Serial No. 850,711. (Cl. 158—1.)



5. The combination with a furnace provided with a working chamber, a combustion chamber and a bridge wall between the same, of means for supplying fuel and air to the combustion chamber in the form of a vertical flame, and means for subjecting said flame to a vortical air blast which carries the flame over the bridge wall and forward spirally through said working chamber.

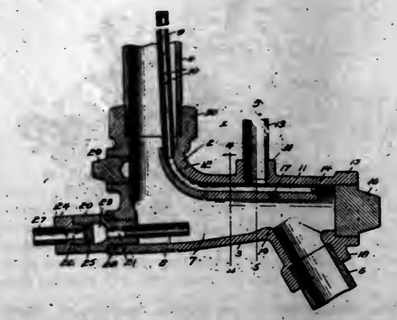
8. The combination with a furnace comprising a working chamber, a combustion chamber and a bridge wall between the same, of a vertical burner extending into the bottom of said combustion chamber, said furnace being provided with a pair of air blast ducts back of said combustion chamber and directed one toward the other but out of alinement so as to produce a vortical blast, and with a flue leading from the meeting place of the aforementioned ducts into the upper part of the combustion chamber on the side opposite the bridge wall.

[Claims 1 to 4, 6, 7, and 9 to 25 not printed in the Gazette.]

1,252,211. SANDING DEVICE FOR LOCOMOTIVES. WILLIAM H. WHITE, Roanoke, Va., assignor to White-American Locomotive Sander Company, Inc., Roanoke, Va., a Corporation of Virginia. Filed May 4, 1917. Serial No. 166,401. (Cl. 105—263.)

1. A sand trap having a horizontal portion and a vertical portion, said horizontal portion being provided with a Y-shaped end having threaded outlets, a plug adapted to engage with and close one of the outlets when not in use, a duct extending longitudinally of the trap in the upper wall of said horizontal portion and partially into said vertical portion, blast elements connected with the opposite ends of said duct, and an air supply conductor leading into the duct between said blast devices.

2. A sand trap having a horizontal portion with a Y-shaped outlet end and a vertical portion, the upper wall of the horizontal portion being provided with a longitudinally extending duct, said duct being provided with threaded outlets adapted to direct air to the outlets of the Y, a blast pipe arranged within the vertical portion of the trap and communicating at its lower end with said duct, a blast device projecting horizontally beyond the delivery end of the horizontal portion of the trap and communicating at its inner end with said duct and an air supply conductor communicating with said duct between said blast devices.



3. A sand trap comprising a vertical portion and a horizontal portion having a Y outlet end for connection with a delivery pipe, a plug adapted to be inserted into either one of the branches of the Y, a blast nozzle projecting into the trap at the angle of intersection of said portions, the upper wall of the horizontal portion being provided with a longitudinally extending duct that projects into the vertical portion, the horizontal part of said duct being provided with threaded outlets, each of which is adapted to be closed by a plug, one of said outlets being angularly positioned with reference to the bore of the duct to serve as a blast outlet, a blast device for the projecting end of the duct disposed within the vertical portion of the trap, a second blast device projecting into the horizontal portion serving to direct the air to one of the outlets of the Y, and means to connect the blast devices with a source of compressed air.

[Claims 4 and 5 not printed in the Gazette.]

1,252,212. PROCESS OF PRODUCING NOVEL ADDITION COMPOUNDS OF THE DESOXYCHOLIC ACID. HEINRICH WIELAND, Munich, Germany. Filed May 16, 1917. Serial No. 169,110. (Cl. 28—24.)

1. A process of producing addition products of desoxycholic acid with another organic substance, which comprises dissolving one component in a solvent, heating the resulting solution, and adding thereto the other component.

5. A process of producing a phenol-cholelc acid, which comprises liquefying phenol, adding to said liquefied phenol desoxycholic acid, and removing the excess of phenol by means of a solvent.

8. A synthetic cholelc acid, being a combination of desoxycholic acid and an aromatic compound in stoichiometric proportions.

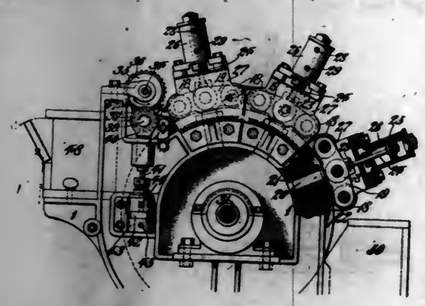
10. Phenol-cholelc acid, being a combination of desoxycholic acid and phenol and having a melting point of about 165° C.

[Claims 2 to 4, 6, 7, and 9 not printed in the Gazette.]

1,252,213. IRONING-MACHINE. ISAAC F. WILLEY, Philadelphia, Pa. Filed Sept. 30, 1913. Serial No. 792,550. (Cl. 68—9.)

1. In an ironing machine, the combination of frame sides having radially-disposed openings, a drum mounted to turn between the frame sides, brackets fixed to the frame sides, journal-bearings movable radially within said brackets and having inwardly extending stems disposed and movable radially in said openings in the frame sides,

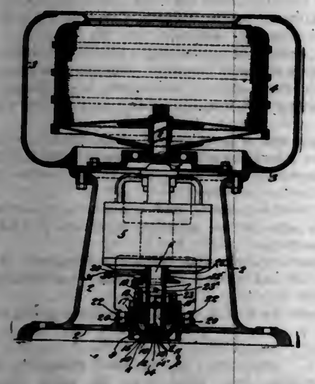
a transverse roller journaled in and extending between said bearings and opposed to the periphery of the drum, cylinders carried by the brackets and extending radially outward therefrom, pistons movable in said cylinders and having rods connected with the journal bearings, and means for supplying fluid under pressure to and exhausting the same from the cylinders at opposite sides of the pistons.



3. The combination in an ironing machine, of frame sides having radially-disposed openings, radially-disposed cylinders fixed with respect to the frame sides and spaced outwardly beyond the outer ends of said openings and arranged in radial alinement therewith, journal bearings movable radially between the outer ends of said openings and the inner ends of said cylinders and having inwardly extending stems movable radially in the openings, a drum mounted to turn between the frame sides, a transverse roller opposed to the periphery of the drum and journaled in said bearings, pistons movable in the cylinders and having rods connected with the journal bearings, and means for supplying fluid under pressure to and exhausting the same from the cylinders at opposite sides of the pistons.

[Claim 2 not printed in the Gazette.]

1,252,214. QUILL AND HOUSING FOR MOISTURE-EXTRACTORS FOR DRYING CLOTHES. ISAAC F. WILLEY, Philadelphia, Pa. Filed July 27, 1916. Serial No. 111,569. (Cl. 64—48.)



1. In a moisture extractor, the combination of a casing having a concave seat therein extending entirely across and closing the bottom of said casing, a quill having a convex lower portion adapted to rest upon said concave seat, a plurality of buttons having convex juxtaposed faces contained within said quill, the bottom button being supported above said concave seat, a spindle supported upon said buttons, and means for retaining said bearing in position within said box.

3. In a moisture extractor, the combination of a casing having a concave seat therein, a quill having a convex lower portion adapted to rest upon said concave seat, a plurality of buttons having convex, juxtaposed faces contained within said quill, a spindle supported upon said buttons, means for retaining said quill in position within said casing, comprising a flange extending laterally from said quill, a cushion composed of resilient material supported on said flange, and a gland in threaded engagement with the walls of said casing for holding said cushion in position.

5. A moisture extractor, which comprises in combination:—a casing having a concave imperforate base,—a hollow quill closely fitting within said casing and supported upon said base,—a spindle revoluble within said quill,—a gasket and a gland for retaining said quill within said casing,—and means for retaining said spindle in position.

8. The combination in a moisture extractor, of a hollow casing having a concave internal base,—a quill supported within said casing and axially alined therewith by means of an outward circular flange which fits within the casing,—a hollow gland encompassing the quill and threaded within the internally threaded upper walls of the casing,—a gasket surrounding the quill within the casing and adapted to be compressed upon the flange of the quill by the gland,—a revoluble spindle fitted within the hollow gland,—and a basal bearing between the lower end of the spindle and the inner end of the quill composed of convex bearing surfaces respectively connected with the spindle and the quill.

[Claims 2, 4, 6, and 7 not printed in the Gazette.]

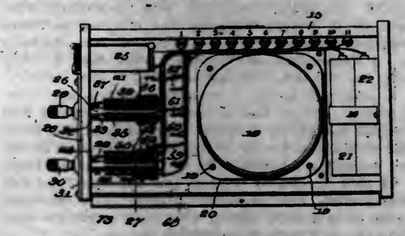
1,252,215. LUG-STRAP SUPPORT. JESSE H. ALLEN, Columbus, Ga., assignor of one-half to B. S. Miller, Columbus, Ga. Filed Apr. 24, 1917. Serial No. 164,235. (Cl. 139—48.)



1. The combination with a picker stick, a lug strap support comprising a closed metal loop having a continuous flat base resting on said stick, rigidly secured thereto, and extending beyond said loop, the projecting portions being longitudinally slotted.

[Claim 2 not printed in the Gazette.]

1,252,216. TELEPHONE TOLL SET. CLARENCE ANTON ANDERSON, Abilene, Kans. Filed Apr. 30, 1917. Serial No. 165,466. (Cl. 179—42.)



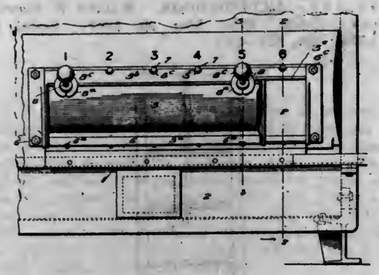
2. In a telephone exchange system, a toll line, a repeating coil, a branch trunk line connected to said toll line through said repeating coil, a condenser connected in series with each side of said repeating coil, a signaling device connected in shunt of the other of said condensers, means for connecting a source of ringing current to one side of said repeating coil, and means operable upon the operation of said connecting means to short circuit said condensers.

5. In a telephone exchange system, a toll line, a repeating coil, a branch trunk circuit connected to said toll line through said repeating coil, condensers connected in series with each side of said repeating coil, one of said condensers being divided into two condenser elements connected in series, a grounded signaling circuit phantomed on the toll line in series with said condensers and one side of said repeating coil, a signaling device connected in series with the other side of said coil, and means for connecting a source of ringing current to one side of said coil.

10. In a telephone exchange system, a toll line, a repeating coil, a branch trunk line connected to said toll line through said repeating coil, a non-inductive resistance in series with each side of said repeating coil, means for connecting ringing current to one side of said repeating coil, and means operable upon the operation of said connecting means to shunt out said resistances.

[Claims 1, 3, 4, and 6 to 9 not printed in the Gazette.]

1,252,217. COOKING APPARATUS. JOHN S. BAKER, Los Angeles, Cal., assignor to Anderson-Barngrover Manufacturing Company, San Jose, Cal., a Corporation of California. Filed Mar. 22, 1917. Serial No. 156,751. (Cl. 126—272.)



1. The combination of a cooking chamber having a large discharge opening; with interchangeable plates for closing the large opening, each plate having a single discharge port; the ports in the respective plates being differently located.

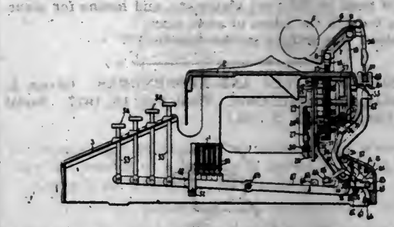
2. In combination a cooking chamber having a large discharge opening; with a detachable plate for closing said opening, said plate having a single discharge port, and said plate being interchangeable with another like plate having a differently located discharge port.

4. In combination a cooking chamber having a casting at one end provided with a large opening; a single plate detachably attached to said casting to close the opening therein, said plate having a single discharge port at the point at which it is desired to have the cans escape through the large opening, said plate being interchangeable with a like plate having a differently located port.

6. In combination a cooker having a large discharge opening for the escape of cans at different points; and a removable plate for closing said opening having an extension on one end whereby when the plate is inserted in the opening a port is left for the escape of cans at one point only; with means on the cooker for retaining the lower edge of the plate when in position, and means attached to the upper edge of the plate and adapted to engage opposed members on the cooker to secure the plate in position.

[Claims 3 and 5 not printed in the Gazette.]

1,252,218. TYPE-WRITING MACHINE. JOHN H. BARR, New York, and HERBERT A. CARHART, Syracuse, N. Y., assignors to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed Nov. 11, 1916. Serial No. 130,804. (Cl. 197—64.)

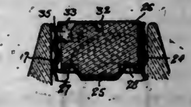


1. In a typewriting machine, the combination with a brake member and a key, of an intermediate train of devices including a bodily movable spring having a tension normally to apply said brake member, and means for restraining the action of said spring until said key shall have been actuated, said spring constituting a connecting link between two other parts of said key-operated train.

2. In a typewriting machine, the combination with a brake member and a finger key, of an intermediate train of devices including a bodily movable spring normally adapted to apply said brake at the initial operation of said key and after such application adapted also to yield during any further movement of said key and without materially affecting the braking pressure, said spring constituting a connecting link between two other parts of said key-operated train.

[Claims 3 to 14 not printed in the Gazette.]

1,252,219. BRIDGING DEVICE FOR FUSE-RECEPTACLES. CLARENCE A. BATES, Bridgeport, Conn., assignor to The Bryant Electric Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Jan. 21, 1916. Serial No. 73,432. (Cl. 173—324.)



2. A bridging device for fuse receptacles, comprising an insulating body and contacts thereon adapted to engage the receptacle contacts and establish a full capacity connection between the latter and means for permanently securing said plug in inserted position.

8. A bridging device for plug receptacles comprising a button of insulating material having its outer margin offset to form a ledge in combination with integral screw shell and center contacts surrounding said button, the outer margin of said screw shell engaging said ledge to secure said parts in assembled position.

[Claims 1, 3 to 7, 9, and 10 not printed in the Gazette.]

1,252,220. DISH-DRAINER. EMIL BENSON, Jasper, Minn. Filed July 27, 1916. Serial No. 111,713. (Cl. 141—11.)



2. A dish drainer consisting of an arcuate body V-shaped in cross-section with its inner wall of relatively slight extent compared with its outer wall, the body being

adapted for application to a dish pan with the base portion of its outer or more extensive wall engaging the edge of the pan whereby its bight portion is disposed just within the marginal wall of the pan and substantially the entire pan is open to use, the body being open at its ends and resilient whereby it may be sprung to engage the edges of pans of different diameters, and means for securing the body to the edges of such pans.

[Claim 1 not printed in the Gazette.]

1,252,221. OVERALLS AND SUSPENDERS. OSCAR A. BERMAN, Cincinnati, Ohio. Filed Apr. 18, 1917. Serial No. 162,975. (Cl. 2—96.)

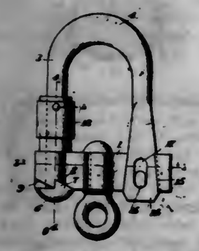


2. In an overall suspender, shoulder suspension strap, a rear strap, a loop carried by the former, a button carried by the latter engageable with the loop, and a detachable connection insertible between the straps and having means of connection with the loop and button.

3. In an overall, a single shoulder strap, a rear strap, each strap having its free ends secured to the overall body at spaced points, a clasp or button on each strap and an elastic connection having means on each end for attaching to or detaching from said straps or permitting said straps to be attached to each other without any other medium.

[Claim 1 not printed in the Gazette.]

1,252,222. SWIVEL-HOOK. ROY BEVER, Centralia, Wash. Filed Oct. 17, 1916. Serial No. 126,161. (Cl. 24—241.)



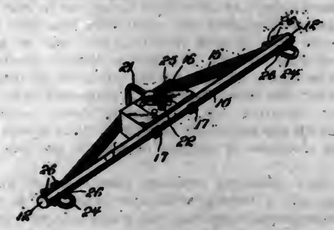
3. A device of the class described comprising a crossbar, a hook having one end rotatably mounted therein, means for locking the opposite end of said hook to said bar and means included in the rotatably mounted means of the hook for automatically adjusting the said opposite end into locking engagement with the said bar.

5. A device of the class described comprising a crossbar, a hook having one end rotatably mounted therein, means for locking the free end of said hook to said bar and means whereby, said hook may be moved transversely with respect to the bar to release the locking means.

[Claims 1, 2, and 4 not printed in the Gazette.]

1,252,223. DOUBLETREE. CHARLES BITTNER, Stafford, Kans. Filed Feb. 24, 1917. Serial No. 150,835. (Cl. 21—78.)

1. In a doubletree, a main bar comprising a tubular member, a brace having its end portions bent into the ends of said tubular member, spacing means between the bar and brace, a device formed on each end of the tubular member and bent at right angles with the walls thereof for closing the end of said member and clamping the ends of the brace, and securing devices each passing through said tubular member at a plurality of points and through the adjacent end of the brace.



2. In a doubletree, a main bar comprising a tubular member having its ends cut away at one side and leaving portions adapted to be bent at an angle for closing the ends of said member, a brace having a central portion spaced from the bar, a draft member rigidly mounted at the spaced portions, a protecting device secured to said member last mentioned, staples passing through the ends of the main bar and through the brace, said bent ends of the bar being clamped against the extreme ends of the brace at points beyond the points of engagement with the staples.

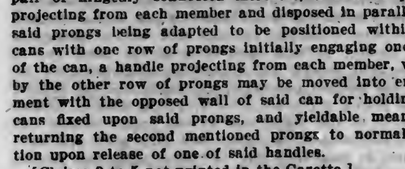
1,252,224. LADDER-HOOK. WALTER E. BITTNER, Beckley, Conn. Filed May 29, 1917. Serial No. 171,755. (Cl. 228—20.)



A ladder support comprising a shank provided at its ends with oppositely disposed hooks which lie at the opposite sides of the shank, a clip adjustably mounted upon the shank, means for securing the clip at an adjusted position and a prong mounted upon one end portion of the shank in the vicinity of one of the hooks and disposed in the opposite direction from the said hook and in the same general direction as the other hook.

1,252,225. TONGUE-SUPPORTING ATTACHMENT FOR CULTIVATORS AND PLANTERS. PAUL J. BLOCK, Ballinger, Tex. Filed June 14, 1917. Serial No. 174,745. (Cl. 21—205.)

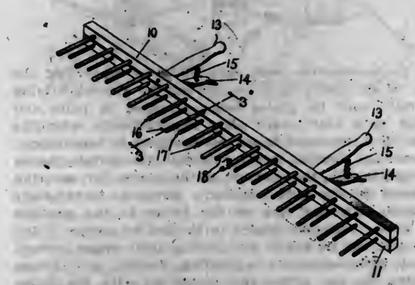
2. In an agricultural machine, the combination with the tongue frame including tongues and a cross arm connecting the same; of supporting casters positioned between said tongues and having a spindle, a bearing member adjustably mounted upon said spindle, a supporting member having one end resting upon said bearing and extending longitudinally of said tongues and having its other end secured to the cross arm of said tongue frame, other bracing and supporting members arranged transversely of the first named supporting member and secured to said tongues, each of the last named supporting members comprising angularly disposed arms one of which is arranged in substantially vertical position and secured to the adjacent tongue, the free end of the other



arm being arranged adjacent the rear end of the first named supporting member, and means for securing the adjacent ends of said supporting members to said bearings.

[Claim 1 not printed in the Gazette.]

1,252,226. CAN-HANDLING DEVICE. EDWARD BONK and MICHAEL PLOTKA, Chilton, Wis. Filed Sept. 12, 1917. Serial No. 191,061. (Cl. 57—9.)



1. A can handling device comprising a support, said support including a fixed section and a relatively movable section associated therewith, a row of prongs projecting from each section, yieldable means normally holding said sections in a position whereby the prongs of one row are disposed in parallelism with the prongs of the other row, the prongs of one row being relatively long with regard to the prongs of the other row, and means for adjusting said movable section whereby the rows of prongs assume a divergent relation.

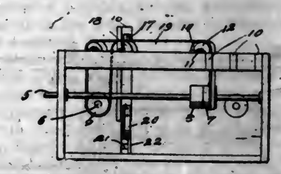
2. A can handling device comprising a support including hingedly connected sections, a row of relatively long prongs projecting from one of said sections, a row of relatively short prongs projecting from the other of said sections and normally disposed in parallelism with the first mentioned row, yieldable means normally maintaining the rows of said prongs parallel, a covering of pliable material for each of said prongs, and means for changing the normal positions of said sections, whereby said rows of prongs assume a divergent relation.

6. A device for handling open top cans comprising a pair of hingedly connected members, a row of prongs projecting from each member and disposed in parallelism, said prongs being adapted to be positioned within the cans with one row of prongs initially engaging one wall of the can, a handle projecting from each member, whereby the other row of prongs may be moved into engagement with the opposed wall of said can for holding the cans fixed upon said prongs, and yieldable means for returning the second mentioned prongs to normal position upon release of one of said handles.

[Claims 3 to 5 not printed in the Gazette.]

1,252,227. BELT-TIGHTENER FOR POWER TRANSMISSION. MILLARD F. BOONE, Pensacola, Fla. Filed July 2, 1917. Serial No. 178,171. (Cl. 64—5.)

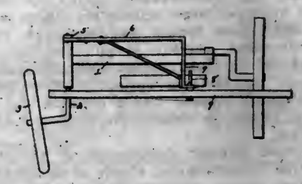
2. In a belt tightener, the combination with a notched standard, of a vertically adjustable body portion, a pulley carried thereby, and a spring member having one end secured to said body portion and its free end adapted



for engagement in any one of said notches whereby to vary the tension of a belt which passes over said pulley.

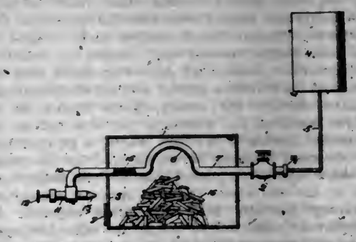
[Claim 1 not printed in the Gazette.]

1,252,228. FURROW-WHEEL-STEERING MECHANISM. HENRY F. BOYENS, Schneider, Ind. Filed May 15, 1917. Serial No. 168,733. (Cl. 97—73.)



In combination with a plow frame having a pivoted spindle with a furrow wheel journaled thereon, and a pivoted clevis, a steering mechanism comprising a bar fixed to the spindle, an arm pivotally connected with the bar and having a depending bracket, said bracket being pivotally connected with the clevis, the bar, arm and bracket being located above the clevis and so arranged that the bar and clevis are held parallel and the arm normally disposed at a right angle to both, the points of pivotal connection between the arm and the bar and the bracket and the clevis lying normally in a plane at a right angle to the straight forward line of draft of the plow frame.

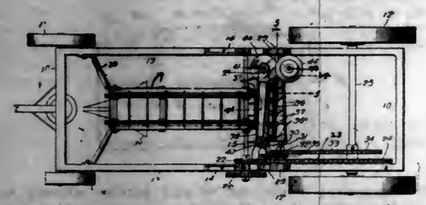
1,252,229. OIL-BURNER. HARRY BREWER and NOAH G. BREWER, Sidney, Nebr. Filed June 26, 1917. Serial No. 177,090. (Cl. 158—63.)



1. In a liquid fuel burner, the combination with a box having a door in one end provided with an opening, and coarse granular material within the lower portion of said box; of a retort pipe having straight ends mounted through the ends of said box and an interposed arch overlying said coarse granular material, fine granular material within said retort pipe and its arch, means for supplying liquid fuel to one end of the pipe, and a valved nozzle connected with the other end of the pipe and directed toward said opening.

[Claim 2 not printed in the Gazette.]

1,252,230. BEET-HARVESTING MACHINE. ANDREW BAUER, Sidney, Nebr. Filed Nov. 17, 1916. Serial No. 131,882. (Cl. 146—11.)



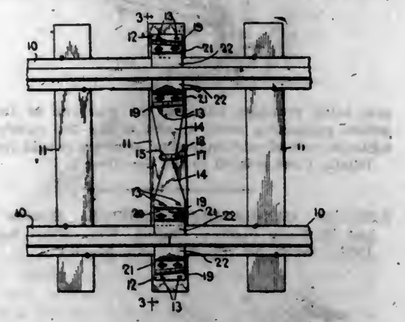
1. In a beet topping arrangement of the character described, the combination of a pair of horizontally disposed conical rollers, gradually tapering from one end to the other, and provided in their length with shallow spiral grooves, said rollers being mounted so that their inner faces are in uniformly parallel spaced relation to receive beet tops therebetween, means for delivering beets upon the upper larger ends of the rollers, means for rotating said rollers toward one another in relatively opposite directions whereby to pull the tops of the beets downward in their passage along the rollers, and thus support the beets in upright position, and horizontally disposed topping blades adjacent the smaller ends of the rollers for topping the beets so held in upright position.

2. In a beet topping arrangement of the character described, the combination of a pair of horizontally disposed conical rollers, gradually tapering from one end to the other, said rollers being so mounted that their inner faces are in uniformly parallel spaced relation to receive beet tops therebetween, means for delivering beets upon the upper larger ends of the rollers, means for rotating said rollers toward one another in relatively opposite directions whereby to pull the tops of the beets downward in their passage along the rollers and thus support the beets in upright position, horizontally disposed topping blades adjacent the smaller ends of the rollers for topping the beets so held in upright position, vertical shafts upon which the said topping blades are mounted and with which they are rotatable, one of said shafts having a sprocket wheel, and a chain mounted above one of the said rollers and extending at one end about the said sprocket wheel, said chain having laterally projecting arms in its length to engage and hold the beets in upright position, as they are topped.

3. In a topping apparatus, a pair of horizontally disposed tapering rollers having their inner adjacent faces in uniformly spaced relation and provided with worm wheels adjacent their smaller ends, means for rotating said rollers toward one another in relatively opposite directions, means for delivering beets from the larger ends of the rollers, a pair of vertical shafts adjacent the smaller ends of the rollers, worm wheels on the said shafts engaging the worms of the said rollers, one of said shafts having a sprocket wheel, a pair of horizontally disposed topping knives carried by the shaft, and a chain extending above one of the rollers and mounted at one end about the said sprocket wheel, said chain having laterally projecting arms engaging the beets supported by the rollers to hold the same in upright positions upon engagement with the topping knives.

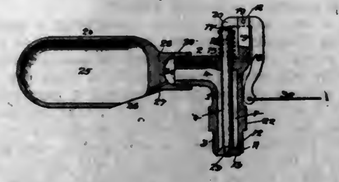
1,252,231. RAIL JOINT AND BRACE. TOFEL T. BRUST, Putnam, Okla. Filed Aug. 31, 1917. Serial No. 189,151. (Cl. 238—5.)

1. In combination with rails, of ties upon which the rails rest, of plates arranged upon certain of the ties and receiving the rails, said plates comprising two hinged sections, means for securing the sections to the tie, each of said sections having angular channeled ribs upon its upper face disposed to the opposite sides of the rails, fish plates in the fishing spaces of the rails over the said tie plates and having outer flanges at the upper portions thereof, rail braces having their lower horizontal portions received in the channeled ribs and having their upper edges formed with lips designed to underlie the flanges of the fish plates, and means for securing the said brace members to the tie plates and to the tie.



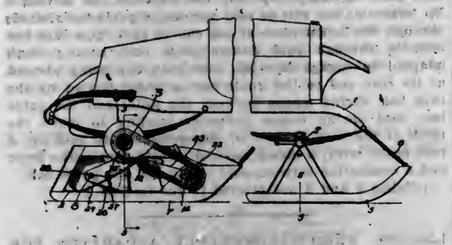
2. In combination with rails and ties supporting the rails, of tie plates upon certain of the ties underlying the rails, said tie plates being arranged in pairs and having, upon their inner edges longitudinally extending straps that terminate in barrels designed to interengage, a connecting element passing through the barrels, means passing through the corners of the plates for securing the same to the ties, angularly disposed, transversely arranged channeled ribs on the plates to the opposite sides of the rails, fish plates in the fishing spaces of the rails upon the tie plates and having their upper corners formed with outwardly extending flanges, rail braces engaging the fish plates and contacting with the under faces of the flanges, said rail braces having their outer edges received in the channeled ribs of the tie plates, and means for securing the said braces to the said tie plates.

1,252,232. EXPLOSION WHISTLE-ALARM. ROY D. BUELL, Chicago, Ill. Filed Dec. 30, 1914. Serial No. 879,938. (Cl. 116—59.)



An explosion whistle alarm for automobiles comprising an elbow-shaped fitting adapted to be attached at its lower vertical end to the head of a gase engine cylinder, a valve stem extending through said vertical portion, a valve member on said stem lying at the lower end of said vertical portion and controlling communication between the exhaust passage of the engine and the interior of said fitting, a pivoted valve actuating member secured exteriorly to the fitting and at the upper vertical end thereof and adapted to engage said valve stem and move the same to open the valve, the outer horizontal portion of said fitting being exteriorly threaded to receive the whistle member, said whistle member comprising a hollow body tapering at one end, a horizontal neck extending from said tapering portion and interiorly threaded to mesh with the threads on the horizontal portion of the fitting, the said whistle member continuing outward from said tapered portion in a dome-shaped formation, a cross-wall formed at the inner end of the tapered portion and in front of said neck, said wall being provided with a passage extending diagonally therethrough and off-center therefrom, said body being cut away at its tapered portion to provide a diagonally-disposed opening adjacent said diagonal passage, whereby the gases coming out of said fitting will be forced in a direction to carry them directly across the mouth of the opening to produce a sound, and the dome-shaped portion of said whistle member forming a sounding chamber, substantially as described.

1,252,233. RUNNERS AND PROPELLING MECHANISM FOR AUTOMOBILE-TRUCKS. ARTHUR BURROWS, Freedom, N. Y. Filed Jan. 27, 1917. Serial No. 144,954. (Cl. 180—5.)

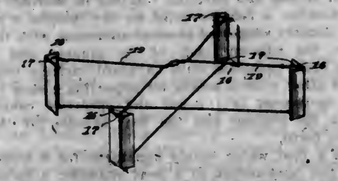


1. Runner and propelling apparatus for automobiles comprising runners adapted to be attached to the rear axle, each runner comprising a casing, shafts journaled in the walls of the casing, a sprocket wheel fixed to the shaft, bars journaled upon the latter, a plate having adjustable connections with said bars, a shaft carried by said plate and a sprocket wheel carried by the shaft mounted upon the plate, sprocket chain connections between the sprocket wheels, spurs upon the sprocket chain movable through said slot, means connected to the rear axle for driving the shaft which is journaled in said casing, screws fastened to the rear runners, springs fastened to the latter and bearing against the ends of said bars, and nuts upon the screws adapted to bear against said springs.

2. Runners and propelling apparatus for automobiles, comprising rear runners, a driving shaft journaled near the forward end of each runner, a sprocket wheel rotating with said shaft, yielding bars pivotally mounted upon said shaft, recessed plates secured to said bars, and a stub shaft journaled in the walls of the recess, a sprocket wheel journaled on said stub shaft, an endless sprocket chain passing about said sprocket wheels, as set forth.

3. Runners and propelling apparatus for automobiles, comprising rear driving runners, a driving shaft journaled in suitable bearings upon said runners, a sprocket wheel rotating with said driving shaft, bars pivotally mounted upon said shaft, a plate secured to said bars and having a recessed end, a stub shaft journaled in the walls of the recessed end, a sprocket wheel journaled on the stub shaft, a spur sprocket chain passing about said sprocket wheels, springs secured to the runner, and adjustable means for holding the same yieldingly against said bars.

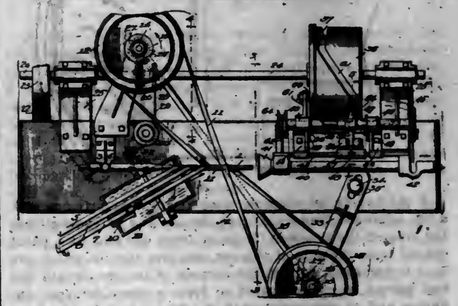
1,252,234. BOX-STAY. HARRY L. CAMP, Lynchburg, Va. Filed Feb. 2, 1916. Serial No. 75,830. (Cl. 217—69.)



1. A box protecting device consisting of a set of four corner stays having angularly disposed side walls and upper and lower end walls, bottom wires whereby the lower end walls of diagonally opposed stays are permanently connected together, and top wires whereby the upper end walls of the stays disposed in parallel planes are connected together.

2. The combination with a packing case of a set of four corner stays having angularly disposed side walls and upper and lower end walls, the end walls being provided with apertures, bottom wires engaging and permanently connected with the lower end walls of diagonally opposed stays, top wires terminally engaging and connected with the apertured upper end walls of stays located in parallel planes at opposite sides of the box, and means whereby the looped portions of the top wires are drawn taut and connected together.

1,252,235. MACHINE FOR MANUFACTURING SPIRALLY-WOUND STRAWS. ALBERT A. CARPER, Catonsville, Md., assignor to The Stone Straw Company, Washington, D. C., a Corporation of New Jersey. Filed Feb. 12, 1916. Serial No. 78,054. (Cl. 93—80.)



1. The combination with mechanism for feeding and spinning strips into a completed spirally wound tube or straw and imparting an endwise travel thereto, of a cut-off comprising a straw tube adapted to receive the tube or straw, a cutting disk, and means independent of the movement of the straw for moving the straw tube and cutting disk forward with the endwise travel of the tube or straw and means for automatically throwing the cutting disk in and out of the path of the straw.

3. The combination with a main and a counter-shaft, vertical shafts having pulleys thereon, intermeshing gears secured to the vertical and counter-shafts for driving said vertical shafts, a mandrel, and a cross-belt carried over said pulleys and wound around said mandrel for feeding and fashioning strips of paper into a spirally-wound tube or straw, of a cut-off mechanism comprising a rotary cutting disk driven from the main shaft, a drum carried by the counter-shaft and having peripheral and end cam grooves, a reciprocating straw tube adapted to receive the tube or straw from said mandrel, and means operated by the peripheral cam for reciprocating the straw tube and cutting disk, and arms operated by the end cam groove for rocking the cutting disk in and out of the path of the straw.

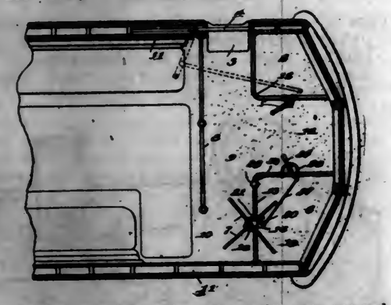
4. The combination with a mandrel and means for spinning straws thereon, of a cut-off comprising a shaft carrying a cutting disk, a hollow shaft surrounding said shaft, a rocking frame supporting said hollow shaft, a collar secured to the hollow shaft, and having an extension at one end, and an anti-friction roller at the other, a reciprocating bar, a straw tube adapted to receive the tube or straw from said mandrel secured to the bar, a sleeve adjustably secured on the bar and having anti-friction rollers between which the extension on the collar extends, and a drum having a peripheral and end cam grooves in the latter of which the anti-friction roller travels for reciprocating the cutting disk, its shaft, and the hollow shaft, and an arm carried by the frame having an anti-friction roller which extends into the end cam groove of the drum

for swinging the cutting disk and disk-shaft laterally, and means for rotating the drum and disk-shaft.

5. The combination with a machine-bed or frame, and gluing and spinning mechanism, of a cut off comprising a straw tube, a saw, a drum having a cam on its periphery and one on its end, means coöperating with the said cams for moving the saw and tube endwise and the saw laterally, a main drive connected with said drum, and gears for transmitting motion from said main drive to the spinning mechanism.

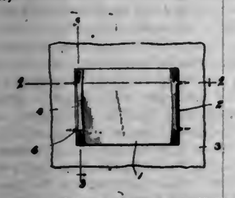
[Claim 2 not printed in the Gazette.]

1,252,236. STREET-RAILWAY CAR. FRANK CARSON, St. Louis, Mo. Filed Mar. 13, 1917. Serial No. 154,526. (Cl. 105—205.)



A car having an entrance door at one side near one end, a bar arranged transversely of the car and extending from the side of the doorway farthest from one end to a point spaced from the side of the car opposite that in which the door is arranged, bars in the corners of the car at said end and spaced from each other to form a space for the conductor and to also coact with the first-named bar to form an entrance passage-way into the body of the car, operating means for the door including a lever mounted on one of said corner bars and means to regulate the passage of persons into the car body and including a controlling device for operation by the conductor and arranged on the other corner bar.

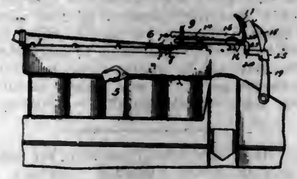
1,252,237. TICKET-HOLDER. ALICE CLARK, Chase City, Va. Filed Sept. 29, 1916. Serial No. 122,901. (Cl. 40—25.)



As a new article of manufacture, a ticket holder made from a single piece of flat material having an elongated body with spaced spurs formed on one lateral edge near the ends of the body to removably engage with a ticket, and spaced spurs struck up from the material of the body adjacent its ends so that said latter spurs project from the body at right angles to the spurs on the lateral edge to removably engage with a fabric, said body being substantially inflexible and maintained flat at all times.

1,252,288. BRAKE-LOCKING ATTACHMENT FOR FORD AUTOMOBILES. WALTER I. CLARK, Bridgeport, Nebr. Filed Mar. 12, 1917. Serial No. 154,325. (Cl. 74—81.)

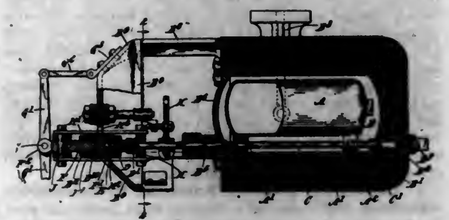
1. The combination of a foot brake lever, of a detent plate, a ratchet bar carrying a pedal coacting with said detent plate and a guide bar slidable through said detent plate to which said ratchet bar is pivoted.



4. A device of the character described comprising a detent plate having an opening therethrough and having a lip formed at one side of said opening, a guide bar slidable through the detent plate at one side of said lip, a rack bar slidable through said detent plate and having teeth adapted to engage said lip, said rack bar being pivoted at its rear end to the guide bar, a pedal carried by the rack bar, spring means between the pedal and the guide bar, said spring means normally tending to move the teeth of the rack bar out of engagement with said lip, a foot brake lever, a clamp secured to said foot brake lever and a connection between said clamp and the guide bar.

[Claims 2 and 3 not printed in the Gazette.]

1,252,239. FEED-WATER-SUPPLY APPARATUS FOR STEAM-GENERATORS. THOMAS CLARKSON, Chelmsford, England. Filed July 2, 1917. Serial No. 178,279. (Cl. 137—101.)



1. In a feed water supply apparatus for a steam generator the combination of a float chamber, a spindle capable of sliding and partially rotating in bearings in said float chamber, a float mounted on the spindle, a plunger or rod slidably supported in axial alinement with the float spindle and means for imparting to such plunger or rod a slow reciprocating movement for the purpose set forth.

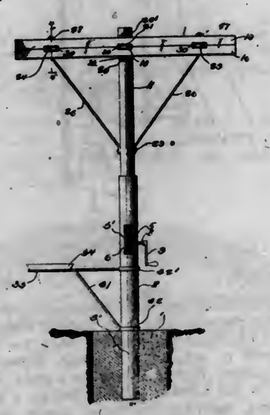
2. In a feed water supply apparatus for a steam generator the combination of a float chamber, a spindle capable of sliding and partially rotating in bearings in said float chamber, a float mounted on the spindle, a plunger or rod slidably supported in axial alinement with the float spindle, the adjacent ends of the plunger and of the spindle being furnished with hardened surfaces one plane and the other convex and means for imparting a slow reciprocating movement to the plunger or rod for the purpose set forth.

3. In a feed water supply apparatus for a steam generator the combination of a float chamber, a spindle capable of sliding and partially rotating in bearings in said float chamber, a float mounted on the spindle, a plunger or rod slidably supported in axial alinement with the float spindle, the adjacent ends of the plunger and of the spindle being furnished with hardened surfaces one plane and the other convex, means for imparting a slow reciprocating movement to the rod and operative connections between the plunger and the float spindle for the purpose set forth.

4. In a feed water supply apparatus for a steam generator the combination of a float chamber, a spindle capable of sliding and partially rotating in bearings in said float chamber, a float mounted on the spindle, a sleeve or bearing separate from the float chamber, a cap mounted on the float spindle having a hardened center and arranged to slide in the sleeve, a plunger or rod slidably supported in the sleeve with its free end in contact with the hardened center of the cap on the rod, means for reciprocating the plunger or rod and means for transmitting such reciprocating movement to the float spindle for the purpose set forth.

5. In a feed water supply apparatus for a steam generator the combination of a float chamber, a spindle capable of sliding and partially rotating in bearings in said float chamber, a float mounted on the spindle, a sleeve or bearing separate from the float chamber, a cap mounted on the float spindle having a hardened center and arranged to slide in the sleeve, a plunger or rod slidably supported in the sleeve with its free end in contact with the hardened center of the cap on the rod, a collar or sleeve loosely mounted on the float spindle, links connecting the loose collar or sleeve and the plunger or rod and means for imparting a slow reciprocating movement to the plunger or rod for the purpose set forth.

1,252,240. CLOTHES-LINE. JAMES T. CLAWSON, Ivanhoe, Minn. Filed Apr. 15, 1916. Serial No. 91,397. (Cl. 68—3.)



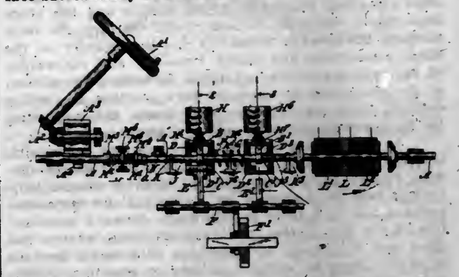
1. A line support including a pole, a cross-bar secured to the upper end of the pole and having a plurality of spaced apart seats, a second cross-bar arranged to rest upon the first cross-bar and provided with complemental seats, pulleys rotatably mounted in the seats, and means for joining the bars.

3. A line support including a pole, a cross-bar comprising bar members having complemental spaced apart seats forming pulley recesses, a bracket mounted on the pole and secured to the cross-bar for supporting the cross bar on the pole, pulleys rotatably mounted in the pulley recesses, a journal bolt for securing the bar members and providing the journals for one of the pulleys, and braces for the cross-bars, the lower ends of the braces being secured to the pole, the upper ends of the braces forming stub axles for others of the pulleys and securing means for the bar members.

[Claim 2 not printed in the Gazette.]

1,252,241. VARIABLE-SPEED GEAR. CHRIS TER COCK, London, England. Filed June 27, 1917. Serial No. 177,312. (Cl. 74—58.)

1. In variable speed gear of the countershaft or lay shaft type having sliding clutches or gear wheels and a control shaft capable of rotary movement to select the gears to be operated and also capable of movement in the direction of its axis to operate the selected gear, the combination with the control shaft and selectors mounted thereon of gear-operating members mounted concentrically with the control shaft each gear-operating member having an engaging surface on each side of the selector these surfaces being out of alinement with each other so that when the selector is in alinement with one of the surfaces rotary movement of the control shaft is necessary to bring it into position to engage with the other surface substantially as set forth.

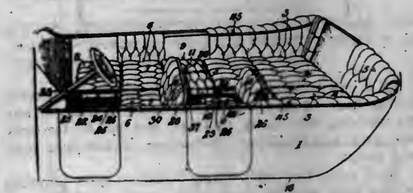


2. The combination with variable speed gear of the kind described of a control shaft capable of movement in a rotary direction and also in the direction of its axis, a plurality of selecting devices each comprising a selector fixed on the shaft and a gear-operating member concentric therewith and having an engaging surface on each side of the selector, means for moving the shaft in a rotary direction by hand and electromagnetic means for moving the control shaft in the direction of its axis substantially as set forth.

3. In variable speed gear of the kind described the combination of a control shaft capable of movement in a rotary direction and also in the direction of its axis, a plurality of selectors fixed on the shaft, a gear-operating member for each selector, each gear-operating member being concentric with the shaft and having an engaging surface on each side of the selector, a spring tending to keep the gear-operating members apart, means for partially rotating the shaft to set the selectors in relation to the engaging surfaces, a solenoid adapted to move the shaft in the direction of its axis in either direction, a spring for returning the shaft into its neutral position and electrically controlled locking devices for engaging the gear-operating members.

[Claims 4 to 6 not printed in the Gazette.]

1,252,242. SEAT ARRANGEMENT FOR AUTOMOBILES AND OTHER STRUCTURES. WILLIAM O. CORNWELL, Indianapolis, Ind. Filed Apr. 5, 1916. Serial No. 89,159. (Cl. 21—43.)



1. A vehicle body having front and rear seats spaced apart in the direction of the length of the body, with the front seat spaced from the front of the body, the seat portions of both seats being in fixed relation, in the installed position, to the vehicle body, and the backs of both the front and rear seats being movable forwardly from a normally upright position to a substantially horizontal position in front of the seat portions of the respective seats, whereby there is produced a couch or support in one plane from the rear edge of the rear seat to beyond the front edge of the front seat, with the extension beyond the front seat equal to the height of the

back of the front seat from top to bottom and encroaching to a corresponding distance upon that portion of the vehicle body in front of the seat portion of the front seat.
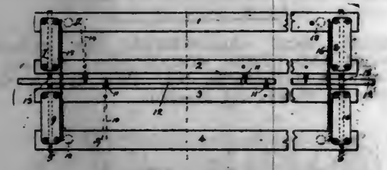
3. A vehicle body having seats with relatively fixed seat portions, and back portions having supporting arms on opposite sides each provided with hinge connections to the seat portions, said seat portions having elongated slots extending lengthwise of the vehicle and the hinge connections engaging in said slots, whereby the back portions are movable forwardly and downwardly on the hinge connections and bodily forwardly and rearwardly of the seat portions to constitute forward prolongations of the seat portions when the back portions are in the forward horizontal position, and means for supporting the back portions in their adjusted positions.

7. A vehicle body having front and rear seats with relatively fixed seat portions, and back portions movable with respect to the seat portions from a substantially upright position forwardly to a substantially horizontal position and each there constituting a forward prolongation of the seat portion, and auxiliary seats between the front and rear seats and provided with backs movable forwardly from an upright position to constitute a forward prolongation of the seat portion of the auxiliary seat, whereby the front and rear and auxiliary seats may be adjusted into a continuous couch, the vehicle body having a plurality of supports for each auxiliary seat located in different positions with respect to the front and rear seats, whereby the latter may be moved bodily from the normal seating position to the horizontal couch position.

9. A seat structure comprising a seat portion and a back portion, and supporting arms for the back portion pivotally connected to the seat portion, the pivotal connections including pintles and elongated slots in the seat portion with the pintles provided with friction means for resisting movements of the pintles lengthwise of the slots, and said slots extending lengthwise of the seat portion, and said seat structure having stop means for holding the back portion in the adjusted positions.

[Claims 2, 4 to 6, 8, and 10 not printed in the Gazette.]

1,252,243. RULER FOR BLACKBOARDS. PHILIPP CRAMER, Newark, N. J., assignor to Magdalena Schaefer, Newark, N. J. Filed Sept. 2, 1916. Serial No. 118,161. (Cl. 33—108.)



1. In a ruler for chalk-lining blackboards, a plurality of ruling bars secured together in pairs, means for normally drawing said pairs together, and means for separating said pairs against the action of the first mentioned means.

4. In a ruler for chalk-lining blackboards, a plurality of ruling bars secured together in pairs, a plurality of sliding bars located between adjacent pairs of ruling bars, and a plurality of spaced links connecting said sliding bars and said pairs of ruling bars whereby the latter may be drawn together or separated.

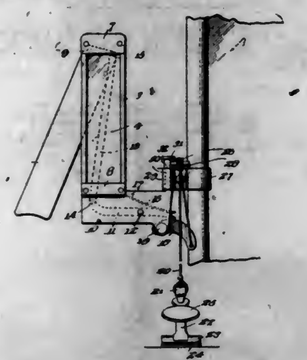
6. In a ruler for chalk-lining blackboards, a plurality of ruling bars, secured together in pairs, a spring attached to adjacent pairs of ruling bars for normally drawing the same together, a plurality of sliding bars located between adjacent pairs of ruling bars, and a plurality of links connecting said sliding bars and said pairs of ruling bars whereby the latter can be drawn together or separated.

10. In a ruler for chalk-lining blackboards, a plurality of ruling bars, plates connecting said bars in pairs, rods on which said bars are mounted to slide, and means for drawing together or separating said pairs of bars.

13. In a ruler for chalk-lining blackboards, a plurality of ruling bars, plates connecting said bars in pairs, rods on which said bars are mounted to slide, sliding operating bars located between adjacent pairs of ruling bars, and links connecting said sliding operating bars and said pairs of ruling bars, whereby said pairs of ruling bars can be drawn together or separated upon movement of said sliding operating bars, and means for limiting the movement of said operating bars.

[Claims 2, 3, 5, 7 to 9, 11, and 12 not printed in the Gazette.]

1,252,244. TRAFFIC-SIGNAL. DANIEL J. CUMMINGS, New Haven, Conn., assignor of one-third to Philando S. Armstrong, Westville, Conn., and one-third to Edward Gouin, New Haven, Conn. Filed Aug. 30, 1916. Serial No. 117,742. (Cl. 116—31.)

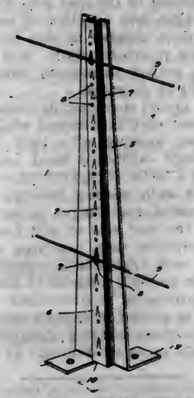


1. In a traffic signal for vehicles, the combination of a movable signaling member, a housing therefor adapted to conceal the signaling member when not in use, and also adapted to support a reflector, supporting means for said housing having a bearing portion in which an extension of the housing is journaled on a substantially vertical axis, manually controlled means for projecting said signaling member to signaling position, said operating means embodying a manually controlled cam lever having a pivotal relation to said housing, a two armed lever arranged to be actuated by said cam lever, and a link interposed between said two armed lever and the signaling member.

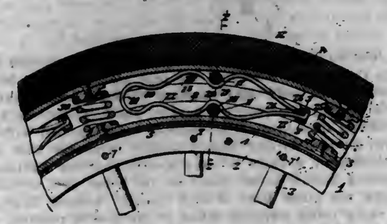
2. In signaling apparatus for motor vehicles, the combination with a vertical support such as a wind shield, of a bracket fixedly secured thereto and provided with a substantially vertical bearing sleeve, a guide roller supported by said bracket, a signaling arm, a casing in which said arm is concealed when not in use, said casing having an extension formed with a journal adapted to turn within said bearing sleeve, a cam lever mounted on a pivot having a fixed relation to said casing, operating connections between said cam lever and signaling arm, a manually controlled lever, and a flexible connection passing over said guide pulley and having one end attached to the manually controlled lever and the other end attached to said cam lever.

1,252,245. METAL FENCE-POST. RICHARD L. CUSHING, Tiskilwa, Ill. Filed Oct. 25, 1916. Serial No. 127,560. (Cl. 189—29.)

A device of the class described made from a single sheet of metal formed with a longitudinal central channel-shaped portion, the side portions joining said channel-shaped portion being arranged in alinement, said side portions being bent in opposite directions and at right angles upon themselves to provide supporting feet, said right angular feet being rectangular in outline and having their inner longitudinal edges in alinement so as to cause one side and back wall of said channel-shaped portion to engage and be supported upon one foot and to cause the other foot to project across the plane of said channel-shaped member, and integral means on said channel-shaped portion for clamping wire.



1,252,246. AUTOMOBILE-TIRE. HERMANN DALWIGK, San Antonio, Tex., assignor of one-half to Hannibal Planta, San Antonio, Tex. Filed July 24, 1917. Serial No. 182,467. (Cl. 152—37.)



1. In a spring wheel, a fixed rim and a tire carrying rim surrounding the fixed rim, a plurality of hair-pin springs arranged between and contacting with the rims, the longitudinal limbs of said springs being centrally rounded inwardly, and elements carried by the respective rims engaging in the said rounded portions of the springs.

2. In a spring tire for wheels, a flanged fixed rim and a flanged tire carrying rim surrounding the fixed rim, a plurality of hair-pin springs resting between the flanges of the rims, each of said hair-pin springs having its longitudinal limbs rounded outwardly from the ends thereof whereby to contact with the inner surface of the respective rims, and means, comprising elements passing transversely through the flanges of the respective rims and engaging centrally with the referred to limbs of the springs whereby to centrally depress the said limbs and to retain the springs against longitudinal movement with respect to the rims.

3. In a spring wheel, a fixed flanged rim and a flanged tire carrying rim surrounding the fixed rim, oppositely disposed bolt members passing through the flanges of the respective rims, sleeves surrouding the bolts between the rims, a plurality of hair-pin springs between the rims and of a width to contact with the flanges of the rim, the longitudinal limbs of each of said springs contacting with the inner surface of the respective rims, and the said longitudinal limbs centrally engaging with the sleeves of the respective bolts, whereby to depress the said central portions of the limbs and to retain the springs against longitudinal movement with respect to the tire.

1,252,247. COMBINED COVER AND FILING-CABINET FOR MUSIC-RECORD ROLLS AND THE LIKE. WILLIAM R. DAUGHTRY, Birmingham, Ala. Filed Oct. 15, 1915. Serial No. 56,095. (Cl. 211—16.)



1. In a device of the class specified, a plurality of receptacles for holding roll records for use on top of a player piano or other device, and a cover for the piano or other device having the receptacles secured thereto to prevent the receptacles from being disarranged.

2. A music roll holding cabinet comprising a plurality of receptacles arranged side by side in a horizontal plane, each receptacle having one end thereof open, in combination with a textile sheet secured to the series of receptacles along the upper face of the latter, said sheet being adapted to cover the open ends of the music holding receptacles to normally hide said music roll holding cabinet whereby a neat and pleasing appearance is presented.

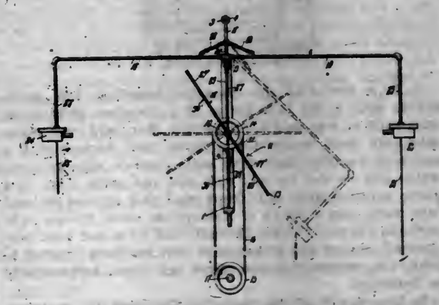
3. In a music roll cabinet, a textile cover for player piano or other analogous instruments, and a series of longitudinally alined music roll holding receptacles having their open ends adjacent to each other, the textile cover being disposed on the receptacles and provided with a curtain portion normally depending over and shielding the open ends of the receptacles and carrying label[s adjacent to the open ends of the receptacles and disclosing the character and means of the rolls in the several receptacles.

4. A music roll holding cabinet comprising a plurality of receptacles arranged side by side, each of the receptacles having one end open, in combination with a textile sheet secured to the series of receptacles along the upper face of the latter, and a plurality of flaps integral with the textile sheet and normally overlying the open ends of the receptacles, one face of each flap serving as a title carrying means to indicate the name of each music roll.

6. In a music roll holding cabinet of the class specified, a series of longitudinally alined music roll holding receptacles having open ends adjacent to each other and all disposed at the front of the series of receptacles, the rear ends of the receptacles being closed, and means for flexibly connecting the series of receptacles and whereby a cover for a piano top is provided embodying the said receptacles with their open ends all located at the front within easy reaching distance of a player for the withdrawal of music rolls from an insertion of said rolls in said receptacles.

[Claims 5, 7, and 8 not printed in the Gazette.]

1,252,248. ILLUMINATED SIGN. CHARLES M. DAVIS and ELI BAUMBERG, Hoquiam, Wash. Filed Feb. 11, 1916. Serial No. 77,733. (Cl. 88—24.)



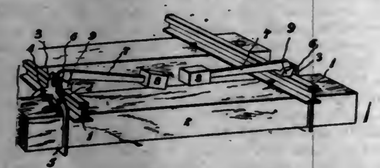
1. A sign comprising a fixed plate, a movable plate journaled at the middle line of said fixed plate and shift-

able to one position to exhibit a plain surface on either side of said fixed plate and to another position to similarly display a sign surface on either side of said plate, and means for projecting advertising matter on such plain surface.

3. A sign comprising a fixed plate having definite surfaces, a shiftable plate intersecting the surfaces and capable of moving to conceal a portion of the surfaces, and means for projecting advertising matter upon the exposed surfaces.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,252,249. RAILROAD-TIE HOLDER. OSCAR DE LONG, Conesville, Ohio. Filed Oct. 20, 1916. Serial No. 126,748. (Cl. 254—121.)



In a means for holding a tie to a rail to permit of the spiking of the rail to the tie, a frame comprising a flat yoke shaped member, hooks having offset ends which are pivotally secured to the face of the yoke shaped member, said hooks adapted to be disposed to the sides of the tie and to have their beaks underlying the tie, a lever hingedly secured to the frame at the center thereof, said lever having an enlarged portion disposed inwardly of its pivotal connection with the frame and below the said pivot, providing a head which is designed to rest upon the ball of the rail, and a weight integrally formed on the outer end of the lever.

1,252,250. COMBINED ADVERTISING DEVICE AND MEMORANDA-HOLDER. PHILIP DERROW, Chicago, Ill. Filed Sept. 29, 1917. Serial No. 193,936. (Cl. 40—124.)



1. In a device of the character described, the combination with a flat base plate, of a one-piece rectangular card rack of less length and width than said base plate, said card rack comprising a front wall formed with a series of parallel transverse slots, narrow side and end walls, and flanges on said side and end walls lying in a plane parallel with said front wall and secured to said base plate, and a series of memoranda cards having body portions adapted to pass through said slots and head portions of greater width than said body portions adapted to project in stepped relation above said slots, substantially as described.

2. In a device of the character described, the combination with a flat base plate formed with a substantially central rectangular opening, of a one-piece card rack comprising a front wall having a series of parallel transverse slots, narrow side and end walls passing through and fitting the edges of said opening, and flanges on said side and end walls secured to the rear side of said base plate around said opening, and a series of memoranda cards having body portions adapted to pass through said slots and head portions of greater width than said body portions adapted to project in stepped relation above said slots, substantially as described.

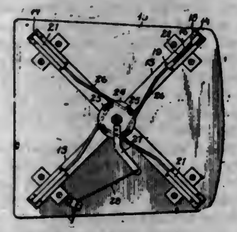
3. In a device of the character described, the combination with a flat cardboard base formed with a substantially central rectangular opening, of a card rack pressed to shape from a single cardboard blank and comprising a front wall having a series of parallel transverse slots, narrow side and end walls passing through and fitting the edges of said opening, and flanges on said side and end walls secured to the rear side of said base plate around said opening, a covering sheet overlying said opening on the rear side of said base, and a series of memoranda cards having body portions adapted to pass through said slots and head portions of greater width than said body portions adapted to project in stepped relation above said slots, said head portions carrying alphabetical indexes of the contents of said cards substantially as described.

1,252,251. TOBACCO-PIPE. HERBERT JOHN DODD, Herne Hill, England. Filed Mar. 12, 1917. Serial No. 154,208. (Cl. 131—12.)



A tobacco pipe having a nicotin chamber interposed between the tobacco bowl and the pipe stem, the said bowl communicating with said chamber through holes located near a central unperforated part of the bowl bottom and the bottom of said nicotin chamber being formed with a central guide hole and with a nicotin discharge hole adjacent thereto, a valve in said nicotin chamber having a depending hollow stem closed at its lower end working through the guide hole of said nicotin chamber bottom, said valve being adapted, when in its lowest position to close the nicotin discharge opening and when in its highest position being adapted to close communication between the pipe bowl and said nicotin chamber, and a spring arranged in said hollow stem bearing at its upper end against the unperforated central part of the bottom of the bowl and tending to keep said valve in its lowest position.

1,252,252. SEAT-STRAP. ONA DORAITE, Chicago, Ill. Filed Sept. 1, 1917. Serial No. 189,307. (Cl. 244—1.)



1. A strap of the class described, comprising a portion adapted to be secured to the wearer, a portion adapted to be secured to a seat, means for locking said seat portion in place, means for releasing said locking means to free the strap from secured position, and tension means for projecting said seat portion from position after said releasing operation, substantially as described.

4. A strap of the class described, comprising a portion adapted to be secured to the wearer, a plurality of sections depending therefrom, a spring-pressed bolt for locking each of said sections to a seat, a pivoted plate-like member arranged centrally with respect to said bolts, a connection between each of said bolts extending in a radial manner to said pivoted member, and means arranged within reach of the operator for turning said pivoted member and simultaneously releasing all of the bolts, substantially as described.

[Claims 2, 3, and 5 to 7 not printed in the Gazette.]

1,252,253. CHUCK. JERE C. DUFRESNE, Rahway, N. J. Filed Nov. 21, 1916. Serial No. 132,636. (Cl. 29—145.)



1. A chuck, comprising, in combination, a socket; a collet removably fitted in said socket and provided with an axial bore to receive the tool shank; said collet and socket having circumferentially-enlarged confronting ends which are formed with a plurality of alining recesses, the recesses in the socket opening through the outer faces thereof; and a plurality of soft metal pins seated in the recesses in the collet and projecting into the recesses in the socket to transmit the normal rotary movement of said socket to said collet, but adapted to break when subjected to a torsional strain of predetermined degree so as to uncouple the tool from the socket; said pins terminating short of the bottoms of the socket recesses to enable the insertion of an instrument into the latter to loosen the collet.

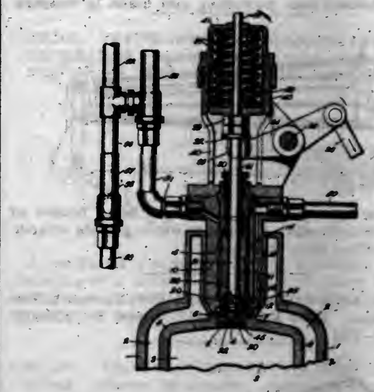
4. A chuck, comprising, in combination, a socket; a collet removably fitted in said socket and provided with an axial bore to receive the tool shank; said collet having a circumferentially-enlarged outer end which confronts the outer end of said socket and is formed with a plurality of recesses opening through its rear face and with a plurality of passages whose inner ends open into said recesses and whose outer ends open through the side wall of the enlargement; a plurality of soft metal pins fitted in said recesses and engaged with the confronting end of said socket to transmit the normal rotary movement of the latter to the collet, but adapted to break when subjected to a torsional strain of predetermined degree so as to uncouple the tool from the socket; a plurality of pressure devices arranged in said passages and bearing against said pins to hold the same against displacement; a plurality of closure members fitted in the outer ends of said passages; and a plurality of springs arranged in said passages and bearing at opposite ends against the corresponding pressure devices and closure members.

[Claims 2 and 3 not printed in the Gazette.]

1,252,254. METHOD OF AND APPARATUS FOR INJECTING FUEL INTO COMBUSTION-CHAMBERS. JOSEPH O. FISHER, U. S. Navy. Filed July 10, 1917. Serial No. 179,778. (Cl. 123—33.)

1. The process of injecting fuel into a combustion chamber which consists in imparting a continuous motion under pressure to said fuel; increasing the velocity of said fuel at a point in its path; and automatically at said point admitting a portion of the moving fuel into said combustion chamber, substantially as described.

5. The process of injecting fuel into an engine cylinder containing a gas under pressure, which consists in preheating said fuel; imparting a continuous motion in a closed circuit to said preheated fuel sufficient to enable it to overcome the resistance of said gas; and intermittently admitting the moving fuel into said cylinder, substantially as described.



12. In an apparatus for injecting fuel into an engine cylinder the combination of an injector nozzle provided with a port entering said cylinder; a valve controlling said port; means for automatically operating said valve; means for preheating said fuel; means for supplying fuel to the system as fast as it is taken therefrom; and means for continuously imparting a rotary motion at a high velocity to said fuel as it passes said valve, substantially as described.

13. The process of injecting a fuel and a fluid into a combustion chamber which consists in imparting continuous motions to said fuel and fluid; and automatically independently and intermittently admitting the moving fuel and fluid into said chamber, substantially as described.

14. The process of injecting a fuel and water into an engine cylinder which consists in imparting continuous motions to said fuel and water; and automatically, independently, intermittently and successively admitting the moving fuel and water into said cylinder, substantially as described.

[Claims 2 to 4, 6 to 11, and 15 to 17 not printed in the Gazette.]

1,252,255. SNAP-FASTENER. WILLIAM F. FOLMER, Rochester, N. Y. Filed July 5, 1917. Serial No. 178,701. (Cl. 24—224.)



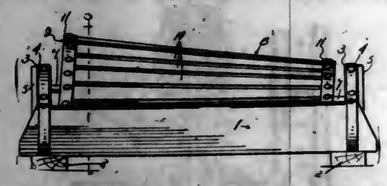
3. In a snap fastener, the combination with a turret-shaped socket member having a lateral opening and a circular recess in its under side forming an annular seat, of a button comprising a stem and a circular head adapted to be inserted in the opening of the sicket into alinement with the recess, attaching flanges on the socket member at the base of the turret portion thereof, a spring plate beneath the flanges and turret portion adapted to be secured to a support therewith and a spring tongue on the plate beneath the turret portion adapted to be displaced by the entrance of the button and to thereafter thrust the latter into the annular recess.

[Claims 1 and 2 not printed in the Gazette.]

1,252,256. HOG-OILER. HARVEY W. G. FRINK, Carroll, Nebr. Filed Sept. 14, 1916. Serial No. 120,103. (Cl. 119—157.)

A hog oiling apparatus, comprising in combination, a trough, a drum rotative in said trough, and having a por-

tion of its periphery extending above the walls of the trough, said drum consisting of a large head, a small head and longitudinal bars connecting said heads in compara-



tively close spaced relation, said bars being formed of cross sectionally squared elements which provide scratching edges along their outer side.

1,252,257. AMUSEMENT DEVICE. OTTO FRITSCHE, New Ulm, Minn. Filed Feb. 26, 1917. Serial No. 151,015. (Cl. 46—70.)



1. A device of the character described comprising a body shaped to simulate an animal and having an opening in the bottom thereof through which the legs of an operator may be extended, a wheel carrying shaft journaled in said body, and a source of power mounted in said body for driving said shaft whereby to aid in propelling the device.

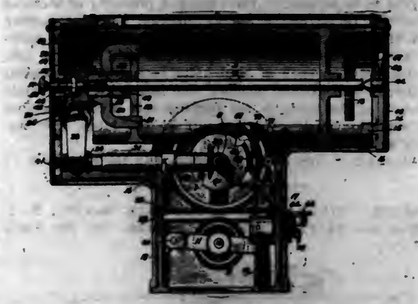
2. A device of the character described comprising a body having an opening adjacent one end thereof, a wheel carrying shaft adjacent the other end thereof, and shoulder straps secured to the body adjacent said opening and adapted to be engaged over the shoulders of an operator whereby to support said body.

3. A device of the character described comprising a body shaped to simulate an animal and having an opening in the bottom thereof through which the legs of an operator may be extended, a wheel carrying shaft journaled in said body, a source of power mounted in said body for driving said shaft whereby to aid in propelling the device, and a fan connected to said source of power for ventilating the interior of said body.

1,252,258. MACHINE FOR MEASURING TEXTILE FABRIC AND COMPUTING THE PRICE THEREOF. JOHN C. GEBHART, St. Louis, Mo., assignor, by mesne assignments, to Econometer Company, St. Louis, Mo., a Corporation of Missouri. Filed Feb. 21, 1917. Serial No. 150,113. (Cl. 33—135.)

1. In a machine of the class described, in combination, a power roller over which the fabric to be measured is passed, length indicating means geared to said roller, and means operatively connected to said roller and operable upon the completion of the measuring operation for moving the power roller to a definite position selected with regard to the unit of measurement thereby to advance or retract the measured fabric and compensate for an error in measurement.

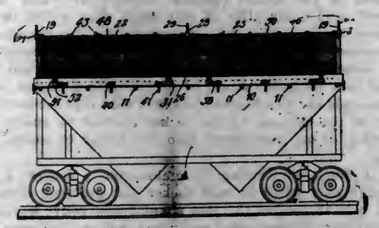
10. In a machine of the class described, in combination, a power roller, a measuring drum arranged above said roller and transversely thereto, a shaft geared to said drum, a second shaft arranged below said drum and parallel thereto, said second shaft comprising key coupled sections and a spring acting on said sections to move



them relatively outward, miter gearing between one of said sections and said first named shaft and miter gearing between the other section and the shaft of said roller.

[Claims 2 to 9 not printed in the Gazette.]

1,252,259. SAFETY-COVER FOR GONDOLA CARS. CORNELIUS M. GEIGER, Bee Ridge, Fla., assignor of one-half to Thomas A. Albritton, Bee Ridge, Fla. Filed May 17, 1916. Serial No. 98,174. (Cl. 105—78.)



1. In a safety cover for gondola cars, a frame devised to be removably attached to the car body, a supporting structure carried by said frame, and a series of independently movable cover members associated with said supporting structure, as and for the purpose specified.

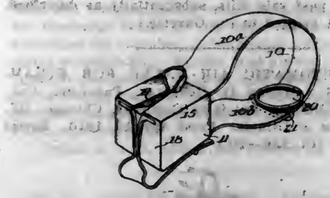
2. In a safety cover for gondola cars, a frame devised to be removably attached to the car body, means to lock said frame in place, a supporting structure carried by said frame, a series of independently movable cover members carried by said supporting structure, and means to lock said cover member rigidly to said frame, as and for the purpose specified.

3. In a safety device for gondola cars, a frame associated with the car, means to lock said frame in position, a supporting structure carried by said frame, a series of independently movable cover members associated with said frame, means for holding said cover member in open position against the tendency of gravity to close them, and means to lock said cover member in a closed position, as and for the purpose specified.

[Claims 4 to 12 not printed in the Gazette.]

1,252,260. DEVICE FOR AIDING WOUNDED OR INJURED PERSONS. CHARLES GURTAPE GILBERG, Rockford, Ill. Filed July 5, 1917. Serial No. 178,811. (Cl. 128—28.)

1. A device of the class specified comprising a band or strip and a fastening device having an aperture through which said band or strip may slide, and also having a supplemental associated recess into which a portion of the band or strip adjacent to that in said aperture may be introduced and held, said recess being so located that when said portion of the band or strip is within it, said portion will be at an angle to the adjacent portion in said aperture.



2. A device of the class specified comprising a band or strip, and a fastening device therefor, said fastening device having apertures in which the opposite ends of said band or strip may slide, and also having associated recesses in which adjacent portions of said band or strip may be inserted and by which the same may be held at an angle to the portions thereof in said apertures.

1,252,261. SNAP-FASTENER. FLORIS GOUBERT, Paris, France. Filed Sept. 21, 1917. Serial No. 192,595. (Cl. 24—216.)



1. A snap fastener, comprising two exactly counterpart members, each embodying a substantially-cylindrical part and a gripping part disposed parallel therewith, said members being adapted for arrangement reversely with respect to each other, so that the gripping part on each member will engage the cylindrical part on the other member.

[Claims 2 and 3 not printed in the Gazette.]

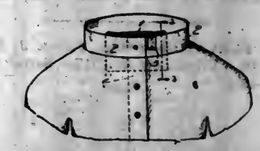
1,252,262. WIRE CLOTHES-PIN. ROBERT C. GRAHAM, Sr., Point Pleasant, N. J. Filed Sept. 20, 1916. Serial No. 121,221. (Cl. 24—139.)



1. A wire clothes pin, comprising in combination, a continuous wire length shaped at its middle into a supporting loop and shank, the strands of the length being then shaped into jaws and the free sides of the jaws being crossed to interlock the latter, the extremity of each side being then wrapped around the opposite strand to complete the jaw.

2. A wire clothes pin consisting of a continuous wire length shaped at its middle point into a supporting loop and shank, and having the strands below the shank shaped into jaws, the lower ends of the jaw loops being interfittingly shaped to clamp a fabric therein, the free sides of the jaws being crossed to interlock the latter, and the free ends being then wrapped around the opposite strands below the shank to resiliently hold the jaws in engagement.

1,252,263. VENTILATING ATTACHMENT FOR SHIRT-NECKBANDS. ROBERT HARPER GRAY, Columbia, Mo. Filed Sept. 4, 1917. Serial No. 189,564. (Cl. 2—41.)

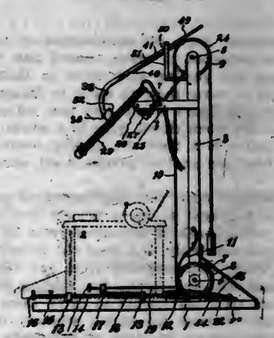


A ventilating attachment for the neckbands of shirts consisting of a hollow body formed of woven wire and having a spring clasp for securing it detachably to a neckband, as described.

1,252,264. MANUFACTURE OF BUILDING-CEMENT. ANTON HUBERT HAMBLOCH, Andernach-on-the-Rhine, Germany, assignor to Hendrik Frans Boersma, The Hague, Netherlands. Filed Oct. 6, 1913. Serial No. 793,684. (Cl. 106—25.)

The herein described process of making cement, which comprises finely and intimately grinding together raw Portland cement clinker and tuff in its raw state.

1,252,265. TYPE-WRITER ATTACHMENT. DELOS E. HAMMER, High Point, N. C. Filed Oct. 13, 1916. Serial No. 125,474. (Cl. 120—29.)



1. In a device for the purpose set forth, a support, a table carried by said support, means for adjusting the table angularly with respect to the support, a pivoted gravitating spacer bar movable over the table and including a straight surface and an angular friction surface, means, including mechanism, connected with the spacer bar designed, when actuated, to permit of the said spacer bar gravitating in a step by step movement toward the lower end of the table, means for returning the spacer bar to its initial position, and said spacer bar designed by virtue of its contact with the table to turn upon its pivot to bring the frictional surface thereof over the said table, when the said spacer is returned to its said initial position.

3. A line spacer for copy books or the like, including an inclined table upon which the book is designed to rest, a pivoted spacer member designed to gravitate over the book toward the outer end of the table, said spacer including a flat surface arranged to rest upon the book, when the said spacer gravitates over the book, and an angular friction surface designed, by virtue of a contact

of the spacer with the book to be brought to engage with the page of the book, when the spacer is swung upon its pivot by virtue of the retrograde movement thereof, means, comprising mechanism, and including a flexible element connected with the spacer, whereby to permit the gravitating of the spacer over the book and table, and means associated with said operating means, for returning the spacer to its initial position.

[Claims 2 and 4 to 7 not printed in the Gazette.]

1,252,266. ELEVATOR-DOOR. FRANK J. HEARNSHAW, Chicago, Ill. Filed July 6, 1917. Serial No. 178,887. (Cl. 20—19.)



1. In an elevator door, the combination of companion door members arranged to move toward and from one another, means for guiding said doors in their to and fro movements to cause them to move in diagonal directions and clear the doors of the floor next adjacent, and each of said doors when closed lying in a similar position of close proximity to a floor sill, closing communication between one floor and another past said sill, substantially as described.

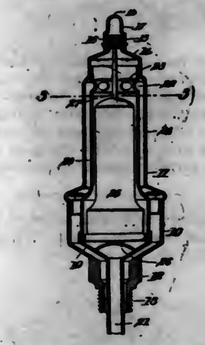
2. In an elevator door, the combination of companion door members arranged to move toward and from one another, one face of each of said doors lying in a similar position of close proximity to a floor sill when the doors are closed, closing communicatin from one floor to another past said sill, and means for guiding said doors in their to and from movements to carry them in other than a straight vertical movement, whereby each door in its movement clears the door of the floors next adjacent, substantially as described.

4. In an elevator door, the combination of companion door members arranged to move toward and from one another, guides for said door members comprising channel-shaped members arranged to lie at an angle to a vertical plane, with the angle of the guide for one door being opposed to the angle of the guide for the other door, whereby each of said doors moves in an oblique line of travel and clears the doors of the floors next adjacent in its movements, each door when closed lying in a similar position of close proximity to a floor sill, cutting off communication between the floor past said sills, and a short supplemental guide adjacent the doors of the adjoining floors to receive the doors when in open position, substantially as described.

5. In an elevator door, the combination of companion door members arranged to move toward and from one another, a guide for said door of channel construction made in V-formation with the apex thereof at the point of meeting of the doors when closed, said guides causing the doors to move in an oblique direction, whereby they clear the doors on the floors next adjacent, and each of said doors when closed lying in a similar position of close proximity to a floor sill, cutting off communication between floors past said sills, substantially as described.

[Claim 3 not printed in the Gazette.]

1,252,267. AUTOMATIC AIR-VALVE FOR STEAM-RADIATORS. GEORGE D. HOFFMAN, Pasadena, Cal., assignor to Hoffman Specialty Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 19, 1916. Serial No. 92,210. (Cl. 236—20.)



1. An air valve for steam radiators comprising a casing having an air outlet in its upper portion and a nipple leading downwardly from the bottom thereof, a water chamber within said casing, a float within said water chamber provided with a valve for closing said air outlet, a drainage tube leading downwardly from the bottom wall of said water chamber through said nipple, and connected with said chamber to prevent passage of water from the chamber except through said tube, and an air conduit having its inlet end communicating with the nipple, and having its air discharge outlet in communication with the water chamber at a point above any possible level of the water within said chamber when the valve carried by the float is unseated.

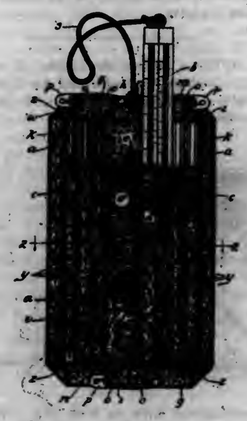
3. An air valve for steam radiators comprising a casing having an air outlet in its upper end and having a conical bottom provided with a centrally disposed nipple, a water accumulating chamber within said casing also having a conical bottom, a siphonic drainage tube leading from the bottom of said water chamber at the center thereof, and extending through said nipple, said tube being connected with said chamber to prevent passage of water from the chamber except through said tube, a float within said water chamber provided with a valve for closing said air outlet, and an air conduit having its inlet end communicating with the nipple, and having its air discharge outlet in communication with said water accumulating chamber at a point above any possible level of the water within the water accumulating chamber when the valve carried by said float is unseated.

6. An air valve for steam radiators comprising a casing having a vent opening and a water chamber, a float in the water chamber having a valve controlling said vent opening, a water discharge conduit communicating with said water chamber, an air conduit for directing air to said vent opening, a diaphragm chamber normally supporting said float, and air conduits extending through the walls of said casing, said water chamber and said diaphragm chamber and placing the diaphragm chamber in communication with the outside atmosphere.

8. An air valve for steam radiators comprising a casing having an air outlet in its upper end and having a conical bottom provided with a centrally disposed nipple, a water accumulating chamber within said casing also having a conical bottom, a siphonic drainage tube leading from the bottom of said water chamber at the center thereof, and connected therewith to prevent passage of water from the chamber except through said tube, a float within said water chamber provided with a valve for closing said air outlet, and an air conduit having its inlet end communicating with the nipple, and having its air discharge outlet in the upper portion of said water accumulating chamber, a diaphragm chamber within said water accumulating chamber, and air vent pipes extending through the bottom walls of said casing and said water accumulating chamber and communicating with said diaphragm chamber, said float normally resting upon said diaphragm chamber.

[Claims 2, 4, 5, and 7 not printed in the Gazette.]

1,252,268. WOVEN CARRIER. VICTOR H. JENNINGS, Worcester, Mass., assignor, by mesne assignments, to Universal Patents Company, Woonsocket, R. I., a Corporation of Rhode Island. Filed June 24, 1916. Serial No. 105,673. (Cl. 24—12.)



1. A carrier of woven material comprising a flexible backing, elongated pockets or loops of such material at the surface of said backing, and a plurality of stiffening strips combined with said backing and paralleling said pockets or loops.

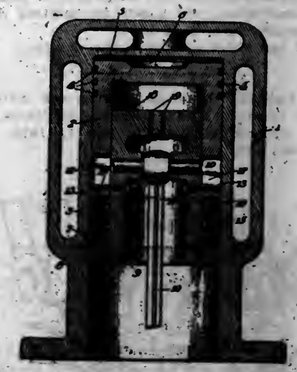
9. A woven carrier comprising a flexible backing composed of a back ply, a second ply secured to said back ply with intermediate sheaths, a plurality of elongated pockets or loops upon said second ply, all integral with one another as woven, and a plurality of flexible stiffening strips occupying said sheaths and paralleling said pockets or loops, and extending within said sheaths a distance above the upper ends of the pockets or loops.

[Claims 2 to 8 and 10 to 14 not printed in the Gazette.]

1,252,269. ENGINE-PISTON. CHARLES D. JOHNSON and PETER C. JOHNSON, Halifax, Nova Scotia, Canada. Filed June 20, 1917. Serial No. 175,888. (Cl. 123—78.)

1. An engine piston embodying two members fitting one within the other and each having a head, said members having a telescopic and slidable relation to each other, a compression spring encircling one of the piston members and bearing at one end against the other piston member, and a spring holding collar surrounding the piston member which is encircled by said compression spring, said spring acting to yieldingly hold the heads of the piston members separated.

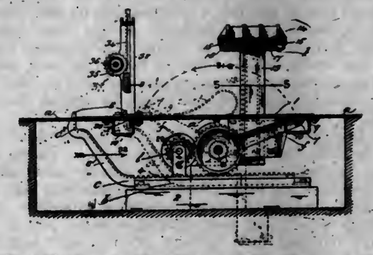
2. An engine piston embodying two members fitting one within the other and each having a head, said members having a telescopic and slidable relation to each other, a compression spring encircling one of the piston members and bearing at one end against the other piston member, a spring holding collar surrounding the piston member which is encircled by said compression spring, said spring acting to yieldingly hold the heads of the piston members separated, and means for limiting the separating movement of said heads.



3. An engine piston embodying two members fitting one within the other and each having a head, said members having a telescopic and slidable relation to each other, a compression spring encircling one of the piston members and bearing at one end against the other piston member, and a spring holding collar surrounding the piston member which is encircled by said compression spring, said spring acting to yieldingly hold the heads of the piston members separated, the head of the inner piston member being vented.

[Claims 4 and 5 not printed in the Gazette.]

1,252,270. SHEET-METAL-DOUBLING MACHINE. JOHN G. GRAHAM, Granite City, Ill. Filed Feb. 28, 1917. Serial No. 151,479. (Cl. 153—21.)



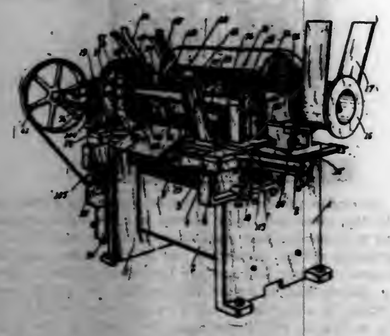
1. In a sheet-metal doubling machine, the combination of a floor adapted to support the said sheet, a rotatable shaft arranged beneath the floor transversely to the sheet, a toothed wheel fixed on the shaft, a toothed rack adapted to be engaged by the said wheel and having a suitable member adapted to bear against the rear end of the sheet, an arm fixed at one end to the shaft and adapted at its other end to bear against the underside of the sheet, means for rotating the shaft, and means for pressing and flattening the folded portion of the sheet on to the underlying portion thereof.

4. In a sheet-metal doubling machine, the combination of a floor adapted to support the said sheet, a rotatable shaft arranged beneath the floor transversely to the sheet, a toothed wheel fixed on the shaft, a toothed rack adapted to be engaged by the said wheel and slidable longitudinally in a plane parallel to the floor, the said rack having a suitable member adapted to bear against the rear end of the sheet, an arm fixed at one end to the shaft at each side of the said wheel, a bar hinged to and extending between the said arms at a suitable distance forward from the shaft, the said bar bearing thereat against the underside of the sheet, a shaft, a toothed wheel on the last

named shaft, a presser-plate, a member adapted to carry and to lower and raise the said plate on to and from the folded portion of the sheet respectively, a toothed rack carried by the said member and adapted to be engaged by the last named wheel, and means for rotating the said wheels independently of each other.

[Claims 2 and 3 not printed in the Gazette.]

1,252,271. LATHE. WILLIAM KISTLER and ARTHUR L. BUTCHER, Jackson, Mich., assignors to Hayes Wheel Company, Jackson, Mich. Filed Mar. 11, 1914. Serial No. 824,004. (Cl. 142—3.)



1. In a lathe, the combination of a frame, a spindle driving shaft, a head stock, a tail stock, a sleeve rotatably mounted on said shaft on which said head and tail stocks are mounted, live spindles carried by said head stock, gears rotatably mounted on said spindles, a gear on said shaft meshing with said gears on said spindles, clutches for connecting said spindle gears to said spindles, comprising adjustable clutch members slidably but non-rotatably mounted on said spindles, a releasing cam for said clutches, said adjustable clutch members having cam engaging flanges thereon adapted to engage said releasing cam as the head stock revolves, springs carried by said spindles for forcing the clutch members into engagement when they are released by said cam, and means for driving said head stock.

5. In a lathe, the combination of a frame, a head stock, live spindles carried by said head stock, a driving gear, gears rotatably mounted on said spindles and meshing with said driving gear, clutches for connecting said spindle gears to said spindles, comprising adjustable clutch members slidably but non-rotatably mounted on said spindles, a releasing cam for said clutches, said adjustable clutch members having cam engaging flanges thereon adapted to engage said releasing cam as the head stock revolves, springs carried by said spindles for engaging said clutches when said adjustable members are released by said cam, and means for driving said head stock.

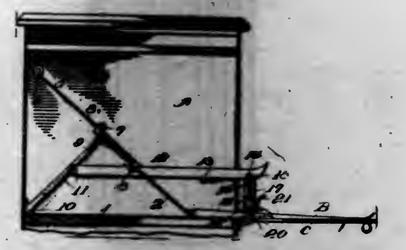
10. In a lathe, the combination of a frame, a bed, a head stock, spindles carried by said head stock, gears on said spindles, a driving gear meshing with said gears on said spindles, clutches for securing said spindle gears to said spindles, means for controlling said clutches whereby they are caused to engage and disengage as the head stock is revolved, chucks on said spindles, a positioning member having curved abutments thereon disposed side by side, the end of the outer abutment being in advance of the end of the inner abutment, radially disposed engaging fingers on said spindles arranged in opposed pairs, one pair being wider than the other and being adapted to engage the outer abutment, the narrower fingers being adapted to engage the inner abutment whereby the chucks are positioned and rotation of the spindles prevented as they are carried to work receiving position, all coacting for the purpose specified.

15. In a lathe, the combination of the frame, a head stock and a tail stock, multiple spindles carried by said head stock, means for driving the same, chuck members, clutch members for connecting the spindles to the said members, with means of automatically controlling the same, means for positioning the chuck members to accurately engage the work fed thereto, a feed magazine for delivering the work, a cutter head for turning the said work, and a pattern cam and opposed disk associated with said frame and cutter head for turning irregular forms.

20. In a lathe, the combination of a frame, a work bed mounted thereon, a cutter head shaft mounted in said frame, a head-stock rotatably mounted on said bed, means for rotating said headstock, spindles rotatably mounted in said head-stock, means for driving said spindles, a pattern cam mounted on said work bed, means on said frame for engaging said pattern cam, and means for adjusting said last-named means to regulate the size of the article.

[Claims 2 to 4, 6 to 9, 11 to 14, and 16 to 19 not printed in the Gazette.]

1,252,272. OVEN. THEODORE HENRY KNORR, Breckenridge, Colo., assignor of one-half to Henry A. Recen, Denver, Colo. Filed Sept. 2, 1916. Serial No. 118,194. (Cl. 126—340.)



1. The combination with an oven and a door, of a movable bottom, telescopic members connected with the movable bottom and rear of the oven, a crank shaft connected to one of the telescopic members, a draw bar pivotally connected to the crank shaft at one end and having its outer free end connected to the oven door, whereby upon the opening and closing of the door, the movable bottom will be moved from and into the oven.

2. The combination with an oven and a door, of a movable bottom, telescopic members connected with the movable bottom and rear of the oven, a crank shaft connected to one of the telescopic members, a draw bar pivotally connected to the crank shaft, a vertically adjustable latch carried by the oven door and adapted to engage the outer free end of the draw bar, whereby upon the opening and closing of the door the movable bottom will be moved from and into the oven.

3. The combination with an oven and a door, of a movable bottom, telescopic members connected with the movable bottom and rear of the oven, a crank shaft connected to one of the telescopic members, a draw bar pivotally connected to the crank shaft at one end and having its outer free end slidably supported upon a pin, a vertically adjustable latch carried by the door, which, when in its upper or lower position is adapted to engage or disengage the outer free end of the draw bar.

4. The combination of an oven and door, a removable bottom, a slotted bracket, an extension lever pivotally connected at one end to the movable bottom and slidably connected at the other end with the slotted bracket, a crank shaft pivotally connected with the extensible lever, a slidably pivoted draw bar pivotally connected with one end of the crank shaft, a bracket connected with the oven door in position to engage a notch in the draw bar to slide the latter and actuate all its connected parts when the oven door is moved.

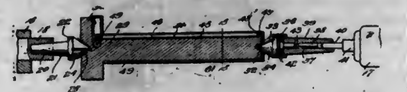
1,252,273. SEPARATING MECHANISM FOR COTTON-SEED HULLERS. JOHN W. LEVER, Columbia, S. C. Filed Sept. 11, 1916. Serial No. 119,567. (Cl. 130—15.)



1. In a mechanism for separating hulls from a mixture of hulls and meats, the combination of an inclined screen having a meats outlet extending transversely thereof and located intermediate the ends of the screen, said screen having small openings in its bottom above said outlet and also having concave screens below said outlet and provided with holes larger than said small openings, a blade adjustable toward and away from the edge of said outlet so as to regulate the amount of hulls passing through said outlet with the meats, and means for shaking said screen.

2. In a mechanism for separating cotton seed hulls from a mixture of hulls and meats and also for controlling the ammonia and protein content of the meal made from the meats, the combination of an inclined screen having a transversely extending meats outlet intermediate its ends, the portion of said screen above said outlet having small perforations for the passage therethrough of small meats, a blade adjustable with respect to the edge of said outlet to regulate its size and the amount of hulls passing therethrough with the large meats, a retarding device mounted below the edge of said blade, and means for shaking said screen.

1,252,274. WORK-HOLDING MECHANISM FOR LATHES AND THE LIKE. WILLIAM T. LINGO, Philadelphia, Pa. Filed Mar. 10, 1916. Serial No. 83,416. (Cl. 82—43.)



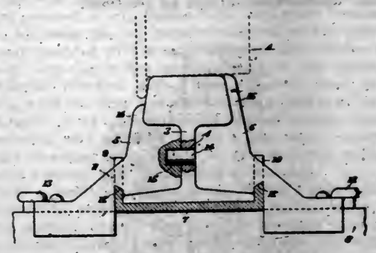
2. A work holding mandrel for lathes, comprising a cylindrical body having centering sockets in the ends thereof, said mandrel body having a longitudinal seat in the peripheral face thereof formed with a rounded bottom, a work gripping clutch bar extending lengthwise of said seat and having a rounded inner edge and a beveled gripping edge, said clutch bar being adapted to rock in said seat to engage and release the work, means for imparting a positive rocking movement to said clutch bar, the last named means comprising a countershaft extending at a right angle to the longitudinal axis of the mandrel, and a gear actuated by said countershaft and connected with said clutch bar, said gear being resiliently connected with said clutch bar.

[Claims 1, 3, and 4 not printed in the Gazette.]

1,252,275. RAIL-JOINT. HARRY F. LORBER, Monongahela, Pa. Filed Nov. 25, 1916. Serial No. 133,428. (Cl. 239—3.)

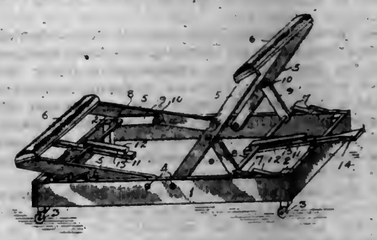
1. A rail joint comprising in combination with a pair of rail ends, a base plate U-shaped in cross section in which the rail ends are seated, side plates having a vertically slidable connection with the base plate and a portion engaging a tie, one of said plates having an extension lying parallel to the head portion of both ends of the rails and securing elements passing through the extension and into the rail heads.

2. A rail joint comprising in combination with a pair of rail ends, a base plate supporting the ends and having parallel upstanding flanges, a pair of side plates for each rail end each formed with an extension having a



dove tail vertical slidable connection with a slot in one of said flanges, and further embracing a tie.

1,252,276. CASKET-TRIMMING TRUCK. ALLEN MCCLAIN, Xenia, Ohio. Filed June 12, 1916. Serial No. 103,083. (Cl. 144—288.)



1. In a device of the character described, a main frame, a plurality of independently adjustable trestles carried upon the main frame, and means for independently maintaining the trestles in different positions of adjustment, and a foot trip to independently release each trestle from adjusted position.

4. In a device of the character described, a main frame, two supporting trestles pivoted to the main frame and independently adjustable about their pivotal connections vertically to different elevations, a pair of swinging arms pivoted to each trestle, a transverse detent rod carried by each pair of arms, a plurality of stop shoulders located on the main frame and adapted to be engaged by the transverse rods to maintain the trestles in adjusted position, and an independent relase lever for each detent rod.

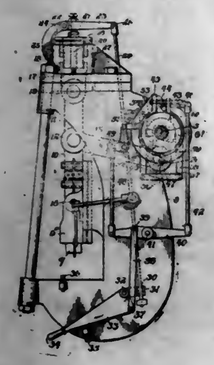
[Claims 2 and 3 not printed in the Gazette.]

1,252,277. APPLIANCE FOR DIE-PRESSES OR THE LIKE. CHARLES D. MCDONALD, Chicago, Ill. Filed Feb. 23, 1917. Serial No. 150,445. (Cl. 74—46.)

4. The combination with movable die mechanism, of power driven means for operating said mechanism, a shiftable member adjacent one end of said mechanism and adapted to be actuated when said mechanism encounters an abnormal pressure during its movements, a pivoted lever member, a connection between the shiftable member and pivoted lever member, clutch mechanism for controlling the application of power to said operating means, means for actuating said clutch mechanism, a connection between said clutch mechanism actuating means and said lever, and said lever and connecting means serving to amplify the movement of said shiftable member in transmitting said movement to the clutch actuating means, substantially as described.

9. The combination with movable die mechanism, of power driven means for operating said mechanism, means operable from abnormal pressure encountered by the die mechanism during its movements, for cutting off the application of power from said operating means, means exert-

ing a resistance to prevent actuation of the power cutting-off means during the normal operation of the die, and means for adjusting the degree of resistance of said resistance means, substantially as described.



11. The combination with movable die mechanism, of power driven means for operating said mechanism, mechanism for controlling the application of power to said power driven means, shiftable emergency acting means having a part thereof located adjacent one end of said die mechanism and adapted to be actuated to break the application of power to said driven means when said die mechanism meets abnormal resistance to its normal movement, substantially as described.

15. The combination with movable die mechanism, of power driven means for operating said mechanism, mechanism for controlling the application of power to said power driven means, shiftable emergency acting means having a part thereof located adjacent said die mechanism and adapted to be actuated to break the application of power to said power driven means when an abnormal resistance to the movement of the die is encountered, and means exerting a pressure to prevent movement of the emergency acting means in the absence of said abnormal pressure, substantially as described.

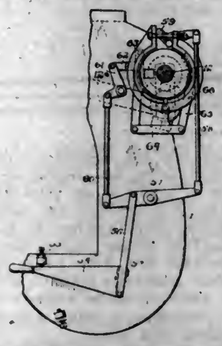
19. The combination with movable die mechanism, of power driven means for operating said mechanism, means for controlling the application of power to said power driven means, shiftable emergency acting means adapted to be actuated by abnormal resistance to the normal movement of the die mechanism and stop the application of power to said power driven means, and means capable of manual operation for resetting the emergency acting means to normal position, substantially as described.

[Claims 1 to 3, 5 to 8, 10, 12 to 14, and 16 to 18 not printed in the Gazette.]

1,252,278. ATTACHMENT FOR THE FEED-BARS OF DIE-PRESSES OR THE LIKE. CHARLES D. MCDONALD, Chicago, Ill. Filed Feb. 23, 1917. Serial No. 150,447. (Cl. 74—46.)

1. In mechanism of the class described, the combination of feed means, power driven means for actuating the feed means, means for controlling the application of power to said power driven means, and means for actuating said power controlling means to stop the application of power to said power driven means when said feed means encounter an abnormal resistance to their normal movement, substantially as described.

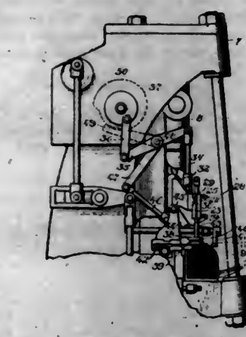
4. In mechanism of the class described, the combination of feed means, power driven means for actuating the feed means, a releasable connection between the feed means and power driven means adapted to release when the feed means encounter an abnormal resistance to their normal movement, means for controlling the application of power to the power driven means, shiftable means for actuating the power controlling means and shifted by the breaking of said releasable connection, and when so shifted actuating said power controlling means to cut off



the supply of power to said power driven means, substantially as described.

[Claims 2, 3, and 5 to 10 not printed in the Gazette.]

1,252,279. WORK-SEPARATING MEANS. CHARLES D. MCDONALD, Chicago, Ill. Filed Mar. 17, 1917. Serial No. 155,449. (Cl. 271—26.)



1. In a work separating and lifting device, the combination of a plurality of suction cups, means for moving the suction cups toward and from the work, means permitting some of the cups to have a different degree of movement than the remainder to allow contact of all of the cups with irregular sheets of work, and a fixed contact for bringing all of the cups to even alinement at the end of their movement away from the work whereby the piece of work carried by the cups is brought to a straight position when the separating movement is complete, substantially as described.

4. In a work separating and feeding device, the combination of a series of suction cups, a suction conduit associated with each cup, means for moving said cups and conduits toward and from the work, means for permitting any cup and its associated conduit to have a different distance of travel than the remainder, and flexible main suction supply conduits extending between the suction cup conduits, substantially as described.

[Claims 2, 3, and 5 to 15 not printed in the Gazette.]

1,252,280. SUCTION-CUP. CHARLES D. MCDONALD, Chicago, Ill. Original application filed Mar. 17, 1917, Serial No. 155,449. Divided and this application filed Aug. 23, 1917. Serial No. 187,868. (Cl. 57—9.)

1. A suction cup, comprising a metal ring having a smooth lower face for engagement with the work, a conduit member in the form of a rigid pipe, a connection between the ring and conduit forming a closure for the upper end of the cup, and said connection being flexible to permit a universal movement between the ring and conduit to enable the ring and conduit to move into any desired position of angularity with respect to the conduit and obtain a firm engagement with irregular sheets of work, substantially as described.



2. A suction cup, comprising a metal ring having a smooth lower face for engagement with the work, a conduit member in the form of a rigid pipe, a flexible diaphragm in the form of a flat disk having a central opening, means for securing the outer edge of the diaphragm to the ring, means for securing the inner edge of the diaphragm to the conduit, said diaphragm forming a closure for the upper end of the ring and forming a flexible connection between the conduit and ring, permitting the ring to move to any desired position of angularity with respect to the conduit and obtain a firm engagement with irregular sheets of work, substantially as described.

3. A suction cup, comprising an outer ring member having an inwardly extending flange at its upper end leaving a central opening at said upper end, an inner ring member having a threaded engagement with the inner wall of the outer ring member, a rigid conduit extending into said central opening, a flexible disk having a central opening, said disk being clamped at its outer edge between the upper face of the inner ring and the under face of said flange, clamping means associated with said conduit for engaging and clamping the inner edge of the flexible disk, and said disk when in position forming a closure for the central opening of said outer ring, and forming a flexible connection between the conduit and outer and inner rings to permit said rings to move into any desired position of angularity with respect to the conduit and the cup to obtain firm engagement with irregular sheets of work, substantially as described.

1,252,281. PISTON. HENRY A. MCGREGOR and NATHANIEL KETCHAM, Bakersfield, Cal. Filed Apr. 7, 1917. Serial No. 160,515. (Cl. 74—85.)



1. The combination with a piston, of a pair of coöperating bearing members divided transversely to the path of movement of said piston and provided with recesses which together form a spherical socket, a connecting rod provided at one end with a ball mounted between said bearing members and movable in said socket, and screws solely connecting the bearing members together and to the piston.

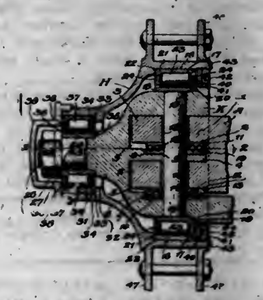
4. The combination with a piston having a spider, the central portions of said spider being cut away forming a recess, an inner bearing member mounted within said recess and provided with a semi-spherical outer recess and a flange overlapping the outer portions of said spider, a cap member provided with a semi-spherical inner recess forming with the first mentioned recess a spherical socket and adapted to fit upon said inner bearing member, means for securing said members to the spider, and a connecting rod provided with a ball at one end and movably mounted between said members in said socket.

6. The combination with a piston having a spider therein comprising substantially radially extending webs, the central portions of said webs being cut away to form a recess, bosses provided with screw openings and formed upon said webs, a bearing member fitted in the recess of said spider, abutting the opposed edges of the outer portions of the spider and having a flange extending over said outer portions, a cap member mounted above said first-mentioned member and having a flange engaging the flange of said first-mentioned member, said members being recessed to provide a spherical socket therebetween and said flanges having openings therethrough in alinement with the openings in said bosses, screws extending through said openings for clamping said bearing members together and to said spider, and a connecting rod provided with an adjustable ball at one end movably mounted in said socket.

9. The combination with a piston having on its inner side a spider, of a sectional bearing divided transversely and removably mounted in said spider, means for securing said bearing to the spider, and a connecting rod having movable connection with said bearing.

[Claims 2, 3, 5, 7, and 8 not printed in the Gazette.]

1,252,282. STEERING-KNUCKLE FOR AUTOMOBILES OR MOTOR-VEHICLES. ELMER E. MCINTYRE, Pittsburgh, Pa. Filed Mar. 11, 1916. Serial No. 83,497. (Cl. 21—142.)



1. A steering knuckle having in combination, a stub-axle provided with a pivot-pin opening, and having therein a central open-end chamber with a flat substantially circular tongue projecting axially and horizontally from the inner end wall thereof, an axle having substantially circular bosses at the ends thereof with a pivot-pin opening therein, each boss being horizontally bifurcated to the pivot-pin opening and having a substantially semi-circular recess therein extending from said bifurcation into said boss, said bifurcated boss being adapted to set into the chamber in the stub-axle, and the tongue in the stub-axle being adapted to set in said bifurcation and into the adjoining recess, and a pivot-pin for holding said parts assembled.

2. A steering knuckle having in combination, a stub-axle provided with a pivot-pin opening, and having therein a central open-end chamber with a flat substantially circular tongue projecting axially and horizontally from

the inner end wall thereof, an axle-end having a substantially circular boss with a pivot-pin opening therein, said boss being horizontally bifurcated to the pivot-pin opening and having a substantially semi-circular recess therein extending from said bifurcation into said boss, said boss being adapted to set into the chamber in the stub-axle, and the tongue in said chamber being adapted to set in said bifurcation and into the adjacent recess, and a pivot-pin for holding said parts in assembled position, packing strips arranged in the outer end of said chamber, one at each side thereof, adapted to bear against and sweep the vertical curved walls of said circular boss between the bifurcation therein and the axle, and obliquely disposed retaining plates secured to said stub-axle and adapted to hold said packing strips in position.

1,252,283. METHOD OF MAKING SHOES. JOHN F. MCLAUGHLIN, Jamaica Plain, Mass. Filed July 2, 1917. Serial No. 178,160. (Cl. 12—142.)



1. The method of constructing shoes comprising the steps of assembling and securing together the outer sole and upper, applying the heel and the heel foxing as a single unit, and securing said heel and foxing in place.

3. The method of constructing shoes comprising the steps of assembling and securing together the outer sole and upper, assembling the heel foxing and the heel and securing them together to form a single unit, applying said unit and securing it in place.

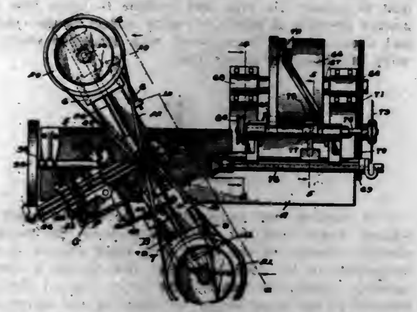
5. The method of constructing shoes comprising the steps of assembling the upper with the exception of the heel foxing and securing the outer sole to said upper, forming a pair of opposed notches at the front end of the heel portion of said sole, applying the heel, the heel foxing, and the heel counter in a single unit and guiding the front edges of said counter and foxing by said notches, and securing said foxing to said upper.

[Claims 2 and 4 not printed in the Gazette.]

1,252,284. MACHINE FOR MANUFACTURING SPIRALLY-WOUND STRAWS. LEWIS C. MALTBY, Washington, D. C., assignor to The Stone Straw Company, Washington, D. C., a Corporation of New Jersey. Filed Feb. 12, 1916. Serial No. 78,056. (Cl. 93—80.)

1. The combination with a machine-bed or frame, a mandrel, and a belt passed around the latter, of a glue-pot placed between the bed and mandrel and in close proximity to the windings of the belt on the mandrel, a grooved plate hinged to the glue-pot adapted to receive strips of paper being fed to the mandrel, and adjustable tensions carried by the plate which bear yieldingly toward the bottoms of the grooves.

2. The combination with a machine-bed or frame, a mandrel, and a belt passed around the latter, of a glue-pot placed between the bed and mandrel and in close proximity to the windings of the belt on the mandrel, a glue-wheel rotatably supported in the glue-pot, a grooved plate hinged to the glue-pot adapted to receive strips of paper being fed to the mandrel, adjustable tensions carried by the plate which bear yieldingly toward the bottoms of the grooves, and a slide adjustably connected to the lower surface of said hinged plate for scraping the glue from the glue-wheel.

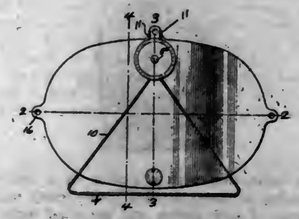


3. The combination with a machine bed or frame and a mandrel, of a bolster carrying horizontal and vertical shafts, means for driving the latter, pulleys carried by the vertical shafts, a belt passed around said pulleys and mandrel, a gear carried by one of the horizontal shafts, a glue-pot, a glue-wheel a trifle less than half the diameter of the belt pulleys and mounted in said glue-pot, a gear on the glue-wheel shaft, and an intermediate gear between said last-named gear and the gear on the horizontal shaft carried by the bolster.

4. The combination with a machine bed or frame and a mandrel, of a bolster carrying horizontal and vertical shafts, means for driving the latter, pulleys carried by the vertical shafts, a belt passed around said pulleys and mandrel, a gear carried by one of the horizontal shafts, a glue-pot, a glue-wheel a trifle less than half the diameter of the belt pulleys and mounted in said glue-pot, a gear on the glue wheel shaft, an intermediate gear between said last-named gear and the gear on the horizontal shaft carried by the bolster, and means for adjusting the position of said intermediate gear in an arc from the center of the gear carried by the horizontal shaft on the bolster.

5. The combination with a machine bed or frame and a mandrel, of a bolster carrying horizontal and vertical shafts, means for driving the latter, pulleys carried by the vertical shafts, a belt passed around said pulleys and mandrel, a gear carried by one of the horizontal shafts, a glue-pot over which strips of paper are fed to the mandrel, a glue-wheel a trifle less than half the diameter of the belt pulleys and mounted in said glue-pot, a gear on the glue-wheel shaft, an intermediate gear between said last-named gear and the gear on the horizontal shaft carried by the bolster, and means for applying tension to the strips of paper fed to the mandrel.

1,252,285. CONVERTIBLE RECEPTACLE FOR HOT-WATER AND FOUNTAIN-SYRINGES. THOMAS FLETCHER MANLEY, East Liverpool, Ohio. Filed Aug. 28, 1915. Serial No. 47,829. (Cl. 128—39.)

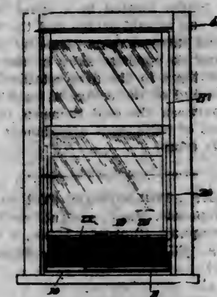


1. A device of the character described including a liquid containing receptacle having an inlet and an outlet, collars formed about the inlet and outlet, closure caps associated with the collars and a triangular supporting frame removably associated with one of the collars for retaining the receptacle in a substantially vertical position.

2. A device of the character described including a receptacle having an inlet and an outlet, an exteriorly extending collar formed at the inlet, means for closing the inlet, a fountain syringe attachment associated with the outlet and a supporting frame for maintaining the receptacle in a substantial vertical position to facilitate the efficient operation of the syringe attachment, said frame formed from a single piece of wire including a base, sides extending from the base and collar engaging arms projecting angularly from the sides and in spaced relation with each other.

[Claim 3 not printed in the Gazette.]

1,252,286. WINDOW-SCREEN. HENRY N. MASSON, New York, N. Y. Filed Apr. 18, 1917. Serial No. 162,894. (Cl. 156—39.)



1. In combination with a window frame and sliding sash therefor, of a roller bracket secured to the frame, a spring operated roller journaled on said bracket, a screen wound about said roller and connected to and movable with said sash, and substantially U-shaped guide elements for the opposite longitudinal edges of the screen, said elements being pivotally mounted upon said bracket.

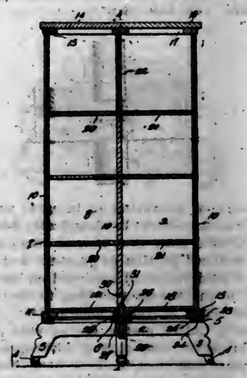
2. The combination with a window frame and sliding sash therefor, of a roller bracket secured thereto and including relatively adjustable sections, means for holding said sections fixed relatively in adjusted position, a roller journaled on said bracket, a screen wound about said roller connected to and movable with said sash, and substantially U-shaped guiding elements for the opposite longitudinal edges of the screen, and said elements being pivotally mounted on the respective sections of said bracket.

4. The combination with a window frame and sliding sash therefor, of a roller bracket secured to the frame and including relatively adjustable sections, a spring operated roller journaled on said bracket and including adjustable telescopic sections, a screen wound about said rollers and consisting of a plurality of relatively adjustable sections having their adjacent edges overlapped, a flanged vertically disposed plate for each screen section, a strip secured to said plate and clamping therebetween the upper edge of said screen section, said flanged plates being slidably adjustable, means for holding said plates fixed relatively, and means on said sash engaging the flange on said plates whereby the screen is susceptible of movement with the sash.

[Claim 3 not printed in the Gazette.]

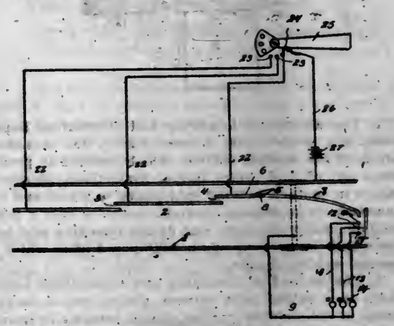
1,252,287. DISPLAY-CABINET. BENJAMIN F. MIFFLIN, Trenton, N. J. Filed Aug. 2, 1916. Serial No. 112,814. (Cl. 211—21.)

A cabinet of the class described comprising a base and a body detachably and revolubly mounted on the base, the base and body being respectively provided on the upper side and under the bottom with circular track members and also with centrally arranged hub members, said body comprising a pair of members separable on a vertical line intersecting the center of the body, said members having means detachably securing them together and each of said members having a bottom, and a pivot for the body comprising a bolt extending upwardly from



the center of the base and arranged between the bottoms of the body members, said bolt being provided with a nut which bears on said bottoms so that the bolt serves to hold the body on the base, one of the body members having a back wall which forms a partition between the body members said back wall having an opening at its lower end affording access to and permitting the removal of said nut of said bolt.

1,252,288. SIGNAL. CHARLES W. MONAHAN, Pittsburgh, Pa. Filed Jan. 31, 1917. Serial No. 145,751. (Cl. 246—25.



1. A railway signaling system comprising a track, including a series of laterally spaced contact rails, a train carried circuit and a switch mechanially operated by the rails and adapted to pass current from the rails to the train carried circuit.

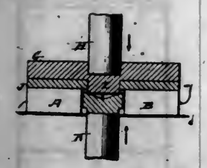
3. In a railway signaling system, a series of contact rails spaced laterally and longitudinally, the advance rail being curved laterally for a portion of its length, and a switch constructed to engage said rails and be operated thereby.

5. In a railway signaling apparatus, in combination, a series of contact rails spaced apart laterally and longitudinally with the ends thereof overlapping, the first rail of said series being curved laterally, a plunger mounted for sliding movement and having an arm arranged to en-

gage the rails, a switch the movable element of which is connected to the plunger, and a spring acting upon the plunger for holding the switch open.

[Claims 2 and 4 not printed in the Gazette.]

1,252,289. METHOD OF PRODUCING INTEGRAL PROJECTIONS ON METAL PLATES. THOMAS E. MURRAY, Jr., Brooklyn, N. Y. Filed Oct. 4, 1917. Serial No. 194,683. (Cl. 219—3.)

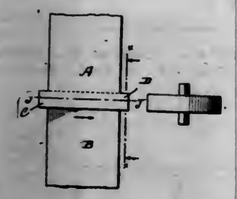


1. The method of producing an integral projection on a metal plate, which consists in electrically heating a localized portion of said plate to a viscous state, and then subjecting said localized portion to pressure and partial penetration over a predetermined area and on one side, whereby a quantity of metal corresponding to that displaced on said side is extruded on the opposite side.

5. Electrically united plates, one of said plates having an integral projection entering a corresponding opening in the other plate and electrically welded therein.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,252,290. METHOD OF LOCALIZING AND ELIMINATING IMPERFECTIONS IN ELECTRICALLY-WELDED JOINTS. THOMAS E. MURRAY, New York, N. Y. Filed Nov. 1, 1917. Serial No. 199,775. (Cl. 219—10.)



1. The method of localizing and eliminating imperfections in a welded joint between plates, due to make and break of the welding current, which consists in providing upon one of said plates lateral projections, placing said plates in contact, causing said plates to travel and simultaneously to be pressed between electrodes over a path including said projections, and finally removing said projections and the portions of the juxtaposed plate which have become welded thereto.

2. The method of localizing and eliminating imperfections in a welded joint between plates, due to make and break of the welding current, which consists in providing upon the plates to be welded lateral projections, placing said plates in contact with said lateral projections overlapping one another, causing said plates to travel between electrodes over a path including said projections, and finally removing said projections from said plates.

1,252,291. ARTIFICIAL DENTURE. NILS W. NORDSTROM, Brooklyn, N. Y. Filed Oct. 2, 1916. Serial No. 123,312. (Cl. 32—12.)

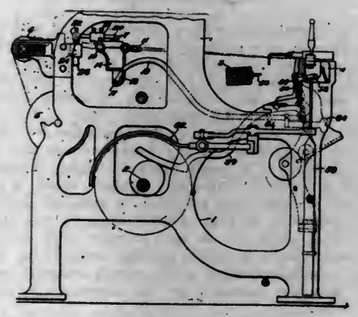
1. A dental joint including opposed artificial supports designed to be brought together in juxtaposition, a pair of intermediate plates separately attachable in substantial parallelism one to each of said supports, and coacting interengaging elements respectively carried by said plates, one of said elements consisting of a stud extending partly up the face of its plate, and the other element being a socket of corresponding height formed in the face of the opposite plate.



2. A dental joint including approximately parallel plates arranged to adhere closely frontwise one to the other, and centrally contracted retainers projecting respectively therefrom in position for interengagement on the same side of both plates, one of said retainers being composed of a stud of limited height and a web therefor joining the same to its plate, and the other retainer consisting of a socket commensurate with said stud originating in the other plate at the point of intersection with said web.

3. An artificial denture including a retainer adapted to be fixed to a tooth, a second retainer attachable to another tooth at a certain distance in line therewith, a bridge rigidly held to the latter named retainer at one end, a pair of plates located in a space intervening between the other end of said bridge and the first mentioned retainer, coacting interengaging elements carried by said plates, and filling on opposite sides of the plates serving to fasten one of them to the first retainer and the other one to adjoining end of the bridge in such a manner that a single joint between the said elements is obtained parallel to the plane of permanent attachment of the distant retainer with its tooth.

1,252,292. WARP STOP-MOTION FOR LOOMS. JONAS NORTHROP, Hopedale, Mass., assignor to Hopedale Manufacturing Company, Hopedale, Mass., a Corporation of Massachusetts. Filed June 7, 1913. Serial No. 772,447. (Cl. 139—92.)



1. A warp stop motion for looms having, in combination, warp detectors, a feeler, a notch-bar connected with the feeler, actuating means therefor, a knock-off bar and a device for connecting the actuating means with the notch-bar movable longitudinally when the notch-bar is arrested upon the fall of a warp detector to move the knock-off bar into position for knocking off the loom.

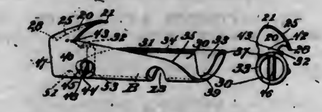
4. A warp stop motion for looms having, in combination, warp detectors, a feeler, actuating means therefor, a shipper lever, knock-off means for the shipper lever, longitudinally moving means connecting the feeler with the actuating means and adapted, upon the arrest of the feeler, to move the knock-off means into position for knocking off the shipper and a slide bar connection between the longitudinally moving means and the actuating means, having provision for movement relative to both upon the occurrence of warp breakage.

7. A warp stop motion for looms having, in combination, warp detectors, a feeler, knock-off means, connections between the feeler and knock-off means including a notch-bar connected with the feeler adapted to move forwardly and backwardly, and actuating means for the notch-bar connected with the knock-off means, said notch-bar and its actuating means having provision for permitting the notch-bar to remain stationary on the forward movement of its actuating means when a fallen warp detector on warp breakage is in the path of movement of the feeler and for permitting the notch-bar to move backward with its actuating means on the next backward movement of the latter.

12. A warp stop motion for looms, having in combination, warp detectors, a feeler, knock-off means, connections between the feeler and knock-off means including a notch-bar and connections between the feeler and notch-bar, and means for actuating the notch-bar including a slide bar connected with the knock-off means, said slide bar being adapted to be disengaged from the notch in the notch-bar upon the occurrence of warp breakage and to engage the notch in the notch-bar on the next movement of the notch-bar actuating means in the direction opposite to that in which the notch-bar was moving on the occurrence of warp breakage.

[Claims 2, 3, 5, 6, 8 to 11, and 13 to 20 not printed in the Gazette.]

1,252,293. SHUTTLE. JONAS NORTHROP, Hopedale, Mass., assignor to Hopedale Manufacturing Company, Milford, Mass., a Corporation of Massachusetts. Filed Apr. 5, 1915. Serial No. 19,209. (Cl. 139—46.)



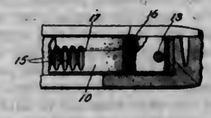
1. A self-threading shuttle, having a threading block provided with a leftwardly, downwardly and inwardly inclined shield, a slot for admitting the thread into the block and a horn conforming externally with the outside contour of the block interposed in one end of the slot, for preventing the thread from escaping up through the slot.

5. A self-threading shuttle having a cylindrical threading block provided with a tubular chamber, a spiral slot in the top of the block, a delivery eye, a guide pin interposed vertically in the left-hand end of the tubular chamber and adjacent to the delivery eye, and a delivery eye entrance slot formed in the bottom of the block leading from the tubular chamber to the delivery eye.

15. A self-threading shuttle having at its thread delivery end a cylindrical threading block provided with a thread chamber, an entrance into the chamber, a delivery eye at the forward outer end of the block, a concavo-convex shelf constituting the lower forward end of the thread block, and a delivery eye slot situated rearwardly of the shelf and communicating between the thread chamber and the delivery eye.

[Claims 2 to 4, 6 to 14, and 16 to 22 not printed in the Gazette.]

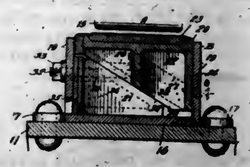
1,252,294. SHUTTLE. JONAS NORTHROP, Hopedale, Mass., assignor to Hopedale Manufacturing Company, Milford, Mass., a Corporation of Massachusetts. Original application filed Feb. 5, 1915, Serial No. 19,209. Divided and this application filed May 26, 1917. Serial No. 171,132. (Cl. 139—27.)



3. A loom shuttle having, in combination, U-shaped bobbin holding jaws, recesses in the jaws for maintaining the bobbin in operative position, and a chamfer on the top inside edges of the jaws tapering gradually from the bottom of the rounded portion of the jaws to about the beginning of the parallel sides of the jaws, from which point to the ends of the jaws the chamfer runs substantially parallel with the top edges of the jaws.

[Claims 1 and 2 not printed in the Gazette.]

1,252,295. ADJUSTABLE SIDE BEARING FOR RAILWAY-CARS. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Oct. 23, 1914. Serial No. 868,209. (Cl. 64—64.)



1. In a side bearing for railway cars, the combination with a box-like casting adapted to be secured to a bolster, of adjusting blocks mounted within said casting, said blocks having inclined faces, a third block also mounted within said casting and having inclined faces coöperating with the inclined faces of said first named adjusting blocks and provided also with a striking surface, and tightening bolts extending from said adjusting blocks through said third block and adapted to retain all the blocks in adjusted position.

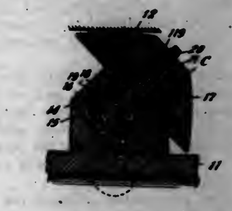
[Claims 2 and 3 not printed in the Gazette.]

1,252,296. DRAFT-RIGGING YOKE. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Sept. 2, 1915. Serial No. 48,586. (Cl. 213—42.)

1. A yoke of the character described comprising two members, each of which is provided with a forwardly extended flange arranged to engage the under side of a draw bar shank in front of the butt of the draw bar and thereby support the draw bar and prevent it from coming in contact with a carry iron.

[Claim 2 not printed in the Gazette.]

1,252,297. SIDE BEARING. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed July 15, 1916. Serial No. 109,421. (Cl. 64—64.)



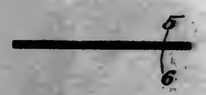
1. In a side bearing, the combination with a horizontally disposed base member adapted to be secured to a truck bolster, said base member having a journal bearing formed therein inclined at 45 degrees to the vertical, of a conical roller having a journal mounted in said bearing,

the load being transmitted to the base member through the journal.

3. In a side bearing, the combination with a base member having an inclined journal bearing socket therein, of a roller of conical form having a journal rotatably mounted in said bearing, the bearing being adapted to contain a lubricant, substantially as described.

[Claims 2, 4, and 5 not printed in the Gazette.]

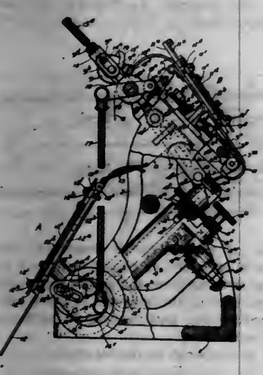
1,252,298. MANUFACTURE OF BOX-TOES. JOSEPH H. ORDWAY, Brookline, Mass. Filed Jan. 18, 1917. Serial No. 142,989. (Cl. 12—145.)



1. A process of making box toes which includes inserting a previously-prepared sheet of stiffening compound in solid form into an upper containing a layer of fabric in its toe portion, with the compound located adjacent to the fabric, softening the compound to render it plastic, and lasting the upper with the compound in a plastic condition, thereby forcing the plastic compound into the fabric and simultaneously molding the latter to the shape of a box toe conforming to the toe portion of the last.

[Claims 2 to 6 not printed in the Gazette.]

1,252,299. EMBOSSING-MACHINE. WALTER P. OSGOOD, Malden, Mass., assignor to Thomas J. Edwards, Melrose, Mass. Filed Jan. 2, 1915. Serial No. 13. (Cl. 41—7.)



1. In an embossing or printing machine, the combination with a die and presser-member, and means for feeding a transfer-strip intermittingly between the said parts, of a pull-off acting to pull the strip forward from the source of supply during the closing together of the said parts, and to slacken the strip during the succeeding opening of such parts to facilitate the feed movement of the strip.

21. In an embossing or printing machine, the combination with the impression-members, of a pair of feed-rolls, one thereof mounted to swivel in a plane parallel with the path of movement of the transfer-strip, controlled as to the angle with which its axis crosses the said path by the transfer-strip, and acting to automatically restore the strip to the proper path of movement.

33. In an embossing or printing machine, the combination with a die-support and die adapted to enter within the top of the upper of a shoe, and a presser-member cooperating with the said die in making an impression, the said parts constructed to permit the work to be inserted upwardly between the presser-member and die, means for guiding a strip of transfer material from the rear forward to and around the die and rearward therefrom, and means for intermittingly feeding the said strip to and past the die.

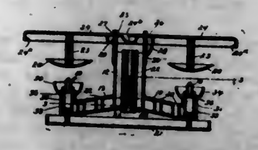
[Claims 2 to 20 and 22 to 32 not printed in the Gazette.]

1,252,300. CORD-HOLDER. ROBERT A. PHILLIPS, Taylorville, Ill. Filed Aug. 22, 1916. Serial No. 116,321. (Cl. 242—141.)



A holder for core wound cops comprising a pair of arms, each arm being relatively wide at its upper end and curved to provide a resiliency for the arm, the said arms being tapered toward their free ends and terminating in points, the points being curved to provide hooked prongs, said point being adapted to engage said core.

1,252,301. OIL VAPORIZER AND BURNER. HARRY PRICE, Boston, Mass. Filed Mar. 19, 1917. Serial No. 155,690. (Cl. 158—66.)



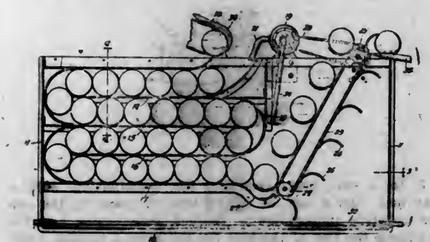
1. An oil vaporizer comprising a vaporizing chamber, including a vertically elongated hollow body, and a laterally extending hollow arm communicating with the lower portion of said body and having a vapor burner, means for delivering oil to the upper portion of said body, the delivered oil flowing downwardly therein to said arm, a flame deflector located over the vapor burner, said burner and deflector being arranged to externally heat the said body portion and arm, and an oil burner located under said body and arm and arranged to preliminarily heat the same, said body and arm being provided with means for conducting therethrough heated products of combustion from the oil burner.

3. An oil vaporizer comprising a vaporizing chamber, including a vertically elongated hollow body, and a laterally extending hollow arm communicating with the lower portion of said body and having a vapor burner, means for delivering oil to said body, a flame deflector located over the vapor burner, and an intercepting plate located above and holding said deflector, and means adjustably connecting said plate with the said body and permitting vertical adjustments of the plate and deflector relatively to the vapor burner.

5. An oil vaporizer comprising a vaporizing chamber, including a vertically elongated hollow body and a laterally extending hollow arm communicating with the lower portion of said body, and having a socket and an oil-receiving cup at its outer end provided with an oil outlet, a vapor burner engaged with said socket and surrounded by said cup, means for delivering oil to said body, and a pan-shaped burner located under said body and arm to supply heat thereto and arranged to receive oil escaping from said cup through the said oil outlet.

[Claims 2 and 4 not printed in the Gazette.]

1,252,302. MEANS FOR AND METHOD OF OPERATING ON CANNED GOODS. PETER RIESENECKER, Chicago, Ill. Filed Mar. 13, 1917. Serial No. 154,440. (Cl. 126—272.)



1. A method of sterilizing and conveying containers comprising placing the containers in a heated liquid and imparting motion to the heated liquid to cause the containers to be carried along by the liquid and heated thereby.

2. A method of conveying containers and transferring heat with respect thereto comprising placing the containers in a liquid of a different temperature from that of the containers and imparting motion to the liquid to cause the containers to be carried along by the liquid and to cause a transference of heat between the liquid and the containers.

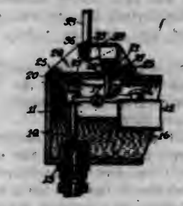
3. A sterilizing machine comprising a combined can-guide and liquid-passage, and means for causing heated liquid to flow through said passage, to carry the cans along said can-guide.

4. A sterilizing machine comprising a combined can-guide and liquid-passage, means for causing liquid to flow through said passage to carry the cans along said can-guide, and means for heating said liquid to cause it to heat the contents of the cans.

7. A sterilizing machine comprising a combined liquid-passage and can-guide having a surface on which the cans may roll, means for causing liquid to flow through said passage to cause the cans to roll along said can-guide on said surface, and means for heating said liquid to cause it to heat the contents of said cans.

[Claims 5, 6, and 8 to 10 not printed in the Gazette.]

1,252,303. CARBURETER ATTACHMENT. ROY P. ROBERTS, Chicago, Ill. Filed Dec. 1, 1916. Serial No. 134,310. (Cl. 137—104.)

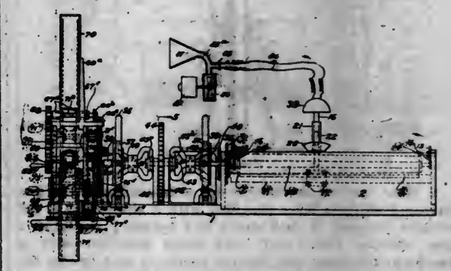


3. A device of the character described comprising a tickler, a cap member adapted to be attached to the top of a carbureter and having a flat base apertured to allow the tickler to project therethrough and to present alined openings whereby a common screw may fasten both cap member and carbureter top, said cap member also being provided with upstanding walls, a tilting finger pivotally mounted between said walls, means to actuate said tickler to permit a free flow of liquid into the liquid chamber of the carbureter and a push button adapted to be positioned so as to be accessible from the operator's seat attached to and cooperating with said actuating means substantially as described.

4. As an article of manufacture a priming attachment for carbureters comprising a supporting member having upstanding side walls and a flat base provided with a plurality of openings to allow for fastening said member to the top of a carbureter and to permit the tickler to project therethrough, an actuating finger pivotally mounted between said side walls and adapted to engage with and depress said tickler, and means adapted to be positioned so as to be accessible from the operator's position for transmitting movement to said finger.

[Claims 1 and 2 not printed in the Gazette.]

1,252,304. COMBINED MOTION-PICTURE APPARATUS AND PHONOGRAPH. DAVID O. ROYSTER, St. Louis, Mo. Filed July 15, 1912. Serial No. 709,399. (Cl. 88—16.2.)



1. In an apparatus for producing synchronism between motion pictures and a sound record, a motion picture machine, a phonograph having a pair of rotatably mounted cylinders arranged side by side, means for operating the motion picture machine and the phonograph simultaneously or independently, a tubular member mounted to move lengthwise between the phonograph cylinders, a reproducer connected to said tube, means for shifting said reproducer from one cylinder to the other when the tube reaches the ends of the cylinder, means for forcing sound waves through the tubular member, a telephone transmitter operatively connected to the tubular member, a horn located adjacent to the screen on which the motion pictures are shown, a telephone receiver connected to said horn, electrical connections between the telephone transmitter and the receiver, and means for forcing the sound waves from the receiver through the horn.

2. In an apparatus of the class described, the combination with a motion picture machine, of a phonograph including a pair of sound records arranged side by side, a vertically disposed tube adapted to travel between said sound records, a reproducer attached to said tube and adapted to contact with the surfaces of the cylinders, means for shifting the reproducer from one cylinder to another when the tube has moved to the ends of the cylinders, means carried by the tube for forcing sound waves from the reproducer through said tubular member, and means for operating the motion picture machine and phonograph simultaneously or independently.

4. In an apparatus of the class described, a phonograph including a pair of record cylinders arranged side by side, a tube arranged between said cylinders, means for moving said tube from one end of the cylinders to the other, a sound reproducer connected to said tube and adapted to contact with the surfaces of the cylinders, means carried by said tube for forcing sound waves from the reproducer through said tube, and means for shifting the reproducer from one cylinder to the other at the ends of said cylinders.

[Claims 3 and 5 not printed in the Gazette.]

1,252,305. GEAR-SHIFTING MECHANISM. JOHN F. RUNKLE, Cleveland, Ohio. Filed Jan. 30, 1917. Serial No. 145,438. (Cl. 74—39.)

1. Gear shifting mechanism for automobiles and the like having a shifting lever provided with a disconnectible

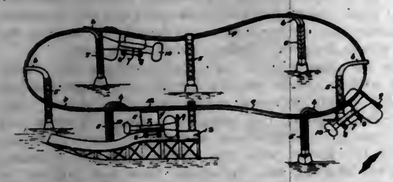
element, and means for locking said element in a disconnected and inaccessible position, substantially as described.



4. Gear shifting mechanism for automobiles or the like having a shifting lever provided with a sleeve and a rod slidably inclosed in said sleeve and normally engaging a gear shifting fork, said lever being provided with a handle at its upper end, locking means in said handle for moving the rod out of operative connection with the gear shifting fork, and retaining means controlled by the position of the rod for preventing the removal of the lever so as to prevent the lever from removal when the rod is locked in its disconnected position, substantially as described.

[Claims 2 and 3 not printed in the Gazette.]

1,252,306. AERIAL AMUSEMENT DEVICE. EUGENE H. SASSIL, Chicago, Ill., assignor of forty one-hundredths to Joseph Donati, Chicago, Ill. Filed May 18, 1914, Serial No. 839,446. Renewed May 26, 1917. Serial No. 171,320. (Cl. 104—111.)



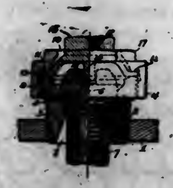
1. In a device of the class described, a suitable suspended overhead track, a landing at one point below said track and an airship provided with a propeller and supporting wheels having flexible connection with said track to be guided thereby and arranged to be self supporting when in flight and supported on its wheels when at rest at the landing.

4. In a device of the class described, a suitable overhead track, an elevated landing of material length below said track, an airship provided with a propeller and supporting means between the airship and the track, whereby the airship is guided during its flight by the rail and passengers can enter and leave the airship while the same is at rest at the landing.

[Claims 2 and 3 not printed in the Gazette.]

1,252,307. STAY-BOLT STRUCTURE. BENJAMIN E. D. STAFFORD and ETHAN I. DODDS, Pittsburgh, Pa., assignors to Flannery Bolt Company, Pittsburgh, Pa. Filed Mar. 9, 1916. Serial No. 83,146. (Cl. 85—1.5.)

1. In a stay bolt structure, the combination with a stay bolt, of a testing member engaging the head of the bolt and means for swiveling said testing member whereby it is mounted to be turned without dismembering the structure, to test the integrity of the bolt.

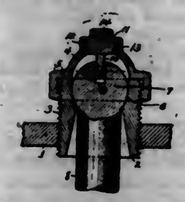


7. In a stay bolt structure, the combination with a stay bolt, and a cap, of means held in place by the cap and rotative independently thereof, said means adapted to engage the end of the bolt for applying a turning force thereto to test its integrity.

10. In a stay bolt structure, the combination with a bearing sleeve, a stay bolt having a slotted head mounted in said sleeve, and a cap screwed on said bearing sleeve, of a rotary member for testing the integrity of the bolt and having a part disposed between the cap and the end of the bearing sleeve and engaged by both, said rotary member provided with a tongue entering the slot in the bolt head, and said rotary member also having a tool receiving part projecting through said cap.

[Claims 2 to 6, 8, and 9 not printed in the Gazette.]

1,252,308. STAY-BOLT STRUCTURE. BENJAMIN E. D. STAFFORD and ETHAN I. DODDS, Pittsburgh, Pa., assignors to Flannery Bolt Company, Pittsburgh, Pa. Original application filed Mar. 9, 1916, Serial No. 83,146. Divided and this application filed Nov. 7, 1916. Serial No. 130,047. (Cl. 85—1.5.)



1. A stay bolt structure comprising a stay bolt, a cap over the end of the same, and a rotary member having a part disposed within the cap and operatively associated with the bolt head, and said rotary member having a part projecting outwardly beyond the cap and adapted for the reception of a tool for applying rotary force to said member.

4. In a stay bolt structure, the combination with a stay bolt, and a cap over the end of the same, of means within said cap and rotative independently thereof for applying rotary pressure to the bolt.

5. In a stay bolt structure, the combination with a stay bolt, and a cap over the end of the same, of means within said cap and rotative independently thereof for applying rotary pressure to the bolt, said means having a tool receiving part which is accessible without removal of the cap.

[Claims 2 and 3 not printed in the Gazette.]

1,252,309. STAY-BOLT STRUCTURE. BENJAMIN E. D. STAFFORD and ETHAN I. DODDS, Pittsburgh, Pa., assignors to Flannery Bolt Company, Pittsburgh, Pa. Filed Nov. 21, 1916. Serial No. 132,595. (Cl. 85—1.5.)

1. The combination with a bearing sleeve and a bolt having a head mounted in said sleeve, of a rotary member, means connecting said rotary member with the sleeve, said rotary member and bolt head having recesses, and a separate tongue or key mounted in the recess in one of said parts and entering the recess in the other part.

2. The combination with a bearing sleeve and a bolt having a head mounted in said sleeve and provided with a



recess, of a rotary member having an interior dove-tailed recess, and a tongue having a part loosely mounted in the dove-tailed recess and entering the recess in the bolt head.

1,252,310. STAY-BOLT STRUCTURE. BENJAMIN E. D. STAFFORD and ETHAN I. DODDS, Pittsburgh, Pa., assignors to Flannery Bolt Company, Pittsburgh, Pa. Filed Nov. 21, 1916. Serial No. 132,596. (Cl. 85—1.5.)



1. In a stay bolt structure, the combination with a bolt having an angular portion at one end, and a bearing sleeve, of a rotatable testing member supported by the bearing sleeve and having an angular socket to receive the angular end portion of the bolt.

5. In a stay bolt structure, the combination with a bearing sleeve, a bolt having a bearing in said sleeve and provided with an angular enlargement, and a cap removably attached to said sleeve, of a rotatable testing member hving an angular socket to receive the angular enlargement on the bolt, and also having a peripheral flange disposed between the cap and the sleeve, said testing member also having an angular projection inclosed within said cap.

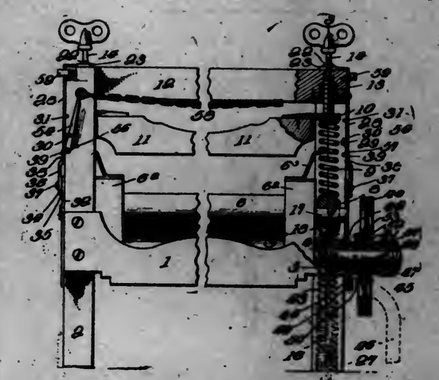
[Claims 2 to 4 not printed in the Gazette.]

1,252,311. CLOTHES-WRINGER. EDGAR B. STOCKING, Washington, D. C.; Sarah C. Stocking executrix of said Edgar B. Stocking, deceased. Filed Dec. 14, 1916. Serial No. 137,017. (Cl. 68—32.)

1. In a machine of the kind described, the combination with pressure rolls and pressure means for said rolls, a power control for said rolls, and means actuated automatically by the separation of said rolls for releasing said pressure and for moving said power control to neutral position.

7. A clothes wringer, comprising a pair of pressure rolls having means for holding said rolls in contact under pressure, means for bodily separating one of said rolls when the pressure is released therefrom, operating members actuated by the separation of said rolls, a power control, means carried by one of said operating members engaging said power control for disconnecting said power on the separation of said rolls, trip members carried by said operating members engaging said pressure holding means, said operating members mounted to operate the power control prior to the releasing of pressure.

9. A clothes wringer, comprising a frame having pressure rolls, means for holding said rolls in contact under tension, means for separating said rolls when relieved of tension, a drive member having a driving connection with one of said rolls, operating members actuated by the abnormal separation of said rolls, one of said operating members having means for disconnecting said driving member, said operating members having adjustable trip members adapted to release said pressure means after said driving member has been disconnected.

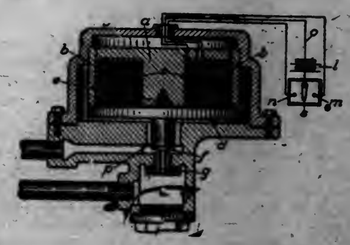


17. A clothes wringer, comprising a frame having pressure rolls and pressure means for said rolls mounted therein, a driving member having a driving connection with one of said rolls, and means actuated by the abnormal separation of said rolls for disconnecting said driving member from said roll.

33. A clothes wringer, comprising a frame having pressure rolls and pressure means for said rolls mounted therein, a top bar movably mounted in said frame having means for adjusting said pressure means, springs disposed within said frame for raising the upward pressure roll when the pressure is released therefrom, spring catches carried by said top bar for holding said top bar in predetermined position therein, operating members carried by the shaft of the upper pressure roll, trip members adjustably mounted on said operating members having inclined faces engaging said spring catches on the abnormal separation of said rolls for releasing said top bar, a driving member having a driving connection with one of said rolls, one of said operating members having inclined faces engaging said driving member for disconnecting said driving member on the separation of said rolls.

[Claims 2 to 6, 8, 10 to 16, 18 to 32, and 34 not printed in the Gazette.]

1,252,312. ELECTROMAGNETIC ACTUATOR. HENRY E. WARREN, Ashland, Mass., assignor to The Lombard Governor Company, Ashland, Mass., a Corporation of New Jersey. Filed Mar. 7, 1913. Serial No. 752,654. (Cl. 175—336.)



An electro-magnet forming with an armature when in its attracted position, a substantially closed magnetic circuit; a magnetizing coil having sufficient ampere turns

to cause its core to attract said armature when current flows through the coil, and a demagnetizing coil which has only sufficient ampere turns to cause it to substantially remove the remnant magnetism from the core of the magnet when said latter coil is supplied with current at the same voltage as that of the magnetizing coil, and means for connecting either of said coils momentarily to the same source of potential.

1,252,313. SIPHON-BOTTLE HEAD. LUIS DEL RIVERO, Los Angeles, Cal. Filed June 23, 1916. Serial No. 105,494. (Cl. 215—115.)



In a siphon bottle head, a cylindrical body having a central cylindrical bore extending downwardly from the upper end of the body and terminating therein, the end wall of said bore being formed with a small central opening, a valve plunger, the stem of which is adapted to reciprocate through the small central opening of the body, a seat against which said valve member is adapted to bear, a coil spring mounted within said central bore and adapted to hold the valve against its seat, an actuating lever by which the valve may be relieved from its seat in opposition to said spring, a siphon spout in communication with the small central bore of the cylindrical body and which is controlled by said plunger valve, a siphon tube mounted beneath the plunger valve and in communication therewith, said tube being disposed in longitudinal alinement with the valve stem and the central axis of the cylindrical body bore, a mounting sleeve formed integral with said cylindrical body and adapted to encircle the siphon tube in a manner to permit the head to be secured upon the mouth of the bottle, a partition wall positioned within the upper end of the cylindrical bore of the body member, a disk valve yieldably mounted upon one side of said partition wall, an externally threaded hollow nut mounted within the end of the cylindrical bore of said body member, and a passage-way formed within the side wall of said cylindrical body and adapted to establish communication between the interior of the bottle upon which the head is mounted and the external space upon application of pressure to the auxiliary disk valve which is held in closed position by means of a compression spring surrounding the stem of said valve.

1,252,314. METAL CONDUIT FOR ELECTRIC WIRES. CHAUNCEY W. ABBOTT, Pittsburgh, Pa., assignor to American Conduit Manufacturing Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Aug. 18, 1915. Serial No. 46,065. (Cl. 247—8.)

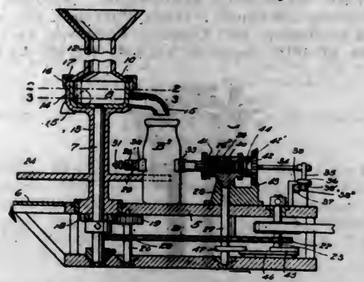
4. An electrical conduit comprising a plurality of sections, each section consisting of a substantially flat base member and a cover member of general channel or U shape, each cover member provided at its edges with seats to receive the lateral edges of its associated base member, the cover members of contiguous conduit sections being disposed end to end, the base member of each section terminating short of the point at which the cover members abut, and a separate coupling member for each pair of contiguous sections disposed in the plane of the base members and lying in the seats of the cover



members, said coupling member being provided with means for fastening it to a support.

[Claims 1 to 3 not printed in the Gazette.]

1,252,315. MACHINE FOR LIQUID-PROOFING VESSELS. HARRY C. AYERST, Seattle, Wash., assignor to Sanitary Pulp Products Company, Seattle, Wash., a Corporation of Washington. Filed Dec. 22, 1914. Serial No. 878,480. (Cl. 91—43.)



1. In a machine of the class described, the combination with a rotary bottle-carrier, and means for supplying a liquid-proofing material in bottles in their orbital travel with the said carrier, of means for removing the bottles from said carrier, said bottle-removing means including devices whereby the bottles are inverted subsequent to being taken from the carrier.

2. In a machine of the class described, the combination with means for delivering a charge of liquid-proofing material into a bottle, of devices for pouring the surplus material from the bottle, and then delivering the bottle in an inverted position.

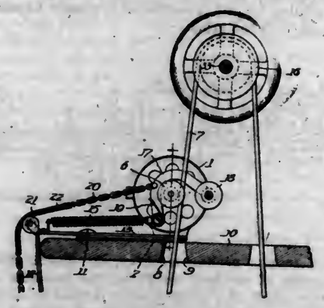
[Claim 3 not printed in the Gazette.]

1,252,316. KNIFE-CLEANER. HELEN WARD BASCOM, Pasadena, Cal. Filed June 27, 1917. Serial No. 177,409. (Cl. 51—6.)



A cutlery cleaner comprising a paddle formed with a flat rectangular body portion and a handle; said body portion having a series of ventilating perforations; and a tubular fabric cover adapted to be positioned over the body of the paddle and the perforations to receive a scouring material.

1,252,317. SEWING-MACHINE MOTOR. CHESTER H. BEACH, Racine, Wis., assignor to Wisconsin Electric Company, Racine, Wis., a Corporation of Wisconsin. Filed June 21, 1915. Serial No. 35,348. (Cl. 172—179.)



1. In a sewing machine motor, the combination with an electric motor and a pulley driven thereby, of a switch for controlling the circuit of said motor, a lever for actuating said switch, and a belt-adjusting pulley carried by said lever.

4. In a sewing machine motor, the combination with an electric motor, of a spring-tensioned switch-blade tending to press against one of the brush-holders of the motor; an insulating strip normally inserted between said blade and brush-holder; and a lever for withdrawing or inserting said insulating strip.

7. In a sewing machine motor, the combination with an electric motor, of a circuit-controlling switch located inside of the motor-casing, a lever pivoted upon the outside of the motor-casing for actuating said switch, and a belt-adjusting pulley carried by said lever.

12. The combination with the driving element of a sewing machine, of a motor and a pulley driven thereby, a lever, a belt-adjusting pulley carried by said lever, and normally out of operative engagement with said driving element, and means for operating said lever whereby said driving element may be moved into engagement with said first-named pulley.

[Claims 2, 3, 5, 6, 8 to 11, and 13 to 16 not printed in the Gazette.]

1,252,318. PROCESS OF MAKING ACID CALCIUM PHOSPHATES. HENRY BLUMENBERG, Jr., Los Angeles, Cal., assignor, by direct and mesne assignments, to Carroll Allen, Los Angeles, Cal. Filed June 7, 1917. Serial No. 173,423. (Cl. 71—7.)

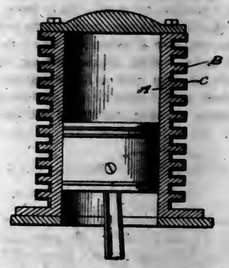
1. A process of treating phosphate material, consisting in treating powdered calcareous phosphate material with ammonia and carbon dioxid in the presence of water, thereby forming calcium carbonate and ammonium phosphate, and separating the ammonium phosphate from the calcium carbonate.

7. A process of treating phosphate material, consisting of subjecting phosphate rock to the action of ammonium carbonate in the presence of water, thereby forming calcium carbonate and ammonium phosphate, separating the ammonium phosphate from the mixture, heating the same to drive off the ammonia and produce phosphoric acid, and mixing powdered phosphate material with said acid in proportion to produce acid calcium phosphate.

[Claims 2 to 6 not printed in the Gazette.]

1,252,319. INTERNAL-COMBUSTION-ENGINE CYLINDER. GRANVILLE E. BRADSHAW, Hersham, Walton-on-Thames, England. Filed Mar. 12, 1917. Serial No. 154,386. (Cl. 257—263.)

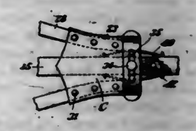
1. As an article of manufacture an engine cylinder having radiating fins integral therewith, said cylinder and fins having a strength, rigidity, and heat conductivity of the order of steel, and a continuous exposed layer of copper of substantially uniform thickness adhering to the sides of said fins and the outer surface of said cylinder.



3. An engine cylinder having integral fins homogeneous therewith, said cylinder and fins being formed of a material having high strength and heat conductivity as compared with cast iron, and a coating of substantially uniform thickness of metal of high heat conductivity as compared with the heat conductivity of the body of the cylinder in adhesive contact in said cylinder and fins over substantially the entire surface thereof, whereby greater radiation capacity of the cylinder is obtained and also strength of the cylinder as compared with cylinders having separately attached fins.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,252,320. VEHICLE CONSTRUCTION. ARTHUR J. CARLSON, Dovetail, Mont. Filed Mar. 28, 1917. Serial No. 158,018. (Cl. 21—39.)



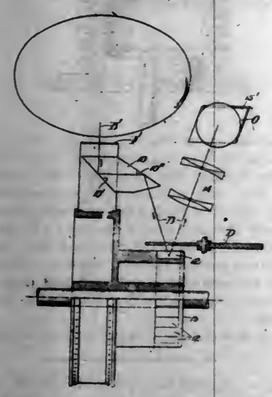
In a running gear, an axle and a bolster, a sleeve fitted rotatably therebetween, a clamp device, hounds rigidly assembled with said clamp device and extended between the axle and the bolster and there secured, a collar fitted for rotation in the clamp device, a reach bar extending through the collar and through the rotary element between the axle and the hounds, said reach bar being of rectangular cross section, and said collar having a bore of rectangular cross section and of a width materially exceeding the width of the reach bar, said bar being also free to move laterally with respect to the clamp device, and springs secured on the side walls of the bore of the collar and terminally engaging the side faces of the reach bar, and a connecting element extending vertically through the collar and the reach bar, the clamp device being provided with transverse slots in top and bottom portions thereof to permit lateral movement of the connecting member.

1,252,321. CINEMATOGRAPHY. DANIEL F. COMSTOCK, Brookline, Mass., assignor, by mesne assignments, to Technicolor Motion Picture Corporation, Boston, Mass., a Corporation of Maine. Filed Dec. 1, 1915. Serial No. 64,540. (Cl. 88—16.8.)

1. In a continuous motion cinematograph means to move the film, a series of compensating elements each comprising two reflecting surfaces at right angles to each other, a rotary member on which said compensating elements are carried, and means to project a beam of light through said film, the projecting means and the reflecting surfaces being relatively so disposed that the beam of light is projected through the film to the reflecting surfaces obliquely to the line of intersection of the surfaces.

3. In a continuous motion cinematograph, means to move the film, a series of compensating elements each com-

prising two reflecting surfaces at right angles to each other, a rotary member on which said compensating elements are carried, the lines of intersection of said reflecting surfaces being parallel to the axis of rotation of said rotary member, means to hold that part of the film through which the light passes parallel to said axis of rotation, means to project a beam of light normal to and through said film, to said compensating elements, and means between said film and said compensating element adapted to project said beam at an oblique angle to the line of intersection of said reflecting surfaces.



5. In a continuous motion cinematograph, means to move the film, a series of compensating elements each comprising two reflecting surfaces at right angles to each other, a rotary member on which said compensating elements are carried, the lines of intersection of said reflecting surfaces being parallel to the axis of rotation of said rotary member, means to hold that part of the film through which the light passes parallel to said axis of rotation, means to project a beam of light normal to and through said film, to said compensating elements, and a reflector element consisting of a prism having two totally reflecting surfaces between said film and said compensating element adapted to project said beam at an oblique angle to the line of intersection of said reflecting surfaces.

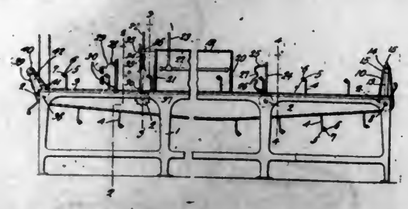
12. In a continuous motion cinematograph, means to move the film, a compensating element, means to project a beam of light through said film to said compensating element, means to move the compensating element in an arcuate path, in consequence of which the path of the light beam varies in length during the period of activity of a film picture, and a disk composed of a series of plane transparent plates of progressively varying thickness, arranged in a position normal to the direction in which said compensating element approaches or recedes from the film, and rotatably mounted to move said plates successively into and out of the path of the beam, to compensate for said variation in length of the path of the beam.

[Claims 2, 4, and 6 to 11 not printed in the Gazette.]

1,252,322. MACHINE FOR PEELING TOMATOES. AMBROSE OLIVER COOLEY, Havre de Grace, Md. Filed Mar. 28, 1917. Serial No. 157,994. (Cl. 146—14.)

1. In a tomato peeling machine, the combination with spaced structures and a series of resilient members extending from each of said structures and converging along curved lines, of a scoring knife carried by each of the members of one series, a brush carried by each of the members of the other series, and means for conveying a tomato bottom first against and past the knives and brushes successively.

2. In a tomato peeling machine, the combination with spaced structures and a series of resilient members extending from each of said structures and converging along curved lines, of a scoring knife carried by each of the members of one series, a brush carried by each of the members of the other series, means for conveying a tomato bottom first against and past the knives and brushes successively, and a steaming housing interposed between said structures for the reception of a tomato passing from one structure to the other.



7. In a tomato peeling machine, the combination with spaced series of resilient members, the members of each series converging, of a scoring knife carried by each of the members of one series, an arcuate brush carried by each of the members of the other series, means for conveying a tomato bottom first against the scoring knives and brushes successively, and a steaming housing interposed between said series of members for the reception of a tomato passing from one series to the other.

[Claims 3 to 6 not printed in the Gazette.]

1,252,323. CLAMP. ISIDOR COOPER, Brooklyn, N. Y., assignor to Otis-Flagg Corporation, New York, N. Y., a Corporation of New York. Filed June 21, 1917. Serial No. 176,019. (Cl. 137—28.)



6. A clamp of the character described, comprising a flexible strip having on its ends opposed heads, and a nut and screw therefor for tightening the clamp upon the article to which it may be applied, one of said heads having on its outer end a bearing for said screw, and the other head being of heavier metal than the strip and affording a bearing surface for said nut and having a base member containing an opening through which the first-mentioned head and its end of the strip may be passed so as to oppose said heads and cause them to overlap opposite ends of said strip.

[Claims 1 to 5 not printed in the Gazette.]

1,252,324. PISTON-RING. EDWARD B. DAKE, Muskegon, Mich. Filed June 15, 1916. Serial No. 103,785. (Cl. 121—108.)

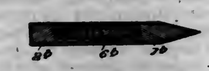


1. A piston ring consisting of opposed split rings each having eccentrically disposed outer and inner peripheries, each of said rings being gradually reduced in width and increased in thickness from the split end thereof to the opposed portion of the ring, said rings having interfitting faces coöperating to expand one of the rings when said rings are pressed together.

3. A piston ring including opposed split rings each having its outer and inner peripheries eccentrically disposed, each of said rings gradually diminishing in width but increasing in thickness from the ends to the diametrically opposed portion of the ring, said rings having engaging faces, one of which is tapered to constitute a spreading means while the other one of said faces is flared, said rings being oppositely disposed with the thin portion of each ring in engagement with the thick portion of the opposed ring, one of said rings being adjustable angularly to expand it relative to the other ring and to increase the distance between the non-contacting faces of the rings.

[Claims 2 and 4 not printed in the Gazette.]

1,252,325. BULLET. JOHN ANDERSON DAVISON, Franklin, Alaska. Filed Sept. 22, 1914. Serial No. 863,051. (Cl. 102—28.)

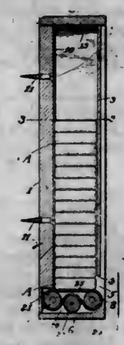


1. A bullet composed of a forward part and a rearward part in end to end disposition, and a casing inclosing said parts, each of the latter having at its axial center a cavity extending from one end longitudinally thereof, the opposed open ends of the two parts being at or about the center of the bullet.

2. A bullet composed of a forward part and a rearward part in end to end disposition, and a casing inclosing said parts, each of said parts having at its axial center a cavity extending from one end longitudinally thereof, the opposed open ends of the two parts being at or about the center of the bullet, and a filler within the cavities of the two parts.

1,252,326. [WITHDRAWN.]

1,252,327. YEAST-CAKE CABINET. MICHAEL DORION, Rumford, Me. Filed Apr. 17, 1917. Serial No. 162,691. (Cl. 211—8.)

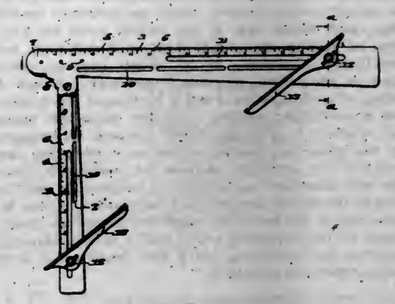


1. In a delivery cabinet, the combination with an upright casing, and a base block formed with an internal chamber and an outlet opening; of the ejecting mechanism located within said chamber and comprising three rollers whereof the trunnions of the intermediate one are mounted in journals on a lower level than those of the other rollers, one of the intermediate trunnions projecting through the side of the casing and having a handle, and an endless belt passing over and around the endmost rollers with both its stretches passing over the intermediate roller, for the purpose set forth.

4. In a delivery cabinet, the combination with an upright casing having a transparent front wall and an outlet opening at the lower end of the same, the body of the casing adapted to receive a stack of articles and its lower end having an enlarged chamber; of an ejecting mechanism located within said chamber and comprising three rollers whereof the endmost have their trunnions journaled in the side walls of the casing, the latter being provided between said journals with upright slots, the trunnions of the intermediate roller passing through said slots and having knobs at their outer ends, and an endless belt passing over and around the endmost rollers and up and over the intermediate roller, for the purpose set forth.

[Claims 2 and 3 not printed in the Gazette.]

1,252,328. TEMPLET. DONALD DAWSON, Victoria, British Columbia, Canada. Filed July 21, 1914, Serial No. 852,214. Renewed June 20, 1917. Serial No. 175,971. (Cl. 33—94.)



A templet of the class described comprising a pair of pivoted arms adapted to be arranged at a right angle to each other, one of said arms having a rounded end portion projecting beyond the other of said arms and adapted to be used for marking nosings, said first mentioned arm also having a fillet templet arranged in the angle between said projecting end portion and the other of said arms, said arms having slots, and straight edge members pivotally and adjustably mounted on said arms and having their pivots arranged in said slots.

1,252,329. SWITCH-OPERATING MECHANISM. ARTHUR T. DE WITT, Fort Wayne, Ind., assignor, by direct and mesne assignments, of two-thirds to Fred L. De Witt and one-third to M. Schiffer, Chicago, Ill. Filed May 18, 1916. Serial No. 98,467. (Cl. 104—24.)

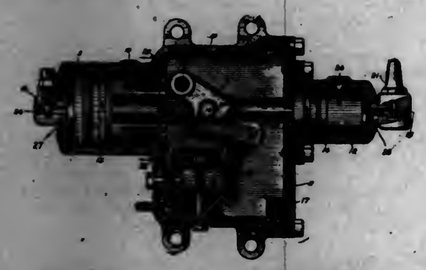


1. In a device of the class described, the combination with a switch point and an operating arm carried by a vehicle traveling toward the switch point, there being a contacting roller on the lower end of said arm, of an operating box adjacent to the switch point, another operating box in advance of the switch point, a double cam member pivotally mounted in the first mentioned operating box to swing on a vertical pivot, said double cam member having a central tooth and a pair of side cam faces, a lever pivotally mounted in said operating box to swing on a vertical pivot behind the double cam member, an operating connection from the double cam member to the lever for swinging the lever in direction opposite to the direction of movement of the double cam member and simultaneously therewith, a link connection

from said lever to the switch point, a hollow tubular member connecting the operating boxes together, an operating plate pivotally mounted in the other operating box to swing about a horizontal pivot, said plate having a tooth projecting above the upper surface of said operating box, a finger mounted in the front portion of the first mentioned operating box in position to strike the double cam member when said finger is forced backwardly, a link connection extending through the pipe and joining the finger to the operating plate, and a spring normally retracting the operating plate, link connection, and finger, the aforesaid contacting point lying in position for engagement by the roller of the operating lever when said lever is depressed, substantially as described.

2. In a device of the class described, the combination with a switch point and an operating lever carried by a vehicle traveling toward the switch point, there being a contacting portion on the lower end of said lever, of an operating box adjacent to the switch point, another operating box in advance of the switch point, a double cam pivotally mounted in the first mentioned operating box to swing about a vertical pivot, an operative connection from said double cam to the switch point for the purpose of moving the switch point back and forth according to the movements of the double cam, an operating plate in the second mentioned operating box, said plate being pivoted to swing about a horizontal pivot, and having a contacting portion extending above the operating box wherein it is mounted and adapted for engagement by the contacting portion of the lever when the same is lowered into operative position, an oscillatable finger in the first mentioned operating box mounted in position to engage the double cam member and throw the same in one direction or the other, an operative connection from said finger to the operating plate, and a spring normally retracting the operating plate into inoperative position, substantially as described.

1,252,330. AUTOMATIC TRAIN-STOP. ADIEL YEAMAN DODGE, Chicago, Ill. Filed Jan. 28, 1914. Serial No. 815,009. (Cl. 188—4.)



1. An automatic train stop comprising a member arranged to confine the train line air under normal conditions, means for normally retaining said member in such confining position, said retaining means being automatically releasable, said member being so arranged that when released it will be impelled in one direction by the force of the train line air and back to normal position by the force of the main reservoir air, and means for permitting said train line air to escape when said member is out of said normal position, thereby to stop the train.

2. An automatic train stop comprising a member arranged to confine the train line air under normal conditions, means for normally retaining said member in such confining position, said retaining means being automatically releasable, said member being so arranged that when released it will be impelled in one direction by the force of the train line air and back to normal position by the force of the main reservoir air, and means for permitting said train line air to escape gradually when said member is out of said normal position, thereby to stop the train.

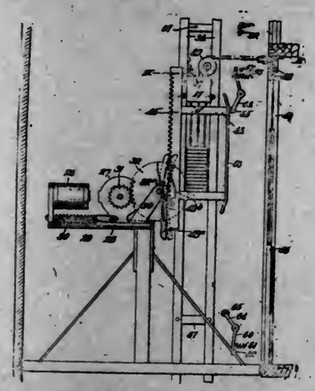
3. An automatic train stop comprising a member arranged to confine the train line air under normal conditions, means for normally retaining said member in such confining position, said retaining means being automatically releasable, said member being so arranged that when released it will be impelled in one direction by the force of the train line air and back to normal position by the force of the main reservoir air, and means for permitting said train line air to escape when said member is out of said normal position, said retaining means being automatically returned to said normal retaining position after the engineer's valve is opened.

16. An automatic train stop comprising a pressure cylinder in communication with the train line, a piston in said cylinder actuated by the pressure therein, means whereby actuation of said piston releases the air in said train pipe, a second pressure cylinder in communication with the reservoir, a second piston actuated by the pressure in said second cylinder, and means whereby the actuation of said second piston confines the air in the train pipe.

17. An automatic train stop comprising a pressure-chamber in communication with the train line, a pressure-actuated member actuated by the pressure in said chamber, a second pressure chamber in communication with the reservoir, a second pressure-actuated member actuated by the pressure in said second chamber, and means whereby actuation of said first pressure-actuated member releases the air in said train pipe, and whereby actuation of said second pressure-actuated member confines the air in the train pipe and returns said first pressure-actuated member.

[Claims 4 to 15 not printed in the Gazette.]

1,252,331. ELEVATOR-GATE-OPERATING APPARATUS. JOSEPH J. DULLE, Kansas City, Mo. Filed Sept. 20, 1917. Serial No. 192,815. (Cl. 187—52.)



1. The combination in a structure having an elevator car, gates controlling the landings for the car and counter-balance weights for the gates, of holding means for each weight to prevent downward movement thereof when the respective gate is closed, means for tripping either of said holding means to free the respective counter-balance weight for downward movement, an electric motor carried by the car, means to throw said motor into operative relation to the weight of any landing at which the car stops, and means for operating the motor to effect downward movement of such weight.

5. The combination in a structure having an elevator car, gates controlling the landings for the car and counter-balance weights for the gates, of a motor on the car, means for placing the motor in operative relation to the weight for any gate when the car is at the respective landing, and means for operating the motor to effect movement of the weight in the desired direction.

[Claims 2 to 4 and 6 to 8 not printed in the Gazette.]

1,252,332. BACTERIAL PRODUCT AND PROCESS OF PREPARING SAME. GEORGE H. EARP-THOMAS, Glen Ridge, N. J. Filed Mar. 30, 1917. Serial No. 158,625. (Cl. 71—10.)

1. As a new article of manufacture, material inoculated with micro-organisms and protected by an adherent substance.

7. As a new article of manufacture, inoculated material in the form of discrete particles or granules, each provided with an adherent coating superficially treated to prevent the granules from sticking together.

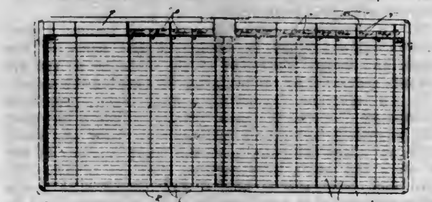
10. As a new article of manufacture a culture of nitro-bacteria in active condition provided with an adherent coating of protective material.

13. A fertilizer composition comprising pieces or particles of material inoculated with bacteria beneficial to soil and coated with a protective substance, and additional fertilizer material mixed therewith.

19. As a new manufactured product, the combination, with particles of a suitable material, such as humus, inoculated with beneficial soil bacteria and coated with a protective substance relatively inert in character, of a mineral fertilizer of acid or basic reaction admixed with such coated particles.

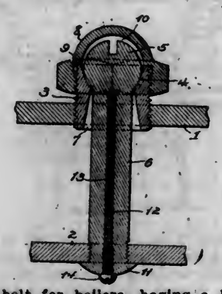
[Claims 2 to 6, 8, 9, 11, 12, 14 to 18, and 20 to 27 not printed in the Gazette.]

1,252,333. ACCOUNT-BOOK. ARTHUR ENGELBERG, Oakland, Cal. Filed June 15, 1914. Serial No. 845,154. (Cl. 11—20.)



An account book comprising a plurality of leaves, a cover including front and back cover boards, the said cover being formed with a relatively wide extension along the top edge thereof, raised strips carried by the inside of the front and back cover boards on said extension, the bottom edge of said raised strips being parallel and closely spaced in relation to the top edge of said leaves, said strips being approximately of equal thickness and having a combined thickness equal to the thickness of the leaves, and vertical rulings provided on the face of said strips and the leaves, these rulings being adapted to correspond one to the other.

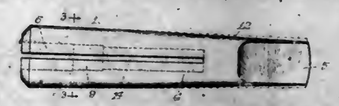
1,252,334. STAY-BOLT STRUCTURE. JOHN ROGERS FLANNERY, Pittsburgh, Pa., assignor to Flannery Bolt Company, Pittsburgh, Pa. Filed Nov. 21, 1916. Serial No. 132,610. (Cl. 85—1.5.)



1. A stay bolt for boilers, having a bore containing material which will become crystallized or hardened by the action of water.

[Claims 2 and 3 not printed in the Gazette.]

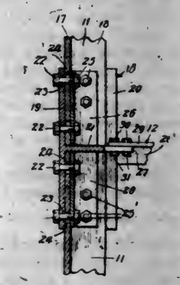
1,252,335. TAPERED SLEEVE. ROBERT ELLMORE FOOTE, Harvey, Ill., assignor to Scully Jones & Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 19, 1916. Serial No. 115,770. (Cl. 29—144.)



1. A tapered sleeve adapted to engage and fit into a taper socket, said sleeve having a central bore, the front end of said sleeve being adapted to fit into said socket and the rear or smaller end of said sleeve being ground to a greater angle of taper than the front end.

[Claims 2 to 5 not printed in the Gazette.]

1,252,336. DERRICK. CLAYTON E. FREDERICKSON, Chicago, Ill., assignor to Frederickson Engineering Corporation, Chicago, Ill., a Corporation of Delaware. Filed May 29, 1916. Serial No. 100,497. (Cl. 189—12.)



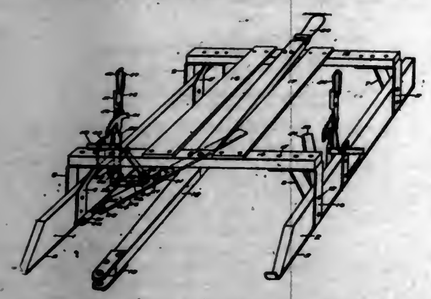
1. The combination with two vertically alined bars arranged end to end, of a joint member for connecting the opposed ends of said bars together, said joint member having a transverse web extending between and separating the opposed ends of said bars, said joint member being provided with a vertical web having portions extending on opposite sides of said transverse web and overlapping the end portions of the bars, two clamp plates, one on each side of said transverse web and applied against those side faces of said bars opposite the side faces thereof overlapped by said vertical web, said vertical web and plates being provided with alined bolt holes, and the end portions of the bars between said vertical web and plates being provided with vertically elongated slots, and clamping bolts inserted through said bolt holes and slots.

2. A frame structure of the character described, comprising upright corner posts, each being formed of a plurality of vertically alined sections, a joint member for connecting the opposed ends of each two sections together, said joint member having a transverse web extending between and separating the opposed ends of said sections, said joint member being provided with a vertical web having portions extending on opposite sides of said transverse web and overlapping the end portions of the sections, two clamp plates, one on each side of said transverse web and applied against those side faces of said sections opposite the side faces thereof overlapped by said vertical web, said vertical web and plates being provided with alined bolt holes, and the end portions of the sections between said vertical web and plates being provided with vertically elongated slots, clamping bolts inserted through said bolt holes and slots, and a longitudinal strut extending between said posts and connected at its ends with the transverse webs of the joint members between which it extends.

1,252,337. BEAN-VINE CUTTER. JOSEPH FRITSCHE, Puente, Cal. Filed July 23, 1917. Serial No. 182,240. (Cl. 55—60.)

1. A bean vine cutter comprising runners rigidly connected together, a pivoted cutter blade extending in-

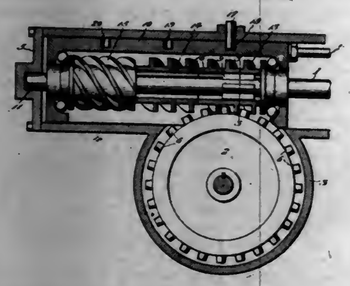
wardly and backwardly from one of the runners, a handle mounted to swing transversely and longitudinally, and connections between the handle and the cutter blade.



3. A bean vine cutter comprising runners rigidly connected together, cutter blades pivotally and rotatably connected to the runners and extending inwardly and backwardly, levers pivotally mounted inside the runners to swing transversely, links connecting the lower ends of the levers to the cutter blades, second levers pivoted to the first levers to swing longitudinally, arms extending backwardly from the lower ends of the second levers, double jointed links connecting the arms to the cutter blades, handles for the second levers, and means for holding the handles in adjusted positions.

[Claim 2 not printed in the Gazette.]

1,252,338. TRANSMISSION-GEARING FOR MOTOR-VEHICLES. HENRY N. FULLENWEIDER, Waveland, Ind. Filed July 1, 1914. Serial No. 848,426. (Cl. 74—36.)

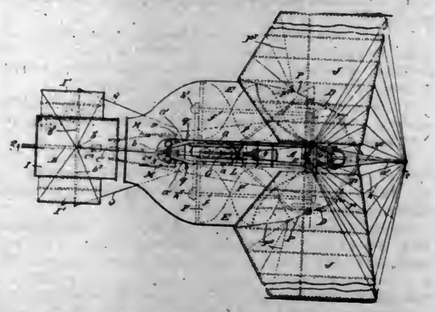


A master differential gear having teeth on the periphery thereof, in combination with a non-shiftable driving shaft tangential to said master gear, a plurality of independent worm gears normally loose on said driving shaft and arranged end to end and adapted to be positioned one at a time in mesh with said master gear, a cage in which the worm gears are rotatably mounted and by means of which they are adapted to be shifted along said shaft, means whereby any one of said worm gears may be locked to said driving shaft only while in mesh with said master gear leaving the remaining gears free and idle, and means for locking said cage while any one of said worm gears is in mesh with the master gear.

1,252,339. AEROPLANE. JAMES M. FUNK, Ottawa, Ill. Filed Sept. 27, 1916. Serial No. 122,353. (Cl. 244—18.)

1. An aeroplane, comprising a main frame, a motor-driven propeller on each side of the frame, a cylinder inclosing each propeller, and a hollow rudder into which the cylinders discharge.

7. An aeroplane, comprising a main frame, a motor-driven propeller on each side of the frame, a cylinder inclosing each propeller, a hollow rudder into which both cylinders discharge, a rudder bar supporting the hollow rudder and which is jointed to the main frame, and means under control of the driver for adjusting the rudder relatively to the longitudinal axis of the main frame.



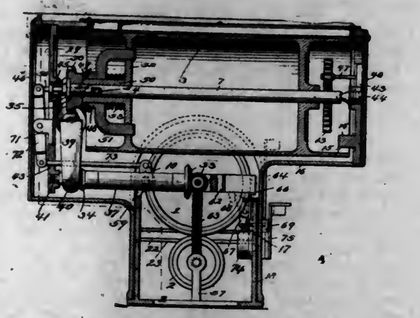
10. An aeroplane, comprising a main frame, a propeller on each side of the main frame, a cylinder inclosing each propeller, supporting wheels for the front and rear portions of the machine, frames in which the wheels have bearings, and bars connecting said frames with the main frame of the machine, the bars from the real supporting wheels having flexible ball and socket connections with said main frame.

11. An aeroplane, comprising a main frame, a propeller therefor, wings or planes at the front of the frame, and means controlled by the strength of the air currents generated by the propeller for bending the planes.

14. An aeroplane, comprising a main frame, propellers on opposite sides of the main frame, cylinders inclosing said propellers and which are open at front and rear, planes or wings extending over the front portions of the cylinders and which have portions that are bendable toward and from the cylinders, and means within the cylinders operated by variations in the air pressure therein for bending the planes.

[Claims 2 to 6, 8, 9, 12, and 13 not printed in the Gazette.]

1,252,340. MACHINE FOR MEASURING TEXTILE FABRIC AND COMPUTING THE PRICE THEREOF. JOHN C. GEBHART, St. Louis, Mo., assignor, by mesne assignments, to Econometer Company, St. Louis, Mo., a Corporation of Missouri. Filed Apr. 27, 1917. Serial No. 165,020. (Cl. 33—133.)



1. In a machine of the class described, in combination, length measuring and price computing means including a chart and a part co-acting with the chart to indicate length and price thereon, said chart and part being relatively movable companion elements, a pair of rollers, gearing between one of said rollers and the movable element of said means, including a clutch having relatively movable elements, means for resetting the movable element of said means when the clutch elements are disengaged, a slidable stem operative to effect the disengagement of said clutch elements, an externally accessible lever and means operatively connecting said lever and said stem comprising a two-armed lever pivoted at its upper end to said stem, a third lever operated by said externally accessible lever and a link connecting said third lever and the lower end of said two-armed lever.

5. In a machine of the class described, in combination, upper and lower rollers, a movable support for the upper roller operable to effect its disengagement from the lower roller, a drum located at one side and transversely of said rollers, gearing between one of said rollers and said drum for operating the latter and including a clutch co-axial with said drum, means for resetting said drum when the elements of said clutch are disengaged, and means for disengaging the elements of said clutch including a slidable stem acting on one of said elements, a two-armed lever mounted adjacent said stem and having its upper end pivoted to said stem, a second lever, means for operating the second lever by the movement of the support for the upper roller, and a link connecting said second lever and the lower end of said two-armed lever.

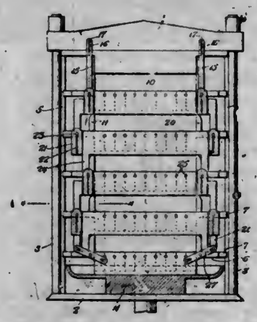
[Claims 2 to 4 not printed in the Gazette.]

1,252,341. FOLDING POULTRY-CRATE. EDDIE L. GRAY, Tupelo, Miss. Filed Mar. 29, 1916. Serial No. 87,566. (Cl. 217—47.)



A crate comprising a bottom member, sides and end panels hingedly connected therewith, means for connecting the free edges of the end panels with the ends of the side panels, inwardly disposed upper pins carried by the side panels and located in the vicinity of the ends thereof, a top panel having at one end fixed hooks located within the edges thereof and adapted to engage the upper pins upon the side panels in the vicinity of one end thereof, pivoted hooks mounted on the top panel at points within the edges thereof and in the vicinity of the other end of the top panel and passing through the same and adapted to engage the other upper pins on the side panels, springs connected with said pivoted hooks and the top panel and other pins carried at the lower end portions of the side panels and disposed at right angles to the upper pins and engageable by the hooks when the parts are collapsed.

1,252,342. OIL-PRESS. MICHAEL B. GREEN, Memphis, Tenn. Filed June 20, 1917. Serial No. 175,949. (Cl. 100—50.)



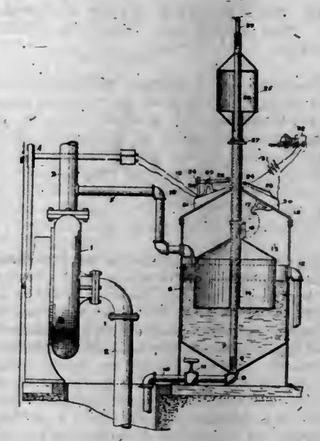
1. A press comprising top and bottom blocks, suitably connected together, a plunger movably mounted between the blocks, sets of bars located between the blocks, the outer bars of the sets being provided with flanges having at their inner sides recesses and provided with openings passing transversely through the flanges and communicating with the said recesses.

3. A press comprising a frame, a plunger movably mounted thereon, sets of bars movably mounted on the frame, plates movably mounted at the ends of each set of bars, levers fulcrumed upon the outer bars of the lower set and operatively connected with the lowest plate, some of the upper plates having leg extensions connected with the outer ends of said levers.

4. A press comprising a frame, a plunger movably mounted thereon, sets of bars movably mounted on the frame, plates movably mounted at the ends of each set of bars, the upper plates being provided at their ends with legs which are attached to the outer bars of the next adjacent lower sets of bars.

[Claim 2 not printed in the Gazette.]

1,252,343. AUTOMATIC CONTROLLING DEVICE FOR PUMPING PLANTS. ALFRED F. GROHNERT, Burlingame, Cal., assignor of one-half to Adelard F. Martel, Burlingame, Cal. Filed July 29, 1913. Serial No. 781,813. (Cl. 103—86.)



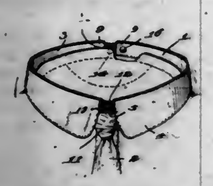
2. In combination with a pump provided with a motor to operate the same and a signaling device, a combined controlling mechanism for said motor and signaling device consisting of a tank connected to said pump and provided with a central column, a switch on said tank for said motor and a second switch also on said tank for said signaling device, a cylindrical float in said tank provided with a central tube slidably mounted on said column and a trip on said tube adapted to open simultaneously said motor switch and close said signaling switch.

4. In an apparatus of the character described, a pump provided with a motor for operating the same, a controlling device for said motor consisting of a tank connected to said pump, a switch mounted on said tank and connected to said motor, a cylindrical float in said tank provided with a central tube, a flange on said tube adapted to open said switch and thereby stop said motor.

6. An apparatus of the character described comprising a centrifugal pump provided with a discharge pipe and an electric motor for operating said pump, a by-pass connected to said discharge pipe, a controlling mechanism for said motor consisting of a water receiving tank connected to said by-pass, a float in said tank, a semaphore connected to said float and means for operating said semaphore.

[Claims 1, 3, 5, and 7 not printed in the Gazette.]

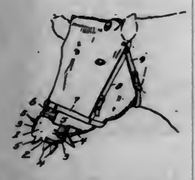
1,252,344. NECKWEAR. NORBERT GROTH, Brooten, Minn. Filed Feb. 14, 1917. Serial No. 148,548. (Cl. 2—70.)



1. In combination, a collar having its ends at the back and having button-holes at the ends thereof and a button-hole at the front for engagement with the front button of the neck-band of a shirt, and a tie comprising two sections having button-holes at respective ends for engagement with the rear button of the neck-band of a shirt and having button-holes adjacent said ends for engagement with buttons engaged with said button-holes at the ends of said collar.

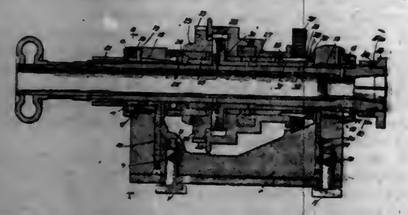
[Claims 2 and 3 not printed in the Gazette.]

1,252,345. CALF-WEANER. PERRIE A. GROTH, Lisbon, N. D. Filed Apr. 3, 1917. Serial No. 159,531. (Cl. 119—131.)



A weaner comprising a plate curved to approximately fit the anterior portion of the proboscis of a bovine animal and having front and side portions which are spaced from each other at their side edges and being provided at their lower edges with outstanding prongs, the material from the upper parts of the said portions being formed into outwardly disposed prongs, the upper prongs being spaced from the lower prongs, the upper and lower prongs at the same portions of the plate being out of vertical alinement with relation to each other, a section hinged to the plate and a band for securing the section to the head of the animal.

1,252,346. LATHE HEAD-STOCK. FRANKLIN HARDINGE, Chicago, Ill., assignor to Hardinge Brothers, Chicago, Ill., a Corporation of Illinois. Original application filed Jan. 28, 1915, Serial No. 4,841. Divided and this application filed Apr. 8, 1916. Serial No. 89,751. (Cl. 82—30.)

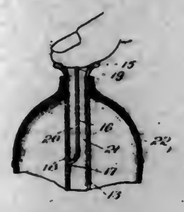


1. A lathe head stock comprising a frame, a spindle journaled therein, an end thrust bearing between the spindle and the frame, and a cone pulley rotatably mounted on the spindle and having relative longitudinal movement thereon.

5. In a lathe the combination with front and rear bearings, of a lathe spindle disposed in said bearings, a cone pulley mounted on the spindle and having relative longitudinal movement thereon, a pinion connected therewith, a gear carried by the spindle, intermediate gears connecting said gear and pinion, an end thrust ball bearing mounted on the spindle between said gear and rear bearing, and a pin disposed parallel to the spindle for connecting the pulley and spindle to rotate together, but permitting longitudinal movement of either independently of the other.

[Claims 2 to 4 and 6 to 9 not printed in the Gazette.]

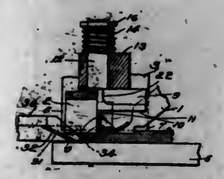
1,252,347. SANITARY PIPETTE. WILSON R. HOMSTEAD, Carmel, Me. Filed June 12, 1917. Serial No. 174,333. (Cl. 23—3.)



1. In a pipette, a member comprising a chamber, a combined inlet and discharge tube communicating with one of the ends of the chamber, a graduated neck formed upon the opposite end of the chamber and having an outwardly flared mouth, of a partition in the neck having its inner end connected with one of the walls of the neck whereby to divide the neck into two passages, said neck having an opening communicating with one of the passages, and a compressible bulb upon the neck and inclosing the opening.

2. In combination with a pipette comprising a chamber, a combined intake and discharge tube communicating with the lower end of the chamber, a relatively short neck of a greater diameter than the tube communicating with the upper end of the chamber, said tube having gage marks and having its ends flared outwardly, of a partition in the neck having its lower end connected with one of the sides of the neck, said neck having an opening arranged above the connection of the partition therewith, said partition dividing the said neck into separate passages, said partition terminating slightly inwardly of the mouth of the neck, and the said terminal of the said partition being rounded inwardly over the ends of the center thereof.

1,252,348. MACHINE FOR MAKING INSOLES. ALBERT E. JOHNSON, Beverly, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed May 3, 1912. Serial No. 694,814. (Cl. 12—27.)



2. A machine for making insoles, having, in combination, means for cutting and upturning a lip from the substance of the insole, a hammer reciprocable toward and from the sole face to engage and set the lip upon the face of the insole, a hammer actuator mounted to move in a path at substantial right angles to the movement of the hammer, means for operating the actuator, and means carried by the hammer actuator for engaging and reciprocating the hammer, substantially as described.

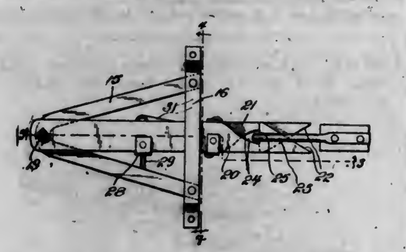
4. A machine for making insoles, having, in combination, a lip forming knife, an edge gage movable to vary the position of the sole edge with relation to the lip forming knife, and a knife movable with the edge gage provided with a cutting edge for beveling the edge of the unlipped face of the sole and with a foot arranged to engage the unlipped face of the sole for insuring the severance of the bevel string, substantially as described.

5. A machine for making insoles, having, in combination, a lip forming knife, means for feeding the insole, and mechanism for causing the knife to leave the work diagonally in the line of feed during the feed, substantially as described.

13. In a machine for making insoles, a lip setting device comprising a hammer constrained to slide toward and from the sole face, a hammer actuator mounted to move in a path at substantial right angles to the movement of the hammer, means carried by the actuator for engaging and reciprocating the hammer, and means for operating the actuator, substantially as described.

[Claims 1, 3, 6 to 12, and 14 to 19 not printed in the Gazette].

1,252,349. COUPLING. JACOB JUKTUNEN, Perth, N. D. Filed June 6, 1916. Serial No. 102,003. (Cl. 213—67.)

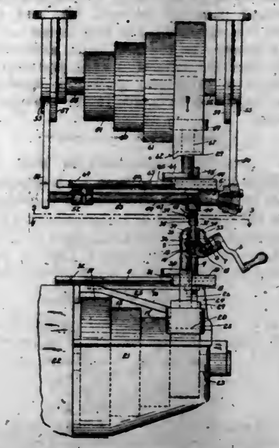


A coupling device comprising a V-shaped frame, upper and lower cross bars connected with the limbs of said frame and spaced apart, a pivot member at the apex of the frame, upper and lower coupling bars mounted on said pivot member, respectively above and below the frame and extending forwardly between the spaced cross bars between which said coupling bars are guided, their swinging movement being limited between the limbs of the frame, a spring whereby said coupling bars are connected in advance of the cross bars and means for spreading the coupling bars against the tension of the spring, said means including an apertured lug connected with one coupling bar, a headed pin extending through said lug and abutting thereon, a lever pivoted on the other coupling bar, and a pivotal connection between the lever and the headed pin.

1,252,350. BELT-SHIFTING MECHANISM. GEORGE H. KNIGHT, Torrington, Conn., assignor to The Hendey Machine Company, Torrington, Conn., a Corporation. Filed Dec. 16, 1916. Serial No. 137,434. (Cl. 64—4.)

1. In a belt-shifter, the combination with two stepped cones for the reception of a power-transmission belt, of two self-contained belt-shifting mechanisms respectively located adjacent to the said cones and each mechanism being constructed and arranged to positively twist that portion of the belt adjacent to the complementary cone, without aid therefrom, to cause the advancing edge of such portion of the belt to swing outward with respect to the cone preparatory to shifting the twisted portion of the belt from a cone-step of smaller to one of larger diameter.

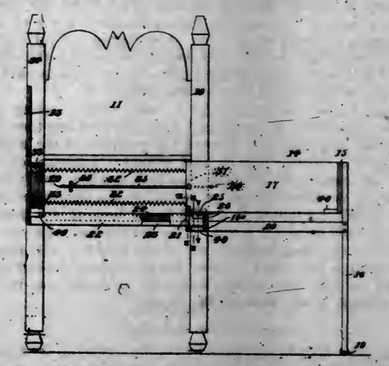
2. In a belt shifter, the combination with two stepped cones for the reception of a power-transmission belt, of two sliding carriers, belt-shifting levers pivotally mounted thereupon, means for simultaneously moving the said carriers, and means co-acting with the said levers for imparting swinging movement to them for positively twisting the belt to cause its advancing edge to swing outward with respect to the cones without aid from the steps thereof.



6. In a belt-shifting mechanism, the combination with two stepped cones for the reception of a power-transmission belt, of sliding carriers, an operating handle, gearing between said handle and the respective carriers, whereby they are simultaneously moved, belt-shifting levers pivotally mounted upon the respective carriers, and means co-acting with the said levers for swinging them to effect the positive twisting of the belt without aid from the cones to cause its advancing edge to swing outward with respect to the cones.

[Claims 3 to 5 not printed in the Gazette.]

1,252,351. FOLDING BED. JOSEPH KOZATEK, New Kensington, Pa. Filed Sept. 5, 1916, Serial No. 118,464. Renewed Dec. 3, 1917. Serial No. 205,247. (Cl. 5—8.)

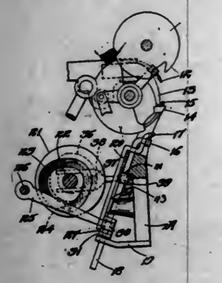


1. A bed comprising a rectangular frame having ends provided with corner posts, rails slotted upon their upper and lower edges carried by the said corner posts, an extension having end members slidably arranged inwardly between the said posts, guide strips upon the extension supported from and spaced beneath the ends thereof, the said strips being guidingly arranged within the grooves upon the bottoms of the said rails, anti-friction rollers carried by the said extension ends positioned upon the tops of the said rails, and projecting lugs between the said

rollers guidingly arranged in the grooves in the upper edges of said rails.

2. A bed comprising a rectangular frame having ends provided with corner posts, slotted rails carried by the said corner posts, an extension having end members slidably arranged inwardly between the said posts, guide strips upon the extension, the said strips being arranged within the grooves of the said rails, anti-friction rollers carried by the said extension ends positioned upon the tops of the said rails, and projecting lugs between the said rollers guidingly arranged in the grooves at one side of said rails.

1,252,352. LOOPER MECHANISM FOR LEATHER-SEWING MACHINES. OSCAR L. LAWSON and JAMES H. REED, Lynn, Mass. Filed Mar. 27, 1915. Serial No. 17,530. (Cl. 112—20.)



1. A looper mechanism for a hook needle sewing machine comprising a looper and hook movable longitudinally toward the position of the needle and pivoted together, and a link connected at one end to one of said members and at the other to a fixed part of the machine and adapted to cause the longitudinal movement of said members to move the point of one of said members relatively to the other in a direction transverse to the line of movement of said members toward the needle.

2. A looper mechanism for a hook needle sewing machine comprising a looper and hook slidable longitudinally toward the position of the needle, one of said members having a thread guiding portion offset from the longitudinal axis of the member, means for moving one of said members laterally of the line of movement of said members toward the needle, and means for moving the offset member about its longitudinal axis in an arcuate path to lay the thread in the hook of the needle.

3. A looper mechanism for a hook needle sewing machine comprising a looper and hook pivoted together and movable longitudinally toward the position of the needle, means for moving one of said members laterally of the line of movement of said members toward the needle whereby the thread is pulled out to form a transverse portion which is adapted to be laid in the hook of the needle, one of said members having a thread guiding portion offset from the longitudinal axis of the member, and means for moving the offset member about its longitudinal axis in an arcuate path after the thread is drawn out to lay the thread in the hook of the needle.

1,252,353. INSULATING-SUPPORT. HORACE P. LIVERSIDGE, Philadelphia, Pa. Filed Mar. 9, 1917. Serial No. 153,707. (Cl. 173—28.)

6. The combination of an insulator having an annular externally fastened base support and a central cavity, and a central stud which is fastened to said base support and which enters within said cavity of said insulator.

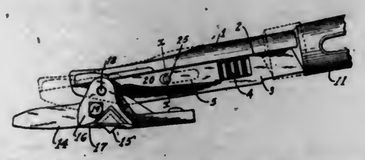
9. The combination of an insulator having an annular recess in its lower portion and a central cavity, an externally threaded ring seated in said recess, a base having an internally threaded portion in engagement with said ring and a central stud which enters within the cavity of the insulator, insulating material between the central cavity of the insulator and the central stud of the base, an integral ring for the upper portion of said insulator, an upper outer coupling ring having an internally threaded portion in engagement with said internal ring, an upper member having a seat in threaded engagement with said outer ring, and a detachable cap supported upon said upper member.



10. As an improved article of manufacture, an insulator base adapted to support an insulator and provided with an upwardly extending internally threaded flange and a central upwardly extending stud.

[Claims 1 to 5, 7, and 8 not printed in the Gazette.]

1,252,354. CAR-MOVER. ANDREW J. MAINE, Appleton, Wis. Filed May 17, 1915. Serial No. 28,530. (Cl. 254—36.)



6. A car mover including a main operating lever having its respective sides provided near one end with a plurality of teeth arranged in longitudinally extending sets, in combination with a set of connecting members provided with fulcrum pivots and having teeth adapted for interlocking engagement with the teeth on the main lever in various positions of longitudinal adjustment, said main operating lever being provided with a longitudinally extending shoulder on each side overhanging the connecting member and also having a slot through which a clamping bolt passes, said clamping bolt being adapted to bind the connecting members to the main lever.

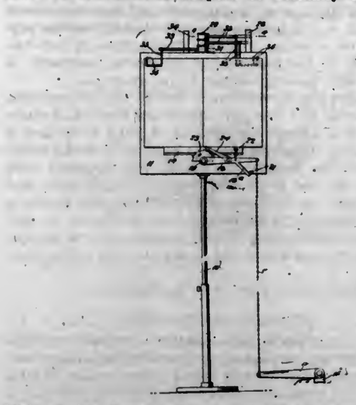
8. A car mover lever provided with a socketed wheel engaging nose portion, a bearing block seated in said socket, the walls of said bearing block and socket being formed to receive an interlocking body of metal and a molded body of metal in said socket in interlocking relation to the walls thereof and to the side wall of the bearing member, whereby the latter may be released by melting out the key filling.

[Claims 1 to 5 and 7 not printed in the Gazette.]

1,252,355. MUSIC-SHEET TURNER. FRANCIS MARCELLINO, Brooklyn, N. Y. Filed July 10, 1917. Serial No. 181,464. (Cl. 84—135.)

1. A music sheet turning device, comprising a music holder, including a leaf holder plate having a ledge for the support of the leaves, a horizontal shaft, an actuated lever pivotally mounted in front of the music holder, means for giving said shaft a step by step rotary motion from said actuated lever, a pinion on said shaft, a horizontally movable rack meshing with said pinion, a set of spring actuated leaf turning arms of different lengths,

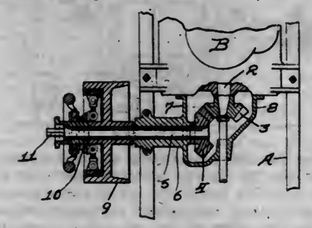
said rack including a vertically extending member the free end of which is adapted to normally engage said



leaf turning arms and upon the displacement of said rack to successively release the same.

[Claims 2 and 3 not printed in the Gazette.]

1,252,356. TRACTOR. LOUIS MAYER and EDWIN A. BYE, Mankato, Minn., assignors to Mayer Brothers Company, Mankato, Minn., a Corporation of Minnesota. Filed Feb. 26, 1916. Serial No. 80,641. (Cl. 180—53.)



1. A tractor having a frame, an engine mounted upon said frame having a longitudinally projecting crank shaft, a bevel gear carried by said crank shaft, a counter shaft journaled upon said frame and extending laterally from one side of said frame and having a bevel gear meshing with the bevel gear on said crank shaft, a drive pulley loosely disposed upon said counter shaft, a clutch carried by said counter shaft for revolubly connecting said pulley with said shaft, the outer end of said counter shaft being provided with means for engaging with a crank for turning said counter shaft and imparting revolution to said crank shaft.

2. A tractor, comprising, in combination, a frame, an engine having its casing mounted upon said frame and having a crank shaft projecting from its casing longitudinally of said frame, a counter shaft disposed laterally to said crank shaft and projecting from one side of said frame, a journal for said counter shaft mounted upon said frame and engine casing, connecting means between said crank and counter shafts for transmitting motion from said crank shaft to said counter shaft and vice versa, and a pulley carried by said counter shaft for driving external machinery, the end of said counter shaft adjoining said pulley being provided with means for engaging with a crank for turning said counter shaft and imparting revoluble motion to said crank shaft.

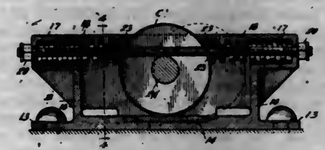
1,252,357. CIGAR-HOLDER. GEORGE R. MEISSNER, Albia, Iowa, assignor to L. R. West, Osceola, Iowa. Filed Nov. 3, 1915. Serial No. 59,438. (Cl. 131—10.)

A combined cigar holder and pipe comprising a stem having a tubular extension projecting therefrom at an angle and communicating with the interior of the stem and interiorly and exteriorly threaded, a threaded impaling member removably engaged with the interior threads of the extension and adapted to engage into either the side or the end of a cigar and a pipe bowl having



an axially threaded opening in its bottom in which the threaded projection is removably screwed and into which bowl the impaling member projects axially, said bowl when in position being adapted to interchangeably hold loose tobacco or hold a cigar against lateral movement when axially impaled upon the impaling member.

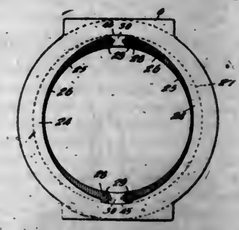
1,252,358. ROLLER SIDE BEARING. WILLIAM H. MINER, Chazy, N. Y. Filed July 21, 1916. Serial No. 110,479. (Cl. 64—64.)



1. In a roller side bearing, the combination with a retaining member, and a roller longitudinally movable therein, of means for returning said roller to normal position after actuation thereof, said means comprising, a rod arranged at right angles to the axis of the roller and having its ends mounted in said retaining member and detachable therefrom, springs located on opposite sides of the roller, and spring followers guided by said rods and frictionally engaging said roller, said rod preventing removal of the roller from the retaining member.

[Claims 2 and 3 not printed in the Gazette.]

1,252,359. FRICTION DRAFT-GEAR FOR RAILROAD-CARS. WILLIAM H. MINER, Chazy, N. Y. Filed Aug. 19, 1916. Serial No. 115,872. (Cl. 213—64.)

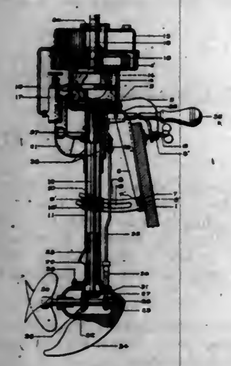


1. In a draft gear for railroad cars, a shell, friction elements within the shell, a liner adapted to be engaged by the friction elements, the said liner comprising a plurality of sections, and wedge shaped dove-tail keys engaging the edges of said sections.

2. In a friction draft gear for railroad cars, a shell, friction elements including friction shoes within the shell, a liner for frictional engagement with said shoes, the liner comprising a plurality of sections, and longitudinally extending keys engaging the edges of said sections.

[Claims 3 to 6 not printed in the Gazette.]

1,252,360. MARINE MOTOR. CHARLES FRANCIS MOORE, West Roxbury, Mass., assignor, by mesne assignments, to Adolf Giesberg, Boston, Mass. Filed Jan. 27, 1915. Serial No. 4,757. (Cl. 115—18.)



1. In an outboard propulsion device, a liquid fuel motor, a crank shaft therefor, means for supporting said motor shaft on the stern of a boat, a supporting wall arranged above the motor, a fuel tank mounted upon said supporting wall, and a fly wheel on said crank shaft and disposed within said wall below said tank.

4. In an engine, a cylindrical support, a shaft mounted therein, a cylindrical fuel tank seated on said support, a fly wheel on said shaft below said tank and covered thereby and wholly inclosed within said support.

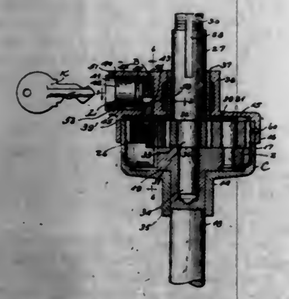
9. In an outboard motor, a support, a shaft mounted therein, a fuel tank on said support, and a fly wheel on said shaft below said tank and covered thereby.

16. In an outboard propulsion device, a liquid fuel motor, a crank shaft, a bearing for said crank shaft at its lower end, said bearing having a port, a housing for said shaft having a port registering with said port in the bearing, said registering ports constituting an under water exhaust, an exhaust manifold connecting said motor with the housing and discharging through said under water exhaust, and a water cooling system for said motor discharging with the products of combustion from the motor through said manifold and under water exhaust.

[Claims 2, 3, 5 to 8, 10 to 15, and 17 to 23 not printed in the Gazette.]

1,252,361. [WITHDRAWN.]

1,252,362. LOCK FOR STEERING MECHANISM. MAX M. MUELLER, Chicago, Ill. Filed Aug. 24, 1916. Serial No. 116,585. (Cl 70—90.)

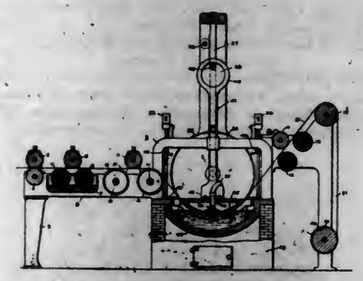


1. In mechanism for preventing operation of the steering mechanism of a vehicle, the combination with a two part stationary housing, a steering shaft extending through and journaled in the housing, a hand wheel on said steering shaft, a notched plate in said housing secured to said shaft, and a lock on one part of said housing having a bolt for entering a notch of the plate to lock the shaft directly to the housing and to prevent movement of one part of said housing relative to the other part.

2. In mechanism for locking a vehicle against steering, the combination of a two part stationary housing, a steering post extending into the housing, a hand wheel and a shaft extending therefrom into the housing, coupling mechanism within the housing for connecting the shaft with the post, a notched projection secured to the shaft, and a lock mounted on one part of the housing and having a bolt for coöperating with the notched projection to lock the shaft against turning in said housing and to prevent movement of one part of said housing relative to the other part.

[Claims 3 and 4 not printed in the Gazette.]

1,252,363. MACHINE AND METHOD FOR COATING WITH METAL. CHARLES C. ROBERTS, Ansonia, Conn. Filed Dec. 16, 1916. Serial No. 137,343. (Cl. 91—12.1.)



1. In a machine for coating sheet material on one side, a receptacle for the tinning material, sheet advancing means, non-rotatable means for guiding the advancing sheet into and out of the tinning receptacle and means which engage the edges of the advancing sheet during the tinning operation to prevent the tinning material from flowing over the edges of the sheet.

3. In a machine for plating sheet metal on one side a non-rotatable guide shoe provided with a heater, means for advancing the sheet under said shoe, means for maintaining a plating bath on the under side of said sheet and means for engaging the side edges of the sheet within the bath to prevent the plating material from flowing over said side edges.

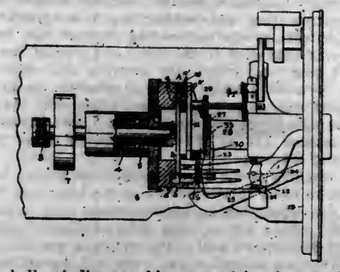
6. The method of plating sheet metal on one side which consists in advancing the metal in a heated condition, maintaining a tinning bath in contact with one side of said metal and preventing the bath from coming in contact with the opposite side of said metal.

9. The method of plating sheet metal on one side which consists in maintaining a tinning bath in contact with one side of the advancing metal and applying heat to the opposite side of that portion of the metal which is in contact with the tinning bath.

[Claims 2, 4, 5, 7, and 8 not printed in the Gazette.]

1,252,364. MACHINE FOR GRINDING BALLS. OTTO W. SCHAUM, Philadelphia, Pa. Filed Nov. 29, 1916. Serial No. 134,014. (Cl. 51—4.)

1. A ball grinding machine comprising in combination a pair of opposing grinding members, each of which members has a plurality of sets of grooves, means for dislodging balls from the grooves when the balls reach a particular place, and means for feeding the balls back to the grinding portions of the machine, said means comprising a fixed throat member having passageways leading to said sets of grooves and a throat member movable relatively to said fixed throat member whereby balls to be ground will be fed into one set of the grooves at one time and into another set of the grooves at another time.



2. A ball grinding machine comprising in combination opposing relatively rotating members, each of which members has a plurality of sets of grooved portions that coöperate with corresponding sets of grooved portions in its opposing member, means for dislodging balls from between the opposing members when the balls reach a certain place, a movable throat member, continuously operating mechanism, and means between said mechanism and said movable throat member for periodically moving the throat member to a position where it will direct the balls into one of said sets of coöperating grooved portions and from that position to another position where it will direct the balls into another of said sets of coöperating grooved portions.

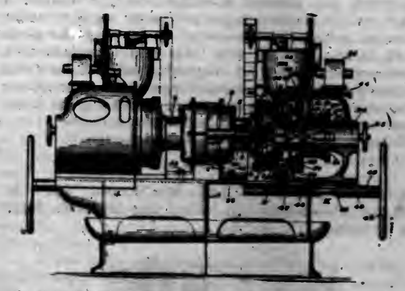
3. An apparatus of the class described comprising in combination opposing grinding members, one of which is a relatively stationary metal disk and the other of which is a relatively rotatable disk of abrading material, the abrading disk having a plurality of sets of grinding grooves therein and the metal disk having a plurality of sets of grooves which are opposed to the sets of grinding grooves in the abrading disk, means for positively dislodging the balls from the grinding grooves and for causing the balls thus dislodged to pass through an opening in the metal disk to a place where the balls are mixed, means for feeding the mixed balls back to the grinding disks where a subsequent grinding step can be performed, said last mentioned means comprising as a part thereof a movable throat member, and cam means for actuating the movable throat member whereby as the grinding operation proceeds the balls will be directed at one time to one set of the grinding grooves and at another time to another set of the grinding grooves.

4. A ball grinding machine of the class described comprising in combination opposing grinding members, one of which is a disk of metal and the other of which is a disk of abrading material, means for positively dislodging the balls from the space between the disks, for mixing the balls and for elevating the balls to a position where they can be fed back into the machine, means for feeding or directing the balls into the operating space between the disks, which said means comprises a movable throat member, and means for automatically positioning the throat member so that the latter will cause the balls to be directed to one set of grooves in the opposing disks at one time and to another set of grooves in the opposing disks at another time.

5. A ball grinding machine of the class described comprising in combination a relatively stationary disk and a relatively rotatable disk opposed to the stationary disk, each of which disks has a plurality of sets of grooved portions with the sets of grooved portions in one disk coöperating with the sets of grooved portions in the other disk, means for mixing the balls delivered from the grinding space between the disks, mechanism for elevating the balls, mechanism comprising a movable throat member for feeding or directing the balls from the elevating mechanism back to the grinding space between the disks, and a common means for actuating the elevating mechanism and for actuating the movable throat member whereby as the grinding operation proceeds the balls will periodically be conducted at one time to one set of grinding grooves between the disks and at another time to another set of grinding grooves between the disks.

[Claims 6 to 15 not printed in the Gazette.]

1,252,365. BALL-GRINDING MACHINE. OTTO W. SCHAUM, Philadelphia, Pa. Filed Mar. 24, 1917. Serial No. 157,245. (Cl. 51—4.)



1. A ball grinding machine comprising in combination a main frame supporting thereupon shaft bearing members, a shaft in said bearing members and carrying a tubular abrading wheel, said frame also supporting thereupon a common carrier, which carrier is mounted on the main frame in a manner to permit of adjustment toward and from the abrading wheel, means extending between the frame and said carrier for feeding said carrier toward the abrading wheel, spaced supporting or segment rings on said carrier, a carrier which is revolubly mounted upon said common carrier and a ball-revolving ring or ball-pressing ring on said revoluble carrier.

2. A ball grinding machine of the class described comprising in combination a main frame, a main or driving shaft having at each end thereof heads to which there are secured abrading or grinding members, a main bearing member mounted upon said frame and carrying said shaft, at each end of the main frame an inner carrier and an outer carrier connected together and adjustable toward and from the abrading members, means between the frame and said carriers for effecting said adjustment, an intermediate carrier revolubly mounted upon said inner carrier, an inner segment ring or ball-supporting ring secured to said inner carrier, an outer segment ring or ball supporting ring secured to said outer carrier, a ball-revolving ring or ball-pressing ring secured to said intermediate revoluble carrier, and means for adjusting the intermediate carrier along the inner carrier.

3. A ball grinding machine of the class described comprising in combination with a tubular abrading wheel of inner and outer spaced segment or ball-supporting rings, a ball-revolving ring or ball-pressing ring positioned on the opposite side of said segment rings from which the tubular abrading wheel is located, a carrier common to said inner and outer segment rings, an intermediate carrier for supporting said ball-revolving or ball-pressing ring, means between said intermediate carrier and said common carrier for adjusting the intermediate carrier relatively to said common carrier, and means for adjusting the common carrier and the parts carried thereby toward and from the abrading wheel.

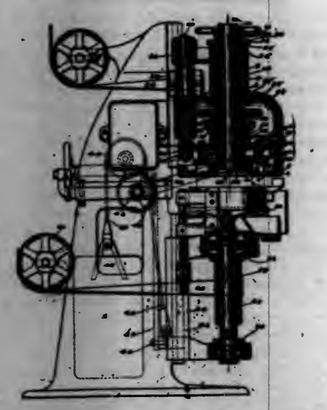
4. A ball grinding machine of the class described comprising in combination with a tubular abrading wheel of inner and outer spaced segment or ball-supporting rings, a ball-revolving ring or ball-pressing ring positioned on the opposite side of said segment rings from which the tubular abrading wheel is located, a carrier common to said inner and outer segment rings, an intermediate carrier for supporting said ball-revolving or ball-pressing ring, means between said intermediate carrier and said common carrier for adjusting the intermediate carrier

relatively to said common carrier, and means for adjusting the common carrier and the parts carried thereby toward and from the abrading wheel, the axis about which the abrading wheel rotates being offset with respect to the axis about which the ball-revolving ring rotates.

5. A ball grinding machine of the class described comprising in combination with a tubular abrading wheel of inner and outer spaced segment rings or ball-supporting rings, a ball-revolving ring or ball-pressing ring positioned on the opposite side of said segment rings from which the tubular abrading wheel is located, a carrier common to said inner and outer segment rings, means for moving said common carrier and the parts carried thereby toward and from said abrading-wheel, an intermediate carrier for supporting said ball-revolving or ball-pressing ring, and means between said intermediate carrier and said common carrier for adjusting the intermediate carrier relatively to said common carrier.

[Claims 6 to 32 not printed in the Gazette.]

1,252,366. BALL-GRINDING MACHINE. OTTO W. SCHAUM, Philadelphia, Pa. Filed May 26, 1917. Serial No. 171,280. (Cl. 51—4.)



1. A machine of the class described comprising in combination a main frame supporting thereupon an outer carrier, an outer segment ring secured to said carrier, an inner carrier adjustably mounted on said outer carrier, an inner segment ring secured to said inner carrier, a ball-pressing ring, an intermediate carrier to which said ball-pressing ring is connected and which intermediate carrier is revolubly mounted on said inner carrier, a shaft carried in bearings on said outer carrier and having a gear meshing with a gear on said intermediate carrier for rotating the latter, and a rotatable abrading-wheel arranged to engage balls which are held in operative position on the segment rings by the pressing ring.

2. A machine of the class described comprising in combination an upright main frame, an outer carrier supporting at its lower end a ball-supporting or segment ring, an inner carrier comprising a bushing or sleeve which can be securely held in an adjusted position in the outer carrier, a spindle or shaft which can be fixedly secured in elevated position in said bushing or sleeve, an inner ball-supporting or segment ring secured to the lower end of said spindle, an intermediate carrier revolubly mounted on said bushing or sleeve, a ball-pressing ring which is revoluble by said intermediate carrier and arranged to press downwardly upon balls supported by or on said segment rings which last-mentioned rings have spaces between them through which the balls extend when thus pressed, and a revoluble abrading-wheel arranged to engage the balls thus pressed.

3. A machine of the class described having a revoluble abrading-wheel, spaced inner and outer segment rings and a revoluble ball-pressing ring, and in combination therewith an outer carrier to which the outer segment ring is secured, a bushing adjustably mounted in said carrier, means for securing said bushing in a fixed adjusted position, a spindle or shaft extending through said bushing and having connected to the lower end thereof the inner segment ring, and means for securing said shaft in a normal elevated position while a grinding operation is being performed, the construction being such that said shaft or spindle can be lowered from said normal elevated position and so that the abrading wheel can be raised and lowered.

4. A machine of the class described comprising in combination an outer carrier having at the lower end thereof means for supporting an outer segment ring, a bushing or sleeve, means for securing said bushing or sleeve in adjusted position on said outer carrier, a central spindle or shaft having secured at the lower end thereof an inner segment ring, means for securing said central spindle in adjusted position on said bushing or sleeve, which is spaced from the outer segment ring, a ball-pressing ring and a revoluble intermediate carrier therefor, which intremediate carrier is revolubly mounted on said bushing or sleeve and is adjustable along said bushing or sleeve, the construction being such that the inner spaced segment ring can be lowered while the outer spaced segment ring and the intermediate carrier for the ball-pressing ring remain in place, the construction also being such that the abrading-wheel can be lowered from operative position and restored to operative position.

5. A machine of the class described comprising in combination inner and outer spaced segment rings, a ball-pressing ring located above said segment rings and associated therewith, a vertically movable tubular abrading-wheel located below said segment rings which tubular abrading-wheel is eccentric to the ball-pressing ring whereby the entire surface of the abrading-wheel may be utilized, an outer carrier to the lower end of which the outer of said spaced segment rings is secured, an adjustable bushing or sleeve secured in place in said outer carrier, an intermediate carrier revolubly mounted upon said bushing or sleeve for revolving said ball-pressing ring, means engaging said bushing or sleeve for positioning the intermediate carrier along the bushing or sleeve, a vertically movable spindle or shaft, means for securing said spindle or shaft in an elevated position to said bushing or sleeve, the inner of said spaced segment rings being secured to the lower end of said spindle or shaft and in normal operative position in respect to said outer ring and ball-pressing ring when said shaft is secured in said elevated position, guiding means between said sleeve and said spindle or shaft, the construction being such that said spindle or shaft and the spaced segment ring carried thereby can be lowered from its normal position, said guiding means between said spindle or shaft and said bushing or sleeve serving to maintain the spindle or shaft in proper position relative to the bushing or sleeve while said spindle or shaft is being raised or lowered.

[Claims 6 to 19 not printed in the Gazette.]

1,252,367. RAZOR-BLADE SHARPENER. CLINTON A. SCOTT and ALEXANDER G. HUG, Chicago, Ill., assignors, by mesne assignments, to National Manufacturing and Specialty Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 9, 1914. Serial No. 870,947. (Cl. 51—16.)

1. In a device for sharpening razor blades; a handle, a plurality of arms spaced from each other and extending longitudinally therefrom, a blade holding member pivoted between the arms having jaws forwardly extended from the pivotal point and a portion extended rearwardly from the pivotal point, and a guiding device attached to and extended transversely in each direction from the rearwardly extended portion.

2. In a device for sharpening razor blades; a handle, a plurality of arms spaced from each other and extended longitudinally therefrom, a blade holding member pivoted between the arms having jaws forwardly extended from the pivotal point and a portion extended rearwardly from the pivotal point, a guide wheel axled on the rearwardly extended portion and adapted to overbalance the said jaws.



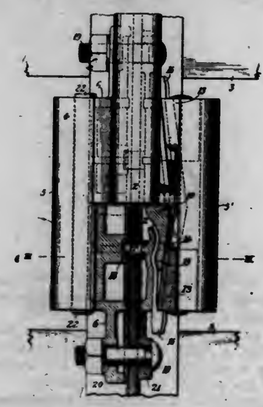
3. A safety razor blade sharpening holder consisting of a handle bearing two prongs, a blade-holding member pivoted between said prongs, means for limiting the movement of said blade-holding member between said prongs, and a roller borne by said blade-holding member and adapted to roll on the surface of the strop or hone.

4. A safety razor blade sharpening holder consisting of a handle bearing two prongs, lugs on said prongs adapted to limit the movement of the blade-holding member, a blade-holding member rotatably secured between said prongs, and bearing two leaves adapted to receive and hold between them a safety razor blade, and a roller borne by said blade holding member and adapted to roll on the surface of the strop or hone.

5. In a device for sharpening razor blades; a handle, a plurality of arms spaced from each other and extended longitudinally therefrom, a blade holding member pivoted between the arms having jaws forwardly extended from the pivotal point and a portion extended rearwardly from the pivotal point, a guide wheel axled on the rearwardly extended portion adapted to overbalance the said jaws, and means for limiting the relative movement of the blade holding member and the handle.

[Claims 6 to 11 not printed in the Gazette.]

1,252,368. RAIL-JOINT. JOHN W. STEPHENSON, Toledo, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed Sept. 9, 1915. Serial No. 49,658. (Cl. 239—6.)



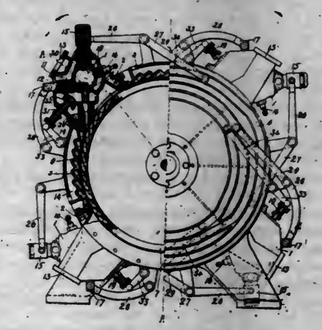
1. A rail joint comprising a base member having upturned sides, a rail gripping member extending across the joint between the ends of the rails, said rail gripping member having a horizontal non-wedging surface and an inclined wedging surface, a wedge adapted to be driven between said rail gripping member and an upturned side of said base member and to be supported upon said horizontal non-wedging surface, whereby its entire wedging pressure will be directed against said inclined wedging surface to force the rail gripping member laterally into engagement with the rail.

2. A rail joint comprising a base member having upturned sides, a rail gripping member extending across the joint between the ends of the rails, said rail gripping member having a wedging surface inclined vertically and longitudinally of the rail, and also having a horizontal non-wedging surface, said upturned sides of the base member presenting inclined undercut surfaces of lesser inclination from the horizontal than the correspondingly-inclined surface of said gripping member, and a wedge adapted to be driven between said inclined surfaces and to be forced by said surfaces downward upon said horizontal non-wedging surface of the rail gripping member.

3. A rail joint comprising a base member having upturned sides, rail-gripping members extending across the joint between the ends of the rails, wedging means adapted to be driven between one of the rail gripping members and an upturned side of the base member adapted to wedge the last named rail-gripping member against the heads and bases of the rails, and means, supplemental to the wedging means and separate from the rail-gripping members, for holding the rail-gripping members in relative position.

4. A rail joint comprising a base member having upturned sides, rail-gripping members extending across the joint between the ends of the rails, wedging means adapted to be driven between one of the rail-gripping members and an upturned side of the base member, adapted to wedge the rail-gripping member against the heads and bases of the rails, and bolts seated in apertures in one of the rail-engaging members, adapted to hold the rail-gripping parts in alinement, supplemental of the wedging means.

1,252,369. EXPLOSION GAS-TURBINE. FRANZ WONDRA, Schenectady, N. Y. Filed Oct. 17, 1908, Serial No. 458,157. Renewed June 6, 1917. Serial No. 173,230. (Cl. 123—9.)



1. An internal combustion turbine of the explosion type comprising a turbine casing and embodying a plurality of fluid pressure generators, means for intermittently producing condensable working fluid therein, a bucket wheel, receiving the energy from said fluid pressure generators, in combination with means for supplying fuel, air and water into said combustion heads, substantially as set forth.

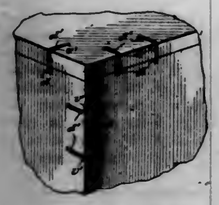
2. In an internal combustion turbine a bucket wheel, in combination with a fluid pressure generator comprising an explosion chamber with valve for fuel and air, steam jacket surrounding the explosion chamber with conduit for delivering water vapor thereto, a mixing chamber adjacent to said explosion chamber and having connections with said steam jacket and explosion chamber, an exhaust port surrounding the steam jacket and mixing chamber, a nozzle discharging the motive fluid against the buckets of

the wheel and an igniting device, all substantially as and for the purpose specified.

3. In an internal combustion turbine, a fluid pressure generator comprising an explosion chamber with inlet valve and outlet valve, a sprayer nozzle leading therefrom; a mixing chamber receiving the products of combustion from the explosion chamber; a steam jacket surrounding the explosion chamber and having a conduit for conveying water vapor from other parts of the turbine therein to produce steam of it from the heat of the live gases in the explosion chamber, concentric valves admitting steam from the steam jacket in the mixing chamber, an expansion nozzle in constant communication with the mixing chamber, an exhaust port surrounding said steam jacket and mixing chamber, an ignition device, in combination with a turbine wheel for abstracting the energy received from the fluid pressure generator and means for actuating the various valves.

[Claims 4 to 16 not printed in the Gazette.]

1,252,370. BOX FASTENER AND SEAL. WINFRED MUDGE BROOKS, East Orange, N. J., assignor to E. J. Brooks & Co., New York, N. Y., a Corporation of New York. Filed Oct. 18, 1917. Serial No. 197,273. (Cl. 70—100.)



1. In a box fastener and seal having a plurality of prongs and a head part with weakening notches, a stiffening prong adjacent to said weakening notches adapted to secure and stiffen said head part at that point.

2. In a box fastener and seal the combination of a relatively long head part, inclined prongs at its extremities, a plurality of weakening notches on the inner side of said head part and a stiffening prong adjacent to said weakening notches adapted to secure and stiffen the head part at that point.

3. A box fastener and seal having a long obtusely bent head part, three prongs in the same plane with said head and weakening notches cut on the inner side of said head on each side of said middle stiffening prong.

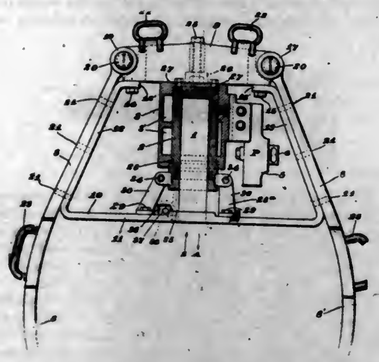
4. A box fastener and seal comprising a long head bent obtusely near its center, flattened and suitably embossed on either side of said bend, having three prongs in the same plane, one at each end and one stiffening prong near said central bend and a plurality of weakening notches on the inner side of said head adjacent to and on each side of said stiffening prong.

5. A box fastener and seal having in combination, a long head bent obtusely near its center with embossed portions on each side of said bend, two end prongs and a stiffening prong integral with and in the same plane with said head located at its ends and near said central bend, two adjacent prongs being substantially parallel while the third on the other extremity inclines from its junction with said head toward the other prongs and a plurality of weakening notches cut on the inner side of said head adjacent to and on each side of said stiffening prong.

[Claims 6 to 8 not printed in the Gazette.]

1,252,371. BENDING-MACHINE. MORRIS H. BROWN, Yonkers, N. Y. Filed Aug. 8, 1916. Serial No. 113,704. (Cl. 153—38.)

1. A bending machine of the class described comprising in combination a trapezoidal frame having a head casting located at the small end of the trapezoid and a wrought metal member which provides the base and side portions of the trapezoid, the head ends of the side portions being bent inwardly and being secured to the head casting, work engaging members or hooks secured to said head casting and also secured to the side portions of the trapezoidal frame, a ram, and means between the head and the ram for forcing the ram in a direction away from the head.



5. A rail bending machine of the class described comprising in combination a trapezoidal frame having a transversely extending head member that is provided with an ear or ears at each end thereof, and a wrought metal inner frame member which provides the base and side portions of the trapezoid, the head end of said side portions being bent inwardly and secured to said head member, work engaging members or hooks which are connected to the head member, which work engaging members diverge in passing from the head, said work engaging members being connected to the side portions of the frame, a chamber member secured to the head, a cylinder extending within the chamber member and secured to the latter, a piston or ram in said cylinder, and a pump for forcing liquid from said chamber member into said cylinder, the body of which pump is located within said trapezoidal frame.

[Claims 2 to 4 and 6 to 16 not printed in the Gazette.]

1,252,372. INCANDESCENT LAMP. WILLIAM AUSTIN DARRAH, Mansfield, Ohio. Filed July 31, 1914. Serial No. 854,362. (Cl. 176—16.)



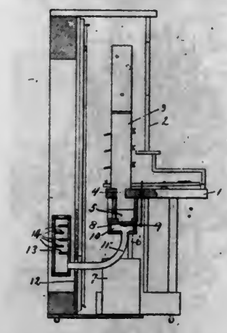
10. An electric lamp containing incandescent tungsten, a transparent container, and a coating on said container of a flux and a decolorizer.

12. In an electric lamp, a pocket for gases heated by the radiator, a light transmitting surface at the pocket containing a material and a flux for absorbing and decolorizing the deposit from the radiator.

[Claims 1 to 9, 11, 13, and 14 not printed in the Gazette.]

1,252,373. MUSIC-PLAYER EXHAUST-MUFFLER, ROBERT A. GALLY, Cincinnati, Ohio, assignor to The Baldwin Company, Cincinnati, Ohio. Filed July 27, 1917. Serial No. 183,122. (Cl. 84—168.)

1. A piano including a vertical sound-board; wind inducing devices in front of said sound-board, and air connection from said wind inducing devices in front of said sound-board to the rear of said sound-board, and an air inlet to the said air connection, said inlet positioned at the rear of said sound-board, and a muffling means combined with said inlet.

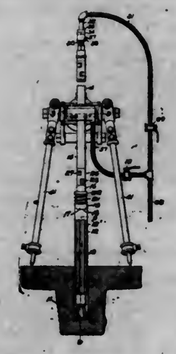


3. A piano including a vertical sound-board; wind inducing devices in front of said sound-board, and air connection from said wind inducing devices in front of said sound-board to the rear of said sound-board, and a surplus air relief port to the said wind inducing devices, said surplus air relief port combined with said air connection that leads to the rear of said sound-board.

5. A piano including a vertical sound-board; wind inducing devices in front of said sound-board, and an air surplus valve combined with said wind inducing devices in front of said sound-board, and air connection from said air surplus valve and led to the rear of said sound-board and a port to said connection at the rear of said sound-board.

[Claims 2, 4, 6, and 7 not printed in the Gazette.]

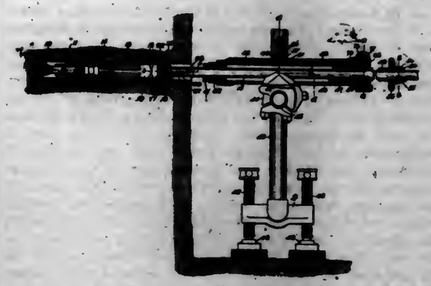
1,252,374. DRILLING-MACHINE. GEORGE H. GILMAN, Claremont, N. H., assignor, by mesne assignments, to Sullivan Machinery Company, Boston, Mass., a Corporation of Massachusetts. Filed July 5, 1912. Serial No. 707,714. (Cl. 255—43.)



1. Drilling apparatus comprising in combination a bit; a burrowing percussive motor; a cylindrical shank extending rearwardly from said motor; said bit, said percussive motor and said shank being connected for rotation as a unit; and frictional means directly engaging said cylindrical shank and adapted to permit longitudinal feeding movement of said shank relative to said frictional means while imparting intermittent rotary movement to said shank.

2. Drilling apparatus comprising in combination a bit; a burrowing percussive motor; a cylindrical shank extending rearwardly from said motor; said bit, said percussive motor and said shank being connected for rotation as a unit; and clutch means directly engaging said cylindrical shank and adapted to permit longitudinal feeding movement of said shank relative to said clutch means while imparting rotary movement to said shank.

1,252,375. DRILLING APPARATUS. GEORGE H. GILMAN, Claremont, N. H., assignor, by mesne assignments, to Sullivan Machinery Company, Boston, Mass., a Corporation of Massachusetts. Filed July 5, 1912. Serial No. 707,715. (Cl. 255—43.)



4. A drilling machine having, in combination, a drilling tool, a shank secured to said drilling tool, pressure fluid means for rotating said shank, a pressure fluid feed cylinder and piston one of which is connected to said shank, and means including a valve for simultaneously admitting pressure fluid to said rotating means and one end of said cylinder, or withholding pressure fluid from said rotating means while admitting pressure fluid to the opposite end of said cylinder.

6. In a drilling apparatus the combination with a percussive drilling tool having a drill bit, of motive power means for rotating said drill bit, pressure actuated feeding means including a cylinder member and a piston member, and an adjustable connection between one of said members and said tool, whereby a longer feed than the length of the piston member's travel can be secured.

8. A drilling apparatus having, in combination, a drilling tool having a drill bit, means for bodily rotating said drilling tool and its drill bit, means for imparting a longitudinal motion to said tool and its drill bit, and means for conjointly controlling the operation of both of said means.

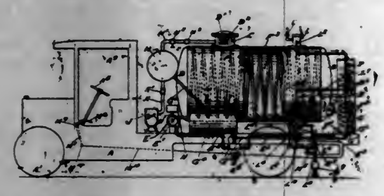
11. A drilling apparatus having, in combination, a drilling tool having a drill-bit, means for bodily rotating said drilling tool and its drill-bit, a pressure fluid feed cylinder and piston, one of which is connected to said tool, and a single valve means for admitting pressure fluid to said rotating means and to either end of said cylinder at will.

[Claims 1 to 3, 5, 7, 9, 10, and 12 not printed in the Gazette.]

1,252,376. APPARATUS FOR HEATING AND APPLYING ASPHALTIC OR BITUMINOUS MATERIALS. WILLIS C. MERRILL, Boston, Mass. Filed Apr. 15, 1914. Serial No. 831,922. (Cl. 137—63.)

1. In an apparatus of the character described, a receptacle for asphalt, bituminous or other materials requiring heat to render them liquid or less viscous and provided with an inlet and with a discharge outlet, a valve controlling said discharge outlet, a source of heating fluid having a boiling point above 212° F., a continuous conduit passing through said receptacle and including in its circuit said discharge outlet and through which conduit said heating fluid is circulated, means for heating said circulating heating fluid to raise the temperature of the viscous

material in the receptacle to heat or liquefy the said material and to heat the discharging material, and means for circulating said heating fluid through said conduit.



3. In an apparatus of the character described, a closed tank for asphalt, bituminous or other materials requiring heat to render them liquid or less viscous and provided with an inlet and with a discharge outlet, a valve controlling said discharge outlet, means for applying a pressure to the material in said tank above that of the atmosphere so as to force the material in said tank through the said discharge outlet, a source of heating fluid, a continuous conduit through which said heating fluid is circulated for raising the temperature of the viscous material in the tank to liquefy or render the material less viscous, means for heating said circulating heating fluid, a valve box included in said conduit and surrounding the discharge outlet valve so as to heat said valve by the said circulating heating fluid, and means located on the exterior of said valve box for opening and closing said valve.

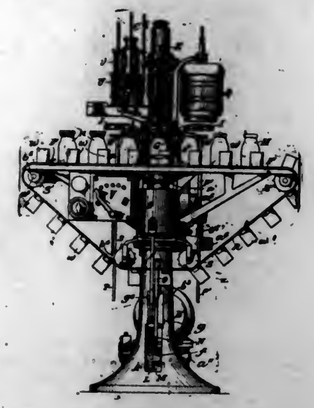
4. In an apparatus of the character described, a closed tank for asphalt, bituminous or other materials requiring heat to render them liquid or less viscous and provided with an inlet and with a discharge outlet, a valve controlling said discharge outlet, means for applying a pressure to the material in said tank above that of the atmosphere so as to force the material in the tank through the said discharge outlet, a source of heating fluid, a continuous conduit through which said heating fluid is circulated for raising the temperature of the viscous material in the tank to liquefy or render the material less viscous, means for heating said circulating heating fluid, a valve box included in said conduit and surrounding the discharge outlet valve so as to heat said valve by the same circulating heating fluid, and means located on the exterior of said valve box for opening said valve and for automatically closing said valve.

7. In an apparatus of the character described, a closed tank for asphalt, bituminous or other materials requiring heat to render them liquid or less viscous and provided with an inlet and with a discharge outlet, a valve controlling said discharge outlet, means for applying a pressure to the material in said tank above that of the atmosphere so as to force the material from the tank through the said discharge outlet, a source of heating fluid, a continuous conduit through which a heating fluid having said boiling point higher than 212° F. is circulated for raising the temperature of the viscous material in the tank to liquefy or render the material less viscous, means for heating said circulating heating fluid, a valve box included in said conduit and surrounding the discharge outlet valve so as to heat said valve by the said circulating heating fluid, and automatic means adapted to control the supply of fuel to the heater upon the temperature of the heating circulating fluid reaching a predetermined point.

[Claims 2, 5, 6, and 8 to 11 not printed in the Gazette.]

1,252,377. BOTTLE CAPPING AND SEALING MACHINE. ALBERT WESTLAKE, New York, N. Y., assignor to The Sanseal Corporation, a Corporation of New York. Filed Feb. 25, 1916, Serial No. 80,336. Renewed July 31, 1917. Serial No. 183,816. (Cl. 93—1.)

1. A bottle capping and seating machine which comprises a capping tool, a heating oven, a disk supplying device, a feed slide whereby sealing disks are taken from said disk supplying device and delivered to the rotary carrier, a rotary carrier whereby said disks are conveyed to said heating oven and capping tool, and a bottle conveyer whereby bottles are supplied in continuous succession to and conveyed away from said capping tool.



2. A bottle capping and sealing machine which comprises a capping tool, a heating oven, a disk supplying device, a feed slide whereby sealing disks are taken from said disk supplying device and delivered to the rotary carrier, a rotary carrier whereby said disks are conveyed to said heating oven and capping tool, a bottle conveyer whereby bottles are supplied to said capping tool, and operating mechanism whereby the operations of said devices are so harmonized as to cap and seal a continuous succession of receptacles.

3. A bottle capping and sealing machine which comprises a capping tool, a heating oven, a disk supplying device, a feed slide whereby sealing disks are taken from said disk supplying device and delivered to the rotary carrier, a rotary carrier whereby said disks are conveyed to said heating oven and capping tool, a bottle conveyer whereby bottles are supplied to said capping tool, and operating mechanism whereby the intermittent operations of said devices are so harmonized as to cap and seal a continuous succession of receptacles.

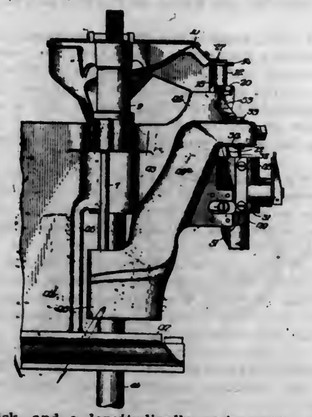
4. A bottle capping and sealing machine which comprises a capping tool, a heating oven, a disk supplying device, a feed slide whereby sealing disks are taken from said disk supplying device and delivered to the rotary carrier, a rotary carrier whereby said disks are conveyed to said heating oven and capping tool, elevating devices which serve as intervening conveyers whereby the disks are passed from said feed slide to said carrier and to and fro between said carrier and said heating oven respectively, and a bottle conveyer whereby bottles are supplied in continuous succession to and conveyed away from said capping tool.

1,252,378. SHOE-NAILING MACHINE. JAMES BRAGG, St. Joseph, Mo., assignor to Specialty Shoe Machinery Company, St. Joseph, Mo., a Corporation of Missouri. Filed Oct. 9, 1916. Serial No. 124,554. (Cl. 1—18.)

2. In a nail-feeding mechanism, a rotatable disk provided with a notch adapted to receive a nail from a suitable nail guideway, an apron depending from said disk adjacent said notch, and an ejector provided with two arms arranged to extend above and below said disk and across the path of said notch.

5. In a nail feeding mechanism, a rotatable disk provided with a notch adapted to receive a nail from a suitable nail guideway, and an ejector provided with two arms adapted to extend above and below said disk and

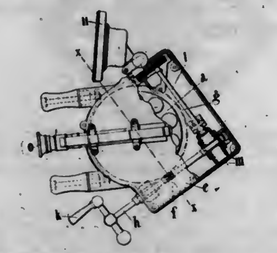
diagonally of the path of said notch, and means for locking said disk against rotation comprising a peripheral recess



in said disk, and a longitudinally reciprocable member to be introduced into and withdrawn from said recess.

[Claims 1, 3, 4, and 6 to 14 not printed in the Gazette.]

1,252,379. SIGHTING APPARATUS FOR MEASURING ANGULAR VELOCITIES. JOHN SIGISMUND WILSON and WILLIAM ERNEST DALBY, London, England, assignors of one-third to Sir W. G. Armstrong-Whitworth and Company Limited, Newcastle-upon-Tyne, England. Filed Aug. 7, 1917. Serial No. 184,978. (Cl. 33—46.)



1. Apparatus for determining the correction of the angle between the plane of sight and the axis of the gun comprising a base plate mounted so that it can be turned to lie approximately in the plane of altitude, a support for the base plate and a sighting device pivotally carried on said base plate and adapted to have its line of sight maintained upon a target; with means connected to the sighting device for measuring its angular velocity relative to the base plate.

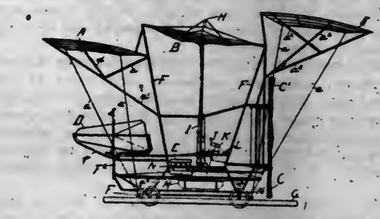
2. In apparatus for directing artillery fire by measuring the rate of relative angular movement of the target in the plane of altitude, or in any other plane passing through the target, a frame, a base plate thereon, a support for the frame, a bracket on the support, a sighting device carried on the base plate rotatable relatively to the base plate and held frictionally to the bracket, gearing for giving a relative angular movement between said frame and said base plate and bracket and means for measuring the relative angular velocity of such movement.

3. Apparatus for determining the correction of tangent elevation or of the angle between the plane of sight and the axis of the gun, or both, comprising a base plate, a support for the base plate supporting it so that it can be turned about two axes at right angles, one of which is horizontal, and so that it can be turned about a vertical axis in combination with a frame arranged so as to be capable of turning about an axis at right angles to the base plate, a sighting device carried by said frame adapted to be alined on the target, means for rotating this frame relatively to the base plate and means coacting with the rotating means for measuring the rate of angular movement.

4. In apparatus as claimed in claim 1, reducing gear to rotate the sighting device relatively to the base plate, a shaft to operate said gear, and a speed indicator operated by said shaft, substantially as described.

REISSUES.

14,417. FLYING-MACHINE. FRANZ WONDRA, Schenectady, N. Y. Filed Sept. 13, 1917. Serial No. 191,328. Original No. 876,125, dated Jan. 7, 1908, Serial No. 227,979, filed Oct. 11, 1904. (Cl. 244—13.)



1. In a flying machine a supporting frame structure, stationary supporting surfaces carried by said frame structure at the front and rear, the rear stationary surface being located higher above the horizontal than the front stationary surface, vertically oscillating surfaces pivoted to said frame structure between said stationary surfaces, means for imparting oscillatory motion to said oscillating surfaces and means for interrupting said oscillatory motion, in combination with means for propelling the surfaces against the air.

2. In a flying machine a supporting frame structure a gradient series of supporting surfaces extending upward toward the rear, attached to said frame structure, a rudder mounted at the front of said frame structure, means for moving said rudder about its vertical axis, means for moving said rudder about its longitudinal axis, and means for propelling said surfaces against the air.

3. A flying machine comprising a supporting frame structure, a gradient series of supporting surfaces extending upward toward the rear attached to said frame structure, a rudder mounted at the front of said frame structure, screw-propellers mounted one above the other at the rear of said frame structure, means for simultaneously shifting said propellers and rudder angularly to the longitudinal axis of the flying machine and means for driving said screw propellers.

4. In a flying machine a supporting frame structure, a pair of vertically oscillating surfaces pivoted to said frame structure and each comprising a plurality of swinging panels, means for oscillating said surfaces and means operated by each of said surfaces for operating the panels of the other surface automatically when reaching a predetermined angle.

5. In a flying machine the combination with a supporting frame structure, of oscillating surfaces pivoted thereto, parallel upright guide rods carried by said frame below said surfaces, stud shafts connecting said guide rods, sprockets mounted on said stud shafts, chains movable over said sprockets, crossheads movable on said uprights, rods connecting said chains and said cross heads, and means for connecting the latter with the oscillating surfaces.

6. In a flying machine a supporting frame structure, a plurality of supporting surfaces attached to said frame structure, a power driven operating shaft, means operated manually for steering the machine in the horizontal plane, an auxiliary power driven mechanism for steering the

machine in the horizontal plane and a device for coupling said operating shaft with said auxiliary mechanism in combination with means for driving the machine against the air.

7. In a flying machine a supporting frame structure, a ballast-carrying gondola guided therein, manually operated means for shifting said gondola, a power driven operating shaft, auxiliary mechanism for shifting said gondola and a device for coupling said operating shaft with said auxiliary mechanism.

8. In a flying machine, a supporting frame, a ballast-carrying gondola guided therein, a power driven operating shaft, means for shifting said gondola, and means for coupling said shifting means with said operating shaft.

9. In a flying machine a supporting frame, a ballast-carrying gondola guided therein, means for manually shifting said gondola, a friction wheel in operative connection with said shifting means, a power driven operating shaft, a friction sleeve on said shaft having terminal disks disposed at either side of said friction wheel and movable into contact therewith, and means for shifting said sleeve in either direction.

10. In a flying machine, in combination, with a supporting-frame, aeroplanes carried by said frame at the front and rear and extending to either side thereof, the rear aeroplane being higher than the front aeroplane, vertically oscillating wings pivoted to said frame between said aeroplanes and forming when outspread a third aeroplane similar to the others, and wing-operating mechanism.

11. In a flying machine, the combination, with a supporting frame, of laterally and longitudinally curved aeroplanes mounted thereon and extending transversely thereof to either side of the same at the front and rear of the machine, said aeroplanes being inclined downwardly toward the rear of the machine and the rear aeroplane being higher than the front aeroplane, wings mounted on said frame between said aeroplanes, and means for oscillating said wings.

12. In a flying machine, the combination, with a supporting frame, of a shaft extending longitudinally thereto and supported thereby, wings pivoted to said shaft and extending to either side of the machine, upright guide-rods below said wings, crossheads guided vertically on said guide-rods, a connecting-rod connecting each crosshead with its corresponding wing, and means for reciprocating said crossheads.

13. In a flying machine, the combination, with a supporting frame, of wings pivoted thereto, parallel upright guide-rods carried by said frame below said wings, stud-shafts connecting said guide-rods, sprockets mounted on said stud-shafts, chains movable over said sprockets, crossheads movable on said uprights, rods connecting said chains and said crossheads, and means for connecting the latter with the wings.

14. A flying machine comprising a supporting frame, a pair of wings pivoted thereto and each comprising a plurality of swinging panels, means for oscillating said wings, and means operated by each of said wings in its oscillatory movement for operating the panels of the other wing and thereby feathering said wing.

15. In a flying machine, the combination, with wings pivoted to a common shaft, of swinging panels carried by each wing, and means mounted on each wing for operating the panels of the other wing, said means being operated automatically when said wings assume a predetermined angle.

16. A flying machine comprising a supporting frame, means for propelling the same through the air, a rudder at the front of said frame, means for angularly moving said rudder about a vertical axis, and means for angularly moving the same about an axis disposed longitudinally of the machine.

17. A flying machine including in its construction a rudder formed of a forwardly tapering frame mounted to turn on an axis disposed longitudinally of the machine.

18. A flying machine including in its construction a rudder formed of a forwardly tapering frame mounted to turn on an axis disposed longitudinally of the machine, a gear-wheel embracing said frame, a second gear-wheel engaging the first, and means for rotating said second gear-wheel.

19. A flying machine including in its construction steering propellers mounted one above the other, means for simultaneously shifting said propellers to different angles to the vertical longitudinal plane of the machine, means for transmitting motion from one of said propellers to the other irrespective of their position, and means for driving one of said propellers while in its different positions.

20. In a flying machine, the combination, with the parallel propeller-shafts, of the propellers mounted thereon, and the circular frames or rims mounted on said propellers and traveling in frictional contact with each other.

21. In a flying machine, the combination, with the frame, of the horizontal guideways arranged longitudinally therein, the ballast-carrying gondola movable in said guideways, the steel rope-transmission for moving said gondola in either direction, and the steering-wheel for actuating said transmission.

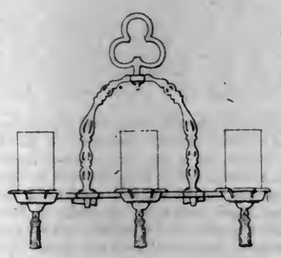
22. In a flying machine, the combination, with a steering propeller, of manually-operable means for shifting the same, and auxiliary power-operated propeller-shifting means.

23. In a flying machine, a steering propeller, means for manually shifting the same angularly with respect to the vertical longitudinal plane of the machine, a power-driven operating shaft, and a device for coupling said operating shaft with said shifting means.

24. In a flying machine, the combination, with a steering propeller, of means to shift the same angularly with respect to the vertical longitudinal plane of the machine, a manually-operable steering pillar in operative connection with said shifting means, a power-driven operating shaft, a friction-wheel adapted to be driven thereby, and an operative connection between said friction-wheel and said steering pillar.

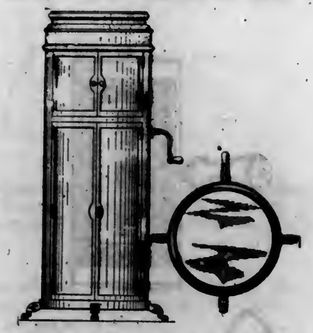
DESIGNS.

51,629. ELECTRIC-LIGHT FIXTURE. GEORGE R. AINSWORTH, Great Neck, N. Y. Filed Oct. 2, 1917. Serial No. 194,402. Term of patent 3½ years.



The ornamental design for an electric light fixture as shown and described.

51,630. PHONOGRAPH-CABINET. ADOLPH BERKOVITZ and SAMUEL FRIED, New York, N. Y. Filed Oct. 18, 1917. Serial No. 197,822. Term of patent 14 years.



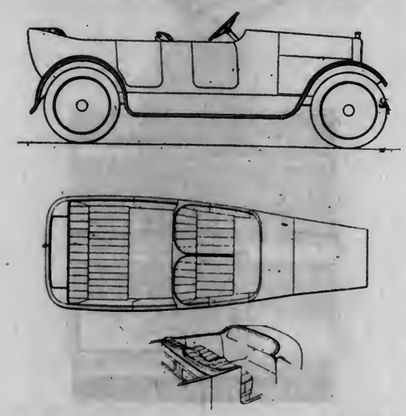
The ornamental design for a phonograph cabinet, as shown.

51,631. DANGER-SIGN. WILLIAM L. CHANDLER, Mishawaka, Ind., assignor to National Safety Council, Chicago, Ill., an Association. Filed Dec. 13, 1916. Serial No. 136,796. Term of patent 14 years.



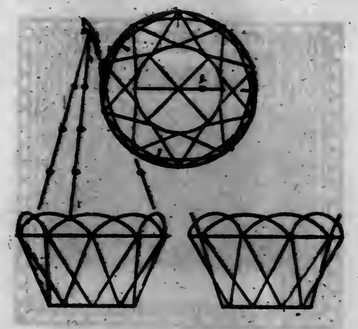
The ornamental design for a danger sign as shown.

51,632. AUTOMOBILE-BODY. THERON P. CHASE and ARTEMAS WARD, Jr., Detroit, Mich. Filed Apr. 16, 1917. Serial No. 162,576. Term of patent 3½ years.



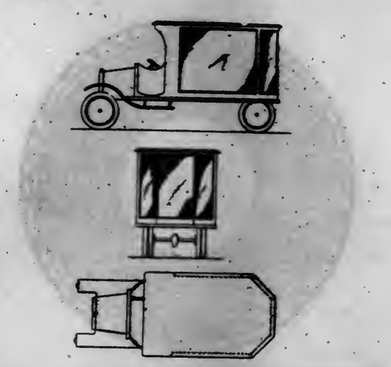
The ornamental design for an automobile body, as shown.

51,633. FLOWER-BASKET. FRED J. COLLINS, Rockford, Ill. Filed May 5, 1917. Serial No. 166,755. Term of patent 7 years.



The ornamental design for a flower basket, as shown.

51,634. ADVERTISING-AUTOMOBILE. LADISLAUS DE DOORY, Boston, Mass., assignor to Auto Bill Post Inc., Boston, Mass., a Corporation of Massachusetts. Filed Oct. 11, 1916. Serial No. 125,122. Term of patent 3½ years.



The ornamental design for an advertising automobile, substantially as shown and described.

51,635. EMBLEM. HAROLD G. ESSAYAN, Brookline, Mass. Filed Oct. 31, 1917. Serial No. 199,590. Term of patent 7 years.



The ornamental design for an emblem as shown.

51,636. DISPLAY CARD OR MOUNTING. JOHN L. FLANNERY, Jr., New York, N. Y. Filed Sept. 8, 1916. Serial No. 119,126. Term of patent 7 years.



The ornamental design for a display card or mounting, as shown and described.

51,637. DISPLAY CARD OR MOUNTING. JOHN L. FLANNERY, Jr., New York, N. Y. Filed Sept. 8, 1916. Serial No. 119,127. Term of patent 7 years.



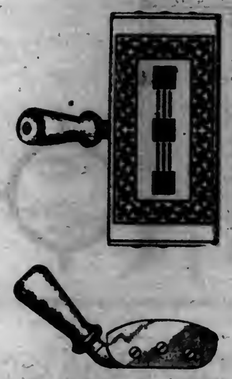
The ornamental design for a display card or mounting, as shown and described.

51,638. DISPLAY CARD OR MOUNTING. JOHN L. FLANNERY, Jr., New York, N. Y. Filed Sept. 14, 1916. Serial No. 120,196. Term of patent 7 years.



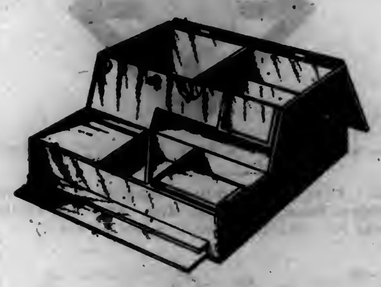
The ornamental design for a display card or mounting, as shown and described.

51,639. CRUMB-SWEEPER. MORTIMER FRANKEL, Chicago, Ill., assignor to Wilmort Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 22, 1917. Serial No. 197,968. Term of patent 7 years.



The ornamental design for a crumb sweeper as shown.

51,640. DESK-CABINET. EDWARD P. FRAWLEY, New York, N. Y. Filed Oct. 11, 1917. Serial No. 196,079. Term of patent 14 years.



The ornamental design for a desk cabinet, as shown.

51,641. TOOL-HANDLE. JOHN M. HARGRAVE, Cincinnati, Ohio. Filed Oct. 9, 1916. Serial No. 124,737. Term of patent 14 years.



The ornamental design for tool handle consisting of a hand hold portion at right angles to the body portion and the hand hold portion substantially as shown and described.

51,642. GAS-STOVE. ALFRED H. HUMPHREY, New York, N. Y. Filed Oct. 16, 1917. Serial No. 196,964. Term of patent 14 years.



The ornamental design for a gas stove as shown.

51,643. SHOE-SOLE. HARRY L. JOHNSON, Johnson City, N. Y., assignor to Endicott, Johnson & Company, Johnson City, N. Y., a Copartnership composed of Henry B. Endicott, H. Wendell Endicott, George F. Johnson, Harry L. Johnson, George W. Johnson, C. B. Lord, and Elliott Spalding. Filed Feb. 2, 1917. Serial No. 146,284. Term of patent 14 years.



The ornamental design for a shoe sole as shown.

51,644. SHOE. HARRY L. JOHNSON, Johnson City, N. Y., assignor to Endicott, Johnson & Company, Johnson City, N. Y., a Copartnership composed of Henry B. Endicott, H. Wendell Endicott, George F. Johnson, Harry L. Johnson, George W. Johnson, C. B. Lord, and Elliott Spalding. Filed Feb. 2, 1917. Serial No. 146,285. Term of patent 14 years.



The ornamental design for a shoe as shown.

51,645. SHOE. HARRY L. JOHNSON, Johnson City, N. Y., assignor to Endicott, Johnson & Company, Johnson City, N. Y., a Copartnership composed of Henry B. Endicott, H. Wendell Endicott, George F. Johnson, Harry L. Johnson, George W. Johnson, C. B. Lord, and Elliott Spalding. Filed Feb. 2, 1917. Serial No. 146,286. Term of patent 14 years.



The ornamental design for a shoe as shown.

51,646. SHOE. HARRY L. JOHNSON, Johnson City, N. Y., assignor to Endicott, Johnson & Company, Johnson City, N. Y., a Copartnership composed of Henry B. Endicott, H. Wendell Endicott, George F. Johnson, Harry L. Johnson, George W. Johnson, C. B. Lord, and Elliott Spalding. Filed Feb. 2, 1917. Serial No. 146,287. Term of patent 14 years.



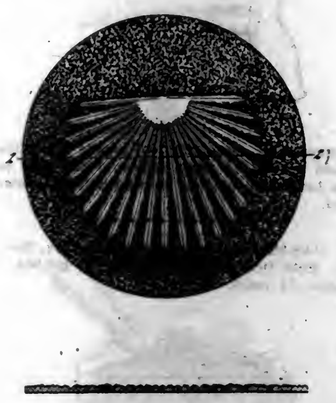
The ornamental design for a shoe as shown.

51,647. GRAVE-MARKER. JOSEPH LAWTON, Trenton, N. J. Filed June 19, 1917. Serial No. 175,662. Term of patent 14 years.



The ornamental design for a grave marker, as shown.

51,648. HEADLIGHT-LENS. GEORGE ALBERT LEEKE, Hamilton, Ontario, Canada, assignor to Stoneglare, Limited, Hamilton, Ontario, Canada, a Corporation of Canada. Filed Nov. 17, 1917. Serial No. 202,656. Term of patent 14 years.



The ornamental design for a headlight lens, as shown.

51,649. LAMP-FIXTURE. NORMAN MACBETH, New York, N. Y. Filed Oct. 29, 1917. Serial No. 199,193. Term of patent 7 years.



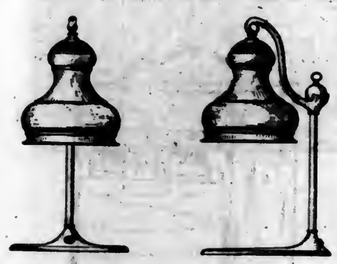
The ornamental design for a lamp fixture as shown.

51,650. LAMP-FIXTURE. NORMAN MACBETH, New York, N. Y. Filed Oct. 29, 1917. Serial No. 199,194. Term of patent 7 years.



The ornamental design for a lamp fixture as shown.

51,651. LAMP-FIXTURE. NORMAN MACBETH, New York, N. Y. Filed Oct. 29, 1917. Serial No. 199,195. Term of patent 7 years.



The ornamental design for a lamp fixture as shown.

51,652. LAMP-FIXTURE. NORMAN MACBETH, New York, N. Y. Filed Oct. 29, 1917. Serial No. 199,196. Term of patent 7 years.



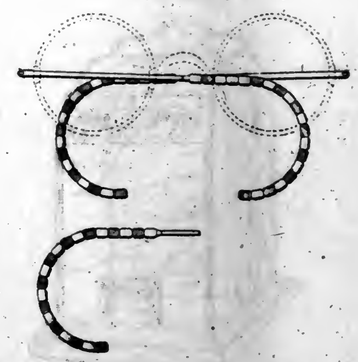
The ornamental design for a lamp fixture as shown.

51,653. CASING FOR SOUND-PRODUCING INSTRUMENTS. LACHLAN MACLACHLAN, Grand Rapids, Mich. Filed Oct. 5, 1917. Serial No. 194,999. Term of patent 3½ years.



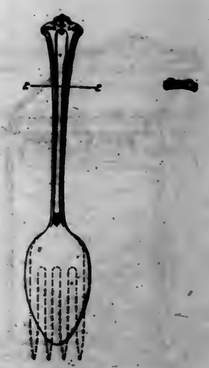
The ornamental design for a casing for sound producing instruments, as shown.

51,654. TEMPLE. LAWRENCE POSTON, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a Voluntary Association of Massachusetts. Filed Sept. 13, 1917. Serial No. 191,294. Term of patent 14 years.



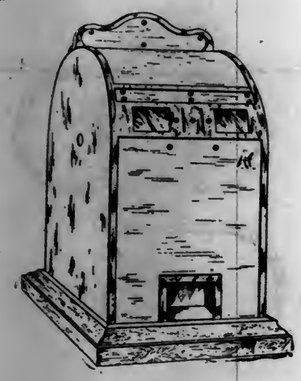
The ornamental design for a temple as shown and described.

51,655. SPOON, FORK, OR SIMILAR ARTICLE. FREDERICK E. PARRAT, Waterbury, Conn., assignor to International Silver Co., Meriden, Conn., a Corporation of New Jersey. Filed Oct. 23, 1917. Serial No. 196,148. Term of patent 7 years.



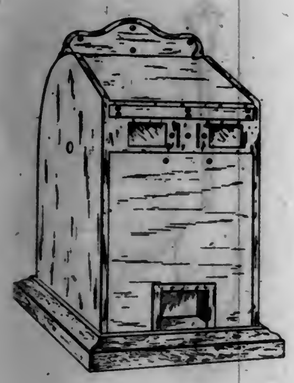
The ornamental design for a spoon, fork or similar article, as shown.

51,656. POSTAGE-STAMP-VENDING-MACHINE CASE. CONRAD D. PRUITT, San Francisco, Cal., assignor to The Pruitt-Helmer Company, Los Angeles, Cal., the Copartners of which are Conrad D. Pruitt, Paul G. Helmer, and Ralph L. Van Dusen. Filed Oct. 8, 1917. Serial No. 195,461. Term of patent 14 years.



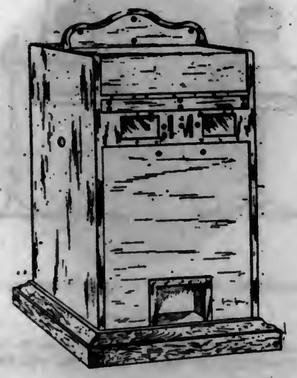
The ornamental design for a postage stamp vending machine case, as shown.

51,657. POSTAGE-STAMP-VENDING-MACHINE CASE. CONRAD D. PRUITT, San Francisco, Cal., assignor to The Pruitt-Helmer Company, Los Angeles, Cal., the Copartners of which are Conrad D. Pruitt, Paul G. Helmer, and Ralph L. Van Dusen. Filed Oct. 8, 1917. Serial No. 195,462. Term of patent 14 years.



The ornamental design for a postage stamp vending machine case, as shown.

51,658. POSTAGE-STAMP-VENDING-MACHINE CASE. CONRAD D. PRUITT, San Francisco, Cal., assignor to The Pruitt-Helmer Company, Los Angeles, Cal., the Copartners of which are Conrad D. Pruitt, Paul G. Helmer, and Ralph L. Van Dusen. Filed Oct. 8, 1917. Serial No. 195,463. Term of patent 14 years.



The ornamental design for a postage stamp vending machine case, as shown.

51,659. TOY CHAIR. EDWIN E. ROBERTS, Hamilton, Ohio. Filed Oct. 19, 1917. Serial No. 197,507. Term of patent 14 years.



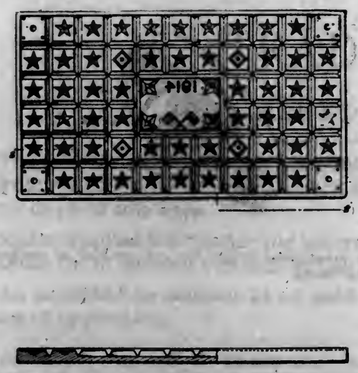
The ornamental design for a toy chair, as shown.

51,660. LIGHTING-FIXTURE. HARRY RUBIN, Baltimore, Md. Filed Sept. 28, 1917. Serial No. 193,723. Term of patent 14 years.



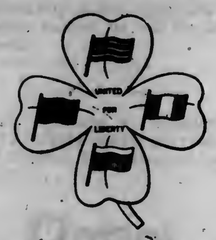
The ornamental design for a lighting fixture as shown.

51,661. WAFFLE-IRON. PAUL DE SABLTO, Blairsville, Pa. Filed Oct. 3, 1917. Serial No. 194,622. Term of patent 7 years.



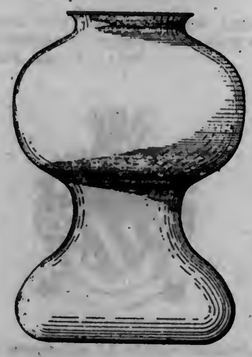
The ornamental design for a waffle iron, as shown.

51,662. BUTTON, BADGE, OR SIMILAR ARTICLE. CHARLES F. SMITH, Chicago, Ill., assignor of one-half to Charles E. Simpson, Chicago, Ill. Filed May 21, 1917. Serial No. 170,067. Term of patent 3½ years



The ornamental design for a button, badge or similar article as shown.

51,663. BOWL FOR GOLDFISH. JESSE L. TURNER, Morgantown, W. Va. Filed June 6, 1917. Serial No. 173,243. Term of patent 14 years.



The ornamental design for a bowl for gold fish, as shown.

51,664. POISON-BOTTLE. TADEUSZ TYKARSKY, Trenton, N. J. Filed Apr. 27, 1917. Serial No. 165,036. Term of patent 14 years.



The ornamental design for a poison bottle, as shown.

51,665. FINGER-RING OR SIMILAR ARTICLE. HOWARD H. WALKER, Cambridge, Mass. Filed Sept. 1, 1917. Serial No. 189,417. Term of patent 3½ years.



The ornamental design for a finger ring or similar article, as shown.

51,666. FINGER-RING OR SIMILAR ARTICLE. HOWARD H. WALKER, Cambridge, Mass. Filed Sept. 29, 1917. Serial No. 194,089. Term of patent 3½ years.



The ornamental design for a finger-ring or similar article as shown.

51,067. FINGER-RING OR SIMILAR ARTICLE. HOWARD H. WALKER, Cambridge, Mass. Filed Sept. 29, 1917. Serial No. 194,090. Term of patent 3½ years.



The ornamental design for a finger-ring or similar article as shown.

51,068. FINGER-RING OR SIMILAR ARTICLE. HOWARD H. WALKER, Cambridge, Mass. Filed Sept. 29, 1917. Serial No. 194,091. Term of patent 3½ years.



The ornamental design for a finger-ring or similar article as shown.

TRADE-MARKS

PUBLISHED JANUARY 1, 1918.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 90,477. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) STEPHEN HENRY MENZIES, London, England. Filed Nov. 6, 1915.

ZEROLIT

Particular description of goods.—Chemical Substances, Being Base-Exchanging Bodies Artificially Prepared for Use as a Filtering Medium for the Treatment of Water and other Liquids.
Claims use since Aug. 1, 1915.

Ser. No. 92,933. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ARMOUR & COMPANY, LTD., London, England. Filed Feb. 18, 1916.

Chymol

Particular description of goods.—Medicinal Food, Consisting of a Combination of Proteids, Carbohydrates, Emulsified Fats, Mineral Matter, and Diluents.
Claims use since Feb. 2, 1915.

Ser. No. 97,298. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WIRTH CHOCOLATE CO., Boston, Mass. Filed Aug. 11, 1916.



Particular description of goods.—Candies and Chocolates.
Claims use since May 1, 1916.

Ser. No. 97,858. (CLASS 32. FURNITURE AND UPHOLSTERY.) J. R. CLARK COMPANY, Minneapolis, Minn. Filed Sept. 8, 1916.

JRC

Particular description of goods.—Cedar Chests.
Claims use since Jan. 1, 1915.

Ser. No. 98,402. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) JOSEPH B. FERGUSON, New York, N. Y. Filed Oct. 4, 1916.

FERGUS

Particular description of goods.—Automobiles, Motor-Trucks, Carriages, and Bodies, Tops, Axles, Wheels, Springs, and Frames Therefor.
Claims use since May, 1915.

Ser. No. 99,219. (CLASS 12. CONSTRUCTION MATERIALS.) RICHMOND WATERPROOF PRODUCTS CO., Port Richmond, N. Y. Filed Nov. 10, 1916.

Monarch

Particular description of goods.—Waterproof Cements and Repairing Composition.
Claims use since March, 1916.

Ser. No. 99,994. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) STANDARD OIL COMPANY, Whiting, Ind., and Chicago, Ill. Filed Dec. 16, 1916.

FINOL

Particular description of goods.—A Cleaning and Polishing Oil.
Claims use since Nov. 23, 1916.

Ser. No. 100,050. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SILVERBERG IMPORT CO., New York, N. Y. Filed Dec. 19, 1916.

Slip-on

Particular description of goods.—Veils.
Claims use since Mar. 1, 1916.

Ser. No. 100,147. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HENRY SOLOMON WELLCOME, London, England. Filed Dec. 23, 1916.

'Empirin'

Particular description of goods.—Therapeutic Agents, Consisting of Salicylates for Internal Use.
Claims use since Oct. 26, 1914.

Ser. No. 101,538. (CLASS 7. CORDAGE.) HERMAN KORNAHRENS, INC., New York, N. Y. Filed Feb. 20, 1917. Under ten-year proviso.

MURRAY HILL HK

Particular description of goods.—Cordage and Twine.
Claims use since 1850.

Ser. No. 101,871. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MCCLINTONS LIMITED, Donaghmore, Ireland. Filed Mar. 3, 1917.



The figure in the drawing is fanciful and is not a portrait of a living individual.
Particular description of goods.—Vanishing Cream, Toilet Cream, Dental Cream, Wet Shampoo, Dry Shampoo, Hair-Tonic, Perfumed Oil, Nail-Polish, Hair-Wash, Toilet Water, Skin-Cream, Perfume, Massage-Cream, Glycerin, Face-Powder, Dandruff-Lotion, Sachet-Powder; Salves to be Applied Externally for Cuts, Bruises, Burns, Skin-Eruption, Chilblains, Chapped Hands, and Chapped Skin; Hair-Restorer, Hair-Oil, Mouth-Wash, Tooth-Powder, Toilet Powder, Talcum Powder.
Claims use since about Aug. 24, 1916.

Ser. No. 102,690. (CLASS 38. PRINTS AND PUBLICATIONS.) INTERNATIONAL UNION OF MINE, MILL AND SMELTER WORKERS, Denver, Colo. Filed Apr. 3, 1917.



The lining appearing on the drawing is intended for purpose of shading only.
Particular description of goods.—Printed Books, Pamphlets, Periodicals Issued Monthly, and Circulars Used Between the Different Units of the Association for the Furtherance of Its Objects.
Claims use since Oct. 17, 1916.

Ser. No. 103,012. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) CHAMPION SPARK PLUG COMPANY, Toledo, Ohio. Filed Apr. 16, 1917.

CHAMPION

Particular description of goods.—Spark-Plug Porcelains and Parts.
Claims use since June, 1907.

Ser. No. 103,059. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ATILIO FORNI, San Jose, Cal. Filed Apr. 17, 1917.

OXICO

Particular description of goods.—Medicinal Preparation for Use as a Liniment for All Irritations, Roughness, Itching, Smarting, and Burning of the Skin and for Eczema and Poison-Oak Eruption, Chilblains, Sunburn, Chafing, Insect-Bites, and Barbers' Itch; and as an Ointment for Burns, Scalds, Ringworm, Ulcers, and Sores of All Kinds.
Claims use since 1914.

Ser. No. 103,582. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NEWTON C. BENTZ, Sr., Hastings, Fla. Filed May 7, 1917.

Peco

Particular description of goods.—Food Drink.
Claims use since May 7, 1917.

Ser. No. 103,704. (CLASS 39. CLOTHING.) SHULL-DAY CO., Tacoma, Wash. Filed May 10, 1917.

Day's

Particular description of goods.—Trousers.
Claims use since Dec. 6, 1916.

Ser. No. 103,775. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE GLOBE MANUFACTURING CO., Peoria, Ill. Filed May 14, 1917.

KRO-MAR

Particular description of goods.—Dry Paints, Paste Paints, Ready-Mixed Paints, Varnishes, Enamels, Liquid or Prepared Shellacs.
Claims use since July 30, 1916.

Ser. No. 103,914. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) JAMES BUCHANAN & CO. LIMITED, London, England, and Glasgow and Mulben, Scotland. Filed May 18, 1917.

James Buchanan & Co

The facsimile signature was written by Mr. James Buchanan.
Particular description of goods.—Whisky.
Claims use since about December, 1914.

Ser. No. 104,506. (CLASS 38. PRINTS AND PUBLICATIONS.) PERIODICAL PUBLISHING CO., Grand Rapids, Mich. Filed June 18, 1917.

HOME FURNISHER

Particular description of goods.—Periodical Published Monthly.
Claims use since Nov. 1, 1911.

Ser. No. 104,516. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BLATCHFORD'S CALF MEAL FACTORY, Waukegan, Ill. Filed June 19, 1917. Under ten-year proviso.



Particular description of goods.—Meal, Calf-Meal, Pig-Meal, Lamb-Meal, and Dairy-Meal, Such Meal in Each Instance Comprising a Compounded Ground Feed for Animals.
Claims use since the year 1882.

Ser. No. 104,517. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BLATCHFORD'S CALF MEAL FACTORY, Waukegan, Ill. Filed June 19, 1917.



Particular description of goods.—Meal—a Compounded Ground Feed Composed of Cereals and other Suitable Ingredients for Poultry.
Claims use since on or about June, 1915.

Ser. No. 104,652. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) STADT AND KREMER, Grand Rapids, Mich. Filed June 23, 1917.

Mother Stadt's



The trade-mark includes a picture of Thys Stadt, one of the firm members, and a representation of her signature.

Particular description of goods.—Pharmaceutical Preparation for Use in Connection with Disorders of the Digestive Organs, Particularly of the Stomach, Such as Gastritis, Colic, and Summer Complaint.

Claims use since Oct. 15, 1916.

Ser. No. 104,854. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE GUTTA PERCHA & RUBBER MANUFACTURING COMPANY, New York, N. Y. Filed July 5, 1917.

AJAX

Particular description of goods.—Belting and Hose Made of Rubber and Fabric.

Claims use since about August, 1894.

Ser. No. 104,959. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JESSE W. HAYES, Baltimore, Md. Filed July 10, 1917.

PHILOPENA

Particular description of goods.—Candies.

Claims use since May 31, 1917.

Ser. No. 105,096. (CLASS 37. PAPER AND STATIONERY.) LIBERTY PAPER COMPANY, New York, N. Y. Filed July 18, 1917.

TIEDY

Particular description of goods.—Devices for Moistening Gummed Papers, Tape, Labels, Stamps, Envelops, and the Like.

Claims use since Sept. 7, 1916.

Ser. No. 105,407. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) THE PARKESBURG IRON COMPANY, Parkesburg, Pa. Filed Aug. 1, 1917. Under ten-year proviso.

PARKESBURG

Particular description of goods.—Boiler-Tubes.

Claims use since Jan. 12, 1882.

Ser. No. 105,435. (CLASS 39. CLOTHING.) MOSELEY & Co., INC., Needham, Mass. Filed Aug. 2, 1917.

KEMONIT

Particular description of goods.—Knit Garments, Including Underwear, Leggings, Sweaters, Caps, Scarfs, and Mittens.

Claims use since first part of July, 1917.

Ser. No. 105,573. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) NORTON COMPANY, Worcester, Mass. Filed Aug. 10, 1917.

RR ALUNDUM

Particular description of goods.—Substantially Pure Aluminum Oxid and for Heat-Refractory Heat and Electrical Insulation, Lining, Packing, and Cement Materials, Comprising Aluminum Oxid of Various Degrees of Purity.

Claims use since July, 1910.

Ser. No. 105,611. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BALFOUR, GUTHRIE & Co., San Francisco, Cal. Filed Aug. 13, 1917.

UNIVERSAL

Particular description of goods.—Orchard-Sprays.

Claims use since Jan. 1, 1913.

Ser. No. 105,771. (CLASS 5. ADHESIVES.) CENTURY OIL COMPANY, Syracuse, N. Y., assignor to Swan & Finch Company, New York, N. Y., a Corporation of New York. Filed Aug. 21, 1917.

CENTURY

Comprising the word "Century."

Particular description of goods.—A Casting-Core Binder.

Claims use since Feb. 20, 1908.

Ser. No. 105,826. (CLASS 33. GLASSWARE.) HENRY ZIMMERN & COMPANY, INC., New York, N. Y. Filed Aug. 22, 1917.



Particular description of goods.—Watch-Crystals.

Claims use since about Aug. 1, 1917.

Ser. No. 105,869. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRANK ALONSO DILLINGHAM, Cincinnati, Ohio. Filed Aug. 25, 1917.

TEN HERBS

Particular description of goods.—A Preparation for Use in the Treatment of Affections or Disorders of the Kidneys, Liver, Stomach, and Blood.

Claims use since Sept. 1, 1916.

Ser. No. 105,932. (CLASS 12. CONSTRUCTION MATERIALS.) CHICAGO RETORT & FIRE BRICK COMPANY, Chicago, Ill. Filed Aug. 29, 1917. Under ten-year proviso.

SUPERIOR

Particular description of goods.—Fire-Brick.

Claims use since about the year 1892.

Ser. No. 105,962. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FRITZ HOLGER BROWN, Chicago, Ill. Filed Aug. 30, 1917.



Particular description of goods.—Shortening and Milk Substitute.

Claims use since Aug. 16, 1917.

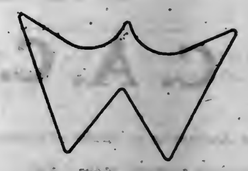
Ser. No. 106,198. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HALLER BAKING COMPANY, Pittsburgh, Pa. Filed Sept. 12, 1917.

"Kitchen-Maid"

Particular description of goods.—Bread.

Claims use since July 7, 1917.

Ser. No. 106,220. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) AMERICAN OPTICAL COMPANY, Southbridge, Mass. Filed Sept. 13, 1917.



Particular description of goods.—Ophthalmic Mountings and Parts Thereof.

Claims use since about Aug. 15, 1917.

Ser. No. 106,224. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) THE GREEN CAMERA COMPANY, Chicago, Ill. Filed Sept. 13, 1917.

KLIX

Particular description of goods.—Cameras and Accessories.

Claims use since Sept. 1, 1917.

Ser. No. 106,232. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) PATHÉ EXCHANGE, INC., New York, N. Y. Filed Sept. 13, 1917.

PYRAMID PICTURES

No exclusive right is claimed for the word "Pictures."

Particular description of goods.—Cinematograph-Films.

Claims use since Aug. 24, 1917.

Ser. No. 106,245. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CONSTANTINE N. CONSTAS, Syracuse, N. Y. Filed Sept. 14, 1917.

Abbratto

Particular description of goods.—Chocolate Confections.

Claims use since Aug. 25, 1917.

Ser. No. 106,365. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) H. KOHNSTAMM & Co., New York, N. Y. Filed Sept. 21, 1917.

SMOOTHINE

Particular description of goods.—Ice-Cream Powder.
Claims use since May 26, 1917.

Ser. No. 106,471. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MICHAEL H. CLEARY, Waverly, Ill. Filed Sept. 28, 1917.

C. A. C.

Particular description of goods.—Preparation for Curing Corns.
Claims use since Sept. 20, 1912.

Ser. No. 106,486. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) MARTINS-BIRMINGHAM LIMITED, Birmingham, England. Filed Sept. 28, 1917.



Particular description of goods.—Foot-Balls, Golf-Balls, Punch-Balls, Golf-Bags, Cricket-Bags, Hockey-Bags, Shin-Guards, and Lawn-Bowl Cases.
Claims use since 1886.

Ser. No. 106,545. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) PEORIA NOVELTY CO., Peoria, Ill. Filed Oct. 1, 1917.



Particular description of goods.—Vending-Machines.
Claims use since about Sept. 1, 1917.

Ser. No. 106,560. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ARTHUR C. NICKELL, Jr., Waukesha, Wis. Filed Oct. 2, 1917.

Ayoy

Particular description of goods.—Soy-Bean Flour.
Claims use since Aug. 26, 1917.

Ser. No. 106,561. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) PATHÉ EXCHANGE, INC., New York, N. Y. Filed Oct. 2, 1917.

COMBITONE

Particular description of goods.—Cinematograph-Films.
Claims use since Mar. 18, 1917.

Ser. No. 106,594. (CLASS 17. TOBACCO PRODUCTS.) THE DEL MONTE SPECIALTY CO., Tacoma, Wash. Filed Oct. 4, 1917.

Del Monte

Particular description of goods.—Cigars.
Claims use since July 14, 1917.

Ser. No. 106,598. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PIERRE GIROUX, Wheeling, W. Va. Filed Oct. 4, 1917.

RO-ZO

Particular description of goods.—Shampoo Preparation in Powder Form and a Massage Preparation in Powder Form.
Claims use for shampoo preparation since July 15, 1917, and for massage preparation since Aug. 21, 1917.

Ser. No. 106,616. (CLASS 39. CLOTHING.) EMPRESS WAIST CO., New York, N. Y. Filed Oct. 5, 1917.

Empress

Particular description of goods.—Ladies' Waists.
Claims use since Apr. 13, 1915.

Ser. No. 106,621. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FRANCIS H. LEGGETT & Co., New York, N. Y. Filed Oct. 5, 1917.

Premier

Particular description of goods.—Salad-Dressing.
Claims use since Aug. 1, 1914.

Ser. No. 106,657. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BREWSTER-BRIDGEPORT GROWERS, INC., Brewster, Wash. Filed Oct. 8, 1917.



Particular description of goods.—Fresh Apples.
Claims use since beginning fall of 1917.

Ser. No. 106,658. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CASCADE PACKING COMPANY, Anacortes, Wash. Filed Oct. 8, 1917.

WIFE'S JOY

Particular description of goods.—Canned Salmon.
Claims use since July 9, 1916.

Ser. No. 106,661. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) COBB AND DOFFLEMYER, Exeter, Cal. Filed Oct. 8, 1917.

Excelsior

Particular description of goods.—Oranges, Lemons, and Grape-Fruit.
Claims use since Nov. 17, 1916.

Ser. No. 106,663. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MANTECA CANNING CO., Stockton, Cal. Filed Oct. 8, 1917.



Particular description of goods.—Canned Asparagus, Canned Tomatoes with Purée, Canned Tomato Purée, Canned Pears, Canned Plums, Canned Peaches, Canned Apricots, Canned Blackberries, Canned String-Beans, Canned Sweet Potatoes, and Canned Pimentos.
Claims use since June 1, 1914.

Ser. No. 106,665. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MANTECA CANNING CO., Stockton, Cal. Filed Oct. 8, 1917.

War Dance

Particular description of goods.—Canned Tomatoes with Purée, Canned Tomato Purée, Canned Pears, Canned Plums, Canned Peaches, Canned Apricots, Canned Strawberries, Canned Asparagus, Canned String-Beans, Canned Sweet Potatoes, and Canned Pimentos.
Claims use since June 1, 1914.

Ser. No. 106,666. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MANTECA CANNING CO., Stockton, Cal. Filed Oct. 8, 1917.

Ma-Ca-Co

Particular description of goods.—Canned String-Beans and Canned Tomatoes.
Claims use since June 1, 1916.

Ser. No. 106,667. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MANTECA CANNING CO., Stockton, Cal. Filed Oct. 8, 1917.

MANTECA LADY



Particular description of goods.—Canned Tomatoes, Canned Pimentos, Canned Sweet Potatoes, Canned String-Beans, Canned Asparagus, Canned Blackberries, Canned Strawberries, Canned Apricots, Canned Peaches, Canned Plums, Canned Pears, and Canned Tomato Purée.
Claims use since June 1, 1914.

Ser. No. 106,676. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) STEWART FRUIT CO., Los Angeles, Cal. Filed Oct. 8, 1917.

DEER CREEK

Particular description of goods.—Oranges.
Claims use since Aug. 27, 1917.

Ser. No. 106,684. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) WESTINGHOUSE LAMP COMPANY, Bloomfield, N. J. Filed Oct. 8, 1917.

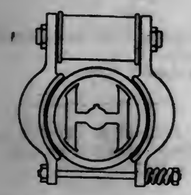


No claim being made to the representation of an incandescent electric lamp apart from the mark shown.

Particular description of goods.—Incandescent Electric Lamps.

Claims use since 1914.

Ser. No. 106,699. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE HAUGHTON ELEVATOR & MACHINE CO., Toledo, Ohio. Filed Oct. 10, 1917.



No claim is made to a representation of an electric brake apart from the mark shown in the drawing.

Particular description of goods.—Power and Manual Driven Passenger and Freight Elevators, Dumb-Waiters, and Parts Thereof.

Claims use since in 1907.

Ser. No. 106,734. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE BRYANT ELECTRIC COMPANY, Bridgeport, Conn. Filed Oct. 12, 1917.

BECO

Particular description of goods.—Sockets and Receptacles for Electric Lamps and Plugs, Electric Switches of All Sorts, Electric Cut-Outs and Fuses of All Sorts, Electric Attachment-Plugs of All Sorts, Rosettes for Electrical Wiring, Switch-Boxes, Outlet-Boxes and Covers Therefor, Bases for Electric Switches, Switch-Keys, Adapters, Reducers, Pull-Chains, Combination Electric Outlet Devices of Various Sorts, Cord Connections, Contacts, Terminals, Lamp-Grips, Socket and Switch Handles, Shade-Holders for Electric Lights, Insulating-Links, Wire Lugs, Face-Plates, Adjusting-Frames for Outlet-Boxes, Lock-Switches and Keys Therefor, Lock Attachments for Switches, Switch-Blocks, Bridges for Electrical Receptacles, Casings for Electrical Devices, Electric-Fixture Specialties, Arc-Lamp Hanger-Boards, Electric Fixture and Socket Rings, Current-Taps, and Transformer Cut-Outs, and Parts of All of Said Devices.

Claims use since Oct. 26, 1901.

Ser. No. 106,792. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ROJAS, RANDALL & CO., INC., New York, N. Y. Filed Oct. 16, 1917.



Particular description of goods.—Salt Fish.

Claims use since Aug. 30, 1917.

Ser. No. 106,798. (CLASS 37. PAPER AND STATIONERY.) ALBANY PERFORATED WRAPPING PAPER COMPANY, Albany, N. Y. Filed Oct. 17, 1917.

SNOW BIRD

"Snow-Bird."

Particular description of goods.—Toilet-Paper and Paper Towels.

Claims use since Aug. 16, 1917.

Ser. No. 106,799. (CLASS 37. PAPER AND STATIONERY.) ALBANY PERFORATED WRAPPING PAPER COMPANY, Albany, N. Y. Filed Oct. 17, 1917.



Particular description of goods.—Toilet-Paper and Paper Towels.

Claims use since Aug. 16, 1917.

Ser. No. 106,820. (CLASS 39. CLOTHING.) M. E. SMITH & CO. INC., Omaha, Nebr. Filed Oct. 17, 1917.

Beau Brummel

Particular description of goods.—Dress, Flannel, and Negligée Shirts.

Claims use since July 5, 1917.

Ser. No. 106,830. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CALIFORNIA SANITARY CANNING CO., Los Angeles, Cal. Filed Oct. 18, 1917.

Masterpiece

Particular description of goods.—Canned Tomatoes.

Claims use since Mar. 19, 1917.

Ser. No. 106,831. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CALIFORNIA SANITARY CANNING CO., Los Angeles, Cal. Filed Oct. 18, 1917.

NEW LIFE

Particular description of goods.—Canned Peaches.

Claims use since Mar. 19, 1917.

Ser. No. 106,836. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GRIGGS COOPER & CO., St. Paul, Minn. Filed Oct. 18, 1917.

Yata

Particular description of goods.—Tea.

Claims use since Sept. 15, 1917.

Ser. No. 106,838. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) OKANOGAN GROWERS' UNION, Okanogan, Wash. Filed Oct. 18, 1917.

Sweepstakes

Particular description of goods.—Fresh Apples in Boxes.

Claims use since Aug. 15, 1917.

Ser. No. 106,840. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) O. A. NELSON & CO., San Francisco, Cal. Filed Oct. 18, 1917.



Particular description of goods.—Canned Pork and Beans in Tomato Sauce.

Claims use since Sept. 14, 1917.

Ser. No. 106,848. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN S. TALMAGE CO. LTD., New Orleans, La. Filed Oct. 18, 1917.

PENNANT



Particular description of goods.—Rice.

Claims use since May 24, 1911.

Ser. No. 106,880. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) MANHATTAN STUDIOS, INC., New York, N. Y. Filed Oct. 20, 1917.

POSTERITY

Consisting of the word "Posterity."

Particular description of goods.—Motion-Picture Films.

Claims use since Sept. 24, 1917.

Ser. No. 106,884. (CLASS 46. FOODS AND INGREDIENTS OF FOODS. NORTH MANCHESTER MILLING CO., North Manchester, Ind. Filed Oct. 20, 1917.



Particular description of goods.—Wheat-Flour.

Claims use since Sept. 19, 1917.

Ser. No. 106,887. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) TOWERS & SULLIVAN MFG. CO., Rome, Ga. Filed Oct. 20, 1917.



Particular description of goods.—Agricultural Implements—Namely, Plow-Blades, Disk Plows, Moldboard-Plows, Plow-Stocks, Double-Shovel Plows, Scrapers, Cultivators, Harrows, Garden-Plows, Seed-Planters, Grain and Fertilizer Distributers, Swingletrees, Doubletrees, Breast-Yokes, Plant-Fenders, Colters, and Separate Parts and Extras for the Above-Mentioned Implements.

Claims use since Oct. 1, 1917.

Ser. No. 106,896. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KIBBE BROS. COMPANY, Springfield, Mass. Filed Oct. 22, 1917.

"THE HOUSE OF A THOUSAND CANDIES"

Particular description of goods.—Candy.

Claims use since about July 1, 1915.

Ser. No. 106,915. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ELIAS J. BYMAN, Hammond, Ind. Filed Oct. 24, 1917.

HAMMOND GROVE

Particular description of goods.—Butter and Eggs.
Claims use since Oct. 15, 1915.

Ser. No. 106,919. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE FREDERICK W. LIPPS COMPANY OF BALTIMORE CITY, Baltimore, Md. Filed Oct. 24, 1917.

Sincerity

Particular description of goods.—Chocolates.
Claims use since June 15, 1917.

Ser. No. 106,933. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AMMON & PERSON, Jersey City, N. J. Filed Oct. 25, 1917. Under ten-year proviso.

FIRST PRIZE

Particular description of goods.—Oleomargarin.
Claims use since April, 1887.

Ser. No. 106,937. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) H. C. COLE MILLING CO., Chester, Ill. Filed Oct. 25, 1917.

FORERUNNER



Particular description of goods.—Wheat-Flour.
Claims use since Aug. 19, 1916.

Ser. No. 106,938. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) H. C. COLE MILLING CO., Chester, Ill. Filed Oct. 25, 1917.

MALLOW BLOOM



Particular description of goods.—Wheat-Flour.
Claims use since June 25, 1917.

Ser. No. 106,943. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) H. C. COLE MILLING CO., Chester, Ill. Filed Oct. 25, 1917.

MADAME BUTTERFLY

Particular description of goods.—Chocolates.
Claims use since July 26, 1917.

Ser. No. 106,956. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE NEW YORK OVERSEA CO. INC., New York, N. Y. Filed Oct. 25, 1917.

Duke

Particular description of goods.—Sardines.
Claims use since Oct. 1, 1915.

Ser. No. 106,979. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) WALDEN-WORCESTER, INC., Worcester, Mass. Filed Oct. 20, 1917.

DEETONE

Particular description of goods.—Spark-Plugs.
Claims use since Oct. 8, 1917.

Ser. No. 106,984. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE CHAMPION ENGINEERING CO., Kenton, Ohio. Filed Oct. 27, 1917.

CHAMPION

Particular description of goods.—Cranes.
Claims use since about Oct. 15, 1916.

Ser. No. 106,989. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) GENERAL ELECTRIC COMPANY, Schenectady, N. Y. Filed Oct. 27, 1917.

KENOTRON

Particular description of goods.—Rectifying Apparatus.
Claims use since about May, 1916.

Ser. No. 106,995. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MARSTON AND MARTIN, Los Angeles, Cal. Filed Oct. 27, 1917.

Nu Spred

Particular description of goods.—Peanut-Butter.
Claims use since July 28, 1917.

Ser. No. 107,001. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) J. A. BRIED, San Francisco, Cal. Filed Oct. 29, 1917.

DOHICKY

Particular description of goods.—Velocipedes.
Claims use since Oct. 17, 1917.

Ser. No. 107,022. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CALIFORNIA PACKING CORPORATION, San Francisco, Cal. Filed Oct. 30, 1917.

ORO

Particular description of goods.—Canned Fish.
Claims use since Aug. 1, 1892.

Ser. No. 107,023. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) HENRY DISSTON & SONS, INCORPORATED, Philadelphia, Pa. Filed Oct. 30, 1917.

D D D
DISSTON. DOUBLE DUTY

Particular description of goods.—Saws.
Claims use since Oct. 1, 1917.

Ser. No. 107,029. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) HARLON F. ONG, Portland, Oreg. Filed Oct. 30, 1917.

AUTOMIZER

Particular description of goods.—Attachment for Carbureters for Hydrocarbon-Engines.
Claims use since Oct. 4, 1917.

Ser. No. 107,044. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHEEK-NEAL COFFEE CO., Nashville, Tenn. Filed Oct. 31, 1917.

CUPSWELL

Particular description of goods.—Coffee and Tea.
Claims use since Oct. 1, 1917.

Ser. No. 107,045. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HUNT, HATCH & COMPANY, Oakland, Cal. Filed Oct. 31, 1917.

CAMPANILE

Particular description of goods.—Oranges, Lemons, Cantaloups, and Grape-Fruit.
Claims use since Sept. 1, 1917.

Ser. No. 107,046. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HUNT, HATCH & COMPANY, Oakland, Cal. Filed Oct. 31, 1917.

RIVAL

Particular description of goods.—Oranges, Lemons, Grape-Fruit, and Cantaloups.
Claims use since Sept. 1, 1917.

Ser. No. 107,054. (CLASS 39. CLOTHING.) ABRAHAM M. MALOUF, New York, N. Y. Filed Oct. 31, 1917.

Million Made

Particular description of goods.—Hats, Caps, Mackinaws, Overcoats, Suits for Men and Boys, Dresses, Cloaks, Coats, Jackets, Outer Suits for Women and Children, Petticoats, Muslin Underwear for Women and Children, Dress-Waists for Women, Shirt-Waists, Outer Skirts for Women and Children, Outer Shirts for Women and Children; Sweaters for Men, Women, and Children; Dress, Work, Negligée, and Night Shirts; Collars, Cuffs, Neckties, Neckscarfs, and Jabots; Gloves Made of Leather, Silk, Cotton, or Wool, for Women, Men, and Children; Knitted or Textile Undershirts, Union-Suits; Drawers for Women, Men, and Children; Corset-Covers, Combination-Drawers, Chemises, Slips, Dressing-Sacks, Kimonos; Stockings, Socks, and Hosiery; Corsets, Wrappers, Trousers, Jerseys, Bath-Robes, Bathing-Suits, and Overalls.
Claims use since Oct. 27, 1917.

Ser. No. 107,065. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) PACIFIC MILLS, Lawrence and Boston, Mass. Filed Oct. 31, 1917.



The lining shown in the drawing is not intended to indicate colors.

Particular description of goods.—Cotton Piece Goods.
Claims use since December, 1915.

Ser. No. 107,098. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) ST. LOUIS BRASS MANUFACTURING COMPANY, St. Louis, Mo. Filed Nov. 1, 1917.

TRUCOLITE

Particular description of goods.—Fixtures for Electric Lights.
Claims use since Sept. 15, 1917.

Ser. No. 107,103. (CLASS 39. CLOTHING.) J. & M. COHN, New York, N. Y. Filed Nov. 2, 1917.

REMB-O

Particular description of goods.—Ladies' Shirt-Waists, Dress-Waists, and Collars Made of Silk, Cotton, and other Materials.
Claims use since July 1, 1917.

Ser. No. 107,111. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) SAMUEL M. JACKSON JACOBS, New York, N. Y. Filed Nov. 2, 1917.

"TRENCHA"

Particular description of goods.—Prepared Fuel Composed of Fibrous Material, Paraffin, and a Fatty Compound.
Claims use since Oct. 20, 1917.

Ser. No. 107,121. (CLASS 38. PRINTS AND PUBLICATIONS.) NORTON COMPANY, Worcester, Mass. Filed Nov. 2, 1917.

GRITS AND GRINDS

Particular description of goods.—Monthly Publication.
Claims use since May, 1909.

Ser. No. 107,124. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) FRANK W. WHITCHER COMPANY, Portland, Me., and Boston, Mass. Filed Nov. 2, 1917.

LIGHTNING

Particular description of goods.—Shoe-Stretchers.
Claims use since Oct. 12, 1897.

Ser. No. 107,131. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) N. ERLANGER, BLUMGART & Co., New York, N. Y. Filed Nov. 3, 1917.

NEBANCO

Consisting of the word "Nebanco."
Particular description of goods.—Linen, Cotton, Silk, and Mixed Piece Goods.
Claims use since about Oct. 29, 1917.

Ser. No. 107,262. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) HENRY FORD & SON, INCORPORATED, Dearborn, Mich. Filed Nov. 9, 1917.

Fordson

Particular description of goods.—Tractors.
Claims use since Oct. 15, 1917.

Ser. No. 107,263. (CLASS 12. CONSTRUCTION MATERIALS.) HYDRAULIC-PRESS BRICK COMPANY, St. Louis, Mo. Filed Nov. 9, 1917.

HY-BRAND

No claim being made to the word "Brand" except in connection with the mark shown.
Particular description of goods.—Brick.
Claims use since Aug. 1, 1917.

Ser. No. 107,265. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) JUBILEE MANUFACTURING COMPANY, Omaha, Nebr. Filed Nov. 9, 1917.

TWO IN ONE

Particular description of goods.—Spark-Plugs.
Claims use since Oct. 1, 1917.

Ser. No. 107,291. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) ROM-BAW CHEMICAL CO., Clinton, N. Y. Filed Nov. 10, 1917.

Rom-baw

Particular description of goods.—Liquid Furniture-Polish.
Claims use since before July 30, 1917.

Ser. No. 107,298. (CLASS 48. MALT EXTRACTS AND LIQUORS.) THE BEAU-SITE COMPANY, New York, N. Y. Filed Nov. 12, 1917.



The picture of the individual being fanciful.
Particular description of goods.—Malt Extracts, Ales and Beers.
Claims use since Oct. 15, 1917.

Ser. No. 107,325. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) MASTER PRIMER COMPANY, Detroit, Mich. Filed Nov. 12, 1917.

MASTER

Particular description of goods.—Primers for Explosive-Engines.
Claims use since Apr. 15, 1917.

Ser. No. 107,330. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE METAL SPECIALTY MFG. CO., Waterbury, Conn. Filed Nov. 12, 1917.

"WAMSCO"

Particular description of goods.—Steel Bearing-Balls.
Claims use since Aug. 28, 1917.

Ser. No. 107,355. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) WILLIAM A. BAKER, Toledo, Ohio. Filed Nov. 13, 1917.

CALISCOPE

Particular description of goods.—Thermometers and Telethermometers and Parts Thereof.
Claims use since Aug. 10, 1917.

Ser. No. 107,362. (CLASS 39. CLOTHING.) SHEAHAN, KOHN & Co., Chicago, Ill. Filed Nov. 13, 1917.

NIKS

Particular description of goods.—Outer Garments for Boys and Young Men.
Claims use since Jan. 31, 1917.

Ser. No. 107,365. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) GRUBNAU, BRYANT & GRUBNAU, Los Cerrillos, N. Mex. Filed Nov. 14, 1917.



Particular description of goods.—Zinc Oxid and Leaded Zinc Pigments.
Claims use since Aug. 16, 1917.

Ser. No. 107,385. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) BRIGGS BITUMINOUS COMPOSITION COMPANY, New York, N. Y. Filed Nov. 15, 1917.

Tenax

Particular description of goods.—Bituminous Products—viz., Paints, Fillers, Enamels, and Varnishes.
Claims use since July 29, 1908.

Ser. No. 107,386. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) BRIGGS BITUMINOUS COMPOSITION COMPANY, New York, N. Y. Filed Nov. 15, 1917.

VIADUCT

Particular description of goods.—Enamels and Paints.
Claims use since Nov. 24, 1914.

Ser. No. 107,420. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GORDON SMITH, Mobile, Ala. Filed Nov. 16, 1917.



Particular description of goods.—Fruit Cake.
Claims use since Nov. 15, 1914.

Ser. No. 107,451. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WISCONSIN BUTTERINE CO., Milwaukee, Wis. Filed Nov. 17, 1917.

NUT-KO

"Made and Sold on the Square"

Particular description of goods.—Cocoanut-Butter, Branded Oleomargarin.
Claims use since Nov. 6, 1917.

Ser. No. 107,457. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE AUTOMATIC CARBON ELIMINATOR CO. INC., New York, N. Y. Filed Nov. 19, 1917.

ARCO

Particular description of goods.—Carbon-Eliminators for Internal-Combustion Engines.
Claims use since June 13, 1917.

Ser. No. 107,474. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NORTH SHORE CREAMERY COMPANY, Evanston, Ill. Filed Nov. 19, 1917.

NORTH SHORE

Particular description of goods.—Cottage-Cheese, Peanut-Butter, and Mustard.
Claims use since on or about Mar. 1, 1917.

Ser. No. 107,476. (CLASS 38. PRINTS AND PUBLICATIONS.) THE OWL DRUG COMPANY, San Francisco, Cal. Filed Nov. 19, 1917.

Owl Hoots

Particular description of goods.—A Monthly Publication.
Claims use since Nov. 1, 1910.

Ser. No. 107,512. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE RIBSER CO., New York, N. Y. Filed Nov. 21, 1917.

VENIDA

Particular description of goods.—Hair-Nets.
Claims use since May, 1907.

Ser. No. 107,521. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) BUCYRUS COMPANY, South Milwaukee, Wis. Filed Nov. 22, 1917. Under ten-year proviso.

BUCYRUS

Particular description of goods.—Railway-Type Steam-Shovels, Large Revolving Steam-Shovels, Small Revolving Steam-Shovels, Drag-Line Excavators, Trench-Excavators, Special Coal-Loaders, Dipper-Dredges, Alluvial Mining-Dredges, Clam-Shell Dredges, Hydraulic or Suction Dredges, Elevator-Dredges, Unloading-Plows, Railway Wrecking-Cranes, Railway-Locomotive Pile-Driver and Pumps for Excavating Purposes.
Claims use since 1888.

Ser. No. 107,522. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CADICK MILLING COMPANY, Grandview, Ind. Filed Nov. 22, 1917.

Grip Top

Particular description of goods.—Wheat-Flour.
Claims use since Nov. 17, 1917.

Ser. No. 107,541. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE BUHLER MILL & ELEVATOR CO., Buhler, Kans. Filed Nov. 23, 1917.



PLENTORA

Particular description of goods.—Wheat-Flour.
Claims use since July 1, 1917.

Ser. No. 107,543. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE COLORADO MILLING & ELEVATOR CO., Denver, Colo., and Burley, Idaho. Filed Nov. 23, 1917.



Particular description of goods.—Wheat-Flour.
Claims use since June 13, 1917.

Ser. No. 107,545. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) DRAPER CORPORATION, Portland, Me., and Hopedale, Mass. Filed Nov. 23, 1917.

MIRROR

Particular description of goods.—Twister-Rings and Drop-Wires.
Claims use since Oct. 18, 1917.

Ser. No. 107,559. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN MORRELL & CO., Ottumwa, Iowa. Filed Nov. 23, 1917.

Emerald

Particular description of goods.—Oleomargarin.
Claims use since July 26, 1917.

Ser. No. 107,560. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN MORRELL & CO., Ottumwa, Iowa. Filed Nov. 23, 1917.

GARNET

Particular description of goods.—Oleomargarin.
Claims use since July 26, 1917.

Ser. No. 107,561. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN MORRELL & CO., Ottumwa, Iowa. Filed Nov. 23, 1917.

RUBY

Particular description of goods.—Oleomargarin.
Claims use since July 26, 1917.

Ser. No. 107,563. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) RALPH L. NAFZIGER, Kansas City, Mo. Filed Nov. 23, 1917.

Loyalty

Particular description of goods.—Bread.
Claims use since Nov. 19, 1917.

Ser. No. 107,564. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GUY PALMER NOURSE, Madison, Wis. Filed Nov. 23, 1917.

POSTMAN

Particular description of goods.—Coffee, Tea, Corn-Starch, Pepper, and Extract of Vanilla for Food-Flavoring Purposes.
Claims use since Nov. 6, 1917.

Ser. No. 107,566. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NUCOA BUTTER COMPANY, New York, N. Y., and Soho, N. J. Filed Nov. 23, 1917.

NAM

Particular description of goods.—Nut Margarin.
Claims use since July 25, 1917.

Ser. No. 107,583. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) GEO. BORGFELDT & CO., New York, N. Y. Filed Nov. 24, 1917.

Preshus

Particular description of goods.—Toy Dolls and Animals.
Claims use since Aug. 1, 1917.

Ser. No. 107,598. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) HOWARD L. WHITELEY, Lowell, Mass. Filed Nov. 24, 1917.



Particular description of goods.—Cotton Piece Goods, Piece Goods of Cotton and Linen, and Piece Goods of Cotton and Silk.
Claims use since Oct. 30, 1917.

Ser. No. 107,599. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) HOWARD L. WHITELEY, Lowell, Mass. Filed Nov. 24, 1917.

LOBLECO

Particular description of goods.—Cotton Piece Goods, Piece Goods of Cotton and Linen, and Piece Goods of Cotton and Silk.
Claims use since Oct. 30, 1917.

Ser. No. 107,609. (CLASS 5. ADHESIVES.) THE CAT-NAK COMPANY, Chicago, Ill. Filed Nov. 26, 1917.



Particular description of goods.—A Puncture-Sealing or Puncture-Healing Compound.
Claims use since on or about Aug. 1, 1915.

Ser. No. 107,631. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) CHINA COAST MERCANTILE CO., INC., New York, N. Y. Filed Nov. 27, 1917.

DOMINO

Particular description of goods.—Hair-Nets.
Claims use since Oct. 1, 1917.

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TRADE-MARK REGISTRATIONS GRANTED

JANUARY 1, 1918.

120,005. TABLE-SYRUP. ALABAMA-GEORGIA SYRUP COMPANY, Montgomery, Ala.
Filed August 4, 1917. Serial No. 105,468. PUBLISHED OCTOBER 30, 1917.

120,006. PROPELLERS FOR BOATS. AMERICAN MANGANESE BRONZE COMPANY, INC., New York, N. Y., and Philadelphia, Pa.
Filed May 19, 1917. Serial No. 103,941. PUBLISHED OCTOBER 30, 1917.

120,007. COTTON FLANNELS. APPLETON COMPANY, Lowell, Mass.
Filed August 22, 1916. Serial No. 97,533. PUBLISHED OCTOBER 30, 1917.

120,008. BACON, VIENNA-STYLE SAUSAGE, SKINNED HAM, SUGAR-CURED HAM. ARMSTRONG PACKING COMPANY, Dallas, Tex.
Filed March 27, 1917. Serial No. 102,472. PUBLISHED OCTOBER 30, 1917.

120,009. PILLOWS. THE BILLOW WASHABLE PILLOW COMPANY, Columbus, Ohio.
Filed September 20, 1917. Serial No. 106,336. PUBLISHED OCTOBER 23, 1917.

120,010. MEN'S OUTER SUITS AND OVERCOATS. J. BLACH & SONS, Birmingham, Ala.
Filed May 21, 1917. Serial No. 103,976. PUBLISHED OCTOBER 30, 1917.

120,011. MIDDY-BLOUSES AND SPORT-SUITS, SHIRT-WAISTS, DRESSES, AND OUTER SUITS FOR WOMEN AND CHILDREN. BLOOM & MILLMAN, New York, N. Y.
Filed February 12, 1917. Serial No. 101,818. PUBLISHED OCTOBER 30, 1917.

120,012. HERMETICALLY-SEALED CANNED VEGETABLES. THE BOOTH PACKING COMPANY, Baltimore, Md.
Filed December 30, 1915. Serial No. 91,831. PUBLISHED OCTOBER 30, 1917.

120,013. SPORT COATS AND SKIRTS FOR WOMEN. THE BURKHARDT BROS. COMPANY, Cincinnati, Ohio.
Filed August 23, 1917. Serial No. 105,833. PUBLISHED OCTOBER 30, 1917.

120,014. CERTAIN NAMED FOODS. CALIFORNIA PACKING CORPORATION, San Francisco, Cal.
Filed July 23, 1917. Serial No. 105,189. PUBLISHED OCTOBER 30, 1917.

120,015. GOLF-BALLS. CAPPER & CAPPER, Detroit, Mich.
Filed March 19, 1917. Serial No. 102,243. PUBLISHED OCTOBER 23, 1917.

120,016. CERTAIN NAMED MINERAL WATERS AND NON-ALCOHOLIC BEVERAGES. CLOVERDALE SPRING COMPANY, Baltimore, Md.
Filed July 7, 1917. Serial No. 104,898. PUBLISHED OCTOBER 2, 1917.

120,017. CERTAIN NAMED CLOTHING. SAMUEL COLLAT, New York, N. Y.
Filed October 23, 1916. Serial No. 98,830. PUBLISHED OCTOBER 30, 1917.

120,018. WHEELED TRAILER-CARS FOR ATTACHMENT TO MOTOR-CYCLES AND THE LIKE. CYGNET REAR CAR COMPANY, Buffalo, N. Y.
Filed December 18, 1916. Serial No. 100,003. PUBLISHED OCTOBER 23, 1917.

120,019. OIL-CLOTH AND LINOLEUM. J. FRANK DARLING, New York, N. Y.
Filed August 29, 1917. Serial No. 105,934. PUBLISHED OCTOBER 30, 1917.

120,020. EARTHENWARE TILE FOR BUILDING CONSTRUCTION. DONAHEY, MOORE & DONAHEY, Uhrichsville, Ohio.
Filed August 7, 1917. Serial No. 105,516. PUBLISHED OCTOBER 23, 1917.

120,021. TROUSERED GARMENT FOR WOMEN'S AND CHILDREN'S WEAR. A. D. EDWARDS & SON, Los Angeles, Cal.
Filed September 4, 1917. Serial No. 106,024. PUBLISHED OCTOBER 30, 1917.

120,022. MOPS. FICKETT MANUFACTURING CO., Atlanta, Ga.
Filed July 7, 1917. Serial No. 104,900. PUBLISHED OCTOBER 23, 1917.

120,023. CERTAIN NAMED TOYS. MORRIS GERSON, New York, N. Y.
Filed June 20, 1917. Serial No. 104,550. PUBLISHED OCTOBER 23, 1917.

120,024. DRY GIN AND OLD TOM GIN. THE GORDON'S DRY GIN COMPANY, LIMITED, New York, N. Y.
Filed September 25, 1917. Serial No. 106,422. PUBLISHED OCTOBER 23, 1917.

120,025. BROOMS. GORDON, SEWALL & CO., INC., Houston, Tex.
Filed June 23, 1917. Serial No. 104,644. PUBLISHED OCTOBER 30, 1917.

120,026. SHOW-CASES, CEDAR CHESTS, AND HOUSE-SCREENS. JOHN M. HANSEN, Cleveland, Ohio.
Filed March 28, 1917. Serial No. 102,514. PUBLISHED OCTOBER 23, 1917.

120,027. EXTENSIONS FOR AUTOMOBILE-CHASSIS, ALSO AUTOMOBILE-BODIES AND AUTOMOBILE WIND-SHIELDS, DASHES, AND SPRINGS. HAYES-DIEFENDERFER CO., INC., New York, N. Y.
Filed May 22, 1917. Serial No. 104,008. PUBLISHED OCTOBER 23, 1917.

120,028. AUTOMOBILES. HUPP MOTOR CAR CORPORATION, Richmond, Va., and Detroit, Mich.
Filed September 7, 1917. Serial No. 106,114. PUBLISHED OCTOBER 30, 1917.

120,029. SALAD. FRANCES JOHNSON, Grand Junction, Colo.
Filed January 19, 1917. Serial No. 100,745. PUBLISHED OCTOBER 30, 1917.

120,030. COTTON BLANKETS, BEDSPREADS, AND SHEETS. THOMAS KELLY & CO., Boston, Mass.
Filed August 11, 1916. Serial No. 97,276. PUBLISHED OCTOBER 30, 1917.

120,031. CERTAIN NAMED ARTICLES HAVING PARTS OF OR PLATED WITH PRECIOUS METAL. LANDERS, FRARY & CLARK, New Britain, Conn.
Filed August 1, 1917. Serial No. 105,405. PUBLISHED OCTOBER 30, 1917.

120,032. GLOVES. R. H. MACY & CO., New York, N. Y.
Filed August 20, 1917. Serial No. 105,746. PUBLISHED OCTOBER 30, 1917.

120,033. HOSIERY. R. H. MACY & CO., New York, N. Y.
Filed August 20, 1917. Serial No. 105,747. PUBLISHED OCTOBER 30, 1917.

120,034. CERTAIN NAMED CONSTRUCTION MATERIALS. MARITIMO COATING CORPORATION, New York, N. Y.
Filed April 4, 1917. Serial No. 102,720. PUBLISHED OCTOBER 23, 1917.

120,035. WALL-CABINETS. FRANK J. MATCHETTE, Milwaukee, Wis., assignor to The Servidor Company, Wilmington, Del., a Corporation of Delaware.
Filed September 4, 1917. Serial No. 106,031. PUBLISHED OCTOBER 23, 1917.

120,036. FLAVORING EXTRACTS FOR MAKING SODA-FOUNTAIN SYRUPS AND FOR USE IN COOKING. THE WILLIAM S. MERRELL CHEMICAL COMPANY, Cincinnati, Ohio.
Filed April 17, 1917. Serial No. 103,065. PUBLISHED SEPTEMBER 25, 1917.

120,037. CANDY. GINEVRA MIGLIACCIO, New York, N. Y.
Filed September 20, 1917. Serial No. 106,349. PUBLISHED OCTOBER 23, 1917.

120,038. FARM-WAGONS, BUSINESS AND DELIVERY WAGONS, AND AUTOMOBILES, BOTH PASSENGER AND COMMERCIAL. THE MILBURN WAGON COMPANY, Toledo, Ohio.
Filed August 23, 1917. Serial No. 105,842. PUBLISHED OCTOBER 30, 1917.

120,039. METAL BED-SPRINGS, METAL BEDS, FOLDING BEDS, COTS, AND SWINGS. PERFECTION BED SPRING COMPANY, Mansfield, Ohio.
Filed March 1, 1917. Serial No. 101,821. PUBLISHED OCTOBER 23, 1917.

120,040. KITCHEN-TABLES, TOPS FOR KITCHEN-TABLES, KITCHEN-CABINETS, TOPS FOR KITCHEN-CABINETS, AND STOOLS. THE PORCELAIN ENAMEL AND MANUFACTURING COMPANY OF BALTIMORE, Baltimore, Md.
Filed August 22, 1917. Serial No. 105,813. PUBLISHED OCTOBER 23, 1917.

120,041. FOOD PRODUCTS—VIZ., JAMALADE AND CREAMED CHICKEN. PURITY CROSS, INC., Providence, R. I.
Filed November 4, 1916. Serial No. 99,094. PUBLISHED OCTOBER 30, 1917.

120,042. SILK PIECE GOODS. ROGERS & THOMPSON, INC., New York, N. Y.
Filed August 22, 1917. Serial No. 105,818. PUBLISHED OCTOBER 23, 1917.

120,043. CATTLE FEED. S. F. SCATTERGOOD & CO., Philadelphia, Pa.
Filed March 19, 1917. Serial No. 102,262. PUBLISHED OCTOBER 30, 1917.

120,044. NON-INTOXICATING CEREAL BEVERAGE SOLD AS A SOFT DRINK. ADAM SCHEIDT BEVERAGE CO., Norristown, Pa.
Filed September 29, 1917. Serial No. 106,517. PUBLISHED OCTOBER 23, 1917.

120,045. NON-ALCOHOLIC CARBONATED BEVERAGES. SPARKLING SILVERSPOON CO., Cleveland, Ohio.
Filed July 23, 1917. Serial No. 105,214. PUBLISHED OCTOBER 23, 1917.

120,046. MARBLE AND BUILDING-STONE. SPRING RIVER STONE CO., Carthage, Mo.
Filed June 20, 1916. Serial No. 96,012. PUBLISHED OCTOBER 23, 1917.

120,047. ASBESTOS SHINGLES AND ASBESTOS BUILDING-LUMBER. TRUSSED CONCRETE STEEL COMPANY, Detroit, Mich.
Filed August 6, 1917. Serial No. 105,509. PUBLISHED OCTOBER 30, 1917.

120,048. RUBBER BOOTS AND SHOES. UNITED STATES RUBBER COMPANY, New York, N. Y.
Filed August 25, 1916. Serial No. 97,629. PUBLISHED OCTOBER 30, 1917.

120,049. RUBBER BOOTS AND SHOES. UNITED STATES RUBBER COMPANY, New York, N. Y.
Filed August 25, 1916. Serial No. 97,630. PUBLISHED OCTOBER 30, 1917.

120,050. FERTILIZERS. VITTORIO VOLPATO, Milan, Italy.
Filed December 28, 1916. Serial No. 100,228. PUBLISHED OCTOBER 23, 1917.

DECISIONS
OF THE
COMMISSIONER OF PATENTS
AND OF
UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

ELSOM *v.* BONNER AND GOLDE.

Decided March 12, 1917.

1. JURISDICTION—COURT OF APPEALS OF THE DISTRICT OF COLUMBIA.
The statute does not provide for an appeal to the court of appeals from a ruling by the Commissioner of Patents or of any the subordinate tribunals affirming the patentability of a claimed invention.

2. INTERFERENCE—RIGHT TO MAKE THE CLAIM.
Where E., the junior party in a three-party interference, questions the right of B. to make a count of the issue, but does not challenge the right of G., the senior party, to make the claim, *Held* that Rule 130 is not applicable.

Mr. A. E. Parsons for the appellant.
Mr. Fritz v. Briesen for the appellees.

VAN ORSDEL, *J.*:

This appeal is from a decision of the Commissioner of Patents in an interference proceeding. The issue is stated in two counts, as follows:

1. A vehicle top comprising a main bow, a front bow, a link pivoted to each side of the front and to the main bow, a brace pivoted to the side of the main bow above the link and to the front bow in front of the pivot thereof, an intermediate bow pivoted to the brace, and means connecting the intermediate bow and the link for moving the intermediate bow during the opening and closing of the top.
2. A vehicle top comprising a rear bow, an arm pivoted thereto, an outrigger bow, a stop hinge for pivotally connecting the outrigger bow to the arm, a main auxiliary bow pivoted to the arm, a brace fulcrumed to the rear bow and to the outrigger bow, and a pivot joint that connects the auxiliary bow to the brace, whereby a tension is exerted upon the stop hinge which sustains the top against collapsing.

Appellant Elsom filed his application for patent July 27, 1914, and alleged conception on October 17, 1913; Bonner filed March 25, 1913, and Golde filed March 17, 1913. It will be observed that Golde is the senior party, and that both he and Bonner are prior to any date claimed by Elsom.

The Examiner of Interferences directed Elsom to show cause why judgment of priority should not be entered against him upon the record. Thereupon Elsom filed a motion to dissolve, on the ground that the claims in issue are not patentable, with an additional motion challenging the right of Bonner to make claim 1. The motions were referred to the Law Examiner, who denied them; whereupon the Examiner of Interferences, resuming charge of the case, rendered judgment of priority against Elsom on the record. Appeal was taken by Elsom to the Board of Examiners-in-Chief, on the ground that the Examiner of Interferences had—

erred in holding that the party Elsom failed to show sufficient cause why judgment on the record should not be entered against him.

The Board of Examiners-in-Chief, disposing of Elsom's appeal on the right of Bonner to make count 1, held that it presented a moot question, since, if Elsom should prevail over Bonner, he could not possibly prevail on the record over the senior party Golde. On the question of patentability, the Board held that Rule 130 of the Rules of Practice of the Patent Office is not applicable to this case, and the question of the patentability of the issue can have no bearing upon Elsom's right to a patent, since Glode's right to a patent, if the claims are patentable, is unchallenged.

Elsom then requested the Board, under Rule 126, to recommend to the Commissioner of Patents a reconsideration of the question of patentability, which request was refused. Thereupon, Elsom appealed to the Commissioner, and also petitioned him to exercise his supervisory authority with a request that—

your petitioner in view of the fact that the party Golde has taken no part whatever heretofore in connection with Elsom's motion and the appeals thereon and has not been represented by counsel at the hearing before the Law Examiner, the Examiner of Interferences or the Board, * * * requests that the petition of even date herewith in interference Elsom and Bonner, involving the two applications of Elsom and Bonner to this interference may be taken as a part of this particular petition and in amplification thereof.

The Commissioner disposed of the whole matter in a few words, as follows:

I see no reason for exercising supervisory authority at this stage of the proceedings. As there is no other question seriously raised, the Examiners-in-Chief are sustained.

From this decision appeal to this court was taken.

Priority of invention is the single issue in an interference. The motion to dissolve is permitted for the purpose of testing the propriety of the declaration of an interference. As there is no such thing as priority of invention between parties contending over the counts which are unpatentable, a general motion assailing the right of all parties to make the claims for lack of patentability has no bearing on the issue of priority. Where, however, the motion to dissolve assails the right of one of the parties for any reason to make the claims, the question of priority is directly involved, since one who cannot make the claims would not in any event be

entitled to an award of priority. The declaration of an interference by the Patent Office implies a prior determination of the question of patentability. Indeed, its decision alone can furnish the ground for the declaration. When the interference is declared, a party to it will not be allowed to generally assail the patentability of the claims in issue. As was said by Chief Justice Alvey in *Hisey* v. *Peters*, (6 App. D. C., 68; 71 O. G., 892:)

The question of patentability of the claim for invention was referred to and passed upon by the Primary Examiner in the Patent Office, who is the expert as to the state of the art involved, and it was not until that examination was had and favorably reported, that the interference was or could be declared. The appellant making claim for an alleged patentable invention, is not to be heard to urge non-patentability of his claim after it has been placed in interference with another claim. He is effectually estopped on that question by reason of his own affirmative assertion that his claim is patentable; and if his own claim is patentable that with which it would interfere may be equally so, if priority of invention be shown. Moreover, the rights of appeal in case of the refusal of a patent on the ground of non-patentability of the claim, and refusal of a patent because of interference with a prior right of invention, are distinct rights and the latter does not involve the former. This is clearly indicated in the Revised Statutes of the United States (sec. 4911) and in section 9 of the act of Congress of February 9, 1893, providing for the organization of this court.

The general motion of Elsom to dissolve on the broad ground of non-patentability of the claims in issue was no response to the order to show cause, and when the claims were found patentable obviously nothing remained but to render judgment of priority against him on the record. He totally failed to bring himself within Rule 130, which provides as follows:

Where the patentability of a claim to an opponent is material to the right of a party to a patent, said party may urge the nonpatentability of the claim to his opponent as a basis for the decision upon priority of invention. A party shall not be entitled to raise this question, however, unless he had duly presented and prosecuted a motion under Rule 122 for dissolution upon this ground or shows good reason why such a motion was not presented and prosecuted. When the Law Examiner has denied such a motion for dissolution the question shall not be reinvestigated by the Examiner of Interferences except in view of evidence which was not before the Law Examiner, but it may be raised before the appellate tribunals on appeal from award of priority by the Examiner of Interferences.

It will be observed that before Elsom could urge non-patentability against his opponents, it must appear that the claims are material to his right to a patent. But he assailed the right of all parties, including himself, which was equivalent to a concession that he had no right to the counts. His motion questioning the right of Bonner to make count 1 does not improve his situation, in that it did not challenge the right of Golde to make the count, and Golde, being senior to any date available to Elsom, was entitled to priority regardless of the decision on the motion. This was the logical view taken by the Board of Examiners-in-Chief, as follows:

The right of the party Golde to prevail over Elsom was not challenged, and it is, therefore, evident that the adverse decision of the Examiner of Interferences must stand regardless of any disposition of that moot question. * * * Rule 130 is not applicable in this case, since any conclusion we might reach as to the patentability of the issue can have no bearing upon Elsom's right to a patent. Under no circumstances may a patent issue to Elsom who, as we have stated, does not question the priority of the party Golde.

Inasmuch as Elsom's general motion applied to his own claims, as well as to the claims of Bonner and Golde, and his motion challenging the right of Bonner to make count 1 raised a question not material to his right to a patent, because of Golde's superior right, it follows that the motions relate not to priority but to the propriety of the declaration of an interference, and do not come within the rule.

Rule 130 was intended to cover those cases where it was contended that one party had a right to make the claims, but the other did not, and that therefore the latter was not entitled to the date of filing of his application as a date of conception and constructive reduction to practice of the invention in issue. Manifestly, to bring a case within this rule the criticism applied to one case must not apply equally as well to the other, for then neither party would be entitled to the claims in issue and the question of priority would be a moot one. (*Pym* v. *Hadaway*, 129 O. G., 2073.)

But it is contended that error was committed by the Board of Examiners-in-Chief in refusing under Rule 126 to recommend to the Commissioner of Patents a reconsideration of the question of patentability. This rule is not mandatory, but leaves it optional with the Board to—

direct the attention of the Commissioner to any matter not relating to priority which may have come to their notice, and which, in their opinion, establishes the fact that no interference exists, or that there has been irregularity in declaring the same (Rule 122), or which amounts to a statutory bar to the grant of a patent to either of the parties for the claim or claims in interference.

A like objection is made to the refusal of the Commissioner to exercise supervisory authority. This is within the discretion of the Commissioner. No appeal, therefore, lies from the Board or Commissioner on either of these grounds. (*Sobey* v. *Holsclaw*, 28 App. D. C., 65; 126 O. G., 3041.)

This leaves nothing in the last analysis but an attempted appeal from a ruling holding the claims patentable. We have held many times that the question of patentability will not be considered in an interference proceeding. Appeals lie from the Commissioner of Patents in only two classes of cases—where an applicant for a patent or reissue of a patent has had his claims twice rejected, and where there has been a final judgment of priority in favor of one of the parties to an interference. (*In re Fullagar*, 32 App. D. C., 222; 138 O. G., 259.) Here there was not a rejection, but an affirmance, of the patentability of the claims in issue.

The statute does not provide for an appeal to this court from a ruling by the Commissioner of Patents, or of any of the subordinate tribunals, affirming the patentability of a claimed invention. It is only from a decision adverse to the patentability of a claim that an appeal will lie to this court. (U. S. Rev. Stat., sec. 4911, [sec. 9 of the act of February 9, 1893, establishing this court.])—*Sobey* v. *Holsclaw, supra.*

The decision of the Commissioner of Patents is affirmed, and the clerk is directed to certify these proceedings as by law required.

Affirmed.

Court of Appeals of the District of Columbia.

ELSOM *v.* BONNER.

Decided March 12, 1917.

INTERFERENCE—JUDGMENT ON THE RECORD.

Record reviewed and *Held* that judgment on the record was properly rendered against E.

Mr. A. E. Parsons for the appellant.

Mr. Fritz v. Briesen for the appellee.

VAN ORSDEL, *J.*:

This is a companion interference to the triparty interference including the party Golde, No. 1,085, just decided, and relates to the same invention.

Here, as in the other case, Elsom was called upon to show cause why judgment of priority should not be entered against him on the record, and, as there, he moved to dissolve on the ground of non-patentability of the issue. The motion was denied, and judgment of priority rendered against him on the record.

The appeal is, in effect, from a ruling holding the count in issue patentable. It is fully disposed of by our opinion in the companion case.

The decision of the Commissioner of Patents is affirmed, and the clerk is directed to certify these proceedings as by law required.

Affirmed.

Court of Appeals of the District of Columbia.

DRECKSCHMIDT *v.* SCHAEFER AND HOLMES.

Decided April 2, 1917.

1. INTERFERENCE—REDUCTION TO PRACTICE—CONCEALMENT.

Where after reduction to practice an inventor puts aside his invention for approximately two years until he discovers that his rival has placed the invention upon the market, *Held* that he is not entitled to an award of priority over his more diligent rival.

2. SAME—PRIORITY.

Where D. did nothing with his invention from the time S. and H. entered the field until they filed their application, *Held* that priority was properly awarded to S. and H.

Mr. J. D. Rippey and *Mr. L. C. Kingsland* for the appellant.

Mr. J. S. Barker for the appellees.

VAN ORSDEL, *J.*:

This appeal is from a decision of the Commissioner of Patents awarding priority of invention to appellees for a chemical fire-extinguisher described in the single count as follows:

A chemical fire apparatus comprising a tank, two noncommunicating containers supported in said tank one above the other, a breakable closure for one of said containers, a breakable partition between said containers, and manipulative means for breaking said closure and said partition whereby the contents of said containers are brought together to form a gas for the purpose of producing a pressure upon the liquid contained in said tank.

Appellant reduced the invention to practice in July, 1912, but did not file his application until July 27, 1914. In the meantime, the device remained under his desk in his office. It may be suggested that the invention consists of apparatus inclosed in an ordinary fire-extinguisher case, so that any one seeing it under the desk would not be enlightened as to the invention. Appellant did nothing with the invention after the reduction to practice until after he filed his application. The earliest date claimed by appellees is June, 1913, as date of conception, which was followed by filing an application in December. It also appears that in the spring of 1914 they were engaged in manufacturing the extinguisher of the invention, during which time appellant had access to their works where the parts were being manufactured. Appellees also published a circular on July 1, 1914, advertising and describing the device in issue. While it does not appear that appellant gained information of the manufacture or saw the circular, it is significant that during this time he was engaged in the sale of fire-extinguishers and offered no testimony in rebuttal tending to refute the implication that he had knowledge of the activities of appellees. It, however, remains that, whether he acquired this knowledge or not, he was doing nothing with his invention from the time appellees entered the field until they filed their application. The case, therefore, is ruled by *Howard* v. *Bowes*, (31 App. D. C., 619; 137 O. G., 733.)

The decision of the Commissioner of Patents is affirmed, and the clerk is directed to certify these proceedings as by law required.

Affirmed.

Court of Appeals of the District of Columbia.

BIJUR *v.* RUSHMORE.

Decided April 23, 1917.

1. INTERFERENCE COUNTS—EACH ELEMENT MATERIAL.

The rule confirmed that all limitations appearing in the counts of an interference will in interference proceedings in the Patent Office be regarded as material to the invention covered thereby.

2. SAME—PRIORITY—RIGHT TO MAKE CLAIMS.

Where the counts include an armature axially movable and the device built and operated by B. prior to the filing date of R. did not contain this specific element, *Held* that priority was properly awarded to R.

Mr. R. S. Blair for the appellant.

Mr. Geo. C. Dean and *Mr. C. W. Fairbank* for the appellee.

SHEPARD, *C. J.*:

The invention applied for by Bijur and Rushmore is involved in an electric motor for starting an internal-combustion engine provided with means whereby transmission-gearing between the motor and engine is automatically brought into mesh when the motor is started and automatically brought out of mesh upon the engine's taking up its own cycle of operation.

The issue as originally formulated involves six counts. Thereupon, upon Bijur's motion, six others were added. The interference was dissolved as to three of the latter counts in view of Bijur's patent of May 5, 1914. After testimony was taken by Bijur, Rushmore made a motion to dissolve the remaining nine counts, and the interference was remanded to the Primary Examiner to consider the pertinency of five of the counts.

The counts left in interference are the following:

1. An engine starting electric motor comprising a field magnet and an armature axially movable with respect to the field and normally displaced but adapted to be brought into driving relation with a device to be started thereby, an automatic means for restoring the movable armature to its normal displaced position, said means being dependent upon the increased counter-electromotive force developed when the speed is increased through starting of the device.

2. An apparatus of the class described comprising in combination, an engine starting electric motor comprising a field magnet and an armature axially movable with respect to said field and adapted to be brought into driving relation with a device to be started thereby, together with means for restoring the armature to its normal displaced position when the motor has reached a predetermined speed.

3. In an apparatus of the class described and in combination, an electric starting motor comprising a field having a winding in series with the armature, an armature axially movable in said field and provided with a power-transmitting connection adapted to engage a device to be

started thereby, means normally tending axially to displace said armature shaft to disengage said connection in opposition to the attraction of said magnetic field when energized, said displacing means being of such strength relatively to the field as to be overcome by the attraction of the field on the armature when excited by the normal working current and to overcome the attraction of the field upon the armature when the current is reduced by action of the increased counter-electromotive force due to increased speed of the motor when the starting of the device is effected.

4. An electric starting motor comprising a field magnet and an armature arranged to have considerable axial movement within the field, in combination with means for engaging the motor with the device to be started through the agency of the axial movement of the armature and to be actuated by the motor current, and being so arranged that after the device has reached a predetermined speed the resultant decrease in the current passing through the motor will cause the automatic disengagement of the motor from the device.

Bijur filed May 5, 1913, and Rushmore, September 27, 1912.

As stated by the Examiners-in-Chief:

The invention in issue is a device for starting internal combustion engines, the same consisting of an electric motor and gearing connecting the same with the fly wheel of the engine. This gearing includes a pinion that is secured to the motor shaft and that is adapted to engage with a large gear on the engine fly wheel, but is normally held out of engagement therewith by a spring that thrusts against the end of the shaft. When the motor circuit is closed, the field magnets act upon the armature as a solenoid and draw the shaft longitudinally against the tension of the spring until the pinion is in mesh with the gear on the fly wheel. When the engine starts running under its own power, it speeds up the armature, thereby creating such a high counter electro-motive force that the current through the field coils falls to that point where the solenoid action is no longer sufficient to overcome the force of the spring, and the latter forces the shaft backward until the pinion is again disengaged from the engine gear.

A great number of motions were made but need not be considered, as the parties have accepted the issues as presented. Rushmore relies on his filing date, September 27, 1912, and has taken no testimony. Bijur has produced a sketch upon which his case depends. If this sketch discloses the issue of the interference, Bijur is entitled to priority, because it is admitted that he built and operated the device shown in the sketch before Rushmore's filing date. Bijur admits that the counts of his issue do not read literally upon the sketch, as it has no sliding or axially-movable armature.

The Patent Office tribunals found that the construction of the counts require an armature movable with respect to the field and normally displaced and the return of the armature to its normal displacement.

The contention made by Bijur is that—

the axial movement of the motor member by mounting a pinion on a threaded shaft is old, certainly so far as Rushmore is concerned, as it is shown, for example, in the Bijur Patent No. 1,095,696. It is accordingly submitted on behalf of Bijur that under these circumstances the above count is to be broadly construed, and that the equivalent for the axially movable armature is found in the axially movable pinion of the prior Bijur apparatus. Both forms of an axially movable motor member for automatic connection and disconnection with the load were old, and it is submitted that either form of apparatus fairly embodies the claim in question.

Courts cannot disregard limitations that are expressly defined in a patent; and the rule applies with greater force in the Patent Office between applications. (*Collom* v. *Thurman*, 131 O. G., 359; *Wilson* v. *Ellis*, 42 App. D. C., 552–554; 211 O. G., 286.) In that case it was said by Mr. Justice Van Orsdel, who delivered the opinion of the court:

There is a rule which has been long established and many times confirmed, that all limitations appearing in the counts of an interference will in interference proceedings in the Patent Office be regarded as material to the invention covered by such counts. This rule is the only practicable one which the Office can adopt. In its nature it is consistent with the principle which underlies the drawing and construction of claims as generally followed. Its application in practice is seldom found to result in injustice.

It follows that Bijur cannot be given the benefit of the date of the construction of his exhibit, and must be confined to his filing date of May 5, 1913, which is later than that of Rushmore.

The decision is affirmed, and the clerk will certify this decision to the Commissioner of Patents as required by law.

Affirmed.

ADJUDICATED PATENTS.

(U. S. D. C.) The Alvey patent, No. 790,766, for a conveyer or device for lowering goods, does not accomplish a new or improved result or an old result from an improved operation and contains no invention, notwithstanding its use as part of a successful system. *Alvey-Ferguson Co.* v. *Peter Schoenhofen Brewing Co.*, 245 Fed. Rep., 762.

(U. S. D. C.) The Alvey patent, No. 790,811, for an elevator device for raising goods, *Held* valid and infringed as to the five claims in suit. *Alvey-Ferguson Co.* v. *Peter Schoenhofen Brewing Co.*, 245 Fed. Rep., 762.

(U. S. D. C.) The Creveling patent, No. 747,686, for a system of electrical regulation for use in car-lighting, *Held* limited to a constant-current regulator, and, as so limited, not infringed. *Safety Car Heating & Lighting Co.* v. *Gould Coupler Co.*, 245 Fed. Rep., 755.

(U. S. C. C. A.) The Henderson patent, No. 959,008, for a scaffold-supporting means, *Held* valid, and infringed by one device, but not by another. *Chain Belt Co.* v. *New York Scaffolding Co.*, 245 Fed. Rep., 747.

(U. S. C. C. A.) The Willey patent, No. 750,744, for an electric-motor-driven portable drill, *Held* not infringed. *James Clark, Jr., Electric Co.* v. *United States Electrical Tool Co.*, 245 Fed. Rep., 753.

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Interference Notice.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., December 20, 1917.

Eckman & Peterson, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of the West Indies Packing Company, of McKinley, Isle of Pines, West Indies, for registration of a trade-mark and trade-mark registered September 14, 1886, No. 13,053, to Eckman & Peterson, of Philadelphia, Pa., and a notice of such declaration sent by registered mail to said Eckman & Peterson at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Eckman & Peterson, their assigns or legal representatives, shall enter an appearance thereto within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD,
First Assistant Commissioner.

Adverse Decisions in Interference.

PATENT NO. 1,188,747.

On December 3, 1917, a decision was rendered that Louis Fischer was not the first inventor of the subject-matter covered by claims 11, 14, and 16 of his Patent No. 1,188,747, subject, "Stamp applying and affixing machine," and no appeal having been taken within the time allowed such decision has become final.

PATENT NO. 1,193,269.

On December 10, 1917, a decision was rendered that David S. Kennedy was not the first inventor of the subject-matter covered by claims 5, 6, 7, 8, 9, 10, and 11 of his Patent No. 1,193,269, subject, "Quad-blocks for sling-casting machines," and no appeal having been taken within the time allowed such decision has become final.

PATENT NO. 1,197,062.

On December 11, 1917, a decision was rendered that Thomas Irving Potter was not the first inventor of the subject-matter covered by claim 9 of his Patent No. 1,197,062, subject, "Change-making, registering, and recording machines," and no appeal having been taken within the time allowed such decision has become final.

ADJUDICATED PATENTS.

(U. S. C. C. A.) The Brown patent, No. 1,115,895, for a towel-holder, *Held* not infringed. *Broadway Towel Supply Co.* v. *Brown-Meyer Co.*, 245 Fed. Rep., 659; *Crystal Laundry Co.* v. *Brown-Meyer Co.*, 245 Fed. Rep., 662.

(U. S. C. C. A.) The Snook patent, No. 954,056, for an X-ray machine, *Held* valid and infringed. *Stetson Hospital of Philadelphia* v. *Snook-Roentgen Mfg. Co.*, 245 Fed. Rep., 654.

Amendments to Amendments.

RULE 74. When an amendatory clause is amended, it must be wholly rewritten, so that no interlineation or erasure shall appear in the clause, as finally amended, when the application is passed to issue. If the number or nature of the amendment shall render it otherwise difficult to consider the case or to arrange the papers for printing or copying, the Examiner or Commissioner may require the entire specification to be rewritten.

Certifications by the Secretary of the Interior.

By authority of an act of Congress approved August 24, 1912, (183 O. G., 507,) providing uniform charges for furnishing copies of records of the Department of the Interior and its several Bureaus, a fee of twenty-five cents will be charged by the Secretary of the Interior for every certificate of authentication of official character of the officials of the Patent Office. The fee thus provided should be paid to the Secretary of the Interior, and not to the Patent Office. Attorneys and inventors desiring such certificates are requested to remit the necessary fee to the Secretary of the Interior at the time of filing in the Patent Office an order for the copies desired.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business January 4, 1918.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended.	
314	1. Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Railway Gates; Planting; Scattering Unloaders; Trees, Plants, and Flowers.	Oct. 30	Oct. 19	320
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	Aug. 17	Oct. 5	315
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Heating; Metal-Founding; Metallurgical Apparatus; Metallurgy; Plastic Metal Working.	Nov. 28	Nov. 3	136
234	4. Conveyers; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Pushing and Pulling Implements; Railway Mail Delivery; Store-Service; Traversing Hoists.	Nov. 6	Dec. 17	177
167	5. Bookbinding; Harvesters; Jewelry; Music	Sept. 27	Nov. 12	279
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Substance Preparation.	May 22	Aug. 15	495
312	7. Educational Appliances; Games and Toys; Optics; Velocipedes	Sept. 10	Oct. 10	563
133	8. Beds; Chairs; Flexible-Sheet Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Sept. 12	Nov. 8	546
221	9. Air and Gas Pumps; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Marine Propulsion.	May 26	Nov. 5	526
235	10. Carriages and Wagons; Motor Vehicles	July 17	Nov. 14	310
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Spring Devices; Whips and Whip Apparatus.	Sept. 27	Nov. 17	281
322	12. Journal-Boxes, Pulleys, and Shafting; Machine Elements	Sept. 4	Nov. 2	601
339	13. Ammunition and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Sept. 19	Nov. 17	520
323	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Sept. 7	Nov. 8	321
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Nov. 10	Dec. 4	205
112	16. Electric Signaling-A; Radiant Energy; Telegraphy; Telephony	June 22	Nov. 5	481
307	17. Ornamentation; Paper Manufactures; Printing; Type Casting; Sheet Material Associating or Folding; Sheet Feeding or Delivering; Type Setting.	Oct. 11	Nov. 22	113
229	18. Fluid-Pressure Regulators; Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Sept. 4	Oct. 15	371
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels	July 13	Oct. 20	466
179	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Nov. 23	Dec. 3	239
212	21. Brakes and Gins; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	July 2	Oct. 8	285
240	22. Aeronautics; Firearms; Ordnance	Sept. 1	Oct. 20	201
219	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	Aug. 14	Oct. 16	387
144	24. Apparel: Apparel Apparatus; Sewing-Machines; Garment Supporters	Nov. 5	Dec. 17	192
315	25. Agitating; Butchering; Centrifugal Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers; Gas Separation.	Nov. 22	Nov. 27	209
105	26. Electricity, Generation; Motive Power	June 23	July 9	597
214	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus	Oct. 8	Oct. 16	392
225	28. Internal-Combustion Engines	Aug. 17	Sept. 5	611
147	29. Cooperage; Fire-Escapes; Ladders; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking Tools.	Aug. 18	Oct. 1	446
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines	Sept. 4	Nov. 12	483
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Sugar and Salt.	Oct. 18	Oct. 19	209
2/8	32. Gas and Liquid Contact Apparatus; Heat Exchange; Packaging Liquids; Refrigeration	June 1	Nov. 26	739
70	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	Oct. 27	Nov. 13	243
301	34. Railways; Railway Rails and Joints; Railway Rolling Stock; Railway Ties and Fasteners	Nov. 6	Dec. 21	92
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Signals; Toilet	Aug. 2	Sept. 21	663
201	36. Driers; Geometrical Instruments; Measuring Instruments; Photography; Force Measuring	Oct. 15	Nov. 17	632
107	37. Electric Lamps; Electricity, Circuit Makers and Breakers; Electricity, Conduits; Electricity, General Applications.	July 9	Aug. 30	706
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells	Nov. 19	Nov. 26	168
220	39. Water Distribution; Multiple Valves	June 29	Sept. 27	483
275	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Sept. 30	Nov. 23	501
126	41. Railway Draft Appliances; Resilient Tires and Wheels	Aug. 29	Oct. 16	382
114	42. Electricity, Conductors; Railway Signaling; Electricity-Transmission to Vehicles; Electric Signaling	July 7	Oct. 8	662
382	43. Baths and Closets; Dispensing; Dispensing Beverages; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Oct. 11	Oct. 15	376
253	44. Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Ships	Sept. 21	Nov. 21	312
379	45. Clutches; Lubrication; Motors; Railway Brakes	Aug. 21	Aug. 27	471

Oldest new case, May 22; oldest amended, July 9.
Total number of applications awaiting action 13,393

163	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Nov. 13	Dec. 8	715
	Designs	Nov. 10	Nov. 17	376
	Labels and Prints	Nov. 17	Nov. 6	148

PATENTS

GRANTED JANUARY 8, 1918.

1,252,380. FOUNTAIN SHAVING-BRUSH. FREDERICK E. AHLERING, Port Reading, N. J. Filed Sept. 17, 1915. Serial No. 51,260. (Cl. 15—50.)



1. A shaving brush of the character described comprising a hollow body having a mixing chamber at one end and a removable cap at its opposite end, said body being divided into longitudinal compartments, said compartments being separated from the mixing chamber by the mner perforate wall of the latter, said mixing chamber having its outer wall perforated, bristles secured against said outer wall, and a movable feed valve within said mixing chamber and adapted for engagement respectively with the inner and outer walls of the same.

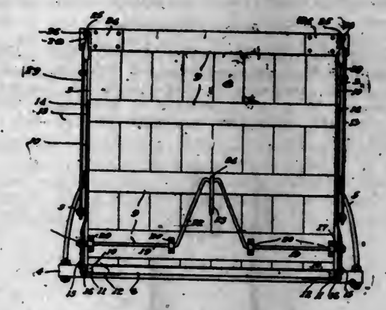
2. A brush of the character described comprising a hollow body having a mixing chamber, compartments communicating separately with said mixing chamber, bristles secured against one wall of said mixing chamber, said wall of the mixing chamber being perforated, and a suitable feed valve within said mixing chamber and spaced from one wall of the same, said feed valve being adapted for movement against the opposite walls of said mixing chamber.

4. A shaving brush of the character described comprising a hollow body having a mixing chamber at one end formed by two spaced transverse partitions having perforations therethrough, independent compartments in the remainder of the body formed by a longitudinal partition and communicating with said mixing chamber, a brush fixed against the outer partition of said mixing chamber, and a valve in said mixing chamber formed of two spaced parallel plates connected together at one side and movable in unison between the transverse partitions to control the passage of the contents of the independent compartments through the perforations in the inner partition into said mixing chamber, and the passage of the mixed contents of the mixing chamber through the outer perforated partition to said brush, said valve plates being spaced at one side from the wall of the chamber to permit the mixed fluids to enter the space between the plates when the valve closes the perforations in the outer partition and leave said space when the valve is moved into contact with the inner partition.

[Claims 3 and 5 not printed in the Gazette.]

1,252,381. COMBINATION SHOVELING-BOARD AND END-GATE. JOHN H. ANDERSON, St. Paul, Minn. Filed Oct. 16, 1916. Serial No. 125,884. (Cl. 21—21.)

1. The combination, with a receptacle having side walls and a floor and an open rear end, of a gate mounted to close said open rear end, bars pivotally connected with the upper portion of said gate and depending therefrom and having their lower ends pivotally connected with said receptacle, a bail mounted to rock on the lower portion of said gate and having crank arms formed on the ends thereof, links pivotally connecting said crank arms with the lower portions of said bars, means for temporarily locking the upper end of said gate against outward movement, the oscillation of said bail drawing the lower end of said gate outwardly to form a gap between it and said floor.

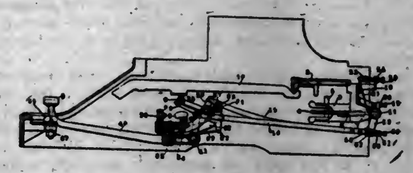


3. The combination, with a receptacle having side walls, a floor and an open rear end, of an end gate mounted to close said open end, a bail mounted on the lower portion of said gate to rock thereon and having crank arms formed thereon, means pivotally connecting said crank arms with said receptacle and also having a pivotal connection with said gate for drawing the lower portion of said gate outwardly to expose a gap between it and the floor of said receptacle when said bail is rocked, and means for securing the upper end of said gate during such movement.

5. The combination, with a receptacle having side walls, a floor and an open rear end, of a gate mounted to close said open rear end, bars pivotally connected at one end to said gate and at their opposite ends to said receptacle and means having a pivotal connection with the lower portion of said bars for swinging the lower portion of said gate outwardly for a predetermined distance to expose a gap between its lower end and the floor of said receptacle, and means for temporarily securing the upper end of said gate during such movement.

[Claims 2, 4, and 6 to 8 not printed in the Gazette.]

1,252,382. TYPE-WRITING MACHINE. NILS H. ANDERSON, Middletown, Conn., assignor to The Noiseless Typewriter Company, Middletown, Conn., a Corporation of Connecticut. Filed June 12, 1914. Serial No. 844,653. (Cl. 197—82.)



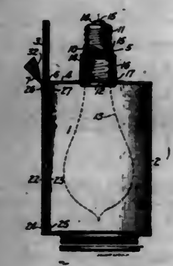
1. In a typewriting machine, in combination, an escapement rocker having a pair of spaced arms, a pair of fore and aft links having independent lost-motion connections with said arms respectively, and independent bell crank connections between said links and the universal bar and the space bar.

10. In a typewriting machine, in combination, an escapement rocker, a universal bar, an operative connection therebetween, resilient means tending to oppose and limit actuation of said universal bar with a varying force abruptly augmented during the final movement of the latter, and means for varying the period of augmentation of said force.

14. In a typewriting machine, in combination, escapement mechanism, a space bar, intervening mechanism for transmitting motion from one to the other, a stop for said space bar comprising a bracket seceured to the frame of the machine, a member mounted on said space bar passing through said bracket, and means adjustably mounted on said member adapted to limit its movement.

[Claims 2 to 9 and 11 to 13 not printed in the Gazette.]

1,252,382. PHOTOGRAPHIC-DARK-ROOM LAMP. FREDERICK W. BARNES and GEORGE F. PHILLIPS, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed Jan. 8, 1917. Serial No. 141,202. (Cl. 240—20.)



1. A portable dark room lamp comprising a non-actinic casing, an electrical fixture for an electric bulb, said casing having an opening in a wall for a filter window and recesses adjacent said opening, and a rotatable annular member to hold a window slightly larger than said opening, between said casing and member, said member having integral locking lugs insertible into said recesses and rotatable behind said casing wall to maintain the parts in assembled relation.

2. A dark room lamp comprising a non-actinic casing apertured for a window, slideways on opposite sides of the aperture to hold said window, said casing having an opening through a wall adjacent one end of said slideways for removal and insertion of said window, and a hinged cap movable over said opening to prevent transmission of light around said windows through the opening to the exterior of the casing, the hinge for the cap comprising two end lugs on the cap bent to surround a hinge pintle extending therebetween, said pintle being fixed to the casing by a projecting flange on the latter extending between the hinge lugs on the cap and bent around the pintle, thereby preventing light escaping beneath the hinge pintle, said cap having a flange projecting forwardly and curved downwardly over the pintle and adapted to move around the same when the cap is moved, and prevent light escaping between the cap and pintle.

3. A unitary photographic dark room lamp comprising a casing having an interior reflecting surface, two filter windows, a large one opposite said reflecting surface to transmit the major portion of the light for general illumination of a room and a small one beneath the bulb and out of line with the rays from said reflector and adapted to transmit a dim light to a work bench, an electrical fixture insulated from said casing and rigidly attached thereto, said fixture having an exterior plug adapted to be screwed into an electric light socket, and an interiorly located socket to hold an electric bulb, said casing having slideways and an opening through a wall at one end of said slideways for removal and insertion of the larger window, a light proof hinged cap over said opening to prevent undesired light escaping around the window to the exterior of the casing and a retaining member removably holding the small window in place.

1,252,384. ART OF PRODUCING ALUMINA. MAURICE BARNETT and LOUIS BURGESS, New York, N. Y. Filed Dec. 18, 1916. Serial No. 137,715. (Cl. 23—13.)

2. The herein described process of producing substantially pure alumina, consisting in evaporating a solution of aluminum sulfate until the boiling point of the solution is just below 120° C., then subjecting such condensed solution to the action of heat while being agitated, thus producing anhydrous sulfate, then subjecting the latter to a temperature of approximately 550° to 650° C. in a suitable furnace, thus driving off, in a gaseous state, the sulfur contained in the aluminum sulfate, and then recovering this sulfur as sulfuric acid.

[Claim 1 not printed in the Gazette.]

1,252,385. AUTOGRAPHIC REGISTER. JAMES BENCOUGH, Niagara Falls, N. Y., and JOHN F. GAYNOR, Bridgeport, Conn. Filed July 10, 1908, Serial No. 442,942. Renewed June 5, 1917. Serial No. 173,054. (Cl. 11—36.)



1. In an autographic register, in combination, a writing tablet over which the webs are adapted to be drawn, said tablet being provided with an offset end portion, a movable member in juxtaposition to said tablet, means carried by said movable member to engage said offset portion when the member is in its outermost position, whereby the outward movement thereof is limited.

4. In an autographic register, in combination, a casing, a writing tablet, a tearing blade supported by said casing and coöperating with said tablet, said tearing blade being normally held in inoperative position, a sliding member coöperating with said tablet and adapted to be connected to a web, and means carried by said member to move said tearing blade into operative position as said member is moved outward.

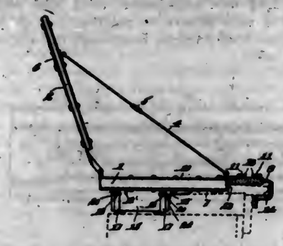
11. In an autographic register, in combination, a casing, a spindle mounted therein adapted to hold a roll of paper, a support for the paper when being written upon connected with said casing and a tension device adapted to exert a constantly decreasing pressure on said roll as the thickness thereof decreases and simultaneously prevent lateral movement of the paper.

20. In an autographic register, in combination, a casing, a writing tablet, a tearing blade supported by said casing and coöperating with said tablet, a sliding member cooperating with said tablet and adapted to be connected to a web and means carried by said member to move said tearing blade.

[Claims 2, 3, 5 to 10, and 12 to 19 not printed in the Gazette.]

1,252,386. WINDOW-SEAT. LUDWIG BERANEK and JOSEPH BERANEK, Chicago, Ill. Filed Apr. 20, 1916. Serial No. 92,410. (Cl. 20—87.)

A window seat comprising a body; means on said body for engagement with a window sill to secure the same thereto, said means comprising a pair of hook members mounted on said body for sliding adjustment to embrace the inner edge of a window sill; elongated sockets in said body in which the rearward ends of said hook members are slidably mounted, each of said sockets being formed of a shallow groove provided in the upper side of said body; a plate covering the upper side of said groove and extending forwardly beyond the forward edge of said body; a second plate secured to said body and extending forwardly from the forward edge thereof below and spaced from said forward end portion of said first



mentioned plate; said forward end portions of said plates having alining openings and the rearward end portions of said hook members having spaced openings adapted for registration with said first mentioned openings; and means adapted for engagement with said openings to lock said hook members in positions of sliding adjustment, substantially as described.

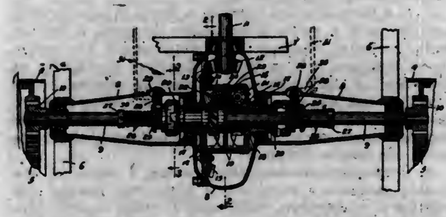
1,252,387. TENT-PEG. GEORGE B. BERGEN, Springfield, Ohio. Filed Dec. 4, 1916. Serial No. 134,852. (Cl. 135—15.)



3. In a tent peg, the combination of a bar bent to provide two substantially right angularly disposed legs having an eye at the junction thereof, the terminal portions of said legs being pointed, a rope secured to the eye, a band slidable on the rope and adapted to be wedged on the pointed end of a leg to hold the rope in parallelism thereto, substantially as described.

[Claims 1 and 2 not printed in the Gazette.]

1,252,388. DIFFERENTIAL-TRANSMISSION MECHANISM. RALPH N. BICKLEY, Minneapolis, Minn. Filed Mar. 1, 1917. Serial No. 151,696. (Cl. 74—100.)

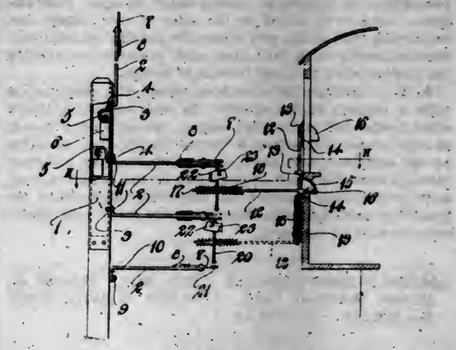


1. The combination with the traction wheels of a vehicle, of a transmission mechanism connected to the said two traction wheels and comprising a locking differential gear, and clutches applied between said differential gear and the said traction wheels and operative, at will, to connect said differential gear, independently to either traction wheels, or simultaneously to both traction wheels.

2. The combination with the traction wheels of a vehicle, of a transmission mechanism connected to the said two traction wheels and comprising a self-locking differential gear, and clutches applied between said differential gear and the said traction wheels and operative, at will, to connect said differential gear, independently to either traction wheel, or simultaneously to both traction wheels, the said clutches having spring devices normally holding the same operative and having connections for independently releasing the same.

3. The combination with the traction wheels of a vehicle, of a transmission mechanism comprising a self-locking worm gear differential, two alined shafts, transmission devices connecting said alined shafts, one to each of said traction wheels, half clutches, one connected to each side of said differential, and coöperating half clutches carried by, but slidable on said two alined shafts for simultaneous or independent engagement with the coöperating first noted differentially driven half clutches.

1,252,389. TRAIN-ORDER-DELIVERING APPARATUS. JAMES A. BLAIR, Spokane, Wash., assignor of forty-nine one-hundredths to Willard E. Barnhart, Spokane, Wash. Filed May 28, 1917. Serial No. 171,517. (Cl. 258—26.)



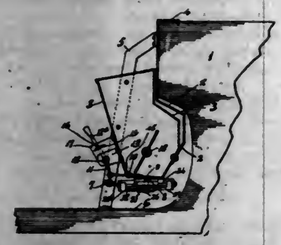
1. In a device of the character described, a station apparatus and a train carried apparatus adapted to cooperate to effect delivery of despatches to the train, said station apparatus consisting of an upright support, a plurality of despatch holding arms pivotally mounted thereon in superposed relation, a finger pivotally mounted on the outer end of each arm and extending beyond the extremity thereof, a despatch holding cord adapted to be supported in vertical position by the fingers of two adjacent superposed arms; said train carried apparatus consisting of a pivotally supported and vertically swinging catcher arm, a coil spring carried by said catcher arm in parallel relation thereto and adapted to engage and grip the despatch holding cord of the station apparatus.

2. In a device of the character described, a station apparatus and a train carried apparatus adapted to cooperate to effect delivery of despatches to the train, said station apparatus consisting of an upright support, a plurality of despatch holding arms pivotally mounted thereon and adapted to swing vertically, said arms being in superposed relation, an inner end extension of each arm, a counterweight carried by the inner end extension, a finger pivotally mounted on the outer end of each arm and extending beyond the extremity thereof, a spring connecting the arm and finger and adapted to retain the finger in normal parallel relation to the arm, a despatch holding cord adapted to be supported in vertical position by the fingers of two adjacent superposed arms; said train carried apparatus consisting of a vertically swinging

catcher arm pivotally supported near one end, a coil spring carried by said catcher arm at its outer end portion and in parallel relation thereto and adapted to engage and grip the despatch cord of the station apparatus.

[Claim 3 not printed in the Gazette.]

1,252,390. CANDY-STARCHING DEVICE. EMIL G. BREMER, Cincinnati, Ohio. Filed Apr. 30, 1915. Serial No. 24,857. (Cl. 83—60.)



1. In a machine for starching candy, the combination with a hopper, of an agitator in said hopper, a starch sifter under said hopper, said starch sifter suspended thereunder by means of eccentrically mounted rotatable disks, brackets mounted on the sides of said hopper and supporting said disks, and means for driving said agitator simultaneously with said disks and means for regulating the discharge of material from said hopper.

2. In a machine for starching candy, the combination with a hopper, of an agitator in said hopper, a starch sifter suspended under said hopper, brackets on the ends of said hopper supporting a vertical shaft, disks mounted on the bottom of said shaft, said shafts passing obliquely through said disks and eccentrically to the center thereof, said sifter being mounted on said disks and means for operating said agitator simultaneously with said shafts substantially as set forth.

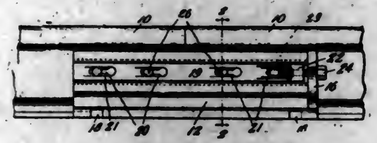
1,252,391. DEMOUNTABLE TIRE-RIM. WARREN R. BRIGGS, Stratford, Conn. Filed Mar. 3, 1917. Serial No. 152,187. (Cl. 152—21.)



In combination, a pair of annular rim members, each of which is formed with a lateral curved flange, one of said rim members being formed with a plurality of circumferentially spaced openings and having separated ends provided with complemental recesses adapted to provide another opening, and a circumferentially extending series of lugs formed medially upon the inner circumference of the other rim member and adapted to enter said openings, when said first rim member is sprung into the other rim member, one of said lugs being formed with a valve receiving opening, said lugs projecting flush with the inner circumference of the perforated rim member.

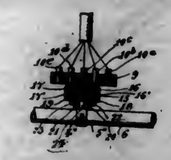
1,252,392. RAIL-JOINT. ARCHIE A. BULL, Spring Creek, Pa. Filed Oct. 7, 1916. Serial No. 124,379. (Cl. 239—11.)

1. In a rail joint, the combination with a pair of rails having openings therein, a pair of fish plates on said rails having openings therein to register with said openings in said rails, one of said fish plates having a longitudinally extending undercut groove therein, an angularly extending plate at one end of said last mentioned fish plate, a strip having a plurality of keyhole openings slidable in said groove, inclined ledges adjacent said keyhole openings, bolts passing through said alined openings and through said keyhole slots having grooves therein to provide abutment heads and means passing through said angularly extending plate and into engagement with said strip to move said strip in said groove to position the abutment heads of said bolts on said ledges to prevent the accidental removal of said bolts.



2. In a rail joint, the combination with a pair of rails having openings therein, a pair of fish plates on said rails having openings therein to register with said openings in said rails, a plate having a plurality of key hole openings formed therein slidably mounted in one of said fish plates, inclined ledges adjacent said keyhole openings, means passing through said alined openings and said keyhole openings, having a portion thereof adapted for engagement with said ledges, and means for moving said strip to engage said first mentioned means on said ledges as and for the purpose set forth.

1,252,393. THERMOSTATIC CIRCUIT-CONTROLLER. CHARLES R. BURLEW, Yonkers, N. Y. Filed Mar. 22, 1915. Serial No. 16,031. (Cl. 200—31.)



1. A thermostat having in combination a frame or body member, a series of stationary contacts mounted thereupon, a movable circuit closer carrying a plurality of contacts arranged to simultaneously engage in succession a plurality of the contacts in said series, a thermostatic actuating means mounted upon the body member, and mechanism between said actuating means and said circuit closing member for moving the contacts thereof along said series of contacts, said mechanism and the circuit closer being constructed and arranged so that a circuit will be established through only a part of the plurality of the circuit closing contacts at any one time dependent upon the direction in which said mechanism is moved by the thermostatic actuating means.

3. In a thermostatic controller, a frame or base member, provided with a series of stationary contacts, a thermostatic operating member and contact means for successively engaging said stationary contacts electrically on movement of said thermostatic operating member in one direction and for skipping the electrical engagement of the stationary contact next to the stationary contact last engaged on movement of said thermostatic operating member in the reverse direction.

6. A thermostatic controller having a series of stationary contacts, a thermostatic controlling member susceptible to temperature variations, a circuit closing member actuated in reverse directions by said thermostatic controlling member, which circuit closing member is associated with said stationary contacts so that it can successively close circuits in which the stationary contacts are comprised, and an advancing mechanism between said thermostatic controlling member and said circuit closing member to effect a closing in succession of successive circuits on movement of said circuit closing member in one direction and to skip the closing of one circuit and effect a closure in succession of subsequent successive circuits on movement of said circuit closer in a reverse direction.

12. The method of controlling the distribution of current to a series of circuits which consists in closing and opening breaks in said circuits successively in controlling the series in one order and in omitting the closure of the break next to the one last made in closing and opening the breaks in the reverse order.

19. In combination, a thermostatic controlling element, relatively stationary contacts, a movable member having a plurality of spaced contacts arranged to successively engage said relatively stationary contacts and an advancing mechanism between said thermostatic controlling element and said movable member carrying the spaced contacts, said advancing mechanism comprising a lost motion construction.

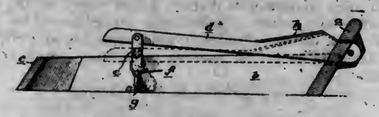
[Claims 2, 4, 5, 7 to 11, 13 to 18, and 20 not printed in the Gazette.]

1,252,394. TIRE-ARMOR. HELEN MURRAY BUTLER, Milton, Pa. Filed Dec. 20, 1915. Serial No. 67,879. (Cl. 152—18.)



A tire protector comprising overlapping ends, the underlapped end being provided with a strap projecting longitudinally of the protector, bent back and secured to the protector forming a loop, the overlapping end being provided with a pair of bores or openings in its edge, a transverse bar located under the loop of the underlapped end, threaded lugs on the transverse bar passed through the bores of the overlapped end, and nuts on the threaded lugs.

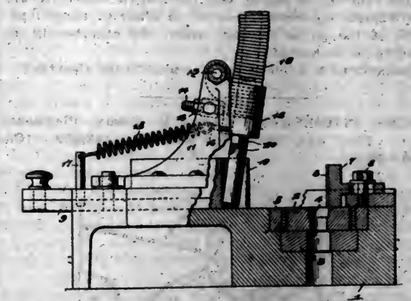
1,252,395. MOTOR-VEHICLE JACK. JAMES W. CADE and JACK CADE, Mount Carmel, S. C. Filed July 7, 1917. Serial No. 179,167. (Cl. 254—89.)



In a device of the class set forth, a floor frame comprising a backboard, a pair of side beams attached thereto and having forwardly-inclined extensions at their forward ends, said extensions meeting centrally of the forward end of the apparatus, the outer faces of said side beams and their said extensions being beveled upwardly and inwardly, a pair of lifting beams pivotally supported at their rear ends upon said floor frame and provided with upwardly and rearwardly inclined enlargements at their rear ends, and means at the forward ends of the lifting beams for simultaneously raising and lowering said forward ends.

1,252,396. FEED MECHANISM. ZENAS P. CANDEE, Waterbury, Conn., assignor to The Waterbury Farrel Foundry and Machine Company, Waterbury, Conn., a Corporation of Connecticut. Filed June 1, 1916. Serial No. 101,199. (Cl. 86—46.)

1. In mechanism for feeding a blank or article at an angle from a series of blanks or articles which are partly interlocked, a reciprocating member and a holder for said series of blanks or articles, to which holder movement is imparted by said reciprocating member through the medium of the blanks or articles.



5. In a mechanism as described, a flexible blank guiding member capable of containing a column of blanks or articles, a movably mounted holder for said blank guiding member, a reciprocating member imparting a movement to said movably mounted holder through the medium of the contents of said blank guiding member and having a pocket therein for the reception of the blanks or articles from said blank guiding member and for conveying them therefrom.

7. A blank guiding member supported by a movably mounted member, said blank guiding member being adapted to support a series of axially alined and interengaging blanks, a movable feeding device to which said blanks are successively fed from said blank guiding member, said feeding device and said movably mounted member being relatively so arranged that movement of said feeding device in engagement with a blank will feed the blank and move the movably mounted member so that the blank will be disengaged from the next succeeding blank.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,252,397. SHOCK-ABSORBER. RUSSELL S. CARTER, Hewlett, N. Y. Filed Mar. 18, 1916. Serial No. 85,188. (Cl. 267—24.)



1. A vehicle shock absorber comprising in combination with the spring-connected parts of the vehicle, a dash-pot and spring-yielding, shock-transmitting connection means therefor, said dash-pot and means being connected with each other and with said vehicle parts in tandem relation and said spring means being adapted for resiliently yielding to shock pressures in both directions.

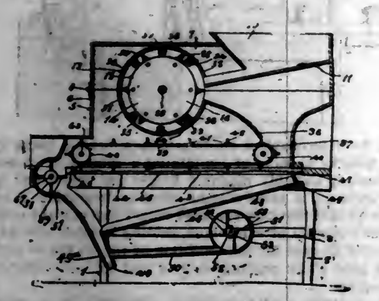
7. A vehicle shock absorber comprising a cylindrical dash-pot casing concentrically disposed within a helical spring, means whereby said spring may be secured to the casing at different points along its own length and means whereby the opposite end of the spring and the piston of

the dash-pot may be secured to the parts of the vehicle between which shock is to be suppressed.

3. In a vehicle shock absorber the combination of a helical spring and a dash-pot and means whereby the relative rotation of one of said parts with respect to the other adjusts the shock absorber to different normal positions of the parts between which the absorber is intended to be connected.

[Claims 2 to 6, 9, and 10 not printed in the Gazette.]

1,252,398. THRESHER. JAMES M. CASON, Piedmont, S. C. Filed Jan. 18, 1917. Serial No. 143,059. (Cl. 130—30.)



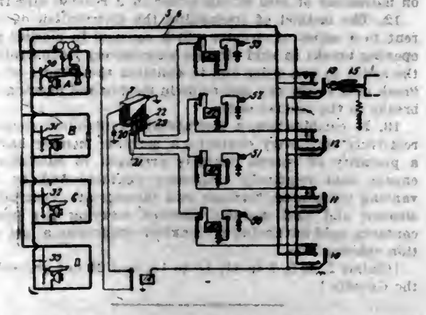
1. In a thresher, the combination, of a stationary beating cylinder, a rotary beating cylinder, a screen positioned beneath said cylinders for receiving the grain after being beaten by said cylinders, a raking conveyer positioned for travel over said screen, a vibratory grain pan positioned beneath said screen for receiving the grain therefrom, a delivery chute positioned for receiving the grain at the outlet end of said vibratory grain pan, a fan, a blast pipe communicating with said fan and said delivery chute for guiding a blast of air transversely through the chute upon operation of the fan, a trough carried by said housing and positioned at the delivery end of said screen, and a rotor rotatably mounted within said trough for throwing pods, hulls and other refuse out of the trough and the thresher.

2. In a thresher of the class described, threshing means, a screen positioned beneath said threshing means, a raking conveyer, a guide board for guiding grain from said threshing means to one end of said conveyer, said conveyer carrying grain over said screen in a reverse direction to the direction of feed from the threshing means to the conveyer.

3. In a thresher of the class specified, threshing means, a screen positioned beneath said threshing means, a raking conveyer, a guide board for guiding grain from said threshing means to one end of said conveyer, said conveyer carrying the grain over said screen in a reverse direction to the direction of feed from the threshing means to the conveyer, a vibratory grain pan positioned beneath said screen for receiving grain therefrom, a delivery chute positioned for receiving the grain at the outlet end of said vibratory grain pan, a fan, an exhaust pipe communicating with said fan and said delivery chute for guiding a blast of air transversely through the chute upon operation of said fan.

1,252,399. TELEPHONE-EXCHANGE. HENRY P. CLAUSEN, Mount Vernon, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Apr. 12, 1917. Serial No. 161,608. (Cl. 179—35.)

1. A telephone system comprising a telephone line terminating at a central office, a plurality of subscribers' stations connected with the telephone line, means at each station for generating currents of different frequencies, an electromagnetic device selectively responsive to the currents so generated, and a signaling device at the central office individual to each station and selectively controlled by said device.
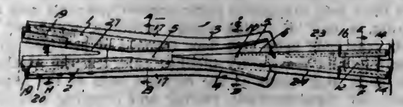


2. A telephone system comprising a telephone line terminating at a central office, a plurality of subscribers' stations connected with the telephone line, means comprising a tuned reed at each station for generating currents of different frequencies, an electromagnetic device at the central office selectively responsive to the currents so generated, and a signaling device at the central office individual to each station and selectively controlled by said device.

3. A telephone system comprising a telephone line terminating at a central office, a plurality of subscribers' stations connected with the telephone line, means including a tuned reed at each station for generating currents of different frequencies, an electromagnetic device including a plurality of tunder reeds selectively responsive to the currents generated at the stations, and a signaling device at the central office individual to each station and selectively controlled by said device.

7. A telephone system comprising a telephone line terminating at a central office in a plurality of terminals, a plurality of subscribers' stations connected with the telephone line, means at each station including a tuned reed set in motion upon the removal of the receiver from the switchhook for generating currents of different frequencies, an electromagnetic device including a plurality of tuned reeds selectively responsive to the currents so generated, a signaling device associated with each terminal and individual to each station, a relay controlling each signaling device and selectively energized under control of said electromagnetic device, a locking circuit for each relay completed upon energization thereof, a link circuit of the central office, and means actuated upon connection of the link circuit with the line terminal corresponding to an actuated line signaling device for opening the locking circuit of the actuated relay.

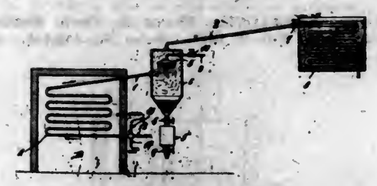
[Claims 4 to 6 not printed in the Gazette.]

1,252,400. FROG. ARCHIE D. COALSON, Birmingham, Ala. Filed Apr. 17, 1916. Serial No. 91,705. (Cl. 104—5.)



A frog including oppositely diverging wing rails and flanges, an integral web connecting the same and having a V-shaped depression between the flanges, there being longitudinal grooves in the walls of the depression, and a point insertible longitudinally into the depression, flanges on the point adapted to enter the grooves, and flanges on the point adapted to seat on and for attachment to the ties.

1,252,401. ART OF DISTILLING HYDROCARBONS. JOHN W. COAST, Jr., Tulsa, Okla., assignor, by mesne assignments, to The Process Company, a Corporation of Maryland. Filed Nov. 11, 1916. Serial No. 130,740. (Cl. 196—25.)

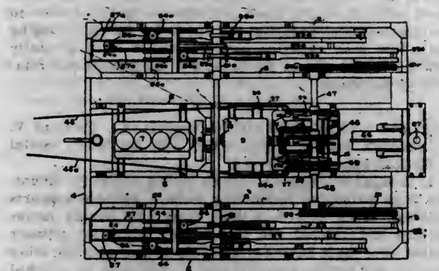


1. In the art of cracking petroleum hydrocarbons, the method which comprises cracking such petroleum hydrocarbons under pressure and at a high temperature, conducting the resultant hot vapors into a supplemental cracking chamber, so as to maintain said supplemental cracking chamber at a cracking temperature, forcing a finely divided and relatively cool hydrocarbon liquid into the hot vapors contained in said supplemental cracking chamber, thereby subjecting the finely divided liquid to a cracking operation and at the same time condensing the previously vaporized fractions having relatively high boiling points, and conducting the remaining vapors from said supplemental cracking chamber to a condenser.

5. In the art of treating petroleum distillates having a boiling point of over 300° F. to obtain a product of lower boiling point, the method which comprises mixing such distillates with steam, forcing the mixture at a velocity greater than 2600 feet per minute through a coil of small pipe and thence to a supplemental cracking chamber, maintaining a pressure of from 50 to 150 pounds per square inch in said pipe and supplemental cracking chamber, heating said pipe to a temperature between 850° F. to 1500° F. so as to crack the rapidly moving hydrocarbon fluid, introducing a finely divided and relatively cool petroleum distillate into the hot vapors confined by said supplemental cracking chamber, thereby cracking the last mentioned distillate, at the same time condensing the previously vaporized fractions having relatively high boiling points and also freeing carbon or coke from the vapors, conducting the remaining vapors from said supplemental cracking chamber to a condenser, and removing the carbon or coke from said supplemental cracking chamber.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,252,402. LINE-DRIVE FOR WALKING TRACTORS. ARTHUR D. COLE, St. Paul, Minn. Filed Mar. 22, 1917. Serial No. 156,757. (Cl. 21—124.)



1. The combination, with a frame and a source of motive power mounted thereon, of legs mounted to oscillate in a vertical plane, bars pivotally connected with said legs respectively, a clutch controlled gear mechanism for driving said bars from said source of motive power, and operating said legs either forward or backward simultaneously, or one set independently of the other or both sets in opposite directions, flexible lines for controlling said clutch mechanism, and traction shoes mounted on said legs and lifted and moved forward or backward by the operation of said legs.

2. The combination, with a frame and a source of motive power thereon, of a plurality of connecting bars upon opposite sides of said frame, an elliptical gear mechanism for operating said bars from said source of motive power, a clutch mechanism for rendering said gear mechanism active or inactive, flexible lines for controlling said clutch mechanism and operating said bars simultaneously or independently of each other and oscillating legs having traction shoes connected with said bars.

3. The combination, with a frame and a source of motive power mounted thereon, of traction means, a clutch controlled gear mechanism for operating said traction means from said source of motive power, there being two sets of gear mechanisms, one for each traction means, independent levers and lines connected therewith for shifting the clutches of said gear mechanisms, and locking dogs for said levers, said dogs being tripped by the backward movement of said levers to release them and shift said clutches.

4. The combination, with a frame and a source of motive power mounted thereon, of a traction means geared to said source of motive power, clutches interposed in said gear for controlling the transmission of power to said traction means, levers connected with said clutches, line attachments for said levers, and automatically operating dogs mounted for locking or releasing said levers through the backward movement and release of said lines.

5. The combination, with a frame and a source of motive power mounted thereon, of legs having traction shoes mounted in said frame, connecting bars for said legs geared to said source of motive power, clutches for controlling the transmission of power to said connecting bars, levers connected with said clutches and having flexible lines attached thereto, notched bars adjacent said levers, dogs pivoted on said levers and having teeth to enter the notches in said bars for holding said levers in a neutral position, said bars also having pins therein and said dogs having teeth depending in position to contact with said pins at a predetermined point in the movement of said levers.

[Claim 6 not printed in the Gazette.]

1,252,403. ELECTRIC FIXTURE. DAVID CONLAN, Jr., New York, N. Y. Filed Nov. 8, 1915. Serial No. 60,192. (Cl. 247—4.)



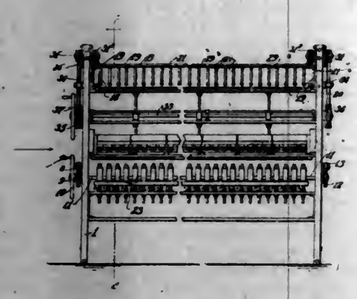
1. The combination with a junction box, of an outlet fixture applied to said junction box comprising an insulating base and outlet contacts mounted on said insulating base, fixture terminals on said insulating base connected with the outlet contacts, a set of branch terminals mounted on said insulating base and connected with one of the fixture terminals and a second set of branch terminals mounted on the insulating base and separated from the first set of branch terminals.

4. An outlet fixture comprising an insulating base adapted for application to a junction box, outlet contacts mounted on the central portion of said insulating base, said insulating base having passages therethrough at opposite sides of said outlet contacts, bus bars mounted on the insulating base alongside of the passages therethrough, a plurality of wire terminals on each of said bus bars, whereby wires may be passed through said openings from the back of the insulating base and be

secured to said bus bars on the front of the insulating base, electrical connections from one of the bus bars to one of the outlet contacts and the other bus bar and outlet contact having means by which they may be electrically connected.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,252,404. DOFFING DEVICE FOR SPINNING-MACHINES. JOHN P. CRANE, Indian Orchard, Mass. Filed May 17, 1917. Serial No. 169,233. (Cl. 118—18.)



1. In a doffing device for spinning frames the combination with a vertically movable bar formed with openings therein to receive the filled bobbins, means for moving the bar to cause the openings therein to pass over the filled bobbins, means for gripping the bobbins when the bar is in this position, means for elevating the bar and bobbin as a unit, devices for swinging the bar and bobbins outward to a position beyond the plane of the end of the frame of the machine prior to disengaging the bobbins, a bar provided with spring clips for temporarily receiving the empty bobbins, means for lowering this bar positioning the empty bobbins on the spindles, the empty bobbins being released from the bar by an outward pull thereon, and means for disengaging the filled bobbins from the first mentioned bobbin receiving bar, as described.

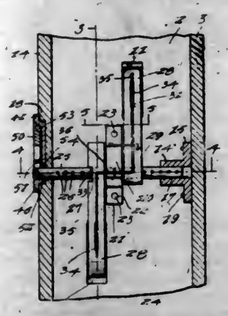
2. In a doffing device for spinning frames for removing the filled bobbins and for replacing the empty bobbins, said device comprising a bar formed with openings therethrough for receiving the filled bobbins, means for gripping the filled bobbins, devices for elevating the bar and bobbin into a position above the winding spindles, means for moving the filled bar and bobbins in a lateral direction away from the vertical axis of the winding spindles to permit an empty bobbin holder to be lowered in position on the spindles, means for supporting the empty bobbins, and means for raising and lowering said empty bobbin-supporting means.

4. In a spinning frame, the combination with the spindles thereof, of means for placing the empty bobbins on the spindles, including a bar provided with spring clips for releasably holding the empty bobbins in place thereon, a shaft extending longitudinally of the machine and having cable winding drums on its ends, cables extending from the drums and connected to the empty bobbin-supporting bar, whereby when the shaft is operated the empty bobbins will be lowered into position for placing empty bobbins on the winding spindles, said bobbins being simultaneously removed from the clips by a pull in a direction transverse to the axis of the winding spindles.

7. In a device for holding the empty bobbins in a spinning machine prior to placing them on the winding spindles and comprising a member to which clips are secured the clips having a throat portion that is narrower than the seat-receiving portion to permit their insertion, and to permit their removal when the member is moved in a direction that is transverse to the machine, means for raising and lowering the bar, comprising winding drums and cables which are attached to the bar, said cables permitting the bar to be swung outward after the empty bobbins have been placed on the winding spindles, whereby the empty bobbins are disengaged from the bar and positioned on the winding spindles.

[Claims 3, 5, and 6 not printed in the Gazette.]

1,252,405. SASH-LOCK. FRANK E. CROY, Watauga, Tenn. Filed Feb. 2, 1917. Serial No. 146,141. (Cl. 16—18.)



1. A sash lock comprising a rotating shaft, bearings supporting the shaft, pawls adjustably mounted on said shaft and on opposite sides of the bearings, one of said pawls being keyed to the shaft, means pivotally secured to the bearings and coöperating with each of the pawls whereby upon rotation of the shaft the keyed pawl will move the other pawl simultaneously therewith out of engagement with the sashes, and spring means for normally urging the pawls into active position.

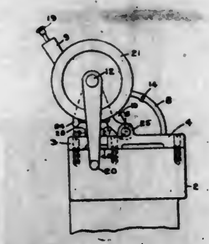
2. A sash lock comprising a rotating shaft, means pivotally secured to one end of the shaft for rotating the shaft, pawls adjustably mounted upon the shaft, said pawls extending in opposite directions and one of the pawls being keyed to the shaft, means engaging the inner ends of each of the pawls for moving the pawls in inactive position during the rotation of the shaft, and spring means for normally urging the pawls into active sash engaging position.

3. A sash lock comprising a horizontal shaft, a bearing supporting the shaft centrally thereof, a pair of pawls adjustably mounted on the shaft and extending in opposite directions and located on opposite sides of the bearings, one of said pawls being keyed to the shaft, a bell crank lever pivoted at its medial portion to the bearings, the arms of the bell crank lever being in engagement with the inner ends of the pawls, said bell crank lever facilitating the movement of the pawls in inactive position upon rotation of the shaft, and means rigidly secured to the bearings and engaging the pawls for normally urging them into sash engaging position, and a latch pivotally secured to one end of the shaft for facilitating the rotation of the same.

1,252,406. VALVE-GRINDING MACHINE. THOMAS V. CUDMORE, Austin, Minn. Filed Apr. 30, 1917. Serial No. 165,425. (Cl. 51—4.)

1. A valve grinding mechanism having means for mounting it on an engine comprising a shaft, suitable supports therefor, studs geared to said shaft and having means on one end thereof for engagement with the cylinder valves, said shaft having means coöperating with the other end of said studs whereby said valves may be allowed to rise when the ends of their respective operating studs are opposite predetermined points on said shaft, whereby said valves will be opened and closed in succession during their revolving movement, and means for revolving said shaft.

3. A valve grinding mechanism comprising a shaft having means for supporting it on an engine, studs geared to said shaft to be revolved thereby, jaw plates loosely mounted in said studs and having lugs for engaging the holes in the valve disk for revolving the same with said studs, said studs being mounted to yield vertically at intervals and allow said valves to open intermittently, said loosely mounted jaw plates having longitudinal slots therein to receive pins in said studs for accommodating themselves to the position of the valves and means for revolving said shaft.



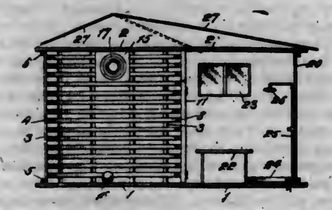
4. A valve grinding mechanism comprising blocks having means for securing them on an engine in place of the cylinder head, a shaft centrally mounted on said blocks, arms mounted on said shaft for oscillation from one side to the other of said cylinder, a shaft carried by said arms and having an operating means, studs geared to said shaft and having means for engaging the cylinder valves for rotating them on their seats, a guide mounted on one of said blocks, a bracket carried by one of said arms and a locking device mounted in said bracket and provided with a handle and having means for engaging said guide for locking said stud-carrying shaft in its working position above said valves or its inactive position at one side of said valves.

6. A valve grinding mechanism comprising a shaft having means for mounting it on an engine, studs having means for connection with the cylinder valves and geared to said shaft, said studs being mounted to yield vertically with said valves, and said shaft having notches progressively arranged therein for intermittently allowing the raising of said valves and studs during their revolving movement and means for operating said shaft.

7. A valve grinding mechanism comprising blocks having means for securing them to an engine, brackets connected with said blocks and projecting upwardly therefrom, a shaft mounted in said brackets for oscillation therewith from one side to the other of the engine, said brackets having sockets therein, studs slidable in said sockets, springs for yieldingly holding said studs in a projected position, pinions geared to said shaft and wherein said studs are mounted to revolve therewith and move lengthwise independently thereof, and valve engaging means carried by said studs.

[Claims 2 and 5 not printed in the Gazette.]

1,252,407. EXERCISE AND GAME APPARATUS. TIMOTHY DALY, New York, N. Y. Filed July 28, 1917. Serial No. 183,231. (Cl. 46—59.)

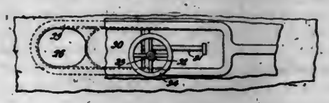


3. An exercise and game apparatus comprising floor and ceiling members, a uniform, continuous lattice wall inclosure therefor extending from the floor to the ceiling and a ball adapted to be punched and thrown about within said inclosure, said lattice wall being provided with openings of a size to permit the passage of the ball therethrough.

7. An exercise and game apparatus comprising oval floor and ceiling members in parallel relation, spaced vertical bars between the floor and ceiling at the periphery thereof, horizontally disposed slats spaced apart from the floor to the ceiling and extending in curved lines inside of said bars and secured thereto thereby forming a continous oval lattice wall inclosure, the slats on one side being severed to form a door, a resilient ball adapted to be punched and thrown about within said inclosure, the diameter of the ball being greater than the spaces between said slats, said inclosure being provided at each end with openings for the passage of the ball therethrough, means for varying the size of said openings, and baskets secured to the lattice wall over said openings outside of said inclosure for catching and retaining the ball when passed through the respective openings.

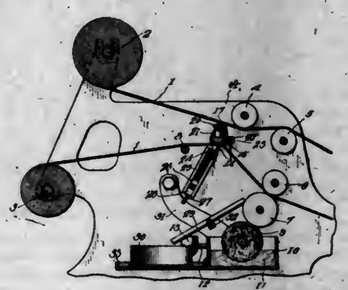
[Claims 1, 2, and 4 to 6 not printed in the Gazette.]

1,252,408. ATTACHMENT FOR SUBMARINES. WILLARD DAUBENBERG and ERASTUS W. APPELMAN, Postville, Iowa. Filed Sept. 25, 1916. Serial No. 122,144. (Cl. 114—16.7.)



A submarine vessel having an exterior seat and hatchway leading thereto, a double walled boat held detachably to said seat and having a hatchway registering with the aforesaid hatchway, a loop-shaped guide between the walls of the boat surrounding and extending from the hatchway of the boat, a hatch slidable in said guide to close the hatchway of the boat and movable away from said hatchway, and means carried by the boat within said guide for moving the hatch.

1,252,409. INK-SAVING ATTACHMENT FOR EMBOSSING-PRESSES. CLYDE T. DEAN, Chicago, Ill., assignor to Rudolph Sattler, Cincinnati, Ohio, and Leo J. Morand, Covington, Ky. Filed Mar. 25, 1915. Serial No. 16,927. (Cl. 101—168.)

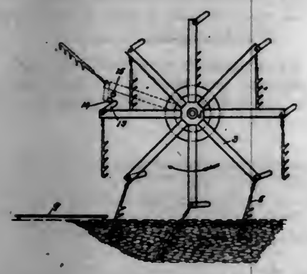


1. An ink saving attachment for embossing presses, including a trough containing a solvent, rollers feeding the solvent from the trough to the ink wiping strip so as to soften the ink thereon, a yieldably mounted scraper acting upon the ink wiping strip to remove the previously softened ink therefrom, and means for collecting the ink removed from the strip by the scraper.

5. An ink saving attachment for embossing presses, including means for supplying a solvent to the ink wiping strip so as to soften the ink thereon, a pad arranged upon one side of the ink wiping strip, a transversely disposed slide arranged upon the opposite side of the ink wiping strip, guides within which the ends of the slide operate, springs arranged within the guides and engaging the slide, a scraping blade carried by the slide and held in a yielding engagement with the ink wiping strip so as to coöperate with the pad to remove the previously softened ink therefrom, and means for collecting the ink recovered by the scraping blade.

[Claims 2 to 4 and 6 to 16 not printed in the Gazette.]

1,252,410. TRASH-CATCHER FOR FLUMES. WILLIAM H. DEMUTH, Owosso, Mich., assignor of one-half to Frank S. Smith, Owosso, Mich. Filed Feb. 19, 1917. Serial No. 149,633. (Cl. 146—14.)



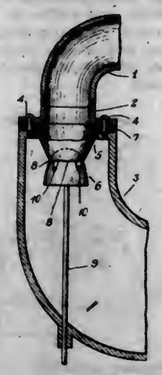
1. In a trash catcher for flumes, the combination of a revoluble shaft, pairs of radial arms carried by said shaft, and spaced apart, a rake pivotally suspended between the ends of each pair of arms, each rake comprising a pivoted yoke, downwardly projecting bars carried by said yoke, a plurality of forwardly and upwardly projecting teeth carried by each bar, a laterally projecting trip arm fixed to said yoke, a fixed stop located in the path of travel of said trip arm and adapted to be engaged by said arm to raise the rake, and a second fixed stop adapted to be subsequently contacted by said arm to jolt the rake while raised.

2. In trash catcher for flumes, the combination of a revoluble shaft, pairs of radial arms carried by said shaft and spaced apart, a rake pivotally suspended between the ends of each pair of arms, each rake comprising a pivoted yoke, downwardly projecting bars carried by said yoke, a plurality of forwardly and upwardly projecting teeth carried by each bar, the teeth of adjacent bars being in staggered relation, a laterally projecting trip arm fixed to said yoke, a fixed stop located in the path of travel of said yoke, a fixed stop located in the path of travel of said trip arm and adapted to be engaged by said arm to raise the rake, and a second fixed stop adapted to be subsequently contacted by said arm to jolt the rake while raised.

1,252,411. PHONOGRAPH. JOSEPH HUNTER DICKINSON, Cranford, N. J., assignor to The Aeolian Company, a Corporation of Connecticut. Filed Mar. 28, 1916. Serial No. 87,231. (Cl. 181—27.)

1. In combination, a sound-passage, and a telescoping plug valve and throat controlling said passage, the first contact between said valve and throat being only partial with intermediate spaces.

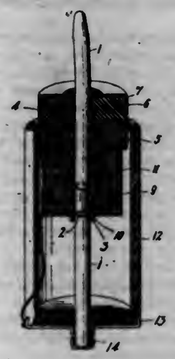
5. In combination, a sound-passage, and a telescoping plug valve and an elastic throat controlling said passage, the surface of said valve being recessed to permit the sound to pass when the valve is just contacting with the mouth of the throat and to continue to pass to a diminishing extent as the valve is telescoped into the throat



and to be closed by the sides of said throat when the valve is fully telescoped therein.

[Claims 2 to 4 not printed in the Gazette.]

1,252,412. PROTECTIVE DEVICE FOR ELECTRIC CIRCUITS. LEWIS E. DICKINSON, Boonton, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Nov. 6, 1916. Serial No. 129,767. (Cl. 175—275.)



1. In a protective device for telephone circuits, a sleeve of heat-conducting material, a circuit-controlling element extending through said sleeve, heat-softenable material for mechanically joining said sleeve and said circuit-controlling element, a heat-generating element, terminals for said heat-generating element, and means for normally insulating said sleeve from said terminals.

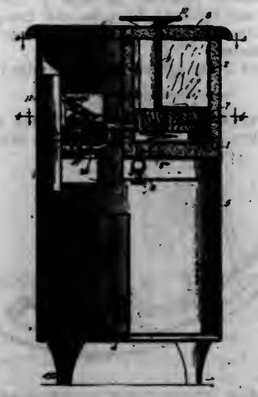
3. In a protective device for telephone circuits, a sleeve of heat-conducting material, a circuit-controlling element of non-conducting material extending through said sleeve and provided with a metallic section for attachment to said sleeve, and heat-softenable material for mechanically joining said sleeve and said circuit-controlling element.

6. In a protective device for telephone circuits, a shell of non-conducting material, a metal cap attached to one end of said shell, said cap being provided with a hollow hub into which extends a circuit-controlling element, a sleeve of heat-conducting material surrounding a portion of said circuit-controlling element, heat softenable material for mechanically joining said sleeve and said circuit-controlling element, a heat-generating element, terminals for said heat-generating element, and means for insulating said sleeve from said terminals.

9. In a protective device for telephone circuits, a sleeve of heat-conducting material having an outward extending member on one end, a terminal band carried by said sleeve, and insulating means between said band and said sleeve.

[Claims 2, 4, 5, 7, and 8 not printed in the Gazette.]

1,252,413. APPARATUS FOR DISPENSING DRINKING-CUPS AND BEVERAGES. CHARLES DOERING, Jr., and HENRY H. DOERING, Oak Park, Ill. Filed Jan. 4, 1915. Serial No. 512. (Cl. 225—21.)



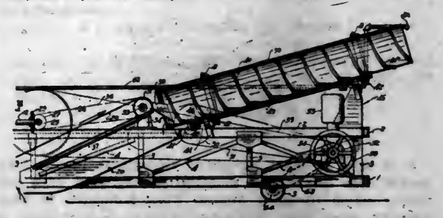
1. A liquid dispensing apparatus comprising a container for drinking cups, a reservoir for liquid, an auxiliary container for a cupful of liquid, a discharge spout for liquid, a valve arranged to alternately connect said auxiliary container with said reservoir and said discharge spout, a manually operable plunger for ejecting cups consecutively from said container, and connection between said plunger and said valve whereby the latter is moved to a position connecting the auxiliary container with said reservoir as the plunger ejects a cup.

4. A liquid dispensing apparatus comprising a container for drinking cups, a reservoir for liquid, an auxiliary container for a cupful of liquid, a discharge spout for liquid, a valve arranged to alternately connect said auxiliary container with said reservoir and said discharge spout, a manually operable plunger for ejecting cups consecutively from said container, and connection between said plunger and said valve whereby the latter is moved to a position connecting the auxiliary container with said reservoir as the plunger ejects a cup, said valve being moved to a position to connect said auxiliary container with said discharge spout as said plunger is returned to its normal position, and releasable means controllable by the operator arranged to lock said plunger against cup ejecting movement from its last-named position.

8. A liquid dispensing apparatus comprising a housing, a refrigerating chamber therein, a container for water within said chamber, a reservoir for water connected with said container, a receptacle for a measured quantity of liquid connected with said container, a discharge spout connected with said receptacle, a valve interposed in said connections and adapted to alternately connect said receptacle with said container and said discharge spout, said receptacle and said valve disposed within the housing, means operable from the exterior of the housing for actuating said valve, means associated with said valve-actuating means for supplying a drinking cup each time the valve is operated to connect the receptacle with the container, and releasable means controllable by the operator for holding said valve-actuating means against movement.

[Claims 2, 3, and 5 to 7 not printed in the Gazette.]

1,252,414. ORE-WASHING PLANT. JAMES P. DOVEL, Birmingham, Ala. Filed Sept. 28, 1915. Serial No. 53,116. (Cl. 83—86.)



1. In a washing apparatus, a sludge tank, a conveyer disposed over the tank and adapted to raise the material delivered thereto, a substantially horizontally disposed screening washer adapted to deliver the screened material onto said conveyer and the sludge into said tank, and a drum washer adapted to receive, elevate, and discharge the material which said conveyer is adapted to deliver into its lower end, said drum washer being adapted to drain into said sludge tank which is disposed between the said two washers, substantially as described.

2. A washing apparatus comprising in combination and in longitudinal alinement a hopper, a rotatable screen washer, a picking belt to receive the washed material from the screen, an inclined rotatable drum washer to receive the picked material from said belt, and a sludge tank for both washers disposed beneath the picking belt, substantially as described.

3. In a portable washing apparatus, in combination, a frame having at one end a hopper set low to receive material from hand or steam shovels, a substantially horizontal rotatable screen into which said hopper discharges the material to be treated, a trough under the screen, spiral feed means carried by the screen and adapted to force the movement of the sludge along said trough, a sludge tank into which said trough discharges, a picking belt having one end disposed in the sludge tank in position to receive the screened material, and a hollow rolling washing drum overhanging the sludge tank into which said picking belt delivers the picked material, substantially as described.

4. In a portable washer, a frame, a substantially horizontal screen washer at one end of said frame, a sludge conveyer trough under the screen washer, an underhung sludge tank at an intermediate point in said frame into which said trough drains, and an inclined internal feed drum washer at the other end of said frame and having its lower end disposed to drain into the sludge tank and its outer end raised to an elevation from which the material will fall into cars and means to deliver the screened material from the screen washer into the lower end of the drum washer, substantially as described.

5. In a washing apparatus, an intermediate sludge tank, a picking belt disposed at an incline in said tank, a screening washer adapted to deliver the screened material onto said belt and the sludge into said tank, and a drum washer adapted to receive, elevate and discharge the material from the upper end of said belt and adapted to drain into the sludge tank below said belt, substantially as described.

[Claim 6 not printed in the Gazette.]

1,252,415. TREATMENT OF FURNACE-BRICKS. ARTHUR MCD. DUCKHAM, Ashtead, England. Filed Dec. 5, 1913. Serial No. 804,936. (Cl. 72—35.)

1. A brick or other structural element having a coating of combustible material containing oxygen, which oxygen will be liberated when the brick or element is subjected to heat, to provide space for expansion of said brick or element when the same is subjected to heat.

2. A brick or other structural element having a coating of combustible material impregnated with substance which liberates oxygen when subjected to heat to provide space

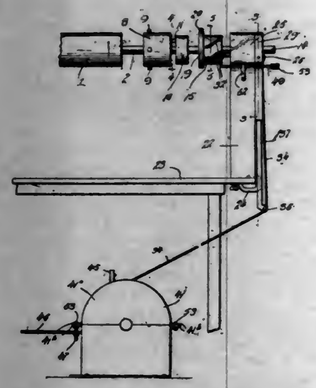
for expansion of said brick when said brick is subjected to heat.



3. A brick or other structural element having its faces coated with combustible material impregnated with substance which liberates oxygen when subjected to heat, whereby when said structural element is embedded in the structure said coating may be destroyed throughout its entire area when subjected to heat to provide space for expansion of the structural element in the structure.

4. A brick or other structural element having a coating of paper impregnated with an oxygenizing substance to provide space for expansion of the brick when subjected to heat.

1,252,416. TYPE-WRITER PLATEN-ROLL-SHIFTING MEANS. EDWARD L. DUNN, U. S. Marine Corps. Filed Oct. 14, 1916. Serial No. 125,659. (Cl. 197—65.)



1. In a mechanism of the character described, the combination of a platen roller, a longitudinally movable shifting rod secured to one end of the roller so as to have free rotary movement in one direction, means for moving the rod longitudinally and for simultaneously rotating it, and connections between the rod and the roller for rotating the roller in one direction when the rod is rotated.

2. In a mechanism of the character described, the combination of a platen roller, a longitudinally movable rod secured to one end of said roller so as to be rotatable independently thereof in one direction, means for moving the rod longitudinally and for causing rotation thereof, and connections between the rod and the roller for rotating the roller when the rod is rotated in the other direction.

[Claims 3 to 8 not printed in the Gazette.]

1,252,417. ELECTRIC SWITCH. EVALD O. ENGELKE, Cleveland, Ohio. Filed Mar. 21, 1917. Serial No. 156,244. (Cl. 175—289.)

3. An electric switch comprising a base member having a cover member attached thereto, a rotary spindle mounted in said base and cover, a disk of insulating material mounted on said spindle and having recesses in its upper and lower faces, a plate seated in the upper recess of said disk and keyed thereto, a coiled spring bearing on said plate and on the interior of the cover, a metallic plate seated in the lower recess of the insulated disk and rotatably movable therewith, segments of said metallic plate extending outside the periphery of the disk, projections on the spindle that engage grooves in the upper plate whereby the disk and plates carried thereby are



rotated, and contact members attached to the base by binding posts and arranged to make and break contact with the extending segments of the metallic plate when said plate is rotated.

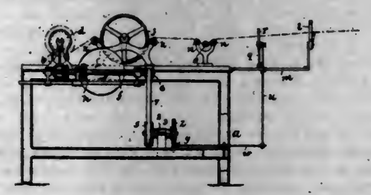
[Claims 1 and 2 not printed in the Gazette.]

1,252,418. ROCKER ATTACHMENT. WILL FITZ and PETER FITZ, Bremond, Tex. Filed Feb. 20, 1917. Serial No. 149,832. (Cl. 155—33.)



The combination with a resilient cushioning member comprising a U-shaped strip of spring metal having flaring sides, an elastic cover entirely surrounding said strip, a rocker wedged between the sides of said member in spaced relation to the bight portion thereof, stems extending upward from the spring metal strip and passing through the rocker and nuts on the upper ends of said stems above the rocker.

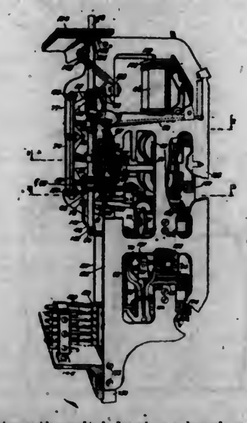
1,252,419. DIRECT WARPING-MACHINE. AUGUST FORMON, Passaic, N. J. Filed Apr. 18, 1917. Serial No. 162,880. (Cl. 28—14.)



1. A direct warping machine including, in combination, a supporting structure, a beam journaled therein, a warp reed arranged in said structure, coacting parallel transverse members arranged between the reed and beam and out of contact with each other and maintaining a bend in the warp, and means to rotate the beam and simultaneously traverse the reed back and forth lengthwise of the axis of winding, whereby the warp threads will be deposited on the beam in back and forth spirals and caused to move back and forth over the surfaces of said members.

2. A direct warping machine including, in combination, a supporting structure, a beam journaled therein, a warp reed arranged in said structure, a tension means and a measuring means arranged between the beam and reed and each including coacting parallel transverse members arranged out of contact with each other and maintaining a bend in the warp, and means to rotate the beam and simultaneously traverse the reed back and forth lengthwise of the axis of winding.

1,252,420. TELEPHONE-EXCHANGE SWITCHING MECHANISM. OSCAR F. FORSBERG, Yonkers, N. Y., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed Feb. 5, 1915. Serial No. 6,802. (Cl. 179—27.5.)



1. An automatic switch having a brush carrier, a spring-restored driving member engaging said carrier, means for operating said driving member to rotate the carrier, means for thereafter moving said carrier in the direction of its axis of rotation whereupon it moves out of engagement with said driving member, means for locking said driving member under tension, and means for releasing the same as the carrier reengages therewith at the end of its return movement.

2. An automatic switch having a brush carrier provided with a gear wheel, a spring-restored driving member therefor having a gear wheel, said gear wheel meshing with the gear wheel on said carrier a magnet for rotating said member, means for thereafter moving said carrier in the direction of its axis of rotation, whereupon said gears move out of engagement, and means thereupon rendered operative for locking said driving member, under tension and rendered inoperative when said gears reëngage upon the return movement of the carrier.

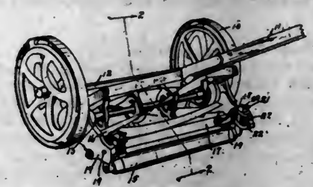
3. An automatic switch having a brush carrier provided with a gear wheel, a spring restored driving member having a ratchet wheel and a gear wheel, said gear wheel meshing with the gear wheel on said carrier, a magnet, a pawl therefor adapted to engage said ratchet wheel to rotate said member, means for thereafter elevating said carrier whereupon said gears move out of engagement, a flat spring maintained depressed by said carrier when in its lowermost position and having a tooth adapted to rise between teeth of the gear on said driving member to lock the same when the carrier is elevated, said tooth being removed therefrom when said gears reëngage upon the return movement of the carrier.

4. In a steering switch, the combination with a frame, terminals arranged in an arc thereon, a set of contact brushes pivoted intermediate their ends and adapted to wipe over said terminals, a spring attached at one end to the frame and at its other end to said brushes to place the same under tension, an escapement for permitting said spring to move said brushes successively over said terminals, and a magnet for operating said escapement.

5. In a steering switch, the combination with a frame, terminals arranged in an arc thereon, a set of contact brushes therefor perforated intermediate their ends, a pivot pin mounted upon said frame and extending through said perforations, a spring attached at one end to the frame and at its other end to said brushes, an escapement for permitting said spring to move said brushes in steps over said terminals, and a magnet for operating said escapement.

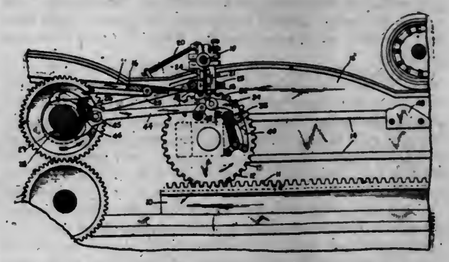
[Claims 6 to 13 not printed in the Gazette.]

1,252,421. LAWN-MOWER. OLIVER B. FRAZIER, Elwood, Ind. Filed Jan. 10, 1916. Serial No. 71,309. (Cl. 56—19.)



A lawn mover including a cutting reel, end frames, a cutter bar, an arm at each end of said cutter bar and attached thereto and extending upwardly and rearwardly therefrom, means to pivot said arms to said frames, a flange on each frame, a bolt extending from each flange and through the rear ends of said arms adapted to force said arms downwardly and adjust said bar to the blades of said reel, and spiral springs surrounding said bolts between said arms and flanges for exerting an upward pressure thereon and retaining said bar spaced from the axis of said reel.

1,252,422. PRINTING-MACHINE. RUFUS A. FREEMAN, Flushing, N. Y., assignor to The Autopress Company, New York, N. Y., a Corporation of New York. Filed May 13, 1913. Serial No. 767,262. (Cl. 271—53.)



1. A rotating and reciprocating sheet carrying cylinder, sheet grippers thereon, means to support a sheet in a position to be taken by said sheet grippers, a gage to position the sheet on said supporting means, a projection on said cylinder, a member connected with said gage and arranged to extend in the path of said projection, said member and said projection being constructed and arranged to have yielding contact with each other when said cylinder is moving in one direction, and non-yielding contact when the cylinder is moving in the opposite direction.

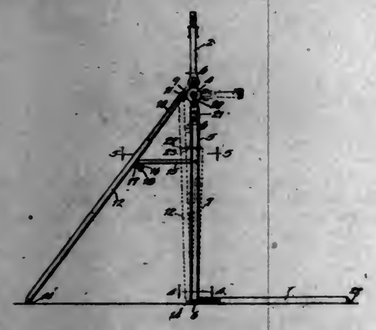
[Claims 2 to 9 not printed in the Gazette.]

1,252,423. PORTABLE PIPE-VISE STAND. EMIL FRIESS, Chicago, Ill. Filed Nov. 23, 1916. Serial No. 133,049. (Cl. 81—41.)

1. A tool-support comprising a platform, a tripod having two of its legs pivotally secured at their lower ends to one end of said platform, a rotatable member mounted in the upper ends of said legs, coacting manually operable clutch-members carried by said rotatable member and said legs respectively for holding said rotatable member rigidly in any position to which it is turned, and a third leg pivotally secured to said rotatable member.

5. A tool-support comprising a platform, a tripod having two of its legs pivotally secured at their lower ends to one

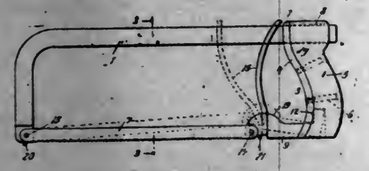
end of said platform, a rotatable member mounted in the upper ends of said legs, coacting manually operable clutch-members carried by said rotatable member and said legs respectively for holding said rotatable member rigidly in any position to which it is turned, said legs converging from their lower to their upper ends, and said platform having convergent side-edges and adapted to be received between said legs when turned on said pivotal connection for folding said support, a third leg adjustable in length pivotally secured to said rotatable member, and a brace-



member having inclined side edges pivotally secured to said first-named legs between their ends and adapted to be engaged with said third leg between the ends of the latter for holding all of said legs against relative pivotal movement, said brace-member adapted to be received between said first-named legs when the support is folded, and a fastening device carried by one of said parts pivotally engaged with said first-named legs and adapted to engage the other thereof for holding all parts of said support securely in relative position when the said device is folded up.

[Claims 2 to 4 not printed in the Gazette.]

1,252,424. SAW. HARRY C. GAMAGE, New York, N. Y., assignor to Willis H. Simpson, East Orange, N. J. Filed Jan. 3, 1917. Serial No. 140,360. (Cl. 145—34.)



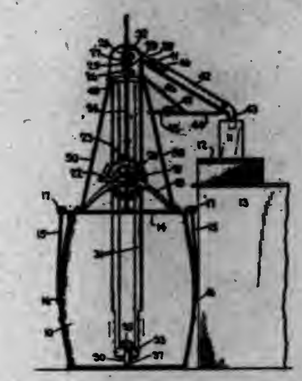
1. A hack-saw having a supporting frame for a saw-blade comprising a bar and a grip member, the said blade being adapted to be attached at one end to said bar, a link secured at one end to said grip member and adapted to have the other end of the said saw-blade attached to its opposite end, and a member adapted to be wedged between said bar and link, said wedge member when in wedging position being located a short distance in front of said grip member to provide a guard for the hand holding the latter.

5. A hack-saw having a supporting frame for a saw-blade consisting of a grip-member and a bar adapted to have one end of the saw-blade attached thereto, a link pivoted at one end to the grip member and adapted to have the remaining end of the saw-blade attached to its opposite end, and a thrust lever pivoted at one end to said link and having a sliding-fulcrum engagement with the said bar.

9. A hack-saw having a supporting frame for a saw-blade comprising a bar and a grip member slidably mounted thereon, a link pivoted at one end to said grip member at a point removed from the point of engagement between the latter and the said bar, and a thrust-lever adapted to engage the link and in coöperation with the saw-blade to swing the grip member upon the said bar to cause it to bind thereto and swing the link to tension the saw-blade.

[Claims 2 to 4 and 6 to 8 not printed in the Gazette.]

1,252,425. CONVEYER. ALONZO M. GANNAWAY, McCoy, Ky. Filed Apr. 2, 1917. Serial No. 159,252. (Cl. 193—3.)



A device of the character described comprising a base, a guide connected with the base and including a collar and supporting rods, a conveyer frame slidably engaged by said collar, a bracket pivotally connected with the collar and including a lower arm engaging one of the rods, an endless conveyer in said frame, driving means for said conveyer, an outlet spout leading from the conveyer, an extension connected with the spout, a pipe positioned about the extension and extending beyond the free end thereof, and an arm adjustably connected with the lower arm of said bracket and having its free end portion engaging said pipe to support the pipe.

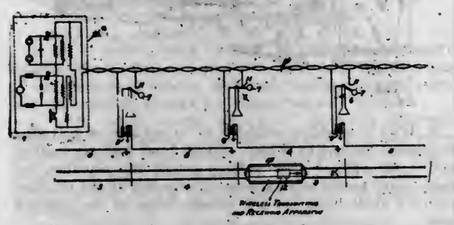
1,252,426. APPARATUS EMPLOYED IN THE FORMATION OF WELLS. EDWARD R. GNADE, Oil City, Pa., assignor to Oil Well Supply Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed July 24, 1915. Serial No. 41,674. (Cl. 166—9.)



1. In apparatus adapted for use in the formation of wells, a string of pipe sections each having a length sufficient to permit its being fished out of the well individually, a separable external coupling member for connecting the lowermost pipe section to an adjacent section, said lowermost pipe section of the string having its free end flared outwardly in the direction of length of the section to an external diameter greater than the external diameter of the coupling, the wall thickness of the flared portion gradually increasing toward the free end of the flare.

[Claims 2 and 3 not printed in the Gazette.]

1,252,427. TRANSMISSION SYSTEM. CHARLES L. GOODRUM, New York, N. Y., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed Oct. 8, 1915. Serial No. 54,740. (Cl. 246—25.)



1. In a transmission system, the combination with a block signal mechanism having a semaphore arranged to be actuated by the passage of a car over the track section governed by said mechanism, of an aerial conductor paralleling said track and in close proximity thereto, a car or vehicle traveling on said track section, means carried by said car for impressing electrical impulses upon said conductor, and means for conveying said impulses to a central office, said means including a balanced pair of wires extending along the track and having their circuit normally opened at a contact controlled by said signal mechanism.

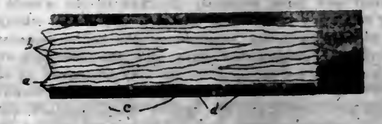
2. In a transmission system, the combination with a block signal mechanism having a semaphore arranged to be actuated by the passage of a car over the track section governed by said mechanism, of an aerial conductor paralleling said track and in close proximity thereto, a car or vehicle traveling on said track section, means carried by said car for impressing electrical impulses upon said conductor, and means for conveying said impulses to a central office, said means including a balanced pair of wires extending along the track from a central station, said wires being inductively connected to said conductor, and means controlled by said semaphore for interrupting the circuit of said balanced wires.

4. In a transmission system, the combination with a plurality of block signal mechanisms each having a semaphore arranged to be actuated by the passage of a car over the track section governed by a given one of said mechanisms, of a balanced pair of wires adapted for telephone purposes extending along the track from a central station, said wires being associated with said signal mechanism and having their circuit normally opened, means individual to each of said semaphores for closing the circuit of said wires, a car or vehicle traveling on one of said track sections, said car being furnished with a wireless equipment, an aerial conductor paralleling said track and in close proximity thereto, said conductor being divided into sections corresponding in number to said signaling mechanism, said conductor being inductively connected to said balanced pair of wires whereby communication may be established between said car and said station upon the closure of any of said contacts.

[Claim 3 not printed in the Gazette.]

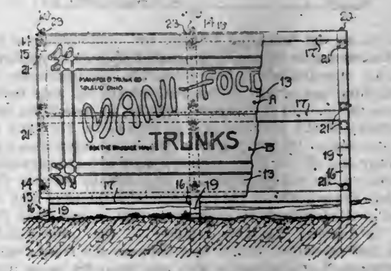
1,252,428. ART OF PRESERVING WOOD. OLIVER P. M. GOSS, Seattle, Wash. Filed Nov. 9, 1916. Serial No. 130,461. (Cl. 99—12.)

1. The method of preparing a piece of wood for impregnation which comprises placing in a surface of the piece equally spaced rows of equally spaced holes so arranged that the distances between adjacent holes are proportional to the rates of spread of the impregnating fluid in the directions in which the distances are measured.



2. The method of preparing a piece of wood for impregnation which comprises placing in a surface of the piece equally spaced rows of equally spaced holes, so arranged that no row of holes extends in a direction directly across the grain of the piece, and arranged so that the distances between adjacent holes are proportional to the rates of spread of the impregnating fluid in the directions in which the distances are measured.

1,252,429. SIGN-SUPPORTING STRUCTURE. ERNEST W. GRUBER, Baltimore, Md. Filed Jan. 10, 1917. Serial No. 141,648. (Cl. 40—125.)



1. The combination with a sign supporting structure comprising vertical members, horizontal connecting members and braces, each of the vertical members being provided with angular brackets having sockets formed therein, of a plurality of sign sections coacting with the supporting structure, each section comprising horizontal members and vertical members connected to each other, and hangers connected to the vertical members and each comprising a base and a shank adapted for insertion in the sockets.

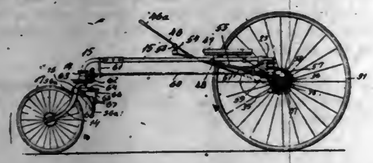
2. The combination with a sign supporting structure having sockets, a sign frame, the frame having hangers removably engaging the sockets and supporting the sign frame with one end in alinement with one end of the sign supporting structure, and means for detachably locking the sign frame in place comprising a hinge leaf swingingly connected to the sign frame, rotatable into position over the adjacent end of the supporting structure, said hinge leaf being slotted, and an eye on the supporting structure engaging through said hinge leaf and adapted to receive a locking device.

1,252,430. ROWING-VEHICLE. GEORGE J. GRUENBERG, New York, N. Y. Filed May 28, 1917. Serial No. 171,347. (Cl. 208—41.)

7. In an oar propelled vehicle, the combination of a plurality of frames pivoted together, a support for an operator on one of the frames, a pair of wheels journaled on the other frame, a pair of oars pivotally mounted on the vehicle, a pair of rotary elements each normally clutched to one of the wheels, operative connections between the oars and the rotary elements whereby the oars may be operated to drive the wheels to propel and steer the vehicle for turning, and means for unclutching one of the rotary elements from a wheel to facilitate turning of the vehicle; substantially as described.

9. In an oar propelled vehicle, the combination of a plurality of frames pivoted together, a support for an operator on one of the frames, a pair of wheels loosely journaled

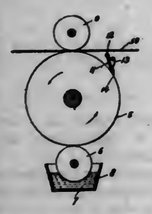
on the other frame at opposite sides of the vehicle, clutch elements carried by the wheels, complementary clutch elements for each wheel journaled on the vehicle, the complementary clutch elements being arranged for rotation as one unit and being normally clutched to the wheels but being relatively movable to unclutch one of the wheels, a pair of oars pivotally mounted on the vehicle, operative connections between the oars and the complementary clutch elements whereby the oars may be moved on their pivots to rotate the complementary clutch elements and the wheels, and means carried by the complementary clutch elements whereby when one oar is moved with greater force than the other, the tendency of the two complementary clutch elements to rotate at different speeds will move one of said elements relative to the other to unclutch one of the wheels; substantially as described.



13. In an oar propelled vehicle, the combination of an axle having a pair of wheels journaled thereon at opposite ends, an intermediate frame extending longitudinally of the machine and pivoted at its rear end to the axle intermediate the ends of the axle, a front frame extending longitudinally of the machine and pivoted at its rear end to the front end of the intermediate frame, an idler wheel on the front end of the front frame, a pair of oars pivotally mounted on the vehicle, operative connections between the oars and the wheels on the axle whereby the oars may be moved on their pivots to propel the vehicle and steer the same by turning the axle relative to the intermediate frame, and operative connections between the front frame and the axle for causing the axle and front frame to turn simultaneously relative to the intermediate frame comprising a bevel gear fixed on the axle, a pair of bevel gears journaled on the intermediate frame and connected for rotation together in the same direction, one of these bevel gears meshing directly with the bevel gear fixed on the axle, and a bevel gear fixed on the front frame meshing directly with the other bevel gear on the intermediate frame; substantially as described.

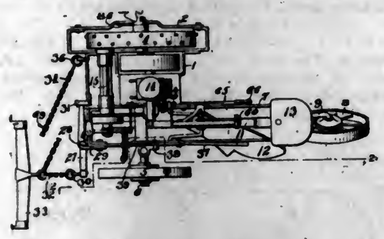
[Claims 1 to 6, 8, 10 to 12, and 14 to 18 not printed in the Gazette.]

1,252,431. PRINTING MECHANISM. FREDERICK J. GUBELMAN, Englewood, N. J. Filed Apr. 27, 1914. Serial No. 834,651. (Cl. 101—157.)



The combination of a printing surface carrying a design in intaglio, means for inking said design, a relatively thin flexible cutting member having a razor like edge bearing upon said surface, one of said elements extending substantially tangentially to the other at said razor like edge and one of said elements being movable relatively to the other in a direction to cause said edge to exert a cutting action, the latter being sufficiently flexible to adjust itself to contact throughout its length with all parts of said surface and means for maintaining said cutting member in contact with said surface whereby surplus ink and foreign matter is cut from said surface and the cleaning thereof is completed.

1,252,432. AGRICULTURAL IMPLEMENT. MARTIN L. HACKLEMAN, Morristown, Ind. Filed May 26, 1916. Serial No. 100,139. (Cl. 180—54.)



1. With a machine mounted to be capable of traveling movement, means by which animal draft and mechanical power are applied as a unit to propel the machine, the mechanical power being applied at one side of the machine and the draft hitch for the animal being at the opposite side.

3. With a machine mounted to be capable of traveling movement, means by which animal draft and mechanical power are applied as a unit to propel the machine, the mechanical power being applied at one side of the machine and the draft hitch for the animal being at the opposite side, and manually controlled means to regulate and vary the propelling force applied by the mechanical power to thus cause the course of travel of the machine to be steered.

5. With a machine having wheels mounted at opposite sides thereof, power means connected to transmit propelling movement to the wheel at one side of the machine, a draft hitch for a draft animal at the opposite side of the machine, and control means connected between said draft hitch and said power means in such arrangement that as the draft animal pulls the power means will be coupled to cause propelling force to be exerted upon the wheel connected therewith and as pull of the draft animal is slackened the power means is released from the driving connection.

7. A machine comprising a frame, a power wheel at one side of said frame, a carrying wheel at the opposite side of the frame, power means mounted on the frame and connected with the power wheel, a draft hitch at that side of the frame at which the carrying wheel is mounted, a control connection for the power means, and means associated with said control and the draft hitch in such a way that pulling by the draft animal automatically initiates the application of mechanical power to the power wheel.

9. A machine comprising a frame, wheels by which said frame is mounted to be capable of traveling movement, mechanical power means arranged to apply power to the wheel at one side of said machine, draft means connected at the opposite side of the machine to permit hitching of a draft animal, a control for said power generating means, and manually operable means for actuating said control to vary the force exerted by the power means in proportion to the draft pull of the animal and consequently to steer the course of travel of the machine.

[Claims 2, 4, 6, 8, and 10 to 14 not printed in the Gazette.]

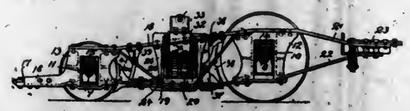
1,252,433. HYDROCARBONACEOUS OR BITUMINOUS PRODUCT AND PROCESS OF MAKING THE SAME. THOMAS M. HART, New York, N. Y., assignor to Peres M. Stewart, trustee, New York, N. Y. Filed Sept. 30, 1915. Serial No. 53,455. (Cl. 106—31.)

1. A new composition of matter comprising a hydrocarbonaceous material associated with a material containing aluminium sulfate combined with water.

16. The process of dehydrating asphalt which comprises associating said material with alum capable of converting water of emulsification into solid water of crystallization and exposing the ingredients to the action of heat below the point at which water is evolved.

[Claims 2 to 15 not printed in the Gazette.]

1,252,434. CAR-TRUCK. FRANK HEDLEY, Yonkers, and JAMES S. DOYLE, Mount Vernon, N. Y. Filed May 5, 1913. Serial No. 765,456. (Cl. 105—239.)

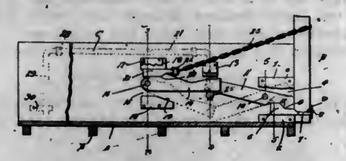


1. In a truck, truck wheels of relatively different diameters, side frames supported yieldingly by the axles of said wheels, a bolster depressed intermediate its ends, and independent springs for supporting said bolster.

2. In a truck, truck wheels of relatively different diameters, side frames, yieldingly supported by the axles of said wheels, a transversely extending inverted U-shaped member forming a bolster secured to said side frames, and springs located within the U-shaped bolster for supporting the same.

[Claims 3 and 4 not printed in the Gazette.]

1,252,435. LOGGING-CAR. CLARENCE A. HESSER, Newbern, N. C. Filed May 31, 1917. Serial No. 172,030. (Cl. 105—173.)



1. In a log retaining device the combination with a bolster and a standard to be releasably held thereto, of a pair of latch levers pivotally mounted on the bolster, and means carried by the bolster and adapted to embrace the standard and be engaged by one of the said levers to releasably hold the standard against the bolster.

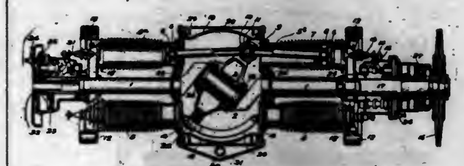
2. In a log retaining device, the combination with a bolster and a standard to be releasably held thereto, of a pair of latch levers pivotally mounted at their outer ends, their proximate ends being overlapped, means to releasably hold the overlapped ends of the latches in raised position, retaining means embracing the standard and adapted to be releasably held by one of the said latch levers and to be released when the said first mentioned means is operated to permit the overlapping of the latches to be released.

8. In a log retaining device, the combination with a bolster and a standard to be releasably held thereto, a pair of latch levers having their proximate ends overlapped and their remote ends pivotally connected to the bolster, the said standard having a retaining element fixed to one end of the bolster and embracing the standard to be engaged at its opposite end by one of the said levers, a flexible retaining element also embracing the standard and provided at one end with a key engageable by the pivoted end of the other lever, and means to releasably hold the said levers in position to secure the said retaining element and the said key in engagement with the levers.

[Claims 3 to 7 not printed in the Gazette.]

1,252,436. ENGINE. GEORGE N. HICKEY, Detroit, Mich., assignor to United States Airplane and Engine Company, a Corporation of Delaware. Filed Sept. 17, 1917. Serial No. 191,811. (Cl. 121—62.)

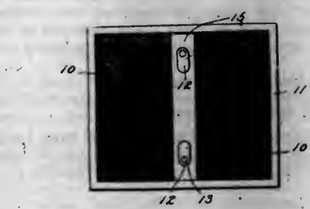
1. In a rotary engine, the combination of a cylinder carrier rotatably mounted upon a stationary shaft, an angular bearing upon said shaft upon which is rotatably mounted an angle plate carrying at or near its periphery a plurality of connecting rods, each of said connecting rods being operated by pistons within a cylinder, said



cylinder fastened at one end to said cylinder carrier, a universal joint driving member between said angle plate and said cylinder carrier to cause them to rotate synchronously when driven by the piston.

[Claims 2 to 4 not printed in the Gazette.]

1,252,437. BEE-ESCAPE BOARD. ARTHUR F. HODGSON, Jarvis, Ontario, Canada. Filed June 13, 1914. Serial No. 845,035. (Cl. 6—4.)



1. As an improvement in bee hives comprising upper and lower hive sections, a bee escape board adapted to be interposed between said sections and having its portion lying between the sections perforated with openings, too small for bees to pass through the same, but permitting free air circulation and having means to permit the passage of bees from one hive section to the other and prevent their passage in the reverse direction.

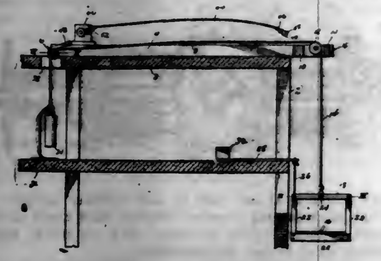
2. As an improvement in bee hives comprising upper and lower hive sections, a bee escape board comprising a frame adapted to be interposed between the two hive sections and supporting a sheet of screen material having holes too small for the passage of bees but permitting free air circulation, and an opening provided through said sheet establishing communication between the opposite sides of the board and of a size to permit the passage of bees, and means to permit the passage of bees through said opening only in one direction.

3. As an improvement in bee hives comprising upper and lower hive sections, a bee escape board comprising a frame adapted to be interposed between the two hive sections and supporting a sheet of screen material having holes too small for the passage of bees, but permitting free air circulation, a bee escape establishing communication between the opposite sides of the board and having means to permit the passage of bees only in one direction, and a cross bar extending between opposite sides of said frame and at a point intermediate the other two sides of the frame upon which the bee escape is located.

1,252,438. SCAFFOLD-SUPPORTING MEANS. JOHN J. HOFFMAN, Milan, Mo. Filed Apr. 7, 1917. Serial No. 160,362. (Cl. 20—81.5.)

1. Means for supporting scaffolding from buildings, comprising a frame loosely supported in overhanging relation from the building, the overhanging portion of said frame being provided with a pulley, and a scaffold supporting cable operating over said pulley and the inboard portion of said frame and provided with a counterweight

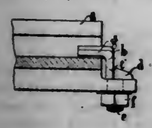
at the inboard end of the frame, said inboard portion of the frame being weighted down sufficiently to overbalance the combined weight of its overhanging portion and the load on said cable.



3. Means for supporting scaffolding from buildings, comprising a frame mounted in overhanging relation from the building in substantially horizontal position, the overhanging portion of said frame being provided with a pulley, a scaffold supporting cable operating over said pulley, and hoisting means removably mounted on the inboard portion of said frame and provided with anchoring means for detachably engaging the inboard end of said frame and also with means for detachably gripping said cable.

[Claim 2 not printed in the Gazette.]

1,252,439. GLAZING-BAR OF ROOFS AND THE LIKE. RALPH WALTER HOPE, Birmingham, England. Filed June 1, 1917. Serial No. 172,333. (Cl. 108—16.)



A stop or bracket for the glazing bars of roofs and the like, comprising a central web portion against one side of which the glass abuts, a boss formed on the opposite side of the web having an extension pin formed thereon with its lower end screw threaded for the purpose of being secured by a nut to the glazing bar, and providing at the upper part of the central web a bifurated portion consisting of finger-like projections for extending over the glass when in position, substantially as shown and described.

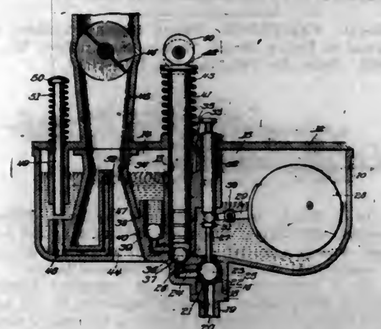
1,252,440. CARBURETER. FRANK D. HOWE, Akron, Ohio. Filed Sept. 29, 1913. Serial No. 792,320. (Cl. 158—36.)

1. In a carbureter, the combination of a constant level fuel chamber and an overflow chamber, pumping means for supplying fuel in excess from a source to said constant level fuel chamber, the excess flowing into said overflow chamber, and a valve controlling float to limit the height to which fuel may rise in said overflow chamber to prevent an overaccumulation of fuel in the constant level chamber.

3. In a carbureter, the combination of a constant level fuel chamber and an overflow chamber, pumping means for supplying fuel in excess from a supply source to said first chamber, the excess overflowing into the overflow chamber, a float in said overflow chamber, and a valve operated by said float and controlling both the outlet from said overflow chamber and the source of supply.

4. In a carbureter, the combination of a constant level fuel chamber and an overflow chamber, a fuel pump, and means whereby said pump may draw from either a main source of supply or said overflow chamber.

7. In a carbureter, the combination of a plurality of fuel containing chambers in overflow relationship, and means whereby fuel may be drawn from either a main source of supply or from one of said chambers to supply another of said chambers.



13. In a carbureter, the combination of two chambers, the top portions of which are in open communiction with each other and having a separate passageway between each other, a main fuel passageway leading into said separate passageway, a nozzle leading from one of said chambers, a float in the other of said chambers, a valve controlling said passageways operated by said float, and means for drawing fuel from one of said chambers and forcing it into the other chamber through said valve controlled passageway or from said main fuel passageway.

[Claims 2, 5, 6, and 8 to 12 not printed in the Gazette.]

1,252,441. NUT-LOCK. AARON T. HOYLE, Casar, N. C. Filed Mar. 27, 1917. Serial No. 157,690. (Cl. 151—5.)



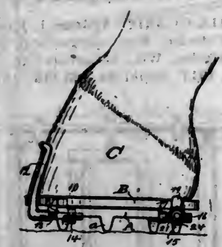
1. A nut lock including a bolt, a contractible locking element slidably and non-rotatably mounted upon the bolt, a nut capable of contracting the locking element upon the bolt, and adjustable means for securing the nut against rotary movement with relation to the locking element.

5. A nut lock including a bolt, a ring-like locking element slidably and non-rotatably mounted upon the bolt having a tapered outer terminal and a longitudinally grooved body portion, a nut fitted upon the bolt having the inner terminal of the bore thereof flared and adapted to coöperate with the tapered terminal of the locking element to contract the latter about the bolt, and adjustable means carried by the nut for engaging in the grooves of the locking element to secure the nut against rotary movement with relation thereto.

[Claims 2 to 4 not printed in the Gazette.]

1,252,442. HORSESHOE ATTACHMENT. HENRY HUETHER, Cincinnati, Ohio. Filed June 8, 1917. Serial No. 173,630. (Cl. 168—30.)

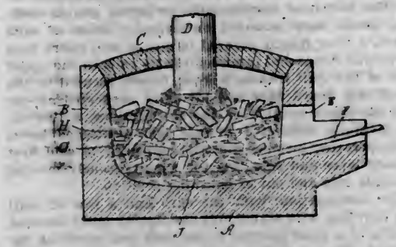
1. In a horseshoe attachment for the purpose described, the combination of a frame provided with calks on its under side, a lug projecting upwardly from the front part of this frame and adopted to engage the concave side at the toe part of the horseshoe, a yoke adjustably secured to this frame and adapted to lie against the front edge of the horseshoe, means to draw this yoke toward the frame so as to cause the horseshoe to be engaged at its front part by being clamped between said yoke and the lug on the frame, and means to hold the rear part of this latter against the horseshoe.



3. In a horseshoe attachment for the purpose described, the combination of a frame provided with calks on its under side, means to hold this frame at its front part to the horseshoe, a brace back of this frame and extending transversely across the under side of the shoe at the heel thereof, screw-connected claws adjustably secured, one to each end of this brace, and adapted to engage the shoe, and a projection on the rear part of the frame to which said brace is adjustably connected.

[Claim 2 not printed in the Gazette.]

1,252,443. PROCESS OF MAKING METALS IN ELECTRIC FURNACES. ERNEST HUMBERT, Welland, Ontario, Canada. Filed Apr. 26, 1917. Serial No. 164,793. (Cl. 204—64.)



1. In the making of steel in an electric furnace, introducing the charge in solid condition, applying heat by the electric current and introducing air into the solid material of the charge to oxidize the same before melting, continuing such operation upon the solid portion of the charge until it is all melted, and refining the molten charge to the desired product.

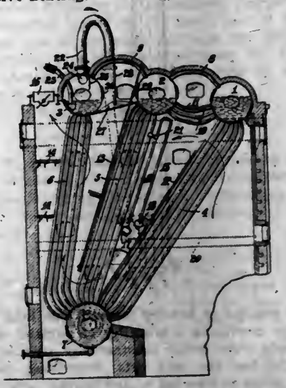
4. In the making of steel in an electric furnace introducing a substantially complete charge, applying heat by the electric current and introducing air to lower the carbon content to the desired percentage.

7. In the producing of a metal containing a certain percentage of carbon, the method which comprises introducing into an arc furnace a substantially complete charge which contains an excess of carbon and which is at least in part solid, striking an arc from an electrode to the solid material of the charge and introducing a current of air alone into the solid material of the charge to combine with the excess of carbon.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,252,444. STEAM-BOILER. DAVID S. JACOBUS, Jersey City, N. J., assignor to The Babcock & Wilcox Company, Bayonne, N. J., a Corporation of New Jersey. Filed Apr. 7, 1917. Serial No. 160,369. (Cl. 122—302.)

1. A steam boiler of the class described comprising at least three upper transverse drums connected by banks of tubes to a lower water chamber, the rear upper drum being set at a higher level than the front upper drum, a feed water inlet leading into the rear upper drum, a main steam offtake leading from said rear drum, baffles for directing the gases over and among the tubes of said banks with an up-pass in the rear bank, and a special baffle extending rearwardly from the middle upper drum and arranged to direct the gases leaving the upper part of the rear bank so as to protect the middle and rear drums from excessive heating.



4. A steam boiler of the class described comprising at least three upper transverse drums connected by banks of tubes to a lower water chamber, the rear upper drum being set at a higher level than the front upper drum, a feed water inlet leading into the rear upper drum, a main steam offtake leading from said rear drum, water circulators connecting the water spaces of the front and middle drums, baffles for directing the gases over and among the tubes of said banks with an up-pass in the rear bank, and a special baffle extending rearwardly from the middle upper drum and arranged to direct the gases leaving the upper part of the rear bank so as to protect the middle and rear drums from excessive heating.

5. A steam boiler of the class described comprising at least three upper transverse drums connected by banks of tubes to a lower water chamber, a dry pipe in the rear upper drum, said dry pipe having steam inlet openings near the ends thereof, a main steam outlet connected to said dry pipe, and steam circulators extending from near the ends of the middle steam and water drum to the center portion of the rear upper drum.

7. A steam boiler of the class described comprising at least three upper transverse drums connected by banks of tubes to a lower water chamber, the rear upper drum being set at a higher level than the front upper drum, a main steam offtake leading from said rear drum, baffles for directing gases over and among the tubes of said banks with an up-pass in the rear bank, and means to protect the middle and rear drums from excessive heating.

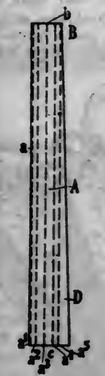
[Claims 2, 3, and 6 not printed in the Gazette.]

1,252,445. PROCESS FOR SAWING LOGS. JOHN EDVARD JOHANSSON, Helsingfors, and CARL GUSTAF TIGERSTEDT, Elimä, Finland, Russia. Filed Sept. 15, 1915. Serial No. 50,773. (Cl. 144—309.)

1. The process of sawing tapered logs into boards and the like by producing a plurality of parallel cuts therein, all the said cuts being substantially parallel with one side of the log, the said cuts comprising the width of available wood in the log of full length, whereby the remaining available wood in the log of less than full length is obtained in one piece, which is adapted for cutting into smaller pieces by further cuts parallel with the earlier cuts.

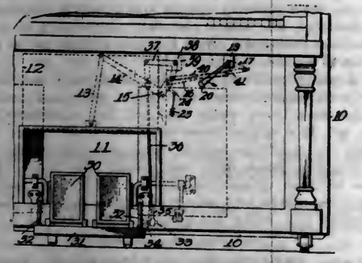
2. The process of trimming boards in the direction of their length by sawing the same by parallel cuts, each of which is substantially parallel with one of the inclined limiting surfaces of the board, whereby the remaining

available wood is produced in one triangular-shaped piece which is adapted for cutting into smaller pieces by further cuts parallel with the earlier cuts.



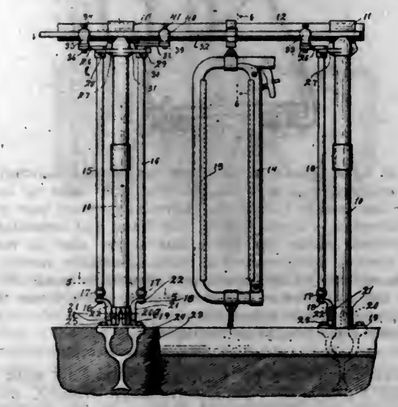
3. The process of sawing tapered logs into boards and the like by producing a plurality of parallel cuts therein, all the said cuts being substantially parallel with one side of the log, the said cuts comprising the width of available wood in the log of full length, whereby the remaining available wood in the log of less than full length is obtained in one piece which is adapted for cutting into smaller pieces by further cuts parallel with the earlier cuts, and in trimming the boards so produced by sawing the same by parallel cuts, each of which is substantially parallel with one of the inclined limiting surfaces of the board, whereby the remaining available wood is produced in one triangular-shaped piece which is adapted for cutting into smaller pieces by further cuts parallel with the earlier cuts.

1,252,446. PEDAL AND PANEL OPERATING MECHANISM. OSCAR JOHNSON, New York, N. Y., assignor to Auto Pneumatic Action Company, a Corporation of New York. Filed July 24, 1916. Serial No. 110,861. (Cl. 84—169.)



In a player piano, in combination, a casing having an opening therein, a panel for said opening, pedals mounted on a pedal frame movable through said opening into and out of operative position, and mechanism for moving said panel and pedal frame in timed relation, said mechanism comprising an actuating shaft having a handle and two actuating arms fixed thereto, a bell crank mounted on a fixed pivot and directly and positively link-connected to said panel, a slotted link forming a direct lost-motion actuating connection from one of said arms to said bell crank, a second bell crank also mounted on a fixed pivot, a link directly and positively connecting said second bell crank to an arm rigidly connected to said pedal frame and movable therewith, and a link directly connecting the second arm on the actuating shaft to said second bell crank, said lost-motion connection in the panel moving mechanism permitting said panel to be opened in advance of the forward movement of said pedal frame and to be closed after reverse movement thereof.

1,252,447. STALL-GUARD. AUGUST J. KAISER and FAY C. PETERS, Waterloo, Wis., assignors to Drew Carrier Company, Waterloo, Wis., a Corporation of Wisconsin. Filed Apr. 28, 1917. Serial No. 165,146. (Cl. 119—150.)



1. The combination, with a row of stall frames provided with stanchions and having division standards between the stalls, of horizontally swinging guards comprising guard bars mounted on opposite sides of each standard, a lever fixedly secured to one of said guard bars and pivotally connected intermediate its ends to the upper portion of the stall frames, a lever fixedly secured to the other of said guard bars and pivotally connected at one end to the upper portion of the stall frames, a link directly pivotally connected to said last mentioned lever, and an operating member directly connected to said first mentioned lever and said link for simultaneously moving said guards into and out of guarding position.

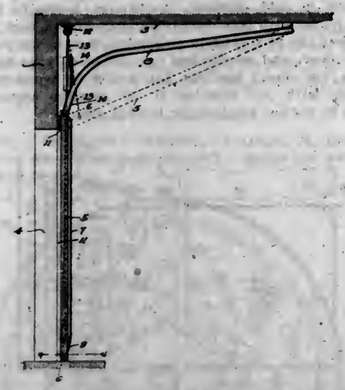
2. The combination, with the curb and a row of stall frames provided with stanchions and having posts between the stalls, of a plate secured to the curb and receiving the lower end of one of said stall posts, a pair of mating members secured to said plate and embracing said stall posts, a guard carried at its lower end by each of said members, connections between the upper ends of said guards and the upper portions of the stall frame at opposite sides of said post, and means for simultaneously moving said guards into and out of guarding position.

[Claim 3 not printed in the Gazette.]

1,252,448. DOOR. FREDERICK KEES, Minneapolis, Minn., assignor of one-half to S. M. Colburn, Minneapolis, Minn. Filed Dec. 6, 1916. Serial No. 135,369. (Cl. 20—19.)

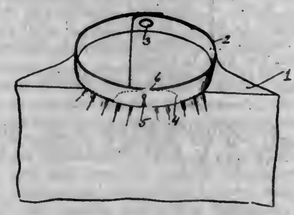
1. The combination, with a door frame having a door seat thereon, of guides provided upon the opposite sides of said door frame and comprising upper and lower sections, said upper sections being upwardly and inwardly inclined, said lower sections being substantially vertical and adjacent said frame, the lower ends of said upper and lower sections being at an acute angle to said door seat and terminating near said seat, whereby said door, in closing, will move outwardly when near the limit of its downward movement and be wedged in said guides against its seat.

2. The combination, with a door frame having a door seat thereon, of door guides arranged upon the opposite sides of said door frame and comprising upper and lower sections, a door having bearings at the top and bottom in said sections respectively, said sections having means for engaging said bearings when the door is nearly closed and forcing it with a wedging effect against its seat.



3. The combination, with a door frame having a door seat thereon, of upright channel bar guides provided upon opposite sides of said door frame and composed of upper and lower sections, said upper sections depending near the top of the door opening and extending upwardly and inwardly therefrom and said lower sections having their upper ends offset from the adjacent ends of the upper sections and depending vertically near said door seat, and the lower ends of said lower sections being outwardly turned, a door having bearings in said sections to slide therein, the lower portions of said guides directing said door outwardly to its seat and wedging it thereon.

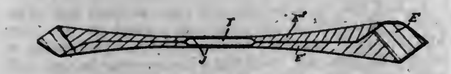
1,252,449. SHIRT. HOWARD S. KENNEDY and CHARLES M. CONNOLLY, Troy, N. Y., assignors, by mesne assignments, to Cluett, Peabody and Co., Inc., Troy, N. Y., a Corporation of New York. Filed July 3, 1911. Serial No. 636,584. (Cl. 2—41.)



1. A laundried article of apparel having a stud-pocket with a buttonhole-slit in the outer wall of said pocket extending inward from the edge thereof and adapted to receive the shank of a stud or collar-button inserted in said pocket, the inner wall of said pocket extending beyond the slitted edge of said outer wall.

[Claims 2 and 3 not printed in the Gazette.]

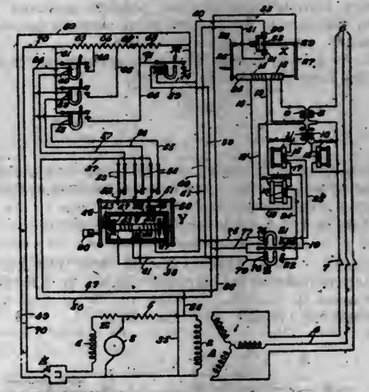
1,252,450. NECKWEAR. WILLIAM A. KEYS, New York, N. Y. Filed Jan. 9, 1914. Serial No. 811,154. (Cl. 2—11.)



1. In a necktie comprising tying ends and an intermediate portion, an interlining and a cover therefor, said interlining composed of a relatively thin strip of material extending substantially throughout the length of the interlining, a relatively soft and thick fabric overlapping and attached to the said strip and adapted to lie within a tying end of the necktie, the cover fabric of said tying ends being folded completely to inclose the tying ends of the interlining, one of said folds being stitched to the said interlining substantially throughout the length of a tying end, the other fold being secured to the aforesaid fold of the cover fabric by an independent row of stitches, a strip of material placed on the inner face of the neckband so that one of its ends overlaps the plurality of plies of material forming the interlining for the tying ends and stitches engaging with said strip on the neckband and with said interlining.

[Claim 2 not printed in the Gazette.]

1,252,451. VOLTAGE-REGULATOR. CHARLES H. KICKLIGHTER, Pasadena, Cal., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed June 16, 1911. Serial No. 633,639. (Cl. 171—229.)



1. The combination with an alternating current circuit, of a transformer having its primary connected across the same, an electro-responsive device connected with the secondary of the transformer, a saturated choke coil in series with said device and said secondary, and an impedance coil connected in shunt with said device.

4. In a voltage regulator, the combination with a source of alternating current, of a device operatively connected therewith and responsive to variations in the voltage thereof, a choke coil connected in series with said device, and means rendered operative by the actuation of said device for varying the voltage impressed thereon.

5. The combination with an electrical circuit and a dynamo-electric machine associated therewith, of a regulator for the dynamo-electric machine comprising cooperating contact members, an actuating winding therefor energized from said circuit, an impedance in circuit with said winding and relay mechanism controlled by the said contact members for governing the field excitation of the dynamo-electric machine and the value of said impedance in circuit with the said winding.

[Claims 2, 3, and 6 to 8 not printed in the Gazette.]

1,252,452. PHARMACEUTICAL PRODUCT. WALTER KROPP, Elberfeld, Germany, assignor to Synthetic Patents Co., Inc., New York, N. Y., a Corporation of New York. Filed July 21, 1915, Serial No. 41,152. Renewed Nov. 23, 1917. Serial No. 203,624. (Cl. 23—24.)

1. As new products carbonyl derivatives of phenols containing in the nucleus a substituent which has more than one carbon atom and having the following general formula:

$$R-C_6H_4-O-CO-R',$$

R standing for a substituent containing more than one carbon atom; R' standing for

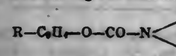
$$-OC_6H_4-R$$

or



X and X' representing hydrogen or an alkyl, which products are after being dried and pulverized whitish practically tasteless and odorless powders generally soluble with difficulty in water; and being valuable anthelmintic remedies, substantially as described.

2. As new products carbonyl derivatives of phenols containing in the nucleus a substituent which has more than one carbon atom and having the following general formula:



R standing for a substituent having more than one carbon atom, X and X' representing hydrogen or alkyl, which products are after being dried and pulverized whitish practically tasteless and odorless powders generally soluble with difficulty in water; and being valuable anthelmintic remedies, substantially as described.

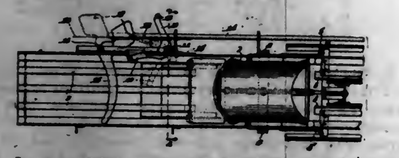
6. As a new product the para-benzylphenyl-carbamate having most probably the formula:



crystallizing from alcohol in crystals melting at 144° C.; being soluble in ether; and being a valuable anthelmintic remedy, substantially as described.

[Claims 3 to 5 not printed in the Gazette.]

1,252,453. CAN-DISCHARGING MECHANISM FOR CAN-WASHING MACHINES. HARRY D. LATHROP and WALTER H. PAULSON, Chicago, Ill. Filed June 9, 1917. Serial No. 173,896. (Cl. 193—29.)

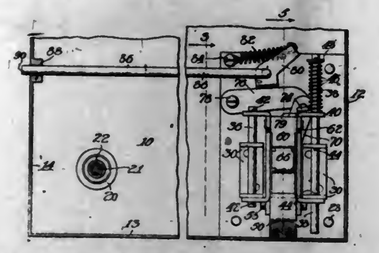


1. In a washing machine of the class described, the combination of a guide for the objects passed through the machine; an arm pivotally mounted intermediate its ends at one side of said guide whereby, through rocking of said arm, one end thereof may be swung into engagement with an object on said guide to thrust the same along said guide; and means for rocking said arm comprising a reciprocatory member having an elongated slot therein engaged by one end of said arm, substantially as described.

2. In a washing machine of the class described, the combination of a guide for the objects passed through the machine; an arm pivotally mounted intermediate its ends at one side of said guide whereby, through rocking of said arm, one end thereof may be swung into engagement with an object on said guide to thrust the same along said guide; means for rocking said arm comprising a reciprocatory member having an elongated slot therein engaged by one end of said arm; and a stop on said end of said arm adapted for engagement with said reciprocatory member for limiting rocking movement of said arm, substantially as described.

1,252,454. EMERGENCY LIFT-LATCH. FERNANDO J. LE BEAU, Chicago, Ill., assignor of one-half to Frederick Lundin, Chicago, Ill. Filed Mar. 7, 1917. Serial No. 152,983. (Cl. 70—43.)

1. In a device of the class described, in combination with a door and its frame, a bolt adapted to pass below the edge of the door into the floor to lock it, a carriage for the bolt mechanism bodily reciprocatable to and from the bottom of the door, means mounting the bolt for reciprocation in said carriage, mechanism normally holding the carriage with bolt mechanism attached in such a position that the bolt entirely clears the floor in all positions of the door, and mechanism operatable only as the door approaches closed position automatically depressing the carriage with bolt attached to the position wherein the bolt is in normal position for locking the door.

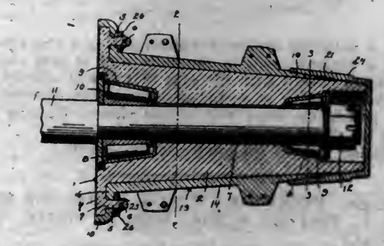


2. In a device of the class described, in combination with a door and its frame, a bolt adapted to pass below the edge of the door into the floor to lock it, a carriage for the bolt mechanism reciprocatable to and from the bottom of the door, mechanism normally holding the carriage with bolt mechanism attached in such a position that the bolt entirely clears the floor in all positions of the door, and mechanism engaging the carriage elevating mechanism adapted to engage the frame of the door as the door approaches closed position to move the carriage so that the bolt is in normal position for locking the door to the floor during the time that the door is closed.

3. In a device of the class described, in combination with a door and its frame, a bolt adapted to pass below the edge of the door into the floor to lock it, a carriage for the bolt mechanism reciprocatable to and from the bottom of the door, mechanism normally holding the carriage with bolt mechanism attached in such a position that the bolt entirely clears the floor in all positions of the door, and a rod engaging the carriage elevating mechanism adapted to engage the frame of the door as the door approaches closed position to move the carriage so that the bolt is in normal position for locking the door to the floor during the time that the door is closed.

[Claims 4 to 12 not printed in the Gazette.]

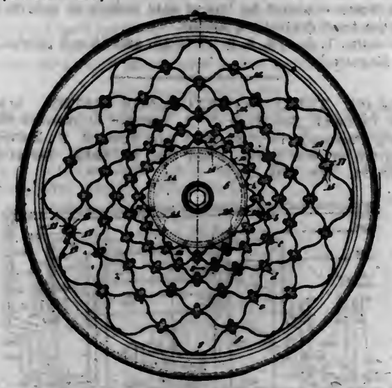
1,252,455. AUTOMOBILE-WHEEL HUB. WILLIAM F. LEE, Syracuse, N. Y. Filed Mar. 28, 1917. Serial No. 158,007. (Cl. 21—31.)



1. In a hub, an inner hub structure, an outer hub structure, a plurality of radiating ribs formed on the inner hub structure, the outer hub structure having grooves to receive the ribs, said outer hub structure also having slots adjacent its outer end, said slots alining with the grooves and forming fingers, the ribs being provided with inclined faces adjacent their outer ends, screw threads formed on the fingers and the inclined faces of the ribs, and a hub cap adapted to be threaded on the threads whereby the hub structures are held in intermeshing engagement and against accidental movement.

2. In a hub, an inner hub structure, an outer hub structure having grooves opening out in slots in the outer end thereof, ribs formed on the inner hub structure and fitting in the grooves and extending through the slots, and a cap threaded to the outer hub structure and to the ribs extending through the slots.

1,252,456. RESILIENT WHEEL. CHARLES H. LENSKE, Chicago, Ill. Filed July 27, 1917. Serial No. 183,028. (Cl. 152—28.)



1. A resilient wheel comprising a hub; a rim; a plurality of concentric tortuous annular resilient members of graduated diameters interposed between said hub and said rim, the innermost and outermost of said members being connected respectively with said hub and rim, the outwardly curved tortuosities of each of said members being connected with the inwardly curved tortuosities of the next outer member, each connection between said members comprising two spaced connecting elements extending across the remote sides of said members; channels at said sides of said members engaged by said elements; and a rigid connection between the corresponding ends of said connecting elements, substantially as described.

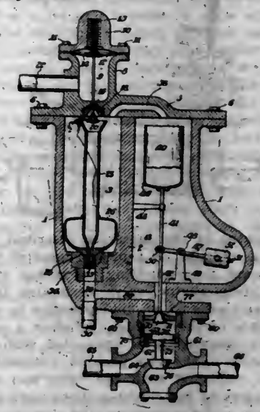
3. A resilient wheel comprising a hub; a rim; a plurality of concentric tortuous annular resilient members of graduated diameters interposed between said hub and said rim, the innermost and outermost of said members being connected respectively with said hub and rim, the outwardly curved tortuosities of each of said members being connected with the inwardly curved tortuosities of the next outer member, each connection between said members comprising two spaced connecting elements extending across the remote sides of said members; seat-forming members fixed rigidly to the remote sides of said members having channels at their outer sides engaged by said connecting elements; and yokes arranged at the edges of said annular resilient members and extending between and connecting the corresponding ends of said connecting elements, substantially as described.

[Claim 2 not printed in the Gazette.]

1,252,457. RETARDING-VALVE. LEROY M. LEWIS, Merion, Pa. Filed Apr. 22, 1916. Serial No. 92,822. (Cl. 169—23.)

1. A retarding valve comprising a casing having chambers, a tube in one of said chambers, means to admit fluid to said tube, a valve adjacent another of said chambers, and means to actuate said valve upon the passage of a predetermined quantity of fluid from said first-mentioned chamber to the other of said chambers after said first-mentioned chamber and said tube are filled.

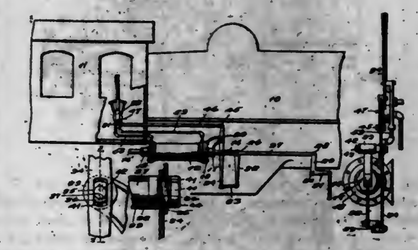
2. In a retarding valve, the combination of a casing having a chamber, an auxiliary chamber adjacent said casing, means to admit fluid to said auxiliary chamber, a valve controlling a passage from said auxiliary chamber to said first mentioned chamber, and means comprising a spring pressed diaphragm in said auxiliary chamber operative to move said valve in conformity with the pressure of fluid in said auxiliary chamber.



3. In a retarding valve, the combination with a casing and means to conduct fluid to said casing, of an auxiliary valve housing, a valve in said auxiliary housing maintained in normally closed position by the pressure of fluid on one side of said valve, and means comprising a bucket and a counterpoise within said casing operative to relieve the pressure on said valve after the admission of a predetermined quantity of fluid to said casing.

[Claims 4 to 10 not printed in the Gazette.]

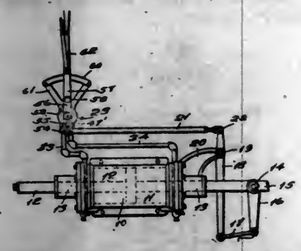
1,252,458. POWER REVERSE-GEAR. SAMUEL H. LEWIS, Richmond, Va. Filed Oct. 18, 1915. Serial No. 56,487. (Cl. 121—98.)



1. An apparatus of the character described; a cylinder; a piston mounted to move within the cylinder; a valve gear operated by the movement of the piston; a valve seat having two separate surface supply ports and two separate surface exhaust ports arranged about an exhaust opening which communicates with the atmosphere; chambers having ports leading to the surface supply ports and ports leading to the surface exhaust ports; a movable valve having a surface port in permanent communication with the exhaust opening of the valve seat and adapted to be alternately moved into communication with the exhaust surface ports and a pressure supply port normally in line to line relation with the surface supply ports to permit of the simultaneous supply of pressure through both surface supply ports and to be moved in one direction for covering one surface supply port and opening the other surface supply port; pipes having communication with the chambers and with the opposite ends of the cylinder; and means to supply pressure to the pressure supply port of the movable valve.

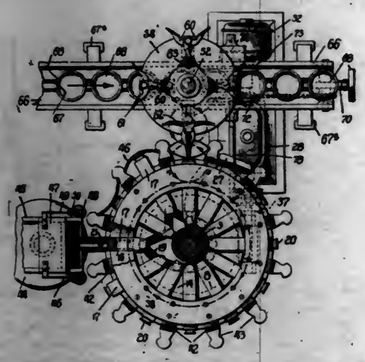
[Claim 2 not printed in the Gazette.]

1,252,459. PRESSURE-OPERATED VALVE-GEAR-SHIFTING MECHANISM. SAMUEL H. LEWIS, Richmond, Va. Filed Jan. 6, 1917. Serial No. 140,923. (Cl. 121—98.)



In apparatus of the character described, the combination with a cylinder, of a piston mounted to reciprocate therein, means for connecting the piston with the valve gear of a steam engine, valve mechanism for controlling the inlet and exhaust of fluid pressure to and from the opposite ends of the cylinder including a movable valve, a manually operated lever connected with the valve to move the same to the open position, automatically operating means connected with the valve and the piston to move the valve to the closed position upon the movement of the piston, and a stationary stop element separate from the automatically operating means and contacting with the valve for restricting its movement without restricting the movement of the manually operated lever when the automatically operating means is active and restricting the movement of the manually operated lever when the automatically operating means is inactive.

1,252,460. BOTTLE-COVER-PLACING MACHINE. THEODORE G. LINDEBERG, Detroit, Mich. Filed June 2, 1916. Serial No. 101,226. (Cl. 93—7.)



2. In a bottle cover manipulating machine, a magazine for collapsed covers, a rotary head, and suction means carried by said head and adapted to remove the cover from said magazine and open said cover during a portion of the revolution of said head.

5. A bottle cover manipulating machine embodying rotary and reciprocable suction means adapted to flex a collapsed cover in two directions to open the cover, and means for holding the cover during the flexing thereof.

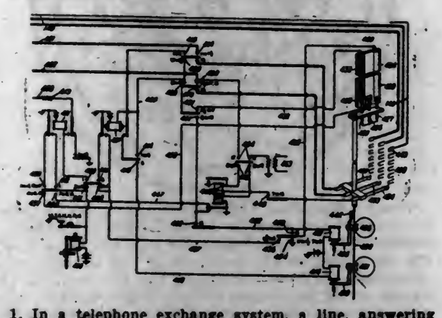
7. A cover manipulating machine comprising a magazine adapted for collapsed covers, a rotary head, arms about said head adapted for holding covers, and reciprocable suction means about said head adapted for removing covers from said magazine to positions between said arms, and flexing said covers while held by said arms to open the covers.

10. In a cover manipulating machine, a magazine for collapsed covers, a plurality of arms adapted to successively hold covers, a plurality of suction members adapted to successively shift covers from said magazine to said holding arms and flex the covers while held thereby to separate the walls of the collapsed covers, and means adapted for gripping, removing and maintaining the covers open relative to said holding arms.

14. In a bottle cover placing machine, a suction head adapted to manipulate a cover, a source of suction for said head, means controlling the operation of said suction head, buffers between which a bottle is adapted to pass to actuate one of said buffers and receive a cover, and means actuated by one of said buffers to govern the suction head controlling means.

[Claims 1, 3, 4, 6, 8, 9, 11 to 13, and 15 not printed in the Gazette.]

1,252,461. TELEPHONE-EXCHANGE SYSTEM. ALBEN E. LUNDELL, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Dec. 17, 1915. Serial No. 67,411. (Cl. 179—27.)



1. In a telephone exchange system, a line, answering and calling terminals therefor, a selectively operable switching device, means for extending said line through its answering terminals to said switching device, a sender for controlling said switching device to select the calling terminals, testing means associated with said device, means for rendering said line unselectable, and means independent of said sender and operative while said line is extended to said switching device for rendering the line selectable.

2. In a telephone exchange system, a line, answering and calling terminals therefor, a selectively operable switching device, means for extending said line through its answering terminals to said switching device, a sender for causing the said switching device to select said calling terminals, testing means associated with said device, means for maintaining an electrical busy potential on said calling terminals during the extension of said line to said device and during the initial operation of said device, and means operable independently of said sender only during the completion of the operation of the device for rendering said electrical busy potential ineffective.

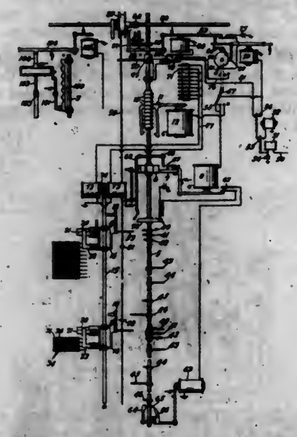
3. In a telephone exchange system, a line, answering and calling terminals therefor, a connector switch arranged to engage said calling terminals, a selector switch arranged to establish a connecting circuit between said answering terminals and said connector, means operative thereupon for rendering said line unselectable at said calling terminals, testing means associated with said connector switch, and means at said selector switch and operable through said connecting circuit for rendering said calling terminals selectable while the line is extended through its answering terminals.

20. In a telephone exchange system, a line, a connecting circuit, a plurality of operators' positions, means controllable from one position to extend one end of said connecting circuit to said line, means controllable from another position for extending the other end of said connecting circuit to said line, means operative upon the extension of one end of said connecting circuit to the line for rendering the same busy, and means controllable from both said operators' positions for removing the busy test condition from said line when the other end of said connecting circuit is being extended thereto.

21. In a telephone exchange system, a line, two operators' positions, a connecting circuit, manually operable means controllable from one of said positions for extending one end of said connecting circuit to said line, means operative thereupon for rendering said line busy, automatic selecting mechanism controllable from the other operator's position for extending the other end of said connecting circuit to said line, and means controllable from both said operators' positions for rendering said line idle when said mechanism is being operated.

[Claims 4 to 19 not printed in the Gazette.]

1,252,462. AUTOMATIC SWITCHING MECHANISM. FRANK A. LUNDQUIST, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Aug. 16, 1916. Serial No. 115,178. (Cl. 179—27.5.)



1. In a switching mechanism, a contact bank comprising a plurality of stationary contact terminals mounted in parallel rows, a movable contact arranged to be moved between the rows of said stationary terminals without engagement therewith until opposite a selected terminal, and means for then moving said movable contact into engagement with a selected terminal of either of the rows of the bank between which said movable contact is arranged to be moved.

2. In a switching mechanism, a contact bank comprising a plurality of stationary contact terminals mounted in parallel rows, the terminals of one row being mounted in staggered relation with respect to the contacts of another row, a set of step-by-step movable contact members adapted to travel between the rows of stationary terminals without engagement therewith, and means for swinging said movable contact members into engagement with selected ones of said stationary terminals.

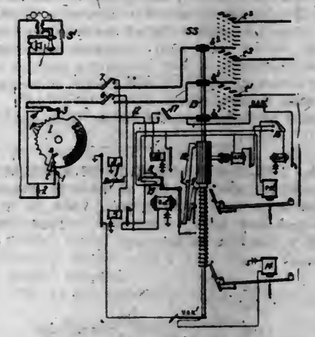
3. In a switching mechanism, a bank of contact terminals comprising a plurality of parallel vertical rows, the terminals in one row being vertically staggered with respect to the terminal of another row, movable brushes, means for moving said brushes step by step between the rows of terminals in steps equal to the vertical distance between vertically adjacent terminals of adjacent rows without engagement therewith, and means for swinging said brushes into engagement with a selected set of said stationary terminals.

4. In a switching mechanism, a bank of contact terminals comprising a plurality of parallel vertical rows, the terminals in one row being vertically staggered with respect to the terminals of another row, movably mounted brushes adapted to travel between the two rows of contacts without engagement therewith, step-by-step mechanism adapted to move said brushes in steps equal to the vertical distance between vertically adjacent terminals of adjacent rows, means for swinging said brushes in either direction to engage selected terminals of a bank, and means controlled by said step-by-step mechanism for determining the direction in which said brushes will be swung.

5. In a switching mechanism, a bank of contacts comprising a plurality of parallel vertical rows, two terminals in one row being vertically staggered with respect to the terminals of another row, movable brushes adapted to travel between the two rows of contacts without engagement therewith, a vertically movable shaft operated to move said brushes in steps each equal to the vertical distance between vertically adjacent terminals of adjacent rows, means for angularly displacing said brushes to the right or left to bring them into engagement with selected terminals in the bank, and means controlled in the movement of said shaft to determine the direction in which said brushes will be displaced.

[Claims 6 to 11 not printed in the Gazette.]

1,252,463. TELEPHONE-EXCHANGE SYSTEM. FRANK A. LUNDQUIST, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Dec. 2, 1916. Serial No. 134,572. (Cl. 179—18.)



1. In a telephone system, groups of telephone lines, multi-group selective switches arranged to interconnect said lines, line terminals in said switches, the terminals of a group of lines being periodically interspersed between the terminals of other groups of lines, a set of brushes in each of said switches arranged to travel over and make contact with said terminals, impulse senders for setting said switches, a circuit changing device in said senders arranged to be operative only while said sender is being set in certain positions thereof, and control means for said switches responsive to said circuit changing device for causing said brushes to be set on terminals of a selected group of lines.

2. In a telephone system, groups of telephone lines, multi-group selective switches arranged to interconnect said lines, line terminals in said switches, the terminals of a group of lines being periodically interspersed between the terminals of other groups of lines, a set of brushes in each of said switches arranged to travel over and make contacts with said terminals, and impulse senders arranged while being set to direct said brushes to a particular group of line terminals and while operating to direct said brushes to a particular set of terminals in said selected group.

3. In a telephone system, groups of telephone lines, multi-group selective switches for interconnecting said

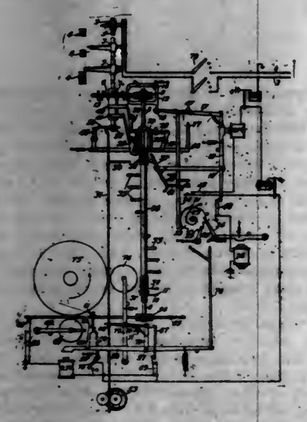
lines, line terminals in said switches, the terminals of a group of lines being periodically interspersed between the terminals of other groups of lines, a set of brushes in each of said switches arranged to travel over and make contact with said terminals, impulse senders arranged to be actuated from a plurality of sets of positions, like trains of impulses being sent from corresponding positions in each of said sets of positions, a circuit changing device operable while said impulse transmitter is being set in any position of a particular set of positions, control means for said switches responsive to said impulse transmitters for setting said brushes on a particular set of terminals in any group of said terminals, and means responsive to said circuit changing device for setting said brushes within a particular group of said line terminals.

4. In an electrical switching system, groups of line circuits, multi-group selective switches arranged to interconnect said line circuits, line terminals in said selective switches, the terminals of a group being periodically interspersed between the terminals of other groups, a set of brushes in each of said selective switches arranged to travel over and make contact with said terminals, impulse senders for setting said switches, said impulse transmitters being provided with a circuit changing device arranged to be actuated while said impulse transmitters are being actuated, means for sending impulses while operating, and control means in said selective switches responsive in one manner to said circuit changing devices and in another manner to said impulses.

5. In a telephone system, telephone lines, substations connected to said lines each including an impulse transmitter, selective switches arranged to interconnect said lines, groups of line terminals in each of said switches, the terminals of one group being periodically interspersed between the terminals of other groups, a single set of brushes in each of said switches arranged to travel over and make contact with said terminals, and means controlled automatically by said substation impulse transmitter for determining which of said groups of terminals said brushes shall be directed to.

[Claims 6 to 11 not printed in the Gazette.]

1,252,464. TELEPHONE-EXCHANGE SYSTEM. FRANK A. LUNDQUIST, Chicago, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Mar. 3, 1917. Serial No. 152,238. (Cl. 179—27.5.)

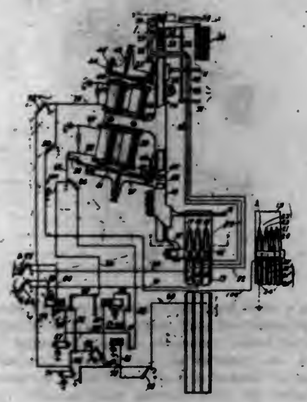


1. In an automatic switch, a plurality of contacts, a plurality of brushes to coöperate with said contacts, a movable shaft to carry said brushes, means for selecting a set of brushes, a rotatable rod, a plurality of stop members on said rod, means for initiating the travel of said brushes over said contacts, and means actuated during said travel for rotating said rod to position a selected stop member to arrest said brushes on a selected contact.

2. In an automatic switch, a plurality of terminals, a plurality of brushes arranged to travel over and make contact with said terminals, a stop arm associated with said brushes, a catch to normally prevent the travel of said brushes over said contacts, a movable rod, a plurality of stop members on said rod, means for selecting a brush to be associated with said terminals, means for releasing said catch, and means operable subsequent to the release of said catch for positioning a selected stop member in the path of said stop arm, all of said means being responsive to directive impulses.

3. In an automatic switch, a plurality of stationary contacts arranged in main groups and sub-groups, a movable shaft, a plurality of brush sets mounted thereon, means to operate said shaft to render one of said brush sets operative with relation to the main group of contacts served by it, a control mechanism, a stop member carried thereby, means to position said control mechanism in response to a plurality of selective operations, means to advance a selected brush into engagement with a desired terminal in a desired sub-group in accordance with the setting of said control mechanism, and means to advance said selected brush toward a desired position during the operation of setting said control mechanism.

1,252,465. ELECTRIC SWITCH. JAMES L. MCQUARRIE, Montclair, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Dec. 2, 1916. Serial No. 134,602. (Cl. 179—27.5.)



1. In an automatic switch, a plurality of stationary contacts arranged in groups, a carriage, a movable contact carried thereby, electrically controlled means normally holding said carriage against movement, and means controlled by movement of said carriage to render said holding means inoperative while said movable contact passes over a group of stationary contacts.

2. In an automatic switch, a plurality of stationary contacts, a carriage, a movable contact carried thereby, a commutator, a brush arranged for engagement with said commutator and movable with said carriage, means normally holding said carriage against movement, means to operate said holding means to permit movement of said carriage, and means controlled by movement of said brush over said commutator to release said holding means at certain positions of said carriage only.

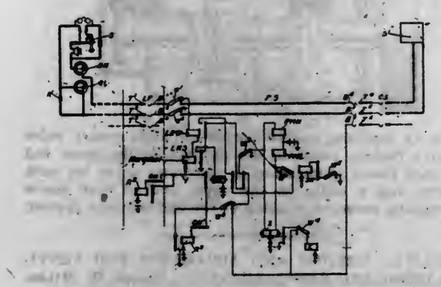
3. In an automatic switch, a plurality of stationary contacts arranged in groups, a carriage, a movable contact carried thereby, means normally holding said carriage against movement, means to operate said holding means to permit movement of said carriage, and means controlled by the movement of said carriage to cause said movable contact to be advanced in group steps.

4. In an automatic switch, a plurality of stationary contacts arranged in groups, a carriage, a movable contact carried thereby, means normally holding said carriage against movement, means to operate said holding means to permit movement of said carriage, and means controlled by movement of said contact to render inoperative said holding means until said carriage has advanced a distance sufficient to move said movable contact over a group of said stationary contacts.

5. In an automatic switch, a plurality of stationary contacts arranged in groups, a carriage, a movable contact carried thereby, means normally holding said carriage against movement, means to operate said holding means to permit movement of said carriage, means controlled by movement of said carriage to position said movable contact at a group extremity, and means to associate said movable contact with a desired stationary contact in such group.

[Claims 6 to 10 not printed in the Gazette.]

1,252,466. MACHINE-SWITCHING TELEPHONE SYSTEM. JAMES L. MCQUARRIE, Montclair, N. J., and CHARLES L. GOODRUM, New York, N. Y., assignors to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Mar. 30, 1917. Serial No. 158,566. (Cl. 179—18.)



1. In a telephone system, means for sending trains of impulses of one character and means for sending trains of impulses of another character, selector switches, sets of terminals therein, means responsive to trains of impulses of one character for setting said switches upon certain of said sets of terminals, and means responsive to trains of impulses of another character for setting said switches upon certain others of said sets of terminals.

2. In a telephone system, selector switches, fixed terminals therein divided into groups, the terminals of the several groups being periodically interspersed between each other, impulse transmitters arranged to send trains of impulses of one character, impulse transmitters arranged to send trains of impulses of a different character, means responsive to the impulses of one character for setting said switches on the terminals of one group, and means responsive to the impulses of a different character for setting said switches on the terminals of another group.

3. In a telephone system, directively controlled automatic switching mechanisms, circuits leading therefrom divided into groups, telephone lines, means for causing said switching mechanisms to extend said telephone lines to one group of said circuits, means for causing said switching mechanisms to extend said telephone lines to a different group of said circuits, subscriber-controlled means for sending trains of impulses of one character to actuate said first-mentioned means, and subscriber-controlled means for sending trains of impulses of a different character to actuate said second-mentioned means.

1,252,467. TRANSPLANTER. CLARENCE A. MCQUERN, Rushville, Mo., assignor of one-third to Ernest Kramer and one-third to Henry Lange, Grant Park, Ill. Filed July 11, 1916. Serial No. 108,655. (Cl. 137—60.)



A device of the class described comprising a hollow peg, a cover closing said peg at its wide end, said peg being formed with a wedge-shaped opening at a point directly above its inside bottom wall, a wedge-shaped valve hinged to the upper edge of said opening and adapted to close the opening and be disposed flush with the outer wall of said peg, lugs secured to said peg above said valve, a valve operating stem having its lower portion pivoted between said lugs and its inner end pivoted centrally to said valve; a leaf spring secured to said peg at one end and bearing against said stem at its opposite end so as to hold said valve closed, and a head on said stem.

1,252,468. MATERIAL FOR INSULATING AND LIKE PURPOSES AND METHOD OF MANUFACTURING SAME. HELON B. MACFARLAND, Chicago, Ill., and ROBERT JAY SHOEMAKER, Topeka, Kans., assignors, by direct and mesne assignments, of one-half to said MacFarland and one-half to Egbert H. Gold, Chicago, Ill. Filed Apr. 11, 1917. Serial No. 161,137. (Cl. 154—44.)

1. A product for insulation or like purposes, in the form of a flexible board composed of material of a fibrous nature intimately mixed with a filler and a binder consisting of pulped cellulose.

[Claims 2 to 12 not printed in the Gazette.]

1,252,469. ARTIFICIAL EYES FOR DOLLS, DISPLAY FIGURES, AND THE LIKE. SAMUEL MARCUS, New York, N. Y. Filed Aug. 16, 1917. Serial No. 186,491. (Cl. 46—40.)



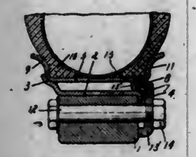
2. An eye for dolls and the like, comprising a substantially hemi-spherical shell constituting the exterior of the eye, and an inner bearing member of corresponding outline upon which said outer shell is closely but slidably mounted for adjusting the same.

11. In combination, a pair of eyes for a doll and the like, and a bridge-piece connecting said eyes, said eyes each comprising a substantially hemi-spherical celluloid shell constituting the exterior of the eye, an inner

substantially hemi-spherical metal plate closely fitting within said shell, and a plate within the rear portion of said shell and engaging the edges of said hemi-spherical plate and providing means for connecting the eye with the end portion of the bridge-piece, said plate at the rear portion of the eye having curved edges engaged by the rear portion of said shells.

[Claims 1 and 3 to 10 not printed in the Gazette.]

1,252,470. DEMOUNTABLE RIM. HERMAN W. MELLING, Jackson, Mich. Filed Mar. 24, 1917. Serial No. 157,196. (Cl. 152—21.)



1. In a structure of the class described, the combination of a felly, a felly band thereon provided with an outwardly inclined rim seat flange at one edge and an inturned felly engaging flange at the other, a demountable rim seating in said rim seat and provided with an inturned flange having its edge conformed into alternate connected inwardly and outwardly extending lugs, the inwardly extending lugs being inclined and seating on said felly band, said rim being provided with a fixed tire flange, and a coacting removable tire flange provided with spaced inwardly projecting lugs adapted to be introduced between the said upturned lugs and engaged and disengaged therewith by a rotative movement, and clamping members mounted upon said felly, one of said clamping members being provided with an inwardly projecting lug extending between adjacent lugs of said removable tire flange.

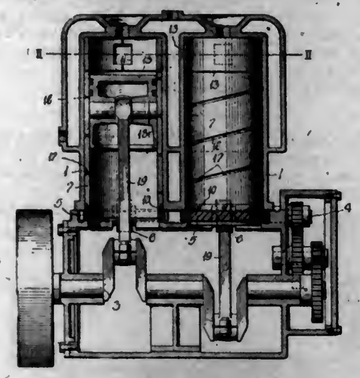
2. In a structure of the class described, the combination of a felly, a felly band thereon provided with a rim seat at one edge, a demountable rim seating in said rim seat and provided with alternate inwardly and outwardly extending lugs, the inwardly extending lugs seating on said felly band, said rim being provided with a fixed tire flange and a coacting removable tire flange provided with spaced inwardly projecting lugs adapted to be introduced between the said upturned lugs and engaged and disengaged therewith by a rotative movement, and clamping members mounted upon said felly, one of said clamping members being provided with an inwardly projecting lug extending between adjacent lugs of said removable tire flange, all coacting for the purpose specified.

3. In a structure of the class described, the combination of a felly, a felly band thereon provided with a rim seat at one edge, a demountable rim seating in said rim seat and provided with alternate inwardly and outwardly extending lugs extending parallel with the edge of said felly, the inwardly extending lugs seating on said felly band, said rim being provided with a fixed tire flange and a coacting removable tire flange provided with spaced inwardly projecting lugs extending parallel with said rim lugs adapted to be introduced between the said upturned lugs and engaged and disengaged therewith by a rotative movement, and common clamping members mounted upon said felly for clamping said demountable rim and for preventing rotation of said removable flange, all coacting for the purpose specified.

4. In a structure of the class described, the combination of a felly, a felly band provided with a rim seat at one edge, a demountable rim seating in said rim seat and provided with inwardly inclined portions coacting with said felly band and with outwardly projecting lugs, said rim being provided with a removable tire flange having spaced lugs adapted to coact with the outwardly projecting lugs of said rim band, and common means for clamping said demountable rim and for preventing rotation of said removable flange.

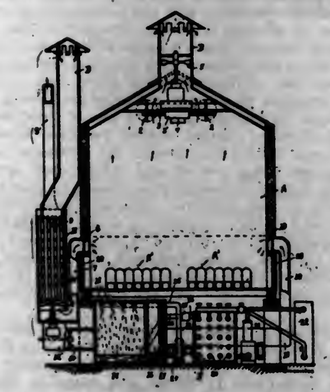
5. In a structure of the class described, the combination of a felly, a felly band provided with a rim seat at one edge, a demountable rim seating in said rim seat and provided with inwardly inclined portions coacting with said felly band and with outwardly projecting lugs, said rim being provided with a removable tire flange having spaced lugs adapted to coact with the outwardly projecting lugs of said rim band, and common means for clamping said demountable rim and locking said tire flange.

1,252,471. EXPLOSIVE-ENGINE. RICHARD E. MEYER, Detroit, Mich. Filed Apr. 24, 1916. Serial No. 93,047. (Cl. 123—80.)



In an explosive engine, ported cylinders, rotary valve sleeves therein, yieldable end portions at the upper end of each sleeve coöperating in providing ports for each sleeve, and a collar in the upper end of each sleeve preventing excessive yielding of the end portions thereof.

1,252,472. METHOD AND APPARATUS FOR VENTILATING AND REFRIGERATING. CASPER W. MILES, Anderson township, Hamilton county, Ohio. Filed June 14, 1915. Serial No. 34,108. (Cl. 62—176.)



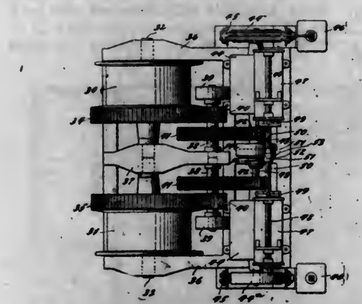
1. The method of ventilating and refrigerating which comprises maintaining in a room an upper stratum of relatively warm air and a lower stratum of air of temperature lower than that of the external atmosphere, removing warm air from said upper stratum, and supplying air of lower temperature than that of the external atmosphere to maintain said lower stratum of air of substantially uniform volume.

4. The method of ventilating and refrigerating which comprises maintaining in a room an upper zone of relatively warm air and a lower zone of cool air, removing warm air from said upper zone, circulating air to and from said lower zone, exchanging the refrigerating value of the air extracted from said lower zone into the fresh air current flowing to said lower zone, and supplying a refrigerant to said fresh air current after such exchange.

10. In a ventilating and refrigerating apparatus, in combination with a room the lower portion of which forms a substantially tight container for cool air, an inlet port to supply air to the lower portion of said room, means to refrigerate the air supplied through said inlet port to a temperature lower than that of the external atmosphere, and an exit port to conduct warm air from the upper portion of said room.

[Claims 2, 3, and 5 to 9 not printed in the Gazette.]

1,252,473. HOISTING-ENGINE. THOMAS SPENCER MILLER, South Orange, N. J., and LOUIS G. RUGGLES, New York, N. Y., assignors of one-half to Lidgerwood Manufacturing Company, a Corporation of New York. Original application filed June 3, 1913, Serial No. 771,399. Divided and this application filed July 3, 1915. Serial No. 37,894. (Cl. 254—184.)



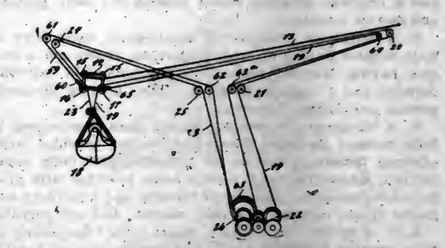
1. In combination, two winding drums, two reversible motors respectively driving said drums independently of each other, means for coupling said motors, independent controllers for the motors, and means for coupling said controllers.

8. In combination, two winding drums arranged to rotate on axes in longitudinal alinement with each other and each provided with a gear, two prime movers having individual power shafts in longitudinal alinement with each other, and each carrying a gear, shafts between the power shafts and the drums and geared to the drum gears and the gears on said power shafts, said shafts between the power shafts of the drums being in longitudinal alinement, means for connecting and disconnecting two of said rotatable elements in longitudinal alinement with each other, individual controlling means for each of said prime movers, and means for connecting and disconnecting said controlling means whereby they are capable of simultaneous or individual operation.

[Claims 2 to 7 not printed in the Gazette.]

1,252,474. LOAD HOISTING AND TRANSFER APPARATUS. THOMAS SPENCER MILLER, South Orange, N. J. Filed Apr. 16, 1915. Serial No. 21,666. (Cl. 212—81.)

1. In a load-transferring means, a trackway, a carriage thereon, an opening and closing bucket, a holding line for the bucket extending lengthwise of said trackway, a closing line for the bucket extending lengthwise of the trackway in opposite direction to the holding line, independent drums for operating said lines, separate motors for driving said drums, and means for connecting said drums whereby both are driven from the same motor.

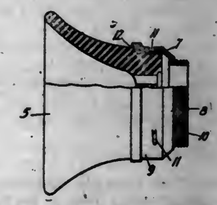


2. In a load-transferring means, a trackway, a carriage thereon, an opening and closing bucket, a holding line for the bucket extending lengthwise of said trackway, a closing line for the bucket extending lengthwise of the trackway in opposite direction to the holding line, independent drums for operating said lines, separate motors for driving said drums whereby said drums may be operated independently and at different speeds, and means whereby both drums may be driven at equal speed from the same motor.

3. In a load-transferring means, a trackway, a carriage thereon, an opening and closing bucket, a holding line for the bucket extending lengthwise of said trackway, a closing line for the bucket extending lengthwise of the trackway in opposite direction to the holding line, independent drums for operating said lines, a holding line for the carriage extending in opposite directions lengthwise of the cableway, a holding drum upon which the said carriage-holding line is wound, and connections between one of said first-named drums and the holding drum whereby they may run together simultaneously, and the said carriage-holding line drum may be held stationary during the running of said first-named drum.

4. In a load-transferring means, a trackway, a carriage thereon, an opening and closing bucket, a holding line for the bucket extending lengthwise of said trackway, a closing line for the bucket extending lengthwise of the trackway in opposite direction to the holding line, independent drums for operating said lines, a carriage-holding line connected to the carriage and extending lengthwise of the cableway in opposite directions, a drum upon which said carriage-holding line is wound, means for coupling said carriage-holding line drum and one of said first-named drums whereby they are operable simultaneously, and means whereby the carriage-holding line drum may be held stationary during the rotation of the other drum.

1,252,475. TELEPHONE-TRANSMITTER MOUTH-PIECE. EMIL C. MUELLER, Jr., Elizabeth, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Feb. 26, 1917. Serial No. 151,009. (Cl. 179—187.)



1. A telephone transmitter mouth-piece comprising a body member having external threads at one end, a ferrule having internal projections engaging said external threads, and a binder holding the body portion and ferrule together.

2. A telephone transmitter mouth-piece comprising a body member having external threads at one end, a ferrule having internal projections engaging said external threads, and a resilient adhesive binder holding the body portion and ferrule together.

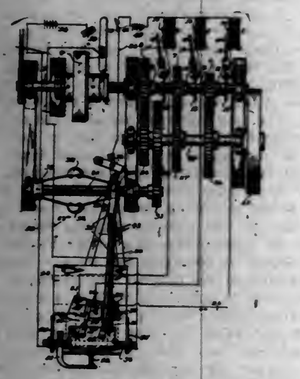
3. A telephone transmitter mouth-piece comprising a body member having external projections at one end, a ferrule having internal projections engaging said external threads, and a resilient adhesive binder holding the body portion and ferrule together.

6. A telephone transmitter mouth-piece, comprising a body member having a contracted portion provided with external threads, a ferrule for attaching said body member to a transmitter, said ferrule being provided with projections adapted to engage said threads, and a resilient adhesive binder between said body member and said ferrule.

7. A telephone transmitter mouth-piece, comprising a body member having a contracted portion provided with external threads which are interrupted at one or more places, a ferrule for attaching said body member to a transmitter, said ferrule being provided with projections adapted to engage said threads, and a resilient adhesive binder between said body member and said ferrule, said binder being anchored at the interrupted portions of said threads.

[Claims 4 and 5 not printed in the Gazette.]

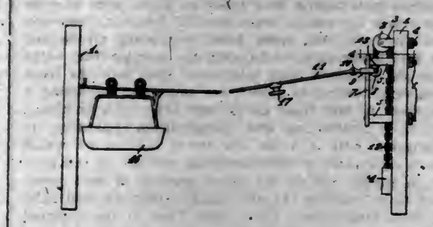
1,252,476. SPEED-CHANGING MECHANISM. REGINALD G. MULKINS, Ottawa, Ontario, Canada. Filed Nov. 10, 1916. Serial No. 130,596. (Cl. 74—97.)



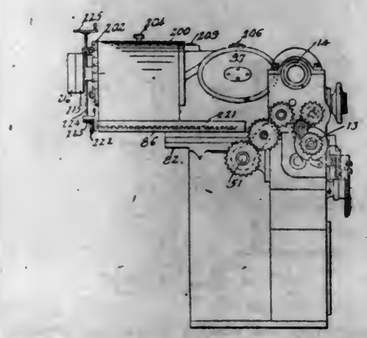
A speed changing mechanism consisting of two series of graduated gears mounted on separate shafts and adapted to mesh in pairs, one series of gears having lateral clutch members, clutch members mounted on one of said shafts adapted to engage said lateral clutch members on said gears, a governing mechanism, a bar operated by said governing mechanism, plates mounted on a frame, a flat spring connected to said bar and carrying a connection pin at its free end adapted to slide over said plates, a series of magnets each connected to one of said plates, keys pivotally mounted to be attracted by said magnets and adapted to throw said clutch members into engagement with said lateral clutch members, a set of fingers hingedly mounted on said frame, magnets adapted to raise said fingers, and a connection means to operate said magnet by pressing the clutch lever.

1,252,477. AUTOMATIC LITTER-CARRIER. ARTHUR J. NASH, Utica, Minn. Filed June 4, 1917. Serial No. 172,714. (Cl. 214—4.)

An automatic carrier, comprising a cable, a stationary support for one end of the cable, and a movable support for the other end of the cable, consisting of spaced arms, a bar secured to the arms, a sheave traveling on the bar, a yoke pivoted to the sheave and secured to the cable, another yoke secured to the sheave, a flexible member secured to the yoke, a pulley for guiding the flexible member and a weight on the flexible member, a bucket mounted to travel on the cable, and a trip for emptying the bucket.



1,252,478. WORM-GRINDING MACHINE. MAYHEW E. NORRIS, Cleveland, Ohio, assignor to The Hendrickson Machine Company, Cleveland, Ohio, a Corporation of Ohio. Filed Aug. 23, 1916. Serial No. 116,526. (Cl. 51—4.)



1. In a machine for grinding worms, rotatable work holding means, a rotatable grinding wheel movable longitudinally of the work during the grinding interval at a speed to maintain the wheel in proper engagement with the thread, means for resetting the grinding wheel for successive operations, and a rotatably mounted holder for said wheel, the projected axis of which passes through both the axis of rotation of the grinding wheel and the axis of rotation of the work at a right angle the axis of which cuts the axis of rotation of the grinding wheel and of the work at a right angle.

3. In a machine for grinding the threads of worms or the like, rotatable work holding means, a rotatable grinding wheel movable longitudinally of the work during the operation at a speed adapted to maintain the wheel in proper contact with the thread during the grinding movement, means for resetting the grinding wheel for successive operations, and means for indexing the work during the resting interval, the grinding wheel being mounted and adapted to be turned about an axis cutting the axis of rotation of the grinding wheel and of the work at a right angle.

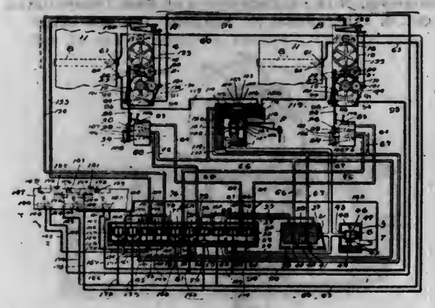
5. In a machine of the character described, a rotatable grinding wheel adapted to be brought into and out of contact with the work to be ground, and a support for the wheel rotatable about an axis cutting the axis of rotation of the wheel and of the work at a right angle.

7. In a machine of the character described, work holding means adapted to rotate the work, a rotatable grinding wheel, a support for the wheel rotatable about an axis cutting the axis of rotation of the wheel and of the work at a right angle, a mounting for the support, releasable means for securing the support against rotation therein, a drive shaft, the longitudinal axis of which coincides with the axis of rotation of the support, the grinding wheel being in geared relation with the said shaft, a carriage provided with ways for said mounting, manual means for adjusting the mounting on the carriage toward or from the work to position the wheel relative to the work, automatic means for moving the carriage toward and from the work to bring the wheel into and out of contact therewith, and means for moving the carriage longitudinally of the work, said means including a master gear whereby the movement of the carriage and rotation of the work are so related that the grinding wheel is maintained in desired contact with the work during the grinding operation.

14. In a machine for grinding the threads of worms or the like, work holding means, means for rotating the same, a rotatable grinding wheel for operating thereon, said wheel being adapted to be turned about a fixed center lying in a horizontal plane cutting the longitudinal axis of the work, and releasable means for holding the wheel in the desired position for operating on the work.

[Claims 2, 4, 6, and 8 to 13 not printed in the Gazette.]

1,252,479. AUTOMATIC MUSICAL INSTRUMENT. ELMER L. OUCHIE, Detroit, Mich., assignor to The Rudolph Wurlitzer Manufacturing Company, North Tonawanda, N. Y., a Corporation of New York. Filed Dec. 26, 1913. Serial No. 808,857. (Cl. 84—161.)

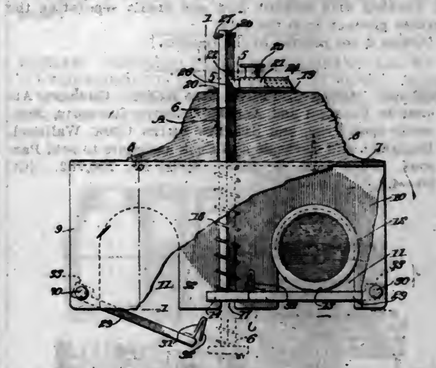


5. In an instrument of the character described, the combination of a wind chest, a plurality of tracker mechanisms each including a tracker board and music and take-up rolls associated therewith, driving mechanism including shiftable members for alternately rotating said rolls in opposite directions, separate pneumatics for moving each of the shiftable members into playing and rewind position, a pneumatic cut-off for each tracker to disconnect the same from the wind chest, the playing pneumatic and cut off of one tracker mechanism and the rewind pneumatic of the other tracker mechanism being connected together to act in unison, valve mechanism controlling said pneumatics and cut-offs, and a pneumatic action controlled by the tracker board for actuating said valve mechanism.

6. In an instrument of the character described, the combination of a tracker, a music roll, a take-up roll having a shoulder, driving and rewind spur gears for alternately rotating said rolls, an oscillatory arm carrying spur gears arranged to engage said driving and rewind gears, respectively, means for driving the gears of said arm, a rock shaft arranged parallel with the axis of the take up roll and having an actuating finger arranged to be tripped by said shoulder to positively rock said shaft, said rock shaft having an arm arranged in line with said oscillatory arm and a link connecting the last-named arm with the arm of said rock shaft.

[Claims 1 to 4 not printed in the Gazette.]

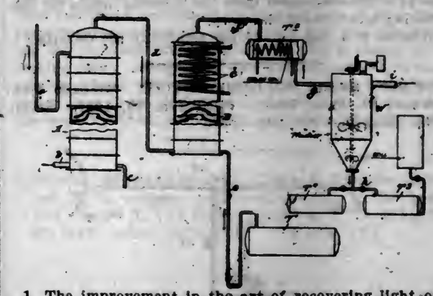
1,252,480. BOTTLE-SAFE. JOSEPH PAOLICELLI, New York, N. Y. Filed July 25, 1916. Serial No. 111,300. (Cl. 232—41.)



3. A safe of the class described having a supporting wall provided with an article-receiving opening, a shield wall disposed over said opening, a connecting wall for said walls, a pivot member mounted by said supporting walls, a locking bar mounted on said pivot member to close said opening, said bar having a locking spring thereon provided with a yieldable leaf, a bolt slidable through said connecting wall, said bolt having a head provided with slots, said supporting wall being cut away to provide portions entering said slots, said leaf when the bar is in closed position abutting the head from the interior, an expansion spring surrounding said bolt and abutting said connecting wall and said head, a latch engageable with the bolt to maintain it in retracted position, means on the bolt to limit its projecting movement, and said bolt having a beveled portion to facilitate initial engagement of the latch upon retraction.

[Claims 1 and 2 not printed in the Gazette.]

1,252,481. ART OF RECOVERING LIGHT OILS. RICHARD B. PARKER, Solvay, N. Y., assignor to Semet-Solvay Company, Solvay, N. Y., a Corporation of New York. Filed Mar. 6, 1916. Serial No. 82,349. (Cl. 196—25.)



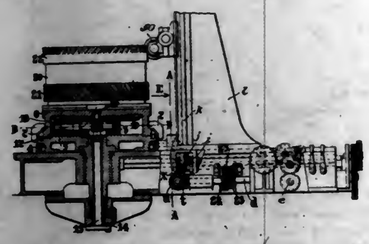
1. The improvement in the art of recovering light oils from gas which consists in absorbing the oil vapors of the gas in an absorbent oil, distilling off the volatile components from the oil, condensing and separating from the more volatile components those of highest boiling points, including the olefins and the like, condensing together the remaining vapors and treating the condensate to remove the unsaturated hydrocarbons and finally distilling off and separately recovering the light oils.

3. The improvement in the art of recovering light oils from gas which consists in absorbing the oil vapors of the gas in an absorbent oil, distilling off the volatile components from the oil, condensing and thereby separating

from the more volatile components those of highest boiling points, including the olefins and the like, condensing together the remaining vapors, purifying the condensate by washing with sulfuric acid and finally separating the purified product from the acid.

[Claim 2 not printed in the Gazette.]

1,252,482. GEAR-CUTTING MACHINE. CHARLES ALGERNON PARSONS and ALFRED QUINTIN CARNEGIE, Newcastle-upon-Tyne, and STANLEY SMITH COOK, Wallsend, England; said Carnegie and Cook assignors to said Parsons. Filed Mar. 25, 1913. Serial No. 756,762. (Cl. 90—4.)

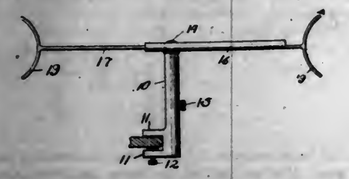


1. A helical gear hobbing machine, comprising in combination, a worktable, an index wheel, means to rotate said wheel, means actuated by the rotation of said wheel acting to cause rotation of said table at a speed different from said wheel, a hob, means to rotate said hob, means between said hob rotating means and said index wheel rotating means to preserve correct indexing relation between the rotations of said hob and the rotation of said table, means to feed said hob, and means between said hob feeding means and said index wheel rotating means to preserve correct lead relation between said hob and said table.

4. In combination, in a helical gear hobbing machine, a work-carrying table, a hob having a traversing movement across the work, indexing means including toothed gearing and driving means therefor for driving the table, means for giving the indexing means an additional movement proportional to the traversing movement of the hob for obtaining lead, and means actuated by said indexing means and actuating said table to cause the latter to rotate at a different speed from the indexing means for distributing errors about the work.

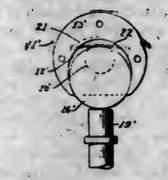
[Claims 2, 3, and 5 to 11 not printed in the Gazette.]

1,252,483. SKEIN-HOLDING DEVICE. MILDRED PATTISON, St. Paul, Minn. Filed Jan. 29, 1917. Serial No. 145,179. (Cl. 242—118.)



A skein holding and unwinding device comprising a tubular standard, a pin removably disposed in the standard and provided with a head on the outer end thereof, a pair of arms slidably adjustable longitudinally with respect to each other and provided with a series of registrable openings for the reception of said pin upon which the arms are rotatably supported, strand holding members carried by the outer ends of the arms, and means carried by the standard and adjustable into engagement with the pin for retaining the head of said pin in retarding engagement with said arms.

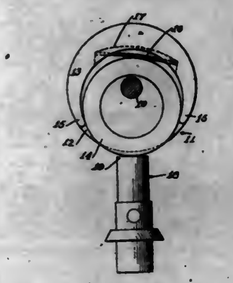
1,252,484. MECHANICAL MOVEMENT. CARL PAULI, Sound Beach, Conn., assignor to Garwood Company, Garwood, N. J., a Corporation of New Jersey. Filed Oct. 4, 1916. Serial No. 123,614. (Cl. 255—41.)



1. The combination with a cylindrical hammer-member in the form of a flat-disk, of a guiding-member housing adapted to loosely retain said cylindrical hammer-member therein by a partially peripheral wall only; and a shaft for circumferentially rotating the guiding-member on its own axis, said guiding-member housing loosely supporting the cylindrical hammer-member with its axis eccentric to the axis of the rotation of the shaft, which is parallel with the axis of the cylindrical hammer-member; and the housing guide-member being provided with a peripheral opening allowing a portion of the periphery of the cylindrical hammer-member to project therethrough.

[Claims 2 to 5 not printed in the Gazette.]
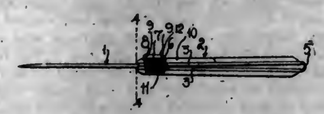
1,252,485. MECHANICAL MOVEMENT. CARL PAULI, Sound Beach, Conn., assignor to Garwood Company, Garwood, N. J., a Corporation of New Jersey. Filed Oct. 4, 1916. Serial No. 123,615. (Cl. 255—41.)



7. In a mechanical movement, a drive-shaft; a housing of substantially crescent shape secured to and rotating with said shaft; a floating cylindrical hammer-member located within the crescent-shaped-member which crescent-shaped-member maintains said floating hammer-member in a position eccentric to the shaft; and a spring disposed in the crescent-shaped-member, normally forcing the cylindrical floating-hammer-member out through the peripheral orifice between the horns of the crescent of the housing to the limit of its play therein, so as to constantly maintain the floating hammer-member axis eccentric to the axis of rotation of the shaft and crescent-shaped-member.

[Claims 1 to 6 and 8 to 12 not printed in the Gazette.]

1,252,486. KNIFE. SWEN PAULSON, Heber City, Utah. Filed Jan. 19, 1917. Serial No. 143,330. (Cl. 30—10.)



1. A knife comprising a handle including side bars resiliently urged away from each other, a blade, a pivot pin upon which the blade is mounted passing through

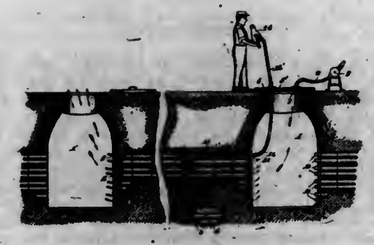
said side bars and having a head, and a latch member engaging between said head and one of the side bars and when turned in one position having wedging engagement with the head to urge the side bars toward each other and in another position permitting the side bars to spring away from each other to thereby release the grip of the side bars upon the blade and permit the blade to be shifted.

2. A knife of the character described, comprising a blade embodying channeled side bars yieldingly connected together, a pivot pin carried by said side bars and on which the blade is pivotally mounted, said pin being formed at one end with a head, and a swinging latch member rotatably mounted upon said pin back of the head and designed for wedging engagement therewith whereby to hold the side bars clamped upon the blade.

3. As a new article of manufacture, the herein-described knife, comprising a blade, a handle embodying channeled side bars and a connecting member yieldingly joining said bars together at one end, a pivot pin connected at one end to one of the side bars, and passing freely through the other one, the blade being pivotally mounted on said pin, and the pin being formed at one end with a head, and a swinging latch member mounted upon said pin back of the head and formed with a recess to receive the head, said recess having an inclined side wall for the purpose specified.

[Claims 4 and 5 not printed in the Gazette.]

1,252,487. METHOD FOR ASCERTAINING THE LOCATION OF LEAKS IN UNDERGROUND FLUID-PRESSURE PIPES. GEORGE V. PAYNE, Chicago, Ill. Filed Feb. 23, 1917. Serial No. 150,544. (Cl. 137—77.)



1. The method of ascertaining the location of a leak in an underground fluid pressure pipe which consists primarily in creating a draft in one direction adjacent the leak, and secondarily in creating a suction in said draft in the same direction, substantially as described.

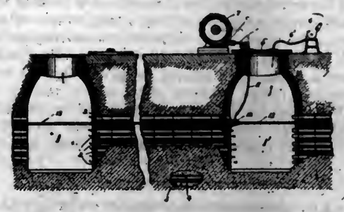
3. The method of ascertaining the location of a leak in an underground fluid pressure pipe which consists primarily in creating a draft in one direction adjacent the leak, and secondarily in creating a suction in said draft in the same direction by means of a pipe arranged and progressively extended in said draft, substantially as described.

8. The method of ascertaining the location of the point of entry of fluid into a conduit extending between and opening into two upwardly opening vaults, which consists in first closing the upper end of one of said vaults with a transparent closure, second in exhausting air from said closed vault to create a draft in one direction through said conduit, third in inserting and progressively extending a pipe into said conduit from a position within said last mentioned vault, and fourth in intermittently drawing some of the contents of said conduit at the front end of said pipe through the latter for examining the same, substantially as described.

10. The method of ascertaining the location of the point of entry of fluid into a conduit opening into a vault, which consists in exhausting air from said vault and withdrawing air from different points of said conduits, and testing said withdrawn air for the presence of said fluid, substantially as described.

[Claims 2, 4 to 7, 9, 11, and 12 not printed in the Gazette.]

1,252,488. METHOD FOR ASCERTAINING LEAKS IN UNDERGROUND FLUID-PRESSURE PIPES. GEORGE V. PAYNE, Chicago, Ill. Filed Mar. 9, 1917. Serial No. 153,743. (Cl. 137—77.)



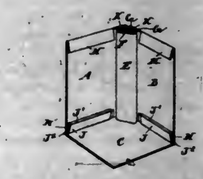
1. The method of ascertaining the location of a leak in an underground fluid pressure pipe which consists in creating a current passing the location of the leak; testing said current for the presence of a leaking fluid; and determining the location of the leak from the quantity of the current, substantially as described.

2. The method of ascertaining the location of a leak in an underground fluid pressure pipe which consists in creating a current of air in one direction passing the location of the leak; reversing said current; testing said reversed current for the presence of the leaking fluid; and determining the location of the leak from the quantity of the reversed current, substantially as described.

3. The method of ascertaining the location of a leak in the neighborhood of a plurality of ducts which consists in creating a current of air through all of said ducts; then creating a current of air through one of said ducts; then reversing the current of air through said one duct; testing said reversed current for the presence of the leaking fluid; and determining the location of the leak from the quantity of the reversed current, substantially as described.

4. The method of ascertaining the location of a leak in the neighborhood of a plurality of underground ducts connecting two underground vaults, which consist in forcing air into one of said vaults and through all of said ducts; then creating a current of air through one of said ducts; reversing the current of air through said one duct; testing the reversed current of air for the presence of the leaking fluid; determining the quantity of the reversed current of air withdrawn until the leaking fluid is detected; and then calculating the location of the leak from the quantity of air withdrawn, substantially as described.

1,252,489. METALLIC BOX. JOHN R. PEARSON, Brooklyn, N. Y., assignor to himself, George W. McCloskey, and Charles Y. Van Doren, Brooklyn, N. Y. Filed Dec. 29, 1916. Serial No. 139,667. (Cl. 220—17.)

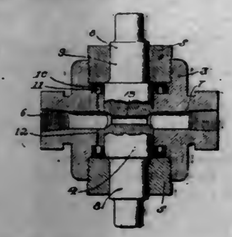


1. In a box of the character set forth, side and end members having their adjacent vertical edges bent inwardly with their bends abutting forming folds at the interior corners of the box with the terminals of said side

and end members disposed at right angles to each other, removable locking members disposed interiorly of the box at the corners thereof, each having its edges bent to match said folds with their free edges disposed in said bends, and a bottom and a cover each having means cooperating and interlocking with means on the side and end members.

2. In a box of the character set forth, side and end members having their adjacent vertical edges bent inwardly to form opposite folds at the interior corners of such box, inwardly bent angularly projecting wings on the upper and lower margins of said members, a locking member for each corner, each comprising a single piece of sheet metal having its edges bent to match to and engage said folds, and to extend diagonally across such corner, and a bottom and a cover, each having an inwardly bent angularly projecting flange on each of its edges, and an outwardly projecting lip on each of said flanges, said lips adapted to engage said wings and hold said bottom and cover in locked engagement with said side and end members.

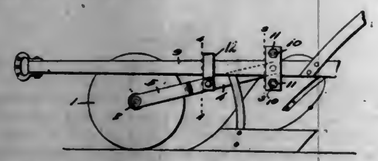
1,252,490. HYDRAULIC, STEAM, OR AIR VALVE. NICHOLAS U. PERIS, Steelton, Pa., assignor of one-third to Frank E. Howells and one-third to Robert G. Warren, Harrisburg, Pa. Filed Jan. 24, 1917. Serial No. 144,198. (Cl. 137—7.)



1. In a balanced valve, the combination of a casing, glands in said casing providing packing chambers, a plug working in said glands and casing, and U-shaped expansible packings in said packing chambers, said casing constructed with apertures leading from the inlet side thereof into the packing chambers to admit fluid pressure into the grooves of the packings to expand said packings and form fluid-tight joints, substantially as set forth.

2. In a balanced valve the combination of a casing constructed with a central chamber and having opposed recesses, glands fitting in said recesses and forming packing chambers, a turning plug fitting in said glands and the casing chamber, and U-shaped flexible packings fitting in said packing chambers, said casing constructed with apertures admitting fluid pressure from the inlet side of the valve into the grooves of the packings and forming fluid-tight joints, substantially as set forth.

1,252,491. FLOW ATTACHMENT. SIM F. PERKINS, Henderson, Tex. Filed Nov. 29, 1916. Serial No. 134,183. (Cl. 97—13.)

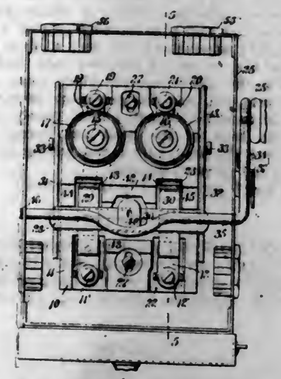


1. The combination with a plow and a plow beam, of a bar having one end pivotally engaged with said beam, a rotatable disk carried by the opposite end of said bar, an elongated loop member surrounding said beam, and provided with an extension pivotally secured to said bar, said loop member being movable vertically on the beam to permit a corresponding movement of the bar and disk.

3. In a device of the character described a horizontal beam, clamping plates mounted thereon, a supporting plate mounted on one of the clamping plates, a disk supporting bar pivotally mounted on the supporting plate, a rolling disk carried by the disk supporting bar, a substantially rectangular loop engaged about the beam and having operative connection with the disk supporting bar, the loop being capable of vertical movement on the beam.

[Claim 2 not printed in the Gazette.]

1,252,492. ENTRANCE-SWITCH. CLARENCE D. PLATT, Bridgeport, Conn. Filed Mar. 3, 1917. Serial No. 152,256. (Cl. 175—282.)

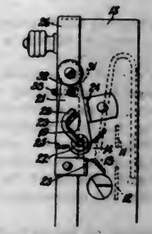


1. In a switch construction, an insulating base, stationary contacts carried thereby, an insulating cross bar, arch shaped switch contacts carried by said cross bar, said base having insulating projections on the face thereof forming guides for said cross bar, springs for pressing said cross bar away from said base, an operating shaft having an offset engaging said cross bar and stops for limiting the movement of said operating shaft.

2. In a switch construction, stationary and movable switch members, a box inclosing the same comprising a body and a hinged cover, a shaft for operating the movable switch member having a handle disposed exteriorly of the box, and a flange on the cover in position when the cover is open to engage the handle in its closed circuit position and to shift said handle, as the cover is closed into its open circuit position.

[Claims 3 to 8 not printed in the Gazette.]

1,252,493. INCLOSED-SWITCH CONSTRUCTION. CLARENCE D. PLATT, Bridgeport, Conn. Filed Apr. 6, 1917. Serial No. 160,179. (Cl. 175—282.)



1. In an inclosed switch construction, the combination of a spring operated switch member, an operating shaft, an inclosure for said parts comprising a box having a hinged cover, said shaft having one end projecting from said inclosure and extending at substantially right angles to the axis of the shaft; an operating handle pivoted to oscillate about said shaft and having two projecting lugs spaced apart from each other for engaging the end of said shaft, a stationary stop on the box for limiting the movement of said handle in one direction and a stop on the cover for limiting the movement of the handle in the opposite direction, said stop being disposed to engage said handle when the cover is moved, to throw the handle in a switch opening direction.

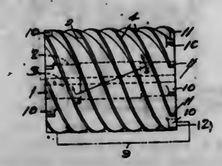
[Claims 2 to 7 not printed in the Gazette.]

1,252,494. CAN. MARTHA B. PRATT, Albany, N. Y. Filed Jan. 18, 1917. Serial No. 142,993. (Cl. 220—138.)



A can comprising a receptacle; a series of annular projecting ridges connected therewith; a bottom provided with a downwardly projecting flange; an enveloping casing engaging said projections; an angle bar engaging with the wall of the receptacle and also with the wall of the casing; an annular reinforcing ring engaging the flange extending from the bottom of the receptacle; means for securing the casing, angle bar, flange and ring together; a false bottom placed in the receptacle; a cover provided for the receptacle; and a plate extending across the cover forming a space between the top of the cover and said plate, substantially as described.

1,252,495. CUTTER. JOHN M. RICHARDS, Beaver Falls, Pa., assignor of one-fourth to Abraham Rasner, Pittsburgh, Pa., one-fourth to Albert W. Francis, Beaver Falls, Pa., and one-fourth to Edwin M. S. Young, Crafton, Pa. Filed Apr. 10, 1914. Serial No. 830,879. (Cl. 29—103.)



5. A rotary cutter having a plurality of cutting blades arranged to effect a shearing cut on the work and having auxiliary cutting blades at one end intermediate the main blades to cut a clean angle in the work.

[Claims 1 to 4 and 6 not printed in the Gazette.]

1,252,496. DITCHING-MACHINE. BENJAMIN M. ROLPH, Dixon, Ill. Filed Nov. 28, 1916. Serial No. 132,930. (Cl. 37—17.)

3. In a device of the class described, a portable frame; an excavating wheel rotatably mounted in said frame; a plurality of scoops secured to said wheel; agitators in the rear ends of said scoops formed of a plurality of blades rotatably mounted; and a spring-arm secured to



said frame and adapted to successively engage said agitators to suitably operate the same at a desired point in the rotation of said wheel.

[Claims 1 and 2 not printed in the Gazette.]

1,252,497. AUTOMATIC CONTROLLER. HOWARD W. ROYCE, Chicago, Ill., assignor to Semet-Solvay Company, Solvay, N. Y., a Corporation of New York. Filed Mar. 10, 1917. Serial No. 153,856. (Cl. 74—51.)



1. The combination with an adjusting mechanism of a member adapted by its movement to operate the adjusting mechanism, a second normally moving member adapted to impart movement to said first member but normally out of engagement therewith and means adapted to be interposed in the path of movement of said second member and to be actuated by the movement of the part to be adjusted, the movement of said means causing said second member to engage and move said first named member.

2. In a controlling device the combination of a toothed member adapted by its movement to set in operation mechanism for adjusting the movement of the part to be controlled, a normally moving pawl adapted to engage said member but normally out of engagement therewith and means operated by the movement of the part to be controlled to obstruct the movement of said pawl and thereby throw it into engagement with said member.

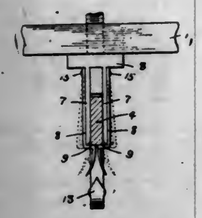
4. In a controlling device the combination of a toothed member adapted by its movement to effect the adjustment of the part to be controlled, a rocking frame, a pawl pivotally mounted therein and adapted to engage said member, means carried by said frame for normally holding the pawl out of engagement with said member and means actuated by the abnormal movement of the part to be controlled for causing said pawl to engage with said member.

6. In a controlling device, the combination of a toothed member adapted by its movement to effect the adjustment of the part to be controlled, a pivotally mounted pawl adapted to engage said member, means for normally holding the pawl out of engagement with said member, a pivotally mounted arm having shoulders adapted to engage said pawl and means actuated by the abnormal movement of the part to be controlled for causing one or another of said shoulders to engage said pawl and throw it out of engagement with said holding means and cause it to engage said toothed member.

7. In a controlling device the combination of a toothed member adapted by its movement to effect the adjustment of the part to be controlled, a rocking frame, a pawl pivotally mounted on said frame and adapted to engage said member, means for normally holding the pawl out of engagement with said member and in a fixed position in relation to said frame and means actuated by the abnormal movement of the part to be controlled for changing the position of the pawl in relation to the frame and throwing it into engagement with said member.

[Claims 3, 5, 8, and 9 not printed in the Gazette.]

1,252,498. ELECTRIC SWITCH. SIDNEY SAMPSON, Duluth, Minn. Filed Jan. 30, 1917. Serial No. 145,341. (Cl. 175—282.)



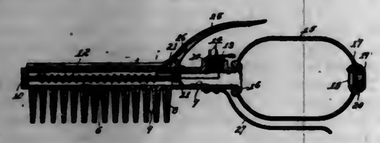
1. A locking and unlocking device for electric switches, comprising two opposed coöperating members for normally retaining the switch in locked position, and means pivotally carried by the free end of the switch and engageable intermediate of the coöperating members whereby the switch may be closed or opened by a single movement of the operating rod when engaged with the last mentioned means.

2. In an electric knife blade switch, the combination of two contact members, a switch blade pivotally carried by one of said members, and engageable with the other of said members, opposed separable locking members carried upon opposite sides of the last mentioned contact member and means pivotally carried by the switch blade for separating the locking members when the switch is being unlocked.

3. In an electric knife blade switch, the combination of two contact members, a switch blade pivotally carried by one of said members and engageable with the other of said members, opposed separable resilient locking members carried upon opposite sides of the last mentioned contact member and overlapping the end of same, a manipulating member pivotally carried upon the extreme free end of the switch blade, said manipulating member having a wedge shaped projecting head for separating the locking members and means for operating the manipulating member simultaneously with the opening and closing of the switch.

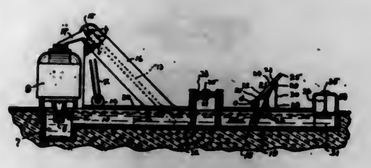
4. The combination with a knife blade switch of the character described, designed to operate within a bifurcated contact member, of opposed resilient locking members carried upon either side of the bifurcated contact member, the extreme free ends of the locking members diverging outwardly, a manipulating member pivotally supported upon the extreme free end of the blade of the switch, a projection of the manipulating member having a wedge shaped head for engagement intermediate of the diverging ends of the locking members and means whereby the manipulating member is operated simultaneously with the opening and closing of the switch.

1,252,499. HAIR FLUFFER AND PERFUMER. GEORGE L. SCHEBL, Chicago, Ill. Filed Mar. 12, 1914. Serial No. 824,122. (Cl. 132—3.)



The combination of a hollow comb with passageways in the teeth thereof and a chamber in communication with said passageways, heating means in said chamber, a rubber bulb arranged at one end of said chamber and provided with a valve inlet, the opposite side of said chamber from said teeth being longitudinally corrugated, a correspondingly corrugated member hingedly mounted upon said comb and coöperating with the first mentioned corrugated portion, the last mentioned corrugated member being provided with an operating handle extending upwardly and to a point adjacent said bulb and a fixed handle member secured to the comb and extending upon the opposite side of said bulb from said operating handle whereby the bulb may be operated to force air through the said chamber and teeth or the corrugated portions may be operated independently without compressing the bulb, substantially as described.

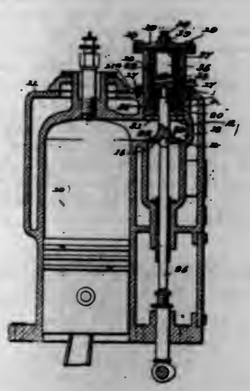
1,252,500. FISH DRIVING, LOADING, AND DELIVERY SYSTEM. ALEXANDER F. C. SCHNOOR, Omaha, Nebr. Filed Mar. 14, 1917. Serial No. 154,839. (Cl. 119—5.)



1. In a system for the purpose described, a channel open at its top for containing water and live fish, an endless carrier in the channel for delivering the fish therefrom, a vehicle supported outwardly of the sides and having an axle spanning the channel, a perforate gate in the channel and carried by said axle, said vehicle and gate being movable longitudinally of the channel for driving the fish in the direction of the carrier.

[Claims 2 to 10 not printed in the Gazette.]

1,252,501. PUPPET-VALVE FOR INTERNAL-COMBUSTION ENGINES. FRANK D. SHEPHERD, Salt Lake City, Utah. Filed May 21, 1917. Serial No. 169,945. (Cl. 123—188.)

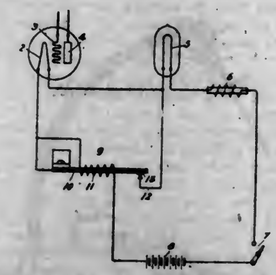


1. The combination of an engine cylinder having a valve-controlled passage, with a valve seat, a puppet valve, a shell or container, a spring in said shell, a valve stem passing through an opening into the container and acted upon by said spring, and a removable liner for said container.

5. The combination of an engine cylinder, having a valve controlled passage with a valve seat, a puppet valve, a lifting stem made separate from the valve, and a ball and socket bearing between the valve and said stem.

[Claims 2 to 4 and 6 not printed in the Gazette.]

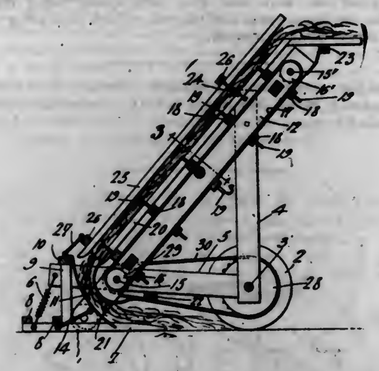
1,252,502. PROTECTIVE CIRCUIT. HERBERT EDWARD SHREEVE, Milburn, N. J., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed Feb. 9, 1915. Serial No. 7,123. (Cl. 175—294.)



1. A protective circuit comprising a source of current, a current actuated device to be protected, automatic means for regulating the amount of current flowing through said device under normal conditions of operation, a low resistance path in parallel with said device and a slow acting means operating upon the closure of said circuit to open said low resistance path.

2. A protective circuit comprising a source of current, a current actuated device in series therewith, a ballast resistance adapted when heated to limit the current flowing through said device, a shunt circuit for said device, and a slow-acting current-actuated means for opening said shunt circuit when said ballast resistance shall have become heated.

1,252,503. HAY-LOADER. JOHN D. SHULTZ, Atalissa, Iowa. Filed Apr. 6, 1917. Serial No. 160,187. (Cl. 56—61.)

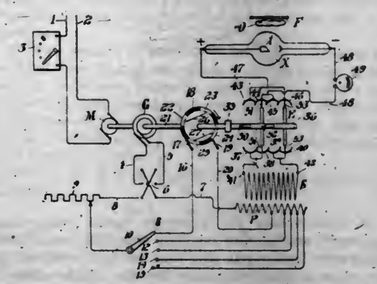


1. In a hay loader, a wheel supported frame, an endless carrier in the frame, retaining bars overlying the carrier, means for operating the carrier, a gathering rack comprising collecting fingers, cross bars connecting the fingers, uprights rising from a median point on the fingers, a rail seated upon and secured to the upper end of the uprights, links connecting the rail to the retaining bars, and links connecting certain of the gathering fingers to the frame.

[Claim 2 not printed in the Gazette.]

1,252,504. X-RAY APPARATUS. HOMER C. SNOOK, Cynwyd, and GEORGE H. WHITE, Haverford, Pa. Filed May 26, 1915. Serial No. 30,509. (Cl. 250—34.)

1. The combination with a source of alternating current, of a commutator driven in synchronism with the alternating current, said commutator comprising a pair of segments electrically connected to each other, insulation between said segments, a pair of brushes with respect to which said segments and insulation rotate, a transformer, an X-ray tube in the secondary circuit of said transformer, a connection from one of said brushes to a point in the primary winding of said transformer and the other of said brushes connected to a switch, and connections from said transformer primary and said switch to said source of current.

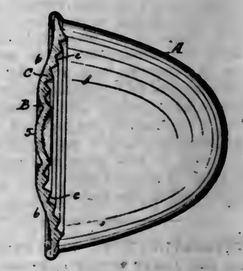


2. The combination with a source of alternating current, of a commutator driven in synchronism with the alternating current, a transformer, an X-ray tube connected in the secondary circuit of said transformer, a pair of brushes bearing on said commutator and connected respectively with the primary of said transformer and with a switch, and connections from said transformer primary and said switch to said source of current.

3. The combination with a source of alternating current, of a commutator and a rectifying switch driven in synchronism with said current, a transformer, a translating device, said commutator and a switch intervening between the primary of said transformer and said source, said switch in one position connecting said commutator in series with a portion of the transformer primary, and in another position cutting out said commutator and cutting in a different number of turns of said primary.

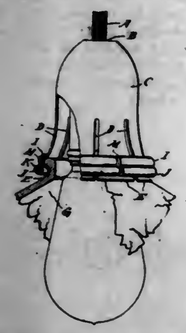
[Claims 4 to 9 not printed in the Gazette.]

1,252,505. HEADLIGHT-LENS. EDWARD F. STEINMAN, Cincinnati, Ohio. Filed May. 1, 1917. Serial No. 165,775. (Cl. 240—48.4.)



A headlight lens comprising a series of concentric annular prisms each of substantially triangular cross section in its portrusion from the body of the lens, the inner inclined side of each of said annular prisms being arranged to diffuse away from the axis of the lens incident rays and the outer inclined side of each of said annular prisms being arranged to refract incident rays substantially parallel with the axis of said lens, said outer inclined faces being treated to render them translucent.

1,252,506. SHADE-HOLDER. MERTON P. STEVENS, East Orange, N. J. Filed Mar. 14, 1916. Serial No. 84,002. (Cl. 240—115.)



1. A shade-holder for artificial lights, comprising a socket cover and a split resilient ring, the lower portion of the cover being split and bent to form resilient gripping arches adapted to engage the top of the shade, the ring conforming to the shape of the arches and being provided with an upper portion adapted to engage the arches and a lower portion bent to inclose a spring, the spring portion being below the arches and adapted to retain the ring in locked position around the fingers.

5. A shade-holder for artificial lights, comprising a socket cover member and a resilient spring member, the lower portion of the cover being bent to form resilient arches adapted to engage the top of the shade, the spring member conforming to the shape of the gripping arches and provided with an upper portion adapted to engage the arches and a lower portion bent to inclose a spring, the spring-portion being below the arches and adapted to retain the ring in locked position around them.

[Claims 2 to 4 not printed in the Gazette.]

1,252,507. PROCESS FOR OBTAINING HARD PRODUCTS OF CONDENSATION OF PHENOLS AND FORMALDEHYDE. KONSTANTIN TARASSOFF, Moscow, and PETER SHESTAKOFF, Petrograd, Russia. Filed Feb. 8, 1916. Serial No. 77,081. (Cl. 106—22.)

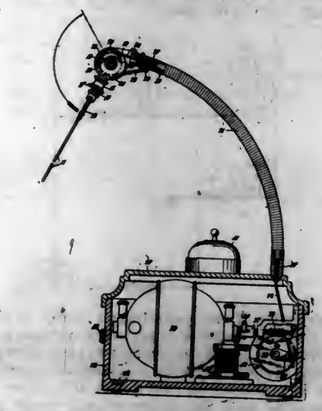
1. The process of obtaining hard, infusible and insoluble condensation products of formaldehydes with phenols, which comprises causing phenol and formaldehyde and a non-phenolic organic body to react together in the presence of an accelerator having an alkaline reaction, and causing the initial stages of the reaction to take place at temperatures below the boiling point of the mixture.

3. The process of obtaining hard, infusible and insoluble condensation products of formaldehydes with phenols which comprises causing phenol and formaldehyde and turpentine to react together in the presence of an accelerator having an alkaline reaction, and causing the initial stages of the reaction to take place at temperatures below the boiling point of the mixture.

[Claim 2 not printed in the Gazette.]

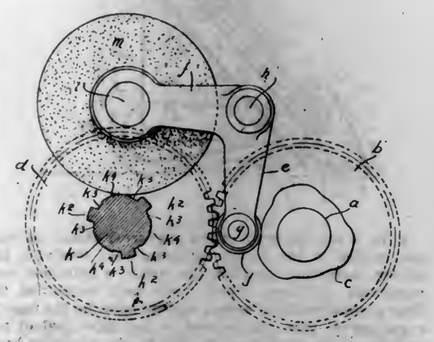
1,252,508. VENTILATING-FAN. JOHN STANLEY GLASSPOOLE TELFER and JAMES HENRY CARTNER BOYD, London, England. Filed Dec. 20, 1913. Serial No. 807,835. (Cl. 230—1.)

1. The combination of a base, a flexible tubular arm on said base, a drum rotatably mounted on said arm, a reciprocatory fan detachably connected with said drum and extending radially therefrom, driving means carried by said base, a flexible connection passing through said arm and having its one end extending circumferentially about said drum and secured thereto and its other end connected with said driving means whereby said fan is oscillated in one direction and a spring having its one end connected with said drum and its other end attached to said arm, said spring being placed under tension by said driving means and oscillating said fan in the opposite direction.



2. The combination of a hollow base, a flexible tubular arm carried by said base and communicating with the interior thereof, a drum rotatably mounted on said arm, a projection extending radially from said drum, a reciprocatory fan detachably connected with said projection and extending radially from said drum, means for locking said fan in said projection, driving means located in said base, a flexible connection passing through said arm and into said base; said connection having its one end extending circumferentially about said drum and secured thereto and its other end connected with said driving means in said base, whereby said fan is oscillated in one direction and a spring connected at one end with said drum and at its other end with said arm, said spring being placed under tension by said driving means and oscillating said fan in the reverse direction.

1,252,509. GRINDING PROCESS. HORACE T. THOMAS, Lansing, Mich. Filed July 7, 1916. Serial No. 107,889. (Cl. 51—4.)



1. The process of grinding splined-shafts consisting in shaping said shafts with depressions below the rest of the surface thereof adjacent to said splines, rotating said shaft about its longitudinal axis and applying a grinding wheel, rotating about an axis parallel to the axis of said shaft, to the surface intermediate said grooves and said splines to finish said surface, drawing said grinding wheel away from said shaft as one of the splines pass thereunder and again moving said grinding wheel toward the shaft to engage the next bearing surface.

2. The process of grinding splined-shafts consisting in forming said shafts with grooves below the rest of the surface of said shaft, adjacent to the splines leaving a salient cylindrical bearing surface between said grooves and splines, rotating said shaft in front of a grinding wheel and varying the position of said grinding wheel relative to said shaft by means of a cam so that it shall pass over said cylindrical surface to grind the same and to permit the passage of the splines.

3. The process of grinding splined-shafts consisting in forming said shafts with grooves below the rest of the surface of said shaft adjacent to the splines leaving a salient cylindrical bearing surface between said grooves, rotating said shaft in front of a grinding wheel and varying the position of said grinding wheel relative to said shaft by means of a cam so that it shall pass over said cylindrical surface to grind the same and to permit the passage of the splines, and so that it shall pass over and finish the outer surfaces of said splines.

6. A process of grinding a splined shaft consisting in continuously rotating said shaft about its longitudinal axis in front of a grinding wheel and automatically varying the position of said grinding wheel to act on the surface intermediate said splines and to permit the passage of said splines, said grinding wheel rotating about an axis parallel to the axis of said shaft.

7. The process of grinding a splined shaft consisting in rotating said shaft about its axis providing a grinding wheel adapted to be moved toward and away from said shaft and acting upon said grinding wheel by a cam to vary its position to grind the surfaces of said shaft intermediate said splines, and to permit the passage of said splines, and to grind the outer surfaces of said splines.

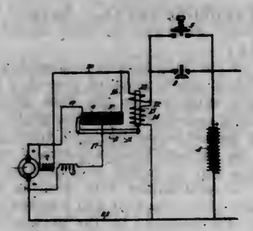
[Claims 4 and 5 not printed in the Gazette.]

1,252,510. INSECTICIDE. CALISTA Z. TRUELL, Lawrence, Mass., assignor to Greenwood Chemical Company, Lowell, Mass., a Corporation of Massachusetts. Filed Apr. 3, 1909. Serial No. 487,766. (Cl. 167—6.)

5. A pencil for an insecticidal spray, comprising an insoluble insecticidal substance thoroughly intermixed with a soluble substance and formed into a pencil to be placed in a spray nozzle, the soluble substance being of a consistency to gradually dissolve in a manner to impregnate the passing stream of water with the required amount of insoluble insecticidal substance, for the purpose described.

[Claims 1 to 4 not printed in the Gazette.]

1,252,511. ELECTRICAL SYSTEM OF REGULATION AND STARTING. WILLIAM A. TURBAYNE, Niagara Falls, N. Y., assignor, by mesne assignments, to U. S. Light & Heat Corporation, Niagara Falls, N. Y., a Corporation of New York. Filed Apr. 17, 1914. Serial No. 832,505. (Cl. 171—223.)



1. Regulating means for a variable speed generator having a shunt winding and a series differential winding, said means including a variable resistance in shunt to said series winding, having a part of said resistance in series with the shunt winding.

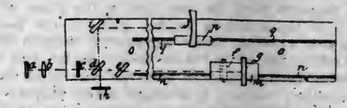
4. In an electric circuit, a variable speed generator having a shunt field winding and a series field winding, a variable resistance governing both said windings, and electro-magnetic means governing said resistance.

8. In an electric circuit, including a variable speed generator, a shunt field winding, a differential series field winding, a variable pressure resistance means for simultaneously increasing the current through the series field winding and decreasing the current through the shunt field winding, and electro-magnetic means governing the pressure on said resistance means, said electro-magnetic means including a shunt winding and a series winding.

13. In a system of the class described, a dynamo electric machine, having a shunt winding and a series winding, a variable resistance means in shunt of said series winding and having part thereof in series with said shunt winding, a starting switch and means controlled by said starting switch to substantially eliminate said variable resistance from operative circuit.

[Claims 2, 3, 5 to 7, and 9 to 12 not printed in the Gazette.]

1,252,512. METHOD AND APPARATUS FOR FINISHING PRISMS OR LENSES OR COMBINATIONS OF THE SAME. FRANK TWYMAN and ALFRED GREEN, London, England, assignors to Adam Hilger, Limited, London, England. Filed Dec. 12, 1916. Serial No. 136,504. (Cl. 88—14.)



3. The method of manufacturing optical elements, which consists in dividing a beam of light into two parts, passing one part to a tested surface, passing the other part through the optical element, recombining the two parts, causing the resulting beam to converge to a focus to produce interference fringes, rarefying the air adjacent the optical element to test the nature of the imperfections, and then making a contour map of said imperfections in the optical element as shown by the interference fringes.

7. An apparatus for finishing optical elements comprising a plane parallel glass plate partially silvered and adapted to reflect part of a beam of light and to transmit a part, two mirrors adapted to reflect the light back to the plate, means for bringing both parts of the beam to a focus, and means for maintaining the optical element to be finished in the path of light to and from one of said mirrors.

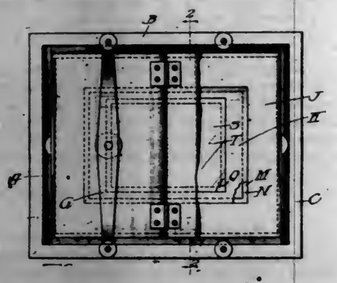
12. An apparatus for finishing optical elements, comprising a member adapted to transmit part of a beam of light and reflect a part, a tested optical surface disposed in the path of the reflected light and adapted to reflect the same back to said member, means for reflecting the transmitted light back to said member, means for maintaining the optical element to be finished in the path of said transmitted light, and means for bringing both parts of the beam to focus.

[Claims 1, 2, 4 to 6, and 8 to 11 not printed in the Gazette.]

1,252,513. PHOTOPRINTING APPARATUS. FREDERICK S. TYRRELL, Winnetka, Ill. Filed Nov. 29, 1915. Serial No. 64,187. (Cl. 95—77.)

1. A photo printing frame having an internal ledge for holding a negative, a yielding backing member for holding a printing sheet on a negative positioned on said ledge, in combination with a kit of auxiliary frames for smaller negatives adapted to be held one within another, the larger thereof being adapted to be held on said ledge, said auxiliary frames having their rear faces in a single

plane and each provided at its inner periphery with a sunken ledge adapting it to receive a negative and position the sensitized surface thereof in said plane of the rear faces of said auxiliary frames, the flat surface formed by the rear faces of the auxiliary frames and negative held therein being adapted to receive a thin photo mask, and permit a lateral shifting of the mask in all directions to expose a predetermined surface area of a negative positioned in one of said auxiliary frames.



2. A photo printing frame having an internal ledge for receiving a negative in combination with a kit of nested auxiliary negative holders, the larger thereof adapted to be supported on said ledge and each having an internal sunken ledge to receive a negative and hold the said negative with its rear face in the plane of the rear face of its auxiliary holder, each of the holders having a thin external flange adapted to be received on the negative ledge of the next larger holder and said flanges being proportioned to hold the rear faces of the several auxiliary holders in a single plane, thereby providing a flat surface to receive a photo mask and permit the mask to be shifted laterally in all directions to expose a predetermined area, of a negative held in one of said holders.

1,252,514. ARMATURE FOR IGNITION-DYNAMOS. HARRY RANDOLPH VAN DEVENTER, Sumter, S. C., assignor, by mesne assignments, to Splitdorf Electrical Company, Newark, N. J., a Corporation of New Jersey. Filed Dec. 2, 1914. Serial No. 875,104. (Cl. 171—207.)



1. An armature comprising a core and winding, an end plate secured to said core, a shaft secured to said end plate, and an insulated collector clamped to said shaft by said end plate.

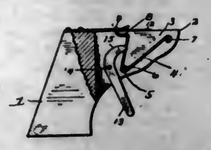
2. An armature comprising a core and winding, an end plate secured to said core, a shaft secured to said end plate and an insulated collector clamped to said shaft by said end plate and having an inwardly projecting integral tongue.

3. An armature comprising a core and winding, and an end plate secured to said core, a shaft secured to said end plate, a flanged collector surrounding said shaft, an insulated disk between said collector and said end plate, a second insulating disk within the flanged portion of said collector serving to position the same on said shaft, and means for clamping said disks and collector to said end plate, said means including a shoulder on said shaft.

4. An armature comprising a core and winding, an end plate secured to said core, a shaft secured to said end plate, a collector ring surrounding said shaft, insulating disks on each side of said ring, and means for clamping said shaft, collector ring, disks, and end plate together, said means including a shoulder on said shaft.

5. An armature shaft having a bearing portion and a shouldered portion of less diameter than the bearing portion, a collector comprising a centrally apertured cup-shaped metallic member, insulating members on each side of said member, an end plate having a central aperture adapted to receive the shouldered portion of said shaft, and means whereby all of the foregoing elements are clamped together, substantially as described.

1,252,515. TOY. WILLIAM C. VANNEMAN, Anderson, Ind. Filed June 16, 1917. Serial No. 175,090. (Cl. 124—12.)



1. A toy, comprising a grip portion and an extension, said extension having a longitudinal slot, a retaining member attached to said grip portion and extending over a portion of said slot, a spring member in said slot normally in engagement with said retaining member and a trigger pivoted in said slot adapted to tense said spring member and release the same from the retaining member for catapulting an object from the extension, said spring member being arranged to automatically reëngage said retaining member when pressure is removed from the trigger.

2. A toy, comprising a grip portion having an integral extension, said extension having a slot, a retaining tongue attached to the upper edge of the grip portion, said tongue having an opening adjacent its free end, a spring member mounted in said slot having one of its ends normally projecting through said opening and means to tense parts of the spring member and release the end thereof from said opening whereby a disk introduced beneath the free end of the tongue will be catapulted therefrom.

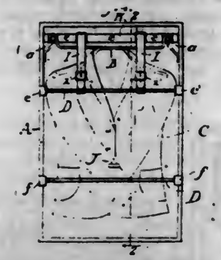
4. A toy, comprising a body portion having an integral extension in which is formed a slot, a substantially V-shaped spring positioned in said slot and having one of its ends fixed within the slot, the opposite end provided with an extension, a retaining tongue fixed to the body portion and having an opening adjacent one end for the reception of the free end of the extension, a trigger pivoted in said slot and having a recess for engagement with one section of said spring whereby when the free end of said trigger is moved rearwardly the portion of the spring engaged by the trigger will be tensed and an object catapulted forwardly when the end of the extension is released from the opening in the tongue.

[Claim 3 not printed in the Gazette.]

1,252,516. WARDROBE-TRUNK. FEDERICO VIDEGARAY, Mexico, Mexico. Filed Feb. 19, 1916. Serial No. 79,425. (Cl. 190—13.)

1. A device of the class described embodying a chamber, a plurality of fixed guides mounted therein, a plurality of garment-hangers supported on the fixed guides, and detachable members coöperating with the guides for extending the length thereof beyond the open front of the chamber whereby the garment-hangers normally supported on the fixed guides may be moved to a position exterior of the chamber, in combination with securing means positioned interiorly of the chamber and adapted to coöperate with the extension members for the purpose of normally maintaining such garments as are supported on the hangers in compact form interior of the chamber, and means for precluding the inadvertent disengagement of the garment-hangers from the fixed guides.

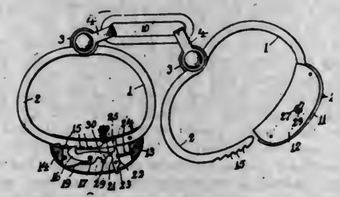
2. A device of the class described embodying a chamber, a plurality of fixed guides mounted therein, a plurality of garment-hangers supported on the fixed guides, and detachable members coöperating with the guides for extending the length thereof beyond the open front of the chamber whereby the garment-hangers normally supported on the fixed guides may be moved to a position exterior of the chamber, in combination with securing means positioned interiorly of the chamber and adapted to coöperate with the extension members for the purpose of



normally maintaining such garments as are supported on the hangers in compact form interior of the chamber, and means for holding portions of the garments in predetermined positions relative to the remainder of their respective garments, both when the garments are compressed in the chamber or positioned upon the extension members exterior thereof.

[Claims 3 to 6 not printed in the Gazette.]

1,252,517. HANDCUFF. FREDERICK E. WALDEN, Worcester, Mass., assignor to Walden Tool Company, Boston, Mass., a Corporation of Massachusetts. Filed May 9, 1913, Serial No. 766,647. Renewed June 2, 1917. Serial No. 172,524. (Cl. 70—24.)



1. A hand cuff member comprising an arm and a latch each composed of heavy wire having an end curved over to form an eye, a pivot extending through said eyes, and a lock held by the free end of said arm, the free end of said latch being constructed to be engaged by said lock.

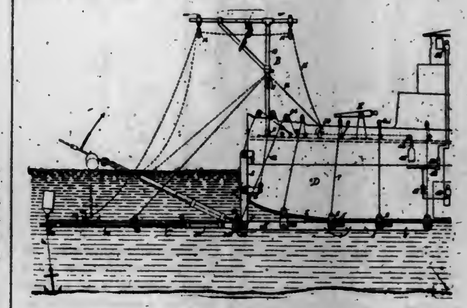
2. A hand cuff member comprising an arm and a latch each composed of heavy wire having an end curved over outwardly to form an eye, a pivot extending through said eyes, and a lock held by the free end of said arm, the free end of said latch being constructed to be engaged by said lock.

5. A hand cuff member comprising an arm, a latch pivoted to said arm, and a lock containing case for said arm embracing a deeply dished member having its open portion close beneath a portion of the arm, a member folded over to embrace said arm portion and the first mentioned member, said members being rigidly fastened to the arm and adapted to receive the end portion of said latch, and a locking device disposed in said case for engaging said latch.

[Claims 3 and 4 not printed in the Gazette.]

1,252,518. MINE-PICKER. JAMES WALTON, Phoenicia, N. Y. Filed May 17, 1917. Serial No. 169,207. (Cl. 114—221.)

7. A mine catching device including a swinging arm, a pair of oppositely yielding members on the arm, jaws hingedly connected with the members and hingedly connected together, a rod connected with the jaws to move the same to open position, interengaging means on the jaws for holding the jaws open under the tension of the said bars, a tube on the member in which the rod slides, a cable connected with the rod and passing through the tubular member, means connected with the cable and tending to pull the same in a direction in which the jaws open, a signal device operated by the said last-mentioned means, means connected with the arm for raising and lowering the same, and means connected with the rod to move the same in a direction to set the jaws in open position.

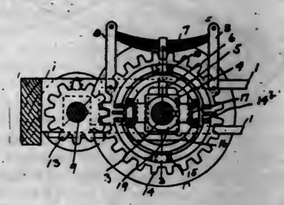


8. The combination of a movable arm, jaws mounted thereon, means for actuating the arm and jaws, and a frame on which the arm is mounted, said frame including bow and keel-engaging members.

10. In an apparatus of the class described, a frame arranged to engage the keel and bow of a boat, said frame being composed of members formed of hingedly connected sections, whereby the frame can be folded.

[Claims 1 to 6, 9, 11, and 12 not printed in the Gazette.]

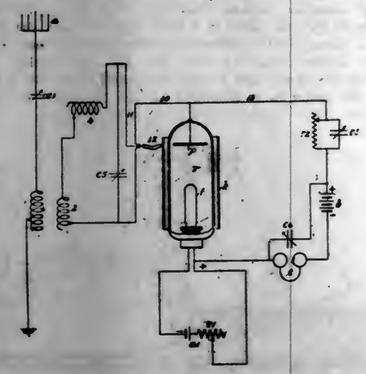
1,252,519. GEARING FOR LOCOMOTIVES. JOHN WALTON, Erie, Pa. Filed May 22, 1916. Serial No. 99,018. (Cl. 105—17.)



1. In a locomotive, the combination of a truck having slotted side frames; bearings in said slots; an axle arranged in said bearings; a drive shaft mounted in bearings in the side frames of the truck; a gear mounted on said drive shaft; and a gear mounted on the axle, the mounting of one of said gears comprising a joint permitting of angular freedom of the gear relatively to the shaft.

2. In a locomotive, the combination of a truck having slotted side frames; bearings in said slots; an axle arranged in said bearings; a drive shaft mounted in bearings in the side frames of the truck; a gear mounted on said drive shaft; and a gear mounted on the axle, one of said gears being formed with a gear ring; an intermediate ring; a hub; and pivotal connections between the intermediate ring and the gear ring and between the intermediate ring and the hub.

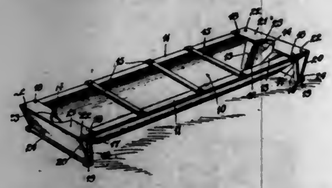
1,252,520. WIRELESS SIGNALING APPARATUS. ROY A. WEAGANT, Roselle, N. J., assignor to Marconi Wireless Telegraph Company of America, New York, N. Y., a Corporation of New Jersey. Filed Apr. 2, 1915. Serial No. 18,645. (Cl. 250—27.)



1. In a wireless signaling apparatus comprising an antenna and an antenna circuit, the combination of a vacuum chamber containing a hot element and a cold element, a conducting terminal having extended area located in position outside said chamber in close proximity to the direct line of movement of the electrons in said chamber, a local circuit connecting the hot and cold elements and including a source of direct current, a resistance, a capacity in parallel with said resistance, an indicating device and means electrically associating said outside element with the antenna.

[Claims 2 to 8 not printed in the Gazette.]

1,252,521. TROUGH. MARION C. WEAVER, Bushnell, Ill. Filed Apr. 20, 1917. Serial No. 163,445. (Cl. 119—61.)

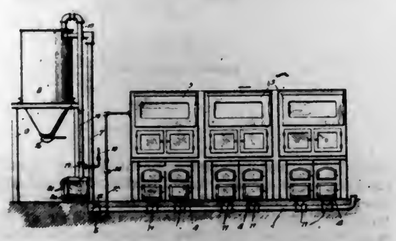


1. A device of the character described including a trough body, supporting legs therefor arranged in pairs at the extremities of the trough body, and supports for the said legs extending between the legs of the respective pairs thereof and overlying the upper edges of the end walls of the trough body, the said supports acting to brace the legs against displacement longitudinally with respect to the trough body.

[Claims 2 to 4 not printed in the Gazette.]

1,252,522. ASH-CONVEYER. TOWNER K. WEBSTER, Jr., Evanston, Ill., assignor, by mesne assignments, to American Steam Conveyor Corporation, Chicago, Ill., a Corporation of New York. Filed Aug. 28, 1916. Serial No. 117,200. (Cl. 183—8.)

1. An ash conveyer comprising an ash receptacle, a conduit having one end thereof communicating with the ash receptacle and its other end adapted to receive ashes to be transmitted to the receptacle, a steam nozzle in the conduit intermediate the ends thereof and arranged to direct steam through the conduit into the receptacle, whereby the ashes are conducted by the steam to the ash receptacle, a steam condensing chamber communicating with the upper part of the ash receptacle, a nozzle in said chamber arranged to project water against the steam and ash dust entering the condensing chamber from the ash receptacle to condense the steam and intermingle with the ash dust, and an ash dust concreting tank separate from the condensing chamber and arranged to receive from the chamber, in one mass, the water supplied through the nozzle, the condensed steam and the ash dust, said tank being arranged to permit overflow of water at its upper portion, whereby the ash dust settles in the bottom of the tank in a concrete form and the clear water passes off at the top of the tank.

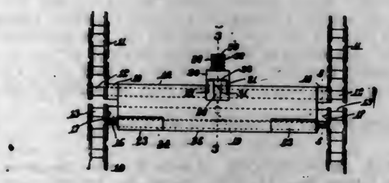


3. An ash conveyer comprising an ash receptacle, a conduit having one end thereof communicating with the ash receptacle and its other end adapted to receive ashes to be transmitted to the receptacle, a nozzle arranged to direct fluid under compression through the conduit into the receptacle, whereby the ashes are conducted by the fluid to the ash receptacle, a mixing chamber communicating with the upper part of the ash receptacle, a nozzle in said chamber arranged to project water against the ash dust entering the mixing chamber from the ash receptacle to intermingle the ash dust with the water, and an ash dust tank separate from the mixing chamber arranged to receive from the chamber the water supplied through the nozzle and the ash dust, said tank being arranged to permit overflow of water at its upper portion, whereby the ash dust settles in the bottom of the tank and the clear water passes off at the top thereof.

5. An ash receptacle and a steam ash conveyer in which the ashes and steam are both conducted to the ash receptacle, having a vent pipe communicating with the receptacle and arranged to receive from the receptacle the utilized steam and the ash dust which still adheres thereto, and a second pipe extending longitudinally within the first pipe and provided with a plurality of outlets along its length arranged to project streams of water into the first pipe, whereby the steam in the first pipe is condensed and the ash dust intermingled with the water.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,252,523. CHAIN-FASTENING DEVICE. CARL J. WENNBERG, Milton, Mass. Filed Jan. 5, 1917. Serial No. 141,345. (Cl. 193—2.)



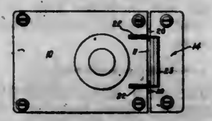
1. In a device of the character described, a pair of rods; an annular flange on one of said rods; a member secured to one rod and provided with a pocket to receive the other rod and a recess to receive said flange; and

means for closing said pocket and preventing the accidental displacement of the rod in said pocket.

4. In a device of the character described, the combination of a conveyer comprising two flexible side members; parallel rods at opposite ends thereof; a member nearly the length of and suspended from one rod and provided with an elongated pocket to receive the other rod; and means nearly the length of said other rod for closing said pocket and preventing the accidental displacement of the rod therein, said member having its outer ends abutting the inner faces of said flexible side members.

[Claims 2, 3, and 5 not printed in the Gazette.]

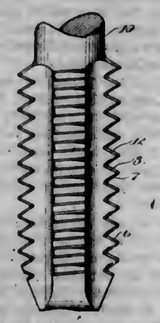
1,252,524. SPRING-LATCH PROTECTOR. JOHN A. WHITE, Oceanpark, Cal., assignor of one-half to W. Perry Wood, Oceanpark, Cal. Filed Apr. 21, 1917. Serial No. 163,587. (Cl. 70—16.)



1. In combination with a lock having a bolt and a keeper adapted to be entered by the bolt, a slidable protector plate mounted in a lock at the outside surface of the bolt, a pivoted member adapted to strike the keeper, and connective means between the protector plate and said pivoted member to move the protector plate outwardly over the exterior face of the bolt.

2. In combination with a lock having a bolt and a keeper adapted to be entered by the bolt, a slidable protector plate mounted in the lock at the outside surface of the bolt, and a pivoted member adapted to strike the keeper and connected with the protector plate to move the protector plate outwardly over the exterior face of the bolt, said pivoted member embodying a pair of sectors with teeth engaging the slidable plate, and embodying a cross bar connecting said sectors adapted to strike the keeper.

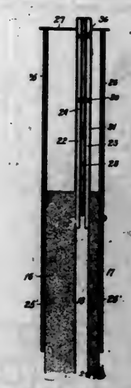
1,252,525. RETAPPING-TOOL. IRVING C. WOODWARD, Chicago, Ill., assignor to Holdfast Nut & Bolt Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 21, 1916. Serial No. 138,166. (Cl. 10—141.)



1. A tool of the class described, comprising a body portion provided with a plurality of projecting teeth arranged in a helical line around the axis of said body portion, said teeth having all their advance edges on the same side of non-cutting formation and on the other side sharp, for the purpose of cutting on one side only.

2. A retapping tool of the class described, comprising a shank having a plurality of projecting teeth arranged in a helical line around said shank, said teeth having their advance edges on one side rounded or dulled and on the other side sharp, for the purpose of cutting on one side only.

1,252,526. CONCRETE-CHIMNEY FORM. CHARLES F. WOODWORTH, Chicago, Ill., assignor to The Weber Chimney Company, a Corporation of Illinois. Filed May 6, 1912. Serial No. 695,094. (Cl. 25—124.)



1. In a device of the class described, outer and inner panels in pairs, wedge blocks to go between said pairs of panels, and joint plates to embrace said wedge blocks.

2. In a device for forming a concrete chimney, outer and inner air space panels in pairs, and wedge blocks between the adjacent lateral edges of adjacent outer panels and adjacent inner panels, said wedge blocks adjacent the upper part of said panels being of smaller size than the lowermost wedge blocks and said panels being flexible whereby an inward tapering of the panels is effected to form a coniform air space.

6. In a device of the class described, outside forms, inside forms, outer and inner air space panels arranged in pairs, means for supporting said air space panels on said outside and inside forms, means to space apart the air space panels of each pair, and removable spacing blocks between the upwardly extending edges of adjacent pairs of air space panels, said blocks being located adjacent the upper and lower parts of said panels and being of different widths whereby said air space panels are inclined to form a coniform air space.

9. In a device of the class described, a plurality of form panels spaced apart, each form panel consisting of vertical staves attached to flexible transverse rods, removable wedge blocks between adjacent form panels, and inverted U-shaped plates to close the spaces between adjacent form panels.

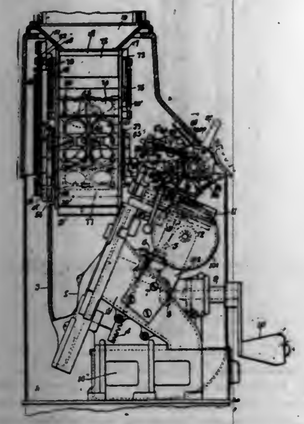
[Claims 3 to 5, 7, 8, 10, and 11 not printed in the Gazette.]

1,252,527. FARE-BOX. BERNARD H. WUEBBEN, Dayton, Ohio, assignor to The Recording and Computing Machines Company, Dayton, Ohio, a Corporation of Ohio. Filed Dec. 30, 1916. Serial No. 139,919. (Cl. 232—8.)

1. In a mechanism of the character described, a pivoted sifting device, pivoted inspection plates, means tending to keep said sifting device in raised position and said inspection plates closed, a cam for operating said inspection plates to open the same when the sifting device is in lowered position, and a cam for operating said sifting device.

5. In a mechanism of the character described, a sifting plate provided with openings to allow the coins to fall therethrough, flat portions provided with holes, and pins adapted to engage said holes to dislodge coins from the flat portions of said plate.

7. In a mechanism of the character described, a pivoted sifting plate, a cam provided with a portion to move the sifting plate in one direction and to retain the same in that position while the coins and tickets fall thereon, a portion to allow a quick upward movement to jar the coins, a portion to return the sifting plate to the first-mentioned position, a portion to allow movement in the opposite direction near to the drum, a portion to permit close engagement of the sifting plate and drum and a portion to allow the movement again in the direction opposite from the first-mentioned direction.



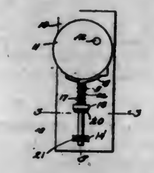
10. In a mechanism of the character described, a casing, a perforated drum rotatably mounted in said casing, devices on the periphery of said drum to catch up tickets, a marking device coöperating with said drum, a chute for stripping the tickets from the drum after being canceled, a curved sifting plate pivoted below and adjacent the periphery of said drum and provided with openings therein, a plurality of flanges arranged completely below the plate and partially surrounding the openings, guards extending below the openings for preventing the escape of tickets therethrough, means fixed to the casing for dislodging coins from flat portions of said plate, a pair of inspection plates at the upper end of the casing, a spring connecting said inspection plates and sifting plate for retaining the first in closed position and the second in raised position against the drum, a cam for actuating said inspection plates to open the same when the sifting plate is in lowered position, a cam provided with a portion to lower the sifting plate and to retain the same in such position while the inspection plates are open, a portion to allow a quick partial upward movement of the sifting plate to jar the coins, a portion to return the sifting plate to lowered position, and a portion to allow a gradual upward movement of the sifting plate to a position adjacent the drum, and means for rotating the drum and cams.

[Claims 2 to 4, 6, 8, and 9 not printed in the Gazette.]

1,252,528. WINDOW-LOCK. PETER ZIELINSKI, Palatka, Mich. Filed May 28, 1917. Serial No. 171,499. (Cl. 16—19.)

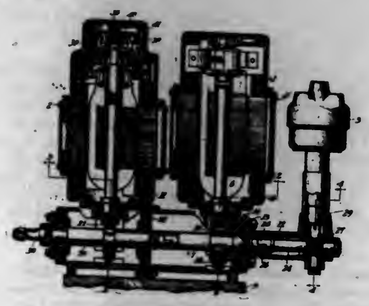
1. In combination, a base, a disk eccentrically pivoted on said base and adapted to engage against a portion of the side of a window frame, the center of said disk being below its pivot point, a plunger bearing against the underside of said disk, a spring arranged to urge the plunger yieldably upward and thereby lift the disk, and means to permit holding of the plunger in its lowered position whereby to permit dropping of the disk out of contact with the said frame portion.

2. In combination, a disk eccentrically pivoted on said base and adapted to engage against a portion of the side of a window frame, the center of said disk being below the pivotal point thereof, a pair of ears on said base below said disk, a housing covering the ears and having a vertically disposed slot therein, a plunger slidably mounted



in said ears and having an arcuate head on which said disk rests, a headed pin carried by the sleeve and projecting through the slot, a finger grip fixed below the head of the pin, and a spring surrounding the plunger and urging it upward.

1,252,529. AUTOMOBILE STARTING, GENERATING, AND DISTRIBUTING APPARATUS. THOMAS ZIMMERMAN, Niagara Falls, N. Y., assignor to U. S. Light & Heat Corporation, Niagara Falls, N. Y., a Corporation of New York. Filed Apr. 17, 1915. Serial No. 22,208. (Cl. 74—36.)



1. In apparatus of the character described, in combination, a motor unit, a generator unit, a distributer unit, and means whereby the said units may be assembled to coöperate with a power transmission common to all or disassembled and arranged in different operative combinations of one, two or three units.

3. In apparatus of the character described, in combination, an internal combustion engine, a starting, generating and distributing system comprising a plurality of detachable units, power transmitting parts connecting the engine with one of said units, and means whereby the units may be arranged to obtain starting and generating only, generating and distributing only, or starting, generating and distributing.

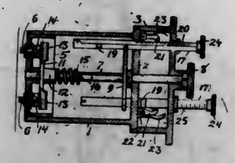
5. In apparatus of the character described, in combination, a starting motor having its armature shaft vertically disposed, a generator having its armature shaft vertically disposed, an internal combustion engine having its crank shaft rotatable about a horizontal axis, and means comprising a shaft rotatable about a horizontal axis, whereby power is transmitted between the motor and generator and the engine.

8. In apparatus of the character described, in combination, a starting motor, a generator and a distributer having respectively a motor shaft, generator shaft and distributer shaft all vertically disposed, a horizontally disposed sectional shaft, gears mounted on said sectional shaft, and gears mounted on said other shafts respectively meshing with the first said gears, whereby power is transmitted between the vertical shafts and the horizontal shaft.

13. In apparatus of the character described, in combination, a starting motor, a generator and a distributer having respectively a motor shaft, generator shaft and distributer shaft all vertically disposed, a horizontally disposed sectional shaft, gears mounted on said sectional shaft, gears mounted on said other shafts respectively meshing with the first said gears, whereby power is transmitted between the vertical shafts and the horizontal shaft, means whereby the transmission of power between the motor shaft and the sectional shaft may be automatically interrupted, and a housing comprising a plurality of assembled detachable sections adapted to confine said sectional shaft and said gears.

[Claims 2, 4, 6, 7, 9 to 12, and 14 to 16 not printed in the Gazette.]

1,252,530. COMBINATION-LOCK FOR ELECTRIC SWITCHES. CHRISTIAN ZOLLINGER, Fort Wayne, Ind. Filed Dec. 2, 1915. Serial No. 64,685. (Cl. 70—18.)



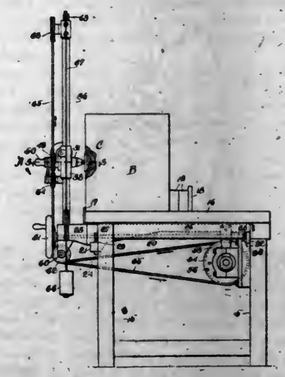
1. In a device of the class described, an actuating stem, a lock-disk fixed upon the stem and having a series of peripheral notches, a series of slidable bars arranged in parallel relation with the stem and adapted to engage respectively in the corresponding notches and prevent the lock-disk from turning, each bar having made therein a recess suitably proportioned to admit of the lock-disk being turned when the bars are so adjusted that their respective recesses all register with the lock-disk, and a series of pawls correspondingly arranged with the respective lock-bars and being adapted to bear against the same.

2. In a device of the class described, a barrel having a head at one end thereof, a hollow shield in connection with one end of the barrel, an operating stem extending through the shield and head of the barrel having a lock-disk fixed thereon, the latter having a series of peripheral notches, a series of slidable bars extending through the shield and head in parallel relation with the stem and being adapted to engage respectively in the notches of the lock-disk, each bar having a recess therein adapted to admit of the rotating movement of the lock-disk when brought into alinement therewith, and a series of spring-pressed pawls within the shield adapted to bear respectively against the bars and hold the latter in the various positions to which they may be adjusted.

1,252,531. CUTTING-MACHINE. WILLIAM GEORGE ABBOTT, Jr., Wilton, N. H., assignor to Atlantic Terra Cotta Company, New York, N. Y., a Corporation of New York. Filed Mar. 2, 1915. Serial No. 11,589. (Cl. 90—15.)

1. In a machine of the character described, a stationary work support, a carriage mounted to move in a direction parallel to the surface of the work, a tool carrier mounted to move on said carriage in a direction transverse to the direction of movement of said carriage but parallel to the surface of the work, a rotary cutting tool reciprocatably mounted on said tool carrier, so as to be moved to and from the work, stationary power means, and driving mechanism connecting the power means to the cutting tool so as to rotate the cutting tool in all positions thereof.

2. In a machine of the character described, a stationary work support, a laterally reciprocating frame mounted to move in a direction parallel to the surface of the work, an upright frame mounted on said reciprocating frame, a cutter head mounted to move vertically on said upright frame, a rotary cutting tool journaled in said cutter head, means to shift said cutting tool relatively to the cutter head and to the work, stationary power means, and driving mechanism connecting the power means to the cutting tool so as to rotate the cutting tool in all positions of the cutter head.



3. In a machine of the character described, a stationary work support, a carriage mounted to move in a direction parallel to the surface of the work, a tool carrier mounted to move on said carriage in a direction transverse to the direction of movement of said carriage but parallel to the surface of the work, a rotary cutting tool mounted on said tool carrier, and driving mechanism operative to rotate said cutting tool in all positions thereof, comprising a cutter pulley on the tool carrier, a driving belt or cable engaging said cutter pulley in all positions of the tool carrier, pulleys mounted on the carriage on opposite sides of the tool carrier substantially in alinement with the path of movement of the tool carrier on the carriage, said belt passing over the latter pulleys so that a portion thereof is disposed along said path of movement in engagement with the cutter pulley in all positions of the tool carrier.

4. In a machine of the character described, a work support, a carriage mounted to move in a direction parallel to the surface of the work, a tool carrier mounted to move on said carriage in a direction transverse to the direction of movement of said carriage but parallel to the surface of the work, a rotary cutting tool mounted on said tool carrier, driving mechanism operative to rotate said cutting tool in all positions thereof comprising a cutter pulley on the tool carrier, a guide pulley on the tool carrier adjacent the cutter pulley, pulleys mounted on the carriage on opposite sides of the tool carrier substantially in alinement with the path of movement of the tool carrier on the carriage, and a belt passing over the latter pulleys so that a portion thereof is disposed along said path of movement in engagement with the cutter and guide pulleys in all positions of the tool carrier, the guide pulley, being so disposed with respect to the cutter pulley as to cause the belt to engage the cutter pulley throughout a relatively large angle.

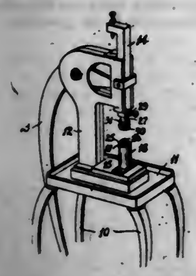
5. In a machine of the character described, a stationary work support, a laterally reciprocating frame, a pair of uprights fixed to said frame, a cutter head mounted to slide vertically on said uprights, a rotary cutting tool journaled in said cutter head, stationary power means, and driving mechanism connecting the power means to the cutting tool so as to rotate the cutting tool in all positions of the cutter head.

[Claims 6 to 13 not printed in the Gazette.]

1,252,532. PRESS. ABRAHAM ALEXANDER, New York, N. Y. Filed Aug. 28, 1917. Serial No. 188,549. (Cl. 107—18.)

1. In a press for the purpose specified, the combination of a base die projecting a substantial distance beyond the bed

of the press and having a yielding surface to receive the article to be operated upon, and a forming die adapted to be moved upon such article.

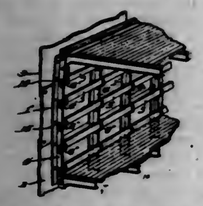


3. In a press for the purpose specified, the combination with a base die, projecting a substantial distance beyond the bed of the press and of a flexible layer at one end of said die in position to support an article to be operated on, and a forming die movable in relation to said base die.

5. In a press for the purpose specified, the combination with a base die projecting a substantial distance beyond the bed of the press and having a body of rubber at one end thereof to receive an article to be operated on, of a forming die having a concave operative face adapted to be moved upon said article, and a fabric stationarily secured over the face of said forming die.

[Claims 2 and 4 not printed in the Gazette.]

1,252,533. PORTABLE CARGO BATTEN-CLEAT. JOSHUA W. ATLEE, Riverton, N. J. Filed July 20, 1917. Serial No. 181,730. (Cl. 114—84.)



1. In a cargo batten cleat, the combination of a pair of jaws adapted to embrace a flange of a rib or of a hull of a vessel, one of said jaws being adapted to bear against said flange and the other of said jaws being provided with a tapering surface and a wedge adapted to be tightly driven between said last-mentioned jaw and said web whereby said cleat is firmly frictionally secured to said web.

3. In a vessel, the combination with a rib having a flange or web, of a cleat having a pair of spaced jaws, one of which is in engagement with one side of said web or flange, a wedge tightly driven between the other of said jaws and said web, and means to prevent said wedge from slipping transversely out from between said jaws.

6. In a vessel, the combination with a rib having a web, of a cleat, a pair of jaws on opposite sides of said web, the front edge of said web bearing against the surface of said cleat between said jaws, one side of said web being in engagement with the end of one jaw, and a tapering wedge driven between the other jaw and the opposite side of said rib.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,252,534. GAME-BOARD. WILLIAM BAUCH, Blue Island, Ill. Filed Apr. 13, 1917. Serial No. 161,822. (Cl. 46—61.)

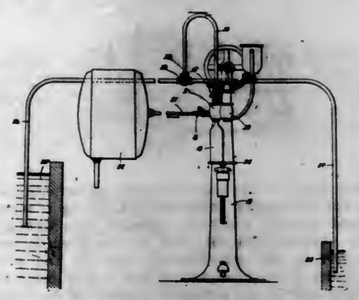
2. In a game board, a box, a pin trough formed at the rear end of said box, a pit sloping from said pin trough to the front end of said box, a board arranged above said pit and sloping from the front end of said box toward said pin trough and resting upon said pit, said board being adapted to carry a plurality of ten pins upon its lower



end, a ball guide pivotally carried at the front ends of said board and formed with a peripheral ridge, pins spaced apart, carried by said ball guide, and a handle for said ball guide whereby the same may be moved upon its pivot.

[Claim 1 not printed in the Gazette.]

1,252,535. BOTTLING MINERAL WATERS. PAUL LEONIDE BAUDRY, Paris, France. Filed Mar. 31, 1914. Serial No. 828,505. (Cl. 226—15.)

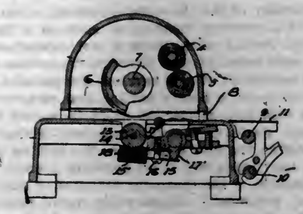


1. The method of bottling mineral waters and the like, containing a gaseous constituent, which consists in reducing the pressure in the container to a point not lower than the tension at which the gaseous constituents of the water will escape, and then admitting the water to the container.

2. The method of bottling mineral waters and the like containing a gaseous constituent which consists in filling the container with a gaseous medium, then reducing the pressure of the gaseous medium in the contaiher to a point not lower than the tension at which the gaseous constituents in the water will escape, and then admitting the water to the container.

3. The method of bottling mineral waters and the like containing a gaseous constituent which consists in filling the container with carbonic acid gas, then reducing the pressure of the carbonic acid gas in the container to a point not lower than the tension at which the gaseous constituents in the water will escape, and then admitting the water to the container.

1,252,536. CHECK-PROTECTOR. GAYLORD W. BEEBE, Clayton, Ga. Filed Jan. 8, 1915. Serial No. 1,133. (Cl. 197—6.2.)



1. A check protector for impressing or imprinting characters or figures on one face only of the paper and applying ink to an abraded surface of the paper on the opposite side to the impressed characters, comprising printing dies to print or impress figures or characters on one face only of the paper, means for abrading or cutting the surface of the paper on the reverse side of the figures or characters so formed, and means mounted to bear on the surface of said abrading means for inking the same to apply ink to the abraded surface of the paper by the abrading means, said inking means being mounted to move toward or from the paper with said abrading means.

[Claims 2 to 5 not printed in the Gazette.]

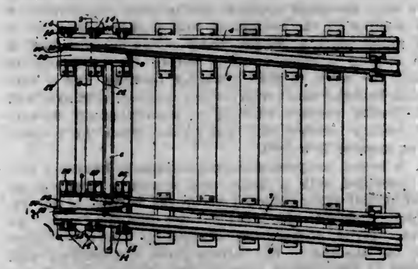
1,252,537. WIRE-CUTTER. ADOLF BERGNER, Berne, Switzerland. Filed Aug. 2, 1916. Serial No. 112,670. (Cl. 42—90.)



1. The combination of a support, a slide movable along the same, a blade carried by the slide, a two-armed lever fulcrumed in the slide, one arm of the lever constituting a second blade adapted to coöperate with the former blade, a link having one end pivotally connected to the end of the second arm of the lever, a spring carried by the second arm of the lever tending to hold the blades apart, and a detachable means on said support having pivoted to it the other end of the said link.

[Claim 2 not printed in the Gazette.]

1,252,538. SWITCH-POINT RAIL. BENJAMIN B. BETTS, St. Louis, Mo. Filed Jan. 20, 1917. Serial No. 145,152. (Cl. 104—12.)



1. A guard for switch points provided with tie plates, a web connecting said tie plates and a laterally projecting flange formed integral with said web, beneath which a switch point is adapted to be positioned.

2. A guard for switch points comprising tie plates with seats for a main rail, and seats in different elevation for a switch point rail, a web connecting said tie plates and a laterally projecting flange formed integral with said web.

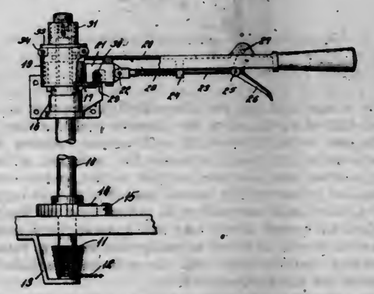
3. A guard for switch points comprising a series of tie plates provided with rail bearing seats of different elevations, and one thereof being provided with a recess adapted to receive a rail base flange, a web connecting said tie plates and being disposed at an angle thereto, and a laterally projecting flange integrally formed with said web and disposed in a plane above the treads of the track rails.

4. A guard for switch points comprising a series of tie plates provided with rail bearing seats of different elevations, a web connecting said tie plates, and a laterally projecting flange carried by said web, and positioned substantially parallel with said tie plates, an upstanding brace adapted to be positioned beneath the ball of a rail carried by one of said tie plates, and a web connecting said brace and said flange.

5. A guard for switch points comprising a tie plate, a web carried by said tie plate, a laterally projecting flange carried by said web beneath which a switch point is adapted to be positioned, an upstanding brace adapted to be positioned beneath the ball of a rail, there being a recess between said upstanding brace and tie plate adapted to receive a base flange of a rail, and a web connecting said brace and said flange.

[Claim 6 not printed in the Gazette.]

1,252,539. RATCHET-BRAKE MECHANISM. ROBERT H. BLACKALL, Lake Mahopac, N. Y., assignor to Ratchet Brake Company, New York, N. Y., a Corporation of Delaware. Filed Nov. 17, 1916. Serial No. 131,835. (Cl. 188—56.)



1. In hand-actuated brake mechanism, in combination, a brake-staff, a sleeve rotatably mounted on the staff, an operating handle carried by the sleeve, clutch mechanism for converting an oscillating movement of the handle into a brake-applying movement of the staff, a member attached to the top of said sleeve and provided with guides, and a member slidably mounted within said guides and having a plurality of depending fingers adapted to engage the sides of said brake-staff for effecting a brake-releasing movement of the staff.

2. In hand-actuated brake mechanism, in combination, a brake-staff, a member rotatably mounted on the brake-staff, an operating handle connected to said member, coacting clutch members associated with the staff and the operating handle to rotate the staff when the handle is moved in one direction, and means mounted in said rotatable member and comprising a plurality of depending members adapted to be depressed into engagement with said brake-staff whereby motion of said handle in the opposite direction will produce a reverse rotation of said brake-staff.

3. In hand-actuated brake mechanism, in combination, a brake-staff having an upper end of irregular cross-section, a clutch member mounted on said end, an operating lever formed with a cylindrical portion surrounding said clutch member, a second clutch member slidably mounted on said lever and adapted to engage said first clutch member to rotate the same in one direction and a locking member slidably mounted on said cylindrical portion and having fingers adapted to engage the sides of the brake-staff to positively lock the same to said operating lever.

6. In hand-actuated brake mechanism, the combination of a brake-staff having a squared upper end, a sleeve rotatably mounted with respect to said staff, an operating

lever connected to said sleeve, a guiding member mounted upon the end of said sleeve, and having a pair of webs therein, apertures through said webs, guides associated with said apertures, a sliding member within said sleeve and having fingers within said apertures and guides, said fingers being formed to engage the squared end of said staff when said sliding member is depressed, means for retaining said sliding member within said guiding member, and means for holding the fingers of said sliding member normally out of engagement with the end of said staff.

[Claims 4 and 5 not printed in the Gazette.]

1,252,540. HINGED GUY-CLAMP. JASPER BLACKBURN, Webster Groves, Mo. Filed Nov. 15, 1915. Serial No. 61,711. (Cl. 24—126.)



2. In a device of the class described, a tapering socket having tapped openings in its opposite walls, a way in one of said walls intersecting said tapped opening and a shoulder in said way, a wedge for insertion in said socket, a shouldered feather on said wedge, and a screw arranged to be inserted in one or the other of said tapped openings to engage the wedge to either hold its feather and shoulder seated in the way and against the shoulder of the wall of said socket or to engage the wedge to release the feather and shoulder from the way and shoulder of the socket for the purposes stated.

3. In a device of the class described, a plate, having an opening therethrough and a bearing on each side of said opening, a tapering socket, having trunnions for mounting in said bearings whereby the socket may be oscillated relative to the plate and a wedge arranged to secure a cable in said socket, substantially as shown and for the purposes stated.

[Claim 1 not printed in the Gazette.]

1,252,541. ANTIFRICTION DEVICE. ALFRED P. BOHLINGER, St. Louis, Mo. Filed July 11, 1917. Serial No. 180,028. (Cl. 64—66.)



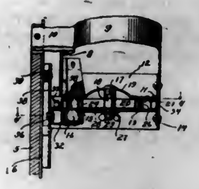
1. An anti-friction device, consisting of a staple, and a roller or tubular-shaped member rotatably mounted on the cross piece of the staple between the side legs of the staple.

2. An anti-friction device, consisting of a roller or tubular member, and a shaft passing through said roller and provided at its opposite ends with integral prongs that are adapted to be driven into a supporting structure.

3. An anti-friction device, consisting of a staple, and a roller or tubular-shaped member rotatably mounted on the cross piece of said staple and having its ends recessed so as to prevent the roller from binding on the staple.

[Claim 4 not printed in the Gazette.]

1,252,542. MANUALLY-WIELDED SEEDER. WILLIAM G. BOLUS, Corliss, Wis., assignor to John T. Webers, Racine Junction, Wis. Filed Nov. 2, 1916. Serial No. 129,097. (Cl. 221—119.)



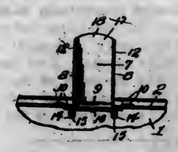
1. A seeder of the class described including a staff having its upper end bifurcated to provide an open end slot, a seed receptacle, means for discharging seeds from said seed receptacle, a bar connected with said means for actuating the same, said bar being slidably carried by the staff, a handle adjustably connected with the outer end of the bar, said handle comprising side portions slidable at the sides of the slot in the staff and provided with longitudinal slots, a block disposed in the slot of the staff and slidable therein, and a clamping bolt passed through said handle side portions, the block and the upper end of the bar.

2. A seeder comprising a seed receptacle having a bottom provided with a single seed discharge opening, depending walls secured to the opposite edges of said opening and extending beyond the bottom of the receptacle, a pivot element extending from the center of the bottom of the receptacle, and a radial plate pivoted on said element, the free end portion of said plate being substantially U-shape to receive the depending walls of the discharge opening to close the same, a feeding member movable within the receptacle to convey seeds to said opening, and means for simultaneously moving said feeding member and removing the radial plate from beneath the discharge opening.

3. A seeder comprising a staff, a seed receptacle mounted thereon and having a single seed discharge opening formed in its bottom, depending walls extending from opposite edges of said opening, a pivot element projecting from the center of the bottom of said receptacle, a radial plate pivoted on said element, the outer end of said plate being substantially U-shaped to receive the wall depending from said discharge opening and to close the latter, an arm secured to the bottom of said U-shaped portion of said radial plate, a reciprocating means on said staff, a seed feeding member movable within the receptacle to convey the seeds to said discharge opening, and a connection between said reciprocating member, said arm and said feeding member whereby to simultaneously operate said feeding member and radial plate when the reciprocating member is moved.

4. A seeder comprising a seed receptacle having a bottom provided with a single seed discharge opening, an upper pocket plate disposed above the bottom of the receptacle and provided adjacent its periphery with an annular series of openings adapted to selectively aline with the opening in the bottom plate, a depending wall portion at one end of each opening, a depending flange formed on the periphery of said upper pocket plate and provided with an annular series of openings, a lower pocket plate between the upper pocket plate and the bottom of the receptacle, an up-standing annular flange on said plate inwardly of the openings in the upper pocket plate, arms extending radially from the upper edge of said plate and adapted to be adjustably moved inwardly of said openings, a depending wall carried by each of said arms, a pawl adapted to engage the openings within the depending flange to rotate said pocket plates, and means for actuating said pawl.

1,252,543. CONTAINER. HARRY S. BRETTON, New York, N. Y., assignor to Asa H. Andrews, Jr., Aurora, Ill. Filed July 8, 1913, Serial No. 777,838. Renewed Nov. 26, 1917. Serial No. 204,095. (Cl. 221—11.)



1. A container having a discharge opening and guide notches at one end of said opening in alinement with the side walls thereof, and a closure for said opening pivoted to the opposite end wall thereof, said closure comprising a body plate having rigid side walls to form a pouring spout, said side walls of the closure being provided with longitudinally-curved, beveled-edge projections extending on an arc concentric with the pivot and movable within said guide notches.

2. A container having an opening therein, straight flanges extending inwardly in parallel relation from the side walls of the opening, a combined closure and spout hinged or pivoted to said container and movable within said opening, and portions upon the side walls of the spout bent forwardly from the ends thereof to provide hook-shaped flanges adapted to receive and interlock with said straight flanges when said combined closure and spout is moved outwardly to open position.

3. A container having an opening, a combined closure and spout pivotally supported for movement within said opening, and interengaging flanges upon the container and combined closure and spout adapted to interlock when the said combined closure and spout is open to reinforce the same and seal the sides of the opening against the escape of the contents of the container.

4. A container having a discharge opening, flanges along the side walls of said opening, a combined closure and spout hinged or pivoted to swing through said opening, said combined closure and spout including side walls and flanges upon the inner edges of said side walls disposed parallel with said side walls and adapted to receive and engage the flanges on the container when said combined closure and spout is opened.

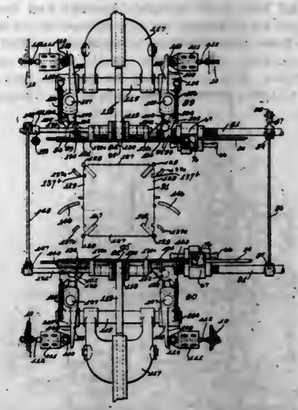
5. A container having a discharge opening provided with parallel side walls, a sector shaped combined closure and spout pivoted to one of the end walls of the opening to swing therethrough, said closure comprising a bottom or body plate and side walls rigid therewith, inwardly extending longitudinal flanges at the side walls of the opening disposed parallel with the side walls of the closure and having free edges acting as wipers thereon, and stop members at the rear ends of said side walls of the closure adapted for engagement with said wiper flanges to limit the outward motion of the receptacle.

[Claims 6 and 7 not printed in the Gazette.]

1,252,544. BOX-MAKING MACHINE. CHARLES BURNHAM, Los Angeles, Cal., assignor to Burnham Basket Company, a Corporation of California. Filed Mar. 18, 1915. Serial No. 15,252. (Cl. 153—1.)

1. In a box-making machine, the combination of means for supporting two narrow metal strips and for bending said strips, a grooved rotary member for each strip, a ribbed rotary member coöperating with the rotary member to feed each strip lengthwise, gears for rotating the members in unison, means for operating one of said members, a pinion for operating said latter means, a rack engaging said pinion, means for reciprocating the rack, and means whereby the rotary members may be moved the same or different distances.

3. In a box-making machine, the combination of means for supporting two long metal strips, means for feeding the strips, means for folding the strips lengthwise, means for folding the strips transversely, cutting means for cutting the strips transversely while held by the transverse folding means, means whereby the cutting means may be independently adjusted, and means for simultaneously operating said cutting means.



6. In a box-making machine, the combination of an anvil, two carriers movable from opposite sides thereof and each adapted to support a metal strip, a pivoted jaw held at each end of each carrier, an arm pivotally held to each jaw and having a stop thereon, springs normally forcing the jaws against said stops, a guide forming a part of said arm at each side of each carrier, adjustable brackets carrying rolls engaged by said guides during the movement of the carriers, a cross-head to which the arms and guides of each carrier are pivotally connected, an oscillatory lever for each cross-head, a yielding connection between each lever and said cross-head adapted to move said cross-head so as to force the jaws inward toward the anvil to cause the strip carried thereby to be bent about the anvil, and means for clenching the metal strips about a body.

7. In a box-making machine, the combination of an anvil, two carriers movable from opposite sides thereof and each adapted to support a metal strip, a pivoted jaw held at each end of each carrier, an arm pivotally held to each jaw and having a stop thereon, springs normally forcing the jaws against said stops, and means for moving the arms, jaws and carriers to bend the strips about the anvil.

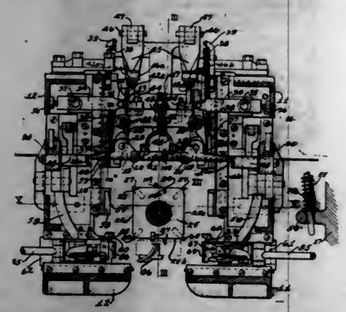
10. In a box-making machine, the combination of an anvil, two carriers having grooved bars adapted to receive metal strips, jaws pivotally held to said carriers and having grooved portions adapted to form a continuation of the grooved bars of said carriers and adapted to hold the same metal strips, shutters adapted initially to hold the strips in the carriers and releasable when the carriers are moved, means for releasing the shutters, fingers mounted upon the jaws one for each jaw adapted to retain the metal strips during the movement of the carriers and jaws, means whereby the grooved portions of two of the jaws have a vertical movement, means for automatically releasing the jaw fingers, and means for moving the carriers and jaws.

[Claims 2, 4, 5, 8, 9, 11, and 12 not printed in the Gazette.]

1,252,545. BOX-MAKING MACHINE. CHARLES BURNHAM, Los Angeles, Cal., assignor to Burnham Basket Company, a Corporation of California. Filed June 22, 1915. Serial No. 35,702. (Cl. 153—1.)

1. In a box-making machine, the combination of a rectangular anvil, a reciprocatory cross-head, two jaws pivotally mounted on said cross-head and adapted with said cross-head to force metal binding about three sides of the anvil, cutting mechanism arranged on opposite

sides of the jaws, means for initially holding the metal binding in said jaws, pivotally held fingers movable with the jaws and adapted to hold the binding in the jaws during the reciprocatory movement thereof, means for automatically releasing the fingers, and lapper mechanism having two jaws movable toward and from each other and at right angles to the movement of the first-mentioned jaws and adapted to bend the metal binding on the remaining side of the anvil, one of said jaws being provided with a member having an up-and-down movement adapted to cause the ends of the binding metal to overlap.



4. In a box-making machine, the combination of a rectangular anvil, a cross-head, two jaws pivotally mounted on said cross-head and adapted to force metal binding about three sides of the anvil, cutting mechanism, means for initially holding the metal binding in said jaws, pivotally held fingers movable with the jaws and adapted to hold the binding in the jaws during the reciprocatory movement thereof; means for automatically releasing the fingers, and lapper mechanism having two jaws movable toward and from each other and at right angles to the movement of the first-mentioned jaws and adapted to bend the metal binding on the remaining side of the anvil.

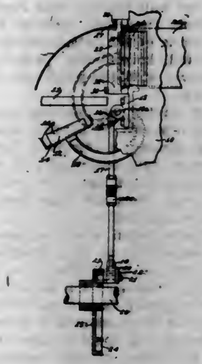
6. In a box-making machine, the combination of a substantially rectangular anvil, a reciprocatory cross-head, levers pivotally mounted on said cross-head, stationary guides engaging a part of said levers, a center member, jaws pivotally held to said center member and to said levers, springs normally forcing the jaws in one direction tending to keep said jaws and the center member in alinement, stops for the center member and the cross-head, means for initially holding the binding in the jaws, means for retaining the binding in the jaws during the reciprocatory movement of the cross-head; two oppositely movable jaws movable toward the anvil adapted to fold the ends of the binding about one part of the anvil, and guides interposed between the first-mentioned jaws and the last-mentioned jaws to prevent the binding during the initial folding about the anvil being interfered with by the last-mentioned jaws, said guides having a part thereof overlying said last-mentioned jaws when in their normal position.

8. In a box-making machine, the combination of a substantially rectangular anvil, supporting frame members, a reciprocatory cross-head movable between said members, levers pivotally mounted on said cross-head; guides for a part of said levers, a center member; jaws pivotally held to said center member and to said levers, springs normally forcing the jaws in one direction, means for initially holding the binding in the jaws, means for retaining the binding in the jaws during the reciprocatory movement of the cross-head, means movable toward the anvil adapted to fold the ends of the binding about one part of the anvil and to cause the ends to overlap, and guides interposed between the first-mentioned jaws and the last-mentioned means.

9. In a box making machine, the combination of a substantially rectangular anvil, supporting frame members, a cross-head movable between said members, levers pivotally mounted on said cross-head, guides for a part of said levers, a center member, jaws pivotally held to said center member and to said levers, springs normally forcing the jaws in one direction, a back stop adapted to engage the center member, means for initially holding the binding in the jaws, means for retaining the binding in the jaws during the reciprocatory movement of the cross-head, and two oppositely movable jaws movable toward the anvil adapted to fold the ends of the binding about one part of the anvil and to cause the ends to overlap.

[Claims 2, 3, 5, and 7 not printed in the Gazette.]

1,252,546. BOX-MAKING EJECTING MECHANISM. CHARLES BURNHAM, Los Angeles, Cal. Filed Sept. 28, 1915. Serial No. 53,088. (Cl. 93—36.)



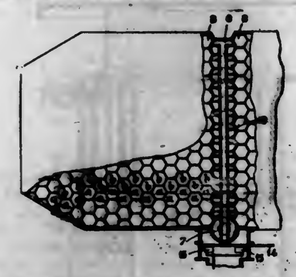
1. In a machine of the class described, the combination of a holder for the box, a head adapted to engage the box, a rock-shaft carrying a pair of separated curved arms connecting said shaft to said head, a crank-arm connected to the said shaft, a vertical rod extending up between said curved arms and pivotally connected to said crank-arm, means for vertically reciprocating said rod, and a chute arranged above said head and adapted to receive the boxes in succession as they are moved upwardly by said head.

2. In a machine of the class set forth, a chute adapted to receive the boxes in succession, mechanism for thrusting the boxes in succession into said chute, said mechanism embodying a vertical reciprocatory rod, a vertically-swinging link pivotally connected to the frame of the machine at one end, another link pivotally connecting the free end of the aforesaid link to the lower end of said reciprocatory rod, a shaft provided with a grooved cam, and a trundle or roller connected to the free end of said link and working in the groove of the cam.

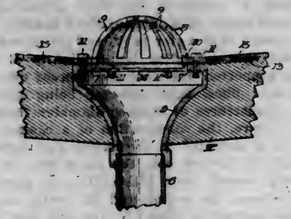
1,252,547. CONSTRUCTION OF TANKS, RESERVOIRS, AND THE LIKE. EVERARD RICHARD CALTHROP, London, and FRANCIS GASCOIGNE LYNDE, Belvedere, England, assignors to The Vibrocel Company Limited, London, England, (a Company.) Filed Mar. 27, 1914. Serial No. 827,643. (Cl. 72—13.)

1. A tank or reservoir, comprising a plurality of vertical juxtaposed polygonal cells of reinforced vibrated concrete having a base and a roof common to all said cells, apertured walls in said cells, the apertures being located near the bottom and top of said walls to permit of the passage of gases and liquid from one cell to another, a liquid supply and eduction main in communication with said cells, a gas main for withdrawing gases from the cells and for returning said gases to the cells to replace liquid withdrawn therefrom, and a gasometer in communication with said cells for storing gases withdrawn therefrom.

2. A tank or reservoir, comprising a plurality of vertical juxtaposed polygonal cells of reinforced vibrated concrete, having a base and a roof common to all said cells, apertured walls in said cells, the apertures being located near the bottom and top of said walls to permit of the passage of gases and liquid from one cell to another, a gallery located in the middle of the reservoir, air, liquid and gas mains located in said gallery, a plurality of pipes forming communication between said mains and said cells, a gasometer communicating with the gas main, and means for introducing compressed air to the air main and the cells.



1,252,548. DRAIN-CONNECTOR. GUSTAVE CARLSON, Chicago, Ill. Filed Oct. 4, 1917. Serial No. 194,642. (Cl. 108—30.)



1. A drain-pipe connector comprising a bowl, a flange extending internally around the upper edge of said bowl, a strainer, a flange extending around the edge of said strainer, and means for fastening said flanges together.

2. A drain-pipe connector, a strainer, and means for connecting said strainer to said connector, said means being positioned internally of said bowl.

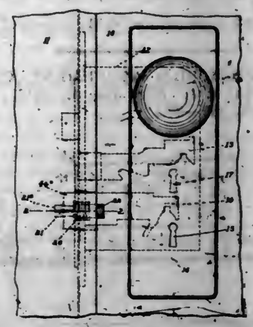
3. A roof drain-pipe connector comprising a bowl, a flange extending internally around the upper edge of said bowl, a strainer, a flange extending around the edge of said strainer, and bolts connecting said strainer flange to said bowl flange.

1,252,549. INDICATOR-LOCK. WILLIAM J. CARROLL, New Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed July 14, 1913. Serial No. 778,988. (Cl. 70—6.)

1. An indicator strike for locks, having a movable test member adapted to be felt by the hand from the outside of the room and to thereby give an indication of the condition of the lock to which said strike is appurtenant, and means on the strike for operating said member by the movement of the lock bolt; substantially as described.

2. A lock strike of the mortise type, comprising a plate with a bolt opening, a part on said plate adapted to extend outward beyond the outer face of the door when said plate is applied to the door jamb so that said part can be felt by the hand, a manual test member carried by said part, and means on the strike for operating said manual test member from the lock bolt; substantially as described.

3. The combination with a door, a door jamb, a bolt on the door, and a strike plate mortised in the door jamb to receive said bolt, of an extension on the strike plate projecting beyond the edge of the door so as to be accessible from the outside of the room, a manual test member on said extension adapted to be felt by the hand, and means for operating said manual test member by the protraction of said bolt; substantially as described.

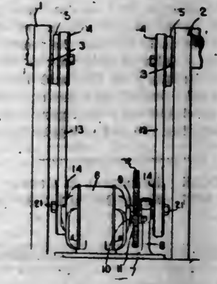


4. A strike for locks, comprising a plate having a bolt opening, a sliding indicator on said plate, and an operator for said indicator mounted on the plate and having a part projecting back of the bolt opening; substantially as described.

5. A strike for locks, comprising a plate having a bolt opening, a lever pivoted on the plate and having a part projecting back of said opening, a sliding indicating member operated by said lever, and a spring normally holding said indicating member in a predetermined position; substantially as described.

[Claims 6 to 19 not printed in the Gazette.]

1,252,550. DRIVING APPARATUS. RALPH P. CHAMPNEY, Worcester, Mass. Filed Dec. 15, 1914. Serial No. 877,486. (Cl. 74—21.)

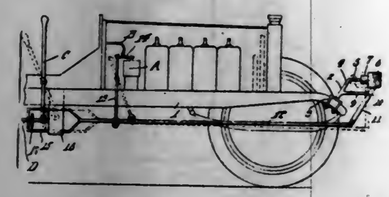


1. In a driving apparatus, the combination with two machines to be driven situated in line with each other and arranged with their driving ends adjacent each other, of a self-contained driving element therefor comprising a base separate from said machines and placer between them in line therewith, a motor on the base, a countershaft geared to the motor, two bearings on the base for supporting the countershaft, a pulley on each end of the countershaft adjacent the bearing, each pulley presenting a V-shaped belt-receiving groove and comprising two side members adjustable toward and from each other to vary the effective size of the pulley, a driving pulley on each machine, a V-belt connecting each pulley on the countershaft with a driving pulley on one of the machines, and means for adjusting independently the effective size of each pulley on the countershaft.

4. In a driving apparatus, the combination with two machines to be driven arranged with their driving ends adjacent or near each other, of a self-contained driving element therefor which is independent from the machine and which comprises a motor, a countershaft geared to the motor, two V pulleys on the countershaft, and belting connecting each pulley to one of the machines, said pulleys being of considerable size and operating with a fly-wheel effect to assist in carrying the machine past the peak load.

[Claims 2 and 3 not printed in the Gazette.]

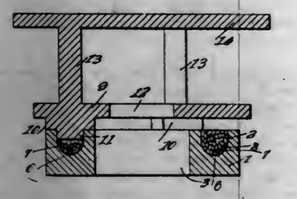
1,252,551. AUTOMOBILE ATTACHMENT. CLIFFORD W. COLE, Camden, N. J. Filed Jan. 31, 1917. Serial No. 145,800. (Cl. 180—83.)



1. In an automobile attachment, the combination with the frame, spark coil and brake rod, the said frame having its forward end curved to provide the usual horns, of a bracket mounted upon each of the said horns, a fender provided with sleeves embracing a portion of each bracket whereby the said fender may be rearwardly moved, and means connected to the said fender and associated with the said spark coil and the brake rod for disconnecting the spark coil and operating the brake rod to apply the brakes when the said fender is moved.

2. In an automobile attachment, the combination with the frame, spark coil and brake rod of a pair of brackets mounted upon the forward ends of the frame, each bracket including yokes embracing the frame and rigidly secured thereto, horizontally disposed supporting rods formed on the brackets, a fender, a pair of sleeves carried by the fender, each of which embraces one of the said supporting rods whereby the sleeves will be rearwardly movable on the said rods for permitting movement of the fender, resilient means for normally holding the fender in forwardly extended position, a fulcrum arm carried by one bracket, a lever pivotally mounted on the said fulcrum arm and connected to the said fender, and means connected to the said lever and associated with the spark coil and the said brake rod for operating the rod to apply the brakes.

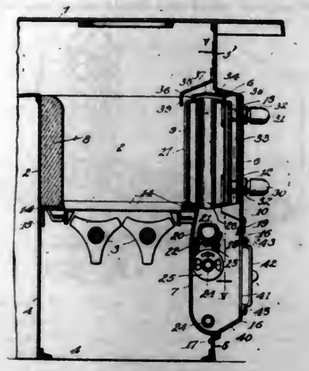
1,252,552. BURNER. HERSCHEL E. CURREY, Baker, Oreg. Filed Apr. 16, 1917. Serial No. 162,383. (Cl. 158—96.)



1. A heater comprising a burner provided with a groove and a circular opening, a fuel distributer in the groove, a flame spreader above the burner provided with a central opening of less area than the opening in the burner and a radiator above the spreader.

[Claim 2 not printed in the Gazette.]

1,252,553. WATER-HEATING ATTACHMENT FOR STOVES. WARING L. DAWBARN, Hartsdale, N. Y. Filed May 1, 1917. Serial No. 165,719. (Cl. 126—36.)



1. In a stove, the combination of a casing, a fire box, a water back supported in the casing and adapted to be heated from said fire box, a water supply conduit connected to the lower portion of said water back, a water outlet conduit connected to the upper portion of said water back, a series of air flues extending upwardly through said water back, an auxiliary heating means supported beneath said water back, and an inverted channel-shaped deflector extending longitudinally of said water back and supported upon the top thereof over the upper ends of said flues, said deflector being provided with a series of apertures of smaller diameter than said flues.

2. In a stove, the combination of a casing, a fire box, a water back mounted in the casing and forming a part of the wall of the fire box, the outer wall of said water back being spaced from the casing to provide an air passage between the casing and the water back, a series of air flues extending upwardly through said water back, an auxiliary heating means supported beneath said water back, and means for deflecting air rising through said passage and flues downwardly into the fire box along the inner wall of the water back.

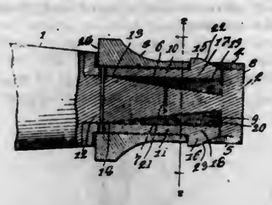
3. In a stove, the combination of a casing, a fire box, a water back mounted in the casing and forming a part of the wall of the fire box, the outer wall of said water back being spaced from the casing to provide an air passage between the casing and the water back, a series of air flues extending upwardly through said water back, an auxiliary heating means supported beneath said water back, and an inwardly and downwardly extending hood held to the casing above said water back and extending below the upper end of the water-back and adapted to deflect air rising through said passage and flues downwardly into the fire box along the inner wall of the water back.

7. In a stove, the combination of a fire box, a water-back forming part of the wall of the fire box, an auxiliary heater, and means for directing heated air from said auxiliary heater along the outer side of said water-back and into the fire box along the inner wall of the water-back.

8. In a stove, the combination of a fire box, a water-back forming part of the wall of the fire box, an auxiliary heater supported beneath the bottom of the water back, and means for directing air heated by said auxiliary heater upwardly along the outer side of the water-back, over the top of the water-back, and downwardly into the fire box along the inner side of the water-back.

[Claims 4 to 6 not printed in the Gazette.]

1,252,554. NUT-LOCK. GEORGE W. DILLON, Des Moines, Iowa. Filed May 19, 1916. Serial No. 98,623. (Cl. 151—6.)



1. The combination with a spindle provided with a threaded terminal, of a wheel retaining nut engaging said terminal and having its walls cut away at its outer end to form a slot, spring actuated means carried by the threaded terminal and having a portion projecting through the slot to lock the nut against rotation and to form a finger engaging part to depress the same and release the nut.

4. The combination with a spindle provided with a threaded terminal, of a wheel retaining nut engaging with said terminal and having a slot at its outer end, said threaded terminal provided with a longitudinally extending slot gradually increasing in depth toward the outer end, a latch bar mounted in said slot and provided with a vertical projection at the outer end thereof for engagement with the slot in the nut, said projection having an inclined portion starting below the circumference of the terminal and resilient means for forcing the latch outwardly.

[Claims 2 and 3 not printed in the Gazette.]

1,252,555. DEVICE FOR EXTRACTING CORES FROM WELLS. REDUS D. DODDS, Humble, Tex. Filed Apr. 2, 1917. Serial No. 159,248. (Cl. 255—72.)



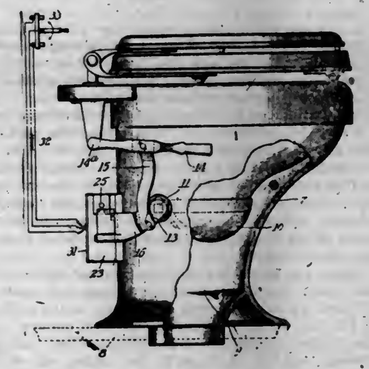
1. The combination with a drill stem having a core forming boring tool secured to the lower end thereof and provided with a bore to receive said core, of a tubular barrel secured in said stem and when in operative position, resting upon said tool and whose lower end is provided with slots, interengaging means carried by the stem and barrel respectively whereby the barrel is forced to rotate with the stem, and means working through said slots provided to engage with and sever the core in the barrel.

2. The combination with a drill stem having a core forming boring tool secured to the lower end thereof which is provided with a bore to receive the core, of a tubular barrel, having a side slot, secured in said stem and when in operative position resting upon said tool and whose lower end is provided with apertures, a fixed shoulder carried by the stem, a dog hinged within the barrel and projecting through said slot, a flexible spring normally holding said dog projected through the slot to engage with said shoulder and force the barrel to rotate with the stem and means working through said apertures provided to engage with and sever the core in the barrel.

3. The combination with a drill stem having a core forming boring tool secured to the lower end thereof and provided with a bore to receive said core, of a tubular barrel secured in said stem and when in operative position resting upon said tool and whose lower end is provided with slots, interengaging means carried by the stem and barrel respectively whereby the barrel is forced to rotate with the stem, means arranged to project through said slots and provided to engage with and sever the core in the barrel, a casing provided to fit over said barrel and when in position over the barrel, to disengage said interengaging means and to force the core severing means through said slots and into engagement with the core and a cable attached to said casing.

[Claim 4 not printed in the Gazette.]

1,252,556. CLOSET-LOCKING DEVICE. JOHN C. DUNER, Wheaton, Ill. Filed Mar. 10, 1915. Serial No. 13,354. (Cl. 4—17.)



2. In combination, a bowl having a discharge outlet, means capable of actuation to open and close said outlet embodying mechanism provided with a movable lock member, and means adapted for holding said outlet closed comprising a locking member movable to a position where it locks with said member and thereby hold said mechanism against actuation, said lock member being yieldable to pass said locking member during movement of said first named means from its open position to its outlet closing position.

3. The combination with a closet bowl having a discharge passage and a discharge retaining pan normally closing said passage, of actuating means for said pan including a member movable to open the pan and a lug pivotally carried by said member, and a locking means for said pan comprising a locking member disposed with reference to said movable member to take up an operative position in the path of lug movement to hold the movable member against actuation and the pan against opening; said pivotal lug permitting movement of the movable member in one direction past the locking member to a position where the lug is locked against movement in an opposing direction.

[Claims 1 and 4 not printed in the Gazette.]

1,252,557. PROCESS AND APPARATUS FOR INCREASING THE PRODUCTION OF OIL-WELLS. IRWIN L. DUNN, Marietta, Ohio, assignor to Petroleum Patents Company, Chicago, Ill., a Corporation of Maine. Filed May 13, 1916. Serial No. 97,223. (Cl. 166—1.)

1. A process of operating oil wells which consists in introducing compressed gas to the oil sand in which the

wells are located, maintaining a column of oil in the well to be pumped to exert a back pressure upon the compressed gas, and pumping the oil from said wells.



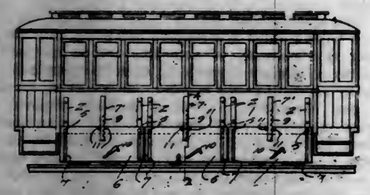
2. Apparatus for producing oil comprising means for introducing compressed gas into the oil sand, a well casing, a tubular member in said well casing, packed with respect thereto, and extending below the level of oil in the rock, and means for pumping the oil from said tubing.

3. Means for producing oil from oil-bearing rock, comprising means for forcing compressed gas into said rock, a well having a casing, a tube within the casing extending down into the oil sand below the oil level therein, means for preventing the escape of gas between the casing and the tubing, and an oil pump in the tubing, the working barrel of which is located a substantial distance above the oil level in the sand.

4. Means for producing oil from oil-bearing rock, comprising means for forcing compressed gas into said rock, a well having a casing, a tube within the casing extending down into the oil sand below the oil level therein, means for preventing the escape of gas between the casing and the tubing, and an oil pump in the tubing, the working barrel of which is located a substantial distance above the oil level in the sand, and a flood nipple located below the working barrel in the pump.

[Claims 5 and 6 not printed in the Gazette.]

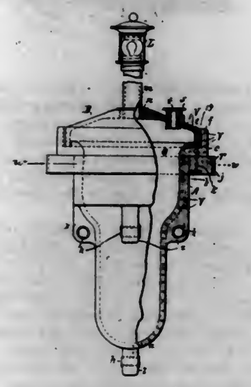
1,252,558. CAR-FENDER. HIRAM EDRINGTON, Turners Station, Ky. Filed Oct. 30, 1917. Serial No. 199,347. (Cl. 105—33.)



1. A car fender comprising a plurality of vertically disposed bars secured upon the sides of a car, a plurality of vertically disposed plates having vertical slots therein, headed bolts passing through said slots to secure said plates on the sides of a car, and means for securing said plates in raised and lowered positions.

2. A car fender comprising a plurality of vertically disposed bars secured upon the sides of a car, a plurality of vertically disposed plates having vertical slots therein, headed bolts passing through said slots to secure said plates on the sides of a car, a looped rod carried on the side of a car intermediate of the vertical bars provided with ratchet teeth on the edge thereof, a pawl pivotally carried on said fender plate to engage said teeth and guide lugs on said plate on each side of said looped rod, substantially as described.

1,252,559. MARINE BUOY. FREDERIC WM. ERICKSON, New York, N. Y. Filed Sept. 7, 1917. Serial No. 190,152. (Cl. 9—8.)



1. A marine buoy made of reinforced concrete sections or members hermetically sealed to each other, the exterior surface of which is waterproofed, having a buffer ring at the water line, provided with signaling means to indicate its presence and position, and means for attaching anchoring ropes or cables.

3. A hollow marine buoy consisting of upper and lower members hermetically sealed to each other, each member made of reinforced concrete, the upper portion having an upward extension bearing upon its end signal means as a lantern, a buffer ring at the water line, and means for securing anchoring ropes or cables.

5. A hollow marine buoy consisting of two shells or members made of concrete reinforced with embedded metal bars or wires, the lower member being the water immersed portion and surrounded at the water line with a protective band or ring and having its upper end channeled to engage the lower end of the upper member and be sealed thereto, the lower member having means to which anchoring ropes and cables may be attached, the upper member provided with an upright mast or rod bearing on its end signal means, with means in said upper member for permitting the withdrawal of bilge water from the buoy.

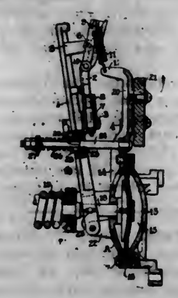
[Claims 2 and 4 not printed in the Gazette.]

1,252,560. ELECTRIC SWITCH. CLARENCE T. EVANS, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Dec. 15, 1914. Serial No. 877,342. (Cl. 175—287.)

1. In an electric switch, in combination, a pivoted operating member, a contact member pivoted thereto for bodily movement therewith, a pivoted member carried by said contact member, and resilient means acting on said latter member whereby the same upon movement of said operating member in opposite directions effects a delayed snap movement of said contact member in corresponding directions relatively to said operating member.

6. In an electric switch, in combination, an operating member, an operated member pivotally connected thereto having associated contacts, a link pivotally connected to said latter member on one side of its axis, a stationary part on the same side of said axis and resilient connecting means between said part and said link on the other side of the axis of said operated member.

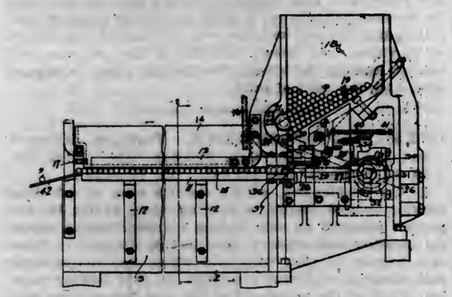
12. In an electric switch, in combination, a pivoted operating lever, an operated lever pivoted thereto in parallel relation therewith and bodily movable thereby, said operated lever having a contact adjacent one end, a stationary contact to be engaged by said first mentioned contact and means biasing said operated lever to either of two extreme positions and effecting snap movement thereof from either position to the other, one of said contacts having a rounded engaging surface.



16. In an electric switch, in combination, a pivoted operating member, an operated member pivotally mounted thereon in parallel relation thereto for bodily movement thereby and means associated with said latter member for biasing the same in closed circuit position with a pressure increasing gradually and proportionately to the rate of movement of said operating member during a partial travel thereof in one direction for biasing said operated member to open circuit position with a pressure diminishing gradually and proportionately to the rate of movement of said operated member during a partial travel thereof in the opposite direction and for biasing said operated member to each opposite position with a pressure suddenly augmented proportional to the rate of movement of said operating member for said partial travel thereof in either direction.

[Claims 2 to 5, 7 to 11, and 13 to 15 not printed in the Gazette.]

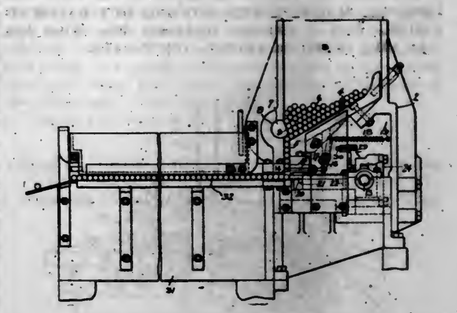
1,252,561. HEATING-FURNACE. CHARLES FASSINGER, Pittsburgh, Pa., assignor to Oliver Iron & Steel Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 26, 1917. Serial No. 171,185. (Cl. 263—8.)



1. In apparatus for heating round, elongated blanks for shaping, the combination of a furnace having a runway to one side of and outside of the furnace chamber for supporting the blanks in position for heating, said furnace having a longitudinally-extending slot along the same side as said runway, means at the outer end of said runway for feeding the blanks by gravity to said runway, and means for advancing the blanks intermittently along said runway.

[Claim 2 not printed in the Gazette.]

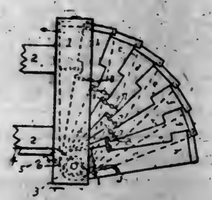
1,252,562. FEEDING APPARATUS. CHARLES FASSINGER, Pittsburgh, Pa., assignor to Oliver Iron & Steel Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 26, 1917. Serial No. 171,186. (Cl. 193—1.)



1. In a feeding apparatus, the combination of a suitable hopper having an inclined bottom, a passage communicating with said hopper at the lower end of said bottom, and a rounded agitator fitting in a correspondingly-shaped seat at the lower end of said hopper and extending across the same, with a space between the cylindrical surface of said agitator and said bottom for the passage of only one article at a time to said passage, and means for oscillating said agitator.

2. In a feeding device, the combination of a hopper having an inclined bottom and a passage communicating with said hopper at the lower end of said bottom, and an oscillatory rounded agitator fitting in a recess in the rear wall of said hopper extending across said hopper and having a flat face, the lower edge of said flat face extending beyond said recess and forming a space between said bottom sufficient for the passage of only one article at a time to said passage.

1,252,563. SIGNALING APPARATUS. LEWIS N. FRENNETT, San Diego, Cal. Filed Nov. 8, 1915. Serial No. 60,277. (Cl. 116—31.)

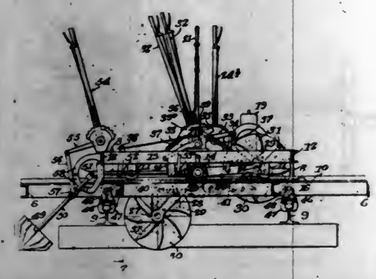


2. A device of the class described comprising a housing adapted to be attached to an automobile; a shaft within said housing; a series of blades of different lengths rotatably mounted on said shaft, having their free ends bent one upon the other in succession and having notches of different lengths in the corresponding edges thereof; lugs erected from said blades, said notches being adapted to provide room for said lugs; a chain connecting the lug erected from one blade with the lug erected from the edge of the next succeeding blade, said pair of lugs being adapted to move in the same arc; a like connection from the bottom of said last named blade to the next succeeding blade, but adapted to move in a different arc from said first named points of connection and so on throughout the series; a spring wound about said shaft, having one end engaged with the shortest blade and the other end disposed against the back wall of said housing; pulleys mounted on said automobile; a flange on said shortest blade; a

cable attached to said flange and extending through a hole in said housing and over said pulleys to the steering wheel column of said automobile; for the purposes set forth.

[Claim 1 not printed in the Gazette.]

1,252,564. MACHINE FOR DIGGING OUT RAILWAY-TIES. PAUL A. GEISLER, Milwaukee, Wis. Filed Jan. 19, 1917. Serial No. 143,238. (Cl. 37—17.)



3. A machine for digging out railway ties comprising a frame, a pair of cutting members carried by the frame, and means for moving said cutting members apart, said means including a set of lazy tongs, and actuating means for operating said tongs.

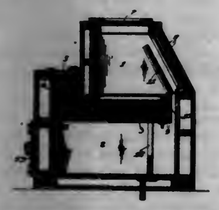
7. A machine for digging out railway ties comprising a frame, a pair of cutting members carried thereby, means for operating the cutting members, and means for automatically feeding the cutting members toward each other during operation.

10. A machine for digging out railway ties comprising a body frame, a shiftable frame mounted thereon, a rack on the body frame, a main drive shaft carried by the shiftable frame, gears on the drive shaft meshing with said rack, hanger links journaled on the main drive shaft, cutting member shafts journaled in said hanger links, sprocket connections between the cutting member shafts and the main drive shaft, cutting members on said cutting member shafts and means for moving said cutting member shafts vertically.

13. A machine for digging out railway ties comprising a body frame, a frame shiftable thereon, a hanger arm pivotally mounted on the shiftable frame, a cutting member on the free end of the arm, means for lowering the member into engagement with material to be cut, and means for automatically raising said cutting member when the shiftable frame has been moved a predetermined extent.

[Claims 1, 2, 4 to 6, 8, 9, 11, 12, and 14 to 20 not printed in the Gazette.]

1,252,565. REFRIGERATOR. ALAN K. GILLESPIE, St. Louis, Mo., assignor to Brecht Company, St. Louis, Mo., a Corporation of Missouri. Filed Oct. 26, 1916. Serial No. 127,754. (Cl. 62—37.)



1. A refrigerator comprising an upper display chamber, a plurality of containers for cooling means located beneath said chamber and spaced apart to provide a plurality of flues for the egress of air from the display chamber.

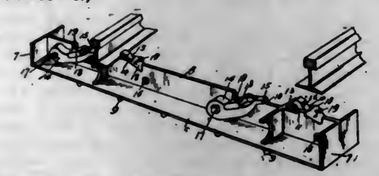
3. A refrigerator comprising a lower storage chamber, an upper display chamber, a plurality of inclosed ice containers between said chambers and spaced apart to provide a plurality of passages between them from the upper to the lower chamber, and means forming a passage for the return of air from the lower to the upper chamber, said means comprising a baffle extending to the upper part of the display chamber.

5. In a refrigerator, the combination of a refrigerating chamber, and containers for cooling means arranged to provide a plurality of air passages adjacent to the containers, said air passages communicating with the refrigerating chamber and spaced over one wall of said chamber.

6. In a counter refrigerator, the combination of an upper display chamber, a lower storage chamber, a plurality of inclosed ice containers located between said chambers and spaced apart, said containers extending to a point back of the display chamber, and an ice hopper communicating with the rear portions of said chambers.

[Claims 2 and 4 not printed in the Gazette.]

1,252,566. CROSS-TIE. JOHN T. HAGEWOOD, Clarksville, Tenn., assignor of one-half to James Bailey Felts, Clarksville, Tenn. Filed Oct. 16, 1916, Serial No. 125,954. Renewed June 5, 1917. Serial No. 173,055. (Cl. 238—5.)



1. In a cross tie, a base, a web supported by the base, said web having notches in its edge forming seats for rails, webs extending transversely of the base and connected to the longitudinally disposed web for supporting rails, clamps, means for pivotally mounting the clamps in operative relation to base flanges of rails resting on the cross tie, and tension members for holding the clamps in place.

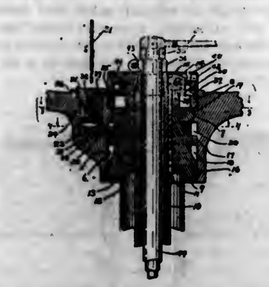
2. In a cross tie, a base, a web supported by the base, said web having notches in its edge forming seats for rails, webs extending transversely of the base and connected to the longitudinally disposed web for supporting rails, clamps, means for pivotally mounting the clamps in operative relation to base flanges of rails resting on the cross tie, tension members for holding the clamps in place comprising lugs integral with the web, said lugs having threaded apertures, and screws threaded in the apertures and bearing against the clamps for holding them in engagement with the webs of rails.

1,252,567. AUTOMOBILE-LOCK. FRANK R. HANCOCK and RONALD F. HOFFMAN, Kenosha, Wis. Filed Jan. 15, 1917. Serial No. 142,442. (Cl. 70—129.)

1. The combination, with a steering post, of a locking member secured thereto, a steering wheel having its hub portion mounted on said locking member, locking means for securing said wheel to said locking member to cause said member to turn with said wheel, and for securing said wheel in inoperative position on said locking member, a nut at the upper end of the post for securing said locking member thereto against vertical movement, and freely revoluble means for preventing access to said nut.

2. The combination, with a steering post, of a locking member secured thereto, a steering wheel having its hub portion mounted on said locking member, locking means for securing said wheel in operative and inoperative position with respect to said locking member, a nut at the upper end of the post for securing said locking mmber against removal and freely revoluble means for preventing access to said nut.

3. The combination, with a steering post, of a locking member secured thereto, a steering wheel having its hub portion mounted on said locking member, means for securing said wheel in operative and inoperative position



with respect to said locking member, a nut at the upper end of the post for securing said locking member against removal, and a freely revoluble sleeve surrounding said nut to prevent access thereto.

[Claims 4 and 5 not printed in the Gazette.]

1,252,568. EGG-CARRIER. ALFRED E. HARTMAN, Pittsburgh, Pa., assignor of two-thirds to James B. Sipe, Pittsburgh, Pa. Filed Feb. 24, 1917. Serial No. 150,727. (Cl. 217—33.)

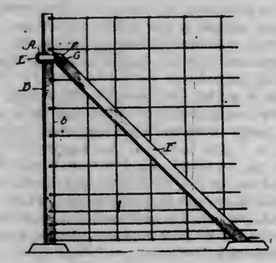


1. A collapsible egg carrier having independent longitudinal partition and supporting strips including two outer strips, and a plurality of independent members separable from said strips each including two vertically disposed transversely extending partition walls, an inclined bottom, and strips bearing against the said outer longitudinal strips.

3. A collapsible egg carrier having independent longitudinal partition and supporting strips including two outer strips, and a plurality of independent members separable from said strips, each including two vertically disposed transversely extending partition walls and an inclined bottom, said outer strips having side flaps integral therewith and adapted to form a cover.

[Claims 2 and 4 not printed in the Gazette.]

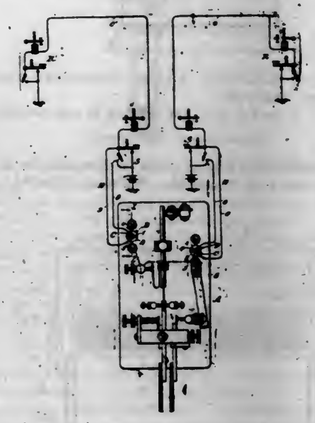
1,252,569. FENCE-POST BRACE CONSTRUCTION. JOHN F. HENNING, Janesville, Wis., assignor to Janesville Barb Wire Co., Janesville, Wis., a Corporation of Wisconsin. Filed Oct. 5, 1916. Serial No. 123,811. (Cl. 189—31.1.)



1. The combination of a fence post and a brace therefor, adjustable means on the post to permit said brace to extend in different directions, said means including a split collar which encircles the post, a plurality of separate filler-blocks engaging the post, said blocks providing a curved channel-bearing for the rotation therein of said collar, and a tightening and pivoting bolt for contracting said collar and to detachably support the upper end of the brace and clamp said collar and blocks rigidly to the post, so that the brace can be swung up and down and sidewise before having its lower end fixed in place, said post being of a shape to prevent rotation of said blocks with said collar and permit up-and-down adjustment of the blocks and collar thereon.

[Claims 2 to 5 not printed in the Gazette.]

1,252,570. DETACHABLE CORD SENDING-MACHINE CUT-IN. CHARLES MORRIS HOLMES, Jacksonville, Fla. Filed Aug. 18, 1916. Serial No. 115,598. (Cl. 178—75.)



1. The combination of a vibroplex transmitter, a main line in two sections extending in opposite directions from the transmitter, distance stations connected with the sections of the line, sending means connected with the sections of the line independently of the vibroplex transmitter, a cord conductor adapted to be connected in circuit with each section of the main line, a two-contact plug connected with the wires of each cord conductor, and terminal sockets on the vibroplex transmitter for receiving said plugs.

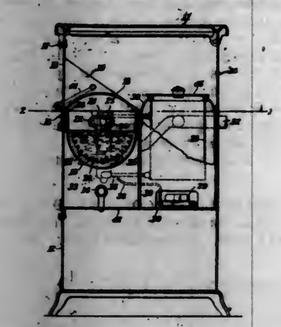
[Claim 2 not printed in the Gazette.]

1,252,571. STERILIZER. WALTER G. HOLMES, Rochester, N. Y. Filed June 15, 1915. Serial No. 34,287. (Cl. 167—3.)

3. A device of the kind described, comprising a liquid container having a cover hinged thereto at one side, said cover having a rigid bracket projecting from the inner face thereof, a distance approximately one-half the width of said cover, and a gravity arighted tray pivoted to said bracket and arranged to be carried thereby directly into and out of the liquid of the container by closing and opening movements of said cover, the said cover having a chamber in its underside and being arranged to turn under said tray when in an extreme open position, and then serving as a drip pan.

8. The combination with an upright wall, of a hinged container adjacent to one side of said wall, said wall having a passageway above said container, and a door hinged to said wall for opening and closing the passageway thereof, a cover for said liquid container attached to said door and projecting therefrom approximately at a right angle, said cover, on its underside having rigid brackets projecting centrally therefrom and depending into said liquid container when said cover is closed, and

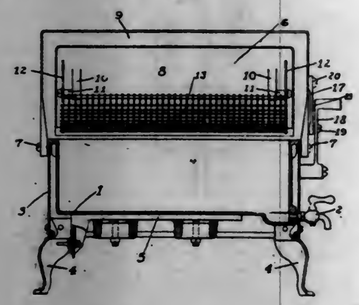
brackets having laterally projecting studs, and a tray provided at its ends with handles and with open notches adjacent said handles, said notches engaging said studs



and affording detachable pivotal connections between said tray and brackets.

[Claims 1, 2, and 4 to 7 not printed in the Gazette.]

1,252,572. STERILIZER. WALTER G. HOLMES, Rochester, N. Y. Filed Feb. 18, 1916. Serial No. 79,034. (Cl. 167—3.)

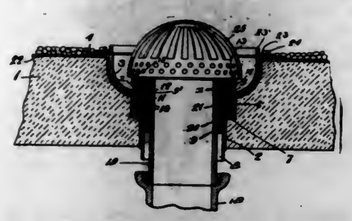


In a device of the kind described, the combination with a water tank and a cover hinged thereto at one side, said cover having projecting arms, of a tray pivotally hinged on said arms, and a toggle connecting said tank to said cover at points offset from its hinge, the said toggle having increasing power as it is moved toward the dead center in the act of opening said cover and raising said tray, the said toggle, in the extreme open position of the cover being held in a position slightly beyond its dead center whereby the cover is locked in its open position, and the tray sustained in a raised position.

1,252,573. ROOF CONNECTION FOR DRAIN-PIPES. CHARLES L. HOLT, Lawrence, Mass., assignor to Holt Roof Connection Co., Lawrence, Mass., a Corporation of Massachusetts. Filed Oct. 8, 1915. Serial No. 54,850. (Cl. 137—95.)

6. A roof connection for drain pipes comprising a fitting adapted and arranged to be held in a roof against up and down movement relative thereto and having a tubular passageway therethrough, a sleeve in said passageway having a slip-joint connection with the walls thereof, a drain-pipe disposed in said sleeve with its upper end terminating at approximately the level of the upper end thereof, and a calk joint between the respective exterior and interior upper end-portions of said pipe and sleeve, to form a rigid, water-tight connection therebetween.

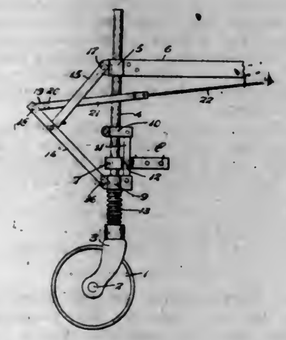
14. A roof connection comprising a bowl-shaped fitting held in the roof against relative up or down movement and having a watertight connection between the roof surface and its rim and an outlet passage leading from its bottom, a tubular projection surrounding said passage and extending upwardly from the bottom of the fitting, to provide a gravel-catch basin thereabout, a drain pipe extending upward through said outlet pas-



sage to points adjacent the upper end of said tubular projection, providing an annular space therebetween, a packing in said space and a gland ring extending into said space and having a flange extending over said tubular projection and clamping bolts extending through said flange and into said projection, to force the gland against the packing.

[Claims 1 to 7 and 9 to 13 not printed in the Gazette.]

1,252,574. CASTER-WHEEL FOR AGRICULTURAL IMPLEMENTS. HENRY B. HOLTVOIGT, Dayton, Ohio, assignor to The Ohio Rake Company, Dayton, Ohio, a Corporation of Ohio. Filed July 7, 1917. Serial No. 179,220. (Cl. 21—206.)



1. A caster wheel device for agricultural implements and the like, comprising a wheel and a post therefor, said post being movably mounted with relation to the implement, a toggle device connected at one end to the implement, and at the other to the post, and a pull element connected to the toggle and operable from the front of the implement.

2. A caster wheel device for agricultural implements and the like, comprising a wheel and a post therefor, said post being movably mounted with relation to the implement, a toggle device connected at one end to the implement, and at the other to the post, and a pull element connected to the toggle and operable from the front of the implement, said post connection of the toggle comprising a collar slidable on the post, and a spring secured to the post and bearing on the collar, for the purpose described.

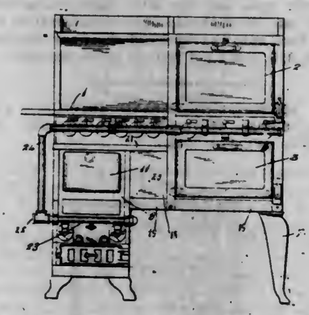
4. A caster wheel device for agricultural implements and the like, comprising in combination with the wheel, its post and the implement frame, a toggle device made up of three levers, one connected to the said post adjacent the lower end thereof, one connected to the frame at the upper portion thereof, said two levers connected together, and the third lever connected to one of the above levers and extending forwardly toward the front of the implement.

5. A caster wheel device for agricultural implements and the like, comprising in combination with the wheel, its post and the implement frame, a toggle device, one end thereof connected to the frame, the middle joint thereof connected to a pull member, and the lower end thereof connected to the post by a device comprising a pair of sliding collars on the post, a spring secured to the post and bearing on the lower collar, and means connected to the frame of the implement for guiding the collars in their movement.

6. A caster wheel device for agricultural implements and the like, comprising in combination with the wheel, its post and the implement frame, a pull bar, a toggle device, one end of the toggle connected to the frame, the lower end thereof connected to the post by means of a device comprising a pair of sliding collars on the post, a spring secured to the post and bearing on the lower collar, and the middle point of the toggle connected to the pull bar, said pull bar having a pivoted knuckle plate thereon for accomplishing said connection, for the purpose described.

[Claim 3 not printed in the Gazette.]

1,252,575. GAS-RANGE. HARRY J. HOOVER, Norwood, Ohio. Filed May 23, 1916. Serial No. 99,311. (Cl. 126—224.)



1. In a device of the character described, the combination with a gas range having a table top at one side, and an oven at the other, an incinerator of a size to support the table top, and located beneath said table top, a filler portion extending from the oven to the side of the incinerator casing, a band passing around said filler portion, and hooks on the incinerator casing to receive said band, whereby the incinerator may be quickly and easily assembled with the stove.

2. In a device of the character described, the combination with a gas range having a table top, and an oven situated at the side of and beneath the table top, an incinerator having a casing of a height to support the table top and of less width than said top, a band running around the ends of the oven and extending to the incinerator casing, filler plates to close the space between said casing and the oven, and means on the casing to engage and hold said band.

3. The combination with a gas range, of an incinerator independent thereof and shaped so as to present the appearance of an integral part of the range, and having an independent flue connection at the rear thereof, and of the range, said incinerator seated in the space beneath the elevated portion of the range, and said elevated portion of the range seated upon the incinerator as a support, with the top of the incinerator lined with fire-insulating material.

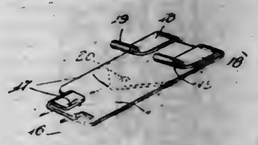
1,252,576. TENNIS-RACKET. CHARLES W. HUTCHINSON, Milwaukee, Wis. Filed May 14, 1917. Serial No. 168,486. (Cl. 46—24.)



1. A racket comprising a frame, a net carried by the frame, a shield strip disposed about the frame and means at the ends of said strip for tightening it to compensate for expansion and contraction of the frame.

2. A racket comprising a frame, a net carried by the frame, a shield strip disposed about the frame, means at the ends of the said strip for tightening it to compensate for expansion and contraction of the frame, and flanges at the portion of the strip adjacent the outer end of the frame embracing the sides of the frame.

1,252,577. MAIL BUNDLE-TIE. ALFRED W. HUTCHISON and HENRY C. WARNE, Chicago, Ill. Filed Nov. 14, 1914. Serial No. 872,231. (Cl. 24—18.)

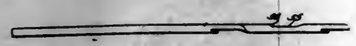


A bundle tie comprising a rectangular shaped plate having an aperture adjacent one corner thereof, a pair of oppositely arranged lateral members upon the longitudinal edges of said plate consisting of lugs formed by slitting the plate transversely adjacent its corners and bending back the metal between the ends and said slits, a similarly formed lateral member at the end of said plate adjacent said aperture, said members forming hooks adapted to receive portions of a flexible element secured in said aperture and passed around the bundle to be tied, and a plurality of spring clamping members independent of said hooks and each formed of a strip of spring metal secured longitudinally upon said plate, the opposite end portions of said spring strips bent substantially S-shaped to provide oppositely facing spring arms at each end of each member whereby the end of said flexible element is adapted to be removably retained against displacement.

1,252,578. COTTON-PICKER. BILLIE JOHNSON, Temple, Tex. Original application filed Apr. 24, 1916, Serial No. 93,189. Divided and this application filed Oct. 12, 1916. Serial No. 125,246. (Cl. 56—118.)

1. A cotton picking needle comprising a tubular stripping portion having an end opening and a cylindrical spindle portion mounted for longitudinal reciprocation in the opening and having a rounded free end and a spirally

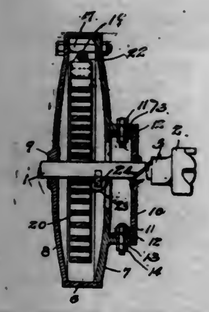
arranged series of separate segmental recesses, each recess gradually increasing in depth away from the free end of the spindle and there being a tooth formed by that end wall of the recess remote from the end of the spindle.



2. A cotton picking needle comprising a tubular stripping portion having an end opening and a cylindrical spindle portion mounted for longitudinal reciprocation in the opening and having a rounded free end and a spirally arranged series of separate segmental recesses, each recess gradually increasing in depth away from the free end of the spindle and there being a tooth formed by that end wall of the recess remote from the end of the spindle, said tooth having its point adjacent one side of the recess and overhanging the recess.

3. A cotton picking needle comprising a tubular stripping portion having an end opening and a cylindrical spindle portion mounted for longitudinal reciprocation in the opening and having a rounded free end and a spirally arranged series of separate segmental recesses, each recess gradually increasing in depth away from the free end of the spindle and there being a tooth formed by that end wall of the recess remote from the end of the spindle, said tooth having its point adjacent one side of the recess and overhanging the recess, one side face of the tooth being obliquely disposed.

1,252,579. MECHANICAL STARTER. WILLIAM S. JOHNSON, Waco, Tex. Filed Mar. 12, 1917. Serial No. 154,174. (Cl. 185—39.)



1. The combination with a housing and an open center helical spring within the housing with its outer end fixed, of a longitudinally movable shaft passed through the housing and the spring and means for operating the shaft, and normally disengaged elements on the spring and shaft adapted to co-act for winding the spring.

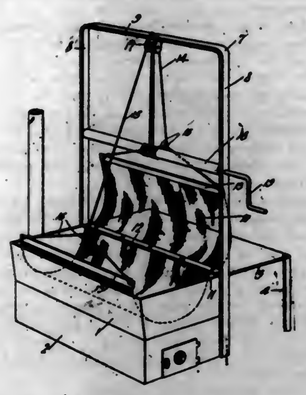
3. The combination in a mechanical starter for an internal combustion engine with an open center housing having oppositely swelled back and front plates and a longitudinally movable shaft journaled in the housing provided with a stud, a crank handle and a clutch member, a spring coiled about the shaft but independent thereof, a hook at the inner end of the spring adapted to engage said stud, and the outer end of said spring having fixed connection with the housing, for the purpose described.

[Claim 2 not printed in the Gazette.]

1,252,580. SCALDING-TANK. MADISON JORDAN, Clarke county, Miss. Filed June 9, 1917. Serial No. 173,804. (Cl. 17—7.)

1. The combination with a scalding tank, of a pair of oppositely moving means for rolling a carcass from either one to the other, one of said means being movable into the tank.

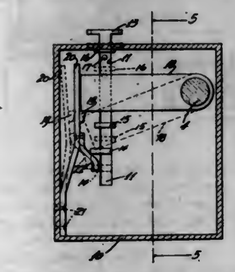
4. The combination with a tank, of a pair of sheets for rolling a carcass from one to the other, one sheet being movable downwardly into the tank, and the other being movable at one side of the tank.



6. The combination with a tank and a platform at one side thereof, of a pair of sheets having adjacent portions fastened near the adjacent portions of the tank and platform, one sheet being adapted to rest upon the platform and to move upwardly for rolling a carcass from the platform into the tank, and the other sheet being movable downwardly into the tank and upwardly therefrom to roll the carcass back onto the aforesaid sheet and platform.

[Claims 2, 3, 5, and 7 not printed in the Gazette.]

1,252,581. ANIMAL-RELEASING DEVICE. AUGUST JUTTNER, Sullivan, Wis. Filed May 25, 1917. Serial No. 170,877. (Cl. 119—116.)



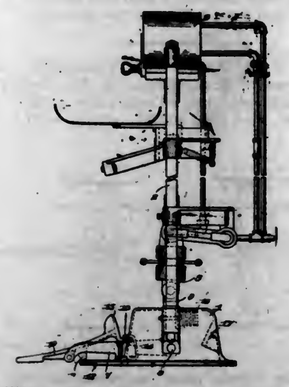
1. In an animal releasing device, a rotary rod, a sectional ring-holding element having one section carried by said rod and movable thereby into and out of engagement with its other section, a bar fast to one end of said rotary rod, a resilient element yieldingly disposed in supporting engagement with one end of said bar, and manually operable means frictionally engaging said resilient element whereby the same may be moved out of engagement with said bar, one element of said means then being adapted for engagement with said bar to move the same.

[Claims 2 to 5 not printed in the Gazette.]

1,252,582. TREADLE MECHANISM. JOHN KANE and FORREST J. COUCH, Rochester, N. Y., assignors to American Laundry Machinery Co., Cincinnati, Ohio, a Corporation of Ohio. Filed Nov. 20, 1915. Serial No. 62,678. (Cl. 74—81.)

1. The combination with an operating lever, of a controlling member pivoted to the operating lever, a stop on

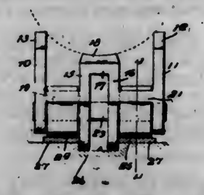
the lever which limits the relative movement of the controlling member in one direction, and a projection on the



controlling member which serves as a fulcrum when it is moved in the opposite direction relatively to the lever.

[Claims 2 and 3 not printed in the Gazette.]

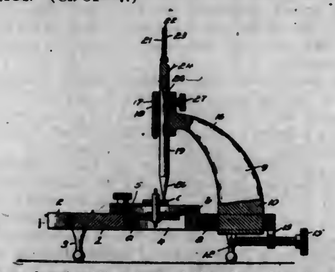
1,252,583. LOG-DOG. ALONZO D. KELLUM, Newbern, N. C. Filed Jan. 18, 1917. Serial No. 143,143. (Cl. 193—8.)



1. A log chain dog comprising side and intermediate log-engaging members, the intermediate member being constructed to span a log chain and having side portions depending below the side log engaging members to form track-engaging guides, a draft rod inserted through the lower portions of the log-engaging members to engage a log chain between the sides of the intermediate member, and rolling supports mounted on said rod between the intermediate log-engaging member and the side log-engaging members.

2. A log chain dog comprising side and intermediate log-engaging members, the intermediate member being constructed to span a log chain, webs connecting the intermediate member with the respective side members, a draft rod inserted through said members below the webs, and rolling supports mounted on said rod.

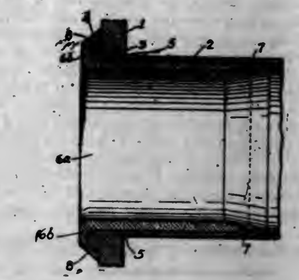
1,252,584. WATCHMAKER'S TOOL. JACOB D. KETHLEY, Munday, Tex. Filed Mar. 24, 1917. Serial No. 157,134. (Cl. 81—7.)



1. In a jewel-setting tool of the class described, a base plate presenting a plane upper surface on which a balance wheel may directly bear, and also having an opening of sufficient size to receive and permit the passage up and down therethrough of the hair spring and hence enable the balance wheel to be arranged on the base plate without the necessity of removing the hair spring and the roller table, means to hold a stake for engagement with the jewel-hole of the roller table, and means to secure the balance wheel on the base plate.

[Claims 2 and 3 not printed in the Gazette.]

1,252,585. BOILER-FLUE FERRULE. ALOYSIUS J. KINNANE, Knoxville, Tenn. Filed May 24, 1916. Serial No. 99,661. (Cl. 137—134.)



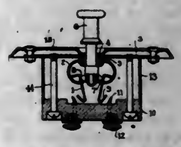
1. The combination with a flue sheet and a flue extending through said sheet and having a bead at its outer end, of a reinforcing member entering the flue and having a flange extending partially across said bead, and a mass of welding metal fused to said flange and the bead of the flue and to the outer face of the sheet, substantially as described.

2. The combination with a flue sheet and a flue extending through said sheet and having a bead at its outer end, of a reinforcing member entering the flue and having a flange extending partially across said head, and having its inner end welded to the flue, and a mass of welding metal fused to said flange and to the bead of the flue and to the outer face of the sheet, the intermediate portions of said reinforcing member being left free from the flue, substantially as described.

3. The combination with a flue sheet and a flue extending through said sheet and having a bead at its outer end, of a reinforcing member composed of a metal differing from the metal of the flue and the sheet and entering the flue and having a flange extending partially across said bead, and a mass of welding metal fused to said flange and to the bead of the flue and to the outer face of the sheet, substantially as described.

4. The combination with a flue sheet and a flue extending through said sheet and having an enlarged portion and a bead at its outer end, of a reinforcing member entering the flue and resting in said enlarged portion and having a flange extending partially across said bead and having its inner end welded to the flue, and a mass of welding metal fused to said flange and to said bead of the flue and to the outer face of the sheet, the intermediate portion of the reinforcing member being free from the flue, substantially as described.

1,252,586. ELECTRIC SWITCH. CHARLES J. KLEIN, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Jan. 30, 1915. Serial No. 5,248. (Cl. 175—287.)



1. In an electric switch, in combination, a pair of oscillatable contacts pivoted medially, an operating member

having a part reciprocable between said contacts from one side to the other of the plane of the axes thereof and energy storing means constituting a support for said contacts.

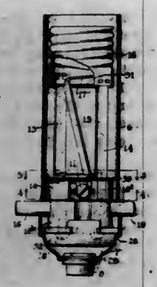
5. In an electric switch, in combination, a pair of spaced operated members pivoted medially and having associated contacts, a reciprocable member therebetween and having knife edges movable thereover across the plane of the axes thereof, and normally tensioned resilient means associated with certain of said members biasing the adjacent ends of said operated members in opposite directions and in accordance with the position of said knife edges with respect to said axes.

6. In an electric switch, in combination, a pair of spaced operated members pivoted medially and having associated contacts, a reciprocable member therebetween and having knife edges movable thereover across the plane of the axes thereof, and normally tensioned resilient means associated with certain of said members biasing the adjacent ends of said operated members in opposite directions and changing the direction of bias thereof with a snap movement as said knife edges cross the plane of said axes.

9. In an electric switch, in combination, a resilient support, an oscillatable operated member medially pivoted thereon, and common means to operate said member and to maintain the same in its pivotal assembly upon said support.

[Claims 2 to 4, 7, 8, and 10 not printed in the Gazette.]

1,252,587. ELECTRIC CANDLE AND THE LIKE. CHARLES J. KLEIN, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Nov. 13, 1915. Serial No. 61,211. (Cl. 173—358.)



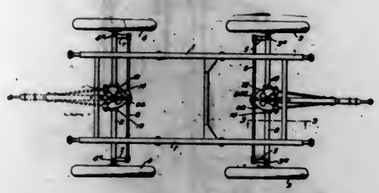
1. The combination with a candle shell, of a unitary lamp socket fitting therefor, comprising a supporting base provided with a plurality of terminals, a screw shell terminal, a center terminal and separate conducting brackets supporting said screw shell and center terminals upon and in a spaced relation with said base for rendering said fitting coextensive with said shell, each of said brackets affording a direct electrical connection between the terminal supported thereby and one of said terminals of said base.

4. As an article of manufacture, a unitary lamp socket fitting for candles and the like, comprising a supporting base provided with a plurality of terminals, a screw shell terminal, a center terminal and separate conducting brackets supporting said screw shell and center terminals upon and in a spaced relation with said base for given external longitudinal dimensions of the fitting, each of said brackets affording a direct electrical connection between the terminal supported thereby and one of said terminals of said base.

5. As an article of manufacture, a unitary lamp socket fitting for candles and the like, comprising a terminal base, a screw shell, a pair of brackets, one a terminal extension from said base, for supporting said shell upon and in a spaced relation with said base, a center terminal within said shell, a terminal extension from said base carrying and independently supporting said center terminal and means centering said terminal within said shell.

[Claims 2, 3, and 6 not printed in the Gazette.]

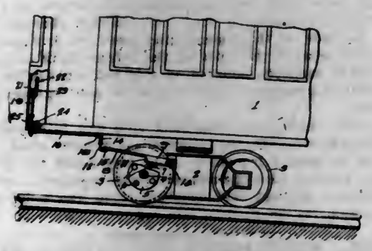
1,252,588. RUNNING-GEAR FOR TRAILERS. JACOB KNAPP, Cincinnati, Ohio, assignor to The Sechler and Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Apr. 11, 1916. Serial No. 90,359. (Cl. 21—137.)



1. In a trailer vehicle, pivot axle wheels at both front and rear of the vehicle, a draw bar, a steering connecting rod for each set of wheels, a fifth wheel plate for each set of wheels, with pivotal connection to its respective steering rod, and means for connecting the draw bar to either of said plates, a projection on the steering rod connection with the fifth wheel, and a bolt for locking the fifth wheel plate to the steering rod of said projection for either set of wheels to hold the wheels in line with the body of the vehicle.

2. In a trailer vehicle, pivot axle wheels at both front and rear of the vehicle, a fifth wheel plate for each axle, with a king bolt therefor, connecting rods for each set of wheels, a pivot bolt for coupling the fifth wheel plate to its respective connecting rod, and a removable bolt for locking either fifth wheel plate to its connecting rod.

1,252,589. CAR STOP OR BRAKE. JOHN A. KOHL, Cuyahoga Falls, Ohio. Filed Sept. 12, 1917. Serial No. 190,872. (Cl. 188—46.)



1. The combination of a vehicle wheel, a disk beside the same, a bolt connecting the wheel and disk, a catch pivoted to the vehicle and arranged to drop to engage the bolt and stop the wheel, and means to hold the catch from such engagement.

2. The combination with a pair of vehicle wheels provided with lateral projections, of a U shaped pawl bar pivoted at its ends to the vehicle and extending beside the wheels and adapted to engage said projections, and means to hold said pawl bar out of such engagement.

3. The combination with a pair of vehicle wheels provided with lateral projections of a U shaped pawl bar pivoted at its ends to the vehicle and extending beside the wheels and adapted to engage said projections, and means to hold said pawl bar out of such engagement, said means including a lever engaging under the bend of the U-bar and adapted to lift the same.

1,252,590. IMPLEMENT FOR TWISTING WIRE. MATT A. KOMPULA, Calumet, Mich. Filed Mar. 8, 1917. Serial No. 153,370. (Cl. 140—120.)



A device of the character described, comprising a pair of pivoted coacting disks provided upon the forward portions of their peripheries with grooves having their rear ends in communication with lateral openings passing through the inner and outer sides of the disks, each disk being provided upon its edge opposite its first named opening with a second opening to coact with the first named opening of the other disk in cutting wire, a device carried by the outer side of each disk to secure the wire thereto, and handles carried by the disks for turning them upon their pivots.

1,252,591. PROCESS OF OBTAINING WAX-LIKE SUBSTANCES FROM LANOLIN. ISAAC LIFSCHÜTZ, Hamburg, Germany. Filed Nov. 3, 1914. Serial No. 870,042. (Cl. 87—26.)

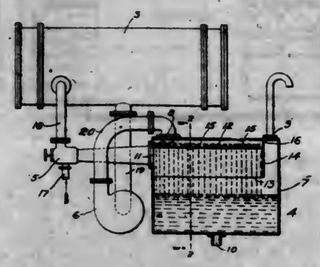
1. The herein described method, which consists in saponifying or hydrolyzing wool-fat, and then washing the same at ordinary temperature with an alcohol soluble in water for separating therefrom the parts soluble thereby, until the residue results in a solid waxlike product.

3. The herein described method which consists in saponifying or hydrolyzing wool-fat, washing the saponified or hydrolyzed material with an alcohol soluble in water until the solid residue results in a waxlike product, and treating the alcoholic filtrate by some suitable method to obtain the fatty acids dissolved therein.

4. The herein described light yellow wax-like product having a melting point above 50° C.=120° F. and consisting of high melting fatty acids and alcohols of woolfat.

[Claim 2 not printed in the Gazette.]

1,252,592. HEAT-CONSERVING APPARATUS. LUTHER D. LOVEKIN, Philadelphia, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed June 15, 1915. Serial No. 34,205. Renewed Nov. 26, 1917. Serial No. 204,098. (Cl. 261—118.)

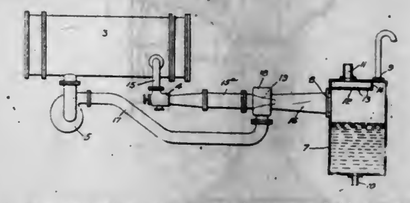


3. An apparatus for conserving heat, comprising the combination of a condenser, a feed water heater provided with an air vent port and a fluid inlet port, a steam actuated ejector for withdrawing air or non-condensable fluid from the condenser, having its discharge port in communication with the fluid inlet port of the heater, means for withdrawing water of condensation from the condenser and for delivering it to the heater, and a trough located within the heater and communicating with the vent port for bringing the water delivered thereto to rest and for delivering it in jets through the stream of fluid entering the heater through the fluid inlet port of the heater, and baffles depending from the trough and surrounding the fluid inlet port for preventing the escape of any condensable vapors from the heater.

5. A combined feed water heater and air separator comprising a receptacle having a water inlet port, a heating fluid inlet port, an air vent port, and a water delivery port, a trough for receiving the water entering the water inlet port provided with means for delivering the water in the form of jets through the stream of heating fluid entering the heater through the fluid inlet port, baffles surrounding the trough having air vent ports, and depending baffles forming a chamber around the heating fluid inlet port, said chamber being open at the bottom and having the trough for a top.

[Claims 1, 2, and 4 not printed in the Gazette.]

1,252,593. APPARATUS FOR CONSERVING HEAT. LUTHER D. LOVEKIN, Philadelphia, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed June 15, 1915, Serial No. 34,206. Renewed Nov. 26, 1917. Serial No. 204,099. (Cl. 257—24.)



1. In combination with a condenser, a fluid actuated ejector for withdrawing non-condensable gases from the condenser, a feed water heater having an air vent port and an inlet port through which said ejector discharges into the heater, and a single pump for withdrawing water of condensation from the condenser and for delivering it with the fluid discharged from the ejector through the inlet port to said feed water heater.

3. Apparatus for conserving heat, comprising a condenser, a feed water heater having an air vent port formed therein, a fluid actuated ejector for withdrawing noncondensable gases from the condenser, piping between the exhaust of the ejector and an inlet port with which said heater is provided, means for withdrawing the water of condensation from the condenser, and a liquid delivery nozzle located within said piping and to which water withdrawn from the condenser is delivered.

5. Apparatus for conserving heat, comprising a condenser, a fluid actuated ejector for withdrawing noncondensable gases from the condenser, a feed water heater having an air vent port, a diffuser communicating with an inlet port of said heater, a fluid delivery nozzle communicating with the exhaust of the ejector and projecting into the diffuser, a condensate pump for withdrawing water of condensation from the condenser, and an annular nozzle surrounding said fluid delivery nozzle for delivering water discharged from said pump through said diffuser to said heater.

[Claims 2 and 4 not printed in the Gazette.]

1,252,594. HOPPER FOR FEEDING-TROUGHS. WILLIAM A. MCCOLLOUGH, Webster City, Iowa. Filed Jan. 6, 1917. Serial No. 140,866. (Cl. 119—53.)

1. A hopper for feeding troughs, comprising a tapering body open at its bottom, said body being formed with

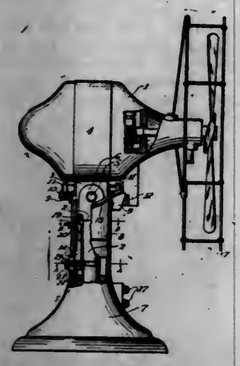
cut-away portions adjacent its lower margin, a girdle bar embracing said body adjacent the top of said cut-away portions, a frame bar embracing the body adjacent



its lower margin, and shields slidingly mounted between said body and the girdle and frame bars and adapted adjustably to cover said cut-away portions.

[Claims 2 to 4 not printed in the Gazette.]

1,252,595. CONTROL MECHANISM FOR ELECTRIC FANS. WILLARD M. MCEWEN, Chicago, Ill. Filed Nov. 25, 1916. Serial No. 133,516. (Cl. 230—1.)



1. In an air circulating device, the combination of a support, a member rotatably mounted thereon, motor driven blower mechanism tiltably mounted on said member, means for tilting said blower mechanism transversely of the axis of its pivotal connection to said rotatable member, whereby it will be caused to oscillate relative to said support, a latch member slidably mounted on said support so as to be shifted axially of said rotatable member, means on said rotatable member adapted to be engaged by said latch member when shifted into one of its positions for securing said member against rotation so as to allow said blower mechanism to be tilted up and down in a fixed plane transverse to the axis of said pivotal connection, and other means on said rotatable member adapted to coact with said latch member when shifted into another of its positions so as to limit the angularity of the oscillations of said rotatable member relative to said support.

3. In an air circulating device, the combination of a support, a pair of members mounted on said support and rotatable independently of each other, motor driven blower mechanism tiltably mounted on one of said members, coacting means on said blower mechanism and the other said member adapted to cause said blower mechanism to tilt in a plane transverse to the pivotal connection to said one member and to oscillate relative to said support during a relative rotation of said members, means for causing a relative rotation of said members, and a latch member slidably mounted on and housed within said support so as to shift axially thereof, said latch member being adapted when shifted to one position to engage one of said members, and when shifted to another position, to engage the other of said members, and when shifted to a third position to act to limit the angularity of oscillation of said one member relative to said support.

8. In an air circulating device, the combination of a support, a shaft rotatably mounted on said support and having an annular groove eccentrically formed therein, blower mechanism tiltably mounted on said shaft, a member rotatably mounted on said support concentrically of said shaft and independently thereof, coacting means on said blower mechanism and said member adapted to tilt said blower mechanism transversely of the axis of its pivotal connection to said shaft, whereby said blower mechanism will be caused to oscillate relative to said support, a latch member slidably mounted within said support and shiftable axially of said shaft, a pin connected to said latch member and protruding out through said support and serving as a handle for shifting said latch member, a pair of shoulders on said latch member, shoulders on said shaft and rotatable member adapted to be respectively engaged by the shoulders on said latch member when shifted into one or the other of its extreme positions for locking said shaft or rotatable member against rotation relative to said support, said pin being adapted to coact with said eccentric groove when said latch is shifted to an intermediate position so as to limit the angularity of the rotation of said shaft, said pin being shiftable on said latch member radially with respect to said shaft, and shoulders on said pin, said support having notches formed therein adapted to receive the shoulders on said pin for locking said latch member in its different positions, said notches being of relatively different depths so as to hold said pin retracted from engagement with said shaft when said latch member is shifted to either one of its extreme positions and to release said pin to allow it to enter said eccentric groove when said latch member is shifted to its intermediate position.

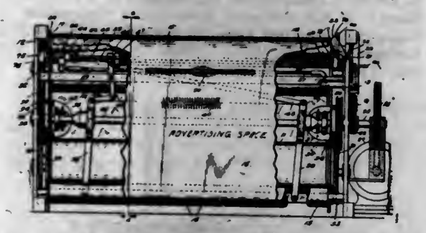
[Claims 2 and 4 to 7 not printed in the Gazette.]

1,252,596. ALLOY OF IRON. OLIVER B. MCMILLIN, Pittsburgh, Pa., assignor, by mesne assignments, to Pittsburgh Rolls Corporation, Pittsburgh, Pa., a Corporation of Virginia. Filed July 29, 1916, Serial No. 112,074. Renewed May 26, 1917. Serial No. 171,293. (Cl. 75—1.)

1. An alloy composed of iron combined with silicon ranging from .25% to 1.00%, chromium from .25% to 3.00%, sulfur .05% to 2.00%, phosphorus .05% to 2.00%, manganese .20% to 1.00%, total carbon 1.50% to 3.50%.

2. An alloy composed of silicon .50%, sulfur .12%, phosphorus .08%, manganese .30%, chromium 1.00%, total carbon 2.40% and iron 95.60%.

1,252,597. DISPLAY APPARATUS. HARRY W. MCNAUGHT, Indianapolis, Ind. Filed Apr. 10, 1916. Serial No. 90,033. (Cl. 40—31.)



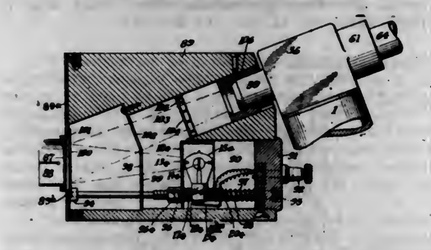
1. A display apparatus, comprising a movable display sheet composed of a plurality of sections, adjacent sections being provided at their edges with interdigitating hinge pockets, hinge rods passing through said interdigitating hinge pockets to join the sections together, so that sections may be inserted or removed to vary the length of the display sheet, a constantly running motor for moving said display sheet, a clutch for connecting and disconnecting the motor for operating the display sheet, means controlled by successive hinge rods as the display sheet is moved for releasing said clutch, and means controlled by the operation of the motor for setting said clutch after each such release until the end of the display sheet is reached regardless of its length.

2. A display device, comprising a movable display sheet of variable length, a constantly running motor for moving said display sheet, a clutch for connecting and disconnecting the motor for operating the display sheet, means controlled by the movement of the display sheet for releasing said clutch, and means controlled by the operation of the motor for setting said clutch after each such release until the end of the display sheet is reached regardless of its length.

3. A display device, comprising a movable display sheet, two winding drums carrying said display sheet and attached to the ends thereof so that the display sheet can be wound from one drum to the other to display different parts of the display sheet, a constantly running motor, a connection between said motor and each of said drums for operating it in the winding direction, a clutch in each connection, means controlled by the movement of the display sheet for operating on either of said clutches to release it, means operated by the movement of the motor to set a clutch, and means controlled by the unwinding of the display sheet from either drum for selectively controlling the action of said releasing means and said setting means on said clutches.

4. A display device, comprising a movable display sheet, two winding drums carrying said display sheet and attached to the ends thereof so that the display sheet can be wound from one drum to the other to display different parts of the display sheet, a constantly running motor, a connection between said motor and each of said drums for operating it in the winding direction, a clutch in each connection, means controlled by the movement of the display sheet for operating on either of said clutches to release it, and means controlled by the unwinding of the display sheet from either drum for selectively controlling the action of said releasing means on said clutches.

1,252,598. ILLUMINOMETER. NORMAN MACBETH, New York, N. Y., and IRVING B. SMITH, Ambler, Pa., assignors to The Leeds & Northrup Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Mar. 30, 1915. Serial No. 18,206. (Cl. 88—23.)



1. Photometric standardization apparatus comprising a light excluding housing, a light source therein, said housing having an aperture through which light from said source may impinge directly upon a surface, and means for observing the illumination of such surface by light from said source transmitted through said surface or reflected therefrom.

5. Photometric standardization apparatus comprising a light excluding housing, a light source therein, said housing having an aperture, a translucent test plate disposed at said aperture and receiving light from said source, and an illuminometer receiving light through said test plate.

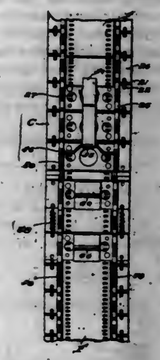
7. Photometric standardization apparatus comprising a light excluding housing, a light source therein, a test plate upon which light from said source impinges, said housing having an aperture through which said test plate is visible at an angle preventing specular reflection.

10. Photometric standardization apparatus comprising a light excluding housing, a light source therein, means for removably holding a test plate in said housing in such position that light from said source will fall thereon, and an opening in said housing through which the reflecting surface of said test plate may be viewed, the angle made by the line of sight through said opening to the center of said light field upon said test plate and the line connecting the center of the light field upon the plate with the light source being such as to prevent direct or specular reflection and less than ninety degrees.

18. Photometric standardization apparatus comprising a light excluding housing, a standard light source therein, means for removably holding a test plate in said housing in a position to receive light from said source, an illuminometer comprising a casing having an eye-piece at one end and containing a Lummer Brodhun cube, the opposite end being adapted to fit into an opening in said housing, said casing having an extension at one side opposite the cube, a light source to be standardized adjustably held in said extension, and means for removably holding said illuminometer in said opening in said housing in such position that said test plate will lie in the field of observation of said illuminometer.

[Claims 2 to 4, 6, 8, 9, and 11 to 17 not printed in the Gazette.]

1,252,599. APPARATUS FOR DEVELOPING MOVING-PICTURE FILMS. MAYNARD FORBES MACDONALD, Victoria, British Columbia, Canada. Filed Nov. 10, 1915. Serial No. 60,786. (Cl. 95—90.5.)



1. In an apparatus for developing moving picture films a film support comprising a series of plates linked together and adapted to support a film extending over a plurality of said plates without injuring the film, substantially as described.

6. As an element in a film supporting chain, a thin plate having on at least one of its faces projections adapted to contact with the marginal portion only of the surface of the film, and to prevent the image-containing portion of the film from contacting with the surface of said plate, substantially as described.

15. As an element in a film supporting chain a plate provided with an aperture and having means for preventing the film from contacting with the main surface of said plate, means for attaching said plate to another plate, and means to guide the film, substantially as described.

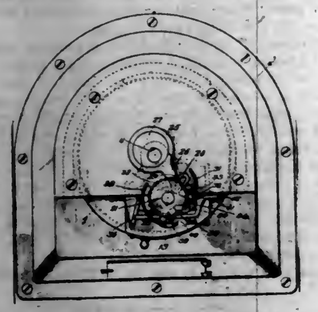
17. An apparatus for developing moving picture films which comprises a developing tray, a reel comprising a hollow perforated core attached to one end of a chain made up of a series of apertured plates linked together, and means for mounting said reel in said tray, substantially as described.

19. A reel for moving picture films comprising a core, guide members at both ends of the core, and a chain,

composed of a series of plates linked together, attached to said core, substantially as described.

[Claims 2 to 5, 7 to 14, 16, 18, and 20 to 27 not printed in the Gazette.]

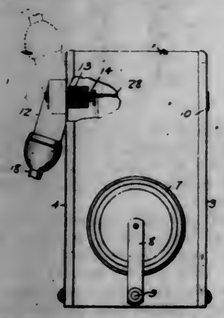
1,252,600. FEED MECHANISM FOR ICE-SHAVING MACHINES. WALTER MAECHLER, Chicago, Ill. Filed Jan. 8, 1917. Serial No. 141,262. (Cl. 74—54.)



1. In a machine of the kind specified, a central shaft for carrying a cutting member, a screw-shaft parallel with said central shaft, a plunger engaged with said screw-shaft and reciprocated thereby, a pair of oppositely disposed ratchet wheels on said screw-shaft, a rocking carriage pivotally mounted on said screw-shaft, an eccentric on the central shaft connected with said carriage for rocking the latter, a pair of pawls on said carriage for actuating said respective ratchets, and means for automatically throwing one of said pawls into engaging relation to one of said ratchets as the other of said pawls is thrown out of engaging relation to its ratchet.

[Claim 2 not printed in the Gazette.]

1,252,601. IGNITION-DYNAMO. CHARLES THOMAS MASON, Sumter, S. C., assignor to Splitdorf Electrical Company, Newark, N. J., a Corporation of New Jersey. Filed May 12, 1916. Serial No. 97,037. (Cl. 171—209.)



1. In an ignition dynamo, a fixed generating winding, a cover plate adjacent said winding, and a high tension cable terminal carried by said plate in contact with said winding and having insulated portions adapted to be secured to said plate in various positions thereon.

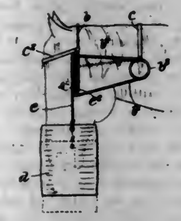
2. In an ignition dynamo, a fixed generating winding having an insulating head, a terminal for said winding on said head, a cover plate for the magneto and said winding, and a high tension cable terminal carried by said plate and in contact with said first mentioned terminal, and having insulated portions adapted to be secured to said plate in various positions thereon.

3. In an ignition dynamo, a generating winding, a cover plate adjacent said winding, and having a plurality of apertures therein, a terminal carried by said plate and connected to said winding, and means for securing said terminal to said plate in various positions thereon, said means including screws engaging said terminal and passing through the apertures in said plate, substantially as described.

10. In an ignition dynamo, a generating winding, a core therefor, heads on said core, a plurality of circuit terminals on one of said heads, interrupter mechanism, a connection between one of said circuit terminals and said interrupter mechanism, a condenser, a metallic clip forming a circuit terminal for said condenser secured to one of said circuit terminals, a second condenser terminal comprising a metallic clip secured to one of said circuit terminals at one end to the frame of the dynamo at the other, a cover plate for the dynamo, and a high tension terminal mounted upon said cover plate and in contact with one of the terminals on said coil head, substantially as described.

[Claims 4 to 9 and 11 to 15 not printed in the Gazette.]

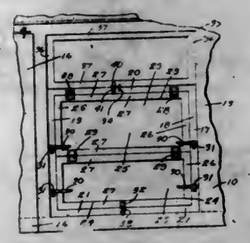
1,252,602. FEED-BAG SUPPORT. WILLIAM MEIER, Jersey City, N. J. Filed July 10, 1917. Serial No. 179,616. (Cl. 119—66.)



1. A feed bag support comprising a front upright yoke-shaped member, the sides of which are provided with backwardly directed parts having forwardly directed spring arms which are vertically movable on the sides of the yoke member and from which the bag is suspended.

[Claims 2 to 5 not printed in the Gazette.]

1,252,603. GRAIN-TIGHT CLOSURE FOR BOX-CARS. IRVING MELCHER, Minneapolis, Minn. Filed Aug. 7, 1915. Serial No. 44,193. (Cl. 20—27.)

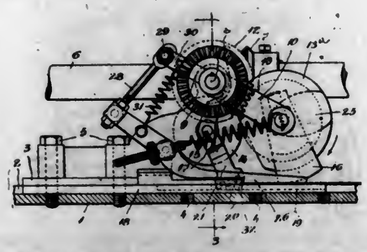


1. In combination with the opening of a box-car, a door frame covering the lower part of said opening hinged to the jamb post and adapted to swing inwardly and lie flat against the wall of the car, and a pair of door leaves hinged to each other and to the top of the frame and adapted to swing outwardly for emptying the car.

3. In combination with the opening of a box-car, a door frame covering the lower part of said opening hinged to the jamb post and adapted to swing inwardly and lie flat against the wall of the car, a pair of door leaves hinged to each other and to the top of the frame and adapted to swing outwardly for emptying the car, and means associated with the top of said frame for holding both of said doors extending outward at right angles from said frame.

[Claim 2 not printed in the Gazette.]

1,252,604. SHEET-REGISTERING MECHANISM. LYMAN MIDDLEDITCH, New York, N. Y. Filed July 6, 1914. Serial No. 849,284. (Cl. 271—59.)



1. Sheet registering mechanism comprising: a guide, two registering members frictionally engaging the sheet on opposite sides to register it against the guide, a movable top guide adjacent to the first guide and under which the sheet is drawn to prevent buckling, and means for causing said top guide to engage the sheet substantially not later than the registering members move the sheet and to remain in contact therewith until after the registering members release the sheet.

9. Sheet registering mechanism comprising: a sheet support, a guide against which the sheet is to be registered, a lower slidable registering member mounted in said sheet support, means for reciprocating said member, an upper registering member adapted to engage the sheet above the reciprocating member in the sheet support, means for actuating said upper registering member, and a top guide adapted to engage said sheet at a point outside the plane of the lower slidable member.

[Claims 2 to 8 not printed in the Gazette.]

1,252,605. AUTOGRAPHIC CAMERA. ALFRED C. MOSS, Ogden, Utah. Filed Sept. 2, 1915. Serial No. 48,669. (Cl. 95—1.1.)



1. In combination with a camera adapted to contain a sensitized member, a slide adapted for insertion in said camera in front of said sensitized member and having a transparent area adapted to contain inscriptions to be photographed upon said sensitized member, and a spring actuated shutter adapted to automatically close upon removal of said slide to protect the inscription receiving portion of said sensitive member from light when said slide is removed.

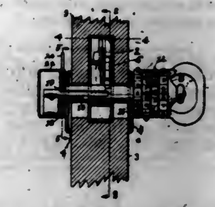
2. In combination with a camera adapted to contain a sensitized member; a slide inserted in front of said sensitized member and having a relatively small transparent area provided with matter to be photographed on said sensitized member, and a shutter spring actuated to automatically close when said slide is removed and protect the inscription receiving portion of said sensitive member from light when said slide is removed.

3. In a camera, a frame in said camera adapted to support a sensitized member, the said frame having a slot in one side thereof adapted to receive a slide, a shutter extending laterally across said frame, an actuating arm connected to said shutter, the said arm being disposed across said slot, and a spring for normally holding said shutter in closed position.

5. A camera adapted to contain a sensitized member and having a slot therein, a slide having a transparent portion carrying matter to be photographed on said sensitized member, a shutter within said camera normally covering and protecting from light that portion of the sensitized member which is to receive the matter on said transparent portion, and the said shutter being opened when said slide is inserted in said camera to expose the underlying sensitized member to light entering the camera through the lens thereof.

[Claim 4 not printed in the Gazette.]

1,252,606. COMBINATION-LOCK. FERDINAND NEUBAUER, Cleveland, Ohio. Filed Sept. 4, 1917. Serial No. 189,438. (Cl. 70—9.)



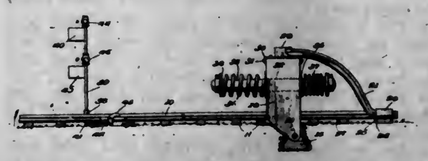
1. A locking key for locks, comprising a shifting key and a locking device therefor adapted to be jointly inserted and secured within a key hole and lock within a door or other object.

2. A door or other object having means to lock the same adapted to be operated by a key, in combination with a key equipped with a lock to secure the key in an inoperative position relatively to said means.

3. A combination key for a lock, comprising independently-rotatable sleeves having slots therein, means to rotate said sleeves to bring said slots in register, and a key carried by said sleeves and adapted to enter said slots.

[Claims 4 to 13 not printed in the Gazette.]

1,252,607. SAFETY STOP OR BUMPER FOR RAILWAY-CARS. WILLARD D. NIXON, Jr., Cincinnati, Ohio. Filed Mar. 29, 1917. Serial No. 158,815. (Cl. 104—224.)



1. A railway bumper including a pedestal swingingly supported at its lower end, a brace at the rear end of the pedestal fixed at its ends to the pedestal and road bed to normally hold it against swinging movement, and a cushioned bumper proper projecting in advance of and supported by the pedestal.

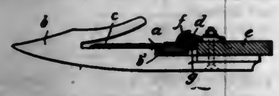
8. A railway bumper including a pedestal adapted to be mounted between the rails of a track and between ties thereof, brace receiving pockets one adapted to be secured to a tie at the rear of the pedestal and the other being secured to the top of the pedestal, a curved brace seated at its ends in the pocket members to brace the pedestal, and a cushioned bumper proper carried by the pedestal and projecting beyond that side opposite the brace.

[Claim 2 not printed in the Gazette.]

1,252,608. HARVESTING-MACHINE. JOSEPH NOTHAFT, Moos, near Langenisarhofen, Germany. Filed July 26, 1916. Serial No. 111,413. (Cl. 56—44.)

1. In the cutting device of mowing and harvesting machines, in combination with the finger bar and the reciprocating knife bar, knife locks on said finger bar for holding said knife bar in operative position, and protective means extending from said knife bar and loosely overlapping said knife locks.

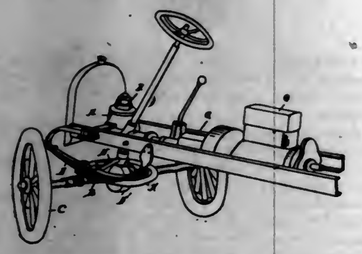
3. In the cutting device for mowing and harvesting machines, in combination, a finger bar, a bar supporting a series of knives, locks on said finger bar for retaining



said knife-supporting bar in operative position, and protective means extending individually from each of said knives and loosely overlapping said knife locks.

[Claim 2 not printed in the Gazette.]

1,252,609. FRONT-AXLE DRIVE MECHANISM. ELMER H. OVERSMITH, Jonesville, Mich., assignor, by mesne assignments, to Brazil Motors Company, Brazil, Ind., a Corporation of Indiana. Filed Feb. 16, 1917. Serial No. 149,112. (Cl. 180—73.)



1. The combination with a frame, of a front axle, springs yieldably supporting said frame upon said axle, a drive shaft upon said frame and a longitudinally movable driven shaft upon said axle, a gear box, and gears connected to said drive and driven shafts inclosed within said gear box, said gear box being provided with an extension for permitting of the longitudinal movement of said driven shaft.

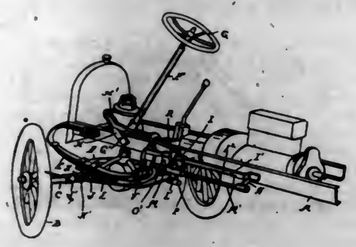
2. The combination with a frame, of a drive axle, means for yieldably supporting said frame upon said axle, a gear box containing a drive gear mounted upon said frame, differential gearing mounted upon said axle, and driving connections between said drive gear and differential gearing longitudinally slidably engaging said gear box.

3. The combination with a frame, of a drive axle, springs yieldably supporting said frame upon said axle, a drive shaft upon said frame, a gear box mounted upon said frame provided with an extension, intermeshing gears within said gear box driven by said drive shaft, and driving connections between one of said gears and said drive shaft slidably engaging said one gear and said gear box extension.

4. The combination with a frame, of a drive axle, springs yieldably supporting said frame upon said axle, differential gearing upon said axle, a drive shaft and a gear box upon said frame provided with an extension, intermeshing gears within said gear box, one of which is connected to said drive shaft, a depending shaft longitudinally slidably engaging the other gear and said gear box extension, and a shaft having a universal joint connection with said depending shaft and having a driving engagement with said differential gearing.

1,252,610. STEERING MECHANISM. ELMER H. OVERSMITH, Jonesville, Mich., assignor, by mesne assignments, to Brazil Motors Company, Brazil, Ind., a Corporation of Indiana. Filed Feb. 19, 1917. Serial No. 149,500. (Cl. 21—194.)

1. In a steering mechanism, a steering wheel, a hand wheel, a sliding member adapted to be actuated by said hand wheel, a second sliding member adapted to actuate said steering wheel, means adjustably connecting said sliding members, and means for preventing the operation of said second sliding member from said steering wheel.



3. In a steering mechanism, the combination with a steering wheel, of a hand wheel, a slide connected to said steering wheel, a second slide connected to said hand wheel, a member provided with a series of teeth adjacent said first mentioned slide and oppositely extending dogs upon said first mentioned slide engageable with said series of teeth and a pin engaging said slides and engageable with said dogs for rocking either out of engagement with said series of teeth.

5. In a steering mechanism, the combination with a steering wheel, of a hand wheel, a guide bar having a series of teeth upon its lower edge, a second guide bar adjacent to said first mentioned guide bar, a slide upon said second mentioned guide bar connected to said steering wheel provided with side plates, having apertures therein, upwardly and oppositely extending dogs mounted in said side plates and engageable with the teeth upon said first mentioned guide bar, a slide upon said first mentioned guide bar connected to said hand wheel and provided with a downwardly extending bifurcated portion having a transverse aperture therethrough and a pin passing through said transverse aperture and the apertures in said side plates intermediate said dogs, the apertures in said side plates being elongated to permit of the disengagement of either of said dogs before actuating said first mentioned slide.

7. The combination with a steering wheel, and a sliding member adapted to actuate said steering wheel, of a hand wheel and a sliding member adapted to be actuated by said hand wheel, dogs upon said first-mentioned sliding member for preventing movement of said second-mentioned sliding member from the first, and means for actuating said dogs and moving said first-mentioned sliding member from the second-mentioned sliding member.

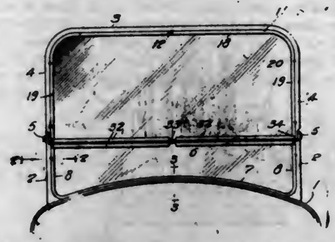
9. In a steering mechanism, a steering wheel, a hand wheel, a sliding member adapted to be actuated by said hand wheel, a second sliding member adapted to actuate said steering wheel, both of said sliding members being longitudinally slidable parallel to each other, actuating means for the second sliding member from the first mentioned sliding member, and dogs upon said second sliding member for locking the same in its adjusted positions, adapted to be operated to unlock upon movement of said acuating means.

[Claims 2, 4, 6, and 8 not printed in the Gazette.]

1,252,611. WIND-SHIELD. IRVING W. PECK, Macon, Ga. Filed July 1, 1916. Serial No. 107,032. (Cl. 21—148.)

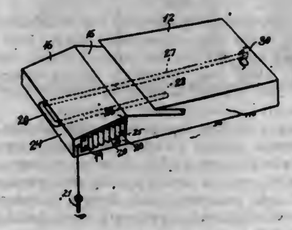
1. In wind shields, the combination with the supporting frame and the glass, of an independent frame for supporting the glass and fitting within the supporting frame and having a releasable connection therewith, and a dislodging bar engaging the free edge of the glass and secured at its ends to the frame, and consisting of sections hinged together intermediate the ends of the frame.

2. In wind shields, the combination with the supporting frame and the glass, of an independent frame for supporting the glass and fitting within the supporting frame and having a releasable connection therewith, and a dislodging bar engaging the free edge of the glass, said bar



consisting of hinged sections connected at the end remote from the hinged connection with the independent frame.

1,252,612. SHARPENING DEVICE. REUBEN W. PERRY, Spencer, Mass. Filed June 4, 1917. Serial No. 172,596. (Cl. 51—7.)



1. A bed constituting a sharpening device member, having a sharpener-guiding face, and two blade-supporting faces, each inclined relatively to said guiding face and to the other supporting face, the relative arrangement of said faces being such that a blade may be supported by either inclined face with one of its beveled edge-forming portions in the plane of said guiding face and in the path of a sharpener guided thereby.

3. A bed constituting a sharpening-device member having a sharpener-guiding face and a blade-supporting face inclined relatively to said guiding-face, the relative arrangement of said faces being such that a blade may be supported by said inclined face with one of its beveled edge-forming portions in the plane of said guiding-face, said bed being provided with a stop member adapted to bear on the back of the blade and confine the latter against displacement by the sharpener.

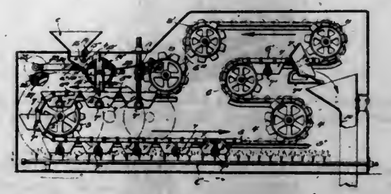
4. A bed as specified by claim 1, provided with a plurality of sockets and with a stop member engageable with either of said sockets, said stop member and sockets constituting means for confining a blade against displacement by the sharpener.

5. A bed as specified by claim 1, comprising a body section having the said sharpener-guiding face and one of the said inclined faces, a movable section having the other inclined face, said sections being provided with opposed inclined clamping faces adapted to hold a shear or scissors blade with its edge face in the plane of said guiding face, and clamping means for separably connecting said sections.

6. A bed as specified by claim 1, comprising a body section having the said sharpener-guiding face and one of the said inclined faces, a movable section having the other inclined face, said sections being provided with opposed inclined clamping faces adapted to hold a shear or scissors blade with its edge face in the plane of said guiding face, and a bent rod composed of a longer and a shorter arm and a neck connecting said arms and seated on the movable section, said longer arm extending through both sections and having a clamping nut seated on the body section, while the shorter arm extends through the movable section and partly into the body section and constitutes a steady pin, preventing turning movements of the movable section on the longer arm.

[Claim 2 not printed in the Gazette.]

1,252,613. MEASURING APPARATUS. PAUL PHELPS, Milwaukee, Wis., assignor to International Canning Machinery Co., Owen, Wis. Filed Apr. 15, 1915. Serial No. 21,605. (Cl. 221—107.)



1. A measuring device comprising a shell having a measuring chamber therein, extending there-through transversely of its axis, a housing for the shell having a bottom discharge port and an upper receiving boot, a dam-wall carried by the boot, the lower edge of which is spaced from the shell to form an open throat, an actuating mechanism for reciprocating the shell, whereby the intake mouth of the measuring chamber is caused to travel from a registered filling position relative to the boot throat to a point of cut off beyond the dam-wall followed by registration of the discharge mouth of the measuring chamber with the bottom part of the housing.

2. A measuring device comprising a reciprocating shell having a port extending there-through transversely of its axis, a housing therefor having a bottom discharge port, and an upper boot in communication with the intake mouth of the port, and means carried by the boot whereby the flow of material is cut off from the intake mouth of said shell by gravity.

3. A measuring device comprising a housing having a bottom discharge port and an upper product receiving boot, a shell reciprocatively mounted in the housing having a port extending therethrough transversely of its axis, the intake mouth of which when in filling position is upon a comparatively low plane, and means for elevating the plane of the intake mouth of the port preparatory to the discharge mouth of said port being brought into register with the bottom discharge port of the housing whereby the said intake mouth is lifted above the accumulated contents of the boot to cut off the supply from said port.

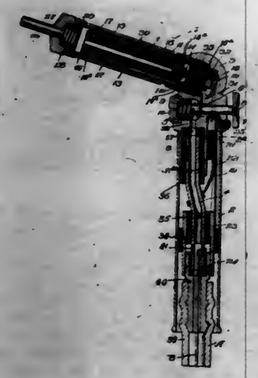
4. A measuring device comprising a housing having a lower discharge port and an upper boot, a cylindrical shell rotatorily reciprocative within the housing and provided with a port extending there-through transversely of its axis, a dam-wall positioned intermediate of the boot-walls having its lower edge spaced from the shell walls, whereby communicating receiving and overflow compartments are formed in said boot, and means for actuating the shell whereby the intake mouth of its port is caused to move from a filling position with relation to the receiving compartment to a higher plane than the overflow compartment coincident to registration of the discharge mouth of said port and the housing discharge port.

5. A measuring device comprising a housing having a lower discharge port and an upper boot, a shell reciprocatively mounted within the housing and provided with a port, a dam-wall positioned intermediate of the boot-walls having its lower edge spaced from the shell walls, whereby communicating receiving and overflow compartments are formed in said boot, and means for oscillating the shell whereby the intake mouth of its port is caused to move from a filling position with relation to the receiving compartment to a higher plane within

the overflow compartment coincident to registration of the discharge mouth of said port and the housing discharge port.

[Claims 6 to 9 not printed in the Gazette.]

1,252,614. HOT-AIR SYRINGE. OSCAR H. PIEPER and ALPHONSE F. PIEPER, Rochester, N. Y. Filed Oct. 4, 1915, Serial No. 53,951. Renewed Apr. 24, 1917. Serial No. 164,280. (Cl. 219—39.)



1. In a hot air syringe, the combination with a heating coil and an electric circuit controlling it, of an inner tube within said coil, and an outer tube surrounding it closed at one end and connected at its opposite end with the inner tube by a wall, the outer tube having openings adjacent the last mentioned wall whereby the incoming air is caused to pass around the outside of the outer tube, thence interiorly thereof in engagement with the heating coil, and thence within the inner tube and lengthwise thereof.

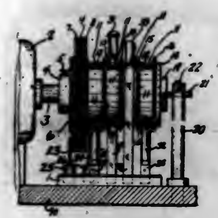
2. In a hot air syringe, the combination with a head having a recess and provided with an integral portion forming a handle having an air passage therein communicating with the recess, and a valve controlling the flow of air therein, of a tubular air conducting portion fitted in the recess, an electric heating element in said air conducting portion and circuit conductors for said heating element inclosed within the handle and head.

11. In a hot air syringe, the combination with a body portion having an air passage therein and a valve for controlling the flow of air therethrough, of a heating coil, a sleeve insulated from the body portion, a tubular portion carried by the sleeve and insulated therefrom and from the body portion, having an air passage therethrough communicating with the air passage in the body portion, the sleeve and tubular portion constituting contact members adapted to be connected to the terminals of an electric circuit, an insulated switch member on the body portion, conductors leading from the opposite ends of the coil to said switch member and one of the contact members respectively, and a coöperating switch member on the other contact member, one of the switch members being controlled by the valve and adapted to make contact with the other when the valve in opened.

[Claims 3 to 10 not printed in the Gazette.]

1,252,615. CURRENT-RECTIFIER. CHARLES J. QUILL, San Francisco, Cal., assignor, by mesne assignments, to Edwin W. Beardsley, trustee, San Francisco, Cal. Filed Sept. 25, 1916. Serial No. 121,998. (Cl. 175—364.)

1. A current rectifier comprising the combination, with a synchronous motor, of a commutator, comprising a plurality of segments, a pair of alternating current rings, connections between the alternate segments and rings, two alternating current brushes and four direct current brushes bearing on the segments.



2. A current rectifier comprising the combination with a synchronous motor of a commutator adapted to be rotated with the armature and having a plurality of segments in four sets adapted to divide the current between two complete circuits, and brushes to deliver the current unidirectionally to suitable apparatus for the use thereof, which apparatus receives current from both of said circuits.

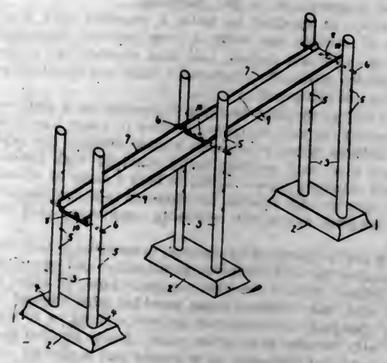
3. A current rectifier comprising the combination with a synchronous motor of a commutator having four series of segments and two alternating current rings, connections between the rings and oppositely placed alternate segments, and four brushes adapted to contact with the segments to receive direct current therefrom.

4. A current rectifier for transforming alternating into direct current, a pair of alternating circuit wires, two alternating current rings and four series of segments, segments to which each of said wires are led, brushes to take current off said segments, and circuits completed alternately through apparatus to use said current and alternate sets of segments.

5. A current rectifying device for changing alternating into direct current consisting of a pair of circuit wires connected with the alternating current supply, a pair of alternating current rings connected with each alternating current wire, four series of commutator segments connected in alternate pairs with the alternate current rings, brushes in contact with said commutators, said brushes being so positioned as to complete a circuit intermittently through alternate segments of said commutator and through a circuit adapted to use the direct current.

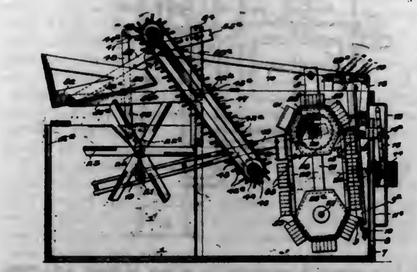
[Claims 6 to 11 not printed in the Gazette.]

1,252,616. TOY. ELLEN W. REIF, Lindenwold, N. J. Filed Mar. 2, 1917. Serial No. 151,975. (Cl. 46—85.)



A toy consisting of a plurality of base members, each having a pair of sockets therein, uprights mounted in said sockets, said uprights having horizontal or transverse holes therethrough, cross rods passing through said holes, and chutes adapted to be supported by said cross rods for forming a track for a marble, each chute consisting of a bottom wall having projections formed at each end thereof, and upwardly projecting flanges, the latter diverging from one end of the chute to the other, whereby the small end of one chute may be set in the larger end of the coacting chute.

1,252,617. COMBINED FISH-SCREEN AND DEBRIS-REMOVER. RALPH WALDO REQUA, Chico, Cal. Filed Feb. 24, 1915. Serial No. 10,270. (Cl. 61—5.)



1. In a fish screen the combination of a screen, and means for actuating the same to remove debris from a water-way; with float controlled means for throwing the screen actuating means into or out of operation.

5. In a fish screen the combination of a series of screen sections, and means for moving said sections in an endless path, said screen sections lying transversely of and across the water passage; with a water wheel in rear of the screen, means actuated by said water wheel for operating the screen, and float controlled means for throwing the screen operating means into or out of operation.

7. In combination, an endless series of screening sections, a shaft for operating the series to remove debris from a water-way, a ratchet for operating said shaft, an oscillating lever, a pawl carried by said lever and engaging said ratchet, and means for oscillating said lever; with float actuated means whereby the pawl may be thrown into or out of engagement with the ratchet, substantially as described.

9. A debris remover comprising an endless series of parallel trough-shaped bars slidably mounted within a frame adapted to lie transversely of the water-way, and float actuated means for operating said debris remover intermittently.

14. In combination, a plurality of endless chains, means for traveling such chains in an endless orbit, and screen sections detachably attached to said chains; each section comprising a series of horizontally disposed parallel thin blades, and transversely disposed thin wedge-shaped or tapered blades transfixing the horizontally disposed blades to space them apart and fasten them together.

[Claims 2 to 4, 6, 8, and 10 to 13 not printed in the Gazette.]

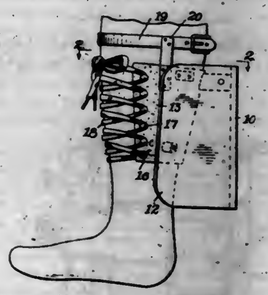
1,252,618. FITTING-FORM. JOSEPH ORBA HENRI ROY, Montreal, Quebec, Canada. Filed Dec. 2, 1916. Serial No. 134,666. (Cl. 223—18.)

In a fitting form, an inflating bag having its greatest breadth at the shoulders and a passage centrally therethrough extending from the lower end of the breast to the neck, a case inclosing said bag, completely, a tubular pattern piece having downward extension at the back and sewn to said case at both front and back and passing through said central passage in the bag and permanently secured with each set of patterns, respectively, and a set of patterns of a lot including said tubular piece and in addition neck band, neck piece, arm piece, bottom piece,



front pieces in duplicate clipped at bottom and breast and back pieces in duplicate clipped at shoulder and bottom.

1,252,619. SWIMMING DEVICE. ANDREW RUSSO, Fitchburg, Mass. Filed Sept. 6, 1917. Serial No. 189,945. (Cl. 9—21.)

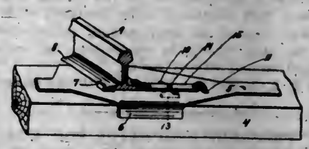


1. A swimming device comprising a thrust member having surfaces fixed relatively to each other and each extending substantially parallel to the leg of the wearer on the rear side thereof when in operative position, and means to hold said member in operative position.

4. A swimming device comprising a pair of plates rigidly disposed at an angle, a legging section, spacing blocks secured between said plates and said section, means to fasten said legging section in position on the leg of the wearer, and means to prevent longitudinal movement of the device while in use.

[Claims 2 and 3 not printed in the Gazette.]

1,252,620. RAILROAD APPLIANCE. FRANK G. SMITH, Elizabeth, N. J. Filed May 13, 1914. Serial No. 838,209. (Cl. 238—2.)



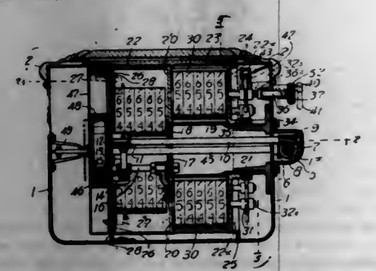
A rail fastening device comprising an integral plate adapted to fit over and engage both sides of the tie, a lip stamped out of one portion of said plate adapted to engage one side of the rail, a clamping member, a block pivotally secured thereto, an opening through said plate adapted to receive and retain said block in position beneath the same, said plate having a hole adapted to engage one end of said clamping member and said end of said clamping member looped upwardly to receive the tool for disengaging the same from said hole.

1,252,621. FISHING-HOOK-LEADER-ADJUSTING TERMINAL AND OUTRIGGER DEVICE. RICHARD HENRY SMITH, Savannah, Ga. Filed Apr. 16, 1917. Serial No. 162,367. (Cl. 43—7.)



A device for attaching snoods to fishing lines comprising a bar having its body provided with a central longitudinal slot and its ends with notches arranged in alinement with said slot, and an open oblique slot leading from the central one, as shown and described.

1,252,622. METER. MARVIN SMITHEY, Lawrenceville, Va. Filed Aug. 14, 1916. Serial No. 114,877. (Cl. 235—95.)



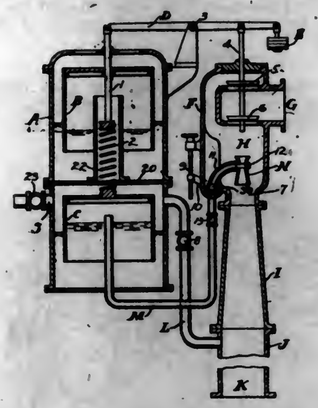
1. In a meter, a casing, a plurality of odometers, rotatably mounted within the casing, each odometer being provided with a toothed wheel for operating the same, each toothed wheel being movable with respect to the shaft of its individual odometer, means disposed within the casing for engaging the said wheels in succession to operate them, and means for moving any one of said wheels at will to bring it out of engagement with said operating means.

4. In a meter, a casing provided with a laterally extending sleeve, a second sleeve rotatably mounted at one end on said first named sleeve, means for rotatably supporting the opposite end of said second named sleeve, a drum rotatably mounted within the casing, a plurality of odometers, each odometer being provided with a star wheel, means carried by said second named sleeve for engaging the star wheels in succession, and means for rotating said second named sleeve.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,252,623. PRESSURE-REGULATOR FOR A FLOW OF FLUID. CHARLES H. SMOOT, New York, N. Y., assignor to Rateau Battu Smoot Company, New York, N. Y., a Corporation of New York. Filed Oct. 29, 1915. Serial No. 58,614. (Cl. 50—10.)

1. In a pressure regulator for a flow of fluid adapted to maintain a predetermined constant pressure at a point of flow of fluid distant from said regulator, a variable orifice interposed in the path of the fluid, a Venturi element, a compound Venturi element, means to adjust the relative positions of the Venturi element and the compound Venturi element, means to control the variable orifice operated by the pressure of the fluid after said fluid has passed through the Venturi element and means to counteract upon the first controlling means operated by pressure derived from fluid passing through the throat of the compound Venturi element.



7. In a pressure regulator for a flow of fluid, a variable orifice interposed in the fluid path and discharging into a Venturi element, a pressure responsive device actuated by the pressure of the fluid at a point of the flow having a relatively low velocity, a second pressure responsive device actuated by the fluid pressure prevailing in the restricted portion or throat of the Venturi element—this is to say at a point of relatively high velocity—and opposing the action of the first pressure responsive device, a resilient means interconnecting said pressure responsive devices and means to control the size of the variable orifice operated by both of said pressure responsive devices.

[Claims 2 to and 8 to 10 not printed in the Gazette]

1,252,624. PACKAGE-TIE. JULIUS P. SPIES, Belleville, Ill. Filed Oct. 13, 1916. Serial No. 125,438. (Cl. 24—18.)



4. A package tie comprising a shank having one end provided with oppositely extending ears curved transversely with respect to the said shank to provide a rocker for tilting the said shank transversely, and means for hooking and looping a cord to the opposite end of the shank.

6. A package tie comprising a shank having ears formed on one end thereof, and projecting laterally from the shank the ears and the ends of the said shank being transversely curved to provide a rocker, the opposite end of the said shank having a hook formed thereon and curved to extend beyond the plane of the said shank, a clip projecting from the shank at a point opposite the said hook and including a curved arm, and a finger formed at the terminal of the said arm and providing a notch at the point of juncture of the finger with the said arm, the said curved arm forming a loop having the said finger extending inwardly thereof, the said arm being curved lengthwise whereby the said hook may be tilted upwardly when the end of the said arm is depressed.

[Claims 1 to 3 and 5 not printed in the Gazette.]

1,252,625. AUTOMOBILE-TIRE-SAVING DEVICE. S. GRANT STANNARD, Long Beach, Cal. Filed Dec. 18, 1916. Serial No. 137,507. (Cl. 254—88.)



1. An automobile tire saving device comprising two horizontal rails, front and rear axle supporting carriages freely movable in the same horizontal plane toward and from one another upon the rails, a pair of blocks over which the wheels of an automobile are adapted to pass, each block being fixedly mounted on the outside of the rails and having inclined surfaces at its ends, an axle abutment member on the front axle supporting carriage and extending above the axle supporting surface of the carriage, and a flexible element connecting the carriages and being approximately equal in length to the distance between the axles of the automobile which are to be supported by the carriages.

5. An automobile tire saving device comprising two rails, front and rear axle supporting carriages freely movable toward and from one another upon the rails, blocks over which the wheels of an automobile are adapted to pass, mounted opposite one another on the outside of the rails and having inclined surfaces at their ends, an axle abutment member on the front axle supporting carriage and extending above the axle supporting surface of the carriage, a flexible element connecting the carriages and being approximately equal in length to the distance between the axles of the automobile which are to be supported by the carriages, and arms pivoted at the forward ends of the blocks for engagement with the tires of an automobile to provide a traction surface for the tires.

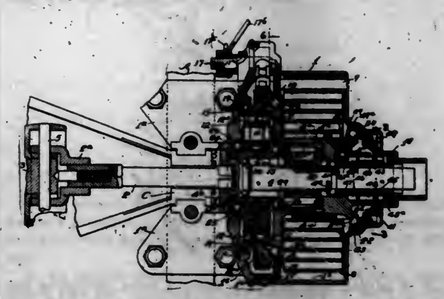
9. In a tire saving device for automobiles, a track, carriages mounted on the track for movement toward and from one another and adapted to support the front and rear axles of an automobile, a flexible element connecting said carriages and being approximately equal in length to the distance between the axles of the automobile to be supported thereby, blocks mounted on opposite sides of the track and having inclined surfaces at their ends, arms pivoted to the certain ends of the blocks and adapted to be moved into and out of position for engagement with the rear tires of an automobile when the automobile is supported upon the carriages, and means carried by the blocks and operated by the wheels of the automobile to return the arms to normal position when the automobile is removed from the carriages and the wheels thereof run over the blocks.

[Claims 2 to 4, 6 to 8, and 10 not printed in the Gazette.]

1,252,626. SPRING-STARTER OF AUTOMOBILE-ENGINES. JOHN K. STEWART, Chicago, Ill.; Julia B. Stewart executrix of said John K. Stewart, deceased. Filed Feb. 9, 1916, Serial No. 77,341. Renewed May 28, 1917. Serial No. 171,597. (Cl. 123—187.)

1. In combination with a starter casing, an engine-connected starter main shaft; a motor spring in the casing coiled about the axis of said main shaft; a speed-reducing train from the starter main shaft to the winding end of the power spring, all the members of said train having rotation about the axis of said main shaft and having their intermeshings within a closely limited trans-axial zone, the final driven gear of said train having rigid with it and extending laterally from it a drum, the power spring being attached to and wound about said drum.

2. In combination with a starter casing, an engine-connected starter main shaft; a motor spring in the casing coiled about the axis of said main shaft; a speed-reducing train from the starter main shaft to the winding end of the power spring, the final driven gear of said train having rigid with it and extending laterally from it a drum, the power spring being attached to and wound about said drum, and a one-way driving clutch connection between said drum and the starter main shaft located within the spring-encompassed portion of said drum.



3. In combination with a starter casing, an engine-connected starter main shaft; a motor spring in the casing coiled about the axis of said main shaft; a speed-reducing train from the starter main shaft to the winding end of the power spring, the final driven gear of said train having rigid with it and extending laterally from it a drum, the power spring being attached to and wound about said drum, one-way driving clutch connections between said drum and the starter main shaft arranged for driving said shaft from said drum in the unwinding movement.

4. In combination with a starter casing, an engine-connected starter main shaft; a motor spring in the casing coiled about the axis of said main shaft; a speed-reducing train from the starter main shaft to the winding end of the power spring, the final driven gear of said train having integral with it a hub extended laterally and constituting a drum for attaching said winding end of the spring; one-way driving clutch connections between said drum and the starter main shaft arranged for driving said shaft from said drum in the unwinding movement, said clutch connections being located within the spring-encompassed portion of said drum.

5. In combination with a starter casing, an engine-connected starter main shaft; a motor spring in the casing coiled about the axis of said main shaft; a speed-reducing train from the starter main shaft to the winding end of the power spring, all the members of said train having rotation about the axis of said main shaft and having their intermeshings within a closely limited trans-axial zone, the final driven gear of said train having integral with it a hub extended laterally from said zone and constituting a drum for attaching the winding end of the power spring; one-way driving clutch connections between said drum and the starter main shaft, said clutch connections being located within the spring-encompassed portion of said drum.

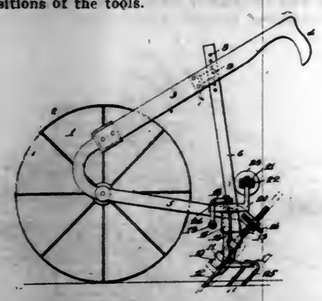
[Claims 6 to 30 not printed in the Gazette.]

1,252,627. GARDEN-TOOL. HENRY C. STRACK, Owego, N. Y. Filed Jan. 19, 1917. Serial No. 143,266. (Cl. 97—42.)

1. A garden tool, having a wheel, stilts carried by the wheel, a beam carried by the wheel, a bearing on each side of the beam, a shaft carried in each bearing, ground engaging tools carried by each shaft, means for holding the tools carried by one shaft in position relatively to the tools carried by the other shaft and to the track of the wheel, means for adjusting the positions of the tools laterally, and means for adjusting the tools vertically relatively to the wheel and stilts.

3. A garden tool, having a wheel, stilts carried by the wheel, a beam carried by the wheel, means for adjusting the beam relatively to the wheel, a bearing on each side of the beam, a shaft carried in each bearing, a gang of independently movable, ground engaging tools carried by

each shaft, means for holding the gangs in position relatively to the track of the wheel, and means for adjusting the positions of the tools.

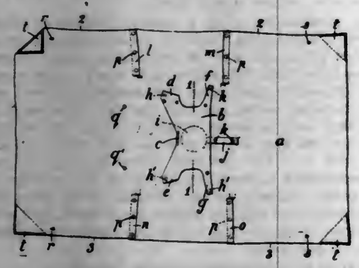


8. A garden tool, having a wheel, a beam carried by the wheel, a bearing on each side of the beam, a shaft in each bearing, a finger rigidly secured to each shaft, a spring connecting the fingers to move them toward each other, a lever loosely mounted on each shaft, an arm on each lever, each arm engaging a finger, a bolt pivoted to one of said levers and passing through a slot in the second lever, and a nut on the bolt and engaging the second lever, whereby the levers may be drawn together to separate the fingers against the tension of the spring.

10. A garden tool, having a wheel and an axle, a bifurcated beam straddling the wheel and supported on the axle, a link for adjusting the position of the beam, an extension in the link, a plow or shovel adapted to engage the ground in line with the wheel, a stirrup carried by the plow, said extension entering the stirrup, a stem on the plow and a nut for moving the plow relatively to the extension.

[Claims 2, 4 to 7, and 9 not printed in the Gazette.]

1,252,628. COAT-RUG. EDWARD TERRY, Brixton, England. Filed Nov. 3, 1914. Serial No. 870,077. (Cl. 2—60.)

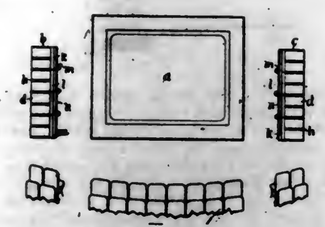


1. As a new article of manufacture, a substantially rectangular shaped cloth having pairs of slits on opposite sides thereof and a central head opening, means for converting the portions of the cloth bounded by said pairs of slits into sleeves, a cover for said head opening, cooperating fastening devices on the cloth and cover for forming the latter into a hood and throat cover or a collar and other fastening devices on said cloth for converting the same into a garment.

[Claim 2 not printed in the Gazette.]

1,252,629. DISPLAY APPARATUS. FRANK C. THOMAS, New York, N. Y., assignor, by direct and mesne assignments, to United Exhibitors Advertising Corporation, Wilmington, Del., a Corporation of Delaware. Filed Nov. 1, 1915. Serial No. 58,999. (Cl. 40—130.)

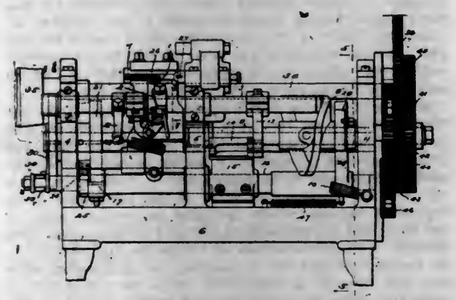
1. Means for combining amusement and instruction comprising a room having a screen whereon pictures may be projected and means for displaying lighted advertising matter in said room simultaneously with the projection of pictures onto said screen, said advertising matter being displayed in sufficient proximity to said screen to enable the eyes of the observer to see both the pictures and the



advertising matter without substantial change of the position of the eyes, and means to shield said pictures from the source of light used in displaying said advertising matter.

[Claims 2 and 3 not printed in the Gazette.]

1,252,630. SCREW THREADER AND POINTER. FRED NEWELL TILTON, Hartford, Conn. Filed Aug. 1, 1914, Serial No. 854,513. Renewed Sept. 21, 1917. Serial No. 192,626. (Cl. 10—101.)



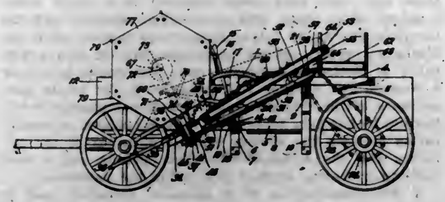
2. The combination in a screw machine of a tool, a lead cam for advancing the tool, a spring for returning the tool, a form for controlling the movements of the tool, a cam actuating the form for regulating the depth of the tool cut, a cam actuating the form for causing the tool to cut the point of the blank, a cam actuating the form for causing the tool to be withdrawn from the blank during its return movement, and a cam actuating the form for holding the tool out while the blank is being located in position to be cut.

4. The combination in a screw machine of a tool, a lead cam for advancing the tool, a spring for returning the tool and holding it away from the blank, an oscillatory and reciprocatory form for turning the point of the tool toward the blank, a cam for swinging the form so as to increase the depth of the successive cuts, and a cam for reciprocating the form so as to still more increase the depth of the successive cuts near the end of each advance movement of the tool.

[Claims 1, 3, and 5 to 7 not printed in the Gazette.]

1,252,631. KAFIR-CORN HEADER. ELI H. TURNER, Jefferson, Okla. Filed Aug. 2, 1916. Serial No. 112,850. (Cl. 56—131.)

1. The combination with a wagon, of a horizontal bar, a pair of vertical bars secured to the horizontal bar and provided with hooks engaging over the upper edge of one side of the wagon, an arm projecting outwardly from each of said pair of bars, the rearmost of said pair of arms being disposed in a higher plane than the other arm, means for bracing said arms to prevent downward movement of their outer ends, means to brace said arms against rear swinging movement at their outer ends, bearings on the rearmost of said arms, a transverse-drive shaft journaled in said bearings, a transverse rock shaft journaled on the other of said arms and provided with a forwardly projecting crank, a downwardly and forwardly inclined frame pivoted on the drive shaft and resting on said crank arm for vertical adjustment thereby, an endless elevator in said inclined frame, means to transmit power from the drive shaft to the endless elevator, a rotary cutting mechanism at the front end of and above the said elevator, a driven reel to knock the severed heads of corn upon the endless conveyer, and means to receive the said heads from said elevator and deliver them to the wagon.



2. The combination with a wagon, of a horizontal bar, a pair of vertical bars secured to the horizontal bar and provided with hooks engaging over the upper edge of one side of the wagon, an arm projecting outwardly from each of said pair of bars, the rearmost of said pair of arms being disposed in a higher plane than the other arm, means for bracing said arms to prevent downward movement of their outer ends, means to brace said arms against rear swinging movement at their outer ends, bearings on the rearmost of said arms, a transverse drive shaft journaled in said bearings, a transverse rock shaft journaled on the other of said arms and provided with a forwardly projecting crank, a downwardly and forwardly inclined frame pivoted on the drive shaft and resting on said crank arm for vertical adjustment thereby, an endless elevator in said inclined frame, a rotary knife at the front end of the inclined frame and elevator, a transverse shaft geared to said cutter to operate same, a reel movable with the lower end of the inclined frame and geared to said shaft for operating the reel, means to transmit power from the cutter operating shaft to the endless elevator, and means to receive the severed heads of corn from the endless elevator and deliver them to the wagon.

[Claim 3 not printed in the Gazette.]

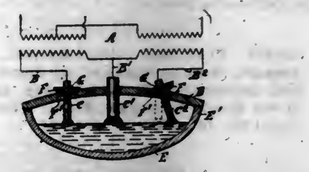
1,252,632. BILLIARD-CUE. FRANK WILLIAM VOJE, St. Paul, Minn. Filed June 11, 1917. Serial No. 173,910. (Cl. 46—9.)



A billiard cue having a tip holding magazine in its butt, a stopper removably secured to said butt to close said magazine and a cap removably secured to said butt over said stopper having a buffer on its outer end.

1,252,633. ELECTRIC FURNACE. CARL HANS VOM BAUER, Douglaston, N. Y. Filed Aug. 6, 1917. Serial No. 184,554. (Cl. 204—64.)

1. In an electric furnace, the combination of a two-phase, three-wire circuit, three upright electrodes connected to this circuit, a furnace having a solid bottom and an oval-shaped side wall of refractory material, said electrodes being so spaced that at the slag line the heat gradient is the same for each electrode at the point of the side wall which is nearest to such electrode.

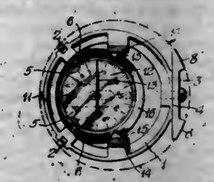


4. An electric furnace whose outline, in plan view, comprises a plurality of circular arcs having different centers, and electrodes located approximately at the centers of said arcs.

6. An electric furnace whose outline, in plan view, comprises two end portions curved according to arcs of circles of equal radii but different centers, two middle portions curved according to arcs of a circle whose radius is substantially $\sqrt{2}$ times the radius of either of the end arcs, and whose center is in line with those of the end arcs, and electrodes located approximately at the centers of said arcs and adapted for connection with a two-phase, three-wire current supply.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,252,634. GAGE. GLEN J. WALKER, Detroit, Mich., assignor to Continental Motors Corporation, Detroit, Mich., a Corporation of Virginia. Filed Apr. 18, 1917. Serial No. 162,821. (Cl. 33—178.)



1. An instrument for testing cylindrical bores comprising a cylinder shell provided with a detachable and interchangeable guide plate of fixed external curvature, guide shoes yieldingly projected from the shell opposite to the attached guide plate and a gage mounted in the shell and provided with a testing finger extending through an opening thereof opposite to the bearing plate.

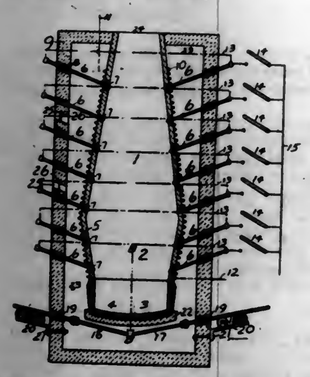
2. An instrument for testing cylindrical bores comprising a shell provided with peripheral guide grooves, a detachable bearing plate mounted on the periphery of the shell and provided with a cylindrical convex bearing surface, guide shoes yieldingly reciprocable in the guide grooves in the shell and a testing gage in the shell provided with a testing finger yieldingly projected through an opening in the shell opposite to the bearing plate.

3. An instrument for testing cylindrical bores comprising a substantially cylindrical shell provided with peripheral guide grooves, a bearing plate secured thereon and provided with convex bearing surfaces of greater diameter than the diameter of the shell, a pair of guide shoes yieldingly projected from the guide grooves in the shell opposite the bearing plate and a testing gage mounted in the shell and provided with a testing finger extending through an opening in the shell opposite the bearing plate and with the index face of the gage visible through the shell end.

4. A testing gage for cylindrical bores comprising a substantially cylindrical shell provided with peripheral guide grooves, a bearing plate detachably mounted on the shell and provided with cylindrical convex bearing surfaces of greater radii than the radius of the shell, guide shoes plying in the longitudinal grooves in the shell symmetrically

opposite to the bearing plate, means for yieldingly projecting the guide shoes from the slots and testing gage secured within the shell with the dial thereof visible through the shell end and provided with an index finger yieldingly extending through an opening in the shell opposite the bearing plate.

1,252,635. ELECTRIC ORE-FURNACE. JOHN A. WARD, Spokane, Wash., assignor of one-fourth to E. S. Campbell, one-fourth to W. A. Ridgeway, and one-fourth to Henry Sorensen, Spokane, Wash. Filed Apr. 12, 1917. Serial No. 161,456. (Cl. 204—64.)



1. A method of controlling the current flowing through the heating element of an electrical heater by introducing in the circuit a pair of adjustable arc forming electrodes, said electrodes being exterior to the heater itself and thus having independent heat radiating properties.

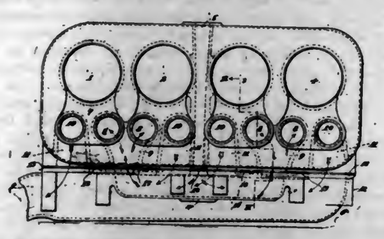
7. In an electric ore furnace, an electric heating coil of wire surrounding said furnace, a series of conducting pencils piercing the furnace wall so as to be in electrical contact with ore contained in said furnace, an annular conducting band surrounding the crucible of said furnace and so positioned as to be in electrical contact with furnace contents and a switch so connected and so constructed as to provide means for opening a circuit through said coil of wire and for closing a circuit through the ore contents of said furnace from said annular conducting band to said conducting pencils, said closing being effected slightly before the opening of said wire coil circuit.

10. In an electrical ore furnace, a main heating element consisting of a coil of wire surrounding the furnace, a plurality of adjustable arc forming contacts in series with said coil of wire, means for automatically adjusting said contacts to effect a regulation of the temperature of said coil of wire, and means for utilizing the heat generated by the arc or arcs formed between said contacts in aiding the process of ore reduction.

[Claims 2 to 6, 8, and 9 not printed in the Gazette.]

1,252,636. MANIFOLD. ROBERT A. WEINHARDT, Chicago, Ill., assignor, by mesne assignments, to Continental Motors Corporation, Detroit, Mich., a Corporation of Virginia. Filed May 15, 1916. Serial No. 97,549. (Cl. 123—52.)

1. The combination of a block of multiple cylinders having a transverse passage therethrough and inlet and exhaust ports disposed in sets with the inlet openings above the exhaust openings, with a manifold having an intake passage adapted to form communication between the delivery end of the transverse passage and the intake ports and an exhaust passage below the intake passage adapted to form communication between the cylinder exhaust ports and the main manifold exhaust opening, the division wall between the inlet and outlet passages forming a heating surface for the condensed portion of the indrawn charges that falls thereon.



2. The combination of a block of multiple cylinders provided with a transverse passage between a pair of them and with inlet ports disposed in a plane above a set of outlet ports, with a combined inlet and exhaust manifold having an intake adapted to register with the discharge opening of the transverse passage and a plurality of discharge openings connnected to the intake by a passage and adapted to register with the intake port passages of the cylinders, and an exhaust passage below the intake passage, adapted to form a common communication between the various exhaust openings of the cylinders and the manifold discharge opening and a wall forming a heating surface separating the passages.

3. The combination of a block of cylinders cast in multiple with a transverse passage therethrough adapted to be blocked at each end and with exhaust openings from the cylinders leading to the side of the block in a plane below the plane of corresponding inlet openings leading to the intake ports of the cylinders with a manifold adapted to be secured to the cylinder block with an intake passage having an inlet opening adapted to register with the discharge opening of the transverse passage, and a plurality of discharge openings adapted to severally register with the inlet opening passages below the inlet duct of the cylinders and an exhaust passage separated from the inlet duct by a wall forming a heating surface and said passage forming a common communication between the various exhaust openings of the cylinders and the manifold exhaust outlet.

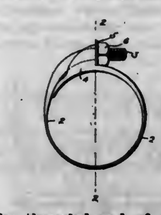
4. The combination of a series of cylinders cast *en bloc* in which a transverse passage is formed between the cylinders, each cylinder being provided with an exhaust discharge outlet from an exhaust port below the plane of an inlet opening to an inlet port, with a combined inlet-and-exhaust manifold having an inlet passage with an intake opening adapted to register with the outlet of the transverse passage and various discharge openings adapted to register severally with the inlet opening to the inlet ports of the cylinder, and with an exhaust passage below the inlet passage having various exhaust inlets adapted to register with the corresponding exhaust outlets of the cylinders and to connect them with the manifold exhaust outlet, the wall between the passages in the manifold forming a heating surface for preventing condensation of fuel vapor passage through the upper inlet passage.

1,252,637. HOSE-PIPE CLASP. ARTHUR D. WESTCOTT, Porteau, British Columbia, Canada. Filed Sept. 17, 1917. Serial No. 191,822. (Cl. 137—28.)

1. A hose-pipe clasp, comprising a band stamped from thin sheet metal and bent to encircle the hose-pipe, one end of said band being rounded and threaded to receive a nut by which the clasp may be tightened on the hose-pipe, and adjacent the other end of the band its side edges are shaped and turned outward to form a bracketed seat for the nut, the edges of the band adjacent each end being in cross section rounded outward to impart a measure of rigidity to the clasp adjacent the connection of the ends.

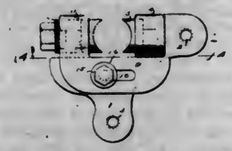
2. A hose-pipe clasp, comprising a strip of thin sheet metal, the edges of which adjacent one end are so shaped

that they may be outwardly turned and rounded to receive a thread and nut and adjacent the other end of the edges have lateral projections offering a square



shoulder to the threaded end of the strip, said lateral projection being turned outward to form together a shouldered seat for the tightening nut threaded on the other end.

1,252,638. ADJUSTABLE CLAMP. FRANK X. WIEDEMAN, Hartford, Conn., assignor of one-half to Rudolph J. Kornbrath, Hartford, Conn. Filed May 14, 1917. Serial No. 168,390. (Cl. 24—263.)



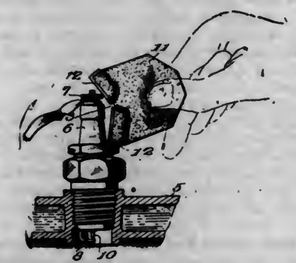
1. A clamp having a body with two heads, each having a cylindrical socket, the socket in one head being screw threaded, a socketed plug screwed into the threaded socket, a cylindrical gripping jaw fitting in the threaded socket and having a stem fitting the socketed plug, and a cylindrical gripping jaw removably fitting in the socket in the other head.

3. A clamp having two heads provided with opposing cylindrical sockets and adjustable toward and from each other, a cylindrical gripping jaw detachably fixed in the socket in one head, a cylindrical gripping jaw movable axially in the socket in the other head, and a plug screwed into the socket back of the head in the movable jaw for forcing that jaw axially in the socket toward the jaw in the socket in the other head.

5. A clamp having a body formed of two plates, a bolt for securing the plates together, coöperating teeth for preventing the sliding of one plate with relation to the other, a socketed head on each plate, a nonadjustable gripping jaw removably located in one head, an adjustable gripping jaw removably located in the other head, and a screw plug for forcing the adjustable jaw toward the non-adjustable jaw.

[Claims 2 and 4 not printed in the Gazette.]

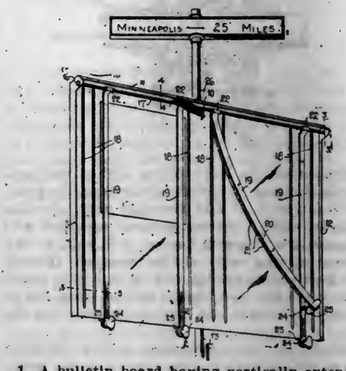
1,252,639. SPARK-PLUG TESTER. DAVID L. WINTERS, Philadelphia, Pa. Filed May 22, 1917. Serial No. 170,234. (Cl. 175—183.)



4. An article of manufacture comprising a double thickness of material having a roughened abrasive outer surface and having one side edge concaved toward the center, two pieces of flexible conducting material associated with said material and spaced apart to form a spark gap, the adjacent ends of said conducting material being angularly disposed with relation to each other whereby they may be bent to increase or diminish the space between them to regulate the length of the spark gap so formed.

[Claims 1 to 3 and 5 not printed in the Gazette.]

1,252,640. BULLETIN OR NOTICE BOARD. WILLIAM C. ACHTERKIACH, Ogilvie, Minn. Filed July 18, 1917. Serial No. 181,314. (Cl. 40—63.)



1. A bulletin board having vertically extending grooves in its face, clamping members pivotally mounted upon the board and adjustable transversely thereof and formed to engage in said grooves, and means for locking the clamping members in clamping position.

6. A bulletin board made of sheet metal formed to provide a hood and outwardly projecting side flanges, a rod mounted beneath the hood and extending transversely across the board and supported by said side flanges, the face of the board being formed with a plurality of stamped vertically disposed grooves, clamping members having heads at their upper ends pivotally and slidingly engaging said rod, the clamping members being curved outward and downward, the lower ends of the clamping members having means for engaging the lower margin of the board to hold them in clamping position against the face of the board, said means comprising a rotatable stud having a knob at one end and a lug on the inner end engaging behind the lower margin of the board.

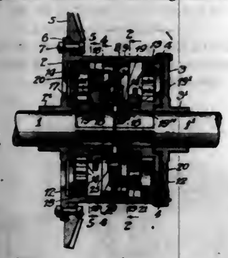
9. A bulletin board formed of sheet metal and shaped to provide a forwardly projecting hood at the upper edge of the board and a rearwardly projecting flange and a rearwardly projecting flange at the lower end of the board, the sides of the bulletin board being outwardly bent and then rebent to extend rearward to form outwardly directed side flanges, a rod supported in the upper ends of said side flanges beneath the hood, and clamping members each rotatably mounted at its upper end upon the rod and slidably engaged therewith, said members being resilient and outwardly and downwardly curved, and means on the lower edge of said members for engaging the lower margin of the bulletin board to hold the clamping members in clamping position, the sheet metal bulletin board being formed with a plurality of vertically extending V-shaped grooves, and each clamping member on its inner face being formed with a V-shaped rib engageable in the groove, the ribs being notched at intervals to permit the clamping member to normally curve outward and downward.

[Claims 2 to 5, 7, and 8 not printed in the Gazette.]

1,252,641. DIFFERENTIAL. BROR A. ADLER, Chicago, Ill., assignor to Peter A. Lorenz, Chicago, Ill. Filed Dec. 26, 1914. Serial No. 879,007. (Cl. 74—7.)

1. In a differential: the combination with a two piece shaft, and driven elements irrevolubly secured on the

proximate ends thereof, of a driving element between the driven elements, intermediate elements between the driving element and the driven elements, and shafts on the intermediate elements each having a double ended dog on one end engageable with the driven element adjacent thereto and also provided with a crank having a wrist pin on the other end engageable with the driving element.



3. In a differential; the combination with a two piece shaft, of driven elements irrevolubly secured on the proximate ends thereof, each of said elements being provided with an annular rack, a driving element provided with notches, transmission elements one on each side of said driving element having stub shafts mounted thereon, double ended dogs on one end of each of said stub shafts to engage the said rack, and cranks on the other end of the stub shafts to engage the notches in said driving element.

5. In a differential; the combination with a two piece shaft, of driven elements irrevolubly secured on the proximate ends thereof, a driving element provided with two series of notches, transmission elements revolubly mounted on the shaft and provided with sleeves having bosses thereon engageable with one series of notches of the driving element, and devices mounted on the transmission element provided with means engageable with the other series of notches on said driving element whereby said device will engage with and actuate the driven element.

6. In a differential; the combination with a two piece shaft, of driven elements irrevolubly secured on the proximate ends thereof, a driving element, a plurality of transmission elements provided with axially alined openings between said driving element and driven elements, and elastic means in said openings for keeping said transmission elements in yielding relation to each other.

7. In a differential; a revoluble casing, a two-piece shaft axially journaled therein, an annular inwardly projecting driving member in the casing, driven members on each side of the driving member irrevolubly mounted on the ends of the shaft and provided with annular racks, intermediate elements on each side of the driving member, stub shafts journaled in the intermediate elements, cranks on the inner ends of the stub shafts to engage the driving member, and double ended dogs on the other ends of the stub shafts to engage the said annular racks.

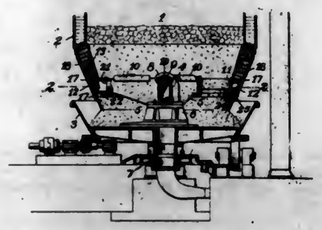
[Claims 2 and 4 not printed in the Gazette.]

1,252,642. GAS-PRODUCER. HENRIK J. AMBRUSON, Worcester, Mass., assignor to Morgan Construction Company, Worcester, Mass., a Corporation of Massachusetts. Filed Jan. 25, 1915. Serial No. 4,112. (Cl. 48—85.1.)

1. In a gas producer, a fuel shell, blast distributing means for the fuel therein, comprising hollow radially arranged arms having perforations for the delivery of blast within said shell, and a hollow member conforming to the wall of said shell and in communication with the outer ends of said arms, and means for rotating said shell and said blast distributing means in unison.

2. In a gas producer, a rotating ash support, a plurality of hollow blast arms spaced above and supported from the center of said ash support and rotatable therewith, a hollow annular blast distributing member carried by the ends of said arms and in communication therewith, and a fuel containing shell carried by said member.

3. In a gas producer, a rotatable ash support having a central blast opening, a plurality of hollow blast arms communicating with said opening above said ash support, a hollow annular blast distributing member carried upon the ends of said blast arms and communicating therewith, and a fuel-containing shell superposed upon said member.

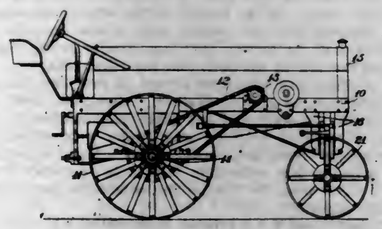


4. In a gas producer, a shell inclosing a bed of fuel, blast distributing means therein, comprising a member coöperating with the wall of said shell to provide a chamber on the inner side thereof, said member providing a bottom wall for said chamber in a plane substantially normal to the wall of said shell, with a series of delivery apertures opening downwardly through said bottom wall, and means for rotating said member and said shell in unison.

5. In a gas producer, a shell inclosing a bed of fuel, blast distributing means therein, comprising a hollow member conforming to the wall of said shell and having on its under side a wall extending inwardly of said shell, said wall providing the blast delivery means from said member to said shell, whereby the obstruction of the blast by the mass of fuel is prevented, and means for rotating said member and said shell in unison.

[Claims 6 to 11 not printed in the Gazette.]

1,252,643. TRACTOR. JAMES ANDERSON and JOHN G. FLEMING, Columbus, Ohio, assignors of fifty-one one-hundredths to Herman E. Vance, Franklin county, Ohio. Filed Oct. 19, 1916. Serial No. 126,489. (Cl. 21—114.)



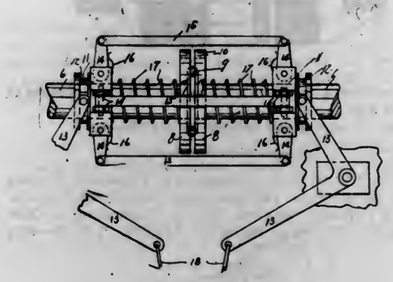
1. In a vehicle having two pairs of wheels, the combination of an axle for one pair of said wheels, said axle being of upwardly curved open arch form and having an upward projection from its center and a two part spaced frame on the main frame of the vehicle, said spaced frame containing a supporting bearing for said axle formed on an upwardly curved arc having for its center an imaginary point in a line midway between the wheels of said pair of wheels, and said spaced frame also containing a bearing for the upwardly projecting portion of the axle.

2. In a vehicle having two pairs of wheels, the combination of an axle for one pair of said wheels, said axle being of upwardly curved open arch form and a supporting bearing on the frame of the vehicle for said axle formed on an upwardly curved arc having for its center an imaginary point in a line midway between the wheels of said pair of wheels and substantially in the line of the axis of said wheels.

3. In a vehicle having two pairs of wheels, the combination of an axle for one pair of said wheels, said axle being of upwardly curved open arch form and a supporting bearing on the frame of the vehicle for said axle formed on an upwardly curved arc having for its center an imaginary point in a line midway between the wheels of said pair of wheels, the other pair of said wheels being supported relatively stationarily with reference to said vehicle frame.

4. In a vehicle having front and rear wheels, the combination of an axle for a pair of said wheels, said axle being of upwardly curved open arch form and a supporting bearing on the frame of the vehicle for said axle formed on an upwardly curved arc having for its center an imaginary point in a line midway between the wheels of said pair of wheels, the other of said wheels being supported relatively stationary horizontally with reference to said vehicle frame.

1,252,644. COUPLING MECHANISM FOR LOG-CARRIAGES. CARLTON W. ACE, Granite Falls, Wash. Filed Sept. 11, 1916. Serial No. 119,360. (Cl. 192—1.)

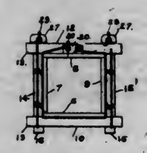


1. In combination, a pair of abutting shafts each provided with an annular flange having peripheral notches, a collar slidably mounted on each shaft, pivoted links extending from the collars, rods connecting the corresponding links of the two collars, means for actuating the collars to rock the links and cause the rods to engage the notches and couple the shafts together, and means for reversely operating the collars to uncouple the shafts.

3. In combination, a pair of alined shafts, flanges secured to the ends of said shafts, collars slidably mounted on the shafts, a plurality of radially movable elements connecting the two collars and adapted to coöperate with the flanges to couple the shafts together, springs for moving the collars to coupling position, and means for reversely moving the collars to uncoupling position.

[Claim 2 not printed in the Gazette.]

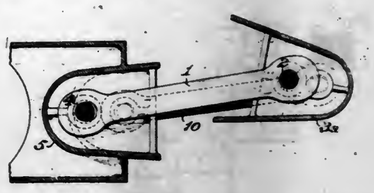
1,252,645. REINFORCED CONCRETE-FORM. CHARLES A. BAIER and CHARLES E. MERRITT, Kansas City, Mo. Filed Mar. 6, 1916. Serial No. 82,373. (Cl. 25—131.)



1. A device of the class described, comprising side members, transverse members secured to opposite side members of said device and projecting beyond said side members, channel blocks set on the projecting extremities of one of said transverse members, flexible loop members receiving the projecting extremities of the other transverse member, and a winding spindle journaled in each of said channel blocks with which said flexible loop members are connected.

[Claim 2 not printed in the Gazette.]

1,252,646. SAFETY DRAW-BAR. HERMAN F. BALL, Bronxville, N. Y., assignor to Economy Devices Corporation, New York, N. Y., a Corporation of New York. Filed Sept. 20, 1917. Serial No. 192,238. (Cl. 213—42.)

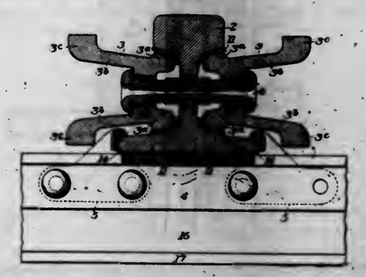


1. In a railroad vehicle draft gear, the combination of two draw bar castings, each adapted to be supported on a railroad vehicle; pins, fitted in said castings; an integral main draw bar, coupled directly to said pins; a safety draw bar, normally parallel, in vertical planes, with the main draw bar; and pins, fitted in the draw bar castings, adjacent to the main draw bar pins, to which safety draw bar pins the safety draw bar is coupled, independently of the main draw bar.

3. In a railroad vehicle draft gear, the combination of two draw bar castings, adapted to be supported on the rear of a locomotive and the front of a tender, respectively; pins, fitted in the longitudinal central planes of said castings; an integral main draw bar, coupled directly to said pins; a safety draw bar; and safety draw bar pins, fitted in the draw bar castings, in the same longitudinal planes as the main draw bar pins, each being located between one of the main draw bar pins and the front end of its draw bar casting, the safety draw bar being coupled to said safety draw bar pins, independently of the main draw bar.

[Claims 2 and 4 not printed in the Gazette.]

1,252,647. RAILWAY-TRACK STRUCTURE AND METHOD OF MAKING SAME. GEORGE H. BARBOUR, Pittsburgh, Pa. Filed May 31, 1916. Serial No. 100,762. (Cl. 239—9.)



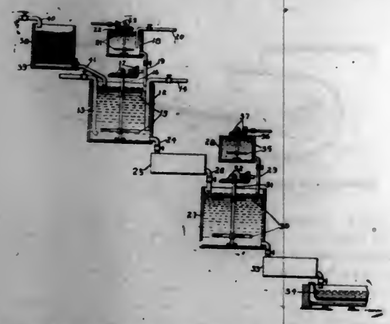
1. A railway track structure, comprising a tread member, a plurality of engaging members, and a plurality of rivets holding said members in engagement, said rivets traversing an open space between the members and being hollow at the portions thereof which are seated in said engaging members, substantially as described.

3. A railway track structure, comprising a tread member, members engaging the rail member, and having tapered rivet holes therein, and rivets securing said members and having expanded conical portions filling said tapered holes, substantially as described.

5. The herein described method of securing the parts of railway track structures, which consists in inserting a tubular rivet through the engaged parts, compressing the parts, and while under such compression expanding at least one end portion of the rivet and forming a head thereon, substantially as described.

[Claims 2 and 4 not printed in the Gazette.]

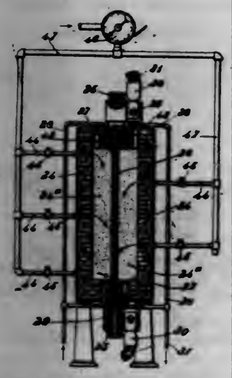
1,252,648. ART OF PRODUCING ALUMINUM SULFATE. MAURICE BARNETT and LOUIS BURGESS, New York, N. Y. Filed Dec. 18, 1916. Serial No. 137,713. (Cl. 23—13.)



1. The herein described process for producing aluminum sulfate from aluminum sulfate solutions containing iron, consisting in subjecting such solutions to the action of ozone or ozonated air for the purpose of oxidizing the iron in the solution, precipitating the iron as hydroxid, and then separating the precipitate from the solution by filtration.

[Claims 2 to 5 not printed in the Gazette.]

1,252,649. ART OF PRODUCING ALUMINUM NITRID. MAURICE BARNETT and LOUIS BURGESS, New York, N. Y. Filed June 1, 1917. Serial No. 172,167. (Cl. 204—31.)

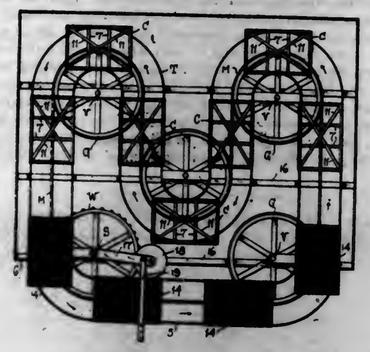


1. The herein described process for producing aluminum nitrid, consisting in treating aluminum carbid with nitrogen gas at temperatures of from about 900° C. to about 1200° C.

2. The herein described process for producing aluminum nitrid, consisting in introducing nitrogen gas into a retort containing aluminum carbid which has been heated and maintained at a temperature of from about 900° C. to about 1200° C., cutting off the supply of heat, cooling the charge and removing the aluminum nitrid produced.

1,252,650. DRIER. FRANCIS ANDERSON BARR, Fresno, Cal. Filed Aug. 18, 1917. Serial No. 186,955. (Cl. 34—12.)

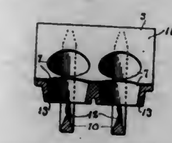
3. A drier comprising a house, heating means co-acting therewith, a continuous trackway arranged within the house and having a portion extending exteriorly thereof, a carrier mounted upon the trackway, means for imparting movement to the carrier along the trackway, a rock arm movable in a plane above the line of travel of the carrier, means for imparting swinging movement to the



rock arm, and a wheel carried by the free end portion of the rock arm.

[Claims 1 and 2 not printed in the Gazette.]

1,252,651. FARE-BOX. CLARENCE E. BECHTOLT, Dayton, Ohio, assignor to The Recording and Computing Machines Company, Dayton, Ohio, a Corporation of Ohio. Filed Dec. 30, 1916. Serial No. 139,917. (Cl. 83—92.)



1. In a separator, a curved body with a hole therein, an arch under said hole, whereby coins are allowed to escape but tickets are prevented from doing so.

2. In a separator, a curved body with a hole therein, an arch extending longitudinally from one edge of said hole to the other edge, whereby coins are allowed to escape but tickets are prevented from doing so.

3. In a separator, a curved body with a hole therein, an arch extending longitudinally from one edge of said hole to the other edge, said arch being triangular in cross section with the apex of the triangle adjacent to the hole, whereby coins are allowed to escape but tickets are prevented from doing so.

8. The combination, with a fare box having a hopper provided with coin sifting devices therein, of a curved body with a hole therein, an arch extending longitudinally from one edge of said hole to the other on one side of said curved body, whereby coins are allowed to escape but tickets are prevented from doing so.

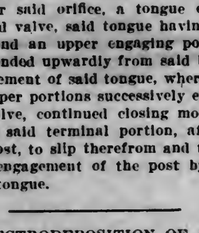
9. In a separator, a sifting plate provided with a plurality of openings through which coins may pass, and guards mounted below said openings to prevent the passage of tickets.

[Claims 4 to 7 and 10 not printed in the Gazette.]

1,252,652. OIL-SAVER. WILLIAM THOMAS BELL, Vivian, La. Filed Oct. 13, 1917. Serial No. 196,546. (Cl. 166—16.)

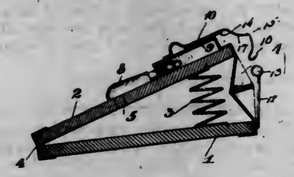
1. A device for draining a detached section of a well tubing, comprising relatively movable body members; a tubing grip movable in one body member; and means for holding the body members together, said means coacting with the grip to advance the grip.

2. A device for draining a detached section of well tubing, comprising a body including relatively movable members, one of which is provided with an outlet, the body having a cylindrical bore enlarged adjacent its lower end to form a chamber, there being oppositely disposed recesses in the interior of the body intermediate the ends of the chamber, and there being a second enlarged recess



in the lower end of the body at the lower end of the chamber; removable jaws in the first specified recesses; a washer in the second recess and disposed at the lower end of the body; and means for holding the relatively movable members of the body together.

1,252,653. WIND MUSICAL INSTRUMENT. SALVATOR BERTOCCHI, Newark, N. J. Filed July 11, 1917. Serial No. 179,993. (Cl. 46—46.)

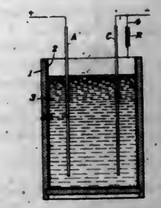


1. In a wind musical instrument comprising a bellows having base and top portions, the combination, with a sound box upon said top portion, and a reed therefor, said sound box having an exit orifice, of a forwardly opening spring valve for said orifice, a tongue extended downwardly from said valve, and a post extending upwardly from said base portion, the end of said post being in opposed, spaced relation to said tongue, and said tongue having forward and rearward engaging portions, whereby in closing said bellows the tongue forward portion meets the post, causing the valve to open, said forward portion then slipping off the post, causing the valve to close, and finally, the rearward portion of the tongue meets the post and thus again lifts the valve.

2. In a wind musical instrument comprising a bellows having base and top portions, the combination, with a sound box upon said top portion, and a reed therefor, said sound box having an exit orifice, of a forwardly opening spring valve for said orifice, a tongue extended downwardly from said valve, said tongue having a curved terminal portion and an upper engaging portion; together with a post extended upwardly from said base portion, in the path of movement of said tongue, whereby said tongue terminal and upper portions successively engage said post to open said valve, continued closing movement of said bellows causing said terminal portion, after operatively engaging said post, to slip therefrom and thus release the valve prior to engagement of the post by the rearward portion of said tongue.

1,252,654. ELECTRODEPOSITION OF METALS. ANSON G. BETTS, Asheville, N. C. Filed May 15, 1916. Serial No. 97,544. (Cl. 204—1.)

1. The method of electrodepositing metals of greater solubility in the acid of the salt contained in the electrolyte than lead, comprising the step of electrolyzing a solution of a salt of the metal with suitable anode and cathode in a vessel having an inner surface of lead, while passing current to the lead inner surface.
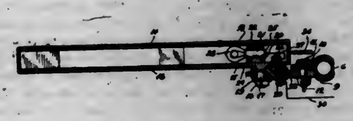


2. The method of electrodepositing metals of greater solubility in the acid of the salt contained in the electrolyte than lead, comprising the step of electrolyzing a solution of a salt of the metal with suitable anode and cathode in a vessel having an inner surface of lead, while passing current from the anode to the said lead inner surface of the vessel.

3. The method of electrodepositing metal in a vessel having a lead inner surface, comprising electrolyzing in such vessel a solution of a salt of the metal while maintaining at the said lead surface a negative potential high enough to substantially prevent the formation of a lead salt thereat.

5. An apparatus for electrodeposition comprising a lead lined receptacle, an anode and a cathode therein, each spaced from said receptacle, a positive terminal connected to said anode and a negative terminal connected to said cathode, and an independent connection between the lead lining of said receptacle and the said negative terminal, said independent connection offering a relatively high resistance to the flow of the electric current.

[Claim 4 not printed in the Gazette.]

1,252,655. SIGNAL DEVICE FOR AUTOMOBILES. GEORGE BRAZEE, Seattle, Wash. Filed Mar. 3, 1917. Serial No. 152,416. (Cl. 116—31.)

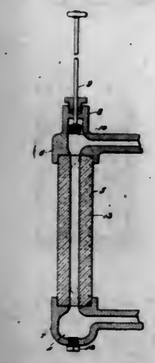


A signal device for vehicles including a hollow arm having front and rear metallic plates at one end thereof and front and rear transparent plates in the remaining portions thereof, a supporting bracket, a pivot stud extending laterally from one side of one of said metallic plates and journaled transversely in said supporting bracket to swing upwardly and outwardly and downwardly and inwardly at one side of a vehicle, a second stud extending laterally from said plate inside of said arm, a lamp arranged longitudinally of said arm and secured to the second named stud, and means for swinging said arm.

1,252,656. GAGE-GLASS. MICHAEL J. BREEN, Louisville, Ky. Filed June 16, 1915, Serial No. 34,392. Renewed Nov. 20, 1917. Serial No. 203,061. (Cl. 73—54.)

The combination with a gage glass, and top and bottom couplings for connection with the boiler; of a slidable rod extending into the top coupling in alinement with the glass and having a swab at its lower end, the bottom coupling having a sediment pocket located beneath the lower

end of the glass and in communication therewith, and having a clean-out opening, said pocket being an unobstructed



chamber of greater width than the diameter of the glass and a closure for the clean-out opening.

1,252,657. FARE-BOX. FLOYD A. BURKITT, Dayton, Ohio, assignor to The Recording and Computing Machines Company, Dayton, Ohio, a Corporation of Ohio. Filed Dec. 30, 1916. Serial No. 139,873. (Cl. 83—92.)



1. In a separator, a body plate having an orifice, a flange surrounding a portion of said orifice, and a bridge spanning said orifice.

3. In a separator, a curved body plate with an ovoid opening, a flange surrounding a portion of the edge of the opening, and an arch spanning said ovoid opening.

5. The combination, with a fare box having a hopper provided with coin lifting devices therein, of a curved body with a hole therein, a depending flange around a portion of said hole, an arch extending longitudinally from one edge of said hole to the other on one side of said curved body, whereby coins are allowed to escape but tickets are prevented from doing so.

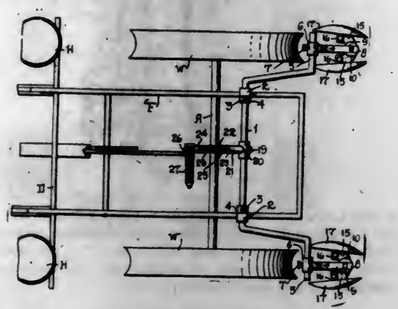
8. In a device of the character described, a sifting plate with holes therein, a lip around a portion of each hole and a bridge for each hole, a cam provided with a portion to move the sifting plate in one direction and to retain the same in that position while the coins and tickets fall thereon, a portion to allow a quick upward movement to jar the coins, a portion to return the sifting plate to the first-mentioned position, and a portion to allow the movement again in the opposite direction.

19. In a separator, a curved body plate having an ovoid opening, a depending flange surrounding the edge of the opening having the more abrupt curvature, an arch extending from one side of said opening to the other, bridging said opening and spanning said depending flange.

[Claims 2, 4, 6, 7, and 9 to 18 not printed in the Gazette.]

1,252,658. RIDGER. WILBERT P. BUTLER, Denton, Md. Filed May 26, 1917. Serial No. 171,222. (Cl. 97—91.)

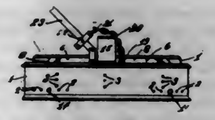
1. An attachment for a corn planter having a shoe lifting lever comprising an arched axle adapted to be rotatably engaged with the frame of the planter, ground engaging elements mounted upon the terminals of the axle, a rock arm carried by the intermediate portion of the axle, a member adapted to be pivotally engaged with the shoe lifting lever and loosely disposed through the free end portion of the arm of the axle, a stop carried by the outer end portion of said member adapted to contact with the arm, and yielding means for maintaining the stop of the member normally in contact with the arm.



2. An attachment for a corn planter having a shoe lifting lever comprising an arched axle adapted to be rotatably engaged with the frame of the planter, ground engaging elements mounted upon the terminals of the axle, a rock arm carried by the intermediate portion of the axle, means for connecting said rock arm with the shoe lifting lever, and shields positioned above the ground engaging members.

[Claim 3 not printed in the Gazette.]

1,252,659. CEMENT-BLOCK MACHINE. GEORGE W. CASTER, Ottumwa, Iowa. Filed Oct. 17, 1917. Serial No. 197,164. (Cl. 25—41.)



1. In a cement block machine, a pair of side members, and a pair of coöperating pressers pivoted therebetween and constituting end and top walls for the block mold.

[Claims 2 to 5 not printed in the Gazette.]

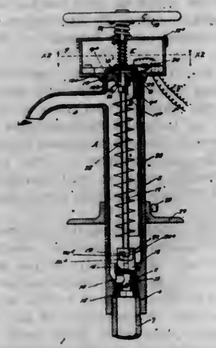
1,252,660. HOSE-COUPLING. CASSIUS M. CLAY, Mexico, Mo. Filed July 12, 1916. Serial No. 108,949. (Cl. 137—28.)



1. A cylindrical hose coupling member having a bore therethrough eccentric to the body of the member and a cavity in its end concentric with the bore, a gasket arranged in said cavity and a latch comprising an element arranged for movement lengthwise of the member with the peripheral, uninterrupted cylindrical surface of the member.

2. A hose coupling comprising a pair of members having end portions of substantially cylindrical formation and of smooth uninterrupted exterior, and having at their meeting ends interengaging devices, and a lock for holding said devices in engagement comprising a seat in the meeting face of one member, an element arranged for movement lengthwise of the other member, having its outermost face exposed throughout its length and shaped to conform with the periphery of the coupling member, a spring for holding the element to its one limit of movement and a latch carried thereby for insertion in said seat, substantially as shown and for the purposes stated.

1,252,661. ELECTRIC WATER-HEATER. HOWARD K. CLOVER, Los Angeles, Cal., assignor to Electrical Products Corporation, Wilmington, Del., a Corporation of Delaware. Filed May 23, 1917. Serial No. 170,339. (Cl. 219—39.)



1. In an electric heater, a casing having a discharge opening, a valve to control the flow of fluid through said casing, means for operating said valve, electric heating means in said casing, and means to control the supply of electrical energy to said heating means; said heating means being adapted for inter-engagement with said valve operating means whereby said heating means may be removed from the casing upon removal of the valve operating means therefrom.

2. In an electric heater, a casing having a discharge opening, a valve to control the flow of fluid through said casing, means for operating said valve, electric heating means in said casing, and means to control the supply of electrical energy to said heating means; said heating means being adapted for inter-engagement with said valve operating means whereby said heating means may be removed from the casing upon removal of the valve operating means therefrom; there being means whereby said valve operating means and said valve may be detachably inter-engaged to permit the removal of said valve operating means from the casing separately from said valve.

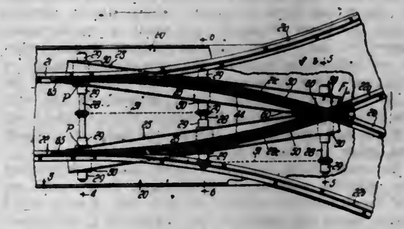
3. In a heater for fluids, a casing adapted to permit the passage of fluid therethrough and having a discharge opening, a valve seated in the casing at one end thereof, a rotatable valve-operating stem, an electrical resistance element in said casing and in position to be traversed by fluid, means for supplying electrical energy to said resistance element, and controlling means for the electrical energy so supplied; said resistance element being removable with said valve-operating stem.

4. In a heater for fluids, a casing adapted to permit the passage of fluid therethrough and having a discharge opening, a valve seated in the casing at one end thereof, a rotatable valve-operating stem, an electrical resistance element in said casing and in position to be traversed by fluid, means for supplying electrical energy to said resistance element, and controlling means for the electrical energy so supplied; said resistance element and said controlling means in part being removable with said stem.

6. In a heater for fluids, a casing adapted to permit the passage of fluid therethrough, a rotatable valve seated in said casing, a valve stem extending through said casing and provided externally thereof with operating means, an electrical resistance element in said casing and in position to be traversed by fluid, means for supplying electrical energy to said resistance element, means for controlling the supply of electrical energy to said resistance element, and means for supporting said resistance element in position in said casing; said valve stem being provided with means adapted to be engaged with said resistance element supporting means and said stem being provided with means whereby said valve may be detachably engaged by said stem; there being yielding means whereby said detachable means are held in engagement.

[Claim 5 not printed in the Gazette.]

1,252,662. SWITCH AND FROG. EDWARD S. COBB, Whittier, Cal., assignor to Cobb Shockless Cross Corporation, New York, N. Y., a Corporation of New York. Filed Jan. 11, 1917. Serial No. 141,739. (Cl. 104—12.)



1. In a railway switch, in combination with a track and a pair of switch tracks, the rails of said track extending on to form the outer rails of the switch tracks and the inner rails of the switch tracks meeting at a frog, switch rails extending between the frog and switch points at the rails of the first mentioned track, and means to vertically move the portions of the switch rails adjacent the frog and the switch points.

2. In a railway switch, in combination with a track and a pair of switch tracks, the rails of said track extending on to form the outer rails of the switch tracks and the inner rails of the switch tracks meeting at a frog, and vertically movable switch rails extending between the frog and switch points at the rails of the first mentioned track.

16. In a railway switch, in combination with fixed track rails, vertically movable switch rails, and abutment surfaces at the opposite ends of the switch rails between which the switch rails are confined.

20. In a railway switch, in combination with outer fixed track rails and inner fixed track rails meeting at a frog, a switch rail extending between an outer rail and the frog and vertically movable as a single piece.

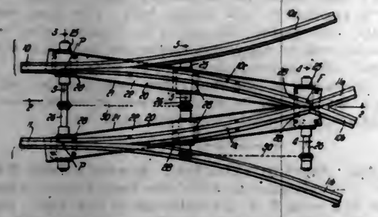
26. In a railway switch, in combination with a fixed track rail, a vertically movable switch rail bearing laterally at its end against the fixed rail, a vertical shoulder on the fixed rail against which the end of the switch rail bears and is vertically movable.

[Claims 3 to 15, 17 to 19, 21 to 25, and 27 to 30 not printed in the Gazette.]

1,252,663. RAIL-SUPPORT. EDWARD S. COBB, Whittier, Cal., assignor to Cobb Shockless Crossing Corporation, New York, N. Y., a Corporation of New York. Original application filed Jan. 11, 1917, Serial No. 141,739. Divided and this application filed Mar. 6, 1917. Serial No. 152,521. (Cl. 238—5.)

1. In combination with a rail, a support therefor embodying a supporting beam beneath the rail and arranged longitudinally thereof, a resilient filler block continuously supported on said beam directly supporting the rail, and means for supporting the beam at points spaced along its length.

3. In combination with a rail, combined raising and supporting means therefor, embodying a supporting beam arranged longitudinally beneath the rail, a resilient filler block on said beam and directly forming the sole support of the rail, and cam means below said beam to support it and raise and lower it.



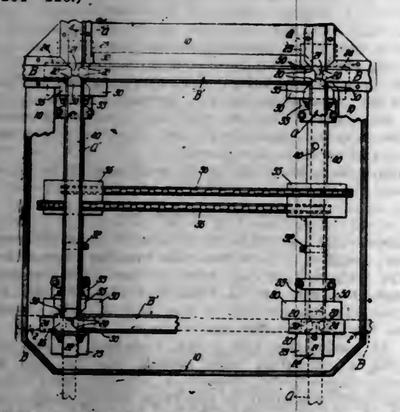
5. In combination with a curved rail, combined raising and supporting means therefor, embodying a straight steel supporting beam arranged longitudinally beneath the rail, the beam being of such width as to lie under all parts of the curved rail, a resilient wooden filler block on said beam forming the sole direct support of the rail, said filler block extending under all parts of the rail, and forming the sole direct support of the rail, means securing the rail by holding it down to the beam and filler, and cam means below said beam to support it and raise and lower it.

7. In combination with a curved rail, a supporting means therefor embodying a straight steel beam arranged longitudinally beneath the rail and of such width as to lie under all parts of the curved rail, a resilient filler block on said beam forming the sole direct support of the rail, said filler block extending under all parts of the curved rail, and means for securing the rail by holding it down on the resilient filler block without supporting the rail.

8. In combination with a rail, combined raising and supporting means therefor, embodying a supporting beam arranged longitudinally beneath the rail, a resilient filler block continuously supported on said beam and directly forming the sole support of said rail, and means spaced along the length of said beam to support it and raise and lower it.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,252,664. RAILROAD INTERSECTION. EDWARD S. COBB, Whittier, Cal., assignor to Cobb Shockless Crossing Corporation, New York, N. Y., a Corporation of New York. Filed Mar. 6, 1917. Serial No. 152,523. (Cl. 104—116.)



1. In a railroad intersection, in combination with a pair of intersecting tracks, movable rail portions between the individual rail intersections, and removable blocks on said movable rail portions adjacent the rail intersections and adapted to be removed to make openings for passage of flanged wheels.

2. In a railroad intersection, in combination with a pair of intersecting tracks, movable rail portions extending integrally between the individual rail intersections and movable as single units, and removable blocks on said movable rail portions adjacent the rail intersections and adapted to be removed to make openings for passage of flanged wheels.

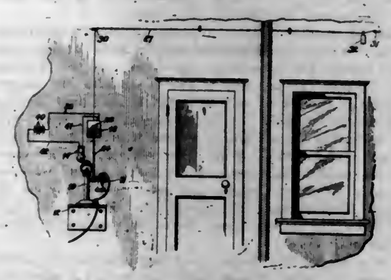
3. In a railroad intersection, in combination with a pair of intersecting tracks, movable members adapted to form continuations of the rails of the tracks, means to move said members to form continuations of the rails of either one or the other of said tracks, and means removable from said members to leave open spaces adjacent the rail intersections for passage of flanged wheels on both tracks.

4. In a railroad intersection, in combination with a pair of intersecting tracks, movable rail portions between the individual rail intersections, means to move said rail portions so as to make continuations of the rails of either one track or the other, means to move said rail portions to form continuations of the rails of both tracks, and removable parts on said rail portions adapted to be removed to make openings for passage of flanged wheels.

5. In a railroad intersection, in combination with a pair of intersecting tracks, movable members adapted to form continuations of the rails of the tracks, means to move said members to form continuations of the rails of either one or the other of said tracks, means to move said members to form continuations of the rails of both tracks, and means removable from said members to leave open spaces adjacent the rail intersections for passage of flanged wheels over both tracks.

[Claims 6 to 12 not printed in the Gazette.]

1,252,665. AUTOMATIC TELEPHONE FIRE-ALARM. LEE A. COLLINS, Louisville, Ky. Filed Dec. 14, 1916. Serial No. 137,011. (Cl. 179—5.)



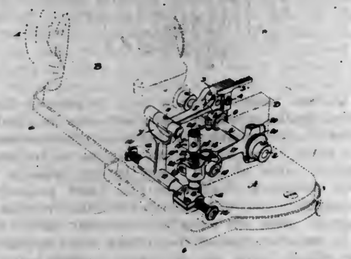
1. In an alarm system, the combination with a telephone instrument including a receiver hook, of means releasable to raise the hook, means operable by the release of the first mentioned means for sounding an audible signal, and means operable under conditions necessitating an alarm signal for releasing the first mentioned means, said latter means including a cord under tension and adapted when disrupted to cause release of the first mentioned means, and electrically operated thermostatically controlled means for disrupting the cord.

2. In an alarm system, the combination with a telephone instrument including a receiver hook, of a weight, connection between the weight and instrument whereby falling of the weight will cause raising of the receiver hook, means normally supporting the weight but tending constantly to move out of supporting relation thereto, and a disruptible member normally holding the supporting means in active position.

3. In an alarm system, the combination with a telephone instrument including a receiver hook, of a weight, connection between the weight and instrument whereby falling of the weight will cause raising of the receiver hook, means normally supporting the weight but tending constantly to move out of supporting relation thereto, and a disruptible member normally holding the supporting means in active position, said member comprising a cord connected at one end to a fixed object and at its other end to the supporting means.

[Claims 4 to 10 not printed in the Gazette.]

1,252,666. FEEDING MECHANISM FOR SEWING-MACHINES. HERBERT CORRALL, Parkview, Helensburgh, and JAMES MOIR FORBES, Scotstoun, Glasgow, Scotland, assignors to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Oct. 20, 1914. Serial No. 867,600. (Cl. 112—8.)



1. In feeding mechanism for sewing machines, the combination with a feed-dog, a feed-rocker and an operative connection between the feed-dog and the feed-rocker, of a driving shaft, a tubular crank-arm carried by said rocker, a reciprocating element operatively connected to the driving shaft, a slide-block engaging the exterior surface of the crank-arm and connected with the said reciprocating element, and an adjusting screw, held against endwise movement within the said crank-arm and adapted to move the slide-block toward and from the axis of the feed-rocker.

5. In a feed mechanism for a sewing machine having a work-support provided with an aperture therein, in combination, a feed-bar rocker having a substantially vertical arm, means for oscillating said rocker comprising a sleeve adjustable on said arm toward and from the axis of the rocker, and a screw for adjusting said sleeve, the head of said screw lying below and in registry with said opening, whereby the length of feed may be readily adjusted without disturbing the machine.

[Claims 2 to 4, 6, and 7 not printed in the Gazette.]

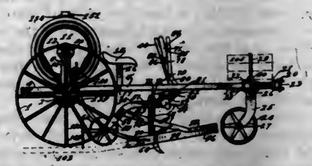
1,252,667. HORSE-RESTRAINING DEVICE. CHARLES F. CRAWFORD, Liberty, N. Y. Filed July 31, 1917. Serial No. 183,788. (Cl. 54—15.)



2. A restraining attachment for bridles consisting of a bit, rings at the ends of the bit, other rings connected loosely with the first named rings, snap hooks carried by the second named rings, and a restraining chain at one end to one of the first named rings adapted to be passed loosely around the nose of an animal with its other end engaged loosely through the ring to which it is attached and said snap hooks being adapted for fixed and slidable connection with said chain.

[Claim 1 not printed in the Gazette.]

1,252,668. PLANT-SETTING MACHINE. JAMES C. CRAWFORD, Los Angeles, Cal. Filed Mar. 16, 1916. Serial No. 84,681. (Cl. 111—3.)



1. A plant setting machine including a running gear for traversing the line of the furrow, the plow for making the furrow, plant holding means supported in operative position thereon, and yieldable means on said plow for guiding the plants to the furrow in successive order, said plant holding means being adapted to hold the plants in spaced relation during the movement thereof to the furrow and subsequent to the covering operation.

3. A plant setting machine comprising a running gear for traversing the line of a furrow, a plow for making the furrow, a stationary plant holder supported on said plow, a reel revolubly mounted on said holder, a tape carried by said reel for holding the plants in vertical positions and in spaced relation in readiness to be set, and yieldable means supported on said plow for guiding said tape therethrough to the furrows.

7. A plant setting machine including a vehicle running gear having means for revolubly supporting the plants to be set in compact form and arranged to deliver the plants in continuous procession to and set them in the furrow, a plow for making the furrow aranged to permit the passage of the plants therethrough in a plane substantially paralleling the furrow, yieldable means attached to said plow for guiding the plants to the furrow, and means supported on the plow for covering and watering the plants as they are deposited in the furrow.

13. A plant setting machine comprising the vehicle running gear having the commonly adjustable plow and plant setting means supported thereon, means for adjusting said plow, and setting means, flexible carrier means for holding a plurality of plants at regular intervals and in an upright position in readiness to be set, and means actuated by the movement of the vehicle for effecting the delivery of said plants to the furrow in regular order, said plant carrier being movable horizontally through the plow and adapted to be embedded with the plants.

14. A plant setting machine comprising the vehicle running gear, the adjustably supported plow carried thereby for making the furrow for the plants, and means for setting a plurality of plants in successive order in the furrow including the reel for holding the plants to be set, said reel being supported on and adjustable with said plow, flexible carrier means for supporting the plants in vertical position on said reel and for delivering said plants in such position to the furrow, said carrier being embedded with the plants therein, means for supplying water to the plants capable of regulation by the movement of the plants thereby, and means for covering and firmly pressing the dirt around said plants after being set, all of said elements being adjustable laterally of the machine for regulating the spacing of the rows.

[Claims 2, 4 to 6, 8 to 12, 15, and 16 not printed in the Gazette.]

1,252,669. [WITHDRAWN.]

1,252,670. SYSTEM OF PRODUCING HEAT-RAINS BY MEANS OF SHEETS OF WATER OF SLIGHT DEPTH. HIPPOLYTE DESSOLIERS, Algiers, Algeria. Filed June 20, 1914. Serial No. 846,410. (Cl. 137—14.)

1. The herein described method of producing rain, which comprises maintaining a thin sheet of water within

the area of a lake-like body of materially greater depth, for the purpose set forth.

2. The herein-described method of producing rain, which comprises inclosing an area within a lake-like body of water, and maintaining the water within the inclosed area relatively shallow and of materially less depth than the surrounding body, for the purpose set forth.

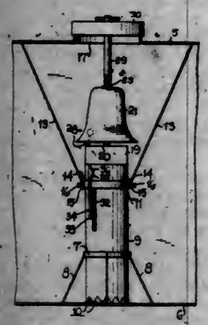
3. The herein described method of producing rain, which comprises dividing a lake-like body of water into a plurality of separated areas and maintaining the water in a central area as a thin film or relatively very shallow in comparison with the depth of water in the section or sections by which said control area is completely surrounded, for the purpose set forth.

4. The herein described method of producing rain, which comprises dividing a lake-like body of water into a plurality of separated concentrically arranged areas, providing in the central area means for assisting in collecting and directing the upward movement of vapors of evaporation rising therefrom, and maintaining the water in said central area at a depth materially less than that in the surrounding area or areas, for the purpose set forth.

5. A means for assisting in the production of rain comprising a dam or embankment erected in a lake-like body of water to inclose an area thereof and separate it from a larger area completely surrounding it, said embankment or dam rising above the highest water level of the lake, and means for controlling the admission of water to said inclosed area from the surrounding body whereby the water within the dam may be maintained in the form of a very thin or shallow body for the purpose described.

[Claim 6 not printed in the Gazette.]

1,252,671. ALARM DEVICE FOR GASOLENE-TANKS. ALCADA F. DODSON, Milan, Mo. Filed Sept. 16, 1916. Serial No. 120,550. (Cl. 116—15.)



1. An alarm device for gasolene tanks including a float tube, means for mounting said tube in a vertical position within the tank, a float vertically movable in the tube, a mechanically operated alarm device, spring controlled actuating means therefor, movable means to co-act with a part of the alarm operating mechanism to prevent the actuation of the alarm, and a member carried by the float and operatively engaged with said means to hold the same in its effective position, said member being disengaged from said movable means by the downward movement of the float when the supply of gasolene is at a predetermined minimum depth, a closure for the filling opening of the tank, and winding means for the actuating spring of the alarm mechanism carried by said closure.

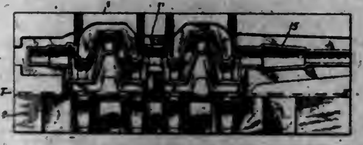
2. An alarm device for gasolene tanks including a float tube, means for mounting the float tube in a vertical position within the tank, a bell mounted upon the upper end of the tube, a bell hammer, spring controlled actuating means for said hammer, a float operating in said tube, the wall of the tube having a longitudinal slot therein, said actuating means for the bell hammer including a bodily movable escapement pawl, a yieldable element upon which said pawl is mounted, and a member connected to the float and movable in the slot in said tube to co-act with said yieldable member and move the pawl, whereby the actuating means is held against operation, said member being disengaged from the yieldable element in the downward movement of the float when the gasolene reaches a predetermined level in the tank.

1,252,672. SAW-TEETH. JESSE DRAGON and CHARLES ANDERSON, Enaville, Idaho. Filed Sept. 22, 1915. Serial No. 52,075. (Cl. 143—133.)



The saw blade having a pair of parallel justaposed cutting teeth extending from one edge at right angles therewith and having a narrow slot therebetween lying in a plane at an acute angle relative to the blade, the adjacent edges of said teeth having opposite parallel bevels providing straight cutting edges projecting past one another in overlapped relation, and free portions of the teeth being cut away on divergent curved lines between the outer ends of the cutting edges and the remote edges of the teeth, the cut away portions being beveled at the same sides of the teeth as the respective aforesaid bevels to provide curved cutting edges, the free ends of the teeth being bent sidewise to separate the first mentioned bevels and cutting edges thereof.

1,252,673. METHOD OF FORMING MULTICRANK-SHAFT BLANKS. GEORGE W. DUNNE, Muskegon, Mich. Filed Dec. 4, 1916. Serial No. 134,807. (Cl. 29—6.)



1. A method of forging multi-throw crank-shafts that consists in first forming oppositely disposed offsets in a previously heated bar that lie in a plane of the longitudinal axis of the bar, in moving some of the offsets into another plane passing through the bar axis, and simultaneously therewith shaping the parts, in chilling all but certain crank pin portions of the blank, and in swinging certain crank pin portions on the still heated crank pin portions as an axis of motion into a plane radial substantially to the shaft axis and symmetrical angularly to the radial planes of the other portion.

2. A method of forging multi-throw crank shafts having crank arms in angular relation that consists in stamping a heated blank into form with the crank pin portions lying in two planes radial to the blank axis, in then chilling the blank with the exception of certain crank pin portions, and in swinging those portions connected to the still heated portions and which are not in final position, on the heated parts as pivots into desired angular relation to the remainder of the crank shaft.

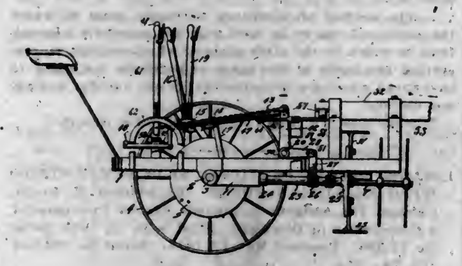
3. A method of forging multi-throw crank-shafts having crank arms and pins in different planes radial to the shaft axis, which consists in forming offsets in a stock bar which lie in a single radial plane to provide both

single and double-throw crank arms, in reducing the offset blank to substantially desired contour with certain of the offset portions in one radial plane and others in a second radial plane in predetermined angular relation to the first, in cooling the blank, all but certain crank pin portions in one of these planes, and in throwing certain other of the crank pin portions and arms connecting them to the still heated crank pins into a plane having symmetrical angular relation with the other planes by turning them on the still heated portions as an axis.

4. A method of forging multi-throw crank shafts that consists in stamping a heated blank into form with certain pin portions out of position, in then chilling the blank with the exception of certain crank pin parts to which those parts that are out of position are connected, and in then swinging the latter portions on the still heated crank pin parts as pivots into the desired angular relation to the remainder of the crank shaft.

5. A method of forging multi-throw crank shafts that consists in stamping a heated blank into form with certain crank-pin portions thereof out of position, in then chilling the blank with the exception of certain crank pin parts to which those parts that are out of position are connected, in then swinging the latter portions on the still heated crank pin parts as pivots into the desired angular relation to the remainder of the crank shaft and in then submitting the blank to a straightening die and adapted to act on and to bring the entire blank into accurate alinement.

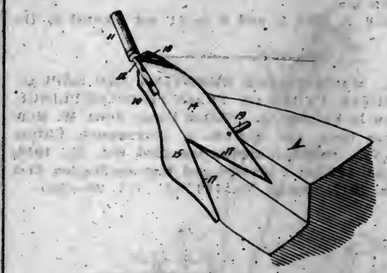
1,252,674. COTTON-CHOPPER-TOOL-LIFTING MECHANISM. ARTHUR R. EAST, Delia, Tex., assignor of one-half to J. J. Beckham, Limestone county, Tex. Original application filed Apr. 24, 1917, Serial No. 164,187. Divided and this application filed Sept. 10, 1917. Serial No. 190,469. (Cl. 97—88.)



1. In a cotton chopper, the combination with a main frame, a driving axle supporting the frame, and ground wheels supporting the axle, of a tool carrying shaft suspended from the frame and radially from the axle longitudinally of the frame, a supporting member carrying the shaft, a rock shaft mounted transversely of the frame and connected with the supporting member for raising and lowering the same, a foot lever mounted on the frame and having operative connection with the rock shaft for rocking the same, and a hand lever mounted on the frame and having flexible connection with the rock shaft for rocking the same, said flexible connection permitting the operation of the foot lever without disturbing the adjustment effected by the hand lever.

2. In a cotton chopper, the combination with a frame and a cultivating mechanism mounted to swing thereon, of mechanism for adjusting the cultivating mechanism to a fixed elevation to operate at a regular depth and for lifting said mechanism without disturbing said adjustment including a rock shaft mounted on the frame and supporting the chopping mechanism, a foot lever mounted on the frame and having positive connection with the rock shaft, and a hand lever mounted on the frame and having flexible connection with the rock shaft.

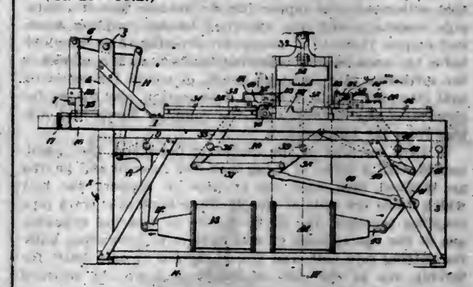
1,252,675. LAWN-TRIMMER. GEORG H. F. EHMCKE, Fremont, Nebr. Filed Sept. 7, 1916. Serial No. 118,878. (Cl. 97—28.)



1. A lawn trimmer comprising a head formed of a plate of sheet metal bent longitudinally at an angle to form diverging sides, the forward edges of the sides diverging from the folds in the plate and sharpened to form cutting edges, and the upper corner portion of one of said sides being folded inwardly to provide a deflector.

2. A lawn trimmer comprising a head having side plates extending in diverging relation and having forward cutting edges extending in diverging relation from the edges of the side plates, the upper corner portion of one of the side plates being folded inwardly to provide a deflector.

1,252,676. MACHINE FOR REMOVING AND REPLACING METAL PARTS OF TRAIN-PIPE COUPLINGS. WILLIAM D. FAIDLEY, Jr., Clifton Forge, JOHN W. MORRIS, Iron Gate, and SAMUEL A. PATTERSON, Clifton Forge, Va. Filed Oct. 23, 1916. Serial No. 127,151. (Cl. 29—88.2.)



1. The combination with means for holding the hose section of a train pipe coupling, of a reciprocating tool adapted to enter the nipple on the end of said hose section, an expanding clutch carried by the tool and comprising two jaws projecting from opposite sides of the tool, resilient means for normally holding said jaws closed to permit the clutch to enter the nipple, a wedge mounted to slide in the tool and adapted to spread the jaws apart for gripping the nipple on the inside whereby the same may be drawn out of the hose section when the tool is moved away from the hose holding means, and means for actuating said wedge from the outside of the tool when the latter is in the nipple.

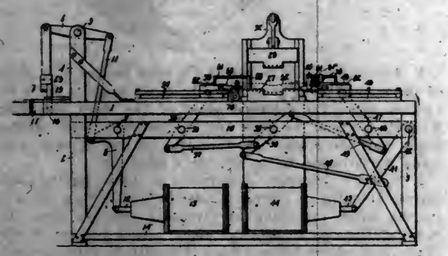
4. The combination with means for holding the hose section of a train pipe coupling, of a table, a block movable along the table toward and away from said holding means, a tool attached to said block at one end, rollers running on the table and supporting the other end of the tool, and means on the tool for engaging the metal end piece of the coupling for drawing the same out of the hose section when the block is moved away from said holding means.

8. The combination with means for holding the hose section of a train pipe coupling, comprising a fixed jaw

and a movable jaw, of an intermediately pivoted lever, means attached to one end of the lever for swinging the same, and a link connecting the other end of the lever to the movable jaw.

[Claims 2, 3, 5 to 7, and 9 to 11 not printed in the Gazette.]

1,252,677. MACHINE FOR REMOVING AND REPLACING METAL PARTS OF TRAIN-PIPE COUPLINGS. WILLIAM D. FAIDLEY, Jr., Clifton Forge, JOHN W. MORRIS, Iron Gate, and SAMUEL A. PATTERSON, Clifton Forge, Va. Original application filed Oct. 23, 1916, Serial No. 127,151. Divided and this application filed July 25, 1917. Serial No. 182,752. (Cl. 29—33.)



2. In a machine of the character described, the combination with means for supporting the hose section of a train pipe coupling with the clamping band thereon, of means for severing the bolt which holds the ends of said clamping band together, of means for spreading said clamping bands, of means for removing the clamping bands from said hose section.

4. In a machine of the character described, the combination with means for supporting the hose section of a train pipe coupling, with the clamping bands, coupling heads and nipples thereon, of means for severing the bolt which holds the ends of said clamping bands together, of means for spreading said clamping bands, of means for removing said clamping bands from the hose section, and means for simultaneously withdrawing the coupling heads and nipples from the hose section.

7. In a machine of the character described, the combination with a table, of a lug mounted thereon and having an inclined face, said lug adapted to support the bolt which holds the ends of the clamping band of a train pipe coupling together, the inclined face of said lug engaging one of the spaced ends of said band, a reciprocating knife for cutting said bolt, and means carried by said knife for forcing one of the ends of the band down the inclined face of the lug for spreading apart said ends.

[Claims 1, 3, 5, 6, 8, and 9 not printed in the Gazette.]

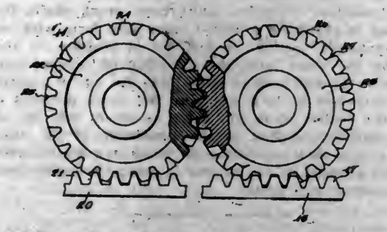
1,252,678. RIPRAP. ASA W. FARNEY, Kansas City, and FRANK W. JANSKY, St. Joseph, Mo. Filed Aug. 2, 1916. Serial No. 112,851. (Cl. 61—30.)



1. A riprap comprising a set of thin plates arranged side by side in longitudinal and transverse rows, each plate being bowed upward at each edge to provide recesses, and each bowed portion being provided at its inner end with an opening, the opening at each side being alined with the opening at the opposite side, flexible cables paralleling the longitudinal rows and extending through the longitudinally alined openings of such rows, transverse cables paralleling the transverse rows and extending through the other openings of said plates, anchors for the corresponding ends of the longitudinally extending cables, and anchors for the corresponding ends of the transversely extending cables.

2. A thin metal plate of substantially rectangular form, provided midway the length of each edge with an upwardly bowed conical portion to form a downwardly facing recess, and provided at the apex of each conical portion with an opening in the plane of the upper side of the body of the plate.

1,252,679. METHOD OF GENERATING GEAR-TEETH. EDWIN R. FELLOWS, Springfield, Vt., assignor to The Fellows Gear Shaper Company, Springfield, Vt., a Corporation of Vermont. Filed Mar. 6, 1915. Serial No. 12,540. (Cl. 90—4.)



1. The method of producing a set of interchangeable conjugate gears having curved teeth, which consists in forming the teeth in the gears of one series conjugate to the spaces between teeth of a base rack having curved teeth, and forming the tooth spaces in the gears of a second series conjugate to the teeth of a second base rack which is complemental or conjugate to the first named base rack.

7. The method of producing conjugate gears of which the teeth and spaces in each gear are relatively non-uniform in width on the pitch surface, which consists in generating the teeth of the gears respectively conjugate to base racks which are complemental to one another and are non-uniform.

[Claims 2 to 6, 8, and 9 not printed in the Gazette.]

1,252,680. ART OF PROVIDING FLAT METAL STRIPS WITH SEALING-SLEEVES. ELLSWORTH E. FLORA, Chicago, Ill., assignor to Signode System Incorporated, a Corporation of Delaware. Filed Sept. 18, 1915, Serial No. 51,355. Renewed Mar. 12, 1917. Serial No. 154,340. (Cl. 74—23.)



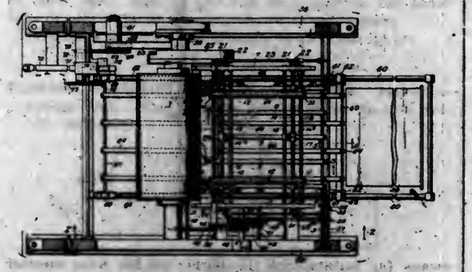
3. A sealed joint comprising in combination, flat metal-strip end-portions in flatwise contacting relation; and a thin-metal sleeve embracing the same; said parts being conjointly crimped edgewise.

4. A sealed joint comprising, in combination, flat metal-strip end-portions in flatwise contacting relation; and an open-sided thin-metal sleeve embracing said end-portions; said parts being conjointly crimped edgewise.

[Claims 1, 2, and 5 to 10 not printed in the Gazette.]

1,252,681. SHEET-DELIVERY MECHANISM FOR PRINTING-PRESSES. GUSTAV A. FRIESS, Chicago, Ill. Filed Nov. 23, 1916. Serial No. 133,047. (Cl. 271—77.)

6. In a printing press, the combination with the printing elements and sheet-carrying means associated therewith, of a stripper-plate interposed between said parts over which sheets are adapted to travel successively, and a pair of friction surfaced rollers associated with and disposed above said plate for engaging the upper surfaces of sheets passing over the same and move them onto said carrier and gearing between said rollers and the drive gear of the press for rotating said rollers at a surface speed not less than the surface speed of the printing elements.

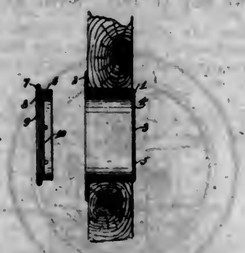


10. In a printing press, the combination with the printing elements, of a sheet carrier inclined downwardly away from the printing elements adapted to receive the printed sheets successively, means associated with said carrier for preventing curling or warping of the printed sheets during travel, and means for maintaining said carrier, and said means associated therewith continuously in motion at a speed exceeding the speed of delivery of sheets from said printing elements.

12. In a printing press, the combination with the printing elements, sheet-carrying means adapted to receive sheets therefrom; and means for effecting continuous travel of said carrier at a speed exceeding the speed of delivery of sheets from said printing elements, of rotatable elements disposed between said printing elements and said carrier for frictionally engaging sheets to cause the passage thereof from said printing elements, upon said carrier, and gearing between the latter and said rotatable elements for causing the latter to rotate at the same speed of surface travel as said carrier.

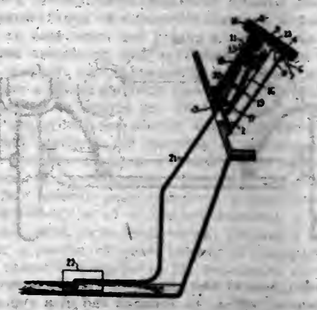
[Claims 1 to 5, 7 to 9, and 11 not printed in the Gazette.]

1,252,682. GAGE-CASING. PHILO M. GELATT, La Crosse, Wis. Filed May 5, 1916. Serial No. 95,559. (Cl. 220—91.)



A gage casing comprising a cylindrical sheet metal body having a base and peripheral wall integral therewith, the outer marginal portion of which is outturned as an annular flange, a collar frictionally engaging into the mouth of the body with the outer marginal portion thereof outturned to form a flange adapted to abut the body flange and reverted on itself and extended inwardly to form an inner annular flange or retaining shoulder, the margin of the inner flange being beveled and slightly down bent to form a resilient edge, a series of indentations in the collar below this flange providing upwardly oblique cam faces, an observation plate between the indentations and the resilient edged flange, and a split expansion ring between the projections and the plate riding on the camming surfaces and forcing the plate yieldingly against the resilient edge of the shoulder.

1,252,683. TANK-GAGE. PHILO M. GELATT, La Crosse, Wis. Filed July 16, 1917. Serial No. 180,711. (Cl. 73—82.)



1. A gage comprising a casing having a dial plate, an index therefor and a cover at one end, a support in the casing secured to the plate and cover, a spindle journaled in the upper portion of the support to operate the index, a beveled pinion on the spindle, a segmental gear pivoted to the lower portion of the support to oscillate in mesh with the pinion, a stop on the support engaging a slot in the gear and limiting the movement of the gear in either direction, and a float connected by a rod to the gear to oscillate the latter.

4. A gage comprising a casing having a dial plate, an index therefor and a cover at the outer end, a support extending below the plate and in the casing, a spindle journaled on the support to operate the index, a beveled pinion on the spindle, a segmental gear of sheet metal provided with an upper flanged and toothed end that meshes with the pinion and with a segmental slot between the pivot thereof and the teeth, a stop pin on the support engaging the slot, and a float operatively connected to the gear to oscillate the latter.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,252,684. LAMP-MOUNTING. CHARLES E. GODLEY, Detroit, Mich., assignor to Edmunds and Jones Corporation, Detroit, Mich., a Corporation of New York. Filed Nov. 23, 1916. Serial No. 132,044. (Cl. 240—52.)

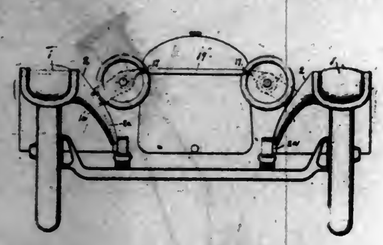


In a lamp mounting, the combination with a paraboloidal body having an opening in its wall at some distance from its axis, a supporting stem of less diameter than the opening extending therethrough, and having a non-cylindrical portion where it passes through said opening, washers fitting non-revolubly on the non-cylindrical portion of the stem within and without the lamp body and closely fitting against the body, and a nut on the end of the stem within the body to force the washers toward each other to grip the wall of the body.

1,252,685. LAMP-SUPPORT. CHARLES E. GODLEY, Detroit, Mich., assignor to Edmunds and Jones Corporation, Detroit, Mich., a Corporation of New York. Filed Apr. 13, 1917. Serial No. 161,737. (Cl. 240—57.)

1. A lamp support for a cup-shaped lamp-body formed of a sheet of metal and provided with a spherical seat, and a bolt to hold the lamp-body in said seat.

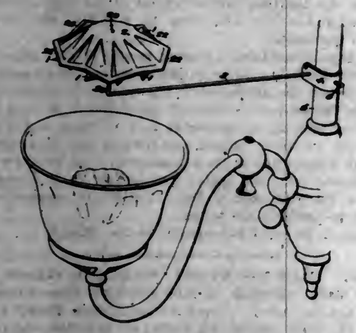
2. A lamp support comprising a substantially flat body having a foot by means of which it may be bolted to a portion of the vehicle and a spherical seat intermediate



its ends and a hole at the middle of its seat to receive a bolt by means of which the rounded end of a cup shaped lamp body may be secured to said support.

[Claims 3 and 4 not printed in the Gazette.]

1,252,686. SOOT-DISTRIBUTER. EMRY A. GOTTKO, Bayonne, N. J. Filed Feb. 5, 1917. Serial No. 146,751. (Cl. 240—120.)

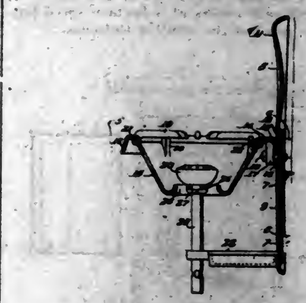


An attachment for gas fixtures comprising a support adapted to be removably connected with a fixture, the said support consisting of a wire whose outer portion terminates in a vertically bent member, the upper part of which includes a flat coil, the free end of which terminates in a vertically extended tapered bearing, and a disk wheel that includes a central flat portion having a central tapered seat for engaging with the tapered bearing of the support, the said disk including vanes that extend radially from the said flat portion of the disk.

1,252,687. WALL-BURNER. MICHAEL J. GREEN, Rockford, Ill., assignor to Eclipse Gas Stove Company, Rockford, Ill., a Corporation of Illinois. Filed June 5, 1915. Serial No. 32,423. (Cl. 126—249.)

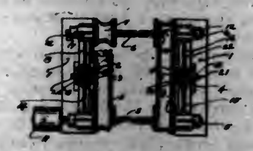
1. As an article of manufacture, a wall burner comprising a wall plate having a lower supporting portion and an upper deflecting portion, a bowl member secured to the wall plate below the deflecting portion, a grid carried by the upper part of said bowl member for receiving articles to be heated, said bowl member having an air inlet formed in the lower part thereof, a burner extending through said inlet into the bowl member, and means for maintaining the burner in heating position within the bowl member below the grid.

2. As an article of manufacture, a wall burner comprising a wall plate, having its upper portion formed to constitute a deflector, a bowl member secured to said wall plate below the deflecting portion, a support adjacent the upper end of the bowl member for holding articles to be heated, a burner extending into the bowl member, and



means for maintaining the burner in the bowl member in heating position beneath the article support.

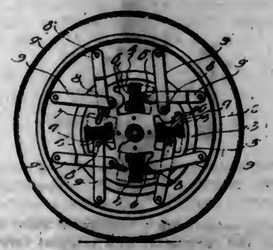
1,252,688. AUTOMOBILE-POWER JACK. PHILIP C. GRIMM and JAMES A. VAN SICKLE, Lincoln, Wash. Filed July 14, 1917. Serial No. 180,556. (Cl. 74—106.)



1. The combination in an automobile power jack with supporting blocks and bearings thereon, of parallel sectional arms each having central pivoted hinged joints in the bearings, shafts connecting the ends of said arms and operating wheels on said shafts, and means for holding said sectional arms as rigid members.

[Claim 2 not printed in the Gazette.]

1,252,689. SPRING-WHEEL. ANDREW HALLNER, Arboga, Cal. Filed May 11, 1917. Serial No. 167,914. (Cl. 152—28.)



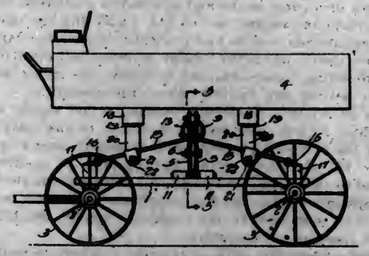
1. A spring wheel comprising a hub and a rim, a plurality of relatively movable disks mounted at their centers on said hub and having circumferentially spaced abutments, springs interposed between said abutments, and links pivoted to the rim and connected slidably with said disk.

3. A spring wheel comprising a hub and a rim, a plurality of relatively movable disks mounted at their centers on said hub and having circumferentially spaced registering openings whose ends are provided with inwardly extending lugs, coiled springs in said openings and receiving said lugs in their ends, and links pivoted to the rim and connected slidably to said disks.

5. A spring wheel comprising a hub and a rim, a plurality of relatively movable disks mounted at their centers on said hub and having circumferentially spaced abutments, said disks also having circumferentially extending guides, cushioning springs interposed between the abutments of said disks, oppositely inclined links pivoted at their outer ends to the rim, and pins on the inner ends of said links slidably engaged with said guides.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,252,690. VEHICLE-SPRING. ANDREW HALLNER, Arboga, Cal. Filed May 29, 1917. Serial No. 171,674. (Cl. 267—9.)



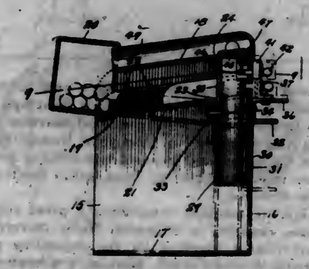
1. A spring comprising a pair of levers crossed between their ends and having means at said ends for connecting them pivotally with two relatively movable parts, means movable longitudinally of said levers and connecting them pivotally and slidably at their crossing point, opposed abutments on the crossed portions of said levers, and a compression spring interposed between said abutments.

2. A spring comprising a pair of crossed slidably connected levers having means at their ends for connecting them pivotally to relatively movable parts, the crossed portions of said levers having registering openings, and a cushioning spring positioned in said openings.

7. The combination with the running gear of a vehicle, and the body above said running gear, of front and rear pairs of longitudinally extending levers fulcrumed at their outer ends to said running gear, slides mounted on said levers and carried by the body, vertical links having guide openings receiving the inner ends of said levers, crossed levers extending transversely of the running gear and pivoted at one end thereto, said links depending from the other ends of said levers, and spring means for permitting said last named ends to yield downwardly.

[Claims 3 to 6 and 8 not printed in the Gazette.]

1,252,691. GAME APPARATUS. CHARLES W. HAMEL, Wellston, Mo. Filed Jan. 5, 1917. Serial No. 140,758. (Cl. 46—63.)



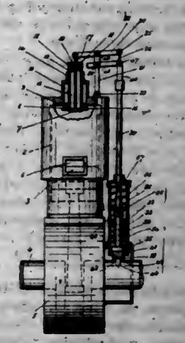
1. In a baseball game apparatus, a board provided with the representation of a baseball diamond, a series of containers, a plurality of distinctively marked objects in each container, and manually manipulative means associated with each container for selecting at random one of the distinctively marked objects to determine the plays of the game.

3. In a baseball game apparatus, a board provided with the representation of a baseball diamond, a housing positioned on said board and having a transparent portion, a container associated with said housing, a set of distinctively marked objects normally positioned within said container, a tilting platform associated with said container and adapted to receive the distinctively marked objects, and a manually manipulative sliding member associated with said platform for selecting at random one of the objects from the platform and carrying it to a position of view beneath the transparent portion of the housing.

10. In a baseball game apparatus, a board provided with the representation of a baseball diamond, a housing on the game board, an inclined runway forming a part of said housing, a portion of which runway is transparent, a container pivotally mounted in the housing at the lower end of the runway, a tilting platform associated with said container, a series of distinctively marked objects normally positioned within the container and adapted to pass over the tilting platform, a member arranged for vertical sliding movement within the housing and adapted to select at random one of the objects from the tilting platform and elevating said object to the upper end of the inclined runway, means for locking said sliding member in its elevated position, and means associated with said sliding member for unseating the object from the upper end thereof.

[Claims 2 and 4 to 9 not printed in the Gazette.]

1,252,692. VALVE-GEAR. ALBERT HARRIS, Denver, Colo., assignor of one-half to Sanford Caldwell, Denver, Colo. Filed Mar. 30, 1917. Serial No. 158,573. (Cl. 123—90.)



1. In a valve gear, a gas valve and an air valve provided with longitudinally slidable concentric stems, two operating levers pivoted at one end to the said valve stems, pivoted supporting devices pivoted to the middle parts of the said levers and permitting them to move crosswise of the valve stems and independently of each other, and means for operating the said valves independently of each other connected to the other ends of the said levers.

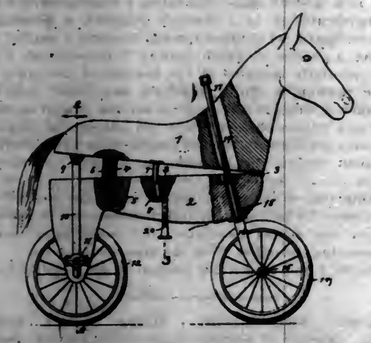
3. In a valve gear, a gas valve and an air valve provided with concentric stems, a pivoted fulcrum rod, a lever pivoted at its middle part to the free end portion of the fulcrum rod and having one end portion pivoted to the inner valve stem, links pivoted to the fulcrum rod concentric with the said lever, a second lever pivoted at its middle part to the said links and having one end portion pivoted to the outer valve stem, and means connected to the other end portions of the said levers and operating them at intervals to open the valves.

5. In a valve gear, a gas valve and an air valve provided with concentric stems, a pivoted fulcrum rod, a lever formed of two parts which straddle and are pivoted to the free end portion of the fulcrum rod and having one end portion pivoted to the inner valve stem, links pivoted to

the fulcrum rod concentric with and straddling the said lever, a second lever formed in two parts spaced wider apart than the parts of the first said lever and having its middle part pivoted to and straddling the said links and having one end portion pivoted to the outer valve stem, and means connected to the other end portions of the said levers and operating them at intervals to open the valves.

[Claims 2 and 4 not printed in the Gazette.]

1,252,693. HOBBY-HORSE. SOMA HERZOG, New York, N. Y. Filed Sept. 17, 1917. Serial No. 191,741. (Cl. 208—42.)

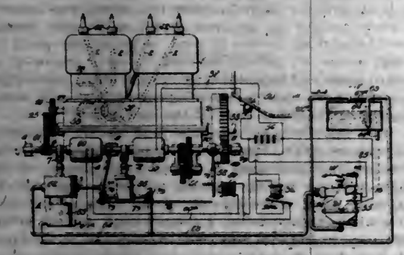


1. A hobby horse comprising an upper member, a lower member diverging from the upper member, a hinge connecting said members, a driving rod depending from the upper member, and a driving axle journaled in the lower member and operatively connected to said rod.

3. A hobby horse comprising an upper member having an enlarged bore, a diverging lower member, a hinge connecting said members at one of their ends, a spring interposed between the members, a driving rod depending from the upper member and passing through the lower member, a driving axle journaled in said lower member and operatively connected to said rod; a front axle bearing, and a steering post connected to said bearing, said steering post passing through the lower member and through said enlarged bore of the upper member.

[Claim 2 not printed in the Gazette.]

1,252,694. CONTROLLING SYSTEM FOR EXPLOSIVE-ENGINES. RICHARD B. HEWITT, Detroit, Mich., assignor to Thermo-Electro Starter Company, Detroit, Mich., a Corporation of Michigan. Filed Oct. 9, 1913. Serial No. 794,220. (Cl. 123—179.)



1. In an internal combustion engine, a starting and fuel providing system including means for spinning the engine, means for heating and forcing fuel into the engine, means for connecting the spinning means operatively to the engine adapted to automatically disconnect the engine when the latter becomes self-operative as it completes its functions of compressing and firing the injected fuel and electrically operated controlling means for maintaining the spinning means normally inactive.

2. In an internal combustion engine, a starting and fuel supply system comprising means for spinning the engine, a generator shaft operated by the engine, means for heating and forcing fuel positively into the engine operated by the generator shaft, means for connecting the spinning means operatively with the engine, adapted to release the engine when the latter becomes self-operative, and means for maintaining the connecting means normally out of gear.

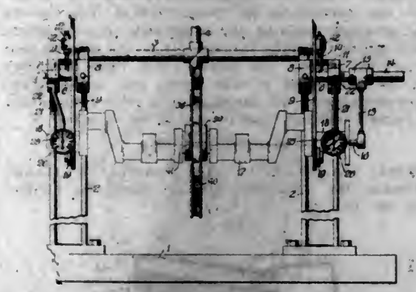
3. In an internal combustion engine, a fuel feed system and starter comprising a motor for spinning the engine, fuel heating and forcing means operated indirectly by the motor operating means and adapted to positively force the fuel into the engine, means for connecting the motor to the engine adapted to automatically release the latter from the motor when the engine becomes self-operative, and controlling means adapted to throw the motor with the fuel heating and forcing means into operation.

4. In an internal combustion engine, a fuel supply and controlling system comprising electrical means adapted to spin the engine, fuel heating and forcing means operated by the electrical means and adapted to positively feed fuel to the engine, and means for throwing the electrical means into action, the fuel supplying mechanism being operatively connected to the engine to supply the latter when it becomes self-operative.

5. The combination with an internal combustion engine, of a generator shaft adapted to be driven in synchronism with said engine, a generator operated by said shaft, a source of electrical energy produced by said generator, a motor in circuit with said source of electrical energy and adapted for starting said engine, a source of fuel, a pump operated by said generator shaft and adapted for feeding fuel to said engine, means controlling the operation of said motor, and electrical means controlling the storage of electrical energy by said generator.

[Claims 6 to 9 not printed in the Gazette.]

1,252,695. SHAFT-BALANCING MACHINE. HENRY HOPKINS, Detroit, Mich., assignor, by mesne assignments, to Continental Motors Corporation, Detroit, Mich., a Corporation of Virginia. Filed Sept. 25, 1916. Serial No. 122,179. (Cl. 73—51.)



1. A balancing machine comprising a pair of swinging yoke frames having anti-friction shaft bearings, means adapted to rotate a shaft resting on said bearings without restraining the movement of the yoke frames upon the bearings of the latter, and means for indicating movement of the yokes in either direction from initial position when the shaft is revolved.

4. A balancing machine comprising a pivot support, a pair of yokes swinging in alinement freely therefrom and having anti-friction bearings on the depending portions for supporting a crank shaft thereon, a propeller wheel adapted to be secured detachably to a shaft applied to the bearings, and means for directing an air current against the propeller blades for rotating the shaft.

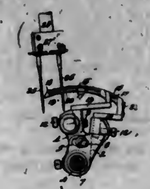
7. A balancing machine comprising a base, a pair of supporting members in adjustable spaced alined relation thereon, a pair of pivot studs on the supporting members in substantial alinement, a pair of yokes, pivot means suporting each yoke to swing freely on a companion stud, anti-friction bearings on the depending portions of the yoke for rotatably supporting a crank shaft on the yokes, a propeller adapted to be detachably mounted on a shaft supported on the bearings, and means for directing an air blast against the propeller to rotate the latter when applied to such shaft.

11. A balancing machine comprising means for suspending a shaft rotatably to swing also in a horizontal plane, means adapted to rotate a shaft thus suspended without limiting the movements of the suspending means, and means for indicating displacement of the shaft in either direction in the horizontal plane.

12. A balancing machine comprising means for suspending a shaft to swing in a horizontal plane and to rotate on its axis, means for causing the shaft to rotate without confining the shaft suspending means, and means for indicating movement of the shaft from initial position in either direction in the horizontal plane when the shaft is revolved.

[Claims 2, 3, 5, 6, and 8 to 10 not printed in the Gazette.]

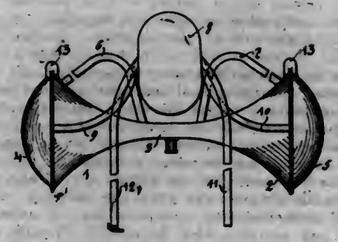
1,252,696. LOOPER-CARRIER FOR SEWING-MACHINES. WILLIAM H. HUGO, Elizabeth, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Nov. 6, 1914. Serial No. 870,552. (Cl. 112—5.)



1. A multiple looper-carrier comprising a primary looper-supporting member, a fulcrum therefor, an auxiliary looper-supporting member fulcrumed coaxially with the primary member, and means for securing said members together adjustably around said fulcrum, whereby in all adjustments of said members the looper-blades mounted thereon are caused to bear the same relation to the needles and the work.

[Claims 2 and 3 not printed in the Gazette.]

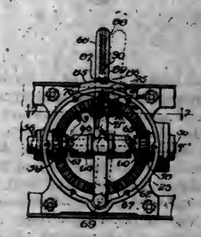
1,252,697. SWIMMING APPLIANCE. YUUYEMON IKEDA, Gardena, Cal. Filed Aug. 6, 1917. Serial No. 184,721. (Cl. 9—17.)



1. The combination with buoyant members communicating by a flexible band, of a back buoyant member connected to the first named buoyant members by two back straps, two shoulder straps attached to the first named buoyant members and the flexible band forming loops so as to fit over the shoulder of a swimmer wearing this device, and two body straps attached to the back buoyant member so as to allow the tying of the device to the body of the swimmer.

2. A swimming device of the class described comprising two buoyant members of practically circular cross section having a reduced portion forming a communicating flexible band between the two buoyant members, shoulder straps provided on the circular buoyant members and the flexible communicating band, a back buoyant member, connecting straps between the back buoyant member and the first named buoyant members, and body straps provided on the back buoyant member.

1,252,698. MECHANICAL MOVEMENT. FRIEDEMAN R. JAEGER, Oak Park, Ill. Filed June 30, 1915. Serial No. 37,135. (Cl. 74—50.)



1. In an appliance of the character described, the combination of a casing, a drum revoluble in said casing, means to revolve said drum automatically alternately in opposite directions a predetermined number of revolutions, including a clutch mechanism, a lever to shift said clutch mechanism, an arm pivoted on said lever, a rocking pin on said arm, a rod engaging said casing and extended through an aperture of said arm, and a spring surrounding said rod and bearing against said pin, substantially as described.

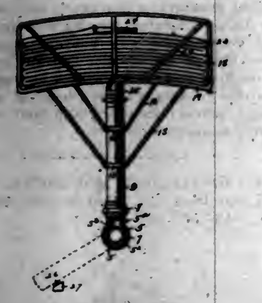
2. In an appliance of the character described, the combination of a casing, a drum revoluble in said casing, means to revolve said drum automatically alternately in opposite directions a predetermined number of revolutions, including a clutch mechanism, a lever to shift said clutch mechanism, an arm pivoted on said lever, a pin on said arm extended through a slot of said lever, a spring acting on said arm, and means to engage said pin to shift said lever under the action of said spring, substantially as described.

3. In an appliance of the character described, the combination of a casing, a drum revoluble in said casing, means to revolve said drum automatically alternately in opposite directions a predetermined number of revolutions, including a clutch mechanism, a lever to shift said clutch mechanism, an arm pivoted on said lever, a rocking pin on said arm extended through a slot of said lever, a rod engaging said casing and projecting through an aperture of said pin, a spring surrounding said rod and bearing against said pin, and means to engage said pin to shift the lever through the action of said spring, substantially as described.

4. In an appliance of the character described, the combination of a casing, a drum revoluble in said casing, means to revolve said drum alternately in opposite directions a predetermined number of revolutions, and means to stop the drum positively in a predetermined position regardless of the immediate preceding direction of rotation, substantially as described.

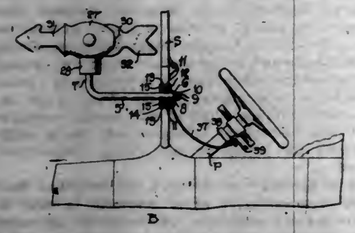
5. In an appliance of the character described, the combination of a casing, a drum revoluble in said casing, means to revolve said drum alternately in opposite directions a predetermined number of revolutions, and manually-controlled means to automatically stop the drum positively in a predetermined position regardless of the immediate preceding direction of rotation, substantially as described.

1,252,699. COMBINED HOSE-RACK AND VALVE. ADOLPH JOHNSON, Coronado, Cal. Filed Apr. 30, 1917. Serial No. 165,500. (Cl. 137—31.)



The combination with a wall of a water supply pipe which lies substantially horizontal and at right angles to said wall, a vertical pipe section mounted for swinging movement upon the water supply pipe in a plane substantially parallel with the wall, a hose rack carried by and bodily movable with the pipe section and comprising sides which lie substantially parallel with the wall and open ends and a three way valve between the vertical pipe section and the water supply pipe constructed to shut off the water when the vertical pipe section is in normal position and to turn on the water when the rack and the pipe section by which it is carried, are swung downwardly in either direction.

1,252,700. DIRECTION-INDICATOR FOR MOTOR-VEHICLES. ELMO JOHNSON and WILLIAM E. BYBEE, Quincy, Ill. Filed Nov. 8, 1916. Serial No. 130,233. (Cl. 116—31.)

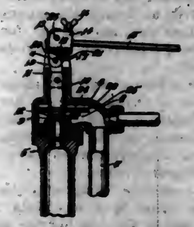


3. A direction indicator for motor vehicles including a tubular supporting arm, a rotatable indicating member, a bushing engaged in the upper end of said arm, a standard fixed to the base of the indicating member and rotatably mounted in said bushing, a retaining screw having threaded engagement in the arm and the bushing, said standard being provided with a circumferential groove to receive the inner end of the screw, and a flexible operating shaft extending through the tubular arm and directly connected at one of its ends to said standard.

[Claims 1 and 2 not printed in the Gazette.]

1,252,701. BALL-COCK. OWEN H. JONES, Hartford, Conn., assignor to Florence M. Pomeroy, Hartford, Conn. Filed July 28, 1917. Serial No. 183,256. (Cl. 137—104.)

3. A ball cock including a body with an outlet chamber therein having an outlet therefrom, said body also having a relief chamber opening to said outlet chamber, said structure also having a plunger opening extending through the wall between said chambers, a valve plunger located within the body and closely fitting said opening and extending through said plunger opening, said plunger having an annular groove that is closed by the wall of said opening when the valve is in its closed position, and means for operating said plunger.

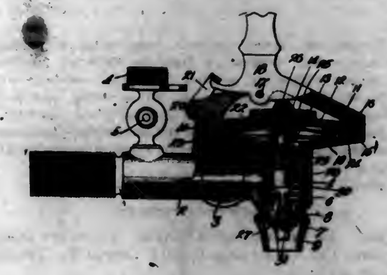


7. A ball cock including a body with a chamber therein, a valve seat within the chamber, a plunger located within said body and having a valve to contact with said seat, an actuating block pivotally mounted on the body, and a link pivotally connecting said block and plunger, said link extending into a groove in the block, the contact of the end of the link with the bottom of the groove forming a valve closing stop, and the contact of the side of the link with the bottom of the groove forming a valve opening stop.

9. A ball cock including a body having a chamber therein and an outlet therefrom, a valve plunger located within the body, a support extending from the body, an actuating block pivotally mounted on said support, a link pivotally connecting said block and plunger, a float rod secured to said block between its pivotal support and the pivotal attachment of said link and extending in a direction transverse to a line extending between said pivots.

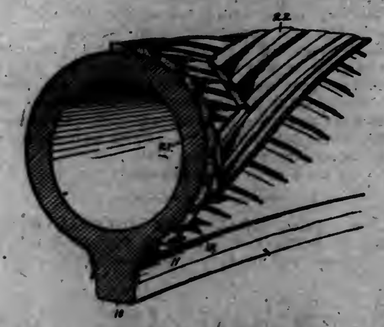
[Claims 1, 2, 4 to 6, 8, and 10 not printed in the Gazette.]

1,252,702. FAUCET. HENRY D. KELLY, Kansas City, Mo. Filed Aug. 21, 1916. Serial No. 116,201. (Cl. 137—4.)



A self-closing faucet having a head provided with superposed communicating valve and diaphragm chambers and provided also with an upwardly-facing internal shoulder at the bottom of said valve chamber and a downwardly-facing external seat below the plane of said shoulder, a valve underlying said seat and provided with a stem extending up through the valve chamber, a removable collar secured on said stem, a spring surrounding said stem and bearing against the said internal shoulder and said collar to seat the valve, a diaphragm within and bearing at its margin on the bottom of the diaphragm chamber with a liquid-tight joint, and provided with an upwardly projecting boss, a cap closing the diaphragm chamber and provided with an opening through which said boss extends, a slotted arch extending diametrically of the cap and secured to the head of the faucet, an inverted T-shaped lever pivoted in the slot of the arch; one end of the head of the lever being adapted for exerting downward pressure on the boss of the diaphragm to unseat the valve and then engage the arch to arrest the movement of the lever, and the other end of the head of the lever being adapted to limit reverse movement of the lever by engagement with the arch, and a dog movable mounted on the arch and adapted to underlie the last-named end of the head of the lever or to overlie said end of the head of the lever.

1,252,703. PNEUMATIC TIRE. WALTER KLINE, Lake, Ohio, assignor of one-third to Frank L. Kryder and one-third to Joseph P. Frisby, Akron, Ohio. Filed Feb. 21, 1917. Serial No. 150,100. (Cl. 152—13.)



1. A tire casing provided with a core consisting of diagonally arranged strands or cords, each of which has a relatively thick middle portion and relatively thin overlapping portions extending from the edges of the middle portion, the edge of one strand overlapping the edge of the adjacent strand.

2. A tire casing having a core consisting of overlapping diagonally arranged strands, each strand comprising an interwoven fabric with a relatively thick middle portion, and a cementitious embedding material for said fabric.

3. A tire casing having a core consisting of strands or cords each of which has a relatively thick middle portion, and relatively thin portions extending from the edges of the relatively thick portion, the edge of one strand overlapping the edge of an adjacent strand.

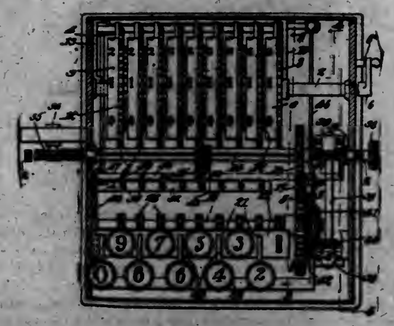
4. A tire casing having a core of diagonally arranged cords comprising strips with relatively thick central portions and relatively thick edges, the portions of the strip between the central portions and the edges being substantially one-half the thickness of the central portion, cementitious embedding material for said strip.

5. A tire casing having a core of diagonally arranged cords comprising strips with relatively thick central portions and relatively thick edges, the portions of the strips between the central portions and the edges being substantially one-half the thickness of the central portion.

1,252,704. ADDING-MACHINE. IVEY LEE LANIER, Hickory, N. C. Filed Dec. 6, 1916. Serial No. 135,501. (Cl. 235—82.)

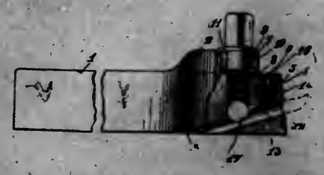
1. An adding machine comprising a set of registering wheels, a slidable member, a master wheel movable with said member to engage said registering wheels in succession, means for rotating the master wheel, means for advancing said member, means brought under tension when said member is advanced and tending to return said member, and a plurality of means, one for each registering wheel, for releasing said member and stopping it at different positions when returned toward starting position.

2. An adding machine comprising a set of registering wheels, a slidably mounted rack, a master wheel movable with said rack to engage said registering wheels in succession, means for rotating the master wheel, means for advancing said rack including a pinion meshing therewith, means brought under tension when the rack is advanced tending to return the rack to starting position, a plurality of plungers one for each registering wheel, a stop movable with said rack past said plungers, said plungers being movable to a position to be engaged by said stop, and means operated when any of said plungers are moved for disconnecting the rack and pinion.



3. An adding machine comprising a set of registering wheels, a master wheel mounted for advance movement to engage the registering wheels in succession, means for rotating the master wheel, means for advancing the master wheel step by step from one registering wheel to another, spring means for returning the master wheel past the registering wheels to starting position, means for stopping the master wheel in engagement with the various registering wheels when returned by said spring means, and means operated by the fourth mentioned means for disconnecting the second mentioned means from the master wheel to bring the spring means into operation.

1,252,705. TOOL-HOLDER. PLATON LAZARIDES, New York, N. Y. Filed Mar. 12, 1917. Serial No. 154,157. (Cl. 29—98.)

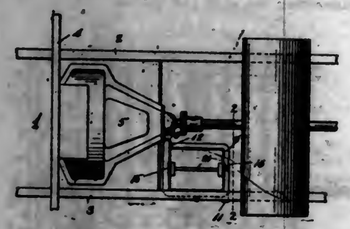


1. In a tool-holder, in combination, a shank provided with an enlarged head portion, said head portion having its interior wall formed on the arc of a circle and inclined with respect to said shank, a turret member revolubly mounted within said head portion and shaped to closely engage said wall, said turret member being provided with an inclined aperture adapted to receive the shank of a tool, a set screw adapted to engage said tool to hold the same against movement in said turret member, and a clamp screw extending through said head adapted to clamp said turret member against movement within said head portion.

4. In a tool-holder, in combination, a turret member provided with a plurality of intersecting apertures, one of said apertures being inclined with respect to the horizontal adapted to receive a cutting tool, and the others of said apertures being adapted to receive boring tools, independent means for fastening the cutting tool and the boring tools within said turret member, a shank having a head portion adapted to receive said turret member, and a clamp screw extending through said head portion and engaging said turret member, adapted to wedge the latter within said head portion, whereby it is held against rotative movement.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,252,706. STORAGE-BATTERY SUPPORT. JACOB LEDIO, Jamaica Plain, Mass., assignor to Gray & Davis Inc., Cambridge, Mass. Filed Aug. 11, 1915. Serial No. 44,993. (Cl. 104—209.)



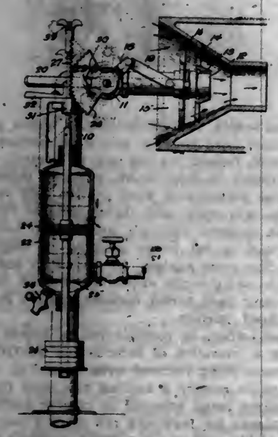
1. A battery support comprising in combination means adapted to hold the battery against transverse movement and means adapted to yield laterally to permit entry of the battery from below said first means and adapted to hold the battery against downward movement.

3. In a device of the nature described, in combination, a frame adapted to surround the side walls of a battery, means coöperatively arranged with said frame whereby the same may be attached to a side rail and to a part of the transmission housing of an automobile, means attached to said frame adapted to yield to permit the introduction of the battery from below said frame, and means adapted to secure said battery against downward movement.

11. A battery holding attachment for automobiles comprising means for attachment to the automobile in a position below the body thereof; means for inclosing and engaging a battery to support the latter and hold it against dispacement relatively thereto in any direction, said battery inclosing means including parts that are relatively adjustable to provide for the insertion and removal of the battery from below, and means for locking said parts against accidental displacement.

[Claims 2 and 4 to 10 not printed in the Gazette.]

1,252,707. BURNER-CONTROLLING MECHANISM. JERRY LEWIS, Little Rock, Ark. Filed Nov. 29, 1916. Serial No. 134,217. (Cl. 236—6.)



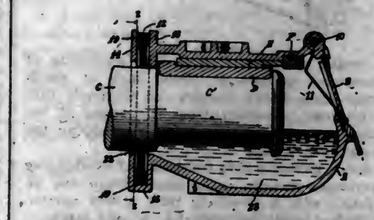
1. The combination with a fuel supply valve and a cut-off for combustion supporting agent, of operating connections between said elements for securing proportional movement thereof, and means for operating the valve including a toothed segment secured thereto, a rack for engagement with said segment, manually displaceable means for normally holding the rack in engagement with the segment, and steam pressure actuated means for operating the rack.

2. The combination with a fuel supply valve and a cut-off for combustion supporting agent, of operating connections between said elements for securing proportional movement thereof, and means for actuating the valve including a toothed segment secured thereto, a displaceable rack for engagement with said segment, a manually operated movable holder for maintaining the rack normal in engagement with the segment, and steam pressure actuated devices for operating the rack.

4. The combination with a fuel supply valve and a cut-off for combustion supporting agent, of operating connections between said elements for securing proportional movement thereof, and means for actuating the valve including a segment carried thereby, a rack for engagement with the segment, a piston exposed to boiler steam pressure and having a stem carrying said rack, and manually operated removable means for normally maintaining the rack in engagement with the segment.

[Claim 3 not printed in the Gazette.]

1,252,708. DUST-GUARD FOR JOURNAL-BOXES. HARRY C. MCCARTY, Williamsport, Pa. Filed Feb. 26, 1917. Serial No. 150,917. (Cl. 64—22.)



1. A dust guard for revoluble vehicle axles and the like composed of two or more plies of flexible wicklike material having a central orifice to receive the axle, of a slightly smaller diameter than the axle, a circular line of stitching securing the plies together adjacent the central orifice, and a rectangular frame of wedge shaped form in cross section, inserted in and secured to the fabric plies of the dust guard, between the same at the outer bounding edges, with the thin end of such wedge shaped sections facing inwardly.

3. A dust guard for revoluble axles and the like comprising a plurality of plies, of flexible wicklike material having an opening to receive the axle, and a rigid frame of wedge shaped form in cross section, inserted and secured to the fabric plies of the dust guard between the same at the outer bounding edges, with the thin end of such wedge shaped section facing inwardly.

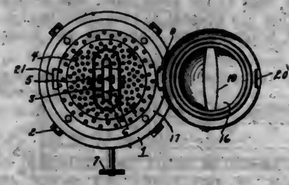
4. A dust guard for revoluble axles and the like, comprising a plurality of plies of wicklike material having an opening to receive the axle, and a rigid frame fitted between and secured to the outer bounding edges of the plies, of wicklike material.

7. A dust guard for revoluble axles and the like comprising two or more plies of flexible material having an opening to receive the axle and rigid members of wedge shaped form in cross section, inserted between and secured to plies of flexible material at the outer bounding edges thereof, the thin edge of such wedge shaped members facing inwardly.

[Claims 2, 5, and 6 not printed in the Gazette.]

1,252,709. LAMP-BURNER. JOHN W. MCCRONE, Muldoon, Tex. Filed Nov. 14, 1916. Serial No. 131,294. (Cl. 67—72.)

1. In a lamp burner, the combination of a wick tube provided at the center of one side with a vertically extending seam, and a casing mounted about the tube in spaced relation and concentric therewith provided, at the center of the lower edge of each side, with an integral inwardly turned tab having a recess adapted to snugly receive the seam of the wick tube, the upper edge of each



side of said casing being of arcuate shape and curving downwardly from the longitudinal center of the casing toward the end of the casing.

[Claims 2 and 3 not printed in the Gazette.]

1,252,710. PROCESS FOR PRINTING AND GOFFERING FABRICS. ERNEST EDOUARD MARINIER, Paris, France. Filed Sept. 1, 1914. Serial No. 859,678. (Cl. 101—32.)



1. An improved process for the simultaneous printing, and goffering of plush, felt, cloth, leather and all other analogous materials consisting in fixing the material to be treated on a support in such a manner that it cannot shift thereon, heating an engraved plate, coating the heated plate with a mordant or suitable sizing, pressing said coated and heated plate upon the material to be treated whereby the portions of said material which are to be colored, acquire a flat or plane surface favorable to the reception of color, then removing the engraved plate, inking same with color, and pressing it again upon the material to be treated, whereby said material is simultaneously goffered and printed with color.

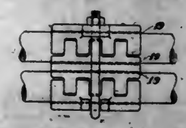
2. An improved process for the simultaneous printing and goffering of plush, felt, cloth, leather and all other analogous materials consisting in fixing the material to be treated on a support in such a manner that it cannot shift thereon, heating an engraved plate by inserting it in the slideway of a press, removing said plate when hot, coating the heated plate with a mordant or suitable sizing, replacing said plate in said slideway, pressing said coated and heated plate upon the material to be treated whereby the portions of said material which are to be colored, acquire a flat or plane surface favorable to the reception of color, then removing the engraved plate, inking same with color, inserting said plate in said slideway, and pressing it again upon the material to be treated, whereby said material is simultaneously goffered and printed with color.

3. An improved process for the simultaneous printing and goffering of velvet, plush, felt, cloth, leather and all other analogous materials, consisting in fixing the material to be treated on a support in such a manner that it cannot shift thereon, heating an engraved plate, coating the heated plate with a mordant or suitable sizing, pressing said coated and heated plate upon the material to be treated whereby the portions of said material which are to be colored, acquire a plane or flat surface favorable to the reception of color, then removing the engraved plate, inking same with color, and pressing it again upon the material to be treated, whereby said material is simultaneously goffered and printed with color, and for the purpose of printing said material with one or more additional colors, using one or more further engraved plates treated and operated in the same manner as the above mentioned engraved plate.

4. An improved process for the simultaneous printing, and goffering of velvet, plush, felt, cloth, leather and all other analogous materials, consisting in fixing the material to be treated on a support in such a manner that it cannot shift thereon, heating an engraved plate, coating the heated plate with a mordant or suitable sizing, pressing said coated and heated plate upon the material to be treated whereby the portions of said material which are to be colored, acquire a flat or plane surface favorable to the reception of color, then removing the engraved plate, inking same with color, and pressing it again upon the material to be treated, whereby said material is simultaneously goffered and printed with color, and for the purpose of superposing different colors one on the other, using one or more further plates bearing impression marks partly at corresponding points so as to cause the portion of the fabric corresponding to these points to receive superposed impressions from a plurality of plates, the said additional plates being inked with different colors and treated and operated in the same manner as the above mentioned engraved plate.

5. An improved process for the simultaneous printing and goffering of velvet, plush, felt, cloth, leather and all other analogous materials, consisting in fixing the material to be treated on a support, in such a manner that it cannot shift thereon, heating an engraved plate, coating the heated plate with a mordant or suitable sizing, pressing said coated and heated plate upon the material to be treated whereby the portions of said material which are to be colored, acquire a flat or plane surface favorable to the reception of color, then removing the engraved plate, inking same with color, and pressing it again upon the material to be treated, whereby said material is simultaneously goffered and printed with color, and in order that the plane surfaces destined to receive the color may be fluted, tessellated, dotted, etc., or present any combination of flutings, tessellations, dots, etc., favorable to the reception of the coloring material, making the different plates with different grooves, flutings, dots, etc.

1,252,711. ROD-SPLICING CLAMP. BERTON M. MATHIAS, Minneapolis, Minn. Filed May 24, 1916. Serial No. 99,684. (Cl. 24—125.)



2. In rod splicing clamps the combination of two saddles, lugs with intermediate depressions on each of said saddles, an intermediate grip having lugs and intermediate depressions on either side thereof adapted to engage with said saddles, yielding studs mounted in said saddles, engaging lugs on each of said saddles having one surface thereof perpendicular to the axis of said saddles, and the opposite surface thereof at an angle to said perpendicular surface, said surface at an angle in each of said saddles being adapted to be engaged with said yielding studs in the other of said saddles.

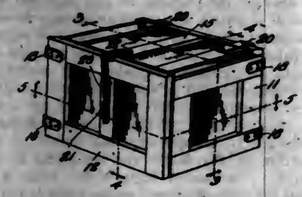
3. In rod splicing clamps the combination of a clamping member, wedge shaped lugs on said clamping member and yielding studs mounted in said clamping member, and means associated with said clamping member for clamping rods or ropes to be spliced there between.

[Claim 1 not printed in the Gazette.]

1,252,712. COLLAPSIBLE RECEPTACLE. EUGENE MESSINGER, Marshalltown, Iowa. Filed Dec. 16, 1916. Serial No. 137,413. (Cl. 217—14.)

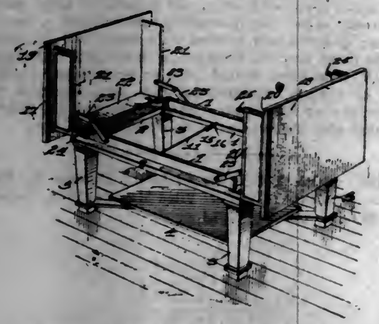
A collapsible receptacle comprising a forward wall, a rear wall, end walls, a cover hingedly connected with the rear wall and resting against the outer face of the rear wall when in an open position, a bottom hingedly connect-

ed with the rear wall and when swung downwardly within the receptacle engaging the walls to hold the receptacle in a set-up position, the bottom being swung up against the inner face of the rear wall when in a collapsed position, outer hinges connecting the forward and rear walls with the end walls, inner hinges connecting the forward and rear walls with the end walls and holding the walls



in spaced relation when the receptacle is collapsed, and a securing chain connected with said cover and engaging an eye carried by the forward wall when the receptacle is in a set-up position to hold the cover closed and engaging an eye carried by one of said end walls when the receptacle is in a collapsed position to retain the receptacle in a collapsed position.

1,252,713. COMBINED TABLE AND BED. MARTIN D. MISENER, Altenburg, Mo. Filed Feb. 4, 1915. Serial No. 6,148. (Cl. 5—17.)



1. A combined table and bed comprising a frame, a rod extending transversely of the frame hooks secured to the rod, top sections hingedly connected to the frame, and hooks carried by one of said top sections and adapted to engage the hooks on the transverse rod.

3. A combined table and bed comprising a frame having vertical openings formed in the top thereof and terminating in enlarged openings, a slidable rod extending transversely of the frame, hooks secured to said rod and operating in said enlarged openings of the frame, top sections hingedly connected to the frame, and hooks connected to one of said sections and adapted to enter the openings in the frame and engage the hooks on the rod.

6. A combined table and bed comprising a frame having openings formed in the top thereof and terminating into enlarged openings, a rod extending transversely of the frame, hooks formed on said rod and operating in the enlarged openings, top sections hingedly connected to the frame and one of said sections overlapping the other, and hooks connected to said overlapping section and adapted to enter the openings in the frame and engage the hooks on the transverse rod.

[Claims 2, 4, 5, and 7 not printed in the Gazette.]

1,252,714. WAGON. JOHN OHLROGGE, Chilton, Wis. Filed Aug. 3, 1915. Serial No. 43,470. (Cl. 21—74.)

A wagon frame, which comprises axle bars, spaced longitudinal sills connected to the under side of the axle bars, bars spaced longitudinally on and arranged transversely of the sills, said sills extending forwardly of and projecting beyond the front axle bar, certain of the transverse bars having clips at the outer ends, side sections having standards that are adapted to removably engage with the clips, angle bracket irons connecting the front ends of



the sills with the front axle bar, a front section having standards that are adapted to be removably engaged with the iron, each of said standards being braced to stand vertically by having a bearing against the axle bar and one side of the sill, and a draft tongue pivotally secured to the front axle bar.

1,252,715. PERMUTATION-PADLOCK. ANTHONY PAPINI, South Bethlehem, Pa., assignor of forty-one one-hundredths to Malcolm McTaggart, Bethlehem, Pa. Filed Aug. 16, 1915. Serial No. 45,805. (Cl. 70—19.)



1. In a permutation lock, the combination with a body having a longitudinal passageway and a series of tumbler chambers, of a sliding shackle mounted in said passageway and itself having a longitudinal passageway with a spring mounted therein, means for retaining the spring, tumblers arranged in said tumbler chambers, and a pin for holding the tumblers therein.

2. In a permutation lock, the combination with a body having openings therein, of a shackle slidably mounted in one of said openings, a longitudinal passageway in the shackle, a spring fixed in the open end thereof, a transverse pin bearing against one end of the spring to hold the spring in position, and tumblers, as and for the purpose described.

3. In a lock of the character described, a body portion having a longitudinal passageway, a series of tumbler chambers opening into the said passageway, a pin-receiving opening adjacent to the bottom and side of the body, a shackle slidably mounted in the longitudinal passageway, a longitudinal passageway in the shackle, a spring fixed in the open end of said passageway, a transverse pin to hold the spring, tumblers arranged in the tumbler chambers, and a pin in the pin-receiving opening for holding the tumblers in the chambers.

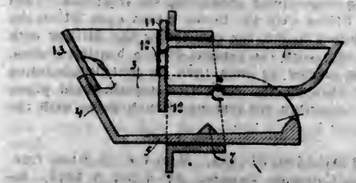
4. In a permutation lock, the combination with a body having a plurality of openings therein, a vertical arm formed integrally therewith, the free extremity of the arm being bent parallel with the body, and a projection formed on the end thereof, of a shackle slidable within one of said openings and having a longitudinal passageway therein in the free end of which is a spring, one end bearing against a transverse pin and the other against the closed end of the opening in the body portion which receives the shackle, tumblers, and means for holding the same in the tumbler chambers.

5. In a permutation lock, the combination with a body having a longitudinal passageway, a series of tumbler chambers opening into said passageway, a pin-receiving opening, and an integral arm having its extremity in parallelism with the body and having a projection on the end thereof, of a shackle slidably arranged in the longitudinal passageway of the body, a

passageway formed longitudinally in the shackle, a spring fixed in the open end thereof, a transverse pin to prevent the spring slipping into the passageway, a vertical arm formed integrally with the shackle, the end portion being bent parallel with the shackle, a recess in the end of the arm to receive the projection on the arm of the body, a plurality of tumblers, and a pin in the pin-receiving opening for holding the tumblers in the tumbler chambers.

[Claims 6 to 10 not printed in the Gazette.]

1,252,716. OIL-BURNER. DAVID E. PEPPER and HENRY STRELOW, Venice, Cal. Filed July 16, 1917. Serial No. 180,809. (Cl. 158—53.)



1. In an oil burner of the class described a heating pan having an inclined front plate, two side plates and a base plate; a deflecting baffle provided on the base plate crosswise to the heating pan; and a gas generating box disposed above the heating pan spaced from said base and the inclined front plate forming a passage for the air draft and having gas escaping openings toward the front in the path of the air passage.

[Claim 2 not printed in the Gazette.]

1,252,717. UNLOADING APPARATUS FOR BOTTOM-DUMP CARS. OLUF G. PETERSEN, Somerset, Ky. Filed July 12, 1916. Serial No. 108,934. (Cl. 214—1.)



1. In tipples and the like, a drop-bottom-dump-car-latch tripping device arranged beside a car track of said tipple, said device being movable to and from operative position and provided with means for yieldingly holding the same in operative position, and manually-controlled means for locking the same from operative position.

8. In tipples and the like, a car track leading to a lading receiving station, tripping devices arranged beside said track and movable to and from operative position and provided with means for yieldingly holding the same in operative position to actuate the drop bottom upholding latches of dump cars and cause said doors to dump the lading, a keeper, and manually operated means for moving said devices from operative position, said means adapted to detachably engage said keeper to lock said devices from operative position.

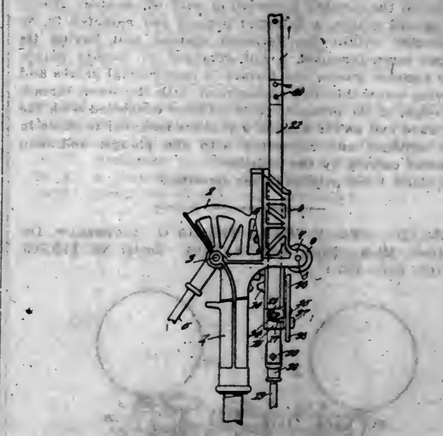
7. In combination, a track passing over a discharge station, a drop bottom dump car movable on said track provided with latch mechanism for upholding and releasing said bottom having vertically movable operating means, and trip means along the track for moving said operating means vertically to cause said car to dump, said trip means being yieldingly held to operative position toward the track and being yieldingly movable laterally in a direction away from the track to permit passage of projections from the car.

9. In combination, a dump car having a drop bottom comprising longitudinally approximately similar drop doors hinged at their outer edge portions and approximately meeting at their free inner edges when in normal closed position, each door having free edge rigid projections at its ends, latches to engage said projections and hold the doors in normal position and to release said doors and permit them to drop by gravity to discharge the lading, operating means for said latches, and a track for said car, said track extending over a discharge station.

17. In combination, a dump car having drop bottoms, a tipple or the like having a car track, and a hopper mouth opening upwardly between the rails of the track and having a slope inclined downwardly longitudinally of said track to engage the rear end corner portions of and permit gradual opening of the drop bottoms of said dump car while moving along said track over said hopper mouth either end foremost, substantially as described.

[Claims 2, 4 to 6, 8, 10 to 16, and 18 to 20 not printed in the Gazette.]

1,252,718. RATCHET FORCE-PUMP. GEORGE A. POWERS, Butler, Ind., assignor of one-half to The Butler Company, Butler, Ind. Filed Dec. 6, 1916. Serial No. 135,434. (Cl. 103—62.)



1. In a combined hand and wind mill pump, a supporting structure including a guide; a rack bar slidable in the guide and in the form of an I-member including a body and flanges; a pump plunger including spaced bars slidable between the flanges of the I-member and located on opposite sides of the body thereof; a detachable connection uniting one of the spaced bars of the plunger with the rack bar; and a segment mounted to swing on the supporting structure and meshing into the rack bar.

3. In a combined hand and wind mill pump, an operating member and a pump plunger having relative right-line movement with respect to each other, the operating member being provided with an arm having an angular finger; a pin slidably mounted in the finger and in the operating member and forming a detachable connection between the operating member and the plunger; a spring abutting against the finger; an abutment on the pin and engaging the spring; a lever fulcrumed intermediate its ends on the operating member; a pitman forming a connection between the lever and the pin; and a lug on the operating member wherewith one end of the lever engages when the lever is swung on its fulcrum to put the spring under compression and to effect a retracting of the pin.

[Claim 2 not printed in the Gazette.]

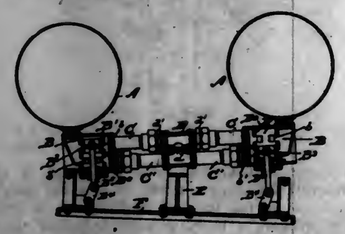
1,252,719. SHAVING-BRUSH. WALTER S. PROCTOR, Candler, N. C. Filed Aug. 7, 1917. Serial No. 184,792. (Cl. 15—50.)



2. A brush of the character described comprising, a handle formed in longitudinal halves which are secured together, said handle being provided with an annular groove disposed at a point approximaely equidistantly spaced from the ends thereof, said handle having a flattened longitudinal opening formed therethrough with the edges of the opening intersecting with the annular groove at spaced points, a flattened plunger rod mounted to reciprocate within the flattened opening and having its edges screw-threaded, a nut arranged to operate within the annular groove and formed in longitudinal halves and having screw-threaded engagement with the screw-threaded edges of the plunger rod, a cylinder connected with the forward end of the handle, a plunger mounted to move in the cylinder and connected with the plunger rod, and bristles carried by the cylinder.

[Claim 1 not printed in the Gazette.]

1,252,720. STEAM-TRAP. THOMAS G. RAKESTRAW, Detroit, Mich. Filed Aug. 18, 1916. Serial No. 115,705. (Cl. 137—103.)



1. In an apparatus of the character described, a pair of tilting tanks, oscillatable pipe fittings suitably journaled, superimposed pipes connecting the tanks with the fittings, and piston valves respectively controlling the delivery through each pair of superimposed pipes adapted to be operated by the oscillatory movement of the tanks, whereby the exhaust of one tank is released that feed water or condensation may enter the tank simultaneously with the admission of steam or boiler pressure to the other tank, that the water contained in the latter may pass to the boiler.

2. In an apparatus of the character described, a pair of tilting tanks, oscillatable pipe fittings suitably journaled, superimposed pipes leading from the fittings to the respective tanks, a pair of piston valves for each tank actuated through the tilting action of the tanks, said valves being respectively adapted to control admission and delivery through a pair of the superimposed pipes, whereby upon alternate tilting of the tanks the exhaust of one tank is released that water may enter said tank, simultaneously with the admission of steam to the other tank and the discharge of water therefrom.

3. In an apparatus of the character described, a base plate, a pair of tilting tanks, oscillatable pipe fittings suitably journaled and provided with a partition to form respectively an inlet and a return passage, a plurality of superimposed pipes respectively connected with the inlet and return passage of the pipe fittings, a pair of piston valves carried by each tank to control the admission and delivery through the superimposed pipes, means connecting the piston of each valve with the base plate, whereby upon the tilting of the tanks said valves will be actuated to admit and discharge water and steam pressure to and from the tanks upon the alternate tilting of the latter.

4. In an apparatus of the character described, a base plate, a pair of tilting tanks, oscillatable pipe fittings suitably journaled and provided with a partition to form respectively an inlet and a return passage, a pair of superimposed pipes respectively connecting the inlet and return of each pipe fitting with the tanks, means upon which the fitting is adapted to flex for connecting the fittings with a boiler and also with the returns from a heating system, piston valves carried by each tank to control admission and delivery through the respective superimposed pipes, and means connecting the pistons of each valve with the base plate.

1,252,721. TROLLING-SPOON. HARRY A. H. RICE, Duncan, British Columbia, Canada. Filed Oct. 3, 1917. Serial No. 194,572. (Cl. 43—30A.)



1. An artificial fish bait comprising a narrow elongated body of thin sheet metal having a head end and a tail end respectively bent in opposite directions at obtuse angles with the body, the body portion being bent along the middle line to form sides at an obtuse angle from one another throughout the greater part of their length, said sides being flat surfaces and polished to reflect light, and means for connecting one end of said body to the trolling line and for connecting the hook to the body.

2. An artificial fish bait, comprising a narrow elongated body of thin sheet metal rounded at each end, the head end being bent to an obtuse angle across the width of the body and the body portion being bent along the middle line to form sides at a similar angle from one another, the angled front and sides being flat and polished on both sides of the thickness to reflect light, and means for connecting the angled head end to a ring on the trolling line swivel to which ring the hook flight is also connected.

3. An artificial fish bait, comprising a narrow elongated body of thin sheet metal rounded at each end and tapered slightly from the head end toward the tail, the head end being bent to an obtuse angle across the width of the body and the body portion being bent along the middle line to form sides at a similar obtuse angle from one another throughout the greater part of their length, the angle of the sides being gradually flattened adjacent the tail end and that end turned to the opposite side of the head end angle, the angled front and sides being flat and polished on both sides of the thickness to reflect light, and means for connecting the angled head end to the ring on the trolling line swivel to which the hook flight is connected.

4. An artificial fish bait, comprising a narrow elongated body of thin sheet metal rounded at each end and having its sides parallel between the rounded ends, the head end being bent to an obtuse angle across the width of the body and the body portion being bent along the middle line to form sides at a similar obtuse angle from one another throughout the greater part of their length, the angle of the sides being gradually flattened adjacent the tail end and that end turned to the opposite side of the head end angle, the angled front and sides being flat and polished on both sides of the thickness to reflect light, and means for connecting the angled head end to the ring on the trolling line swivel to which the hook flight is connected.

5. In an artificial bait, a narrow elongated thin sheet metal body having a head end and a tail end, said body intermediate the head and tail ends being bent along the middle line to form sides at an obtuse angle from one another throughout the greater part of their length, said sides being flat surfaces and polished to reflect light, the tail end of said body being bent out of the general plane of the body proper.

1,252,722. PROCESS OF PRODUCING ROAD-SURFACING MATERIAL. GEORGE ROSS, Kansas City, Mo. Filed July 21, 1917. Serial No. 183,621. (Cl. 94—1.)

1. The method of producing a surfacing material for roads and the like, consisting in mixing earthy material with water to produce a thin mud, then adding bitumen and a solvent for the latter, the entire mass being agitated to effect uniform distribution of the bitumen in the mud.

2 The method of producing a surfacing material for roads and the like, consisting in mixing earthy material with water to produce a thin mud, then adding bitumen and a solvent for the latter, the entire mass being agitated to effect uniform distribution of the bitumen in the mud, and mixing the thin mass with crushed rock, gravel or sand.

3. The method of producing a surfacing material for roads and the like, consisting in mixing earthy material with water to produce a thin mud, then adding bitumen and a solvent for the latter, the entire mass being agitated to effect uniform distribution of the bitumen in the mud, mixing the thin mass with crushed rock, gravel or sand, and then compacting the mixture on a roadway.

4. The method of producing a surfacing material for roads and the like, consisting in mixing earthy material with water to produce a thin mud, then adding bitumen to the mud and mixing it therewith, then spreading the mixture on the road and finally depositing a solvent for bitumen, on the surfacing material after the same has become substantially dry.

1,252,723. UNLOADING ATTACHMENT FOR SWEEP-RAKES. ELIAS BERSON ROSE, Bozeman, Mont. Filed Feb. 16, 1917. Serial No. 149,040. (Cl. 56—137.)



1. The combination with a sweep rake having a head at the back end of the tines thereof, of a beam slidably mounted on the head, a push bar at the front end of the beam, ground engaging prongs at the rear end of the beam, a crank extending under the beam, yielding means for holding the crank normally elevated to support the prongs out of engagement with the ground, means under the control of the driver for shifting the crank to lower the prongs in engagement with the ground, and means operated by the relative movement of the push bar and the rake during the unloading of the rake, for shifting the crank to disengage the prongs from the ground.

[Claim 2 not printed in the Gazette.]

1,252,724. DIRECTION-INDICATOR. CLAUDE O. SANDSTROM and CARL E. SANDSTROM, Indianapolis, Ind. Filed Feb. 14, 1917. Serial No. 148,570. (Cl. 116—31.)

1. Direction indicating mechanism for moving vehicles, said mechanism embodying a pivotally mounted indicator arm, clock spring actuated devices for imparting intermittent counter-clockwise movements to the said arm, stops included in the said devices for holding the arm at its different points of rotation and means for releasing the stops operable from the motor vehicle.

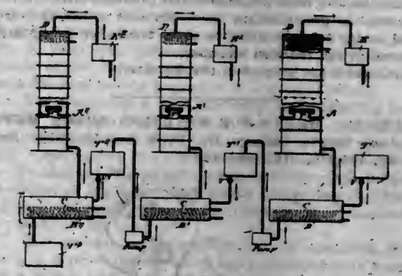
4. Direction indicating means, embodying therein, a housing, a shaft journaled in the housing, a visual indicating arm mounted on the said shaft, a clock spring actuated gearing located in the housing, the said gearing including a main gear operating under the spring tension and a rotatable gear secured to the visual arm carrying shaft, said gear and the main gear being of one to four diameters, arbitrarily arranged stop lugs on the main gear that control the length of the intermittent movements of



the main gear, whereby each movement of the main gear imparts a quarter turn to the visual arm, a control device including a shiftable stop for progressively releasing and engaging the stop lugs on the main gear, and means for imparting shiftable movements to the said shiftable stop in one direction and means tending to automatically move the shiftable stop in the other direction.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,252,725. ART OF SEPARATING LIQUIDS HAVING DIFFERENT BOILING-POINTS. GEORGE R. SANFORD, THOMAS H. MILLER, and BATES TORREY, Jr., Syracuse, N. Y., assignors to Semet-Solvay Company, Solvay, N. Y., a Corporation of New York. Filed Mar. 29, 1916. Serial No. 87,428. (Cl. 196—25.)



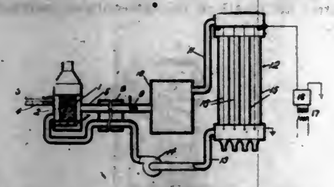
3. The improvement in the art of separating mixed liquids having different boiling points which consist in distilling off the mixed liquids from a charge thereof and condensing the vapors in a dephlegmating column, leaving in the upper part of the column only condensate of that one of the liquids having the lowest boiling point while causing the other condensates to pass downward to the lower portion of the column, stopping the distillation when all the liquid having the lowest boiling point has been driven off from the charge and disconnecting the remainder of the charge from the column and connecting with the column a fresh charge having the same component of lowest boiling point to repeat the operation.

[Claims 1, 2, 4, and 5 not printed in the Gazette.]

1,252,726. PROCESS AND APPARATUS FOR ACCELERATING CHEMICAL REACTIONS. WALTER A. SCHMIDT, Los Angeles, Cal., asignor to International Precipitation Company, Los Angeles, Cal., a Corporation of California. Filed June 22, 1916. Serial No. 105,211. (Cl. 23—21.)

2. The process of accelerating the velocity of a chemical reaction taking place in a gaseous medium and result-

ing in a gaseous end product, which consists in bringing said end product in contact with a substance capable of reacting therewith to form a cloud of suspended particles containing said end product, then precipitating said cloud and returning the gaseous medium for repetition of the reaction.



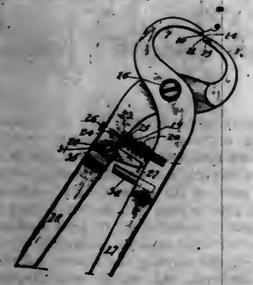
3. The process which consists in causing two gases to partly react to form a gaseous end product, bringing said end product in contact with a substance capable of forming therewith a cloud of suspended particles, precipitating said cloud of particles by electrical action and returning the portion of the gases unacted on for a repetition of the process.

4. The process which consists in causing nitrogen and hydrogen to react to form gaseous ammonia, bringing such ammonia in contact with a suitable agent to form a cloud of suspended particles, precipitating such cloud by electrical action and then returning the portion of the nitrogen and hydrogen unacted upon for repetition of the process.

5. An apparatus for maintaining chemical reaction of gases forming a gaseous end product, consisting of a reaction chamber provided with means for inducing such reaction, a chamber connected to receive the end product and the unaffected gases from such reaction chamber and provided with means for supplying an agent for acting on such gaseous end product to form a cloud of suspended particles, precipitating means adapted to receive the gases from the last named chamber and provided with electrical means for precipitating the suspended cloud therefrom, and means for returning the gases from such precipitating means to the reaction chamber.

[Claim 1 not printed in the Gazette.]

1,252,727. MEANS FOR SEVERING SHEET METAL. JOHN SEDLIN, Chicago, Ill. Filed June 19, 1916. Serial No. 104,876. (Cl. 81—198.)



1. A portable severing mechanism comprising a pair of cutting members, both of which are provided with opposing straight cutting edges, one of said straight cutting edges being provided with a severing point projecting outwardly therefrom and adapted to coöperate with the edge of the opposing member to cut materials on a curved line, a portion of said cutting member adjacent to said point arranged to coöperate with the opposing cutting member to cut material on a straight line, and means for operating said members.

2. A portable severing mechanism comprising a pair of cutting members, both of which are provided with opposing straight cutting edges inclined relatively to each other, one of said straight cutting edges being provided with a severing point, projecting outwardly therefrom, and adapted to coöperate with the edges of the opposing member to cut material on a curved line, the portion of said cutting member adjacent to said point arranged to coöperate with the opposing cutting member to cut material on a straight line, and means for operating said members.

[Claims 3 to 9 not printed in the Gazette.]

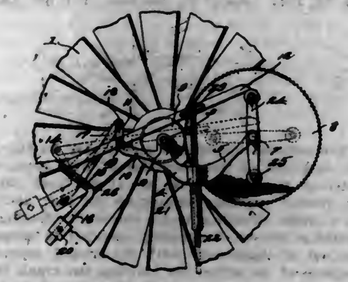
1,252,728. HOG-OILER. BRUCE E. SIPE, Hiawatha, Kans. Filed July 5, 1917. Serial No. 179,058. (Cl. 119—157.)



1. A hog-oiler, comprising a T-shaped receptacle, having a pair of shoulders facing the head portion and formed on the sides of the stem portion and with an upstanding ear on the opposite side of the head portion from the stem portion, a cover secured on the stem portion adjacent the head portion and fitting at one end against said shoulders and provided at the opposite end with an upstanding ear; said ears having alined lugs, a sleeve fitting on said lugs and clamped in place between said ears, and a wheel journaled on said sleeve and depending into the head portion of the receptacle.

[Claim 2 not printed in the Gazette.]

1,252,729. MECHANICAL MOVEMENT. FRED SPANGLER, Midway, Wis. Filed Feb. 15, 1916. Serial No. 78,468. (Cl. 74—14.)



1. A device of the character described comprising a prime mover, an operating rod, an arm for operating said rod, means for raising said arm, said means being operable by the prime mover, and counterbalance means carried by said arm, said counterbalance means being adapted to swing relatively to the arm as the arm is moved.

5. A device of the character described comprising a power wheel, a rod, a rocking arm for operating said rod, means operable by the power wheel for rocking said arm, and a swinging weighted means movable to and from the axis of movement of said arm by the movement of the arm to limit the descent of the arm.

7. A device of the character described comprising a shaft, a power wheel mounted on said shaft, a bracket, said shaft being journaled in said bracket, a gear carried by said shaft, a second shaft journaled in said bracket, a gear carried by said second shaft, said gear being of a greater diameter than the first mentioned gear and being adapted to mesh with said first gear, an arm pivoted to said bracket movable downwardly by gravity, a rod pivotally and slidably connected to said arm, means on said second shaft to raise the arm twice at each revolution, and a counter-balance movable by the descent of the arm to lessen its speed and force and limit its range of movement.

[Claims 2 to 4, 6, and 8 not printed in the Gazette.]

1,252,730. GREASE-CUP. CHARLES F. SPERY, Chicago, Ill. Filed Apr. 2, 1917. Serial No. 159,185. (Cl. 184—48.)

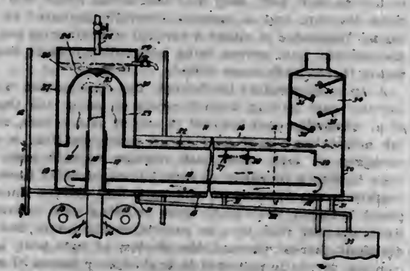


1. As an improved article of manufacture, a grease cup, comprising a male part, and a female part, said parts being in screw threaded engagement with each other, there being in the screw threaded portion of the male part an outwardly extending movable tongue, said tongue being resilient, said tongue being a part of said screw threaded portion but severed therefrom and attached thereto at one end, whereby said tongue presses against the inner wall of the cap when the latter is in applied position to prevent automatic rotation of said cap by frictional contact therewith.

3. As an improved article of manufacture, a grease cup, comprising a male and a female part, both parts being in screw-threaded engagement with each other, there being in the screw threaded portion of the male part an outwardly projecting, movable tongue, a perforated diaphragm in said male part at the upper extremity thereof, said diaphragm having a rim, there being in said rim a small aperture opposite the outwardly extended tongue, a spring in said diaphragm, said spring having one of its ends bent and passing through said aperture to press against said tongue.

[Claims 2 and 4 to 7 not printed in the Gazette.]

1,252,731. FUME-CONDENSER. THOMAS B. STEWART, Portola, Cal. Filed Jan. 6, 1917. Serial No. 140,987. (Cl. 261—114.)

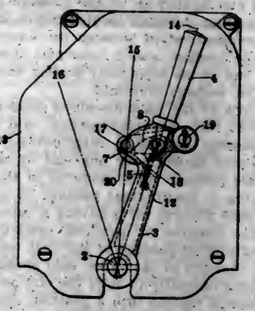


1. A fume condenser comprising a horizontal tank having an outlet at the bottom thereof, spaced horizontal partitions in said tank, means regulating the inflow of water to the tank for maintaining a level thereof above the partitions, means for causing said water to flow through the tank and around the lower partition in oppositely directed currents, and means for forcing heated gaseous substances into and through the water between the partitions.

4. A fume condenser comprising a horizontal tank, upper and lower partitions in said tank horizontally disposed and spaced apart and extending from end to end of the tank, a cap extending upwardly from the upper partition at on end of the tank, means for introducing the gaseous products from a smelter into said cap near the top thereof, a chimney rising from the tank at the opposite ends and opening into said tank above the ends of the upper and lower partitions, baffle plates in said chimney, water sprays at the end of each baffle plate, and means for filling said tank with water and causing the same to travel from end to end of the tank in oppositely directed currents.

[Claims 2 and 3 not printed in the Gazette.]

1,252,732. CONTROLLER-REGULATOR. EMANUEL W. SUNDBERG, St. Louis, Mo., assignor to Wagner Electric Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed June 21, 1916. Serial No. 104,865. (Cl. 74—88.)



1. The combination of a controller and operating lever therefor, a pivotally mounted element provided with a stop coöperating with the lever, a guide adapted upon forward movement of the lever to bring the stop into a position to limit said movement, and means prevepting the release of the lever for further forward movement until same has been moved backward to a certain extent.

4. The combination of a controller and operating lever therefor provided with a stop, a controlling element carried on a stationary pivot and provided with a stop slidingly supported on the lever, means carried by said lever for bringing said stops into engagement upon the forward movement of the lever, and means preventing the disengagement of said stops except upon a short backward movement of the lever.

7. The combination of a controller, an operating lever therefor, a pivoted controlling lever provided with a stop, and a flange and a pivoted cam on the operating lever, both adapted to coöperate with the stop on the controlling lever.

[Claims 2, 3, 5, 6, 8, and 9 not printed in the Gazette.]

1,252,733. GAGE-COCK. CHARLES H. SWART, Watervliet, N. Y. Filed Mar. 14, 1917. Serial No. 154,776. (Cl. 137—138.)



2. A gage cock of the class described comprising a body having a longitudinal clean-out passage therethrough, a valve member mounted in said body in spaced relation to the passage and having an escape passage therein nor-

mally disposed exteriorly of the body but adapted to be brought into the body into registry with the longitudinal passage upon longitudinal movement of the valve member.

3. A gage cock of the class described comprising a body having a longitudinal clean-out passage therethrough, a valve member mounted in said body in spaced relation to said passage and having an escape passage therein adapted to be brought into registry with the longitudinal passage aforesaid, said valve member snugly fitting in the body and normally positioned so as to prevent escape of fluid through the body and movable revolubly and longitudinally to establish communication between the longitudinal passage and the escape passage.

4. A gage cock of the class described comprising a body, the main portion of which is provided with a longitudinal clean-out passage, said body comprising a hollow portion offset from the main portion and arranged substantially parallel with the main portion and having communication with said main portion, a valve member mounted in said offset portion and having an escape passage therein, said valve member being shiftable longitudinally and rotatable to establish communication between the longitudinal passage and escape passage, and a removable closure member for the outer end of the main body portion enabling access to the clean-out passage aforesaid.

5. A gage cock of the class described comprising a body having an offset valve receiving portion, said body having a straight passage extending longitudinally thereof, a removable closure member for one end of said passage, and a rotatable plunger valve mounted in the offset portion and having a longitudinal passage at one end portion thereof, said plunger valve having a transverse intersecting passage adapted to establish communication between the longitudinal passage of the body and the escape passage upon rotation of the valve, said plunger valve being movable longitudinally to shift the end portion having the escape passage therein into a position exterior of the offset portion of the valve body.

[Claim 1 not printed in the Gazette.]

1,252,734. CORN-HUSKER. FRANK E. SWISHER, Hoopeston, Ill. Filed Nov. 20, 1915. Serial No. 62,496. (Cl. 130—4.)



1. A corn husker comprising a hook member; means for securing said hook member to the arm of a user thereof with said hook projecting toward the palm of the hand; and a spring arranged to permit yielding of said hook member away from the palm of the hand, substantially as described.

3. A corn husker comprising a flexible member terminating in a hook, a plurality of means for securing said member to the outer side of the arm and forearm of the user and with said hook positioned opposite to and projecting toward the palm of the hand, whereby bending of the elbow causes retraction of said hook, substantially as described.

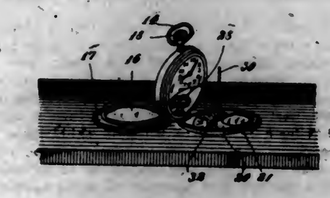
4. A corn husker comprising a flexible member terminating in a hook, a plurality of means for securing said member to the outer side of the arm and forearm of the user with said hook positioned opposite to and projecting toward the palm of the hand, whereby bending of the elbow causes retraction of said hook, and a spring arranged to permit yielding of said hook away from the palm of the hand, substantially as described.

5. A corn husker comprising a threaded stem; two securing members threaded on said stem; straps on said securing member arranged to embrace the upper arm of a user, said stem being positioned on said upper arm with its lower end projecting well below the elbow; a hook member pivotally connected with the lower projecting end of said stem; a slide arranged at or near the wrist of the user, said hook member sliding through said slide; a hook pivotally connected with the lower end of said hook member at said slide, the point of said hook projecting toward the palm of the hand of the user; and a spring permitting yielding of said hook away from the palm of the user, substantially as described.

7. A corn husker comprising a stem provided with means for securing the same to the upper arm of a person with the lower end of said stem projecting well beyond the elbow of the person; and a hook member pivoted to said projecting end of said stem and arranged to coöperate with the hand of the person, the hook on said hook member being positioned opposite to and projecting toward the palm of the hand, substantially as described.

[Claims 2 and 6 not printed in the Gazette.]

1,252,735. HOROLOGICAL DEVICE. WALENTY SZABAT, Depue, Ill. Filed Feb. 16, 1917. Serial No. 148,934. (Cl. 33—62.)

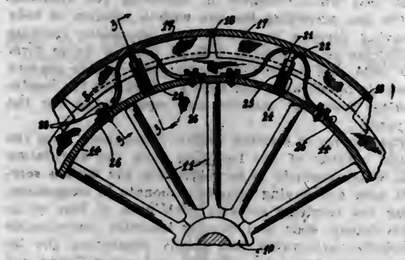


1. In a horological implement, the combination with a short cylindrical casing provided with hinged covers upon each side, of a segmental plate secured in one of said covers, a slide operable in said plate, a post hingedly attached to said slide, means for holding said post when in an erect position, a dial secured to said casing with reference to said post, said dial indicating hours and fractions thereon, and a compass pivotally mounted in said casing disposable in either a vertical or horizontal position therewithin, said covers being adapted to protect the elements therewithin when closed.

2. In a horological implement, the combination with a circular case having hinged covers on each side thereof, of a collapsible post secured in one of said covers, means for maintaining said post in an erect position, a scale arranged on said cover with relation to said post, said scale having a plurality of radial lines, circular lines concentric to the exterior of said scale and oblique lines disposed between the radial lines crossing said concentric lines whereby time may be ascertained in hours and subdivisions thereof through the shadow of said post, and a compass pivotally mounted in said case by means of which the case may be properly positioned.

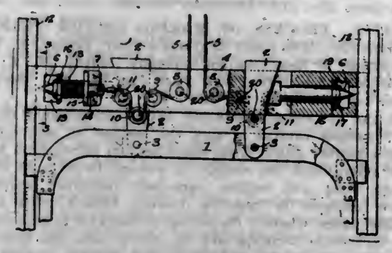
1,252,736. RESILIENT WHEEL. BERTALAN SZAKACS, Hardieville, Alberta, Canada. Filed June 9, 1917. Serial No. 173,677. (Cl. 152—8.)

1. In a resilient wheel, the combination with a rigid hub, having a plurality of spokes extending therefrom, and a rigid rim engaged by said spokes, of a plurality of segmental tread sections, hinges formed at the adjacent ends of said sections, flanges formed on said sections adapted to be received within said rigid rim, an arcuate spring for each of said segmental tread sections, loops formed integrally with said rigid rim adapted to embrace the ends of said arcuate springs whereby the latter are held in relative position, and a plurality of bolts passing through the ends of said springs.



2. In a resilient wheel, the combination with a rigid fixed rim, and a plurality of segmental tread sections hingedly engaged together, of an arcuate spring disposed between each of said tread sections and said fixed rim, said springs having extending ends contacting with the periphery of said rim, loops integrally formed with said rim through which said ends extend and whereby they are prevented from lateral motion, and means for reinforcing said arcuate springs.

1,252,737. SAFETY DEVICE FOR ELEVATORS. EMIL E. TANNER, Milwaukee, Wis. Filed Aug. 8, 1917. Serial No. 184,991. (Cl. 187—85.)

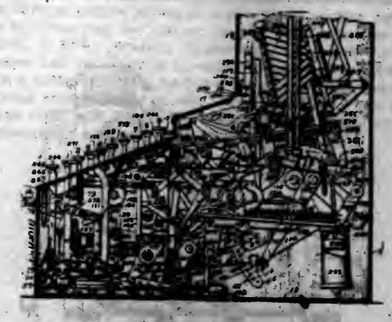


1. In a device of the described class, the combination of an elevator, a pair of vertical columns respectively located on two opposing sides of said elevator, a horizontal member extending from one of said vertical columns to the other and having slidable bearing thereon, a barb carried by and located in each end of said horizontal member, springs for forcing said barbs outwardly in case of the breaking of one or more of the hoisting cables of said elevator, said barbs being adapted to penetrate said vertical standards, a plurality of hoisting cables, means connected with the lower ends of said cables for holding said barbs out of contact with said vertical columns, wedges for forcing said barbs outwardly and in engagement with said vertical columns in case any one of said hoisting cables is broken, and means for connecting said wedges with said elevator and said hoisting cables.

[Claims 2 to 4 not printed in the Gazette.]

1,252,738. CALCULATING-MACHINE. MARTIN TEETOR, Des Moines, Iowa, assignor to Teetor Company, Des Moines, Iowa, a Corporation of Iowa. Filed Apr. 20, 1908. Serial No. 427,999. (Cl. 235—60.)

1. In a calculating machine, a series of calculating wheels, an adding lever, a subtracting lever, means in operative relation with each of the calculating wheels, and the adding and subtracting levers for operating the calculating wheels in opposite directions.



9. In a calculating machine, a key-controlled, automatic calculating mechanism for adding or subtracting, an adding lever, a subtracting lever, operative connections between said calculating mechanism and said levers for throwing said mechanism into or out of operation, and means for automatically returning said levers and said connections to normal position after the completion of the addition or subtraction.

21. In a calculating machine, a calculating mechanism, a series of calculating sections in the calculating mechanism, each of which is detachably mounted in the machine, and the parts of which are detachably connected with each other, a calculating wheel in each calculating section, designed to be rotated in opposite directions for adding and subtracting, a calculating rack for each of the calculating wheels, and pin regulated means for driving the rack vertically for rotating the calculating wheels in either direction.

34. In a calculating machine, a calculating mechanism, a series of calculating sections in the calculating mechanism, a calculating wheel in each calculating section, a series of racks designed to be automatically thrown into and out of operation with the calculating wheels, a master-plate, springs operatively connected with the master-plate and with the racks, an adding and a subtracting lever for moving the master plate to its forward limit of movement for placing the springs under tension for operating the racks, a series of pin bearing frames operatively connected with the racks, a series of pins in each of the pin bearing frames, a series of keys having means connected therewith for setting the pins in the pin bearing frames, and means for retaining the keys at their lower limits of movement until automatically released and returned to their normal limits of movement.

45. In a calculating machine, a calculating mechanism for adding and subtracting, an adding and a subtracting lever, each of which is designed to operate the calculating mechanism.

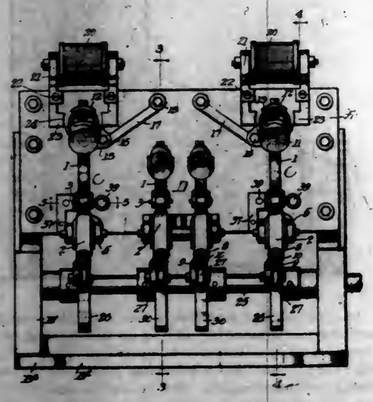
[Claims 2 to 8, 10 to 20, 22 to 33, 35 to 44, and 46 to 61 not printed in the Gazette.]

1,252,739. REVERSING-SWITCH FOR ELEVATOR-MOTORS. JOHN E. THOMPSON and CLARENCE W. JAMESON, Chicago, Ill., assignors to Thompson & Jameson, Chicago, Ill., a Corporation of Illinois. Filed Nov. 1, 1915. Serial No. 59,144. (Cl. 200—22.)

1. The combination of a supporting panel having fixed contacts on each side thereof, a plurality of pivoted switches arranged in pairs on opposite sides of said panel movable toward and from said contacts, and a rotary cam mechanism positioned between the switches of the pairs for closing them against their respective contacts.

3. The combination of a supporting panel, pivotally mounted switches disposed on each side of said panel, a

cam shaft disposed between the switches, and cams on said shaft rotatable into engagement with the switches to close the switches on either but not both sides of said panel, depending upon the direction of rotation of said cams.

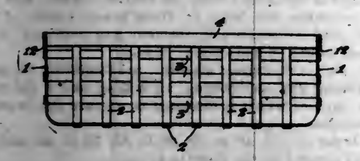


7. In a switch of the class described, the combination of a pair of oppositely disposed pivoted switch arms, a contact with which said switch arms coöperate and by which the pivotal movement thereof is limited, and means operable by the closure of one of said switches for opening the other of said switches.

15. The combination of an upright supporting panel of insulating material, a pair of switches on each side of said panel pivotally mounted upon and movable toward and from the panel, a fixed contact for each switch mounted on the panel, cam mechanism for simultaneously operating the switches on either side of the panel, a pair of supplemental switches on one side of the panel, and means for operating said supplemental pair of switches whenever the switches on either side of the panel are operated.

[Claims 2, 4 to 6, and 8 to 14 not printed in the Gazette.]

1,252,740. METAL FISH-BASKET. CARL HUGO THORNBLADE, Seattle, Wash., assignor to Pacific Electric Welder & Manufacturing Co., Seattle, Wash., a Corporation of Washington. Filed Jan. 10, 1916. Serial No. 71,345. (Cl. 220—111.)



1. A basket composed of bars forming a metallic grill, the vertical bars of the sides being bent to form laterally off-set sections at their ends, and a binding bar extending about the brim with its lower edge bearing upon the shoulders formed by said offsets, the crossing points of the bars being secured by welding.

2. A basket composed of bars forming a metallic grill, the vertical bars at the sides being bent to form laterally offset sections at their ends, a binding bar extending about the brim with its lower edge bearing upon the shoulders formed by said offsets, and the horizontal bars at the sides being outside of the vertical bars throughout the entire periphery, the crossing points of the bars being secured by welding.

1,252,741. PROCESS OF MAKING SODIUM FERROCYANID. ALEXANDER R. TILLINGHAST, Solvay, N. Y., assignor to Semet-Solvay Company, Solvay, N. Y., a Corporation of New York. Filed Dec. 20, 1916. Serial No. 137,970. (Cl. 23—18.)

1. The process of forming sodium ferrocyanid from the cyanogen content of gas resulting from the distillation of coal which consists in removing the ammonia from the gas, scrubbing the gas with a solution of soda ash having ferrous carbonate in suspension, treating the resulting solution with milk of lime so as to form caustic soda and convert insoluble ferrocyanids present into soluble ferrocyanid and finally separating the insoluble matter from the solution and crystallizing out the ferrocyanid.

2. The process of forming sodium ferrocyanid from the cyanogen content of gas resulting from the distillation of coal which consists in scrubbing the gas with a solution of soda ash having ferrous carbonate in suspension, treating the resulting solution with milk of lime so as to form caustic soda and convert insoluble ferrocyanids into soluble ferrocyanid and finally separating the insoluble matter from the solution and crystallizing out the ferrocyanid.

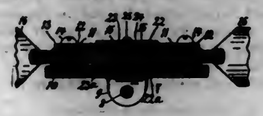
3. The improvement in the process of forming sodium ferrocyanid which consists in treating a solution containing soda ash in solution and insoluble ferrocyanid with milk of lime so as to convert the soda ash into caustic soda and thereby break up the insoluble ferrocyanid and form soluble ferrocyanid.

4. The improvement in the process of forming sodium ferrocyanid which consists in treating a solution containing sodium ferrocyanid and soda ash with milk of lime to convert the soda ash into more soluble caustic soda, separating the insoluble matter from the solution and finally crystallizing out the sodium ferrocyanid leaving caustic soda in solution.

1,252,742. PROCESS OF MAKING SODIUM FERROCYANID. ALEXANDER R. TILLINGHAST, Solvay, N. Y., assignor to Semet-Solvay Company, Solvay, N. Y., a Corporation of New York. Filed Jan. 10, 1917. Serial No. 141,540. (Cl. 23—18.)

In the process of producing sodium ferrocyanid from the cyanogen content of gas, the method of recovering from a mother liquor from which sodium ferrocyanid has been crystallized the residue of sodium ferrocyanid and caustic soda and sodium carbonate contained therein which consists in treating ferrous sulfate with the mother liquor whereby the sodium ferrocyanid is converted into ferrous ferrocyanid and the caustic soda and sodium carbonate form ferrous hydrate and ferrous carbonate, forming a suspension of the ferrous ferrocyanid, ferrous hydrate and ferrous carbonate in a solution of soda ash and scrubbing cyanogen containing gas therewith in a repetition of the process, and finally treating the resulting solution with milk of lime to convert the insoluble ferrous ferrocyanid into sodium ferrocyanid.

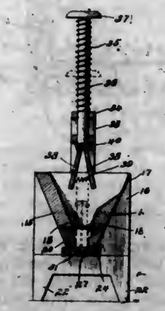
1,252,743. BOW-FACING OAR. ANTHONY T. TIPPEL, St. Paul, Minn. Filed Dec. 22, 1916. Serial No. 138,318. (Cl. 9—25.)



1. In a bow-facing oar, the combination with a tilting frame of two meshing gears or segments mounted in the frame, and an oar composed of a handle section and a blade section fixed one to each gear, and overlapped segmental plates fixed on the gears and covering the upper sides of the toothed portions of said gears.

2. In a bow-facing oar, the combination with a tilting frame, of two meshing gears or segments mounted in the frame, and an oar composed of a handle section and a blade section fixed one to each gear, and overlapped segmental plates fixed on said gears and covering the upper sides of the toothed portions thereof, and similar plates fixed on the gears and covering the lower sides of the gears.

1,252,744. BEAN-CUTTER. KAMENOSHIN TSURUOKA, Honolulu, Hawaii. Filed Jan. 21, 1916. Serial No. 73,484. (Cl. 146—7.)



1. In a device for cutting beans and the like, a hopper having downwardly converging side walls and a cutting member located in the path of material passing through the hopper, in combination with a plunger comprising a stem, and leaves hingedly connected with said stem and with each other.

2. In a vegetable cutter of the class described, a hopper having downwardly convergent side members spaced apart at their lower ends, a cutting member supported in the path of material forced through the hopper, a spring actuated obstructing member mounted above the lower extremity of the hopper and capable of swinging downwardly, and an upwardly spring-actuated plunger comprising a stem and leaves hingedly connected therewith and with each other.

3. In a vegetable cutter of the class described, a hopper having downwardly convergent side members spaced apart at their lower ends, a cutting member supported in the path of material forced through the hopper, a spring actuated obstructing member mounted above the lower extremity of the hopper and capable of swinging downwardly, and an upwardly spring-actuated plunger comprising a stem and leaves hingedly connected therewith and with each other, and a spring interposed between said leaves whereby the free edges of the leaves are forced outward with respect to each other.

1,252,745. HEMSTITCH SEWING-MACHINE. HUGO UNGER, Berlin, Germany, assignor to the Firm of Lints & Eckhardt, Berlin, Germany. Filed Jan. 5, 1916. Serial No. 70,435. (Cl. 112—4.)

1. In a sewing machine, the combination of needle bars, means for reciprocating the same, needles carried by the bars, a piercer arranged between the needles, means for reciprocating the piercer, feeding mechanism for the fabric including a presser, and means for changing the stroke of the piercer and holding it in the fabric during the upper position of the presser.

3. In a sewing machine, the combination of needle bars, means for reciprocating the same, needles carried by the bars, a piercer arranged between the needles, means for reciprocating the piercer, feeding mechanism for the fabric, a lever pivotally connected at one end with the piercer, a bell crank lever slidingly connected to the other end of the aforesaid lever, and a cam on the machine shaft for actuating the bell-crank lever.

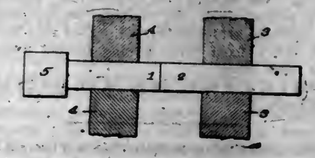
5. In a sewing machine, the combination of needle bars, means for reciprocating the same, needles carried by the bars, a piercer arranged between the needles, means for reciprocating the piercer, feeding mechanism for the fabric, a lever pivotally connected at one end to the piercer and provided in its other end with an L-shaped slot, a bell-crank lever having a pin engaging said slot, a driving shaft, means on the latter for rocking the bell-crank lever, and means for changing the position of the slotted lever relatively to said pin.



7. In a sewing machine, the combination of needle bars, means for reciprocating the same, needles carried by the bars, a piercer arranged between the needles, means for reciprocating the piercer, feeding mechanism for the fabric including a vertically reciprocating bar, a movable rod for locking the said bar in raised position, a bell crank lever arranged on the under side of the machine, and means connecting the movable rod with the bell crank lever.

[Claims 2, 4, and 6 not printed in the Gazette.]

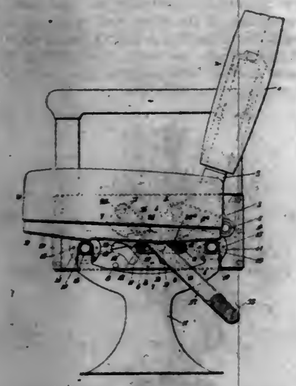
1,252,746. WELDING AND ANNEALING HIGH-SPEED STEEL. EDMUND J. VON HENKE, Lynn, Mass., assignor to Thomson Electric Welding Company, Lynn, Mass., a Corporation of Massachusetts. Filed May 14, 1917. Serial No. 168,332. (Cl. 219—1.)



1. The herein described improvement in electrically welding and annealing steel, consisting in welding the material in a welding machine in the ordinary way, opening the clamps through which the welding current is applied and immediately thereafter passing heating current into the material at a point to the rear of the portion engaged by the clamp to keep up the temperature of the weld while at the same time bringing the previously clamped portion to the desired temperature without loss of heat.

2. The herein described improvement in welding and annealing high-speed steel when the same is welded to machinery steel, consisting in electrically welding the two pieces of material together, opening the clamps on the high-speed steel as soon as the weld is effected and immediately thereafter passing heating electric current through the high-speed steel back of the clamped section and to and through the weld and piece of machinery steel to bring the high-speed end of the tool to the desired annealing temperature.

1,252,747. SHIFTABLE CAR-SEAT. SHERIDAN A. WALKER, Elmhurst, N. Y., assignor, by mesne assignments, to The Walker Company, Wilmington, Del., a Corporation of Delaware. Filed Sept. 2, 1914, Serial No. 859,734. Renewed June 2, 1917. Serial No. 172,525. (Cl. 155—2.)



6. A shiftable car seat having at each end thereof a pair of supporting levers, each of which has two alternately operating fixed pivots, and guiding means limiting the movement of the levers, comprising rods attached to the corresponding levers at the two ends of the car seat and slotted plates coöperating therewith, the slotted plates having pivot pins for the levers.

7. A shiftable car seat having at one end thereof a pair of supporting levers, each of which has two alternately operating fixed pivots, and a back shifted thereby.

13. A shiftable car seat having at one end thereof a pair of supporting levers, each of which has two alternately operating fixed pivots and a foot rest and cushion shifted thereby.

20. A shiftable car seat having at an end thereof a supporting lever having two alternately operating fixed pivots, a central guide rod limiting the movement of the lever, and a foot rest lever shifted thereby.

23. A shiftable car seat having at an end thereof a supporting lever having two alternatively operating fixed pivots, a central guide rod limiting the movement of the lever, a carriage attached thereto, a foot rest lever shifted thereby, and a fixed pivot having slotted connection to the foot rest lever.

[Claims 1 to 5, 8 to 12, 14 to 19, 21, and 22 not printed in the Gazette.]

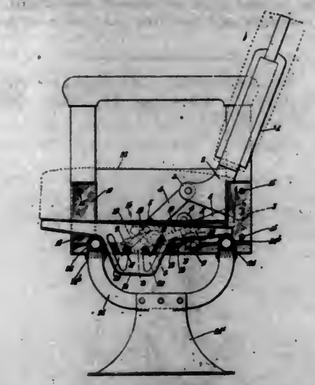
1,252,748. SHIFTING MECHANISM FOR CAR-SEATS. SHERIDAN A. WALKER, Elmhurst, N. Y., assignor, by mesne assignments, to The Walker Company, Wilmington, Del., a Corporation of Delaware. Filed Oct. 29, 1914, Serial No. 869,165. Renewed June 2, 1917. Serial No. 172,526. (Cl. 155—2.)

1. A shiftable car seat having a back, a pair of levers with fixed pivots, and a pair of links connecting the levers to the back, said links having offset portions adapted to rest on the levers.

2. A shiftable car seat having a back, a pair of levers with fixed pivots, a pair of links connecting the levers to the back, and means for limiting the rotation of the links by supporting the same against the levers.

4. A shiftable car seat having a back, a pair of levers with fixed pivots, a pair of links connecting the levers to the back, and means for limiting the rotation of the links by supporting the same against the levers, comprising guide plates with slots and rods connected to the links, and passing through the slots in the guide plates.

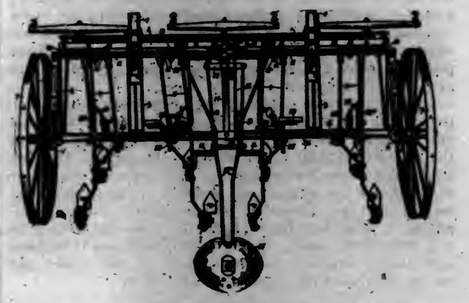
5. A shiftable car seat having a back, a pair of levers with fixed pivots, a pair of links connecting the levers to the back, said links having offset portions adapted to rest on the levers, and means for limiting the rotation of the links, comprising guide plates with slots and rods connected to the links and passing through the slots in the guide plates.



6. A shiftable car seat having a back, a pair of levers with fixed pivots, a pair of links connecting the levers to the back, and means for limiting the rotation of the links, comprising guide plates with heart-shaped slots and rods connected to the links, and passing through the slots in the guide plates in such a manner that the three corners of the heart-shape limit their movement.

[Claims 3 and 7 to 15 not printed in the Gazette.]

1,252,749. TWO-ROW CULTIVATOR. FREDERICK C. WARNE, Mansfield, Ohio, assignor to Roderick Lean Manufacturing Company, Mansfield, Ohio, a Corporation of New Jersey. Filed May 27, 1915. Serial No. 30,806. (Cl. 97—35.)



1. In a cultivator, a frame provided with pivot wheels, a shaft for connecting and actuating said wheels in parallel relation to each other, means including a shifting bar and foot operated mechanism on said frame for actuating said shaft, vertically movable cultivator beams slidably mounted on said shaft in parallel relation to each other, and means for moving said cultivator beams laterally toward and from each other either simultaneously in pairs or individually independently of said shaft actuating means.

14. A cultivator, comprising a frame including a front transverse frame member and a rear transverse or axle member, pivot wheels carried by the latter and provided with forwardly extending axle arms, a laterally movable shaft carried by said arms in proximity to said front transverse frame member, vertically and laterally movable cultivator gangs arranged in pairs and sleeved on said shaft, means on said shaft for laterally moving said pairs of cultivator gangs toward and from each other, a shifting or actuating bar pivotally connected at its rear to said axle frame member and at its front to said shaft, and foot operated mechanism connected to said shifting or actuating bar whereby the latter may be shifted to the right or to the left to correspondingly move said shaft and the pivot wheels and cultivator gangs carried thereby.

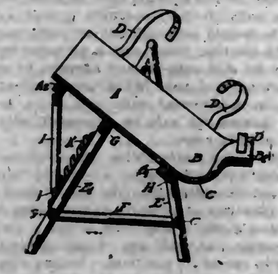
[Claims 2 to 13 not printed in the Gazette.]

1,252,750. DOUBLE-BREASTED GARMENT. ALEXANDER WARSHAUER, Cambridge, Mass. Filed July 18, 1917. Serial No. 181,233. (Cl. 2—41.)



A double breasted garment of the character described comprising a middle portion formed to cover the back, duplicate end portions constituting a double breast and abdomen cover, and terminating in strap-like members, each end portion being attached to an end edge of the central portion by a seam having arm holes located therein, one of said seams also having an opening to permit passage of the strap-like member of the end portion attached to the central portion by the other seam, means for adjustably connecting said strap-like members, each end portion being of a size to reach nearly to the inner edge of the other end portion and having an upper corner capable of being folded in, and means for detachably connecting said upper corners and the body of the garment.

1,252,751. SANITARY CHAIR. JOSEPH H. WEATHERFORD, Memphis, Tenn. Filed June 10, 1916. Serial No. 102,917. (Cl. 155—11.)



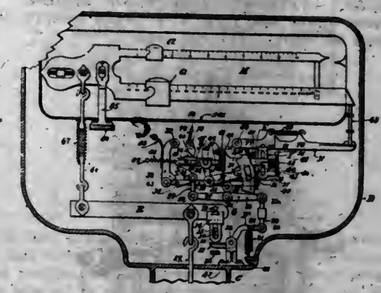
1. As a sanitary chair member, a back and an integral seat permanently formed approximately at right angles to each other, said back and seat being each permanently formed of deeply curved cross section and said seat having a sanitary opening dividing it into two parts, substantially as shown and described.

4. In a sanitary chair member, the combination with a back of deeply curved cross section, of an integral seat divided by a sanitary opening into two parts, each of said parts terminating in a leg support, of curved cross section, bent downward approximately at right angles to said seat, all of said parts being permanently shaped, and permanently fixed in their relation each to the other.

[Claims 2 and 3 not printed in the Gazette.]

1,252,752. COIN-CONTROLLED WEIGHING-SCALE. MATHIAS J. WEBER, Chicago, Ill. Filed Dec. 15, 1916. Serial No. 137,143. (Cl. 194—56.)

1. In a coin controlled weighing machine, the combination, of a base, a platform thereon, a column secured to said base, a head on said column, a weighing beam in said head, said weighing beam having knife-edged fulcra, a vertically movable slide on which said fulcra rest, means constructed to support said slide, a connection between said weighing beam and said platform, graduated scale beams pivotally mounted in said head, a yielding connection between said weighing beam and said graduated scale beams, mechanism in said head constructed to support said graduated scale beams in inoperative position, means for releasing said supporting means when a coin is introduced to the apparatus to render said scale beams operative, and means operated by said slide supporting means to release said scale beams supporting means to again render said scale beams inoperative.



5. In a weighing machine, coin controlled mechanism for locking and releasing the graduated scale beams, said mechanism including a fixed coin slot plate, an oscillator, said oscillator having a plate forming the second coin slot member, said oscillator being pivotally mounted, and constructed to rotate, on a fixed stud, a push bar, means for reciprocating said push bar, there being in each of said plates an opening which said push bar is constructed to enter, a supporting arm, means for supporting said supporting arm in raised position, means on said oscillator constructed to depress said supporting means, and means for locking said supporting means in depressed position.

8. In a weighing machine, coin controlled mechanism for locking and releasing the graduated scale beams, including a fixed coin slot plate, an oscillator, said oscillator having a plate forming the second member of the coin slot, said oscillator being pivotally mounted, and constructed to rotate, on a fixed stud, a push bar, means for reciprocating said push bar, there being in each of said plates an opening which said push bar is constructed to enter, a vertically movable slide, a supporting arm, said vertically movable slide being constructed to support said supporting arm in raised position, an arm on said oscillator constructed to engage said vertically movable slide to depress the same when a coin is placed between the coin slot plates and said push bar is forwardly moved, means for locking said movable slide in depressed position, and means for disconnecting said locking means from said movable slide to permit the latter to resume its normal elevated position.

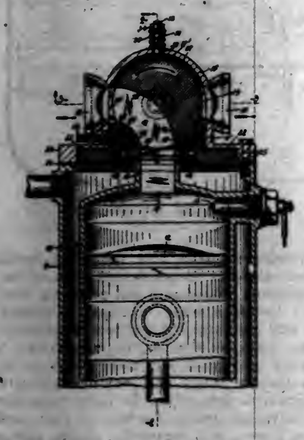
11. In a weighing machine, coin controlled mechanism for locking and releasing the graduated scale beams, including a vertically movable weighing beam, a supporting arm, an oscillator, said oscillator having a long arm, a vertically movable slide under said supporting arm, the long arm of said oscillator being constructed to depress said vertically movable slide when moved in one direction, a depending, pivoted dog constructed to engage said slide when in depressed position, and means for disengaging said dog from said slide, the latter means being operated by the downward movement of said weighing beam.

14. In a coin controlled weighing scales, the combination, of a weighing scale beam, mechanism for supporting said weighing scale beam in inoperative position, said mechanism including a vertically movable slide, a spring for supporting said slide in elevated position, an oscillating dog constructed to lock said slide in depressed po-

sition, and means for releasing said dog, said means including a beam, a slide supporting said beam at one end, a lever constructed to support said last-named slide in elevated position, a spring connected to said lever to resist downward movement of said second slide, said weighing beam being downwardly moved when weight is placed in the scale platform, mechanism connected to said spring-actuated lever and said oscillating dog, to oscillate said dog whenever said weighing beam makes either a downward movement, or an upward movement after having been downwardly moved.

[Claims 2 to 4, 6, 7, 9, 10, 12, 13, and 15 not printed in the Gazette.]

1,252,753. INTERNAL-COMBUSTION ENGINE. RUDOLPH WEBB, New York, N. Y. Filed Apr. 13, 1916. Serial No. 90,911. (Cl. 123—80.)



1. In an internal combustion engine, the combination with a valve-casing, of a rotary valve arranged therein, a lining for said casing shiftably arranged in the latter and having a concave portion forming the seat for said valve and completely surrounding the latter, and means engaging said lining and said casing for causing a continuous contact between said seat and said valve.

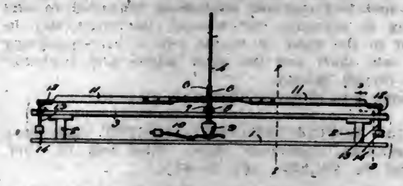
2. In an internal combustion engine, the combination with a valve casing, of a rotary valve arranged therein, a sleeve shiftably arranged in said casing and having a concave portion forming the seat for said valve, said sleeve surrounding completely said valve, and means engaging said sleeve and said casing for causing a continuous contact between said seat and said valve.

4. In an internal combustion engine, the combination with the cylinder of the engine having a port, of a valve-casing thereon provided with an inlet and outlet, a rotary valve arranged in said casing having means for periodically opening and closing communications between said port and said inlet and outlet, a shiftable valve seat within said casing, and means for causing continuous contact between said seat and said valve, said valve seat being provided with a channel containing a lubricant communicating through passages with the working face thereof, said channel communicating also with the port in said cylinder, substantially as and for the purpose specified.

[Claims 3, 5, and 6 not printed in the Gazette.]

1,252,754. GATE. HERBERT M. WETHERINGTON, Vanceboro, N. C. Filed July 10, 1917. Serial No. 179,710. (Cl. 89—84.)

1. A gate comprising a platform, a swinging gate mounted upon the platform and including a shaft having one end disposed at right angles and extending below the platform, a weight carried by the extended end of the shaft, a lever pivotally mounted and having one end curved to form a depression for the reception of the said weight, the opposite end of the lever being weighted.



2. A gate comprising a platform, a swinging gate mounted upon the platform and including a shaft having one end disposed at right angles and extending below the platform, a weight carried by the extended end of the shaft, a lever pivotally mounted and having one end curved to form a depression for the reception of the said weight, the opposite end of the lever being weighted, connecting bars projecting toward the ends of the platform and connected to the gate at opposite edges thereof, and weighted links pivotally connected to the connecting bars and the said platform.

[Claims 3 to 5 not printed in the Gazette.]

1,252,755. LOCK FOR STEERING-WHEELS OF AUTOMOBILES. JAMES WHITTINGTON, Port Jervis, N. Y. Filed Aug. 1, 1917. Serial No. 183,858. (Cl. 70—58.)



1. In a lock for automobiles, the combination of a support carried by the steering post adjacent to the steering wheel, a yoke pivotally mounted in said support and adapted to be moved into and out of engagement with a spoke of said steering wheel, and a permutation lock carried directly by said support and adapted to engage said yoke for locking said yoke when turned about its pivot so as to be in engagement with said spoke, said permutation lock having its axis in alinement with the axis of rotation of said yoke.

2. In a lock for automobiles, the combination of a support, a shaft carried thereby, a yoke pivotally mounted thereon, a rod extending into the end of said shaft and carrying a plurality of projections extending beyond the periphery of said shaft, said yoke having a projection receiving recess in line with one of said projections when said yoke is in one of its positions, a locking ring surrounding the axis of said shaft and rod and having a recess for another of said projections and containing the same when said first projection is not in the recess in said yoke, and a spring tending to hold said rod in yoke-locking position.

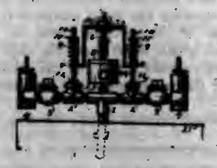
3. In a lock for automobiles, the combination of a support, a shaft carried thereby, an arm rotatably mounted thereon, a rod extending into one end of said shaft and carrying a plurality of projections extending beyond the periphery of said shaft, said arm having a projection receiving recess in line with one of said projections when said arm is in one of its positions, a plurality of revolving rings surrounding the axis of said pivot and rod, each having a recess for other of said projections and containing the same when said first projection is not in the recess in said arm, and a spring tending to hold said rod in arm-locking position.

4. In a lock for automobiles, the combination of a support carried by the steering post adjacent to the steering wheel, a yoke pivotally mounted in said support and adapted to be moved into and out of engagement with a spoke of said steering wheel, a permutation lock for locking said yoke when in engagement with said spoke, a clamp for securing said support to the steering post, a screw for holding said clamp, a lock pin for said screw, and a projection on said yoke extending over the head of said lock pin when said yoke is in wheel-locking position.

5. In a lock for automobiles, the combination of a support, a shaft carried thereby, a yoke rotatably mounted thereon, a rod extending into said shaft and carrying a plurality of projections extending beyond the periphery of said shaft, said yoke having a projection receiving recess in line with one of said projections when said yoke is in one of its positions, a locking ring surrounding the axis of said shaft and rod and having a recess for receiving another of said projections when said first named projection is not in its recess, a spring tending to hold said rod in yoke-locking position, an indicating mark on said ring and an index on said yoke and movable therewith for locating said ring by said mark in rod-unlocking position.

[Claims 6 and 7 not printed in the Gazette.]

1,252,756. TREE-SPRAYER. JAY WILCOX, Grand Rapids, Mich. Filed July 6, 1915. Serial No. 38,356. (Cl. 103—87.)



1. In combination with the intake pipe, conductor pipe, pumps, check-valves and a diaphragm of a tree spraying machine, a lever inside of the conductor pipe below the diaphragm, one end of said lever pivotally connected inside of the conductor pipe, near the intake pipe, the free end of the lever resting against the under surface of the valve, and a rod suspended from the diaphragm and connecting the center of the diaphragm with the lever between its pivotal connection and the check valve to raise and lower said valve by direct pressure from the spraying pumps inside of the conductor pipe.

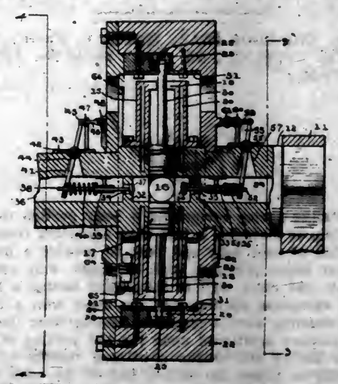
3. In combination with the intake pipes, check valves, conductor pipes, force pumps and diaphragm of a tree sprinkler system, levers pivotally mounted at one end in the conductor pipes, the free ends of the levers in contact with the check valves, a rod connected with the diaphragm and carrying a yoke outside of the conductor pipes, adjustable rods connected with the yoke, passing into the conductor pipes and connected with the levers to unseat the check valves by the direct pressure inside of the conductor pipes, and flexible packing connected therewith.

[Claim 2 not printed in the Gazette.]

1,252,757. EXPLOSIVE-ENGINE. FREDRIC W. WILLIAMS, New York, N. Y., assignor to John P. Bannan, New York, N. Y. Filed Apr. 8, 1916. Serial No. 89,900. Renewed Apr. 7, 1917. Serial No. 160,589. (Cl. 123—55.)

1. In an explosive engine, a base, a relatively stationary shaft supported upon said base, a plurality of cylinders rigidly secured to and projecting radially of said shaft, pistons reciprocably mounted in said cylinders, piston rods carried by said pistons, heads secured in the outer extremities of said cylinders slidably supporting said rods, and a wheel rotatably supported upon said shaft and having a substantially rectangular internal groove provided with rounded corners and receiving the outer terminals of said piston rods.

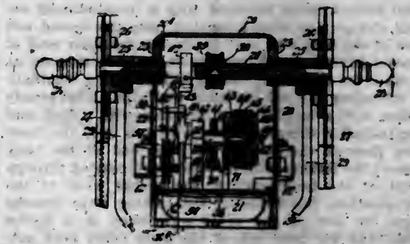
4. In an explosive engine, a relatively stationary shaft having a longitudinal bore, partitions arranged in spaced relation within said bore providing a combustion chamber and having ports therein, a plurality of cylinders radiating from said shaft and communicating with said combustion chamber, pistons reciprocably mounted in said cylinders, rods carried by said pistons, a wheel rotatably supported upon said shaft having a substantially rectangular internal groove receiving the outer terminals



of said rods, cams carried by said wheel, levers connected with said valves, means normally retaining said valves in closed position, and means carried by said levers adapted to be engaged by said cams for intermittently and alternately actuating said valves.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,252,758. MECHANICAL MOVEMENT. SAMUEL A. WILLIAMS, Los Angeles, Cal. Filed Feb. 3, 1916. Serial No. 75,944. (Cl. 74—14.)



A mechanism for actuating a railroad signal comprising a main shaft; a crank secured to said shaft; a crank pin on said crank; a connecting rod pivoted at one end on said crank pin; a crank disk; a pin secured in said crank disk and having the other end of said connecting rod pivoted thereon; a driving shaft secured in said crank disk; a quill surrounding said shaft; a motor; gearing permanently connecting said motor with said quill; a clutch so arranged as to lock said quill and said driving shaft together; and electromagnetic means for locking said quill and said clutch together.

1,252,759. VEHICLE-FRAME SUSPENSION. THOMAS WILSON, Downieville, Cal. Filed Feb. 17, 1917. Serial No. 149,193. (Cl. 267—31.)



1. In a suspension of the character described, a pair of semi-elliptical springs connected with each axle of

a vehicle, means for connecting one end of each of the springs to the body of the vehicle, an independently movable suspension frame connected with said axles, and means for connecting the other ends of said semi-elliptical springs to said suspension frame.

[Claims 2 to 9 not printed in the Gazette.]

1,252,760. CAR-DOOR SEAL. MEMORY G. WRIGHT, Pinehill, Tex. Filed Oct. 20, 1916. Serial No. 126,763. (Cl. 70—99.)



1. A sealing device comprising a body portion formed from a strip of material, a side wing extending from one end portion of said body and bent to provide a pocket, the pocket being provided with an inner wall and an outer wall, the inner wall of the pocket having a longitudinally extending opening and the outer wall a transversely extending slot, a tongue extending from the side wing, a housing positioned upon the end portion of said body and having the tongue positioned therein to hold the housing in place, the second end of the body being provided with a longitudinally extending slot, and a locking strip having one end portion slitted to provide fingers, one of the fingers being bent to provide a hook extending through the slot of the second end of the body and fitting into the longitudinally extending slot of the inner wall of the pocket, the second tongue passing through the slot of the outer wall of the pocket and the free end of the strip being bent back upon itself when the second tongue is fitted into the slot of the outer wall of the pocket.

2. A seal comprising a body having free end portions, one end portion being provided with a longitudinally extending slot, a side wing extending from the second end portion of the body and bent to provide the outer wall of the pocket having the end portion of the body forming its inner wall, the inner wall being provided with a longitudinally extending slot and the outer wall with a transversely extending slot, a locking strip, provided with a hook and a longitudinally extending finger at one end, the hook passing through the slot of the first end of the body to connect the locking strip therewith and passing through the slot of the inner wall of the pocket when in the locked position, the finger of the locking strip passing through the slot of the outer wall when in a locked position, and the free end of the strip being bent outwardly.

3. A seal comprising a body having a pocket at one end provided with inner and outer walls, the inner wall being provided with an opening and the outer wall with a slot, a housing positioned upon the pocket and inclosing the openings in the walls thereof, and a locking strip carried by the second end of the body and provided with a finger for passing through the opening of the outer wall and a finger for passing through the slot of the inner wall, the free end of the locking strip being bent back against the outer wall of the pocket.

1,252,761. MACHINE FOR MAKING HOLLOW WARE FROM PULP. JACKSON B. YOUNG, Oakland, Cal. Filed Feb. 12, 1917. Serial No. 148,137. (Cl. 92—62.)

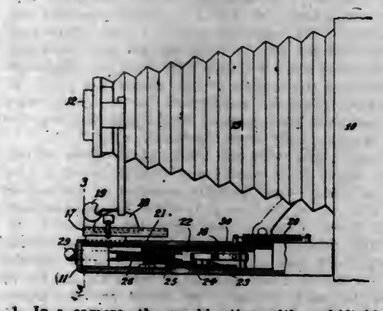
1. A machine for the described purpose comprising an outer mold formed of a plurality of sections; a fixed pivot upon which each of said sections, near one end thereof, is directly and freely suspended, adapting said sections, below the pivots, to swing inwardly to taper-shape for molding function, and outwardly away from taper-shape for relief of the molded product; means encircling and slidable upon the sections of the outer mold to swing them to and from taper-shape; a tapered inner mold; and means for moving said inner mold into the outer mold when the latter is in taper-shape, in order, by said movement, to compress the material between the two molds.



11. A machine for the described purpose comprising a tapered outer mold formed of a plurality of swinging sections adapted to close together for molding function and to spread apart to open the mold; means for pressing and holding said sections together for molding function; means for opening the mold adapted to initiate the spreading of some of its sections prior to starting the others; a tapered inner mold movable into and out of the outer mold; an end-abutment for the mold space; and means for moving said abutment into and out of relation with said space.

[Claims 2 to 10 not printed in the Gazette.]

1,252,762. FOCUSING DEVICE. PHILIP E. YOUNG, Fairhaven, Mass. Filed July 23, 1915. Serial No. 41,484. (Cl. 95—45.)



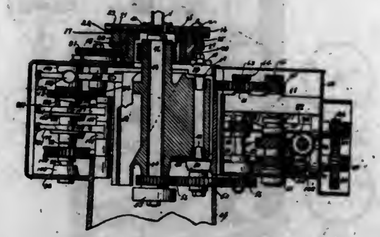
1. In a camera, the combination with a shiftable focusing lens having a normal short range focusing position, a flexible member designed to extend from the camera to the object to be photographed, lens focusing mechanism acting on said lens, operatively actuated by said member and controlled by the reach of said member to the object to focus the lens on the object and means acting on the lens to return the same to normal position when tension on said flexible member has been released.

6. In a camera, the combination with a shiftable lens carriage, means, including springs for moving the same toward its normal minimum range focusing position, acting on said carriage for focusing the lens, a pull member operatively connected to said means to place the springs under tension and designed to move the lens into progressing focusing positions from its minimum range focusing position as the free end of the pull member is drawn progressively away from the camera.

10. In a camera, a focusing mechanism including means for moving the mechanism from a far distance focusing position toward its minimum distance focusing position and a flexible member operatively connected to said means, and adapted to extend from the camera to the article to be photographed to control the movement of the mechanism under the action of said means, whereby the movement of the mechanism will be limited by the distance of the camera from the object to be photographed.

[Claims 2 to 5 and 7 to 9 not printed in the Gazette.]

1,252,763. THREAD-MILLING MACHINE. OSCAR ZERK, Cleveland, and GEORGE W. DRAKE, South Euclid, Ohio, assignors, by mesne assignments, to George W. Bowen, Auburn, N. Y. Filed July 31, 1913. Serial No. 782,183. (Cl. 10—154.)



2. In a milling machine, the combination of a rotatable chuck comprising a body, jaws carried by the body, a ring arranged concentric with the chuck and having scroll threads for moving the jaws, the jaws having teeth engaged with the scroll threads, driving means and connections between the driving means and the ring for automatically rotating the ring first in one direction and then in the other, said connections coacting with the ring and located at one side of the axis of the chuck and including means for effectively disconnecting the driving means from the ring between the movements thereof in opposite directions, substantially as and for the purpose specified.

5. In a milling machine, the combination of a chuck comprising a body, and jaws carried by the body, a ring rotatably mounted in the chuck, and normally rotatable therewith and having scroll threads for moving the jaws, the jaws having teeth engaged with the scroll threads, the ring being also formed with gear teeth, a shaft, a gear mounted on the shaft and meshing with the teeth of the ring, a second gear mounted on said shaft, a power actuated shaft, a pair of gears loosely mounted on the power actuated shaft and meshing with the second gear on opposite sides thereof, a clutch mounted on the power shaft and shiftable from a neutral position into engagement with one or the other of said pair of gears, and means for automatically shifting the clutch at predetermined intervals in the cycle of movement of the machine, substantially as and for the purpose specified.

10. In a milling machine, the combination of a chuck comprising a body, and jaws carried by the body, a support for the chuck connected thereto by screw threads, a ring rotatably mounted on the chuck, and being normally rotatable therewith, the ring being connected to the jaws to open and close the same, said ring and chuck being formed with gear teeth, a power shaft, connections between the shaft and the teeth of the chuck, and between the shaft and the teeth of the ring, said connections comprising gear wheels meshing with the teeth of said chuck, and the teeth of the ring, and automatically operated means actuated by the power shaft for controlling and timing the operations of said connections, substantially as and for the purpose set forth.

15. The combination of a chuck having a body portion, slidable jaws therein, a scroll threaded ring for moving the jaws, means for automatically rotating the ring, means for rotating the chuck in one direction, means for returning the chuck to starting position, a threaded bearing on which the chuck is mounted, and a cutter adapted to form threads on an article held in the chuck.

40. In a thread milling machine, the combination of a chuck, mechanism for rotating the chuck intermittently, mechanism for opening and closing the chuck, a cutter, means for swinging the cutter into and out of operative position, means for driving said mechanism at two different speeds, a cam shaft, and cams on said cam shaft for controlling said mechanisms and said means.

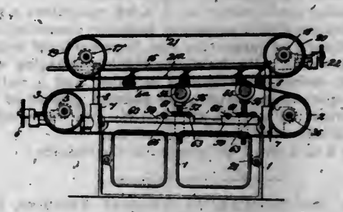
[Claims 1, 3, 4, 6 to 9, 11 to 14, and 16 to 39 not printed in the Gazette.]

1,252,764. SHOE-CLAMP. MIECZYSLAW A. ZIELINSKI, New York, N. Y. Filed July 27, 1917. Serial No. 183,093. (Cl. 36—60.)



In a climbing device, the combination with a plate, means for attaching said plate to a shoe, between the soles thereof, extensions turned at right angles at the sides and front of said plate, and a plurality of spur elements detachably engaged in said extensions.

1,252,765. MACHINE FOR MOLDING PIECES OF DOUGH. FRIEDRICH AESCHBACH, Aarau, Switzerland. Original application filed July 3, 1916, Serial No. 107,433. Divided and this application filed Jan. 23, 1917. Serial No. 144,045. (Cl. 107—9.)

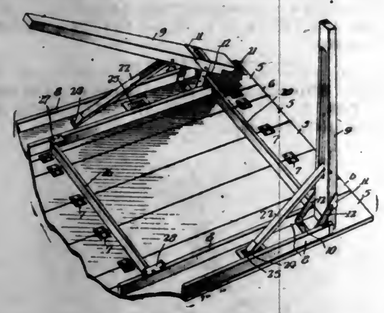


1. In a molding machine for dough, two endless bands arranged parallel one upon another, each band running over two rollers, a plurality of guiding means adapted to guide the inner side of one band between its two rollers at different points at different distances from the inner side of the other endless band, means to adjust each of said guiding means in a vertical direction and means whereby said guiding means may be moved longitudinally of the bands.

3. In a molding machine for dough, two endless superposed parallel bands, each running over two rollers, a plurality of guide-pulleys arranged parallel to said rollers and operating on the inner side of the lower band between its two rollers to guide said side at different points at different distances from the inner side of the upper endless band, a bearing for each end of said guide-pulleys, a slide for each of the bearings, a worm wheel on each bearing, hand operated means adapted to impart to the two bearings of each guide-pulley a simultaneous vertical movement by working together with said worm wheels, two horizontal guide pieces arranged on both sides of the machine in the longitudinal direction of the latter and each carrying the slides on that side of the machine, and hand operated means adapted to move simultaneously the slides carrying the two bearings of a guide pulley along the horizontal guide pieces.

[Claim 2 not printed in the Gazette.]

1,252,766. FOLDING TABLE. JOHN R. ANDERSON, Moline, Ill. Filed Mar. 6, 1916. Serial No. 82,379. (Cl. 45—116.)



1. A folding table consisting of a top comprising a plurality of longitudinally extending hingedly connected sections and a longitudinally extending member secured to the underside of each of the outermost sections of said top, supporting legs hingedly connected to said outermost sections, means for securing said legs in supporting position, and transversely extending members adapted to be engaged and clamped by said legs against the ends of said longitudinally extending members and in engagement with the intermediate sections of said top.

6. A folding table consisting of a top comprising a plurality of longitudinally extending hingedly connected sections, legs, hinges secured to said legs at points spaced from the upper ends thereof and to said top, means for securing said legs in supporting position, and means for adjusting said legs relatively to said hinges.

8. A folding table consisting of a top comprising a plurality of longitudinally extending hingedly connected sections, a plurality of supporting legs, hinges secured to said top and provided with members slidably engaging said leg, a bolt operatively engaging each leg, and a nut on each bolt operatively engaging the slidable member of the hinge whereby the position of the latter may be varied to adjust said legs with respect to said top.

[Claims 2 to 5 and 7 not printed in the Gazette.]

1,252,767. BELT-COUPLING. SAMUEL ARSETTER, Chicago, Ill., assignor to A. C. K. Belting Co., Chicago, Ill., a Corporation of Illinois. Filed Mar. 9, 1917. Serial No. 153,669. (Cl. 24—123.)



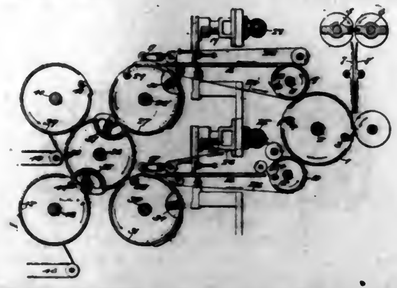
5. A belt coupling comprising two similar coupling members, each consisting of a relatively thick hook portion, and a relatively thin short, split collar portion, said collar portion being adapted to be gripped upon the end of the belt, and there being a wire member wrapped around the end of the belt and gripped by a collar.

7. A belt coupling comprising a light metal band secured on each end of the belt, and two similar coupling members each consisting of a single piece having a relatively thick hook portion and a relatively thin collar portion surrounding the end of the belt and the metal band, there being a rib on said collar embedded in the belt and connecting with said metal band.

8. A belt coupling comprising two similar coupling members, each consisting of a relatively thick hook portion and a relatively thin, short, split bendable collar portion, said collar portion having a circumferentially arranged inwardly projecting rib formed thereon, and said collar portion being adapted to be forced into gripping contact with the end of the belt, with the rib embedded therein.

[Claims 1 to 4 and 6 not printed in the Gazette.]

1,252,768. SHEET-HANDLING MACHINE. HOWARD M. BARNES, Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of Delaware. Filed Apr. 28, 1915. Serial No. 24,511. (Cl. 270—37.)



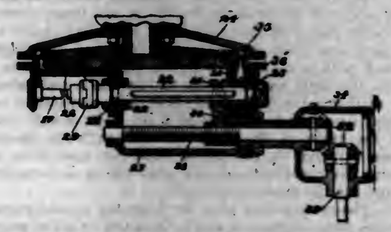
1. In a machine of the character described, a plurality of sheet paths, means for feeding signatures therethrough, a plurality of delivery mechanisms, and a single folding mechanism for folding the signatures on their way to the delivery mechanisms, said single folding mechanism comprising two male folding cylinders and a female folding cylinder arranged to coact therewith.

3. In a machine of the character described, a plurality of sheet paths, a plurality of delivery cylinders, a plurality of male folding cylinders arranged to take the signatures from the sheet paths, and a single female folding cylinder arranged to coact with the male folding cylinders to fold the signatures and to coact with the delivery cylinders to transfer the folded signatures thereto.

6. In a machine of the character described, a plurality of sheet paths, a stitcher mechanism in each sheet path, means for feeding signatures through said sheet paths, a plurality of delivery mechanisms and a single folding mechanism for folding the stitched signatures on their way to the delivery mechanisms, said single folding mechanism comprising two male folding cylinders and a female folding cylinder arranged to coact therewith.

[Claims 2, 4, 5, and 7 to 10 not printed in the Gazette.]

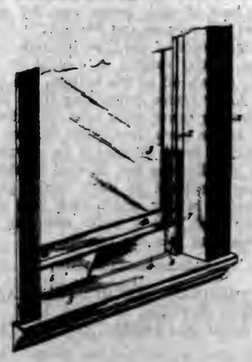
1,252,769. GOVERNOR MECHANISM. OLIVER D. H. BENTLEY, West Roxbury, Mass., assignor to B. F. Sturtevant Company, Hyde Park, Mass., a Corporation of Massachusetts. Filed Mar. 15, 1917. Serial No. 154,952. (Cl. 264—2.)



2. The combination, with a turbine and a governor therefor, of a friction-disk mounted on one end of the turbine-shaft; a housing inclosing the disk and comprising an inner member, connected with the turbine casing, and an outer member covering the face of the disk; a friction-wheel cooperating with the disk; a countershaft, upon which the friction-wheel is splined, journaled on the housing; connections between the countershaft and the governor, for actuating the latter; and yielding means connecting the housing-members together at their peripheries to maintain a tractional pressure of the friction-wheel against the disk.

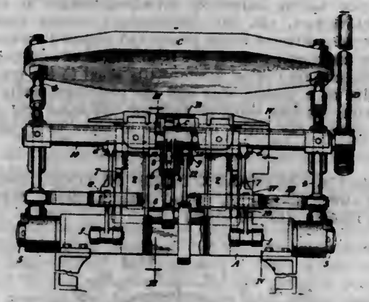
[Claims 1 and 3 to 5 not printed in the Gazette.]

1,252,770. WINDOW-VENTILATOR. ELIJAH M. BIMM, St. Joseph, Mo. Filed Feb. 5, 1916. Serial No. 76,404. (Cl. 98—81.)



In a window ventilator of the class described, a pair of substantially rectangular sections, the one section having its upper and lower edges bent inwardly to provide guideways for slidably receiving the other section therebetween, the outer ends of said sections having the upper portions thereof struck outwardly to form flanges for frictional engagement with portions of a window frame, the formation of said flanges also providing tongues at the ends of said sections adapted for disposition between certain guide strips in a window frame, whereby the ventilator may be retained in position in said window frame.

1,252,771. MOLDING-MACHINE. ALLAN S. BIXBY, Indianapolis, Ind., assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed July 21, 1916. Serial No. 110,441. (Cl. 22—45.)



1. In mechanism for making molds, a mold table, a jarring toggle having one link secured to the mold table and the other link secured to a fixed base of resistance, an actuating member connected to the toggle, and means for rendering the jarring toggle inoperative to permit squeezing.

2. In mechanism for making molds, a mold table mounted to be reciprocated vertically, a vertically movable support, a toggle secured to the table at one end and to the support at the other end, means for actuating the toggle to break it alternately in opposite directions to jar the table, means for rendering the jarring toggle inoperative, a rotating shaft connected to the support, whereby rotation of the shaft will elevate the support and with it the table for squeezing.

4. In mechanism for making molds, a mold table, a jarring toggle having one link secured to the mold table and the other link secured to a base of resistance, an actuating shaft having a connection with the toggle by which the toggle on revolution of the shaft is made to break alternately in opposite directions to jar the table.

9. In mechanism for making molds, a frame, a table having a depending stem, a sleeve in the frame within which the stem reciprocates, a shaft having a supporting engagement with the stem in one position and in another position affording a base of resistance for a toggle, said toggle being pivoted to the shaft and the table and having an intermediate connection with an actuating member, means for moving the shaft out of position as a base of resistance for the toggle, and an actuated member connected to the shaft by which the shaft and with it the table is lifted for squeezing.

11. In mechanism for making molds, a mold table mounted to be reciprocated vertically, an operating shaft, squeezing means connecting the table and the shaft, said means comprising a pair of links, means for jarring the table comprising a lever mounted on said shaft, having a connection with the table, and means for rendering the jarring mechanism operative when the squeezing members are inoperative, and vice versa.

[Claims 3, 5 to 8, and 10 not printed in the Gazette.]

1,252,772. PAPER-DOLL-DISPLAY BOARD. LUISE ADELHEID BUCHTEL, New York, N. Y. Filed Jan. 11, 1915. Serial No. 1,684. (Cl. 211—2.4.)

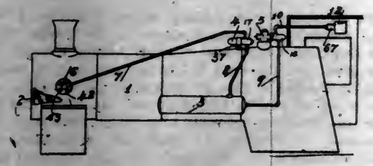


A device of the character described comprising a substantially rectangular board the ends of which are provided with inwardly projecting slits, the slits in one end being disposed oppositely to the slits in the opposite end, a supporting member hinged to the rear face of the board, a single strand of ribbon threaded through the inner ends of the slots with a resultant plurality of spaced longitudinal and parallel supporting members extending longitudinally of one side of the board, and a plurality of relatively shorter vertically extending portions at each end of the board parallel with the end edges and at the opposite side thereof from said longitudinal portions, and means secured to one of the vertical extensions on each end of the board and to the hinged supporting member to limit its movement relatively to the board.

1,252,773. DRAFT-CONTROLLER. TURNEY E. BUCK, Springfield, Ill. Filed Dec. 15, 1915. Serial No. 67,052. (Cl. 110—157.)

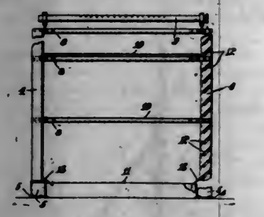
In a draft controller, the combination of a working pressure valve having a cylinder and a two-headed piston slidable in the cylinder; an air reservoir; means for supplying compressed air at reservoir pressure alternately to the sides of one head of the piston as the piston reciprocates; automatic means adapted to admit steam at ab-

normal pressure against one end of the piston to slide the piston in one direction to re-compress air at the other end of the piston, and adapted to shut off the steam upon the cessation of the abnormal steam pressure and thereby permit reverse sliding of the piston by the re-compressed air; a draft-check valve having a cylinder and a piston slidable in the cylinder; and means for conveying compressed air from the cylinder of the working pressure valve into the draft-check valve cylinder to maintain reservoir pressure on the draft-check valve pis-



ton; all coacting to keep the draft-check valve constantly open during abnormal steam pressure against the piston of the working pressure valve, and upon cessation of the abnormal steam pressure to permit the re-compressed air in the working pressure cylinder to slide the piston in said cylinder to close communication with the air reservoir and to permit the air in the draft-check valve cylinder to exhaust through the working pressure valve to the atmosphere.

1,252,774. COOLING-TOWER. EDWIN BURHORN, Hoboken, N. J. Filed Sept. 17, 1915. Serial No. 51,157. (Cl. 261—108.)



1. In a cooling tower of the type wherein water passes downwardly by gravity and is drawn off at the bottom, the combination of an upright tower frame comprising three or more corner posts, a water distributing deck supported in elevated position by said frame, a collecting pan located at the lower end of the tower within the space inclosed by said corner posts, and a collecting ledge near the base of each corner post for catching the water falling at the corners and draining it into the pan.

2. In a cooling tower of the type wherein water passes downwardly by gravity and is drawn off at the bottom, the combination of an upright tower frame comprising three or more corner posts, one or more cooling or distributing decks supported in elevated position by said frame, a collecting pan located at the tower lower end within the space inclosed by said corner posts, and a hollow base casting within which each post is anchored, said base constructed with a water receiving ledge overhanging and draining into the pan.

3. In a cooling tower of the type wherein water passes downwardly by gravity subject to cooling by natural air currents and is drawn off at the bottom, the combination of an upright tower frame comprising three or more corner posts presenting tower sides open to natural air currents, louvers across such open sides, a water distributing deck supported in elevated position by said frame, a collecting pan located at the lower end of the tower within the space inclosed by said corner posts, and inwardly slanted louvers extending around the tower between said pan and deck and overhanging said pan.

4. In a cooling tower of the type wherein water passes downwardly by gravity subject to cooling by natural air currents and is drawn off at the bottom, the combination of an upright tower frame comprising three or more corner posts presenting tower sides open to natural air currents, louvers across such open sides, a water distributing deck supported in elevated position by said frame, a collecting pan located at the lower end of the tower within the space inclosed by said corner posts, means for draining into said pan descending water falling at the tower sides beyond said pan and a collecting ledge near the base of each corner post for catching the water falling at the corners and draining it into the pan.

5. In a cooling tower of the type wherein water passes downwardly by gravity subject to cooling by natural air currents and is drawn off at the bottom, the combination of an upright tower frame comprising three or more corner posts presenting tower sides open to natural air currents, louvers across such open sides, one or more cooling or distributing decks supported in elevated position by said frame, a collecting pan located at the tower end within the space inclosed by said corner posts, and a hollow base casting within which each post is anchored, said base constructed with a water receiving ledge overhanging and draining into the pan.

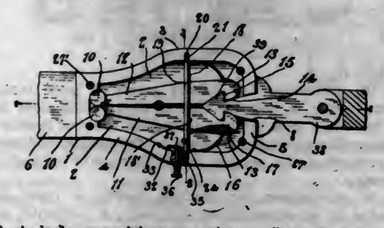
1,252,775. COMBINED RECEPTACLE AND FOOT-REST. JOSEPH BUTCHER, Brooklyn, N. Y. Filed Mar. 31, 1915. Serial No. 18,245. (Cl. 21—15.)



1. A combined receptacle and foot rest comprising a plurality of cylindrical telescoping sections of substantially equal length, the length of the receptacle when extended being a multiple of the length of one section and substantially equal to the transverse width of a vehicle body and the smallest and largest sections having end walls and the largest section having a handle and being adapted for use as a pail or bucket.

2. A combined receptacle and foot rest comprising three cylindrical telescoping sections, the largest section and the smallest section each having an end wall and the largest section being removable from the intermediate section and being provided with a ball, and the smallest section having outwardly extending flanges at opposite ends thereof, and said intermediate section having an inwardly directed flange at one end disposed between said last mentioned flanges, the total length of said receptacle when extended being substantially equal to the transverse width of a vehicle body and the peripheral walls of the several sections being of sufficient thickness and rigidity to permit the entire receptacle to serve as a foot rest.

1,252,776. AUTOMATIC CATCH OR LOCK. DORSEY B. CAMPER, Elgin, Ill. Filed Aug. 9, 1916. Serial No. 113,988. (Cl. 70—102.)



2. A lock comprising a casing, coöperating jaws arranged in the casing, a locking bar journaled in the

casing and extending transversely across the jaws, springs arranged in the casing having one end abutting the jaws for normally urging the same toward one another, said locking bar having depending flanges engaging the longitudinal sides of the jaws for holding the same against separation, spring means within the casing and engaging the flanges to hold the bar against rotation, a pinion carried by the locking bar, a pin provided with a rack extending through the casing, said rack adapted to mesh with the pinion for rotating the flanges for releasing the jaws, and means for moving the jaws away from one another.

3. A lock of the class described including a casing, a cover for said casing, coöperating locking jaws rotatably mounted in the casing, springs arranged in the casing and abutting said jaws for normally urging the same toward one another, a locking bar journaled transversely across the casing and arranged on the under surface of the jaws, depending flanges carried near the opposite ends of said bar, said flanges engaging the longitudinal sides of the jaws for holding the same against separation, a spring arranged in the casing, said spring having one end abutting the flanges for preventing rotation of the bar, means extending transversely through one side wall of the casing and connected to the spring for moving the same out of engagement with the locking bar to permit the separation of the jaws, and means extending through the cover of the casing for rotating said locking bar.

4. A lock including a casing, locking jaws loosely journaled in the casing, springs arranged in the casing and abutting the outer sides of the jaws for normally urging them toward one another, a locking bar journaled transversely in the casing upon the upper sides of the locking jaws to retain them against outward movement with relation to each other, means for holding the locking bar against rotation, means for rotating the locking bar to release the locking jaws, and means extending into the casing between the opposing faces of the jaws for moving them outwardly with relation to one another.

[Claim 1 not printed in the Gazette.]

1,252,777. CENTER-INDICATOR. HERMAN CASLER, Canastota, N. Y. Filed May 28, 1914. Serial No. 841,480. (Cl. 33—172.)



2. A center indicator comprising a body designed to be carried by a rotating part of a machine tool, a pointer at one end of the body shiftable laterally relatively to the axis of rotation of the body, and means for holding the pointer on the body comprising a spring arranged to force the pointer axially against one end of the body, substantially as and for the purpose set forth.

8. A centering instrument comprising a body having a tubular portion, a pointer, a member carrying the pointer and slidable in the body, the periphery of the member engaging the inner surface of the body at a plurality of points spaced apart, and including a distance less than one-half of the circumference of said member, and a spring pressing the member to hold said points against said surface, substantially as and for the purpose specified.

12. A centering instrument comprising a body having a tubular portion, a member slidable in the tubular portion of the body, and having hubs thereon spaced apart for engaging the inner face of the body, the hubs being formed with alined peripheral recesses extending part way around the same and with recesses in the portions thereof dismetrically opposite the middles of the recesses, spring means located in the last-named recesses and bearing on the inner face of the body, a spring located within the body and pressing outwardly axially on the inner end of said member, and means for limiting the outward movement of said member, substantially as and for the purpose described.

[Claims 1, 3 to 7, 9 to 11, 13, and 14 not printed in the Gazette.]

1,252,778. CUSPIDOR-HOLDER. JOSEPH CHORZEMPA, Cicero, Ill. Filed Aug. 6, 1917. Serial No. 184,626. (Cl. 57—111.)



1. In a device of the class described, the combination with a pair of arcuate arms having end extensions, a rod upon which said arms are slidable, a second pair of arms upon which the first pair of arms are pivotally engaged, rods pivoted to said second pair of arms, a handle rigidly engaged with said rod, a second handle adjacent to the first named handle, bars operatively engaged with said second handle, connections with said bars and with said second arms, means for normally extending said second arms, and means operating through said second handle whereby the first named arms are caused to rigidly embrace an article.

4. In a device of the class described, the combination with a pair of arcuate arms having parallel extensions, a rod upon which said extensions are slidably engaged, a frame in which said arcuate arms are pivotally carried, a pair of handles engaged with said frame, one of said handles being movable to or from the other, means combined with said movable handle for opening or closing said arcuate arms, a spring normally pressing said arms apart, a rack bar engaged with said rod, and means carried by said frame whereby said arcuate arms may be held in an adjusted position.

[Claims 2 and 3 not printed in the Gazette.]

1,252,779. FIGURE TOY. JOSEPH CHRAPLA, Martin, Pa. Filed June 9, 1917. Serial No. 173,686. (Cl. 46—40.)



1. In a game played with toys, the combination with a plurality of figures representative of soldiers and platforms upon which said figures are secured, of raised bars crossing each other centrally on the lower sides of said platforms, and a plurality of relatively heavy plates engageable with said raised bars.

3. In a toy, the combination with a figural representation of a soldier, and a platform upon which said figure is rigidly engaged in an upright position, of bars crossing each other at right angles disposed on the lower side of said platform, said bars having pins extending therefrom at right angles thereto, and parallel with said platform, and a plurality of heavy blocks engageable with said pins and said bars whereby said platform may be held in a rigid position.

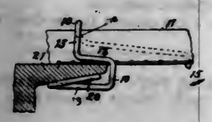
[Claim 2 not printed in the Gazette.]

1,252,780. DIVER'S HELMET. FERDINAND LUDWIG CLAREN and HERMANN STELZNER, Lübeck, Germany, assignors to the Firm of Drägerwerk, Heinr. & Bernh. Dräger, Lübeck, Germany. Filed Oct. 8, 1914. Serial No. 865,740. (Cl. 61—7.)



The combination of a diver's helmet and a removable U-shaped hoop adapted to rest on the shoulders of the diver and extend over the top of the helmet, a chest weight and the back part of the diving apparatus attached to the shoulder portions of the hoop.

1,252,781. CLIP. NORRIS ELMORE CLARK, Plainville, Conn. Filed Apr. 26, 1917. Serial No. 164,782. (Cl. 189—36.)



1. A rib lath clip comprising a rib-engaging member adapted to straddle a rib, a clamping member extending from one side of said rib-engaging member and having a laterally extending foot adapted to pass through the meshwork to hold the meshwork and rib to a flange of a support and an arm extending from the opposite side of said rib-engaging member in the same direction as the clamping member and terminating in a latching hook facing in the same direction as the clamping foot.

2. A clip of the character described, comprising a saddle, a long latching arm extending from one edge of the saddle in one direction, a clamp connected to the opposite side of the saddle and having an arm extending in the same general direction as the latching arm and terminating in a laterally extending resilient clamping foot.

3. In a clip of the character described, a saddle having a short side and a long side, a latching arm extending from the short side, a clamp extending from the long side and terminating in a laterally extended foot in a plane substantially perpendicular to the saddle and parallel to the latching arm, a part of which foot extends beyond the plane of the saddle.

[Claims 4 to 7 not printed in the Gazette.]

1,252,782. [WITHDRAWN.]

1,252,783. [WITHDRAWN.]

1,252,784. PROCESS FOR PURIFYING POTASSIUM CHLORID. ABRAHAM B. COX, Cherry Valley, N. Y., assignor to General Reduction Gas and By-Products Company, New York, N. Y., a Corporation of Delaware. Filed Apr. 17, 1915. Serial No. 22,029. (Cl. 23—22.)

1. The method of purifying potassium chlorid, which consists in adding calcium chlorid to a solution containing potassium chlorid and salts which will react to form insoluble calcium compounds, whereby the impurities contained in the solution are precipitated, removing the precipitates, and recovering the purified potassium chlorid from the filtrate.

2. The method of purifying potassium chlorid, which consists in adding calcium chlorid to a solution containing potassium chlorid and salts which will react to form insoluble calcium compounds, whereby the impurities are thrown down in the form of insoluble matter, removing the insoluble matter, and separating the potassium chlorid in pure form from the filtrate by fractional crystallization.

3. The method of purifying potassium chlorid containing the following impurities: sodium monocarbonate, sodium bicarbonate, sodium sulfate, borax and sodium chlorid, which consists in dissolving the material and in adding a reagent to the solution capable of converting the sodium monocarbonate, the sodium bicarbonate, the sodium sulfate and borax into insoluble salts, whereby such conversion is effected, removing the insoluble matter, and recovering the potassium chlorid from the filtrate.

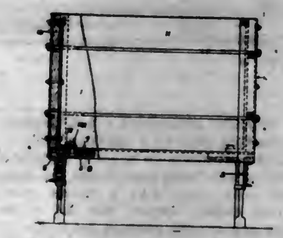
1,252,785. MORTAR FOR FIRE-BRICKS. ABRAHAM B. COX, Cherry Valley, N. Y., assignor to General Reduction Gas & By-Products Company, New York, N. Y., a Corporation of Delaware. Filed Apr. 14, 1917. Serial No. 162,042. (Cl. 106—30.)

1. A mortar for firebricks adapted to vitrify when heated to a comparatively low temperature, said mortar being comprised of shale, firebrick and sodium silicate.

4. A mortar for firebricks composed of 75 parts shale, 25 parts ground brick, 30 parts sodium silicate and 75 parts asbestos.

[Claims 2 and 3 not printed in the Gazette.]

1,252,786. TRUCK-PLATFORM. JOHN W. COX, Erie, Pa. Filed Apr. 26, 1917. Serial No. 164,777. (Cl. 214—1.)



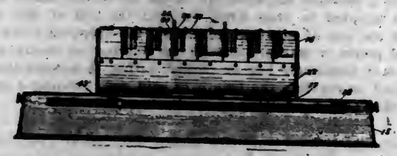
1. In a truck platform, the combination of legs having lateral projections at their top; frame bars secured to the sides of the legs extending at right angles to the projections connecting the legs at the sides of the platform; channel bars secured to the projections and connecting the legs at the ends of the platform, the projections being arranged in the channel; and a floor flush with the channel bars and secured to the side bars.

2. In a truck platform, the combination of legs; bars connecting the legs at the sides and ends; and a box formed with side planks and corner angle irons, the angle irons at the corners projecting below the planks and interlocked with the frame formed by the legs and bars.

3. In a truck platform, the combination of legs; bars connecting the legs and forming a frame; a floor on the frame; and a box having planks with angle irons at the corners, the angle irons extending below the planks and around the floor of the platform for securing the box in place on the platform.

[Claims 4 to 6 not printed in the Gazette.]

1,252,787. CHECK-WRITER. EDWARD H. CUMPSTON, Jr., Rochester, N. Y., assignor to Todd Protectograph Company, Rochester, N. Y., a Corporation of New York. Filed May 7, 1917. Serial No. 166,898. (Cl. 101—19.)

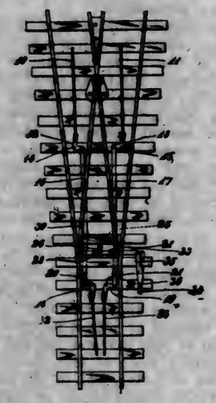


1. The combination with a type support and a line of type thereon; of a rotary platen adapted to be rolled along said line of type to press the work thereagainst; a work support movable with said platen along the line of type; and work retaining means adapted to hold the work against movement relative to said work support while the platen is out of contact with the type, but to permit movement of the work relative to said work support while the work is held in engagement with the type by the pressure of the platen.

2. The combination with a type support and a line of type thereon; of a rotary platen adapted to be rolled along said line of type to press the work thereagainst; a work support movable with said platen along the line of type; and a presser member frictionally engaging the work to retain the latter against movement relative to said work support while the platen is out of contact with the type, but to permit movement of the work relative to said work support while the work is held in engagement with the type by the pressure of the platen.

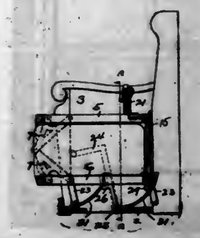
[Claims 3 to 17 not printed in the Gazette.]

1,252,788. RAILROAD-SWITCH. MICHAEL DERBICH, Cleveland, Ohio. Filed Sept. 2, 1916. Serial No. 118,222. (Cl. 104—23.)



In a railway track switch, the combination with a pair of running rails, a branch track leading therefrom, switch tongues engaged with said running and branch rails, connections between said switch tongues, a T shaped element pivotally engaged with said connections, bars pivotally engaged with said T shaped element, pairs of bell-crank levers engaged with the ends of said bars whereby they may be held in an adjusted position, a raised lever having its one end engaged with said T shaped element, and means carried on a locomotive contactable with said raised lever whereby it may be thrown in either direction.

1,252,789. FOLDING BED. JOSIAH A. DEWEY, San Francisco, Cal., assignor, by direct and mesne assignments, to Dewey Davenport Company, San Francisco, Cal., a Corporation of California. Filed Dec. 1, 1913. Serial No. 803,943. (Cl. 5—51.)



1. In furniture of the class described, a stationary structure, two superposed bed frames hinged together at their forward ends, links connecting the lower frame with said structure, a lever for moving said lower frame upon said links, means for moving said lever, and a fixed stop adapted to limit the movement of said lower frame.

2. In furniture of the class described, a bed frame formed in two superposed sections hinged together, and a head board attached to each frame and adapted to contact with the opposite frame when the frames are in the superposed position.

3. In furniture of the class described, a bed frame formed in two superposed sections, and a head board fixed to each section, said head boards being directly pivotally connected adjacent one end.

5. In furniture of the class described, a bed frame formed in two superposed sections hinged together, a head board on each section adapted to hold the upper section apart from the lower section, the head board on one section being offset with respect to the head board on the other section, and means for preventing an upward movement of the upper section.

6. In furniture of the class described, two superposed frames hinged together at their forward ends, a bar attached to the rear rail of the lower frame provided at its upper end with an aperture, a bolt arranged in the rear rail of the upper frame adapted to seat in said aperture, and means for withdrawing said bolt and turning the upper frame about its hinges.

[Claims 4 and 7 not printed in the Gazette.]

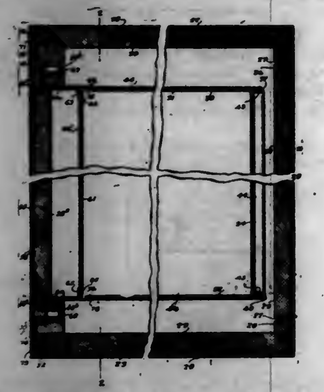
1,252,790. HEAT-RESISTING CABINET. RALPH H. DICK and ALBIN G. BLOOMDAHL, Marietta, Ohio, assignors to The Safe-Cabinet Co., Marietta, Ohio, a Corporation of Ohio. Filed Dec. 31, 1913. Serial No. 809,622. (Cl. 109—2.)

1. In a device of the character described the combination of a structurally independent inner shell provided with interlocking flanges, a structurally independent outer shell, intermediate members connected with the outer shell and having interlocking flanges which engage said flanges of the inner shell.

2. In a device of the character described the combination of a structurally independent inner shell comprising inner wall members provided with flanges, a structurally independent outer shell comprising a plurality of outer wall members, and intermediate members connected with the outer shell and provided with flanges which interlock with said flanges of the inner shell.

3. In a device of the character described the combination of a structurally independent inner shell provided with interlocking flanges, a structurally independent

outer shell, intermediate members connected with the outer shell and having interlocking flanges which engage said flanges of the inner shell, said flanges being interlocked and welded together.



4. In a device of the character described the combination of a structurally independent inner shell comprising a plurality of the inner walls of the structure and provided with flanges, a structurally independent outer shell comprising a plurality of the outer walls of the structure, intermediate members connected with the outer shell and provided with interlocking flanges engaging said flanges of the inner shell forming an air space between said outer and inner shells, and insulating material between said air space and said inner shell.

5. In a device of the character described the combination of an outer shell open on one side, an inner shell open on one side, a door jamb connecting said shells and provided on its face which meets the hinged edge of the door with similar curved recesses and with an intermediate tongue between said recesses, and a door hinged to said jamb and provided on its hinged edge with similar curved tongues and with an intermediate recess between said tongues, said tongues of the door engaging said recesses of the jamb and said intermediate tongue of the jamb engaging said intermediate recess of the door when the door is closed.

[Claims 6 to 9 not printed in the Gazette.]

1,252,791. COLLAR. JAMES H. DIX, Plymouth township, Montgomery county, Pa. Filed Nov. 5, 1915. Serial No. 59,864. (Cl. 2—71.)



A collar having a wave like slit midway between its ends and at the lower or neck-band portion thereof, said slit forming a downwardly projecting portion of the collar adapted to pass outwardly of the necktie and an upwardly projecting portion provided with scallops on opposite sides of and adjacent the depending portion and adapted for insertion under the outer ply of the neck-band of the shirt.

1,252,792. SLACK-ADJUSTER. FRANCIS DEWEY EVERETT, Saranac Lake, N. Y. Filed Apr. 11, 1917. Serial No. 161,310. (Cl. 188—49.)

1. A slack adjuster to automatically take up the wear between two friction surfaces, comprising friction applying mechanism, and two devices combined therewith, one of said devices consisting of a movable box or casing connected with said friction applying mechanism, and containing a series of separate plates or washers, each having an open lower end, and said washers, supported upon the enlarged end of a rod forming a part of said friction applying mechanism, and adapted to drop down upon the reduced portion of said rod, and the other of said devices consisting of a stationary box or casing, secured in a fixed position, and containing a series of separate plates or washers, and said washers, supported upon a movable bar attached to the above mentioned rod, and adapted to drop down between the end of said bar and the end of said box or casing, the dropping down of said plates or washers in said movable box or casing, and in said stationary box or casing, acting to automatically adjust or regulate the length of said rod, forming a part of the friction applying mechanism.

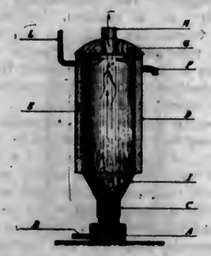


2. A slack adjuster to automatically take up the wear between two friction surfaces, comprising friction applying mechanism, and two devices combined therewith, one of said devices consisting of a movable box or casing connected with said friction applying mechanism, and containing a series of separate plates or washers, each having a forked shaped open lower end, and said washers, supported upon the enlarged end of a rod forming a part of the friction applying mechanism, and adapted to drop down upon a reduced portion of said rod, and the other of said devices consisting of a stationary box or casing, secured in a fixed position, and containing a series of separate plates or washers, each having a forked shaped open upper end, and supported upon a movable bar attached to the above mentioned rod, and said bar having an extension thereon, adapted to enter the open forked end of said plates or washers, after said plates or washers have dropped down, when released by said bar and projection, the dropping down of said plates or washers in said movable box or casing, and in said stationary box or casing, acting to automatically adjust or regulate the length of said rod, forming a part of the friction applying mechanism.

3. In a slack adjuster for automobile brakes, or friction transmission, where the adjustment is made by varying the length of a rod, the combination with said rod, which extends between the brake pedal and the applying levers of the brake, of a device connected with the brake pedal and with said rod to move therewith, said device consisting of a box or casing containing a series of separate plates or washers, each having a forked shaped open lower end, and said washers, supported upon the enlarged end of said rod and adapted to drop down upon the reduced portion of said rod between the enlarged end of said rod and the end of said box or casing, and a second device, having a part thereof stationary and secured in a fixed position, and a part thereof connected to the above mentioned rod, said device consisting of a box or casing containing a series of separate plates or washers, said washers supported upon a bar, and said bar, and said washers or plates, adapted to drop down between the end of said bar and the end of said box or casing, the dropping down of said plates or washers in said movable box or casing, and in the other box or casing, acting to automatically adjust or regulate the length of said rod, forming a part of the friction applying mechanism.

1,252,793. COMBUSTION OF LIQUID FUELS. STEFANO FACHINI, Milan, Italy. Filed Sept. 26, 1916. Serial No. 122,244. (Cl. 158—96.)

1. In a burner for liquid fuels, the combination of a receptacle open at the top, a supply pipe for liquid fuel at the bottom of said receptacle, a supply of air adjacent the opening in the top of said receptacle, and an absorbent mass in said receptacle comprised of dry bones



previously freed from grease and gelatin, said mass constituting a heat barrier between the top and bottom portions of said receptacle.

[Claim 2 not printed in the Gazette.]

1,252,794. AUTOMOBILE-RADIATOR. JACOB FLEISCHMAN and ISIDORE FLEISCHMAN, Jersey City, N. J. Filed Dec. 29, 1916. Serial No. 139,474. (Cl. 257—130.)

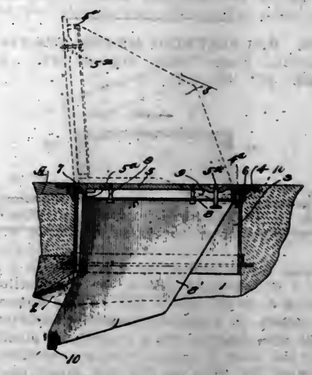


In a radiator of the class described, a body portion consisting of separate vertically arranged sections, each of which extend from the top to the bottom of the radiator, each of said sections being composed of a single sheet of metal having its extremities folded so as to bring the ends of the sheet together at a predeterimned point intermediate the ends of the section, said ends being joined together, the joint of one of the sections being out of horizontal alinement with the joints of adjacent sections, whereby the joint of one section may be repaired without affecting the joints of adjacent sections.

1,252,795. COAL-HOLE COVER. JOSEPH FRANK, New York, N. Y., assignor to Thomas L. Green, New York, N. Y. Filed July 21, 1916. Serial No. 110,583. (Cl. 94—7.)

1. Coal hole covering means comprising a frame, a cover adapted to be seated on said frame and formed on its under side with flanges, guard means comprising an attaching portion seated on said flanges and spaced from the cover, said attaching portion being formed with integral side pieces disposed in spaced relation and projecting downwardly from said cover, fastenings connecting said attaching portion with the cover, and a stop comprising a member connecting the lowermost portions of said side pieces and adapted to abut with the frame to limit the opening movement of the cover.

2. Coal hole covering means comprising a horizontal frame adapted to be positioned in a coal hole, a cover seated on the frame, guard means carried by the under side of said cover and comprising spaced side pieces projecting downwardly from the cover and adapted to move upward as the latter is opened so as to assume guard positions at opposite sides of the coal hole, the said side pieces being formed so that their lower extremities are of such a distance from the free end of the cover as to permit opening movement of the cover through an arc greater



than 90°, and stop means on the lowermost portions of said side pieces coöperative with the frame to limit the extent of said opening movement.

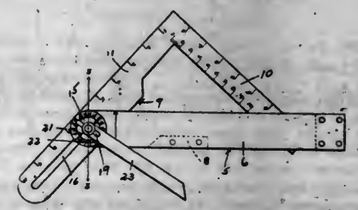
1,252,796. INTERNAL-COMBUSTION ENGINE. RUSSELL ABNER FRISBIE, Middletown, Conn., assignor to The Frisbie Motor Company, Middletown, Conn., a Corporation. Filed Oct. 18, 1916. Serial No. 126,416. (Cl. 123—122.)



1. An internal-combustion engine comprising a set of cylinders provided with an inlet manifold and an exhaust header, a carbureter connected to the said manifold, a second carbureter, and a converter, the said converter having an exhaust chamber connected to the said header and a fuel chamber connected between the said second carbureter and the said manifold, and a trap serving as the connecting means for the said first carbureter and the said converter with the said manifold.

[Claim 2 not printed in the Gazette.]

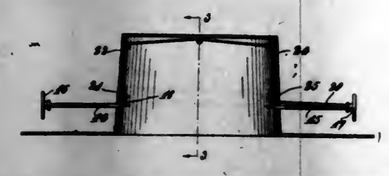
1,252,797. COMBINED SQUARE AND BEVEL. WILLIAM H. GOLDING, Tenafly, N. J. Filed Mar. 12, 1917. Serial No. 154,284. (Cl. 33—92.)



An instrument of the class described, comprising a body portion consisting of spaced bars, one of which is provided with an opening and the other with a recess opposite said opening, a pivot member mounted in said opening and having an extension projecting into said recess, a

square having one arm interposed between said bars and having a longitudinal slot for receiving said extension, and a bevel arm pivotally associated with said pivot member.

1,252,798. HAT-SECURING MEANS. WACTAW GOLJAN, Cosmopolis, Wash. Filed Aug. 6, 1917. Serial No. 184,735. (Cl. 132—25.)



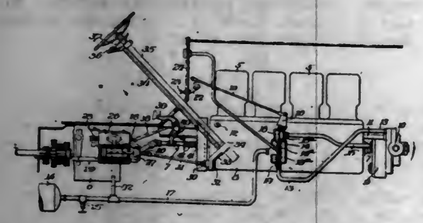
1. In a hat securing device, the combination with a hat having a crown, and a pair of pins oppositely positioned therein of a flexible connecting element engaged with said pins whereby when one of said pins is pressed inwardly the other is caused to move toward it and upon withdrawing the other pin the first named pin is caused to move outward.

2. In a hat securing device, the combination with a hat having a crown, a pair of pins oppositely engaged in said crown, connection between said pins whereby they are moved simultaneously, bushings set in said crown through which said pins pass, and means combined with said pins adapted to retain the same in an adjusted position within said crown, said means being in contact with the inner side of said bushings.

3. In a hat securing means, the combination with a crown of a hat, and a pair of oppositely positioned pins enterable therein, of an eye formed near the point of one of said pins, flexible elements engaging with said eye, means for supporting said flexible elements engaged with said crown, connections between said flexible element and the other of said pins adjacent to the head thereof, and means for securing said pins when fully entered through said hat crown.

4. In a hat retaining device, the combination with the crown of a hat, a pair of pointed pins provided with heads engageable in said crown, a cord engaged near the front of one of said pins, and near the head with the other of said pins, a plurality of guides for said cord attached to said crown, whereby said pins are operated in unison, and means for retaining said pins when in operative position.

1,252,799. FLUID-PRESSURE MOTOR AND TRANSMISSION APPARATUS. EDWARD E. GRAY, Plano, Ill., assignor to Gray Pneumatic Gear Shift Company, a Corporation of Illinois. Filed Mar. 9, 1914. Serial No. 823,302. (Cl. 123—179.)



1. In fluid pressure starter and compressor mechanism for automobile engines; the combination with a fluid pressure reservoir; of a common housing having a separate tubular connection with the starter, the compressor, and the reservoir; a valve in the housing to admit fluid under pressure from the compressor through the housing to the reservoir; and another valve in the housing to admit fluid under pressure from the reservoir through the housing to the starter.

2. In fluid pressure starter and compressor mechanism for automobile engines; the combination with a fluid pressure reservoir; of a common housing having a separate tubular connection with the starter, the compressor, and the reservoir; and a double valve in the housing comprising a check valve between the compressor and reservoir connection, and a single manually operable valve between the starter and reservoir.

3. In fluid pressure starter and compressor mechanism for automobile engines; the combination with a fluid pressure reservoir; of a housing having a chamber connected at one end with the starter, at the other end with the compressor, and intermediate the ends with the reservoir; and a double spring-pressed valve in the housing comprising a check valve for the compressor connection and manually operable valve for the starter connection.

[Claims 4 and 5 not printed in the Gazette.]

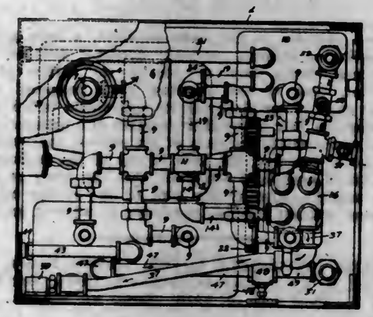
1,252,800. PROCESS FOR PRODUCING PRINTING-PLATES. ALBERT J. HAIN, Lakewood, Ohio. Filed Oct. 22, 1915. Serial No. 57,247. (Cl. 91—69.)

1. A step in the production of etched plates which consists in providing a suitable surface with a multiplicity of isolated light-sensitized areas.

2. A step in the production of etched printing plates consisting in providing an etching plate with a suitable etching fluid resist and applying upon this a multiplicity of isolated areas of a material containing an element effected by light.

3. A step in the production of etched plates which consists in providing a suitable support with a suitable etching fluid resist and applying upon this a multiplicity of isolated areas containing a light-sensitive metallic salt.

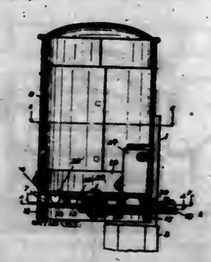
1,252,801. ICE-MACHINE. HERMAN S. HELLER, San Francisco, Cal. Filed Sept. 5, 1916. Serial No. 118,580. (Cl. 62—115.)



1. An ice machine comprising a container arranged to contain a suitable cooling agent such as brine or the like; a coil within the container arranged to conduct a refrigerant: congealing and cooling chambers inserted within the container; means adapted to temporarily seal the chambers; a water container connected to the chambers; suitable pumps connected to the chambers and the coil within the container and adapted to compress and circulate a refrigerant through said coil and to lower the air pressure within the chambers whereby said lower pressure may be utilized to draw water from the container and spray the same onto the cooled walls of the chambers; and means adapted to connect the chambers to the water container or the pumps and means adapted to expand the refrigerant within the coil and thereby lower the temperature of said refrigerant.

[Claims 2 and 3 not printed in the Gazette.]

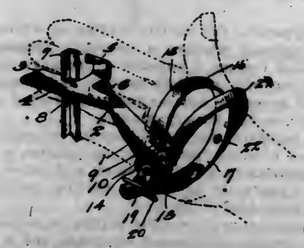
1,252,802. HAND-PLANTER. CLAYTON D. HIMEBAUGH, Burr Oak, Mich., assignor to Sheffield Mfg. Co., Burr Oak, Mich. Filed Apr. 13, 1917. Serial No. 161,763. (Cl. 221—119.)



1. In a planter, the combination of a hopper comprising a cylindrical metal wall member having a horizontal slot adjacent the lower end thereof, and a bottom consisting of superimposed plates of thin sheet metal, the lower plate being provided with a peripheral downturned flange fitting within said wall member, said plates being rigidly secured together and said flange being rigidly secured to said wall member by spot welding, said lower plate having a segmental recess pressed therein, the upper plate being flat and constituting a cover for said recess and a smooth support for the rotatable feed members superimposed thereon, said plates having central bearing openings and alined discharge openings therein, a feed lever disposed in said recess to project through said slot, a shouldered bearing for said lever disposed through said bearing openings in said bottom plates, feed members rotatably mounted on said bottom, a journal therefor disposed through said lever bearing member, a retaining ring for said feed members arranged within said hopper, and operating connections for said lever to said feed members.

[Claims 2 and 3 not printed in the Gazette.]

1,252,803. CORN OR GRAIN KNIFE. THOMAS B. HOLLIDAY, Potosi, Tex., assignor of one-half to Walter R. Griffith, Moro, Tex. Filed Mar. 19, 1917. Serial No. 155,774. (Cl. 30—9.)



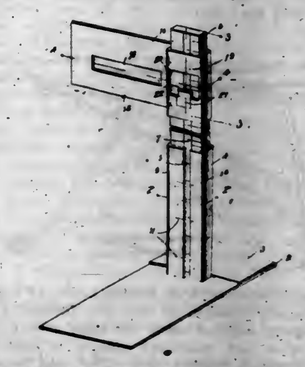
In a device as described, the combination with a hand plate and attaching strap, of a cutting blade, an angle plate fixed to the blade and pivoted on the hand plate, an integral gathering blade pivoted at the free end of the cutting blade and movable in a plane at right angles to the plane of motion of the pivoted joint between the hand plate and cuting blade, and said gathering blade comprising a pair of parallel plates, a pair of finger hooks projecting therefrom in the same plane therewith, and a pair of oppositely extending finger arms at right angles to the finger hooks.

1,252,804. DUPLEX ENVELOP. WILLIAM B. HOLLINGSHEAD, Chicago, Ill. Filed May 11, 1917. Serial No. 167,874. (Cl. 229—69.)

3. In a duplex envelop, a rectangular blank having its opposite ends folded to provide adhesive flaps, the ends of which have foldable corners to provide binding flaps and the blank being also folded on a central line and on diagonal lines running from one end of the central line to the flap creases, the whole being folded to provide two separate pouches or compartments that can subsist in a unitary structure or be separable into two distinct individual envelops.

[Claims 1, 2, and 4 to 6 not printed in the Gazette.]

1,252,805. SKIRT-MARKER. ENOS A. HURD, Woodward, Okla. Filed Mar. 3, 1917. Serial No. 152,366. (Cl. 33—9.)



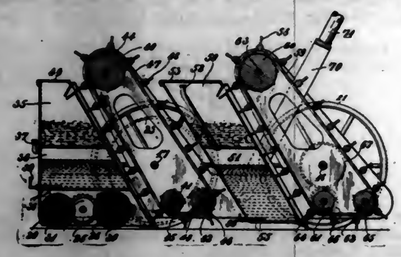
1. In a skirt marker, a supporting base, an upstanding socket carried by said supporting base, a measuring stick removably carried by said socket, a marking plate adjustably carried by said marking stick, said marking plate provided with a longitudinally extending opening, one end of said marking plate being bent to form a substantially rectangular portion for encompassing a portion of said measuring stick, one side of said rectangular portion being provided with an opening, a tongue formed upon said marking plate and extending upwardly into said opening, the upper edge of said tongue adapted for coaction with the graduations upon said measuring stick and being positioned in alinement with the center of the longitudinally extending opening formed in the marking plate.

[Claims 2 to 4 not printed in the Gazette.]

1,252,806. FLOOR-CLEANER. LEON JANUSZ, Milwaukee, Wis. Filed Jan. 10, 1917. Serial No. 141,519. (Cl. 15—14.)

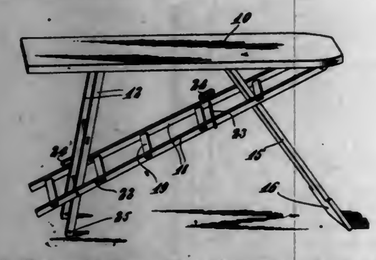
A floor cleaning machine comprising a wheeled frame, a pair of partitioned tanks mounted respectively at the front and rear of said frame, each tank having upper and lower compartments and an inclined rear wall having an opening near the top to the upper compartment therein, means for removably engaging said tanks with said frame, means for filling the lower compartments in said tanks independently of the upper compartment, a pair of rotatable roller brushes under the foremost of said tanks, means for delivering the contents of the lower compartment of said foremost tank to one of said pair of roller brushes, means for dispensing the contents of the lower compartment in the rear tank, endless

wiper carriers engaging the inclined walls of said tanks, means for the actuation of said carriers, and means com-



bined with said wiper carriers for conveying accumulations to the mentioned openings to the upper compartments in both of said tanks.

1,252,807. DOMESTIC APPLIANCE. STANISLAW JACHIMCZAK, Gary, Ind. Filed July 6, 1917. Serial No. 179,002. (Cl. 228—32.)



1. The combination with an ironing board, of a pair of supports hingedly engaged at one side thereof, a plate support hingedly engaged upon the same side, a ladder having its upper end removably engaged in said board, means for releasably holding said ladder, and means for clamping said ladder in an adjusted position.

2. The combination with an ironing board, of supports for said board pivotally engaged therewith at one side thereof, a pair of oppositely disposed blocks each having a transverse recess, and slidably engaged within a recess formed in said board, a ladder having its end engageable with said blocks, and means for releasing or tightening said blocks upon the cross piece engaged with the recesses in said blocks and with the ends of said ladder.

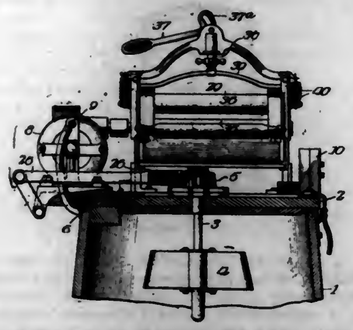
1,252,808. WASHING-MACHINE. JOHN D. A. JOHNSON, Muskegon, Mich. Filed Feb. 24, 1914. Serial No. 820,593. (Cl. 74—50.)

1. The combination of a reciprocating driving bar, a rock shaft operatively connected therewith, a worm wheel, a connecting rod operatively connected with the wheel and rock shaft, a worm operating the wheel, and a prime mover for actuating the worm.

3. The combination, with a supporting plate having a vertical bracket, a driving bar, a rock shaft journaled in the plate and operatively connected with the bar, a gear journaled in the bracket, means for operatively connecting the gear and rock shaft and a prime mover mounted upon the plate for actuating the gear.

7. The combination of a supporting plate having a bracket, a reciprocating driving bar, a rock shaft operatively connected therewith and journaled in the plate, a gear journaled in the bracket and having a crank pin, a bearing block on the pin, a connecting rod pivotally connected at one end with the block, a crank arm on the rock shaft, a bearing block thereon pivotally connected with the other end of the connecting rod, and a motor for actuating the gear.

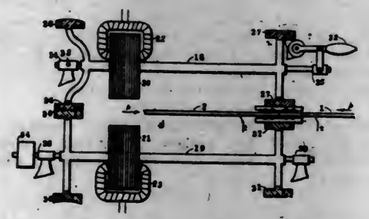
8. The combination of a supporting plate having a bracket, a reciprocating driving bar, a rock shaft journaled in the plate and operatively connected with the bar, a gear journaled in the bracket and operatively connected



with the rock shaft, a motor on the plate for driving the gear, a driving shaft connected with the gear, a driven gear, and a coupling between the shafts with a lost motion.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,252,809. APPARATUS FOR ELECTRIC WELDING. CHARLES H. KICKLIGHTER, Atlanta, Ga. Original application filed Jan. 26, 1914, Serial No. 814,384. Divided and this application filed June 15, 1914. Serial No. 845,066. (Cl. 219—4.)



1. An apparatus for electric heating or welding, comprising a primary winding, a secondary member inductively related thereto, a terminal or terminals integrally mounted upon said secondary member, and means for rotating said secondary member and said terminal or terminals relative to the primary winding.

10. An apparatus for electric heating or welding comprising two rotating transformer secondaries, a pole of each terminating in a roller contact, said contacts being adapted to apply the heating or welding current to directly opposite sides of the work.

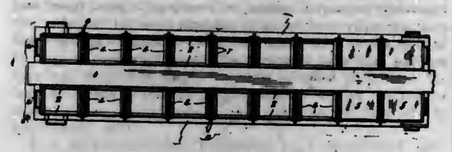
19. An apparatus for electric heating or welding, comprising a rotating transformer secondary and a rotating conductor for conveying heating or welding current, the poles of said transformer secondary terminating in a pair of conducting roller contact rings, one of said contact rings and a portion of the rotating conductor being adapted to apply the heating or welding current to directly opposite sides of the work.

[Claims 2 to 9 and 11 to 18 not printed in the Gazette.]

1,252,810. INTERCHANGEABLE-UNIT CAR. HENRY W. KIRCHNER, St. Louis, Mo., assignor to River and Rail Transportation Company, St. Louis, Mo., a Corporation of Oklahoma. Filed Apr. 21, 1915. Serial No. 22,822. (Cl. 105—15.)

1. A car of the class described including longitudinal and transverse underframe members, longitudinal series of seats supported on said underframe members and spaced

apart transversely of the car, independently removable containers supported on said seats, and manipulative mechanism for securing said containers on the seats.



3. A car of the class described including an underframe, seats mounted on said underframe, and securing means disposed adjacent said seats and adapted to secure containers therein; said seats being spaced apart transversely of the underframe to provide a passageway.

8. In a car of the class described, a removable container provided with keepers disposed adjacent its opposite sides, and a securing mechanism including loops movable to engage said keepers, means for swinging said loops into and out of engagement with said keepers, and means for locking said loops against movement; said securing mechanism being affixed to the car.

[Claims 2, 4 to 7, 9, and 10 not printed in the Gazette.]

1,252,811. TEMPERATURE-ANNUNCIATOR. MAXIMILIAN KLAIBER, North Hackensack, N. J. Filed Jan. 4, 1917. Serial No. 140,595. (Cl. 20—32.)



1. A method of making a tube for a thermostatic circuit closer, which consists in firmly embedding a metal member in a solid non-conducting cylinder and afterward forming a bore through said cylinder and through said metal member, so as to form a continuous bore having an annular conducting contact member at a predetermined point along the said bore of said tube.

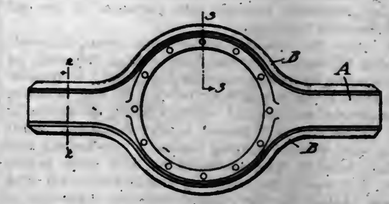
3. In a thermostatic circuit closer, a reservoir containing mercury, a non-conducting tube made of non-fragile material connected to said reservoir, said tube having a conducting member firmly embedded therein and having a continuous bore extending through it and said conducting member.

[Claim 2 not printed in the Gazette.]

1,252,812. REAR-AXLE HOUSING. WILLIAM H. KLOCKE, Woodhaven, N. Y. Filed Jan. 3, 1917. Serial No. 140,361. (Cl. 21—5.)

1. In a device of the class described, a longitudinally parted axle housing, flanges along the longitudinal free edges of the parts of said housing, which flanges lie in angular relation to the plane of parting of the housing, and a locking strip provided with a rib adapted to lie between said flanges with the opposite faces of said rib in face engaging relation with the inner faces of the flanges, the lateral edges of said strip being bent over the free edges of the flanges and into face engaging relation with the outer faces of said flanges.

2. A rear axle housing embodying two complementary sections, in combination with locking strips each of which is provided with a rib adapted to lie between one of the free edges of each of the sections, the lateral halves of each strip being bent over the adjacent edges of the sections whereby each free edge of said sections is clamped between the rib of the locking strips and one of the lateral halves of one of said strips.



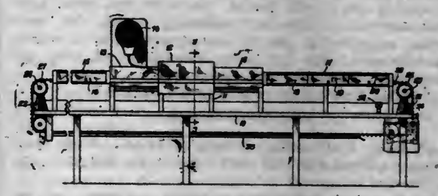
3. In a device of the class described, an axle housing embodying two complementary sections, and flanges at the lateral edges of said sections, in combination with two members each of which embodies an elongated strip provided at one face with a medial rib extending longitudinally of the strip, said ribs being positioned between the contiguous flanges of the two sections of the housing and the lateral halves of the strips bent over the edges of said flanges and into face abutting relation with the outer faces of said flanges.

4. In a device of the class described, a rear axle housing longitudinally divided into two complementary sections, flanges along the longitudinal free edges of each section of the housing, which flanges extend in angular relation to the plane of division of the housing and a pair of locking strips each provided with a longitudinally extending medial rib adapted to lie between each pair of flanges and so shaped that the opposite faces of each rib will be in substantially face engaging relation with the inner faces of the adjacent flanges, the lateral halves of each strip being bent over the free edges of the flanges and into face engaging relation with the outer faces of said flanges.

5. In a device of the class described, a rear axle housing longitudinally divided into two complementary sections, flanges along the longitudinal free edges of each section of the housing, which flanges extend in non-parallel relation to the plane of division of the housing and a pair of locking strips each provided with a longitudinally extending medial rib adapted to lie between each pair of flanges and so shaped that the opposite faces of each rib will be in substantially face engaging relation with the inner faces of the adjacent flanges, the lateral halves of each strip being bent over the free edges of the flanges and into face engaging relation with the outer faces of said flanges.

[Claims 6 to 12 not printed in the Gazette.]

1,252,813. BAKING-OVEN. FREDERIC S. KOCHENDORFER, Chicago, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Nov. 11, 1916. Serial No. 130,749. (Cl. 219—35.)



1. An oven for baking incandescent lamp filaments comprising in combination, a main baking chamber, an

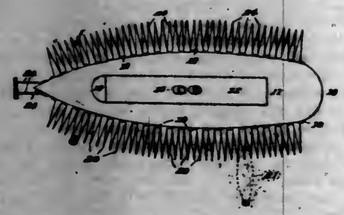
electric heating means inclosing said chamber, a pre-heating chamber and a cooling chamber directly connected to either side of said main baking chamber, a feeding chamber and a removing chamber directly connected respectively to said pre-heating chamber and said cooling chamber, a conveying means whereby the filaments are drawn through said chambers at a uniform, predetermined rate, and signaling means associated with said removing chamber operated when said conveyer has drawn said filaments through said chambers to the end of said removing chamber.

3. An oven for baking incandescent lamp filaments comprising in combination, a main baking chamber, an electric heating means comprising a plurality of parallel resistor circuits uniformly distributed over and inclosing and completely surrounding said chamber, a source of current supply for said means, a heat insulating means inclosing said electric heating means, a pre-heating and a cooling chamber inter-connected by said main baking chamber, a temperature recording means associated with said main baking chamber, and a conveyer consisting of two parallel chains whereby the filaments are drawn through said chambers at a uniform, predetermined rate.

5. In an oven for baking incandescent lamp filaments, the combination with a main baking chamber, of an electric heating means comprising a plurality of parallel circuits uniformly distributed over said baking chamber whereby the heat is evenly applied to all parts of said chamber, a source of current supply for said means, means associated with each of said circuits for switching them into and out of connection with said source to vary the intensity of the heat applied but not affecting its uniformity, means to control the intensity of the current flowing in said circuits, a pre-heating and a cooling chamber in direct communication with said main baking chamber, an admission and a removing chamber, and a conveying means operating through said chambers which carries the filaments through said chambers.

[Claims 2 and 4 not printed in the Gazette.]

1,252,814. SHIP-PROTECTOR. WILLIAM KOSTIW, Buffalo, N. Y. Filed Oct. 8, 1917. Serial No. 195,359. (Cl. 114—240.)



1. A ship protector comprising a plurality of strips adapted for attachment to the exterior of a hull, and V-shaped spurs arranged equally spaced apart upon the said strips and alternately positioned upon adjacent strips.

2. A ship protector comprising elongated mounting means arranged in parallelism adjacent the water line of the hull, outwardly projecting V-shaped spurs equally spaced apart and alternately positioned upon the said mounting means and having sharpened free ends, holdfast devices for the said mounting means, the spurs being adapted for the holding reception of a missile therebetween with the point thereof spaced from the hull upon which the device is arranged.

[Claims 2 and 4 not printed in the Gazette.]

1,252,815. PADLOCK. FEODOR KOVALSKI, West Lynn, Mass. Filed July 16, 1917. Serial No. 180,841. (Cl. 70—105.)

1. A padlock comprising a casing, a locking bolt arranged therein, a cover plate for said casing having two key hole slots therein, a guard plate superposed on said cover plate, one of the said slots being adapted for the reception of a key for actuating the said bolt, a locking latch for said guard plate, a shifting cam for said latch revolubly arranged within said casing, a post upon said cam normally positioned in alinement with the other one of said cover plate slots and a key releasable spring catch for the said cam arranged adjacent the cam.



2. A padlock comprising a casing, a shackle upon said casing, a locking bolt for the shackle, a cover plate for the casing having a slot adapted for the reception of an operating key for said bolt, the said cover plate provided with a second slot adapted for the reception of a releasing key for said latch, and a guard plate for said slots pivoted upon the cover plate and arranged with a key receiving slot adapted to register with either of the slots of said cover plate selectively, and a latch within the casing controlling the movement of the guard plate.

3. A lock comprising a casing, a sliding bolt within the casing, a cover plate for the casing having a key receiving slot adjacent said bolt, a guard plate revolubly mounted upon said cover plate having a slot therein adapted to register with the slot of the cover plate, a retaining latch for said guard plate arranged within the casing, a controlling cam for said latch journaled within the casing, a spring catch for the cam arranged adjacent the latter, a key adapted for releasing the said catch and operating the said cam, the said cover plate being provided with a second slot adapted to register with the slot of the guard plate and arranged outwardly of said cam adapted for the reception of said key.

1,252,816. METAL FILING-CASE. LUDWIG T. KUEHL, Benton Harbor, Mich., assignor, by mesne assignments, to Baker-Vawter Company, Benton Harbor, Mich., a Corporation of Michigan. Filed Nov. 24, 1913. Serial No. 802,669. (Cl. 45—2.)



2. A filing case consisting of a plurality of units, each of which includes a frame-work comprising similar vertically-disposed front and rear frames of strap-iron and longitudinal connecting pieces forming horizontal slideways, the metal of each frame being cut to form depending lugs flush with the sides of the frame and the frame being cut away at the upper corners to form openings extending down its sides adapted to receive the lugs of a superposed unit.

3. A filing case consisting of a plurality of units each of which includes a framework comprising similar vertically-disposed front and rear frames of strap-iron, longitudinal connecting pieces forming horizontal slideways, the metal of the rear frame being cut to form depending hook-shaped lugs flush with the sides of the frame and the upper corners of each frame being cut away to form openings extending down its sides adapted to receive the lugs of a superposed unit, the openings of the rear frame being under cut to receive the hook-shaped lugs of the superposed unit.

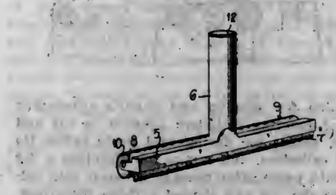
5. A filing case unit consisting of a framework comprising similar vertically-disposed rectangular front and rear frames of strap-iron, longitudinally extending angle-irons forming horizontal slideways secured to the lower corner of such frames, and a flanged cover-plate secured to the upper portion of said frames, said plate sitting into the upper corners of the frame and closing the top of the frame opening.

7. A filing case consisting of a plurality of units each of which includes a framework having at its lower corners depending lugs and openings at its upper corners to receive the lugs of a superimposed unit, means for securing together two sections placed side by side comprising plates each having a hole through which pass the lugs at the inner corners of two laterally-adjacent units, and leveling plates arranged at the outer corners of such units.

11. A cabinet union or section having a skeleton frame made up of a front pair and a rear pair of uprights, front and rear cross bars connecting the upper ends of the front and rear uprights respectively, opposite angle bars connecting respective front and rear uprights, the bottom flange of each angle bar extending inwardly, and a top plate lying within the uprights and having depending longitudinal flanges, said unit being formed to interlock with adjacent units in the same stack.

[Claims 1, 4, 6, 8 to 10, and 12 not printed in the Gazette.]

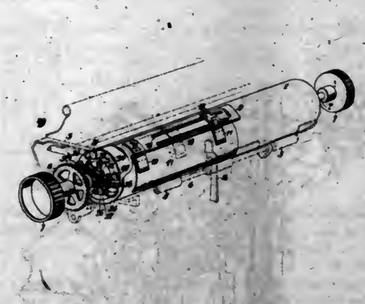
1,252,817. ENVELOP-SEALING DEVICE. HARRY KUGELMAN, Portsmouth, Ohio, assignor of one-half to Arthur Kugelman, Portsmouth, Ohio. Filed May 8, 1916. Serial No. 96,146. (Cl. 120—6.)



An envelop moistener and sealer comprising a hollow handle constituting a water reservoir, an elongated holder on one end of the handle extending at right angles to the axis thereof, a moistening strip secured in the holder and in line with the handle, in combination with a presser roller mounted upon one side of the handle and immediately below the moistening strip and extending substantially the entire length of said holder.

1,252,818. [WITHDRAWN.]

1,252,819. TYPE-WRITING MACHINE. ALFRED G. F. KUROWSKI, Brooklyn, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed June 24, 1915. Serial No. 35,984. (Cl. 197—136.)



3. The combination with a platen, of a card-holder detachably secured to the platen, said holder when attached to the platen, having a movement thereon to permit of insertion of cards, a stop for limiting said card inserting movement, and means whereby said stop may be used at will to release the holder from the platen.

7. The combination with a rotatable platen, of a card holder, a spring clutch, one member of the clutch being carried by the holder and the other by the platen, and the clutch members being positioned to engage each other when in registration, upon movement of the holder perpendicularly toward the platen axis.

9. The combination with a rotatable platen, of a card-holder, a retaining plate on one end of the platen having a radial channel therein, and a projection on the holder adapted to enter and be locked in said channel.

13. The combination with a rotatable platen having a disk fast to one end thereof, of a plate adapted to be seated upon the periphery of said disk, a projection extending from the plate into the edge of the disk for interlocking the two, a clutch for holding said parts interlocked, and a card-holder pivoted to the plate and having a part thereof adapted to be swung against the periphery of the disk, by the movement of the holder on its pivot, to lift the plate off the disk.

15. The combination with a rotatable platen having a disk fast to one end thereof, of a card-holder having an attachment comprising a tongue, recessed to receive a ball, and adapted to enter an interior radial channel in said end disk, said disk carrying a ball loosely seated in a hole which extends from the channel to the outer face of the disk, and a spring for holding the ball on its seat and for causing the ball to enter the recess in the tongue to lock the latter to the disk.

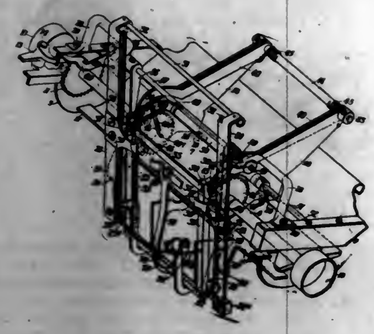
[Claims 1, 2, 4 to 6, 8, 10 to 12, 14, 16, and 17 not printed in the Gazette.]

1,252,820. TYPE-WRITING MACHINE. ALFRED G. F. KUROWSKI, Brooklyn, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed July 19, 1915. Serial No. 40,572. (Cl. 197—135.)

1. The combination with a revoluble platen structure, of a card holder, means for effecting a line-space feed of the platen structure, a line-feeding mechanism for said card holder, said card holder being normally movable independently of the platen, and means to enable said platen structure to operate the line-feeding mechanism of the card-holder.

4. The combination with a platen, of a card holder, means for effecting a line-space feed of the platen, means for connecting the card holder to the platen for a feed of the card holder with the platen, means for automatically disconnecting the platen and card holder after each

feed, and means for holding the card holder in its advanced position after each feed.



12. The combination with a rotatable platen, of means for effecting a line-space movement of the platen, a card holder, a toothed wheel rotatable with the platen, a rack on the card holder, a dog or pawl vibratable by the teeth of said wheel to engage the rack and advance the card holder step by step with the movement of said wheel, and a spring-controlled dog to hold the card holder in its advanced position after each feed thereof.

16. The combination with a rotatable platen, of a relatively flat card holder, a fixed frame on which the card holder is adapted to slide, means for effecting a line-space feed of the card holder on the frame, and spring fingers attached to the frame for pressing the card against the platen at the printing line.

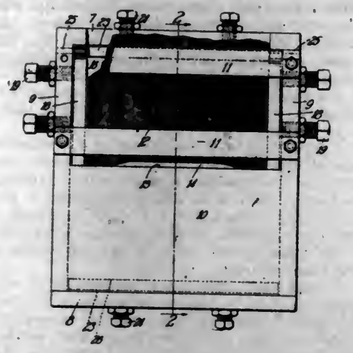
32. The combination with a platen and line-spacing mechanism therefor, of a card-holder, means for effecting a line-space feed of the platen, and a pawl-and-rack mechanism between the platen and the card-holder and operable by the platen for effecting a line-space feed of the card-holder.

[Claims 2, 3, 5 to 11, 13 to 15, and 17 to 31 not printed in the Gazette.]

1,252,821. ADJUSTABLE DIE. GEORGE H. LEWIS, Chicopee Falls, Mass., assignor to The Fisk Rubber Company, Chicopee Falls, Mass., a Corporation of Massachusetts. Filed July 14, 1917. Serial No. 180,604. (Cl. 18—12.)

1. A die head, comprising, a casing provided with an inlet into which material may be forced and a die opening through which the material may emerge, a group of movable members between the inlet and die opening arranged to form a wall of a converging passage, and means to simultaneously move all said members by varying increments increasing progressively from one end of the group to the other.

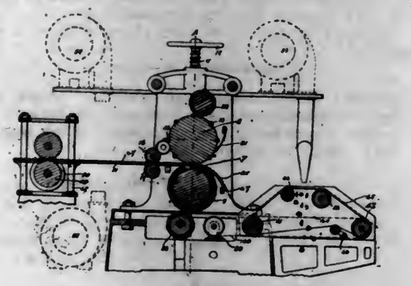
10. A die head, comprising, a casing having a tubular inlet and a hollow rectangular boxlike portion, an elongated die outlet formed in the front wall of said portion, groups of plates stacked face to face within the casing, the inner ends of each group being inclined from the outlet toward the inlet, and the inner ends being laterally concaved to varying degrees so that a convergent passage gradually changing from substantially the shape of the inlet to substantially that of the outlet is provided, and means to simultaneously move all the



plates of each group by varying increments increasing progressively from the outlet to the inlet.

[Claims 2 to 9 and 11 not printed in the Gazette.]

1,252,822. MACHINE FOR SHAPING AND CUTTING OUT ALIMENTARY PASTES. FILIPPO LORIOLI, Milan, Italy, assignor to Vitaliano Tommasini, Milan, Italy. Filed Sept. 1, 1914. Serial No. 859,679. (Cl. 107—4.)



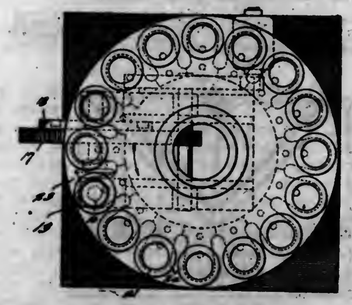
1. In a machine for shaping and cutting alimentary pastes, a pair of coacting cylinders adapted to cut and shape the paste, means for drying said paste before its passage to said cylinders, and means for directing a jet of air against said paste after passage between said cylinders to remove the cut and shaped articles therefrom.

2. In a machine for cutting and shaping alimentary pastes, a pair of coacting cylinders adapted to cut and shape the paste, a ring of hardened steel provided with circular grooves and ribs at each end of one of said cylinders, and a ring of hardened steel provided with circular ribs and grooves at each end of the other of said cylinders, the ribs of the first mentioned rings fitting exactly within and rotating in the grooves of the last mentioned rings, whereby any displacement of the cylinders relatively to their respective coacting positions is prevented.

1,252,823. MECHANICAL MOVEMENT. LAWRENCE L. LUDINGTON, Muncie, Ind., assignor to Ball Brothers Glass Manufacturing Company, Muncie, Ind., a Corporation of Indiana. Filed June 2, 1917. Serial No. 172,381. (Cl. 74—41.)

1. A mechanical movement comprising a rotatable crank provided with a wrist pin and a coöperating rotatable

element comprising a circular series of teeth, each of which has a circular end having a radius substantially equal to the radial distance between the crank axis and the wrist pin and having subtending converging sides par-



allel with the adjacent sides of adjacent teeth and spaced therefrom a distance substantially equal to the diameter of the wrist pin.

[Claim 2 not printed in the Gazette.]

1,252,824. COLLAPSIBLE CRADLE. ABRAHAM MELNIKER, Brooklyn, N., Y. Filed Aug. 22, 1917. Serial No. 187,669. (Cl. 5—56.)



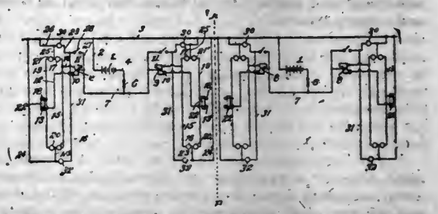
2. A collapsible cradle made of a flexible fabric and a frame, said frame comprising front pieces connected by a hinge, rear pieces connected by a hinge and opposite said front pieces, side frame pieces, removable connecting means intermediate and connecting said side pieces and said front and rear pieces, said side pieces being capable of being placed one above the other by opening said hinged front and rear pieces, and said doubled-over front and rear pieces being capable of being placed adjacent said side pieces, said fabric being sufficiently bendable to permit the rolling thereof over the said adjacent frame pieces, the back of one of the halves of said fabric having fasteners so located that when said fabric is rolled over the said frame pieces, the said fasteners are in proper position to coöperate and fasten the said fabric around the said frame.

[Claim 1 not printed in the Gazette.]

1,252,825. AUTOMATIC DEVICE FOR CONTROLLING THE SIGNAL-LIGHTS OF VEHICLES. WILLIAM S. MENDEN, Brooklyn, N. Y., assignor to Megosin Company, Inc., a Corporation of New York. Filed Dec. 2, 1913. Serial No. 804,225. (Cl. 246—28.)

1. In a system for controlling signals on a vehicle, the combination of a source of power, a signal, means for automatically connecting said signal with said source of power and disconnecting it therefrom, and other means whereby said system is rendered operative for certain zones of travel and inoperative for other zones of travel.

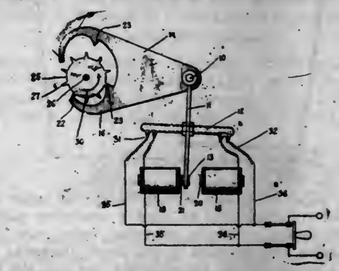
3. In a vehicle, lights of different colors at one end of said vehicle, lights of different colors at the other end of said vehicle, direction-controlling means at each end of the vehicle capable of assuming "forward" or "off" positions, and circuits under the control of said direction-controlling means for energizing lights of different colors at opposite ends of said vehicle when said direction-controlling means at opposite ends are respectively in "forward" and "off" positions, said circuits being adapted to energize only lights of the same color at both ends of the vehicle when the direction-controlling means at both ends of the vehicle are in "off" position.



5. The combination with a pair of vehicles adapted to be coupled together, of a reverse staff at each end of each of said vehicles, signals of different characters at each end of each of said vehicles, means operated by the movements of said reverse staffs for selectively operating said signals, and means for coupling the circuits of one vehicle with those of the other vehicle, said coupling means being adapted to automatically cut out the lights on the adjacent ends of said vehicles.

[Claims 2 and 4 not printed in the Gazette.]

1,252,826. VIBRATORY ACTUATOR. EDWIN H. MESSITER, Brooklyn, N. Y. Filed Aug. 15, 1914. Serial No. 856,917. (Cl. 172—126.)



1. A vibratory actuator comprising in combination, a driven star wheel, a bell crank lever comprising a double pawl near the outer end of one arm of the lever, an armature near the outer end of the other arm of the lever, electro-magnets on opposite sides of the armature, and control means on the bell crank lever and adapted to alternately energize the electro-magnets to oscillate the pawl.

2. A vibratory actuator comprising in combination, a driven star wheel, a bell crank lever comprising a vertical arm, an armature therefor, a contact-carrying tube extending transversely of the vertical arm conducting liquid in the tube adapted to selectively engage the contacts, stationary magnets adapted to oppositely influence the armature, and a pawl arm fashioned to provide a pair of fingers disposed on opposite sides of the star wheel, each of said fingers having an actuating projection and a stop projection.

3. A vibratory actuator comprising in combination, a driven star wheel, an actuating pawl therefor, an oscillating arm connected with and depending vertically from the pawl, an armature therefor, a contact-carrying tube extending transversely of the arm, conducting liquid in the tube adapted to selectively engage the contacts, and stationary magnets adapted to oppositely influence the armature.

1,252,827. SLIDING CASTER FOR FURNITURE. ROBERT E. MILLER, New York, N. Y. Filed Dec. 19, 1916. Serial No. 137,831. (Cl. 155—33.)

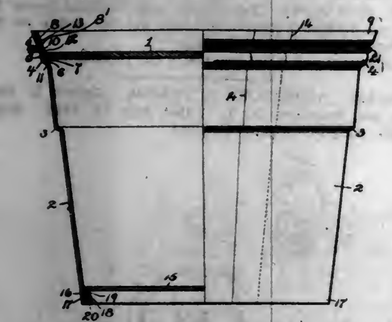
1. A sliding caster for furniture adapted to be formed from sheet metal having a convex hardened dome, a

flange surrounding said dome extending outward therefrom and united to said dome around its perimeter, portions of said flange being cut and bent down forming prongs, said prongs lying within the outer perimeter of said flange and adapted to be driven into wood to secure said caster thereto.



2. The combination set forth in claim 1 having an axial line of the prongs of substantially continuous metal extending from the curved perimeter of the dome and lying at right angles to the plane of the perimeter of said dome.

1,252,828. PAPER RECEPTACLE. ARLINGTON MOORE, Newark, N. J. Filed June 3, 1916. Serial No. 101,490. (Cl. 229—3.)



1. In a paper receptacle, a body having its upper margin doubled over inwardly to form a reinforced portion, said body having a single thickness below said reinforced portion and provided in the single thickness wall with an annular groove for receiving the lid, the reinforced portion being expanded outwardly and being calendered smooth on its interior, and the reinforced portion and the adjacent single thickness portion together forming a smooth interior wall for leading a lid into the groove, substantially as set forth.

3. In a paper receptacle, an all paper body having an annular groove for receiving the lid, a second annular groove below and shallower than the first-named groove, and a lid supporting shoulder between said grooves and having a substantially broad flat upper face on which the lid is adapted to rest, substantially as set forth.

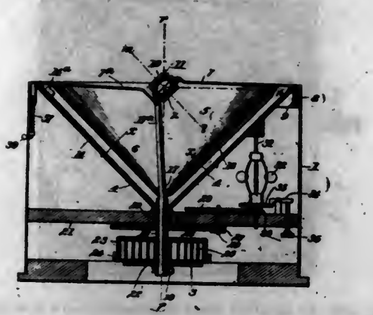
9. In a paper receptacle, an all paper body having its top portion turned inwardly and the double thickness portion so provided calendered together and expanded outwardly, and having a broad outwardly extending bead below said double thickness reinforced portion, a pair of annular grooves and an intermediate shoulder on the interior of the body wall opposite said bead, the body walls being calendered and thinned at each of the edges of the outwardly extending bead to give the body an inwardly springing tendency at the lid receiving groove, substantially as set forth.

[Claims 2, 4 to 8, and 10 not printed in the Gazette.]

1,252,829. CAMERA. FREDERICK W. MUELLER, Baltimore, Md. Filed Aug. 14, 1916. Serial No. 114,826. (Cl. 95—16.)

4. In a camera, a cone-shaped film support, a lens having its optical center disposed in the axis thereof and adapted to project an image on the film carried by said support, and means for revolving said lens about such axis.

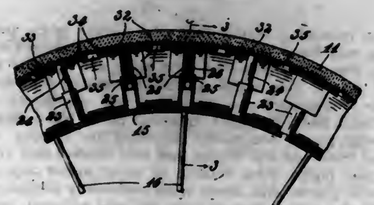
6. In a camera, a cone-shaped film support, a lens having its optical center in the axis thereof and adapted to project an image on the film carried by said support, a focal plane shutter, and means for revolving said lens and shutter simultaneously about such axis.



16. A camera comprising a casing, a removable conical film holder fitting within said casing, said film holder having a fixed base and a rotatable cover nested therein, said cover having a radial slot, a lens mounted with its optical center in the axis of the cone and adapted to project an image on the film carried by said holder, and means for rotating said lens and cover together.

[Claims 1 to 3, 5, 7 to 15, and 17 to 24 not printed in the Gazette.]

1,252,830. AUTO-TIRE. JOHN MUZIK, Eureka, Cal., assignor of one-third to John Suchanek and one-third to Anton Andracek, Eureka, Cal. Filed Oct. 11, 1916 Serial No. 124,957. (Cl. 152—8.)



1. In a tire of the class described, the combination with a hollow resilient tire casing, and a rigid rim engaged therewith, of a plurality of arcuate plates disposed within said tire casing, said plates conforming to its interior, tubes suited to be received in recesses formed in the inner adjacent edges of said tire casing, telescopic elements operable in said tubes, springs contained in said telescopic elements, means combined therewith whereby said springs are caused to press outwardly, said telescopic elements being engaged with said arcuate plates and means for connecting said arcuate plates in such manner as to hold the same spacedly engaged within the tire casing.

2. In a tire of the class described, the combination with a rigid rim, and a flexible hollow tire casing engaged therewith, of a plurality of arcuate, sector-like, resilient plates disposed at spaced intervals within said tire casing, links pivotally connecting said arcuate plates, tubes disposed within recesses formed in the inner adjacent edges of said tire casing abutting against said rigid rim, telescopic elements slidably engaged therein, springs contained in said telescopic elements adapted to exert pressure against said arcuate plates.

1,252,831. [WITHDRAWN.]

1,252,832. EXTENSION SPRING-ROLLER. ENOCH OHNSTRAND, Syracuse, N. Y., assignor to Oliver M. Edwards, Syracuse, N. Y. Filed May 25, 1911. Serial No. 629,302. (Cl. 156—29.)
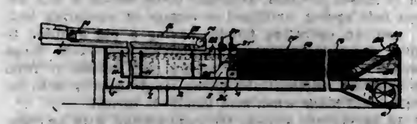


1. An extension spring roller comprising sections having tubular telescoping portions, the inner section having a lengthwise slot and the margins of said section on opposite sides of the slot converging inwardly, a member arranged in the inner section and bearing on the inner face thereof on opposite sides of the slot, said member having a threaded hole alined with the slot, a screw extending through the slot and threading into said member, and means against which the head of the screw bears, said means extending between and engaging said margins, and the screw and said member operating to clamp the inner section within the outer section, substantially as and for the purpose described.

2. An extension roller comprising sections having tubular telescoping portions, the inner section being formed with a lengthwise slot and the margins of the inner section on opposite sides of the slot being turned inwardly, and the outer tubular portion being formed with a perforation alined with the slot, and clamping means including a member arranged within the inner tubular section and a part extending through the perforation and the slot, said part having a conical head the sides of which are opposed to said margins, substantially as and for the purpose specified.

5. An extension spring roller comprising sections having tubular telescoping portions, the outer tubular portion being formed with a peripheral depression and a perforation at the bottom of the depression, the depression forming a boss on the interior of the outer tubular portion, and the inner tubular portion being formed with a lengthwise slot and having its margins on opposite sides of the slot turned inwardly to conform to said boss, a nut arranged within the tubular portion and formed with a groove for receiving the inturned margins of the inner tubular portion, said nut substantially fitting the inner face of the inner tubular portion, and a screw extending through the perforation, and the slot, and threading into said nut, the screw having its head bearing on the upper face of the boss, substantially as and for the purpose described.

[Claims 3, 4, and 6 not printed in the Gazette.]

1,252,833. GRAVITY FRUIT-SEPARATING APPARATUS. GEORGE D. PARKER, Riverside, Cal. Filed May 15, 1917. Serial No. 168,633. (Cl. 130—32.)



1. An apparatus for the treatment of fruit for separating the same in accordance with the difference in the specific gravity thereof, comprising a receptacle for containing a flowing fluid and into which the fruit to be treated is submerged, means for supplying fruit to the receptacle adjacent to one of its ends, a longitudinally extending dividing wall within said receptacle for dividing the same into a plurality of open ended channels arranged in different horizontal planes and through which the fruit is carried by the flowing fluid body in accordance with the specific gravity thereof, and means for adjusting the receiving end of said dividing wall vertically and longitudinally relative to said receptacle.

4. An apparatus for the treatment of fruit for separating the same in accordance with the difference in the specific gravity thereof, comprising a receptacle for containing a flowing fluid body and into which the fruit to be treated is submerged, means for supplying fruit to the receptacle adjacent one of its ends, a plurality of longitudinally extending dividing walls arranged one above the other in spaced relation within said receptacle, the ends thereof adjacent the fruit supplying means being capable of independent longitudinal adjustment relatively to the receptacle, said walls dividing the receptacle into a plurality of open ended channels arranged in different horizontal planes and through which the fruit is carried by the flowing fluid body in accordance with the specific gravity thereof, and means for retaining the adjustable ends of said dividing walls in their adjusted position.

8. An apparatus for the treatment of fruit for separating the same in accordance with the difference in the specific gravity thereof, comprising a receptacle for containing a flowing fluid and into which the fruit to be treated is submerged, means for supplying fruit to the receptacle adjacent to one of its ends, a plurality of longitudinally extending dividing walls arranged one above the other in spaced relation within said receptacle for dividing the same into a plurality of open ended channels arranged in different horizontal planes and through which the fruit is carried by the flowing fluid body in accordance with the specific gravity thereof, a movable lip or guide at the end of each wall adjacent to the point of admittance of the fruit into the receptacle, and independently operated means coöperating with the respective lips or guides for adjusting the same either vertically or longitudinally of said receptacle.

[Claims 2, 3, and 5 to 7 not printed in the Gazette.]

1,252,834. ELECTRIC SAFETY DEVICE AGAINST HOUSEBREAKING, BURGLARY, AND THE LIKE. CESARE PASTORE, Sessa Aurunca, Italy. Filed Apr. 19, 1913. Serial No. 762,168. (Cl. 177—314.)



In an electric safety device of the character described, in combination, a curtain, a net-work of electric conductors carried by the curtain, the conductors being arranged in parallel relation, male spring contacts connected by the conductors, a frame of wood or other material having embedded in it corresponding female contacts suitably insulated, means alternately connecting the female contacts, the male contacts on the curtain entering the female contacts on the frame, the electric connections being arranged so that one continuous circuit is maintained when the curtain is mounted on the frame.

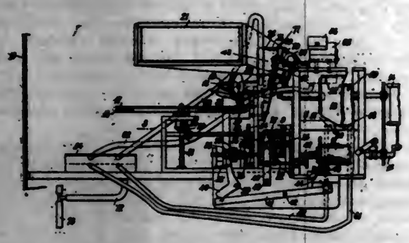
1,252,835. AUTOMATIC MUSICAL INSTRUMENT. SALVATORE PERLA, New York, N. Y. Filed Dec. 13, 1916. Serial No. 136,610. (Cl. 84—193.)

1. In combination with automatic player piano mechanism, a phonograph, means for starting the phonograph at a predetermined period of the operation of the player mechanism and independently controlled means for stopping the phonograph at a predetermined period in the operation of the player mechanism.

3. In combination with a musical playing instrument including a reproducer, means for placing said reproducer in reproducing position, a latch for holding said means in such placing position, means for releasing said latch, means for lifting the reproducer from reproducing position, a latch for holding said lifting means in such lifting position, means for releasing said latch, and means for operating the placing means and lifting latch releasing means aforesaid, and means for operating the lifter means and placer latch releasing means aforesaid.

9. In combination with automatic player mechanism, a phonograph including a reproducer, a pneumatic con-

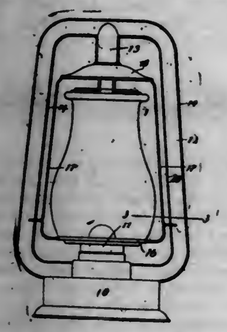
trolled by the player mechanism, a support for the reproducer operated by said pneumatic, a latch for said pneumatic, a secondary pneumatic for releasing said latch, a phonograph stopping pneumatic controlled by the player mechanism, a latch for said stopping pneumatic, a secondary pneumatic for releasing said latch, air connections



from the player mechanism to the starting pneumatic and to the releasing pneumatic of the stopping pneumatic and air connections from the player mechanism to the stopping pneumatic and to the releasing pneumatic of the starting pneumatic.

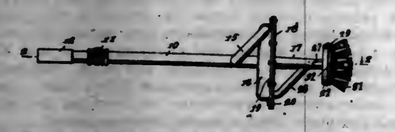
[Claims 2, 4 to 8, and 10 to 15 not printed in the Gazette.]

1,252,836. TUBULAR LANTERN. BENNARD H. POMEROY, Rochester, N. Y., assignor, by mesne assignments, to R. E. Dietz Company, New York, N. Y., a Corporation of New York. Filed May 13, 1914. Serial No. 838,187. (Cl. 240—32.)



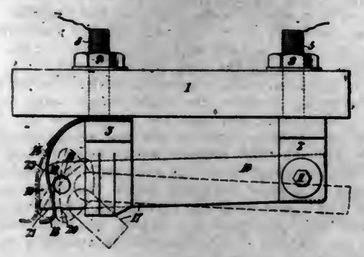
The combination with a lantern frame having side tubes, of a vertically movable globe holding frame comprising upright side rods having their lower portions bent to form integral laterally projecting loops, each composed of arms which project outwardly from the upper and lower portions of the rods, respectively, and an outer portion which connects said arms and straddles the tube on the inner side thereof.

1,252,837. HYDRAULIC FOUNTAIN-BRUSH. GEORGE HOWARD POOLE, Perth, Ontario, Canada. Filed Dec. 16, 1914. Serial No. 877,577. (Cl. 15—37.)



A cleaning device comprising a hollow inner handle section, a hollow outer section, a housing carried by and closing the outer end of the inner handle section, a conduit leading from the inner handle section and communicating with the side of the housing, a closure for the housing carried by the outer section and forming a bearing at the inner end of the outer section, a cup carried by the outer end of the outer section and forming a bearing at the outer end thereof, a conduit leading from the closure and communicating with the outer section, conduits leading from the outer section and communicating with said cup, a shaft extending through the outer section and journaled in the bearings of the closure and cup, a fluid motor carried by said shaft and positioned within said housing, and a perforated brush head carried by said shaft and positioned within the cup.

1,252,838. ELECTRIC SWITCH. WILLIAM T. PRINGLE, Wyncote, Pa. Filed Jan. 20, 1915. Serial No. 3,264. (Cl. 175—282.)



1. In an electric switch, the combination with an insulating base; of two switch terminals mounted on said base; a switch blade pivotally connected with one of said terminals and arranged to swing to and from electrical contact with the other of said terminals; a locking spring having one end held between the last named terminal and said base and having its free end extending transversely to the length of said blade, with a slot through which the free end of said blade projects when in closed position; said locking spring having its unslotted free end rounded and arranged as an abutment which normally obstructs the passage of said blade to open position and prevents its opening movement until said spring is moved aside; said blade having its portion which engages said abutment so inclined that stresses upon said blade tending to open it press said inclined portion thereof against the abutment in such manner as to offer additional resistance to the releasing movement of the spring, and the inner corner of the free end of said blade being rounded and arranged to coöperate with the rounded end of said spring to move the latter aside when said blade is shifted from open to closed position, and said blade having a hole adjacent said spring, arranged to engage an operating handle; and, an operating handle having a pin adapted to turn in the hole of said blade, and having a cam flange arranged to encounter said spring and release it from said blade by shifting said spring longitudinally with respect to said blade when said handle is turned.

3. In an electric switch, the combination with an insulating base; of two switch terminals mounted on said base; a switch blade pivotally connected with one of said terminals and arranged to swing to and from electrical contact with the other of said terminals; a locking spring arranged as an abutment which normally prevents its opening movement until said spring is moved aside; said blade having its portion which engages said abutment so inclined that stresses upon said blade tending to open it press said inclined portion thereof against the abutment in such manner as to offer additional resistance to the releasing movement of the spring, and the inner corner of the free end of said blade being shaped to coöperate with said spring to move the latter aside when said blade is shifted from open to closed position, and said blade having means adjacent said spring, arranged to engage an operating handle; and, an operating handle having means arranged to engage said blade and means arranged to encounter said spring and release it from said blade.

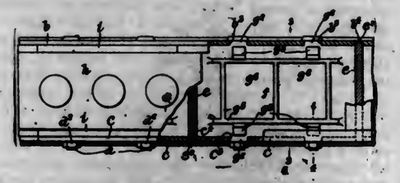
5. In an electric switch, the combination with an insulating base; of two switch terminals mounted on said base; a switch blade pivotally connected with one of said terminals and arranged to swing to and from electrical contact with the other of said terminals; a locking spring arranged as an abutment which normally prevents its opening movement until said spring is moved aside; said blade being shaped to coöperate with said spring to move the latter aside when said blade is shifted from open to closed position; and, an operating handle having means arranged to engage said blade and means arranged to encounter said spring and release it from said blade.

7. In an electric switch, the combination with an insulating base; of two switch terminals mounted on said base; a switch blade pivotally connected with one of said terminals and arranged to swing to and from electrical contact with the other of said terminals; a locking spring arranged as an abutment which normally prevents opening movement of said blade; said blade having a portion which directly engages said spring so shaped that stresses upon said blade tending to open it press said portion thereof against the spring in such manner as to offer additional resistance to the releasing movement of the spring, and the inner corner of the free end of said blade being shaped to coöperate with said spring to move the latter aside when said blade is shifted from open to closed position.

8. In an electric switch, the combination with an insulating base; of two switch terminals mounted on said base; a switch blade pivotally connected with one of said terminals and arranged to swing to and from electrical contact with the other of said terminals; a locking spring arranged as an abutment which normally prevents opening movement of said blade; said blade having a portion which engages said spring so shaped that stresses upon said blade tending to open it press said portion thereof against the spring in such manner as to offer additional resistance to the releasing movement of the spring.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,252,839. WHEEL RIM AND TIRE CONSTRUCTION. HARRY RAFLOVICH, New York, N. Y. Filed June 30, 1916. Serial No. 106,786. (Cl. 152—9.)



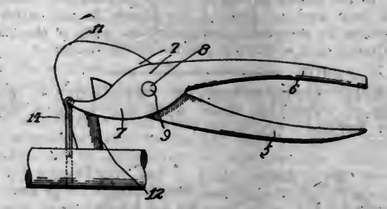
1. In a wheel rim and tire construction, a rim, an inner annular side plate member the periphery of which is provided with an inwardly directed annular flange, an outer annular side plate member composed of separate parts, the periphery of said separate parts being provided with an inwardly directed flange, transverse plate members independent of and detachably connected with said inner and outer side plate members and being T-shaped in cross section to form in the opposite sides thereof recessed spaces, said transverse plate members dividing the periphery of the rim into a plurality of spaces, tire blocks mounted in said spaces and provided with side and end base flanges, the end flanges of which are adapted to enter said recessed spaces in said transverse members and the side flanges of which are adapted to be engaged by the flanges of the inner and outer side plate members, and bolts passed through said side plate members to lock said transverse plate members therebetween.

5. In a wheel rim and tire construction, a rim, a tire supporting means composed of a plurality of parts detachably connected with each other and with said rim, and comprising side plate members, transverse spacing members independent of said side plate members and tire block plates, said parts when secured together forming a plurality of spaces on the periphery of the wheel, said tire block plates being provided with raised portions and tire blocks supported in said spaces by said parts and provided with recesses to receive the raised portions on said tire block plates.

10. In a wheel rim and tire construction, a rim, a tire supporting means composed of a plurality of parts detachably connected with each other and with said rim and comprising side plate members and transverse spacing members independent of said side plate members, said parts when secured together forming a plurality of spaces on the periphery of the wheel one of said side plate members being composed of a plurality of parts, and means on said side plate members and said transverse spacing members for supporting tire blocks in said spaces.

[Claims 2 to 4 and 6 to 9 not printed in the Gazette.]

1,252,840. COTTER-PIN EXTRACTOR. IRVING C. RATHBUN, Whitehall, Mich. Filed Apr. 18, 1917. Serial No. 162,953. (Cl. 29—86.2.)



2. A device of the character described comprising a handle member, a portion projecting at an angle from one end of the handle member, a second handle member pivoted to the first mentioned handle member, and provided with a reduced end, and a member projecting from said reduced end of the said handle member at a right angle thereto, said right angular projecting member lying in a plane at substantially right angles to the angular projecting portion of the first mentioned handle member.

[Claim 1 not printed in the Gazette.]

1,252,841. GOVERNOR-BLADE PUMP. LEO SCOTT REED, McKeesport, Pa., assignor to Wiley Pump & Manufacturing Co., McKeesport, Pa., a Corporation of Pennsylvania. Filed July 25, 1916. Serial No. 111,292. (Cl. 103—44.)



1. In a rotary apparatus of the class described, a housing having a chamber, a rotor eccentrically mounted in said chamber, a blade projecting through the rotor and presenting both of its ends alternately in working position; and a position governor for said blade, mounted intermediately thereon and having a guide track with which it coöperates to present the blades alternately in working position; said governor comprising a stud, and

said track comprising a circular wall within which the stud travels.

3. In a rotary apparatus of the class described, a housing having a chamber, a rotor eccentrically mounted in said chamber, a blade projecting through the rotor and presenting its respective ends alternately in working position; and a position governor for said blade, mounted intermediately thereon and having a guide track with which it coöperates to present the blades alternately in working position; said governor comprising a stud, and said track comprising a circular wall within which the stud travels; said stud having bearings against the blade in the direction of thrust which it imparts thereto, and having bearings against the rotor in a direction transverse to said thrust.

4. In a rotary apparatus of the class described, the combination of a housing having a pressure chamber with intake and outlet passages communicating therewith, a rotor eccentrically mounted in said chamber and constructed with a diametric slot extending from one end face through the greater portion of its axial dimension, and with a guide groove in said face, a pressure blade working in a diametric slot of the rotor, a governor stud having thrust bearings against the pressure blade in the direction of its length, and having bearings in the guide groove in a direction transverse thereto, and an end wall of the casing having a circular guiding wall coacting with said stud to develop movements in the latter in directions to protrude, alternately, the ends of the blade.

[Claims 2, 5, and 6 not printed in the Gazette.]

1,252,842. LIFE-PRESERVER. WELLINGTON G. RICHARDSON, Cambridge, Mass. Filed Aug. 26, 1916. Serial No. 117,653. (Cl. 9—17.)



1. In a life preserver, the combination of a body member extending over the shoulders of the wearer, and a collar member surrounding the neck in supporting relation to the head of the wearer and having connection with the body member at the shoulder portions only whereby the front and rear portions of the collar member are free to move independently of each other and of the body member.

4. In a life preserver the combination of a body member comprising front and back buoyant sections, flexible shoulder connections intermediate the sections, and an inflatable collar member flexibly connected to the body portion at the shoulder connections aforesaid.

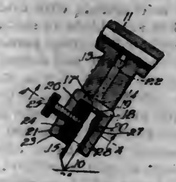
6. In a life preserver, the combination of a body member, fastening means therefor, a buoyant collar member connected at one side to the body member and freely movable on said connection to float into supporting relation to the head of the wearer, and an adjustable restraining member connected to the movable side of the collar member for limiting movement thereof with respect to the body member.

7. In a life preserver, the combination of a body member comprising front and back buoyant sections, flexible shoulder connections intermediate the sections, a buoyant collar member comprising spaced buoyant sections, flexible connections intermediate said sections for connection with the flexible connections intermediate the body sections, and an adjustable connection intermediate the body member and the collar member for limiting movement of the latter.

9. In a life preserver the combination of a body member having a head opening therein, a collar member detachably connected to the body member at one side of the opening and comprising spaced buoyant sections, the collar member having a separable opening between the sections, and means for closing the said opening.

[Claims 2, 3, 5, and 8 not printed in the Gazette.]

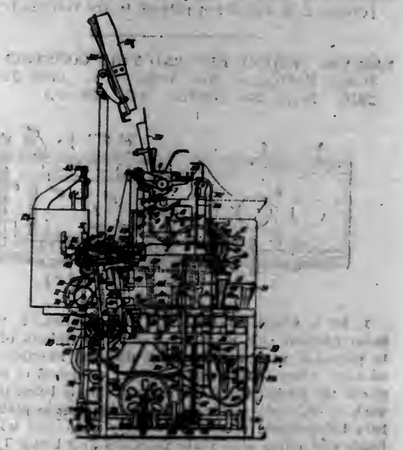
1,252,843. SOUND-REPRODUCING MACHINE. ANTON H. RINTELMAN, Chicago, Ill. Filed Mar. 14, 1917. Serial No. 154,656. (Cl. 274—37.)



1. A needle-holder of inelastic and unyielding material for talking-machines having a cylindrical pocket in which is placed a cushioning block of soft rubber in the upper half of the pocket divided along its length, and a soft fibrous pad in the lower half, the meeting faces of the block and pad being shaped so as to receive the body of the needle without further compressing them.

2. A needle-holder of inelastic and unyielding material for talking-machines having a cylindrical pocket in which is placed solid cushioning material engaging the sides of the pocket and having the needle-holding socket along the center of the axis, and a hard lining corresponding to the shape of the needle secured in said socket.

1,252,844. AUTOMATIC TYPE-WRITER OPERATOR. LYMAN R. ROBERTS, Rutherford, N. J., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed June 6, 1916. Serial No. 101,881. (Cl. 197—20.)



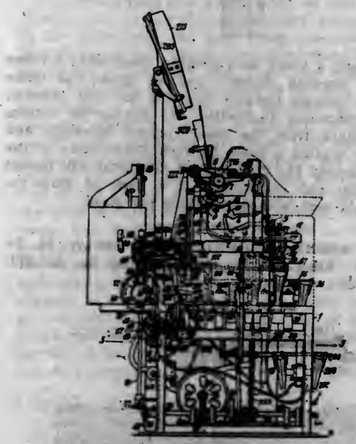
1. The combination with a typewriting mechanism including a traveling carriage, of a pneumatic actuator for starting the return movement of said carriage, and a separate pneumatic actuator for ending the return movement of said carriage, said first-mentioned actuator remaining in play after said second-mentioned actuator has come into play.

6. The combination with a traveling carriage, of a connection for traversing said carriage, a normally silent member for driving said connection, a clutch for enabling the drive of said silent member, a shifter for said clutch, an actuator for operating said shifter, a link connecting said actuator to said shifter, and means for tripping said link from said shifter after a predetermined movement of said carriage.

11. The combination with a traveling carriage, of traversing means for said carriage, a sprocket for driving said traversing means, a shaft for driving said sprocket, a motor for driving said shaft, said sprocket being normally loosely mounted on said shaft, a clutch for connecting said sprocket in driven relation with said shaft, a pneumatic actuator closing said clutch, and a master control set for governing the action of said actuator.

[Claims 2 to 5 and 7 to 10 not printed in the Gazette.]

1,252,845. AUTOMATIC TYPE-WRITER OPERATOR. LYMAN R. ROBERTS, Rutherford, N. J., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed June 7, 1916. Serial No. 102,114. (Cl. 197—20.)



1. The combination with a platen, of a train of driving connections for rotating said platen, having a normally silent element therein, a source of power, a clutch connecting said element in driven relation with said source of power, a shifter for said clutch, a spring normally holding said clutch open, and an automatic actuator for operating said shifter to close said clutch.

14. The combination with a platen, of driving mechanism for said platen, a pneumatic actuator for controlling the period of activity of said driving mechanism, a valve for controlling said pneumatic actuator, a carriage for said valve, traversing means for said carriage, and a trip for opening said valve after a predetermined movement of said carriage and said valve.

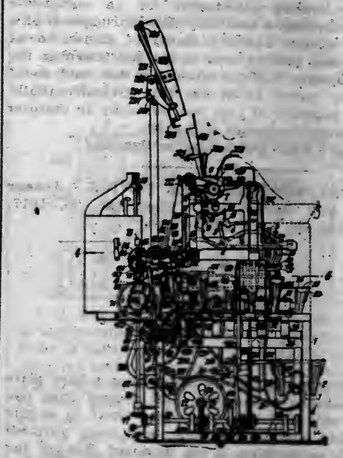
23. The combination with a platen, of pneumatically actuated line-spacing means for said platen, and pneumatically controlled driving means for rotating said platen.

[Claims 2 to 13, 15 to 22, and 24 not printed in the Gazette.]

1,252,846. AUTOMATIC TYPE-WRITER OPERATOR. LYMAN R. ROBERTS, Rutherford, N. J., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed June 8, 1916. Serial No. 102,382. (Cl. 197—20.)

1. The combination with a platen, of driving means for rotating said platen, a sheet-feeder for supplying work-sheets to said platen, and actuating means for said sheet-feeder operated from said platen-rotating means.

9. The combination with a platen, of a sheet-lifter for supplying work-sheets to said platen, a receptacle for holding the work-sheets to be supplied to said platen, a standard for supporting said receptacle and said sheet-lifter, and actuating mechanism for said sheet-lifter extending up through said standard.

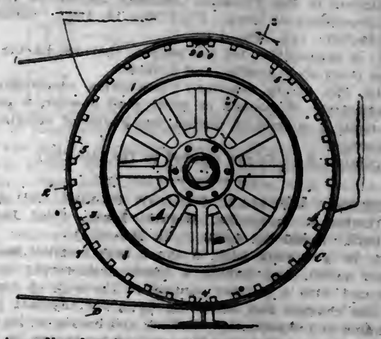


28. The combination with a traveling carriage, of a platen rotatably mounted on said carriage, sheet-feeding mechanism for supplying a fresh work-sheet to said platen including a work-sheet receptacle in which the fresh work-sheets may be stacked, said receptacle being adjustable as to dimensions to accommodate different sizes of work-sheets, and a guide mounted for movement with said carriage, located intermediate said platen and said sheet-feeding mechanism, so as to direct the work-sheets to said platen, said guide being adjustable as to its dimensions to correspond with the adjustment of said receptacle.

34. The combination with a platen, of a sheet-feeder for supplying work-sheets to said platen, driving means for rotating said platen, controlling means enabling said sheet-feeder and said driving means to be controlled from a master-member having perforations therein, and an inter-connected actuating means governed by said controlling means and operating said driving means and said sheet-feeder, whereby said sheet-feeder and said driving means may be brought into play by a single perforation in said master-member.

[Claims 2 to 8, 10 to 27, and 29 to 33 not printed in the Gazette.]

1,252,847. POWER-TRANSMITTING ATTACHMENT FOR AUTOMOBILE-WHEELS. WILLIAM ROBERTS, Springfield, Ohio. Filed Jan. 31, 1917. Serial No. 145,642. (Cl. 64—17.)



1. A pulley-forming attachment for an automobile wheel tire, comprising a band-like element composed of

a flexible outer member and a plurality of arcuate metal members fastened thereto, and means for fastening the ends of the element together around a tire.

2. A pulley-forming attachment for an automobile wheel tire, comprising a band-like element composed of a flexible outer member and a plurality of arcuate metal members fastened thereto, and means for fastening the ends of the element together around a tire, said metal members being curved to fit the tire circumferentially and having a plurality of lugs bent inwardly to conform transversely to the curvature of the tire.

[Claims 3 and 4 not printed in the Gazette.]

1,252,848. ENVELOP-FASTENING DEVICE. ALBERT SCHLEBER, New Orleans, La. Filed Apr. 25, 1917. Serial No. 164,452. (Cl. 229—78.)



1. An envelop sealing device comprising a base plate including a body, a rectangular plate formed from one edge of the body and bent back upon itself to overlie the lohgitudinal axis of the body, said body provided centrally with an opening, a pin arranged through the opening and between the body of the plate and base plate, said plate adapted to be secured to the inner surface of the overlapped terminals of the end flaps of an envelop, the extreme ends of the plate bent upwardly and extended through the end flaps and bottom flap, said pin extended through the overlapped ends of the flaps, and a keeper plate secured to the exterior of the tongue of an envelop and having its ends extended therethrough and bent back upon themselves, said keeper plate provided centrally with an opening receiving the projecting end of the pin, and its end upset by a suitable instrument, thus securely sealing or fastening the envelop against opening by an unauthorized person.

[Claim 2 not printed in the Gazette.]

1,252,849. ARTIFICIAL PEARL. PAUL R. SCHREURS and GEORGE F. METZ, Muscatine, Iowa, assignors to The Pressloid Company, Muscatine, Iowa, a Corporation of Iowa. Filed May 18, 1917. Serial No. 169,529. (Cl. 106—1.)

3. The herein described composition consisting of approximately 100 parts of pearl shell powder, 20 parts of milk, and 2 parts of calcium chlorid, substantially as specified.

[Claims 1 and 2 not printed in the Gazette.]

1,252,850. PEARL-SHELL COMPOSITION. PAUL R. SCHREURS and GEORGE F. METZ, Muscatine, Iowa, assignors to The Pressloid Company, Muscatine, Iowa, a Corporation of Iowa. Filed May 18, 1917. Serial No. 169,530. (Cl. 106—1.)

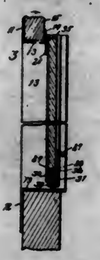
1. A composition for the purpose specified having as a base pearl shell powder, and a binder.

14. The herein described composition comprising approximately 86 pounds of pearl shell powder, 8 pounds of rosin, 4 pounds of shellac, one pound of stearin, and a pigment.

[Claims 2 to 13 not printed in the Gazette.]

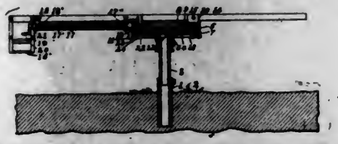
1,252,851. METALLIC WINDOW FRAME AND SASH. DARIUS E. SHRAUGER, Atlantic, Iowa. Filed Jan. 25, 1915. Serial No. 4,366. (Cl. 189—75.)

1. In a window sash, a lower sash member made of sheet metal, and having a lower downwardly opening channel with a member secured to the edge of one side of the channel and extending upwardly adjacent to the channel and beyond said channel, and having at its upper end a downwardly extending portion having at its lower end a portion inclined downwardly and laterally above said lower channel, a portion at the end thereof extending downwardly on the outer opposite side of said channel from said upwardly extending portion, whereby a second channel is formed above and receiving the first channel with the bottom member of the second channel inclined, so that the resiliency of the metal may allow for expansion and contraction.



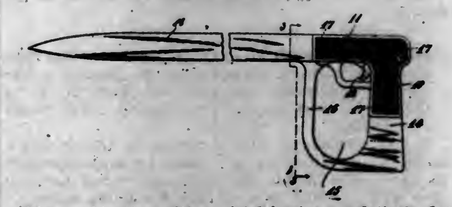
2. In a sash, a lower sash member, comprising a lower downwardly opening channel, and an upper and outer downwardly opening channel receiving the first channel, resiliently connected therewith, and having its bottom member inclined from the lower channel upwardly and laterally for leaving a space between the bottoms of the channels, whereby the resiliency of the metal will permit the expansion and contraction of a pane of glass received in said sash without breaking the glass.

1,252,852. MERRY-GO-ROUND. JAMES SHULTZ, St. Joseph, Mo. Filed July 19, 1917. Serial No. 181,571. (Cl. 46—27.)
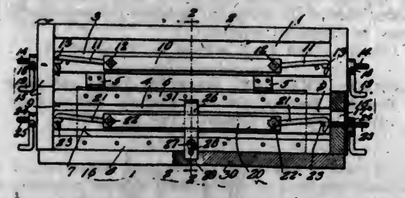


A stand having its lower end portion set in the ground; an upright having its lower end secured in the upper end portion of said stand; a turn-table base secured on the upper end of said upright, said turn-table base having a bevel gear formed on its upper surface; a turn-table mounted on anti-friction bearings on said base; a beam secured on and across said turn-table; a seat secured on one end of said beam; crank and pinion driving means connected with said gear, whereby said turn-table is rotated in a horizontal plane and holding rollers carried by said turn-table, said rollers being rotatably mounted beneath the outer edge portion of said turn-table base for preventing said turn-table from tilting when said beam is unevenly loaded.

1,252,853. WEAPON. FRED SION, Westboro, Wis. Filed Apr. 13, 1917. Serial No. 161,757. (Cl. 42—53.)



The combination with a pistol having a relatively flat sided barrel, of a blade having a hilt rigidly secured alongside said barrel, an extension formed with said hilt, said extension being disposed at a right angle to said blade and having an opening receptive of the operator's hand, and a guard formed so as to inclose the opening.

1,252,854. END-GATE. JAMES FREEMAN SMITH, Smith Center, Kans. Filed Nov. 22, 1916. Serial No. 132,637. (Cl. 21—21.)



The combination of a wagon body, an end gate mounted therein and having limited outward movement relative to the body, said end gate being composed of a body portion and a door hingedly mounted therein for outward movement at its upper edge, the lower edge of the door being flush with the lower edge of the gate body and the door being of less length than the body of the gate and disposed centrally thereof, a plurality of pivotally connected links secured to the wagon body and to the body of the gate adapted to positively limit the outward movement of the gate relative to the body, securing hooks carried by the body of the gate and by the door of the gate, eye bolts mounted for movement through the sides of the wagon body and adapted to be engaged by the said hooks, means for moving the said eye bolts through the sides of the wagon body, and a securing bolt carried by the door and having limited vertical movement, said bolt being adapted to engage the bed of the wagon body so as to prevent outward movement of the door of the gate when in lowered position and, when in raised position, to engage the end of the wagon body so as to secure the gate in position as a shoveling board.

1,252,855. HAT-SECURING MEANS. BRONISLAW SOROCINKSKY, Cosmopolis, Wash. Filed July 6, 1917. Serial No. 179,028. (Cl. 132—25.)

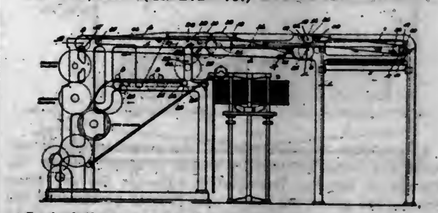


1. A hat securing means comprised of a pair of resilient strips secured at one end within the crown of a hat, said strips being spaced one from the other, and spring clips secured upon said strips having openings therebetween adapted to contact and engage with the points of entered hat-pins.

2. In a hat securing means, the combination with a crown of a hat, and a pair of hat pins, of a pair of resilient arms, secured at one end within the interior of said hat, the opposite ends of said arms extending upwardly at the front of the hat, means for holding said front ends in operative position, means preventing said ends from displacement, spring clips secured upon said strips, and means formed therebetween receptive of the points of hat pins when entered through the side of the hat.

3. In a hat securing means, the combination with a crown of a hat and a pair of hat pins, of a pair of spaced spring strips, means for securing said strips rigidly at the rear of the crown of said hat, means for slidably securing the ends of said spring clips at the front of said hat, and means formed with said strips adapted to tensionally engage said hat pins when entered therein.

1,252,856. DELIVERY MECHANISM FOR PRINTING-PRESSES. WARD B. STORY, Brooklyn, N. Y., assignor to Ward B. Story Company, Inc., New York, N. Y., a Corporation of New York. Filed Apr. 22, 1913. Serial No. 762,783. (Cl. 271—79.)



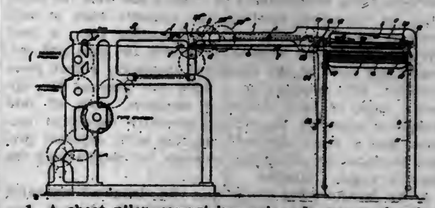
5. A delivery mechanism for printing presses, having in combination with the transfer cylinder, and receiver; a set of belts; grippers on the belts for carrying a sheet upon the belts; a second set of belts, rotating in the opposite direction and having a variable speed; and grippers on these belts to receive the sheet and transfer it to the receiver.

6. A delivery mechanism for printing presses, having in combination with the transfer cylinder, and receiver; of a set of belts, associated with the transfer cylinder; grippers on the belts, to carry the sheet above the belts; a second set of belts; grippers on the same; and mechanism for imparting an intermittent fast and slow movement to such second set of belts, so that the sheets are received by such set of belts at the same speed as the first belt, and are gradually slowed down when deposited in the receiver.

8. A delivery mechanism for printing presses, having a plurality of tranfer belts arranged to support a sheet at its edges and intermediate its edges; pulleys for supporting the belts; and shafts for supporting the pulleys, in combination with means for varying the spacing of the pulleys, such means spacing the pulleys in such a manner as to preserve the relative distance between the pulleys.

[Claims 1 to 4, 7, and 9 to 12 not printed in the Gazette.]

1,252,857. SHEET-PILER. WARD B. STORY, Brooklyn, N. Y., assignor to Ward B. Story Company, Inc., New York, N. Y., a Corporation of New York. Substitute for application Serial No. 762,784, filed Apr. 22, 1913. This application filed July 7, 1915, Serial No. 38,445. (Cl. 271—88.)



1. A sheet piler comprising a board; means for feeding the latter; means for feeding sheets to the board; means acting in time with the sheet feeding means; a finger, connections, including a Geneva stop motion, between the finger and the said last named means for moving the finger into contact with the pile and out of contact therewith during an interval between which separate sheets are fed to the board; and disconnecting mechanism, connecting the finger with the board feeding means, for actuating the latter.

3. A sheet piler having a board, and means for delivering sheets thereto, means for feeding the board at a rate faster than the growth in height of the pile of sheets, a member engaging the top sheet of the pile at

intervals, a shaft supporting the member, connections between the member and shaft, and means controlled by the height of the pile for dislocating the connecting means.

[Claims 2 and 4 to 11 not printed in the Gazette.]

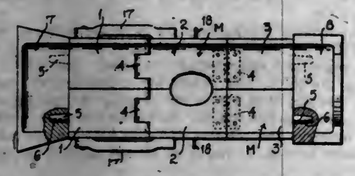
1,252,858. NECKTIE-FASTENER. HARVEY F. STRAYER, Los Angeles, Cal. Filed Nov. 10, 1917. Serial No. 201,301. (Cl. 2—84.)



2. A necktie fastener formed of a single length of material and coiled midway its length to afford an eye, the strands of material immediately adjacent the eye being twisted one about the other, said twisted portions of the strand being continued by jaws adapted to engage the button, the outer end of the jaws being continued in returned portions terminating adjacent the eye, the returned portions being continued by oppositely directed portions, said oppositely directed portions being continued by returned portions directed through the eye, the extremities of said last named returned portions being connected one to the other, the oppositely directed portions and the last named portions affording means adapted to be inserted between the folds of a collar.

[Claim 1 not printed in the Gazette.]

1,252,859. INVALID-LIFTER. VALENTINE STREIT, Alvord, Iowa. Filed Apr. 7, 1917. Serial No. 160,511. (Cl. 155—11.)



1. An invalid lifter comprising two elongated separable members arranged side by side and having their adjacent longitudinal margins in contact, and means co-acting with the ends of said members for maintaining the members in assembled relation.

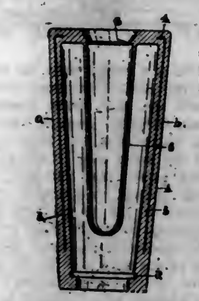
3. An invalid lifter comprising two elongated separable flat members, the opposed longitudinal edges of said members being substantially in contact one with the other when in assembled relation, the opposite ends of said members being provided with outstanding pins, a head piece provided with recesses to receive the pins and corresponding ends of the elongated members, a foot piece provided with recesses to receive the pins at the opposite ends of said elongated members, each of said elongated members comprising pivotally connected sections, and a brace member co-acting with adjacent pivoted sections of each of the members for maintaining the same in angular relation.

5. An invalid lifter comprising two elongated separable flat members having adjacent longitudinal edges in contact when in assembled relation, a support detachably engaged with corresponding end portions of the elongated member, a cross member detachably engaged with the opposite end portions of the first named elongated members, said second support comprising a pedestal having its upper edge underlying the cross member and disposed longitudinally of the first named elongated members, a cross piece carried by the upper portion of the pedestal and extending transversely of the first named elongated members and underlying and contacting with the cross member and the adjacent end portions of the two elongated members, an upstanding extension carried by the cross piece and overlying the adjacent face of the cross piece, and means for securing said extension to the cross member.

6. A device of the character described comprising two elongated separable members having adjacent longitudinal edges in contact in assembled relation, each of said members comprising three pivotally connected sections, the end sections of each of the members being movable in opposite directions, and means co-acting with the opposite ends of the elongated members for maintaining the same in assembled relation.

[Claims 2 and 4 not printed in the Gazette.]

1,252,860. TEAT-CUP. HENRY W. TERRY and JOHN W. FOWLER, Toronto, Ontario, Canada. Filed Sept. 15, 1916. Serial No. 120,391. (Cl. 31—102.)



1. A collapsible teat cup having a narrow longitudinal stiffening embedded therein at each side whereby it is collapsible from each side between the lines of stiffening, said stiffening being entirely separate at the lower parts of the cup.

2. A collapsible teat cup having a narrow longitudinal stiffening embedded therein at each side and annular stiffening embedded in the top whereby the cup is collapsible from each side between the lines of stiffening, said longitudinal stiffenings being entirely separate at the lower parts of the cup.

3. A teat cup adapted to collapse progressively from the udder end to the discharge end and provided with a sheath connected to the cup at the udder end, and an annular somewhat downwardly directed flange within its opening just above the point of connection with the teat.

4. A collapsible teat cup provided with a teat sheath connected thereto at the udder end and said cup having a narrow longitudinal stiffening embedded therein at each side whereby it is collapsible from each side between the lines of stiffening, said stiffening being entirely separate at the lower part of the cup.

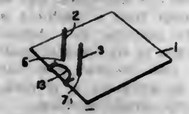
1,252,861. FEED OR WATER TROUGH. ALBERT L. TERSTEGGE, Louisville, Ky., assignor to Kentucky Stamping Company, Louisville, Ky., a Corporation of Kentucky. Filed June 22, 1915. Serial No. 35,562. (Cl. 119—61.)



1. In combination with a trough having laterally extending lips on its opposite sides, a grid member composed of a plurality of wires supported at their ends by strips of sheet metal, said strips being bent upon themselves centrally, and each half bent back upon itself, one of said bent halves embracing the lips of the trough and the other firmly embracing the ends of said wires.

[Claims 2 and 3 not printed in the Gazette.]

1,252,862. PIN-TICKET. ARTHUR G. THOMPSON, New York, N. Y., assignor to A. Kimball Company, New York, N. Y., a Corporation of New York. Filed Apr. 7, 1913. Serial No. 759,280. (Cl. 40—25.)



1. A pin ticket comprising a card and a penetrating and attaching member constituted of a single piece of wire passed through and clamped by bends therein to said card and presenting a pair of pins projecting from one side of the card, the wire in the pin portions being continuous and doubled to present smooth, rounded, penetrating points.

7. In a pin-ticket having a plurality of round-pointed double-shank pins formed of a single piece of wire, the wire between said pins being bent so as to engage with the upper and under sides of the ticket, the shanks of said pins passing through the ticket and the free ends of said wire engaging with both sides of the ticket to hold the pins in connection therewith.

[Claims 2 to 6 not printed in the Gazette.]

1,252,863. HORSESHOE. EUGENE W. THOMPSON, New London, Conn. Filed Mar. 11, 1915. Serial No. 13,601. (Cl. 168—35.)



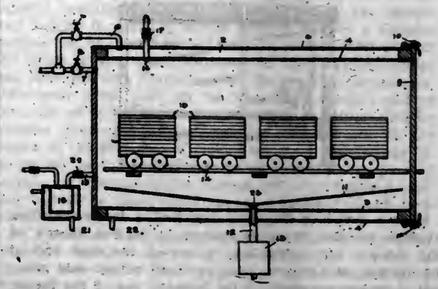
A horseshoe having a dovetailed recess upon its under face and extending transversely of the entire toe portion of the shoe, said dovetailed recess at its ends having auxiliary recesses in the marginal edge of the toe of the shoe, said dovetailed recess being of a length substantially approximating the width of the heel of the shoe, a toe calk dovetailed in said dovetailed recess and being of a length substantially the same as the width of the rear of the shoe, whereby a firm bearing may be attained to correspond with the bearing of the combined heel calks, said toe calk overlying and projecting beyond the toe of the shoe, whereby the toe of the shoe adjacent the auxiliary recesses is protected against wear, the ends of the toe calk terminating in broad heavy upturned lugs engaging said auxiliary recesses, thereby preventing endwise displacement of the toe calk.

1,252,864. [WITHDRAWN.]

1,252,865. PROCESS OF PRESERVING FISH AND PRODUCTS THEREOF. ROBERT M. THOMPSON, Tacoma, Wash. Filed Nov. 26, 1917. Serial No. 204,009. (Cl. 99—8.)

1. The process of preserving fish which consists in changing the chemical condition of the meat and juices from an alkaline to a neutral or acid reaction.

11. The article of manufacture comprising the meat of the shark family changed from an alkaline condition to a neutral or acid reaction, said meat being flavored with the flavors of other meats.



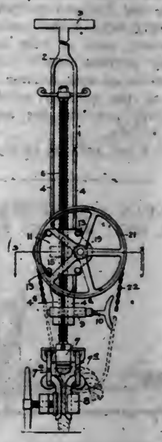
17. The process of treating fish of the shark family which consists in changing the chemical condition of the meat from an alkaline to a neutral or acid condition.

27. The process of preserving fish of the shark family which consists in cooking fish in a retort, removing the exuded juices of the fish, producing a partial vacuum within the retort, thoroughly draining the meat, introducing acidic fluid into the retort and impregnating the meat with the said fluid, shutting off the supply of the acidic fluid and again subjecting the contents to a partial vacuum to remove a portion of the moisture, then separating the meat from the bone, and finally canning the meat.

28. An article of manufacture comprising meat of the shark family neutralized or acidulated.

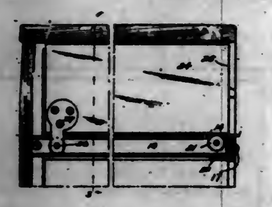
[Claims 2 to 10, 12 to 16, 18 to 26, and 29 not printed in the Gazette.]

1,252,866. TEMPER-SCREW FOR WELL-DRILLING. HENRY B. WALKER, Lancaster, Ohio. Filed May 9, 1916. Serial No. 96,389. (Cl. 255—15.)



In a temper-screw, the combination of a suitable frame, reins carried thereby having outwardly-bent portions forming a housing support, housings carried by said bent portions, a partable nut carried by said reins, a feed-screw engaging said nut member, a worm-wheel splined on said feed-screw in said housings, a worm in said housings engaging said worm-wheel, and means for turning said worm by the upward movement of said frame.

1,252,867. DRAWER-MOUNTING. BERT WALL, Mason City, Iowa. Filed Mar. 13, 1917. Serial No. 154,609. (Cl. 45—77.)



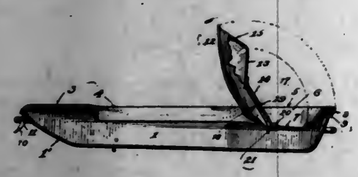
1. In a device of the class described, a frame, parallel, laterally opening channels thereon, a drawer, means on said drawer for supporting rollers at the rear end of the drawer, said rollers being received within said channels, a transverse shaft at the forward end of the frame, fixed with relation to the frame, rollers on said shaft, adapted to support said drawer, gears on said shaft, and toothed strips on said drawer for coacting with said gears.

3. In a device of the class described, a frame, opposite channels secured to said frame, each of said channels having its upper flange cut away at its forward end, a drawer having secured to its side walls near its rear end supporting members having portions projecting vertically beyond the drawer, a roller mounted on each of said projecting portions received in one of said channels, a roller received in the forward portion of each channel projecting upwardly beyond the cut-away portion of the upper flange thereof, and means for detachably supporting said last described roller.

5. In a device of the class described, a frame, opposite channels secured to said frame, each of said channels having its upper flange cut away at its forward end, a drawer having supports secured to it near its rear end, said supports having portions projecting vertically beyond the drawer, and a roller mounted on each of said projecting portions received in one of said channels, a shaft at the forward end of said frame, rollers on said shaft received in the forward portions of said channels projecting upwardly beyond the cut-away portion of the upper flange thereof, each of said last described rollers having a smooth portion and a toothed portion, and strips on the bottom of said drawer having smooth portions traveling on the smooth portions of said rollers and having toothed portions for engaging the toothed portions of said rollers.

[Claims 2 and 4 not printed in the Gazette.]

1,252,868. BED-PAN. ARTHUR T. WEBSTER, Peoria, Ill. Filed June 16, 1915. Serial No. 34,441. (Cl. 4—19.)



1. In combination with the body of a bed pan, of a deflector for the same pivotally mounted at one end thereon and adapted for adjustment to two extreme positions, one of such positions being an elevated one, and means at the rear side of said deflector to engage the pan for positively securing the same in said elevated position.
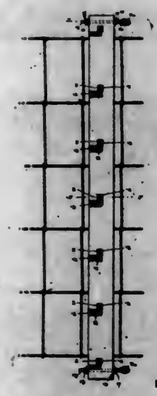
2. In a device for the purposes described, the combination of a pan or receptacle having a top portion, a raisable deflector portion pivotally mounted upon the said top portion and adapted to be adjusted to two extreme positions, and means on one of the portions to automatically engage the other portion when the said raisable deflector portion is lifted holding said deflector portion in its raised position.

6. In a device for the purposes described, the combination of a pan or receptacle including a top or cover, a deflector pivoted on the latter near one end and adapted to move on its pivot from a reclining position on said top to an upright position, said deflector including a wall at its rear when in its elevated position and having a portion of its wall inclined downward toward that end of the pan in which it is pivoted and means to hold the latter in its upright position.

9. In a device for the purposes described, the combination of a pan or receptacle including a top or cover overlying the said pan or receptacle and having an opening gradually contracted at one end of the said top or cover to form a narrow recess, and a deflector provided with trunnions, there being a recess in the cover at each side of the first described recess to receive the trunnions, the deflector adapted to have an upright position in said lid or cover.

[Claims 3 to 5, 7, and 8 not printed in the Gazette.]

1,252,869. STRETCHER-CLAMP FOR WOVEN WIRE. BAILEY H. WEST, Makanda, Ill. Filed Apr. 14, 1917. Serial No. 162,083. (Cl. 254—83.)



A wire fence stretcher clamp comprising a pair of elongated members, metallic facing strips arranged over the opposite sides of each member, one of said members being provided with a plurality of apertures, a metallic casing arranged in each of said apertures, the outer metallic facing strip being provided with non-circular counter-sinks concentrical of said apertures, bolts having non-circular heads disposed through said apertures and having their heads seated in said counter sinks, the other elongated member being provided with a plurality of bayonet slots, metallic casings for said bayonet slots, said bayonet slots adapted to receive the free ends of said bolts, and clamping means connected to the free ends of said bolts whereby said elongated members may be clamped together.

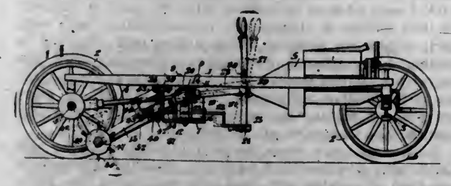
1,252,870. SPRING-TENSIONED CLOSURE FOR RECEPTACLES. LLOYD D. WHITAKER, Farmville, Va. Filed Dec. 15, 1915. Serial No. 66,989. (Cl. 221—14.)

A closure for containers, comprising a lever constructed from a single length of wire, pivot arms for said lever constructed from said wire, one arm comprising a loop, the other arm having a spring coil, means arranged axially for pivotally mounting said coil and the looped end of the loop arm on the container, said coil having a spring arm to engage the container for tensioning the lever, said arms extending upwardly and terminating in right angle extending portions converging toward each



other and terminating in a loop provided with a closure for the container, one of the sides of the looped arm merging into a bend at its top and extended transversely of the lever connecting said converging right angle extending portions and merging into a looped handle for the lever, one side of the looped handle terminating in an eye connecting the bend of the looped arm and one of the converging portions.

1,252,871. SUPPLEMENTAL TRACTION ATTACHMENT FOR VEHICLES. ABEY V. WINEGARDEN, Wichita, Kans., assignor of one-half to Peter L. Lazarus, Wichita, Kans. Filed Oct. 5, 1916. Serial No. 123,956. (Cl. 180—15.)



1. In an automobile having a frame with side bars and a power shaft extending from the power unit to the driving wheels, a traction attachment comprising a support connected to and extending between the side bars of the frame, a driving member on the power shaft, a driven member mounted on the support to one side of the driving member and movable into and out of engagement therewith, manually operable means for moving the driven member into and out of engagement with the driving member, a pivoted carrier on the support having a pivotal axis traversing the power shaft, traction devices on the end of the pivoted carrier remote from its pivot support, driving connections between the driven member and the traction devices, and connections between the manipulating means and the pivoted carrier for causing the lowering and raising of the traction devices and the connecting and disconnecting of the drive and driven members simultaneously.

2. In an automobile provided with a main frame, a power unit thereon, a power shaft and drive wheels, a traction attachment comprising a support extending between the side bars of the main frame intermediate of the power unit and drive wheels and dipping below the power shaft, a gear wheel mounted on the power shaft, another gear wheel mounted on the support and provided with carrying means movable on the support laterally of the automobile to bring the second-named gear wheel into and out of mesh with the first-named gear wheel, a carrier having one end pivotally mounted on the support, traction devices at the other end of the carrier, and manipulating means having connections to the pivoted carrier and to the support for the second-named gear wheel for moving them simultaneously to lower the traction devices and mesh the gear wheels or to raise the traction devices and move the gear wheels out of engagement.

3. In an automobile having a main frame, a power unit and drive wheels mounted on the main frame and a transmission or power shaft between the power unit and drive wheels, a traction attachment comprising a support extending between and connected to the side bars of the main frame between the power unit and the drive wheels, a carrier having a pivotal connection at one end to the support, traction devices on the other end of the carrier and located in advance of the driving wheels, a slidable member on the support mounted to move lengthwise of the latter, a gear wheel mounted on the slidable member and provided with connections to the traction devices, another gear wheel fixed on the transmission shaft and in the path of the first-named gear wheel, another slidable member connected to and movable transversely of the length of the first-named slidable member, connections between the second-named slidable member and the pivoted carrier, and manipulating means for second-named slidable member to cause simultaneous movement of the first-named gear wheel and of the pivoted carrier.

4. A traction attachment for motor vehicles, comprising rotatable traction devices, a pivoted carrier therefor, a slidable member, driving connections to the rotatable devices having a part mounted on the slidable member and movable thereby into and out of engagement with the power side of the motor vehicle, and connections between the slidable member and the carrier for the rotatable devices for raising and lowering the latter with and in timed relation to the coupling of the rotatable members to the power side of the vehicle and the uncoupling thereof from the power side of the vehicle, the attachment including a manipulating member for the slidable member, and said manipulating member including a reciprocable bar with pin and slot connections to the slidable member.

5. A traction attachment for motor vehicles comprising a support attachable to and removable from the vehicle, a gear wheel attachable to a rotatable part of the power unit of the motor vehicle, a slide on the support, a gear wheel carried on the slide and movable by the latter into and out of engagement with the first-named gear wheel, a reciprocable bar on the support, pin and slot connections between the bar and the slide to cause movements of the slide to bring the gear wheels into and out of engagement, the bar having a range of travel greater than that necessary to move the slide, means for the manipulation of the bar at will, a pivoted carrier on the support, traction devices on the carrier movable into and out of engagement with the ground on which the vehicle travels, and driving connections between the second named gear wheel and the traction devices.

[Claim 6 not printed in the Gazette.]

1,252,872. DEVICE FOR DRYING SALT IN SHAKERS OR OTHER RECEPTACLES. LAWRENCE G. YOCCHERST and WALTER A. HUTCHISON, Springfield, Ill. Filed Oct. 6, 1916. Serial No. 124,118. (Cl. 34—1.)



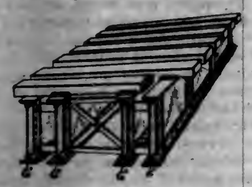
1. A device adapted to be loosely confined within a receptacle, comprising an elongated hollow shell composed of two interlocked sections and having reversely tapered end portions, said shell being perforated substantially throughout its area, and a packing of sponge in the shell for absorbing moisture.

5. A device of the character described comprising a tubi-form reticulated shell formed from a plurality of sections connected with each other and adapted to be placed

within a receptacle for movement with the contents of said receptacle and throughout the interior area of the latter, means within the shell for absorbing moisture, and means for fastening the sections together and engaged therewith adjacent to their marginal edges.

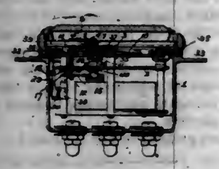
[Claims 2 to 4 not printed in the Gazette.]

1,252,873. BRIDGE CONSTRUCTION. WILLIAM GATEWOOD ADAMS, Roanoke, Va. Filed Oct. 26, 1916. Serial No. 127,867. (Cl. 14—17.)



The hereinbefore described method of reinforcing trusses or girders consisting in dividing the reactions of transverse load transmitting beams, or ties, that have been, or would otherwise be borne by the original truss or girder, into separate and distinct groups, and introducing to help bear these reactions, new trusses or girders placed in juxtaposition to the old ones and having the transverse load transmitting beams, or ties, so connected to the individual trusses, or girders, that each group of reactions will be entirely borne by one truss or girder independent of support by any other truss or girder, substantially as described.

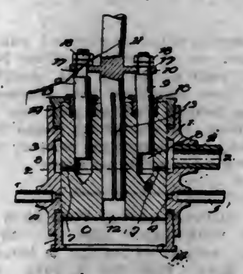
1,252,874. TIME-OPERATED CIRCUIT-CONTROLLING MEANS. ANDREW JOSEPH ALLARD, Richmond, Va. Filed Jan. 16, 1917. Serial No. 142,696. (Cl. 161—27.)



1. A device of the character described, comprising the casing and frame of a time mechanism, a rod mounted to move longitudinally in said frame and adapted to be moved in one direction by the operation of the time mechanism, a spring for moving said rod in the other direction, contact arms carried by said rod, contact blocks secured to the frame in position to coöperate with said contact arms, an electric circuit including lamps connected with said contact blocks, electrically separated switch blocks carried by said casing and connected in said circuit, and a manually operable switch lever mounted on said casing and coöperable with said switch blocks for opening or closing said circuit.

2. A device of the character described comprising the casing of a time mechanism, a casing therefor, a spur wheel to be operated by the time mechanism and carrying a cam, a spindle on which said wheel is movable longitudinally, a lug on said spindle to coöperate with said cam, and circuit closing means controlled by the movements of said wheel longitudinally on the spindle, a manually operable ring mounted on the casing and provided with an annular rack, a pinion carried by said spindle, a longitudinally movable spindle, pinions on said longitudinally movable spindle normally out of mesh with said first mentioned pinion and annular rack respectively, a cam flange on said longitudinally movable spindle, and a lever mounted on the casing and having a toe thereon to engage said cam flange to move the pinions on said spindle simultaneously into mesh with the first-mentioned pinion and the rack respectively whereby the first-mentioned spindle may be turned to set the lug thereon relatively to the cam on the spur wheel, when the manually operated ring is turned, and a spring for moving said longitudinally movable spindle to disengage the pinions thereon from the first mentioned pinion and the rack.

1,252,875. PUMP. HENRY W. ASHMUSEN, Kings Park, N. Y., assignor to Ashmusen Manufacturing Company, Kings Park, Long Island, N. Y. Filed Mar. 29, 1916. Serial No. 87,572. (Cl. 103—77.)



2. A pump comprising a casing having an inlet and an outlet, a valve mounted within the casing and provided with a port adapted to register with the inlet or the outlet and having a chamber in communication with said port, a plunger slidably fitted within said chamber, a driving rod having a lost-motion connection with the valve to move the same within the casing and also having a lost-motion connection with the plunger to move the plunger within the valve, and means for positively limiting the movement of the valve.

6. In a pump, a valve movable between receiving and discharging positions and having a plurality of chambers arranged to receive and discharge fluid when the valve is respectively in receiving and discharging positions, means for positively arresting the movement of the valve upon reaching either of said positions, a driving element frictionally coacting with the valve to move the same between said positions and movable independently of the valve when the movement of the valve is arrested, a plunger working in each of said chambers, and operative connection between the plungers and the said driving element.

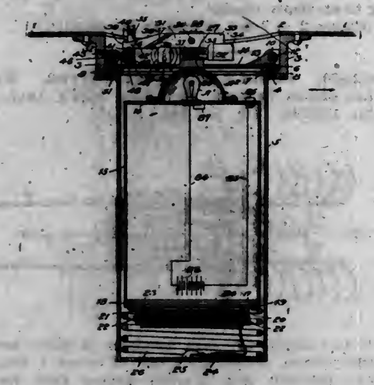
[Claims 1 and 3 to 5 not printed in the Gazette.]

1,252,876. MEANS FOR INDICATING THE POSITION OF SUBMARINE CRAFT. JOHN B. BARRETT, Clifton Station, Va. Filed Sept. 11, 1916. Serial No. 119,540. (Cl. 114—16.5.)

1. In combination with a self propelled vessel of the class described, a releasable buoyant attachment normally carried by the vessel, and adapted, when released from the vessel, to indicate a submerged position of the latter, locking means for retaining the buoyant attachment on the vessel releasable when the vessel submerges to a predetermined depth beneath the surface of the water, and a second locking means for said buoyant attachment releasable when the motive power of the vessel is spent.

4. In combination with a self-propelled vessel of the class described, an indicating buoy normally carried by the vessel, locking means for retaining the buoyant attachment on the vessel releasable by a predetermined hydrostatic pressure of submergence, and a second locking means independent of the first named locking means for said buoyant attachment adapted to be maintained in locking relation by pressure of the water flow while the vessel is running its normal course under its motive power, and releasable when the motive power of the vessel is spent.

15. In combination with a self-propelled vessel of the class described, a releasable indicating buoy normally carried by the vessel, mechanism for locking said buoy to the vessel, means operated directly by the impact of the water flow, while the vessel is running, for retaining said locking mechanism in buoy-locking position, means releasable by a predetermined hydrostatic pressure of submergence for retaining said locking mechanism in buoy-locking position, and a spring for ejecting the buoy from the vessel when released.



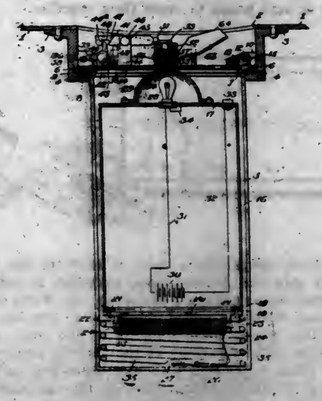
16. In combination with a self-propelled vessel, of the class described, a releasable indicating buoy normally carried by the vessel, mechanism including a plurality of coöperating locking members for locking said buoy to the vessel, a water-soluble pin for retaining one of the members of the locking mechanism on the vessel whereby the locking mechanism is released when the vessel remains for an extended period of time in the water, means operated directly by the impact of the water flow while the vessel is running for retaining said locking mechanism in locking position, and means releasable by a predetermined hydrostatic pressure of submergence for retaining said locking mechanism in locking position.

17. In combination with a self-propelled vessel of the class described, a releasable indicating buoy normally carried by the vessel, mechanism for locking the buoy to the vessel, comprising a pair of coöperating members, a lock actuating member adapted to have a normal lock retaining position and a second automatically releasable lock retaining position, means carried by the locking member for moving the latter to said second named position and retaining it therein while the vessel is running its normal course under its motive power, means tending to release said actuating member while in said second named position, and means operable by a predetermined hydrostatic pressure of submergence for retaining the actuating member in said second named position.

[Claims 2, 3, and 5 to 14 not printed in the Gazette.]

1,252,877. MEANS FOR INDICATING THE POSITION OF SELF-PROPELLED VESSELS. JOHN B. BARRETT, Clifton Station, Va. Filed Mar. 14, 1917. Serial No. 154,838. (Cl. 114—20.)

2. In combination with a torpedo, a releasable indicating means therefor, a releasable lock for retaining said indicating means on the torpedo, a water wing controlling said lock and movable by the water pressure while the torpedo is running its normal course into a position substantially non-resistant to the passage of the torpedo through the water, in which position of the water wing the lock is retained closed, means operable upon a reduction in pressure on the wing for moving the latter into a lock-releasing position, and means releasable upon a predetermined hydrostatic pressure of submergence for preventing movement of the water wing into lock-releasing position.



3. In combination with a torpedo, a releasable indicating means therefor, a releasable lock for retaining said indicating means on the torpedo, a water wing controlling said lock and movable by the water pressure while the torpedo is running its normal course, into a position substantially parallel with respect to the line of motion of the torpedo, in which position of the water wing the lock is retained closed, and means operable upon a reduction in pressure on the water wing for moving the latter into a lock-releasing position.

6. In combination with a torpedo, a releasable indicating means therefor, a releasable lock for retaining said indicating means on the torpedo, a water wing controlling said lock and pivoted on vertical and horizontal axes with respect to the torpedo, whereby the wing may move on its horizontal axis from a lowered to a lifted position, and may move on its vertical axis into three positions, said wing movable on its horizontal axis from a lowered position to a lifted position and on its vertical axis from a first position into a second position by the water pressure while the torpedo is running its normal course, in which second position of the water wing the lock is retained closed, means for locking the wing in lifted position, and means operable upon a reduction in pressure on the lifted wing for moving the latter into a third lock-releasing position.

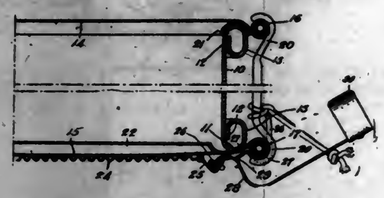
8. In combination with a torpedo, a releasable indicating means therefor, a releasable lock for retaining said indicating means on the torpedo, a lock-controlling arm movable into lock releasing position, a member rotatable on a horizontal axis for preventing movement of the arm into lock-releasing position and provided with a recess adapted to permit movement of the arm into lock-releasing position, spring means for moving said rotatable member into position to bring the recess into registry with the arm, a water wing mounted on the rotatable member for moving the recess out of registry with the arm, said water wing movable on a horizontal axis by the water pressure while the torpedo is running its normal course, into a substantially horizontal position relatively to the longitudinal axis of the torpedo, and means releasable upon a predetermined hydrostatic pressure of submergence for preventing movement of the rotatable member into position to bring the recess into registry with said arm.

[Claims 1, 4, 5, 7, 9, and 10 not printed in the Gazette.]

1,252,878. DRUM. HARRY A. BOWER, Boston, Mass. Filed Sept. 11, 1915. Serial No. 50,162. (Cl. 84—30.)

1. A drum comprising a cylindrical shell, heads stretched across the ends of the shell, combined skin and

tension hoops for the respective heads, the edges of the skin forming the head being wrapped around and attached to its hoop, and hooked tension rods engaging wrapped portions of said hoops to draw them together.



5. A drum comprising a shell, a head for the shell, a combined skin and tension hoop attached to said head, and tension means engaging said hoop, the inside diameter of the hoop with the added thickness of the head being greater than the external diameter of the shell, whereby interference with vibrations of the shell is avoided.

12. A drum comprising a shell, a head, and an annular cushion of yielding material between the end edge of the shell and the head.

16. A snare drum comprising a shell, a head, an annular cushion between the head and the shell, and formed in separated sections, to form snare beds between the ends of the sections, and snares arranged across said head and supported by said shell in said beds.

17. A drum comprising a cylindrical shell, having on each end an outturned bead which is curvilinear in cross section, rigid hoops greater in internal diameter than the external diameter of said beads, heads having their edges wrapped around said hoops, adjustable tension rods having hooks taking over the wrapped hoops, each rod consisting of two oppositely extending hooks with threaded inner ends, and a rotatable intermediate member in threaded engagement with the inner ends of said hooks.

[Claims 2 to 4, 6 to 11, and 13 to 15 not printed in the Gazette.]

1,252,879. BOOK BINDING OR COVERING MACHINE. ALFRED BRENDENBERG, Champlain, N. Y., assignor of one-half to The Sheridan Iron Works, a Corporation of New York, and one-half to T. W. & C. B. Sheridan Company, a Corporation of New York. Continuation in part of Patents Nos. 1,248,252 and 1,248,254, dated Nov. 27, 1917. This application filed Sept. 7, 1917. Serial No. 190,170. (Cl. 11—33.)

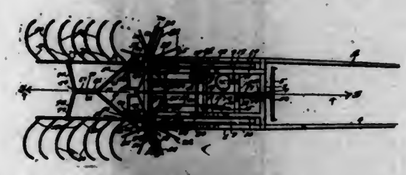


1. In a bookbinding or covering machine, a traveling train of book holding clamps adapted to receive and advance a succession of books to be found or covered, means for applying glue to the successive books, a mechanism farther along in the line of travel of the books for supplying covers or backings to the successive books, and means controlled by the position of the parts of each clamp after leaving its book receiving position, whereby when a particular clamp is left empty the cover supplying mechanism is prevented from supplying a cover corresponding to the empty clamp.

8. In a bookbinding or covering machine, a traveling train of book holding clamps movable along a definite path and each having closing means for the movable clamp member and a roller partaking of the opening and closing movements of said member, mechanism coacting with said roller for causing the opening or closing of the successive clamps, mechanism for feeding and applying backings to the successive books, a swinging feeler arm standing in the path the roller will take when a clamp is empty, and connections from said feeler arm to said feeding mechanism for rendering the latter inoperative, said feeler and feeding mechanisms being at such distances respectively from the point of application, that no backing will be supplied or fed corresponding to an empty clamp.

[Claims 2 to 7 not printed in the Gazette.]

1,252,880. DOUBLE-ROW CORN-CUTTER. WILLIAM LEE BRIGGS, Gadsden, Ala. Filed June 4, 1917. Serial No. 172,748. (Cl. 56—105.)



1. In a double row corn harvester, a double row corn cutting device, comprising a pair of levers, a supporting frame provided with brackets having their rear terminals directly oppositely disposed, and on which terminals said levers are pivotally mounted, a bar connecting the lower extremities of the levers and having its opposite ends merging into cutting knives, extending laterally and inclined forwardly, whereby their cutting edges may have shearing actions on the stalks, a rod connecting the upper extremities of the levers, and means connected to said rod for holding said double row corn cutter in different adjusted positions.

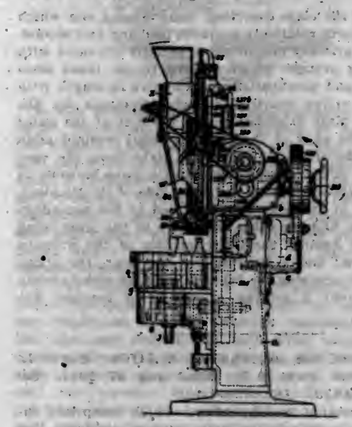
2. In a double row corn harvester, a frame, supporting wheels therefor, said frame having rearwardly extending brackets provided with bearings, rearwardly and upwardly inclined shafts mounted in said bearings and provided with arms extending downwardly and rearwardly and curving outwardly and laterally, thereby constituting stalk receiving racks, said shafts of the racks having gears, inwardly extending arms on said bearings and provided with bearings, a crank shaft mounted in the bearings of the arms and having gear connections with the shafts of the racks, and means having a connection with the crank of said crank shaft for rocking the racks simultaneously to dump the stalks, and upwardly extending bearing arms on the frame for receiving and supporting and reinforcing the upper rear extremities of the shafts of the racks.

1,252,881. BOTTLE FILLING AND SEALING MACHINE. AMOS CALLMON, Brooklyn, N. Y., assignor to Adriance Machine Works, Inc., Brooklyn, N. Y., a Corporation of New York. Filed Mar. 30, 1916. Serial No. 87,805. (Cl. 226—28.)

1. In combination, means to operate on the containers, means to place the containers successively in operative relation to the first means, and mechanism to advance the second means substantially constant distances including a continuously driving means and an alternating advance-and-dwell-motion power transmitting means operatively connecting the second means with said driving means and having means to change the ratio of the time-intervals of its advances and dwells independently of said driving means while maintaining substantially constant the advance-increments of the second means.

2. In combination, reciprocating means to operate on the containers, means to place the containers successively in operative relation to the first means, and mechanism to advance the second means substantially constant distances including a continuously driving means and an alternating advance-and-dwell-motion power transmitting means operatively connecting the second means with said driving means and having means to change the ratio of the time-intervals of its advances and dwells independently of said driving means while maintaining substantially constant the advance-increments of the second means.

3. In combination, means to deliver a charge to the containers, means to place the containers successively in operative relation to the first means, and mechanism to advance the second means substantially constant distances including a continuously driving means and an alternating advance-and-dwell-motion power transmitting means operatively connecting the second means with said driving means and having means to change the ratio of the time-intervals of its advances and dwells independently of said driving means while maintaining substantially constant the advance-increments of the second means.



4. In combination, means to operate intermittently on the containers, means to place the containers successively in operative relation to the first means, a continuously driving means, and an alternating advance-and-dwell-motion power transmitting means operatively connecting the first means with said driving means and having means to change the ratio of the time intervals of its advances and dwells independently of said driving means.

5. In combination, reciprocating means to operate intermittently on the containers, means to place the containers successively in operative relation to the first means, a continuously driving means, and an alternating advance-and-dwell-motion power transmitting means operatively connecting the first means with said driving means and having means to change the ratio of the time intervals of its advances and dwells independently of said driving means.

[Claims 6 to 49 not printed in the Gazette.]

1,252,882. CATTLE-POKE. CARL F. CARSON, Faxon, Okla. Filed June 15, 1917. Serial No. 174,959. (Cl. 119—139.)

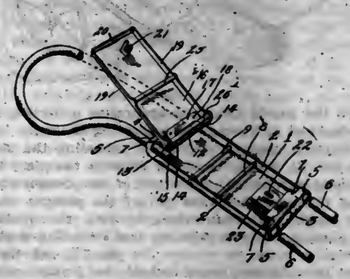
1. A cattle poke comprising a pair of upper and lower fork members, each fork member embodying an arm having a pair of arms at one end, a cross bar carried by the outer end of each arm, means for connecting the ends of said arms together, a forked head member attached to said lower fork member, means for supporting said head member from said lower fork member, a



nose plate carried by said head member, and a spur carried by each upper and lower fork member.

[Claims 2 to 5 not printed in the Gazette.]

1,252,883. LOCK FOR MAIL-BAGS, TRUNKS, BOXES, AND THE LIKE. CHARLES CASPER, Belton, Mo. Filed May 8, 1914. Serial No. 837,163. (Cl. 24—132.)

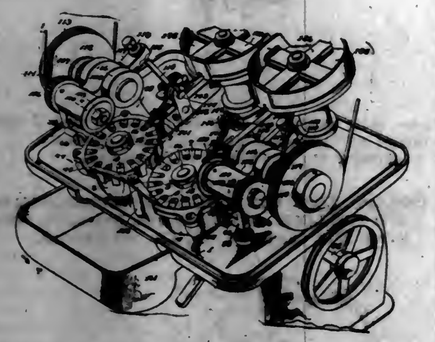


In a rope clamp, a rectangular body member constructed from a single piece of sheet metal and provided with an integral marginal flange, the portions of said marginal flange at the opposite ends of the body having rope receiving openings in the corners of the body member, whereby parallel strands of rope may be disposed adjacent the longitudinal portions of said flange, said end portions of said flange having extensions spaced from and in parallelism with the bottom of the body, said extensions having integral connections with said longitudinal portions of said marginal flange, said extensions having spring lugs bearing against the parallel strands of rope to hold them in contact with said longitudinal portions of the marginal flange, a closure member pivoted to one extension and having its free end edge abutting the upper face of the opposite extension, the inner faces of both members having clenching devices arranged in staggered relations for clenching the rope between said members.

1,252,884. AUTOMATIC SCREW-SLOTTING MACHINE. FRANK S. CHASE, Torrington, Conn., assignor to The Progressive Manufacturing Company, Torrington, Conn., a Corporation of Connecticut. Filed Apr. 7, 1915. Serial No. 19,683. (Cl. 10—6.)

1. In an organized multiple machine for slotting screws, a plurality of adjacent oppositely rotating turrets provided with chucks for holding screws to be slotted, a plurality of slotting saws, and gripping devices for the screws, a driving shaft for operating said mechanism, and operative connections between the driving shaft and the plurality of mechanisms, whereby the latter may be operated in unison or independently.

4. In combination, the turret having recesses for the blanks and means for imparting to the turret a step-by-step movement including a pivoted toothed segment with means for oscillating it, a loose disk on the turret shaft, and a ratchet fast thereon, said loose disk having teeth meshing with the toothed segment and carrying a pawl engaging and driving the ratchet in one movement, and a locking pawl for engaging the ratchet and holding it while the segment and loose disk are returning to normal position to impart motion to the turret, said locking pawl being pivoted to the machine frame and having an extension provided with an adjustable abutment, and located in the path of movement of the pivoted segment, and engaged and forced into operative position by said segment in its operating movement.



15. In the herein described apparatus, a driving shaft, a gripping tool and means for operating the same including the spring plunger mechanism including the plunger 71 and pin 72, the outer sleeve 70 with the pin 73, and connections between the upper end of the plunger and the gripping tool and the lower end of the plunger and the driving shaft, said connections between the upper end of the plunger and the gripping tool including a pivoted lever with a recess to receive the pin 72, and the connections between the lower end of the plunger and the driving shaft including a bell crank lever with a recess for the pin 73.
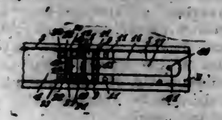
[Claims 2, 3, 5 to 14, and 16 to 19 not printed in the Gazette.]

1,252,885. BEDCLOTHES-CLAMP. JESSE FRANKLIN COOK, Meridian, Miss. Filed June 25, 1912. Serial No. 705,767. (Cl. 24—250.)



In a bed clothes clamp, the combination of a pair of hinged jaws and a spring eye connected to said jaws, of means connecting in said eye and to the bed spring for anchoring the clamp, the inner face of one of said jaws having corrugations, the other jaw having a wear plate lined slot, a bolt extending through the corrugated jaw and having its threaded shank passing through the wear plate lined slot, and provided with a winged nut threaded thereon for clamping the two jaws on the bed clothes.

1,252,886. WHEEL-RIM. JAMES WILEY CONDELL, Talladega, Ala. Filed Apr. 21, 1917. Serial No. 163,026. (Cl. 152—21.)



A device of the class described comprising a rim which is divided to form relatively movable primary and secondary ends, the primary end being terminally provided with a slot defining prongs; strips secured to the inner sides of the prongs and substantially coextensive in length with the slot, the strips constituting reinforcements for the prongs; a tie plate extended across the slot at the outer end thereof, the ends of the tie plate being secured upon the ends of the strips to space the plate from the base portion of the primary end of the rim; a lever movable in the slot and extended across the outer side of the tie plate, one extremity of the lever being pivoted to the secondary end of the rim, and the other extremity of the lever being adapted to lie against the inner surface of the primary end of the rim; and a fulcrum for the lever, the strips having sockets receiving the fulcrum, and the sockets being offset to prevent a seating of the lever between the prongs.

1,252,887. PROCESS OF MAKING ALLOYS. HENRY L. DOHERTY, New York, N. Y. Filed Aug. 27, 1917. Serial No. 188,473. (Cl. 75—1.)

1. The process of making alloys which comprises inclosing a relatively volatile metal and a relatively less volatile metal in a closed casing and heating under a high pressure of the vapors of the more volatile metal.

3. The process of making alloys of a highly volatile metal with a less volatile metal which comprises uniting the less volatile metal in a fused state with the more volatile metal at a relatively high pressure in a casing adapted to withstand such pressure and prevent substantial volatilization of the more volatile metal.

4. The process of making alloys of a highly volatile metal with a less volatile metal which comprises uniting the less volatile metal in a fused state with the more volatile metal at a relatively high pressure in a casing adapted to withstand such pressure and prevent substantial volatilization of the more volatile metal and casting under pressure.

5. In the manufacture of alloys of metals of widely different melting point the process which comprises uniting said metals at a temperature sufficient to melt the less fusible metal in a casing under sufficient pressure to restrain substantial evaporation of the more fusible and volatile metal and retain it in a liquid state at such temperature.

6. In the manufacture of alloys of metals of widely different melting point the process which comprises uniting said metals at a temperature sufficient to melt the less fusible metal in a casing under sufficient pressure to restrain substantial evaporation of the more fusible and volatile metal and retain it in a liquid state at such temperature and casting under pressure.

[Claim 2 not printed in the Gazette.]

1,252,888. PIPE-COUPLING AND REPAIR-SLEEVE. WALTER A. DORSEY, Columbus, Ohio, assignor to The Bonney-Floyd Company, Columbus, Ohio, a Corporation of Ohio. Filed June 8, 1915. Serial No. 32,018. (Cl. 137—28.)

1. The combination of a pipe-engaging sleeve provided at each end with two separated annular recesses immediately adjacent the pipe, the inner of the recesses tapering longitudinally outward, a yieldable packing ring fitted in the inner of the said recesses, follower devices in the sleeve movable longitudinally outward to force the packing rings into firm engagement with the pipe and the walls of the recesses, and a metallic packing in the outer of the said recesses engaging the pipe.

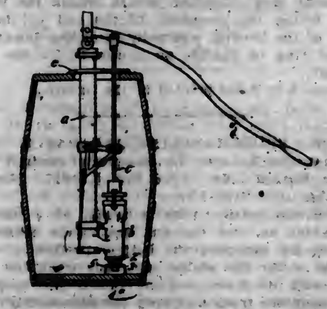


2. The combination of a longitudinally divided sectional pipe-engaging sleeve provided at each end with two separated annular recesses immediately adjacent the pipe, the inner of the recesses tapering longitudinally outward, a yieldable packing ring fitted in the inner of the said recesses, follower devices in the sleeve movable longitudinally outward to force the packing rings into firm engagement with the pipe and the walls of the recesses, and a metallic packing in the outer of the said recesses engaging the pipe.

3. The combination of a longitudinally divided sectional pipe-engaging sleeve provided at each end with two separated annular recesses immediately adjacent the pipe, and provided at both sides with recesses extending along the division planes and joining at their ends the outer of the said end recesses, the inner of the said end recesses tapering longitudinally outward, a yieldable packing ring fitted in the inner of the said end recesses, follower devices in the sleeve movable longitudinally outward to force the packing rings into firm engagement with the pipe and the walls of the recesses, and a fusible metallic packing in the said side recesses and the outer of the said end recesses engaging the pipe.

4. The combination of a pipe-engaging sleeve provided at its ends with annular recesses immediately adjacent the pipe, a yieldable packing ring fitted in each of the recesses, longitudinally movable follower rings in the sleeve adjacent the packing rings, bolts extending through apertures in the end walls of the sleeve and engaging the follower rings to move the rings outward to force the packing rings into firm engagement with the pipe and the walls of the recesses, bosses formed on the sleeve with recesses therein to receive the heads of the bolts, and plugs for closing the outer ends of the recesses to prevent leakage around the bolts.

1,252,889. PUMP. WILLIAM B. DOUGLAS, Middletown, Conn., assignor to W. & B. Douglas, Middletown, Conn., a Corporation of Connecticut. Filed Sept. 23, 1914. Serial No. 863,091. (Cl. 103—65.)

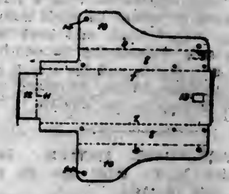


2. A steady-rest for the lower end of a pump, comprising a base member located within and secured to the bottom of a container, a transverse groove in said base, lateral chambers at the sides of said groove, a pump having a plug closure provided with a T-head projection adapted to be interlocked with the chambered base and means for holding said parts against disengagement.

4. A device of the class described including a container having a pump positioned therein, and coöperating anchoring means for the pump carried by the pump and container, the means carried by the pump constituting a closure for the lower end thereof.

[Claims 1 and 3 not printed in the Gazette.]

1,252,890. TYPE-WRITING MACHINE. WILLIAM H. EBBLHARB and CLARENCE G. ARVIDSON, Indianapolis, Ind., assignors to The Stenotype Company, Indianapolis, Ind. Filed Nov. 21, 1916. Serial No. 132,614. (Cl. 197—186.)

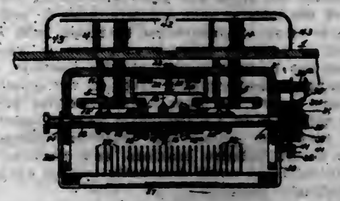


1. In a typewriting machine, the combination with a frame and printing and paper feeding mechanisms, of a paper receptacle supported by the lower portion of the frame, said receptacle comprising a member disposed in the frame to receive a supply folded paper strip, and a member adapted to be disposed rearwardly of the frame and the printing and feeding mechanisms to receive the printed strip in superposed folded layers.

8. A paper tray comprising a member having wings for attachment to the frame of a typewriting machine, and a movable member disposed within the first-mentioned member, means for guiding the movements of the movable member, and a spring tongue carried by the movable member and coöperable with the bottom of the first-mentioned member to control the movements of said movable member.

[Claims 2 to 7 not printed in the Gazette.]

1,252,891. STENOGRAPHIC TYPE-WRITING MACHINE. WILLIAM H. EBBLHARB and CLARENCE G. ARVIDSON, Indianapolis, Ind., assignors to The Stenotype Company, Indianapolis, Ind. Filed Nov. 22, 1916. Serial No. 132,845. (Cl. 197—151.)



1. In a typewriting machine, the combination with a frame, ribbon spool shafts, an actuating shaft, gearing between said shafts, and key levers, of a universal bar under the key levers and having arms pivotally attached to the frame, a ratchet wheel on the actuating shaft, a pivoted carrier, a pawl mounted on said carrier to engage the ratchet wheel, and an operating connection between said carrier and one of the arms of the universal bar.

2. In a typewriting machine, the combination with ribbon spool shafts, an actuating shaft, gearing between said shafts and key levers, of a spring sustained universal bar disposed under the key levers and having an arm at one end, a ratchet wheel secured to the actuating shaft,

a pivoted pawl carrier, a pawl mounted on said carrier to engage the ratchet wheel, and intermeshing means between said carrier and the said universal bar arm.

[Claims 3 to 6 not printed in the Gazette.]

1,252,892. FASTENER. DANIEL ECKHART, North Bend, Nebr. Filed Aug. 13, 1917. Serial No. 186,003. (Cl. 24—103.)



2. A button being constructed from a single length of spring wire curved or turned on itself midway its ends to form a ring shaped head, said head having radial guards, said guards terminating in additional guards offset from the first guards, and the second guards terminating in spring prongs having sharpened extremities.

[Claim 1 not printed in the Gazette.]

1,252,893. FREE-WHEEL DEVICE. FREDERICK S. ELLETT, Elmira, N. Y. Filed Apr. 28, 1917. Serial No. 165,150. (Cl. 74—16.)



1. In a device of the class described, the combination of an inner rotatable member, an outer rotatable member, said members being arranged with an annular space between them extending from side to side thereof, bearing balls in said space, one or more pawls alongside of said balls in said space adapted to form a driving connection between said members, and removable means on opposite sides of said members closing the ends of said space.

5. In a device of the class described, the combination of two concentric rotatable members provided with alined coöperating ball races and grooves extending from said races to the sides of said members, balls in said races, the parts being so constructed that said balls may be inserted or removed through said grooves when said members are in their normal relative positions, one of said members having ratchet teeth on the opposite side from said groove, the other member carrying pawls coacting with said teeth and adapted to be removed or inserted from said opposite side when said members are in the normal relative positions, and retaining plates for said balls and pawls detachably secured against the sides of said members.

[Claims 2 to 4 not printed in the Gazette.]

1,252,894. RESAWING-MILL. EDWARD E. FITZGERALD, Minden, La. Filed Oct. 26, 1915. Serial No. 58,033. (Cl. 143—49.)

1. A resawing organization, comprising in combination two sawing machines, with cant-feeding mechanism for each; intermediate means for delivering the cants from the discharge side of one of said sawing machines to the receiving side of the other of said machines; and means operable from a common point for controlling said cant-feeding and cant-delivery mechanism.

7. In combination with a saw and with a runway for feeding canta or logs thereto comprising two series of feed rolls arranged with their axes in intersecting planes; means for positively rotating said rolls in feeding direction; a movable pressure-roll; and power-actuated devices for urging said pressure-roll toward the feed-rolls of both series simultaneously, whereby a cant or log section may be pressed into the angle formed by rolls of the two series, held against said rolls, and properly advanced and guided to and past the saw.



9. In combination with cant-feeding rolls, and means for rotating them, a peripherally threaded pressure and cant-turning roll; a swinging support for said roll; means for swinging said support to carry the roll toward and from the feeding rolls; and means for rotating said threaded roll.

[Claims 2 to 6, 8, and 10 to 12 not printed in the Gazette.]

1,252,895. CAR-WHEEL. WALTER B. FLOYD, Columbus, Ohio, assignor to The Bonney-Floyd Company, Columbus, Ohio, a Corporation of Ohio. Filed Jan. 24, 1913, Serial No. 743,996. Renewed July 22, 1915. Serial No. 41,414. (Cl. 105—67.)



1. The combination with a wheel hub adapted to rotate upon a shaft, of an annular bearing interposed between the hub and the shaft, and a ring extending within the outer end of the hub and providing an abutment for both the outer end of the bearing and end of the shaft.

2. The combination with a wheel hub adapted to rotate upon a shaft, of an annular bearing interposed between the shaft and hub, the end of the hub being closed and a ring extending inward within the hub and dividing off a lubricant chamber between its walls and the end wall of the hub, and likewise providing an abutment for the end of the shaft.

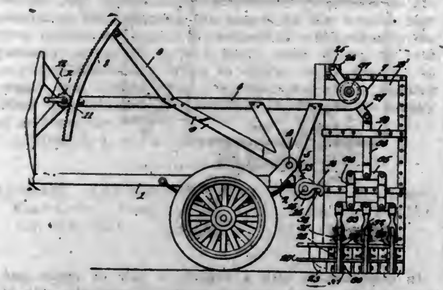
3. The combination with a wheel hub adapted to rotate upon a shaft, of an annular bearing interposed between the shaft and the hub, the outer end of the hub being inclosed and providing a lubricant chamber, an annular ring extending inward within the hub and closely fitting the periphery of the end of the shaft outside of the bearing, and a lip extending inward from the said ring to provide an abutment for the end of the shaft.

[Claims 4 to 6 not printed in the Gazette.]

1,252,896. BRICK-HANDLING APPARATUS. ROBERT A. FONTAINE, Roanoke, Va., assignor of one-half to G. T. Greer, Roanoke, Va. Filed Feb. 5, 1917. Serial No. 146,754. (Cl. 214—1.)

1. The combination with a truck, of a detachable body having an open end and top, means connected to the body for engaging the bottom portion of a hack of bricks or the like within said body when the body is placed with its lower end lowermost, and coöperating means upon the truck and body for successively shifting said clamping means to grip the contents of the body and lift said body onto the truck.

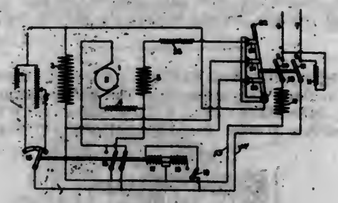
7. The combination with a truck and a structure mounted to swing thereon about a substantially horizontal axis, said structure having rails provided with hooked terminals, of a body having an open top and end, a load supporting arm extending from the bottom of the body and across said end, opposed series of gripping elements for binding a portion of the load upon the arm, anti-friction means movably connected to the body for engagement by the rails, equalizing connections between said means and the gripping elements, and means operated by the tilting of the supporting structure for successively actuating said gripping means and elevating the body onto the structure.



12. The combination with a truck, of a detachable body open at one end and at the top, means carried by the truck for setting the body upon the ground with its open top to the rear and with its open end downward, means carried by the body for releasing said body from its contents when the body is set upon the ground, and means coöperating between the truck and the body for withdrawing the body from its contents through the motive power of the truck when the contents of the body is so released.

[Claims 2 to 6, 8 to 11, 13, and 14 not printed in the Gazette.]

1,252,897. RECIPROCATING MECHANISM AND SYSTEM OF MOTOR CONTROL THEREFOR. WALTER FOSTER, Plainfield, N. J., assignor to Niles-Bement-Pond Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 11, 1913, Serial No. 747,641. Renewed Mar. 19, 1917. Serial No. 155,941. (Cl. 172—240.)



1. The combination of a reciprocating table, a reversing electric motor for driving the table, a table operated switch for controlling the motor to periodically reverse it, and means automatically operable upon the failure of external power for dynamically braking the motor and for causing the power of the braking action to be greater for one direction of motor rotation than for the other.

3. The combination of a reciprocating table, a reversing electric motor for driving the table, a table operated switch for controlling the motor to periodically reverse it, an automatic circuit breaker, and means dependent on the operation of the circuit breaker for dynamically braking the motor and for causing the braking action to be greater for one direction of motor rotation than for the other.

9. In a system of motor control, in combination, a motor, means connecting the motor to a source of external power, and means adapted upon a failure of external power to short-circuit a field winding of the motor and to close a circuit comprising the armature.

19. In a system of motor control, in combination, a motor, means connecting the motor to a source of external power, and means adapted upon a failure of external power to short-circuit a field winding and thereafter to close a circuit comprising the armature, an interpole winding and another field winding.

21. In a system of motor control, in combination, a motor, a circuit breaker provided with a no-voltage and an over-load release, and a step-switch operated upon the opening of said circuit breaker for short circuiting a field winding of the motor and thereafter closing a circuit comprising the armature of the motor.

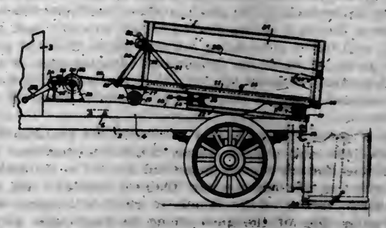
[Claims 2, 4 to 8, 10 to 18, 20, and 22 to 26 not printed in the Gazette.]

1,252,898. CEREAL-CUTTER. FOREST G. GAUNTT, Fort Wayne, Ind., assignor to W. J. Savage Company, Knoxville, Tenn., a Corporation of Tennessee. Filed Feb. 23, 1915. Serial No. 9,815. (Cl. 83—12.)



A mill embodying a pair of rolls, the first roll being provided throughout the extent thereof with longitudinally extending cutting ribs with intervening material feeding grooves, said ribs having a spiral advance in their longitudinal extent whereby material is urged thereabout toward one end of the roll, the second roll being provided throughout the extent thereof with circumferentially extending cutting ribs with intervening material feeding grooves, said second roll ribs having a spiral advance in their longitudinal extent opposing the spiral advance of the first roll, whereby material urged toward one end of the first roll is counterurged, and means for rotating the rolls in rendering the feeding grooves effective in bringing material to and distributing such material along the rolls for cutting between the ribs.

1,252,899. LOADING AND UNLOADING ATTACHMENT FOR VEHICLES. GEORGE T. GREER and ROBERT A. FONTAINE, Roanoke, Va. Filed June 2, 1917. Serial No. 172,554. (Cl. 214—1.)



1. In a loading and unloading device, a conveying vehicle, a load-carrying body having an open top and an open end, means for carrying the said body upon the vehicle, and means for applying the body thereto and removing it therefrom, the said body being adapted when removed from the vehicle to be deposited upon its open end, and means in connection therewith for causing the said body to shift relative to its contents when so deposited.

8. In a loading and unloading attachment for vehicles, a load-carrying body, a supporting frame therefor adapted

to travel by gravity in a substantially horizontal plane upon the vehicle toward the rear end thereof, and to swing by gravity about a transverse axis into a substantially vertical plane at the rear end of the vehicle, there being portions of the frame adapted to support the body when in horizontal position and there being outstanding arms carried by the frame and projections upon the body adapted to engage the arms, whereby the body may be supported from the said frame when in the said vertical position, and means attached to the frame for returning the frame and body to their normal positions upon the truck.

9. In a loading and unloading device for vehicles, a load-carrying body, a frame for receiving the same, means for causing the frame to recede by gravity toward the rear of the vehicle and for causing the frame to swivel about a transverse axis into a vertical position at the rear of the truck, and means operable for drawing the said frame away from the body or for drawing the said body therewith away from its contents, as desired, when in such vertical position.

[Claims 2 to 7 and 10 not printed in the Gazette.]

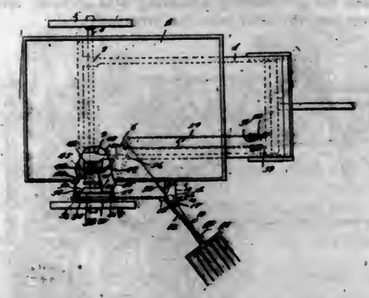
1,252,900. GLOVE. BRAYTON C. GRINNELL, Vancouver, British Columbia, Canada. Filed June 6, 1916. Serial No. 102,073. (Cl. 2—9.)



1. A glove, the palm side of which has prolongations beyond the end of each finger which prolongations are bent over the end of each finger and seamed to the back of the glove at the back a short distance from the end, and the back portion of the thumb of which is integral with the palm side of the glove along its inner edge and is bent around to form the back of the thumb and seamed to the palm portion around the end and along the outer side of the thumb, said integral back portion terminating short of the back of the glove, and an insert piece located between the back of the glove and said integral back portion, said insert piece being sewn to the back of the glove and to the edges of the thumb and adjacent edge of said back portion whereby the thumb of the glove will lie at the normal angle to the line of the index finger of the glove.

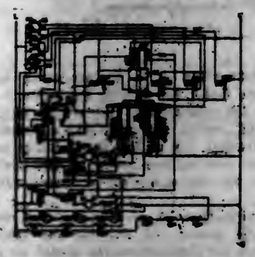
2. A glove, the palm side of which has prolongations beyond the end of each finger, which prolongations are bent over the end of each finger and seamed to the back of the glove at the back a short distance from the end, and the back portion of the thumb of which is integral with the palm side of the glove along its inner edge and is bent around to form the back of the thumb and seamed to the palm portion around the end and along the outer side of the thumb, said integral back portion terminating short of the back of the glove, and an insert piece located between the back of the glove, and said integral back portion, said insert piece being sewn to the back of the glove and to the edges of the thumb and adjacent edge of said back portion whereby the thumb of the glove will lie at the normal angle to the line of the index finger, and a welt sewn in the extreme angle of the junction of the thumb to the hand and extending from the hand seam of said integral back portion to and across the seam which joins the back of the glove to said insert piece.

1,252,901. STRAW OR HAY LOADING APPARATUS. JOHN H. HASELHORST, Highland, Wis. Filed Mar. 7, 1917. Serial No. 153,063. (Cl. 56—62.)



In combination with a vehicle, a pair of upper and lower axially alined bearings mounted upon the side of the body of the vehicle, a vertical shaft mounted in said bearings and having a shoulder to engage the lower bearings to prevent downward axial movement of the shaft, a pick-up fork having its shank pivoted to the lower part of said shaft, whereby the shank may extend outwardly, downwardly and forwardly, a pulley at the upper end of the shaft, the shaft at its lower end having an eye, a chain connected to the fork and passing over the pulley, whereby the chain will pull down upon the shaft to hold said shoulder in contact with the lower bearing, when a pulling action is imparted on the chain, a second chain connected to the shank of the pick-up fork and passing through said eye, a member having clutch means mounted on the rear axle of the vehicle, and to which member the first chain is connected, spring tensioned clutch means coöperating with the first clutch means, whereby said member will rotate with the axle for raising the pick-up fork, connections between the second chain and the second clutch means, whereby as the pick-up fork reaches the limit of its raised position, said second clutch means is disengaged from the first clutch means, and foot actuated means coöperating with said member to hold it at its limit of rotation, thereby holding the pick-up fork raised.

1,252,902. CONTROL SYSTEM. CHARK T. HENDERSON, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed July 3, 1915. Serial No. 107,296. (Cl. 172—288.)



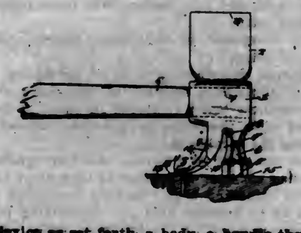
1. In a braking system for machines having a high inertia, in combination, a friction brake for the machine and power means for applying said brake with a varying effect approximately proportional to the kinetic energy of the machine.

2. In a braking system for machines having a high inertia, in combination, an electro-mechanical brake for the machine adapted to produce a varying braking effect approximately proportional to the square of the current supplied thereto and means for supplying current to said brake whereby its braking effect will vary in approximate proportion with the kinetic energy of the machine.

6. In a braking system for motor driven machines having a high inertia, in combination, a driving motor for the machine, a plurality of electro-responsive brakes for parts of the machine located at approximate centers of inertia, said brakes being functionally responsive in approximate proportion to the square of the current supplied thereto and means for subjecting said brakes to the potential generated by said motor when driven by said machine, said motor when so driven being adapted to supply said brakes with a current insuring a braking effect approximately proportional to the kinetic energy of said machine.

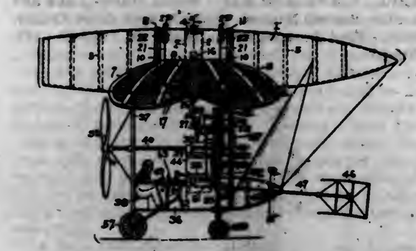
[Claims 2, 4, and 5 not printed in the Gazette.]

1,252,903. LATHING-MACHINERY. CHARLES O. HIGHT, Sparta, Ga. Filed Apr. 30, 1917. Serial No. 165,571. (Cl. 254—26.)



In a device as set forth, a body, a handle therefor, said body having a claw extending laterally and curved toward the hand gripping part of the handle, said body having a hammer poll extending therefrom, and on which the tool may fulcrum, whereby the claw may impart an initial pull on the nail, said poll so extending from the body with relation to the claw as to cause a tapered opening to be formed between the poll and the claw and adapted to receive the shank of the nail, whereby its final extraction may be accomplished.

1,252,904. FLYING-MACHINE. ANDREW H. HIRMER, Millvale, Pa. Filed Mar. 27, 1916. Serial No. 86,982. (Cl. 244—9.)



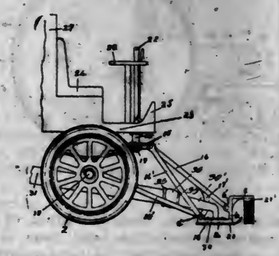
1. A flying machine comprising a wing-supporting frame, a plurality of wings hinged thereto, an operator's car, and a motor in said car connected with said wings to raise and lower the same to assist in the rising flight of the machine, said wings having valves permitting the passage of air therethrough on the rising stroke and adapted to present a closed surface to the air on the downward stroke, said valves each comprising a plurality of flaps secured at one end of the frame members of the wing.

3. A flying machine comprising a wing-supporting frame, a plurality of wings hinged thereto, an operator's car, and a motor in said car connected with said wings to raise and lower the same to assist in the rising flight of the machine, said wings having valves permitting the passage of air therethrough on the rising stroke and adapted to present a closed surface to the air on the downward stroke, said valves comprising a plurality of superposed layers or flaps which break joint with each other, one end of each of said flaps being secured to the frame members of the wing whereby the free ends of said flaps may be deflected to permitting passage of air, and means to sustain said flaps in closed relation upon the descending stroke of the wing, said means comprising transverse members secured to the wing frame above said flaps and adapted to engage the flaps intermediate of their ends.

4. A flying machine comprising a hollow buoyant body divided into several separate compartments whereby when the walls of one compartment are pierced, the other compartments will retain their buoyant medium to maintain the machine afloat, a plurality of wings secured to said buoyant body, an operator's car, a motor therein, an operating compartment within said buoyant body and connections between said motor and said wings located within said compartment.

[Claims 2 and 5 not printed in the Gazette.]

1,252,905. VACUUM STREET-CLEANING MACHINE. EDDIE E. JOHNSON, Toledo, Ohio. Filed Apr. 2, 1912. Serial No. 687,855. (Cl. 15—17.)



1. In a vacuum street cleaning machine, the combination with a wheel supported truck frame and a receiving truck body mounted on the truck frame, of a pair of elongated nozzles alined end to end transversely below the frame and movable on runners and in communication with said body, links connecting the nozzles with the truck frame whereby the nozzles are moved along over the surface of the ground by the truck frame, means to raise the outer end of either nozzle, and means to jointly raise their inner ends whereby both nozzles may be partly or wholly raised from the surface of the ground.

2. In a vacuum street cleaning machine, the combination with a wheel supported truck frame and a receiver body mounted on the frame of a pair of runner supported elongated nozzle plates, arranged end to end transversely below the truck frame, each nozzle plate being provided with a central longitudinal slot, links connecting each nozzle plate with the truck frame and adapted to yieldingly move the nozzle plates along with the truck frame, flexible pipe connecting means between the nozzle plates and the receiving body, means to independently raise the outer end of each nozzle plate, and means to jointly raise the inner ends of the nozzle plates, whereby each nozzle plate may be partly or wholly raised from the surface of the ground.

3. In a vacuum street cleaning machine, an elongated nozzle plate having an upright central longitudinal portion and horizontal side portions extending from the upper and lower edges of the central portion in opposite directions, the lower one of said side portions being provided with a central longitudinal slot and with runners trans-

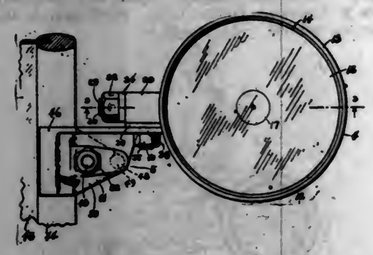
verse its end portions adapted to support its lower face slightly above the ground, and a brush secured to the lower face of the other side portion and extending longitudinally thereof parallel with the central portion.

1,252,906. LINGERIE-CLASP. ABRAHAM KESTENMAN and CHARLES H. KESTENMAN, Providence, R. I. Filed Apr. 26, 1916. Serial No. 93,628. (Cl. 24—252.)



In a lingerie-clasp for fastening the shoulder-straps of ladies' garments, the combination of two opposed jaw-members hinged together at one end with the outer free end of the upper member formed with a hook adapted to snap over a circular loop on the corresponding end of the lower member, said loop being extended inwardly toward the hinge in a bowed spring integral with the lower member and arched thereabove at its center, and with its inner end curled around in a loop adapted to slide along the lower member toward the hinge when the spring is compressed by the material clasped between the jaw-members.

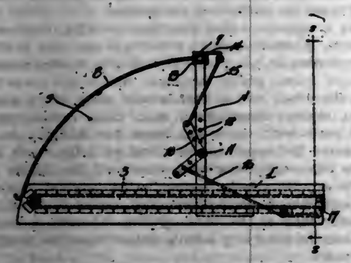
1,252,907. AUTOMOBILE-LAMP. EUGENE A. KUHN, Cincinnati, Ohio. Filed Apr. 25, 1917. Serial No. 164,577. (Cl. 240—57.)



1. A dirigible automobile lamp consisting of a body adapted to receive an encircling band upon a portion of its surface, a band encircling the band-receiving portion of the body and having its ends bent to substantially parallel positions to form a shaft, a member adapted to receive the ends of the band to mount the body pivotally thereon, and means engaging the ends of the band, adapted to clamp it in position around the body.

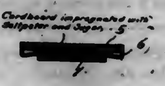
[Claims 2 and 3 not printed in the Gazette.]

1,252,908. GRAIN-BINDER ATTACHMENT. ALBERT J. LEBERT, Hazel, S. D. Filed May 10, 1917. Serial No. 167,797. (Cl. 56—37.)



A binder attachment comprising a flat platform having a pair of standards fixed thereto at opposite sides thereof, a bell crank lever pivotally mounted on one of the standards and having each of its arms provided with a plurality of equally spaced apart openings, a connecting rod connected with one of the said openings and adapted for attachment in any of the other openings for permitting adjustment of the said connecting rod, a pull rod joined to the opposite end of the said bell crank lever in one of the openings therein, a rotatable supporting bar provided with trunnions journaled in the upper end of the said standards, the said bar having a plurality of retaining fingers fixed thereto, and a yoke attached to the said supporting bar and provided with an arm projecting rearwardly from the said fingers and connected to the said pull rods, the said bell crank lever having a pivot bolt, the said standard being provided with a plurality of equally spaced openings any one of which may receive the said pivot bolt to provide an adjustment for the said pull rod and connecting rod.

1,252,909. PREPARED FUEL. ARTHUR B. LOW, Denver, Colo. Filed Feb. 28, 1916. Serial No. 80,827. (Cl. 44—1.)



1. A fuel composed of a porous cake impregnated with saltpeter and sugar.

2. A fuel composed of cardboard impregnated with saltpeter and sugar.

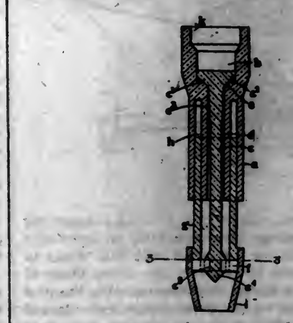
8. The herein described process of producing a fuel, consisting in applying a solution of saltpeter and sugar, the two substances being employed in equal proportions, to cardboard until the latter is saturated therewith, and finally drying the cardboard.

11. A fuel composed of a porous base impregnated with a self-oxidizing combustion promoting ingredient and with a combustion retarding heat retaining ingredient in such proportions as to produce heat for vulcanizing purposes.

18. A fuel composed of a solid combustible, consisting of an oxidising agent and carbonaceous material absorbed in a solid porous combustible binder, the constituents, materials and proportions used being such that a relatively high temperature is produced on ignition, the combustion effected however, being only partial, and the unburned residue being of a light porous structurally stable nature of low heat conductivity, with a more or less impervious, non-conducting exterior ash, so that the high heat produced is conserved and transmitted only slowly to the interior, and in degree and manner suitable for vulcanizing purposes.

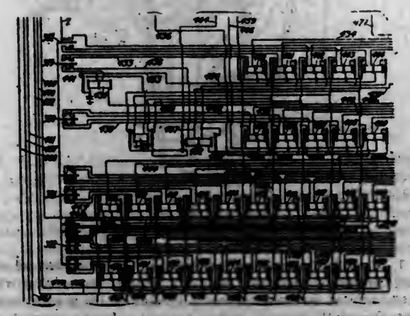
[Claims 3 to 7, 9, 10, and 12 to 17 not printed in the Gazette.]

1,252,910. VALVE AND TAP. FRANK HENRY LUKE and CHARLES ROBERT MILLAR, Tarquah, Gold Coast Colony, Africa. Filed June 27, 1917. Serial No. 177,368. (Cl. 137—4.)



In a self-closing tap, in combination, a cone-shaped valve, a tubular member having a seat for said valve, there being an opening through said seat, a stem for said valve, the upper part of said stem being as large as the opening and having a portion gradually tapering to smaller dimension, a double cone-shaped enlargement at the lower part of said stem, a sliding sleeve, larger than said enlargement, adapted to slide upon said tubular member, means connecting said sleeve and enlargement at the middle thereof, and an inwardly tapering nozzle on said sleeve, the whole arranged to facilitate the discharge of water with avoidance of gurgle.

1,252,911. TELEPHONE-EXCHANGE SYSTEM. ALBEN E. LUNDELL, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Oct. 28, 1916. Serial No. 128,311. (Cl. 179—27.)



1. A registering and controlling equipment for telephone exchange systems comprising a plurality of sets of register relays, a manually operable device for each digit of the greatest number it is desired to register, certain of such register relays being operated in response to the operation of such manually operable devices to control the production of a set of impulses for each digit of the number registered, and means associated with such relays for controlling the production of an additional set of impulses.

6. A registering and controlling equipment for telephone exchange systems comprising keys adapted to be set by the operator in combinations to represent any line number of the system, a register relay circuit associated with said keys and having a plurality of relays therein less in number than the number of keys and selectively operable in groups in response to the combinations of keys set by the operator, and locking means for the operated group of relays operating upon the energization of the last one of the selectively operable group of relays, whereby the group of relays is held in operated position irrespective of the subsequent condition of the keys.

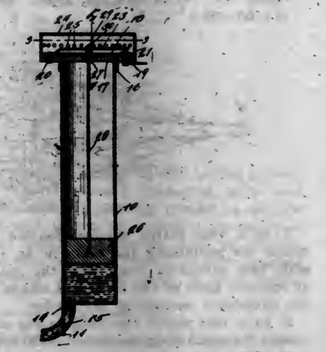
9. In a telephone exchange system, a controlling device comprising a plurality of sets of keys adapted to be depressed in varying combinations, means for locking the depressed keys, electromagnetic releasing means for unlocking said keys, a selection controlling circuit leading from said controlling device to the apparatus controlled thereby, and means responsive to the depression of the last key to establish immediately thereafter the selecting circuit and a circuit for such electromagnetic key releasing means.

13. In a semi-automatic telephone exchange system, the combination with a plurality of register relays, of a plurality of manually operated devices for selecting predetermined groups of said plurality of register relays, said selected group corresponding to the combination of manually operated devices, means for allowing the designation determined by the plurality of manually operated devices to be altered at any time previous to the operation of the final one of said manually operated devices.

17. In a telephone exchange system, a registering and controlling equipment comprising a plurality of registering and controlling devices, a plurality of keys adapted when depressed to control the registering operation of such registering and controlling devices, an automatic switch for simultaneously releasing the depressed keys and associating said registering and controlling devices with a portion of the apparatus to be controlled, and means controlled by the depression of any key serving to prevent the further operation of such switch and registering and controlling devices in case a depressed key fails to restore.

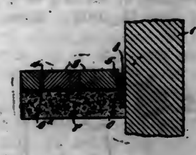
[Claims 2 to 5, 7, 8, 10 to 12, 14 to 16, and 18 not printed in the Gazette.]

1,252,912. GASOLENE-INDICATOR. IRA W. MCBAIDE and ORA H. SHADE, Brooklyn, N. Y. Filed Mar. 20, 1917. Serial No. 156,077. (Cl. 200—34.)



A circuit closer for electrical indicators comprising a vertical casing having a pipe connection at its bottom, a cap having a flange spaced from its periphery and threaded upon the upper end of the casing, a contact member engaged through the cap outwardly of the flange, insulating material between the contact member and the cap, a spring switch finger secured to the cap at one end outwardly of the flange by means of an electrical connection at a point diametrically opposite the contact member, said spring finger extending over the contact member, a rod loosely engaged through the cap within the inclosure of the flange and connected with the spring finger, a float carried by the rod within the casing, and a second cap in threaded engagement with the periphery of the first cap and inclosing the spring finger and the contact member.

1,252,913. EXPANSION-JOINT. BERTRAM S. MCCONNELL, Lakewood, Ohio. Filed Feb. 28, 1917. Serial No. 151,458. (Cl. 94—1.)



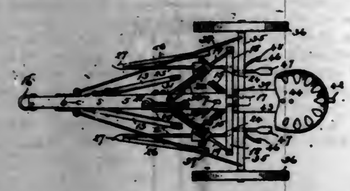
1. A filler for joints of the character described comprising a body of plastic material and a spring embedded in said body of plastic material whereby said plastic body is caused to contract and expand with the contraction and expansion of said spring.

2. A filler for a joint of the character described comprising plastic material inserted between the opposite sides of a joint, said material having embedded therewithin a spring extending from side to side of such joint and normally held under lateral compression between such sides.

3. A filler for a joint of the character described comprising plastic material inserted within such joint, said material having embedded therewithin a spring and said spring having portions extending in opposite directions from the longitudinal central portion of the joint and bearing against the opposite sides of such joint and being normally held under lateral compression between the sides of such joint.

4. A filler for a joint of the character described comprising adhesive plastic material inserted in such joint and having embedded therein a helical spring, the axis of said spring extending longitudinally of the joint and the said spring being normally held under lateral compression by and between the opposed sides of the joint.

1,252,914. VINE-CUTTER. CHARLES T. MCCREADY, Onley, Va. Filed Jan. 26, 1917. Serial No. 144,658. (Cl. 55—60.)



1. In a vine cutter the combination with a beam, of means for sustaining the beam in an elevated position; slide bars extending away from the beam; cutter blades at opposite sides of the beam and means on the slide bars for adjustably sustaining the blades.

2. In a vine cutter the combination with a beam, of a runner for sustaining the beam; slide means extending in a diverging direction with respect to the beam and from opposite sides of the latter and cutter blades at opposite sides of the runner and carried by the slide means.

3. In a vine cutter the combination with a beam, of a runner for sustaining the beam; slide bars diverging from the beam; a head movable on each slide bar; arms carried by said heads and each arm having a cutter blade and lever means connected to each head for moving the latter on its slide bar.

4. In a vine cutter the combination with a beam, of a runner for sustaining the beam; a bar extending crosswise of the beam; a slide bar at each side of the beam said slide bars having one end secured to the beam and their other ends extending outwardly from the beam and attached to the bar; a head slidably carried on each bar; a lever; means connecting the lever with both heads; an arm extending from each head down toward the ground and a cutter blade carried by each arm.

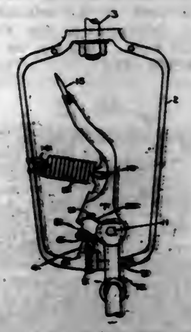
1,252,915. COLTER-FASTENER. PATRICK W. MCFALL, Madison, Ark., assignor of one-half to E. Butler, Madison, Ark. Filed Oct. 15, 1917. Serial No. 196,718. (Cl. 97—6.)



1. The combination with a plow beam, of a bottom plate secured thereto and having a laterally extending flange provided with a colter receiving slot, the inner side of the slot being flush with the side of the beam, a plate secured upon the beam and having an upstanding web one side of which is flush with the side of the beam, there being end enlargements on the plate and projecting laterally beyond the web, said enlargements and web cooperating to form a colter receiving recess, a clamping plate for engaging the outer side of a colter seated in said recess, and fastening means extending through the ends of the plate and the enlargements.

[Claim 2 not printed in the Gazette.]

1,252,916. SCALE. ARTHUR R. MCFARLANE, Minneapolis, Minn. Filed Feb. 19, 1917. Serial No. 149,618. (Cl. 265—68.)



1. A scale comprising a casing, a beam pivoted at one end therein, a scale rod having a pivotal connection with said beam at one end thereof adjacent to its pivotal bearing, the wall of said casing having a plate pressed inwardly therefrom, a graduated dial mounted on said plate past which the opposite end of said beam is arranged to move, and a helical spring connected with said beam intermediate to its ends and resisting the pull of said scale rod thereon.

4. A weighing scale comprising a casing having a graduated dial, a beam having a pivotal support at one end therein, a scale rod connected with said beam at one side of its pivot, an indicator carried by said beam and movable past the graduations of said dial, means for yieldingly resisting the movement of said beam along said graduations, said beam having a curved surface near its pivotal support and a cover for said casing having a pin overhanging said surface for preventing accidental disengagement of said beam from its support.

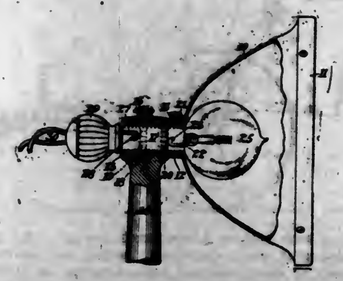
5. A scale comprising a casing, a beam pivoted at one end therein, a scale rod having means for connection with said beam at one side of its pivot, a load counterpoising spring connected with said beam to resist rocking thereof, the wall of said casing having an opening therein, a graduated dial visible through said opening, and an indicator hand carried by said beam and movable back and forth in front of said dial and in the rear of said opening and within said casing.

7. A scale comprising a casing, a beam having a knife-edge bearing at one end therein, a scale rod having means for connection with said beam at one side of said knife edge bearing, said beam being curved and having an indicator at the end opposite its bearing, a spring connected with the curved portion of said beam for resisting the rocking thereof in one direction, a graduated dial mounted in said casing, said beam having an indicator thereon movable on said dial, the curvature of said beam providing space for said spring and positioning said indicator adjacent the initial graduations of said dial.

[Claims 2, 3, and 6 not printed in the Gazette.]

1,252,917. VEHICLE-LAMP. CHARLES MCKNOWNE, Jersey City, N. J. Filed Mar. 12, 1917. Serial No. 154,155. (Cl. 240—41.)

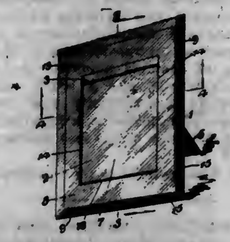
1. In a vehicle lamp and in combination, a shell having an axial extension, a support member adapted to receive the said axial extension, means adjustable exteriorly of the support for securing the axial extension in position therein, a socket member fitting within and extending through the said axial extension and adapted at its inner end to receive the base of a lamp bulb and at its outer end to receive a lead plug, and means adjustable exteriorly of the axial extension and passing through the same to engage the socket member to normally secure the same in position relatively to the said shell and its axial extension.



2. In a vehicle lamp and in combination, a shell having an integral axial extension, a support adapted to receive the said axial extension, a set screw for securing the axial extension in position on the support, a socket member fitting within the axial extension, and a set screw for normally maintaining the socket member in position relatively to the shell and its axial extension.

3. In a vehicle lamp and in combination, a shell having an integral axial extension, a support adapted to receive the said axial extension, a set screw for securing the axial extension in position on the support, a socket member fitting within the axial extension, a set screw for normally maintaining the socket member in position relatively to the shell and its axial extension, a contact plug fixed within the socket member, a lamp bulb adapted to be received in the inner end of the socket member, and a lead plug adapted to be secured in the outer end of the member.

1,252,918. PICTURE-FRAME. JOHN J. MCNICHOLAS, Philadelphia, Pa., assignor to Notaseme Hosiery Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed May 7, 1917. Serial No. 166,931. (Cl. 40—158.)

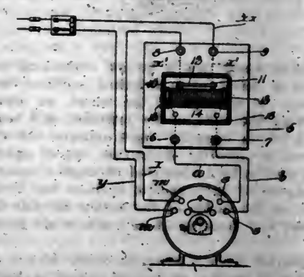


1. A picture frame having a back with a slot therein, a transparent celluloid sheet extending completely across said back and secured thereto at the rear of said back, and a frame proper carried by or attached to said transparent front.

2. In a picture frame, a back having means for the insertion of the matter to be displayed, a sheet constituting a transparent front extending completely across said back, and a frame adjacent to said front, the outer edges of said front and frame being coextensive and bent around the edges of said back, the latter having at its rear a continuous outwardly deflected lip which retains said front and its frame in assembled position with respect to said back.

3. In a picture frame, a frame proper, a back having means for the insertion of the matter to be displayed, and a sheet of transparent material extending across said back, said frame having at its rear a marginal rim which clamps the edge portions of said back and sheet.

1,252,919. PROTECTOR FOR ELECTRIC CIRCUITS. FRANK A. MACCALLUM, Brookline, Mass. Filed Apr. 8, 1917. Serial No. 159,612. (Cl. 175—294.)



The combination with an electric motor having a main winding, a main electric circuit connected with said main winding, and a starting winding having an electric circuit exterior of said motor, of a fusible electric conductor included in said main circuit, and an electric heater included in said exterior circuit of said starting winding, and disposed to supply heat to said fusible conductor.

1,252,920. SHOE-SIZER. HERBERT E. MAINE, Providence, R. I. Filed Sept. 1, 1917. Serial No. 189,407. (Cl. 33—3.)



1. In a device for measuring feet and computing the required sizes of shoes therefor, the combination with a measuring-stick, of a heel-block fixed at one end thereof, a toe-block slidable along the stick toward and away from the fixed block, and a scale with which the sliding block cooperates, said scale being graduated in accordance with standard shoe-sizes and the block adapted to register with the graduations at both its rearward and forward sides whereby to add the allowance between the length of the foot and the length of the shoe to indicate the proper size of the latter at the front of the block in convenient position for instant reading.

[Claim 2 not printed in the Gazette.]

1,252,921. TIRE. DAVID MILLAR, St. Louis, Mo. Filed Mar. 15, 1917. Serial No. 154,975. (Cl. 152—8.)

1. A vehicle wheel tire comprising an outer casing and an inner articulated tubular cushioning member composed of a series of sections, an annular band to which

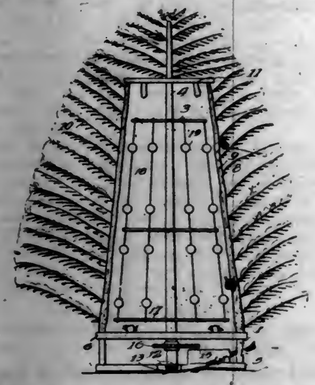
the ends of the sections are secured, and a buffer interposed between the band and the sections of the cushioning member, the buffer being recessed to receive the band aforesaid.



2. In a vehicle wheel tire, a hollow cushioning member comprising a series of interlocked sections bowed across the plane of rotation of the wheel, an annular band for securing the ends of the sections, each section being provided on its opposite edges opposite the tread of the tire with a plurality of tongues spaced apart, a tongue of one section being inserted through a space adjacent the tongues of the opposite section, the tongues being disposed on the inside of the hollow tubular member thus formed and forming hinge connections between the sections.

3. In combination with a wheel provided with a felly and a felly ring, a casing on the felly ring, a tubular cushioning member in the casing composed of a series of bowed sections hinged to one another and yielding in planes parallel to the plane of rotation of the wheel, an annular band surrounding but disconnected from the felly ring to which the ends of the bowed sections are secured.

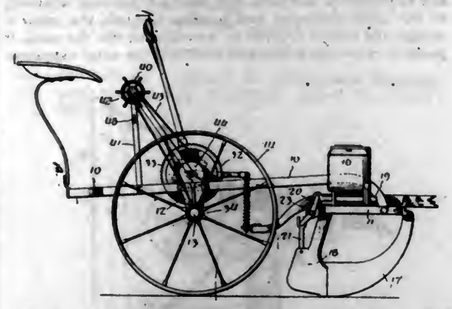
1,252,922. ARTIFICIAL CHRISTMAS TREE. CHARLES G. MILLER, Lee, Mass. Filed Apr. 10, 1917. Serial No. 161,007. (Cl. 41—15.)



A device of the class described comprising a base, a stationary outer frame including a plurality of spaced branch supporting standards carried by said base, an upright shaft having its lower end rotatably mounted in the base and extending upwardly through the outer frame, a plurality of longitudinally extending spaced partitions on said shaft within the outer frame, spaced stays extending through said partitions adjacent the marginal edges thereof and adapted to receive decorations thereon, and means carried by the base for rotating said upright shaft.

1,252,923. CHECK-ROW PLANTER. FREDERICK MOENCH, Rushville, Ill. Filed Apr. 7, 1916. Serial No. 89,514. (Cl. 111—16.)

1. In a seed planter having seed hoppers and means for discharging seed therefrom, means for controlling the deposit of the discharged seed including an armature, and an electro-magnet, a commutator and a contact brush in circuit, said commutator being in mechanical train with the wheels of said planter, and said contact brush adapted to rotate concentrically with said commutator to co-act therewith and close said circuit.



3. In a seed planter having seed hoppers and means for discharging seed therefrom, means for controlling the deposit of the discharged seed including an armature, and an electro-magnet, a commutator and a contact brush in circuit, said commutator being in mechanical train with the wheels of said planter, said contact brush adapted to rotate concentrically and independently of said commutator to co-act therewith and close said circuit, and means for indicating the deposition of each planting, said last-mentioned means comprising a hopper containing a finely divided marking medium, a valve controlling the discharge of said marking medium, and means for operating said valve in timed relation with said seed delivery and actuated by said electrical elements.

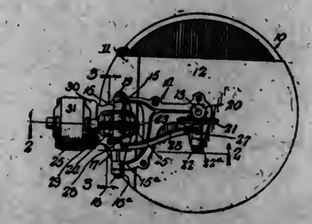
5. In combination with a seed planter provided with supporting wheels, a seed receptacle, and means for discharging seed therefrom, of means for controlling the deposit of the discharged seed including an electro-responsive device adapted to actuate said discharging means, a circuit in which said device is interposed, and devices for intermittently closing said circuit, said devices including a rotatable commutator actuated by the rotation of said supporting wheels, and a contact brush movable concentrically thereto and adjustable independently thereof.

6. In combination with a seed planter provided with supporting wheels, a seed receptacle, and means for discharging seed therefrom, means for controlling the deposit of the discharged seed including an electro-magnet adapted to actuate said discharging means, a circuit in which said magnet is interposed, and a disk provided with a plurality of contacts actuated by the rotation of the supporting wheels, and a brush engaging said contacts adapted to intermittently close said circuit, said brush capable of adjustment independently of said disk whereby the operation of the seed discharging means is regulated.

[Claims 2 and 4 not printed in the Gazette.]

1,252,924. OPERATING-GEARING FOR WASHING-MACHINES. GLENN MORE, Jamestown, N. Y., assignor to The Blackstone Manufacturing Company, Jamestown, N. Y., a Corporation of New York. Filed Jan. 19, 1917. Serial No. 143,332. (Cl. 74—50.)

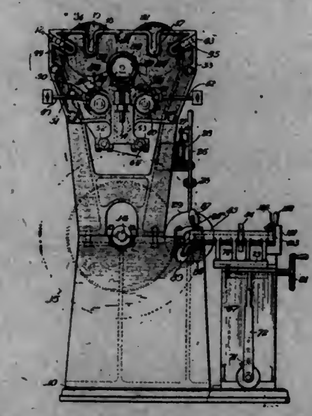
1. In a gearing, in combination with a main support and an auxiliary support hinged thereto, a bracket plate adapted to be attached to said auxiliary support, an upright operating shaft, a pinion fixed to said shaft, an oscillating, segmental gear mounted on said bracket plate and engaged with said pinion, a second bracket plate adapted for attachment to said main support adjacent said auxiliary support, said bracket plates having arms hinged together, a worm gear rotatively mounted on said second bracket plate with its axis in line with the hinged axis of said arms, a link connecting said worm gear with said segmental gear, a worm carried by said bracket plate and engaged with said worm gear, and a power driven prime mover supported by said second bracket plate and having its shaft operatively connected to said worm.



5. In a gearing, in combination with a main support and an auxiliary support hinged thereto, a bracket plate adapted to be attached to said auxiliary support, an upright operating shaft journaled in said bracket plate, a pinion fixed to said shaft, an oscillating, segmental gear mounted on said bracket plate and engaged with said pinion, a second bracket plate adapted for attachment to said main support adjacent said auxiliary support; said bracket plates having pairs of arms hinged together, a worm gear rotatively mounted on said second bracket plate with its axis in line with the hinged axis of said arms, a link operatively connecting said worm gear and said segmental gear, a worm having bearing in said bracket plate, and engaged with said worm gear, the bracket plate on said main support having a shelf arranged in a plane at one side of and below that of the body part of said bracket, and a motor supported on said shelf and driving said worm.

[Claims 2 to 4 not printed in the Gazette.]

1,252,925. TIRE-MAKING MACHINE. FREDELLIA H. MOYER, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed May 21, 1912. Serial No. 698,753. (Cl. 154—10.)



1. In a tire making machine, the combination of means for rotating a tire form, means for applying fabric to said form, a pair of smoothing members adapted to be applied to opposite sides of said form, means for simultaneously bringing said members into engagement with the fabric on the sides of said form, means common to both for maintaining said members in contact with the fabric on said form, and means for adjusting the radial position of said members with relation to said form, substantially as described.

8. In a tire making machine, the combination of means for rotating a tire form, means for applying fabric to said form, a pair of smoothing disks adapted to be applied to opposite sides of said form, means for simultaneously adjusting the positions of said disks in unison, and unitary gravity means for maintaining said disks in contact with said form, substantially as described.

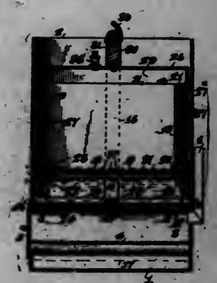
6. In a tire making machine, the combination of means for rotating a tire form, means for applying fabric to said form, a first pair of smoothing disks for engaging the fabric on the sides of said form, a second pair of smoothing means for engaging the fabric on the sides of said form, said first pair of disks being located in different planes from said second pair of disks, means for selectively bringing either of said pairs of disks into engagement with the fabric on the sides of said form, and means for adjusting the radial position of said disks with relation to said form, substantially as described.

9. In a tire making machine, the combination of means for rotating a tire form, means for applying fabric to said form, a pair of rotatable disk shafts, a pair of smoothing disks carried by each shaft, means connecting said shafts whereby they may be simultaneously rotated in opposite directions, said disks adapted to engage opposite sides of the fabric on the tire form, means for maintaining said disks in contact with said fabric, and means for adjusting the radial position of said disks with relation to said tire form, substantially as described.

12. In a machine for making tires, the combination with a revolnble core of two mechanisms one on each side of the core for applying the fabric on respective sides of the core over the major portion of the tire and on the under side of the bead, the working face of each mechanism during the major portion extending in one direction from the tire, and during the remainder extending in a different direction, and a single pressure means to hold both applying mechanisms against the core during the entire operation of the fabric applying means.

[Claims 2, 4, 5, 7, 8, 10, 11, and 13 not printed in the Gazette.]

1,252,926. CANNING APPARATUS. WILLIAM MUELLER, Junction, Tex. Filed May 2, 1917. Serial No. 165,929. (Cl. 99—2.)

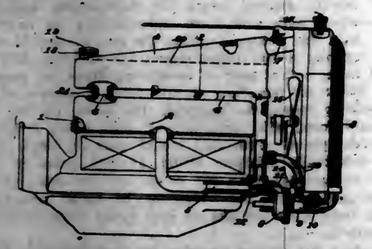


1. In a canning apparatus of the character described, a boiler, a steam chest open at the top and mounted and supported within said boiler, means communicating between the boiler and the steam chest to supply steam to the latter, and a cover inclosing said steam chest, spaced above the upper edge thereof and projecting between the chest and boiler below the bottom of the chest, the lower edge of said cover being adapted to be water sealed by the water in the boiler.

10. In a canning apparatus, a boiler body, a vat within the boiler body and having an outlet below the level of the water line within said body, means for removably suspending the vat within the body from the upper portion of the latter, and means for closing the vat and forming a steam passage therebetween.

[Claims 2 to 9, 11, and 12 not printed in the Gazette.]

1,252,927. COOLING SYSTEM. WELLINGTON W. MUIR, Baltimore, Md. Filed Sept. 21, 1917. Serial No. 192,458. (Cl. 123—174.)



2. In a cooling system for internal combustion engines, a water jacket, a pump connected to the top and bottom of the water jacket, a radiator, means connecting the top of the radiator to the rest of the system above the water level, a connection from the bottom of the radiator to the suction of the pump, means for preventing flow through said connection toward the radiator, and a by-pass from the suction to the delivery of the pump.

8. In a cooling system for internal combustion engines, a water jacket, a pipe connected to the top and bottom of the water jacket, a radiator, means connecting the pipe to the top of the radiator above the level of the liquid in the system, a connection from the bottom of the radiator to the first-mentioned pipe, a non-return valve in said connection, means for setting up the flow from the bottom of the radiator toward the bottom of the water jacket, and a by-pass around said means.

12. In a cooling system for internal combustion engines, a water jacket, a conduit connecting the top and bottom of the water jacket, a reservoir included therein, a pump with its delivery in said conduit and directed toward the lower portion of the water jacket, a radiator having its top connected to said conduit above the water level, a connection from the bottom of the radiator to the suction of the pump, and a filling cap below the water level in the conduit.

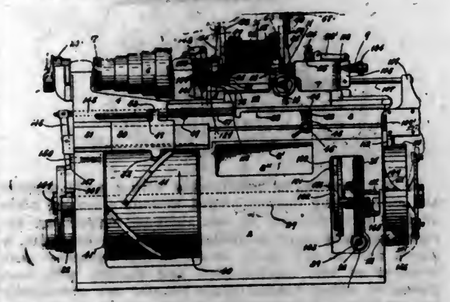
16. In a cooling system for internal combustion engines, a water jacket, a conduit connected to the top and bottom of the water jacket, a connection from the radiator to the conduit above the water level in the conduit, a connection from the bottom of the radiator to the conduit, means for drawing water from the bottom of the radiator and discharging it into the conduit, and a by-pass around said means.

[Claims 1, 3 to 7, 9 to 11, 13 to 15, and 17 not printed in the Gazette.]

1,252,928. LATHE. FRIEDRICH MÜLLER, Hartford, Conn., assignor to Pratt & Whitney Company, Hartford, Conn., a Corporation of New Jersey. Filed Jan. 3, 1910. Serial No. 536,106. (Cl. 82—2.)

1. In a lathe having live and dead centers with fixed axes, the combination of mechanism including a magazine for supplying a blank to the centers, mechanism for engaging the centers with the blank with a predetermined pressure, a lock for preventing separation of the centers, a laterally yieldable device rotatable with the live center for engaging and driving the blank, a movable tool carriage, and mechanism for automatically operating the aforesaid elements in succession, (1st) to supply a blank, (2nd) to engage the centers with the blank and effect locking and to engage the blank for driving, (3rd) to move the tool carriage to effect cutting and (4th) to return the carriage, to release the driving device and to separate the centers.

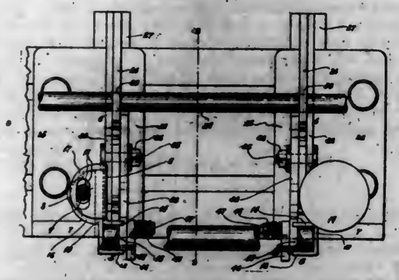
15. A lathe comprising, in combination, a pair of spaced centers, means adapted to position a blank between the centers, means for engaging the centers with the blank comprising a member adapted to yield when a certain pressure is obtained, means adapted to rotate the blank on the centers comprising devices adapted to yield to avoid disturbance of the blank laterally, a movable tool carriage adapted to support a tool in operative position with the blank, means having a uniform back and forth throw adapted to move the carriage, intermediate devices for varying the extent of movement of the carriage by the said devices, and a common actuating mechanism for the positioning means and for the carriage.



24. An automatic lathe including in combination, a pair of centers, a rotary spindle carrying one of said centers, a longitudinally movable non-rotatable spindle carrying the other center, means for automatically positioning a blank between said centers, means for automatically operating said longitudinally movable spindle to secure the blank on said centers with a limited pressure, means for automatically gripping the blank to drive it in connection with the rotary spindle without disturbing its position on the centers, a tool-carriage traveling longitudinally with respect to the axis of the centers, and mechanism for reciprocating said tool-carriage in proper timed relation to the operation of the blank positioning, securing and gripping means.

[Claims 2 to 14, 16 to 23, 25, and 26 not printed in the Gazette.]

1,252,929. MAGAZINE MECHANISM. FRIEDERICH MÜLLER, Hartford, Conn., assignor to Pratt & Whitney Company, Hartford, Conn., a Corporation of New Jersey. Original application filed Jan. 3, 1910, Serial No. 536,106. Divided and this application filed June 13, 1910, Serial No. 566,468. Renewed Oct. 28, 1917. Serial No. 198,180. (Cl. 29—60.)



4. A magazine comprising in combination two spaced end walls and two pairs of parallel side plates, the plates of each pair coöperating with one end wall to form a runway for blanks, and means for adjusting the plates of each pair toward or from each other along lines parallel with the corresponding end wall while holding them in parallelism with each other and for maintaining them equidistant from a fixed center line during such adjustment.

9. A magazine comprising in combination two parallel side plates forming a runway for blanks, a bottom wall at the lower end of the runway, means for adjusting the plates toward or from each other and for maintaining them equidistant from a fixed center line during such adjustment, the said means also serving to hold the plates in parallelism and to simultaneously adjust them longitudinally, and means dependent on the longitudinal adjustment of one of the plates whereby the bottom wall may be adjusted longitudinally of the runway.

16. In a device of the character described, in combination, a blank-transferring device having a limited path of travel and comprising two members relatively adjustable in the direction of the path of travel, the members collectively providing means for contacting the blank at three different points, and means whereby a constant center is automatically maintained when said members are adjusted to receive blanks of different transverse dimensions.

21. In a device of the character described, in combination, a blank-transferring device having a limited path of travel, and means comprising a runway whereby a blank is supplied to the transferring device, the said runway being adjustable to coöperate with blanks of different transverse dimensions while automatically maintaining a constant relationship between the center line of the runway and an end of the path of travel of the transferring device.

24. In a device of the character described, in combination, a blank-transferring device having a limited path of travel and comprising an aperture adapted to receive blanks, a runway whereby a blank is supplied to the aperture when the transferring device is in one position, a yieldable latch forming one wall of the aperture, and means for positively supporting the latch when the transferring device is in position with the aperture in register with the runway.

[Claims 1 to 3, 5 to 8, 10 to 15, 17 to 20, 22, and 23 not printed in the Gazette.]

1,252,930. SAFETY-PIN. EDMUND R. NEBELING, New York, N. Y. Filed Apr. 11, 1917. Serial No. 161,190. (Cl. 24—162.)

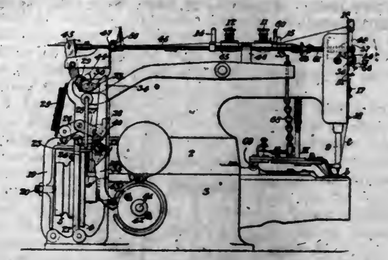
1. A safety pin comprising a body portion, a pin carrier mounted to swing to and from the body portion, a pin having one end thereof reciprocally mounted in the carrier, a socket from the body for engaging the other end of the pin, said carrier having means for engaging the body when said pin engages the socket so as to maintain said pin in a stressed condition, and means influenced by the stressed condition of the pin for locking the pin to the carrier when said pin is fully engaged with the socket.

[Claim 2 not printed in the Gazette.]

1,252,931. SEWING-MACHINE. GEORGE W. NELSON, Cleveland, Ohio, assignor to The Standard Sewing Machine Company, Cleveland, Ohio, a Corporation of Ohio. Filed May 21, 1912. Serial No. 698,690. (Cl. 112—33.)

1. A sewing machine, comprising means for forming a group of stitches said means including a needle, a work-holder, means for severing the thread, a thread-restraining device coöperating with said severing means located in position for clamping the thread at a point above said needle, and automatic means for rendering said thread-restraining device effective on the completion of said group of stitches and the stopping of the feed of the thread.

4. A sewing machine, comprising means for forming a group of stitches, a work-holder, means for severing the thread, a thread-restraining device coöperating with said thread severing means, a pull-off device independent of said thread restraining device, and automatic means for rendering said thread-restraining and pull-off devices effective on the completion of said group of stitches.



11. A sewing machine, comprising means for forming a group of stitches said means including a needle, means for automatically stopping the machine upon the completion of said group of stitches, means for severing the thread, and automatic means operative subsequent to the stopping of the machine and prior to the restarting of the same for pulling the severed end of the thread backward through the eye of the needle a predetermined distance.

17. A sewing machine, comprising means for forming a group of stitches, an automatic tension device, a work-holder thread severing means, and automatic means independent of said thread severing means for clamping the thread at the end of a group of stitches and for pulling off thread in the rear of said clamping point while the automatic tension device is in its ineffective position.

23. A sewing machine comprising stitch forming means, a thread tension, and a pair of complemental thread breaking devices both located above the work, mechanism for actuating the stitch forming means, connections between the actuating mechanism and one of said devices for actuating the latter, and connections for manually operating the other of said devices.

[Claims 2, 3, 5 to 10, 12 to 16, and 18 to 22 not printed in the Gazette.]

1,252,932. SAFETY CUTTING MECHANISM. JOHN E. NORQUEST, Richmond, Va., assignor to P. Lorillard Company, New York, N. Y., a Corporation of New Jersey. Filed July 23, 1917. Serial No. 182,283. (Cl. 131—49.)

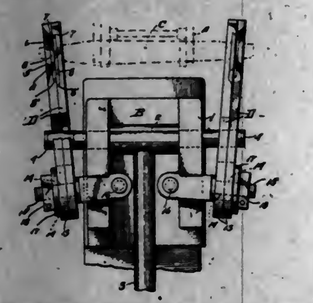


1. In a safety cutting mechanism for cigar and cheroot machines, the combination with a cutting die, of a horizontally reciprocating cutter roll mechanism traveling to and fro in a rectilinear path across the die, power mechanism for the cutter roll mechanism, a safety clutch connection between the power mechanism and the cutter roll mechanism and a horizontally disposed shiftable guard traveling with and embracing the cutter roll mechanism and adapted to be operated under pressure to actuate the safety clutch connection and disconnect the power mechanism from the traveling cutter roll mechanism.

6. In a safety cutting mechanism for cigar and cheroot machines, the combination with a cutting die, of a horizontally reciprocating carriage, cutter roll mechanism mounted on the carriage and traveling to and fro across the die, power mechanism for reciprocating the carriage, a safety clutch comprising a pivoted yoke and a latching device therefor constituting a connection between the power mechanism and the carriage, and means operable to release the latching device and permit the swinging of the pivoted yoke, such actuation of the clutch causing the disconnection of the power mechanism from the carriage.

[Claims 2 to 5 and 7 not printed in the Gazette.]

1,252,933. CIGAR AND CHEROOT TRIMMING MECHANISM. JOHN E. NORQUEST, Richmond, Va., assignor to P. Lorillard Company, New York, N. Y., a Corporation of New Jersey. Filed July 23, 1917. Serial No. 182,284. (Cl. 131—39.)

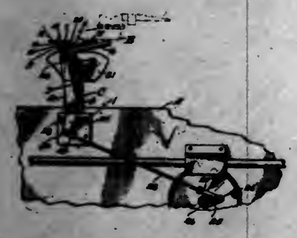


1. A trimming mechanism of the class described, comprising a plurality of pairs of trimming knives, each knife including a shank or body portion having a recess formed near one end thereof, the wall of said recess being beveled and undercut, and a concaved beveled cutting blade seated in the undercut of the wall of the recess with the bevel of said blade conforming to the bevel of the recess wall.

2. A trimming mechanism of the class described comprising two spaced pairs of trimming knives, each knife comprising a relatively thick shank or body portion, and a relatively thin cutting blade removably and detachably seated in the shank, said blade having a concaved beveled cutting edge, the cutting edges of the blades of each pair of knives being arranged in opposition to each other.

3. In a trimming mechanism for cheroots and the like, the combination with a frame, of two pairs of trimming knives pivotally mounted on pivots on said frame, in spaced relation to each other, each knife comprising a relatively thick slotted shank section, and a relatively thin cutting blade removably and adjustably mounted adjacent the top of the shank section, and means for rocking the pivots of the knives to move the two pairs toward each other and for closing the knives of each pair to clip the ends of the cheroots, said means also acting to open the knives and move the latter away from each other to release the trimmed cheroot.

1,252,934. PASTING MECHANISM FOR CIGAR AND CHEROOT MACHINES. JOHN E. NORQUEST, Richmond, Va., assignor to P. Lorillard Company, New York, N. Y., a Corporation of New Jersey. Filed July 23, 1917. Serial No. 182,285. (Cl. 131—39.)

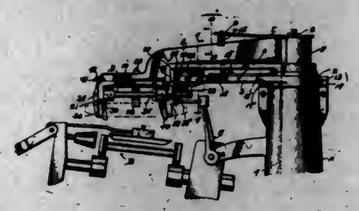


1. A paste-applying mechanism for cigar and cheroot machines comprising a paste-carrying element adapted to apply paste to a leaf on the leaf carrier of the machine, a paste receptacle located below the paste-applying element, and means for moving said element into and out of said receptacle and into and out of paste-applying position relative to the leaf carrier at predetermined times, said means including a rock shaft upon which the paste applying element is mounted, a cam bar also connected with the rock shaft and extending substantially in parallelism relative to the paste-applying element, a lever adapted to contact with the cam bar to move the latter up and down and to consequently actuate the rock shaft, and means for operating said lever.

5. In a paste-applying mechanism, the combination with a paste-holding receptacle, of a rocking support located adjacent thereto, a paste-applying element adjustably attached to the rocking support, said element including an arm having one end terminating in a coil, and means for moving the coil terminal of the element into and out of the receptacle, said means including a lever for actuating the rocking support, and a crank and connecting rod for operating the lever.

[Claims 2 to 4 not printed in the Gazette.]

1,252,935. BUNCH-CARRIER FOR CIGAR AND CHEROOT MACHINES. JOHN E. NORQUEST, Richmond, Va., assignor to P. Lorillard Company, New York, N. Y., a Corporation of New Jersey. Filed July 23, 1917. Serial No. 182,286. (Cl. 131—39.)



1. In a cigar or cheroot machine, a traveling carrier provided with a retaining device for a tobacco roll, a plate-like member traveling with the carrier, means detachably connecting said carrier and member, and means carried by said member for opening and closing the retaining device at predetermined times.

5. In a cigar or cheroot machine, the combination with a power shaft, of a swinging carrier arm connected with said shaft, a swinging plate also mounted on the shaft independent of the carrier arm and adapted to swing substantially in parallelism with said carrier arm, cam members on said swinging plate and a retaining device for a tobacco roll carried by the carrier arm and adapted to be opened and closed by the cam members.

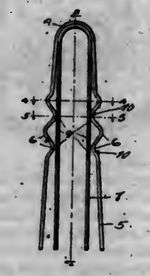
9. In a machine of the class described, the combination with a power shaft, of a carrier arm loosely mounted thereon, a retaining device on the carrier arm, a member also loosely mounted on the power shaft provided with cam members adapted to open and close the retaining device at predetermined times, and means for releasably connecting the carrier arm with the power shaft, and a yielding connection between the carrier arm and the cam carrying member.

13. In a machine of the class described, the combination with a power shaft, of a cam plate mounted to swing thereon and provided with a plurality of cams, means for limiting the swinging movement of the cam plate in two directions, a carrier arm also loosely mounted on the shaft, a connection between the carrier arm and the cam plate, whereby both carrier arm and the cam plate may be moved together for a limited distance, the connection between the cam plate and the arm permitting further movement of the arm after the cam plate has been brought to a stop, a releasable connection between the power shaft and the carrier arm, and a plurality of retaining devices carried by the carrier arm and independently operable by the cams of the cam plate.

19. The combination with an operating shaft, of a carrier arm loosely mounted on the shaft, a releasable connection between the carrier arm and the shaft for placing said carrier arm in and out of driven relation with the shaft, a cigar-retaining device and a bunch-retaining device carried by the carrier arm, each of said devices including a rocking shaft, and a pair of fingers mounted thereon, a cam plate also loosely mounted on the shaft beneath the carrier arm, said cam plate carrying cam members adapted to actuate the rocking shafts of the retaining devices to open and close the fingers at predetermined times, a connection between the carrier arm and the cam plate whereby said cam plate will be caused to travel with the carrier arm a predetermined distance, said connection including or comprising a stud, a plurality of pivoted bars between which the stud projects, and a spring connecting said bar, and stop members for limiting the travel of the cam plate, the connection between the cam plate and the carrier arm permitting the further movement of the arm.

[Claims 2 to 4, 6 to 8, 10 to 12, and 14 to 18 not printed in the Gazette.]

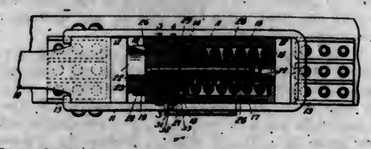
1,252,936. HAIR-PIN. HAZLEHURST ROSS NOYES, Savannah, Ga. Filed May 29, 1917. Serial No. 171,704. (Cl. 132—22.)



1. A hair-pin device comprising an outer hair-pin section provided with waves upon its opposite arms, which waves are disposed in substantially the same plane; and an inner hair-pin section secured to the outer hair-pin section and provided upon its opposite arms with waves, which are disposed in substantially parallel planes and at substantially a right angle to the plane of the first named waves.

2. A hair-pin device comprising an outer hair-pin section provided with waves upon its opposite arms, which waves are disposed in substantially the same plane; and an inner hair-pin section secured to the outer hair-pin section and provided upon its opposite arms with waves, such waves being disposed in substantially parallel planes and at substantially a right angle to the plane of the first named waves, the second named waves having their inner projections arranged near and centrally of the recesses of the first named waves.

1,252,937. FRICTION-GEAR FOR DRAFT-RIGGINGS. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Mar. 30, 1917. Serial No. 158,497. (Cl. 213—64.)



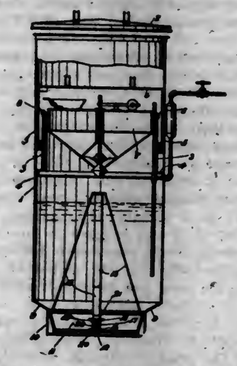
1. In a shock absorber, the combination with a friction shell having interior friction surfaces, of a friction post within the shell having exterior friction surfaces, friction shoes having wedge faces and coöperable with said friction surfaces of the shell and post, and spring means for resisting relative movement between said shoes and the shell and post, the friction surfaces of the shell and post being non-concentric.

2. In a shock absorber, the combination with a friction shell having interior friction surfaces, of a friction post within the shell having exterior friction surfaces, friction shoes having wedge faces and coöperable with said friction surfaces of the shell and post, and spring means for resisting relative movement between said shoes and the shell and post, the friction surface of the shell being curved on radii having their centers within the shell and the friction surfaces of the post being curved on radii having their centers exterior to the post.

3. In a shock absorber, the combination with a friction shell having interior friction surfaces, of a friction post within the shell having exterior friction surfaces, friction shoes having wedge faces and coöperable with said friction surfaces of the shell and post, and spring means for resisting relative movement between said shoes and the shell and post, the friction surface of the shell being cylindrical and the friction surfaces of the post being exteriorly concave.

[Claims 4 to 10 not printed in the Gazette.]

1,252,938. CLEAN-OUT FOR ACETYLENE-GENERATORS. THOMAS OLINGER and WALTER C. FEARELL, Holland, Mich., assignors to Holland Lighting and Specialty Company, Holland, Mich., a Corporation of Michigan. Filed July 24, 1917. Serial No. 182,424. (Cl. 48—57.)



1. A device of the character described, comprising a pan-like receptacle adapted to be located at the bottom of an acetylene generator tank, members connected to said pan on opposite sides thereof and extending upwardly and inwardly to a point substantially above the center of the receptacle, there being an opening formed through said members at said point, a rod adapted to pass through the opening, and means secured to the receptacle with which said rod may have detachable engagement.

3. A device of the character described, comprising a pan-like receptacle adapted to be located at the bottom of an acetylene generator tank, means attached to the sides of said receptacle and extending a distance above the same, and converging to a point above the center of the pan, a connecting member secured at the center of the bottom of said pan, and a rod passing freely through said means and having detachable connection to said member, substantially as described.

4. A device of the character described comprising a pan-like receptacle, a hollow casting secured to the bottom of the receptacle and comprising an upwardly extending neck with an outwardly and upwardly extending flange at the upper end of the neck, said neck and flange being provided with diametrically opposed vertical slots therein, each at its lower end having a branch turned substantially at right angles to the vertical slot, and a rod provided with a transverse pin at its lower end, the ends of the pin extending beyond the sides of the rod and adapted to enter said slots to effect a detachable connection between the rod and said casting, substantially as described.

[Claims 2, 5, and 6 not printed in the Gazette.]

1,252,939. FREE-WHEEL HUB WITH A PLURALITY OF GEARS. FREDERIK JOHANNES OLSEN, Eskebjerggaard per Svebölle, Denmark. Filed Nov. 4, 1911. Serial No. 658,621. (Cl. 208—57.)

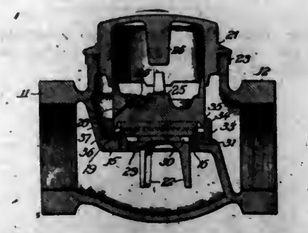


1. In bicycle gearing, the combination with a stationary axle having a threaded portion, a sun gear loose on said axle, a sleeve on said axle having threaded engagement with said threaded portion and adapted to lock said sun gear to said axle, a revoluble wheel hub, a driving member geared to the wheel hub and sun gear, a friction ring connected to rotate with said driving member and adapted for engagement with said sleeve to actuate the same whereby the sleeve locks the sun gear on said shaft, and means whereby said friction ring may be moved axially out of engagement with said threaded sleeve.

2. A wheel hub structure for providing a plurality of transmission ratios comprising in combination, an outer hub member having an interior ring gear fixed thereon, a central fixed shaft, an inner hub member having driving means fixed thereto, a sun gear loosely mounted on said shaft, planetary gears carried by said inner hub member and meshing with said ring gear and with said sun gear, a worm fixed on said central shaft, a cone member provided with interior threads complemental to said worm and carried thereby, said sun gear being adapted to be frictionally fixed to said cone member, a spring fixed to said central shaft and adapted to turn said cone member away from said sun gear when the two have been released by the action of the planetary gears on the sun gear when the inner hub member is held stationary, a ring member frictionally engaging said cone member, and adapted to turn the same into engagement with said sun gear, a sleeve to which said ring member is attached and by which the same is rotated, connections between said sleeve and said inner hub member, an inner rotatable casing mounted within said outer hub member in driven relation to said inner hub, cam members pivotally connected to said inner casing and adapted to bind against the inner face of said outer hub member, said cam members being adapted to drive said outer hub casing forwardly or to brake the same during back pedaling when the cone member is set for either high or low speed.

3. A wheel hub structure for providing a plurality of transmission ratios between the pedal shaft and the hub of the driven wheel of a bicycle comprising in combination, an outer hub member having an interior ring gear fixed thereon, a central hollow fixed shaft, an inner hub member having driving means fixed thereto, a sun gear loosely mounted on said central shaft, planetary gears carried by said inner hub member and meshing with said ring gear and with said sun gear, a worm fixed on said central shaft, a friction clutch member provided with interior threads complemental to said worm and carried thereby, said sun gear having rigid therewith a clutch member complemental to said first mentioned clutch member, a spring fixed to said central shaft and adapted to turn said first mentioned clutch member away from its complemental clutch member when the two have been released by back pedaling, a sleeve member mounted in driven relation to said inner hub member and arranged to slide axially of said shaft, a ring member fixed to said sleeve member and arranged to frictionally engage said first mentioned clutch member, and adapted to turn the same into engagement with said second mentioned clutch member, an inner rotatable casing mounted within said outer hub member in driven relation to said sleeve member, cam members pivotally connected to said inner casing and adapted to bind against the inner face of said outer hub member, said cam members being adapted to drive said outer hub casing forwardly or to brake the same during back pedaling, said sleeve member engaging said cam members to actuate same in either direction, and a rod slidably mounted in said hollow shaft and arranged to throw said ring member into or out of engagement with said first mentioned clutch member.

1,252,940. SELF-ACTING CUSHION AND CHECK VALVE. WILLIAM L. OSBORNE, Chicago, Ill., assignor to The Richardson-Phenix Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Mar. 10, 1911, Serial No. 613,634. Renewed May 31, 1917. Serial No. 172,076. (Cl. 137—32.)



1. A self-acting cushioned valve having a casing provided with an annular single facing tapered body seat, a valve piece which is provided with a single facing tapered seat to engage the body seat adapted to be freely movable toward and from the body seat by pressure of fluid moving through the valve, and fluid imprisoning means of substantial capacity located at both radial sides of the body seat to cushion the closing movement of the valve piece against the body seat.

2. A self-acting cushioned valve having a casing provided with an annular body seat, and a valve piece which is freely movable toward and from the body seat and adapted to be actuated by movement of fluid through the valve, there being two chambers in the valve piece each of a substantial area and one disposed at each radial side of the body seat and which coöperates with a fixed part of the valve structure to receive and imprison therein bodies of fluid to cushion the closing movement of the valve piece against the body seat.

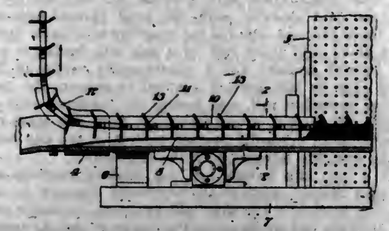
6. A valve having an annular seat surrounding the passage which connects the two sides of the valve, and a valve piece movable toward and from the seat, the passage at one side of the valve seat being of a diameter greater than the valve seat and the valve piece having a part which enters and closely fits the larger diameter of said passage, the entrance to said greater diameter passage being unbroken and the contact between it and the valve piece being of a length in the direction of the axis of the valve piece to maintain a restricted area for fluid flow between the same and the part of the passage in which it fits when the valve piece is a substantial distance from its seat to protect the valve seat from the wire drawing action of the fluid upon the opening and closing movements of the valve piece.

9. A self-acting cushioning valve comprising a casing provided with an inlet and with an outlet and provided therebetween with a thoroughfare surrounded by an annular body seat, said casing provided axially in line with said seat with an opening closed by a removable member, which latter is provided with a cushioning chamber, a pressure-actuated valve piece guided by the walls of said thoroughfare and said cushioning chamber and movable toward and from said seat and adapted to close the cushioning chamber to cushion the opening movement of the valve, the wall of the thoroughfare and valve being formed within said thoroughfare to provide a fluid imprisoning chamber to cushion the closing movement of the valve.

10. A valve having an annular seat, a valve piece movable toward and from the seat, the fluid conduit at one side of the seat being of greater diameter than the said seat, and the valve piece having an enlarged part which enters and closely fits the larger diameter of said conduit in advance of the seating of the valve piece, the clearance between said larger diameter of the conduit and the enlarged part of the valve piece being so small as to check the flow of material through the valve upon the opening and closing of the valve and thereby protect the seat and the valve piece from the wire drawing action of the material passing through the said valve.

[Claims 3 to 5, 7, and 8 not printed in the Gazette.]

1,252,941. TAKE-OFF MECHANISM FOR MATCH-MACHINES. MICHAEL PARIDON, Oswego, N. Y., assignor to The Diamond Match Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 16, 1915. Serial No. 21,632. (Cl. 144—61.)



1. In take-off mechanism for match machines, the combination with a match carrier and a trough at the discharging portion thereof, of a conveyer movable along said trough having blades at intervals apart directly beneath the path of awry unrestrained matches falling from the match carrier, the distance between adjacent blades being less than the length of a match and the upper portions of adjacent blades being formed to present match-deflecting inclines descending longitudinally of the blades in opposite directions to each other, whereby falling awry matches alighting upon such inclines are caused to swing bodily and fall into the space between the blades.

4. A match conveyer having blades thereon at intervals apart, the distance between adjacent blades being less than the length of a match and the upper edge of each blade being formed to present two match-deflecting inclines descending longitudinally of the blade to the respective ends of the blade, said upper edge also being laterally deflected.

[Claims 2 and 3 not printed in the Gazette.]

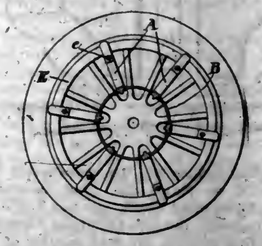
1,252,942. ELECTRICAL PROTECTOR. FREDERICK R. PARKER, Chicago, Ill. Original application filed Aug. 20, 1904, Serial No. 221,519. Renewed Jan. 19, 1917, Serial No. 143,414. Patent No. 1,238,728. Divided and this application filed July 18, 1917. Serial No. 181,242. (Cl. 175—275.)



16. In an electrical protector, a pair of high-potential electricity arresters arranged substantially parallel and back to back, and means separating the corresponding ends of the arresters from each other sufficiently to admit the end of a person's finger therebetween.

[Claims 1 to 15 and 17 not printed in the Gazette.]

1,252,943. ATTACHMENT FOR AUTOMOBILES. CHARLES F. POLACK, York, Pa. Filed Mar. 29, 1917. Serial No. 158,328. (Cl. 74—6.)

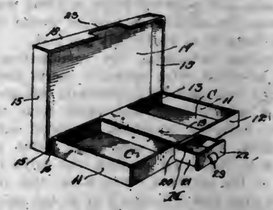


2. An attachment for automobiles comprising a series of arms adapted to be gripped to the rim of an automobile wheel, and a metal band encircling the outer end of said arms, substantially as described.

4. An attachment for automobiles comprising a series of arms, a band connecting the outer ends of said arms and means carried by the inner ends of said arms for attachment to the rim of an automobile wheel, comprising locking sections C and D with bolts for securing them together, said sections being adapted to engage the side walls of the felly of the wheel, and having recessed extensions engaging the rim, substantially as described.

[Claims 1 and 3 not printed in the Gazette.]

1,252,944. CIGARETTE-CASE. JOHN POSTOLOWSKI, New York, N. Y. Filed Feb. 12, 1917. Serial No. 148,147. (Cl. 229—15.)

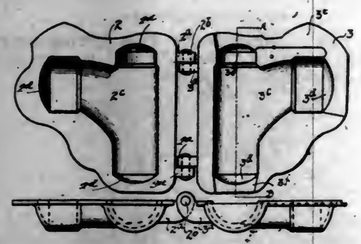


In a box of the class described, a rectangular body portion divided into a central compartment and a plurality of lateral compartments, said central compartment extending from front to back of the box, the front wall of the box having an opening therein communicating with the central compartment, a drawer slidable into and out of the central compartment through said opening, an end on said drawer of greater dimensions than the cross section of the drawer and arranged to form a peripheral flange, said flange normally lying against the outer surface of the front wall of the box, and a top hinged to the back wall of the box and provided with a depending flange embracing the walls of the box body, the front portion of the top flange being cutaway to fit around the drawer end.

1,252,945. EQUIPMENT FOR GREEN-SAND MOLDING. WILEY T. RABUN and WILLIAM F. SCHULTHEISS, San Diego, Cal. Filed Feb. 24, 1916. Serial No. 80,252. (Cl. 22—13.)

1. In a molding equipment, the combination of core box members pivotally connected together, the drag mem-

ber thereof provided with chilled ends and an arbor casting provided with chilled arbor heads adapted to rest therein.



2. In a molding equipment, the combination of fitting patterns mounted on plates, the drag member thereof provided with chilled print heads, core box members pivotally connected together, the core therefrom adapted to conform to said fitting pattern, the drag member of said core box members provided with chilled ends and an arbor casting provided with chilled arbor heads adapted to fit into the drag member of said core box.

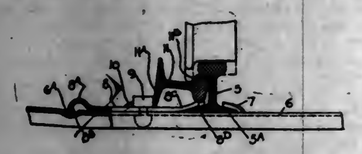
3. In a molding equipment, the combination of tapered metallic flasks, fitting patterns mounted on plates adapted to fit on said metallic flasks, the drag portion of said fitting patterns being provided with chilling print heads, core box members pivotally connected together for forming cores adapted to conform with said patterns, the drag portion provided with chilled ends and an arbor casting provided with chilled arbor heads adapted to fit the drag half of said core box.

6. In a molding equipment, the combination of an arbor casting provided with chilled arbor heads, core box members pivotally connected together, the drag portion provided with chilled ends, fitting patterns mounted on plates, the drag portion provided with chilled print heads conforming to the drag portion of the core box and arbor heads and arbor rests, tapered metallic flasks upon which said plates are positioned for molding and chilling device means for chilling said arbor heads and core box ends in the mold from which they are cast.

9. In a molding equipment the combination of an arbor casting provided with metallic heads and a metallic rest, core box members pivotally connected together provided with closed ends which form the core, fitting patterns mounted on plates provided with print heads conforming with the sand core print and the heads and rest of the arbor casting, the print heads of the drag half of the patterns conforming with the arbor head and arbor rest and the cope half of the print heads conforming with the said core print and the cope half of the core box.

[Claims 4, 5, 7, and 8 not printed in the Gazette.]

1,252,946. RAIL-CLIP. ELKINS READ, Lonaconing, Md. Filed Sept. 18, 1916. Serial No. 120,850. (Cl. 238—4.)



1. The combination with a track rail and an extension rail adapted for progressive longitudinal movement, of a rail clip having one end formed to support the head of said extension rail and means for retaining the flange of said extension rail.

2. The combination with a track rail and an extension rail laid sidewise and adapted for progressive longitudinal slidable movement along said track rail, of a rail clip having one end slightly inclined with the edge thereof formed to support the head of said extension rail, and means for confining said extension rail against lateral movement from said track rail.

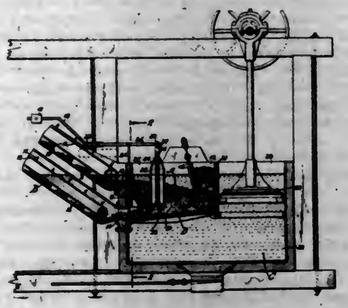
5. The combination with a track rail and an extension rail laid sidewise with the head thereof adjacent said track rail and adapted for progressive slidable movement along said track rail, of a rail clip having a portion thereof inclined and a substantially vertically disposed edge on said portion adapted to support the head of said extension rail, and means for confining said extension rail against lateral movement from said track rail comprising a rivet head in fixed relative position to the clip.

6. The combination with a track rail and an extension rail laid sidewise with the head thereof adjacent said track rail and adapted for progressive slidable movement along said track rail, of a rail clip having a portion thereof inclined and a substantially vertically disposed edge on said portion adapted to support the head of said extension rail, and means for confining said extension rail against lateral movement from said track rail ocmprising an upwardly pressed portion of the clip body, having one side integral with the clip body.

10. A rail clip having one end slightly inclined and the edge thereof substantially vertically disposed to support the head of a sidewise laid auxiliary extension rail, said inclined end overlapping the flange of the stationary track rail and an upwardly pressed portion of the clip body, integral therewith, arranged to confine said extension rail against movement from the track rail.

[Claims 3, 4, and 7 to 9 not printed in the Gazette.]

1,252,947. COAL-HANDLING-JIG GATE. MICHAEL H. REAP, Scranton, Pa. Filed May 10, 1917. Serial No. 167,696. (Cl. 83—58.)

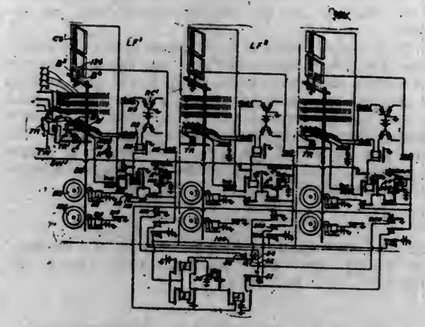


1. The combination of a jig having a container wherein coal and base mineral are partially floated for stratifying the same, said jig having outlets vertically separated for independent delivery of said coal and mineral; a gate for regulating the degree of opening of the lower outlet; a float supported by said mineral at approximately the line of separation of said coal; means operatively connecting said float and said gate for disposing said gate in correspondence with said float; a housing for said gate adapted for preventing the pressure of coal on said gate; a stationary fender extending into said jig from said housing to below the normal line of separation of said coal and said mineral for maintaining a fixed passage for said mineral to said gate and the delivery opening controlled thereby; and means for forcing pulsating jets of water through the region below said fender in proximity to the gate and through said fender for reducing the binding effect of accumulated slate on said gate.

2. The combination of a jig having a container wherein coal and base mineral are partially floated for stratifying the same, said jig having outlets vertically separated for independent delivery of said coal and mineral; a gate for regulating the degree of opening of the lower outlet; a float supported by said mineral at approximately the line of separation of said coal; means operatively connecting said float and said gate for disposing said gate in correspondence with said float; a housing for said gate adapted for preventing the pressure of coal on said gate; a stationary bench extended from said housing toward the center of said jig for forming a passageway in advance of said gate; and means for forcing pulsating jets of water through the region below said bench in proximity to the gate and through said bench for reducing the binding effect of accumulated slate on said gate.

3. The combination of a jig having a container wherein coal and base mineral are partially floated for stratifying the same, said jig having outlets vertically separated for independent delivery of said coal and mineral; a gate for regulating the degree of opening of the lower outlet; a float supported by said mineral at approximately the line of separation of said coal; means operatively connecting said float and said gate for disposing said gate in correspondence with said float; a housing for said gate adapted for preventing the pressure of coal on said gate; a stationary bench extended from said housing toward the center of said jig for forming a passageway in advance of said jig; and means for forcing pulsating jets of water through the region below said bench in proximity to the gate and through said bench for reducing the binding effect of accumulated slate on said gate, said means embodying passages for liquid formed in said bench for permitting the liquid to surge upward through said openings.

1,252,948. TELEPHONE-EXCHANGE SYSTEM. FRANK N. REEVES, Newark, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Nov. 13, 1916. Serial No. 131,044. (Cl. 179—18.)



1. In a telephone exchange system, a group of telephone lines, a plurality of automatic switches in which said lines terminate for extending said lines, means individual to each switch for controlling said automatic switches, and an allotter for determining the order in which said switches shall be operated, said allotter comprising means for selecting a switch for service and means for preselecting a second switch for service, said allotter being controlled by the controlling means associated with the last of said switches to go into service.

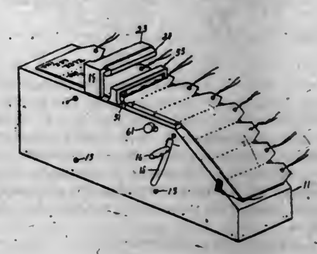
2. In a telephone exchange system, a group of telephone lines, a plurality of automatic switches in which said lines terminate for extending said lines, means including sequence switches, one for each switch for controlling said automatic switches, means for selecting an idle automatic switch for allotment, and means for allotting a selected automatic switch for service in connection with the next line to be extended, said last mentioned means being controlled by the sequence switch associated with the last automatic switch to go into service.

3. In a telephone exchange system, a group of lines, a plurality of automatic switches in which said lines terminate for extending said lines, means including a sequence switch individual to each automatic switch for controlling said automatic switches, an allotter associated with said switches for determining the order in which they shall be operated, comprising means for selecting an idle switch, and means for placing in readiness for operation a preselected switch, said last mentioned means being controlled by the sequence switch associated with the last previously allotted switch.

4. In a telephone exchange system, a group of telephone lines, a plurality of automatic switches in which said lines terminate for extending said lines, means for controlling said automatic switches including a sequence switch individual to each, and an allotter for determining the order in which said switches shall be operated comprising means for preselecting an idle switch, means for allotting a preselected switch, said means being under control of the sequence switch associated with the last previously allotted automatic switch.

5. In a telephone exchange system, a group of telephone lines, a plurality of automatic switches in which said lines terminate for extending said lines, a controlling means for each of said automatic switches, and an allotter for selecting and preselecting said switches for service comprising means made operative when a selected switch goes into service for advancing the pre-selected switch to the selected position, said means being under control of the means for controlling the last previously selected switch, and means made operative when the preselected switch is advanced to the selected position for preselecting an idle switch.

1,252,949. TAG-PRINTING PRESS. THEODORE G. REILING, Louisville, Ky. Filed Oct. 16, 1916. Serial No. 126,015. (Cl. 101—125.)



2. In a tag printing press, the combination of a frame, a reciprocal bar mounted therein, an arm extended laterally from the bar, a printing element carried by said arm, a lever adapted to reciprocate said bar, strip feeding means mounted in the frame, a lever for actuating said feeding means, and operative connections between said levers whereby the first named lever will move a predetermined distance before actuating the second named lever.

4. A casing, a frame mounted thereon, a bar slidably mounted in said frame, a lever for operating said bar, an arm extended laterally from said bar over said casing, an impression box removably positioned on said arm, an ink absorbent covering on said box, a stencil adherent to said covering and means for intermittently feeding a strip of wired shipping tags into printing position under said impression box.

5. In a tag printing press, the combination of a casing, a frame mounted thereon, a reciprocal bar mounted in said frame, an arm extended laterally from said bar over said casing, an impression box removably positioned on said arm, a feed wheel mounted on the frame, means for actuating the bar, means for actuating the feed wheel, and operative connections between said actuating means.

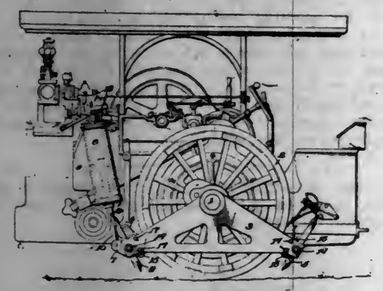
6. In a tag printing press, the combination of a casing, a frame mounted thereon, a reciprocal bar mounted in

said frame, an arm extended laterally from said bar over said casing, an impression box removably positioned on said arm, an impression pad on the casing, a feed wheel mounted on the frame within the casing having peripheral flanges which extended exterior of the casing, a spring pressed roller mounted on the frame exterior of the casing and adapted to bear on said flanges, and interconnected means for operating the bar and feed wheel.

9. In a tag printing press, a frame, a reciprocal bar mounted thereon, an arm extended laterally from said bar, a printing member removably positioned thereon, an operating lever connected with said bar, a feed wheel mounted on the frame, an annular rack on the side of said wheel, an actuating lever adapted to engage with said rack, interconnections between said levers and means for limiting the movement of the levers.

[Claims 1, 3, 7, and 8 not printed in the Gazette.]

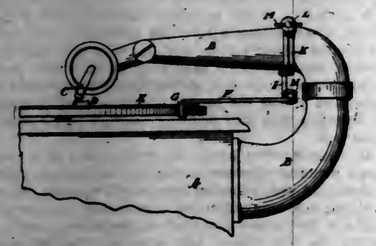
1,252,950. SCARIFIER. JEFFERS F. RICHARDSON, Buffalo, N. Y., assignor to Buffalo Steam Roller Company, Buffalo, N. Y., a Corporation of New York. Filed Mar. 3, 1916. Serial No. 81,878. (Cl. 37—50.)



1. In a road roller, a reversible scarifier comprising two sets of teeth arranged to work reversely one to the other, in combination with a fluid pressure device comprising a cylinder piston arranged to hold yieldingly one set of teeth when the piston is moving in one direction and the other set of teeth when the piston is moving in the opposite direction, and means for holding the piston against movement in its central or neutral position for the purpose specified.

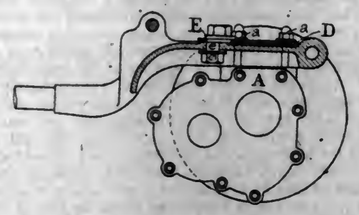
[Claim 2 not printed in the Gazette.]

1,252,951. AUTOMATIC STOP FOR PHONOGRAPHS AND OTHER ROTARY MECHANISM. HERBERT E. RIDER, Brooklyn, N. Y., assignor to Automatic Phono-Stop Company, Inc., a Corporation of New York. Filed July 29, 1915. Serial No. 42,478. (Cl. 74—46.)



An automatic stop for phonographs and other rotary machines, which consists of a bracket, having a rolling friction tip, a spring friction bearing on which said bracket is mounted, adapted to exert an adjustable grip upon said bracket, and means for attaching the same to a tone arm of the machine.

1,252,952. ADJUSTING MEANS FOR THE DRIVING BELTS OR CHAINS OF MOTOR-CYCLES AND THE LIKE. GEORGE E. RIGBY, Manchester, England. Filed Mar. 1, 1917. Serial No. 151,746. (Cl. 64—58.)

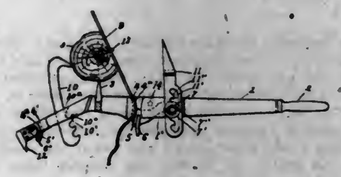


1. The combination with the gear box and gear bracket of a motor-cycle of a sliding adjustment plate fitted to the gear bracket with holes through which the screw studs for attaching the gear box pass and an eccentric or eccentric stud mounted in the plate and in the top of the gear box by which the plate and the gear box are moved relative to the gear bracket to adjust the tension of the driving belt or chain substantially as described.

2. In a counter shaft gear for motor-cycles the combination with the counter shaft gear box and gear bracket of a sliding adjustment plate fitted on the gear bracket and an eccentric fitted thereto by which the plate is moved relatively to the bracket substantially as described.

3. In a counter shaft gear for motor-cycles the combination with the counter shaft gear box and gear bracket of a sliding adjustment plate fitted on the gear bracket and provided with bolt holes, bolts attached to the gear box and passing through the bracket, and an eccentric engaging both the bracket and the plate whereby the latter may be moved relative to the former to adjust the position of the gear box on the gear bracket substantially as described.

1,252,953. WIRE-STRETCHER. JAMES M. ROBERTS, St. Joseph, Mo. Filed Sept. 15, 1917. Serial No. 191,637. (Cl. 254—77.)

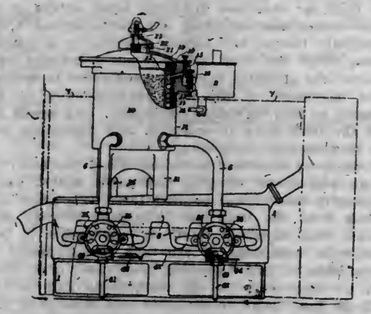


1. In a wire stretcher, a body adapted to be used as a lever; a pair of fulcrum points formed with said body, said points being adapted to act against a post as a fulcrum for said body; grip members carried on said body for gripping a wire; a handle on one end of said body whereby the latter is swung on said fulcrum points for stretching said wire; holding means connected with said body, the free end of said holding means being adapted to engage the side of said post for holding said body against the strain of said stretched wire; and auxiliary holding means comprising a bifurcated brace adjustably pivoted on said body, the ends of the bifurcations of said brace being adapted to be driven into said post for assisting in holding said body against the strain of said stretched wire.

[Claim 2 not printed in the Gazette.]

1,252,954. [WITHDRAWN.]

1,252,955. APPARATUS FOR VAPORIZING HYDRO-CARBONS. PERCY OCTAVIUS ROWLANDS, Liverpool, England. Filed Mar. 31, 1917. Serial No. 158,947. (Cl. 48—102.)



1. In combination, a power driven body, an internal combustion engine mounted on said body, a container adapted to hold and burn solid fuel; a conduit or chamber heated by and surrounding said container, said fuel adapted to have introduced into it hydrocarbon liquid fuel and to vaporize said oil by heat of combustion of said solid fuel; and a conduit connecting said vaporizing conduit or chamber with the cylinder of the engine; substantially as set forth.

2. In combination, a power driven body, an internal combustion engine mounted on said body, a container adapted to hold and burn solid fuel; a conduit or chamber outside and in contact with the fuel in the container adapted to have introduced into it hydro-carbon liquid fuel; and a conduit connecting said conduit or chamber with the cylinder of the engine; substantially as set forth.

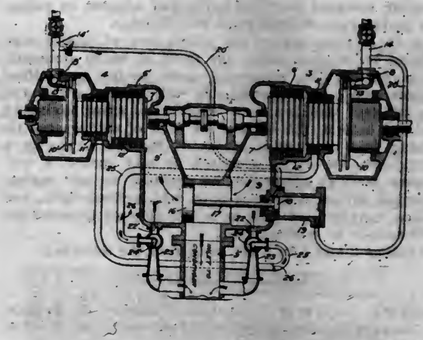
3. In an internal combustion engine, a container adapted to hold and burn solid fuel; a conduit or chamber outside and in contact with the fuel in the container adapted to have introduced into it hydro-carbon liquid fuel; a conduit connecting said conduit or chamber with the cylinder of the engine; and means in connection with the container adapted to limit and regulate the air supply to the solid fuel therein; substantially as set forth.

4. In an internal combustion engine, a container adapted to hold and burn solid fuel; a metal liner within the container, against the wall of which solid fuel rests, and having a conduit for vaporizing the liquid fuel formed in said liner; substantially as set forth.

5. In an internal combustion engine, a container adapted to hold and burn solid fuel; a conduit in the container of continuous form, outside the fuel for vaporizing a hydro-carbon liquid, and having passages at different points of the same for passing the vapors produced at different points of the conduit to the engine cylinder or cylinders direct; substantially as set forth.

[Claims 6 to 12 not printed in the Gazette.]

1,252,956. TURBINE APPARATUS. HENRY F. SCHMIDT, Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Oct. 17, 1914. Serial No. 867,139. (Cl. 253—70.)



1. In an apparatus of the character described, two power developing elements, operatively connected together and capable of developing power independently of each other, and means for reducing the pressure within the working passage of one element when said element is inoperative as a power developing agent to a point below the pressure normally existing at the exhaust of either element.

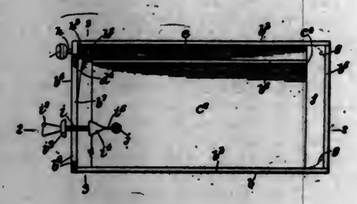
6. An apparatus of the character described, comprising separate fluid driven power developing sections, means for establishing communication between the operative section and the exhaust, and means for exhausting the casing of the inoperative section.

10. In combination with a turbine section, means for closing the exhaust port of the turbine section when the turbine section is not developing power, and a fluid ejector communicating with the working passage of the turbine section for evacuating the casing when the exhaust port is closed.

26. In an apparatus of the character described, a power developing element, a condenser, the inlet of which communicates with the exhaust of the element, a quick acting valve for closing communication between said element and the condenser, means responsive in operation to the delivery of fluid to said element for actuating said valve to establish communication between said element and the condenser, and means for reducing the pressure within the working passage of the element when the exhaust is closed to the condenser below that normally existing at the inlet to the condenser.

[Claims 2 to 5, 7 to 9, and 11 to 25 not printed in the Gazette.]

1,252,957. GAME DEVICE. SAMPSON SCHUYLER, Long Branch, N. J. Filed Mar. 28, 1917. Serial No. 157,874. (Cl. 46—59.)



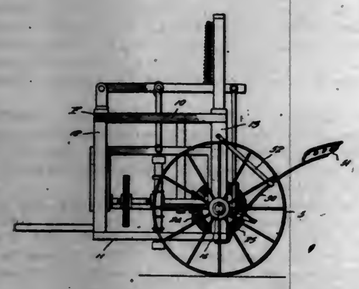
1. A game device comprising a suitable table and a perforated spherical member, means for manipulating said member to move it over said table, and means movable over said table and adapted to engage the perforations in said spherical member.

3. A game device, comprising an inclined table, a perforated member movable thereover, means for manipulating said member to bring it onto said table, and a pointed member movable over said table and adapted to engage the perforations in said perforated member.

4. In a game device, an oblong box or casing comprising an inclined table, the front of which communicates with a deep transverse space having an inclined bottom, and a supplemental side wall between which and the adjacent wall is a deep longitudinal space having an inclined bottom, the bottoms of each of said spaces inclining from a common corner of the box or casing, a spring-operated device mounted in said corner, a perforated member adapted to be operated by said spring-operated device to move it onto said inclined table, and means movable over said table and adapted to enter the perforations in said member.

[Claims 2 and 5 to 8 not printed in the Gazette.]

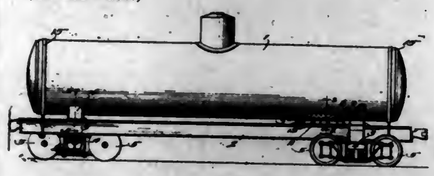
1,252,958. COTTON-CHOPPER. ALBERT H. SEAMON, Crockett, Tex. Filed Oct. 20, 1916. Serial No. 126,726. (Cl. 97—46.)



2. In a cotton chopper, the combination of a main frame mounted on driving wheels and having a pair of vertical standards therein, a supplemental frame slidably mounted on said standards, a longitudinally extending lever on said main frame disposed above the same, an upstanding rack on said main frame projecting through the lever, a coil spring connecting said lever with the upper end of the rack to hold the lever normally in raised position, a spring catch on said lever engageable with the rack to lock said lever in various adjusted positions, a connecting rod between the lever and the supplemental frame, a pair of foot pedals pivotally mounted on the main frame beneath the free end of the lever, links connecting said pedals and the free end of said lever, a rotary cutter mounted in said supplemental frame, and means connecting said cutter with the driving wheels.

[Claim 1 not printed in the Gazette.]

1,252,959. TANK-CAR. CHARLES A. SHOEMAKER, Chicago, Ill. Filed Nov. 1, 1917. Serial No. 199,630. (Cl. 105—264.)



1. A tank car structure including wheel trucks at its ends; an underframe carrying abutments spaced apart longitudinally thereof and secured thereto; a projection depending from the tank and interposed between said abutments both of which it closely approaches to prevent material movement of the tank longitudinally of the underframe at said depending projection; tank bands secured at their ends to the underframe and serving to hold the tank down to maintain said depending projection between said abutments; and side abutments with which the depending projection is also closely engaged to prevent material movement of the depending projection and the lower portion of the tank transversely of the underframe, some of said abutments projecting upwardly from the underframe to constitute a seat structure for holding the tank above the underframe.

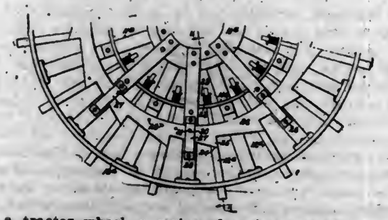
6. A tank car structure including wheel trucks at its ends; an underframe carrying abutments spaced apart longitudinally thereof and secured thereto; a projection depending from the tank and interposed between said abutments both of which it closely approaches to prevent material movement of the tank longitudinally of the underframe at said depending projection; and means for holding the tank down to maintain said depending projection between said abutments.

7. A tank car structure including wheel trucks at its ends; an underframe carrying abutments spaced apart longitudinally thereof and secured thereto; a projection depending from the tank and interposed between said abutments both of which it closely approaches to prevent material movement of the tank longitudinally of the underframe at said depending projection; tank bands secured at their ends to the underframe and serving to hold the tank down to maintain said depending projection between said abutments; side abutments with which the depending projection is also closely engaged to prevent material movement of the depending projection and the lower portion of the tank transversely of the underframe, some of said abutments projecting upwardly from the underframe to constitute a seat structure for holding the tank above the underframe; and a saddle upon the underframe engaging another portion of the tank structure and upon which saddle the part of the tank structure engaged thereby is movable longitudinally of the car structure.

12. A tank car structure including wheel trucks at its ends; an underframe carrying abutments spaced apart longitudinally thereof and secured thereto; a projection depending from the tank and interposed between said abutments both of which it closely approaches to prevent material movement of the tank longitudinally of the underframe at said depending projection; means for holding the tank down to maintain said depending projection between said abutments; and a saddle upon the underframe engaging another portion of the tank structure and upon which saddle the part of the tank structure engaged thereby is movable longitudinally of the car structure.

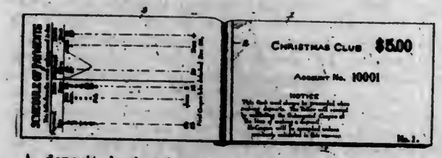
[Claims 2 to 5 and 8 to 11 not printed in the Gazette.]

1,252,960. LUG FOR TRACTORS. JOHN SIBILLE, Grand Coteau, La. Filed Mar. 14, 1917. Serial No. 154,695. (Cl. 21—209.)



In a tractor wheel, a series of spring-pressed tractor rods movable radially on the wheel to project beyond the rim or to be moved to retracted positions, a cam ring engaging the several lugs and movable on the wheel through an angle to move the lugs against the tension of the springs, to positions to project beyond the wheel rim, a series of radially disposed keepers on said wheel in which the cam ring is permitted guided movement, one of said keepers having a pinhole therein, the cam ring having a series of pin-holes, either of which may be brought into register with the pinhole of the keepers, and a pin adapted to be passed through the registering holes to hold the cam ring against movement.

1,252,961. ACCOUNT DEPOSIT-BOOK. FRIEND W. SMITH, Jr., Bridgeport, Conn., assignor to John W. Hibbard, New York, N. Y. Filed Oct. 11, 1916. Serial No. 125,115. (Cl. 11—19.)



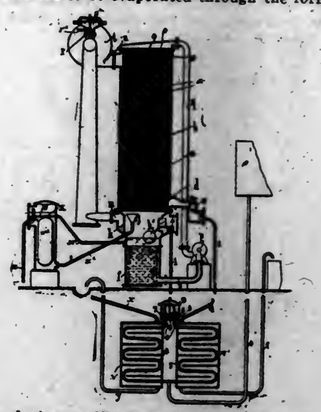
A deposit book adapted, by the validation of each sheet by a bank official, to indicate that the previous payments have been made and likewise to indicate the date of the next payment, said sheet thus validated being adapted to be removed from the book and retained by the bank as a record of payment as the next succeeding sheet is validated, comprising a plurality of detachable leaves, said leaves throughout having a common designation and an indicia of the amounts to be paid and also being sequentially marked, each leaf having a space for the validation thereof by the marking thereon of the date when the deposit becomes payable.

1,252,962. DISTILLATION OF LIQUIDS. OLOF SÖDERLUND and TEOFRON BOBERG, Clapham Park, London, England, assignors to Techno Chemical Laboratories Limited, London, England. Filed Dec. 10, 1914. Serial No. 876,567. (Cl. 203—5.)

1. In the evaporation of a solution to concentrate it to a moderate degree and recover by condensation the liquid driven off as vapor, dividing the solution passing to the evaporator into two streams bearing such proportions to one another that by recuperating the heat of the concentrate by means of one stream and the heat of the condensate by means of the other stream a maximum thermal regeneration is obtained.

5. In apparatus for evaporating a solution to concentrate it to a moderate degree and recover by condensation the liquid driven off as vapor, a heat recovery device for extracting the heat of the concentrate, a like device for dealing with the condensate and a valve operated by a liquid which is displaced as the result of its temperature for controlling the flow of the solution to be evaporated through said heat recovery devices.

7. In apparatus for evaporating a solution to concentrate it to a moderate degree and recover by condensation the liquid driven off as vapor, a heat recovery device for extracting the heat of the concentrate, a like device for dealing with the condensate, a hollow bulb weighted with a volatile liquid for controlling the flow of solution to be evaporated through the former heat



recovery device, a like bulb for performing a similar function in said latter device and a tube connecting said two bulbs so that volatile liquid is displaced from the hotter to the cooler, whereby the heat of both the condensate and concentrate is extracted to an equal amount.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,252,963. NUT AND BOLT LOCK FOR RAIL-JOINTS. JAMES B. SPROUL and BENJAMIN B. BARCLAY, Piedmont, Ohio. Filed June 28, 1917. Serial No. 177,584. (Cl. 239—11.)

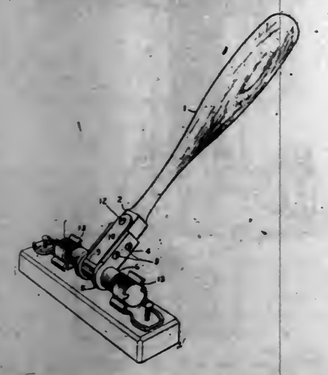


1. The combination with the abutting ends of a pair of rails, each having a longitudinal slot in the end thereof, of splice bars fitted against the sides of the rail ends, bolts extending through the splice bars and interlocking with one of the splice bars, nuts threaded upon the bolts and engaging the opposite splice bar, a nut locking plate fitted against the said opposite splice bar and engaging the nuts to prevent rotation thereof, said splice bars and nut locking plate being formed with longitudinal slots registering with the slots in the rail ends, and keys inserted through the said slots and provided at their extremities with laterally projecting heads which are turned into registry with the slots when inserting the keys into position and subsequently turned downwardly at right angles thereto to engage the outer surfaces of the plates and hold the nut locking plate in position.

2. The combination with the abutting ends of a pair of rail ends, each having a longitudinal slot therein, of splice bars fitted against the sides of the rail ends, one of which is provided with polygonal openings, bolts extending through the rail ends and splice bars and provided at the heads thereof with polygonal portions received within the said polygonal openings of one of the splice bars, nuts threaded upon the bolts and engaging the opposite splice bar, a nut locking plate fitted against the said opposite splice bar and formed with polygonal openings receiving the nuts, said nut locking plate and splice bars being formed with longitudinal slots registering with the slots in the rail ends, and keys inserted through the slots and provided at the extremities thereof with laterally projecting heads adapted to be turned into registry with the slots when inserting the keys into position, and

subsequently turned downwardly into a position at right angles to the slot to engage the outer surfaces of the plates and hold the nut locking plate in position.

1,252,964. CLEANER FOR FUSE-CONTACTS. CLARENCE B. STAFFORD, San Francisco, Cal. Filed Feb. 3, 1917. Serial No. 146,547. (Cl. 29—76.)

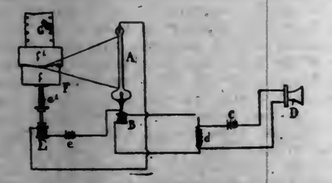


1. In a fuse box cleaner, the combination of a cylindrical head having roughened or knurled terminal abrasive portions, and a handle for turning said head, extending therefrom between the terminal portions.

3. In a fuse box cleaner, the combination of a cylindrical head having roughened or knurled terminal abrasive portions, bearings for said head between said terminal portions, a handle rigidly related to said bearings, and a spring secured to said handle, the central portion of the head between the bearings being formed with notches to receive said spring.

[Claim 2 not printed in the Gazette.]

1,252,965. APPARATUS FOR RECORDING SOUNDS PHOTOGRAPHICALLY. HARRY BENWELL STOCKS, Northenden, England. Filed Oct. 7, 1915. Serial No. 54,626. (Cl. 179—100.1.)



1. In apparatus for recording sounds photographically, the combination with a microphone circuit, of an electro-magnet having its magnetic power controlled by said circuit, a mercury vapor lamp of high actinic power the electric resistance of which is controlled by said electromagnet and the intensity of light of which varies in accordance with variations in current flow in the microphone circuit, and a shutter controlled by said lamp to increase the size of its aperture when the intensity of light from the lamp increases and to reduce the size of its aperture when the intensity of such light diminishes.

4. Apparatus for recording sounds photographically comprising a transmitter circuit, a mercury vapor lamp circuit having a magnet therein, and a shutter operated by said magnet to increase and diminish the size of its aperture when the intensity of the light of said lamp increases and diminishes respectively, the lamp being controlled and its intensity varied by the transmitter circuit.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,252,966. SETTING FOR PRECIOUS STONES. ABRAHAM SUDEROV, New York, N. Y. Filed Oct. 11, 1917. Serial No. 195,921. (Cl. 63—28.)

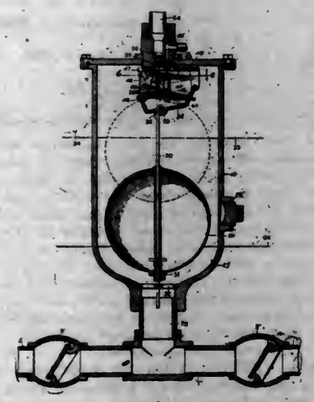


1. A cluster setting comprising, a base having a central seat for a stone and a plurality of seats grouped about said central seat, stones engaged in said latter seats and a stone engaged in the central seat with its adjacent edges substantially overlying the edges of the surrounding stones to thereby effect the appearance of a continuous stone.

2. A cluster setting comprising, a base having a central passage and surrounding passages grouped about said central passage, upstanding prongs disposed about the central passage, a stone supported by said prongs above the general plane of the base and stones seated in the surrounding passages, and with its edges overlying the adjacent edges of the side stones to thereby simulate the appearance of the top of a continuous stone.

[Claims 3 and 4 not printed in the Gazette.]

1,252,967. HEATING SYSTEM. REUBEN N. TRANE, La Crosse, Wis., assignor to Trane Company, La Crosse, Wis., a Corporation of Wisconsin. Filed Aug. 4, 1916. Serial No. 113,085. (Cl. 137—101.)



1. In a heating system of the character described, the combination with a furnace and boiler, of heating pipes extending from the boiler including a return water pipe, and a differential receiver connected to said pipes, the upper part being connected to the part of the pipe having live steam and at the lower part to the return water pipe, said receiver being provided with a casing or container in communication with said return pipe, a check valve in said return pipe on each side of the container so that water may flow freely into the container and therefrom toward the boiler and not in the opposite direction, a valve for normally shutting off the live steam from said container, a lever for operating the valve, a pivoted member, a spring connection between the lever and member, and a float connected with said member, whereby when the water in the container moves upwardly the valve will be moved upwardly a predetermined extent and the valve opened for the admission of steam which will force the water in the container into said boiler and when the container has become substantially empty the weight of the float will cause said valve to close.

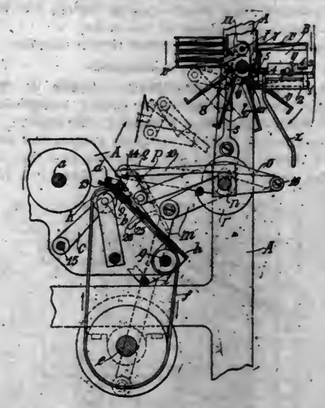
2. In a heating system of the character described, a differential receiver connected to the return pipe of the heating system, said receiver comprising a casing, a steam inlet valve and an air valve arranged at the upper part of the casing, a single operating lever for operating said valves, said lever opening one valve and closing the other, a pivoted member, a spring connection between the lever and member, and a float arranged in the receiver and connected with said member, whereby the said valves will be opened and closed according to the height of water in the casing.

3. A differential receiver for the return pipe of heating systems, comprising a casing, an air valve and a steam inlet valve arranged at the top of said casing, a lever for opening and closing said valves, a pivotally mounted plate, springs connecting said plate and said lever so that when said plate moves to a predetermined position said springs will complete the movement of the plate and will move said lever for opening or closing said valves according to the direction of movement of the plate, a loosely connected member depending from said plate, said member having a stop adjacent the lower end, and a float coacting with said member and adapted to engage said stop when the water in said casing has moved down a predetermined distance whereby the weight of the float will cause said member to pull said plate and thereby shift the position of said valves and when said casing is supplied with water to a predetermined extent the float will move upwardly and move said plate in an opposite direction so as to shift the position of said valves to a different position and thereby admit steam which will force the water from said casing.

4. A differential receiver for the return pipe of steam heating systems, comprising a casing for receiving the return water when the steam pressure in the system is too great for allowing the water to return by gravity, a float arranged in the casing adapted to be moved upwardly as the water enters the casing, a steam inlet valve arranged at the top of the casing, an air valve arranged at the top of the casing, a pivotally mounted member for opening one of said valves while closing the other, and a second pivotally mounted member with which the float engages, said second member being connected with the first pivotally mounted member so that when said float moves to its highest position the same will cause the air valve to be closed and the steam valve to be opened and when moved to its lowest position will cause the steam valve to be closed and the air valve to be opened.

5. A differential receiver for the rturn pipes of steam heating systems, comprising a casing for receiving the water from said return pipes when the pressure in the steam is greater than the pressure in the returning water, a steam valve and an air valve arranged at the top of the casing, a single pivotally mounted lever loosely connected to both of said valves, said valves operating in opposite directions whereby when one valve is closed the other will be opened, a spring connected with said lever, a pivotally mounted plate connected to the opposite end of said spring whereby when the point of the plate where the spring is connected has moved past said lever the lever will be automatically and quickly moved to an opposite position so as to shift said valve, and means operated by the water in said casing for actuating said plate so that the steam valve will be opened and the air valve closed when the water in the casing has reached a predetermined extent whereby the live steam will eject the water and the means for operating the plate will cause the plate to be moved in an opposite position and said valves reversed, whereby the steam in said casing will be exhausted through said air valve, thus permitting the return water to enter the casing under the action of gravity.

1,252,968. ENVELOP-MACHINE. JAMES E. TREVOR, Hartford, Conn., assignor, by mesne assignments, to United States Envelope Company, Springfield, Mass., a Corporation of Maine. Filed Oct. 7, 1913. Serial No. 793,852. (Cl. 93—67.)



1. In an envelop machine, the combination of mechanism for receiving the envelop formed except for the seal flaps, comprising, a conveying means mounted to travel in the machine having a surface proportioned for effective frictional engagement with the envelop, a stop, said means being arranged to frictionally engage the envelop to move it into exact folding position against the stop, and a folding mechanism to fold over the seal flap as the envelop is held against the stop, a drying chain for drying the gum on the seal flap, transferring mechanism arranged to transfer the completely folded envelop from said means to the drying chain, together with intermittently operable lifting fingers to raise the outer ends of each envelop in the drying chain during the insertion of the following envelop therein.

3. In an envelop machine, the combination of mechanism for receiving the envelop formed except for the seal flap, comprising, a conveying means mounted to travel in the machine and having a surface proportioned for effective frictional engagement with the envelop, a stop, said means adapted to frictionally engage the envelop to move it into position agaist the stop and constructed and arranged so that the envelop may be straightened by the continued frictional engagement of said means with the envelop after the latter engages the stop, and a folding mechanism to fold over the seal flap as the envelope is held against the stop.

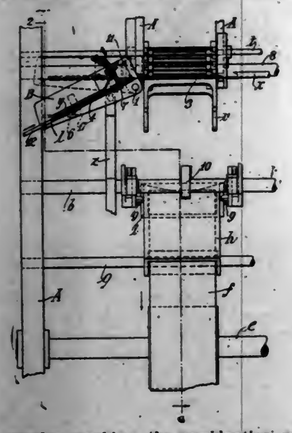
4. In an envelop machine, the combination of mechanism for receiving the envelop formed except for the seal flap comprising a conveying means, a stop member arranged to limit the movement of the envelop on the means, the surface of said means being proportioned for effective frictional engagement with the envelop, said surface being adapted to engage an envelop to straighten it to exact folding position agaist the stop, and an oscillatable plate adapted to lie parallel to the conveying means and hold the envelop in folding position after said straightening.

6. In an envelop machine, the combination of mechanism for folding the seal flap after the gum has been applied, comprising, a conveying means mounted to travel in the machine having a surface proportioned for effective frictional engagement with the envelop, a stop against which said means is adapted to straighten the envelop, a drying chain for drying the gum on the seal flap, transferring mechanism arranged to transfer the completely folded envelop from the conveying means to the drying chain.

7. In an envelop machine, the combination of mechanism for receiving the envelop formed except for the seal flap comprising, conveying and folding means, a drying chain for drying the gum on the seal flap, transferring mechanism arranged to transfer the folded envelop from said means to the drying chain, together with means to hold the seal flap from opening during its transfer from the folding mechanism to the chain.

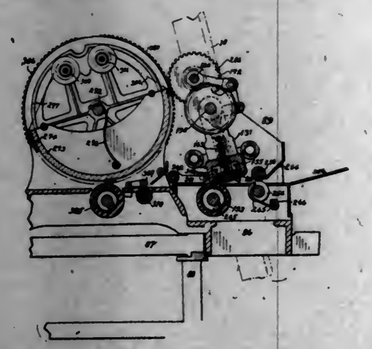
[Claims 2, 5, and 8 not printed in the Gazette.]

1,252,969. ENVELOP-MACHINE. JAMES E. TREVOR, Hartford, Conn., assignor, by mesne assignments, to United States Envelope Company, Springfield, Mass., a Corporation of Maine. Original application filed Oct. 7, 1913, Serial No. 793,852. Divided and this application filed June 7, 1915. Serial No. 32,542. (Cl. 93—75.)



In an envelop machine, the combination with a drying chain for drying the gum on the seal flap of the envelop, of means to remove the envelops one by one from the chain and a reciprocable delivery mechanism arranged to engage the edge of the envelop after it leaves the chain to move it out of the way of the following envelop, and a device to hold the edge of the envelop into position to be engaged by the said delivery mechanism.

1,252,970. ADDRESSING MECHANISM. GEORGE T. TRUNDLE, Cleveland, Ohio., assignor to The American Multigraph Company, Cleveland, Ohio, a Corporation of Ohio. Filed May 31, 1913. Serial No. 770,842. (Cl. 101—53.)



2. In a mechanism of the class described, the combination, with a receptacle having a set of ways for individual address plates, a printing couple, mechanism for successively transferring address plates from the receptacle to the couple and back to the same ways in the receptacle, and means for intermediately operating the couple to print from the address plate.

26. The combination of a receptacle for address plates, a carrier, a platen coacting therewith, a plunger and mechanism operating it to push an address plate part way out of the receptacle, and a reciprocating gripper adapted to draw such partly released plate entirely out of the receptacle and into the carrier.

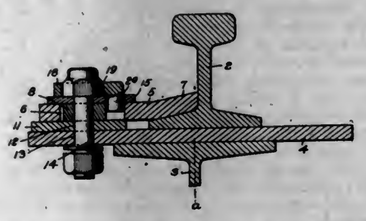
32. In a machine of the class described, the combination of a movable receptacle for address plates, a plurality of settable selectors, means whereby said selectors stop the receptacle with the desired plates in active position, and means for removing such selected plate, printing from it and returning it.

58. The combination of a rotary printing drum, a shaft parallel with the axis thereof, gearing between the drum and shaft adapted to turn the shaft at the same angular speed as the drum, an address plate carrier loosely on said shaft and having the same radial dimension as the drum, a platen coacting with the address plate carrier, and means for locking the address plate carrier to the shaft.

83. The combination of a rotary printing drum, a reciprocatory carrier associated therewith, means for automatically placing an address plate on the reciprocatory carrier, means for concurrently moving the rotary drum and the reciprocatory carrier, and platens coacting respectively with the drum and carrier.

[Claims 1, 3 to 25, 27 to 31, 33 to 57, 59 to 82, and 84 to 95 not printed in the Gazette.]

1,252,971. ADJUSTABLE RAIL-CLAMP. HANS VASDAHL, Swissvale, Pa., assignor to McClintic-Marshall Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Nov. 7, 1917. Serial No. 200,678. (Cl. 238—4.)



1. An adjustable clamping device for rails including a body member having a circular opening, an eccentrically mounted element provided with tool engaging means disposed in the opening, and a bolt passed through the said body member and element.

2. An adjustable clamping device for rails including a body member having a circular opening, an eccentrically mounted element disposed in the opening, a cap mounted on the body over its opening, and a bolt passed through said cap, body and element.

7. An adjustable clamping device for rails including an upper body member having a circular opening, a lower member on which the base of the rail rests, an eccentrically mounted element disposed in the opening of the body and provided with tool engaging means, a cap mounted on the body over its opening and having tool engaging means registering with the tool engaging means of the body, a filler between the lower member and the eccentrically mounted element, and a bolt passed through the cap, body member, filler and lower member.

10. Means for securing rails to load carrying members and for adjusting the rails relatively to the center line of said members comprising upper and lower plate members, said upper plate having a washer receiving opening, an eccentric washer having tool engaging means

disposed in said opening, a cap having tool engaging means covering the opening of the upper plate, and a bolt passed through the cap, plate members and washer, said tool engaging means of the cap and washer adapted to be engaged by a common tool and moved in unison.

[Claims 3 to 6, 8, and 9 not printed in the Gazette.]

1,252,972. AIR-VALVE FOR GASOLENE-ENGINES. JOHN W. WEAVER, Detroit, Mich., assignor of one-half to Buford A. Lynch, Washington, D. C. Filed June 11, 1917. Serial No. 174,123. (Cl. 277—44.)



1. An air valve for the manifold intake of gasolene engines comprising a coupling, a tubular casing threaded therein, a plug working in the outer portion of the casing and provided with a flanged cap closing against the end of said casing, said plug having openings leading through the same from the sides to the inner end, means for limiting the outward movement of the plug, and a spring acting to normally open the valve.

2. An air valve for the manifold intake of gasolene engines comprising a coupling, a tubular casing threaded therein, a plug working in the outer portion of the casing and provided with a flanged cap closing against the end of said casing, said plug having openings through the same from the sides to the inner end, a piston connected to the inner end of the plug and having openings, and means for limiting the outward movement of the parts; together with a spring pressing against the piston to hold the valve normally open.

3. An air valve for the manifold intake of gasolene engines comprising a coupling, a tubular casing threaded in an enlarged bore at one end thereof, a plug working in the outer portion of the casing and provided with a flanged cap closing against the end of said casing, said plug having openings through the same from the sides to the inner end, a piston connected to the inner end of the plug and having openings through the same, means for limiting the outward movement of the plug and piston, a screeen located in the coupling, and a spring interposed between the screen and piston.

4. An air valve for the manifold intake of gasolene engines comprising a coupling, a tubular casing threaded therein, a plug working in the outer portion of the casing and having openings through the same, a piston located in said casing, a stem connecting the piston to the plug, a disk-valve on the stem to close against the inner end of the plug over the openings therein, a spring pressing against the disk-valve, and a spring pressing against the inner end of the piston.

1,252,973. CATALYZER AND PROCESS OF MAKING THE SAME. FRIEDRICH WILHELM WEBER, Perth Amboy, N. J., assignor to The Roessler & Hasslacher Chemical Co., New York, N. Y., a Corporation of New York. Filed May 3, 1915. Serial No. 25,520. (Cl. 23—28.)

1. The process of making a liquid catalyzer, consisting in extracting ox-liver with a solvent possessing preservative properties.

8. The process of making a liquid catalyzer, consisting in preparing a fine paste of fresh ox-liver, mixing infusorial earth with said paste, and extracting the mass thus obtained with a solution consisting of water and glycerin.

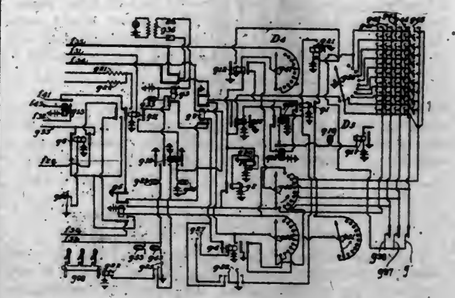
13. The process of making a liquid catalyzer, consisting in preparing a fine paste of ox-liver, mixing infusorial earth with said paste, adding almond meal to the mixture and extracting the mass thus obtained with a solution consisting of approximately 70% water and 30% glycerin.

17. A liquid catalyzer containing the soluble matter of ox-liver and almond meal, glycerin, water and a preservative.

18. A liquid catalyzer containing the soluble matter of ox-liver and almond meal, glycerin, water and sodium benzoate.

[Claims 2 to 7, 9 to 12, and 14 to 16 not printed in the Gazette.]

1,252,974. TELEPHONE-EXCHANGE SYSTEM. HARRY G. WEBSTER, Chicago, Ill., assignor, by mesne assignments, to James R. Garfield, trustee, Cleveland, Ohio. Filed May 16, 1914. Serial No. 838,961. (Cl. 179—27.)



1. A telephone call distributing system comprising a plurality of subscribers' lines, a group of call receiving units divided into sub-groups, a plurality of trunk lines divided into groups, and means for extending the line of a calling subscriber by means of any trunk of any group to any call receiving unit in any sub-group.

2. A telephone call distributing system, comprising a plurality of call receiving units divided into associated sub-groups, a call signal for each unit, means for causing the display of said call signals, and means effective during the display of the call signal of any one unit for temporarily disassociating the sub-group containing said one unit from the other sub-groups of said plurality.

3. In an automatic telephone exchange system, a group of trunk lines, a traveling switch adapted to automatically select a non-busy trunk of said group, manually controlled means actuated to initiate the selective operation of said switch, and means for automatically restoring said manually controlled means in case all trunks of said group be busy.

4. An automatic telephone system comprising subscribers' lines, a plurality of traveling switches for building up a connection extending between a calling and a called line, a manually actuated device for directively controlling the operation of said switches, controlling circuits extended from said device to each of said switches, and means associated with said device for automatically indicating the presence of an accidental interruption in said controlling circuits.

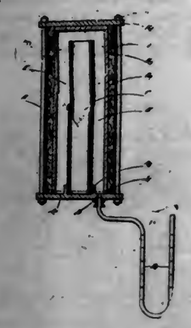
5. An automatic telephone system comprising subscribers' lines, a plurality of traveling switches for building up a connection extending between a calling and a called line, a manually actuated device for directively controlling the operation of said switches, controlling circuits extended from said device to each of said switches, and means associated with said device for automatically indicating the presence of an accidental shunt of said controlling circuits.

[Claims 6 to 51 not printed in the Gazette.]

1,252,975. GAS-TESTING APPARATUS. HENRY ROBERTS WEBSTER, Horsforth, near Leeds, England. Filed June 29, 1917. Serial No. 177,715. (Cl. 23—3.)

1. An apparatus for detecting and indicating the presence and proportion of absorbable gas included in a mix-

ture with air or other gases; comprising in combination a closed vessel having a porous wall the exterior surface of which is to be exposed to the gases to be tested and through which porous wall diffusion of gases can take place, a chemical absorbent of the gas to be detected located in said closed vessel, and means operable by the variations of pressure in said vessel due to the absorption of the gas to be detected, to indicate the proportion of said absorbable gas.



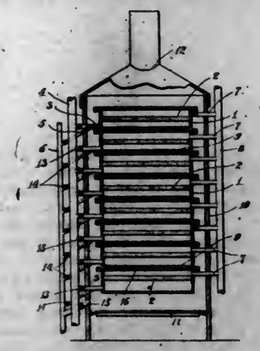
3. An apparatus for detecting and indicating the presence and proportion of absorbable gas included in a mixture with air or other gases, comprising in combination a closed vessel having a porous wall through which diffusion of gases can take place, a casing impermeable to gases inclosing said vessel and having a space between said casing and said vessel, an inlet tube in the wall of said casing communicating with said space in the interior of said casing constitnted between said casing and the external wall of said closed vessel to introduce the gases to be tested, an exit tube in the wall of said casing communicating with said space to permit of the exit of the gases therefrom, a chemical absorbent of the gas to be detected located in said closed vessel, and means operable by the variations of pressure in said vessel due to the absorption of the gas to be detected, to indicate the proportion of said absorbable gas.

4. An apparatus for detecting and indicating the presence and proportion of absorbable gas included in a mixture with air or other gases; comprising in combination a closed vessel having a porous wall to the exterior surface of which the gases to be tested have access and through which porous wall diffusion of gases can take place, a protective and insulating external covering of material permeable to the gases surrounding the porous wall of said closed vessel, a chemical absorbent of the gas to be detected located in said closed vessel, and means operable by the variations of pressure in said vessel due to the absorption of the gas to be detected, to indicate the proportion of said absorbable gas.

6. An apparatus for detecting and indicating the presence and proportion of absorbable gas included in a mixture with air or other gases; comprising in combination a closed vessel having a porous wall through which diffusion of gases can take place, a casing impermeable to gases inclosing said vessel, an inlet tube in the wall of said casing communicating between the supply of gases to be tested and the space in the interior of said casing constituted between said casing and the external wall of said closed vessel, an exit tube in the wall of said casing communicating with said space, a suction device with which said exit tube communicates to produce a current of the gases to be tested through said space to which the exterior of said porous wall of said closed vessel is exposed, a chemical absorbent of the gas to be detected located in said closed vessel, and a graduated U-tube one arm of said tube communicating with the interior of said closed vessel and the opposite arm communicating with the space between said casing and the external wall of said closed vessel and a liquid in said U-tube the level of which varies according to the variations of pressure in said closed vessel, to indicate the proportion of absorbable gas.

[Claims 2 and 5 not printed in the Gazette.]

1,252,976. PROCESS FOR MAKING NITRIC ACID FROM AMMONIA. ALFRED A. WELLS, Caldwell, N. J., assignor to Ellis-Foster Company, a Corporation of New Jersey. Filed Mar. 7, 1917. Serial No. 153,222. (Cl. 23—1.)



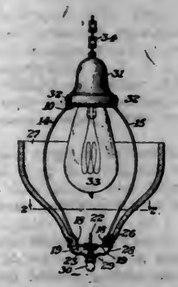
3. The process of oxidising ammonia to produce nitrous oxids which comprises passing a mixture of ammonia and air into a plurality of catalytic chambers, in allowing the mixture to pass through layers of catalytic material and in passing the products of oxidation in heat relating interchange with a gas mixture in a less advanced stage of reaction contained in adjacent chambers and finally withdrawing the products of oxidation.

4. In the process of oxidising ammonia to produce oxids of nitrogen, the step which comprises passing a mixture of air and ammonia through a catalytic chamber without substantial contact of the gaseous mixture in said chamber with any surface of a non-catalytic character.

5. In the process of oxidising ammonia to produce oxids of nitrogen with minimum production of nitrogen, the step which comprises passing a mixture of ammonia and an oxygen-containing gas through a heated catalytic chamber, the surfaces of which with which the gaseous mixture comes in contact being coated with catalytic material having oxidizing properties.

[Claims 1 and 2 not printed in the Gazette.]

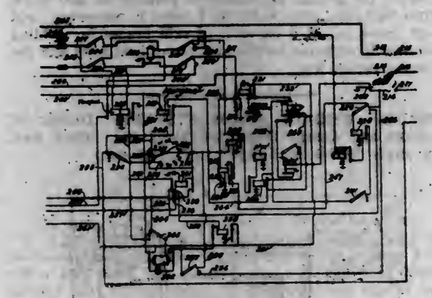
1,252,977. HOLDER FOR LIGHT-TRANSMITTING BOWLS. EDWIN L. WHITE, Brooklyn, N. Y. Filed May 19, 1917. Serial No. 169,610. (Cl. 240—111.)



4. In a lighting fixture and in combination, an electric lamp and socket, means for supporting the same, a socket cover, a ring connected with said socket cover, arms secured at their upper ends to said ring on opposite sides thereof and extending downwardly therefrom, the lower ends of said arms being bent toward each other in a horizontal line and then at right angles in an opposite direction, a hub provided with recesses into which such bent portions of the arms are inserted and the surrounding metal of the hub overturned upon said portions of the arms to secure them within said recesses, a bowl surrounding said arms and provided with an opening in its bottom into which said hub and the lower portions of the arms are inserted, a cup within which the bottom of the bowl rests, and means for removably connecting the cup with said hub.

[Claims 1 to 3 not printed in the Gazette.]

1,252,978. MACHINE-SWITCHING TELEPHONE-EXCHANGE SYSTEM. SAMUEL B. WILLIAMS, Jr., Brooklyn, and ARTHUR B. SPERRY, New York, N. Y., assignors to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Mar. 12, 1917. Serial No. 154,183. (Cl. 179—27.)



1. In a telephone exchange system, the combination with telephone lines, senders therefor, a connecting circuit including automatic switches, and a repeating relay in said circuit operated by said senders to set said switches, of condensers in said connecting circuit between said relay and switches, normally disconnected from the called end of the connecting circuit, and means automatically actuated upon the response of the called party for connecting said condensers in circuit with the called line.

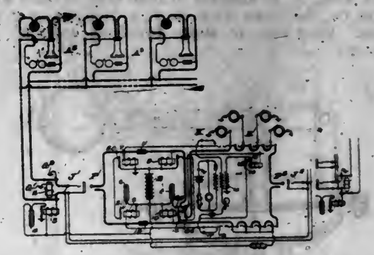
2. In a telephone exchange system, the combination with telephone lines, senders therefor, a connecting circuit including automatic switches, a repeating relay in said circuit operated by said senders to set said switches, and condensers in said connecting circuit between said relay and switches, of a side switch normally disconnecting said condensers from the called end of said connecting circuit, and means operated by the response of the called party for advancing said side switch to connect said condensers in circuit with the called line.

3. In a telephone exchange system, the combination with telephone lines, senders therefor, a connecting circuit including automatic switches, a repeating relay in said circuit operated by said senders to set said switches, and condensers in said connecting circuit between said relay and switches, of a side switch normally disconnecting said condensers from the called end of said connecting circuit, a circuit for the escape magnet of said side switch whereby the side switch is advanced to connect said condensers in circuit with the called line, a control relay for closing the same, a side switch associated with the last of the train of automatic switches having a ringing and a talking position, means for advancing said side switch to the ringing position operated if the selected line is idle, a slow release relay, a circuit therefor closed in the ringing position, means operated by the response of the called party for advancing said switch to the talking position in which the circuit for said slow relay is opened, and a circuit including a front contact of said slow relay and an arm of said connector side switch in its fourth position and said control relay to operate the same.

12. In a telephone exchange system, the combination with an automatic office, a manual office, telephone lines terminating therein, a connecting circuit including an impulse relay, condensers, and a selector in said automatic office, trunks terminating therein leading to said manual office, mean including said impulse relay and selector for setting up a connection in said automatic office or causing said selector to pick out one of said trunks leading to the manual office, a side switch adapted in one position to feed current to the calling line through the windings of said impulse relay and in another to cut off said coil and condensers and extend the calling line directly to the selector brushes, a circuit for advancing said side switch to cut off said condensers, a relay adapted to be operated to prepare said circuit when said trunk is selected, and means controlled by the operator at the manual office for closing said circuit and for feeding current to the calling line over the seized trunk.

[Claims 4 to 11 not printed in the Gazette.]

1,252,979. TESTING SYSTEM FOR PARTY-LINES. BERNARD D. WILLIS, Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 3, 1913. Serial No. 751,890. (Cl. 179—35.)



1. In a telephone system, a plurality of subscribers' lines, an answering jack and a plurality of multiple jacks for each line, means including a cord circuit for establishing a connection between two of said lines, means in said cord for testing a busy line, a testing mechanism, and means for operating said testing mechanism when a jack of the calling line is tested to give the operator an audible busy signal of one character, and to give the operator an audible signal of another character when a jack of a line other than the calling line is tested, said testing mechanism comprising a relay circuit interrupter the interruptions of which produce the pulsations of one of said busy signals.

2. In a telephone system, a plurality of subscribers' lines provided with multiple jacks, means including an operator's cord circuit for establishing a connection between two of said lines, means for placing a guarding potential upon said multiple jack when the line with which they are associated is busy, and means comprising a circuit interrupter relay in said cord for giving said operator a busy signal when a busy line is tested, said means being operative to give the operator an audible busy signal of one character when a line other than the calling line is tested and of different character when the calling line is tested.

3. In a telephone system, an operator's cord circuit provided with a calling plug, a testing conductor normally connected with said plug, a relay in said testing conductor, a test tone generator associated with said conductor, and means for rapidly energizing and de-energizing said relay to operate said test tone generator only when the calling line is tested.

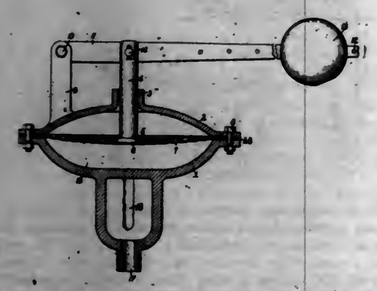
7. In a telephone system, a plurality of subscribers' lines provided with multiple jacks, means including an operator's cord circuit for establishing a connection between two of said lines, said cord comprising an answering plug and a calling plug, an operator's set provided

with an induction coil, a testing conductor normally connected to the tip of said calling plug and provided with a tertiary winding associated with said induction coil, a relay in said testing conductor adapted to be energized a single time when a busy line other than the calling line is tested, and means for short circuiting said relay when a multiple jack of the calling line is tested.

9. In a telephone system, a plurality of subscribers' lines provided with multiple jacks, means including an operator's cord circuit for establishing a connection between two of said lines, said cord comprising an answering plug and a calling plug, an operator's set provided with an induction coil, a testing conductor normally connected to the tip of said calling plug and provided with a tertiary winding associated with said induction coil, a relay in said testing conductor, means for energizing said relay a single time when a busy line other than the calling line is tested, and means controlled by said relay for short-circuiting itself when a multiple jack of the calling line is tested, whereby a varying potential is produced in said tertiary winding to thereby produce a distinctive test tone.

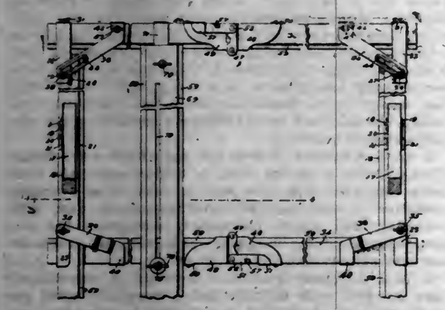
[Claims 4 to 6 and 8 not printed in the Gazette.]

1,252,980. DAMPER-REGULATOR. GUSTAV WOLF, New York, N. Y., assignor to Ideal Heat & Draft Regulator Co., Inc., New York, N. Y., a Corporation of New York. Filed June 16, 1917. Serial No. 175,123. (Cl. 60—2.)



In a regulator of the character described, a diaphragm therefor comprising a metal sheet having a flat peripheral section, said flat peripheral section being provided with a plurality of apertures, and spurs extending from some of said apertures, and a gasket arranged against said section held in place by said spurs.

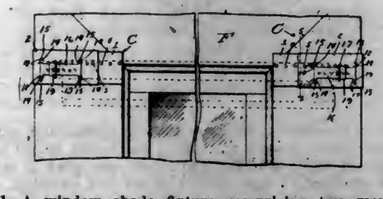
1,252,981. CURTAIN STRETCHER. NAPOLEON B. ALLEN, Brooklyn, N. Y. Filed Apr. 8, 1915. Serial No. 19,943. (Cl. 45—24.)



1. A curtain stretcher, and means for connecting the rails thereof, comprising a plurality of corner irons each embodying integrally connected perpendicularly-disposed clamps; a plurality of screw-threaded clamping members mounted on said clamps and adapted to engage the rails when disposed in said clamps; a plurality of braces, said braces having each a hook end rectangular in shape for engaging one of the rails of said stretcher, the opposite end of each of said braces having an elongated slot for slidably connecting each of said braces and one of said corner irons; and a set screw mounted on each of said braces for holding the same in adjusted position on one of said rails and the adjacent corner iron.

2. A curtain stretcher and means for connecting the rails thereof, comprising a plurality of corner irons, each embodying integrally-connected perpendicularly-disposed clamps; a plurality of screw-threaded clamping members mounted on said clamps and adapted to engage the rails when disposed in said clamps; a plurality of braces, said braces having each a hook end rectangular in shape for engaging one of the rails of said stretcher, the opposite end of each of said braces having an elongated slot provided with a socket portion offset from said slot to form a socket for gaging the operative position of said brace within the rails with which said brace is connected; and a set screw mounted on each of said braces for holding the same in adjusted position on one of said rails and the adjacent corner iron.

1,252,982. WINDOW-SHADE FIXTURE. DANIEL N. ALLEY and ALBERT E. MILLER, Peru, Ind. Filed Mar. 8, 1917. Serial No. 153,387. (Cl. 156—24.)



1. A window shade fixture comprising two members adjustable longitudinally relative to each other and each having pairs of transversely alined spaced slots, and bracket carrying straps having fingers detachably engaged with said slots.

2. A window shade fixture comprising two members adjustable longitudinally relative to each other and each having pairs of transversely alined spaced slots, and bracket carrying straps having fingers detachably engaged with said slots, said fingers tapering toward their free ends and having a wedge-like engagement with said slots.

3. A window shade fixture comprising two plates, slidable longitudinally one on the other, one plate having its side edges inturned to form guides to receive the edges of the other plate, the overlying plate having outstruck hollow rounded protuberances forming sockets on its inner face, the underlying plate having rounded projections on its outer face positioned to enter and yieldably engage the sockets of the overlying plate whereby said plates are held in adjusted position, keepers carried by said plates, straps engaged with said keepers and having longitudinally alined projections on their outer faces, brackets mounted to slide on said straps and having laterally extending attaching plates, each provided with a socket on its inner face positioned to receive one of the projections on the strap on which it is mounted, and means for detachably connecting said plates to a window frame.

4. A window shade fixture comprising two plates slidable longitudinally one on the other, one plate having its side edges inturned to form guides to receive the edges of the other plate, the overlying plate having outstruck hollow rounded protuberances forming sockets on its inner face, the underlying plate having rounded projections on its outer face positioned to enter and yieldably engage the

sockets of the overlying plates whereby said plates are held in adjusted position, brackets adjustable longitudinally on said plates, each plate having at its outer end a frame engaging cap in the form of an arm extended laterally at right angles from the plate end with another arm extending laterally outward from said first mentioned arm and arranged parallel with the plate, and an inturned flange at the upper edge of said parallel arm.

1,252,983. KNIT FABRIC. ARTHUR N. AMES, Franklin, N. H., assignor, by mesne assignments, to Commercial Machine Company, Franklin, N. H., a Corporation of Massachusetts. Filed Jan. 17, 1913. Serial No. 742,627. (Cl. 66—4.)

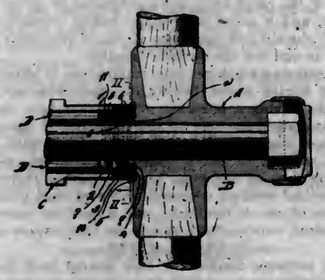


3. A stocking having two continuous main yarns in its foot portion, said stocking having a high spliced heel and a reinforced sole portion, the reinforce yarn being entirely knit in, the front of the ankle and top of the foot being composed only of the same yarn as that which forms the leg portion.

5. A knitted article of manufacture composed of different yarns joined by a knitted seam, said different yarns crossing each other at the seam, each marginal needle loop of one yarn being knitted through one loop of the other yarn and embraced by double strands of the other yarn.

[Claims 1, 2, and 4 not printed in the Gazette.]

1,252,984. DEVICE FOR PREVENTING LEAKAGE OF LUBRICANT FROM MOTOR-VEHICLE AXLES. ROBERT G. AMO, St. Louis, Mo. Filed Apr. 28, 1917. Serial No. 165,165. (Cl. 64—22.)



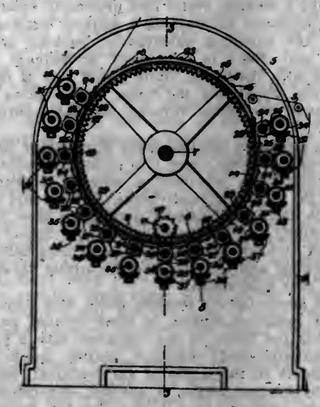
1. The combination with an axle casing, an axle shaft within said casing, and an annular abutment on said axle shaft, of an annular lubricant guard slidable in contact with said shaft and casing, and a spring holding said guard against said abutment.

4. The combination with an axle casing, an axle shaft within said casing, and an annular abutment on said shaft, of a yieldable packing ring seated in said abutment adapted to contact with an end of said casing, and a spring pressed annular lubricant guard within said casing arranged in contact with said packing ring.

7. The combination with an axle casing, an axle shaft within said casing, and an annular abutment on said shaft, of a dust ring U-shape in cross section fitted to the end of said casing, a cushion ring within said dust ring between its outer end and the end of the casing, a packing ring in said abutment against which the outer end of said dust ring bears, an annular lubricant guard surrounding said shaft and contacting with the inner wall of said dust ring, and a spring serving to hold said lubricant guard in contact with said packing ring.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,252,985. MACHINE FOR PRINTING FIBROUS SUBSTANCES. AUGUST AMREIN, Amsterdam, N. Y. Filed May 9, 1917. Serial No. 167,435. (Cl. 101—172.)



3. A machine for printing fibrous substances, comprehending a printing drum, means to rotate it, a series of printing rolls rotatably mounted exterior of said drum and provided with a plurality of printing faces, said printing rolls having their axes in constant spaced relationship with the axis of said printing drum, pattern mechanism carried by said drum, and connections between said pattern mechanism and said printing rolls to move the latter during the revolution of the drum.

5. A machine for printing fibrous substances, comprising a printing drum, means to rotate it, indexes adjustably carried by said drum, printing rolls actuated by said indexes, said printing rolls having their axes in constant spaced relationship with the axis of said printing drum, means to transfer color to said printing rolls, and means to render certain of said indexes inoperative to actuate predetermined printing rolls.

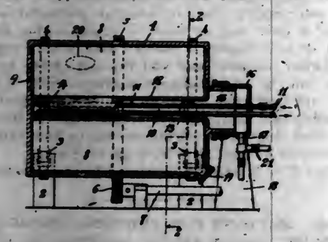
20. A machine for printing fibrous substances, comprehending a drum, the face of which is made up of a series of platen and pattern index faces, index tongues of determined color values arranged on said index faces in accordance with a predetermined pattern, printing rolls adapted to be engaged by index tongues of corresponding color values, and color transferring means for said printing rolls.

[Claims 1, 2, 4, 6 to 19, and 21 not printed in the Gazette.]

1,252,986. PROCESS OF AND APPARATUS FOR TREATING FIBERS. HANNS R. ANDERS, Perth Amboy, N. Y., assignor to The Roessler & Hasslacher Chemical Co., New York, N. Y., a Corporation of New York. Filed Dec. 21, 1914. Serial No. 878,246. (Cl. 8—18.)

1. The process of treating fibers with liquids consisting in completely packing the interior of a given space with

fibers, filling a part only of the space with liquid, submitting the fibers to a rotating motion and filtering the liquid through the fibers during said rotation.



4. The process of treating fibers with liquid consisting in dividing a suitable vessel into preferably substantially equal subdivisions maintaining a suitable communication between the adjoining subdivisions, packing each subdivision with fibers to be treated, preliminary wetting the fibers with the liquid, filling a part only of the space with liquid, submitting the fibers to a rotating motion and filtering the liquid through the fibers during said rotation.

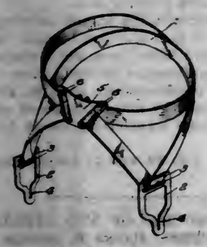
8. The process of treating fibers with liquids consisting in dividing a suitable vessel into preferably substantially equal subdivisions, maintaining suitable communication between the adjoining subdivisions, packing said subdivisions with fibers, preliminarily wetting the fibers with the liquids, filling but one subdivision with liquid, passing the liquid through said subdivision in diagonally opposite directions and filtering it consecutively through the goods in each subdivision.

10. An apparatus for treating fibers with liquids comprising a container capable of being rotated, partitions subdividing the inside of the container into a plurality of substantially equal chambers, heating means located approximately in the center of the container, means incasing the heating means, a channel establishing communication between the adjacent chamber through the heating incasing means and means to impart a rotating motion to the container.

12. An apparatus for treating fibers with liquids comprising a container having its interior subdivided into a plurality of substantially equal chambers, means for liquid communication from each chamber to the adjoining one, means for heating the liquid while passing from one to the other of said chambers, and means for rotating said container.

[Claims 2, 3, 5 to 7, 9, and 11 not printed in the Gazette.]

1,252,987. HOSE-SUPPORTER. ELIOT ARMSTRONG, Buffalo, N. Y. Filed Dec. 12, 1916. Serial No. 136,426. (Cl. 241—6.)



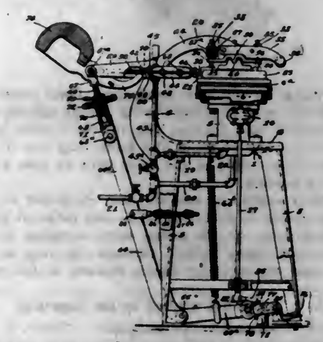
1. A hose supporter adapted to be arranged in position by inserting the foot therethrough and comprising a single strip of fabric encircling the leg twice and having the two ends connected together and two hangers connected to and depending from the strip at opposite sides of the leg.

4. A hose supporter adapted to be arranged in position by inserting the foot through the supporter, and comprising a single, continuous strip of elastic fabric arranged in a double circle to encircle the leg twice, a slotted connecting piece of thin metal strung on the strip at about the middle of the latter and adapted to be arranged at the rear above the greatest thickness of calf, the strip ends inserted in the slots of said piece and maintained therein by friction, and two hangers strung on the strip and depending on opposite sides of the leg, said hangers being arranged on the strip at a distance from said piece and on opposite sides thereof.

5. A hose supporter comprising a single, continuous strip of fabric adapted to encircle the leg twice, a substantially triangular, thin, metal, connecting piece having two parallel, inclined slots adjacent each side edge, said piece being strung on the strip at about the middle of the latter, and the ends of the strip inserted in the slots and connected to the piece by friction, and two hangers strung on the strip and depending on opposite sides of the leg, said hangers being arranged equi-distant from said piece and on opposite sides thereof.

[Claims 2 and 3 not printed in the Gazette.]

1,252,988. PRESSING-MACHINE. ALLEN CLYMER AUSTIN, Syracuse, N. Y. Filed Oct. 5, 1915. Serial No. 54,149. (Cl. 68—9.)



1. In a pressing machine, the combination of upper and lower fluid heated bucks having internal chambers, one of the bucks having a plurality of said chambers, the internal chamber of one buck and one of the plurality of chambers of the other buck being connected in series with each other, and a valve controlled conduit connected between said plurality of chambers of one of the bucks, substantially as and for the purpose specified.

6. In a pressing machine, the combination of upper and lower fluid heated bucks, having internal chambers, one of the bucks having a plurality of said chambers, the interior of one buck and one of the plurality of chambers of the other buck being connected in series with each other, and another of said plurality of chambers opening through the face of the buck to the exterior thereof, a valve controlled conduit connected between said plurality of chambers of one of the bucks, and a receiver connected in said conduit, substantially as and for the purpose specified.

25. In a pressing machine, a fluid heated buck having a line of perforations opening through its pressing face, and a distributing member overlying the perforations and formed of less width than said pressing face, opposing surfaces of the buck and the distributing member at the lengthwise sides of said member being spaced apart to permit the exit of the heating fluid, substantially as and for the purpose described.

29. In a pressing machine, the combination of a buck, a pivoted carriage for the buck, two sets of bearing parts arranged at opposite sides of the transverse axis of the buck, said bearing parts permitting the buck to move relatively to the carriage, a plurality of springs for resisting such movement of the buck, two of the springs being arranged at opposite sides of a line extending lengthwise of the buck through one of the sets of bearing parts, and another of the springs being arranged substantially in line with a line extending lengthwise of the buck through the other set of bearing parts, substantially as and for the purpose described.

31. In a pressing machine, a hollow pressing element, a movable carriage for said element, and feed and return conduits connected to the interior of said element, said conduits including sections and a pivoted coupling connecting the sections and having feed and return passages therethrough connected respectively to the feed and the return conduit sections, substantially as and for the purpose described.

[Claims 2 to 5, 7 to 24, 26 to 28, 30, and 32 to 34 not printed in the Gazette.]

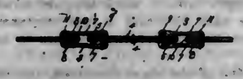
1,252,989. OPERATING-HEADLIGHT. FREDERICK F. BALLARD, Davenport, Iowa. Filed Mar. 1, 1917. Serial No. 151,788. (Cl. 240—59.)



1. In a device of the class described, a support, a pair of clamping plates or jaws on said support, a lamp having a pair of rearwardly extending clamping plates or jaws on its casing, a link between the pairs of jaws, said link having a ball on each end to be received and held in seats formed in the adjacent inner faces of each pair of clamping plates or jaws.

[Claims 2 and 3 not printed in the Gazette.]

1,252,990. VENTILATING-SECTION FOR CORSETS. ROBERT F. BEARDSLEY, Kalamazoo, Mich., assignor to Kalamazoo Corset Company, Kalamazoo, Mich. Filed Oct. 4, 1917. Serial No. 194,753. (Cl. 2—73.)



1. In a corset, the combination of two body sections thereof having spaced opposed edges, and an insert comprising spaced cross pieces formed of strips of fabric having infolded edges secured together by longitudinal rows of stitches at each edge, and pairs of longitudinal strips having infolded edges between the inner edges of which the ends of said cross strips are disposed and secured by rows of longitudinal stitches at the inner edges of said longitudinal strips, the edges of said body sections being disposed between and secured to said longitudinal strips by rows of longitudinal stitches at their outer edges.

[Claim 2 not printed in the Gazette.]

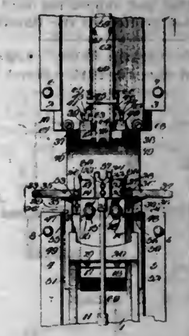
1,252,991. VENTILATING-SECTION FOR CORSETS. ROBERT F. BEARDSLEY, Kalamazoo, Mich., assignor to Kalamazoo Corset Company, Kalamazoo, Mich. Filed Oct. 4, 1917. Serial No. 194,754. (Cl. 2—73.)



1. In a corset the combination of two sections thereof having opposed spaced infolded edges, an insert comprising spaced cross pieces formed of strips of fabric having infolded edges secured together by longitudinal rows of stitches at each edge, and longitudinal strips having infolded edges to which the ends of said cross pieces are secured by longitudinal rows of stitches at the inner edges of said longitudinal strips, facing strips having infolded edges disposed on said body sections with their inner edges flush with the inner edges thereof, the longitudinal strips and the ends of said cross pieces of said insert being disposed between said body sections and facing strips, and filler strips disposed between said body sections and facing strips with their inner edges overlapping the outer edges of said insert longitudinal strips and their outer edges in the folds at the outer edges of said facing strips, the said overlapped and superimposed parts being secured together and to said body sections by rows of longitudinal stitches therethrough, there being rows of stitches through said body sections, and the inner edges of the facing strips, longitudinal insert strips and the ends of said insert cross pieces, and centrally through said facing strip and the inner edges of said filler strips and the outer edges of said longitudinal insert strips, and through the outer edges of said facing and filler strips.

[Claims 2 and 3 not printed in the Gazette.]

1,252,992. BROOM-CLAMPING MACHINE. NORMAN H. BEEBE, Davenport, Iowa, assignor to Lee Broom & Duster Company, Lincoln, Nebr., a Corporation of Iowa. Filed Feb. 26, 1915. Serial No. 10,758. (Cl. 13—4.)



1. A broom-clamping machine comprising movable upper and lower cross-heads, a clamp-form carried by one of said cross-heads, a stationary, clamp-form, said clamp forms adapted to receive clamps therebetween, said clamps having hook ends and having centrally-extended annularly-grooved or beaded portions, means carried by the upper cross-head and stationary clamp-form for automatically forcing said hook ends into the path of each other when pressure is applied by the lower cross-head

to bring the clamps together around the fibers of the broom, said hook ends hooking together or interlocking as a result of the expansive outward pressure of the fibers when the external pressure upon the clamps is removed, and means for bending a staple into the form of a ring in the groove or bead of the centrally-extended portions of the clamps.

2. A broom-making machine comprising movable cross-heads, a clamp-form carried by one of said cross-heads, a clamp-form coöperating therewith, said clamp-forms adapted to hold broom-clamps, an anvil and staple-holders carried thereby to receive a staple, and means carried by one cross-head to bend the staple into a ring around a portion of the clamps during the broom-clamping operation.

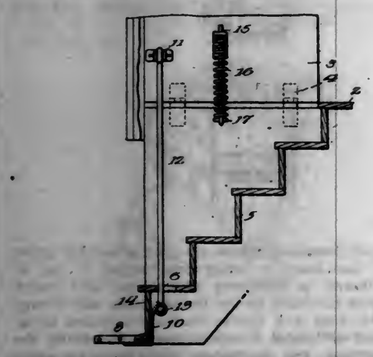
3. A broom-clamping machine comprising two movable cross-heads, a clamp-form carried by one of said cross-heads, a clamp-form coöperating therewith, said forms adapted to receive clamps, fingers pivoted to and carried by the frame, clamp end-straighteners pivoted to and carried by one cross-head, bell-cranks carried by the fingers, and means carried by the other cross-head in position to engage the bell-cranks to cause the latter to exert lateral pressure upon the clamp end straighteners to force the clamp ends into position to hook or interlock with each other.

4. A broom-clamping machine comprising two movable cross-heads, a clamp-form carried by one of said cross-heads, a clamp-form coöperating therewith, said forms adapted to receive clamps, fingers pivoted to and carried by the frame, clamp end straighteners pivoted to and carried by one crosshead, springs attached to the straighteners and to the cross-head for swinging the straighteners in one direction, adjustable screws connected with the straighteners and bearing against the head, bell-cranks carried by the fingers, and adjustable means carried by the other cross-head in position to engage the bell-cranks to cause the latter to exert lateral pressure upon the clamp end straighteners to force the clamp ends into position to hook or interlock with each other.

5. A broom-clamping machine comprising two movable cross-heads, a clamp-form carried by one of said cross-heads, a clamp-form coöperating therewith, said clamp forms adapted to receive clamps, fingers pivotally mounted on and carried by the frame, clamp end straighteners pivotally carried by and mounted on one cross-head, bell-crank levers pivotally mounted in the fingers, plungers carried by the other cross-head, said plungers having rollers in position to engage and swing the fingers into position, and rollers carried by the first mentioned cross-head for engaging and supporting said fingers.

[Claims 6 to 12 not printed in the Gazette.]

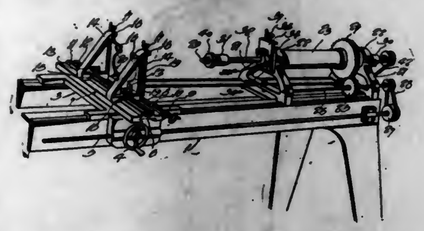
1,252,993. FOLDING COACH-STEP. JOHN F. BERRY, Lufkin, Tex. Filed Apr. 16, 1917. Serial No. 162,419. (Cl. 105—88.)



1. In a device of the class described the combination with the hinged platform door of a coach, of fixed steps carried by the platform adjacent the platform door of the coach, a step pivotally mounted upon the lowermost of said first steps, a rearwardly and upwardly extending apertured arm secured to said second step, a connecting rod pivotally engaged with the platform door and extending downwardly through the lowermost fixed step, the lower end of said rod being connected with the extremity of said arm, and spring means carried by the platform door and engaged with a portion of the coach for imparting an upward thrust to said door.

2. In a device of the character described, the combination with the hinged platform door of a coach, of steps carried adjacent the platform door upon the coach, a second step, brackets secured to the opposite ends of the second step and carrying bearing pintles adjacent certain of their extremities, said bearing pintles being mounted in bearings carried upon the lowermost of said first mentioned step, an apertured arm secured to said second step adjacent its pivotal mounting, a connecting rod pivotally engaged with the apertured arm and said platform door, and spring means carried by the platform door and engaged with a portion of the coach for imparting an upward thrust to the same.

1,252,994. CYLINDER BORING AND GRINDING MACHINE. FREDERICK A. BLACHLY, Council Bluffs, Iowa. Filed June 18, 1917. Serial No. 175,426. (Cl. 51—4.)



1. In a machine of the class described, the combination of a bed, a carriage movable along said bed, an auxiliary carriage shiftable transversely of said first named carriage and having on its upper side a rib extending transversely of said bed, a work support adjustable along said auxiliary carriage and having in its lower side a notch receiving said rib, and means for holding said auxiliary carriage in adjusted position.

2. In a machine of the class described, the combination of a bed, a carriage movable along said bed, an auxiliary carriage shiftable transversely of said first named carriage and having on its upper side a rib extending transversely of said bed, a pair of work supporting brackets rising from said auxiliary carriage and adjustable along the same, said brackets having notches in their lower edges receiving said rib, means for locking said brackets and rib together, and means for holding said auxiliary carriage in adjusted position.

3. A work holder of the class described comprising an elongated base plate having in its lower side a longitudinal undercut groove to receive the transverse rib of a lathe carriage, the upper side of said plate having a longitudinal rib formed with a longitudinal undercut groove in its upper side, a work support notched in its base to receive said rib, and a bolt for securing said support in place, said bolt being slidable in said groove of the rib.

4. In a machine of the class described, the combination of a hollow shaft, means supporting said shaft for rotation but holding the same against longitudinal movement, means for slowly rotating said shaft, a bearing sleeve passing through said shaft and projecting beyond one end thereof, means connecting said projecting end of said sleeve with the adjacent end of said hollow shaft for shifting said sleeve laterally, means pivotally connecting the other end of said sleeve to the corresponding end of said shaft, a tool driving shaft passing rotatably through said sleeve, and means adjacent the pivoted end of said sleeve, for driving said tool carrying shaft.

1,252,995. NUT-LOCK. OTTO BOUTLIER, Winnipeg, Manitoba, Canada. Filed Mar. 26, 1917. Serial No. 157,453. (Cl. 151—25.)



A device of the kind described comprising a threaded bolt, a nut having a bore to fit the bolt, and means to lock the nut on the bolt, said means comprising a slot formed in the nut and crossing the threads on the bolt, one end of the said slot being larger than the other and a threaded rod adapted to loosely screw down into the larger end of the slot with its threads engaging the threads on the bolt, and to have its head turned over to prevent further complete rotation.

1,252,996. SAFETY-RAZOR. AUGUSTUS HAGER BRYANT, Glen Ridge, N. J. Filed June 5, 1917. Serial No. 172,909. (Cl. 30—12.)



1. A safety razor, comprising a handled holder having overhanging resilient members, a centrally arranged V-shaped recess in its face at the rear edge, curved guard fingers and a plurality of depressions at the bases of the guard fingers and opening into the spaces between said fingers, a blade provided at its ends with projections engaging the ends of the overhanging members of the holder and with a centrally arranged V-shaped notch, and a wedge fitting under the overhanging members of the holder and having a centrally arranged V-shaped projection engaging the recess of the holder and the notch of the blade.

3. A safety razor, comprising a holder having overhanging members, curved guard fingers, and grooves extending along the opposite sides of each finger, the grooves of each two adjacent fingers merging into a groove in the body of the holder, said groove being approximately of a width equal to the distance the fingers are apart, a blade having lugs engaging the ends of the overhanging members, and a wedge fitting under the overhanging members of the holder and locking the blade in position.

[Claim 2 not printed in the Gazette.]

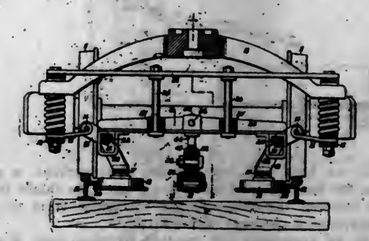
1,252,997. TRACTION-SHOE. MATTHEW D. BYRNE, Jr., Waterbury, Conn. Filed Apr. 18, 1917. Serial No. 162,856. (Cl. 152—2.)

In combination with a wheel having a plurality of resilient tires, said tires being disposed in spaced relation for forming an annular outwardly-opening groove; a chain surrounding said wheel and mounted in said groove; a plurality of wearing members, each embodying a plate having a transverse projection provided with centrally-disposed perpendicularly-arranged grooves for holding perpendicularly-related links of a chain; a plurality of wearing blocks removably attached to said plates at opposite



sides of the median center thereof; and eye-bolts extending through said plates for engaging the links of said chain for binding said shoe plates in service relation to the wheel.

1,252,998. DEVICE FOR PREVENTING DERAILMENT. ELISIARIO CASTANHO, São Paulo, Brazil. Filed Mar. 27, 1917. Serial No. 157,780. (Cl. 105—215.)

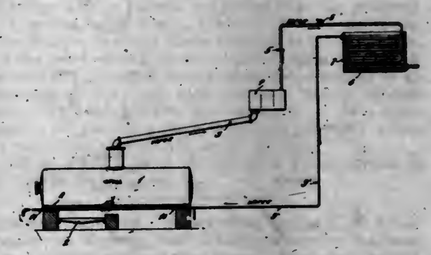


1. In a device to prevent derailment, a vertically movable bar, swingable elements, bridles on the vertically movable bar to engage said swingable elements and swing the same by an upward movement of the bar, the bridles in the lowered position acting to prevent upward movement of said swingable elements, guard wheels carried by the swingable elements to engage laterally against lateral track rails, means to mount the device on a railway truck, and actuating means on the movable bar adapted to be engaged by a track trip.

2. The combination with a railway truck of guard wheels, carrying means for the wheels swingingly mounted on the truck, a vertically movable, transversely disposed bar engageable with said carrying means to raise the same, a shoe pivotally hung at about its center on the said bar and adapted to be engaged by a track trip to raise the bar, and spring means normally tending to maintain the shoe in a plane parallel with a railway track.

[Claim 3 not printed in the Gazette.]

1,252,999. ART OF CRACKING HYDROCARBONS. JOHN W. COAST, Jr., Tulsa, Okla., assignor to The Process Company, Tulsa, Okla., a Corporation of Maryland. Filed May 22, 1917. Serial No. 170,146. (Cl. 196—9.)



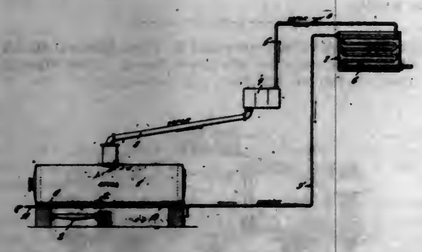
1. In the art of cracking hydrocarbons, the method of maintaining cracking stills in operation which comprises

interposing a shield between an overheated portion of a still and the heating medium.

5. In the art of cracking hydrocarbons, the method of maintaining cracking stills in operation which comprises interposing a shield between an overheated portion of a still and the heating medium, and circulating a cooling fluid through said shield.

[Claims 2 to 4 not printed in the Gazette.]

1,253,000. APPARATUS FOR CRACKING HYDROCARBONS. JOHN W. COAST, Jr., Tulsa, Okla., assignor to The Process Company, Tulsa, Okla., a Corporation of Maryland. Filed May 22, 1917. Serial No. 170,147. (Cl. 196—1.)



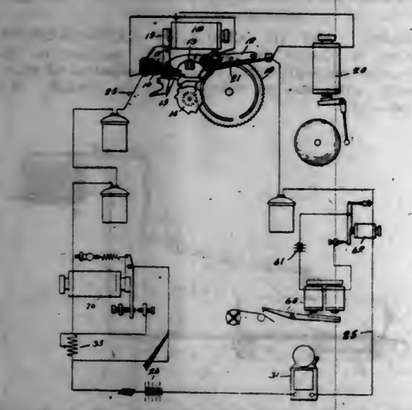
1. In an apparatus for treating hydrocarbons, a still, means for heating said still, and a movable shield interposed between the still and the heating medium to protect overheated portions of the still.

5. In an apparatus for treating hydrocarbons, a still, means for heating said still, a hollow shield movable between the still and heating medium to protect overheated portions of the still, and means for conducting a cooling fluid into and out of said hollow shield.

7. In an apparatus for treating hydrocarbons, a still, means for heating said still, a shield movable between the still and heating medium to protect overheated portions of the still, a hollow guide for said shield, a water cooled condenser associated with said still, and means for conducting water from said condenser to said hollow guide.

[Claims 2 to 4, 6, and 8 not printed in the Gazette.]

1,253,001. ELECTRIC SIGNAL SYSTEM. FREDERICK W. COLE, Newton, Mass., assignor to Gamewell Fire Alarm Telegraph Company, New York, N. Y., a Corporation of New York. Filed June 29, 1914. Serial No. 847,891. (Cl. 177—360.)



1. In an electric signal-system, the combination with an electric circuit, signal-transmitting means arranged to repeatedly open and close said circuit to transmit a signal, signal-responding means including a magnet arranged in said circuit which is responsive to the breaks in said circuit to cause said means to respond, and to the closures in said circuit to restore the signal-responding means, of current-varying means normally included in the circuit, and a single means controlled by the circuit and arranged for operation upon each break to set the current-varying means in condition to increase the strength of the current, and upon each closure to restore the current-varying means to normal after a short period of time, during which time a strong energizing current is caused to flow, to energize the magnet of the signal-responding means and restore said means.

5. In an electric signal system, the combination with an electric circuit, signal-transmitting means arranged to repeatedly open and close said circuit to transmit a signal, and signal-responding means including a magnet arranged in said circuit, which is responsive to the breaks and closures thereof during the transmission of a signal, of a single means controlled by the circuit and arranged for operation upon each break thereof to reduce the resistance in the circuit, and upon each subsequent closure to increase the resistance after a short period of time, so that a stronger current is available during such short period of time to energize the magnet of the signal-responding means.

[Claims 2 to 4 and 6 to 11 not printed in the Gazette.]

1,253,002. CHICKEN EXERCISER AND FEEDER. WALTER H. COLLINS, Summit, N. J. Filed Aug. 24, 1917. Serial No. 188,054. (Cl. 119—70.)



1. A chicken feeder and exerciser comprising a cup adapted to be secured to the bottom of a container, said cup having arcuate flanged sections depending outwardly and forming a bridged opening at the bottom of the cup, a pendulum suspended from the bridge to swing between the flanges, a cup secured to the pendulum into which said flanges extend, said cup being disposed about the bridged opening of the first-mentioned cup, means associated with said second cup to control the discharge of feed therethrough, and means at the bottom of the pendulum for causing fowls to peck at it.

4. A chicken feeder and exerciser comprising a cup adapted to be secured to the bottom of a container, said cup having bridged openings in the bottom of same, a pendulum suspended from the bridge of the opening, a cup secured to the pendulum about the bridged opening of the first-mentioned cup, said second cup having side openings, a sleeve in said second cup having openings adapted to register with the side openings of the cup, said cup having a notched slot in the side thereof and an outward depression of a length substantially equal to the dented slot, a pin on said sleeve engaging the notched slot and a projection for engaging the depression of the cup, and means associated with the bottom of the pendulum for causing fowls to peck at it.

[Claims 2 and 3 not printed in the Gazette.]

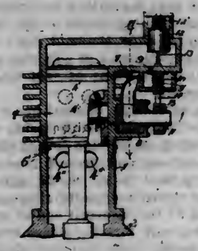
1,253,003. PUMP. HENRY H. COLSON, Chicago, Ill. Filed May 29, 1916. Serial No. 100,536. (Cl. 103—75.)



1. A pump comprising a ported barrel, a piston and piston rod slidable therein, a valve sleeve slidable on the barrel having intake and exhaust passages, the ports being arranged along the axis of the barrel in opposition to the intake and exhaust passages, and a friction driving connection between the piston rod and the valve sleeve independent of the barrel.

2. A pump comprising a ported barrel, a piston and piston rod slidable therein, a valve sleeve slidable on the barrel having intake and exhaust passages, the ports being arranged along the axis of the barrel in opposition to such intake and exhaust passages, and a friction driving connection between the piston rod and the valve sleeve independent of the barrel, such driving connection comprising a sleeve slidable upon the piston rod, and a connecting member interposed between the sleeve and the valve housing.

1,253,004. INTERNAL-COMBUSTION ENGINE. THOMAS A. CONNOLLY and JOSEPH B. CONNOLLY, Washington, D. C. Filed Oct. 4, 1917. Serial No. 194,705. (Cl. 123—65.)

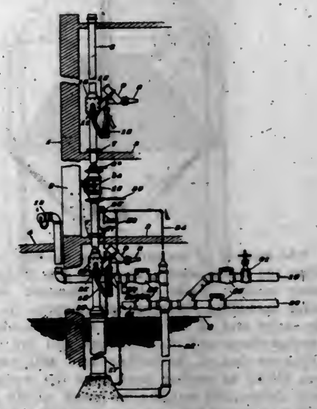


1. The combination with the cylinder and piston of an internal combustion engine having an exhaust passage leading therefrom, of a supplementary exhaust port leading from the cylinder, an exhaust valve and operative mechanism associated therewith and arranged and adapted to open the supplementary exhaust port at periodic intervals following a plurality of power strokes of the piston.

2. The combination with the cylinder and piston of an internal combustion engine having an inlet for gas and an exhaust passage, of a supplementary exhaust passage, an exhaust valve in said passage and mechanism for opening said exhaust valve after a plurality of power strokes of the piston.

3. The combination with the cylinder and piston of an internal combustion engine having a valveless exhaust passage, opened and closed by the piston, of a supplementary exhaust and means for opening the latter and further exhausting the cylinder at intervals between series of two cycle operations.

1,253,005. STAND-PIPE SYSTEM. WILLIAM F. CONRAN, Brooklyn, N. Y. Filed Mar. 26, 1917. Serial No. 157,558. (Cl. 169—18.)



1. In a stand-pipe system for buildings, the combination of a movable stand-pipe, means for moving same, hydraulically operated nozzle-valves mounted on fittings in said pipe, control-pipes and hand operated valves for controlling said nozzle-valves, said control-pipes being carried within the stand-pipe, and means for securing said control-pipes against lateral displacement, substantially as set forth.

13. In a stand-pipe system for buildings, the combination of a rotary and vertically movable stand-pipe, a hydraulic-lift for moving said pipe vertically, means for rotating the pipe, one or more nozzle-valves and nozzles carried by said pipe, means for controlling said valve or valves from a distant point, telescoping pipe sections within said lift, and a water supply connection for supplying water to the stand-pipe through said telescoping connection, substantially as set forth.

22. In a stand-pipe system for buildings, the combination with a movable stand-pipe and means for moving same, of fittings in said pipe at several points, hydraulically operated valves mounted on said fittings, nozzles mounted on said valves, said valves each having a straight waterway, a valve seat set at an angle in said waterway, a valve chamber projecting from the waterway at a corresponding angle, a piston chamber above the valve chamber having a piston attached to the valve stem, a water inlet to said piston chamber below the piston, control-pipes connected to said inlets and extending to an operating station, and hand operated valves through which said control-pipes are connected to the water supply and whereby said hydraulically operated valves are controlled, substantially as set forth.

[Claims 2 to 12, 14 to 21, and 23 to 25 not printed in the Gazette.]

1,253,006. ANCHOR. ESSEN COOK, Brooklyn, N. Y.; assignor to Bayonne Steel Casting Company, Bayonne, N. J., a Corporation of New Jersey. Filed Aug. 11, 1917. Serial No. 185,674. (Cl. 114—207.)

1. The method of forming anchors consisting in forming the shank with an enlarged wedge-shaped end, pro-

viding a recess in said wedge-shaped end, forming the head of the anchor with an enlarged center with a tapering opening extending therethrough, providing a recess communicating with the tapering opening and registering with the recess of the wedge-shaped end of the shank, and welding an insert within the inwardly enlarging opening defined by the registering recesses of the end of the shank and the anchor head.



2. The method of manufacturing anchors consisting in forming the shank with a standard size wedge-shape end, forming anchor heads with a standard size tapering opening extending therethrough adapted to receive the wedge-shape end of the anchor shank therein, providing the wedge-shape end of the shank and the walls of the tapering opening of the anchor head with registering recesses, fitting an anchor head upon the wedge-shape end of said shank, and welding an insert within the opening defined by the registering recesses of the end of the shank and anchor head.

3. An anchor consisting of a rolled steel shank and a cast steel head mounted thereon, said head and shank provided with registering recesses, and an insert welded within the opening defined by said registering recesses uniting the anchor head to the shank.

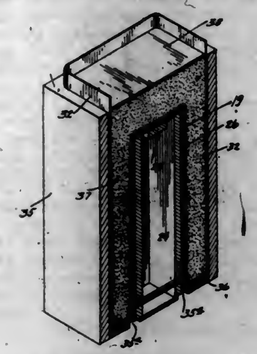
4. An anchor consisting of a shank with an enlarged downwardly and outwardly tapering end, an anchor head provided with an upwardly and inwardly tapering opening extending therethrough, the wedge-shape end of the shank and the adjacent portion of the anchor head provided with registering recesses therein, said recesses defining an opening tapering in an opposite direction to the taper of the opening of the anchor head, and an insert located within the opening defined by said registering recesses.

[Claim 5 not printed in the Gazette.]

1,253,007. PROCESS OF MAKING THERMAL BOXES. ELMER G. CORWIN, Stillwater, Minn. Filed Feb. 21, 1917. Serial No. 150,263. (Cl. 93—36.)

1. The process of making thermal boxes which consists in forming a relatively stiff inside casing, with one closed end and one open end; in forming a dust shield of a size to fit over said inside casing; in forming a relatively large outer casing and in applying the same around said shield spaced therefrom; in thereafter inserting said inside casing into said shield and in closing the end of the space between said shield and outside casing, at the open end of said inside casing; in filling the space between said shield and outside casing with a heat insulating material; and in finally applying a bottom forming blank to the open end of said outside casing and in sealing the same.

2. The process of making thermal boxes which consists in forming a relatively stiff inside casing, with one closed end and one open end; in forming a dust shield of a size to fit over said inside casing; in forming a relatively large outer casing and in applying the same around said shield spaced therefrom; in thereafter inserting said inside casing into said shield and in closing the open end of said inside casing; in filling the space between said shield and outside casing with a heat insulating material; and finally in applying a bottom forming blank to the open end of said outside casing and sealing the said end.



3. The process of making thermal boxes which consists in forming, from cardboard blanks, the walls and one end of a relatively stiff inside casing; in forming from a pliable paper blank, a dust shield of a size to fit over said inside casing; in forming a relatively large outer casing and in applying the same around said shield, spaced therefrom; in folding inward one end of said outside casing, to close the space between the same and said shield; in next forcing said inside casing into said shield; in thereafter filling the space between said shield and outside casing with a heat insulating material; and finally in applying a bottom forming blank to the open end of said outside casing and sealing the said end.

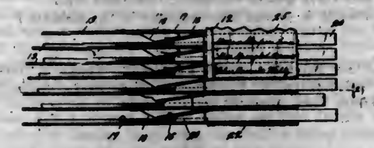
4. The process of making thermal boxes which consists in forming, from cardboard blanks, the walls and one end of a relatively stiff inside casing; in forming from a pliable paper blank, a dust shield of a size to fit over said inside casing; in forming a relatively large outer casing and in applying the same around said shield, spaced therefrom; in folding inward one end of said outside casing, to close the space between the same and said shield; in next forcing said inside casing into said shield; in thereafter filling the space between said shield and outside casng with a heat insulating material; and finally in applying a bottom forming blank to the open end of said outside casing and sealing the said end; the steps above including also the application of adhesive material, whereby the engaged edge portions of said blanks are permanently stuck together.

5. The process of making thermal boxes which consists in forming a relatively stiff inside casing around a forming block; in forming an outside casing around a forming sleeve, and bending one end thereof over one end of said sleeve; in forcing said inside casing and forming block into said forming sleeve and positioning said inside casing with its open end at the inturned end of said outside casing; then removing said forming sleeve from between said casings while leaving said forming block in position; and then filling the space between said casings with a heat insulating material; in closing and sealing the end of said outside casing to complete the box; and finally withdrawing said forming block from said inner casing.

[Claims 6 and 7 not printed in the Gazette.]

1,253,008. RECORD-CABINET. FRANK COSS, Greencastle, Ind. Filed May 14, 1917. Serial No. 168,404. (Cl. 211—16.)

1. A record cabinet, comprising a casing having a forwardly slanting floor, a stop member at the forward part of such floor, a plurality of vertical partitions providing individual compartments for record disks between them, and releasable laterally-acting spring-pressed members cooperating with said partitions for holding record disks in the compartments formed thereby.



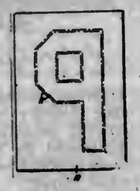
4. A record cabinet, comprising a casing having a forwardly slanting floor, a plurality of vertical partitions providing individual compartments for record disks between them, a swinging leaf mounted at the forward end of each partition and spring-pressed toward the adjacent partition to form a gripping member to hold a record disk in the compartment between such two partitions, and a series of discharge keys for separating the respective swinging leaves from the partitions toward which they are pressed so as to release the record disks, each of said keys including a wedge-shaped member mounted so that it can be pushed in between the associated swinging leaf and the partition toward which it is spring-pressed.

5. A record cabinet, comprising a casing having a forwardly slanting floor, a plurality of vertical partitions providing individual compartments for record disks between them, a swinging leaf mounted at the forward end of each partition and spring-pressed toward the adjacent partition to form a gripping member to hold a record disk in the compartment between such two partitions, a series of discharge keys for separating the respective swinging leaves from the partitions toward which they are pressed so as to release the record disks, and a fabric covering on the record-engaging faces of said partitions and swinging leaves, such fabric covering forming the hinge mounting between the leaves and the partitions on which they are respectively mounted.

7. A record cabinet, comprising a casing having a forwardly slanting floor, a plurality of vertical partitions providing individual compartments for record disks between them, a swinging leaf mounted at the forward end of each partition and spring-pressed toward the adjacent partition to form a gripping member to hold a record disk in the compartment between such two partitions, a series of discharge keys for separating the respective swinging leaves from the partitions toward which they are pressed so as to release the record disks, and a fabric covering on the record-engaging faces of said partitions and swinging leaves, said fabric having a rearward extension beyond the rear edge of each swinging leaf, which edge is attached to the adjacent face of the partition on which such swinging leaf is mounted.

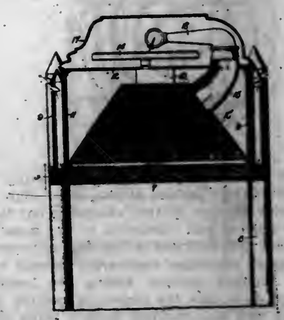
[Claims 2, 3, and 6 not printed in the Gazette.]

1,253,009. METHOD OF FORMING DIES FOR SIGN CHARACTERS. MELVIN CREIGHTON and ANDREW W. DIXON, Rensselaer Falls, N. Y. Filed Mar. 30, 1917. Serial No. 158,697. (Cl. 76—107.)



The herein described method of forming coöperating male and female die members comprising the following steps; first outlining by parallel lines a character on the face of a blank plate of uniform thickness; secondly cutting out the metal between the parallel lines, and thirdly mounting the male and female portions on bases in such a manner as to provide the same alinement for these parts as originally positioned in the blank.

1,253,010. CABINET TALKING-MACHINE. HOWARD D. DARLINGTON, Dayton, Ohio. Filed Nov. 3, 1916. Serial No. 129,311. (Cl. 274—2.)



1. The combination of a tapered amplifying chamber closed at one end, and a plurality of sound pipes of different lengths rising from the closed end of said chamber.

2. In combination with the upwardly-tapering amplifying closed chamber of a talking machine, a plurality of sound pipes connected to said chamber near the bottom thereof so that the sound waves must travel through said pipes.

3. A cabinet for talking machines comprising an upwardly-tapering amplifying chamber, a housing surrounding the amplifying chamber, a shallow chamber in communication with the bottom of the amplifying chamber, and sound pipes rising from said shallow chamber about the housing.

4. A cabinet for talking machines comprising tubular standards, a shallow chamber in communication with said standards nearer to the top thereof, an upwardly tapering amplifying chamber supported by the shallow chamber and in communication therewith, the upper portion of said standards constituting sound pipes, a housing resting on the shallow chamber and inclosing said amplifying chamber, and a plurality of sound pipes supported by said shallow chamber and in communication therewith disposed about said housing.

1,253,011. CEMENT. BRUCE C. DAVEY, Chicago, Ill. Filed Mar. 11, 1916. Serial No. 83,565. (Cl. 106—29.)

2. A new composition of matter comprising calcined magnesite, sand, long- and short-fiber asbestos, the latter in sufficient quantity to make it work easy, chlorid of magnesium and particles of cork of about 20 mesh.

[Claim 1 not printed in the Gazette.]

1,253,012. AUTO-LENS. FRIEND E. DILLON, Wheeling, W. Va., assignor, by mesne assignments, to The Dillon Lens & Manufacturing Company, Bridgeport, Ohio, a Corporation of Ohio. Filed Sept. 30, 1915. Serial No. 53,237. (Cl. 240—48.4.)

1. A circular lens of the class described having a central circular bull's-eye portion of clear glass, a bulbous portion extending out in front of said bull's-eye portion, said bulbous portion having an inwardly extending inclined portion around said bull's-eye portion and connecting with the same, and said inclined portion having the upper portion thereof of clear glass, with the remaining portion of the same and said bulbous portion translucent.

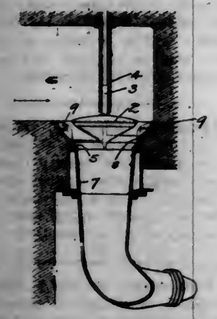
2. A circular lens of the class described having a central circular bull's-eye portion, a bulbous portion extending around and in front of the same, a semi-circular portion of clear glass within said bulbous portion and above said bull's-eye, and the remaining portion of said bulbous portion translucent.



3. A circular lens of the class described having a supporting annular flange portion at the outer edge of the same, an annular bulbous portion extending out in front of said flange portion and connected to the same by an annular inclined portion, and a central bull's-eye portion of clear glass extending rearwardly of said bulbous portion, said inclined portion having its lower face formed of clear glass, and the remaining portion of said bulbous portion and said inclined portion being translucent.

4. A circular lens of the class described having an annular supporting flange portion at the outer edge of the same, an annular bulbous portion extending out in front of said flange portion, an annular central bull's-eye portion of clear glass extending rearwardly of said bulbous portion, annular inclined portions connecting said bulbous portions with said flange and with said bull's-eye, said first-named inclined portion having its lower portion of clear glass, and said second named inclined portion having its upper portion of clear glass, and the remaining portion of said bulbous portion and said inclined portions being translucent.

1,253,013. VALVE. WILLIAM A. DOBLE, San Francisco, Cal., assignor to Pelton Water Wheel Company, San Francisco, Cal., a Corporation of California. Filed Nov. 20, 1916. Serial No. 132,255. (Cl. 137—4.)



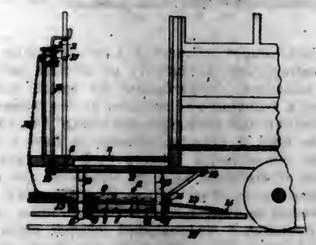
1. In a valve structure for the control of fluids, a valve seat, a valve movable to engage and disengage said seat and means for causing the flow of fluid between said valve and said seat to exert unequal pressures upon said valve transversely of its line of movement.

3. In a valve structure for the control of fluids, a valve seat, a valve movable perpendicularly in respect of said seat, and a wall of less height than the stroke of said valve partly surrounding said valve and in sliding engagement therewith, whereby unequal pressures are exerted by said fluid upon said valve transversely of its line of movement.

5. In a valve structure, a valve seat, a valve movable perpendicularly in respect of said seat, a wall partly surrounding said valve and in sliding engagement therewith and valve guides extending from said wall.

[Claims 2, 4, 6, and 7 not printed in the Gazette.]

1,253,014. RAILWAY-CAR FENDER. TERENCE DOUGHERTY, Brooklyn, N. Y. Filed Sept. 6, 1917. Serial No. 190,008. (Cl. 105—33.)

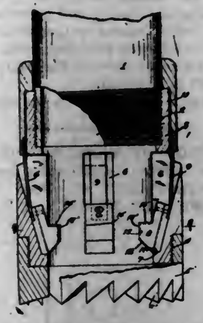


1. In a fender for railway cars, the combination of a plurality of pads arranged normally at an angle to each other, toggle link devices connecting the adjacent edges of the pads, means pivotally supporting the lower pad providing for tilting movement thereof downwardly in front and out of normal horizontal position when the toggle links are broken, and means acting upon the toggle links to hold them rigid preventing the tilting of the lower pad.

4. In a fender for railway cars, the combination of a pad, an endless power element movable in a horizontal plane at the rear of said pad, a bar extending between the power element and the pad, and means to operate the power element from the platform so as to draw the pad rearwardly beneath the platform or move it forwardly into operative position.

[Claims 2 and 3 not printed in the Gazette.]

1,253,015. COMBINATION OVERSHOT ROTARY MILLING-CUTTER. DENNIS L. DRISCOLL, Coalinga, Cal., assignor of one-half to Bunting Iron Works, Coalinga, Cal., a Corporation of California. Filed Oct. 8, 1917. Serial No. 195,266. (Cl. 255—72.)



1. A tool for the described purpose comprising a tubular body, a milling cutter secured to the lower end thereof, and a plurality of vertically movable engaging blocks carried by and projecting beyond the inner surface of said body, each of said blocks provided with a cutting surface on the inner exposed face thereof.

3. A tool for the described purpose, comprising a tubular body provided with a plurality of vertically disposed guide slots converging at their lower ends, and a vertically movable block positioned within each of said slots and each formed on its inner exposed face with a cutting surface.

5. A tool for the described purpose comprising a tubular body formed with a plurality of vertically disposed guide slots converging at their lower ends, a block vertically movable within each of said guide slots and provided with a cutting edge for extending beyond the inner wall of said body, an annular member movable vertically of said body, a connection extending longitudinally of said guide slot and uniting each of said blocks with said vertically movable member whereby said blocks will move in unison, and a rotary milling cutter secured to the lower end of said tubular body with its cutting faces providing the lower annular wall surface of said tool.

[Claims 2, 4, and 6 not printed in the Gazette.]

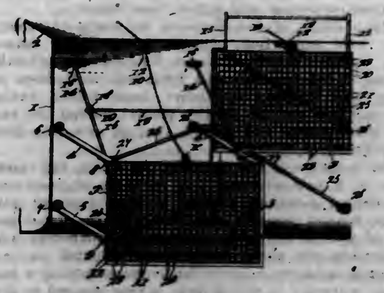
1,253,016. SNAP-FASTENING FOR GARMENTS, &c. HARRY EDELSON, Philadelphia, Pa., assignor to Regal Button Works, Inc., Philadelphia, Pa., a Corporation of New York. Filed Feb. 26, 1917. Serial No. 150,919. (Cl. 24—216.)



2. In a fastening of the order of a snap, a socket member formed of a tubular body having a closed end, and a base plate having a circumferential struck-up edge and adapted to carry the same, said body having in its side wall longitudinally-extending divisions forming separated sections in said wall providing for the resiliency of said body, and said plate having therein divisions extending from the inner end of said body toward the rim of the plate and being in communication with those of the body forming separate sections in said plate providing for the resiliency of the latter.

[Claim 1 not printed in the Gazette.]

1,253,017. PROTECTION OF VESSELS AGAINST TORPEDOES AND MINES. JOHN D. EHRLICH, Berwick, La. Filed June 12, 1917. Serial No. 174,298. (Cl. 114—240.)

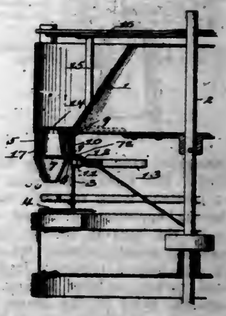


1. A device of the character described including guard means movable to and from an operative and an inoperative position, means for shifting said guard means, and means unlocked by said guard-shifting means for holding said guard means against accidental displacement from the operative position, substantially as described.

4. A protector for ships including a series of units, hinged arms supporting said units, pairs of braces having shoulders adapted to abut and lock the units in an operative position, rods forming the toggle centers for said braces, and means for hoisting said units passing beneath said rods to first break the toggle joint when a lifting pull is applied, substantially as described.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,253,018. FILLING-MACHINE. FREDERICK J. ENGLEN, South Omaha, Nebr. Filed Aug. 13, 1915. Serial No. 45,418. (Cl. 226—9.)



1. In a can filling apparatus, in combination, a revolving reservoir, an annular can platform or ledge revoluble therewith, a plurality of discharge members projecting from said reservoir, spring closed valves normally closing the discharge ends of said members and movable horizontally across said discharge ends, and a fixed arcuate cam bar arranged below said reservoir and extending through a fraction of a circle, said valves having horizontal lever arms for engagement with said cam bar and being opened in consequence of such engagement.

2. In a can filling apparatus, in combination, a revolving reservoir, a plurality of discharge members projecting from said reservoir, valves normally closing the discharge ends of said members and movable horizontally across said discharge ends, and a hopper inclosing each discharge member and having a horizontal slot through which the valve of said member is movable.

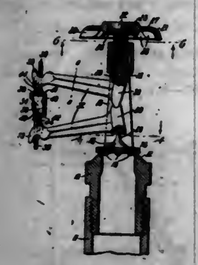
3. In a can filling apparatus, in combination, a revolving reservoir, an annular can platform or ledge, hangers supporting said platform or ledge from and below said reservoir, a plurality of discharge members projecting from said reservoir, valves normally closing said discharge members, and horizontally movable across their discharge ends, said valves having lever arms, springs connected to said lever arms and to said hangers and acting to hold said valves closed and a fixed arcuate cam bar arranged below said reservoir and extending through a fraction of a circle for engagement with said lever arms to effect the opening of said valves.

4. In a can filling apparatus, in combination, a revolving reservoir, an annular can platform or ledge, hangers supporting said platform or ledge from and below said reservoir, a plurality of discharge members projecting from said reservoir, valves normally closing said discharge members, springs connected to said hangers and acting to hold said valves closed, and an annular frame arranged above said platform or ledge and secured to said hangers, said frame having can receiving depressions.

5. In a can filling apparatus, in combination, a revolving reservoir, an annular can platform or ledge revoluble therewith, a plurality of discharge members projecting from said reservoir, valves having pivotal supports externally of said discharge members and movable horizontally across the ends of said discharge members said valves having springs which effect their normal closure and having horizontal lever arms beyond their pivots and a fixed arcuate cam bar arranged below said reservoir and extending through a fraction of a circle for engagement with said lever arms to effect the opening of said valves.

[Claim 6 not printed in the Gazette.]

1,253,019. AUTOMATIC SPRINKLER-HEAD. FRANCIS JOSEPH FEE, New York, N. Y. Filed Feb. 21, 1916. Serial No. 79,561. (Cl. 236—16.)

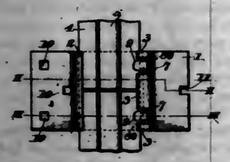


1. The herein described tension member for an automatic sprinkler head, the same comprising a pair of plates having flat portions lying squarely against each other and also having oppositely arranged depressions forming a cavity in the central portion only of the member, a wedge-shaped rocker member housed entirely within said cavity and spaced inwardly from all edges of the plates, said rocker member having its active faces lying on opposite sides of the plane of contact between the flat portions of the plates, and solder extending entirely around and spaced from said cavity and rocker and sealing all the meeting edges of the plates.

2. The herein described tension member for an automatic sprinkler head, the same comprising a pair of plates having flat portions in direct contact with each other, one of the plates having a depression whose bottom is parallel to the plane of contact between the plates, the other plate also having a depression communicating with the first mentioned depression forming a cavity, a rocker fitted in said cavity and having direct contact with the plates at the ends of said cavity, said rocker being of substantially right angled triangular form in vertical cross section and having its base fitted squarely in the bottom of the first mentioned cavity, and fusible metal serving to normally lock the plates together.

[Claim 3 not printed in the Gazette.]

1,253,020. RAIL-CHAIR. WILLIAM L. FINNE, Elizabeth, N. J. Filed June 12, 1917. Serial No. 174,381. (Cl. 238—2.)

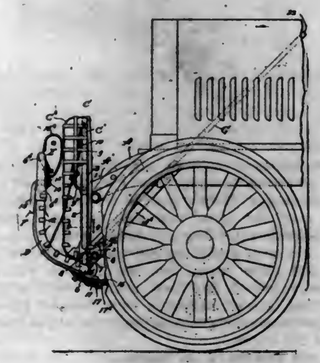


1. A rail chair comprising an integral plate having integral flanges adapted to overlap the opposite edges of the base of a rail, one flange being undercut sufficiently to permit the base of the rail to be inserted in an inclined position between said flanges, there being openings through the plate and the undercut flange in line with one edge of the base of the rail when the other edge thereof is engaged with the opposite flange, and means arranged in said openings for retaining the base of the rail against lateral movement in engagement with said latter flange.

2. A rail chair comprising an integral plate having integral flanges adapted to overlap the opposite edges of the base of a rail, one flange being undercut sufficiently to permit the base of the rail to be inserted, when in an inclined position, between said flanges, there being openings through the plate and undercut flange in line with one edge of the base of the rail when the other edge thereof is engaged with the opposite flange, and spikes arranged in said openings for retaining the base of the rail against lateral movement and in engagement with latter flange, the heads of said spikes being below the upper surface of the undercut flange for the purpose specified.

3. A rail chair comprising an integral plate having integral flanges adapted to overlap the opposite edges of the base of a rail, each flange extending to both sides of the median line of the chair transversely of the rail, one flange being undercut and having a notch in the top of the plate arranged below it to permit the base of the rail to be inserted, when in an inclined position, between said flanges, and means for holding the rail in engagement with the other flange.

1,253,021. FENDER FOR AUTOMOBILES, &c. WILLIAM FONGER, Chicago, Ill., assignor to Fonger Fender Company, Chicago, Ill., a Corporation of South Dakota. Filed Feb. 20, 1917. Serial No. 149,834. (Cl. 105—252.)



1. In a device of the character set forth, the combination with supporting members, of an upper fender-frame having its lower portion pivotally supported thereon, a lower fender-frame having its rear portion pivotally connected with said supporting members, and a counterbalancing spring connecting said lower fender-frame with the upper portion of said upper fender-frame.

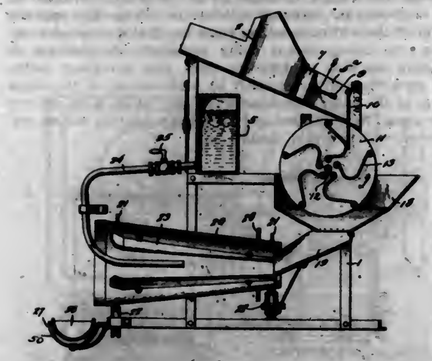
3. In a device of the character set forth, the combination with supporting members, of an upper fender-frame carried thereby, a lower fender-frame pivotally mounted at its rear end, and worm-gear mechanism for raising and lowering the lower fender-frame, having a worm-wheel secured to the pivotal portion of said lower fender-frame, and having, also, an actuating shaft equipped with a handle.

8. In a device of the character set forth, the combination of a pair of supporting members of goose-neck form having depending vertical portions equipped with fittings, bracket-members connected with the upper portions of said members, bracket-members connected with said fittings, an upper fender-frame mounted on said supporting members, a lower fender-frame having a rear member journaled in said fittings, a gear secured to said rear member, and actuating means for said gear, including an inclined shaft equipped at its upper end with a hand-wheel.

15. In a device of the character set forth, the combination with a fender-frame, of a rearwardly and downwardly reversible fender pivotally mounted in the front portion of said frame and equipped at its normally front edge with a socket, reversing mechanism for said fender, including an actuating spring, a trip-device and a flexible connection between said spring and said fender, and a spring-projected bolt carried by said frame and adapted to enter said socket and positively lock the fender against turning in either direction after reversal.

[Claims 2, 4 to 7, and 9 to 14 not printed in the Gazette.]

1,253,022. FEED-REGULATOR FOR CONCRETE-MIXERS. MARQUIS C. FORD, Denver, Colo. Filed Dec. 20, 1916. Serial No. 138,006. (Cl. 83—44.)



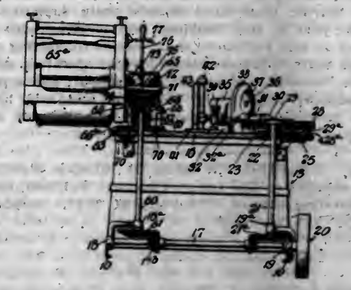
1. In feed regulating means, the combination of an inclined hopper for gravel or broken stone having a discharge orifice at its lower end and also having a pendent, normally-vertical swinging door for controlling the passage of gravel or comminuted stone through said orifice; said door extending below said hopper and orifice, and a rotary deliverer arranged below said hopper and orifice and receiving said pendent door and having buckets to receive gravel or comminuted stone from the hopper and deliver the same successively; the said buckets being arranged to intersect the plane of the pendent door and to open and pass the latter.

2. The combination in feed regulating means, of a suitably supported shaft, rotatable about its axis, a rotary deliverer loosely mounted on said shaft, means connected with the shaft and deliverer and constructed and arranged to adjustably fix each with respect to the other, and a rotary deliverer arranged alongside the first-named deliverer and comprising a cylinder fixed to the latter and having openings in its circular wall and also having radial walls fixed to said circular wall, end walls fixed on the shaft and arranged in said circular wall, and radial walls fixed to said end walls and opposed to the radial walls on the circular wall.

3. The combination in feed regulating means, of a suitably supported shaft, rotatable about its axis, a rotary deliverer loosely mounted on said shaft, means connected with the shaft and deliverer and constructed and arranged to adjustably fix each with respect to the other, and a rotary deliverer arranged alongside the first-named deliverer and comprising a cylinder fixed to the latter and having openings in its circular wall and also having radial walls fixed to said circular wall, end walls fixed on the shaft and arranged in said circular wall, and radial walls fixed to said end walls and opposed to the radial walls on the circular wall, and having curvilinear lips disposed in parallel relation and adjacent to the circular wall of the cylinder.

4. The combination in feed regulating means, of a rotary deliverer, a second rotary deliverer arranged alongside the first-named deliverer and comprising a cylindrical portion having openings in its circular wall, means in the cylindrical portion and in communication with said openings forming buckets, said buckets being adjustable as to size, and means connected with said means in the cylindrical portion and extending loosely through and connected with the first-named deliverer and constructed and arranged to adjustably fix the size of the buckets in the second-named deliverer.

1,253,023. OPERATING-GEAR FOR WASHING-MACHINES. WILLIAM H. GEORGE, Fairfield, Iowa, assignor to The Dexter Company, Fairfield, Iowa, a Corporation of Iowa. Filed Feb. 5, 1917. Serial No. 146,646. (Cl. 74—50.)



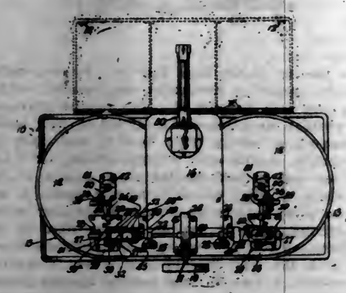
1. In a gearing of the kind described, in combination with a main support, a horizontal supplemental support hinged to said main support to swing about a horizontal axis, an upright operating shaft carried by said supplemental support, a bearing plate fixed to said main support, an upright, continuously rotating driving shaft journaled at one end in said bearing plate, a gear on said upright shaft, a stud on said bearing plate, a gear mounted on said stud and meshing with the gear on said upright driving shaft, a bearing bracket fixed to said supplemental support, a horizontal shaft journaled in said to mesh with the gear on said stud, means operatively bearing bracket, a gear on said bearing bracket adapted to mesh with the gear on said stud, means operatively connecting the gear on said bearing bracket with the associated horizontal shaft, and means operatively connecting said horizontal shaft with said upright operating shaft.

2. In a gearing of the kind described, in combination with a main support, a horizontal supplemental support hinged to said main support and adapted to swing about a horizontal axis, an upright operating shaft carried by said supplemental support, a bearing plate fixed to said main support, an upright, continuously rotating driving shaft journaled at one end in said bearing plate, a gear on said upright driving shaft, a stud on said bearing plate, a gear on said stud and meshing with the gear on said upright driving shaft, a cover plate fixed to said main support and inclosing the gear on said stud, said cover plate having an ear, a bearing bracket fixed to said supplemental support and having an ear hinged to said ear on said cover plate and forming a part of the hinged connection between said main support and said supplemental support, a horizontal shaft journaled in said bearing bracket, a gear on said bracket plate adapted to mesh with the gear on the stud on said bearing plate fixed to said main support, means operatively connecting the gear on said bearing bracket with the associated horizontal shaft, means operatively connecting said horizontal shaft with the said upright operating shaft, and hinge members fixed to said main support and said supplemental support and forming the other part of the hinged connection between said main support and said supplemental support.

3. In a gearing of the kind described, in combination with a main support, a supplemental support hinged to said main support to swing about a horizontal axis, an upright operating shaft carried by said supplemental support, a bearing plate fixed to said main support, an upright, continuously rotating, driving shaft journaled at one end in said bearing plate, a gear on said upright driving shaft, a stud on said bearing plate, a gear on said stud and meshing with the gear on said upright driving shaft, cover plates fixed to said main support and inclosing the gears on said upright driving shaft and on said stud, one of said cover plates having a pair of spaced ears, a bearing bracket fixed to said supplemental support and having an

car engaged between and hinged to the spaced ears on said cover plate, a horizontal shaft journaled in said bearing bracket on said supplemental support, a bevel gear on said shaft, a stud on said bearing bracket, a combined spur and bevel gear mounted on said stud, the spur gear part of said combined gear meshing with the gear on the stud on said bearing plate fixed to said main support, the bevel gear part of said combined gear meshing with the bevel gear on said horizontal shaft, means connecting said horizontal shaft to the associated upright operating shaft, and hinge members fixed to said main support and supplemental support respectively, said ears and said hinge members providing the hinged connection between said main support and said supplemental support.

1,253,024. GEARING. WILLIAM H. GEORGE, Fairfield, Iowa, assignor to The Dexter Company, Fairfield, Iowa, a Corporation of Iowa. Filed May 31, 1917. Serial No. 171,823. (Cl. 74—14.)



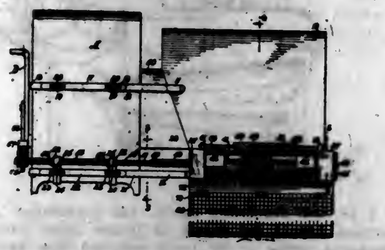
1. In a gearing of the kind described, in combination with a main support, a normally horizontal supplemental support, hinged to said main support and adapted to be raised into a substantially upright position, a driven shaft journaled on said main support, a clutch member loosely mounted on said shaft, an operating shaft journaled in said supplemental support and operatively connected to said clutch member, a second clutch member keyed to said driven shaft and normally engaged with said first mentioned clutch member, and means on said supplemental support associated with one of said clutch members adapted in the raising movement of said supplemental support to disengage the associated clutch member from the other clutch member.

2. In a gearing of the kind described, in combination with a main support, a normally horizontal supplemental support hinged to said main support and adapted to be raised into a substantially upright position, a driven shaft journaled on said main support, a clutch member loosely mounted on said shaft, an operating shaft journaled in said supplemental support and operatively connected to said clutch member, a second clutch member keyed to said driven shaft, a spring normally holding said keyed clutch member in engagement with said loose clutch member, a sleeve mounted on said keyed clutch member, a spiral rib on said sleeve, and means on said supplemental support normally engaged with the spiral rib on said sleeve, said means being adapted in the raising movement of said supplemental support to impart a shifting movement to said sleeve and associated clutch member on said shaft, to disengage said clutch member from the loose clutch member on said shaft, against the action of said spring, said spring returning said sleeve and clutch member to their normal positions during the lowering movement of said supplemental support.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,253,025. CHECK-INDORSING MACHINE. RUDOLPH H. GLADWILL, Ada, Okla., assignor to Patent Holding Company, Ada, Okla., a Corporation of Oklahoma. Filed Apr. 5, 1917. Serial No. 159,992. (Cl. 101—241.)

1. An indorsing machine of the class described, comprising rotary indorsing means, drive means therefor including a drive shaft extending laterally at a side of the machine, clamp means secured to the indorsing machine and extending laterally therefrom at the same side as the drive shaft, said clamp means having a member to engage an adding machine along the side thereof adjacent to the indorsing machine, the said member terminating in a lateral bend to engage the adding machine at the front, the clamp means including also a member to range across the adding machine at the back and terminating in a forwardly disposed member to engage the opposite side of the adding machine from the first-mentioned member, the clamp means being adjustable to conform to adding machine of different sizes, and actuating means to turn the said drive shaft by a movement of the crank arm of the adding machine when said clamp is in position on the adding machine and with the actuating means connected with the said crank arm.



2. An indorsing machine of the class described comprising rotary indorsing means, drive means therefor including a drive shaft extending laterally at a side of the machine, clamp means secured to the indorsing machine and extending laterally therefrom at the same side as the drive shaft, said clamp means including upper and lower elements adapted to engage the adding machine, bearings for said shaft, said bearings being carried by the lower clamp means, and means to actuate said shaft by the crank arm of the adding machine when the clamps are secured in position thereon.

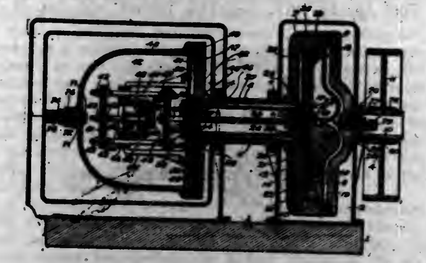
3. An indorsing machine of the class described, comprising rotary indorsing means, drive means therefor, including a drive shaft formed in sections, clutch elements on said shaft sections, the clutch elements having a single tooth engagement to permit a reverse movement of one relatively to the other through a complete revolution, and stop means to arrest the indorsing means and prevent retrograde movement thereof, said stop means including a member turning with the indorsing means, a spring yieldable to the said member, and a second spring yieldable to a movement of said member in one direction acting to arrest reverse movement thereof, said member being adapted to be accommodated between the two springs.

4. An indorsing machine of the class described, including rotary indorsing means, means to turn the indorsing means, a chute supported on the machine above the rollers to direct checks to the latter, a leaf at the top of the chute and leading to one wall thereof, and a slide beneath the said leaf and movable across the chute to cut off the latter and constitute an extension of the leaf.

1,253,026. CENTRIFUGAL REFRIGERATING-MACHINE. VICTOR J. GOETZ, Philadelphia, Pa. Filed June 10, 1915. Serial No. 33,250. (Cl. 62—115.)

1. A centrifugal refrigerating machine, having intercommunicating high and low pressure chambers to receive the refrigerating and the compressing mediums, and an aspirator operated by centrifugal force on the compressing medium to continuously aspirate the gaseous portion of the refrigerating medium from the low pressure chamber to the high pressure chamber and change it to a liquid.

8. A centrifugal refrigerating machine, comprising a water tank, a chamber to be cooled, a casing having a compression chamber located within said tank and an expansion chamber located in the chamber to be cooled, a stationary member within said chambers and having a disk within the compression chamber with ports near its outer periphery, an annulus spaced from said disk and having its inner portion rounded and its outer portion connected to said disk, a nozzle communicating with the expansion chamber and projecting into the compression chamber in proximity to the rounded portions of said disk, means to rotate the casing to cause the centrifugal action on the compressing medium to effect passage of the refrigerating medium through said nozzle, and means to control the passage of refrigerant from the compression chamber to the expansion chamber.



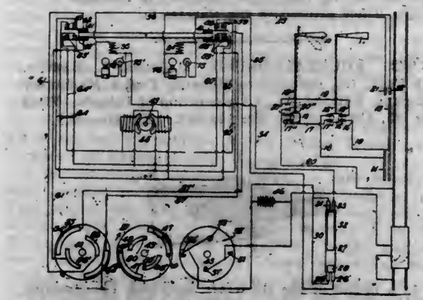
10. A centrifugal refrigerating machine, comprising a rotatable casing, an inner stationary member, antifriction devices between said casing and member, and means to pass the compressing medium to said bearings to effect the lubrication thereof.

16. A centrifugal refrigerating machine, having intercommunicating high and low pressure chambers to receive the refrigerating and the compressing mediums, and means to aspirate the gaseous portion of the refrigerating medium from the low pressure chamber to the high pressure chamber.

19. A centrifugal refrigerating machine comprising a rotatable casing having a compression chamber and an expansion chamber, an aspirator comprising a nozzle concentrically located and in communication with said chamber, and a restricted passage surrounding said nozzle, and a stationary member within said casing having a passage therethrough extending from said restricted passage to a point farther from the axis of the casing.

[Claims 2 to 7, 9, 11 to 15, 17, 18, and 20 to 23 not printed in the Gazette.]

1,253,027. TRAIN CONTROL. JOSEPH W. GRIFFIN, New York, N. Y., and FRANCIS M. MCHUGH, Weehawken, N. J. Filed Oct. 4, 1915. Serial No. 53,966. (Cl. 246—58.)



1. In a train stop, a vehicle having propelling means, a signal, a contact, a shoe carried by the vehicle for engaging the contact, an open circuit, a switch controlled by the signal for closing the circuit through the shoe, a relay in the circuit, motive-power supply means for the propelling means of the vehicle, an electric motor, a circuit therefor, motion-transmission means from the motor to the motive-power controlling means, a pole-changing switch operable by the relay, and a switch between the pole-changing switch and the motor operable by the movement of the motor for controlling the rotation of the motor armature, said latter switch having means for controlling the current of the first circuit to the relay.

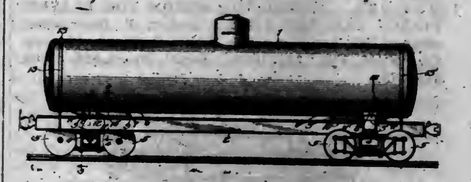
11. A train-stop mechanism comprising,—a valve casing, valves in the casing, a cam shaft for operating said valves, means associated with said valves for causing the operation thereof when said shaft revolves in a predetermined direction, an electric motor for revolving said shaft, a circuit therefor, a pole-changing switch in the circuit for reversing the motor, a rotary switch operable by the motor in the circuit between the pole-changing switch and the electric motor for controlling the rotation of the motor armature, a solenoid for operating the pole-changing switch, an open circuit therefor, and a switch controlled by the rotary switch for bringing the solenoid into the open circuit.

14. In a train stop, a signal, a contact, a shoe for engaging the contact carried by the train, an open circuit, a switch for closing the circuit controlled by the signal, a relay, a switch controlling the circuit to the relay, electro-motive means for cutting off the motive power of the train and operating said relay switch, and means controlling the electro-motive means operable by the relay.

16. In a train stop, a brake system including a train line, a valve casing connected to the train line, valves in said valve casing, a cam shaft for operating said valve successively, an electric member for revolving said cam shaft, electrically-operable means for reversing the direction of rotation of the member, a block signal, open circuits for the electrically-operable means, and switches for closing the circuits operable by the block signals.

[Claims 2 to 10, 12, 13, and 15 not printed in the Gazette.]

1,253,028. TANK-CAR. HENRY P. GROHN, Chicago, Ill., assignor to Charles A. Shoemaker, Chicago, Ill. Filed Oct. 28, 1915. Serial No. 58,334. (Cl. 105—264.)

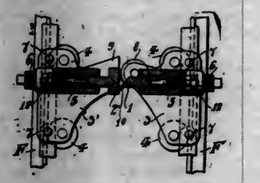


A tank car structure including wheel trucks at its ends; an underframe having body bolsters swingingly supported upon said trucks; a tank; transverse flanges depending from the bottom of the tank and between which one of said body bolsters is snugly received to prevent longitudinal movement of the tank at said body bolster in both directions; and a seat for the tank at the other end of the car upon which the tank may slide to permit of its expansion and contraction.

1,253,029. PULP AND WASTE REMOVING AND FIBER-CLEANING MACHINE. WINFIELD S. GROVE, Manila, Philippine Islands. Filed Mar. 16, 1915. Serial No. 14,855. (Cl. 13—18.)

1. An apparatus of the class described, comprising a set of opposing stock-engaging members, a set of opposing carriages in which said set of stock-engaging members are movably mounted, a track along which said carriages move in engagement therewith, means carried by said carriages for forcing said opposing stock-engaging members toward each other, and means between each of said opposing stock-engaging members and its carriage for

retaining the proper stock-engaging member in place on its carriage, said opposing carriages being provided with means which engage each other whereby the carriages will be prevented from approaching each other beyond a certain limit.



2. In a machine of the class described, opposing stock-engaging members or decorticating tools, a set of carriages for said members, each carriage of said set carrying one of said stock-engaging members or decorticating tools, tracks on which said carriages move in engagement therewith, and means on said set of carriages for preventing said carriages from approaching each other beyond a certain distance.

7. A machine of the class described comprising tracks, a knife member and an opposing resisting member which together constitute a set of decorticating tools, said members having provided between them stops for preventing them from approaching each other beyond certain limits, said set of decorticating tools being movable along the space between said tracks and the construction being such that said tracks receive the outward thrust of said decorticating tools.

8. In a machine of the class described track members, a set of carriages movable along said track members, opposing stock-engaging members or decorticating tools, one of said decorticating tools being on one of the carriages and the other of said decorticating tools being on the other of said carriages, and stops between said opposing tools whereby said tools will be retained in a certain spaced relation relative to each other.

[Claims 3 to 6 and 9 to 11 not printed in the Gazette.]

1,253,030. PNEUMATIC ACTION FOR PLAYER-PIANOS AND THE LIKE. ADOLPH P. GUSTAFSON, Chicago, Ill., assignor to M. Schulz Company, Chicago, Ill. Filed Feb. 16, 1915. Serial No. 8,525. (Cl. 84—178.)



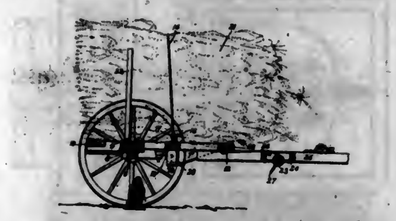
1. The combination of a wind chamber, a pneumatic associated therewith, the wall of said pneumatic adjacent said wind chamber having formed in it a valve chamber containing a valve and provided with a port communicating with the wind chamber and also provided with an air port on the opposite side of said valve chamber, said wall being provided with an air passage extending from said air port to an exposed portion of said pneumatic and opening there to the atmosphere, said wall also having formed in it a passage which opens into the interior of the pneumatic and communicates with the interior of said valve chamber at opposite sides thereof.

2. A power pneumatic having walls one of which is movable, a valve chamber formed in one of its walls, said wall being also provided with an air passage provided with a port opening into the bottom of said valve chamber, said wall being also provided with a wind passage for the pneumatic opening into said valve chamber at one side of the space occupied by the valve.

3. The combination of a wind chamber and a valve chamber associated therewith, said valve chamber having a port opening into said wind chamber, and also having an air port at the opposite side of said first mentioned port, said valve chamber being also provided with a wind passage opening into the valve chamber at one side of said air port the axis of said last mentioned wind passage being substantially in alinement with the axis of the valve chamber.

[Claims 4 to 10 not printed in the Gazette.]

1,253,031. SHOCK-LOADER. GUY HACKLEY, Aholt, Mo. Filed Apr. 10, 1917. Serial No. 160,997. (Cl. 214—2.)



1. In a shock loader, a transverse axle, wheels on the axle, a frame, two U-shaped members disposed around the axle with their terminals secured to the frame, the distance between the axle and the rear of the frame being less than the distance between the axle and the periphery of the wheels so that the frame may be rocked rearwardly, downwardly and forwardly to a horizontal position under the axle, two posts secured to the axle one at each side of the frame, a tongue secured to the axle and extending forwardly therefrom, and means to bind the shock to the frame and to move the frame relatively to the axle.

3. In a shock loader, an axle having supporting wheels, a frame, two U-shaped members disposed around the axle with their terminals secured to the frame, the distance between the axle and the rear of the frame being less than the distance between the axles and the periphery of the wheels so that the frame may be rocked rearwardly, downwardly and forwardly to a horizontal position under the axle, a windlass mounted on the frame, a rope secured to the windlass, and having an end which may be disposed around a shock when the frame is tilted rearwardly, the rope being adapted to be secured to the frame so that when the windlass is operated the shock will be bound to the frame, a tongue secured to and extending forwardly from the axle, and means secured to the frame and including a windlass mounted on the tongue for moving the frame relatively to the axle.

[Claim 2 not printed in the Gazette.]

1,253,032. FOUNTAIN-BRUSH. JACQUES J. HARDIN, Oak Park, Ill., assignor to Monarch Tool & Machinery Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 25, 1917. Serial No. 144,352. (Cl. 15—49.)



1. In a device of the character described, the combination of a tubular receptacle for a liquid, a brush having one end thereof extending loosely into said receptacle, a coiled spring having a plurality of turns surrounding the brush within the receptacle, the turns of the spring being normally tightly against each other, said spring being secured to the brush and also in relatively fixed relation with the receptacle whereby the spring constitutes a tight wall between the hollow interior of the receptacle and the portion of the brush surrounded by it, the arrangement being such that when the brush is moved farther into the receptacle the turns of the spring become separated and a liquid in the receptacle will flow between the turns of the spring upon the brush.

5. In a device of the character described, the combination of a tubular receptacle having an opening in an end thereof and adapted to contain a liquid, an end piece adapted to engage said receptacle about said opening whereby said end piece is readily attachable to and removable from said receptacle, said end piece having an opening whereby a brush may project into said end piece, a brush so projected into the device, a coiled spring surrounding a portion of the brush and in substantially tight relation to said end piece at a portion of the spring, the turns of said spring normally constituting a wall between the hollow interior of the receptacle and the brush surrounded by the spring, said brush being in such relation to said spring that when pressure is applied upon the exposed portion of the brush, as in use, the turns of the spring separate from each other whereby a liquid in the receptacle may flow upon the brush.

6. In a device of the character described, the combination of a receptacle for a liquid, a brush carried thereby and projecting therefrom, and valve means comprising a coiled spring intermediate the hollow interior of the receptacle and the brush, the turns of the spring being normally close together to constitute a wall through which the fluid may not pass when the brush is not in use.

7. In combination, a brush, an annular spring support loosely surrounding said brush, a coiled spring surrounding a portion of the brush, the turns of said spring constituting a valve and being secured to said support and also to the brush, and means on said support for securing same upon a receptacle for a liquid.

[Claims 2 to 4 and 8 not printed in the Gazette.]

1,253,033. COUPON-TICKET. EDWARD A. HENKLE, Philadelphia, Pa., assignor to Globe Ticket Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed May 15, 1917. Serial No. 168,782. (Cl. 11—15.)



1. An admission ticket comprising a card having a body portion and coupons at the opposite ends of the body portion and detachable therefrom, the body portion being located between the coupons whereby it is left intact upon the removal of one or both of the coupons, the coupons bearing identical printed matter but each coupon having its printed matter different on its obverse and reverse faces, the obverse face of one coupon and the reverse face of the other coupon being parts of each and the same face of the ticket, the body portion having printed thereon data pertinent to a record of the tickets taken up, and the coupons having printed thereon data pertinent as information for the seat holder.

2. An admission ticket comprising a card having a body portion and coupons at the opposite end of the body portion and detachable therefrom, the body portion being located between the coupons whereby it is left intact upon the removal of one or both of the coupons, the coupons bearing identical printed matter and each coupon having on its obverse face designations of the location of the seat and on its reverse face designations of the date, the obverse face of one coupon and the reverse face of the other coupon being parts of each and the same face of the ticket, the body portion having printed thereon data pertinent to a record of the tickets taken up, the printing on both faces of the tickets being identical.

1,253,034. LIFE-BUOY. THOMAS SAVAGE HEYWARD, Bluffton, S. C. Filed July 27, 1917. Serial No. 183,169. (Cl. 9—17.)

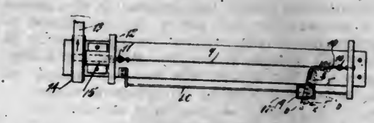


1. A life buoy including a body engaging member, a cap piece, a rear pillar connected between said body engaging member and cap piece, and posts also connected between said cap piece and body engaging member, substantially as described.

4. A life buoy including a base ring, a neck ring, a cap piece, and connections between said cap piece, neck ring and base ring, said parts being constructed of hollow inflatable material adapted to receive a buoyant fluid, substantially as described.

[Claims 2 and 3 not printed in the Gazette.]

1,253,035. FEATHER-PINE CHRISTMAS TREE AND METHOD OF MAKING SAME. PAUL N. HOFFMAN, New York, N. Y. Filed Oct. 15, 1917. Serial No. 196,645. (Cl. 41—15.)



1. An article of manufacture consisting of a strip of flexible material having stitched thereto in spaced relationship twigs of feathered pine or the like.

2. The method of forming branches for artificial Christmas-trees, consisting in permanently securing in spaced relationship twigs of feathered-pine or the like to a flexible tape, and winding said tape around a supporting wire after the twigs have been secured to the tape.

3. The method of forming branches for artificial Christmas-trees, consisting in stitching twigs of feathered-pine or the like to a flexible tape, applying cement or glue to said tape, and finally winding the cement coated tape around a supporting wire.

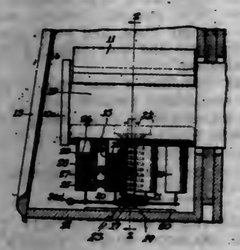
4. The method of forming branches of artificial Christmas-trees, consisting in first independently and permanently securing to a tape a plurality of twigs of feathered-pine or the like in spaced relationship, then winding the tape having the previously spaced twigs to a supporting wire, and securing the ends of the tape to the wire.

5. As a new article of manufacture, an artificial Christmas-tree-branch, consisting of a flexible stem having spirally wound thereon a tape provided with spaced apart twigs or the like, extending therefrom, said twigs being permanently secured to the tape independently of the stem, and means to maintain the tape in wound position on the stem.

1,253,036. LUBRICATOR. THOMAS J. HOLMES, Chicago, Ill. Filed July 18, 1917. Serial No. 181,211. (Cl. 64—24.)

1. In a lubricating device, the combination of a friction piece having a surface adapted to contact the journal bearing to be lubricated, a grease cylinder having its hollow interior opening into said surface, a spring-pressed piston in said cylinder, spring means for holding said friction piece with said surface contacting the journal bearing when in operative position, and flexible means secured to the piston and passing through an opening in the end of the cylinder for retracting the piston.

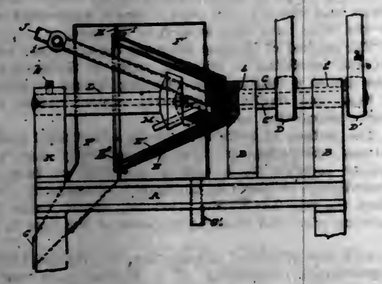
5. In a device of the character described, the combination of a base adapted to rest upon the bottom of a journal box, a pair of springs extending upward therefrom and respectively at the sides thereof, a friction piece adapted to contact the journal, said springs being adapted to maintain the friction piece normally against the journal, means connecting the base and the friction piece in unitary arrangement, means carried by said friction piece for lubricating the journal, said friction piece being adapted to be pressed downward against the pressure of said springs whereby the lubricating device may be withdrawn bodily from the journal box as a unit.



8. In a lubricating device, the combination of a grease cylinder, a substantially deep piston therein adapted to move freely in the cylinder without canting, a spring in said cylinder and pressing against the piston, and flexible means secured to the piston and passing through an opening in the cylinder wall for retracting the piston.

[Claims 2 to 4, 6, and 7 not printed in the Gazette.]

1,253,037. CENTRIFUGAL SEPARATOR. FREDERICK WILLIAM HORSTMANN, Kearney, N. J. Filed Mar. 7, 1914. Serial No. 823,080. (Cl. 210—25.)

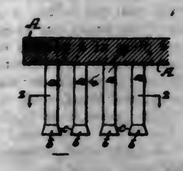


1. A centrifugal machine of the character described comprising a receptacle suitably journaled and having opposed internal conical surfaces reversely inclined with their ends of larger diameter set adjacent and having a liquid discharge opening between the adjacent ends of the conical surfaces, one of said surfaces being comparatively small and having its lesser diameter greater than the lesser diameter of the opposed conical surface whereby the solids will be advanced thereover by pressure from the latter substantially as described.

2. A centrifugal machine of the character described comprising a suitably journaled receptacle formed by juxtaposed receptacle members having opposed internal conical surfaces, said members being concentrically journaled and having their inclined internal surfaces arranged with their ends of larger diameter set adjacent and spaced to leave a minute liquid discharge opening therebetween and one of said members having a discharge opening therethrough for the solids and having its lesser diameter greater than the lesser diameter of the opposed conical surface of the other member whereby the solids will be advanced thereover by pressure from the latter substantially as described.

[Claims 3 and 4 not printed in the Gazette.]

1,253,038. PIN FOR PRINTING-BLOCKS. HENRY HOWSON, Philadelphia, Pa., assignor to The Congoleum Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 23, 1917. Serial No. 150,394. (Cl. 101—368.)

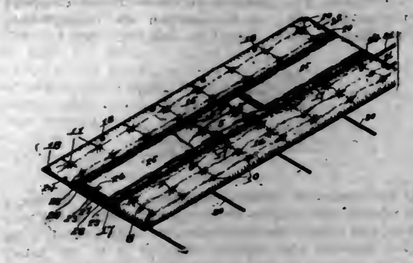


1. A printing pin for a block printing machine having a shoulder directly back of the printing end and serving as a carrier for a printing composition.

2. A printing pin for a block printing machine having a head larger in diameter than the body of the pin and tapered toward the body, said head serving as a carrier for a printing composition.

3. A printing pin for a block printing machine having an enlarged head provided with a tapered shoulder, said head having a plurality of grooves.

1,253,039. SLEEPING AND LOUNGING ACCOUTREMENT. ALICE N. HUNT and FLORA W. ANDERSON, Washington, D. C. Filed Nov. 6, 1917. Serial No. 200,572. (Cl. 5—5.)



1. A foldable accoutrement comprising a bed member composed of wadding material having side extensions, an inner facing extending over the bed wadding and over the extensions and under one of the extensions, and outer facing secured to the under part of the inner facing and extending therefrom under the bed and under one of said extensions, the respective extensions and their facings being secured together and forming independent inner and outer wraps, means for foldably attaching the free edge of the inner wrap to one edge of the bed, and means for foldably attaching the free edge of the outer wrap to the opposite edge of the bed.

[Claims 2 and 3 not printed in the Gazette.]

1,253,040. DIRECTION-INDICATOR. JAMES INGELLS, Muskegon, Mich. Filed Oct. 5, 1916. Serial No. 123,984. (Cl. 40—77.)

1. In a direction indicator for automobiles, an outer case, a revoluble indicator case mounted therein, and having direction indicating symbols mounted thereon, a ring mounted in each end of the stationary case, a bearing formed on each end of the revoluble case and fitted to revolve freely in the rings, an electric light bulb mounted in each end of the stationary case and extending into the revoluble case, reflectors properly mounted in the revoluble case to illuminate the symbols, electric connections with the bulbs, and means for revolving the inner case to expose the desired symbols.



2. In a direction indicator, a stationary case, a revoluble case mounted inside the stationary case and having indicator symbols thereon, a transparent front in the stationary case to disclose the said symbols, rings mounted in the ends of the stationary case for revolubly supporting the revoluble case, a strap connected with one end of the revoluble case, a spring connected with the other end of the revoluble case and with the stationary case, means for properly actuating the revoluble case through the medium of the strap and spring, a concave reflector mounted in each end of the revoluble case, and facing to the center of the said case, an electric light bulb mounted in each end of the stationary case wholly within the revoluble case, and proper electric connection with said electric light bulbs.

3. In a direction indicator, an outer case constructed with ends, lugs extending inward and having their ends turned outward at right angles, a casing extending partly around the ends and having slots at its ends to receive the outwardly turned ends of the lugs, and also having a transparent opening to disclose indicator symbols, clamping lugs on the ends, chambers formed in the ends of the case, a ring mounted in each end of this case and secured therein by bending the clamping lugs over its edges, a revoluble inner case having outwardly pressed end bearings arranged to be passed through the rings in the outer case and revolve freely therein, electric light bulbs mounted at the ends of the outer case, and concave reflectors mounted in the ends of the inner case back of, and concentric with the light bulbs.

4. In a direction indicator, an outer case having a chamber offset in each end, a hub and a tubular bearing connected with each end of the outer case, electric light bulbs mounted in said tubular bearings, proper electric connections with said bulbs, a guard connected with each end of the outer case for protecting the electrical wire connections, a supporting ring mounted in each end of the stationary case, an indicator case revolubly mounted in the supporting rings within the stationary chamber; in combination with concave reflectors mounted in the ends of the indicator case around the electric light bulbs.

5. In a direction indicator, ends having lugs turned inward at right angles to form bearings, then outward to form retaining lugs, a metal casing having slots in the ends to receive the retaining lugs and form a stationary chamber having a transparent opening, tubular bearings formed in the ends of the stationary chamber, electric light bulbs securely mounted in said bearings, proper electric connections with the bulbs, a revoluble case mounted in the stationary chamber, means for properly actuating said revoluble case, reflectors so mounted in the revoluble case as to produce an equal distribution of light through the indicator symbols.

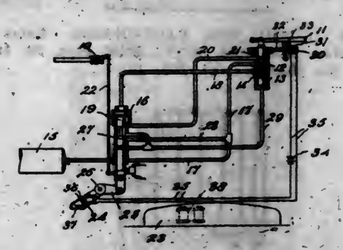
1,253,041. THERMOSTATIC DEVICE. GEORGE A. JAMES, San Francisco, Cal. Filed Feb. 16, 1914, Serial No. 819,079. Renewed June 16, 1917. Serial No. 175,214. (Cl. 200—31.)

An apparatus comprising an electric circuit, pairs of vibratable thermostatic members in series therein, the members of each pair being adapted to contact with each other when vibrated, the vibration period of a member of



one pair being different from that of a member of the other pair.

1,253,042. AUTOMATIC STOP FOR RAILWAY-TRAINS. EARL P. JESSOP, Brooklyn, N. Y. Filed Dec. 16, 1915. Serial No. 67,104. (Cl. 246—58.)



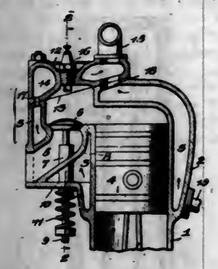
In an automatic train controlling system, speed governing means on the train, operating mechanism on the train including a movable shoe, a fixed ramp beside the rail for receiving and lifting said shoe, an electrically operated preventive device on the train for opposing effective action of said operating mechanism, a magnetic switch for governing the circuit thereof carried by said shoe, an electro-magnet and circuit therefor adapted to hold said switch in one position, controlling means for said last named circuit adapted to be operated by the movements of said shoe, and electro-magnetic means on the right of way for operating said magnetic switch.

1,253,043. WATER-JACKETED VALVE-CAP AND SPARK-PLUG. CARL E. JOHNSON, St. Paul, Minn. Filed June 1, 1917. Serial No. 172,216. (Cl. 123—173.)

1. The combination with an internal combustion engine having a water jacket, of a hollow valve and spark plug cap having its greatest thickness at the valve end, and having a line of juncture with said engine cylinder along a line oblique with respect to the longitudinal axis of the cylinder, and the interior of the cap having communication with the water jacket of said engine.

2. The combination with an internal combustion engine, having a water jacket and jacketed valves, of a hollow cap having a water jacket, said cap joining the engine cylinder on an oblique line, the water jacket of the cap having its greatest capacity adjacent the valves, and having an outlet opposite said valves, said water jacket of the cap having free communication with that

of the engine, and a spark plug carried by the cap and surrounded on the sides by the cap water jacket.



3. In an engine of the type described having a water jacket, valves and gas inlet, valve stem sleeves formed integral with the walls of the jacket, the inner jacket wall being oblique with respect to the sleeves, and a hollow cap having an inclined inner face of juncture with said engine, thereby increasing the bearing surface of the cap and bringing the water space in said cap into proximity with said valves, said cap having communication with the water jacket of the engine and having an outlet on the side opposite the valves, and a spark plug carried by and passing through the water jacket of the cap.

1,253,044. GUARD FOR BABY-CHAIRS. FELIX G. KAPELMAN, New York, N. Y. Filed Sept. 26, 1917. Serial No. 193,373. (Cl. 155—12.)



5. In combination, a chair having a back, arms, and a table, a guard pivoted to said arms in front of said back and above said table, said guard having a top and bottom and intermediate members, the height of said guard above its pivots being such, that when it is swung forward, the top thereof rests upon said table so that said guard encircles the front and sides of said seat, the height of said guard below said pivots being such, that when said guard is swung back, it swings behind the back of said chair and rests against it, and encircles the back and sides thereof.

[Claims 1 to 4 not printed in the Gazette.]

1,253,045. PROCESS OF TREATING DRIED FRUIT. SAMUEL KATZEROWSKY, Berkeley, Cal. Filed July 11, 1917. Serial No. 179,932. (Cl. 99—8.)

1. The process of treating fruit which consists in covering the fruit with an adhering envelop of material containing dextrin.

3. The process of treating fruit which consists in immersing the fruit in a solution containing dextrin and then drying the fruit.

7. Dried fruit having an adhering envelop of dextrin containing material completely covering the fruit.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,253,046. CONDUIT FOR ELECTRICAL CONDUCTORS. JOSEPH A. KENNEDY, Pawtucket, R. I., assignor to Tubular Woven Fabric Company, Pawtucket, R. I., a Corporation of Rhode Island. Filed Feb. 24, 1917. Serial No. 150,742. (Cl. 247—4.)

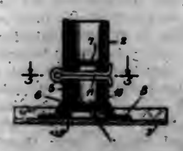


2. A conduit for electrical conductors comprising a single walled woven tube the warp strands of which are bulkier than the weft strand or strands, and a mass of relatively hard material capable of being liquefied by heat, impregnating and embedding said warp strands.

4. A conduit for electrical conductors comprising a single walled seamless woven tube having warp and weft strands, the warp strands being of soft, loosely twisted cotton and of greater size than the weft strand or strands, and a stiffening material filling the pores of said warp strands in the outer portion of the wall of the tube and occupying the interstices between the strands, bonding such strands together.

[Claims 1 and 3 not printed in the Gazette.]

1,253,047. CAR-SEAT SUPPORT. JOHN EDWIN KILBURN, Philadelphia, Pa., assignor to Hale and Kilburn Company, Philadelphia, Pa., a Corporation of Delaware. Filed Aug. 11, 1915. Serial No. 44,896. (Cl. 155—2.)



1. In a car-seat structure, the combination of an end plate, a collar having a peripheral flange secured to the inner surface of said plate, and an inwardly-curved bearing portion having a plane inner edge parallel to said surface, a cup-shaped stub-shaft having an outwardly-curved edge portion secured within the bearing portion of said collar by a forced fit, a tubular cross-rail having its end slipped over said stub-shaft into contact with said inner edge of said collar, and a pin extending through said rail and stub-shaft, substantially as set forth.

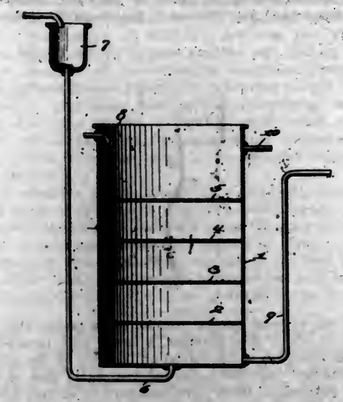
2. In a car-seat structure, the combination of an end plate, a collar having a flange secured to the inner surface of said plate, and a bearing portion having a plane inner edge parallel to said surface, a stub-shaft comprising a shell secured within said collar by a forced fit, and a tubular cross-rail having its end slipped over said stub-shaft into contact with said inner edge of said collar, substantially as set forth.

1,253,048. PROCESS OF PURIFYING CRUDE BENZOL. HERMAN B. KIPPER, Muskegon, Mich. Filed Apr. 27, 1917. Serial No. 164,982. (Cl. 23—24.)

1. The process of removing carbon bisulfid from crude benzol, which consists in treating the same with a solution comprising caustic soda and a cellulose.

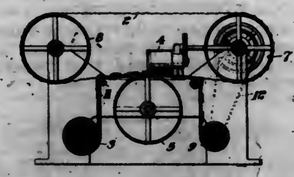
3. The process of purifying crude benzol, which comprises treating the same while in a finely divided form with caustic soda and cellulose.

4. The process of purifying crude benzol, which comprises subjecting a flowing body of the same to the action of an oppositely flowing body of caustic soda containing a cellulose.



[Claim 2 not printed in the Gazette.]

1,253,049. MECHANISM FOR PRODUCING DESIGNS ON PILE FABRICS. ISIDOR KITSEE, Philadelphia, Pa. Filed Feb. 23, 1916. Serial No. 79,968. (Cl. 26—6.)



1. Means to produce designs on pile fabric, said means comprising a netting, predetermined parts of the interstices of said netting closed, means to move said netting in conjunction with the pile goods to be designed and means to remove such parts of the fibers of said pile goods as are protruding above said netting.

4. In a device of the class described, a metallic netting, part of the free spaces of said netting closed up, a pile fabric, means to press said netting on said pile fabric, whereby the fibers below the open spaces of said netting are made to protrude through said open spaces and means to shorten such fibers as are protruding.

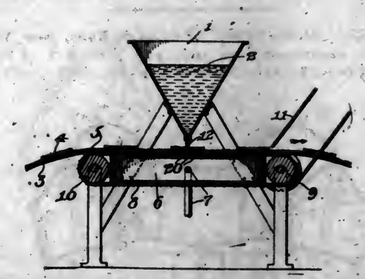
[Claims 2 and 3 not printed in the Gazette.]

1,253,050. SUPPLYING PILE FABRICS WITH DESIGNS. ISIDOR KITSEE, Philadelphia, Pa. Filed July 14, 1916. Serial No. 109,410. (Cl. 41—26.)

1. In the art of treating colored pile fabrics the improvement which consists in shortening certain fibers and providing the tips or upper parts of the unshortened fibers with a color complementary to the original color of said fiber.

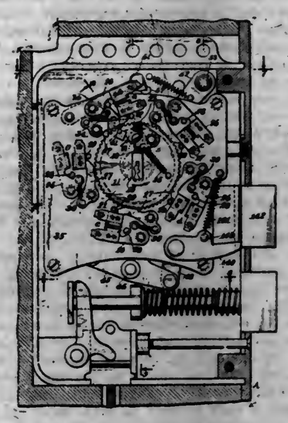
2. In the production of designs for colored pile fabrics the improvement which consists in shortening certain fibers and increasing the dissimilarity in shade between the shortened and unshortened fibers through the tipping of part of the unshortened fibers with a color complementary to the color of the other fibers.

3. In the art of treating colored pile fabrics the improvement which consists in producing a design on said fabric by cutting predetermined fibers and producing a dissimilarity between the shade of the cut and uncut fibers by tipping the uncut fibers with a color complementary to the color of the whole fabric.



4. As a new article of manufacture a colored pile fabric provided on its surface with fibers of different heights, the tip of the fibers of greater height provided with a color complementary to the original color.

1,253,051. RECORDING-LOCK. AUGUST KNISTROM, Binghamton, N. Y., assignor to International Time Recording Company of New York, Endicott, N. Y., a Corporation of New York. Filed Nov. 11, 1915. Serial No. 60,874. (Cl. 234—1.5.)



1. The combination with a lock having a key-actuated rotary member; of recording mechanism to print key-identifying characters; a controlling circuit therefor; a plurality of movable contacts in multiple in said circuit and arranged adjacent to the rotary member of the lock; and key-positioned means to actuate one or more of said contacts as the rotary member turns, whereby one or more current impulses, according to the key used, may be sent over the circuit to control the recording mechanism.

4. The combination with a lock having a key-actuated rotary member; of a plurality of contacts surrounding said member at different distances therefrom; and means, including radially adjustable key-positioned devices, carried by the rotary member to actuate one or more of the contacts as said member rotates.

13. The combination of a lock having a key-actuated rotary member provided with a radial lug; a bolt; a hooked link connected with the bolt to retract the same and arranged to be engaged and actuated by said lug as the rotary member completes its movement; a stop to coöperate with said link to prevent complete actuation thereof and retraction of the bolt except by the complete

movement of said rotary member; and recording means associated with said member for operation whenever the latter is turned to retract the bolt.

[Claims 2, 3, 5 to 12, and 14 not printed in the Gazette.]

1,253,052. BRASSIÈRE. WALDEMAR KOPS, New York, N. Y., assignor to Kops Bros., New York, N. Y., a Firm. Filed Oct. 11, 1917. Serial No. 195,882. (Cl. 2—73.)



1. As a new article of manufacture, a brassière comprising a front member, back members, and devices for adjustably connecting the front member to the back members at the axillary line of the garment, which devices extend to and through the lower front central portion of the front member where they are adapted to be connected to one another.

2. As a new article of manufacture, a brassière comprising a front member, back members, means for connecting the adjacent edges of the back members to one another, and lacing devices for adjustably connecting the front member to the back members at the axillary lines of the garment, which lacing devices extend to the lower central portion of the front member where they are adapted to be connected to one another.

4. As a new article of manufacture, a brassière comprising a continuous front member extending from one axillary line to the other, back members, means for connecting the adjacent edges of the back members to one another, and lacing devices for adjustably connecting the front member to the back members at the adjacent edges thereof, which lacing devices extend to the lower central portion of the front member where they are adapted to be connected to one another.

6. As a new article of manufacture, a brassière comprising a continuous front member extending from one axillary line to the other and shaped to conform with the configuration of the wearer, back members, means for connecting the adjacent edges of the back members to one another, lacing devices each consisting of a series of laces extending through eyelets provided therefor in the forward edge of a back member and also through corresponding eyelets provided therefor in the adjacent edge of the front member, and a tape secured to each series of laces, the said tapes extending forwardly and passing through slots provided therefor in the lower central portion of the front member where the tapes are adapted to be connected to secure the parts in position on the body of the wearer.

[Claims 3 and 5 not printed in the Gazette.]

1,253,053. APPAREL-CORSET. DANIEL KOPS, New York, N. Y. Filed Oct. 26, 1917. Serial No. 198,565. (Cl. 2—73.)

1. In an apparel corset and in each corset body half thereof, spaced stay members, means between the spaced stay members whereby a portion of the corset body half is caused to extend across a depression on the body of the wearer and to be spaced therefrom at said depression, and a tension strap attached to and depending from that portion of the corset body half between the said stay members at a substantial distance above the lower edge thereof and adapted to exert a downward pull from this portion of the garment.

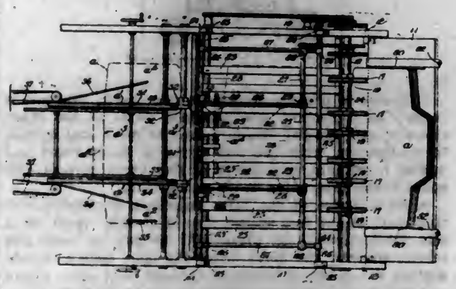
2. In an apparel corset and in each corset body half thereof, gore members placed at the side of the garment and connected together adjacent the waist line so as to cause a portion of these gore members to extend across a depression in the body of the wearer and to be spaced therefrom at the said depression, and a tension strap secured to and depending from the said gore members to exert a downward pull thereon in the use of the garment.



4. In an apparel corset and in each corset body half thereof, an upper gore member, a lower gore member, the said gore members being placed at the side of the garment and connected together adjacent the waist line so as to cause a portion of these gore members to extend across a depression in the body of the wearer and to be spaced therefrom at the said depression, a tension strap secured to and depending from the lower gore member, a tension strap secured to the upper and lower gore members along the line at which these gore members are connected to one another, and a tape connected at one end to the lower portion of the last aforesaid tension strap and at its opposite end to the lower portion of the first aforesaid tension strap.

[Claim 3 not printed in the Gazette.]

1,253,054. ENVELOP-MACHINE. LEON E. LABOMBARDE and MELVIN H. SIDBOTHAM, Nashua, N. H., assignors to Elie W. Labomberde, Nashua, N. H. Filed June 5, 1913. Serial No. 771,848. (Cl. 93—62.)



1. A machine of the character specified, comprising primary and secondary mechanisms for folding blanks on lines at an angle to each other, stops for arresting the blanks after leaving the primary folding mechanism, starting devices movable in a direction toward the secondary folding mechanism, and independent mechanism for delivering to the said secondary mechanism blanks set in motion by the starting devices, said starting devices being in operative engagement with a blank for a distance that is but a fraction of the distance of movement imparted by said independent delivery mechanism.

3. A machine of the character described, comprising folding mechanism and means for delivering blanks thereto in accurate positions, said means comprising a support for the blanks, and endless pin-carriers having blank-engaging pins spaced to engage both front and rear edge portions of the blanks on said support.

5. A machine of the character described, comprising primary and secondary folding mechanisms at an angle to each other, and an intermediate transfer mechanism, each of the folding mechanisms having blank carriers, blank scorers, stationary folders for turning flap portions of the blanks upwardly, twist belt folders for turning said flap portions from upward to flat in-turned position to complete the folding of said flap portions, and pressers between the stationary folders and the belt folders.

10. A machine of the character described comprising folding mechanism and means for delivering blanks thereto in accurate positions, said means comprising carriers having four pins spaced to engage each blank at four separate points, said pins being adjustably connected with their carriers to enable them to be adjusted lengthwise of the carriers.

12. A machine of the character described, comprising folding mechanism and means for delivering blanks thereto in accurate positions, said means comprising a pair of endless pin carriers each having a plurality of blank engaging pins, the pins being spaced to engage each blank at two points of the front edge and two points of the rear edge.

[Claims 2, 4, 6 to 9, and 11 not printed in the Gazette.]

1,253,055. PROCESS FOR MANUFACTURING ALCOHOLS. BURRITT S. LACY, Sewaren, N. J., assignor, by mesne assignments, to The Roessler & Hasslacher Chemical Company, a Corporation of New York. Filed Oct. 4, 1913. Serial No. 793,408. (Cl. 23—24.)

1. A process of manufacturing alcohols consisting in causing an alkyl halid to react in a closed chamber with a substance of a chemically basic nature in the presence of a liquid while maintaining the whole in intimate mixture and at an elevated temperature and high effective pressure of the alkyl halid.

7. A process of manufacturing methyl alcohol consisting in causing methyl chlorid gas at an effective pressure of greater than one atmosphere to react in a closed chamber with calcium hydroxid in the presence of water while maintaining the whole in intimate mixture and at a temperature above 100° C.

12. A process of manufacturing alcohols consisting in causing an alkyl halid to react with a mixture of calcium hydroxid and sodium carbonate in the presence of water while maintaining the whole in intimate mixture and at an elevated temperature.

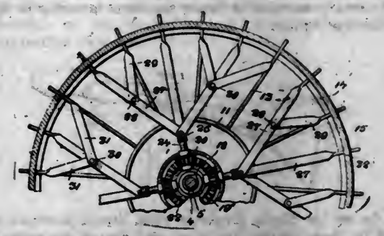
13. A process for the saponification of chlor derivatives of aliphatic hydrocarbons in a closed vessel, said process consisting in charging the vessel with an alkaline solution and a chlor derivative of an aliphatic hydrocarbon; coating the interior of the vessel with a film of the liquids therein by agitating the contents of the vessel, and raising the temperature to above 100° C. and the pressure to about 20 atmospheres.

15. A process for the saponification of chlor derivatives of aliphatic hydrocarbons, said process consisting in inclosing a mixture of a chlor derivative of an aliphatic hydrocarbon and an alkaline solution within a reaction space; surrounding the reaction space with a film of said materials and raising the temperature and pressure in the vessel.

[Claims 2 to 6, 8 to 11, 14, and 16 to 18 not printed in the Gazette.]

1,253,056. TRACTION-WHEEL. JOHN LA DOW, Los Angeles, Cal., assignor of one-half to Perry Whiting, Los Angeles, Cal. Filed June 1, 1917. Serial No. 172,310. (Cl. 21—209.)

1. In a traction wheel, a hub, a rim having openings therein, spokes connecting said hub and rim, a plurality of feed screws radially movable in relation to said hub and provided at their outer ends with cross heads, traction members having their inner ends attached to said cross heads and their outer ends arranged in the openings of the rim, pinions having a threaded engagement with said feed screws, a master gear for simultaneously revolving all of said pinions, means for shifting said master gear into mesh with said pinions, means for throwing said master gear out of mesh with the pinions, the means for throwing said master gear into mesh with the pinions comprising a thrust collar slidable on the wheel axle, manually operable means for sliding said thrust collar and thrust pins interposed between said thrust collar and master gear and working through a part of the wheel hub.



2. In a traction wheel, a hub, a rim having openings therein, spokes connecting said hub and rim, a plurality of feed screws radially movable in relation to said hub and provided at their outer ends with cross heads, traction members having their inner ends attached to said cross heads and their outer ends arranged in the openings of the rim, pinions having a threaded engagement with said feed screws, a master gear for simultaneously revolving all of said pinions, means for shifting said master gear into mesh with said pinions, means for throwing said master gear out of mesh with the pinions, the means for throwing said master gear into mesh with the pinions comprising a thrust collar slidable on the wheel axle, manually operable means for sliding said thrust collar and thrust pins interposed between said thrust collar and master gear and working through a part of the wheel hub, said thrust pins serving as antifriction roller bearings between the axle and hub.

3. In a traction wheel, a hub, a rim having openings therein, spokes connecting said hub and rim, a plurality of feed screws radially movable in relation to said hub and provided at their outer ends with cross heads, traction members having their inner ends attached to said cross heads and their outer ends arranged in the openings of the rim, pinions having a threaded engagement with said feed screws, a master gear for simultaneously revolving all of said pinions, said cross heads carrying rollers, and the hub embodying flanges against which said rollers travel.

4. In a traction wheel, a hub, a rim having openings therein, spokes connecting said hub and rim, a plurality of feed screws radially movable in relation to said hub and provided at their outer ends with cross heads, traction members having their inner ends attached to said cross heads and their outer ends arranged in the openings of the rim, pinions having a threaded engagement with said feed screws, and a master gear for simultaneously revolving all of said pinions, each of said traction members being formed of a flat metal bar given a quarter twist so as to dispose the inner end portions thereof in parallel and contactual relation to each other where they are attached to the respective cross head.

5. In a traction wheel, a hub, a rim having openings therein, spokes connecting said hub and rim, a plurality of feed screws radially movable in relation to said hub and provided at their outer ends with cross heads, traction members having their inner ends attached to said cross heads and their outer ends arranged in the openings of the rim, pinions having a threaded engagement with said feed screws, and a master gear for simultaneously revolving all of said pinions, certain of said traction members being pivotally connected to certain other traction members between the inner and outer extremities of the latter.

1,253,057. ICE-CREAM DIPPER. ARTHUR McDOWELL LARROWE and AZEL LEWIS KLINE, Canistee, N. Y. Filed Aug. 8, 1917. Serial No. 185,044. (Cl. 107—46.)

1. An ice cream dipper comprising a handle, similar dipper sections having arms which are pivotally connected to

admit of said dipper sections swinging laterally into open or closed position, a rotary member mounted on the handle, and connecting means between the said arms and said rotary member disposed upon opposite sides of the axis of the rotary member to swing the arms laterally to open or close the dipper.

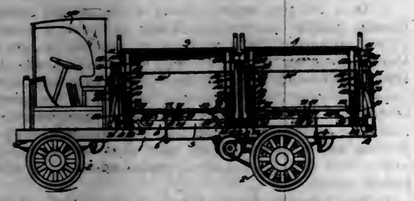


4. In an ice cream dipper, a ring, dipper sections disposed to close against the ring, and means for swinging the dipper sections away from and toward the ring in the plane of the latter.

5. An ice cream dipper comprising a ring having a handle, dipper sections having arms pivoted to each other and to the handle, and provided with spaced gear segments concentric with the pivot connection of the arms and the handle, a shaft mounted on the handle and having a gear at one end disposed between the gear segments and in mesh therewith, and having a gear at its opposite end, and an operating member pivoted on the handle, and provided with a gear segment in mesh with the gear at the outer end of the said shaft.

[Claims 2 and 3 not printed in the Gazette.]

1,253,058. DUMPING-VEHICLE. ALBERT P. LEE, Chicago, Ill., assignor to Lee Loader & Body Co., Chicago, Ill. Filed Apr. 3, 1916. Serial No. 88,523. (Cl. 21—20.)



1. A device of the character described comprising a framework having a runway, a rolling hopper adapted to roll on said runway in either direction from its central position, locking means to lock said hopper upon said runway, additional locking means to lock said hopper in its central position, and means operable in opposite directions from its central position for controlling both of said locking means aforesaid conjointly.

3. A device of the character described comprising a framework having a runway, a rolling hopper adapted to roll on said runway in either direction from its central position, locking means to lock said hopper upon said runway, additional locking means to lock said hopper in its central position, said additional locking means including a bolt and a catch therefor mounted upon the end face of said hopper, and means operable in opposite directions from its central position for controlling both of said locking means aforesaid conjointly.

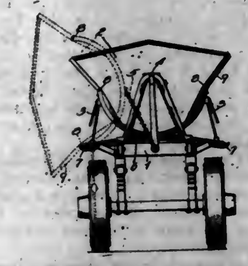
5. A device of the character described comprising a framework having a runway, a rolling hopper adapted to roll on said runway in either direction from its central position, locking means to lock said hopper upon said runway, additional locking means to lock said hopper in its central position, said additional locking means including a bolt and a catch therefor mounted upon the end face of said hopper, and a shaft operable in opposite directions from its central position for controlling both of said locking means aforesaid conjointly.

6. In a device of the character described the combination with a framework having a runway, a rolling hopper adapted to roll on said runway in either direction from its central position, a lever adapted to assist the initial tilting movement of said hopper, and a locking dog adapted to be engaged by said lever when tilting said hopper, and means whereby said dog locks said lever in its inoperative position.

8. In a device of the character described the combination with a framework having a runway, a rolling hopper adapted to roll on said runway in either direction from its central position, and toggle link mechanism carried by said framework sidewardly of said hopper to hold said hopper in its central position, said toggle link mechanism engaging said hopper on its opposite sides, said link mechanism having a cam and said hopper having a lug provided with a cam surface to coöperate with said cam.

[Claims 2, 4, 7, and 9 to 13 not printed in the Gazette.]

1,253,059. DUMPING-HOPPER. ALBERT P. LEE, Chicago, Ill., assignor to Lee Loader & Body Co., Chicago, Ill. Filed Oct. 13, 1916. Serial No. 125,846. (Cl. 21—20.)



A device of the character described comprising a runway whose opposite sides slope downwardly, a rolling hopper adapted substantially automatically to roll downwardly on either side of said runway from its central charge carrying position to either discharge position, said hopper having exteriorly thereof and about its periphery a curved rail coöperating with said runway whose extremities slope inwardly of the position they would occupy were said rail a true circle, and means whereby said hopper when it reaches the limit of its rolling movement pivots to completely discharge its load, said hopper having a widely flaring mouth, and having portions of its bottom extend along lines substantially forming sectors of the curved rail.

1,253,060. PROCESS OF MAKING ALKALI PERBORATES. OTTO LIEBKNECHT, Frankfort-on-the-Main, Germany, assignor to The Roessler & Hasslacher Chemical Company, New York, N. Y., a Corporation of New York. Filed May 31, 1916. Serial No. 100,981. (Cl. 204—9.)

1. The process of making alkaliperborate, consisting in electrolyzing a substantially saturated solution of an alkalicarbonate and alkaliborate with a current density approximately equally high at both the cathode and anode.

2. The process of making alkaliperborate, consisting in electrolyzing a substantially saturated solution of an alkalicarbonate and alkaliborate with a current density approximately equally high at both the cathode and anode, and replenishing both alkali salts in solid form to continuously maintain the solution saturated with them.

3. The process of making sodiumperborate, consisting in electrolyzing a substantially saturated solution of a sodiumcarbonate and sodiumborate with a current density approximately equally high at both the cathode and anode.

1,253,061. PROCESS OF MAKING ALKALI PERBORATES. OTTO LIEBKNECHT, Frankfort-on-the-Main, Germany, assignor to The Roessler & Hasslacher Chemical Company, New York, N. Y., a Corporation of New York. Filed May 31, 1916. Serial No. 100,982. (Cl. 204—9.)

1. The process of manufacturing alkaliperborate by electrolyzing a solution of an alkalicarbonate and of an alkaliborate, which comprises adding to the electrolyte a substance capable of producing a precipitate on the cathode.

3. The process of manufacturing alkaliperborate by electrolyzing a solution of an alkalicarbonate and of an alkaliborate, which comprises adding to the electrolyte a substance containing chromium capable of producing a precipitate on the cathode.

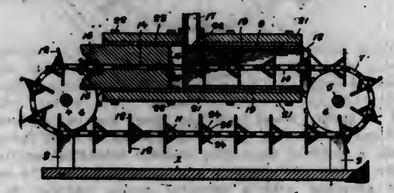
4. The process of manufacturing alkaliperborate by electrolyzing a solution of an alkalicarbonate and of an alkaliborate, which comprises adding chromic acid to the electrolyte.

6. The process of manufacturing alkaliperborate by electrolyzing a solution of an alkalicarbonate and of an alkaliborate, which comprises adding to the electrolyte a mixture of chromate and of a salt of an alkaline earth capable of producing a precipitate on the cathode.

7. The process of manufacturing alkaliperborate by electrolyzing a solution of an alkalicarbonate and of an alkaliborate, which comprises adding to the electrolyte a protective colloid and a substance capable of producing a precipitate on the cathode.

[Claims 2, 5, 8, and 9 not printed in the Gazette.]

1,253,062. ROTARY ENGINE. AXEL LILLQUIST, Mullan, Idaho. Filed Feb. 13, 1917. Serial No. 148,370. (Cl. 121—47.)

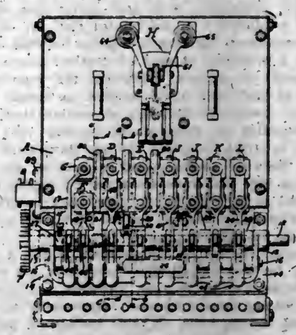


1. An engine embodying a casing, a compressing chamber therein, one end of said chamber being closed to form a stationary abutment wall, the opposite end of the chamber being open to the atmosphere, normally extended impact members mounted for movement through the compression chamber, a restricted passage formed in the closed end of said chamber for the passage of the impact members in a folded position, a flared entrance to said passage for gradually folding said members for entrance therein, means for automatically restoring said impact members to an extended position upon entering the compression chamber and an inlet port positioned between the stationary abutment wall and the fully extended position of the adjacent impact member.

[Claims 2 and 3 not printed in the Gazette.]

1,253,063. MOTOR-CONTROLLING APPARATUS. DAVID L. LINDQUIST and DAVID C. LARSON, Yonkers, N. Y., assignors to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed July 7, 1914. Serial No. 849,447. (Cl. 172—152.)

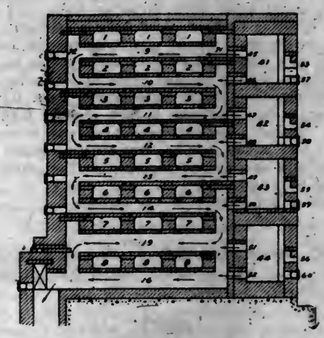
2. The combination with an electric motor, switches for controlling the starting, stopping and reversal of the motor, a shaft, a sleeve connected to the said shaft, cams arranged in the same plane on one side of the said sleeve for operating the said switches, a connection for actuating the said shaft, accelerating switches, an automatically operated sleeve mounted loosely on the said shaft and carrying cams arranged in the same plane on one side of the sleeve for operating the said accelerating switches, a connection between the said sleeves for preventing rotation of the said loosely mounted sleeve until after the first named cams are operated to a predetermined position, and means for actuating the second named sleeve with a retarded movement to effect the operation of the second named cams to control said accelerating switches.



3. In motor controlling apparatus, the combination with an alternating current motor, a source of alternating current supply, an electromagnetic main line switch, a switch for directly connecting one of the mains with the electric motor, an auxiliary switch for controlling the operation of the main line switch, reversing switch mechanism, and manually controlled cam mechanism arranged to effect the operation of the said switches in predetermined order substantially as described.

[Claims 1, 4, and 5 not printed in the Gazette.]

1,253,064. SMELTING-FURNACE. RAMÓN BONASTRE LLOPART, St. Louis, Mo., assignor to Mineral Refining and Chemical Corporation, St. Louis, Mo., a Corporation of Delaware. Filed Jan. 26, 1917. Serial No. 144,578. (Cl. 263—37.)



1. In combination with inclosing walls and a chimney suitably connected, a down-draft smelting furnace comprising a plurality of connected horizontal heating flues; a plurality of connected horizontal ore muffles disposed alternately and transversely to said heating flues; a plurality of combustion chambers disposed vertically adjacent to and controlling said heating flues; an ore port at the top for feeding ores into the uppermost muffles; a reaction gas flue at the bottom to admit reaction gases into the lowermost muffles; and a vent port at the top for escape of said reaction gases.

2. In combination with inclosing walls and a chimney suitably connected to produce a down-draft through the

furnace; a down-draft smelting furnace comprising a plurality of horizontal tiers of vertically spaced heating flues; a plurality of sets of vertical connecting flues disposed to connect, vertically, the opposite, alternate ends of said tiers of heating flues to conduct the heat downward; a plurality of discharge flues connecting the lowermost tier of heating flues with said chimney; a plurality of combustion chambers disposed vertically adjacent to, connected with and controlling said heating flues; a plurality of horizontal tiers of ore muffles located transversely through the spaces between said heating flues; a plurality of sets of vertical connecting ore ways disposed to connect, vertically, the opposite, alternate ends of said tiers of ore muffles, as means for feeding the ore downward through successive tiers of muffles; a plurality of stone doors leading into the ore muffles, to facilitate working the ore downward through successive tiers of muffles; an ore port at the top for feeding ores into the uppermost tier of muffles; a reaction gas-flue at the bottom for admitting reaction gases into the lowermost muffles; and a vent port at the top for escape of said reaction gases.

3. In combination with inclosing walls and a chimney, a smelting furnace embodying ore muffles for conveying the ores from top to bottom, through and out of the furnace; heating flues arranged transversely to said ore muffles, and having exits at their lowermost points into the chimney, so as to produce a down-draft through the furnace; combustion chambers arranged adjacent to, connected with and controlling the generation and projection of heat into said flues; and a reaction gas flue connected with said ore muffles at the lowermost point, for passing reaction gases upward through said muffles in a direction contrary to the downward course of the ores and the heat aforesaid.

4. In combination with inclosing walls and a chimney, a smelting furnace comprising a plurality of tiers of connected, horizontal heating flues; a plurality of tiers of connected, horizontal ore muffles, arranged transversely to said flues; a plurality of combustion chambers arranged adjacent to, connected with and controlling said flues; means for working ores through the muffles from top to bottom; means for forcing a down-draft through the flues; and means for passing reaction gases upward through the ore muffles contrary to the course of said ores and heat.

5. In combination with inclosing walls and a chimney; a smelting furnace, comprising a plurality of horizontal ore muffles, spaced apart, positioned one above another, and connected at alternate ends so as to form a continuous zig-zag passage from top to bottom; means for working ores through said muffles from top to bottom; means for supplying a flow of heat from top to bottom through the intervening spaces between said muffles; and means for passing reaction gases upward through said ore muffles, contrary to the course of the ores and heat aforesaid.

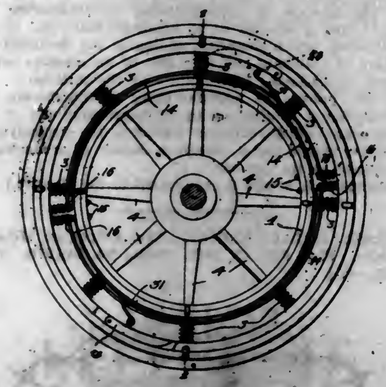
[Claim 6 not printed in the Gazette.]

1,253,065. HOSE-CONNECTOR. EDWARD S. LOOZE, Flint, Mich. Filed Feb. 3, 1917. Serial No. 146,334. (Cl. 137—28.)



In combination a pair of coupling members, each of said members including a tubular section receiving the end of a hose, the tubular section of one coupling member being of a uniform diameter, an annular head formed upon the last named tubular section near its outer end, two cam lugs formed at diametrically opposite points of said last named tubular section, the other tubular section being provided with an enlargement in which is received the first named tubular section in concentrically spaced relation, an annular head formed upon the enlargement of the second tubular section in back of the outer edge thereof so that said outer edge may be pressed against the first named annular head, said enlargement being formed internally with diametrically opposite cam lugs adapted to engage sidewise against the first named cam lugs to cause said enlargement to engage the said first named annular head, a circumferentially extending series of jagged teeth formed upon the second named annular head, and a retractable locking bolt mounted in the first named annular head and engaging said teeth to hold said cam lugs in engagement.

1,253,066. SPRING-WHEEL. HENRY E. MCCART, Delhi, La. Filed May 23, 1917. Serial No. 170,437. (Cl. 152—38.)



1. A spring wheel including inner and outer annular sections, cushioning springs interposed between the sections, a resilient connecting member extending longitudinally of the said members and connected with the same and provided with a terminal spring adapted to be placed under tension by the relative circumferential movement of the said sections, and manually adjustable means connected with the spring for varying the tension of the same.

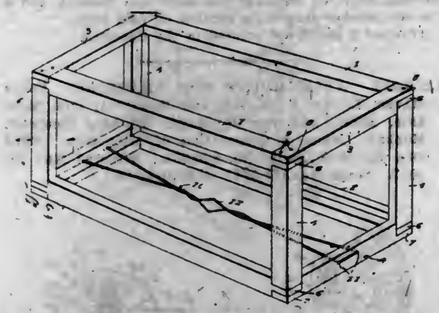
2. A spring wheel including inner and outer annular sections, cushioning springs interposed between the sections, reversely arranged resilient connecting members each secured at one end to the inner section and provided at the other end with a coiled spring, and an adjusting device connecting the coiled spring with the outer section of the spring wheel for controlling the tension of the spring of the connecting member.

6. A spring wheel including an inner section provided with a tube, an outer section spaced from the inner section, twisting springs interposed between the sections, a pawl or dog pivoted to the outer section and arranged to swing inwardly into engagement with the said tube, and means for connecting the pawl or dog with the inner section for operating the said pawl or dog under excessive relative movement of the said section.

[Claims 3 to 5 not printed in the Gazette.]

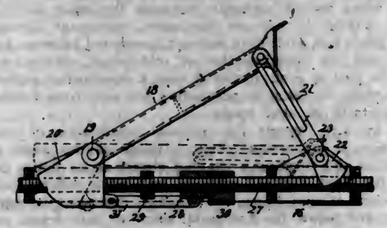
1,253,067. POULTRY-COOP. GEORGE A. MCGAHAN, Cincinnati, Ohio, assignor of one-fifth to Wm. M. Catron and one-fifth to C. I. Ross and J. S. Cooper, Somerset, Ky. Filed Sept. 6, 1916. Serial No. 118,662. (Cl. 217—36.)

1. A coop of the class described including a frame having upper and lower side rails and upper and lower end rails, extensions formed on the terminals of the side rails and lying between the upper and lower surfaces of said side rails, extensions formed on the terminals of the end rails, the extensions on the uppermost end rail overlying the extensions on the upper side bars, and the extensions on the lower end rails underlying the extensions on the lower side rails, corner posts interposed between the extensions on the upper and lower side rails, and bracing elements interposed between and connected to the lower end rails.



2. A coop including a floor supporting frame having end rails provided with openings, a floor resting on the frame, a brace disposed below the floor and formed of a single length of wire bent upon itself and having the strands thereof extending through the openings in the end rails, the said strands being twisted about each other to provide a loop disposed centrally of and engaging the under side of the floor.

1,253,068. CAR-TILTING APPARATUS. JOHN MCMYLER, Cleveland, Ohio, assignor to The McMyler Interstate Company, Cleveland, Ohio, a Corporation of Ohio. Filed Apr. 8, 1915. Serial No. 19,851. (Cl. 214—11.)



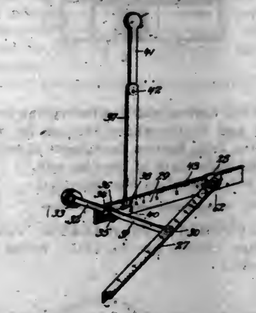
1. In a car tilting apparatus, a tiltable platform, a pair of car shifting and holding devices, movable along the platform and adapted to engage opposite ends of a car on the platform, and motor operated means for shifting said devices independently.

8. In a car tilting apparatus, a tiltable platform having track rails, a car shifting and holding device, comprising a frame movable lengthwise of the platform between the rails, an arm pivoted to the frame and adapted to engage the end of a car, means for shifting the frame along the platform and for swinging the arm relative to the frame to a position to engage the end of a car or to a position such that the car may pass over the arm, comprising a motor, a screw connected to the motor, a nut on the screw connected to the arm and means for limiting the travel of the nut relative to the frame.

11. In a car tilting apparatus, a platform tiltable about a transverse axis and provided with track rails, a car shifting and holding device between the rails and including a frame movable lengthwise of the platform between the rails and a car engaging member connected to the frame and movable upwardly to a position to engage the end of a car and downwardly so that the car can pass over the same.

[Claims 2 to 7, 9, and 10 not printed in the Gazette.]

1,253,069. SURVEYING APPARATUS. ARTHUR W. MACMILLAN, Chicago, Ill. Filed Apr. 6, 1917. Serial No. 160,124. (Cl. 33—71.)



1. In a device of the class described, the combination of a sight, a support therefor, a scale intersecting the line of sight between the objective and the observer, and means for maintaining said support and said scale in the same angular position relative to the vertical.

2. In apparatus of the class described, the combination of a frame provided with a fixed sight, a scale crossing the line of sight between the observer and an object, the distance of which from a known base line is to be measured and spaced apart from said sight, and means for maintaining said frame and scale in the same angular position relative to the vertical and independently of the inclination of the line of sight.

4. In a device of the class described, the combination of a frame provided with a sight and a graduated scale arranged to cross the line of sight between the observer and the object, and means for pivotally suspending said frame at a point spaced apart from and located above the center of gravity of said frame.

6. In a device of the class described, the combination of a frame provided with a fixed sight and means for pivotally supporting the frame whereby it will always occupy the same position relative to the vertical, a scale movably mounted on said frame, crossing the line of sight and capable of being adjusted at various angles to the vertical, and compensating means controlled by movement of said scale relative to said frame for maintaining the center of gravity of the frame and associated parts in the same position.

8. In a device of the class described, the combination of a frame member provided with a sight, a member arranged to slide on said frame in line with said sight, a scale having one end connected to said sliding member, a link pivotally connecting an intermediate point on said scale with a point on said frame substantially coincident with a vertical line passing through the center of gravity of said frame, an extension on said link provided with a counterweight for said scale and means for pivotally supporting said frame at a point vertically above its center of gravity, said frame being provided with graduations indicating the extent of movement of said scale.

[Claims 3, 5, and 7 not printed in the Gazette.]

1,253,070. TICKET-HOLDER. GUY A. MAHANEY, Joker, W. Va. Filed Mar. 9, 1917. Serial No. 153,747. (Cl. 206—39.)

1. A ticket holder comprising a casing having a semi-circular opening in the top thereof and adjacent one end,

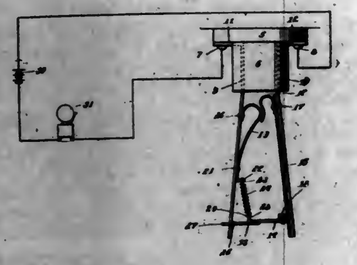
a downwardly depending wall formed upon the straight edge of the outlet opening and engaging the bottom wall of the casing to form an abutment, said casing having oppositely disposed slots in the side walls thereof, a hinged door closing one end of said casing, a false bottom located within said casing, oppositely disposed lugs formed upon said false bottom and projecting through the slots in the



side walls of the casing, and a coiled spring secured to the bottom wall and to the under face of the false bottom for causing the false bottom to support tickets in engagement with the under face of the top wall.

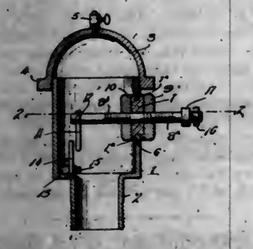
[Claim 2 not printed in the Gazette.]

1,253,071. AUTOMATIC FIRE-ALARM. JAMES MARINO, Duluth, Minn. Filed Apr. 14, 1917. Serial No. 162,130. (Cl. 200—33.)



An automatic fire alarm comprising a socket, arms secured to the socket and provided with terminals, one of said arms being provided with insulation on its inwardly facing side, resilient contact elements carried by the arms, a spacing member composed of two portions that are held together by a fusible substance, and means connecting one of the arms with one portion of the spacing member and operating to pull the contact elements together upon the separation of the spacing member when separated by heat.

1,253,072. SPARK-PLUG. FRANK J. MATHIAS, Fremont, Ohio. Filed Feb. 28, 1917. Serial No. 151,548. (Cl. 123—169.)

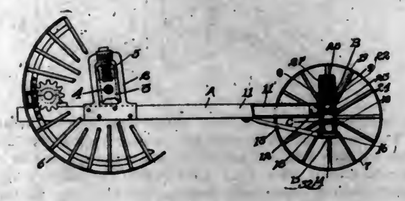


1. In spark plugs, a hollow body, a terminal member carried by said body and electrically connected thereto, a terminal member supporting rod secured through the wall of said body and electrically insulated therefrom, and a terminal member adjustably mounted in said rod adjacent the inner end thereof and movable toward and away from the terminal member carried by the body of said plug.

4. In spark plugs, a hollow body, a terminal member carried by said body and electrically connected thereto, a terminal member supporting rod adjustably secured through the wall of said body and electrically insulated from the same, a terminal member adjustably secured through said rod adjacent the inner end thereof, and a closure member removably secured on said body.

[Claims 2 and 3 not printed in the Gazette.]

1,253,073. AXLE-MOUNT FOR TRACTORS. LOUIS MAYER, LORENZ L. MAYER, and EDWIN A. BYE, Mankato, Minn., assignors to Mayer Brothers Company, Mankato, Minn., a Corporation of Minnesota. Filed Dec. 12, 1913, Serial No. 806,231. Renewed May 28, 1917. Serial No. 171,571. (Cl. 21—114.)

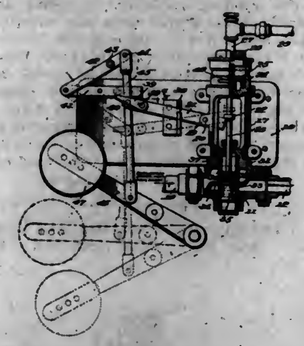


1. An axle mount for vehicles, comprising, in combination, a vehicle frame having a pillar mounted rigidly thereon, said pillar being formed with a laterally and upwardly extending channel having broad lateral substantially vertical inner faces spaced apart and a centrally disposed vertical passage across said channel forming a vertical guide, a yoke member slidable up and down in said passage, a single piece axle tiltingly mounted between the sides of said yoke to tilt vertically, the sides of said axle being guided vertically between the inner faces of said channel to prevent horizontal movement between said parts and a yielding support interposed between said yoke and the upper portion of said pillar, whereby the axle is free to rock vertically and a substantial support is provided to assist in preventing the axle from turning horizontally on said frame.

2. An axle mount for vehicles comprising in combination, a supporting frame, a pillar having walls secured to and forming a channel closed at its upper end and its inner vertical surfaces traversing substantially the width of said frame, said channel extending in depth above and below the horizontal plane of said frame and said walls being formed with a guiding passage extending up and down in said channel, a cap on said pillar over the upper end of said guiding passage, a yoke slidable up and down in said passage, a compression spring between said cap and yoke, a single piece axle pivoted upon said yoke to tilt up and down, said yoke having its ends freely swung between the sides of said channel and guided by said sides to prevent horizontal movement of said axle on said pillar and a brace between said frame and the lower portion of said pillar, said brace extending across the lower portion of said passage in the path of said yoke to assist in limiting the up and down movement between said yoke and said pillar.

1,253,074. LOCOMOTIVE DRIFTING-VALVE. ALFRED A. MEISTER, JOHN W. SURLES, and EDMUND F. BOYLE, Houston, Tex. Filed Mar. 7, 1917. Serial No. 153,030. (Cl. 121—14.)

1. A locomotive having a saturated steam supply pipe, connections leading therefrom to the live steam chambers of said steam chests, a valve in the said supply pipe, means for automatically closing the valve, a damper weight, and connections between the damper weight and the said valve for opening the latter, including a valve actuating lever, a latch piece pivoted to said lever and movable in one direction with respect thereto, means to prevent relative movement of said latch in the other direction, and a pivoted arm connected to said damper weight and having a roller, into the path of which said latch piece extends.

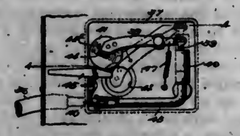


2. A locomotive having a saturated steam supply pipe, connections leading therefrom to the live steam chambers of its steam chests, a valve in the said supply pipe, means for automatically closing the valve, a damper weight, and connections between the damper weight and the said valve for opening the latter, including a valve actuating lever, an arm connected to the damper weight, and means whereby to move said lever by movement of said arm in one direction only.

5. In a drifting valve arrangement, the combination with the saturated steam pipe, steam chests, and saturated steam weight, of a valve in said steam pipe controlling the passage of saturated steam to the steam chests, and having means to automatically close the same when pressure in the steam chests exceeds a predetermined pressure, and means actuated by the said damper weight for opening said valve, including an immediately pivoted arm pivotally engaging the valve at one end, and a lever connected to the damper weight and having an engaging roller, said arm having at its opposite end a pivoted stem projecting into the path of movement of the roller of said lever, and having means to prevent movement of the stem with respect to the arm in one direction.

[Claims 3 and 4 not printed in the Gazette.]

1,253,075. FILM-SIGNAL FOR CAMERAS. HARRY G. MORDAUNT, Salt Lake City, Utah, assignor of one-half to Little Giant Manufacturing & Sales Company, Omaha, Nebr. Filed July 25, 1916, Serial No. 111,124. Renewed Dec. 12, 1917. Serial No. 206,855. (Cl. 95—31.)

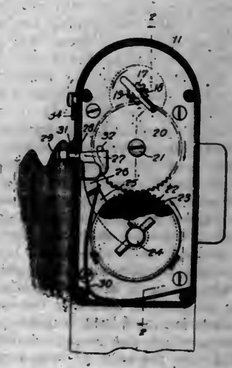


1. The combination with a camera having a shutter mechanism and air pressure operated means for actuating the same; of an adjustable member operated by said means and carrying indicia visible through an opening in the camera casing to indicate when the shutter mechanism has been operated, a latching element contacting said adjustable member for releasably retaining the same in an adjusted position, said latching element extending into the path of movement of a portion of a film when in latching position and being adapted to be operated by said portion of the film to permit of the return of said adjustable member to normal position.

4. An attachment for cameras having a movable film and shutter operating means, consisting of a signal, means actuated by the shutter operating means to set the signal, and including a latch element and means actuated by the film in its movement to release the signal including an element carried by the film for engaging and releasing said latch member.

[Claims 2 and 3 not printed in the Gazette.]

1,253,076. FILM-WINDING DEVICE. HARRY G. MORDAUNT, Salt Lake City, Utah, assignor of one-half to Little Giant Manufacturing & Sales Company, Omaha, Nebr. Original application filed July 25, 1916, Serial No. 111,124. Divided and this application filed Jan. 24, 1917. Serial No. 144,276. (Cl. 242—71.)



1. In a camera having a film, the combination with a take-up roll, the mechanism including a gear for automatically winding the film on said roll, a depressible device in the path of movement of a portion of said gear for normally retaining said mechanism inoperative, and having a groove arranged eccentrically relative to the axis of rotation of said gear, when the device is in normal position and adapted to receive said portion thereof, whereby said device is returned to normal position as said gear is rotated.

4. In a camera having a film, the combination with the take-up roll, of a winding mechanism therefor including a gear, a controlling lever having an externally projecting portion and an inner part coöperating with a portion of the gear to normally hold the latter against rotation, said inner part of said lever having a portion engageable by the said portion of the gear when the latter is released, to return the lever to normal position before the gear has completed its operative movement.

[Claims 2 and 3 not printed in the Gazette.]

1,253,077. CAMERA. HARRY G. MORDAUNT, Salt Lake City, Utah. Filed Feb. 12, 1917. Serial No. 148,275. (Cl. 95—31.)

1. In a camera, the combination with the shutter operating mechanism, of a film winding apparatus including a spring actuated rotatable member, having lugs projecting from one face thereof, a manually shiftable lever having a hook normally engaging one of the lugs to main-

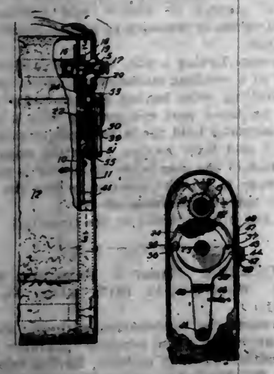
tain the winding mechanism inoperative, and a signal movable to active position by said shutter operating mechanism, and having a portion thereof extending into the path of movement of the said lugs for engagement by one of the lugs to move the signal to inactive position when the film winding mechanism is released.



2. In a camera, the combination with shutter operating means, and the take up roll and its shaft, of a motor and a normally inactive film-winding apparatus including a rotatable member having projections, a manually releasable member normally engaging the said projections, a casing within which the said film-winding mechanism is mounted, having a sight opening, a signal arm pivotally mounted adjacent the sight opening and having a signal, means actuated by the shutter operating means for moving said arm to operative position, and means for moving the lever to inoperative position, including an extension thereof projecting into the path of the projections of said rotatable member of the film winding mechanism.

3. A film winding and film signal attachment for cameras, comprising a casing connected with the camera casing and provided with a sight opening, a signal within the casing, a shutter operating mechanism having connection with said signal to move the same to active position adjacent the sight opening, when the camera is operated to take a picture, a film winding apparatus also within the casing and including a motor and a normally inoperative member having projections, manually releasable controlling means normally engaging said projections to hold the said member inoperative, and means carried by the signal and extending into the path of movement of the said projection, when the signal is in active position, for engagement by the projection to move the signal to inactive position when the said member is released.

1,253,078. FILM-WINDING DEVICE FOR CAMERAS. HARRY G. MORDAUNT, Salt Lake City, Utah. Filed Feb. 16, 1917. Serial No. 149,046. (Cl. 185—37.)



2. In a camera, the combination with the shaft of the take-up roll, of a mechanism for rotating said shaft, including a pair of intermeshing gears, one of which is mounted upon, and has a ratchet connection with, the said shaft, the other of said gears having projecting lugs, a spring operating the latter gear, a lever controlling rotation of the gear, and pivoted at one end, the opposite end of said lever being arcuately curved and having an engaging hook at one side, the opposite side of the curved end of said lever having a projecting finger-piece and being movable into the path of movement of the said lugs when the lever is shifted to release the gear.

4. In a film winding mechanism, a spring actuated winding member having geared connection with the take-up shaft, and provided with diametrically opposed projecting lugs, a lever pivoted at its lower end below said member and having an upper arcuately curved end provided at one side with a hook normally in engagement with one of the said lugs, the opposite side of the curved end of said lever having a projecting finger-piece and being movable into the path of movement of the lugs when the lever is shifted by its finger-piece to released position.

[Claims 1 and 3 not printed in the Gazette.]

1,253,079. CAMERA. HARRY G. MORDAUNT, Salt Lake City, Utah. Filed Mar. 1, 1917. Serial No. 151,711. (Cl. 95—31.)



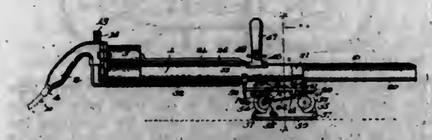
1. In a camera, the combination with the shutter actuating means, of a signal lever, connections leading from the shutter actuating means and connected to said lever, for moving the latter to operative position when the said means are actuated, a locking lever pivoted to the said signal lever, a stationary lug with which the said locking lever is engageable in the operative position of the signal lever, to lock the latter and the shutter actuating means, a film winding mechanism including a rotating member having projections, a releasing lever pivoted adjacent the signal lever and having a depending spring controlled portion extending into the path of movement of the said projections of the film winding mechanism, the upper end of said releasing lever having means to engage and shift the locking lever to released position, substantially as described.

2. In a camera, the combination with the shutter actuating means, of a signal lever, connections leading from the shutter actuating means and connected to said lever, for moving the latter to operative position when the said means are actuated, a locking lever pivoted to the said signal lever, a stationary lug with which the said locking lever is engageable in the operative position of the signal lever to lock the latter and the shutter actuating means, a film winding mechanism including a rotating member having projections, a releasing lever pivoted adjacent the signal lever and having a depending spring controlled portion extending into the path of movement of the said projections of the film winding mechanism, the upper end of said releasing lever having means to engage and shift the locking lever to released position, said signal lever having a projection extending into the path of movement

of the said releasing lever for engagement by the latter subsequent to the release of the locking lever, whereby to shift the signal lever to inoperative position.

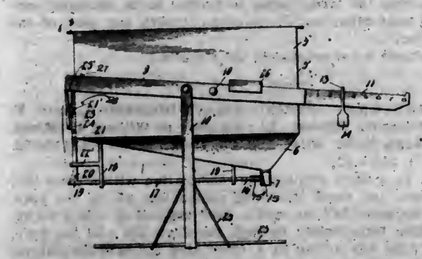
3. In a camera, the combination with the shutter actuating means, and the film take-up roll, of a film winding mechanism having connection with the take-up roll, a signal, connections extending from the said shutter actuating means, and secured to the signal whereby to move the latter to operative position upon operation of the former, a lever carried by the signal for locking the same in operative position with the shutter actuating means, and a second lever acted upon by the said film winding mechanism to automatically release the first named lever and said locking means.

1,253,080. SANDPAPERING-MACHINE. EMILE VICTOR MORREAU, Marshall, Tex. Filed Aug. 26, 1914. Serial No. 858,697. (Cl. 51—13.)



In a machine of the class described, a cylinder of uniform diameter, a fixed block arranged within the cylinder at a point intermediate its ends, a valve chest supported upon one end of the cylinder and having inlet ports communicating therewith, and exhaust ports, a piston rod arranged to reciprocate in said cylinder and through said block, a piston on one end of the rod, a plunger on the opposite end thereof, a rubbing element associated with the plunger, a tube communicating with said valve chest and with the bore of said block, said piston rod having an exhaust notch in one side adapted to communicate with the cylinder at one side of the block and with the adjacent extremity of said tube at the in stroke of the piston, pipes arranged at the opposite sides of the cylinders and having their corresponding extremities communicating with said bore of the block, and also communicating with the valve chest, a reversing valve in said chest for controlling the said inlet and exhaust ports between the latter and said cylinder, means for admitting fluid under pressure into said chest to operate said valve in one direction, said pipes establishing communication between the cylinders and said chest on predetermined positions of the rod whereby the exhaust from the cylinder operates said valve in a reverse direction.

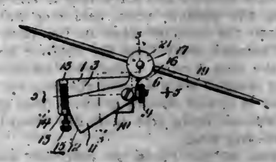
1,253,081. AUTOMATIC WEIGHING APPARATUS. JOLLY L. MORRIS, Crafton, Pa. Filed Mar. 29, 1917. Serial No. 158,318. (Cl. 73—181.)



1. In combination with a bin having a discharge opening, a weighing scale including a yoke extending around the bin and pivotally connected thereto, a platform pivotally connected to the yoke, a cutoff valve operating in the discharge spout, a horizontally operating rod connected to the cutoff valve, a vertically operating rod connected to one end of the bin and having connection with the yoke, and means on one end of each of the rods for cooperating, whereby movement of one rod will produce a relative movement of the other rod.

2. In combination with a bin having a discharge opening, a weighing scale including a yoke extending around the bin and having a graduated extension, a weight on the extension, a platform, standards connecting the platform and yoke, a vertically operating rod connected with the yoke and having a cam surface on one end thereof, a horizontally operating rod having a cam surface on one end thereof adapted to coöperate with the cam surface of the first mentioned rod, the opposite end of the horizontally operating rod having an integral valve member operating in the discharge spout for cutting off the discharge of material through the spout, and a weight on the yoke for balancing the platform.

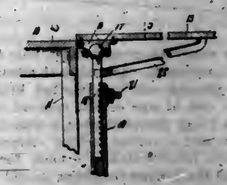
1,253,082. SURFACE-GAGE. LOUIS NEUMANN, New York, N. Y., assignor of one-half to Francis X. Steffans, New York, N. Y. Filed Nov. 10, 1916. Serial No. 130,631. (Cl. 33—171.)



1. In a surface gage, the combination with a U-shaped bracket whose arms are spaced for the reception of a straight edge and one of which is channeled in its inner side, a screw longitudinally movable within said channel and with its threaded end extending through the bend of the bracket and its inner end having a head projecting into the space between said arms, and a nut threaded on said projecting end; of a rocker pivoted on said bracket and having an upstanding arm, means for mounting a stylus in said arm, and means for turning the rocker on its pivot.

2. In a surface gage, the combination with a U-shaped bracket, and means for clamping a straight edge between the arms thereof; of a rocker pivoted on said bracket and including a toothed sector at one end and an upstanding arm at the other end, a screw swiveled on the bracket and with its threads engaging the teeth of said sector, a stud mounted through said upstanding arm and split at its upper end and threaded at its lower end, a nut on said threaded end, a stylus within the split end, and a bushing surrounding said stud between its split portion and said head whereby tightening of the nut clamps the stylus, as described.

1,253,083. TABLE. HERBERT A. NEWBURY, White Swan, Wash. Filed May 18, 1917. Serial No. 169,534. (Cl. 45—47.)



1. A table, a sleeve connected with said table and extending vertically, a rack bar slidable in said sleeve and provided with a spherical head at its upper end, means for releasably holding the rack bar in a vertically adjusted position, a leaf, a socket carried by the leaf and receiving the head of the rack bar, and arms extending from the

upper portion of the rack bar and engaging the under face of the leaf to support the leaf extended to one side of the table.

[Claims 2 and 3 not printed in the Gazette.]

1,253,084. BATTERY-SAVER FOR TELEPHONES. HENRY G. NEWELL, Le Raysville, Pa. Filed July 3, 1916. Serial No. 107,412. (Cl. 179—161.)



1. The combination with a casing and a receiver hook extending therefrom, of a pendant member pivoted at its upper end to the casing in a vertical line at one side of the receiver hook to normally hang in said line, and a stop carried by said member and projecting laterally therefrom to overhang the receiver hook, said stop having a cam portion above the receiver hook in the path thereof to swing said member away from the receiver hook when it is raised, the stop having a shoulder between said cam portion and member movable over the receiver hook when said member is swung toward it away from said vertical line, said member being free to swing toward and away from the receiver hook.

2. A device of the character described embodying a swingable member, and a member carried thereby and having a coiled portion embracing the first mentioned member and a stop extending from said coiled portion to engage over a receiver hook.

3. A device of the character described embodying a swingable member, and a member carried thereby having a coiled portion embracing the first mentioned member and provided with portions extending in different directions therefrom, one of the last mentioned portions providing a stop to engage over the receiver hook and the other providing a finger piece.

4. A device of the character described embodying a swingable member, and a member carried thereby embodying a coiled portion embracing it and having a loop extending to one side and providing a stop to engage over the receiver hook.

[Claims 5 and 6 not printed in the Gazette.]

1,253,085. GARMENT-STRETCHER. LUKE D. O'BRIEN, Berkeley, Cal. Filed Nov. 14, 1916. Serial No. 131,320. (Cl. 223—19.)

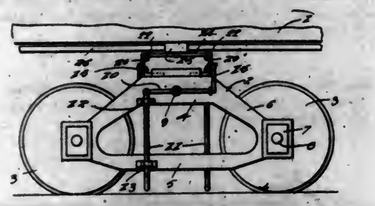


1. A garment stretcher comprising a pair of adjustably spaced clamping members, each of said members comprising a pair of opposed sections, slotted hinged members secured to each end of one of the opposed sections, said hinged members being provided with a plurality of spaced adjustment slots and a spring locking element secured to the other section intermediate its ends for engagement with the slots of the hinged members.

3. A garment stretcher comprising a pair of adjustably spaced clamping members, one of said members being provided at each end with a hinged locking plate having a plurality of transversely disposed slots therein, the other clamping member being adapted to lie within the hinged locking plates of the first mentioned member, a resilient locking element secured to the last mentioned clamping member upon the face thereof opposite the face opposed to the other clamping member and means located at each end of the resilient locking element for engagement with the hinged locking plates, whereby the clamping members may be adjustably secured together.

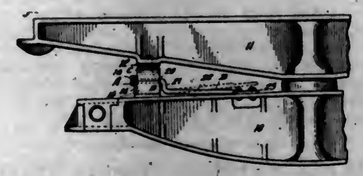
[Claim 2 not printed in the Gazette.]

1,253,086. AUTOMATIC STOP FOR RAILWAYS. DAVID D. O'CONNELL, Spokane, Wash. Filed Nov. 24, 1916. Serial No. 133,193. (Cl. 188—2.)



The combination with a railway car having a train pipe and a truck, of a valve located in the train pipe directly above the truck, a handle on said valve for operating the same, said handle extending outwardly from each side of the valve for equal distances, a horizontal rocking lever pivotally secured to the outer side of each end of the truck, a vertical plunger rod slidably mounted on the outer ends of the truck and having the upper ends thereof pivotally secured to the adjacent end of each rocking lever, the lower end of each vertical sliding plunger rod being bent inwardly at right angles toward each other, so as to overlie the rails of a track, and means operatively connecting the opposite end of each horizontal rocking lever with the free ends of the valve handle, as and for the purpose specified.

1,253,087. ROLLER SIDE BEARING. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Mar. 1, 1916. Serial No. 81,338. (Cl. 64—64.)



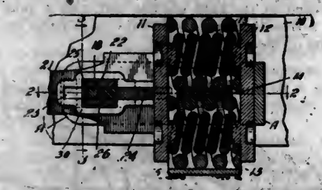
1. In a roller side bearing, the the combination with a bolster, of a roller, a spring axle on which said roller is mounted, the latter being so formed as to normally support said roller out of engagement with any part of the bolster.

[Claim 2 not printed in the Gazette.]

1,253,088. SPRING DRAFT-RIGGING. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Aug. 25, 1916. Serial No. 116,772. (Cl. 213—42.)

1. In a draft rigging, the combination with a draw bar, a yoke, and shock absorbing mechanism within the yoke, of two movable keys, and a fixed key, all of said keys extending transversely through the draw bar and the yoke, the fixed key acting as a front stop for said mechanism and preventing rearward movement of the yoke, the movable keys connecting the draw bar and yoke under draft.

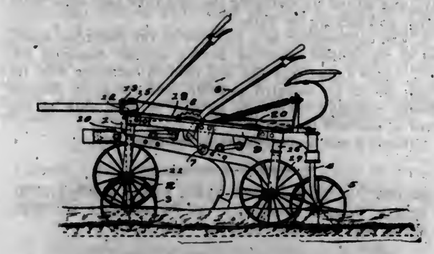
2. In a draft rigging, the combination with a shock absorbing mechanism including a front follower and a rear follower and a horizontal yoke, of a fixed key arranged to prevent forward movement of the front follower, said key being extended through slots in the arms of said yoke and arranged to prevent rearward movement of the latter, but permitting forward movement thereof, and means for operatively connecting said yoke with the draw bar under draft, said means including a pair of keys located one directly above and the other directly below said fixed key.



6. In a draft rigging, the combination with a draw bar, a yoke, and shock absorbing mechanism, of three transversely extending keys all located forwardly of the shock absorbing mechanism, certain of said keys being fixed and adapted to prevent rearward movement of the yoke and act as a front stop for said mechanism, the remainder of said keys being movable and adapted to operatively connect the yoke and draw bar under draft.

[Claims 3 to 5 not printed in the Gazette.]

1,253,089. PLOW DEPTH-REGULATOR. ARTHUR P. OWENS, Bradford, Ill. Filed June 20, 1917. Serial No. 175,881. (Cl. 97—74.)

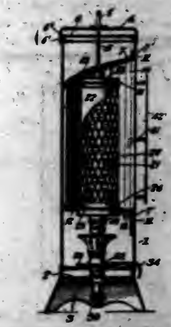


In combination with a plow having a land wheel axle, and a furrow wheel spindle, a depth regulator comprising an approximately diamond shaped frame, depending bearings located at the opposite sides of the frame at points between the ends thereof and pivoted upon the land wheel axle of the plow for vertical swinging movement, one of the said bearings being located in front and the other behind a line which intersects the intermediate angles of the frame, spindles journaled at the ends of the frame, one at a point approximately in alinement with one side of the frame and the other at a point approximately in alinement with the opposite side of the frame, land wheels journaled upon the spindles, means operatively connecting the spindles together to cause them to turn simultaneously in opposite directions and means operatively connecting the forward spindle of the frame with the furrow wheel of the plow to cause all of the spindles to turn simultaneously.

1,253,090. GAS-HEATER. TRUMAN G. PALMER, Chicago, Ill. Filed Dec. 18, 1916. Serial No. 137,586. (Cl. 126—86.)

1. A heater comprising a casing, a burner, a foraminous shell above the burner, a reflector inclosing the shell, and a guard disposed in front of the reflector, said guard having means for locking the reflector to the casing.

2. A heater comprising a casing, a reflector mounted in the casing, a heating unit inclosed by the reflector, and a grid in front of the unit and reflector, said grid having means for locking the reflector to the casing.



3. A heater comprising an open-fronted casing, a reflector mounted in the opening and extending into the casing, and a guard grid extending over the front of the reflector, said grid having means for locking the reflector to the casing.

4. A heater comprising an open-fronted casing, a reflector mounted in the opening and extending into the casing, said reflector and casing having registering openings in the forward sections thereof, and a guard grid extending over the front of the reflector and saving hooked ends engaging the registering openings to lock the reflector to the casing.

1,253,091. GAS-BURNER. TRUMAN G. PALMER, Chicago, Ill. Filed Mar. 23, 1917. Serial No. 156,872. (Cl. 67—96.)



1. An attachment for Bunsen burners comprising a tubular thimble having an outwardly flanged upper marginal edge adapted to engage the upper edge of the mixing chamber of the burner, a formainous diaphragm carried by said thimble, and means for securing said diaphragm in position.

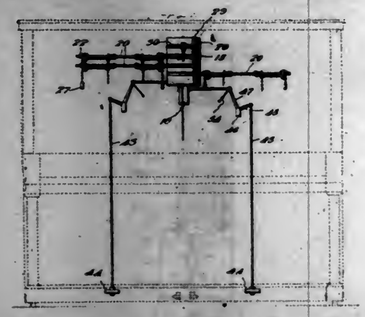
2. An attachment for Bunsen burners comprising a tubular thimble having an intermediate shoulder and a flange at its lower end, foraminous diaphragms supported by said shoulder and flange, and means engaging the interior of the thimble for securing the diaphragms in position.

[Claims 3 and 4 not printed in the Gazette.]

1,253,092. MUSIC-LEAF TURNER. JAMES O. PARKER and VIVA M. PARKER, Lakin, Kans. Filed July 24, 1917. Serial No. 182,507. (Cl. 84—17.)

1. A music leaf turner comprising a support, a shaft mounted thereon and having a flat portion, a plurality of sleeves mounted for independent rotation on said shaft, a leaf turning arm carried by each sleeve, means for rotating said sleeves, and a leaf spring carried by each

sleeve and coöperating with said flattened portion of the shaft to hold said sleeve in adjusted position.



5. A music leaf turner comprising a support, a shaft fixed thereon, a plurality of leaf turning arms associated with said shaft for independent swinging movement, one extremity of each arm being forked, a second shaft rotatably mounted upon the support, arms radiating from said second mentioned shaft, rollers carried by the outer extremity of each arm, said rollers being disposed in triangular relation and coöperating with the forked extremity of the adjacent leaf turning arm to swing the latter in either direction depending upon the direction of rotation of the second mentioned shaft, said leaf turning arm being actuated in successive order with each quarter revolution of the second mentioned shaft, and means for rotating said shafts in reverse directions.

[Claims 2 to 4 not printed in the Gazette.]

1,253,093. GAS-COCK AND THE LIKE. ANGELO PETIX, New York, N. Y. Filed Dec. 3, 1915. Serial No. 64,833. (Cl. 137—7.)

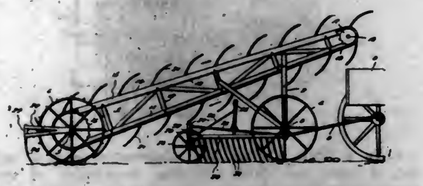


1. A cock or faucet comprising, in combination, a socket, a plug rotatably mounted therein, means adapted to lock said plug in said socket from rotation, a handle operatively connected to said plug, at right angles thereto, a push-rod slidably mounted in said handle and a lever pivotally mounted in said plug, adapted to be engaged by said push rod and to operate said locking means, substantially as and for the purpose set forth.

2. A cock or faucet comprising, in combination, a socket, a plug rotatably mounted therein, means adapted to lock said plug in said socket from rotation, a handle operatively connected to said plug, at right angles thereto, a push-rod slidably mounted in said handle and a lever pivotally mounted in said plug, adapted to be operated by said push-rod and to operate said locking means.

1,253,094. STONE-GATHERER. JOHN PLANTIKO, Withee, Wis. Filed Feb. 24, 1917. Serial No. 150,673. (Cl. 55—17.)

1. The combination in a machine of the character specified of an endless conveyer supporting frame, traction wheels secured to each side of the rear of the said frame, side frames supporting the front end of the said frame in an elevated position, an axle having wheels mounted thereon connecting the lower ends of the said side frames, a rod extending rearwardly from the said axle and having a cross arm mounted thereon, wheels supporting the said cross arm, upwardly movable rake bars pivoted to each end of the said axle and extending inwardly to each end of the above mentioned cross arm, sprocket wheels secured to the above mentioned traction wheels, an endless belt having a sprocket chain secured to each edge thereof and adapted to revolve upon the above mentioned conveyer supporting frame with the said sprocket chains engaging the above mentioned sprocket wheels, outwardly extending fingers secured to the said endless belt, and a rake bar extending across the rear of the said machine in rear of the lower end of the said conveyer.

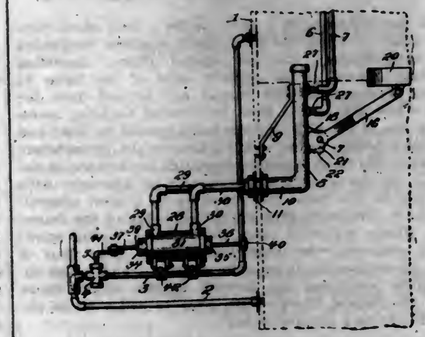


2. The combination in a machine of the character specified of a frame, an endless conveyer having ground engaging fingers mounted to revolve upon the said frame, wheeled trucks supporting the said frame so that its front end is in an elevated position, a rearwardly extending rod secured to the center of the front truck beneath the said frame and having a cross arm mounted thereon, wheels supporting the said cross arm, rake bars horizontally pivoted to each end of the said front trucks and extending inwardly to each end of the said cross arm, springs secured to the said cross arm and the inner ends of the said rake bars, and means for swinging the said rake bars upon their pivots and locking the same.

4. The combination in a machine of the character specified of an endless conveyer having ground engaging fingers, trucks supporting the said endless conveyer with its front end in an elevated position, and inwardly sloping ground engaging rake bars secured to each side of the front of the said machine.

[Claims 3 and 5 not printed in the Gazette.]

1,253,095. AUTOMATIC BOILER FEED MECHANISM. ETHAN POSTLE, Linton, N. D. Filed May 15, 1917. Serial No. 168,766. (Cl. 137—101.)



1. In a feed control mechanism for boilers, a pair of steam lines extending upwardly through the boiler from below the normal water level to a termination above the same, valve casings in said steam lines having ports connected therewith, valves slidable within said casings to close said ports to prevent a flow of steam through the steam lines and float operated means for moving said valves to open these ports in response to a change of water level within the boiler, a drop in water level causing one port to be opened and the other closed and a rise in water level causing a reverse action, and means operated by steam flowing through the steam lines to actuate an injector valve.

2. In an automatic boiler feed mechanism, a pair of steam lines running upwardly through the boiler and terminating above the maximum water level thereof, a cylindrical valve casing in each of said steam lines, a sleeve valve slidable within each of said casings and having a port adapted to be registered with the port of the casing, rack teeth formed on each of the sleeve valves, the valve casings being slotted opposite said rack teeth, and float controlled levers pivoted intermediate their ends, each of said levers being provided with a toothed segmental head on one terminal for engagement with one of the racks.

3. In an automatic feed control for boilers, a pair of vertical valve casings mounted within the boiler, each casing being formed with an intake port, a steam pipe connecting with each intake port, the casings being closed at their upper ends and opened at their lower ends, steam pipes connected to the lower ends of the casing and leading to the exterior of the boiler, means supplied with steam from said pipes for actuating an injector valve, a sleeve valve slidable within each of said valve casings, float controlled means for actuating said valves, the valves being so arranged that a drop in water level will admit steam to one of the valve casings and that a rise in water level will admit steam to the other of the valve casings.

4. In an automatic feed control for boilers, a pair of vertical valve casings mounted within the boiler, said casings being closed at their upper ends, pipes connected to the lower ends of the casings and leading to the exterior of the boiler, sleeve valves slidable within said casings and formed with ports adapted to register with ports of the casings, float controlled means for actuating the valves to admit steam into one of the casings when the water level drops below normal and to admit steam into the other of the casings when the water level rises above normal and means actuated by steam flowing through said casings for controlling an injector valve.

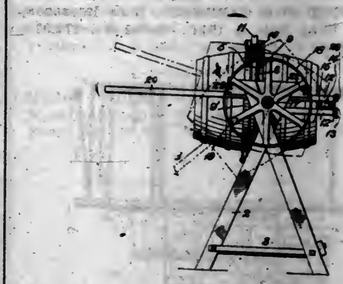
1,253,096. MEASURING INSTRUMENT. BEN H. PRESTON, Monroe, Wis. Filed Aug. 9, 1916. Serial No. 113,977. (Cl. 33—98.)



An instrument of the class described comprising two bars, one having a dove-tailed rib on one face thereof and extending throughout its length, the other bar having a corresponding groove in one face thereof to receive said rib, a thumb screw threaded in one of said bars and adapted to frictionally engage the other so as to maintain the bars in their adjusted position relative to each other, each of said bars having one of its ends bifurcated and formed with an enlargement thereon to provide a stop to limit the relative movement of the bars, said stops being oppositely positioned so as to engage with the inner ends of the bars respectively, a plurality of blades, one disposed in each of said bifurcations and having longitudinal slots therein, and a thumb screw extending through each of said enlargements and through the slots in said blades for adjustably and frictionally securing the blades in position, said blades being foldable into the bifurcation when the instrument is in a folded position.

1,253,097. CONCRETE-MIXING MACHINE. BENJAMIN S. REYNOLDS, Madison, Wis. Filed July 10, 1917. Serial No. 179,653. (Cl. 83—73.)

1. In a mixing machine, a supporting frame, a rotatable mixing receptacle to the exterior of which is secured a bearing ring, a tilting frame in which is situated the mixing vessel, mounted in the supporting frame and comprising a pair of rings surrounding the mixing vessel adjacent to the said bearing ring and spaced apart so as to lie on opposite sides thereof, brackets secured to the peripheries of and uniting the said rings, rollers supported in the brackets and extending between the rings of the tilting frame and into engagement with the bearing ring, and means for rotating the mixing vessel.



2. In a mixing machine, a rotatable mixing vessel, a tilting frame comprising a ring portion within which the mixing vessel lies and turns, and a yoke extending across the closed end of the vessel, bearings mounted in the said ring for supporting the mixing vessel, a ball-and-socket bearing uniting the closed end of the vessel with the yoke and disposed approximately on the axis of rotation of the mixing vessel, means for adjustably uniting one member of the said ball-and-socket bearing with the yoke portion of the tilting frame whereby the parts of the said bearing may be easily brought into proper relationship after the mixing vessel is placed in the tilting frame, and means for rotating the vessel.

1,253,098. VALVE. ELMER RICHARDS, Los Angeles, Cal. Filed Feb. 9, 1916. Serial No. 77,283. (Cl. 152—12.)



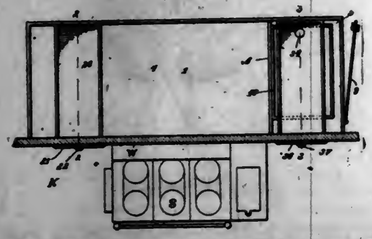
1. In a valve of the character described a plate adapted to be removably mounted upon one face of a pneumatic tube, a head detachably engaged with the plate and having openings therein, a tubular member extending from the head, the head and tubular member being provided with a continuous bore, a valve resiliently retained in a position to cover the openings in the head, a check valve positioned in the bore of the tubular member, a tubular casing detachably connected with the head and adapted to bear against the pneumatic tube, and a closure closing the outer end of the tubular casing and adapted to engage the felly.

2. The combination with a pneumatic tire, of a removable plate arranged upon the one face thereof, a head having detachable engagement with the plate and having a plurality of openings, a tubular member extending from the head, the tubular member and head being provided with a continuous bore, a valve positioned on the tubular member, a coil spring urging the valve to a position to cover the openings in the head, a check valve arranged in the bore of the tubular member, a casing threaded on the head and encircling the tubular member

and engaging the tire, a closure detachably engaged with one end of the casing and including a cylindrical thimble and a dust cap closing one end of said thimble, said closure being provided with openings to permit escape of air from said casing.

[Claim 3 not printed in the Gazette.]

1,253,099. CHUTE FOR GARBAGE. ELLA ROBERSON, Tulia, Tex. Filed June 5, 1917. Serial No. 172,973. (Cl. 220—119.)

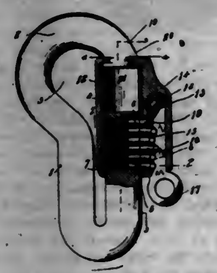


1. In a chute for garbage and the like, the combination with a lean-to structure built outside a wall and itself having a door opening and means for closing the same, said wall having an opening into said structure, and L-shaped guides disposed within said structure in rear of said opening; of a garbage pan removably mounted beneath said guides, a garbage drawer slidably mounted on the guides and having its bottom inclined to its rear end and there provided with an opening, and a front plate and handle on said drawer, all for the purpose set forth.

3. In a chute for garbage and the like, the combination with a lean-to structure built outside a wall and itself having a door opening and means for closing the same, said wall having an opening into said structure, and guides disposed within said structure in rear of said opening; of a garbage receptacle beneath said guides, a garbage drawer slidably mounted on the guides and having an opening in its bottom overlying said receptacle, and an inverted T-shaped lip depending from the bottom in rear of said opening, the head of the T engaging beneath said guides, for the purpose set forth.

[Claim 2 not printed in the Gazette.]

1,253,100. LINK-PADLOCK. JOHN S. RUDZINSKI, Perry, N. Y. Filed Mar. 27, 1917. Serial No. 157,686. (Cl. 70—96.)



1. A padlock comprising a shackle having relatively spaced ends, a member carried by one end of the shackle and adapted to move in engagement with the other end of the shackle to close the space occurring between the ends of the shackle, means for locking the member to the second mentioned end of the shackle, and means for locking the member against movement.

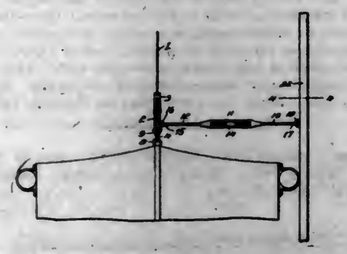
3. A padlock comprising a shackle having relatively spaced ends, a barrel slidable upon one end of the shackle and adapted to be moved in engagement with the other end of the shackle, pins carried by the first mentioned end of the shackle and adapted to lock the barrel against movement upon the shackle, and means for unlocking the barrel from the shackle.

5. A padlock comprising a shackle having relatively spaced ends, a sleeve mounted upon one end of the shackle, a barrel surrounding said sleeve, said barrel and sleeve having alining apertures, said shackle having recesses, spring pressed pins mounted within said recesses and adapted to extend through the alining apertures of the sleeve and barrel when said sleeve and barrel are moved in engagement with the other end of the shackle to close the space occurring between the ends of the shackle, and means for disengaging the pins from the apertures to free the barrel and sleeve upon the shackle.

7. A padlock comprising a shackle having relatively spaced ends, a sleeve surrounding one end of the shackle, a barrel surrounding the sleeve, said last mentioned end of the shackle having recesses, spring pressed pins located within the recesses, said barrel and sleeve adapted to be moved in engagement with the other end of the shackle, and having alining apertures adapted to receive spring pressed pins, an enlarged portion formed on the barrel, pins slidably mounted within the enlarged portion and adapted to move the first mentioned pins out of engagement with the apertures of the sleeve and barrel upon the insertion of a key within said enlarged portion.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,253,101. BOAT RELEASING AND RESTRAINING DEVICE FOR BOAT-LAUNCHING APPARATUS. CARL RYDELL, Manila, Philippine Islands. Filed Jan. 19, 1917. Serial No. 143,359. (Cl. 9—23.)



1. In a boat hoisting or lowering apparatus, a fall block provided with boat engaging means, a guide upon the side of the ship, a member slidably mounted in said guide, and a restraining rod pivoted to said sliding member and detachably coupled to the fall block.

2. In a boat hoisting or lowering apparatus, a fall block, a hook pivoted thereto, means for automatically controlling the position of the hook, and an adjustable restraining device forming a rigid guiding arm adapted to have connection with the side of a vessel and with said block.

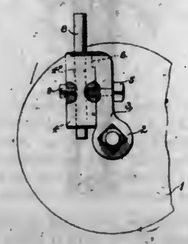
4. In a boat hoisting or lowering apparatus, a fall block including a plurality of members spaced apart at their upper edges providing an opening for a cable and connected at points adjacent the spaced portions, permitting the cable to pass between the connected portions, a hook pivotally connected with the block at a point immediately below said opening for the cable, and means for moving the hook to releasing position when pressure is removed therefrom.

5. In a boat hoisting or lowering apparatus, a fall block, a pivoted hook thereon, a spring for shifting the hook to boat releasing position, a latch link for holding the hook in retaining position against the action of the spring, and means for retaining said latch device in engagement with the hook.

7. In a boat hoisting or lowering apparatus, a fall block provided with boat engaging means, a channel guide upon the side of the ship, a restraining device slidably engaging the guide and coupled to the fall block, and means forming part of said device for engaging the broad surface of the channel and the flanged portion thereof.

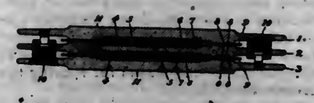
[Claims 3, 6, and 8 not printed in the Gazette.]

1,253,102. CULTIVATOR ATTACHMENT. CHARLES A. SIGLER, Bloomfield, Nebr. Filed Oct. 11, 1916. Serial No. 125,065. (Cl. 97—64.)



In cultivator attachments, the combination with a cultivator standard, of a block adjustably secured on the standard, an arm mounted on the inner face of the block, a supporting and securing bolt inserted through said arm at the approximate center thereof and threaded into said block, the block and the arm being provided in their adjacent faces with coöperating teeth and recesses disposed radially of the bolt for securing the arm in retary adjustment about the bolt, and a disk carried by said arm adjacent the lower end thereof and having its spindle disposed substantially at right angles to said bolt.

1,253,103. SPARK-GAP FOR THE PRODUCTION OF POWERFUL ELECTRICAL OSCILLATIONS. EMIL J. SIMON, New York, N. Y. Filed June 24, 1912. Serial No. 705,516. (Cl. 250—38.)



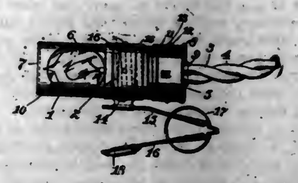
1. A spark gap device for the production of powerful electrical oscillations, comprising a plurality of self-contained individually removable units, each unit comprising a plurality of electrodes spaced slightly apart by insulating and air-excluding material inclosing the sparking space, and said electrodes being held together under pressure by means forming part of the unit structure and serving to hold said electrodes in adjusted position whether assembled as part of the spark gap device or removed therefrom, whereby each unit is independent of the other units and of the gap as a whole.

4. A self-contained individually removable spark gap unit, comprising a plurality of electrodes assembled together with opposing faces offset from each other, a packing of insulating and air-excluding material between parts of said electrodes and inclosing the opposing sparking faces thereof, and insulated screw pressure securing devices passing through said electrodes to hold the same and said packing under pressure in assembled relation independently of any other unit.

6. A self-contained individually removable spark gap unit adapted to be assembled with one or more similar units to form a multiple-unit spark gap, said unit comprising a plurality of electrode plate assembled together flat-wise with opposing sparking faces of adjacent plates separated to provide a spark gap space between them, said plates having packing of insulating and air-excluding material between adjacent plates and surrounding the sparking faces thereof, and being held pressed together by a plurality of independently adjustable clamping devices forming part of the unit structure and spaced peripherally about the plates beyond their sparking faces, said clamping devices serving to hold said plates in adjusted position whether assembled in a multiple-unit structure or removed therefrom.

[Claims 2, 3, 5, and 7 not printed in the Gazette.]

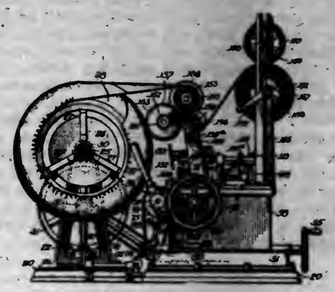
1,253,104. SIGNAL FOR AUTO-DRIVERS. THOMAS MARSHALL SMITH, Baltimore, Md. Filed Dec. 18, 1916. Serial No. 137,693. (Cl. 240—59.)



1. In combination an electric lamp, a casing inclosing the same and having its axis coinciding with that of the lamp, a clamp consisting of two members on one of which the casing is directly mounted to move therewith as one body, said clamp attaching the casing to the user with the axis of the casing parallel with the axis of his arm, wrist, or hand, lead wires extending to the lamp through the rear end of the casing, said casing having a lateral opening for the display of light and means for holding the lead wires at a point in rear of the lamp and substantially co-axial therewith, the said means being adapted to be supported on the arm of the user, substantially as described.

[Claim 2 not printed in the Gazette.]

1,253,105. MACHINE FOR MAKING TIRE-CARCASSES. WILLIAM C. STEVENS, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed Apr. 12, 1913. Serial No. 760,615. (Cl. 154—10.)



1. In a tire-machine, the combination of a revoluble tire-core, a fabric-applying member located in a plane oblique to the path of rotation of the core at the point of action of such member on the core, and means to cause said fabric-applying member to travel in a spiral path over the core, substantially as described.

11. In a tire-machine, the combination of a revoluble tire-core, a pair of fabric-applying members adapted to act simultaneously on opposite sides of the core, means

common to both of said members to exert the same uniform pressure toward the core on both of the members at all positions of the latter on the core, means to feed said members inwardly toward the core-axis, whereby the members act on successive portions of the tire-fabric to apply the same to the core or a previously applied underlying ply of fabric on the core, and manual means to modify the action of said pressure-applying means on said members, substantially as described.

15. In a tire-machine, the combination of a revoluble tire-core, a carriage, a pair of arms fulcrumed on said carriage, a fabric-applying roller mounted on each of said arms, said rollers being adapted to act simultaneously on opposite sides of the core, means acting on said arms tending to press or force said rollers toward the core, means to advance said carriage and rollers toward the axis of the core, whereby the rollers act on successive portions of the tire-fabric to apply the same to the core or a previously applied underlying ply of fabric on the core, a right-angle manually-operable lever connected to one of said arms, and a link connecting said lever to the other arm, whereby the operator is enabled to swing said arms on their fulcrums to modify the action of said arm-pressing means, substantially as described.

20. In a tire-machine, the combination of a revoluble tire-core, a carriage, a spring-pressed mounting on said carriage, a checking-roller in said mounting adapted to bear against the surface of the core or applied plies thereon, a stretching-roller in said mounting with which the strip of fabric as it is applied to the core co-acts, gearing between said checking and stretching-rollers whereby the latter has a definite movement with respect to the surface on which the checking-roller travels, a second carriage mounted on said first-named carriage, a pair of fabric-applying rollers mounted thereon adapted to act simultaneously on opposite sides of the core, means yieldingly pressing said rollers toward the core, and means to advance said second carriage on the first carriage and its rollers toward the axis of the core at different speeds of travel whereby the rollers act progressively on successive portions of the tire-fabric to apply the same to the core or previously applied underlying plies of fabric on the core, the different speeds of advance of said second carriage and rollers being employed for applying the fabric on different portions of the core and determined by the contour of the surface to which the ply is being applied, substantially as described.

27. In a machine of the character described, the combination of a revoluble core, means for shaping a ply of fabric to the core, means for advancing said shaping-means across the core-face including a shaft, a friction drive wheel on said shaft, an actuating shaft adjacent to the friction drive wheel, an eccentric bearing for said actuating-shaft equipped with a handle and an arm, a friction drive roller on said actuating shaft, a second friction drive roller of different size on said arm, means to operate said second roller from said actuating shaft, and means yieldingly holding said eccentric bearing in neutral position with neither of the rollers in contact with the drive-wheel, the parts being so related that by turning the eccentric bearing by its handle either of said rollers may be brought into operative relation to said drive wheel, substantially as described.

[Claims 2 to 10, 12 to 14, 16 to 19, 21 to 26, and 28 to 33 not printed in the Gazette.]

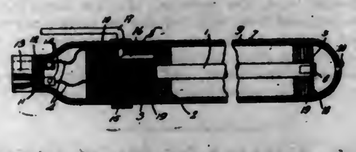
1,253,106. WELL-BAILING DEVICE. IRA SWARTZ, Coalinga, Cal. Filed June 29, 1917. Serial No. 177,783. (Cl. 166—19.)

A bailing device for wells, etc., comprising a tubular shell having a circumferential shoulder, tubes fitted over said shell and abutting against said shoulder, one of said tubes having an interiorly beveled shoulder terminating at the adjacent end of said shell, a hollow cylindrical shell movable within one of said tubes, a stem having a split end forming fingers secured to said cylindrical shell, a ball valve with an aperture therein the wall of which is interiorly threaded to receive the threaded end of said stem, a flexible member fastened to the bottom of



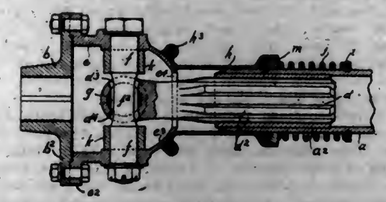
the movable cylindrical shell and provided with laterally extending openings and a central solid portion.

1,253,107. ELECTROTHERAPEUTIC REJUVENATOR. CHARLES M. SWINGLE, Cleveland, Ohio. Filed Dec. 2, 1916. Serial No. 134,612. (Cl. 174—39.)



An electro-therapeutic rejuvenator embodying a core, a pair of members on the core near the ends thereof, an electrical coil upon the core held between said members, a shell slipped over said coil and one of said members and having one end attached to the other of said members, the other end of the shell having an outlet aperture, said members being provided at one side of the core with liquid apertures for the flow of liquid through the coil between the core and shell, and means for spacing the ends of the coil from said members.

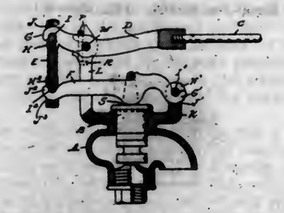
1,253,108. UNIVERSAL JOINT. CECIL HAMBLIN TAYLOR, Alma, Mich. Filed July 22, 1916. Serial No. 110,751. (Cl. 74—19.)



1. The combination of a tubular shaft, a sleeve in said shaft having longitudinal grooves in its inner surface, a shaft end having splines extending outward from its outer surface adapted to fit into the grooves of said sleeve and permit longitudinal motion of said engaging parts, a universal joint mechanism, said shaft end being connected to said mechanism, and a housing inclosing said mechanism and the joint between said shaft end and the sleeve.

[Claim 2 not printed in the Gazette.]

1,253,109. VALVE-OPERATING MECHANISM. WILLIAM TAYLOR, Ford City, Ontario, Canada, assignor to W. A. Case & Son Manufacturing Company, Buffalo, N. Y., a Corporation of New York. Filed Dec. 15, 1916. Serial No. 137,197. (Cl. 137—104.)



2. In a valve operating mechanism, the combination with the movable valve member, of a compound lever for controlling the same, comprising a plurality of separately-fulcrumed lever elements and a link having a normally limited angular movement, and means for engaging and disengaging said elements and link only when in abnormal angular relation.

3. In a valve operating mechanism, the combination with a movable valve member, of a lever for operating the same, a fulcrum for said lever, and means for engaging said lever with said fulcrum when in abnormal angular relation only by a movement transverse of the axis of said fulcrum and for retaining said lever in engagement with its fulcrum in normal angular relation.

4. In a valve operating mechanism, the combination with a movable valve member, of a compound lever for controlling the same comprising a plurality of linked lever elements and fulcrums therefor, means for engaging said elements with their linkage when in abnormal angular relation, said means preventing disengagement when in normal angular relation, and a detachable connection between one of the elements and its fulcrum permitting the abnormal angular relation.

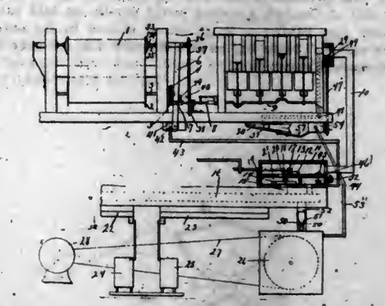
8. A valve operating mechanism, comprising a movable valve member, a stationary casing therefor, a plurality of fulcrum-arms projecting from said casing, a compound lever having one element engageable with one of said fulcrum-arms and with said movable valve member, another element engageable with the other of said fulcrum-arms and a link for connecting said elements, the engagement between said elements and link comprising a hook on the one, a pin on the other and a bearing for holding said hook normally in engagement with said pin, permitting of disengagement when in abnormal angular relation, and a clip for detachably securing one of said elements to its fulcrum and thereby limiting the angular movement of the other elements.

9. In a valve operating mechanism, the combination with the movable valve member, of a plurality of fulcrumed lever elements for operating said valve member having normally a limited angular movement and normally held in assembled relation, and means for permitting assembling and disassembling of said lever elements only when in abnormal angular relation.

[Claims 1 and 5 to 7 not printed in the Gazette.]

1,253,110. MUSICAL-INSTRUMENT AIR-GOVERNOR CHECK. HERSCHEL E. TOWER, Cincinnati, Ohio, assignor to The Baldwin Company, Cincinnati, Ohio. Filed July 27, 1917. Serial No. 183,164. (Cl. 84—166.)

1. A music sheet winding and rewinding apparatus; a wind motor and driving connections therefrom to the said winding and rewinding apparatus; wind inducing means and power means connected to the same; wind inducing means and foot pedals connected to the same; air connections from both said wind inducing means to the said wind motor and an air governing means interposed in said air connections between said wind inducing means and said wind motor, said governing means adapted to operate only during the said rewinding operation of said wind motor, and a check means in combination with said governing means and adapted to limit the operative movement of said rewinding governing means only during the operation of said foot pumping means.



2. A music sheet winding and rewinding apparatus; a wind motor and driving connections therefrom to the said winding and rewinding apparatus; wind inducing means and power means connected to the same; wind inducing means and foot pedals connected to the same; air connections from both said wind inducing means to the said wind motor and an air governing means interposed in said air connections between said wind inducing means and said wind motor, said governing means adapted to operate only during the said rewinding operation of said wind motor, and a check means in combination with said governing means and adapted to limit the operative movement of said rewinding governing means, and a connection from said power pumping means to said check means adapted to prevent the said check means from limiting the operation of the said governing means.

4. A music sheet winding and rewinding apparatus; a wind motor and driving connections therefrom to the said winding and rewinding apparatus; wind inducing means and power means connected to the same; wind inducing means and foot pedals connected to the same; air connections from both said wind inducing means to the said wind motor and an air governing means interposed in said air connections between said wind inducing means and said wind motor, said governing means adapted to operate only during the said rewinding operation of said wind motor, and means adapted to limit the action of said governor only during the operation of said foot pumping means.

7. A musical apparatus having two alternative air service inducing means; an air governing means connected to said air service; and means controlled by said air service and adapted to change the degree of air control of said governing means according to which of said air inducing means is in operation.

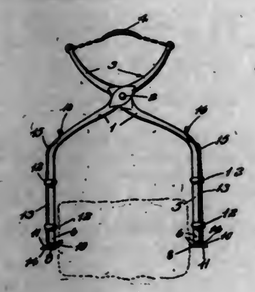
8. A music playing apparatus having two alternative air service inducing means operated by two separate sources of power; an air governing means connected to said air service; a wind motor connected to the said governor; and means controlled by said air service and adapted to change the degree of air control of said governing means according to which of said air inducing means is in operation.

[Claims 3, 5, and 6 not printed in the Gazette.]

1,253,111. ICE-TONGS. THOMAS L. VEST, Parkville, Mo. Filed July 12, 1917. Serial No. 180,175. (Cl. 57—9.)

1. A device of the class described including a pair of straight jaws, a spur pivotally connected between its ends to the end of one of the jaws, guides on said jaw, a rod slidable in said guides and adapted to drop by gravity to contact one end of the spur to move the other end inward, and a cam pivoted to the jaw to engage the upper end of the rod and lock it against movement.

2. A device of the class described including a pair of straight jaws, a spur pivotally connected between its ends to the end of one of the jaws, guides on said jaw, a rod slidable in said guides and adapted to drop by gravity to contact one end of the spur to move the other end inward, and a cam pivoted to the jaw at a point adjacent the upper end of the rod, a spring metal handle on said cam, and said jaw having a longitudinal groove in its outer face to receive the spring handle whereby the rod may be locked against movement.



4. A device of the class described comprising a pair of crossed jaws having their lower ends bifurcated to form spaced ears, a pair of spurs pivotally connected intermediate their ends to the jaws between said ears, said spurs each comprising a substantially, rectangular central portion, an inwardly and upwardly directed tapered extension on said portion, an outwardly extending lug on said body, said lug having its outer end inclined downwardly and outwardly from its upper edge, guides on said jaws, rods slidable in said guides and adapted to drop by gravity to engage the lugs on the spurs to move the tapered ends inwardly, cams pivoted to the jaws and adapted to engage the upper ends of said rods to lock them against movement and a handle connecting the upper ends of the jaws.

[Claim 3 not printed in the Gazette.]

1,253,112. [WITHDRAWN.]

1,253,113. ANTISKIDDING DEVICE FOR VEHICLE-WHEELS. HARRY D. WEED, Syracuse, N. Y., assignor, by mesne assignments, to American Chain Company, Incorporated, Bridgeport, Conn., a Corporation of New York. Original application filed Nov. 19, 1907, Serial No. 402,778. Divided and this application filed June 3, 1915. Serial No. 31,801. (Cl. 152—2.)



1. In combination with the rim of a vehicle wheel and an elastic tire having multiple treads spaced apart to form an intervening annular groove and having substantially flat tread faces, of an anti-skidding device comprising two staggered series of sheet metal tread members in the form of substantially rectangular gripping plates having substantially flat portions to engage the flat tire treads and having inwardly projecting angularly arranged securing flanges flaring out away from the sides of the tire to minimize cutting or wear thereon, and integral attaching hooks on said plates depressed within the wearing portion of the tread members, a chain attaching member located in the annular groove between the tire treads and secured to the central series of attaching hooks located within said groove and outer chain attaching members connected to said outer attaching hooks and located substantially opposite the wheel rim to assist in alining said gripping plates.

7. In anti-skidding devices for multiple tread elastic tires having an annular groove between the tread faces, two series of metal tread members forming gripping plates to engage the flat tire treads, and integral attaching portions on said plates depressed within the wearing portion of the tread members, an attaching member to be located in the annular groove between the tire treads and secured to the central series of attaching portions and outer attaching members connected to said outer attaching portions.

[Claims 2 to 6 not printed in the Gazette.]

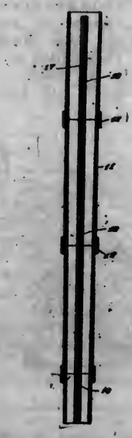
1,253,114. LADDER. DICK C. WHITE, Albany, Oreg., assignor to Far West Manufacturing Co., Albany, Oreg., a Corporation of Oregon. Filed Nov. 25, 1916. Serial No. 133,421. (Cl. 228—17.)



1. A ladder comprising a main section and a supplemental section each formed with a pair of bars and rungs connecting said bars, means for hingedly connecting the supplemental section with said main section comprising a pair of L-shaped straps, one of said straps being connected with the outer side face of the main section while the other of said straps being connected to the inner side face of the opposite section and adapted to frictionally engage with one another upon the swinging of the supplemental section to convert the ladder into an extension ladder, a portion of said straps extending beyond the rear edge of the side rails of the ladder and provided with apertures, a pin passing through the apertures of the protruding portions of the straps for hingedly connecting the ladder sections together and to dispose the rungs of the supplemental section in alinement with the rungs of the main section.

2. A ladder comprising a main section and a supplemental section each formed with a pair of side bars and rungs connecting said bars, means for hingedly connecting the supplemental section with said main section comprising a pair of L-shaped straps, one of said straps being connected with the outer side face of the main section while the other of said straps being connected to the inner side face of the opposite section and adapted to frictionally engage with one another upon the swinging of the supplemental section to convert the ladder into an extension ladder, a portion of said straps extending beyond the rear edge of the side rails of the ladder and provided with apertures, a pin passing through the apertures of the protruding portions of the plates for hingedly connecting the ladder sections together and to dispose the rungs of the supplemental section in alinement with the rungs of the main section, and means slidably mounted on the side bars of the supplemental section and embracing the upper extremities of the side bars of the main section for preventing any accidental folding of the ladder and retaining the same in an extended position.

1,253,115. AIR LIFT-PUMP. CHARLES W. WHITNEY, Chicago, Ill. Filed Dec. 13, 1915. Serial No. 66,455. (Cl. 103—84.)

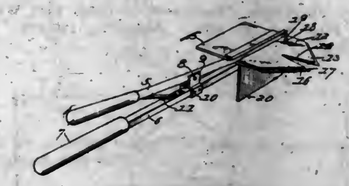


1. An air lift or pump eduction piping composed of a series of cast iron sections coupled together so as to provide a smooth interior, the external diameter of a section being substantially identical throughout its length while the internal diameter is gradually and constantly increased from one end to the other.

4. An air lift or pump having an eduction conduit or piping composed of a series of cast iron sections having externally threaded ends, the external diameter of each section being substantially identical throughout the length of the section, while the internal diameter of each section is constantly and gradually increased at a ratio commensurate with the pressure, the internal diameter at the upper end of one section being adapted to correspond with the internal diameter at the lower end of the adjacent upper section, and means provided with a varying internal diameter adapted to screw onto the upper and lower ends of adjacent sections so as to form smooth internal joints.

[Claims 2 and 3 not printed in the Gazette.]

1,253,116. JEWEL-SETTER. ROBERT E. ALDRIDGE, Pleasant Hill, La. Filed May 24, 1917. Serial No. 170,745. (Cl. 81—8.)



2. A device of the character described comprising a pair of pivotally connected levers, plates secured transversely to the respective levers and having companion tapered ends each formed with a central bifurcation providing a slot, one of said plates being longer than the other, a guard depending at right angles to the longer plate and carried by the lever supporting the same, means resiliently acting upon the levers to hold the plates normally together, a guide pin mounted in one of the plates and loosely working through the other plate to prevent relative displacement of the plates when moving toward and away from each other, and one of said levers being of greater length than the other.

[Claim 1 not printed in the Gazette.]

1,253,117. CRUTCH. AUSTIN R. ALLEN, Bigspring, Nebr. Filed Mar. 28, 1917. Serial No. 156,922. (Cl. 135—50.)

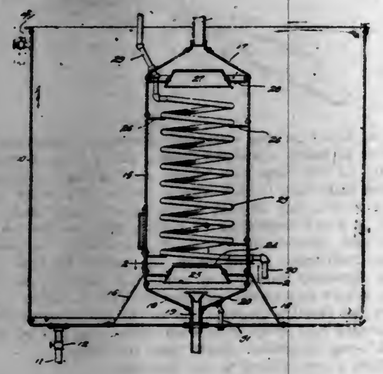


1. An adjustable crutch including an arm rest, side members connected with the arm rest, the terminals of the side members opposite the arm rest having spaced apertures therein, an adjustable leg having apertures, a substantially U-shaped clip extending through the alined openings in the side members and adjustable leg for securing the latter in adjusted position, the web portion of the clip being curved to provide a handle to facilitate removal of the clip from the crutch.

2. A crutch including an arm rest, side members connected with the arm rest having spaced openings in the

terminals opposite the arm rest, an adjustable leg having openings therein arranged in closer relation than the spaced openings in the side members, a substantially U-shaped clip including a curved web portion and parallel legs extending through the alined openings in the side members and leg, the web portion of the clip being curved to provide a handle to facilitate removal of the clip from the crutch, and means associated with the clip for drawing the terminals of the side members together and securely clamping the bolt.

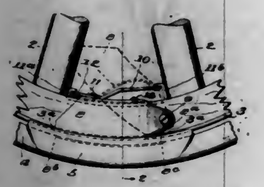
1,253,118. HEATER. ROBERT W. AVERITT, Fort Worth, Tex. Filed Oct. 23, 1916. Serial No. 127,218. (Cl. 257—205.)



1. A heater comprising a tank, a drum mounted in the tank, a coil arranged in the drum and opening at one end into the tank and having connection at its opposite end to a source of water supply, said coil being adapted to convey the water downwardly through the coil to the bottom of the tank, an inlet nozzle in the bottom of the drum adapted to inject a heated fluid into the bottom of the drum, a spreader on the inner end of the nozzle, and baffles arranged in the drum for spreading and deflecting the heated fluid about the coil.

[Claims 2 and 3 not printed in the Gazette.]

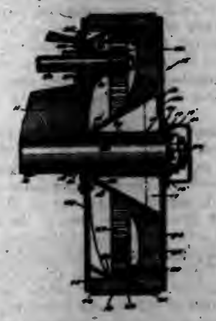
1,253,119. DEMOUNTABLE RIM. ROBERT M. BAIRD, Salt Lake City, Utah, assignor of one-third to Bruce E. Baird and one-third to W. Eccles Baird, Salt Lake City, Utah. Filed Nov. 29, 1916. Serial No. 134,115. (Cl. 152—21.)



1. In combination, a wheel felly, a demountable rim thereon, rim securing means comprising two lock block members on said demountable rim arranged axially opposite each other at the sides of said felly, and a locking member mounted on said felly and extending axially across the same and adapted to be engaged between the felly and the lock block on each side of said felly whereby axial movement of the rim on the felly is prevented.

[Claims 2 to 10 not printed in the Gazette.]

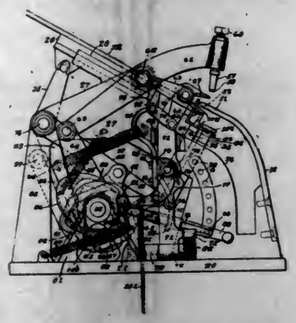
1,253,120. SELF-LUBRICATING TRACTOR-WHEEL. JOHN P. BARKER, Glendale, Cal., assignor, by mesne assignments, to Homer Motors Company, Los Angeles, Cal., a Corporation of Arizona. Filed Nov. 28, 1916. Serial No. 133,972. (Cl. 74—41.)



2. The combination with a vehicle axle, of a hub having a reservoir discharging to the axle, a cap secured to the hub over the end of the axle, a filling plug for the reservoir, a web extending from the outer end of the hub, a rim on the web in line with the hub, a gear and pinion within the rim for driving the wheel, a shaft for the pinion, and a back plate rigid with the axle and forming a close joint with the axle, the shaft, and the rim, so that oil placed in the reservoir through the filing plug will lubricate the axle and then lubricate the gear and pinion and then lubricate the joint between the back plate and the wheel to exclude dust.

[Claims 1 and 3 not printed in the Gazette.]

1,253,121. MACHINE FOR SETTING BLIND EYELETS. JOSEPH W. BARNA, Chicago, Ill., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 20, 1914, Serial No. 833,071. Renewed Mar. 13, 1916. Serial No. 83,941. (Cl. 218—15.)



1. A machine for setting blind or concealed eyelets having, in combination, a support for a shoe upper comprising a lining part and an outer part, a tubular punch for perforating one part, a solid punch constructed and arranged to form in the other part a smaller hole than that formed in the first part, and setting devices for setting an eyelet in the hole formed by the solid punch.

2. In an eyeleting machine, the combination with a stationary anvil having oppositely disposed faces and a passage surrounded by an upsetting surface on one side of the anvil, of a punch having a set for an eyelet on the same side of the anvil as the upsetting surface, a tubular cutter on the other side of the anvil in line with said passage, means to move the punch into the anvil passage and the punch-set toward the upsetting surface to upset an eyelet, and means for moving the tubular cutter into engagement with the anvil outside the passage.

8. In a machine for setting blind or invisible eyelets, a tool for punching a hole in one of two superposed layers of sheet material, means for punching a second hole in the other of said layers, and means for inserting an eyelet through the second hole and clenching the eyelet before the removal of the tool from the layer first mentioned.

15. In an eyeleting machine, the combination with a stationary anvil, means coöperating therewith to push and set an eyelet in a piece of stock on the anvil and to punch another piece of stock in line with the axis of the eyelet, of a pair of jaws adjacent the anvil, a pivoted member on which the jaws are pivoted, means to close the jaws on the stock after the eyelet is set therein, means to move said member on its pivot away from the anvil to feed the stock thereon while the jaws are closed, and means to return the jaws to initial position.

[Claims 3 to 7, 9 to 14, and 16 to 25 not printed in the Gazette.]

1,253,122. LIFE-PRESERVER. MICHAEL BARON, Newark, N. J. Filed July 9, 1917. Serial No. 179,371. (Cl. 9—17.)



1. A life preserver, including an inflatable receptacle, a body attaching belt for said inflatable receptacle, and straps encompassing and secured to said inflatable receptacle, the ends of one strap being secured to the other strap, said straps being each in two parts with their ends overlapped, and unattached to the inflatable receptacle at predetermined points to form keepers receiving said body attaching belt.

3. A life preserver, including a plurality of oblong or oval buoyant members having secured transversely thereabout looped or keeper-forming members having their loops or keepers adapted to be presented next to the body of the user of the device, and a body encompassing member rove through said loops or keepers in the direction of the longitudinal plane or axes of said buoyant members, whereby the latter are adapted to be applied for use in such longitudinal or axial planes transversely to the user's body, also positioned at the arm-pits and at the back, providing for the advantageous distribution of the buoyancy with respect to the body.

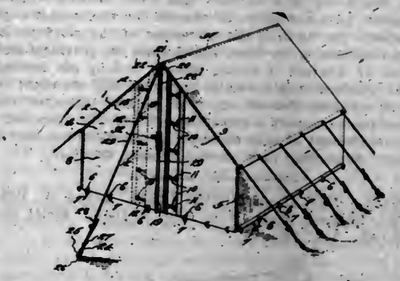
[Claim 2 not printed in the Gazette.]

1,253,123. TENT. ELI D. BEARD, Soda Springs, Idaho. Filed July 20, 1917. Serial No. 181,889. (Cl. 135—1.)

1. In a tent, vertical walls, bottom flaps permanently secured to said walls and normally disposed at right angles thereto within the tent in engagement with the ground and means for securing said flaps in parallelism with and against the walls to which they are attached.

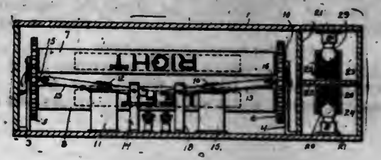
2. In a tent, vertical walls, bottom flaps secured to the lower edges of said walls to lie in contact with the ground, snap hooks carried by said bottom flaps and rings carried by the walls to which said snap hooks may be engaged to hold the bottom flaps in raised position.

3. In a tent, vertical walls, means secured to said walls for holding them in close engagement with the ground, bottom flaps secured to said walls and normally disposed at right angles thereto in contact with the ground within the tent, and coöperating means carried by the respective



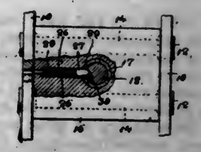
parts for securing said bottom flaps in parallelism with and against said vertical walls.

1,253,124. AUTOMOBILE-SIGNAL. FRITZ S. BECKMAN, Grundy Center, Iowa. Filed Jan. 17, 1917. Serial No. 142,864. (Cl. 40—52.)



An automobile signal comprising a casing having slots in the front wall thereof, direction indicating rollers journaled in the casing and extending parallel with the slots, magnets located in said casing, standards secured in said casing, bars pivoted to the standards and overlying the magnets, gears journaled in the casing, and having apertures therein, pins pivoted to the free ends of the bars and extending into the apertures of the gears, and gears secured to the ends of the rollers and in mesh with the first mentioned gears, and means for energizing the magnets to rotate the rollers.

1,253,125. DISPLAY-CABINET. JAMES BOGAN BELK, Charlottesville, Va. Filed June 28, 1916. Serial No. 106,494. (Cl. 211—16.)

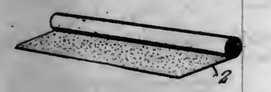


1. A display apparatus of the character described embodying an elongated frame, a platform mounted between the side walls of the frame for movement longitudinally of the latter, a standard rising from the platform and mounted for rotation, a garment supporting rack carried by the standard, said platform having a transverse bore, a spring pressed locking pin fitted within the bore and engaging said standard to normally prevent rotation thereof, said side wall of the frame having an opening adjacent one end adapted to register with said bore when the platform is moved to the limit of its adjustment in one direction, to permit a retraction of said locking pin, and rotation of the standard.

2. A display apparatus embodying an elongated frame having longitudinally disposed slots in the opposed side walls thereof, a platform arranged to slide between said

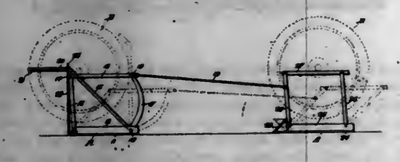
walls, rollers supporting said platform, grooved wheels on the opposite ends of said rollers and operating within said slots, the lower wall of each slot being formed with a depression adjacent each end thereof for the reception of the wheels for limiting the movement of the platform in either direction, a standard rising from the platform and capable of rotation, a spring pressed locking pin carried by the platform and normally engaging said standard to prevent rotation thereof, one wall of said frame having an opening to permit a retraction of said pin upon limit of the movement of said platform in one direction, and a garment supporting rack carried by said standard.

1,253,126. PENCIL AND THE LIKE. LOUIS W. BELLAMY, Madison, Ind. Filed July 5, 1916. Serial No. 107,643. (Cl. 120—83.)



A pencil or the like including a sheet of paper having a distasteful substance distributed over one face thereof, said sheet being rolled to form the body of the pencil or the like and to distribute the distasteful substance at different distances from the center of the pencil or the like.

1,253,127. COMBINATION VEHICLE LIFT AND STAND. OTTO E. BENSON, White Cloud, Kans. Filed Apr. 24, 1917. Serial No. 164,183. (Cl. 254—89.)



1. A combined vehicle lift and stand embodying a plurality of normally collapsed frames above which said vehicle is adapted to move, said frames being connected in pairs for simultaneous movement, a lever operatively associated with one frame of each pair and adapted to be actuated by the vehicle to move both of said frames to an active or set up position, said lever having an offset extremity whereby said lever may be manually actuated to collapse said frames, and means coöperating with said offset extremity to hold said frames rigid in set up position.

2. A combined vehicle lift and stand embodying a plurality of normally collapsed frames above which the vehicle is adapted to move, said frames being connected in pairs for simultaneous movement, a vehicle actuated lever operatively associated with one frame of each pair, and operable to move both of said frames to an active or set up position, said lever having an offset extremity to provide for the manual manipulation of said lever to collapse said frame, and a resilient hook like element disposed to automatically engage said extremity, whereby said frames are rigidly maintained in set up position.

1,253,128. PAPER-ROLL PROTECTOR. JOHN C. BIRMINGHAM, Kansas City, Mo. Filed Jan. 22, 1917. Serial No. 143,590. (Cl. 206—59.)



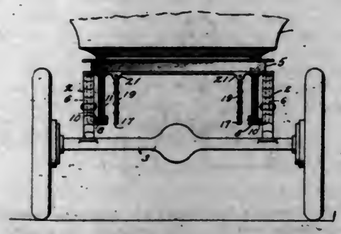
1. In a device of the character described, a band having slotted ends and adapted to be placed circumferentially around paper rolls of different diameters, a flexible tie adapted to be hooked in one slot and pass through another slot to firmly but removably secure said ends together to permit removal of the band from the roll, members on one end of the band provided with beveled sides, and a pin adapted to be secured to one end of the tie and abut said beveled sides.

5. In an edge protector for paper rolls, a band having overlapping slotted ends, a tie having one end hooked through one slot of the under band end and extending through one of the slots of the upper band end, means movable to engage the last named tie end, and means against which said means abuts to hold the same in place by the tension of the tie.

9. In an edge protector for rolls, a band having overlapping ends the upper of which is slotted, a flexible tie, means to secure one end of the tie to the under band end, said tie having its opposite end passed through the slot of the upper band end and extending toward the free extremity of the latter whereby upon drawing said tie taut same will move the band ends in opposite directions, and means to secure opposite end of the tie against movement after adjustment thereof.

[Claims 2 to 4 and 6 to 8 not printed in the Gazette.]

1,253,129. DEVICE FOR CONTROLLING SHOCK. CHARLES BRYAN BILLINGHURST, Pierre, S. D. Filed Apr. 25, 1917. Serial No. 164,399. (Cl. 21—182.)



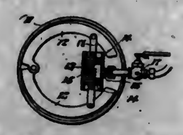
1. In a motor vehicle of the character specified, comprising, in combination with the inner and the outer substantially rectangular frames, the inner frame being adapted to support the body, and the outer frame being adapted to be connected with the springs of the vehicle, of a flexible non-metallic connection between said frames, and comprising pendants on the frames and straps of flexible non-metallic material between the pendants and the other frame, each pendant comprising a body portion connected at one end to the frame and having at the other a lateral arm provided with an upstanding lug, and a pin arranged between the lug and the body of the pendant, said pendant being sectional, and the sections being adjustable with respect to each other.

2. In a motor vehicle of the character specified, comprising, in combination with the inner and the outer substantially rectangular frames, the inner frame being adapted to support the body, and the outer frame being adapted to be connected with the springs of the vehicle, of a flexible non-metallic connection between said frames, and comprising pendants on the frames and straps of flexible non-metallic material between the pendants and the other frame, each pendant comprising a body portion connected at one end to the frame and having at the other a lateral arm provided with an upstanding lug, and a pin arranged between the lug and the body of the pendant.

3. In a motor vehicle of the character specified, comprising, in combination with the inner and the outer substantially rectangular frames, the inner frame being adapted to support the body, and the outer frame being adapted to be connected with the springs of the vehicle, of a flexible non-metallic connection between said frames, and comprising pendants on the frames and straps of flexible non-metallic material between the pendants and the other frame, said connection comprising a pendant consisting of a body and a base, the base being adapted for connection with the frame and having a threaded socket, the upper end of the body being threaded into the socket, and said body having at its lower end a lateral extension, detachable flange plates at the ends of the extension, a block of resilient material held between the flange plates beneath the extension, and a strap passing beneath the block and connected at its upper ends to the frame.

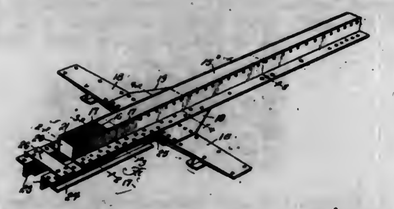
4. In a motor vehicle of the character specified, comprising, in combination with the inner and the outer substantially rectangular frames, the inner frame being adapted to support the body, and the outer frame being adapted to be connected with the springs of the vehicle, of a flexible non-metallic connection between said frames, and comprising pendants on the frames and straps of flexible non-metallic material between the pendants and the other frame, said pendants being composed of sections adjustable with respect to each other to vary the effective length of the pendant.

1,253,130. AIR-BRAKE MECHANISM. EDWARD S. BOCK, Ellinwood, Kans. Filed May 26, 1917. Serial No. 171,191. (Cl. 188—3.)



In combination with an air pump and tank adapted to be applied to the frame of a machine, a drum adapted to be connected with the wheel of the machine, shoes pivotally mounted within the drum, a cylinder located within the drum, said cylinder being open at its ends, means for leading air from the tank to the last mentioned cylinder at a point between the ends thereof, pistons movably mounted in the last mentioned cylinder, a spring located between and connected with the said pistons and being under tendency to draw the same toward each other, and links pivotally connected with the said pistons and pivotally connected with the said shoes.

1,253,131. STEEL REINFORCEMENT FOR FREIGHT-CARS. WILBUR M. BOSWORTH, Norfolk, Va. Filed Sept. 6, 1916. Serial No. 118,701. (Cl. 105—76.)



1. In an underframe for cars, the combination with a bolster of a center sill including angle beams having vertical flanges and outwardly extending horizontal flanges, and a gusset plate interposed between the center sill and the bolster and securely connected with both the center sill and the bolster, said gusset plate extending entirely beneath the center sill and above the bolster.

2. In an underframe for cars, the combination with a bolster and a center sill of a gusset plate materially exceeding the width of the center sill said gusset plate being interposed between the bolster and the center sill beneath the latter, the projecting parts of the gusset plate being secured on the bolster and intermediate parts of the gusset plate being securely connected with the bolster and with the center sill and above the bolster.

3. In an under frame for cars, the combination with a bolster, of a center sill comprising a channel beam having downturned flanges, angle beams having vertical flanges secured on the donwturned flanges of the channel beam and outwardly extending horizontal flanges, and a gusset plate interposed between and connected with the bolster and with the horizontal flanges of the center sill angles, said gusset plate extending entirely across and beneath the center sill.

4. In an under frame for cars, the combination with a bolster, of a center sill comprising a channel beam having downturned flanges, angle beams having vertical flanges secured on the downturned flanges of the channel beam and outwardly extending horizontal flanges, and a gusset plate interposed between and connected with the bolster and with the horizontal flanges of the center sill angles; the component members of the center sill being extended materially beyond and to the outward of the bolster.

5. In an under frame for cars, the combination with a bolster, of a center sill comprising a channel beam having downturned flanges, angle beams having vertical flanges secured on the downturned flanges of the channel beam and outwardly extending horizontal flanges, and a gusset plate interposed between and connected with the bolster and with the horizontal flanges of the center sill angles; the component members of the center sill being extended materially beyond and to the outward of the bolster, the center sill angles being also extended beyond the channel beam of the center sill; and means for connecting the vertical flanges of the extending ends of the center sill angles.

[Claims 6 to 11 not printed in the Gazette.]

1,253,132. TICKET-HOLDER. JESSE L. BOWDEN, Warren, R. I. Filed Mar. 16, 1917. Serial No. 155,354. (Cl. 40—11.)

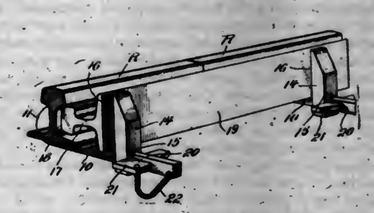


1. A ticket holder comprising a receptacle provided with a ticket receiving slit upon opposite sides thereof, a ticket holding and guiding element in said receptacle between said slits and stops within said receptacle upon each side of said element for preventing the ticket from passing entirely therethrough.

4. A ticket holder comprising a base, a coiled spring secured thereto, a cover secured to the base and inclosing said spring, said cover being spaced from the base to define oppositely located ticket receiving slits and inturned flanges formed upon each edge of the base and spaced therefrom.

[Claims 2 and 3 not printed in the Gazette.]

1,253,133. RAIL-CLAMP. MELVIN I. BOWEN, Harlan, Ky. Filed May 15, 1917. Serial No. 168,875. (Cl. 239—9.)



1. A rail clamp comprising transversely arranged clamping bars detachably engaged with the rail ends, vertically arranged clamping jaws adjustably mounted upon said bars, a rail section interposed between the inner faces of the clamps and the web of the rails, said section bridging the point between said rail ends and wedges adapted to be inserted within slots formed in the clamping bars and engageable with the clamping jaws.

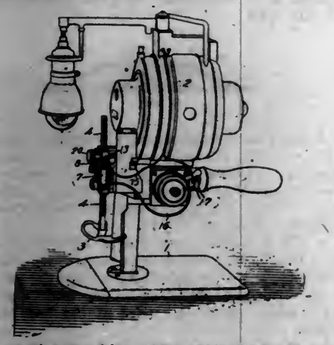
2. A rail clamp comprising a rail section adapted to have its head positioned within the fishing spaces of adjacent rail ends and its tread portion engaging the webs thereof, means for holding said adjacent rail ends against movement in a direction away from said rail section and means engageable with the base flange of the rail sections for holding the same against movement.

3. A rail clamp comprising a rail section adapted to have its head positioned within the fishing spaces of adjacent rail ends and its tread portion engaging the webs thereof, means for holding said adjacent rail ends against movement in a direction away from said rail section and adjustable means engageable with the base flange of the rail section for holding the same against movement.

4. A rail clamp comprising a transversely arranged member detachably engaged with the rails, a vertically arranged clamping element carried thereby, a rail connecting member interposed between the inner face of the clamping element and the webs of the rails and a supporting block interposed between the transversely arranged member and the rail connecting member.

5. A rail clamp comprising a transversely arranged member detachably engaged with the rail, a vertically arranged clamping element thereby, a rail connecting member interposed between the inner face of the clamping element and the webs of the rails and a supporting block interposed between the transversely arranged member and the rail connecting member and engaged with the flanges of the rails.

1,253,134. PRESSER-FOOT LOCK. EDWARD W. BREINING, Bellevue, Ky. Filed Apr. 19, 1917. Serial No. 163,318. (Cl. 164—75.)



1. In a cutting machine, the combination with a rack bar supporting the presser foot, and the support through which the rack bar is movable, and having a central recess intermediate its ends, of an electromagnet, pawls secured to the ends of the core of the magnet and having teeth for engaging the teeth of the rack bar, a U-shaped casing within the recess and embracing the rack bar and connected to the pawls, a spring normally pressing the casing, pawls and magnet outwardly to disengage the pawls from the rack bar, said pawls being adapted to be moved toward the rack bar by the current flowing through the magnet, a circuit for the magnet supplied by the motor circuit of the cutter motor and having a normally spring closed switch, for the purpose specified.

4. In a cutting machine, the combination with a rack bar supporting a presser foot and the support through which the rack bar is movable, and having a central recess intermediate its ends, of a locking member having at each end a pawl, the pawls having teeth for engaging the teeth of the rack bar, a U-shaped casing within the recess and embracing the rack bar and connected to the pawls, a spring normally pressing the said casing, pawls and locking member outwardly to disengage the pawls from the rack bar, and electrically controlled means for moving the pawls and supporting member toward the rack bar.

[Claims 2 and 3 not printed in the Gazette.]

1,253,135. TRUSS. JAMES L. BRENNAN, Marshall, Mich. Filed Apr. 17, 1917. Serial No. 162,722. (Cl. 128—26.)

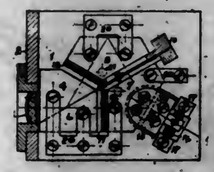


1. In a rupture appliance, a pad including an oval back having a peripheral groove, a compressible core centrally secured to the back, an absorbent cushion comprising a strip which gradually decreases in width from its inner to its outer end and wound around the core, an open woven cover secured to the core and designed to have its edges lap the edges of the back, and a tying element for the cushion whereby to force the edge of the same to within the groove of the back to secure the edge of the said cushion to the back.

2. A rupture appliance including a non-yieldable back which is oval in plan, said back having a peripheral groove and having one of its edges provided with a transverse slot, a cushion member comprising a strip of absorbent material gradually decreasing in width from its inner to its outer end and being wound upon itself and centrally connected with the back, a belt, means for adjustably and pivotally connecting the back to the belt, a back strip adjustably secured to the belt and having one of its ends received in the slot of the back, removable means for retaining the said end in the said slot, an open woven cover centrally connected to the cushion, said cover designed to overlie the end of the said cushion and the periphery of the back, and means comprising a flexible element wound around the edge of the cushion to compress the same in the groove of the back.

3. In a rupture appliance, a pad including an oval back having a peripheral groove, an absorbent cushion upon the back comprising a woven strip which is wound upon itself whereby to conform to the peripheral formation of the back, an open woven cover arranged over the cushion and over the edge of the back, a tying element designed to engage with the said cover to force the same in the peripheral groove of the back and sustain the same upon the back and in contacting relation with the cushion.

1,253,136. COLOR CINEMATOGRAPHY. PERCY D. BREWSTER, East Orange, N. J. Filed Nov. 7, 1914. Serial No. 870,753. (Cl. 88—16.4.)

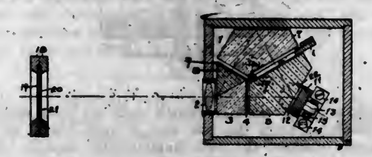


1. In the art of color cinematography, the steps comprising supporting in the same film gate two superposed sensitized films, receiving light from a colored object and projecting the same, part with an odd number of reflections to one side of the superposed films and part with an even number of reflections to the other side, to produce two separate images in suitable registry, an image on each film, and developing both films to produce negative color-records of the object photographed.

4. In the art of color cinematography, the method herein described for producing negatives, comprising projecting two separate images from opposite sides and in different colors, upon color-sensitized surfaces of two films mounted in the same film-gate, with an odd number of reflections of the light on one side of the films and an even number of reflections on the other, the films having series of perforations in exact register with each other, employing such perforations for feeding the two films simultaneously through the said film gate, and developing and fixing the two films.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,253,137. COLOR CINEMATOGRAPHY. PERCY D. BREWSTER, East Orange, N. J. Filed Nov. 7, 1914. Serial No. 870,754. (Cl. 88—16.4.)



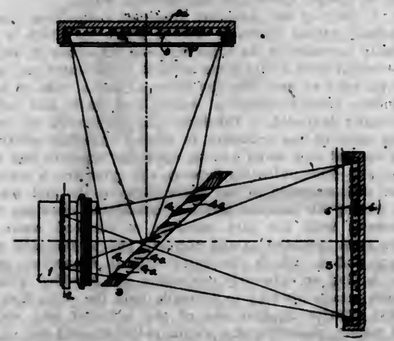
1. In the art of color photography, the improvement in the production of color-positives, which consists in projecting upon one side of a positive film sensitized on both sides an image from a negative film having complementary images of an object, and on the other side of the positive film and in suitable registry with the first a complementary image from the same negative film; developing and fixing both sides of the positive film; and coloring the resulting images in different colors.

5. In the art of color photography, the method of producing positives from a color-negative, which consists in projecting negative images upon the opposite sides of a positive film color-sensitized on both sides and in light of two different colors or color-groups, developing and fixing the said sensitized surfaces thereby producing complementary positive images, and coloring the positive images in different colors, as set forth.

8. In the art of color photography, the improvement in the production of color-positives, which consists in arranging in front of a suitable camera having optical projecting means a negative film having complementary images in fixed relation to each other, and in rear of the lens a positive film sensitized on both sides; projecting one of the negative images upon one side of the positive film and the complentary negative image upon the other side of the positive film and in suitable registry with the first projected image; developing and fixing both sides of the positive film; and coloring the resulting images in two different colors.

[Claims 2 to 4, 6, 7, and 9 not printed in the Gazette.]

1,253,138. LIGHT-SPLITTING DEVICE FOR COLOR PHOTOGRAPHY. PERCY D. BREWSTER, East Orange, N. J., assignor to Brewster Film Corporation, Newark, N. J., a Corporation of New York. Filed Feb. 16, 1915. Serial No. 8,454. (Cl. 88—1.)



1. A device for transmitting a part and reflecting another part of the light projected by a lens, comprising a body having a polished front surface, and provided with a plurality of openings extending through it and having inclined walls.

3. A device of the kind described, provided with a light-reflecting surface and pierced with a plurality of light-transmitting apertures.

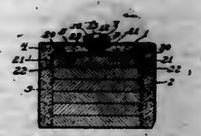
5. In a camera for color-photography, the combination with a lens, of a light-reflecting and transmitting device in rear of the lens, comprising a mirror arranged at an oblique angle to the axis of the lens and having a plurality of light-transmitting apertures the walls of which are inclined to the reflecting surface of the mirror in correspondence with the paths of the rays projected by the lens.

6. In a camera for color-photography, the combination with a lens for receiving and projecting rays of light from an object to be photographed; of a light-reflecting and transmitting device comprising a mirror arranged at an oblique angle to the rays projected by the lens and having a plurality of light-transmitting apertures the walls of which are inclined to the reflecting surface in correspondence with the paths of the said projected rays, and means for holding two sensitive surfaces in position for exposure to the reflected rays and the transmitted rays, respectively.

7. A light-reflecting and transmitting device for the purpose described, comprising a series of bars or ribs spaced apart to provide light-transmitting apertures or spaces between them, the front surfaces of the ribs or bars being highly polished and arranged in the same plane, and the sides of the ribs or bars being inclined toward each other backwardly from the polished surfaces.

[Claims 2 and 4 not printed in the Gazette.]

1,253,139. LEAF-SPRING OILER. NIELS C. BRONDERSLEV, Minden, Nebr. Filed June 6, 1917. Serial No. 173,237. (Cl. 184—1.)



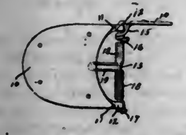
1. The herein described leaf spring oiler comprising a sheet-metal body U-shaped in cross section, bent into an upper portion to overlie this spring and two depending arms to pass by the edges of the several leaves thereof, all portions having side flanges, an absorbent sheet mounted within said body and thicker than the width of said flanges, a retaining plate of spring metal underlying the upper portion of said absorbent and having its ends bent downward, and its extremities turned inward, an oil cup whose body passes through the top plate of said body portion and the upper part of said absorbent, whose lower end is secured to the center of said retainer, and whose upper end is externally threaded, and a nut on said threaded end for drawing the oil cup and the center of the retainer upward, whereby the retainer is arched and its ends canted inward, for the purpose set forth.

2. The herein described leaf spring oiler comprising a sheet-metal body U-shaped in cross section and bent into an upper portion to overlie the spring and two depending arms to pass by the edges of the several leaves thereof, all portions having side flanges, an absorbent mounted within said body and having a slot underlying the top plate of its upper portion, said plate having means for admitting a lubricant to the slot, a retaining plate of spring metal underlying the absorbent and having its ends bent downward and their extremities turned inward, and connecting means passing through the top plate, the slot in the absorbent, and the retaining plate and provided with devices for putting it under tension, for the purpose set forth.

1,253,140. OVERSHOE-RETAINER. THOMAS J. BROWN, Crawfordsville, Iowa. Filed Feb. 7, 1917. Serial No. 147,190. (Cl. 36—58.6.)

1. The combination with an overshoe, of a plate engaged therein, bearings formed at two corners of the

plate, a rod journaled in said bearings, said rod terminating at one end in an upwardly extending prong, the opposite end of the rod being bent at right angles to provide a lever, said lever being reversely bent and coiled about the rod and terminating in a second prong, said prongs being disposed in spaced parallel relation, and yieldable means operating to normally maintain said prongs in a position to engage the heel of the shoe.



2. The combination with an overshoe, of a plate engaged therein, bearings formed on said plate, a rod journaled in said bearings, a prong formed at one end of said rod, the opposite end of said rod being bent at right angles to provide an operating lever for the rod, said lever being reversely bent and coiled about the rod, terminating in a prong disposed in spaced parallelism with the first mentioned prong, and a coiled spring encircling said rod and operating to normally maintain the prongs in heel engaging position, said spring having an intermediate loop engaging beneath said plate as described.

1,253,141. PULL-SOCKET. SAMUEL BUCHSBAUM, Chicago, Ill. Filed July 28, 1916. Serial No. 111,777. (Cl. 173—346.)

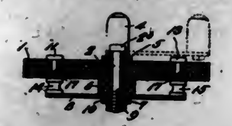


1. A switch movement of the character described comprising a switch element, and means for moving said switch element by snap action from either limiting position to the other, said means including an oscillatingly mounted rocker, a rotatable control element coöperating with said rocker to move said rocker alternately from one limiting position toward its other limiting position, said switch element being slidable along said rocker, a spring for engaging said switch element and adapted to force it into either limiting position at the opposite extremities of said rocker, and a stem integral with said switch element inclosed by the convolutions of said spring.

2. A switch movement of the character described comprising a switch element, and means for moving said switch element by snap action from either limiting position to the other, said means including an oscillatingly mounted rocker, a rotatable control element coöperating with said rocker to move said rocker alternately from one limiting position toward its other limiting position, said switch element being slidable along said rocker, a spring for engaging said switch element and adapted to force it into either limiting position at the opposite extremities of said rocker, a stem integral with said switch element inclosed by the convolutions of said spring, and an abutment for the free extremity of said spring slidably supporting said stem.

1,253,142. LIGHTING SYSTEM FOR AUTOMOBILES. BARNEY L. BUSCH, Chicago, Ill. Filed Mar. 15, 1917. Serial No. 155,027. (Cl. 175—282.)

In switches, the combination of a disk of insulating material, a pivot bolt rotatably mounted through the center of said disk, three headed contact screws secured through said disk concentric with the bolt, a switch handle secured on the bolt above the disk having a downwardly extending member adapted to engage the heads of the contact screws when the handle is rotated, said contact screws being spaced approximately 90° apart, and a connecting bar carried by the pivot bolt and connected to



said bolt so as to rotate therewith, said bar being electrically insulated from the bolt and of such length as to electrically connect the two diametrically opposite contact screws when the switch handle is moved into a predetermined position, the axis of said connecting bar being disposed at right angles to the axis of said switch handle.

1,253,143. VALVE FOR GASOLENE AND OTHER LIQUID FUELS. FRANK CALDWELL, Cincinnati, Ohio. Filed June 19, 1916. Serial No. 104,612. (Cl. 137—7.)



1. A valve of the character described comprising a pair of axially alined cylinders, one of which cylinders is internally threaded at its outer end, and the other of which is provided with a dial plate secured to its outer end and has an inlet at one side, the inner adjacent ends of said cylinders having opposing conical end walls and being externally threaded, a threaded ring connecting the said inner ends of the cylinders in spaced opposing relation, said conical end walls having openings opposite one another and communicating between the cylinders, a conical valve disk disposed in the space between the end walls, and having an annular series of graduated openings for alinement with the said openings of the end walls, a valve stem mounted axially through one of said cylinders and to which the valve disk is connected, said stem having an exteriorly projecting end provided with a handle, and means whereby to normally hold the valve disk in seated relation against one of the adjacent end walls.

2. A valve of the character described comprising a pair of axially alined cylinders, one of which cylinders is internally threaded at its outer end, and the other of which is provided with a dial plate secured to its outer end and has an inlet at one side, the inner adjacent ends of said cylinders having opposing conical end walls and being externally threaded, a threaded ring connecting the said inner ends of the cylinders in spaced opposing relation, said conical end walls having openings opposite one another and communicating between the cylinders, a conical valve disk disposed in the space between the end walls, and having an annular series of graduated openings for alinement with the said openings of the end walls, a valve stem mounted axially through one of the said cylinders and to which the valve disk is connected, said stem having an exteriorly projecting end provided with a handle, means whereby to normally hold the valve disk in seated relation against one of the adjacent end walls, said means consisting of a spring coiled around the valve stem, and bearing against the valve disk at one side, one of the cylinders having a bore in its inner end in which the spring is seated.

3. A valve comprising a pair of axially alined cylinders, having spaced opposing conical inner end walls, means connecting said cylinders in detachable relation, the said inner conical walls of said cylinders having opposed openings communicating between the cylinders, a conical valve disk disposed within the space between the inner ends of the cylinders and against one of the said conical end walls, and provided with an annular series of graduated openings for alinement with the openings of the end walls, a valve stem having a handle at its outer end, said stem being mounted axially of the said cylinders and connected at its inner end to the valve disk.

1,253,144. FINDER FOR CAMERAS. CLIFFORD C. CARPENTER, Akron, Ohio. Filed Feb. 13, 1917. Serial No. 148,433. (Cl. 33—64.)



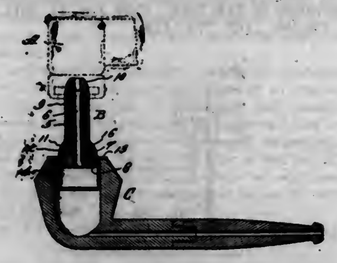
1. In combination, a camera having an attaching element, a finder, and means carried by said finder for interlocking said finder with the attaching element, said finder comprising an elongated open sided body.

2. In combination, a camera having an attaching clip thereon, a finder comprising a trough like body, and a yieldable tongue on said body engageable with the clip aforesaid.

3. In combination, a camera having an attaching clip thereon, a finder comprising a trough like body, and a tongue stamped from the body and engageable with the clip to hold the finder in operative position, said finder being invertible into inoperative position and said tongue being also engageable with the clip in the latter position.

4. As a new article of manufacture, a finder for cameras embodying attaching means comprising an elongated trough like body having stamped centrally thereon a yieldable tongue, thereby providing an opening through the body, said tongue being movable through said opening for attaching the finder to the camera.

1,253,145. PIPE ATTACHMENT. THOMAS J. CARROLL, Dewey, Okla. Filed July 9, 1917. Serial No. 179,467. (Cl. 131—13.)



A device of the class described comprising an exteriorly threaded stem having a channel extending longitudinally thereof, a conical head adjacent one end of said stem, a circumferentially extending flange at the base of said head, an elastic cup to be received within the bowl of a tobacco pipe having a central opening in its base, a collar on said cup extending circumferentially of said opening through which and the opening in the collar the said head is passed, an interiorly threaded sleeve through which said stem is passed for insertion within the discharge end of a hose associated with a mechanically operated pump for supplying air to automatic tires, a valve actuating nose at one end of the sleeve, an enlargement adjacent the other end of the sleeve providing a seat therein against which said collar is forced by said head, and a circumferentially extending flange on said enlargement against which the base of the cup is forced by the flange on the head adapted to bear on the rim of the bowl of the pipe in which the cup is received.

1,253,146. COOKING-VESSEL ATTACHMENT. THOMAS H. CASKEY, Jr., Caney, Ky. Filed Jan. 13, 1917. Serial No. 142,199. (Cl. 53—1.)



1. The combination with a cooking vessel, of a tubular casing wholly disposed within the vessel, a resilient clamp carried by the casing and adapted to engage over the upper edge of the vessel to support the casing in close proximity to the wall thereof, a water container, a tube depending from the water container and slidably fitted in said casing, and means for holding said tube fixed relative to the casing in different adjusted positions.

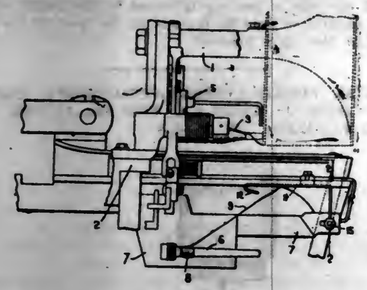
2. The combination with a cooking vessel, of a tubular casing wholly disposed within the vessel, a resilient clamp carried by the casing and engaged over the upper edge of the vessel to support the casing in close proximity to the wall of the vessel, a water container, a tube depending from the container and slidably fitted within said casing, said casing having a longitudinally extending slot and a series of notches at one side of the slot, a pin projecting from said tube and movable in the slot, said pin being adapted to engage in one of said notches to hold the tube fixed relatively to the casing in any adjusted position.

1,253,147. ELECTRIC-LIGHT SWITCH. GIORGIA SANTOSTEFANO DELLA CERDA, Viareggio, Italy. Filed Apr. 16, 1914. Serial No. 832,342. (Cl. 240—1.)



A luminous electric light switch comprising in combination a base, a luminous substance applied to the outer surface of said base, a rotating drum on the central part of the luminous layer, a rod intended to turn the drum, a glass globe covering the said luminous layer, and a handle ontside the glass globe intended to present a means for turning said drum.

1,252,148. FILLING-CATCHER FOR LOOMS. WILLIAM H. CHASE, Hopedale, Mass., assignor, by mesne assignments, to Draper Corporation, Hopedale, Mass., a Corporation of Maine. Filed Nov. 7, 1916. Serial No. 130,064. (Cl. 139—85.)



1. A loom comprising means for ejecting a spent filling carrier from the shuttle when at the end of its pick and means secured to the lay and projecting adjacent the path of the filling trailing from the ejected filling carrier through the shuttle eye and extending between the said trailing filling and the opposite side of the loom whereby as the shuttle starts on the reverse pick the trailing filling reeves about and is retarded by said means and is thus drawn out from the shuttle.

3. A loom comprising means for ejecting a spent filling carrier from the shuttle when at the end of its pick, a device secured to the lay and projecting therefrom adjacent the path of the filling trailing from the ejected filling carrier through the shuttle eye and located between the said trailing filling and the opposite side of the loom whereby as the shuttle starts on the reverse pick the trailing filling is caught and retarded by said device and thus drawn out from the shuttle.

[Claim 2 not printed in the Gazette.]

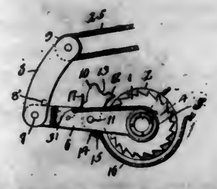
1,252,149. DRILLING-TOOL JOINT. WILLIAM R. CHILDERS, Oilfields, Cal. Filed Mar. 2, 1917. Serial No. 152,074. (Cl. 255—22.)



1. In a coupling, a shaft formed in the end with a bore; connecting means for said shaft, and means on said shaft adapted to be engaged by said connecting means to secure said shaft to a second shaft, said last mentioned means positioned on said first mentioned shaft exteriorly of said bore and having a length greater than said bore, and further adapted to strengthen said first mentioned shaft to compensate for said bore.

2. In a coupling, a shaft formed in the end with a bore, and formed upon the periphery exteriorly of the bore with screw threads, a collar on said shaft exteriorly of said bore, said collar formed with screw threads adapted to engage with the screw threads on said shaft, said collar having a length greater than the bore and adapted to strengthen said shaft to compensate for the bore, a sleeve loosely mounted on said shaft over said collar and having a shoulder at one end adapted to engage against the collar to secure the sleeve on the shaft, and having the other end projecting beyond the end of the shaft, said sleeve formed exteriorly of the last mentioned end with screw threads of opposite pitch to said screw threads wherewith the shaft and collar are formed.

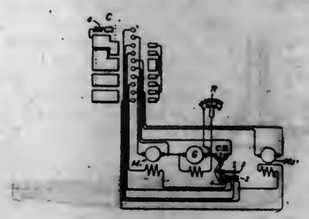
1,253,150. ENGINE-STARTER. THOMAS C. CHRISTIE and ELMER A. EDMON, Lebanon, Ohio. Filed Oct. 23, 1915. Serial No. 57,600. (Cl. 74—54.)



1. The combination with the crank shaft of an engine, of a ratchet wheel having a fixed relation to said shaft, a normally loose collar on said shaft at one side of the ratchet wheel, a main starting arm extending from said collar and having a fixed relation thereto, a dog having a pivotal mounting on and carried by said arm and having two tripping faces projecting laterally on opposite sides of said arm, means for causing said dog to engage the ratchet wheel as soon as the arm is moved from its initial position, fixed stop surfaces with which said tripping faces contact at the limits of movement of said arm, an extension arm pivotally attached to the main starting arm and having a pulley at its free end, means for retracting the starting arm, a manually operable pull chain controlled from the driver's seat and passing freely around said pulley and having one extremity thereof attached to a fixed point, and a stop on said extension adapted to contact with the main starting arm to limit the inward movement of the extension arm at the initial end of the throw of said main starting arm.

[Claim 2 not printed in the Gazette.]

1,253,151. MOTOR CONTROL. JOHN C. CLENDENIN, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Feb. 21, 1917. Serial No. 150,238. (Cl. 172—179.)



1. The combination with a plurality of electric motors connected in parallel relation to a source of supply, each motor separately driving a vehicle wheel, of automatic means operated responsively to the deënergization of a portion of the motors for deënergizing all the motors.

3. In combination, a plurality of electric motors, a controller for connecting the motors to a source of supply in series or in parallel relation, means for automatically opening the connection to the source of supply upon the occurrence of abnormal circuit conditions in a portion of the motors in the parallel relation, and means for rendering the first mentioned means inoperative during the series-parallel transition.

6. In combination a plurality of electric motors, a series parallel controller for the same having means for deënergizing a portion of the motors during the series parallel transition, an automatic circuit breaker having a plurality of tripping coils each of which is energized responsively to the current in one of the motor circuits to trip the breaker and open the connection to the source of supply upon the deënergization of another of the motors, and means for preventing tripping the breaker during the series-parallel transition.

8. In combination, a plurality of electric motors, a series parallel controller for changing the motors from the series to the parallel relation and vice versa without opening the motor circuits, an automatic circuit breaker in the circuit from the source of supply to the motors, a plurality of tripping coils for the breaker each being energized responsively to the current in one of the motor circuits in the parallel relation and to the current in the circuit of all the motors in the series relation, the said coils normally neutralizing each other and having no tendency to trip the breaker until a portion of the motors is deënergized, and means for shunting the portion of the tripping coils which is energized during the series parallel transition to prevent the tripping of the breaker during the said transition.

[Claims 2, 4, 5, 7, and 9 not printed in the Gazette.]

1,253,152. PICTURE-FRAME. HYMAN S. COBB, Birmingham, Ala. Filed Feb. 20, 1917. Serial No. 149,865. (Cl. 41—22.)



1. A method of treating a transparent member to produce an ornamental design, consisting of painting one side of the member with an ornamental substance, in a manner to provide lines or creases visible from the opposite side of the member.

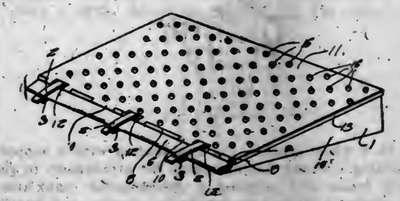
5. An article of the character described embodying a transparent photograph mount, a member of ornamental design secured to one side of the mount and constituting a background for the photograph, said mount being treated on the side to which the design is secured, to provide lines or creases visible from the opposite side of the mount, said lines or creases radiating from the edge of said design, a backing for the transparent mount, and means for securing said parts together.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,253,153. SEED-SAVING ATTACHMENT FOR MOWERS. NOEL S. COLE, Newbern, Tenn. Filed Sept. 15, 1917. Serial No. 191,561. (Cl. 56—2.)

1. A seed saving attachment for mowing machines comprising a receptacle having a bottom, a plurality of bars attached to the upper and lower surfaces of said bottom and having their forward ends spaced for engagement with an ordinary mowing machine cutter bar, the forward edge of the bottom of said receptacle being bent back upon itself, a supporting bar positioned between the backwardly bent portion of the forward edge of said body and the upper surface of the body, and a perforated cover hingedly connected to said backwardly bent forward edge.

2. A seed saving attachment for mowing machines comprising a receptacle having a bottom, means carried by said receptacle for connecting the receptacle to an ordinary mowing machine cutter bar, the forward edge of the bottom of said receptacle being bent backwardly upon itself, a bar positioned between the backwardly bent portion of said forward edge and the bottom of the receptacle, a plurality of tongues formed upon said backwardly bent edge and rolled to form hinge barrels, a cover, a plurality of tongues formed upon said cover and rolled to form hinge barrels, and a hinge pin extending through said rolled tongues for hingedly connecting said cover to said bottom, said cover extending upwardly and rearwardly from its hinged connection to said bottom and being provided with a plurality of openings to allow seed to fall through the cover into the receptacle.



3. A seed saving attachment for mowing machines, comprising a receptacle having a bottom, a plurality of bars attached to the upper and lower surfaces of said bottom and having their forward ends projecting beyond the forward edge of the bottom and positioned in spaced relation to each other for detachable connection with an ordinary mowing machine cutter bar, the forward edge of the bottom of said body being bent back upon itself, a bar positioned between said backwardly bent portion of the forward edge and the upper surface of the body, a plurality of tongues formed upon said backwardly bent edge and being rolled to form hinge barrels, a cover for said receptacle, a plurality of tongues formed upon the lower edge of said cover and rolled to form hinge barrels, a hinge pin extending through said rolled tongues and pivotally connecting said cover to said receptacle, said cover provided with a plurality of openings to permit certain of said body carried bars to project therethrough, said cover further provided with a plurality of openings to permit seeds to fall therethrough into said receptacle.

1,253,154. PROTECTIVE SHOE FOR PNEUMATIC TIRES. JOHN W. COMER, Chickasha, Okla. Filed Oct. 19, 1915. Serial No. 56,759. (Cl. 152—17.)



1. A device of the class described, including a pair of spaced tread plates of a transversely concavo-convex formation, surrounding a tire circumferentially thereof, and each having a radial flange formed at its inner end, a plurality of resilient rings arranged upon each tread plate, curved metallic plates disposed between the resilient rings and in spaced relation to each other, the rings and curved metallic plates increasing in thickness toward the outer edges of the tread plates, the curved metallic plates having overlapping ends, connecting means extending through the resilient rings and overlapping ends of the plates, and tie rods extending through the central portions of alternate plates and through the rings and the said flanges for connecting the members together.

2. In a device of the class described, the combination with a tire, of a resilient band extending circumferentially around the tire and merging at its edges with the surface of the tire, said band including an integral resilient tongue having notches arranged therein, and tread members bearing against the band on opposite sides of the tongue and having connecting means engaging in the notches in the tongue.

1,253,155. WHEEL-SCRAPER. JOHN D. CONROY, Chokio, Minn. Filed May 15, 1917. Serial No. 168,753. (Cl. 21—23.)

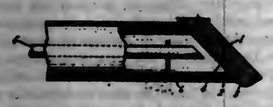


1. In a wheel scraper, the combination with a support comprising a shank having means for attachment to the vehicle frame and carrying a right-angular crank-arm; of a scraping blade rectangular in contour and having openings at its obliquely opposite corners, bearings attached to the blade, and revolubly mounted on said crank-arm, a spring secured to the latter and pressing the lower end of the blade normally into contact with the wheel-rim, and a chain attached at one end to the vehicle body and having a hook at its other end adapted to engage the opening in whichever end of the blade is uppermost, whereby said blade is rendered reversible.

2. In a wheel scraper, the combination with a support comprising a shank having means for attachment to the vehicle frame and carrying a right-angular crank-arm; of a scraping blade, bearings carried thereby and revolubly mounted on said crank-arm, a spring secured to the latter and pressing the lower end of the blade normally into contact with the wheel-rim, the corners of said blade being pierced with openings, a screw hook selectively mounted in one of said openings at the upper end of the blade, and a chain attached at one end to the vehicle and having its links engageable with said hook, for the purpose set forth.

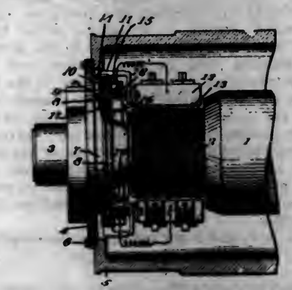
3. In a drill wheel scraper, the combination with a tubular shank bent at right angles into a crank-arm, both the shank and the arm being pierced with openings, fastening means through the openings in the shank whereby it may be attached to the frame of a drill, and a chain connected at one end with the box of the drill; of a rectangular scraping blade lying forward of said crank-arm, bearings on its rear face embracing the crank-arm, springs coiled on the latter between said bearings and each having one end engaging the arm and the other end pressing against the blade to throw its lower edge into active contact with the drill wheel, and means at the upper end of the blade selectively engaging the links of said chain, for the purpose set forth.

1,253,156. ROENTGEN-RAY DEVICE. WILLIAM D. COOLIDGE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Feb. 5, 1916. Serial No. 76,350. (Cl. 250—35.)



An anode for an electron discharge device comprising a member of soft metal of food heat conductivity, means for cooling said member and a plate of highly refractory metal in intimate heat conveying relation to said member, said plate having a mass which will provide a heat storage capacity sufficiently great to transfer heat to the soft metal member at a substantially constant rate when operated with variable currents of commercial frequency.

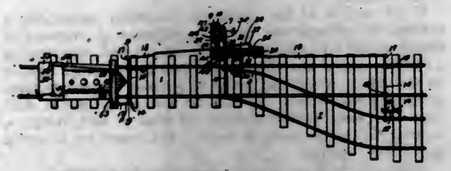
1,253,157. REVERSIBLE BRUSH-HOLDER FOR USE WITH DYNAMOS. JOHN L. CREVELING, New York, N. Y., assignor to Safety Car Heating and Lighting Company, a Corporation of New Jersey. Filed Aug. 7, 1911. Serial No. 642,582. (Cl. 171—318.)



1. A dynamo electric machine having an armature and a commutator; together with a plurality of commutator brushes, and brush-holding devices adapted to be moved by friction of the brushes with the commutator in either direction through definite arcs; means for pivotally connecting te brush-holding devices with a stationary part of the machine, and stationary means connected with a stationary part of the machine for limiting the movement of said brush-holding devices; in combination with magnetic means for retaining the brush-holding devices at their limit of movement.

2. A dynamo electric machine having an armature, a commutator, and brush-holding devices; means for pivotally supporting said devices permitting motion thereof in either of two directions; a stationary means for limiting the movement of said brush-holding devices in either direction; and magnetic means for securely holding said devices in accordance with the direction of rotation of the armature.

1,253,158. SWITCH. EDWARD H. DAHLKE, Bonne Terre, and MONTIE L. SINCLAIR, Frankclay, Mo. Filed Aug. 31, 1915. Serial No. 48,273. (Cl. 104—77.)



1. In combination, a main line and a siding, a switch between the main line and siding, a pivoted plate, a connection between the plate and switch, trip members disposed to the opposite sides of the plate, an operating rod for each of the trip members, and means comprising spring influenced mechanism pivotally connected with the plate and connected with the said rods, whereby to actuate such mechanism upon the operation of either of the trip members to throw and retain the switch to one position, and for returning and holding the switch in its initial position when the second trip member is actuated.

3. In combination, a main line, a siding, and a switch between the main line and the siding, of a pivoted rest plate, two swinging members upon the rest plate, a link

connection between the members, a connection between one of the members and the bridle rod, a swinging bracket upon the last mentioned member, a tension spring between the said last mentioned member and bracket, a link connection between the bracket and the first mentioned member, means upon the rest plate for limiting the swinging movement of the first mentioned member in two directions, a rod for each of the swinging members extending in opposite directions therefrom, trip members for the main and side lines, and each of said trip members having a connection with each of the mentioned rods.

7. In combination, a main line, a siding, and a switch between the main line and siding, of substantially Y-shaped trip members arranged adjacent one of the rails of the main line and positioned each a substantially equal distance from the opposite sides of the switch, means, comprising mechanism connected with the trip members and with the bridle rod of the switch for throwing the switch when either of the said switch members are contacted, and means comprising laterally movable rods arranged upon the front and rear ends of the vehicle for successively contacting both of the trip members to throw the switch in one direction and to return the switch to its initial position.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,253,159. GAS-ENGINE. RICHARD M. DAY, Hudson, S. D. Filed May 7, 1914. Serial No. 837,019. (Cl. 123—153.)



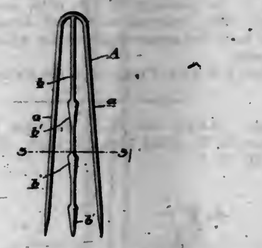
A device of the class described comprising a cylinder, a cylinder head, a spark plug, a lever for actuating said spark plug, an operating arm secured to said lever, means for normally holding said lever in an inoperative position, means for permitting the adjustment of said operating arm, one end of said operating arm provided with a longitudinally extending slot, a substantially V-shaped plate secured to said arm adjacent said slot, a cam adapted to engage said substantially V-shaped plate for reciprocating said arm as said cam is rotated for causing the operation of said spark plug, and means for controlling the inlet and exhaust to and from said sylinder.

1,253,160. GRAIN-CAR DOOR. EGBERT O. DOAK, Canastota, S. D. Filed Sept. 29, 1916. Serial No. 122,905. (Cl. 20—27.)



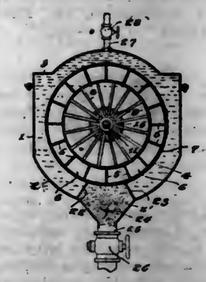
The combination with a car having a door opening therein, of a track plate arranged above the door opening and connected to the car, hangers carried by said track plate and capable of longitudinal movement thereon, a door adapted to close said door opening, connections between said door and said hangers whereby the door may be swung outwardly from the wall of the car and subsequently moved along the track plate to completely uncover the door opening, and means for limiting the outward movement of the door, said means comprising a plurality of outwardly extending arms attached to said car below said door opening, a retaining member pivotally attached to each arm and having one end normally disposed in the path of movement of said door, and means for limiting an outward movement of such end of said member, said last mentioned means adapted to permit unrestricted inward movement of such end of said member.

1,253,161. HAIR-PIN. PRICE EVANS, Sadorus, Ill. Filed Mar. 1, 1915. Serial No. 11,292. (Cl. 132—22.)



As a new article of manufacture, a hair-pin having several prongs of substantially the same length integral with an arched portion at one end of the pin; the outer prongs being plain, and the intermediate prong having integral spaced protuberances of wedge-like form substantially flat upon opposite sides thereof while the other two sides or edges which confront the outer prongs taper gradually toward the free end of the prong, the larger ends of said protuberances being rounded off, whereby the pin is adapted to be easily inserted in the hair and withdrawn, while the intermediate prong is adapted to press the hair against the outer prongs and prevent the pin from dropping out.

1,253,162. THICKENER. HENRY B. FABER, New York, N. Y. Filed Sept. 1, 1915. Serial No. 48,522. (Cl. 210—14.)



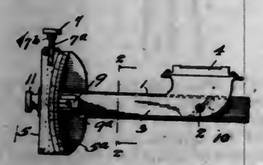
1. In a pulp thickener, the combination of movable separating medium through which liquid from pulp is adapted to pass incident to difference in pressure at one side of the medium from that at the other and leave a deposit of solids on said separating medium, a pulp supply chamber adapted to contain a supply of pulp in contact with which said separating medium is adapted to move, and a thickened-pulp container communicating with the pulp supply and adapted to have solids on the separating medium discharge thereinto while such solids are in contact with thickened pulp in the container therefor.

2. In a pulp thickener, the combination with a pulp container, of separating medium movably mounted therein and adapted to be submerged in pulp within the container, means for maintaining a difference in pressure between opposite sides of the separating medium for effecting a flow of liquid from the pulp through the medium and leaving a deposit of solids on the medium, and a thickened-pulp chamber located for communicating with the separating medium and for receiving solids discharged therefrom, said chamber being also located for enabling pulp in the container to seal the chamber against effecting release of the difference in pressure.

3. In a pulp thickener, the combination with a pulp container, of separating medium movably mounted therein and adapted to be submerged in pulp within the container and for having liquid from the pulp passed through the separating medium, whereby a deposit of solids is adapted to be formed on said medium, and a thickened-pulp container communicating with the pulp container in position to be subject to the pressure of the pulp, the thickened-pulp container being adapted to receive deposited solids discharged from the separating medium against the pressure of the pulp.

[Claims 4 to 13 not printed in the Gazette.]

1,253,163. HAND-LEVEL. WILLIAM STUART FALLIS, Raleigh, N. C. Filed Mar. 20, 1916. Serial No. 85,352. (Cl. 33—70.)



The combination with a sighting device of an indicator arm pivoted near one end, to the outer end of the sighting device, a spirit level mounted on the arm in position to co-act with the sighting device, a casing attached to the inner end of the sighting device and having a measuring scale thereon, an indicator plate on the arm co-acting with said scale, a screw bar mounted in the casing, and a movable nut supported in the slotted free end of the arm within said casing, for the purpose described.

1,253,164. WRITING-INSTRUMENT HOLDER. JOHN B. FELICETTI, Philadelphia, Pa. Filed Sept. 1, 1916. Serial No. 118,094. (Cl. 24—12.)

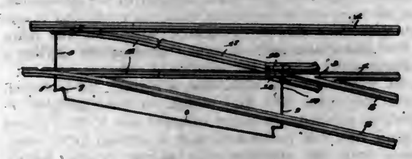


1. A writing instrument holder, embodying a stamped metal structure of substantially spiral formation, the inner extremity of said structure being formed to provide a resilient instrument embracing portion, and the outer extremity of said structure terminating in a reduced clothing engaging prong formed to encircle said instrument embracing portion medially of its opposite longitudinal edges.

[Claim 2 not printed in the Gazette.]

1,253,165. SWITCH. GEORGE L. FORESTER, Asheville, N. C. Filed Jan. 30, 1917. Serial No. 145,487. (Cl. 104—99.)

1. In combination with a railway switch including a frog, the rails of the main line and siding in a line with the opposite sides of the frog having their heads, at their ends, cut away, switch points corresponding in shape to the heads of the rails pivoted at the said cut away portions of the rails, a slidable member connecting the switch points, a platform supporting the slide, and operating mechanism for the slide.



2. A railway switch including a frog, the rails alining with the frog and having their heads cut away at the ends of the said rails, the webs provided by the said cut away portions of the rails having a laterally extending enlargement, switch points, pivots for the switch points entering the said enlargements, a platform connecting the webs at the cut away portions of the webs, a slide guided upon the platform, elements loosely connecting the switch points with the slide, and operating mechanism for the slide.

3. A railway switch including a frog, the rails in a line with the sides of the frog having their heads adjacent their ends cut away, and the heads of said rails to the opposite sides of the point of the frog being pivoted, the webs adjacent the opposite ends of the cut-away portions being widened, switch points received in the cut away portions of the rails and having pivots received in the referred to widened portions of the webs of the rails, a platform connecting the webs, said platform being centrally channeled and the side walls of the channel being inclined, a slide having beveled edges received in the channel of the platform, said slide having elongated slots, pivot members passing through the switch points and entering the slots, said switch points having their ends beveled in opposite directions, whereby to contact and aline with the frog at the ends thereof or to engage with the referred to beveled heads of the rails in accordance with the direction of throw of the said switch points, and means comprising mechanism connected with the slide for moving the same to actuate the switch points.

1,253,166. ELECTRICAL WINDING. JOHN J. FRANK and WILLIAM O. DWYER, Pittsfield, Mass., assignors to General Electric Company, a Corporation of New York. Filed Mar. 27, 1917. Serial No. 157,860. (Cl. 175—21.)



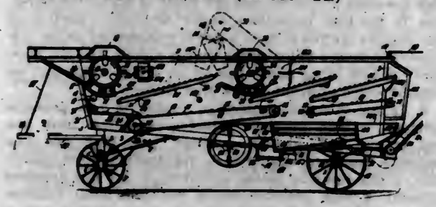
1. Two connected disk coils about the same axis, each comprising a plurality of multiple conductors disposed radially one outside the next, the conductors entering one coil at substantially the same point on one circumference thereof and progressing together from that point to the last turn at the opposite circumference of that coil, the exposed conductor of said last turn crossing individually into the adjacent turn of the other coil, the adjacent conductor crossing individually into said other coil substantially immediately adjacent the completion of the crossover of the said exposed turn and, in said other coil, covering the first conductor to cross-over, the conductors continuing in such changed relative positions through said other coil.

2. Two connected coils, each comprising a plurality of multiple conductors, the conductors entering one coil at substantially the same point thereof and progressing together from that point to the last turn of that coil, one of the conductors of said last turn crossing individually into the other coil, an adjacent conductor crossing individually into said other coil substantially immediately adjacent the completion of the first mentioned cross-over, said two conductors changing their relative positions between said cross-overs and continuing in such changed relative positions through said other coil.

3. An electrical winding comprising a plurality of multiple conductors, the conductors entering said winding at substantially the same point thereof and progressing together from that point to a point of transposition, one of said conductors crossing individually adjacent thereto into an adjacent turn, an adjacent conductor crossing individually into said other turn substantially immediately adjacent the cross-over of said first mentioned conductor, said conductors changing their relative positions between such cross-overs and continuing in such changed relative positions from said point of transposition.

4. An electrical winding comprising a plurality of multiple conductors, the conductors entering said winding at substantially the same point thereof and progressing together from that point to a point of transposition, one of said conductors crossing individually adjacent thereto into an adjacent turn, an adjacent conductor crossing individually into said other turn substantially immediately adjacent the cross-over of said first mentioned conductor, said conductors changing their relative positions between such cross-overs and continuing in such changed relative positions from said point of transposition, portions of the conductors at the sides of the cross-overs being extra heavily insulated.

1,253,167. THRESHING-MACHINE. ARVID T. FRIBERG and GUNARD G. FRIBERG, Frederic, Wis. Filed Sept. 18, 1916. Serial No. 120,751. (Cl. 130—24.)



1. In a threshing machine, the combination of a cylinder and a concave adjacent thereto, a vibratable straw shaker mounted to receive the straw discharged by said cylinder, a second cylinder and concave mounted to receive the straw discharged from the said shaker, a second shaker mounted to receive the straw discharged from the second cylinder, grain screening means, means for conveying the grain from the first said shaker to the said screening means, means for conveying the grain from the second shaker to the said screening means, an elevator, means for conveying tailings to said elevator, and means for optionally discharging the said tailings on to the first said shaker or into the second said concave.

2. The combination with a threshing machine having a cylinder and a concave adjacent thereto, a straw shaker mounted to receive the straw discharged from said cylinder, a second cylinder and concave mounted to receive the straw discharged from said shaker, and grain screening means: of a tailings elevator, means for conveying tailings from said screening means to said elevator, and a discharge spout mounted above the threshing machine to receive the tailings from said elevator, said spout being adjustable about an axis extending transversely of the machine so as to direct the tailings on to the straw shaker or into the said second concave, optionally.

3. In a threshing machine, the combination of a cylinder and a concave adjacent thereto, an upwardly and backwardly inclined vibratable straw shaker mounted to receive the straw discharged by said cylinder, straw beating and spreading means mounted above said shaker, grain screening means, an endless conveyer mounted beneath said shaker and discharging into the screening means, and a vibratable dirt screen mounted beneath the said concave and discharging on to the conveyer, said screen being of such mesh as to prevent passage of the grain being threshed through the same.

1,253,168. FOLDABLE DRINKING-CUP. FRANK GLASNER and GEORGE ELLISON, Hinton, Iowa. Filed June 23, 1916. Serial No. 105,481. (Cl. 65—13.)



1. In a device for the purpose set forth, a tube comprising two hinged sections, a shaft revoluble in the tube, a textile substantially cone-shaped cup connected to the shaft and to the free end of one of the tube sections, and means for locking and closing the sections to inclose the cup within the sections when the said cup is not in use.

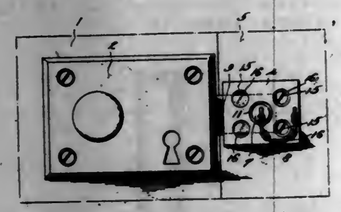
2. In a device for the purpose set forth, a tube comprising two similar sections hinged adjacent one of their ends, a shaft arranged longitudinally of the sections, supporting members for the shaft, spring means for normally swinging one of the sections away from the other section, means for locking the sections together, and a textile cup secured upon the shaft and connected with one of the swinging sections of the tube adjacent the free end of the said section.

3. In a device for the purpose set forth, a tube comprising two similar sections, flanged caps upon the ends of the tube, one movable to engage with both of the sections of the tube and the other rotatable around the tube, a shaft arranged centrally of the tube and having one of its ends journaled in a bearing in the slidable cap and its opposite end secured to the turnable cap, spring means for normally swinging one of the sections away from the other section, a cone-shaped textile cup secured to the shaft and having its outer end connected to the swinging section of the tube adjacent the free end thereof, and whereby when the turnable cap is operated to revolve the shaft the textile cup will be wound around the shaft and the swinging section of the tube will be moved against the other section thereof.

4. In a device for the purpose set forth, a split tube, the sections of which being pivotally connected adjacent one of their ends, a slidable cap upon one of the ends of the tube, a revoluble cap upon the other end of the tube, a shaft arranged centrally of the tube secured to the revoluble cap and journaled in the slidable cap, spring means for swinging one of the sections of the tube outwardly of the other section, a textile cup secured to the shaft and having one of its ends connected to the other end of the

swinging section of the tube, a pair of flat spring members pivotally secured in the mouth of the cup and adapted to be arranged upon the said mouth to be compressed by a pressure upon the swinging section of the tube toward the stationary section thereof, a catch member upon the revolubie cap, to engage with the swinging section of the tube to hold the same in the last mentioned position, and a clip upon the stationary member of the tube.

1,253,169. LOCK. KATHLEEN TREAT GOODSELL, New York, N. Y. Filed Jan. 6, 1917. Serial No. 140,993. (Cl. 70—15.)



1. In combination with a bolt having a transverse opening therethrough, and a keeper to receive the bolt, said keeper having its opposite faces provided with openings designed to register with the openings in the bolt when the bolt is received in the keeper, said keeper upon one of its faces having a boss surrounding the opening in the said keeper, said boss having an L-shaped passage, one of the branches of which registering with the referred to opening, and a key member sustained upon the keeper and designed to enter the registering openings, and said key being further provided with a bit adapted to enter the offset passage in the L-shaped channel of the boss.

2. The combination with a slotted bolt and a keeper to receive the bolt, of a key member suspended from the keeper and designed to pass through the keeper and through the slot in the bolt whereby to lock the bolt in the keeper, and said key having one of its ends formed with a bit designed to be arranged adjacent to one of the sides of the keeper when the key is turned in the keeper and whereby to retain the key in the said keeper.

1,253,170. SHOCK-LOADER. URASMUS GREEN GREER, Anderson, Mo. Filed Jan. 19, 1917. Serial No. 143,280. (Cl. 214—2.)



1. In a shock loader structure, the combination with a wagon structure, of a frame pivotally connected to the rear end of said wagon structure, a pair of arcuate arms pivotally connected to said pivoted frame near its outer free end, said arms having their concaved surfaces positioned upwardly and a plurality of slats attached to the upper surface of said arms.

2. In a shock loader structure, the combination with a wagon frame, of a frame pivotally connected to the rear end of the wagon structure, a pair of arcuate arms pivotally connected to said pivoted frame near its outer free ends, said arms having their concaved surfaces positioned upwardly, a plurality of slats attached to the upper surfaces of said arms, said arms being bent near their pivots to form humps, pins carried by said frame for engagement with the humps of said arms for limiting the downward pivotal movement of the arms.

1,253,171. INTERNAL-COMBUSTION ENGINE. CHESTER GROW, La Harpe, Kans. Filed July 24, 1917. Serial No. 182,466. (Cl. 123—1.)



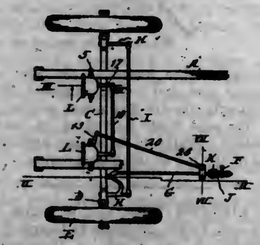
1. In an internal combustion engine, a low pressure cylinder, a high pressure cylinder extending from one end of the low pressure cylinder, said high and low pressure cylinders having their longitudinal axes coincident, a low pressure piston operating in the low pressure cylinder, a high pressure piston having a fixed relation to and projecting from the low pressure piston, and a vacuum and compression relief valve in the head of the high compression cylinder, the high compression cylinder and the high compression piston being formed with firing passages which are brought into communication when the high pressure piston reaches the point of highest compression in the high pressure cylinder, whereby a portion of the mixture ignited at such point is transmitted to the low pressure cylinder to ignite the charge therein.

2. In an internal combustion engine, a low pressure cylinder, a high pressure cylinder extending from one end of the low pressure cylinder, said high and low pressure cylinders having their longitudinal axes coincident, a low pressure piston operating in the low pressure cylinder, a high pressure piston having a fixed relation to and projecting from the low pressure piston, and a vacuum and compression relief valve in the head of the high compression cylinder, the high compression cylinder and the high compression piston being formed with firing passages which are brought into communication when the high pressure piston reaches the point of highest compression in the high pressure cylinder, whereby a portion of the mixture ignited at such point is transmitted to the low pressure cylinder to ignite the charge therein, the low pressure cylinder being controlled by an intake valve and an exhaust valve adjacent to the head thereof.

3. In an internal combustion engine, a low pressure cylinder, a high pressure cylinder extending from one end of the low pressure cylinder, said high and low pressure cylinders having their longitudinal axes coincident, a low pressure piston operating in the low pressure cylinder, a high pressure piston having a fixed relation to and projecting from the low pressure piston, and a vacuum and compression relief valve in the head of the high compression cylinder, the high compression cylinder and the high compression piston being formed with firing passages which are brought into communication when the high pressure piston reaches the point of highest compression in the high pressure cylinder, whereby a portion of the mixture ignited at such point is transmitted to the low pressure cylinder to ignite the charge therein, each of said firing passages embodying a portion extending longitudinally of the respective part in which it is formed and also embodying a laterally opening port intersecting said longitudinal portion of the passage, one of said lateral ports opening into the high compression cylinder and the other of said ports opening into the low compression cylinder.

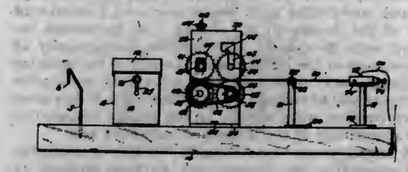
4. In an internal combustion engine, a low pressure cylinder, a high pressure cylinder extending from one end of the low pressure cylinder, said high and low pressure cylinders having their longitudinal axes coincident, a low pressure piston operating in the low pressure cylinder, a high pressure piston having a fixed relation to and projecting from the low pressure piston, and a vacuum and compression relief valve in the head of the high compression cylinder, the high compression cylinder and the high compression piston being formed with firing passages which are brought into communication when the high pressure piston reaches the point of highest compression in the high pressure cylinder, whereby a portion of the mixture ignited at such point is transmitted to the low pressure cylinder to ignite the charge therein, said vacuum and compression relief valve being adjustable for the purpose of increasing or diminishing the distance between said valve and the adjacent head of the high pressure piston when the latter is at the limit of its compressing movement.

1,253,172. DIRIGIBLE HEADLIGHT FOR AUTOMOBILES. ADELBERT M. HALL, Baldwin, Kans. Filed Jan. 31, 1917. Serial No. 145,612. (Cl. 240—62.)



In combination with a side bar of the chassis of an automobile, a dirigible headlight mechanism comprising a bearing member seating against the side of the bar and formed with upper and lower extensions and a vertical bearing, means detachably engaged with the upper and lower extensions of the bearing member for securing the same to the side bar, a lamp bracket formed with a depending journal seating in the bearing of said bearing member opposite the upper extension-engaging means, a crank arm slidably passed over the depending end of the journal and seated against the under face of the bearing member opposite the lower extension-engaging means, a spring yieldably urging the bracket journal to its seat and the crank arm against the underface of the bearing member but permitting movement of said journal and crank arm from opposite the respective extension-engaging means, and means connected to the crank arm for turning the bracket.

1,253,173. RUNNING-STITCH SEWING-MACHINE. JOHN HARGER, Honolulu, Hawaii. Filed July 9, 1917. Serial No. 179,482. (Cl. 112—17.)



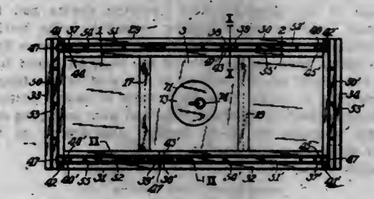
1. In a device of the class described, a plurality of rolls, each provided with an annular groove, said grooves being in alinement, a needle extending between the rolls and coöperating with the grooves, and means for adjustably mounting the needle, said means including a socket portion provided with a longitudinal bore and a longitudinal slot communicating therewith, and threaded members entering said bore from opposite directions and engaging the needle.

5. In a device of the class described, a plurality of crimping rolls, a frame for supporting said rolls, means formed in the frame for permitting the vertical movement of certain of the rolls, adjusting means for another of said rolls, driving means for one of said rolls, means for driving another of said rolls from the driven roll, a needle projecting between the rolls, a needle holding device, and a laterally movable needle brace mounted between the needle holding device and the rolls, and comprising a plurality of jaws one of which is pivotally mounted and resiliently operated.

9. In a device of the class described, a plurality of crimping rolls, a needle holding device, a needle mounted therein, and a paper guiding device, said device including a plurality of guides and a reversely threaded element for moving said guides simultaneously toward or away from each other.

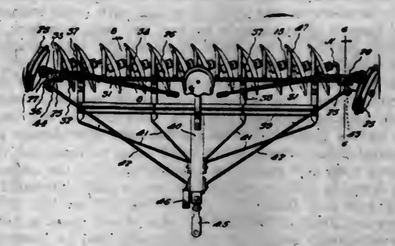
[Claims 2 to 4 and 6 to 8 not printed in the Gazette.]

1,253,174. SECTIONAL BURIAL-VAULT. CHARLES H. HARNELL, Union township, Montgomery county, Ind. Filed Aug. 18, 1916. Serial No. 115,655. (Cl. 72—7.)



A burial vault comprising a bottom, a plurality of wall sections continuously arranged upon the bottom, each section having joint portions in contact with like portions of adjacent sections, each joint portion having a vertical groove therein, the grooves of each two adjacent portions forming an opening extending down from the top of the wall, rods vertically arranged in the openings respectively and having each a plurality of key blocks thereon that extend into the vertical grooves of the adjacent portions, plastic material in said openings enveloping said blocks and rods, and a cover for the wall sections.

1,253,175. DISK HARROW. ERNEST F. HIGH, Arrington, Kans. Filed Sept. 22, 1917. Serial No. 192,719. (Cl. 55—73.)



1. In a machine of the class described, a disk carrying shaft having alternate spindles and offsets and terminal cranks provided with wrist pins, standards having sockets wherein the wrist pins are adjustably secured, and a top cross bar having keepers wherein the standards are secured, in combination with vertical shafts rotatably and slidably engaging the standards, ground wheels carried by the shafts, and means for effecting relative vertical adjustment of the shafts and standards.

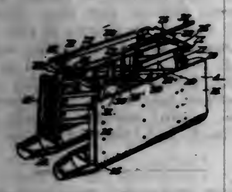
3. In a machine of the class described, a shaft having alternate angularly disposed spindles and offsets and terminal cranks provided with wrist pins, disks journaled on the spindles, clamps secured on some of the offsets, a draft bar, braces connecting the draft bar with the clamps, a tongue connected with the draft bar and with the braces, standards having sockets in which the wrist pins of the wheel carrying shaft are adjustably secured, said stand-

ards having vertical bores, shafts engaging said bores and having angularly disposed spindles, one of said spindles being at an obtuse angle and the other at an acute angle with respect to its shaft, and ground wheels carried by said spindles, said wheels being disposed in substantially parallel planes and tilted in opposition to the disks carried by the shaft, in combination with means for effecting relative vertical adjustment of the standards and the wheel carrying shafts.

5. In a machine of the class described, a frame structure including a disk carrying shaft, a draft bar, a tongue connected therewith, clamp nipples connected with the disk carrying shaft, braces connecting the draft bar with the tongue and also with the clamp members, standards whereby the disk carrying shaft is adjustably supported, and a cross bar having keepers engaging the standards; ground wheel carrying shafts extending vertically through the standards, means for effecting relative vertical adjustment of the ground wheel carrying shafts and the standards, said means including segment racks having ears pivotally engaging the respective shafts, sleeves fixed on the shafts between the ears of the rack bars and having radial arms, braces secured at one end to the tongue and provided at their other ends with threaded portions extending through the radial arms, and nuts engaging said threaded portions to effect rocking adjustment of the ground wheel carrying shafts.

[Claims 2 and 4 not printed in the Gazette.]

1,253,176. BOLL-WEEVIL CATCHER. THOMAS CLAUDE HINES, Ripley, Miss. Filed Aug. 10, 1917. Serial No. 185,567. (Cl. 43—1.)



1. In a device of the class described, a rectangular supporting frame having side members provided with keepers, wall members having strips provided with loops engaging the keepers to swingingly support the wall members, resilient beaters on the inner faces of the wall members, and troughs formed at the lower ends thereof.

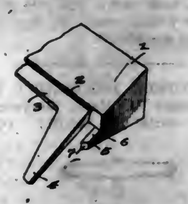
3. In a device of the class described, a rectangular supporting frame, side members swingingly connected therewith, each of said side members comprising a wall member having resilient beaters on the inner face thereof and a longitudinal trough at its lower edge, a frame bar connected with and extending longitudinally of the supporting frame, a yoke on said frame bar, a shaft journaled in said yoke and frame bar and having a cross bar at its lower end, links connecting the ends of said cross bar with the swingingly supported side members, and an operating lever connected with the upper end of the shaft.

5. In a device of the class described, a rectangular supporting frame, side members swingingly connected therewith, said side members including wall members having beaters and gathering troughs connected therewith, a pair of rock shafts having cranks, links connected with said cranks and provided at their lower ends with loops wherein the side members of the supporting frame are detachably mounted, and means for operating the rock shafts in unison and for securing them at various adjustments.

[Claims 2 and 4 not printed in the Gazette.]

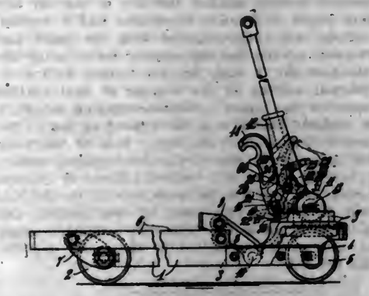
1,253,177. PLOWSHARE. FRANK M. HORN, Marmarth, N. D. Filed May 25, 1917. Serial No. 170,968. (Cl. 97—18.)

A plow share comprising a body portion having at its upper side an undercut shoulder and provided with a ledge extending in advance of said shoulder, said ledge at one end being extended into a tongue which tapers from its rear to its forward end and which is provided with converging side surfaces, the body portion being provided at its inner end with a lug having an inclined upper surface and an inclined forward surface, a blade having a groove adapted to receive the ledge and a beveled edge



adapted to engage the undercut shoulder of the body, said groove at one end being extended into a pocket adapted to snugly receive the upper portion of the said tongue and the said blade having at its land side end a beveled shoulder adapted to fit snugly against the beveled forward end of the lug of the body portion.

1,253,178. LIFTING-TRUCK. WILLIAM F. IRRGANG, Windsor Locks, Conn., assignor to George P. Clark Company, Windsor Locks, Conn., a Corporation of Connecticut. Filed Apr. 20, 1916. Serial No. 92,400. (Cl. 254—10.)



1. A lifting truck, comprising, a carriage, a handle therefor, a hook arm pivoted at the lower part of the handle, a load lifting mechanism connected to said carriage having means for temporary engagement by said hook and operable by such engagement and a downward sweep of the handle to lift a load, and mechanism associated with the handle and operable independently of the movement of the latter and at the will of the operator to disengage said hook arm, said last-named mechanism constructed and arranged to normally remain in the same relative position with respect to the handle irrespective of the movements of the latter and said hook arm.

7. A lifting truck, comprising, a carriage, a platform, means connecting the carriage and platform operable to lift the latter, a pivoted handle on the carriage, an arm pivoted to the handle having a hook to engage and operate said means by movement of the handle, said means and hook arm being constructed and arranged so that the latter has a tendency to fall into engaging position with the former, a latch pivoted to the handle and arranged to normally hold said hook out of engaging position, a crank arm pivoted to the handle, a finger pivoted to said crank arm and arranged to disconnect said hook arm from said means and throw it into engagement with said latch, a stop on said crank arm engageable by said finger, the crank arm having a part to engage the handle to form a stop for the crank arm and a part arranged in the path of the latch to form a stop therefor, and a spring connecting said latch and finger and arranged to normally hold the latch, crank arm, and finger against their respective stops and to permit independent movement of each away from their respective stops, said crank arm and latch arranged for manipulation by the operator to cause the connection and disconnection of said hook arm and means, as desired.

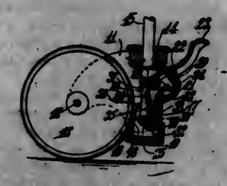
8. A lifting truck, comprising, a frame, and a platform, each formed of a single U-shaped bar, a rear axle fastened to the cross piece of said frame on which the rear wheels are mounted, an arched member connecting the open ends of said frame having vertical slots between said member and the side bars of the frame, links pivoted on the rear axle and to said platform, other links connecting the frame and platform movable in and limited by said slots, a rod mounted in said member and extending entirely thereacross on which the last-named links are pivoted, said rod being held from lateral displacement by the side bars of said frame, and a truck handle operated means to swing said links on their pivots, whereby the platform may be raised and lowered.

10. A lifting truck, comprising a carriage, a platform, links pivotally connecting the carriage and platform at the four corners of the truck, a cross rod connecting the upper ends of the forward pair of links closely adjacent their pivotal connection with the platform, a handle pivoted to the carriage, and a hook arm pivoted to the handle and arranged for temporary engagement with said cross rod, the pivot for said hook arm normally lying behind the handle pivot and substantially in a straight line between the latter and said cross rod, said hook operable by a downward sweep of the handle to swing said links on their pivots and raise said platform, said cross rod when the latter is raised lying substantially in a straight line between the hook arm pivot and the fulcrum for the cross rod links, all constructed and arranged so that the rate of lift of the platform is substantially uniform for uniform movements of said handle.

11. A lifting truck including a lifting mechanism, a pivoted handle to draw and steer the truck and having mounted at the lower end thereof means to connect the handle with said mechanism, when desired, said means including a pivoted hook arm, a latch to hold the latter normally out of position and a structurally independent manually operable lever to move the hook arm to latched position.

[Claims 2 to 6 and 9 not printed in the Gazette.]

1,253,179. LIFTING AND LOWERING APPARATUS. WILLIAM F. IRRGANG, Windsor Locks, Conn., assignor to George P. Clark Company, Windsor Locks, Conn., a Corporation of Connecticut. Filed Jan. 8, 1917. Serial No. 141,208. (Cl. 10—186.)



1. A caster device comprising in combination, a frame, a plunger slidable therein, a lever pivoted to the frame and arranged to depress the plunger into engagement with the floor and thereafter lift the frame with the plunger as a fulcrum, means to hold the frame in raised position, and means operable on a subsequent depression of the lever to release the first-named means and permit the frame to be lowered to the floor.

3. A caster device, comprising, in combination, a frame, a plunger slidable therein, a lever pivoted to the frame, resilient means connecting the plunger and lever and normally holding both retracted, said lever arranged when depressed to force the plunger to the floor and thereafter lift the frame with the plunger as a fulcrum, and means on the plunger movable into engagement with the frame to hold the latter in raised position.

8. Lifting and lowering apparatus, comprising in combination, a support, a lifting member movable relatively thereto, means to move the support and member, the one relatively to the other, and mechanism automatically operable by relative movement of member and support in one direction to effect a relative movement between the member and support, in the other direction upon a subsequent actuation of said means.

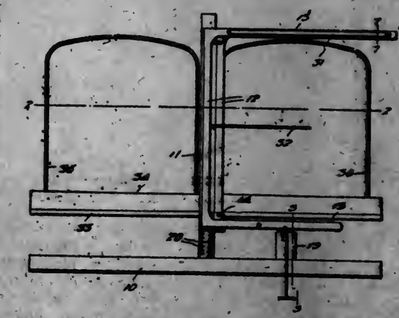
[Claims 2 and 4 to 7 not printed in the Gazette.]

1,253,180. WINDOW-SASH BOWER. CHARLES L. JOHNSON, Morrisville, Pa., assignor of one-half to Newton B. Johnson, Morrisville, Pa. Filed May 16, 1916. Serial No. 97,879. (Cl. 16—28.)



The combination with a frame member, and a swinging member hingedly mounted at its lower end therein; an arm standing between the side bars of the members when closed and having a longitudinal slot and a series of holes alongside the same, means for pivoting one end of the arm to one member, a plate on the other member having a pin sliding in said slot and an aperture adapted to register successively with said holes as this member is moved and to pass over the end of the slot as it is closed, and a bolt in the swinging member whose tip is adapted to project through said aperture, for the purpose set forth.

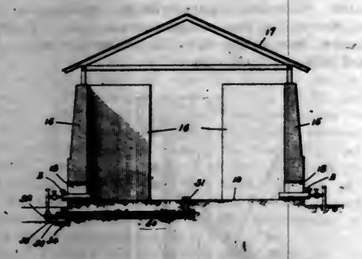
1,253,181. MUSIC-LEAF TURNER. FORREST H. JOHNSTON, Toledo, Ohio. Filed July 10, 1917. Serial No. 179,760. (Cl. 84—135.)



A music leaf turner comprising a base, a post rising therefrom, a plurality of leaf supporting frames mounted upon the post for independent swinging movement, a member on said base, a horizontally disposed lever pivoted in its length upon said member and formed to provide a shoulder along one edge to engage one of said frames, an arm pivoted to said lever with one extremity projected above said edge of the lever to engage the other of said

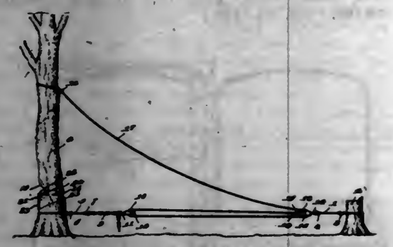
frames, resilient means for normally holding the arm in right angular relation to said lever, means for rocking the lever to disengage said shoulder from one of the frames, resilient means operating to automatically return the lever to horizontal position whereby said arm is disengaged from the other of said frames to permit the latter to engage the shoulder when the lever assumes its normal position.

1,253,182. KILN. STEPHEN G. JOHNSTON, Barboursville, W. Va. Filed Jan. 29, 1916. Serial No. 75,157. (Cl. 25—149.)



In a gas kiln having its sides provided with openings, an exteriorly arranged longitudinally extending gas supply pipe at each side of the kiln, individually controllable air supply pipes disposed at the bottom of said openings and extending horizontally into the kiln, individually controllable gas tubes connected with said gas supply pipes and extending into said air pipes, horizontally arranged individually controllable air supply pipes extending transversely into the kiln beneath the floor thereof and disposed below and in alinement with said first named air supply pipes and terminating at the longitudinal center line of the kiln, vertical branch pipes communicating with the inner ends of said second named air pipes and extending into the kiln in alinement with said first named air pipes, individually controllable gas pipes in said last named air pipes and communicating with one of said gas supply pipes and gas tubes connected with said last named gas pipes and extending into said vertical branch pipes.

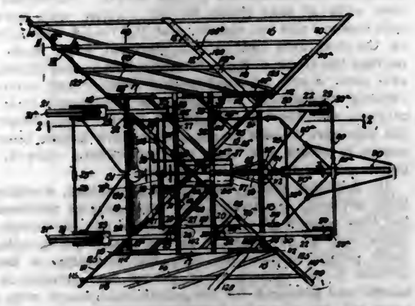
1,253,183. STUMP-PULLER. LESLIE B. JONES, Newport, Wash. Filed Mar. 30, 1917. Serial No. 158,635. (Cl. 254—65.)



The herein described method of extracting stumps, consisting in connecting the stump to be pulled to the base of a tree with a power multiplying connection, connecting the draw of such power multiplying connection to the tree above the base, and felling the tree from the stump and by a line of cut above the power multiplying connection to the base.

1,253,184. ROAD-MACHINE. JOHN HENRY KELLER, Iowa City, Iowa. Filed Mar. 14, 1917. Serial No. 154,651. (Cl. 37—5.)

2. In a road machine, the combination of a supporting frame, a pair of front grader bars having operating edges which converge rearwardly from the sides toward the middle of said frame, movable gates located near the inner ends of said front grader bars, a pair of rear grader bars which diverge from the middle of the frame rearwardly toward its sides, and laterally extending wing sections secured to said frame, said wing sections including grader bars which form continuations of said front and rear grader bars.



7. In a road machine, the combination of a supporting frame, a pair of front grader bars having operating edges which converge rearwardly from the sides of the frame toward the middle thereof, movable gates located near the inner ends of said front grader bars, a pair of rear grader bars which diverge from the middle of the frame rearwardly toward its sides, laterally extending wing sections pivoted to said frame at its ends, said wing sections including grader bars which form continuations of said front and rear grader bars, standards rising from said main frame at the junction of said wing section grader bars and said front and rear grader bars, and means adjustably supporting the outer ends of the grader bars of the wing sections from said upright standards.

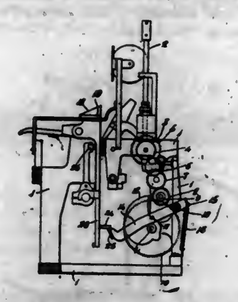
15. In a road machine provided with a grader bar having a gateway therein, a gate adapted to open and close said gateway, said gate being capable of a swinging movement on a horizontal axis located in a plane above the top of said gate, a bracket plate fixed to the bottom edge of said gate on its rear side, said bracket plate having ears at its ends which engage with fixed parts of the grader bars to limit the closing movement of said gate with reference to said gateway, a pair of spring pressed plungers carried by said bracket and adapted to engage in associated openings in said grader bar, said spring pressed plungers normally tending to be withdrawn from their associated locking openings, a lever, a link operatively connecting said lever with said bracket, said link engaging between the adjoining ends of said spring pressed plungers to hold said plungers in locking engagement with their associated locking openings.

27. In a road machine provided with front and rear grader bars having a gateway between them, a gate adapted to open and close said gateway, scraper blades fixed to said front and rear grader bars, and to said gate respectively, the blade on said rear grader bar having a part at that end near the gateway which is higher than that of the other part of said blade on said rear grader bar, the exposed end part of said higher grader bar forming a stop shoulder to limit the closing movement of said gate relative to said gateway.

[Claims 1, 3 to 6, 8 to 14, and 16 to 26 not printed in the Gazette.]

1,253,185. TIME-RECORDER. HUGH M. LAWTON, Bellevue, Ky., assignor to The Cincinnati Time Recorder Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Feb. 21, 1916. Serial No. 79,479. (Cl. 234—43.)

3. In a time recorder, a card guide, an abutment in said guide to regulate the position of the card in said guide, and a cam connected directly to and under continuous movement with the clock of said recorder, said cam having a curved edge partially circular and partially para-



bolic to impart intermittent continuous movement to said abutment, for the purpose described.

[Claims 1, 2, and 4 not printed in the Gazette.]

1,253,186. DRAFT-GEAR. HERMAN C. PRIEBE, Blue Island, Ill. Filed July 9, 1917. Serial No. 179,551. (Cl. 213—64.)



1. A draft gear including a coupler; inner and outer members actuated thereby and movable with respect to each other longitudinally of the gear; means for resisting the approach of either of these members toward the other; two rockers operating in conjunction with the aforesaid means, each of the aforesaid members having a rocker in engagement therewith and each rocker having a curved face for engagement with the curved face of the other rocker in the operation of the gear; and seats for these rockers disposed below the same.

2. A draft gear including a coupler; inner and outer members actuated thereby and movable with respect to each other longitudinally of the gear; means for resisting the approach of either of these members toward the other; two rockers operating in conjunction with the aforesaid means, each of the aforesaid members having a rocker in engagement therewith and each rocker having a curved face for engagement with the curved face of the other rocker in the operation of the gear; and rollers for these rockers disposed below the same.

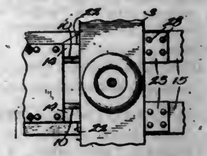
3. A draft gear including a coupler; inner and outer members actuated thereby and movable with respect to each other longitudinally of the gear; means for resisting the approach of either of these members toward the other; two rockers operating in conjunction with the aforesaid means, each of the aforesaid members having a rocker in engagement therewith and each rocker having a curved face for engagement with the curved face of the other rocker in the operation of the gear; seats for these rockers disposed below the same; and rollers interposed between the rockers and said seats.

4. A draft gear including a coupler; inner and outer members actuated thereby and movable with respect to each other longitudinally of the gear; means for resisting the approach of either of these members toward the other; two rockers operating in conjunction with the aforesaid means, each of the aforesaid members having a rocker in engagement therewith and each rocker having a curved face for engagement with the curved face of the other rocker in the operation of the gear; and inclined seats for these rockers disposed below the same.

13. A draft gear including a coupler; inner and outer members actuated thereby and movable with respect to each other longitudinally of the gear; means for resisting the approach of either of these members toward the other; two rockers operating in conjunction with the aforesaid means, each of the aforesaid members having a rocker in engagement therewith and each rocker having a curved face for engagement with the curved face of the other rocker in the operation of the gear; and a seat for and disposed beneath a rocker.

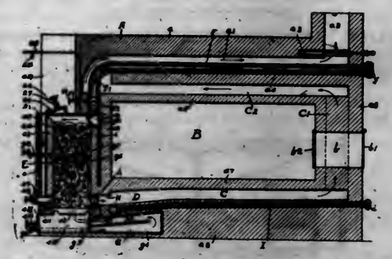
[Claims 5 to 12 not printed in the Gazette.]

1,253,187. DRAFT-GEAR. HERMAN C. PRIEBE, Blue Island, Ill. Filed July 9, 1917. Serial No. 179,552. (Cl. 213—42.)



A car structure including center sills; a body bolster; draft bars engaging the outer face of the body bolster; blocks for engaging the inner face of the body bolster and having holes therethrough located at unequal distances from the edges of the blocks, there being holes in the center sill structure corresponding to the holes in the blocks, the holes in the blocks and center sill structure registering in various positions of the blocks whereby the spaces between the blocks and the draft bars may be varied; fastening means passed through the registering holes; and a draft gear carried by the draft bars.

1,253,188. OVEN-FURNACE. LOUIS CHARLES REESE, Saginaw, Mich., assignor to Werner & Pfleiderer Co., Inc., Saginaw, Mich., a Firm. Original application filed Apr. 24, 1915, Serial No. 23,706. Divided and this application filed Dec. 6, 1915. Serial No. 65,367. (Cl. 110—56.)



1. In an oven furnace, in combination, a fuel chamber having a grate for its bottom, sidewalls containing at their lower part somewhat above the grate an opening serving as outlet for the combustion gases and a small, hermetically closing door for stoking, and a top provided with a hermetically closing door for charging fuel into the said fuel chamber and an opening serving as inlet for the air for the the combustion thereof, a preheater connected to this inlet and so arranged that the air passing therethrough into the said fuel chamber is preheated by the spent firegases, a channel running inside the said fuel chamber from said air inlet along said top and down one of said side walls and leading the said preheated air into the burning fuel at a point opposite to the said outlet for the combustion gases, and a closed

ash pit arranged underneath the said grate and provided with a hermetically closing door for cleaning the same.

3. In an oven furnace, in combination, a fuel chamber having a grate for its bottom, sidewalls containing at their lower part somewhat above the grate an opening serving as outlet for the combustion gases and a small, hermetically closing door for stoking, and a top provided with a hermetically closing door for charging fuel into the said fuel chamber and with an opening serving as inlet for the air for the combustion thereof, a preheater connected to this inlet and so arranged that the air passing therethrough into the said fuel chamber is preheated by the spent fire gases, a channel running inside the said fuel chamber from said air inlet along said top and down one of said side walls and leading the said preheated air into the burning fuel at a point opposite to the said outlet for the combustion gases, a water pipe arranged and provided with means for leading water in regulated quantities into the upper part of the said fuel chamber, and a closed ashpit arranged underneath the said grate and provided with a hermetically closing door for cleaning the same.

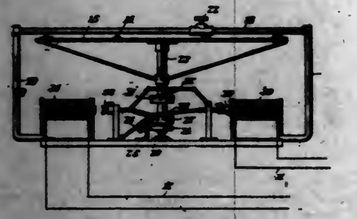
[Claim 2 not printed in the Gazette.]

1,253,189. WELDING HIGH-SPEED STEEL. EDMUND J. VON HENKE, Lynn, Mass., assignor to Thomson Electric Welding Company, Lynn, Mass., a Corporation of Massachusetts. Filed May 14, 1917. Serial No. 168,334. (Cl. 219—10.)



The improved method of welding a flat piece of high-speed steel to the flat surface of another piece of metal consisting in providing the contacting surfaces with alternate grooves and projections of such dimensions that when the parts are laid crosswise a multitude of small contacts of high resistance distributed all over the surface to be welded will be provided so as to distribute the heat all over the flat surface, assembling the parts with said projections lying crosswise in contact and then applying the electric heating current to form a uniform and homogeneous weld as and for the purpose described.

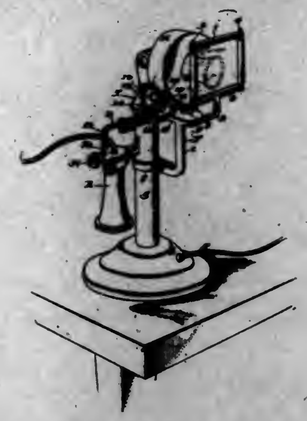
1,253,190. AEROCOMPASS. FRED CHARLES FISCHER, Robstown, Tex. Filed Mar. 2, 1917. Serial No. 152,668. (Cl. 177—351.)



1. The combination with a compass, and means actuated by said compass for transmitting electrical impulses; of a revolvable map-board, a stationary rod parallel to the surface of said map-board; an indicator rod slidably attached at one end to said stationary rod and extending over the surface of said map-board, and means of locking said indicator rod to said stationary rod; and means responsive to said electrical impulses for rotating said map-board; in accordance with the movements of the compass.

[Claims 2 and 3 not printed in the Gazette.]

1,253,191. ATTACHMENT FOR TELEPHONES. WILLIAM O. BUNNELL and OWEN G. WILLIAMS, Wilkes-Barre, Pa., assignors of one-half to Quincy A. Gates and one-half to said Bunnell, Wilkes-Barre, Pa. Filed Jan. 8, 1917. Serial No. 141,248. (Cl. 179—185.)



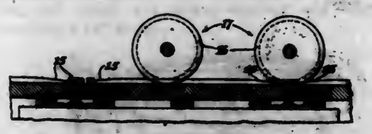
1. The combination with a telephone, of a sanitary device therefor comprising a frame secured to the telephone, a roller containing a strip of antiseptic material journaled in said frame, a feed roller also journaled in said frame, means to cause said feed roller to pull a quantity of antiseptic material across said telephone mouth piece, and means for retaining said means in inactive position and including a member positioned to be engaged by the telephone receiver when the same is removed from its hook.

5. The combination with a telephone, of a sanitary device therefor comprising a frame secured to the telephone, a roller containing a strip of antiseptic material journaled in said frame, a feed roller also journaled in said frame, and means to cause said feed roller to pull a quantity of antiseptic material across said telephone mouth piece, a pinion on the end of said feed roller, a horizontal shaft journaled in said frame, a second pinion on the end of said shaft and in mesh with the first mentioned pinion, an escape wheel fixed to the shaft and having a plurality of notches on its periphery, means for rotating said wheel, a locking member for engagement with any one of said notches, a horizontal lever pivoted on said frame, said locking member being carried by one end of said lever, said arm being in position to be engaged by the telephone receiver upon its removal from its hook.

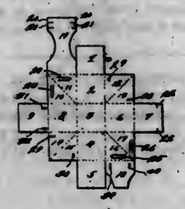
6. The combination with a telephone, of a sanitary device therefor comprising a frame secured to the telephone, a roller containing a strip of antiseptic material journaled in said frame, a feed roller also journaled in said frame, and means to cause said feed roller to pull a quantity of antiseptic material across said telephone mouth piece, a pinion on the end of said feed roller, a horizontal shaft journaled in said frame, a second pinion on the end of said shaft and in mesh with the first mentioned pinion, an escape wheel fixed to the shaft and having a plurality of notches on its periphery, means for rotating said wheel, a locking member for engagement with any one of said notches, a horizontal lever pivoted on said frame, said locking member being carried by one end of said lever, a depending arm on the other end of said lever, said arm being in position to be engaged by the telephone receiver upon its removal from its hook, the end of said depending arm being hinged to fold in one direction.

1,253,192. RAILROAD-CROSSING. JOSEPH HERR, Los Angeles, Cal. Filed Mar. 12, 1917. Serial No. 154,261. (Cl. 104—40.)

A track intersection, comprising pairs of intersecting rails, the ends of wh[illegible] are formed with tapered faces which extend downwardly toward the intersection, a flange formed upon said rails and adapted to provide a continuous floor for the flange of car wheels passing thereover, whereby the wheels will cross the intersection without objectionable noise, and a series of rollers disposed along the side of the rails and against which the flanges of the wheels are adapted to bear in a manner to relieve the friction on the wheel flanges.



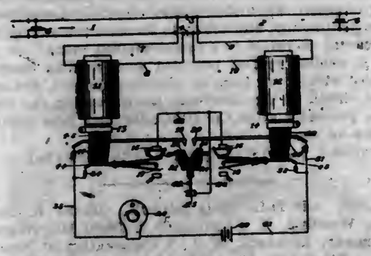
1,253,193. PAPER BOX. JOHN W. HILL, Fairview, Mont. Filed Apr. 12, 1917. Serial No. 161,616. (Cl. 229—31.)



1. In a paper box or vessel, a bottom and sides therefor, corner flaps made integral with adjacent sides, one pair of flaps having strips, the other pair of flaps having perforations, the flaps having strips alternating with those having perforations and the perforations being adapted to engage the strips whereby adjacent flaps are held together, cover flaps for the box, said cover flaps being arranged in quadruplicate with each flap of sufficient dimensions to fully cover the top of the box, locking means for the two upper cover flaps, said locking means comprising small flaps on the uppermost cover flap and perforations in the flap just below it for the small flaps to engage, and handle flaps for the box, said handle flaps having means for interlocking, whereby they may be used as a carrying means, one of said handle flaps having means for engagement with corner flaps of the box to provide additional securing means for the cover flaps.

[Claim 2 not printed in the Gazette.]

1,253,194. SELECTOR-RELAY. ALLEN B. KENDALL, Elizabeth, N. J., assignor to Hall Switch & Signal Co., a Corporation of Maine. Filed May 20, 1916. Serial No. 98,972. (Cl. 246—34.)



1. A relay comprising two electromagnets, an armature controlled by each electromagnet, a circuit controller governed jointly by said armatures, and other circuit controlling devices governed by said armatures separately.

3. In a relay, in combination: two electromagnets, an armature controlled by each electromagnet, a contact attached to each armature and insulated therefrom, a movable contact arranged to coact with either of said first mentioned contacts when either of said armatures drops, the dropping of either of said armatures causing said movable contact to move out of the path of the other contact, and other circuit controlling devices governed by said armatures.

4. In a relay, in combination: two electromagnets, an armature controlled by each electromagnet, a contact attached to each armature and insulated therefrom, a movable contact arranged to coact in accordance with the sequence of operation of the armatures with either of said first mentioned contacts when said armatures drop, the dropping of either of said armatures causing said movable contact to move relative to the path of the other contact, and other circuit controlling devices governed by said armatures.

[Claims 2, 4, 5, and 7 not printed in the Gazette.]

1,253,195. TOP. EUGENE FRANK SCHOELL, New Britain, Conn., assignor, by mesne assignments, to The Metal Specialty Company, New Britain, Conn., a Corporation. Filed Dec. 28, 1916. Serial No. 139,262. (Cl. 46—32.)



1. A top comprising a shell-like body having a tip at the lower end, a shaft rotatably and slidably housed in the said body and extending upwardly through the upper end thereof, a spring within the said body connected by one end to the said body and by the other end to the said shaft, ratchet and pawl mechanism for checking the unwinding of the said spring and the said mechanism comprising a set of ratchet teeth, integral with the upper wall portion of the said body.

2. A top comprising a shell-like body having a tip at the lower end, a shaft rotatably and slidably housed in the said body and extending upwardly through the upper end thereof, a spring within the said body, and connected by one end to the said body and by the other end to the said shaft, suitably to be wound by turning the said shaft relatively to the said body, ratchet and pawl mechanism for checking the unwinding of the said spring, and the said mechanism comprising a set of teeth integral with the said body and an arm extending radially from the said shaft.

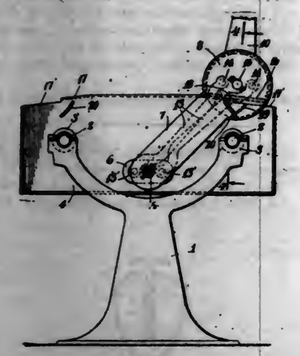
[Claims 3 and 4 not printed in the Gazette.]

1,253,196. CAR-SEAT. CLARENCE L. THOMPSON, Port Washington, N. Y. Filed July 18, 1916. Serial No. 109,911. (Cl. 155—2.)

1. A car-seat comprising a support, back-supporting means pivoted thereto at its lower end, a back standard pivoted to the upper end of said means, a supporting flange formed on the back standard, a flange formed on the support and adapted to be engaged by the flange on the standard when the back is in one of its seating positions, a locking flange carried by the standard below the pivot connecting the same to said supporting means, and a rigid stop on the support adapted to be engaged by said locking flange when the back is swung into seating position, said locking flange and stop being positioned to resist turning movement of the back caused by rearwardly directed pressure thereon above the pivotal connection of the back standard, substantially as set forth.

3. A car seat comprising a support, a back standard, means connecting said standard to the support, maintain-

ing it in proper position during its reversing movement, and causing it to assume a desired inclination as it approaches each of its seating positions, a supporting flange formed on the back standard, a flange on the support adapted to be engaged by said flange on the standard when the back is in one of its seating positions, a locking flange on the back standard, a rigid stop on the support adapted to be engaged by the locking flange when the back is swung into seating position, said locking flange being at an angle to said supporting flange, and said locking flange and stop being positioned to resist turning movement of the back caused by rearwardly directed pressure thereon, substantially as set forth.



5. A car seat comprising a back support, a back standard, a supporting flange on the back standard, a flange on the support adapted to be engaged by the flange on the back standard, a locking flange on the back standard below the supporting flange, and a rigid stop on the support adapted to be engaged by the locking flange, said lock flange and its coöperating stop being abruptly inclined with respect to the supporting flange, whereby the said flange and stop will coöperate to lock the back standard against a backward tilting movement, substantially as set forth.

9. A car seat comprising an end plate having a seating flange adjacent each end thereof, a longitudinal rod secured to said plate, an arm pivoted at its lower end on said rod, a back standard pivotally connected to the upper end of said arm, a back carried thereby, a seating flange on said standard, extending on both sides of the axis of the pivotal connection between the standard and arm, said flange on the standard being adapted to bear, for a part only of its length, on one of said end plate flanges, when the back is in either seating position, said end plate flanges having the outer ends of their bearing surfaces at such points that the flange on the standard has no bearing on the outer side of the axis of said pivotal connection, substantially as set forth.

10. A car seat comprising an end plate having a seating flange adjacent each end thereof, a longitudinal rod secured to said plate, an arm pivoted at its lower end on said rod, a back standard pivotally connected to the upper end of said arm, a back carried thereby, means providing a seating surface on said standard for each seating position of the back, said surface being adapted to bear on one of said end plate flanges when the back is in either seating position, a locking flange on the standard and fixed stops on the end plate, adapted to engage when the back is in either seating position, and arranged to resist backward turning movement of the back, said seating surface on the standard and seating flanges on the end plate being so arranged that said seating surface bears on either of said seating flanges at the inner side only of the axis of the pivotal connection between the standard and said arm, substantially as set forth.

[Claims 2, 4, and 6 to 8 not printed in the Gazette.]

1,253,197. COMPASS. JAMES A. HOWE, Rochester, N. Y., assignor to Taylor Instrument Companies, Rochester, N. Y., a Corporation of New York. Original application filed Mar. 21, 1914, Serial No. 826,190. Divided and this application filed Feb. 1, 1915. Serial No. 5,391. (Cl. 33—222.)

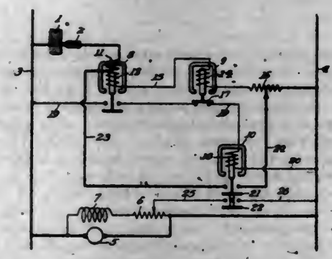


1. The combination with the bottom of a casing, of a bushing extending over the inner and outer faces of the bottom, and a bearing held frictionally within the bushing.

3. The combination with an inner casing having a bearing mounted therein, of a needle support mounted on the bearing, a lever having one end engaging said needle support and its opposite end projecting through the inner casing, an outer casing, and means carried by the outer casing having engagement with the lever to operate the same.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,253,198. WELDING-CONTROLLER. THEODORE D. MONTGOMERY, East Orange, N. J., and LEROY C. SCHANTZ, Milwaukee, Wis., assignors to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed July 21, 1916. Serial No. 110,499. (Cl. 219—8.)



1. In an electric arc welding system, a source of energy, connections from said source to the welding electrodes, and means responsive to the current in the circuit of the electrodes for increasing the voltage of the source of energy when the current in the electrode circuit decreases from an initially high value to a predetermined lower value.

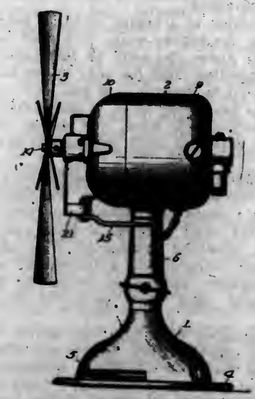
3. A welding system having welding electrodes supplied with power from an electric generator, and means responsive to the current in the circuit of the electrodes for increasing the voltage of the generator, said means being adapted to positively act to prevent the generator voltage being increased when the welding circuit is completed and the current is high and acting to increase the voltage when the current decreases to a predetermined value.

4. A welding system provided with welding electrodes supplied with power from an electric generator, and means in the circuit of the electrodes for increasing the voltage of the generator after the electrodes have been separated to draw an arc.

[Claims 2, 5, and 6 not printed in the Gazette.]

1,253,199. OSCILLATING MOTOR. HENRY L. ZABRISKIE, Westfield, N. J., assignor to Diehl Manufacturing Company, Elizabeth, N. J., a Corporation of New Jersey. Filed July 13, 1916. Serial No. 109,075. (Cl. 230—1.)

1. Means for oscillating a motor which is pivoted to a stationary base, comprising a worm carried by the rotating element of the motor, a rotatable shaft, carried by said motor parallel to the axis of the motor pivot, a worm wheel carried by said shaft, a counter shaft having a worm wheel meshing with the worm on said rotating element and a worm meshing with the worm wheel on said rotatable shaft, and means whereby said rotatable shaft oscillates the motor.



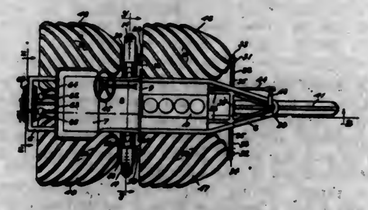
12. An oscillating electric fan comprising an electric motor pivoted to a stationary standard, the housing for said motor being closed at one end by a removable cap piece which carries a bearing for one end of the motor armature shaft, a worm carried by the armature shaft and contained within the cap piece, a counter shaft carried by the cap piece and located at an angle to the armature shaft, said counter shaft carrying a worm gear meshing with the worm on the armature shaft and also carrying a worm which meshes with a worm wheel carried by another shaft mounted in the cap piece, said latter shaft being parallel to the motor pivot and in the plane of the axis of the armature shaft, a crank head carried by said latter shaft, and an arm pivoted to the stationary standard and connected to the crank head.

13. An electric motor having a housing pivoted to a stationary standard, said housing being closed at one end by a removable cap piece, the said cap piece forming a housing and support for a reduction gearing connecting the armature shaft with a rotatable shaft carried by the cap piece, and an arm pivoted to the standard and eccentrically connected to the rotatable shaft.

[Claims 2 to 11 and 14 to 16 not printed in the Gazette.]

REISSUES.

14,418. MOTOR-SLED. FREDERICK R. BURCH, Seattle, Wash., assignor of nine one-hundredths to Joe West and nine one-hundredths to Eva West, Seattle, Wash. Filed Sept. 27, 1917. Serial No. 193,606. Original No. 1,228,093, dated May 29, 1917, Serial No. 111,097, filed July 24, 1916. (Cl. 180—3.)



1. A motor sled of the class described, which embodies four rotary tractors, each consisting of a cylinder having its forward end portion tapered and each provided with a plurality of propeller fins secured thereto to extend spirally therearound throughout its length; two shafts disposed with their axes in parallel vertical planes, and upon each of which shafts two of said tractors are rigidly mounted and disposed so that the front end of one of them shall be spaced from the rearward end of the other; two trunnions, each of which is provided with shaft bearings within which a different one of said two shafts is rotatably disposed, which bearings are disposed between the two tractors of said shaft; a sprocket wheel rigidly mounted on each of said two shafts in a position between the bearings thereof; a supporting frame within which said two trunnions are mounted to be independently rotatively movable with their axes in the same line, whereby said two shafts independently may oscillate in different vertical planes; another sprocket wheel rotatably mounted on each of said trunnions; a separate sprocket chain operatively disposed to communicate rotary motion from each of said other sprocket wheels to the sprocket wheel of a different one of said shafts; a body-frame mounted on said supporting frame to extend forwardly and rearwardly therefrom; a tubular stud rigidly attached to the forward end of said body-frame to extend downwardly therefrom; a vertical shaft disposed to extend through said tubular stud and adapted to be rotatively moved therein; a steering sled runner articulated to the lower end portion of said vertical shaft to adapt it to oscillate in a vertical plane; manually operative mechanism associated with said vertical shaft whereby said shaft may be rotatively moved to actuate said steering sled runner; a motor mounted on said body-frame; and controllable means for communicating rotary motion from said motor to the sprocket wheels mounted on said trunnions whereby said tractors may be rotated.

2. A motor sled of the class described, which embodies a supporting frame; two tractor shafts associated with said supporting frame to extend forwardly and rearwardly therefrom in positions parallel with each other and adapted each independently to oscillate in a different one of parallel vertical planes; two tractors rigidly mounted on each of said tractor shafts, each of said tractors comprising a cylinder provided with spirally disposed propelling fins; a body-frame resiliently mounted on said supporting frame; a steering runner operatively associated with a forward end portion of said body-frame; a motor mounted on said body-frame; a power shaft carried by the motor, stub-shafts operatively associated with the power shaft, a pair of driven shafts connected to the stub-shafts, a second pair of stub-shafts driven by the driven shafts, and operative connections between the last named stub-shafts and the tractor shafts.

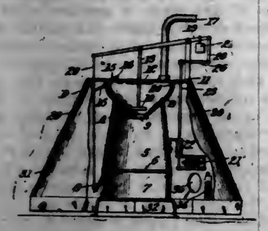
3. A motor sled comprising a body portion, an inverted U-shaped frame carried thereby, a central rib depending from the frame, a pair of trunnions journaled in the sides of the frame and the rib, shafts journaled in said trunnions, tractors upon said shafts, a motor operatively associated with the tractor shafts, and steering means for the sled.

4. A motor sled comprising a body portion, a frame carried thereby and having spaced depending members, trunnions journaled therein, shafts journaled in said trunnions, tractors upon said shafts at opposite sides of the trunnions, stub-shafts journaled on said trunnions, chain and sprocket connections between the said shafts, motor mechanism associated with the stub-shafts, and steering means for the sled.

5. A motor sled of the class described, which embodies a transversely disposed supporting frame; two tractor shafts rotatably associated with said supporting frame and disposed to extend forwardly and rearwardly therefrom with their axes each in a different one of spaced parallel vertical planes and adapted each independently to oscillate in vertical directions; a body-frame mounted on said supporting frame; and a cross-bar each of whose two opposite end portions is provided with a vertical slot, said cross-bar being rigidly associated with said body-frame and disposed with the forward end portion of each of said tractor shafts extending freely through one of the

vertical slots in said cross-bar whereby said tractor shafts shall be guided in their vertical movements and be maintained with their axes in said parallel planes.

14,419. BROODER. JOHN F. MACKAY, Bordentown, N. J. Filed Jan. 30, 1917. Serial No. 145,538. Original No. 1,103,887, dated July 14, 1914, Serial No. 774,149, filed June 17, 1913. (Cl. 237—3.)



1. A heater for brooders having a fire box, a hopper disposed above and communicating with the fire box, a top plate covering the hopper and extending beyond the perimeter thereof entirely around the heater, dampers for controlling the draft of the heater, and means for controlling the dampers supported by the top plate of the hopper.

2. A heater for brooders having a fire box, a hopper disposed above and communicating with the fire box, a top plate covering the hopper and extending laterally beyond the perimeter thereof entirely around the heater, a closure controlling communication between the hopper and the fire box, dampers for controlling the draft of the heater, and means for controlling the movements of the closure and the dampers supported by the top plate of the hopper.

3. A heater for brooders having a fire box, a hopper disposed above and communicating with the fire box, a top plate covering the hopper and extending beyond the perimeter thereof entirely around the heater, there being a check draft opening through the top plate into the hopper, a damper for controlling the draft through said opening, a damper controlling the draft to the fire box, a closure controlling the communication between the hopper and fire box, and a single means supported on the said top plate and connecting respectively with the said dampers and closure, by which their movements are controlled.

4. The combination of a heater for burning solid fuel, having a chamber in its upper portion covered by a top through which is a fuel feed opening, a flue through which the products of combustion pass off communicating with the said chamber, a valve controlling the communication between the said chamber and the fire box of the heater, means for operating said valve supported by the heater, means carried by the heater for supporting a brooder hood, and a suspended hood supported by the said means so as to be free from the surface on which the heater rests and forming a brooder chamber surrounding the same.

5. The combination of a heater for burning solid fuel having a feed opening through its top, means carried by the heater for supporting a brooder hood, and a suspended hood supported by the said means so as to be free from the surface on which the heater rests and forming a brooder chamber surrounding the heater, the top of the hood being open so as to leave exposed the top of the heater, thereby permitting access to the fuel feed opening therein without disturbing the hood.

6. The combination of a heater for burning solid fuel, provided with a top perforated to permit fuel to be fed through it to the fire chamber of the heater, the top extending laterally beyond the heater, and a hood supported from the edge of the top and forming a brooder chamber entirely surrounding the heater.

7. The combination of a heater adapted to burn solid fuel, having a top perforated to permit fuel to be fed through it to the fire chamber, and perforated also to form a check draft opening, a hood supported by the heater and extending downward from the said top to inclose a brooder chamber, and a damper for the said check draft opening by which the draft through the same may be controlled.

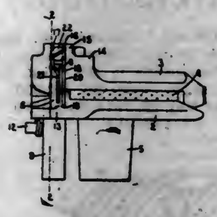
8. The combination of a heater having a body portion formed of solid continuous walls with fuel and draft openings located above the body of the heater, a suspended hood projecting from the body of the heater and inclosing same and having the said fuel and draft openings outside the suspended hood, a thermostatic device also inclosed within said hood, and means connecting said thermostat with said draft opening, for the purpose specified.

9. The combination of a heater adapted to burn solid fuel having a top perforated with a flue opening, also perforated with a check draft opening, a valve mounted within said check draft opening, a hood supported by the heater and extending downwardly from said top to inclose a brooder chamber, and a thermostat located in said brooder chamber, and means connecting said thermostat with said check draft valve for the purpose specified.

10. The combination of a hard fuel heater, having a chamber in its upper portion, and a top with a perforation for the fuel, and a separate perforation for a check draft opening into said chamber, a hover supported by the heater to inclose a brooder chamber, a valve for said check draft opening adapted to close said opening whenever desired, and a thermostat located within said brooder chamber having connection with said valve to control the temperature of said brooder chamber.

11. The combination of a heater adapted to burn solid fuel having a chamber in a separate portion thereof and having a top to said chamber perforated to permit fuel to be fed to the same and further perforated to form an independent check draft opening, a hood supported by the heater, extending downwardly from the top to inclose a brooder chamber arranged with said opening outside of said hood, a valve for said check draft opening located within said opening and a thermostat in said brooder chamber, and means connecting said valve with said thermostat to control the temperature in said brooder chamber.

14,420. TEMPLE THREAD-CUTTER FOR LOOMS. EDWARD S. STIMPSON, Hopedale, Mass., assignor to Draper Corporation, Hopedale, Mass., a Corporation of Maine. Filed Dec. 7, 1917. Serial No. 206,102. Original No. 1,244,791, dated Oct. 30, 1917, Serial No. 176,432, filed June 22, 1917. (Cl. 139—36.)



1. A thread cutting temple for looms comprising a pod and a cap, a guideway in said cap and pod, a slidably mounted cutter backwardly and forwardly movable in said guideway, and a stationary cutting blade rigidly secured to said cap at the mouth of said guideway in coöperative relation to said movable cutter.

2. A thread cutting temple for looms comprising a body and a cap, a guideway in said cap and body, a slidably mounted cutter backwardly and forwardly movable in said guideway, a slot in said cap at the mouth of the guideway and a stationary cutting blade rigidly secured in said slot in coöperative relation to said movable cutter.

3. A thread cutting temple for looms comprising a pod and a cap, a guideway in said cap and pod, a cutter backwardly and forwardly movable in said guideway, a stationary cutter rigidly secured to said cap at the mouth of said guideway in coöperative relation to said movable cutter and resilient means for forcing said movable cutter into engagement with said stationary cutter whereby an effective shearing action between said cutters is insured.

4. A thread cutting temple for looms comprising a pod and a cap, a guideway in said cap and pod, a cutter backwardly and forwardly movable in said guideway, a stationary cutter rigidly secured to said cap at the mouth of said guideway in coöperative relation to said movable cutter and resilient means maintained in said cap engaging said movable cutter and maintaining the same in engagement with said stationary cutter whereby effective shearing action between said movable and stationary blades is insured.

5. A thread cutting temple for looms comprising a pod and a cap, a guideway in said cap and pod and a cutter backwardly and forwardly movable in said guideway, a boss on said cap above said guideway, vertical slots in said boss at the mouth of said guideway, a stationary cutter secured in one of said slots in coöperative relation to the movable cutter and a resilient member secured in the other slot bearing against said movable cutter and operating to maintain the same in effective shearing relation to the stationary cutter.

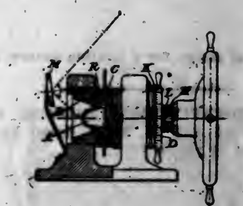
6. A thread cutting temple for looms comprising a cap and a pod, a guideway in said cap and pod and a cutter backwardly and forwardly movable in said guideway, a boss on said cap above said guideway, vertical slots in said boss at the mouth of said guideway, a vertical stationary cutter fixed at its upper end in one of said slots and seated at its lower end against the wall of said guideway in said pod, a resilient member seated at its upper end in the other slot and having a lower free end engaging the movable blade and adapted to maintain the same in shearing engagement with the stationary blade whereby an effective shearing action between said blades is insured.

7. A thread cutting temple for looms comprising a cap and a pod, a guideway in said cap and pod and a cutter backwardly and forwardly movable in said guideway, a boss on said cap above said guideway, vertical slots in said boss at the mouth of said guideway, a vertical stationary cutter fixed at its upper end in one of said slots and seated at its lower end against the wall of said guideway in said pod, a resilient member seated at its upper end in the other slot and having a lower free end engaging the movable blade and adapted to maintain the same in shearing engagement with the stationary blade whereby an effective shearing action between said blades is insured, said stationary blade and said resilient member being secured to said cap by a common fastening means.

14,421. PROCESS AND APPARATUS FOR TESTING METAL SHEETS, &c. ABRAHAM MARTHINIUS ERICHSEN, Christiania, Norway. Filed Dec. 30, 1916. Serial No. 139,920½. Original No. 1,094,319, dated Apr. 21, 1914, Serial No. 740,518, filed Jan. 6, 1913. (Cl. 265—12.)

1. An apparatus for testing the resistance to compressive and tensile strains of metal sheets or plates comprising a frame, two bearings provided on said frame, axially in line with each other, a matrix fitting one of said bearings, means provided in the second bearing and separately moving to and fro in said bearing with respect to said matrix for maintaining the metal sheet to be tested and for exerting on said metal sheet the required testing pressure, said latter means having a part spaced from the matrix to permit the metal sheet to have play in the direction of the axis of the apparatus whatever may be the thickness of said sheet.

2. An apparatus for testing the resistance to compressive and tensile strains of metal sheets or plates comprising a frame, two bearings provided on said frame and axially in line with each other, a matrix fitting one of said bearings, the second bearing having inner threads, a hollow, inwardly and outwardly threaded sheet holder holding the sheet to be tested against the matrix during the testing process, and engaging the threads of said bearing, a hand wheel for actuating said holder, the outer edge of said holder having a circular cut, the adjacent edge of the matrix having a corresponding cut, a ring loosely and removably mounted in the groove formed by both said cuts for cutting the metal sheet in two portions, the first one formed by a disk shaped plate, the second annular portion being maintained in its original position between said ring and said holder during the testing process, the front, holding surface of said sheet holder having an annular recess to provide play for said disk shaped metal sheet when engaged between said holder and said matrix, a central peripherically threaded die engaging the inner threads of said concentrically disposed holder, a hand wheel for actuating said centrally disposed die, for extending the metal sheet maintained between said matrix and said holder, an axially directed scale for measuring the axial displacements of said die with respect to the metal sheet to be tested, a coil spring between the die controlling hand wheel and a fixed part of the apparatus in order to measure the strain exerted by said die onto the metal sheet to be tested, a corresponding scale on said hand wheel and a mirror provided at the rear end of said frame in order to allow the operator placed at the opposite end to discern the rupture of the metal sheet to be tested.



3. In a machine of the class described, the combination of a frame, two alined bearings on the frame, a matrix mounted in one of the bearings, the other said bearing being internally threaded, an element operating in the threaded bearing and coöperating with the matrix to confine a plate being tested, said element having threads on its circumference and formed with a central threaded opening, a die on the end of a threaded stem mounted in the central threaded opening in the aforesaid element, and a hand piece on the threaded stem to operate the die in the matrix.

4. A machine of the class described, comprising a hollow matrix, means for loosely holding a plate against the surface of the hollow matrix, a part of said means having a threaded opening in alinement with the hollow matrix, a threaded stem operating in the threaded opening and having on its end a die to force the metal into said matrix, a hand wheel on the threaded stem, and an indicator and scale to indicate the movement of the die.

5. The process of measuring the drawing value of ductile metal, which consists in loosely yet firmly holding the said metal between annular supports during the testing operation, whereby the said ductile metal between the supports is allowed to evenly flow as a result of axial pressure exerted upon it, gradually applying such pressure thereto by a pressure exerting means until fracture of the metal is obtained, and measuring the distance of the travel of the pressing means.

6. A process for testing ductile metal for tenacity and ductility, which consists in loosely yet firmly holding the said metal between annular supports during the testing operation whereby the said ductile metal between the supports is allowed to evenly flow as a result of axial pressure exerted upon it and gradually applying such pressure in measured intensity until fracture is obtained.

7. The process of measuring the drawing value of ductile metal, which consists in loosely yet firmly holding the said metal between annular supports during the testing operation, whereby the said ductile metal between the supports is allowed to evenly flow as a result of axial pressure exerted upon it, gradually applying such pressure thereto until fracture of the metal is obtained and measuring the resulting axial displacement of the metal.

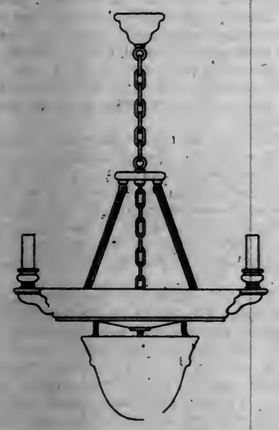
DESIGNS.

51,669. LIGHTING-FIXTURE. HARRY C. ADAM, St. Louis, Mo. Filed Aug. 27, 1917. Serial No. 188,530. Term of patent 14 years.



The ornamental design for a lighting fixture, as shown.

51,670. LIGHTING-FIXTURE. HARRY C. ADAM, St. Louis, Mo. Filed Aug. 27, 1917. Serial No. 188,531. Term of patent 3½ years.



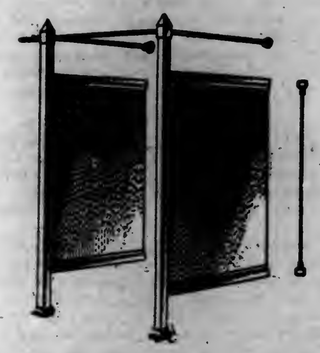
The ornamental design for a lighting fixture, as shown.

51,671. STATUETTE. MILTON BOSCACCI, Oakland, Cal. Filed Oct. 15, 1917. Serial No. 196,761. Term of patent 3½ years.



The ornamental design for a statuette, as shown.

51,672. METAL STALL. ROBERT F. CARPENTER, Cleveland Heights, Ohio. Filed Mar. 11, 1916. Serial No. 83,661. Term of patent 7 years.



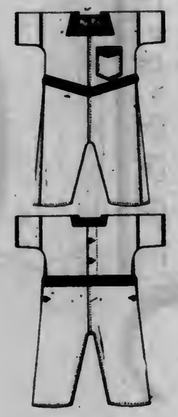
The ornamental design for a metal stall, as shown.

51,673. EMBLEM. WALTER BUNDY COLE, New York, N. Y., assignor to Black & White Cab Company, Inc., New York, N. Y., a Corporation of New York. Filed Apr. 24, 1917. Serial No. 164,295. Term of patent 14 years.



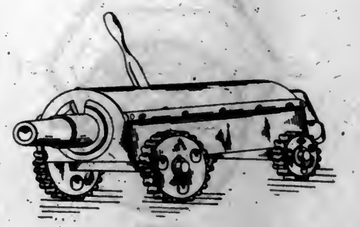
The ornamental design for an emblem consisting of the design substantially as shown and described.

51,674. CHILDREN'S ONE-PIECE OUTER GARMENT. SIMON E. DAVIS, San Francisco, Cal., assignor to Levi Strauss & Co., San Francisco, Cal., a Corporation of California. Filed Oct. 26, 1915. Serial No. 58,081. Term of patent 14 years.



The ornamental design for a children's one piece outer garment, as shown.

51,675. TOY CANNON. JOHN DITTRICK, Elmsley, Ontario, Canada. Filed Oct. 15, 1917. Serial No. 196,766. Term of patent 7 years.



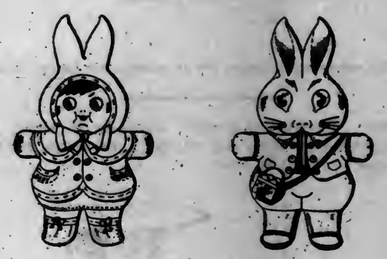
The ornamental design for a toy cannon, as shown.

51,676. CRUMB-TRAY. EDWARD ALBERT FARR, Meriden, Conn. Filed Sept. 24, 1917. Serial No. 193,052. Term of patent 7 years.



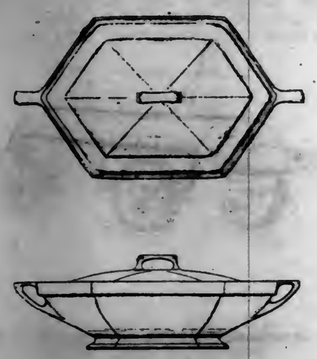
The ornamental design for a crumb tray, as shown and described.

51,677. DOLL. LELIA MAY FELLOM, Los Angeles, Cal. Filed Oct. 30, 1917. Serial No. 199,365. Term of patent 7 years.



The ornamental design for a doll, as shown.

51,678. DISH. WILLIAM HARRY GRINDLEY, Stone, England, assignor to Wm. S. Pitcairn Corporation, a Corporation of New York. Filed Oct. 12, 1917. Serial No. 196,335. Term of patent 3½ years.



The design for a dish as shown.

51,679. BADGE, CHARM, STICK-PIN, FLAG, SIGN, FOB, OR EMBLEM. BENJAMIN R. JOLLY, Raleigh, N. C. Filed Oct. 11, 1917. Serial No. 196,077. Term of patent 7 years.



The ornamental design for a badge, charm, stick pin, flag, sign, fob, or emblem, as shown.

51,680. AUTOMOBILE-TOP. CHARLES W. LINK, Los Angeles, Cal. Filed Oct. 30, 1917. Serial No. 199,362. Term of patent 3½ years.



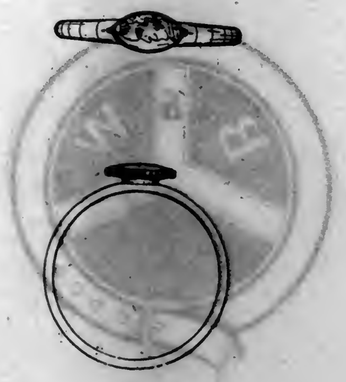
The ornamental design for an automobile top, as shown.

51,681. AUTOMOBILE-TOP. CHARLES W. LINK, Los Angeles, Cal. Filed Oct. 30, 1917. Serial No. 199,363. Term of patent 3½ years.



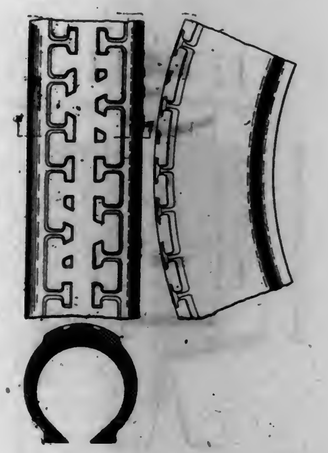
The ornamental design for an automobile top, as shown.

51,682. FINGER-RING. NORMAN H. LOVEMEYR, Seattle, Wash. Filed Oct. 15, 1917. Serial No. 196,764. Term of patent 3½ years.



The ornamental design for a finger ring, as shown.

51,683. TIRE-TREAD. DUDLEY MAYO MASON, Kent, Ohio, assignor to The Mason Tire & Rubber Company, Kent, Ohio, a Corporation of Ohio. Filed Nov. 23, 1917. Serial No. 202,688. Term of patent 14 years.



The ornamental design for a tire tread, substantially as shown.

51,684. MILITARY BADGE. FRANK E. MUNI, West Nutley, N. J. Filed May 18, 1917. Serial No. 169,588. Term of patent 3½ years.



The ornamental design for a military badge as shown.

51,685. TEXTILE FABRIC. EDWARD W. STIFEL, Wheeling, W. Va. Filed Nov. 2, 1917. Serial No. 199,968. Term of patent 3½ years.



The ornamental design for a textile fabric, as shown.

51,686. CANDLE-LAMP. HAROLD H. WILL, Syracuse, N. Y., assignor to The Will & Baumer Co., Syracuse, N. Y., a Corporation of New York. Filed Sept. 14, 1915. Serial No. 50,711. Term of patent 14 years.



The ornamental design for a candle lamp, substantially as shown and described.

TRADE-MARKS

PUBLISHED JANUARY 8, 1918.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 82,508. (CLASS 39. CLOTHING.) THE GRATON AND KNIGHT MANUFACTURING COMPANY, Worcester, Mass. Filed Nov. 10, 1914.

VEL-VI-TAN

Consisting of the word "Vel-Vi-Tan," no claim being made to the exclusive right to the word "Tan" apart from the mark shown in the drawing.

Particular description of goods.—Leather Soles.
Claims use since June 18, 1914.

Ser. No. 93,572. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE FLORAL DRUG COMPANY, Scranton, Pa. Filed Mar. 16, 1916.



Particular description of goods.—Cough Mixtures.
Claims use since Mar. 1, 1916.

Ser. No. 97,201. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) JOHN BRAUN & SONS, Philadelphia, Pa., assignors to Pennsylvania Lawn Mower Works, Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 29, 1916. Under ten-year proviso.

PENNSYLVANIA

Particular description of goods.—Lawn-Mowers.
Claims use since and including the spring of 1878.

Ser. No. 97,247. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) PETER A. FRASSE & CO. INC., New York, N. Y. Filed Aug. 10, 1916.

PAF

Particular description of goods.—Steel Bearing-Balls, Drill-Rods, Hammers, Chisels, Screw-Drivers, Wrenches, Taps, Dies, Lathe-Tools, Metal-Forming Cutters, Drills, Reamers, Hacksaw-Blades, and Files.
Claims use since August, 1915.

Ser. No. 97,800. (CLASS 38. PRINTS AND PUBLICATIONS.) THE MAR-GE-LET ADVERTISING COMPANY, Cincinnati, Ohio. Filed Sept. 5, 1916.



Particular description of goods.—Newspaper-Section.
Claims use since July 19, 1916.

Ser. No. 99,269. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) AUTO-PED COMPANY OF AMERICA, Long Island City, N. Y. Filed Nov. 13, 1916.

AUTOPED

Particular description of goods.—Internal-Combustion Engines and Parts for Self-Propelled Vehicles.
Claims use since June 1, 1916.

Ser. No. 99,401. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) EASTMAN KODAK CO., Rochester, N. Y. Filed Nov. 20, 1916.

Auto-Mask

No claim being made to the exclusive use of the word "Mask" apart from the mark shown.

Particular description of goods.—Photographic-Printing Frames.

Claims use since Oct. 17, 1916.

Ser. No. 99,526. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) PRINGLE ELECTRICAL MFG. COMPANY, Philadelphia, Pa. Filed Nov. 24, 1916.

SAFE-LOCK

Particular description of goods.—Electric Switch-Locking Devices.

Claims use since Sept. 1, 1916.

Ser. No. 99,851. (CLASS 10. FERTILIZERS.) GEO. A. LIPPINCOTT, Philadelphia, Pa. Filed Dec. 11, 1916.

PLANT HEALTH

Particular description of goods.—Food and Tonic for Plants, Flowers, &c.

Claims use since July 7, 1916.

Ser. No. 101,001. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) CORNDOG SPECIALTY COMPANY, Winston-Salem, N. C. Filed Jan. 29, 1917.

TISIT

Particular description of goods.—A Card Game.

Claims use since Jan. 3, 1917.

Ser. No. 101,923. (CLASS 39. CLOTHING.) GOODYEAR RUBBER COMPANY, Middletown, Conn. Filed Mar. 6, 1917.



The entire face of the portion within the triangular border being white or substantially white and the said triangular border being red.

Particular description of goods.—Rubber Boots and Shoes.

Claims use since Jan. 11, 1917.

Ser. No. 102,572. (CLASS 39. CLOTHING.) THE NORTHWESTERN KNITTING CO., Minneapolis, Minn. Filed Mar. 29, 1917.

MUNSING WEAR

Particular description of goods.—Knitted and Woven Underwear Consisting of Corset-Covers, Women's and Children's Vests and Pants, Women's and Children's Tights, Men's and Boys' Shirts and Drawers, and Men's, Women's, and Children's Union-Suits.

Claims use since on or about Jan. 1, 1911.

Ser. No. 102,934. (CLASS 39. CLOTHING.) CHALMERS KNITTING COMPANY, Amsterdam, N. Y. Filed Apr. 13, 1917.

"Imrox"

Particular description of goods.—Knitted Union-Suits, Shirts, and Drawers for Men.

Claims use since Apr. 9, 1917.

Ser. No. 102,935. (CLASS 39. CLOTHING.) CHALMERS KNITTING COMPANY, Amsterdam, N. Y. Filed Apr. 13, 1917.

"Knico"

Particular description of goods.—Knitted Union-Suits, Shirts, and Drawers for Men.

Claims use since Apr. 9, 1917.

Ser. No. 103,091. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) R. M. SHELLABARGER COMPANY, West Liberty, Iowa. Filed Apr. 18, 1917.



Particular description of goods.—A Remedy for General Weakness, Indigestion, Poor Appetite, Nervousness, Impure Blood, and a General Toning and Strengthening Agent for the Digestive, Nerve, and Blood Forces.

Claims use since about Dec. 1, 1916.

Ser. No. 103,866. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JACOBS CANDY COMPANY, LTD., New Orleans, La. Filed May 16, 1917.

QUEEN O'HEARTS

Particular description of goods.—Package Candies.

Claims use since Oct. 1, 1916.

Ser. No. 104,606. (CLASS 38. PRINTS AND PUBLICATIONS.) GEOFFREY BUTLER, New York, N. Y. Filed June 22, 1917.

BRITISH PICTORIAL SERVICE

Particular description of goods.—Post-Cards and Photograph-Prints.

Claims use since June 20, 1917.

Ser. No. 104,937. (CLASS 38. PRINTS AND PUBLICATIONS.) THE H. C. MINER LITHOGRAPHING CO., New York, N. Y. Filed July 9, 1917.

The H.C. Miner LITHO. CO. N.Y.

Particular description of goods.—Lithographs, Posters, Photographs.

Claims use since January, 1906.

Ser. No. 105,049. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) PHOTOGRAPHIC APPLIANCES CORPORATION, Minneapolis, Minn. Filed July 14, 1917.

PACO

Particular description of goods.—Photographic Printing, Washing, Drying, and Trimming Machines.

Claims use since on or about Feb. 1, 1914.

Ser. No. 105,865. (CLASS 39. CLOTHING.) E. ROSENFELD & COMPANY, Baltimore, Md. Filed Aug. 24, 1917.



Particular description of goods.—Textile Night-Shirts, Pajamas, Dress and Negligée Shirts, and Textile and Knitted Undershirts, Drawers, and Union-Suits for Men, Women, Boys, and Girls.

Claims use since about May 3, 1917.

Ser. No. 105,933. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CLARK MILLING COMPANY, Minneapolis, Minn. Filed Aug. 29, 1917.

CLARX

Particular description of goods.—Whole-Wheat Flour, Whole-Rye Flour, and Graham Flour.

Claims use since on or about the 19th day of October, 1916.

Ser. No. 106,017. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) J. H. WHITE MANUFACTURING COMPANY, Brooklyn, N. Y. Filed Sept. 1, 1917.

WHITE

Particular description of goods.—Sheet, Rod, and Cast Brass Goods, Comprising Trimmings for Chandeliers, Shells, Canopy-Shells, Tops and Bases, Body-Shells, Bands, Dome and Globe Holders, Candle Cups and Pans, Gas and Lamp Brackets, Extension-Shells, Socket-Shells, and Wall-Plates.

Claims use since April, 1916.

Ser. No. 106,039. (CLASS 11. INKS AND INKING MATERIALS.) REMINGTON TYPEWRITER COMPANY, Ilion and New York, N. Y. Filed Sept. 4, 1917.

FEATHERWEIGHT

Particular description of goods.—Carbon-Paper.

Claims use since about the year 1897.

Ser. No. 106,113. (CLASS 39. CLOTHING.) G., H. & E. FREYDBERG, New York, N. Y. Filed Sept. 7, 1917.

Fairfame

Particular description of goods.—Ladies' Neckwear—Namely, Collars and Jabots, Collar and Cuff Sets—and Boudoir-Caps and Automobile-Hats.

Claims use since June 1, 1917.

Ser. No. 106,118. (CLASS 37. PAPER AND STATIONERY.) JOHN MCINTOSH COMPANY, Chicago, Ill. Filed Sept. 7, 1917.

DENTOGRAM

Particular description of goods.—Mountings for Photographic X-Ray Films in the Nature of an Index-Card.

Claims use since June 5, 1917.

Ser. No. 106,388. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KANSAS CITY WHOLESALE GROCERY Co., Kansas City, Mo. Filed Sept. 22, 1917.

AMERICAN BEAUTY



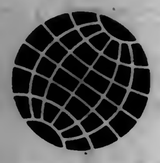
Particular description of goods.—Rice.
Claims use since September, 1904.

Ser. No. 106,393. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) SAMUEL C. OSBORN, Chicago, Ill. Filed Sept. 22, 1917.

Pianovette

Particular description of goods.—Citherns or Zithers with Four Bass-Chords of Four Strings Each and Thirty Treble-Strings in Groups of Two Each, Each Instrument Having a Bass Attachment.
Claims use since June 1, 1914.

Ser. No. 106,395. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) THE NEWPORT ROLLING MILL COMPANY, Newport, Ky. Filed Sept. 22, 1917.



Particular description of goods.—Corrugated Metal Sheets and Plain Metal Sheets.
Claims use since the 13th day of April, 1891,

Ser. No. 106,424. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HAGOPIAN & SETRAKIAN Co., San Francisco, Cal. Filed Sept. 25, 1917.

NATION BELL

Particular description of goods.—Canned Grapes and Dried Cluster-Raisins.
Claims use since July, 1916.

Ser. No. 106,437. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) R. K. CARRUTH, Macon, Ga. Filed Sept. 26, 1917.

BULL GRIP

Particular description of goods.—A Self-Vulcanizing Patch.
Claims use since the 1st day of August, 1916.

Ser. No. 106,448. (CLASS 39. CLOTHING.) GOLDEN SHOE Co., INC., New York, N. Y. Filed Sept. 26, 1917.

Goldmis

Particular description of goods.—Men's, Women's, and Children's Leather Shoes.
Claims use since the 1st day of August, 1911.

Ser. No. 106,502. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE DONALD COMPANY, Grand Island, Nebr. Filed Sept. 29, 1917.

Rob Roy

Particular description of goods.—Coffee.
Claims use since Oct. 27, 1911.

Ser. No. 106,509. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE LA VALLIERE Co., New Orleans, La. Filed Sept. 29, 1917.



Particular description of goods.—A Cosmetic.
Claims use since June 1, 1916.

Ser. No. 106,524. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) WEISS AND MANGAN, Leadville, Colo. Filed Sept. 29, 1917.

UNCLE SAM'S DEER PET

Particular description of goods.—A Figure Toy.
Claims use since on or before Apr. 1, 1917.

Ser. No. 106,537. (CLASS 39. CLOTHING.) LEO KAHN, Chicago, Ill. Filed Oct. 1, 1917.



The picture being fanciful.
Particular description of goods.—Dress and Negligée Shirts and Cravats.
Claims use since Aug. 14, 1917.

Ser. No. 106,580. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE KOLOX COMPANY, New York, N. Y. Filed Oct. 3, 1917.

KOLOX

Particular description of goods.—A Remedy for the Cure of Hay-Fever, Asthma, Head-Colds, and Nasal Catarrh.
Claims use since Sept. 1, 1915.

Ser. No. 106,907. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GEORGE EDWIN CLARKE, St. Johns Wood, England. Filed Oct. 23, 1917.

PULBIS

Consisting of the word "Pulbis."
Particular description of goods.—Foods for Animals and Poultry.
Claims use since June, 1917.

Ser. No. 107,012. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) STEGER & SONS PIANO MANUFACTURING Co., Steger, Ill. Filed Oct. 29, 1917.

MELOSTRELLE

Particular description of goods.—Pianos, Player-Pianos, and Talking-Machines.
Claims use since Feb. 1, 1917.

Ser. No. 107,061. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) PACIFIC MILLS, Lawrence and Boston, Mass. Filed Oct. 31, 1917.



Particular description of goods.—Cotton Piece Goods.
Claims use since December, 1915.

Ser. No. 107,064. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) PACIFIC MILLS, Lawrence and Boston, Mass. Filed Oct. 31, 1917.

CRESTON



Particular description of goods.—Cotton Piece Goods.
Claims use since December, 1915.

Ser. No. 107,085. (CLASS 37. PAPER AND STATIONERY.) AUTOMATIC PENCIL SHARPENER COMPANY, Chicago, Ill. Filed Nov. 1, 1917.



Particular description of goods.—Pencil-Sharpeners.
Claims use since Oct. 9, 1917.

Ser. No. 107,114. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) KEYSTONE SNAP FASTENER CORPORATION, Philadelphia, Pa. Filed Nov. 2, 1917.

KEYSTONE Queen

Particular description of goods.—Snap-Fasteners.
Claims use since Sept. 1, 1917.

Ser. No. 107,164. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MAZRI LABORATORIES, Dayton, Ohio. Filed Nov. 5, 1917.

MAZRI

Particular description of goods.—An Eye Remedy.
Claims use since the 31st day of October, 1917.

Ser. No. 107,185. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) UNITED PHONOGRAPHS CORPORATION, Port Washington, Wis. Filed Nov. 5, 1917.

Paramount

Particular description of goods.—Phonographs and Phonograph-Records.
Claims use since Oct. 20, 1917.

Ser. No. 107,198. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) GRIFFIN MFG. CO., New York, N. Y. Filed Nov. 6, 1917.

KIDINE

Particular description of goods.—Liquid Cleaning Preparation for All Colored Leather, Including White.
Claims use since Feb. 1, 1909.

Ser. No. 107,201. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE PERMUTIT COMPANY, New York, N. Y. Filed Nov. 6, 1917.

RESTORINE

Particular description of goods.—Base-Exchange Filters.
Claims use since on or about Nov. 1, 1917.

Ser. No. 107,203. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) F. AD. RICHTER & Co., New York, N. Y. Filed Nov. 6, 1917.

Ruffles

Particular description of goods.—Hair-Tonic.
Claims use since Aug. 8, 1916.

Ser. No. 107,205. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE SCHULZE REMEDY CO., Kansas City, Mo. Filed Nov. 6, 1917.

K AND S

Particular description of goods.—Laxative Tablets.
Claims use since about Oct. 1, 1914.

Ser. No. 107,247. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) ISAAC DAVID RICHHEIMER, Washington, D. C. Filed Nov. 8, 1917.

Stim

Particular description of goods.—Soda-Fountain Beverages Prepared from Pure Coffee.
Claims use since Oct. 20, 1917.

Ser. No. 107,251. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) SAMSTAG & HILDER BROS., New York, N. Y. Filed Nov. 8, 1917.

BABY DIMPLES

Particular description of goods.—Safety-Pins.
Claims use since Oct. 4, 1917.

Ser. No. 107,273. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE J. B. WILLIAMS COMPANY, Glastonbury, Conn. Filed Nov. 9, 1917.

Aqua Velva

Particular description of goods.—Face-Lotions and After-Shaving Preparations.
Claims use since Oct. 27, 1917.

Ser. No. 107,276. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM W. ABEL, Macon, Ga. Filed Nov. 10, 1917.

Ameco

Particular description of goods.—A Preparation for the Treatment of Chills, Fever, Colds, and La Grippe.
Claims use since Aug. 2, 1917.

Ser. No. 107,281. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MICHAEL CAMPANELLA, Brooklyn, N. Y. Filed Nov. 10, 1917.

BENVIVO

Comprising the word "Benvivo."
Particular description of goods.—A Medicated Bath Liquid.
Claims use since Nov. 4, 1917.

Ser. No. 107,302. (CLASS 37. PAPER AND STATIONERY.) CARDINELL-VINCENT COMPANY, San Francisco, Cal. Filed Nov. 12, 1917.



Particular description of goods.—Tracing-Paper.
Claims use since Nov. 1, 1917.

Ser. No. 107,340. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE FRANK A. STEELE CO., INC., Alexandria, Va. Filed Nov. 12, 1917.

CU-WING-GO

Particular description of goods.—Washing-Powders, Cleansers, Soaps, (Including a Dairy-Powder and Powdered Toilet Soap.)
Claims use since Oct. 12, 1917.

Ser. No. 107,373. (CLASS 39. CLOTHING.) ANNA PHILLIPS, New York, N. Y. Filed Nov. 14, 1917.

"JACK O' LANTERN"

Comprising the words "Jack O'Lantern."
Particular description of goods.—Women's Neckwear—viz., Collars, Collar and Cuff Sets, Jabots and Neckbands, Guimpes, Vestees, and Wristbands.
Claims use since Oct. 15, 1917.

Ser. No. 107,380. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) CHARLES ADAMS, St. Louis, Mo. Filed Nov. 15, 1917.

Celestaphone

Particular description of goods.—A Talking-Machine.
Claims use since Oct. 1, 1917.

Ser. No. 107,426. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) BORINQUEN IMPORT CO. INC., New York, N. Y. Filed Nov. 17, 1917.

BORINQUEN

Particular description of goods.—Embroidery.
Claims use since June 1, 1917.

Ser. No. 107,427. (CLASS 39. CLOTHING.) BLOOM & MILLMAN, New York, N. Y. Filed Nov. 17, 1917.

Particular description of goods.—Ladies' and Misses' Shirt-Waists, Blouses, and Dresses.
Claims use since Oct. 31, 1917.

Ser. No. 107,438. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) NEW ENGLAND BREWING COMPANY, Jersey City, N. J., and Boston, Mass. Filed Nov. 17, 1917.

DRY TOWN

Particular description of goods.—Non-Alcoholic Cereal Beverage.
Claims use since Sept. 1, 1917.

Ser. No. 107,464. (CLASS 39. CLOTHING.) MAX GREENBERG & Co. INC., New York, N. Y. Filed Nov. 19, 1917.

BLACKSHIRE

Comprising the word "Blackshire."
Particular description of goods.—Dresses, Dress-Waists, Outer Suits, and Coats.
Claims use since Sept. 1, 1917.

Ser. No. 107,489. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) JENNIE L. ALLEN, Long Beach, Cal. Filed Nov. 17, 1917.

"KATCH-A-KRUM"

Particular description of goods.—Children's Feeding-Bibs.
Claims use since May 15, 1917.

Ser. No. 107,508. (CLASS 39. CLOTHING.) ROGERS PEET COMPANY, New York, N. Y. Filed Nov. 21, 1917.

Scotch Mist

Particular description of goods.—Hats and Caps.
Claims use since Mar. 17, 1913.

Ser. No. 107,509. (CLASS 39. CLOTHING.) ROGERS PEET COMPANY, New York, N. Y. Filed Nov. 21, 1917.

SHORTFELO

Comprising the word "Shortfelo."
Particular description of goods.—Pajamas.
Claims use since June 22, 1915.

Ser. No. 107,510. (CLASS 39. CLOTHING.) ROGERS PEET COMPANY, New York, N. Y. Filed Nov. 21, 1917.

LONGFELO

Comprising the word "Longfelo."
Particular description of goods.—Pajamas.
Claims use since May 21, 1914.

Ser. No. 107,511. (CLASS 39. CLOTHING.) ROGERS PEET COMPANY, New York, N. Y. Filed Nov. 21, 1917.

BIGFELO

Comprising the word "Bigfelo."
Particular description of goods.—Pajamas.
Claims use since Sept. 15, 1916.

Ser. No. 107,544. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) COLGATE & CO., Jersey City, N. J., and New York, N. Y. Filed Nov. 23, 1917.

WATERCRESS

Particular description of goods.—Soaps.
Claims use since the 12th day of November, 1917.

Ser. No. 107,557. (CLASS 39. CLOTHING.) LOUIS LEWIN CO., Chicago, Ill., and Clinton, Ind. Filed Nov. 23, 1917.



Particular description of goods.—Men's Union-Suit for Outer Wear—Namely, an Overall and Coat Combined.
Claims use since Oct. 15, 1917.

Ser. No. 107,572. CLASS 39. CLOTHING.) RITTER HOSIERY COMPANY, Fleetwood, Pa. Filed Nov. 23, 1917.

VANGUARD

Particular description of goods.—Hosiery.
Claims use since Sept. 5, 1917.

Ser. No. 107,573. (CLASS 39. CLOTHING.) SANOBE BROTHERS, Dallas and Waco, Tex., and New York, N. Y. Filed Nov. 23, 1917.

HUSBAND'S RETAINER

Particular description of goods.—A Middy-Blouse Dress.
Claims use since Feb. 2, 1917.

Ser. No. 107,612. (CLASS 39. CLOTHING.) CONSOLIDATED MILLINERY COMPANY, Chicago, Ill. Filed Nov. 26, 1917.

SPORTEX

Particular description of goods.—Women's Hats.
Claims use since Feb. 1, 1915.

Ser. No. 107,613. (CLASS 39. CLOTHING.) CONSOLIDATED MILLINERY COMPANY, Chicago, Ill. Filed Nov. 26, 1917.

Andrea

Particular description of goods.—Women's Hats.
Claims use since May 1, 1914.

Ser. No. 107,614. (CLASS 39. CLOTHING.) CONSOLIDATED MILLINERY COMPANY, Chicago, Ill. Filed Nov. 26, 1917.

Consello

Particular description of goods.—Women's Hats.
Claims use since May 1, 1914.

Ser. No. 107,654. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS. THE RIESER CO., New York, N. Y. Filed Nov. 28, 1917.

VENIDA

Particular description of goods.—Hair-Curlers.
Claims use since Nov. 19, 1917.

Ser. No. 107,805. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) MORRIS A. BARR, Ardmore, Pa. Filed Dec. 7, 1917.

SPRING VALLEY SVS

Particular description of goods.—A Natural Mineral Water.
Claims use since the 19th day of November, 1917.

Ser. No. 107,880. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) JULIUS ROESCH, La Grande, Oreg. Filed Dec. 10, 1917.



Particular description of goods.—A Tonic Cereal Beverage to be Sold as a Soft Drink.
Claims use since Jan. 1, 1917.

Ser. No. 107,913. (CLASS 48. MALT EXTRACTS AND LIQUORS.) JUNG BREWING COMPANY, Milwaukee, Wis. Filed Dec. 12, 1917.

SERVITO

Particular description of goods.—A Carbonated Beverage of a Malt and Corn Nature Containing Less than One-Half of One Per Cent. Alcohol and Sold as a Soft Drink.
Claims use since Dec. 5, 1917.

Ser. No. 107,918. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) FRENCH VALLEY SPRINGS, INCORPORATED, Meadville, Pa. Filed Dec. 12, 1917.



Particular description of goods.—Non-Alcoholic Carbonated Beverages to be Sold as Soft Drinks.
Claims use since July 1, 1917.

TRADE-MARK REGISTRATIONS GRANTED

JANUARY 8, 1918.

120,051. CERTAIN NAMED DRIERS, COOLERS, AND COOKERS. JOHN B. ADT, Baltimore, Md.
Filed August 13, 1917. Serial No. 105,610. PUBLISHED NOVEMBER 6, 1917.

120,052. WOOD WHICH BY TREATMENT HAS BEEN MADE SUITABLE FOR PENCIL-WOOD. AKTIESELSKABET SCANDINAVIAN PENCIL WOOD COMPANY, Odense and Kjöge, Denmark.
Filed April 10, 1917. Serial No. 102,844. PUBLISHED NOVEMBER 6, 1917.

120,053. CERTAIN NAMED TOILET PREPARATIONS. ALL-PACKAGE GROCERY STORES CO., New York, N. Y.
Filed May 25, 1917. Serial No. 104,056. PUBLISHED OCTOBER 23, 1917.

120,054. RUBBER ERASERS. AMERICAN LEAD PENCIL CO., New York, N. Y.
Filed August 23, 1917. Serial No. 105,828. PUBLISHED NOVEMBER 6, 1917.

120,055. CLEANING LIQUID FOR SHOES. HENRY AMMANN, Pittsburgh, Pa.
Filed August 20, 1917. Serial No. 105,728. PUBLISHED OCTOBER 30, 1917.

120,056. PENCIL-CLASPS, PEN-CLASPS, PAPER-FASTENERS, AND ENVELOP-MOISTENERS. ARGUS MANUFACTURING COMPANY, Chicago, Ill.
Filed September 27, 1917. Serial No. 106,458. PUBLISHED OCTOBER 23, 1917.

120,057. SLIP-INSOLES FOR SHOES. ARMSTRONG CORK COMPANY, Pittsburgh, Pa.
Filed August 14, 1917. Serial No. 105,637. PUBLISHED NOVEMBER 6, 1917.

120,058. TEXTILE COLLARS, CUFFS, AND SHIRT-FRONTS. ASTRAL, LIMITED, Hendon, England.
Filed October 18, 1915. Serial No. 89,906. PUBLISHED NOVEMBER 6, 1917.

120,059. MEDICINAL TONIC FOR CERTAIN NAMED DISEASES; HAIR-TONIC, FOOT-POWDER, AND FACIAL CREAM. ATHENIAN MANUFACTURING COMPANY, Philadelphia, Pa.
Filed June 29, 1917. Serial No. 104,740. PUBLISHED NOVEMBER 6, 1917.

120,060. MEDICINAL AND WOOL OILS, PETROLATUMS, AND GLYCERINUM PETRÆ. THE ATLANTIC REFINING COMPANY, Philadelphia, Pa.
Filed August 4, 1917. Serial No. 105,462. PUBLISHED NOVEMBER 6, 1917.

120,061. FINISHED CALF-LEATHER. BARNET LEATHER CO., New York, N. Y.
Filed September 12, 1917. Serial No. 106,191. PUBLISHED NOVEMBER 6, 1917.

120,062. CERTAIN NAMED TOILET PREPARATIONS AND REMEDIES FOR EXTERNAL USE. NELLA E. BERRY, Buffalo, N. Y.
Filed April 16, 1917. Serial No. 103,007. PUBLISHED OCTOBER 30, 1917.

120,063. CERTAIN NAMED TOILET PREPARATIONS. GEORGE BORGFELDT & CO., New York, N. Y.
Filed August 31, 1917. Serial No. 105,978. PUBLISHED OCTOBER 23, 1917.

120,064. CERTAIN NAMED TOILET PREPARATIONS. A. BOURJOIS & CO., INC., New York, N. Y.
Filed December 23, 1916. Serial No. 100,142. PUBLISHED NOVEMBER 6, 1917.

120,065. ANT-POISON. BOWMAN DRUG CO., Oakland, Cal.
Filed September 18, 1917. Serial No. 106,292. PUBLISHED OCTOBER 30, 1917.

120,066. HOSIERY. BROWN DURRELL CO., Boston, Mass.
Filed August 4, 1917. Serial No. 105,466. PUBLISHED NOVEMBER 6, 1917.

120,067. ALARM-CLOCKS AND MOVEMENTS THEREFOR. NELSON H. BROWN, Boston, Mass.
Filed April 30, 1917. Serial No. 103,410. PUBLISHED NOVEMBER 6, 1917.

120,068. LEATHER SHOES. BROWN SHOE COMPANY INC., St. Louis, Mo.
Filed July 11, 1916. Serial No. 96,491. PUBLISHED NOVEMBER 6, 1917.

120,069. WHISKY. JAMES BUCHANAN & CO. LIMITED, London, England, and Glasgow, and Mulben, Speyside, Scotland.
Filed May 18, 1917. Serial No. 103,913. PUBLISHED NOVEMBER 6, 1917.

120,070. CASE-HARDENING OR CARBONIZING COMPOUND. THE CASE HARDENING SERVICE COMPANY, Cleveland, Ohio.
Filed February 10, 1917. Serial No. 101,286. PUBLISHED OCTOBER 23, 1917.

120,071. MEDICATED TABLETS FOR A BLOOD AND NERVE TONIC. C. E. CESSNA, Chicago, Ill.
Filed June 28, 1917. Serial No. 104,730. PUBLISHED NOVEMBER 6, 1917.

120,072. CERTAIN NAMED TOILET PREPARATIONS. WALLACE B. COATES, Jr., Lynn, Mass.
Filed November 1, 1915. Serial No. 90,255. PUBLISHED APRIL 24, 1917.

120,073. COTTON PIECE GOODS. CONVERSE & COMPANY, New York, N. Y.
Filed August 15, 1917. Serial No. 105,649. PUBLISHED OCTOBER 9, 1917.

120,074. LIQUID PREPARATION FOR KEEPING THE HAIR FLUFFY AND CURLY. MYRA LOUISE CREA, Fargo, N. D.
Filed June 15, 1917. Serial No. 104,452. PUBLISHED NOVEMBER 6, 1917.

120,075. DISINFECTANTS, INSECT-EXTERMINATORS, STOCK-DIP, AND CHEMICAL SOLUTION. CRESOLINE DISINFECTING CO., St. Louis, Mo.
Filed August 30, 1917. Serial No. 105,959. PUBLISHED NOVEMBER 6, 1917.

120,076. CERTAIN NAMED TOILET PREPARATIONS. LAURA R. DAWLEY, New York, N. Y.
Filed February 9, 1917. Serial No. 101,262. PUBLISHED OCTOBER 30, 1917.

120,077. TONICS FOR CERTAIN NAMED DISEASES. R. A. DELGADO CARBONELL, New York, N. Y.
Filed September 10, 1917. Serial No. 106,157. PUBLISHED NOVEMBER 6, 1917.

120,078. MEDICINAL TONIC. H. T. DEWEY & SONS CO., New York, N. Y.
Filed September 20, 1917. Serial No. 106,338. PUBLISHED NOVEMBER 6, 1917.

120,079. RAT AND MOUSE TRAPS. MAX E. DORSCH, Chicago, Ill.
Filed August 7, 1917. Serial No. 105,515. PUBLISHED NOVEMBER 6, 1917.

120,080. GRASS AND FIELD SEEDS. H. W. DOUGHTEN, New York, N. Y.
Filed July 19, 1917. Serial No. 105,111. PUBLISHED NOVEMBER 6, 1917.

120,081. WOVEN FABRICS PROVIDED WITH A COATING TO GIVE THE APPEARANCE OF LEATHER. DU PONT FABRIKOID COMPANY, Wilmington, Del.
Filed August 15, 1917. Serial No. 105,656. PUBLISHED OCTOBER 23, 1917.

120,082. LEAD-PENCILS. EAGLE PENCIL COMPANY, New York, N. Y.
Filed August 31, 1917. Serial No. 105,984. PUBLISHED OCTOBER 23, 1917.

120,083. CHEMICAL PREPARATION USED AS A POULTICE. PIERRE EHRHARDT, Paris, France.
Filed January 29, 1917. Serial No. 101,002. PUBLISHED NOVEMBER 6, 1917.

120,084. FINGER-RINGS. EISENSTADT MANUFACTURING CO., St. Louis, Mo.
Filed September 19, 1917. Serial No. 106,316. PUBLISHED NOVEMBER 6, 1917.

120,085. SERIES OF PRINTED BOOKS, WHICH SERIES HAS NOT YET BEEN COMPLETED. THE ENGINEERING MAGAZINE COMPANY, New York, N. Y.
Filed June 14, 1916. Serial No. 95,862. PUBLISHED OCTOBER 30, 1917.

120,086. NON-ALCOHOLIC BEVERAGE MADE OF MALT AND HOPS. C. H. EVANS & SONS, Hudson, N. Y.
Filed May 2, 1917. Serial No. 103,469. PUBLISHED NOVEMBER 6, 1917.

120,087. SOAP. THE N. K. FAIRBANK COMPANY, Union township, near Guttenberg, N. J., and Chicago, Ill.
Filed August 11, 1915. Serial No. 88,536. PUBLISHED OCTOBER 30, 1917.

120,088. SCOURING COMPOUND. THE N. K. FAIRBANK COMPANY, Union township, near Guttenberg, N. J., and Chicago, Ill.
Filed August 11, 1915. Serial No. 88,537. PUBLISHED OCTOBER 30, 1917.

120,089. REMEDY FOR SWEATY FEET. ASA L. FITZGERALD, Chattanooga, Tenn.
Filed September 26, 1917. Serial No. 106,444. PUBLISHED OCTOBER 30, 1917.

120,090. WOOD-PRESERVING OILS. FOREST PRODUCTS CHEMICAL COMPANY, Memphis, Tenn.
Filed September 10, 1917. Serial No. 106,159. PUBLISHED OCTOBER 30, 1917.

120,091. WRITING-PAPER. FOX RIVER PAPER CO., Appleton, Wis.
Filed August 29, 1917. Serial No. 105,937. PUBLISHED NOVEMBER 6, 1917.

120,092. WRITING-PAPER. FOX RIVER PAPER CO., Appleton, Wis.
Filed August 29, 1917. Serial No. 105,939. PUBLISHED NOVEMBER 6, 1917.

120,093. WRITING-PAPER. FOX RIVER PAPER CO., Appleton, Wis.
Filed August 29, 1917. Serial No. 105,941. PUBLISHED NOVEMBER 6, 1917.

120,094. CATALOGUES PUBLISHED SEMI-ANNUALLY. FREYDBERG BROS., INC., New York, N. Y.
Filed July 27, 1917. Serial No. 105,315. PUBLISHED NOVEMBER 6, 1917.

120,095. TONIC AND REMEDY FOR FOWLS. GERMO MANUFACTURING COMPANY, St. Louis, Mo.
Filed May 2, 1917. Serial No. 103,471. PUBLISHED NOVEMBER 6, 1917.

120,096. LINOLEUM AND LIKE GOODS AND CERTAIN ARTICLES MADE THEREFROM. GOLDMAN COSTUME COMPANY, New York, N. Y.
Filed January 24, 1917. Serial No. 100,885. PUBLISHED NOVEMBER 6, 1917.

120,097. PLASTERS FOR TREATING CANCERS. THE H. M. B. COMPANY, Amherst, Mass.
Filed July 16, 1917. Serial No. 105,060. PUBLISHED OCTOBER 23, 1917.

120,098. PREPARATION FOR RELIEF OF CERTAIN NAMED AILMENTS AND DISEASES. HAMILTON MANUFACTURING CO., Cincinnati, Ohio.
Filed September 21, 1917. Serial No. 106,364. PUBLISHED OCTOBER 30, 1917.

120,099. CERTAIN NAMED CLOTHING. ALBERT HARRIS, San Francisco, Cal.
Filed August 15, 1917. Serial No. 105,658. PUBLISHED NOVEMBER 6, 1917.

120,100. HAIR-DRESSING. CLARENCE C. HAY, Como, Miss.
Filed February 27, 1917. Serial No. 101,740. PUBLISHED SEPTEMBER 4, 1917.

120,101. REFRIGERATORS AND ICE-BOXES. HECHT & COMPANY, Washington, D. C.
Filed June 20, 1917. Serial No. 104,551. PUBLISHED NOVEMBER 6, 1917.

120,102. HAND-STAMPS. HILL-INDEPENDENT MFG. CO., Philadelphia, Pa.
Filed July 19, 1917. Serial No. 105,123. PUBLISHED OCTOBER 30, 1917.

120,103. LINIMENT FOR RELIEF OF CERTAIN NAMED AILMENTS. HENRY HIRSCHMAN, Memphis, Tenn.
Filed December 4, 1916. Serial No. 99,709. PUBLISHED OCTOBER 30, 1917.

120,104. HERB LAXATIVE. HOLLISTER DRUG COMPANY, INCORPORATED, Madison, Wis.
Filed August 4, 1917. Serial No. 105,474. PUBLISHED NOVEMBER 6, 1917.

120,105. BURNERS AND WICKS FOR STOVES, FURNACES, AND RANGES. THE HUENEFELD COMPANY, Cincinnati, Ohio.
Filed March 13, 1916. Serial No. 93,497. PUBLISHED OCTOBER 23, 1917.

120,106. BOOTS AND SHOES OF KID, LEATHER, AND CANVAS. THE KAUT-REITH SHOE COMPANY, Carthage, Mo.
Filed November 18, 1916. Serial No. 99,377. PUBLISHED NOVEMBER 6, 1917.

120,107. COAL. THE KENMONT COAL COMPANY, Zanesville, Ohio.
Filed October 2, 1916. Serial No. 98,358. PUBLISHED NOVEMBER 6, 1917.

120,108. INSECT-REPELLENT. THE KIL-TONE COMPANY, Vineland, N. J.
Filed September 5, 1917. Serial No. 106,073. PUBLISHED OCTOBER 30, 1917.

120,109. GLANDULAR AND MASSAGE OIL. ASBURY O. LEONARD, New York, N. Y.
Filed May 19, 1917. Serial No. 103,956. PUBLISHED OCTOBER 30, 1917.

120,110. ANTISEPTICS, GERMICIDES, AND DEODORANTS. GENERAL LABORATORIES, Madison, Wis.
Filed August 13, 1917. Serial No. 105,616. PUBLISHED NOVEMBER 6, 1917.

120,111. CERTAIN NAMED TOILET PREPARATIONS AND THE LIKE. THE REMILLER CO., New York, N. Y.
Filed July 10, 1917. Serial No. 104,964. PUBLISHED NOVEMBER 6, 1917.

120,112. CERTAIN NAMED TOILET PREPARATIONS. ELIZABETH RICHARDS, New York, N. Y.
Filed October 27, 1916. Serial No. 98,932. PUBLISHED NOVEMBER 6, 1917.

120,113. CERTAIN NAMED TOILET PREPARATIONS. HENRI RIGAUD, Paris, France, and New York, N. Y.
Filed May 26, 1917. Serial No. 104,103. PUBLISHED OCTOBER 30, 1917.

120,114. BULLETINS ISSUED PERIODICALLY. DR. ALBERT COUNT DE SARAK, Washington, D. C.
Filed July 31, 1917. Serial No. 105,374. PUBLISHED NOVEMBER 6, 1917.

120,115. TOILET-PAPER. SAUQUOIT TOILET PAPER CO., New Hartford, N. Y.
Filed July 20, 1917. Serial No. 105,156. PUBLISHED OCTOBER 30, 1917.

120,116. WIRE STRINGS FOR MUSICAL INSTRUMENTS. LOUIS C. SCHERMERHORN, Paterson, N. J.
Filed May 12, 1917. Serial No. 103,755. PUBLISHED NOVEMBER 6, 1917.

120,117. RAWHIDE LACING. CHAS. A. SCHIEREN COMPANY, New York, N. Y.
Filed August 9, 1917. Serial No. 105,564. PUBLISHED OCTOBER 23, 1917.

120,118. PORTABLE SANITARY CLOSETS. SILVERS MANUFACTURING COMPANY, Waterloo, Iowa.
Filed August 11, 1917. Serial No. 105,608. PUBLISHED NOVEMBER 6, 1917.

120,119. LEATHER BOOTS, SHOES, SLIPPERS, AND SANDALS. GEO. A. SLATER LIMITED, Montreal, Quebec, Canada.
Filed November 22, 1916. Serial No. 99,479. PUBLISHED NOVEMBER 6, 1917.

120,120. LIQUID USED AS A DISINFECTANT, STERILIZER, CLEANSER, AND DEODORANT. L. SONNEBORN SONS, INC., New York, N. Y.
Filed September 12, 1917. Serial No. 106,217. PUBLISHED OCTOBER 30, 1917.

120,121. IMPREGNATED FABRICS FOR CERTAIN NAMED PURPOSES. STANDARD WOVEN FABRIC COMPANY, Walpole, Mass.
Filed August 15, 1917. Serial No. 105,678. PUBLISHED OCTOBER 23, 1917.

120,122. PREPARATION FOR THE TREATMENT OF VENEREAL DISEASES. H. BRUCE STONE, Toledo, Ohio.
Filed September 17, 1917. Serial No. 106,285. PUBLISHED OCTOBER 30, 1917.

120,123. OVERALLS FOR WOMEN. SWEET-ORR & CO., INC., New York, N. Y.
Filed September 22, 1917. Serial No. 106,396. PUBLISHED NOVEMBER 6, 1917.

120,124. FACE-POWDER. WILLIAM A. TODD, Jr., St. Louis, Mo.
Filed June 16, 1917. Serial No. 104,472. PUBLISHED OCTOBER 30, 1917.

120,125. GROWING AND CUT PLANTS AND FLOWERS, BULBS, ROOTS, SEEDS, VINES, AND TREES. KITTIE N. TOMKINS, Tomkins Cove, N. Y.
Filed July 19, 1917. Serial No. 105,140. PUBLISHED NOVEMBER 6, 1917.

120,126. WRITING-PAPER. WEST VIRGINIA PULP & PAPER COMPANY, New York, N. Y.
Filed August 21, 1917. Serial No. 105,786. PUBLISHED NOVEMBER 6, 1917.

120,127. BRISTOL-PAPER. WEST VIRGINIA PULP & PAPER COMPANY, New York, N. Y.
Filed September 10, 1917. Serial No. 106,170. PUBLISHED OCTOBER 23, 1917.

120,128. CERTAIN NAMED ARTICLES MADE OF OR PLATED WITH PRECIOUS METAL, INCLUDING NICKEL-SILVER. WIGHTMAN & HOUGH CO., Providence, R. I.
Filed July 23, 1917. Serial No. 105,217. PUBLISHED OCTOBER 30, 1917.

120,129. HEELS FOR BOOTS AND SHOES. WILDER AND COMPANY, Chicago, Ill.
Filed September 4, 1917. Serial No. 106,048. PUBLISHED NOVEMBER 6, 1917.

120,130. DAILY NEWSPAPER. WOMEN'S WEAR COMPANY, New York, N. Y.
Filed July 16, 1917. Serial No. 105,074. PUBLISHED NOVEMBER 6, 1917.

120,131. LEATHER SOLES AND HEELS, RUBBER HEELS AND SOLES, AND INSOLES. J. GOLDMAN & COMPANY, Norfolk, Va.
Filed April 17, 1917. Serial No. 103,061. PUBLISHED NOVEMBER 6, 1917.

120,132. TROUSERS. MARJORIE T. GREGG, Boston, Mass.
Filed September 13, 1917. Serial No. 106,221. PUBLISHED NOVEMBER 6, 1917.

120,133. CHEMICAL PREPARATION USED IN DETECTING COTTON OR ADULTERANTS IN WOOLENS. OSCAR CHARLES MACK, St. Louis, Mo.
Filed September 25, 1917. Serial No. 106,427. PUBLISHED OCTOBER 30, 1917.

120,134. COTTON AND LINEN WOVEN TIRE-FABRIC PIECE GOODS. MANHASSET MANUFACTURING COMPANY, Providence, R. I.
Filed April 23, 1917. Serial No. 103,225. PUBLISHED NOVEMBER 6, 1917.

120,135. VETERINARY LINIMENT FOR THE RELIEF OF CERTAIN NAMED DISEASES. MARION STOCK REMEDY COMPANY, Ocala, Fla.
Filed September 1, 1916. Serial No. 97,755. PUBLISHED NOVEMBER 6, 1917.

120,136. BUFFING AND POLISHING COMPOUND IN CAKE FORM FOR METALS. THE MATCHLESS METAL POLISH COMPANY, Chicago, Ill., and New York, N. Y.
Filed March 26, 1917. Serial No. 102,452. PUBLISHED OCTOBER 30, 1917.

120,137. BUFFING AND POLISHING COMPOUND IN CAKE FORM FOR METALS. THE MATCHLESS METAL POLISH COMPANY, Chicago, Ill., and New York, N. Y.
Filed March 26, 1917. Serial No. 102,453. PUBLISHED OCTOBER 30, 1917.

120,138. DRESSES. JORDAN MARSH COMPANY, Boston, Mass.
Filed September 19, 1917. Serial No. 106,322. PUBLISHED NOVEMBER 6, 1917.

120,139. PREPARATION FOR EXTERMINATION OF RATS. DAVID MASKOWITZ, Philadelphia, Pa.
Filed September 22, 1917. Serial No. 106,389. PUBLISHED OCTOBER 30, 1917.

120,140. FERTILIZER. HENRY EDMUND MEMMINGER, Lakeland, Fla.
Filed July 24, 1917. Serial No. 105,234. PUBLISHED NOVEMBER 6, 1917.

120,141. INSECTICIDES. MERCK & CO., New York, N. Y.
Filed September 7, 1917. Serial No. 106,117. PUBLISHED OCTOBER 30, 1917.

120,142. SOLUTION OF HYDROGEN PEROXID. MERCK & CO., New York, N. Y.
Filed July 9, 1917. Serial No. 104,938. PUBLISHED OCTOBER 23, 1917.

120,143. CERTAIN NAMED WATER AND STEAM HOSE. MONTGOMERY BROTHERS INC., Philadelphia, Pa.
Filed July 8, 1916. Serial No. 96,433. PUBLISHED JANUARY 30, 1917.

120,144. PREPARATION FOR CERTAIN NAMED AILMENTS. JOSEPH P. MCGRATH, Omaha, Nebr.
Filed September 5, 1917. Serial No. 106,075. PUBLISHED NOVEMBER 6, 1917.

120,145. SODA-ASH AND BICARBONATE OF SODA. NATURAL SODA PRODUCTS COMPANY, Keeler, Cal.
Filed May 31, 1917. Serial No. 104,172. PUBLISHED OCTOBER 30, 1917.

120,146. BOYS' SHIRTS AND WAISTS. THE NEW ERA MANUFACTURING COMPANY, St. Louis, Mo.
Filed March 29, 1916. Serial No. 85,518. PUBLISHED NOVEMBER 6, 1917.

120,147. TOOTH-FILLING COMPOUND. THE J. M. NEY COMPANY, Hartford, Conn.
Filed September 1, 1917. Serial No. 106,010. PUBLISHED NOVEMBER 6, 1917.

120,148. GAS STOVES AND WARMERS. HARRY V. PERT, Columbus, Ohio.
Filed July 2, 1917. Serial No. 104,805. PUBLISHED NOVEMBER 6, 1917.

120,149. SCRUB-BRUSHES. JOHN PETROCCIO, Waterbury, Conn.
Filed August 1, 1917. Serial No. 105,406. PUBLISHED NOVEMBER 6, 1917.

120,150. ANTISEPTIC DISINFECTANT MOUTH-WASH, GARGLE, AND DEODORANT. THE PYRHODOL & CHEMICAL CO., INC., Chicago, Ill.
Filed September 5, 1917. Serial No. 106,078. PUBLISHED OCTOBER 30, 1917.

120,151. RUBBER HEEL-PLATES. HUGH GRANT ROBINSON, Albany, Cal.
Filed July 13, 1917. Serial No. 105,025. PUBLISHED NOVEMBER 6, 1917.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

HILL *v.* ALLEN.

Decided May 26, 1917.

INTERFERENCE—PRIORITY.

Evidence reviewed and *Held* that priority was properly awarded to A.

Mr. Horace Van Everen and *Mr. Fred P. Fish* for the appellant.

Mr. J. Edgar Bull and *Mr. W. L. Helms* for the appellee.

ROBB, *J.*:

This appeal is from concurrent decisions of the Patent Office tribunals in an interference proceeding involving ten claims, of which claim No. 4, here reproduced, is illustrative:

4. A buttonhole sewing machine, having, in combination, stitch-forming mechanism and a work-holding clamp, mechanism for actuating the stitch-forming mechanism and relatively moving it and the work-holding clamp to sew about a buttonhole, a cutter, a cutter-carrying lever, mechanism actuating the lever to move the cutter toward and from the material, and connection between said lever and clamp for closing the clamp by movement of the lever toward the material.

The Patent Office tribunals found Allen's date of conception and disclosure as of September, 1910, and reduction to practice as early as September 15, 1911, and these findings are not here challenged. On the other hand, it is not disputed that appellant conceived and disclosed the subject-matter of the issue in the fall of 1909, when his draftsman embodied the disclosure in a sketch, the contention being that thereafter he was lacking in diligence, and this contention was sustained by each of the tribunals below.

In the fall of 1909 Mr. Hill built a buttonhole-machine which, however, did not contain any clamping mechanism. This machine he later exhibited and sold to his present assignee, the United Shoe Machinery Company, and that company took him into its employ. Thereupon, in June of 1910, at the suggestion of the company, he put aside this early machine and commenced to design a new machine. It is apparent from the evidence that he was given a free hand and all the time and assistance he required. The result of his activities was the completion of a new machine in the summer of 1911. This machine contained a clamp-closing mechanism, but patentably different from the clamp-closing mechanism of the issue. Evidently this machine was not entirely satisfactory to the company, for Mr. Hill was requested to make a still further effort. He then turned to the idea disclosed to his draftsman in the fall of 1909, which apparently had lain dormant in his mind during the intervening period. The third machine which he completed embodied the issue, but it will be seen that, unless the work done on the second machine constitutes diligence, Mr. Hill was doing nothing to embody his early disclosure in practical form for a period of more than seven months after Allen's entry into the field in the fall of 1910.

As set forth in Mr. Hill's specification, the invention here involved is merely an—

improved mechanism for opening and closing the work holding clamps—

of buttonhole-sewing machines. In view of this and other facts and circumstances disclosed by the evidence, we are unable to accept appellant's explanation of his reasons for not installing this device in the 1911 machine. We are forced to the conclusion that his reason for not doing so was that he considered the mechanism which he did install more likely to meet requirements. As conclusive evidence of this, it is pointed out that Mr. Hill subsequently applied for a patent on the clamp-closing mechanism of that machine.

There being no real connection between the work done on the second and third machines, so far as the present invention is concerned, it follows that the Patent Office tribunals were right, and therefore we affirm their decision.

Affirmed.

Supreme Court of the United States.

ABERCROMBIE & FITCH COMPANY AND JUSTRITE MANUFACTURING COMPANY *v.* BALDWIN AND JOHN SIMMONS COMPANY.

Decided December 10, 1917.

PATENTS—VALIDITY OF REISSUE—ACETYLENE-GAS-GENERATING LAMP.

The Baldwin reissue patent, No. 13,542, (original No. 821,580,) for acetylene-gas-generating lamp, claim 4, the principal features of which are that the water-tube extends down into the mass of the carbid and that within it is a movable rod or stirrer which controls the flow of water and also is used to break up the slaked carbid which cakes at the delivery end of the tube, was not anticipated, discloses invention, and is not invalid as broadening the invention of the original patent, because the rod is not limited to one having a bent arm.

ON WRIT of certiorari to the United States Circuit Court of Appeals for the Second Circuit.

Mr. Charles K. Offield and *Mr. James R. Offield* for the petitioners.

Mr. James Q. Rice for the respondents.

Mr. Justice MCKENNA delivered the opinion of the Court.

Suit for infringement of a patent embraced in Letters Patent No. 821,580 and a reissue thereof, No. 13,542.

The suit was originally brought by Frederick E. Baldwin, patentee. John Simmons Company, licensee, having the exclusive right to manufacture and sell the patented device, subsequently intervened and became complainant.

The patents are for a lamp designed to generate and burn acetylene or similar gas "intended for use," to quote the description of the patents—

and adapted to use as a bicycle, automobile, yacht, or miner's lamp, or for any other analogous purpose, it being necessary only to change its form or dimensions to adapt it to any one of the purposes mentioned.

Stress in this case, however, is put upon the use of the asserted invention as a miner's lamp, such use conspicuously displaying its commercial utility.

Answer was filed by the Justrite Manufacturing Company, who was made a party defendant to the suit as manufacturer of the asserted infringing lamp, and by stipulation its answer was considered the answer of the Abercrombie & Fitch Company. It denied invention with great detail, set up anticipating patents, denied its utility, attacked the validity of the reissue on the ground that the first and fourth claims of the original patent were held invalid by the United States Circuit Court of Appeals for the Seventh Circuit (199 Fed., 133) and for the further reason that the application for the reissue was not made until seven years after the original Letters Patent were issued and rights had accrued in the meantime to defendants (petitioners here) and to others. Infringement was denied.

A decree was passed sustaining the validity of the original patent and of the reissue, the originality of the invention and its utility and adjudging defendants (petitioners) had infringed claim 4 of the reissue, that plaintiffs recover the damages they had incurred by reason of the infringement and the profits defendants had received, an accounting being ordered for this purpose. A perpetual injunction was also adjudged against further infringements. (227 Fed., 455.) The decree was affirmed in all respects by the circuit court of appeals (228 Fed., 895) and subsequently this certiorari was granted.

The plaintiffs (we shall so designate respondents) struggled through some years and some litigation to the success of the decrees in the pending case. In a suit brought in the District Court for the Southern District of Illinois a device like that of the defendants herein was held to be an infringement of certain claims of the original patent. The holding was reversed by the Circuit Court of Appeals for the Seventh Circuit. (*Bleser* v. *Baldwin*, 199 Fed., 133.)

Subsequently, the reissue having been granted, suit was brought in the Western District of Pennsylvania against an asserted infringer. Unfair competition was also alleged, and, holding the latter to exist, the court granted a preliminary injunction. (210 Fed., 560.) Upon final hearing that holding was repeated, and infringement of a claim of the reissue patent decreed. (215 Fed., 735.) The decree was reversed by the circuit court of appeals (third circuit) on the ground that the claim of the reissue patent found to have been infringed was broader than a corresponding claim of the original Letters Patent and therefore void. The holding of the district court as to unfair competition was sustained. (219 Fed., 735.) Aided by the reasoning in the opinions of those cases and the discussion of counsel, we pass to the consideration of the propositions in controversy.

First, as to the original patent. Its contribution to the world's instrumentalities was, as we have said, an acetylene-lamp and was represented by the following figure, designated as Figure 1.

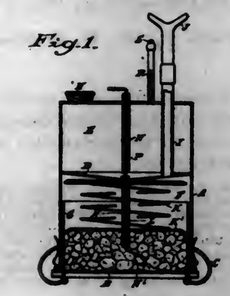


Fig. 1.

It will be observed that the device consists of a receptacle divided into two compartments, an upper one for water and a lower one designed to serve as a gas-generating chamber, adapted to contain a receptacle for calcium carbid, which is attached to and forms the detachable bottom. There are means of introducing water into the reservoir and thence to the carbid and means of conducting the gas to the burner.

The device is a means of using the gas (acetylene) formed by the decomposition of water with calcium carbid and necessarily must bring them into contact in an effectual way and use the gas generated in a controlled flow. A tube L hence leads from the water-reservoir into the carbid-receptacle and forms a duct which introduces the water into the body of the carbid. Various means, the specifications recite, have been employed to regulate or control the flow of water to the carbid, which were found objectionable or not adequate.

The patentee then says that the method which he has invented "for securing the proper feed under all circumstances" without—

objectionable features is to make the bore of the duct of comparatively large size and then restrict the duct by means of a wire or rod preferably centrally located therein to leave a channel of the proper size.

It is then said:

This arrangement is simple; but in a long experience it has been found to be entirely successful. It is possible to secure the correct drop-by-drop feed with a duct of considerable size, since the friction of the water on the large area of the tube-wall and wire reduces its flow. This retarding friction may be regulated by varying the size of wire used. The duct does not become choked, since if foreign particles are deposited therein the water can take a zigzag course around it without the supply being appreciably affected. If it is at any time necessary to clean the tube, the wire is simply reciprocated and rotated a few times from the outside of the lamp without disturbing the position of other parts. This nice regulation of the flow enables me to entirely dispense with the troublesome adjustment of the valve. * * * In some cases, however, there is employed in connection with the means for introducing water into the mass of carbid a device in the nature of a stirrer, which on proper manipulation may be used to break up the mass of carbid surrounding the outlet of the water duct and which by having become slaked and caked by the action of water prevents the proper percolation of the latter to the unslaked carbid in the receptacle G, Fig. 1. As such device I employ a stem or rod N, which extends down through the tube L and is bent at substantially right angles to form an arm N'.

There is also a figure attached to the patent which shows a valve upon the constricting-rod and it is said:

This rod may form a prolongation of the valve stem * * * or in case no valve is used may extend from the top of the lamp down through the water-reservoir,

and this is illustrated by figures.

As calcium carbid possesses strongly absorptive properties, the introduction of water through the tube L will result in the gradual slaking of the material about its outlet; but the lime thus produced becomes gradually less permeable to the water, so that an insufficient quantity of gas is generated to maintain the proper flame. When this becomes noticeable, the rod N is turned, so as to cause the arm N' to break up to a greater or less extent the mass of lime, and in practice I have found that under ordinary conditions this is amply sufficient to insure a substantially uniform generation of gas until all of the carbid in the receptacle G is exhausted.

There are some further descriptive details not necessary to be repeated, and this was said:

The specific construction of the various parts of my lamp may be, as will be seen from a consideration of the nature of the improvements, very greatly varied without departing from the invention.

The claims of the patent which are pertinent to our inquiry are as follows:

1. In a lamp of the kind described, the combination with a water-reservoir, and a receptacle for calcium carbid, of a tube extending from the former a considerable distance into the latter so as to be embedded in the mass of carbid contained in said receptacle, and a rod or stem extending through said tube into the carbid-receptacle and having its end formed as a stirrer to break up the slaked carbid around the outlet of the water-tube, as set forth.

2. In a lamp of the kind described, the combination with a water-reservoir, and a receptacle for calcium carbid, of a tube extending from the former into the latter so as to be embedded in the mass of carbid contained in the receptacle, a rod extending from a point outside of the lamp through the tube and into the carbid-chamber and having its end bent to form a stirrer for breaking up the slaked carbid around the outlet of the water-tube, as set forth.

* * * * * * *

4. In a lamp of the kind described, the combination with a water-reservoir, and a receptacle for calcium carbid, of a water-tube extending from the former a considerable distance into the latter and adapted to be embedded in the mass of carbid in the receptacle, and a rod extending through the water-tube, and constituting a stirrer to break up slaked carbid around the outlet of the water tube, *the rod operating to restrict and thus control the flow of water to the carbid*, as set forth.

The words in italics are the addition of the reissue.

Whether the lamp exhibits invention, when both patents are considered, we shall discuss later. Our attention is more immediately challenged by the stress put upon other defenses, especially upon the contention that the patent is confined to a special form and, so confined, is not infringed; and that the extension of the patent by the reissue is void. The controversy is, therefore, brought to a consideration of the original patent as added to or developed by the reissue. And their comparison centers in the water-feeding duct or tube and its restriction by means of a wire or rod and the shape and use of the rod to pierce or stir the carbid. In the original patent, as we have seen, it was said that the invented method for securing a proper feed (flow of the water to the carbid) without certain specific objectionable features was—

to make the bore of the duct of comparatively large size and then restrict the duct by means of a wire or rod preferably centrally located therein to leave a channel of the proper size.

In the reissue, after the words "comparatively large size," it was added—

extend the tube which forms the duct downward so that its end will be always embedded in the carbid.

In other words, the tube is explicitly described as extending to and its end embedded in the carbid, and this, it is contended, was an enlargement of the original patent.

The contention is untenable if there was in the original patent an implication of such length and termination of the tube, and we think there was. To conduct water to the carbid it necessarily had to extend to the carbid-receptacle and as necessarily had to penetrate the carbid if the rod located in it, whether straight or bent, was to act "in the nature of a stirrer, which on proper manipulation" might—

be used to break up the mass of carbid surrounding the outlet of the water duct,

which is the purpose that the patent ascribes to it. And Fig. 1 shows such ending and embedding. It would be impossible otherwise to perform its function or to secure the "proper percolation" of the water "to the unslaked carbid in the receptacle G, Fig. 1."

But there was another addition in the reissue which, it is contended, enlarges the invention and assigns a new shape and function to the stirrer of the original. In the latter the rod is described as extending—

from the top of the lamp down through the water-reservoir, as shown in Fig. 3.

To this the reissue adds:

It will be understood from what has been said that the function of the stirrer is to break up, pierce or disturb the particles of the slaked carbid mass which, when the lamp is in use, forms at the delivery end of the tube. This slaked carbid mass tends to solidify and either shuts the water off altogether or restricts it so that less water is delivered from the water tube than the lamp demands for efficient operation. As it is sufficient, under the certain circumstances, to insure the requisite water flow by so manipulating the stirrer, as to pierce, break up, or loosen the slaked carbid mass immediately around or at the mouth of the tube, it is obvious that the stirrer need not always be formed with a bent end or so as to extend radially from the mouth of the tube.

There is nothing in this but what was clearly implied in the original, except the shape of the stirrer. In the original it is described and represented as bent. In the reissue it is stated to be obvious that the stirrer need not always be bent "or extend radially from the mouth of the tube."

We are unable to assign to this the extent of alteration that counsel do, nor do we think it necessary to rehearse the details of their argument. We

have given it attention and the cases it cites, especially the decision and reasoning of the Circuit Court of Appeals of the Third Circuit in *Baldwin et al.* v. *Grier Bros. Co.*, (219 Fed., 735;) but we are constrained to a different conclusion. Indeed, we are of opinion that the original patent did not need the exposition of the reissue. It exhibited an invention of merit, certainly one entitled to invoke the doctrine of equivalents. (*Paper Bag Patent Case*, 210 U. S., 405; 136 O. G., 1297.) Baldwin, the patentee, complied with the statute (sec. 4888 R. S.) by explaining the principle of his invention and the mode of putting it to practical use; there was a clear exposition of the principle and the instruments of its use were defined and their purpose and manner of operation. It left nothing in either for further experiment or contrivance. As we have said, the invention was a means of using the gas formed by the decomposition of water with calcium carbid, and necessarily the water and carbid must be brought into contact and under a controlled flow; hence the tube and its centrally-located rod extending downward to the carbid. It was foreseen and stated that the carbid might become torpid or slaked by the action of the water and might have to be disturbed or dispersed in order that there might be percolation of water to unslaked carbid, and this was provided to be performed by a simple manipulation of the rod. Whether the rod was bent or made straight was unimportant. In either form it removed the slake and secured the continuous operation of the water and carbid and through them the formation of the gas and its illuminating purpose. One or the other might be better, according to the extent of the dispersion required, and one naturally suggested the other.

It is, however, contended that plaintiffs were required to give up and did give up in the Patent Office a claim which had the extent which we have indicated. A claim, numbered in the application as 6, described the rod as—

> a rod extending from a point outside the lamp through the tube into the carbid receptacle.

Counsel say:

> It is to be particularly noted—

that while other claims—

> mentioned the stirring function of the rod, claim 6 omitted this feature,

but that the solicitor who drew the claim—

> unquestionably had in mind the straight form of rod construction without any stirrer at the end, for the claim specifies "through the tube into the carbid receptacle."

It is hence argued that when the claim was given up the straight form of construction was given up, and, having been given up to secure the patent, it cannot be insisted upon to prevent its use by others. But counsel is in error as to the extent of the surrender. The straight construction was not given up, but such construction through the tube into the carbid-receptacle, and this was in deference, and only in deference, to other patents that showed such use, that is, showed a penetration into the receptacle but not its duct ending and embedded in the carbid.

We do not think the case calls for extended discussion. It is best considered in broad outline. The scope and merit of the patents are of instant and assured impression, and to the attempt to defeat or limit their invention by the state of the prior art we adduce the discussion and reasoning of the opinions of the lower courts, which we approve.

The denial of infringement is also easily disposed of. Indeed, it has been in effect disposed of. It is based on the contention that the stirrer is an essential of plaintiff's lamp and that a stirrer is absent from defendants' lamp, which is in all other particulars, as far as this case is concerned, similar to the plaintiff's lamp. To the contention of defendants, therefore, we cannot assent. There is a stirrer in both, and its form, as we have seen, is not of the essence of the invention. There is nothing occult in the act of stirring; it is causing movement or disturbance, and this may be performed by a straight rod as by a bent one. There may be difference in their dispersing power, but no difference in function, and one or the other would be instantly selected according to the need, under the clear description of the patent. This ready adaptation of the form of stirrer to the work to be performed Baldwin demonstrated even before the grant of the patent. Early in 1906 he put upon the market a lamp with a straight rod, "which, among other things," as the district court has said, "has characterized the commercial lamp ever since."

To the contention that the Justrite Company, the manufacturing defendant, acquired rights before the reissue we again may oppose the reasoning and conclusion of District Judge Mayer and their affirmance by the circuit court of appeals. The learned judge said:

> It will be remembered that this company entered the field with its lamp at a time when the validity and scope of the Baldwin patent were still unquestioned and when after some five years of capable effort, the Baldwin lamp had created an extensive market. The Justrite Company took its chances and, in view of the necessities of the situation, it is relieved of all accountability for the period prior to the granting of the reissue patent; but when the reissue was granted the Justrite Company again took its chances.
>
> By the reissuance of the patent, the patentee loses all in the way of an accounting under the original patent, but the dominant purpose of the reissue statute was to save to the inventor the future remaining after the reissue.
>
> I see nothing in the course of plaintiffs or defendants which would allow a court of equity to conclude that defendants are to be relieved because of intervening rights.

Decree affirmed.

THE OFFICIAL GAZETTE OF THE United States Patent Office.

Vol. 246—No. 3. TUESDAY, JANUARY 15, 1918. Price—$5 per year.

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Issue of January 15, 1918.

Patents	814	No. 1,253,200 to	No. 1,254,013	inclusive.
Designs	34	No. 51,667 to	No. 51,700	inclusive.
Trade-Marks	22	No. 120,183 to	No. 120,204	inclusive.
Labels	10	No. 20,443 to	No. 20,452	inclusive.
Prints	3	No. 4,844 to	No. 4,846	inclusive.
Reissues	1	No. 14,422.		
Total	925			

Notice—Assistant Examiner Examination.

The Civil Service Commission has announced an open competitive examination for the position of Assistant Examiner in the Patent Office on February 13, 14, and 15, 1918. Qualified persons are urged to enter this examination. Entrance salary, $1,500 per annum.

Application blanks and information as to where the examination will be held may be obtained from the Civil Service Commission, Washington, D. C.

Adverse Decisions in Interference.

PATENT NO. 1,221,134.

On December 18, 1917, a decision was rendered that Clifford C. Bradbury was not the first inventor of the subject-matter covered by claim 8 of his Patent No. 1,221,134, subject, "Secrecy system for extension and party-line telephones," and no appeal having been taken within the time allowed such decision has become final.

ADJUDICATED PATENTS.

(U. S. D. C.) The Barber patent, No. 781,802, for improvements in valves and valve-gear for explosive-engines, *Held* anticipated and limited by the prior state of the art, and, as limited, not to be infringed by defendant's device. *Barber* v. *Reo Motor Car Sales Co.*, 245 Fed. Rep., 933.

Cross-References in Cases Relating to Same Subject.

RULE 43. When an applicant files two or more applications relating to the same subject-matter of invention, all showing but only one claiming the same thing, the applications not claiming it must contain references to the application claiming it.

Reservation Clauses Not Permitted.

RULE 44. A reservation for a future application of subject-matter disclosed but not claimed in a pending application will not be permitted in the pending application.

Photographic Copies.

A photographic apparatus has been installed in the Patent Office for the purpose of avoiding the withdrawal from the examining divisions of foreign patents which are used as references and from the Scientific Library of bound volumes which are used by attorneys in making validity searches.

White-line photographic copies of the specifications and drawings of foreign patents only or of any page of any printed publication which may be in the possession of the Patent Office will be furnished upon payment of the prescribed fees. Copies on paper 7½x11 inches, comprising a single page only, will be furnished for 15¢ per print, and copies on paper 11½x14 inches, comprising single or double pages, as the case may be, for 25¢ per print. Coupons to the amount required, when properly filled in, will be accepted in payment for these prints.

The Office will not accept white-line photographic copies of original drawings for filing in connection with pending applications. Therefore prints of this class of drawings will not be furnished.

In ordering photographic copies of specifications or drawings of foreign patents applicants must state the country in which the patent was granted, the number of the patent, the date, including the year, and the name of the patentee.

For photographic copies to be made from other printed publications in possession of the Office the title and date of the publication and the page or part of page of which copy is desired must be given.

Failure to give complete identification as indicated above will cause delay and unnecessary correspondence.

In addition to the foregoing the Office will continue to furnish black-line photographic copies of drawings of pending, patented, forfeited, or abandoned cases, as heretofore, in two sizes, 8x12½ inches at 15¢ per print and 10x15 inches at 25¢ per print. Applicants and attorneys are strongly urged to file a set of black-line copies, small size, or order them to be made by the Office at the time of filing an application. Such procedure will save delay later if correction of the drawing is desired or required.

The Patent Office has no printed copies of foreign patents for sale.

Applicant's Address.

The requirement of Rule 33, that the post-office address of the applicant must be stated in the petition, means that the applicant must give the post-office address at which he customarily receives his mail.

The rule was made in order that the Office in necessary cases might correspond directly with the applicant and not through his attorney. The address of the attorney with instructions to send communications to the applicant in his care will not be accepted as a compliance with this rule.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business January 11, 1918.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended.	No. of applications awaiting action.
314	1. Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Railway Gates; Planting; Scattering Unloaders; Trees, Plants, and Flowers.	Nov. 5	Nov. 1	311
138	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	Sept. 15	Oct. 12	312
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Heating; Metal-Founding; Metallurgical Apparatus; Metallurgy; Plastic Metal Working.	Dec. 3	Dec. 5	122
284	4. Conveyers; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Pushing and Pulling Implements; Railway Mail Delivery; Store-Service; Traversing Hoists.	Nov. 16	Dec. 18	166
167	5. Bookbinding; Harvesters; Jewelry; Music	Oct. 4	Nov. 20	276
218	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Substance Preparation.	June 7	Aug. 15	521
312	7. Educational Appliances; Games and Toys; Optics; Velocipedes	Sept. 10	Nov. 5	547
133	8. Beds; Chairs; Flexible-Sheet Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Oct. 3	Nov. 28	528
321	9. Air and Gas Pumps; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Marine Propulsion.	May 26	Dec. 7	497
226	10. Carriages and Wagons; Motor Vehicles	July 20	Nov. 21	783
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Spring Devices; Whips and Whip Apparatus.	Sept. 27	Dec. 15	276
322	12. Journal-Boxes, Pulleys, and Shafting; Machine Elements	Sept. 4	Nov. 10	599
320	13. Ammunition and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Sept. 22	Nov. 19	520
323	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Sept. 10	Nov. 17	300
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Nov. 17	Dec. 6	289
112	16. Electric Signaling-A; Radiant Energy; Telegraphy; Telephony	July 5	Nov. 5	481
307	17. Ornamentation; Paper Manufactures; Printing; Type Casting; Sheet Material Associating or Folding; Sheet Feeding or Delivering; Type Setting.	Nov. 5	Nov. 22	111
220	18. Fluid-Pressure Regulators; Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Sept. 4	Oct. 15	387
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels	July 30	Oct. 20	464
179	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Dec. 4	Dec. 11	239
212	21. Brakes and Gins; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	July 19	Oct. 8	278
149	22. Aeronautics; Firearms; Ordnance	Sept. 18	Nov. 6	296
219	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	Aug. 14	Nov. 2	353
144	24. Apparel; Apparel Apparatus; Sewing-Machines; Garment Supporters	Nov. 5	Dec. 4	183
315	25. Agitating; Butchering; Centrifugal Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers; Gas Separation.	Dec. 5	Dec. 7	168
105	26. Electricity, Generation; Motive Power	July 5	July 14	585
314	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus	Oct. 15	Oct. 24	382
235	28. Internal-Combustion Engines	Aug. 17	Oct. 9	609
147	29. Coopering; Fire-Escapes; Ladders; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking Tools.	Aug. 29	Oct. 1	422
162	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines	Sept. 6	Nov. 19	482
173	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Sugar and Salt.	Oct. 25	Oct. 30	209
278	32. Gas and Liquid Contact Apparatus; Heat Exchange; Packaging Liquids; Refrigeration	June 5	Dec. 3	730
70	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	Oct. 24	Nov. 15	242
304	34. Railways; Railway Rails and Joints; Railway Rolling Stock; Railway Ties and Fasteners	Nov. 19	Jan. 2	74
87	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Signals; Toilet	Aug. 10	Oct. 31	632
204	36. Driers; Geometrical Instruments; Measuring Instruments; Photography; Force Measuring	Oct. 23	Nov. 24	637
107	37. Electric Lamps; Electricity, Circuit Makers and Breakers; Electricity, Conduits; Electricity, General Applications.	July 13	Sept. 6	686
278	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationary; Stone-Working; Wells	Nov. 24	Dec. 13	156
220	39. Water Distribution; Multiple Valves	June 29	Oct. 20	466
278	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Oct. 6	Nov. 23	489
126	41. Railway Draft Appliances; Resilient Tires and Wheels	Sept. 20	Oct. 16	366
114	42. Electricity, Conductors; Railway Signaling; Electricity-Transmission to Vehicles; Electric Signaling	July 9	Oct. 3	662
303	43. Baths and Closets; Dispensing; Dispensing Beverages; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Oct. 15	Nov. 3	370
203	44. Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Ships	Oct. 3	Dec. 3	270
279	45. Clutches; Lubrication; Motors; Railway Brakes	Aug. 31	Sept. 4	499

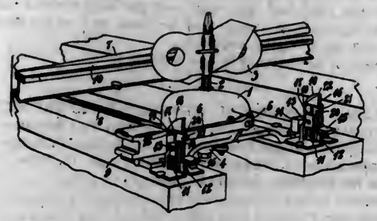
Oldest new case, May 26; oldest amended, July 14.
Total number of applications awaiting action..... 17,991

168	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Dec. 1	Dec. 19	698
	Designs	Nov. 20	Dec. 6	253
	Labels and Prints	Nov. 17	Nov. 3	96

PATENTS

GRANTED JANUARY 15, 1918.

1,253,200. SWITCH-STAND LATCH. FRANK C. ANDERSON, Cincinnati, Ohio, assignor to The American Valve and Meter Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Oct. 4, 1917. Serial No. 194,706. (Cl. 104—25.)



1. A switch-stand latch to hold an operative part of the switch, and comprising a member movable across said operative part to release said part for operation of the switch, and means on said member to engage with said part and prevent the releasing movement of said member when said part lies against said member.

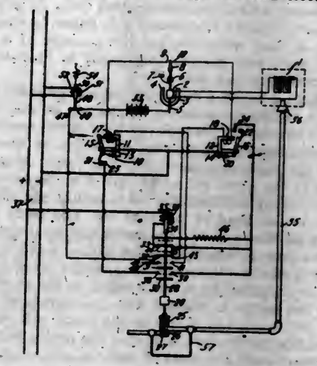
3. A switch-stand latch comprising a housing having a crotch to receive the switch-stand lever down in it, a hook comprising a nose and pivoted in said housing to swing said nose across the top of said lever as it lies in said crotch, the lower side of said nose being far enough above the bottom of said crotch to permit said lever to swing up and down in said crotch when said nose is thereover, and a lug extending down from said nose to engage with a side of said lever when said lever is raised in said crotch and prevent said hook from swinging away from said lever, whereby said hook is released to be swung away from said lever only upon first pressing said lever down from said nose.

6. A switch-stand latch comprising a housing having a crotch to receive the switch-stand lever down in it, a hook comprising a nose and pivoted in said housing to swing said nose across the top of said lever as it lies in said crotch, the lower side of said nose being far enough above the bottom of said crotch to permit said lever to swing up and down in said crotch when said nose is thereover, a lug extending from said nose to engage with a side of said lever when said lever is raised in said crotch and prevent said hook from swinging away from said lever, whereby said hook is released to be swung away from said lever only upon first pressing said lever down from said nose, and a treadle connected to said hook for withdrawing said hook from said lever by pressure of the foot while said lever is first depressed by one hand to permit said withdrawal, and then raised with said hand as permitted by said withdrawal.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,253,201. TEMPERATURE-REGULATING DEVICE. CARL B. AUBL, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Mar. 30, 1914. Serial No. 828,194. (Cl. 236—4.)

1. In a temperature regulating device, the combination with an electric motor, of an electromagnetically operated valve, a thermo-electric generator operatively connected to said motor, a plurality of electromagnets controlled by said motor and controlling said electromagnetically operated valve, and means, independent of the said motor, for interrupting the circuits through the said electromagnets.

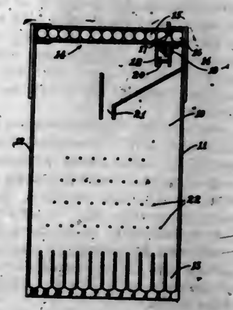


4. A temperature regulating device comprising an electric motor, a thermo-couple operatively connected thereto, a plurality of electromagnets controlled by the said motor, a source of electromotive force for said electromagnets, a second source of electromotive force, means for interrupting said first source of electromotive force without interrupting said second source of electromotive force, and an electromagnetically operated valve operatively connected to said second source of electromotive force.

10. In a temperature-regulating device, the combination with an electro-responsive device, of an electro-magnetically operated valve, a thermal-responsive device adapted to actuate the electro-responsive device, a plurality of electromagnets controlled by the electro-responsive device and adapted to control the said valve, and means independent of the said electro-responsive device for interrupting the circuits of the electromagnets when the voltage that is applied to the electromagnetically operated valve falls to its zero value.

[Claims 2, 3, and 5 to 9 not printed in the Gazette.]

1,253,202. GAME. FRANK G. BARKOW, Los Angeles, Cal. Filed Mar. 1, 1917. Serial No. 151,683. (Cl. 46—61.)

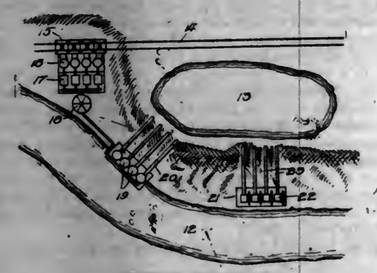


1. A game comprising a horizontal board having flanges extending along its sides, means forming a series of paral-

lel compartments at the foot of the board, a frame extending upwardly at the head of the board, an inclined ball receptacle at the top of the frame across the end of the board, channels forming a zig-zag run-way from the lower end of the ball receptacle to near the bottom of the frame; there being an opening in the lower end of each channel discharging into the head of the next channel and there being an opening in the lower end of the receptacle discharging into the head of the first channel; a pivoted finger extending across the lower end of the receptacle to hold the balls in the receptacle, a trough leading from the lower end of the lower channel; said trough discharging to the board; and a detent extending from the pivoted finger into said trough; said detent and finger forming an escapement so that when started the passage of a ball along the trough will operate the detent to operate the finger to release another ball.

2. In a game, a board, a frame extending upwardly from the board, a receptacle mounted at the top of the frame and having a discharge opening; the floor of the receptacle being inclined toward the opening; a series of channels mounted in the frame one above the other; said receptacle discharging to the upper end of the series of channels and said channels being inclined, the lower end of one channel discharging to the head of the next one, and there being an outlet at the lower end of the series discharging to the board; and a lever pivotally mounted with one end in position to hold balls in the receptacle and the other end in position to be operated by a ball passing to the board; so that when the device is started and the receptacle filled with balls the passage of a ball to the board will operate the lever to release the next ball, and the device will continue to operate until the stock of balls is exhausted.

1,253,203. ART OF POWER GENERATION. PAUL L. BATTEY, Glencoe, Ill. Filed Feb. 13, 1917. Serial No. 148,438. (Cl. 138—20.)



1. In a power station, the combination of a hydro-electric turbo-generator unit, a reservoir of desired capacity for impounding a desired quantity of water at a desired elevation above said unit, a reservoir of desired capacity for receiving water discharged from said unit, direct-fired gas-pumping apparatus for withdrawing water from the last mentioned reservoir and restoring said water to the first mentioned reservoir, and means for generating gas from carbonaceous material and delivering said gas to the pumping apparatus.

2. In a power station, the combination of a hydro-electric turbo-generator unit, a receptacle for impounding a desired quantity of water under a desired hydro-static head with respect to said turbo-generator unit, a receptacle of desired capacity for receiving water discharged from said turbo-generator unit, direct-fired gas-pumping apparatus for withdrawing water from the second mentioned receptacle and delivering the same to the first mentioned receptacle, and suitable equipment for generating gas from carbonaceous material and delivering the same to said direct-fired pump.

3. In a power station, the combination of a turbo-generator hydro-electric unit, direct-fired gas-pumping apparatus, means for generating gas from carbonaceous material and delivering the same to said pumping apparatus, a fluid-pressure connection between the pumping apparatus and the hydro-electric unit, and a return connection between the discharge side of the hydro-electric apparatus and the intake side of the pumping apparatus.

4. In a power station, the combination of a hydro-electric unit, gas-pumping apparatus and apparatus for generating gas from carbonaceous material and delivering the same to said pumping apparatus, a fluid pressure connection between the pumping apparatus and the hydro-electric unit, a fluid-return connection between the hydro-electric unit and the pumping apparatus.

5. In a power station, the combination of a water-driven unit, gas-pumping apparatus and apparatus for generating gas from carbonaceous material and delivering the same to said pumping apparatus, a fluid-pressure connection between the pumping apparatus and the water-driven unit, and a fluid-return connection between the water-driven unit and the pumping apparatus.

[Claim 6 not printed in the Gazette.]

1,253,204. ELECTRICAL MEASURING INSTRUMENT. WILLIAM M. BRADSHAW, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 15, 1914. Serial No. 831,965. (Cl. 171—264.)



1. An electrical measuring instrument comprising a magnetizable core having polar projections that are spaced apart, a cylindrical armature rotatably mounted to surround the magnetizable core, and a substantially annular permanent magnet disposed around the cylindrical armature and having its poles disposed adjacent the portion of the core opposite to the polar projections.

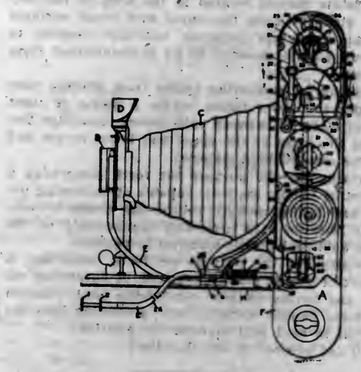
2. An electrical measuring instrument comprising a magnetizable core having polar projections that are spaced apart, a potential winding upon the core, a current winding disposed upon the polar projections, a cylindrical armature rotatably mounted to surround the core, and a substantially annular permanent magnet disposed around the cylindrical armature and having its poles disposed adjacent the portion of the core opposite to the polar projections.

3. An electrical measuring instrument comprising a magnetizable core having polar projections that are spaced apart, a potential winding upon the core, a current winding disposed upon the polar projections, a cylindrical armature rotatably mounted to surround the core, and a means for conducting the magnetic lines of force from one end of the magnetizable core through an external circuit to the other end of the same and for damping the movement of the armature.

[Claims 4 to 13 not printed in the Gazette.]

1,253,205. FILM-SHIFTING DEVICE FOR CAMERAS. PINCUS BRAUNER and LOUIS W. ROSEN, New York, N. Y., assignors to Adolph E. Brion, New York, N. Y. Filed Feb. 8, 1915. Serial No. 6,680. (Cl. 95—31.)

1. In a device of the class described, independently adjusted means for permitting a film to be received and carried so that any sufficient area of it can be positioned in the field of exposure, means for taking a picture on said film, mechanism connected with said picture taking means for shifting this film after a picture has been taken, and mechanism, positively gripping a film, for measuring predetermined, uniform lengths of it, mechanism connected thereto for positively stopping the shifting mechanism after each length is determined, and means for releasing this positively gripping mechanism when a film is inserted or removed from the device.



5. In a device of the class described, a roller over which a film passes while driving the same, a pinion secured to said roller, a gear meshing with said pinion, a cam secured to said gear and a spring projecting from said cam.

9. In a device of the class described, a shutter mechanism, mechanism for starting a film, said mechanism containing a cam, a spring rubbing against the edge of said cam, a second spring carried by said cam, a lever for shifting said first mentioned spring and means connected with the shutter mechanism for operating said lever.

13. In a device of the class described, a casing, a front door with a suitable hinge and connecting the door and casing, a bellows supported from said door at its front end, film shifting mechanism and a stem connected to said film shifting mechanism with a pivotal connection, said stem being bent so as to have said pivotal connection in the axis of said hinge.

15. In a device of the class described, a camera for taking a picture on a film, and having a case with an automatic film shifting means mounted therein, measuring rollers adapted to grip and positively hold a film for measuring predetermined, uniform lengths of it, means connected with one of said rollers for stopping the film shifting means after each length is determined and means for releasing these measuring rollers when a film is inserted or removed from the device.

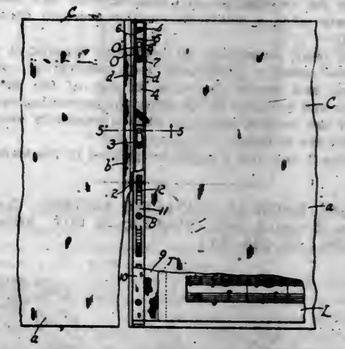
[Claims 2 to 4, 6 to 8, 10 to 12, 14, and 16 not printed in the Gazette.]

1,253,206. LOOSE-LEAF BINDER. HAROLD B. BRISTOL, St. Louis, Mo. Filed Nov. 1, 1916. Serial No. 128,924. (Cl. 129—23.)

1. In a loose-leaf binder, a pair of elongated outer strips, a pair of elongated inner strips projecting laterally beyond the outer strips and provided with inwardly-bent legs, and covers hinged to the leg portions of said inner strips.

3. In a loose-leaf binder, a lid-carrying member comprising an elongated strip psovided on one side with a leg bent at an angle to the strip, said leg having a lid hinged thereto, a second strip superposed thereover and provided with burs or lips punched therefrom and bent outwardly, lips punched from the first strip at points opposite the openings formed in the second strip as a result of the punching of the burs therefrom, and passed through said openings and bent against the outer face of the second strip, a slide mounted on the second strip and operating between the burs punched from the second strip, the composite strip thus formed being provided with openings for the reception of suitable posts engaged by said slide.

4. In a loose-leaf binder an elongated strip having a leg on one side bent at an angle thereto, said leg being provided with a lip bent against the leg, and a lid provided with a flexible hinge-strip having its edge folded to enter between the leg and lip aforesaid, the lip being clenched against the strip to securely fasten the same to the leg.

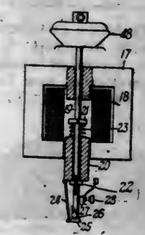


5. In a loose-leaf binder, a pair of elongated outer strips, a pair of corresponding inner strips provided with inwardly bent side portions or legs, covers hinged to said bent portions, spacing devices separating the inner strips, and means on the outer strips for locking the spacing devices to the several strips.

6. In combination with an elongated member, a slide mounted thereon and provided with a slot elongated lengthwise with the member and having its sides approaching one another, said sides being beveled or wedge-shaped, a post inserted through the longitudinal member and passed loosely through the slot of the slide, said post having a terminal provided with an annular groove traversed by the sides of the slot, the portion of the slide beyond and adjacent to the narrow terminal of the slot operating to wedge between the outer side wall of the groove and the adjacent face of the longitudinal member when the slide is moved to one of its extreme positions, thereby locking the post to the longitudinal member.

[Claim 2 not printed in the Gazette.]

1,253,207. ELECTRICAL PROTECTIVE DEVICE. HAROLD W. BROWN, Ithaca, N. Y., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 19, 1913. Serial No. 807,714. (Cl. 175—270.)



1. A relay comprising a movable core member, a movable rod, resilient means for connecting the core member to the rod, an actuating winding, coöperating contact members, and means controlled by the relative movement of the rod and core member for effecting engagement of the contact members when a relatively small overload traverses the winding and for preventing the engagement thereof when an excessive overload traverses the winding.

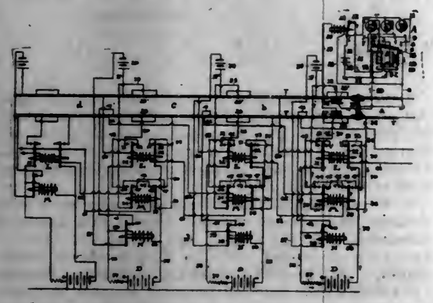
5. In an electrical relay, the combination with an actuating coil and a magnetic structure surrounding the said

coil, of a rod, a movable core member adapted to surround the rod and to be actuated by the said coil, means for limiting the relative movement of the said rod and the said core member, and means for preventing the operation of the rod when an excessive overload traverses the coil and for causing the rod and movable core member to operate when a relatively smaller overload traverses the coil.

11. A relay comprising an actuating winding, a movable core member, a movable rod, coöperating contact members, and means connected to one of the movable members and actuated by the other for preventing engagement of the contact members when a relatively overload traverses the winding.

[Claims 2 to 4 and 6 to 10 not printed in the Gazette.]

1,253,208. RAILWAY SIGNALING SYSTEM. CARL H. BUHL, Cleveland, Ohio. Filed July 22, 1912. Serial No. 710,768. (Cl. 246—27.)



In a railway signaling system, a set of electrical selective signaling devices, a compound polarized relay for controlling the selective energization of the signaling devices, electrical circuits for said relay, said relay comprising a permnanent magnet, cores supported adjacent the permanent magnet, a cross piece supporting the cores, circuit terminals disposed adjacent the cores, an armature pivotally supported intermediate its length, a spring strip supported by the armature and insulated therefrom, the ends of the spring strip extending beyond the ends of the armature, to balance the armature prior to the energizing of the electromagnet, and means for automatically completing the circuit to operate the relay, and cause a signal.

1,253,209. PROTECTIVE COVERING. ALEXANDER CRAWFORD CHENOWETH, New York, N. Y., assignor to Chenoweth Concrete Revetment Company, Inc., New York, N. Y., a Corporation of New York. Filed Sept. 29, 1910. Serial No. 584,453. (Cl. 61—36.)



1. A covering for the purpose set forth comprising a flexible monolithic sheet of plastic material capable of hardening under water and having flexible metal fabric reinforcing means located in the body thereof in a plane substantially parallel with the upper and lower faces of the said sheet, said covering having a flexible protective cover on its lower face, said covering being adapted to be transported and applied in unset condition on a surface and by virtue of its flexibility harden on said surface in substantial conformation thereto.

2. A covering for the purpose set forth comprising a flexible monolithic sheet of plastic material capable of being transported and applied in unset condition and hardening under water and having a sheet of flexible reinforcing metal fabric therein located in the body of the covering in a plane between the upper and lower surfaces thereof, and transverse members embedded therein to maintain said plastic material in its predetermined form and thickness.

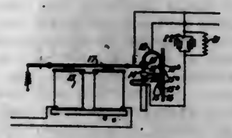
3. A covering for protecting bodies from erosion, comprising upper and lower fabric covers, a filling of unset cementitious material between said covers, and edge facings joining the edges of the upper and lower covers and confining the cementitious material.

4. A covering for the purpose set forth comprising a flexible sheet of plastic material capable of hardening under water, and having metallic reinforcing means therein, and spaced metallic bars extending transversely of the covering to hold said plastic material in position.

5. A covering for the purpose set forth comprising a flexible sheet of plastic material capable of hardening under water, and having metallic reinforcing means therein and transverse flanged metallic bars projecting into the said material to hold said material in position.

[Claim 6 not printed in the Gazette.]

1,253,210. CONTACT MAKING AND BREAKING DEVICE. LEWIS W. CHUBB, Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed May 3, 1915. Serial No. 25,587. (Cl. 175—282.)



1. The combination with coöperating contact members, and means for causing them to engage and disengage, of a non-oscillatory circuit including a capacity device and a discharge path connected in parallel with each other and in shunt to the contact members, and means for closing the said circuit after the engagement of the said contact members.

5. The combination with main coöperating contact members, and means for causing them to engage and disengage, of a circuit in shunt relation to the said contact members including a condenser and a discharge path connected in parallel, auxiliary contact members, and an electromagnet connected between the main contact members and adapted to open the said auxiliary contact members after the separation of the main contact members and to close them after the reëngagement of the main contact members.

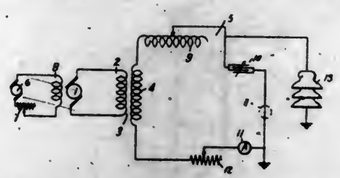
7. The combination with coöperating contact members, of a non-oscillatory circuit connected in shunt to the contact members and comprising parallel-connected capacity and energy-consuming devices, and means for opening the said non-oscillatory circuit after the separation of the said contact members and for closing it after their reëngagement.

8. The combination with coöperating contact members, of a capacity device connected in shunt to the contact members, and means for opening the circuit of the capacity device after the separation of the contact members and for closing it after their reëngagement.

10. The combination with coöperating main contact members, of a circuit in shunt to said contact members including a capacity device and an energy-absorbing device connected in parallel, auxiliary contact members adapted to open and close the said circuit, and means connected between the main contact members for actuating the auxiliary contact members.

[Claims 2 to 4, 6, and 9 not printed in the Gazette.]

1,253,211. ELECTRICAL TESTING DEVICE. LEWIS W. CHUBB, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 4, 1916. Serial No. 76,159. (Cl. 175—183.)

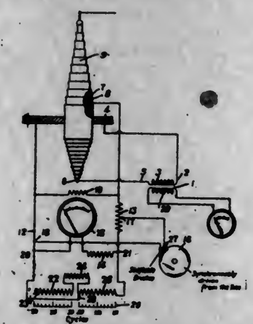


3. A high-voltage testing device comprising a source of relatively low electromotive force, a condenser and a reactor so connected as to constitute a series-resonant circuit, means for determining the charging current of the condenser and means for connecting a device to be tested in parallel relation to the condenser.

12. The method of testing which consists in connecting the device to be tested to a part of a series-resonant circuit and measuring the potential of that part of the resonant circuit.

[Claims 1, 2, and 4 to 11 not printed in the Gazette.]

1,253,212. ELECTRICAL MEASURING INSTRUMENT. LEWIS W. CHUBB, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 7, 1916. Serial No. 76,605. (Cl. 175—183.



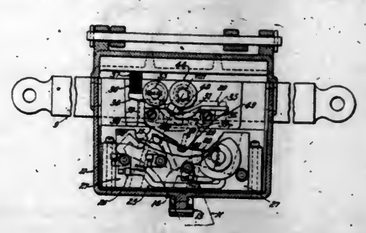
1. A device for indicating the maximum value only of the voltage of an electric circuit comprising an indicating instrument, means for supplying an actuating force to the indicating instrument that is dependent in value upon the frequency and the value of the voltage to be measured, and means for neutralizing the effect of a change in frequency upon the indicating instrument.

5. A measuring device for an electric circuit comprising a condenser connected across the circuit, means for indicating the charging current of the condenser and means for so shunting current from the said means that its indications are independent of changes in the frequency of the circuit.

[Claims 2 to 4, 6, and 7 not printed in the Gazette.]

1,253,213. CONTROL APPARATUS. JOHN A. CLARKE, Jr., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 18, 1914. Serial No. 877,948. (Cl. 200—20.)

1. The combination with a rotatable control drum, of a slidable member for directly effecting operation of said drum in the one or the other direction, and mechanical remotely-controlled means for affecting a movement of translation of said member to rotate the control drum.



2. The combination with a rotatable control drum, of a slidable member, and means for giving said member a movement of translation to effect rotation of said drum in a forward and a reverse direction.

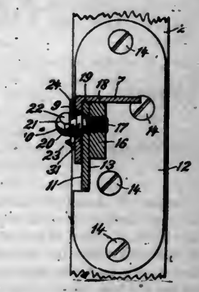
3. The combination with a rotatable control drum, of an operating mechanism therefor comprising a slidable member adapted to engage a portion of the drum, remotely-controlled means for actuating said member, and interlocking means for preventing movement of the drum in a temporarily incorrect direction.

4. The combination with a rotatable control drum, of an operating mechanism therefor comprising a slidable member adapted to engage a portion of the drum, remotely-controlled means for actuating said member, and interlocking means for preventing consecutive operations of the drum by said slidable member.

5. The combination with a rotatable control drum, of an operating mechanism therefor comprising a slidable member adapted to engage a portion of the drum, remotely-controlled means for actuating said member, means for preventing movement of the drum in a temporarily incorrect direction, and means for preventing consecutive operations of the drum by said slidable member.

[Claims 6 to 12 not printed in the Gazette.]

1,253,214. FURNITURE. JAMES CLOSE, Newark, N. J. Filed Dec. 15, 1913. Serial No. 806,705. (Cl. 5—55.)



1. In a bed, a plurality of separable members, means for connecting said members, and a latch carried by one of the members for preventing the disengagement of said connecting means, said latch having wedging surfaces acting in perpendicular planes.

2. In an article of furniture, a plurality of separable members and a latch carried by one of said members for preventing their disengagement, and means carried by the other of said members for operative engagement with said latch, the latch being transversely tapered to afford a wedging action transversely thereof and having a slot provided with a wedging surface adapted to act upon said means and thereby draw the members together in a direction longitudinally of the latch.

1,253,215. SOLDERING-TOOL. WILLIAM E. CORKERY, Wadena, Iowa. Filed Sept. 26, 1916. Serial No. 122,279. (Cl. 158—27.)



1. A soldering iron, the combination of an externally threaded conduit, means for supplying said conduit with fuel, a burner support bearing upon said conduit, a nut connecting said burner support to said conduit, a reduced offset portion extending from said support, a nozzle extending from said off-set portion and projecting in the same direction as said support, a soldering iron having an internal pocket, an inverted frame having converging side portions provided with a thickened end portion, said thickened portion being internally threaded and fitting upon said conduit, whereby said iron may be turned so as to move said thickened portion along said conduit for adjusting said iron very easily and quickly, thus causing the iron to be adjusted with respect to the end of said nozzle for maintaining a proper air space for combustion of the fuel.

[Claim 2 not printed in the Gazette.]

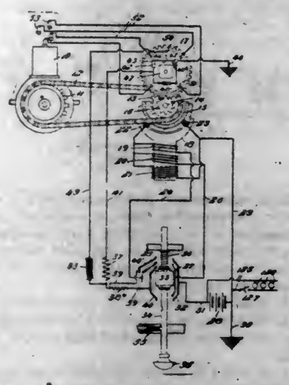
1,253,216. METAL FURRING-STRIP. EDGAR K. DAY, Wheeling, W. Va., assignor, by mesne assignments, to Whitaker-Glessner Company, Wheeling, W. Va., a Corporation of West Virginia. Filed May 3, 1915. Serial No. 25,342. (Cl. 189—84.)



1. A furring strip formed of sheet metal bent to form a base and a web, said web being formed of a pair of substantially parallel parts each of which latter is flared outwardly and then extended to lie parallel to the base and doubled upon itself and at its central portion being conformably engaged with said flared parts to form a trough, the converging walls of which are of double contacting thicknesses of metal and the base of which is of single thickness of metal and is disposed closely adjacent the upper end of the web so as to receive support from the latter.

2. A furring strip formed of sheet-metal bent to form a base and a web, said web being formed of a pair of substantially parallel parts each of which is flared outwardly and then extended to lie parallel to the base and doubled upon itself and at its central portion being conformably engaged with said flared parts to form a trough the converging walls of which are of double contacting thicknesses of metal and the base of which is of single thickness.

1,253,217. ELECTRICAL SYSTEM FOR USE WITH INTERNAL-COMBUSTION ENGINES. JAMES K. DELANO, New York, N. Y. Original application filed Apr. 17, 1915, Serial No. 22,085. Divided and this application filed Dec. 9, 1916. Serial No. 136,113. (Cl. 123—148.)



1. In an electrical system for use with internal combustion engines, the combination, with a dynamo motor having shunt and series field windings, of a power-supply circuit, an ignition circuit, and a switch, said switch being arranged when in one position to connect said ignition circuit and a part of said series winding to said power-supply circuit, and to connect said ignition circuit and all of said series field winding to said power-supply circuit when in another position.

2. In an electrical system for use with internal combustion engines, the combination with an internal combustion engine, and a dynamo motor arranged either to drive the crank shaft of said engine or to be driven thereby and provided with two series field windings, of an ignition circuit, and switch means operable to connect said ignition circuit and one or both of said series windings, alternatively, with a source of current supply.

3. In an electrical system for use with internal combustion engines, the combination, with a dynamo motor provided with two separate series field windings, of an ignition circuit including interrupting and high tension distributing mechanism, a source of current supply, and switch means operable to connect said ignition circuit and one or both of said separate series windings, alternatively, to said source of current supply.

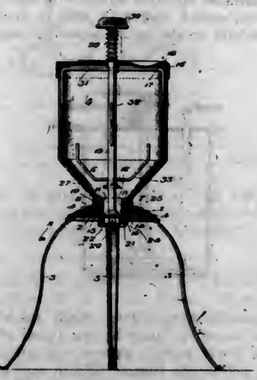
4. In an electrical system for use with internal combustion engines, the combination, with a dynamo motor provided with separate series field windings having different resistances, of a source of current supply, and switch means movable to connect said windings in multiple to said current supply, or to connect only the winding of higher resistance to said source of current supply.

5. In an electrical system for use with internal combustion engines, the combination, with a dynamo motor provided with two series field windings, of an ignition circuit, a source of current supply, and switch means operable to connect said ignition circuit and one or both of said series windings, alternatively, with said source of current supply.

[Claims 6 to 12 not printed in the Gazette.]

1,253,218. DISPENSING DEVICE. WILLIAM D. DOREMUS, deceased, Washington, D. C., by Effie F. Doremus, administratrix, Washington, D. C. Filed Nov. 10, 1915. Serial No. 60,780. (Cl. 221—62.)

1. In a dispensing device, the combination with a container having a dispensing outlet, of a spring-retracted reciprocatable and rotatable stem movable in relation thereto, a combined measuring and cut off valve operated thereby controlling the dispensing outlet, and stirrers or agitators carried by said stem within the container adapted to reciprocate and rotate with said stem.



2. In a dispensing device, the combination with a container having a dispensing outlet, of a spring-retracted reciprocatable and rotatable stem, a combined measuring and cut off valve operated thereby controlling the dispensing outlet, and stirrers or agitators carried by said stem within the container having angular end portions substantially engaging with the interior wall thereof adapted to dislodge material adhering to said wall by the combined reciprocation and rotation of said stirrers.

3. In a dispensing device, the combination with a container having a tapered bottom portion and dispensing outlet therefor, of a spring-retracted rotatable and reciprocatable stem, a valve operated thereby controlling the dispensing outlet, and a combined stirrer and stop carried by the stem and adapted for engagement with the walls of said tapered bottom portion, and to reciprocate and rotate within said bottom and to engage with and escape the latter when the stem is depressed and turned.

4. In a dispensing device, the combination with a container having a tapered bottom portion and dispensing outlet therefor, of a spring-retracted, rotatable and reciprocatable stem, a valve operated thereby controlling the dispensing outlet, a combined stirrer and stop carried by the stem and adapted for engagement with the walls of said tapered bottom portion, and to reciprocate and rotate within said bottom, and to engage with and scrape the latter when the stem is depressed and turned, and freely projecting stirrers carried by the stem operating in the container above the aforesaid combined stirrer and stop and having angular ends, said stirrers being adapted to rotate with the stem and to scrape the walls of the container.

5. In a dispensing device, the combination with a container having a valve casing whose interior communicates with the container and whose outer end serves as a dispensing outlet for said container, of an operating stem, a valve carried thereby controlling the outlet of said valve casing, and a combined spreader and guide carried by said stem and telescoping over the outer end of the valve casing.

[Claims 6 and 7 not printed in the Gazette.]

1,253,219. CIGAR OR CIGARETTE PACKAGE. CALEB C. DULA, New York, N. Y. Filed Apr. 23, 1917. Serial No. 163,988. (Cl. 206—46.)

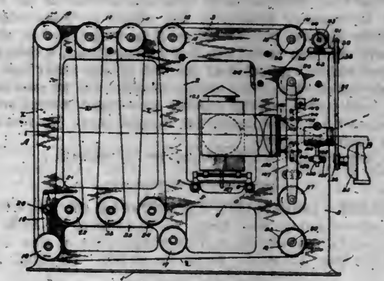
1. In a cigar or cigarette package, the combination with a container, and the contained cigars or cigarettes positioned in contact with each other and in parallelism, of a liner or lining element formed of thin paper having spaced parallel ridges defining therebetween article-receiving depressions, said ridges extending into natural spaces formed between adjacent contacting articles to



normally maintain the individual positions of the articles while permitting facial contact between adjacent articles.

[Claims 2 to 4 not printed in the Gazette.]

1,253,220. ADVERTISING DISPLAY-MACHINE. HORACE DUMARS, New Suffolk, N. Y. Filed June 3, 1915. Serial No. 31,880. (Cl. 88—28.)



1. A machine for exhibiting pictures, advertising matter and the like, including in combination a plurality of rollers arranged to form an endless path for a picture strip, a lamp station with means for supporting either a projection lamp house or a reflection lamp house, and picture strip directing means, including devices for directing the strip past the lamp station either at the rear or the front thereof, and means for feeding the strip intermittently.

3. A machine for exhibiting pictures, advertising matter and the like, including in combination a lamp house support, means for intermittently running a film strip, including means for directing the film strip to one side or the other of said support, and a plurality of lamp houses adapted to be carried by said support, one lamp house operating with the film before and another lamp house operating with the film behind.

8. A machine for exhibiting pictures, advertising matter and the like, including in combination a plurality of rolls arranged in a series, a plurality of rolls arranged in another series, whereby the film strip may be run across to and fro from one series to the other, and passing alternately around a roll of one series and then around a roll of the other series, means for positively and intermittently driving a roll thereby imparting intermittent motion to the film, and means for lighting the film, including interchangeable mountable and demountable projection and reflection lamp houses supported at the same station in the machine, some of said rolls being arranged to direct the film strip to either side of said station for either projection or reflection work.

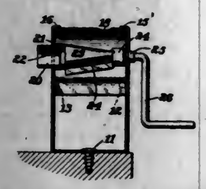
13. A machine for exhibiting pictures, advertising matter and the like, including in combination film strip feeding means, means for turning on and off the light, means for clamping and unclamping the film at the place of projection, and common actuating means therefor.

15. A machine for exhibiting pictures, advertising matter and the like, including in combination a lamp, a lens,

a reflecting surface receiving the light from the lamp and directing it to the lens, and a cooling chamber back of the reflecting surface.

[Claims 2, 4 to 7, 9 to 12, 14, and 16 not printed in the Gazette.]

1,253,221. PENCIL-SHARPENER. ELIAS P. EARLE, Townville, S. C. Filed May 24, 1917. Serial No. 170,754. (Cl. 120—96.)



3. A pencil sharpener comprising a base and housing each struck from a single strip of metal, said strip having two different sized openings formed in its ends and an opening formed in the center of said strip, a bearing wedged in one of said openings and a shaft loosely mounted in the other of said openings, a conically shaped cutter supported at one end by said shaft and the other end of said cutter loosely mounted on the said bearing, said cutter thereby capable of a slight lateral movement and a handle connected to said shaft for rotating said cutter member.

[Claims 1 and 2 not printed in the Gazette.]

1,253,222. DISPENSING RECEPTACLE OR PACKAGE. ARTHUR FALK, New York, N. Y., assignor to Falk Tobacco Co., New York, N. Y., a Corporation of New York. Filed Mar. 11, 1916. Serial No. 83,502. (Cl. 206—56.)



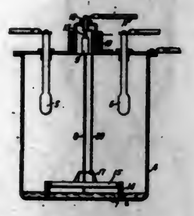
3. An ejecting device for the contents of receptacles comprising a flexible pull strip having one end so connected to a receptacle as to prevent inward motion, the strip extending beneath the contents of the receptacle, and an ejector carried by the pull strip and comprising a flat plate disposed beneath the contents of the receptacle and having its body portion provided with spaced apertures through which the free portion of the pull strip is threaded to permit the plate to automatically adjust itself relative to the contents of the receptacle.

[Claims 1 and 2 not printed in the Gazette.]

1,253,223. CATHODE STRUCTURE FOR VAPOR-CONVERTERS. SIDNEY W. FARNSWORTH, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed May 3, 1916. Serial No. 95,071. (Cl. 175—354.)

1. In vapor electric apparatus, the combination with a closed container, of a vaporizable reconstructing cathode therein, an auxiliary anode, means for striking an arc between said two electrodes, and a multi-section perforated conducting member mounted adjacent to said cathode and in conductive connection with said anode for subsequently supporting said arc.

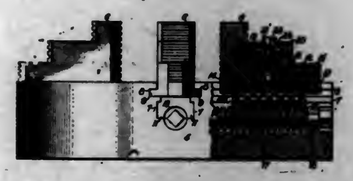
2. In vapor electric apparatus, the combination with a closed container, of a vaporizable reconstructing cathode therein, an auxiliary anode, means for striking an arc between said two electrodes, and a multi-section perforated conducting member mounted adjacent to said cathode substantially coextensive therewith and in conductive connection with said anode for subsequently supporting said arc.



9. An electrode structure for vapor electric apparatus embodying a closed container having a pool of cathode material in the lower portion thereof and provided with an arc-limiting refractory ring resting in said pool and projecting from the upper surface thereof, which comprises a frame supported from the upper portion of said ring, a plurality of perforated conducting members supported from said frame and coacting to cover substantially the entire cathode surface delimited by said ring, a movable starting electrode arranged to project through said covering means and to make contact with said cathode pool, a conductive connection from said starting electrode to said sectors, and means for maintaining an electromotive force between said keep-alive electrode and said cathode pool.

[Claims 3 to 8 not printed in the Gazette.]

1,253,224. LATHE-CHUCK. CHARLES JOHN FISHER, Niagara Falls, N. Y. Filed Feb. 8, 1917. Serial No. 146,366. (Cl. 29—133.)



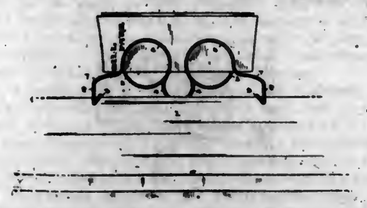
1. In a lathe chuck, a jaw having a recess and a guideway leading thereto, a screw, an anchor block having a thread meshing with the screw, an anchor jaw movable in the recess and adapted to lock against the anchor block, a stem on the anchor jaw disposed in the guideway, resilient means for holding the stem with the anchor jaw away from the anchor block, and means for holding the stem with the anchor jaw locked to the anchor block against the resiliency of the said means.

7. In a lathe chuck, a jaw having a recess and a guideway leading thereto, an anchor block, means to advance the anchor block, an anchor jaw movable in the recess and adapted to lock against the anchor block, and means disposed in the guideway in the jaw for operating the anchor jaw.

[Claims 2 to 6 not printed in the Gazette.]

1,253,225. DISPLAY-HOLDER. MORGAN C. FRENCH, Denver, Colo. Filed Dec. 23, 1916. Serial No. 138,556. (Cl. 40—151.)

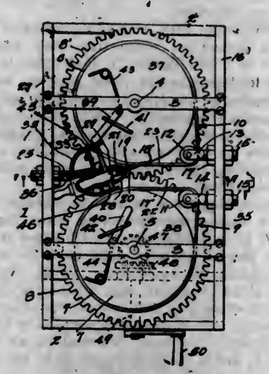
1. The combination with a support having a projection, of a holder of the class described formed from a single strand of resilient wire and comprising a pair of oppositely disposed coils arranged in the same vertical plane, resilient supporting arms for said coils, and an attaching



loop supported by said coils intermediate said resilient supporting arms and adapted to engage said projection.

[Claims 2 to 4 not printed in the Gazette.]

1,253,226. RAZOR-BLADE-STROPPING DEVICE. LARS L. FURAN, Thief River Falls, Minn. Filed June 14, 1917. Serial No. 174,813. (Cl. 51—16.)



1. A blade sharpening device comprising a pair of spaced, revolving, cylinders, an endless stropping belt on each cylinder, and a spaced guide roller for each belt, an oscillatable blade supporting device located between the cylinders and means on each cylinder to oscillate said supporting device toward the other cylinder.

2. A blade sharpening device comprising a pair of spaced, revolving cylinders, an endless stropping belt on each cylinder, and a spaced guide roller for each belt, an oscillatable blade supporting device located between the cylinders, and a resiliently supported arm on each cylinder adapted to oscillate said supporting device toward the other cylinder.

3. A blade sharpening device comprising a pair of spaced, revolving cylinders, an endless stropping belt on each cylinder, and a spaced guide roller for each belt, an oscillatable blade support, an oscillatable yoke operatively connected therewith, and a resiliently supported arm on each cylinder adapted to oscillate said yoke and support toward the other cylinder.

4. The combination with a pair of parallel traveling stropping belts, of an oscillatable, perforated blade support, an oscillatable yoke having a guide rod passing through said support, and means for oscillating said yoke.

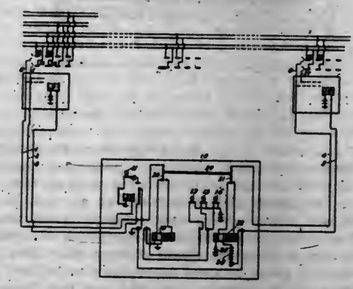
5. The combination with a pair of revolving cylinders, an endless stropping belt on each cylinder, and a spaced guide roller for each belt, of an oscillatable, perforated bracket having resilient blade clasping walls, a yoke having a transverse rod passed loosely through the perforated bracket, a retaining spring attached to the yoke, and a resilient arm on each cylinder adapted to contact with the yoke to oscillate the yoke toward the other cylinder.

1,253,227. WRENCH. LOUIS E. GAISSER, Louisville, Ky., assignor to Alice R. Gaisser, Louisville, Ky. Filed Oct. 17, 1916. Serial No. 126,128. (Cl. 81—127.)



A wrench comprising a head having a fixed jaw; a movable jaw coöperating with the fixed jaw and including a shank disposed transversely of the head and mounted for right line sliding movement in the head, the shank having a straight rack in its inner edge; and a lever extended longitudinally of the head and pivoted thereto, the lever being provided at one end with a curved rack composed of round-ended teeth meshing into the teeth of the rack on the movable jaw, the sides of the teeth of the movable jaw being inclined, each of said teeth being more abruptly inclined on one side than on the other, thereby to increase the bearing area between the teeth of the two racks, when the lever is swung laterally to cause the movable jaw to move toward the fixed jaw.

1,253,228. TESTING ARRANGEMENT. CHARLES L. GOODRUM, New York, N. Y., asignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed July 14, 1917. Serial No. 180,648. (Cl. 179—175.)



1. An arrangement for detecting unstandard conditions in the multiple of a telephone exchange system, comprising means for simultaneously testing for a plurality of different unstandard conditions, multiple connections, contacts associated with said multiple connections at different points, and automatic means for successively connecting said means with said contacts.

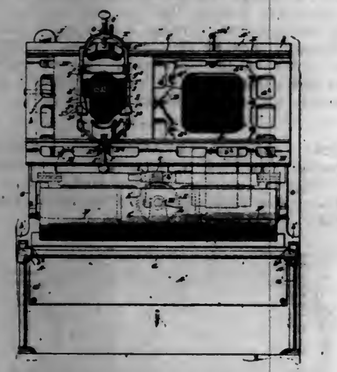
2. An arrangement for detecting unstandard conditions in the multiple of a telephone exchange system, comprising means for simultaneously testing for a plurality of different unstandard conditions, multiple connections, and means responsive to standard conditions in said multiple connections for successively connecting said testing means with said multiple connections.

3. An arangement for detecting unstandard conditions in the multiple of a telephone exchange system, comprising a plurality of sets of multiple connections, sets of terminals connected to said multiple connections at different points, sets of brushes arranged to successively make contact with said sets of terminals, and a testing device associated with said sets of brushes comprising means for simultaneously testing said multiple connections for a plurality of different unstandard conditions, means for advancing one of said sets of brushes, means for there-

upon testing said multiple connections for a still different unstandard condition, and means for thereupon advancing another of said sets of brushes.

4. An arrangement for detecting unstandard conditions in the multiple of a telephone exchange system, comprising multiple connections arranged in sets, a plurality of sets of terminals connected to each set of said multiple connections, terminal banks comprising a plurality of sets of said terminals each connected to a different set of said multiple connections, a set of brushes associated with each terminal bank, means associated with each set of brushes for operatively associating said brushes with said terminals, and a testing device comprising means responsive to standard conditions for advancing first one set of brushes and then another set of said brushes, and means responsive to a plurality of different unstandard conditions for stopping the further advance of said brushes and for indicating the nature of the unstandard condition detected.

1,253,229. FOOT-MASSAGING MACHINE. WILLIAM C. J. GUILFORD, Harrison, Me. Filed Dec. 23, 1914. Serial No. 878,728. (Cl. 128—16.)



1. In a mashine of the character described, an instep clamp comprising a foot rest, posts projecting upwardly therefrom, one of said posts having a toothed face, and an instep engaging portion fastened at one end to one of the posts, and a sleeve at the opposite end thereof slidable over the other post, said sleeve being so attached as to be canted when the clamp engages the instep, and a part on the sleeve adapted to engage the toothed post when the sleeve is canted, substantially as described.

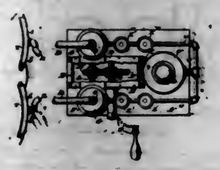
10. In a machine of the character described, an expansible foot massaging element, a foot rest having an opening over said element, and means for varying the size of the opening comprising a strip movable over the foot rest and adapted to underlie the foot to be treated, in combination with guides on which the strip is slidable, and foot clamps carried by the said strips, said foot clamps projecting above said guides.

27. In a machine of the character described, a pair of pneumatic expansible foot massaging elements, means for holding the feet in operative association therewith, and automatically acting means for alternately effecting successive pulsations of said elements, said means including columns of air, and adjustable means for varyingly reciprocating the same consisting of a pair of coacting pistons and cylinders, and a common operating means therefor, substantially as described.

31. In a machine of the character described, a pneumatic expansible massage element, means for holding the member to be treated in operative association therewith, and means for effecting successive pulsations of said element, substantially as described.

[Claims 2 to 9, 11 to 26, 28 to 30, and 32 not printed in the Gazette.]

1,253,230. HAND-OPERATING MASSAGING APPARATUS. WILLIAM C. J. GUILFORD, Harrison, Me. Filed May 18, 1916. Serial No. 98,350. (Cl. 128—16.)



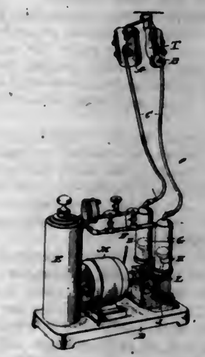
1. The combination with expansible massage elements, and air conducting means leading thereto, of an actuator in communication with said air conducting means comprising a pair of parallel cylinders, supporting means therefor, an air supply leading to said cylinders, pistons in said cylinders, oppositely disposed cranks for operating the pistons, a common shaft for said cranks having a pinion thereon, and a gear for operating said pinion arranged with its axis parallel to the axis of the pinion, substantially as described.

3. The combination with expansible massage elements provided with means for connecting them together so that they will be held adjacent to each other in position to conjointly manipulate the same part to be treated and air conducting means leading thereto, of an actuator for said elements comprising a pair of cylinders communicating with said conducting means, pistons in said cylinders, means for actuating said pistons, and means for variably controlling the actuation of said pistons, substantially as described.

5. The combination with expansible massage elements provided with means for connecting them together so that they will be held adjacent to each other in position to conjointly manipulate the same part to be treated and air conducting means leading thereto, an actuator for moving columns of air in said conducting means and correspondingly expanding and contracting the expansible massage elements, said means being adapted to alternately actuate the massage elements, substantially as described.

[Claims 2, 4, and 6 to 10 not printed in the Gazette.]

1,253,231. PASSIVE MASSAGE IMPLEMENT. WILLIAM C. J. GUILFORD, Harrison, Me. Filed May 18, 1916. Serial No. 98,351. (Cl. 128—16.)



1. A massage device of the character described, comprising a handle, and a pair of massage elements associated therewith and adjustable toward and from each other in a direction approximately around the axis of the handle.

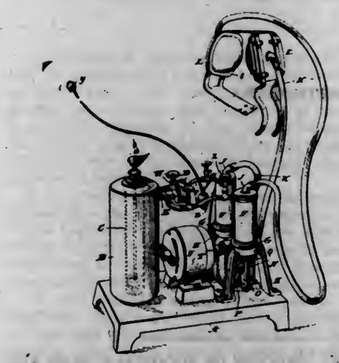
4. A massage device of the character described, comprising a handle for shifting the device from place to place on the body, an arm projecting from the handle, and a relatively flat massage element pivoted to said arm adapted to change its position angularly with respect to the handle, in combination with means other than the handle for manipulating the massage element.

6. A massage device of the character described, comprising a handle having a threaded stem, massage elements, arms connecting the massage elements to the handle, one of said arms being fast with the handle and the other movable with reference thereto, and means for securing the arms in relative adjusted position with the handle.

8. A massage device of the character described, comprising a pair of massage elements, a handle therefor and means for connecting the massage elements to the handle comprising arms therebetween, one arm being fast with the handle and the other being pivoted for adjustment on the handle, and means for binding the arms together to secure them in relatively adjusted position, said means including a binding nut having threaded engagement with the handle adapted to impinge upon a washer carried by the fixed arm and spaced therefrom for the reception of the other arm.

[Claims 2, 3, 5, 7, and 9 to 14 not printed in the Gazette.]

1,253,232. POWER-OPERATED MASSAGING APPARATUS. WILLIAM C. J. GUILFORD, Harrison, Me. Filed May 18, 1916, Serial No. 98,352. Renewed June 30, 1917. Serial No. 177,964. (Cl. 128—16.)



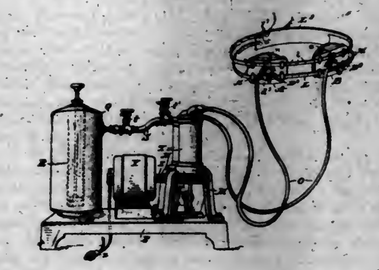
1. The combination with massage elements and air conducting means communicating therewith, of an actuator comprising a pair of cylinders in communication with said air conducting means, pistons in said cylinders, an air tank with connections for supplying air to said cylinders, and means for actuating the pistons comprising a motor interposed between the tank and cylinders, and gear and crank connections between the motor and pistons, substantially as described.

4. The combination with massage elements and air conducting means leading thereto, of an actuator including a pair of cylinders having nipples on their heads communicating with said air conducting means, pistons in said cylinders, and an air supply for the cylinders, and means for alternately actuating the pistons, substantially as described.

9. The combination with expansible massage elements and air conducting means leading thereto, of an actuator comprising a supprt, air supply means, and means adapted to cooperate with air received from said air supply for alternately operating the massage elements, and controlling means flexibly connected to the operating means, substantially as described.

[Claims 2, 3, 5 to 8, and 10 to 12 not printed in the Gazette.]

1,253,233. ABDOMINAL-MASSAGE IMPLEMENT. WILLIAM C. J. GUILFORD, Harrison, Me. Filed May 18, 1916. Serial No. 98,353. (Cl. 128—16.)



1. A massaging device of the character described comprising an expansible member having a base part, a flexible sheet on said base, the base having an air passage leading behind the sheet, and means for confining the sheet to the base comprising an open frame hinged to the base at one edge and provided with a latch therefor at the opposite edge of the base, substantially as described.

5. A massaging device of the character described comprising two associated expansible elements adapted to operate from opposite directions on approximately the same anatomical part, and flexible strap connections between the massage elements extending thereacross and adapted to be fastened around the body, means for confining one of the straps to the base members for permitting freedom of movement thereof, and means for fastening the other strap member against movement relative to the base members, substantially as described.

7. In a massaging apparatus, a pair of pneumatic massage devices provided with flexible faces adapted to engage the part to be treated and substantially rigid backings for said flexible faces, means for securing said backings against the part to be treated with the flexible faces therebetween, and preventing the backings from yielding when the flexible faces are working, said flexible faces being disposed to contact opposite portions of said part to be treated so that the rigid backing of one may oppose the movement of the flexible face of the other, and means for causing relatively alternating expansive and contractive actions of the flexible faces so that one face will contract toward its fixed backing when the other face expands without shifting its fixed backing.

8. The method of massaging which consists in applying fixed backings against opposite portions of the part to be treated, introducing between said fixed backings and the part to be treated pulsating passive pressure, and alternating said pressure on the opposite sides of said part to be treated so that the movement of the tissue of the part to be treated under the pulsating pressure from one side is resisted by the fixed backing at the opposite side thereof.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,253,234. WATER-COOLING TOWER. FREDERICK W. HAAS, Pittsburgh, Pa. Filed Nov. 2, 1916. Serial No. 129,065. (Cl. 261—115.)

1. In a liquid cooling tower, a plurality of superposed chambers, some of the sides of the chambers being pro-

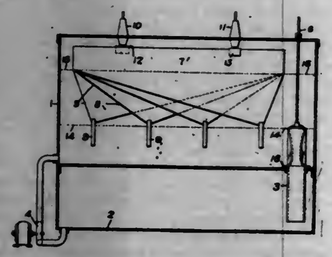
vided with louvers, air exhausting means at one of the sides of each chamber, a liquid receiving pan at the top of each chamber, and sprayer devices in the bottom of each pan.



2. In a liquid cooling tower, a plurality of superposed chambers, some of the sides of the chambers being provided with louvers and the louvers on one of the sides being closable, air exhausting means at a side having a closable louver, a liquid-receiving pan at the upper end of each of the chambers, and means for converting the liquid into spray as it falls from the pans.

3. In a liquid cooler, a plurality of superposed chambers, each in the form of a frustum with its smaller end up, downwardly and inwardly inclined louvers on the sides of the frustum, liquid receiving pans at the tops of the chambers, and devices in the bottoms of the pans restricted to the area inclosed by the top of each chamber and adapted to convert the liquid into spray as it falls from the pans.

1,253,235. CONTROL APPARATUS. ARTHUR J. HALL, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed June 8, 1916. Serial No. 102,499. (Cl. 219—57.)



1. In a liquid rheostat, the combination with a tank, of a plurality of stationary tapered electrodes disposed in side-by-side relation in the tank, said electrodes having independent tips that are positioned in a diagonal line across said group of electrodes.

4. In a liquid rheostat, the combination with a tank, of a plurality of electrodes disposed in side-by-side relation within said tank, each of said electrodes being tapered and terminating in a conducting tip that is at a distance greater than the distance between electrodes from the adjacent electrode tip.

7. In a liquid rheostat, the combination with a tank adapted to contain an electrolyte, and means for varying the height of the electrolyte in said tank, of a plurality of electrodes rigidly positioned within said tank in side-by-side relation, said electrodes being tapered and terminating in a tip, said tips being more widely separated than the distance between said electrodes.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,253,236. PLASTIC COMPOSITION SUITABLE FOR MAKING CARVED FLOWER-BEADS AND PROCESS OF MAKING THE SAME. DOROTHY HALL, Los Angeles, Cal. Filed Apr. 5, 1915, Serial No. 19,339. Renewed Nov. 16, 1917. Serial No. 202,423. (Cl. 106—39.)

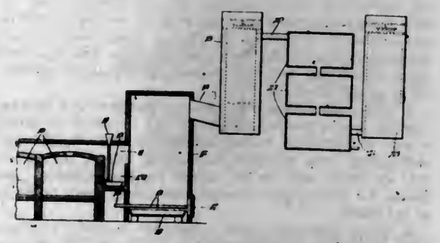
1. A composition of matter consisting of a plastic paste comprising starch, dextrin, gum tragacanth, salt, and coloring matter, substantially as described.

5. An article of manufacture consisting of a carved flower bead composed of corn starch 40 parts, dextrin 10 parts, gum tragacanth 4 parts, and common salt 3 parts.

[Claims 2 to 4 not printed in the Gazette.]

1,253,237. [WITHDRAWN.]

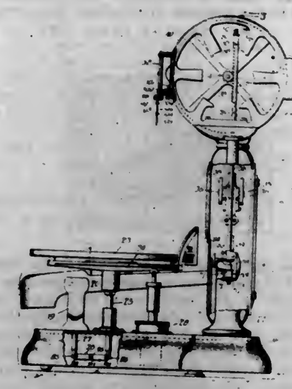
1,253,238. PROCESS OF MANUFACTURING SULFURIC ACID. MARION L. HANAHAN, Dothan, Ala. Filed Mar. 2, 1917. Serial No. 152,114. (Cl. 23—1.)



1. In an apparatus for use in the manufacture of sulfuric acid, the combination with a pyrites furnace or roaster, of a dust chamber communicating therewith and means for burning sulfur or similar material in said dust chamber adapted to produce sulfur gases.

[Claims 2 to 4 not printed in the Gazette.]

1,253,239. WEIGHING-SCALE. CLARENCE H. HAPGOOD, Toledo, Ohio, assignor, by mesne assignments, to Toledo Scale Company, Newark, N. J., a Corporation of New Jersey. Filed Jan. 27, 1913. Serial No. 744,443. (Cl. 265—37.)



1. A weighing scale comprising a beam, load-counterbalancing mechanism connected thereto, a rotary indicator mounted above the beam and load-counterbalancing mechanism, a pinion upon the shaft of said indicator, a rack rod connected to said beam and extending above the pinion, a rack suspended from the upper end of said rack, and side stops upon the rack-rod for limiting the sidewise movement of the rack rod.

5. In a scale having a beam and a rotary indicator, a pinion upon the shaft of said indicator, a rocker pivoted to the beam and over-weighted on one side, a spring connected to the rocker, a rack rod to which the other end of the spring is connected and a rack depending from the upper end of said rack rod and engaging said pinion.

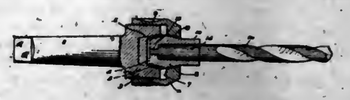
10. In a weighing scale, a check device comprising a stationary post and a check rod, knife plates arranged on said post and rod respectively, one of the knife edges on each plate being directed toward the other plate and the other of said knife edges on each plate being directed away from the other plate, a spacing bar extending between the first named pair of knife edges and a connecting link embracing the second pair of knife edges.

14. In a weighing scale having a beam and a load-offsetting means, connections between said members including a knife edge upon the beam, a stirrup member having a split lower end, a longitudinal socket in said end, a frame, a bearing block for the knife edge carried by the frame, a shank connected to the frame and extending into the socket in the stirrup member, and means for drawing the ends of the split stirrup member together to clamp the shank in the socket.

19. A weighing scale comprising a beam, a rotary indicator mounted above the beam, a pinion upon the shaft of said indicator, a rack-rod connected at its lower end to said beam and having a lateral extension at its upper extremity, a depending rack loosely mounted upon said lateral extension of the rack-rod and extending into engagement with the pinion, and means for vertically adjusting the position of the depending rack upon the rack-rod.

[Claims 2 to 4, 6 to 9, 11 to 13, and 15 to 18 not printed in the Gazette.]

1,253,240. DRILL-CHUCK. JAMES HART, Johnstown, Pa. Filed Nov. 13, 1914. Serial No. 871,923. (Cl. 29—118.)

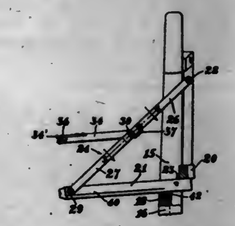


1. A drill chuck comprising in combination an externally threaded chuck body having an inwardly tapering frusto-conical recess, an internally threaded cap-nut having a frusto-conical opening, a pair of chuck jaws having oppositely tapering frusto-conical external surfaces engaging the frusto-conical surfaces of the chuck body and cap-nut, and co-acting means on the chuck jaws and in the recess in said chuck body to positively prevent rotation of the jaws in said recess.

3. A drill chuck comprising in combination an externally threaded chuck body having an inwardly tapering frusto-conical recess, an internally threaded cap-nut having a frusto-conical opening, a pair of chuck jaws having oppositely tapering frusto-conical external surfaces engaging the frusto-conical surfaces of the recess in the chuck body and cap-nut, and a projection in the recess engaging with the chuck jaws to prevent rotation of the jaws in said recess.

[Claim 2 not printed in the Gazette.]

1,253,241. COMBINED BABY-CHAIR AND COMMON CHAIR. LAWRENCE HAUSSINGER, Alhambra, Cal. Filed June 21, 1917. Serial No. 176,120. (Cl. 155—26.)



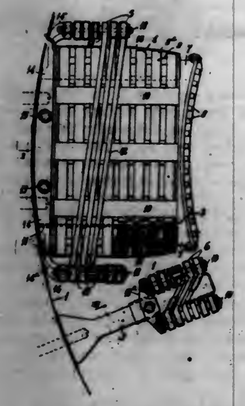
2. A chair having a set of supporting legs, a fixed seat secured to said legs, a back portion extending upwardly from the seat and having side posts between which are disposed transverse braces, an auxiliary seat normally adapted to fill the space between said transverse braces, an intermediate transverse brace secured to said posts and to which the seat is hinged for vertical swinging movement; said intermediate and lower transverse braces being so disposed that the rear edge of the seat will swing beneath the intermediate brace and be held by it and the lower transverse brace; folding side braces pivotally secured to each other at their one ends and pivotally secured to the chair and the seat at their opposite ends so that they will be in longitudinal alinement when the auxiliary seat is horizontally disposed, and means for temporarily locking said braces when in their unfolded positions.

[Claim 1 not printed in the Gazette.]

1,253,242. FIELD-COIL SUPPORT. FIELDER I. HISS, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Sept. 28, 1912. Serial No. 722,978. (Cl. 171—252.)

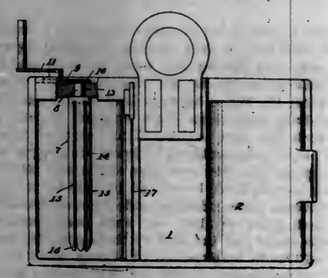
1. In a dynamo-electric machine, the combination with a field-magnet having a plurality of polar projections, a plurality of shunt field coils severally disposed thereon, and a plurality of series field coils severally surrounding said shunt field coils, of means attached to each of said

polar projections for rigidly supporting the series field coils in position independently of said shunt field coils, whereby the said series coils are independently removable with respect to the said shunt coils.



2. In a dynamo-electric machine, the combination with a field-magnet frame having a plurality of radial polar projections, shunt field coils severally disposed upon said projections, series field coils surrounding said shunt field coils in concentric relation therewith, and means supporting said shunt coils, of a plurality of supporting members removably secured to each polar projection, and means associated with said members for clamping said series coils in position, whereby the said series coils are independently removable.

1,253,243. WINDING-DRUM. WALTER E. HOSCH, St. Louis, Mo., assignor to Measuregraph Company, St. Louis, Mo., a Corporation of Missouri. Original application filed Feb. 8, 1915, Serial No. 6,671. Divided and this application filed Oct. 7, 1916. Serial No. 124,241. (Cl. 242—72.)



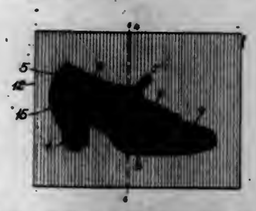
1. In a machine of the class described, a winding drum having a head rotatably supported, and having a plurality of circumferentially disposed fingers supported solely by said head, and extending longitudinally of the drum, about which a web may be wound to form a roll on said drum, said fingers operating to yield inwardly at their free ends when compressed to permit the roll to be slipped longitudinally off of the end of said drum.

3. As a new article of manufacture, a winding drum having a single head for suporting a drum at one end only, and having a substantially tubular body composed of a plurality of circumferentially disposed members about which the web may be wound to form a roll on the drum, said members being supported by said head, and inwardly movable at their free ends to permit the roll to be slipped longitudinally off the end of the drum.

5. In a machine of the class described, a winding drum rotatably supported at one end and having a plurality of circumferentially disposed convex members forming a cylindrical wall about which a web may be wound to form a roll, the ends of said members being free and inwardly movable to permit the roll to be slipped longitudinally off of the end of the drum.

[Claims 2 and 4 not printed in the Gazette.]

1,253,244. VARIABLE DISPLAY OR DEMONSTRATING DEVICE. EVERETT G. HUDSON, Brockton, Mass. Filed Dec. 2, 1915. Serial No. 64,689. (Cl. 35—17.)



A variable display or demonstrating device comprising a body sheet of opaque material having an aperture shaped to the outline of the form to be illustrated, the area bounded by the edges of said aperture being unobstructed, a transparent sheet provided with an opaque design complemental to the contour of said aperture and positioned to be displayed opposite the aperture, and a plurality of backing sheets, each differing from the other, and each capable of being selectively placed back of the transparent sheet to produce independently characterized pictures of the article depicted by the body and transparent sheets.

1,253,245. SPRAY-GUN. JOHN C. HULL, Gasport, N. Y. Filed Mar. 20, 1917. Serial No. 156,083. (Cl. 137—86.)



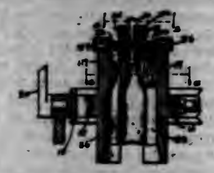
1. A spray gun comprising a barrel; a head carried by the barrel and having an outlet in its forward end, the head being provided with a cam; a disk in the head having a central opening which is coaxial with the outlet, the disk being provided with obliquely disposed openings arranged about the central opening, the disk being spaced from the forward end of the head; a plunger mounted to rotate in the barrel, the forward end of the plunger being movable into and out of the central opening in the disk, and constituting a closure for the outlet; and a projection carried by the plunger and coacting with the cam to advance the plunger when the plunger is rotated.

2. A spray gun comprising a barrel; a head carried by the barrel and having an outlet in its forward end, the head being provided with a cam; a disk in the head having a central opening which is coaxial with the outlet, the disk being provided with obliquely disposed openings arranged about the central opening, the disk being spaced from the forward end of the head; a plunger mounted to slide endwise and to rotate in the barrel, the forward end of the plunger being movable into and out of the central opening in the disk, and constituting a closure for the outlet; and a projection carried by the plunger, the projection coacting with the cam to advance the plunger, the plunger being capable of endwise forward movement with respect to the cam when the plunger is retracted from the outlet.

3. A spray gun comprising a barrel; a head carried by the barrel and having an outlet in its forward end, the head being provided with a cam; a disk in the head having a central opening which is coaxial with the outlet, the disk being provided with obliquely disposed openings arranged about the central opening, the disk being spaced from the forward end of the head; a rod mounted to rotate in the barrel; a socket carried by the forward end of the rod, the socket being movable into and out of the central opening in the disk; a valve carried by the socket and constituting a closure for the outlet; and a pin inserted through the socket and engaging the rod, the outer end of the pin being adapted to ride on the cam, to constitute a means for advancing the socket and the valve when the rod is rotated.

4. A spray gun provided with inner and outer disks having coaxial main openings, the inner disk having obliquely disposed auxiliary openings, arranged about the main opening of the inner disk, the outer disk having a flat rear face; a plunger movable into and out of the main opening of the inner disk and controlling the flow therethrough and through the outer disk; the plunger having on its end a resilient plug of greater diameter than the opening of the outer disk, the plug having a flat forward face engaging the flat rear face of the outer disk to form a closure for the opening of the outer disk.

1,253,246. GLASS-MOLD. EDWARD S. HUTTON, Lapel, Ind. Filed Feb. 12, 1916. Serial No. 77,991. (Cl. 49—65.)



1. A combined press and blow mold composed of two sections movable against and away from each other and having in their adjacent faces corresponding cavities for forming a press mold and a blow mold respectively, a lift-over member slidably mounted on one end of said mold sections and with lateral flanges, and guiding means secured to the mold sections in which the edges of said lift-over member move and having flanges interlocking with the flanges on the lift-over so that the lift-over sections will not escape from the mold sections when separated.

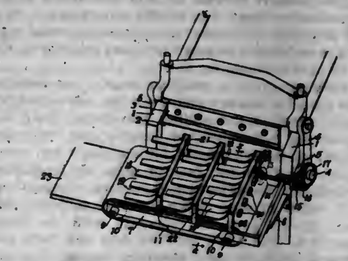
2. A combined press and blow mold composed of two sections one of which is movable against and away from the other so as to be always parallel and having oppositely located parallel guideways on their upper ends and having in their adjacent faces corresponding cavities for forming a press mold and a blow mold respectively, and a lift-over provided with laterally extending portions projecting and operating in said guideways and interlocking therewith so that the lift-over sections cannot escape therefrom from the mold sections when separated.

3. A combined press and blow mold composed of two parallel sections movable against and away from each other and having oppositely located parallel guideways on their ends and having in their adjacent faces corresponding cavities for forming a press mold and a blow mold respectively, and a semi-circular cavity at the end of each of said press and blow molds, and a lift-over member having a central circular portion to fit in said circular cavities and plate-like extensions projecting and operating in said guideways, said lift-over and guideways having interlocking flanges which prevent the lift-over sections from escaping from the mold sections when separated.

4. A combined press and blow mold composed of two parallel sections movable against and away from each other and having oppositely located parallel guideways on their ends and having in their adjacent faces corresponding cavities for forming a press mold and a blow mold respectively and a semi-circular cavity at the end of each of said press and blow molds, a lift-over formed of two halves, each half having a central semi-circular portion adapted to fit in the semi-circular cavity in the mold sections, a plate-like extension projecting into the guideways, and springs tending to hold the portions of said lift-over together.

5. In a glass making machine, a frame having a pair of oppositely located guides, a pair of transversely extending mold sections mounted on said guides so that said mold sections may be slidably united and separated and having in their adjacent faces corresponding cavities for forming a press mold and a blow mold respectively, a lift-over formed of sections slidably mounted on one end of said mold sections which permits the mold sections to be moved against or away from each other and whereby the blank can be transferred from between the mold sections, springs tending to hold the sections together, and a spring located in one mold section for pushing out the bottle therefrom when the other mold section is moved away from the bottle.

1,253,247. COLLATING DEVICE. EMERSON P. JENNINGS, Jr., Lehighton, Pa. Filed May 29, 1915. Serial No. 31,189. (Cl. 270—58.)



1. In a device of the character described, a support arranged to receive a plurality of sheets side by side, said support having a plurality of parts arranged in substantially the same plane to receive the respective sheets, the several parts having alined slots, and each part after the first having its rear end elevated above the forward portion thereof and above the adjacent edge of the preceding part, and an actuating device having a finger to travel through said slots and move the sheet on one part of said support beneath the sheet on the following part thereof.

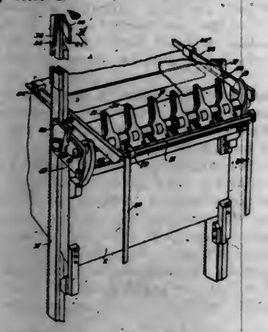
10. In a mechanism of the character described, the combination with a device arranged to deliver, at each operation, a plurality of sheets, means to actuate said device, of a device arranged to receive said sheets as they are delivered and support the same side by side, said device comprising a plurality of parts arranged in substantially the same plane to receive the respective sheets, the several parts of said device having alined slots, and each part after the first having its rear end elevated above the forward portion thereof and above the adjacent edge of the preceding part, an actuating device having a finger to travel through said slots and move the sheet on one part of said device beneath the sheet on the following part thereof, and a driving connection between said actuating device and the actuating means for said delivery device.

[Claims 2 to 9 not printed in the Gazette.]

1,253,248. PLATEN-GRIPPER. EMERSON P. JENNINGS, Jr., Lehighton, Pa. Original application filed Mar. 30, 1916, Serial No. 87,725. Divided and this application filed Oct. 9, 1916. Serial No. 124,494. (Cl. 101—408.)

1. In a printing press, a printing couple, one member of which is movable toward and from the other member, platen grippers mounted for movement into and out of operative position with relation to the last-mentioned

member, and means actuated from said movable member to positively move said grippers into and out of their operative positions.

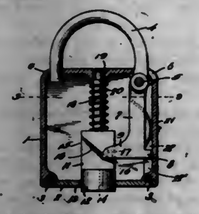


2. In a printing press, a printing couple, one member of which is movable toward and from the other member thereof, platen grippers comprising a supporting structure slidably mounted near one edge of the last-mentioned member, fingers carried by said supporting structure, and means for imparting sliding movement to said supporting structure to move said fingers toward and from said last-mentioned member in timed relation to the movement of said movable member.

9. In a printing press, a printing couple, one member of which is movable toward and from the other member thereof, bars mounted for sliding movement along the upper edge of the last-mentioned member and connected one to the other, fingers carried by said bars for movement toward and from the face of said last-mentioned member, vertically reciprocating cam bars arranged on the opposite sides of said last-mentioned member, said slidable bars having parts to coöperate with the cams, and an operative connection between said cam bars and the movable member of said printing couple.

[Claims 3 to 8 not printed in the Gazette.]

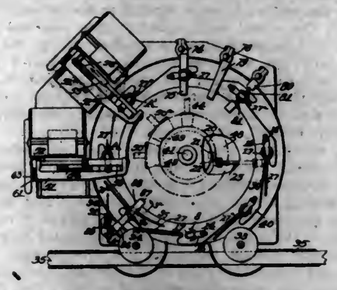
1,253,249. PADLOCK. ALFRED CONRAD R. JOHNSDORF, Seattle, Wash. Filed July 25, 1917. Serial No. 182,774. (Cl. 70—105.)



A padlock including a casing, a shackle pivoted therein, an extension on the shackle beyond the pivotal point projecting into the casing, a slidable barrel having a key opening therein, a lateral lug on said barrel having an inclined face and a recess at the end of said inclined face, a lug on the extension to enter the recess, a spring engaging the barrel to retain said lug in the recess, the lug of the extension being engageable by the key when inserted in the barrel to prevent unlocking of the lock, and a lug in the casing engaging the extension to assist in retaining the shackle in locked position.

1,253,250. LABEL APPLYING AND GRIPPING MECHANISM. JOHN EMANUEL JOHNSON, Worcester, Mass., assignor to The O. and J. Machine Company, Worcester, Mass., a Corporation of Massachusetts. Filed Feb. 12, 1915. Serial No. 7,874. (Cl. 216—54.)

1. In a labeling machine, the combination with a carrier for carrying the articles to be labeled along a path, of a plurality of label carrying and picking devices arranged adjacent thereto, and means whereby each of said label carrying and picking devices will be actuated to carry a label toward the carrier when the carrier moves to a definite position to apply labels at different times to corresponding parts of alternate adjacent articles while in said path at different points therealong.



3. In a labeling machine, the combination with a carrier for carrying the articles to be labeled along a single path, of two sets of label pickers arranged adjacent to each other alongside the carrier at different points along said path, and means whereby one set of pickers is moved toward the carrier while the other set is located away from the carrier, whereby said pickers will operate alternately to label alternate articles located along said path.

5. In a labeling machine, the combination with a rotary table for supporting a series of the articles to be labeled, of two sets of label pickers arranged adjacent to each other in an arc alongside the table, means whereby each set of pickers is moved toward the table while the other set is located away from it, whereby said pickers will operate alternately on adjacent articles on the table, a series of label gripping devices arranged in a circle on said table, and two means for operating said label gripping devices, one arranged to operate each alternate label gripping device.

7. In a labeling machine, the combination with a carrier having means thereon for locating and supporting an even number of articles to be labeled in evenly spaced relation to each other, two label carriers, means for operating each label carrier, to present a label to an article on the article carrier, every time the article carrier moves through a space equal to the distance between three adjacent locating means, two series of label grippers arranged in alinement on the carrier, and means for operating a gripper of each series when the article carrier travels the same distance.

14. In a labeling machine, the combination with a carrier for moving along a path the articles to be labeled, of a bifurcated label picking device movable into said path, a detector of substantially the same shape as the label picking device located in said path, and means operated by said detector for stopping the carrier.

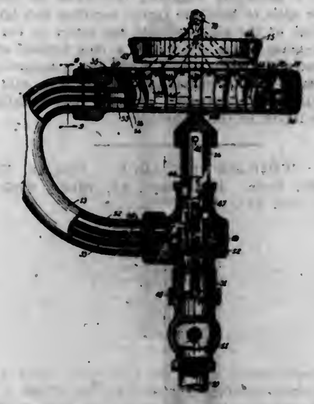
[Claims 2, 4, 6, 8 to 13, and 15 to 18 not printed in the Gazette.]

1,253,251. DRINKING-FOUNTAIN. BENNETT KAMINSKY, Indianapolis, Ind. Filed Mar. 26, 1914. Serial No. 827,415. (Cl. 137—109.)

1. A drinking fountain including upwardly discharging outlets, means for covering said discharging outlets, said covering means being open in the center for permitting water to pass therethrough after being discharged, and means for producing relative movement between said covering means and said discharging outlets for uncovering said outlets.

2. A drinking fountain including upwardly discharging outlets, means for covering said outlets, said covering means being open in the center for permitting water to pass therethrough after being discharged, and means for bodily moving said covering means in a vertical direction for uncovering said outlets.

3. A drinking fountain including outlets symmetrically disposed about a medial line for discharging water in converging streams, covering means for said outlets, means for producing relative bodily movement between said outlets and said covering means in a direction parallel to said medial line.



4. A drinking fountain including outlets for discharging water in converging streams, means for covering said water discharging outlets, said covering means being open in the center for permitting water to pass therethrough after being discharged, and means for producing relative movement between said covering means and said outlets for uncovering said outlets.

5. A drinking fountain including outlets for discharging water in converging streams, means for covering said outlets, said covering means being open in the center for permitting water to pass therethrough after being discharged, and means for producing relative bodily movement between said covering means and said outlets in a vertical direction for uncovering said outlets.

[Claims 6 to 24 not printed in the Gazette.]

1,253,252. BLUISH-GREEN VAT DYES AND PROCESS OF MAKING THEM. MICHAEL KARDOS, Charlottenburg, and PAUL NAWIASKY, Ludwigshafen-on-the-Rhine, Germany, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Apr. 15, 1914. Serial No. 831,968. (Cl. 8—1.)

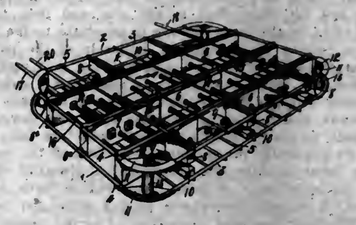
1. The new vat coloring matters of the anthracene series such as are obtainable by melting with caustic alkali anthracene-1.9-dicarboxylic acid imids in which the hydrogen of the imid group is substituted by a radical, which new coloring matters contain an imid group substituted by a radical, are soluble in alkaline hydrosulfite solution, giving from red to violet solutions and which dye cotton bluish-green shades of excellent fastness.

2. The new vat coloring matter of the anthracene series obtainable by melting the methyl-imid or anthracene-1.9-dicarboxylic acid with caustic alkali, which new coloring matter possesses a methyl-imid group, yields a red-brown solution in concentrated sulfuric acid, is soluble in alkaline hydrosulfite solution and yields a red-violet vat, which colors cotton red-violet shades, which shades on exposure to air become blue-green, and are very fast against the action of chlorin.

3. The process of producing vat coloring matter of the anthracene series by subjecting an anthracene-1.9-dicarboxylic acid imid in which the hydrogen of the imid group has been substituted by any radical to the action of a caustic alkaline melt.

4. The process of producing vat coloring matter of the anthracene series by subjecting the methyl-imid of anthracene-1.9-dicarboxylic acid to the action of a caustic alkaline melt.

1,253,253. ELECTRIC HEATING ELEMENT. SHERMAN L. KELLY, Toledo, Ohio. Filed Oct. 23, 1916. Serial No. 127,167. (Cl. 219—70.)

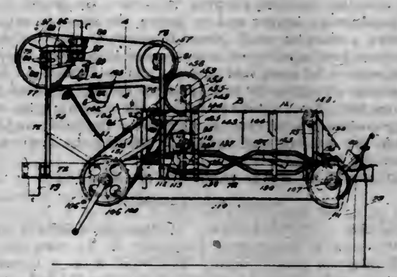


1. In a heating element, top and bottom members of grate form separably connected together, insulating blocks disposed between said members and held in assembled position thereby, and resistance conductors carried by said blocks.

4. An electric heating element having spaced top and bottom members, each comprising a frame and separate sets of cross bars connecting opposite sides of the frame, one set crossing the other, a set of insulating blocks disposed between said members and forming transversely spaced insulating walls, which walls removably interengage with opposed bars of one set on the two members and are held in assembled position thereby, a second set of insulating blocks disposed transversely of said insulating walls and at the outer side of the outer of said walls, said second set of blocks interengaging with and being held in position by opposed cross bars of the other set of cross bars of said members, means for securing the top and bottom members in assembled block-holding position, and resistance conductors extending backward and forward through said insulating blocks and carried thereby.

[Claims 2 and 3 not printed in the Gazette.]

1,253,254. BEAN-SNIPPING MACHINE. JOSEPH KING, Mexico, N. Y., assignor of one-fourth to George M. Whitney and one-fourth to Will H. Bauder, New Haven, N. Y. Filed Mar. 25, 1916. Serial No. 86,657. (Cl. 146—7.)



1. An apparatus for snipping or cutting off the ends of string beans and the like comprising a plurality of carriers for the beans movable in an endless path, means extending on each side of said path for a limited distance and operating on said carriers to tilt them first to one side and then the other to cause the beans therein to gravitate to the lower side, shaking means supporting said tilting means to shake the carriers while being tilted, a cutting mechanism on each side of the path in position to successively enter the depressed sides of the carriers and sever the ends from the beans, and means for swinging open said lower carrier side to discharge the tips cut from the beans.

2. An apparatus for snipping or cutting off the ends of string beans and the like comprising a plurality of

carriers for said beans supported by parallel endless belts, a vertically reciprocable frame spanning said carriers, a track on each side of the path of the carriers supported in said frame and operating on said carriers to shake them and tilt them first to one side and then to the other to cause the beans therein to gravitate to the lower side, a cutting mechanism on each side of the path of motion of said carriers and supported on said vertically reciprocating frame in position to successively enter the depressed sides of the carriers and sever the ends from the beans, and means for swinging open said lower carrier side to discharge the tips cut from the bean.

3. An apparatus for snipping or cutting off the ends of string beans and the like comprising a plurality of carriers for said beans movable in an endless path, a feed hopper, a movable receptacle having a hinged bottom for delivering measured quantities of string beans from said hopper to said carriers, means for opening the bottom of said receptacle to release the beans therein, a track on each side of the path of movement of the carriers, means projecting from the sides of the carriers for engagement with said tracks for guiding the same and causing the carriers to tilt first to one side and then to the other to force the beans contained therein to gravitate to the lower side, shaking means supporting said tilting means to shake the carriers while being tilted, a knife on each side of the path of movement in position to successively enter the depressed sides of the carriers and sever the ends from the beans, and means for swinging open the said lower carrier sides to discharge the tips cut from the beans.

4. An apparatus for snipping or cutting the ends of string beans and the like, comprising a receiving and a discharging hopper, distributing means for conveying measured quantities of beans from one to the other hopper, traveling carriers adapted to receive the beans from the disbursing hopper and convey the same to cutting means, means for successively elevating the ends of each traveling carrier to cause the beans therein to gravitate toward the opposite ends, cutting mechanism for snipping the ends of the beans in the carriers, and means for shaking the carriers to aline the beans therein.

5. An apparatus for snipping or cutting the ends of string beans and the like comprising a receiving and a disbursing hopper, distributing means traveling continuously between said hoppers for conveying measured quantities of beans from one to the other, a plurality of traveling carriers adapted to receive the beans from the disbursing hopper and to convey the same to cutting means, a track on each side of the path of travel of said carriers having elevated and depressed portions therein, connections between said carriers and said track for successively elevating the ends of each carrier to cause the beans therein to gravitate toward the opposite end, cutting mechanism for cutting the ends of the beans as they lie in the carriers, and means for shaking the carriers to aline the beans therein.

[Claims 6 to 11 not printed in the Gazette.]

1,253,255. EYEGLASSES. HENRY E. KIRSTEIN and WILLIAM E. MCDONELL, Rochester, N. Y.; assignors to E. Kirstein Sons Company, Rochester, N. Y., a Corporation. Filed Sept. 23, 1916. Serial No. 121,867. (Cl. 88—47.)



1. Eyeglasses comprising a lens formed with a notch, a split frame surrounding said lens, a separate device arranged in the split of the frame and projecting into the notch of the lens to prevent the turning of the latter, and a mounting engaging said frame on opposite sides of the split and lying on opposite sides of said lens locking device to confine the latter in the split.

2. Eyeglasses comprising a lens formed with a notch, a split frame surrounding said lens, a separate plate arranged in the split of the frame and projecting into the notch, and a mounting engaging the frame on opposite sides of the split to hold the frame together and lying on opposite sides of the plate to hold the latter in the split.

3. An eyeglass frame comprising a ring formed of non-metallic material and having a split, and a mounting for engaging said rim on opposite sides of the said split having projections adapted to enter the non-metallic rim to hold the latter to the mounting.

1,253,256. WHIP-SOCKET LOCK. EDWARD KURTH, Bloomfield, Nebr. Filed Sept. 11, 1916. Serial No. 119,526. (Cl. 21—130.



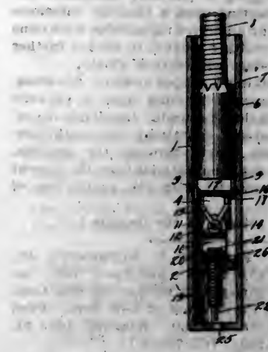
1. A whip socket lock including a socket, a band mounted in the socket, resilient whip locking members carried at opposite points on the band, a support depending from the band, a rotatably mounted screw in the support for forcing the members into removable engagement with a whip, and means for actuating the screw.

2. A whip socket lock including a socket, a band mounted therein, whip locking members formed of resilient material mounted at opposite points on the band, teeth formed on the outer ends of the members to facilitate engagement with a whip, adjacent portions of the members being bent in converging relation with respect to each other and then extended divergently to form a wedge shaped guide, and a vertically adjustable screw disposed in the socket and beneath said guides, said screws being adapted to engage said guides and to cause the same to spread or retract for effecting a locking and release of the whip.

3. A whip socket lock including a socket, a band mounted within the socket, resilient whip locking members mounted rigidly at opposite points on the band and having their inner ends arranged in proximity to each other, a U shaped support connected to and depending from the band, a disk carried upon the intermediate portion of the support, and provided with a screw threaded opening, a screw passing through the intermediate portion of the support and adjustably mounted in the opening in the disk, said screw being adapted to engage the ends of said locking members and a key removably associated with the screw for actuating the screw to removably hold the locking members in engagement with a whip.

1,253,257. WHIP-SOCKET LOCK. EDWARD KURTH, Bloomfield, Nebr. Filed Sept. 11, 1916. Serial No. 119,527. (Cl. 21—130.)

1. A whip socket lock including in combination with a whip, a sleeve carried by the inner end thereof, and ears extending from the inner end of the sleeve, a socket, a supporting disk mounted in the socket, a plate supported in spaced relation on the disk and provided on its outer periphery with oppositely disposed recesses for receiving the ears to allow the whip to rest on the plate, locking means, and means for adjusting the locking means to removably anchor the ears to the socket.



2. A whip socket lock including in combination with a whip, a sleeve carried by the inner end thereof, and ears extending from the inner end of the sleeve, a socket, a supporting disk mounted in the socket, means for supporting the whip within the socket, pivotally mounted locking members in the socket, means for supporting the outer ends of the locking members and for guiding them when actuated, and means for actuating the locking members to force them through the ears and removably anchor them in the socket to retain the whip within the socket.

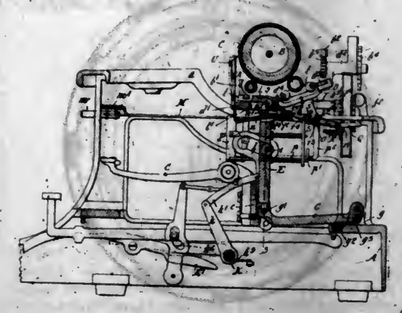
3. A whip socket lock including in combination with a whip, a sleeve carried by the inner end thereof, and ears extending from the inner end of the sleeve, a socket, a supporting disk mounted on the socket, means for supporting the whip within the socket, a triangular support, locking lugs pivotally mounted in the triangular support, means for supporting the outer ends of the locking lugs and for guiding them during movement, an adjusting screw mounted in the disk and rotatably connected to the triangular support for raising the support when actuated to consequently force the locking lugs through the slotted ears and removably anchor them in the socket to prevent the withdrawal of the whip, and a key removably associated with the screw for actuating the screw.

4. A whip socket lock including, in combination, a member to be secured to a whip and having slotted ears thereon, a socket, a support within the socket upon which the end of the whip rests, an adjusting screw rotatably mounted within the socket, locking lugs connected to the adjusting screw, means for guiding the locking lugs during movement, and a key removably associated with the adjusting screw for moving the locking lugs in the slots of said ears, whereby the whip is anchored in the socket.

1,253,258. TYPE-WRITING MACHINE. EMMIT G. LATTA, Syracuse, N. Y. Filed May 24, 1913. Serial No. 769,581. (Cl. 197—73.)

1. In a typewriting machine, the combination with a platen carriage, and type bars, of a shift frame on which said carriage travels in letter spacing direction and which is mounted to shift transversely of the direction of travel of the carriage on three swinging arms which swing in planes substantially parallel to the plane in which the shift frame shifts and are disposed in triangular relation to each other with one arm between and in a different plane from the other two arms, the two outer arms being rigidly connected to swing together, and means for shifting said shift frame to place the platen in different printing relation to said type bars.

4. In a typewriting machine, the combination with a main frame having a detachable top plate, a platen carriage, and type bars, of a shift frame on which said carriage travels in the direction of the length of said platen, a swinging member on which said shift frame is mounted and which is pivoted to said top plate, a swinging member which is pivoted to said main frame, said shift frame having a removable pivotal connection with said second swinging member which permits the shift frame to be removed with said top plate from the main frame, substantially as set forth.



10. In a typewriting machine, the combination of a main frame having a top plate, a swinging member pivotally mounted on said top plate, a shift frame mounted on said swinging member to move up and down and having a rigid downward extension substantially midway between the ends of said shift frame passing through said top plate, means coöperating with said downward extension to hold the shift frame upright, a platen carriage supported by said shift frame and arranged to travel thereon in letter spacing direction, type bars each having a plurality of type, and means acting directly on said downward extension of the shift frame to shift said shift frame to place the platen in printing relation with one or another of the different sets of type on the type bars.

12. In a typewriting machine, the combination with a main frame having a top plate, a platen carriage, and type bars, of a shift frame above said top plate on which said carriage travels in letter spacing direction, means for shifting said shift frame up and down, and coiled counterbalancing springs for said shift frame seater in openings in said top plate and acting directly on said shift frame.

18. In a typewriting machine, the combination with a main frame, a platen carriage, and type bars, of a carriage shift frame which is movable to place the platen in different printing relations to said type bars, a universal bar mounted on and movable with said shift frame, an actuator which is mounted on the main frame and is adapted to be actuated by a plurality of said type bars, and means whereby said actuator operates said universal bar in the different positions of said shift frame, substantially as set forth.

[Claims 2, 3, 5 to 9, 11, 13 to 17, and 19 to 21 not printed in the Gazette.]

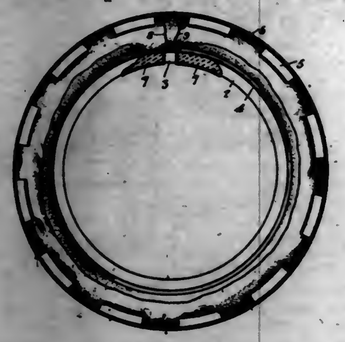
1,253,259. COOLING DEVICE FOR AUTOMOBILE-TIRES. ISAAC LEO, Chicago, Ill. Filed Apr. 13, 1917. Serial No. 161,838. (Cl. 152—13.)

1. In an automobile tire, the combination of the outer casing, of a heat absorbing metal plate located in the wall of the tire, and heat conducting means leading from said metal plate to the exterior atmosphere.

3. In an automobile tire, the combination with the outer casing, of a series of heat absorbing metallic plates embedded in the wall of the tire at suitable distances apart all around the periphery of the tire, and heat conducting means connecting the plates together and leading to the exterior of the tire into contact with the outer atmosphere.

3. In an automobile tire, the combiantion with the outer casing, of a series of aluminum plates embedded

in the casing all around the periphery of the tire, flexible wire connectors extending between the plates intermediate of the end plates of said series, aluminum plates secured to the felly, and flexible connectors of heat conducting material connecting the end plates of the series embedded in the tire, respectively with the plates carried by the felly.



4. In a device of the class described, a tire cooling device comprising a series of plates and flexible connecting means of heat absorbing material adapted to be embedded in the wall of the tire casing, and heat conducting plates adapted to be secured to the felly, and flexible heat conducting connecting means between the embedded end plates and the plates of the felly.

1,253,260. PROTECTING PAD OR ARMOR. DAVID LEVINSON, Chicago, Ill. Filed Mar. 6, 1917. Serial No. 152,674. (Cl. 2—191.)



1. In combination, a soft fibrous backing and a plurality of stays of small diameter individually riveted directly to said backing, said stays having each a groove facing said backing, said grooves being of sharper curvature than the portion of the body to be protected.

2. In combination, a soft fibrous backing and a plurality of relatively stiff concavo-convex stays attached directly to said backing with their concave surfaces facing said backing throughout their entire length, the curvature of said concave surfaces being relatively sharp with respect to the part of the body to be protected.

[Claims 3 to 7 not printed in the Gazette.]

1,253,261. CONDENSATION PRODUCT AND METHOD OF PRODUCING THE SAME. JAMES P. A. McCOY, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Mar. 20, 1913, Serial No. 755,799. Renewed June 28, 1916. Serial No. 106,493. (Cl. 106—22.)

1. A process for the manufacture of resinous products which comprises combining a phenolic substance with a substance containing an active replaceable methylene group, in the presence of carbon dioxid.

16. A shaped condensation product formed by reacting upon a phenolic substance with formaldehyde in the presence of carbon dioxid, arresting the reaction when the product has become infusible and insoluble but is yet capable of softening under the influence of heat, shaping the said product and applying heat thereto.

[Claims 2 to 15 not printed in the Gazette.]

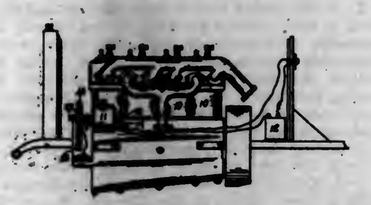
1,253,262. PHENOLIC CONDENSATION PRODUCT. JAMES P. A. McCOY, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 4, 1915. Serial No. 65,049. (Cl. 106—22.)

1. A process for the manufacture of resinous products which consists in producing a partially hardened condensation product by reacting upon a phenolic substance with a material containing an active replaceable methylene group and causing the resulting product to harden further by treating the said product with carbon dioxid.

12. The method of making a shaped resinous condensation product which comprises reacting upon a phenolic substance with hexamethylene-tetramin, dissolving the resulting product in a solvent containing hexamethylene-tetramin, passing carbon dioxid through the solution, separating the resulting resinous material from the solvent and molding the said material with the application of heat.

[Claims 2 to 11 not printed in the Gazette.]

1,253,263. GEARING. FRANKLIN P. McDERMOTT, Jr., and WILLIAM O. KENNINGTON, Anderson, Ind., assignors, by mesne assignments, to Eclipse Machine Company, Elmira, N. Y., a Corporation of New York. Filed May 25, 1912, Serial No. 699,650. Renewed June 21, 1917. Serial No. 176,251. (Cl. 74—7.)



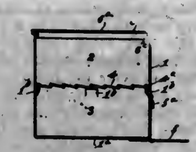
1. In an engine starting apparatus, the combination of a shaft provided with a threaded portion, a gear adjacent said shaft and connected with the engine, a pinion internally threaded and mounted on the threaded portion of the shaft, a motor for driving said shaft, centrifugal arms connected with said pinion, and means coöperating with said arms to withhold the pinion from reëngagement with the gear after the engine has started.

3. A gear, a shaft provided with a threaded portion extending near said gear, a pinion loosely mounted on the threaded portion of said shaft so that when the shaft is revolved said pinion will travel into engagement with and drive the gear, centrifugal arms pivotally mounted in connection with said pinion, a circular member mounted on and operating with said shaft through which said arms will extend and be held inward when said pinion is in mesh with said gear, whereby when said gear attains a high speed and drives said pinion the latter will be driven at a higher speed than said threaded shaft and will travel on said shaft out of engagement with said gear, and a spring normally holding said centrifugal arms in collapsed position.

5. A gear, a shaft provided with a threaded portion extending near said gear, a pinion loosely mounted on and engaging the threaded portion of said shaft so that when the shaft is revolved said pinion will travel into engagement with and drive said gear, centrifugal arms pivotally mounted in connection with said pinion and adapted in their inner position to engage a portion of and retard the initial revoluble movement of said pinion and in their outer position to retard the revoluble movement of said pinion, and a circular member mounted on and operating with said shaft through which said arms will extend and be held inward when said pinion is in mesh with said gear, whereby when said gear attains a high speed and drives said pinion the latter will attain a higher speed than said threaded shaft and will travel on said shaft out of engagement with said gear.

[Claims 2 and 4 not printed in the Gazette.]

1,253,264. RENOVATOR AND DUST-COLLECTOR. RETTA L. McKAY, Newburgh, N. Y. Filed Jan. 13, 1917. Serial No. 142,137. (Cl. 15—25.)



A renovator and dust collector, comprising a rectangular receptacle, a foraminous cleaner member removably mounted therein forming conjointly therewith a dust receiving chamber, and a removable cover placed above said cleaner member forming an article receiving cleaner chamber, said cover providing a handle receiving slot whereby the article being treated may be reciprocated in said cleaner chamber.

1,253,265. BRUSH FOR ELECTRICAL APPARATUS. SAMUEL C. McKEOWN, Newark, N. J., assignor to Splitdorf Electrical Company, Newark, N. J., a Corporation of New Jersey. Filed Oct. 18, 1916. Serial No. 126,249. (Cl. 200—23.)

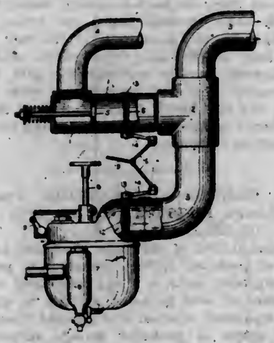


1. A brush comprising a tube of insulating material, a metallic conductor within said tube, and a shouldered ferrule about said tube and forming therewith a structure having outside walls of uniform dimension from end to end, substantially as described.

5. A brush comprising a cylindrical tube of insulating material having a shoulder at one end of lesser diameter than the body of the cylinder, a ferrule about said shouldered portion whereby the same is made of equal diameter to the rest of the body of said cylinder, a conductor embedded within said cylinder and electrically connected to said ferrule and means for conducting current to said ferrule.

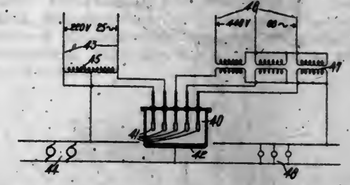
[Claims 2 to 4 not printed in the Gazette.]

1,253,266. AIR-INLET DEVICE. WILLIAM MELTON, Jr., Neola, Iowa. Filed May 31, 1916. Serial No. 100,830. (Cl. 48—180.)



An inlet device of the specified class, comprising an air conduit, a compensating valve therein, a throttle between the compensating valve and the intake manifold, a throttle between the source of gas supply and the manifold, and means for connecting and operating the throttles together.

1,253,267. RECTIFYING SYSTEM. FRIEDRICH W. MEYER, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed June 20, 1914. Serial No. 846,366. (Cl. 175—363.)



1. The combination with a plurality of alternating-current circuits of independent frequencies, of a like number of direct-current load circuits, and common means for rectifying alternating current from each of the alternating-current circuits and for transmitting the rectified current to a corresponding direct-current circuit load.

3. The combination with an evacuated container, of a plurality of anodes therein, a vaporizable reconstructing cathode therein, an alternating-current circuit connected to certain of the anodes, an independent alternating-current circuit of different frequency connected to certain other of the anodes, and connections from the cathode to each of a plurality of direct-current load circuits, one of which is associated with each of the alternating-current circuits.

4. The combination with an evacuated container, of a plurality of anodes therein, a vaporizable reconstructing cathode therein, an alternating-current circuit connected to certain of the anodes, an independent alternating-current circuit having a different voltage and frequency from that of the first alternating-current circuit connected to certain other of the anodes, and connections from the cathode to each of a plurality of direct-current load circuits, one of which is associated with each of the alternating-current circuits and has a voltage impressed thereon corresponding to the voltage in the alternating-current circuit associated therewith.

5. The combination with a vapor rectifier, of means for simultaneously maintaining a plurality of rectifying arcs therein, certain of said arcs rectifying current of different voltage and frequency from certain other of said arcs.

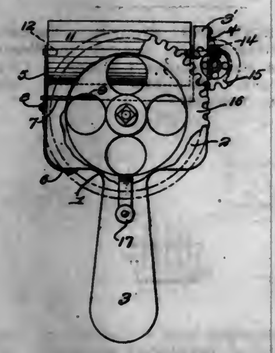
8. In a vapor rectifier system, the combination with a plurality of alternating-current systems of different voltages, of a rectifier embodying a plurality of anodes and a cathode, connections from each of said anodes to a main of each of said systems, respectively, and a connection from said cathode to another main in each of said systems, the difference of potential between each anode and the cathode being substantially equal when the anodes are positive with respect to the cathode, and the difference of potential being greater between one anode and the cathode than between the other anode and the cathode when the anodes are negative with respect to the cathode.

[Claims 2, 6, and 7 not printed in the Gazette.]

1,253,268. GRAINING-TOOL. FREDERICK W. MITTENDORF, Addieville, Ill. Filed Mar. 29, 1917. Serial No. 158,421. (Cl. 101—376.)

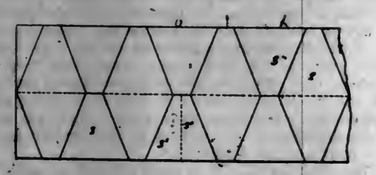
1. A graining tool including an integral frame and handle, the former being equipped with a revoluble graining roller, a gear wheel rotatably mounted on the frame adjacent said handle and having its periphery movable in the plane above the latter, an operating member formed on the gear wheel and extending beyond its periphery, and

a gear mechanism in mesh with said gear wheel and operatively connected with the graining roller for imparting movement thereto when the operating member is moved.



2. A graining roller including an integral frame and handle having an upstanding side piece, a resilient strip secured to the frame adjacent the handle and flexed around the side of the frame to lie parallel with said upstanding side piece, a graining roller revolubly mounted between said parallel side members, means mounted on the upper margin of said frame and extending laterally therefrom into engagement with the resilient side piece substantially as set forth.

1,253,269. BAG. WILLIAM J. MORLLER, Wyoming, Ohio, assignor to The Philip Carey Manufacturing Company, Lockland, Ohio, a Corporation of Ohio. Filed Mar. 1, 1911. Serial No. 611,606. (Cl. 150—1.)



A plurality of bags cut from a given strip of material, each bag having, when completed, an outwardly extending contracted hollow elongated neck, the cut-away portion made in forming the outwardly extending contracted hollow elongated neck upon one bag forming the bottom of a bag cut away from an adjacent portion of said strip, whereby there is no waste of material in the cutting and forming of said bags, and whereby bags of greater capacity, when tied shut are formed out of a given amount of material than otherwise.

1,253,270. VALVE-LIFTER. HERMAN MOODY and JOHN H. BLACKMAN, Peoria, Ill. Filed May 28, 1915. Serial No. 31,080. (Cl. 29—87.1.)



1. A tool of the character described including in its construction a body portion, a pair of jaws longitudinally adjustable within said body, the described parts being constructed whereby in the said longitudinal adjustment said jaws are moved in a lateral direction with respect to one another, means to positively impart such adjustment, and a member from which to suspend the body portion between its ends and acting as a fulcrum for the entire structure, said body being adjustable in the direction of its length with respect to said member.

2. A tool of the character described including in its construction a body having an interior recess, a pair of jaws located in the recess and separated from one another by a space, and means to adjust the jaws in the direction of one another, there being an opening extending through said body in that part lying opposite the space between the said jaws, the axis of the opening lying perpendicular to the plane in which the jaws lie.

3. In a tool for the purpose described, the combination of two half portions of sheet metal secured together forming a flat hollow body, each side including a series of holes extending longitudinally thereof, the holes of each series lying opposite one another, a pair of jaws slidable in said body and having their outer edges inclined toward one another in the direction of their rear ends, a spring interposed between the jaws, a member engaging the inner ends of the jaws, a screw engaging the member for adjusting the jaws longitudinally with respect to said body, and a member to enter one of the pairs of opposite holes in the handle from which to suspend the tool.

1,253,271. VEHICLE-TIRE. DAVID H. MOORE, Oklahoma, Okla. Filed May 10, 1917. Serial No. 167,796. (Cl. 152—32.)

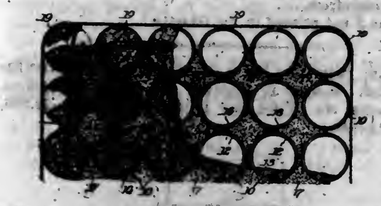


A resilient tire composed of a pair of semicircular steel outer casing sections forming an inclosed tube, disposed within the said tube an inner supporting member, having an I shaped cross-section, the outer flange of the said inner supporting member having semi-circular grooves or channels to receive the enlarged circular outer edges of the said outer casing sections, triangular bands each having a flange partly inclosing the said enlarged circular edge of the said outer casing sections, a flattened U shaped member positioned within the lower part of the said inclosed tube, the said U shaped member being provided with holes through which are forced strong expansible springs, the inner ends of the said springs fitting into holes in the inner flange of the said inner supporting member, screws securing the said flattened U shaped member, the said semicircular outer casing sections and the rim firmly together, a fixed flange and a movable flange on the said rim for holding the said outer casing sections in place.

1,253,272. CUSHION CONSTRUCTION. FRED A. NACHMAN, Chicago, Ill. Filed Sept. 13, 1915. Serial No. 50,395. (Cl. 5—13.)

3. A construction of the class described comprising a plurality of pocketed springs arranged in parallel rows and forming body units, a filling interposed between contiguous rows of said pocketed springs to maintain the latter in separated relation and prevent their contact, a connected series of pocketed springs surrounding said body units and forming a marginal unit, said marginal springs being of less height than the body springs, ties

connecting contiguous body units and penetrating the interposed filling to compress the latter and to hold the



units in opposite relation to each other, and means for connecting the marginal unit to said body units.

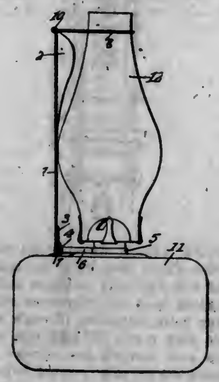
[Claims 1 and 2 not printed in the Gazette.]

1,253,273. PROTECTOR FOR PNEUMATIC TIRES. CHARLES F. NICKERSON, Reading, Mass. Filed Apr. 9, 1917. Serial No. 160,600. (Cl. 152—16.)



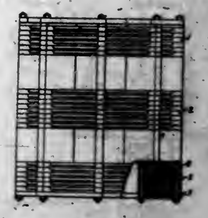
A tire protector comprising a series of arched flexible armor strips each formed from a single piece having at one edge an offset portion shorter than said edge, the opposite edge of said strip being formed to project under the offset edge portion of an adjoining strip, each strip having transverse outwardly projecting shoulders spaced from its ends, the portions of the strips between said shoulders and ends being bent to form flat sided loops, the outer sides of which join said shoulders and are offset outwardly thereby, while the inner sides are connected by flexible necks with the outer sides and have free ends projecting into the recesses formed by said shoulders, and two continuous strip-connecting rings inserted in said loops, the loops being adapted to play edgewise on the rings, while the inner sides of the loops are displaceable to permit the engagement of the loops with the rings and are arranged to be confined by a tire member against displacement.

1,253,274. REFLECTOR. GEORGE W. PELTON, Fruitland, Iowa. Filed May 5, 1917. Serial No. 166,630. (Cl. 240—105.)



A reflector of the character described, comprising a substantially flat reflector plate having rounded forwardly bent upper corners, and spaced rolled portions at its upper edge forming eyes, a wire loop adapted to encircle the upper end of a lamp chimney and having out turned ends to take into the eyes to pivotally secure the loop to the plate, a supplemental plate secured to the main plate adjacent its lower edge and having out struck portions forming sockets, and a metal ring adapted to encircle the neck of a lamp and having out turned ends adapted to take into the sockets.

1,253,275. POLYPHASE REACTANCE-COIL. JOHN F. PETERS, Edgewood Park, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 5, 1917. Serial No. 160,057. (Cl. 175—360.)



1. The combination with a plurality of conductors for polyphase currents, of a set of coil units which are superposed upon, and spaced from, one another, the end and intermediate coil units having unequal numbers of conductor turns and each of said conductors being connected in circuit with a single coil unit, the coil unit having the greater number of turns being disposed adjacent to the coil units having the smaller number of turns so as to be inductively related thereto.

2. The combination with a plurality of conductors for three-phase currents, of three coil units which are superposed upon, and spaced from, one another, the intermediate coil unit having a greater number of conductor turns than the two outer coil units and each of the said conductors being connected in circuit with a single coil unit, only the intermediate coil unit being inductively related to the two outer coil units.

3. The combination with a plurality of conductors for three-phase currents, of three coil units which are superposed upon, and spaced from, one another, the intermediate coil unit being inductively relates to the two outer coil units in such a manner that their mutually inductive electromotive forces are subtractive with respect to the self-induced electromotive forces and each of the three said conductors being connected in circuit with a single coil unit only.

4. The combination with a plurality of conductors for three-phase currents, of three coil units superposed upon, and spaced from, one another, the intermediate coil unit having a greater number of turns than the two outer coil units, each of three of said conductors being connected in circuit with a single coil unit, the intermediate coil unit being connected in circuit in the same direction as the two outer coil units to which it is inductively related.

5. A three-phase reactance coil comprising three superposed and spaced coil units, the intermediate coil unit having a greater number of turns than the two outer coil units and adapted for being connected in circuit in the same direction as the two outer coil units.

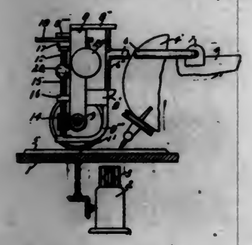
[Claim 6 not printed in the Gazette.]

1,253,276. PHONOGRAPH. JOHN HENRY PHILLIPS, JR., Jackson, Mich. Filed Aug. 11, 1917. Serial No. 185,687. (Cl. 74—45.)

1. In a structure of the class described, the combination of a driven record turn table, a tone arm supported to swing above said turn table, a governor frame supporting

arm pivotally mounted on said tone arm to swing in a vertical plane and provided with a vertical governor frame journal at its outer end, a yoke-shaped frame journaled thereon, a governor shaft carried by said frame, a governor wheel disposed in alinement with said frame journal and provided with a rubber tread and adapted to travel on the surface of a record disposed on said turn table, a shaft therefor journaled in the arms of said frame and geared to said governor shaft, a governor mechanism on said governor shaft comprising a disk, and a coacting adjustable brake member.

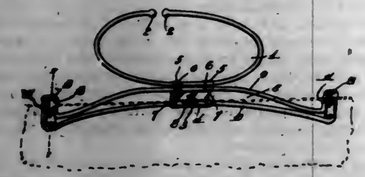
12. A structure of the class described, comprising a turn-table, driving means for said turn-table, a tone arm supported to swing above said turn-table, a reproducing stylus carried by said tone arm, and a governor means



also carried by said tone arm and coacting with the record for maintaining substantially uniform surface speed of the record relative to the stylus.

[Claims 2 to 11 and 13 not printed in the Gazette.]

1,253,277. NAPKIN-HOLDER. JOHN REID PILE, Owensboro, Ky. Filed July 26, 1917. Serial No. 182,966. (Cl. 24—9.)



5. A napkin holder comprising a plate, loops formed on the plate, a stretcher bar formed of a length of wire received in the said loops, the said stretcher bar having upturned portions at each end, a resilient supporting ring attached to the said plate, the latter being provided with hooks engageable with the said ring.

[Claims 1 to 4 not printed in the Gazette.]

1,253,278. HEEL. ROBERT B. PUCKETT and HARRY R. ABBOTT, St. Louis, Mo. Filed Jan. 12, 1916. Serial No. 71,618. (Cl. 36—34.)



1. An unattached heel formed in part of leather, and having a tenon in the form of a lift projecting above its upper side, and forming a unitary part of the heel, said tenon being of less dimensions than the body of the heel, and of cheaper material than the leather portion thereof.

3. In combination with an outer sole of leather having a section of the shape and dimensions of a heel lift cut from its heel seat portion, and a heel secured thereto, having a tenon in the form of a heel lift mounted on its upper side and forming a unitary part of the heel in its unattached state, said tenon substantially filling the space in the outer sole made by the removal of the said lift section therefrom.

[Claim 2 not printed in the Gazette.]

1,253,279. METHOD OF MANUFACTURING TENONED HEELS. ROBERT B. PUCKETT and HARRY R. ABBOTT, St. Louis, Mo. Filed May 1, 1916. Serial No. 94,560. (Cl. 12—42.)

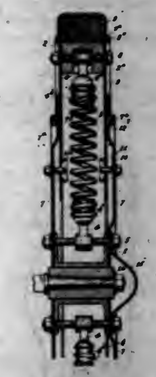


1. The herein described method which consists in building a complete heel of substantially uniform thickness throughout, and then forming a tenon on the seat side of the heel by compressing the heel around a prescribed portion of said seat side of the size of the desired tenon whereby the uncompressed portion will project above the plane of the compressed portion.

2. The herein described method which consists in building a complete heel of substantially uniform thickness throughout and then forming a tenon on the seat side of the heel by compressing the same between members one of which, opposite said seat side, is provided with a recess of the size of the tenon desired whereby when placed under compression a portion of the material of the heel will enter said recess in a substantially uncompressed condition to form the tenon.

[Claim 3 not printed in the Gazette.]

1,253,280. RESILIENT VEHICLE-WHEEL. GEORGE W. REDBURN and CHRISTIAN HEILRATH, Sacramento, Cal. Filed Dec. 2, 1915. Serial No. 64,665. (Cl. 152—28.)



1. A resilient vehicle wheel, comprising hub and felly members, disk plates detachably arranged in pairs at the sides of said hub and felly members and extending toward and overlapping each other between said members, transverse bearing bolts extending through and removably connecting said disk plates to said hub and felly members, and tension and compression springs pivotally and detachably mounted on said bearing bolts said compression springs being adapted to take up and be compressed by predetermined loads.

2. In a resilient vehicle wheel, a resilient hub and felly connecting member comprising a tension and compression spring provided at its ends with detachable pivot bearing members, and a compression spring attached to one of said bearing members and extending outside of said spring and adapted to engage with the other pivot bearing member when the latter is compressed to a predetermined point by pre-determined loads.

1,253,281. GLARE-SHIELD FOR AUTOMOBILES. STOCKWELL A. RIDGE, Elmira, N. Y. Filed Aug. 16, 1916. Serial No. 115,156. (Cl. 21—148.)



1. A glare shield comprising an angular casing having a portion substantially vertically positioned, axles journaled in said vertical portion of the casing, lazy-tongs having their links at one end secured to the said axles, an opaque shield secured to the links at the free end of the lazy-tongs, operative connections between the said axles, and operating means for the axles carried by the other portion of the casing.

2. A device of the class described comprising in combination with the steering wheel of a vehicle, an angular casing adjustably mounted forwardly thereof, a lazy-tongs carried by the upper portion of the said casing adapted for vertical arrangement forwardly of the wheel when in its projected open position, an eye shield carried by the free end of the lazy-tongs having an arcuate path of movement during the opening and closing operation of the lazy-tongs, and operating means for the lazy-tongs positioned within the casing and operable from a point beneath the wheel.

3. A glare shield comprising a mount, a lazy-tongs positionable in substantial longitudinal alinement therewith, a translucent shield carried by the free end of the said lazy-tongs positioned substantially vertically of the said mount when the lazy-tongs is projected and having an arcuate path of travel laterally of the mount, and operating means for the said lazy-tongs.

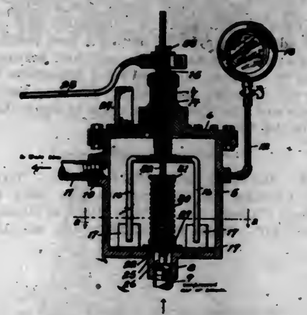
1,253,282. COMBINED LAMP AND BATTERY-TESTER. GUSTAV RUCKARDT, New Hampton, Iowa. Filed Jan. 27, 1917. Serial No. 144,877. (Cl. 175—183.)



1. In a combined lamp and battery tester, a casing, a dry cell therein having a positive and a negative terminal, a conductor of electricity, means for holding the said conductor in engagement with one of the terminals, a tube in which the conductor is housed and from which it is insulated, an insulator separating the conductor from the tube at the end of said tube, a means for establishing circuit from the said tube to the said conductor, and means electrically connected to the opposite pole of the battery for establishing circuit from the said tube to the said lamp.

2. In a combined lamp and battery tester, a conductor of electricity having insulation at one end, a tubular member in which the conductor is housed and from which it is insulated, a movable member for controlling current from the conductor to the tubular member and adapted to cover the insulation between the conductor and tube, an electric cell having a terminal engaged by the conductor, and means whereby circuit is established between the said terminal and the opposite terminal of the said battery.

1,253,283. ENGINEER'S VALVE. EMERY J. SCHANCK, Centralia, Wash. Filed Apr. 29, 1916. Serial No. 94,440. (Cl. 188—7.)

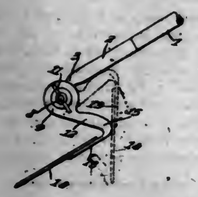


1. In an air brake valve of the character described, a casing provided in its bottom with a fluid pressure inlet opening and in its side with a fluid pressure outlet opening, said casing being also provided in its bottom with an exhaust opening which leads to the atmosphere, a rotatable disk valve arranged upon the bottom of the casing and having a substantially centrally arranged opening in permanent communication with the fluid pressure inlet opening and an exhaust opening adapted for movement into and out of registration with the first named exhaust opening, a rotatable spindle having screw-threaded engagement with the top of the casing to move longitudinally when rotated, means to turn the spindle, means connecting the spindle with the disk valve, a movable pressure inlet valve arranged within the casing adjacent its bottom and serving to close the fluid pressure inlet opening, and a spring contacting with the pressure inlet valve and connected with the spindle to have its tension regulated thereby.

2. In an air brake valve of the character described, a casing provided in its bottom with a fluid pressure inlet opening and in its upper portion with a fluid pressure outlet opening, said casing being also provided in its bottom with an exhaust opening which leads to the atmosphere, a rotatable disk valve arranged upon the bottom of the casing and having a substantially centrally arranged opening in permanent communication with the fluid pressure inlet opening and an exhaust opening adapted for movement into and out of registration with the first named exhaust opening, pairs of upstanding lugs formed upon the upper side of the disk valve, a rotatable tubular spindle having screw-threaded engagement with the top of the casing to move longitudinally when rotated and provided at its lower end with a fork having tines fitting between the pairs of lugs, means to turn the spindle, a movable pressure inlet valve arranged within the casing adjacent its bottom and serving to normally close the pressure in-

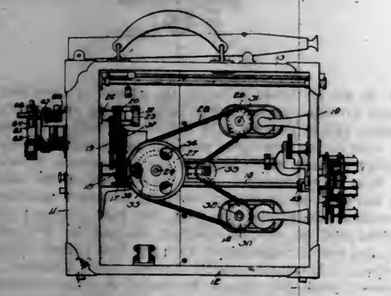
let opening, a spring engaging the pressure inlet valve, and a rod having screw-threaded engagement within the tubular spindle and connected with the spring.

1,253,284. COMBINED HAND HOE AND SHAVER. HERMAN SCHOENER, St. Cloud, Minn. Filed Aug. 29, 1917. Serial No. 188,807. (Cl. 55—38.)



An implement of the class described including a handle, a ferrule thereon, an eye at one end of the ferrule, an angularly adjustable eye normally engaging one face of the eye upon the ferrule, means for holding the eyes against relative movement, a tangential arm extending from the adjustable eye and having a heel portion, a web extending at an acute angle from said heel portion, a blade connected to the web, said arm being adjustable angularly with its eye to bring the heel portion into contact with the ferrule and the blade at an angle of approximately 45 degrees to the ferrule.

1,253,285. MOVING-PICTURE CAMERA. WILLIAM N. SELIG, Chicago, Ill., assignor to The Selig Polyscope Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 6, 1917. Serial No. 152,592. (Cl. 88—18.)



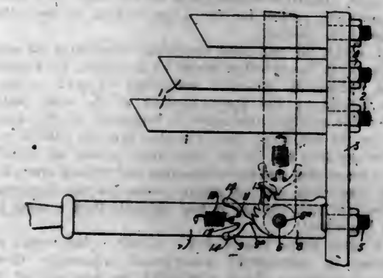
1. In a moving picture camera, in combination with normal driving elements, supplemental driving elements adapted to operate the camera at selected relatively slow rates of speed, a shutter adapted to operate at a rate of speed commensurate with photographic requirements, and tripping mechanism operable by the supplemental driving mechanism for tripping the shutter in timed relation with the driving speed, substantially as described.

4. In a motion picture camera, the combination of a power transmission shaft, tranamission elements for operating the reel feed from said transmission shaft, variable gear elements adapted to selectively drive said shaft, said gear elements comprising a pair of main gears each having a different number of teeth, and a driving pinion for each of the main gears, having an even fractional ratio with its coöperating main gear, either of said pinions being movable into mesh with its main gear, and driving connections between both of the main gears and the power transmission shaft, a shutter adapted for adjustment to photographic requirements, and tripping mechanism operable by the power transmission shaft for tripping the shutter in timed relation with the driving speed, substantially as described.

9. In a moving picture camera, the combination of a transversely extending shaft for normal driving, a pulley carried by said shaft, connections between said pulley and the reel feeding mechanism, gearing, consisting in part of bevel gearing, between said shaft and the film feeding mechanism, a supplemental driving shaft, gearing on said shaft adapted to be thrown into and out of mesh with the first mentioned gearing, a diaphragm shutter adapted to be adjusted to photographic requirements, a trip for actuating said shutter, connections between the trip and the first mentioned gearing, for tripping the shutter in timed relation with the movement of the feeding mechanisms, and adjustable power transmission mechanism connected with the supplemental shaft for varying the speed thereof, said transmission mechanism comprising two main gears in spaced relation, each having a different number of teeth, and each main gear coöperating with a set of pinions, each pinion having a different fractional tooth ratio with respect to its main gear, and the pinions being longitudinally movable into and out of mesh with the respective coöperating main gears, substantially as described.

[Claims 2, 3, and 5 to 8 not printed in the Gazette.]

1,253,286. RESTRAINING DEVICE FOR ELECTRIC SWITCHES. ALBERT E. SIBRAD, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Aug. 7, 1914. Serial No. 855,564. (Cl. 200—20.)



1. In a switch, the combination with a plurality of stationary contact members, and a movable contact member, of means for automatically permitting unobstructed movement of the movable contact member in one direction and to preclude its movement in the other direction until it has moved a predetermined distance.

2. In a switch, the combination with a plurality of stationary contact members, and a movable contact member, of means for automatically preventing the movement of the movable contact member in one direction until it has moved a predetermined distance in the other direction.

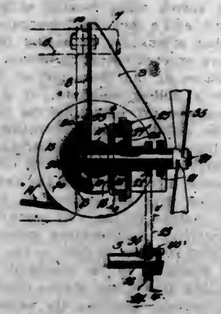
3. In a switch, the combination with a plurality of stationary contact members, and a movable contact member for successively engaging the same, of a relatively movable pawl operatively connected to the movable contact member, and a stationary ratchet member, said pawl and ratchet being adapted to so coöperate that the movable contact member may be freely moved in one direction to engage the stationary contact members and is precluded from moving in the other direction until it has engaged a predetermined number of stationary contact members.

4. In a switch, the combination with a plurality of stationary contact members, and a movable contact member for successively engaging the same, of a pawl and ratchet means for automatically preventing the movement of the movable contact member in the reverse direction until a predetermined number of the stationary contact members have been engaged.

5. In a switch, the combination with a plurality of stationary contact members, and a movable contact member, of a ratchet and pawl means for automatically preventing the movement of the movable contact member in one direction and permitting its movement in the other direction until it has moved a predetermined distance.

[Claims 6 to 10 not printed in the Gazette.]

1,253,287. ENGINE-STARTER. HENRY R. SIEVERKROPP, Racine, Wis. Filed Mar. 17, 1917. Serial No. 155,471. (Cl. 123—185.)



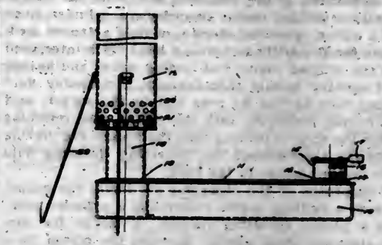
1. The combination with an engine including a drive shaft, of a second shaft journaled parallel to said drive shaft, a connection between said shafts, a gear wheel on the second shaft provided with a laterally turned peripheral flange, a ratchet wheel provided with a laterally turned flange disposed about the flange of the gear wheel, manual means for rotating said gear wheel, and means disposed within the inclosed space formed by said wheels for initially rotating the drive shaft upon the rotation of said gear wheel.

2. The combination with an engine including a drive shaft of a second shaft mounted there-above, a releasable drive means for the second shaft, a sprocket wheel on the second shaft, a sleeve on the engine shaft having an upturned flange at one end, a locking pin passed through the sleeve and shaft with its end projected outwardly of the sleeve, a sprocket wheel mounted on the sleeve and provided with recesses receiving the projected ends of the said pin, a follower sleeve threaded on the first sleeve, clutch teeth formed on the outer end of the follower sleeve and a chain trained about both said sprocket wheels.

3. An engine starter mechanism including a journaled shaft, a gear wheel on said shaft provided with a laterally turned peripheral flange, means for rotating said gear wheel, a ratchet wheel provided with a laterally turned tooth carrying flange disposed about the flange of the gear wheel, a second ratchet wheel disposed intermediate the first named wheels, a pawl pivoted to the gear wheel for co-action with the second ratchet wheel, pawl retracting tongues carried by the first ratchet wheel and a second pawl for co-action with the teeth of the first ratchet wheel.

1,253,288. SMOKELESS ORCHARD-HEATER. JOSEPH PAXTON SIMPSON, Pomona, Cal. Filed Mar. 27, 1917. Serial No. 157,662. (Cl. 158—91.)

1. In an orchard heater, an oil container consisting of a long flat box adapted to rest upon the ground and provided with a cover having an inlet opening at one end and an outlet opening at the other end, a baffle wall mounted crosswise of the box in front of the outlet opening and extending the height of the box and leaving openings upon each side, a cylindrical sleeve extending upwardly around the inlet opening, a cap fitting upon the sleeve; there being registering perforations through the cap and sleeve; a handle for rotating the cap, a pipe extending upwardly from the outlet opening, a drum mounted upon the upper end of the pipe; said drum being considerably larger than the pipe; and a baffle plate mounted horizontally in the drum above the end of the



pipe; there being perforations all the way around the drum below and above the baffle plate.

[Claim 2 not printed in the Gazette.]

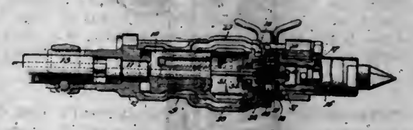
1,253,289. NECKTIE FORM AND DISPLAY DEVICE. HARRY C. SMITH, Santa Barbara, Cal., assignor of one-half to David W. McIntosh, Santa Barbara, Cal. Filed Sept. 27, 1917. Serial No. 193,520. (Cl. 211—24.)



1. A form and display device comprising an easel, a display card supported thereby having a main portion representing a collar in front elevation and two loosely supported side portions representing the bosom of a shirt; said collar and side portions being formed with a knot opening in the rear of which a necktie may be displayed in a manner to appear as though tied around the collar; and an outwardly extending tang adapted to hold the fabric of the tie out beneath the bosom portion of the display card.

[Claims 2 and 3 not printed in the Gazette.]

1,253,290. ROCK-DRILL. WILLIAM A. SMITH, Denver, Colo., assignor to The Denver Rock Drill Manufacturing Company, a Corporation of Delaware. Filed Jan. 5, 1917. Serial No. 140,793. (Cl. 121—10.)



1. In apparatus of the character set forth, the combination with a drilling engine comprising a cylinder member and a piston operating therein, of means for conducting cleansing fluid axially through the piston to a drill bit operated on thereby, fluid operated feeding means for the drilling engine, means for supplying actuating fluid thereto, and means interposed between the feeding means and engine and having a passage passing axially from the former to the latter for delivering cleansing fluid

from the feeding means to the cleansing fluid conducting means.

2. In apparatus of the character set forth, the combination with a drilling engine comprising a cylinder member and a piston operating therein, of fluid actuated feeding means for the drilling engine, a head block interposed between the drilling engine and feeding means and having a socket opening axially therethrough, a cleansing fluid conducting tube having its rear end in the socket, said tube projecting forwardly into the engine, and retaining means for the tube extending into the socket and having a passageway therethrough for delivering cleansing fluid from the feeding means to the tube.

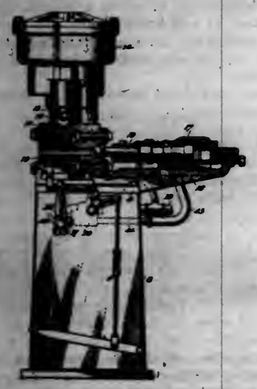
3. In apparatus of the character set forth, the combination with a drilling engine comprising a cylinder member and a piston operating therein, of means for conducting cleansing fluid axially through the piston to a drill bit operated on thereby, fluid operated feeding means for the drilling engine, means for supplying actuating fluid thereto, means interposed between the feeding means and engine and having a passage passing axially from the former to the latter for delivering cleansing fluid from the feeding means to the cleansing fluid conducting means, means for delivering a liquid cleansing agent to the conducting means, and means for preventing the passage of said liquid cleansing agent backwardly through the axial passageway to the feeding means.

9. In apparatus of the character set forth, the combination with a drilling engine, of a fluid conducting tube therein having its exterior and interior contracted at its intake end, securing means engaged with the exterior contracted portion of the tube, and means for delivering fluid through said contracted interior.

10. In apparatus of the character set forth, the combination with a drilling engine having a back head provided with a socket, of a fluid conducting tube having an externally and internally contracted end located in the socket, a split washer on the externally contracted portion, securing means for the tube located in the socket and permitting the flow of liquid to the tube, and a fluid directing nozzle extending toward the tube and delivering to the internally contracted portion thereof.

[Claims 4 to 8 not printed in the Gazette.]

1,253,291. DRILL-SHARPENER. WILLIAM A. SMITH, Denver, Colo., assignor to The Denver Rock Drill Manufacturing Company, Denver, Colo., a Corporation of Delaware. Filed Feb. 27, 1917. Serial No. 151,308. (Cl. 76—5.)



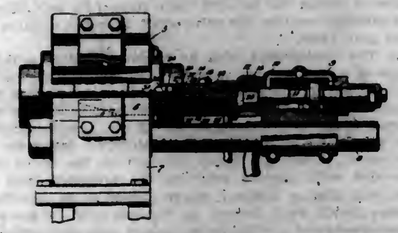
2. In apparatus of the character set forth, the combination with a hollow support, of a vise mounted thereon, fluid actuated means for operating the vise, a fluid actuated hammer, a controlling valve for the vise mounted within and housed by the support, a controlling valve for the hammer located within and housed by the support, and operating means for the valves mounted on the support and including an actuating device disposed externally thereof.

3. In apparatus of the character set forth, the combination with a base having a hollow standard, of a vise mounted on the standard and including a movable member, a motor for operating the movable member, a fluid actuated hammer coacting with the vise, means for supplying fluid to the motor and to the hammer, a controlling valve for the motor, a controlling valve for the hammer, said valves being located within and housed by the standard, and a rock shaft journaled in the standard and having means for actuating the valves, said shaft having an exposed operating device.

6. In apparatus of the character set forth, the combination with a hollow standard, of a vise mounted thereupon, a motor for operating the vise, a hammer mounted on the standard and coöperating with the vise, horizontally disposed valve casings arranged within the standard, a supply pipe connected to one of the valve casings, a branch pipe connecting the valve casings and in communication with the suply pipe, conduits extending from the casings to the vise operating means and hammer respectively, reciprocatory valves in the valve casing controlling the flow of fluid to the latter conduits, a rock shaft journaled in the standard and having an exposed actuating device, and means carried by the rock shaft for successively operating the valves.

[Claims 1, 4, and 5 not printed in the Gazette.]

1,253,292. DOLLY MECHANISM FOR DRILL-SHARPENERS. WILLIAM A. SMITH, Denver, Colo., assignor to The Denver Rock Drill Manufacturing Co., a Corporation of Delaware. Filed Mar. 19, 1917. Serial No. 155,831. (Cl. 76—5.)



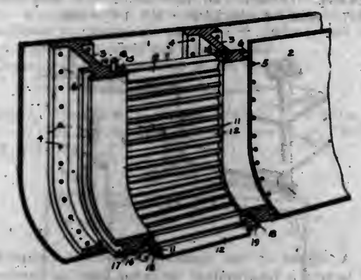
1. In apparatus of the character set forth, the combination with a hammer including a barrel and a piston operating therein, of a dolly holder at one end of the hammer comprising separable sections, one of which is mounted on the barrel, means for securing the sections together, and a dolly mounted between the sections and removable when they are separated.

2. In apparatus of the character set forth, the combination with a hammer including a barrel and a piston operating therein, of a dolly holder at one end of the hammer comprising separable longitudinal sections, one of which is provided with a collar that surrounds the barrel, transverse means securing the sections together, and a dolly mounted between the sections and removable when they are separated.

6. In apparatus of the character set forth, the combination with a dolly support, of a dolly therein having a head and a shank and provided with a longitudinal bore, the front portion of said bore being of less diameter than the rear portion, forming an internal shoulder, a dolly pin having a shank located in the portion of less diameter and projecting beyond the front end of the dolly, said dolly pin also having a head located in the portion of the bore of larger diameter and associated with the internal shoulder, and a tappet pin disposed in the portion of the bore of larger diameter and having its front end arranged against the head of the dolly pin.

[Claims 3 to 5 not printed in the Gazette.]

1,253,293. LEAK-STOPPER. ERNEST L. SONS, Pittsburgh, Pa., assignor of one-half to Samuel A. Boyd, Pittsburgh, Pa. Filed Feb. 12, 1917. Serial No. 148,287. (Cl. 114—228.)



1. An attachment for marine vessels comprising the combination of members interposed between the inner and outer hulls of the vessel, each of said members in the form of I-beam and each having the flange at the inner end thereof grooved, of a combined reinforcing and sealing member capable of being shifted against the outer face of the inner hull and extending into a pair of opposed grooves.

3. An attachment for marine vessels comprising a combination with an inner and outer hull and spaced bracing members between said hulls, the inner ends of said bracing members provided with opposed grooves, of a combined reinforcing and sealing member capable of shifting in said grooves, to a position at the front of the inner hull, and means for elevating and lowering said element.

5. An attachment for marine vessels comprising a combined reinforcing and sealing element adapted to be positioned between the outer and the inner hulls of the vessel, said element consisting of alternately disposed rolles and filler members, said filler members having seats against which bear said rolls, and means connected to the ends of said rolls and filling members for connecting them together.

[Claims 2, 4, and 6 to 8 not printed in the Gazette.]

1,253,294. GEAR. CHARLES W. STARKER, Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 19, 1917. Serial No. 163,142. (Cl. 74—41.)



3. A machine element comprising a working body portion composed of fibrous material and a binder, and reinforcing means inclosed within the said working body portion and conforming in shape thereto, but not exposed at the working surface thereof.

5. A machine element comprising a working body portion composed of fibrous material and a phenolic condensation product and a plurality of flat, parallel, reinforcing plates inclosed wholly within the said working body portion and conforming in outline to the working surface thereof.

7. A gear comprising a toothed non-metallic working body portion and a plurality of flat reinforcing members disposed within the said working body portion and conforming in shape to the teeth of the gear but not exposed at the working surfaces thereof.

[Claims 1, 2, 4, 6, and 8 to 11 not printed in the Gazette.]

1,253,295. MEANS FOR PROTECTING VESSELS AGAINST SUBMARINES. JOSEPH A. STEINMETZ, Philadelphia, Pa. Filed Oct. 13, 1917. Serial No. 196,427. (Cl. 114—240.)



1. The combination with the hull of a ship of terminally open, internally substantially unobstructed approximately horizontal tubes of approximately uniform cross section fixed to the sides, respectively, of the hull and extending from the region near the water line to the region near the keel and nearly from stem to stern of the vessel.

[Claims 2 and 3 not printed in the Gazette.]

1,253,296. PULL-SOCKET FOR ELECTRIC LAMPS. SAMUEL STRAUS, New York, N. Y. Filed June 3, 1916. Serial No. 101,446. (Cl. 173—354.)

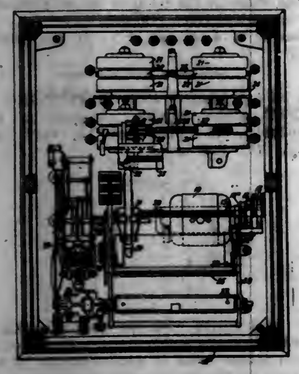


In a pull socket, an insulating body having a chamber and a transverse slideway opening from the bottom of said chamber, an insulating cover for said chamber, a spindle set in the bottom of said chamber to one side of the slideway, a cruciform switch in said chamber loosely mounted upon said spindle and adapted to have one arm cross the opening of said slideway, a spring upon said spindle above the switch and having its upper end against the lower surface of the cover, a switch dog slidable in the slideway and provided with a chain, a depressible pawl upon the top of said switch dog and a circuit terminal adapted to make contact with alternate switch arms, the switch being connected with the other circuit terminal.

1,253,297. ELECTRICAL MEASURING INSTRUMENT. HAROLD B. TAYLOR, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Sept. 25, 1914. Serial No. 863,585. (Cl. 172—245.)

1. In a phase-indicating instrument for an electric circuit, the combination with a power-component meter and a reactive-component meter operatively connected to the circuit and adapted to oppose each other in their operation, of a variable resistor connected in circuit with one of the meters, and means controlled by the resultant

torques of the two meters for controlling the resistance of the resistor.



2. In an electrical measuring instrument, the combination with a wattmeter and a reactive-component meter having the movable members thereof connected to oppose each other, of electro-responsive means controlled by the resultant force of the movable members, and means connected in circuit with one of the meters and adapted to be actuated by the electro-responsive means for balancing the forces of the said movable members.

12. In a power-factor meter for a polyphase electric circuit, the combination with two opposing meters, of means for so connecting the meters to the circuit that they are actuated in accordance with the two components of the apparent energy traversing the circuit irrespective of its unbalancing, a variable resistor, and means dependent upon the resultant torque of the meters for inserting the resistor in circuit with one of the meters to effect a balance in their torques.

[Claims 3 to 11 not printed in the Gazette.]

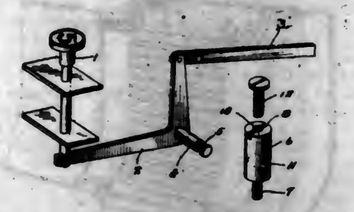
1,253,298. DEVICE FOR COOLING CALENDER-ROLLS. JACOB A. TEMPLE and LEWIS H. BULLARD, Kalamazoo, Mich. Filed Aug. 10, 1917. Serial No. 185,502. (Cl. 92—73.)



1. In a structure of the class described, the combination with a stack of calender rolls, of a cylindrical header provided with ports on its side adjacent the stack and with discharge openings in its top between such ports, sleeve valve members provided with nozzles rotatably mounted on said header to control said ports and to direct the discharge of air at varying angles, said header and valve members having coacting circumferential beads whereby the valve members are supported against longitudinal movement on the header, said valve members being split and provided with clamping lugs and bolts whereby they may be secured in their adjusted positions, valve casings mounted on said header to control said discharge openings in the upper side thereof and provided with collars adapted to receive risers, and risers of different heights detachably engaged with said collars and provided with nozzles directed against said stack.

[Claims 2 to 8 not printed in the Gazette.]

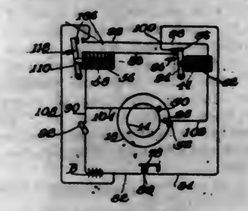
1,258,299. MOUNT FOR KEY-BARS. OTTO THIEME, St. Louis, Mo., assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo., a Corporation of Missouri. Original application filed Aug. 1, 1916, Serial No. 112,534. Divided and this application filed Apr. 23, 1917. Serial No. 163,860. (Cl. 197—106.)



1. A mount of the character described comprising a post having a longitudinal threaded bore, an intersecting smooth bore, a key bar provided with a stud having an annulus designed to register with said threaded bore in the post, and a screw threaded in the threaded bore which, when screwed home, has its lower end located within the annulus of said stud, thereby locking said stud against longitudinal displacement but permitting rotary movement thereof.

[Claim 2 not printed in the Gazette.]

1,253,300. INDICATING MECHANISM. RALPH E. THOMPSON, Brookline, Mass. Filed Jan. 19, 1914. Serial No. 813,086. (Cl. 235—1.)



1. In an apparatus for use with internal combustion engines, an indicator, and operating means therefor comprising mechanism arranged to operate in proportion to the speed of the engine, additional mechanism arranged to operate in proportion to the rate of consumption of fuel by the engine, and means for correlating the operations of said mechanisms to cause said indicator to indicate directly the relationship between the travel of the engine and its fuel consumption.

2. In an apparatus for use with internal combustion engines, an indicator, and operating means therefor comprising mechanism arranged to be operated by the engine, additional mechanism operating in proportion to the rate of consumption of fuel by the engine, and means for correlating the operations of said mechanism to cause said indicator to indicate the travel of the engine in proportion to its fuel consumption.

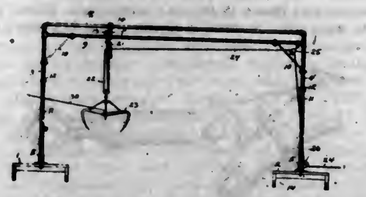
3. In an apparatus for use with internal combustion engines, an indicator having operating mechanism arranged to be driven by the engine, liquid measuring means arranged in the fuel supply system of the engine to measure the consumption of fuel by the engine, and means controlled by said measuring means for causing said indicator to register at intervals, as each measured quantity of fuel is consumed, the total travel of the engine on said measured quantity.

4. In an indicating apparatus for use with internal combustion engines, registering means arranged to be driven by the engine, and means controlled by the fuel supply for the engine for causing said registering means to operate only during the consumption by the engine of a measured quantity of fuel.

5. In an apparatus for use with internal combustion engines, an indicator, operating means therefor comprising mechanism arranged to be driven by the engine, a measuring mechanism in the fuel supply system for the engine arranged to be operated by the flow of fuel to the engine, and means for correlating the operations of said mechanisms to cause said indicator to indicate the travel of the engine on a given quantity of fuel.

[Claims 6 to 17 not printed in the Gazette.]

1,253,301. PORTABLE TRAM. FRANK C. TOBIAS, Fort Wayne, Ind. Filed Dec. 8, 1914. Serial No. 876,051. (Cl. 212—14.)



1. In apparatus of the class described, two parallel pipes spaced apart and in horizontal position; means for supporting said pipes at their respective ends in fixed relation with each other; a traveler supported by the lowermost of said pipes; a movable detent member on the uppermost of said pipes, and a pawl pivoted in the detent member having a shoulder for engaging the pipe upon which the detent member is mounted when the traveler bears against the pendent end of the pawl in one direction.

2. In apparatus of the class described, two parallel supporting pipes; a traveler on one of the pipes; a detent device movably mounted upon the other of said pipes and adapted to engage and detain the traveler from passing in one direction; and a handle for turning the detent member upon its support out of engagement with the traveler.

3. In combination with a pair of parallel tracks, horizontally disposed, a traveler mounted upon one of the tracks; and a detent member adjustably mounted upon the other of said pipes adapted to engage the traveler and stop its movement in one direction.

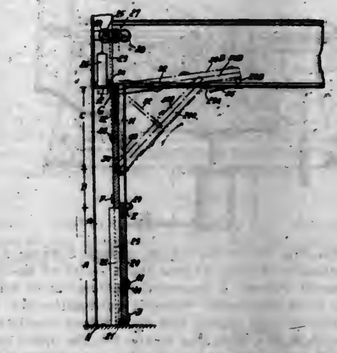
4. In combination with a supporting track; a weighted collar slidably mounted upon the track and adapted also to be turned laterally thereupon; a handle attached to the collar for manipulating the same; and a pawl pivoted in connection with the collar and having a shoulder adapted to bear against the track and bind the collar in fixed position upon the track when the pawl is pressed in one direction.

1,253,302. DOOR-COUNTERBALANCING SYSTEM. CHARLES C. TOMKINSON, Plainfield, N. J., assignor to J. Edward Ogden, Mountainville, N. Y. Filed Oct. 10, 1916. Serial No. 124,806. (Cl. 20—19.)

1. A door having a vertically moving portion, and another part arranged to move away from the plane of said movement, a counterweight connected with said vertically moving portion of the door, and an auxiliary weight affixed to said other part of the door in such a position as to have a variable counteracting effect upon the counterweight to maintain the balance of the door in its different positions.

5. A door structure comprising a plurality of sections, the lower edges of which move in a vertical plane, and means for swinging said door sections away from said vertical plane during a part of the door opening movement, a counterweight connected with the vertically moving part of the door structure, and auxiliary weights affixed to the door sections in such positions as to have a variable counteracting effect upon the counterweight to maintain the balance of the door in its different positions.

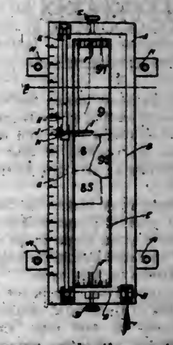
8. A door structure comprising a plurality of sections, the lower edges of which move in a vertical plane and means for swinging said door sections away from said vertical plane during a part of the door opening movement, and means for supporting the parts of the door sections which move away from the vertical plane as the lower edges of the door sections approach the upper end of their path of travel, a counterweight connected with the vertically moving part of the door structure, auxiliary weights on the door sections in such positions as to have a variable counteracting effect upon the counterweight, and means for permitting the adjustment of the positions of said auxiliary weights on the door sections to thereby change their variable effect upon the counterweight.



12. A door structure comprising a plurality of sections, the lower edges of which move in a vertical plane and means for swinging said door sections away from said vertical plane during a part of the door opening movement, and means for supporting the parts of the door sections which move away from the vertical plane as the lower edges of the door sections approach the upper end of their path of travel, a counterweight connected with the vertically moving part of the door structure, an auxiliary weight on one of the door sections in such position as to have a variable counteracting effect upon the counterweight, and means for permitting the adjustment of the position of said auxiliary weight, on the door section, to thereby change its variable effect upon the counterweight.

[Claims 2 to 4, 6, 7, and 9 to 11 not printed in the Gazette.]

1,253,303. GARMENT-SCALE. WESLEY R. TOMLIN, Fort Collins, Colo. Filed Nov. 20, 1916. Serial No. 132,323. (Cl. 33—2.)

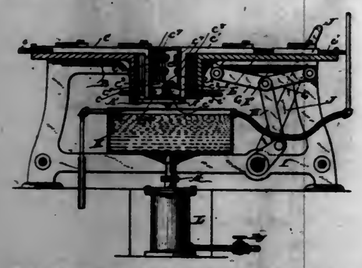


2. In a garment scale the combination of a casing adapted to be mounted on a wall, a calibrated cylinder

mounted vertically in said casing and adapted to be turned upon its axis, said cylinder being calibrated for sizes of garments with circumference corresponding to chest measure and altitude corresponding to a person's height, a vertically adjustable gage mounted on said casing and carrying an outwardly extending arm to measure a person's height and a pointer to indicate such height on said cylinder, substantially as described.

[Claim 1 not printed in the Gazette.]

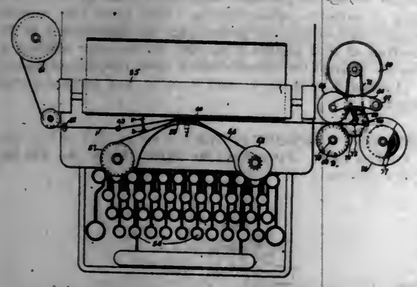
1,253,304. SPRING-FITTING MACHINE. LEVI F. TORREY, Cleveland, Ohio. Filed Apr. 1, 1916. Serial No. 88,249. (Cl. 266—6.)



1. In a machine for fitting vehicle springs, a frame, a series of stationary shaping fingers and a series of movable fingers opposed thereto, a depressed platform upon which the spring rests, depressed engaging extremities for the lower margins of said spring, and upon the extremities of said series of fingers, engaging means for the upper margins of said spring, said upper engaging extremities vertically adjustable upon said fingers, and a tank of tempering fluid in which said finger extremities, depressed platform and spring are immersible.

[Claims 2 to 4 not printed in the Gazette.]

1,253,305. MEASURING INSTRUMENT. REES E. TULLOSS, Cambridge, Mass. Filed June 25, 1917. Serial No. 176,913. (Cl. 234—36.5.)



1. In a measuring apparatus, means for uniformly feeding a record tape in the direction of its length, devices for making time indications on said tape, and manually operated means for moving the portion of said tape adjacent said time indication devices at an angle to the direction of its length.

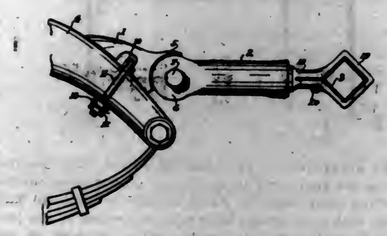
8. In a measuring apparatus, means for feeding a record tape at a uniform rate, manually operated devices for moving a portion of said tape at an angle to its uniform movement, and electrically operated means for regularly making a series of time indications on said tape.

12. In a measuring apparatus, means for feeding a record tape in the direction of its length, means for making a series of time indications on said tape, and devices for regularly moving said time indication means at an angle to the direction of the feeding movement of the tape.

22. In a measuring apparatus, the process of measuring reaction times which consists in uniformly feeding a record tape past a record point in one direction, making regularly on said tape closely consecutive time indications at a point adjacent said record point, regularly moving said time indication means at an angle to the feeding movement of the tape, making a record on said tape of the reaction under observation, and moving the tape relative to the time indication means at another angle to its feeding movement simultaneously with the making of the reaction record.

[Claims 2 to 7, 9 to 11, and 13 to 21 not printed in the Gazette.]

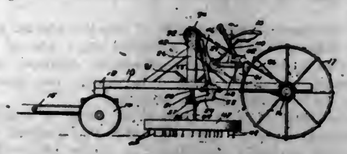
1,253,306. BUMPER FOR AUTOMOBILES. JAMES TURNER and PEARL P. CRABILL, Springfield, Ohio. Filed May 27, 1915. Serial No. 30,765. (Cl. 213—39.)



2. In a bumper for automobiles, a supporting head, a hook-shaped projection on the interior of said head, and means engaging with said hook-shaped projection for securing same to the vehicle.

[Claims 1, 3, and 4 not printed in the Gazette.]

1,253,307. REVOLVING HARROW. OLAUS O. TVETEN, Grand Forks, N. D. Filed June 13, 1917. Serial No. 174,546. (Cl. 55—20.)



1. A harrow comprising a carriage including a rear axle constituting a driving shaft, supporting wheels mounted upon the rear axle and having connection with the rear axle for rotating the same, a driven shaft rotatably connected with said carriage, vertically extending supporting shafts rotatably connected with the carriage and driven from the driven shaft, tooth carrying drums having sleeves slidably mounted upon the vertically extending shafts, means for vertically adjusting the drums through engagement with the sleeves thereof, and releasably holding the drums in vertically adjusted positions, and means for transmitting rotary movement from the driving shaft to the driven shaft.

2. A harrow comprising a carriage, a rotatably mounted wheel supporting axle carried by the carriage and constituting a driving shaft, a bridge structure carried by the carriage, a driven shaft rotatably supported by the bridge structure, means for transmitting rotary movement from the driving shaft to the driven shaft, vertically extending shafts rotatably mounted and receiving rotary movement from the driven shaft, tooth carrying drums, sleeves extending from the tooth carrying drums and slidably fitting upon the vertically extending shafts, rotatably mounted rocker shafts, arms extending from the rocker shafts and connected with the sleeves, and levers connected with the rocker shafts for rotating the same and swinging the arms vertically to vertically adjust the drums and releasably hold the drums in vertically adjusted position.

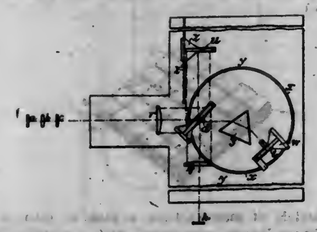
4. A harrow comprising a carriage including an outer frame, an inner frame, standards connected with the side portions of the outer frame, a bridge connecting the standards, a support for the intermediate portion of the bridge connected with the inner frame, vertically extending shafts extending through the end portions of the bridge, a driven shaft carried by the standards, means for transmitting rotary movement from the driven shaft to the vertically extending shafts, ground engaging elements having engagement with the lower portions of the vertically extending shafts and rotating the same, and means for transmitting rotary movement to the driven shaft.

5. A harrow comprising a carriage, a supporting structure carried by the carriage, a driven shaft rotatably connected with the supporting structure, a wheel supporting axle for the carriage constituting a driving shaft, a sprocket wheel mounted upon the driven shaft, a plurality of sprocket wheels mounted upon the driving shaft, a sprocket chain passing about the sprocket wheel of the driven shaft and a selected sprocket wheel of the driving shaft, a rotatably mounted rocker shaft, an arm extending from the rocker shaft and provided with a sprocket wheel for engagement with the sprocket chain, a lever connected with the rocker shaft for rotating the same and swinging the arm to bring the sprocket wheel carried thereby into and out of engagement with the sprocket chain, and movable earth working means having operative connection with the driven shaft.

7. A harrow comprising a carriage having a wheel carrying axle constituting a driving shaft, a driven shaft, vertically extending shafts rotated from the driven shaft, earth working means connected with the vertically extending shafts and vertically adjustable thereon, and means for transmitting rotary movement from the driving shaft to the driven shaft.

[Claims 3 and 6 not printed in the Gazette.]

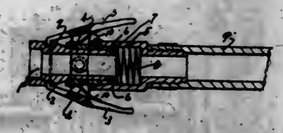
1,253,308. APPARATUS FOR FINISHING PRISMS OR LENSES OR COMBINATIONS OF THE SAME. FRANK TWYMAN and ALFRED GREEN, London, England, assignors to Adam Hilger Limited, London, England. Original application filed Dec. 12, 1916, Serial No. 136,504. Divided and this application filed Nov. 21, 1917. Serial No. 203,187. (Cl. 88—14.)



An apparatus for finishing optical elements comprising a plane parallel glass plate partially silvered and adapted to reflect part of a beam of light and transmit a part, a mirror mounted on a carriage, a projection on the carriage adapted to slide in a straight groove, another mirror mounted on another carriage, a projection on the carriage adapted to slide in a curved groove and means on the second carriage for holding an optical element in coöperative position with the mirror on the second carriage.

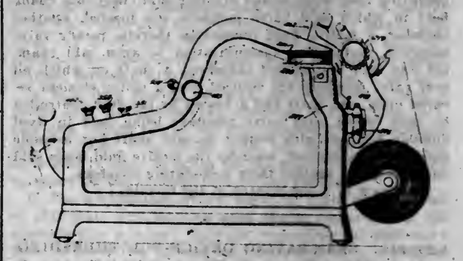
1,253,309. QUICK-ACTING HOSE-COUPLING. NELS ULLELAND, Kent, Wash. Filed May 1, 1917. Serial No. 165,793. (Cl. 137—28.)

In the device of the class described, the combination of a faucet extension member which is adapted to be secured to the end of a faucet, an annular under cut shoulder integral with the faucet extension member, a tapered portion on the extreme outer end of the faucet extension member, a chambered hose extension member of which the internal diameter of the chambered portion is of greater diameter than the external diameter of the tapered portion of the faucet extension member, a sleeve adjustably secured within the end of the chambered portion of the said hose extension member and slidably fitting over the



outer portion of the said faucet extension member, pawl levers pivotally secured to the said sleeve members and adapted to engage the shoulder upon the faucet extension member, a tapered gasket intermediate the tapered portion of the faucet extension member and the inner walls of the chambered portion of the hose extension member, and spring means for normally maintaining the gasket in tight relationship between the said members.

1,253,310. CALCULATING-MACHINE. RICHARD VON REPPERT, St. Louis, Mo. Filed Oct. 22, 1912. Serial No. 727,159. (Cl. 235—60.)



1. A calculating machine comprising a movable carriage, item members in said carriage, a series of stops on each of said item members, figure keys representing digits and means movable with said carriage operatively connected with the figure keys to be set thereby and coöperating with said stops to determine the setting of said item members to represent an item.

10. A calculating machine comprising figure keys representing the digits and an oscillatable frame arranged to be actuated by the operation of any one of the figure keys to thereby lift from depressed position any key in depressed position.

36. A calculating machine comprising item members, totalizing mechanism, and printing mechanism, said mechanisms being normally out of operative connection, a series of movably mounted connecting members, and means to move the connecting members to operatively connect both the item members and totalizing mechanism with the printing mechanism.

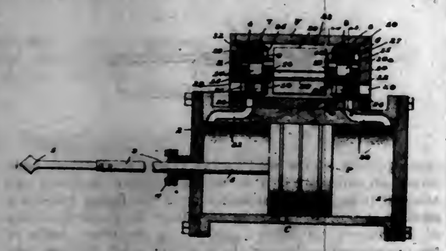
53. A calculating machine comprising item members, stationary total wheels, a single series of shiftable gears operatively connected to said total wheels in either of two positions, means to transmit movement from the item wheels to the total wheels through said gears and means to set said gears in either of said two positions to thereby cause rotation of the total wheels in either direction.

105. A calculating machine comprising a carriage, a series of visual item members in said carriage, a series of stop members in said carriage adapted to be set to stop the movement of said item members, figure keys, and

means connected to said figure keys to set said stop members.

[Claims 2 to 9, 11 to 35, 37 to 52, 54 to 104, and 106 to 109 not printed in the Gazette.]

1,253,311. VALVE MECHANISM. CLIFTON E. VISEL, New Haven, Conn. Filed Aug. 13, 1917. Serial No. 185,869. (Cl. 121—10.)

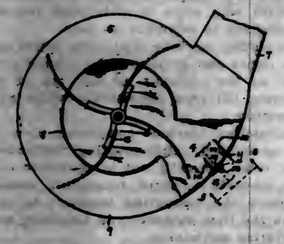


1. The combination with serially connected fluid operated motors, of valve mechanism driven by one of said motors independently of the other motor controlling delivery and exhaust of motive fluid to and from said other motor.

6. Valve mechanism comprising a valve chest, members having exhaust ports, rotary ported valve members cooperating therewith, means dividing said chest into chambers in which said valve members are located, another chamber, a motive fluid connection thereto, rotary valve members controlling communication between said chamber and said first named chambers, a shaft on which all said valve members are secured, and a motor element secured upon said shaft and actuated by the fluid controlled by said valves, said valve members being held in fixed angular relation with respect to said shaft but movable longitudinally thereof, whereby the motive fluid holds said valve members against their coöperating members.

[Claims 2 to 7 not printed in the Gazette.]

1,253,312. BEAN-SAVING DEVICE FOR THRESHING-MACHINES. GEORGE E. WADLEIGH and THOMAS E. GAMMESON, Toledo, Ohio, assignors to The Indiana Manufacturing Company, Indianapolis, Ind., a Corporation of West Virginia. Filed May 1, 1916. Serial No. 94,509. (Cl. 130—30.)



1. In a bean saving device for threshing machines, a material receiving and conveying receptacle, a fan casing communicating therewith and having an outlet in its periphery, a fan in said casing for withdrawing material from said receptacle into said casing and ejecting the same, means in said casing projecting toward and against which such material is driven by the action of said fan and by which beans are threshed from the pods contained in said material, and means in said casing projecting toward said fan for diverting said threshed beans through said outlet in said casing.

2. In a bean saving device for threshing machines, a material receiving and conveying receptacle, a fan casing communicating therewith and having an outlet in its periphery, a fan in said casing for withdrawing material from said receptacle into said casing and ejecting the same, means in said casing against which such material is driven by the action of said fan and by which beans are threshed from pods contained in said material, and a deflector in said casing above said threshing means and projecting toward said fan for downwardly diverting said threshed beans through said outlet.

3. In a bean saving device for threshing machines, a material receiving and conveying receptacle, a fan casing communicating therewith and having an outlet in its periphery, a fan in said casing for withdrawing material from said receptacle into said casing and ejecting the same, and fingers in said casing projecting toward and in the path of travel of the material moved by said fan against which such material is driven by the action of said fan and by which beans are threshed from pods contained in said material.

4. In a bean saving device for threshing machines, a material receiving and conveying receptacle, a fan casing communicating therewith and having an outlet in its periphery, a fan in said casing for withdrawing material from said receptacle into said casing and ejecting the same, threshing fingers in the interior of said casing projecting toward said fan and below said outlet, and a deflector in the interior of said casing projecting toward said fan and above said outlet, whereby beans driven against said fingers by said fan are threshed and deflected downwardly through said outlet.

5. In a bean saving device for threshing machines, a material receiving and conveying receptacle, a fan casing communicating therewith and having an outlet in its periphery, a fan in said casing for withdrawing material from said receptacle into said casing and ejecting the same, means projecting toward and in the path of travel of the material moved by said fan in said casing for rethreshing beans from their pods, a deflector in said casing projecting toward said fan for directing such threshed beans downwardly, and a deflector over said outlet and projecting from the outer side of said fan casing for directing such beans into a receptacle.

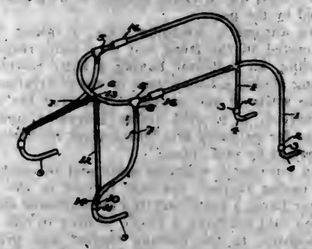
1,253,313. PLUG-TOBACCO. ERNEST G. WARNER, Washington, D. C., assignor to Jonathan Peterson, Brooklyn, N. Y. Filed Apr. 13, 1916. Serial No. 90,912. (Cl. 131—15.)



As an article of manufacture, a plug of tobacco comprising tobacco leaves compressed with a suitable binder and composed of a plurality of integral units formed by series of grooves intersecting substantially at right angles and pressed into the opposite surfaces thereof, the grooves at one side of the plug being arranged in opposition to the grooves at the opposite side of the plug, said grooves extending but part way through said plug to form connecting portions for said units in the median plane of the plug, the connecting portions for the various units being compressed to a greater degree than the body of each individual unit.

1,253,314. SAFETY DEVICE FOR SKATES. GEORGE M. WARNER, Washington county, Minn. Filed Dec. 7, 1916. Serial No. 135,709. (Cl. 46—53.)

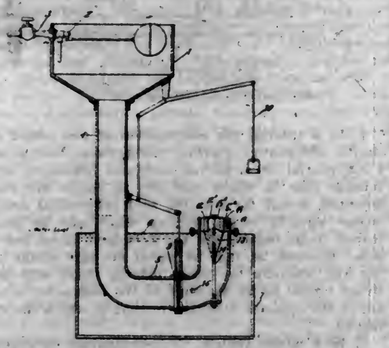
1. In a skating device, the combination of a U shaped horizontal frame, supporting members extending downwardly from the open end of said U shaped frame and terminating in anti-friction devices at the lower end thereof, and supporting members extending downwardly from the forward part of said U shaped frame, comprising a substantially inverted P shaped support terminating in anti-friction devices.



2. In a skating device, the combination of a U shaped horizontal frame, supporting members extending downwardly from the open end of said U shaped frame and terminating in anti-friction devices at the lower end thereof, supporting members extending downwardly from the forward part of said U shaped frame, comprising a substantially P shaped support terminating in anti-friction devices, and a brace extending from the central portion of the forward end of said U shaped frame to the lower portion of each of said P-shaped supporting members.

[Claim 3 not printed in the Gazette.]

1,253,315. APPARATUS FOR AND METHOD OF TEMPERING GEARS AND PINIONS. JOHN E. WEBSTER, Pittsburgh, and GEORGE M. EATON, Wilkinsburg, Pa., assignors to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed May 7, 1913. Serial No. 766,175. (Cl. 266—6.)



1. The method of uniformly tempering pinions which consists in causing a predetermined volume of fluid to pass longitudinally along the teeth in an annular stream at a predetermined rate.

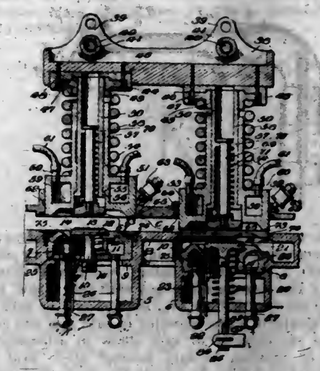
2. The method of treating gears which consists in causing a predetermined volume of fluid to pass longitudinally along the teeth thereof in a uniformly distributed stream.

3. An apparatus for treating toothed gears comprising means for supporting a gear and means for flowing a predetermined volume of cooling fluid between the gear teeth at a predetermined rate.

4. An apparatus for treating toothed gears comprising a liquid-receiving tank, a U-shaped pipe partially submerged in the liquid within said tank, means for supporting a gear within one end of said pipe and just above the liquid level and means for discharging a predetermined volume of liquid into the opposite end of said pipe.

[Claim 5 not printed in the Gazette.]

1,253,316. MACHINE FOR FORMING DISHES OR RECEPTACLES. GEORGE W. WEILAND, Scranton, Pa., assignor of one-third to E. A. Jones, Scranton, Pa. Filed Mar. 8, 1916, Serial No. 82,957. Renewed June 4, 1917. Serial No. 172,806. (Cl. 18—19.)



1. In a dish making machine, the combination of a plurality of rows of stationary and movable dies, a bolster plate for supporting the stationary dies, and means provided for discharging the dishes from a row of said stationary dies beneath the bolster plate so that the dishes will not interfere with the feeding of the stock to the dies.

2. In a dish making machine, the combination with a frame, of a carriage movably mounted in the frame, movable dies carried by the carriage, stationary dies mounted on the frame coöperating with the movable dies, and adjustable wedges mounted on the frame for guiding and maintaining the carriage centered in the frame.

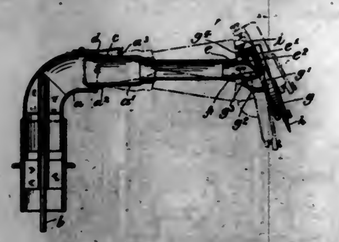
3. The combination with a frame, of a plurality of rows of stationary and movable dies, means for actuating the movable dies, a bolster plate for supporting the stationary dies, the inner row of said stationary dies being located beneath the bolster plate so that the articles formed thereon may be discharged from the machine without interfering with the feeding of the stock to the dies, and means provided for discharging the articles from said row of stationary dies beneath the bolster plate.

4. In a dish making machine, the combination of a plurality of rows of stationary and movable dies, a bolster plate for supporting the rows of stationary dies, gripping members carried by the dies, cams for operating the movable dies, means for feeding stock to the machine, a row of gripping members of the stationary dies being adapted to project above the bolster plate to co-act with the gripping members of the adjacent movable dies, and cam controlled means for holding the other row of gripping members of the other row of stationary dies at a position so that the stock may be fed onto the bolster plate.

5. In a dish making machine, the combination of a plurality of rows of stationary and movable dies, a bolster plate for supporting the rows of stationary dies, gripping members carried by the dies, the gripping members of the stationary dies projecting above the surface of the bolster plate, means for feeding stock onto the bolster plate to be operated on by the dies, means for holding the gripping members of the secondary row of dies beneath the bolster plate during the feeding operation so that the gripping members will not interfere with the feeding of the stock, and means for operating the movable dies, said gripping members being adapted to engage the stock prior to the action of the dies on the stock for holding the stock against movement, said holding means being adapted to release the gripping members of the secondary row of dies upon the completion of the feeding operation.

[Claims 6 to 10 not printed in the Gazette.]

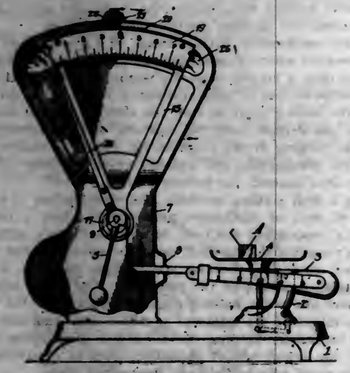
1,253,317. TALKING-MACHINE. JOHN A. WESER, New York, N. Y.; Elsie L. Weser, administratrix of said John A. Weser, deceased, assignor to Weser Bros., Inc., New York, N. Y., a Corporation of New York. Filed Jan. 25, 1915. Serial No. 4,122. (Cl. 274—24.)



2. In a sound reproducing machine, the combination of a tone arm provided at its outer end with an elbow, a sound box, a member extending rearwardly from said sound box and rotatably engaged with said elbow, an arm extending outwardly from said sound box over said elbow, and an adjustable screw mounted in said arm and adapted to engage the exterior of said elbow in alinement with the axis of rotation of said member about said elbow, whereby said sound box is attached to said elbow and may be rotated with respect to the elbow through an arc of approximately 90 degrees.

[Claims 1 and 3 to 6 not printed in the Gazette.]

1,253,318. WEIGHING-SCALE. LEWIS CALVIN WETZEL, Toledo, Ohio, assignor, by mesne assignments, to Toledo Scale Company, Toledo, Ohio, a Corporation of New Jersey. Filed Mar. 17, 1913. Serial No. 754,734. (Cl. 265—61.)



1. A weighing scale comprising a pivoted indicator hand, a chart pivoted concentrically with the indicator hand and having a rack upon the arcuate edge thereof, a pinion meshing with the rack for adjusting the chart, a shaft upon which the pinion is mounted and a lock the revoluble member of which is connected to the shaft for rotating the same.

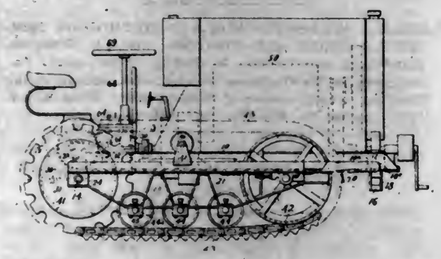
2. In a weighing scale and in combination with the beam, load receiver and pendulum thereof, a bifurcated weight indicator connected to and movable with the pendulum, a hollow boss surrounding one of the pendulum bearings, a sleeve rotatable upon the boss, a frame connected to the sleeve, an arcuate chart carried by the frame and extending between the forks of the bifurcated indicator, a rack upon the arcuate edge of the frame, a pinion meshing with the rack and means for revolving the pinion.

3. In an automatic weighing scale, a casing, an indicator hand, a frame pivoted upon the casing concentric with the pivot of the hand and having a rack upon the edge thereof in a plane perpendicular to the pivot of said frame and hand, a shaft journaled in the casing carrying a pinion cooperating with said rack, posts projecting from said frame, and a chart concentric with said pivots and carried by the posts.

4. In an automatic weighing scale, a casing, bearing blocks mounted in the front and rear walls respectively of the casing, an indicator having a knife resting upon said bearing blocks, a hollow boss or sleeve arranged upon one of the walls of the casing surrounding the bearing carried thereby, a pivoted frame journaled upon said boss, means for swinging said frame about its journal, and a chart carried by said frame.

5. In an automatic weighing scale and in combination with the casing thereof, bearings formed in the casing, an indicator hand, a knife carrying the indicator hand and mounted on said bearings, a sleeve secured to one of said walls concentric to the bearing thereof and projecting inwardly therefrom, a frame having a hollow sleeve surrounding the sleeve on the casing, means for securing the sleeves from relative endwise movement, means for oscillating the frame comprising a rack and pinion, and a chart carried by said frame.

1,253,319. TRACTOR. ROLLIN H. WHITE, Shaker Heights, Ohio, assignor to The Cleveland Tractor Company, Euclid, Ohio, a Corporation of Ohio. Filed Dec. 20, 1916. Serial No. 137,964. (Cl. 180—9.)



1. In a tractor, the combination of two alined driving shafts, differential gearing therebetween which includes a differential drum having elongated oppositely extended tubular hubs in which said driving shafts are rotatably mounted, means for rotating said differential drum, and means whereby either driving shaft may be positively turned in its bearings in the associated drum hub in the same direction as that in which the said drum is turning and whereby the other driving shaft will be positively turned in its bearings in the associated drum hub but in the opposite direction to that in which the drum is turned.

2. In a motor vehicle, the combination of a gear casing, a differential drum having two oppositely extended alined tubular hubs which are rotatably mounted in said gear casing, two driving shafts which are respectively mounted to rotate in the two drum hubs, differential mechanism mounted upon said differential drum for driving the two driving shafts, and mechanism operable while the drum is rotating whereby either driving shaft may be positively turned in its bearings in the associated drum in the same direction as that in which said drum is turned, and the other driving shaft will be positively turned in its bearings in the associated drum hub but in the opposite direction to that in which the drum is turned.

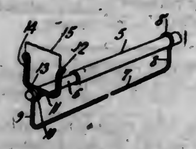
3. In a motor vehicle, the combination of a gear casing, a differential drum having two oppositely extended alined tubular hubs which are rotatably mounted in said gear casing, two driving shafts which are respectively mounted to rotate in said drum hubs, two brake drums which are respectively mounted to rotate on the two hubs of said drums, means for applying braking pressure independently to said two brake drums, and means carried by the differential drum intermediate of said brake drums and driving shafts whereby when the rate of revolution of either brake drum is checked the corresponding driving shaft will be positively turned in the associated drum hub and in the reverse direction to that in which said drum is turning and the other driving shaft will be positively turned in its associated drum hub in the same direction in which said drum hub is turning.

4. In a motor vehicle, the combination of a gear casing, a differential drum having two oppositely extended alined tubular hubs which are rotatably mounted in said gear casing, two driving shafts which are respectively mounted to rotate in said drum hubs, gears which are disposed within said drum and are respectively fixed to the inner ends of said driving shafts, a set of compensating pinions mounted in the drum in mesh with one of said gears, a second set of compensating pinions mounted in said drum in mesh with the other gear and with pinions of the other set,—one pinion of each set being secured to a rotatable shaft which extends through an end wall of the drum and has a gear on its outer end, two brake drums rotatable upon the hubs of said differential drum each carrying a pinion which pinions respectively mesh with the two gears fixed to the compensating pinions, and means to independently apply the braking pressure to the two brake drums.

5. In a chain belt tractor, the combination of a main frame, a gear case fixed thereto, two traction frames located on opposite sides of the main frame and pivoted near their rear ends to said main frame on alined horizontal transverse axes, a driving sprocket mounted on each traction frame and provided with an internal gear, a second traction wheel mounted in the front end of each traction frame, a chain link belt track embracing each pair of associated traction wheels, a differential drum having elongated oppositely extended hubs which are rotatably mounted in said gear case, two driving shafts rotatably mounted in the hubs of said differential drum, pinions on the outer ends of said driving shafts respectively engaging the two internal gears, spur gears respectively fixed to the inner ends of said driving shafts within the gear case, a set of compensating pinions rotatably mounted within said drum and engaging with the gear on the end of one of the driving shafts, another series of compensating pinions rotatably mounted within the drum and engaging with the pinion on the other driving shaft, and with compensating pinions, one compensating pinion of one set being fixed to a rotatable shaft which projects through one end of the differential drum, a gear fixed to the outer end of each of said shafts, one pinion of the other series of compensating pinions being also fixed to a rotatable shaft which projects through the opposite end of said drum, two brake drums respectively mounted on the two hubs of the differential drum,—the hub of each drum being provided with a pinion, which pinions respectively mesh with the two gears secured to said compensating pinions, and means for applying braking pressure to either of said brake drums at will.

[Claim 6 not printed in the Gazette.]

1,253,320. DISPLAY-RACK FOR GLOVES. WALTER MOTLEY WHITE, Rockymount, Va. Filed Mar. 24, 1917. Serial No. 157,170. (Cl. 211—15.)



A display rack embodying an arm having a tubular section and a rod slidable therein, an elongated hanger below said arm having upturned portions at its ends, one upturned portion having an eye slidable on said tubular section, and the other upturned portion having a coil tightly embracing the rod and a tag holding portion projecting from said coil.

1,253,321. DEVICE TO PREVENT DOUBLE EXPOSURE IN CAMERAS. OSCAR HOWARD WILBER, Jr., New Boston, Mass. Filed Nov. 27, 1916. Serial No. 133,540. (Cl. 95—32.)

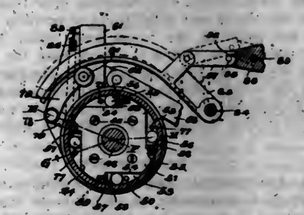


1. A camera arranged to contain a movable film for a plurality of exposures, a shutter having a trigger, a roller contiguous to the said film and arranged to be revolved by the movement of the film, a flexible rod having one end held normally against the side of the trigger, means for moving the said end of the rod in the path of the trigger when the trigger is moved and connection between the opposite end of said rod and roller whereby the rod is moved from the path of the trigger as the film is moved.

3. A camera arranged to contain a movable film for a plurality of exposures, a shutter having a trigger normally held at the upper end of a slot, a roller provided with a lug and an adjacent cam-face operated by the movement of the film, a flexible rod held normally against the side of the trigger when the same is at the upper end of the slot, means for moving the end of the rod across the slot to prevent the return of the trigger after the same has been moved downwardly, a hook upon the opposite end of the rod to engage with the lug operating to withdraw the opposite end of the rod from the path of the trigger permitting the same to return to its normal position at the upper end of the slot when the film is moved for a new exposure and the cam-face operating to disengage the hook from the lug upon the roller.

[Claim 2 not printed in the Gazette.]

1,253,322. FEED MECHANISM. RICHARD LESTER WILCOX, Waterbury, Conn., assignor to The Waterbury Farrel Foundry and Machine Company, Waterbury, Conn., a Corporation of Connecticut. Filed May 28, 1915. Serial No. 31,019. (Cl. 74—54.)



1. In a feed mechanism, the combination with companion rotary shafts; of an operative connection therebetween; means for intermittently rotating said shafts, comprising a notched element; a member covering the notch in said notched element; an independent member within said notch mounted so that in one position it contacts with one face of the notch and one face of said member covering the notch; means for imparting an intermittent rotary movement to said notched element; means, movable in the path of said independent member,

and having contact therewith, whereby the frictional engagement of said independent member with said notched element and covering member is broken, the center of said latter means being located at a point more distant from the center of said clutch than that of the independent member; a rock member connected with said latter means; and a movable member mounted in the path of said rock member and controlling the movement thereof.

5. In a feed mechanism, the combination with companion rotary shafts; of an operative connection therebetween; means for intermittently rotating said shafts, comprising a notched element; a member covering the notch in said notched element; an independent member within said notch mounted so that in one position it contacts with one face of the notch and one face of the said member covering the notch; means for imparting an intermittent rotary movement to said notched element; a trip member in the path of said independent member; means for mounting said trip member so that it may move with or independently of said notched element, said means comprising a rock arm, a roll arm having a curved face thereon, means for moving said roll arm so that said curved face may be either concentric or eccentric with the axis of said notched element, and means for holding said rock arm against said curved face when the same is in the concentric position whereby the said independent member will move as a unit with said notched element.

[Claims 2 to 4, 6, and 7 not printed in the Gazette.]

1,253,323. METHOD FOR POINTING AND THREADING SCREWS, BOLTS, AND SIMILAR ARTICLES. RICHARD LESTER WILCOX, Waterbury, Conn., assignor to The Waterbury Farrel Foundry and Machine Company, Waterbury, Conn., a Corporation of Connecticut. Original application filed Aug. 23, 1915, Serial No. 46,941. Divided and this application filed July 21, 1916. Serial No. 110,518. (Cl. 10—10.)

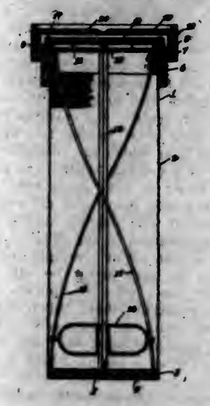


1. The process of providing a pointed article having a continuous thread of uniform pitch thereon consisting in threading the blank and simultaneously pointing the end and finally completing the thread of the blank on the end in a continuous operation.

2. The process of pointing the blank and rolling a thread of uniform pitch thereon at one and the same time, said pointing process cutting off a portion of one end of the blank during the threading operation and the thread on the shank and point being of uniform pitch for process, the pointing the blank and rolling a thread thereon consisting in rolling a thread upon the shank of the blank beyond the point and pointing the blank simultaneously therewith, and in a continuous operation completing the threading of the pointed portion in continuation of and having uniform pitch with the thread on the shank.

1,253,324. INDICATING APPARATUS FOR GASOLENE-TANKS, &c. FREDERICK N. WINDRIDGE, Cherrydale, Va., assignor of one-third to John S. Ward, Cherrydale, Va. Filed Dec. 28, 1915. Serial No. 69,013. (Cl. 200—34.)

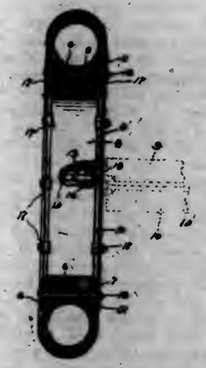
2. A float actuated circuit closer comprising a foraminous body, an annulus on the upper end of said body whereby the circuit closer may be secured within a tank, a disk carried by said annulus, contact segments on said disk arranged in a partially circular row, a curved contact strip on said disk describing with said segments a circle, a vertical shaft in said body angular in cross section, a bridging finger on the upper end of said shaft for bridging said segments and strip, a float within said body slidably mounted upon said shaft, and operating wires having the lower ends thereof secured to said body and passed through said float and the upper ends secured to



the lower side of said disk and twisted through a half circle whereby the float will be rotated in the movement thereof.

[Claims 1, 3, and 4 not printed in the Gazette.]

1,253,325. VEHICLE-WHEEL RIM. SILAS WINSCOTT, Sturgeon, Mo. Filed Aug. 24, 1915. Serial No. 47,084. (Cl. 152—21.)



1. In a wheel, a felly, a tire supporting rim arranged on said felly and consisting of a pair of independent portions, each portion having opposed circumferential flanges, means to lock said portions on said felly, one portion consisting of a pair of semi-circular sections, means pivotally carried by the sections for slidably engaging the upper surface of said felly, whereby the sections can be moved laterally of the felly and toward each other.

[Claim 2 not printed in the Gazette.]

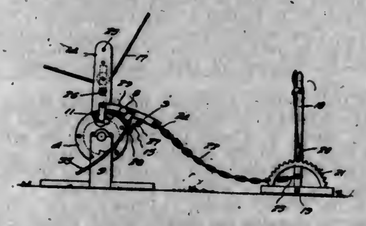
1,253,326. CLOTHES-LINE PROP. ERNEST WOLD, Superior, Wis. Filed Aug. 10, 1917. Serial No. 185,610. (Cl. 68—12.)

1. A clothes line prop comprising a stationary member having a pointed end, and the said member being centrally slotted from near its said pointed end to its opposite end, a band surrounding the said member at its last mentioned end, one of the arms provided by the slot in the said member having its inner face provided with spaced slining sockets, a second member slidable in the slot of the first mentioned member, and having its inner end provided at its corners with outstanding ears overlying the arms of the first mentioned member, said second mentioned member having a pocket adjacent to the inner end thereof, a two-arm spring in the pocket, one of the arms of the said spring being secured to the said second mentioned member of the prop, a bolt passing through a transverse opening in the second mentioned member and contacted by the second arm of the spring to project the same to engagement with one of the sockets of the first mentioned member of the prop, said bolt having its inner end provided with an angular knob, a plate closing the pocket and having an opening through which the knob passes, a finger-piece on the plate opposite the knob, and a hook member on the outer face of the plate.



2. In an adjustable clothes line prop, two members one provided with a central slot, the other arranged in the slot and slidable therethrough, the stationary member upon the inner wall provided by the slot having spaced sockets, the slidable member having a pocket, a two arm spring in the pocket and having one of its arms secured, a bolt passing through a transverse opening in the pocket, and engaged by the second arm of the spring to normally project the same in engagement with one of the referred to sockets in the stationary member, a laterally extending handle for the bolt and a stationary finger-piece arranged opposite the handle.

1,253,327. WELL-DRILLING TRIP. CLEVELAND W. WOODLAND, Lind, Wash. Filed May 16, 1917. Serial No. 169,071. (Cl. 255—8.)



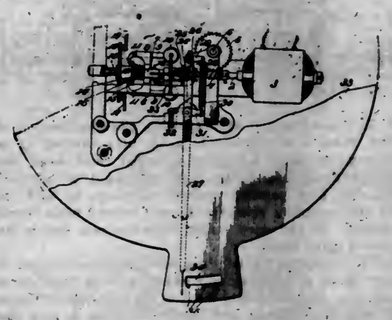
1. A well drilling trip including in combination with a power shaft, a trip cylinder having a cable lever carried as a part thereof loosely mounted on said power shaft, a trip pawl by which the cylinder is locked to turn with the power shaft, means carried by the shaft with which the trip pawl locks, adjustable means carried by the cable lever by which a cable is held in conjunction therewith, and means to release the trip pawl to free the trip cylinder from the locked connection with the power shaft.

5. A well drilling trip including in combination with a power shaft, a trip cylinder from which connection is made to a drilling tool, said trip cylinder being loosely mounted on the shaft, a ratchet hub fixedly mounted on the power shaft and located within the trip cylinder, a trip lever swingingly mounted on said trip cylinder, a trip pawl carried by the trip lever and extending into the trip cylinder, means to move and normally hold the trip lever in a fixed position so that the trip pawl is engaged with the teeth of the ratchet hub to lock the trip cylinder to turn with the shaft, and means to swing the trip lever to have movement so that the trip pawl is disengaged from the holding position when the desired turning movement of the trip cylinder has been accomplished.

8. A well drilling trip including in combination with a power shaft, a trip cylinder loosely mounted on the power shaft and having a cable lever extending therefrom, cable holding means adjustably mounted on said cable lever, a ratchet hub fixedly mounted on the power shaft within the trip cylinder, a trip lever swingingly mounted on said trip cylinder, a trip pawl carried by one end of said trip lever and extended into the trip cylinder to engage with the teeth of the ratchet hub, means to normally urge the trip lever to a position that the trip pawl is operative, an adjusting lever mounted adjacent the mounting of the power shaft and provided with means by which the same is locked in adjusted positions, means connected between the free end of the trip lever and said adjusting lever, and means to be shifted to a position to lock the trip lever in such a position that the trip pawl is rendered inoperative.

[Claims 2 to 4, 6, and 7 not printed in the Gazette.]

1,253,328. COMBINED GOVERNOR AND SPEED-INDICATOR FOR TALKING-MACHINES. CLINTON E. WOODS, Bridgeport, Conn., assignor to American Graphophone Company, Bridgeport, Conn., a Corporation of West Virginia. Filed May 29, 1913. Serial No. 770,717. (Cl. 74—45.)



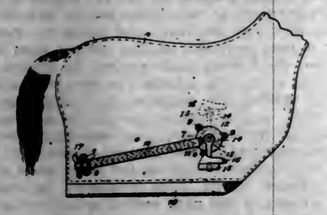
1. In a talking machine, in combination with a turntable shaft for rotating a sound-record and a motor, a shaft driven by said motor, operative connections between said shafts, a centrifugal device rotated by said driven shaft, brake mechanism operatively connected therewith, a second centrifugal device rotated by said driven shaft and responsive to changes of speed of said first centrifugal device, and a speed indicator operatively connected with said second centrifugal device.

6. In a talking machine, in combination with a turntable shaft for rotating a sound-record and a motor, a shaft driven by said motor, operative connections between said shafts, a hub carried by said driven shaft, two sets of centrifugal devices independently mounted on said hub, a sleeve at one end of said hub rotating with and movable longitudinally on said driven shaft, a second sleeve at the other end of said hub rotating with and movable longitudinally on said driven shaft, each of said sleeves being operatively related to one of said sets of centrifugal devices whereby it may be moved longitudi-

nally of the driven shaft thereby, brake mechanism associated with one of said sleeves, and a speed indicator operatively connected to the other of said sleeves.

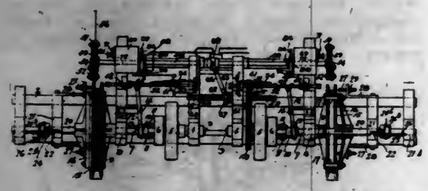
[Claims 2 to 5, 7, and 8 not printed in the Gazette.]

1,253,329. MECHANICAL WATER-HORSE FOR AQUATIC SPORTS. ANTONIO ALAJ, Cleveland, Ohio. Filed Mar. 7, 1917. Serial No. 153,188. (Cl. 115—25.)



A float of a form capable of being straddled by a rider, casings secured to opposite sides of the float at the front part thereof and each having a tubular housing extending rearwardly beside the float, a shaft in each housing provided with a propeller at its rear end, and independent pedal cranks mounted on the casings and geared to the shafts respectively.

1,253,330. APPARATUS FOR WINDING WIRE. CHRISTIAN B. ANFINDSEN, Charleroi, Pa., assignor to Pittsburgh Steel Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 16, 1917. Serial No. 155,258. (Cl. 242—25.)



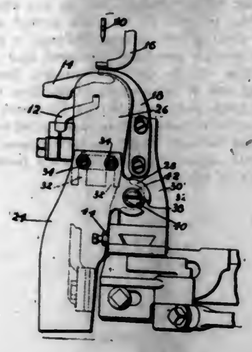
1. In apparatus for winding wire, the combination of a rotary head, a withdrawable head, pins carried by said withdrawable head, a loosely mounted third head interposed between said rotary head and said withdrawable head, said pins passing through openings in said third head and engaging openings in said rotary head forming a support for the wire wound between said rotary head and said third head.

2. In apparatus for winding wire, the combination of a rotary head, a reciprocatory shaft, a head fixed to said shaft, pins carried by said head, a head interposed between said first-named heads and loosely mounted on said shaft, said pins passing through openings in said interposed head and engaging openings in said rotary head forming a support for the wire wound between said rotary head and said interposed head.

3. In apparatus for winding wire, the combination of a rotary head, a reciprocatory head, a head movable with said shaft, pins carried by said last-named head, a head interposed between said first-named heads loosely mounted on said shaft, said pins passing through openings in said interposed head and engaging openings in said rotary head, and a stop in the path of said interposed head for positioning the head with respect to its spaced relation with the rotary head.

4. In apparatus for winding wire, the combination of a rotary head, a head movable to and fro, pins carried by said last-named head, a head interposed between said first-named head, said pins passing through openings, said interposed head and engaging openings in said rotary head, and means for locking said second-named head in position.

1,253,331. GUARD FOR SHOE-STITCHING MACHINES. FRED ASHWORTH, Beverly, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 29, 1915. Serial No. 69,228. (Cl. 112—20.)



1. A guard for a shoe stitching machine comprising, a holder secured to the machine below the stitching point, a longitudinally adjustable apron attached to the holder and located in front of the looper, and means to lock the apron in adjusted position.

2. A shoe stitching machine having, in combination, stitch forming devices including a looper and take-up, a guard for the work comprising a holder secured to the machine between the take-up and the work, and an apron adjustably mounted on the holder between the looper and the work, the adjustable mounting of the apron consisting of a slot in the apron and a screw passing through the holder and said slot and secured in a clip positioned behind the apron.

4. A shoe stitching machine having, in combination, stitch forming devices including a looper and take-up, a guard for the work comprising a holder positioned between the take-up and the work, and an apron on said holder positioned between the looper and the work, said guard being pivotally mounted to be swung out of position to give access to the looper, the mounting including a slotted arm projecting from the guard, a counter-sunk opening in the slot, and a pivot screw having a head to fit the counter-sunk opening of the slot, secured in the machine.

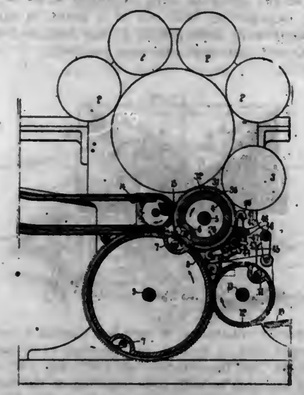
[Claims 3 and 5 not printed in the Gazette.]

1,253,332. DELIVERY MECHANISM FOR PRINTING-PRESSES. HOWARD M. BARBER, Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of Delaware. Original application filed Sept. 21, 1915, Serial No. 51,787. Divided and this application filed Feb. 16, 1916. Serial No. 78,662. (Cl. 101—419.)

1. A sheet delivery mechanism for printing presses including a printed sheet delivery cylinder, an endless sheet delivery carrier, a cylinder for transferring the printed sheets from the delivery cylinder to the delivery carrier, means for feeding slip sheets to said transfer cylinder to be associated thereon with the printed sheets on their way to the delivery carrier, and risers on the delivery cylinder for engaging the margins of the printed sheets whether continuous or staggered, for passing the sheets around the cylinder without smutting the freshly printed faces of the sheets.

5. A sheet delivery mechanism for printing presses including a printed sheet delivery cylinder, an endless sheet delivery carrier, a cylinder for transferring the printed sheets from the delivery cylinder to the delivery carrier, risers on the delivery cylinder for engaging the margins

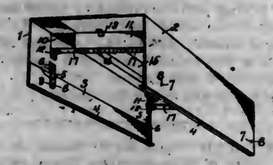
of the sheet whether continuous or staggered, for passing the sheet around the cylinder without smutting the freshly



printed face of the sheet and means coacting with the risers for controlling the movement of the sheet.

[Claims 2 to 4 and 6 to 8 not printed in the Gazette.]

1,253,333. JOIST-FORM. THOMAS J. BARKER and FRANK L. MILLER, Rosedale, Kans. Filed Feb. 15, 1917. Serial No. 148,849. (Cl. 25—131.5.)



1. In a joist form, a substantially right-angled member having a horizontal top and an upright side, and a brace member pivoted to the inner side of said right-angled member and adapted to be swung from a longitudinal collapsed position to a horizontal transverse position relatively to said right-angled member and provided with a longitudinal row of holes adapted to receive a securing device.

7. In a joist form, a substantially right-angled member having a horizontal top and an upright side, and two channel brace members pivoted to the inner side thereof so as to be swung from a horizontal transverse position to a longitudinal position, one of the brace members having a width such that it will embrace the other brace member when the brace members are in the longitudinal position, each brace member having a longitudinal row of holes adapted to receive a securing device.

11. In a joist form, two substantially right-angled members having overlapping horizontal tops and upright sides, two brace members respectively pivoted to the inner sides of said right-angled members so as to swing from a longitudinal position to horizontal transverse positions, the right-angled members being adjustable toward and from each other, and means for releasably securing together said brace members.

17. In a joist form, two right-angled members having overlapping tops and upright sides and adjustable toward and from each other, releasable bracing means connecting said right-angled members, said sides of said members being substantially vertically extensible, and a closure extensible as to height and width and having flanged edges respectively embracing the outer sides of said right-angled members.

18. In a joist form, horizontal supports, stops secured thereto, and extending above the upper surfaces thereof, two substantially right-angled members having overlapping horizontal tops and upright sides and adjustable toward and from each other, each side having at its lower edge an inwardly extending longitudinal flange having its inner edge bearing against one of said stops, releasable bracing means connecting said right-angled members, and an end closure extensible as to width and embracing the outer sides of said right-angled members and having at its lower edge an inwardly extending flange which bears against one of said stops.

[Claims 2 to 6, 8 to 10, and 12 to 16 not printed in the Gazette.]

1,253,334. FERMENTS AND PROCESS OF MAKING THE SAME. ALBERT DECATUR BARR, McHue, Ark. Filed June 3, 1916. Serial No. 101,443. (Cl. 99—11.)

1. A ferment having the power of splitting carbohydrates with the production of acid bodies and of exercising this action in acid, alkaline or neutral media, and having also proteolytic powers, and having the physical appearance of, and responding to the usual tests for, a proteolytic enzym, and responding also to the tests for amino acids.

5. A ferment comprising a mixture of an enzym with a relatively small amount of leucin.

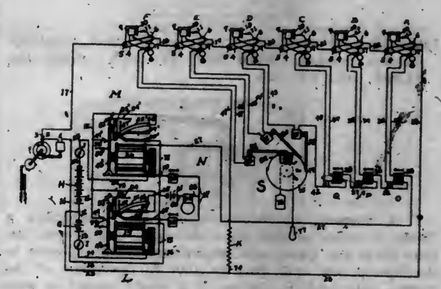
10. A ferment comprising a mixture of a proteolytic enzym, another proteolytic enzym, and a compound containing the amino acid radical.

15. A ferment comprising a mixture of pepsin and pancreatin in about equal portions, and an amount of leucin equal to about 5% of the total amount of the enzyms.

17. The process of making a ferment having the power of splitting carbohydrates, which consists in mixing a plurality of proteolytic enzyms, triturating this mixture, adding a relatively small proportion of a compound containing the amino acid radical, and again triturating the mixture.

[Claims 2 to 4, 6 to 9, 11 to 14, and 16 not printed in the Gazette.]

1,253,335. AUXILIARY ALARM SYSTEM. CLARENCE E. BEACH, Binghamton, N. Y., assignor, by mesne assignments, to The Gamewell Fire Alarm Telegraph Company, a Corporation of New York. Filed Sept. 24, 1914. Serial No. 863,321. (Cl. 177—369.)



1. In an auxiliary alarm system: a box starting magnet; a plurality of auxiliary stations; indicator mechanism having a plurality of electromagnets; suitable current supply mechanism; circuit connections whereby said current supply mechanism may effectively energize the starting magnet and an indicator mechanism magnet upon the operation of an auxiliary station, and whereby test current insufficient to effectively energize said starting magnet is normally maintained through said starting magnet, and test current is maintained through said auxiliary stations, connections indicator mechanism magnets, and current supply mechanism; and alarm mechanism so connected thereto as to be responsive to test current impairment.

2. In an auxiliary alarm system: a box starting magnet; a plurality of auxiliary stations; indicator mechanism having a plurality of electromagnets; suitable current supply mechanism; circuit connections whereby said current supply mechanism may effectively energize the starting magnet and an indicator mechanism magnet upon the operation of an auxiliary station, and whereby test current insufficient to effectively energize said starting magnet is normally maintained through said starting magnet, and test current is maintained through said auxiliary stations, connections, indicator mechanism magnets, and current supply mechanism; and alarm mechanism independent of said box starting magnet so connected to said circuit connections as to be responsive to test current impairment.

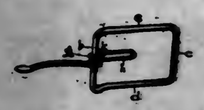
3. In an auxiliary alarm system: a box starting magnet; a plurality of auxiliary stations; indicator mechanism having a plurality of electromagnets; suitable current supply mechanism; circuit connections whereby said current supply mechanism may effectively energize the starting magnet and an indicator mechanism magnet upon the operation of an auxiliary station, and whereby a test current path is normally maintained through said starting magnet, auxiliary stations, connections, indicator mechanism magnets, and current supply mechanism; and alarm mechanism so connected thereto as to be responsive to operative impairment of said current path.

4. In an auxiliary alarm system: a box starting magnet; a plurality of auxiliary stations; a test loop connected to said auxiliary stations and including the box starting magnet; indicator mechanism having a plurality of electromagnets; a second test loop connected to said auxiliary stations and serially including the indicator magnets; current supply mechanism for said loops; and alarm mechanism so connected with said loops as to be rendered active by a break in either of said loops.

5. In an auxiliary alarm system: a box starting magnet, a plurality of auxiliary stations, a test loop connected to said auxiliary stations and including the box starting magnet, indicator mechanism having a plurality of electromagnets each having two approximately equal windings, a second test loop connected to said auxiliary stations and including the indicator magnets, current supply mechanism for said loops, and alarm mechanism so connected with said loops as to be rendered active by a break in either loop.

[Claims 6 to 22 not printed in the Gazette.]

1,253,336. BELT-BUCKLE. HENRI BEAUDAY, Montreal, Quebec, Canada. Filed Mar. 15, 1915. Serial No. 14,408. (Cl. 24—73.)

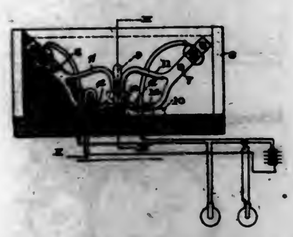


1. A trousers supporting belt buckle comprising a frame, a tongue pivoted upon the frame and a hook distinct from the frame and tongue and rigidly secured to the former and extending parallel to the plane of the tongue, said hook consisting of a single strand of wire having one end fastened to the frame adjacent to the said tongue and having its opposite end bent back and extending to within close proximity of its first-mentioned end whereby the bent back portion may engage a button on the trousers and prevent vertical displacement of the buckle thereon.

[Claims 2 and 3 not printed in the Gazette.]

1,253,337. AUTOMOBILE TURNING-SIGNAL LIGHT. JOHANNES P. BECKER, Berkeley, Cal. Filed Oct. 3, 1916. Serial No. 123,503. (Cl. 200—27.)

1. In a circuit controller, a switch member including a rod, unitary contacts each having a pair of arms, one arm of each contact being arranged opposite to each other so as to be simultaneously engaged by said rod at substantially diametrically opposite points on said rod, the other arms of the contacts being arranged so as to be independently engaged by said rod at a point in approximate alinement with said points of the rod, and means to guide said rod into said engaging positions.

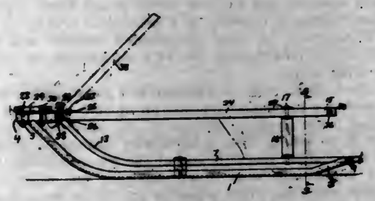


3. In a circuit controller, a member having a substantially T-shaped slot, a switch rod pivoted at a point in alinement with the intersection of the head and leg of the slot and movable in said head and leg of the latter, a pair of substantially C-shaped contacts arranged so that each has one end on the respective sides of the leg of the slot to be simultaneously engaged by the rod when the latter is moved into the leg of the slot, the other ends of the contacts being arranged at one side of the respective ends of the head of the slot so as to independently engage said rod as the latter is moved into the respective ends of the head of the slot.

4. In a circuit controller, a switch member, unitary contacts having parts arranged to simultaneously engage said member and other parts arranged to independently engage said member, and means to mount said member so that each of the contact parts will engage substantially the same part of said member.

[Claim 2 not printed in the Gazette.]

1,253,338. SLED. CHARLES S. BEEBE, Racine, Wis., assignor to B. B. Manufacturing Company, Racine, Wis., a Corporation of Wisconsin. Filed Apr. 30, 1917. Serial No. 165,363. (Cl. 21—94.)



1. In a sled, the combination with a seat, of running boards below the seat and at the sides thereof and provided with upwardly inclined parts, and runners below the running boards.

2. In a sled, the combination with a seat, of running boards below the seat and at the sides thereof and provided with upwardly inclined parts, runners below the running boards and with their forward ends free to be flexed sidewise, and means for flexing the forward ends of the runners sidewise.

3. In a sled, the combination with a seat and running boards, of runners below the running boards and having their rear ends inclined upward.

4. In a sled, the combination with a seat and running boards below the seat and at the sides thereof, of a handle adapted to be turned into the plane of the seat or to be raised above the seat.

5. In a sled, the combination with a seat, running boards and runners, of a rigid handle pivoted to the seat so that it can be turned down flush with the seat or elevated above the seat, and a stop for the handle when in its elevated position.

1,253,339. COMBINED TIRE-CARRIER AND LUGGAGE-RECEPTACLE. ALBERT B. BEITMAN, East Cleveland, Ohio. Filed Apr. 23, 1915. Serial No. 23,495. (Cl. 224—29.)



1. A device of the character set forth comprising a receptacle that is arranged to repose within the space inclosed by a tire, a lid for said receptacle, a member spaced from the periphery of the receptacle to form with it a tire receiving compartment, a gate hinged to the member and arranged to be swung across the tire receiving compartment, and means for locking the gate and the lid of the receptacle together whereby the lid is held closed and the gate retained in effective position.

2. A device of the character set forth comprising a member arranged to embrace a portion of the periphery of a tire and having abutment portions extending inward from one side thereof, braces extending inward from the opposite side of the member, a receptacle supported by said braces in a position to repose within the space inclosed by the tire, and a gate hinged to that side of the aforesaid member having the abutment portions, the gate having resilient extensions that engage said abutment portions when the gate is closed to secure the gate against vibration.

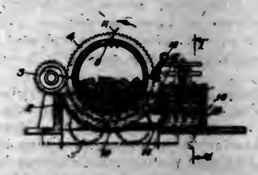
5. A device of the character set forth comprising a member of a shape to conform to the circumferential curvature of a tire, a substantially horizontal brace connecting diametrically opposite portions of said member, a strap depending from the middle portion of the brace and extending forward beneath the aforesaid member, a receptacle supported by said brace and arranged to repose within the space within the tire, said receptacle having an opening, a gate comprising a strap having its lower end hingedly connected to the forward end of the first mentioned strap, and a transverse member connected to the strap of the gate with its ends arranged to extend beyond the sides of the receptacle, a closure for the opening of the receptacle, and means for locking together said closure and the aforesaid gate.

[Claims 3, 4, and 6 to 12 not printed in the Gazette.]

1,253,340. APPARATUS FOR REMOVING AND RECOVERING BARK. OLE L. BERGER, Port Edwards, Wis., and HERBERT GUETTLER, Escanaba, Mich., assignors to American Barking Drum Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 21, 1915. Serial No. 22,764. (Cl. 144—208.)

1. In a bark removing machine, the combination of a cylindrical drum open at its ends and adapted to continuously receive through one of said ends blocks of wood from which the bark is to be detached, a tank adapted to contain water and in which said wood is immersed as said drum is rotated, flights within said drum for tumbling the wood, means for continuously rotating said drum, and backwardly curved flights secured to said drum for lifting the bark from said tank over the edge thereof when said drum is rotated.

4. In a bark removing machine, the combination of a rotatable drum open at its ends and adapted to continuously receive blocks of wood from which the bark is to be detached, a tank adapted to contain water wherein said drum may rotate, said tank being throughout substantially concentric with said drum, a compartment adjacent to said tank, means for continuously rotating said drum, means for continuously delivering the detached bark from said tank to said compartment, and an endless conveyer in said compartment for carrying the bark away.

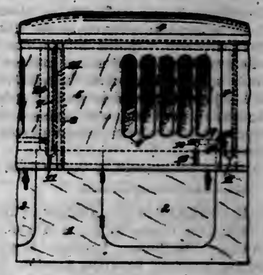


6. In a bark removing machine, the combination of a rotatable drum open at its ends and adapted to receive blocks of wood from which the bark is to be detached, said drum having openings in its side through which the detached bark may pass, a tank adapted to contain water wherein said drum may rotate, said tank having a concave bottom which throughout is substantially concentric with said drum, means for continuously rotating said drum, a compartment adjacent to said tank, flights on said drum for continuously lifting the bark over the edge of said tank into said compartment, an inclined drain plate in said compartment, and means for elevating the bark along said drain plate and out of said compartment; substantially as described.

9. In an apparatus for barking wood, the combination of a tank to contain a quantity of water, a drum to receive the wood to be barked and rotatable in the tank, said drum being provided with openings through which the bark may escape into the tank, blades projecting from the exterior of the drum and adapted in the rotation thereof to sweep through the tank and remove the bark therefrom, said blades being inclined relatively to the radius of the drum backward from the direction of rotation, and a trough at the side of the drum to receive the bark delivered by the blades; whereby the blades as they pass the edge of the drum will extend downwardly at a decided inclination and thus facilitate the discharge of the bark.

[Claims 2, 3, 5, 7, and 8 not printed in the Gazette.]

1,253,341. AUTOMOBILE-CURTAIN. GEORGE E. BISHOP, Cleveland, Ohio. Filed Feb. 9, 1917. Serial No. 147,094. (Cl. 21—62.)



2. The combination in an inclosed vehicle, with a vehicle body provided with a suitable entrance and a door for said entrance, a canopy and a collapsible side curtain cooperating therewith; of means for strengthening, stretching and fastening said curtain by a plurality of supporting members only, part of said members being incorporated with said curtain substantially near the ends thereof, at least one of said members being supported upon said door, the body and door being provided with sockets for detach-

ably receiving said supporting members, respectively, said sockets and the supporting ends of said members being of coöperating relatively non-rotatable design, one of said members comprising said supporting end and a strengthening rod, disposed, when in operative positions, in substantially parallel planes, together with an intermediate stretching element pivoted to each of said end and rod and disposed, when in operative position, substantially at right angles to the latter, means for limiting the pivotal movement between said rod and element, and means for preventing the pivotal movement between said element and supporting end when the side curtain is in operative position.

3. The combination in an inclosed vehicle body provided with a suitable entrance and a door for said entrance, a canopy and a collapsible side curtain coöperating therewith; of means for strengthening, stretching and fastening said curtain by a pair of supporting members only, parts of said members being incorporated with said curtain substantially near the ends thereof, the body and door being each provided with a socket of rectangular cross section to detachably receive said members, the supporting ends of the latter being also of rectangular cross section, that member which is supported upon the door comprising said supporting end and a strengthening rod disposed, when in operative positions, in substantially parallel planes, together with an intermediate stretching element pivoted to each of said end and rod and disposed, when in operative position, substantially at right angles to the latter, said element being provided with a hooked end engaging said rod and limiting their relative pivotal movement, and means preventing the pivotal movement between said element and supporting end when the side curtain is in operative position.

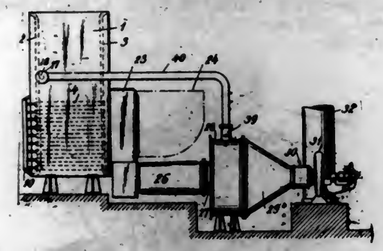
6. The combination with an inclosed vehicle; of a construction of the side curtains thereof which is removable and collapsible, said construction including a member for supporting one edge of the curtain consisting of a strengthening element; a stretching element pivoted to said strengthening element and provided with a hooked end engaging the latter to limit their relative pivotal movement; and a supporting member of rectangular cross section for detachably mounting the device upon a vehicle body, said stretching element and supporting member being formed with a slot of varying cross sectional area and a coöperating lug, respectively, said lug being longitudinally movable in said slot and rotatable only in that portion thereof of greater area; in combination with a strengthening element for supporting the opposite edge of the curtain and adapted to be detachably secured to the automobile body.

7. A collapsible member adapted for use in supporting automobile door curtains and similar structures consisting of a strengthening element and a supporting member, the latter adaped to be detachably secured to the automobile body; a stretching element disposed intermediately said before-mentioned element and member and pivoted to each of the latter; means adapted to prevent the relative pivotal movement of said supporting member and stretching element when in operative position; and means adapted to limit the relative pivotal movement of said stretching and strengthening elements.

[Claims 1, 4, 5, and 8 not printed in the Gazette.]

1,253,342. HEAT-DEVELOPING APPARATUS. WILLIAM ARTHUR BONE and JAMES WILLIAM WILSON, Leeds, and CYRIL DOUGLAS MCCOURT, London, England, assignors to Radiant Heating Limited, London, England, a Corporation of Great Britain. Filed Feb. 20, 1912, Serial No. 678,911. Renewed June 11, 1917. Serial No. 174,167. (Cl. 158—99.)

1. An apparatus for generating heat by the combustion of an explosive gaseous mixture, comprising a combustion chamber having an inlet thereto in communication with a source of supply of a combustion supporting gas, a porous and permeable bed of refractory material within said chamber adjacent the inlet, suction means connected with the chamber whereby a draft may be maintained through said bed in said chamber and the combustion supporting gas sucked in through said inlet and means for discharging combustible matter in a finely divided state into said inlet in proportionate amount to form with the combustion supporting gas an explosive gaseous mixture.

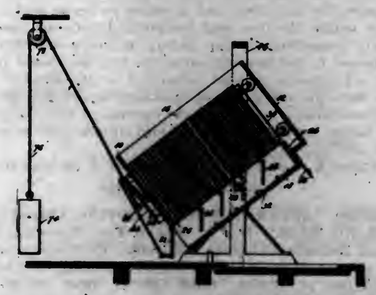


3. An apparatus for generating heat comprising a combustion chamber, an inlet passage leading to the combustion chamber and in communication with a source of supply of a combustion supporting gas, suction means connected with said chamber whereby a draft through said chamber may be maintained and the combustion supporting gas sucked in through said inlet passage and means for discharging combustible matter into the inlet passage in proportionate amount to form therein with the combustion supporting gas an explosive gaseous mixture.

7. An apparatus for generating heat comprising a heating tube packed with granular refractory material, a constricted passage leading into one end of said tube, an enlarged throat connected to said passage and forming therewith a mixing chamber or passage, suction means connected with the other end of said tube to withdraw the products of combustion and suck air in through said mixing passage and a nozzle set to discharge combustible gas into said mixing passage.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,253,343. MACHINE FOR DUMPING MATERIAL. ALEXANDER BRADY, Newton Lower Falls, Mass., assignor to New England Confectionery Company, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 2, 1913. Serial No. 739,698. (Cl. 214—1.)



1. A device of the character described, comprising means for supporting a pile of trays and holding them against lateral displacement when inverted, said means being arranged to be tilted, and means movable with said supporting means for receiving the contents of the trays when the latter are moved into discharging position.

4. A device of the character described, comprising a holder adapted to contain a pile of trays, means for tilting said holder, and counterweighting means adapted to assist the tilting movement of said holder during a portion of its travel and to retard the movement of the holder during the remainder of its movement.

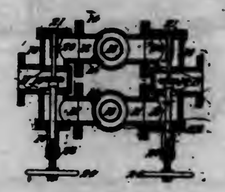
9. A device of the character described, comprising a holder adapted to confine a pile of trays, and a plurality of shutters arranged at intervals to form continuations of the bottoms of the trays.

15. A device of the character described, comprising a holder mounted to swing about a horizontal axis and having an open front, to receive a stack of trays, a back for said holder, and a series of partitions arranged at intervals opposite the ends of the trays to form compartments.

24. A machine for dumping articles comprising in combination a carrier for an assembly of trays for receiving the articles, means to manipulate said carrier to slide the articles along said trays, a discharge gate for the carrier, and means for automatically operating the same including a pocket on said carrier and a weight adapted to slide in said pocket.

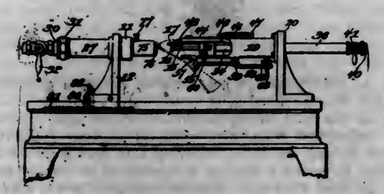
[Claims 2, 3, 5 to 8, 10 to 14, and 16 to 23 not printed in the Gazette.]

1,253,344. TWIN STRAINER. CARL F. BRAUN, San Francisco, Cal. Filed Apr. 4, 1917. Serial No. 159,767. (Cl. 277—57.)



In a device of the type set forth, a pair of side conduits, a pair of end conduits connected at their ends to the respective ends of the side conduits, each end conduit having a substantially central opening and having a pair of valve seats at the respective opposite sides of the openings, a pair of oppositely arranged removable heads borne by each of the end conduits in alinement with the respective end conduits, a pair of valve stems movably guided by the respective pairs of heads, a valve on each stem engageable with each of the valve seats of the respective end conduits, and a removable element borne by each side conduit between the ends thereof to enable access thereto.

1,253,345. SHOE-TURNING MACHINE. MEYLERT BRUNER, Newton, and WALTER V. NEAL, Boston, Mass., assignors, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed May 18, 1917. Serial No. 169,520. (Cl. 12—57.)



1. A shoe turning machine, having in combination, a turning member arranged to engage with the toe of the shoe, a coöperating member projecting within the shoe and arranged to hold the shoe against the turning member, means for moving the turning member lengthwise of the shoe to turn the upper from the toe toward the heel of the shoe, and an upper support projecting within the shoe to cause the upper to be turned thereover as the toe of the shoe is moved with the turning member.

5. A shoe turning machine, comprising a shoe support and a coöperating turning member, means for actuating the turning member, and means operative at the completion of the turning operation for forcing air into the interior of the shoe to distend the toe portion of the upper and smooth out the lining.

7. A shoe turning machine, having in combination, a shoe support, a coöperating turning member, pneumatic means for advancing the shoe support toward the turning member, pneumatic means for actuating the turning member in the opposite direction to turn the shoe, and an upper support about which the upper is turned during the movement of the turning member.

12. A shoe turning machine, having in combination, a housing, a cap adjustably supported upon the housing, a turning member sliding within the housing and cap, means for actuating the turning member, and a shoe support projecting within the shoe and adapted to initially clamp the toe of the shoe against the cap.

13. A shoe turning machine, comprising a turning member, an upper support projecting within the shoe, an upper spreader, means for yieldingly retaining the upper spreader in an advanced position, and means for causing the upper spreader to be moved rearwardly by the upper support during the turning operation.

[Claims 2 to 4, 6, 8 to 11, and 14 to 19 not printed in the Gazette.]

1,253,346. CHAIR. FRANK BURJANEK, Chicago, Ill., assignor to Herhold Chair Co., Chicago, Ill., a Corporation of Illinois. Filed Sept. 28, 1914. Serial No. 863,949. (Cl. 155—3.)



1. In a chair of the kind described and in combination, a seat including a seat frame having recesses at the front side, a pair of rear legs suitably secured to the said seat frame, a pair of front legs having their upper ends positioned in said recesses, and formed with a shoulder overlying the under side of the frame, a bent brace secured to each rear leg intermediate the ends thereof, and extended across the chair below the seat to adjacent the upper end of one of the front legs, with a portion adjacent the leg cut away at the seat frame, and means for securing said brace and leg to the seat frame, with a portion of the frame between the same.

2. In a chair of the kind described, the combination of a plurality of legs, a seat carried thereby, said seat including a suitable frame, the front pair of legs having their upper ends recessed in said seat frame, and cross brace members secured to the rear legs and bent at the other ends to adjacent the upper ends of said front legs, said braces formed to closely fit the front legs adjacent the upper ends thereof, with a portion cut away to clear a portion of the inner side of said frame, and fastening members extending through said braces, said seat frame and said front legs, said fastening members being of sufficient length to engage the seat frame on the outer side of said legs; but not to project entirely through the frame.

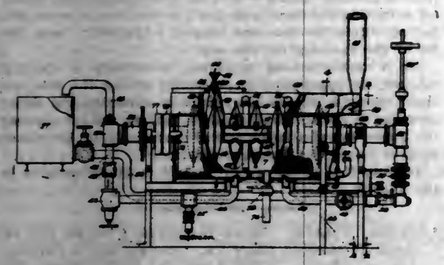
5. A leg fastening for chairs comprising a seat frame having a socket therein, a leg reduced in diameter at one end and fitting in the socket, a brace having its upper end extending along one side of the wall of the socket in the chair frame and also being formed to fit the contour in a substantial portion of the leg below the socket, and fastening means extending through the brace, chair frame and leg, and an additional fastening device passing through the brace and engaging the leg at a point well below the chair frame.

6. A leg fastening for chairs comprising a seat frame having a socket therein, a leg fitting within the socket, a brace having a portion extending adjacent the leg, and a

single fastening means extending through the brace, the chair frame and the upper portion of the leg, substantially as described.

[Claims 3 and 4 not printed in the Gazette.]

1,253,347. APPARATUS FOR TREATING LIQUIDS. CHARLES H. CAMPBELL, New York, N. Y., assignor to Borden's Condensed Milk Company, New York, N. Y., a Corporation of New Jersey. Original application filed July 25, 1913, Serial No. 781,081. Divided and application filed Oct. 8, 1914, Serial No. 865,647. Divided and this application filed Jan. 7, 1916. Serial No. 70,735. (Cl. 257—63.)



1. The combination with a trough-shaped vessel, of an agitator located therein and comprising a horizontally disposed shaft and a series of agitators thereon, and a series of pipes extending to the bottom of the said vessel between the respective agitators and directed alternately from opposite sides, and means for passing air through said pipes.

6. In an apparatus for tempering milk, a vessel for the milk; disposed within said vessel a hollow rotatory shaft divided by a therein throughout longitudinally extending medial partition into two equally dimensioned, respectively supply and exhaust, compartments, each having a passage thereinto at opposite ends of the shaft; a plurality of hollow disks concentrically carried by said shaft and tapering therefrom to their respective peripheries; an inlet pipe venting from said supply compartment into and toward the apex of each disk, an outlet pipe venting from said disk into said exhaust compartment and disposed diametrically opposite said inlet pipe; means to yieldingly scrape the exterior surfaces of said disks during rotation; means to produce a uniform flow of tempering liquid through said compartments, pipes and disks; a series of pipes extending toward the bottom of said vessel between the respective disks, and means to force air through said last mentioned pipes.

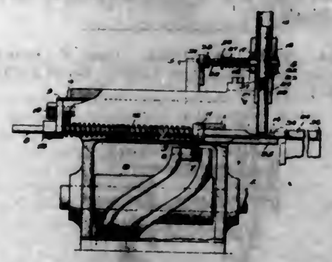
[Claims 2 to 5 not printed in the Gazette.]

1,253,348. FEED MECHANISM. ZENAS P. CANDEE, Waterbury, Conn., assignor to The Waterbury Farrel Foundry and Machine Company, Waterbury, Conn., a Corporation of Connecticut. Filed June 1, 1916. Serial No. 101,200. (Cl. 86—46.)

1. Mechanism for feeding blanks or articles from a group wherein each blank has an intermeshing engagement with a blank next adjoining, comprising means for holding one blank in its group position against movement and means for drawing the next blank away from it while it is so held, and at the same time changing its position until it lies at an angle to the position it last occupied in the group.

2. Mechanism for feeding blanks or articles from a group wherein each blank has an intermeshing engagement with the next blank, comprising means for holding one blank in its group position against movement and means for drawing the next blank away from it while so held, and at the same time changing the position of the last mentioned blank until the blank lies at an angle to the position last occupied in the group, and for moving the latter blank in a path at an angle to the former blank.

3. In a feed mechanism, the combination with a movable member having a recess or pocket therein; of a blank holding member provided with slots therein; and means for holding one of the blanks in said blank holding member against movement, all of said elements being so arranged that when a blank has first entered the recess or pocket in said movable member the said blank holding member will be in engagement with and held against movement by the blank next adjoining the one in said recess or pocket, and the movement of said movable member will then cause the blank therein to rock in relation to the blank next adjoining and be brought into engagement with one edge of one of said slots, which will act as a fulcrum and facilitate the separation of said blank from the secured blank next adjoining, which blank will then assume a position at an angle to the one it last occupied in the blank holder.



4. In a mechanism of the character described; a member capable of holding a group of blanks; and means for moving the lowermost blank in said holding member so as to engage a part of said holding member and thereby separate it from the blank next adjoining and cause it to occupy a position at an angle thereto.

[Claims 5 to 7 not printed in the Gazette.]

1,253,349. STUD-AND-SOCKET FASTENER. FRED S. CARR, Brookline, Mass., assignor to Carr Fastener Company, Cambridge, Mass., a Corporation of Maine. Filed May 3, 1917. Serial No. 166,157. (Cl. 24—218.)



5. In combination, a stud member having a cylindrical body, a frusto-conical zone at the outer end of said body, and an inwardly facing shoulder between said zone and the cylindrical body, and a socket member comprising plates having apertures receiving said stud member and formed to permit a tipping movement of the socket member in one direction, shoulder-engaging jaws confined between two of said plates, and wear limiting means independent of said jaws coöperating with the stud member to resist a tipping movement of the socket member in another direction, said means comprising a wide frustal inner face on one of said plates contacting with the under side of the stud member body, and a wear limiting frusto-conical curb formed on and projecting outwardly from another plate and closely embracing said zone, said curb having a width considerably exceeding the thickness of the plate on which it is formed.

[Claims 1 to 4 and 6 not printed in the Gazette.]

1,253,350. TURN-BUTTON FASTENER. FRED S. CARR, Brookline, Mass., assignor to Carr Fastener Company, Cambridge, Mass., a Corporation of Maine. Filed May 7, 1917. Serial No. 166,842. (Cl. 24—221.)



1. A turn-button fastener comprising a hollow sheet metal shank, a continuous sheet metal base integral with and surrounding the inner end of the shank, and adapted to be attached to a support, said shank being divided into separable sections which are connected by the base, said sections having head portions provided with coinciding recesses, the walls of which constitute separable jaws which are normally closed by the resilience of the base, and a button having a stud yieldingly engaged by and adapted to rotate between said jaws.

[Claims 2 and 3 not printed in the Gazette.]

1,253,351. SPINDLE. FRED HILDRETH CHAPMAN, Winchester, Mass. Filed Nov. 27, 1916. Serial No. 133,556. (Cl. 64—75.)



8. A spindle comprising in combination a blade, means for transmitting thereto the pull of the driving band, a ball bearing in the line of pull of such band supporting said blade and a step bearing for the end of the blade below said ball bearing, the step bearing being mounted with provision for lateral cushioned movement.

9. In a spindle, a blade, a whirl mounted on the blade having a recess in its lower end and a band pulley surrounding such lower end, a base into which said blade projects, and a ball bearing on which the blade is mounted comprising a separate sleeve fixed at its lower end to said base and rising therefrom, having an inwardly offset zone forming the outer ball race, a separate inner ball race fixed to the blade, and a series of balls supported on the outer race and on which the inner race rests.

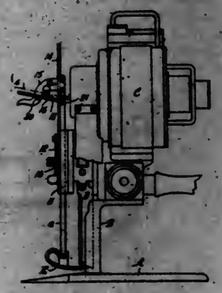
11. A spindle comprising a blade, a ball bearing surrounding the blade at a material distance from each end thereof, and means for supplying and maintaining a body of oil at and above said bearing, the lower end of the blade being capable of lateral movement.

17. A spindle having a blade fitted with an annular ball race, means for retaining balls in the race, a whirl, a base with a fixed upward extending laterally inner ribbed bearing sleeve; said ribbed sleeve forming the outer lateral and thrust bearing for the balls; means for oiling and retaining oil at the highest oiling level and above the balls, and a step capable of a lateral cushioned movement.

21. In a spinning machine the combination with a base, a blade extending into said base, a sleeve secured to said base which provides a bearing for the blade and a chamber for containing oil, a complemental bearing on the blade having a ball groove, and a retainer on said complemental bearing having means for retaining balls in said groove.

[Claims 1, 2, 4 to 8, 10, 12 to 16, 18 to 20, 22, and 23 not printed in the Gazette.]

1,253,352. CLOTH-CUTTING MACHINE. FREDERICK J. CLARK and WILLIAM H. WYMAN, Buffalo, N. Y., assignors to Eastman Machine Co., Buffalo, N. Y. Filed Aug. 7, 1917. Serial No. 184,959. (Cl. 164—75.)



1. In a cloth cutting machine, the combination with the cutting knife, and a bar adjustable up and down relative to the knife, of a stationary locking member extending substantially parallel with the direction of movement of said movable bar, and an adjusting device for said movable bar including a part which moves with said movable bar relative to said stationary member and is movable to and from holding engagement with said stationary member for holding and releasing the movable bar.

3. In a cloth cutting machine, the combination with the cutting knife, and a bar adjustable up and down relative to the knife, of a stationary locking member extending substantially parallel with the direction of movement of said movable bar, and a part mounted on said movable bar and movable therewith along said stationary member, said part being movable to a position to grip said stationary member and hold said movable bar in different adjusted positions.

6. In a cloth cutting machine, the combination with the cutting knife, and a bar adjustable up and down relative to the knife, of a stationary locking member extending substantially parallel with the direction of movement of said movable bar, a pinch handle device mounted on said movable bar and coöperating with said locking member for holding the movable bar in adjusted positions, said device comprising parts arranged to be grasped and pinched between the thumb and finger for releasing and adjusting said movable bar, and a spring for normally holding said pinch handle device in position to clamp said adjustable bar to said locking member.

7. In a cloth cutting machine, the combination with the cutting knife, and a bar adjustable up and down relative to the knife, of a stationary locking member extending substantially parallel with the direction of movement of said movable bar, an arm fixed to and projecting out from said movable bar, a lever which is mounted on said arm and is movable to and from holding

engagement with said locking member, and a spring which normally holds said lever in holding engagement with said locking member to hold said movable bar stationary.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,253,353. POLISH AND CLEANSER. IRWIN W. COX, San Francisco, Cal. Filed Aug. 23, 1916. Serial No. 116,463. (Cl. 51—1.)

1. An article of manufacture for use with water in cleansing of aluminum, consisting of a metallic fibrous abradant combined with a soap as a cleanser and lubricator therefor in its abrasive action.

2. A combined cleaning and polishing pad for use with water and particularly in cleansing of aluminum, consisting of an abrasive body of metallic fiber saturated with a rust-preventing substance for maintaining the fiber coated against rusting, and a lubricating saponaceous composition for lubricating the fiber in its abrasive action and for serving as a cleanser.

1,253,354. BOOK-STITCHER MACHINE. EDWARD CRAIG, St. Joseph, Mich., assignor to Saranac Machine Co., St. Joseph, Mich., a Corporation of Michigan. Filed Dec. 27, 1909. Serial No. 534,908. (Cl. 1—7.)



1. In a stapling machine of the class disclosed, a wire cutting device consisting of a disk or plate having an outer cutting edge, a member for actuating said disk or plate bodily, and means for moving the plate or disk laterally to vary the length of the wire cut off, said member having a groove in which said disk or plate is rotatable in the plane thereof, and in which it is movable sidewise by said means.

2. In a stapling machine of the class disclosed, a wire cutting device for the wire, a feed device, a back stop for the feed device, and means for adjusting the back stop and cutting device, including a single screw which controls said device and stop, said screw having means for varying the distance between the back stop and cutting device.

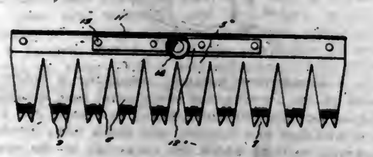
3. In a stapling machine of the class disclosed, a loop bar, means for forming the staple on said bar, a spring held carrier mounted on the end of said loop bar to receive the staple therefrom, and a driver arranged to depress the said carrier and drive the staple.

4. In a machine of the class disclosed, adapted for use as a book stapling machine, a removable clenching device, means for holding said device in operative position, including a removable front plate therefor, bearing flatwise against said device, a back plate similar to said front plate, a pivoted retainer for the front plate, and means, substantially as described, for coöperating with the aforementioned elements to staple the book, comprising means for automatically feeding the staple wire.

5. In a machine of the class disclosed, adapted for use as a book stapling machine, swinging rods, a back stop or gage for the work, adjustably mounted on said swinging rods, whereby said back stop is movable into operative position, means for coöperating with the aforementioned elements to staple the book and including devices for automatically feeding the staple wire, and a tilting work support movable into engagement with said stop when the latter is raised into position.

[Claims 6 to 17 not printed in the Gazette.]

1,253,355. RAKE. EDWARD DALTON, Baldwinsville, and JAMES C. DALTON, New York, N. Y. Filed July 3, 1916. Serial No. 107,347. (Cl. 55—10.)



1. A device of the kind described consisting of a metallic head, said head being formed with a longitudinally spaced apart series of integral teeth, each of said teeth having oppositely inclined edges, each of said teeth also being formed with a V-shaped notch so as to provide two points upon each tooth, the portions of said teeth formed with said V-shaped notches being bent at a forward angle so as to curve around the tooth, the main body portion of each tooth being straight and flat, and a handle secured substantially at right angles to the plane of said head.

2. A device of the kind described consisting of a head, a handle provided with a reinforcing plate disposed diagonally of said handle, said head being provided with a longitudinal series of similarly shaped teeth formed straight and flat and having a longitudinal portion substantially V-shaped in cross section and disposed in such a manner that one side of the said V-shaped base portion slopes at an angle with respect to said teeth in one direction and the other portion thereof is secured to the reinforcing plate of said handle, said teeth being provided with terminal V-shaped forwardly projecting notches adapted to form a pair of points thereupon.

1,253,356. STORE-CABINET. WILLIAM H. DELANEY, Peoria, Ill. Filed Dec. 14, 1914. Serial No. 877,264. (Cl. 45—71.)

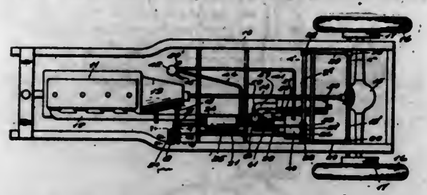


1. In combination, a cabinet having a slidable closure for one of its sides, and a hinged closure for one of its other sides, of a separate member pivotally attached to each closure one being pivotally connected to the other, and a pivotally suspended arm, one of the members being directly pivoted between its ends thereto.

4. The combination with a cabinet open at one side and at its top, of a closure for the open top of said cabinet hinged at one of its edges to one of the walls of said cabinet, a closure for the open side adapted for movement parallel to said open side and the wall opposite said open side, and engaging runways carried by the side walls, the upper edge of the last named closure when wide open adapted to lie substantially flush with the upper surface of the bottom of the cabinet and having extensions adapted to project above said bottom, the extremity of the first named closure adapted to abut upon the said upper edge of the other, a link pivotally suspended from the cabinet at each side and free to swing, a lever fulcrumed between its ends on each link and each pivotally attached at one end to the extensions of the second described closure, and a member pivoted to the other end of each lever and pivotally attached to the first described closure.

[Claims 2 and 3 not printed in the Gazette.]

1,253,357. FLUID-PRESSURE-OPERATED APPARATUS FOR STOPPING AUTOMOBILES OR THE LIKE. ELI M. DE LAY, Chattanooga, Tenn. Filed Jan. 10, 1917. Serial No. 141,708. (Cl. 188—1.)



1. The combination with brake mechanism of an automobile, of a fluid pressure storage tank, a fluid pressure pump connected with the storage tank, a conduit receiving the exhaust from the engine of the automobile and connected with the pump, a valve connected in the conduit for controlling the passage of the exhaust to the pump, fluid pressure operated mechanism connected with the valve to shift it and connected with the storage tank to receive pressure therefrom, and fluid pressure operated mechanism connected with the storage tank and serving to operate the brake mechanism.

2. The combination with brake mechanism of an automobile, of a fluid pressure storage tank, a fluid pressure pump connected with the storage tank, a conduit receiving the exhaust from the engine of the automobile and connected with the pump, a valve connected in the conduit for controlling the passage of the exhaust to the pump and to the atmosphere, fluid pressure operated mechanism connected with the value to shift it and connected in the storage tank to receive pressure therefrom, a cylinder, a piston reciprocating within the cylinder and connected with the brake mechanism, a conduit serving to connect the storage tank and cylinder, and a manually operated valve connecting the conduit.

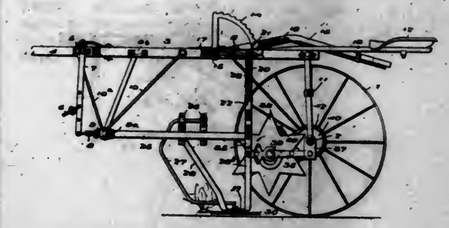
3. The combination with brake mechanism of an automobile, of a fluid pressure storage tank, a fluid pressure pump having its feed end connected with the storage tank, a conduit receiving the exhaust from the engine of the automobile and connected with the pump, a muffler, a pipe connecting the conduit and muffler, a conduit connected with the exhaust side of the pump and with the pipe, a valve mechanism connected in the first named conduit for controlling the passage of the exhaust to the pump and muffler, a cylinder connected with the storage tank and having communication therewith, a plunger operating within the cylinder, means connecting the plunger with the valve mechanism, and fluid pressure operated mechanism for operating the brake mechanism and connected with the storage tank.

4. In apparatus of the character described, the combination with clutch mechanism of an automobile engine, of brake mechanism, a rock shaft to actuate the clutch mechanism, a crank having a lost motion connection with the rock shaft, a clutch pedal connected with the rock shaft, a rod connecting the crank with the brake mechanism, a cylinder, a piston mounted to reciprocate within the cylinder, a piston rod connecting the piston and crank, and means to supply fluid pressure into the cylinder.

5. In apparatus of the character described, the combination with clutch mechanism of an automobile engine, of a rock shaft to actuate the clutch mechanism, a crank having a lost motion connection with the rock shaft, a clutch pedal having a lost motion connection with the rock shaft, a cylinder, a piston to reciprocate within the cylinder and connected with the crank, and means to supply fluid pressure into the cylinder.

[Claim 6 not printed in the Gazette.]

1,253,358. BEET-TOPPER. ROBERT E. DEWART, Milford, Ind. Filed Sept. 26, 1916. Serial No. 122,254. (Cl. 55—107.)



1. The combination of an inverted U-shaped axle having spindles, wheels mounted on said spindles, a frame fixed to and extending forwardly from said axle, a transverse inverted U-shaped frame portion connected to the forward portion of said frame and having depending arms terminating in lateral journals, a vertically movable frame comprising a bail and arms connected to and extending forwardly from the bail and pivoted at their forward ends on said journals, a rock shaft arranged transversely in the first-named frame and having apertured arms, rods connected to the bail of the vertically-movable frame and extending loosely through said arms, coiled springs surrounding the rods and interposed between the bail and said arms, and means for adjustably fixing the said rock shaft with respect to the first-named frame.

4. The combination of a wheel-supported main frame, hangers depending from the forward portion of said frame and having lateral journals, a vertically-movable frame having arms pivoted at their forward ends on said journals, a rock-shaft arranged transversely in the main frame and having apertured arms, rods connected to the rear portion of said vertically movable frame and extending loosely through said arms, coiled springs surrounding the rods and interposed between said arms and the vertically movable frame, a lever on the rock shaft, a segmental rack on the main frame, and a detent carried by the lever and adapted to coöperate with said rack.

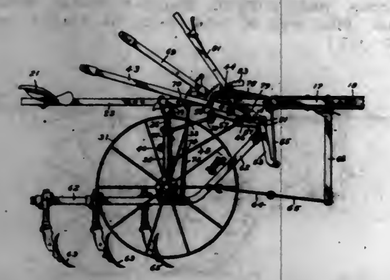
5. The combination of a main frame, ground wheels supporting the same, a vertically-movable frame connected with the main frame, means for adjustably fixing the vertically-movable frame with respect to the main frame, rotary means mounted in and movable vertically with the vertically-movable frame, a driving connection between one of the ground wheels and the rotary means; said driving connection being constructed and arranged to be interrupted and reëstablished, means for interrupting said driving connection when the vertically-movable frame is raised, and means for reëstablishing the driving connection when the vertically-movable frame is lowered.

[Claims 2, 3, and 6 not printed in the Gazette.]

1,253,359. CULTIVATOR. FREDERIC L. DEWEY, Canton, Ill., assignor to Parlin & Orendorff Company, Canton, Ill., a Corporation of Illinois. Filed June 9, 1917. Serial No. 173,864. (Cl. 97—35.)

1. In a cultivator, the combination of a frame, a bar extending transversely of said frame, brackets connected to the end portions of said bar, arms fixedly connected to said brackets and depending therefrom, links pivotally connecting the lower ends of said arms with said frame whereby said bar is movable laterally relative to said frame, carrying wheels journaled on said frame and adapted to be turned at an angle relative to the frame,

laterally-shiftable means connecting said carrying wheels for holding them in parallelism as they are turned at an angle relative to the frame, other arms connecting said bar with said laterally-shiftable means, and shovel gangs connected with said bar and adapted to be shifted laterally therewith.



14. In a cultivator, the combination of a transversely-extending bar, two shovel gangs connected with said bar and adjustable laterally relative thereto, a bracket revolubly mounted on said bar but held against lateral movement relative thereto, a lever provided with two arms spaced apart at its lower end portion pivotally mounted on said bracket, a transversely-extending sleeve revolubly mounted in suitable bearings in the arms of said lever below said bracket, and diverging links pivotally connected at their inner ends with said sleeve and connected at their outer ends with said gangs, said diverging links being adapted upon a movement of the sleeve longitudinally of the machine as said lever is swung back and forth to adjust said gangs laterally along said first-named bar.

[Claims 2 to 13 not printed in the Gazette.]

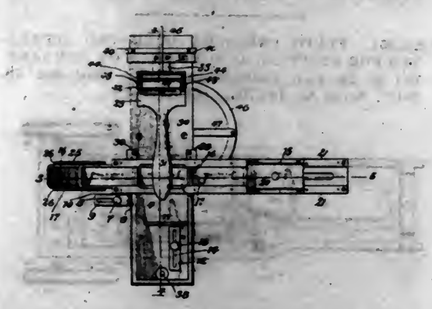
1,253,360. TOY. JOHN DOMINY, Goodell, Iowa. Filed May 9, 1916. Serial No. 96,403. (Cl. 46—40.)



1. A mechanical toy comprising a base, an upright standard mounted on said base, an operating mechanism carried at the upper end of the standard, said operating mechanism including an arm to which vibratory movement is imparted, a figure having the depending members thereof jointed, and a flexible member by which the figure is suspended from the arm.

2. A toy comprising a base, an upright standard mounted on said base adjacent one side thereof, a case mounted on the upper extremity of said standard in overhanging relation, an operating mechanism mounted within the case, said operating mechanism having an arm extending from the case with the outer end thereof substantially centrally located over the base and said arm having vibratory movement imparted thereto by actuation of the operating mechanism, a figure having the depending members thereof loosely connected, and a cord connected with the outer end of said arm by which the figure is suspended therefrom with the lower extremities resting substantially upon the base.

1,253,361. ADDRESSING-MACHINE. GUY J. EVANS, Buffalo, N. Y. Filed Apr. 23, 1915. Serial No. 23,377. (Cl. 101—51.)



1. An addressing machine comprising a table, a platen adapted to support an article to be addressed at the printing position, means for feeding stencils to said platen, an inking plate supported on said table adjacent to said platen but spaced therefrom, an ink impression roller movable over said inking plate and to and from said printing position, and adapted to press ink through the stencil on an article; a carriage supporting said roller and having a handle on its front side and a yoke connected with the rear side of said carriage and having a part slidable between said table and inking plate.

2. An addressing machine comprising a table, a platen adapted to support an article to be addressed at the printing position, an inking plate supported on said table adjacent to said platen but separated therefrom by an intervening space, an impression roller movable over said inking plate and to and from said printing position, a carriage supporting said roller and having a handle on its front side and a lug on its rear side, and a guide yoke having a top bar arranged above the inking plate and connected with said lug, and two arms projecting from said bar downwardly along opposite edges of said plate and table and one of said arms being provided with a lug projecting underneath said plate and the other arm being provided with a lug projecting underneath said table.

3. An addressing machine comprising an impression roller adapted to press ink on its surface through a stencil on the article to be addressed, a carriage supporting said roller and provided with upwardly opening bearing notches on its opposite sides, an ink supply roller engaging said impression roller, a shaft on which said ink supply roller is mounted and which is journaled at its opposite ends in said bearing notches, and a fork on which opposite ends of said shafts are journaled and which is provided with a handle.

4. An addressing machine comprising a platen adapted to support an article to be addressed at the printing position, a magazine adapted to support a stack of stencils, means for guiding the stencils from said magazine to said printing position, a feed plate movable lengthwise of said guide and past the underside of the magazine for feeding the stencils successively from the underside of the stack along the guideway to said printing position, an impression roller engaging the stencils at the printing position, a carriage supporting said roller and movable toward and from the printing position, and actuating means connecting said carriage and feed plate and operating to cause the feed plate to move forwardly while the carriage moves rearwardly, and vice versa, and comprising a rock lever and links connecting opposite ends of said lever with said feed plate and carriage, respectively.

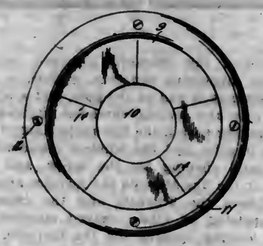
1,253,362. METHOD OF LUBRICATING REFRACTORY WIRES DURING DRAWING THE SAME. KARL FARKAS, Providence, R. I., assignor of one-half to Arthur B. Lisle, Providence, R. I. Filed May 6, 1916. Serial No. 95,825. (Cl. 205—19.)

2. The method of lubricating wires of refractory metals while drawing the same out into finer wire consisting in applying an aqueous paste of light metallic oxid to the surface of the wire, and then passing the same through a diamond die.

6. The method of lubricating tungsten wire while drawing out the same into finer wire consisting in applying an aqueous paste of magnesium oxid to its surface, then heating the wire, and then passing the lubricated heated wire through a heated diamond die.

[Claims 1 and 3 to 5 not printed in the Gazette.]

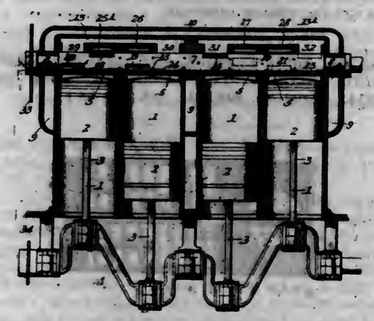
1,253,363. PRINTING-ROLLER-CLEANING DEVICE. CHARLES A. FARR and BASCOM A. DOVE, Dallas, Tex. Filed Mar. 1, 1917. Serial No. 151,789. (Cl. 141—13.)



1. In a printing roller cleaning device, a member having a roller receiving opening and a plurality of yieldable scraping sectors immediately surrounding the opening.

2. In a printing roller cleaning device, a member having a roller receiving opening and including a plurality of yieldable scraping sectors immediately surrounding the opening, and a handle rim surrounding the member.

1,253,364. ROTARY VALVE FOR INTERNAL-COMBUSTION ENGINES. HARDIN G. FIELD, Denver, Colo. Filed Oct. 25, 1915. Serial No. 57,754. (Cl. 123—59.)



An engine casing having a plurality of cylinders, and a cylindrical passage which extends through the casing above the cylinders, each cylinder being provided with a common inlet and exhaust port opening into said passage, a housing formed in said casing above said passage, which is divided centrally of its length and centrally of its width to form an inlet and exhaust chamber for each pair of cylinders, said chambers being connected with said passage and with inlet and exhaust pipes, and a rotary cylindrical valve in said passage having peripheral inlet and exhaust ports which communicate respectively with the inlet and exhaust chambers for each pair of cylinders, and with the common inlet and exhaust cylinder ports, and means for rotating said valve.

1,253,365. LOADING UNIT FOR TELEPHONE SYSTEMS. WILLIAM FONDILLER, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Dec. 30, 1916. Serial No. 139,984. (Cl. 178—46.)

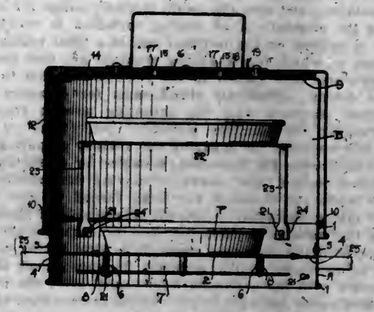


1. A loading unit having a plurality of core members each in the form of a closed figure, said members intersecting at a plurality of points and being provided with gaps of high reluctance in the form of slots extending diagonally across said members at the intersections.

2. In a loading unit, two toroidal core members intersecting on a common diameter and having gaps of high reluctance therein in the form of slots extending diagonally across said members at their points of juncture.

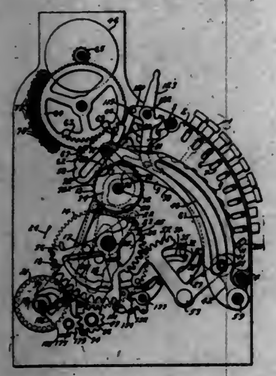
3. In a loading unit, two toroidal core members intersecting on a common diameter and having gaps of high reluctance therein in the form of crossed slots extending diagonally across said members at their points of juncture.

1,253,366. OVEN. JOHN EDWIN FOXLEE, Chicago, Ill. Filed June 27, 1917. Serial No. 177,333. (Cl. 126—275.)



A portable oven comprising two separable sections, one of said sections having its opposite ends open, the second section having one end closed, a plurality of inwardly directed studs carried by the first named section, the studs of each series being transversely and circumferentially spaced, a disk, and arms depending from the disk and the lower end portions of the arms being forked for detachable engagement with the studs, said arms being of such a length as to position the disk above the first named section when the arms of the disk are in engagement with the studs.

1,253,367. TRANSFER MECHANISM FOR ACCOUNTING-MACHINES. FREDERICK L. FULLER, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Original application filed Oct. 1, 1913, Serial No. 792,869. Divided and this application filed Jan. 23, 1914. Serial No. 813,881. (Cl. 235—137.)



1. In a machine of the class described, the combination with a plurality of totalizing elements of higher and lower order each having ten degrees of movement; of transfer devices therefor; tripping means carried by the transfer devices and arranged to be set fully by the totalizing elements when the latter receive their tenth degree of movement, and to be set partially and connected to the transfer devices carrying the fully set tripping means, by the totalizing elements when the latter receive their ninth degree of movement; and an operating frame for directly actuating the transfer devices carrying fully set tripping means and through these latter devices, the transfer devices carrying the partially set tripping means whereby transfers by transfers are effected.

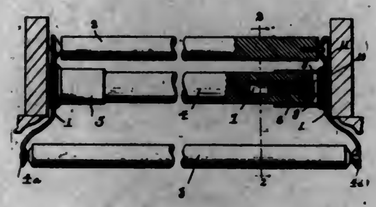
20. In a machine of the class described, the combination with a totalizer comprising a plurality of totalizing elements; of indicators for indicating the items entered on the totalizer and also the totals thereof; means for actuating the elements in an adding operation in which an item is entered on the totalizer and in a total taking operation in which the totalizing elements are first turned to zero and then turned in the reverse direction to the same extent; differently timed cams for engaging the totalizer elements with the actuating means; transfer devices for the totalizer elements; projections on the totalizer elements for engaging and thereby preparing the transfer devices for operation; a device for operating the prepared devices; and means for moving the transfer devices while the elements are being turned to zero in a total taking operation to prevent engagement of elements with the transfer devices, the cam for engaging the elements with the actuating means in a total taking operation being constructed to maintain the engagement of the elements with the actuating means until after the transfer devices are operated to prevent the devices from effecting transfers in total taking operations.

23. In a machine of the class described, the combination with a set of totalizer wheels and means for actuating them, of a set of members for operating said pinions to effect transfers, an invariably moved bar common to said members, and a device differentially actuated by the totalizer wheels either to establish a connection between adjacent transfer members or to connect the members to the invariably moved bar.

25. In a machine of the class described, the combination with a set of totalizer pinions and means for actuating them, of a plurality of members for turning said pinions to effect transfers, an invariably moved bar, a differentially movable pawl for each of said members, said pawls being given one step of movement as their pinions pass from 8 to 9 and two steps of movement as their pinions pass from 8 to 0, one step of movement establishing a bond between adjacent transfer members and the two steps of movement establishing a connection between the transfer member and the invariably moved bar.

[Claims 2 to 19, 21, 22, and 24 not printed in the Gazette.]

1,253,368. CURTAIN-HANGER. JOHN JACOB FURTHMILLER, Elkton, S. D. Filed Mar. 26, 1917. Serial No. 157,428. (Cl. 156—23).

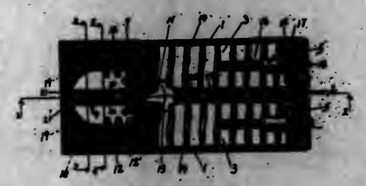


1. A device of the character specified, comprising a pair of blind supporting brackets, a pole, a cap-shaped ferrule engaging each end of the pole, and a screw at one end of the pole and having threaded engagement therewith and engaging within the ferrule to clamp the brackets between the ferrules and the window casement, said pole having an axial opening for the screw, and cushioning pads of felt or the like between the ferrules and the brackets and between the brackets and the casement, each bracket comprising an elbow shaped member having at each end a bearing opening for the trunnion of a blind supporting roller and a curtain rod, respectively, one end of each bracket being offset outwardly.

2. A device of the character specified, comprising a pair of blind supporting brackets, a pole, a cap-shaped ferrule engaging each end of the pole, and a screw at one end of the pole and having threaded engagement therewith and engaging within the ferrule to clamp the brackets between the ferrules and the window casement, said pole having an axial opening for the screw.

3. A device of the character specified, comprising a pair of blind supporting brackets, a pole, a cap engaging each end of the pole, said pole being rotatable with respect to the caps and having means for forcing one of the caps away from the pole to clamp the brackets between the caps and the window casement.

1,253,369. DOOR CLOSING AND CHECKING MECHANISM. BLAIR W. GAIR, Chicago, Ill. Filed June 4, 1914. Serial No. 842,861. (Cl. 16—88.)



1. In a door closing and checking device, the combination of a suitable oil containing casing provided with suitable partitions extending from each end, a plunger arranged on each side of one partition, said partition provided with a duct for each plunger chamber extending from proximate the end of the chamber to the end of the partition, and means for controlling the passage of fluid through said ducts.

2. The combination in a door closing and checking device, of a casing provided with communicating oil containing chambers therein, a plunger arranged in each chamber, means for normally yieldingly maintaining the plungers at one end of their respective chambers, said casing provided with ducts extending from the ends of the chambers toward the other end and opening therefrom, means for controlling the passage of fluid through said ducts, a shaft arranged to engage either plunger independently, said shaft extending to the exterior of the casing and arranged at its end for engagement with a movable coöperating part.

5. The combination in a device of the kind described of a casing provided with a partition extending lengthwise thereof from each end, forming a plurality of chambers, a detachable closure for each chamber, a plunger arranged in each member, each of said plungers provided with a plurality of teeth thereon and with a valved duct at one end, adjustable means controllable from the exterior of the casing for yieldingly maintaining said plungers at one end of each of their respective chambers, said partition at said plunger end of the casing provided with a duct for each chamber extending from the end of the casing toward the other end, and opening into said chambers, and with a duct extending through the partition connecting the plunger chambers, and means for controlling the passage of fluid through said ducts, a gear segment arranged in said casing and arranged to engage either plunger independently of the other, said gear segment provided with a shaft projecting to the exterior of the casing and arranged for attachment with a movable part.

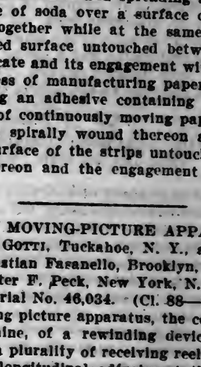
9. The combination in a checking device of a casing having a plurality of adjacent communicating chambers, a plunger arranged in each chamber, adjustable means for yieldingly maintaining said plungers in operative position, said plungers cut away on adjacent sides, and formed with gear teeth therein, a portion of one tooth on each plunger partially cut away, a gear segment arranged within the casing and provided with teeth arranged to engage with the teeth on said plungers, said gear segment having a flat face at one side, and said plungers overlying said face, and means for controlling the movement of said plungers in either direction.

11. The combination in a door closing and checking device with an oil containing casing provided with oil containing chambers, conveying ducts therein, a plunger arranged in each chamber, means for yieldingly opposing the movement of the plungers and maintaining the same in normal positions, comprising a spring for each plunger, means extending to the exterior of the casing for independently controlling the tension of either spring, means for controlling the passage of fluid through said ducts, and a shaft having a gear segment arranged to directly engage either plunger independently of the other, said shaft extending to the exterior of the casing and arranged at its end for engagement with a movable coöperating part.

[Claims 3, 4, 6 to 8, and 10 not printed in the Gazette.]

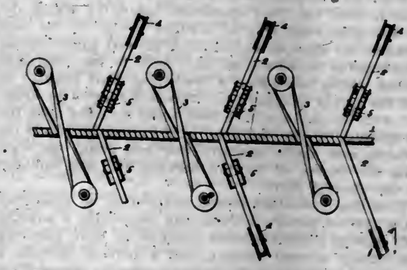
1,253,370. LIFE-SAVING SUIT. WLADYSLAW GIERACKI, Avon, Conn. Filed Oct. 16, 1917. Serial No. 196,907. (Cl. 9—20.)

1. A life belt comprising an air-tight tube, transverse partitions within the tube forming non-communicating compartments, valved inflating means for said compartments, normally closed outlet valves individually arranged for the compartments, a pipe carried by the tube into which said outlet valves exhaust arranged with outlet ports, a wire longitudinally arranged shiftable within the said pipe having outwardly projecting free ends, handles upon said ends exteriorly of the pipe, balls upon the wire adjacent the outlet valves adapted for opening reception adjacent each of the said valves upon longitudinal shifting of the wire in one direction, under the influence of one of said knobs and adapted for release from said outlet valves under the influence of the other knob.



2. A life belt comprising an air-tight tube, transverse partitions within the tube forming non-communicating compartments, valved inflating means for said compartments, normally closed outlet valves individually arranged for the compartments, a pipe carried by the tube into which said outlet valves exhaust arranged with outlet ports, a wire longitudinally arranged shiftable within the said pipe having outwardly projecting free ends, handles upon said ends exteriorly of the pipe, balls upon the wire adjacent the outlet valves adapted for opening reception adjacent each of the said valves upon longitudinal shifting of the wire in one direction.

1,253,371. PAPER-CYLINDER MANUFACTURE. LEWIS W. GILL, New York, N. Y., assignor to General Container Corporation, New York, N. Y., a Corporation of Delaware. Filed May 7, 1915. Serial No. 26,516. (Cl. 93—80.)



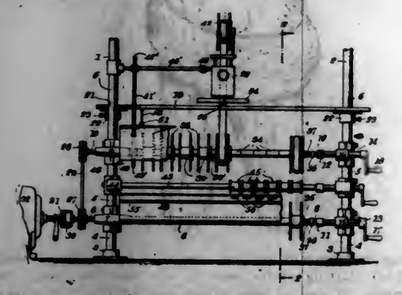
1. The process of manufacturing paper tubing consisting in continuously feeding a plurality of paper strips spirally on to a mandrel and spreading an adhesive containing silicate of soda over a surface of said strips to adhere them together while at the same time maintaining the silicated surface untouched between the application of the silicate and its engagement with another strip.

2. The process of manufacturing paper tubing consisting in applying an adhesive containing silicate of soda to a plurality of continuously moving paper strips fed to a mandrel and spirally wound thereon and maintaining the silicated surface of the strips untouched between the application thereon and the engagement with the other strips.

1,253,372. MOVING-PICTURE APPARATUS. CONSTANTINE J. GOTTI, Tuckahoe, N. Y., assignor of one-third to Sebastian Fasanello, Brooklyn, N. Y., and one-third to Walter F. Peck, New York, N. Y. Filed Aug. 18, 1915. Serial No. 46,034. (Cl. 88—17.)

1. In a moving picture apparatus, the combination with a picture machine, of a rewinding device comprising a winding shaft, a plurality of receiving reels mounted upon said shaft for longitudinal adjustment thereon and cor-

responding in number to the original reels of the machine, said receiving reels being adapted to be alined with the respective original reels as they are successively unreeled and to be secured fixedly to the said shaft to take the films from the original reels, means for securing the receiving reels fixedly to the shaft in adjusted position, a rewinding shaft adapted to have the empty original reels attached thereto in alinement with the full receiving reels when shifted upon the winding shaft and rendered free for relative movement thereon to take the films from the said receiving reels, and means for operating the said shafts synchronously.



5. In a moving picture apparatus, the combination with a picture machine, of a rewinding device comprising a winding shaft, a plurality of relatively movable spindles mounted upon a portion of said shaft in frictional contact therewith, a plurality of receiving reels mounted upon the remaining portion of the shaft normally and corresponding in number to the original reels of the machine, said receiving reels being adapted to be alined with the respective original reels as they are successively unreeled to take the films therefrom, means by which the said receiving reels may be secured fixedly to the said portion of the shaft during winding, the last named means being adapted to secure the said reels to the respective spindles during rewinding, a rewinding shaft adapted to have the empty original reels attached thereto in alinement with the full receiving reels when mounted upon the said spindles to take the films from the latter, means for operating said shafts synchronously and means for regulating the degree of friction between the said spindles and the winding shaft.

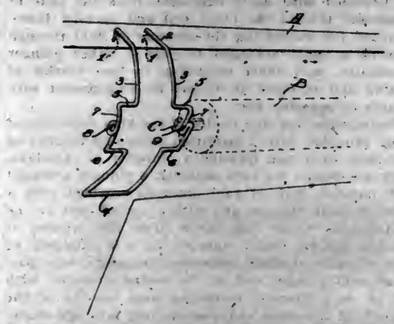
11. A film rewinding device adapted to be associated with a moving picture machine and comprising a winding shaft having a large portion adapted to have receiving reels fixedly secured thereon and a reduced portion, a plurality of independently movable spindles mounted on the reduced portion of the said shaft and being substantially equal in external diameter to the large portion of the latter, a rewinding shaft adapted to have empty reels attached thereto in alinement with the receiving reels when mounted on the spindles of the winding shaft, means for operating the said shafts, and a spring exerting longitudinal pressure upon the said spindles.

[Claims 2 to 4 and 6 to 10 not printed in the Gazette.]

1,253,373. SHADE-BRACKET. CHARLES F. GRAHAM, Dayton, Ohio. Filed Jan. 26, 1916. Serial No. 74,453. (Cl. 156—24.)

1. A shade bracket formed of wire bent into a substantially U shape and bowed outwardly, the ends of the bent wire being sharpened for driving into a window frame and the closed ends of the bow resting against the window frame, the intermediate portions of the bows being bent to form lateral offsets having loops for receiving a pintle of a shade roller, said bowed portion providing a resilient support for the shade roller, the closed end of the bow sliding upon the window frame.

2. A shade bracket consisting of a wire bent upon itself to form a substantially U shaped supporting body comprising outwardly bowed strands bent intermediate their lengths to form offsets with pintle receiving loops centered on the offsets to receive a shade roller pintle centrally



thereof, each offset being less in width than the diameter of the shade roller to permit play of the shade over the offset and prevent mutilation of the edge of the shade by wearing against the shade bracket.

1,253,374. CENTERING MEANS FOR PHONOGRAPHIC RECORDS AND THE LIKE. BERTRAM M. HANSEN, San Francisco, Cal. Filed Aug. 21, 1916. Serial No. 116,202. (Cl. 274—42.)



The combination with a centrally apertured phonographic record having the usual convolutions thereon, of a metallic gromet comprising a circular washer arranged on each side of the record; a metallic sleeve having an annular flange on each end thereof one of said flanges being of larger diameter than the other and arranged to engage one of the washers; and a third washer arranged to engage the remaining washer and to be in turn engaged by the smaller flange on the end of the sleeve whereby said sleeve may be secured within the central aperture and concentric with the convolutions of the disk.

1,253,375. FILING APPLIANCE. HARRY J. HICK, Alliance, Ohio, assignor, by mesne assignments, to The McCaskey Register Company, (incorporated in 1914,) Alliance, Ohio, a Corporation of Ohio. Filed June 9, 1914. Serial No. 843,962. (Cl. 45—2.)



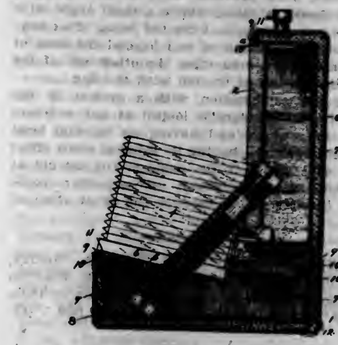
1. A filing case including similar base and cover sections with guiding hinge connections for swinging and shifting the cover section upon the base section, a frame having its rear end pivoted to the rear end of the cover section and having rollers on each side, and inclined tracks on the sides of the base section upon which the rollers ride for carrying the forward end upward and freely over the forward rim of the base section when the frame is carried forward by the operation of the cover section upon the base section.

3. A filing case including similar base and cover sections with guiding hinge connections for swinging and shifting the cover section upon the base section, a tray movable in the base section, a frame fulcrumed on the rear end of the cover section, and having a member connected to the tray for moving it to and fro when the frame is rotated, and tracks in the base section for guiding the forward end of the tray in its movements upwardly over the forward rim of the base section.

5. A filing appliance including a case of substantial length, a plurality of filing leaves, a longitudinally movable tray for supporting the filing leaves, a bell crank lever operating on a fixed fulcrum and having one of its arms pivoted to the tray, for moving the tray to and fro, and means for guiding the forward end of the tray in its movements upwardly over the forward rim of the case.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,253,376. HINGE FOR FILING-APPLIANCE CASES. HARRY J. HICK, Alliance, Ohio, assignor to The McCaskey Register Company, (incorporated in 1914,) Alliance, Ohio, a Corporation of Ohio. Filed Aug. 5, 1914. Serial No. 855,231. (Cl. 16—104.)



1. A filing case including similar base and cover sections with guiding hinge connections between the rear ends for swinging and completely shifting the cover section upon the base section, and cam devices in the hinge connections for drawing and clamping the rear rims together.

3. A filing appliance including a case composed of a base section having side bottom and rear walls and a cover section having side top and rear walls, and guiding hinge connections between the rear ends of the sections for swinging and shifting the cover section upon the base section with the rear wall of the cover section in alinement with the rear wall of the base section, said connections comprising brackets on the base section having straight horizontal and vertical ways and pivots on the cover section operating in the ways, the pivots operating in the vertical ways being spaced substantially equidistant from the top and rear walls of the cover section.

4. A filing appliance including a case composed of a base section having side bottom and rear walls and the cover section having side top and rear walls, and guiding hinge connections between the rear ends of the sections for swinging and shifting the cover section upon the base section with the rear wall of the cover section in alinement with the rear wall of the base section, said connections comprising brackets on the base section having straight horizontal and vertical ways and pivots on the cover section operating in the ways, the pivots operating in the vertical ways being spaced substantially equidistant from the top and rear walls of the cover section and there being cam devices at the ends of the horizontal ways for drawing and clamping the rear rims together.

[Claim 2 not printed in the Gazette.]

1,253,377. WIND-SHIELD CLEANER. OSCAR H. HICKS and WILLIAM T. RUSSELL, Chicago, Ill.; said Russell assignor to said Hicks. Filed May 14, 1917. Serial No. 168,452. (Cl. 15—59.)



1. In a device of the class described, a shaft, a handle on one end thereof, a resilient member on the opposite end of said shaft, a squeegee member, a bracket rigidly secured thereto having oppositely disposed arms, a pivot pin connecting the arms and a pivot member pivoted on said pin between the arms and pivotally connected to the resilient member.

2. In a device of the class described, a shaft, a handle on one end thereof, a resilient member on the opposite end of said shaft, a squeegee member, a bracket rigidly secured thereto having oppositely disposed arms, a pivot pin connecting the arms, a pivot member pivoted on said pin between the arms and pivotally connected to the resilient member said pivot member having a radial groove therein and a tongue struck from the resilient member engaging in said radial groove.

3. In a wind shield cleaner, a bracket, a shaft journaled therein, a handle on one end of the shaft, a resilient bar secured to the opposite end of the shaft, a member pivotally secured to said bar, a coacting slot and tongue on the pivot member and bar to limit the relative movement between the same, a pintle pivoted to the pivot member, a bracket secured to the pintle and a squeegee member rigidly secured to the bracket.

1,253,378. FLEXIBLE TRACTOR-TREAD. CHARLES F. HITCHCOCK, Berkeley, Cal. Filed July 17, 1916. Serial No. 109,636. (Cl. 21—150.)



1. A caterpillar track comprising a plurality of interconnected shoes, each of said shoes consisting of a tread member and a connecting member, means for detachably uniting said members together, and each of said members formed with an integral hooked extension adapted for interlocking with a coöperating hooked extension of an adjacent member to provide a flexible joint between said shoes.

2. A caterpillar track comprising a plurality of interconnected shoes, each of said shoes consisting of a tread member and a connecting member, said members each formed with an integral hooked extension, the hooked ex-

tension of one member adapted for interlocking with the hooked extension of a different member of an adjacent shoe to provide a flexible joint between said shoes, and means for detachably securing the members of respective shoes together.

3. A caterpillar track comprising a plurality of interconnected shoes, each of said shoes consisting of a tread member and a connecting member, said members each formed on one side edge with an integral hooked extension, the hooked extension of one member adapted for interlocking with the hooked extension of a different member of an adjacent shoe to provide a flexible joint between said shoes, and means for detachably uniting the members of the respective shoes together with the side edge of one member projecting over the hooked extension of a different member of an adjacent shoe.

4. A caterpillar track comprising a plurality of interconnected shoes, each of said shoes consisting of a tread member and a connecting member, and each of said members formed with an integral hooked extension, means for detachably securing said members together in superimposed relation with the hooked extension of the respective members, disposed one at each longitudinal side edge of the respective shoes and disposed in opposite directions relatively to the opposing faces of the shoe.

5. A caterpillar track comprising a plurality of interconnected shoes, each of said shoes comprising a connecting member and a tread member having a chilled surface, each of said members formed with an integral hooked extension, adapted for interlocking with a cooperating hooked extension of an adjacent member to provide a flexible joint between said shoes, and means for detachably uniting said members together in superimposed relation.

[Claims 6 to 15 not printed in the Gazette.]

1,253,379. MEANS FOR LOCKING TOOL-SHANKS AND FERRULES TO HANDLES. WILLIS F. HOBBS and CHARLES W. GIBBS, Bridgeport, Conn., assignors to The Bridgeport Hardware Manufacturing Corporation, Bridgeport, Conn., a Corporation of Connecticut. Filed Aug. 11, 1917. Serial No. 185,683. (Cl. 145—79.)



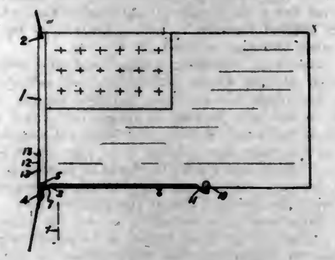
1. Means for attaching a tool shank, handle and ferrule to each other comprising a tool shank and handle tenon having corresponding recesses, a key in said recesses having its outer end projecting slightly outside the recess in the tenon and a ferrule driven to place over the tenon, the angle between the inner surface of the ferrule with respect to the outer end of the key being such that a substantially permanent frictional engagement between the inner surface of the ferrule and the outer end of the key is provided.

3. The method of securing tool shanks, handle tenons and ferrules to each other, which consists in providing recesses in the shank and tenons which correspond when the shanks are driven home, placing keys in said corresponding recesses and providing a substantially permanent frictional union between the parts by driving the ferrule home over the tenons.

[Claim 2 not printed in the Gazette.]

1,253,380. FLAG. GEORGE F. HOFFMAN, Philadelphia, Pa. Filed Sept. 12, 1917. Serial No. 190,877. (Cl. 116—12.)

1. In a flag the combination, with a gromet in the flag heading, of a rod integrally looped at one end into the form of a halyard-eye and having an integral bend forming a gromet hook and having its integral shaft offset near the hook and in the direction of and beyond the bend of the hook to cause it to lie inside of the margin of the flag and be concealed thereby, and means for detachably securing the other end of the shaft to the margin of the flag.

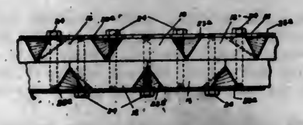


2. In a flag the combination, with a gromet in the flag heading, of a rod integrally looped at one end into the form of a halyard-eye and having an integral bend forming a gromet hook provided with a bill having a prolongation disposed at substantially a right angle with the shaft of the rod, and means for connecting the other end of the rod and the prolongation of the bill with the flag.

3. In a flag the combination, with a gromet in the flag heading, of a rod integrally looped at one end into the form of a halyard-eye and having an integral bend forming a gromet hook provided with a bill having a prolongation disposed at substantially a right angle with the shaft of the rod, the shaft of the rod being offset near the hook and in the direction of and beyond the bend of the hook, and means for connecting the other end of the rod and the prolongation of the bill with the flag.

4. In a flag the combination with a gromet in the flag heading, of a rod integrally looped at one end into the form of a halyard-eye and having an integral bend forming a gromet hook and having its integral shaft offset near the hook to cause it to lie inside of the margin of the flag and be concealed thereby, and a pocket inside the margin of the flag which receives the offset shaft of the rod.

1,253,381. VEHICLE-WHEEL TIRE. OTIS A. HOLLIS, Pittsburgh, Pa., assignor to Hollis Automatic Traction Jack Company, Pittsburgh, Pa., a Corporation of Delaware. Filed Mar. 5, 1914. Serial No. 822,630. (Cl. 152—9.)



1. A wearing tire for tractor vehicles comprising the combination with the wheel rim, of a circumferential series of non-metallic blocks beveled so as to form triangular pyramidal recesses between each pair of blocks, and retaining means including resilient wedges engaging said blocks to tighten them on the rim both vertically and circumferentially.

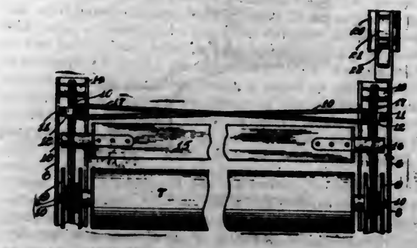
3. A vehicle wheel tire composed of resilient blocks placed on the rim of the wheel, said blocks having their lateral corners beveled to form pyramidal recesses between adjacent blocks, laterally placed metal rings retaining said blocks, and pyramidal metal wedges attached to the rings adapted to fit into said recesses to exert pressure on the blocks laterally, circumferentially, and vertically, substantially as described.

4. In a vehicle tire, the combination with a wheel rim and a series of non-metallic blocks having diagonally beveled corners forming pyramidal recesses between adjacent blocks, of a retaining device consisting of a pyramidal metal wedge fitting between the beveled corners of the blocks and flush with the outer surfaces thereof, and laterally placed rings held against said blocks and wedges.

9. In a vehicle tire tread, the combination with a wheel rim, of a pair of laterally placed metal rings, a series of resilient blocks retained between said rings and having their outer corners angularly beveled, detachable resilient metal wedges attached to said rings and fitting in the beveled recesses of the blocks, substantially as described.

[Claims 2 and 5 to 8 not printed in the Gazette.]

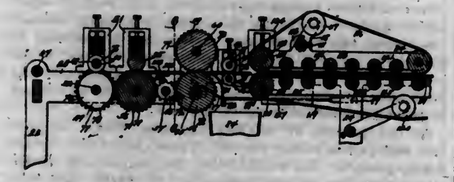
1,253,382. ADJUSTABLE SHADE OR MAP ROLL. SELDEN R. HOPKINS, Chicago, Ill. Filed Feb. 1, 1917. Serial No. 145,928. (Cl. 156—30.)



3. In a device of the class described, upright channel guides, a roller, thimbles secured to each end thereof and disposed in the channels of said guides, apertured guide plates in the upper ends of said channel guides, cables wound upon each of said thimbles with one of said cables led from the channel to one of said guides through its apertured guide plate to the channel of the other guide and through its apertured guide plate, whereby said cables both are accessible at the same point, a sheet wound upon said roller, a stick secured at the edge of said sheet, cables attached to each end of said stick with one of said cables led from one of said channel guides through its apertured guide plate into the other thereof and through its apertured guide plate, whereby said cables also are accessible at the same point, said roller cables passing down the channel guide at one side and said stick cables passing down the channel guide at the other side, and clamps fixed to said channel guides near their lower ends for engaging cables detachably to retain them in any adjusted position.

[Claims 1 and 2 not printed in the Gazette.]

1,253,383. ENVELOP-MACHINE. WILLIAM P. HUGUELET, Chicago, Ill. Filed May 9, 1916. Serial No. 96,378. (Cl. 93—63.)



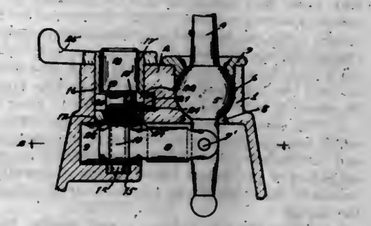
1. In an envelop machine, a cutter for forming an envelop blank from a strip of paper, the cutter being shaped to cut out opposite portions of the side edges of the strip and to sever the strip transversely in line with said cut-out portions, thereby producing a blank having side flaps of a length to overlap when folded, and top and bottom flaps, means for creasing the blank transversely in line with the opposite edges of the cut-out portions to define the top and bottom flaps, means independent of the aforesaid cutter and creasing means and operating thereafter for creasing the blank longitudinally in line with the cut-out portions to define the side flaps, means for applying paste to the under side of one of the side flaps, means for folding said flap on the body of the blank, means for folding the other side flap on top of the said folded side flap, and means for folding and pasting the bottom flap over on the folded and pasted side flaps.

2. In an envelop machine, a cutter for forming an envelop blank from a strip of paper, the cutter being shaped to cut out opposite portions at the side edges of the strip and to sever the strip transversely in line with said cut-out portions, thereby producing a blank having side flaps of a length to overlap when folded, and top and bottom flaps, means for creasing the blank transversely in line with the opposite edges of the cut-out portions to define the top and bottom flaps, means independent of the aforesaid cutter and creasing means and operating thereafter for creasing the blank longitudinally in line with the cut-out portions to define the side flaps, means for applying paste to the under side of one of the side flaps, means for folding said flap on the body of the blank, means for folding the other side flap on top of the said folded side flap, means for folding and pasting the bottom flap over on the folded and pasted side flaps, and actuating connections between the aforesaid means to cause their operation in the order named.

3. In an envelop machine, a feed belt, a resilient hold-down strip engaging the discharge end of the belt and projecting therebeyond, and superposed feed rollers mounted to the rear of the discharge end of the belt, between which rollers the projecting end of the strip extends, one of the rollers having a peripheral groove through which the strip extends.

4. In an envelop machine, a paste-applying means comprising a rotatable member having a plane face extending radially with respect to said member, a radially yieldable plate mounted on said face and provided with slots, pins projecting from said face of the member and passing through the slots, the protruding portion of the pins having heads, expanding coil springs mounted on the pins between said heads and the plate, resilient means for normally drawing the plate outwardly, a wiper carried by the plate and projecting beyond the plane of the periphery of the rotatable member, and means for feeding an envelop blank past the rotatable member tangentially with respect to the circular path described by the wiper.

1,253,384. LOCKING DEVICE FOR LEVERS. GEORGE C. JENSEN, Oakland, Cal. Filed Sept. 27, 1917. Serial No. 193,405. (Cl. 70—128.)



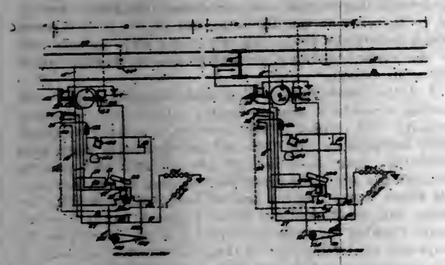
1. The combination with a lever, a support within which the same is fulcrumed for universal swinging movement, said support inclosing a portion of said lever, a locking bolt inclosed within said support and disposed at an angle to said lever and pivotally connected at one end to the same, a guide within the support for receiving the other end of said locking bolt and within which said bolt is capable of oscillating and longitudinal movement on the movement of the lever in its various planes, and a lock controlled locking tumbler carried by the support and extending into said guide and adapted for movement to engage said bolt to prevent longitudinal movement of the same within the guide.

2. The combination with a lever, a support within which the same is fulcrumed for universal swinging movement, said support inclosing a portion of said lever, a locking bolt concealed within said support and pivotally connected at one end to the inclosed portion of said lever, the other end of said bolt provided with an open ended longitudinally disposed slot, a guide for receiving the slotted end of said locking bolt, and a rotatably mounted lock controlled locking tumbler extending into said guide and into the slot in the end of said bolt and capable of rotation into engagement with said bolt to lock the same from longitudinal movement within said guide.

3. The combination with a lever, a support within which the same is fulcrumed for universal swinging movement, said support inclosing a portion of said lever, a locking bolt pivotally connected at one end to the inclosed portion of said lever, a guide within said support for receiving the free end of said bolt and within which said bolt is capable of longitudinal and swinging movement during the movement of the lever in its various planes, and lock controlled devices for engaging said bolt for locking the same from movement relative to said guide.

[Claims 4 and 5 not printed in the Gazette.]

1,253,385. SIGNAL SYSTEM FOR ELECTRIC CARS. ELMER M. JONES, Atlanta, Ga., assignor to Jones Signal System Company, Atlanta, Ga., a Corporation of Georgia. Filed Aug. 21, 1913. Serial No. 785,974. (Cl. 246—36.)



1. In an electric signal system, the combination of a normal danger signal, means whereby a vehicle or train may clear said signal if the track ahead is clear, and means whereby a clear signal automatically returns to danger after the lapse of a predetermined time.

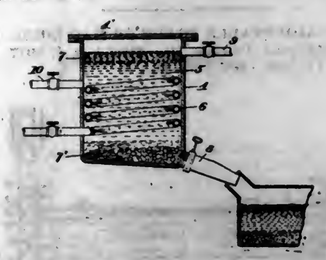
4. In an electric signal system, the combination of a normal danger signal, means whereby a vehicle or train may clear said signal if the track ahead is clear, and means whereby a clear signal automatically returns to danger after the lapse of a predetermined time, means for registering the number of vehicles or trains entering the block and the number leaving the block, and means whereby such two registrations of previous trains must be equal to enable a following vehicle or train to clear the signal.

9. The combination of a normal danger signal, an automatic stop, mechanism for clearing the same concurrently, and key-locked mechanism independent of the normal operation of the danger signal manually operable from the trackway for clearing the automatic stop without clearing the signal.

14. In an electric railway signal system, the combination of a danger signal, a circuit therefor having two parallel branches controlled by two switches one of which is normally closed, a safety signal, a circuit therefor having two switches in series one of which is normally open, a magnet, means operated by a vehicle entering the block to energize said magnet, mechanism whereby said magnet when energized opens the normally closed danger switch and closes the normally open safety switch, means automatically operating after a time interval to close both switches of the danger circuit and open both switches of the safety circuit, a magnet adapted to be energized by means of a vehicle leaving the block, means whereby such energization opens the now closed but normally open danger switch and closes the now open but normally closed safety switch, and an impulse relay controlled by trains entering and leaving the block and operating to control the last mentioned magnet.

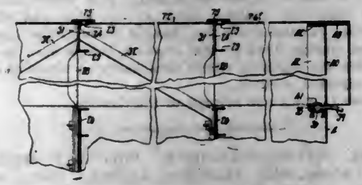
[Claims 2, 3, 5 to 8, 10 to 13, and 15 to 18 not printed in the Gazette.]

1,253,386. METHOD OF RECOVERING THE INGREDIENTS FROM WASTE ROOFING, &c. IRWIN S. JOSEPH, Rahway, N. J. Filed Nov. 1, 1916. Serial No. 129,015. (Cl. 83—85.)



The method of recovering the ingredients from waste roofing of the asphalt-felt-stone variety, comprising introducing the waste roofing into a liquid separating-medium immiscible with the asphalt, of greater specific gravity and maintained at a temperature sufficiently high to effect melting of the asphalt and disengagement of the felt and stone, separately recovering the asphalt, felt and stone from the solution, and thereafter mechanically separating the felt and stone.

1,253,387. PROCESS OF CONSTRUCTING BUILDINGS. THOMAS H. KANE, Youngstown, Ohio, assignor to Trussed Concrete Steel Company, Detroit, Mich., a Corporation of Michigan. Original application filed Dec. 30, 1915, Serial No. 69,330. Divided and this application filed Aug. 28, 1916. Serial No. 117,226. (Cl. 189—2.)



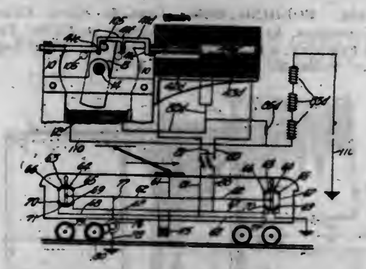
1. The process of erecting buildings which comprise side wall panels having flanges along their vertical edges, posts of less height than the flanges interposed between the latter, and roof trusses having ends conforming to the spaces between the upper ends of the flanges, which process consists in first assembling the wall panels and posts and afterward lowering the trusses into the spaces between the corresponding flanges.

2. The process of erecting buildings which comprise side wall panels having grooved flanges along their vertical edges, posts of less height than the flanges and having ribs conforming to the grooves of the latter, and roof trusses having ends conforming to the spaces between the upper ends of the flanges, which process consists in first placing a panel in position, next placing a post in such relation to the panel that one of its ribs is received in the groove in the flange of the latter, next placing a second panel in such relation to the post that another rib on the latter is received in the groove in the flange of the former, and afterward lowering the end of the corresponding truss into the space between the upper ends of the flanges until it rests upon the upper end of the post.

3. The process of erecting buildings which comprise sectional ends, including corner panels and side wall panels, said corner and side wall panels having flanges along their vertical edges, posts of less height than and interposed between the flanges, and a roof truss having ends conforming to the spaces between the upper ends of the panels, which process consists in first assembling a sectional end in a plane other than vertical, next tilting the end about its base until it stands substantially vertical, then placing a post in position against the flange of the corresponding corner panel, then placing a wall panel so that its flange engages the side of the post opposite the flange on the corner panel, and finally lowering the end of the truss into the space between the upper ends of the flanges until it rests upon the upper ends of the posts.

4. The process of erecting buildings which comprise side wall panels having flanges along their vertical edges, thin posts of less height than the flanges and conforming to the latter, and roof trusses having ends conforming to the spaces between the upper ends of the flanges, which process consists in first placing a panel in position, next placing a post against the flange of the panel, afterward placing a second panel with its flange against the post, then lowering the end of the corresponding truss into the space between the upper ends of the flanges until it rests on the upper end of the post.

1,253,388. INDICATOR-REVERSING MEANS. ORLANDO E. KELLUM and ARTHUR H. SWEETLAND, Los Angeles, Cal., assignors to National Street and Station Indicator Company, Los Angeles, Cal., a Corporation of California. Filed Oct. 22, 1914, Serial No. 868,975. Renewed May 31, 1917. Serial No. 172,074. (Cl. 40—52.)



1. In a device of the character described, a reversible indicator actuating mechanism including an electro-magnetic field magnet and a bi-polar armature, mechanical means for normally holding the armature with either of its poles initially inclined toward one of the field magnet poles, electro-magnetic means for operating said mechanical means to shift the armature from one normal position to the other, and means coöperating with said electro-magnetic means to cause a single operation of the actuating mechanism when the armature is shifted from one position to the other.

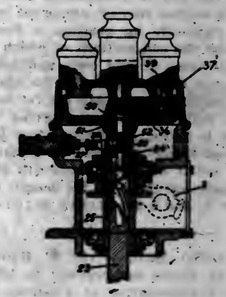
2. In a device of the character described, a reversible indicator actuating mechanism including an electro-magnetic field magnet and a bi-polar armature, mechanical means for normally holding the armature with either of its poles initially inclined toward one of the field magnet poles, electro-magnetic means for operating said mechanical means to shift the armature from one normal position to the other, and means coöperating with said electro-magnetic means to cause a single operation of the actuating mechanism when the armature is shifted from one position to the other, said means including a switch adapted to be closed by the movement of said mechanical and electro-magnetic means and adapted to be opened by the movement of the armature.

3. In a device of the character described, an electro-magnetic reversible indicator actuating mechanism adapted to be operated step by step, means for reversing said actuating mechanism, and means for causing a one step advance of said actuating mechanism in the direction to which it is reversed, said means including an electric circuit and a switch therein adapted to be closed by operation of the reversing means and to be opened by operation of said actuating mechanism.

8. In a device of the character described, a reversible indicator actuating mechanism adapted to be operated step by step, means for reversing said actuating mechanism, means for normally causing advance of the actuating mechanism in either direction, and means controlled by the reversing means for causing a one step advance of the actuating mechanism in the direction to which it is reversed.

[Claims 4 to 7 not printed in the Gazette.]

1,253,389. IGNITION SYSTEM. CHARLES F. KETTERING and WILLIAM A. CHRYST, Dayton, Ohio, assignors to The Dayton Engineering Laboratories Company, a Corporation of Ohio. Filed May 25, 1915. Serial No. 30,398. (Cl. 123—148.)



In an ignition system, a timing and distributing mechanism for controlling the time of occurrence of the sparking impulses, comprising a circuit controlling element; driving mechanism therefor, including a hollow shaft; a support for said circuit controlling element, having a tubular shank and adapted to fit within said hollow shaft; and means operable relative to said support to expand said shank to secure the support to the driving mechanism.

1,253,390. FOLDING BED. CARL R. KLOK, Chicago, Ill., assignor, by mesne assignments, to United Table-Bed Company, a Corporation of Virginia. Filed June 26, 1913. Serial No. 775,847. (Cl. 5—17.)



1. A table bed comprising a table body provided with legs, a bed movable into a position to be concealed and supported by said body, said bed having a frame adapted to extend from opposite sides of said body, folding legs for the opposite ends of said bed, and a movable table top for said body, adjustable into and out of position independently of said bed.

3. A table bed comprising a table body provided with legs, a bed movable into a position to be concealed and supported by said body, said bed having a frame adapted to extend from opposite sides of said body, legs for the

opposite ends of said bed, and a movable table top for said body, said bed frame including a middle section fixed on said body, folding end sections, one end section resting on the other end section when the bed is folded, and links for connecting the sections together, serving to limit the downward swing of said end sections, providing space for the bedding when the bed is folded.

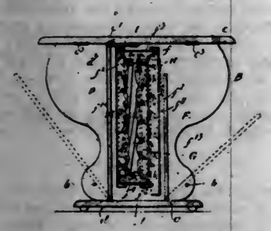
5. A table bed provided with a divided top, said top being independent of the bed, the two sections of the top being hinged to swing down below the bed at opposite sides of the table, each section having a side wall hinged at its lower edge.

7. A folding bed comprising a body, which is not extensible when the bed is unfolded, a sectional frame having the middle section thereof supported by said body in permanently right-side up position a fixed distance from the floor, and the end sections of which frame project from opposite sides of said body and fold one over the other upon said middle section, with space between the sections for bedding, a movable top for said body to conceal said bed and provide a supporting surface for use when the bed is folded, and folding legs for said end sections of the bed frame, the width of said body being approximately one-third of the length of the bed.

10. A folding bed comprising a body, which is not extensible when the bed is unfolded, a sectional frame having the middle section thereof supported by said body in permanently right-side up position a fixed distance from the floor, and the end sections of which frame project from opposite sides of said body and fold one over the other upon said middle section, with space between the sections for bedding, a movable top for said body to conceal said bed and provide a supporting surface for use when the bed is folded, and folding legs for said end sections of the bed frame, said middle section providing a seat when the bed is unfolded, the width of said body being approximately one-third of the length of the bed.

[Claims 2, 4, 6, 8, and 9 not printed in the Gazette.]

1,253,391. FOLDING BED. CARL R. KLOK, Chicago, Ill., assignor, by mesne assignments, to United Table-Bed Company, a Corporation of Virginia. Filed July 14, 1913. Serial No. 778,938. (Cl. 5—17.)



1. A table bed comprising a table provided with a pedestal, and a foldable bed frame associated with the pedestal, said pedestal having a pivoted closure member operated by folding movement of said frame, and a connection between said frame and member, whereby said frame pulls said member into closed position.

2. In a table bed, a furniture body, a transversely folding bed-frame comprising a head-section, a middle-section, a foot-section, means whereby said foot-section is foldable upside-down with a mattress onto the middle-section and whereby the two sections are then foldable onto the head-section, preliminary to inclosing the frame in said body, movable housing means operatively connected to said bed-frame, and pivots on said body to permit rotation of the folded frame from a horizontal into an upstanding position with the foot-end of the frame at the top and the head-end at the bottom.

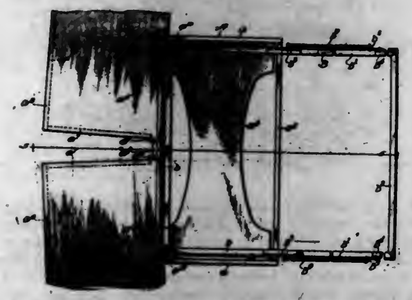
3. In a table bed, a furniture body, a transversely folding bed-frame comprising a head-section, a middle-section, a foot-section, means whereby said foot-section is foldable upside-down with a mattress onto the middle-section and the two sections are then foldable onto the head-section, preliminary to inclosing the frame in said body, pivots on said body to permit rotation of the folded frame from a horizontal into an upstanding position with the foot-end of the frame at the top and the head-end at the bottom, a housing for said frame in said body, said housing having a downwardly swinging section, and an operative connection between said housing and said frame.

4. In a table bed, a furniture body, a transversely folding bed-frame comprising a head-section, a middle-section, a foot-section, means whereby said foot-section is foldable upside-down with a mattress onto the middle-section and the two sections are then foldable onto the head-section, preliminary to inclosing the frame in said body, pivots on said body to permit rotation of the folded frame from a horizontal into an upstanding position with the foot-end of the frame at the top and the head-end at the bottom, a swinging housing-section in said body, and an operative connection between said housing-section and said head-section of the frame.

5. In a table bed, a furniture body, a transversely folding bed-frame comprising a head-section, a middle-section, a foot-section, means whereby said foot-section is foldable upside-down with a mattress onto the middle-section and the two sections are then foldable onto the head-section, preliminary to inclosing the frame in said body, pivots on said body to permit rotation of the folded frame from a horizontal into an upstanding position with the foot-end of the frame at the top and the head-end at the bottom, said body having a movable table-top which covers the folded frame and overhangs the same a distance to give knee-clearance at opposite sides thereof when the body is in use as a table, and two movable members between which said frame is inclosed when folded.

[Claim 6 not printed in the Gazette.]

1,253,392. FOLDING BED. CARL R. KLOK, Chicago, Ill., assignor, by mesne assignments, to United Table-Bed Company, a Corporation of Virginia. Filed Aug. 1, 1913. Serial No. 782,894. (Cl. 5—17.)

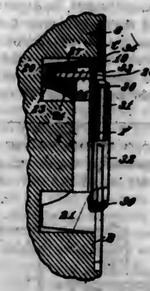


1. A table for inclosing a folding bed, comprising two pivotally connected table sections, each section movable about a vertically disposed axis, said sections being provided with legs for supporting them in displaced position when the bed is in use.

2. A table for inclosing a folding bed, comprising two pivotally connected table sections, each section movable about a vertically disposed axis, said table having a rectangular body frame provided with legs at the four corners thereof, adapted to support the sections, and the sections having legs to support them in displaced position.

3. A table for inclosing a folding bed, comprising two pivotally connected table sections, each section movable about a vertically disposed axis, said table having a rectangular body provided with legs at the four corners thereof, which body supports and forms a part of the bed, and the table sections each having legs at only two corners thereof, and each section having a flat top to form the upper surface of the table.

1,253,393. ROLLER-LATCH. GEORGE LABRIE, Methuen, Mass. Filed July 12, 1917. Serial No. 180,211. (Cl. 70—119.)



1. In a roller-latch, a plate having legs at the back and a narrow slot which extends into the legs, in combination with a roller carrier slidable into and out of the slot and having screw holes, a roller carried thereby, headed screws which pass through the screw holes and the slots into the legs, and compression springs each of which encircles a screw between a leg and the roller carrier.

2. In a roller latch, the combination of a roller carrier having recesses and screw holes at each end, a roller carried thereby, and a plate having a slot to receive the roller carrier, with legs fixed to the back of the plate having slots to receive the roller carrier and threaded extensions, headed screws which pass through the recesses and screw holes in the roller carrier and the slots in the plate and legs into their threaded extensions, and removable compression springs which encircle the screws and rest in the leg slots and bear against the roller carrier.

1,253,394. CHURN-DASHER. ROBERT C. LAMBIE, Austin, Tex. Filed Sept. 5, 1917. Serial No. 189,821. (Cl. 259—96.)



1. A dasher embodying a tubular shaft, a second shaft therein, agitators carried by said shafts near their lower ends, the tubular shaft having an air passage therein, and means supported by the second mentioned shaft and supporting the lower end of the tubular shaft for the flow of air therefrom.

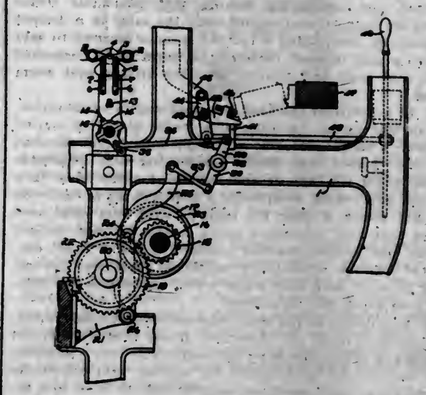
2. A dasher embodying a tubular shaft, a second shaft therein, agitators carried by said shafts near their lower ends, the tubular shaft having an air passage therein, and a spider supported by the second mentioned shaft and supporting the lower end of the tubular shaft for the flow of air therefrom.

3. A dasher embodying a tubular shaft, a second shaft extending therethrough, an agitator carried by the tubular shaft near its lower end, an agitator carried by the second mentioned shaft having a hub on said shaft, and a spider seated on said hub, the lower end of the tubular shaft seating on the arms of said spider, and said arms of the spider having portions engaging the tubular shaft to hold it concentric with the second mentioned shaft.

4. A dasher embodying a tubular shaft having an air inlet opening near its upper end, a bearing at the upper end of the tubular shaft, a second shaft extending through the tubular shaft and said bearing, the tubular shaft having an air passage therein, an agitator carried by the tubular shaft near its lower end, an agitator carried by the second mentioned shaft below the tubular shaft, and a spider supported by the second mentioned shaft and engaging the lower end of the tubular shaft to support and center it.

5. A dasher embodying a tubular shaft, a second shaft extending therethrough and spaced therefrom for the flow of air through the tubular shaft, agitators carried by the shafts near the lower ends thereof, the lower end of the tubular shaft being open between the agitators for the flow of air therebetween, and the agitators being arranged to impel the liquid away from said open end of the tubular shaft to draw air downwardly therethrough.

1,253,395. STOP-MOTION FOR LOOMS. JAMES K. LANNING, Boston, Mass. Filed Oct. 2, 1911. Serial No. 652,227. (Cl. 139—92.)



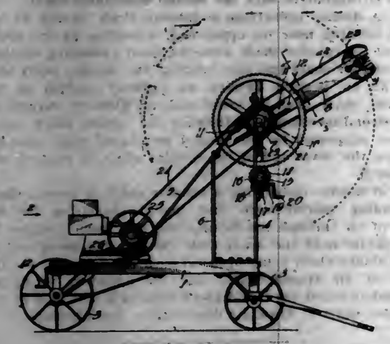
1. Warp stop mechanism for looms comprising in combination, a lay and shipper mechanism, indicating drop bars, a rock shaft mounted thereunder, a feeler thereon, a support distinct from said rock shaft, opposing clutch members co-axially mounted on said support, means operatively connecting said rock shaft and said clutch, a cam, and means operatively connecting said clutch and said cam and said shipper mechanism.

2. Warp stop mechanism for looms comprising in combination a lay and shipper mechanism, a bunter in the path of the lay, indicating drop bars, a rock shaft mounted under said drop bars, a feeler on said rock shaft, a support distinct from said rock shaft and mounted under said bunter, a clutch on said support, operative connections between said rock shaft and said clutch and between said clutch and said bunter, a cam, and an operative connection between said cam and said support.

5. Warp stop mechanism for looms comprising in combination a lay and shipper mechanism, indicating drop bars, a rock shaft mounted under said drop bars, a feeler on said rock shaft, a support distinct from said rock shaft, a clutch thereon having fixed and slidable members, a lever having arms of which one directly engages the slidable member of the clutch and another cooperates with the shipper mechanism, operative connections between said rock shaft and said support, a cam, and an operative connection between said cam and said support.

[Claims 3, 4, and 6 to 8 not printed in the Gazette.]

1,253,396. PORTABLE POWER TRANSMISSION. ARTHUR LEE, Herscher, Ill. Filed June 17, 1915. Serial No. 34,626. (Cl. 190—53.)



1. In a device of the kind described and in combination, an upright frame, an adjustable frame carried thereby, a shaft carried by said adjustable frame adjacent the end thereof, and means for moving said adjustable frame about its support, and maintaining the same in a desired adjustment, comprising a toothed member secured to said frame, a gear in mesh therewith, a worm wheel connected with said gear, and a worm gear for driving said worm wheel.

2. In a device of the kind described and in combination, an upright frame, an adjustable frame pivotally carried thereby, a shaft carried by said adjustable frame adjacent the end thereof, and means for moving said adjustable frame about its support and maintaining the same in a desired adjustment, comprising a gear secured to each side of said frame, a gear for each of said first mentioned gears, said last mentioned gears carried by said upright frame and suitably secured together, a worm wheel connected with one of said last mentioned gears, and a worm gear in mesh with said worm wheel, and means for driving said worm gear as desired.

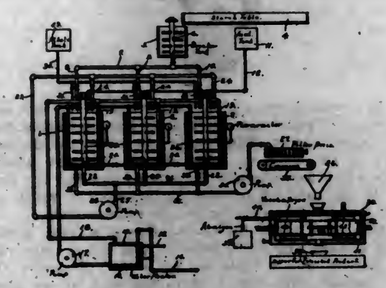
3. In a device of the kind described and in combination, an upright frame, an adjustable frame pivotally carried thereby, a shaft carried by said adjustable frame adjacent the end thereof, and means for moving said adjustable frame about its support and maintaining the same in a desired adjustment, comprising a gear secured to each side of said frame, with their centers at the pivotal connection of the two frames, a gear for each of said first mentioned gears, said last mentioned gears carried by said upright frame and suitably secured together, a worm wheel connected with one of said last mentioned gears, and a worm gear in mesh with said worm wheel, and means for driving said worm gear in either direction, as desired.

4. In a device of the kind described and in combination, a suitable truck frame, an upright frame carried thereby, an adjustable frame carried by said upright frame adjacent the upper end thereof, means for moving said adjustable frame and maintaining the same in desired adjustment, comprising gear parts secured to said adjustable frame, one on each side thereof, coöperating gears carried by said upright frame and in gear with the gear parts secured to said adjustable frame, and a worm wheel and worm gear operatively connected with said coöperating gears.

5. In a device of the kind described and in combination, a suitable truck frame, an upright frame carried thereby, an adjustable frame pivotally carried by said upright frame adjacent the upper end thereof, means for moving said adjustable frame and maintaining the same in a desired adjustment, comprising gear parts secured to said adjustable frame, one on each side thereof, coöperating gears carried by said upright frame, and in gear with the gear parts secured to said adjustable frame, a worm wheel and gear operatively connected with said coöperating gears, a shaft carried by said adjustable frame, a second shaft arranged to be operatively connected with said first mentioned shaft, an adjustable auxiliary frame extending from said second shaft, and provided with a shaft adjacent the free end thereof, means for adjustably securing the end of said auxiliary adjustable frame, means for driving said first mentioned shaft, and means for operatively connecting the same with said other shafts.

[Claims 6 and 7 not printed in the Gazette.]

1,253,397. SIZE AND PROCESS OF MAKING SAME. ADOLPH W. H. LENDERS, Cedar Rapids, Iowa. Filed July 8, 1916. Serial No. 108,188. (Cl. 134—23.)



1. A size containing thick boiling starch mixed with thin boiling starch.

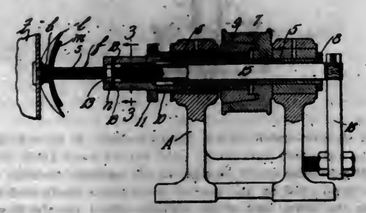
4. A dry sizing material containing modified starch and a lubricant intimately mixed together.

16. The method of producing a sizing material which comprises modifying starch with an acid under conditions which produce a thin boiling starch having a degree of fluidity greater than the fluidity required in the finished product, and then modifying the thin boiling starch by treatment with an alkali.

22. The method of producing a sizing material which comprises modifying starch with an acid to make the starch thin boiling, then mixing in raw starch and treating the mixture with a caustic alkali.

[Claims 2, 3, 5 to 15, and 17 to 21 not printed in the Gazette.]

1,253,398. POWER-DRIVEN WRENCH. GEORGE H. LEWIS, Chicopee Falls, Mass., assignor to The Fisk Rubber Company, Chicopee Falls, a Corporation of Massachusetts. Filed Aug. 24, 1917. Serial No. 187,949. (Cl. 81—55.)



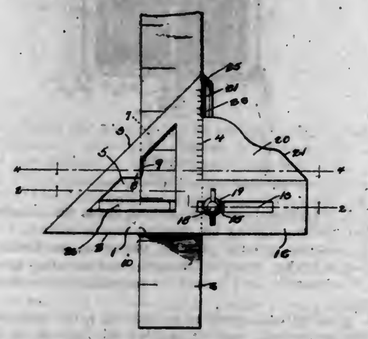
1. A power driven wrench, comprising, a hollow and revoluble socket wrench having means to receive a nut to be applied to a threaded stem, a driving member for the wrench normally disconnected from the latter and arranged for automatic connection by the pressure of the stem on the nut to rotate said wrench and apply the nut, and means within said hollow wrench to engage the stem and hold it stationary.

3. A power driven wrench to apply nuts to valve stems having one or more flattened surfaces thereon, comprising, a revoluble socket wrench having a recess to hold the nut and a recess to receive the stem as it moves through the nut, a driving member for the wrench normally disconnected from the latter and arranged for automatic connection by the pressure of the stem on the nut, whereby the wrench may be rotated to apply the nut to the stem, and means within said wrench to engage the flattened side of said stem and hold it against rotation.

5. A power driven wrench, comprising, spaced bearing members, a tubular drive shaft supported in one member and extending concentrically within the other member, a tubular socket wrench supported in the other member and telescoped over the end of said drive shaft, a driving pulley on the shaft between said bearings and formed with a clutch element, a clutch element on the socket wrench, means normally holding said elements disengaged and arranged to permit relative telescopic movement of the shaft and socket wrench to engage said elements, and a stationary spindle within said shaft and wrench having a recess to receive the stem as it moves through the nut in the socket wrench, and means to engage the stem and hold it against rotation.

[Claims 2 and 4 not printed in the Gazette.]

1,253,399. COMBINATION MEASURING INSTRUMENT. LESLIE H. LEWIS, Claremont, N. H. Filed June 30, 1916. Serial No. 106,884. (Cl. 33—95.)



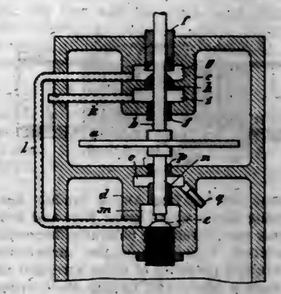
1. In a combination measuring instrument, the combination with a scale and a triangle provided with a recess for receiving the scale, the adjacent edge of the triangle being alined with the edge of the scale, of calipers including an extension formed on the said triangle and a movable member associated with the triangle and movable along the said adjacent edge thereof toward and away from the said extension.

5. In a combination measuring instrument, the combination with a scale, of a triangle provided with a recess for the reception of the scale, the edge of the scale being disposed in alinement with the adjacent edge of the triangle, an extension formed on said triangle and extending from said adjacent edge, one edge of the extension forming a continuation of another edge of the triangle, said extension being provided with a longitudinal slot, a clamp slidably arranged on said extension and having a stud extending through said slot and provided with a thumb-nut adapted to hold said clamp in engagement with one edge of said scale, and means slidably carried by the triangle and coöperating with said extension for providing calipers, the said extension and the said means acting in conjunction to perform the functions of the calipers, the adjacent edge of said triangle being provided with graduations for permitting the reading of said calipers.

8. In a combination measuring instrument, the combination with a scale and a triangle, an extension formed on one edge of the triangle, one edge of the extension being a continuation of one of the edges of the triangle, the said extension being disposed at right angles to the said scale, a retaining strip carried by the triangle and provided with a longitudinal groove, and a slidable member having one edge adapted to engage the proximate edge of the said extension and adapted to be curved toward or away from the said extension for providing calipers, the said slidable member having one of its edges disposed at an angle with respect to the said extension, the terminal of the said retaining strip being also cut at the same angle as the angularly disposed edge of the said triangle and extending in the opposite direction therefrom.

[Claims 2 to 4, 6, and 7 not printed in the Gazette.]

1,253,400. LUBRICATING DEVICE FOR TURBINE-DRIVEN CENTRIFUGAL MACHINES. HANS OLOF LINDGREN, Stockholm, Sweden, assignor to Aktiebolaget Separator, Stockholm, Sweden. Filed Dec. 28, 1915, Serial No. 68,086. Renewed Nov. 2, 1917. Serial No. 200,000. (Cl. 184—6.)



1. In steam turbines for driving centrifugal machines, a turbine housing, bearing bushings in the top and bottom of the housing, a spindle passing through said bearing bushings, and means for lubricating said bushings and said spindle independently of the existing pressure in the turbine housing.

2. In steam turbines for driving centrifugal machines, a closed turbine housing having upper and lower oil-receiving chambers, a top bearing bushing above the upper oil-receiving chamber, a bottom bearing bushing above the bottom oil chamber, a driving spindle rotatably mounted in said bushings, a turbine wheel mounted upon said spindle, and means for preventing the pressure existing in the turbine housing from interfering with the oil supply to said bearing bushings.

3. In steam turbines for driving centrifugal machines, a closed turbine housing provided with a plurality of upper chambers and a plurality of lower chambers, a top bearing bushing above said upper chambers, a restricted communicating passage between said upper chambers, a communicating passage being provided between said upper chamber and the interior of said turbine housing, a bearing at the bottom of said lower chambers, a bearing bushing between said lower chambers, a communicating passage being provided between one of said lower chambers and the interior of said turbine housing, one of said upper chambers and one of said lower chambers having air vents, a driving spindle mounted in said bushings, a turbine wheel mounted on the driving spindle, and means for conveying lubricating fluid from one of said upper chambers to one of said lower chambers; substantially as described.

4. In steam turbines for driving centrifugal machines, in combination, a driving spindle, a turbine wheel mounted on said spindle, a closed turbine housing for the turbine wheel, a lubricating top bearing bushing surrounding said spindle, said housing being provided with an oil-collecting chamber beneath said bushing and with a second chamber beneath said oil-collecting chamber, said second chamber communicating with the oil-collecting chamber and with the open air and also communicating with the turbine housing, a bottom bearing bushing, said housing being also provided with a chamber beneath said bottom bearing bushing, which chamber communicates with the upper oil-collecting chamber, and said housing being provided with

a chamber above said bottom bearing bushing for collecting the oil mounting through the lower bushing, said collecting chamber being connected with the open air and with the interior of the turbine housing; substantially as described.

5. In steam turbines for driving centrifugal machines, a turbine housing, top and bottom bearing bushings, a spindle passing through said bearing bushings, a turbine wheel mounted on the spindle, and means for lubricating said bushings and said spindle independently of the existing pressure in the turbine housing and for preventing the entrance of lubricating fluid into said housing.

[Claims 6 to 13 not printed in the Gazette.]

1,253,401. APPARATUS FOR TREATING AIR WITH LIQUIDS. JOHN H. LORIMER, Philadelphia, Pa. Filed July 9, 1914. Serial No. 849,932. (Cl. 261—92.)



1. In apparatus for treating air, a conduit having a tank for containing liquid at its lower part and deflecting means at its upper part extending obliquely downward and backward, combined with means for circulating air through the conduit, a plurality of disks arranged parallel to each other upon a shaft and having their upper portions rotating in the conduit above the tank and their lower portions rotating in the liquid in the tank the planes of said disks arranged in the direction of the flow of the air and upper rear curved edges of the disks closely fitting the deflecting means of the conduit, and means to rotate the shaft carrying the disks.

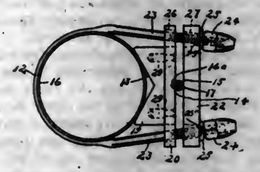
3. In apparatus for treating air, the combination of a conduit having a tank at its lower part for containing liquid and deflecting means at its upper part extending obliquely downward and backward, means for causing a movement of air through said conduit, means to produce a back pressure by retarding the escape of the air from the conduit, and a plurality of sets of rotating disks arranged in pairs in substantially the same horizontal plane, the disks of one set being staggered with and overlapping the disks of the next adjacent set and said disks partly submerged in the liquid of the tank and partly fitting the conduit above the tank up to the deflecting means thereof and between which disks the air is caused to flow, and means for rotating said disks.

4. In means for treating air, the combination of a conduit having a tank structure at its lower part for containing liquid, means for circulating air through the conduit, a plurality of transverse shafts above the tank geared together to simultaneously rotate, and a plurality of parallel disks secured upon each shaft revolving partly in the liquid of the tank structure and partly in the conduit above the tank, the plane of the disks being in the direction of the air currents and the disks of one shaft being staggered and overlapping the disks of the next adjacent shaft, and means for rotating the shafts and disks.

[Claim 2 not printed in the Gazette.]

1,253,402. DUPLEX CLAMP. ARTHUR WALDO LOVEJOY, Lowell, Mass., assignor to Arthur Edwin Hatch, Lowell, Mass. Filed May 25, 1917. Serial No. 170,856. (Cl. 248—37.)

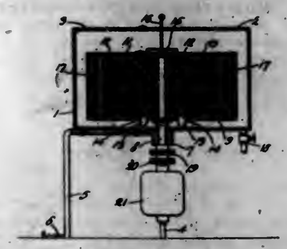
1. A duplex clamp comprising a flexible strip forming one of the jaws of an inner clamp and adapted by its flexibility to conform to supporting bodies of different sizes, an outer movable block forming one of the jaws of an outer clamp, a two-faced inner movable block forming complemental jaws of both clamps, and means common to all the jaws for simultaneously closing the inner clamp on a supporting body and the outer clamp on a supported



body, means being provided for permitting different flexures of the flexible strip.

[Claims 2 and 3 not printed in the Gazette.]

1,253,403. CENTRIFUGAL WASHING AND DRYING MACHINE. ROBERT C. MCCALEB, Chicago, Ill. Filed Apr. 3, 1917. Serial No. 159,456. (Cl. 68—18.)



3. A centrifugal machine embodying a tub, a rotatable basket therein having an opening in its bottom, a vertically movable member slidably engaging the basket and having a bucket movable through said opening upwardly and downwardly, and means for raising and lowering said member.

4. A centrifugal machine embodying a tub mounted for tilting movement, a shaft carried by the tub, a basket carried by the shaft within the tub, a worm wheel and a spur gear carried by said shaft, and actuating means having a spur gear to mesh with the aforesaid spur gear when the tub is in one position and having a worm to mesh with the worm wheel when the tub is in another position.

5. A centrifugal machine embodying a basket and shaft therefor mounted for tilting movement, actuating means, said shaft and actuating means having gears adapted to mesh in one position of the basket to provide a certain speed and adapted to mesh in another position of the basket to provide a different speed, and means for movably mounting the actuating means in order that it can be brought into connection with the shaft according to the position of the basket.

[Claims 1 and 2 not printed in the Gazette.]

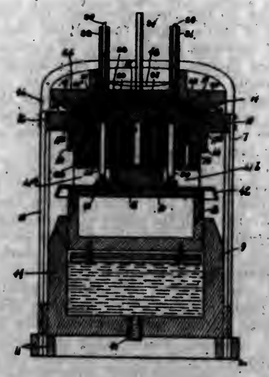
1,253,404. PROCESS OF PREPARING PHENOLIC CONDENSATION PRODUCTS. JAMES P. A. MCCOY, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 5, 1914, Serial No. 816,773. Renewed Nov. 30, 1917. Serial No. 204,784. (Cl. 106—22.)

1. A process of preparing resinous products which comprises partially reducing carbon dioxid to formaldehyde and treating a phenolic substance with the partially reduced gas.

6. A process of preparing resinous products which comprises treating a phenolic substance with a condensing agent mixed with a reduction product of such condensing agent which reduction product is capable of reacting with the said phenolic substance to form a resinous condensation product.

[Claims 2 to 5 not printed in the Gazette.]

1,253,405. MACHINE FOR MOLDING CERAMICS. DANIEL W. MCNEIL, Cincinnati, Ohio, assignor to The John Douglas Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Mar. 4, 1914. Serial No. 822,500. (Cl. 25—45.)



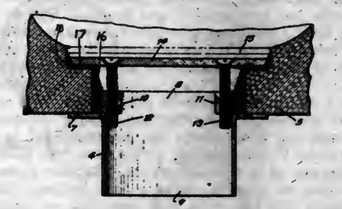
1. In a mold for compressing an article having a flange, the combination of a wall adapted to contact with one side of the article, a wall opposite said wall and consisting of a central portion and a portion surrounding and separated from said central portion, a plate adjacent to and adapted to contact with said surrounding portion, elastic members between said central portion and said plate, and means for reciprocating the plate, said walls having a space between them for the reception of material to be compressed.

2. In a mold for compressing an article having a flange, the combination of a wall adapted to contact with one side of the article, a wall opposite said wall and consisting of a central portion and a portion surrounding and separated from said central portion, a plate adjacent to and adapted to contact with said surrounding portion, elastic members between said central portion and said plate, means for reciprocating the plate, pins mounted upon said plate, projecting to a point below the inner wall of the central portion and adapted to project beyond said inner wall, when the plate has reached the inner limit of its travel.

3. In a mold for forming an article having a central portion surrounded by a flange, the combination of a chamber-inclosing body portion, a top mounted upon the body portion, and a bottom reciprocally mounted in the body portion, such bottom consisting of a rim to contact with the flange, a central portion adjustably and removably mounted in the rim, adapted to have restricted movement relatively to the rim and to contact with the central portion of the article, means for imparting simultaneous movement to the rim and the central portion until the latter exerts a predetermined pressure upon the central portion of the article, and means for continuing the movement of the rim until it exerts a similar pressure upon the flange of the article.

1,253,406. DRAIN-COUPLING FOR PORCELAIN TROUGHS. JOHN MCNEIL, Cincinnati, Ohio, assignor to The John Douglas Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Feb. 3, 1917. Serial No. 146,331. (Cl. 137—96.)

2. A drain coupling for porcelain troughs having coupling receiving openings formed therein, comprising a collar adapted to project into the opening of the trough, a flange formed on the collar adapted to engage the surface of the trough surrounding the collar receiving opening, lugs formed on the collar, a perforated cover, screws



engaging the lugs and the collar and adapted to secure the collar above the opening, and a fusible packing located between the collar and the trough.

[Claim 1 not printed in the Gazette.]

1,253,407. SOUND-MODIFIER FOR PHONOGRAPHS. PETER MACALLISTER MACCASKIE, Hot Springs, Alaska. Filed Sept. 7, 1916, Serial No. 118,869. Renewed Dec. 10, 1917. Serial No. 206,545. (Cl. 274—27.)



1. The combination with a diaphragm and a stylus supporting arm, of a sound modifying device including a sound modifying member composed of elements of different materials disposed to form a plurality of faces, the modifying member being mounted to bring any one of said faces and thereby any one of said elements into contact with the diaphragm or the stylus arm.

2. The combination with a sound box, a diaphragm and a stylus supporting arm, of a tone modifying device operatively mounted in connection with the sound box and including a tone modifying member shiftable into engagement with the diaphragm or the stylus supporting arm, said tone modifier being composed of different materials and being shiftable to bring any one of said materials into contact with the diaphragm or arm.

3. The combination with a diaphragm, and a stylus supporting arm, of a sound modifying device including a sound modifying member having inserts of different materials, the modifying member being mounted to bring any one of said inserts into contact with the diaphragm or the stylus arm.

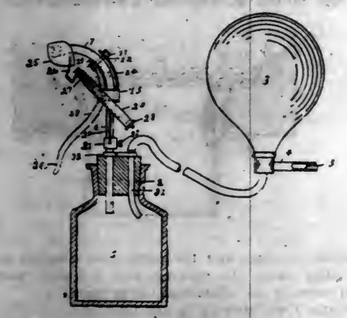
[Claims 4 to 8 not printed in the Gazette.]

1,253,408. INSTRUMENT FOR APPLYING LIQUID FINISH TO SHOES. HENRI MAROIS, Lewiston, Me. Filed May 14, 1917. Serial No. 168,350. (Cl. 12—31.)

1. In a device of the character described, a liquid container, means for msintaining the liquid in the container under pressure, a feed pipe entering the container, a brush in said pipe, a valve in said pipe, means for opening said valve and a guide located adjacent said brush and adapted to be moved manually in contact with some part of the work.

6. In a device of the character described, a liquid container, means for maintaining the liquid in the container under pressure, a feed pipe inserted in the container, a

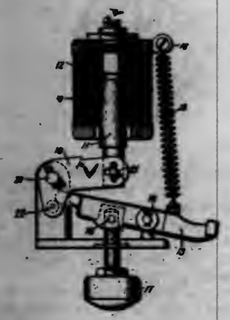
brush in said pipe, a valve in said pipe, means for opening said valve and a U-shaped guide located adjacent said



brush and adapted to inclose said brush and the work and be moved manually in contact with the work.

[Claims 2 to 5, 7, and 8 not printed in the Gazette.]

1,253,409. ELECTROMAGNET. DAVID W. MARTIN and ROBERT F. THOMPSON, Schenectady, N. Y., assignors to General Electric Company, a Corporation of New York. Filed Jan. 23, 1917. Serial No. 144,031. (Cl. 175—341.)



1. An electromagnet comprising a magnet winding, an armature movable thereby, a pole piece engaged by the armature at the limit of its travel, means for causing alinement of these parts upon engagement and means for maintaining the alined condition after disengagement.

2. An electromagnet comprising a magnet winding, an armature movable thereby, a pole piece engaged by the armature at the limit of its travel, self-alining means associated with one of the engaging members and means for maintaining alinement after disengagement.

8. An electromagnet comprising a magnet winding, an armature movable thereby, a pole piece engaged by the armature at the limit of its travel, a self-alining universal joint associated with one of the engaging members, and means for securing the universal joint in place after it has alined itself.

9. An electromagnet comprising a magnet winding, an armature movable thereby and having a flat engaging surface, a pole piece having a spherical convex surface and an engaging member having a flat surface, the said engaging member having a spherical concave surface adjustable on the spherical convex surface on the pole piece for causing a self-alinement of the flat surfaces of the armature and of the engaging member, and means for locking the engaging member in place after it has alined itself with the armature.

[Claims 3 to 7 not printed in the Gazette.]

1,253,410. COST-FILING DEVICE. HAROLD H. MARTIN, Seattle, Wash. Filed Jan. 17, 1917. Serial No. 142,949. (Cl. 11—13.)



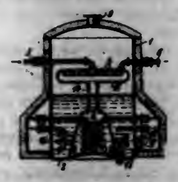
1. In devices of the class described, the combination with a series of cards having thereon the names of destinations and classified freight rates, of a series of cards having marked thereon the names of commodities, said last named cards being each provided with an opening which is arranged to disclose therethrough the freight rate for the particular class of goods designated upon a selected one of the first named cards when one of the second named cards is placed over the latter.

2. In devices of the class described, sets of cards devoted to outgoing freight, comprising a plurality of cards with destination points and tariffs marked thereon, and a plurality of cards with the names of commodities marked thereon in combination with sets of cards devoted to incoming freight comprising a plurality of cards with the names of commodities and tariffs marked thereon, and a plurality of cards having destination points marked thereon, the cards provided with commodity names of the outgoing freight and the cards provided with destination points of the incoming freight being each provided with an opening through which may be disclosed the respective tariff rates of the supplementary cards of the respective outgoing and incoming cards.

4. In a device of the class described, the combination of a freight tariff sheet with series of numbers devoted to express and parcel post shipments, said numbers designating the weights of goods which may be sent by the respective shipments at the same rates as one hundred pounds of freight, of a sheet provided with an opening through which selected of said numbers may be observed coincidently with a rate from the freight tariff.

[Claim 3 not printed in the Gazette.]

1,253,411. APPARATUS FOR TREATING OR DISTILLING HYDROCARBONS OR LIQUIDS LIKELY TO FORM EMULSIONS. FELIX MAXIMILIEN ADOLPHE ALEXANDRE MELCHIOR, Paris, France, assignor to Société Anonyme Des Combustibles Industriels, Paris, France. Filed Sept. 13, 1912. Serial No. 720,132. (Cl. 196—25.)



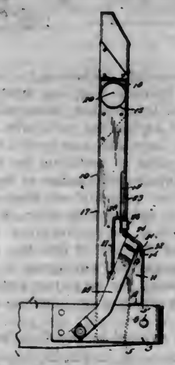
1. An apparatus for distilling liquids which foam when heated including a casing having a vapor outlet, a heating coil in said casing to be submerged, a partition means to direct foam upward from the surface of the liquid, and a plurality of series of horizontal, closely spaced heating pipes, one series being at a different elevation from the next, the highest being adjacent the top of the partition and the lowest adjacent the wall of the casing, and a deflector plate between each series, whereby the foam may pass from the partition and be caused to pass between the pipes of each series.

2. An apparatus for distilling liquids which foam when heated, including a casing having a vapor outlet, an upwardly inclined plate, a heating coil at the bottom of the casing to be submerged, a plurality of vertical heating pipes to be partly submerged, and a plurality of series of horizontal pipes located above the surface of the liquid, one series being at a different elevation from the next, the highest being located adjacent the top of the plate and the lowest adjacent the wall of the casing, and a deflector plate between each series of pipes.

3. An apparatus for distilling liquids which foam when heated, including a casing having a vapor outlet, an upwardly inclined plate, a heating coil at the bottom of the casing to be submerged, a plurality of headers at each end of the casing above the surface of the liquid, a plurality of horizontal pipes connecting opposed headers and forming a plurality of series, the headers at one end of the casing having inlets and the other headers having outlets, the pipes of one series being at a different elevation from the next, and the highest being located adjacent to the top of the plate and the lowest adjacent to the wall of the casing, and a deflector plate between each series of pipes.

4. An apparatus for distilling liquids which foam when heated, including a rectangular casing, a pair of substantially vertical, upwardly converging plates within the casing, heating pipes and a horizontal header in the lower portion of the casing between the lower ends of the plates, a second horizontal header above the first between the upper ends of the plates, vertical pipes connecting said headers, perforated steam pipes in said casing, the heating pipes and perforated pipes being submerged and the vertical pipes partly submerged, a plurality of series of horizontal, closely spaced pipes at each side of the upper portion of the casing above the surface of the liquid, one series being at a different elevation from the next, the highest series being located adjacent to the upper ends of the plates and the lowest adjacent wall of the casing, an inclined deflector plate between each series to insure the passage of material by gravity from between the pipes of one series to the next, a plurality of inclined troughs depending from the under side of the top plate of the casing, and collector troughs located at the lower ends of said inclined troughs.

1,253,412. WAGON-STAKE. HERMAN F. MILLER, Wittenberg, Wis. Filed Apr. 23, 1917. Serial No. 164,024. (Cl. 21—54.)



1. The combination with a wagon bolster; of a stake having detachable engagement therewith, a stirrup carried by one of the said members and pivoted means by the other for interlocking engagement with the stirrup.

2. The combination with a wagon bolster; of a stake having detachable engagement therewith, a stirrup carried by one of said members and means by the other for interlocking engagement with the stirrup, and means for locking the stirrup in operative position.

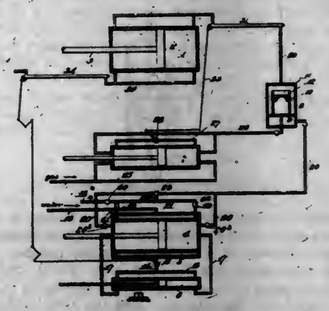
3. The combination with a wagon bolster; of a stake for detachable engagement therewith, a shoulder carried by one of said members and a stirrup by the other for interlocking engagement with said shoulder, and means for locking said stirrup in engagement with said shoulder.

4. The combination with a wagon bolster; of a stake for detachable engagement therewith, a shoulder carried by one of said members and a stirrup by the other for interlocking engagement with said shoulder, a latch pivoted to swing over said stirrup to hold it in engagement with said shoulder, and means for locking said latch in operative position.

5. The combination with a wagon bolster; of a stake for detachable engagement therewith, a shoulder carried by one of said members and a stirrup by the other for interlocking engagement with said shoulder, a latch pivoted to swing over said stirrup to hold it in engagement with said shoulder, and a keeper slidable on said stake and adapted to slide over said latch and lock it against swinging movement.

[Claims 6 and 7 not printed in the Gazette.]

1,253,413. HEAT-ENGINE. JAMES WILLARD MORRIS, New York, N. Y., assignor to The Sinpar Company, a Corporation of New York. Filed Mar. 5, 1908, Serial No. 419,313. Renewed May 26, 1917. Serial No. 171,304. (Cl. 60—16.)



1. A heat-engine embodying therein a power cylinder, an air compressor, means delivering water to said compressor in such quantities as to insure its being converted into steam therein, a furnace divided into compartments communicating with each other only at the top and bottom, fuel feeding means, and means whereby a charge of air and steam is conveyed from said compressor and heated and expanded while being passed about one of said compartments of said furnace, and thereafter, and before delivery to said power cylinder, mixed with the products of combustion from said other compartment to reduce the temperature of the mixture so that substantially all of the steam will be condensed during the expansion of the mixture in the power cylinder.

5. A heat engine having a power cylinder, an air compressing cylinder and a fuel cylinder, the said cylinders being connected to one shaft, the power crank and the air compressor crank being substantially 180 degrees apart, the cranks for the fuel cylinder and the power cylinder being at substantially right angles.

6. A power engine which comprises an air compressing cylinder, means for introducing water into such cylinder, a coil connected to the cylinder, a closed tank surrounding the coil, a trap connected to the outlet of the coil and connections between the trap and the compressing cylinder, whereby a closed circulation is secured.

[Claims 2 to 4 and 7 to 12 not printed in the Gazette.]

1,253,414. CURRYCOMB. EMILY A. NABON, Warren, Ark. Filed Nov. 16, 1914. Serial No. 872,457. (Cl. 119—88.)

In a currycomb, a body plate, a plurality of members secured in parallel relation upon said plate, each mem-

ber being of U-shape in cross section and having saw toothed free edges, pivots projecting laterally from the plate at one longer edge, a U-shaped frame having its ends swingingly embracing the pivots, a series of spaced wires having their ends connected to the plate and frame at remote points with respect to each other to be drawn



taut in bridging relation to the members crosswise thereof, when the frame is brought in substantially the same plane with the plate, and slackening said wires on the swinging of the frame away from said plate, and means for holding the frame in position substantially in the plane with the plate.

1,253,415. AUTOMATIC REEL AND LET-OFF FOR ELECTRIC-LIGHTING DEVICES. ALEXANDER NESBITT, Paterson, N. J. Filed Nov. 9, 1916. Serial No. 130,440. (Cl. 242—109.)



A device of the type described comprising, in combination, a casing, a reel journaled within the casing having a barrel formed of a series of spaced parallel rods arranged circularly and concentrically about the journal whereby a cable to be wound may be primarily interwined about certain of the rolls to clamp the cable to the barred and to form a divisional strand governing the respective windings of the oppositely extending cable-portions, and guide means disposed at the ends of the casing for yieldably holding the inclosed cable taut.

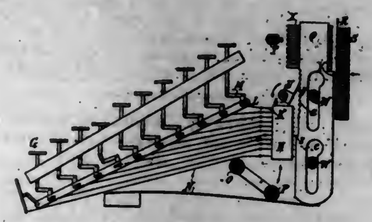
1,253,416. DOOR-LOCK. ANTHONY NYARY, Chicago, Ill., assignor to Paul H. Bush, Chicago, Ill. Filed May 16, 1917. Serial No. 168,920. (Cl. 70—5.)



1. Lock mechanism comprising a plate secured to a support, a locking bar having inclosing top and side walls, said bar being hinged at one end to said plate, a plate secured to a member to be locked and having a latching lug extending therefrom to be received by the locking bar when said bar is swung against the member to be locked, pins extending transversely through said locking bar, a latch plate confined in said locking bar between the top of said bar and said pins, said latching lug having a latching notch and said latching plate having a latching edge, a spring tending to shift said latching plate to force the latching edge into said latching notch when the locking bar is swung against the member to be locked, said latching plate having a hole, a knob rigidly secured to the locking bar over said latching plate, a lock cylinder rotatable in said knob and having a pin extending eccentrically from its lower end into said latching plate hole, said knob having a key hole and said lock cylinder having a notch adapted to register with said key hole when said locking bar is locked to said lug, and a key for said lock cylinder.

2. Lock mechanism comprising a plate secured to a support, a locking bar having inclosing top and side walls, said bar being hinged at one end to said plate, a plate secured to a member to be locked and having a latching lug extending therefrom to be received by the locking bar when said bar is swung against the member to be locked, pins extending transversely through said locking bar, a latch plate confined in said locking bar between the top of said bar and said pins, said latching lug having a latching notch and said latching plate having a latching edge, a spring tending to shift said latching plate to force the latching edge into said latching notch when the locking bar is swung against the member to be locked, said latching plate having a hole, a knob rigidly secured to the locking bar over said latching plate, a lock cylinder rotatable in said knob and having a pin extending eccentrically from its lower end into said latching plate hole, said knob having a key hole and said lock cylinder having a notch adapted to register with said key hole when said locking bar is locked to said lug, a key for said lock cylinder, and a spring within and secured to the top wall of said locking bar and adapted to engage with and press against the member to be locked when said locking bar is in locked position.

1,253,417. MECHANISM FOR MECHANICALLY TRANSFERRING ITEMS OF ACCOUNTS. JOHN ROYDEN PEIRCE, New York, N. Y. Filed Aug. 23, 1906, Serial No. 331,757. Renewed June 20, 1917. Serial No. 175,974. (Cl. 101—19.)



1. Perforating mechanism including in combination a number of separately movable punches, means for setting each of said punches in position independently of the others, means for perforating the card with all said number of punches at one operation, and means for advancing a card by successive steps to positions for receiving perforations from such number of punches at each operation.

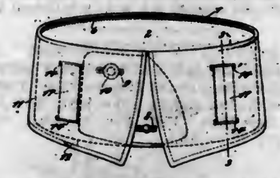
7. A perforating and printing machine including in combination means for setting a number of punches and types in position, means for perforating and printing the card with all said number of punches and types at one operation, and means for advancing a card by successive steps to positions for receiving perforations and impressing from such number of punches and types at each operation.

[Claims 2 to 6 not printed in the Gazette.]

1,253,418. COLLAR. JAMES K. P. PINE, Lansingburg, N. Y., assignor to United Shirt and Collar Company, Troy, N. Y., a Corporation of New York. Filed Jan. 6, 1917. Serial No. 140,880. (Cl. 2—91.)

1. As a new article of manufacture, a turn-over collar comprising a substantially upstanding neck-band member, and a turned-over member united along a fold line at the upper portions thereof, one of said members being soft and consisting of inner and outer continuous plies, the inner ply of said soft member having opposed openings spaced from the upper and lower edges thereof,

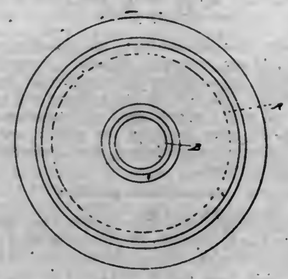
and a stiffening member lying with its length transversely of the collar on the outer face of said inner ply and having



its opposite end portions inserted through said openings and located beneath the inner face of said ply.

[Claims 2 to 7 not printed in the Gazette.]

1,253,419. METHOD OF FORMING METALLIC WHEELS. ALDEN L. PUTNAM, Detroit, Mich., assignor to Detroit Pressed Steel Company, Detroit, Mich., a Corporation of Michigan. Filed Aug. 26, 1915, Serial No. 47,395. Renewed June 18, 1917. Serial No. 175,506. (Cl. 29—168.)



1. The method of forming wheel blanks, comprising the cutting of the blank from sheet metal of a gage equal to the maximum thickness of the wheel, cupping the central portion of said blank to initiate a hub formation, thinning the surrounding portions of said blank and thereby enlarging the diameter thereof, and pressing to fashion to the desired form.

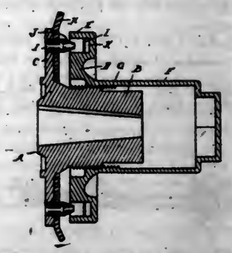
4. The method of forming wheel blanks, comprising the cutting of a blank from sheet metal of a gage equal to the thickness of the hub portion of the wheel, cupping the central portion to initiate a hub formation, guiding said blank by said hub and rolling the same to thin and enlarge the diameter of the surrounding portion, the outermost portion being of a gage suitable for the rim of the wheel, and the intermediate portion of a lighter gage suitable for the spokes, and pressing said blank to fashion the spoke and rim sections thereof.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,253,420. DEMOUNTABLE WHEEL. ALDEN L. PUTNAM, Detroit, Mich., assignor to Detroit Pressed Steel Company, Detroit, Mich., a Corporation of Michigan. Filed Aug. 26, 1916. Serial No. 116,997. (Cl. 21—31.)

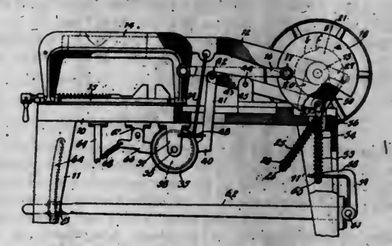
1. In a demountable wheel, the combination with a disk body, of a hub having a flange forming a seat for one side of said disk, a series of pins projecting from said flange for engaging registering apertures in said disk, the length of said pins being greater than the thickness of the disk, a clamping disk for engaging the opposite side of said disk having a threaded engagement with said hub and an annular recess therein for receiving the projecting ends of said pin, and retaining means for preventing the accidental unscrewing of the flange located in said annular recess and coöperating with said pins.

2. In a demountable wheel, the combination with a disk body, of a hub having a flange forming a seat for one side of said disk, a series of pins projecting from said flange and engageable with registering apertures in said disk, said pins being of greater length than the thickness of the disk, a clamping flange for the opposite side of said disk having a threaded engagement with said hub and provided with an annular recess for receiving the projecting portions of said pins, and a resilient retainer located in said recess adapted to ride over the ends of said pins and to yieldably engage the same for preventing accidental unscrewing of the disk.



3. In a demountable wheel, the combination with a disk body, of a hub having a flange forming a seat for one side of said disk, a clamping flange for engaging the opposite side of said disk, a pin projecting laterally from one of said flanges engaging a registering aperture in said disk, said pin being of greater length than the thickness of the disk and the projecting portion engaging a recess in the coöperating flange, and retaining means for preventing the accidental unscrewing of the flange located in said annular recess and coöperating with said pin.

1,253,421. POWER HACKSAW-MACHINE. ANDREW RASMUSSEN, Racine Junction, Wis. Original application filed Feb. 14, 1916, Serial No. 78,148. Divided and this application filed Mar. 19, 1917. Serial No. 155,711. (Cl. 29—73.)



1. Feed means for power hack saw machines comprising, in combination with a reciprocating and raisable and lowerable saw frame and its saw, means acting on the frame tending to lift the saw from its work during the non-cutting stroke and means to feed the saw toward the work during the cutting stroke comprising a rotative circular ratchet member suitably connected to the saw frame and feed and stop dogs coöperating with said ratchet member.

3. Feed means for power hack saw machines comprising, in combination with a reciprocating and raisable and lowerable saw frame and its saw, means acting on the frame tending to lift the saw from its work during the non-cutting stroke and means to feed the saw toward the work during the cutting stroke comprising a rotative circular ratchet member suitably connected to the saw frame, a feed dog coöperating with said ratchet member, with resiliently applied cam controlled means to control it and means for limiting the rising of the saw from the work when the fed dog is disengaged from the ratchet member.

5. Feed means for power hack saw machines comprising, in combination with a reciprocating and raisable and

lowerable saw frame and its saw, means acting on the frame tending to lift the saw from its work during its non-cutting stroke and means to feed the saw toward the work during the cutting stroke comprising a rotative circular ratchet member suitably connected to the saw frame, a feed dog to engage said ratchet member, a lever on which said feed dog is supported, a cam for controlling said lever, a spring tending to forge the lever toward its controlling cam, means to vary the force of the spring acting on said lever, and means to limit the rising of the saw from its work when the feed dog is operatively disengaged therefrom.

[Claims 2, 4, 6, and 7 not printed in the Gazette.]

1,253,422. OIL-BURNER. WILLIAM R. RAY, San Francisco, Cal. Filed May 8, 1916. Serial No. 96,107. (Cl. 158—77.)

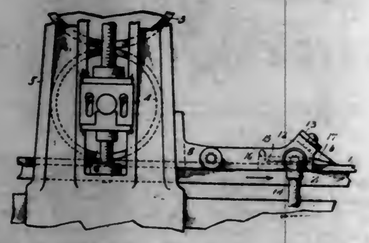


1. In an oil burner, the combination with an electric motor having a hollow shaft, of an atomizing head secured on one end of the shaft, a stationary pipe extending through the hollow shaft to deliver oil to the atomizer and adapted to cool the motor and heat the oil, and means for adjusting the oil delivering pipe with relation to the interior wall of the hollow shaft.

2. The combination with a motor, a hollow motor shaft, and an atomizing cup secured on the shaft, of a stationary pipe extending through the shaft and having one end extending into the atomizer, means for delivering oil to the stationary pipe, and adjustable means engageable with the stationary pipe to spring or bend it with relation to the interior of the hollow shaft.

[Claims 3 to 8 not printed in the Gazette.]

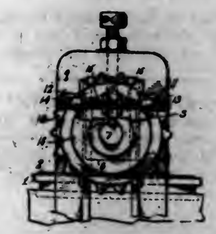
1,253,423. INKING MECHANISM FOR PLATE-PRINTING MACHINES. OSCAR ROESEN, New York, N. Y., assignor to R. Hoe and Co., New York, N. Y., a Corporation of New York. Filed Nov. 10, 1915. Serial No. 60,654. (Cl. 101—169.)



1. In a plate printing machine the combination with a flat engraved plate, a support therefor, means for inking the plate, a pair of arms pivoted adjacent the support on each side thereof, means for adjusting the arms toward and from the support, clamping bars carried by the arms and extending across the face of the form, a scraper comprising a flat blade clamped between the bars bearing on the form for removing surplus ink therefrom, a receptacle carried by the arms for such ink, and a guide extending across the front of the receptacle substantially co-extensive with and coöperating with the blade for delivering the scraped ink to the receptacle.

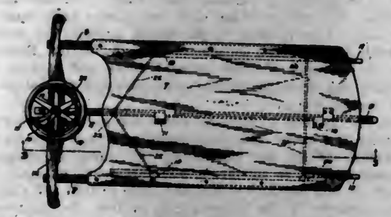
2. In a plate printing machine the combination with an engraved form, a support for the form, means for inking the form, a pair of frames on each side of the support, holder arms pivoted in the frames, a scraper blade mounted in the arms, a removable receptacle carried in the arms and a guide carried on the front of the receptacle substantially coextensive with and coöperating with the blade whereby the scraped ink will be delivered to the receptacle.

1,253,424. DRIVING MECHANISM FOR PLATE-PRINTING MACHINES. OSCAR ROESEN, New York, N. Y., assignor to R. Hoe and Co., New York, N. Y., a Corporation of New York. Filed Nov. 12, 1915. Serial No. 61,032. (Cl. 101—286.)



In a plate printing machine, the combination with a driven bed, of an impression cylinder coöperating therewith, a driver sprocket loosely mounted on the cylinder shaft, a driven disk fast on the cylinder shaft, a pin on the disk, and spring-seated heads on the sprocket between which the pin takes, whereby the cylinder may have a slightly increased or decreased speed relatively to the speed of the sprocket.

1,253,425. COASTING-SLED. CLARENCE T. ROGERS, New York, N. Y. Filed Aug. 28, 1914, Serial No. 859,069. Renewed June 14, 1917. Serial No. 174,753. (Cl. 21—94.)

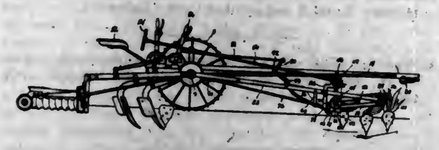


1. A coasting sled, including a frame, a center runner the rear portion of which is rigidly mounted upon the frame and the front portion of which runner is flexible, means adapted to flex said front portion of said runner, a plurality of side runners the flat of each of which is always maintained in the same plane, and means adapted for actuation to elevate the ground-contacting edges of said side runners.

2. A coasting sled, including a frame, a center runner the rear subdivision of which is rigidly mounted upon the frame and the front subdivision of which is movable relatively of the frame, means adapted thus to move said front subdivision, a plurality of side runners, and means adapted for actuation to elevate the ground-contacting edges of said side runners, the means first-mentioned including a steering wheel carried by the frame and the means last-mentioned including a spindle journaled within the hub of the steering wheel and rotatable relatively of said hub.

3. A coasting sled, including a frame, a center runner the rear portion of which is rigidly mounted upon the frame and the front portion of which is flexible, means adapted to flex said front portion of said runner, a plurality of side runners, and means adapted for actuation to elevate the ground-contacting edges of said side runners, the means last-mentioned including a steering wheel fixedly attached to the said front portion of said center runner.

1,253,426. BEET-HARVESTING MACHINE. CHARLES W. ROGERS, Kansas City, Mo.; Almira V. Rogers administratrix of said Charles W. Rogers, deceased. Filed Jan. 26, 1917. Serial No. 144,575. (Cl. 55—107.)



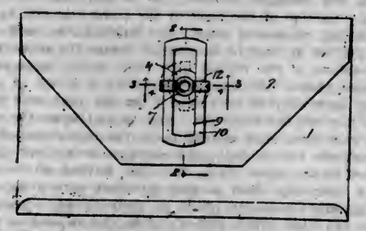
1. A beet harvesting machine comprising supporting wheels, a frame carried at one of its ends by the axle of said wheels and projecting forward therefrom, cutting mechanism carried by said frame, a pair of spaced idly mounted rollers carried by the forward end portion of said frame with the rear of said rollers in adjustable gaging relation to said cutting mechanism, and an endless belt operating idly around said rollers for engagement with the tops of the beets.

2. In a beet harvesting machine, beet topping mechanism comprising a knife, and gaging mechanism comprising a pair of spaced idly mounted rollers in advance of said knife and with one roller in advance of the other, an endless belt operating idly around said rollers for engagement with the tops of the beets, and means for adjusting the rear of said rollers in gaging relation to said knife.

3. In a beet harvesting machine, beet topping mechanism comprising a knife, a pair of spaced idly mounted rollers in advance of said knife with one of said rollers in advance of the other, the rear of said rollers being mounted in gaging relation to said knife and the forward roller being mounted at a slightly higher level than said rear roller, an endless belt operating idly around said rollers for engagement with the tops of the beets, and means for adjusting the position of said rear roller with reference to said knife.

4. In a beet harvesting machine, beet topping mechanism comprising a supporting frame, cutting mechanism carried by said frame, an auxiliary frame pivotally carried by the forward end of said first frame, a pair of rollers mounted idly at the opposite ends of said auxiliary frame with one of said rollers presented in gaging relation to said cutting mechanism, an endless belt operating idly around said rollers for engagement with the tops of the beets, and means for rocking said auxiliary frame for adjusting the position of said gaging roller with reference to said cutting mechanism.

1,253,427. ENVELOP-CLASP. GEORGE ROTTMAN, New York, N. Y. Filed Feb. 27, 1917. Serial No. 151,178. (Cl. 229—78.)

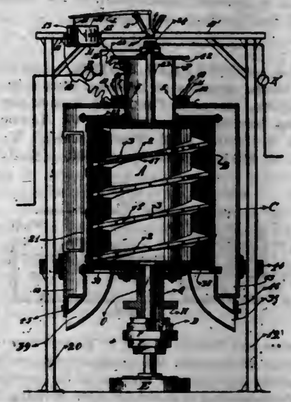


1. The combination with an envelop and its flap, said flap having an opening to receive a clasp, and having a reinforcing member on the outside, a clasp member pivotally connected to the envelop and adapted to pass through said flap opening and to be turned crosswise thereof to lock the flap closed, said clasp member having an abutment portion adapted to engage said reinforcing member and to resist the turning of the clasp member when the latter is in locked position.

3. The combination with an envelop and its flap, said flap having an elongated opening to receive a clasp, and having an exterior reinforcing member around said opening, of a clasp member having an eyelet portion extending through the envelop, a loose washer on the inside of the envelop and engaged by the inner end of said eyelet, a reinforcing washer secured to the outside of the envelop near the eyelet, said clasp member being adapted to revolve on said eyelet, the clasp being bent upwardly from the envelop on opposite sides of the eyelet to form abutments adapted to engage the inner edges of said reinforcing member and extending thence horizontally and having its ends bent downwardly toward the envelop to form other abutments for engaging the outer edges of said reinforcing member for the purpose set forth.

[Claims 2 and 4 not printed in the Gazette.]

1,253,428. CENTRIFUGAL MACHINE. LECTICIO SALCINES, Guantánamo, Cuba. Filed Jan. 3, 1916. Serial No. 69,837. (Cl. 210—30.)



1. In centrifugal machines in combination, a casing and a basket, a feeding chamber to the basket, and means arranged in said chamber whereby the entry of the material to be filtered is controlled by the pressure of the material itself against the wall of said chamber.

2. In centrifugal machines, in combination, a casing and a basket, a chamber through which the material to be treated is fed toward the basket, a material feeding trough arranged above said chamber and provided with a discharge valve, means for giving the valve of the trough a reciprocating movement, means in the walls of said chamber adapted to be moved by the pressure of the material against the walls of the chamber, and means connecting the latter means with the means actuating the valve of the feeding trough, thereby controlling the discharge of the material from the feeding trough.

3. In centrifugal machines, the combination with a casing and a basket, of a cylindrical chamber through which runs the material to be treated toward the basket, a material feeding trough arranged on said cylindrical chamber and provided with a discharging valve, means for giving the valve a reciprocating movement, a series of cylinders arranged around said chamber and opening into the same, pistons in said cylinders which by the action of elastic springs normally stand on the inside of the cylindrical chamber communicating with the basket, means for closing an electric circuit in which an electromagnet is interposed, when the pistons referred to are pushed by the pressure of the material against the wall

of the cylindrical chamber, and means connecting the core of the electro-magnet with the means for giving the discharging valve a reciprocal movement, thereby controlling the discharge of material from the feeding gap.

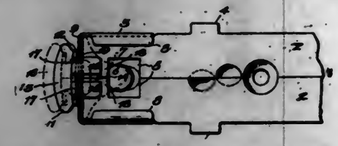
[Claims 4 to 10 not printed in the Gazette.]

1,253,429. BELT ATTACHMENT. JOHN SAMUEL, Montreal, Quebec, Canada, assignor to Henri Beaudry, Montreal, Quebec, Canada. Filed Feb. 6, 1915. Serial No. 6,617. (Cl. 24—73.)



A trousers supporting belt buckle comprising a unitary member constituting a frame and hook, said member consisting of a unitary length of wire bent in rectangular form and having one end extending inwardly relatively to the frame and parallel to the sides thereof and bent back upon itself in the form of a rigid hook, and a tongue pivotally mounted upon the end of the frame adjacent to the hook and extending parallel thereto, the said hook being adapted to prevent displacement of the tongue along the frame of the buckle in one direction.

1,253,430. LOOSE-LEAF BINDER. JOHN SCHADE, Holyoke, Mass., assignor to National Blank Book Company, Holyoke, Mass., a Voluntary Association of Copartnership having as trustees J. W. Towne, F. B. Towne, E. S. Towne, J. M. Towne, and F. W. Wilson. Filed Jan. 17, 1917. Serial No. 142,853. (Cl. 129—24.)



1. In a loose leaf binder, a pair of prong carrying members, end caps supporting the members for rocking, the end walls of the caps having slots, and the meeting edges of the members having opposed recesses forming openings adjacent their ends, a ball in each opening, a spring tongue carried by each cap and underlying the adjacent ball to urge the same yieldably against the prong-carrying members, and a booster pivotally disposed in each cap slot and comprising a body portion having a resilient forked portion with inturned ends extending through the cap slot and provided with side edge seats interlocking with the end walls of said slot, the ends of said fork end being housed between the prong-carrying members and the spring tongue.

2. In a loose leaf binder, a pair of prong-carrying members, end caps supporting the members for rocking, the end walls of the caps having slots, means yieldably holding the prong-carrying members in their opened and closed positions, and a booster pivotally arranged in each cap slot and comprising a body portion having an upper outturned handle part and a lower inturned resilient forked part the elements of which project through the cap slots to operate against the prong carrying members and having side edge seats that are sprung into interlocking relation with the walls of the cap slot.

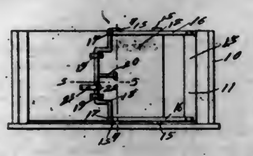
4. In a loose leaf binder, rockable prong-carrying members, means supporting the same and provided with end slots, and boosters having resilient spaced elements adapted to be forced together for insertion in the end slots to resiliently interlock with the walls of said slots.

5. In a loose leaf binder, rockable prong-carrying members, means supporting the same and provided with end slots, and a booster having integral spaced resilient elements adapted to be forced together for insertion in an end slot beneath said members, the outer side edges of said resilient elements having seats to interlock with the walls of the end slot when said elements are finally positioned.

6. In a loose leaf binder, rockable prong carrying members, supports therefor, and boosters comprising integral spaced resilient elements sprung into interlocking and pivotal relation with the supports and beneath said members.

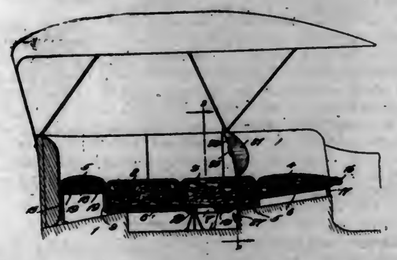
[Claims 3 and 7 not printed in the Gazette.]

1,253,431. END-GATE. PETER E. SCHINDELE, Toina, N. D. Filed June 23, 1917. Serial No. 176,503. (Cl. 21—21.)



An end gate for wagons comprising a pair of relatively and longitudinally adjustable sections, means for guiding said sections, arms having adjacent ends secured to one of said sections and extending longitudinally of both sections, a crank shaft carried by the other section and having its ends connected to the other ends of said arms so that when said shaft is rotated the sections will be adjusted longitudinally relative to each other, a lug carried by said crank shaft, and a spring catch secured to the section carrying said crank shaft and engageable with said lug to prevent rotation of said shaft when the sections are in closing position.

1,253,432. AUTOMOBILE-SEAT. JOHN HENRY SCOTT, Portland, Oreg. Filed Mar. 1, 1917. Serial No. 151,757. (Cl. 21—43.)

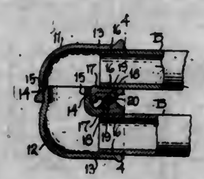


1. In combination with a motor car, of means for converting the cushions thereof into a mattress, said car having a portion of the back of the front seat cut away, and having releasable means for holding the said cut away portion in place in the seat, of means for supporting the cushions of the vericle with their upper surfaces in the same plane, said means comprising a series of supporting bars adapted to extend from the rear seat back to and beyond the front seat, and to rest upon the said seats, said bars being shaped to fit the under surface of the cushions and to hold said cushions with their upper surfaces in the same plane, each bar having at its rear end an upwardly offset portion provided with a depending leg, said upwardly offset portions having openings, a plate provided with a pillow and having depending pins for engaging the openings, said upwardly offset portions supporting the pillow with its upper surface above the general level of the cushions, each of the supporting bars being sectional and consisting of a front and a rear section, and a tripod arranged beneath each bar at the junction of the sections.

2. In combination with a motor car, of means for converting the cushions thereof into a mattress, said car having a portion of the back of the front seat cut away and having releasable means for holding the said cut away portion in place in the seat, of means for supporting the cushions of the vehicle with their upper surfaces in the same plane, said means comprising a series of supporting bars adapted to extend from the rear seat back to and beyond the front seat, and to rest upon the said seats, said bars being shaped to fit the under surface of the cushions and to hold said cushions with their upper surfaces in the same plane, each bar having at its rear end an upwardly offset portion provided with a depending leg, said upwardly offset portions having openings, a plate provided with a pillow and having depending pins for engaging the openings, said upwardly offset portions supporting the pillow with its upper surface above the general level of the cushions, each of the supporting bars being sectional and consisting of a front and a rear section.

3. In combination with a motor car, of means for converting the cushions thereof into a mattress, said car having a portion of the back of the front seat cut away and having releasable means for holding the said cut away portion in place in the seat, of means for supporting the cushions of the vehicle with their upper surfaces in the same plane, said means comprising a series of supporting bars adapted to extend from the rear seat back to and beyond the front seat, and to rest upon the said seats, said bars being shaped to fit the under surface of the cushions and to hold said cushions with their upper surfaces in the same plane, each bar having at its rear end an upwardly offset portion provided with a depending leg, said upwardly offset portions having openings, a plate provided with a pillow and having depending pins for engaging the openings, said upwardly offset portions supporting the pillow with its upper surface above the general level of the cushions.

1,253,433. RETURN-BEND FOR JOINING PIPE. LOWRY SEXTON, The Dalles, Oreg. Filed Feb. 19, 1917. Serial No. 149,595. (Cl. 137—75.)



1. As an article of manufacture, a U-shaped return bend for pipe formed in two angular sections having screw-threaded engagement with each other and being rotatable in a plane parallel to the legs of the U-shaped bend, the confronting faces of the legs of the section being formed each with a transversely extending seat, a locking member adapted to be disposed in said seat, said locking member holding the two legs of the bend in the same plane.

2. As an article of manufacture, a U-shaped return bend for pipe, formed in two angular sections having screw threaded engagement with each other and being rotatable in a plane parallel to the legs of the U-shaped bend, the confronting faces of the legs of the sections being formed with lugs, the confronting faces of the lugs having recesses forming a bolt seat, and a bolt adapted to be disposed in said recesses and holding the two sections of the bend in the same plane.

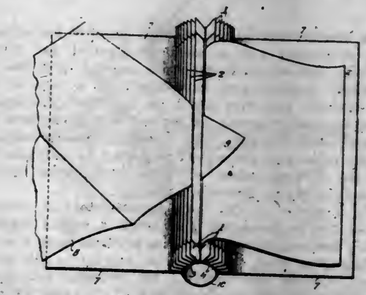
3. As an article of manufacture, a U-shaped return bend for pipe formed in two angular sections having screw-threaded engagement with each other and being rotatable upon each other in a plane parallel to the plane of the legs of the U-shaped bend, and means disposed between the legs and extending transversely to the body of the U-shaped bend removably engaging said legs to hold the sections from relative rotation out of the same plane.

1,253,434. ANTISETTING DEVICE FOR HENS. EDWIN JOSEPH SHAUT, Canisteo, N. Y., assignor to Tom S. Page and Byron Frisbee, Hornell, N. Y. Filed Feb. 5, 1917. Serial No. 146,764. (Cl. 119—97.)



A device for preventing hens from setting formed from a single piece of sheet metal including a rigid transversely curved strip adapted to engage the front of a hen's leg at the joint and to project above and below said joint, the opposite ends of said strip being outwardly flared, a band projecting from the center of one side edge of the strip and integral therewith and adapted to surround said joint, said band having a longitudinally extending slot therein with its adjacent side portions bowed outwardly to allow the joint to project therebetween, an integral longitudinally slotted extension on the opposite side edge of the strip disposed in a plane with the band and adapted to be positioned against the adjacent side of said joint, said extension having a plurality of spaced transverse slots therethrough, and a tongue on the free end of the band adapted to be positioned through one of said slots whereby the band may be locked in various adjusted positions to conform to the size of the hen's leg.

1,253,435. SELF-BINDING SHEET-MUSIC COVER. WILLIAM HENRY SIMPSON, Chicago, Ill. Filed Sept. 1, 1916. Serial No. 118,139. (Cl. 129—38.)

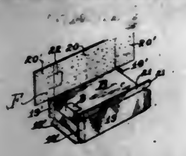


1. A binder comprising a series of relatively thin, narrow and long parallel strips; a fabric folded around and secured to the ends of the strips to provide hinges at each end, the folds on opposite sides of each strip connected together at like edges and covers for said binder to which the terminals of said fabrics are suitably connected, respectively.

2. A binder comprising a series of relatively thin, narrow and long parallel strips; a fabric folded around and secured to the ends of the strips to provide hinges at each

end; a flexible backing to which said hinges are also connected and covers for said binder to which the respective terminals of said fabrics and backing are suitably connected.

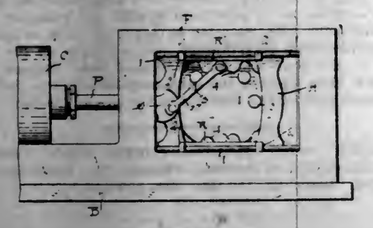
1,253,436. QUICK-OPENING BOX. HARRY B. SMITH, Brooklyn, N. Y., assignor to Stokes & Smith Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 5, 1916. Serial No. 101,684. (Cl. 229—23.)



1. A box having a plurality of rigid walls, an angular tongue normally positioned partly in one wall section and partly in a second wall section, adjacent to and extending at right angles relative to the first wall section, said tongue being adapted to be readily broken away entirely from one wall section, but only partially away from the other wall section whereby to expose an opening in the meeting edge of the two wall sections, and a wrapper completely enveloping said box and overlying the tongue and wall sections in which such tongue is normally positioned, the portion of the wrapper overlying the tongue being adapted to be ruptured when the tongue is broken away from the wall sections of the box to expose the tongue.

[Claim 2 not printed in the Gazette.]

1,253,437. MECHANICAL MOVEMENT. SAMUEL A. SMITH, Everton, Ark. Filed June 9, 1917. Serial No. 173,782. (Cl. 74—27.)



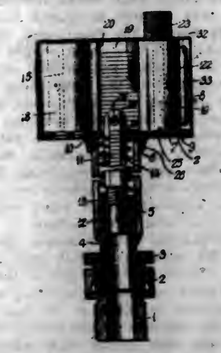
1. In combination with a member mounted for reciprocatory movement and a member mounted for rotary movement, opposed racks pivotally engaged with the reciprocatory member, pins extending from a face of the rotary member and with which the racks are adapted to engage, automatic means for forcing said racks into engagement with the pins, and automatic means coacting with the racks and alternately operating to maintain the racks out of engagement with the pins during reverse movement of the reciprocatory member.

2. In a device of the character described, a member mounted for reciprocatory movement, a second member mounted for rotary movement and provided with a series of outstanding pins, opposed racks carried by the reciprocatory member and mounted for swinging movement, automatic means coacting with each of the racks whereby one of said racks is operatively engaged with the pins of the rotating member during movement of the reciporcatory member in one direction and the second rack is in engagement with the pins upon movement of the reciprocatory member in an opposite direction.

8. In combination with a member mounted for reciprocatory movement and a member mounted for rotary movement, co-acting means carried by the members for rotating the rotatable member upon reciprocation of the reciprocating member, a swinging member engaged with the reciprocating member, and a pitman pivotally engaged with the rotating member and with the swinging member.

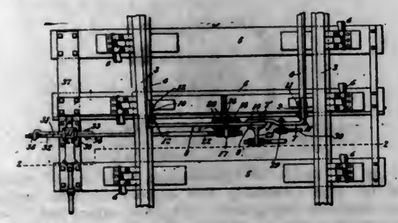
[Claims 3 to 7 not printed in the Gazette.]

1,253,438. RECORDING-GAGE. CHARLES E. STEVENS, Jr., and EDWARD W. STEVENS, Detroit, Mich. Filed Mar. 13, 1916. Serial No. 83,701. (Cl. 234—17.)



A recording gage comprising a cylinder adapted for attachment to an engine cylinder, a casing on said cylinder, a support at the back wall of said casing, a reciprocable plunger in said gage cylinder extending into said casing, feed and take up rolls in said casing at the sides of said plunger, a sheet carried by said rolls and engaging said support, a ratchet mechanism actuated by a downstroke of said plunger to move said sheet, means in said gage cylinder to cause a downstroke of said plunger, a marking device extending transversely of the upper end of said plunger adapted to indicate on said sheet each upstroke of said plunger, and means in said plunger holding said marking device.

1,253,439. SWITCH MECHANISM. THOMAS GEORGE STILES, Arlington, N. J. Filed Oct. 9, 1915. Serial No. 54,971. (Cl. 104—96.)



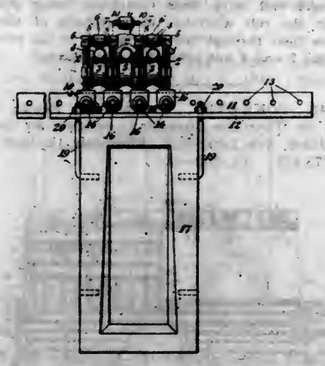
7. In a switch-mechanism, the combination with a pair of switch-rails, of a front-rod connecting the same and comprising a pair of sections, a combined insulating coupling including means for connecting the sections together and a universal joint, and a rod to be operated connected to said front-rod by said universal-joint.

9. In a switch-mechanism, the combination with a pair of switch-rails, of a front-rod connecting the same, a coupling member secured to said front-rod and having a bore substantially parallel with said front-rod and tapering in two directions toward its center, a second rod mounted in said bore and having a portion coöperating with said bore to form a universal joint, and means for holding said second rod in place in said coupling.

13. In a railway switch lock device, the combination with the switch tongues, and a lock bar in operative connection therewith, of a lock device composed of two parts secured together and through which said lock bar passes, and a plunger bar movable through said lock device transversely of said lock bar and in operative connection therewith.

[Claims 1 to 6, 8, and 10 to 12 not printed in the Gazette.]

1,253,440. PIPE-CARRIER. THOMAS GEORGE STILES, Arlington, N. J., assignor to The T. Geo. Stiles Company, Arlington, N. J., a Corporation of New Jersey. Filed Mar. 29, 1916. Serial No. 87,461. (Cl. 246—6.)

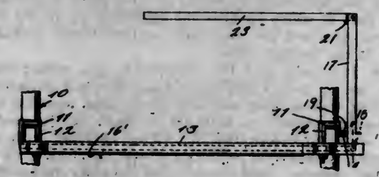


1. In a pipe-carrier, the combination with a foundation, of a substantially horizontal angle-bar one element of which is secured to said foundation and the other of which is disposed substantially vertically, said angle-bar being secured to said foundation in such a manner that a considerable portion of it extends beyond said foundation, and multiple pipe-supporting uprights secured to the vertical element of the angle-bar at different points in the length thereof.

5. In a pipe carrier, the combination with a foundation, of a thin vertical web removably secured thereto, pipe supporting uprights having downwardly extending spaced vertical ears arranged on opposite sides of the web, and means passing through the web and through the ears for securing the uprights to the web.

[Claims 2 to 4 not printed in the Gazette.]

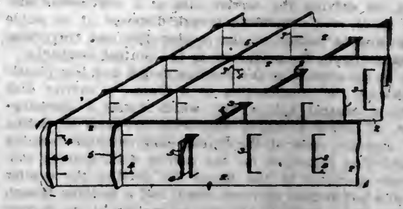
1,253,441. TABLE ATTACHMENT FOR INVALID-BEDS. ERNEST G. THEROUX, Emmitsburg, Md. Filed Jan. 15, 1917. Serial No. 142,455. (Cl. 45—82.)



1. In combination with a bed having side rails, an attachment therefor including a frame supported by said side rails and consisting of guide members extending transversely of the bed, a supporting member having bearings adapted for pivotal engagement with said guide members and adjustable longitudinally thereof, means associated with said supporting member for retaining the same in a vertical position at one end of said guide members, and a table pivoted to said supporting member and adapted to be adjusted into a position between and longitudinally of said guide members.

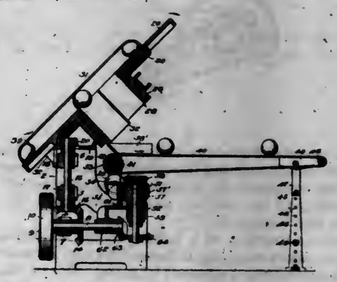
2. In combination with a bed having side rails, an attachment therefor including a frame supported by said side rails and consisting of guide members extending transversely of the bed, a supporting member having bearings adapted for pivotal engagement with said guide members and adjustable longitudinally thereof, means associated with said supporting member for retaining the same in a vertical position at one end of said guide members, said supporting member being also provided with shoulders and notches contiguous to said shoulders, and a table having lugs pivoted in said notches and adapted to engage said shoulders when the same is in operative position, said table being adapted to be adjusted between and longitudinally of said guide members to an inoperative position.

1,253,442. EGG-BOX FILLER. WILLIAM TOZER, Milner, British Columbia, Canada. Filed Dec. 28, 1916. Serial No. 139,407. (Cl. 217—31.)



An egg-box filler, comprising a cellular structure composed of longitudinal and transverse strips, each longitudinal strip being apertured at intervals across its medial line and each transverse strip composed of two narrow strips each notched along one edge to a depth corresponding to the marginal distance outside the apertures of the longitudinal strip and at distances apart corresponding to the pitch of those apertures, the two narrow strips being passed flatwise together through the apertures of the longitudinal strips and thereafter moved apart to bring the unnotched edges together in the same plane with the notches passing onto the marginal borders of the apertured strips.

1,253,443. MACHINE FOR MOLDING DOUGH AND LIKE PLASTIC SUBSTANCES. JOHN M. VAN HOUTEN and FRANK H. VAN HOUTEN, Beacon, N. Y., assignors to Dutchess Tool Company, Beacon, N. Y., a Corporation of New York. Filed Oct. 23, 1915. Serial No. 57,566. (Cl. 107—9.)



1. In an apparatus for molding dough and like plastic substances, the combination of a rotating dough-supporting surface substantially circular in shape disposed in a plane inclined to the horizontal, a discharge outlet extending centrally through the dough-supporting surface, an inlet located adjacent to its periphery and at the lower end of the inclined plane, and a stationary molding and directing trough traversing said dough-supporting surface from the inlet to the discharge.

3. In an apparatus for molding dough and like plastic substances, the combination of a rotating dough supporting surface, substantially circular in shape, disposed in

a plane inclined to the horizontal, a discharge outlet extending centrally through the dough-supporting surface, an inlet located adjacent its periphery and at the lower end of the inclined plane, and a stationary molding trough mounted over the dough suporting surface and arranged to direct the dough in a path disposed at an angle to the line of motion of said carrier and from the periphery of said dough supporting surface to the central discharge outlet.

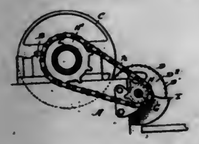
11. In an apparatus for molding dough and like plastic substances, the combination of a carrier disk having a central hollow sleeve which forms a discharge outlet, a frame, a hollow trunnion supported in a plane inclined to the horizontal by arms extending from opposite ends of the frame, said trunnion embracing the sleeve of the carrier disk and supporting the disk in a plane inclined to the horizontal, gearing connections mounted in the frame for driving the carrier disk at a continuous uniform speed, and a molding trough disposed at an angle to the line of motion of the carrier disk and traversing its surface from the periphery to the central discharge.

14. In an apparatus for molding dough and like plastic substances, the combination of a frame, a carrier disk having a central hollow hub which forms a discharge outlet, a hollow trunnion supported by arms extending from opposite ends of the frame, said trunnion forming a supporting journaled for the carrier disk, gearing connections mounted in the frame for driving the carrier disk at a continuous uniform speed, and a molding trough disposed at an angle to the line of motion of the carrier disk.

18. In an apparatus for molding dough and like plastic substances, the combination of a carrier disk having a central opening with means for operating the carrier disk, and a substantially spiral molding trough traversing the surface of the disk from the periphery and having an extension projected into the central opening, whereby dough is guided by the molding trough from the periphery of the carrier disk across its surface and discharge through its central opening.

[Claims 2, 4 to 10, 12, 13, 15 to 17, and 19 not printed in the Gazette.]

1,253,444. DOUGH-ADVANCING ROLL. FRANK H. VAN HOUTEN, Beacon, N. Y., assignor to Dutchess Tool Company, Beacon, N. Y., a Corporation of New York. Filed June 6, 1916. Serial No. 102,022. (Cl. 107—7.)



1. The combination of a hollow dough advancing roll having its dough-engaging periphery formed of openwork, and a flour receptacle so positioned adjacent the roll that the periphery of the roll will pass clear through the flour placed in the receptacle.

3. The combination of a hollow dough advancing roll having its dough-engaging periphery formed of openwork, a flour receptacle so positioned adjacent the roll that the periphery of the roll will pass clear through the flour placed in the receptacle, and means for imparting a rotary movement to the roll.

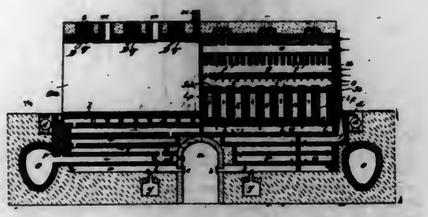
5. The combination of a hollow dough advancing roll having its dough-engaging periphery formed of spaced, substantially parallel bars, means for intermittently rotating said roll to one position to receive a batch of dough and to another position to discharge said batch of dough, and a flour receptacle inclosing the lower portion of the roll and located between the discharging and receiving positions of the roll, said flour receptacle being so positioned adjacent the roll that the periphery of the roll will pass clear through the flour placed in the receptacle.

6. The combination of a hollow dough advancing roll having a dough-engaging periphery formed of openwork, and a flour receptacle located below said roll and adjacent thereto whereby the periphery of the roll will pass clear through the flour placed in the receptacle.

7. The combination of a hollow cylindrical dough advancing roll having a dough-engaging periphery formed of openwork, and a semi-cylindrical flour receptacle of a greater diameter than the dough advancing roll located below said roll, said flour receptacle being positioned adjacent the roll whereby the periphery of the latter will pass clear through the flour placed in the receptacle.

[Claims 2 and 4 not printed in the Gazete.]

1,253,445. COKE-OVEN. THEODOR VON BAUER, Tautenburg, in Thuringia, Germany, assignor to Bernhard Zwillinger, New York, N. Y. Filed July 11, 1913. Serial No. 778,427. (Cl. 202—9.)



1. A coke oven in which the temperature increases from the upper portion of the oven downwardly, having in combination heating walls which are divided by horizontal division walls so as to provide horizontal flues, means for supplying air and gas to the upper flues from the front of the oven, the horizontal division wall below the highest flue having a plurality of vertical ducts arranged side by side, which serve as distributers, the next horizontal flue receiving the gaseous mixture from the distributers, means for supplying air and gas from the front of the oven to said next horizontal flue, a division wall over which the resultant mixture is guided, said wall being provided with horizontal ducts for air and gas and downwardly directed apertures connected to said ducts, and a third horizontal flue receiving the discharge from said ducts.

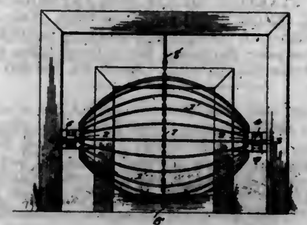
7. A recuperative coke oven having in combination horizontal flues and vertical flues receiving the discharge from the horizontal flues and a sub-divided recuperator, one part of which supplies the preheated air to the horizontal flues and the other part supplies highly preheated air to the vertical flues.

16. In a coke oven the combination of a coking chamber, one or more charging openings for said chamber, a heating wall on each side of said chamber provided with a heating passage, a plurality of ducts in the roof of the oven for connecting the coking chamber with said heating passages at intervals along the length of the coking chamber, said ducts lying in rows transversely to the length of the oven and arranged at intervals between said charging openings, an outlet conduit connecting said coking chamber with a gas condenser and means manually operated from the roof of the oven for controlling said ducts whereby the coking chamber may be connecting at one or more points to the heating passages or the products from the coking chamber may be led to the condensing plant.

18. In a coke oven, the combination of a coking chamber, a heating wall provided with a heating passage, a plurality of ducts in the roof of the oven for connecting the coking chamber with the heating passage at one side of the coking chamber at intervals along the length of the coking chamber, a plurality of ducts in the roof of the oven for connecting said coking chamber with the heating passage at the other side of the said coking chamber at inervals along its length, charging apertures in the roof of the oven independent of and located between said ducts, an outlet conduit connecting said coking chamber with a gas condenser and sliding plates manually operated from the roof of the oven for controlling said ducts whereby the coking chamber may be connected at one or more points to the heating passage or the products from the coking chamber may be led to the condensing plant.

[Claims 2 to 6, 8 to 15, and 17 not printed in the Gazette.]

1,253,446. FENDER FOR FIREPLACES. HENRY P. WALLACE, Butler, Ga. Filed May 7, 1917. Serial No. 167,021. (Cl. 126—202.)



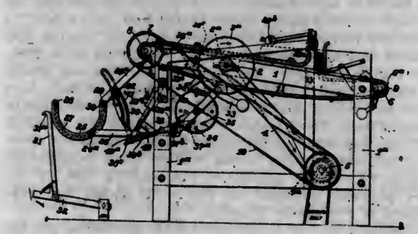
1. A fender composed of bearing brackets, bowed bars loosely connected with the brackets, and a flexible device connecting these bars together and forming spacing means, the ends of the flexible device extending sufficiently beyond the bars to afford a means for supporting and fastening the fender at the center.

3. A fender comprising bowed bars or rods having loops at their ends, removably supported brackets with which they have sliding, pivotal connection, and flexible means connecting the bars at or near their center, the ends of said flexible connections extending beyond the bars for fastening the latter either in an open or closed position.

4. A fender comprising bowed bars and removably supported brackets with which the ends of the bars have pivotal sliding connection, and a chain loosely conecting the center of the bars as a means for holding them spaced and for opening and closing the fender.

[Claims 2 and 5 not printed in the Gazette.]

1,253,447. BUNDLING DEVICE FOR LUMBER-TRIMMING MACHINES AND THE LIKE. EDWARD BLAND WILLIAMSON, Richmond, Va. Filed Aug. 25, 1917. Serial No. 188,192. (Cl. 100—31.)

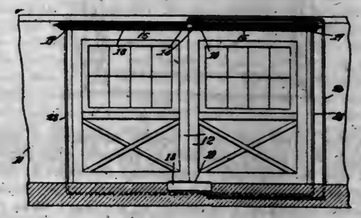


1. In a device of the class described the combination with an endless conveyer for articles, a receiver at the rear end of the machine, and inclined members for delivering said articles from the conveyers to the receiver, of means for interrupting the delivery of strips to said receiver comprising a pair of arms guided to move transversely of said inclined members, a weighted lever connected to project said arms, a retaining device for holding said arms retracted, and means operated by the passage of a predetermined number of strips for automatically operating said retaining device.

2. In combination, an endless conveyer for articles, a receiver into which said articles are delivered, flexible compressing means permanently connected to one side of said receiver and detachably connected with the other side and means adapted to be connected with the detachable ends of said flexible elements for tightening them around the assembled strips.

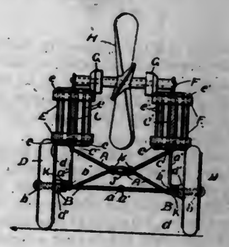
3. In combination, an endless conveyer for articles, a receiver into which said articles are delivered comprising U-shaped bars, chains each having one end connected to one end of a U-shaped bar, a rod connected to the other ends of said chains, means for supporting said rod to hold the chains in strip receiving position, a foot treadle, and means connected with said foot treadle and adapted to engage said rod.

1,253,448. DOOR-OPERATING DEVICE. JOHN S. WILLIAMSON, Forest Park, Md. Filed Apr. 3, 1917. Serial No. 159,392. (Cl. 268—8.)



A door-operating mechanism comprising a fluid pressure actuated mechanism adapted to be connected to the door to open and to close the same, a valve mechanism controlling the admission of fluid pressure to the aforesaid mechanism, and vehicle-operated tiltable members connected to the valve mechanism for actuating the same, and tiltable in planes parallel to the plane of the door when closed, said members being adapted to be positioned on opposite sides of the door, and each being tiltable in two directions, the tilting movement of the outer member in one direction admitting fluid pressure to open the door and in the other direction admitting fluid pressure to close the door, and the tilting movement of the inside member admitting fluid pressure reversely.

1,253,449. TOY. PETER J. WILSON, Chicago, Ill. Filed Feb. 10, 1917. Serial No. 147,731. (Cl. 46—48.)

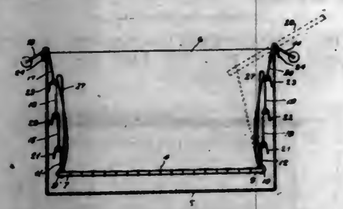


1. A frame, comprising a horizontal member and vertical members, said vertical members consisting of wire bent to obtain parallel strands and said strands wound together, in combination with carrying wheels rotatably mounted on said frame, cages rotatably mounted on said vertical members and arranged to be rotated by the rotation of said carrying wheels, a loosely mounted rotatable shaft, the ends whereof are inserted in said bends, wheels and a fan rigidly secured on said shaft, said wheels

arranged to rest on and be turned by the turning of said cages, and a handle attached to said frame.

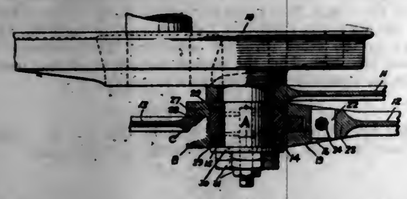
2. A frame consisting of wire provided with bends and with the parts of said wire adjacent to said bends joined by twisting, and provided with additional bends to position said twisted portions of the wire at substantially right angles, to form the ends of a horizontal axle and vertical shafts, carrying wheels rotatably mounted on said ends and frames rotatably mounted on said shafts, an additional rotatably mounted shaft, wheels and a fan rigidly secured on said additional shaft, said wheels arranged to connect with the upper ends of said frames and to be turned by the turning of said frames.

1,253,450. CLOTHES-LIFTER. WALTER H. WOOD, Seattle, Wash. Filed Jan. 17, 1916. Serial No. 72,629. (Cl. 68—30.)



A clothes lifter for wash boilers including a reticulated rack, and means attached to opposite edge portions of said rack for adjustably supporting the same at different distances above the bottom of a wash boiler, each of said means including a plurality of U-shaped links each having its ends loosely coiled about the adjacent link between the leg portions thereof to hingedly connect the same, said ends of all the links being extended to provide a series of spaced integral pairs of hooks adapted to engage over the top edge of a wash boiler.

1,253,451. ROD-DRIVE FOR LOCOMOTIVES. WILLIAM E. WOODARD, Schenectady, N. Y. Filed Apr. 14, 1917. Serial No. 161,968. (Cl. 105—17.)



1. The combination with a locomotive having a main crank pin, of a bearing sleeve mounted on said crank pin, a coupling rod having an eye adapted to be shipped over said sleeve, a main connecting rod having an eye adapted to be slipped over said sleeve, and means for preventing the sleeve from rotating.

2. The combination with a locomotive having a main crank pin, of a sleeve mounted on said crank pin, a solid end coupling rod and a solid end main rod, mounted on said sleeve for free removal therefrom, one of said rods having means preventing rotation of the sleeve with respect thereto, and the other rod having a bearing on said sleeve.

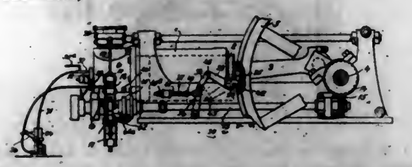
3. The combination with a locomotive having a main crank pin, of a sleeve mounted on said crank pin and having a flatted surface, a main rod and a coupling rod, one of said rods having a flat surface engaging the flatted surface of the sleeve to prevent rotation of the sleeve with respect to said rod, and the other rod having a bearing on said sleeve.

4. The combination with a locomotive having a main crank pin, of a sleeve mounted on said crank pin and having a flatted portion in its periphery, a main connecting rod having an eye fitting said sleeve and provided with a flatted portion engaging the flatted portion of the sleeve to prevent rotation of the sleeve with respect to the connecting rod, and a coupling rod having a bearing on said sleeve.

5. The combination with a locomotive having a main crank pin, of a sleeve mounted on said crank pin, a solid end connecting rod and a solid end coupling rod, adapted to be slipped over said sleeve, one of which is provided with means for preventing rotation of the sleeve with respect thereto, and the other of which has a bearing on said sleeve, one of said rods being forked and the other rod being mounted on the sleeve between the forks of said first rod.

[Claims 6 to 17 not printed in the Gazette.]

1,253,452. STARTING MEANS FOR INTERNAL-COMBUSTION ENGINES. LEON WYCOSKY, New York, N. Y., assignor, by mesne assignments, to Baltimore Oil Engine Company, Baltimore, Md., a Corporation of Delaware. Filed Dec. 26, 1913. Serial No. 808,900. (Cl. 123—179.)



1. In an internal combustion engine, the combination with an engine cylinder and piston, means for introducing air into said cylinder and means for introducing fuel into said cylinder, at the will of the operator, said cylinder provided with ignition means arranged to ignite such fuel at entrance, of means for holding said piston stationary until the admission and ignition of the fuel, such piston-holding means arranged to release the piston automatically after a predetermined pressure in the cylinder has been reached.

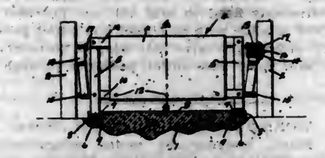
5. In an internal combustion engine, the combination with an engine cylinder and piston, crank shaft, and connecting rod, of a locking member adapted to engage a portion of the engine movable with said piston and thereby to hold the piston stationary against pressure against said piston, a toggle mechanism arranged in one position of the toggle to hold said locking member in engaging position and in a reversed position of the toggle to hold said locking member out of engaging position, and means resisting motion of the toggle from engaging to disengaging position of the locking member.

12. In an internal combustion engine, the combination with an engine cylinder and piston, means for introducing fuel into said cylinder, at the will of the operator, an ignition device adapted to be heated and by its heat to ignite the fuel so introduced, and means for heating said ignition device, of means for compressing fluid under pressure into said cylinder and means for holding said piston stationary until a predetermined pressure of such fluid has been reached in such cylinder, the compressing means being of such capacity with reference to the rate at which such ignition device is heated by the heating means thereof, that said ignition device will be at a temperature capable of causing ignition of the entering fuel, by the time pressure sufficient to start the piston has been reached in the engine cylinder.

[Claims 2 to 4, 6 to 11, and 13 not printed in the Gazette.]

1,253,453. AUTOMOBILE-GATE. WILLIAM H. ZORN, Harrisburg, Nebr. Filed Sept. 10, 1917. Serial No. 190,563. (Cl. 39—6.)

1. A structure of the character described embodying a gate pivoted to swing in either direction for the passage of a vehicle thereover, a post, a spiral spring having its inner end secured to the post and having its outer end secured to the gate for swinging the gate to an upstanding position, and means carried by the post over which the spring moves when pulled by the gate.



2. A structure of the character described embodying a base; a gate embodying stiles having their lower ends pivoted to the base, rails secured to the stiles, and a double plate straddling and secured to the rails for the passage of vehicle wheels thereover; and means for swinging the gate to an upstanding position.

[Claim 3 not printed in the Gazette.]

1,253,454. PLASTIC CEMENT AND PROCESS OF MAKING SAME. HERBERT ABRAHAM, New York, N. Y. Filed Mar. 28, 1917. Serial No. 157,913. (Cl. 106—8.)

1. The process of treating bituminous waste material containing non-mineral fibers which comprises mechanically disintegrating the material and reducing the resultant mass to a plastic consistency by addition of volatile solvent.

9. A product of plastic consistency containing bituminous matter, together with approximately 10% of non-mineral fibers, 20% of solvent which is substantially completely volatile at normal atmospheric temperatures, and 20% of finely powdered non-fibrous mineral matter.

[Claims 2 to 8 not printed in the Gazette.]

1,253,455. BUCKLE. HARRY E. ADAMS, Pensacola, Fla. Filed Feb. 5, 1917. Serial No. 146,809. (Cl. 24—235.)



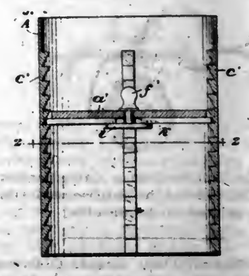
2. A buckle comprising a stationary jaw, a socket block carried by the stationary jaw for rotary movement, a movable jaw pivotally connected with the stationary jaw and provided with a bill for engaging the socket block to releasably hold the same in a locking position, resilient means engaging the socket block to swing the same to a releasing position, and resilient means engaging the movable jaw to move the same to a closed position to prevent movement of the socket block to a releasing position, when the socket block is moved inwardly to a locking position against the tension of its resilient means.

4. A buckle comprising a stationary jaw, a movable jaw, a socket block movably connected with the stationary jaw and releasably held in a locking position by the movable jaw, a socket member movably connected with the stationary jaw, resilient means engaging the socket member to move the same to a releasing position when the movable jaw is moved to an open position, and means for yieldably holding the movable jaw in a closed position and in operative engagement with the socket block when the socket block is moved to a locking position.

6. A buckle including pivotally connected jaws, one of said jaws being provided with a bill, an eye engaging socket member rotatably connected with the second jaw and having a socket to receive the eye, and means yieldably holding the jaws in a closed position with the bill engaging the socket member to releasably hold the socket member in a locking position.

[Claims 1, 3, and 5 not printed in the Gazette.]

1,253,456. DISPLAY DEVICE. GEORGE F. ALBERT, Pittsburgh, Pa. Filed Aug. 11, 1917. Serial No. 185,749. (Cl. 217—86.)



A display device comprising a receptacle having retaining means extending substantially from the top to the bottom thereof, a vertically movable and adjustable section fitted thereto for altering the effective depth of the receptacle, and means for supporting the section in its adjusted position comprising a turning knob supported by the section and extending through the same carrying a disk on its lower end with a space between it and the lower face of the section, pins on said disk extending upwardly, horizontally movable arms having their outer ends engaging the retaining means and their inner ends located between the disk and the section, the pins working in inclined slots in the arms to give proper movement thereto in the turning of the knob, substantially as described.

1,253,457. NECKTIE HOLDER AND FORMER. THOMAS N. ATKINSON, St. Louis, Mo. Filed Feb. 2, 1914, Serial No. 815,927. Renewed Sept. 10, 1917. Serial No. 190,684. (Cl. 2—84.)



A device of the class described comprising a body portion, having a curved upper portion of greater width than the main body portion in which is located an elongated curved slot; a ring shaped band located at the bottom of the body portion upon which is located some ornamentation; a vertical pear-shaped opening formed in the body portion and above the ring shaped band; a spring wire secured to the body portion and corresponding in shape with the opening formed in the body portion, the upper portion of the spring extending away from the body portion, in combination with a necktie to be passed over the device and held thereon, substantially as specified.

1,253,458. LIGHTING-FIXTURE. ARTHUR A. AUSTIN, Pittsburgh, Pa. Filed May 11, 1917. Serial No. 167,854. (Cl. 240—110.)

1. A spot shade, comprising a corrugated shade member, an arm quadrantal in curvature, attached to the said shade member, a support of like curvature consisting of

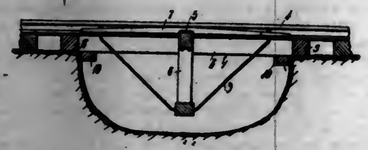
two members hingedly connected to the said arm at one end and having the other ends thereof twisted a one-



quarter turn and bent to form a clamp portion, substantially as described and for the purpose set forth.

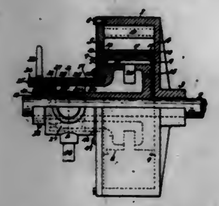
[Claim 2 not printed in the Gazette.]

1,253,459. CATTLE-GUARD. HARLEN C. BATES, Graniteville, Mo. Filed June 21, 1913. Serial No. 775,097. (Cl. 256—15.)



In a cattle guard, the combination with spaced rails, of a frame including parallel side bars disposed longitudinally of and supporting said rails, a shaft extending transversely between the rails with its ends engaging said side bars, the ends of said shaft being extended beneath the rails and terminally bent to embrace the adjacent rail base, and a platform pivotally mounted on said shaft.

1,253,460. ROTARY PUMP. WILLIAM BODGE, Nutley, N. J. Filed Apr. 24, 1916. Serial No. 93,262. (Cl. 230—30.)



1. A pump comprising a rotatable shaft, a cylindrical casing concentrically fixed on said shaft, a non-rotatable cylindrical drum eccentrically mounted upon and loosely engaging said shaft within said casing, a series of blades pivotally supported at their outer ends to the inner perimeter of said casing and forming separated chambers therein, means at the inner ends of said blades slidingly engaging said drum, and inlet and outlet passages adapted by the rotation of said casing to alternately communicate with said separated chambers successively.

2. A pump comprising a rotatable shaft, a cylindrical casing concentrically fixed on said shaft, a non-rotatable cylindrical drum eccentrically mounted in loose relation upon said shaft within said casing, a series of blades mounted to form expansible and contractible chambers within said casing, and inlet and outlet passages leading through said drum and adapted by the rotation of said casing to alternately communicate with the chambers successively.

3. A pump comprising a rotatable shaft, a cylindrical casing concentrically fixed on said shaft, a non-rotatable cylindrical drum eccentrically mounted in loose relation upon said shaft within said casing, a hub formed on said drum concentric with said shaft and extending through a side wall of said casing, a series of blades mounted to form expansible and contractible chambers within said casing, inlet and outlet passages leading through said drum and hub and adapted by the rotation of said casing to alternately communicate with the chambers successively, a valve-body fixed to said hub and provided with ducts adapted to aline with said inlet and outlet passages, and a valve within said valve-body adapted to reverse the flow from said inlet and outlet passages through said ducts.

1,253,461. WORK-SUPPORT. WILLIAM H. BORDEN, Winchester, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 14, 1914. Serial No. 831,864. (Cl. 12—126.)



1. In a work support, a last pin mounted for unrestricted lateral tipping movement at all times, a holder for said pin, and means affording a constant positive support for the pin against longitudinal thrusts, said means being constructed and arranged automatically to lock said pin in any one of its tilted positions against lateral movement when pressure is exerted substantially longitudinally on the pin.

9. In a work support, a last pin holder having formed therein a cylindrical socket having a spherically concaved bottom, a concavo-convex bearing member fitting into and resting upon said bottom, and a last pin having at its lower end a convex bearing surface of substantially the same radius as the concavity in said bearing member, said last pin resting in said concavity.

[Claims 2 to 8 and 10 to 12 not printed in the Gazette.]

1,253,462. RAIL-BOND. JOHN R. BROWN, Mansfield, Ohio, assignor to The Ohio Brass Company, Mansfield, Ohio, a Corporation of New Jersey. Filed Sept. 27, 1916. Serial No. 122,411. (Cl. 173—278.)



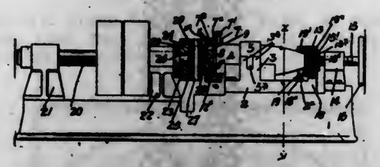
1. A rail bond consisting of a flexible body of copper and terminals of a ferrous metal attached to the ends of the body, the terminals provided with a passage for the body, a recess having a greater cross sectional area than that of the passage, an enlarged head formed up from the ends of the body and located in the recess and extending slightly above the plane of the external opening of the recess.

7. A rail bond consisting of a body member composed of a plurality of parts and terminals attached thereto, the terminals provided with a passage therethrough adapted to receive the body and terminating in an enlarged opening and a head formed up out of the ends of the body and located in the enlarged opening.

12. A rail bond consisting of a body member and terminals attached thereto, the terminals provided with a passage adapted to receive the body, the passage having two sections one larger than the other, the larger passage containing an enlarged head formed by upsetting the end of the body and one face of the enlarged head being exposed for receiving attaching metal for uniting the bond to a rail.

[Claims 2 to 6, 8 to 11, and 13 to 25 not printed in the Gazette.]

1,253,463. SHELL-MARKING MACHINE. JOHN M. BROWN, Hamilton, Ontario, Canada. Filed Oct. 29, 1915. Serial No. 58,733. (Cl. 101—4.)

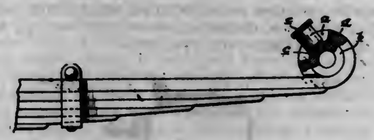


1. In a shell marking machine, the combination with the shell holder, and a marking chuck adapted to be secured to the base of the shell and to carry a series of suitable type slugs, of means for gradually exerting pressure successively on each type piece to form an impression on the base of the shell.

10. In a shell marking machine, the combination with the shell holder, of means for forcing the shell holder longitudinally, type-holding means carried by the base of the shell, and a bearing member against which the type of the type-holding means is forced so that each type is brought successively into contact with the bearing member.

[Claims 2 to 9 not printed in the Gazette.]

1,253,464. METHOD OF MAKING LUBRICATING SPRING-EYES. WILLIAM HIRAM BROWN, Cleveland, Ohio. Filed Apr. 6, 1917. Serial No. 160,260. (Cl. 29—178.)



1. The method herein described of making lubricating eyes for leaf-springs, consisting in forming an opening at the end of the main plate of the spring, then shaping and tempering the plate and forming an eye at its end by curling the end of the plate where it is provided with said opening, then inserting a bushing into said eye, said bushing having been previously provided with a screw-threaded hole, which hole is brought to a point coincident with the aforesaid opening in the eye of the plate, and then passing the end of a cup or nipple through said opening in the eye of the spring and screwing it into the hole in the bushing.

3. The method herein described of making lubricating eyes for leaf-springs, consisting in forming an opening at the end of the main plate of the spring, then shaping and tempering the plate and forming an eye at its end by curling the end of the plate where it is provided with said opening, then tightly inserting a bushing into said eye, said bushing having been previously provided with an oil hole, which hole is brought to a point coincident with the aforesaid opening in the eye of the plate.

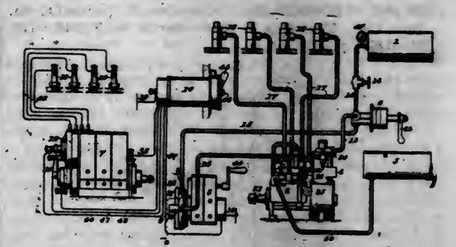
[Claims 2 and 4 not printed in the Gazette.]

1,253,465. CONDIMENT-HOLDER. FRANK H. CARROLL, Denver, Colo. Filed Jan. 22, 1917. Serial No. 143,757. (Cl. 65—45.)



A condiment holder capable of being constructed in varying styles, having a receptacle open at one end, a partition dividing said receptacle into two separate non-communicating chambers, a projecting bead on the outside and near the top edge of said receptacle, a perforated removable cap to cover the open end, provided with a hinge at one side and a depending spring catch at the opposite side, said cap being further provided with two vertically projecting lugs on the upper side, a pintle connecting the said lugs, two separate closure flaps pivotally mounted on said pintle, each having a lever arm, a single coil spring also mounted on said pintle with the ends thereof extending in opposite directions directly under the lever arms and serving to keep the flaps closed over the aforementioned perforations when in normal position, and a cork or composition pad attached to the under side of the said perforated cap for the purpose of effectively sealing the open end of the container when the cap is closed.

1,253,466. STARTING APPARATUS FOR INTERNAL-COMBUSTION ENGINES. NIELS A. CHRISTENSEN, Milwaukee, Wis. Filed Nov. 25, 1912. Serial No. 733,320. (Cl. 123—180.)



1. In starting apparatus for internal combustion engines the combination of a reservoir for compressed fluid, a magneto having an actuating connection with the engine for supplying current thereto during its normal operation, a magneto operative independently of the engine for supplying starting current thereto, means common to both magnetos for timing the delivery to the engine of current generated by either magneto on the firing strokes of the piston, and an incased fluid pressure motor operatively connected with the starting magneto and having a fluid supply connection with said reservoir and an outlet connection with the engine.

7. In starting apparatus for internal combustion engines the combination of a reservoir for compressed fluid, a distributing valve actuated by the engine and timed to deliver successive charges of fluid from the reservoir to an engine cylinder on the firing strokes of the piston, a magneto operative independently of the engine for supplying starting current thereto, a fluid pressure motor operatively connected with the magneto and having a fluid supply connection with the reservoir, a compressor having an actuating connection with the engine, and a fluid delivery connection with the reservoir, and a manually operated valve controlling the supply of fluid from said reservoir to the distributing valve and to the magneto motor and the delivery of fluid from the compressor to the reservoir.

[Claims 2 to 6 not printed in the Gazette.]

1,253,467. WIRE-LAYING TOOL. ROBERT H. CISENA, Chicago, Ill. Filed Feb. 10, 1917. Serial No. 147,894. (Cl. 140—93.)



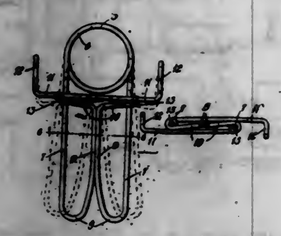
1. A wire-laying tool comprising a handle, a pair of spaced shanks extending forward from the handle, and provided with eyes for the passage of the wire, the eye of one of the shanks being close to the outer end thereof, and a wire-holding reel carried by the other shank.

3. A wire-laying tool comprising a handle, a pair of spaced shanks extending forward from the handle, and provided with eyes for the passage of the wire, the eye of one of the shanks being close to the outer end thereof, and a wire-holding reel carried by the other shank at its outer end, said end being located in advance of the first-mentioned shank.

5. A wire-laying tool comprising a handle, a laying shank extending from the handle and having a wire-holding eye adjacent to its extremity, and a wire-severing blade carried by the handle adjacent to the laying point of the shank.

[Claims 2 and 4 not printed in the Gazette.]

1,253,468. CLOTHES-PIN. CHARLES F. COCKRILL, Salinas, Cal. Filed Feb. 9, 1916. Serial No. 77,240. (Cl. 24—139.)

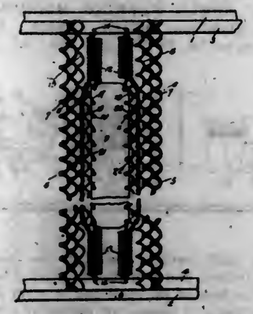


A clothes pin formed from a single piece of wire having a coil intermediate its ends, a pair of jaws depending from the coil, said jaws comprising outer members extending in parallelism and merging with the coil on diametrically opposite sides thereof and inner members being partially parallel and partially divergent, the latter portions and outer members being joined by curved connecting members, the free ends of the inner members being turned in opposite directions, and tightly coiled about the outer members, and extended transversely across the opposite jaws whereby the arms move simultaneously with the jaws, and finger engaging means formed on the transverse extensions.

1,253,469. WOVEN-WIRE MATTRESS. RUDOLPH COOPERSMITH, Toronto, Ontario, Canada. Filed Dec. 29, 1916. Serial No. 139,629. (Cl. 5—39.)

1. In a woven wire mattress, the combination with the mattress frame and mattress section supported thereby, of a metal strip extending longitudinally parallel with the mattress edge having a series of edge perforations, resilient means for connecting the ends of the strip to the mattress frame, a spiral wire woven through the edge perforations of the strip, and interengaging means between the spiral wire of the strip and the parallel edge wire of the mattress section.

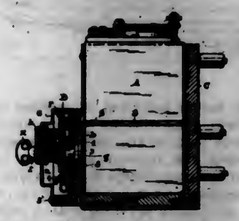
3. In a woven wire mattress, the combination with the mattress frame and mattress section, of a metal strip extending longitudinally and parallel with the edge of the mattress section and having a series of edge perforations, a woven wire portion engaging with such edge perforations, a woven wire portion carried by the edge of the mattress section overlapping the woven wire portion extending from the strip, a longitudinally extending reinforcing wire threaded through such overlapping portions, and spiral springs connecting the ends of the strip to the mattress frame and through the convolutions of which the ends of the reinforcing wire extend.



5. In a woven wire mattress, the combination with the mattress frame, of a mattress section stretched thereon, a longitudinal strip having edge perforations therein spaced apart equal to the pitch of the spirals of the stretched mattress section, resilient means for connecting the ends of the strip to the mattress frame, woven wire spirals engaging the perforations of the strip, a woven wire spiral extending through the spiral of the edge wire of the mattress section, and interengaging means for connecting the spiral passing through the edge wire of the mattress section and the spiral wires passing through the perforations of the strip.

[Claims 2 and 4 not printed in the Gazette.]

1,253,470. MEANS FOR LOCKING SPARKING UNITS. WARREN R. COX, Cleveland, Ohio. Filed Nov. 13, 1915. Serial No. 61,263. (Cl. 175—360.)



1. In combination, a casing and a sparking unit therein, an electric switch for said sparking unit mounted upon said casing, a lock for said switch, and a locking member protected by said switch lock to prevent removal of said unit from said casing.

2. A casing and a plural number of sparking units in juxtaposition therein, an electric current controlling device on said casing for said units, and means at the back of said device engaged with the said units to lock the same within said casing.

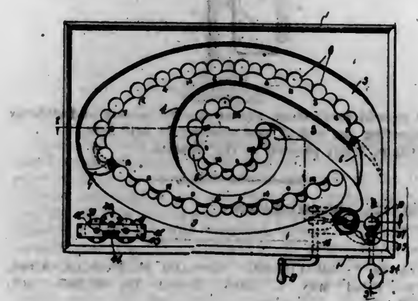
3. A casing and a series of electrical units in said casing, an electric current controlling device on said casing in electrical connection with said units, a cover for said device, a key-controlled locking mechanism for said cover, and means behind said cover having locking relations with said units to prevent removal thereof from said casing.

4. A casing and a series of sparking units in said casing, an electric-current-controlling device on said casing having a plate over the front thereof, a key controlled mechanism confining said plate, and means to secure said device on said casing having locking relations with said units, said means comprising a screw projecting through the back of said device and the wall of said casing.

17. The combination with a coil-box and a switch-block mounted thereon, of a plurality of coils removably engaging said box, and a common means for preventing access to the switch and removal of the coils from the coil-box.

[Claims 5 to 16 not printed in the Gazette.]

1,253,471. GAME APPARATUS. FRANK H. ELLISON, Rib Lake, Wis. Filed Aug. 24, 1917. Serial No. 188,023. (Cl. 46—59.)



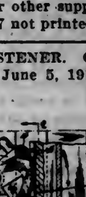
1. A game apparatus comprising a board having a ball channel with seats communicating therewith, balls for passage through said channels, and means for keeping said balls in circulation.

16. In a game apparatus, a board having a plurality of openings therein, a plate mounted to slide under said board and having openings adapted to register with those in the board when the plate is in one position, spring pressed means for normally holding said plate out of register with those in the board, means for actuating said spring pressed means to move said plate against the tension thereof to bring the openings therein into register with those of the board, a ball pocket opening through said board and extending below said plate and adapted to normally contain a plurality of playing balls, a spring connected at one end to said pocket and having a laterally extending ball support at the free end normally projected into the path of the balls to hold them in elevated position within the pocket, and means for projecting a ball into contact with said support for moving it outward against the tension of its spring for permitting the projected ball to be raised into a plane above said support, the spring extending into said pocket near its upper end and adapted to engage the uppermost ball of the pocket to force it laterally outward when it reaches a predetermined point in the pocket.

[Claims 2 to 15 not printed in the Gazette.]

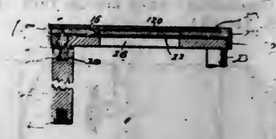
1,253,472. COMBINATION SPADE AND CROWBAR. CARL J. NELSON, Palermo, N. D. Filed Dec. 20, 1916. Serial No. 138,023. (Cl. 254—36.)

In a device of the class described, the combination of an elongated hollow handle, a crowbar having a body formed thereon, a shank projecting from said body, said shank having an enlarged outer end and converging toward said body so as to be reduced adjacent said body, thereby forming a shoulder upon said body, said shank fitting within said hollow handle, said handle being clamped upon said shank so as to form a converging portion, whereby the reduced end of said handle will hold said shank against



displacement, while the end of said handle by fitting upon said shoulder will be prevented from being displaced by the insertion of a foreign object.

1,253,473. NOISE-REDUCING TYPE-WRITER SUPPORT OR STAND. MIRIAM K. DAVIS, St. Louis, Mo. Filed June 27, 1916. Serial No. 106,205. (Cl. 248—30.)



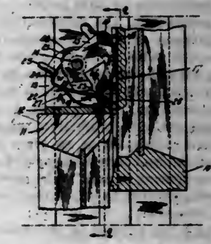
1. A support for key-operated machines comprising two layers of wood, said layers being cut away beneath the working parts of the machine, a layer of non-resonant material between the two layers of wood, and reaching across the hole formed by the cutaway portion of the wood layers, and a layer of non-resonant material on top of the uppermost layer of wood.

6. A support for key operated machines, comprising a stratified or layer-like platform, the layers alternating and consisting respectively of wood, rubber and felt, the wood being cut away beneath the working parts of the machine, and legs by which the platform is supported, between which and the platform rubber blocks are interposed.

8. A support for a key-operated machine, consisting of a stratified or layer-like arrangement of rigid and elastic materials alternating, the rigid materials being cut away from beneath the working parts of the machine, and the space between the elastic layers being filled with soft or nonconducting material; the platform being supported by legs attached to it by means of a plug of elastic material, having a rigid core extending below the top line of the leg, but not of such length as to form a medium of transmitting sound and vibration from the rigid layers of the platform to the legs or other support thereof.

[Claims 2 to 5 and 7 not printed in the Gazette.]

1,253,474. SASH-FASTENER. CHAUNCEY DE VOE, New York, N. Y. Filed June 5, 1917. Serial No. 172,955. (Cl. 16—146.)

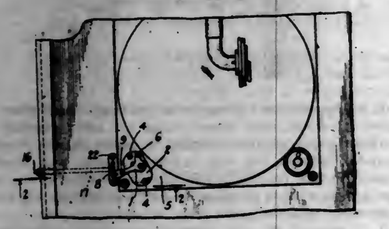


1. The combination with the upper and lower sashes of a window, of a frame mounted upon said lower sash, a locking lever fulcrumed to said frame having a cam-shaped contacting surface adapted to bear against said upper sash, a plate member pivoted to said frame below

said locking lever having one of its ends projecting toward said upper sash, and an extension upon said lever for causing said plate member to swing around its pivot and to close the gap between said two sashes when said lever is shifted to its operative position.

2. The combination with the upper and lower sashes of a window, of a frame mounted upon said lower sash, a locking lever fulcrumed to said frame having a cam-shaped contacting surface adapted to bear against said upper sash, said lever being provided with an arc-shaped portion having ratchet teeth, a spring-pressed pawl pivoted to said frame below said locking lever having one of its ends projecting toward said upper sash and its other end formed to engage said ratchet teeth, and an extension upon said lever for causing said pawl to swing around its pivot when said lever is shifted to its operative position, thereby projecting over the gap between said sashes and also engaging with said ratchet teeth.

1,253,475. BRAKE. JOSEPH HUNTER DICKINSON, Cranford, N. J., assignor to The Aeolian Company, a Corporation of Connecticut. Filed Jan. 29, 1915. Serial No. 5,045. (Cl. 74—13.)



1. In a brake mechanism, the combination of a brake member movable between an "off" position and an "on" position, and provided with a rigid projection; and spring means coöperative with the brake member, having a notch directly engageable with said projection to lock said member in one position, and also having a cam portion adapted to wipe against said projection, when the latter is released from said notch, so as to force said member into its other position.

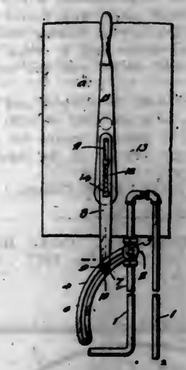
4. In a brake mechanism, the combination of a two-armed brake lever movable between an "off" position and an "on" position and having a braking part on one arm, and a lateral projection on the other arm; a plate whereon said lever is pivoted; and spring means coöperative with the brake member, having a notch directly engageable with said projection to lock said member in one position, and also having a cam portion adapted to wipe against said projection, when the latter is released from said notch, so as to force said member into its other position; means being provided for arresting the "off" movement of said lever in position for the automatic engagement of said projection by said notch.

6. In a brake mechanism, the combination of a brake member movable between an "off" position and an "on" position and provided with a rigid projection; spring means coöperative with the brake member, having a notch directly engageable with said projection to lock said member in "off" position, and also having a cam portion adapted to wipe against said projection, when the latter is released from said notch, so as to force said member into its "on" position; and means connected to positively impart an initial movement to said brake member with relation to said spring means, to effect the release of said projection from said notch.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,253,476. SIGNAL APPLIANCE. FILIPPO DI PIRRO, Youngstown, Ohio. Filed Sept. 6, 1917. Serial No. 190,010. (Cl. 74—39.)

1. The combination with a handle pivoted at one end thereof, of a link member detachably secured to said handle and adjustable longitudinally with respect to the same, a rotary valve stem, an arcuate arm fixed at one

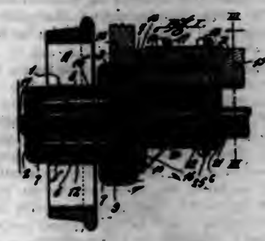


end to said valve stem, and means for loosely and slidably connecting one end of said member to said arm.

[Claim 2 not printed in the Gazette.]

1,253,477. [WITHDRAWN.]

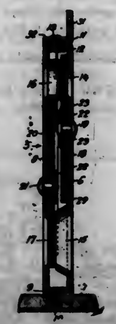
1,253,478. CAR-WHEEL. WILLIAM M. DUNCAN, Alton, Ill. Filed May 4, 1916. Serial No. 95,347. (Cl. 105—67.)



1. In a structure of the character described, a car wheel having a hub provided with a peripheral flange at the inner side of the wheel, a wheel holder comprising an upper section and a lower section each having a semi-circular pocket for the reception of said peripheral flange, a journal extending from said wheel holder and into the hub, and means for securing said wheel holder to the car, said means including bolts passing through said upper and lower sections and each of said bolts being provided with an upper nut for securing the upper section to the car and a lower nut for securing said lower section to said upper section.

2. In a structure of the character described, a car wheel having a hub, a wheel holder comprising an upper section and a lower section interlocked with said hub and adapted to be separated from each other to permit the removal of the wheel from the wheel holder, a journal extending from said wheel holder and into said hub, and means for securing said wheel holder to a car, said means including bolts passing through both of said sections, non-circular upper nuts fitted to said bolts at points remote from the lower ends of the bolts so as to secure the upper section to the car, the bottom of said upper section being provided with non-circular pockets for the reception of said non-circular upper nuts, and lower nuts fitted to the lower ends of said bolts to secure the lower section to the upper section.

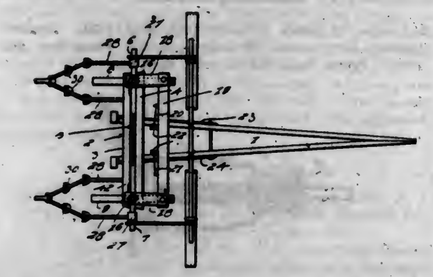
1,253,479. GAME-INDICATOR. FREDERICK T. ELLITHORPE, Chicago, Ill. Filed June 2, 1917. Serial No. 172,857. (Cl. 40—70.)



1. An indicator comprising a frame having two spaced-apart elongated plates and having an observation window near each end; a rotatable disk supported in the frame between said plates, one near each end thereof, each disk bearing indicia to appear in sequential order at the respective windows and provided with a like number of equally spaced apart abutments on its perimeter, whereby to apply pressure on each disk, by application of the operator's finger to rotate it to a limited extent, and finger stops for each disk, on each side of the longest axis of the frame to limit the extent of rotation of said disks to bring an indication in register with the respective window.

2. An indicator of the character described comprising two confronting spaced apart plates, having a plurality of confronting observation windows; two disks pivoted between said plates having indica for exhibition behind said windows; a projection on one plate and a part on the other to receive the projection near the one edge of the plate; overlapping flanges near the other edge of the plate; means associated with the said flanges to hold the plates together and an indicating arrow pivoted on the device.

1,253,480. CULTIVATOR. GEORGE R. FOX, Pleasanton, Nebr. Filed Mar. 24, 1916. Serial No. 86,475. (Cl. 97—35.)



1. In a cultivator structure, the combination, of a tongue, an arch axle carried by said tongue, hub collars mounted upon said arch axle for limited horizontal pivotal movement, supporting wheels rotatably mounted upon said hub collars, means for preventing movement of said supporting wheels longitudinally of said hub collars, a bar slidably mounted upon said tongue, foot levers pivotally connected to said tongue, means operatively connecting said foot levers to said bar for shifting said bar upon movement of said foot levers, and means operatively connecting said bar to said hub collars for pivotally moving said hub collars upon shifting of the bar for guiding the direction of travel of said supporting wheels.

[Claim 2 not printed in the Gazette.]

1,253,481. LADDER. HERMAN B. GAFFERS, Watervliet, N. Y. Filed Mar. 19, 1917. Serial No. 155,790. (Cl. 20—81.)



1. A ladder of the character described comprising side rails, rungs connecting the same, and adjustable supplemental rails located between the side rails and supported by said rungs, said supplemental rails being located to provide intervening spaces, and the supplemental rails being provided with alined openings extending transversely therethrough at points between the upper and lower ends of said spaces.

3. A ladder of the character described, comprising side rails, rungs, and supplemental rails spaced apart to provide adjacent parallel series of laterally alined like openings closed at top and bottom by said rungs, the extended portions of said rungs constituting the usual foot receiving members of the ladder, and supporting planks disposed with their edges uppermost having adjoining overlapping end portions inserted in an adjacent pair of openings and held in said edgewise position by the rails and rungs.

4. A ladder of the character described comprising side rails, rungs, and supplemental rails spaced apart to provide vertically elongated openings, one of said rails being laterally adjustable with reference to another, for the purpose described.

5. A ladder of the character described comprising side rails, rungs, and a supplemental rail adjustable to occupy a spaced relation to the side rail, substantially as described.

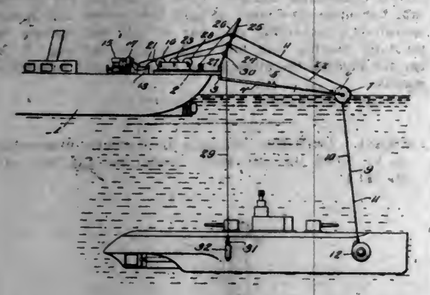
14. A ladder of the character described comprising side rails, rungs, and supplemental rails, spaced apart to provide openings adapted to receive a plank disposed with its edge uppermost, the plank inserted in one of said openings to be held in position by rails and rungs, and means passing through the plank and engaging the adjacent rail portions to secure the plank against longitudinal movement independently of the ladder.

[Claims 2 and 6 to 13 not printed in the Gazette.]

1,253,482. SUBMARINE-DESTROYER. JOHN A. GAULT, Lancaster, Wis. Filed Oct. 11, 1917. Serial No. 196,036. (Cl. 114—240.)

1. The combination of a floating vessel, a boom extending rearwardly therefrom, a float mounted on the

rear end of said boom and having a guideway, a cable passing slidably through said guideway, a magnet on the lower end of said cable, and winding means for the other end of said cable.

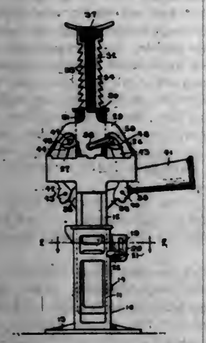


3. The combination of a floating vessel, a base secured to the deck thereof, at the stern of the vessel, upper and lower booms extending rearwardly from said base and pivoted thereto for vertical swinging, means for so swinging said booms and holding them in adjusted position, a float carried by the rear end of the lower boom and having a guideway, a cable passing through said guideway, an electro-magnet on the lower end of said cable, a sheave on the upper boom over which said cable passes, winding means on said base, for said cable, a second sheave on said upper boom, below the other, an additional cable passing over said sheave for lowering a bomb, and winding means for said additional cable mounted on said base.

4. The combination of a floating vessel, an electro-magnet to be towed thereby, a towing cable for said magnet, a current supply cable for said magnet extending along said towing cable, and clips securing the two cables together at intervals, said clips having means thereon for indicating the depth at which the magnet is traveling.

[Claim 2 not printed in the Gazette.]

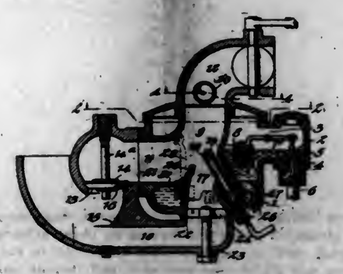
1,253,483. JACK. JOHN HOWARD GLASSNER, Mansfield, Ohio. Filed Apr. 7, 1917. Serial No. 160,505. (Cl. 254—110.)



2. In a jack of the character described, a tubular standard, a lift bar mounted to reciprocate within the tubular standard and provided upon its opposite edges with teeth, a plurality of pawls pivotally connected with the opposite edges of the tubular standard and arranged near and outwardly of the opposite edges of the lift bar to engage with the teeth thereof, means to alternately raise one pawl and lower the other, control members pivoted at spaced points with the tubular standard and extending laterally and outwardly beyond the tubular standard and the opposite edges of the lift bar for substantial distances, pins carried by the pawls and contacting with the control members, crank extensions carried by the inner ends of the control members and extending inwardly beyond the pivots thereof, a pressure member engaging the crank extensions to move them downwardly, yielding means to move the pressure element downwardly, and a cam pivoted to the tubular standard and disposed beneath the crank extensions to engage therewith and move the same upwardly.

[Claims 1 and 3 not printed in the Gazette.]

1,253,484. CARBURETER. JOHN HARVEY GOLDEN, Buffalo, N. Y. Filed Aug. 7, 1916. Serial No. 113,497. (Cl. 219—38.)



1. In a carbureter, a float chamber adapted to contain liquid hydrocarbon fuel, means for heating the contents of said chamber, and a substance in said chamber having the property of subduing the bubbles produced by the boiling of said liquid.

3. In a carbureter, a float chamber adapted to contain liquid hydrocarbon fuel, means for heating the contents of said chamber, and a porous body in said chamber having the property of becoming heated less rapidly than the liquid fuel in which it is immersed and operating to subdue the bubbles produced by the boiling of said liquid.

5. In a carbureter, a chamber for liquid hydrocarbon fuel, means for heating the contents of said chamber, a valve for regulating the feed of the fuel to said chamber, a float in said chamber controlling said valve, and means in said chamber for subduing the bubbles created by the boiling of said liquid fuel.

8. A carbureter, comprising a float chamber adapted to contain hydrocarbon fuel, an electric coil arranged in said chamber for heating its contents, and a block of pumice-stone arranged in said chamber and adapted to be immersed in its contents.

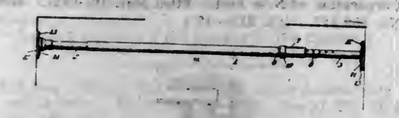
[Claims 2, 4, 6, and 7 not printed in the Gazette.]

1,253,485. DIVER'S TELEPHONE-MUFFLER. ENOCH CONRAD GUNNARSON, Brooklyn, N. Y. Filed Oct. 30, 1916. Serial No. 128,564. (Cl. 61—7.)



The combination with a diver's helmet including a spring urged exhaust valve and its casing, of a nut adjustably engaged in the casing for regulating the tension under which the valve will operate, said nut having a central, threaded passage communicating with the interior of the casing and being counter-bored at its outer end, an externally threaded nipple engaged in said threaded bore and having an outwardly flanged end seated normally in said counter-bored portion of the nut, and a flexible exhaust pipe fitted over said flange end of the nipple and clampingly held between said flange and the walls of said counter-bored portion.

1,253,486. ADJUSTABLE SUPPORTING-ROD. EDNA I. HAMMER, Ames, Iowa. Filed Mar. 16, 1917. Serial No. 155,352. (Cl. 156—19.)



1. In a device of the character described, a tube, a second tube adapted to telescope within said first mentioned tube, a screw threaded engagement between them, a third tube adapted to telescope within said first mentioned tube and having a series of transverse slots formed at intervals along its surface, a catch mounted upon said first mentioned tube, the free end of said catch being adapted to engage said slots, and means for locking said catch in engagement with any one of said slots.

2. In a device of the character described, a tube, a second tube adapted to telescope within said first mentioned tube, a screw threaded engagement between them, a third tube adapted to telescope within said first mentioned tube and having a series of transverse slots formed at intervals along its surface, a catch mounted upon said first mentioned tube, the free end of said catch being adapted to engage said slots, a means for locking said catch in engagement with any one of said slots, and means at the ends of the free ends of said second mentioned and third mentioned tubes for engagement with oppositely disposed surfaces.

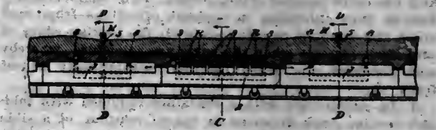
3. In a device of the character described, a tube, a second tube adapted to telescope within said first mentioned tube, a screw threaded engagement between them, a third tube adapted to telescope within said first mentioned tube and having a series of transverse slots formed at intervals along said tube, a catch mounted upon said first mentioned tube, the free end of said catch being adapted to engage said slots, and a slip ring adapted to engage said catch and hold it in engagement with any one of said slots.

4. In a device of the character described, a tube, a second tube adapted to telescope within said first mentioned tube, a screw threaded engagement between them, a third tube adapted to telescope within said first mentioned tube and having a series of transverse slots formed at intervals along said tube, a catch mounted upon said first mentioned tube, the free end of said catch being adapted to engage said slots, a slip ring adapted to engage said catch and hold it in engagement with any one of said slots, and means at the free ends of the second and third mentioned tube for engagement with oppositely disposed surfaces.

1,253,487. KILN. JOHN L. HARPER, Niagara Falls, N. Y. Filed Apr. 29, 1910, Serial No. 558,474. Renewed Dec. 1, 1917. Serial No. 204,990. (Cl. 25—142.)

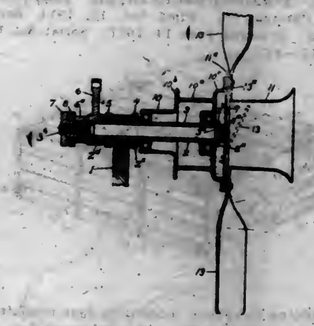
1. A tunnel kiln having the median portion thereof provided with an electrical heating means, flues for introducing gases into such median portion and means for forcing gas into said flues.

2. A tunnel kiln provided with electrical resistors for heating the same located at its median portion, flues for introducing gas into the furnace at such median portion, and exit flues from the kiln arranged at both sides of such



median portion, whereby the kiln may be filled with an atmosphere of gas.

1,253,488. COMBINED FAN AND ALARM-SIGNAL. HERBERT HASTINGS, Brighton, N. Y. Filed Sept. 9, 1913. Serial No. 788,927. (Cl. 116—1.)

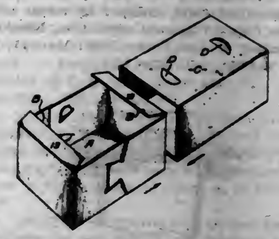


1. In a signal the combination of a revolving fan, a diaphragm mounted on the fan and rotating therewith, means to vibrate said diaphragm consisting of a projection on said diaphragm and a striking device for striking said projection, a spindle on which said fan is mounted to rotate, a stem movable endwise through said spindle, said striking device being carried on the end of said stem and being movable thereby into and out of engagement with the projection on said diaphragm.

4. In a signal, the combination of a tubular support, a horn mounted to rotate about said support, a diaphragm circumferentially supported in said horn, a projection on said diaphragm and a stem mounted to move longitudinally through said support to engage with the projection on said diaphragm.

[Claims 2 and 3 not printed in the Gazette.]

1,253,489. FOLDING CONTAINER. FRANK H. HOUGHLAND, Cincinnati, Ohio, assignor, by direct and mesne assignments, to The Economy Folding Box Co., Cincinnati, Ohio, a Corporation of Ohio. Filed Mar. 8, 1917. Serial No. 153,445. (Cl. 229—9.)



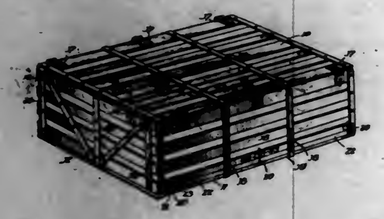
1. A container comprising an inner containing member and an outer member formed to inclose and slide over

said inner member, the inner member being formed with spaced locking edges which project toward each other, and the outer member being formed with complementary locking flaps extending in opposite directions from each other and adapted to interlock with the locking edges of said inner member when the parts are assembled, whereby said members are locked together, substantially as set forth.

4. In combination with a container provided with foldable locking flaps arranged in spaced relation, of a slide adapted to receive said container and provided with locking tongues projecting from each other and adapted to engage said locking flaps so as to prevent movement of either the engaged slide or the container in either direction.

[Claims 2 and 3 not printed in the Gazette.]

1,253,490. FOLDING RECEPTACLE. FRANK W. HOWLAND, Chicago, Ill. Filed Oct. 12, 1914, Serial No. 866,252. Renewed June 14, 1917. Serial No. 174,793. (Cl. 217—47.)



1. A folding receptacle comprising four retaining members, hinges connecting the said members at four parallel edges thereof, the hinges at adjacent pairs of edges being attached to opposite sides of the said four retaining members, and two other outwardly folding retaining members each pivotally attached to one of the said four members.

3. A folding receptacle comprising four retaining members, hinges for the said members at four parallel edges thereof, the hinges at adjacent pairs of edges being attached to opposite sides of the said four retaining members, and two other outwardly folding retaining members pivotally attached to one of the said four members and each adapted to engage at its periphery with the other four retaining members.

7. A folding receptacle comprising top and bottom, horizontal members, end members between the edges of said top and bottom members and pivotally attached thereto, and outwardly folding side members each pivotally attached to one of said horizontal members, and releasable means adapted to positively prevent the outwardly folding member accidentally moving outward.

[Claims 2, 4 to 6, 8, and 9 not printed in the Gazette.]

1,253,491. CLOSURE FOR CONTAINERS. HERBERT H. HULL, Lakewood, Ohio, assignor, by mesne assignments, to Anchor Cap & Closure Corporation, Brooklyn, N. Y., a Corporation of New York. Filed Mar. 11, 1916. Serial No. 83,458. (Cl. 215—17.)



3. As an article of manufacture, a sealed package comprising a container, said container having substantially incompressible side walls adjacent the mouth thereof, and a substantially flat cover cap extending over the mouth of said container, a skirt extending over said incompressible side walls, said skirt comprising angularly disposed rings with the free edge of the undermost ring reinforced and the area inclosed between said rings and the side wall of said container being in cross-section substantially an equiangular triangle, and a gasket within said area and under compression.

[Claims 1, 2, and 4 not printed in the Gazette.]

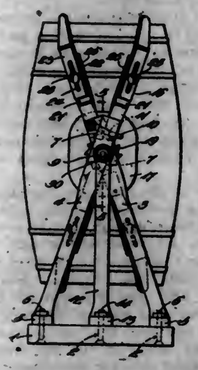
1,253,492. SIDE-SEAL CLOSURE. HERBERT H. HULL, Lakewood, Ohio, assignor, by mesne assignments, to Anchor Cap & Closure Corporation, Brooklyn, N. Y., a Corporation of New York. Filed Mar. 16, 1917. Serial No. 155,217. (Cl. 215—17.)



1. In a closure, a cover portion, a depending rim adjacent said cover portion, a ring extending at substantially right angles to said rim, a substantially straight-walled skirt angularly disposed to extend inwardly relatively to said ring, a gasket between said ring and skirt and adapted to be tightly compressed against the side wall of a substantially incompressible container by increasing the angularity of said skirt relatively to said ring, substantially as specified.

[Claims 2 and 3 not printed in the Gazette.]

1,253,493. BARREL-STAND. CHARLEY JAMES, Corydon, Iowa. Filed Jan. 11, 1917. Serial No. 141,865. (Cl. 248—58.)



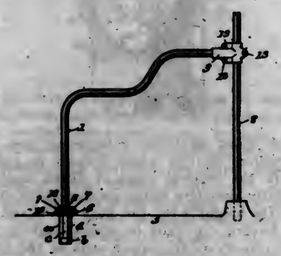
1. In an apparatus of the class described, a supporting structure, clamps for pivoting a barrel carried by said structure, said clamps being freely rotatable and held against longitudinal movement, means for holding one of said clamps against turning in one direction, and means for holding the other clamp against turning in the opposite direction, one of said holding means being releasable to permit the tilting of the barrel engaged by the clamps and the other of said holding means engaging the clamps thereby preventing movement in an opposite direction from the direction of tilting.

2. In an apparatus of the class described, a supporting structure, clamps for pivoting a barrel carried by said structure, said clamps being freely rotatable and held against longitudinal movement, ratchets and pawls one carried by each clamp and one by the supporting structure, the teeth of the ratchets extending in opposite directions whereby when the pawls are engaged with the ratchets one of said clamps is held against turning in one direction and the other against turning in the opposite direction, said pawls being releasable to permit free turning of said clamps in either direction.

4. In an apparatus of the class described, a supporting structure, clamps for pivoting a barrel carried by said structure, said clamps being in the form of spiders having legs with barrel engaging hooks at their free ends, the barrel engaging faces of said legs being curved longitudinally and twisted transversely to conform to the longitudinal and peripheral curvature of the barrel to be clamped.

[Claims 3 and 5 to 7 not printed in the Gazette.]

1,253,494. STALL EQUIPMENT. JOHN JAMES, Fort Atkinson, Wis. Filed May 6, 1915. Serial No. 26,255. (Cl. 119—27.)



1. The combination with a concrete floor, of an anchor embedded therein and comprising a vertical shell, provided at its lower end with a laterally extending chamber forming bearing walls for engagement with the heads of bolts, a cap, a plurality of bolts for securing said cap in place above the surface of such concrete floor, each having a head at its lower end projecting into said chamber and means for securing a vertical member at a fixed point in said cap.

[Claims 2 to 14 not printed in the Gazette.]

1,253,495. CONVEYING AND CLEANING TABLE. NIELS B. JANSSEN, Kansas City, Mo. Filed Oct. 30, 1916. Serial No. 128,431. (Cl. 130—32.)



2. A conveying and cleaning table comprising separate coextensive and independently movable track sections, tables adapted for support on the track sections, and means for shifting the tables from one to another of said sections.

4. A conveying and cleaning table comprising a frame, upper track sections and a lower track, tables adapted for rolling on said tracks, and means for moving one of the upper track sections to coöperative relation with the lower track, for the purpose set forth.

6. A conveying and cleaning table comprising coextensive track sections, one yieldable vertically to permit passage of a table between its rails from beneath the track level, an elevator for positioning a table on the yieldable track, and means for conducting a table from the other track section to said elevator.

7. In a conveying and cleaning table, a track comprising rails having longitudinal, pivotal mounting, a track normally coextensive with the first named track, and having transverse pivotal mounting, tables movable on said tracks, and an elevator for receiving a table from one of the tracks and conducting the same to the other track.

8. A conveying and cleaning table comprising a frame, upper track sections forming a continuous track longitudinally of said frame, a lower track, tables movably mounted on said tracks, means for moving one of the upper track sections to coöperative relation with the lower track, and means for raising the lower track to coöperative relation with the upper track section, for the purpose set forth.

[Claims 1, 3, and 5 not printed in the Gazette.]

1,253,496. SHOE. HENRY KAISER, Detroit, Mich. Filed May 31, 1916. Serial No. 100,755. (Cl. 36—54.)



1. The combination of the vamp of a shoe with a tongue including a shield of waterproof material appropriately secured along its margin to the lower portion of the shoe tongue betwen the margins thereof and arranged with the tongue to overlie the contiguous margin of the vamp.

2. The combination with the quarters of a shoe of a bellows tongue stitched thereto along its edges having a shield of waterproof material conformed to the lower portion thereof and secured to the outer face thereof by stitching along the margin of the shield that is within the line of stitching of the tongue to the quarters.

3. The combination with a shoe having a bellows tongue stitched to the vamp and quarters thereof, of a shield of waterproof material secured along its margin to the outer face of the lower portion of the tongue, by lines of stitching completely within and separate from the lines of attachment of the tongue to the quarters, the tongue and shield having lower registered margins adapted to overlie the contiguous margins of the shoe vamp.

1,253,497. PROCESS FOR EXTRACTING POTASH AND OTHER VALUES FROM TOBACCO. WILLIAM H. KENNEDY and GILBERT E. BAILEY, Los Angeles, Cal., assignors to American Safety Explosives Company, a Corporation of Delaware. Filed Mar. 19, 1917. Serial No. 155,929. (Cl. 23—22.)

1. The process for recovering values from tobacco, which consists in percolating the tobacco with alcohol, withdrawing the percolated extracts, distilling gums and resins from the residue, and roasting the residue after such distillation in the presence of charcoal to form potassium carbonate.

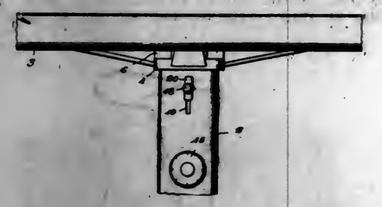
2. The process for recovering values from tobacco, which consists in percolating the tobacco with alcohol, withdrawing the percolated extracts, distilling gums and resins from the residue and roasting the residue after

such distillation in the presence of charcoal to form carbonates, then leaching such carbonates with hot water to form a solution of potassium carbonate.

3. The process for obtaining potassium from tobacco, which consists in roasting the tobacco in the presence of charcoal to form carbonates and then leaching such carbonates with hot water to separate the potassium carbonate into a solution.

4. The process for obtaining values from tobacco, which consists in recovering the extracts and resins from the tobacco and then recovering the potash from the residue, as described.

1,253,498. STEERING-GEAR LOCK FOR MOTOR-VEHICLES. IRWIN FLOYD KEPLER, Akron, Ohio. Filed June 7, 1917. Serial No. 173,327. (Cl. 70—129.)



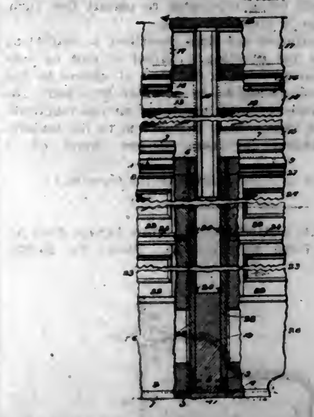
1. In a steering gear lock for motor vehicles, the combination with the steering post, the steering post column, and the steering wheel thereof; of a movable member associated therewith for locking the steering post against movement and simultaneously unlocking the steering wheel from the latter when said member is in one of its positions, and for unlocking the steering post and simultaneously locking the steering wheel to the steering post when said member is in its other position.

2. In a steering gear lock for motor vehicles, the combination with the steering post, the steering post column, and the steering wheel thereof; of a locking member slidably mounted upon the steering post, means carried by the steering post and steering wheel coacting with said member to lock the steering post to the steering post column and simultaneously unlock the steering wheel from the steering post when said member is in one of its positions, and to unlock the steering post and simultaneously lock the steering wheel to the latter when said member is in its other position, and means for locking said member in its first-mentioned position.

3. In a steering gear lock for motor vehicles, the combination with the steering post, the steering post column and steering wheel thereof; of a movable locking member slidably mounted upon the steering post and having a notch in one edge thereof, a split ring fixed to the interior side of the steering post column and having its ends spaced apart to receive said locking member when in one of its positions, a lock fixed to the steering post column and having its bolt adapted to project into the notch in the locking member when the latter is in the aforesaid position, and means carried by the steering wheel for engagement with said locking member when the latter is in its other position.

4. In a steering gear lock for motor vehicles, the combination with the steering post, the steering wheel, and the steering post column having a slot therein; of a locking member slidably mounted upon the steering post for locking the latter against movement and simultaneously unlocking the steering wheel from the same when said member is in one of its positions, and for unlocking the steering post and simultaneously locking the steering wheel to the steering post when in its other position, said member having a notch therein, a ring surrounding the steering post and received in said notch, a knob disposed on the exterior of the steering post column and having its shank extending through the slot therein and secured to said ring, a spring disposed between said knob and the exterior side of the steering post column, and means for locking said member in one of its positions.

1,253,499. INTERIOR PARTITION. HENRY KLEIS, New York, N. Y. Filed Nov. 13, 1912. Serial No. 731,218. (Cl. 20—1.)



1. A knock down partition comprising post units at their longitudinal vertical edges formed to receive and interlock with the vertical edges of filling section units, and individually complete filling section units of approximately uniform height with the post units and at their upper ends having top rails of approximately the same transverse thickness as the upper ends of the post units, and crown molding adapted to be removably secured to the side faces of the post units and said top rails and to be continuous across the joints between said section and post units.

2. A knock down partition or the like, comprising post units formed at their vertical edges to removably receive and interlock with filling section units, each post unit consisting of opposite side longitudinal pieces arranged a distance apart to afford a space within the unit for an adjustable post extension, the longitudinal edges of said pieces being rabbeted to form longitudinal depressed shoulders, said pieces being secured together in fixed relation by stiff flat metal fasteners arranged transversely between said pieces and at their ends fitting said shoulders and rigidly secured thereto.

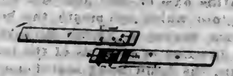
8. A knock down partition consisting of removable post units adapted to be secured at their lower ends, bodily removable panel sections of approximately the same length as said units and throughout their lengths removably interlocking therewith against lateral displacement, means for removably coupling the upper ends of the units and sections together against separation, said post units provided with removable extensions arranged longitudinally thereof and projecting upwardly therefrom and approximately throughout the lengths of their opposite edges formed to constitute the uprights of panel frames, removable cross bars extending between said extensions to form the upper and lower rails of removable filling panels above said sections and between said extensions, the opposite edges of said several cross bars being similarly formed to transversely fit the edges of said extensions against lateral displacement without being supported by said extensions.

[Claims 3 to 7 not printed in the Gazette.]

1,253,500. FAVOR SNAPPER AND CRACKER. EDWARD J. KUNKELY, New York, N. Y. Filed Feb. 24, 1917. Serial No. 150,807. (Cl. 46—46.)

1. A cracker for favors or the like consisting of two parts joined together by their extreme ends and each having a weakened portion adjacent to its secured end.

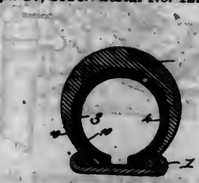
2. A cracker or the like comprising a plurality of strips of flexible material the ends of which overlap and are joined, an explosive and abrasive mixture between said



strips and a weakened portion between said explosive mixtures and the joined portions of each strip.

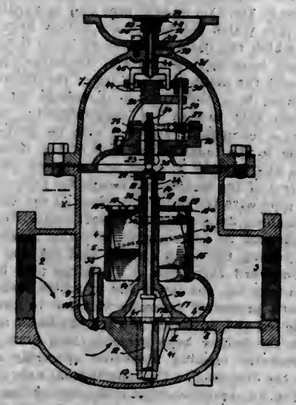
[Claim 3 not printed in the Gazette.]

1,253,501. INNER-TUBE PROTECTOR. RAYMOND N. LAGO and WILLIAM J. BARRETT, San Francisco, Cal. Filed Sept. 27, 1916. Serial No. 122,443. (Cl. 152—18.)



A tire protector comprising a series of separate interlocking elements, each consisting of a metal plate including two coaxial transversely flat arcuate portions of different diameters having a connecting web at their mutually adjacent edge portions, the major portion of each plate having a radial flange at its outer edge and the minor portion of each plate having a radiating flange at its outer edge, the major portion being continued at its ends beyond the web and its flange in the form of outwardly opening rim-engaging hooks, the plates being each disposed with the flange of the minor portion against the inner face of the flange of the major portion of the next plate.

1,253,502. CURRENT FLUID-METER. FRANK LAMBERT, Brooklyn, N. Y., assignor to Thomson Meter Company, Brooklyn, N. Y., a Corporation of New Jersey. Filed Mar. 1, 1912. Serial No. 680,887. (Cl. 73—37.)



1. A fluid meter comprising in combination a main casing having inlet and outlet connections and a pressure chamber, a structurally separate rotor chamber seated within said pressure chamber and spaced away from the sides thereof and having a base provided with one or more parts for the flow of fluid from such inlet connection into said rotor chamber, and a rotor mounted for rotation within said rotor chamber and also for axial movement therein, and arranged to be held in fluid suspension by the action of the flowing fluid upon it.

8. A fluid meter comprising in combination a rotor chamber, a rotor therein, and a valve provided on a downwardly-extending foot of said rotor and arranged to close said rotor chamber against the admission of fluid, when the flow of fluid to be metered stops, and to open such chamber for fluid admission when the flow of such fluid begins.

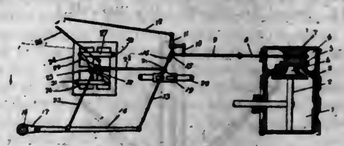
16. A fluid meter comprising a rotor provided with a plurality of passages for the flow of fluid to be metered, and with automatic obstructing means comprising a disk covering said passages when the rotor is at rest and arranged to move axially away from said rotor under the influence of fluid flowing through the rotor, said disk provided with one or more slots extending from the periphery of said disk inward and forming orifices for the flow of fluid from one or more of the passages of said rotor, said slots directed rearwardly with reference to the normal direction of rotation of the rotor, and a ring fitting over the periphery of said disk.

27. A fluid meter comprising in combination a main casing, a rotor therein and a speeder for said rotor, both the rotor and the speeder being adapted to rotate and move axially, the axial movement of the speeder being greater than that of the rotor.

32. A fluid meter comprising in combination a main casing, a rotor therein mounted for rotation and having a plurality of slanting passages for the fluid, a speeder for said rotor having also one or more slanting passages for the fluid, the said passages for the flow in the rotor and the speeder slanting in the same direction, but being of different area.

[Claims 2 to 7, 9 to 15, 17 to 26, and 28 to 31 not printed in the Gazette.]

1,253,503. VALVE-GEAR. WILLIAM MATHEW LENG, Havelock, Ontario, Canada. Filed Mar. 17, 1915. Serial No. 15,123. (Cl. 121—97.)



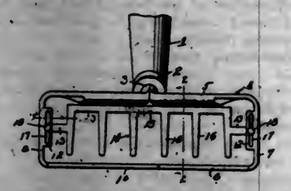
1. A valve gear comprising a plurality of levers pivotally joined together, a valve rod adjustably secured to one of said levers, a crank rod pivotally secured to said adjusting lever, a reversing mechanism pivotally secured to said crank rod by one of said levers and having a pivot point movable in oblique directions in relation to a horizontal line drawn through its center and a crank secured to said crank rod.

3. A valve gear comprising a reversing gear formed of a tilting frame, a plurality of toggles operating from two fixed pivoted points, a crank rod, a crank, a valve rod, a lever adjustably connecting said crank rod to said valve rod, a rod pivotally connecting said crank rod to said toggles and a rod pivotally connecting said adjusting lever to said toggles.

5. A valve gear comprising a valve rod, a bell crank lever linked to said valve rod adjacent to the end thereof, a reach rod extending from said bell crank, a slotted lever adjustably secured to the end of said valve rod adjacent to said link connections, a reversing mechanism having a pivotal point movable in oblique directions in relation to the horizontal, a crank rod at the end thereof directly connected to said slotted lever, a plurality of rods pivotally connecting said slotted lever and said crank rod through said movable pivotal point and a crank operating said crank rod.

[Claims 2 and 4 not printed in the Gazette.]

1,253,504. WEEDING IMPLEMENT. FREDERICK G. LOGSDON, Davenport, Wash. Filed Nov. 2, 1916. Serial No. 129,200. (Cl. 55—41.)



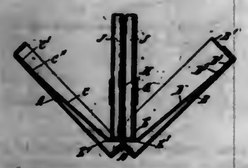
1. A weeding implement comprising, in combination, a rectangular frame having upper and lower bars, a rake element disposed directly above one edge of the said lower bar, and means for permitting vertical adjustment of the said rake element above and below the said upper bar.

4. A weeding implement comprising, in combination, a rectangular frame, flanges carried by the ends of the frame and provided with elongated slots, a rake element, retaining arms carried by the rake element and connected to the flanges through the medium of the said slots whereby adjustment of the said rake element is permitted, one of the bars of the frame being relatively narrow for permitting a portion of the rake element to extend above the said narrow bar.

8. A weeding implement comprising a frame having end vertical bars, each provided with flanges extending laterally into the frame and each provided with a slot, a rake element having retaining arms, the latter being adjustably connected to the said flanges through the said slots, the said flanges being disposed at the edge of the vertical bars, whereby the said rake element may be moved above the top of the said frame.

[Claims 2, 3, and 5 to 7 not printed in the Gazette.]

1,253,505. CIGARETTE-CONTAINER. JOHN LOTKA, Demarest, N. J., assignor to Havone Corporation, New York, N. Y., a Corporation of New York. Filed Nov. 15, 1915. Serial No. 61,500. (Cl. 206—41.)

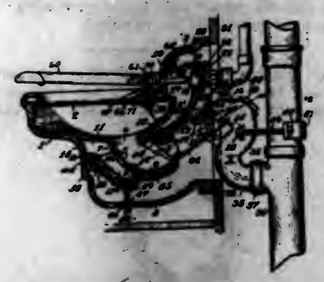


1. A container comprising two hinged lids, a continuous member whose ends are secured to the respective lids at a distance from the lid hinge, said member being provided with four parallel hinges, two of them adjacent to the respective lids and the other two at the central portion of said member and adjacent to the lid hinge, the portion of said member between its two central hinges forming a holder bottom, and complementary holder parts secured to said bottom on the side away from the lid hinge.

2. A container comprising two hinged lids, a pair of members each having its outer end pivoted to one of the lids at the portion farthest from the lid hinge, the inner ends of said members being permanently within the respective lids, whether the container is open or closed, and a holder connected pivotally with said inner ends of the members and located entirely on that side of the said inner ends which is away from the lid hinge.

1,253,506. PLUMBING-FIXTURE. PATRICK J. MADDEN, Chicago, Ill. Filed June 6, 1913. Serial No. 772,132. (Cl. 4—18.)

1. A plumbing fixture having a bowl comprising a basin provided through its bottom with an outlet opening, a hollow horn joining the basin around said opening and projecting downward therefrom, a discharge pipe terminating at its intake end in a bell mouth presented laterally relatively to the axis of said pipe and upwardly toward the basin, into which bell-mouth the hollow horn projects, said horn having a lateral discharge opening presented in the direction of the axis of the intake leg of the discharge pipe, the basin being seated upon the supported by said bell-mouth, and means for supporting said discharge pipe with its bell-mouth clear of the floor.



3. A wall-hung or stack hung plumbing fixture having a bowl comprising a basin provided through its bottom with an outlet opening, a hollow horn joining the basin around said opening and projecting downward therefrom, a discharge pipe having an upwardly inclined intake leg terminating at its intake end in a bell-mouth presented laterally relatively to the axis of said intake leg and upwardly toward the basin into which bell-mouth the hollow horn projects, said horn having a lateral discharge opening located opposite and presented in the direction of the upwardly inclined in-take leg of the discharge pipe in position to discharge directly into and through said upwardly inclined in-take leg, longitudinally, the basin being seated upon and supported by said bell-mouth and means for supporting the discharge pipe independently of the floor.

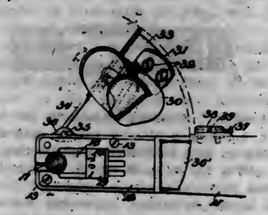
5. A plumbing fixture having a bowl comprising a basin provided through its bottom with an outlet opening, a hollow horn joining the basin around said opening and projecting downward therefrom, a siphonic discharge pipe having an upwardly inclined intake leg, the lower in-take end of which terminates in a bell-mouth presented laterally relative to the axis of said pipe and upwardly toward the basin, into which bell-mouth the hollow horn projects and upon which the basin is seated so as to be supported thereby, said horn having a lateral discharge opening located opposite the inclined intake leg of the discharge pipe and presented in a direction to discharge directly into and through said in-take leg, longitudinally, said horn having also a jet opening disposed with its projected axis at an angle to the longitudinal axis of the intake leg of the siphon and passing in close proximity to the dam or overflow level of the siphon and means for supporting said discharge pipe with its bell-mouth clear of the floor.

8. A plumbing fixture having a bowl comprising a basin provided through its bottom with an outlet opening, a hollow horn joining the basin around said opening and projecting downward therefrom, a discharge pipe having an inclined in-take leg, the lower end of which terminates in a bell-mouth presented laterally relative to the axis of said intake leg and upwardly toward the basin into which bell-mouth the hollow horn projects, said horn having a lateral discharge opening presented upwardly and rearwardly in the direction of the longitudinal axis of said uptake leg and an elastic packing ring surrounding the horn and through which the horn projects, whereby said packing ring contacts with the basin around the horn and with the margin of the bell-mouth of the up-take leg of the discharge pipe, and means for forcing the bowl and the bell-mouth of the discharge pipe toward each other for compressing the gasket and forming a water tight joint between them.

12. A plumbing fixture, having a bowl, comprising a basin, provided through its bottom with an out-let opening, a hollow horn joining the basin around said opening and projecting downward therefrom, a water box, one wall of which is formed by the front wall of said horn, a jet opening through which the water box and the interior of the horn communicate, a water-way or passage, one wall of which is formed by the rear wall of the basin, and separate waterways or passages extending around the outer sides of the horn and communicating with the water-way aforesaid, and communicating also with the water box on opposite sides, respectively, of the central plane of the horn, in combination with means for supplying water to the water-way first aforesaid, and a discharge pipe, the in-take end of which is in communication with the out-let of the basin, and is located opposite the jet opening.

[Claims 2, 4, 6, 7, 9 to 11, 13, and 14 not printed in the Gazette.]

1,253,507. SEWING-MACHINE. ARTHUR A. MERRITT, Worcester, Mass., assignor to Willcox & Gibbs Sewing Machine Co., New York, N. Y., a Corporation of New York. Filed July 21, 1916. Serial No. 110,560. (Cl. 270—34.)



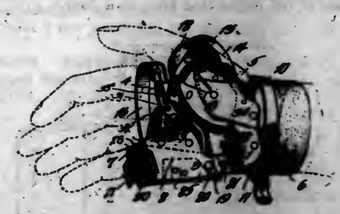
1. In a sewing machine, the combination with a work-arm having a free end, of stitch-forming mechanism operating at said free end of the work-arm, a folder-carrier positioned along one side of said free end of the work-arm and having a horizontal extension lying across the top of the work-arm, a folder attached to said horizontal extension and normally positioned in advance of the stitch-forming mechanism, and a hinge-connection securing said carrier to the work-arm and on which said carrier is adapted to be swung to shift the folder from its said normal position to an out-of-the-way position removed from the stitch-forming mechanism.

3. In a sewing-machine, the combination with a work-arm having a free end, of stitch-forming mechanism operating at said free end of the work-arm, a folder-carrier positioned along one side of said free end of the work-arm and having a horizontal extension positioned in a recess in the top of the work-arm, a folder attached to said horizontal extension and normally positioned in advance of the stitch-forming mechanism, a hinge-connection having an upright axis securing said carrier at one end to the work-arm and on which said carrier is adapted to be swung to shift the folder from its normal position to an out-of-the-way position removed from the stitch-forming mechanism, and a detent at the other end of the carrier holding the same in normal position and adapted to release the carrier to swing on its hinge.

[Claim 2 not printed in the Gazette.]

1,253,508. CORN-HUSKER. GUSTAVE L. MILLER, Geneseo, Ill. Filed May 31, 1917. Serial No. 172,060. (Cl. 130—4.)

1. A device of the character specified, comprising a plate shaped to fit the palm of the hand at the wrist and the base of the thumb and having a husking hook near the base of the thumb, a second plate pivotally connected to the first plate at the side remote from the husking hook, said plate being of a length to extend approximately to the first joint of the little finger and being curved to fit the bent finger, a third plate adapted to fit alongside the edge of the hand remote from the thumb and having an angular extension adjustably connected to the second plate, a bar adjustably connected to the second plate at the side adjacent to the thumb and adapted to extend between the thumb and the fore-finger and having a plate extending toward the fingers, and means for securing the device in place, sundry of the plates having shields of leather between them and the hand.



3. A device of the character specified, comprising a plate curved to fit the base of the palm and base of the thumb and having a husking hook, a second plate pivoted to the first plate at the corners of the plates remote from the thumb, said second plate being of a length to extend to approximately the first joint of the little finger and being curved to fit the finger when bent, a bar connected with said second plate at the side adjacent to the thumb and having a blade for coöperating with the curved portion of the plate, and means for securing the plates on the hand.

4. A device of the character specified, comprising a plate curved to fit the base of the palm and base of the thumb and having a husking book, a second plate pivoted to the first plate at the corners of the plates remote from the thumb, said second plate being of a length to extend to approximately the first joint of the little finger and being curved to fit the finger when bent, said second plate carrying at the side adjacent to the thumb a blade for coöperating with the curved portion, and means for connecting the plates to the hand.

6. A device of the character specified, comprising a plate having means for securing the same on the hand at the inner edge of the hand, a plate having an extension lying along the side of the edge of the hand to hold the plate at the side edge of the hand, said first named plate having a curved portion shaped to fit along the inner face of the little finger when the hand is partially closed, and carrying a blade at the opposite side from the second plate for coöperating with the curved portion of the first named plate for snapping corn.

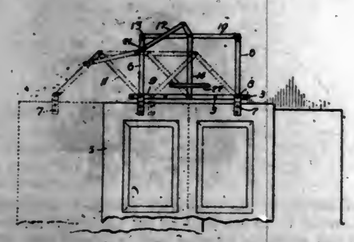
8. A device of the character specified comprising a plate having means for securing the same on the hand at the inner edge of the hand, means in connection with the said plate for engaging the edge of the hand to hold the plate at the side edge of the hand, said first named plate having a curved portion shaped to fit along the inner face of the little finger when the hand is partially closed, and carrying a blade at the opposite side from the hand-engaging means for coöperating with the curved portion of the first named plate for snapping corn.

[Claims 2, 5, and 7 not printed in the Gazette.]

1,253,509. DOOR-HANGER. NILS MILLER, Portland, Oreg., assignor, by mesne assignments, to Portland Industrial Company, a Corporation of Oregon. Filed Dec. 18, 1916. Serial No. 137,709. (Cl. 16—156.)

1. In a door hanger, the combination of a lower bar adapted to be secured to a support, parallel spaced arms rising from and pivoted to the said lower bar, an upper bar parallel with the lower bar and pivoted to the upper ends of the said spaced arms, supporting arms of a length substantially equal to the length of the said spaced arms, said supporting arms being pivoted adjacent their upper ends to the said upper bar at points coinciding with the points on which the said spaced arms are pivoted to the said upper bar, a lever arranged parallel with the spaced arms midway between them and pivoted to the lower and

upper bars, said lever having a portion extended beyond the upper bar and inclined toward one of the supporting arms, a link pivoted at one end to the extended portion of the lever above the upper bar, an adjustable connection between the opposite end of the link and the supporting arm toward which the extended portion of the lever is inclined, and means for pivotally connecting the lower ends of the supporting arms to a door.



3. A door hanger including spaced arms pivotally connected to a support, a bar extending between and pivotally connected to the arms, supporting arms arranged in spaced and parallel relation and pivoted at one end to the bar and adapted to be pivoted at their other ends to a door, a lever arranged between the first said arms and pivoted at one end to the support, the other end of the lever being extended beyond the connecting bar and inclined toward one of the supporting arms, and a link connection between the inclined portion of the lever and the supporting arm toward which said inclined portion is bent.

4. A door hanger including a bar, arms pivotally connected at one end to the bar and at their other ends being pivotally connected to a support, said arms being arranged in parallel relation, supporting arms pivotally connected with the bar and arranged in parallel relation and adapted to be pivotally connected with a door, a lever pivotally connected to the support at one end and being pivotally connected with the bar at a point intermediate the ends of the lever, and a connecting link having an adjustable pivotal connection with one of the supporting arms, said link being also pivotally connected with the lever adjacent the free end of the latter.

5. A door hanger including a pair of spaced arms pivotally connected at one end to a support, means connecting the arms for moving them in unison, supporting arms pivotally connected at one end to the said connecting means and adapted to be pivotally connected at their other ends to a movable object, a lever pivotally connected to the support and to the said connecting means for moving in unison with the said spaced arms, and a connecting link crossing the said connecting means and pivotally connected to the lever and one of the supporting arms.

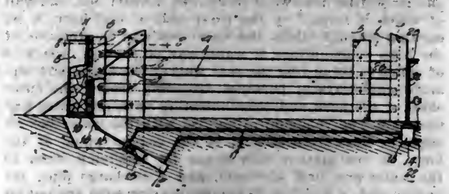
7. A door hanger including a parallelogram having spaced top and bottom bars and spaced end bars, all of the bars of the parallelogram being pivotally connected together at their intersecting points, supporting arms pivotally suspended from the parallelogram and adapted to be pivotally connected to a movable object, one of the bars of the parallelogram being fixed to a support, a lever pivotally connected with the fixed bar of the parallelogram and with the bar opposite the fixed bar, and mechanism actuated through movements of the lever for respectively causing the said spaced end bars and said supporting arms to be moved relatively in different angular relations on adjustment of said lever.

[Claims 2 and 6 not printed in the Gazette.]

1,253,510. GATE. VICTOR MILLER, St. Paul, Minn. Filed Apr. 12, 1917. Serial No. 161,513. (Cl. 39—50.)

1. The combination with a vertical post, of a plurality of parallel horizontal bars each pivoted adjacent one end to said post for vertical swinging, and a vertically elongated weight to which all of said ends are pivoted.

2. The combination with a vertical post, of a plurality of horizontal bars pivoted thereto adjacent one end for a vertical swinging, vertical bars to which said ends of



said horizontal bar are pivoted, and a vertically elongated housing secured to said vertical bar and adapted to contain a heavy material to serve as a weight.

[Claims 3 and 4 not printed in the Gazette.]

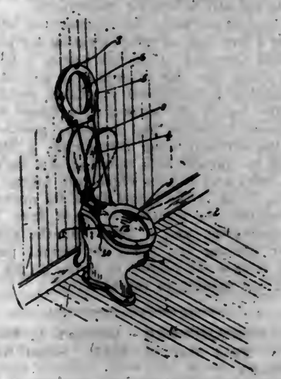
1,253,511. COAL-DRILL-SOCKET-RETAINING APPARATUS. JACOB C. MOLZA, Mulberry, Kans. Filed Dec. 7, 1916. Serial No. 135,605. (Cl. 255—30.)



1. In drill socket retaining apparatus for coal drills, a thread bar, a retainer pivoted within said thread bar, a retaining lug on said retainer and projecting from said thread bar, and a lip on said lug to lock a drill socket on said thread bar.

2. In drill socket retaining apparatus for coal drills, a thread bar, a retainer extending longitudinally of said thread bar and pivoted therein, a retaining lug on one end of said retainer and projecting from said thread bar, the opposite end of said retainer being heavier than the end provided with said lug, and said heavier end of said retainer inclining to the side of said thread bar opposite said retaining lug.

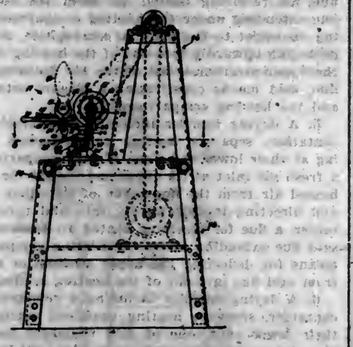
1,253,512. SANITARY TOILET-SEAT COVERING. GEORGE K. NAKASHIMA, Stockton, Cal. Filed Oct. 27, 1916. Serial No. 128,026. (Cl. 4—18.)



The combination with a toilet seat, of a plurality of sanitary papers shaped to fit the seat, means for suspending the papers above the seat, rods for guiding the papers onto the seat, rings turnably mounted on the edge of the seat, the rods being slidably projected through the rings.

1,253,513. [WITHDRAWN.]

1,253,514. HEEL-CUTTING APPARATUS. WILLIAM J. NESBITT, Los Angeles, Cal. Filed May 7, 1917. Serial No. 167,124. (Cl. 12—42.)

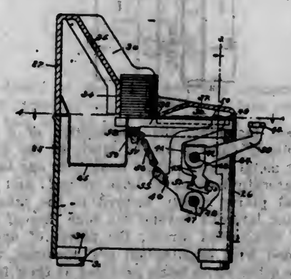


1. In heel cutting apparatus, the combination of a socket member, a cross arm provided with guideways at the ends thereof, said crossarm having a part thereon fitted in said socket member, stems fitted in said guideways, a bracket on one of said stems, a platform on the other of said stems, a shaft mounted on said bracket, a circular saw on said shaft, a shoe holding device, and means carried by the platform for adjusting said shoe holding device.

2. In heel cutting apparatus, the combination of a socket member, a crossarm provided with a part fitted in said socket member, stems adjustably mounted at the ends of said crossarm, a bracket on one of said stems, a platform tiltably mounted on the other of said stems, a shaft mounted on said bracket, a circular saw on said shaft, a shoe holding device, and means carried by said platform for adjusting said shoe holding device.

[Claims 2 and 4 to 8 not printed in the Gazette.]

1,253,515. CHANGE-MAKING MACHINE. FREDERICK A. NIEMANN, Chicago, Ill., assignor to Niemann and Company, Chicago, Ill., a Corporation of Illinois. Filed July 15, 1915. Serial No. 39,991. (Cl. 133—5.)



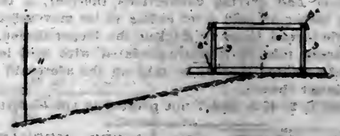
1. In a change making machine, the combination of a coin ejecting slide formed with a slot, a lever, one end of which is rounded and projects into said slot, a manipulated lever, and means providing a connection whereby lost motion is prevented between said levers comprising a rounded end on one of said levers and a socket to receive the same formed on the other lever.

3. In a change making machine, the combination of a coin ejecting slide formed with a slot, a lever having a longer arm terminating in a rounded end engaging said slide through the slot, and a short arm formed with a laterally extending pair of lugs providing a socket, a lever fulcrumed above said first named lever having an arm terminating in a rounded element the periphery of which projects between and bears against the lugs of the first named lever, and an arm provided with a finger key.

4. In a change making machine, the combination of a casing provided with a coin pocket, an ejecting slide provided with a hooked extension on its ejecting end which is narrow relative to the diameter of the coin operated upon and in length is substantially the same as the diameter of said coin.

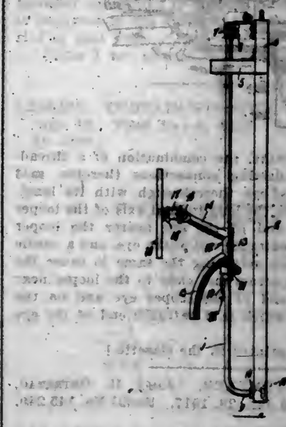
[Claim 2 not printed in the Gazette.]

1,253,516. TERRACE-MARKER. WILLIAM C. NORRIS, Mount Pleasant, Tex. Filed Mar. 18, 1916. Serial No. 85,117. (Cl. 33—73.)



A marker including a relatively short top rail having a straight top edge for sighting a target, a relatively long bottom or supporting rail arranged in spaced relation to the top rail, connecting members connecting the opposite end portions of the top and base rails, said top rail constituting a handle for adjusting and conveying the marker, and a spirit level set into the top rail flush with the straight top edge of the latter.

1,253,517. ADJUSTABLE SUPPORT FOR MIRRORS. JAMES R. OLINGER, Del Rey, Cal. Filed June 28, 1917. Serial No. 177,526. (Cl. 45—97.)



2. A support of the class described comprising a T-shaped base plate, means for attaching said plate to a support, foldable shelves carried by the head of said plate and spaced longitudinally from each other, a rod mounted on said plate and extending between said shelves and spaced laterally from the front face of the plate, and an article supporting hanger adjustably mounted on said rod.

[Claims 1 and 3 not printed in the Gazette.]

1,253,518. SEWING-MACHINE TAKE-UP. GARRET B. OSTERHOUT, Providence, R. I., assignor to Willcox & Gibbs Sewing Machine Co., New York, N. Y., a Corporation of New York. Filed Oct. 23, 1916. Serial No. 127,180. (Cl. 112—26.)

3. In a sewing machine, the combination of a looper-lever mounted to move longitudinally and laterally in an approximately horizontal plane, a looper or loopers

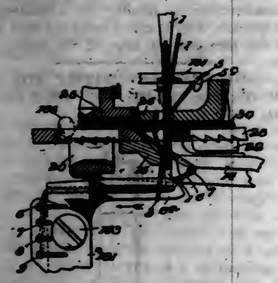
on said lever at one end thereof, driving means imparting movement to the other end of said lever in a continuous curved path in an approximately horizontal plane, and looper-thread take-up means including a movable member attached to and actuated by the lever and a coöperating stationary member.



6. In a sewing machine, the combination with a thread-carrying needle and driving connections therefor, of a looper-lever and driving connections therefor, a thread-carrying looper on said lever acting in its movement into the needle-thread loops to slacken the looper-thread, and looper-thread take-up means associated with said looper-lever and actuated thereby to take up the aforesaid slack of the looper-thread.

[Claims 1, 2, 4, 5, and 7 not printed in the Gazette.]

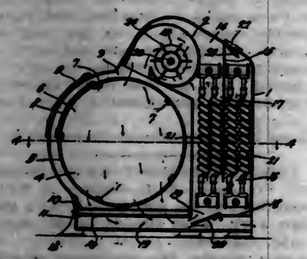
1,253,519. LOOPER AND LOOPER MECHANISM. GARRET B. OSTERHOUT, Providence, R. I., assignor to Willcox & Gibbs Sewing Machine Co., New York, N. Y., a Corporation of New York. Filed Apr. 5, 1917. Serial No. 159,983. (Cl. 112—5.)



1. In a sewing machine, the combination of a thread-carrying looper and driving connections therefor, said looper having a thread-eye therethrough with its longitudinal axis diagonal to the longitudinal axis of the looper and the thread exit end of the eye nearer the looper point than the thread entrance end of the eye, and a needle and driving connections actuating the same to cause the point thereof to move across and close to the looper near the thread entrance end of the looper eye and on the side of the looper at which said entrance end of the eye is located.

[Claims 2 to 4 not printed in the Gazette.]

1,253,520. DRYING-TUMBLER. JOHN H. OSTERTAG, Columbia, Pa. Filed Jan. 29, 1917. Serial No. 145,240. (Cl. 34—5.)



4. A drying tumbler including a revoluble container, separate heating compartments communicating at their lower ends, one of said compartments having a fresh air inlet, means for withdrawing heated air from the other compartment and directing it through the container, a flue for receiving heated air from the container, said flue extending under the heating compartments and having an outlet to the external atmosphere, and means for deflecting upwardly into one of the heating compartments the upper stratum or all of the air contained within the flue, said means constituting a closure between the flue and the heating compartment.

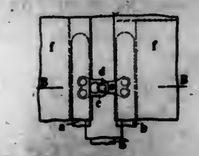
5. A drying tumbler including a revoluble foraminous container, separate heating compartments communicating at their lower ends, one of said compartments having a fresh air inlet at its upper end, means for withdrawing heated air from the upper end of the other compartment and directing it downwardly into and through the container, a flue for receiving heated air from the container, said flue extending under the heating compartments, and means for deflecting the upper stratum or all of the air from said flue into one of the heating compartments.

6. A drying tumbler including a revoluble foraminous container, separate heating chambers communicating at their lower ends, one of said chambers having a fresh air inlet at its upper end, means for withdrawing heated air from the upper end of the other chamber and directing it downwardly through the container, a flue for receiving heated air from the container, said flue extending under the heating chamber, separating means interposed between the flue and the container, and means for deflecting into one of the heating chambers the upper stratum or all of the heated air within the flue.

8. A drying tumbler including a revoluble foraminous container, air heating means, means for directing the heated air downwardly through the container, an elongated flue for receiving said air and effecting its separation into an upper dry stratum and a lower moist stratum, means for directing to the heating means the upper dry stratum or all of the air leaving the container, and means for separating lint from the air when leaving the container and before entering the flue.

[Claims 1 to 3 and 7 not printed in the Gazette.]

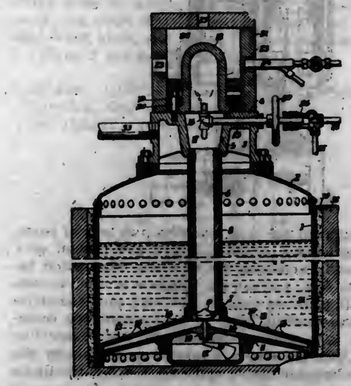
1,253,521. BUSK AND STAY-FASTENING. HENRY THÉOPHILE OZANNE, Paris, France. Filed Mar. 28, 1914. Serial No. 827,983. (Cl. 24—222.)



In a corset fastening, the combination of a pair of blades completely covered by the fabric of the corset; a series of flat metal plates rigidly secured to one blade and projecting laterally beyond the edge thereof; and a series of flat metal plates rigidly secured to the other blade and projecting laterally beyond the edge thereof directly toward the first-named series; the plates of one series being provided with longitudinal eye openings, and the plates of the other series being provided at their free ends with headed studs engageable directly in said openings; the stems of said studs having the same thickness as the plates wherein said openings are formed, and the length of the plates to which said studs are fixed being such as to permit the engagement of the studs in said openings without touching the said fabric covering said blades.

1,253,522. INTERNAL-COMBUSTION STEAM-GENERATOR. FRANKLIN M. PATTERSON, Jersey City, N. J., assignor, by mesne assignments, to Everlasting Valve Company, a Corporation of New Jersey. Filed Oct. 18, 1915. Serial No. 56,422. (Cl. 60—31.)

1. In an internal combustion generator, an inclosed water chamber having a steam dome at its top formed with a tubular central portion, combined with a detachable igniting cap tightly fitting the top of the steam dome over the tubular portion thereof, heating means surrounding the igniting cap whereby it may be raised to a state of high temperature, a tubular expansion from the tubular passage in the dome and having its lower end near the bottom of the water chamber and constituting with the tubular part of the steam dome a combustion chamber, means at the bottom of the water chamber for distributing the products of combustion in a subdivided condition, and means for supplying fuel and oxygen into the combustion chamber, comprising a nozzle within the combustion chamber, a rotary tubular part extending through the dome and by which the nozzle may be directed upward toward the igniting cap or downward into the combustion chamber, and means for supplying fuel and oxygen to the rotary tubular part.



[Claims 2 to 9 not printed in the Gazette.]

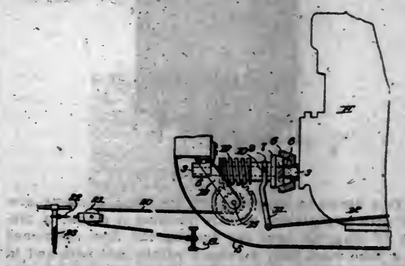
1,253,523. NUT-LOCK. JOHN PENIOZAK, Pe Ell, Wash. Filed Apr. 19, 1917. Serial No. 163,166. (Cl. 151—24.)



1. A device of the kind described comprising a nut having a recess at one side of its top face and intersecting the bolt hole of said nut, a clamp plate having one end pivoted to the nut in said recess and arranged to swing against a bolt passing through the bolt hole of the nut, said nut being provided with a screw threaded opening adjacent the free end of the clamp plate, and a screw threaded into said opening and provided with a head for engagement by a turning tool, said screw having beneath said head an inverted frusto-conical portion constituting a rotary wedge and bearing against the outer side of the clamp plate to force the latter toward the bolt hole as the screw is screwed down.

2. A device of the kind described comprising a nut having a recess at one side of its top face and intersecting the bolt hole of said nut, a clamp plate having one end pivoted to the nut in said recess and arranged to swing against a bolt passing through the bolt hole of the nut, said nut being provided with a screw threaded opening adjacent the free end of the clamp plate, a screw threaded into said opening and provided with a head for engagement by a turning tool, said screw having beneath said head an inverted frusto-conical portion constituting a rotary wedge and bearing against the outer side of the clamp plate to force the latter toward the bolt hole as the screw is screwed down, said plate having a segmental notch into which said wedge fits and being further provided with a screw threaded notch for engagement with the bolt extending through the bolt hole.

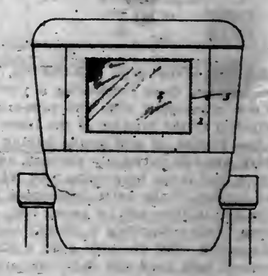
1,253,524. AUTOMOBILE-PULLING ATTACHMENT. ALBERT E. PHALEN, Sandusky, Wis. Filed June 9, 1917. Serial No. 173,815. (Cl. 254—166.)



2. The combination with the frame and engine of a motor vehicle, a gear fixed to the shaft of the engine, a counter-shaft mounted for rotation on said frame, a gear carried loosely by said counter-shaft and meshing with the gear on said engine shaft, a clutch member fixed to said loose gear, a coöperating clutch member mounted to slide on said counter-shaft, means for engaging said clutch members to connect said shafts, a coil spring arranged between said members to force them normally apart, a shaft mounted to rotate in a plane at right angles to said counter-shaft and connected to be operated thereby, a drum loosely mounted on said shaft, means for detachably connecting said drum and shaft, whereby motion is imparted to the drum from the shaft, and a cable carried by said drum.

[Claim 1 not printed in the Gazette.]

1,253,525. CURTAIN-WINDOW. MENDEL PIANKO, Chicago, Ill. Filed May 9, 1917. Serial No. 168,782. (Cl. 21—220.)



2. A curtain light made of a plurality of thin sheets of celluloid united by the means for securing the light to the curtain and otherwise free of connection, and an interposed sheet of gelatin.

3. A flexible light made up of a plurality of thin transparent flexible sections secured together and to the curtains adjacent their edges, the sections being permitted independent yielding throughout their transparent area.

[Claim 1 not printed in the Gazette.]

1,253,526. SUNKEN-SHIPS-EMERGING APPARATUS. SILVIO PELLICO PORTELLA, São Paulo, Brazil. Filed Apr. 24, 1917. Serial No. 164,147. (Cl. 114—54.)

1. In a device of the character described, a rigid casing formed with a plurality of bracing members including a wire mesh body, anchoring means connected to said cas-

ing, and an inflatable bag arranged in said casing formed of such a size as to fill the casing when fully inflated.



3. In a device of the character described, a casing provided with a plurality of bars forming a frame, a plurality of diagonal bars for bracing the first mentioned bars, a wire mesh body arranged within said bars and in contact therewith, a pneumatic bag arranged within said wire mesh body and adapted to fill the same when fully inflated, a plurality of U-shaped tensioning members straddling said casing, and anchoring devices connected with each of said U-shaped members.

[Claims 2 and 4 not printed in the Gazette.]

1,253,527. SOUND-BOX. RICHARD JAMES PRETTIE, Jamaica, N. Y., assignor to The Aeolian Company, a Corporation of Connecticut. Filed Jan. 26, 1915. Serial No. 4,494. (Cl. 274—24.)



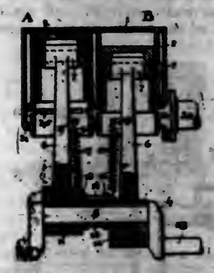
1. In combination, a tone-arm, a sound-box, and connecting means between them comprising a tubular neck on the sound-box telescoping with the tone-arm, and a leaf spring attached to the interior of the inner telescoping part, the free portion of said spring having a lateral projection which extends outwardly through an opening provided for it in said inner telescoping part into contact with the inner surface of the outer telescoping part.

3. In combination, a tone arm; a sound box; and connections between them comprising a tubular neck on the sound box telescoping with the tone arm, a pin-and-slot connection between said neck and said tone arm for accurately locating the sound box with relation to the tone arm and to hold it against rotation, and spring means within the interior of the inner telescoping part located opposite said locating means and extending through an opening provided for it in the said inner telescoping part into direct contact with the inner surface of the outer telescoping part, thereby to positively secure said neck and tone arm together in such telescoped and located relation, so as to prevent rattling of the sound box.

[Claim 2 not printed in the Gazette.]

1,253,528. INTERNAL-COMBUSTION ENGINE. SIDNEY A. REEVE, Tompkinsville, N. Y. Filed Apr. 15, 1914. Serial No. 832,034. (Cl. 123—78.)

1. In an engine of the type described, the combination of a plurality of pistons and cylinders, a crank-pin common to the pistons, and unconstrained means located between said pistons and crank-pin for displacing the pistons relatively to the crank-pin in different directions, said means being actuated by the forces on the pistons and so formed that said forces always combine therein in stable equilibrium, substantially as described.



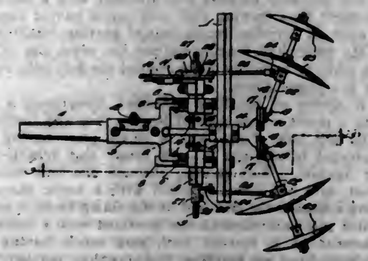
5. In an engine of the type described, two sets of parts, each set comprising a cylinder, piston and pitman or a plurality of such, arranged for alternate combustion between the two sets, a crank-pin common to the two sets a sleeve rotating unconstrainedly on said pin, eccentrics forming pitman-journals fixed on said sleeve, the eccentrics bearing such angular relation to their respective cylinder-axes that the sleeve is rotated on the pin by the piston-forces always in stable equilibrium, substantially as described.

7. In an engine of the type described, two sets of parts, each set comprising a cylinder and a piston or a plurality of such, arranged for alternate combustion between the two sets, a crank-pin common to the two sets, an annular exhaust-port in each cylinder at the extreme point toward the crank-pin overrun by the piston, and unconstrained means located between piston and crank-pin and actuated by the piston-forces for displacing away from the crank-pin the piston momentarily subject to minor force by permitting the piston momentarily subject to major force to approach gradually the crank-pin, toward a dead-center position of said means, said means being always in stable equilibrium, substantially as described.

10. In an engine of the type described, the combination with a plurality of cylinders and pistons, of a crank pin common to the pistons, a pitman for each piston, and an eccentric member rotating unconstrainedly on said crank pin and forming a journal for the said plurality of pitmen, the piston axes being arranged in such angular relation to the eccentric-radii that the eccentric member is rotated by forces on the pistons always in stable equilibrium, substantially as described.

[Claims 2 to 4, 6, 8, and 9 not printed in the Gazette.]

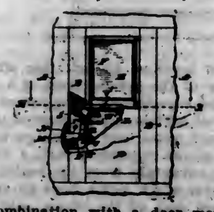
1,253,529. ATTACHMENT FOR LISTER-CULTIVATORS. WILLIAM F. RESCHKE, Wichita, Kans. Filed Aug. 20, 1917. Serial No. 187,183. (Cl. 97—37.)



1. In a lister cultivator, the combination of a transverse rockable frame member and means for rocking it, a pair of spaced standards depending rigidly from said frame member and wheels on the lower ends of said standards, a single inclined arm secured rigidly at its upper end to said frame member between said standards, the lower end of said arm being disposed centrally in rear of said wheels and having a pair of substantially vertical bearings, a pair of transverse disk-carrying shafts pivoted at their inner ends to said bearings for horizontal swinging, links extending forwardly from said shafts, crank arms to which said links are connected, a transverse rock shaft adjacent said frame member and carrying said crank arms, and means for rocking said shaft.

[Claim 2 not printed in the Gazette.]

1,253,530. LATCH FOR AUTOMOBILE-DOORS. JOHN RITCHIE, New York, N. Y. Filed Mar. 2, 1917. Serial No. 152,027. (Cl. 70—42.)



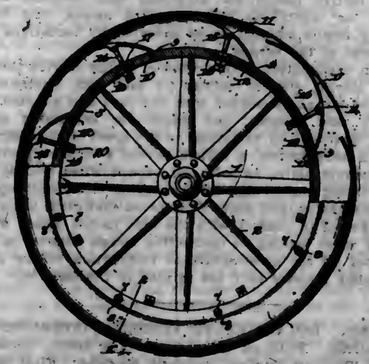
1. The combination with a door member, of latching means therefor comprising a bolt, means for normally throwing the bolt to locking position, and means for retracting said bolt including an elongated pivoted member lying at the upper edge of the door and adapted to be depressed, for the purpose described.

2. The combination with a door member, of latching means therefor comprising a bolt, means for normally throwing the bolt to locking position, and means for retracting said bolt including an elongated pivoted member lying at the upper edge of the door and adapted to be depressed, and a pivoted lever engaging said member at one end and at its other end engaging the bolt.

3. The combination with a door member, of means for latching the same comprising a bolt, means for normally throwing the bolt to latching position, and means for retracting the bolt comprising a pivoted lever engaging the bolt at one end and at its other end being offset, and an elongated pivoted member at the upper edge of the door member engaging said offset end of said lever, substantially as described.

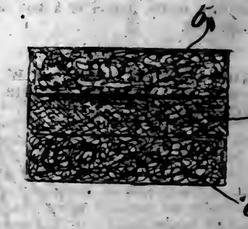
[Claims 4 to 17 not printed in the Gazette.]

1,253,531. RESILIENT WHEEL. SAMUEL A. ROBERTS, Corsicana, Tex. Filed Nov. 19, 1913. Serial No. 801,974. (Cl. 153—38.)



A resilient wheel including a rim and a tread movably carried thereby, a plurality of arcuate springs carried by said rim and in engagement with said tread, each of said springs having an enlargement thereon providing a flat face disposed parallel to said rim and tension controlling means for each spring including a head for engagement with the flat faces of said enlargements.

1,253,532. FUR-MIXED FELT. CHARLES A. ROBINSON, Beacon, N. Y., assignor to Ralph S. Tompkins, Fishkill-on-the-Hudson, N. Y. Filed Dec. 22, 1913. Serial No. 808,144. (Cl. 38—7.)

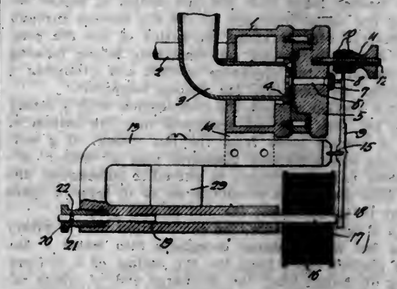


1. A fur mixed felt of substantially uniform composition throughout formed by placing a previously formed bat of fur upon a bat of wool and working the composite bat thus formed to thoroughly mix the two materials.

4. A fur mixed felt of substantially uniform composition throughout formed by carding a composite bat made up of a bat of fur placed between two bats of wool.

[Claims 2 and 3 not printed in the Gazette.]

1,253,533. SOUND-TRANSMITTING APPARATUS. HARRISON W. ROOKER, New York, N. Y. Filed Apr. 19, 1916. Serial No. 92,200. (Cl. 179—108.)



1. The combination with a pneumatic sound box and its controlling valve, of a permanent magnet, an armature controlling said valve, and an electromagnet having a core adjustably carried by the permanent magnet and forming a part of the magnetic circuit, there being an air gap between said core and armature which can be controlled by the adjustment of the core, and the armature being responsive to the electromagnet.

3. The combination with a pneumatic sound box and its controlling valve, of electro-magnetic means for controlling said valve, including a permanent magnet, an adjustable core mounted in said magnet, a coil surrounding said core, and an armature lever operably connected to the valve at one end and disposed in attractive relation to the core, said core being adjustable to regulate the air gap between it and the armature.

[Claims 2, 4, and 5 not printed in the Gazette.]

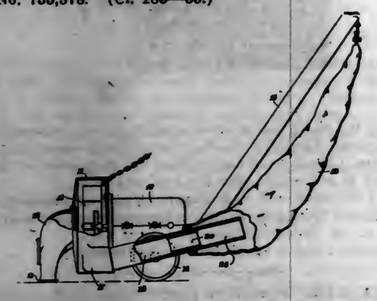
1,253,534. PROCESS OF PRODUCING NITROGEN SIMULTANEOUSLY WITH OXIDS OF NITROGEN. MARTIN ROHMER, Gersthofen, near Augsburg, Germany, assignor to Farbwerke Vorm. Meister Lucius & Bruning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed Apr. 16, 1914. Serial No. 832,236. (Cl. 23—21.)

1. The process of producing nitrogen and oxids of nitrogen, which consists in burning ammonia in presence of

oxygen and nitrogen, the proportion of oxygen to nitrogen being higher than in atmospheric air, the reaction mixture containing a high percentage of ammonia, and just sufficient oxygen to oxidize the hydrogen-component of the ammonia to water and its nitrogen-component to lower or higher oxids of nitrogen.

2. The process of producing nitrous gases which consists in provjding a mixture of oxygen, air and ammonia containing sufficient oxygen to sustain the reaction, and subjecting said mixture to the action of a hot catalyzer, substantially as described.

1,253,535. SUCTION-CLEANER. WILLIAM W. ROSENFIELD, New York, N. Y. Filed Mar. 20, 1913. Serial No. 755,578. (Cl. 183—35.)



1. In a suction cleaner, the combination with a rotary suction fan and a porous receptacle into which a discharge conduit leads from the fan casing, of means for muffling the sound produced by the air passing through the discharge conduit under the action of the fan comprising a piece of flexible self-sustaining tubing forming an extension of the discharge conduit and extending a substantial distance into the porous receptacle.

2. In a suction cleaner, the combination with a rotary suction fan and a porous receptacle into the bottom of which a conduit leads from the fan casing, of a self-sustaining sound muffling discharge pipe of flexible rubber fabric tubing arranged to extend a substantial distance into the porous receptacle so as to leave a space for dirt to collect about the end of said pipe.

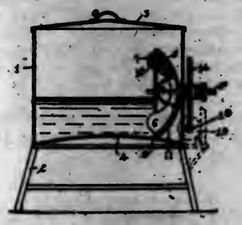
3. In a suction cleaner, the combination with a rotary suction fan and a porous receptacle into which a discharge conduit leads from the fan casing, of a self-sustaining discharge tube, the discharge end of which extends a substantial distance into the porous receptacle and which is of a length greater than that of a tube which will respond to vibrations of the air corresponding to the lowest normal operating speed of the fan and less than twice the length of the shortest tube which will respond to vibrations corresponding to the highest normal operating speed of the fan.

4. In a suction cleaner, the combination with a rotary suction fan and a dust receptacle of porous flexible material supported from a vertically swinging pivoted handle rod and connected at its lower end to the discharge conduit leading from the fan casing, of a flexible and normally non-collapsing discharge tube extending from the discharge conduit into the dust receptacle so as to leave space for dirt to collect about said tube.

1,253,536. WASHING-MACHINE. PETER F. SCHNEIDER, Detroit, Mich. Filed Nov. 26, 1915. Serial No. 63,412. (Cl. 259—106.)

1. In a washing machine, a tub cylindrical in form with the longitudinal axis thereof in vertical position, an agitating wheel having the general form of a frustum of a hollow sphere provided with paddles, and means for rotating the wheel.

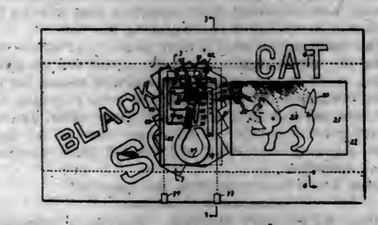
3. In a washing machine, an agitating wheel having the general form of a frustum of a hollow sphere, blades secured in the inner hollow face thereof forming pockets between the blades adapted to pick up a quantity of water in the tub, and a dome shaped central portion over which the water flows from the pockets by gravity whereby the clothes being washed are forced away from the center of the wheel.



5. In a washing machine, an agitating wheel having a sheet metal base of the general form of a frustum of a hollow sphere, the edge thereof being turned to provide a narrow cylindrical portion, blades secured in the inner surface of the sheet metal base having parts extending beyond the plane of the cylindrical part, a dome shaped portion extending outwardly from the center of the inside of the base over which water flows by gravity from the pockets between each of the blades, said cylindrical portion providing a means guiding the water thrown outwardly by centrifugal force in a direction substantially parallel with the axis of revolution.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,253,537. ADVERTISING DEVICE. RICHARD J. SCHUHMANN, Louisville, Ky., assignor of one-half to George N. Bosler, Louisville, Ky. Filed Dec. 23, 1916. Serial No. 138,576. (Cl. 46—40.)



1. In combination with a vehicle, sign supporting means, a card sign, a moving element associated therewith, motive means for actuating said element, and means for controlling said actuating means, said controlling means adapted to be actuated by variations in the speed of the vehicle.

3. In combination with a vehicle, a sign carried thereby, a moving element carried by said sign, electrically operated means associated with the card and adapted to actuate said element, and means for energizing said motor controlled by variations in the speed of the vehicle.

8. In combination, a vehicle having a sign supporting rail, contact plates on said rail, circuit wires leading to said contact plates, sign cards carrying electrically operated mechanism and contact plates on said cards adapted to be placed in contact with the first named plates, said circuit wires leading to controlling means adapted to be actuated by the acceleration or retardation of the car.

[Claims 2 and 4 to 7 not printed in the Gazette.]

1,253,538. ROTARY-VALVE INTERNAL-COMBUSTION ENGINE. WILLIAM CHARLES HORACE SCOTT, London, and WILLIAM ROBINS, Dartford, England. Filed Mar. 15, 1916. Serial No. 84,894. (Cl. 123—59.)

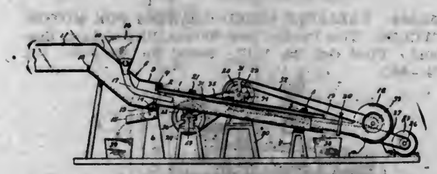
1. In combination, a valve cylinder and a valve therein, the said valve being provided with a spring section consisting of a curved plate having a reduced central portion with inclined edges, the said section being adapted under external pressure to flatten and spread its edges against the cylinder wall to form a tight joint.



2. A rotary valve for internal combustion engines comprising a hollow chamber acting as a passage and vaporizer for the fuel, a conduit leading therefrom and adapted to meet the cylinder port at the time of induction, a surface conduit in the valve adapted to meet the cylinder port at the time of exhaust and a spring section in the valve adapted to spread thereby closing more tightly the cylinder port during and after explosion.

3. A rotary valve for internal combustion engines comprising a hollow chamber acting as a passage and vaporizer for the fuel, a plurality of conduits leading therefrom and adapted to meet in turn the ports of a corresponding number of cylinders at the time of induction, surface conduits in the valve adapted to meet the cylinder ports at the time of exhaust, spring sections in the valve adapted to spread thereby closing more tightly the cylinder ports during and after explosion and piston rings separating each portion of the rotary valve from the neighboring portion.

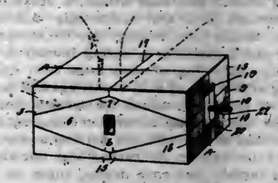
1,253,539. APPARATUS FOR RECLAIMING METALS FROM WASTE. ELWOOD E. SEACRIST, Meadville, Pa. Filed Aug. 1, 1917. Serial No. 183,933. (Cl. 83—54.)



1. A device of the character described, comprising a rotary inclined barrel provided with projections on its inner periphery, an exhaust pipe surrounding and communicating with the upper end of said barrel and inclined upwardly at a greater angle than said barrel, a feed hopper extending through said exhaust pipe and into the upper end of said barrel, said exhaust pipe being provided in its lower side adjacent said barrel with an opening, a baffle plate at the upper end of the bottom of said exhaust pipe, and an air blast conducting pipe extending into the lower end of said barrel and spaced from the periphery thereof.

2. A device of the character described comprising an inclined rotary barrel, a blast conducting pipe extending axially into the lower end thereof, a stationary exhaust pipe inclined in the same direction as and at a greater angle than said barrel and having its lower end surrounding and communicating with the upper end of said barrel, a feed hopper extending through the top of said exhaust pipe and into said barrel, the lower end of the bottom wall of said exhaust pipe being provided with an opening adjacent the end of said barrel, a vertical baffle plate secured upon the highest portion of the bottom wall of said inclined exhaust pipe, and a horizontal discharge pipe of the same diameter as and communicating with the upper end of said exhaust pipe.

1,253,540. KEEL-BLOCK. SAMUEL N. SHELLY, Portsmouth, Va. Filed June 26, 1917. Serial No. 177,105. (Cl. 61—11.)



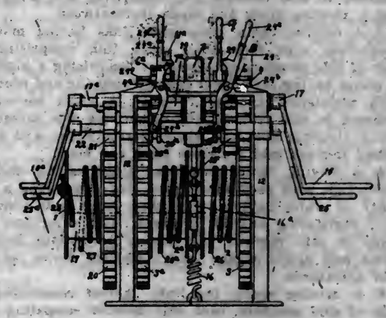
1. In a device of the class described, comprising a core provided with a longitudinal and a transverse bore intersecting one another at the transverse center of the core, a plurality of movable wedges mounted on said core, a bearing in the transverse bore of the core, and an adjusting screw journaled in said bearing and located in the longitudinal bore of the core for effecting the adjustment of the members in a longitudinal direction of the core.

3. In a device of the class described, comprising a diamond-shaped core provided with a longitudinal and a transverse bore intersecting one another at the transverse center of the core, a plurality of movable wedges mounted on said core, a bearing in the transverse bore of the core, an adjusting screw journaled in said bearing and located in the longitudinal bore of the core for effecting the adjustment of the members longitudinally of and in a direction toward the free transverse edges of the core, and means for preventing any movement of the wedge-shaped members in a direction laterally of the core.

5. In a device of the class described, comprising a diamond-shaped core provided with a bore, an adjusting screw of a length exceeding the length of the bore being mounted within the bore thereof positioning the extremities thereof beyond the free transverse edges of said core, the extended extremities of the adjusting screw being oppositely threaded, a plurality of wedge-shaped members movably mounted on said core, and means loosely mounted in the ends of the wedges and in which the reverse threaded ends of the adjusting screw engage for imparting a spreading or contracting action to the wedge-shaped members, said last named means further producing a simultaneous operation of said wedge-shaped members upon the manipulation of the adjusting screw.

[Claims 2 and 4 not printed in the Gazette.]

1,253,541. WINCH MECHANISM FOR RAISING AND LOWERING LIFE-BOATS. EINAR L. M. SIVARD, Amityville, N. Y. Filed Mar. 15, 1915. Serial No. 14,582. (Cl. 254—184.)



1. Winch mechanism for raising and lowering lifeboats embodying therein two rope drums, ropes on said drums adapted to be connected at opposite ends of the lifeboat, a common braking mechanism for both drums and means

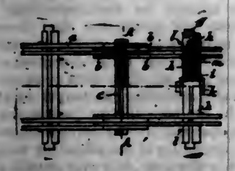
for independently engaging each rope drum to stop paying out of rope therefrom.

3. Winch mechanism for raising and lowering lifeboats embodying therein two rope drums, a brake drum operatively connected with and controlling said rope drums, controlling means for locking the brake drum against movement and permitting releasing thereof to permit the simultaneous unreeling of rope from both drums, means for locking either one of said drums against rotation independently of the other, means for driving the rope drums to hoist the lifeboat and means for engaging or disengaging one of said drums with the driving means.

9. Winch mechanism for raising and lowering lifeboats embodying therein two rope drums, ropes on said drums adapted to be connected at opposite ends of a lifeboat, a common braking mechanism for controlling both drums simultaneously, an independent lowering stop for each drum, levers for moving each stop into and out of operative position, driving means for said rope drums, independent coupling levers for engaging and disengaging the driving means to the respective rope drums and a projection on said coupling levers projecting into the path of movement of the stop levers.

[Claims 2 and 4 to 8 not printed in the Gazette.]

1,253,542. DRIVING-CHAIN. FRIEDRICH WILHELM SOHNLEIN, CARL KUSENBERG, and MAX FRANZ, Wiesbaden, Germany. Filed Feb. 24, 1915. Serial No. 10,192. (Cl. 74—64.)



1. A driving chain, the links thereof comprising a pair of side members each comprising a plurality of plates having their ends overlapping the ends of plates of the adjacent links, said ends being provided with recesses having an inwardly curved edge on the side nearest to the end of the link; and a curved plate disposed in said recesses and bearing against a similarly curved plate in an adjacent link, and provided with shoulders bearing against the sides of the plates.

2. A driving chain comprising links having movable connection with each other, each link comprising a pair of side members each member comprising: a plurality of plates having their inner ends overlapping and provided with registering angular recesses; and a block connection disposed in said recesses and comprising side armatures and a yielding block and blade therebetween.

3. A driving chain comprising links having movable connection with each other, each link comprising: a pair of side members each member comprising a plurality of plates having their inner ends overlapping and provided with registering angular recesses; a block connection disposed in said recesses and comprising side armatures and a yielding block and blade therebetween; and a pin passed through said armature block and blade.

4. A driving chain comprising links having movable connection with each other, each link comprising a plurality of plates having overlapping inner ends provided with registering angular recesses; side armatures disposed in said recesses and having projections between which said plates engage; and a yielding device between said armatures.

8. A driving chain, the links thereof comprising: a pair of side members, each side member consisting of a plurality of plates overlapping at their inner ends, and at their outer ends overlapping similar plates of adjacent links, each plate being provided with a longitudinal recess having a curved outer end and formed into a partial rectangular parallelogram at its inner end; curved plates disposed in said outer ends of the recesses contacting similar curved plates of adjacent links and provided with shoulders engaging the sides of said members; block connections disposed in said parallelograms and comprising side armatures and a yielding block and blade therebetween; and a pin passed through said armatures, block and blade.

[Claims 5 to 7 not printed in the Gazette.]

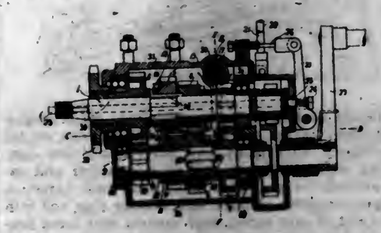
1,253,543. AGITATOR-CONVEYER FOR DRIERS AND THE LIKE. FRANCIS J. STOKES, Philadelphia, Pa. Filed June 3, 1916. Serial No. 101,600. (Cl. 259—109.)



1. In apparatus of the type recited the combination of a stationary normally closed casing, and revoluble agitator-conveyer flights of right and lefthand spiral direction adapted to coöperate with the wall of the casing and of which one is continuous and the other consists of sections spaced apart at the crossings of the pitch lines of the spirals, substantially as described.

2. In apparatus of the type recited the combination of a stationary normally closed casing, and revoluble agitator-conveyer flights of right and lefthand spiral direction adapted to coöperate with the wall of the casing and of which one is continuous and the other comprises sections spaced apart at the crossings of the pitch lines of the spirals and also other sections arranged on parallel spiral lines and opposite the spaces between the first mentioned sections.

1,253,544. VARIABLE-SPEED GEARING FOR MOTOR-CYCLES. TOM PENTON STUCHFIELD, Birmingham, England. Filed Oct. 23, 1917. Serial No. 198,069. (Cl. 74—59.)

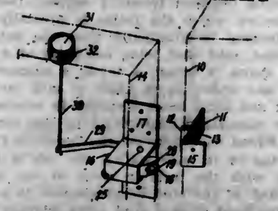


1. A four speed gear embodying in combination a gear box; a counter shaft; a hollow shaft around the counter shaft; a gear wheel integral or fixed to the hollow shaft and having clutch teeth on its one face; a second gear wheel splined on the counter shaft and having clutch teeth adapted to engage with the clutch teeth on the first wheel; a third gear wheel free on the counter shaft and having clutch teeth on its face; a fourth gear wheel keyed to the counter shaft and having clutch teeth adapted to be engaged by the clutch teeth on said third gear wheel; a lay shaft; a first lay shaft wheel keyed to said lay shaft meshing with the first counter shaft wheel and having clutch teeth on its face; a second wheel free on the lay shaft meshing with the second counter shaft wheel and having clutch teeth adapted to engage with the teeth on the first lay shaft wheel; a third wheel splined on the lay shaft meshing with the third counter shaft wheel and having clutch teeth; and a fourth wheel free on the lay shaft meshing with the fourth counter shaft wheel and having clutch teeth adapted to be engaged by the said clutch teeth on the third lay shaft wheel all arranged and operating substantially as set forth.

3. A four speed gear embodying in combination a gear box; a counter shaft; a hollow shaft around the counter shaft; a gear wheel integral or fixed to the hollow shaft and having clutch teeth on its one face; a second gear wheel splined on the counter shaft and having clutch teeth adapted to engage with the clutch teeth on the first wheel; a third gear wheel free on the counter shaft and having clutch teeth on its face; a fourth gear wheel keyed to the counter shaft and having clutch teeth adapted to be engaged by the clutch teeth on said third gear wheel; a lay shaft; a first lay shaft wheel keyed to said lay shaft meshing with the first counter shaft wheel and having clutch teeth on its face; a second wheel free on the lay shaft meshing with the second counter shaft wheel and having clutch teeth adapted to engage with the teeth on the first lay shaft wheel; a third wheel splined on the lay shaft meshing with the third counter shaft wheel and having clutch teeth; a fourth wheel free on the lay shaft meshing with the fourth counter shaft wheel and having clutch teeth adapted to be engaged by the said clutch teeth on the third lay shaft wheel; a sliding member having a pair of forks engaging the outer faces of the second and third wheels on the counter shaft, and a second sliding member having a pair of forks engaging the outer faces of the second and third wheels on the lay shaft, a pivoted crank arm engaging with said sliding member; and a second pivoted crank arm engaging with said second sliding member; for the purpose specified and substantially as set forth.

[Claim 2 not printed in the Gazette.]

1,253,545. DOOR-LATCH. HENRY M. TOMPKINS, Detroit, and HARRY K. KOPPIN, Jackson, Mich. Filed Aug. 4, 1917. Serial No. 184,537. (Cl. 70—49.)



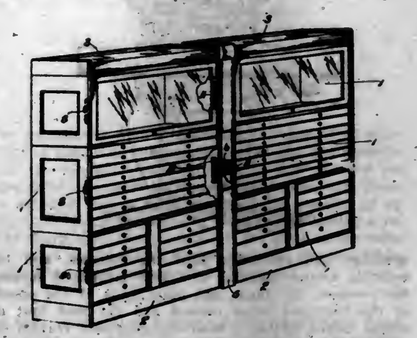
1. A latch having an active latch member and a passive latch member coöperating therewith, a secondary latch for anchoring said active latch member in latching position, and a single spring for both exercising a force on said active latch member to maintain the same in unlatched position and for also exercising a force on said secondary latch to actuate said secondary latch into a position for anchoring said active latch member in latching position.

2. A latch having an active latch member and a passive latch member coöperating therewith, a secondary latch for anchoring said active latch member in latching position, a single spring for both exercising a force on said active latch member to maintain the same in unlatched position and for also exercising a force on said secondary latch to actuate said secondary latch into a position for anchoring said active latch member in latching position, and a freely movable actuator connected to said secondary latch for releasing said secondary latch when disposed in latching position.

14. A door latch having a passive latch member, an active latch member coöperating with said passive latch member and comprising a jaw member mounted to be tilted into latched position when moved into engagement with said passive latch member, a push rod, means for anchoring said jaw in latched position when so tilted, means for both normally maintaining said jaw member in unlatched position and for normally maintaining said push rod in raised position, a button connected to said push rod, and connecting means operatively connecting said push rod with said jaw member so that upon the actuation of said button the jaw member will be released and permitted to snap back into unlatched position.

[Claims 3 to 13 not printed in the Gazette.]

1,253,546. SECTIONAL STORE FURNITURE. ANTHONY VANDERVELD, Grand Rapids, Mich., assignor to Grand Rapids Show Case Company, Grand Rapids, Mich., a Corporation of Michigan. Filed Jan. 8, 1915. Serial No. 1,191. (Cl. 45—78.)



1. In combination, a plurality of independent vertical series of superposed sections located in horizontal relation with the ends of adjacent sections spaced apart, a post or pilaster lying at the front of and covering the space between the adjacent ends of sections, said post or pilaster including a channel having flanges lying adjacent the section ends, and tie members extending through said flanges and section ends for securing them together, said tie members being accessible from within the sections and readily removable to permit disengagement of the sections and post or pilaster.

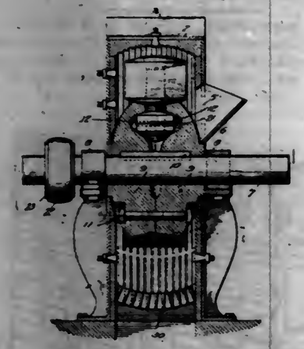
2. In combination, a plurality of independent series of superposed sections located end to end in horizontal relation with the ends of the sections spaced apart, a post or pilaster located at the front of and covering the space between the adjacent ends of the sections, said post or pilaster including a channel member having rearwardly extending flanges lying adjacent the ends of the sections, and removable U-shaped tie members extending through said flanges and ends of the sections, with the legs of the tie members engaging the inner sides of the sections and flanges and accessible for ready removal from within the sections, substantially as described.

3. In combination, a plurality of independent vertical series of superposed sections located end to end in horizontal relation with the ends of adjacent sections spaced a short distance apart, a post or pilaster located at the front of and covering the space between the adjacent ends of the sections, said post or pilaster comprised of a channel member having a strip secured to the web thereof of greater width than the web, the flanges of the channel extending rearwardly into the space between the ends of the sections, and removable U-shaped tie members extending through said flanges and ends of the sections with the legs of the tie members engaging against the inner sides of the flanges and ends of the sections, said legs engaging against the inner sides of the section ends lying in slots therein but accessible for ready removal, substantially as described.

1,253,547. ROCK-PULVERIZER. ERNEST A. VELDE, Cedar Rapids, Iowa. Filed June 25, 1917. Serial No. 176,712. (Cl. 83—11.)

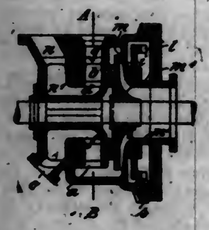
In a device of the character specified, a shaft, a wheel consisting of similar sections movable longitudinally of

the shaft toward and from each other, a key for keying the sections to the shaft, said sections having registering recesses on their meeting faces, and radial openings leading from the recesses, hammers having openings adapted to register with the radial openings, means passing through openings of the hammer and the radial



openings and extending into the recesses, and other securing means engaging said first mentioned means in the recesses, the inner and outer ends of the openings of the hammers being reamed and the said first mentioned means having a head engaging said reamed ends, said hammers being reversible.

1,253,548. METHOD AND APPARATUS FOR TRANSPORTING INCOMPRESSIBLE FLUID. HANS WAGNER, Magdeburg, Germany. Filed Dec. 27, 1915. Serial No. 68,874. (Cl. 103—43.)



1. The method of transporting incompressible fluid by means including a gaseous or vaporous driving medium under pressure which comprises subjecting the fluid to the action of the driving medium while it is being rotated, whereby the pressure of the driving medium is supplemented by the centrifugal force generated in the rotating fluid body and the latter can be moved against a pressure exceeding that of the driving medium.

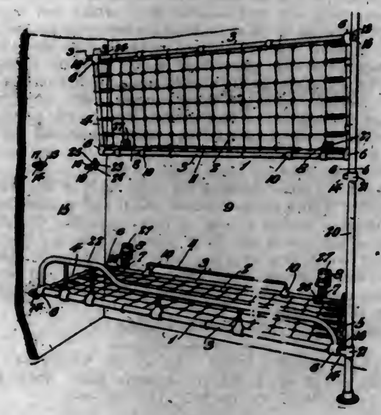
2. A pump comprising a casing provided with suitable fluid supply and discharge passages, a body rotatably arranged within the casing and having chambers adapted to successively communicate with said supply and discharge passages as it rotates, and means for delivering a gas or vapor like driving medium to the chambers in communication with the fluid discharge passage, whereby the fluid will be expelled from said chambers under the combined centrifugal pressure imparted by the rotating body and the pressure of the driving medium.

4. A pump comprising a casing provided with suitable fluid supply and discharge passages, means for subjecting fluid to the action of centrifugal force to increase the pressure thereof as it passes from the supply to the discharge passages of the casing, and means for supplementing the increased pressure on the fluid due to centrifugal force as the fluid passes into the discharge passage.

6. A rotary pump comprising an impeller having radial vanes, a casing inclosing said vanes, a central but eccentric chamber for introducing water between the vanes, a central but eccentric steam nozzle for introducing steam into said vanes, a central steam exhaust, and a water exhausting and distributing channel at the periphery of the vanes and opposite the steam nozzle.

[Claims 3, 5, and 7 to 10 not printed in the Gazette.]

1,253,549. FOLDING BEDSTEAD. WILLIAM A. WEAVER, Philadelphia, Pa., assignor to Bernstein Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Dec. 23, 1916. Serial No. 138,571. (Cl. 5—60.)



1. A folding bedstead frame, a support therefor back of the same on which the frame is pivotally mounted, a stud extending longitudinally from the outer portion of said frame, said stud being composed of a head and a reduced shank, a socket, a latch, a support for both said latch and socket at an angle to said back support, said socket and latch being disposed in relation to each other as to be engaged respectively by said stud in operative and folded conditions of the bedstead frame, said socket having in its side wall a slot which is in communication with the interior space of the socket, the reduced shank of the stud being adapted to occupy said slot, and the head of said stud being adapted to occupy said space back of said slot interlocking said frame with said socket against longitudinal disconnection while supporting the same in operative position, said latch having in its underside a slot, and back of the same a recess which is in communication with said slot, the reduced shank of said stud being adapted to occupy said slot, and the head of the same being adapted to occupy said recess and overlap the walls of said slot.

[Claims 2 to 5 not printed in the Gazette.]

1,253,550. STRINGED MUSICAL INSTRUMENT. ROY A. WILKINS, Salt Lake City, Utah. Filed Jan. 17, 1916. Serial No. 72,617. (Cl. 84—80.)

2. A zither or harp having means for changing the key; said means comprising a rotatable, notched, fret bar extending transversely across the strings and arranged to have its unnotched portions bear upon the strings so as to raise the pitch of the engaged strings a half tone, the notches being arranged so that when brought opposite the strings the latter are freed from engagement by the fret bar, and being circumferentially arranged about the bar to selectively free the strings to produce the desired changes in key as the bar is turned, and individual fret pins for the strings arranged close to the rotatable fret bar and adapted to be easily operated at will by the player of the instrument.

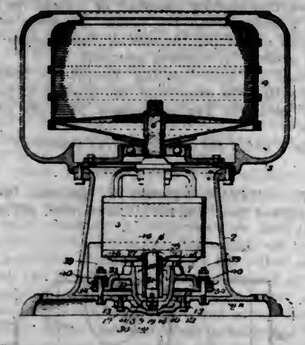
3. A stringed musical instrument having a fret pin for an individual string, comprising a stem seated in the framework of the instrument, and adapted to turn in its seat, a fret of segmental shape carried by the stem, with a curved upper edge adapted to pass under and



lift the string to fret it, and having a straight lower edge engaging with the framework in which the said stem is seated, and means by which the fret pin is manipulated.

[Claim 1 not printed in the Gazette.]

1,253,551. QUILL AND HOUSING FOR MOISTURE-EXTRACTORS FOR DRYING CLOTHES. ISAAC F. WILLEY, Philadelphia, Pa. Filed Aug. 18, 1917. Serial No. 185,944. (Cl. 64—48.)



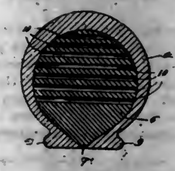
1. In a moisture extractor in which are combined a supporting base formed with a concave seat, a housing superposed upon said base, a motor within said base, a revoluble basket within said housing, and a motor spindle for driving said basket,—a quill the lower portion of which is convex and seated in the concave seat of the base and which is formed with an internal lubricant-containing chamber having an axially disposed upwardly extending guide sleeve into which the base of the motor shaft is entered and rotates,—and means for supplying lubricant to the chamber of the quill, the interior of the guide sleeve and the motor shaft.

4. In a moisture extractor, the combination of a casing,—a housing superposed thereon,—a basket within said housing,—a motor,—a quill within the base of the housing formed with a guide sleeve which forms both within and without its walls a lubricant chamber,—and a spindle connected with the basket, driven by the motor, passing through the guide sleeve of the quill and stepped or superposed upon disks within the bottom of the quill.

7. A quill for a moisture extractor, formed with a hollow, chambered, lubricant-containing interior, a convex exterior lower face, an upwardly extending axially-disposed guide sleeve formed with radial ports through its walls and with internal vertical grooves or channels,—in combination with the base of the extractor as an entirety, upon the concave bottom of which the convex exterior of the quill rests,—a basket,—a motor adapted to drive the basket,—a motor shaft driven by the motor, connected with the basket and entered within the guide sleeve as a support,—and a plurality of disks within the quill upon which the spindle rests.

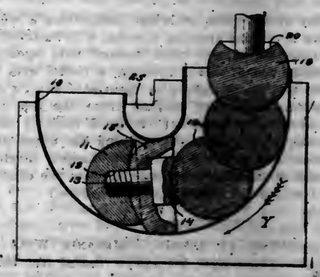
[Claims 2, 3, 5, 6, 8, and 9 not printed in the Gazette.]

1,253,552. HONEYCOMB CUSHION-TIRE. SILAS WINSCOTT, Sturgeon, Mo. Filed Aug. 6, 1915. Serial No. 44,050. (Cl. 152—5.)



The combination with an outer tube or shoe, of an annular core of elastic material completely filling and conforming to the configuration of the outer tube or shoe and consisting of a rounded outer portion provided with transverse openings and a solid inner tapered portion of approximately triangular shape in cross-section having a relatively sharp apex located between the sides of the outer tube or shoe and arranged to rest upon the rim of a wheel to relieve the outer tube or shoe of strain.

1,253,553. APPARATUS FOR SMOOTHING AND CALIBRATING TAPERED AND CURVED HOLLOW METAL BODIES, SUCH AS BOWS FOR WIND INSTRUMENTS. BENJAMIN F. WINTERHOFF, Elkhart, Ind. Filed Jan. 21, 1916. Serial No. 73,408. (Cl. 153—36.)



1. Apparatus for smoothing and calibrating curved hollow metal bodies, comprising flexible guiding means, said guiding means consisting of a plurality of spherical members interengaging with each other for the purpose of transmitting pressure in axial direction of the hollow body, said spherical members being of the same diameter, a mushroom shaped disk rigidly secured between said spherical members, said mushroom shaped disk being of a greater diameter than said spherical members.

2. Apparatus for smoothing and calibrating tapered bows for wind instruments, comprising a train of balls of uniform diameter, which is less than the smallest diameter of said bow, a mushroom shaped lead disk of a greater diameter than the balls, the pilot ball in said train of balls being concaved for receiving the spherical convex side of the said disk, a stud for rigidly securing said disk to said pilot ball, said stud and the remaining balls of the train of balls being concaved to the diameter of each ball.

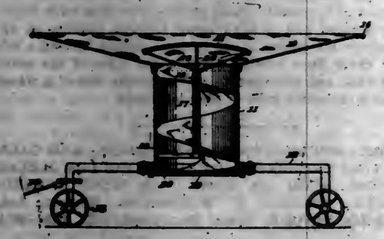
3. Apparatus for smoothing and calibrating tapered bows for wind instruments, comprising a train of balls of uniform diameter, which is less than the smallest diameter of said bow, a mushroom shaped lead disk of a greater diameter than the balls, the pilot ball in said train of balls being concaved for receiving the spherical convex side of the said mushroom disk, a stud for rigidly secur-

ing said disk to said pilot ball, said stud and the remaining balls of the train of balls being concaved to the diameter of each ball, link connection for securing the train of balls together and permitting limited movement between said balls.

4. A device for smoothing and calibrating curved, hollow metal bodies, comprising a rigid pilot member, a concavo-convex yielding member connected to the pilot member and having its periphery bendable toward the axis of said pilot member, and means for imparting movement to said device.

5. A device for smoothing and calibrating curved, hollow metal bodies, comprising a convex pilot member having a concave recess, a yielding concave or convex member having an edge extending beyond the periphery of the pilot member and the convex portion of said yielding member fitting in the concave portion of the pilot member, and means connecting said members together.

1,253,554. FRUIT-GATHERER. GEORGE WISNYEI and SIMON WEISS, Akron, Ohio. Filed Sept. 24, 1917. Serial No. 192,904. (Cl. 56—99.)



3. A device of the class described comprising a wheeled truck having a central opening therein, a cylindrical conductor arranged upon the truck around said opening, a removable slide beneath said opening, a radial arm within the conductor, an upright post upon said arm, a spiral platform around said post leading from the top of the conductor to a point adjacent the said slide, a canopy carried by the top of the post overlying the upper end of the conductor, and a stretched fabric hopper carried by the upper end of the conductor spaced from the canopy.

[Claims 1 and 2 not printed in the Gazette.]

1,253,555. SURGICAL BASIN. MELANIE WOLF, New York, N. Y. Filed Apr. 14, 1917. Serial No. 162,067. (Cl. 4—38.)



1. An attachment for dental or medical cuspidors, consisting of an auxiliary spittoon or medical basin provided with an outlet, a flexible drain-tube connected to said outlet, the dental or medical cuspidor provided with an adjustable rim which provides an opening, the lower end of the drain-tube being adjusted or connected to said opening, whereby the auxiliary basin may be adjusted in any position desired.

2. An attachment for dental or medical cuspidors, consisting of an auxiliary spittoon or medical basin provided with an outlet, a flexible goose-neck drain-tube connected to the outlet of said auxiliary spittoon or basin and supporting the same, the dental or medical cuspidor provided with an adjustable rim which provides an opening, the lower end of the drain-tube being adjusted or connected to said opening, whereby the auxiliary spittoon or basin may be adjusted in any position desired.

3. In combination with a dental or medical cuspidor and chair, an auxiliary spittoon or medical basin, with means for fastening the same to the chair, the auxiliary spittoon or basin provided with an outlet, a flexible drain-tube connected to the outlet of said auxiliary spittoon or basin, the dental or medical cuspidor provided with an adjustable rim which provides an opening, the lower end of the drain-tube being adjusted or connected to said opening, whereby the auxiliary spittoon or basin may be adjusted in any position desired.

4. An attachment for dental or medical cuspidors, consisting of an auxiliary spittoon or medical basin provided with an outlet, a flexible drain-tube connected to said outlet, the dental or medical cuspidor provided with an adjustable arm which is provided with an opening or attachment for engaging the lower end of the drain-tube, said lower end of the drain-tube being adjusted to or connected to said opening or attachment, whereby the auxiliary spittoon or basin may be adjusted in any position desired.

1,253,556. DEFLOCCULATING SOLID MATERIALS AND AGENTS THEREFOR. EDWARD GOODRICH ACHESON, New York, N. Y., assignor to Acheson Corporation, New York, N. Y., a Corporation of Delaware. Filed Oct. 29, 1917. Serial No. 197,640. (Cl. 252.)

3. Process of preparing a composition of matter, comprising roasting starchy materials or derivatives at a temperature approximating but below the point of carbonization, and extracting the soluble constituents from the resulting product by aqueous ammonia.

4. Method of deflocculating amorphous bodies, comprising treating the same with the product of reaction of ammonia upon the heat-conversion products of starchy materials.

[Claims 1 and 2 not printed in the Gazette.]

1,253,557. PUTTEE. PHILIP J. AHLERS, New York, N. Y. Filed Nov. 12, 1917. Serial No. 201,603. (Cl. 36—2.)



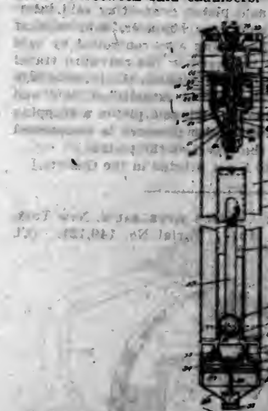
2. As an article of manufacture, a puttee having a knitted tubular body portion.

3. As an article of manufacture, a puttee having a knitted tubular body portion, the ends whereof are inturned and permanently held, one of the inturned end portions being tapered; and a securing strap constructed of non-resilient material fixedly attached to the tapered end portion and between the sides thereof, the junction of said strap and said body portion being so joined as to present the same appearance on both sides of the body portion.

[Claim 1 not printed in the Gazette.]

1,253,558. PUMP AND PUMPING SYSTEM. BURTON S. AIKMAN, Milwaukee, Wis., assignor to National Brake & Electric Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Sept. 20, 1915. Serial No. 51,524. (Cl. 103—8.)

1. In a pump, a water-chamber, an auxiliary chamber having inlet and outlet valves said auxiliary chamber being connected with said water-chamber, an exhaust-port for said water-chamber, a compressed-air port for said water-chamber, valves for said ports, pressure-means for operating said valves, one side of said pressure-means being exposed to the pressure in said auxiliary chamber to close the exhaust port and open the compressed air port, and the other side being exposed to the pressure in said water-chamber to open the exhaust port and close the compressed air port, and a valve for controlling the connections between said chambers.



5. In a pump, a water-chamber, an auxiliary chamber having inlet and outlet valves said auxiliary chamber being connected with said water-chamber, an exhaust-port for said water-chamber, a compressed-air port for said water-chamber, pressure-means connected on one side with the auxiliary chamber, and on the other side connected with the interior of the water-chamber by a main and a restricted passageway, a valve structure operated by said pressure-means and controlling said exhaust and compressed-air ports and said main passageway.

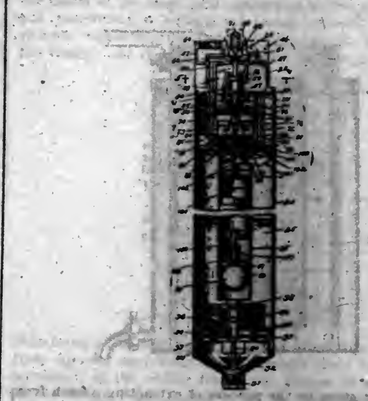
8. In a pump, a water-chamber, an auxiliary chamber having inlet and outlet valves said auxiliary chamber being connected with said water-chamber, an exhaust-port for said water-chamber, a compressed-air port for said water-chamber, pressure-means connected on one side with the auxiliary chamber, and on the other side connected with the interior of the water-chamber by a main and a restricted passageway, a valve structure operated by said pressure-means and controlling said exhaust and compressed-air ports and said main passageway to close the exhaust-port, open the compressed air port, and open said main passageway in one direction and reverse the action in the opposite direction.

12. In a pump, a water-chamber, an auxiliary chamber having inlet and outlet valves said auxiliary chamber being connected with said water-chamber, an exhaust-port for said water-chamber, a compressed-air port for said water-chamber, pressure-means connected on one side with the auxiliary chamber, and on the other side connected with the interior of the water-chamber by a main and a restricted passageway, a valve structure operated by said pressure-means and controlling said exhaust and compressed-air ports and said main passageway, and a float-valve controlling the connection between said water-chamber and said auxiliary chamber, said float-valve being confined for vertical movement in a cylinder through which water may pass.

[Claims 2 to 4, 6, 7, and 9 to 11 not printed in the Gazette.]

1,253,559. PUMP AND PUMPING SYSTEM. BURTON S. AIKMAN, Milwaukee, Wis., assignor to National Brake & Electric Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Sept. 27, 1915. Serial No. 52,808. (Cl. 103—8.)

1. In a pump, a liquid chamber having inlet and outlet means, an exhaust passageway, a pressure medium passageway, a pressure motor, valve mechanism operated by said pressure motor to control the connection of said chamber alternately with said passageways, and means controlling the connection of pressure to and exhaust from said pressure motor.



6. In a pump, a liquid-chamber having inlet and outlet openings, an exhaust-passageway, a pressure medium passageway, pressure-means having one side arranged to be exposed to the pressure medium and its other side exposed to a motor chamber having two ports, one port an exhaust-port and the other a pressure medium port, valves operated by said pressure-means for closing said pressure medium port of said liquid chamber and opening said exhaust-port of said liquid chamber, and vice versa, and valves for closing said pressure medium port of said motor chamber and opening said exhaust port of said motor chamber, and vice versa, and means for operating said last-named valves.

12. In a pump, a water-chamber having inlet and outlet openings, an exhaust-port for said chamber, a compressed-air port for said chamber, pressure-means having one side exposed to the interior of said water-chamber and its other side exposed to a motor chamber having two ports, one port an exhaust-port and the other a compressed-air port, valves operated by said pressure-means for closing said compressed air-port and opening said exhaust port of said water chamber, and vice versa, and valves for closing said compressed-air port and opening said exhaust port of said motor chamber, and vice versa, a float for operating said last-named valves, and a float-chamber for said float in said water-chamber, said float-chamber having an inlet at the top and an outlet at the bottom and a float-valve controlling said outlet.

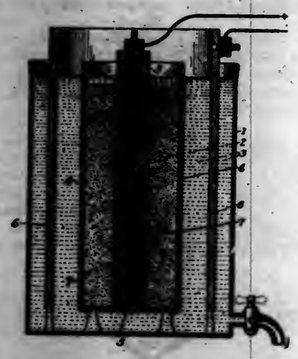
14. In a pump, a water-chamber having inlet and outlet openings, an exhaust-port for said chamber, a compressed-air port for said chamber, pressure-means having one side exposed to the interior of said water-chamber and its other side exposed to a motor chamber having two ports, one port an exhaust-port and the other a compressed-air port, valves operated by said pressure-means for closing said compressed-air port and opening said exhaust-port of said water chamber, and vice versa, and valves for closing said compressed-air port and opening said exhaust port of said motor chamber, and vice versa, and means for operating said last-named valves, said pressure-means operating to close the first-named exhaust-port and open the first-named compressed-air port when the last-named chamber is exposed to compressed air, and to reverse the action when said last-named chamber is exposed to the exhaust.

[Claims 2 to 5, 7 to 11, 13, 15 and 16 not printed in the Gazette.]

1,253,560. POTASH EXTRACTION. EDWARD L. ANDERSON, Pittsburgh, Pa. Filed Apr. 8, 1916. Serial No. 89,782. (Cl. 204—9.)

1. Those steps in the process of extracting potash from feldspar or the like, which consist in grinding it and mix-

ing it with an insoluble electrically conductive material, and in subjecting the mixture to the action of an electric current.



2. Those steps in the process of extracting potash from feldspar or the like, which consist in grinding it and mixing it with an insoluble electrically conductive material, and in subjecting the mixture to the action of an electric current in a solution containing a substance which combines with the potash to convert it into an easily electrolyzable form.

3. Those steps in the process of extracting potash from feldspar or the like, which consist in grinding it and mixing it with carbon, and subjecting the mixture to the action of an electric current.

4. Those steps in the process of extracting potash from feldspar or the like, which consist in grinding it and mixing it with carbon, and subjecting the mixture to the action of an electric current in a solution containing a substance which combines with the potash to convert it into an easily electrolyzable form.

1,253,561. POWER-ACTUATED IMPLEMENT. OLIVER O. APP, New York, N. Y. Filed Mar. 5, 1912. Serial No. 681,754. (Cl. 121—21.)



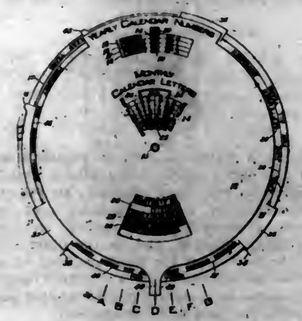
1. A fluid-pressure operated tool actuating implement, comprising a casing having an inlet and at least one exhaust port, a hammer adapted to be reciprocated by pressure-fluid passing through said inlet port, and a movable port-controlling member which co-acts with said exhaust port to close the same when the tool is removed from the work, said inlet port being normally open when said parts are so disposed and the pressure-fluid thereby admitted through said inlet port tending to hold said member in its port closing position, and a substantially closed conduit leading from said implement, said exhaust port opening into said conduit.

5. A fluid-pressure operated tool actuating implement which comprises a reservoir chamber, an exhaust chamber and an expansion chamber, the latter of variable size, said implement including a piston one face of which constitutes a wall of said expansion chamber, means controlled by said piston for conveying pressure fluid from said reservoir chamber to said expansion chamber, and from the latter in turn to said exhaust chamber, and tool actuated means for controlling the flow of said fluid.

9. In a fluid pressure operated tool actuated implement, a casing, a differential piston reciprocably mounted therein and forming therewith chambers to the front and rear of said piston, a source of fluid under pressure, exhaust ports leading from said front and rear chambers, respectively, an intermediate chamber in said casing surrounding the differential shoulder of said piston in communication with said source of fluid under pressure, and a by-pass controlled by said piston connecting said intermediate chamber with said rear chamber, said exhaust port for said rear chamber being also controlled by said piston and positioned to be closed in the rearward travel of said piston before the by-pass between the intermediate chamber and the rear chamber is established, said end of said rear chamber forming with said piston a trapping chamber in which the fluid under pressure is compressed upon the completion of the travel of the piston.

[Claims 2 to 4 and 6 to 8 not printed in the Gazette.]

1,253,562. CALENDAR. JULIUS APPELBAUM, New York, N. Y. Filed Feb. 16, 1917. Serial No. 149,121. (Cl. 40—115.)



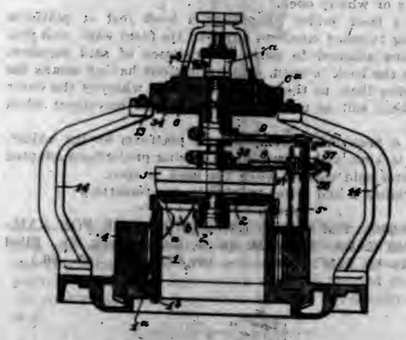
1. In a calendar of the character described, a scale containing yearly indicating characters of 14 denominations adapted to indicate the first day of the year for common and leap years, a scale containing monthly indicating characters for common years, and a scale containing montly indicating characters for leap years adapted to indicate the first day of the month, said yearly indicating characters adapted to designate said monthly indicating characters, and a monthly calendar scale having thirteen divisions, and means for exposing any seven adjacent divisions, providing seven variations, said variations adapted to be designated by said monthly indicating characters.

10. In a calendar of the character described, a base plate, a top plate and an intermediate plate, said top plate and intermediate plate being pivotal upon said base plate, a designating character scale comprising four hundred divisions divided into four centurial classes having 100 designating characters in each class, and a division designating said characters in each class respectively, from 1 to 100, a monthly calendar letter scale for common years, and a monthly calendar letter scale for leap years, said designating characters adapted to designate said monthly calendar letters, a monthly calendar scale on said base plate having thirteen divisions of 14 characters, slots in said intermediate plate adapted to expose said calendar scale, and means on said intermediate plate adapted to vary the numbers in said calendar scale to provide months of 28, 29, 30 and 31 days respectively, said top plate being provided with an opening adapted to expose any seven adjacent divisions of said calendar scale providing seven variations, said variations adapted to be designated by said monthly calendar letters.

22. In a calendar of the character described, a pair of coöperating plates, a monthly calendar designating scale on one of said plates having 84 divisions divided into 24 classes of seven designating characters each, each two of said classes being designated by a month, said designating characters adapted to indicate the first day of the month for common and leap years, said other plate being provided with an opening adapted to expose any one of said months, and the characters designated thereby, and means on said other plate adjacent said opening in alinement with said designating characters, and representing the first day of the year for common and leap years.

[Claims 2 to 9 and 11 to 21 not printed in the Gazette.]

1,253,563. DOG FORM OF CIRCULAR-KNITTING MACHINES. GEORGE LAWSON BALLARD, Norristown, Pa., assignor to Wildman Mfg. Co., Norristown, Pa., a Corporation of Pennsylvania. Filed Mar. 20, 1916. Serial No. 85,473. (Cl. 66—22.)



In combination in a circular rib knitting machine, a needle cylinder, a needle dial, a dial post, cylinder and dial cams, cylinder and dial dogs between the cylinder and dial and between which dogs the fabric must pass, said dogs holding the dial against circumferential displacement in relation to the cylinder, means for supporting the dial post and dial independently of the cylinder cam against vertical or lateral displacement in relation to the cylinder to thereby maintain the dogs in prescribed relation to each other, said means comprising a rigid overhead frame member and a rotary member supported thereby against displacement vertically or laterally and open for the passage of the yarn, and compensating means for driving the dial cam and said rotary member from the cylinder cam, said driving means comprising a connection from the cylinder cam to one of said parts and a post extending between and rigidly connecting said rotary member and the dial cam, substantially as described.

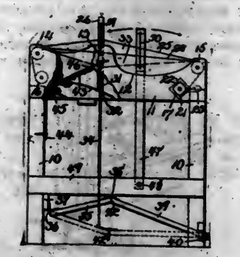
1,253,564. PACKAGE. JOHN W. BARBER, Newton, Mass. Filed Oct. 19, 1915. Serial No. 56,668. (Cl. 206—46.)



An article of manufacture of a character which usually requires holding devices to locate it in position for use, said article being of elastic material and having a recess or pocket for such devices and provided with integral elastic means for engaging a relatively incompressible cap or cover to retain such devices in the recess or pocket.

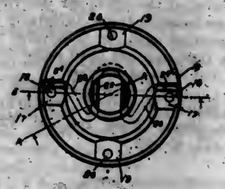
1,253,565. LOOM. WILBUR E. BARNES and MELVIN E. BARNES, Newark, N. J. Filed Feb. 8, 1916. Serial No. 76,969. (Cl. 139—12.)

A loom comprising side frames with grooves therein, a heddle frame sliding in the grooves, a treadle consisting of a rear leaf hinged to the frame of the loom, a front leaf hinged to the rear leaf and having a loose connection with the frame of the loom, said connection acting as a fulcrum and permitting a sliding movement of said front leaf, strands connecting the heddle frame and the rear leaf of the treadle, the front and rear leaves of the treadle being



chamfered at an angle so that when they abut they limit their upward movement and therefore limit the upward movement of the heddle frame, the bottom of the grooves in the frame being placed so as to limit the downward movement of the heddle frame, and yielding means for forcing the heddle frame to its normal position.

1,253,566. SNAP-FASTENER. FRANK P. BARNEY, Chartley, Mass. Filed Aug. 31, 1917. Serial No. 189,069. (Cl. 24—218.)



1. In a snap fastener, a socket member comprising a base plate, an inverted dish-shaped cover plate fitting onto said base plate providing a space between them and having openings in its side walls, the edge of one plate being rolled over that of the other, both plates having alined central openings, a substantially W-shaped spring in said space, its middle arms being bent to straddle said central opening for gripping the head of a coöperating ball member, and the ends of its side arms being turned outward at a sharp angle to lie substantially in line with a horizontal axis through said plate, said ends passing through said wall openings and abutting against the edge of one of said plates to centralize the spring and provide additional resistance to its action.

[Claim 2 not printed in the Gazette.]

1,253,567. LEDGER-HOLDER. CHARLES H. BARTLETT, Cambridge, Mass. Filed Oct. 10, 1912. Serial No. 725,037. (Cl. 45—80.)

1. A book-holder comprising a base adapted to rest loosely on a table top, a standard perpendicular to the base and affixed centrally thereto, a book-engaging platform adjustably connected with said standard and adapted to be inclined relatively thereto, the base being provided with a recess at one side of the standard and having a weighted portion at the opposite side enabling the base to support the standard and platform relatively near the edge of the table top when the recessed portion of the base overhangs the edge of said top, and wings depending from opposite ends of said platform and adapted to bear on the edge of the table top at points at opposite sides of the recessed portion of the base when the platform is inclined, whereby the edge of the table top is caused to

steady and partially support the platform and book, with the lower end of the book projecting below the table top, the weighted portion of the base and the table top cooperating with said wings and the table top edge in preventing the standard and platform from tipping outwardly.



2. A device of the character described comprising a base having a standard, a platform adjustably connected with said standard, and wings having edge coverings and depending from said platform.

3. A device of the character described comprising a base having a standard, a rectangular frame adjustably connected with said standard and having raised side bars to support the covers of a book, and ribs adjustably mounted upon the upper and lower bars of said frame for supporting the book adjacent the back of the book binding.

4. In a device of the character described comprising a standard, a rectangular frame adjustably connected therewith, ribs mounted upon the transverse members of said frame, and a right and left hand screw for adjusting said ribs toward and from each other.

1,253,568. BOOK-HOLDER. CHARLES H. BARTLETT, Cambridge, Mass. Filed Dec. 20, 1913. Serial No. 807,907. (Cl. 45—85.)



1. A book-holder comprising a platform having a substantially flat book-supporting surface, adapted to support a book when open or when closed either to the right or to the left, and a fixed bracket projecting upwardly from the central portion of one of its edges, a pair of book-cover-confining arms having meeting inner ends pivoted to said bracket at a common point which is offset upwardly from the plane of said supporting surface, and means for establishing sliding pivotal connections between the outer ends of said arms and the two covers of a book, said arms being adapted to connect the two covers with the bracket and confine the book against displacement on the platform, whether the book be open or closed either to the right or to the left.

3. A book-holder comprising a platform having a substantially flat book-supporting surface, adapted to support a book when open or closed either to the right or to the left, and a fixed bracket projecting upwardly from the central portion of one of its edges, a pair of book-cover-confining arms having meeting inner ends pivoted to said bracket at a common point which is offset upwardly from the plane of said supporting surface, means for establishing sliding pivotal connections between the outer ends of said arms and the two covers of a book, and a leaf edge supporter composed of two links having meeting inner ends pivoted to each other, and outer ends pivoted to said arms, the inner edges of said links being offset inwardly from the arms and arranged to bear on the edges of the leaves of an open book and prevent said leaves from sagging.

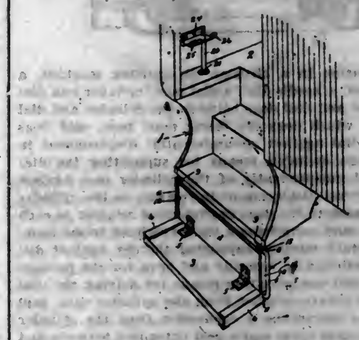
4. A book holder comprising a single substantially flat platform having an area to support a book when open or when closed to the right or left, clamps for connection with the covers of a book, guides engaged with said clamps, slides movable in said guides, movable connections between said slides and platform, and a leaf-edge supporter comprising two links pivotally connected to each other and to the slides and free to swing with the covers of the book, said members being formed and mounted to present supports for the leaves when the book is either partly or wholly open.

5. A book holder comprising a book rest or platform having recessed members adjacent its front edge, and projections adapted to enter the recesses of said members when the book is open, said projections having means for securing them to the covers of a book, whereby the cover members will be restrained from lateral movement when open.

6. A book holder comprising a platform having adjustable sockets, and cover clamps having projections adapted to enter said sockets when the book is open.

[Claims 2 and 7 not printed in the Gazette.]

1,253,569. FOLDABLE EXTENSION-STEP FOR RAILWAY-CARS. PERCY M. BEARD, Hardinsburg, Ky. Filed May 16, 1917. Serial No. 169,091. (Cl. 105—86.)



1. A foldable extension step comprising a tread, a riser pivotally connected to the tread, a hanger shaft mounted in supports for pivotal movement and having downwardly extending arms pivotally connected to the tread, the said riser being pivotally connected at the upper side to said hanger shaft.

3. In combination with fixed steps a foldable extension step below the lowermost fixed step and comprising a tread, a riser pivotally connected to the tread and means for hanging and permitting the folding of the tread and riser, a rock shaft mounted on the rear side of the fixed steps and having an arm, a rod connecting said arm to the tread of the extension step, a second arm on said rock shaft, a vertically mounted shaft having an arm at its lower end, a pitman connecting said arm to the second arm of the rock shaft, means to enable said vertical shaft to be turned manually and means to lock said vertical shaft and cause the same to hold the extension step in either extended or folded position.

[Claim 2 not printed in the Gazette.]

1,253,570. SPARK-PLUG. HARRY J. BERRY, Portland, Oreg., assignor of one-fourth to W. W. George, Portland, Oreg. Filed Aug. 30, 1916. Serial No. 117,671. (Cl. 123—169.)

A spark plug comprising a hollow body, an insulator disposed within said body, and having one end terminating within the body, said end of the insulator being recessed, an electrode extending through the insulator and beyond the lower end of the body, a circular sparking member secured to the lower end of the electrode and having oppositely beveled edges, pins carried by the lower ends of



the body, an annular sparking member formed upon the pins and having a central opening receiving the circular sparking member and having the wall of said opening oppositely beveled for coöperating with the beveled faces of the circular sparking member to increase the sparking surface.

1,253,571. TREATMENT OF THE RESIDUE FROM GAS PURIFICATION KNOWN AS CRUDE AMMONIAC. LOUIS CHARLES BONNEAU, St. Denis, and VICTOR EMILE HASENFRATZ, Levallois-Perret, France. Filed Apr. 21, 1914. Serial No. 833,471. (Cl. 23—10.)

8. Process for the total extraction of industrial chemical products from crude ammoniac, which consists in first desiccating the crude mass in order to recover the free ammonia, then extracting the sulfur by means of a solvent of the class of non-inflammable chlorinated or chlorid solvents, then driving out the ammoniacal nitrogen by means of lime, then rendering soluble the ferro-cyanid by milk of lime, then treating successively the ferro-cyanid solution with potassium chlorid and sodium carbonate for the purpose of first rendering insoluble and then soluble the ferro-cyanid so as to separate it from foreign materials, then precipitating the ferro-cyanid by means of a ferric salt and finally peroxidizing the precipitate to transform it into Prussian blue.

[Claims 1, 2, 4, and 5 not printed in the Gazette.]

1,253,572. ELECTRODE FOR ELECTRIC-ARC LAMPS. FRANK BUCHANAN, Syracuse, N. Y. Original application filed Oct. 20, 1909, Serial No. 523,579. Divided and this application filed May 22, 1911. Serial No. 628,633. (Cl. 176—52.)



In a flaming arc electric lamp and in combination, means comprising a ring for encircling and detachably holding an electrode, and a metallic electrode comprising two sections arranged ent to end and having their contiguous ends detachably secured together, one section being engaged and held by said ring and composed of a metal having substantially the same expansion and contraction as said ring when subjected to the heat from the arc and to atmospheric temperatures, and the other section having greater expansion and contraction under said heat and temperatures, the latter section being softer than the section engaged by the holding means, and the metal of the softer section being slower consuming than the electric arc, substantially as and for the purpose set forth.

1,253,573. DUST-CAP FOR VALVES OR THE LIKE. WILBUR B. BURKE, Cleveland, Ohio, assignor to A. Schrader's Son, Incorporated, Brooklyn, N. Y., a Corporation of New York. Filed Mar. 26, 1915. Serial No. 17,178. (Cl. 213—12.)

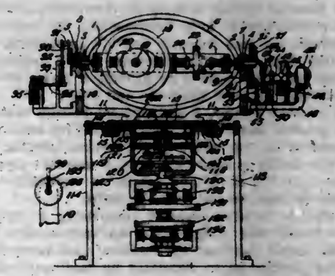


1. A dust cap for tire valves or the like comprising a cap portion having a polygonal foot portion with an internal shoulder above it, and having means for connecting it to a threaded valve casing or the like, said means comprising a polygonal bushing of different metal from the cap portion entering and lying within and substantially inclosed by the foot portion, and said foot portion being permanently connected to the bushing by overlying parts of the foot portion, the article constituting a unitary structure, whereby when the cap is rotated the bushing is forced to rotate with it.

3. A cap for valves or the like comprising a cap portion having an enlarged foot portion, and bushing having a flange extending longitudinally of the cap and a flange extending transversely thereof, and a plate or blank in the recess formed by said flanges.

[Claims 2 and 4 not printed in the Gazette.]

1,253,574. GYROSCOPIC COMPASS. MERVYN EDWARD CARRIE, deceased, Philadelphia, Pa., by Franklin G. Carrie, administrator, New York, N. Y. Original application Filed Mar. 24, 1903, Serial No. 149,400. Divided and this application filed Jan. 2, 1915. Serial No. 266. (Cl. 33—204.)



1. In a gyroscopic device for indicating the true north, the combination of a gyroscopic disk; a support for said disk; a bearing for said support adapted to turn relative to said support when said disk is moved over the earth's surface; and means for compensating for the error due to the friction generated by the said turning of said bearing, substantially as described.

4. In a gyroscopic device for indicating the true north and south points, the combination of a gyroscopic disk;

means to set said disk in a predetermined plane; a support for said disk comprising a frame; a second frame having a bearing for said support adapted to be turned relative to said support upon changes in latitude; and automatic means for compensating for the error due to any friction that may be generated between said support and bearing by said turning movements, substantially as described.

10. In a gyroscopic device for indicating the true north, the combination of a gyroscopic disk; means for supporting said disk; a bearing for said supporting means adapted to turn in azimuth; means for compensating for the error due to the friction generated by the said turning of said bearing in azimuth; and a pendulous weight associated with said bearing, substantially as described.

12. In a gyroscopic compass for use on a moving ship, the combination of a gyroscopic disk; supporting means for said disk comprising a member adapted to automatically assume a fixed position relative to the horizontal plane as the ship moves over the earth's surface; and means comprising a gyroscopic apparatus associated with said member tending to prevent said member from being moved out of its said assumed position by the rolling and pitching movements of the ship, substantially as described.

15. In a gyroscopic compass for use on a moving ship, the combination of a plurality of gyroscopic disks; means for indicating the true north associated with one of said disks; a supporting means for said disks comprising friction generating parts as the ship changes its position; means for automatically compensating for compass errors due to the friction generated by said parts; and gyroscopic means for preventing compass errors due to the rolling and pitching movements of the ship, substantially as described.

[Claims 2, 3, 5 to 9, 11, 13, and 14 not printed in the Gazette.]

1,253,575. CIGAR AND PIPE LIGHTER. DUDLEY B. CLARK, Jamestown, N. Y. Filed May 18, 1917. Serial No. 169,428. (Cl. 219—32.)



1. In a tobacco lighter, a strip of conducting material having a predetermined area intermediate its ends with parts separated by free space to provide an igniting surface, electric means to heat said area, and a supporting member for the strip formed to provide a series of ventilating passages between the strip and head.

3. In a tobacco lighter, a strip of conducting material having a predetermined area intermediate its ends with parts separated by free space to provide an igniting surface, electric means to heat said area, a movable supporting member for the strip, and means to resiliently hold the member in engagement with the strip.

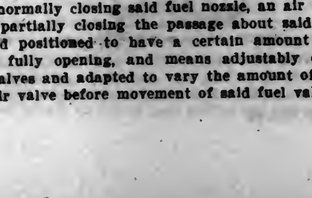
5. An electric heating element comprising a strip of resistance metal, said strip having an intermediate portion of the metal removed by thinning and perforating the same to provide parts separated by free space which choke the flow of the electricity and increase the heat therefrom, and electric means for heating said strip connected to the ends thereof on opposite sides of said area.

12. A cigar lighter comprising a suitable cabinet, a fire proof lighter head supported thereon, a lighting grid supported on said lighting head comprising a sheet of high resistance metal having a series of central perforations to superheat the central portion of said sheet, electrical connection to said sheet consisting of a transformer having a double capacity primary coil to temporarily overload the secondary coil and superheat the perforated portion of said sheet of resistance metal, and suitable electrical connection between said transformer and sheet of metal and the source of electrical energy to temporarily electrically connect the same.

16. In an igniter, a head, a strip of conducting material of inverted U-shape having its legs extending on opposite sides of the head and having the part between its legs perforated and extending over the outer face of the head, means receiving the legs to clampingly and removably hold same in position, and means connected to said holding means for flowing a current of electricity through the strip.

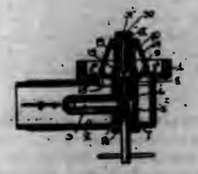
[Claims 2, 4, 6 to 11, and 13 to 15 not printed in the Gazette.]

1,253,576. OIL-FILTER FOR USE ON INTERNAL-COMBUSTION ENGINES. LOUIS COATALEN, Wolverhampton, England, assignor of one-half to Sunbeam Motor Car Company Limited, Wolverhampton, England. Filed Mar. 20, 1917. Serial No. 156,141. (Cl. 210—16.)



In a device of the class described, a main oil pipe, open ended branches traversing said main pipe at right angles thereto, a plug in the open end of each branch having a tubular portion extending across the main pipe and provided with openings for communication with the main pipe, and a filter tube carried by said plug extending across the main pipe provided with openings communicating with the openings in the plug.

1,253,577. CARBURETER. ANTHONY COSTA, Cleveland, Ohio, assignor to The Gravity Carbureter Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 3, 1915. Serial No. 64,911. (Cl. 261—40.)



1. In a carbureter, the combination of a casing constituting a carbureting chamber, a plurality of radially disposed fuel nozzles terminating equidistantly from the wall of such chamber, a valve normally closing all of said nozzles, an air valve normally disposed between said nozzles and the wall of such chamber, said nozzles being formed with recesses about them permitting the passage of air in the closed position of said valve.

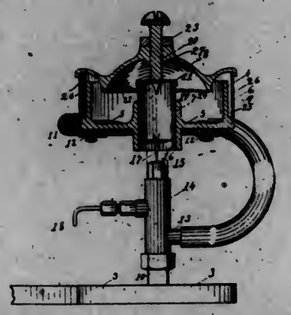
2. In a carbureter, the combination of a casing constituting a carbureting chamber, a fuel supply nozzle terminating centrally in said casing, a gradually tapered valve normally closing said fuel nozzle, an air valve normally partially closing the passage about said fuel nozzle and positioned to have a certain amount of travel before fully opening, and means adjustably connecting said valves and adapted to vary the amount of travel of said air valve before movement of said fuel valve begins.

3. In a carbureter, the combination of a casing constituting a carbureting chamber, a fuel supply nozzle terminating centrally in said casing, a gradually tapered valve normally closing said fuel nozzle, an air valve normally partially closing the passage about said fuel nozzle and positioned to have a certain amount of travel before fully opening, and lost motion connections between said two valves permitting said air valve to have a certain amount of travel before said fuel valve is opened.

4. In a carbureter, the combination of a casing constituting a carbureting chamber, a fuel supply conduit mounted centrally therein, a disk connected to the top of said fuel supply conduit and provided with a series of laterally extending conduits connecting with such fuel supply conduit, an air valve disposed between said disk and the wall of said casing and partially closing the passage therebetween, a fuel valve extending into said disk and normally closing said fuel conduit, and lost motion connections between said two valves permitting a certain opening movement of said air valve before opening of said fuel valve begins.

[Claims 5 and 6 not printed in the Gazette.]

1,253,578. REGULATOR FOR OIL-GAS BURNERS. CHARLES E. CRANE, Seattle, Wash. Filed Apr. 30, 1917. Serial No. 165,505. (Cl. 158—69.)



1. In a regulator for oil-gas burners, a mixing chamber comprising an outer wall, a central intake tube, a perforated burner around the outer wall and a dome-shaped cap resting on the said burner; a tubular gate telescoping with the intake tube; a screw passing down through the cap and engaging the said gate, and means for spraying oil up into the intake tube.

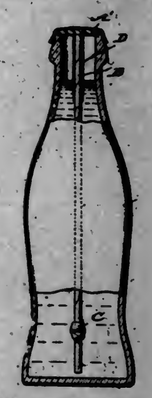
2. In a regulator for oil-gas burners, a mixing chamber having an intake tube; a tubular gate telescoping with the intake tube; a dome-shaped cap; a screw depending from the cap and engaging the said gate, the lower end of the screw being pointed, and a curved fillet of the cap depending around the said screw.

3. In a regulator for oil-gas burners, a mixing chamber comprising an intake tube and a dome-shaped cap; a tubular gate telescoping with the intake tube, and communicating means passing through the said cap to raise and lower the gate.

4. A regulator for oil-gas burners having a mixing chamber; an intake tube; a tubular gate telescoping with the intake tube and rising above the top thereof; a dome-shaped cap over the gate end means for moving the gate toward and away from the cap to decrease or to increase the inlet for air and oil-vapor.

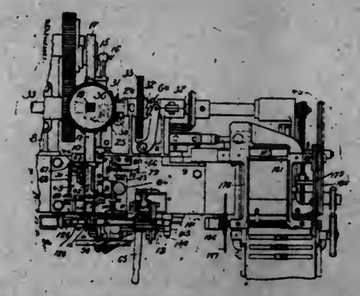
1,253,579. DISPENSING DEVICE. SID A. DRANES, West Point, Miss. Filed Apr. 28, 1917. Serial No. 165,154. (Cl. 215—1.)

A dispensing device substantially as herein described, comprising a bottle, a closure for the bottle, and a drinking tube fitted within the bottle and immersed, in part at least, in the liquid contents thereof and having at or near its immersed end a sleeve float fitted on the tube, as and



for the purposes set forth, and an extension on the upper end of the tube.

1,253,580. CIGARETTE-FINISHING MACHINE. PAUL A. DRUCKLIEB, New York, N. Y., assignor to New York Cigarette Machine Company, New York, N. Y., a Corporation of New York. Filed May 16, 1913. Serial No. 767,998. (Cl. 131—39.)



1. In a machine of the class described, means for feeding a ribbon to a cigarette rod, means for severing the ribbon of tipping material adjacent to said rod, means for pressing the severed portion of the ribbon against the lower portion of the rod, and suitable movable means movable with and at substantially the speed of the rod for folding down the ends of the strips upon the cigarette rod.

6. In a machine of the class described, means for moving a ribbon of tipping material intermittently for a predetermined distance, paste rollers and means for mounting the same, means for driving one of said paste rollers so that the said rollers will feed the ribbon a less amount than the said feeding mechanism acting intermittently will feed the ribbon so that the accumulation of slack is prevented.

16. In a machine of the class described, a frame, a plate mounted on said frame, a blade fixedly mounted on said plate, bearings mounted on said plate, a shaft journaled in said bearings and means for operating said shaft, a blade mounted on said shaft and a spring between said blade and one of said bearings whereby the fixed blade and the other blade are kept in proper relation, one with another for shearing the cork ribbon.

21. In a machine of the class described, a frame, a slide and means for causing said slide to reciprocate on said frame, folders mounted on said slide and movable cams mounted on said frame, and means connecting said fold-

ers and cams whereby said folders will be successively operated upon by said cam when the slide moves in one direction, and will not be shifted by the cam when the slide moves in the other direction.

27. In a machine of the class described, a split tube, a hinge for said tube, a spring to hold the parts of said tube together, except when said parts are positively separated, means for supporting said hinge, pintles secured to the parts of said tube and a cam adapted to rise against said pintles and open said tube whereby the contents of the same may be dropped.

[Claims 2 to 5, 7 to 15, 17 to 20, 22 to 26, and 28 to 32 not printed in the Gazette.]

1,253,581. BIN FOR HOLDING FLOUR, SUGAR, AND THE LIKE. JOSEPH FRASER, Parnell, Auckland, New Zealand. Filed Aug. 21, 1915. Serial No. 46,679. (Cl. 211—6.)



1. In a device of the character described, a support, a bin oscillatingly supported thereby provided with an inlet opening at its upper end and a discharge opening at its lower end, an agitator within said bin adjacent its lower end, and means to actuate said agitator as said bin is oscillated.

3. A bin, battens upon which the bin is oscillatingly supported, and brackets adapted to be secured to a support and having sockets to receive the battens and hold them against movement.

4. A bin provided with trunnions adjacent its upper end, battens provided at the sides thereof facing the bin with open brackets to receive the trunnions by a downward movement of the bin, and brackets adapted to be secured to a support and upon which the battens are fixedly mounted.

6. A bin provided with trunnions, battens having brackets, whereon the trunnions are journaled, brackets supporting the battens, an agitator near the bottom of the bin, a slotted arm on the agitator engaging a pin projecting from the batten, substantially as set forth.

7. A bin provided with trunnions having headed outer ends, battens having brackets at the upper ends of the sides thereof facing the bin to receive the trunnions and recessed to receive between themselves and the battens the headed outer ends of the trunnions, a cross bar uniting the lower ends of the battens, and brackets upon which the battens are fixedly mounted and which are adapted to be secured to a support.

[Claims 2 and 5 not printed in the Gazette.]

1,253,582. ANTIRATTLER. WALTER L. FRY, Detroit, Mich., assignor to Springfield Body Corporation of New York, New York, N. Y., a Corporation of New York. Filed Feb. 16, 1917. Serial No. 148,938. (Cl. 16—77.)

1. In a device of the kind described, a door sill, a door post located at an angle to the door sill, a movable door, a block of resilient material carried by the door and a metallic protective member mounted upon the block of resilient material and adapted to contact with the door sill and the door post.

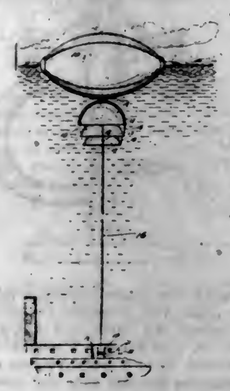
2. In a device of the kind described, a door sill, a door post and a door stop, a movable door member cooperating therewith and cushioning means interposed between the door sill, the door post and the door stop and the movable door member.



3. In a device of the kind described, a plurality of stationary door members, comprising a door sill, a door post and a door stop, a movable door member and a block of resilient material carried by the movable door member and adapted to contact with the three stationary door members.

4. In a device of the kind described, a plurality of stationary door members, comprising a door sill, a door post and a door stop, a movable door member, a block of resilient material carried by the movable door member at the inner lower corner of the unhinged edge thereof and a metallic protective plate mounted upon the block of resilient material and adapted to contact with the stationary door members.

1,253,583. SUNKEN-SHIP SIGNAL. HARRY FILIBWICZ, Aberdeen, Wash. Filed Apr. 19, 1917. Serial No. 163,253. (Cl. 9—9.)



2. The combination with a hollow float, of a rod extending through said float and having an eye at its lower end, and a stabilizing device mounted on the lower end of said rod between the eye and the float and consisting of a series of bells opening downwardly and decreasing in size from above downward, the upper bells being connected to respective lower bells by circumferentially spaced fins extending downward from the inner edge portion of each upper bell on to the outer edge portion of respective lower bells.

[Claim 1 not printed in the Gazette.]

1,253,584. SPARK-PLUG. FREDERICK GEBERN, New York, N. Y. Filed Jan. 15, 1917. Serial No. 142,835. (Cl. 123—169.)

1. In a spark plug, the combination with a shell, having within it a pocket and carrying an outer ring-like spark-terminal grooved interiorly and supported by but spaced away from such shell by connecting ligaments providing openings between the main portion of the shell and the said ring terminal, of another spark terminal within said ring terminal but spaced away therefrom and suitably supported, and having the form of a thin disk.

2. In a spark plug, the combination with a shell, having within it a pocket and carrying an outer ring-like spark-terminal grooved interiorly and supported by but spaced away from such shell by connected ligaments providing openings between the main portion of the shell



and the said ring terminal, of another spark terminal within said ring terminal but spaced away therefrom and suitably supported, and having the form of a thin disk, said disk being perforate.

[Claims 3 and 4 not printed in the Gazette.]

1,253,585. ARTIFICIAL TOOTH. ELIAS T. GOLDBERG, Bridgeport, Conn. Filed Sept. 20, 1917. Serial No. 192,895. (Cl. 32—9.)



An artificial tooth, comprising a metal backing having projecting at right angles therefrom a rectangular stud and provided with a lip extending transversely across its lower edge, and a porcelain facing having in its rear a rectangular opening corresponding in shape to the shape of the stud and having formed at a short distance above the lower edge a transverse seat to receive said lip, said stud and opening when assembled having therebetween rectangular recesses for receiving a cementitious substance.

1,253,586. COUNTERBALANCED CRANK-SHAFT. GEORGE C. GORDON, Cleveland, Ohio, assignor to The Park Drop Forge Company, Cleveland, Ohio, a Corporation of Ohio. Filed Jan. 17, 1917. Serial No. 142,835. (Cl. 74—5.)

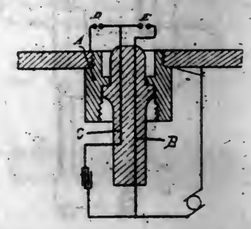


1. The combination of a crank shaft having two oppositely extended lugs, and a counterweight having two leg branches which straddle the part of the crank shaft whereon said lugs are formed,—each of said leg branches having a lug which extends toward the other,—the ends of the two lugs on the leg branches of the counterweight being electrically welded to the ends of the two lugs on the crank shaft.

[Claim 2 not printed in the Gazette.]

1,253,587. ELECTRICAL IGNITION FOR INTERNAL-COMBUSTION ENGINES. ARTHUR GRAHAM, New York, N. Y. Filed Mar. 1, 1915. Serial No. 11,274. (Cl. 123—169.)

1. In a system of electrical ignition a spark plug having two electrodes passing through the core of said plug, insulated from each other and from the metal shell of said plug, the terminals of the two insulated electrodes being arranged in close proximity to each other in the combustion chamber, and one of said electrodes being also arranged in close proximity to an electrode electrically connected to the metal shell of said plug, thus forming two spark gaps connected in series with an electric source, and an electrical condenser one pole of which is electrically connected to an electrode forming one side of one spark gap, and the remaining pole of the condenser being electrically connected to the electrode forming the other side of same spark gap.

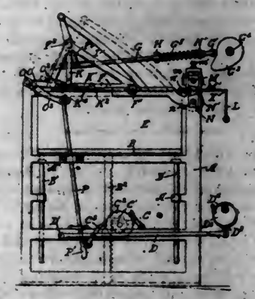


3. In a system of electric ignition, two spark plugs arranged in a combustion chamber of an internal combustion engine, and connected in series with an electric source, thus forming two spark gaps also in series with the electric source, an electrical condenser, one pole of which is electrically connected to an electrode forming one side of a spark gap and the remaining pole of the condenser being electrically connected to the electrode forming the other side of same spark gap.

5. In an electrical ignition system a spark plug consisting of a metal shell an insulating core within said shell, two electrical conductors passing through said core, insulated from each other and from the metal shell of said plug, each conductor having outside terminals for the purpose of connecting to one side of a high tension electric source, so that either one or two sparks may be produced in the combustion chamber as desired.

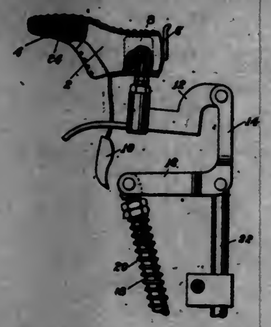
[Claims 2 and 4 not printed in the Gazette.]

1,253,588. ATTACHMENT FOR PAPER-FEEDING MACHINES. ALVIN P. GREENE, Watertown, N. Y. Filed Apr. 7, 1917. Serial No. 160,449. (Cl. 271—8.)



In a machine of the class described, means to permit feeding of a single article and prevent more than a single article being fed, said means comprising constantly rotating shafts, a pair of rollers on each shaft and relatively adjustable axially thereof to suit material of different widths, and means to adjust the shaft to regulate the space between the rollers of the respective shafts, said shafts turning oppositely so that the rollers on one shaft turn forwardly to cause a single article to pass between the rollers, and the other shaft turning oppositely and its rollers being positioned to engage any additional articles fed thereto and prevent passage of the same between the rollers.

1,253,589. PROCESS OF SEPARATING SHOES AND LASTS. ELMER B. GRUSH, Beverly, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed May 12, 1916. Serial No. 97,063. (Cl. 12—142.)



1. The process of separating shoes and lasts which consists in effecting relative movement between the shoe and the last upon which the shoe has been formed to separate the shoe and last and in introducing air within the toe portion of the shoe as the toe end of said last moves from within the toe portion of the shoe.

2. The process of separating shoes and lasts which consists in effecting relative movement between the shoe and the last upon which the shoe has been formed to separate the shoe and last and in equalizing the air pressure within and without the toe portion of the shoe as the toe end of said last moves from within the toe portion of the shoe.

3. The process of separating shoes and lasts which consists in effecting relative movement between the shoe and the last upon which the shoe has been formed to separate the shoe and last and in introducing air through the last into the inside of the toe portion of the shoe as the toe end of said last moves from within the toe portion of the shoe.

4. The process of separating shoes and lasts which consists in pulling from the shoe the last upon which the shoe has been formed and in introducing air within the toe portion of the shoe as the toe end of said last is pulled from within the toe portion of the shoe.

5. The process of separating shoes and lasts which consists in pulling from the shoe the last upon which the shoe has been formed and in equalizing the air pressure within and without the toe portion of the shoe as the toe end of said last is pulled from within the toe portion of the shoe.

[Claim 6 not printed in the Gazette.]

1,253,590. SEPARATION OF ALUNITE FROM ASSOCIATED ROCK AND GANGUE. CARL F. HAGENDORN, Chicago, Ill., assignor to Mineral Products Corporation, New York, N. Y., a Corporation of Maine. Filed Nov. 13, 1915. Serial No. 61,267. (Cl. 23—13.)

1. The method of separating rhyolite or the associated rock or gangue from alunite, which comprises lowering the specific gravity of the alunite by a roasting or calcining operation which does not materially affect the specific gravity of the rock or gangue, and then separating by gravity the rock or gangue from the calcined alunite of the roasted product; substantially as described.

4. The method of separating rhyolite or the associated rock or gangue from alunite, which comprises crushing the mixture to substantially one-quarter inch mesh, then calcining or roasting it in a rotary inclined kiln at a rate and temperature sufficient to lower the specific gravity of the rock or gangue, the temperature being maintained sufficiently low during the calcining or roasting operation to avoid any substantial volatilization of the potash, and separating by gravity the rock or gangue from the calcined alunite of the roasted product; substantially as described.

5. The method of separating rhyolite or the associated rock or gangue from alunite, which comprises lowering the specific gravity of the alunite by a roasting or calcining operation which does not materially affect the specific gravity of the rock or gangue, subjecting the product of the roasting or calcining operation to an extraction operation to remove therefrom the soluble potash salt and thereby further disintegrating the product of calcination, and finally separating the rock or gangue, of lowered specific gravity from the undissolved calcined alunite of the roasted product; substantially as described.

[Claims 2 and 3 not printed in the Gazette.]

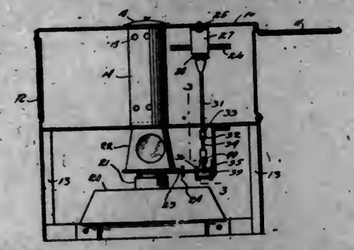
1,253,591. SEPARATION OF ALUNITE FROM ASSOCIATED ROCK OR GANGUE. CARL F. HAGENDORN, Chicago, Ill., assignor to Mineral Products Corporation, New York, N. Y., a Corporation of Maine. Filed Oct. 26, 1917. Serial No. 198,586. (Cl. 23—13.)

1. The method of separating silica, or silicious minerals such as rhyolite or the like, from alunite, which comprises subjecting the alunite and its associated silica or silicious minerals to a roasting or calcining operation, such roasting or calcining operation being carried on with the exclusion of silica other than that contained in the charge undergoing separation, and then separating the silica or silicious minerals from the calcined alunite of the roasted product; substantially as described.

2. The method of separating silica, or silicious minerals such as rhyolite or the like from alunite, which comprises calcining or roasting the mixture in a rotary kiln by means of an injected fuel whose combustion in the kiln will furnish substantially no additional silica to the charge undergoing calcination, and then separating the silica or silicious minerals from the calcined alunite of the roasted product; substantially as described.

1,253,592. [WITHDRAWN.]

1,253,593. INCUBATOR-REGULATOR. LUSTER F. HARRIS and WALTER L. WILLIAMS, Cleburne, Tex. Filed July 25, 1916. Serial No. 111,267. (Cl. 236—6.)

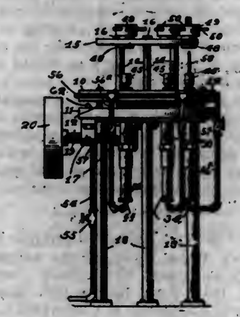


1. In combination with a heated chamber and its lamp, a regulator for said lamp comprising a bracket depending from said heated chamber, and forming a bearing for one end of a wick raising shaft, a gear fixedly secured to the wick raising shaft, a frame supported by said bracket, one end of which forms a shaft, a segmental gear mounted on said last mentioned shaft and meshing with the gear on the wick raising shaft, a thermal expansion member arranged within the heat chamber, a pivoted member engaging the thermal expansion member, resilient means connecting the free end of the pivoted member with one of the walls of the heat chamber, and means connecting the pivoted member, with the segmental gear member for operating the wick raising shaft upon operation of the thermal expansion member.

[Claim 2 not printed in the Gazette.]

1,253,594. DRILLING-MACHINE. JOHN B. HASTY, San Bernardino, Cal. Filed July 30, 1915. Serial No. 42,684. (Cl. 77—23.)

1. A machine of the class described, comprising a pair of frame-members or plates disposed one above the other in spaced relation to constitute a gear-casing, said members being provided with alined openings arranged circumferentially, a series of vertically disposed drill-chucks, mounted on the upper plate in a circumferential manner with the spindles of the chucks extending through said alined openings, the spindle of each chuck being provided with gearing arranged between said members or plates, a common drive gear mounted centrally between the members on a vertically disposed stub-shaft, power-imparting means in operative relation with one end of said stub-shaft, means having ball and socket connection with the ends of the spindles whereby the latter may be moved in a vertical direction while rotating without imparting rotation to said means, a supporting member or plate mounted above said frame-members in fixed spaced relation thereto, and a series of bolt-holding chucks mounted circumferentially in said supporting member in vertical alinement with the drill-chucks.



6. A machine of the class described, comprising a top and a bottom frame-member spaced apart to constitute a gear-casing, a drive-gear rotatively mounted between said frame-members, a series of drill-chucks mounted in said frame-members concentrically about said drive-gear, said drill-chucks being adapted to be rotated by said drive-gear, all of said drill-chucks being provided with spindles extending through said frame-members and arranged to travel vertically, spindle-casings secured to the bottom frame-member, cushioning means for said drill-chucks, and a series of bolt-receiving chucks held in spaced position above the drill-chucks.

[Claims 2 to 5 not printed in the Gazette.]

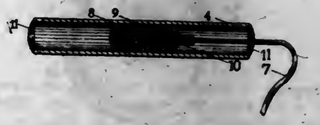
1,253,595. STRETCHER-SPRING. JOHN A. HAUSER, Dayton, Ohio, assignor of one-half to Joseph G. Berger. Dayton, Ohio. Filed July 21, 1916. Serial No. 110,434. (Cl. 21—80.)



1. In a device of the class specified, the combination with a standard, a ledge mounted thereon, a pole-supporting means resiliently mounted on said ledge, a forked device carried by the pole-supporting means, straddling the standard, closure means for the forked device, and a post passing downwardly from said pole-supporting means through the ledge, to coöperate with the forked device in guiding the post-supporting means relatively to the standard.

2. In a device of the class specified, the combination with a standard, a ledge mounted thereon, a pole receiving stirrup resiliently supported by said ledge, lugs carried by the stirrup straddling the standard, closure means carried by said lugs, and a post passing downwardly from said stirrup through the ledge to coöperate with the lugs in guiding the stirrup relatively to said standard.

1,253,596. FIRE-CRACKER. THOMAS G. HITT, Seattle, Wash. Filed Aug. 2, 1917. Serial No. 184,151. (Cl. 102—22.)



1. A fire-cracker in tubular form; a charge of explosive matter secured within it midway its length, leaving a material length of unfilled tube at each end of the charge, and a fuse leading from one end to the said charge.

2. A fire-cracker comprising a tubular body; a charge of explosive matter inclosed in a bag and secured midway in the tube, and a fuse leading to the explosive matter.

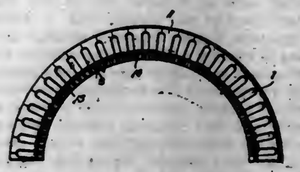
[Claim 3 not printed in the Gazette.]

1,253,597. FIRE-CRACKER. THOMAS G. HITT, Seattle, Wash. Filed Aug. 27, 1917. Serial No. 188,362. (Cl. 52—1.)

2. In a fire-cracker, a charge of powder composed of potassium perchlorate and the equivalent of aluminum and sulfur combined in about the proportion stated.

[Claim 1 not printed in the Gazette.]

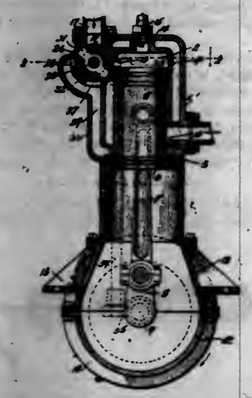
1,253,598. TIRE. SELMER O. HOFF, Trail, Minn. Filed Apr. 20, 1917. Serial No. 163,482. (Cl. 152—8.)



1. A spring tire comprising a ring having annular flanges extending around its peripheral edges, bowed leaf springs secured to the flanges and arranged in spaced relation, tread members overlying the spaces between the springs, enlargements formed upon the tread members and abutting each other, spacing blocks arranged between the extremities of the springs, and means securing the tread members and spacing blocks to the flanges of the ring.

2. A tire including a ring, annular flanges extending outwardly from opposite sides of said ring, a plurality of bowed supporting springs arranged in spaced relation around said ring and having their opposite ends engaged with said flanges, a plurality of fastening bolts passing through said flanges and through the ends of said springs, a plurality of tread members supported upon said supporting springs and arranged to close the spaces therebetween, and a plurality of fastening bolts passing through said flanges and fastening the ends of said tread members thereto.

1,253,599. GAS-ENGINE. JOHN J. HOGAN, Bridgeport, Conn. Filed Apr. 14, 1916. Serial No. 91,058. (Cl. 123—71.)



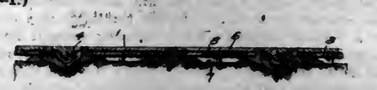
1. In a two-cycle engine in combination, a cylinder having a working chamber with an inlet port at one end and an exhaust port at the other end, a piston arranged to reciprocate therein and controlling the exhaust port to open the same at the end of its working stroke, means for introducing an ignitible charge in said working chamber throughout substantially the entire compression stroke of the piston therein, said means comprising a pump cylinder of larger internal diameter than the working chamber, said piston having a pumping end working in said pumping chamber, a passage from said pumping chamber to said inlet in the working chamber, and a valve in said passage operable to open and close the same, said valve operating to open said passage throughout substantially the entire compression stroke of said piston, said valve closing said passage during the exhausting period and during the last part of the compression stroke.

4. In a two-cycle engine in combination, a fuel supply pipe, a cyclinder having a pumping chamber, and a working chamber with an exhaust port at one end thereof, and an inlet port at the opposite end, a piston adapted to said chambers, a valve having a passage therethrough and having a turning movement for opening communication between said fuel supply pipe and said pumping chamber during substantially the entire working stroke of said piston and for opening communication between said pumping chamber and said working chamber during substantially the entire compression stroke of said piston.

5. In a two-cycle internal combustion engine, a cylinder having a working chamber of one diameter and a pump chamber of a larger diameter, a piston having a working end and a pumping end adapted respectively to said chambers, a cylindrical valve chamber, a passage leading from the pumping chamber to the wall of the valve chamber, the interior of said passage being in communication with the interior of said valve chamber, two ports in the wall of said valve chamber, one of said ports affording an inlet into said working chamber adjacent to the cylinder head, the other port communicating with a source of fuel supply, a valve having a cross-port, said valve being rotatably mounted in said valve chamber and operable to alternately open communication between said passage and the last two mentioned ports, means for rotating said valve, an exhaust port in the side of the working chamber at the opposite end from the inlet port and arranged to be opened and closed by the working end of said piston, the wall of said valve chamber serving to close said cross-port at timed intervals during the rotation of said valve, said cross-port operating to afford communication between the pumping chamber and the working chamber throughout substantially the full compression stroke of said piston and then only to open said passage to the fuel supply port throughout substantially the full power stroke of said piston and while said exhaust port is open.

[Claims 2 and 3 not printed in the Gazette.]

1,253,600. PAVEMENT. WARREN JOHNSON, New Orleans, La. Filed May 21, 1917. Serial No. 170,055. (Cl. 94—1.)

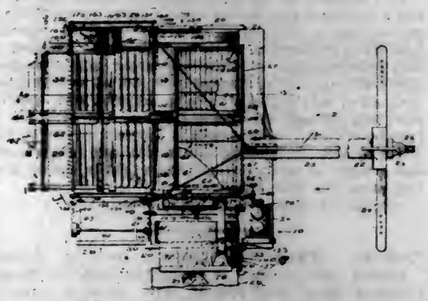


4. A pavement composed of slabs molded of plastic material capable of haddening, the slabs having at their side edges interlocking tongues and grooves, and a series of transverse openings for permitting grouting to be poured through the openings to form supports for the slabs.

5. The process of constructing a pavement which comprises providing reformed slabs having holes therein, setting stakes with their upper ends at a regulated height, supporting said slabs upon said stakes with their edges in contact and pouring grout through said holes so that said grout will spread beneath said slabs to form permanent supports for the pavement and also fill said openings.

[Claims 1 to 3 not printed in the Gazette.]

1,253,601. HARVESTING AND THRESHING MACHINE. JOHN D. JONES, Walla Walla, Wash., assignor of one-half to Henry C. Baker, Walla Walla county, Wash. Filed Jan. 24, 1913, Serial No. 744,021. Renewed Jan. 28, 1915. Serial No. 4,950. (Cl. 56—100)

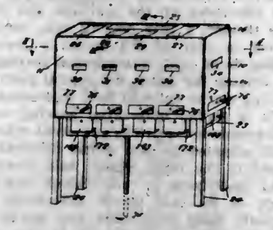


1. In a harvesting and threshing machine, a table supported by a grain wheel, a cutter bar at the front end of the table, a housing at the grain end of the table extending across the path of travel and having its front end forward of the grain wheel and having an inclined forward end, a reel rotating above the cutter bar, auxiliary slat sections formed at the grain end of the reel, means to hold the slat sections normally yieldingly in alinement with the main reel slats, and a cam carried by the housing in position to throw the auxiliary slat sections out of alinement with the main reel slats and cause said sections to follow the inclination of the housing.

2. In a harvesting and threshing machine, a table supported by a grain wheel, a cutter bar carried at the forward end of the table, a housing extending over a portion of the grain end of the table and spanning the path of travel and having its front end forward of the grain wheel, said housing having its forward end inclined both longitudinally and laterally relative to the line of travel, a reel mounted over the cutter bar, auxiliary reel sections mounted at the grain end of the main reel, means to hold the auxiliary reel sections normally yieldingly in alinement with the main reel slats, and a cam carried at the front end of the housing in position to engage the extremities of the auxiliary reel sections and to throw such reel sections out of alinement causing such reel sections to follow the contour of the housing.

[Claim 3 not printed in the Gazette.]

1,253,602. BUTTER-DISPENSING APPARATUS. NICKLAUS KAVGAS, New York, and WILLIAM K. ZWEERES, Brooklyn, N. Y. Filed Feb. 9, 1917. Serial No. 147,659. (Cl. 31—65.)



1. In a butter dispensing apparatus, a magazine having an outlet, a plurality of spring revoluble containers in the magazine for holding butter and each container having an outlet adapted to be registered with the outlet of the magazine, a manually operative yielding cutter for slicing the butter when discharged through the registered outlets, a spring actuated rotatable receive for reception of the sliced butter, and a trip for releasably checking the rotation of the receiver.

2. In a butter dispensing apparatus, a magazine having an outlet, a plurality of spring revoluble containers in the magazine for holding butter and each container having an outlet adapted to be registered with the outlet of the magazine, a retainer for checking the rotation of the containers so that each container will be releasably held to register its outlet with the outlet of the magazine for allowing the butter to be discharged from the container, and a manually operative cutter for slicing the butter when discharged through the registered outlet.

5. In a butter dispensing apparatus, a magazine having an outlet, a plurality of spring revoluble containers in the magazine for holding butter and each container having an outlet adapted to be registered with the outlet of the magazine, a retainer for checking the rotation of the containers so that each container will be releasably held to register its outlet with the outlet of the magazine for allowing the butter to be discharged from the container, a manually operative cutter for slicing the butter when discharged through the registered outlets and the said retainer being operable by the cutter for releasing each container when emptied so that the containers may be revolved whereby the outlet of the next following container will be registered with the outlet of the magazine, a spring actuated rotatable receiver having a plurality of receptacles each for reception of sliced portions of the butter, and a trip for releasably checking the rotation of the receiver, the said trip being operable by the cutter for releasing the receiver at intervals.

9. In a butter dispensing apparatus, a casing with a cooling chamber and having an outlet, a plurality of spring revoluble containers in the casing for holding butter and each container having an outlet adapted to be registered with the outlet of the casing, a manually operative cutter for slicing the butter when discharged through the registered outlets, a receiver on the casing for reception of the sliced butter, and means on the casing for indicating when the containers are emptied.

16. In a butter dispensing apparatus, a casing with a main chamber, a subchamber, a plurality of stationary magazines in the main chamber of the casing and each having an outlet leading into the subchamber of the casing, a plurality of spring revoluble containers in each magazine for holding butter and each container having an outlet adapted to be registered with the outlet of the magazine, a retainer on each magazine for checking the rotation of the containers so that each container will be releasably held to register its outlet with the outlet of the magazine for allowing the butter to be discharged from the container, and a manually operative cutter in the subchamber of the casing under each magazine for slicing the butter when discharged through the registered outlets and each of said retainers being operable by one of the cutters for releasing each container of the magazine when emptied so that the containers may be revolved whereby the outlet of the next following container will be registered with the outlet of its magazine.

[Claims 3, 4, 6 to 8, 10 to 15, and 17 to 29 not printed in the Gazette.]

1,253,603. DISINFECTING DEVICE. CLINTON D. KEAGY, New Castle, Pa. Filed Nov. 13, 1916. Serial No. 131,142. (Cl. 133—11.)

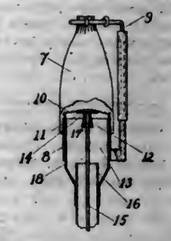


1. A disinfectant device comprising a receptacle of shallow depth and adapted to be fitted in a money drawer, a plurality of strips of disinfectant material arranged within the receptacle, and a retaining plate carried by the receptacle and provided with a plurality of apertures, certain portions of the said cover plate being concaved, the said openings being extended through the concaved portions.

3. A disinfectant device comprising a receptacle of relatively shallow depth and having a plurality of superposed strips of disinfectant material arranged therein and completely covering the bottom thereof, a retaining plate mounted upon the receptacle and covering the said strip and provided with a plurality of concaved portions having their depressed surfaces engaged with the uppermost of the said strips, the said depressed portions being perforated to permit the escape of the fumes from the strips of disinfectant material at the point where they are engaged by the said depressed portions of the retaining plate.

[Claim 2 not printed in the Gazette.]

1,253,604. GAS-BURNER. WILLIAM B. KING, Boston, Mass. Filed Oct. 9, 1913. Serial No. 794,510. Cl. 67—96.)



1. A burner-cap having a gauze and a deflector, an opening in the deflector and a closure of heat resisting but easily puncturable material for said opening.

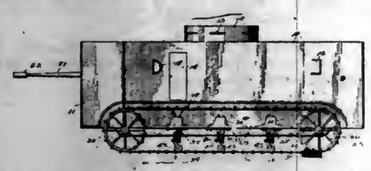
7. A burner-cap having a gauze and a deflector, an opening in the deflector and a closure of puncturable material for the opening, a burner having an internal pilot-tube for puncturing said closure, said material being of such a nature that it will not clog the pilot-tube.

[Claims 2 to 6, 8, and 9 not printed in the Gazette.]

1,253,605. WAR-AUTOMOBILE. STEPHEN KUPCHAK, Rosevear, Alberta, Canada. Filed Apr. 17, 1917. Serial No. 162,651. (Cl. 21—150.)

1. In a device of the kind described, a car body, spaced wheels on each side of said body, sprocket teeth on said

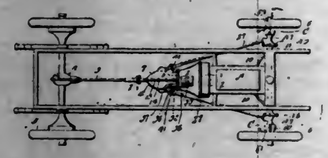
wheels, tractor sprocket chains each connecting the wheels on a respective side of said body, the lower runs of said chains constituting tread surfaces, shelves projecting laterally from said body between the wheels of each side, housings carried by said shelves, vertically movable rods mounted in said housings, rollers on the lower ends of said rods and bearing on the bottom runs of said chains, springs pressing said rollers downward, means accessible from within the body to vary the vertical limits of movement of said rods and rollers, and other means operable from within the body for varying the tension of said springs.



2. In a device of the kind described, a car body, spaced wheels on each side of said body, sprocket teeth on said wheels, tractor sprocket chains each connecting the wheels on a respective side of said body, the lower runs of said chains constituting tread surfaces, shelves projecting laterally from said body between the wheels of each side, housings carried by said shelves, vertically movable rods mounted in said housings, rollers on the lower ends of said rods and bearing on the bottom runs of said chains, gear nuts threaded on the lower ends of the rods beneath the housings, springs between said nuts and housings, vertically disposed drum and gears meshing with the gear nuts, and means to rotate the drum gears including handled cranks located within the car body.

3. In a device of the kind described, a car body, spaced wheels on each side of said body, sprocket teeth on said wheels, tractor sprocket chains each connecting the wheels on a respective side of said body, the lower runs of said chains constituting tread surfaces, shelves projecting laterally from said body between the wheels of each side, housings carried by said shelves, vertically movable rods mounted in said housings, rollers on the lower ends of said rods and bearing on the bottom runs of said chains, gear nuts threaded on the lower ends of the rods beneath the housings, springs between said nuts and housings, vertically disposed drum and gears meshing with the gear nuts, and means to rotate the drum gears including handled cranks located within the car body, and adjustable means accessible from within the car body for varying the vertical limits of movements of said rods.

1,253,606. FOUR-WHEEL DRIVE MECHANISM. CHARLES WILLIAM KENNEDY, Clarence, Mo., assignor of one-half to Wilber Jackson, Macon, Mo. Filed Feb. 24, 1917. Serial No. 150,765. (Cl. 74—99.)

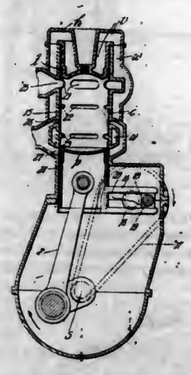


1. In a motor vehicle, the combination of a motor located near the front of the machine and supported by the frame thereof, a rear driving axle, transmission gearing located in rear of the motor, a transmission shaft extending from said transmission gearing to the rear axle for driving the latter, differential gearing forming a connecting means between said transmission shaft and rear axle, a second differential gearing located in rear of the transmission gearing, and front wheel transmission shafts actuated by said second differential gearing and geared to the front wheels, said second differential gearing embodying a countershaft carrying the driving pinion of the last named differential gearing, said countershaft being in parallel and spaced relation to the main transmission shaft and in line with the axis of movement of the differential gears, means for throwing said countershaft into and out of driven engagement with said main transmission shaft, the last named means comprising gears on said main transmission shaft and said countershaft, and means for shifting one of said gears into and out of mesh with the other gear.

2. In a motor vehicle, the combination of a motor located near the front of the machine and supported by the frame thereof, a rear driving axle, transmission gearing located in rear of the motor, a transmission shaft extending from said transmission gearing to the rear axle for driving the latter, differential gearing forming a connecting means between said transmission shaft and rear axle, a second differential gearing located in rear of the transmission gearing, and front wheel transmission shafts actuated by said second differential gearing and geared to the front wheels, said second differential gearing embodying a countershaft carrying the driving pinion of the last named differential gearing, said countershaft being in parallel and spaced relation to the main transmission shaft and in line with the axis of movement of the differential gears, means for throwing said countershaft into and out of driven engagement with said main transmission shaft, the last named means comprising gears on said main transmission shaft and said countershaft, and means for shifting one of said gears into and out of mesh with the other gear, said shiftable gear being slidable longitudinally of the shaft on which it is mounted and being engaged to rotate therewith.

1,253,607. INTERNAL-COMBUSTION ENGINE. HARRY A. KNOX, Chicopee Falls, Mass. Filed July 14, 1917. Serial No. 180,599. (Cl. 123—75.)

3. The combination in a four-cycle engine with the cylinder and its combustion chamber, of a sleeve slidable in the cylinder, a piston slidable in the sleeve, an exhaust port provided in the cylinder and arranged to be opened and closed at properly timed intervals by movement of the sleeve, and inlet ports provided in the cylinder at different levels and all arranged below the combustion chamber, said inlet ports arranged to be opened and closed at properly timed intervals by movement of the sleeve and piston, all constructed and arranged so that when the explosion occurs all said inlet ports are below the head of the piston.



8. In a four cycle engine, a cylinder having an exhaust port therein and inlet ports arranged at different levels, a sleeve slidable in the cylinder, a piston slidable in the sleeve, an opening provided in the latter to coöperate with said exhaust port at properly timed intervals and other openings, in excess of the number of inlet ports, provided in the sleeve to communicate with the latter at properly timed intervals.

10. In a four cycle engine, a cylinder having exhaust and admission ports therein, a sleeve slidable in the cylinder, a piston slidable in the sleeve, means to move the latter one stroke during one cycle of the engine, inlet openings provided in the sleeve to communicate periodically with said inlet port, and an exhaust opening provided in the sleeve and movable from opposite directions in successive engine cycles into communication with the exhaust port.

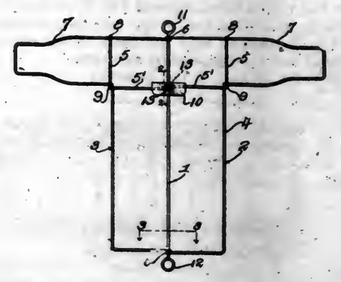
14. A four cycle engine, comprising, a cylinder with exhaust and inlet ports, a piston, and a single sleeve between it and the cylinder arranged with the piston to control said ports, means to reciprocate the sleeve in a straight line in a stroke ratio with respect to the piston strokes of one to four, the ports and sleeve being constructed and arranged so that one complete stroke of the sleeve in either direction will cause the ports to register in properly timed relation for one complete engine cycle.

[Claims 1, 2, 4 to 7, 9, and 11 to 13 not printed in the Gazette.]

1,253,608. GARMENT-STRETCHER. DANIEL F. LAMBERT, West Concord, Minn. Filed Mar. 29, 1917. Serial No. 158,424. (Cl. 223—19.)

1. A garment stretcher comprising a pair of body members, a pintle connecting said members whereby they may be folded together along the longitudinal lines, cross bars carried by said members, and a locking element U-shaped in cross section having an aperture in its cross bar through which said pintle extends, said locking element being adapted to engage said cross bars to lock the body members in both open and folded positions.
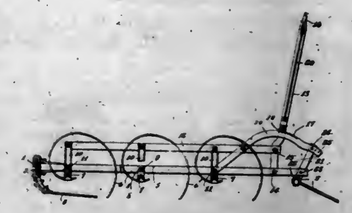
3. A stretcher of the class described comprising a centrally disposed rod having suspension members at its opposite ends, sections of uniform size and shape pivotally mounted at their inner ends on said rod and having laterally extending arm members at their upper ends, reinforcing members connecting said rod with each section, said reinforcing members being pivotally engaged



with the rod, and a locking plate slidable on said rod and adapted to engage said reinforcing members to hold the sections in open position.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,253,609. HARROW. WILLIAM H. LEE, Syracuse, N. Y., assignor to Syracuse Chilled Plow Company, Syracuse, N. Y., a Corporation of New York. Filed Apr. 15, 1915. Serial No. 21,508. (Cl. 55—104.)



1. A harrow comprising a frame including a stationary element extending lengthwise thereof, a rocking bar pivoted to the frame, harrow teeth carried by the rocking bar, the rocking bar having an upwardly extending rock arm pivoted to the frame element, a lever pivoted to the frame element and connected to said rock arm, the lever having a pawl associated therewith, a rack supported from the frame element in position to coact with the pawl, the rack being connected to the frame element by the same pivot connecting the upwardly extending rock arm and the frame element, substantially as and for the purpose set forth.

2. A harrow comprising a frame, a rockable bar supported by the frame, rake teeth projecting downwardly and rearwardly from the bar, the rockable bar having an arm rigid therewith, a rocking bar pivoted to the frame, harrow teeth carried by the last-named bar, a segment formed with a rack, the segment being secured at one end to the frame and at its other end to said arm on the rake bar, a lever pivoted to the frame, means connecting the lever and the rocking bar supporting the harrow teeth for transmitting the motion of the lever to said rocking bar, and a pawl associated with the lever and coacting with the rack, substantially as and for the purpose described.

3. A harrow comprising a frame including a lengthwise element, rocking bars pivoted at their ends to the frame and extending under the frame element, arms extending upwardly from the rocking bars and being pivoted between their ends to the frame element, a rod connecting said arms and being pivoted thereto, a lever pivoted to the lengthwise frame element and to said rod, the lever having a pawl associated therewith, an additional rock-

ing bar at the rear end of the frame having rearwardly and downwardly extending rake teeth, and also having an upwardly extending arm pivoted to the frame element and extending above the same, and a segment secured at its front end to the frame element and at its rear end to the upwardly extending arm of the rake bar, the segment having a rack coacting with the pawl of the lever, substantially as and for the purpose set forth.

[Claim 4 not printed in the Gazette.]

1,253,610. RAILWAY-TIE. GEORGE A. LE FEVRE, New York, N. Y., assignor of one-half to William C. Halleck, New York, N. Y. Filed Feb. 17, 1917. Serial No. 149,183. (Cl. 238—3.)



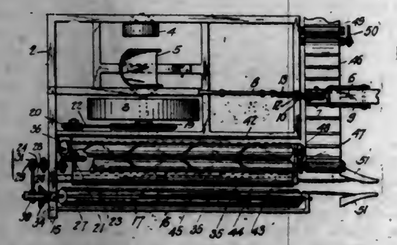
1. As an improved article of manufacture, a generally cylindrical reinforced concrete railway tie having integral ribs spaced apart to limit the spread of the track rails.

5. A reinforced generally cylindrical concrete railway tie having integral ribs spaced apart thereon and having a plain exterior surface whereby the rail fastening devices are extraneous of the tie.

6. As an improved article of manufacture, a generally cylindrical solid reinforced concrete railway tie having integral ribs thereon.

[Claims 2 to 4 not printed in the Gazette.]

1,253,611. CORN-HUSKER. GEORGE B. LOCKE, Fort Logan, Colo. Filed Mar. 29, 1917. Serial No. 158,442. (Cl. 56—113.)

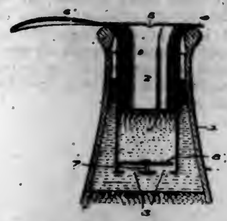


2. A corn-husking machine comprising in combination, a wheeled carrier and a corn-harvesting mechanism mounted on said carrier beyond a side thereof and including a pair of parallel rotary husking-rollers slanting upwardly toward the rear of the carrier, a hopper for feeding ears of corn upon said rollers, composed of two convergent side-members one of which has its upper edge slanting rearwardly in a line divergent to the plane of the axes of the husking-rollers, a snapping-roller mounted outside the hopper in parallel spaced relation to said edge thereof to provide a narrow passage for corn-stalks along which the carrier is propelled, said snapping roller having upon its peripheral surface longitudinally extending ridges which coöperate with said edge of the hopper to strip corn-ears from the stalks passing through said passage, means for directing corn-stalks into said passage, and mechanism for the rotation of the rollers by the movement of the carrier.

[Claim 1 not printed in the Gazette.]

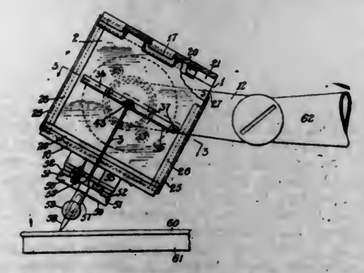
1,253,612. CREAM-DIPPER. JAMES B. LOVE, Woonsocket, R. I. Filed Dec. 26, 1916. Serial No. 138,832. (Cl. 65—28.)

A cream dipper comprising a tubular body, of circular form and a size in cross-section to rest in the neck of a milk bottle, and having an opening in its bottom and an upwardly-opening valve controlling said opening and also having its upper end flared and forming a supporting flange adapted to bear on the upper end of the neck of



the milk bottle and further having a pouring spout in said flange, and a handle integral with and extending laterally from said flange and disposed at right angles to said spout.

1,253,613. ACOUSTICAL INSTRUMENT. LOUIS LUMIÈRE, Lyon, France, assignor to Victor Talking Machine Company, a Corporation of New Jersey. Filed July 5, 1912. Serial No. 707,769. (Cl. 181—31.)



3. In a sound box, the combination with a polygonal diaphragm, of a pair of substantially straight yielding supports parallel with and adjacent to each of a pair of opposite sides, and engaging respectively the opposite sides of said diaphragm, said edges being yieldingly restrained by said supports, freely movable closures connecting the intermediate edges of said diaphragms to the sound box casing, and means connected to said diaphragm parallel to said restrained edges and intermediate of said supports for flexing said diaphragm on lines at right angles to said restrained edges, said means comprising an elongated reinforced member and being operative to restrain said diaphragm from being flexed on lines parallel to said restrained edges.

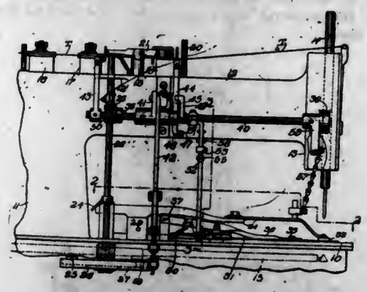
5. In an acoustical instrument, a polygonal diaphragm having opposite yieldingly restrained edges and opposite free edges, and a folded yielding member secured to each of said last-named edges.

15. In a sound box, the combination of a diaphragm free at opposite edges and restrained adjacent opposite edges perpendicular to said first mentioned edges, and means for preventing flexure of said diaphragm except on lines substantially at right angles to said restrained edges.

[Claims 1, 2, 4, 6 to 14, 16, and 17 not printed in the Gazette.]

1,253,614. SEWING-MACHINE. ROBERT L. LYONS, Waltham, HAROLD W. MORRIS, Roxbury, and CARL I. NIELSEN, Arlington, Mass., assignors to Frederick Osmun Company, New York, N. Y., a Corporation of New York. Filed Mar. 16, 1914. Serial No. 824,873. (Cl. 112—33.)

1. A sewing machine comprising stitch forming means to form a group of stitches and a tying stitch and including a work holder for effecting relative movement between the work and the needle, said work holder having a presser foot and a cloth sustaining plate, means adapted to be operated to resist the movement of the thread, and means for operating said cloth plate to move the work and thus to break the thread.



4. A sewing machine comprising a work holder having a presser foot and a cloth sustaining member mounted for independent movement, means for moving said presser foot and retaining the same, means for moving the cloth sustaining member relative to said presser foot and for releasing said member whereby said member may return to normal position.

[Claims 2, 3, and 5 to 7 not printed in the Gazette.]

1,253,615. MANUFACTURE OF CHLORHYDRINS. KARL P. MCELROY, Washington, D. C., assignor to Chemical Development Company, Washington, D. C., a Corporation of Maine. Filed June 22, 1915. Serial No. 35,505. (Cl. 204—9.)

1. In the manufacture of halohydrins, the process which comprises causing a halogen and an olefin to react in the presence of sufficient H_2O to prevent a substantial formation of an olefin halid.

5. In the manufacture of chlorhydrins, the process which comprises causing chlorin and an olefin to react in the presence of sufficient liquid water to prevent a substantial formation of olefin chlorid.

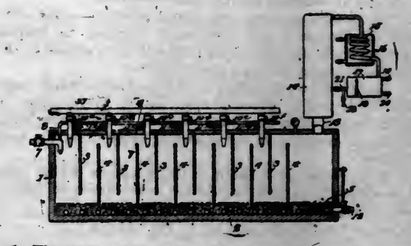
9. The process of making useful products which comprises subjecting a gaseous olefinic hydrocarbon to limited anodic oxidation with a chlorid electrolyte.

17. In the production of chlorhydrins, the process which comprises maintaining a bath of chlorid solution impregnated with oil gas and during such maintenance passing current through an anode and a cathode in such bath and also through a secondary cathode separated from such bath by a diaphragm.

19. As a new composition of matter a solvent liquid composed of the chlorhydrins corresponding to the gaseous olefins of oil gas, such liquid being heavier than water, boiling in a dry state between 125° C. and 135° C. with the greater portion boiling below 130° C., boiling in a moist state somewhat below 100° C., being miscible with several times its volume of water and being a solvent for cellulose esters.

[Claims 2 to 4, 6 to 8, 10 to 16, and 18 not printed in the Gazette.]

1,253,616. PROCESS OF MAKING CHLORHYDRINS. KARL P. MCELROY, Washington, D. C., assignor to Chemical Development Company, Washington, D. C., a Corporation of Maine. Filed June 17, 1915. Serial No. 34,678. (Cl. 23—24.)



1. The process of making chlorhydrins which comprises establishing and maintaining a body of boiling aqueous liquid in a suitable reaction chamber having a vapor space and introducing chlorin and an olefin into such chamber so as to mix in such vapor space.

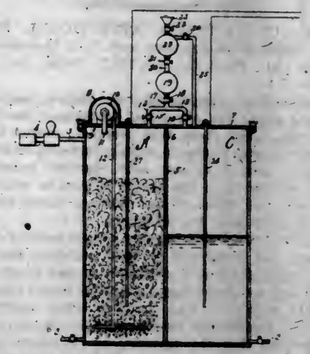
6. The process of making chlorhydrins and hydrochloric acid which comprises establishing and maintaining a body of aqueous liquid at about the boiling point in a suitable reaction chamber having a vapor space, and supplying steam, gaseous chlorin and gaseous olefin so as to mix in such vapor space to such chamber while withdrawing concentrated chlorhydrin vapors and hydrochloric acid solution therefrom, the supply of steam, gas and chlorin and the withdrawal of solution being at such a ratio as to maintain a relatively low concentration of hydrochloric acid in said aqueous body.

12. The process of making chlorhydrins which comprises producing a mixture of steam and oil gas and adding chlorin to such mixture in a plurality of successive additions.

16. The process of making chlorhydrins which comprises blowing steam and oil gas into and through a horizontal baffled chamber in a circuitous path, said chamber being maintained at a temperature of about 100° C. and containing a body of hot water to act as an absorbent for HCl and to furnish vapor reinforcing the amount of steam, removing the hot vapors and gases and condensing to obtain chlorhydrins.

[Claims 2 to 5, 7 to 11, and 13 to 15 not printed in the Gazette.]

1,253,617. PROCESS OF AND APPARATUS FOR OXIDIZING HYDROCARBONS. KARL P. MCELROY, Washington, D. C., assignor to Chemical Development Company, a Corporation of Maine. Filed Aug. 2, 1912, Serial No. 712,975. Renewed Mar. 18, 1916. Serial No. 85,200. (Cl. 204—9.)



1. The process of preparing useful products which comprises submitting an unsaturated gaseous hydrocarbon to

limited oxidation, such hydrocarbon being maintained in excess in the sphere of reaction during such oxidation.

2. The process of preparing useful products which comprises submitting a gaseous olefinic hydrocarbon to limited oxidation, such hydrocarbon being maintained in excess in the sphere of reaction during such oxidation.

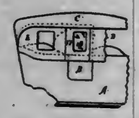
3. The process of preparing useful products which comprises submitting a gas comprising ethylene to limited oxidation, such ethylene being maintained in excess in the sphere of reaction during such oxidation.

4. The process of making useful products which comprises subjecting a gaseous unsaturated hydrocarbon to limited anodic oxidation, such gaseous hydrocarbon being maintained in excess in the sphere of reaction during such oxidation.

5. The process of making useful products which comprises subjecting a gaseous olefinic hydrocarbon to limited anodic oxidation.

[Claims 6 to 33 not printed in the Gazette.]

1,253,618. DETACHABLE DOOR EXTENSION. EDWIN MCGRAW, Milton, Ind. Filed Jan. 19, 1917. Serial No. 143,206. (Cl. 21—62.)



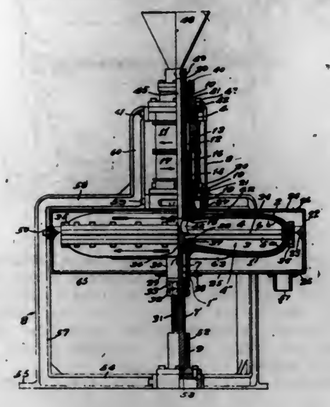
In combination with a vehicle having a door opening and a door adapted to close the lower portion of the door opening, an extension carried by the upper portion of the door and comprising in combination a section of fabric closing the door opening above said door and extending down outside the upper edge of the door and extending upward underneath the edge of the vehicle top and adapted to be connected to the sides of the door opening, a frame formed of rods on which said fabric extension is mounted, there being pockets formed in the fabric for the members of the frame, the said frame comprising two vertical side-arms and a horizontal upper section, means for detachably securing the upper ends of the side-arms to the ends of said horizontal section, socket clips secured to the inner face of the upper portion of the door into which the lower ends of said side-arms of the frame are adapted to be detachably inserted and retained therein by gravity, hinges located intermediate said side-arms for providing means whereby the extension may be turned down inside the vehicle and parallel with the door, the said extension being adapted to be disassembled and rolled into a small compass of space when not in use, all substantially as shown and described.

1,253,619. CENTRIFUGAL ATTRITIONAL PULVERIZER. JOHN H. MACARTNEY and JACK MACARTNEY, Los Angeles, Cal. Filed Jan. 10, 1917. Serial No. 141,689. (Cl. 83—7.)

1. A pulverizer comprising two hollow members arranged one above the other and forming a chamber and a peripheral outlet from said chamber, means to rotate said members, and means to supply material to the chamber between said members; said chamber increasing in depth outwardly from the supply means to near the periphery and the walls of the chamber being curved toward each other near the periphery.

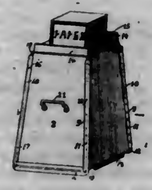
2. A pulverizer comprising two hollow members forming a chamber and separated to form between them a peripheral outlet from said chamber, means to rotate said members, and means to supply material to the chamber between said members; said chamber being outwardly depended and terminated peripherally by separated vertical walls that stop the material on its outward course.

3. A pulverizer comprising two hollow members forming a chamber and separated to form between them a peripheral outlet from said chamber, means to oppositely rotate said members, and means to supply material to the chamber between said members; said chamber being outwardly deepened above and below the central horizontal plane to near the periphery and then gradually reduced in depth to the periphery and terminated by vertical walls formed by the rims of the chamber to stop the outward flow of the material above and below said central horizontal plane.



4. The combination with a frame, a step bearing and an upper bearing connected to the frame; of a shaft mounted in said bearings and having a bore in its upper portion and lateral ports at the lower end of such bore; a head fixed to the shaft and recessed on its upper face below the level of said ports; a head recessed on its under face and having a hollow arbor extending upward therefrom and journaled on said shaft; means connected with the hollow arbor to rotate the upper head and means connected to the shaft to rotate the lower head; a top collar connected to the frame and a tube connected to said top collar and extending down within the bore of the shaft to allow material to be delivered therethrough to the ports without contact with the walls of the bore.

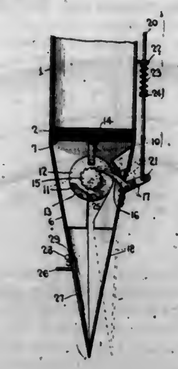
1,253,620. HYGIENIC GARBAGE-RECEPTACLE. ISAAC MANDEL, New York, N. Y. Filed May 25, 1914. Serial No. 840,887. (Cl. 220—115.)



1. A transmitting receptacle for garbage having tapering sides, a hinged lid at the top, cylindrical edge pockets, a sliding bottom, springs mounted in the cylindrical edge pockets, flexible cords connecting the springs to the slidable bottom tending to hold the bottom closed, and a pair of spaced guideways constituting supports for the receptacle and guides for the slidable bottom, said slidable bottom having a downwardly extending projection by which it may be opened.

[Claim 2 not printed in the Gazette.]

1,253,621. SEEDER. FRED MARTINSON, Chinook, Mont. Filed June 11, 1917. Serial No. 174,079. (Cl. 111—95.)



1. A hand seeder comprising a seed receptacle having a seed distributing and earth penetrating member carried by its lower end, a horizontal partition disposed between said receptacle and said distributer and having an opening, a revoluble seed distributing disk supported below said partition with its periphery positioned to aline with the opening therein, said disk having a plurality of peripherally arranged pockets, a spring finger depending from said horizontal partition and frictionally engaging one face of said disk, and means under the control of the operator for rotating said disk.

3. A hand seeder comprising a seed receptacle having an inverted cone-shaped seed distributing and earth penetrating member carried by its lower end, a horizontal partition disposed between said container and said distributer and having a concave upper face terminating in a central opening, a vertically disposed partition depending from said horizontal partition and extending transversely across said distributer, said vertical partition having a circular opening therein, a conduit connecting the opening in said horizontal partition with the opening in said vertical partition, a seed distributing disk revolubly mounted in the opening of said vertical partition and having a plurality of peripherally arranged pockets positioned to register with said conduits on the turning of said disk, a spring finger depending from said horizontal partition and frictionally engaging one face of said disk, said cone-shaped distributing member having a pivoted section adapted to open outwardly, and means under the control of the operator for simultaneously opening said section and rotating said disk.

5. A hand seeder comprising a seed receptacle having an inverted cone-shaped seed distributing and earth penetrating member carried by its lower end, a horizontal partition disposed between said container and said distributer and having a concave upper face terminating in a central opening, a vertically disposed partition depending from said horizontal partition and extending transversely across said distributer, said vertical partition having a circular opening therein, a conduit connecting the opening in said horizontal partition with the opening in said vertical partition, a seed distributing disk revolubly mounted in the opening of said vertical partition and having a plurality of peripherally arranged pockets positioned to register with said conduits on the turning of said disk, a spring finger depending from said horizontal partition and frictionally engaging one face of said disk, said cone-shaped distributing member having a pivoted section adapted to open outwardly, a pawl carried by said pivoted section, a ratchet on said disk for engagement by said pawl, and a vertically movable rod connected to open said section and actuate said pawl for turning said disk a predetermined distance.

[Claims 2 and 4 not printed in the Gazette.]

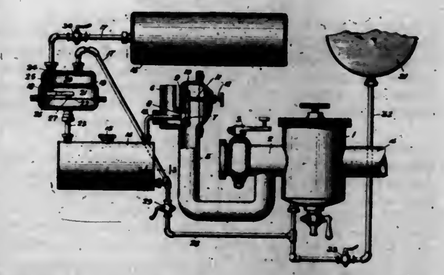
1,253,622. MANUFACTURE OF PURE HYDROGEN. EDWARD BRADFORD MAXTED, Walsall, England. Filed July 17, 1916. Serial No. 109,783. (Cl. 48—198.)

1. A process for the production of hydrogen by alternate reduction of heated iron oxid by a reducing gas containing carbon monoxid and reoxidation by steam, which consists in treating the iron oxid with a reducing gas without admixture of air or steam, such reducing gas containing substantially larger proportions of carbon dioxid than of carbon monoxid and in subsequently passing steam over the reduced iron in a heated condition so as to liberate hydrogen.

2. A process for the production of hydrogen by alternate reduction of heated iron oxid by a reducing gas containing carbon, monoxid and reoxidation by steam, which consists in heating the iron oxid by external means, treating the iron oxid with a reducing gas without admixture of air or steam, such reducing gas containing substantially larger proportions of carbon dioxid than of carbon monoxid and in subsequently passing steam over the reduced iron in a heated condition, so as to liberate hydrogen.

3. A process for the production of hydrogen by alternate reduction of heated iron oxid by a reducing gas containing carbon monoxid and reoxidation by steam, which consists in treating the iron oxid with a reducing gas without admixture of air or steam, such reducing gas containing not less than two parts by volume of carbon dioxid for each part of carbon monoxid and in subsequently passing steam over the reduced iron in a heated condition so as to liberate hydrogen.

1,253,623. INTERNAL-COMBUSTION ENGINE. GEORGE S. MAXWELL, Washington, D. C., assignor to A. Ralph Serven, trustee, Washington, D. C. Filed Sept. 29, 1916. Serial No. 122,859. (Cl. 123—119.)



1. In internal combustion engines, the combination with means for conducting an explosive to the engine cylinder, of a reservoir for volatile combustible material, a reservoir containing under compression an enriching explosive agent, means effecting communication between the two reservoirs for enriching the contents of one by addition of the compressed explosive agent of the other, and means for mixing air and the enriched combustible fuel and conducting it to the point of explosion.

2. In internal combustion engines, the combination with means for conducting an explosive to the engine cylinder, of a reservoir for volatile combustible material, a reservoir containing under compression an enriching explosive agent, means effecting communication between the two reservoirs for enriching the contents of one by addition of the compressed explosive agent of the other, a pressure

reducing device in communication with the two reservoirs for maintaining a substantially constant pressure in the reservoir containing the volatile combustible material.

[Claims 3 to 6 not printed in the Gazette.]

1,253,624. SHOE-SUPPORT. JOHN H. MEACHAM, Rochester, N. H., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed May 13, 1915. Serial No. 27,818. (Cl. 12—4.)



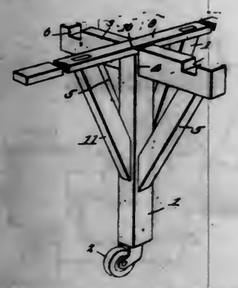
1. In a pulling-over machine, the combination with a heel rest, of a liner therefor presenting a non-rigid shoe engaging surface and spring clasps for engagement around the upper and lower edges of the heel rest.

2. In a pulling-over machine, the combination with a heel rest, of a liner therefor comprising a sheet metal frame having spring clasps for engagement with the edges of the rest, a facing, and a backing of fabric secured to the frame.

7. In a pulling-over machine, the combination with a heel rest having work-engaging faces arranged at substantially right angles to each other, of a liner for the rest, the work contacting faces of the liner being constructed and arranged at an acute angle to the faces of the rest and intersecting in a line extending substantially in the direction of the back seam of a shoe held in said rest so that the heel portion of a small shoe will be gripped and held frictionally against vertical movement.

[Claims 3 to 6 not printed in the Gazette.]

1,253,625. THIRD-RAIL FIFTH-LEG BED-BRACE. THOMAS M. MORPHIS, Bynum, N. C. Filed Jan. 4, 1917. Serial No. 140,618. (Cl. 5—41.)

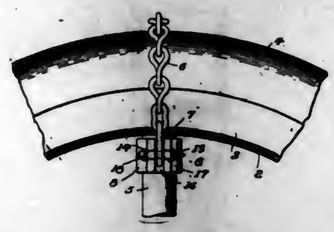


1. A central supporting device for bed bottoms embodying a leg, a third rail carried thereby having means for engaging two slats of a bed, and a slat carried by the leg at an angle with said rail and engageable with the side rails of the bed.

2. A central supporting device for bed bottoms embodying a fifth leg, a third rail secured between its ends to the upper end of the leg and provided with upper notches near its ends for engaging slats of a bed, a slat secured between its ends to the upper end of said leg and arranged at right angles to the rail to engage the side rails of the bed, and braces between the leg and third rail and second mentioned slat.

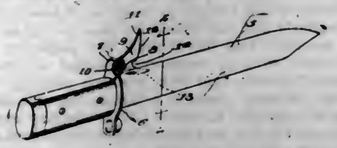
1,253,626. ANTISKID DEVICE FOR VEHICLE-WHEELS. WILLIAM C. MUNDORF, York, Pa. Filed Mar. 4, 1916. Serial No. 82,015. (Cl. 24—73.)

A clamp comprising two like members each having a central concavity to receive the element clamped, a shoulder upon opposite sides of said concavity forming abutting surfaces when the clamp is in position, and reduced portions beyond said shoulders to form spaces between the ends of said members upon opposite sides of the clamp, clamping bolts passing through the shouldered portions



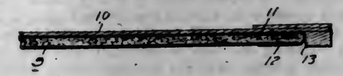
of said members for securing the members of the clamp in clamping position, and removable pins passing through the spaced ends of said members to engage and connect an element extended between said spaced ends of the members to the clamp.

1,253,627. WIRE-CUTTER. WILLIAM T. O'NEILL, Nortlack, Saskatchewan, Canada. Filed Jan. 2, 1917. Serial No. 140,227. (Cl. 42—86.)



The combination with a bayonet having its hilt provided with a bearing eye, of a cutter therefor, a pin extending through the bearing eye of the hilt and through said cutter for mounting the cutter on the hilt end of the bayonet for a vertical rocking movement, and a spring embracing said pin for holding the cutter in an outward position with respect to one of the longitudinal edges of said bayonet.

1,253,628. CUSHION-COVER FOR FRUIT-CRATES. IRVING WILLIAM PECK, Macon, Ga. Filed Sept. 20, 1915. Serial No. 51,707. (Cl. 217—53.)



1. A cover for crates, flexible strips arranged at opposite edges of the cover and having edge portions attached thereto, and a flat cushion placed against a side of the cover, and held in place by the said flexible strips, the loose edge portions of which overlap opposite parts of the cushion and are attached thereto.

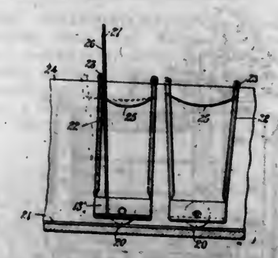
4. A cover for crates, a flat cushion placed against a side of the cover and comprising a filling and a flexible retaining sheet, and strips closing the edges of the cushion and having edge portions attached to the cover and retaining sheets, respectively.

[Claims 2 and 3 not printed in the Gazette.]

1,253,629. RECORD-FILE. FRANK P. READ, Chicago, Ill. Filed Jan. 5, 1917. Serial No. 140,746. (Cl. 129—16.)

1. A record file comprising a container, a plurality of pockets independently supported at their upper and lower parts in the container, each including front and back flaps with means for permanently spacing apart the lower edges of said flaps, said means constituting the pocket bottom.

2. A record file comprising a container, a plurality of pockets independently supported at their upper and lower parts in the container, each including front and back flaps with means for permanently spacing apart the lower edges of said flaps, said means constituting the pocket bottom, the pocket support including an anti-friction means to permit the pockets to be moved to and fro freely in said container.



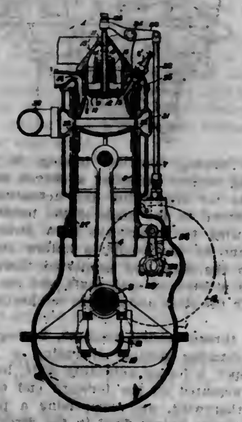
3. A record file comprising a container, a plurality of pockets independently supported at their upper and lower parts in the container, each including front and back flaps with means for permanently spacing apart the lower edges of said flaps, said means constituting the pocket bottom and means for limiting the spreading apart of the upper parts of the front and rear flaps.

4. A record file comprising a container, a plurality of pockets independently supported at their upper and lower parts in the container, said pockets being substantially flat bottomed, the front and back flaps of said pockets being movable toward and from each other, anti-friction devices arranged between each pocket and the support for the latter, whereby said pockets may be moved bodily in said container and whereby the flaps of each pocket may be moved toward and from each other with freedom.

6. In a record file comprising a container, a plurality of pockets therein, each pocket having a yielding bottom and means for spacing the sides of each pocket apart near the bottom.

[Claims 5 and 7 to 9 not printed in the Gazette.]

1,253,630. INTERNAL-COMBUSTION ENGINE. ANDREW L. RIKER, Bridgeport, Conn., assignor to The "Locomobile" Company of America, New York, N. Y., a Corporation of West Virginia. Filed Apr. 11, 1910. Serial No. 554,592. (Cl. 123—75.)



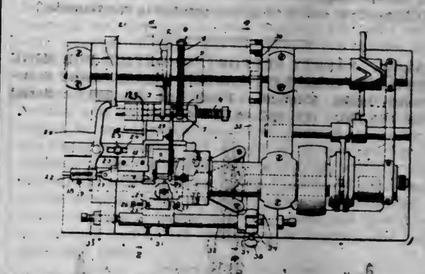
1. An internal combustion engine comprising in combination, a cylinder, a piston reciprocable therein, a sleeve between said piston and said cylinder and also reciprocable in said cylinder and controlling only the exhaust therefrom and a valve distinct from said piston for controlling the admission.

2. An internal combustion engine comprising in combination a cylinder, a head projecting into and fixed with relation thereto, a piston reciprocable in said cylinder, a sleeve telescoped with and reciprocable in said cylinder between said piston and said cylinder and also between the same and said head, said sleeve controlling only the exhaust from said cylinder, and a valve distinct from said piston for controlling the admission.

3. An internal combustion engine comprising in combination a fixed cylinder provided with an exhaust port, and having a head fixed with relation thereto, a movable cylinder telescoped within and in contact with said fixed cylinder for controlling only said exhaust port, and having its end adjacent said head open, a piston movable in contact with said movable cylinder, means operatively connecting said piston with said movable cylinder for opening and closing said exhaust port, and a valve distinct from said movable cylinder and piston for controlling the admission into the fixed cylinder.

[Claims 4 to 8 not printed in the Gazette.]

1,253,631. MACHINE FOR THREADING SCREWS. FREDRICK W. RODD, Cleveland, Ohio. Filed Aug. 22, 1916. Serial No. 116,345. (Cl. 10—4.)



1. In combination with a screw threading machine, a longitudinally slidably and rockably mounted cup arm and finger arm shaft, a finger arm fixed thereto, a cup arm slidably keyed thereto, cam and lever devices for sliding said shaft longitudinally, means for rocking said shaft, and spring means for returning said shaft longitudinally after the rocking movement.

9. In combination with a screw threading machine, a back rest bracket, a back rest arm pivotally mounted therein, a wedge bar vertically slidably and laterally adjustably mounted in said bracket and adapted to actuate said back rest arm to operative position, means for adjusting said wedge bar laterally, a lever, link connections between said lever and said wedge bar for actuating said bar, a cam for actuating said lever in one direction, and a spring for actuating said lever in the opposite direction.

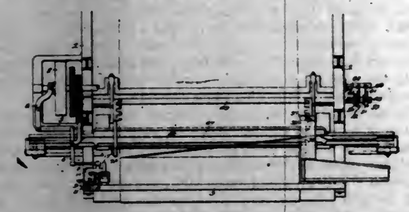
[Claims 2 to 8, 10, and 11 not printed in the Gazette.]

1,253,632. STOP-MOTION FOR LOOMS. THEODORE H. RUSH, Bloomsburg, Pa., assignor to James Magee, 2d, Bloomsburg, Pa. Filed May 3, 1916. Serial No. 95,084. (Cl. 139—54.)

1. A stop motion for a loom consisting of a switch placed to be periodically opened by the filling on the beat up of the lay; a second switch periodically closed at the time the first switch would normally be opened; a source of current and an electro-magnet in circuit with said switches; and loom stopping means controlled by said magnet.

3. A stop motion for a loom consisting of a pair of switches placed at opposite sides of the loom in positions to be alternately opened by the filling on the beat up of the lay; branch circuits including said switches; a source

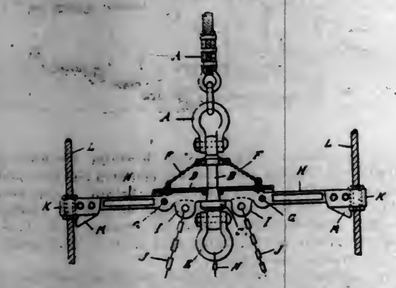
of current; an electro-magnet; and means for completing the circuit including said switches, the source, the branch circuits and the electro-magnet at the time when said switches would normally be opened by the filling; and loom stopping means controlled by the magnet.



5. The combination in a loom of members mounted at opposite sides thereof in positions to be alternately moved by the filling when this is beaten up; normally closed switches connected to said members and opened by movement thereof caused by the filling; a source of current; an electro-magnet; means in circuit with said magnet, the source and said switches for completing their circuits respectively at the time when said switches would normally be open; and loom stopping means governed by said electro-magnet.

[Claims 2, 4, and 6 to 17 not printed in the Gazette.]

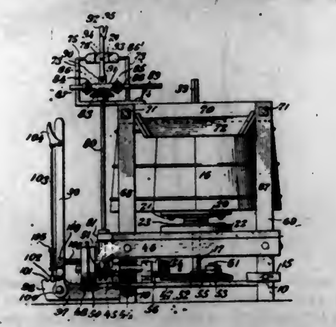
1,253,633. SAFETY SUPPORTING DEVICE FOR MINE AND THE LIKE LIFT-CAGES. GEORGE HENRY SCHOFIELD, Leigh, England. Filed Apr. 11, 1917. Serial No. 161,330. (Cl. 187—81.)



In a safety device for hoists in which, when the lifting tackle breaks or goes out of tension, the weight of the cage suspended from chains causes wedging devices to act on guiding cables of the cage, the combination, with the lifting tackle and an eyebolt engaged thereby, of a central and horizontally disposed plate having a series of radial flanges which are arranged in pairs at the underside of said plate, an arm pivotally mounted between each of the pairs of flanges, a sleeve carried at the outer end of each of said arms and adapted to receive the corresponding guiding cable, a bracket attached to each of the sleeves and abutting close to the cable, lugs formed near the inner end of said arms and adapted to carry the chains of the cage, and means for holding the arms in a horizontal position so long as the lifting mechanism is intact, all substantially as set forth and shown.

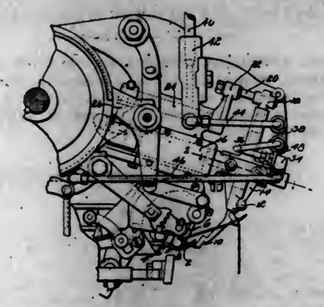
1,253,634. OPERATING MECHANISM FOR WASHING-MACHINES. CLARENCE A. SCHWANKE, Willow City, N. D. Filed Dec. 8, 1915. Serial No. 65,724. (Cl. 74—58.)

The combination with an oscillatory element, of an operating mechanism therefor including a stub shaft, a pulley keyed to said shaft, a supporting frame, a wringer carrying shaft, a second shaft, a gear wheel on said second shaft, pinions on said wringer carrying shaft, means to shift said pinions into and out of engagement with said gear wheel whereby said wringer carrying shaft will be rotated in two directions, means to retain said pinions in adjusted positions, a pulley loosely mounted on said stub shaft, a belt for driving both said pulleys, worm gear mechanism connected with said last mentioned pulley, a



pinion keyed to said second shaft and meshing with said worm gear mechanism, a supporting arm, an operating lever pivotally mounted on said supporting arm, means to retain said lever in adjusted position, and means carried by said operating lever to shift said belt in a position whereby said pulleys will be operated simultaneously.

1,253,635. WAX-THREAD SHOE-SEWING MACHINE. THOMAS H. SEELY, Boston, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Original application filed Jan. 29, 1914, Serial No. 815,127. Divided and this application filed Nov. 27, 1916. Serial No. 133,620. (Cl. 112—20.)



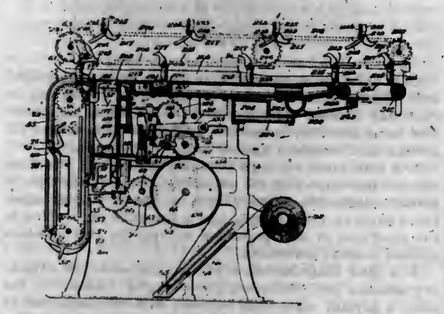
1. A shoe sewing machine, having, in combination, stitch forming devices including a curved hook needle, a looper, means for supporting and actuating the looper to lay the thread in the hook of the needle comprising a slide mounted to reciprocate in a direction parallel with the plane of the needle, a hollow shaft arranged parallel with the slide and supported thereby, a looper carrying arm pivoted on said shaft and connected to reciprocate with the slide, and devices for heating the hollow shaft.

3. A wax thread sewing machine, having in combination, stitch-forming devices including a curved hook needle, a looper, a looper actuating slide, looper supporting devices mounted on the forward end of the side to reciprocate therewith, and comprising a pivoted looper lever and a looper heater fixed in the direction of movement of the slide and having a continuous heat conducting contact with one of the looper supporting devices.

5. A wax thread sewing machine, having, in combination, stitch forming devices including a curved hook needle, a looper, a looper lever, a hollow shaft upon which the looper lever is mounted, a slide for reciprocating the lever on the shaft, a rock shaft for oscillating the lever and devices for heating the hollow shaft.

[Claims 2 and 4 not printed in the Gazette.]

1,253,636. WRAPPING-MACHINE. HENRI A. SEVIGNE, Winthrop, Mass., and FRANK K. ARNOLD, Nashua, N. H., assignors, by direct and mesne assignments, of forty-five one-hundredths to said Sevigne and fifty-five one-hundredths to Carter, Rice & Company, Boston, Mass., a Corporation of Massachusetts. Filed Apr. 4, 1914. Serial No. 829,591. (Cl. 93—2.)



8. A wrapping machine having a passageway or chute provided with folders to act on the wrapper, fingers extending transversely of the chute to support articles fed to position in said chute, and a set or group of elevating fingers spaced or separated from each other to pass through the spaces between said fingers.

19. A wrapping machine having a vertical passageway or chute, carriers and folders for inclosing articles in wrappers during transit through said chute, a sealing table, carriers for transferring the inclosed articles over said table, and a yieldingly mounted roller detent for preventing return movement of the articles into the chute.

36. A wrapping machine having means for supplying melted wax to the wrapped articles, a sealing table, a carrier for pushing the articles along the table, and means for laterally deflecting surplus wax and smoothing out the portion of the wrapper that is in sliding contact with the table.

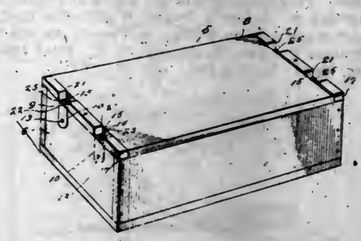
43. A wrapping machine having means for inclosing an article in a wrapper with one edge portion of the wrapper overlying other portions, an endless-belt wiper for acting upon the wrapper, means for moving said belt in a direction opposite to the direction of movement of the carrier, and a carrier having means for sliding the wrapped articles over said wiper.

46. A wrapping machine having a continuously movable loading or supply belt carrier movable in one direction, introducing mechanism movable in another direction for causing the articles to be wrapped to enter the machine, and a continuously movable belt carrier intermediate the loading carrier and the introducing mechanism, said intermediate carrier having means for causing it to travel at a higher speed than the loading carrier.

[Claims 1, 2, 4 to 18, 20 to 35, 37 to 42, 44, 45, and 47 to 52 not printed in the Gazette.]

1,253,637. SHIPPING-CRATE FASTENER. MADISON L. SHORE, Raleigh, N. C. Filed Nov. 9, 1915. Serial No. 60,566. (Cl. 70—3.)

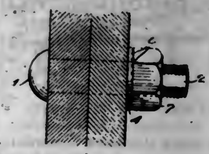
1. A shipping crate embodying end walls, a cover therefor having spaced notches, a series of studs secured upon the upper edges of the end walls of the crate, a locking strip connected along the opposite transverse ends of the cover and struck downwardly at portions intermediate its length to provide spaced apertured keepers having their limbs contacting with the opposite walls of the notches formed in said cover, the said studs of the crate projecting through the apertures of the keepers, and nuts threaded on said studs for causing the locking action of the cover to said crate.



2. A shipping crate comprising end walls, a cover therefor, a fastening device for securing a closure to a crate embodying a series of threaded studs secured to the crate, a locking strip connected with the opposite transverse ends of the cover and struck downwardly at portions intermediate its length to provide spaced resilient apertured U-shaped keepers, the studs projecting through the apertures of said keepers, and nuts threadedly mounted on the studs for locking the closure to the crate.

3. In a device of the class described, a receptacle, a closure therefor having its opposite transverse ends formed with spaced cut-out portions, a locking strip connected to the opposite transverse ends of the cover and provided throughout its length with downwardly bent resilient U-shaped keepers, the said keepers fitting within the cut-out portions of the cover, a series of studs carried by the receptacle and projecting through the keepers, and means threadedly mounted on the studs and seated within the said keepers for detachably connecting the closure upon said crate.

1,253,638. NUT-LOCK. CHARLES E. SHORT, Akron, Ohio. Filed Dec. 10, 1915, Serial No. 66,128. Renewed Nov. 14, 1917. Serial No. 202,070. (Cl. 151—11.)



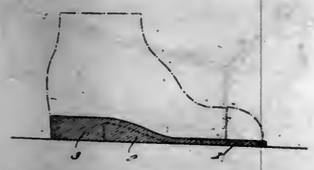
1. A nut lock comprising in combination with a bolt, a washer mounted on the bolt to be held against turning movement and provided with teeth on one face, a nut having an interrupted annular groove formed in the engaging face thereof, and a spring member looped over at one end to provide a biting tooth mounted in said groove to be held against movement therein by the interrupted portion as a stop and arranged to engage with the teeth of the washer as the nut is tightened thereagainst.

3. A nut lock comprising in combination with a bolt having a flat side on the threaded end thereof, a washer mounted on the end of the bolt to be held against turning movement by engagement with the flat side of the bolt provided with radially extending teeth formed on one face thereof, a nut having an interrupted annular groove formed in the engaging face to follow the line of the central orifice thereof, a spring locking member in the form of a split ring looped over at one end to provide a biting tooth adapted to be received in the annular

groove to have the biting tooth project beyond the face of the nut to engage with the teeth of the washer, and said spring locking member provided with a bent up portion in the body to give greater resiliency to the action of the biting tooth.

[Claim 2 not printed in the Gazette.]

1,253,639. COMBINED MOLDED ARCH-SUPPORT AND SHOE-SOLE. JAMES A. SMITH, Washington, D. C., assignor of one-third to William N. Dorsett and one-third to William T. Davis, Washington, D. C. Filed June 19, 1916. Serial No. 104,410. (Cl. 36—71.)



1. As an article of manufacture, a molded shoe sole having on its shank an arch-supporting rib integral therewith and a heel carried by said sole and having its breast connected with the rear end of the arch supporting rib, the lower face of the rib being arranged flush with the lower face of the heel and with the ball portion of the sole.

2. As an article of manufacture, a molded shoe sole having an integral arch supporting rib on the shank thereof and a seat at the rear of said rib, and a heel detachably mounted in said seat, the lower face of the rib being arranged flush with the lower face of the heel and with the ball portion of the sole.

1,253,640. TRANSFER MECHANISM. GEORGE H. SPEAR, North Reading, Mass., assignor, by mesne assignments, to New England Confectionery Company, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 27, 1913. Serial No. 744,415. (Cl. 214—1.)



1. An apparatus of the class described comprising, in combination, a support; a carrier thereon having provision for supporting an assembly of trays in superposed relation with edges of the latter free to discharge therefrom; slides connecting said carrier to said support; wheels interposed between said carrier and said support; and means for moving said slides to tilt said carrier to discharge the contents of said trays.

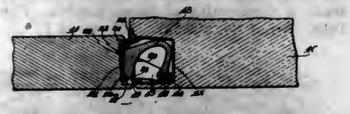
2. An apparatus of the class described comprising, in combination, a carrier having a base and lateral support for receiving an assembly of trays; means for moving said carrier to discharge the contents of said trays; and adjustable means cooperating with said lateral support for permitting or preventing discharge therethrough.

8. An apparatus of the class described comprising, in combination, a carrier comprising a platform and an upright frame for receiving a conveyance; distributing partitions for said frame; means to tilt said carrier to discharge the contents of said conveyance between said partitions and adjustable means for permitting or preventing the discharge.

11. An apparatus of the class described comprising, in combination, transfer means for a conveyance having provision permitting the same to be tilted to discharge the contents of said conveyance; means for receiving the contents of said conveyance normally interfering with the tilting of said transfer means and adjustable to permit the tilting of said transfer means; and means to hold said receiving means in different positions of adjustment.

[Claims 3 to 7, 9, 10, and 12 not printed in the Gazette.]

1,253,641. HINGE. WILLIAM E. STEELE, Chicago, Ill. Filed Apr. 10, 1917. Serial No. 161,054. (Cl. 16—5.)



1. A door hinge having a swinging member provided with means for attachment to a door frame, and having an attaching member for connection to the door, said members being pivotally connected, and a frangible means for locking said members against relative movement.

2. A door hinge having a swinging member, an attaching member for connecting the swinging member to the door, a pivotal connection between said members, lapping apertured parts on the members, and a frangible pin seating in the apertures of said parts for locking the two members against relative movement.

3. A door hinge having a swinging member, an attaching member for connecting the swinging member to the door, a pivotal connection between said members, one of said members having a recess and the other member having an apertured projecting part seating in the recess, and a frangible pin passing through the recessed part of one of the members into the aperture of the projecting part of the other member.

1,253,642. FLUID-FUEL-SUPPLY APPARATUS FOR INTERNAL-COMBUSTION ENGINES. CLARENCE E. STEERE, Milwaukee, Wis., assignor of one-half to Henry Scarborough, Milwaukee, Wis. Filed June 8, 1916. Serial No. 102,479. (Cl. 257—241.)
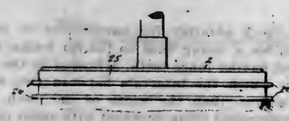


1. A superheater of the type described comprising, in combination, a retort embodying an intake leg and a discharge leg, a deflector wall therebetween and extending from the top of the retort to near the bottom thereof, an intake communicating with the top of the intake leg, and an outlet communicating with the discharge leg, moistening means discharging into the top of the intake leg, a heating chamber disposed about the retort and adapted to receive a suitable medium, and a vacuum chamber disposed about the heating chamber substantially as described.

2. A superheater for treating fluid fuels comprising a retort chamber having an intake and an exhaust leg therein formed by a deflector wall, a chamber disposed about the retort and having an inlet and an outlet connected therewith, the said inlet communicating with the exhaust manifold of a gas engine and the said outlet communicating with the atmosphere, and means for adding moisture to fuel vapors in their passage through the superheater comprising a pipe communicating with the intake of the retort, and a valve controlled drain leading from the bottom of the retort to carry off excess moistening fluid.

3. A superheater for treating fluid fuels for gas engines comprising a retort chamber having a downwardly discharging intake leg and an upwardly discharging exhaust leg, transverse corrugations extending from the walls of the retort, a valve-controlled trap extending from the base of the retort, means for introducing heat about the outer walls of the retort, and a vacuum space surrounding the retort exteriorly of the heating means.

4. A superheater for treating fluid fuels for gas engines comprising an inner shell forming a retort chamber having a deflector wall extending vertically thereof whereby the chamber is divided into an intake leg and a discharge leg, a valve-controlled cap in communication with the bottom of the chamber, transversely disposed corrugations extending from the walls of the chamber to form interruptions for the volume of gas passing therethrough, a dome above the discharge leg of the retort chamber, a housing about the retort chamber forming a heating space, means for introducing and exhausting a heating medium to the space, and a vacuum space surrounding the heating space.

1,253,643. STENTERING OR STRETCHING DEVICE FOR STEAM CAN DRYING-MACHINES FOR TEXTILE FABRICS. JOHN ROSS STEVENSON, Glasgow, Scotland. Original application filed Jan. 7, 1915, Serial No. 996. Divided and this application filed Apr. 5, 1916. Serial No. 89,215. (Cl. 26—16.)



1. The combination of the cylinder of a drying machine, with means for preventing direct engagement of the fabric-carrying chain and said cylinder, consisting of a ring plate loosely mounted on said cylinder.

2. The combination of the cylinder of a drying machine, with means for preventing direct engagement of the fabric-carrying chain and said cylinder, consisting of a ring plate loosely mounted on said cylinder; and means on said ring plate for guiding the chain.

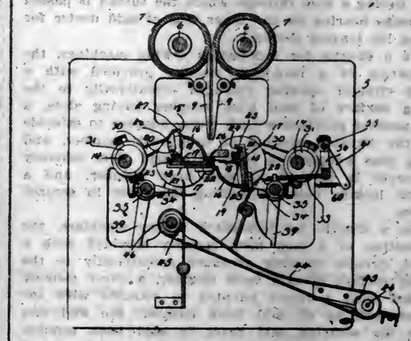
4. The combination of a drying machine cylinder; a ring plate mounted on said cylinder and adjustable longitudinally thereof; with chain guiding flanges on said ring plate.

[Claims 3 and 5 not printed in the Gazette.]

1,253,644. MACHINE FOR INTERFOLDING AND COUNTING PAPER TOWELING AND THE LIKE. LOUIS A. STRAUBEL, Green Bay, Wis. Filed July 9, 1917. Serial No. 179,321. (Cl. 270—39.)

3. In a machine of the class described, the combination of a pair of folding members mounted for oscillatory movement downward and outward from juxtaposed initial positions, means for alternately clamping spaced portions of the web of work material against the outer faces of said members, and means associated with the folding members for marking the work material at predetermined intervals.

9. In a machine of the class described, the combination of a pair of folding members mounted for oscillatory movement downward and outward from juxtaposed initial positions, means for oscillating said members simultaneously in opposite directions, clamping lips carried by the members for relatively lateral sliding movement to clamp material against the members, a lever having its inner end pivoted centrally in each member and its outer end outward of each member and forming a bending ledge for coaction with the clamping lip of the other member, means for forming a fold of work material between a clamping lip and its corresponding



member when said clamping lip is in juxtaposition with its corresponding clamping ledge, and a conveyer belt for carrying off the folded work material, and means for continuously operating said conveyer step by step.

[Claims 1, 2, and 4 to 8 not printed in the Gazette.]

1,253,645. METAL BARGE CONSTRUCTION. JOHN L. TAYLOR, Oakmont, Pa. Filed May 21, 1914. Serial No. 839,973. (Cl. 114—80.)



1. A barge or similar floating craft comprising sides, rake ends and a bottom formed of metal plates, a deck at each end of the barge, plating connected to the deck and bottom to form water tight compartments in the ends of the barge, and a series of cross frames or transverses between the ends of the barge, said transverses being hollow and being triangular in cross section with the barge bottom forming one side thereof, and forming water tight compartments.

[Claims 2 and 3 not printed in the Gazette.]

1,253,646. SHUTTLE FOR SEWING-MACHINES. WILLIAM H. TERWILLIGER, Amsterdam, N. Y., assignor to Frederick Klein, trustee. Filed May 29, 1915. Serial No. 31,145. (Cl. 112—23.)



1. In a shuttle for lock stitch sewing machines, the combination of a loop hook member having slots, a cover element having pins adapted to engage said slots and lock therewith on axial rotation of said cover member.

2. In a shuttle for lock stitch sewing machines, the combination of a loop hook element having slots, a cover element having pins adapted to engage said slots and means to lock said cover element in position.

3. In a shuttle for lock-stitch sewing machines, the combination of a loop hook element recessed to receive the bobbin spool, a cover element having an aperture through which the thread is adapted to be drawn, said cover element having a recess, a tension device in said recess having a hole through which the thread is passed and means bearing on the inner face of said device for varying the tension thereof.

4. In a shuttle for lock-switch sewing machines, the combination of a loop-hook member provided with a flanged circular opening arranged eccentrically to the bearing surface of said hook member having slots, a cover member provided with a recess adapted to coincide with the circular opening of said hook member, and having pins adapted to lock with said slots whereby said cover is secured to said hook member, and a resilient locking bolt for holding the cover in secured position.

5. In a shuttle for lock-stitch sewing machines, the combination of a loop hook member provided with a flanged circular opening arranged eccentrically to the bearing surface of said hook member, a cover member provided with a recess adapted to coincide with the circular opening of said hook member, pin and slot means for securing said cover to said hook member and a locking bolt for holding the cover in secured position.

[Claims 6 to 10 not printed in the Gazette.]

1,253,647. SUSPENSION DEVICE. LEWIS H. TORREY, Worcester, Mass. Filed June 2, 1916. Serial No. 101,330. (Cl. 24—232.)

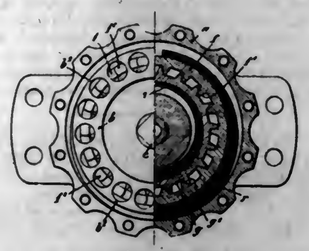


A suspension device consisting of two curved sheet-metal arms or members pivotally attached together to form a separable ring, one of said arms or members having an integral tang constructed to form a swivel, in combination with a suspending member having a swiveled connection with said tang, said arms or members having oppositely bent, offset overlapping parts which are so disposed that they bear against each other frictionally when the ring is closed.

1,253,648. SHOCK-ABSORBER. JULES MICHEL MARIE TRUFFAULT, Paris, France, assignor to Societe Anonyme Des Automobiles Et Cycles Peugeot, Paris, France. Filed June 24, 1916. Serial No. 105,549. (Cl. 21—105.)

1. In a shock absorber for automobiles or other suspended vehicles, a casing fixed on the car frame, a toothed crown-wheel having inner teeth, arranged in the said casing and in which the intervals between two successive teeth are greater than the width of the teeth, means connected to the suspension springs for driving the said toothed crown-wheel, a toothed crown-wheel having outer teeth, in which the intervals between two successive teeth are greater than the width of the teeth, and which is placed concentrically within the outer crown-wheel and is driven by it, a segment fixed to the casing and surrounding and compressing the cylindrical outer rim of the outer crown-wheel, a segment fixed to the casing, placed within the inner crown-wheel and compressing the inner cylindrical rim of the said crown-wheel, substantially as described and for the purpose set forth.

2. In a shock absorber for automobiles or other suspended vehicles, a casing fixed on the car frame, a toothed crown-wheel having inner teeth, arranged in the said casing and in which the intervals between two successive teeth are greater than the width of the teeth, the said toothed crown-wheel being provided with tenons, a driving disk housed in the casing provided on its circumference with holes of more width than the said tenons and which fits by its holes on these tenons, the said disk being integral with an axle centered in the casing and which issues from the latter through its lid to receive outside an actuating lever connected to the suspension springs, a toothed crown-wheel having outer teeth, in which the intervals between two successive teeth are greater than the width of the teeth and which is placed concentrically within the outer crown-wheel and is driven by it, a segment fixed to the casing and surrounding and compressing the cylindrical outer rim of the outer crown-wheel, a segment fixed to the casing placed within the inner crown-wheel and compressing the inner cylindrical rim of the said crown-wheel, substantially as described and for the purpose set forth.

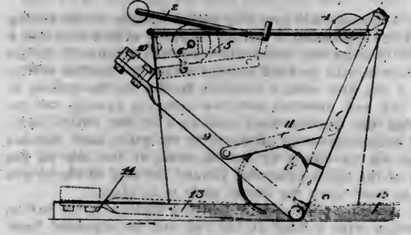


3. In a shock absorber for automobiles or other suspended vehicles, a casing fixed on the car frame, a toothed crown-wheel having inner teeth, arranged in the said casing and in which the intervals between two successive teeth are greater than the width of the teeth, the said toothed crown-wheel being provided with small lubricating grooves formed over the whole extent of its outer surface, means connected to the suspension springs for driving the said toothed crown-wheel, a toothed crown-wheel having outer teeth, in which the intervals between two successive teeth are greater than the width of the teeth, and which is placed concentrically within the outer crown-wheel and is driven by it, the said toothed crown-wheel being provided with small lubricating grooves formed over the whole extent of its inner surface, a segment fixed to the casing and surrounding and compressing the cylindrical outer rim of the outer crown-wheel, a segment fixed to the casing placed within the inner crown-wheel and compressing the inner cylindrical rim of the said crown-wheel, substantially as described and for the purpose set forth.

4. In a shock absorber for automobiles or other suspended vehicles, a casing fixed on the car frame, a toothed crown-wheel having inner teeth, arranged in the said casing and in which the intervals between two successive teeth are greater than the width of the teeth, the said toothed crown-wheel being provided with tenons, a driving disk housed in the casing provided on its circumference with holes of more width than the said tenons and which fits by its holes on these tenons, the said disk being integral with an axle centered in the casing and the inner part of this axle being hollow and being provided with a small radial lubricating hole, while the outer part of the axle issues from the casing through its lid to receive outside an actuating lever connected to the suspension springs, a toothed crown-wheel having outer teeth, in which the intervals between two successive teeth are greater than the width of the teeth and which is placed concentrically within the outer crown-wheel and is driven by it, a segment fixed to the casing and surrounding and compressing the cylindrical outer rim of the outer crown-wheel, a segment fixed to the casing, placed within the inner crown-wheel and compressing the inner cylindrical rim of the said crown-wheel, substantially as described and for the purpose set forth.

5. In a shock absorber for automobiles or other suspended vehicles, a casing fixed on the car frame, a toothed crown-wheel having inner teeth arranged in the said casing and in which the intervals between two successive teeth are greater than the width of the teeth, the said toothed crown-wheel being provided with tenons, a driving disk housed in the casing, provided on its circumference with holes of more width than the said tenons and which fits by its holes on these tenons, the said disk being integral with an axle centered in the casing and which issues from the latter through its lid to receive outside an actuating lever connected to the suspension springs, a toothed crown wheel having outer teeth in which the intervals between two successive teeth are greater than the width of the teeth, and which is placed concentrically within the outer crown-wheel, and is driven by it, a segment fixed to the casing and surrounding and compressing the cylindrical outer rim of the outer crown-wheel, a segment fixed to the casing, placed within the inner crown wheel and compressing the inner cylindrical rim of the said crown-wheel, two fiber washers separated by an elastic washer of undulated steel plate arranged between the inner face of the lid of the casing and the neighboring face of the driving disk, a fiber washer arranged between the inner face of the driving disk and the central shoulder of the casing substantially as described and for the purpose set forth.

1,253,649. MOP-PAIL. CHARLES E. VAN DOORN, Rochester, N. Y. Filed Aug. 5, 1914. Serial No. 855,216. (Cl. 15—12.)



In a mop pail, the combination with a bucket containing two relatively movable wringing elements between which the mop is to be drawn in an upward direction, one of said elements being mounted on the bucket, of a pair of continuous one-piece skids secured to the bottom of the bucket to space the latter from the floor, a shaft extending through the skids beneath the bucket, arms mounted on the shaft and carrying the other wringing element, a treadle at one side of the bucket having rigidly connected treadle arms mounted on the shaft and rigidly connected to said first mentioned arms to form bell-crank levers, and a spring for raising the treadle connected to one of the latter and to one of the skids, the said skids being arranged to project beneath the treadle at one side to constitute a foothold on that side of the bucket and to project laterally in the same plane at the opposite side of the bucket to constitute a counterbalancing foothold.

1,253,650. AIR-COOLED TOOL. LOUIS J. VAN GUELPEN, Cincinnati, Ohio. Filed Feb. 15, 1917. Serial No. 148,920. (Cl. 69—1.)

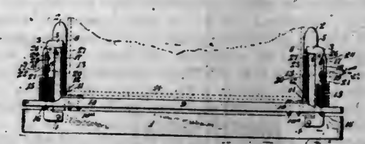
1. In an air cooled tool, a hollow spindle, and means to heat the spindle, said spindle being provided with a multiplicity of perforations therethrough for the purpose of allowing air to pass to cool the same.

4. In an air cooled tool, a hollow spindle, said spindle carrying a heating unit therein and provided with a multiplicity of perforations at the point where said heating unit is present.



[Claims 2, 3, and 5 not printed in the Gazette.]

1,253,651. WAGON-SPRING. FRANK J. VERAS, Newkirk, Okla. Filed Feb. 28, 1917. Serial No. 151,470. (Cl. 267—42.)



1. An attachment for wagon bolsters, comprising supporting means for a wagon body, cushioning means for carrying the supporting means, carrying means for the cushioning means, means for detachably holding the cushioning means, and means for releasing said cushioning means therefrom.

6. In a device of the class described, a wagon bolster having standards thereon, wagon body supporting bars longitudinal of and on each side of the bolster and guided by the standards, upstanding supports carried by the bolster, located adjacent to the standards, and having seats therein, springs mounted on the ends of the bars, and swinging bails connecting the tops of the adjacent springs and adapted to enter the seats and suspend the wagon body supporting bars in elevated position above the wagon bolster.

11. A wagon attachment, comprising supports on the bolsters of the wagon, means for holding the body of the wagon, two sets of resilient means connecting the supports and body holding means, said means having different degrees of resiliency, the stronger resilient means being designed to yieldably support the body above the bolsters when the body is empty or has only a light load, while the other resilient means elevates the body and provides for the easy attaching and detaching of the stronger resilient means to and from the supports, and means for disengaging the stronger resilient means from the wagon body supports.

[Claims 2 to 5 and 7 to 10 not printed in the Gazette.]

1,253,652. WIRE FABRIC. ORLA H. WATKINS, Kenosha, Wis., assignor to Henry Richardson, Chicago, Ill. Filed Apr. 24, 1916. Serial No. 93,103. (Cl. 245—5.)

1. A wire fabric consisting of a plurality of rows of connected units, each of said units comprising a piece of wire doubled upon itself intermediate its ends to provide a two-ply tension member the limbs of which are integrally connected at one end, said member having a two-ply loop at the other end of the unit the plies of which

are crossed one over the other and then brought upwardly on the outer sides of the tension member and then passed across the latter.

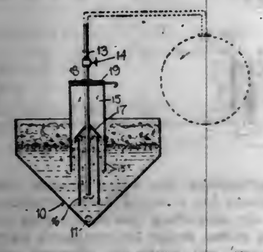


2. A wire fabric consisting of a plurality of rows of connected units, each unit having a horizontal integral loop at one end, and a vertical two-ply loop at the other end, the wires forming said two-ply loop being crossed one over the other in the formation of the loop and brought upwardly on opposite sides of the unit.

5. As an article of manufacture, an integrally bent wire unit having a two-ply tension member, the wires forming extensions of the limbs of said member being bent downwardly at one end of the latter, crossed one over the other, and then brought upwardly on opposite sides of the tension member.

[Claims 3 and 4 not printed in the Gazette.]

1,253,653. PROCESS OF AND APPARATUS FOR ORE CONCENTRATION. OTIS D. WELSCH, Kimberly, Nev. Filed May 26, 1917. Serial No. 171,229. (Cl. 83—85.)



1. An ore concentrator operating on the flotation principle including a spitzkasten to contain the pulp and having a froth discharge and a gangue discharge, and means for frothing the pulp comprising means for discharging compressed air below the surface of the pulp, an air chamber open at its lower end and extending into the spitzkasten below the level of the pulp and into which chamber the compressed air rising through the pulp discharges, and means for controlling the pressure of air in said chamber.

2. In an ore concentrator operating on the flotation principle, a spitzkasten to contain the pulp having a froth discharge and a gangue discharge, and means for frothing the pulp, comprising a compressed air pipe extending into the spitzkasten below the level of pulp therein, an air lift chamber open at its upper and lower ends and into which the compressed air pipe discharges, the lower end of the air lift chamber extending below the lower end of the air pipe, and an air chamber closed at its upper end and extending into the spitzkasten around and below the level of the upper end of said air lifting chamber.

4. In an ore concentrator operating on the flotation principle, a spitzkasten to contain the pulp having a froth discharge and a gangue discharge, and means for frothing the pulp comprising a pipe connected to a source of compressed fluid and extending downward into the spitzkasten nearly to the lower end thereof, an air lift chamber surrounding said pipe and open at its upper and lower ends and extending slightly below the air pipe, an air chamber surrounding the air lift chamber, closed at its upper end, open at its lower end and extending below the top of the air lift chamber, and a pressure controlling valve in the top of said air chamber.

5. In an ore concentrator operating on the flotation principle, a spitzkasten to contain the pulp having a froth discharge and a gangue discharge, and means for frothing the pulp comprising a pipe connected to a source of compressed air and extending down into said spitzkasten below the level of the pulp therein, an air lift chamber open at its upper and lower ends surrounding said pipe and extending below the lower end of the pipe, an outwardly and downwardly extending deflector disposed above the upper end of the air lift chamber, an air chamber closed at its upper end extending dowaward and surrounding the air lift chamber but spaced therefrom and open at its lower end, the lower edge of said air chamber being disposed below the upper end of the air lift chamber, and means for controlling the pressure of air within said air chamber.

11. A method of concentrating ore consisting in discharging air under pressure into a body of mineral pulp below the surface thereof and within a confined space to thereby cause an ascending column of compressed air and pulp and to thereby cause the agitation of the pulp within said space, and then causing air under less pressure to pass downward through and with the agitated pulp into the main body of pulp to thereby form air bubbles within the main body of the pulp, and a froth upon the surface of the pulp.

[Claims 3 and 6 to 10 not printed in the Gazette.]

1,253,654. DENTAL RETAINER AND PROCESS OF MAKING SAME. GEORGE SYLVANUS WHITAKER, Wilkes-Barre, Pa. Filed Sept. 30, 1915. Serial No. 53,322. (Cl. 32—4.)



1. A dental plate provided with a suction cavity having a central depression, a button provided with a neck and a laterally expanded head and centrally anchored in the depression with its head exposed within the suction cavity, and a cup disk with a chamber formed in the bottom of the cup and provided with an entering passage for receiving the exposed head and neck of the button after said button has been anchored in the plate, said chamber being wholly closed by the material of the cup on the side of the latter presented toward the roof of the mouth of the user when the dental plate is in place.
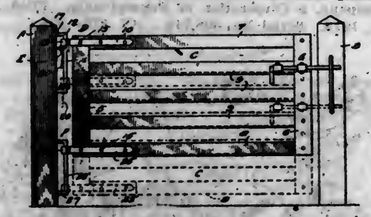
2. A dental plate provided with a suction cavity having a button with a head at one end and an expanded basic portion at the other end with said expanded basic portion provided with protuberances directed toward the head portion and also with perforations, said basic portion being embedded in the material of the plate to a depth determined by the projection of the protuberances, and a suction cup having a chamber adapted to receive and inclose the head and exposed portion of the shank of the button.

3. The process of making dental plates, which consists in forming a cast, applying a mold with a central perforation to the impression face of the cast, with the mold having a metal button thereon and said button having a head lodged within the perforation in the mold and basic portion exterior thereto, molding a plate on the cast over the mold with the basic portion of the button embedded in the plate, and then vulcanizing the plate.

[Claims 4 and 5 not printed in the Gazette.]

1,253,655. GATE-HINGE. FRED WIEDERRECHT, Wapello, Iowa. Filed June 12, 1916. Serial No. 103,212. (Cl. 16—49.)

1. In a hinge of the character described, the combination of a vertically movable member provided with an eye, and a relatively fixed member including an upright extending through said eye to rotatably support the first member, said upright being polygonal in cross-section to provide biting edges thereabout, and said movable member being adapted to be raised and said eye being adapted to be canted on the upright for binding the eye against said edges to hold the movable member in raised position.

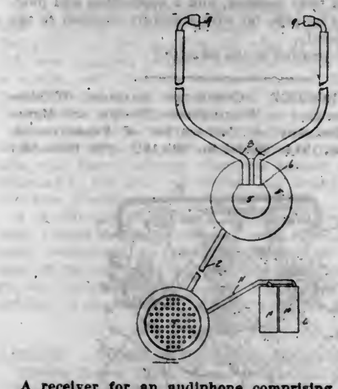


2. In a hinge of the character described, the combination of a member provided with an eye, a second member including an upright extending through the said eye of said first member, said eye rotatable thereon, a U-shaped element with its arms embracing the said upright of said second mentioned member, and upon which the said member with eye may rest, and a lever including a wedge pivotally carried by one of the arms of said U-shaped member, said wedge to fit between the said arms and the upright, to retain said U-shaped member in adjusted position with respect to said upright.

4. In a hinge of the character described, the combination of a member provided with an eye, a second member including an upright extending through the said eye of said first mentioned member, said eye rotatable on said upright, a U-shaped member with its arms embracing the said upright of said second mentioned member, and upon which the said member with said eye may rest, a bolt extending through the free end portions of the said U-shaped member, a nut for said bolt exteriorly of one arm, and a lever pivotally carried by the said bolt and arm and to fit between the said arm and the upright to retain said U-shaped member in an adjusted position with respect to said upright, said nut being adapted to be adjusted for clamping the arm against the lever to take up wear upon the same and the upright.

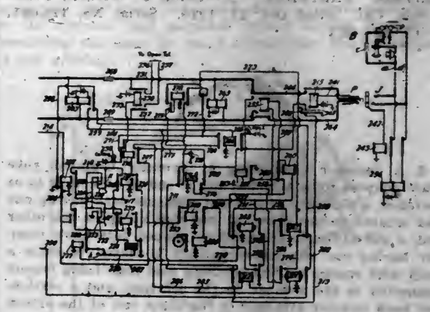
[Claim 3 not printed in the Gazette.]

1,253,656. AUDIPHONE. CASSIUS M. WILLIAMS, Seattle, Wash., assignor of one-half to Universal High Power Telephone Company, King county, Wash. Filed Sept. 13, 1916. Serial No. 119,800. (Cl. 179—107.)



A receiver for an audiphone comprising a cylindrical casing, a diaphragm in the casing, a cap having an annular flange engaging over the open end of the casing and holding the diaphragm in position, said cap having a centrally disposed hollow boss on its front face, the top of the boss being flat and formed with a pair of openings, the lower end of the boss inclining downwardly and merging into the cap, and ear tubes fitted into the openings in the hollow boss.

1,253,657. TELEPHONE-EXCHANGE SYSTEM. SAMUEL B. WILLIAMS, JR., Brooklyn, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed June 10, 1916. Serial No. 102,881. (Cl. 179—27.)



1. In a telephone exchange system, the combination with telephone lines, connecting circuits, listening keys associated therewith, means for associating said lines with said connecting circuits, an operator's telephone set, a relay 230 for each connecting circuit adapted when operated to connect said set to the associated connecting circuit, a relay 216 for each connecting circuit adapted to be operated upon the depression of the corresponding key and to prepare a circuit for said relay 230, a relay 225 adapted to complete said circuit, and an energizing circuit therefor closed upon the release of the key.

2. In a telephone exchange system, the combination with telephone lines, connecting circuits, listening keys therefor, means for associating said lines with said connecting circuits, an operator's telephone set, a relay 230 for each connecting circuit adapted when operated to connect said set to the associated connecting circuit, a relay 216 adapted to prepare a circuit for said relay 230, a circuit therefor closed by the depression of the corresponding key and leading in series through normally closed contacts of a plurality of keys of other connecting circuits, and a relay 225 adapted to complete said circuit, said relay being shunted as long as the key is depressed and being operated upon the release of the key to complete said circuit.

3. In a telephone exchange system, the combination with calling and called telephone lines, said called lines terminating in jacks, connecting circuits including calling plugs, means for associating said calling lines with the answering ends of said connecting circuits, an operator's telephone set, a relay 216 for each connecting circuit controlling the connection of said set with said circuit, a locking circuit for said relay, a circuit for each of said relays closed upon the actuation of the corresponding key whereupon the corresponding relay 216 prepares said locking circuit, a circuit for closing said locking circuit closed when the key is released including normally closed contacts of a plurality of keys of other connecting circuits, a relay 227 adapted to open said locking circuit, and a circuit for said relay closed upon the insertion of said plug in the jack of the called line.

4. In a telephone system, a plurality of connecting circuits, a listening key for each said circuit, a relay associated with each said circuit responsive to the actuation of said associated key, a locking circuit for each said relay effective upon the release of said key, an operator's set, a second relay associated with each said circuit for connecting said operator's set with said circuit and a circuit for said second relay prepared by said first relay and effective upon the release of said key.

5. In a telephone system, a plurality of connecting circuits, a listening key for each said circuit, an operator's set, a relay for each said circuit responsive to the actuation of said key, means controlled by said relay for inter-

connecting said circuit and said operator's set and means for rendering ineffective said means until the release of said key.

1,253,658. FASTENER. SILVESTRE F. WILSON, Fruitvale, Cal. Filed Oct. 27, 1916. Serial No. 128,081. (Cl. 24—68.)

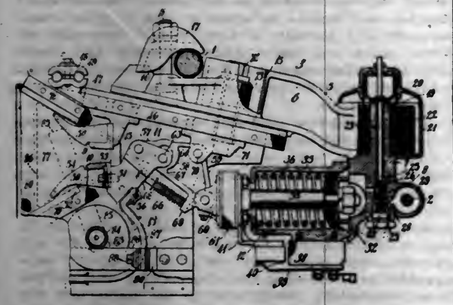


3. A fastener comprising a pivotally mounted yoke plate adapted to be attached to the end of an article to be fastened, a plurality of resilient elements each having one end secured to the yoke and carrying a clip at the other end, a substantially triangularly shaped detachable member having one side approximately U-shaped to form a hook with spaced bearing portions, said clips being loosely connected to the member on the bearings, and a stationary hook member attached to the other end of the article and adapted to be engaged by the hook of the detachable member.

4. A shoe fastener including an attaching plate adapted to be secured to one of the uppers of a shoe, a coil spring connected to the attaching plate, clips carried by the ends of the spring, a hook-like member rotatably associated with the clips, a receiving hook carried by the other upper for receiving the hook portion of the member and to serve as a pivot therefor when the member is engaged with the receiving hook to vary the tension of the spring as the member is rotated off center maintaining the fastener in closed position.

[Claims 1 and 2 not printed in the Gazette.]

1,253,659. SWITCHING APPARATUS. CHRISTIAN AALBORG, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 26, 1913. Serial No. 808,745. (Cl. 175—308.)

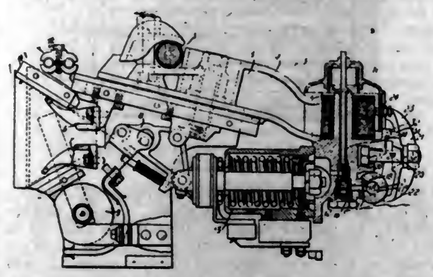


1. A switching device comprising a suporting arm, an electro-magnetically actuated valve integral with said arm, coöperating contact members mounted upon said arm, a fluid-actuated device mounted upon said valve, and linkage means for operatively connecting said fluid-actuated device to said contact members.

6. A unit switch embodying a main supporting arm, cooperating stationary and movable contact members suspended from said arm, a maguet valve having a portion thereof integral with said arm, a fluid-actuated device controlled by said valve for operating said switch, and a blow-out coil suspended from said arm and having magnetizable pole pieces adjacent to the side of said contact members, said valve, fluid-actuated device and blow-out coil being disposed in the same plane with the supporting arm.

[Claims 2 to 5 not printed in the Gazette.]

1,253,660. SWITCHING APPARATUS. CHRISTIAN AALBORG and ANDREW H. BAKKEN, Wilkinsburg, Pa., assignors to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 26, 1913. Serial No. 808,746. (Cl. 175—308.)



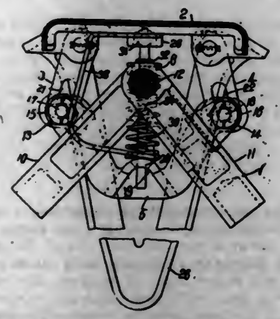
1. The combination with a pneumatically actuated horizontally disposed unit switch embodying a valve chamber in one end thereof and provided with an outwardly projecting boss adjacent to the valve chamber having a passage communicating with said chamber, of a supporting air pipe disposed at the side of the valve-chamber end of said switch and having a recess to receive said boss and an opening to communicate with said passage in said boss, and means for attaching said switch to said pipe.

2. In a switching device, the combination with a supporting rod, of a body member transversely secured thereto and provided near one end with a stationary contact member, a movable contact member pivotally mounted upon said body member, a fluid-pressure-operated apparatus for the movable contact member located near the other end of the body member, and a supporting and fluid-pressure-conveying pipe for said apparatus.

4. In a switching device, the combination with a supporting rod, of an elongated stationary body member having one end secured thereto and provided near that end with a stationary contact member, a coöperating movable contact member pivotally mounted upon said body member, a fluid-pressure-controlling valve structure integrally related with the other end of said body member, a fluid-pressure-operated mechanism for said movable member attached to said structure and extending substantially parallel to said body member, and a supporting and fluid-pressure-conveying pipe for said structure clamped to the outer side thereof.

[Claim 3 not printed in the Gazette.]

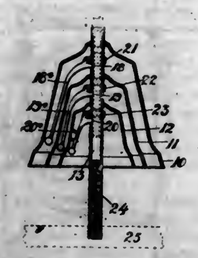
1,253,661. TROLLEY. CHRISTIAN AALBORG, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Mar. 30, 1914. Serial No. 828,192. (Cl. 191—55.)



1. The combination with a pantograph frame, of yoke members associated therewith, a current-collecting member, a plurality of links interposed between said frame and said current-collecting member, and resilient means interposed between said yoke members and said current-collecting member.

[Claims 2 to 4 not printed in the Gazette.]

1,253,662. ALARM-BELL. PORTER H. ADAMS, Brookline, and FREDERICK MEYER, Canton, Mass. Filed Mar. 19, 1917. Serial No. 155,674. (Cl. 116—33.)



1. A chiming bell comprising a plurality of bell members, clappers for said bell members, and an operating plunger common to all of said clappers.

2. A chiming bell comprising a plurality of bell members of different tones, clappers for said bell members, and an operating plunger common to all of said clappers.

3. A chiming bell comprising a plurality of bell members, clappers for said bell members, an operating plunger common to all of said clappers, and means for automatically returning the said plunger to its normal position.

1,253,663. RAIL-TIE. GEORGE S. BRACKETT, Flemington, W. Va. Filed May 4, 1916. Serial No. 95,463. (Cl. 238—5.)



1. A temporary rail tie comprising a metal base, rail base engaging elements arranged at the extremities of the metal base for engaging one edge of a rail base, said rail base engaging elements affording means for receiving a wedge, and upstruck means arranged in the metal base adjacent to the rail engaging elements for engaging the opposite edges of the rail base.

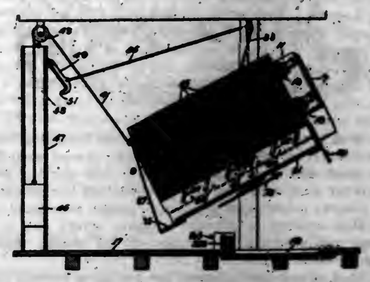
2. A temporary rail tie comprising a base, rail base abutments formed on the extremities of the base, bendable rail base abutment members formed on the base adjacent to the base extremities, and means provided by the base abutments for receiving wedges.

3. A rail tie comprising a metallic base, having angularly formed rail base receiving seats arranged upon the base, comprising an upstruck tongue for binding one edge of the base of a rail, and an angular bent extension on the extremities of the base for engaging the upper portion of the rail head and for receiving a wedge.

1,253,664. DUMPING-MACHINE. ALEXANDER BRADY, Newton Lower Falls, Mass., assignor to New England Confectionery Company, Boston, Mass., a Corporation of Massachusetts. Filed May 19, 1916. Serial No. 98,678. (Cl. 214—1.)

2. A machine for dumping articles comprising in combination a carrier for an assembly of trays for receiving the articles, a wall, means to tilt said carrier to slide the articles along said trays against said wall, and means automatically to move said wall rectilinearly away from said trays to discharge the articles.

7. A machine for dumping articles comprising in combination a carrier for an assembly of trays for receiving the articles, means to tilt said carrier and trays as a unit to slide the articles along said trays, a wall, partition means between said wall and trays, and means to move said wall away from said trays to allow discharge of the articles, said partition means having provision permitting the same to swing to facilitate the discharge of the articles.



9. A machine for dumping articles comprising in combination a carrier for an assembly of trays for receiving the articles, means to manipulate said carrier and trays as a unit to slide the articles along said trays, a wall to receive the articles, and means for shifting said wall including elements hinged on said carrier, arms projecting from said elements, a lever fulcrumed on said carrier, links connecting said arms with said lever, a stop, spring means tending to swing said lever against said stop, and a flexible member having a fixed end and one end connected to said lever.

13. A machine for dumping articles comprising in combination a carrier for an assembly of trays for receiving the articles, means to manipulate said carrier to slide the articles along said trays, a wall adjacent ends of said trays, and means to shift said wall relatively to said trays including a hinged element, a lever connected thereto, means tending to shift said lever in one direction, and means for automatically shifting said lever in the opposite direction.

16. A machine for dumping articles comprising in combination a carrier for an assembly of trays, means to tilt the carrier, counterbalance means for the carrier, latch means to hold the carrier in its upright position, and latch means coöperating with said counterbalance means to prevent the latter from tilting the carrier on inadvertent release of said carrier latch means.

[Claims 1, 3 to 6, 8, 10 to 12, 14, 15, and 17 not printed in the Gazette.]

1,253,665. INSULATED GRIP FOR BAYONET-CARRYING SHOULDER-ARMS. HENRY BREWER, New Haven, Conn., assignor to Winchester Repeating Arms Co., New Haven, Conn., a Corporation. Filed Oct. 22, 1917. Serial No. 197,754. (Cl. 42—86.)



4. The combination with the barrel of a shoulder arm, of a bayonet-mount applied to the muzzle-end of the said barrel, and a shell-like grip supported at its forward end upon the said bayonet-mount and formed at its rear end with an inwardly turned supporting-flange which rests upon the said barrel and provided at points intermediate of its ends with inwardly projecting nubs resting upon the barrel for maintaining its spaced relation thereto.

[Claims 1 to 3 not printed in the Gazette.]

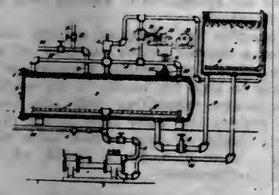
1,253,666. GYROSCOPIC COMPASS. MERVYN EDWARD CARRIE, Philadelphia, Pa.; Franklin G. Carrie, administrator of said Mervyn E. Carrie, deceased, assignor of fifteen one-hundredths to George A. Rossiter, Brooklyn, N. Y. Filed Mar. 24, 1908. Serial No. 149,400. (Cl. 33—204.)



1. In a gyroscopic compass for use on a moving vessel, the combination of a gyroscopic disk; means associated with said disk for indicating the true north; means associated with said disk for transmitting its indications to a distant point; and gyroscopic means associated with said disk tending to prevent compass errors due to the rolling and pitching movements of the vessel, substantially as described.

2. In a gyroscopic compass for use on a moving vessel the combination of a gyroscopic disk; means associated with said disk for indicating the true north; means associated with said disk for transmitting its indications to a distant point; supporting means associated with said disk adapted to generate friction as the ship moves in azimuth; automatic means for compensating for compass errors due to the friction generated by said supporting means; and pendulous gyroscopic means associated with said disk tending to prevent compass errors due to the rolling and pitching movements of the vessel, substantially as described.

1,253,667. PROCESS FOR PRESERVING WOOD. WILLIAM A. CECIL, Evansville, Ind., assignor of one-half to Robert R. Williams, Evansville, Ind. Filed Sept. 25, 1916. Serial No. 122,125. (Cl. 99—12.)



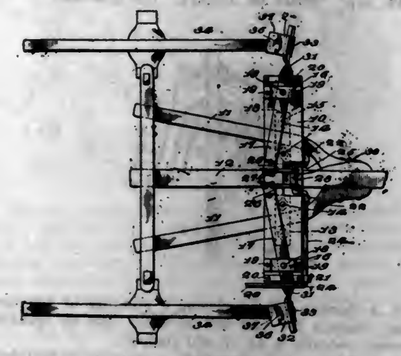
1. The method of preserving wood which consists in treating the wood by the circulation of a preservative fluid in and through a retort in which the wood is placed and in and through an open circuit piping system to thus provide for elimination of free air from the retort.

4. The method of impregnating wood which consists in placing the wood in a retort, filling the retort with preservative liquid taken from a liquid supply, maintaining a constant supply and flow of liquid under pressure into all parts of the retort, discharging liquid from the retort at different points to secure an equal flow through and circulation in all parts of the retort, conducting the discharge liquid to the liquid supply, agitating the liquid at the supply to be reinjected into the retort, gradually constricting the discharge to thus raise the pressure within the retort to a maximum, and maintaining the maximum pressure within the retort for a period of time to secure proper penetration of the liquid into the wood.

6. The method of preserving wood by the use of a preservative fluid constituting a plurality of chemical ingredients, which consists in submerging the wood in the fluid mixture and maintaining a continuous flow of the fluid mixture from and to a fluid supply, and constantly mixing the preservative fluid at the fluid supply.

[Claims 2 to 4 not printed in the Gazette.]

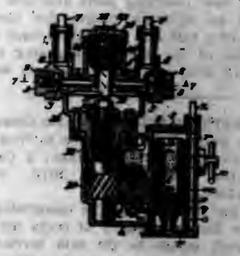
1,253,668. VEHICLE-BRAKE. ANDREW J. CHAPPELL, Samantha, Ala. Filed Mar. 9, 1917. Serial No. 153,730. (Cl. 21—8.)



1. A brake device comprising a support adapted to be attached to the running gear of a vehicle and having an upwardly and rearwardly opening recess, lever devices pivoted intermediate their ends to said support and movable at their inner ends over said recess, brake shoes connected at their outer ends to said lever device in position to engage the wheels of the vehicle, a rock shaft supported upon said support and having a crank located opposite said recess, links connecting said crank to said lever devices and movable into said recess when the crank is disposed in one position, whereby when said crank is actuated the brake shoes will be applied to the wheels and held in locked position.

2. A brake device comprising a support adapted to be attached to the running gear of a vehicle and having an upwardly and rearwardly opening recess, lever devices pivoted intermediate their ends to said support and movable at their inner ends over said recess, brake shoes connected at their outer ends to said lever device in position to engage the wheels of the vehicle, a rock shaft supported upon said support and having a crank located opposite said recess, links in spaced relation and connected at one end respectively to said lever devices and at their other ends to said crank, and a spacer sleeve engaging said crank between said links.

1,253,669. INTERNAL-COMBUSTION ENGINE. NIELS A. CHRISTENSEN, Milwaukee, Wis. Filed Dec. 8, 1913. Serial No. 805,287. (Cl. 123—180.)



1. In starting apparatus for internal combustion engines, a self-contained unit comprising a distributing valve, a compressor, a carbureter comprising a liquid fuel chamber connected with the distributing valve and having liquid fuel and compressed air supply connections, and a common driving shaft for the distributing valve and compressor.

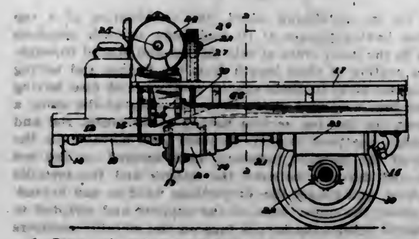
7. In starting apparatus for internal combustion engines the combination of a distributing valve, a shaft provided with an axially shiftable cam for operating said valve, a carbureter connected with the distributing valve chamber and having a compressed fluid supply connection, a fluid pressure actuated member adapted to shift said cam into operative position when compressed fluid is admitted to the carbureter, a driving shaft connected by gears with the cam shaft, a compressor having a crank shaft in axial alinement with the driving shaft, an axially movable toothed clutch member for operatively connecting said crank shaft with the driving shaft, an incased toothed plunger and a shaft provided with pinions meshing with the teeth of said plunger and clutch and adapted to shift said clutch into and out of operative position when compressed fluid is admitted to and released from said plunger.

12. In a starting apparatus for internal combustion engines the combination of a liquid fuel chamber having a fuel supply connection, a valve controlling the admission of liquid fuel into said chamber, a float adapted to operate said valve and to maintain a substantially constant liquid level in said chamber, a compressed air supply connection opening directly into the upper part of said chamber, a compressed air passage leading from said air supply connection over said chamber, a spray nozzle leading upwardly from said chamber below the liquid level therein into said passage, and means for supplying the carbureted air under pressure to the cylinder of an engine on the firing stroke of the piston.

15. In starting apparatus for internal combustion engines, the combination with a compressor having a crank case provided with an oil outlet connection and a cylinder mounted upon and opening at its lower end into said case; of a casing having a bearing sleeve opening at one end into said crank case above said outlet connection and provided with an oil supply connection and a transverse bearing sleeve intersecting the upper part of the other bearing sleeve, a crank having bearings in said first mentioned bearing sleeve and crank case coaxial with said driving shaft, an axially movable toothed clutch member rotatably fitted in said sleeve between the driving shaft and the adjacent crank journal and adapted to detachably connect said crank shaft and crank, and a shaft mounted in said transverse bearing sleeve and provided with a pinion meshing with said clutch member.

[Claims 2 to 6, 8 to 11, 13, and 14 not printed in the Gazette.]

1,253,670. MOTOR-VEHICLE. HAROLD D. CHURCH, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed June 4, 1915. Serial No. 32,086. (Cl. 74—58.)



1. In gearing, in combination, a driving shaft, a shaft parallel thereto, sliding change speed gears connecting said shafts, and two driven shafts adapted to be separately or simultaneously driven from said parallel shaft.

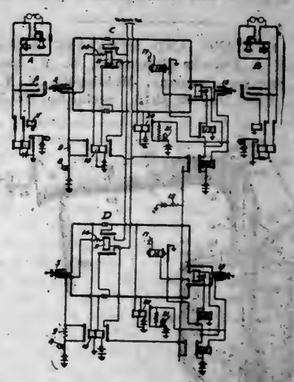
6. In gearing, in combination, a driving shaft, a shaft parallel thereto, sliding change speed gears connecting said shafts, two driven shafts, gearing connecting the parallel shaft to one of said driven shafts, and a gear adapted to mesh with one of the gears of the parallel shaft for connecting the latter with the other driven shaft, the gearing to said driven shafts being arranged for either separate or simultaneous operation.

11. In gearing, in combination, a driving shaft, a lay shaft, a driven shaft alined with the driving shaft, change speed gears on said driving and lay shafts adapted to give two different gear ratios, a movable direct driving connection between the alined shafts, and a sliding gear connection between the lay shaft and the driven shaft.

17. In gearing, in combination, a driving shaft, a lay shaft, and two driven shafts, non-sliding gears on some of said shafts, sliding gears on others of said shafts, said gears being so arranged and proportioned as to give several different speeds to each of said driven shafts, either separately or simultaneously, and means for sliding said gears.

[Claims 2 to 5, 7 to 10, 12 to 16, and 18 to 24 not printed in the Gazette.]

1,253,671. TELEPHONE-EXCHANGE SYSTEM. HENRY P. CLAUSEN, Mount Vernon, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Apr. 12, 1917. Serial No. 161,609. (Cl. 179—78.)



1. A telephone exchange system comprising telephone lines, an operator's telephone set, means responsive to the connection of the link circuit with one of the lines to connect the operator's telephone set therewith, a second link circuit, means actuated upon connection of one end of the second link circuit with another of the lines for causing the disconnection of the operator's telephone set from the first link circuit and the connection thereof with the second link circuit, and means operating upon the connection of the other end of the second link circuit with a third line for causing the disconnection of the operator's telephone set from the second link circuit and the reconnection thereof with the first link circuit.

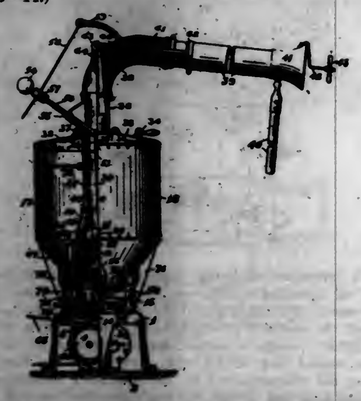
2. A telephone exchange system comprising telephone lines, an operator's telephone set, a link circuit, a relay energized upon connection of the link circuit with one of the lines to connect the operator's telephone set therewith, a second link circuit, a relay therein adapted when operated to connect the operator's telephone set therewith, a circuit therefor completed upon connection of one end of the second link circuit with another of the lines for operating the relay of the second link circuit and for causing the deenergization of the relay in the first link circuit and electromagnetic switching mechanism actuated upon connection of the other end of the second link circuit to disable the operating circuit, thereby causing the release of the second mentioned relay and the energization of the first mentioned relay.

4. A telephone exchange system comprising telephone lines, an operator's telephone set, link circuits, a relay in each link circuit adapted when operated to connect the operator's telephone set with the associated link circuit, an operating circuit for each relay completed upon connection of the associated link circuit with a line, the completion of one operating circuit while another is already established causing the diversion of current therefrom to release the relay of the first engaged link circuit, and means responsive to the connection of the link circuit associated with the one operating circuit for causing the diversion of current from the other operating circuit to release the relay thereof and for causing an increased flow of current in the one operating circuit to thereby again operate the relay thereof.

9. A telephone exchange system comprising telephone lines, a link circuit, an operator's telephone set, a resistance element having a high positive temperature coefficient, a relay adapted when energized to connect the operator's telephone set with the link circuit, an energizing circuit for the relay including the resistance element completed upon connection of the link circuit with one of the lines, a second link circuit, a relay therefor adapted when operated to connect the operator's telephone set with the second link circuit, and an operating circuit therefor completed upon connection of the second link circuit with another of the lines and coöperating with the resistance element to deënergize the first relay.

[Claims 3, 5 to 8, and 10 not printed in the Gazette.]

1,253,672. DUSTING AND SPRAYING APPARATUS. FREDERICK J. DECKER, Rochester, N. Y., assignor to Niagara Sprayer Company, Middleport, N. Y., a Corporation. Filed May 29, 1916. Serial No. 100,569. (Cl. 43—14.)



1. A duster or sprayer comprising a reservoir for the substance to be sprayed, a discharge tube communicating with the reservoir, blast inducing devices drawing said substance from the reservoir and ejecting it from the discharge tube, means controlling feed of the substance from the reservoir to the discharge tube, and means automatically regulating the rate of feed of said substance from the reservoir to the discharge tube proportionately to the range of movement of the discharge tube nozzle.

3. A duster or sprayer comprising a fixed base, a reservoir on the base for the substance to be sprayed, a feeder revoluble in the reservoir and having a perforated wall portion, a discharge tube held to the reservoir and communicating with the feeder outlet, blast devices discharging into the tube and drawing said substance from the reservoir into the feeder through its wall perforations and then ejecting the substance from the discharge tube, and brushing means in the reservoir acting upon the perforated portion of the feeder wall to prevent clogging of it; said brushing means having fastenings including parts adjustably holding the brush within the reservoir in proper relation to the perforated feeder wall and also securing the reservoir and its connected discharge tube to the duster base.

9. A duster or sprayer comprising a reservoir for the substance to be sprayed, a feeder revoluble in the reservoir and having a perforated wall portion, blast devices discharging into the feeder, a valve adjustably fitted at the perforated feeder wall and controlling the rate of spraying substance fed therethrough under influence of the blast, a discharge tube having an inner collar section manually revoluble on the reservoir top and communicating with the feeder outlet, a flexible intermediate section coupled to said inner collar section, and an outer section coupled to the forward end of said flexible section, a stirrup or part rigidly held to said outer tube section and fulcrumed at its rear end to the inner collar tube section, a cross-head movable in bearings at the discharge portion of the feeder, connections from said cross-head to the feeder valve, a rod having a loose but endwise immovable bearing in said cross-head, a lever fulcrumed to the inner collar section of the discharge tube and coupled at its inner end to said rod, and connections from the outer end of the lever to the stirrup fixed to the outer discharge tube section.

18. In a dusting or spraying apparatus, the combination with a sulfur reservoir and its discharge tube, of a revoluble feeder having a sulfur inlet from the reservoir and comprising supporting ribs providing atmospheric air inlet openings between them, upper and lower spaced blast nozzles sustained by said ribs, the lower nozzle receiving the blast and directing it through the upper nozzle, an imperforate upper portion into which the said nozzles discharge the forced blast and the commingled atmospheric air currents on their way to the discharge tube, and a lower receptacle provided with perforations outside of the said lower nozzle and communicating with the forced blast inlet; the said reservoir carrying a fixed annular plate directing the induced atmospheric air current toward the openings between said supporting ribs, substantially as described.

[Claims 2, 3, 5 to 8, and 10 to 17 not printed in the Gazette.]

1,253,673. EMBALMING-BOARD. KARL A. DOLGE, Westport, Conn. Filed Jan. 2, 1917. Serial No. 140,194. (Cl. 45—50.)



1. In an embalming board, the combination of a top section having flanges at its underside, metallic members fixed to the inner sides of said flanges and spaced throughout a portion of their length from the flanges and having horizontal slots in their spaced portions and also having keeper-lugs arranged above the outer ends of the slots, a support for the top section having a horizontal rod and trunnion portions thereon disposed and movable in the slots of the metallic members, nuts secured on the rod ends and movable between the flanges and the metallic members, and tongue-like projections fixed to and extending above the upper ends of the support and adapted to be placed behind the keeper lugs on the metallic members to detachably fasten the support in upright position.

3. In an embalming board the combination of a top section having a depending portion, a metallic member fixed to said portion and having a horizontal slot and a fixed keeper-lug disposed above one end of said slot, and a leg having a trunnion movable in the slot and also having a tongue-like projection extending above its upper end and adapted when the leg is in upright position to be placed behind and in lapped relation to the fixed keeper lug.

[Claim 2 not printed in the Gazette.]

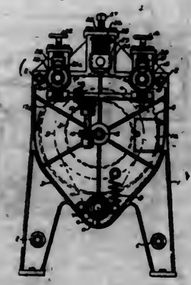
1,253,674. FILTERING OF WATER AND OTHER LIQUIDS OR THE LIKE. DAVID DUNBAR, Glasgow, Scotland. Filed Aug. 19, 1914. Serial No. 857,594. (Cl. 210—18.)



1. In apparatus for filtering water and the like, the combination of an elongated filter chamber; a series of openwork screens dividing said chamber into compartments; a carriage movable over said chamber; means supported by said carriage for directing cleansing fluid onto said screens, the same consisting of an elongated spray box; counter-weights connected to said box to permit of its movement adjacent the screens; and means for supplying cleansing fluid to said spray box.

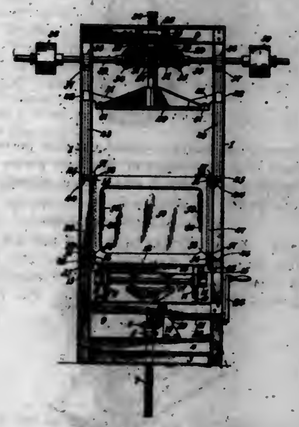
2. In apparatus for filtering water and the like, the combination of a series of parallel filter chambers; openwork screens dividing said chambers into a series of compartments; a carriage movable over said chambers; a spray box or boxes mounted on the carriage; means supporting said spray boxes to permit of their movement adjacent the screens; and means for supplying cleansing fluid to said spray box or boxes.

1,253,675. SHEET-METAL-POLISHING MACHINE. HARRY D. EUSTON, Quincy, Mass. Filed June 26, 1916. Serial No. 105,919. (Cl. 51—15.)



In a sheet metal polishing machine, the combination of a frame, a power operated felt covered drum mounted on the frame, a serrated cylinder in axial relation to the drum, and driven simultaneously with it, a flexible support for a cylinder which is held against the drum for charging it with an abrasive material, a casing covering the drum and the cylinder the latter serving as a receptacle for the abrasive material, rolls for feeding the sheet metal over the polishing drum, suitable gears for operating the rolls which are driven by the main shaft, adjustable rolls for holding the sheet metal in position and which compensate for the varying thickness of the metal, a wiper secured to the frame for cleaning the abrasive material to prevent it from grinding into the sheet metal plate.

1,253,676. MACHINE FOR MANUFACTURING PLASTER-BOARD. EDMOND H. FISHACK, Gypsum, Ohio. Filed Jan. 11, 1915. Serial No. 1,656. (Cl. 25—45.)



3. In a machine for manufacturing plaster board, an upright fixed mold open top and bottom, a car or truck movable laterally with respect to the mold into and out of underlying relation to the open bottom of the mold, and means for raising and lowering the car or truck bodily to varying extents up and down within the mold, whereby a stack of superposed articles may be formed in the mold with the car constituting a support for such stack and each article constituting a support for the next article above it.

11. In a machine for manufacturing plaster board, a mold, a car or truck of a size to enter the mold, and means for moving the car or truck to various extents lengthwise of the mold.

19. A machine for the manufacture of plaster board, comprising a suitable frame, a mold carried by the frame with members in fixed relation thereto and other adjacent members in movable relation thereto, one of said members being removable from the mold, a track carried by the frame below the mold, a truck or car movable on the track and constructed to form a supporting member when within the mold, and introducible into and removable from the mold through the space provided by the removal of the removable member, an elevating and lowering means carried by the frame in position to engage the car and lift it toward the top of the mold, and lower it by successive steps corresponding to the thickness of a plaster board, a follower carried by the frame and movable into and out of the upper end of the mold, means for attaching the removable member to the follower, and pressure operating means connected to the follower for causing the latter to exert a predetermined maintained pressure upon the plaster boards within the mold until the material of the plaster boards is set, the movable members of the mold being provided with clamp means for holding them in operative position against pressure exerted on them from the interior of the mold.

[Claims 1, 2, 4 to 10, and 12 to 18 not printed in the Gazette.]

1,253,677. LOCK-CASE. SAMUEL R. FRAIM, Lancaster, Pa., assignor to The E. T. Fraim Lock Company, a Corporation of Pennsylvania. Filed May 1, 1916. Serial No. 94,818. (Cl. 70—16.)

A lock case comprising a substantially annular body member having a circular opening through the same forming a chamber, two disks arranged within the opening and respectively located adjacent to the opposite edges

of the body member, oppositely arranged face plates located within the circular opening and bearing on the adjacent disks, an annular flange on both edges of said



body member projecting beyond the face plates adapted to be turned over the edges of the face plates to close the body member over said plates and secure the interior parts of the lock in place.

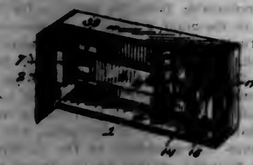
1,253,678. WARD-CYLINDER FOR LOCKS. SAMUEL R. FRAIM, Lancaster, Pa., assignor to The E. T. Fraim Lock Company, a Corporation of Pennsylvania. Filed July 16, 1917. Serial No. 180,714. (Cl. 70—46.)



1. A ward cylinder formed of one piece of material bent and drawn into two separate semi-cylindrical parts, and an outer end portion connecting the said parts.

2. A ward cylinder formed of one piece of material bent and drawn into two separate semi-cylindrical parts and an outer end portion connecting said parts, each of said parts being provided with opposed openings, and wards having projections adapted to enter said openings, said semi-cylindrical parts being adapted to be drawn apart to permit the insertion of the wards and to be brought together to hold the wards in position.

1,253,679. COMBINED LOCK AND LATCH. SAMUEL R. FRAIM, Lancaster, Pa., assignor to The E. T. Fraim Lock Company, a Corporation of Pennsylvania. Filed July 16, 1917. Serial No. 180,715. (Cl. 70—46.)



1. A lock of the kind described comprising a bolt having a metal shank, a cross plate having an ear extending from each edge and attached to the shank, and a knob rollback having ears extending therefrom, one of the ears on the cross piece extending into the path of movement of one of the ears on the rollback.

2. A lock of the kind described comprising a bolt having a metal shank having lateral extensions, lugs projecting from the extensions, a cross plate having an opening receiving the shank and openings receiving the lugs, and an oscillating rollback having projections connecting with the cross plate.

3. A lock of the kind described comprising a bolt having a metal shank having lateral extensions, lugs projecting from the extensions, a cross plate having an opening receiving the shank and openings receiving the lugs, ears extending from the edge of the cross plate, and a knob rollback having projections contacting with the cross plate, one of the ears extending into the path of movement of one of the projections from the knob rollback.

[Claims 4 to 7 not printed in the Gazette.]

1,253,680. CENTER-FINDER. JAMES B. GIBBN and ANDERS P. ANHOLTT, Detroit, Mich. Filed June 1, 1917. Serial No. 172,200. (Cl. 33—169.)



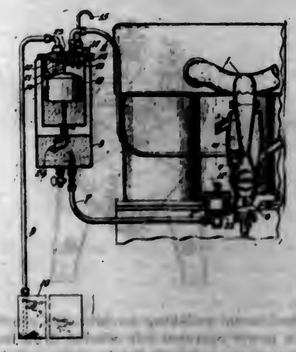
4. In a center finder, the combination with relatively movable cylindrical members, of yielding means for holding said members parallel while permitting relative lateral adjustment, and means for locking said members in different positions of adjustment.

5. In a center finder, the combination with two cylindrical members having their end surfaces parallel and abutting, of a retaining cap carried by one of said members and carrying yielding means for holding said other member in abutment, and an adjustable cap carried by said first mentioned member, and locking means for the members operated by said adjustable cap.

6. In a tool-maker's button, the combination with a stem adapted for insertion in the spindle of a machine, of a button, means for yieldingly holding the end of said button in contact with the end of said stem, while permitting lateral relative adjustment between the stem and button, and locking means independent of said yielding means for connecting the stem and button together.

[Claims 1 to 3 not printed in the Gazette.]

1,253,681. FUEL-CHARGE-SUPPLY APPARATUS. JOHN GOOD, Brooklyn, N. Y., assignor to Good Inventions Co., Brooklyn, N. Y., a Corporation of New York. Filed June 1, 1916. Serial No. 101,017. (Cl. 123—122.)



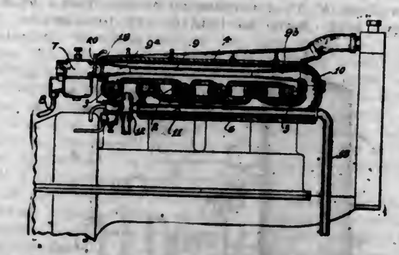
1. The combination with an internal combustion engine, of means for supplying combustible mixture of fuel liquid and air thereto, comprising a charge-forming device, a single Venturi tube constituting part of the length of the suction intake between said device and the engine, and an engine controlling throttle between said device and Venturi tube, intercepting the entire charge mixture passing to the engine.

3. Fuel supply apparatus for internal combustion engines, comprising a charge-forming device operated by the engine suction to deliver a mixture of liquid fuel spray and air in the explosive proportions suited for combustion in the engine, a suction intake connecting the said device to the inlet valve port of the engine and including a single Venturi tube comprising a convergent entrance section which is connected to said device to receive all of the mixture produced thereby and a gradually divergent recovery or exit section which conducts such mixture toward the engine, the said two sections of the tube being together many times as long as the diameter of the throat or narrowest part of said tube, and coöperating to maintain a region of local pressure reduction and high mixing velocity at said throat adapted to promote vaporization of fuel liquid in said mixture without appreciable obstruction to flow through said intake, and a medium surrounding said tube for freely supplying the heat for the vaporizing action therein.

5. Fuel supply apparatus for internal combustion engines comprising a charge-forming device producing a mixture of liquid fuel and air in the explosive proportions suited for combustion in the engine, an engine intake connecting said device to the inlet to the engine and including a single exhaust-heated tube, comprising a convergent entrance section which receives all the mixture produced thereby, and a gradually divergent recovery section which conducts the mixture to the engine, the two sections of said tube being together several times as long as the diameter of the throat or narrowest part of said tube and being devoid of interior projections or pockets likely to accumulate deposit or obstruct the flow and coöperating to produce a region of local vacuum at the throat of said tube, and an engine-controlling throttle in the intake at a point beyond the entrance to said tube.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,253,682. KEROSENE-ENGINE. JOHN GOOD, Brooklyn, N. Y., assignor to Good Inventions Co., Brooklyn, N. Y., a Corporation of New York. Filed June 6, 1916. Serial No. 101,888. (Cl. 123—122.)



2. Fuel supply means for combustion engines comprising a suction intake formed in part of a single Venturi tube equal at least in length to several cylinder diameters and mounted in the engine exhaust gas passage close to the region of combustion, and a fuel and air proportioner delivering its whole charge into said Venturi tube in the proportions intended for combustion in the engine.

5. In an engine using kerosene and like fuels, the combination with a plurality of engine cylinders and a transversely disposed exhaust header serving the same, or a suction intake constituted in part by a thin-walled Venturi-form vaporizer tube substantially equal in length to the length of said exhaust header and subject therein to the radiant heat of, and direct impingement by the flames in said cylinders and a fuel and air proportioning device delivering a charge mixture to said intake in proportions intended for combustion in the engine.

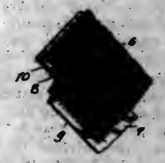
14. In a combustion engine having an exhaust header and an intake manifold, the combination with a suction intake formed in part of a Venturi-form vaporizer tube substantially equal in length to the said intake manifold and contained in the said exhaust header, close to the region of combustion and a charge mixture proportioner delivering its entire charge mixture into said tube.

16. In a multi-cylinder engine the combination of a suction intake and an exhaust manifold common to a number of cylinders, a portion of the length of said intake being contained within the exhaust manifold and the portion exterior of said manifold being contained within a closed casing and means adapted to project a flame through said casing for preheating the suction intake.

22. In an engine of the kind described, the combination of a suction intake connected with a liquid and air proportioning device, a portion of said intake being constituted of a Venturi-form vaporizer tube and inclosed in the exhaust gas passage of the engine and means for directing the fuel liquid entering said tube upon the convergent wall surface of said Venturi tube.

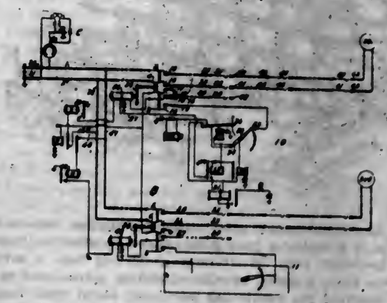
[Claims 1, 3, 4, 6 to 13, 15, 17 to 21, and 23 to 27 not printed in the Gazette.]

1,253,683. PROTECTOR FOR LAUNDRIED SHIRTS. NATHAN J. GOODMAN, St. Louis, Mo. Filed Aug. 5, 1915. Serial No. 43,876. (Cl. 229—87.)



In a protector for laundried shirts, a backing sheet constructed of relatively inflexible material of the approximate dimensions of a laundried and folded shirt, a thin, flexible sheet having dimensions in one direction greater than the dimensions of said backing sheet, an integral casing formed along one margin of said thin sheet and a cord secured in said casing, said thin sheet including its casing and said cord secured along opposite margins of said backing sheet and forming therewith a tubular protector for laundried shirts, the cord arranged to prevent tearing of the thin sheet upon the introduction of a shirt into the protectors.

1,253,684. TELEPHONE-EXCHANGE SYSTEM. CHARLES L. GOODRUM, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Dec. 30, 1916. Serial No. 139,802. (Cl. 179—18.)



1. In a telephone exchange system, the combination with calling and called telephone lines, a plurality of automatic non-numerical switches for said calling line, connecting circuits leading from said switches in the direction of different called line groups, and manually operable devices associated with the calling line for selectively operating said switches to extend such calling line to a connecting circuit leading to the desired called line group.

2. In a telephone exchange system, the combination with calling and called telephone lines, a plurality of automatic non-numerical switches for said calling line, connecting circuits leading from said switches in the direc-

tion of different called line groups, said circuits terminating in automatic numerical switches, manually operable devices associated with the calling line for selectively operating said switches to extend such line to a connecting circuit leading to the desired called line group, other automatic numerical switches, and a sender associated with the calling line for setting said numerical switches to interconnect the calling and called lines.

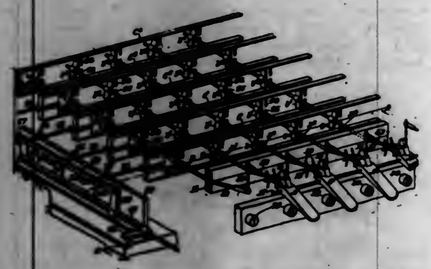
3. In a telephone exchange system, the combination with calling and called telephone lines, a plurality of line switches for each calling line, a group of connecting circuits leading from each switch in the direction of different called line groups, and manually operable devices associated with the calling line for selectively operating its line switches to seize a trunk of the corresponding group.

4. In a telephone exchange system, the combination with calling and called telephone lines, a plurality of line switches for each calling line, a group of connecting circuits leading from each switch in the direction of different called line groups, said circuits terminating in automatic numerical switches, manually operable devices associated with the calling line for selectively operating its line switch to seize a trunk of the corresponding group, other automatic numerical switches, and a sender associated with the calling line for setting said numerical switches to interconnect the calling and called lines.

5. In a telephone exchange system, the combination with called telephone lines divided into groups, groups of connecting circuits each leading in the direction of a different line group, a group of non-numerical switches for each group of connecting circuits, a calling line, means controlled by the calling party for operating a non-numerical switch of any group to extend the calling line to one of the connecting circuits of such group, and means for extending the calling line over said connecting circuit in the direction of the called line.

[Claims 6 to 9 not printed in the Gazette.]

1,253,685. COMBINATION STOP-ACTION FOR ORGANS. OSCAR J. HAGSTROM, Berwyn, Ill. Filed June 2, 1917. Serial No. 172,384. (Cl. 84—54.)

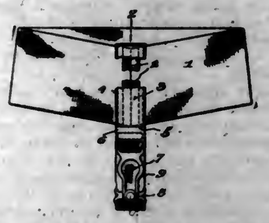


1. In a combination stop action for organs, the combination of a series of bars mounted for endwise movement and provided with transversely projecting lugs, a series of stop keys, a series of rods extending across said bars and mounted for oscillating movement about their longitudinal axes, connections between said stop keys and said rods, whereby a stop key will operate its rod or be operated thereby at will, and tappets mounted on and transversely of said rods and in the paths of travel of said lugs, said tappets engaging their respective rods with sufficient friction to operate said stop keys when struck by the lugs of said bars, but capable of being shifted angularly about said rods.

6. In a combination stop action for organs, the combination with a stop key operating rod having a substantially half round side and a substantially flat side formed with a central longitudinal rib, of a tappet lying crosswise of said flat side, and a spring clamp secured to the back side of said tappet and embracing the half round side of said rod and holding said tappet yieldably engaged with said rib and one margin of said flat side.

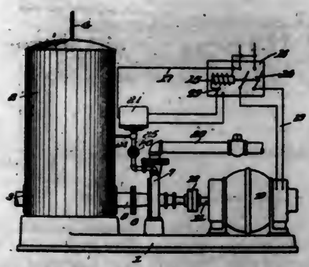
[Claims 2 to 5 not printed in the Gazette.]

1,253,686. MAN'S GARTER. MYRON B. HAMMOND, Bridgeport, Conn., assignor to Thomas P. Taylor Co., Bridgeport, Conn., a Corporation of Connecticut. Filed Nov. 28, 1917. Serial No. 204,449. (Cl. 241—6.)



A garter comprising a comparatively wide leg encircling member of elastic material, a non-elastic member consisting of two downwardly extending portions having straight parallel side edges inclosing the ends of the leg encircling member whereby a permanently closed garter is formed, supporting webbings depending from the said non-elastic member, and clasp members carried by the lower ends of said webbings, said downwardly extending portions being each stitched to the leg encircling member throughout the width of the latter by lines of stitching parallel to the straight side edges.

1,253,687. PUMP CONTROL. ROBERT BRUCE HICKS, New York, N. Y., assignor to William E. Quimby, Inc., New York, N. Y., a Corporation of New York. Filed May 1, 1917. Serial No. 165,716. (Cl. 103—86.)



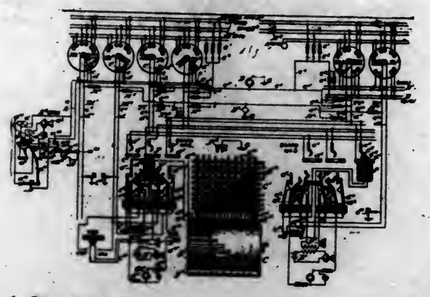
1. The combination of a tank, a pump associated therewith, means for controlling the operation of the pump arranged to be actuated by the contents of the tank and means actuated by the fluid pressure from the pump operative to maintain the pump in operation until cessation of the fluid pressure, substantially as described.

3. The combination of a tank, a pump associated therewith, a controlling circuit for the pump, pressure actuated means for closing said circuit arranged to be actuated by the contents of the tank and a connection from the pump to the pressure actuated means to exert pressure on said means to maintain the pump in operation substantially as described.

7. In a controlling device of the character described having in combination, a tank, a rotary pump associated therewith, means for controlling the operation of the pump arranged to be actuated by the contents of the tank and a connection providing a passage from the pump to the controlling means to transmit pressure from the pump thereto operative to maintain the pump in operation, and said connection being made to the top portion of the pump volute, substantially as described.

[Claims 2, 4 to 6, and 8 not printed in the Gazette.]

1,253,688. TELEPHONE-EXCHANGE. MYRON FRANCIS HILL, Boston, Mass., assignor of one-half to Edward E. Clement, Washington, D. C. Filed Mar. 24, 1908. Serial No. 423,051. (Cl. 179—27.)



1. In a grouped multiple switch board exchange, groups of subscribers' circuits, receiving trunk lines having automatic switching devices for each group controlled from the subscribers' stations, transmitting trunk lines having automatic switching devices for each group controlled from the central office, adapted to be connected to said subscribers' circuits, non-interference apparatus to prevent more than one trunk line from being connected to the same subscriber's circuit at the same time, plugs connected to said receiving trunk lines distributed among the boards, jacks at each board connected to each of said transmitting trunk lines for the purposes of connecting, and a test circuit associated with each transmitting trunk line to indicate its "free" or "busy" condition at all the boards.

6. In a grouped multiple switch board exchange, groups of subscribers' circuits, receiving trunk lines having automatic switching devices for each group controlled from the subscribers' stations, transmitting trunk lines having automatic switching devices for each group controlled from the central office adapted to be connected to said subscribers' circuits, non-interference apparatus to prevent more than one trunk line from being connected to the same subscriber's circuit at the same time, and switching apparatus at each board for connecting a receiving and a transmitting trunk line together.

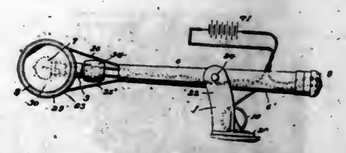
14. In a telephone exchange system, subscribers' lines, central station means including automatic connector switches for interconnecting said lines, said switches being arranged to continue the line testing operation indefinitely but under the control of the subscribers, and signals at the calling subscribers' stations actuated when the testing operation of the switch is completed whereby calling subscribers are apprised of the completion of connection wanted.

21. In a telephone exchange system, a plurality of subscribers' lines, automatic switching apparatuses adapted for double element selection, for interconnecting them, each switching apparatus including a side switching device, link circuits connecting with said automatic switching apparatuses, means responsive to control over one side of said link for producing one selection of the switching apparatus, means responsive to control over the other side of said link for effecting the other selection thereof, and means responsive to control over both sides of said link simultaneously for effecting operation of said side switching device.

27. In a telephone exchange system, lines, two motion automatic switching apparatuses for interconnecting them, actuating means for driving each of said switching apparatuses through each of its motions, releasing means therefor, and a side switch controlling both the actuating and releasing means and itself actuated through the two motions of the switching apparatuses.

[Claims 2 to 5, 7 to 13, 15 to 20, 22 to 26, and 28 to 30 not printed in the Gazette.]

1,253,689. VEHICLE-SIGNAL. HERBERT J. HOGAN, Flint, Mich. Filed Jan. 13, 1917. Serial No. 142,294. (Cl. 177—329.)



1. In combination, a supporting bracket adapted to be connected to the body of a vehicle, a hollow member and means to pivot the same in the bracket intermediate its ends permitting it to be swung in a vertical plane, a lamp casing supported on one end of said hollow member, wings connected at one end to the lamp casing and at the other end to the hollow member connecting said casing to said hollow member, lenses in said casing, a lamp in said casing, an interconnecting member passing through the casing connected at one end to the lamp, a lamp socket without the casing connected at the other end to the interconnecting member, a circuit controller comprising contacts all mounted on the other end of the hollow member, a suitable source of current, conductors in the hollow member connecting the lamp, the circuit controller and the source of current and a spring connected at one end to the hollow member and at the other end to the bracket.

2. In combination, a supporting bracket adapted to be mounted on a portion of the body of a vehicle, a swinging member pivoted in said bracket to swing in a vertical plane provided with an in-board and an out-board end, a signal on the out-board end of the swinging member and a signal-controlling device on the in-board end of said member.

5. In combination, a supporting bracket adapted to be connected to the top of a car door, a hollow member and means to pivot said member to said bracket intermediate its ends permitting it to be retained normally in a substantially vertical position and to be swung to a horizontal position, a lamp casing supported on one end of said hollow member, a pair of wings each connected at one end to the lamp casing and at the other to the hollow member, lenses in said casing, a lamp in said casing, a lamp socket, an interconnecting member passing through the casing, to one end of which the lamp is connected and to the other end of which the lamp socket is connected, electrical terminals on said interconnecting member, conductors in said interconnecting member electrically connecting the terminals of the lamp and the terminals on said member, a circuit controller on the other end of said hollow member accessible at all times to one sitting adjacent the car door on which said member is mounted, a source of current, conductors connecting the terminals on said interconnecting member, said source and said circuit controller, and a spring connected at one end to the hollow member and at the other to the bracket and always tending to return and hold said hollow member in normal position.

[Claims 3 and 4 not printed in the Gazette.]

1,253,690. BOX-MACHINE. CARLOS HOLLY, Lockport, N. Y., assignor to The F. N. Burt Company, Limited, Buffalo, N. Y., a Corporation of Ontario, Canada. Filed Jan. 16, 1911. Serial No. 602,862. (Cl. 93—39.)

25. In an apparatus of the character described, in combination, means for feeding webs, means adapted to provide slits in one web, means to sever the other web, means to position the severed portion with its edges intersecting slitted portions of the slitted web, means to sever the slitted web across the slitted portion, means to fold a part of the slitted portion over the edge of the severed portion of the other web, means to join the ends of the

tion of different called line groups, said circuits terminating in automatic numerical switches, manually operable devices associated with the calling line for selectively operating said switches to extend such line to a connecting circuit leading to the desired called line group, other automatic numerical switches, and a sender associated with the calling line for setting said numerical switches to interconnect the calling and called lines.

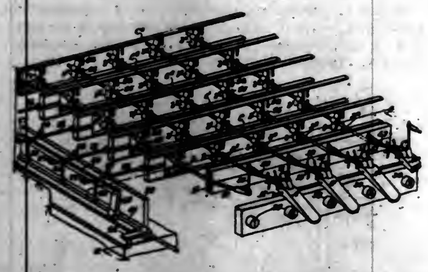
3. In a telephone exchange system, the combination with calling and called telephone lines, a plurality of line switches for each calling line, a group of connecting circuits leading from each switch in the direction of different called line groups, and manually operable devices associated with the calling line for selectively operating its line switches to seize a trunk of the corresponding group.

4. In a telephone exchange system, the combination with calling and called telephone lines, a plurality of line switches for each calling line, a group of connecting circuits leading from each switch in the direction of different called line groups, said circuits terminating in automatic numerical switches, manually operable devices associated with the calling line for selectively operating its line switch to seize a trunk of the corresponding group, other automatic numerical switches, and a sender associated with the calling line for setting said numerical switches to interconnect the calling and called lines.

5. In a telephone exchange system, the combination with called telephone lines divided into groups, groups of connecting circuits each leading in the direction of a different line group, a group of non-numerical switches for each group of connecting circuits, a calling line, means controlled by the calling party for operating a non-numerical switch of any group to extend the calling line to one of the connecting circuits of such group, and means for extending the calling line over said connecting circuit in the direction of the called line.

[Claims 6 to 9 not printed in the Gazette.]

1,253,685. COMBINATION STOP-ACTION FOR ORGANS. OSCAR J. HAGSTROM, Berwyn, Ill. Filed June 2, 1917. Serial No. 172,384. (Cl. 84—54.)

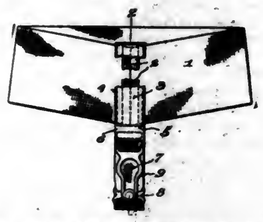


1. In a combination stop action for organs, the combination of a series of bars mounted for endwise movement and provided with transversely projecting lugs, a series of stop keys, a series of rods extending across said bars and mounted for oscillating movement about their longitudinal axes, connections between said stop keys and said rods, whereby a stop key will operate its rod or be operated thereby at will, and tappets mounted on and transversely of said rods and in the paths of travel of said lugs, said tappets engaging their respective rods with sufficient friction to operate said stop keys when struck by the lugs of said bars, but capable of being shifted angularly about said rods.

6. In a combination stop action for organs, the combination with a stop key operating rod having a substantially half round side and a substantially flat side formed with a central longitudinal rib, of a tappet lying crosswise of said flat side, and a spring clamp secured to the back side of said tappet and embracing the half round side of said rod and holding said tappet yieldably engaged with said rib and one margin of said flat side.

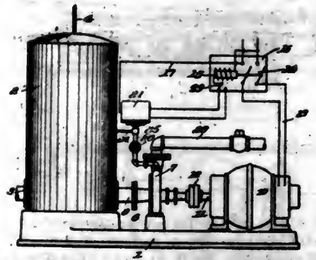
[Claims 2 to 5 not printed in the Gazette.]

1,253,686. MAN'S GARTER. MYRON B. HAMMOND, Bridgeport, Conn., assignor to Thomas P. Taylor Co., Bridgeport, Conn., a Corporation of Connecticut. Filed Nov. 28, 1917. Serial No. 204,449. (Cl. 241—6.)



A garter comprising a comparatively wide leg encircling member of elastic material, a non-elastic member consisting of two downwardly extending portions having straight parallel side edges inclosing the ends of the leg encircling member whereby a permanently closed garter is formed, supporting webbings depending from the said non-elastic member, and clasp members carried by the lower ends of said webbings, said downwardly extending portions being each stitched to the leg encircling member throughout the width of the latter by lines of stitching parallel to the straight side edges.

1,253,687. PUMP CONTROL. ROBERT BRUCE HICKS, New York, N. Y., assignor to William E. Quimby, Inc., New York, N. Y., a Corporation of New York. Filed May 1, 1917. Serial No. 165,716. (Cl. 103—86.)



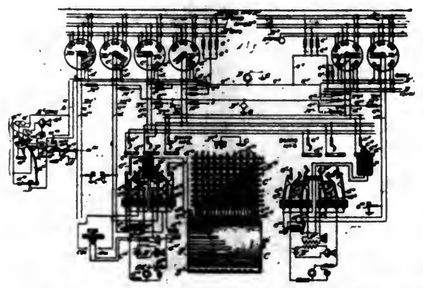
1. The combination of a tank, a pump associated therewith, means for controlling the operation of the pump arranged to be actuated by the contents of the tank and means actuated by the fluid pressure from the pump operative to maintain the pump in operation until cessation of the fluid pressure, substantially as described.

3. The combination of a tank, a pump associated therewith, a controlling circuit for the pump, pressure actuated means for closing said circuit arranged to be actuated by the contents of the tank and a connection from the pump to the pressure actuated means to exert pressure on said means to maintain the pump in operation substantially as described.

7. In a controlling device of the character described having in combination, a tank, a rotary pump associated therewith, means for controlling the operation of the pump arranged to be actuated by the contents of the tank and a connection providing a passage from the pump to the controlling means to transmit pressure from the pump thereto operative to maintain the pump in operation, and said connection being made to the top portion of the pump volute, substantially as described.

[Claims 2, 4 to 6, and 8 not printed in the Gazette.]

1,253,688. TELEPHONE-EXCHANGE. MYRON FRANCIS HILL, Boston, Mass., assignor of one-half to Edward E. Clement, Washington, D. C. Filed Mar. 24, 1908. Serial No. 423,051. (Cl. 179—27.)



1. In a grouped multiple switch board exchange, groups of subscribers' circuits, receiving trunk lines having automatic switching devices for each group controlled from the subscribers' stations, transmitting trunk lines having automatic switching devices for each group controlled from the central office, adapted to be connected to said subscribers' circuits, non-interference apparatus to prevent more than one trunk line from being connected to the same subscriber's circuit at the same time, plugs connected to said receiving trunk lines distributed among the boards, jacks at each board connected to each of said transmitting trunk lines for the purposes of connecting, and a test circuit associated with each transmitting trunk line to indicate its "free" or "busy" condition at all the boards.

6. In a grouped multiple switch board exchange, groups of subscribers' circuits, receiving trunk lines having automatic switching devices for each group controlled from the subscribers' stations, transmitting trunk lines having automatic switching devices for each group controlled from the central office adapted to be connected to said subscribers' circuits, non-interference apparatus to prevent more than one trunk line from being connected to the same subscriber's circuit at the same time, and switching apparatus at each board for connecting a receiving and a transmitting trunk line together.

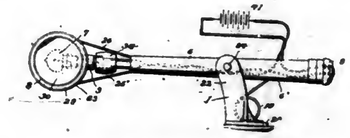
14. In a telephone exchange system, subscribers' lines, central station means including automatic connector switches for interconnecting said lines, said switches being arranged to continue the line testing operation indefinitely but under the control of the subscribers, and signals at the calling subscribers' stations actuated when the testing operation of the switch is completed whereby calling subscribers are apprised of the completion of connection wanted.

21. In a telephone exchange system, a plurality of subscribers' lines, automatic switching apparatuses adapted for double element selection, for interconnecting them, each switching apparatus including a side switching device, link circuits connecting with said automatic switching apparatuses, means responsive to control over one side of said link for producing one selection of the switching apparatus, means responsive to control over the other side of said link for effecting the other selection thereof, and means responsive to control over both sides of said link simultaneously for effecting operation of said side switching device.

27. In a telephone exchange system, lines, two motion automatic switching apparatuses for interconnecting them, actuating means for driving each of said switching apparatuses through each of its motions, releasing means therefor, and a side switch controlling both the actuating and releasing means and itself actuated through the two motions of the switching apparatuses.

[Claims 2 to 5, 7 to 13, 15 to 20, 22 to 26, and 28 to 30 not printed in the Gazette.]

1,253,689. VEHICLE-SIGNAL. HERBERT J. HOGAN, Flint, Mich. Filed Jan. 13, 1917. Serial No. 142,294. (Cl. 177—329.)



1. In combination, a supporting bracket adapted to be connected to the body of a vehicle, a hollow member and means to pivot the same in the bracket intermediate its ends permitting it to be swung in a vertical plane, a lamp casing supported on one end of said hollow member, wings connected at one end to the lamp casing and at the other end to the hollow member connecting said casing to said hollow member, lenses in said casing, a lamp in said casing, an interconnecting member passing through the casing connected at one end to the lamp, a lamp socket without the casing connected at the other end to the interconnecting member, a circuit controller comprising contacts all mounted on the other end of the hollow member, a suitable source of current, conductors in the hollow member connecting the lamp, the circuit controller and the source of current and a spring connected at one end to the hollow member and at the other end to the bracket.

2. In combination, a supporting bracket adapted to be mounted on a portion of the body of a vehicle, a swinging member pivoted in said bracket to swing in a vertical plane provided with an in-board and an out-board end, a signal on the out-board end of the swinging member and a signal-controlling device on the in-board end of said member.

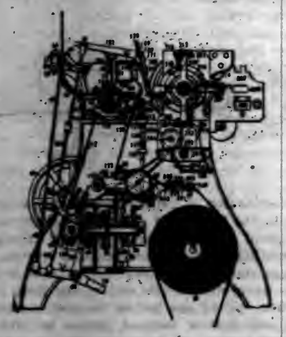
5. In combination, a supporting bracket adapted to be connected to the top of a car door, a hollow member and means to pivot said member to said bracket intermediate its ends permitting it to be retained normally in a substantially vertical position and to be swung to a horizontal position, a lamp casing supported on one end of said hollow member, a pair of wings each connected at one end to the lamp casing and at the other to the hollow member, lenses in said casing, a lamp in said casing, a lamp socket, an interconnecting member passing through the casing, to one end of which the lamp is connected and to the other end of which the lamp socket is connected, electrical terminals on said interconnecting member, conductors in said interconnecting member electrically connecting the terminals of the lamp and the terminals on said member, a circuit controller on the other end of said hollow member accessible at all times to one sitting adjacent the car door on which said member is mounted, a source of current, conductors connecting the terminals on said interconnecting member, said source and said circuit controller, and a spring connected at one end to the hollow member and at the other to the bracket and always tending to return and hold said hollow member in normal position.

[Claims 3 and 4 not printed in the Gazette.]

1,253,690. BOX-MACHINE. CARLOS HOLLY, Lockport, N. Y., assignor to The F. N. Burt Company, Limited, Buffalo, N. Y., a Corporation of Ontario, Canada. Filed Jan. 16, 1911. Serial No. 602,862. (Cl. 93—39.)

25. In an apparatus of the character described, in combination, means for feeding webs, means adapted to provide slits in one web, means to sever the other web, means to position the severed portion with its edges intersecting slitted portions of the slitted web, means to sever the slitted web across the slitted portion, means to fold a part of the slitted portion over the edge of the severed portion of the other web, means to join the ends of the

severed portion, and means to fold the other part of the slitted portion over the edge of the joint.



179. In a box making machine, the combination of means to form a duplex strip of foundation and finishing material, means to fold an edge of the finishing material over the edge of the foundation strip, means to fold said duplex strip and join the ends together to form a neck, and means to insert the neck and secure the same in a box.

184. In an apparatus of the character described, in combination, means adapted to effect the insertion of one box element in another, and means automatically cooperative with said means to attach a cord to the assembled elements.

197. In an apparatus of the character described, in combination, an angular former, means for forming an angular box collar thereon, means for applying a box body to the collar while on said former, and means for stripping the assembled box body and collar from the former.

244. In an apparatus of the character described, in combination, a box body supply device, and mechanism adapted to automatically coöperate with said device to effect the assembly of collars and box bodies comprising rotary means adapted to cause a body and collar to approach and partially assemble with each other while the axes of said box elements are inclined to each other.

[Claims 1 to 24, 26 to 178, 180 to 183, 185 to 196, 198 to 243, and 245 to 272 not printed in the Gazette.]

1,253,691. EXPLOSIVE SUBSTANCE. CARL RUDOLF JAHN, Schlebusch, near Cologne, Germany, assignor to the Firm of Sprengstoff A.-G. Carbonit, Hamburg, Germany. Filed Dec. 15, 1913. Serial No. 806,825. (Cl. 52—3.)

1. A mixture containing nitroglycerin, hexa-nitro-di-phenyl, ammonium nitrate and flour.

2. A mixture containing 4% of nitroglycerin, 12% hexa-nitro-di-phenyl, 80% ammonium nitrate and 4% of flour.

3. An explosive mixture containing hexa-nitro-di-phenyl, an oxidizing salt, and a carbonaceous fuel.

4. An explosive mixture containing hexa-nitro-di-phenyl, an oxidizing salt, a carbonaceous fuel and a nitric aliphatic body.

5. An explosive mixture comprising hexa-nitro-di-phenyl, an oxidizing salt capable of burning without leaving any material amount of ash, and an organic fuel.

1,253,692. THAWING DEVICE FOR HYDRANTS. ALBERT R. KAMPEN, New York, N. Y. Filed July 21, 1917. Serial No. 181,961. (Cl. 137—72.)

A hydrant having a stand pipe, a valve and a valve spindle, combined with a vertically divided annular vessel inclosed within the lower end of said stand pipe and encompassing said spindle, an inlet pipe, an outlet pipe and a drain pipe located within the stand pipe, said inlet pipe, outlet pipe, and drain pipe communicating at their lower



ends with said vessel, and adapted to open outwardly at their upper ends through said stand pipe.

1,253,693. DRAPERY-SUPPORT. MAX KLAUSCH, Chicago, Ill. Filed Mar. 29, 1917. Serial No. 158,172. (Cl. 156—19.)



1. A drapery supporting rod having an intermediate member bent substantially into a loop providing a central portion and two oppositely extended arms, the central portion, when the rod is in position, lying in a horizontal plane above the arms and in a vertical plane substantially between the arms and arranged to be supported by a hook or projection from a casing.

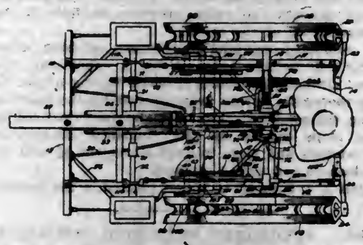
2. A drapery supporting rod having an intermediate member bent substantially into a loop providing a central portion lying in a horizontal plane above the arms and the arms each lying in a different vertical plane when the rod is in position, said central portion being arranged to be supported by a hook or projection from a casing.

3. A sectional drapery supporting rod including an intermediate member bent substantially into a loop providing a central portion and two oppositely extended arms, the central portion lying in a horizontal plane above the arms and the arms each lying in a different vertical plane when the rod is in position, said central portion being arranged to be supported by a hook or projection from a casing, and a pair of rod sections, each having one end telescopically associated with one of said arms.

4. An article of manufacture comprising an intermediate member for sectional drapery supporting rods bent substantially into a loop providing a central portion and two oppositely extended arms, the central portion lying in a horizontal plane above the arms and the arms each lying in a different vertical plane when the member is in position, said central portion being arranged to be supported by a hook or projection from a casing and said arms each being adapted to have one end of a rod section connected thereto.

1,253,694. CORN-PLANTER. COLONEL W. LANHAM, Joliet, Ill., assignor, by mesne assignments, to Brady Wireless Corn Planter Company, Chicago, Ill., a Corporation of Delaware. Filed Feb. 21, 1914. Serial No. 820,370. (Cl. 111—18.)

1. In a corn planter, a main shaft, a supporting-wheel fixed on said shaft, a slotted frame, a second shaft pivotally mounted on said frame to oscillate in the slots thereof, a marking-wheel mounted on said second-named shaft, corn-droppers carried by said second shaft and controlling the discharge of corn from said hopper, and means operatively connecting said shafts to cause said wheels to traverse the surface of the ground in synchronism.



5. In a corn planter, a shaft having a marking wheel fixed thereon, means on said marking wheel to mark the ground distinctively at fixed intervals in the path of said wheel, furrow openers located one at each end of said shaft, corn hoppers located adjacent said shaft above said furrow openers, means actuated by said shaft to drop the corn into the furrows made by the furrow openers simultaneously with the distinctive marking of the ground by said wheel, and means comprising resiliently connected parts to elevate said furrow openers independently of each other.

7. In a corn planter, a main frame comprising a rear portion and a forward portion, said portions being operatively connected, a main shaft mounted in the rear portion of said frame, supporting wheels mounted on said main shaft, a marking wheel shaft mounted in vertically extending slots adjacent the forward extremity of said rear portion of the frame, a marking wheel fixed on said marking wheel shaft, and means to tilt said forward portion of said frame with respect to the rear portion thereof to raise the front end of the rear portion of said main frame and to elevate said marking wheel out of contact with the surface of the ground.

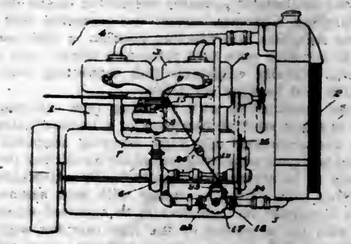
10. In a corn planter, a shaft, a supporting-wheel non-rotatably mounted thereon, a second supporting-wheel rotatably mounted thereon, a rotatably mounted marking-wheel, and means for causing said second-named supporting-wheel to non-rotatably engage said shaft and to operatively connect said shaft and marking-wheel to rotate in synchronism and simultaneously to lower said marking-wheel into contact with the ground.

12. In a corn planter, a shaft, supporting-wheels thereon, a rotatably mounted marking-wheel, corn-dropping mechanism, a furrow opener operating in advance of said mechanism, and means operating when in one position to permit the supporting wheels to rotate independently of each other and of said marking-wheel and to cause said marking-wheel and furrow-opener to be elevated above the surface of the ground, and when in another position to operatively connect together said supporting-wheels and said marking-wheel to rotate in synchronism and to cause said marking-wheel and furrow opener to be in engagement with the surface of the ground.

[Claims 2 to 4, 6, 8, 9, 11, and 13 not printed in the Gazette.]

1,253,695. CIRCULATION CONTROL. NORBERT M. LA PORTE, Baltimore, Md., assignor, by mesne assignments, to The Motor Cooling Systems Company, a Corporation of Delaware. Filed Aug. 10, 1915. Serial No. 44,672. (Cl. 123—170.)

1. In combination in an internal combustion engine, a water jacket, a pipe leading to the water jacket, a pump for supplying cooling water, a throttle valve controlling the supply of fuel and air, a controller valve in the water supply and means connecting the throttle valve to the controller valve to give proportionate openings of the two valves whereby the water circulation is varied directly as the fuel supply.



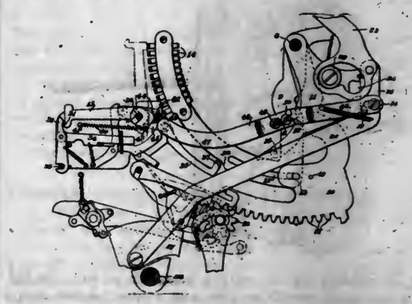
2. In combination in an internal combustion engine, a throttle controlling the fuel supply, a water jacket, means for supplying water to the jacket and means for controlling the water supply, said means being connected to the throttle to regulate the water supply to correspond to the throttle opening.

3. In combination in an internal combustion engine, a water jacket, a radiator, a connection between the water jacket and radiator, a circulating pump driven at a speed proportionate to the speed of the engine, a throttle controlling the fuel supply, a controller valve in the connection between the water jacket and the radiator, and means connecting the throttle valve and controller valve causing them to operate together and regulating the circulation to correspond to the throttle opening.

4. In combination in an internal combustion engine, a water jacket, a radiator, top and bottom connections between the water jacket and radiator, a circulating pump driven at a speed proportionate to the speed of the engine, a throttle controlling the supply of fuel to the engine, a controller valve in the bottom connection between the water jacket and the radiator, and means connecting the throttle valve and controller valve to regulate the circulation to correspond to the throttle opening.

[Claims 5 to 7 not printed in the Gazette.]

1,253,696. EXTENSIBLE HAMMER MECHANISM. WILLIAM W. LASKER, Brooklyn, N. Y., assignor to Powers Accounting Machine Company, New York, N. Y., a Corporation of Delaware. Filed May 17, 1916. Serial No. 98,019. (Cl. 235—58.)



1. The combination with swinging type carrying segments and type striking hammers, of a hammer retractor, means for actuating said type carrying segments into printing position, retracting means for permitting the said segments to be actuated, and a longitudinally adjustable link connecting said retracting means with said hammer retractor to permit the hammers to be actuated simultaneously with the actuation of the type carrying segments, the longitudinal adjustment of said link facili-

tating the adjustment of the several parts of the mechanism when assembling the same.

2. The combination with swinging type carrying segments and type striking hammers, of a hammer retractor, an initial oscillatable actuator, retracting means for said type carrying segments, means for actuating said type carrying segments into printing position, a link connecting said actuator with said retracting means, and a second longitudinally adjustable link connecting said first link with said hammer retractor.

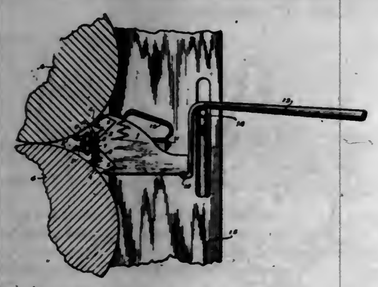
3. The combination with swinging type carrying segments and type striking hammers, of a hammer retractor, means for actuating said type carrying segments into printing position, retracting means for permitting the said segments to be actuated, a longitudinally adjustable link connecting said retracting means with said hammer retractor to permit the hammers to be actuated simultaneously with the actuation of the type carrying segments, the link comprising two portions, and set screws for connecting the two portions to one another.

4. The combination with swinging type carrying segments and type striking hammers, of a hammer retractor, an initial oscillatable actuator, retracting means for said type carrying segments, means for actuating said type carrying segments into printing position, a link connecting said actuator with said retracting means, a second longitudinally adjustable link connecting said first link with said hammer retractor, the second link comprising two portions, set screws secured to one of said portions, and there being slots in the other of said portions for receiving said set screws whereby the portions may be anchored to one another to form different lengths of said second link.

5. The combination with swinging type carrying segments and type striking hammers, of a hammer retractor plate, a shaft, arms mounting said retractor plate and fixed to said shaft, means for actuating said type carrying segments into printing position, retracting means for said type carrying segments, a lever secured to said shaft, and a longitudinally adjustable link connecting said lever with said retracting means to permit the hammers to be actuated simultaneously with the actuation of the type carrying segments.

[Claims 6 to 9 not printed in the Gazette.]

1,253,697. POLISHER. WILLIAM W. LEACH, Mansfield, Ohio, assignor of one-half to Albert I. Davey, Mansfield, Ohio. Filed Mar. 29, 1917. Serial No. 158,471. (Cl. 51—4.)



1. A polisher for use with a plurality of rolls, including a combined double scraper and refuse catcher and a universal connection between such scraper and catcher and such polisher.

3. A polisher for use with a plurality of rolls, including a combined double scraper and refuse scratcher, a support on the polisher, and means carried by the scraper and catcher to engage the support to permit a free tilting movement of such scraper and catcher with respect to the polisher.

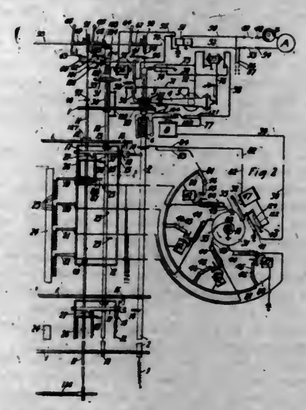
6. A polisher for use with a plurality of rolls, including a supporting plate having universal connection therewith, and a plurality of spring-pressed combined scrapers and refuse catchers movably connected with the plate.

7. A combined scraping and refuse catching attachment for roll polishers, comprising a supporting plate, combined cleaners and refuse catchers having hinged connection therewith, means carried by the plate to exert an outward pressure on the combined cleaners and refuse catchers, and coöperating means carried by the plate and combined cleaners and refuse catchers to limit the outward movements of the latter.

8. A combined scraping and refuse catching attachment for roll polishers, comprising a supporting plate, combined cleaners and refuse catchers having hinged connection therewith, spring arms carried by the plate and engaging the combined cleaners and refuse catchers, and limiting stops carried by said combined cleaners and refuse catchers and plate to limit movement of said combined cleaners and refuse catchers.

[Claims 2, 4, 5, and 9 to 15 not printed in the Gazette.]

1,253,698. AUTOMATIC SWITCHING MECHANISM. FRANK A. LUNDQUIST, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Dec. 2, 1916. Serial No. 134,573. (Cl. 179—27.5.)



1. In a telephone system, in combination with groups of equivalent trunk lines, automatic switching means having line brushes and test brushes, fixed contacts for said lines in said switching means, a test contact for each line, testing means associated with said switching means including said test brushes for determining idle trunks in said groups, and means for connecting said line brushes with one of said idle trunks.

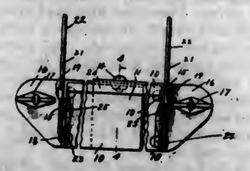
2. In a telephone system, in combination with groups of equivalent trunk lines, automatic switching means having line brushes and test brushes, fixed contacts for said lines in said switching means, a test contact for each line, testing means associated with said switching means including said test brushes, a member carrying said test brushes, a member supporting said line brushes, means for driving said test brush carrying member to cause said test brushes to test said groups simultaneously and to arrest the same when one or more idle trunks are reached, and means actuated thereby for driving said line brush supporting member to cause line brushes to engage one of said selected idle trunks.

3. In an automatic switch, a set of brushes, a plurality of sets of terminals arranged for engagement by said set of brushes, means for testing simultaneously a plurality of said terminals, means operated when one or more sets of terminals are found idle for determining which of said terminals will be engaged by said set of brushes, and means for causing said brushes to engage said predetermined set of terminals.

7. In an automatic switch, a plurality of sets of brushes, groups of terminal sets arranged for engagement by said brushes respectively, brush selecting means for rendering one of said sets of brushes operative, means for simultaneously testing a plurality of terminal sets in the group associated with said selected sets of brushes, means for determining which of said terminal sets will be engaged by said selected set of brushes when one or more terminal sets are found idle, and means for causing said set of brushes to engage said predetermined set of terminals.

[Claims 4 to 6 not printed in the Gazette.]

1,253,699. SHADE-HANGER. CHARLES D. MCCORD and JOHN L. CARLSON, Edenburg, Pa. Filed July 29, 1916. Serial No. 112,078. (Cl. 156—24.)



1. A shade roller support comprising a housing, including adjustably connected end portions, each provided with a rear wall, an upper wall, and end walls, the end walls being provided with openings in their lower end portion and having tongues struck from their upper end portions and bent to provide clamps, and curtain pole supports including arms engaged by the clamping tongues and having their end portions bent to provide fingers extending through the openings of said end walls.

2. A shade roller and curtain pole support comprising a housing including end walls provided with shade roller receiving sockets, the end walls being provided with openings adjacent their lower ends and having tongues struck from their upper end portions and bent to provide clamps, and curtain pole supporting brackets including arms extending along the end walls and engaged by said clamping tongues and having their end portions provided with fingers extending through the openings of the end walls.

3. A curtain pole support comprising a housing including end walls having openings formed therein and having tongues struck therefrom and bent to provide clasps positioned above the openings, and curtain pole supporting brackets including arms extending along the end walls and engaged by said clamping tongues and having their end portions provided with fingers extending through the openings of the end walls.

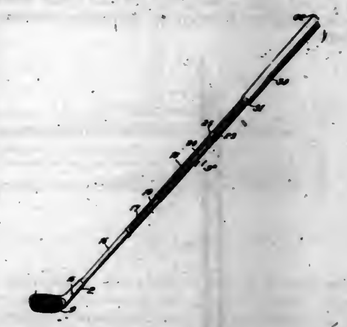
1,253,700. UNIVERSAL GOLF-CLUB. JOHN C. MCLAUGHLIN, East Orange, N. J. Filed July 21, 1916. Serial No. 110,431. (Cl. 46—4.)

1. A universal golf club comprising a head, the striking face of which may be changed to vary the angle thereof, a handle shaft and means for varying the length of the shaft to accord with the striking face of the club.

2. A universal golf club comprising a head, means for changing the striking face of the head to vary the angle thereof, a handle shaft and means for changing the length of the shaft to correspond with the striking face on said head.

3. A universal golf club comprising a head, means for removably attaching striking faces of varying angles thereto, and an extensible handle shaft, the length of which may be varied to correspond with the striking face on said head.

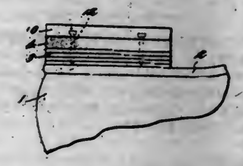
4. A universal golf club comprising a head, the striking face of which may be changed to vary the angle thereof, a telescoping handle shaft therefor, means for preventing circumferential displacement of the telescoping members of said shaft while permitting longitudinal adjustment thereof for varying the length to accord with the striking face of the club, and means for securing the telescoping members in adjusted position.



5. A universal golf club comprising a head, means for changing the striking face to vary the angle thereof, a handle shaft adapted to be lengthened or shortened to correspond wtih the angle of the striking face attached to said head, and means for preventing relative displacement of the parts when adjusted.

[Claims 6 to 10 not printed in the Gazette.]

1,253,701. TREAD PORTION FOR SHOES. LEVI MCMILLAN, Wilmington, N. C. Filed May 29, 1916. Serial No. 100,618. (Cl. 36—35.)



3. In combination a cushion block of rubber having fastening receiving openings formed therethrough, a tread member consisting of a leather rim portion provided with an inwardly extending flange of less thickness than the main part of the rim and a filling core of rubber within the rim portion and overlying the flange, and forming a tread member of substantially uniform thickness throughout, said tread portion being provided with fastening receiving openings extending through the flange and registering with the openings of the cushion block and all of said parts so arranged that fastening means may be placed through the registering openings to secure the tread member and the cushion block in the proper mounting.

[Claims 1 and 2 not printed in the Gazette.]

1,253,702. NECKTIE HOLDER AND PRESSER. JAMES L. MCPHERSON, Pittsburgh, Pa. Filed Aug. 1, 1917. Serial No. 183,958. (Cl. 100—57.)

1. A tie holder of the class described comprising a pair of clamping members, means for connecting said members in closed position, and a hinged tie receiving member carried by one end of said members, and opening in a direction at right angles to that in which said members open.

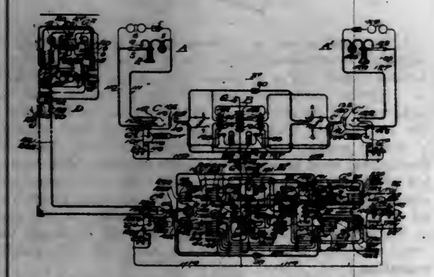
2. A tie holder of the class described comprising a pair of clamping members, means for connecting said members in closed position, and a hinged tie receiving member carried by one end of said members, said member being provided with a plurality of transversely extending slots through which the folded intermediate portion of the ties are designed to pass.

2. In a device of the class described, a pair of plates hingedly connected at one edge, means for adjustably connecting their opposed edges, a hinged plate carried by the upper edge of one of said plates, said hinged plate being provided with a plurality of transversely extending slots, and means for limiting the downward movement of said plate.



4. A device of the class described comprising a pair of clamping plates tapering toward one end and hingedly connected at one edge, means for adjustably connecting their free edges, a plate hinged to the smaller end of one of said clamping plates and having laterally extending stop lugs for limiting its downward swinging movement, said hinged plate being provided with a plurality of longitudinally spaced transversely extending slots.

1,253,703. SEMI-AUTOMATIC TELEPHONE TRUNKING SYSTEM. TALBOT G. MARTIN, Chicago, Ill., assignor, by mesne assignments, to Automatic Electric Co., a Corporation of Illinois. Filed Sept. 13, 1907, Serial No. 392,686. Renewed May 28, 1917. Serial No. 171,570. (Cl. 179—27.)



1. In a telephone system, an automatic main exchange, a private branch exchange for manual subscribers, a trunk line connecting the main exchange with the branch exchange and terminating at the main exchange in automatic switching apparatus, and at the branch exchange in a cord circuit, said cord circuit comprising means whereby an automatic subscriber may be placed in connection with the trunk line and then permitted to complete the call automatically, and means whereby if one of the manual subscribers wants a connection to the main exchange the operator completes the connection automatically and then places the calling subscriber in connection with the trunk line signals controlled from all of said subscribers' lines, and a common source of energy for operating all of said signals and for supplying talking current to all of said lines.

3. In a telephone system, a calling subexchange automatic subscriber's line and a called main exchange automatic subscriber's line, means including a manual cord circuit whereby the calling subscriber may establish connection with the called subscriber, said cord circuit comprising supervisory means including a lamp whereby, when the automatic calling subscriber releases the established connection, the supervisory lamp is displayed, and whereby if the calling subscriber starts to make another call before the cord circuit is taken down the lamp is retired.

6. In a telephone system, an automatic switch, a calling substation suitably connected with said switch, condensers in the circuit between the substation and the switch, and means for manually closing connections around said condensers to permit the calling subscriber to operate said switch, a signal controlled from said substation, and a common source of energy for operating said signal and for supplying talking current to said substation.

17. In a telephone system, a trunk line, a trunking operator's cord circuit connected with said trunk line, condensers in said cord circuit, an automatic switch, a calling telephone line connected with said cord circuit, an operator's key switch provided with means for closing connections around said condensers, means at the calling substation for transmitting electrical impulses over the telephone line and said connections and trunk line to operate said automatic switch, and front and back supervisory signals for said cord circuit.

[Claims 2, 4, 5, 7 to 16, and 18 to 60 not printed in the Gazette.]

1,253,704. TOOL FOR RESOLING SHOES. GIUSEPPE MERENDINO, New York, N. Y. Filed Oct. 26, 1917. Serial No. 198,619. (Cl. 12—103.)

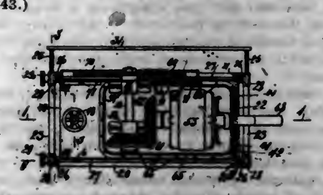


1. A re-soling tool comprising a saddle having a pair of arched wings, an intervening aperture, and a post removably engaging said aperture, said post having an upper step provided with a lower sharp lip.

3. A re-soling tool comprising a saddle having a pair of arched wings, a central aperture, and a post removably engaging said aperture, said post having a pair of upper steps, one of said steps having a lower sharp and straight lip, while the other step has a lower sharp and concave lip.

[Claim 2 not printed in the Gazette.]

1,253,705. PORTABLE TOOL. JOSEPH METZGER, Brooklyn, N. Y. Filed July 8, 1914. Serial No. 849,639. (Cl. 143—43.)



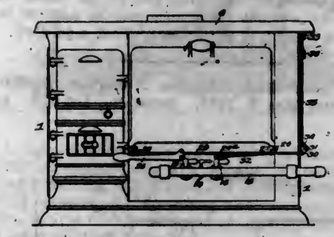
In a tool the combination of a base plate, guide channels at the opposite ends of the base plate, a double faced rack in each guide channel, a reversible guide plate having opposite guide edges and opposite guide faces secured to one end of each rack and means to adjust said guide plate relatively to either side of the base plate.

1,253,706. COMPOSITION OF MATTER TO FACILITATE THE WHIPPING OF CREAM. ALICE MOORE and FREDERICK J. A. KING, Vancouver, British Columbia, Canada. Filed Sept. 25, 1917. Serial No. 193,089. (Cl. 99—11.)

2. A composition of matter for the purpose specified, comprising one part by bulk of tartaric acid, two parts of lemon juice and two parts of cornstarch.

[Claim 1 not printed in the Gazette.]

1,253,707. COMBINED COAL AND GAS RANGE. ABRAM C. MOTT, Jr., Philadelphia, Pa., assignor to Abram Cox Stove Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed May 26, 1916. Serial No. 100,038. (Cl. 126—36.)

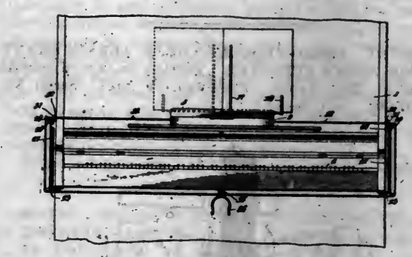


1. The combination in a combined gas and coal range, of an oven; a fire pot for coal; flues extending around the oven and communicating with the fire pot; a gas burner under the bottom plate of the range, said bottom plate having an opening therein; a movable deflector plate arranged to close the opening or to act as a deflector above the opening side flues leading from the lower flue to openings in the sides of the oven; dampers interposed between the lower flue and the side flue; an operating lever for engaging both the deflector plate and the dampers; a gas supply pipe communicating with the burners; valves therein, the operating lever being so located that when the parts are moved to the position so that coal can be used the lever is in front of the gas valves, preventing their use.

2. The combination in a combined gas and coal range, of an oven; a fire pot; flues extending around the oven from the fire pot; a back flue with which the under flue communicates; a passage between the upper flue and the back flue; a damper for closing said passage; the upper part of the oven having openings therein; a damper arranged to close said openings; a passage at each side of the oven; a damper for closing said passages; a damper in the down flue; the bottom of the range having an opening therein; gas burners under the range in line with the opening; a deflector plate arranged to close the opening or to be elevated to act as a deflecting plate for the flames issuing from the burners; a single operating valve; and means connecting the plate and all of the dampers with the operating lever so that, when the operating lever is turned in one position, the plate and dampers are set so that gas can be used, and, when the lever is turned in another position, the plate and dampers are set so that coal can be used.

3. The combination in a combined gas and coal range, of an oven; a fire pot; flues extending around the oven from the fire pot; a back flue communicating with the bottom flue; a pivoted deflecting plate mounted in the bottom flue; the bottom of the range having an opening therein directly under the plate; burners under the bottom plate in line with the opening; cranks connected to the deflecting plate; an operating lever connected to one of said cranks and arranged to raise or lower the deflecting plate; and valves for the burners so located as to be at the back of the operating lever when the plate is in its lowest position.

1,253,708. MUSIC-LEAF TURNER. GEORGE E. MOWERY, Lancaster, Ohio. Filed Sept. 21, 1914. Serial No. 862,763. (Cl. 84—17.)



1. The combination in a piano, of a plate secured thereto, a vertical rod secured to the plate, a sliding rod secured to said first mentioned rod, a plate secured to the sliding rod, rollers mounted in each of the plates, a spring between the two plates, a boxing, a plurality of leaf-engaging arms mounted on the boxing, a sliding plate for operating the arms, a rope secured to the plate and passing over the rollers on the plates at the end of the piano, and a rod pivotally secured to the piano and attached to the rope, said rod having an inverted U-shaped loop secured thereto.

3. The combination in a piano, of a plate secured thereto, a vertical rod secured to the plate, a sliding rod secured to the said first mentioned rod, a second plate secured to the sliding rod, an extension at right angles to said second plate provided with a slot to straddle a projection on the piano end, rollers mounted in each of the plates, a spring between the two plates, a boxing, a plurality of leaf-engaging arms mounted on the boxing, extensible sections carried by the said arms, leaf holders on the leaf-engaging arms and on the extensible sections, a sliding plate for operating the arms, a rope secured to the sliding plate and passing over the rollers on the plates at the ends of the piano, and a rod pivotally secured to the piano and attached to the rope, said rod being adjustable in its length and carrying on its outer terminal an inverted U-shaped loop.

[Claim 2 not printed in the Gazette.]

1,253,709. BOLT AND NUT LOCK. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed July 26, 1916. Serial No. 111,803. (Cl. 151—2.)



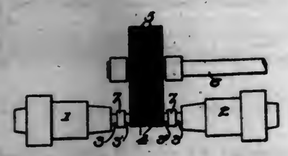
1. The combination with a bolt, having a head and a screw nut, of a nut lock, comprising a cylinder of metal extending between the head and the nut, said cylinder being arranged to form a helix.

3. As an article of manufacture, a nut lock for coöperation with bolts and nuts, said nut lock comprising a single coil formed from a spring plate, the coil being bent in the form of a helix and adapted to extend through the

recess provided for the bolt, the ends of the nut lock being adapted to engage the under side of the bolt head and the under side of the coöperating nut.

[Claim 2 not printed in the Gazette.]

1,253,710. SPEED-REDUCING GEAR ARRANGEMENT FOR STEAM-TURBINES. YEITARO OGAWA, Kusunoki Machi, Kobe, Japan. Filed Jan. 11, 1917. Serial No. 141,791. (Cl. 74—7.)



1. In a speed reducing gearing arrangement for steam turbines running at high speeds, the combination comprising a pair of turbines developing substantially constant torques and running at the same speed, a shaft common to said turbines, a driven shaft, a driving pinion mounted on the common shaft intermediate of the turbines and a gear wheel fixed to said driven shaft and arranged to mesh with said pinion.

2. In a speed reducing gearing arrangement for steam turbines the combination comprising a plurality of turbines adapted to rotate at equal speeds and arranged with their shafts axially in line, a pinion disposed between said turbines and arranged to rotate about the same axis as said shafts, a driven wheel in mesh with said pinion, and clutches adapted to connect said pinion with said shafts.

3. In a speed reducing gearing arrangement for steam turbines, a pair of turbines of equal power and adapted to rotate at equal speeds, a common shaft for said turbines, a pinion comparatively long as compared with its diameter fixed on the common shaft half way between the turbines, and a driven wheel arranged in mesh with said pinion.

1,253,711. PENCIL. DOCTOR FRANKLIN OLIVER, Oakland, Cal. Filed May 5, 1916. Serial No. 95,569. (Cl. 120—17.)



1. A pencil, comprising a stock having a central bore, a head slidable on the butt end of the said stock, and telescoping tubular members extending within the said bore and both having gripping means independently engaging the lead held in the inner member, one of the members being secured to the stock and the other member being secured to the said head to move with the latter, the said gripping means normally holding the lead against return movement and allowing forward feeding thereof.

6. A pencil, comprising a stock having a central bore, a head slidable on the stock, a tubular feeding member in the stock and having its end secured to the said head, said tubular member having means for feeding the lead held therein, a second tubular member in the stock and in which the first tubular member slides, said second tubular member being provided with means for holding the lead against return movement, and a spring surrounding the feeding tubular member between the head and the end of the stock.

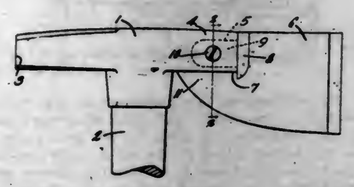
[Claims 2 to 5 not printed in the Gazette.]

1,253,712. TOY. MICHAEL J. OSSMAN, Leadville, Colo. Filed Apr. 9, 1917. Serial No. 160,793. (Cl. 46—40.)



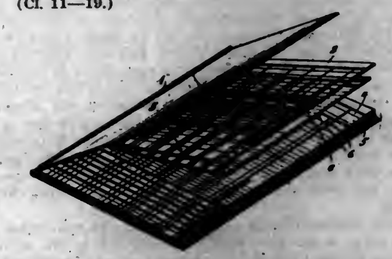
In a toy of the class described, a body; means carried by the body whereby the same may be held in the hand of the operator; a radius arm; a vehicle mounted on the outer end of the arm and embodying front and rear wheels engaging the body; and means for connecting, loosely and pivotally, the inner end of the radius arm with the body, whereby the vehicle may be made to ride on the front wheel and on the rear wheel, separately.

1,253,713. HATCHET. MICHAEL J. OSSMAN, Leadville, Colo. Filed May 2, 1917. Serial No. 165,955. (Cl. 145—3.)



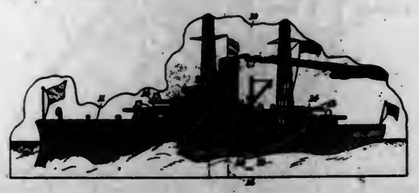
A tool embodying a handle, a head carried by one end thereof, one terminal of the head having a socket, a blade having an angular recess for snugly receiving said terminal of the head, the blade having an enlargement at one wall of said recess abutting said terminal of the head and having another portion at right angles to said portion fitting against the inner side of the head and extending to a point near the handle, the first mentioned portion having a shank extending perpendicularly therefrom to fit in said socket.

1,253,714. BOOKKEEPING SYSTEM. DANIEL H. OTIS, Madison, Wis. Filed June 12, 1915. Serial No. 33,708. (Cl. 11—19.)



A book for bookkeeping comprising several series of stepped leaves having a plurality of vertically arranged columns ruled thereon, each page provided with a plurality of transversely extending columns ruled thereon, indicating means printed upon said columns, a calendar arranged along the edge of each sheet for permitting the entrance of items upon the day of expenditure or receipt, of a loose leaf indicator ruled similarly and indicated similarly to said receipt and disbursement pages, said loose leaf indicator provided with a plurality of rows of items, each having a special indicating number whereby said indicating number of said loose leaf indicator may be applied in a proper column upon said disbursement or receipt pages for permitting the convenient recording of items upon said receipt and disbursement sheets, said loose leaf indicator being entirely separate from said disbursement sheets and comprising a pair of leaves and having a table printed upon the inner face of said leaves for constituting a key to identify certain articles to be entered in the different columns upon said sheets.

1,253,715. TOY. HENRY J. PAIN, New York, N. Y. Filed Apr. 6, 1916. Serial No. 89,351. (Cl. 102—20.)

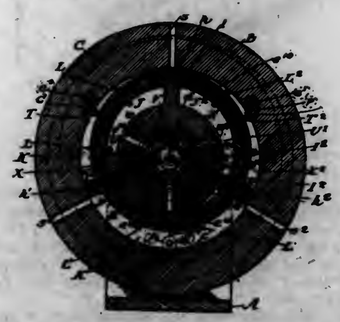


1. As a new article of manufacture, a flashing toy cartridge consisting of a composition of powdered pyrotechnic material and a powdered slow burning substance, and a wrapper for containing said composition so that when lighted the cartridge burns emitting flashes of light at relatively long intervals.

3. As a new article of manufacture, a flashing toy cartridge comprising a powdered pyrotechnic composition of nitrate barium, shellac, aluminum, and nitrate of potash, a suitable quantity of powdered red gum, as a slow burning substance, and a wrapper in which the mixture is contained so that when lighted the cartridge is consumed slowly with the slow burning material igniting the pyrotechnic material at relatively long intervals causing the same to emit intermittent flashes of light.

[Claim 2 not printed in the Gazette.]

1,253,716. ROTARY ENGINE. CHESTER M. PALMER, Aurora, Ill. Filed Dec. 23, 1915. Serial No. 68,458. (Cl. 121—66.)



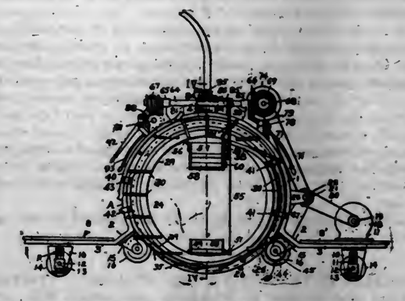
1. A rotary engine comprising a cylinder and its heads; a piston eccentrically disposed therein; piston bars associated with said cylinder and piston, and short, stout links connected to studs mounted on the cylinder heads and on the ends of the eccentric piston for the purpose set forth.

2. A rotary engine comprising a cylinder and a piston eccentrically disposed therein, with means to couple the piston and cylinder together to rotate them in the same direction, inlet ports, exhaust ports, and radial piston bars to divide the cylinder into separate chambers and to control said exhaust ports.

6. A rotary engine comprising a cylinder provided with exhaust ports, a hollow piston eccentrically disposed therein to form a crescent-shaped space, a cylindric body disposed eccentrically within the hollow piston and concentrically to said cylinder to provide within the hollow piston a crescent-shaped space eccentrically opposite to the first-mentioned crescent-shaped space and composed of separately rocking collars or hubs, with means to couple the piston and cylinder together, whereby they rotate in the same direction, and piston blades severally fixed to said collars or hubs and extending through packed openings in the hollow piston and engaging at their outer edges the inner wall of said cylinder.

[Claims 3 to 5 and 7 to 10 not printed in the Gazette.]

1,253,717. COMBINED ELEVATING AND CONVEYING MACHINE. LEON W. PALMER, Unity, Pa. Filed Feb. 12, 1917. Serial No. 148,201. (Cl. 193—1.)



1. A machine for the purpose set forth comprising a revolving drum, a portable support therefor, hinged dumping carriers arranged within the drum, means suspended from said suport and arranged exteriorly of the inlet end of the drum for maintaining the carriers against the inner face of the drum after the dumping of the carriers, means suspended from the support and arranged exteriorly of the inlet end of the drum for maintaining the carriers in position to receive a load and in loading position from the loading point to the dumping point, and operating means carried by said support for said drum, means for conveying material into the drum to load the carriers, and means suspended from said support and extending into the drum for receiving and conveying of the material dumped from the carriers, said last mentioned means constituting a trip for initially shifting the carriers toward the inner face of the drum after dumping.

[Claims 2 and 3 not printed in the Gazette.]

1,253,718. APPARATUS FOR TRANSFORMING PRESSURE. GEORGE A. PETERSON, Oakland, Cal. Filed Aug. 26, 1912, Serial No. 717,011. Renewed June 5, 1917. Serial No. 173,058. (Cl. 138—17.)



1. A pressure transformer comprising a plurality of cylinders of substantially equal diameter having ports at both ends, a piston in each cylinder, means rigidly connecting the pistons together, a power pipe, a slack water pipe and a press pipe, said pipes being connected to said cylinders, and means for controlling the flow of liquid into and out of the cylinders through said pipes.

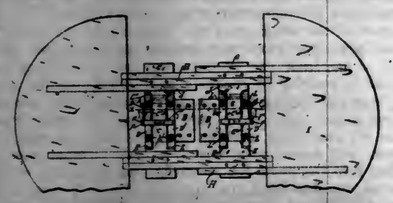
2. A pressure transformer comprising a plurality of cylinders of substantially equal diameter, ports at the opposite ends of said cylinders, a piston in each of said cylinders dividing each cylinder into forward and rear chambers, means rigidly connecting said pistons together, means for introducing water under a fixed pressure into the rear chambers of said cylinders, means for controlling the introduction of said water and a discharge pipe connecting the forward chambers of said cylinders.

4. A pressure transformer comprising a plurality of alined cylinders arranged in a fixed relation to each other, a piston in each cylinder dividing the cylinders into forward and rear chambers, piston rods rigidly securing said pistons together, ports at opposite ends of the cylinders, a slack water pipe connected to the rear port of the forward cylinder and the forward ports and rear ports of the remaining cylinders, a press pipe connected to the forward ports of said cylinders and valves arranged between the rear chamber of the forward cylinder and said slack water pipe and between both chambers of the remaining cylinders and said pipe.

9. A pressure transformer comprising a plurality of cylinders arranged in a fixed relation to each other, pistons in said cylinders, means rigidly securing said pistons together, means for introducing and discharging water to and from the opposite ends of said cylinders, valves controlling the inlet and discharge to and from said cylinders, a shaft arranged adjacent said valves, cams on said shaft arranged to operate said valves, means for revolving the shaft and means for moving the shaft longitudinally to withdraw the cams from operative relation with said valves.

[Claims 3, 5 to 8, and 10 to 16 not printed in the Gazette.]

1,253,719. EXTENSION-TABLE. WILLIAM L. PFEFFERKORN and ALBERT P. SCHLOERB, Milwaukee, Wis., assignors of one-third to August H. Hammetter, Milwaukee, Wis. Filed Nov. 20, 1915. Serial No. 62,522. (Cl. 45—9.)



1. An extension table, including the combination with a set of supporting members, of a set of slide supporting bridging boards in tilting relation to the supporting members and adapted to move with them when the supporting members are separated.

3. An extension table, including the combination of a set of separable supporting members provided with cap plates, slide supporting bridging boards mounted upon the respective cap plates and each having hinge connection with said supporting members, said hinge connections being in alinement on an axis extending longitudinally of the table at one side of the center line and adapted to permit the bridging boards to rest flat upon the respective cap plates or to be tilted toward a vertical position at one side of the cap plates, and link connections between the bridging boards and said supports adapted to limit the tilting movement of said bridging boards.

6. An extension table, including the combination of a set of separable supporting members, a set of bridging boards, each normally interlocked with one of the supporting members in a horizontal position, a connection between each bridging board and its supporting member adapted to permit a tilting movement of the bridging board upon a longitudinal axis parallel with the longitudinal center line of the table, and means for locking said bridging boards against a tilting movement, together with means for limiting the tilting movements of the bridging boards when unlocked.

9. An extension table, including the combination of a set of separable supporting members provided with guide members, a set of slide supporting bridging boards, each having hinge connection with one of the supporting members and having recesses to receive said guide members when the bridging boards are in a normally horizontal position, said bridging boards being adapted to be tilted toward a vertical position at one side of the supporting members, when swung upon said hinge connections.

[Claims 2, 4, 5, 7, 8, and 10 not printed in the Gazette.]

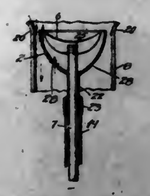
1,253,720. NECKTIE-STRETCHER. EDWARD PIERSON, Clarke Station, Ind. Filed Dec. 20, 1916. Serial No. 137,985. (Cl. 223—19.)



1. A necktie stretcher comprising a frame, a supporting rod located in the frame, a pair of relatively spaced superposed shafts journaled in the frame, a plurality of retaining rollers carried by the shafts, means for holding the rollers from rotation in one direction, and clamping means carried by each roller.

[Claims 2 and 3 not printed in the Gazette.]

1,253,721. X-RAY TUBE. JOSEPH M. PREGENZER, Chicago, Ill. Filed Jan. 5, 1916. Serial No. 70,370. (Cl. 250—35.)



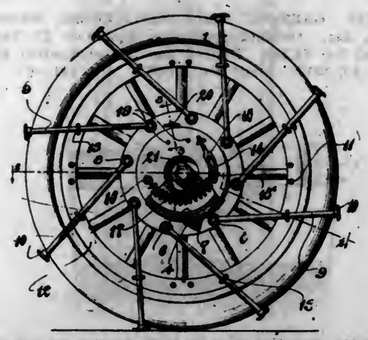
1. In an X-ray tube, a shield disposed between the cathode and the wall of the tube, said shield being cup-shaped with its walls disposed medially between the cathode and the wall of the tube in spaced relation thereto respectively, and the lower part of said shield being apertured to permit circulation of gas through said shield acting as a jacket.

4. The combination with the cathode neck of an X-ray tube, a cathode, a tubular support in said neck, a metallic shield surrounding said cathode and supported by said tubular support.

[Claims 2 and 3 not printed in the Gazette.]

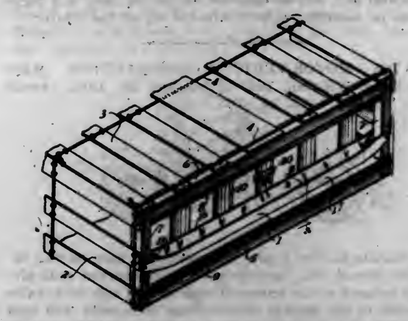
1,253,722. ANTISKID DEVICE. MARTIN W. PRIBL, Spokane, Wash. Filed Mar. 14, 1917. Serial No. 154,786. (Cl. 21—212.)

A non-skid device for vehicle wheels, comprising a flanged and fixed hub member, a flanged member rotatable thereon, an annular plate secured to the spokes of the wheel, guides carried by said plate, ground engaging rods pivotally mounted on the rotatable member and extending tangentially therefrom and beyond the wheel tread and engaged by said guides, a slot in the outer wall of said



rotatable member, a bolt extending through the slot and secured to said hub member, a bolt mounted in the outer wall of said rotatable member, a spring connecting said bolts adapted to tension the rotatable member against rotation on said hub member and to maintain said rods in outwardly extended positions.

1,253,723. FEED-TROUGH FOR POULTRY-CRATES. DON L. QUINN, Oak Park, Ill., assignor to Chicago Mill and Lumber Company, a Corporation of Illinois. Filed Oct. 14, 1916. Serial No. 125,579. (Cl. 119—18.)



1. A poultry crate with a feed trough attached thereto, said trough comprising a strip of sheet material bent lengthwise upon itself into the form of a trough with its ends bent inwardly, and means movably mounted on the crate adapted to retain one wall of said trough against the other.
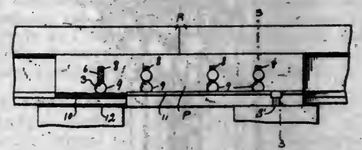
6. A feed trough for poultry, comprising a strip of fiber-board having at each end three scores radiating from a point near the end toward the adjacent corners and a medial point on the end respectively, the medial score being on one side of said strip and the other two being on the opposite side whereby said strip is rendered limber along the score lines, and may be bent correspondingly along said lines into the form of a trough with closed ends.

[Claims 2 to 5 not printed in the Gazette.]

1,253,724. RAIL-JOINT. JOE RADER, Belva, Okla., assignor of one-half to H. A. Hazlett, Belva, Okla. Filed Oct. 6, 1917. Serial No. 195,125. (Cl. 239—11.)

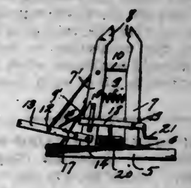
In combination with the meeting ends of rails, fish plates co-acting with the opposite sides thereof, one of

said plates being wedge-shaped in cross section with the thicker edge disposed downwardly when in applied position, registering openings formed both in the plates and the webs of the rails, headed shanks insertible through said openings when in registry, the free end portions of the shanks being reduced to afford shoulders, and a holding plate wedge shaped in cross section with the larger



edge upwardly disposed when the plate is in applied position, said holding plate being provided with transversely disposed slots, the marginal portions of said slots being engageable with the shoulders of the shanks, the lower marginal portion of the holding plate being provided with an outstanding flange, and a chair insertible beneath the meeting ends of the rails and provided with a flange adapted to overlie the flange of the holding plate.

1,253,725. HARNESS-VISE. FRED A. RAHFELDT, Zearing, Iowa. Filed July 2, 1917. Serial No. 178,207. (Cl. 81—30.)



1. A vise of the class described, comprising a base, a pair of upwardly converging clamping members associated therewith, a strap secured to one of said members, a treadle pivoted to one of said members and connected to said strap whereby to adjust the clamping members to clamping position when said treadle is depressed, rack teeth formed upon said treadle, a latch pivoted to one of said clamping members and engageable with said teeth to retain said treadle in depressed position, and a trip pivoted to the other clamping member and engageable with said latch to release the same from engagement with said teeth whereby to permit of a return of the clamping members to inoperative position.

[Claim 2 not printed in the Gazette.]

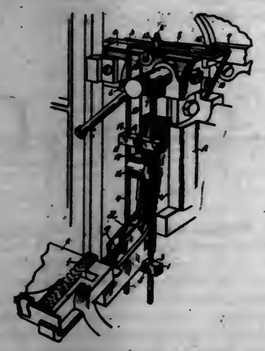
1,253,726. LINOTYPE-MACHINE. CHARLES C. RANDALL, Olean, N. Y. Filed May 16, 1917. Serial No. 169,075. (Cl. 199—61.)

1. The combination with the galley and adjusting bar of a linotype machine, of a slug adjuster comprising a roller, a vertically movable support therefor, and connections between the adjusting bar and support for shifting said support with the roller thereon as the bar is shifted to different positions.

2. The combination with the galley, slug plate and adjusting bar of a linotype machine, of a slug adjuster comprising an upright guide, a roller support movable along and upon the guide in proximity to the front edge of the slug plate, a roller on said support to contact with the front edges of the slugs, and means for transmitting motion from the adjusting bar to the roller support.

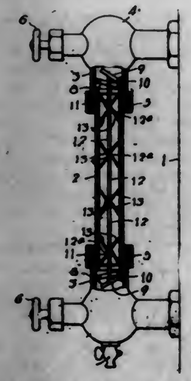
3. The combination with the galley, galley bracket and adjusting bar of a linotype machine, of vertically adjustable means for engaging the front edges of the slugs in

transit through the upright portion of the galley bracket in transit to the galley, and connections between the adjusting bar and said vertically adjustable means for shifting said means as the adjusting bar is moved to different positions.



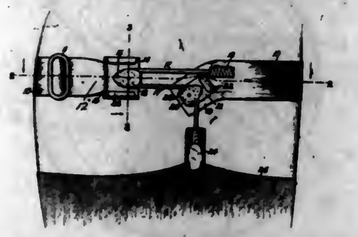
4. The combination with the galley, vise jaw, adjusting bar and a slug plate leading from the vise jaw to the galley, of an upright guide, a roller support movable along and upon said guide, a roller mounted upon the support in front of the guide to hold the slugs against overturning in transit from the vise jaw to the galley, a flexible connection between the roller support and adjusting bar for shifting the roller as the bar is adjusted, and means for gripping the connection to hold the roller support against downward movement when the bar is adjusted in the direction to allow such downward movement.

1,253,727. AUTOMATIC CUT-OFF FOR WATER-GLASSES. ARDITH J. ROBINSON, Garibaldi, Oreg. Filed May 24, 1917. Serial No. 170,687. (Cl. 73—54.)



In an automatic check valve for water gages, the combination with an end fitting provided with a valve seat, and a gage glass connected to the end fitting, of an inwardly opening check valve for the valve seat, an untable column member formed in separate and interchangeable sections which are assembled within the gage glass and normally held in operative position thereby, each of the sections including an axial rod having rearwardly inclined positioning arms projecting from the ends thereof for engagement with the walls of the glass tube to hold the axial rod centered therein, the abutting ends of the rods being beveled in opposite directions so that they will slip over each other and cause a collapse of the column member if the gage glass breaks and the positioning arms lose their support, and a prop between one end of the column and the inwardly opening valve for holding the valve in an open position while the gage glass remains intact.

1,253,728. GARTER. JAMES COLVIN ROGERS, Birmingham, Ala. Original application filed Jan. 25, 1916, Serial No. 74,246. Divided and this application filed Feb. 16, 1917. Serial No. 148,971. (Cl. 241—6.)



A garter consisting of a leg band, having one end terminating in a downwardly extending angular portion, a plate secured to the outer face of the downwardly extending terminal of the leg band, a pulley mounted on the plate, a second plate with which the other end of the leg band is adjustably secured, said second plate having its rear face covered with a fabric, a pulley mounted on the outer face of the second plate, and a cord having one end permanently and fixedly secured to the leg band adjacent its downwardly extending terminal and above the plate carried by said terminal, said cord being adapted to pass around the pulleys and provided at its free end with a gripping device for engaging a hose, whereby a straight horizontal pull will be exterted on the leg band and there will be no metallic contact with the leg of the wearer.

1,253,729. MOTOR-VEHICLE CONSTRUCTION. MATT F. ROSS, Windfall, Ind. Filed Nov. 17, 1916. Serial No. 131,864. (Cl. 21—105.)

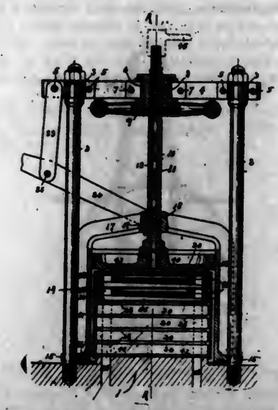


A chassis having a pair of spaced side bars having upwardly curved ends, springs having downturned ends pivotally secured to the upturned ends of said side bars, axles attached to the springs intermediate their ends, and bars pivoted to the upper face of the side bars of the chassis centrally thereof and having their opposite ends pivotally connected to the other ends of the springs.

1,253,730. MACHINE FOR MOLDING ARTIFICIAL STONE. RICHARD E. SCHWARZ, Detroit, Mich. Filed Oct. 25, 1917. Serial No. 198,373. (Cl. 25—45.)

1. In a machine for molding artificial stone, the combination of a series of superimposed molds to receive plastic material and formed with connecting passages, a shell surrounding the molds and spaced therefrom, a piston within the shell, means to force the piston down onto said molds, and means to cause a difference in air pressure in the spaces above and below the plastic materials in the molds.

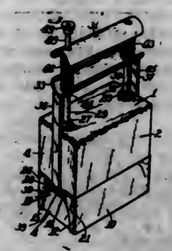
4. A mold for artificial stone comprising a body formed with a central chamber surrounded by a ledge, a perforated plate resting on the ledge, and a member constituting the sides of the mold for the plastic material and resting on the plate, said last named member and the body being formed with registering passages and the body being formed with a lateral passage connecting said chamber to the vertical passage.



9. In a machine for molding artificial stone, the combination of a series of superimposed molds for plastic material and a suport for the molds, each mold comprising a hollow body, a perforated plate extending across the hollow of the body, and a resilient pad constituting the sides of the mold, the top of each mold being open to permit free access of the air surrounding the molds to the plastic material, the air pressure within the molds below the perforated plates being lower than above the plastic material.

[Claims 2, 3, and 5 to 8 not printed in the Gazette.]

1,253,731. ICE-CREAM-PAIL FILLER. WALTER C. SEARS, Indianapolis, Ind., assignor of one-half to Elmer Schaller, Indianapolis, Ind. Filed Oct. 19, 1916. Serial No. 126,590. (Cl. 107—48.)

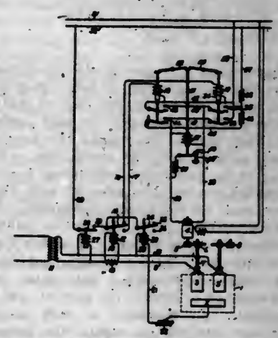


1. A pail-filler including a flat top and straight side and end wall portions, the opposite side wall portions having each a hingedly-movable lower portion, each lower portion having two controlling-arms extending adjacent to the outside of the end wall portions respectively, guiding-standards secured to the flat top, a handle bar secured to the guiding-standards, a cross-bar movably guided on the guiding-standards below the handle bar and having two pull-rods connected thereto, each one of the pull-rods having connection with a controlling-arm of each of the hingedly-movable side portions, and two springs on the guiding-standards respectively and under compression against the handle bar and the cross-bar.

4. A pail-filler comprising a flat top and straight side and end wall portions, the opposite side wall portions having each a hingedly movable lower portion, each of said lower portions having two controlling-arms extending adjacent to the outside of the end wall portions respectively, two hollow guiding-standards secured to said top, a handle bar secured to the tops of said guiding-standards, an ejector plate movable between said wall portions and also between the hingedly-movable lower portions, an operating-rod secured to the ejector plate and extending through one of said guiding-standards and through said handle bar, a push-knob secured to the operating-rod beyond said handle bar, a cross-bar movably guided on said guiding-standards between the handle bar and said flat top and having two pull-rods connected to its ends and adjacent to said guiding-standards, each one of the pull-rods having operative connection with a controlling-arm of each of the hingedly-movable side portions, and two springs on the guiding-standards respectively and under compression against the handle bar and the cross-bar.

[Claims 2 and 3 not printed in the Gazette.]

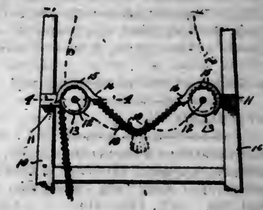
1,253,732. ELECTRIC FURNACE CONTROL APPARATUS. JOHN A. SEEDE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed June 21, 1917. Serial No. 176,213. (Cl. 204—64.)



1. The combination of a plurality of electrodes adapted to support a plurality of arcs, electrical connections therefor, means for regulating the length of one of said arcs in response to variations of current in the circuit of said arc, and means for regulating another arc in response to variations of voltage across the terminals of said arc.

2. An electric furnace control apparatus comprising arc-supporting electrodes to be regulated, motors operatively connected respectively to each of said electrodes, energy supply conductors connected to said electrodes, means for controlling a motor connected to one electrode in response to current changes in the supply circuit of the corresponding electrode to move said electrode in a direction whereby a desired current value is maintained, means for controlling a motor connected to another electrode in response to voltage changes across an arc supported by said electrode to move said electrode in a direction whereby a desired voltage drop is maintained, and means for braking said motors when the desired regulation has been attained.

1,253,733. ANTIBALKING DEVICE. ILIA SEMOTIUK, Vegreville, Alberta, Canada, assignor of one-sixth to Fedor Wakaliuk, Vegreville, Alberta, Canada. Filed May 7, 1917. Serial No. 167,078. (Cl. 54—71.)



1. In a mule starter, a pair of oscillatory balance wheels positioned in spaced relation to lie on opposite

sides of a mule, and a flexible irritating and tickling member having its end portion connected to one of said balance wheels and arranged to engage the other wheel and adapted to be brought into contact with a mule positioned between said wheels.

3. In a mule starter, an irritating and tickling element consisting of a horse hair rope having hog bristles radiating therefrom.

[Claim 2 not printed in the Gazette.]

1,253,734. BURGLAR-PROOF SPRING-LOCK. MORRIS SHEINMAN, New York, N. Y. Filed Dec. 19, 1916. Serial No. 137,793. (Cl. 70—46.)



1. A lock, comprising a keeper having projecting ears provided with vertical apertures, a bolt-casing provided with apertures adapted to receive the ears of said keeper, a vertically-slidable bolt mounted in said casing and provided with lugs adapted to engage the apertures in the keeper ears, a knob and key mechanism carried by said bolt-casing each embodying bolt-lifting levers, said bolt being extended beyond the axes of said knob and key mechanism and provided with shoulders on each side of said axes adapted to be engaged by said lifting levers to lift the bolt when operated in either direction.

2. A lock, comprising a keeper having projecting ears provided with vertical apertures, a bolt-casing provided with apertures adapted to receive the ears of said keeper, a vertically-slidable bolt mounted in said casing and provided with lugs adapted to engage the keeper ears and having a rearward extension formed with double shoulders on opposite sides thereof, and knob and key mechanisms carried by said bolt-casing with their axes positioned intermediate said double shoulders and embodying lifting levers positioned to engage said shoulders to lift said bolt when either said knob or key mechanism is operated in either direction.

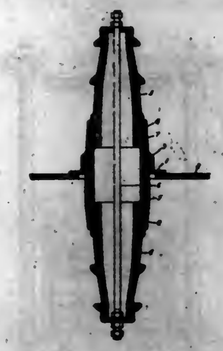
8. A lock comprising a keeper having projecting ears provided with vertically extending apertures, a bolt casing provided with apertures adapted to receive the ears of said keeper, a vertically slidable bolt mounted in said casing and provided with depending beveled lugs adapted to ride over the keeper ears and drop into the vertically extending apertures therein, said bolt having a rearward extension formed with double shoulders on opposite sides thereof, a spring normally forcing said bolt downwardly, knob and key mechanisms carried by said bolt casing with their axes positioned intermediate said double shoulders and embodying lifting levers positioned to engage said shoulders to life said bolt against the tension of said spring when either said knob or key mechanism is operated in either direction, and a pivoted manually-operable night-latch having one end adapted to alternately engage the opposite sides of one of the shoulders on the bolt to hold the bolt in a raised position against the tension of said spring to prevent automatic latching when engaged with one side of said shoulder, and lock the bolt down to prevent its operation by the key or knob when engaged with the other side of said shoulder.

[Claims 3 to 7 not printed in the Gazette.]

1,253,735. [WITHDRAWN.]

1,253,736. INSULATOR. FERDINAND SIEBER, Charlottenburg, Germany, assignor to General Electric Company, a Corporation of New York. Filed July 15, 1914. Serial No. 851,193. (Cl. 173—311.)

1. An insulator for the passage of a conductor through a conductive structure comprising a sleeve of insulating material and a conductive shield about the conductor where it passes through said structure completely embedded in the wall of said sleeve and electrically connected to said structure.

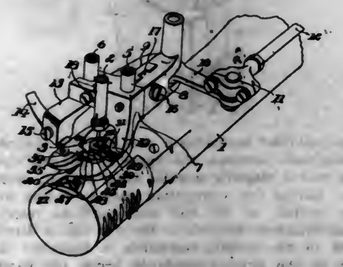


8. An insulator for the passage of a conductor through a conductive structure comprising a sleeve of insulating material and a conductive shield about the conductor where it passes through said structure consisting of separated annular parts forming the thickened edges of a sheet metal cylinder interposed between said conductor and said structure, said shield being electrically connected to said structure and being completely embedded in the wall of said sleeve.

4. Means for suppressing brush discharge usual on the edges of metallic filling pieces and the like, comprising a layer of insulating material, a layer of conducting material disposed in said insulating material at a measured distance from the metal covered surface, said conducting layer having a larger lateral extension of surface than the external metal layer and being electrically connected with said external metal layer.

[Claims 2, 5, and 6 not printed in the Gazette.]

1,253,737. TRIMMING MECHANISM FOR SEWING-MACHINES. ALBERT H. SIMMONS, Chicago, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 5, 1914. Serial No. 816,756. (Cl. 112—6.)



1. A sewing machine including in combination, a presser foot having a slot in the forward end thereof leading into said presser foot, a needle, a trimming member movable across said slot in advance of the needle, a curved stationary trimming member carried by the presser foot and coöperating with said movable member, said stationary trimming member being shaped like a segment of an annulus of more than 180 degrees and having one end thereof coöperating with said movable trimming member.

5. A trimming mechanism comprising a movable blade and a fixed blade, said fixed blade being shaped like a segment of an annulus of more than 180 degrees and having one end thereof adapted to coöperate with the movable trimming blade.

9. A trimming mechanism including in combination, a presser foot having an annular recess in its upper face forming a central boss provided with a needle opening, a trimming blade shaped to fit said recess, and means for holding the blade in said recess, said presser foot having a slot in its forward end extending to said boss.

[Claims 2 to 4 and 6 to 8 not printed in the Gazette.]

1,253,738. VEHICLE-RUNNER. ADI W. SJOSTROM, Waltham, Mass. Filed Dec. 9, 1916. Serial No. 136,083. (Cl. 21—96.)



1. A runner for vehicle wheels, comprising a metal shoe, U-shaped in transverse section and having upwardly curved end portions with flattened terminals, an arched tie-bar having ends secured to said terminals and an intermediate portion offset from a vertical plane containing the longitudinal axis of said shoe, and clamp members on and adapted to coöperate with said bar to secure the runner to a wheel.

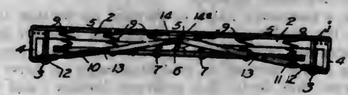
2. A runner for vehicle wheels comprising a metal shoe having upwardly curved ends and adapted to receive a wheel, a tie-bar extending between and secured to said ends having a portion offset laterally from said ends to accommodate the wheel, and means to secure said tie-bar to the wheel.

3. A runner for vehicle wheels comprising a shoe adapted to receive a wheel, a tie member secured to said shoe having a laterally offset portion to accommodate the wheel, and clamp means adapted to coöperate with said member to detachably secure the wheel between them.

4. A runner for vehicle wheels comprising an elongated shoe U-shaped in cross section adapted to receive a wheel and having upturned end portions, a tie-bar connected to the upturned end portions of said shoe and having a portion offset laterally between said end portions to accommodate the wheel, clamps on said bar, and bolts for drawing said clamps toward said bar to secure the wheel between them.

5. The combination with a pair of wheels, of a runner comprising an elongated shoe for receiving both of said wheels, a tie member extending along and secured to the ends of said shoe, and means adjustable longitudinally of the tie member to detachably secure said wheels to said tie member.

1,253,739. SPRING STRUCTURE. MONTGOMERY SLEETH, Bellevue, Pa., assignor to Fort Pitt Bedding Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Nov. 11, 1915. Serial No. 60,859. (Cl. 5—40.)



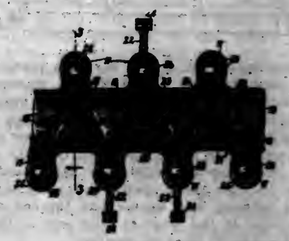
1. In a bed spring structure comprising a frame, having side and end bars, and a spring bed bottom stretched between the end bars, a compensating device comprising a base, coil spring members, said coil spring members being secured to said base and to said spring bottom, levers fulcrumed on said frame and pivoted to said base and coöperating to tend to cause equal depression of both sides of said bed bottom under unequal weights.

2. In a bed spring structure, comprising side and end bars and a spring supported member stretched between said end bars, said spring supported member being connected to said end bars by a plurality of helical springs, a compensating device comprising a base, coil springs mounted on said base and secured to said spring supporting member, levers fulcrumed to said side bars and pivoted to said base and coöperating with said coil springs for causing equal depression of both sides of said bed bottom under unequal weights.

3. A bed spring structure comprising a frame having side and end bars and a spring bed bottom stretched between said end bars, a compensating device comprising a base member, a plurality of coil springs mounted on said base member and adapted to be secured to said spring bed bottom, levers pivoted on the sides of said base member adjacent each end, the levers on each side of said base member having their inward ends connected by a loose joint connection, and the rear ends of said levers being fulcrumed on said side bars, substantially for the purpose described.

4. In combination with a bed spring, comprising side and end bars, and a spring mattress supporting member above said side bars and stretched between said end bars, of a compensating device comprising a base member, a plurality of coil springs secured to said base member and detachably secured to said spring mattress supporting member, and levers pivoted to the side of said base adjacent each corner, said levers having their outer ends fulcrumed to said side bars of said bed spring, and their inner ends joined by a loose joint connection, said levers being adapted to coöperate with said coil spring members to cause equal depression of both sides of said bed spring under unequal weights.

1,253,740. PNEUMATIC-TIRE ARMOR. SAMPSON GRANVILLE SMITH, Plainfield, N. J. Filed Sept. 19, 1917. Serial No. 192,084. (Cl. 152—16.)



4. A tire armor comprising an endless band structure having tabs at its edges, the tabs at one edge being staggered with respect to the tabs at the other edge, and provided with a series of spaced triangular plates, the apex of one plate lying in circumferential alinement with the base of the next adjacent plate and each with its apex opposite a tab, transverse stay means comprising a plurality of connected chain elements, some chain elements extending diagonally across the band in the spaces between adjacent plates, and other chain elements lying in radial planes at the sides of the band member, each side chain element being connected at its outer end to two of the diagonal elements and to the tabs.

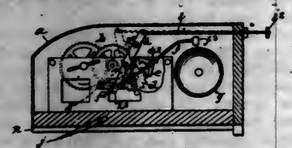
5. The herein described tire armor comprising a flexible band structure having a plurality of tabs along each side thereof, each tab being slitted circumferentially of the wheel forming a keeper, and transverse flexible stay means extending across the outer surface of the band member and having portions extending along the outer surfaces of the tabs and through the keepers formed thereon.

[Claims 1 to 3 and 6 not printed in the Gazette.]

1,253,741. ALARM-SIGNAL. NOAH STEBBINS, Detroit, Mich. Filed Apr. 20, 1917. Serial No. 163,329. (Cl. 116—44.)

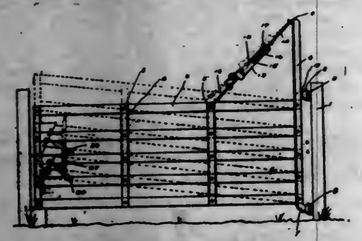
The combination of a casing, an alarm mechanism therein consisting in part of a star wheel, an actuating

mechanism therefor, an anchor pawl coacting with said star wheel to oscillate a hammer to sound the alarm, an arm extending from said pawl laterally to its axis of oscillation, a double armed lever pivoted with its axis of oscillation parallel to that of said pawl and bent under said arm, a rod pivoted to the upper end of said double



armed lever and extending through the wall of said casing, and means for securing said casing in the line of travel of a door or window so that said rod shall be pressed inward to release the alarm mechanism when the door or window is open, substantially as and for the purpose described.

1,253,742. GATE. BURTON P. STEDMAN, Peoria, Ill. Filed June 12, 1916. Serial No. 103,307. (Cl. 39—13.)



1. In combination in a gate having a plurality of longitudinal members and a plurality of transverse members pivotally connected together so as to provide a vertical shiftable gate, an extension at the hinge end of the gate, a spring member connected to the upper end of said extension and to the upper portion of the gate including a barrel, a rod extending within the barrel and having a washer on its end, and a spring embracing said rod and interposed between said washer and the end of the barrel, and means at the front or latch end of the gate for holding the same in elevated position.

[Claims 2 and 3 not printed in the Gazette.]

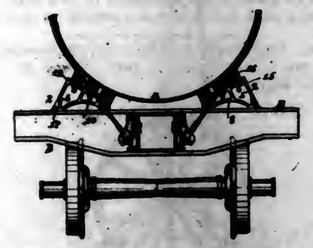
1,253,743. TANK-CAR. FRANK M. STEVENSON, Sharon, Pa., assignor, by mesne assignments, to The Pennsylvania Tank Car Company, Sharon, Pa., a Corporation of Ohio. Filed Oct. 29, 1917. Serial No. 198,913. (Cl. 105—264.)

1. A support for tank cars comprising side members having longitudinally arched bases, means for securing said side members together, means coöperating with said first-named means for positively spacing said side members, and a top plate extending across and supported on said side members.

2. A support for tank cars, comprising side members composed of a side, top and base portions, said base portion being arched, strengthening ribs between said top and base portions and formed integral with said side, top and base portions, and means for securing said side members together and positively spacing said members apart.

3. A support for tank cars composed of cast metal and comprising side members having arched bases, said side members being secured together by tie rods, spacing sleeves on said bolts for spacing said side members, and a top plate extending across and supported on said side members.

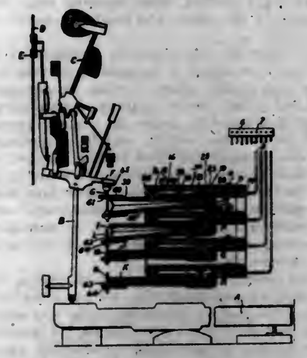
4. A support for tank cars composed of cast metal and comprising side members having arched bases, said side members being secured together by tie bolts, spacing sleeves on said bolts for spacing said side members, said side members having flanges formed on their lower ends, and a top plate extending across and supported on said side members and abutting said flanges.



5. A support for tank cars composed of cast metal and comprising side members having arched bases, said side members being secured together by tie bolts, spacing sleeves on said bolts for spacing said side members, said side members having flanges formed on their lower ends, a top plate extending across and supported on said side members and abutting said flanges, and cushioning means secured on said top plate.

[Claim 6 not printed in the Gazette.]

1,253,744. MUSICAL INSTRUMENT. CHARLES F. STODDARD, Boston, Mass. Filed Jan. 9, 1909. Serial No. 471,471. (Cl. 84—178.)



1. In a musical instrument the combination of a pneumatic; a secondary valve within said pneumatic; a secondary chamber having a diaphragm for controlling said valve; a support coaxial with the valve to provide for relative angular movement of said valve and support and to control said movement; and a primary valve mechanism to govern the pneumatic condition within the secondary diaphragm chamber.

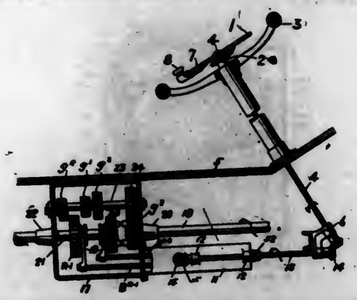
7. In a pneumatic valve mechanism for musical instruments, the combination of a diaphragm chamber having a downwardly facing diaphragm; a depending valve controlling device secured to said diaphragm; a valve separate from said device but governed thereby; and yielding means to maintain said device and valve in operative relation.

[Claims 2 to 6 and 8 to 10 not printed in the Gazette.]

1,253,745. SPEED-SELECTING INDICATOR. JOHN H. STORTZ, Philadelphia, Pa., assignor to Storts Gear Shift Company, Wilmington, Del. Filed Sept. 18, 1915. Serial No. 51,398. (Cl. 74—58.)

2. In combination with a machine provided with speed changing elements and with shifters each adapted to move

one of the elements from a neutral into either one of two speed changing positions, members adapted to actuate the shifters, and a speed selector comprising means to indicate a contemplated change of position and the nature of the change and means to establish a selective connection between an actuating member and a shifter, corresponding to such contemplated position and means to shift said actuating members.

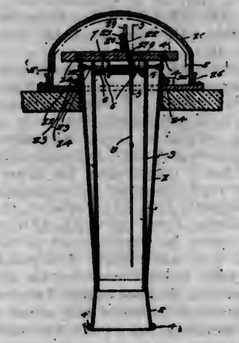


3. A speed selecting indicator comprising, a stationary member and a movable member, said stationary member provided with a periphery comprising the arcs of a series of interconnected segments of circles of alternately larger and shorter radius, the arc of each segment being provided with an intermediate notch, said movable member provided with means yieldably connected therewith and adapted to roll over the periphery of the stationary member.

4. A speed selecting indicator comprising, in combination with a pair of elements each adapted to be moved from an inactive into two speed changing positions, a stationary member provided with a periphery consisting of a series of interconnected arcs of circles of alternately larger and shorter radius, each arc provided with a recess, and a member movable over said periphery, said movable member provided with means adapted during its movement to register with said recesses to indicate a preselected change in the positions of the elements and to roll over the periphery, the movement from an arc of larger radius to that of a shorter radius indicating a selection of a change from a speed changing into an inactive position and vice versa.

[Claims 1 and 5 to 45 not printed in the Gazette.]

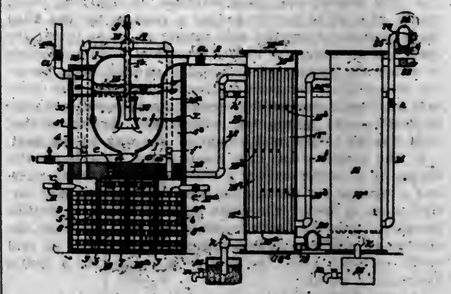
1,253,746. FISHING-LINE HOLDER. JOHN F. TEBLING, Wayville, N. Y. Filed Mar. 7, 1917. Serial No. 153,181. (Cl. 43—31.)



2. A fishing line holder including a hollow body open at its ends, and an inner shell secured to the body at its lower end and spaced from the body above said attached end, said shell providing a chamber within the body to receive hot water so as to free the body from ice.

[Claim 1 not printed in the Gazette.]

1,253,747. PROCESS OF AND APPARATUS FOR DISTILLING OIL AND OTHER LIQUIDS. WALTER THOMAS, Nanaimo, British Columbia, Canada. Filed Feb. 2, 1917. Serial No. 146,109. (Cl. 196—25.)



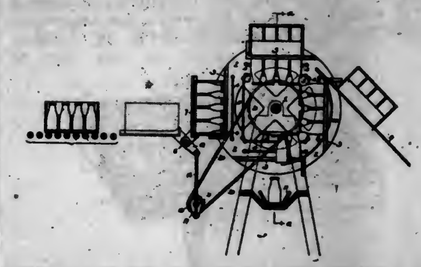
1. In the distillation of oil or other liquid, the method of expediting vaporization and preventing boiling over, which consists in heating the liquid, drawing liquid and foam down into a tubular circulating device and forcing them into the body of liquid by means of a jet of gas under pressure, and causing the liquid to circulate downward and upward, whereby any foam produced is suppressed in the downward flow of the liquid.

6. The combination with a still of means for heating gas, a flaring tubular device in the still, and a pipe connection from the heater extending down into said tubular device for injecting hot gas into the liquid and causing the two to circulate together and become intimately mixed for expediting the vaporizing operation.

8. The combination with a still and an injector-circulating device in the still, of a heating chamber containing the still, a regenerator stove or chamber below said heating chamber and the still, means for heating the regenerator, means for admitting gas to it to be heated, a pipe connection from the regenerator to said injector-circulating device, and a separate pipe connection from the regenerator to said heating chamber, whereby the still may be heated by waste hot products from the regenerator.

[Claims 2 to 5 and 7 not printed in the Gazette.]

1,253,748. BOTTLE-CRATE-EMPTYING MACHINE. FRANK TYSON, Canton, Ohio. Filed Mar. 20, 1916. Serial No. 85,365. (Cl. 214—11.)



1. The cobbination, in a bottle crate emptying device, of a crate carrier having a receiver for the filled crate, means for moving said crate carrier so as to invert

the crate and discharge the bottles therefrom mouth down, a bottle receiver into which the bottles are discharged from the crate, and means for inverting said bottle receiver so as to discharge the bottles therefrom mouth up.

3. The combination, in a machine for emptying bottle crates, of a crate carrier having a receiver for the filled crate, means for moving said carrier so as to invert the crate and discharge the bottles therefrom, a bottle receiver in which the bottles are disposed in parallel rows, and means for discharging the rows of bottles in succession from said receiver.

4. The combination, in a machine for emptying bottle crates, of a crate carrier having a receiver for the filled crate, means for moving said carrier so as to invert the crate and discharge the bottles therefrom, a bottle receiver in which the bottles are disposed in parallel rows, means for discharging the rows of bottles in succession from said receiver, a carrier for receiving said successive rows of bottles, and means for moving said carrier so that each row of bottles will be out of the way of the next.

5. The combination, in a machine for emptying bottle crates, of a carrier having a receiver for the filled crate, and a receiver for the bottles, means for moving said carrier so as to invert the crate and discharge the bottles therefrom into the bottle receiver and then continue the movemeat, and means for retaining the bottles in said bottle receiver while the carrier is moving to a bottle discharging point.

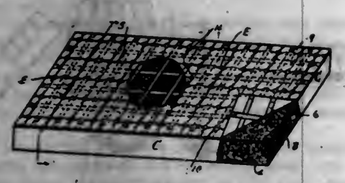
[Claims 2, 6, and 7 not printed in the Gazette.]

1,253,749. THREADING DEVICE FOR CURTAIN-RODS. FRED F. UNDERWOOD, Greenfield, Mass. Filed Oct. 2, 1915. Serial No. 53,785. (Cl. 223—38.)



A threading device for curtain rods including a tubular body having one end closed and pointed and having the other end fully open and adapted to detachably receive one end of a curtain rod, a clamp for holding the body on the rod, being formed of a single length of wire looped at its medial portion to provide relatively wide clamping jaws adapted to engage the outer surface of the inner end of the rod when the latter is inserted within the body, the terminals of the jaws curved back upon themselves and flared outwardly to provide an enlarged flared end to permit the easy insertion of the rod between the jaws, and a washer located within the open end of the tubular body and adapted to engage the flared terminals of the jaws to prevent withdrawal of the clamp from the tubular body when the body is being removed from the rod.

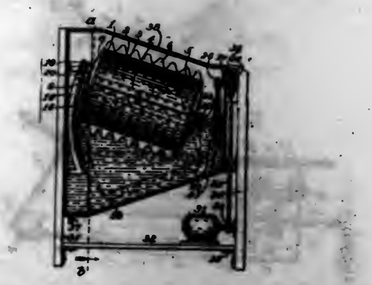
1,253,750. MATTRESS AND CUSHION. CHARLES B. VAN VORST and NINA E. FULKERSON, Los Angeles, Cal. Filed Nov. 24, 1915. Serial No. 63,338. (Cl. 5—13.)



2. A mattress or the like having a cover, parallel lateral reinforcements extending from edge to edge of said cover, and tufts alternating with said reinforcements and between the same; said reinforcements being secured at their ends to the edges of the cover and being secured to the cover at the median line thereof; said reinforcements being taut and shorter than the width of the cover.

[Claim 1 not printed in the Gazette.]

1,253,751. WASHING-MACHINE. HENRY M. VAUGHAN, Newton, Iowa. Filed Jan. 5, 1917. Serial No. 140,776. (Cl. 68—18.)



3. In a washing machine, a rotatable container mounted to swing from one end to and fro, and means for imparting to the free end a swinging movement in a loop-shaped path comprising an endless vertically elongated rack and a pinion on the free end of the container meshing with said rack.

4. In a washing machine, a rotatable container having a pivot on one end and mounted to swing to and fro on said pivot, an endless elongated rack, a pinion on the adjacent end of the container in mesh with said rack, said rack being curved in an arc whose center is the pivot of the container, and mechanism adapted to rotate said container to simultaneously cause said pinion to traverse said rack.

9. In a washing machine, a rotatable container mounted to swing to and fro from one end, an endless elongated rack, a pinion fixed on the opposite end of said container in mesh with said rack, and a guard-flange about said rack, one end part of said flange being separable therefrom.

10. In a washing machine, an oscillatory rotatable container, an endless elongated rack, a stub-shaft on the adjacent end of the container having a pinion thereon in mesh with said rack, a face-plate supported over said rack, having a central opening to permit the passage of said shaft, and an anti-friction sleeve rotatably mounted on said shaft and riding upon the edge of the opening in the face-plate.

[Claims 1, 2, and 5 to 8 not printed in the Gazette.]

1,253,752. VEHICLE-WHEEL. CHARLES C. WAIS, Cincinnati, Ohio. Filed Dec. 24, 1914. Serial No. 878,968. (Cl. 152—10.)

1. In a vehicle wheel, the combination of an annular tire retaining means, a casing having portions coacting with said retaining means and extending toward each other, an annular inflatable pneumatic tube in said casing, and an annular cushioning armor interposed between said annular inflatable pneumatic tube and casing substantially crescent-shaped in cross-section, the horns of the crescent extending toward each other and overlapped substantially by said pneumatic tube when inflated, and the said annular cushioning armor provided with outer annularly arranged recesses for forming said armor with a tread portion which is substantially T-shaped in cross-section and with webs which are outwardly curved in cross-section connecting the base of said T-shaped tread-portion with said horns, the sides of said armor arranged to be spread by pressure on said tread portion resisted by said horns.

2. In a vehicle wheel, the combination of an annular casing having inner portions extending toward each other, an inner annular inflatable pneumatic member, and an annular cushion-member in said casing having an annularly arranged peripheral portion which is substantially T-shaped in cross-section for forming a resilient stem and resilient wings whose outer ends extend integrally laterally from said stem, said annular cushioning member further having annularly arranged horns at its inner por-



tions supported by said inner portions of said casing and connected with said substantially T-shaped portion by means of resilient webs, and the said webs and said resilient wings being outwardly curved in cross-section for spreading the sides of said armor by pressure on said annularly arranged peripheral portion.

1,253,753. VEHICLE-WHEEL. CHARLES C. WAIS, Cincinnati, Ohio. Filed Nov. 4, 1915. Serial No. 59,570. (Cl. 152—13.)



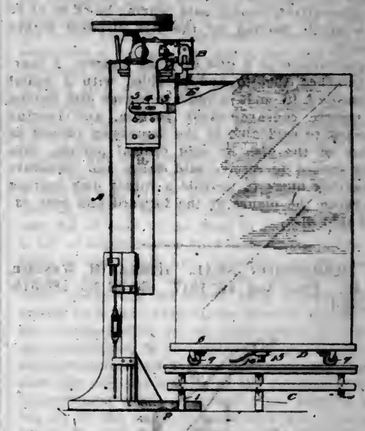
1. In a vehicle wheel, the combination of a casing, an inner pneumatic tube, and an armor interposed between said casing and inner pneumatic tube, said armor being substantially crescent-shaped in cross-section with its outer periphery cross-sectionally in the form of a T-head comprising a stem and laterally extending wings forming annularly arranged channels at the respective sides of said head adjacent to the tread-portion of said casing and having cross-channels communicating with said first-named channels having outlet to the atmosphere at the inner portion of said casing.

3. In a vehicle wheel, the combination of a casing, an inner inflatable pneumatic tube, an annular armor between said casing and pneumatic tube, said armor being substantially crescent-shaped in cross-section with its outer periphery cross-sectionally in the form of a T-head comprising a stem and laterally extending wings forming annularly arranged channels at the respective sides of said head adjacent to the tread-portion of said casing, a cross-passage through said T-head connecting said annularly arranged channels, a cross-channel communicating with said annularly arranged channels, said casing provided with a passage communicating with said cross-channel, and a water and dust resisting member through which air communication is had with said last-named passage, constructed and arranged whereby to create circulation in said channels and passages by the load pressures upon said wheel.

5. In a vehicle wheel, the combination of a casing, an inner inflatable pneumatic tube, an armor interposed between said casing and inner tube, said armor being substantially crescent-shaped in cross-section formed with an annularly arranged T-head forming lateral annularly arranged channels at the respective sides of said head and with lateral horns having inner inwardly extending ends, said armor having a passage across said head between said channels and channels extending crosswise of said armor along said horns, said last-named channels communicating with said first-named channels at one of their ends and with the outside atmosphere at the other of their ends, and arranged whereby to cause air-circulation in said channels and passage by the load pressures upon said wheel.

[Claims 2 and 4 not printed in the Gazette.]

1,253,754. ROLLING DECK AND FORM FOR SOLID-END BOXES. HARRISON B. WALTER, Danville, Ill. Filed Mar. 30, 1916. Serial No. 87,838. (Cl. 1—15.)

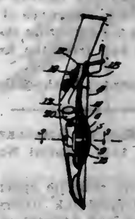


1. A work support comprising a rolling deck having an elongated slot arranged centrally thereof, cleats on said deck, a form arranged upon said cleats, and a clamping means received in the elongated slot for removably attaching the form to said deck.

7. The combination with a stapling-machine, of a deck movable with respect to the machine, and a form removably secured on the deck, said form being adapted to conform to the shape of a box to be headed, the arrangement being such that the said form is surrounded by the box body and supports the head during the stapling operation.

[Claims 2 to 6 and 8 not printed in the Gazette.]

1,253,755. DISK DRILL. LEWIS E. WATERMAN, Rockford, Ill., assignor to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed May 29, 1916. Serial No. 100,726. (Cl. 111—87.)



4. In a disk drill, the combination of a concavo-convex disk, the central portion of which is of reversed concavo-convex form, a seed delivery boot located at the convex

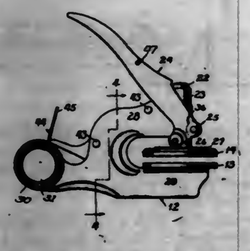
side of the disk, and a bearing block upon which the disk turns, the bearing block being connected with the boot and disposed substantially within the concavity of the central portion of the disk, and said bearing block having a radially projecting annular flange engaged by a disk-connected element, the axial length of the flange being less than that of the remaining peripheral face of the bearing block.

2. The combination of a disk-carrying member, a concavo-convex disk having a reverse concavo-convex central portion forming a central depression in the rear face of the disk, a bearing block attached to said carrying member and provided with a radially disposed flange located in said depression, and means attached to said disk within said depression and coöperating with said bearing block to provide a rotary bearing for the disk disposed within said depression.

3. The combination of a disk-carrying member, a bearing block attached thereto, a concavo-convex disk having a central reverse concavo-convex portion providing a central depression in the rear face of the disk, and a bearing member fixed to said disk within said depression and shaped to coöperatively engage said bearing block so as to provide a rotatable bearing for the disk disposed within said depression.

4. The combination of a disk-carrying member, a bearing block attached thereto and provided with a radial flange intermediate its ends, a concavo-convex disk having a central reverse concavo-convex portion, and bearing means attached to said disk in the depression formed in the rear face of the disk by said central portion, said means being shaped to receive said flange and coöperate with said bearing block to provide a rotary disk bearing disposed between the planes of the forward and rear extremities of said disk.

1,253,756. IMPRESSION-SEAL. HERMAN H. WENTHE, Chicago, Ill. Filed Aug. 16, 1917. Serial No. 186,515. (Cl. 101—3.)

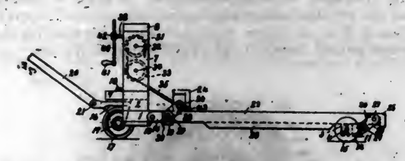


1. In a hand seal, the combination of a body, a fixed die member carried by the body, a movable die member, a stem having a threaded connection with the movable die, a sleeve surrounding said stem and having a sliding fit in the body, a serrated surface on the lower end of the sleeve adapted to be forced into biting engagement with the top of the movable die by the threading of the stem into the die, whereby the die, stem and sleeve are joined together, and whereby the movable die may be turned into proper position to aline the characters thereon with the characters on the fixed die prior to securance of the movable die into position, and means for actuating the sleeve to carry the movable die toward and from the fixed die, substantially as described.

[Claims 2 and 3 not printed in the Gazette.]

1,253,757. TRUCK. ENOCH WHALLEY, Willimansett, Mass. Filed May 2, 1917. Serial No. 166,001. (Cl. 254—10.)

1. In a truck, relatively movable upper and under sections, a plurality of jointed-link lifters pivotally connected with said sections, and adapted to raise to its full height, as determined by the lengths of said lifters, said upper section when the latter is actuated in one direction or said lower section is actuated in the other direction, and actuating means for said sections relatively, such means being independent of said lifters.

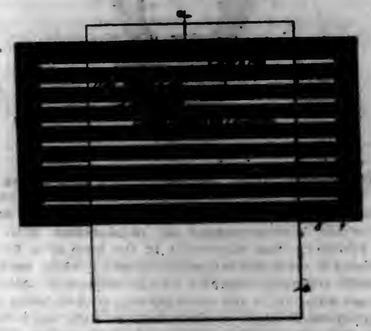


2. In a truck, relatively movable upper and under sections, worm-hoisting mechanism carried by said under section and connected with said upper section, and direct lifting means for said upper section, such means comprising jointed-link lifters pivotally connected with said sections, and adapted to raise said upper section when the latter is forced in one direction or said lower section is forced in the other direction.

9. The combination, in a truck, of a carriage consisting in part of side pieces and a cross bar provided with trunnions, a superimposed platform consisting in part of a cross piece adapted to rest on said side pieces, and of side pieces adapted to rest on said bar, transverse rods in said carriage and platform side pieces and in said cross piece, pivotally-connected links mounted on said trunnions and rods, said links having projecting parts for mutual engagement during a portion of the movement of said links, and said carriage side pieces having lugs arranged to limit the movement in one direction of the jointed terminals of said links, wheels also mounted on said trunnions, an independent swivel and wheel support for the front end of said carriage, and means to actuate said carriage and platform relatively.

[Claims 3 to 8, 10, and 11 not printed in the Gazette.]

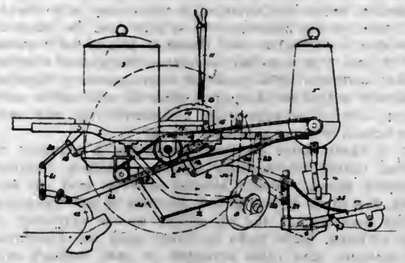
1,253,758. PENMANSHIP GUIDE-CHART. HARRY D. WILKES, New York, N. Y. Filed Oct. 17, 1916. Serial No. 126,086. (Cl. 35—8.)



A chart for use in writing, comprising a plate of suitable material having therein guide spaces having parallel upper and lower walls adapted to limit the movement of a writing implement in both directions, the said plate being darkened adjacent said walls whereby the location of the said walls will be indicated by sight through a transpicuous writing surface placed thereover, and the said walls will form physical stops for the writing implement, all substantially as and for the purposes set forth.

1,253,759. COMBINED FERTILIZER AND SEED-PLANTER. LELAND WILLIS, Grenloch, N. J., assignor to Bateman Manufacturing Company, Grenloch, N. J., a Corporation of New Jersey. Filed July 9, 1914. Serial No. 849,901. (Cl. 111—61.)

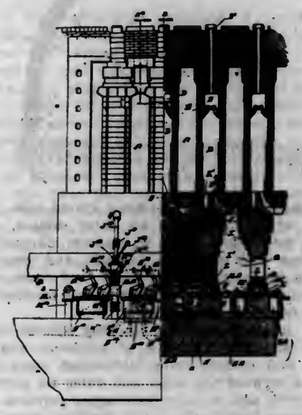
2. The combination, in an implement of the character described, of the wheeled frame, the rear furrowing plow, carrying levers therefor, links pivoted at their upper ends to said main frame and having said carrying levers pivoted to their lower ends, and a bracing attachment for said plow support comprising upper and lower pairs of links pivotally connected together at their meeting ends, pivotal connections between the rear ends of the lower



links and the plow structure, pivotal connections between the upper ends of the upper pair of links and the frame, and pivotal connections between said upper pair of links and the links which support the plow-carrying levers, said latter connections being at points intermediate of the ends of said supporting links.

[Claim 1 not printed in the Gazette.]

1,253,760. COKE-OVEN. LOUIS WILPUTTE, New Rochelle, N. Y. Filed May 2, 1917. Serial No. 165,809. (Cl. 202—9.)



1. In a regenerative coke oven having a coking chamber, a heating wall at the side of said chamber, two groups of heating flues in said heating wall, and a passage to which one end of each of the flues in both groups is connected, a set of regenerators to which the opposite ends of the flues in one group are connected, and another set of regenerators to which the opposite ends of the flues in the other group are connected, each regenerator being connected to a part only of the flues in the group to which the corresponding set of regenerators is connected, and supply connections, the improvement which comprises separate waste gas outlet connections to adjacent regenerators.

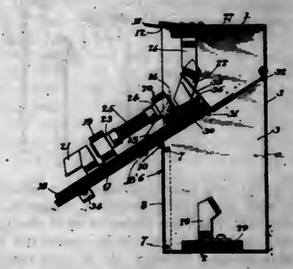
3. In a regenerative coke oven having a coking chamber, a heating wall at the side of said chamber, two groups of heating flues in said heating wall, and a passage to which one end of each of the flues in both groups is connected, a set of regenerators to which the opposite ends of the flues in one group are connected, another set of regenerators to which the opposite ends of the flues in the other group are connected, each regenerator being connected to a part only of the flues in the group to which the corresponding set of regenerators is connected, means for supplying air to alternate regenerators and gas to the remaining regenerators of each set, and a separate waste gas outlet from each regenerator, the improvement which comprises a conduit into which the said outlets from said alternate regenerators of each set open, and a separate conduit into which the said outlets from the other regenerators of the set open.

5. In a regenerative coke oven having a coking chamber, a heating wall at the side of said chamber, two groups of heating flues in said heating wall, and a passage to which one end of each of the flues in both groups is connected, a set of regenerators to which the opposite ends of the flues in one group are connected, another set of regenerators to which the opposite ends of the flues in the other group are connected, each regenerator being connected to a part only of the flues in the group to which the corresponding set of regenerators is connected, means for supplying air to alternate regenerators and gas to the remaining regenerators of each set, and a separate waste gas outlet from each regenerator, the improvement which comprises a conduit into which the said outlet from said alternate regenerators of each set open, and a separate conduit into which the said outlets from the other regenerators of the set open, a common flue to which the various conduits for each set of regenerators are connected, and valves controlling communication between said conduits and said common flue.

6. In a regenerative coke oven having a coking chamber, a heating wall at the side of said chamber, two groups of heating flues in said heating wall, and a passage to which one end of each of the flues in both groups is connected, a set of regenerators to which the opposite ends of the flues in one group are connected, another set of regenerators to which the opposite ends of the flues in the other group are connected, each regenerator being connected to a part only of the flues in the group to which the corresponding set of regenerators is connected, supply connections M to alternate regenerators of each set, supply connections MA to the remaining regenerators of each set, and gas nozzles at the bottoms of the flues, the improvement which comprises a gas main, a main supplying air to the connections M and MA, valves controlling communication between said last mentioned main and the connections MA, valves controlling communication between the gas main and said connections MA, and valves controlling communication between said gas main and said gas nozzles.

[Claims 2 and 4 not printed in the Gazette.]

1,253,761. CIRCUIT-BREAKER. RICHARD WOLFSBERG and SIDNEY C. SMITH, Los Angeles, Cal. Filed Apr. 4, 1917. Serial No. 159,646. (Cl. 175—292.)

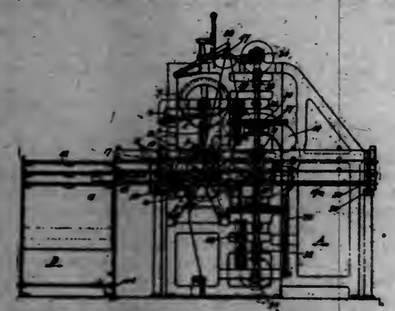


1. A circuit breaker comprising a case having a movable section and a stationary portion, contacts for the stationary portion, contacts on the movable section adapted to engage the stationary contacts respectively when the movable section is in closed position, and means to hold

the movable section aslant when open, said means including a shield adapted to extend rearward from the movable section when the movable section is in open position.

[Claims 2 to 11 not printed in the Gazette.]

1,253,762. MACHINE FOR SEWING HEMP SOLES. JOSE POWER Y ZABALA, West Ferry, Dundee, Scotland. Filed Feb. 25, 1915. Serial No. 10,539. (Cl. 112—24.)



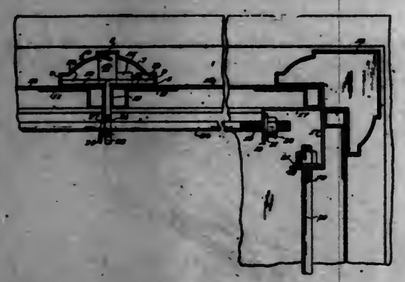
1. In a machine for the manufacture of hemp soles, in combination, a plurality of reciprocatory needles, means for vertically reciprocating said needles, shuttles to coact with said needles, carriers for the support of said shuttles, means to reciprocate the shuttles, carriers for the soles, and screws having operative connection with the sole carriers whereby the sole carriers may be fed through the machine.

4. In machines for the manufacture of hemp soles, carriers for the hemp soles, a sewing mechanism, a carriage to movably support said sole carriers, and screws to adjust the position of said carriage for various thicknesses of soles to be sewed.

5. In machines for the manufacture of hemp soles, carriers for the hemp soles, guiding means for the sole carriers, and screws operatively connected to the sole carriers to feed the latter intermittently through the machine.

[Claims 2 and 3 not printed in the Gazette.]

1,253,763. SHEET-METAL HOUSE. EDWARD J. ZAHNER, Canton, Ohio. Filed June 22, 1917. Serial No. 176,434. (Cl. 189—1.)



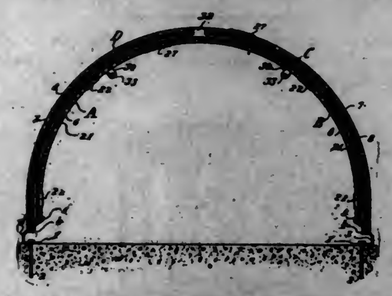
1. A sheet metal building composed of a plurality of ribs provided with oppositely disposed channels, sheets located between said ribs, the edges of said sheets being received in said channels, cable locks connected to said ribs and a cable passing through all of said cable locks and arranged to draw said ribs into tight engagement with the adjacent sheets.

2. A sheet metal building composed of spaced vertical ribs having oppositely disposed channels, sheets located between said ribs, the edges of said sheets received in said channels, means for drawing all of said ribs together to clamp the sheets therebetween, horizontal ribs provided with oppositely disposed channels located at the upper edges of said sheets, roof sheets carried between said horizontal ribs and roof ribs located between said roof sheets.

3. A sheet metal building composed of a rectangular base, spaced vertical ribs having oppositely disposed channels, means for detachably connecting said ribs to said base, sheets located between said ribs, the edges of said sheets received in said channels, means for drawing all of said ribs together to clamp the sheets therebetween, horizontal ribs, provided with oppositely disposed channels located at the upper edges of said sheets, roof sheets carried between said horizontal ribs and roof ribs located between said roof sheets.

4. A sheet metal building comprising a plurality of spaced curved rib sections having oppositely disposed channels therein, sheets located between said rib sections, the edges of said sheets received in said channels, cables connected to the rib section at one extremity of said building, cable locks provided upon the remaining rib sections, said cable arranged to pass through said cable locks to clamp all of said ribs and plates together and end walls connected to the rib sections at each end of said building.

1,253,764. SHEET-METAL HOUSE. EDWARD J. ZAHNER, Canton, Ohio. Filed Aug. 1, 1917. Serial No. 183,830. (Cl. 189—1.)



1. A sheet metal building comprising spaced ribs, each rib composed of an inner and an outer section, said sections being interlocked, outer wall sheets clamped between the inner and outer rib sections, and provided with apertures in their upper portions, and inner wall sheets attached to said inner rib sections and terminating at a distance from the ground.

2. A sheet metal building comprising spaced semicircular ribs, each rib composed of an inner and an outer section, said sections being interlocked, outer wall sheets clamped between the inner and outer rib sections and provided with apertures in their upper portions and inner wall sheets terminating at a distance from the ground and means for attaching the inner wall sheets to the said inner rib sections.

1,253,765. LAMP. ALFRED C. ABRAMSON, Rockford, Ill. Filed Mar. 6, 1917. Serial No. 152,645. (Cl. 240—31.)

1. As an article of manufacture, a portable electric lamp comprising a pedestal equipped with an electric fixture and with wiring therefor extending lengthwise through the pedestal and beyond the lower end thereof, a connection plug attached to this extended end of the wiring so that the lamp is completely wired and ready for use, fastening means permanently but adjustably disposed on the extended end of the wiring, a base adapted for attachment to the pedestal and constructed so that the extended end of the wiring, including its connection plug, will not interfere with the attachment of the base to the pedestal, said fastening means on the wiring serving to detachably secure the base to the pedestal.

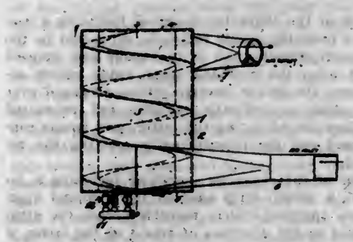
2. As an article of manufacture, a portable lamp including a separable pedestal and base especially adapted to be shipped in separated or knocked-down condition, with the wiring and its connections ready for use, comprising a pedestal equipped with an electric fixture and wiring therefor passing longitudinally through the pedestal and beyond the lower end thereof, a connection plug attached to the end of the wiring extending from the lower end of the pedestal for connection to an electric socket, whereby the pedestal may be shipped in completely wired condition and ready for use, a base constructed for attachment to the pedestal without interfering with the wiring thereof, and means for securing the base to the pedestal.



3. A lamp structure, comprising a separable pedestal and base, the pedestal being equipped with an electric fixture and wiring therefor extending longitudinally through the pedestal and beyond the lower end thereof, a connection plug or the like attached to the lower end of the wiring for attachment to an electric socket, the base being shaped to receive the pedestal and to provide an opening through which the wiring may be passed when assembling the base and pedestal and through which opening the connection plug wiring emanates from the base above the floor line, and means for securing the base to the pedestal, whereby the base and pedestal may be shipped separate with the wiring of the pedestal complete and ready for use, and the base and pedestal may be assembled without interfering with the wiring.

[Claims 4 to 8 not printed in the Gazette.]

1,253,766. DUST SEPARATOR. JOHN L. ALDEN, Ludlow, Mass. Filed Apr. 17, 1917. Serial No. 162,600. (Cl. 261—79.)



1. A separator of the class described comprising inner and outer cylinders, a helical partition dividing the space between the cylinders into a conduit having a smooth outer wall, a tangential inlet at one end of the conduit and a tangential outlet at the other, means in the bottoms of the convolutions of the conduit for removing solid matter and flow out of the conduit by gravity, and means for spraying water into the conduit from the inner wall to the outer wall.

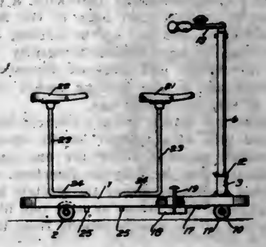
[Claims 2 and 3 not printed in the Gazette.]

1,253,767. WIRE CLOTHES-PIN. WILLIS E. ALLEN, Auburn, Me. Filed Mar. 19, 1917. Serial No. 155,751. (Cl. 24—261.)



A clothes pin formed from wire, and including a pair of elongated loop members each formed from a single length of wire and having the ends disposed in overlapping relation, one end being offset to receive the other end, each of the side portions of each of said loop members being formed with a pair of outwardly extending kink portions resulting in depressions therebetween, and a coil spring seated within the corresponding kinked portions of the loops and having its ends engaged with said loop members in the depressions between said kink portions.

1,253,768. ROLLER-COASTER. FRANK A. AMAN, Cincinnati, Ohio. Filed Feb. 14, 1916. Serial No. 78,106. (Cl. 21—191.)



1. In combination with a low narrow board, the same being of a size to accommodate a child standing thereon, rollers for supporting said board, said board having a socket member, a post having an angle bend therein, means for seating one end of the bend removably in the socket, and a seat on the post, for the purpose described.

2. In combination with a low narrow board, the same being of a size to accommodate a child standing thereon, rollers for supporting said board, said board having a series of post mounting sockets, posts having angle bends therein, said bends adapted to seat in the sockets, and seats on the posts, said bends being in opposite directions for the posts so that they extend in one instance in the direction of the seat and opposite to the seat in the other.

1,253,769. TOOL-HOLDER. GEORGE C. ANDERSON, Racine, Wis. Filed Apr. 20, 1917. Serial No. 168,525. (Cl. 240—8.4.)

1. The combination with a unitary electric lamp having a make and break contact for lighting the bulb of the same, of a tubular handle open at both ends and adapted

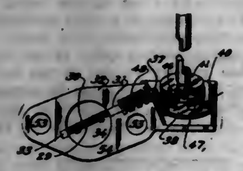
to house said lamp, one end being closed by the bulb end of the lamp, the other end of the opening in said handle being enlarged, a sleeve secured in said enlarged end, the interior of said sleeve being substantially the same diameter as the opening in the handle and provided with screw threads, a cap for closing the last mentioned end of the handle, said cap carrying a threaded portion for engagement with the threads of said sleeve and movable inwardly against said contact to close the electrical circuit and light the lamp, and a tool carried by one end of the handle.



2. The combination with a unitary electric lamp, of a tubular handle open at one end and adapted to house said lamp, a ferrule surrounding one end of the handle, an annular flange extending radially from the outer end of the ferrule and formed integrally therewith, a protective covering connected to the inner edge of the flange and closing the opening in one end of the handle, a pair of outwardly converging legs formed integrally with the outer end of the ferrule and disposed diametrically opposite each other and a tool holding socket secured to the outer end of the converging legs.

3. The combination with a unitary electric lamp and a plurality of tool bits, of a tubular handle open at both ends, a reticulated metallic cover for one end of the handle substantially for the purpose described, said handle being adapted to receive either the electric lamp with its light end adjacent said cover, or said tool bits, and a closure for the end of the handle remote from the reticulated cover.

1,253,770. COMBINATION VALVE CONTROL. HARRY G. BALTHASAR, St. Louis, Mo., assignor to Combination Auto Lock Company, St. Louis, Mo., a Corporation of Missouri. Filed Apr. 16, 1917. Serial No. 162,308. (Cl. 137—7.)



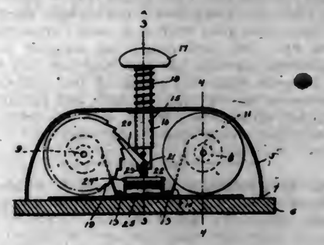
1. A device of the character described comprising a plate adapted to be inserted in an engine conduit and having an opening formed therethrough adapted to register with the bore of said conduit, an oscillatory valve disposed to close said opening, a rod by which said valve is carried, said rod being mounted to turn in said plate, a crank extension upon the outer end of said rod, a swinging lever pivoted at one end, the crank extension of the rod lying in the path of movement of the opposite end of said lever, means tending to turn the rod in one direction and permutation tumblers coacting with said swinging lever, at a point between its ends.

3. A device of the character described comprising a plate adapted to be inserted in the length of an engine conduit, and having an opening formed therethrough, adapted to register with the bore of said conduit, an oscillatory valve mounted in said opening, a rod by which said valve is carried, said rod being mounted to turn in said plate, a spring seated in a recess formed in said plate, and surrounding said rod and acting to turn said rod in such direction as to move the valve to open position, a crank extension upon the outer end of said rod, an extension carried by said plate and lying at an angle with respect to the body portion of said plate, a lever mounted to swing over the face of said extension, the crank extension of the rod lying in the path of movement of said lever and a plurality of permutation tumblers mounted upon said extension, and coacting with said lever at a point intermediate its ends.

7. In a device of the character described, a valve so located as to control the passage of gas relative to the manifold of an internal-combustion engine, means for opening or closing the same, the said means consisting of a plurality of tumblers, movable means actuatable by the said tumblers, and means for actuating the said tumblers, the said tumblers being within a casing and the last-mentioned means extending thereout and being operatable by means external of the said casing, the said valve being mounted on a rotatable spring-pressed member having an arm and the said movable means being adapted slidingly to contact with and actuate the same when moving against said spring pressure and also to yield under the said spring pressure.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,253,771. ADDRESS-PRINTING MACHINE. FRED P. BATES, Filer, Idaho. Filed Feb. 27, 1917. Serial No. 151,263. (Cl. 101—50.)



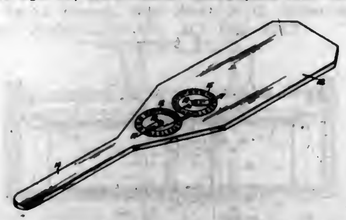
1. A device of the character described including a casing, feed and receiving spools rotatably supported in the casing, a stencil strip secured to the spools and adapted to be wound upon the receiving spool, guide rollers arranged between the spools, presser rollers arranged over the stencil strip, a vertically movable rod connected with the rollers for actuating the latter, and means controlled by said rod for intermittently rotating the receiving spool.

3. A device of the character described including a receiving spool, a stencil strip adapted to be wound upon the spool, ink applying rollers movable across the strip at right angles to the direction of travel of the latter, a rod for moving the rollers across the strip, and means operable during the return movement of the rod to intermittently actuate the spool.

6. A device of the character described including a base plate, a casing supported upon the base plate having work-receiving openings in the ends thereof, a stencil strip movably supported in the casing, an ink pad arranged in the casing, a frame movable relatively to the ink pad, presser rollers arranged under the ink pad, supported in the frame and engaged with the stencil strip, and a vertically movable slide rod connected with the ink pad.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,253,772. TOY. PETER J. BERTUCCI, Cliffside, N. J. Filed Apr. 19, 1917. Serial No. 163,096. (Cl. 46—59.)



4. A toy comprising a flat-surfaced racket; a disk-like missile; means for controlling and guiding the fall of said missile through the air; means for causing said missile to adhere to said racket when dropped thereupon, said means embodying a hollow recess in the striking side of said missile; and visible means mounted on said racket for indicating the status of the play of the person operating the toy.

[Claims 1 to 3 and 5 not printed in the Gazette.]

1,253,773. PLUG FOR SHELL OR PROJECTILE CASES. GEORGE FREDERICK BINT, Moseley, Birmingham, England. Filed July 23, 1917. Serial No. 182,238. (Cl. 102—26.)



1. A plug for shell or projectile cases formed with open, threaded mouths, said plug having a stem part of a diameter which permits of its free entrance into said mouth, the said stem being provided with a retaining device comprising springy arms arranged so as to permit of the plug being pressed directly into home position in said mouth, and adapted to ride over said threads during the insertion of the plug and to engage at their ends in one of the thread grooves when the plug reaches its said position, whereby the plug is securely held or retained in the shell, substantially as described.

2. A plug for a shell or projectile case formed with an open, threaded mouth, said plug having a stem part of a diameter which permits of its free entrance into said mouth; in combination with a retaining device comprising a body part fixed to the bottom face of the stem and a plurality of spring arms projecting upwardly across the side wall of said stem and having their free ends turned outward, said arms being adapted to move inward toward said side wall during the insertion of the plug and to ride at their said ends across the points of the threads, and to spring outward at the conclusion of the insertion and to engage at their said ends in the adjacent thread groove, whereby the plug is securely retained in the shell.

3. A plug for a shell or projectile case formed with an open, threaded mouth, said plug having a stem part which is of a diameter such as to enable it to freely enter said mouth and which is tapered inward from its lower end to a point adjacent its upper end to provide an annular clearance space between the wall of the stem and the points of the threads in said mouth; in combination with a retaining device attached to said stem and comprising a plurality of spring arms extending vertically across the tapered surface of the said stem, so as to lie in said clearance space when the plug is positioned, said arms being arranged to move inwardly in said space during the insertion of the plug and to ride at their ends across the points of the threads, and to spring outward at the conclusion of the insertion and to engage at their ends in the adjacent thread groove, whereby the plug is securely retained in the shell.

4. A plug for a shell or projectile case formed with an open, threaded mouth, said plug having a stem part which is of a diameter such as to enable it to freely enter said mouth and which is tapered inward from its lower end to a point adjacent its upper end to provide an annular clearance space between the wall of the stem and the points of the threads in said mouth, the upper end of said stem being provided with a collar part which is adapted to fit closely in said mouth; in combination with a retaining device attached to said stem and comprising a plurality of spring arms extending vertically across the tapered surface of the same stem, so as to lie in said clearance space when the plug is positioned, said arms being arranged to move inward in said space during the insertion of the plug and to ride at their ends across the points of the threads, and to spring outward at the conclusion of the insertion and to engage at their ends in the adjacent thread groove, whereby the plug is securely retained in the shell.

1,253,774. COTTON-PICKER DEVICE. JAMES HENRY C. BOIG, Los Angeles, Cal. Filed Apr. 28, 1914. Serial No. 834,919. (Cl. 56—117.)



1. A cotton picker device comprising a suction driven rotatable nozzle adapted to receive cotton and means carried by the device for controlling the speed at which the nozzle is driven under the action of the suction.

7. A cotton picker device comprising a nozzle tube, a plurality of fans carried by said tube including a driving and a driven one, a casing inclosing said tube and fans, means for revolubly supporting the tube within said casing, means connected with a source of suction for operating said driving fan and rotating the tube, the rotation of said tube causing the driven fan to force air from the casing to separate dirt from the cotton and air inlet means for admitting air to said driven fan.

14. A cotton picker device comprising an inner rotatable tube, a fan for driving the same, a casing arranged to admit air to said fan, the outer end of said tube having an enlarged annular head portion and having an inner threaded recess, threaded picker sleeves adapted to be fitted in said recess, the casing fitting around the said annular head and having a threaded inner edge, and a removable collar adapted to engage said threaded edge and to coöperate with elongated picker sleeves in facilitating the insertion of the picker device among cotton plants.

[Claims 2 to 6 and 8 to 13 not printed in the Gazette.]

1,253,775. REDUCING AGENT AND METHOD OF PRODUCING SAME. CHARLES S. BRADLEY, New York, N. Y. Filed Mar. 13, 1913, Serial No. 754,100. Renewed June 7, 1917. Serial No. 173,418. (Cl. 23—13.)

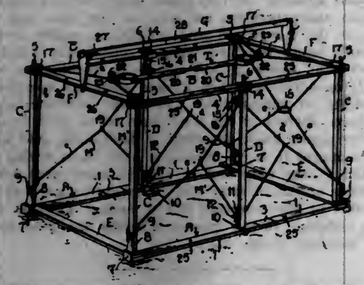
1. A reducing agent comprising as essential ingredients ferrous sulfid and calcium sulfid.

3. A reducing agent comprising a mixture of calcium sulfate, ferrous sulfid and calcium sulfid.

5. The method of producing reducing agents, which comprises heating together at low red heat pyrite and burnt lime to produce a mixture of ferrous sulfid, calcium sulfid and calcium sulfate.

[Claims 2, 4, 6, and 7 not printed in the Gazette.]

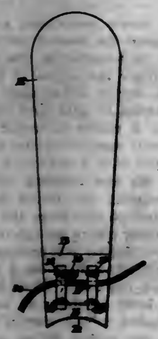
1,253,776. TENT. JOHN H. BREWER, Louisville, Ky. Filed Nov. 11, 1916. Serial No. 130,862. (Cl. 135—3.)



5. A supporting structure for a tent or the like comprising a plurality of substantially horizontally disposed upper and lower bars, the adjacent extremities of the bars being in overlying relation, vertically disposed bars for maintaining the lower bars and upper bars in predetermined spaced relation, said vertically disposed bars having their extremities disposed through the overlying portions of the bars, members detachably engaged with the extensions of the vertical bars, a flexible member operatively engaged with the detachable members, and a tensioning device coating with the flexible member, certain of said detachable members being hooks and the remainder of said members comprising rings.

[Claims 1 to 4 and 6 not printed in the Gazette.]

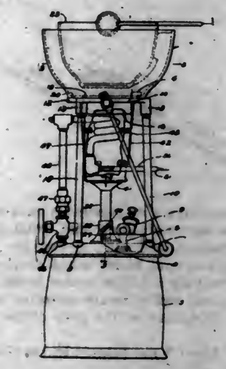
1,253,777. DETACHABLE SHOE-TONGUE. JOHN BROMLEY, Brooklyn, N. Y. Filed May 29, 1917. Serial No. 171,723. (Cl. 36—54.)



2. A detachable shoe tongue comprising a strip of material, a lacing attachment secured to the lower end thereof, said lacing attachment comprising a strip of material and straps running longitudinally of the shoe tongue and having their ends passed through slots in said last mentioned strip, and lines of stitching extending transversely of the tongue and securing said last mentioned strip and said straps to the first mentioned strip, said straps forming loops arranged to receive the shoe lace for securing said tongue in position on the shoe.

[Claim 1 not printed in the Gazette.]

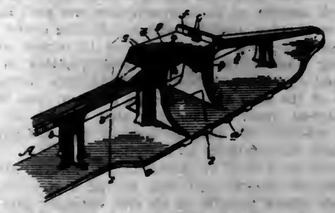
1,253,778. PLUMBER'S FURNACE. JAMES BROPSON, Cleveland, Ohio. Filed May 13, 1916. Serial No. 97,251. (Cl. 126—240.)



2. In a plumber's furnace, the combination of a base member forming an oil receptacle, supporting rods extending up from the base member, a head member mounted on the upper ends of the supporting rods, said head member having a circular opening and having a flange extending down through the under side thereof around said opening, a boss arranged centrally on the top of the receptacle, a standard removably mounted in said boss and a shield arranged to rest on the top of said standard and having its upper end engaging the flange on the head member.

[Claim 1 not printed in the Gazette.]

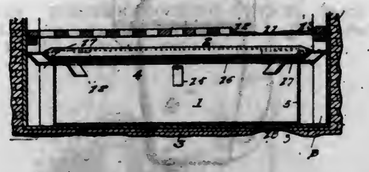
1,253,779. METALLIC RAILWAY-TIE AND RAIL-FASTENING. AUGUSTUS FREEBORN BROWN, Havre de Grace, Md., assignor to Maryland Metal Cross Tie Co., Baltimore, Md., a Corporation of Delaware. Filed May 24, 1917. Serial No. 170,703. (Cl. 238—5.)



1. A metallic railway-tie having a vertical flange formed with a rail seat near the end and a plurality of series of spike-receiving boxes, the boxes of each series being at opposite sides of the rail seat and the corresponding boxes of one series being spaced a less distance apart than the boxes of another series, to accommodate different sizes of rails and to provide different gages of track, said boxes having opposed sinuous inner walls, adapted to distort a spike forcibly driven into the boxes, whereby the spike is made to substantially conform to said walls.

2. A metallic railway tie having a vertical flange extending longitudinally thereof, said flange being formed integrally near the end with a widened rail seat and a plurality of spike-receiving boxes, said boxes at each side of the rail seat being substantially staggered, or laterally offset whereby the distances between corresponding boxes at the opposite sides of the rail seat are different, to accommodate different sizes of rails and to provide different gages of track, said boxes having opposed interior walls of substantially sinuous form adapted to distort normally substantially straight spikes when the latter are forcibly driven into the boxes while in engagement with said walls.

1,253,780. COMBINED ASH PAN AND SIFTER. W. FRANK BROWN, High Point, N. C. Filed Apr. 28, 1916. Serial No. 94,167. (Cl. 126—244.)



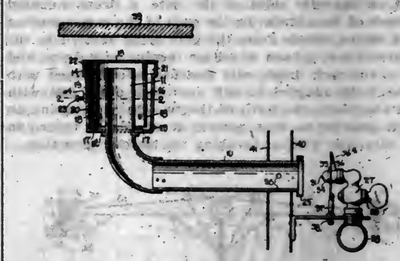
1. A device of the class described comprising an ash-receiving receptacle having bottom, side and end walls, the upper edges of the side walls being bent outwardly and upwardly and then terminally bent inwardly in spaced relation to the outwardly and upwardly bent portions so as to define guides, an ash sifter overlying the ash receptacle and consisting of a piece of foraminous material and a frame overlying and resting on the inwardly bent terminals of the upper edges of the sides and formed of a strip of metal bent to provide clamping portions for receiving the marginal edges of the foraminous material, and an upwardly extending portion to provide a guard, for the purpose specified.

2. A device of the class described comprising an ash-receiving receptacle having bottom, side and end walls, guides formed on the upper edges of the side walls and extending throughout the length of the side walls, an ash sifter overlying the ash-receiving receptacle and resting on the guides, extensions located at the upper ends of the end walls of the ash-receiving receptacle and having portions slidably received by the guides and adapted for outward longitudinal adjustment with respect to the ash-receiving receptacle and the ash sifter, and means carried by the extensions for engaging the end walls for limiting the outward adjustment of the extensions.

3. A device of the class described comprising an ash receptacle having side and end walls, the upper edges of the side walls being bent outwardly and upwardly and terminally bent to provide guides, an ash sifter overlying the ash receiving receptacle, and extensions located at the upper edges of the end walls of the ash-receiving receptacle and each consisting of a rectangular body portion adjustably received by the guides and having a depending tongue formed on one of the longitudinal edges thereof for engaging the adjacent end walls of the ash-receiving receptacle, when the sections are moved in one direction, so as to limit the movement of the extensions in the mentioned direction.

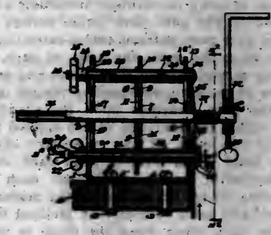
1,253,781. BURNER FOR NATURAL GAS. ZENAS H. BROWN, Cleveland, Ohio. Filed Feb. 24, 1917. Serial No. 150,799. (Cl. 158—108.)

1. In a burner of the character described, a relatively large air intake pipe, means for discharging air and gas into the inlet end of the pipe, a casing surrounding the outlet end of the pipe and having a top disposed in slightly spaced relation to the extremity of the intake pipe, the outer wall of said casing at its end adjacent said top being formed with a sudden annular enlargement, and the end of said enlarged portion of the wall being spaced from the top to form an annular opening through which the ignited gas may issue, the top having a diameter the same as the outer diameter of the casing and having an annular partition surrounding the intake pipe, but spaced therefrom and from the exterior wall and having openings between the partition and the bottom of the casing for the passage of gas.



[Claims 2 to 4 not printed in the Gazette.]

1,253,782. COIL-FORMING MACHINE. EDGAR J. BRYAN, Riverside, Cal. Filed Sept. 19, 1916. Serial No. 121,020. (Cl. 153—67.)



1. In a machine for forming coils, a U-frame having openings in its side arms, bearing plates slidably adjustably mounted upon the side arms and having openings therein adapted to register with the openings in said side arms to form a bearing for an arbor and an arbor mounted in the registering openings, a coil forming member operatively associated with the arbor, means to rotate the arbor, and means to hold the plates in adjusted position.

5. In a coil forming machine, spaced upstanding arms having openings therein, bearing plates slidably adjustably mounted upon the arms and having openings therein adapted to register with the first-named openings whereby a bearing for an arbor is provided by the arms and plates, an arbor rotatably mounted in the registering openings and being removable and longitudinally slidable relative thereto, and means to lock the bearing plates in adjusted position.

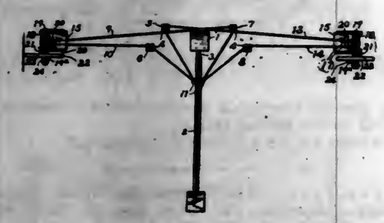
[Claims 2 to 4 and 6 not printed in the Gazette.]

1,253,783. FARM-GATE. FRANK CASTLE, Sprigg, W. Va. Filed Oct. 3, 1917. Serial No. 194,488. (Cl. 39—51.)

1. A gate opening mechanism, including a gate post, a gate hinged to the gate post, a standard arranged at a distance from the gate post, bearings upon the standard, a shaft journaled within the bearings, a drum upon the shaft, a pair of cables connected to the drum to be alternately wound and unwound therefrom, said cables being operatively connected to the gate, a hand wheel slidable upon the shaft and rotatable therewith, and a clutch controlled by the sliding movements of the hand wheel for normally locking the drum against rotation.

3. A gate opening mechanism, including a gate post, a gate hinged to the gate post, guide pulleys on opposite sides of the gate post, pairs of cables extending away from the gate in opposite directions, the ends of each pair of

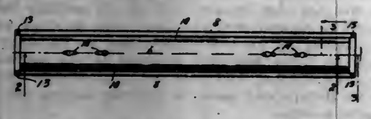
the cables adjacent the gate being carried by the pulleys and secured to opposite sides of the gate, standards arranged on opposite sides of the gate, a drum mounted upon each of the standards, the ends of the corresponding pair of cables remote from the gate being secured to the respective drum, a hand wheel for turning each drum, and a clutch for each drum, said clutches being formed with inclined teeth adapted to slip over each other and with square shoulders, the teeth of the two clutches having an opposed relation so that neither drum can be turned in either direction without breaking the clutch connection.



4. A gate opening mechanism, including a gate post, a gate hinged to the gate post, guide pulleys on opposite sides of the gate post, pairs of cables extending in opposite directions from the gate, the ends of each pair of the cables being carried around the pulleys and secured to opposite sides of the gate, standards arranged upon opposite sides of the gate, bearings upon the standards, shafts journaled within the bearings, drums applied to the shafts and having the ends of the respective cables secured thereto, a hand wheel slidable upon each shaft and rotatable therewith, and a clutch for each drum, said clutches being controlled by the sliding movements of the hand wheels and being formed with inclined teeth adapted to slip over each other when the drum is moved in one direction, the clutches each locking the corresponding drum against rotation in one direction and having an opposed relation to each other so that neither drum can be rotated until the corresponding hand wheel is first moved to open the clutch.

[Claim 2 not printed in the Gazette.]

1,253,784. RAILWAY-TIE. JOHN W. CHAMPION, Colorado Springs, Colo. Filed Oct. 19, 1916. Serial No. 126,614. (Cl. 238—5.)

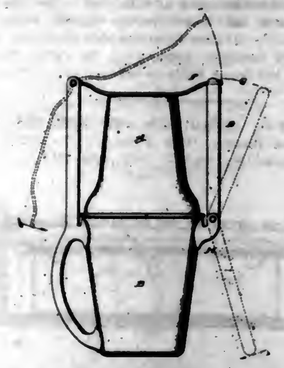


A railway tie comprising a base plate provided with upturned edges and a body portion having outwardly projecting flanges engaging said upturned edges in interlocking relation, the upturned edges being slit adjacent their ends and the end portions bent downwardly to respectively engage the end edges of the said flanges to prevent sidewise movement of the parts.

1,253,785. MIXER. ROBERTO CHAPARRO R., Valparaiso, Chile. Filed Feb. 19, 1917. Serial No. 149,672. (Cl. 259—125.)

1. A mixer of the class indicated comprising a cup having a rigid side handle provided with a vertical rigid extension, a bar hinged vertically to the other side of the cup, and a presser hinged to the side extension and adapted to interlock with the opposite hinged bar, for clamping the cover upon the cup, substantially as described.

2. An improved mixer comprising a cup with vertical rigid side handle and a vertical rigid extension of the latter, a bar hinged to the other side of said cup, and an elastic presser consisting of a steel plate downwardly

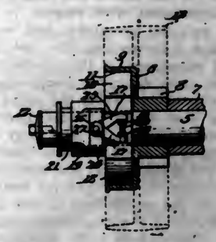


curved and hinged to the extension and adapted to bear upon the cover of the shaker and for locking engagement with the hinged bar as described.

1,253,786. COMPOSITION FOR HARDENING STEEL AND SIMILAR METALS. ZACHRIAH TAYLOR CLARK, Portland, Oreg. Filed Jan. 17, 1917. Serial No. 142,904. (Cl. 148—38.)

A composition for tempering steel and similar metals, which results from the mixing of the following ingredients,—copper sulfate, common salt, unslaked lime, zinc, oxid of iron, in proportions substantially as specified, added to linseed oil, also in proportions as specified.

1,253,787. CLUTCH. HARRY C. CLAY, Columbus, Ind., assignor to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed Sept. 18, 1916. Serial No. 120,871. (Cl. 192—18.)

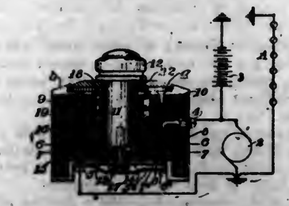


1. A clutch comprising a drive member, a driven member, an expanding friction shoe rotatable with one of said members, said shoe consisting of a unitary piece formed to provide a hub, a web projecting radially therefrom, and a pair of arcuate arms integral with and extending in opposite directions from said web and adapted by reason of their resiliency to be expanded into frictional engagement with the other clutch member, the opposite ends of said arms being provided with opposed converging faces, a member slidable axially of and rotatable with said friction shoe, a pair of jaws pivotally mounted on said member and having their free ends disposed between the opposed ends of said arms, adjustable means connecting the free ends of said jaws whereby the distance between the jaws may be regulated, and means for moving said jaw-carrying member axially of the clutch to expand the arms of said friction shoe.

2. A clutch comprising a driving member, a drum shaped driven member, a friction shoe consisting of a

hub, a web projecting radially therefrom and a pair of resilient arms rigidly connected to said web and extending in opposite directions therefrom, a collar movable longitudinally of the driving member and provided with a yoke, a pair of jaws co-axially pivoted in said yoke and extending between the opposed ends of said arms, means for varying the distance between the free ends of said jaws, and means for moving said jaws across the ends of said arms, the ends of said arms being provided with converging faces adapted to be engaged by said jaws to thereby spread the arms into frictional engagement with said drum.

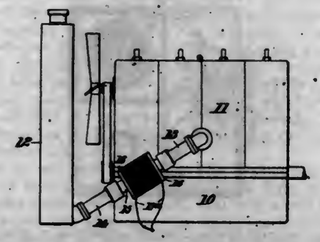
1,253,788. ELECTRIC LOCKING DEVICE. FLOYD J. COLLAR, Alameda, Cal. Filed July 1, 1916. Serial No. 107,125. (Cl. 175—282.)



4. In a lock switch, a movable permutation member having a conductor part, said member being movable to produce an opened or a closed circuit through its conductor part, means to engage and move the member to close the circuit, and means operable by the first means to maintain an opened circuit during the movement of said member.

[Claims 1 to 3 and 5 to 9 not printed in the Gazette.]

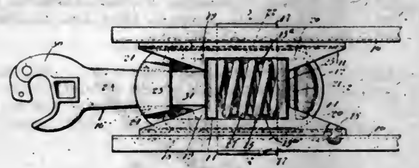
1,253,789. ANTIFREEZING ATTACHMENT FOR EXPLOSIVE-ENGINE-COOLING SYSTEMS. MYERS C. CONWELL, Larchmont, N. Y., assignor to Laura E. Conwell, Larchmont, N. Y. Filed Apr. 9, 1917. Serial No. 160,801. (Cl. 219—38.)



An anti-freezing attachment for explosive engine cooling systems consisting solely of the following elements, a tube of uniform thickness and diameter throughout and open at both ends, said tube being provided with two spaced apart stationary annular flanges, said flanges being also spaced from the ends of the tube, whereby said ends serve as nipples to enter the ends of contiguous tubing, a coil of resistance wire encircling said tube between said flanges, the diameter of the coil being approximately equal to the diameter of the flanges, and means whereby said resistance may be connected with a source of electrical energy.

1,253,790. DRAFT-RIGGING FOR RAILWAY-CARS. ALFRED COPONY, Chicago, Ill., assignor of one-half to Charles R. Cooper, Chicago, Ill. Filed Sept. 10, 1915. Serial No. 49,971. (Cl. 213—42.)

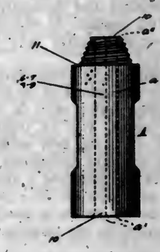
1. The combination with a draw bar having a coupling head and a T-shaped head integral with said draw bar, the arms of said T-shaped head extending substantially vertically, a pair of substantially parallel draft sills spaced from each other horizontally, and yielding compressible shock absorbing means, of means for connecting said draw bar to said shock absorbing means comprising a pair of loops located in the space between said sills embracing said shock absorbing means, one loop embracing one arm of the T-shaped head, and the other loop embracing the other arm, and means for holding said loops in position with respect to said T-shaped head supported by said sills.



5. A horizontal yoke for railway draft rigging comprising two loop-shaped members, each of said members having a transverse shoulder adapted to engage one of the shoulders of a draw bar butt.

[Claims 2 to 4 not printed in the Gazette.]

1,253,791. CABLE-SYSTEM-WELL-DRILLING TOOL. ERIC LEOPOLD HUGO COSBY, Fillmore, Cal. Filed May 3, 1916. Serial No. 95,268. (Cl. 255—63.)



1. In a tool, a body having a threaded end and a core of dissimilar material whereby said body and said threaded end may be held together in case of crystallization.

[Claims 2 to 5 not printed in the Gazette.]

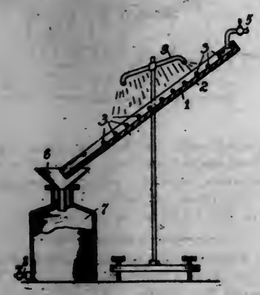
1,253,792. GARMENT-STAYING DEVICE. RUTH E. DAUGHERTY, Chicago, Ill. Filed July 17, 1916. Serial No. 109,637. (Cl. 2—98.)



The combination with a waist having a V-shaped front opening, an elastic member comprising two branches di-

verging from a common point at the bottom and underlying said waist adjacent said front opening, securing means at the lower end of said elastic member, and securing means at the upper ends of the branches thereof, engaging with said waist at points adjacent the V-shaped opening and near the top thereof, whereby the neck portion of said waist is held snugly against the neck of the wearer.

1,253,793. PROCESS OF REFINING AND DEODORIZING RAW TURPENTINE-OILS. HERMAN DEDICHEN and OLE HALSE, Christiania, Norway, assignors to Union Co., Christiania, Norway. Filed Jan. 31, 1917. Serial No. 145,757. (Cl. 203—4.)



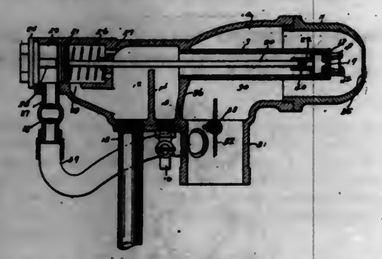
1. In the process of refining and deodorizing raw turpentine oils the step which consists in exposing the raw oil to the action of chemically active rays in the presence of an oxidizing agent.

7. The process of refining and deodorizing raw turpentine oil comprising the operations of subjecting the oil to the action of chemically active rays in the presence of a gaseous oxidizing agent, and of treating the oil with chlorid of iron, the oil being first subjected to one and then to the other of the said operations.

8. As a new product of manufacture a refined turpentine oil consisting of a pure mixture of α pinene and β pinene and comprising dextro-rotary β pinene.

[Claims 2 to 6 not printed in the Gazette.]

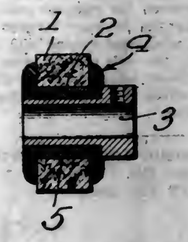
1,253,794. AUTOMATIC OIL-BURNER. ALBERT B. DENN, Indianapolis, Ind. Filed Dec. 26, 1916. Serial No. 138,970. (Cl. 158—76.)



1. An oil burner having a housing, an air chamber in said housing, an oil chamber having a valve opening communicating with said air chamber through which the oil is forced under pressure, a rod adapted to extend into said opening, a piston secured to one end of said rod, means for conveying air to the rear of said piston and actuate the same whereby said rod will close said valve and force any foreign matter therefrom and means for conveying said air from the rear of said piston into said oil chamber for cleaning said oil chamber of foreign particles.

[Claims 2 to 7 not printed in the Gazette.]

1,253,795. DRIVE-WHEEL. FREDERICK DIEHL, Elizabeth, N. J. assignor to Diehl Manufacturing Co., Elizabeth, N. J., a Corporation of New Jersey. Filed July 26, 1916. Serial No. 111,484. (Cl. 74—26.)



1. The method of making a drive wheel which consists in arranging a hub within and in spaced relation to a driving rim, filling the space between said parts with a plastic material and hardening said material to hold the parts together.

5. The method of making a drive wheel which consists in arranging a hub within and in spaced relation to a driving rim and filling the space between said parts with a molded material to hold the parts together.

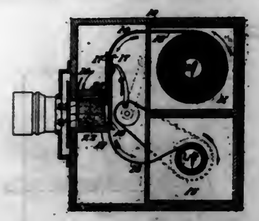
8. A drive wheel having a hub and a driving rim, and a body of bakelite to hold said parts together.

11. A drive wheel comprising a hub, a driving rim of cork or the like, a metal sleeve surrounding the inner periphery of the cork rim and a body of bakelite molded about said parts and hardened for holding them together.

12. A driving wheel having a driving rim and a body portion formed of material molded about the inner portion of said rim.

[Claims 2 to 4, 6, 7, 9, and 10 not printed in the Gazette.]

1,253,796. CAMERA. LEON F. DOUGLASS, San Rafael, Cal. Filed June 30, 1916. Serial No. 106,870. (Cl. 88—16.4.)



1. In a camera having a single objective, a plurality of flexible films, a part of each being angularly disposed with respect to the other and adapted for simultaneous exposure, a light dividing member for said camera comprising means to reflect the light to one film and transmit it to the other in portions of approximately equal intensity, and means for intermittently moving the films across their respective light openings.

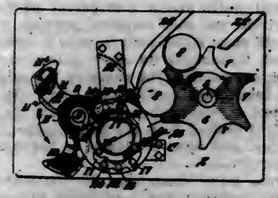
3. In a camera, a light dividing member comprising a surface to reflect a portion of the light in one direction and transmit another portion in a different direction, means to maintain the two portions at approximately equal intensities and deliver them from said surface to film surfaces in right angular directions, and means for intermittently moving the film surfaces across the paths of light.

5. In a camera, two films angularly disposed with respect to each other, a light dividing member comprising a right angle prism having its hypotenuse surface turned away from the objective and so positioned as to internally reflect a portion of the light to one film in one direction and transmit the remaining portion in a different direction and a second prism coöperating with the first to correct the refraction of the transmitted light and deliver it to the other film in a direction at right angles to the reflected light.

7. In a camera, a light dividing member comprising a cubical glass made up to two isosceles right angle prisms, the hypotenuse of which form a diagonal surface in the cube, whereby light is reflected and transmitted in substantially equal portion in right angular directions, and screens of different colors near the emergent faces of said cube.

[Claims 2, 4, 6, and 8 not printed in the Gazette.]

1,253,797. CAN-END SEPARATING AND FEEDING MACHINE. ARTHUR L. DUNCAN and CHARLES E. FORRY, Oakland, Cal., assignors to H. G. Prince & Company, Oakland, Cal., a Corporation of California. Filed Oct. 24, 1916. Serial No. 127,869. (Cl. 113—114.)



1. In a can end separating and feeding machine, a holder, a rotor, a star wheel spaced from the holder, and guiding means between the holder and star wheel and coöperating with the rotor for guiding the blanks and causing same to enter and be operatively held in the pockets of the star wheel for advancement by the latter, one of said guides being depressible and arranged so that the rotor may by engagement therewith depress and move over same.

5. In a can end separating and feeding machine, a bed plate, a holder including spaced vertical guiding rods, the lower ends of which are arranged above and spaced from said bed plate, and a rotor having an arm moving to the space between said rods and the bed plate to move the can ends out of the holder, said arm having a cut-away part on its upper face receiving therein the lower ends of said rods, said rods being adjustable toward and away from one another to accommodate can ends of varying sizes and said cut-away part of the rotor arm being of such size so as to receive the lower ends of the rods in all adjustments thereof.

7. In a can end separating and feeding machine, a holder, a star wheel adjacent thereto, a rotor, guides between the rotor and star wheel, said star wheel having a sweep across and adjacent to the outer end of said guides, a guide having an end terminating adjacent one of the first named guides and extending to one side of the star wheel and in spaced relation thereto so as to coöperate with the latter to form a path to guide the can ends, and a guide associated with the first named guide and the star wheel to form a continuation of the path defined by the first named guide and the star wheel.

8. In a can end separating and feeding machine, a holder, a rotor operating beneath the holder, a star wheel spaced from the holder, guides adjacent the star wheel for coöperation therewith, a guide leading from the holder to a point adjacent the star wheel, and a guide leading from the holder to a point adjacent one of the first named guides.

[Claims 2 to 4 and 6 not printed in the Gazette.]

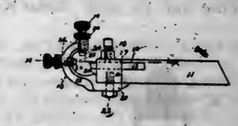
1,253,798. HINGE. JULIUS DUNNER, Brooklyn, N. Y. Filed Jan. 23, 1917. Serial No. 143,902. (Cl. 16—104.)

A hinge formed from two leaves having parts interlocking for producing a pivotal connection, the parts of one leaf being coiled or forming spaced barrels and parts of the other leaf being coiled for forming round pintle



extensions, and a round large central section designed to engage said barrels for preventing any appreciable longitudinal movement of said pintle extensions.

1,253,799. TOOL-HOLDER AND GUIDE COMBINATION. WALTER ECKER, Middletown, Conn., assignor of one-half to Per H. Carlson, Middletown, Conn. Filed May 31, 1917. Serial No. 171,965. (Cl. 82—35.)



A tool-holder and guide combination comprising a rigid and unitary structure composed of a shank at one end, a guide screw bracket at the other end, and a tool-holder intermediate the said ends, the said tool-holder being off-set relatively to the said shank and in parallelism therewith and having a longitudinal tool opening positioned in off-set relation to the said shank, a tool of uniform cross-section, fitting in and substantially filling the said opening, and having one corner formed for a cutting edge, backing screws supported by the said bracket and adapted to coöperate with the said cutting edge, by their end faces, for backing against work positioned in the space between the said end faces and the said cutting edge, and the said end faces being slightly smaller in diameter than the width of the said tool so as to present a bearing surface for engaging with the work that is close to the cutting zone of the tool.

1,253,800. RAILWAY SWITCH AND CROSSOVER. PETER ENGLISH, Detroit, Mich., assignor to Monorail Company of America, Detroit, Mich., a Corporation of Michigan. Filed Nov. 22, 1916. Serial No. 132,728. (Cl. 104—180.)



1. In a railway, the combination of two main lines and a cross over, the latter comprising two shiftable cross over sections in endwise relation each of which is provided with a cross over rail section and a main rail section and which are simultaneously shiftable in opposite directions to establish the crossover and to break the main lines or to make continuous the main lines and break the crossover, substantially as described.

4. In a railway, the combination of a pair of main lines and a cross over and switch, the latter comprising a pair of shiftable cross over sections, a rock shaft running substantially parallel with the two main lines and connected to opposed sides of the shiftable cross over sections which lie on opposite sides of it, and a trip device at the incoming end of the cross over zone for rocking the rock arm to shift the cross over sections and establish the cross over, and a trip device at the outgoing end of the cross over zone for rocking the rock arm in a contrary direction to shift the cross over sections and disestablish the cross over.

6. In a railway, the combination of a pair of main lines, a cross over, the latter comprising a pair of shiftable cross over sections which may be shifted simultaneously to establish a cross over and simultaneously to disestablish a cross over, and automatic means operated by a passing train for both shifting the cross over sections to establish the cross over and shifting the cross over sections to disestablish the cross over.

8. In a railway, the combination of a pair of underneath main lines, a pair of over-head main lines, a cross over for the underneath lines, a cross over for the over-head lines, each of the cross overs having sections arranged to shift to open or close the cross over, and means for simultaneously and automatically operating the underneath and the over-head cross over sections from the train.

[Claims 2, 3, 5, 7, and 9 not printed in the Gazette.]

1,253,801. RESILIENT WHEEL. CHARLES A. ERWIN, Moberly, Mo. Filed Nov. 27, 1915. Serial No. 63,792. (Cl. 152—8.)



A wheel body having a fixed rim, in combination with a resilient tread support arranged in spaced and normally concentric relation to said rim, and comprising a plurality of endless and normally concentric spring bands of equal width and each in the form of a true circle, an annular cushion interposed between said concentric bands, a sound deadening endless cushioning ring surrounding the outer spring band and also in the form of a true circle, a tread mounted on said support, and annular tread supporting retainers secured in fixed relation to the wheel body and having marginal flanges which prevent lateral and limit outward radial movement of the tread support.

1,253,802. TRIP FOR RAILWAY-SWITCHES. FRANK EVANS and DAVID DUTT, Riverdale, Mich., assignors of one-third to Burtis O. Markham, Riverdale, Mich. Original application filed Sept. 23, 1915, Serial No. 52,174. Patent No. 1,223,945, dated Apr. 24, 1917. Divided and this application filed Mar. 24, 1917. Serial No. 157,117. (Cl. 104—23.)

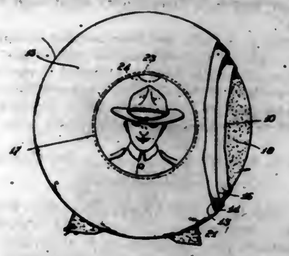


1. A trip adapted to be mounted on a locomotive or car to automatically actuate a railway switch, said trip including a hanger, means to mount the hanger on a car in position for vertical movement, a face plate constituting the contact element of the trip, a spring interposed between the contact member and the hanger, and means to raise and lower said trip.

3. A trip adapted to be mounted on a locomotive or car to engage track devices for operating a switch, the said trip including a hanger, means to mount the hanger on a car or locomotive to slide vertically, a bell-crank lever from which said hanger is suspended, means to actuate the said lever, and a face member on the hanger, and constituting the contact element of the trip.

[Claim 2 not printed in the Gazette.]

1,253,803. PICTURE-FRAME. GABRIEL FELSENTHAL, Chicago, Ill. Filed Oct. 9, 1917. Serial No. 195,551. (Cl. 40—159.)



1. A picture frame comprising, in combination, an integral flexible celluloid disk comprising a marginal portion of substantial width and a transparent portion located centrally within the said marginal portion, a centrally apertured stiff sheet metal shell forming a backing for the celluloid disk throughout its entire extent except at its said transparent portion, the edges of the said disk and shell being interfolded continuously about the said disk and shell, and a removable pressure plate for holding a picture in face contact with the said transparent portion of the celluloid disk upon the inside of the same through the shell aperture.

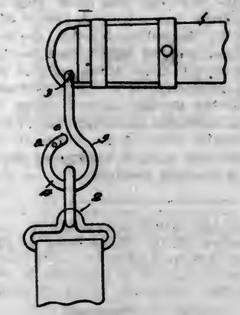
2. A picture frame comprising, in combination, an integral flexible celluloid disk comprising a marginal portion of substantial width and a transparent portion located centrally within the said marginal portion, a centrally apertured stiff sheet metal shell forming a backing for the celluloid disk throughout its entire extent except at its said transparent portion, the edges of the said disk and shell being interfolded continuously about the said disk and shell, forming a rearwardly projecting marginal flange, a relatively thick centrally apertured board fitting within the said flange and frictionally held thereby in face contact with the inside of the shell and a notched plug fitting the aperture of the board and removably held therein by frictional engagement of its rim with the margin of the board aperture, the said plug constituting a pressure plate for holding a picture in face contact with the said transparent portion of the celluloid disk upon the inside of the same through the shell aperture and the notch of the plug providing a finger hole for removal of the plug.

3. A picture frame comprising, in combination, an integral flexible celluloid disk comprising a marginal portion of substantial width and a transparent portion located centrally within the said marginal portion, a centrally apertured stiff sheet metal shell forming a backing for the celluloid disk throughout its entire extent except at its said transparent portion, the edges of the said disk and shell being interfolded continuously about the said disk and shell, forming a rearwardly projecting marginal flange, a relatively thick centrally apertured board fitting within the said flange and frictionally held thereby in face contact with the inside of the shell and a plug fitting the aperture of the board and removably held therein by frictional engagement of its rim with the margin of the board aperture, the said plug constituting a pressure plate for holding a picture in face contact with the said transparent portion of the celluloid disk upon the inside of the same through the shell aperture.

1,253,804. HOOK. LOUIS FERRELL, Sikeston, Mo. Filed Mar. 16, 1917. Serial No. 155,271. (Cl. 21—79.)

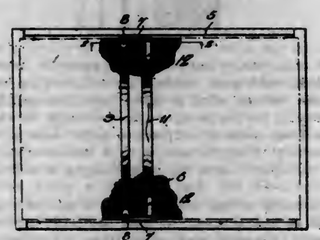
1. A hook, comprising a length of metal bent intermediate its ends and looped, the extremities of the metal being hooked and arranged opposite each other, one of said hooked portions being of a greater length than the adjacent hooked portion and having a shoulder formed thereon, and securing means on one of the hooked portions engageable with the other hooked portion.

2. A hook, comprising a length of metal bent intermediate its ends and looped, the extremities of the metal being hooked and arranged opposite each other, one of said hooked portions being of a length greater than the



adjacent hooked portion and having a shoulder formed thereon, said longer hooked portion having an opening formed therein adjacent its shoulder, and a pin carried by the opposite hooked portion and receivable in said opening.

1,253,805. BED-SPRING BRACE. FRANK M. FICHTEN, Milwaukee, Wis. Filed Dec. 11, 1916. Serial No. 136,173. (Cl. 5—66.)



1. A bed spring brace comprising a pair of plates bent in U-shape to adjustably embrace the sides of the spring body mesh of a bed spring, a bar having its ends secured to corresponding ends of said plates and a second bar having its ends secured to the other ends of the said plates.

2. A bed spring brace comprising a pair of plates bent in U-shape to embrace the sides of the spring body mesh of a bed spring, a bar connected with corresponding ends of the plates, means for securing said corresponding ends of the plates to the spring body mesh, a bar having its ends secured to corresponding side portions of the other ends of the plates, and inwardly extending arms at the other sides of said other ends of the plates.

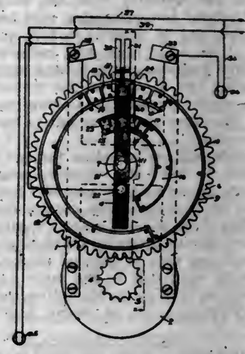
1,253,806. PNEUMATIC-TUBE-STEM DUST-CAP. WALTER L. FRAZER, San Diego, Cal. Filed Oct. 4, 1915. Serial No. 53,875. (Cl. 152—12.)

In a pneumatic tube stem dust cap, the combination of a pneumatic tube stem threaded externally, a sleeve member threaded internally adapted to screw onto said valve stem, a cap adapted to fit loosely over said sleeve provided with a recess near its lower edge and threaded internally near its top end adapted to screw onto the upper end of said pneumatic tube stem, a gasket mounted in said recess adapted to fit tightly over said sleeve whereby a seal is effected between said cap and said sleeve, and



said cap is separately removable from said stem and sleeve.

1,253,807. AUTOMATIC SIGNALING MECHANISM FOR STARTING ELEVATORS. ALLEN A. FULLER, Birmingham, Ala., assignor to Fuller Elevator Equipment Company, a Corporation of Alabama. Filed Aug. 13, 1915. Serial No. 45,278. (Cl. 177—336.)



1. An automatic signaling mechanism for starting elevators, somprising electrically controlled starting signals at the termini of the elevator shaft; a circuit breaker mechanism for each elevator comprising a primary switch means controlled by the reversals in direction of movement of the elevator, and a secondary switch means controlled by the position of the elevator, signal circuits including the said switches and starting signals, and contact means to vary at will the circuit closing positions of the secondary switches.

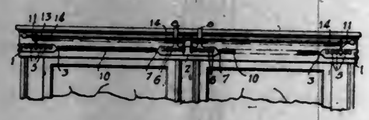
9. In combination, a movable element driven by an elevator, two sets of normally insulated contacts on said element, sockets between the segments of each row, contact plugs insertible in said sockets to connect segments, a brush for each set of segments which ate disposed to engage the brush during the elevator travel between its termini, starting signals at said termini, circuits between said brushes and signals, a reversible switch interposed in said circuits, and line circuits connected to the initial contact of each series and to said signal circuits, substantially as described.

[Claims 2 to 8, 10, and 11 not printed in the Gazette.]

1,253,808. WINDOW-BLIND AND LACE-CURTAIN HOLDER. THOMAS WILLIAM GARNETT, Salina, Kans., assignor, by direct and mesne assignments, of one-half to Leonard G. Elder, Salina, Kans. Filed Mar. 10, 1917. Serial No. 153,943. (Cl. 156—23.)

1. A curtain support including flat end plates adapted to fit against the front of a window casing and provided

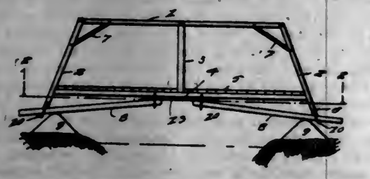
at the outer ends thereof with laterally extending hook members adapted to engage the edges of the window casing, curtain supporting brackets projecting from the end plates, a pair of connecting rods having the outer ends thereof loosely connected to the inner ends of the end plates, a short locking lever having the ends thereof pivotally connected to the extremities of the connecting rods and adapted to draw the connecting rods toward each other or force them apart, and a latch member for locking the said lever in operative position.



2. A curtain support including flat end plates adapted to fit against the front of a window casing and provided with hook members adapted to engage the edges of the window casing, curtain supporting brackets projecting from the end plates, a pair of connecting rods having the outer ends thereof loosely connected to the inner ends of the end plates, the inner end of one of the connecting rods being bifurcated, a channel shaped locking lever having the ends thereof pivotally connected to the extremities of the operating lever and adapted to receive the end of one of the connecting rods between the side flanges thereof and be received in turn within the bifurcated end of the other connecting rod when it is swung into operative position, and a locking plunger carried by the bifurcated end of one of the connecting rods and adapted to project through the locking lever into engagement with the other connecting rod to hold the parts in operative position.

3. A curtain support including flat end plates adapted to fit against the front of a window casing and provided with laterally extending hook members adapted to engage the edges of the window casing, curtain supporting brackets projecting from the end plates, a pair of connecting rods, tension springs yieldably connecting the outer ends of the connecting rods to the end plates, and a locking lever pivotally connected to the inner ends of the connecting rods so that by manipulating the locking lever the connecting rods can be drawn together or moved apart.

1,253,809. BRIDGE. HENRY GELNER, Garner, Iowa. Filed Mar. 13, 1917. Serial No. 154,501. (Cl. 14—18.)

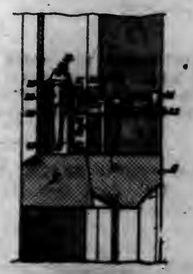


1. A bridge of the class described including a truss having downwardly extending arms or portions at the ends, and inclined longitudinally disposed supporting levers fulcrumed intermediate of their ends to form inner and outer arms, the outer arms receiving and supporting the depending arms or portions of the truss and the inner arms of the levers extending beneath and sustaining the weight of the bridge at the center thereof.

2. A bridge of the class described including a truss constituting the frame work of the bridge and having downwardly projecting terminal portions or arms, piers forming fulcrums, and longitudinally disposed inclined levers fulcrumed intermediate of their ends on the piers to form relatively short outer arms and relatively long inner arms, the outer arms receiving the depending arms or portions of the ends of the truss and the inner arms extending beneath the truss and supporting the bridge at opposite sides of the center of the same.

3. A bridge of the class described including spaced tapered piers forming fulcrums, inclined levers supported upon the piers and extending inwardly and outwardly therefrom to provide relatively long inner arms and relatively short outer arms, and a truss composed of inclined end members having depending terminal portions supported upon the outer arms of the inclined levers, an upper connecting member secured at its ends to the upper terminals of the end members, a lower horizontal connecting and supporting member secured at its terminals to the inclined end members and supported intermediate of its ends at opposite sides of its center by the inner arms of the levers, and a strut interposed between the upper and lower connecting members.

1,253,810. BURGLAR-PROOF SASH-LOCK. JOHN GIANNINOTO, Brooklyn, N. Y. Filed June 5, 1917. Serial No. 172,900. (Cl. 16—30.)



1. In a sash lock, a hollow post adapted to be secured to one sash, said post having a fixed locking member thereon and formed with a lateral slot intersecting the hollow interior of the post, a pin receivable in the said post, a locking element adapted to enter said slot, said locking element being formed with a hole therein to receive the said pin to lock the said element, a second locking element over the first element, a pivot extending through the said second locking element and through the slot of the second element, so that the latter retains the first element, the said pivot permitting a turning movement of the second locking element to engage or disengage the said fixed member on the post and permitting a turning and sliding movement of the second element, and means to secure the said locking elements and their pivot to the second sash in position to coact with the said post and its fixed locking member.

2. In a sash lock, a locking element adapted to turn and to slide, a second locking element adapted to be turned, means common to the said elements to secure the same to a sash, coacting locking means adapted to be engaged by said locking elements, and means to secure the last mentioned means to the other sash of a pair.

3. In a sash lock, a tubular post having a lateral slot intersecting the interior of the post, a pin receivable in the said post, and a coacting slidable and turnable locking element adapted to be projected through the said slot and formed with a hole to receive said pin.

1,253,811. HOLDER FOR PAPERS. PERCY BRIARD GIBAUT, London, England. Filed July 2, 1917. Serial No. 178,204. (Cl. 24—66.)

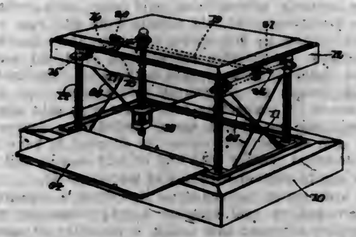
1. In apparatus for holding bank notes and the like, two superposed plates, a pair of frames pivoted to each plate, means for connecting together the adjacent sides of the frames, springs tending to press the plates apart and stops fixed to one plate and adapted to engage with the other plate.

2. In apparatus for holding bank notes and the like, two superposed plates, a pair of frames pivoted to each plate, tubes connecting together the adjacent sides of the



frames, springs tending to press the other sides apart and stops fixed to one plate and adapted to engage with the other plate.

1,253,812. COMBINED LEDGER-TYPE MEMORIAL AND SEPULCHER. ANDREW W. GRAHAM, Buffalo, N. Y., assignor of one-half to Ellis M. Treat, Buffalo, N. Y. Filed Jan. 22, 1917. Serial No. 143,729. (Cl. 72—7.)



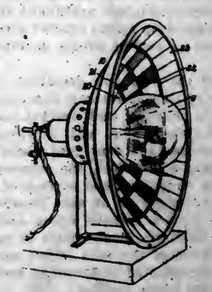
1. In a device of the kind described a cap stone having an opening therein, a ledger stone movable to open and close said opening, a main shaft journaled on the underside of and extending longitudinally of the ledger stone and covered by said stone when in closed position, oppositely disposed screws geared to the main shaft for simultaneous revolution and nuts carried by the cap stone within the opening thereof through which said screws pass.

2. In a device of the kind described a cap stone having an opening therein, a ledger stone adapted to cover said opening, nuts arranged at the four corners of the openings in the cap stones, screws passing through said nuts and having their upper ends journaled in the ledger stone, gears on said screws, a shaft journaled on the underside of the ledger stone at each end of the ledger stone, gears on the shafts meshing with the gears on the screws, worm wheels on the shafts, a main shaft journaled on the underside of and extending longitudinally of the ledger stone, and worms on the main shaft meshing with said worm wheels.

3. In a device of the kind described a cap stone having an opening therein, a ledger stone adapted to cover said opening, nuts arranged at the four corners of the openings in the cap stones, screws passing though said nuts and having their upper ends journaled in the ledger stone, gears on said screws, a shaft at each end of the ledger stone, gears on the shafts meshing with the gears on the screws, worm wheels on the shafts, a main shaft extending longitudinally of the ledger stone, worms on the main shaft meshing with said worm wheels, and diagonally disposed flexible cables connecting opposite corners of the ledger and cap stones and constituting stop and brace means when the ledger stone is raised.

4. In a device of the kind described, a cap stone having an elongated rectangular opening, a ledger stone adapted to close said opening and having one edge fulcrumed on the cap stone adjacent the opening, nuts swiveled to opposite ends of the cap stone within the opening, a main shaft extending parallel to said edge of the ledger stone and journaled to said ledger stone, bearings swiveled on said shaft, elevating screws extending through said nuts and having their upper ends journaled in said bearings, gears on the upper ends of said screws, gears on said shaft meshing with the first-mentioned gears and the polygonal end of said shaft adapted to receive a crank wrench.

1,253,813. REFLECTING-CONDENSER FOR ENLARGING PHOTOGRAPHS. ROBERT D. GRAY, Ridgewood, N. J. Filed May 29, 1917. Serial No. 171,751. (Cl. 240—41.)



1. As an article of manufacture, a concave reflecting condenser having concentric rows of plane mirrors, the reflecting power of the outermost concentric row of plane mirrors exceeding that of the next inner row of plane mirrors.

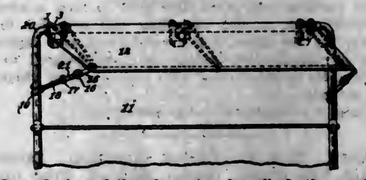
2. As an article of manufacture, a concave reflecting condenser having a central opening and concentric rows of plane mirrors, of which the outermost and innermost rows of mirrors have a reflecting power in excess to the intermediate row of mirrors.

4. As an article of manufacture, a concave reflecting condenser having concentric graduated portions, of which the outer concentric portion is of higher reflecting power than the adjacent concentric portions.

5. As an article of manufacture, a concave reflecting condenser having concentric reflecting portions each formed of segmental mirrors, the mirrors in the outermost and innermost concentric reflecting portions having uniform high reflecting power, and the mirrors of each intermediate concentric reflecting portion being alternately of high and low reflecting power.

[Claims 3, 6, and 7 not printed in the Gazette.]

1,253,814. COVER FOR WIND-SHIELDS. CASPER HUGO GRINGS, Waterloo, Iowa. Filed Jan. 22, 1917. Serial No. 143,728. (Cl. 21—148.)



1. In a device of the character described, the combination of a plurality of resilient brackets secured removably upon an object to be shielded, a flexible awning fastened upon said brackets, and resilient connections between the outer edge of said awning and said object adapted to place said awning and said brackets under lateral tension.

2. In a device of the character described, the combination of a plurality of resilient brackets secured removably upon an object to be shielded, a flexible awning fastened upon said brackets, and adjustable resilient connections between the outer edge of the awning and said object adapted to place both the awning and the brackets under yielding tension.

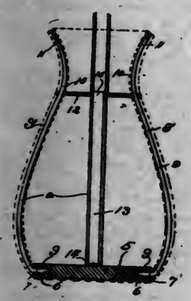
3. In a device of the character described, the combination of a plurality of resilient brackets secured removably upon an object to be shielded, an awning provided with pockets in which said brackets are fixedly seated, and connections detachably secured to and between the said object and the outer parts of said awning.

4. In a device of the character described, the combination of a plurality of elastic brackets detachably mounted upon an object to be shielded, each bracket consisting of a rod medially bent into a loop with downwardly looped members having terminal hooks riding upon said object, the downwardly looped members positioned abutting upon said object, the medial loop of the bracket extending angularly therefrom, and an awning fixedly mounted upon said brackets.

5. In a device of the character described, the combination of a plurality of elastic brackets detachably mounted upon an object to be shielded, each bracket consisting of a rod medially bent into a loop with downwardly looped members, the members then bent into hooks adapted to ride detachably upon said object, the extremities of said hooks depending to abut upon one surface of said object, the downwardly looped parts of said members abutting upon the opposite surface of said object, and an awning fastened upon the medially looped parts of said brackets, and connections between the said object and the outer parts of said awning adapted to place the medially looped parts of the brackets under tension.

[Claims 6 and 7 not printed in the Gazette.]

1,253,815. FEED-BAG HOLDER. MICHAEL D. GURN, Bridgeport, Conn. Filed Apr. 23, 1917. Serial No. 163,913. (Cl. 119—65.)

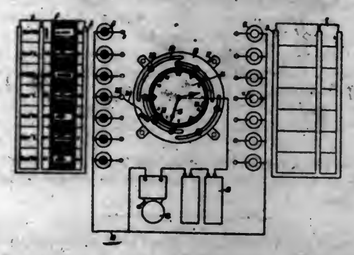


1. A feed bag holder comprising a base, a plurality of resilient arms rigidly secured to said base and extending therefrom in spaced relation and having inwardly bowed portions near their free ends to form a normally restricted neck, a cord encircling said neck for further contracting the same, and a reinforcing and supporting strap having its intermediate portions secured to said base and its ends provided with loops through which said cord extends.

[Claim 2 not printed in the Gazette.]

1,253,816. ZIGZAG-COURSE CONTROL. ERNEST E. HALL, New Eltham, London, England. Filed July 11, 1917. Serial No. 180,001. (Cl. 161—4.)

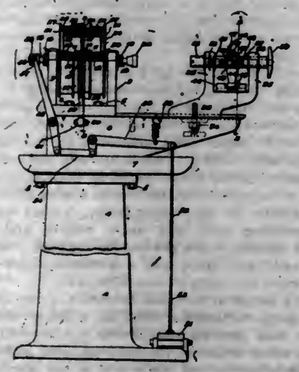
1. In a device for causing the steersman of a ship to properly steer the ship in a zig-zag course so as to leave the true course at one point and come back to said true course after a predetermined interval, an order slip provided with orders arranged in a certain sequence, an information slip provided with information indicating the direction of movement of the ship, an alarm, means for causing said alarm to operate, a clock for causing said means to operate said alarm, and a manually operated switching mechanism formed so as to be shifted successively in the same sequence as the arrangement of the orders on said slip whereby the steersman of the ship may change the course immediately upon the sounding of said signal and thereby maintain the true zig-zag course from one point on the true course to a second point on the true course.



2. In a device of the character described, a support, a clock arranged on said support provided with a minute hand, a ring arranged near said clock, a plurality of adjustable contacts arranged on said ring, said contacts being so positioned that said minute hand will pass near the same during its movement, an order sheet provided with different information thereon, an electrical socket arranged opposite each of said articles of information, an alarm, means for connecting said sockets with said alarm, means for connecting said alarm with said minute hand, said last mentioned means including a source of current, and an electrical connector adapted to have one end in electrical contact with any of said sockets and the opposite end in contact with any of said contacts.

3. In a device of the character described, a support, a clock arranged on said support, a ring connected with said support adjacent said clock, a plurality of spaced contacts arranged on said ring, a pin adapted to be brought into engagement with any of said contacts and to project into the path of movement of the minute hand of said clock, a holder arranged near the clock, an order slip provided with spaced orders arranged in said holder, a signal member, a socket arranged opposite each of said orders, electrical means connecting said sockets with said signal member, said hand and a source of current, and means adapted to be positioned in any of said sockets and brought into contact with said pin, whereby when said hand strikes said pin said signal will be operated.

1,253,817. TAPPING AND THREADING MACHINE. HARRY E. HARRIS, Bridgeport, Conn. Filed Aug. 19, 1916. Serial No. 115,800. (Cl. 10—136.)



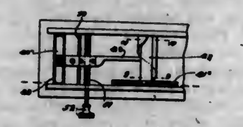
4. In a machine of the class described, the combination of a rotatable spindle susceptive of axial movement, a clutch member fast on said spindle and having a ring and an inclined clutch-face extending laterally from the ring, a drive clutch member rotatably mounted independently of said spindle and having a clutch-face coöperable with that of said other clutch member, and a brake-shoe movable to contact with said ring.

5. In a machine of the class described, the combination of suitably supported alined bearing-boxes, a spindle journaled in and having end portions extending beyond said boxes and susceptive of axial movement therein, a lever in engagement with said spindle and arranged to impart axial movement thereto, means whereby said lever is swung, two clutch members rotatably mounted independently of said spindle and susceptive of being driven in opposite directions, a clutch member fast on said spindle between said other clutch members and coöperable with either of them upon axial movement of said spindle, and a spring associated with said lever whereby said spindle clutch member normally is maintained in approximately the median position between said other clutch members.

8. In a machine of the class described, a work-holder mount including upright standards having alined guideways, a work-holder shaft longitudinally movable in said guideways, a collar longitudinally movable on said shaft, means whereby said collar is held in fixed position on said shaft, an arm extending from said collar, a guideway in which the free end of said arm is movable, an adjustable stop-screw on said collar, and a projection on one of said standards and contactable by said stop-screw whereby movement of said shaft in one direction is limited.

[Claims 1 to 3, 6, 7, and 9 not printed in the Gazette.]

1,253,818. TAPE-TRANSMITTING APPARATUS FOR TRANSMITTING ELECTRICAL IMPULSES. HENRY KINGSFORD HARRIS, Westminster, London, England. Filed June 7, 1915. Serial No. 32,630. (Cl. 178—17.)



1. In an apparatus for transmitting impulses, a rotatable member over which a perforated tape is adapted to pass, means for causing an electrical contact to be made each time a perforation of the tape passes between the said means and rotatable member, gearing for intermittently operating the rotatable member, and means to actuate the gearing so that it will operate at different speeds.

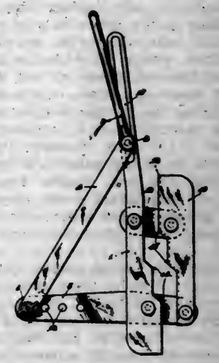
2. In apparatus for transmitting impulses, a rotatable member over which a perforated tape is adapted to pass, means for making electrical contact each time a perforation of the tape passes between said means and rotatable member, means to drive the rotatable member, and means for regulating the duration of time of contact, said means comprising a variable cam, a contact member having a portion thereof engaging the cam, a support for the contact member, and means to move the support longitudinally of the cam.

8. In an apparatus for transmitting impulses, a rotatable member over which a perforated tape passes, means causing an electrical contact to be made each time a perforation of the tape passes between the said means and the rotatable member, gearing for intermittently operating the rotatable member, and means for regulating the duration of time of contact.

11. In apparatus for transmitting impulses, a rotatable drum provided upon its periphery with recesses, a movable contact member disposed near the drum, a control pin arranged between the drum and contact member to normally oppose the movement of the contact member in one direction, a pressing foot arranged near the drum to contact with a perforated tape passing over the same, and means for substantially simultaneously moving the control pin and pressing foot away from the drum.

[Claims 3 to 7, 9, and 10 not printed in the Gazette.]

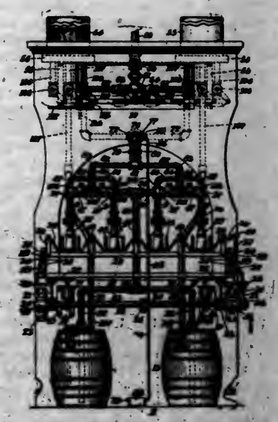
1,253,819. INSULATED-WIRE GRIP. FRANK M. HEINZEN, Madison, Minn. Filed June 26, 1916. Serial No. 105,867. (Cl. 81—3.)



2. A gripping device comprising a pair of jaws, having complemental gripping surfaces with offset complemental shoulders, means connecting the jaws for parallel opening and closing movement including a lever extension, a pulling connection movably mounted on one of the jaws, and a link connection between the lever extension and pulling connection.

[Claim 1 not printed in the Gazette.]

1,253,820. APPARATUS FOR FILLING BOTTLES. GILBERT F. HELSON, New York, N. Y. Filed Sept. 5, 1916. Serial No. 118,396. (Cl. 226—21.)



1. In an apparatus for filling bottles, the combination of a supply reservoir, delivery tubes, tubular connections between the same and the supply reservoir, an overflow receptacle, a pipe leading therefrom having branches extending to the lower ends of the respective delivery tubes and adjacent thereto, an adjustable support for the bottles, means for raising said support and thereby bringing the end of one of said delivery tubes and one of said branches into the mouth of each bottle, means

for exhausting the air from the overflow receptacle and creating a vacuum in said branches, bottles, delivery tubes and connections therefrom to the supply reservoir, whereby the filling material is drawn into the bottles by suction and any surplus drawn from the delivery tubes into said branches and conveyed directly to the overflow receptacle.

2. In an apparatus for filling bottles, the combination of a supply reservoir, delivery tubes, tubular connections between the same and the supply reservoir, an overflow receptacle, a pipe leading therefrom having branches extending to the lower ends of the respective delivery tubes and adjacent thereto, an adjustable support for the bottles, means for raising said support and thereby bringing the end of one of said delivery tubes and one of said branches into the mouth of each bottle, means for exhausting the air from the overflow receptacle and creating a vacuum in said branches, bottles, delivery tubes and connections therefrom to the supply reservoir, whereby the filling material is drawn into the bottles by suction and any surplus drawn from the delivery tubes into said branches and conveyed directly to the overflow receptacle, and a drain pipe communicating directly between the overflow receptacle and the supply reservoir.

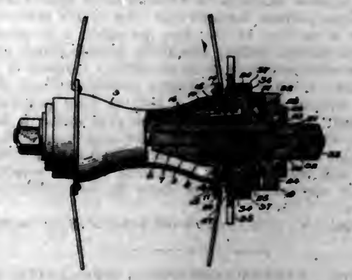
3. In an apparatus for filling bottles, the combination of a supply reservoir, delivery tubes, tubular connections between the same and the supply reservoir, an overflow receptacle, a pipe leading therefrom having branches extending to the lower ends of the respective delivery tubes and adjacent thereto, an adjustable support for the bottles, means for raising said support and thereby bringing the end of one of said delivery tubes and one of said branches into the mouth of each bottle, means for exhausting the air from the overflow receptacle and creating a vacuum in said branches, bottles, delivery tubes and connections therefrom to the supply reservoir, whereby the filling material is drawn into the bottles by suction and any surplus drawn from the delivery tubes into said branches and conveyed directly to the overflow receptacle, a drain pipe communicating directly between the overflow receptacle and the supply reservoir, and a vent tube within the overflow receptacle and extending therefrom.

4. In an apparatus for filling bottles, the combination of a supply reservoir, delivery tubes, tubular connections between the same and the supply reservoir, an overflow receptacle, a pipe leading therefrom having branches extending to the lower ends of the respective delivery tubes and adjacent thereto, an adjustable support for the bottles, means for raising said support and thereby bringing the end of one of said delivery tubes and one of said branches into the mouth of each bottle, means for exhausting the air from the overflow receptacle and creating a vacuum in said branches, bottles, delivery tubes and connections therefrom to the supply reservoir, whereby the filling material is drawn into the bottles by suction and any surplus drawn from the delivery tubes into said branches and conveyed directly to the overflow receptacles, a drain pipe communicating directly between the overflow receptacle and the supply reservoir, a valve within said pipe, a vent tube within the overflow receptacle and extending therefrom, a valve within said tube, and means for simultaneously shutting off the air exhaust from the overflow receptacle, breaking the vacuum in the branches leading therefrom and opening the valves in the drain pipe and vent tube.

5. In an apparatus for filling bottles, the combination of a supply reservoir, delivery tubes, tubular connections between the same and the supply reservoir, an overflow receptacle, a pipe leading therefrom having branches extending to the lower ends of the respective delivery tubes and adjacent thereto, an adjustable support for the bottles, means for raising said support and thereby bringing the end of one of said delivery tubes and one of said branches into the mouth of each bottle, means for exhausting the air from the overflow receptacle and creating a vacuum in said branches, bottles, delivery tubes and connections therefrom to the supply reservoir, whereby the filling material is drawn into the bottles by suction and any surplus drawn from the delivery tubes into said branches and conveyed directly to the overflow receptacle, a drain pipe communicating directly between the overflow receptacle and the supply reservoir, a valve within said pipe, a vent tube within the overflow receptacle and extending therefrom, a valve within said tube, and means for simultaneously opening the air exhaust to the overflow receptacle creating a vacuum in the branches leading therefrom and closing the valves in the drain pipe and vent tube.

[Claims 6 to 10 not printed in the Gazette.]

1,253,821. COASTER-BRAKE. JOHN E. HENDERSON, Fort Myers, Fla., assignor of one-third to C. E. Koester, Fort Myers, Fla. Filed Nov. 6, 1916. Serial No. 129,775. (Cl. 208—57.)



1. The combination with a bicycle hub, of a hub extension adapted to be screwed thereon in place of the usual rear sprocket wheel, a sprocket drum, and a brake drum, and means for clutching said sprocket drum to said hub extension, upon rotating the sprocket drum in one direction and pressing said brake drum against said bicycle hub when rotating in the opposite direction.

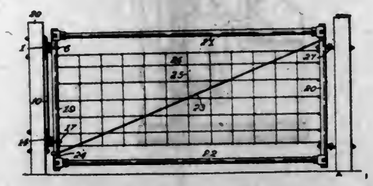
3. The combination with a bicycle hub, of a hub extension adapted to be screwed thereon in place of the usual sprocket wheel, a sprocket drum, a brake drum, a sprocket carried by said drum, a shiftable clutch cone, interengaging elements between said clutch cone and the sprocket drum for shifting said clutch cone into engagement with said brake drum when said sprocket drum is rotated in one direction and clutching elements between said clutch cone and the hub extension which engage when said clutch cone is shifted in the other direction.

5. The combination with a bicycle hub, of a hub extension adapted to be screwed thereon in place of the usual sprocket wheel, a sprocket drum, anti-friction bearings between the hub extension and the sprocket drum, an axle, anti-friction bearings between said axle and the sprocket drum, a brake drum fixed upon said axle and acting when expanded against that portion of the bicycle hub which formerly constituted one of its bearings, a clutch member, inter-engaging members between said clutch member and the sprocket drum through which said clutch member is shifted, clutch elements between said clutch member and the hub extension operative when the clutch member is moved in one direction, said clutch member acting when moved in the opposite direction to expand said brake drum.

[Claims 2 and 4 not printed in the Gazette.]

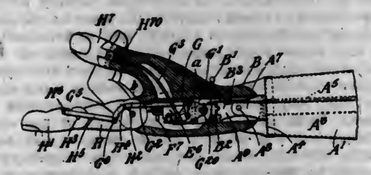
1,253,822. LOCKING DEVICE FOR GATES. WILLARD GLENN HENKLE, Garrison, Iowa. Filed July 16, 1917. Serial No. 180,821. (Cl. 70—28.)

1. A locking device for gates, including separated pairs of spaced orificed parallel plates, means for mounting said plates upon a gate post, a bifurcated locking-plate pivotally mounted between each pair of spaced plates and each adapted to receive the adjacent end stile of a gate, and gravity movable retaining means removably mounted upon said pairs of spaced plates, and normally coacting with both said locking plates to hold both of them against pivotal movements, said means consisting of a pair of like rods having parts mounted slidably to rock in the orifices in said pairs of spaced plates engaging said locking-plates to hold them in locked positions, each rod having an offset part adapting it for manual actuation to lift it disengaging it from certain of said spaced plates and from said locking-plates to release the latter.



2. A locking device for gates, including separated pairs of spaced orificed parallel plates, means for mounting said plates upon a gate-post, a bifurcated locking-plate pivotally mounted between each pair of spaced plates and each adapted to receive the adjacent end stile of a gate, and gravity movable retaining means removably mounted upon said pairs of spaced plates, and normally coacting with both said locking-plates to hold them against pivotal movements, said means consisting of a pair of like rods each having its upper part bent horizontally, then vertically, then returning horizontally and having a depending part mounted slidably to rock in the orifices in the upper spaced plates to engage the locking-plate pivoted thereon, the lower horizontally bent part of the rod adapted to engage the bottom of the lower one of said spaced plates to prevent the escape of the said depending part from the upper one of the spaced plates when lifted to release said locking-plate.

1,253,823. ARTIFICIAL ARM AND HAND AND ACTUATING MEANS THEREFOR. EDWARD WALTER HOBBS, Surrey, England. Filed Mar. 19, 1917. Serial No. 155,878. (Cl. 3—12.)



1. In an artificial hand, the combination with a movable part thereof, of a reciprocatable wedge, a rocking member engaging an inclined face of said wedge to be rocked by the reciprocation thereof, and an operative connection between said rocking member and said movable part.

2. In an artificial hand the combination with a movable member or members of the limb, of a reciprocatable wedge to work them, a reciprocatable slider movable alongside the wedge and actuated by the patient, returning-springs for the wedge and slider, a brake or detent acting on the wedge, a brake- or detent-releasing lever, a brake-applying spring and projections from the slider that in its forward stroke temporarily release the brake or detent and actuate the wedge, the construction of the brake-releasing lever and projections being such that the former is only operated in the forward stroke of the latter.

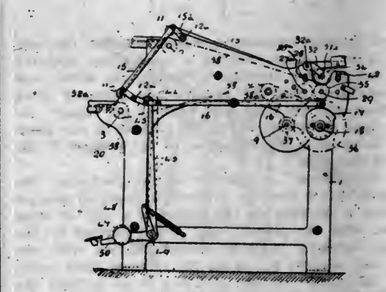
3. In an artificial hand, the combination with a movable finger thereof, of a rocking shaft, an arm on said shaft, a link connecting said arm to said finger, a reciprocatable wedge, a second arm on said shaft engaging the wedging face of said wedge, and independently operated means engaging said second arm to disengage it from said wedging face when required.

4. In an artificial hand, the combination of a reciprocatable wedge mounted in the palm of the hand, a rocking lever, whereof one arm engages an inclined face of said wedge, a movable finger comprising two phalanges whereof the first is pivotally connected near one end to the palm of the hand and the second is pivotally mounted near the free end of the first, a link connected to a second arm of said rocking lever and to said first phalanx at a point eccentric from its pivotal axis, a cranked extension on said link shaped to cross the line connecting the two pivotal axes of the two phalanges when these phalanges are in line with one another, a second link connecting the end of said cranked portion to a point on the second phalanx, which point is eccentric from the pivotal axis of said second phalanx.

5. In an artificial hand the combination with a plurality of movable fingers of a reciprocatable wedge, a rocking member engaging an inclined face of said wedge and rocked by the reciprocation thereof, and an operative connection of different velocity ratio between said rocking member and each of said fingers.

[Claims 6 to 8 not printed in the Gazette.]

1,253,824. MACHINE FOR THE MANUFACTURE OF MULTIPLE LETTER-SHEETS OR CARDS. AMOS HOLMES and ARTHUR HAROLD HOLMES, Birmingham, England. Filed Nov. 5, 1917. Serial No. 200,472. (Cl. 270—58.)



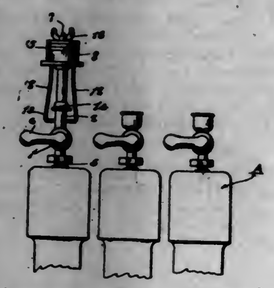
1. A machine for the manufacture of multiple letter sheets or cards, comprising a set of upper and lower feed tapes, front and rear lays operable in conjunction with said tapes, a gumming roller arranged to impart a thin layer of adhesive substance to the under edge of the upper sheet while passing through the upper feed tapes, pressure and feed rollers between which the sheets are directed by said tapes and which are adapted to exert pressure on said sheets, thereby evenly to distribute the adhesive substance and firmly secure the sheets together, a drum and perforator constituting coöperating elements, and located beyond said rollers to perforate the sheets near their upper edge along a line just below the gummed surface; and delivery rollers, arranged to guide and deliver the finished sheets from the machine, substantially as herein described.

2. In a machine for the manufacture of multiple letter sheets or cards, upper and lower sets of endless feed tapes, means for positively driving the lower tapes of each set, the upper tapes of each set being driven by frictional contact with their companion lower tapes, guide rollers for the upper tapes of each set located at the front end thereof, shafts upon which said guide rollers are mounted, movable supporting arms for said shafts, front lays also supported by said arms, means for operating said arms to raise and lower said rollers thereby to produce a succession of rising and falling movements of said rollers and the upper tapes of each

set throughout the operation of the machine, the said lays being raised into an operative position when the rollers are raised, and lowered into an inoperative position when the rollers are lowered, coöperating pressure and feed rollers in the rear of said tapes and between which the sheets are passed by the tapes, rear lays mounted between the tapes and said pressure and feed rollers, movable supporting means for the rear lays, and a link extending between said supporting means and one of said arms, whereby to effect the raising and lowering of the rear lays simultaneously with the raising and lowering of the front lays.

[Claims 3 and 4 not printed in the Gazette.]

1,253,825. ENGINE-INDICATOR. HARRY O. HOLT, Brooklyn, N. Y. Filed Dec. 15, 1916. Serial No. 137,262. (Cl. 116—31.)



1. In an internal combustion engine indicator, the combination with a sleeve having a combustion operated plunger therein, of a shoulder carried by the sleeve, and means associated with the plunger and normally lying spaced from the shoulder and adapted to engage the shoulder upon the movement of the plunger in one direction, so as to limit the movement of the plunger in the mentioned direction.

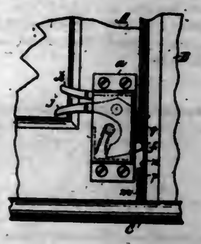
2. In an internal combustion engine indicator, the combination with a sleeve, a combustion operated plunger therein and a shoulder on the sleeve, of a pair of arms associated with the plunger, and means carried by the arms and normally lying in spaced relation with the shoulder and adapted to engage the shoulder upon movement of the plunger in one direction so as to limit the movement of the plunger in the mentioned direction.

3. An internal combustion engine indicator of the class described consisting of a sleeve adapted to be arranged in communication with the interior of an engine cylinder, a combustion oprated plunger mounted within the sleeve, a plurality of removable weights carried by the upper portion of said plunger, said weights adapted to engage the upper end of said sleeve for limiting the downward movement of said plunger, and means for limiting the upward movement of said plunger, as and for the purpose specified.

1,253,826. SASH-LOCK. DANIEL HOYT, East Orange, N. J., assignor of one-half to The National Lock Washer Company, Newark, N. J., a Corporation of New Jersey. Filed Aug. 15, 1912. Serial No. 715,312. (Cl. 16—18.)

1. In combination with a window frame, a sill, a sash provided with means for positively locking it in its closed position, and a spring acting through the locking means to continuously press said sash yieldingly upon said sill.

2. In combination with a window frame, a gravity sash freely slidable therein and constructed to rest by gravity in contact with the window sill, a metallic strip secured to the window frame and having a downwardly projecting hook-shaped member extending at right angles to the length of said strip, a sash lock secured to the sash and having a lever carrying an upward hook-shaped member, and a spring to force the hook and the lever outward and upward in engagement with the hook on the said strip to hold the sash down in contact with the window sill, said hook-shaped member continuously engaging said hook on the strip while the sash contacts the window sill.



3. The combination with a window frame and window sill, a gravity sash adapted to slide freely therein, a metallic strip secured to the window frame, said rack having a smooth unbroken plane face and a single socket near the lower end of the strip, said socket having an upper wall formed at right angles to the length of the rack, said top wall being undercut forming a downwardly inclined hook-shaped member, a sash lock secured to the sash comprising a case having an integral finger piece, a pivot post within the case, a cam lever pivoted on the post, said cam lever having a head adapted to engage the smooth portion of the rack and to act as a cam friction brake on the smooth portion of the rack during descent of the sash by gravity, a spring within the case to force the engaging portions of the cam lever into engagement with the unbroken plane face of the rack, the engaging portion of the cam lever and the pivot of the latter being so arranged that said engaging portion is held in strong frictional engagement with said face of the rack by the weight of the sash, and means formed on said cam lever to engage the upper wall of the socket in the rack whereby the action of the spring on said lever forces the sash downward on the window sill.

4. The combination with a window frame, a sash adapted to slide therein, metallic racks secured to the window frame at an acute angle to the plane of the sash and having sockets formed therein, said sockets having upper and lower walls formed at right-angles to the length of the rack and a back wall between the upper and lower walls of the sockets, said sockets being open at one end, said rack being further provided with a continuous guide surface the entire length of one edge and closing one end of each of the slots, a sash lock secured to each side of the sash, each lock comprising a case having an integral finger piece, a cam lever pivoted within each case, one portion projecting from the case forming a finger piece, another portion having an engaging head formed at an acute angle to the plane of the lever adapted to engage the face of the rack or back wall between the sockets, said head being provided with a locking tooth below the pivot adapted to engage the lower wall of the socket to lock the sash against falling, the case of each lock being further provided with a guide extending laterally from the case and along one edge thereof adapted to engage the guide surface of each rack by which means the sash is maintained central in the window frame, and preventing the lock case from catching on the sockets in the rack, and a spring within the case to actuate the cam lever.

5. In combination with a window frame, a sash adapted to slide therein, a metallic strip secured to the window frame and having a downwardly projecting hook-shaped member extending at right angles to the length of the strip, a sash lock secured to the sash having a lever carrying an upward hook-shaped member, and a spring to force the hook of the lever outward and upward in engagement with the hook on the strip, whereby the sash is held yieldingly down on the window sill.

1,253,827. PNEUMATIC TOOL. CHARLES A. HULTQUIST, Los Angeles, Cal. Filed July 3, 1916. Serial No. 107,361. (Cl. 121—20.)



1. A pneumatic tool comprising a barrel forming a cylinder, a piston in the barrel having an axial socket, a hammer on the piston having an axial duct and having a longitudinally extending groove in its periphery and having another duct connecting one end of said groove to the axial duct, the other end of said groove opening into the cylinder, means to admit compressed air alternatively in front and behind the piston, a tube projecting into the axial duct and a stud projecting into the socket so that the piston can move relative to the stud, said stud being connected to the socket-engaging end of the tube and having an axial duct communicating with the tube.

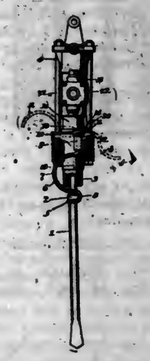
3. A pneumatic tool comprising a barrel forming a cylinder, a piston in the barrel having an axial socket, a hammer on the piston having an axial duct opening through its lower end and communicating with the interior of the cylinder, means to admit compressed air alternatively in front and behind the piston, a head connected to the barrel, a stud mounted in the head and projecting into the axial socket and provided with an axial duct, a nipple screw-threaded into the duct at the socket-engaging end of the stud, and a tube fastened to the nipple and extending into the axial duct of the hammer.

6. A pneumatic tool comprising a barrel forming a cylinder having air ports, a piston in said cylinder provided with an axial socket, a hammer on the piston, a head connected to the barrel and provided with a port, a stud mounted in the head and projecting into the axial socket of the piston and provided with an axial duct and provided with an enlarged portion, said axial duct communicating with said socket, a plate between said enlarged portion and the head, a nozzle fastened in said plate and projecting into the duct in the stud and communicating with the port in the head, and a water tube fastened to the socket-engaging end of the stud and communicating with the duct in the stud and projecting into the duct in the hammer.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,253,828. DRILL-STEEL-RETAINING DEVICE. CHARLES A. HULTQUIST, Los Angeles, Cal. Filed Mar. 26, 1917. Serial No. 157,350. (Cl. 121—20.)

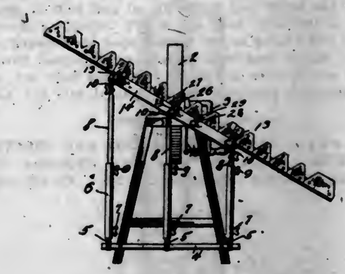
1. The combination with the barrel of a drilling machine, of a bracket supported by the barrel and provided with lugs having grooves in their inner faces, resilient arms pivoted in the lugs and adapted to engage the grooves to hold said arms parallel with the barrel, and an abutment connecting said arms to one another and



adapted to engage the abutment on a drill steel to retain said drill steel.

[Claims 2 to 6 not printed in the Gazette.]

1,253,829. SICKLE-GRINDER. THEODORE JACOBS, Mooreton, N. D. Filed Apr. 18, 1917. Serial No. 163,083. (Cl. 51—8.)



1. A blade support for grinding machines, comprising in combination a plurality of vertically adjustable standards adapted to be carried by a grinding wheel frame, a guide bar hinged to each of the standards, said bar being capable of being positioned in various angular positions transversely of the grinding wheel, and means for angularly adjusting the guide-bar toward and from the grinding wheel.

2. A blade support for grinding machines, comprising in combination a plurality of vertically adjustable standards adapted to be carried by a grinding wheel frame, a guide bar hinged to each of the standards, said bar being capable of being positioned in various angular positions transversely of the grinding wheel, a spring pressed device on the guide bar to position successive teeth opposite the grinding wheel; means for angularly adjusting the guide-bar toward and from the grinding wheel, and said guide-bar carrying spaced plates at its ends between which a blade may be clamped.

3. A blade support for grinding machines, comprising in combination a plurality of vertically adjustable standards adapted to be carried by a grinding wheel frame, a guide bar hinged to each of the standards, said bar being capable of being positioned in various angular positions transversely of the grinding wheel, and means for angularly adjusting the guide-bar toward and from the grinding wheel, and a resilient clamp device for securing the blade to set successive teeth in grinding position.

1,253,830. METHOD OF MANUFACTURING RADIO-ACTIVE MINERAL-WATER SALTS. JENS HENRIK HJALMAR JACOBSEN, Herlocv, Denmark. Filed May 8, 1915. Serial No. 26,765. (Cl. 167—9.)

1. The method of producing soluble radio-active medicinal salts, which comprises forming a solution of a radium salt and another salt which does not precipitate radium, and evaporating to dryness, said salts being free from water of crystallization.

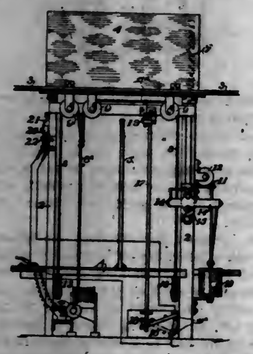
2. The method of producing permanent soluble radio-active medicinal salts of mineral waters, which comprises forming an aqueous solution of a radium salt and a salt of the mineral water that does not precipitate radium, evaporating to dryness, the resulting product being freed from water of crystallization, pulverizing the salt with the other salt constituents of the mineral water, and keeping the mixture dry.

1,253,831. COUPLING. WILLIAM A. JAMES, Bishopville, S. C. Filed July 18, 1917. Serial No. 181,504. (Cl. 21—189.)



In a device as set forth, a main supporting bar, supporting wheels swivelly carried at the ends of said bar, a second bar positioned forwardly of and held in spaced relation to the main body bar, a bolt extending through said bars and having an eye formed upon its forward end, a pair of chains connected to said second named bars, a plurality of eye bolts carried by said main body bar, and flexible members connected to the eyes of said eye bolts.

1,253,832. AUTOMATIC GUARD AND CIRCUIT-BREAKER. FREDERICK JIRA, San Francisco, Cal. Filed Aug. 28, 1916. Serial No. 117,208. (Cl. 187—58.)

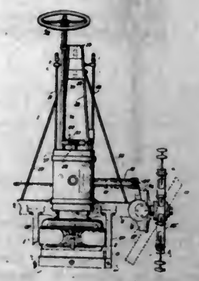


1. In a sidewalk elevator, a vertically guided platform, a gate for projection above the sidewalk having downward post extensions, a pulley adjacent each of the latter, cables attached at one end to the lower ends of the post extensions and passing upwardly over the pulleys, vertically guided weights attached at the opposite ends of the cables, and means for lifting the weights arranged thereabove and connected thereto for lifting vertically on the weights, said means having a part normally arranged in the path of travel of the platform to be engaged thereby for operating said lifting means.

2. In a sidewalk elevator, a platform, a vertically movable gate, spaced guide posts for the interposed gate, a pulley on each post, a cable passing about each pulley and connected at one end to the gate, a weight connected to the opposite end of each cable for normally holding the gate operative, a pair of superposed brackets on each post, guide rods connecting the superposed brackets for guiding the weights, a slide member slidably mounted on each guide post, a U-shaped bracket secured to each slide member in straddling relation to the post, one arm of the U-bracket being engageable by the platform for moving the slide member, means connecting the opposite arm to the adjacent weight for lifting the same on movement of the slide member to permit a lowering of the gate.

[Claims 3 and 4 not printed in the Gazette.]

1,253,833. TRACTOR. ALFRED C. JOHNSON, Detroit, Mich. Filed Feb. 10, 1917. Serial No. 147,787. (Cl. 21—114.)



1. A tractor comprising a hollow inverted U-shaped frame, a power plant centrally thereof, wheels at the ends of said frame, and means in said frame for transmitting power from said power plant to said wheels.

2. A tractor comprising an inverted U-shaped hollow frame, tractor wheels at the ends of said frame, a power plant intermediate the ends of said frame adapted to transmit power to said wheels, frames carried by said power plant, means supported by said frames adapted for steering said wheels, and means supported by said frames for controlling the operation of said power plant.

3. A tractor comprising a power plant, hollow arms projecting from the sides thereof, hollow legs depending from the ends of said arms, wheels at the lower ends of said legs, and means in said arms and said legs adapted to transmit power from said power plant to said wheels.

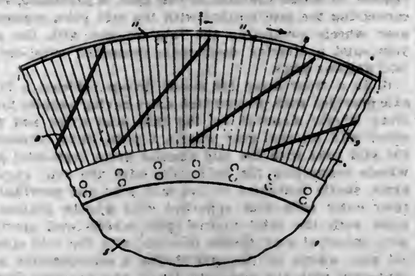
4. A tractor comprising a power plant, hollow arms projecting from the sides thereof, depending hollow legs carried by the outer ends of said arms, wheels at the lower ends of said legs, means on said legs adapted for steering said wheels, and means in said arms and said legs adapted for transmitting power from said power plant to said wheels.

5. The combination with a power plant, of hollow arms projecting from the sides thereof, depending hollow legs at the ends of said arms, housings at the lower ends of said legs, wheels at the outer sides of said housings, means extending through said arms, legs and housings adapted for imparting movement to said wheels from said power plant, and means on said legs adapted for turning said housings to steer said wheels.

[Claim 6 not printed in the Gazette.]

1,253,834. ELASTIC-FLUID TURBINE. OSCAR JUNGGREN, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Dec. 8, 1916. Serial No. 135,894. (Cl. 253—77.)

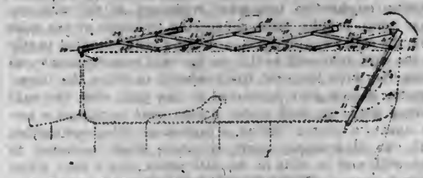
1. In an axial flow turbine, the combination of a shaft, a rotor thereon located in a plane at right angles to the shaft and having radially extending buckets thereon, a cover for the buckets, and diagonally extending stays extending across the edges of the buckets and fastened thereto, said stays dividing the buckets into groups and serving to prevent the groups from moving in the direction of rotation when under load, and also to prevent vibrations of the buckets.



3. In an axial flow turbine, the combination with a rotor having buckets thereon and provided with a bucket cover divided into sections, of diagonally extending stays extending across the edges of the buckets and fastened thereto, said stays overlapping each other at their ends and at least some of them extending from a point beneath one cover section to a point beneath the next one.

[Claims 2 and 4 not printed in the Gazette.]

1,253,835. VEHICLE-TOP. KIYATARO KANSAKA, Pasadena, Cal. Filed Nov. 4, 1916. Serial No. 129,526. (Cl. 21—62.)



1. In a vehicle top frame comprising a rear bow adapted for pivotal connection to a vehicle body, the combination of lazy-tong structures attached to said bow at each side and adapted to extend forwardly therefrom, with intermediate bows supported by extensions of the links of said structures; one link of each crossed pair of said structures being provided with a projecting pin to limit its movement in extension, the other links of said pairs having notches to permit said structures to be compactly collapsed by registering with said pins.

2. In a vehicle top frame comprising a rear bow adapted to be pivoted to a vehicle body, the combination of lazy-tong structures attached to said bow and adapted to extend forwardly therefrom, with intermediate bows supported by the links of said structures; said links being arranged in crossed pairs having projecting pins to limit their movement in extension and notches to permit said structures to be compactly collapsed by registering with said pins.

4. In a vehicle top frame comprising a rear bow and lazy-tong structures forwardly extensible therefrom, projecting pins attached to the links of said structures to limit their movement in extension, and notches formed in the coöperating links to permit said structures to be compactly collapsed by registering with said pins.

[Claim 3 not printed in the Gazette.]

1,253,836. DOUGH-CUTTER. SIDNEY C. KATZINGER, Chicago, Ill., assignor to Edward Katzinger Co., Chicago, Ill., a Corporation of Illinois. Filed June 18, 1915. Serial No. 34,771. (Cl. 107—51.)

1. A dough cutter comprising a tubular member having each of its ends of a different configuration than the other end and both ends being cutter ends; a cap adapted to fit both of said cutter ends, one at a time; and a cutter on the cap adapted to extend through the tubular member and coöperate with each of said cutter ends, one at a time.



2. A dough cutter comprising a tubular member with inwardly disposed circumferential beads struck up therein, one of its ends being a cutter end; an annular member corrugated longitudinally with one of its ends extending into said tubular member against one of said beads with its other end forming a cutter end; a cap adapted to fit on the tubular member and the corrugated annular member, one at a time; and a cutter on the cap adapted to extend through the tubular member and the annular corrugated member coöperating with said cutter ends, one at a time.

1,253,837. LINE-SHAFT LUBRICATOR. JOHN B. KEATING, Oakland, Cal. Filed July 19, 1916. Serial No. 110,084. (Cl. 64—56.)



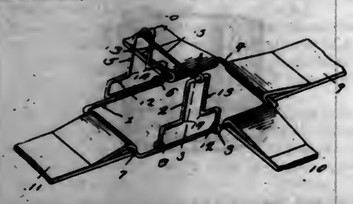
1. In combination with a shaft and its bearings of a screw feeding device extending parallel with the shaft and delivering a lubricant to the several bearings, said device including a tubular member and a stationary screw member, the tubular member having communication with the several bearings to be lubricated and means for rotating the tubular member about the stationary screw member to force the lubricant into the bearings.

5. The combination with a perforated hollow line shaft of bearing members surrounding the perforated parts of the shaft, and a member extending through the shaft having spiral shaped members formed thereon, adapted to coöperate with the shaft to force the lubricant through the shaft and the perforations formed therein to lubricate the bearings.

7. The combination with a hollow impeller shaft and bearings in a deep well centrifugal pump, of means for delivering a heavy lubricant to the upper end of the shaft, and a spiral-wound rope extending through the shaft adapted to coöperate with the same to force the lubricant down through the shaft and through perforations formed in the shaft which communicate with the bearings.

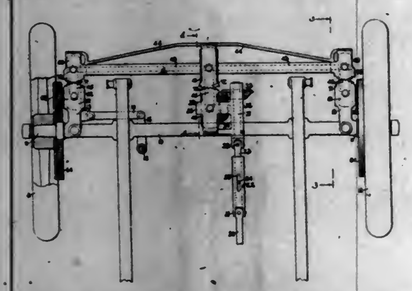
[Claims 2 to 4, 6, and 8 to 11 not printed in the Gazette.]

1,253,838. TRACE-CARRIER. WILLIAM P. KIRST, Newdale, Idaho. Filed Nov. 22, 1916. Serial No. 132,886. (Cl. 54—56.)



A trace carrier comprising a single piece of wire so bent as to form a rectangular base frame adapted to receive the ends of a back strap, of hip straps, and of a crupper strap, and a pair of loops rising vertically from the rectangular base frame and each consisting of a lower section and an upper section, the said upper section being less in width than the lower section, thus providing oppositely projecting angular shoulders over either of which the eye portion of a cockeye is passed in engaging the latter with one of the loops, substantially as described.

1,253,839. FRONT DRIVE FOR MOTOR-DRIVEN VEHICLES. MARTIN KIMBLE, Wayne, N. J. Filed June 5, 1917. Serial No. 173,130. (Cl. 180—43.)



1. In a front drive for motor driven vehicles, a front axle provided with pivoted stub axles having angular arms, front wheels journaled on the said stub axles, a steering mechanism connected with one of the said angular arms, a yoke, links connecting the ends of the yoke with the said angular arms, a driving gear mounted partly on the said yoke and partly on the said angular arms and connected with the said front wheels to drive the latter, and a motor driven gear connected at the yoke with the said driving gear.

3. In a front drive for motor driven vehicles, a front axle provided with pivoted stub axles having angular arms, front wheels journaled on the said stub axles, a steering mechanism connected with one of the said angular arms, a yoke, links connecting the ends of the yoke with the said angular arms, yoke gear wheels fixed on the said yoke, gear wheels fixed on the angular arms and in mesh with the said yoke gear wheels, a driving gear mounted partly on the said yoke and partly on the said angular arms and connected with the said front wheels to drive the latter, and a motor driven gear connected at the yoke with the said driving gear.

5. In a front drive for motor driven vehicles, a front axle provided with pivoted stub axles having angular arms, front wheels mounted on the said stub axles and provided with internal gear wheels, a yoke, links connecting the said yoke with the said angular arms, segmental gear wheels connecting the said yoke with the said angular arms, shafts journaled in the said yoke and provided at their outer ends with spherical gear wheels, pinions in mesh with the said internal gear wheels and provided with spherical gear wheels in mesh with the said spherical gear wheels on the said shafts, a compensating gear connected with the said yoke shafts, a motor driven gear in mesh with the said compensating gear, a bracket in which the said driven gear is journaled, links connecting the said bracket with the said yoke, segmental gear wheels connecting the said bracket with the said yoke, and a steering mechanism connected with one of said angular arms.

6. In a front drive for motor driven vehicles, a front axle provided with pivoted stub axles having angular arms, front wheels mounted on the said stub axles and provided with internal gear wheels, a yoke, links connecting the said yoke with the said angular arms, segmental gear wheels connecting the said yoke with the said angular arms, shafts journaled in the said yoke and provided at their outer ends with spherical gear wheels, pinions in mesh with the said internal gear wheels and provided with spherical gear wheels in mesh with the said spherical gear wheels on the said shafts, a compensating gear connected with the said yoke shafts and provided with a spherical master gear wheel, a beveled gear wheel provided with a spherical gear wheel in mesh with the said master gear wheel, a motor driven beveled gear wheel in mesh with the said first-named beveled gear wheel, a bracket in which the said beveled gear wheels are journaled, links connecting the said bracket with the said yoke, segmental gear wheels connecting the said bracket with the said yoke, and a steering mechanism connected with one of the said angular arms.

7. In a front drive for motor driven vehicles, a front axle provided with pivoted stub axles having angular arms, front wheels journaled on the said stub axles, a steering mechanism connected with one of the said angular arms, a yoke, links connecting the ends of the yoke with the said angular arms, a driving gear mounted partly on the said yoke and partly on the said angular arms and connected with the said front wheels to drive the latter, a motor driven gear connected at the yoke with the said driving gear, the said motor driven gear including a motor shaft, a sleeve having a universal joint connection with the said motor shaft, a sleeve shaft mounted to turn with and to slide in the said shaft, and a gear wheel shaft having a universal connection with the said sleeve shaft.

[Claims 2 and 4 not printed in the Gazette.]

1,253,840. PROCESS FOR THE ELIMINATION OF MANGANESE AND IRON FROM WATER. VALERIUS KOBELT, Berlin-Schöneberg, Germany. Filed Jan. 21, 1915. Serial No. 3,554. (Cl. 210—1.)

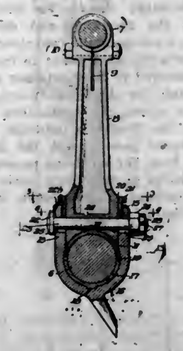
1. Process for the elimination of manganese and iron from water, which comprises adding a soluble permanganate to the water and filtering the water through a catalytic body of high porosity.

[Claims 2 to 9 not printed in the Gazette.]

1,253,841. CONNECTING-ROD. ALFRED KRIBO, Minneapolis, Minn., assignor to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed Mar. 26, 1917. Serial No. 157,542. (Cl. 74—17.)

2. In a structure of the class described, the combination with a crank shaft and a connecting rod provided with a half bearing at its crank-engaging end, of a U-shaped strap or saddle provided with a coöperating half bearing, a tightening nut having a screw-threaded connection with one of said parts and a thrust engagement with the other, and a clamp bolt passing through the crank-engaging end of said rod and the sides of said strap.

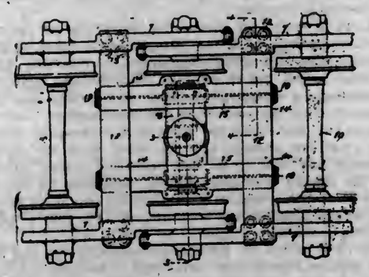
3. In a structure of the class described, the combination with a crank shaft, of a connecting rod provided with a half bearing at its crank-engaging end and with shoulder portions on opposite sides of said crank-engaging end, a U-shaped strap or saddle provided with a coöperating half bearing and internally threaded at the free end portions of its arms, an externally threaded tightening nut embracing the crank-engaging end of said rod and having a thrust bearing on said shoulder portions, said nut also having threaded engagement with the internally threaded free ends of said arms and means for maintaining said nut and arms in coöperative engagement.



6. In a structure of the class described, the combination with a crank shaft, of a connecting rod provided with a half bearing at its crank engaging end and with longitudinal guides on its opposite sides terminating in shoulder portions, a U-shaped strap or saddle provided with a coöperating half bearing, the parallel arms of said strap slidably engaging said guides and being internally threaded at their free ends, an externally threaded tightening nut embracing the crank-engaging end of said rod and having a thrust bearing on said shoulder portions, said nut also having threaded engagement with the internally threaded free ends of said arms, and a clamp bolt extending transversely through said arms and the crank-engaging end of said rod.

[Claims 1, 4, and 5 not printed in the Gazette.]

1,253,842. SIX-WHEEL-TRUCK CONSTRUCTION FOR RAILWAY-CARS. JACOB C. LARSEN and GEORGE T. JOHNSON, Columbus, Ohio, assignors to The Buckeye Steel Castings Company, Columbus, Ohio. Filed Oct. 12, 1917. Serial No. 196,165. (Cl. 105—244.)



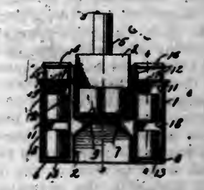
1. In a six wheel truck, the combination of auxiliary bolsters extending transversely of the truck, a longitudinal bolster at each side of the truck supported by the transverse bolsters, and a main center bolster separate from the longitudinal bolsters and supported at its ends by the latter.

2. In a six wheel truck, the combination of auxiliary bolsters extending transversely of the truck, a longitudinal bolster at each side and supported by the auxiliary bolsters, the said longitudinal bolsters providing supports for the side bearings, and a main center bolster separate from the longitudinal bolsters and supported by the latter.

3. In a six wheel truck, the combination of auxiliary bolsters extending transversely of the truck, a longitudinal bolster at each side of the truck and supported by the auxiliary bolster, and a main bolster carried by the longitudinal bolsters and provided with lugs which engage the latter for holding the main bolster in place.

[Claims 4 to 8 not printed in the Gazette.]

1,253,843. CANNING APPARATUS. MARCUS M. LOCKARD, Meridian, Miss. Filed Aug. 20, 1917. Serial No. 187,215. (Cl. 126—346.)

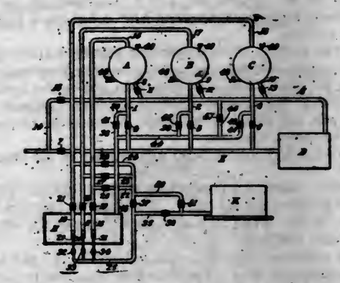


2. A canning apparatus, comprising in combination, a vat having a central fire box, said fire box subdividing the vat into compartments, a secondary vat mounted within the main vat and having a heating surface overlying the fire box, a scalding basket mounted in the secondary vat, frames removably suspended in the compartments of the main vat, and cover plates for the compartments, said cover plates being carried by the frames as integral parts thereof and overlying the edges of the compartments to suspend the frames thereby.

4. A canning apparatus, comprising in combination, a vat having a central fire-box, said fire box subdividing the vat into compartments, frames removably suspended in the compartments and cover plates for the latter, said cover plates being carried by the frames and closing the compartments when the frames are suspended therein.

[Claims 1 and 3 not printed in the Gazette.]

1,253,844. PROCESS AND APPARATUS FOR IMPREGNATING WOOD AND OTHER POROUS MATERIALS WITH PRESERVATIVE LIQUID. HENRY S. LOUD, New York, N. Y. Filed Feb. 9, 1916. Serial No. 77,887. (Cl. 99—12.)



1. The method of impregnating wood with a liquid preservative, consisting in arranging the articles in groups in a three-fold cycle, then drenching the first group with the preservative under subatmospheric or atmospheric pressure and continuing the drenching under superatmospheric pressure, then to submergence in the preservative under increasing hydraulic pressure only, and then to atmospheric or subatmospheric pressure only, the submerging action of the preservative causing superatmospheric pressure upon the articles in the second group, and the withdrawal of the submerging liquid from the first group causing the submergence of the second group and consequent superatmospheric pressure upon the third group, the performance of each operation upon the third

group causing successively prior operations upon a new first group.

2. The method of impregnating wood with a liquid preservative under atmospheric, superatmospheric, and hydraulic pressures, successively, which consists in subjecting the articles to such treatment in a three-fold cycle, the coincident operations in the several cycles being different, the completion of the operation in each cycle initiating, and carrying through, a like operation in the succeeding cycle.

8. The method of impregnating railway ties with a preservative liquid, consisting in arranging them in a three-fold cycle of retorts, then drenching those in the first retort of the cycle with the preservative, then continuing the drenching and subjecting them to progressively increasing air pressure without submergence, meanwhile drenching those in the second retort with the preservative, then submerging the contents of the first retort in the preservative, and substituting progressively increasing hydraulic pressure of the preservative for the air pressure, and meanwhile transferring the air from the first to the second retort to carry on the drenching operation, meanwhile drenching the contents of the third retort with the preservative, then transferring the preservative submerging the contents of the first retort to submerge those of the second retort, and reducing the pressure upon the contents of the first retort to or below atmospheric by withdrawing the excess preservative therefrom and transferring to the second retort and thereby forcing the air from the second retort to the third to continue the drenching operation on the contents of the third retort, then substituting untreated ties for the treated ones in the first retort, then drenching them with the preservative, then in like manner transferring the compressed air from the third retort in the cycle to it, and continuing the same series of steps as before, substituting untreated ties for the treated ones.

13. In combination, a cycle of three similar retorts, valve-controlled conduits interconnecting said retorts and permitting the discharge of the fluid contents of each into the next one of the cycle, a source of oil supply, an oil pump connected therewith and also with each of said retorts, valve-controlled connections between said oil supply and each of said retorts and adapted to deliver into the selected retort oil for the initial drenching and for final submergence of the contents, and for draining the oil contents from the retort and producing a vacuum therein, an air compressor, and a manifold oil container operatively interposed between said compressor and each of said retorts.

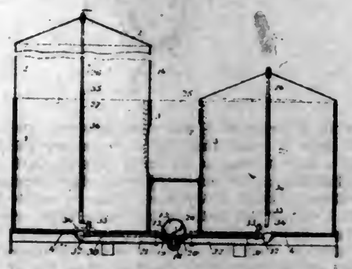
14. The method of impregnating porous materials with a liquid which consists in carrying out the treatment upon similar groups of the materials in a three-fold cycle and transferring the unused fluids and stored energy operating upon one group to the next in the cycle to perform a like operation thereon.

[Claims 9 to 7 and 9 to 12 not printed in the Gazette.]

1,253,845. APPARATUS FOR PREVENTING PULSATIONS IN GAS-MAINS. CHARLES H. LUCKE, New York, N. Y. Filed Oct. 28, 1911. Serial No. 657,307. (Cl. 48—176.)

1. In a device for preventing pulsations in gas mains, the combination of a plurality of independently movable gas receiving and delivering containers, a receiving passage through which gas is supplied from the gas main to the containers, a discharge passage through which gas is discharged from the containers for consumption, a single valve between the receiving passage and the discharge passage and movable for connecting the containers alternately with the receiving passage and the discharge passage and for cutting the containers off from the receiving passage when connected with the discharge passage, said valve being formed to prevent direct communication between the receiving passage and the discharge passage, and means controlled by the last of the closing movement of the containers for operating the valve.

2. In a device for preventing pulsations in gas mains, the combination of a plurality of of independently movable gas receiving and delivering containers, a receiving passage through which gas is supplied from the gas main to the containers, a discharge passage through which gas is discharged from the containers for consumption, passages for connecting the containers with the receiving and discharge passages, a single valve between the receiving passage and the discharge passage for controlling the connection between the receiving and discharge passages and the passages leading to the containers, and means for automatically operating said valve to cause the receiving passage to be connected to one container while gas is being discharged through the discharge passage from another container and to cause the containers to be connected alternately with the discharge passage so as to give a continuous supply of gas through the discharge passage and to be cut off from the receiving passage when connected with the discharge passage, said valve being formed to prevent direct communication between the receiving passage and the discharge passage.



3. In a device for preventing pulsations in gas mains, the combination of two independently movable gas receiving and delivering containers, a receiving passage through which gas is supplied from the gas main to the containers, a discharge passage through which gas is discharged from the containers for consumption, a single valve interposed between the receiving passage and the discharge passage and movable for connecting the containers alternately one with the receiving passage and the other with the discharge passage and vice versa, said valve being formed to prevent direct communication between the receiving passage and the discharge passage, and means controlled by the last of the closing movement of the containers for operating said valve.

4. In a device for preventing pulsations in gas mains, the combination with two independently movable gas receiving and delivering containers, a receiving passage through which gas is supplied from the gas main to the containers, a discharge passage from which gas is discharged from the containers for consumption, controlling means for connecting the containers alternately one with the receiving passage and the other with the discharge passage and vice versa, and operating means controlled by the closing movement of the containers for operating said controlling means, said controlling means and said operating means being mounted wholly within gas-containing space of the apparatus.

5. In a device for preventing pulsations in gas mains, the combination of two independently movable gas receiving and delivering containers, a receiving passage through which gas is supplied from the gas main to the containers, a discharge passage through which gas is discharged from the containers for consumption, connecting passages between the containers and the receiving and discharge passages, a valve interposed between the receiving passage and the discharge passage for connecting the containers through the connecting passages alternately one with the receiving passage and the other with the discharge passage and vice versa, and valve operating means mounted within said connecting passages controlled by the closing movement of the containers.

[Claims 6 to 8 not printed in the Gazette.]

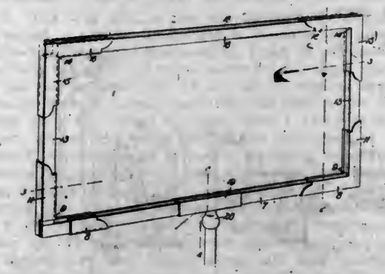
1,253,846. COMBINATION-CASE FOR FLASH-LIGHTS. ANKER S. LYHNE, Bridgeport, Conn. Filed Oct. 19, 1915. Serial No. 56,737. (Cl. 240—8.5.)



3. An improved flashlight comprising a tubular body closed at one end, an extension member having one end detachably engaging the other end of said body, whereby extension members of different lengths may be interchangeably employed, a retaining ring removably engaging the free end of the extension member, one or more batteries within the body and the extension member, the number of batteries being variable in accordance with the length of the extension member, a lamp maintained in circuit with the batteries by said retaining ring, and a circuit closer carried by said body.

[Claims 1 and 2 not printed in the Gazette.]

1,253,847. FRAME. JOSEPH LYNCH, Dumont, N. J., assignor to Lynch Brennan Inc., New York, N. Y., a Corporation of New York. Filed Jan. 22, 1917. Serial No. 143,608. (Cl. 40—146.)

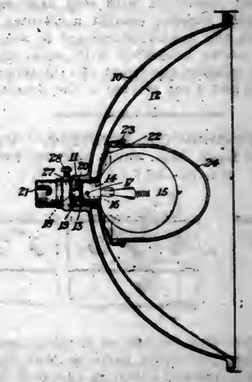


1. A frame of the class described comprising channel-shaped corner members having one arm thereof open longitudinally at the bottom, said corners having infolded side portions at the longitudinal edges of the arms, and channel-shaped members having a driving fit with the arms of the corners and adapted to be engaged with their sides between the sides and the infolded portion of the corners of the arms, whereby the open arm of the corner is reinforced.

2. A frame of the class described comprising a channeled bottom member, channeled side members, channeled corners binding the side members to the bottom members, said corners presenting inwardly folded side portions for engaging the sides of the channeled bottom and side members, a pair of flat bars forming the top member of the frame, and corners binding the side members to the bars, said corners having inwardly folded side portions at the inner and outer edges for engaging each bar, substantially as and for the purpose set forth.

[Claim 3 not printed in the Gazette.]

1,253,848. VEHICLE-LAMP. CHARLES MCKENVER, Jersey City, N. J. Filed Feb. 12, 1917. Serial No. 148,044. (Cl. 240—40.6.)



1. In a vehicle lamp a case, a sleeve removably mounted in said case and having sockets at both ends thereof, a socket for a cup member associated with the inner end of the sleeve and adapted to prevent the outward movement thereof, and means associated with the sleeve exteriorly of the case for normally preventing the inward movement of the sleeve.

3. In a vehicle lamp, a case, a sleeve mounted axially in the said case and provided with sockets at the ends thereof, an electric light bulb, the base of which is receivable in the socket at the inner end of the sleeve, a cup member surrounding the said light bulb, means associated with the sleeve for securing the cup member in position, and means for securing the sleeve in position relatively to the case.

4. In a vehicle lamp, a case, a sleeve passing through a bore provided axially in the case and fitted within the case with a cup base, an electric lamp bulb, the base of which is fitted into the sleeve at the inner end thereof within the case, a cup surrounding the light bulb and adapted to be received and held in place in the said cup base, and means for securing the said sleeve and cup base in position relatively to the said case.

[Claims 2 and 5 not printed in the Gazette.]

1,253,849. COMPASS COMPENSATING DEVICE. ALFRED D'A. MCNEVIN, Detroit, Mich. Filed Jan. 11, 1917. Serial No. 141,733. (Cl. 33—225.)

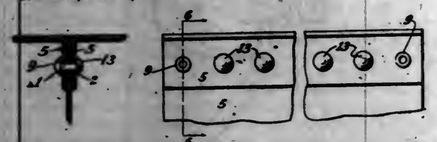


2. In a device of the character described, the combination with a base member designed to be secured in a fixed position; a tube member; one or more magnets connected with said tube member; means for holding said magnets against movement in relation to said tube member; means for rotatably mounting said tube member on said base member about an axis transverse to said member; and means for locking said tube member against movement.

5. In a device of the character described, the combination with a recessed base member; of a tube member having a head thereon projecting into the recess in said base member; means, connected with said base member, for holding said tube member against accidental disengagement therefrom and against movement in any of its positions; and means connected with said tube member for preventing relative movement of said magnets.

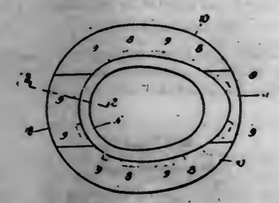
[Claims 1, 3, and 4 not printed in the Gazette.]

1,253,850. METHOD OF RIVETING. WILLIAM J. MACKLE, St. Louis, Mo. Filed Apr. 21, 1917. Serial No. 163,625. (Cl. 78—46.)



The herein-described method of riveting, consisting in bringing together perforated parts so that the perforations therein will register; then in one such perforation inserting a hollow rivet flanged at one end; then inserting at the unflanged end of such rivet a swaging instrument and passing the same through the said hollow rivet; then applying an anvil to the said flange; then upsetting the unflanged edge of the said hollow rivet by advancing the said swaging instrument and completing the swaging thereof by blows upon the said swaging instrument; then repeating the said operations with another hollow rivet in another such perforation or with a plurality of such rivets in suitable positions; then reaming the other perforations in the said parts to be attached; then inserting an ordinary or solid rivet in each of the said other perforations and upsetting the small end thereof in the usual way; then reaming each perforation containing a hollow rivet, the said reaming being done to a size larger than the said hollow rivet; and then inserting an ordinary or solid rivet in each of the said last-mentioned perforations and upsetting the small end thereof in the usual way.

1,253,851. TOILET-SEAT. WALTER R. MAGUIRE, Dorchester, Mass. Filed Dec. 28, 1916. Serial No. 139,304. (Cl. 4—18.)

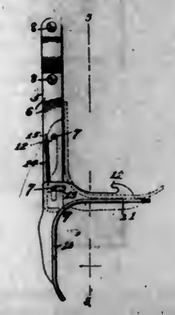


A toilet seat comprising a frame, and a sheet metal ring having upper and lower walls extending outward from a continuous inner edge, the outer portions of said walls terminating in tongues received by rabbets of said frame.

1,253,852. HANGER. VERNON HENRY MANKEY, Aberdeen, S. D. Filed Sept. 13, 1916. Serial No. 119,836. (Cl. 211—14.)

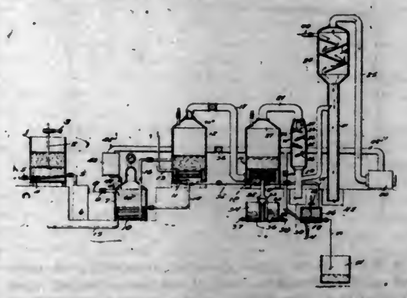
1. A hanger, comprising a plate, an element operatively connected therewith having an arm, means controlled by the weight of an article on said arm for holding said element in operative position, and a spring for rendering said element inoperative when said arm is relieved of the weights of said article.

2. A hanger comprising a body member, an article supporting member mounted to swing on the body member, interengaging locking means on the body and supporting members, said locking means being automatically brought into engagement when the supporting member is swung to holding position and held in said position by the weight of the article thereon, and means for swinging the supporting member into inoperative position upon the removal of the article therefrom.



3. A hanger, comprising a plate, an upper and a lower stud thereon, a bell-crank provided with a slot for the reception of one of said studs and with a hook adapted to engage the other of said studs by the weight of an article on said bell-crank, and a spring for disengaging said hook from its stud when said bell-crank is relieved of the weight of said article.

1,253,853. PROCESS OF TREATING BY-PRODUCT LIQUORS FROM WOOD SULFITE PLANTS. CHARLES MARCHAND, Portland, Oreg.; Marie L. Marchand, administratrix of said Charles Marchand, deceased, assignor to The Marchand Process Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 26, 1915, Serial No. 63,602. Renewed Nov. 19, 1917. Serial No. 202,886. (Cl. 252.)



1. The process of treating by-product liquors from wood-sulfite plants consisting in maintaining such liquors in a tank, treating such liquors with sulfuric acid to convert the sulfites into sulfates and precipitate the lime, discharging a predetermined quantity of the treated liquor into a preliminary heater and charge measurer, maintaining the liquor in such preliminary heater at a temperature under boiling, discharging the liquor from the preliminary heater into an evaporator, evaporating the liquor in such evaporator under vacuum to remove a portion of the sulfur dioxid, discharging the partially evaporated liquor into a subsequent evaporator, maintaining the liquor in such subsequent evaporator at a lower temperature and higher vacuum, evaporating the sulfur dioxid in such subsequent evaporator until the greater portion of the sulfur dioxid is vaporized, passing the vapor from such evaporators through a reagent to produce a sulfite, discharging the liquor from the final evaporator into a tank, treating the liquor in such last-mentioned tank with an oxidising agent to produce sulfuric acid, running the liquor carrying such sulfuric acid into a tank, and fermenting such liquor.

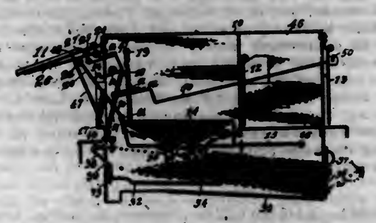
[Claims 2 and 3 not printed in the Gazette.]

1,253,854. PROCESS OF TREATING LIQUORS FROM WOOD-PULP SULFITE PLANTS. CHARLES MARCHAND, Kimberly, Wis.; Marie L. Marchand, administratrix of said Charles Marchand, deceased, assignor to The Marchand Process Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 14, 1916, Serial No. 114,838. Renewed Nov. 19, 1917. Serial No. 202,887. (Cl. 252.)

2. The process of detoxicating liquors from wood-pulp sulfite plants and recovering the valuable by-products therefrom consisting in converting the sulfites to their corresponding chlorids and sulfur dioxid, expelling the sulfur dioxid, fermenting the residue, distilling off the alcohol from such fermentation, evaporating the liquid from the residuary mash, burning the solid residue, and recovering the chlorids by repeated crystallizing.

[Claims 1 and 3 to 5 not printed in the Gazette.]

1,253,855. AUTOMATIC TRAP-NEST. HENRY J. MARKIEL, Westfield, N. Y. Filed Oct. 28, 1916. Serial No. 128,323. (Cl. 119—47.)



2. In a trap nest, a nest box having inlet and outlet openings, a pair of independently movable and normally opened doors for the inlet opening, a pair of independently movable and normally closed doors for the outlet opening, a movably mounted nest in the box having an egg discharge opening, means connecting the nest to one of the inlet doors for closing the same when a hen gets on the nest, means releasably holding the nest-operated door closed, means operable by one of the outlet doors for releasing the nest-operated door, and means operable by an egg passing through the nest opening for closing the second inlet door and opening the second outlet door.

6. A trap nest for poultry comprising a nest having a door opening, a spring supported nest in said nest box, a U-shaped wire door hinged above said door opening, a supporting wire for said U-shaped wire door link connected to said nest, and a spring latch for holding said supporting wire in the lowered position whereby said U-shaped wire door may swing across said door opening when the hen is on the nest to prevent other fowls from entering, said U-shaped wire door being released as she raises the same in passing out of said door opening.

9. In a trap nest, a nest box having an inlet and an outlet, a movably supported nest in the box, means tending to return the nest to normal position when moved therefrom, normally opened closure means for the inlet, means under the control of the nest for holding the closure means opened when the nest is normally disposed and permitting the closure means to become operating when the nest is abnormally arranged, a latch for holding the third means inoperative, egg-operated means for rendering the inlet closure operative, and hen-operated means for rendering the latch inoperative.

14. In a trap nest, a nest box having an inlet and an outlet, an inlet closure, an outlet closure, means for simultaneously closing one closure and opening the other, a movable nest in the box, means for holding the inlet closure opened when the nest is normally disposed, means for maintaining the inlet closure opened when the nest is abnormally disposed, egg-operated means for rendering the last means inoperative to permit the operation of said first means, and hen-operated means for resetting the parts for another hen.

[Claims 1, 3 to 5, 7, 8, and 10 to 13 not printed in the Gazette.]

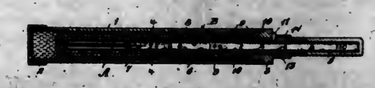
1,253,856. TIRE-INFLATER. MELVON A. MARQUETTE, San Francisco, Cal. Filed Sept. 3, 1913. Serial No. 787,990. (Cl. 152—11.)



1. In a device of the kind described, a pneumatic tire mounted upon a wheel and a fluid receptacle attached to said wheel, in combination with a conduit connected to said tire and extending to said receptacle, and mechanism mounted upon said receptacle comprising a normally closed valve positioned within said receptacle and controlling an outlet thereof and mechanism connected to said conduit and detachable from said valve adapted to open the valve only when the pressure in the tire falls below a certain predetermined point.

[Claims 2 and 3 not printed in the Gazette.]

1,253,857. FORMALDEHYDE THERMOMETER-HOLDER. LEON MARTOCCI-PISCULLI, New York, N. Y. Filed June 25, 1917. Serial No. 176,710. (Cl. 73—52.)



2. A thermometer holder comprising a tubular body, a fixed tubular member in the body and having valve ports, an absorbent between the tubular member and wall of the body for holding a liquid germicide, and an inner tubular member movable in the first-mentioned tubular member and having valve ports adapted to move into and out of register with the first-mentioned valve ports.

3. A thermometer holder comprising a tubular body, a fixed tubular member in the body and having valve ports, an absorbent between the tubular member and wall of the body for holding a liquid germicide, an inner tubular member movable in the first-mentioned tubular member and having valve ports adapted to move into and out of register with the first-mentioned valve ports, and means for limiting the relative movement of the tubular members.
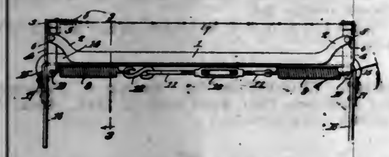
4. A thermometer holder comprising a body open at one end to receive a germicide, a closure for the said open end, a fixed tube in the body having valve ports, an absorbent material surrounding the said fixed tube for holding liquid germicide, a second tube having a snug sliding fit in the first-mentioned tube and provided with ports adapted to be moved into and out of register with the first-mentioned ports, means on the body having a bayonet slot, a pin on the inner tube engaging the slot for limiting the relative movement of the tubes and permitting the inner tube to be removed, and a cap applied to the inner tube to protect the projecting end of the thermometer when placed in the inner tube.

[Claim 1 not printed in the Gazette.]

1,253,858. BED-SPRING. ARTHUR R. MASTERS, Beatrice, Nebr. Filed Mar. 26, 1917. Serial No. 157,510. (Cl. 5—67.)

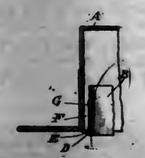
1. A bed spring construction embodying rails having rounded ends, yokes having downwardly extending levers

pivoted between their ends to the rails near the ends thereof, said levers having portions bearing against the rounded ends of the rails to have a rolling action thereagainst, and spring means connecting the levers below said rounded ends of the rails for separating the yokes.



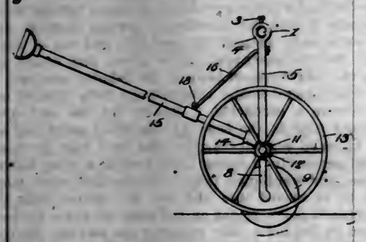
2. A bed spring construction embodying rails having upwardly extending brackets at their ends provided with rounded ends, yokes having downwardly extending levers at their ends, each lever having a flange pivoted to the end portion of the corresponding bracket and another flange bearing against the rounded end of the bracket to have a rolling action thereagainst, the lower ends of the levers being offset inwardly from the rails, and spring means connecting the lower ends of the levers for pulling them toward one another to separate the yokes.

1,253,859. AIR-CUSHION SWEAT-BAND. HARRY MAERTZ, Baltimore, Md., assignor to Brigham-Hopkins Co., a Corporation of Maryland. Filed June 2, 1917. Serial No. 172,406. (Cl. 2—32.)



A sweat band for hats having its integral lower marginal edge outwardly flaring and stitched to the crown of the hat, and a strip of adhesive material of considerable width attached to the outer face of the band, and having its lower edge adjacent to the flaring portion of the band.

1,253,860. DISK GARDEN-PLOW. JACOB E. MILLER and THOMAS J. FOX, Coon Rapids, Iowa; said Miller assignor to said Fox. Filed Sept. 10, 1917. Serial No. 190,562. (Cl. 97—42.)



2. A hand implement comprising a transverse crown bar, a paid of L-shaped members secured at their upper ends to the ends of said crown bar, the horizontal arms of said members extending inwardly toward each other and having vertical openings spaced longitudinally thereof, improvement shanks secured in said openings for vertical adjustment and for turning movement, a wheel on each of said members, and a pair of handles extending rearwardly from said members.

[Claim 1 not printed in the Gazette.]

1,253,861. ATTACHMENT FOR TELEPHONES. VOLNEY T. MILLER, Hutchinson, Kans., assignor of one-half to Roy B. Cochran, Hutchinson, Kans. Filed Apr. 18, 1917. Serial No. 162,806. (Cl. 179—187.)

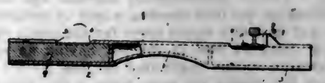


1. An attachment of the character specified comprising in combination with a transmitter and a mouth piece having threaded engagement therewith, of a disk fitting the face of the transmitter and having an opening for receiving the mouth piece, said disk having struck up lugs at its inner edge, and the mouth piece having notches for engagement by the lugs to prevent reverse movement of the mouth piece, the disk having an extension provided with a notch for receiving the name plate on the transmitter to prevent turning movement of the disk, and means on the extension for permitting the same to be released.

2. In combination with a telephone transmitter and the mouth piece thereof, means for locking the mouth piece from reverse movement said means comprising a disk having a central opening for the mouth piece and having resilient tongues, the mouth piece having notches for engagement by the tongues to prevent reverse movement thereof, and the disk having a recess for receiving the name plate to prevent turning movement of the disk.

3. In combination with a telephone transmitter and the mouthpiece therefor, means for locking the mouthpiece from reverse movement, said means comprising a disk having an opening for the mouthpiece, said mouthpiece and disk having interengaging means for preventing reverse movement, and the disk having means for engaging the name plate on the transmitter to prevent reverse movement of the disk.

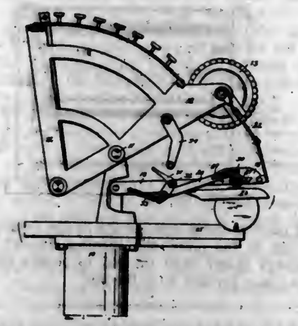
1,253,862. RAILWAY-TIE. NEWTON E. MINER, Grand Rapids, Mich. Filed Mar. 23, 1917. Serial No. 156,957. (Cl. 238—5.)



1. A tie including a metallic body portion having casings formed at the extremities thereof with the inner ends of the casings closed, wooden cushion blocks mounted in said casings to have the rails of a track supported thereon and spiked on their inner sides thereto, the abutment of said cushion blocks with the inner ends of the casings holding the rails against inward displacement, and sliding brace blocks movably mounted on fixed and rigid portions of the metallic body to be received by and bear against the outer sides of the rails and to thus secure and brace the rails against spreading movement.

2. A metallic tie comprising a body portion having casings formed at its ends and having the inner ends of said casings closed, said body portion having portions of the structure notched out to provide openings into the casings at the top thereof, wooden cushion blocks shaped to be received and fitted snugly in the casings to bear against the closed ends thereof and to have portions exposed through the notched openings, said cushion blocks being thus exposed to have the rails fitted and spiked thereon and the abutment of the blocks against the closed ends of the casings acting to hold the rails against inward displacement, bracket portions provided on the body of the tie on the outer sides of the notched openings, and brace blocks provided with grooves to receive the bracket portions slidably mounted thereon to be received and bear against the outer sides of the rails and to thus secure and brace the rails against spreading movement.

1,253,863. LAUNDRY-MARKING MACHINE. CLARENCE C. MITCHELL, Cincinnati, Ohio. Filed Apr. 21, 1916. Serial No. 92,682. (Cl. 101—95.)

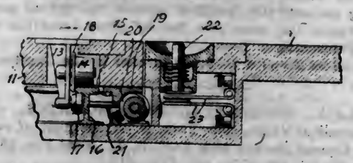


1. In a machine of the class described, the combination of a platen, type capable of movement relative to the platen, a centering plate having an elongated opening with regularly alined sides through which characters on an article may be viewed by the operator, whereby a loose article may be placed on the platen in position to exactly determine where type will strike on the article during a printing operation, and for thereby determining where a plurality of characters will be printed on the article to be printed, and means for automatically moving the centering plate away from the platen just prior to the printing operation of the machine.

5. In a machine of the class described, the combination of a platen, a type bearing head capable of movement toward and from the platen, a guard device supported adjacent to the platen and having an opening therein through which the platen may pass, a centering plate having a series of openings therein of such size and arrangement that the individual characters of a mark on a laundry article may all be viewed by the operator, arms connected to said plate, shafts on which said arms are fixed, a pinion on one of said shafts, a rack bar in mesh with the pinion, a bell crank lever connected to said rack bar, a spring attached to one end of said lever, and an arm connected to the movable type bearing head and designed to engage said bell crank lever, arranged and combined substantially in the manner set forth and for the purposes stated.

[Claims 2 to 4 not printed in the Gazette.]

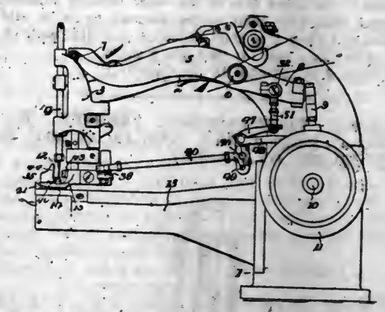
1,253,864. AUTOMOBILE TURN-TABLE. TAKAJI MIURA, Los Angeles, Cal. Filed July 24, 1917. Serial No. 182,431. (Cl. 104—212.)



1. In an automobile turn-table, the combination with a revoluble platform supported at the edge thereof, of a circular rack upon the edge of the platform, a motor positioned without and adjacent to the edge of the platform, gearing connecting the motor and circular rack, and lying without the platform, and a push-button control for the motor mounted in the floor at one side of and adjacent to the platform.

2. In an automobile turn-table, the combination with a revoluble platform mounted to be flush with the floor, of a driving motor connected thereto and mounted beneath the floor, and a push button control for the motor mounted in the floor at one side of the platform and adjacent thereto.

1,253,865. TRIMMING MECHANISM FOR SEWING-MACHINES. JAMES R. MOFFATT, Chicago, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 5, 1914. Serial No. 816,783. (Cl. 112—6.)



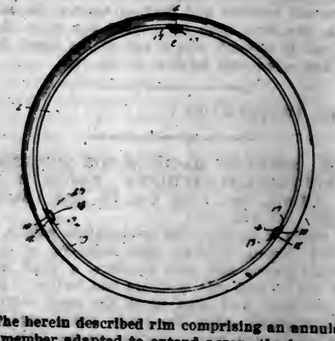
1. A sewing machine including in combination, a presser foot having a recess in its upper face forming a central boss provided with a needle opening, a trimming blade, means for holding the blade in said recess, said presser foot having a slot in its forward end extending to said boss, a movable trimming blade coöperating with the blade carried by the presser foot, said presser foot having means for supporting the movable blade, whereby the same may be adjusted vertically, and a deflector carried by the presser foot and extending across said guiding slot for deflecting the trimmed off strip.

4. A sewing machine including in combination, a presser foot having an extension, a trimming mechanism including a trimming blade moving in a substantially horizontal plane, a vertically adjustable arm fixed on said extension, a lever carried by said arm and supporting said movable blade, and means for oscillating said lever.

8. A sewing machine including in combination, a presser foot, a stationary trimming member carried thereby, said presser foot having a recess formed therein for a trimming blade moving in a horizontal plane, an arm carried by the presser foot and bearing on said movable blade adjacent the trimming line for holding said blade in proper coöperation with the stationary trimming member.

[Claims 2, 3, 5 to 7, and 9 not printed in the Gazette.]

1,253,866. WHEEL-RIM. JAMES E. MONTGOMERY, Lancaster, Ky., assignor of one-third to William Jennings, Lancaster, Ky. Filed Apr. 24, 1917. Serial No. 164,220. (Cl. 152—21.)

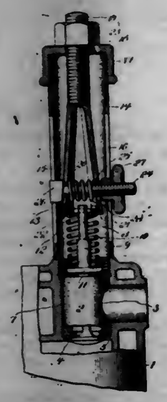


1. The herein described rim comprising an annular sheet metal member adapted to extend across the base of a tire casing, a radial flange at one edge of said member, a second sheet metal annular member of equal width with but slightly smaller than the first and adapted to fit telescopically into the same, a radial flange at one edge of the sec-

ond member adapted to abut against the free edge of the first, the inner member having at appropriate points transverse recesses extending from its free edge inward, a catch on the inner face of this member opposite the inner end of each recess, and latches secured at corresponding points to the inner face of the outer member adjacent its flanged edge with their bodies adapted to lie in said recesses and their free ends deflected into lips, each of the latter having a slot for engaging a catch.

[Claim 2 not printed in the Gazette.]

1,253,867. VALVE-ASSEMBLY REMOVER. RAY C. MURRAY, Marquette, Mich. Filed Apr. 11, 1917. Serial No. 161,255. (Cl. 29—87.1.)

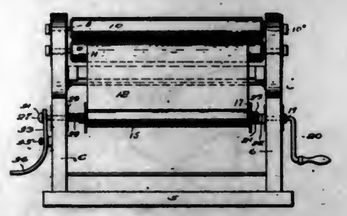


The herein described valve assembly remover comprising a tubular standard arranged to fit at its lower end on a cylinder head and around a valve cage, said standard having vertical slots in opposite sides; a cap screwed on the upper end of the standard and having an unthreaded central opening, a jack screw extending through said opening of the cap and having jaws at its lower end, said jaws being provided on their inner sides with flanges to bear under a cupped cap, a bolt extending through said jaws and having a non-circular head at one end bearing against the outer side of one of the jaws and arranged for movement in one of the slots of the standard, a nut on said bolt bearing against the other jaw and having a circular portion arranged in the other slot of the standard, a spring on the bolt and arranged between and bearing against the jaws to disengage the jaws from the cupped cap when the nut on the bolt is screwed, and a nut on the upper portion of the jack screw and bearing on the cap.

1,253,868. [WITHDRAWN.]

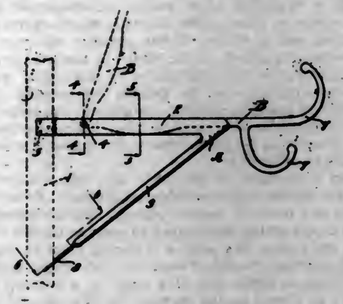
1,253,869. REINKING-MACHINE FOR THE RIBBONS OF MULTIGRAPH-MACHINES. SAMUEL H. NUCKOLLS, Atlanta, Ga. Filed Aug. 15, 1917. Serial No. 186,348. (Cl. 242—68.)

In a reinking machine the combination with a frame comprising spaced, vertical, side members, of a spool extending between said side members, a shaft slidable through one of said side members and having a part to engage the spool and upon which the spool rotates, an element adjustable upon the shaft which engages the spool to tension the same, a spring bearing between said element and the side member of the frame through which the shaft slides, a head upon the shaft outwardly of the frame, a pin outstanding from the side member of the frame below said shaft, a lever made of a flat strip of metal having an opening therethrough for the passage of the pin, a forked upper end which engages behind the head of the shaft and an outwardly curved lower hand



engaging portion and a boss carried by the frame and lying in the rear of the lever, the opening through the lever being enough larger than the pin to permit the lever to rock in a plane parallel with the pin.

1,253,870. HARNESS-HANGER. EDWARD NYHUS, Ivanhoe, Minn. Filed May 29, 1917. Serial No. 171,705. (Cl. 248—19.)

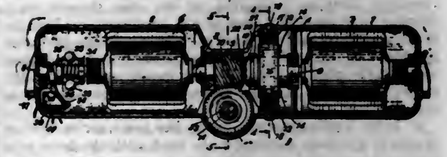


1. In a device of the class described, a support having at one end object engaging means, and a member mounted on said support at a point intermediate its length and movable into and out of supportable relation with respect to the support, said member including means to actuate the object engaging means incident to such movements.

3. In a device of the class described, a supporting member comprising spaced yieldable elements terminating at one end in object engaging jaws, a lever, and a connection for said spaced elements intermediate their length and on which the lever aforesaid is mounted, said lever being movable into position between the spaced members to expand the same and thereby effect actuation of the jaws aforesaid.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,253,871. ENGINE-STARTING APPARATUS. HENRY GIBSON O'NEILL, New York, N. Y., assignor of one-half to Conrad Hubert, New York, N. Y. Filed Feb. 26, 1914. Serial No. 821,177. (Cl. 171—315.)



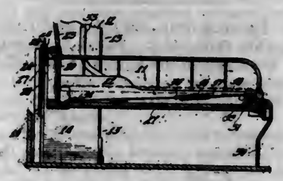
1. An engine-starting apparatus comprising, in combination, an engine-connected gear, a dynamo at one side of such gear having an armature shaft arranged transverse to the axis of such gear, a pinion on the armature shaft meshing with the engine-connected gear, an engine-starting electric motor at the other side of the engine-connected gear from the dynamo and having an armature shaft in axial alinement with the armature shaft of the dynamo, speed-reducing gearing for the motor at the same side of the engine-connected gear as the motor, and a clutch for connecting the speed-reducing gearing with the pinion on the armature shaft of the dynamo for effecting an engine-starting operation.

4. An engine-starting apparatus comprising, in combination, a dynamo having an armature shaft, a set of gearing for permanently connecting the engine and the armature shaft of the dynamo operative as speed-multiplying gearing from the engine to the dynamo, an engine-starting electric motor, a second set of gearing constituting speed-reducing gearing for the motor, a clutch for connecting the two sets of gearing to effect an engine-starting operation through both sets of gearing operating as speed-reducing gearing, electric circuits for the dynamo and motor, a manually-operable circuit controller for the motor, a centrifugal device having a rotative speed relation to the rotative speed of the armature shaft of the dynamo, and an automatically-operated circuit controller operated by the centrifugal device in control of the circuit of the dynamo to maintain such circuit open during an engine-starting operation and then to close such circuit as the speed of rotation of the dynamo armature shaft increases under self-actuation of the engine.

5. An engine-starting apparatus comprising, in combination, a dynamo, a set of gearing for permanently connecting the engine and the dynamo operative as speed-multiplying gearing from the engine to the dynamo, an engine-starting electric motor, a second set of gearing constituting speed-reducing gearing for the motor, an electrically operated clutch for connecting the two sets of gearing to effect an engine-starting operation through both sets of gearing operating as speed-reducing gearing, electric circuits for the dynamo and motor and clutch, and a manually operable circuit controller in common control of both the clutch and motor.

[Claims 2, 3, and 6 to 8 not printed in the Gazette.]

1,253,872. FOLDING BED. RESCUE B. PAGE, Los Angeles, Cal. Filed May 18, 1915. Serial No. 28,992. Cl. 5—54.)



1. In a bed adapted to fold into and close a cavity, a pair of supporting links for carrying the inner end of said bed, a folding leg pivoted to the bed in such a position as to support the outer edge of the bed when in the lowered position, and means having an elastic element therein secured to said supporting links for rotating said leg upwardly and outwardly from said bed into said cavity during the upward movement of the bed.

2. In a bed adapted to fold into a cavity, a pair of supporting links for carrying the inner end of said bed, a folding leg pivoted to the bed in such a position as to support the outer edge of the bed when in its lowered position, spring means tending to force said leg into its supporting position, and flexible means secured to said links for rotating said leg over the foot of said bed into said cavity during the upward movement of the bed, said flexible means having an elastic member forming a part thereof.

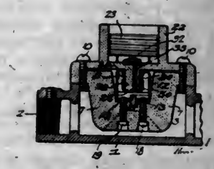
3. In a bed adapted to fold into a cavity, a folding leg, a shaft to which said leg is secured, spring means for rotating said shaft to throw said leg into the supporting position, a pulley on said shaft, and means secured to the pulley for rotating said pulley in such a manner as to throw said leg over the foot of said bed into said cavity as the bed is raised, said last named means having an elastic member therein to allow said means to continue movement after said leg has reached the limit of its movement.

4. In a bed adapted to fold into a cavity, a pair of supporting links for carrying the inner end of the bed, rotatable means for securing the upper ends of said links to the walls of the cavity and means whereby said rotatable means may be rotated to vary the position of the upper end of said links.

7. In a folding bed a track secured to the fixed structure of the bed, a shoulder formed at the upper end of the track, a guide carried by the movable portion of the bed, said guide sliding on said track and locking over said shoulder when the bed is in the lowered position, and a flat spring secured to said track and tending to force said guide out of engagement with said shoulder when the bed is in the lowered position.

[Claims 5, 6, and 8 not printed in the Gazette.]

1,253,873. WIRELESS RECEPTACLE. HENRY T. PAISTE, Philadelphia, Pa., assignor to H. T. Paiste Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 24, 1913. Serial No. 780,985. (Cl. 173—330.)



2. A wireless receptacle consisting of a relatively narrow insulating casting having two upwardly projecting ends spaced apart to form a recess; a rib extending diagonally across said recess; and two similar conducting members having contact portions respectively mounted in opposite portions of the recess on opposite sides of the rib and provided with terminal portions projecting respectively on opposite sides of said casting.

5. The combination of a conduit for electric conductors having a side opening; a receptacle mounted in said opening and including a relatively narrow body extending into the conduit so as to divide it longitudinally into two chambers, there being lateral projections extending from opposite sides of the body into said chambers; two conducting members having contact portions respectively opposite each other; and terminal portions projecting laterally upon the lateral extensions of the body within the two chambers of the conduit.

8. The combination of a conduit for electrical conductors having a side opening; a member mounted over said opening and consisting of an insulating base having a hollow cylindrical extension; terminals in said hollow extension for engagement with the terminals of an electroreceptive device; two contact plates mounted inside the insulating base and respectively in electrical connection with said terminals; a body of insulating material between the insulating base and the conduit extending into the latter; two spring contact members mounted on said body and in separable engagement with the contact plates of the insulating base; with terminal pieces respectively connected to said spring contacts and projecting on opposite sides of the body within the conduit.

[Claims 1, 3, 4, 6, and 7 not printed in the Gazette.]

1,253,874. ATTACHMENT-PLUG. HENRY T. PAISTE, Philadelphia, Pa., assignor to H. T. Paiste Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 24, 1913. Serial No. 780,986. (Cl. 177—343.)

1. The combination in an attachment plug of an insulating body having a substantially cylindrical portion;

two contacts carried by said body; an inwardly flanged metal shell mounted on the cylindrical part of the body with its flange extending over one end of the same in direct electrical engagement with one of the contacts; a plate of insulating material engaging the flange of the shell; and a terminal piece on the insulating plate having means at one end engaging the second contact to clamp all of said parts together.

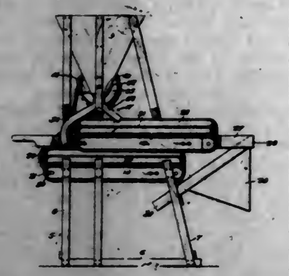


2. The combination in an attachment plug of a hollow insulating body having a perforated projection at one end; two contacts within the body of which one has a perforated portion extending over the perforated projection; a metal shell mounted on the body and having a perforated end also extending over the projection in engagement with the end of the contact; with a headed terminal member insulated from the shell and first contact and extending through the projection into electrical engagement with the second contact.

6. The combination in an attachment plug of a hollow insulating body; two contacts mounted therein of which one extends over one end of said body; a metal shell mounted on the body and also extending over the end of the same in electrical engagement with said contact, the shell having projections extending respectively into engagement with opposite sides of said contact to prevent relative rotation of said shell; with a headed terminal member electrically connected to the second contact and clamping all of said parts together.

[Claims 3 to 5 not printed in the Gazette.]

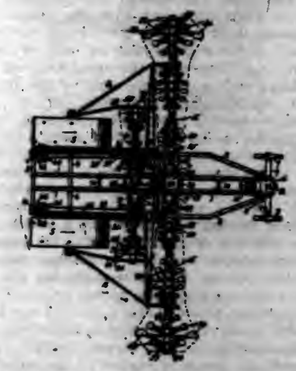
1,253,875. WILD-PEA MILL. FRED E. PASSER, Wells, Minn. Filed June 27, 1917. Serial No. 177,348. (Cl. 130—18.)



A device for separating wild peas from wheat embodying a pair of superposed transversely inclined upper and lower belts, the upper belt at its rear end terminating short of the lower belt, and means disposed above the rear end of the belts for simultaneously depositing the material to be separated thereon, and means carried by the latter mentioned means for pulverizing the wheat previous to the depositing of the same on said belts, and means carried by each of said belts for preventing any accidental lateral displacement of the peas from said belts.

1,253,876. ROTARY ROAD-MAKING MACHINE. JAMES A. PATTERSON, Sherman township, Clay county, Kans. Filed July 3, 1915. Serial No. 37,941. (Cl. 37—26.)

1. In a road grader, a supporting frame, wheels on which said frame is mounted, a shaft extending transversely of said frame, a series of spirally arranged radial arms mounted on said shaft, said arms being of progressively increasing length from one end of the shaft to the other, shovels carried by said arms and set to move the earth transversely of said frame, means for driving said shaft, and means by which said shovels may be individually adjusted radially of said arms, whereby the profile of said series of shovels may be varied as desired.



2. In a road grader, a supporting frame, wheels on which said frame is mounted, a central shaft journaled in said frame and extending transversely thereof, and a pair of outer shafts extending one on each side of said frame, shovels secured to said outer shafts, means for raising and lowering the outer ends of such shafts so as to bring said shovels into and out of contact with the earth, means for driving said central shaft, and means between said central shaft and outer shafts for establishing a driving connection from the former to the latter only when the shovels are moved into engagement with the earth.

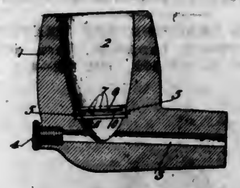
3. In a road grading machine, a supporting frame, wheels on which said frame is mounted, two transverse series of rotary shovels carried by said frame, and means for driving said shovels, the two series of shovels being arranged one behind the other in overlapping relation, the shovels of one series being shaped to throw the material toward the center of the machine, and the shovels of the other series tending to throw the material away from the center.

1,253,877. DEVICE FOR MEASURING HEIGHTS OF TREES AND THE LIKE. EDWIN C. PAYNE, Tacoma, Wash. Filed July 3, 1913. Serial No. 777,277. (Cl. 33—70.)



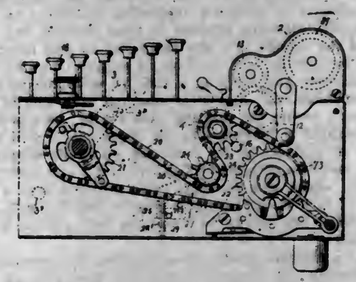
In a device for measuring heights, the combination with a chart member having a straight sighting edge to aline from the eye with the top of the object, the height of which is to be measured from points at different numbers of paces distant from the base of the object, said member having a quarter arc printed on one face thereof, said arc provided with degree graduations from zero to ninety degrees, of a pendulum suspended from the member concentric with the arc to coöperate with the graduations thereof, to determine the angle which the sighting edge of the member makes with the horizon, said short member having a table on the same face with the arc, giving the computations involving said number of paces and the angles the sighting edge makes with the horizon, of heights of objects to be measured.

1,253,878. SMOKING-PIPE. AUGUST W. PETERSOHN, Aurora, Ill. Filed Oct. 25, 1916. Serial No. 127,635. (Cl. 131—12.)



A tobacco pipe comprising a bowl having a chamber provided with a groove located in the lower portion of its wall, a perforated plate having an annular flange fitting in the chamber and provided with openings which register with the groove and a detachable resilient ring having humps which pass through the openings in the flange of the plate and enter the groove and hold the plate in the bowl below the upper edge thereof.

1,253,879. CALCULATING-MACHINE. EDGAR E. PHINNEY, New York, N. Y., assignor to Monroe Calculating Machine Company, New York, N. Y., a Corporation of New York. Filed July 20, 1916. Serial No. 110,338. (Cl. 235—82.)



1. In a calculating machine, registering wheels, selecting wheels and carrying members actuating the registering wheels, an operating shaft, means for driving said operating shaft, said carrying members and said selecting wheels continuously during the movement of the operating shaft, and means operating in connection therewith for moving the selecting wheels bodily with respect to said registering wheels.

2. In a calculating machine, registering wheels, selecting wheels and carrying members actuating the registering wheels, an operating shaft, means for driving said operating shaft, said carrying members and said selecting wheels continuously during the movement of the operating shaft, and means operating in connection therewith for bodily moving the selecting wheels intermittently toward and away from said registering wheels.

3. In a calculating machine, registering wheels, selecting wheels and carrying members actuating the registering wheels, an operating shaft, means for driving said operating shaft, said carrying members and said selecting wheels continuously during the movement of the operating shaft, and cam-operated means operating in connection therewith for moving the selecting wheels bodily with respect to the registering wheels.

4. In a calculating machine, registering wheels, selecting wheels and carrying members actuating the registering wheels, an operating shaft, a continuous chain drive connection between said operating shaft, said carrying members and said selecting wheels, and means operating in connection therewith for moving the selecting wheels bodily with respect to the registering wheels.

5. In a calculating machine, registering wheels, intermediate gears, pivoted arms, a shaft mounted therein, selecting wheels upon said shaft, carrying members, said selecting wheels and carrying members adapted to actuate the intermediate gears, an operating shaft, means for driving said operating shaft, said carrying members and said selecting wheels continuously during the movement of the operating shaft, and cam means operating in connection therewith for moving said pivoted arms and the selector shaft and its wheels bodily with respect to the intermediate gears.

[Claims 6 to 9 not printed in the Gazette.]

1,253,880. HAIR-CURLER. ELLA M. PICKARD, Oklahoma, Okla. Filed June 12, 1917. Serial No. 174,268. (Cl. 132—18.)



1. A hair curler comprising a pliable substantially cylindrical member having one end tapered, and flexible securing elements carried by the ends of said member and extended in planes at right angles thereto provided with detachable connections for securing the ends of said elements together.

3. A hair curler comprising a pliable cigar shaped member, elastic straps secured intermediately of their ends to the ends of said member and extending in planes at right angles thereto, and coöperating fastening elements carried by the ends of said straps, one of said elements being arranged on one face of said strap and one on the other to provide for their overlapping engagement.

[Claims 2 and 4 not printed in the Gazette.]

1,253,881. LIGHTING-FIXTURE. HARRY PICKHARDT, New York, N. Y., assignor to The Phoenix Glass Company, Pittsburgh, Pa., a Corporation of West Virginia. Filed Feb. 13, 1915. Serial No. 7,976. (Cl. 240—81.)



A semi-indirect light comprising the combination with the lamp and its stand, of an upwardly and outwardly flaring shade opened at the top, an outwardly and downwardly flaring shade having a central opening therein, the upper edges of the flared portion extending over the top of the shade, said outwardly and downwardly flaring shade having an internal annular enlargement

adapted to engage the upwardly and outwardly flaring shade for holding the outwardly and downwardly flaring shade against movement with relation to the upwardly and outwardly flaring shade.

1,253,882. DOOR-HINGE. JAMES R. PILSON, Vanguard, Saskatchewan, Canada. Filed Dec. 4, 1915. Serial No. 65,157. (Cl. 16—87.)



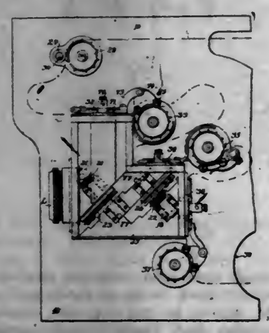
1. A hinge comprising a pair of relatively movable plates, a cylinder secured to one of said plates and being open at one end, a piston in said cylinder, a plunger secured at one end to the other of said plates and projecting at its outer end into said cylinder, and a yieldable connection between said plunger and piston and between said piston and the end of said cylinder.

2. A hinge comprising a pair of relatively movable plates, a cylinder secured to one of said plates and being open at one end, a piston in said cylinder, a plunger secured at one end to the other of said plates and projecting at its outer end into said cylinder, a yieldable connection between said plunger and piston and between said piston and the closed end of said cylinder, the said closed end having a bleed port, and a one-way valve in the said piston.

3. A hinge comprising a pair of relatively movable plates, a cylinder carried by one of said plates and being open at one end, a piston in said cylinder, a contractile spring connecting said piston and the end wall of said cylinder, a plunger secured at one end to the other of said hinge plates and projecting at its outer end into said cylinder, a contractile spring connecting said plunger and said piston, the said closed end of said cylinder having a bleed port, and a one-way valve in said piston.

4. A hinge comprising a pair of relatively movable plates, an arcuate cylinder secured to one of said plates and being closed at one end, a piston in said cylinder, an arcuate plunger secured at its inner end to the other hinge plate and extending into said cylinder, a one-way valve in the free end of said piston, a contractile spring connecting the piston and plunger, a contractile spring connecting said piston and the closed end of said cylinder, and the said closed end having a bleed port.

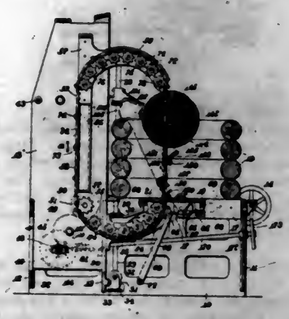
1,253,883. MOVING-PICTURE APPARATUS. DONALD WILLSON PLAYER, Folkestone, England. Filed Aug. 25, 1914. Serial No. 858,465. (Cl. 88—16.4.)



2. In moving picture apparatus, the combination of a rotatable reflector comprising means for tilting the reflector about an axis at substantially right-angles to the axis of rotation, and for tilting the reflector about a third axis at substantially right-angles to the said axes.

[Claims 1 and 3 not printed in the Gazette.]

1,253,884. MACHINE FOR WRAPPING BALES. GEORGE W. PROUTY, Dorchester, Mass. Filed Sept. 16, 1916. Serial No. 120,902. (Cl. 242—6.)



1. In a machine of the class described, the combination of a plurality of revoluble supporting members; an endless flexible conveyer adapted to pass through and endwise of the outside of a bale supported on said members; means for driving said conveyer; a support movable with said conveyer and carrying a strip of wrapping material in a revoluble roll; a vertical shaft on each side of said conveyer; means for rotating said shafts; two pressure rolls adapted to contact with the upper end of said bale; means on said shafts for revolving said rolls simultaneously; members movable vertically to raise and lower said rotating means, said members being provided with a plurality of rack teeth; revoluble pinions coacting with said rack teeth; and means for revolving said pinions simultaneously.

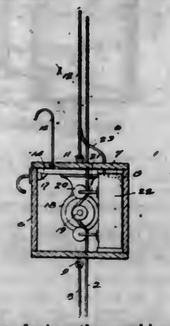
8. In a machine of the class described, the combination of a plurality of revoluble supporting members; an endless flexible conveyer adapted to pass through and endwise of the outside of a bale supported on said member; means for driving said conveyer; a bracket adapted to support the upper part of said conveyer; a support movable with said conveyer and carrying a strip of wrapping material in a revoluble roll; and a pivoted stop lug adapted to be moved against said bracket into position to engage said conveyer and prevent its backward movement.

12. In a machine of the class described, the combination of a plurality of revoluble supporting members; means for imparting rotary movement to one of said supporting members; an endless flexible conveyer adapted to pass through and endwise of the outside of a bale supported on said members; means for driving said conveyer; a revoluble roll carrying a strip of wrapping material; members projecting from opposite faces of said roll; and a friction device carried by said conveyer and engaging the periphery of said projecting members, said device consisting of two parts pivoted together at one end and provided with locking means at the opposite end.

20. In a machine of the class described, the combination of a plurality of revoluble supporting members; means for imparting rotary movement to one of said supporting members; an endless flexible conveyer adapted to pass through and endwise of the outside of a bale supported on said members; a driving shaft for moving said conveyer; power mechanism for actuating said shaft; means for disconnecting said power mechanism from said shaft; a support movable with said conveyer and carrying a strip of wrapping material in a revoluble roll; a gear on said driving shaft; a U-shaped member loosely mounted on said driving shaft; a driving gear revolubly mounted in said member and meshing with the gear on said driving shaft; manually operated means for actuating said driving gear; and means whereby said manually operated means may be connected and disconnected from said driving gear.

[Claims 2 to 7, 9 to 11, and 13 to 19 not printed in the Gazette.]

1,253,885. ELECTRICAL EXERCISING DEVICE. ALFREDO QUINONES, New Orleans, La. Filed Mar. 24, 1917. Serial No. 157,195. (Cl. 174—175.)

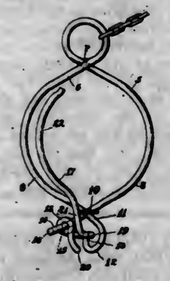


1. In an exercising device, the combination with a receptacle movable over fixed ways and having hand holds connected thereto, of electricity generating means in said receptacle, means on the generating means engageable with certain of said fixed ways, and means connected to the generating means for transforming the electricity and conducting it to the hand holds.

4. In an exercising device, the combination with a receptacle movable over a plurality of guide ropes and having pull ropes and hand holds connected thereto, of a support hingedly mounted in the receptacle, a dynamo secured to said support, means engaged with the support for raising the same, other means engageable with the support for maintaining the same in raised position, a plurality of pulleys mounted in the receptacle and arranged in spaced superposed relation, the armature shaft of the dynamo extending between said pulleys and having a pulley mounted thereon, said pulleys being engageable with one of the guide ropes, and means connected to the dynamo for transforming the electricity and conducting the same to the hand holds.

[Claims 2 and 3 not printed in the Gazette.]

1,253,886. TRAP. JOHN REGAL, Jr., Lundgren, Minn. Filed Dec. 29, 1916, Serial No. 139,599. Renewed Oct. 29, 1917. Serial No. 199,204. (Cl. 43—23.)

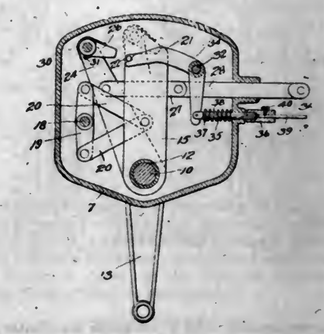


1. A trap embodying a pair of jaws, a trigger pivotally mounted on one of said jaws, and provided with a keeper, and means carried by said trigger with which the opposite jaw engages for automatically throwing the trigger to set position and adapting the last mentioned jaw to opertively engage in the keeper of said trigger.

3. A trap of the character set forth embodying a pair of yieldable jaws, the extremities of said jaws overlapping, a trigger mounted upon one of the overlapped ends of said jaws for horizontal swinging movement, and means formed on the extremity of the other overlapped end of said jaw for operating the trigger to a set position upon the opening action of said jaws.

[Claim 2 not printed in the Gazette.]

1,253,887. GEAR-SHIFTING MECHANISM. BAYARD E. RICHARDSON, Grand Rapids, Mich., assignor to Mechano Gear Shift Co., Grand Rapids, Mich., a Corporation of Michigan. Filed Jan. 8, 1915. Serial No. 1,122. (Cl. 74—58.)



9. A mechanism adapted for a transmission gearing including movable shifting rods, shifting elements operatively connected to said shifting rods and pivotally mounted, actuating means pivotally mounted and adapted to move said shifting elements, said actuating means including a series of engaging devices one for each shifting element, a projection formed at the front upper corner of each shifting element, a pin projecting laterally from the rear upper corner of each shifting element, a series of bell-crank levers, one for each shifting element, pivotally mounted in front thereof and having rearwardly and downwardly extending arms, the rearwardly extending arms lying adjacent the shifting elements and normally having engagement with the pins when the shifting elements are in upright position, said arms also having inclined upper edges reaching from adjacent the pins to the uppermost points of said projections on the shifting elements, wires operatively attached to the downwardly extending arms of the bell-crank levers, indicating levers pivotally mounted and operatively connected to said wires whereby depression of an indicating lever will cause the operation of a bell-crank lever to lower its rearwardly extending arm thereby lowering said arm below the projection of the adjacent shifting element, a lever, connections joining the actuating means and lever whereby forward movement of the lever will draw the actuating means forward and cause the engagement of an engaging device thereof with any projection above said rearwardly extending arms of the bell-crank levers and will force the shifting element of said projection forward carrying the pin thereof over the said rearwardly extending arm of its adjacent bell-crank lever, thereby holding the indicating lever associated therewith depressed until said bell-crank lever is freed.

[Claims 1 to 8 not printed in the Gazette.]

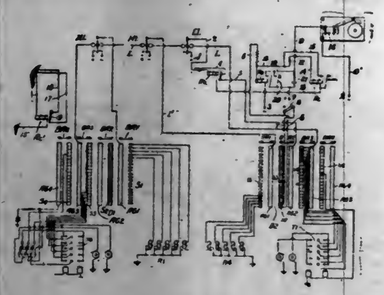
1,253,888. ARTIFICIAL EYE. JOHN O. ROSSER, Mill Hall, Pa. Filed Aug. 29, 1917. Serial No. 188,783. (Cl. 3—13.)



1. An artificial eye including a main body portion formed of hardened white rubber.

2. An artificial eye including a main body portion formed of hardened white rubber, and a glass iris embedded therein.

1,253,889. MECHANICAL PHASE-CORRECTOR FOR MULTIPLEX-TELEGRAPH DISTRIBUTERS. SAMUEL W. ROTHSCHEL, Brooklyn, N. Y., assignor to The Western Union Telegraph Company, New York, N. Y., a Corporation of New York. Filed Dec. 4, 1916. Serial No. 134,895. (Cl. 178—53.)



1. The combination with a telegraph distributer having clock hand correction mechanism including an operating magnet, and armature therefor, of means for operating said armature through its magnet comprising a relay having a locking circuit which is closed when said relay operates to cause the operation of such armature, and a further slower acting relay likewise energized when said first mentioned relay is energized, such further relay arranged when so energized to cause deenergization of the first mentioned relay.

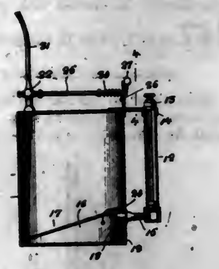
6. The combination with a telegraph distributer having correction mechanism including an operating magnet, and armature therefor, of means for operating said armature through its magnet comprising a relay having a locking circuit which is closed when said relay operates to cause the operation of such armature, and a further slower acting relay likewise energized when said first mentioned relay is energized, such further relay arranged when so energized to close a shunt circuit around the magnet of such first mentioned relay, thereby deenergizing such first mentioned relay.

7. The combination with a telegraph distributer having rotatably mounted correction mechanism including an operating magnet, and armature therefor, of means for operating said armature through its magnet comprising a relay having a locking circuit which is closed when said relay operates to cause the operation of such armature, and means completely separated from the rotating portion of said distributer, and having a stationary mounting and arranged to break the said locking circuit at the end of a predetermined interval, following the closing of that locking circuit.

[Claims 2 to 5 not printed in the Gazette.]

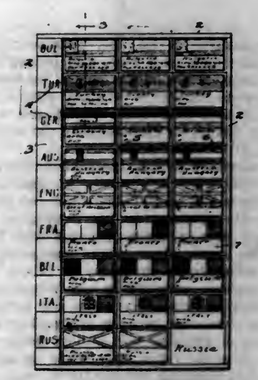
1,253,890. OIL-CAN. THEODORE ROUNDS, Poplar, Mont. Filed June 13, 1916. Serial No. 103,531. (Cl. 221—52.)

The herein described forced feed oil can, including a body having its handle in the nature of an air pump, a compression chamber within the body at the bottom thereof, said chamber having an upper inclined wall which is round in plan, a flange secured to the periphery of the said wall and connected to the bottom of the receptacle and spaced from the sides of the said receptacle at all points except at the reduced end of the chamber, said chamber having an entrance opening in a line with the bottom wall of the receptacle and having a pipe communication with the pump adjacent the top of the chamber at the widened end thereof, said chamber, below the said pipe connection having bleed openings, and an outlet



spout between the reduced end of the said chamber and the top of the can.

1,253,891. FLAG GAME. HERMAN SCHLIFF, Milwaukie, Oreg. Filed July 9, 1917. Serial No. 179,454. (Cl. 46—64.)

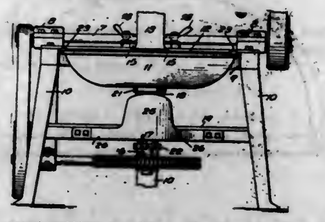


In a game apparatus, a support embodying a rectangular field, a marginal frame extending around said field and also of rectangular formation, one side of said frame being broader than the other three sides and having represented thereon in column formation the names of various countries abbreviated, the field being divided by intersecting lines extending at right angles to each other into individual spaces having represented thereon the names of the various countries printed in full, each horizontal row of individual spaces being appropriated to the same country, and shiftable blocks of the same number as the individual spaces of the field less one, each block having an arched top surface upon which is represented the flag of one of the countries together with the name of such country, the area in square miles and the total population.

1,253,892. MEAT-CUTTING MACHINE. OSCAR C. SCHMIDT, Cincinnati, Ohio, assignor to The Cincinnati Butchers Supply Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Aug. 23, 1916. Serial No. 116,534. (Cl. 17—19.)

1. In a meat-cutting machine the combination of a circular bowl to contain the meat to be cut, a general machine frame on which it is supported for rotation in a horizontal plane, a rotary cutter-head to reduce the meat while contained in the bowl, a cover for the bowl

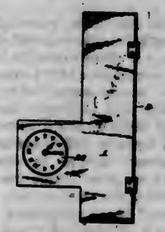
secured to the frame mentioned and provided with an undercut groove in its underside and above the corner of the bowl and a strip of soft metal secured in this groove and projecting below the same where it is provided with an angular recess on its underside in which the corner of the bowl travels and with the sides of which recess the horizontal as well as the vertical side of the corner contacts to prevent leakage between the upper edge of the bowl and the cover above it.



4. In a meat-cutting machine, the combination of a circular bowl adapted to contain the meat to be cut, a general frame for the machine, a cover for the bowl rigidly connected to the frame, a cutter-head comprising a series of spaced knives supported above the cover which latter is provided with an opening through which the cutter-head extends into the bowl so as to operate therein, spaced shoulders on the upper side of the cover extending across the same and along the edges of the opening therein, a comb slidingly fitted between these shoulders, a hood to cover that part of the rotating cutter-head which moves above the cover and resting upon the shoulders mentioned, a cap rigidly connected rearwardly of the hood so as to extend across the comb between these shoulders, a hinge whereby this hood is permanently connected to this cap and a set-screw seated in this cap to detachably hold the comb in position between the said shoulders.

[Claims 2 and 3 not printed in the Gazette.]

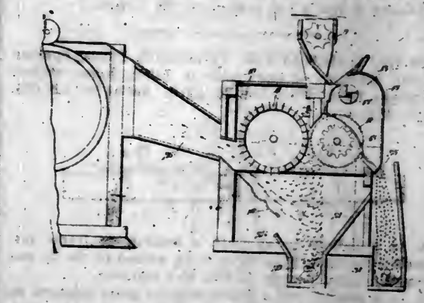
1,253,893. TIME-SWITCH. MAX SCHOLL, Houston, Tex. Filed May 9, 1916. Serial No. 96,394. (Cl. 161—27.)



In a device of the class described, the combination with an upright board, a frame at the lower end thereof, spaced contacts carried by the frame, a solenoid within the frame whose core passes down between said contacts, a bridging element for said contacts carried by the lower end of the core, and a head at its upper end; of a second solenoid carried by the board above and alined with the first, a cross bar on the lower portion of its core, a pair of latches pivoted on said board between the solenoids and having hooks to engage said head when it is raised, links connecting the latches with said cross bar, and means for alternately energizing said solenoids.

1,253,894. METHOD OF DELINTING COTTON-SEED HULLS AND RECOVERING UNCUT SEED. HUGH E. SESSIONS, Columbia, S. C. Filed Dec. 17, 1915. Serial No. 67,461. (Cl. 13—9.)

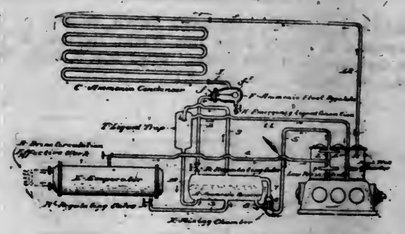
2. The method of removing lint from cotton seed hulls and recovering the uncut seed from a mixture of cotton seed hulls and uncut cotton seed, which comprises subjecting a confined body of uncut seed and hulls to the action of the teeth of a moving saw whereby successive portions of said hulls will be removed from said confined body and fine particles of lint torn loose therefrom separating the uncut seed from the confined body of seed



and hulls, discharging the hulls and lint so removed downward through a space in a scattered condition and passing a gentle current of air through said falling material to a lint discharge, the said current being sufficiently strong to carry off the lint but not the hulls.

[Claim 1 not printed in the Gazette.]

1,253,895. REFRIGERATING OR ICE-MAKING APPARATUS. THOMAS SHIPLEY, York, Pa. Filed May 3, 1917. Serial No. 166,141. (Cl. 62—115.)



1. In a refrigerating or ice making apparatus in which stage or compound compression is employed, the combination with the evaporator, the condenser, the first or low pressure and second or high pressure compressors, and connection between the same whereby the gas from the first or low pressure compressor is conducted into the second or high pressure compressor, of the liquid receiver connected with and receiving the liquid refrigerant from the condenser, and interposed in the connections between the high and low pressures in such a manner that the gas from the low pressure cylinder passes through said receiver and in contact with the liquid therein, and is thereby cooled, before reaching the high pressure compressor, substantially as hereinbefore set forth.

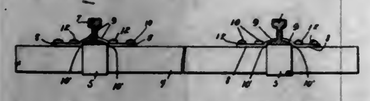
4. The combination with the liquid receiver and the first or low pressure compressor, of an annex to the receiver constituting a mixing chamber, freely communicating with the body of the receiver, means for furnishing a constant supply of refrigerant liquid to said annex chamber, connections between the low pressure compressor and the mixing chamber, whereby the gas from the compressor is discharged into and caused to pass through said mixing chamber in contact with the liquid therein, and is thereby cooled, and an outlet in the mixing chamber for the thus-cooled gas.

5. The combination with the condenser and the liquid receiver, and a conduit between the same through which liquid will pass by gravity from the condenser above to the receiver below, of a chamber interposed in said con-

duit having an inlet communicating with the condenser and an outlet communicating with the receiver below, a regulating valve controlling said outlet, and a float connected to the valve and automatically operating to close the same whenever the liquid in the said chamber falls below a predetermined level.

(Claims 2 and 3 not printed in the Gazette.)

1,253,896. RAILWAY-TIE. IRVIN SLACK, Pagosa Springs, Colo., assignor of one-fourth to James Jones, Pagosa Springs, Colo. Filed Oct. 25, 1916. Serial No. 127,631. (Cl. 238—5.)

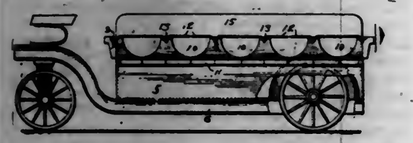


1. In a hollow metallic tie, a reinforcing frame surrounding the same, said frame being welded to the tie and having an upper portion serving as a rail seat.

2. In a metallic tie, a rail-supporting plate disposed on the top wall thereof and extending above the upper surface of said top wall and welded thereto, a cleat secured against said top wall, and said cleat abutting the side wall of the plate above said top wall and overlapping the rail seated on the plate.

3. A hollow tie of thin metal having a frame of metal surrounding it and welded to it, said tie having an aperture in its upper wall, said reinforcement serving as a seat for a rail, a cleat having an aperture therethrough, said cleat abutting said frame and overlapping the rail, and fastening means passing through said apertures.

1,253,897. WAGON. AUGUSTUS SMITH, Roselle, N. J., assignor to Bergen Point Iron Works, Bayonne, N. J., a Corporation of New Jersey. Filed Apr. 6, 1915. Serial No. 19,586. (Cl. 214—1.)



4. A wagon body having a longitudinal partition, a series of transverse supporting members above the containing portion of the body, adapted to receive and support between adjacent members a dump can while the same is being emptied into the body of the wagon, and pivoted cover flaps carried by said transverse members and cooperating, when open, with said longitudinal partition to form a wind screen while the can is being emptied into the wagon body.

6. In a refuse handling system, a wagon having a containing body and a series of transverse supporting members above the same, in combination with a dump can with swinging cover, said can having trunnions adapted to rest upon said transverse supporting members and means on said cover engaging said members to swing the cover open on the uptilting of the can to discharge its contents into the wagon body.

(Claims 2 and 3 not printed in the Gazette.)

1,253,898. BUCKSAW. DANIEL W. SMITH, Machias, Me. Filed Mar. 12, 1917. Serial No. 154,300. (Cl. 145—33.)

An arched saw frame formed of a front and a rear section each having a vertical arm extending above the back of the frame, the lower portion of each arm having a vertical slot extending entirely therethrough, the two slots being in alinement longitudinally of the frame, a flat horizontally elongated plate standing on edge and received in said slots to hold the two sections against lateral canting, lateral projections on the sides of said

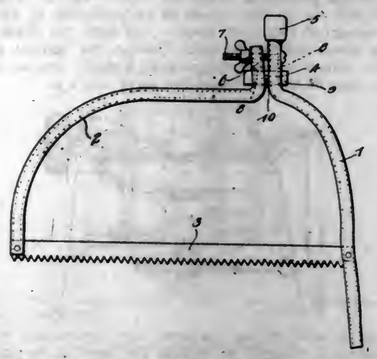
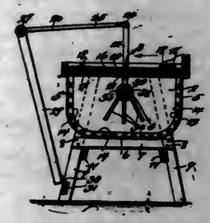


plate interposed between the lower ends of the two arms to prevent removal of said plate and to serve as fulcrums for said arms, and means for drawing the upper ends of said arms together.

1,253,899. WASHING-MACHINE. HENRY G. SOHM, Connell, Wash. Filed June 4, 1917. Serial No. 172,813. (Cl. 259—144.)



1. In a machine as set forth, a receptacle to receive that which is to be agitated, the interior of the receptacle having a rub surface, a U-shaped member having its transverse portion in the receptacle and its arms pivoted in the top of the receptacle, means connected to the upper part of the arms to oscillate said U-shaped member, the transverse portion of said member being rectangular in cross section, a cylindrical agitator body provided with a longitudinal opening segment shaped in cross section and through which the rectangular transverse part of the U-shaped member extends, the smaller part of the segment engaging the upper part of the rectangular transverse portion, whereby the agitator body may rock on said rectangular transverse portion, and agitator fingers extending radially from the cylindrical body.

2. An agitator comprising a U-shaped member having its transverse portion provided with longitudinal flat sides parallel with each other in cross section and constituting a bearing, an agitator body proper provided with a bore extending longitudinally of said body and being segment shaped in cross section, and through which said transverse part of the U-shaped member extends, whereby said cylindrical body is permitted to have a lost movement at each end of the stroke of the agitator.

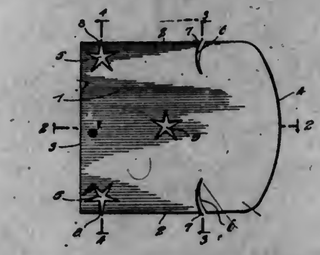
1,253,900. PENCIL ATTACHMENT. THOMAS C. STAVERT, McGill, Nev. Filed June 12, 1917. Serial No. 174,371. (Cl. 120—84.)

In an attachment for pencils, the combination with a ferrule provided with a pair of diametrically arranged openings, an attachment therefor, said attachment being provided with a U-shaped clip terminating in oppositely extending prongs, the prongs of said clip projecting through the openings of the ferrule and extending exte-



riorly thereof, with the clip positioned within said ferrule, said clip preventing any accidental displacement of the attachment from said ferrule.

1,253,901. SCRAPER. JOHN GALE STEELE, St. Louis, Mo., assignor of one-half to William Henry Mente, St. Louis, Mo. Filed Apr. 28, 1917. Serial No. 163,953. (Cl. 65—12.)



The herein described utensil scraper comprising a flat substantially rectangular metal blank having straight side edges to engage the sides of the receptacles to be cleaned, said side edges being provided with spaced irregular slots of different width breaking said edges and providing differently spaced entrant points, said metal blank having one of its ends bowed outwardly to provide a curved scraping edge, and the opposite end of said blank being straight and unbroken to provide a continuous flat scraping edge whereby the whole periphery of the blank is brought into use, said scraper being provided with a centrally disposed irregular-shaped opening to permit the same to be disposed over a nail when not in use, and the edges of said opening providing means for securing a firm hold on the scraper when the same is held between the thumb and fingers of the hand.

1,253,902. STOVEPIPE. KURT W. STEINHART, Tacoma, Wash. Filed Mar. 13, 1917. Serial No. 154,585. (Cl. 126—309.)



1. In a sheet-metal pipe section, a seam for uniting the edges of the blank, the same comprising a flap along one edge of the blank having spaced openings rectangular in shape, and correspondingly spaced T-shaped keys along the other edge of the blank whose necks are integrally connected with such blank and whose heads are transversely longer than the width of said openings whereby they must be bent slightly to pass through the openings, for the purpose set forth.

2. The herein described seam for sheet metal pipe sections and the like, the same comprising an element having a reversely bent leaf along its edge and a flap beyond the leaf, the leaf being provided with a series of spaced openings rectangular in contour; of an element having

along its edge a series of correspondingly spaced keys of T-shaped contour whose necks are integrally connected with this element and whose heads are bent transversely for passage through said openings, the parts being subsequently compressed as described.

1,253,903. COMBINED BOTTLE CARRIER AND OPENER. DELAND M. STEVENS, Muskegon Heights, Mich. Filed May 8, 1917. Serial No. 167,806. (Cl. 215—1.)



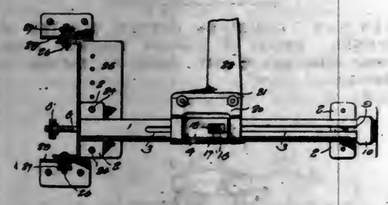
A combined bottle carrier and top remover comprising a member in the form of a bail and including parallel side portions with loops at one end, a bowed portion connecting the loops together and a top portion connected with the other ends of the said portions, there being provided at one end of the top portion a pointed extremity, the said bowed portion lying in a plane at an acute angle to that in which the side portions lie, and a second member in the form of a bow having at its ends outstanding extremities which are loosely received in the said loops.

1,253,904. DETACHABLE BROOM-HANDLE. EVERT E. STOKES, Indianapolis, Ind. Filed Aug. 13, 1917. Serial No. 185,972. (Cl. 15—20.)



A broom comprising a socket; a securing pin carried by the socket and extending across the socket transversely; strands about the socket; a strand-binder connected to the securing pin exteriorly of the socket; a handle removably mounted in the socket; and a screw carried by the handle and projecting beyond the inner end of the handle, the screw being engaged with that portion of the securing pin which extends across the socket.

1,253,905. COPYIST'S LINE-GUIDE. SUTTON STRONG, Indianapolis, Ind., assignor to O. E. King & Company, Indianapolis, Ind., a Copartnership. Filed Sept. 14, 1916, Serial No. 120,079. Renewed Aug. 13, 1917. Serial No. 186,064. (Cl. 120—34.)

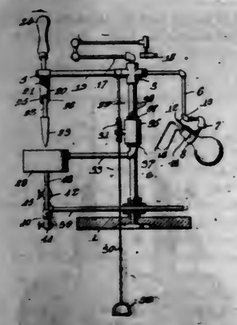


1. A copyist's line indicator comprising a tube having a longitudinal slot extending approximately throughout its length, a slide surrounding said tube for both sliding and turning movement thereon, an indicator carried by said slide, a rod within the tube, means for moving said rod forwardly and returning it to its initial position, and means passing through the slot in the tube for connecting the slide with the rod upon forward movement of the latter.

4. A copyist's indicator comprising a tube having a slot extending approximately throughout its length, a slide surrounding said tube for both sliding and turning movements thereon, an indicator carried by said slide a rod extending through said tube, an operating lever extending through the slot in the tube at the front end of the latter and fulcrumed to said tube, the operating rod being pivoted to said lever, and means extending through the slot for connecting the slide with the operating rod upon forward movement of the latter.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,253,906. SOLDERING APPARATUS. JACOB SUTTER, New York, N. Y. Filed Oct. 28, 1916. Serial No. 128,261. (Cl. 113—59.)



In a soldering apparatus, the combination of a supporting post, a soldering pot mounted upon the post, means for heating the same, an arm projecting from the post to a position above the soldering pot, a sleeve for the arm and adapted to rotate thereon, a support dependent from the sleeve, a soldering iron adjustably carried thereby, and means for imparting rotary motion to said sleeve.

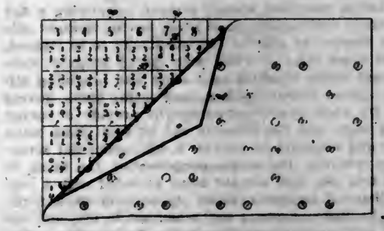
1,253,907. VEHICLE-CURTAIN LIGHT. OLIVER M. TEMPLETON, Indianapolis, Ind. Filed Mar. 13, 1916. Serial No. 83,846. (Cl. 21—220.)

The combination with a curtain having a sight opening, said curtain having a plurality of openings adjacent the edge of the sight opening, a curtain light frame including a main frame having a plurality of fastening bolts extending therefrom, a transparent flexible member forming a closure for the sight opening, said flexible member having openings adjacent the outer edge to receive the bolts, the marginal edge of the curtain adjacent the sight opening being folded, a reinforcing element secured to the curtain having openings therein registering with the openings in the curtain, the openings in said curtain and reinforcing element adapted to be received by the



bolts, a clamping frame having openings therein to receive the free ends of the bolt, the clamping frame being relatively wider than the main frame, the edges of the clamping frame being bent inwardly at a point opposite the outer ends of the main frame and extending beyond the same, and means for retaining the main frame and clamping frame in close proximity for a purpose specified.

1,253,908. EDUCATIONAL DEVICE. THOMAS E. THOMPSON, Monrovia, Cal. Filed July 19, 1916. Serial No. 110,247. (Cl. 35—9.)



1. An educational device comprising a primary card on which is printed a series of elements, these elements being arranged in groups; identifying data for each group by means of which one of said elements may be selected from said group; and a series of spaces in any of which a pupil may indicate such a selection, each space being associated with one of said elements.

8. An educational device comprising a primary card on which is printed a series of alternates; means by which a pupil may indicate a selection from said series; and means for checking the correctness of said selection.

10. A primary card having spaces in which a pupil can indicate his knowledge of a subject by placing markings thereon in spaces selected by the pupil; and a tell-tale sheet so shaped as to indicate the correctness of such knowledge when properly registered with said primary card by the position of the markings on the primary card.

[Claims 2 to 7, 9, and 11 to 13 not printed in the Gazette.]

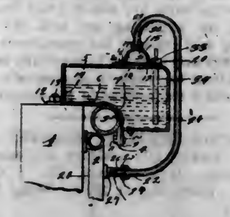
1,253,909. POLE OR TONGUE CAP FOR NECK-YOKE CONNECTIONS. SAMUEL TOLLEY, Abingdon, Ill. Filed Aug. 7, 1917. Serial No. 184,904. (Cl. 21—92.)

A pole cap comprising a body having a downwardly and forwardly extending prong, its forward end terminating in a hook, the under part of the body immediately over the hook having a cavity comprising an enlarged part and an elongated part, a disk member rockably mounted in said enlarged part and having an arm projecting from its edge, a spring having one end connected to the inner wall of the enlarged part of the cavity and having its other end so connected to the disk eccentrically as to hold the arm either in contact with the hook



or in engagement with the elongated part of the cavity, said disk having a lug to be engaged by an operator's finger for rocking the disk, whereby the arm may engage the hook or the cavity.

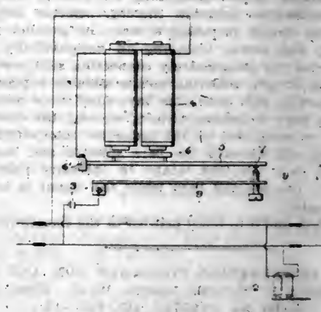
1,253,910. AUXILIARY STEAM-INTAKE FOR INTAKE-MANIFOLDS. CLARENCE D'VINCENT, Rogers, Mich. Filed Mar. 29, 1917. Serial No. 158,299. (Cl. 123—25.)



In a device as set forth, the combination with the cylinders of an internal combustion engine, of the intake and exhaust manifolds thereof, a water casing having its under wall constructed to conform to the cross section curvature of the exhaust manifold and partially lap the upper ends of the cylinders of the engine, means for securing the casing to the exhaust manifold and the cylinders, whereby the water in the casing may receive heat direct from the manifold and the engine, a steam dome on the top of the casing and in communication therewith, filtering means between the dome and the casing, whereby the steam is filtered as it passes into the dome, a pipe of communication between the dome and the intake manifold of the cylinders, whereby a mixture of steam and air may enter the intake manifold and mix with and volatilize the charge during its passage into the cylinders, said casing having a filling opening, a tubular member threaded in said opening and having its lower end terminating close to the bottom of the casing, and a pipe telescoping through said tubular opening to convey air under pressure to the undermost portion of the water in the casing, whereby the air may filter through the water and mix with the steam and pass through the dome and thence into the intake manifold.

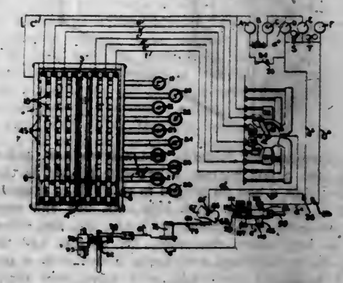
1,253,911. RAILWAY SIGNAL-CIRCUIT. WILLIAM W. WAGNER, Easton, Pa. Filed July 26, 1915. Serial No. 41,933. (Cl. 246—21.)

The combination of a plurality of rails comprising a single block of a railway, a branch circuit connected directly with the respective rails at one end of the block, a battery, a magnet, and an interrupter controlled by the magnet in series in said circuit, a second branch circuit connected with the respective rails of the same block at a distance from the point of connection of the first named circuit, and a relay in the second branch circuit energized from the battery in the first circuit, said rails and branch circuits providing a continuous path for the current when the block is clear, the relay being short circuited when the block is occupied, said interrupter being operative by the battery current when the relay is short



circuited and being inoperative by the current when the relay is energized.

1,253,912. ELECTRIC SIGNAL DEVICE. WILBUR M. WAITE, Boston, Mass., assignor to The Multi-Signal Company, Charlestown, Mass., a Corporation of Maine. Filed Sept. 29, 1914. Serial No. 864,164. (Cl. 177A—353.)



1. A signaling device comprising an electric circuit, signaling mechanism operable thereby, a series of bars in said circuit, a series of contact terminals connected respectively to said bars, selecting means operable to engage respectively predetermined bars to cause said contact terminals to be connected in said circuit in predetermined groups, a rotary connector, means for causing the same progressively to engage the members of the series of contact terminals whereby the selected circuits will be completed successively to actuate the signaling mechanism, a circuit closing mechanism operable to close the circuit during a portion only of the time the connector is in engagement with each of the respective members of the series of contact terminals whereby sparking between the connector and said terminals will be avoided.

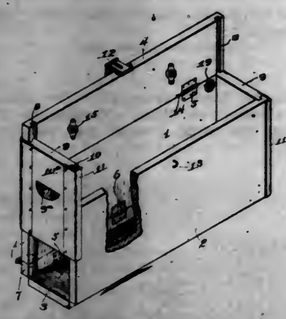
4. A signaling device comprising an electric circuit, signaling mechanism operable thereby, a series of bars in said circuit, a series of contact terminals connected respectively to said bars, a plurality of independently operable selectors adapted to cause the contact terminals to be connected in said circuit in predetermined groups, a rotary connector, means for causing the same progressively to engage the members of the series of contact terminals whereby the selected circuits will be completed successively to actuate the signaling mechanism, circuit closing mechanism operable to close the circuit during a portion only of the time the connector is in engagement with each of the respective members of the series of contact terminals whereby sparking between the connector and terminals will be avoided and means for causing said connector to traverse repeatedly its coöperating

contact terminals a selected number of times whereby the signal may be repeated as desired.

4. A signaling device comprising an electric circuit, signaling mechanism operable thereby, selector mechanism for said circuit including a series of parallel conductor bars, and means including an automatically rotated connector for progressively connecting said bars in the signaling circuit, selecting means slidably supported at right angles to said conductor bars adapted to contact with certain bars or groups of bars whereby the electric circuit will be completed by the connector intermittently and progressively through the bars selected and means for securing said selecting means in operative position in respect to the selected bars while the signal is being sent or repeated.

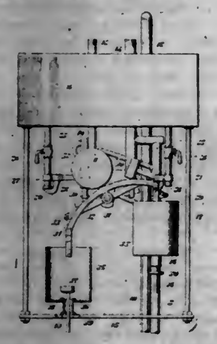
[Claims 2, 3, and 6 to 8 not printed in the Gazette.]

1,253,913. COMBINATION FOLDABLE BOX AND TABLE. EDWIN P. WALKER, Monroe, Wash. Filed Apr. 27, 1917. Serial No. 164,971. (Cl. 190—12.)



In a combination foldable knock-down box, table and packing case, a box bottom, a box side hinged to the bottom, a box side, a box lid hinged to this side, a hinged strip connecting the bottom with this side, box end members having slidable engagement with the lid, the sides and the strip, the latter, the sides, the bottom and the lid adapted to be unfolded and again folded into a packing case for retaining said ends, said sides, said strip and bottom adapted to be unfolded in flat position for forming a table top, and said ends and lid having leg sockets for forming seats, substantially as set forth.

1,253,914. PUMP. MARION C. WALLS, Clayton, Ind. Filed Nov. 28, 1916. Serial No. 133,908. (Cl. 103—8.)



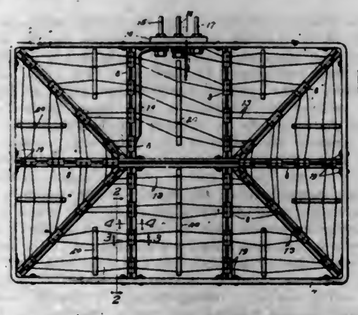
1. A pump comprising an inner and an outer cylinder, a pipe passing transversely through the outer cylinder and communicating with the inner cylinder, both of the said cylinders having valve controlled ports, water pipes leading from the cylinders and means for admitting air to the cylinders.

2. A pump comprising a plurality of cylinders, a pipe having branches communicating with the cylinders, a tank located above the cylinders, pressure controlled means for permitting the water to pass from said pipes to the tank, valve controlled outlet pipes connected with the tank, an arm pivotally mounted below the tank, valved buckets carried by the arm and adapted to receive water from the last mentioned pipe, means for admitting air into the cylinders and means adapted to be operated by the said arm for admitting the air into the cylinders successively.

5. A pump comprising a plurality of cylinders, a water pipe having branches communicating with the same, a tank located in an elevated position above the cylinders, pressure controlled means for permitting water to pass from the pipe into the tank, water outlet pipes connected to the tank, valved levers fulcrumed to the pipe and adapted to close the same, an arm pivoted below the tank, valved buckets carried by the arm and adapted to receive the water from the outlet pipe, a bar pivotally mounted and having pins located in the path of movement of the said arms, said pins adapted to engage the levers whereby the valves carried by same are moved away from the outlet pipes, pipes for admitting air into the cylinders, valves controlling said pipes, a bar operatively connected with the said valves and adapted to move the same whereby the air is admitted to cylinders successively.

[Claims 3, 4, and 6 not printed in the Gazette.]

1,253,915. ELECTRIC HEATING ELEMENT. CLIFFORD R. WASSELL, Chicago, Ill., assignor to Conlon Electric Washer Company, Inc., Chicago, Ill., a Corporation of New York. Filed May 3, 1916. Serial No. 95,012. (Cl. 219—63.)



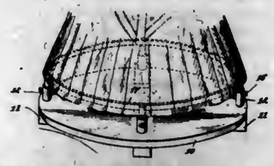
1. In an electric heating device, two strips of insulating material, each of said strips having a lateral slot therein, said strips being laid face to face with said slots oppositely in alinement and so that the inner ends of said slots register, and a heating wire passing through the registering portions of said slots.

4. In combination, a grid, two uncovered heating units spirally arranged therein, a pair of insulating strips laid face to face and provided with oppositely disposed alining slots forming openings, sheet metal holders forming strips provided with flanges for clamping engagement with the strips to support the same, and spaced strips for location between adjacent supports for the heating units provided with oppositely disposed slots to receive the heating unit space adjacent convolutions of the same.

[Claims 2 and 3 not printed in the Gazette.]

1,253,916. SKIRT-GAGE. CHRISTINA L. WELSCHER, Fontanelle, Iowa. Filed Feb. 10, 1917. Serial No. 147,836. (Cl. 33—10.)

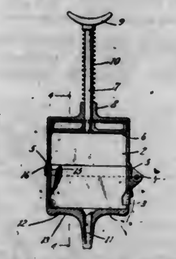
1. A skirt marking device comprising a round platform, circumferentially spaced adjustable telescopic members secured to said platform and rings removably positioned upon said telescopic members.



3. A skirt marking device comprising a round platform, circumferentially spaced vertically arranged tubular members secured thereto, supporting members adjustably secured in said tubular members and rings of different diameters removably positioned upon said supporting members, the position of said members corresponding to the diameters of their respective rings.

[Claim 2 not printed in the Gazette.]

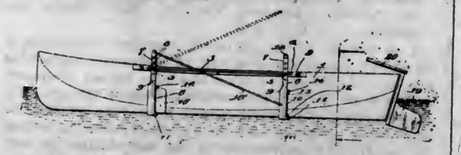
1,253,917. CORN-BUTTERING DEVICE. GUST. PERS. WERN, New York, N. Y. Filed Sept. 25, 1916. Serial No. 122,019. (Cl. 221—78.)



1. The herein described corn buttering device comprising a casing of rectangular cross section and formed in two parts, a rectangular plunger in said casing, an operating rod therefor projecting through one end of said casing, a thumb piece on the outer end of said rod, a nozzle formed in the other end of said casing, the end wall of said casing on opposite sides of said nozzle having a substantial portion thereof extending approximately at right angles to the side walls of the casing and having its outer face curved to form a finger grip.

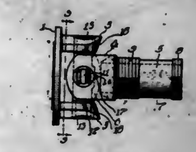
2. The herein described corn buttering device comprising a casing of oblong rectangular cross section and formed in two parts hinged together, a rectangular plunger in said casing, an operating rod therefor projecting through one end of said casing, a thumb piece on the outer end of said rod, a nozzle formed in the other end of said casing, the end wall of said casing on opposite sides of said nozzle being curved concavely in one direction and convexly in a direction at right angles to the first mentioned direction to form a finger grip.

1,253,918. BOAT-PROPELLER. JAMES S. WHITAKER, San Francisco, Cal., assignor of one-half to H. C. Wilson, San Francisco, Cal. Filed Sept. 20, 1916. Serial No. 121,234. (Cl. 115—28.)



In a boat propelling means, oars arranged in pairs at the opposite sides of the boat and adjustably connected with the said sides of the boat, each of said oars having an outwardly extending lug, a pair of upwardly projecting pintles upon each of said lugs, a pair of blades for each of the oars having knuckles receiving the pintles, a block member having a pair of downwardly extending pintles adjustably arranged one on each of the oars and the pintles thereof designed to be received in the knuckles of the pair of blades for each of the arms, an angularly disposed rod member loosely connected with each pair of oars upon the opposite sides of the boat, a swinging guide member for the oars on each side of the boat, and a connecting member providing an operating lever for two of the oppositely disposed oars upon the opposite sides of the boat.

1,253,919. UNIVERSAL JOINT. WILLIAM ERASTUS WILLIAMS, Chicago, Ill. Filed Apr. 11, 1916. Serial No. 90,310. (Cl. 74—19.)



1. The combination with driving and driven members each provided with a pair of terminal horns having alining transverse holes, of a block having integral quadrantally located trunnions to enter said holes, respectively, all the trunnions being flattened laterally at one side of their common central plane, whereby inserting the trunnions in said holes is facilitated while nearly full resistance to torsional strains of working is preserved.

7. In a device of the class described a driving and a driven member each provided with horns having transverse holes and adapted to join an intermediate member in the form of a trunnion block, bushings inserted in said holes, respectively, to serve as bearings, a trunnion block forming the connecting piece between the driving and driven members, and made in the form of a cross with the arms made stocky and strong and trunnions smaller than the ends of the arms, thus forming shoulders at the base of the trunnions, the body of the cross arms of the trunnion block being cut away on alternate sides below the shoulders to assist in the insertion of the trunnion block from the inside of the horns, and the bushings having intersecting threads or grooves for the purpose set forth.

11. In devices of the class described, the combination with an internally threaded bushing seat grooved transversely of the threads, of a bushing externally threaded, provided with spiral grooves intersecting its threads, and engaged in said seat, and a soft metal plug forced into the groove in the seat to engage and lock the bushing.

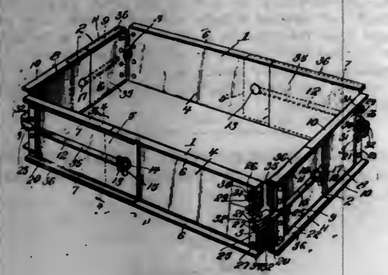
[Claims 2 to 6 and 8 to 10 not printed in the Gazette.]

1,253,920. SNAP-FLASK JACKET. WILLIAM F. YARYAN and LOUIE H. CHAMBERLAIN, Clarinda, Iowa. Filed Mar. 2, 1917. Serial No. 152,100. (Cl. 22—112.)

1. A snap flask jacket of the class described comprising side and end walls and connections between said walls at the corners of the jacket, said connections embodying universal joints adapting said walls for universal angular movement, to enable the jacket to be folded and to be also used on molds of various shapes, said side and end walls being longitudinally extensible and each comprising a pair of plates arranged in over-lapping relation, the outer plates having slots, and bolts connecting said plates together and extending through said slots, said side and end walls also comprising extension plates on the inner sides of and covering the slots of said outer plates.

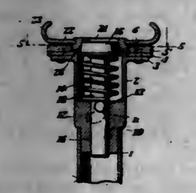
2. A snap flask jacket of the class described comprising side and end walls and hinges forming connections between said side and end walls at the corners of the jacket, each hinge comprising a pair of bar members one

having an arm provided with a ball and the other having a socket in which the ball is mounted for universal angular movement, said arms causing the hinge members to hold the side and end walls in spaced relation at the ends of said side walls and corners of the jacket.



3. A snap flask jacket of the class described comprising side and end walls and hinges forming connections between said side and end walls at the corners of the jacket, each hinge comprising a pair of bar members one having an arm provided with a ball and the other having a socket in which the ball is mounted for universal angular movement, said arms causing the hinge members to hold the side and end walls in spaced relation at the ends of said side walls and corners of the jacket, each socket bar comprising a pair of members adapted for relative adjustment and provided with means to adjust and secure said members and thereby enable any desired tension to be secured at the ball and socket joint.

1,253,921. VEHICLE-WHEEL. HARRY ALLEN, Cleveland, Ohio. Filed Feb. 7, 1917. Serial No. 147,192. (Cl. 152—21.)

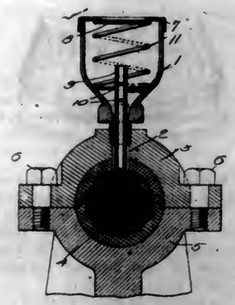


1. In combination with a wheel having a fixed rim upon the spokes thereof, and a removable rim surrounding the fixed rim, said fixed rim having openings alining with certain of the spokes of the wheel, and the referred to spokes having hollow ends, spring pressed plungers within the said ends of the referred to spokes designed to engage with the openings in the removable rim, said mentioned spokes having bayonet slots, and laterally extending elements upon the spring pressed plungers designed to engage in the bayonet slots, whereby to permit of the plunger being received in the openings of the removable rim or being retained in the hollow end of the spoke out of such engagement.

[Claims 2 and 3 not printed in the Gazette.]

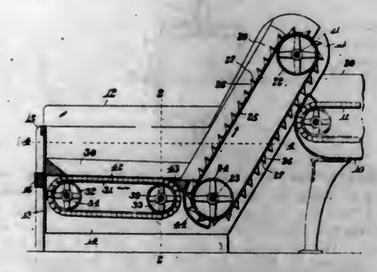
1,253,922. GREASE-CUP. HORACE E. ARGO, Oak Park, Ill. Filed Aug. 25, 1917. Serial No. 188,127. (Cl. 184—98.)

1. In a bearing, a shaft and an oil cup, of a tube extending through the oil cup into contact with the shaft, said tube having its ends open and having radial openings within the cup, and a spring normally pressing the tube toward the shaft, said tube having transverse notches, a washer encircling the tube and having a pawl for engaging the notches, and a coil spring normally pressing the washer downward.



2. In a bearing, the combination with the shaft and the oil cup, of a tube extending through the oil cup into contact with the shaft, said tube having its ends open and having radial openings within the cup, and a spring normally pressing the tube toward the shaft.

1,253,923. FEEDING MECHANISM FOR CONDITIONING-MACHINES. EARL K. ATWOOD, Waterville, Me. Filed Feb. 5, 1917. Serial No. 147,242. (Cl. 193—2.)



1. In a device of the class described, a hopper having side walls; a movable bottom therefor; an inclined movable apron at one end of said hopper; and transverse cleats of various lengths on said inclined apron extending inwardly with their outer ends adjacent the inner faces of said side walls.

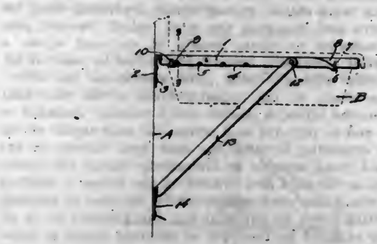
4. In a device of the class described, a hopper having side walls; a movable bottom therefor; an inclined movable apron at one end of said hopper; a plurality of transverse cleats on said inclined apron and extending from one side wall to the other; and other transverse cleats of various lengths interposed between the first mentioned cleats with their outer ends adjacent to said side walls and their inner ends staggered.

[Claims 2 and 3 not printed in the Gazette.]

1,253,924. ADJUSTABLE SINK-BRACKET. WILLIAM BARNETT, Portland, Oreg. Filed Sept. 7, 1916, Serial No. 118,880. Renewed Nov. 26, 1917. Serial No. 204,133. (Cl. 248—30.)

1. A bracket of the character described comprising a stationary supporting arm and an adjustable supporting arm, one of said arms having stop lugs formed of struck-out portions in the lower marginal edge of the arm, the corresponding arm having means formed at its end for coöperating with the said struck-out portions to permit the longitudinal adjustment of the said adjustable supporting arm with respect to the stationary arm.

2. A bracket of the character described comprising a stationary supporting arm and an adjustable supporting arm, the proximate ends of each of said arms being tapered and twisted to provide notches for the reception of the corresponding arm, one of said arms having stop lugs formed of struck-out portions in one edge of a width greater than the width of the said notch in the adjacent arm.

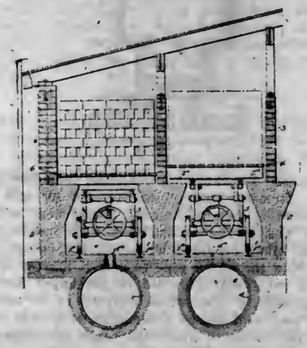


3. A bracket of the character described comprising a stationary supporting arm and an adjustable supporting arm, the proximate ends of each of said arms being tapered and twisted to provide notches for the reception of the corresponding arm, one of said arms having stop lugs formed of struck-out portions in one edge of a width greater than the width of the said notch in the adjacent arm, and retaining fingers formed at the terminal of each arm and extending upwardly from the adjacent notch.

5. A bracket comprising a pair of supporting arms, one being stationary and the other adjustable, the stationary arm having a fastening flange for disposing the arm edgewise, the lower edge of the arm having struck-out portions providing stop lugs disposed at equally spaced intervals, the adjustable supporting arm being tapered at one end and bent to provide a notch for receiving the said lower edge of the stationary supporting arm and terminating in a retaining finger embracing the said stationary arm, the said stationary supporting arm also being tapered and provided with a notch at its end and having its terminal bent to provide a retaining finger for embracing the said adjustable arm.

[Claim 4 not printed in the Gazette.]

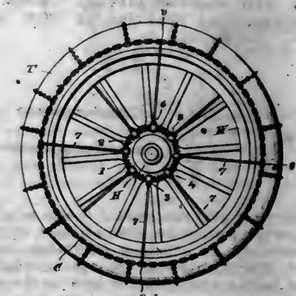
1,253,925. APPARATUS FOR DRYING OF BRICK. JOHN C. BOSS, Elkhart, Ind. Filed Feb. 14, 1916. Serial No. 78,230. (Cl. 34—19.)



1. An apparatus for drying brick and other products, comprising a track and side walls forming an open-topped channel, trucks adapted to run on said track within said channel, and having perforated supports for the brick with the sides of said supports in close proximity to the channel wall, and air ducts for supplying heated air to said track channels below the truck-platforms, substantially as described.

2. An apparatus for drying brick and other products, comprising a track and side walls forming an open top channel, elevating-lowering cars to run on said track, suitably arranged to carry loaded pallets, said pallets having open bottoms and perforated tops, the ends of the pallets, also the brick loaded thereon, to come in close proximity to the channel walls, and air ducts for supplying heated air to said track channels beneath said loaded pallets, substantially as described.

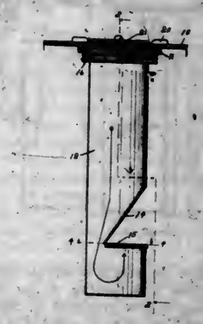
1,253,926. TIRE-CHAIN HOLDER. JOSEPH R. BOWLES, Lynchburg, Va. Filed May 2, 1917. Serial No. 166,015. (Cl. 152—14.)



1. The herein described holder for tire chains and the like, the same comprising a ring of coiled spring wire adapted to loosely surround the hub of an automobile wheel, a series of collars adjustably embracing said ring and each having a perforated ear, and a series of links, each having an eye at its inner end permanently but loosely engaging one of said ears and a hook at its outer end adapted to be attached to the chain, the links being alternately long and short and of such average length that the spring ring is put under tension when their hooks are engaged with the chain as described.

2. The herein described holder for tire chains and the like, the same comprising a spring ring adapted to surround the hub of the wheel, a series of collars adjustably embracing said ring, and two series of links, each of which links is connected at its inner end to one of the said collars and has a hook at its outer end, the links of one series being adapted to be connected to the chain at one side of the wheel and those of the other series being adapted to be passed between the spokes and attached to the chain at the other side of the wheel.

1,253,927. STRAINER FOR GASOLENE-TANKS. JOHN A. BRADSHAW, Paton, Iowa. Filed Aug. 6, 1917. Serial No. 184,631. (Cl. 210—16.)

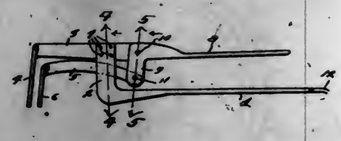


1. An annular externally screw-threaded ring having an internal shoulder and internal screw-threads above said

shoulder, a cylinder extending downwardly from said ring, an upwardly opening foraminous conical strainer received in said cylinder, and having a flange resting on said shoulder, a second strainer in the lower portion of said cylinder, laterally extending lugs on the upper part of said ring adapted to be grasped for rotating the ring, and also to limit the swinging movement of the ring when the ring is screwed into an opening, and a closure device adapted to be screwed into said ring and lock said flange against said shoulder.

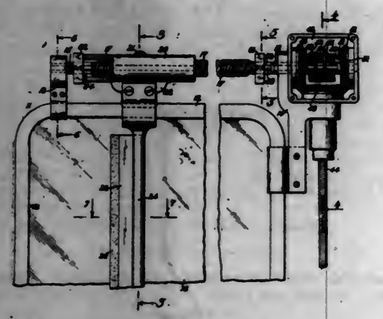
[Claim 2 not printed in the Gazette.]

1,253,928. POT AND PAN LIFTER. GEORGE BRAMMAR, Suisun City, Cal. Filed Apr. 12, 1917. Serial No. 161,487. (Cl. 65—32.)



In a lifter for pots and pans, a handle member having at its forward portion an upturned part provided with spaced ears and an adjoining bifurcation between the ears, said bifurcation having its crotch partially curved, a member having means fixing it between the ends of the ears, said member having long and short arms, the long arm extending forwardly of the ears and terminating in a right angle downwardly extending jaw blade, a second member curved to correspond with and engage said curved crotch and disposed below the first member, said second member having short and long portions corresponding to and disposed adjacent the short and long arms of the first member, the long portion of the second member having a right angle downwardly extending jaw blade to coöperate with the first jaw blade, and a second handle member substantially parallel with the first handle member and having its forward portion provided with a right angle extending bifurcated lug adjacent to but reversely disposed with relation to the upturned part, and means pivoting the adjacent short arm and portion of said members in said bifurcated lug of the second handle member, whereby as the second handle member is moved toward and from the first handle member, the curved member is reciprocated adjacent the curved crotch.

1,253,929. WIND-SHIELD CLEANER. CHARLOTTE A. BRIDGWOOD, Westwood, N. J. Filed Apr. 12, 1917. Serial No. 161,479. (Cl. 15—59.)



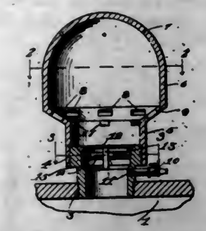
1. In a wind shield cleaner, a revoluble screw, a sleeve slidable on the screw and having a pin engaging the screw thread, wiping means attached to the said sleeve and engaging the wind shield to be cleaned, a power driven shaft, and an automatic power transmitting and reversing gear controlled by the said sleeve and connecting the said shaft with the said screw to rotate the latter alternately in opposite directions.

3. In a wind shield cleaner, a revoluble screw arranged above the top of the wind shield, a sleeve slidable on the said screw and having a pin engaging the thread of the screw, the said sleeve having a sliding connection with the top of the wind shield, wiping means depending from the said sleeve and engaging the wind shield, beveled gear wheels mounted to rotate loosely on the said screw, a driven shaft carrying a beveled gear wheel in mesh at opposite sides with the said gear wheels on the screw, clutch members on the opposite faces of the said gear wheels on the screw, a double clutch member mounted to slide on and to turn the said screw, the said double clutch member extending between the said gear wheels on the screw and being adapted to alternately engage the clutch members on the said gear wheels on the screw, a shifting rod on which the said double clutch member is secured, and shifting arms on the said rod and adapted to be alternately engaged by the ends of the said sleeve to move the shifting rod alternately in opposite directions

4. In a wind shield cleaner, a revoluble screw arranged above the top of the wind shield, a sleeve slidable on the said screw and having a pin engaging the thread of the screw, the said sleeve having a sliding connection with the top of the wind shield, wiping means depending from the said sleeve and engaging the wind shield, beveled gear wheels mounted to rotate loosely on the said screw, a driven shaft carrying a beveled gear wheel in mesh at opposite sides with the said gear wheels on the screw, the latter being hollow and provided with slots, clutch members on the opposite faces of the said gear wheels on the screw, a double clutch member adapted to engage alternately the said clutch members on the gear wheels, a shifting rod slidable in the said screw, a connection between the said shifting rod and the said double clutch member and extending through one of the slots in the said screw, and arms attached to the said shifting rod and extending through other slots in the said screw and into the path of the ends of the said sleeve.

[Claims 2 and 5 not printed in the Gazette.]

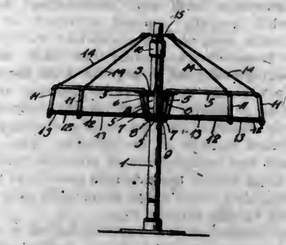
1,253,930. SAFETY-VALVE. HENRY G. BRIEL, Ottawa, Ill. Filed May 10, 1916. Serial No. 96,599. (Cl. 137—53.)



1. A device of the character described including an outlet pipe, a threaded enlargement formed on said outlet pipe, a protecting bell in threaded engagement with said enlargement and having a plurality of vent openings therein, said bell being provided with outlet openings, means associated with the outlet pipe to permit ingress of air to the tank, a valve seat provided in the upper portion of said enlargement, a disk valve adapted to be seated on said valve seat, and means associated with said enlargement and disk valve to guide the same into engagement with the valve seat.

2. A device of the character described including an outlet pipe, a threaded enlargement formed on said outlet pipe, a protecting bell in threaded engagement with said enlargement and having a plurality of vent openings therein, said valve being provided with outlet openings, means associated with the outlet pipe to permit ingress of air to the tank, a valve seat provided in the upper portion of said enlargement, a disk valve adapted to be seated on the valve seat, a bar extending transversely of said enlargement, the bar being provided with an opening intermediate its ends, a stem mounted on the disk valve adapted to slidably engage the opening provided in the transversely extending bar, and a plurality of inwardly extending lugs formed on the valve adapted to limit the upward movement of the same.

1,253,931. CLOTHES-DRYING RACK. RICHARD H. BROCK, Kissimmee, Fla. Filed Oct. 1, 1917. Serial No. 194,223. (Cl. 68—3.)



1. A clothes drying rack comprising a vertical standard having a fixed collar adjacent its upper end, a flat ring surrounding said standard and resting on said collar, a sleeve surrounding said standard immediately below said collar, said ring having circumferentially spaced vertical openings apd said sleeve having a plurality of radial openings, a plurality of radiating rods having their inner ends bent downwardly through the openings of said ring and then bent inwardly into the openings of said sleeve, the outer ends of said rods also extending downwardly, clothes lines extending between said downturned outer ends of said arms and said sleeve, and other lines extending between said downturned ends.

2. A structure as specified in claim 1, an additional collar on said standard above said first named collar, a second ring surrounding said standard and resting on said additional collar, and a plurality of brace wires extending from said second ring to the outer ends of said radiating arms.

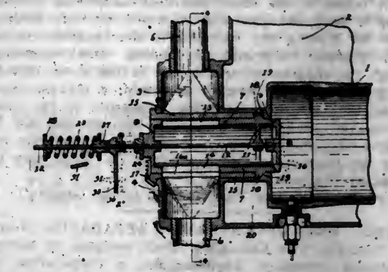
1,253,932. COMPOUND FOR DESTROYING BOLL-WEEVILS. CHARLES A. BRYANT, Clanton, Ala. Filed Mar. 14, 1916. Serial No. 84,218. (Cl. 167—6.)

A compound for destroying boll weevil and the like comprising astyptodyne, Sloan's liniment, kerosene oil and spirits of turpentine mixed substantially in the proportions stated for application to plants by spraying or otherwise.

1,253,933. INTERNAL-COMBUSTION ENGINE. JOHN W. BURKETT, Columbus, Ohio, assignor to The Burkett Manufacturing Company, Columbus, Ohio, a Corporation of Ohio. Filed Jan. 29, 1916. Serial No. 75,160. (Cl. 123—79.)

1. In an internal combustion engine provided with intake and exhaust passages, a common passage leading into the engine cylinder and communicating with both the intake and exhaust passages, a cage member located within said common passage and provided with a valve seat at its inner end, a hollow sleeve valve supported by said cage member, means for turning said sleeve valve in such manner to uncover said intake and exhaust passages in their proper order, and a primary valve working on the valve seat of said cage.

2. In an internal combustion engine provided with intake and exhaust passages, a common passage leading into the engine cylinder and communicating with both the intake and exhaust passages, a cage member located within said common passage and provided with a valve seat on its inner end, a hollow sleeve valve supported on the exterior of said cage member, means for imparting a turning motion to said sleeve valve to uncover said intake and exhaust passages in their proper order, and a primary valve working in the valve seat of said cage.



3. In an internal combustion engine provided with intake and exhaust passages, a common passage leading into the engine cylinder and communicating with both the intake and exhaust passages, a cage member located within said common passage and provided with a valve seat on its inner end, a hollow sleeve valve supported by said cage member, means for imparting a turning motion to said sleeve valve to uncover said intake and exhaust passages in their proper order, a primary puppet valve working on the valve seat of said cage, a stem on said puppet valve slidably supported in said cage member and projecting out through the rear end thereof, and resilient means operatively engaging the end of said stem projecting out of the rear of said cage member.

1,253,934. FOUNTAIN-BRUSH. CONRAD J. BUSCH, Wyomissing, Pa. Filed Feb. 27, 1917. Serial No. 151,264. (Cl. 15—50.)



3. A brush of the class described comprising a body having a supply chamber and a bristle portion, feeding means for feeding the contents of the chamber to the bristle portion comprising a tube arranged to receive the contents of the supply chamber thereinto and having a threaded portion for connection with the body, a plunger operable in said tube, and means interlocking the plunger with the tube for rotation therewith to effect the connection aforesaid while permitting free reciprocal movement of the plunger.

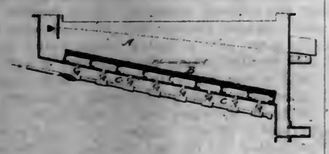
4. A brush of the class described comprising a body having a soap chamber and a bristle portion, feeding means for feeding the contents of the chamber to the bristle portion comprising a tube extending longitudinally through the chamber aforesaid and having an opening communicating therewith, a plunger in said tube, and projections on the plunger extending through the feed opening aforesaid into the chamber and constituting agitating means for the contents of the cham-

ber, said projections connecting the tube for rotation with the plunger but permitting free reciprocatory movement of the latter.

5. A brush of the class described comprising a body having a soap chamber and a bristle portion, feeding means for feeding the contents of the chamber to the bristle portion comprising a feeding tube extending through the chamber aforesaid, and having a slot therein arranged within the chamber aforesaid, a plunger operable in the tube and extending outwardly of the body portion, and projections extending through the slot in the tube and constituting an interlocking connection between the plunger and tube whereby the latter may be rotated by the plunger.

[Claims 1, 2, 6, and 7 not printed in the Gazette.]

1,253,935. ORE-CONCENTRATING APPARATUS. JOHN M. CALLOW, Salt Lake City, Utah, assignor to Metals Recovery Company, Augusta, Me., a Corporation of Maine. Filed Mar. 3, 1917. Serial No. 152,318. (Cl. 241—122.)

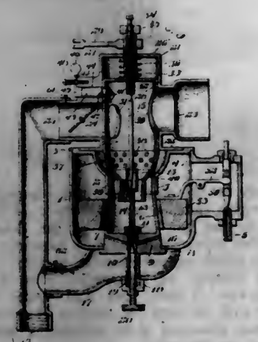


1. A flotation apparatus comprising, in combination, a tank having a gas-receiving chamber, and a covering for said chamber, said covering being formed of fibrous material porous for the admission of the gas into the tank, and having the capacity to substantially maintain its normal porosity when submerged in the liquid contents of the tank.

3. A flotation apparatus having a porous bottom for the introduction of air or other gaseous flotation agent, said porous bottom being of water-proofed or water repellent fibrous material.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,253,936. CARBURETER. ARTHUR R. CASTAGNER, Minneapolis, Minn. Filed Mar. 18, 1916. Serial No. 85,122. (Cl. 261—45.)



1. In a carbureter, the combination of a carbureting chamber, a main air inlet at the bottom of said carbureting chamber, a throttle valve chamber above and in communication with said carbureting chamber and formed with laterally opposed auxiliary air inlet and mixture outlet openings, an oscillatory cylindrical throttle valve formed with auxiliary air inlet and mixture outlet openings adapted to register with the corresponding openings of the throttle valve chamber, said throttle valve having a reduced tubular portion thereof extended downwardly into the carbureting chamber, said tubular portion being of less diameter than the mixing chamber to leave an annular air space between the extended portion of the throttle valve and the inner surface of the mixing chamber, a fuel nozzle discharging within said extended portion of the throttle valve, and a fuel valve coöperating with said fuel nozzle and carried by said throttle valve.

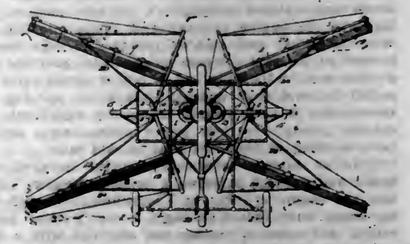
2. In a carbureter, the combination of a carbureting chamber, a main air inlet at the bottom of said carbureting chamber, a throttle valve chamber above and in communication with said carbureting chamber and formed with laterally opposed auxiliary air inlet and mixture outlet openings, an oscillatory cylindrical throttle valve formed with auxiliary air inlet and mixture outlet openings adapted to register with the corresponding openings of the throttle valve chamber, said throttle valve having a tubular portion thereof extended into the carbureting chamber, a fuel nozzle discharging within said extended portion of the throttle valve, the upper end of said fuel nozzle being of enlarged tubular formation and lying within the extended portion of the throttle valve, and a fuel valve coöperating with said fuel nozzle and carried by said throttle valve.

4. In a carbureter, the combination of a carbureting chamber, a main air inlet at the bottom of said carbureting chamber, a throttle valve chamber above and in communication with said carbureting chamber and formed with laterally opposed auxiliary air inlet and mixture outlet openings, an oscillatory cylindrical throttle valve formed with auxiliary air inlet and mixture outlet openings adapted to register with the corresponding openings of the throttle valve chamber, said throttle valve having a tubular portion thereof extended into the carbureting chamber, a fuel nozzle discharging within said extended portion of the throttle valve, and a fuel valve coöperating with said fuel nozzle and carried by said throttle valve, said throttle valve being formed with a plurality of air inlet perforations located above the upper end of the fuel nozzle.

5. In a carbureter, the combination of a carbureting chamber, a main air inlet at the bottom of said carbureting chamber, a throttle valve chamber above and in communication with said carbureting chamber and formed with laterally opposed auxiliary air inlet and mixture outlet openings, an oscillatory cylindrical throttle valve formed with auxiliary air inlet and mixture outlet openings adapted to register with the corresponding openings of the throttle valve chamber, said throttle valve having a tubular portion thereof extended into the carbureting chamber, a fuel nozzle discharging within said extended portion of the throttle valve, and a fuel valve coöperating with said fuel nozzle and carried by said throttle valve, said auxiliary air inlet and mixture outlet openings being located above the discharge end of the fuel nozzle.

[Claims 3 and 6 not printed in the Gazette.]

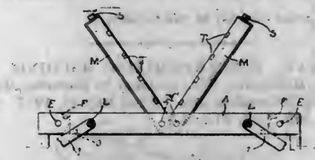
1,253,937. FLYING-MACHINE. HIPPOLYTE MARIUS CHIRON and JEAN F. BERRIEX, San Francisco, Cal. Filed Feb. 14, 1916. Serial No. 78,293. (Cl. 244—20.)



2. An aeroplane including an engine, a frame, pairs of oppositely directed wings, a supporting standard for each wing pivoted intermediate its length to the frame, the free ends of the standards of a pair of wings on one side of the machine crossing each other and provided with slots, a sectional pitman for each pair of wings encircling said crossed ends of said standards, one section of said pitman terminating in a yoke, a pin carried by said yoke passing through said slots of the crossed ends of the standards, a further yoke on the adjacent end of the other pitman section encircling the first mentioned yoke and secured to the pitman section carrying the first mentioned yoke, and gear means enabling the engine to operate said pitman.

[Claims 1 and 3 not printed in the Gazette.]

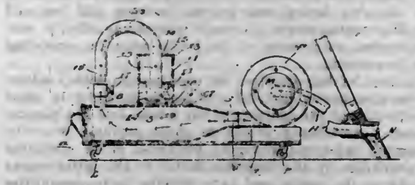
1,253,938. HEN-ROOST. SARAH CLARK, Contact, Nev. Filed Aug. 31, 1917. Serial No. 189,094. (Cl. 119—22.)



4. A hen roost comprising a frame with side pieces, rounds connecting said side pieces, trays with their adjacent ends open and pivoted upon said rounds, said trays having cross bars forming roosts, and handles at the outer ends of the trays forming a convenient means for tilting the trays, and means for connecting the side pieces for supporting the outer ends of the trays in a horizontal position.

[Claims 1 to 3 not printed in the Gazette.]

1,253,939. DUST-COLLECTOR FOR VACUUM-CLEANERS. DAVID E. G. CLARKE, Bayonne, N. J. Filed Apr. 27, 1917. Serial No. 164,938. (Cl. 183—28.)

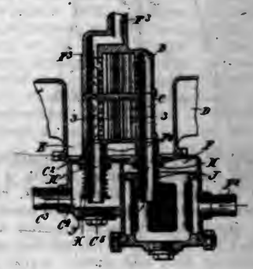


1. An air cleanser for vacuum machines and the like comprising an upright can adapted to contain a purifying substance, a removable cover therefor having air outlets and a central opening, a dust-receptacle whose top has a ring within which said can is mounted, an upstanding outlet pipe in the top of the receptacle adjacent said ring, a goose-neck pipe whose inlet leg is slipped over said pipe and whose outlet leg is passed through the opening in said cover and down to the bottom of the can, and a set screw through the inlet leg bearing against said pipe, for the purpose set forth.

2. An air cleaner for vacuum machines and the like comprising an upright can adapted to contain fluid, a removable cover therefor having air outlets and a central opening, a dust-receptacle whose top has a ring within which said can is mounted, an upstanding outlet pipe in the top of the receptacle adjacent said ring, a goose-neck pipe whose inlet leg is slipped over said pipe and whose outlet leg is passed through said opening in the cover of the can and down to a point near the bottom of the latter and provided with a flange, and a perforated disk having a central opening mounted on the outlet leg and with its body normally resting on said flange.

3. In an air cleaner for vacuum machines and the like, the combination with a base, and a flat dust receptacle removably mounted on said base and having an inlet nozzle at one end and a handle at the other end, its top being closed by a hinged cover having an outlet opening; of an upright can resting on said cover and adapted to contain water, and a goose-neck pipe whose inlet leg is adapted to connect with said cover and communicate with the outlet opening therein and whose outlet leg is passed down into the can beneath the water level, for the purpose set forth.

1,253,940. LUBRICATION SYSTEM FOR INTERNAL-COMBUSTION ENGINES. LOUIS COATALEN, Wolverhampton, England, assignor of one-half to Sunbeam Motor Car Company Limited, Wolverhampton, England. Filed June 12, 1916, Serial No. 103,321. Renewed July 6, 1917. Serial No. 179,098. (Cl. 184—6.)

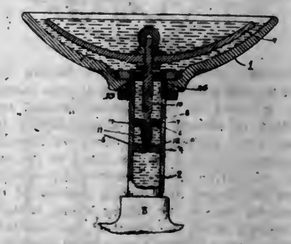


1. In an internal combustion engine, the combination of an upper crank chamber part, a lower part detachable therefrom, an oil pump carried by said upper part, an oil chamber carried by said lower part, and a floating oil-tight connection between said pump and said oil chamber, substantially as set forth.

3. In an internal combustion engine, the combination of an upper crank chamber part, a lower part detachable therefrom, a pair of superposed oil pumps carried by said upper part, a pair of oil chambers carried by said lower part, floating oil-tight connections between each of said pumps and one of said oil chambers, substantially as set forth.

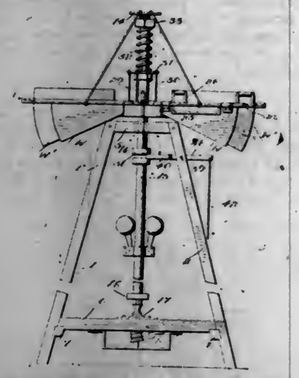
[Claim 2 not printed in the Gazette.]

1,253,941. WATER-TANK. LUCIUS D. COPELAND, Sawtelle, Cal. Filed Sept. 7, 1915. Serial No. 49,294. (Cl. 119—81.)



A water tank comprising an outer tank having an opening in the bottom thereof; a downwardly extending pipe secured to said tank around said opening; a disk in said pipe, said disk having a port therein; a guide disk having openings therein, the central one being threaded, between said tank and said last disk; and an inner tank having a downwardly projecting stem, the lower end of which stem is enlarged and threaded and terminates in a needle valve, said enlarged end being adapted to pass through the threaded hole of the guide disk.

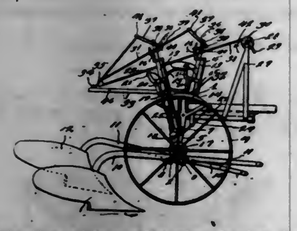
1,253,942. WINDMILL. HENRY J. COUSON, Bridesville, British Columbia, Canada. Filed June 28, 1916. Serial No. 106,433. (Cl. 170—30.)



1. A windmill of the class described including a frame, a vertical shaft rotatably mounted therein, a wheel carried adjacent the upper end of said shaft, radially disposed rotatably mounted spokes on said wheel, alternate spokes being provided with upwardly and downwardly projecting offset portions, wings having their upper edges pivotally connected with said spokes, cranks carried by the inner ends of said spokes, spring tension slidable means on the shaft connected with the cranks for normally holding the wings in operative position, said means being operable either manually or automatically to move the wings out of operative engagement by movement of the cranks.

[Claims 2 and 3 not printed in the Gazette.]

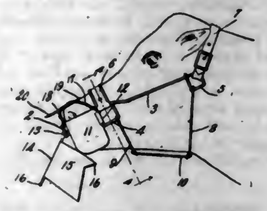
1,253,943. ATTACHMENT FOR SULKY-PLOWS. GEORGE STEPHEN CRAWFORD, La Salle, Colo. Filed May 16, 1917. Serial No. 169,019. (Cl. 97—36.)



In combination with a sulky plow having drop axles, plow beams having plows at their rear ends carried by the drop axles, whereby as the axles are rocked said beams may be tilted to elevate said plows, lifting levers for rocking said axle, whereby the plows are elevated, windlass mechanisms mounted on the frame of the sulky plow forward of the lifting levers, rearwardly extending bars mounted on the frame and having pulleys at their rear ends rearwardly beyond the lifting levers, cables connected to and wound about the drum of the windlass mechanisms and passing over the pulleys and having their extremities connected to the levers, whereby, upon rotating the drums, said levers are rocked rearwardly to force the plows into the soil.

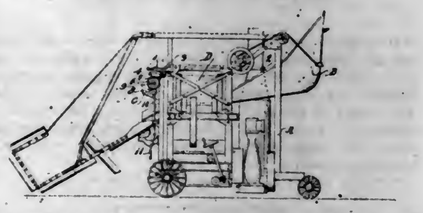
1,253,944. COLT AND CALF WEANER. DANIEL DAGGETT, Omaha, Nebr. Filed May 4, 1916. Serial No. 96,408. (Cl. 119—131.)

1. A weaner including connected side arms, a flap pivotally supported thereby, side wings rigid with and normally projecting rearwardly and downwardly from the flap, the lower and rear edges of the wings merging into a downwardly and rearwardly projecting prong, a guard rigidly secured to the side arms and coöperating with the flap, and means for securing the device to the head of an animal.



[Claim 2 not printed in the Gazette.]

1,253,945. CONCRETE-MIXING MACHINE. JOHN DANIEL, Milwaukee, Wis., assignor to Koehring Machine Company, Milwaukee, Wis. Filed May 31, 1917. Serial No. 171,993. (Cl. 214—1.)



1. In a mixing machine, the combination with a mixer, a charging device therefor and means whereby to effect discharging of the contents of the mixer, of an operating bar adapted to be actuated during charging movement of the charging device, and gearing between said bar and the discharging means aforesaid whereby to effect a non-discharging adjustment of the latter when the operating bar is actuated.

2. In a mixing machine, the combination with a mixer, a charging device therefor and means whereby to effect discharging of the contents of the mixer, said discharging means comprising a discharge chute movable into discharging and non-discharging positions, of an operating bar shiftable by the charging device as the latter moves to charge the mixer, and cable driving instrumentalities intermediate said bar and the chute.

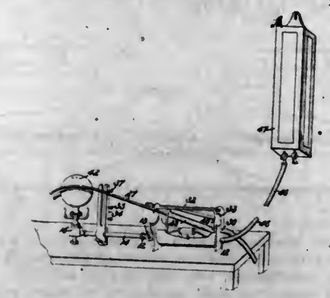
3. In a mixing machine, the combination with a mixer, a charging device therefor and means whereby to effect discharging of the contents of the mixer, said discharging means comprising a discharge chute movable into discharging and non-discharging positions, of an operating bar shiftable by the charging device as the latter moves to charge the mixer, cable driving instrumentalities intermediate said bar and the chute including a cable having its ends fixed to the operating bar at spaced points in the length of the latter, a grooved member frictionally engaged by a looped portion of said cable, and a connection between said grooved member and the chute whereby the latter may be moved as an incident to actuation of the grooved member by the cable.

4. In a mixing machine, the combination with a mixer, a charging device therefor and means whereby to effect discharging of the contents of the mixer, said discharging means comprising a discharge chute movable into discharging and non-discharging positions, of an operating bar shiftable by the charging device as the latter moves to charge the mixer, cable driving instrumentalities intermediate said bar and the chute, and a manual device also adapted to operate said chute.

5. In a mixing machine, the combination with a mixer, a charging device therefor and means whereby to effect discharging of the contents of the mixer, said discharging means comprising a discharge chute movable into discharging and non-discharging positions, of an operating bar shiftable by the charging device as the latter moves to charge the mixer, cable driving instrumentalities intermediate said bar and the chute, and manual means for actuating the chute including a shaft and a train of gearing intermediate said shaft and said grooved member.

[Claims 6 and 7 not printed in the Gazette.]

1,253,946. DENTAL-BLOWPIPE BURNER. JOSÉ ANTONIO DE CARVALHO, Jr., Rio de Janeiro, Brazil. Filed May 16, 1916. Serial No. 97,866. (Cl. 158—27.5.)



1. An apparatus of the character described, comprising a burner, a reservoir, mounted upon the burner and provided with a discharge nozzle, means for delivering the material to be vaporized to the reservoir through the burner, and a blow-pipe having its nozzle at the discharge nozzle of the reservoir.

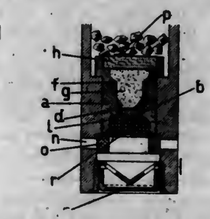
4. In an apparatus of the character described, a supply pipe, a support mounted on the said pipe and provided with a nozzle communicating with the supply pipe, and a globe held on the support and into which the nozzle discharges, said globe having a discharge nozzle.

5. In an apparatus of the character described, a supply pipe, a cup on the said pipe, a second cup carried by the first cup and adapted to contain an absorbent material, a nozzle projecting through the first cup and in communication with the supply pipe, and a globe mounted on the second cup and having a discharge nozzle.

10. In an apparatus of the character described, a burner, a globe mounted on the burner, means for admitting the material to be evaporated to the globe, and a cupola adapted to rest upon the globe in spaced relation thereto.

[Claims 2, 3, 6 to 9, and 11 not printed in the Gazette.]

1,253,947. TIME-FUSE. BALTASAR FARGAS DE CASANOVAS and RAMON RUBIÓ Y ROGER, Barcelona, Spain. Filed May 27, 1916. Serial No. 100,374. (Cl. 102—36.)



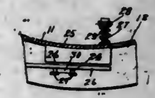
1. In a time fuse, a mass of timing composition, a charge of detonating explosive in immediate contact with the timing composition, said charge of detonating explosive being so arranged as to be interposed between said timing composition and the explosive charge of the projectile when the fuse is secured thereto, and means to prevent delay in the ignition of the timing composition.

3. In a time fuse, a mass of timing composition, ending in a concave truncated cone-shaped surface, a charge of detonating explosive fitted within the concave portion of the timing composition, a disk of gun cotton adjacent the charge of detonating explosive and so arranged as to be interposed between the detonating explosive and the explosive charge of the projectile when the fuse is secured thereto, and a ring made of a readily inflammable material positioned under the timing composition to facilitate its ignition.

6. In a time fuse, a casing having gas vents, said casing containing a hollow body comprising two enlarged portions connected by a narrow neck, a mass of timing composition filling the lower portion of said body and a part of the narrow neck, a charge of detonating explosive filling the remaining part of said narrow neck and the greater part of the upper portion of said body, a disk of gun cotton arranged in the upper portion of said body on top of said charge of detonating explosive, and a ring of a readily inflammable material positioned under the timing composition to facilitate its ignition, said ring being disposed in such a way that its inner edge corresponds to the lower end of the timing composition and its lateral walls cover the gas vents in said casing.

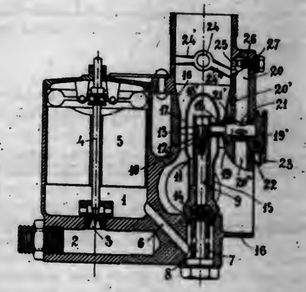
[Claims 2, 4, and 5 not printed in the Gazette.]

1,253,948. SACK-HOLDER. NAPOLEON DUGAS, Little Falls, Minn. Filed Oct. 23, 1916. Serial No. 127,214. (Cl. 83—26.)



A holding device consisting of a block, pins extending from the block in spaced relation and having heads at their outer ends, a lever having a stem extending through the block to pivotally connect the lever with the block, resilient means having engagement with the stem to yieldably hold the stem against rotation, and a gripping finger extending from the lever for fitting between the pins for carrying material between the pins and clamping the material between the gripping finger and the pins and between the gripping pin and the heads of the pins.

1,253,949. CARBURETER. ENRICO FERODLDI, Turin, Italy. Filed June 1, 1916. Serial No. 101,088. (Cl. 261—41.)



1. A carbureter for explosion engines comprising a main carbureting chamber, a valve controlling the communication of said chamber with the suction duct of the engine, an auxiliary carbureting chamber opening in said duct beyond said valve, a single nozzle in the main cham-

ber, said nozzle having a plurality of peripherical spraying holes in its head, a pipe projecting into the main carbureting chamber and connecting a number of said holes with the auxiliary chamber, openings in said pipe for feeding air in the auxiliary chamber, said pipe being able to be displaced to adjust the clear section of said openings.

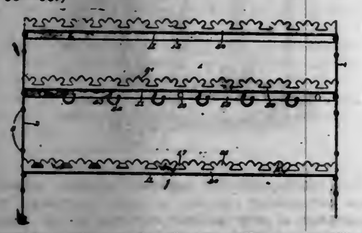
2. A carbureter for explosion engines comprising a main carbureting chamber, a valve controlling the communication of said chamber with the suction duct of the engine, an auxiliary carbureting chamber opening in said duct beyond said valve, a single nozzle in the main chamber, said nozzle having two sets of peripherical spraying holes, each hole of one set being inclined toward the adjacent hole of the other set, a pipe projecting into the main carbureting chamber and connecting a number of said holes with the auxiliary chamber, openings in said pipe for feeding air in the auxiliary chamber, said pipe being able to be displaced to adjust the clear section of said openings.

3. A carbureter for explosion engines comprising a main carbureting chamber, a valve controlling the communication of said chamber with the suction duct of the engine, an auxiliary carbureting chamber opening in said duct beyond said valve, a single nozzle in the main chamber, said nozzle having a plurality of peripheral spraying holes, a pipe projecting into the main chamber and connecting a number of said holes with the auxiliary chamber, openings in said pipe, a duct connecting the main chamber with one of said openings, a duct registering with another of said openings and leading to the atmosphere, said pipe being able to be displaced to adjust the clear section of said openings.

4. A carbureter for explosion engines comprising a main carbureting chamber, a controlling throttle valve the wings of which are arranged at an angle to each other, one of said wings being substantially perpendicular to the wall of the chamber when the valve is closed while the other wing is inclined in the direction of the rotation of the valve, an auxiliary carbureting chamber opening into the suction duct of the engine by a hole provided beyond said valve and by another opening being shut by the edge of the inclined wing of the valve when the same is closed, a single nozzle having a plurality of spraying holes in the main chamber, a pipe projecting into said chamber and connecting a number of said holes with the auxiliary chamber and adjustable means for feeding air in said pipe.

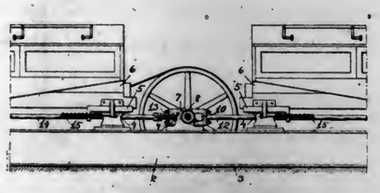
5. A carbureter for explosion engines comprising a main carbureting chamber, a valve controlling the communication of said chamber with the suction duct of the engine, an auxiliary carbureting chamber opening in said duct beyond said valve, a single nozzle having a plurality of spraying holes in said main chamber, a casing encircling the nozzle and having an enlarged head, openings in said head, a pipe projecting into said head and connecting a number of said spraying holes with the auxiliary carbureting chamber and adjustable means for feeding air in said pipe.

1,253,950. PLATE-RACK. HARRY H. FISCHER, Cincinnati, Ohio. Filed May 19, 1917. Serial No. 169,710. (Cl. 65—65.)



In a plate rack, a pair of end walls, a plurality of horizontal shelves secured in superposed relation between said walls, depending flanges formed on the rear edges of certain of said shelves, the shelves having a horizontal forward portion, inclined portions and vertical flanges arranged along the lower edges of said inclined portions, the upstanding flange on one shelf being adapted to engage the lower edges of plates and similar articles and the depending flange on the next higher shelf being adapted to engage the upper edge portions of said plates.

1,253,951. MACHINE FOR SEPARATING AND CLEANING GRAIN. WILLIAM HENRY FORD, Niagara Falls, N. Y., assignor to The Shredded Wheat Company, Niagara Falls, N. Y. Filed July 24, 1912. Serial No. 711,299. (Cl. 130—18.)



1. The combination with two reciprocatory separators in line with each other and with their direction of motion, and a longitudinal base frame and horizontal tracks thereof supporting said separators, of boxes secured to said frame midway between the tracks of the separators, a transverse shaft having a central crank and side cranks opposite to and of equal length to that of said central crank and in the plane thereof, springs in the plane of the crank shaft connecting the separators to the base frame, and pitman connections substantially in the plane of said tracks between the separators and the cranks, said pitman connections being central of and substantially in the same longitudinal vertical plane as the centers of gravity of said separators.

2. In combination, a longitudinal base frame having horizontal longitudinal tracks, two reciprocatory separators sliding horizontally upon said tracks, a transverse shaft mounted upon said frame between said separators and having diametrically opposite cranks, oppositely extending pitmen at one end having connection with the cranks of said shaft and at their opposite ends having connection intermediately of the lengths of the separators in the plane of said shaft and approaching the transverse vertical planes wherein lie the centers of gravity of said separators, and spring connections between the separators and said frame, also substantially in the plane of said shaft.

3. In combination, a longitudinal base frame having horizontal longitudinal tracks, two reciprocatory separators sliding horizontally upon said tracks, a transverse shaft mounted upon said frame between said separators and having diametrically opposite cranks located centrally of said separators, oppositely extending pitmen also located centrally of the separators and having at one end connection with the cranks of said shaft and at their opposite ends having connection intermediately of the lengths of the separators, in the plane of said shaft and substantially in the same longitudinal plane as the centers of gravity of the separators and approaching the transverse vertical planes wherein lie said centers, and spring connections between the separators and said frame, also substantially in the plane of said shaft.

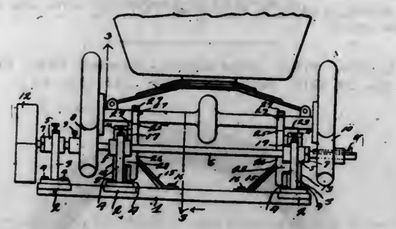
1,253,952. CONCRETE CONSTRUCTION FOR CEILINGS FOR BUILDINGS. THOMAS J. FRABER, Washington, D. C. Filed Aug. 9, 1917. Serial No. 185,814. (Cl. 25—131.5.)

A form for use in concrete ceiling construction comprising two curved members, the outer edges of which are adapted to be supported upon flanges of I-beams, the adjacent ends of the members having shoulders which overlap each other, and provided with registering apertures, a hook adapted to be anchored in the concrete construction



and passing through said registering apertures, and a nut upon the threaded portion of the hook, adapted to hold the form in place and support the overlapping edges thereof.

1,253,953. DEVICE FOR CONVERTING AUTOMOBILES INTO PRIME MOVERS. FRANK J. FRIES and GEORGE BIRK, Pacific, Mo. Filed Mar. 29, 1917. Serial No. 158,463. (Cl. 74—106.)



In a device for converting automobiles into prime-movers, the combination of a counter-shaft and pulleys having grooved faces carried thereby, of supports for the counter-shaft, a base to which the supports are secured, stands secured to the platform, arms supported at the top of the stands, and levers pivoted to the arms, said arms being adjustable to change the pivotal positions of the levers with respect to the stands, said levers having U-shaped ends to engage the driving axle of an automobile and raise its wheels from the ground to bring them into engagement with the aforesaid pulleys, said levers further having an adjustable limiting stop to vary the angle of inclination of the U-shaped end when raised so that the frictional contact between the pulleys and the automobile wheels may be increased or decreased.

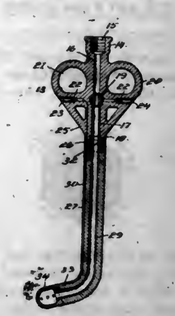
1,253,954. SMOKING-PIPE ATTACHMENT. GABRIEL A. FRISBEE, Vona, Colo. Filed Apr. 24, 1917. Serial No. 164,228. (Cl. 131—12.)



A cover for smoking pipes embodying a cap adapted to cover the bowl of the pipe, said cap including a top having an elongated slot, a yoke fixed upon the top, a substantially inverted V-shaped element being secured at its vertex to said yoke, with the limbs of said element extended through said slot, said limbs being relatively movable and terminating beyond said cap for detachably holding the latter associated with the bowl.

1,253,955. SURGICAL IMPLEMENT. EDWARD H. GALLIGAN, Seekonk, Mass. Filed May 22, 1917. Serial No. 170,286. (Cl. 174—89.)

1. A surgical implement having a valve handle, a tube within said handle, a contact band embedded in said handle and arranged concentrically of said tube, sockets in said handle having connection with said band and tube respectively, injection nozzles, a band at one end of each nozzle for engagement with the band in the handle, a contact plate on each of said nozzles, an electrical connection between said plate and the last mentioned band, a tube within each of said nozzles for connection with the tube in the handle, and perforated conducting caps for connection with said tubes.



2. A surgical implement having an injection nozzle handle having a channel extending longitudinally thereof, a socket at one end of the handle in communication with the channel, a tube within said channel, an enlargement at one end of said tube providing a socket at the end of said handle opposite the first mentioned socket, a valve casing within said handle at the other end of the tube, and a valve within said casing.

1,253,956. COMPOSITION FOR MAKING METALLIC LEAF. NILS GENTZEL, Newark, N. J., assignor to K. E. Olson & Son, Inc., Normandy Place, Irvington, N. J., a Corporation of New Jersey. Filed Apr. 17, 1916. Serial No. 91,795. (Cl. 134—79.)

1. A composition for making metallic leaf including dissolved caoutchouc, coloring metallic powder, and soluble nitrated cotton.

4. A composition for making metallic leaf including dissolved caoutchouc, naphthalene, flowers of sulfur, ceresin, coloring metallic powder, and a minor portion of soluble nitrated cotton.

5. A composition for making metallic leaf including gum-caoutchouc, napthalene, pulverulent sulfur, naphtha, camphor oil, soluble nitrated cotton, and ceresin.

[Claims 2 and 3 not printed in the Gazette.]

1,253,957. CARPENTER'S TOOL. WILLIAM J. GLUECK. East St. Louis, Ill. Filed Dec. 18, 1914. Serial No. 877,891. (Cl. 33—82.)



4. A tool comprising a head block, a pair of parallel members adjustably mounted thereon, said members being of equal length and having a width equal to the thickness of said block, one of said members having a transverse adjustment, and the other said member having a transverse and a longitudinal adjustment.

6. A tool comprising a head block, a pair of spaced apart parallel members extending from one end of said block, each of said members being of a width equal to the thickness of said block, one of said members adapted to be extended from the other end of said block, and means whereby said members are adapted to be adjusted transversely of said block.

7. A tool comprising a head block, a pair of spaced apart parallel members extending from one end of said block, each of said members being of a width equal to

the thickness of said block, one of said members having a slot formed thereon so that said member can be extended from the other end of said block, and means whereby said members are adapted to be adjusted transversely of said block.

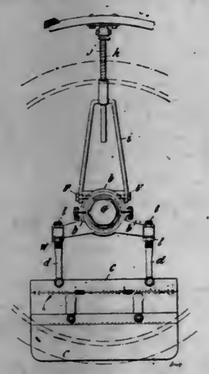
[Claims 1 to 3, 5, 8, and 9 not printed in the Gazette.]

1,253,958. NUT-LOCK. RAYMOND D. GODWIN and CHARLEY D. GODWIN, Cement, Okla. Filed Mar. 27, 1917. Serial No. 157,719. (Cl. 151—24.)



The combination of a cylindrical nut having a radial opening intersecting the screw threads and also having a base provided with a segmental recess, a segmental channel in the inner wall of the recess and stops at the ends of the recess; a thread engaging member arranged for slight radial movement in said radial opening of the nut, and a sleeve mounted for turning movement on the nut and having a cam face opposite the outer end of said thread engaging member, to move said member inwardly when the sleeve is in one position on the nut and to release said member when the sleeve is in another position on the nut, the sleeve being further provided with a lug arranged for movement in the segmental recess of the nut base, said lug having a flange engaging in said channel.

1,253,959. SIDE SPLASH-GUARD FOR MOTOR-VEHICLES AND OTHER ROAD-VEHICLES. HARRY VOLLER NORRIS GRAVELEY, London, England. Filed June 30, 1915. Serial No. 37,334. (Cl. 21—23.)



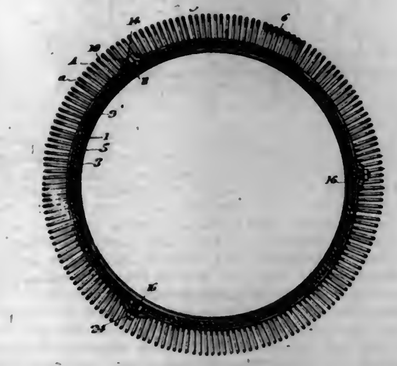
1. Side splash guards for the wheels of road vehicles, each comprising a guard adapted to lie parallel to the wheels and below the hub thereof, a bearing on said hub from which said guard is suspended, and a control device comprising a member mounted on said bearing, a rod engaging said member, and means extended from the vehicle and connecting to said rod so as to maintain the guard in a predetermined position relatively to the wheel and to the road surface.

2. Side splash guards for the wheels of road vehicles, each comprising a guard adapted to lie parallel to the wheel and below the hub thereof, a bearing on said hub from which said guard is suspended, and a control device comprising a bifurcated member secured to said bearing, a rod slidably mounted in said member, and means for said rod attached to the vehicle in such a manner that the relative movement of the wheel to the vehicle will not disturb the guard.

3. Side splash guards for the wheels of road vehicles, each comprising a guard adapted to lie parallel to the wheel and below the hub thereof, a bearing on said hub from which said guard is suspended, and a control device comprising a forked member pivoted to said bearing, a rod engaging and slidable relatively to the forked member, and an arm connecting with said rod and with the vehicle to permit of relative movement between the vehicle and wheels.

4. Side splash guards for the wheels of road vehicles, each comprising a guard mounted below the wheel hub and parallel to the wheel, an antifriction bearing on said hub from which the guard is supported, and a control device comprising a yoke piece pivotally connected to said bearing, a vertical rod engaging and slidable relatively to said yoke piece, a telescopic lever arm fulcrumed on the vehicle and connecting with said rod and a spring on said rod arranged between the lever arm and yoke piece.

1,253,960. TIRE. JOHN GREWE, Cincinnati, Ohio. Filed Jan. 22, 1916. Serial No. 73,658. (Cl. 152—8.)



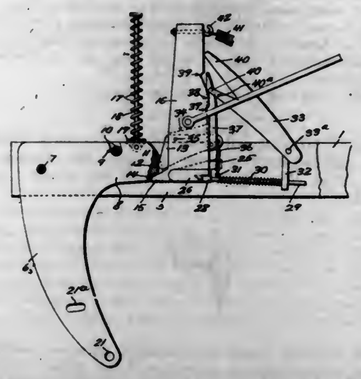
The combination of an annular supporting rim, a tire body consisting of a primarily straight cylindrical coil of spring metal, said coil being curved into annular shape to encircle the supporting rim, means for coupling together the extremities of the coil, a flexible coil restraining and clamping member passing longitudinally through the coiled body and pressing the inner portions of the convolutions of the coil toward the supporting rim, a coupling connecting the extremities of said restraining member, and means for straining said restraining member by forcibly shifting a portion thereof radially and outwardly.

1,253,961. PLOW. EMIL GRIMSRUD, Antelope, Mont. Filed May 29, 1917. Serial No. 171,728. (Cl. 97—69.)

2. A plow beam provided with openings having round ends and steps, a plow stock fulcrumed on the plow beam the stock having a heel, a trip lever having a nose engageable with the heel, abutments on the trip lever, the abutments having round ends for pivotally engaging the round ends of the openings, recessed ends for engaging the steps, and means for keeping the round ends of the abutments in the round portions of the openings.

4. A plow beam having an opening, a plow stock fulcrumed on the beam, a trip lever having a nose engageable with the stock, a fulcrum-abutment on the trip lever, the fulcrum abutment being receivable in the opening in the plow beam, a tension staff having a pivot head for engaging the abutment, and a spring on the tension staff for urging the fulcrum-abutment into position in the opening in the plow beam.

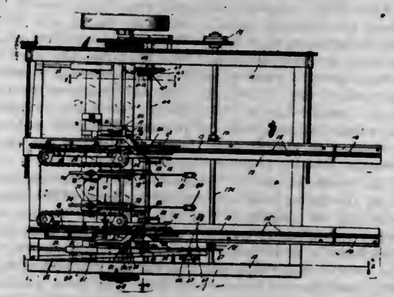
19. A plow beam, a stock fulcrumed on said beam, said stock having a heel, a trip lever having a nose for engaging said heel and retaining said stock from collapse, said trip lever being adapted to assume a tilted position upon the collapse of the said stock, a dog for holding said lever in its tilted position, an arm projecting from said dog, said trip lever having an opening formed adjacent its lower end, a pivot head extending into said



opening, a shaft connected to said pivot head and projecting through said arm, a spring carried by said shaft and urging said head and arm in opposite directions, whereby the lower end of said lever will be yieldably retained in a set position, thereby permitting said heel to snap past the said nose upon the return of the stock, and means for automatically returning the said stock.

[Claims 1, 3, and 5 to 18 not printed in the Gazette.]

1,253,962. WIRE-BOUND-BOX-BLANK MACHINE. FREDERICK J. GRUMME, Indianapolis, Ind., assignor, by mesne assignments, to C. Fred Yegge, trustee, Evanston, Ill. Filed Aug. 8, 1913. Serial No. 783,725. Renewed May 31, 1917. Serial No. 172,075. (Cl. 1—14.)

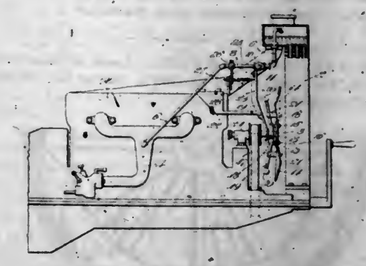


1. The combination, with a cleat guide, stapling mechanism, and means for feeding cleats through the guide across the stapling plane, of a sheet-driving member independent of the cleat-feeding means and reciprocable longitudinally relatively to the cleat movement, and means for shifting said sheet-driving member into and out of the plane of movement of sheet material associated with cleats in the cleat guide.

8. The combination with a cleat guide, stapling mechanism, and means for feeding cleats through the guide across the stapling plane, of a cleat spacer arranged adjacent the guide and movable into the cleat guide behind a cleat, a reciprocating carrier for said cleat spacer, and means for returning said carrier in a direction opposite to its movement produced by the moving cleats, said means comprising a motor member the effect of which upon the carrier decreases the speed of the carrier as it nears its extreme return position.

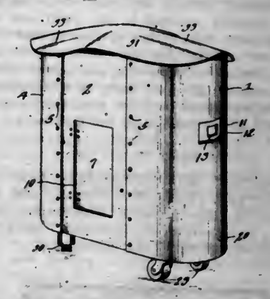
[Claims 2 to 7 not printed in the Gazette.]

1,253,963. AUTOMATIC AIR-CONTROLLING DEVICE FOR GAS-ENGINES. WADE H. GUTHRIE, Charleston, W. Va. Filed Jan. 11, 1917. Serial No. 141,881. (Cl. 137—140.)



An auxiliary air control for an explosive engine having a driven fan shaft and an auxiliary inlet pipe for the intake manifold, said shaft having an enlarged hub portion with fan blades radiating therefrom comprising a strip extending across said hub and secured to the same, the end of said strip projecting from the hub between the blades of the fan, a collar slidably mounted on said shaft, governor arms pivotally connected at one end to said collar, centrifugally acting weights on the outer ends of said arms, links connecting the ends of the strip and the arms and forming fulcrum points for said arms, a bracket on the engine body, a lever fulcrumed on said bracket with one end forked and adapted to straddle the fan shaft, a valve in said inlet pipe, operating means between the free end of said lever and the valve, and a spring for actuating said lever to hold the forked end of the latter against the movable collar.

1,253,964. GUARD-HOUSE. JOHN A. HACK, Tonkawa, Okla. Filed Apr. 3, 1917. Serial No. 159,576. (Cl. 189—2.)



1. A guard house having bullet proof walls forming an inclosure, doors in said walls, rollers supporting the guard house, said guard house being partly open at its bottom whereby it may be shifted about by a person on the interior thereof and means permitting firing through one of the walls of the guard house.

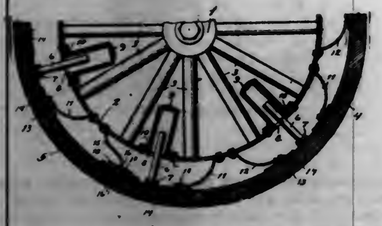
2. A guard house having a body formed of a plurality of walls bolted together, doors for said guard house, a platform secured within the guard house adjacent the bottom thereof, a second platform secured within the guard house adjacent the bottom thereof, casters secured to said plat-

forms and supporting the guard house, said platforms leaving the bottom of the guard house partly open whereby a person working from the interior may shift the guard house to different positions and means whereby shots may be fired through one of the walls of the guard house.

3. A guard house comprising a body formed of a plurality of vertical walls bolted together, a cover for said body having inclined walls, means partially covering the bottom of the body, rollers mounted on said means and supporting the guard house, doors for the guard house, one of the walls being formed with a port hole and a slidable port hole cover having a gun opening therein.

[Claims 4 to 6 not printed in the Gazette.]

1,253,965. SPRING-WHEEL. AMOS B. HAMILTON, Visalia, Cal. Filed May 25, 1917. Serial No. 171,015. (Cl. 152—32.)

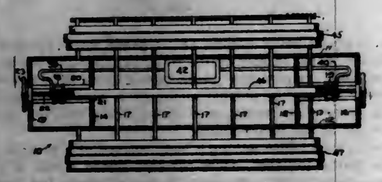


1. In a wheel, an inner rim, an outer rim concentric with the inner rim and of greater diameter, spring bars connected to the inner rim and extending outwardly and having the outer ends bearing against said outer rim, slotted brackets secured to the outer rim through which said bars extend, each bar having lateral extensions on the outer end engaged between the particular bracket and the outer rim, said extensions bearing against said brackets on each side of the slots in the brackets to prevent displacement of said bars from said brackets, and a pair of circumferentially disposed springs within each bracket, said springs bearing against the particular bar from opposite directions.

4. In a wheel of the character described, an inner rim, an outer rim, means for preventing a lateral movement of said rims relative to each other, spring arms secured to the inner rim and having a sliding engagement with the outer rim, spring pull bars secured to the inner rim and extending diagonally toward the outer rim, circumferentially slotted brackets secured to the outer rim through which the pull bars extend and springs mounted within said brackets to cushion the pull bars and limit their movement relative to the outer rim, and lateral extensions on the outer ends of said pull bars, said extensions slidably engaged between said brackets and said outer rim.

[Claims 2 and 3 not printed in the Gazette.]

1,253,966. PROCESS AND APPARATUS FOR TREATING DRILL-PIPE. FORD W. HARRIS, Los Angeles, Cal., assignor to The Bardeen Corporation, Los Angeles, Cal., a Corporation of California. Filed Jan. 10, 1916. Serial No. 71,387. (Cl. 148—10.)



1. An apparatus for treating pipe comprising a rack composed of series of supports having their upper surfaces in the same plane, a pair of stationary heads secured to one end of said rack and insulated from one another and from the rack, a pair of movable heads electrically connected together but electrically insulated from said rack, means for moving said movable heads to clamp against one end of a pair of pipes, the other end of said pipes being engaged by said stationary heads, and a source of electrical energy having one of its terminals connected to one of said stationary heads the other terminal of said source of power being connected to the other stationary head.

10. A method of annealing crystallized drill pipe which consists in heating the pipe to an annealing temperature and simultaneously subjecting the pipe to considerable axial pressure.

[Claims 2 to 9 not printed in the Gazette.]

1,253,967. PORCELAIN TOOTH-CROWN AND BACKING ADJUSTMENT. FRED E. HART, San Francisco, Cal. Filed May 10, 1915. Serial No. 27,201. (Cl. 32—30.)



1. An artificial tooth comprising a porcelain member forming the articulating portion and the facing portion, the rear side of said member having a flat supporting surface substantially perpendicular to the longitudinal axis of the tooth and a surface extending from said flat surface to the base or gingival end of the tooth substantially parallel with the outer surface of the facing, and having a longitudinal groove terminating in a hole extending from said flat surface into the body of said member, a metal backing sheet bent to conform to said rear surfaces, and a T-shaped supporting post having its lateral stem passing through the sheet parallel with and bearing against said flat surface and adapted to form a support therefor and the oppositely extending arms of the post head being parallel with the axis of the tooth and fitting respectively in said hole and in said groove.

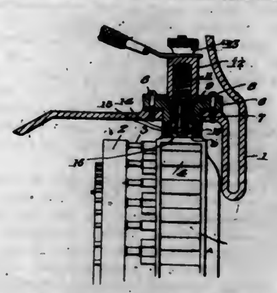
2. An artificial tooth, comprising a plastic member forming the facing and articulating portions of the tooth and having an angularly recessed rear wall formed by surfaces substantially parallel with the facing and with the articulating portion, respectively and a metal backing sheet bent to conform to said rear surfaces, the edge of the sheet portion parallel with the articulating portion being formed into a cupped marginal flange extending over the outer edge of the adjacent porcelain to more firmly retain the porcelain and to cause the metal backing cast thereon to project over the margin of the porcelain substantially at its greatest diameter.

3. An artificial tooth, comprising a plastic member, forming the facing and articulating portions of the tooth and having an angularly recessed rear wall formed by surfaces substantially parallel with the facing and with the surfaces, a metal plate or sheet angularly shaped to fit the wall of said recess and bearing thereagainst, a supporting post having a laterally extending stem passing through the sheet and extending adjacent thereto to form a reinforcement and an arm extending perpendicularly therefrom fitting into a channel in the plastic member, and a metal backing cast onto said sheet and around said stem and filling said recess.

[Claims 4 and 5 not printed in the Gazette.]

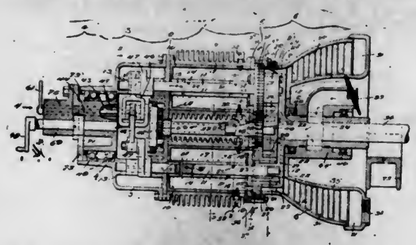
1,253,968. PROTECTING-SHIELD FOR CONTACT DEVICES. CLEMENT F. HAUSMAN, Ochelata, Okla. Filed July 10, 1917. Serial No. 179,736. (Cl. 173—324.)

1. The combination with the oil reservoir, the contact surface within the reservoir, the insulating contact holder extending in proximity to said contact surface, and the contact element mounted in said contact holder, of the soft rubber annulus having woven fabric incorporated in its structure, said annulus extending between said contact holder and said contact surface and surrounding the portions of said contact element adjacent said contact surface.



2. The combination with the oil reservoir, the contact surface within the reservoir, the insulating contact holder extending in proximity to said contact surface, and the contact element mounted in said contact holder, of the resilient insulating annulus extending between said contact holder and said contact surface and surrounding the portions of said contact element adjacent said contact surface.

1,253,969. INTERNAL-COMBUSTION ENGINE. FERDINAND G. HENRY, New York, N. Y. Filed Mar. 16, 1915. Serial No. 14,865. (Cl. 123—18.)



1. In an internal combustion engine, a plurality of cylinders mounted as a unitary structure rotating about a common axis in parallelism with the axes of the cylinders; oscillators mounted to oscillate within the cylinders; means to connect the oscillators with a stationary part to convert the oscillating motion into a rotary motion of the unitary structure; valves mounted to rotate relative to the cylinders to control the inlet and exhaust of gases to and from the cylinders; igniting elements inserted in the cylinders; rings mounted to rotate normally synchronously with the valves; means carried by the rings for exciting the igniting elements; gears carried by the valves and rings; and a manually operated controlling gear meshing with the gears of the rings.

2. In an internal combustion engine, a plurality of parallel, symmetrically arranged cylinders mounted as a unitary structure rotating about a common axis; moving parts within the cylinders and stationary means connected thereto; a valve for each cylinder controlling the inlet and exhaust of motive fluid to and from the cylinders, and a turbine rotating with said rotating structure and receiving motive fluid from the exhausts and through said valves.

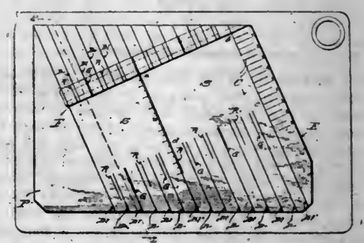
5. In an internal combustion engine, a plurality of cylinders mounted as a unitary rotary structure; oscillators journaled upon the major axes of the cylinders individually; valves rotating upon the axes of the cylinders and adapted to control the inlet and exhaust of gases to and from the cylinders; igniting elements introduced into the cylinders; rings rotating normally in unison with the valves; means carried by the rings for energizing the igniting elements; and means to manually advance and retard the rings relative to the valves.

7. In an internal combustion engine, a plurality of cylinders mounted as a unitary structure rotating about a common axis in parallelism with the axes of the cylinders; oscillators mounted to oscillate within the cylinders; means to connect the oscillators with a stationary part to convert the oscillating motion into a rotary motion of the unitary structure; valves mounted to rotate relative to the cylinders and to control the inlet and exhaust of gases to and from the cylinders; gears carried by the valves; a stationary gear controlling the rotation of the valve gears; igniting elements inserted in the cylinders; rings mounted to rotate normally synchronously with the valves; means carried by the rings for exciting the igniting elements; gears carried by the rings; and a stationary gear manually operated controlling the gears of the rings.

16. A rotary internal combustion engine, comprising an annular series of symmetrically arranged and parallel cylinders, a non-rotary bearing, oscillators within the cylinders having means projecting from a common end of the cylinders for connection to a portion of the stationary bearing, a housing for the said connecting mechanism, a set of rotary valves, one for each of said cylinders at the opposite end thereof to the said connecting mechanism, and a turbine including a housing or shell portion connected to the ends of said cylinders and substantially inclosing the valve mechanism.

[Claims 3, 4, 6, and 8 to 15 not printed in the Gazette.]

1,253,970. WRITING-PAD. FOSTER L. HIGGINS, Milo, Me. Filed May 21, 1917. Serial No. 170,012. (Cl. 35—8.)

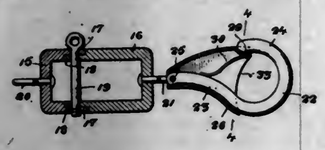


2. A device as described comprising a writing pad for desks, said pad having a writing sheet receiving space thereon and a series of substantially diagonally arranged guide lines thereon extending from the edges of said space to the edges of the pad, for guiding alinement with the body of a pen or the like, whereby the pen will be maintained in proper angled relation with respect to the writing sheet in the space, and a retaining flap secured on said pad at right angles to said guide lines and at one edge of the writing sheet receiving space, whereby to receive an edge of a sheet thereunder and retain the same in proper angled relation on the pad.

5. A device as described comprising a writing pad for desks, said pad having a writing sheet receiving space thereon, a retaining flap secured on said pad, diagonally arranged to receive an edge of the writing sheet thereunder and maintain the same in proper angled relation to the pad, series of graduated vari-colored guide lines on said flap, each series of lines being of different graduation relative to the remaining series, the component lines of each series being similar in color, whereby a writing sheet may be divided in proportions as desired by reference to the color of the guide lines, and a series of graduated guide lines disposed parallel with said flap at one side of the sheet receiving space for cross-ruling of a writing sheet when applied therein.

[Claims 1, 3, 4, and 6 not printed in the Gazette.]

1,253,971. HOOK-AND-EYE CLEVIS. MACK F. HIPSHER, Idol, Tenn. Filed July 18, 1917. Serial No. 181,389. (Cl. 24—233.)

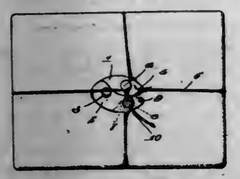


2. A clevis link comprising two U-shaped members having interengaging terminal tongues, in combination with a bolt whereby said U-shaped members are swingingly assembled together, said bolt having threaded engagement with one of said members.

3. A clevis link comprising two substantially U-shaped members, a pivot member whereby said U-shaped members are connected together for swinging movement about the axis of said pivot member, and additional pivot members engaging the U-shaped members to permit the link to swing about an axis substantially at right angles to the axis of the first-mentioned pivot member.

[Claim 1 not printed in the Gazette.]

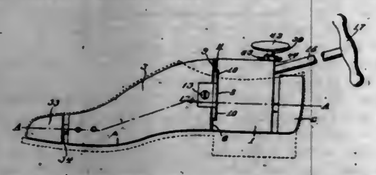
1,253,972. PACKAGE-TIE. JULIUS HOFFMAN, Hermann, Mo. Filed June 12, 1917. Serial No. 174,356. (Cl. 24—18.)



1. In a package tie of the class described, a body member having a headed stud and also having means for the attachment of a cord to said body member at one end, and a jaw pivotally mounted on said body member at a point near the opposite end of the latter, said jaw being movable toward and from the body member and to arrange the same when closed in over-lapping relation thereon, the said jaw being also provided near its free end with a headed stud for engagement by the cord.

2. In a package tie of the class described, a body member having a headed stud and also having means for the attachment of a cord to said body member at one end, and a jaw pivotally mounted on said body member at a point near the opposite end of the latter, said jaw being movable toward and from the body member and to arrange the same when closed in over-lapping relation thereon, the said jaw being also provided near its free end with a headed stud for engagement by the cord, the said body being provided on the side opposed to the jaw with a recess for the reception of the cord.

1,253,973. SHOE-STRETCHER. GUSTAV W. E. HOHME, Castor, Alberta, Canada. Filed June 20, 1917. Serial No. 175,889. (Cl. 12—131.)



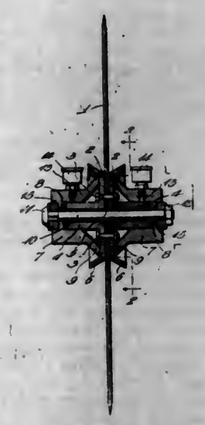
1. In a shoe stretcher, the combination of a last having a longitudinally extending hole at the front end thereof, a toe adapted for movement in said hole, means for projecting said toe forwardly, and means operable with said first mentioned means and adapted to clamp said toe in said hole when the toe is retracted.

5. In a shoe stretcher, the combination of abutting last members hinged together and having corresponding cavities in their abutting surfaces, said cavities being formed with cam surfaces and transverse shoulders, a wedge member operable within said cavity and engageable with said cam surface and having laterally disposed shoulders, a toe having operable connection with said wedge, said cavities being formed with forwardly extending channels adapted to clamp said toe when said last members are in retracted position, and means for actuating said wedge member.

9. In a shoe stretcher, the combination of a rear section, abutting last members hinged to said rear section and having corresponding cavities in the abutting surfaces thereof, said cavities having forwardly facing transverse shoulders, a flat spring secured in each cavity and forming a cam surface, a wedge operable within said cavities and having laterally disposed rearwardly facing shoulders and having a forwardly extending tip, a second wedge mounted on each last member in back of said respective springs and adapted to reinforce said springs, a toe engageable with said tip and adapted to be projected forwardly by the movement of the same, said cavity having forwardly extending channels adapted to clamp said toe when said last members are in retracted positions, and an actuating screw threaded into said rear section and operably connected with said wedge.

[Claims 2 to 4 and 6 to 8 not printed in the Gazette.]

1,253,974. COLTER. GENTON P. HOLDEN, Jackson county, Minn. Filed Nov. 2, 1916. Serial No. 129,129. (Cl. 64—22.)

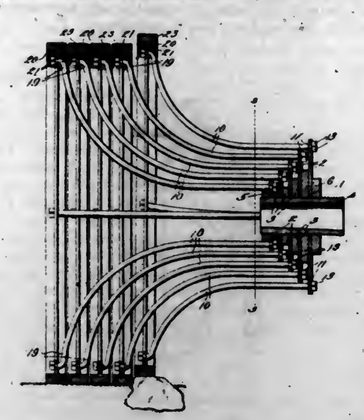


1. In a colter, a wheel, plates secured to the opposite sides thereof, said plates being formed with inclined flanges on the periphery thereof, said flanges extending outwardly and diverging from the opposite sides of said wheel, said flanges and sides of the wheel forming an annular channel on each side of said wheel, bearing boxes on opposite sides of said wheel and plates, and connected thereto.

[Claim 2 not printed in the Gazette.]

1,253,975. WHEEL. CHARLES HOWARD and HARRY LAWSON, Holtville, Cal., assignors of one-third to Andy M. Imhoff, Holtville, Cal. Filed Apr. 3, 1917. Serial No. 159,494. (Cl. 152—50.)

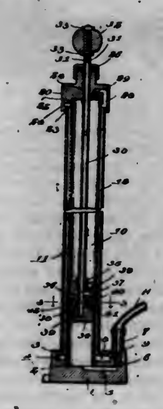
1. The herein described wheel made up of a plurality of rims standing edge to edge and slightly out of contact with each other, a hub made up of a plurality of plates, and a series of sets of curved spring spokes, those of each set connecting one rim with one plate independently of the others, for the purpose set forth.



3. In a wheel, the combination with a plurality of rims standing edge to edge, and flanges carried by the several rims and pierced with holes; of a hub made up of a series of disks of different size, washers interposed between them, a sleeve on which the disks and washers are mounted, the disks each having a series of holes, and a series of sets of spring spokes, those of each set having their inner ends passed through the holes in one disk and their outer ends passed through the holes in one flange, and means for securing said ends therein.

[Claim 2 not printed in the Gazette.]

1,253,976. DOUBLE-ACTING AIR-PUMP. ROBERT D. HUGHES, Lynchburg, Va., assignor of one-half to Joseph R. Bowles, Lynchburg, Va. Filed Mar. 6, 1917. Serial No. 152,761. (Cl. 230—27.)



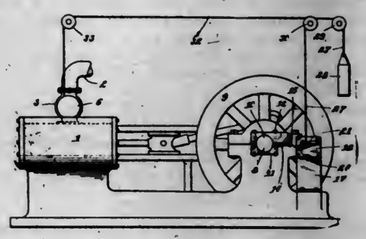
1. In a double acting pump, the combination with a barrel consisting of a cylinder and a shell inclosing it and producing an annular space, a base bored with a socket for the lower end of the cylinder and counter-bored to receive the lower end of the shell and provided with a channel around its counter-bore, an outlet nipple in the base, the latter having ports leading from said socket and channel to said nipple, independent check valves in said ports, a cap connecting the upper ends of the members of said barrel and having a port, and a check valve in said port closing toward the bore of the cylinder; of a tubular piston rod slidably mounted through said cap, a piston within the cylinder having a bore with which the bore of said rod communicates and ports leading from its bore upward and downward, and check valves in said ports.

2. In a double acting pump, the combination with a barrel consisting of a cylinder and a shell inclosing it and producing an annular space, a base bored with a socket for the lower end of the cylinder and counter-bored to receive the lower end of the shell and provided with a channel around its counter-bore, an outlet nipple in the base, the latter having ports leading from said socket and channel to said nipple, independent check valves to said ports, a cap bored in its lower face with a socket for receiving the upper end of the cylinder and counter-bored for receiving the upper end of the shell and also provided with a channel between said socket and counter-bore and with a port connecting the channel with the end of the socket, and a downwardly closing check valve within said port; of a tubular piston rod slidably mounted through said cap, a piston within the cylinder having a bore with which the bore of said rod communicates and ports leading from said piston-bore upward and downward and check valves in said ports.

4. In a double acting pump, the combination with a barrel comprising a tubular cylinder and a tubular shell surrounding and shorter than the same to leave an annular space between such elements, a base having ports communicating with the spaces within the cylinder and between the elements and leading to a common outlet, check valves within said ports, a cap secured to the upper ends of said elements and having a port connecting the space within the cylinder with that between the elements, and a check valve within said port; of a nipple rising from the cap and containing packing, a tubular piston rod slidably mounted through said packing and cap and pierced near its upper end with inlet holes, a handle above said holes, a piston slidably mounted within the cylinder and having a bore into which the lower end of said rod is fastened and ports leading from said piston-bore upward and downward through the ends of the piston, and check valves within said ports.

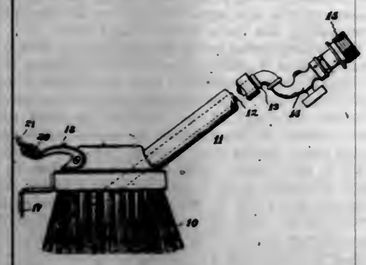
[Claim 3 not printed in the Gazette.]

1,253,977. AUTOMATIC ENGINE-STOP. GUSTAVE HUHNDORF, Tono, and THOMAS J. HOLYCROSS, Vader, Wash. Filed June 28, 1917. Serial No. 177,616. (Cl. 74—93.)



An automatic engine stop, embodying in combination, a supporting plate adjustably mounted for movement toward and away from the engine shaft, a weight operated throttle valve closing flexible connection, a horizontally disposed lever pivotally mounted at one end on said supporting plate with its free end extending toward the engine shaft and having said flexible connection detachably held thereby, a bell crank latch also pivotally mounted on said supporting plate with one arm in engagement with the free end of said lever and the other arm extended toward the engine shaft, and a centrifugally operated trip on the engine shaft adapted to contact with the last named arm of the lever when the engine shaft reaches a predetermined maximum speed.

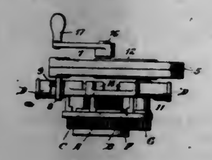
1,253,978. ATTACHMENT FOR FOUNTAIN-BRUSHES. ALBERT E. IVESON, Fall River, Mass. Filed Dec. 29, 1916. Serial No. 139,584. (Cl. 15—51.)



1. A brush of the character described embodying a handle, a brush head carried by said handle, a plurality of spaced angular brackets projecting forwardly from said brush head for supporting a cake of soap in advance of the brush and in juxtaposition to the active surface thereof.

2. The combination with a brush head, of a pair of spaced angular brackets terminating at one end in eyes, means passing through said eyes for securing said brackets to the head of the brush with the opposite extremities of said angular brackets arranged in parallelism with the bristles of the brush, said angular brackets being adapted to support a cake of soap in advance of and in juxtaposition to the brush.

1,253,979. GEARING DEVICE. THEODORE ERNEST JANSON, Cortland, N. Y. Filed May 17, 1916. Serial No. 98,134. (Cl. 10—89.)



The combination with the driving spindle of a geared adjustable threading machine and the oppositely positioned handle sockets thereof, one of which is formed with a transverse hole therein, of an operating attachment for said machine comprising a closed oil retaining jacket having an anchoring pin adapted to be inserted in said hole, a gear journaled interiorly of the jacket and having a center socket for detachably receiving the driving spindle of the machine, and a pinion within the jacket and meshing with the gear and having a pintle for the detachable connection of a hand crank therewith.

1,253,980. TICKET-CANCELING AND COIN FAREBOX. JAY M. JOHNSON, Chicago, Ill. Filed May 28, 1914. Serial No. 841,686. (Cl. 232—8.)

1. A device of the class described embracing a casing, a slot therein to receive the tickets, rotative inking means, fingered rocker means to receive said tickets to pass the same between said inking means, a switch arm on said rocker means to be actuated therewith by the insertion of said tickets through said slot to operate said inking means to deliver the tickets therethrough, an inspection compartment to which the tickets are delivered by the inking means, a spring supported bottom for said inspection compartment, and manually operated means for tripping the same to deliver the tickets to a place of deposit.

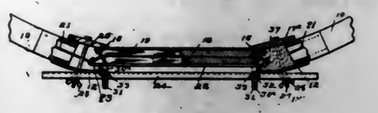
5. A device of the class described a casing having a restricted ticket slot therein, motor driven inking rolls journaled adjacent the ticket slot to engage the ticket inserted, and to draw the same therebetween and to a place of deposit, and pivotally mounted fingers extending downwardly between said rolls operated by the insertion of the ticket for starting the rolls in operation.



8. In a device of the class described embracing a ticket canceling fare box including normally inert canceling means, an inspection box beyond the same, co-acting fingered means mounted above said canceling means, an arm connected therewith whereby the ticket presented to the canceling means acts to move said arm to energize the canceling means to cancel the ticket and deliver the same thereby to the inspection compartment.

[Claims 2 to 4, 6, and 7 not printed in the Gazette.]

1,253,981. FORM FOR MASONRY STRUCTURES. MATTHEW L. KING, Bradley, Ill. Filed Jan. 27, 1913, Serial No. 744,576. Renewed June 20, 1917. Serial No. 175,972. (Cl. 25—118.)



2. In a form for frames for openings in buildings, upright T bars arranged with their adjacent faces in intersecting vertical planes to form a beveled door opening, rods having at their ends hook members for engaging the adjacent edges of the T bars, similar bars for engaging the shank flanges of the T bars, an upright form member for the inner faces of the frame on one side of each T bar, an upright form member for the outer faces of the frame on the other side of each T bar, said last named upright members having shoulders at their adjacent edges, bars, means for adjustably securing each bar to the upright members, and means for adjustably bracing said bars against said shoulders.

4. A form for frames for openings in buildings, comprising a pair of upright inner form members designed to be placed on the inside of the building on each side of the opening and to overlap the walls of the building, a pair of upright outer form members designed to be placed on the outer side of the building on each side of the opening therein and to overlap the walls of the building, said last named form members having at their adjacent ends inward extensions on the ends of which are opposite extensions at right angles to said inward extensions, said form members being provided with openings to receive bolts, an angle bar having one flange in a horizontal plane and the other flange in a vertical plane, said vertical flange being provided with elongated slots, bolts received

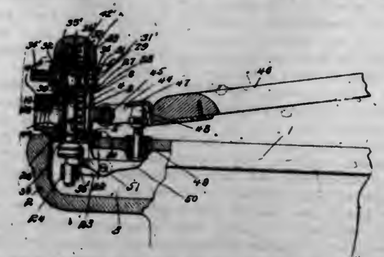
in said openings in said first two named form members and in said slots, bars provided with elongated slots, said bars being designed to rest against the adjacent ends of said second form members and against said horizontal flange and bolts received in said horizontal flange and in the slots in said last named bars, a form member designed to extend across the door openings, having the form and size of a door section, and means for holding said last named form member in position.

10. In a form for frames for structure openings, spaced upright form members having adjacent beveled faces and upright inner form members adjacent to one side of each first form member, an upright outer form member adjacent to one side of each first form member, means for preventing the spreading of said first form members, a form member for engaging the beveled faces of said first form members and adapted to serve as a form member for holding said beveled faces apart, and also as a door, means for engaging said outer upright members and preventing their separating, and means for connecting the respective outer upright members with the respective inner upright members.

11. A form comprising spaced upright form members, upright members each adjacent to part of one of said first form members, spaced upright members spaced from said respective second described form members each adjacent to part of one of said first form members, means for holding said first form members against spreading and removable means for holding said first form members apart a predetermined distance.

[Claims 1, 3, and 5 to 9 not printed in the Gazette.]

1,253,982. FLUSHING MECHANISM. HOWARD M. KIRBY, Wilmington, Del., assignor to Joseph A. Vogel Co., Inc., Wilmington, Del., a Corporation of Delaware. Filed Jan. 27, 1917. Serial No. 144,938. (Cl. 4—28.)



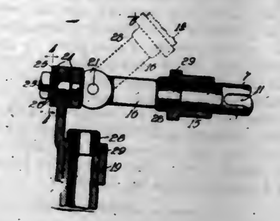
1. In a flushing apparatus, a bowl having a rearward extension at its upper rear portion forming an inlet passage, a valve casing mounted upon said extension, a valve device controlling the flow of water from the casing to the passage, said valve device including a stem projecting into said passage, guiding and supporting means arranged within the passage and depending from the casing, said means forming a guide for said valve stem, a hinged seat, and means operable by the seat for actuating the valve.

3. In a flushing apparatus, a bowl having an extension forming an inlet passage, a valve casing mounted on said extension, a valve device within the casing including a stem projecting into the passage, a stem guiding element connected with the casing and arranged within the passage and a stem actuating lever fulcrumed on the guiding and supporting element.

4. In a flushing apparatus, a bowl having an extension forming an inlet passage, a valve casing mounted on said extension and having a guiding and supporting element depending within the passage, a valve device arranged within the casing and including a stem with a projection within the passage in engagement with the guiding and supporting element, a valve actuating lever fulcrumed on said guiding and supporting element within the passage, a hinged seat, and a plunger operable by the seat to actuate the valve actuating lever.

[Claims 2, 5, and 6 not printed in the Gazette.]

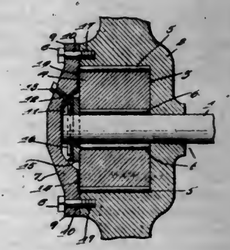
1,253,983. BRACKET FOR ELECTRIC LAMPS OR THE LIKE. ADOLPH W. KUEBLER, Chicago, Ill., assignor to Stromberg Motor Devices Company, Chicago, Ill., a Corporation of Illinois. Filed July 26, 1915. Serial No. 41,868. (Cl. 248—8.)



1. In combination, a stationary support having an extension arm and a lamp socket provided with a similar arm, a tubular radius member having a pair of adjustable telescopically related sections, the free ends of which are provided with extensions, right angular bracket members, bolts to pivotally connect said extensions and said right angular brackets, insulating means surrounding the bolts and between the extension arms and brackets, and bushing insulators at the open ends of said supports and tubular radius members, said supports and tubular members being adapted to receive a flexible conductor throughout, and said insulating means serving to frictionally hold the elements in various adjusted positions.

2. In a bracket, a connection comprising apertured members adapted for alinement, a bolt having reduced ends, the intermediate portion of the bolt being disposed in the aperture of one of said members, one free end of said bolt being received in the other member, the opposite end of said bolt being threaded and flattened, a bushing surrounding the intermediate portion of the bolt, a pair of washers on the free ends of the bolt, one of the washers having an aperture conforming to the flattened end of said bolt, and a retaining nut receivable on said threaded end.

1,253,984. DOUBLE ROLLER-BEARING. JOHN WILLIAM KUMMER, Edgemont, Nev. Filed Apr. 30, 1917. Serial No. 165,497. (Cl. 64—39.)



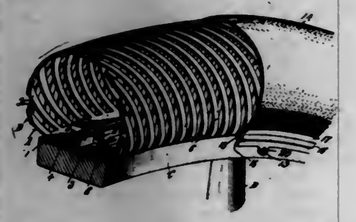
1. A device of the class described, comprising a wheel, a cylindrical well provided within said wheel, roller bearing means carried within said wheel, means provided for retaining said roller bearing means within said wheel, a plate fixedly secured to said wheel, said plate being circular in plan view, a plurality of retaining lugs provided upon the outer periphery of said plate, a conical indentation provided in the central portion of said plate, means provided for allowing oil to be fed and to be retained within said indentation, and means provided upon the inner flat face of said plate for feeding oil to the outermost portions of said wheel.

3. In a device of the class described, the combination of a wheel, said wheel being rotatably mounted upon an

axle, a cylindrical well provided within said wheel, a cylindrical hub carried upon said axle and within said wheel, the outer face of said hub provided with a plurality of bearing rollers and the inner face thereof provided with a plurality of bearing rollers, whereby said hub will easily rotate upon said axle, a plate fixedly attached to said wheel, said plate provided with an inner flat face around its periphery, a conical indentation provided within the central portion of said plate, an aperture provided within said conical indentation, whereby oil may be fed into the same, a stopper plug adapted to fit within said aperture, radial channels provided upon the flat face of said plate and adapted to extend for a distance so as to terminate adjacent said outer bearing rollers, whereby the oil fed into said indentation will pass through the channels, thereby lubricating said outer bearing rollers.

[Claim 2 not printed in the Gazette.]

1,253,985. RESILIENT TIRE. AUGUSTE P. LAFORGE, Lincoln, Cal. Filed May 19, 1916. Serial No. 98,636. (Cl. 152—8.)



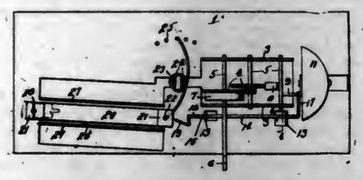
1. A resilient tire for vehicles comprising a circumferentially bent strip of resilient material having diagonally extending slits intermediate its marginal edges and substantially tubular shape in cross section, a similar strip overlying the first named strip and having the slits therein at a different angle than the slits in the first named strip, whereby the portions separating the slits of each strip provide oppositely directed overlapping springs forming a resilient tread surface, and means for securing the margins of both strips together.

2. A resilient tire comprising a pair of resilient sheet metal members bent into tubular shape and being adapted to fit upon a wheel rim, the said members being arranged one within the other, the adjacent edges of the outer member being turned outwardly to provide abutting flanges, the metal adjacent said flanges being provided with spaced openings, and the said flanges adjacent said openings being provided with apertures to receive securing bolts.

3. A resilient tire comprising a pair of resilient sheet metal members bent into tubular shape and being adapted to fit upon a wheel rim, the said members being arranged one within the other to provide inner and outer members, the adjacent edges of said outer member being turned outwardly to provide abutting flanges, the metal adjacent said flanges being provided with spaced openings, the said flanges adjacent said openings being provided with apertures to receive securing bolts, the ends of said inner member being secured together and the edges of said inner member being spaced away from the said flanges and openings.

1,253,986. RAIN-ALARM. WILHELM L. LARSON, East Grand Forks, Minn. Filed Aug. 10, 1916. Serial No. 114,219. (Cl. 116—15.)

1. In a signal of the character described a base plate, a channel formed thereon, a strip arranged in the channel adapted to be broken, a spring mounted on the base and engaged with one end of the strip and normally held against movement thereby, an audible signal also mounted on the base plate, a motor for operating the signal, a locking bar operatively engaged with the motor to normally retain the same against rotation, the spring engaging the locking bar to release the motor to operate the signal upon breaking of the strip.



2. An alarm of the class described comprising a base, supporting members extended upwardly from said base, a bell mounted upon one of said supporting members, a train of gears, a means for operating said gears, a locking member normally engaged with the bell sounding means, ears extending from the base, certain of said ears forming a channel, a destructible member extended in said channel, supporting means for one end of said member, and a releasing spring engaged around the remaining ears and having one end adjustably secured in said base, the opposite end of said spring being engaged with the remaining end of said destructible member and adapted for engagement with said locking member when released to withdraw said locking member from said bell sounding means.

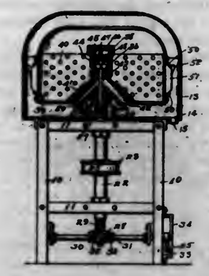
3. A rain alarm, including a flat base, a bell mounted thereon, a sounder normally engaged with said bell, means to operate said sounder, said means including a train of gears and a spring to actuate the same, a pair of brackets extending from the base and arranged in proximity to the train of gears, one of said brackets being provided with an elongated slot, a locking lever supported in said brackets and movable in said slot, said lever having one end thereof arranged to normally engage said sounder to hold the same inoperative, and means adapted at times to move said lever to a releasing position.

4. A rain alarm, including a base, a bell mounted thereon, a sounder normally engaged with said bell, means to actuate said sounder, a lever normally holding said sounder inoperative, means for moving said lever to a releasing position, said means including a destructible strip having one end thereof fastened to the base, ears struck up from said base, a spring coiled about said ears and having one end thereof secured to the base, the opposite end of the spring being bent to provide a hook adapted to be passed through the free end of the strip, the hooked end of the spring adapted, upon breaking of the strip, to engage the lever to move the same out of contact with the sounder.

5. A rain alarm including a base having a bell mounted thereon, supports extending up from said base, a train of gears mounted between said supports, a sounder normally engaged with said bell and adapted to be actuated by said gears, a pair of brackets arranged to one side of said support, a lever supported in said brackets, said lever being laterally movable and having an end thereof bent at right angles to normally engage the sounder whereby to hold the same inoperative, a pair of guides arranged in proximity to the opposite end of the lever, a destructible strip positioned between said guides and having one of its ends fastened to the base, a pair of ears extending upwardly from the base, a spring coiled about said ears and having one end thereof secured to the base, the opposite end of the spring being bent to provide a hook adapted to be fastened to the free end of the strip.

1,253,987. CENTRIFUGAL EXTRACTOR. GEORGE W. LEWIS, Grinnell, Iowa. Filed June 11, 1917. Serial No. 174,133. (Cl. 210—25.)

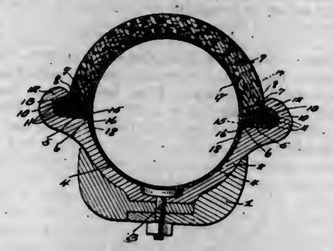
1. A centrifugal extractor comprising a support, an outer receptacle thereon, a container having perforated walls, means for supporting and balancing said container, driving mechanism, and means for moving said container into gear after it has been balanced.



10. In a centrifugal extractor, a container, means for supporting said container at its upper central portion for permitting the tilting of said container, and a level device carried by said container for accurately indicating when the container is balanced in horizontal position.

[Claims 2 to 9 not printed in the Gazette.]

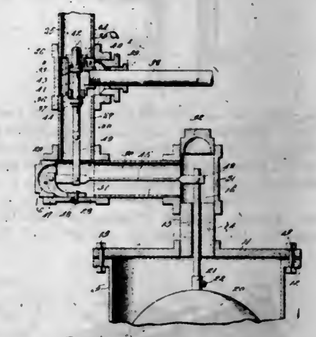
1,253,988. COMBINED RIM AND CASING. HARRY RICHARD LORENZ and HENRY WILLIAM OJENDYK, Ashton, Nebr. Filed June 30, 1914. Serial No. 848,294. (Cl. 152—13.)



In combination, a wheel rim, the body of which in cross section having its greater portion circular, and its outer diametrically opposite sides constructed on arcs of greater radii than the circular body portion, said diametric opposite increased arcs merging into said circular body portion, said rim having opposite clencher flanges and diametrically opposite cylindrical ledges adjoining said clencher flanges and being concentric with the center of the wheel, said ledges being substantially at right angles to and extending in opposite directions from said arcs of greater curvature thereby forming abrupt sharp diametrically opposite shoulders, an inner tube engaging said rim, a tire casing semi-circular in cross section having its diametrically opposite portions provided with cylindrical ledges concentric with the center of the wheel and engaging the first ledges and provided with beads to be engaged by the clencher flanges, the inner portions of the last named ledges having thin circular flanges tapering radially and fitting between the inner tube and the diametrically opposite increased curved arcs of the rim, whereby the opposite sides of the casing are prevented from bulging upwardly, outwardly and laterally.

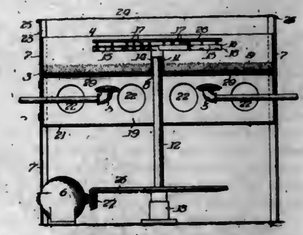
1,253,989. STEAM-BOILER REGULATOR. CHARLES L. MCCRAE, Tucumcari, N. Mex. Filed Feb. 27, 1917. Serial No. 151,278. (Cl. 137—101.)

The combination with a steam boiler, its feed water pump, a float chamber, direct connections between the upper and lower ends of said chamber and the boiler above and below the water line therein, a tubular plug in the upper end of the chamber, and a float in the chamber whose rod rises through said plug; of a T into one extremity of whose head the upper end of the plug is screwed, means for closing the other extremity thereof, a horizontal tube projecting from the stem of this T, a second T into one extremity of whose head the other end of the tube is screwed, a plug in the opposite extremity of said head, a bracket fast within the last-named T, a lever of the second order having one end pivoted in said bracket, its body extending throughout the length of said tube, and its other end pivoted to said float rod within



in the first-named T, a pipe rising from the stem of the second T, a third T into one extremity of whose head the upper end of said pipe is screwed, steam connections leading from the boiler dome to the other extremity thereof, a valve casing within the third T and a bushing in the stem of the latter, a steam pipe leading from said casing through the bushing to said pump, balanced valves within said casing, a rod on which they are mounted, and a link connecting the rod with said lever near the pivot of the latter on the bracket.

1,253,990. DRIER FOR SENSITIZED PLATES. LEO MCCUE, Chicago, Ill., assignor of one-fifth to F. L. Harwood, one-fifth to R. W. Albertson, one-fifth to J. H. Gilson, and one-fifth to Nelson M. Whipple, Chicago, Ill. Filed Mar. 19, 1914. Serial No. 825,816. (Cl. 34—32.)



1. A drier for sensitized plates comprising a heating chamber, and a member within said chamber for carrying a plurality of plates, the portions of said member engaging said plates being individually adjustable.

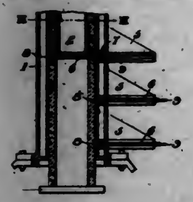
7. A drier for sensitized plates comprising a chamber in which the plates may be dried, heating means therebelow, and a layer of sand on the bottom of the chamber to evenly distribute said heat to said plates.

[Claims 2 to 6 and 8 to 13 not printed in the Gazette.]

1,253,991. MOLDING APPARATUS. ALBERT A. PAULY, Youngstown, Ohio. Filed Nov. 4, 1912, Serial No. 729,389. Renewed Nov. 4, 1915. Serial No. 59,696. (Cl. 25—12.)

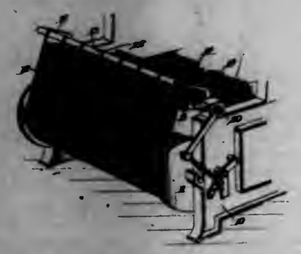
The combination of a vertical form, a core arranged in said form and supported wholly at one end of the form, a plunger movable in the space between the form and core to force the molded articles out of the form and provided

with means for lubricating the walls of said space, brackets on the exterior of said form having alined grooves in their adjacent sides, a cutting blade movable in said



grooves across the end of said core to sever the molded articles into sections, the form and core coöperating to support the articles on the outside and inside at the point where the blade makes the cut, and said blade supporting one of the sections of the article after making a cut.

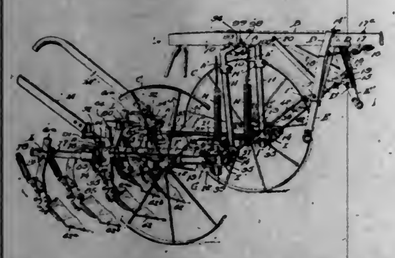
1,253,992. LOOM. ALBERT T. QUANTZ, Rock Hill, S. C. Filed May 31, 1916. Serial No. 100,886. (Cl. 139—59.)



1. In a loom, the combination with a beam having warp threads thereon, of means for forming cord fabrics by grouping certain of said warp threads, said means comprising separate guide bars arranged above the beam, whereby the warp threads are separated into two layers after leaving the beam, and guiding means between the beam and the harness for collecting and grouping the threads passing over one of said bars.

[Claims 2 and 3 not printed in the Gazette.]

1,253,993. CULTIVATOR. CHARLES T. RAY, Louisville, Ky., assignor to B. F. Avery & Sons, Louisville, Ky., a Corporation of Kentucky. Filed June 20, 1912. Serial No. 704,782. (Cl. 97—35.)



1. A soil tillage implement comprising a beam for supporting the tillage element, and mounted to have lateral pivotal movement, and draft means connected to the beam, the draft means including an intermediate member whose front and rear ends are adjustable laterally relatively to each other and to the beam and are maintained against accidental displacement from their adjusted positions.

5. A soil tillage implement, comprising beams for supporting the tillage elements, and mounted for lateral pivotal movement, and draft means including sets of front and rear clevises and intermediate members, the rear clevises having connection with the beams and being mounted for pivotal adjustment on substantially vertical axes relatively to the beams and to the front clevises, and the connections between the rear clevises and the beams including means by which the rear clevises are secured fixedly in adjusted position.

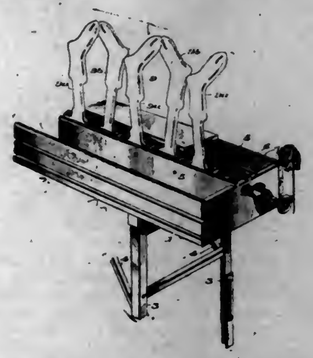
15. A soil tillage implement comprising a beam for supporting a tillage element, said beam being mounted for movement upon substantially vertical axes and draft means, comprising forward and rear clevises and an intermediate member connecting the clevises, the rear clevis being mounted for lateral pivotal adjustment relative to the beam and means for securing it in adjusted position.

20. A soil tillage implement, comprising carrying wheels, an axle, sleeves mounted on said axle and each having members projecting therefrom and provided with an approximately vertical space between them, beams adapted to carry tillage elements, couplings projecting forward from said beams, stationary pivots for said couplings, extending through the space between members of said sleeves, the pivots and sleeves being relatively adjustable in the direction of the length of the pivots, fastening means adapted to clamp the sleeve members tightly around the pivots, and draft mechanism having connection with said couplings.

26. In a tillage implement, a beam having a coupling connected to one of its ends, said coupling having upper and lower arms, a clevis, means by which the coupling and clevis are relatively movable pivotally upon a common axis, and means at one side of said axis for securing the clevis in selected positions to the coupling.

[Claims 2 to 4, 6 to 14, 16 to 19, 21 to 25, 27, and 28 not printed in the Gazette.]

1,253,994. HOSIERY-DRYING APPARATUS. PERCY M. SMITH, Hamilton, Ontario, Canada, and THOMAS W. PROSSER, Beaver Dam, Wis., assignors to Paramount Hosiery Form Drying Co., Chicago, Ill., a Corporation of Illinois. Filed Sept. 1, 1917. Serial No. 189,370. (Cl. 223—17.)



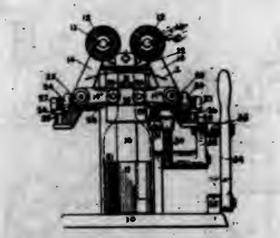
1. Hosiery drying apparatus including a form-supporting, fluid-conveying conduit and a plurality of hosiery drying forms thereon arranged in transversely spaced-apart relation and inclined one away from another, with the upper portions of the forms farthest apart.

10. Hosiery drying apparatus including a form-supporting pipe, a support therefor, a steam-supplying pipe within the supporting-pipe, and a plurality of series of inclined hosiery drying forms mounted on the supporting-pipe and communicating with the supplying-pipe.

16. Hosiery drying apparatus including a table having a pair of hosiery-storing troughs, a single form-supporting, steam-supplying pipe extending longitudinally thereof between said troughs, and two series of oppositely-inclined forms mounted on the pipe and upstanding from said pipe, each series of forms overleaning a trough.

[Claims 2 to 9, 11 to 15, and 17 not printed in the Gazette.]

1,253,995. MEANS FOR WIPING SEAL-STRIPS UPON BOTTLES. HERMAN STAKE, Worcester, Mass., assignor to Economic Machinery Company, Worcester, Mass., a Corporation of Massachusetts. Filed Apr. 16, 1917. Serial No. 162,333. (Cl. 216—9.)



1. A label-wiper roll for applying seal strip-labels on bottles, comprising a cylindrical body of soft, poriferous, resiliently elastic character, of a substance not injuriously affected by moisture or wetting and a non-yieldable cylindrical open tube fitting and extending through the interior of said body, and having end-embracing flanges of less diameter than the body, fixed upon the ends of said tube and endwise supporting the central part of said cylindrical body.

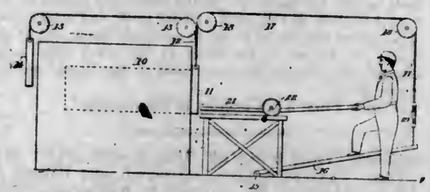
2. A label-wiper roller for the purpose specified, including a cylindric body of soft, poriferous highly elastic character, of a material not injurable by water, and comprising integral zones of varied density or porosity.

3. A wiper-roller for the purpose specified, comprising a rigid tubular axial core carrying a pair of nonyielding annular flange members mounted thereon and supported to compress the body of the roll endwise, and a centrally supported cylinder of internally poriferous highly resilient elastic material, as sponge rubber, partially embraced and laterally confined between said flange members, and having resilient annular end portions concentric to and about the periphery of said flange members, and adapted to bulge or spring outward at the edge of the strip when the central face of the roller is forced inward by pressure against the seal-strip or neck of the bottle.

5. A wiper-means for wiping seal-strips upon bottles, comprising a roller having a rigid tubular metal core, separate oppositely compressing annular flange-plates supported on the core, and a body-cylinder composed of soft, poriferous elastic material surrounding the core and confined between said flange-plates, the ends of said body having laterally projecting rim portions extending over the peripheral edges of said flange-plates, for the purpose set forth.

[Claims 4, 6, and 7 not printed in the Gazette.]

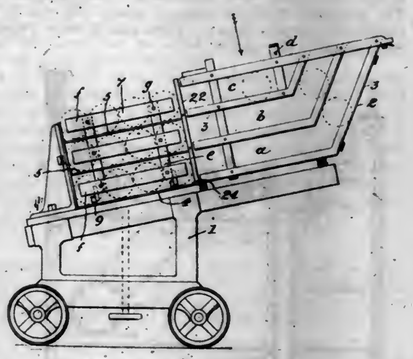
1,253,996. DOOR-OPERATING DEVICE. HEINRICH TÜRK, Baltimore, Md., assignor to The Porcelain Enamel and Manufacturing Company, Baltimore, Md., a Corporation of Maryland. Filed Jan. 17, 1917. Serial No. 142,884. (Cl. 214—23.)



1. The combination with an oven, a door therefor mounted to close by gravity, and a running board pivoted at one end below the level of the door and having its free end connected with said door, of a manually operable charging device for the oven capable of movement parallel with the running board which is of a length to permit an operator to take several steps thereon.

[Claims 2 and 3 not printed in the Gazette.]

1,253,997. MACHINE FOR CASING OR BOXING CANS. JOHN L. WHITEHURST and CHARLES H. WILD, Baltimore, Md., assignors to Burt Machine Company, a Corporation of Delaware. Filed Aug. 30, 1915. Serial No. 48,089. (Cl. 100—59.)

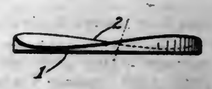


1. In a machine for the purpose described, an open top receptacle to receive cans from a runway, having inclined bars which separate the cans delivered thereto into horizontal rows, combined with means to check the discharge of cans from the receptacle and at the same time move them backward, and then release the cans, and a pusher to drive the discharged cans laterally from the machine.

2. In a machine for the purpose described, an open top receptacle to receive cans from a runway, provided with inclined bars which separate the cans delivered thereto into horizontal rows, combined with a vertical bar situated at the delivery end of the receptacle having horizontally projecting pins, and means whereby the said bar is given a combined vertical and lateral reciprocating movement to prevent the discharge of the cans and at the same time force them back in the receptacle and then release them.

3. In a machine for the purpose described, an open top receptacle into which cans are delivered from a runway, provided with inclined bars which separate the cans delivered thereto into horizontal rows, combined with a vertical bar situated at the delivery end of the receptacle having horizontally projecting pins, means whereby the said bar is given a combined vertical and lateral reciprocating movement, to alternately prevent the discharge of the cans and at the same time force them back and then release them, foot-operated devices to push the cans discharged as described, laterally from the machine, and spring operated mechanism to effect the return of the can-packing devices to their original position.

1,253,998. OPHTHALMIC LENS. LOUIS BELL, Newton, Mass., assignor of one-half to himself, and one-half to Walter G. Wolfe, Wakefield, Mass. Filed June 25, 1917. Serial No. 176,701. (Cl. 88—54.)



1. An ophthalmic lens having a refracting surface producing refractions of opposite sign with respect to axes taken at an angle in the same vertical plane.

3. An ophthalmic lens having in a single surface crossed cylindrical refractions of opposite signs.

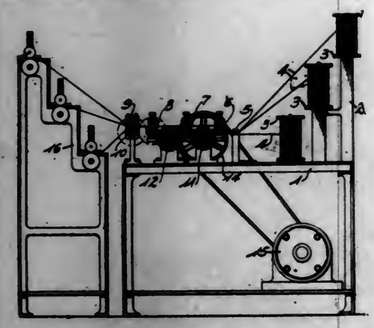
5. An ophthalmic lens having one face a plane surface and the other face having a surface of concavo convex cylindricity developed from crossed axes.

7. An optical element having an operative surface area of concavo convex cylindricity developed from crossed axes.

8. As a new article of manufacture a plano-endotoroidal lens.

[Claims 2, 4, 6, 9, and 10 not printed in the Gazette.]

1,253,999. APPARATUS FOR TREATING YARN. ROBERT K. CLARK, West Springfield, Mass., assignor to The American Thread Company, Jersey City, N. J., a Corporation of New Jersey. Filed Apr. 4, 1917. Serial No. 159,655. (Cl. 28—7.)



1. In an apparatus for treating yarn, the combination of a package holder for a wound strand of yarn, means for continuously passing an extended length of said yarn held under tension between two points, a fluffing surface engaging said yarn as it passes between said points, and means for moving said fluffing surface toward one of said two points so as to partially free fibers extending to the surface of said yarn, and a take-up for an individual strand of yarn.

3. In an apparatus for treating yarn, the combination of a package holder for a wound strand of yarn, means for continuously passing an extended length of said yarn between two points, two fluffing rollers engaging said yarn as it passes between said two points, means for rotating said fluffing rollers in opposite directions so as to partially free fibers extending to the surface of said yarn, and a take-up for an individual strand of yarn.

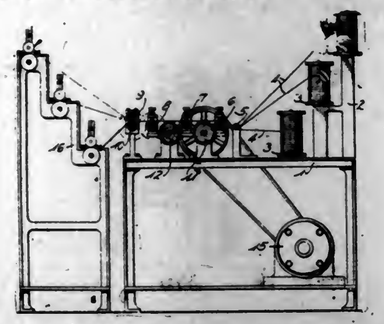
4. In an apparatus for treating yarn, the combination of a package holder for a wound strand of yarn, means for continuously passing an extended length of said yarn between two points, two fluffing rollers engaging said yarn as it passes between said two points, means for rotating the first of said fluffing rollers in opposition to the movement of said yarn, and the other roller in the opposite direction so as to partially free fibers extending to the surface of said yarn, and a take-up for an individual strand of yarn.

5. In an apparatus for treating yarn, the combination of means for supporting a plurality of packages of wound yarn to be treated, means for holding a plurality of extended lengths of said yarn parallel and moving them between two points, a fluffing roller engaging said strands as they move between said two points, means for rotating said fluffing roller, and take-ups for the individual strands of yarn.

[Claims 2 and 6 not printed in the Gazette.]

1,254,000. COTTON YARN AND METHOD OF PRODUCING THE SAME. ROBERT K. CLARK, West Springfield, Mass., assignor to The American Thread Company, Jersey City, N. J., a Corporation of New Jersey. Original application filed Apr. 4, 1917, Serial No. 159,655. Divided and this application filed June 21, 1917. Serial No. 175,983. (Cl. 28—5.)

1. An extended length of cotton yarn, having a twisted multiple strand core of cotton and a flocculent surface, said surface comprising a multiplicity of cotton fibers presenting a continuous fluffy appearance and having ends extending into and forming part of the strands of said twisted core and intermingled with the fibers of the strands of which said core is composed.

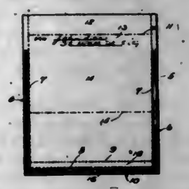


2. An extended length of cotton yarn having a loosely twisted multiple strand core of cotton and a flocculent surface continuous throughout the length of the core and comprising a multiplicity of cotton fibers having their inner ends extending into and forming part of the strands of said twisted core and intermingled with the fibers of the strands of which said core is composed and their outer ends free.

3. The process of treating yarn, which consists in passing an extended strand of yarn from one point to another and fluffing it continuously throughout its length as it passes between said two points so as to loosen portions of its fibers and produce a continuous flocculent surface.

4. The process of treating yarn, which consists in passing an extended strand of yarn from one point to another and fluffing it continuously throughout its length in a direction opposed to the movement of the yarn and also in the opposite direction as it passes between said two points so as to loosen portions of its exterior fibers and produce a continuous flocculent surface.

1,254,001. LETTER-SHEET ENVELOP. HERMAN CLAUSEN, Seattle, Wash., assignor of three-eighths to William D. Tripple, Seattle, Wash. Filed May 29, 1916. Serial No. 100,559. (Cl. 229—92.7.)

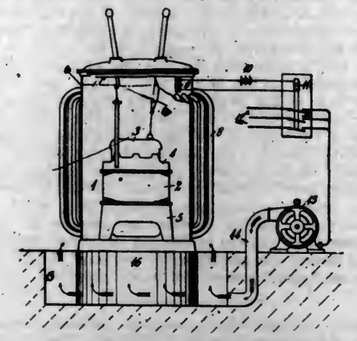


1. A letter-sheet envelop consisting of a rectangular sheet having its upper end folded under and pasted to the central portion of the sheet and its lower end folded over such central portion so as not to cover the upper end of the latter, the border of the sheet at the lower edge being gummed for securing the lower fold to the central portion of the sheet.

[Claims 2 and 3 not printed in the Gazette.]

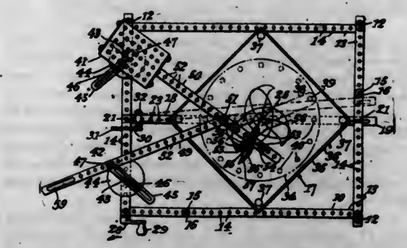
1,254,002. TRANSFORMER HEAT-REGULATING SYSTEM. CHARLES S. COOK, Pittsburgh, and HAROLD H. RUDD, Edgewood, Pa., assignors to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Jan. 24, 1914. Serial No. 814,079. (Cl. 175—361.)

1. The combination with an electrical apparatus, a containing case therefor provided with exteriorly disposed and self-operating heat radiators which are directly exposed to the outer air, of a chamber disposed below the heat radiators and in free communication with the outer air, and means controlled by conditions obtaining in said electrical apparatus to increase the pressure obtaining within said chamber, whereby cooling air currents may be directed upon said heat radiators.



2. The combination with an electrical apparatus, a containing case therefor provided with exteriorly disposed and self-operative heat radiators which are directly exposed to the outer air, of a chamber disposed below the heat radiators and in free communication with the outer air, and means to increase the pressure obtaining within said chamber in order to direct cooling air currents upon said heat radiators, said means being operative only during the time that the temperature of said electrical apparatus exceeds a predetermined value.

1,254,003. DESIGNOGRAPH. FRANCIS A. STAINKAMP, New York, N. Y., assignor of one-half to Rudolph Diehl, New York, N. Y. Filed Dec. 24, 1915. Serial No. 68,495. (Cl. 33—27.)



1. In a device of the class described, a supporting frame including a pair of members extending at an angle to each other, one of said members provided with a plurality of spaced apart pin holes, a pivot pin designed to be mounted in any one of said holes, and a pencil control including a pair of toggle arms pivoted together with one of the arms pivoted to said pin in the member provided with the pin holes for oscillatory movement about a fixed axis of rotation and the other arm pivotally connected to the other member.

8. In a device of the class described, a recording mechanism including a driven shaft, a recording table mounted for rotary movement on said shaft and provided with a plurality of spaced apart apertures arranged circularly about the axis of rotation of the table and shaft, an arm fixed to the shaft and provided with a catch for engaging in any one of said apertures whereby the table may be rotated into adjusted position without affecting the position of said shaft and coacting mechanism operatively connected to be driven in unison with said shaft.

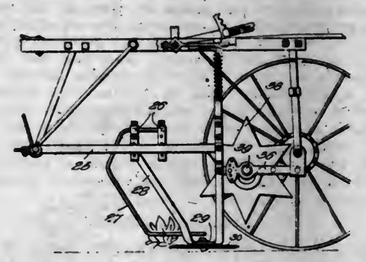
10. In a device of the class described, a recording mechanism including a work table mounted for rotary movement, a pencil control for moving a pencil over the work table, driving mechanism for actuating said control and said table in unison and means for shifting the axis of rotation of said table in two directions at an angle to each other without affecting the normal position of said control.

14. In a device of the class described, a pencil control including a pair of toggle arms pivotally connected, rotary means operatively connected to each of said arms to cause the points on the arms engaged thereby to travel over the paths of closed curves.

18. In a device of the class described, the combination of a pair of revolving members each movable about fixed points of reference, a pencil control including a pair of arms pivotally connected to each other and pivoted to said revolving members, means for varying the relative position of said revolving members and for varying the distances thereof from their fixed points of revolution.

[Claims 2 to 7, 9, 11 to 13, 15 to 17, 19, and 20 not printed in the Gazette.]

1,254,004. BEET-TOPPER. ROBERT E. DEWART, Milford, Ind. Original application filed Sept. 26, 1916, Serial No. 122,254. Divided and this application filed Aug. 25, 1917. Serial No. 188,130. (Cl. 55—107.)



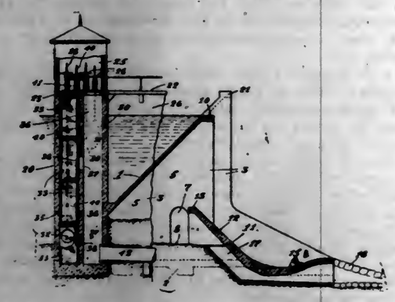
1. In a beet topping machine, the combination of carrying means, horizontally-disposed lapped topping knives, of circular disk form, carried by said carrying means, longitudinal spaced gage fingers carried by the carrying means and extending rearwardly above and in spaced relation to the said disk-like topping knives, and vertically-disposed, spaced and driven clearing beaters carried by the carrying means and arranged in a transverse series above and in rear of the topping knives and the gage fingers.

2. In a beet topping machine, the combination of carrying means comprising spaced arms and bars connected with and extending in rear of said arms, a cross-bar fixed to and extending between said arms, hangers connected with the arms and having lower inwardly-extending horizontal portions, horizontally-disposed lapped topping knives, of circular disk form, pivoted on said portions, longitudinal spaced gage fingers fixed to and extending downwardly from said cross bar and then horizontally rearward above and in spaced relation to the knives, a transverse driven shaft journaled in the said bars of the carrying means, and spaced clearing beaters fixed on said shaft and provided with teeth and arranged above and in rear of the topping knives and the gage fingers.

1,254,005. DAM. CHARLES EVAN FOWLER, Seattle, Wash. Filed Sept. 19, 1916. Serial No. 121,011. (Cl. 61—24.)

1. In a concrete dam formed with an inclined deck supported upon spaced parallel piers and having an overflow crest affording a spillway for surplus water, and an apron formed integrally with said dam and spaced apart from said crest, said apron projecting below said deck between said piers beyond a vertical line extended

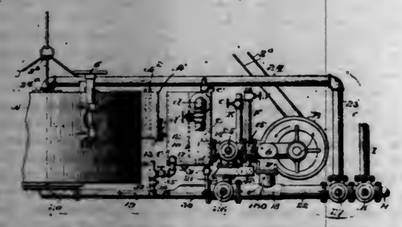
through said crest, with the forward end thereof spaced from said inclined deck, spaced from the ground line of the piers, and inclined reversely to the deck to prevent back flow of water overflowing the dam crest.



2. In a concrete dam formed with an inclined deck supported upon spaced parallel piers and having an overflow crest affording a spillway for surplus water, and an apron formed integrally with said dam and spaced apart from said crest, said apron projecting below said deck between said piers beyond a vertical line extended through said crest and having its upper portion inclined in opposite direction to said deck, the end of the apron extending between the inclined deck being at a higher elevation than the forwardly projecting end thereof to prevent back flow of water overflowing the dam.

3. A dam formed with an inclined deck having an overflow crest affording a spillway for surplus water, and an apron positioned below said crest to receive said overflow water, said apron being spaced apart below said crest and projecting forwardly beyond a vertical line extending through said crest and rearwardly beyond the foundation of the dam.

1,254,006. DYEING APPARATUS. DAVID M. HEY, Chattanooga, Tenn., assignor to Vacuum Dyeing Machine Company, Chattanooga, Tenn., a Corporation of Tennessee. Filed Dec. 13, 1915. Serial No. 66,503. (Cl. 8—19.)



3. In a dyeing apparatus, a vat, a pump, a heating chamber, connections from the suction side of the pump and the vat, a supply box forming part of said connections, and pipes leading into said box through which to inject dye liquor and cold water into the box.

4. In a dyeing apparatus, a vat, a heating chamber, a pump, a connection between the vat through the heating chamber to the suction side of the pump, an overflow pipe leading from the upper part of the heating chamber, and a valve in said overflow pipe.

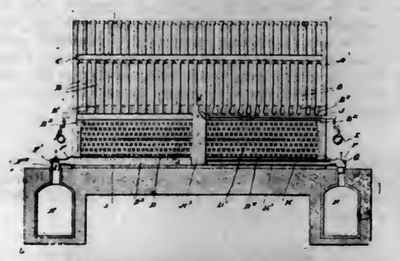
5. In a dyeing apparatus, a vat, a heating chamber, a pump, a connection from the vat through the heating chamber to the suction side of the pump, comprising a pipe leading from the heating chamber to the pump, a downwardly opening elbow on the end of said pipe within the heating chamber and an air inlet into said elbow.

6. In a dyeing apparatus, a vat, a heating chamber, a pump, a connection from the vat through the heating chamber to the suction side of the pump, comprising a pipe leading from the steam chamber to the pump, a downwardly opening elbow on the end of said pipe within the heating chamber and an air pipe leading into the heating chamber and terminating in said elbow.

7. In a dyeing apparatus, the combination with a vat, a pump, a heating chamber, a connection between the vat and the heating chamber into which overflow from the vat passes, a connection between the heating chamber and the suction side of the pump, a connection between the discharge side of the pump and the lower portion of the vat, a connection between the discharge side of the pump and the top of the vat, a spray head carried by the last named connection and disposed above the level of the dye liquor in the vat and valves which when shifted to one position sets up a circulation through a path which includes the heating chamber and wherein the liquor enters the lower part of the vat and leaves the upper part thereof, and when shifted to another position sets up a circulation through a path which does not include the heating chamber, and wherein the liquor leaves the lower portion of the vat and enters the upper portion thereof through the spray head.

[Claims 1 and 2 not printed in the Gazette.]

1,254,007. COKE-OVEN. JOHN E. HUBBELL, Philadelphia, Pa., assignor to Louis Wilputte, New Rochelle, N. Y. Filed June 14, 1917. Serial No. 174,720. (Cl. 202—9.)



1. A regenerative coke oven of the type comprising a series of heating walls, each formed with a plurality of heating flues, and regenerators parallel to said heating walls, and each connected at intervals along one side to various flues of a corresponding heating wall, and provided at its opposite side with an outlet passage for waste gases, and in combination therewith, separate means for supplying fluid to be preheated to each of said regenerators with substantial uniformity along its opposite side.

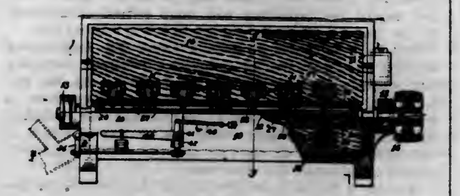
2. A regenerative coke oven of the type comprising a series of heating walls, each formed with a plurality of heating flues, and regenerators parallel to said heating walls, and each connected at intervals along one side to various flues of a corresponding heating wall, and provided at its opposite side with an outlet passage for waste gases, and in combination therewith, separate means for introducing fluid to be preheated into each of said regenerators at distributed points along its said opposite side.

3. In a regenerative coke oven comprising a series of heating walls, each formed with a plurality of heating flues, the combination therewith of regenerators parallel to said heating walls, and each connected at intervals along one side to flues of a corresponding heating wall, and provided at its opposite side with an outlet passage for waste gases, and with a separate supply conduit for fluid to be preheated having a discharge port area into said regenerator distributed longitudinally along said opposite side of said regenerator.

4. In a regenerative coke oven comprising a series of heating walls, each formed with a plurality of heating flues, the combination of regenerators parallel to said heating walls, and each connected at intervals along one side to flues of a corresponding heating wall and provided at its opposite side with two passages each having communication with the regenerator longitudinally distributed along the length of said opposite side, means for supplying fluid to be preheated to one, and means for withdrawing waste gases from the other of the said two passages of each regenerator.

5. In a regenerative coke oven comprising a series of heating walls each formed with a plurality of heating flues, the combination therewith of regenerators, parallel to said heating walls, and each connected at intervals along its upper edge to flues of a corresponding heating wall, and provided at its opposite side with an outlet passage for waste gases and with a separate supply conduit for fluid to be preheated, a main conduit to which the said outlet passage and the said supply conduit of a plurality of said regenerators are connected, and means for alternately supplying fluid to be preheated to, and withdrawing waste gases from said main conduit.

1,254,008. WHEAT SCALPING AND CONDITIONING MACHINE. JOSEPH H. HEISHMAN, Port Huron, Mich. Filed May 10, 1916. Serial No. 96,483. (Cl. 83—30.)



1. In combination with a cylindrical casing having inlet and discharge openings at opposite ends; a rotary agitator device in said cylinder comprising a circular series of spaced-apart longitudinal bars, and series of radially extending paddle blades pivotally secured to the respective bars in angularly adjustable position; said blades being apertured and the material-contacting surfaces thereof being roughened.

2. In combination with a cylindrical casing having inlet and discharge openings at opposite ends; a rotary agitator device in said cylinder comprising a circular series of spaced-apart longitudinal bars, and series of radially extending paddle blades pivotally secured to the respective bars in staggered relation and with adjacent blades upon each bar in reversely angled position thereon; said blades being apertured and the material-contacting surfaces thereof being roughened.

1,254,009. METHOD FOR TREATING FERRUGINOUS WATERS. LOUIS S. HUGHES and CLIFFORD H. WOLCOTT, Chicago, Ill. Filed Sept. 8, 1914. Serial No. 860,569. (Cl. 23—13.)

1. The method of treating ferruginous water, which consists in subjecting the water to the action of an oxidizing reagent to convert the ferrous salts into ferric salts to render the total iron content of the water precipitable, then commingling the water and a reagent having alkaline characteristics, agitating the water and the last-mentioned reagent while in the presence of each other to neutralize the free acid content of the water and form a precipitate in suspension, and then recovering the precipitate.

2. In the method of treating ferruginous water the step which consists in subjecting the water to the action of a soluble hypochlorite to convert the ferrous salts into ferric salts to render the total iron content of the water precipitable.

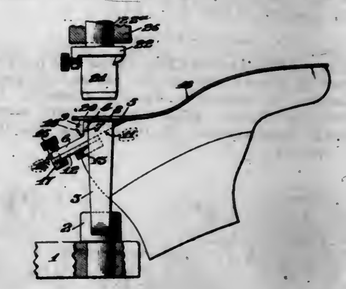
3. The method of treating ferruginous water, which consists in initiating neutralization of the acid content of the water by the action of a reagent capable also of rendering insoluble the precipitable metallic content and which forms a substantially insoluble salt with said acid content, and then completing neutralization and precipitation by subjecting the water to the action of a second reagent forming a readily soluble salt with said acid content.

4. The method of treating ferruginous water, which consists in initiating neutralization of the acid content of the water by the action of a reagent capable also of rendering insoluble the precipitable metallic content and which forms a substantially insoluble salt with said acid content, then completing neutralization and precipitation by subjecting the water to the action of a second reagent, and then recovering the precipitate.

5. The method of treating ferruginous water, which consists in initiating neutralization of the free acid of the water by the action of a reagent capable also of rendering insoluble the precipitable metallic content, and which forms a substantially insoluble salt with said acid, and then subjecting the water to the action of magnesite, whereby to complete neutralization.

[Claims 6 to 9 not printed in the Gazette.]

1,254,010. APPARATUS FOR USE IN OPERATING UPON SHOE-SOLES. ROBERT B. PUCKETT and HARRY R. ABBOTT, St. Louis, Mo. Filed Apr. 27, 1916, Serial No. 93,893. Renewed June 8, 1917. Serial No. 173,649. (Cl. 12—17.)



1. An apparatus of the character described, comprising a sole support adapted for insertion between the heel seat portion of the sole and a corresponding portion of the upper and when so positioned to extend under and to support the entire heel seat portion of the sole, and a lift-cutting die supported in opposed relation to said member and positioned to operate within the confines of the supported heel seat portion, the sole support and lift-cutting die being constructed and arranged to enable relative movement therebetween effective to bring them into contact.

5. An apparatus of the character described comprising a supported member having a flat upper side and an inclined under side converging toward the front edge of said upper side, and a plate adjustably supported on the under side of said member and carrying guide members converging rearwardly with respect thereto.

8. In a device of the character described, a stationary yoke, the arms whereof are spaced a sufficient distance apart to permit the entrance of the heel portion of a shoe-upper between them, and a wedge shaped block mounted at one end of said yoke and extending between the arms thereof and affording an upper flat side, said flat sided portion being of an extent to be passed between the unattached heel-seat portion of a sole and

the corresponding portion of an upper and to support the central area of said heel-seat portion upon its flat upperside.

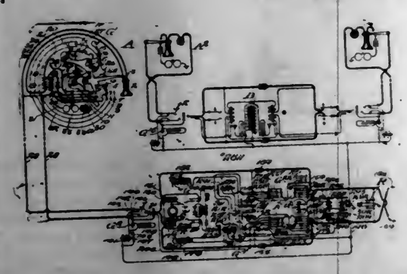
[Claims 2 to 4, 6, and 7 not printed in the Gazette.]

1,254,011. SAFETY GAGE-COCK. EDWARD B. WADELL, Sr., Williamson, W. Va. Filed Feb. 28, 1914, Serial No. 821,689. Renewed Oct. 3, 1917. Serial No. 194,593. (Cl. 277—27.)



A gage cock comprising a pair of tubular sections, an intermediate tubular section having its terminals detachably secured to first named sections respectively, the bore of said intermediate section having a tapered portion, a lateral discharge element communicating with the bore of the intermediate portion, a valve threaded in one of said first named sections and having a tapered portion adapted to seat in the tapered portion of the bore of the intermediate section, a safety valve for closing the outer end of the other of said first named sections and provided with a stem extending through the bore of the last named section, and having a longitudinal recess formed therein, a stem carried by the first mentioned valve for slidably and rotatably engaging in said recess, and a guide member confined between the last named section and the intermediate section and in which said stem is adapted to slide.

1,254,012. SEMI-AUTOMATIC TELEPHONE SYSTEM. TALBOT G. MARTIN, Chicago, Ill., assignor, by mesne assignments, to Automatic Electric Company, a Corporation of Illinois. Filed Sept. 13, 1907, Serial No. 392,687. Renewed Nov. 27, 1916. Serial No. 133,819. (Cl. 179—27.)



1. A working telephone system in process of gradual reconstruction or transition from one type to another, without interfering with the service between any and all subscribers thereof, comprising subscribers' telephone lines, automatic and manual equipment for the exchange and substations of one or more of said lines, means for calling automatically, and suitable provisions for then rendering the automatic portion of said equipment inoperative for calling into the exchange, over subscribers' telephone lines terminating in automatic exchange equipment, and incapable of interfering with the manual service while all subscribers' telephone lines of the system are in condition for calling and being called manually.

2. A working telephone system in process of reconstruction from one type to another, without interfering with the service thereof, comprising subscribers' telephone lines, automatic and manual equipment for the exchange and substations of one or more of said lines, and suitable provisions for rendering the manual portion of said equipment inoperative for calling into the exchange, over subscribers' telephone lines adapted to call or be called automatically, but uniformly operative for calling out therefrom, and incapable of interfering with the automatic service after a portion of the system is working automatically.

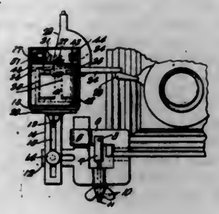
3. A working telephone system in process of reconstruction from one type to another, without interfering with the service thereof, comprising subscribers' telephone lines, automatic and manual equipment for the exchange and substations of one or more of said lines, and suitable provisions for rendering the automatic portion of said equipment inoperative for calling into the exchange, over subscribers' telephone lines adapted to call or be called manually, but uniformly operative for calling out therefrom, and incapable of interfering with the manual service while a portion of the system is still working manually.

158. In a telephone system, a first exchange and a second exchange, automatic and manual subscribers' lines in the first exchange, a trunk line terminating in an automatic switch at the second exchange and provided with a manually operable terminal adapted for connection with a calling line in the first exchange, means for rendering the said switch controllable by the calling subscriber when the calling line is an automatic line, and means for rendering the same switch controllable by the operator when the calling line is a manual line.

159. In a telephone system, a trunk line terminating at each end in a manual connective terminal, incoming and outgoing branches of said trunk line at one end terminating, respectively, in movable and fixed contacts in separate automatic switches, and means for completing connections over said trunk line by way of either of the three branches at one end and the said manual connective terminal at the other end.

[Claims 4 to 157 and 160 to 167 not printed in the Gazette.]

1,254,013. PHOTOGRAPHIC APPARATUS. HENRY VAN HOEVENBERG, Lake Placid Club, N. Y. Filed Apr. 13, 1915. Serial No. 20,989. (Cl. 74—93.)



1. In a camera attachment adapted to coöperate with the camera by operating the shutter of the same, the combination with a shutter actuator, of driving means for said shutter actuator, a dog connected to said driving means, a latch engaging said dog to prevent an operation of said driving means, an electro-magnet for releasing said latch, and dog and pawl mechanism for interrupting the movement of said driving means after the release of said dog from said latch.

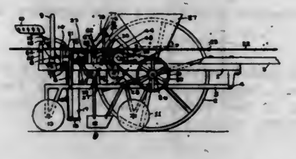
2. In a camera attachment adapted to coöperate with the camera by operating the shutter of the same, the combination with a shutter actuator, of a cam for driving said shutter actuator, a shaft for driving said cam, a spring for driving said shaft, a dog on said shaft, a latch engaging said dog, and means for releasing said latch.

3. In a camera attachment adapted to coöperate with the camera by operating the shutter of the same, the combination with a shutter actuator, of a cam for driving said shutter actuator, a shaft for driving said cam, a spring for driving said shaft, a dog on said shaft, a latch engaging said dog, an electro-magnet for releasing said latch, and a circuit closable from a point distant from said latch and said shutter actuator for energizing said electro-magnet.

[Claim 4 not printed in the Gazette.]

REISSUES.

14,422. CHECK-ROW POTATO-PLANTER. OSCAR L. OLSON, St. Paul, Minn., assignor of one-half to Frank H. Douthitt, Clinton, Iowa, and one-half to Anton E. Soderlind, Braham, Minn. Filed Nov. 19, 1917. Serial No. 202,860. Original No. 1,203,393, dated Oct. 31, 1916. Serial No. 107,222, filed July 3, 1916. (Cl. 111—39.)



1. In a potato planter, the combination with a pair of ground wheels, of a frame carried thereby and having a draft pole, furrow opening means and furrow closing means carried by the same, means for adjusting said furrow working devices into and upward above the ground, a potato dropping tube carried by the frame and having in its lower end a valve, a potato magazine having an upwardly open extension with slits in the walls nearest the dropping tube, a spider mounted to rotate near said slits and having arms swinging through the slits and provided each with a sharp prong by which to engage a potato and carry it into the dropping tube, means for automatically disengaging each potato from the arm into the tube, operative connection between said spider and one or both of the ground wheels to rotate the spider normally at a superfluous speed, a coupling device inserted in the operative connection, a trigger controlling the coupling mechanism and arranged to be operated by each potato passing to the dropping tube, so as to prevent more than one potato from being dropped at one time by the tube, a check rower mechanism arranged to operate the valve, a spring restoring the check rower mechanism to normal position after each potato is dropped, operative connection between said spring and the valve and the trigger to restore them automatically to normal position after each potato is dropped into the furrow.

2. In a potato planter, a dropping tube designed to drop one potato at a time into the ground, a valve controlling the lower end of said tube, means for opening the valve automatically at certain predetermined spaced points in the travel of the planter, a wheel carrying potatoes one by one from a supply toward the tube faster than the tube is supposed to drop them, means for driving said wheel, and automatic means for uncoupling it by each potato actually carried into the tube, and automatic means for coupling the wheel again to its driving means as soon as the dropping tube is emptied.

3. In a potato planter, a dropper tube, a member mounted to deliver potatoes one by one thereto, an operating means for said member, mechanism actuated through the carrying of a potato by said member to said tube for checking temporarily the movement of said member, and means for releasing said member to resume its operation when the potato so delivered to said tube has been discharged.

4. In a potato planter, a potato delivering device and means for controlling the discharge of potatoes therefrom, a pick-up member mounted to deliver the potatoes one by one to said device, means for operating said member until a potato has been picked up, mechanism operated by the carrying of a potato to said device for temporarily checking the movement of said member, and means for operating the controlling means of said delivering device to discharge the potato therein and simultaneously releasing said member to resume its potato pick-up operation.

5. In a potato planter, a potato dropping tube and valve therefor, a potato delivering member having pick-up arms for gathering the potatoes one by one for delivery to said tube, means for operating said member, means actuated through the gathering up of a potato for disengaging the operating mechanism of said member to temporarily stop it, a checker line and means actuated by said line for opening said valve and reëngaging said operating mechanism with said delivering member when the potato has been dropped from said tube.

6. In a potato planter, a dropping tube, a device for delivering potatoes to said tube, said device being mounted to revolve and having a plurality of potato pickers, a clutch mechanism for controlling said device, mechanism actuated through the delivery of a potato to said tube for releasing said clutch mechanism and checking the movement of said device temporarily, and means for discharging the potatoes one by one from said tube.

7. In a potato planter, a hopper, a revolving pick-up device having a plurality of arms operating in said hopper to pick-up the potatoes one by one, an operating means for said device, means in the path of a potato gathered up by one of said arms for disengaging said operating means and temporarily checking said device and means for reengaging said device with said operating means when the potato has been discharged, the operation of said device continuing until one of its arms picks up a potato.

DESIGNS.

51,687. RING. JOSEPH J. ABELSON, Newark, N. J. Filed Dec. 1, 1916. Serial No. 134,543. Term of patent 3½ years.

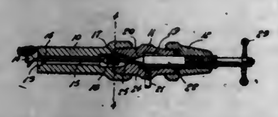


The ornamental design for a ring as shown.

the corresponding portion of an upper and to support the central area of said heel-seat portion upon its flat upperside.

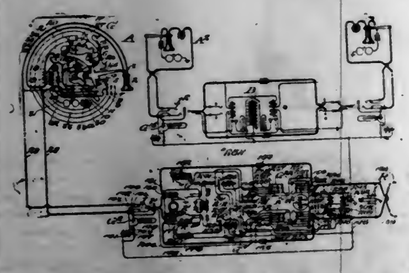
[Claims 2 to 4, 6, and 7 not printed in the Gazette.]

1,254,011. SAFETY GAGE-COCK. EDWARD B. WADELL, Sr., Williamson, W. Va. Filed Feb. 28, 1914, Serial No. 821,689. Renewed Oct. 3, 1917. Serial No. 194,593. (Cl. 277—27.)



A gage cock comprising a pair of tubular sections, an intermediate tubular section having its terminals detachably secured to first named sections respectively, the bore of said intermediate section having a tapered portion, a lateral discharge element communicating with the bore of the intermediate portion, a valve threaded in one of said first named sections and having a tapered portion adapted to seat in the tapered portion of the bore of the intermediate section, a safety valve for closing the outer end of the other of said first named sections and provided with a stem extending through the bore of the last named section, and having a longitudinal recess formed therein, a stem carried by the first mentioned valve for slidably and rotatably engaging in said recess, and a guide member confined between the last named section and the intermediate section and in which said stem is adapted to slide.

1,254,012. SEMI-AUTOMATIC TELEPHONE SYSTEM. TALBOT G. MARTIN, Chicago, Ill., assignor, by mesne assignments, to Automatic Electric Company, a Corporation of Illinois. Filed Sept. 13, 1907, Serial No. 392,687. Renewed Nov. 27, 1916. Serial No. 133,819. (Cl. 179—27.)



1. A working telephone system in process of gradual reconstruction or transition from one type to another, without interfering with the service between any and all subscribers thereof, comprising subscribers' telephone lines, automatic and manual equipment for the exchange and substations of one or more of said lines, means for calling automatically, and suitable provisions for then rendering the automatic portion of said equipment inoperative for calling into the exchange, over subscribers' telephone lines terminating in automatic exchange equipment, and incapable of interfering with the manual service while all subscribers' telephone lines of the system are in condition for calling and being called manually.

2. A working telephone system in process of reconstruction from one type to another, without interfering with the service thereof, comprising subscribers' telephone lines, automatic and manual equipment for the exchange and substations of one or more of said lines, and suitable provisions for rendering the manual portion of said equipment inoperative for calling into the exchange, over subscribers' telephone lines adapted to call or be called automatically, but uniformly operative for calling out therefrom, and incapable of interfering with the automatic service after a portion of the system is working automatically.

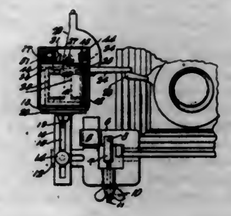
3. A working telephone system in process of reconstruction from one type to another, without interfering with the service thereof, comprising subscribers' telephone lines, automatic and manual equipment for the exchange and substations of one or more of said lines, and suitable provisions for rendering the automatic portion of said equipment inoperative for calling into the exchange, over subscribers' telephone lines adapted to call or be called manually, but uniformly operative for calling out therefrom, and incapable of interfering with the manual service while a portion of the system is still working manually.

158. In a telephone system, a first exchange and a second exchange, automatic and manual subscribers' lines in the first exchange, a trunk line terminating in an automatic switch at the second exchange and provided with a manually operable terminal adapted for connection with a calling line in the first exchange, means for rendering the said switch controllable by the calling subscriber when the calling line is an automatic line, and means for rendering the same switch controllable by the operator when the calling line is a manual line.

159. In a telephone system, a trunk line terminating at each end in a manual connective terminal, incoming and outgoing branches of said trunk line at one end terminating, respectively, in movable and fixed contacts in separate automatic switches, and means for completing connections over said trunk line by way of either of the three branches at one end and the said manual connective terminal at the other end.

[Claims 4 to 157 and 160 to 167 not printed in the Gazette.]

1,254,013. PHOTOGRAPHIC APPARATUS. HENRY VAN HOEVENBERG, Lake Placid Club, N. Y. Filed Apr. 13, 1915. Serial No. 20,989. (Cl. 74—93.)



1. In a camera attachment adapted to coöperate with the camera by operating the shutter of the same, the combination with a shutter actuator, of driving means for said shutter actuator, a dog connected to said driving means, a latch engaging said dog to prevent an operation of said driving means, an electro-magnet for releasing said latch, and dog and pawl mechanism for interrupting the movement of said driving means after the release of said dog from said latch.

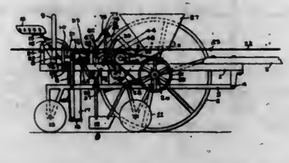
2. In a camera attachment adapted to coöperate with the camera by operating the shutter of the same, the combination with a shutter actuator, of a cam for driving said shutter actuator, a shaft for driving said cam, a spring for driving said shaft, a dog on said shaft, a latch engaging said dog, and means for releasing said latch.

3. In a camera attachment adapted to coöperate with the camera by operating the shutter of the same, the combination with a shutter actuator, of a cam for driving said shutter actuator, a shaft for driving said cam, a spring for driving said shaft, a dog on said shaft, a latch engaging said dog, an electro-magnet for releasing said latch, and a circuit closable from a point distant from said latch and said shutter actuator for energizing said electro-magnet.

[Claim 4 not printed in the Gazette.]

REISSUES.

14,422. CHECK-ROW POTATO-PLANTER. OSCAR L. OLSON, St. Paul, Minn., assignor of one-half to Frank H. Douthitt, Clinton, Iowa, and one-half to Anton E. Soderlind, Braham, Minn. Filed Nov. 19, 1917. Serial No. 202,860. Original No. 1,203,393, dated Oct. 31, 1916. Serial No. 107,222, filed July 3, 1916. (Cl. 111—39.)



1. In a potato planter, the combination with a pair of ground wheels, of a frame carried thereby and having a draft pole, furrow opening means and furrow closing means carried by the same, means for adjusting said furrow working devices into and upward above the ground, a potato dropping tube carried by the frame and having in its lower end a valve, a potato magazine having an upwardly open extension with slits in the walls nearest the dropping tube, a spider mounted to rotate near said slits and having arms swinging through the slits and provided each with a sharp prong by which to engage a potato and carry it into the dropping tube, means for automatically disengaging each potato from the arm into the tube, operative connection between said spider and one or both of the ground wheels to rotate the spider normally at a superfluous speed, a coupling device inserted in the operative connection, a trigger controlling the coupling mechanism and arranged to be operated by each potato passing to the dropping tube, so as to prevent more than one potato from being dropped at one time by the tube, a check rower mechanism arranged to operate the valve, a spring restoring the check rower mechanism to normal position after each potato is dropped, operative connection between said spring and the valve and the trigger to restore them automatically to normal position after each potato is dropped into the furrow.

2. In a potato planter, a dropping tube designed to drop one potato at a time into the ground, a valve controlling the lower end of said tube, means for opening the valve automatically at certain predetermined spaced points in the travel of the planter, a wheel carrying potatoes one by one from a supply toward the tube faster than the tube is supposed to drop them, means for driving said wheel, and automatic means for uncoupling it by each potato actually carried into the tube, and automatic means for coupling the wheel again to its driving means as soon as the dropping tube is emptied.

3. In a potato planter, a dropper tube, a member mounted to deliver potatoes one by one thereto, an operating means for said member, mechanism actuated through the carrying of a potato by said member to said tube for checking temporarily the movement of said member, and means for releasing said member to resume its operation when the potato so delivered to said tube has been discharged.

4. In a potato planter, a potato delivering device and means for controlling the discharge of potatoes therefrom, a pick-up member mounted to deliver the potatoes one by one to said device, means for operating said member until a potato has been picked up, mechanism operated by the carrying of a potato to said device for temporarily checking the movement of said member, and means for operating the controlling means of said delivering device to discharge the potato therein and simultaneously releasing said member to resume its potato pick-up operation.

5. In a potato planter, a potato dropping tube and valve therefor, a potato delivering member having pick-up arms for gathering the potatoes one by one for delivery to said tube, means for operating said member, means actuated through the gathering up of a potato for disengaging the operating mechanism of said member to temporarily stop it, a checker line and means actuated by said line for opening said valve and reengaging said operating mechanism with said delivering member when the potato has been dropped from said tube.

6. In a potato planter, a dropping tube, a device for delivering potatoes to said tube, said device being mounted to revolve and having a plurality of potato pickers, a clutch mechanism for controlling said device, mechanism actuated through the delivery of a potato to said tube for releasing said clutch mechanism and checking the movement of said device temporarily, and means for discharging the potatoes one by one from said tube.

7. In a potato planter, a hopper, a revolving pick-up device having a plurality of arms operating in said hopper to pick-up the potatoes one by one, an operating means for said device, means in the path of a potato gathered up by one of said arms for disengaging said operating means and temporarily checking said device and means for reengaging said device with said operating means when the potato has been discharged, the operation of said device continuing until one of its arms picks up a potato.

DESIGNS.

51,687. RING. JOSEPH J. ABELSON, Newark, N. J. Filed Dec. 1, 1916. Serial No. 134,543. Term of patent 3½ years.



The ornamental design for a ring as shown.

51,688. PATRIOTIC EMBLEM, PIN, OR BUTTON. HARRY T. BROCKMAN, Cleveland, Ohio. Filed Nov. 16, 1917. Serial No. 202,420. Term of patent 3½ years.



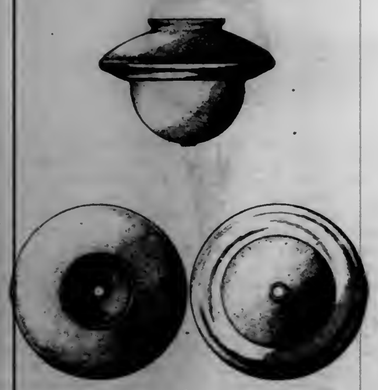
The ornamental design for a patriotic emblem pin or button, as shown.

51,689. BADGE. MAX FELLMAN, Columbus, Ohio. Filed Nov. 19, 1917. Serial No. 202,876. Term of patent 3½ years.



The ornamental design for a badge, as shown.

51,690. SINGLE-UNIT REFLECTOR. RICHARD S. GIESE, Pittsburgh, Pa. Filed Oct. 9, 1917. Serial No. 195,646. Term of patent 7 years.



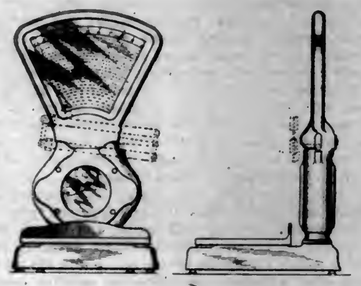
The new, original and ornamental design for a single unit reflector, substantially as shown.

51,691. SOAP-DISPENSER. WILLIAM F. HATCH, Milwaukee, Wis., assignor to The Palmolive Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Nov. 5, 1917. Serial No. 200,447. Term of patent 14 years.



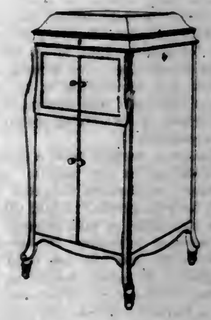
The ornamental design for a soap dispenser, as shown.

51,692. SCALE-CASING. HALVOR O. HEM, Toledo, Ohio, assignor to Toledo Scale Company, Toledo, Ohio, a Corporation of New Jersey. Filed Oct. 23, 1916. Serial No. 127,275. Term of patent 14 years.



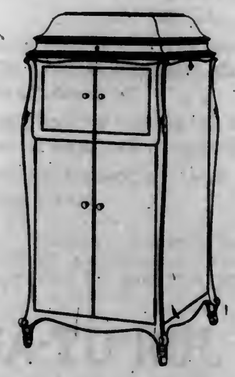
The ornamental design for a scale casing as shown.

51,693. CABINET FOR A TALKING-MACHINE. EUGENE T. KIEFFER, Philadelphia, Pa., assignor to Victor Talking Machine Company, a Corporation of New Jersey. Filed Feb. 10, 1917. Serial No. 147,958. Term of patent 14 years.



The ornamental design for a cabinet for a talking machine, as shown.

51,694. CABINET FOR A TALKING-MACHINE. EUGENE T. KIEFFER, Philadelphia, Pa., assignor to Victor Talking Machine Company, a Corporation of New Jersey. Filed Feb. 10, 1917. Serial No. 147,959. Term of patent 14 years.



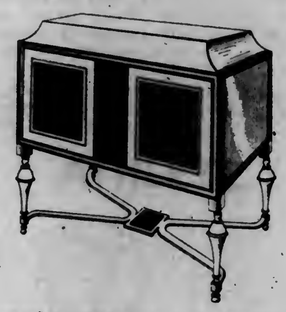
The ornamental design for a cabinet for a talking machine, as shown.

51,695. BADGE. FRANK E. MUNI, Nutley, N. J., assignor to Charles H. McIntyre, trustee, Boston, Mass. Filed Nov. 12, 1917. Serial No. 201,641. Term of patent 3½ years.



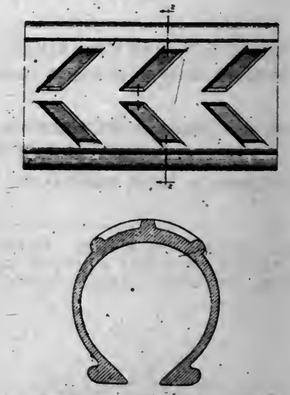
The ornamental design for a badge as shown.

51,696. PHONOGRAPH-CABINET. FRANK H. NEWTON, San Francisco, Cal. Filed Nov. 12, 1917. Serial No. 201,639. Term of patent 3½ years.



The ornamental design for a phonograph cabinet as shown.

51,697. VEHICLE-TIRE. ALBERT F. SEIBERLING, Jonesboro, Ind., assignor to Indiana Rubber & Insulated Wire Company, Jonesboro, Ind., a Corporation of Indiana. Filed Dec. 23, 1916. Serial No. 138,681. Term of patent 14 years.



The ornamental design for a vehicle tire, as shown.

51,698. EMBROIDERED LACE. HENRY SCHWARBER, Weehawken, N. J., assignor to Inflexible Co., West New York, N. J. Filed Nov. 13, 1917. Serial No. 201,882. Term of patent 3½ years.



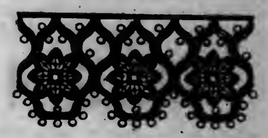
The ornamental design for embroidered lace substantially as shown.

51,699. EMBROIDERED LACE. HENRY SCHWARBER, Weehawken, N. J., assignor to Inflexible Co., West New York, N. J. Filed Nov. 13, 1917. Serial No. 201,883. Term of patent 3½ years.



The ornamental design for embroidered lace substantially as shown.

51,700. EMBROIDERED LACE. HENRY SCHWARBER, Weehawken, N. J., assignor to Inflexible Co., West New York, N. J. Filed Nov. 13, 1917. Serial No. 201,884. Term of patent 3½ years.



The ornamental design for embroidered lace substantially as shown.

TRADE-MARKS

PUBLISHED JANUARY 15, 1918.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 98,218. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE NATIONAL BENEFIT LEAGUE, INC., New York, N. Y. Filed Sept. 25, 1916.

SA-TU-ROL

Particular description of goods.—Antiseptic Cleanser and Disinfectant.
Claims use since Jan. 1, 1915.

Ser. No. 99,406. (CLASS 27. HOROLOGICAL INSTRUMENTS.) THE HAMPDEN WATCH COMPANY, Canton, Ohio. Filed Nov. 20, 1916. Under ten-year proviso.

SPECIAL
Railway

Particular description of goods.—Watches and Watch-Movements.
Claims use since the 1st day of November, 1888.

Ser. No. 101,828. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) C. G. CONN, LTD., Elkhart, Ind. Filed Mar. 2, 1917. Under ten-year proviso.

C.G. CONN

Particular description of goods.—Musical Instruments and Wind Instruments—Namely, Cornets, Trombones; Melophones, French Horns, Ballad-Horns, Bass-Horns, Flutes, Piccolos; Saxophones, Clarinets; Violins, Drums.
Claims use since the year 1876.

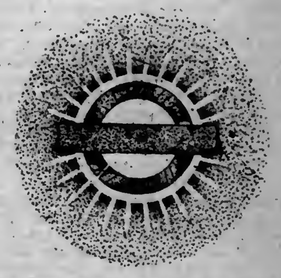
Ser. No. 103,428. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NASIACOS IMPORTING CO., Chicago, Ill. Filed Apr. 30, 1917.

ATHLETE



Particular description of goods.—Olive-Oil and Coffee.
Claims use since Jan. 1, 1917.

Ser. No. 104,165. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) CRANE PACKING COMPANY, Chicago, Ill. Filed May 31, 1917.



Particular description of goods.—Metallic Packing.
Claims use since February, 1917.

Ser. No. 104,696. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE HARTER CANDY COMPANY, Toledo, Ohio. Filed June 26, 1917.

IRIS

Particular description of goods.—Candy.
Claims use since May 19, 1917.

Ser. No. 104,811. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) IVAN P. FLORSHEIM, Chicago, Ill. Filed July 3, 1917.

TONE-O-GRAF

Particular description of goods.—Talking-Machines.
Claims use since about June 1, 1917.

Ser. No. 105,381. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) THE NATIONAL SUPPLY COMPANY, Toledo, Ohio. Filed July 31, 1917.

N.S.CO

Particular description of goods.—Metal Balls for Plugging Dry Wells, Babbitt Metal, Solder, Pig-Lead, Sheet-Lead, Tool-Steel, Wire, Metal Rods, Metal Bars, Metal Roofing, and Anvils.
Claims use since the year 1900.

Ser. No. 105,383. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE NATIONAL SUPPLY COMPANY, Toledo, Ohio. Filed July 31, 1917.

N.S.CO

Particular description of goods.—Well-Drilling Rigs and Parts Thereof, Well-Derricks, Bull-Wheels, Calf-Wheels, Band-Wheels, Friction-Drums, Brake-Wheels, Well Drilling Machines and Parts Thereof, Walking-Beams, Crown-Blocks for Well-Derricks, Well-Drilling Rig-Irons, Machine Brakes and Clutches, Sprocket-Wheels, Bearings for Shafts, Machine-Shafting, Temper-Screws, Temper-Screw Clamps, Rope-Sockets for Well-Drilling Tools, Drilling-Jars, Drilling-Stems, Drilling Bits and Shoes, Metal-Reamers, Underreamers, Swivel-Boxes, Well-Bailers and Sand-Pumps, Drilling-Tool Swabs, Derrick-Cranes, Spudding-Shoes for Well-Drilling Machines, Steam-Hammers, Rotary Well-Drilling Machines and Parts Thereof, Slush-Pumps and Parts Thereof, Water-Swivels for Drilling-Machines, Mud-Mixers for Wells, Drive-Heads and Drive-Points for Well-Casings, Well-Casing Spears, Elevators for Well Casing and Tubing, Casing-Cutters for Wells, Sucker-Rods, Pipe-Rings and Spiders and Wedges, Slips and Liners Therefor, Wire-Rope-Splicing Tools, Oil-Savers for Oil-Wells; Air, Oil, Water, and Gas Pumps and Parts Thereof; Machines Each Constructed to Transmit Power to Operate a Plurality of Pumps and Parts Thereof, Pumping-Jacks and Parts Thereof, Fence-Jacks for Tightening Wires and Rods; Hoisting-Machines and Parts Thereof for Raising and Lowering Well Tubing, Casing, and Sucker-Rods; Boiler-Tube-Cleaning Tools, and Steam-Engines, Gas and Gasoline Engines and Parts Thereof, Gas-Compressors and Parts Thereof, Fishing-Tools for Wells, Jacks, Snatch-Blocks, Tackle-Blocks, Hoisting-Hooks, Chain-Hoists, Sheaves, Pulleys, Casing-Heads for Wells, Stuffing-Boxes, Well-Packers, Reels, Load-Binders, Tongs, Wrenches, Vises, Sledges, Hammers, Forge-Tools, Chisels, Calking-Irons, Tube-Beaders, Files, Rasps, Pinch-Bars, Crowbars, Picks, Shovels, Hoes, Axes, Adzes, Hatchets, Pliers, Soldering-Irons, Bit-Braces, Bits, Augers, Drawing-Knives, Planes, Screw-Drivers, Saws, Saw-Sets, Tool-Handles, Cant-Hooks, Belt-Punches, Metal-Punches, Tube Cutters and Expanders, Metal-Drilling Machines and Parts Thereof, Ratchet-Drills, Drill-Bits, Metal-Presses, Pipe-Threading Machines and Parts Thereof, Tapping-Machines, Threading Taps and Dies, Pipe-Benders, Pipe-Cutting Machines and Parts Thereof, Reamers, Rotary Fans and Blowers, Oil-Cups, Grease-Cups.

Claims use since the year 1900.

Ser. No. 105,390. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SOUTHWESTERN SYRUP CO., El Paso, Tex. Filed July 31, 1917.

MOTHER GOOSE



Particular description of goods.—Table-Syrups and Candies.

Claims use since June 10, 1917.

Ser. No. 105,860. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) A/S KONSERV, Trondhjem, Norway. Filed Aug. 24, 1917.

Cathedral

Particular description of goods.—Fish-Balls, Sardines in Oil, Tomato Sauce and Bouillon, Herrings.

Claims use since Aug. 31, 1915.

Ser. No. 106,093. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) CHRISTIAN KURTZMANN INCORPORATED, Buffalo, N. Y. Filed Sept. 6, 1917.



The trade-mark consists of three portraits, the upper one being that of Christian Kurtzmann, deceased, the portrait at the left being that of Louis S. Kurtzmann, and the portrait at the right being that of Christian Kurtzmann.

Particular description of goods.—Pianos.

Claims use since Aug. 29, 1917.

Ser. No. 106,128. (CLASS 46. FOODS and INGREDIENTS OF FOODS.) D. AUERBACH & SONS, New York, N. Y. Filed Sept. 8, 1917.

"Gardenia

Particular description of goods.—Candy.

Claims use since January, 1917.

Ser. No. 106,192. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) CREW LEVICK COMPANY, Philadelphia, Pa. Filed Sept. 12, 1917.



Particular description of goods.—Tire-Chains.

Claims use since about the 2d day of September, 1917.

Ser. No. 106,728. (CLASS 37. PAPER AND STATIONERY.) GEORGE VINCENT, New York, N. Y. Filed Oct. 11, 1917.



Particular description of goods.—Tracing-Paper.

Claims use since Sept. 18, 1917.

Ser. No. 107,010. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) PIEDMONT PICTURES CORPORATION OF NEW YORK, New York, N. Y. Filed Oct. 29, 1917.



Particular description of goods.—Motion-Picture Films.

Claims use since Oct. 17, 1917.

Ser. No. 107,189. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE WISCONSIN BUTTER & CHEESE CO., Elkhorn, Wis. Filed Nov. 5, 1917.



Particular description of goods.—Evaporated Milk.

Claims use since Sept. 1, 1917.

Ser. No. 107,208. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) UNITED STATES MACARONI COMPANY, Los Angeles, Cal. Filed Nov. 6, 1917.



Particular description of goods.—Macaronic Foods.

Claims use since Aug. 1, 1905.

Ser. No. 107,214. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EN-ZO COMPANY, Denmark, Wis. Filed Nov. 7, 1917.

EN-ZO

Particular description of goods.—A Compound of Evaporated Skimmed Milk and Vegetable Fat.

Claims use since Oct. 1, 1917.

Ser. No. 107,229. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ISIDOR MOOS, TRADING UNDER THE NAME OF INTERNATIONAL PURE FOOD CO., New York, N. Y. Filed Nov. 8, 1917.

SEA KANE

Particular description of goods.—Sardines.

Claims use since March, 1917.

Ser. No. 107,230. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ISIDOR MOOS TRADING UNDER THE NAME OF INTERNATIONAL PURE FOOD CO., New York, N. Y. Filed Nov. 8, 1917.

INTERNATIONAL

Particular description of goods.—Sardines.

Claims use since March, 1917.

Ser. No. 107,231. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ISIDOR MOOS, TRADING AS INTERNATIONAL PURE FOOD CO., New York, N. Y. Filed Nov. 8, 1917.

MOLIÈRE

Particular description of goods.—Sardines.

Claims use since May, 1915.

Ser. No. 107,232. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ISIDOR MOOS, TRADING AS INTERNATIONAL PURE FOOD CO., New York, N. Y. Filed Nov. 8, 1917.

LITTLE QUEEN

Particular description of goods.—Sardines.

Claims use since June, 1916.

Ser. No. 107,233. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ISIDOR MOOS, TRADING UNDER THE NAME OF INTERNATIONAL PURE FOOD CO., New York, N. Y. Filed Nov. 8, 1917.

GLORIANA



Particular description of goods.—Sardines.
Claims use since March, 1917.

Ser. No. 107,234. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ISIDOR MOOS, TRADING UNDER THE NAME OF INTERNATIONAL PURE FOOD CO., New York, N. Y. Filed Nov. 8, 1917.

HERO CLUB

Particular description of goods.—Sardines.
Claims use since June, 1915.

Ser. No. 107,297. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BEST-CLYMER MANUFACTURING COMPANY, St. Louis, Mo. Filed Nov. 12, 1917.

Harvester

Particular description of goods.—Apple-Butter, Fruit Preserves and Jellies.
Claims use since about June, 1914.

Ser. No. 107,299. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) THE BEAU-SITE COMPANY, New York, N. Y. Filed Nov. 12, 1917.



The picture of the individual being fanciful.
Particular description of goods.—Brandies, Rum, Gin, Cocktails, and Liqueurs.
Claims use since Oct. 15, 1917.

Ser. No. 107,335. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PACIFIC FRUIT & PRODUCE CO., North Yakima, Wash. Filed Nov. 12, 1917.

TYEE

Particular description of goods.—Fresh Apples.
Claims use since Aug. 1, 1912.

Ser. No. 107,342. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WHITE BROS. & CRUM CO., Lewiston, Idaho, and Yakima, Wash. Filed Nov. 12, 1917.

PUSSY



Particular description of goods.—Fresh Apples.
Claims use since Feb. 5, 1917.

Ser. No. 107,343. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WHITE BROS. & CRUM CO., Lewiston, Idaho, and Yakima, Wash. Filed Nov. 12, 1917.

BLUE JAY



Particular description of goods.—Fresh Apples.
Claims use since Feb. 5, 1917.

Ser. No. 107,344. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WHITE BROS. & CRUM CO., Lewiston, Idaho, and Yakima, Wash. Filed Nov. 12, 1917.

PHEASANT



Particular description of goods.—Fresh Apples.
Claims use since Feb. 5, 1917.

Ser. No. 107,381. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) ELMER J. BLISS, Boston, Mass. Filed Nov. 15, 1917.

RESCO

Particular description of goods.—Gages and Size-Sticks for Fitting Shoes.
Claims use since on or about Oct. 1, 1917.

Ser. No. 107,388. (CLASS 38. PRINTS AND PUBLICATIONS.) THE CHRONICLE PUBLISHING COMPANY, San Francisco, Cal. Filed Nov. 15, 1917. Under ten-year proviso.

San Francisco Chronicle

Particular description of goods.—A Daily Newspaper.
Claims use since 1865.

Ser. No. 107,481. (CLASS 43. THREAD AND YARN.) PINKNEY MILLS, INC., Gastonia, N. C. Filed Nov. 19, 1917.



Particular description of goods.—Yarns.
Claims use since Mar. 23, 1917.

Ser. No. 107,492. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GARABED LACHINIAN, New York, N. Y. Filed Nov. 20, 1917.



Particular description of goods.—A Milk-Powder Which When Introduced to Sweet Milk Causes Said Sweet Milk to Rapidly Change from a Sweet Condition to a Healthy Sour Condition.
Claims use since Oct. 1, 1917.

Ser. No. 107,548. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) EASTMAN KODAK COMPANY, Rochester, N. Y. Filed Nov. 23, 1917.

KODAPOD

Particular description of goods.—Camera-Supports.
Claims use since Oct. 25, 1917.

Ser. No. 107,602. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE AULTMAN & TAYLOR MACHINERY CO., Mansfield, Ohio. Filed Nov. 26, 1917. Under ten-year proviso.



Particular description of goods.—Threshing-Machines.
Claims use since 1890.

Ser. No. 107,776. (CLASS 15. OILS AND GREASES.) WM. C. ROBINSON & SON CO., Baltimore, Md. Filed Dec. 5, 1917.

ROBSOIL

Particular description of goods.—Quenching-Oil Used in the Treatment of Iron, Steel, and other Metals.
Claims use since May 1, 1917.

Ser. No. 107,803. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) ASTRA ELECTRIC NOVELTY WORKS, INC., New York, N. Y. Filed Dec. 7, 1917.



Particular description of goods.—Electric Batteries and Flash-Lights.
Claims use since the 30th day of January, 1917.

Ser. No. 107,938. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) COOPER-BELL VARNISH CO., Chicago, Ill. Filed Dec. 13, 1917.



Particular description of goods.—Enamels.
Claims use since Oct. 27, 1917.

Ser. No. 107,940. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) FULTON IRON WORKS COMPANY, St. Louis, Mo. Filed Dec. 13, 1917. Under ten-year proviso.

FULTON

Particular description of goods.—Sugar-Mill Machinery, Corliss Engines, Oil-Engines, Cane-Crushing Mills, and Cane-Crushing Rollers.
Claims use since about 1879.

Ser. No. 107,992. (CLASS 48. MALT EXTRACTS AND LIQUORS.) A. SCHREIBER BREWING CO., Buffalo, N. Y. Filed Dec. 15, 1917.

SOLIDO

Particular description of goods.—A Non-Intoxicating Cereal Beverage Containing a Small Percentage of Malt and Less Than One-Half of One Per Cent. of Alcohol.
Claims use since Dec. 11, 1917.

Ser. No. 108,025. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) STANDARD BOTTLING AND EXTRACT CO. INC., Boston, Mass. Filed Dec. 17, 1917.



Particular description of goods.—Vanilla-Soda, Root-Beer, Ginger-Ale, Sarsaparilla, Birch-Beer, Peach Imitation, Orangeade, Lemon-Sour, Lemon-Soda, and Strawberry Imitation.
Claims use since May 1, 1901.

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TRADE-MARK REGISTRATIONS GRANTED

JANUARY 15, 1918.

120,152. PAPER BOXES, BONBON-CUPS, PAPER DRINKING-CUPS, FOLDING CARTONS, CANDY-BOXES, FANCY BOXES, PILL-BOXES, AND POWDER-BOXES. EDGAR E. ABRAHAMS, Boston, Mass.
Filed March 16, 1917. Serial No. 102,177. PUBLISHED OCTOBER 30, 1917.

120,153. VALVES, PRESSURE-REDUCERS, AND PIPING FOR A DISPENSING SYSTEM. ALLEN PRESSURE SYSTEM CO., New York, N. Y.
Filed July 17, 1917. Serial No. 105,079. PUBLISHED NOVEMBER 6, 1917.

120,154. RADIATORS, RADIATOR-SECTIONS, FITTINGS, AND GAS-HEATERS. AMERICAN PRESSWELD RADIATOR CORPORATION, Detroit, Mich.
Filed December 11, 1916. Serial No. 99,830. PUBLISHED OCTOBER 23, 1917.

120,155. LEATHER BOOTS AND SHOES. HENRY TYDINGS ANDERSON, Baltimore, Md.
Filed March 20, 1917. Serial No. 102,277. PUBLISHED NOVEMBER 13, 1917.

120,156. MATTRESSES. ANDERSON & MCCLINTON, Clarkesville, Tex.
Filed June 27, 1917. Serial No. 104,710. PUBLISHED NOVEMBER 13, 1917.

120,157. DRAFT-BEER. ANHEUSER-BUSCH BREWING ASSOCIATION, St. Louis, Mo.
Filed October 17, 1917. Serial No. 106,801. PUBLISHED NOVEMBER 13, 1917.

120,158. HAIR-TONIC. CYRUS ARNONE, New York, N. Y.
Filed September 19, 1917. Serial No. 106,307. PUBLISHED NOVEMBER 13, 1917.

120,159. PANCAKE, BUCKWHEAT, CORN, AND WHEAT FLOURS. AUNT JEMIMA MILLS COMPANY, St. Joseph, Mo.
Filed August 9, 1917. Serial No. 105,553. PUBLISHED NOVEMBER 6, 1917.

120,160. PANCAKE, BUCKWHEAT, CORN, AND WHEAT FLOURS. AUNT JEMIMA MILLS COMPANY, St. Joseph, Mo.
Filed August 23, 1917. Serial No. 105,827. PUBLISHED NOVEMBER 6, 1917.

120,161. CERTAIN NAMED TOILET PREPARATIONS. A. BOURJOIS & CO., INC., New York, N. Y.
Filed September 17, 1917. Serial No. 106,273. PUBLISHED NOVEMBER 13, 1917.

120,162. COFFEE. EDWARD BRONDI, New York, N. Y.
Filed December 27, 1916. Serial No. 100,195. PUBLISHED NOVEMBER 6, 1917.

120,163. CANNED FRUITS, CANNED VEGETABLES. BURTON & DAVIS CO., New York, N. Y.
Filed January 6, 1917. Serial No. 100,392. PUBLISHED NOVEMBER 6, 1917.

120,164. CHEMICAL COMPOUND USED AS A DYE. THE BUTTERFLY TINTING COMPANY, Minneapolis, Minn.
Filed August 6, 1917. Serial No. 105,485. PUBLISHED NOVEMBER 13, 1917.

120,165. WHEAT-FLOUR. CATARACT CITY MILLING CO., Niagara Falls, N. Y.
Filed July 5, 1917. Serial No. 104,833. PUBLISHED NOVEMBER 6, 1917.

120,166. LACES. WILLIAM WALL CHACE, Brooklyn, N. Y., assignor to Jennings Lace Works Corp., New York, N. Y., a Corporation of New York.
Filed July 28, 1917. Serial No. 105,383. PUBLISHED OCTOBER 23, 1917.

120,167. SPARK-PLUGS, SPARK-PLUG PORCELAINS AND PARTS. CHAMPION SPARK PLUG COMPANY, Toledo, Ohio.
Filed April 16, 1917. Serial No. 103,011. PUBLISHED NOVEMBER 6, 1917.

120,168. BEER. THE CLEVELAND HOME BREWING CO., Cleveland, Ohio.
Filed October 3, 1917. Serial No. 106,573. PUBLISHED NOVEMBER 13, 1917.

120,169. HAM. THE CLEVELAND PROVISION COMPANY, Cleveland, Ohio.
Filed March 17, 1917. Serial No. 102,209. PUBLISHED NOVEMBER 6, 1917.

120,170. WHEAT-FLOUR, WHOLE-WHEAT FLOUR, AND FLOUR BLENDED FROM WHEAT AND CORN. COMMUNITY MARVEL MILLERS' ASSOCIATION, Owensboro, Ky.
Filed August 21, 1917. Serial No. 105,769. PUBLISHED NOVEMBER 6, 1917.

120,171. BREAD. COMMUNITY MARVEL MILLERS' ASSOCIATION, Owensboro, Ky.
Filed August 21, 1917. Serial No. 105,768. PUBLISHED NOVEMBER 6, 1917.

120,172. VITAMINIC PRODUCT FOR ADDITION TO FOOD. GEORGE S. CRAWFORD, McKeesport, Pa.
Filed December 26, 1916. Serial No. 100,159. PUBLISHED NOVEMBER 6, 1917.

120,173. AUTOMOBILES AND AUTOMOBILE RADIATORS AND HUB-CAPS. DANIELS MOTOR CAR COMPANY, Reading, Pa.
Filed August 3, 1917. Serial No. 105,451. PUBLISHED NOVEMBER 13, 1917.

120,174. CERTAIN NAMED FURNITURE. DELTOX GRASS RUG COMPANY, Oshkosh, Wis.
Filed September 8, 1914. Serial No. 81,037. PUBLISHED NOVEMBER 13, 1917.

120,175. AUTOMOBILE ELECTRIC SIGNAL-LAMPS. DIXIE AUTO SIGNAL COMPANY, Chicago, Ill.
Filed July 7, 1917. Serial No. 104,899. PUBLISHED OCTOBER 16, 1917.

120,176. SKIN-LOTION. BARON S. DOTY, Graham, Tex.
Filed July 26, 1917. Serial No. 105,288. PUBLISHED NOVEMBER 13, 1917.

120,177. PISTON-RINGS. DOUBLE ECCENTRIC PISTON RING CORPORATION, St. Louis, Mo.
Filed August 6, 1917. Serial No. 105,486. PUBLISHED NOVEMBER 6, 1917.

120,178. PREPARATION FOR CERTAIN NAMED DISEASES. MARGUERITE ADKINS DUNCAN, East Chattanooga, Tenn.
Filed May 22, 1917. Serial No. 104,005. PUBLISHED NOVEMBER 13, 1917.

120,179. PHOTOGRAPHIC DRY-PLATES. EASTMAN KODAK COMPANY, Rochester, N. Y.
Filed August 11, 1917. Serial No. 105,590. PUBLISHED OCTOBER 23, 1917.

120,180. BREAD. EAU CLAIRE BAKING COMPANY, Eau Claire, Wis.
Filed June 28, 1917. Serial No. 104,732. PUBLISHED NOVEMBER 6, 1917.

120,181. LIQUID PREPARATIONS FOR EXPANDING WOOD. EUREKA LIQUID WHEEL TIGHTENER COMPANY, Modesto, Cal.
Filed November 8, 1916. Serial No. 99,163. PUBLISHED NOVEMBER 13, 1917.

120,182. COTTON GOODS IN THE PIECE. EVERETT, HEANEY & COMPANY, INC., New York, N. Y.
Filed September 28, 1917. Serial No. 106,477. PUBLISHED NOVEMBER 13, 1917.

120,183. CERTAIN NAMED VALVES. THE FISHER GOVERNOR CO., Marshalltown, Iowa.
Filed June 2, 1916. Serial No. 95,592. PUBLISHED NOVEMBER 6, 1917.

120,184. ILLUMINATING, HEATING, AND LUBRICATING OILS, PARAFFIN WAXES, AND GREASES. GALENA-SIGNAL OIL COMPANY, Franklin, Pa.
Filed August 14, 1917. Serial No. 105,641. PUBLISHED OCTOBER 16, 1917.

120,185. WIRE FABRIC USED PARTICULARLY AS SPRING-BOTTOMS FOR BEDS, DAVENETTES, COUCHES, FOLDING CHAIRS, COTS, AND CRIBS. GASAU-THOMPSON COMPANY, Brooklyn, N. Y.
Filed September 25, 1916. Serial No. 98,209. PUBLISHED APRIL 24, 1917.

120,186. LIQUID-FUEL VAPORIZERS. THE GASORATOR CO., Bridgeport, Conn.
Filed July 24, 1917. Serial No. 105,230. PUBLISHED NOVEMBER 6, 1917.

120,187. HOSIERY. JOHN M. GIVEN, INC., Pittsburgh, Pa.; New York, N. Y., and Chicago, Ill.
Filed August 1, 1917. Serial No. 105,397. PUBLISHED NOVEMBER 13, 1917.

120,188. RUBBER BOOTS WITH LEATHER TOPS. THE B. F. GOODRICH COMPANY, New York, N. Y.
Filed September 8, 1917. Serial No. 106,135. PUBLISHED NOVEMBER 13, 1917.

120,189. RUBBER SHOES. THE B. F. GOODRICH COMPANY, New York, N. Y.
Filed September 8, 1917. Serial No. 106,139. PUBLISHED NOVEMBER 13, 1917.

120,190. WATERPROOF AND WEATHERPROOF BUILDING AND ROOFING MATERIAL MADE OF PAPER, FELT, SATURATED OR UNSATURATED. GOODRIDGE-CALL LUMBER COMPANY, Minneapolis, Minn., and Great Falls, Mont.
Filed July 7, 1917. Serial No. 104,901. PUBLISHED NOVEMBER 13, 1917.

120,191. BREAD, CRACKERS, CAKES, AND PASTRY. HUGO GOTTSCHALK, Reedsville, Pa.
Filed May 9, 1917. Serial No. 103,670. PUBLISHED NOVEMBER 6, 1917.

120,192. BELTING OF RUBBER AND FABRIC. THE GUTTA PERCHA & RUBBER MANUFACTURING COMPANY, New York, N. Y.
Filed July 20, 1917. Serial No. 105,150. PUBLISHED OCTOBER 23, 1917.

120,193. SILK PIECE GOODS. HAAS BROTHERS, New York, N. Y.
Filed September 22, 1917. Serial No. 106,385. PUBLISHED NOVEMBER 13, 1917.

120,194. CASES FOR CARRYING WIND AND STRING MUSICAL INSTRUMENTS. HAWKES & SON, London, England.
Filed January 24, 1916. Serial No. 92,362. PUBLISHED NOVEMBER 13, 1917.

120,195. ARTIFICIAL BAIT. JAMES HEDDON'S SONS, Dowagiac, Mich.
Filed October 9, 1917. Serial No. 106,690. PUBLISHED NOVEMBER 13, 1917.

120,196. BORDER-STRIP FOR USE IN BOOTS AND SHOES. HIRAM HOLDEN, Manchester, N. H.
Filed May 31, 1917. Serial No. 104,168. PUBLISHED NOVEMBER 13, 1917.

120,197. CERTAN NAMED TOILET PREPARATIONS. MAY KING IVAH, Baltimore, Md.
Filed September 22, 1917. Serial No. 106,387. PUBLISHED NOVEMBER 13, 1917.

120,198. TRACTORS AND AUTOMOBILE-TRACTOR DEVICES. KNICKERBOCKER MOTORS, INC., New York, N. Y.
Filed August 27, 1917. Serial No. 105,900. PUBLISHED NOVEMBER 6, 1917.

120,199. LINIMENT INTENDED FOR EXTERNAL USE. CHARLES MAHNKEN, Bayonne, N. J.
Filed January 18, 1917. Serial No. 100,718. PUBLISHED NOVEMBER 13, 1917.

120,200. SILK PIECE GOODS. H. R. MALLINSON AND COMPANY, New York, N. Y.
Filed September 22, 1917. Serial No. 106,391. PUBLISHED NOVEMBER 13, 1917.

120,201. FOOT-OINTMENT. ROSE C. MASON, Saginaw, Mich.
Filed August 14, 1917. Serial No. 105,642. PUBLISHED NOVEMBER 13, 1917.

120,202. CONSTRUCTIONAL TOYS FOR EDUCATIONAL AND AMUSEMENT PURPOSES. THE MATCHLESS METAL POLISH COMPANY LIMITED, Liverpool, England.
Filed October 16, 1917. Serial No. 106,788. PUBLISHED NOVEMBER 13, 1917.

120,203. ELECTRIC SHOVELS. THE MARION STEAM SHOVEL COMPANY, Marion, Ohio.
Filed August 8, 1917. Serial No. 105,545. PUBLISHED OCTOBER 23, 1917.

120,204. CARBONATED BEVERAGE SOLD AS A SOFT DRINK AND FLAVORING-SYRUP THEREFOR. WILLIAM H. MAUPIN, Chicago, Ill.
Filed October 17, 1917. Serial No. 106,814. PUBLISHED NOVEMBER 13, 1917.

120,205. PATCHES FOR THE INNER TUBES AND CASINGS OF PNEUMATIC TIRES. MOCO LABORATORIES, Oklahoma, Okla.
Filed November 16, 1916. Serial No. 99,328. PUBLISHED APRIL 10, 1917.

120,206. TAPEWORM REMEDY. LIZZIE MONROE, San Francisco, Cal.
Filed September 11, 1917. Serial No. 106,179. PUBLISHED NOVEMBER 13, 1917.

120,207. PREPARATION AND LINIMENT FOR THE TREATMENT OF CORNS, RHEUMATISM, &c. HARRY WILLIAM MOYER, Fullerton, Pa.
Filed June 21, 1917. Serial No. 104,590. PUBLISHED NOVEMBER 13, 1917.

120,208. MOVING-PICTURE FILMS. MUTUAL EXPORT & IMPORT CORP., New York, N. Y.
Filed June 22, 1917. Serial No. 104,614. PUBLISHED OCTOBER 23, 1917.

120,209. AUTOMATIC DOORS. NATIONAL AUTOMATIC DOOR COMPANY, Chicago, Ill.
Filed April 7, 1917. Serial No. 102,818. PUBLISHED NOVEMBER 13, 1917.

120,210. BURIAL-CASKETS, OUTSIDE CASES FOR CONTAINING THE SAME, AND INNER CASKETS TO BE PLACED WITHIN THE BURIAL-CASKETS. NATIONAL CASKET COMPANY, New York, N. Y.
Filed June 20, 1917. Serial No. 104,759. PUBLISHED NOVEMBER 13, 1917.

120,211. THREAD AND YARN MADE OF SILK, COTTON, OR WOOL. NONOTUCK SILK COMPANY, Northampton, Mass.
Filed May 17, 1917. Serial No. 103,902. PUBLISHED NOVEMBER 6, 1917.

120,212. GRANULATED COMBINATION OF CERTAIN SALTS FOR INTERNAL USE. FREDERICK H. PAXTON, Chicago, Ill.
Filed September 24, 1917. Serial No. 106,457. PUBLISHED NOVEMBER 13, 1917.

120,213. DYE. PAYNE CHEMICAL COMPANY, Minneapolis, Minn.
Filed September 5, 1917. Serial No. 106,077. PUBLISHED NOVEMBER 13, 1917.

120,214. BEER. THE PENNSYLVANIA CENTRAL BREWING CO., Scranton, Pa.
Filed August 20, 1917. Serial No. 105,755. PUBLISHED NOVEMBER 13, 1917.

120,215. OILY COMPOUNDS EMPLOYED IN DRILLING, TAPPING, AND CUTTING METALS. PITTSBURGH COMPOUND COMPANY, Pittsburgh, Pa.
Filed June 28, 1917. Serial No. 104,737. PUBLISHED AUGUST 28, 1917.

120,216. SHOE AND LEATHER POLISH. J. L. PRESCOTT COMPANY, New York, N. Y.
Filed February 24, 1917. Serial No. 101,660. PUBLISHED NOVEMBER 6, 1917.

120,217. HAT-LININGS. THE PULLASTIC CO. OF AMER. INC., New York, N. Y.
Filed August 18, 1917. Serial No. 105,721. PUBLISHED OCTOBER 23, 1917.

120,218. DRINKING-FOUNTAINS AND PARTS THEREOF INTENDED FOR HUMAN BEINGS. PURO SANITARY DRINKING FOUNTAIN CO., Haydenville, Mass.
Filed November 6, 1915. Serial No. 90,488. PUBLISHED MARCH 21, 1916.

120,219. CHEMICAL HEATERS COMPRISING A CONTAINER OF A SIZE AND SHAPE ADAPTED FOR USE FOR THERAPEUTIC PURPOSES IN PLACE OF THE USUAL HOT-WATER BOTTLE TO APPLY HEAT TO A DESIRED PORTION OF THE BODY, AS WELL AS FOR OTHER PURPOSES. PYRENE MANUFACTURING COMPANY, New York, N. Y.
Filed August 13, 1917. Serial No. 105,623. PUBLISHED NOVEMBER 13, 1917.

120,220. TYPE-WRITER RIBBONS AND CARBON-PAPER. REMINGTON TYPEWRITER COMPANY, Ilion and New York, N. Y.
Filed September 4, 1917. Serial No. 106,036. PUBLISHED OCTOBER 30, 1917.

120,221. WRAPPED BREAD. ALEXANDER RENTON, North Adams, Mass.
Filed August 1, 1917. Serial No. 105,410. PUBLISHED NOVEMBER 6, 1917.

120,222. INDUSTRIAL FURNACES OF ALL DESCRIPTIONS HEATED BY GAS, OIL, OR COAL, OIL AND GAS BURNERS FOR SUCH FURNACES, BLAST-GATES AND VALVES AND BLOWERS FOR SUCH FURNACES AND FOR VENTILATING APPARATUS. W. S. ROCKWELL COMPANY, New York, N. Y.
Filed January 24, 1917. Serial No. 100,901. PUBLISHED OCTOBER 23, 1917.

120,223. OUTDOOR WATER-CLOSETS OR TOILETS. THE SANITARY PRODUCTS CORPORATION, Baltimore, Md.
Filed May 18, 1917. Serial No. 103,938. PUBLISHED AUGUST 28, 1917.

120,224. PRINTED BOOKLETS. FANNY E. SCHOENFELD, New York, N. Y.
Filed April 21, 1916. Serial No. 94,629. PUBLISHED NOVEMBER 6, 1917.

120,225. LIQUID SHAMPOOS. B. STUEBNER'S SONS, Brooklyn, N. Y.
Filed August 4, 1917. Serial No. 105,477. PUBLISHED NOVEMBER 13, 1917.

120,226. NON-INTOXICATING NON-ALCOHOLIC MALT BEVERAGE. ST. LOUIS BREWING ASSOCIATION, St. Louis, Mo.
Filed June 21, 1917. Serial No. 104,601. PUBLISHED NOVEMBER 13, 1917.

120,227. CHAIRS—NAMELY, HIGH CHAIRS. GEO. SPRATT & CO., Sheboygan, Wis.
Filed November 27, 1916. Serial No. 99,590. PUBLISHED NOVEMBER 13, 1917.

120,228. CANNED FRUITS, CANNED VEGETABLES, AND CANNED SHRIMP. SYLVESTER BROS. CO., Seattle, Wash.
Filed February 8, 1915. Serial No. 84,385. PUBLISHED NOVEMBER 6, 1917.

120,229. COTTON PIECE GOODS. TAYLOR, CLAPP & BEALL, New York, N. Y.
Filed September 29, 1917. Serial No. 106,521. PUBLISHED NOVEMBER 13, 1917.

120,230. COTTON PIECE GOODS. TAYLOR, CLAPP & BEALL, New York, N. Y.
Filed September 29, 1917. Serial No. 106,520. PUBLISHED NOVEMBER 13, 1917.

120,231. CANVAS-UPPERED RUBBER-SOLED FOOTWEAR. THE TOP NOTCH COMPANY, INC., College Point, N. Y.
Filed August 10, 1917. Serial No. 105,583. PUBLISHED NOVEMBER 13, 1917.

120,232. EYEGLASS-MOUNTINGS. UNIVERSAL OPTICAL CORPORATION, Providence, R. I.
Filed August 23, 1916. Serial No. 97,590. PUBLISHED OCTOBER 23, 1917.

120,233. STRAW HATS. THE VALENTINE HAT COMPANY, New York, N. Y.
Filed August 15, 1917. Serial No. 105,680. PUBLISHED NOVEMBER 13, 1917.

120,234. REDUCING MACHINERY. WILLIAMS PATENT CRUSHER & PULVERIZER COMPANY, St. Louis, Mo.
Filed August 6, 1917. Serial No. 105,510. PUBLISHED NOVEMBER 6, 1917.

TRADE-MARK REGISTRATIONS RENEWED.

15,013. LUBRICANTS FOR FRICTIONAL SURFACES. AUGUSTUS C. BUZBY, Philadelphia, Pa.
Registered December 13, 1887. Renewed December 13, 1917.

15,086. SOAP. COLGATE & CO., New York, N. Y.
Registered January 10, 1888. Renewed January 10, 1918.

LABELS

REGISTERED JANUARY 15, 1918.

20,443.—*Title:* "BLUVEL." (For Tracing-Paper.) CARBINELL-VINCENT COMPANY, San Francisco, Cal. Filed November 12, 1917.

20,444.—*Title:* "NUPAK." (For Coffee.) HAAS, BARUCH & Co., Los Angeles, Cal. Filed December 13, 1917.

20,445.—*Title:* "JOHANSEN SHOES." (For Shoes.) JOHANSEN BROTHERS SHOE COMPANY, St. Louis, Mo. Filed December 18, 1917.

20,446.—*Title:* "NU-HAIR RESTORER." (For a Preparation for the Hair.) MME. KING, Baltimore, Md. Filed December 28, 1917.

20,447.—*Title:* "LONGMAN'S SUPERIOR WHITE ZINC." (For White Zinc.) LONGMAN AND MARTINEZ, New York, N. Y. Filed December 10, 1917.

20,448.—*Title:* "BUTTER-NUT BRAND NUT-MARGARINE." (For Nut-Margarin.) NARRAGANSETT DAIRY COMPANY LTD., Providence, R. I. Filed December 24, 1917.

20,449.—*Title:* "TAYLOR'S PERFECTION." (For Imitation Coffee or Substitute for Coffee.) CHARLES M. TAYLOR, Jr., Maple Shade, N. J. Filed December 19, 1917.

20,450.—*Title:* "A SQUARE MEAL." (For Milk-Bottles.) E. W. WOOLMAN, Philadelphia, Pa. Filed December 8, 1917.

20,451.—*Title:* "PEG-AT-MY-HEART." (For a Game.) WILLIS G. YOUNG, Chicago, Ill. Filed December 26, 1917.

20,452.—*Title:* "SPEAR-EM." (For a Game.) WILLIS G. YOUNG, Chicago, Ill. Filed December 26, 1917.

PRINTS

REGISTERED JANUARY 15, 1918.

4,844.—*Title:* "KEEP YOUR INKWELL FILLED WITH CARTER'S WRITING FLUID." (For Ink.) THE CARTER'S INK CO., Boston, Mass. Filed December 18, 1917.

4,845.—*Title:* "RUBBERSET SHAVING BRUSHES." (For Shaving-Brushes.) RUBBER & CELLULOID PRODUCTS COMPANY, Newark, N. J. Filed December 21, 1917.

4,846.—*Title:* "VICTORY BREAD." (For Bread.) PAUL SCHULZE, Chicago, Ill. Filed December 29, 1917.

DECISIONS
OF THE
COMMISSIONER OF PATENTS
AND OF
UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

HAMILTON *v.* DUNN.

Decided February 19, 1917.

INTERFERENCE—PRIORITY.

The evidence reviewed and *Held* that priority was properly awarded to D.

Mr. H. E. Dunlap for the appellant.

Mr. W. S. Hodges for the appellee.

ROBB, *J.*:

Appeal from a decision of an Assistant Commissioner of Patents in an interference proceeding in which priority of invention was awarded the senior party Dunn. The issue is expressed in five counts, of which we reproduce the 1st and 5th:

1. An orchard heater comprising an oil receptacle, a cover therefor, a stack mounted on said cover through which the products of combustion are conducted, and a perforated draft-inlet tube mounted in said cover and suspended within said receptacle, the perforations of said tube being distributed throughout the length of the latter whereby they are successively uncovered as the fuel is consumed for increasing the volume of oil admitted to the receptacle.

5. In an orchard heater, the combination with a liquid fuel container having a cover with a stack through which products of combustion are permitted to escape, of a draft tube located within said container at a point laterally of said stack and communicating with the atmosphere through said cover, said tube having openings therein through which air is admitted to the container in increasing volume as the level of the fuel is lowered.

The invention disclosed by the above counts is an orchard-heater in which heavy oil is burned. Similar heaters have been in use for some time, the material difference between this heater and those of the prior art being the perforated draft-tube. It thus will be seen that the invention is a very simple one. Dunn's application is a division of an application filed September 9, 1912. Hamilton filed September 23, 1913.

Mr. Dunn has been interested in oil-burning appliances since 1897, and in orchard-heaters since 1910. He testifies that he commenced experiments in the further development of these heaters in the spring of 1911 and during the summer he assembled a heater embodying the perforated draft-tube of the issue. This heater finally was set up in the press-room of the Call Building in San Francisco and, on September 25, 1911, was tested in the presence of several witnesses, including an engineer named George A. Schastey and Mr. John D. Spreckles, Jr. This heater was introduced as an exhibit. Mr. Schastey, a disinterested and very intelligent witness thoroughly familiar with the art, fully corroborates Mr. Dunn as to this early heater. The witness was asked what took place, and replied:

The heater was connected when we arrived, and the fire started. It was kept burning continuously while we were there, and it was generally discussed and explained, particularly in reference to the down draft.

The witness further stated that he saw the heater again within a week and that Mr. Dunn then—

took the tube out and lifted the tube up to show me the principle,

and that the tube was perforated. Mr. Spreckles also testified as to this demonstration. The Examiner of Interferences found no fault with Dunn's evidence as to the construction and test of this exhibit, but nevertheless ruled that it does not disclose the issue because the cover of the oil-receptacle is the stove, the top of which—

is more than twenty inches above the top of the receptacle.

The Examiners-in-Chief expressed a doubt as to whether this exhibit embodies the specific structure defined in the counts, while the Assistant Commissioner ruled that it does not. However, Dunn proceeded to perfect another heater which clearly does embody the issue, and this was perfected and tested about the holidays of 1911, Mr. Schastey testifying that—

these experiments of Mr. Dunn's, as I remember, all centered around the holidays of 1911 and may have been a week before or a week after,

that is, either a little before Christmas of 1911 or the first week in January, 1912. A careful reading of the evidence leaves no room for doubt in our minds that this exhibit (marked "No. 5") amounted to a reduction to practice of the invention.

In the early fall of 1912 Dunn had sample heaters made, a number of which were sent to fruit-growers in the southern part of California. Late in December of that year or early in January of 1913 other heaters were sent out. This resulted in orders for a large number of heaters, and the success of the device was assured.

Hamilton was engaged in manufacturing orchard-heating devices and possessed every facility for placing upon the market any invention he might

make. In his preliminary statement he alleges disclosure and reduction to practice of the invention "in the early part of January 1912." Therefore, under the interpretation given to such an averment in the Patent Office, he is restricted to January 15, 1912, as his date of conception and reduction to practice. Mr. Hamilton testifies that he constructed a heater embodying the invention and tested it in the back yard of his boarding-house in December of 1911 and January of 1912, and that the tests showed the heater to be successful. His wife and daughter testify that such tests were made, the wife testifying that her husband "regarded them as successful" and the daughter that the perforations clogged with soot "after a long period of burning." This heater was introduced as an exhibit, but it had no stack. The Examiners-in-Chief commented upon this fact and upon the failure of any witness to testify that it ever did have one.

Hamilton was president of the Hamilton Orchard Heater Co. The Wheeling Corrugating Co., of Wheeling, W. Va., manufactured orchard-heating devices for Mr. Hamilton and a Mr. Westwood was the general sales agent of that company. Mr. Hamilton in June of 1912 visited the company, when the device—

involved in this interference was taken into consideration, along with others,

but was not adopted. No further activity occurred until after Dunn's heater was on the market, and a letter written by Mr. Hamilton to Mr. Westwood, quoted in full by the Examiners-in-Chief, clearly shows that Dunn's activity alone was responsible for Hamilton's change of attitude.

While we agree with the Examiners-in-Chief and the Assistant Commissioner that in no event, under the facts of this case, can it be said that Hamilton is the prior inventor, (*Matthes* v. *Burt*, 24 App. D. C., 265; 111 O. G., 1365; *Brown* v. *Campbell*, 41 App. D. C., 499; 201 O. G., 37, and *Dutcher* v. *Jackson*, 44 App. D. C., 465; 225 O. G., 738,) we are quite clear that Dunn should be given a date of conception and disclosure as early as September 25, 1911; in other words, that the construction and operation of the early device in the presence of Mr. Schastey and Mr. Spreckles amounted to such a disclosure. The invention really resided in the perforated draft-tube, and Mr. Schastey's testimony would enable any one skilled in the art successfully to construct the device of the issue, which is sufficient to constitute a disclosure. Since that date is earlier than any date which can be accorded Hamilton, Dunn was entitled to the award of priority, as he showed due diligence.

Moreover, the burden was upon Hamilton to establish his case by a preponderance of the evidence. Putting aside the evidence of Dunn's early activity, Hamilton's evidence falls short of establishing that he conceived and disclosed the invention prior to the date of disclosure established by Dunn for his exhibit No. 5.

The decision is affirmed.

Affirmed.

Court of Appeals of the District of Columbia.

PORTER AND RIDER *v.* RIDER.

Decided April 2, 1917.

INTERFERENCE—PRIORITY.

Record reviewed and *Held* that priority was properly awarded to R., the senior party.

Mr. Henry D. Williams for the appellants.

Mr. Hans v. Briesen for the appellee.

ROBB, *J.:*

This is an appeal from concurrent decisions of the Patent Office tribunals in an interference proceeding awarding priority of invention to the senior party. The invention relates to a method of producing fuel-vapor from oils, such as kerosene and crude petroleum, adapted for use in internal-combustion engines. The counts are three in number, of which we reproduce the first and third:

1. The method of producing a fuel vapor adapted for use in internal combustion engines, which consists in (1) providing a substantially continuous supply of finely subdivided fuel liquid, (2) producing a flame and subjecting such liquid in its finely divided condition to the direct action of said flame for a length of time sufficient to effect only a vaporization of the liquid, (3) extinguishing the flame at a point in the progress of the vaporized material before any substantial amount of the material has been consumed, and (4) collecting the resulting product for use.

3. The method of producing a fuel vapor adapted for use in internal combustion engines, which consists in (1) providing a substantially continuous supply of finely subdivided fuel liquid, (2) producing a flame and subjecting such liquid in its finely divided condition to the direct action of said flame for a length of time sufficient to effect only a vaporization of the liquid, (3) extinguishing the flame at a point in the progress of the vaporized material before any substantial amount of the material has been consumed, (4) bringing the extinguished product at this stage into contact with a supply of superheated air which is mixed therewith, and (5) collecting the resulting product for use.

The case has been very carefully presented, both by brief and oral argument, and, owing to its importance, has received very full and careful consideration by the tribunals of the Patent Office. We have reached the same conclusion as did those tribunals and, being satisfied with their reasoning, affirm the decision without further discussion.

Affirmed.

Court of Appeals of the District of Columbia.

MURPHY *v.* THOMPSON.

Decided June 2, 1917.

1. INTERFERENCE—PRIORITY.

Record reviewed and *Held* that the renewal application of T. related back to his original filing date and that priority was properly awarded to him.

2. APPLICATIONS — FORFEITED — RENEWAL REBUTS ANY PRESUMPTION OF ABANDONMENT.

The granting of a renewal application by the Commissioner of Patents rebuts any presumption of abandonment.

Mr. J. A. Carr and *Mr. A. M. Holcombe* for the appellant.

Mr. L. S. Bacon, Mr. J. H. Milans, and *Mr. F. P. Davis* for the appellee.

VAN ORSDEL, *J.:*

This appeal is from a decision of the Commissioner of Patents in an interference proceeding awarding priority of invention to appellee Thompson. The case was disposed of on appellant's motion to dissolve the interference. Appellant also moved, in the alternative, that, in case of an adverse decision on the motion to dissolve, the burden of proof should be shifted to Thompson and a time set for the taking of testimony on the question of abandonment.

Appellant Murphy filed his original application December 22, 1911. A divisional application was filed April 10, 1915, on which a patent was issued October 12, 1915. Thompson's application was filed June 16, 1911; allowed December 31, 1914; forfeited June 30, 1915, and renewed November 9, 1915.

It appears from a comparison of the above dates that Murphy's patent was issued between the date of Thompson's forfeiture and the date of his renewal. Murphy, therefore, contends that Thompson had abandoned the invention at the date he acquired his patent. Of course, if the continuity of Thompson's original application was interrupted by abandonment, he could not claim constructive reduction to practice as of his original filing date. No testimony was taken on the question of abandonment, and the granting of a renewal by the Commissioner rebuts any presumption in favor of it.

In this situation, the tribunals below held that Thompson could relate back to his original filing date, which, on the face of the record, disposes of Murphy's contention. We are in accord with this view, since the case is ruled by the well-considered opinion of Mr. Justice Robb in *Cutler* v. *Leonard*, (31 App. D. C., 297; 136 O. G., 438.)

The decision of the Commissioner of Patents is affirmed, and the clerk is directed to certify these proceedings as by law required.

Affirmed.

Applications Made to the Federal Trade Commission for Licenses Under Enemy-Controlled Patents and Trade-Marks Pursuant to the "Trading with the Enemy Act."

Patent No. 1,008,864, dated November 14, 1911, to Max Rüping, assignor to the firm of Hülsberg & Cie., m. b. H., Berlin, Germany. Impregnation of wood, &c. License applied for by Lembcke, von Bernuth Company, Inc., 171 Madison avenue, New York, N. Y.

Reissue Patent No. 12,707, dated October 22, 1907, (original Patent No. 709,799, dated September 23, 1902,) to Max Rüping, assignor to the firm of Hülsberg & Cie., m. b. H., Berlin, Germany. Method of impregnating wood. License applied for by Lembcke, von Bernuth Company, Inc., 171 Madison avenue, New York, N. Y.

Patent No. 812,554, dated February 13, 1906, to Alfred Einhorn, of Munich, Germany, assignor to Farbwerke vorm. Meister Lucius & Brüning, of Höchst-on-the-Main, Germany. Alkamin esters of para-aminobenzoic acid. License applied for by the Calco Chemical Co., of Boundbrook, N. J.

Patent No. 931,579, dated August 17, 1909, to Diederich Arnold Mauritz Doublet, of Elmsbüttel, near Hamburg, Germany. Sand-blast blower. License applied for by Hoevel Manufacturing Corporation, of New York, N. Y.

Patent No. 995,894, dated June 13, 1911, to Robert Zahn, of Plauen, Germany. Jacquard embroidering-machine. License applied for by The Robert Reiner Importing Co., Gregory avenue and Hackensack Plank Road, Weehawken, N. J.

Patent No. 976,760, dated November 22, 1910, to Carl Auer von Welsbach, of Vienna, Austria-Hungary, assignor to the firm of Treibacher Chemische Werke Gesellschaft M. B. H., of Treibach, Austria-Hungary. Pyrophoric mass. License applied for by Lindsay Light Company, Chicago, Ill.

Patent No. 837,017, dated November 27, 1906, to Carl Auer von Welsbach, of Vienna, Austria-Hungary. Pyrophoric alloy. License applied for by Lindsay Light Company, Chicago, Ill.

Patent No. 868,294, October 15, 1907, to Robert Schmidlin, of Höchst-on-the-Main, Germany, assignor to Farbwerke vorm. Meister Lucius & Brüning, of Höchst-on-the-Main, Germany, a corporation of Germany. Process of producing phenylglycin and its homologues. License applied for by E. I. du Pont de Nemours and Co., of Wilmington, Del.

Patent No. 680,395, August 13, 1901, to Johannes Pfleger, of Frankfort-on-the-Main, Germany, assignor to Deutsche Gold & Silber Scheide Anstalt vorm. Roessler, of same place. Process of making indoxyl derivatives. License applied for by E. I. du Pont de Nemours and Co., of Wilmington, Del.

Patent No. 818,992, April 24, 1906, to Oscar Bally and Max Henry Isler, of Mannheim, Germany, assignors to Badische Anilin & Soda Fabrik, of Ludwigshafen-on-the-Rhine, Germany, a corporation. Anthracene dye and process of making same. License applied for by E. I. du Pont de Nemours and Co., of Wilmington, Del.

Patent No. 787,859, April 18, 1905, to Roland Heinrich Scholl, of Karlsruhe, and Oscar Bally, of Mannheim, Germany, assignors to Badische Anilin & Soda Fabrik, of Ludwigshafen-on-the-Rhine, Germany, a corporation of Baden. Anthracene compound and process of making same. License applied for by E. I. du Pont de Nemours and Co., of Wilmington, Del.

Patent No. 1,003,268, September 12, 1911, to Richard Just and Hugo Wolff, of Ludwigshafen-on-the-Rhine, Germany, assignors to Badische Anilin & Soda Fabrik, of Ludwigshafen-on-the-Rhine, Germany, a corporation. Anthracene dye and process of making same. License applied for by E. I. du Pont de Nemours and Co., of Wilmington, Del.

Patent No. 796,393, August 1, 1905, to Oscar Bally, of Mannheim, Germany, assignor to Badische Anilin & Soda Fabrik, of Ludwigshafen-on-the-Rhine, Germany, a corporation of Germany. Anthracene coloring-matter and process of producing the same. License applied for by E. I. du Pont de Nemours and Co., of Wilmington, Del.

Patent No. 753,659, March 1, 1904, to René Bohn, of Mannheim, Germany, assignor to Badische Anilin Und Soda Fabrik, of Ludwigshafen-on-the-Rhine, Germany, a corporation of Baden. Anthracene de-

ivative and process of making same. License applied for by E. I. du Pont de Nemours and Co., of Wilmington, Del.

Patent No. 739,145, September 15, 1903, to René Bohn, of Mannheim, Germany, assignor to Badische Anilin and Soda Fabrik, of Ludwigshafen-on-the-Rhine, Germany, a corporation of Baden. Anthracene dye. License applied for by E. I. du Pont de Nemours and Co., of Wilmington, Del.

Patent No. 1,055,701, March 11, 1913, to René Bohn, of Mannheim, Germany, assignor to Badische Anilin & Soda Fabrik, of Ludwigshafen-on-the-Rhine, Germany, a corporation. Pigment and process of making the same. License applied for by E. I. du Pont de Nemours and Co., of Wilmington, Del.

Patent No. 724,789, April 7, 1903, to René Bohn, of Mannheim, Germany, assignor to Badische Anilin and Soda Fabrik, of Ludwigshafen-on-the-Rhine, Germany, a corporation. Blue dye and process of making same. License applied for by E. I. du Pont de Nemours and Co., of Wilmington, Del.

Patent No. 1,063,173, May 27, 1913, to Christian Rampini, deceased, by William E. Warland, administrator, of Brooklyn, N. Y., assignor to Badische Anilin & Soda Fabrik, of Ludwigshafen-on-the-Rhine, Germany. Producing amino-anthraquinones and derivatives thereof. License applied for by E. I. du Pont de Nemours and Co., of Wilmington, Del.

Patent No. 906,367, December 8, 1908, to Oscar Bally, of Mannheim, and Hugo Wolff, of Ludwigshafen-on-the-Rhine, Germany, assignors to Badische Anilin & Soda Fabrik, of Ludwigshafen-on-the-Rhine, Germany, a corporation. Anthracene dye and process of making same. License applied for by E. I. du Pont de Nemours and Co., of Wilmington, Del.

Patent No. 961,612, June 14, 1910, to Max Henry Isler, of Mannheim, and Hugo Wolff, of Ludwigshafen-on-the-Rhine, Germany, assignors to Badische Anilin & Soda Fabrik, of Ludwigshafen-on-the-Rhine, Germany, a corporation. Anthracene compound and process of making it. License applied for by E. I. du Pont de Nemours and Co., of Wilmington, Del.

Patent No. 711,377, October 14, 1902, to Max Bazlen, of Ludwigshafen, Germany, assignor to the Badische Anilin & Soda Fabrik, of Ludwigshafen, Germany, a corporation of Germany. Solid alkaline hydrosulfites and process of making same. License applied for by E. I. du Pont de Nemours and Co., of Wilmington, Del.

Patent No. 795,755, July 25, 1905, to Max Bazlen, of Ludwigshafen-on-the-Rhine, Germany, assignor to the Badische Anilin & Soda Fabrik, of Ludwigshafen-on-the-Rhine, Germany, a corporation of Baden. Process of making stable dry hydrosulfites. License applied for by E. I. du Pont de Nemours and Co., of Wilmington, Del.

Patent No. 931,598, August 17, 1909, to Louis Haas, of Heidelberg, Germany, assignor to Badische Anilin and Soda Fabrik, of Ludwigshafen-on-the-Rhine, Germany, a corporation. Sulfur dye and process of making same. License applied for by E. I. du Pont de Nemours and Co., of Wilmington, Del.

THE
OFFICIAL GAZETTE
OF THE
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Patents	628—No.	1,254,014 to No.	1,254,641, inclusive.
Designs	7—No.	51,701 to No.	51,707, inclusive.
Trade-Marks	None.		
Labels	45—No.	20,453 to No.	20,497, inclusive.
Prints	8—No.	4,847 to No.	4,854, inclusive.
Reissues	4—No.	14,423 to No.	14,426, inclusive.
Total	692		

Notice—Assistant Examiner Examination.

The Civil Service Commission has announced an open competitive examination for the position of Assistant Examiner in the Patent Office on February 13, 14, and 15, 1918. Qualified persons are urged to enter this examination. Entrance salary, $1,500 per annum.

Application blanks and information as to where the examination will be held may be obtained from the Civil Service Commission, Washington, D. C.

Adverse Decisions in Interference.

PATENT No. 1,161,242.

On September 10, 1917, a decision was rendered that Mayhew E. Noyes was not the first inventor of the subject-matter covered by claims 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10 of his Patent No. 1,161,242, subject, "Worm-thread-grinding machine," and no appeal having been taken within the time allowed such decision has become final.

PATENT No. 1,216,692.

On December 22, 1917, a decision was rendered that Harry A. Hoke was not the first inventor of the subject-matter covered by claims 1, 2, 3, 4, and 5 of his Patent No. 1,216,692, subject, "Railway-vehicle couplings," and no appeal having been taken within the time allowed such decision has become final.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., January 21, 1918.

Greene Shoe Co., its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Albert H. Weinbrenner Co., of Milwaukee, Wis., for registration of a trade-mark and trade-mark registered February 25, 1902, No. 37,846, to the Greene Shoe Co., of 605 Wyandotte street, Kansas City, Mo., and a notice of such declaration sent by registered mail to said Greene Shoe Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Greene Shoe Co., its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

F. W. H. CLAY, *Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., January 21, 1918.

The Tropico Co., its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Augustus F. Weppner, 178 York street, Buffalo, N. Y., for registration of a trade-mark and trade-mark registered August 26, 1913, No. 93,249, to The Tropico Co., 102–104 Greenwich street, New York, N. Y., and a notice of such declaration sent by registered mail to The Tropico Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the Tropico Co., its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

F. W. H. CLAY, *Assistant Commissioner.*

Changes in Classification.

(ORDER No. 2,364.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., December 31, 1917.

The following changes are hereby directed in the Manual of Classification, revised to January 1, 1916:

On page 10, in the list of Examiners in Charge of Examining Divisions, cancel the names of Carnes, J. H.; Ely, G. S.; Kinnan, W. A., and Marine, R. E.; add the names of Backus, C. D., Div. 16, Room 112; Milburn, J. W., Trade-Marks and Designs, Room 168; Sasnett, E. C., Div. 7, Room 312, and Tullar, C. E., Div. 26, Room 105, and change Grindle, C. S., to Div. 31, Room 172, and Underwood, L. D., to Div. 45, Room 379.

On page 62, class 119, Animal Husbandry, in the title of subclass 81, Movable trough-controlled supply, insert a hyphen between "Movable" and "trough" and cancel the hyphen between "trough" and "controlled."

On page 69, class 135, Tents, Canopies, Umbrellas, and Canes, in subclass 15, change the title from Pegs, holes, and cover-fastenings, to Pegs, poles, and cover-fastenings.

J. T. NEWTON,
Commissioner.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business January 18, 1918.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended.	
314	1. Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Railway Gates; Planting; Scattering Unloaders; Trees, Plants, and Flowers.	Nov. 24	Nov. 12	201
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	Oct. 1	Oct. 12	308
178	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Heating; Metal-Founding; Metallurgical Apparatus; Metallurgy; Plastic Metal Working.	Dec. 13	Dec. 20	97
234	4. Conveyers; Elevators; Excavating; Hoisting; Material or Article Handling; Pneumatic Despatch; Pushing and Pulling Implements; Railway Mail Delivery; Store-Service; Traversing Hoists.	Nov. 30	Jan. 4	156
167	5. Bookbinding; Harvesters; Jewelry; Music.	Oct. 5	Nov. 26	272
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilisers; Liquid Coating Compositions; Plastic Compositions; Preserving; Substance Preparation.	June 26	Aug. 15	494
312	7. Educational Appliances; Games and Toys; Optics; Velocipedes	Sept. 17	Nov. 9	531
123	8. Beds; Chairs; Flexible-Sheet Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Oct. 19	Dec. 3	500
221	9. Air and Gas Pumps; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Marine Propulsion.	June 1	Dec. 18	497
296	10. Carriages and Wagons; Motor Vehicles	July 23	Nov. 26	777
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Spring Devices; Whips and Whip Apparatus.	Oct. 13	Dec. 31	251
322	12. Journal-Boxes, Pulleys, and Shafting; Machine Elements	Sept. 13	Nov. 17	589
220	13. Ammunition and Explosive Charge Making; Bolt, Nail, Nut, Rivet, and Screw Making; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Sept. 27	Nov. 19	484
323	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Sept. 13	Nov. 23	276
306	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Nov. 20	Dec. 14	283
112	16. Electric Signaling-A; Radiant Energy; Telegraphy; Telephony	July 14	Nov. 5	480
307	17. Ornamentation; Paper Manufactures; Printing; Type Casting; Sheet Material Associating or Folding; Sheet Feeding or Delivering; Type Setting.	Nov. 5	Dec. 3	97
220	18. Fluid-Pressure Regulators; Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Sept. 11	Oct. 15	377
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels	July 30	Nov. 1	462
179	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Dec. 20	Dec. 18	233
212	21. Brakes and Gins; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Aug. 4	Oct. 8	275
340	22. Aeronautics; Firearms; Ordnance	Sept. 27	Nov. 22	286
219	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	Aug. 14	Nov. 10	369
144	24. Apparel; Apparel Apparatus; Sewing-Machines; Garment Supporters	Nov. 20	Dec. 17	177
315	25. Agitating; Butchering; Centrifugal Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers; Gas Separation.	Dec. 5	Dec. 10	168
105	26. Electricity, Generation; Motive Power	July 11	July 25	569
214	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus	Oct. 23	Nov. 26	370
226	28. Internal-Combustion Engines	Aug. 18	Oct. 16	609
147	29. Boring and Drilling; Coopering; Fire-Escapes; Ladders; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking Tools.	Sept. 1	Nov. 1	396
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines	Sept. 11	Nov. 24	477
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Sugar and Salt.	Nov. 2	Nov. 3	201
278	32. Gas and Liquid Contact Apparatus; Heat Exchange; Packaging Liquids; Refrigeration	June 11	Dec. 10	713
70	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving; Roofs.	Nov. 9	Nov. 24	223
304	34. Railways; Railway Rails and Joints; Railway Rolling Stock; Railway Ties and Fasteners	Dec. 11	Jan. 7	71
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Signals; Toilet	Aug. 13	Nov. 1	632
204	36. Driers; Geometrical Instruments; Measuring Instruments; Photography; Force Measuring	Oct. 23	Nov. 23	632
107	37. Electric Lamps; Electricity, Circuit Makers and Breakers; Electricity, Conduits; Electricity, General Applications.	July 17	Sept. 24	686
278	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Walls	Nov. 24	Dec. 13	141
220	39. Water Distribution; Multiple Valves	July 17	Oct. 22	467
276	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Oct. 12	Dec. 1	470
126	41. Railway Draft Appliances; Resilient Tires and Wheels	Oct. 1	Oct. 25	365
114	42. Electricity, Conductors; Railway Signaling; Electricity-Transmission to Vehicles; Electric Signaling	July 20	Oct. 3	677
302	43. Baths and Closets; Dispensing; Dispensing Beverages; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Oct. 15	Nov. 13	373
268	44. Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Ships	Oct. 4	Dec. 18	252
270	45. Clutches; Lubrication; Motors; Railway Brakes	Sept. 7	Sept. 13	453

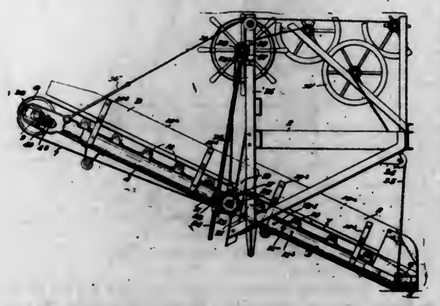
Oldest new case, June 1; oldest amended, July 25.
Total number of applications awaiting action..... 17,507

168	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Dec. 13	Jan. 2	607
	Designs	Nov. 28	Dec. 19	308
	Labels and Prints	Dec. 16	Dec. 27	25

PATENTS

GRANTED JANUARY 22, 1918.

1,254,014. CONVEYER-BELT CARRIER AND TIGHTENING DEVICE FOR BELTS THEREON. AXEL ANDERSON, St. Paul, Minn., assignor to Russell Grader Manufacturing Company, Minneapolis, Minn. Filed Sept. 17, 1915. Serial No. 51,262. (Cl. 193—4.)

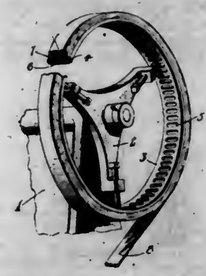


1. In a machine of the class described, the combination, with a frame provided with upright standards, of an elevating carrier frame comprising upper and lower sections, a carrier belt mounted thereon, a shaft connecting the ends of said section, and whereon one of said sections is longitudinally movable, bearings, in which said shaft is mounted, adjustably supported upon said standards, means for raising and lowering said bearings and the shaft carried thereby, and means for operating said shaft to effect a longitudinal adjustment of one of said sections.

5. An elevating grader carrier frame comprising upper and lower sections, hinged together, a shaft connecting the abutting ends of said sections and whereon one of said sections is longitudinally movable, bearings for said shaft, bars whereon said bearings are vertically slidable, means for raising and lowering said shaft and bearings, and means for revolving said shaft to effect a longitudinal adjustment of one of said sections.

[Claims 2 to 4 not printed in the Gazette.]

1,254,015. METHOD OF MAKING AUTOMOBILE-TIRES. JAMES C. ANDERSON, Washington, D. C. Filed Mar. 22, 1916. Serial No. 85,845. (Cl. 154—12.)



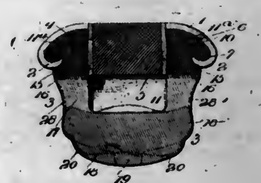
1. The herein described method of making tires consisting in roughly forming a body portion of vulcanizable material, then forming a plurality of openings in said roughly formed body portion, temporarily plugging the openings, vulcanizing the tire with the temporary plugs in the openings, removing the plugs after vulcanizing, and finally permanently plugging the openings to form closed cells and trap the air therein.

6. The herein described method of making cellular tires consisting in mounting a perforated rim forming a permanent part of the tire on a support and spinning a base layer of vulcanizable rubber on said rim, said rubber when vulcanized becoming hard and adhering to the rim, placing a thin layer of crude rubber on the base layer, placing a thick layer of rubber of such consistency as to render it more resilient than the thin layer on which it is placed, subsequently confining the rough tire and forming openings in registry with the perforations in the rim through the body thus formed, then placing on the rough body an outer layer of crude rubber less resilient than the previous layer, vulcanizing the body and shaping same, and finally plugging the openings to seal and trap air in the same.

10. The method of making cellular tires consisting in winding a band of rubber on a base to form a rough tire body and providing openings at intervals, winding other rubber on the rough tire body to close the openings, temporarily plugging the openings and vulcanizing the tire body, removing the temporary plugs, and finally inserting permanent plugs of less depth than the openings to trap air and seal the openings and form closed air cells in the tire body.

[Claims 2 to 5, 7 to 9, and 11 to 13 not printed in the Gazette.]

1,254,016. TIRE. JAMES C. ANDERSON, Washington, D. C. Filed Mar. 22, 1916. Serial No. 85,846. (Cl. 152—1.)



1. A tire comprising a body formed of a hard base and a body portion composed of superposed layers of rubber of different degrees of resiliency and provided with a plurality of closed cells containing air, one wall of each of said cells being formed by the hard base, the sides of the tire being concaved to cause said sides to be distorted inwardly toward each other when load pressure is applied to progressively reduce the cubic contents of the cells and compress the air therein when the tire is subjected to load strain.

4. A tire comprising a body formed of a hard base and strata of rubber of different degrees of resiliency and provided with a plurality of cells, an insert in each cell forming one wall of said cell and providing means for trapping air in the cell, the tire body being constructed to cause the sides thereof to be distorted inwardly toward each other when load pressure is applied to progressively reduce the cubic contents of the cells and compress the air therein when the tire is subjected to load strain.

12. A tire comprising a permanent rim having side flanges, a base of hard non-resilient material permanently

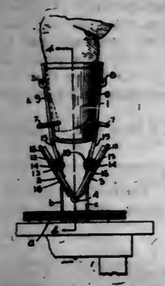
ttached to the rim, the rim and base having alined openings, a resilient tire body vulcanized to the hard base and provided with a plurality of openings which register with the openings formed in the base, and inserts fitted in the openings in the rim and hard base to form with the openings in the tire body a plurality of closed cells containing compressed air.

14. A tire comprising a plurality of layers of rubber, one of the layers of rubber being more resilient than the others and provided with a plurality of cells, means for individually sealing the cells to trap air therein, the tire being constructed to cause the sides thereof to be distorted inwardly toward each other when load pressure is applied to progressively reduce the cubic contents and compress the air therein when the tire is subjected to load strain.

18. A tire comprising a body formed with a plurality of closed spaced cells and hollow inserts fitted in the inner ends of the cells, said inserts forming the inner walls of the cells, the tire body being constructed to cause the sides thereof to be distorted inwardly toward each other when load pressure is applied to progressively reduce the cubic contents of the cells and compress the air therein when the tire is subjected to load strain.

[Claims 2, 3, 5 to 11, 13, 15 to 17, 19, and 20 not printed in the Gazette.]

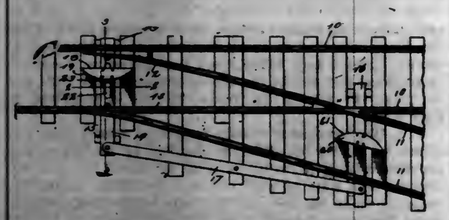
1,254,017. PIN-TICKET-ATTACHING DEVICE. MARCUS O. ANTHONY, Englewood, and GUSTAF A. WALLIN, Scotch Plains, N. J., assignors to A. Kimball Company, New York, N. Y., a Corporation of New York. Filed May 14, 1915. Serial No. 28,190. (Cl. 1—50.)



1. A device of the class described comprising a supporting member, a pair of flexibly connected clenching members, and means attached to said supporting member and to said clenching members adapted normally to maintain the clenching members in contracted relation and operable by pressure upon said supporting member to expand said clenching members.

[Claims 2 to 5 not printed in the Gazette.]

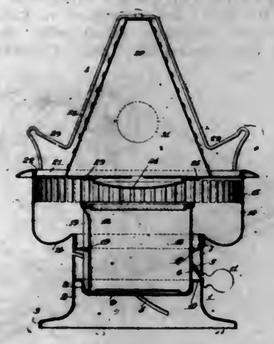
1,254,018. AUTOMATIC RAILWAY-SWITCH. FLOYD E. BAHMLER, Solon, Iowa. Filed Jan. 3, 1917. Serial No. 140,447. (Cl. 104—77.)



1. In an automatic railway switch, the combination with the pivoted switch tongues, of bars connecting the ends thereof, means connecting the bars to accomplish their simultaneous movement, a block carried by each of the bars for engagement by a train to move the tongues into open position initially, means to close the switch automatically, and means for automatic engagement with each of said blocks for holding the switch in closed position, said holding means being releasable by the train.

[Claim 2 not printed in the Gazette.]

1,254,019. STOVE FOR BURNING SOLID FUEL. HENRY PRICE BALL, Brooklyn, N. Y., assignor, by mesne assignments, to S. Sternau & Co., Inc., Brooklyn, N. Y., a Corporation of New York. Filed Nov. 8, 1915, Serial No. 60,182. Renewed Nov. 20, 1917. Serial No. 203,002. (Cl. 126—43.)



2. A stove for burning solid fuel, comprising a cylindrical base, a removable windshield carried thereby, there being inclined slots in the base and teeth associated with the slots, a lamp ring, lips carried by the lamp ring engaging with the inclined slots and teeth, and a handle associated with said lips for rotating the ring.

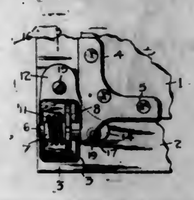
3. A stove for burning solid alcohol, comprising a cylindrical base, a removable windshield carried by the base, means for locking the windshield to the base, there being openings in the windshield for the admission of air to support combustion, said base having inclined slots therein and teeth associated with the slots, a lamp supporting ring carried within the base, lips projecting from the lamp ring and engaging the slots and teeth, and a handle carried by a lip and outside of the base.

5. A stove for burning solid fuel, comprising a base, a windshield associated with said base, a lamp ring, a lamp carried by the ring, means for rotating said ring to raise or lower the lamp, and fixed lugs engaging with the lamp to prevent rotation of the same.

8. A stove for burning solid fuel, comprising a base, a windshield associated with said base, a lamp ring, a lamp carried by the ring, means for rotating said ring to raise or lower the lamp, and lugs carried by the base and engaging with the lamp to prevent rotation of the same.

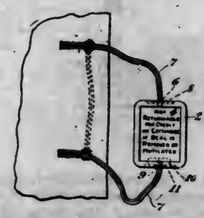
[Claims 1, 4, 6, and 7 not printed in the Gazette.]

1,254,020. HINGE AND CASING THEREFOR. ALFRED B. BELL, Philadelphia, Pa., assignor to Hale and Kilburn Company, Philadelphia, Pa., a Corporation of Delaware. Filed Mar. 23, 1915. Serial No. 16,322. (Cl. 16—106.)



In a hinge construction, a hinge casing having an inclosed portion adapted to receive a pivot pin and spring, with side walls pierced to receive the pin, and upper, lower and side flanges, one of the same having a screw-hole therethrough, another having a keyhole-shaped slot therethrough, and a third having an open-ended slot in an edge thereof, substantially as set forth.

1,254,021. SEAL-TAG. MARCUS B. BEHRMAN, New York, N. Y. Filed Oct. 21, 1916. Serial No. 126,868. (Cl. 40—20.)

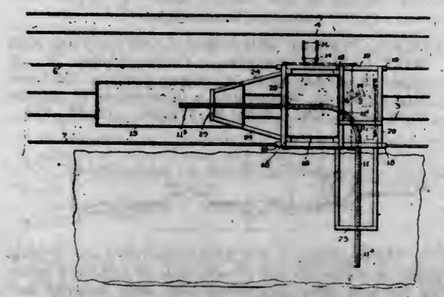


1. In a tag holder for garments and the like, a hollow member having openings at two spaced points and being otherwise closed to prevent access to its interior, a flexible tie, means to secure one end of the tie in one of said openings, and a pin connected to the opposite end of the tie and being of a diameter so as to be insertible in the other opening, and of a length to extend across said opening and engaging the wall in which said opening is formed and to be entirely housed within the member interior to prevent withdrawal of the pin except by cutting the tie.

3. In a tag holder for garments and the like, a hollow receptacle having front and rear openings, display cards in the receptacle for display through said openings, a filler in the receptacle interposed between said cards and having cut-away parts and said receptacle having openings in register with said cut-away parts of the filler, a flexible tie having one end extending through one of said openings and secured to the receptacle in the adjacent cut-away part of the filler, and a pin on the other end of the tie of a diameter so as to be insertible in the other of said openings and of a length so as to extend across said opening and be entirely housed within the member interior to prevent removal of the pin except by mutilation of the member or removal of the tie except by cutting the latter.

[Claim 2 not printed in the Gazette.]

1,254,022. UNLOADING, STORING, AND RELOADING OF MATERIAL. WILLIAM F. HUNT, New York, N. Y. Filed May 25, 1916. Serial No. 99,729. (Cl. 214—4.)



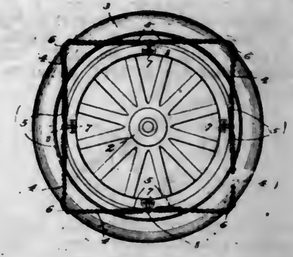
1. A plant of the class described comprising in combination adjacent to a storage-space, a siding track, a tower track which tower track is at one side of said storage space parallel with but straddling said siding track, a tower supported on said tower track and movable along the latter, a trolley track carried by said tower, and a conveyer or bucket supported on said trolley track, said trolley track being a continuous member having a portion which extends laterally from the tower beyond the tower tracks and over the storage-space and another portion which extends longitudinally from the tower over a portion of said siding track whereby said bucket can be moved from over the storage-space to the tower, thence from the tower over the siding track or vice versa.

6. An apparatus of the class described comprising in combination a movable tower constructed so that a car or engine can pass under or through the tower, a storage-bin carried by said tower in the upper portion thereof, an L-shaped trolley track carried by said tower and located above said storage-bin, a portion of which track extends longitudinally from the tower and another portion of which track extends laterally from the tower, and a bucket or trolley conveyer supported by and movable along said track.

8. A plant of the class described comprising in combination a storage-space, a running track, a siding track parallel to said running track and located between said running track on the one hand and the storage-space on the other, a trolley track which extends parallel to and straddles said siding track, a tower movable along said trolley track which tower is constructed so that a car or engine on the siding track can pass through or under said tower, a storage-bin carried by the tower in the upper portion thereof, which storage-bin is constructed so that it can deliver material from the storage-bin into an engine or car on the running track and also so that it can deliver material from the storage-bin into an engine or car on the siding track, an L-shaped trolley track carried by said tower, a portion of which track extends laterally from the tower over the storage-space, another portion of which track extends longitudinally from the tower over the siding track, and a trolley, conveyer or bucket supported by said track which trolley, conveyer or bucket is movable along said track to or from a position over the storage-space, to or from a position over the storage-bin, and to or from a position over the siding track.

[Claims 2 to 5 and 7 not printed in the Gazette.]

1,254,023. GRIP-CHAIN FOR TIRES. WILLIAM J. BOYER, Chicago, Ill. Filed Aug. 24, 1915. Serial No. 47,185. (Cl. 152—14.)

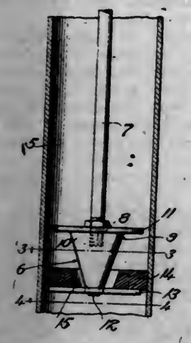


1. The combination with a wheel having a tire thereon, of a grip chain comprising a plurality of flexible tread members extending across and around the periphery of the tire, a plurality of resilient members carried by said flexible members, fixed socketed members on said wheel, and members adapted to be connected at one end with said resilient members and at their other ends with said socketed members to hold the tread members in place.

3. The combination with a wheel having a tire thereon, said wheel being provided with a plurality of threaded sockets on each side thereof, of a grip chain for the tire comprising a plurality of flexible members extending across and bearing upon the periphery of the tire, a resilient member carried by each of said flexible members, and a threaded member adapted to engage each of said sockets and supported by each pair of said resilient members to hold the flexible members in position upon the tire tread.

[Claim 2 not printed in the Gazette.]

1,254,024. VALVED PISTON. WILLIAM D. BRYAN, North Carrollton, Miss., assignor of one-half to George M. Godfrey, North Carrollton, Miss. Filed Jan. 22, 1917. Serial No. 143,710. (Cl. 103—63.)



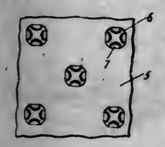
1. A valved piston for pump cylinders, including an expansible cylinder filling member, and a carrier for the filling member with respect to which it may have lost motion and adapted in its lost motion to expand the filling member for the purpose specified.

3. In combination with a comparatively thick piston head of a material having the expansible characteristic of leather, an aperture through said piston head, and means for reciprocating said piston head comprising as a fixed part thereof a member arranged loosely to fit in said aperture during movement of the piston head in one direction and tightly to fit in said aperture during movement of the piston head in the opposite direction.

5. In combination with a valved pump piston of expansible material having an aperture therein, means disposed in said aperture having lost motion connection with the piston, arranged loosely to fit in said aperture during movement of the piston in one direction, and tightly to wedge in said aperture and expand said piston during movement of the piston in the opposite direction.

[Claims 2 and 4 not printed in the Gazette.]

1,254,025. FILTER-SCREEN. GUSTAVUS T. BUXTON and SIMEON A. ABBEY, Charlotte, N. C. Original application filed July 23, 1915, Serial No. 41,472. Divided and this application filed Apr. 10, 1917. Serial No. 161,094. (Cl. 210—16.)

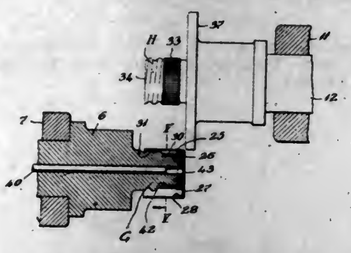


1. As a new article of manufacture, a filter screen provided with apertures formed in the body thereof, each aperture having a plurality of guards projecting outwardly from the edge thereof with but short portions of the edge of such aperture disposed between such guards, said guards extending at an angle to the plane of said screen to form cam surfaces to deflect any obstructions directed at such aperture and prevent the deflected obstructions from obstructing any part of the aperture.

[Claim 2 not printed in the Gazette.]

1,254,026. MACHINE FOR MAKING RECEPTACLE-CLOSURES. LESLIE R. N. CARVALHO, Brooklyn, N. Y., assignor, by direct and mesne assignments, to Paragon Metal Cap Co., Brooklyn, N. Y., a Corporation of New York. Filed Jan. 31, 1914. Serial No. 815,671. (Cl. 153—71.)

1. A machine of the class described, comprising means for supporting the parts of a multiple-part receptacle closure, and means coöperating with said supporting means for simultaneously clamping the parts together and locking said parts together, and forming a closure attaching means upon said closure.



2. A machine of the class described, comprising a clamp having parts engaging separate parts of a multi-part receptacle closure to clamp the parts of the receptacle closure against each other, and means for producing interlocking formations on said clamped parts of the receptacle closure.

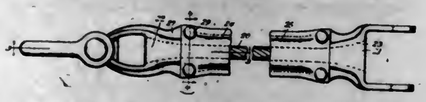
5. A machine of the class described, comprising a horn adapted to receive the cylindrical part and the cover part of a multi-part receptacle closure telescoped thereover, a die movable toward said horn having parts to engage the cylindrical part of the receptacle closure to press in said parts for forming stiffening ribs thereon engaging against the cover part to serve as locking means to lock together the parts of the receptacle closure, and said die having parts for forming threads upon the cylindrical part of the receptacle closure simultaneously with the formation of said locking means.

7. In a machine of the class described, rotary clamping members arranged to receive the wall of the tubular part of a receptacle closure between them, means for moving one of said clamping members in two directions toward the other whereby to retain said tubular part in position and to operate upon the inner and outer surfaces of the wall of said tubular part, and the opposing surfaces of said clamping members being shaped simultaneously to form a finger grip at one portion of said tubular part and closure attaching means at another portion thereof.

8. A machine of the class described, comprising a die for supporting the tubular part of a receptacle closure, a second die movable toward said first die for operating upon the receptacle closure, and one of said dies having an independently freely movable part thereon having portions to mate portions of the other die.

[Claims 3, 4, 6, and 9 to 11 not printed in the Gazette.)

1,254,027. SOCKET AND SHEATH CONNECTION FOR WIRE CABLES. CHARLES J. COOPER, Moline, Ill., assignor of one-half to H. W. Cooper Saddlery Hardware Mfg. Company, Moline, Ill., a Corporation of Illinois. Filed July 5, 1917. Serial No. 178,556. (Cl. 54—52.)

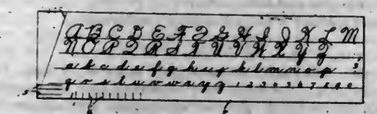


1. The combination of a flexible metallic cable, a metal socket in which the end of said cable is secured, a covering for said cable constructed from strip material having strip margins united together, and a member carried by said socket extending into said covering and interlocked therewith.

5. The combination of a flexible metallic cable, a metallic socket in which the end of said cable is secured and having a pair of spaced apart lugs on either side of said cable and located substantially in the same plane as the axis of the cable, a pair of strips of flexible tough material superposed on each other and between which said cable is interposed, the adjacent marginal portions of said strips being stitched together and the ends of said marginal portions being perforated, and members laterally projecting from said lugs and extending through said perforations for securing the ends of said strips to said socket.

[Claims 2 to 4 not printed in the Gazette.]

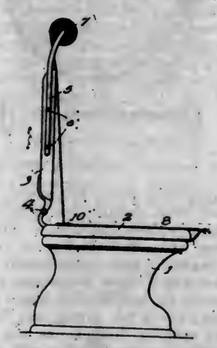
1,254,028. PENMANSHIP-GUIDE. LAUDIMIRE J. COUBAL, Hibbing, Minn. Filed June 11, 1917. Serial No. 174,092. (Cl. 35—8.)



1. A penmanship guide comprising a transparent plate having horizontal base lines thereon and a plurality of specimen characters formed in the reverse surface of said plate to rest upon the copy character when the plate is superimposed thereon.

[Claim 2 not printed in the Gazette.]

1,254,029. SANITARY SEAT-COVER. OLIVER D. CURRIER, Crown Point, N. Y. Filed Mar. 1, 1917. Serial No. 151,837. (Cl. 4—18.)



1. A device of the character described, including paper roll supporting means, a guide arm having one end of the same bent upon itself and secured to the rear portion of a toilet seat, and a second guide element secured to the forward portion of the toilet seat, as and for the purpose set forth.

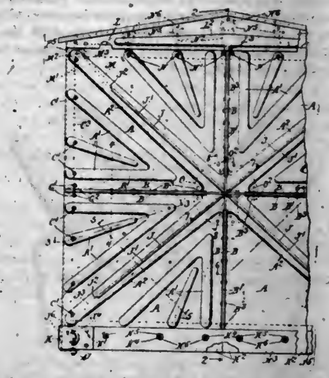
4. The combination with a toilet seat, and a hingedly connected cover therefor, of a plurality of arcuately shaped brackets secured to the cover, paper guiding means mounted on the front and rear portions of the seat, and a roll of paper mounted on the brackets, the paper being adapted to be trained along the cover and through the guiding means.

[Claims 2 and 3 not printed in the Gazette.]

1,254,030. CAR END. CHARLES W. DAKE, Chicago, Ill., assignor to Pyle-National Electric Headlight Company, Chicago, Ill., a Corporation of New Jersey. Filed Feb. 1, 1915. Serial No. 5,364. (Cl. 105—192.)

1. A car end composed of sheet metal sections bulging outwardly from the plane of the car end perimeter and separate metal strengthening strips between such sections in such plane.

4. A car end composed of sheet metal sections bulging outwardly from the plane of the car end perimeter and strengthening strips between such sections in such plane, such strips underlying the metal portion of such bulging car end.



9. A car end composed of sheet metal sections with flat surfaces in the plane of the car end perimeter and outwardly bulging portions and strengthening strips between such sections in such plane, one of said strips formed in two sections bent over and secured at their inner ends to the other strip.

24. A car end comprising a sheet metal plate in combination with anchors which overlie the inner sides of the vertical posts of the car end frame and are secured to the end plate and the car frame.

28. A car end structure comprising a post, a car end plate adjacent said post and a lateral extension on the plate substantially at right angles to the plane thereof and overlying the outside of the post, and an inward flange on such extension to overlie the face of the post opposite the face against which the car end rests.

[Claims 2, 3, 5 to 8, 10 to 23, 25 to 27, and 29 to 35 not printed in the Gazette.]

1,254,031. SUTURE AND METHOD OF MAKING THE SAME. CHARLES T. DAVIS, Brooklyn, N. Y., assignor to Davis & Geck, Inc., Brooklyn, N. Y., a Corporation of New York. Filed Nov. 9, 1916. Serial No. 130,365. (Cl. 28—5.)



2. A suture comprising a plurality of animal tendon fibers braided together to constitute a single strand, and a coating of collagen coalesced with the braided fibers and causing adhesion of the fibers and constituting a filler for the interstices of the strand.

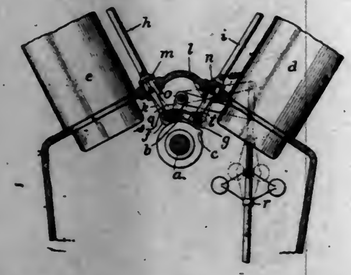
5. A suture comprising a plurality of animal tendon fibers mechanically united together throughout their length to constitute a single strand, and a filler completing the suture configuration and formed of a viscous substance capable of coalescing with the united fibers, whereby the fibers will be united mechanically and by coalescence.

[Claims 1, 3, and 4 not printed in the Gazette.]

1,254,032. INTERNAL-COMBUSTION ENGINE. CARL DIETZE, Winterthur, Switzerland, assignor to Busch-Sulzer Bros.-Diesel Engine Company, St. Louis, Mo., a Corporation of Missouri. Filed July 8, 1915. Serial No. 38,641. (Cl. 123—97.)

1. An internal combustion engine having its cylinders arranged in V relation with an intermediate common

cam shaft, valve rods having cam rolls acted upon by the cams of the cam shaft and movable transversely with respect to the cam shaft and valve rods, a common regulating shaft over the cam shaft and between the cylinders and means connecting the regulating shaft with the cam rolls at both sides to shift the same in similar sense relative to the cam shaft.



2. An internal combustion engine having its cylinders arranged in V relation with an intermediate common cam shaft, valve rods disposed in relation similar to that of the cylinders, and links pivoted to the valve rods and bearing cam rolls, in combination with a common regulating shaft provided with arms and located over the cam shaft, and links connecting said arms with the cam roll links at opposite sides to shift the same in similar sense relatively to the cam shaft.

3. In an internal combustion engine, the combination of cylinders arranged in V relation, a common intermediate cam shaft, valve rods having cam rolls, a common regulating shaft and connections whereby turning of said regulating shaft shifts the cam rolls at opposite sides in similar sense relatively to the came shaft.

1,254,033. PREPARATION OF AMINO COMPOUNDS BY FERMENTATION. GUSTAV EBERLE, deceased, Stuttgart, Germany, by Elsa Eberle, born Mutschler, executrix, Stuttgart, Germany. Filed Feb. 15, 1915. Serial No. 8,239. (Cl. 23—24.)

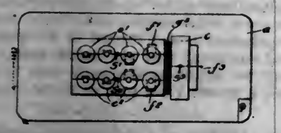
1. A process for the manufacture of amino compounds by fermenting animal organs and then destroying the fermentative enzyms.

5. Process for the manufacture of amino compounds suitable for foods by fermenting proteins by means of enzyms while preventing putrefaction.

6. Process for the manufacture of amino compounds suitable for use in the useful arts by fermentation of proteins mixed with carbo-hydrates.

[Claims 2 to 4 not printed in the Gazette.]

1,254,034. COMBUSTION-ENGINE LOCOMOTIVE. RUDOLF ADOLF FURRER, Winterthur, Switzerland, assignor to Busch-Sulzer Bros.-Diesel Engine Company, St. Louis, Mo., a Corporation of Missouri. Filed Aug. 17, 1916. Serial No. 115,563. (Cl. 105—259.)



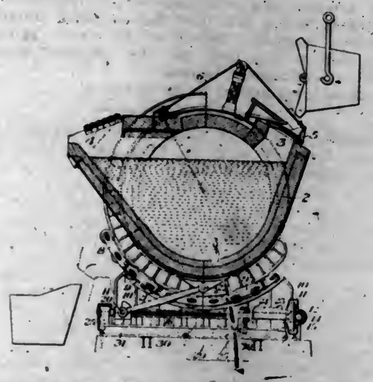
3. In a combustion engine locomotive having electrical power transmission, the combination of a divided combustion engine plant having its halves disposed side by side, and an electric generator the shaft of which is in intermediate relation to the engine halves and driven jointly thereby.

2. The combination of a divided combustion engine plant the parts of which are disposed with their crank shafts in parallelism, a generator having its shaft in intermediate relation to and above said crank shafts, and means whereby the generator shaft is driven jointly by the crank shafts.

3. The combination of a divided combustion engine plant having its crank shafts in parallelism, a generator having its center of mass at approximately the same height as the centers of mass of the engine halves and its shaft in central and superior relation to the crank shafts, and connections whereby the generator is driven from both crank shafts jointly.

[Claims 4 and 5 not printed in the Gazette.]

1,254,035. HOT-METAL MIXER. JOHN K. FURST, New Castle, Pa., assignor to Pennsylvania Engineering Works, New Castle, Pa., a Corporation of Pennsylvania. Filed June 17, 1915. Serial No. 34,631. (Cl. 248—52.)

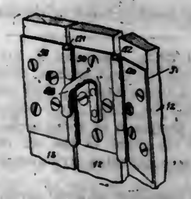


1. A tiltable hot metal mixer comprising a cylindrical shell having closed ends, annular tracks surrounding said shell and forming reinforces therefor, an arc-shaped support for the mixer, and roller bearings on the arc-shaped support for the annular tracks, substantially as described.

5. A tiltable hot metal mixer, comprising a shell having closed ends, supports for said shell arranged to permit the mixer to oscillate, means for tilting said furnace, there being a receiving opening through one side of the shell and a pouring spout through the other side thereof, a closure for the receiving opening supported on the mixer, and means connected to the closure for raising said closure, said means extending to a point adjacent to the axis of the mixer and at one end thereof, the arrangement being such that the mixer can be oscillated without affecting the actuating connections, substantially as described.

[Claims 2 to 4 not printed in the Gazette.]

1,254,036. DISPLAY-FRAME. HARLO R. GRANT, Chicago, Ill. Filed Sept. 11, 1916. Serial No. 119,387. (Cl. 211—22.)



1. In a display device the combination of a plurality of display frames, a pair of hinge members secured to the back of said frames, each hinge member comprising the same number of leaves as there are display frames hinged upon each other, each leaf being attached to one of the display frames, a downwardly extending hook carried by the central leaf of each hinge member and a U shaped support adapted to be attached to a wall and having in its U arms, apertures to receive the said downwardly extending hooks for pivotally supporting the display frames on the U support.

3. A display device consisting of a frame mounted on a vertical pivot and adapted to swing in a horizontal plane comprising a bottom strip and two side strips, provided with internal grooves to receive glass and articles to be displayed, a top strip composed of two members spaced from each other to permit the insertion and removal of glass and articles to be displayed into and from the display frame, a sealing strip adapted to fit into the space between the said members to seal the articles from dust, and means for locking the sealing strip to the frame, said means comprising a plurality of inwardly extending eyes carried by the sealing strip, a nut carried by the rear side of the frame and a threaded rod movable through the front side of the frame through the said eyes and threading into the said nut, the front end of said rod when moved to locking position assuming a position inside of the front edge of the frame and being provided with means arranged to coöperate with a key to facilitate turning of the rod, whereby the rod may be detached from the nut and removed from the eyes carried by the sealing strip.

4. In a display device the combination of three or more display frames, a pair of hinge members, secured to the back of said frames, each hinge member comprising the same number of leaves as there are display frames hinged upon each other, each leaf being attached to one of the display frames, and means consisting of a laterally and downwardly extending hook coöperating with a support for pivotally supporting the central leaf of each hinge member from a vertical support.

[Claim 2 not printed in the Gazette.]

1,254,037. SAFETY-RAZOR. HARRY W. GREENBRIER, Newark, N. J., assignor to A. C. Penn, Inc., New York, N. Y., a Corporation of New York. Filed May 17, 1917. Serial No. 169,182. (Cl. 30—12.)



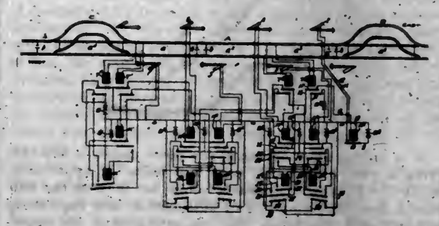
1. In a safety razor, the combination with a blade of a blade support, a clamping member adapted to frictionally engage said blade and having a downwardly depending portion terminating in forked members adapted to abut against said blade support, so as to clamp the blade and blade support therebetween, a handle, there being an aperture made in said depending portion to permit the passage therethrough of said handle whereby to anchor said clamping member to said handle, and means on said blade support for attaching said handle.

2. In a safety razor, the combination of a blade support provided with a guard, a clamping member adapted to frictionally engage with said support, said clamping member having a downwardly depending portion provided with an offset portion terminating in upwardly directed forked members adapted to abut against said blade support, a handle, there being an aperture made in said offset portion adapted to permit the passage therethrough of a handle whereby to anchor said clamping member to said handle, and a socket on said blade support for attaching said handle.

3. In a safety razor, the combination of a blade support provided with a guard, a clamping member adapted to frictionally engage with said support, said clamping member having a downwardly depending portion provided with an offset portion terminating in upwardly directed forked members adapted to abut against said blade support, an aperture made in said offset portion adapted to permit the passage therethrough of a handle, a socket on said blade support for attaching said handle, and means carried by said handle for adjusting the cutting edge of the blade.

[Claims 4 to 8 not printed in the Gazette.]

1,254,038. RAILWAY SIGNALING. HENRY W. GRIFFIN, New York, N. Y., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Continuation of application Serial No. 712,531, filed July 31, 1912. This application filed Apr. 28, 1913. Serial No. 763,999. (Cl. 246—30.)



1. In railway signaling, a stretch of single track, signals located at intervals for governing traffic in one direction through the stretch and other signals located at intervals for governing traffic in the other direction through the stretch, a signal relay for the control of each signal, a circuit for each signal relay each of which circuits includes a contact of the signal relay for the next signal in advance governing traffic in the same direction, track relays connected with the stretch for controlling the circuits of the signal relays, an auxiliary relay for each signal relay and having a front contact connected in shunt to the said front contact of the signal relay, a pick-up circuit for each auxiliary relay including a front contact of the corresponding signal relay and a back contact of the signal relay for an adjacent signal governing traffic in the opposite direction, and a holding circuit for each auxiliary relay including a back contact of the corresponding signal relay.

3. In combination, a stretch of single track, signals located at intervals for governing traffic in one direction through the stretch and other signals located at intervals for governing traffic in the other direction through the stretch, a signal relay for the control of each signal, a circuit for each signal relay each of which circuits is controlled by a front contact of the signal relay for the next signal in advance governing traffic in the same direction, track relays connected with the stretch for controlling the signal relay circuits, an auxiliary relay for each signal relay and having a front contact connected in shunt to the said front contact of the signal relay; a pick-up circuit for each auxiliary relay including a front contact of the corresponding signal relay and a back contact of the signal relay for an adjacent signal governing traffic in the opposite direction and a back contact of the auxiliary relay for the last-mentioned signal relay; and a holding circuit for each auxiliary relay including a back contact of the corresponding signal relay and a front contact of the auxiliary relay.

4. In combination, a stretch of railway track, signals governing traffic in one direction through said stretch and other signals governing traffic in the other direction through the stretch, a line circuit for each signal for the control thereof, track circuits for the stretch for controlling said line circuits, means for controlling the line

circuit for each signal by the line circuit for the signal next in advance governing traffic in the same direction, an auxiliary relay for each signal for removing the line circuit for the signal from control by the line circuit for the signal next in advance, and means controlled by a train entering the stretch for actuating the auxiliary relay for each signal governing traffic in the direction in which the train is moving.

[Claims 2, 5, and 6 not printed in the Gazette.]

1,254,039. BUTTON-SHOE AND UPPER THEREFOR. JACOB GROSS, Brooklyn, N. Y. Filed July 29, 1915. Serial No. 42,487. (Cl. 36—45.)

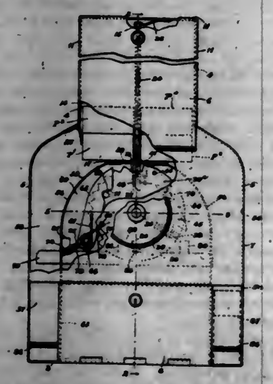


1. A button shoe having a one piece upper, a flap carrying a row of buttons, said flap being of appreciable width for its entire length to allow for moving the buttons, a flap carrying a row of buttonholes, said flaps being integral with the upper and one overlapping the other, and a single seam in the upper, said seam being located at the back of the shoe.

3. A button shoe having a leather upper with a seam at the back, there being a slit at one side of the center of the front, and a flap carrying a row of buttons, said flap being of appreciable width for its entire length to allow for moving the buttons, there being a row of buttonholes at one side of the slit, the part having the buttonholes therein being integral with the upper and overlapping the flap, there being no seam in the center of the front of the upper.

[Claim 2 not printed in the Gazette.]

1,254,040. COIN-CONTROLLED VENDING-MACHINE. ALBERT D. GROVER, New York, N. Y., assignor to Autosales Gum & Chocolate Company, a Corporation of New York. Filed July 27, 1914, Serial No. 853,259. Renewed May 9, 1917. Serial No. 167,581. (Cl. 194—48.)



1. In a coin-controlled vending machine, a casing provided with a pair of upright magazines, hand-operable mechanism arranged below said magazine to carry the deposited coin into ejecting engagement with the lowermost articles in said magazines, and means for compelling operation of said mechanism alternately in opposite directions to deliver the articles alternately from said magazines, said coin-carrying mechanism being in coin-receiving position at the end of each operative movement.

8. In a coin-controlled machine, a coin chute, a rotatable framework provided with a pair of coin-supports for sustaining the deposited coin in operative position on said framework, and means for compelling operation of said framework in alternately opposite directions, whereby said coin-supports are alternately brought into alinement with said chute.

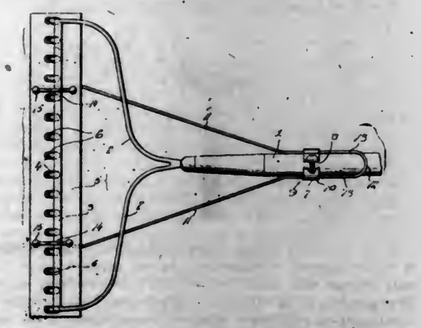
15. In a coin-controlled machine, a fixed plate, a coin-chute on said plate, hand-operable mechanism adapted to receive the coin from said chute and carry the same into operative position, and means on said mechanism adapted normally to engage said plate and lock said mechanism against operation, said locking means being moved into releasing position by the deposited coin.

25. In a coin-controlled vending machine, a casing provided with a pair of upright magazines, hand-operable mechanism adapted to carry the deposited coin into position to cause ejection of the articles from said magazines, and means for compelling operation of said mechanism alternately in opposite directions.

33. In a coin-controlled vending machine, a casing provided with a magazine, hand-operable coin-controlled mechanism for ejecting the articles from said magazine, and a movable device actuated by said mechanism for receiving and retaining the article ejected from said magazine, said device being positively moved by said mechanism into position to release the retained article only after said mechanism has been operated a predetermined amount.

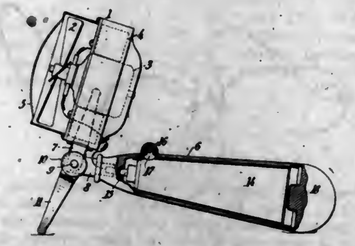
[Claims 2 to 7, 9 to 14, 16 to 24, and 26 to 32 not printed in the Gazette.]

1,254,041. RAKE-CLEANER. HAROLD HOBL, Christine, N. D. Filed June 30, 1916. Serial No. 106,887. (Cl. 55—146.)



The combination with a rake, of a cleaning element including a substantially rectangular plate having a plurality of openings therein to receive the tines of the rake, operating yokes mounted upon the plate near the ends thereof and extending over the tine bar of the rake, the said yokes each including a loop of wire having its terminals fixed to the top of the plate, a support for the said plate including a single strand of wire formed with a yoke intermediate its ends, to embrace the handle of the rake at opposite sides of the handle, the terminals of the wire in said support being fixed to the bottom of the plate, the top of the said operating yoke being engageable with the tine bar of the rake when the plate is moved to the end of the tine, and means for fixing the said yoke to the handle of the rake.

1,254,042. PORTABLE FAN. FRED C. HOWE, New Haven, Conn. Filed Sept. 24, 1914. Serial No. 863,366. (Cl. 230—1.)



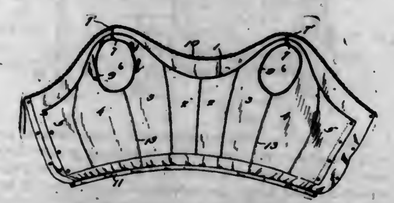
1. A portable fan, comprising a motor-driven fan, a handle, and feet, adapted, in conjunction with said handle, to form a support for said fan.

5. A portable fan, comprising a motor-driven fan, a handle, and feet, adapted, in conjunction with said handle, to form a support for said fan, said feet being adapted to be turned up under the lower side of said fan.

7. A portable fan, comprising a motor-driven fan, a casing therefor, a handle, and feet, adapted, in conjunction with said handle, to form a support for said fan, the inner side of said feet having a contour corresponding to a side of said casing and adapted to be turned up around said casing when not in use.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,254,043. COMBINED CORSET-COVER AND BRASSIÈRE. FRANCES L. JAMES, Wausaukee, Wis. Filed May 14, 1917. Serial No. 168,560. (Cl. 2—98.)



3. A combination body garment comprising a loose blouse corset cover with a brassière arranged therein and connected thereto at the shoulder seams and arm holes only, said cover completely encompassing the brassière and extending above the upper edge thereof at both its back and front and below the lower edge thereof, said brassière terminating at a point above the waist line of the wearer, and a retaining band secured to the lower edge of the cover and of a length to encircle and snugly fit the waist of the wearer.

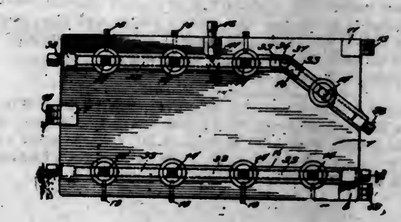
[Claims 1 and 2 not printed in the Gazette.]

1,254,044. WORK-SUPPORT. JOHN R. JOHNSON, Rockford, Ill., assignor to The Ingersoll Milling Machine Company, Rockford, Ill., a Corporation of Illinois. Filed Sept. 28, 1915. Serial No. 52,993. (Cl. 90—59.)

1. In a work support, the combination of a plurality of independently movable supporting devices arranged to contact the work at spaced points, means for yieldingly urging said devices into contact with the work, and means whereby said devices may be locked in operative position by a single operation.

2. In a work support, the combination of a plurality of plungers arranged to engage the work at spaced points, means for yieldingly urging the plungers into engagement with the work, and means movable transversely of the axes of the plungers for locking them in operative position.

3. In a work support, the combination of a plurality of longitudinally movable plungers, spring supported blocks upon which the plungers rest and through the agency of which the plungers are yieldingly urged into contact with the work, clamping means in coöperative relation to said blocks, and means to cause said clamping means to simultaneously clamp all of said blocks in operative position.

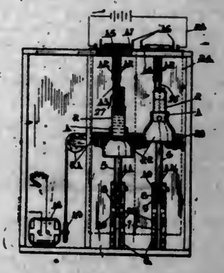


4. In a work support, the combination of a plurality of independently movable spring supported blocks tapered downwardly at opposite sides, plungers disposed upon said blocks, which together with the plungers are arranged so that the latter will contact the work at spaced points, clamping bars having inclined ends abutting against and conforming to the tapered faces of said blocks, and means for moving said bars to simultaneously clamp all of the blocks and thereby prevent retracting movement of the plungers.

5. In a work support, the combination of a bed provided with a hole, a base plug mounted in the lower end of said hole and projecting upwardly therein, a spring supported by said plug, a block carried by the spring, a plunger resting on the block, and means for varying the tension of said spring.

[Claims 6 to 15 not printed in the Gazette.]

1,254,045. ELECTROLYTIC APPARATUS. JAMES T. KING, Toronto, Ontario, Canada. Filed Apr. 19, 1917. Serial No. 163,226. (Cl. 204—5.)



1. In electrolytic apparatus, the combination of suitably supported electrodes; a rotatable support for an electrolyte receptacle; and means for rotating said receptacle support.

4. In electrolytic apparatus, the combination of suitably supported electrodes; a rotatable support for an electrolyte receptacle; means for rotating said receptacle support; and means for axially adjusting the position of said support relative to the said electrodes.

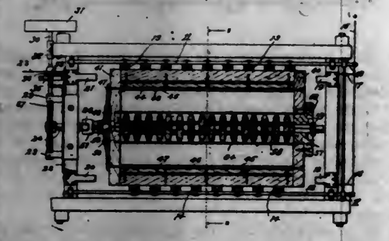
6. In electrolytic apparatus, the combination of suitably supported electrodes; a circuit including said electrodes; a shunt circuit normally open; and means connected with the receptacle support whereby the movement of said support a predetermined distance from the electrodes closes the shunt circuit.

7. In electrolytic apparatus, the combination of two pairs if electrode clamps; spring actuated slides to which one clamp of each pair is connected; a rotatable support for an electrolyte receptacle; and means for rotating said receptacle support.

8. In electrolytic apparatus, the combination of electrode clamps; a support for an electrolyte receptacle; a spindle to which said support is connected; a bearing for said spindle; a guide in which said bearing is vertically adjustable; a circuit including the electrodes; a shunt circuit normally open and including contact plates mounted on said guide; and a contact piece carried by said bearing adapted to engage the contact plates and close the shunt circuit when the said support is moved a predetermined distance from the electrode clamps.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,254,046. MECHANICAL PLATING-MACHINE. WILLIS R. KING, Newark, N. J., assignor to The Hanson & Van Winkle Company, Newark, N. J., a Corporation of New Jersey. Filed Apr. 16, 1917. Serial No. 162,449. (Cl. 204—5.)



1. Apparatus of the character described, comprising in combination a bath container, a rotary work receptacle disposed therein, anode material constituting an integral shaft and anode, mounted axially of said rotary receptacle, and cathode members disposed in said receptacle at a distance from said anode and accessible to the work within the receptacle.

3. Apparatus of the character described, comprising in combination a bath container, a work receptacle adapted to rotate therein and having at one end a head provided with a shouldered block adapted to sit within an axial perforation of the head, an anode shaft axially disposed at one end in said block, a screen mounted on said block and inclosing said anode, and suitable cathodes for leading off current from the work in said receptacle.

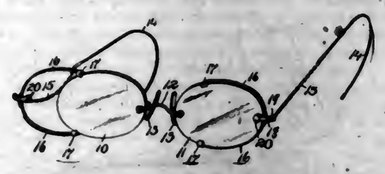
4. Apparatus of the character described, comprising in combination a generally cylindrical rotary work receptacle having an axial opening through one end, a removable closure for said opening, an axial anode of suitable dimentions to be introduced and withdrawn through said opening, suitably disposed cathode material and means for making electrical connections with said anode and cathode material.

5. Apparatus of the character described, comprising in combination a generally cylindrical rotary work receptacle having an axial opening through one end, a removable closure for said opening, an axial anode adapted to be introduced through said opening and having one end passing through and projecting from said closure and the other end seated in the opposite end of said receptacle, a separate shaft or stud projecting axially outward from said opposite end of the rotary work receptacle, cathodes electrically connected with said separate shaft or stud, and means for supporting and making electrical connections with the projecting shaft portions.

[Claim 2 not printed in the Gazette.]

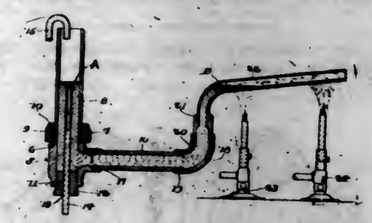
1,254,047. EYEGLASSES. ALBERT C. LOOMIS, West Orange, N. J. Filed June 8, 1916. Serial No. 102,572. (Cl. 88—53.)

1. Eyeglasses comprising a bridge piece having clips adapted to engage the nose of the wearer, and lenses supported by the said bridge piece; resilient loops carried by and detachably connected with the said lenses; comparatively rigid ear-engaging portions; and limp strands intermediate the said loops and the said ear-engaging portions and connected with each, and the lengths of which strands are such as to prevent strain on the lenses when the eyeglasses are in use.



2. Eyeglasses comprising a bridge piece having clips adapted to engage the nose of the wearer, and lenses supported by the said bridge piece; resilient loops conforming in their outline with the outer portions of said lenses and having ears at their extremities adapted to engage the upper and lower edges of the lenses, and cheek pieces at their middle portions adapted to engage the outer ends of the lenses; comparatively rigid ear-engaging portions; and limp strands intermediate the said loops and the said ear-engaging portions and connected with each, and the lengths of which strands are such as to prevent strain on the lenses when the eyeglasses are in use.

1,254,048. LABORATORY APPARATUS. KARL P. MCELROY, Washington, D. C. Filed May 16, 1917. Serial No. 169,109. (Cl. 126—350.)

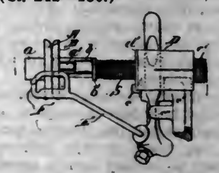


1. Apparatus for generating steam comprising a water receptacle, means for constantly delivering water therein, means for maintaining a constant level of water therein, a branch leading from the receptacle from a point below the level of the water and extending upwardly to a point above the level of the water whereby the water may be heated in the branch at a point corresponding to the level of the water in the receptacle to generate steam in said branch.

10. An apparatus for generating steam comprising a water receptacle, means for delivering water thereto, means for permitting water to overflow from a certain point in said receptacle, a pipe leading from the said receptacle below said point and extending beyond the confines of said receptacle to a level at least equal to said point, and means for heating the water in said pipe.

[Claims 2 to 9 not printed in the Gazette.]

1,254,049. TENSION MECHANISM FOR WINDING-MACHINES. JOHN O. MCKEAN, Westfield, Mass., assignor to Foster Machine Company, Westfield, Mass., a Corporation of Massachusetts. Filed Oct. 9, 1916. Serial No. 124,439. (Cl. 242—150.)



In a tension device a pair of disks mounted upon a hub for rotation; that hub; a brake member mounted adjacent to the hub and in operation sustained by the thread in close relation to the hub and pressed against the hub when the draft upon the thread is super-normal.

1,254,050. TIRE FOR VEHICLES AND SIMILAR WHEELS. COLIN MACBETH, Birmingham, England, assignor to The Dunlop Rubber Company, Limited, Birmingham, England. Filed June 9, 1914. Serial No. 844,024. (Cl. 152—14.)

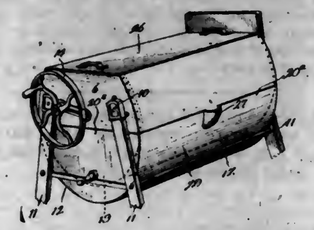


1. A tire tread comprising in combination, a central or intermediate circumferential rib of substantial cross section, solid projections actually on said rib and raised above the surface thereof and also extending laterally from said rib, one projection extending laterally beyond one side of the rib only and the next projection extending laterally beyond the other side of the rib only and so on around the tire and solid projections on each side of and separate from said rib disposed in or extending into the spaces between the lateral projections on said rib.

5. A tire tread having circumferential ribs, projections on each of said ribs raised above the surface of the ribs, the studs on each of said ribs being staggered so that alternate studs project laterally beyond only one side of the rib, while intervening studs project laterally beyond only the other side of the rib.

[Claims 2 to 4 not printed in the Gazette.]

1,254,051. WASHING-MACHINE. LAWRENCE W. MAMMEN, Chicago, Ill. Filed Nov. 3, 1916. Serial No. 129,387. (Cl. 68—18.)

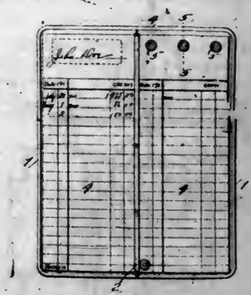


1. A washing machine body comprising in combination a frame unit embodying a pair of heads and connecting side frame members, a barrel rotatably mounted in said unit and having a segmental section thereof depending beyond said heads, the latter having their lower faces terminating just below the axial line of the barrel, and a fluid container unit formed to receive said segmental section and comprising upwardly extending end portions associated with the lower faces of said heads and side portions provided with flap extensions bearing on said side members and secured to the sides of said heads.

3. In a washing machine, the combination of an upper frame unit comprising solid heads and connecting spaced side frame members associated with said heads, a barrel rotatably mounted in said heads, a lower container unit suspended from said frame comprising a metallic box-like body having vertically extending end portions adapted to marginally register with said heads and side portions provided intermediate said end portions with closure flap extensions extending upwardly therefrom past said end portions to rest upon and close in said side frame members, said flap extensions secured to the sides of said heads for supporting said body and terminating substantially in the top line of said heads, and a cover engaging the upper portions of said heads and flap extensions, the upper part of the barrel disposed intermediate said flap extensions and its lower portion intermediate said end and side portions.

[Claims 2 and 4 not printed in the Gazette.]

1,254,052. LOOSE-LEAF PASS-BOOK. THOMAS PUGH MARTIN, Jr., Oklahoma, Okla. Filed Dec. 29, 1916. Serial No. 139,497. (Cl. 129—1.)



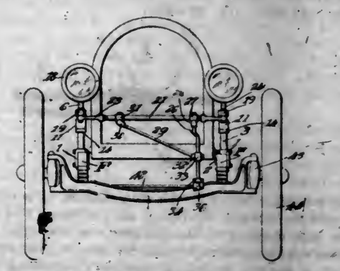
1. A bank pass-book comprising a foldable cover and detachable leaves, each leaf having two major portions ruled respectively to receive deposit and check accounts, each leaf being folded to be received into the said cover to present the deposit account open, the cover having means detachably securing the leaves, as shown and described.

2. The improved loose leaf bank pass-book comprising a foldable cover, a loose leaf having portions respectively printed for deposit and check accounts, and adapted to an adding machine, said leaf being folded and received in the cover to present the deposit account open, and means for detachably securing said leaf to the cover, substantially as described.

3. The improved loose leaf bank pass-book comprising a foldable cover, a loose leaf having portions respectively printed for deposit and check accounts, and adapted to an adding machine, for the direct entry of the amounts of separate checks, the cover being arranged to receive the leaf and present the same with the deposit account open, as described.

4. The improved loose leaf bank pass-book comprising a foldable cover, a loose leaf having a plurality of portions respectively printed for deposit and check accounts, and adapted to an adding machine, said leaf being folded and received in the cover to present the deposit account open, and means for detachably securing said leaf to the cover, substantially as described.

1,254,053. DIRIGIBLE HEADLIGHT. CHARLES E. MATTESON and CHARLES W. BAILEY, Maud, Okla. Filed Sept. 5, 1917. Serial No. 189,822. (Cl. 240—62.)

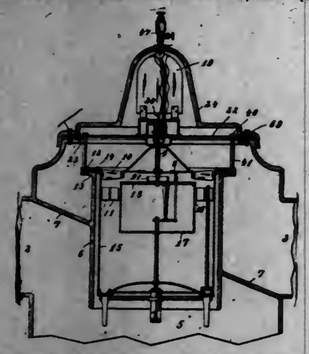


1. A device of the character described embodying lamp supporting shafts rotatable about vertical axes and having

arms, a link connecting said arms, a depending member attached to the link, a lever having means for pivoting it upon an axle and steering rod, and rollers carried by said lever for engaging the lower end of the depending member.

[Claims 2 and 3 not printed in the Gazette.]

1,254,054. LUBRICATION SYSTEM FOR ROTARY METERS. CHARLES P. MAYER, Elizabeth, N. J., assignor to Rotary Meter Company, a Corporation of New York. Filed Sept. 10, 1915. Serial No. 49,916. (Cl. 73—37.)



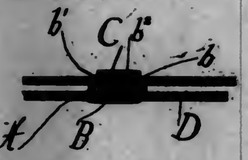
1. In a rotary meter a plurality of vertically separated spindles, each having a pivot bearing; a frame of superposed sections for mounting said spindles; and an oil duct leading downward through said sections to the lowest bearing and having a cup shaped detachable union at the parting between two adjacent sections.

3. In a rotary meter, a vane wheel adapted to be driven by passing fluid; a substantially vertical shaft carrying said wheel and rotatable therewith; a supporting frame of spaced sectional parts; bearings for said shaft at the upper and lower ends thereof carried by upper and lower sections respectively of said sectional supporting frame; an annular receiver carried by said shaft and having communication with said bearing and an oil duct for feeding oil to one of said bearings from above the upper frame section, said oil duct extending through said upper frame section at one side of said shaft and communicating with said annular receiver.

11. A rotary meter, comprising a casing having a removable cover member; an oil cup carried by and movable with the cover member; mechanism within the casing requiring lubrication; and an oil duct also within the casing leading from the oil cup to parts requiring lubrication, said oil duct being separately formed and having releasable connections.

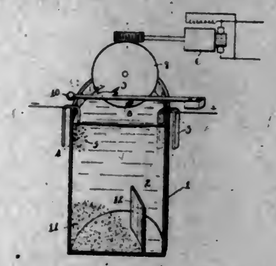
[Claims 2, 4 to 10, 12, and 13 not printed in the Gazette.]

1,254,055. BUTTON-ATTACHING DEVICE. GEORGIA R. MITCHELL, Alma, Mich. Filed Sept. 30, 1916. Serial No. 123,022. (Cl. 24—90.)



In a button fastener, the combination of a disk having an opening through the center thereof and a slot extending from said opening to the periphery of the disk, said disk having openings therethrough for securing the same to the fabric, a button attaching member comprising a base, a shank rising therefrom, said shank being angular in cross section and adapted to extend through the aforesaid slot to the central opening, a head supported by said shank, said head having openings through which the button to be attached may be engaged, and means supported on said shank for attaching the button head thereto.

1,254,056. PROCESS OF MAKING METAL POWDER. WILLIAM C. MOORE, Lakewood, Ohio, assignor, by mesne assignments, to National Carbon Company, Inc., a Corporation of New York. Filed July 29, 1915. Serial No. 42,527. (Cl. 204—1.)



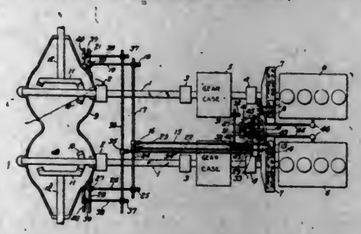
1. The process of making metal powder, which consists in forming metal sponge in an electrolyte and placing the metal sponge in a colloidal solution to precipitate a protecting coating on the metal particles.

2. The process of making metal powder which consists in forming metal sponge in an electrolyte, removing the metal sponge from the electrolyte, coating the metal particles with a protective covering to prevent oxidation and then drying the coated particles.

3. The process of making a metal powder, which consists in electrolyzing a solution of a salt of the metal to form spongy metal on the cathode, removing the said metal, washing it free of electrolyte in a colloidal solution and then drying the metal powder.

4. The process of making a metal powder, which consists in electrolyzing a solution of a salt of the metal to form spongy metal on the cathode, removing the said metal, washing it free of electrolyte in a colloidal solution and drying it *in vacuo*.

1,254,057. CONTROL MECHANISM FOR AUTOMOBILES AND OTHER VEHICLES AND MACHINES. WILLIAM J. P. MOORE, New York, N. Y. Filed Mar. 10, 1916. Serial No. 83,343. (Cl. 180—18.)



4. In a mechanism of the class described, the combination of a pair of parallel main shafts, separate engine mechanisms for independently actuating said shafts, and means for jointly and separately controlling the operation of said engine mechanisms so that they can run at the same or different speeds, together with brake appliances operated independently for retarding the motion of the different shafts.

3. In a mechanism of the class described, the combination of a pair of parallel main shafts, engines for separately actuating them, separate brake applinaces for the shafts, and a control device for jointly controlling the operation of said engines in order that they may run at the same or different speeds, said control device having a single operating lever.

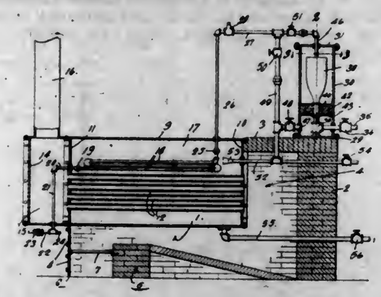
5. In a mechanism of the class described, the combination of a pair of parallel main shafts, vehicle axle shafts at right angles thereto and driven by said main shafts, internal combustion engines for independently actuating said main shafts, and a control device for jointly controlling the fuel supply for said engines so that the main shafts may be actuated at the same or different speeds, together with brake appliances operated independently for retarding the motion of the different shafts.

7. In a mechanism of the class described, the combination of a pair of parallel main shafts, internal combustion engines for independently actuating said shafts, said engines having carbureting mechanisms, means for jointly and separately controlling the operation of the carbureting mechanisms, a steering wheel, and devices thereon connecting with the means for operating the carbureters, and separate brake appliances for the shafts.

10. In a mechanism of the class described, the combination of a pair of parallel main shafts, internal combustion engines for independently actuating said shafts, means for controlling the operation of said engines so that they can run at the same or different speeds, brake appliances operated independently for retarding the motion of the different shafts, and emergency brake appliances.

[Claims 2, 4, 6, 8, and 9 not printed in the Gazette.]

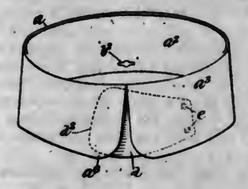
1,254,058. WATER HEATER AND PURIFIER. WILLIAM H. MORGAN, Marseilles, Ill. Filed Apr. 30, 1917. Serial No. 165,525. (Cl. 210—1.)



1. In a device of the class described, a boiler; a casing; a settling tank in the casing and having an outlet; a valve controlling the outlet; a filter in the casing, the settling tank overflowing onto the filter; a discharge conduit leading from the casing below the filter, to the boiler; and a water heating conduit passing through the boiler, one end of the water heating conduit entering the casing and discharging into the settling tank.

[Claims 2 to 4 not printed in the Gazette.]

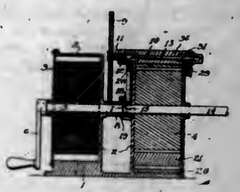
1,254,059. COLLAR. JOSEPH C. MOTT, Great Neck, N. Y. Filed Aug. 2, 1917. Serial No. 184,005. (Cl. 2—07.)



1. A turndown celluloid collar, one end of its neckband being provided with the usual short tab having a buttonhole, and the other end with a shorter tab having a buttonhole, the edge of the shorter tab extending diagonally downward from the fold of the collar toward the lower edge of the tab, and a supplemental tab secured to the last named end of the neckband rearwardly of the buttonhole of the shortest tab, said supplemental tab being of greater length than the other tabs and adapted to be inserted under the fold at the opposite end of the collar and having its upper edge engaging the undersurface of said fold for holding the front of the collar closed and concealing the front collar button.

[Claims 2 to 4 not printed in the Gazette.]

1,254,060. GOVERNOR FOR FLUID-PUMPS. AUGUST J. MOTTLAU, Philadelphia, Pa., assignor, by direct and mesne assignments, to G. E. M. Engineering Company, Philadelphia, Pa., a Corporation of Delaware. Filed June 23, 1916. Serial No. 105,337. (Cl. 185—37.)



1. In a device of the class described, the combination with a cylindrical pump-casing carrying revolubly mounted therein an internal spur-gear wheel; of a motor driven shaft eccentrically passing through the casing; a gear-pinion meshing with the internal spur-gear wheel secured to the shaft located within the casing; a fluid-passage connecting at one end with a side-space or chamber on one side of the eccentrically mounted gear-pinion, and at the other end with a like space on the other side thereof; an adjustable valve for throttling the passage from one side chamber to the other; and a motor for rotating the shaft carrying the gear-pinion.

2. In a device of the class described, the combination with a cylindrical pump-casing carrying revolubly mounted therein an internal spur-gear wheel; of a motor driven shaft eccentrically passing through the casing above the center thereof; a gear-pinion meshing with the internal spur-gear wheel secured to the shaft located within the casing; a fluid-passage connecting at one end with a side-space or chamber on one side of the eccentrically mounted gear-pinion, and at the other end with a like space on the other side thereof; an adjustable valve for throttling the passage from one side-chamber to the other; and a motor for rotating the shaft carrying the gear-pinion.

3. In a device of the class described, the combination with a cylindrical pump-casing carrying revolubly mounted therein, an internal spur-gear wheel; of a motor driven shaft eccentrically passing through the casing; a gear pinion meshing with an internal spur-gear wheel secured to the shaft located within the casing; a fluid-passage connecting at one end with a side-space or chamber on one side of the eccentrically mounted gear-pinion, and at the other end with a like space on the other side thereof; an adjustable valve for throttling the passage from one side-chamber to the other; means for automatically adjusting the valve; and a motor for rotating the shaft carrying the gear-pinion.

4. In a device of the class described, the combination with a cylindrical pump-casing carrying revolubly mounted therein an internal spur-gear wheel; of a motor driven shaft eccentrically passing through the casing above the center thereof; a gear-pinion meshing with the internal spur-gear wheel secured to the shaft located within the casing; a fluid-passage connecting at one end with a side-space or chamber on one side of the eccentrically mounted gear-pinion, and at the other end with a like space on the other side thereof; an adjustable valve for throttling the passage from one side-chamber to the other; means for au-

tomatically adjusting the valve; and a motor for rotating the shaft carrying the gear-pinion.

5. In a device of the class described, the combination with a cylindrical pump-casing; of an annular internal spur-gear wheel revolubly mounted therein; a motor driven shaft eccentrically passing through the casing; a gear-pinion meshing with the internal spur-gear wheel secured to the shaft located within the casing; a fluid-passage connecting at one end with a side-space or chamber on one side of the eccentrically mounted gear-pinion, and at the other end with a like space on the other side thereof; an adjustable valve for throttling the passage from one side-chamber to the other; a crescent-shaped filler member secured in the casing between the main meshing peripheral portion of the gear-pinion and the internal annular gear-wheel; and a motor for rotating the shaft carrying the gear-pinion.

[Claims 6 to 9 not printed in the Gazette.]

1,254,061. CRUTCH AND ARTIFICIAL LIMB. AUGUST E. MUELLER, Chicago, Ill., assignor of one-third to Thomas J. Hruby and one-third to Otto J. Hruby, Chicago, Ill. Filed Feb. 16, 1917. Serial No. 149,043. (Cl. 135—53.)



1. An attachment for an ordinary single staff crutch comprising a bearer having a curved tread, with means located centrally between its ends whereby the crutch staff may be attached thereto, and means to brace the ends of the bearer from the crutch staff at a point above said bearer.

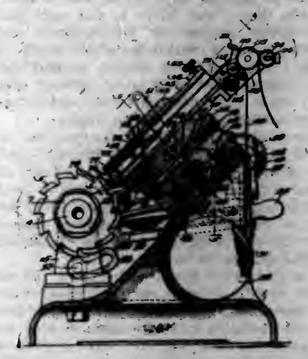
[Claim 2 not printed in the Gazette.]

1,254,062. HOB-TESTING MACHINE. CARL G. OLSON and JOSEPH R. RICHER, Chicago, Ill., assignors to Illinois Tool Works, Chicago, Ill., a Corporation of Illinois. Filed Mar. 19, 1917. Serial No. 155,685. (Cl. 234—1.)

2. A machine for testing hobs and the like, comprehending means for rotatably supporting the hob, a carriage traveling past it, an indicator on said carriage and means for causing said carriage to travel in harmony with the lead of the helically arranged hob teeth.

5. A machine for testing toothed objects having means for supporting the object to be tested, a contactor having a rounded head for entering between and simultaneously contacting two of the teeth of said object, an indicator arm actuated by said contactor, a housing for supporting said contactor and arm, and controlling means for moving said housing toward and from said object, said controlling means including an arm connected at one end to said housing and at the other end held at a fixed distance from the object to be tested.

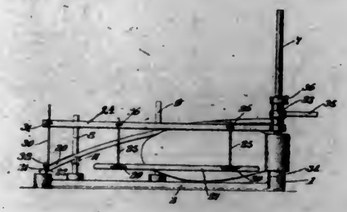
16. In a hob testing machine, a main frame for supporting the hob, an indicating arm having a contractor for actuating it, movable controlling means supported on main frame for moving said contactor toward and from the hob, a record sheet, a stylus on said arm for marking said sheet, a roller on said controlling means for advancing said sheet, a pawl carried by said main frame



for rotating the ratchet, and an adjustable stop for regulating the normal position of said ratchet.

[Claims 1, 3, 4, 6 to 15, 17, and 18 not printed in the Gazette.]

1,254,063. MACHINE FOR GENERATING THE PITCH OF PROPELLER-BLADES. ROBERT A. PATRICK, Freeport, N. Y., assignor to Columbian Bronze Corporation, Freeport, Long Island, N. Y., a Corporation of New York. Filed Dec. 29, 1916. Serial No. 139,697. (Cl. 37—174.)



1. In an apparatus of the class set forth, the combination of a base comprising a hub portion and a plurality of radially extending arms of equal length, a vertical pivot post mounted in the hub portion, vertical standards mounted at the outer ends of said radial arms, a track curved on an arc the center of which is coincident with the vertical pivot post, adjustable track-supporting means mounted on the posts at the ends of said radial arms for varying the degree of inclination of the track, a gage member slidably and pivotally mounted on the vertical pivot post, and means carried by the free end of said member and adapted to engage said track to limit the downward movement of the gage member.

3. In an apparatus of the class set forth, the combination of a quadrantal frame, a vertical pivot post mounted at the axis of the arc of the frame, a track curved on an arc the center of which is coincident with the axis of the arc of the frame, adjustable supporting means for said track for varying the degree of inclination thereof, a swinging arm pivotally and slidably mounted on the vertical pivot post, a gage plate depending from said swinging arm, means for vertically adjusting the gage plate toward and from the arm, and means carried by the free end of said swinging arm and adapted to engage said track to limit the downward movement of the gage plate.

5. In an apparatus of the class set forth, the combination of a quadrantal frame, a vertical pivot post mounted at the axis of the arm of said frame, a track curved on an arc the axis of which is coincident with the axis of the arc of the frame, adjustable supporting means for said track for varying the degree of inclination thereof, a swinging arm slidably and pivotally mounted on the vertical pivot post, a gage plate depending from said arm, independently adjustable brackets connecting the gage plate with the arm adjacent opposite ends of said gage plate, means for adjusting the gage plate longitudinally toward and from the pivot post, and means carried by the free end of the arm and adapted to engage said track to limit the downward movement of the gage plate.

6. In an apparatus of the class set forth, the combination of a base, a pivot post mounted thereon, a stationary indicator member curved on an arc the center of which is coincident with the axis of said post, means for carrying the degree of inclination of the stationary indicator, a coöperating vertically movable work-engaging indicator member slidably and pivotally mounted on said post, means carried by the free end of said movable indicator adapted to ride upon said curved indicator member to limit the downward movement of the work-engaging indicator.

7. An apparatus, for generating the pitch of propeller blades, comprising a relatively stationary member, means for adjustably supporting said member in an inclined position corresponding to the pitch of the blade to be formed, a work-engaging member movable toward and over the surface of the work, and means carried by said work-engaging member and adapted to contact with said stationary member during movement of the work-engaging member over the surface of the work when the work is shaped to the proper pitch.

[Claims 2 and 4 not printed in the Gazette.]

1,254,064. METHOD OF MAKING PATTERNS FOR PROPELLER-BLADES. ROBERT A. PATRICK, Freeport, N. Y., assignor to Columbian Bronze Corporation, Freeport, N. Y., a Corporation of New York. Filed Jan. 11, 1917. Serial No. 141,781. (Cl. 22—195.)



1. The process of making propeller patterns consisting in manipulating a pliant base until it approximates the desired configuration, coating one side of said base with plastic material, and removing the surplus portions of the coating to shape the pattern to the desired form.

2. The process of making propeller patterns consisting in manipulating a pliant metallic base until it approximates the desired configuration, coating one face of the blade portion of the base with plastic material, removing the surplus portions of said coating while still plastic to shape the pattern to the desired form, and subsequently allowing the plastic coating to harden.

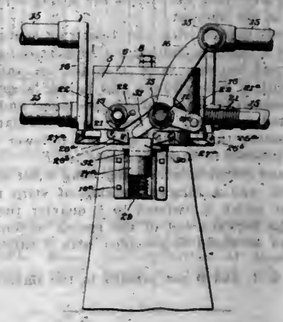
3. The process of making propeller patterns consisting in manipulating a pliant metallic base until it approximates the desired configuration, coating one face of the blade portion of the base with plastic material, removing the surplus portions of said coating while still plastic to shape the pattern to the desired form, allowing the coating to harden, and subsequently smoothing the surface of the hardened coating.

9. The process of making propeller patterns consisting in coating one surface of the blade portion of a stock pattern approximating the desired conformation with a plastic material, and subsequently generating a blade surface having the desired pitch by removing the surplus plastic material with a generator controlled by a master helix.

10. The process of making propeller patterns consisting in shaping a stock pattern to approximately the conformation desired, coating said shaped stock pattern with a plastic material, and subsequently removing surplus coating material and smoothing the coated surface of the pattern to generate a blade surface having the desired conformation by a generating element controlled by a master helix.

[Claims 4 to 8 and 11 not printed in the Gazette.]

1,254,065. TURNSTILE. JOHN FRANCIS PERRY and HUBERT PERRY, Brooklyn, N. Y. Filed July 30, 1917. Serial No. 183,627. (Cl. 39—3.)



1. A turnstile provided with a rotatable head, a plurality of arms carried by the head and rotatable therewith, the said arms being mounted to each have limited movement independent of the head, and locking means for the head arranged to be released by the said limited independent movement of the arms.

3. A turnstile provided with a rotatable head, arm supports fixed to the head, radially disposed arms mounted in the supports to have limited movement independent of the head, and locking means for the head operatively connected to be released by the limited independent movement of the arms.

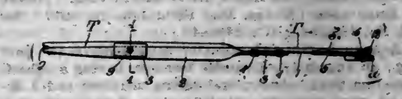
5. A turnstile provided with a head, rotatable about a vertical axis, a plurality of arm supports fixed to the head, outwardly extending arms mounted on the supports to have limited rotation about horizontal axes, and head locking means controlled by the movement of the arms about the horizontal axes.

7. A turnstile provided with a head, rotatable about a vertical axis, a plurality of arm supports fixed to the head, outwardly extending arms mounted on the supports to have rotation about horizontal axes, springs and stops limiting such rotation; and head locking means controlled by the movement of the arms about the horizontal axes.

9. A turnstile provided with a head rotatable about a vertical axis, a plurality of arm supports fixed to the head, a head locking bolt carried by each support, and outwardly extending arms movably mounted in the supports to control the bolts.

[Claims 2, 4, 6, and 8 not printed in the Gazette.]

1,254,066. STRAND-GUIDE FOR BRAIDING-MACHINES. ANKER PETERSEN, Winthrop, Mass. Filed Apr. 11, 1916. Serial No. 90,508. (Cl. 28—4.)



1. In combination with the relatively movable frame and cam of a braiding machine, a strand-carrying lever rigidly secured at one end to the frame, and a cam fol-

lower on the lever, said lever including a spring between the cam follower and the rigid securement to the frame, whereby the oscillation of the lever by the cam will be permitted by the bending of the spring.

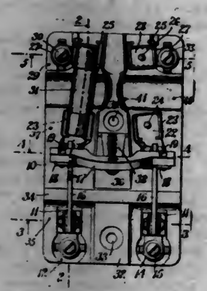
4. In combination with the relatively movable frame and cam of a braiding machine, a support on said frame, and a strand-carrying lever comprising a flat spring section at one end secured to said support, a relatively unyielding section at the free end, a cam-follower on the latter section, the oscillation of the lever by the cam being permitted by bending the spring, and reinforcing leaf-springs overlying the end of the spring section which is secured to the support.

5. In combination with the relatively movable frame and cam of a braiding machine, a support on said frame, and a strand-carrying lever mounted on said support provided with a cam-follower and having a spring interposed between the free end of the lever and the support, adapted to permit the lever to be oscillated by the cam by bending the spring, said cam-follower consisting of a block pivoted to rock upon said lever.

7. A strand-carrying lever comprising a flat steel spring rear section, and a forward section of strip metal, the rear end of which is twisted to a quarter turn and secured to the forward end of the spring section, and the forward end of which is provided with a thread guiding notch.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,254,067. ELECTRIC SWITCH. CLARENCE D. PLATT, Bridgeport, Conn. Filed June 23, 1917. Serial No. 176,575. (Cl. 175—282.)

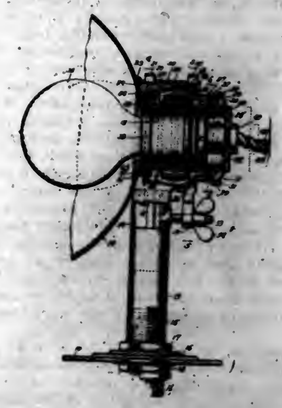


1. A switch comprising an insulating base having integral upstanding longitudinal and transverse barriers on the face thereof, hinge posts on one end of the base at opposite sides of the longitudinal barrier, contacts on opposite sides of the longitudinal barrier and on the side of the transverse barrier opposite to the hinge posts, arched switch blades hinged to said posts, separated by the longitudinal barrier and arching over the transverse barrier and an insulating cross piece connecting said blades.

[Claims 2 to 7 not printed in the Gazette.]

1,254,068. LAMP HOLDER AND ADJUSTER. HENRY E. PROCUNIER, Chicago, Ill. Filed Jan. 25, 1917. Serial No. 144,394. (Cl. 240—44.)

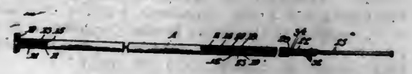
2. A lamp holder and adjuster comprising a two-part casing; an angularly adjustable member, having a spherical frustum part between said casing members and a cylindrical part projecting therefrom; a yielding friction-producing member, interposed between said frustum and casing, to temporarily hold the former in place; an axially movable socket-holding member in said adjustable member; a threaded nut on said cylindrical part to axially move said socket and holder; means to prevent axial movement of the nut; and means to clamp the casing



members in contact with said frustum to positively hold the socket in adjusted angular position.

[Claims 1, 3, and 4 not printed in the Gazette.]

1,254,069. ROD FOR TARGET PRACTICE. ROBERT EDWIN REARDON, Ottawa, Ontario, Canada. Filed Mar. 8, 1917. Serial No. 153,477. (Cl. 124—15.5.)



1. In a target practice rod, a tube, a spring retractable striking rod therein at one end thereof, a spring retractable hammer rod at the opposite end adapted to propel the striking rod and being itself adapted to be propelled by the hammer of the rifle.

2. In a target practice rod, a tube, a spring retractable rod therein, having an extensible end piece.

3. In a target practice rod, a tube, a spring retractable rod therein, having an extensible end piece, said end piece being formed with parallel short and long grooves connected by a transverse groove, a tongue on the rod having a projection adapted to take into one of the grooves.

5. In a target practice rod, a tube, a spring retractable rod therein, having an extensible end piece, said end piece being formed with parallel short and long grooves connected by a transverse groove, and being also formed with a plurality of recesses, a tongue on the rod having a projection adapted to take into one of the grooves and having a spring tongue adapted to take into the recess.

[Claim 4 not printed in the Gazette.]

1,254,070. TARGET-HOLDER FOR PRACTICE-RODS HAVING CASINGS. ROBERT EDWIN REARDON, Ottawa, Ontario, Canada. Filed Mar. 8, 1917. Serial No. 153,479. (Cl. 124—15.5.)

1. A target holder for practice rods having a casing, with a pivoted cartridge pocket therein.

2. A target holder having a casing, and a pair of pivoted pockets.

3. A target holder having a casing, and a pair of pivoted pockets adapted, when in closed position to form one face of the casing.

4. In a target holder, a casing, a pivoted pocket therein and spring means for limiting the swinging of the pocket.

8. In a target practice rod holder, a supporting member and a target block holder on the supporting member

formed with means to embrace the supporting member and with flanges adapted to take into the side of the



target block, and a target block formed with grooves adapted to receive the flanges.

[Claims 5 to 7 not printed in the Gazette.]

1,254,071. CHUCK. WILLIAM F. REINLIE, Chicago, Ill., assignor to Illinois Tool Works, Chicago, Ill., a Corporation of Illinois. Filed Jan. 15, 1917. Serial No. 142,343. (Cl. 51—1.)



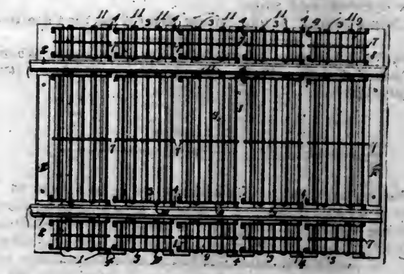
1. A chuck for holding short grinding sticks, said chuck having an internally tapered cap surrounding the stick, a plastic ring surrounding the stick and located between the stick and the cap, and a shank entering the back of the cap and forming a backing for both the ring and the stick.

2. A chuck for holding short cylindrical grinding sticks having squared inner ends, said chuck having an internally tapered cap surrounding the stick and annularly spaced therefrom at the mouth, a plastic ring between the stick and the cap, the outer end of the ring being substantially flush with the outer end of the cap and the inner end of the stick being substantially flush with the inner end of the ring, and a shank secrewing into the back end of the cap and forming a backing for both the stick and the ring.

3. A chuck for holding short grinding sticks, said chuck having an internally tapered cap surrounding the stick, a ring surrounding the stick and located between the stick and cap, and a shank entering the back of the cap and abutting corresponding ends of the ring and stick.

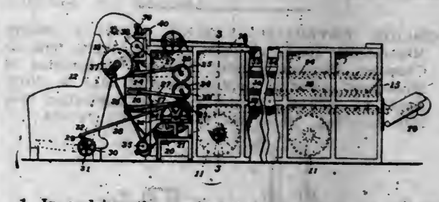
1,254,072. CATTLE-GUARD. GEORGE H. RUSSELL, Florence, Ala. Filed Aug. 30, 1917. Serial No. 188,986. (Cl. 256—15.)

A cattle guard composed of sections, each section comprising side bars, a central bar substantially parallel with and between the side bars and provided with apertures, tubes extending through the apertures and retained by the side bars, each alternate tube rockable on and transversely of the center bar, bosses of less diameter than the inside diameter of the tubes extending from the side bars and entering the ends of the rockable tubes to



limit the movement of the tubes, and means for binding the side bars firmly against the other tubes.

1,254,073. DRIER. FREDERICK G. SARGENT, Westford, Mass., assignor to C. G. Sargent's Sons Corporation, Graniteville, Mass., a Corporation of Massachusetts. Filed June 4, 1917. Serial No. 172,583. (Cl. 193—48.)



1. In a drier, the combination with the drier casing, of a reciprocating conveyer therein, means for reciprocating said conveyer, an endless feed apron for delivering material to said conveyer, and means connected with the first named means for operating said apron intermittently to cause it to feed while the conveyer is moving forward on its feeding stroke and to operate idly when it is moving back so as to prevent the stock piling up on said conveyer.

3. In a drier, the combination with a drier casing, of a reciprocating conveyer therein, a feed apron at one end of the casing, means for operating said feed apron, to deliver to the conveyer only about half the time, whereby the material will not be fed to the conveyer when it is near one end of its stroke, and an oscillating kicker for lifting the fiber as it is deposited on the conveyer by the feed apron, moving it forward thereon in the direction of travel of the conveyer, and loosening it up.

4. In a drier, the combination with a conveyer for fibrous material, of a jointed oscillating kicker support located over the conveyer movable forward and backward positively as a whole, and having operative kicker fingers independently pivoted thereto and movable back independently by gravity.

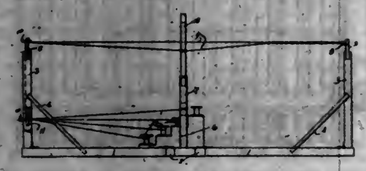
6. In a drier, the combination of a conveyer, a feed apron for delivering stock thereto, an oscillating shaft above the conveyer, arms on said shaft, a plurality of kicker fingers mounted on said arms, whereby said kicker fingers will swing back and forth to raise and loosen the stock, and means for adjusting said shaft comprising adjusting screws and eccentric bushings supported by said screws and carrying the shaft.

9. In a drier, the combination with the drier casing, of a plurality of pairs of fixed rails, the same number of reciprocable rails, freely rotatable rolls between each two pairs of rails, slanting pins movable with the movable rails, stationary members extending across the cas-

ing and having upwardly extending projections, and longitudinal perforated slats carried by said projections for supporting the stock, said pins being located to move between said slats.

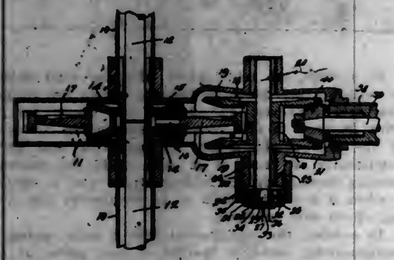
[Claims 2, 5, 7, 8, and 10 not printed in the Gazette.]

1,254,074. LOOM. FRANK SCHWARZ, McCleary, Wash. Filed June 19, 1917. Serial No. 175,564. (Cl. 139—12.)



In the device of the class described the combination of hinged sills, end posts hinged and foldably connected to the said sills, means upon the said end posts for holding warp threads, stationary heddle posts mounted intermediate the said end posts, heddle holders foldably mounted on the upper ends of the said heddle posts, and heddle means normally supported between the said heddle holders.

1,254,075. REVERSING-GEARING. HENRY J. SMITH, Minneapolis, Minn., assignor to H. J. Smith Tractor Company, Hennepin county, Minn., a Corporation of Minnesota. Original application filed May 3, 1915, Serial No. 25,574. Divided and this application filed Mar. 22, 1917. Serial No. 156,710. (Cl. 74—58.)

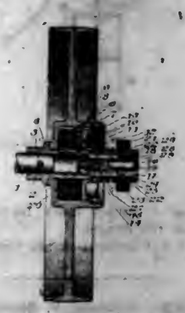


4. In transmission gearing, the combination with an annular gear, of a transverse shaft, opposed bevel gears fixed thereon, gears extending inwardly from said opposed bevel gears and constantly meshing with the annular gear, an interposed bevel gear normally out of mesh with the two opposed bevel gears, means for driving the interposed bevel gear, and means for shifting the transverse shaft longitudinally to bring either of the opposed bevel gears into mesh with the interposed bevel gear without disengaging the intermediate gear from the annular gear.

7. In transmission gearing, the combination with an annular gear, of a transverse shaft, opposed bevel gears fixed thereon, gears extending inwardly from said opposed bevel gears and constantly meshing with the annular gear, an interposed bevel gear normally out of mesh with the two opposed bevel gears, means for driving the interposed bevel gear, and means for shifting the transverse shaft longitudinally to bring either of the opposed bevel gears into mesh with the interposed bevel gear without disengaging the intermediate gear from the annular gear, said means including a threaded member fixedly mounted, a sleeve engaging and extending around said threaded member beyond the end thereof, and a connection between the sleeve and one end of the shaft, said connection including anti-friction devices.

8. In transmission gearing, the combination of an annular gear, a transverse shaft, opposed bevel gears secured thereto, an intermediate gear meshing with the annular gear and secured to the shaft, a bevel gear interposed between and normally out of mesh with the bevel gears on the shaft, a threaded member concentric with the shaft, a sleeve mounted on said threaded member, means for rotating the sleeve, and means movable with the sleeve and engaging the shaft for shifting said shaft longitudinally during the movement of the sleeve, thereby to move either of the opposed bevel gears into mesh with the interposed bevel gear.

1,254,076. FRICTION-CLUTCH. WILLIAM H. F. SMITH, Milwaukee, Wis., assignor to International Harvester Corporation, a Corporation of New Jersey. Filed July 22, 1915. Serial No. 41,253. (Cl. 192—10.)



1. A multiple disk clutch including, in combination, a driving member, a series of clutch disks operatively connected with said driving member, a driven member, a second series of clutch disks operatively connected with said driven member and opposing said first series in alternate relation, a master disk opposing one of said disks and adapted to press the two series of disks in frictional engagement, a spring carried by the driven member and exerting pressure against said master disk, adjustable means carried by said driven member operable to regulate a normal pressure of said spring, and supplemental pressure regulating means carried by said driven member and operable to initially increase the force of said spring.

5. A multiple disk clutch including, in combination, a driving member, a series of clutch disks operatively connected with said driving member, a driven member including a sleeve having said driving member journaled thereon, a second series of clutch disks operatively connected with said sleeve and opposing said first series in alternate relation, a separate master disk journaled upon said sleeve for engaging with one of said disks in a manner to press the two series in frictional engagement, a compression spring carried by the sleeve and exerting pressure against said master disk, an adjustable threaded members operatively connected to said spring, and means operable to lock said member in adjusted position.

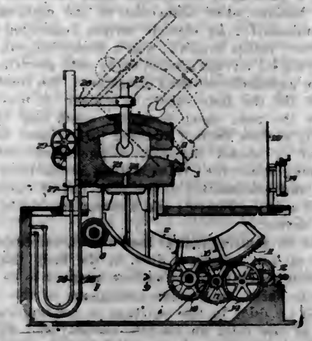
9. A multiple disk clutch including, in combination, driving and driven members, means for regulating normal frictional driving pressure therebetween, and other means through the operation of which the initial pressure may be increased.

10. A multiple disk clutch including, in combination, driving and driven members, means for regulating normal frictional driving pressure therebetween, and means through the operation of which pressure may be increased and which permits the initial pressure to return to normal upon being released.

[Claims 2 to 4 and 6 to 8 not printed in the Gazette.]

1,254,077. ELECTRIC FURNACE. FREDERICK T. SNYDER, Oak Park, Ill. Filed Jan. 19, 1914. Serial No. 812,875. (Cl. 204—64.)

1. A tilting furnace having an arc-shaped foot extending downwardly and forwardly from said furnace whereby unobstructed access to the spout of said furnace is provided, and means for imparting movement to said foot in the direction of the arc thereof to tilt said furnace.



3. A tilting furnace having an arc-shaped foot extending forwardly from the bottom of said furnace whereby unobstructed access to the spout of said furnace is provided, supporting rollers for said foot, said foot and one of said rollers having coöperating surfaces through which said foot gears with said roller, and means for imparting a rotary motion to said last mentioned roller.

12. The combination with a pouring floor, of an arc shaped arm mounted and concealed beneath said floor except for one end which projects through an opening therein, a furnace centrally mounted on said projecting end and having a pouring spout located adjacent to the center of the circle of which said arc is a part, and means for moving said arm along the path of the arc to elevate and tilt said furnace without appreciably moving said spout, said arm permitting unobstructed access to said spout.

[Claims 2, 4 to 11, and 13 to 16 not printed in the Gazette.]

1,254,078. STEEL PROCESS. FREDERICK T. SNYDER, Oak Park, Ill. Filed Jan. 16, 1915. Serial No. 2,535. (Cl. 75—48.)

1. The continuous process of making steel which consists in charging pig-iron into an electric furnace in which there has been retained from a preceding heat a slag high in iron-oxid and lime, removing this slag after the iron oxid has reacted with the silicon of the pig-iron, then adding lime and iron-oxid to the metal bath in sufficient quantities to leave at the end of the heat a slag high in iron-oxid and lime, electrically heating these additions to cause the iron-oxid to react with the carbon and the phosphorus of the pig-iron and finally pouring the metal while retaining the oxidizing slag for a succeeding heat.

2. The continuous process of making steel which is exceptionally low in phosphorus which consists in charging pig-iron, without other slag forming material, into an electric furnace, containing an oxidizing lime slag from the preceding heat, removing this slag after the silicon of the pig-iron has been oxidized, adding lime and iron-oxid to form a new slag and removing the steel in an oxidized condition while retaining this new slag in the furnace.

[Claims 3 and 4 not printed in the Gazette.]

1,254,079. ELECTRIC SMELTING-FURNACE. FREDERICK T. SNYDER, Oak Park, Ill. Filed Mar. 1, 1917. Serial No. 151,719. (Cl. 204—64.)

1. The method of charging an electric furnace which consists in feeding the charge radially inward toward the arc from all sides, in a horizontal plane only.

5. An electric furnace comprising a base, lateral feeding means associated therewith, a frame removably supported on said base and a roof carried by said frame, whereby said roof may be removed to expose said feeding means and the melting chamber.

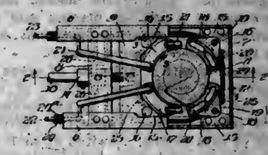


12. The method of charging an electric furnace, which consists in feeding a column of ore and a column of combustible material downwardly near the outer circumference thereof and then forcing said charge laterally into the melting chamber in contact with said roof.

23. An electric furnace having a roof provided with a charging port and a feeder arranged to force the charge laterally against the inner edge of said port, whereby said port is sealed against the escape of gas therethrough.

[Claims 2 to 4, 6 to 11, and 13 to 22 not printed in the Gazette.]

1,254,080. ELECTRODE-HOLDER. FREDERICK T. SNYDER, Oak Park, Ill. Filed Sept. 19, 1917. Serial No. 192,112. (Cl. 204—64.)



1. An electrode holder of the type described, comprising a frame, a plurality of gripping blocks pivoted to said frame, a plurality of gripping blocks movable within said frame and means for adjusting said blocks into clamping engagement with an electrode.

10. An electrode holder of the type described, comprising a box or frame made up of side and end channel members, a plurality of gripping blocks pivoted within said frame, a plurality of electric conductors extending through the channels of said side and end members and into contact with said blocks, and means for adjusting said blocks into clamping engagement with an electrode.

15. In an electrode holder of the type described, means positioned above the furnace for gripping an electrode, and means at the side of said furnace for operating said gripping means.

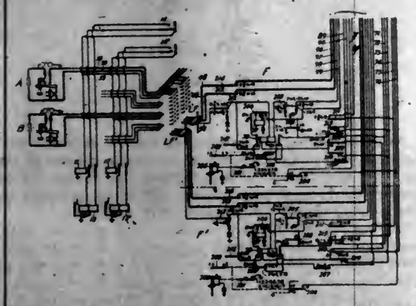
[Claims 2 to 9, 11 to 14, and 16 to 28 not printed in the Gazette.]

1,254,081. TELEPHONE SYSTEM. FRANKLIN A. STEARN, Paterson, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed July 5, 1916. Serial No. 107,540. (Cl. 179—27.)

1. The combination with a switch having a plurality of groups of stationary terminals and adapted for group and individual terminal selection, of a plurality of operators' positions, a group of connecting circuits at each position, each of said groups of circuits having connection with a corresponding group of switch terminals, selection-controlling apparatus controlling the group-selecting operation of said switch, a relay at each operator's position, said relays coöperating in the control of said selection-controlling apparatus, a normally open energizing circuit for each relay, and means actuated in initiating a call for closing said energizing circuits of the relays at unengaged operators' positions.

2. The combination with a plurality of operators' positions, of a group of connecting circuits at each position,

a switch for extending a call to any of the circuits of any of said groups, apparatus for controlling the group-selecting operation of said switch, and means made active in initiating a call for placing said apparatus under the control of said operators' positions.



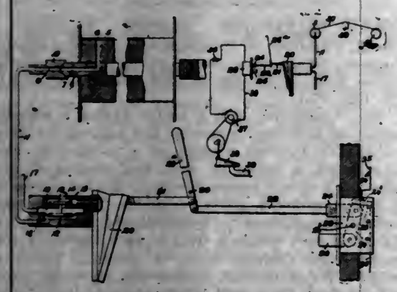
3. The combination with a plurality of operators' positions, of a switch for extending calls thereto, said switch having a normally inactive brush for each operator's position, a tripping magnet for each brush adapted when energized to make the corresponding brush active, apparatus for controlling the selection of a particular one of said trip magnets for energization, means made active upon the initiation of a call for placing said apparatus under the control of said operators' positions, and means for energizing the selected tripping magnet.

4. The combination with a plurality of operators' positions, of a group of connecting circuits at each position, a switch for extending a call to any connecting circuit of any of said positions, apparatus controlling the group selection of said switch, a switch at each operator's position responsive to the busy or idle condition thereof, and means made active in initiating a call for placing said apparatus under the control of said operators' position switches.

5. The combination with a plurality of operators' positions, of a switch for selecting the same to extend calls thereto, a corresponding plurality of magnets associated with said switch, means actuated by each of said magnets when energized to cause said switch to extend a call to the corresponding operator's position, means made operative in initiating a call for selecting one of said magnets for energization, and means made operative thereafter for energizing said selected magnet.

[Claims 6 and 7 not printed in the Gazette.]

1,254,082. AUTOMATIC MUSICAL INSTRUMENT. CHARLES F. STODDARD, Boston, Mass. Filed Nov. 20, 1911. Serial No. 661,232. (Cl. 84—166.)



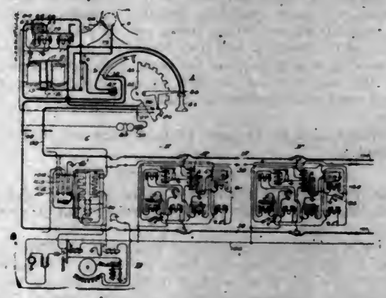
1. In an automatic musical instrument, the combination of a spool for the note sheet; a tracker; a take-up roll to receive the note sheet from the spool and having a vent in the surface thereof adapted to be closed when the note sheet is wound thereon; a diaphragm chamber; a duct connecting the diaphragm chamber with the vent of the take-up roll; a valve controlled by the diaphragm of said chamber; a pneumatic collapsible upon operation of said valve; a handle lever connected to the movable board of said pneumatic; an electric switch connected to said handle lever; feeder bellows; and a feeder-bellows electric motor having its circuit controlled by said electric switch.

4. In an automatic musical instrument, the combination of a spool for the note sheet; a tracker; a take-up roll to receive the note sheet from the spool and having a vent in the surface thereof adapted to be closed when the note sheet is wound thereon; a pneumatic collapsible upon opening said vent; transmitting means intermediate the vent and pneumatic; a stopping device operated by collapse of said pneumatic; and a motor controlled by said stopping device.

7. In an automatic musical instrument, the combination of a take-up roll having a duct in the body thereof extending from a point on the surface adapted to be covered by the note sheet, to a point contiguous to the bearings of the roll; a duct in the bearings to communicate with the duct of the roll; an electric switch; and pneumatic transmission mechanism intermediate said ducts and electric switch for operating the latter.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,254,083. MEASURED-SERVICE TELEPHONE SYSTEM. SAMUEL S. STOLP, Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 29, 1912. Serial No. 680,691. (Cl. 179—6.3.)



1. In a measured service telephone system, a calling and a called subscriber's line, means including automatic switches for establishing a connection between said lines, a coin-collecting device and an impulse-transmitting device at the calling station, means for operating said impulse-transmitting device independently of said coin-collecting device for operating said switches, means independent of said coin-collecting device for ringing on the called line, means allowing partial insertion of a coin in said device prior to the response of the called subscriber, means for collecting said coin when the called subscriber responds, a return chute, and means for returning said coin through said chute if the calling subscriber hangs up before the called subscriber answers.

2. In a measured service telephone system, a calling and a called subscriber's line, means including automatic switches for extending a connection between said lines, a coin-collecting device on said calling line, a magnet for controlling the operation of said coin-collecting device, means for collecting the coin deposited in said device upon the response of the called subscriber by reversing the current through said magnet, a return chute, and means operated by the calling subscriber for returning said coin through said chute if the calling subscriber hangs up before the called subscriber answers.

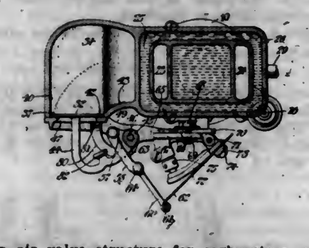
17. In a telephone system, a party-line, means including automatic switches for extending a connection from said party-line, a measured service device on said line, and means controlled by said device for preventing another subscriber on said line from coming in on said line when the same in use.

19. In a telephone system, a party-line, means including automatic switches for extending a connection from said party-line, a measured service device on said line, means for operating said device by reversal of current in the calling line upon the response of the called subscriber, and means controlled by said device for preventing another subscriber from coming in on the line when said line is in use.

20. In a telephone system, a party-line, means including automatic switches for extending a connection from said party-line, a combined lock-out and measured service device on said line for preventing a subscriber from coming in on said line when the same is in use and for rendering the talking circuit inoperative after response of the called subscriber until the calling subscriber has operated said device.

[Claims 3 to 16 and 18 not printed in the Gazette.]

1,254,084. AIR-VALVE FOR CARBURETERS. GEORGE H. TABER, Binghamton, N. Y., assignor to The Taber Carbureter Company, Inc., Binghamton, N. Y., a Corporation of New York. Filed Nov. 24, 1915. Serial No. 63,183. (Cl. 137—26.)



1. In an air valve structure for carbureters, comprising, in combination, an auxiliary inlet of rectangular cross section, a valve chamber having a plurality of straight side walls and an arcuate side wall extending to said rectangular inlet, a swinging flap valve having three sides extending closely to the straight sides of the valve chamber and a fourth side extending closely to the arcuate side wall of said chamber, a pivot for said valve positioned to cause said last mentioned edge to closely follow the arcuate wall on the inward opening of the valve and means in operative association with said flap valve for increasing the resistance to inward opening proportionally to engine suction.

4. In a carbureter, comprising, in combination, an auxiliary air inlet of rectangular cross section, a swinging flap valve of rectangular section and having an offset hinge to cause rapid effective opening of the valve in the initial travel and means in operative association with the valve for increasing the resistance to inward opening proportionally to the increase in engine suction, said means comprising a blade spring and means for progressively varying the action of the blade spring on the valve.

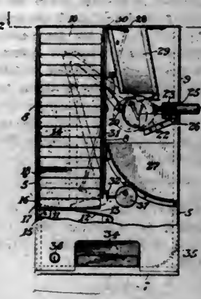
10. In a carbureter, in combination, an inwardly swinging flap valve, a vertical pivot about which said valve is adpated to swing, and a counterbalance for said valve located upon the opposite side of said pivot from said valve, said counterbalance and said vertical pivot preventing vertical shocks or inclinations affecting the said valve.

16. An air valve structure for carbureters, comprising, in combination, a swinging air valve, a blade spring for holding said valve to its seat and resisting the inward movement of said valve under the influence of engine suction, a plurality of adjusting means for said spring, one device adjusting the spring for excessive engine suction, a second device adjusting the said spring for medium degrees of engine suction, and a third device adjusting the spring for low engine suction.

25. In a valve structure for carbureters, the combination of a flap valve, a swinging connection attached to the outer end thereof, a spring attached to said swinging connection, means for adjusting the effective length of the spring, and means for varying the initial tension on spring.

[Claims 2, 3, 5 to 9, 11 to 15, and 17 to 24 not printed in the Gazette.]

1,254,085. VENDING-MACHINE. LOUIS C. TARASCH, Brooklyn, N. Y., assignor to Penny Package Corporation, New York, N. Y., a Corporation of New York. Filed Dec. 14, 1914. Serial No. 877,078. (Cl. 194—75.)



1. A coin controlled vending machine comprising a reservoir for a stack of packages to be ejected, a vertically disposed lever, a horizontally disposed pivot constituting the fulcrum of said lever, the lower arm of said lever being relatively long and having its lower end operatively disposed relative to said reservoir to eject the packages therefrom, the upper arm of said lever being relatively short with the free end thereof positioned offset from a vertical line passing through the fulcrum and positioned below the level of the fulcrum, a plunger mounted for horizontal movement and having one end thereof spaced from the free end of the short arm a distance sufficient to accommodate a coin disposed in vertical edgewise position therebetween, the plunger having a movement toward said free end whereby when a coin is inserted between the plunger and said free end, pressure on the plunger will operate said lever to cause the same to eject a package from the stack and to cause said relatively short arm to move away from the plunger thereby to clear the path of movement of the coin to permit the same to fall away gravitationally from the plunger.

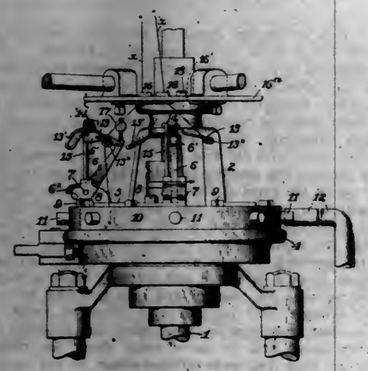
2. A coin controlled vending machine comprising a reservoir for a stack of packages to be ejected, a vertically disposed lever, a horizontally disposed pivot constituting a fulcrum of said lever, said lever having its lower end operatively disposed relative to said reservoir to eject the packages therefrom, a portion of the upper end of said lever being offset to provide a coin engaging part, a plunger having a coin engaging part spaced from said upper end of the lever a distance sufficient to accommodate a coin disposed in vertical edgewise position therebetween, the plunger having a movement toward said upper end whereby when a coin is inserted between the plunger and said upper end pressure on the plunger will operate said lever to cause the same to eject a package from the stack and cause said upper end of the lever to move away from the plunger and away from the coin thereby to clear the path of movement of the coin and permit the same to fall gravitationally away from the plunger.

3. A coin controlled vending machine, comprising a reservoir for a stack of packages to be ejected, a vertically disposed lever, a horizontally disposed pivot constituting the fulcrum of said lever, the lower arm of said lever being relatively long and having its lower end operatively

disposed relative to said reservoir to eject the packages therefrom, the upper arm of said lever being in the form of an inverted V and relatively short with a side thereof designed to have a coin disposed edgewise against the same, a support for the coin when so positioned, a manually actuated coin engaging member designed to engage the edge of the seated coin on the side thereof opposite the lever and to act through the seated coin to cause the lever to swing across the reservoir and eject one of the packages, said manually actuated coin engaging member designed to unseat the coin at the end of its package ejecting stroke and means acting on the lever to return the same to normal position when freed of the holding effect of the coin.

4. A coin controlled vending machine having a discharge outlet and including a reservoir for a stack of packages to be ejected, a bottom plate for supporting the packages, the discharge end of said plate being depressed to permit the advanced end of the packages to dip as they are ejected, a curved wall disposed below the discharge end of the bottom plate and designed to turn the packages as they are discharged and direct them toward said discharge outlet, a lever having a package ejecting end movable across said bottom plate to force the packages toward said curved wall, a plunger and means for positioning a coin between said lever and plunger.

1,254,086. STOP-MOTION. WILLIAM O. TAYLOR, Limerick, Pa., assignor to Wildman Mfg. Co., Norristown, Pa., a Corporation of Pennsylvania. Filed May 1, 1916. Serial No. 94,705. (Cl. 66—7.)

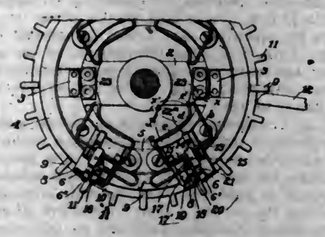


16. In combination in a stop motion for circular knitting machines, a plurality of members revolving with the machine and movable under centrifugal force, a feeler finger connected with each member and subjected to the draft of the yarn individual thereto, said feeler fingers exerting a restraint on the members against movement and a plurality of yarn guides mounted upon an adjustable plate and thereby adjustable simultaneously to vary the points of contact of the yarns with the feeler fingers to vary their restraining power on the members and let off connections controlled by the said members, substantially as described.

[Claims 1 to 15 and 17 to 24 not printed in the Gazette.]

1,254,087. STOP-MOTION FOR KNITTING-MACHINES. WILLIAM O. TAYLOR, Limerick, Pa., assignor to Wildman Mfg. Co., Norristown, Pa., a Corporation of Pennsylvania. Filed Jan. 13, 1917. Serial No. 142,217. (Cl. 66—7.)

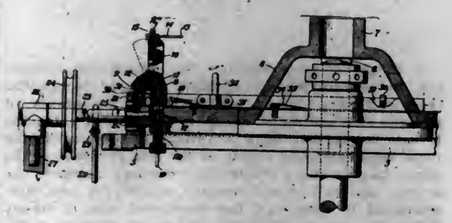
8. In combination in a stop motion for knitting machines, a letoff connection, a member under stress and thereby tending to move into position for operating the letoff connection, a fixed fulcrum, and a feeler lever pivotally mounted on the said member, said feeler lever consisting of a block having a pivot stem seated removably in a socket in the said member and wire arms carried by said block, substantially as described.



12. In combination in a stop motion for knitting machines, a member revolving with the machine subjected to centrifugal force tending to move it from a predetermined position, a letoff connection to be operated by said member, a second member also subjected to centrifugal force and opposing the movement of the first member from said predetermined position and a yarn guide carried by the first centrifugal member, whereby the draft of the yarn opposes the movement of said member under centrifugal force, substantially as described.

[Claims 1 to 7, 9 to 11, and 13 to 27 not printed in the Gazette.]

1,254,088. STOP-MOTION FOR KNITTING-MACHINES. WILLIAM O. TAYLOR, Limerick, Pa., assignor to Wildman Mfg. Co., Norristown, Pa., a Corporation of Pennsylvania. Filed Jan. 13, 1917. Serial No. 142,216. (Cl. 66—7.)

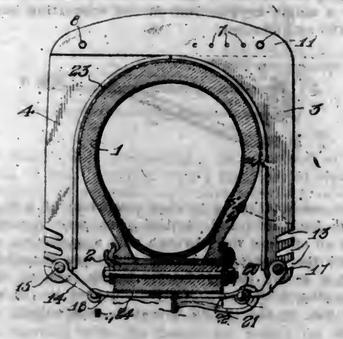


3. In combination in a stop motion for knitting machines, a member movably mounted and controlled by the draft of the yarn to hold it in normal position, a toothed ring arranged adjacent said member and having a projection or projections to be engaged thereby, when the member moves from normal position, a gear engaging the said toothed ring to rotate the same, a shaft carrying said gear at its inner end and pivotally mounted at its outer end to allow said shaft with the gear to have movement about said pivot, means for rotating the shaft and a member forming part of the letoff connection operated by the swinging movement of the shaft when the toothed ring is arrested and the gear rolls on said toothed ring, substantially as described.

5. In combination in a knitting machine, a member movably mounted and arranged to control letoff connections, a feeler lever pivotally mounted on said member and under the draft of the yarn tending to hold said member in normal position, a fixed fulcrum for said feeler and a needle protector connection extending to said member and normally under tension, said connection including a spring pressed rod serving to move said member when the draft of the yarn on the feeler lever fails, said rod being operated by the needle protector and moving the said member in opposition to the restraining influence of said feeler lever, substantially as described.

[Claims 1, 2, 4, and 6 not printed in the Gazette.]

1,254,089. TIRE-SHOE. DANIEL R. THOMAS, Oklahoma, Okla. Filed Oct. 27, 1915. Serial No. 58,124. (Cl. 152—14.)



1. A tire shoe comprising a pair of members each of which is provided with a tire engaging portion and with an extension, said members adapted to be fitted with the extensions in overlapped relation, means by which the members are adjustably connected together through the medium of the extensions and may thus be set to have the tire engaging portions thereof fit over and embrace tires of various sizes, and means to secure the members against displacement from the fitted position.

2. A tire shoe comprising a pair of members each of which is provided with a tire engaging portion and with an extension, said members adapted to be fitted with the extensions in overlapped relation, means by which the members are adjustably connected together through the medium of the extensions and may thus be set to have the tire engaging portions thereof fit over and embrace tires of different sizes, and means adjustably connected with said members to be received over the felly of the wheel on which the tire is mounted to secure the members against displacement, the adjustable connection of the last mentioned means allowing fitting and securement of the device upon tires of different sizes.

3. A tire shoe comprising a pair of duplicate substantially L-shaped members provided with openings through certain of the arms thereof and with these arms mounted in overlapped relation, means to be received through the openings of the overlapped arms to rigidly connect the members together to take a substantially U-shaped form and the parts being thus mounted to be adjustable for reception upon various sizes of tires, and means to secure the shoe in place.

4. A tire shoe comprising a pair of substantially L-shaped members adjustably connected together to take a substantially U-shaped form and to permit variation of the spacing between the parallel arms, the free arm of each of the members provided with spaced apart openings, and means connected in the openings of said free arms to draw across the felly of the wheel to secure the shoe in place and to be adjustable to accommodate the varying spacing of the arms of the members.

1,254,090. AVIATOR'S GOGGLES. CHARLES J. THOPPMAN, Chicago, Ill., assignor to F. A. Hardy & Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 15, 1917. Serial No. 191,507. (Cl. 2—149.)

3. A goggle comprising lenses, rims for said lenses consisting of strips of metal having knuckles provided adjacent the ends of said strips, a hinge link, separate pintles coacting respectively with the knuckles upon each strip and said link, and flexible eye-cups coacting with said rims.

4. A goggle comprising lenses, rims therefor consisting of metal strips and provided with a plurality of longitudinal grooves, knuckles adjacent the ends of said strips, a hinge link, separate pintles coacting respectively with the knuckles on each strip and said link and eye-cups mounted in a pair of said grooves and coacting with said rims.



5. A goggle comprising lenses, rims therefor consisting of strips of metal provided with knuckles adjacent the ends thereof, separate pintles coacting respectively with the knuckles upon each strip, and a member of figure-8 cross-section common to both sets of knuckles and adapted to hold the opposite knuckles in swinging relation.

[Claims 1 and 2 not printed in the Gazette.]

1,254,091. WIRE-REEL. PHILIP D. TRUDELLE, Toronto, Ontario, Canada, assignor to Toronto Type Foundry Company, Limited, Toronto, Ontario, Canada. Filed June 26, 1917. Serial No. 177,081. (Cl. 242—77.)



1. A reel provided with a hub and two ends, one end being detachably secured in place, in combination with a hollow cylinder having a hole in its side; and a coil of wire wound on the cylinder and having its inner end projected through said hole, the hub being adapted to permit the cylinder with its projecting end being slipped thereon and adapted also to engage said end to prevent the coil turning on the hub.

3. A reel provided with a hub and two ends, one end being detachably secured in place, in combination with a stiff hollow cylinder having a hole in its side; a coil of wire wound on the cylinder; and means engaging both the cylinder and the hub to prevent the turning of the coil on the cylinder and the cylinder on the hub, the hub being adapted to permit the cylinder with the engaging means being slipped thereon.

5. A wooden reel provided with a hub and two ends, one end being detachable; a plurality of bolts extending through the hub and provided with wing nuts; a metal plate secured to the inner side of the detachable end provided with slots shaped for the passage of said wing nuts in one position, the inner edges of the wings being adapted to engage the plate when they are turned after passing through the slots, and the detachable end recessed to receive the nuts.

6. A wooden reel provided with a hub and two ends, one end being detachable; a plurality of bolts extending through the hub and provided with wing nuts; a metal plate secured to the inner side of the detachable end provided with slots shaped for the passage of said wing nuts in one position, the inner edges of the wings being adapted to engage the plate when they are turned after passing through the slots, the inner edges of the wings also being beveled to facilitate their rising over the sides of the slots when the wing nuts are turned.

[Claims 2 and 4 not printed in the Gazette.]

1,254,092. FLY-SPAT. JOSEPH M. VAIL, Bryan, Ohio. Filed July 20, 1917. Serial No. 181,800. (Cl. 43—1.)



1. In a spat of the class described, a handle, a lever having a spat at one end, and spring means carrying said lever intermediate its ends and having a part fixed to the handle, said means normally retaining the spat end of the lever adjacent to the handle at one side thereof.

6. In a spat of the class described, a handle, a spring wire having an end inserted into the end of the handle, thence forming a spring coil in side abutment with the handle, and thence extending in opposite directions tangentially of the coil to form a lever having a short arm and a long arm, said long arm having a spat, said lever normally extending with the spat end thereof adjacent to one side of the handle, and a ferrule mounted on the handle end to which said wire is attached and having tongues which enter the wire coil and embrace a part thereof.

[Claims 2 to 5 not printed in the Gazette.]

1,254,093. SAFETY-RAZOR. HELIER ALEXANDRE VINCENT, London, England, assignor, by mesne assignments, to Marie-Therese Elisabeth Salerni, (*née* Couci,) Sydenham Hill, London, England. Filed July 24, 1917. Serial No. 182,455. (Cl. 30—12.)



1. A safety razor comprising a holder for the razor blade, an overhanging stop thereon, a handle and a resilient member carried by the inner end of the said handle which bears against the inner surface of the blade at a part to the rear of the said stop to resiliently press a part of the outer surface of the blade, nearer the edge, against the said stop.

2. A safety razor comprising a holder for the razor blade, an overhanging stop thereon, a removable handle, a slidable pin arranged axially in the inner end of the said handle, a spring within the handle tending to press the said pin out from the inner end of the handle, the said pin when the said handle is in place bearing on the inner surface of the blade at a part to the rear of the said stop to resiliently press a part of the outer surface of the blade, nearer the edge, against the said stop.

[Claim 3 not printed in the Gazette.]

1,254,094. ADJUSTABLE BRACKET. ENGELBERT J. VOGT, Grand Rapids, Mich. Filed Oct. 16, 1916. Serial No. 125,988. (Cl. 248—19.)

1. In combination, a supporting bar provided with keyhole slots, a bracket consisting of a bar bent to form outwardly extending and vertical arms, a headed stud attached to the vertical arm and a lug struck from the vertical arm above the headed stud, said lug and stud both projecting to the rear of said arm and both being received within a single keyhole slot on the supporting bar, substantially as described.

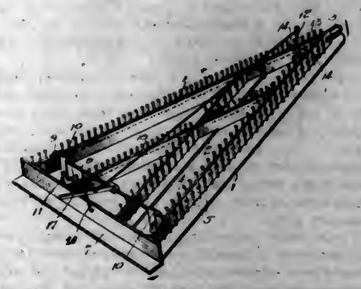


3. In combination, a bracket comprised of a bar bent to form horizontal and vertical arms, said vertical arm having an opening therethrough with a projection extending into the opening, a headed and screw-threaded stud having a groove throughout its length inserted through the opening with the projection inserted in the groove, and a nut on the end of the stud, substantially as described.

5. In combination, a bracket composed of a bar bent to form horizontal and vertical arms, said vertical arm having an opening therethrough with a projection extending into the opening, a headed and screw-threaded stud having a groove lengthwise thereof inserted through the opening with the projection received in the groove, a nut threaded on the stud, said stud after placing the nut thereon being staked to prevent removal of the nut, a lug struck from the vertical arm above the stud, a lip turned upwardly from the end of the horizontal arm, and a clip secured to said horizontal arm having a horizontal portion extending backward over the lip, substantially as described.

[Claims 2 and 4 not printed in the Gazette.]

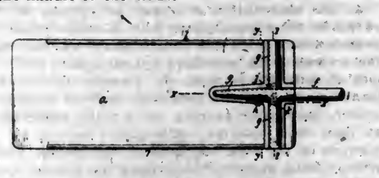
1,254,095. HARROW AND DRAG. WILLIAM WILLARD WARD, Dublin, Ga. Filed July 7, 1917. Serial No. 179,202. (Cl. 37—5.)



A road working implement, comprising a substantially triangular frame consisting of outer side members converging at their front, inner side members extending substantially parallel with the outer side members in spaced relation, teeth connected with each of the side members in close relation and extending below the said members and designed to tear up the soil, a drag forming the base of the frame and extending below the teeth and connected with the side members at their rear ends for smoothing the torn up soil, draft mechanism at the apex of the frame.

1,254,096. BAKER'S PEEL. DAVID WEISSNERG, South Bethlehem, Pa. Filed June 2, 1915. Serial No. 31,649. (Cl. 107—67.)

1. A baker's peel comprising a blade formed of sheet metal provided with a longitudinal socket for the insertion of a handle, transverse sockets located on the blade, and means coacting with the transverse sockets for fastening the handle to the blade.

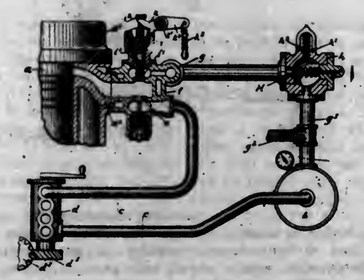


3. A baker's peel comprising a blade formed of a single sheet of metal provided with a longitudinal socket for the insertion of a handle, and having transverse sockets contiguous to the longitudinal socket, and devices engaging the walls of the transverse sockets for fastening the handle to the blade.

5. A baker's peel comprising a sheet metal blade formed with a longitudinal and transverse channel, a channeled cap to cover and form sockets conjunctly with the channels, a handle inserted into the longitudinal socket, and means coacting with the transverse socket for engagement with the handle.

[Claims 2 and 4 not printed in the Gazette.]

1,254,097. INTERNAL-COMBUSTION ENGINE. CARL W. WEISS, Brooklyn, N. Y. Filed Mar. 10, 1917. Serial No. 153,802. (Cl. 123—181.)



1. In an internal combustion engine in combination with a working cylinder, a source of compressed starting medium, a valve to control the admission of the medium to the cylinder, a return connection from the cylinder to the source, a check valve to prevent the return flow of the compressed medium through said connection from the source, and a manual relief valve communicating with said connection at a point between the said check valve and the cylinder.

2. In an internal combustion engine in combination with a working cylinder, a source of compressed starting medium, a valve to control the admission of the medium to the cylinder, a return connection from the cylinder to the source, a check valve to prevent the return flow of the compressed medium through said connection from the source and a combined automatic and manual relief valve communicating with said connection at a point between the said check valve and the cylinder.

3. In a multicylinder internal combustion engine in combination with the working cylinders thereof, a source of compressed air, a valve to control the admission of the air to the cylinders, a common return connection from the cylinders to the source, two check valves interposed in said connection to prevent the return flow of the air through the connection to the cylinders and a combined automatic and manual relief valve in the connection between said check valves.

4. In a multicylinder internal combustion engine in combination with the working cylinders thereof, a source of compressed air for starting, a valve to control the admission of the air to the cylinders, a common return connection from the cylinders to the source, two check valves in the connection to prevent the return flow of compressed air through the connection to the cylinders, a combined automatic and manual relief valve communicating with the connection at a point between said check valves and an independent safety relief valve interposed in the connection between the source of compressed air and that check valve which is subjected to the direct pressure thereof.

1,254,098. MEANS FOR PREVENTING SHOES FROM TREADING OVER. LOUIS B. WESTON, Brockton, Mass. Filed Apr. 24, 1917. Serial No. 164,250. (Cl. 36—71.)

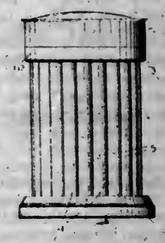


1. A shoe in which the foot-supporting surface slopes laterally downward from the outer side toward the inner side of the shoe at its fall portion and from the inner side to the outer side of the shoe at its heel portion.

8. An inner sole comprising upper and lower layers of thin material each provided along the ball portion thereof with a notched extension, and inserts located between said upper and lower layers at the outer side of their ball portions and the inner side of their heel portions, said inserts being wedge-shaped in transverse section and having their thicker margins extending along the corresponding edges of the inner sole, and said extensions being turned upward and fastened together just above the edge of the ball portion to form a reinforcing lip.

[Claims 2 to 7 not printed in the Gazette.]

1,254,099. NEEDLE-HOLDER. JOHN A. WILLIAMS, Richmond Hill, N. Y., assignor to The Williams-Purchas Manufacturing Co., Morris Park, N. Y., a Firm composed of John A. Williams, Walter G. Purchas, and Maud I. Purchas. Filed Oct. 20, 1916. Serial No. 126,699. (Cl. 223—60.)



1. A needle holder comprising a frame and a series of needle tubes mounted therein, in combination with individual shutters on the top of the frame for opening and closing the tubes, and a cap which covers the whole.

4. A device of the character described comprising a plurality of needle tubes arranged around a central space, a thimble cup in the space surrounded thereby, and a removable closure over the cup.

11. A device of the character described, comprising a base and top having alined perforations, needle tubes inserted in said perforations, the base being hollow, and a sheet of soft material overlying the bottom of the chamber in the base, on which sheet the needles may rest.

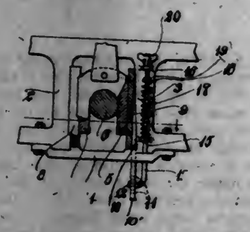
[Claims 2, 3, and 5 to 10 not printed in the Gazette.]

1,254,100. FUEL-MIXER. FREDERICK M. WILLIS, New York, N. Y., assignor to S.-P. Vaporizer Company, New York, N. Y., a Corporation of New York. Filed Oct. 10, 1916. Serial No. 124,856. (Cl. 48—180.)



As a new article of manufacture, a device of the class stated, comprising a pair of opposed wire mesh screens; a gasket of soft metal interlocking with opposed margins of the screens; and a separable, upstanding open-ended metal spacer fixedly positioned between the opposed central portions of the screens; such spacer having a contracted upper end and an imperforate trough at its lower end.

1,254,101. WEDGE-RETAINING DEVICE. JOHN B. WILSON, Pasco, Wash. Filed Dec. 27, 1916. Serial No. 139,188. (Cl. 105—113.)



1. In a device of the character described, the combination with the axle box, box supporting pedestal, and horizontal yoke member, of a vertically disposed wedge interposed between the box and pedestal and having a stem extending through and below the yoke member, a rod disposed in parallel relation to said wedge and mounted upon said pedestal, a spring serving to exert upward tension upon said rod, and means for coupling the stem to the rod.

[Claim 2 not printed in the Gazette.]

1,254,102. GASEOUS-FUEL MIXER. JULIUS VON WLADKOWSKY, New York, N. Y., assignor to S.-P. Vaporizer Co., New York, N. Y., a Corporation of New York. Filed June 13, 1914. Serial No. 844,912. (Cl. 48—180.)



1. A gaseous fuel mixer comprising a dish-shaped screen, a second screen forming a segment of a sphere associated with said first screen, said second screen engaging the dish-shaped screen with its convex part, porous material between the central parts of said screens, said dish-shaped screen having a central depressed portion forming a seat for the porous material, a ring connecting the two screens together, whereby the second screen maintains the porous material in its seat, and whereby said screens form a gauze container, and a support for said container engaging said ring, said support forming a gasket.

2. As an article of manufacture, a gauze fuel mixer comprising a gasket plate having a central opening and an annular seat at the opening, a gauze container formed of two sections having marginal flanges, a ring positioned in the seat of the gasket plate and engaging the flanges of the sections of the container, and porous material in the central portion of the container adapted to leave an annular space about the porous material in the said container.

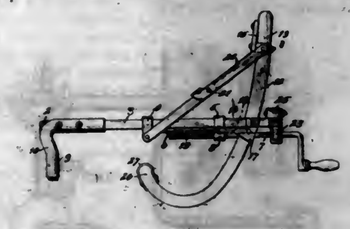
3. The combination of a pair of screens the margins of which are superimposed with a compressible metallic gasket which holds the superimposed margins together; the screens being elsewhere spaced apart; and a spacer located centrally between the screens and held in place by the pressure of the screens on opposed portions of the spacer, the spacer keeping the screens separated except at their said margins; said gasket having an opening spanned by the separated screens, the greater area of the screens being unobstructed around the central spacer and within the wall of the central opening, the upper screen rising upwardly away from the under screen, and the spacer serving to hold the screens separated.

4. A structure as specified in claim 3, in which the screens are severally concavo-convex and mounted with their convex walls upward.

5. A structure as specified in claim 3, in which the gasket wall inclosing the screened opening of the gasket is formed with deformable gas-tight-joint-forming annular shoulders.

[Claims 6 to 8 not printed in the Gazette.]

1,254,103. WINDOW CHAIR OR SCAFFOLD. PAUL WOLFF, Pittsburgh, Pa. Filed June 21, 1915, Serial No. 35,472. Renewed July 6, 1917. Serial No. 179,097. (Cl. 20—87.)



1. In a device of the character described, the combination with a base piece having a depending forward clamping foot, a frame member carried by and longitudinally shiftable with respect to said base piece, means for positively shifting said frame, a back rest pivoted to said frame and having a lower clamping foot, and hinged side braces extending from said back rest to said frame, substantially as shown and described.

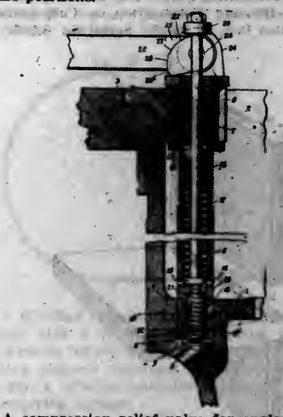
4. In a device of the character described, the combination with a base piece having a depending forward foot, rail members mounted along the side edges of said base piece, a plurality of transverse members disposed beneath said base pieces and supported by and movable along said rail members, means for holding said transverse members in a fixed position relatively to one another, means for positively shifting said transverse members along the rails, a back rest pivotally supported by one of said transverse members, and hinged side bars extending from the back rest at an angle to said other transverse member, substantially as shown and described.

[Claims 2 and 3 not printed in the Gazette.]

1,254,104. RELIEF-VALVE FOR INTERNAL-COMBUSTION ENGINES. LEON WYGODSKY, Baltimore, Md., assignor to Baltimore Oil Engine Company, Baltimore, Md., a Corporation of Delaware. Filed Dec. 26, 1916. Serial No. 138,989. (Cl. 123—182.)

1. A compression relief valve for engines comprising a vibrating ported double beat valve arranged to be vibrated by successive compression impulses of the engine and arranged to shut off compression relief when in either extreme position, but to permit compression relief when in intermediate positions, and means acting to throttle escape through the port of such valve when said valve is near one of such extreme positions.

2. A compression relief valve for engines comprising a vibrating ported double beat valve arranged to be vibrated by successive compression impulses of the engine, and having a relief port through which relief may occur in intermediate positions of said valve, but through which flow is closed when said valve is in either of its extreme positions, and means acting to throttle escape through the port of such valve when said valve is near one of such extreme positions.



3. A compression relief valve for engines comprising a ported double beat valve arranged to be vibrated by successive impulses of the engine, and having a relief port through which relief may occur in intermediate positions of said valve, but through which flow is closed when said member is in either of its extreme positions, means acting to throttle escape through the port of such valve when said valve is near one of such extreme positions, and elastic pressure means tending to hold said valve in one of its extreme positions, but arranged to permit such valve to move to or toward its other closed position under the influence of compression pressure.

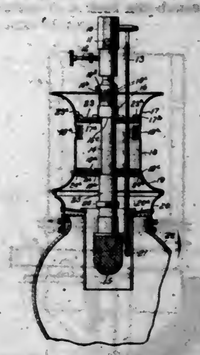
4. A compression relief valve for engines, comprising a valve cage seated in a suitable chamber of the engine, which chamber is connected to the engine cylinder, said cage having front and rear valve seats, and a hollow ported vibrating valve within said cage arranged to be vibrated by successive compression impulses of the engine and to seat against one or the other of such valve seats in its vibration, and in intermediate positions to permit compression relief through said cage, said cage arranged to throttle escape through the port of said valve when that valve is near its rear seat.

5. A compression relief valve for engines, comprising a valve cage seated in a suitable chamber of the engine, which chamber is connected to the engine cylinder, said cage having front and rear valve seats, and a hollow ported vibrating valve within said cage arranged to be vibrated by successive compression impulses of the engine and to seat against one or the other of such valve seats in its vibration, and in intermediate positions to permit compression relief through said cage, said cage arranged to throttle escape through the port of said valve when that valve is near its rear seat, and elastic pressure means tending to hold said valve in one of its extreme positions.

[Claims 6 to 11 not printed in the Gazette.]

1,254,105. INVERTED INCANDESCENT GAS-LAMP. FRANK YOKEL, Pittsburgh, Pa., assignor to Pittsburgh Lamp, Brass & Glass Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Aug. 11, 1915. Serial No. 44,865. (Cl. 67—94.)

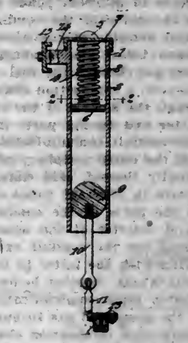
1. In incandescent gas lamps of the inverted type, gas and air admission means, a mixing-tube, a burner, a sectional casing forming a conduit for the products of combustion and including outer sections and an intermediate section encircling the mixing-tube, said intermediate section having diametrically disposed outlet ports, a diaphragm in the conduit separating the intermediate and the outer sections, diametrically extending members mounted



on the mixing-tube, and means on the mixing-tube cooperating with said members for clamping the sections together.

[Claims 2 to 4 not printed in the Gazette.]

1,254,106. SHOCK-ABSORBER. JOHN H. YOUNG, Bartlesville, Okla. Filed June 20, 1917. Serial No. 175,846. (Cl. 267—24.)



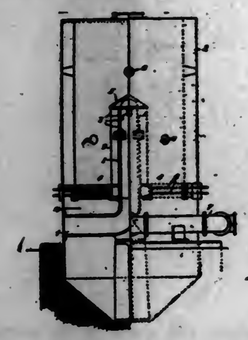
A shock absorber, comprising a cylinder provided with an aperture in its head end, a resiliently held valve in the cylinder having a stem reciprocating through the aperture, said valve provided with an opening and said cylinder having an air port between the head end and the normal position of the valve, a globular piston reciprocating in the cylinder below the valve, a piston rod carried by the piston, means for pivotally connecting the piston rod to the running gear of a vehicle, and means for connecting the cylinder to the body of a vehicle.

1,254,107. GENERATOR FOR GAS-PRODUCER PLANTS. GEORGE HAMILTON ALLEN, North Fremantle, Western Australia, Australia. Filed July 27, 1915. Serial No. 42,150. (Cl. 48—76.)

1. In a gas producer, a combustion chamber, an air intake extending into the chamber and communicating therewith through laterally arranged ports in the intake, said chamber having supplementary air ports in the outer wall thereof whereby air is supplied to the interior and exterior of the mass of fuel in the chamber and means below the combustion chamber to draw the generated gas through the fuel.

2. In a gas producer, a combustion chamber, an air intake extending centrally into the chamber and communicating therewith through lateral ports arranged in different zones of the intake, said chamber having ports in its outer wall arranged in different zones constituting

supplemental air inlets, whereby air is supplied to the interior and exterior of the mass of fuel in the chamber and means below the combustion chamber to draw the generated gas through the fuel.



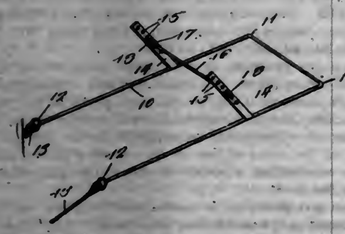
3. In a gas producer, a combustion chamber, an air conduit passing through the bottom of the chamber and upward into the latter and having ports in different zones through which the conduit communicates with the chamber, radial ribs on the outer periphery of the conduit extending longitudinally thereof, said chamber having supplementary air ports in different zones of its outer wall coöperating with the ports of the conduit to supply air to the interior and exterior of the mass of fuel in the chamber and means below the combustion chamber to draw the generated gas through the fuel.

4. In a gas producer, a combustion chamber, an air conduit passing through the bottom of the chamber, and upward into the latter and having ports in different zones through which the conduit communicates with the chamber, radial ribs on the outer periphery of the conduit extending longitudinally thereof, said chamber having supplementary air ports in different zones of its outer wall coöperating with the ports of the conduit to supply air to the interior and exterior of the mass of fuel in the chamber, a covering for the conduit extending over the ribs and coöperating with the latter to form an air space around the conduit, a gas chamber below the combustion chamber, and suction pipes communicating with the gas chamber to draw the generated gas through the fuel.

5. In a gas producer, a combustion chamber having air ports in its outer wall, and an air conduit having a plurality of separate longitudinal passages passing through the bottom of the chamber and upward into the latter and having ports in different zones through which the passages communicate with the chamber.

[Claim 6 not printed in the Gazette.]

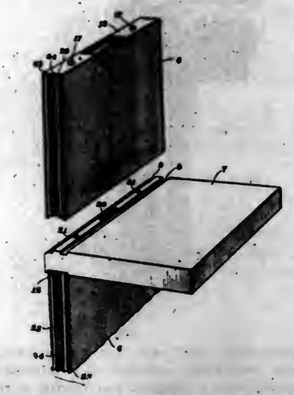
1,254,108. ICE-LOADER. FARLIE REED ANDRUS, Motley, Minn. Filed May 7, 1917. Serial No. 167,034. (Cl. 37—9.)



1. A device of the character described comprising a substantially U-shaped member, means for attaching a cable to the U-shaped member, an arm projecting from each side of the U-shaped member, and provided with a plurality of perforations, and a rod removably secured to said arms.

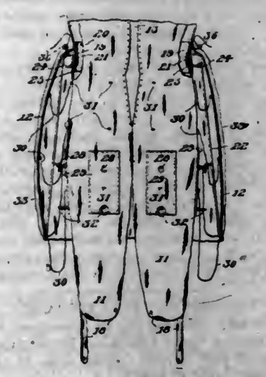
[Claim 2 not printed in the Gazette.]

1,254,109. SECTIONAL CEMENTITIOUS STRUCTURE. GROSVENOR ATTERBURY, New York, N. Y., assignor to Standardized Housing Corporation, a Corporation of Delaware. Filed Feb. 15, 1915. Serial No. 8,205. (Cl. 72—1.)



A structure composed of floor slabs and wall slabs, the floor slabs being rabbeted on their upper and lower surfaces adjacent the outer edges thereof, for the reception of the lower and upper edges of the upper and lower wall slabs, said upper and lower wall slabs being each provided with an open vertical void extending substantially throughout its length, and said floor slabs being provided with a vertical void which registers with and effects communication between the voids of said wall slabs, and thereby provides an uninterrupted passage throughout the wall, for the purpose of ventilation and the like.

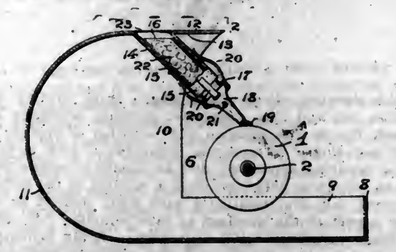
1,254,110. AERONAUTICAL GARMENT. JOHN BAKOS, Newark, N. J. Filed Oct. 18, 1917. Serial No. 197,298. (Cl. 244—21.)



3. An aeronaut's suit comprising a bloomer section and a skirt section, ribs carried by the bloomer and skirt section, each rib including a shank, the upper end of said shank being convoluted to form a spring, an extension carried by said spring adapted for securing the rib to the bloomer section, a hook carried intermediate the ends of the rib shank, a hinged ring carried by the bloomer section adapted to engage said hook to hold the same normally adjacent the bloomers, and manually-operable means for releasing the ring from the hook to permit the skirt section and ribs to be distended.

[Claims 1 and 2 not printed in the Gazette.]

1,254,111. GRINDING OR POLISHING APPARATUS. WALTER F. BARRY, Orange, N. J. Filed Feb. 6, 1917. Serial No. 146,869. (Cl. 51—1.)



1. A grinding or polishing apparatus comprising in combination with a grinding or polishing element, a pan-shaped casing formed with a hood-shaped portion, a tubular receiving element connected with said hood-shaped portion, and a lubricant-containing element connected with said receiving element.

2. A grinding or polishing apparatus comprising in combination with a grinding or polishing element, a pan-shaped casing formed with a hood-shaped portion, a tubular receiving element connected with said hood-shaped portion, and a lubricant-containing element slidably and adjustably connected with said receiving element.

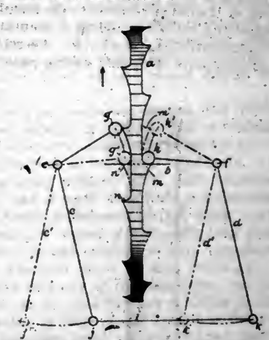
3. A grinding or polishing apparatus comprising in combination with a grinding or polishing element, a pan-shaped casing formed with a hood-shaped portion, a tubular receiving element connected with said hood-shaped portion, a lubricant-containing element slidably and adjustably connected with said receiving element, a wick-containing conveyer connected with said lubricant-containing element, a wick-adjusting means connected with said conveyer, and means connected with said conveyer and coöperating with said lubricant-containing element and with said receiving element for retaining said lubricant-containing element in its adjusted relation to said receiving element.

4. A grinding or polishing apparatus comprising in combination with a grinding or polishing element, a pan-shaped casing formed with a hood-shaped portion, a tubular receiving element connected with said hood-shaped portion, a lubricant-containing element, slidably and adjustably connected with said receiving element, and spring fingers connected with and extending from said lubricant-containing element, said fingers having portions in slidable engagement with said receiving element for retaining said lubricant-containing element in its adjusted relation to said receiving element.

5. A grinding or polishing apparatus comprising in combination with a grinding or polishing element, a pan-shaped casing formed with a hood-shaped portion, a tubular receiving element connected with said hood-shaped portion, a tubular lubricant-containing element telescopically mounted in said receiving element, and a wick-containing element connected with said lubricant-containing element.

1,254,112. MOTION-TRANSLATING MECHANISM. AUGUST H. BASTIAN, Hillsdale, Oreg. Filed May 16, 1917. Serial No. 169,128. (Cl. 74—14.)

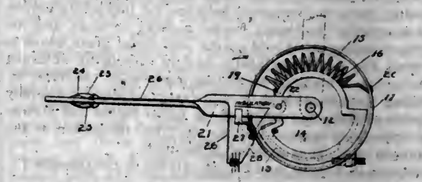
1. In a mechanism of the character described, the combination of a circular, rotated element provided with oppositely disposed alternating peripheral teeth, duplicate bell-cranks pivoted on axes lying in a plane parallel to the axis of rotation of said rotated element, said bell-cranks comprising each a member engaging with the related teeth of said rotated element, and the other members of said bell-cranks being coupled together, thereby to transmit reciprocating motion in a line whose general direction is parallel to said axis of rotation.



4. In a mechanism of the character described, the combination of a rotated annular member provided with laterally projecting, opposite, alternating peripheral teeth, duplicate bell-cranks pivoted on axes lying in a plane parallel to the axis of rotation of said rotated member, said bell-cranks comprising each a member engaging with the related teeth of said rotated member, the extremity of said member of the bell-crank being provided with anti-friction means, and the other members of said bell-cranks being coupled together, thereby to transmit reciprocating motion in a line whose general direction is parallel to said axis of rotation.

[Claims 2 and 3 not printed in the Gazette.]

1,254,113. VEHICLE-SIGNAL. CHESTER H. BEARDSLEY, Arlington, Oreg. Filed July 5, 1916. Serial No. 107,607. (Cl. 116—31.)



1. In a vehicle signal device, a hollow cylindrical container adapted to be mounted upon the dash board of said vehicle and having therein an opening upon the circumferential face thereof partially surrounding the same; a rotatable member pivotally mounted within said container and comprising a substantially semicircular peripherally grooved rim portion and a substantially semicircular cylindrical rim portion; a pointer arm secured to said rotatable member and extending beyond said container through said opening in the same; a spring within said container intermediate the circumference of the same and said cylindrical rim portion, one end thereof being secured to said rotatable member and the opposite end thereof being secured to said container; and a flexible member secured to said rotatable member, passing outside of said container, and coacting with said grooved rim portion to rotate said rotatable member and said pointer arm attached thereto.

[Claim 2 not printed in the Gazette.]

1,254,114. PORTABLE ELECTRIC LIGHT. BERNARD BENEDICT, New York, N. Y., assignor to National Carbon Company, New York, N. Y., a Corporation of New York. Filed June 14, 1917. Serial No. 174,655. (Cl. 240—8.5.)

1. A portable electric light having, in combination, a metallic casing part, a metallic reflector inserted therein in spaced relation thereto, a metallic lamp socket in electrical connection with the reflector, a glass disk closing the outer

end of the casing part and pressing upon the outer rim of the reflector for holding the reflector therein in spaced relation to the casing part, means for holding the glass disk in place on the end of the metallic casing part, means additional to said glass disk for supporting the lamp socket and the reflector in insulated relation to the metallic casing part, such supporting means including a metallic contact plate, and circuit-controlling means for electrically connecting said contact plate with said casing part.



3. A portable electric light having, in combination, a metallic reflector part, a metallic contact-making part, a metallic lamp socket carried by one of these parts in electrical continuity therewith, and a metallic sleeve for the lamp socket carried by and in electrical continuity with the other of said parts and in electrical connection with the lamp socket.

20. A portable electric light having, in combination, a metallic supporting plate, a metallic contact plate supported by the supporting plate, an insulating plate interposed between said metallic plates, another insulating plate outward from one of said metallic plates so that one of said metallic plates is interposed between the insulating plates, and a metallic fastening device passing through and securing together all of said plates, said metal plate which is between the insulating plates having therein an enlarged opening into which the insulating material of the outer insulating plate is pressed by said fastening device, whereby relative shifting movement of the metal plates and fastening device is prevented and the electrical insulation of the metal plates from each other is assured.

[Claims 2, 4 to 19, and 21 not printed in the Gazette.]

1,254,115. COMBINED DRINKING-STRAW AND CONTAINER. HERBERT A. BRAND, Chicago, Ill. Filed Mar. 16, 1916. Serial No. 84,722. (Cl. 206—46.)

1. A combined drinking straw and container, comprising a tubular member, open from end to end, and adapted to contain drinkable material when diluted, the ends of said tubular member being sealed by detachable end members which may be removed to empty the contents, whereby when so removed the tubular member serves as a drinking straw.

[Claim 2 not printed in the Gazette.]

1,254,116. SIGNALING-CIRCUIT. GEORGE A. CAMPBELL, Montclair, N. J., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed Aug. 18, 1917. Serial No. 186,912. (Cl. 179—81.)



1. A signaling circuit comprising a three winding induction coil and four component elements consisting of a path for the transmission and reception of signals, a path including a transmitting apparatus, a path including a receiving apparatus, and an auxiliary resistance; one of said three paths including a winding of the induction coil, said first mentioned path being shunted by at least a part of the windings of said induction coil, said auxiliary resistance being in a series circuit including said first mentioned path, and said auxiliary resistance and the other two paths having a common terminal.



3. A signaling circuit comprising a three winding induction coil and four component elements consisting of a path for the transmission and reception of signals, a path including a transmitting apparatus, a path including a receiving apparatus, and an auxiliary resistance; one of said three paths including a winding of the induction coil, said first mentioned path being shunted by at least a part of the windings of said induction coil, said auxiliary resistance being in a series circuit including said first mentioned path, and said auxiliary resistance and the other two paths having a common terminal, said elements being so proportioned and related that the impedance of the combination comprising said induction coil, said auxiliary resistance and said paths including transmitting and receiving apparatus, as seen from said first mentioned path, is equal to the impedance of said first mentioned path.

4. A signaling circuit comprising a three winding induction coil and four component elements consisting of a path for the transmission and reception of signals, a path including a transmitting apparatus, a path including a receiving apparatus, and an auxiliary resistance; one of said three paths including a winding of the induction coil, said first mentioned path being shunted by at least a part of the windings of said induction coil, said auxiliary resistance being in a series circuit including said first mentioned path, and said auxiliary resistance and the other two paths having a common terminal, said elements being so proportioned and related that said path including receiving apparatus and said path including transmitting apparatus are conjugate.

6. A signaling circuit comprising a three winding induction coil and four component elements consisting of a path for the transmission and reception of signals, a path including a transmitting apparatus, a path including a receiving apparatus, and an auxiliary resistance; one of said three paths including a winding of the induction coil, said first mentioned path being shunted by at least a part of the windings of said induction coil, said auxiliary resistance being in a series circuit including said first mentioned path, and said auxiliary resistance and the other two paths having a common terminal, said elements being so proportioned and related that the impedance of the combination comprising said induction coil, said first and last mentioned paths and said resistance, as seen from said second mentioned path, is equal to the impedance of said second mentioned path, the impedance of the combination comprising said induction coil, said auxiliary resistance and said paths including transmitting and receiving apparatus, as seen from said first mentioned path, is equal to the impedance of said first mentioned path, said path including receiving apparatus and said path including transmitting apparatus are conjugate and said auxiliary resistance and said first mentioned path are conjugate.

[Claims 2 and 5 not printed in the Gazette.]

1,254,117. SIGNALING-CIRCUIT. GEORGE A. CAMPBELL, Montclair, N. J., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed Aug. 18, 1917. Serial No. 186,913. (Cl. 179—81.)

1. A signaling circuit comprising a three winding induction coil and four component elements consisting of a

line, a transmitter, a receiver and an auxiliary resistance, three of said component elements having a common terminal, the remaining component element being serially connected to the opposite terminal of one of said elements and connected to the opposite terminal of the other two elements through the windings of said induction coil, said remaining component element being also shunted by at least a portion of the windings of said induction coil.



4. A signaling circuit comprising a three winding induction coil and four component elements consisting of a line, a transmitter, a receiver and an auxiliary resistance, three of said component elements having a common terminal, the remaining component element being serially connected to the opposite terminal of one of said elements and connected to the opposite terminal of the other two elements through the windings of said induction coil, said remaining component element being also shunted by at least a portion of the windings of said induction coil, said elements being so proportioned and related that the receiver and transmitter are conjugate.

7. A signaling circuit comprising a three winding induction coil and four component elements consisting of a path for the transmission and reception of signals, a path including a transmitting apparatus, a receiving apparatus, and a path including balancing impedance, one of said three paths including a winding of said induction coil, said second mentioned path being shunted by at least a portion of the windings of said induction coil, said receiving apparatus being in a series circuit including said second mentioned path, and said receiving apparatus and the other paths having a common terminal.

12. A signaling circuit comprising a three winding induction coil and four component elements consisting of a path for the transmission and reception of signals, a path including a transmitting apparatus, a receiving apparatus, and a path including balancing impedance, one of said three paths including a winding of said induction coil, said second mentioned path being shunted by at least a portion of the windings of said induction coil, said receiving apparatus being in a series circuit including said second mentioned path, and said receiving apparatus and the other paths having a common terminal, said elements being so proportioned and related that the impedance of the combinations comprising said induction coil, said receiving apparatus and said first and third mentioned paths, as seen from the second mentioned path, is equal to the impedance of said second mentioned path, the impedance of the combination comprising said induction coil, said receiving apparatus and said second and third mentioned paths, as seen from said first mentioned path, is equal to the impedance of said first mentioned path, said receiving apparatus and said path including a transmitting apparatus are conjugate, and said path including balancing impedance and said first mentioned path are conjugate.

[Claims 2, 3, 5, 6, and 8 to 11 not printed in the Gazette.]

1,254,118. SIGNALING-CIRCUIT. GEORGE A. CAMPBELL, Montclair, N. J., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed Aug. 18, 1917. Serial No. 186,914. (Cl. 179—81.)



1. In a two way signaling system, the combination of a transformer having a plurality of windings, and four component elements consisting, respectively, of a path for the transmission and reception of signals, a path including transmitting apparatus, a path including receiving apparatus, and a path including a balancing resistance, said last three mentioned paths being connected in a closed circuit, a series circuit including said first mentioned path and one winding of said transformer connected to the junction point of said third and fourth mentioned paths and one of the remaining junction points of said closed circuit, and another winding joining the third junction point of said closed circuit with said series circuit.

2. In a two way signaling system, the combination of a transformer having a plurality of windings, and four component elements consisting, respectively, of a path for the transmission and reception of signals, a path including transmitting apparatus, a path including receiving apparatus, and a path including a balancing resistance, said last three mentioned paths being connected in a closed circuit, a series circuit including said first mentioned path and one winding of said transformer connected to the junction point of said third and fourth mentioned paths and one of the remaining junction points of said closed circuit, and another winding joining the third junction point of said closed circuit with said series circuit, said elements being so proportioned and related that the impedance of the combination comprising said transformer, and said first, third and fourth mentioned paths, as seen from said second mentioned path, is equal to the impedance of said second mentioned path.

4. In a two way signaling system, the combination of a transformer having a plurality of windings, and four component elements consisting, respectively, of a path for the transmission and reception of signals, a path including transmitting apparatus, a path including receiving apparatus, and a path including a balancing resistance, said last three mentioned paths being connected in a closed circuit, a series circuit including said first mentioned path and one winding of said transformer connected to the junction point of said third and fourth mentioned paths and one of the remaining junction points of said closed circuit, and another winding joining the third junction point of said closed circuit with said series circuit, said elements being so proportioned and related that said third and second mentioned paths are conjugate.

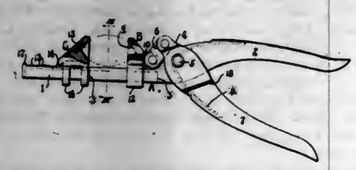
6. In a two way signaling system, the combination of a transformer having a plurality of windings, and four component elements consisting, respectively, of a path for the transmission and reception of signals, a path including transmitting apparatus, a path including receiving apparatus, and a path including a balancing resistance, said last three mentioned paths being connected in a closed circuit, a series circuit including said first mentioned path and one winding of said transformer connected to the junction point of said third and fourth mentioned paths and one of the remaining junction points of said closed circuit, and another winding joining the third junction point of said closed circuit with said series circuit, said elements being so proportioned and related that the impedance of the combination comprising said transformer, and said first, third and fourth mentioned paths, as seen from said second mentioned path, is equal to the impedance of said second mentioned path, the impedance of the combination comprising said transformer and said second, third and fourth mentioned paths, as seen from said first mentioned path, is equal to the impedance of said first mentioned path, said third and second mentioned paths are conjugate and said fourth and first mentioned paths are conjugate.

[Claims 3 and 5 not printed in the Gazette.]

1,254,119. NUTCRACKER. ZBAR J. CHAMBERLAIN and FRANK LOW, St. Louis, Mo. Filed Sept. 18, 1915. Serial No. 51,381. (Cl. 146—3.)

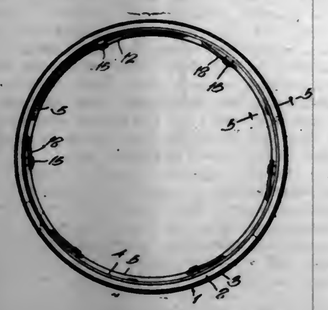
A nut cracker, comprising a U-shaped jaw-receiving member, having a rearwardly extending handle, a reinforcing filler in said jaw-receiving member, a compensating jaw mounted on the jaw-receiving member, a sliding

jaw mounted on the jaw-receiving member, an operating handle pivoted to the rearwardly extending handle, and



a link pivoted at one end to the sliding jaw and at its other end to the said handle.

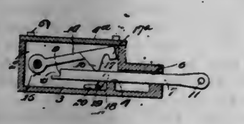
1,254,120. SECTIONAL WHEEL-RIM. LOYD WALTER CLOSE, Manhattan, Mont. Filed Nov. 11, 1916. Serial No. 130,742. (Cl. 152—21.)



1. A wheel rim including a fixed rim section and a removable section in overlapping relation and having alined openings, a keeper carried by said fixed section at a point spaced longitudinally from the opening thereof, and a removable retaining member formed of a single length of metal whose body extends along the fixed section and is bent laterally at one end to form a bolt passing through said openings, the free end of said bolt being bent laterally away from said body to form a nose to prevent withdrawal of the bolt until canted in the openings and said body being removably sprung into said keeper to prevent such canting until released.

[Claims 2 and 3 not printed in the Gazette.]

1,254,121. RAILWAY-APPLIANCE INTERLOCK. STOKES COLE, Montreal, Quebec, Canada. Filed July 14, 1916. Serial No. 109,360. (Cl. 104—115.)



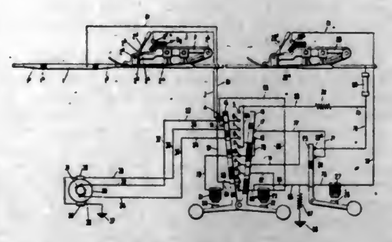
1. A lock for a railway appliance, consisting of a box having an opening therein at its front end and a key-hole, a plunger slidably located in the opening and adapted to be attached at its outer end to the railway appliance, a pivoted latch within the box and having its free end adjacent the front opening and adapted in its lower position to obstruct the opening to prevent the entry of the plunger into the box and a key adapted to be inserted through the key-hole beneath the latch and raise same from its obstructing position.

2. A lock for a railway appliance consisting of a box having an opening therein, a plunger slidably located in the opening, a pivoted latch within the box and adapted in its lower position to obstruct the opening and prevent the entry of the plunger into the box, such latch having a cam projection upon its underside and a key adapted to be inserted in the box, engage the cam projection and raise the latch from its obstructing position.

7. The combination with a railway appliance, of a lock therefor consisting of a box having an opening therein at one end and a key-hole, a plunger slidably located in the opening and attached at its outer end to the railway appliance, a pivoted latch within the box and having its free end adjacent the inner end of the opening and adapted in its lower position to obstruct said opening and prevent the entry of the plunger into the box and a key adapted to be inserted through the key-hole beneath the latch and raise the front end of same from its obstructing position.

[Claims 3 to 6 not printed in the Gazette.]

1,254,122. SWITCH-OPERATING MECHANISM. ROY VINSON COLLINS, West Newton, Mass. Filed Mar. 9, 1915. Serial No. 13,148. (Cl. 104—198.)



1. In an electric switch operating mechanism, the combination of a switch, a motor for throwing the same, a device for controlling current to operate said motor in one direction, a device for controlling current to operate said motor in the opposite direction, a current conductor for the car motor current, and separate contactors connected with said conductor for operating said devices.

2. In an electric switch operating mechanism, the combination of a switch, a motor for throwing the same, a device for controlling current to operate said motor in one direction, a device for controlling current to operate said motor in the opposite direction, a current conductor for the car motor current, and separate contactors connected with said conductor for operating said devices, one of said contactors being operable by a conductive contact of a trolley, the other of said devices being operable by mechanical pressure of a trolley.

3. In an electric switch operating mechanism, the combination of a switch, a motor for throwing the same, a device for controlling current to operate said motor in one direction, a device for controlling current to operate said motor in the opposite direction, a current conductor for the car motor current, and separate contactors connected with said conductor for operating said devices, one of said contactors being operable by a conductive contact of a trolley, the other of said devices being operable by mechanical pressure of a trolley, said devices being located in sequence along said conductor.

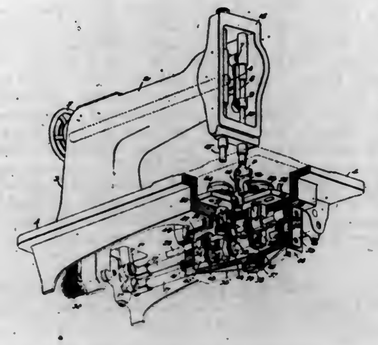
4. In an electric switch operating mechanism, the combination of a switch, a motor for throwing the same, a device for controlling current to operate said motor in one direction, a device for controlling current to operate said motor in the opposite direction, a current conductor for the car motor current, and separate contactors connected with said conductor for operating said devices, one of said contactors being operable by a conductive contact of a trolley, the other of said contactors being operable by mechanical pressure of a trolley, the circuit of each of said contactors including in it a part of the motor

controlling device of the other contactor when said device is at rest.

5. In an electric switch operating mechanism, the combination of a switch, a motor for throwing the same, two motor controlling devices, one for operating the motor in one direction and the other for operating the motor in the opposite direction, contactors for said devices mounted on the car motor current conductor, one of said contactors comprising a section insulated from said conductor, the other of said contactors comprising a device operable by mechanical pressure, a trolley, means for operating each of said motor controlling devices, each of said means being in circuit with one of said contactors and with the car motor current conductor.

[Claims 6 to 27 not printed in the Gazette.]

1,254,123. MULTIPLE-NEEDLE LOCK-STITCH SEWING-MACHINE. HERBERT CORRALL, Parkview, Helensburgh, and BERTRAM AMBROSE STEVENS, Singer, Clydebank, Scotland, assignors to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Oct. 27, 1914. Serial No. 868,908. (Cl. 112—22.)



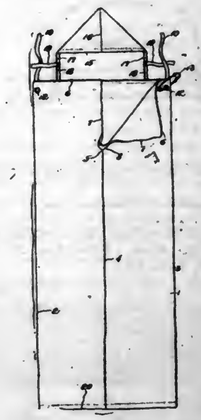
1. In a sewing machine, the combination with means for feeding the fabric, of coöperating stitch-forming mechanism including a rotary loop-taker actuating shaft provided with gear members, three loop-taker shafts each carrying a loop-taker, provided with a mass of under thread and having stitch-forming movements in a plane corresponding to the plane in which the fabric is advanced to the action of the stitch-forming mechanism, said loop-taker shafts being permanently secured one at one side and the others at the opposite side of said actuating shaft and provided with gear members intermeshing with the gear members carried by the latter shaft.

2. In a sewing machine, the combination with means for feeding the fabric being acted on, of a stitch-forming mechanism including triangularly arranged loop-takers two of which are independently adjustable with respect to the third, a needle carrying bar provided with triangularly arranged needles and means for actuating said stitch-forming elements.

[Claims 3 to 5 not printed in the Gazette.]

1,254,124. SLEEPING GARMENT OR BAG. FREDERICK S. CONVERSE, Westwood, Mass. Filed Oct. 27, 1917. Serial. No. 198,804. (Cl. 5—5.)

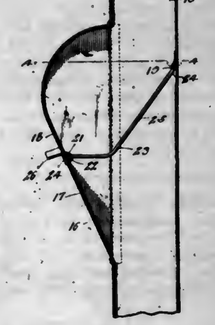
8. A sleeping garment having a tubular main portion formed from a rectangular piece of material having edges joined by a straight longitudinal seam ending short of the head end of the garment to leave a neck opening, said tubular portion being longitudinally folded and having joined thereto by a straight seam a hood portion formed from a rectangular blank having one of its edges folded upon itself and fastened in a straight seam, said garment being adapted to be closed upon the wearer by fastening



means attached to the lateral edges of the hood portion and the folded tubular portion respectively.

[Claims 1 to 7 not printed in the Gazette.]

1,254,125. DRAIN-PIPE CLEANER. MORRIS DASH, Philadelphia, Pa. Filed July 18, 1917. Serial No. 181,357. (Cl. 210—4.)

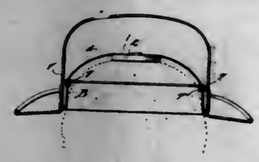


A device of the class described comprising a pipe section having an opening therein, an offset portion adjacent said opening, a ledge formed on the pipe wall opposite said opening and above the offset portion, a second ledge formed at the upper end of said offset portions, a screen composed of curved bars having their ends held by said ledges, and a gutter projecting outwardly from the top of the offset portion and flush with the lower end of the screen.

1,254,126. HAT ATTACHMENT. WILLIAM DUCHRAU, Visalia, Cal. Filed Feb. 13, 1917. Serial No. 148,399. (Cl. 2—113.)

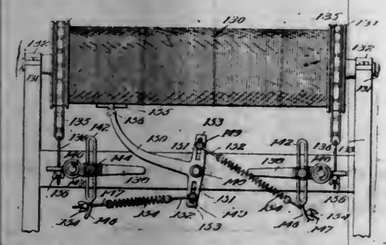
The herein described hat attachment comprising a receptacle having parallel slits in its bottom, a perforated cover removably closing said receptacle, and a metallic strap passed through said slits and itself formed with incisions in its edges bent upon both sides of said slits to

produce two tongues, the extremities of said strip having each a pair of slits with an interposed tongue for en-



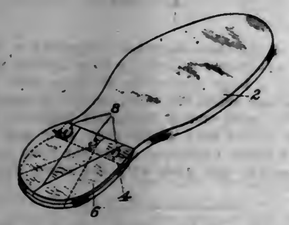
gagement with the upper edge of the hat band, as described.

1,254,127. LET-OFF MECHANISM FOR LOOMS. JOSEPH DUPUIS, Fall River, Mass. Filed Apr. 24, 1915. Serial No. 23,687. (Cl. 139—58.)



The combination with the warp roller and the brake mechanism for braking the action thereof, of means operated by the depth of the warp on the roller and controlling the said mechanism, said means comprising a rock lever pivoted adjacent to the roller and having one arm provided with a shoe engaging the warp of the roller, an elbow lever pivoted adjacent to each end of the warp roller and having an arm connected with the brake mechanism for controlling the same, an adjustable connection between the other arm of each elbow lever and the rock lever for simultaneously operating the said levers in the same direction when the rock lever is rocked, and a spring interposed in the said connection, each elbow lever having means in connection therewith for varying the length of one of the arms.

1,254,128. SHOE-SOLE. KARL ENGEL, Arlington, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Original application filed Dec. 21, 1912, Serial No. 738,024. Divided and this application filed Mar. 27, 1915. Serial No. 17,424. (Cl. 36—31.)



1. A pieced sole comprising a front portion having its rear end beveled on the side which is to be uppermost in the shoe, a heel seat portion of relatively inferior material having its front end beveled to overlap the beveled end of the front portion, the two portions of the sole being so formed that their overlapping ends shall be positioned substantially at the rear of the breast of the heel of the shoe and in continuous engagement from one side of the sole to the other, and means securing the two portions of the sole together to adapt the sole to be manipulated as one part.

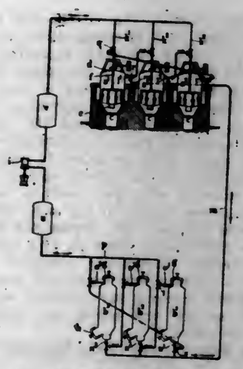
2. A pieced sole comprising a front portion of sole leather formed of a length to extend rearwardly beyond the breast of the heel of a shoe and having its rear end beveled on the flesh side, a heel seat portion of relatively inferior material having its front end beveled to overlap the beveled end of the front portion, the two portions of the sole being beveled at such an angle that their overlapping ends shall lie substantially at the rear of the breast of the heel, and fastenings extending into the sole across the plane of the bevel at the joint between the two portions of the sole to secure said portions together.

4. A pieced sole comprising a front portion and a rear portion relatively formed to cause the joint between the two portions to be located at the rear of the breast of the shoe heel, the two portions of the sole having abutting edges in substantially continuous engagement across the sole, and fastenings connecting the two portions of the sole together to adapt the sole to be manipulated as a unitary part prior to its attachment to the shoe, said fastenings comprising staples driven within the area of the heel seat in planes transverse to the line of junction of the two portions of the sole.

8. A pieced outer sole composed of a one-piece body having a fore portion, a shank portion, and an incomplete heel seat portion, a terminal forming a complemental heel seat portion attached to the body, the said body and terminal having continuous elongated abutting edges which meet within the area of the heel seat and form a joint extending continuously across the sole and arranged to be covered by the heel of the shoe of which the sole forms a part, and means for positively holding said abutting edges in contact with each other, to prevent edgewise and sidewise movements of the terminal relatively to the body, the sole formed by said body and terminal being adapted to be manipulated and treated as one part.

[Claims 3 and 5 to 7 not printed in the Gazette.]

1,254,129. PLANT FOR THE MANUFACTURE OF COFFEE EXTRACT. LOUIS ETAIX, Paris, France. Filed Aug. 31, 1916. Serial No. 117,908. (Cl. 99—2.)

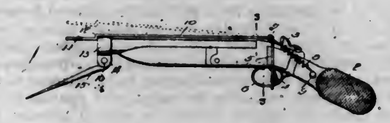


1. A plant for the manufacture of coffee extract, comprising a closed vessel adapted to contain coffee, means for heating the said vessel so as to heat the coffee therein at a temperature approximating that of its point of torrefaction, a supply of cold air or of cold gas, means for directing a current thereof through the coffee and means for directly transferring the said current, loaded with volatilised aromatic substances, to a previously de-aromatized coffee extract.

2. A plant for the manufacture of coffee extract, comprising a series of closed vessels adapted to contain coffee, means for heating the said vessels to volatilize the aromatic substances of coffee therein, means for agitating the coffee, a supply of cold air or of cold inert gas, means for passing a current thereof through the successive vessels and the coffee contained therein, a second series of vessels adapted to contain coffee extract, means for conveying the said current of air or gas, loaded with the volatilized aromatic substances, to and through the second series of vessels and the coffee extract therein, means for cutting out of the system the vessels in the first series containing exhausted coffee, and like means for the vessels of the second series containing saturated coffee extract.

3. A plant for the manufacture of coffee extract, comprising a series of interconnected closed vessels adapted to contain ground coffee, means for charging and discharging the said vessels, means for heating the said vessels and the coffee therein, a supply of dry, cold air or of dry, cold, inert gas, a rotatable hollow agitator for passing a current thereof through the successive vessels and the coffee contained therein and for simultaneously agitating the coffee, a second series of interconnected closed vessels adapted to contain pulverized coffee extract, means for charging and discharging the latter vessels, means for conveying the said current of air or gas loaded with aromatic substances, volatilized from the coffee in the first series of vessels, to and through the second series of vessels and the coffee extract therein, three-way cocks for periodically cutting out of the system the vessels in the first series when they contain exhausted coffee and like means for cutting out the vessels of the second series when they contain saturated coffee extract, the respective three-way cocks also serving for varying the sequence in which the current of air or gas passes through the vessels of the two series of closed vessels.

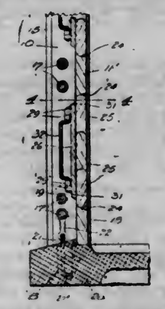
1,254,130. GUN. FRANK L. FENCL and FRANCIS M. HINKLE, Table Rock, Nebr. Filed July 30, 1917. Serial No. 183,441. (Cl. 43—21.)



2. A gun having at its muzzle a stake for engaging the ground to support the gun with its barrel approximately vertical, a lever pivoted to the trigger guard and engaging the trigger and extending beyond the barrel, a spring normally pulling the lever rearwardly to cause it to pull the trigger, and a link pivoted to the lever and extending beyond the muzzle and having a catch for engaging the end of the barrel to hold the lever in inoperative position.

[Claim 1 not printed in the Gazette.]

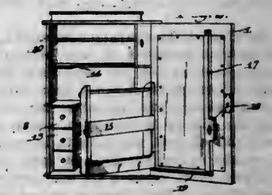
1,254,131. SILO. CLEMENT L. FLYNN, Bellingham, Wash., assignor to Welles Thompson Company, Minneapolis, Minn., a Corporation of Minnesota. Filed May 4, 1914. Serial No. 836,162. (Cl. 72—6.)



1. The combination with a foundation for a silo, or the like structure, of circumferentially spaced upright posts resting loosely and shiftable on said foundation radially thereof, panels fitting the spaces between said posts and resting loosely over said foundation, and post anchoring devices positively anchoring said post to said foundation, against vertical movements but with freedom for radial movements.

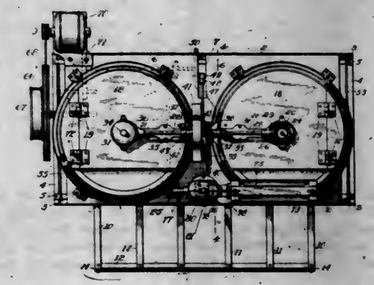
2. The combination with a foundation for a silo, or like structure, of upright circumferentially spaced posts shiftable at their lower ends on said foundation radially thereof, panels fitting the spaces between said posts, horizontal rods adjustably connecting said posts, and post anchoring devices comprising link anchors embedded in said foundation, and links pivoted to said anchors and to the lower portions of said posts and holding the said post positively anchored to said foundation against vertical movements but free for radial movement.

1,254,132. MEDICINE-CABINET. ADRIAN ST. CLAIR GARMAN, Philadelphia, Pa. Filed Sept. 19, 1916. Serial No. 121,009. (Cl. 211—7.)



A medicine cabinet including a body having a plurality of compartments and equipped with a hinged door, an auxiliary body mounted on the lower end of the hinged door and adapted to fit in a corresponding opening in the body when the door is closed, a locking strip secured to the door and having a laterally offset portion to receive locking mechanism which coöperates with the auxiliary body to secure the latter, and a ledge mounted on the door subjacent the auxiliary body to support the latter substantially as set forth.

1,254,133. GEARING FOR WASHING-MACHINES. JOHN B. GETZ, Morton, Ill., assignor to Getz Power Washer Co., Morton, Ill., a Corporation of Illinois. Filed Jan. 15, 1915. Serial No. 2,349. (Cl. 74—50.)



1. In a machine of the character described, a machine, said machine having a hinged cover or lid, a bracket secured on the outside of said lid or cover and at its inner end formed with a cup and a depending sleeve having a bearing in the lid or cover, and adjacent said cup on the outside formed with an angular bearing portion, said bracket at its outer end being formed with an additional angular bearing portion, a gear wheel having a hub journaled in the sleeve depending from said bracket, an operating shaft passing up through the gear and its extended hub, a short shaft journaled in the angular bearing portion of said bracket, a gear wheel on the inner end of said short shaft in mesh with said first mentioned

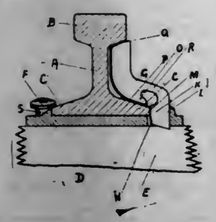
gear wheel, means for operating said short shaft, a cap adapted to be secured to the bracket and in conjunction with the cup of the bracket to form a closure for said gear wheels, said cap having a depending tubular portion, an elongated collar or sleeve extending up from the first mentioned gear and having a bearing in the depending sleeve of the cap, said collar or sleeve forming a bearing for the upper end of the operating shaft which passes therethrough, and a button on the outer end of said operating shaft.

3. In a machine of the character described, a support, a pair of machines mounted on said support, each machine having a hinged cover or lid, an operating shaft for each machine, said shafts passing through and having a bearing in said lids or covers, a short shaft for each machine, said shafts journaled on said covers or lids, driving connections between said short shafts and said operating shafts, a segmental gear for each machine, said segmental gears adapted to drive the short shafts of said machines when said hinged covers or lids are closed, a driving mechanism, and a common driving connection between said segmental gears and said driving mechanism.

5. In a machine of the character described, a platform support, a machine mounted on said platform and having a hinged cover or lid, an operating shaft passing through said lid or cover, a bevel gear carried by said operating shaft at or near its outer end, a short shaft journaled on the outside of said lid or cover, a bevel gear on the inner end of said short shaft in mesh with the bevel gear on the operating shaft, a gear wheel on the outer end of said short shaft, a segment gear wheel journaled on the outside of said machine and adapted to operate the gear wheel on the short shaft when the lid or cover of the machine is closed, a driving shaft journaled on said platform support, an auxiliary shaft also journaled on said platform support, a disk on one end of said auxiliary shaft, a pitman bar connection between said disk and said segment gear, and a train of reduction gears between said driving and auxiliary shafts.

[Claims 2 and 4 not printed in the Gazette.]

1,254,134. RAIL-ANCHOR. HORATIO G. GILLMOR, Washington, D. C. Filed June 12, 1916. Serial No. 103,298. (Cl. 238—4.)



1. As a new article of manufacture, a spring for use with a tie plate for the preventing of the creeping of rails having divergent arms shaped to engage the rail base and a portion adapted to be forced in between the head and base flange of the rail and lock the spring in position.

2. As a new article of manufacture a spring, adapted to engage the edge of a rail base and a tie plate to resist tendency of the rail to creep and to engage and exert upward pressure upon the rail head in tending to resume a form from which it was sprung.

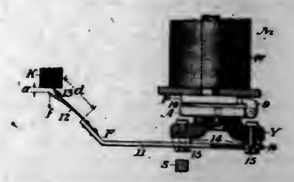
11. A rail anchor comprising a transverse member having means for engaging the rail base at one side of the rail and a spring engaging said transverse member, the head and the base flange of the rail at the other side of the rail and exerting pressure upon the rail and said transverse member in seeking to resume a position from which it was sprung.

17. A device for preventing the creeping of rails comprising a holding plate and a spring forced in between said holding plate and the edge of the rail base and between the head and base flange of the rail.

18. A rail anchor comprising a spring engaging the under side of the head and the vertical edge of the base flange at one side of the rail and a tie plate so engaging said spring as to hold said spring in position and prevent the creeping of the rail.

[Claims 3 to 10, 12 to 16, 19, and 20 not printed in the Gazette.]

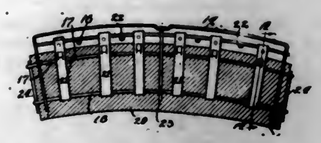
1,254,135. ADJUSTMENT OF RELAY CONTACT-FINGERS. CLINTON O. HARRINGTON, Swissvale, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed Sept. 11, 1917. Serial No. 190,750. (Cl. 175—281.)



1. A method of adjusting a relay contact member comprising a contact finger and a flexible contact spring, which consists in adjustably mounting the spring upon its finger, applying a predetermined force to said spring at or near the free end thereof, adjusting the spring with relation to the finger until the spring is deflected a predetermined amount by said force, and then permanently securing the spring to the finger in the adjusted position.

2. A method of adjusting a relay contact member comprising a contact finger and a flexible contact spring, which consists in adjustably mounting the spring upon its finger, applying force to said spring at or adjacent to the free end thereof, adjusting the spring with relation to the finger until the desired relation is secured between the force applied and the deflection of the finger, and then permanently securing the spring to the finger in the adjusted position.

1,254,136. BLOCK AND INTERLOCKING MEANS THEREFOR. CORNELIUS G. HASTINGS, Glendale, Cal., assignor to Hastings Tunnel System Company, a Corporation of New York. Filed Nov. 26, 1915. Serial No. 63,491. (Cl. 72—107.)



1. In a building block of the class described, reinforcement bars and rods connected together, a molding of concrete therearound with portions of said reinforcement rods projecting beyond the ends thereof, reinforcement bars offset for opposite ends engaging above and below certain of said reinforcement members with the ends thereof projecting beyond the sides of said block, and connecting members adapted to interlock the block with similar blocks laid one against the other by engaging with said projecting portions of said rods and bars.

3. In a concrete building block, a reinforcement frame therein comprising arched bars, the ends thereof turned inwardly, curved rods engaged through the ends of said bars and disposed within the blocks with the ends of certain of said rods projecting beyond the ends of said blocks, eyes formed on the ends of said rods projecting through the ends of the blocks, and means for engagement through said eyes to lock a series of blocks one to another laid in built up relation.

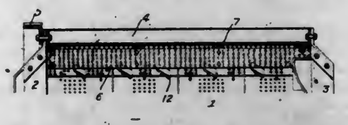
4. A concrete block of the class described comprising a reinforcement frame molded therein, a plurality of rods forming a part of said frame, arched means bonded within said block through the ends of which said rods extend to maintain the same properly spaced in said blocks and to further reinforce said block, certain of said rods extending through the end surfaces of said block, eyes formed on the ends of said rods projecting through said block, hooked spacing members engaging said rods and acting to reinforce said block, and means for engagement through said eyes to attach the same to a block of similar construction laid in built up relation with said first mentioned block.

6. In a concrete building block of the class described, a reinforcement frame therein comprising inwardly bent arched bars, rods engaged through said bars with the ends of certain of said rods projecting beyond the ends of said block, eyes formed on the ends of said projecting rods, clips within said block engaging said rods to hold the same in spaced relation, apertured straps extending transversely through said block and projecting beyond the side walls thereof, and means for engagement through said eyes and apertures to lock a number of blocks one to another laid in built up relation.

8. In a concrete block of the class described, a plurality of members therein to form a reinforcing framework, offset reinforcing bars within said block extending above and below certain of said members, and clips provided with hooked ends and intermediate hooks for engaging certain of said members to hold the same in spaced relation and also acting to reinforce said block.

[Claims 2, 5, and 7 not printed in the Gazette.]

1,254,137. COAL-BREAKER CONSTRUCTION. JOSEPH L. HILLER, Mattapoisett, Mass., assignor to Pennsylvania Crusher Company, New York, N. Y., a Corporation of New York. Original application filed May 1, 1911, Serial No. 624,291. Divided and this application filed Apr. 9, 1915. Serial No. 20,275. (Cl. 83—52.)



1. The combination of a rotatable screen drum; brackets mounted therein and each having a slot extended radially of the drum; a shelf carried by the brackets; with clamping members passing through the slots of said brackets and adjustably clamping said shelf thereto at a distance from the inner surface of the drum.

2. The combination of a perforated screen drum; a number of series of radially slotted brackets extending inwardly from the inner face thereof; with flat perforated plates rigidly held to the brackets of said series and adjustable with their outer edges spaced away from the adjacent surface of the drum.

3. The combination of a screen drum; a series of shelves projecting radially inward therein and extending longitudinally of the drum; with a second series of shelves also projecting inwardly in the drum but inclined to the lines of the shelves of the other series, the shelves of both series being rigidly fixed in positions with their edges spaced away from the drum surface to which they are adjacent.

1,254,138. BROOM CONSTRUCTION. WALTER E. HOCKETT, Indianapolis, Ind., assignor to Rice Manufacturing Co., Indianapolis, Ind., a Corporation of Indiana. Filed Oct. 15, 1914. Serial No. 866,736. (Cl. 15—20.)

1. In a broom, the combination with a band, and a bunch of paniculate stems embraced by the band, of a plurality of securing devices comprising each a flat sheet-metal plate and brads extending from the plate at right angles thereto, the plate being on the band and the brads extending through the band and into the bunch of stems, each brad having a broad body portion that is curved transversely, the point portion of the brad being flat.

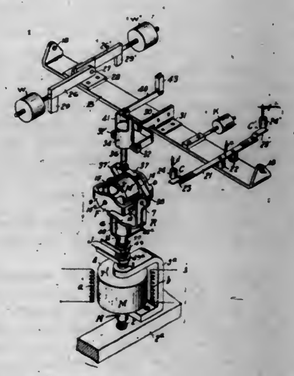


2. In a broom, the combination with a band, and a bunch of paniculate stems embraced by the band, of a pair of securing devices comprising sheet-metal staples with their longitudinal symmetrical axes at right angles to each other and oppositely arranged on the band with the points or brads of one staple located between the points or brads of the oppositely disposed staple, the points or brads extending through the band and into the bunch of stems, each point or brad having a transversely-curved body portion.

3. In a broom, the combination with a band, and a bunch of paniculate stems embraced by the band, of a pair of securing devices on opposite sides of the band, each device comprising an oblong flat plate and brads whose longitudinal symmetrical axes are at right angles to each other, the plates of the pair of devices differing in plan dimensions and being arranged relatively with the brads of the smaller plate located between the brads of the oppositely disposed larger plate of the devices, the brads extending through the band and into the bunch of stems.

4. In a broom, the combination with a band having apertures therein, and a bunch of paniculate stems embraced by the band, of pairs of flat rectangular plates arranged on the opposite outside portions of the band, the opposite edges of the plates having brads thereon that extend at right angles to the plates and through apertures of the band and into the bunch of stems, the brads of one of the pair of plates being located between the brads of the oppositely disposed plate of the pair.

1,254,139. RAILWAY SIGNALING SYSTEM AND RELAY ADAPTED FOR USE THEREIN. JOHN S. HOLLIDAY, Wilkinsburg, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed June 22, 1916. Serial No. 105,146. (Cl. 175—281.)



1. A relay comprising a member adapted to be rotated simultaneously about two axes, and a contact governed by

the gyroscopic precession of said member about a third axis.

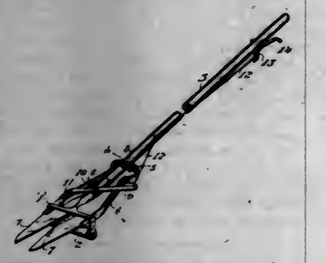
4. A relay comprising a spinning member, means for rotating said member about a second axis, a contact governed by the movement of said spinning member about a third axis, and means for preventing operation of said contact when the speed of rotation of said member is below a predetermined value.

8. An alternating current, three-position relay comprising in combination, a gyroscope, means for turning the gyroscope in one direction or the other about an axis substantially perpendicular to the axis of the rotating member of the gyroscope, so that the gyroscope is tilted in one direction or the other, and contacts governed by the tilting movements of the gyroscope.

13. An alternating current, three-position frequency relay comprising a spinning member biased to a middle position and adapted to tilt in one direction or the other about an axis substantially normal to the axis of spin, a motor responsive in speed to the frequency of its energizing current, means for rotating said member by said motor in one direction or the other about an axis substantially normal to the first mentioned axes so that when said motor speed is at or above a predetermined value said spinning member is caused to tilt in one direction or the other and contacts operated in one direction or the other by the tilting movements of said spinning member.

[Claims 2, 3, 5 to 7, and 9 to 12 not printed in the Gazette.]

1,254,140. LAWN-TRIMMER. AUGUST HUBERTY, Canton, Ohio. Filed June 5, 1917. Serial No. 172,897. (Cl. 56—19.)



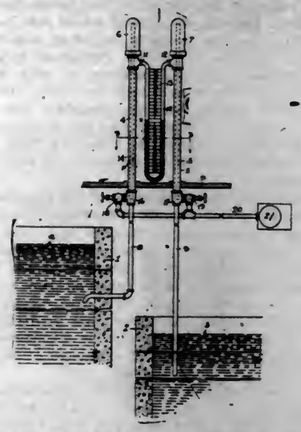
1. In a lawn trimmer, the combination with grass-shears, of a yoke provided with an operating handle and a roller, a rock-arm pivotally mounted upon the handle between the grass-shear blade arms, a draw bolt connected to the spring member of the shears forcing the shear blades of the shears against the yoke and means for actuating the rock arm, said rock arm provided with means for actuating one of the shear blades.

2. In a lawn trimmer, the combination with grass shears, of a yoke provided with an operating handle and a roller, a rock-arm pivotally connected to the handle, one end of said rock-arm located in contact with one of the shear blades, a curved draw-bolt located through the handle, said draw-bolt connected to the spring body of the shears whereby the shear blades of the shears are forced against the yoke.

1,254,141. GAGE. CHARLES A. HUMPHREYS, Carrick, Pa. Filed Feb. 7, 1912. Serial No. 676,159. (Cl. 73—31.)

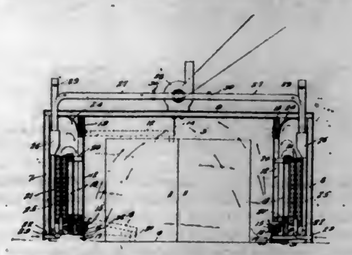
1. The combination with a vessel containing liquid, of a riser tube extending into said vessel below the level of the liquid therein and extending upwardly above the same, said riser tube having a sight glass adjacent the upper end thereof, a gage having one end connected with said riser tube below said sight glass and containing a gaging liquid, an exhaust tube communicating with the riser tube above the gage tube, and a suitable pump communicating with said exhaust tube.

2. The combination with a receptacle for liquid, a riser tube extending into said vessel or receptacle below the level of the liquid therein and thence to the desired height and having an air-tight chamber at the top thereof, and communicating near its top with a gage



tube containing a gaging liquid, an exhaust tube entering within the riser tube below the entrance of the gage tube and extending therein up into said air chamber above the said gage tube, and a vacuum producing apparatus communicating with the exhaust tube.

1,254,142. DRY-KILN. HARRY HUNTER, Indianapolis, Ind., assignor to The Hunter Dry Kiln Company, Indianapolis, Ind., a Corporation of Indiana. Filed Feb. 12, 1917. Serial No. 148,024. (Cl. 34—19.)



1. A dry kiln, consisting of a main or outer compartment having a ceiling and walls, a partition projecting downward into said compartment near one wall, a second partition projecting upward between said first partition and the adjacent wall, said partition being respectively spaced from the floor and the ceiling of said compartment and the two partitions being spaced from each other and from said wall, heating means located in the space between said second partition and the adjacent wall, said space being provided with an air inlet opening at the bottom and said compartment being provided with an air outlet opening, each of said partitions consisting of a plurality of doors, the doors of the partitions nearer the adjacent wall being hinged at the bottom and those of the other partition being hinged at the top.

2. A dry kiln, consisting of a main or outer compartment having a ceiling and walls, a partition projecting downward into said compartment near one wall, a second partition projecting upward between said first partition and the adjacent wall, said partitions being respectively spaced from the floor and the ceiling of said compartment and the two partitions being spaced from each other and from said wall, heating means located in the space between said second partition and the adjacent wall, said space being provided with an air inlet opening at the bottom and said compartment being provided with an air outlet opening, each of said partitions consisting of a plurality of doors.

[Claims 3 to 35 not printed in the Gazette.]

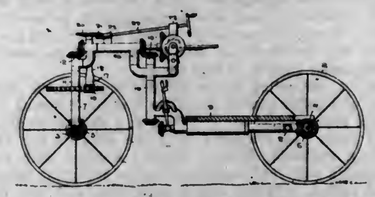
1,254,143. REPAIR-LINK. HUGH AUGUSTINE KELLY, Stratford, N. H. Filed Mar. 9, 1917. Serial No. 153,712. (Cl. 59—83.)



1. A repair link of the class described comprising a loop shaped body portion formed from a single rod, one end of said loop being bent laterally upon itself to form a terminal loop, an eye formed adjacent the opposite end thereof, said opposite end being bent laterally and terminating in spaced relation from the said terminal loop, and a drop link supported through said eye.

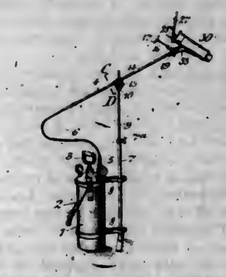
2. A repair link of the class described comprising a loop shaped body portion formed from a single rod, said body portion having a terminal loop formed on one end, and an eye on the other, a projecting guide on said eye terminating in spaced relation from the terminal loop, and a drop link supported through said eye.

1,254,144. STEERING MECHANISM FOR VEHICLES. GEORGE A. KING, Maple Falls, Wash. Filed Nov. 16, 1916. Serial No. 131,718. (Cl. 21—192.)



In a steering mechanism of the class described, a front axle, a casing for said axle, supporting wheels on the axle, a yoke formed on said casing, a circular rack attached to said yoke, a gear meshing with said rack, a shaft to which said gear is attached, a beveled gear on the opposite end of the shaft, a pinion meshing with said beveled gear, and means to rotate said pinion whereby the wheels on the forward axle will be shifted to control the travel of the vehicle.

1,254,145. LIQUID-FUEL BURNER. JEAN LIEBER, Lausanne, Switzerland. Filed June 2, 1916. Serial No. 101,410. (Cl. 158—33.)

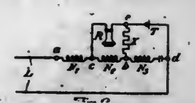


1. In a liquid fuel burner, the combination with a container for fuel under pressure, of a torch, a fuel supply conduit carrying the latter and communicating with the container, a support for the conduit, and means connecting the support and conduit whereby the latter may be adjusted along a vertical axis, and swing in both a vertical plane and in a horizontal plane.

7. In a liquid fuel burner, a torch adapted to be quickly brought to a high temperature, means for protecting the torch against loss of heat, a compressed air nozzle mounted in the rear open end of the torch, a fuel nozzle arranged at an angle to the air nozzle and having a conical outlet, the axis of which is at an angle to the axis of the bore of the fuel nozzle.

[Claims 2 to 6 not printed in the Gazette.]

1,254,146. SIGNALING-CIRCUIT. WILLIAM H. MARTIN, New York, N. Y., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed Aug. 27, 1917. Serial No. 188,329. (Cl. 179—81.)



1. A signaling circuit comprising a transformer having three windings, a path for the transmission and reception of signals, a path including transmitting apparatus, a path including receiving apparatus, and a path including a balancing resistance, said first mentioned path and said three windings of the transformer being connected in a series circuit, said second and third mentioned paths being included in a series circuit bridged around two of said windings, and said fourth mentioned path being connected between the junction point of said two windings and the junction point of said second and third mentioned paths.

4. A signaling circuit comprising a transformer having three windings, a path for the transmission and reception of signals, a path including transmitting apparatus, a path including receiving apparatus, and a path including a balancing resistance, said first mentioned path and said three windings of the transformer being connected in a series circuit, said second and third mentioned paths being included in a series circuit bridged around two of said windings, and said fourth mentioned path being connected between the junction point of said two windings and the junction point of said second and third mentioned paths, said elements being so proportioned and related that said third and second mentioned paths are conjugate.

6. A signaling circuit comprising a transformer having three windings, a path for the transmission and reception of signals, a path including transmitting apparatus, a path including receiving apparatus, and a path including a balancing resistance, said first mentioned path and said three windings of the transformer being connected in a series circuit, said second and third mentioned paths being included in a series circuit bridged around two of said windings, and said fourth mentioned path being connected between the junction point of said two windings and the junction point of said second and third mentioned paths, said elements being so proportioned and related that the impedance of the combination comprising said transformer and said first, third and fourth mentioned paths, as seen from said second mentioned path, is equal to the impedance of said second mentioned path, the impedance of the combination comprising said induction coil and said second, third and fourth mentioned paths, as seen from said first mentioned path, is equal to the impedance of said first mentioned path, said third and second mentioned paths are conjugate and said fourth and first mentioned paths are conjugate.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,254,147. INITIAL IGNITER. OSKAR MATTER, Troisdorf, Germany, assignor, by mesne assignments, to The Vereinigte Koln-Rottweiler Pulverfabriken, Berlin, Germany. Filed Apr. 17, 1913. Serial No. 761,843. (Cl. 102—9.)

1. An initial igniter composition containing nitropentaerythrite and another detonating substance.

2. An initial igniter composition containing nitropentaerythrite and lead azid.

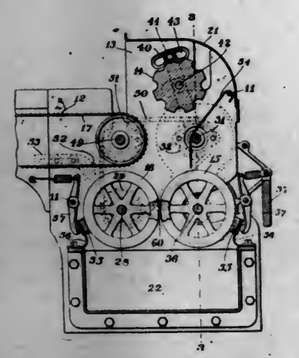
3. An initial igniter composition containing nitropentaerythrite and a layer of another detonating substance.

4. An initial igniter composition containing nitropentaerythrite and a layer of lead azid.

5. A detonator comprising nitropentaerythrite and another detonating substance.

[Claims 6 to 8 not printed in the Gazette.]

1,254,148. DOFFER-MACHINE. IVAR MEUBLING, Brooklyn, N. Y., assignor to Empire Duplex Gin Company, New York, N. Y., a Corporation of Arizona. Filed May 22, 1915. Serial No. 29,715. (Cl. 13—19.)



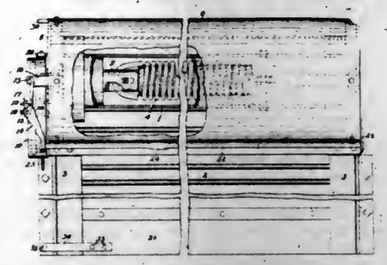
1. A doffer machine comprising a conveyer adapted to be supplied with cotton, a hopper into which the conveyer discharges, a lint flue adapted to have air pressure therein and opening into the hopper, and a pair of cylindrical doffer rolls disposed in the opening and adapted to rotate with their peripheries in variable proximity to feed cotton into the flue, shoes engaging the non-adjacent portions of the doffer roll surfaces, springs exerting pressure upon the shoes, yielding means for connecting the shoes to the adjacent edges of the opening into the flue, a pivotal bracket supporting one of the doffer rolls, an operative driving connection for the rolls arranged to permit the free pivotal movement of said supporting bracket and its roll, and a weight tending to hold the doffer rolls together.

3. A doffer machine comprising a conveyer adapted to be supplied with cotton, a hopper into which the conveyer discharges, said hopper being open at the top, a lint flue below the hopper, adapted to have air pressure therein, a pair of cylindrical doffer rolls disposed between the hopper and the lint flue, the ends of said rollers forming air-tight closures between the hopper and the flue, yieldable means for forming air tight closures between outer surfaces of the rollers, the hopper and the flue, means for rotating said rollers in any of their positions in opposite directions to feed cotton into the flue, means for pressing said rollers against each other or against the cotton between them and a transversely movable support for one of said rollers.

[Claims 2 and 4 not printed in the Gazette.]

1,254,149. CONTROLLING MECHANISM FOR ROLLER FIRE-SHUTTERS. WILLIAM G. MILLER, Toronto, Ontario, Canada, assignor of one-third to Malcolm J. McLeod and one-third to William J. Houston, Detroit, Mich. Filed Apr. 14, 1916. Serial No. 91,138. (Cl. 189—58.)

1. In controlling means for fire shutters, the combination of a roller having a shutter thereon, a spring in said roller connected at one end thereto, a shaft extending into said roller and connected to the opposite end of said spring, releasable means for locking said shaft against rotation under the tension of said spring, and means movable into engagement with the shutter and actuable by said locking means when released to impart a downward movement to the shutter and to relock said shaft under a partial tension of said spring to retard said shutter at the limit of its downward travel.



2. In controlling means for fire shutters, the combination of a roller having a shutter thereon, a projecting arm on said shutter, a shaft journaled in the end of said roller, a spring connected at one end to said shaft and at its opposite end to said roller, releasable locking means connected with and restraining said shaft against rotation under the tension of said spring, a spring pressed plunger movable into engagement with the arm of said shutter and actuable by said locking means when released to impart a downward movement to said shutter, and a stop to limit the movement of said plunger and to relock said shaft under tension of said spring.

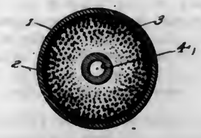
3. In controlling means for fire shutters, the combination of a roller having a shutter thereon, a spring in said roller connected at one end thereto, a shaft extending into said roller and connected with the opposite end of said spring, releasable locking means connected with and restraining said shaft against rotation under the tension of said spring, starting means associated with the locking means and with the shutter and actuable by said locking means when released to engage and start said shutter downwardly and thereafter relock said shaft and said spring under a partial tension to retard and cushion the shutter in its downward travel.

4. In controlling means for fire shutters, a housing, a roller journaled in said housing and carrying a shutter thereon, a shaft extending into said roller, a spring connected at one end to said shaft and at its opposite end to said roller, a pinion on said shaft, a gear mounted on said housing in mesh with said pinion, releasable locking means for restraining said gear against rotation, a spring pressed plunger mounted on said housing and movable into engagement with said shutter, a striking member on said gear adapted to engage said plunger when released by said locking means, and means to limit the movement of said plunger and to relock said gear.

5. In controlling means for fire shutters, the combination of a housing, a roller journaled in said housing and carrying a shutter thereon, a shaft journaled in said housing and extending into one end of said roller, a spring in said roller connected at one end thereto and at its opposite end to said shaft, a pinion on said shaft, a gear journaled on said housing in mesh with said pinion, releasable locking means for restraining said gear against rotation under the tension of said spring, a spring pressed plunger mounted on said housing and movable into engagement with said shutter, an impact member on said plunger, a striking member on said gear adapted to engage said impact member upon the release of said locking means to drive said plunger against said shutter, means to limit the movement of said plunger and said gear.

[Claim 6 not printed in the Gazette.]

1,254,150. TYPE-WRITER PLATEN. OSCAR F. MÜLLER, Dorchester, Mass., assignor to Thorp & Martin Typewriter Co., Boston, Mass., a Corporation of Massachusetts. Filed July 7, 1917. Serial No. 179,153. (Cl. 197—147.)



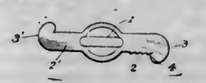
1. A platen core of the class described comprising an impregnatable body decreasingly impregnated from the surface inward with a sound-deadening agent.

2. A platen core of the class described comprising a fibrous impregnatable body decreasingly impregnated from the surface inward with a sound-deadening agent.

3. A platen core of the class described, comprising a body of fabricated fiber wound upon itself and decreasingly impregnated with a wax from the surface inward.

[Claims 4 to 9 not printed in the Gazette.]

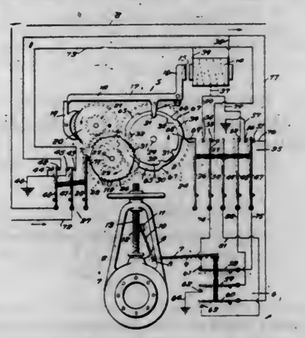
1,254,151. CIGAR-BAND. GUSTAV JOHANNES NAGEL, New York, N. Y., assignor to Garrett H. Smith, Inc., New York, N. Y., a Corporation of New York. Continuation of application Serial No. 83,271, filed Mar. 10, 1916. This application filed May 8, 1917. Serial No. 167,159. (Cl. 40—21.)



1. A cigar band comprising a central label portion, a pair of straps formed integral therewith and projecting therefrom at diametrically opposite points, the respective straps being each provided with an oppositely extending terminal hook, one of said hooks being adapted to lie beneath, and be gripped by, the strap portion carrying the other hook, when said band is applied in position upon the cigar, and one of said straps being provided on one of its lateral edges intermediate said hook portion and said label portion with a series of projecting teeth.

[Claim 2 not printed in the Gazette.]

1,254,152. ELECTRIC SIGNAL SYSTEM. JAMES D. NELSON, Cincinnati, Ohio. Filed Feb. 26, 1917. Serial No. 150,895. (Cl. 177—382.)

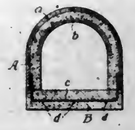


1. An electric signal system consisting of a signal responsive device, an electro magnetically released signal transmitter, a device to be supervised, a means adapted to introduce the transmitter magnet into the circuit to release the transmitter upon change of said device from one position to another or return to its normal condition, and means adapted to remove the magnet from the circuit upon initiation of operation of said transmitter.

2. An electric signal system consisting of a signal responsive device, a transmitter, an electromagnet adapted to release the transmitter, a device to be supervised, and means controlled by the device, adapted to introduce the magnet momentarily into the circuit to release the transmitter upon change of said device from one position to another or return to its normal condition.

[Claims 3 to 6 not printed in the Gazette.]

1,254,153. CULVERT. LAURITS W. NELSEN, Pontiac, Ill. Filed July 10, 1916. Serial No. 108,275. (Cl. 72—52.)



1. As an article of manufacture, a culvert section comprising concrete formed into a U-shape having substantially parallel side walls and open on one side adjacent the ends of said sides, a reinforcing rod or rods having their ends bent at substantially right angles to the middle portion thereof and having a portion of said bent ends embedded in the concrete of the section, whereby said rod or rods extend across said open side at a distance from said ends, and a reinforcing rod or rods extending through the concrete of the section substantially parallel to the edges of the section.

2. As an article of manufacture, a culvert section comprising concrete formed into a U-shape having substantially parallel side walls and open on one side adjacent the ends of said sides, and a reinforcing rod or rods having their ends bent at substantially right angles to the middle portion thereof and having a portion of said bent ends embedded in the concrete of the section, whereby said rod or rods extend across said open side at a distance from said ends.

3. The method of forming a culvert, consisting in forming a concrete bed at the place where the culvert is to be constructed, and placing upon the bed previously completed unit arch sections having projecting retainers, said retainers being embedded in the concrete of the bed while the concrete of the bed is still in plastic condition and before it has set.

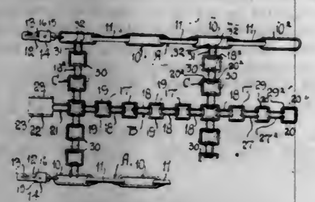
4. The method of forming a culvert, consisting in forming a concrete bed at the place where the culvert is to be constructed, and placing upon the bed before the latter has set unit arch sections having projecting tie rods between their lower ends so that the tie rods are embedded in the concrete of the bed when the unit arch sections are placed in position.

1,254,154. TIRE-CHAIN. RAY C. NOLL, Pleasant Gap, Pa. Filed Feb. 24, 1917. Serial No. 150,758. (Cl. 152—14.)

1. A chain element made up of links and means for connecting the ends of the chain element comprising a link at one end of the chain having side bars and end bars, the side bars being formed with transversely extending perforations and a connecting member at the other end of the chain, trough shaped in form and having perforations in its lateral flanges adapted to be registered with the perforations in the side bars of the end link, a pin adapted to be disposed through said perforations of the connecting member and the link, and means for holding the pin against accidental detachment.

2. The combination with a grip tread for tire chains comprising open-centered tread members, having oppo-

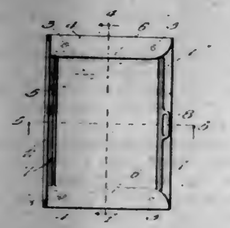
itely disposed pairs of perforations extending parallel to the plane of the face of the tread member, of a connecting member U-shaped in form to provide legs adapted to be passed through the perforations in the tread member, the ends of the legs being perforated for the passage of cotter pins.



3. A chain composed of open centered tread elements, and links connecting said tread elements having sliding engagement with the tread elements and permitting the movement of tread elements toward or from each other.

[Claim 4 not printed in the Gazette.]

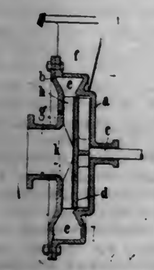
1,254,155. HIGH-CHAIR TRAY. JENNIE B. PARKER, Albion, Mich. Filed May 28, 1917. Serial No. 171,506. (Cl. 155—12.)



2. A tray for high chairs comprising a flat substantially rectangular base, an upright guard wall at the outer edge thereof, parallel spaced spindles extending upright along the side edges of said base, side pieces supported on said spindles in vertical spaced relation above said base and extending inwardly from the sides thereof, said pieces being adapted to receive the side edges of a supplemental tray thereunder when the same is slidably engaged with said base, the spindle members serving to guide said supplemental tray when being applied and providing open sides for said tray for efficient cleansing.

[Claim 1 not printed in the Gazette.]

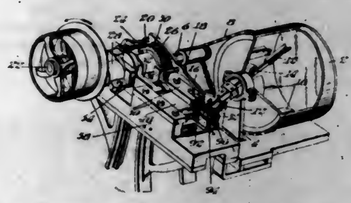
1,254,156. FLUID PUMP, TURBINE, AND THE LIKE. RICHARD C. PARSONS, London, England. Filed Dec. 18, 1915. Serial No. 67,521. (Cl. 103—43.)



1. A centrifugal pump comprising in combination a casing, a resilient lining completely covering the inner surface of said casing, an impeller including a rotating disk and vanes made entirely of resilient material carried on the side of said disk, as and for the purposes described.

2. A centrifugal pump comprising in combination a casing, a resilient lining completely covering the inner surface of said casing, grooves in the face of said resilient lining, said grooves being in the direction of flow of the fluid through the pump, an impeller including a rotating disk and vanes made entirely of resilient material carried on the side of said disk, as and for the purposes described.

1,254,157. MACHINE FOR USE IN THE MANUFACTURE OF NAILS. CHARLES PERKINS, Bridgewater, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 30, 1915. Serial No. 17,989. (Cl. 80—20.)



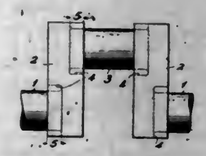
1. A machine of the class described having, in combination, a pair of coöperating dies relatively movable to roll nails between their opposite working faces, a raceway terminating at the path of relative movement of the dies for delivering nails in position to be received between the dies, a separator for alternately releasing and withholding the nails in the raceway, and means operated by the relative movement of the dies to cause the separator to release a nail when the dies are in position to receive it.

28. A machine for operating upon collar nails having, in combination, a pair of dies relatively movable to roll a nail between them, said dies having working faces formed for shaping the nail between the collar and the head end as the nail is rolled, and guides extending longitudinally of the dies in position to engage the lower surface of the collar on opposite sides of the nail to position the nail for the action of the dies, one of said guides terminating at an intermediate point in the length of the dies and formed to present a rigid abutment for engagement with the collar of the nail, and the other guide being mounted for yielding movement under longitudinal expansion of the head portion of the nail.

[Claims 2 to 27 not printed in the Gazette.]

1,254,158. [WITHDRAWN.]

1,254,159. CRANK-SHAFT. ALOIS RIEDLER, Berlin, Germany. Filed July 7, 1917. Serial No. 179,216. (Cl. 74—38.)



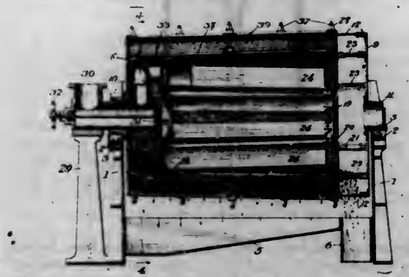
1. A shaft having a substantially rectangular crank portion, the crank arms of said portion having open ended recesses in the side faces thereof, said recesses extending about the crank journals and pin, for the purpose specified.

2. A shaft comprising two journal portions, a crank arm on each portion, and a crank pin connecting the arms, the side faces of the latter having open ended recesses extending about said pin and journal portions, for the purpose specified.

3. A crank shaft comprising two parallel crank arms and a crank pin connecting the latter, the side faces of said arms having U-shaped recesses extending in opposite directions about the shaft and pin, for the purpose specified.

4. A crank shaft comprising two parallel crank arms and a crank pin connecting the latter, the side faces of said arms having U-shaped recesses extending longitudinally of the arms about the shaft and pin in opposite directions, for the purpose specified.

1,254,160. AUTOMATIC CANE-JUICE FILTER. BENIGNO SALINAS Y SOUZA, Duran, Habana, Cuba, assignor to A. Columbus Smith, Habana, Cuba. Filed Mar. 23, 1916. Serial No. 86,283. (Cl. 210—14.)



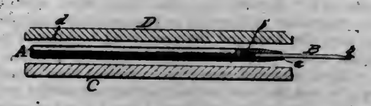
1. A filter comprising a hollow screen, a circular series of buckets mounted within the screen, and means to pour the material to be filtered in said buckets to rotate the screen, the buckets being designed to empty said material at the lower part of the screen, for the purpose described.

7. A filter comprising a hollow screen, means for directing the material to be filtered to the interior of the screen, and means active under the influence of the weight of said material to rotate the screen.

13. The self-rotating screen comprising a frame covered with screen material and revolubly mounted to have an inclined lower portion arranged to discharge the more solid material adjacent the lower open discharge end of the screen, liquor supply means to supply liquor to the inside of said screen at its receiving end remote from its discharge end and substantially closed operating buckets mounted on said screen frame to coöperate with said liquor supply means and to receive liquor while in an inclined position and to cause the rotation of said screen, said buckets automatically discharging the liquor adjacent the receiving end of said screen when said buckets are adjacent their lowest position.

[Claims 2 to 6, 8 to 12, and 14 to 18 not printed in the Gazette.]

1,254,161. METHOD OF MAKING CROCHET-HOOKS. BURNSIDE E. SAWYER, Fitchburg, Mass. Filed May 25, 1917. Serial No. 171,010. (Cl. 76—101.)



1. The method of making a pair of crochet hooks which consists in shaping a metallic wire to provide a hook at each end, and a single series of transverse uniform irregularities on each side at the center, cutting it in two in the center of said series of irregularities, and applying a handle to the irregular end of each blank.

2. The method of making a crochet hook which consists in shaping a metallic wire to provide a hook at one end, flattening it at the other and producing a series of transverse irregularities on the flattened surfaces, placing it in a blank of plastic material, and compressing said blank by pressure in a direction parallel to said flattened surfaces to flatten the blank and force it around the irregularities in the end of the wire to fix the same therein.

3. The method of making a crochet hook which consists in forming a hook on one end of a metal wire and subjecting the other to pressure and a shaping operation to flatten it out and produce transverse depressions on opposite sides thereof on the flattened surfaces, placing the pressed end of said hook in an axial hole in the end of a cylindrical celluloid blank, placing said blank between two plates, leaving the sides of the blank free between said plates, and applying pressure thereto to flatten out the handle and press the celluloid about the end of the hook.

4. The method of making a crochet hook which consists in forming a hook on one end of a metal wire and subjecting the other end to pressure and a simultaneous shaping operation to flatten it out and produce transverse depressions on opposite sides thereof on the flattened surfaces, said depressions alternating with each other on the two sides, placing the depressed end of said hook in an axial hole in the end of a cylindrical celluloid blank, placing said blank between two substantially flat plates in such position that the planes of the flattened ends of the hook are transverse to the planes of the two plates, and applying a simple flat pressure thereto to flatten out the handle, press the celluloid about the end of the hook, and cause it to flow inwardly into said depressions.

5. The method of making a crochet hook which consists in providing a cylindrical celluloid blank, rounding it at the ends, boring a central hole in one end, placing in said hole the end of a metal hook, said end having depressions on its surface, and compressing said blank between substantially flat surfaces to reduce it to a flat shape having convex edges, reduce the celluloid, and cause the celluloid to flow about the shank of the hook into the depressions to fix the hook therein.

[Claims 6 to 8 not printed in the Gazette.]

1,254,162. PICTURE-FRAME. FREDERICK F. SCHRODER, Cincinnati, Ohio. Filed Mar. 29, 1917. Serial No. 158,209. (Cl. 40—152.)



1. A picture frame connecting link consisting of a body portion having ends adapted to pass within the frames of pictures to be connected, and lugs extending from the link, adapted to engage the backs of the frames to retain the link in position.

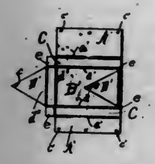
3. The combination of picture frames, and a connecting link located between the frames, said link consisting of a body portion having ends adapted to pass within the frames, lugs formed on the body portion adapted to engage the backs of the frames when the first mentioned lugs have been brought into position.

4. The combination of picture frames, and a connecting link located between the frames, said link consisting of a body portion having ends adapted to pass within the frames, and lugs formed on the ends, adapted to be

positioned between the inner edges of the frames and the pictures mounted therein after the pictures have been mounted within the frames.

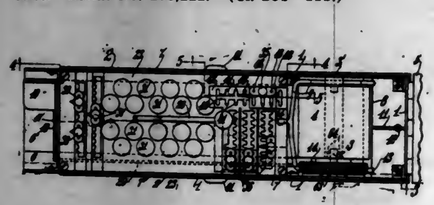
[Claim 2 not printed in the Gazette.]

1,254,163. CARTON. SAMUEL S. SENCENBAUGH, Aurora, Ill. Filed Apr. 2, 1915. Serial No. 18,655. (Cl. 229—33.)



A carton formed of a single piece of material divided by scored or weakened lines into sections adapted to be bent to form a receptacle, the opposite end portions being triangular in shape, the point of each triangle having fastening means attached thereto whereby the ends may be folded inwardly to close the package with said ends engaging each other, tongues projecting from the sides of said piece of material to be folded to form closed corners, and cords attached to said carton and adapted to extend around the body thereof and be secured in place, substantially as described.

1,254,164. TRANSFER-PUNCHING APPARATUS. BENJAMIN M. SHANKLIN, Springfield, Mass. Filed June 12, 1916. Serial No. 103,222. (Cl. 164—111.)



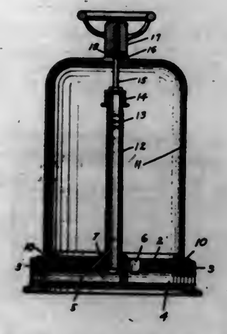
1. In a transfer punching device, upper, lower, and intermediate spaced plates, a post connecting the upper and lower plates, the intermediate plate being slidably mounted on said post, a plurality of groups of punches mounted in the lower plate, a selector device for each of said groups adjustably mounted in the upper plate, punch actuating members yieldingly connected to said devices and extending through the intermediate plate, each of said members being adapted to be moved by its selector device to overlie any desired punch in its group and having a part arranged to be engaged by said intermediate plate, a lever operated cam arranged to engage the intermediate plate closely adjacent said post, whereby said plate and the punch actuating members may be simultaneously depressed to actuate the selected punch of each group and means to restore said intermediate plate to normal position.

6. In a transfer punching device, a base plate formed with a channel through which the transfer strip is arranged to pass, a casing fixed to the plate, devices mounted in the casing to removably support a roll of transfers, punching mechanism resting upon the plate forwardly of the casing and arranged to close the upper face of the channel, means to position said mechanism upon the plate, and devices to detachably hold the mechanism upon the plate, all constructed and arranged so that the mechanism may be readily detached to permit the transfer strip to be led through said channel, when desired.

10. In a strip punching device, a punching mechanism comprising a plurality of groups of punches, selector members operable to connect any desired punch of each group for actuation, a depressible member operable to simultaneously actuate the selected punches, and means engageable substantially centrally with said depressible member to depress the latter uniformly without tilting, whereby the several punches are actuated with an equal force.

[Claims 2 to 5 and 7 to 9 not printed in the Gazette.]

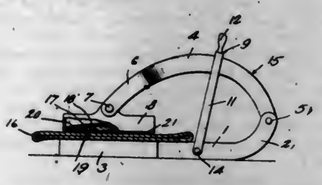
1,254,165. VACUUM-TANK. KARL D. SMITH, Battle Creek, Mich. Filed Nov. 9, 1916. Serial No. 130,497. (Cl. 31—73.)



1. In a vacuum tank, the combination of a base having passages opening in its face, a pipe threaded into one of said passage openings and having perforations at its upper end, a detachable cap for said pipe having an upwardly projecting rod thereon, a body inverted on said base having a hole in its upper end through which said rod projects, and a nut threaded upon said rod for clamping said body upon said base.

2. In a vacuum tank, the combination of a base having inlet and discharge passages, each comprising communicating horizontal and vertical bores, the free end of the former opening through the periphery of said base and the free end of the latter opening through the face of said base.

1,254,166. PORTABLE VULCANIZER. ORA STALEY, Indianapolis, Ind. Filed Mar. 7, 1917. Serial No. 153,059. (Cl. 18—18.)

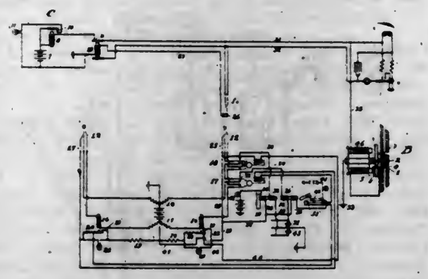


1. A vulcanizer comprising upper and lower compression members, the upper member being cup-shaped to retain fuel; and an absorbent element in direct contact with the lower face of the upper compression member.

4. A vulcanizer comprising a base and an arm pivoted to the base, the base and the arm being supplied with cooperating compression members, and the arm being provided with a convexed cam edge; a forked lever straddled on the arm and the base and having its extremities pivoted to the base, the lever including a head; and a movable holding device carried by the head and coacting with the cam edge to press the compression members together, the holding device constituting a means whereby the lever may be prevented from swinging with respect to the arm.

[Claims 2 and 3 not printed in the Gazette.]

1,254,167. TELEPHONE-EXCHANGE APPARATUS. CHARLES A. STICKNEY, Chicago, Ill. Filed May 15, 1916. Serial No. 97,680½. (Cl. 179—6.5.)



1. In telephone exchange apparatus the combination of subscribers' line circuits, subscribers' telephone sets associated therewith, a coin box associated with one of said subscribers' sets, means controllable from said coin box for returning said coin, and means controllable at a called station for depositing said coin, and signaling means remaining positive until the connection has been taken down at said exchange, whereby the condition of said coin is signaled to the operator at said exchange.

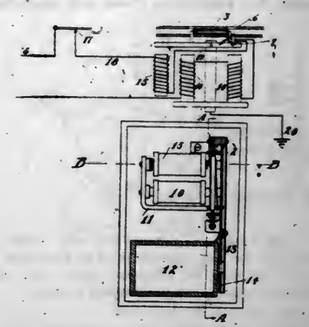
2. In a telephone exchange apparatus the combination of a central exchange, a plurality of line circuits having subscriber stations connected therewith at one of which is a coin box having means therein when actuated for depositing or returing a coin, means for impressing on a line circuit a super-normal voltage, means controllable from a called station for impressing said super-normal voltage in one direction on said coin box line, and means at a coin box station for impressing super-normal voltage of opposite pelarity on its own line.

3. In a telephone exchange apparatus the combination of a central exchange, a plurality of subscriber stations having subscriber sets associated therewith, a part of which have coin boxes associated with said lines, polarized means at said coin box stations operable by super-normal voltage for depositing or returning a coin placed therein, a source of super-normal voltage at said central station, means controllable at a called station for impressing said super-normal voltage of one polarity onto the calling line, and means at the calling station for impressing super-normal voltage of opposite polarity on said calling line.

4. In a telephone exchange system the combination of a central exchange, a plurality of subscriber circuits having subscriber sets associated therewith, a part of which have coin boxes associated therewith, super-normal voltage means at said exchange whereby super-normal voltage may be applied to a line circuit in either polarity, electromagnetic means controllable from a calling coin box station for impressing super-normal voltage of one polarity on said calling line, means at said central station for rendering said controlling means inoperative when a called party has answered, and means for impressing said super-normal voltage of opposite polarity on said coin box circuit when the called party answers.

1,254,168. TELEPHONE COIN-BOX. CHARLES A. STICKNEY, Chicago, Ill. Filed May 15, 1916. Serial No. 97,681½. (Cl. 179—6.5.)

1. In a telephone coin box associated with a telephone having a switch hook and electrically connected with a central exchange, the combination of a money box, a coin chute, an armature pivoted along one axis, polarized electromagnetic means co-acting to oscillate said armature in either direction depending upon the direction of current flow in said electromagnetic means, non-polarized electromagnetic means also associated with said armature and co-acting therewith to oscillate said armature in one direction only, means on said armature for normally preventing a coin from passing from said coin chute and adapted to release such coin when said non-polarized electromagnetic coil is actuated.



2. In a telephone coin box associated with a telephone station having therein a switch hook contact and electrically connected with a central office exchange, the combination of a coin chute, a money box, a return finger, an armature pivoted for oscillation in either direction, polarized electromagnetic means for oscillating said armature in either direction, non-polarized electromagnetic means controllable by said switch hook contact for moving said armature in one direction, means on said armature for preventing the passing of a coin from said coin chute when said armature is normally positioned to release said coin for passage to said return finger when said armature is actuated by said non-polarized electromagnetic means.

1,254,169. SHUTTLE. JOSEPH TARTAGLIONE, Paterson, N. J. Filed Dec. 8, 1916. Serial No. 135,724. (Cl. 139—27.)



1. A shuttle body having a chambered portion, a spring actuated block pivotally secured therein, and provided with a threaded socket, in combination with a quill holder having a screw threaded end, an enlarged or shoulder portion near said end, a spring hook, one end of which is secured to said shoulder portion, its other or free end terminating in a pin hook, adapted to pierce the quill from the outside, and prevent it from slipping on the spindle.

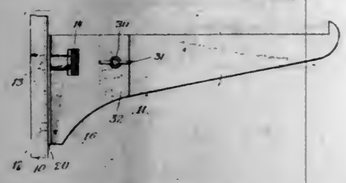
3. A quill holder, having an enlarged or shoulder portion near its inner end, a wire spring, one end of which is secured to said shoulder, its free end, terminating in a pin hook, adapted to pierce the quill from the outside, said holder or spindle having two transverse openings therethrough, oppositely located longitudinal grooves connecting said openings and an expansion wire spring bow passing through said openings and opposite said grooves to engage the inside of the quill and co-act with the external spring pin hook to prevent the quill from slipping on the spindle.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,254,170. BRACKET. JOSEPH TAUSSIG, Chicago, Ill. Filed Jan. 29, 1917. Serial No. 145,053. (Cl. 248—19.)

1. A bracket comprising an attaching member, and a detachable arm, said attaching member comprising two outer pieces and an intermediate piece permanently secured together, the outer pieces being longer than the inner piece and projecting beyond it, and said inner piece having upwardly projecting lugs, and said arm having downwardly projecting lugs on one end arranged to interlock

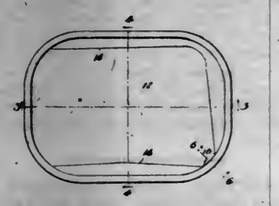
with the lugs of the inner piece, and means having a part extending through the projecting portions of the outer pieces and in front of one of the lugs of the intermediate pieces, and adapted to clamp said projecting por-



tions upon said arm, said end of the arm being formed with an opening for the passage of the clamping means whereby the arm may be detached from the attaching member without removing the clamping means.

[Claim 2 not printed in the Gazette.]

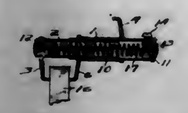
1,254,171. KEY-OPENING CAN. WILLIAM E. TAYLOR, Eastport, Me., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed May 25, 1911. Serial No. 629,298. (Cl. 220—65.)



1. A can comprising a body member and a cover having a soldered seam uniting the two, the cover being provided with an integral tearing tongue outside of the soldered seam and being provided also with scored tearing lines, the ends of which terminate inside the seam adjacent said tearing tongue, the base of the tearing tongue being separated from the terminals of said scored tearing lines by the soldered seam, substantially as specified.

[Claim 2 not printed in the Gazette.]

1,254,172. ELECTRIC CONNECTOR. FREDRICK A. TRIPP, Toledo, Ohio. Filed May 21, 1917. Serial No. 170,087. (Cl. 173—269.)



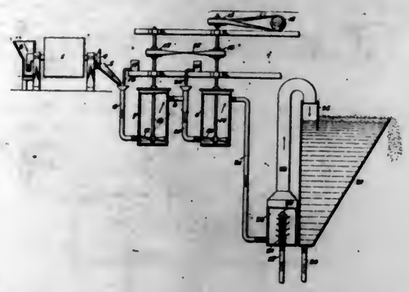
1. In a connector the combination of a tubular member having a jaw, a second tubular member telescoping the first tubular member and having a jaw at each end located on opposite sides of the second tubular member, a spring located within the tubular members and connecting the ends thereof to yieldingly draw the jaws together.

2. In a connector, a pair of telescoping tubular members having clamping jaws, a spring located within the tubular members for telescoping the tubular members drawing the jaws together, grease contained in the telescoping members and surrounding the spring.

3. In a connector, a pair of tubular telescoping members having closed outer ends and clamping jaws, a tension spring located within the tubular members and secured in the outer ends.

[Claim 4 not printed in the Gazette.]

1,254,173. PROCESS FOR THE CONCENTRATION OF ORE. JOSEPH T. TERRY, Jr., Mascot, Tenn. Filed Mar. 24, 1917. Serial No. 157,188. (Cl. 88—85.)



1. The method of recovering the valuable elements of complex sulfid ore containing iron sulfids, which comprises the treatment of crushed ore with an ammoniacal solution, thereby altering the iron sulfids to render the same substantially immune to flotation, and creating in the mixture uprising bubbles carrying the metallic values.

2. The method of recovering the valuable elements of complex sulfid ore containing iron sulfids, which comprises the treatment of crushed ore with an ammoniacal solution and a frothing agent, thereby altering the iron sulfids to render the same substantially immune to flotation, and creating in the mixture uprising bubbles carrying the metallic values.

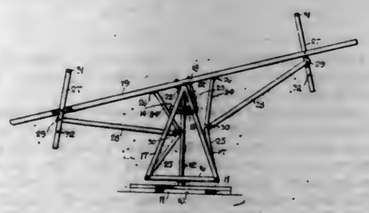
3. The method of recovering the valuable elements of complex sulfid ore containing iron sulfids, which comprises the treatment of crushed ore with a solution of lime and an ammoniacal solution, thereby altering the iron sulfids to render the same substantially immune to flotation, and creating in the mixture uprising bubbles carrying the metallic values.

4. The method of recovering the valuable elements of complex sulfid ore containing iron sulfids, which comprises the treatment of crushed ore with a solution of sodium thiosulfate and an ammoniacal solution, thereby altering the iron sulfids to render the same substantially immune to flotation, and creating in the mixture uprising bubbles carrying the metallic values.

5. The method of recovering the valuable elements of complex sulfid ore containing iron sulfids, which comprises the treatment of crushed ore with a solution of lime, an ammoniacal solution and a frothing agent, thereby altering the iron sulfids to render the same substantially immune to flotation, and creating in the mixture uprising bubbles carrying the metallic values.

[Claims 6 to 24 not printed in the Gazette.]

1,254,174. ROTATABLE SEESAW. FREDERICK T. THEBERT, Bessemer, Mich. Filed June 11, 1917. Serial No. 174,082. (Cl. 46—27.)



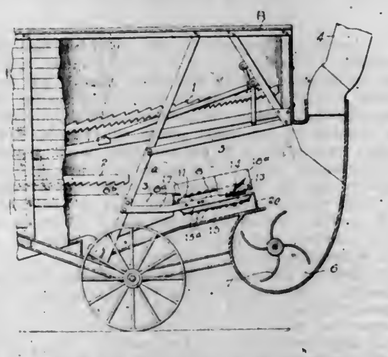
2. A see-saw comprising a base, a beam pivotally supported upon the base, operating levers pivotally mounted upon opposite ends of the beam and extending below the beam, and members causing an oscillation of the beam upon an oscillation of the levers, said members being pivoted for movement in a vertical plane and operatively bearing against the beam on opposite sides of its pivotal center, and operative connections between said levers and said members.

4. A rotatable see-saw comprising a base, a standard mounted thereon, a ratchet wheel mounted upon the standard, a supporting member rotatably mounted upon the beam and having laterally upwardly extending braces, a beam operatively supported upon said braces for oscillation in a vertical plane, pawls carried by said beam and engaging the ratchet teeth to cause a rotation of the beam, the braces and the supporting member around said standard as the beam is vertically oscillated, oppositely disposed pairs of toggle links each pair being hingedly connected to each other and to the supporting member and the beam, levers pivotally mounted upon the beam, and operating rods pivotally connected to said levers and operatively connected to the toggle links.

6. A see-saw comprising a base, supporting members mounted thereon, a beam pivotally mounted upon said supporting members for vertical movement, levers mounted upon the ends of the beam, oppositely disposed pairs of toggle links, each pair hingedly connected to each other and to the beam and the base respectively, and operating rods pivotally connected to the levers and to said toggle links.

[Claims 1, 3, and 5 not printed in the Gazette.]

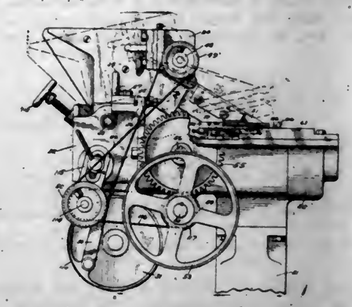
1,254,175. FEEDER FOR PNEUMATIC STACKERS. GILBERT THOMPSON, Burns, Mont. Filed Mar. 10, 1917. Serial No. 153,912. (Cl. 198—14.)



1. A feeder attachment for pneumatic stackers, including side bars formed with extensions which are adapted to embrace and be secured to the shoe of a threshing machine, prop means at the ends of the side bars for engagement with the floor of the receiving chamber of a pneumatic stacker to support the bars in an elevated position, transverse rollers journaled between the ends of the side bars, an endless conveyer belt extending around the rollers for receiving the straw and chaff from the shoe of the threshing machine and feeding it to the stacker, and means for driving the stacker.

2. A device of the character described including side bars, transverse rollers journaled between opposite ends of the side bars, an endless conveyer belt extending around the rollers, cross rods connecting the side bars at points between the rollers and adjacent thereto, and a removable plate extending under the upper reach of the endless belt, the ends of the plate being extended downwardly and constructed to interlock yieldably with the cross rods to hold the plate in position.

1,254,176. AUTOMATIC THREAD-ROLLING MACHINE. LARS WM. THORSELL, Waterbury, Conn. Filed Dec. 27, 1916. Serial No. 139,084. (Cl. 80—8.)



2. In a machine of the character described, the combination, with a chute and means for delivering blanks thereto for transmission therethrough in processional order and similar disposition, of a jaw rest carried by said chute at the foot thereof and adapted to receive and yieldingly support the foremost blank, means for checking movement of the remaining blanks in said chute while the foremost thereof is being delivered to and retained upon said jaw rest, a reciprocating die adapted to engage said blank and operate upon the same in transit, and means for advancing each blank in turn from said jaw rest to engagement by said die.

19. In a machine of the character described, the combination, with a chute and means for delivering headed blanks thereto for transmission therethrough in processional order and similar disposition, of a rest at the foot of said chute adapted to receive and support the foremost blank, a pair of oppositely reciprocating die-blocks carrying dies adapted to engage said foremost blank and operate upon the shank thereof in transit, and a finger carried by each of said die-blocks reciprocable therewith and reciprocating transversely thereof, one of said fingers being adapted to engage each blank on said rest in turn and advance the same from said rest to engagement by the other finger and one of said dies, and said other finger further advancing said blank to engagement between said dies.

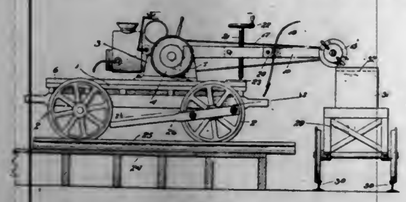
26. In a machine of the character described, the combination with a slotted chute and means for delivering blanks thereto, of a jaw rest carried by said chute at the foot thereof and comprising a pair of jaws having opposed operative faces in alinement with the slot of the chute, one of said jaws being pivoted to the chute and yieldingly pressed toward the other, said jaws being adapted to receive and support the foremost blank, said pivoted jaw being provided on its operative face with a teat projecting in the path of movement of the shanks of said blanks to check movement of the remaining blanks while the foremost thereof is being delivered to and yieldingly retained upon the jaw rest, a pair of oppositely reciprocating die blocks carrying dies adapted to engage said blank and operate upon the same in transit, means carried by the die blocks for advancing each blank in turn from the jaw rest to engagement by the dies, auxiliary means reciprocally mounted at the base of the chute and adapted to coöperate with the blank checking and advancing means, and means carried by one of said die blocks adapted to engage and actuate said auxiliary means.

[Claims 1, 3 to 18, 20 to 25, and 27 to 33 not printed in the Gazette.]

1,254,177. FRAMING-MACHINE. JOHN E. TOOHEY, Grand Rapids, Mich. Filed Feb. 5, 1916. Serial No. 76,381. (Cl. 144—133.)

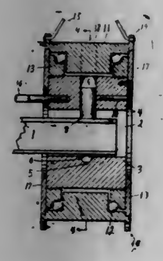
In combination with a car, a handle secured to a wheel of the car for moving the car a limited distance in either

direction, a motor on the car, a member mounted on and projecting in front of the car, a shaft carried in the forward end of the member, a rotary cutter attached to the shaft, means to drive the shaft from the motor whereby said shaft and cutter thereon may operate simultaneously with the movement of the car, and a work hold-



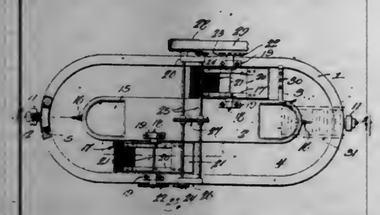
ing truck located in front of said car and mounted to move in a direction transverse to the movement of the car, said cutter lying above the truck, and said truck adapted to carry the work operated upon by the cutter, substantially as and for the purpose described.

1,254,178. WHEEL. CHRISTIAN VON ALLMEN, Louisville, Ky. Filed Aug. 23, 1916. Serial No. 116,530. (Cl. 21—142.)



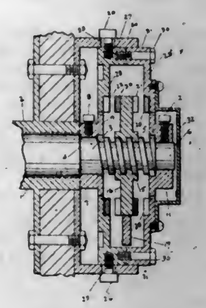
An annulus, oppositely disposed abutments on the interior thereof, one of said abutments having a bearing on its face, the other abutment having a radial perforation in alinement with said bearing, an axle having a pivot extended from one side adapted to fit in said bearing and a recess on the opposite side in alinement with said pivot and a pin fitted in said perforation and adapted to enter said recess.

1,254,179. APPARATUS FOR TREATING HIDES. JOSEPH E. VOREL, Milwaukee, Wis. Filed Mar. 6, 1917. Serial No. 152,539. (Cl. 149—10.)



An apparatus of the class described, comprising a stationary liquid containing tank having its ends rounded, the length of said tank on each side of its center being greater than its width, a longitudinally extending centrally disposed filler member positioned in the tank to form an endless channel, the portion of the same on each side of said filler member being approximately straight, each approximately straight portion of the channel being of a length substantially twice the width of the tank, and means for causing a continuous flow of fluid in one direction through said channel, said means including a revoluble agitating member disposed in each straight portion of the channel, said agitating members being adjacent the opposite ends of the filler member and on opposite sides of a vertical plane passing transversely through the center of the tank, whereby to actuate the fluid immediately after having passed around the curved ends of the channel and to give the same a relatively long sweep through the straight portions of said channel, and means for rotating said agitating members.

1,254,180. GEARLESS DIFFERENTIAL. ALBERT E. WARD, Palmer, Saskatchewan, Canada. Filed June 29, 1917. Serial No. 177,746. (Cl. 192—9.)



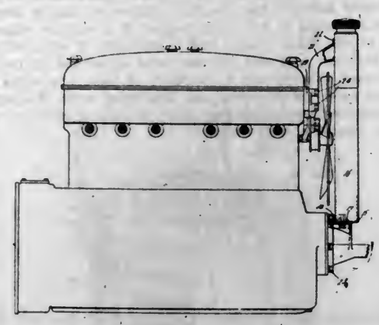
1. A gearless differential of the character described comprising, a driving member, a driven member, a pair of spaced plates carried by said driven member and each provided with a pair of clutch members, a floating nut on said driving member and provided with a plate traveling between the aforesaid plates and having clutch members coöperating with the aforesaid clutch members and also having other clutch members, plates in radial alinement with the first mentioned plates and provided with clutch members adapted to coöperate with said other clutch members, means for securing said plates to the driving member, and means for floating said nut to operative position.

3. A gearless differential of the character described comprising, a driving member, a driven member, a pair of spaced plates carried by said driven member and each provided with a pair of clutch members, a floating nut on said driving member and provided with a plate traveling between the aforesaid plates and having clutch members coöperating with the aforesaid clutch members and also having other clutch members, plates in radial alinement with the first mentioned plates and provided with clutch members adapted to coöperate with said other clutch members, means for securing said plates to the driving member, means for floating said nut to operative position, and means for limiting the floating movement of said nut.

[Claim 2 not printed in the Gazette.]

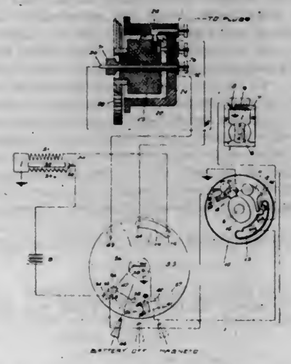
1,254,181. RADIATOR-MOUNTING FOR AUTOMOBILES. GEORGE A. WEIDELY, Indianapolis, Ind. Filed Nov. 22, 1913. Serial No. 802,376. (Cl. 123—195.)

The combination, in a motor vehicle, of a main frame, an internal combustion engine carried by the main frame and provided with a water chamber having induction and eduction openings, a chambered shelf associated with the induction openings of the engine water chamber, a radiator supported upon said shelf and having its eduction opening associated with the chamber of said shelf, and a tubular bracket forming a connection between the induction opening of the radiator and the



eduction opening associated with the chamber of said tubular bracket supporting the upper end of the radiator.

1,254,182. IGNITION SYSTEM. LEO J. WERNER, Newark, N. J., assignor to Splitdorf Electrical Company, Newark, N. J. Filed May 29, 1917. Serial No. 171,609. (Cl. 123—148.)



1. In an ignition system, the combination of a service magneto having primary and secondary windings, a circuit breaker carrying contacts on either end, one of which controls the circuit of said primary winding, an auxiliary ignition device having primary and secondary windings, an interrupter in circuit with said primary winding, a distributer, a switch for switching the secondary of the service magneto out of circuit and the secondary of the auxiliary ignition device into the distributer circuit, said switch also serving to connect the second contact of the said circuit breaker into circuit with the primary of the auxiliary ignition device, for the purpose described.

2. In an ignition system, the combination of a magneto for furnishing service sparking current, a circuit breaker for controlling the time of delivery of the sparking current of the magneto, a distributer for distributing sparking current to the spark plugs, an auxiliary ignition device for furnishing starting sparking current and a vibratory interrupter for causing a shower of sparks from said ignition device, a switch for switching the service sparking current out of the distributer and switching in the starting sparking current, said circuit breaker serving to time the delivery of sparks from the auxiliary ignition device at a later period than it times the current from the service magneto.

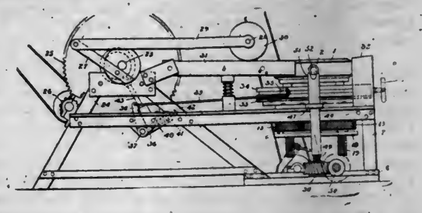
3. In an ignition system, the combination of a service magneto adapted to be positively driven and having a distributer for distributing sparking current to spark plugs, and a circuit breaker for timing the passage of the sparking current to said plugs, of a self operating ignition device and a source of current connected thereto, and a switch for directing the current from said ignition device into said distributer circuit at the same time completing a circuit through the source of power to a stationary contact adapted to coöperate with said circuit breaker for the purpose of timing the passage of sparking current to said plugs at a period later than that of the service magneto.

4. In an ignition system, the combination of a service magneto having primary and secondary windings, a main circuit breaker carrying two contacts one of which is included in the circuit of said primary winding, a distributer, an induction coil having primary and secondary windings, a source of direct current, a stationary contact adapted to coöperate with the second of said contacts on the main circuit breaker, a switch for connecting the primary of said induction coil and battery in circuit with the last mentioned pair of contacts operated by the main circuit breaker, said switch also serving to connect the secondary of the induction coil with the distributer, as described.

5. In an ignition system, the combination of a service ignition device having primary and secondary circuits, a main circuit breaker controlling one pair of contacts included in the primary circuit, a distributer, an auxiliary ignition device having primary and secondary circuits, a source of current, a second pair of contacts brought into closed position by the main circuit breaker after the first pair has been moved to open position, and a switch for including the source of current in circuit with the primary of the auxiliary ignition device and the second pair of contacts and also connecting the secondary of the auxiliary ignition device into the distributer, as described.

[Claims 6 to 11 not printed in the Gazette.]

1,254,183. MACHINE FOR MOLDING EMERY-WHEELS. JAMES FLEMING WILLIAMS, Hamilton, Ontario, Canada, assignor to Canadian Hart Wheels Limited, Hamilton, Ontario, Canada. Filed Nov. 9, 1917. Serial No. 201,024. (Cl. 25—45.)

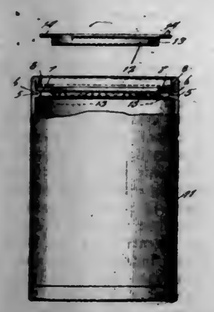


1. A machine for molding emery wheels, comprising, a mold, means for traversing a weighted roller over the mold, and means for intermittently rotating the mold and coincidently feeding the material upwardly within the mold.

9. A machine for molding emery wheels, comprising, a frame, a table rotatably supported on said frame, a mold supported on said table, a movable mold bottom adjustably supported from said table, means for adjusting said mold bottom, a weighted roller adapted to pass over said mold, a crank shaft, connecting rods secured to said roller and operated by said crank shaft, an eccentric on said crank shaft, a rocker arm adjustably connected to said eccentric, an expanding band encircling said mold table, means connected with said band and said rocker arm and adapted to loosely rotate said band on said table and to contract and grip and rotate said table, and means for regulating the slip of said band.

[Claims 2 to 8, 10, and 11 not printed in the Gazette.]

1,254,184. FRICTION-TOP PAPER CAN. FREDERICK P. WOOD, Oak Park, Ill., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed May 28, 1915. Serial No. 30,913. (Cl. 229—12.)



2. A container comprising a fibrous body which is compressed endwise to form an inwardly extending rigid flange, the exterior of the body being left continuously cylindrical and substantially smooth, a ring seated on said flange, the end edge of the body being curled over inward and abutted against said ring, and a removable friction closure having a depressed portion fitting within said ring, and having a flange which is seated on the top of said ring.

3. A container comprising a fibrous body which is compressed endwise to form an inwardly extending rigid flange, the exterior of the body being left continuously cylindrical and substantially smooth, a ring seated on said flange, the end edge of the body being curled over inward and abutted against said ring and formed with an inwardly overhanging part 10, and a removable friction closure having a depressed portion fitting within said ring, and having a flange which is seated on the top of said ring with its edge under the said overhanging part of the curled end edge of the body.

[Claim 1 not printed in the Gazette.]

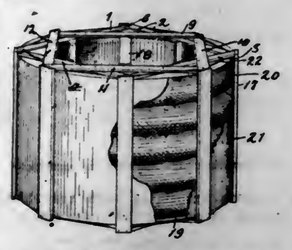
1,254,185. STEAM-BOILER FEEDER. BARNEY ZINDEL and WILLIAM H. HART, Green Bay, Wis. Filed Nov. 1, 1917. Serial No. 199,690. (Cl. 122—426.)



In combination, a boiler having a smoke box at one end, a water heater in said box, an injector, a feed water pipe leading from said injector to said heater, a return pipe from said heater into the boiler, a second injector, a second feed water pipe leading from said second injector, a three-way valve connecting said second feed water pipe with the first, a second return pipe discharging into the boiler, a second three-way valve connecting said second return pipe with the first, a by-pass pipe leading from the first named feed water pipe to one of said return pipes between said second three-way valve and the delivery end of said pipe, a valve for said by-pass pipe, and a valve for said first named feed water pipe between said by-pass pipe and said heater.

1,254,186. CRATE. JOHN M. ALDERFER, Akron, Ohio, assignor of one-half to Frederick G. Alderfer, Medina, Ohio. Filed Apr. 7, 1917. Serial No. 160,445. (Cl. 217—49.)

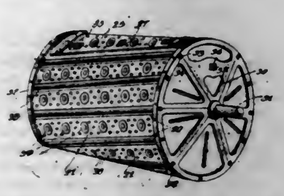
1. A crate of the class described comprising two end members, each member consisting of a pair of superposed square frames secured together, one of said frames being so disposed with respect to the other frame that a line extended between the diagonal corners or angles thereof is at an angle of 45° with respect to a similar diagonal line of the other frame, and a plurality of slats extending between said end members and connected to the inner faces thereof and a plurality of slats extending between said end members and connected with the angles or corners thereof, the two series of slats forming an annular chamber or receptacle.



4. A crate of the class described comprising two end members each end member consisting of a pair of superposed square frames secured together, the connected portions of each frame being secured together by two holdfast means, one of said frames being so disposed with respect to the other frame that a line extended between the diagonal corners or angles thereof is at an angle of 45° with respect to a similar line of the other frame, a strengthening member connecting all of the corners or angles of the two frames together and positioned between the members of each pair of holdfast means employed at the angles or corners thereof and a plurality of slats extending between the two end members and connected to the inner faces of each and a plurality of slats connected with the angles or corners of the two end members and extending between the end members, the two series of slats forming an approximately annular chamber or receptacle.

[Claims 2, 3, and 5 not printed in the Gazette.]

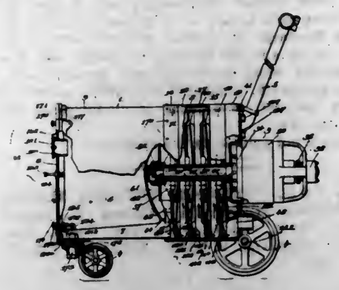
1,254,187. WASHING-MACHINE CYLINDER. GEORGE WILLIAM ALDRICH, Antigo, Wis. Filed Oct. 4, 1915. Serial No. 54,063. (Cl. 68—18.)



A cleaning cylinder adapted for horizontal disposition and comprising a peripheral wall formed of alternately arranged V-shaped staves and spacing staves, and end wall members having rubbing surfaces thereon and closing the ends of the cylinder, said V-shaped staves being inclined with respect to the axis of the cylinder, substantially as described.

1,254,188. PUMP FOR PNEUMATIC CLEANERS. GEORGE W. ALLEN, Boston, Mass., assignor to B. F. Sturtevant Company, Boston, Mass., a Corporation of Massachusetts. Filed Dec. 1, 1913. Serial No. 805,936. (Cl. 230—11.)

3. The combination of a blower, a discharge casing for the blower provided with an outlet having provision for receiving a pressure pipe connection and comprising two relatively movable parts which may be separated to enlarge the outlet opening when the pressure pipe connection is removed, substantially as described.

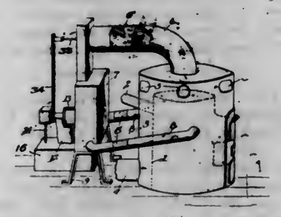


5. The combination of a plurality of fans mounted on a common driving shaft, a fan casing comprising a cylindrical inlet casing having a plane rear end face, a cylindrical discharge casing having a plane front end face, and one or more intermediate casings, each intermediate casing comprising an externally smooth cylindrical shell having plane parallel end faces and a central web within said shell provided with a central opening and having vanes extending inwardly from the shell toward the central opening and provided with longitudinally extending bolt holes where the vanes join the shell, said bolt holes being alined with similarly situated bolt holes in the other casings, and bolts passed through the bolt holes within the shells for holding the casings rigidly assembled, substantially as described.

12. A portable pneumatic cleaner having a horizontal body, a cover for closing the front of the body and having an inlet for dust laden air, a hinged door or flap on the outside of the cover, means for removably securing the cover in place so as to cause the door to be closed by gravity in one position of the cover and to be held open by gravity in another position of the cover, substantially as described.

[Claims 1, 2, 4, 6 to 11, and 13 to 16 not printed in the Gazette.]

1,254,189. AIR-MOISTENING DEVICE. FREDERIC F. BAHNSON, Winston-Salem, N. C. Filed Mar. 26, 1917. Serial No. 157,415. (Cl. 126—113.)



1. The combination with a hot air furnace, of a humidifier and means for abstracting heated air from the furnace, subjecting it to the action of the humidifier and returning it to the furnace in humidified condition.

2. The combination with a hot air furnace, of a humidifier, means for abstracting heated air from the furnace, subjecting it to the action of the humidifier and returning it to the furnace in humidified condition and means in the path of the humidified air for draining off the moisture held in unstable suspension.

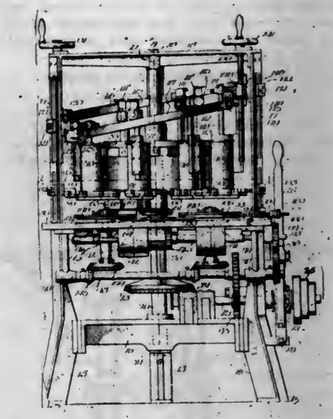
3. The combination with a hot air furnace, of a humidifier, and means for establishing an air circuit independently of the air distributing pipes, said circuit including the hot air casing and the said humidifier.

4. The combination with a hot air furnace, of a humidifier, means for establishing an air circuit independently of the air distributing pipes, said circuit including the hot air casing and the said humidifier, and means for controlling the flow of air through said circuit.

5. The combintaion with a hot air furnace, of a humidifier, means for establishing an air circuit independently of the air distributing pipes, said circuit including the hot air casing and the said humidifier, and means for controlling the degree of humidification.

[Claims 6 to 10 not printed in the Gazette.]

1,254,190. FILLING-MACHINE. LEWIS A. BAKER, Elgin, Ill. Filed Apr. 19, 1916. Serial No. 92,087. (Cl. 226—9.)



1. In a filling machine, the combination with a reservoir; a series of pump barrels communicable therewith; pistons within said barrels, and means to reciprocate them, of a single endwise sliding ported valve member associated with each pump barrel and slidable on and having continuous metal to metal contact with upper and lower guide faces, to control the withdrawal of material from the reservoir to the pump barrel and the passage of material from the pump barrel to a receptacle therebelow, and means to actuate said valves.

2. In a filling machine, the combination with a rotative reservoir; a series of pump barrels supported on the reservoir; pistons reciprocable in said barrels, and means to reciprocate them, said reservoir being provided with a series of ports adjacent to said pump barrels and the pump barrels being each provided with two bottom ports, with the two ports of each barrel arranged radially in line with an adjacent reservoir port, of a single sliding valve for each barrel provided with a port adpated to register with one of the ports of said barrel and with a part to cover the other port of said barrel.

3. In a filling machine, the combination with a reservoir having a series of ports; a series of pump barrels each having two ports adjacent to each reservoir port, and pistons within said barrels, with means to reciprocate them, of a single ported sliding valve beneath each pump barrel and having sliding contact with the bottoms of the barrel and reservoir to control the withdrawal of material from the reservoir to the pump barrel, and the passage of material from the barrel to a receptacle therebelow, and means to successively actuate said valves.

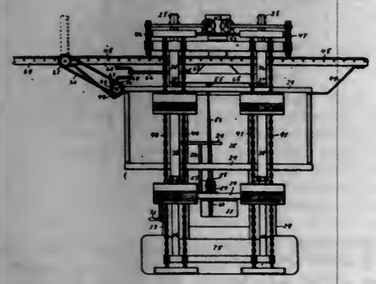
4. The combination with a reservoir provided at its bottom with an outlet port, a pump barrel at the side thereof provided with two bottom ports, one of which is adapted to be connected by a passage with said reservoir and a piston in said barrel, with means to actuate the same, of a valve member slidable in said passage toward and from the reservoir port and having extended

metal to metal contact at its upper and lower sides with the upper and lower walls of said passage to provide liquid tight joints, and provided with a through port adapted to register with one of said bottom ports, with means to actuate said valve member.

5. In a filling machine the combination with a reservoir provided at its bottom with an outlet port, a pump barrel at the side thereof provided with two bottom ports, arranged in radial alinement with the reservoir port, and a guide plate applied to the bottom of the reservoir and extending outwardly beneath the bottom of said barrel to provide a passage through which the reservoir port communicates with one of said bottom ports, and itself provided with a port in register with the other of said bottom ports, of a valve piece slidable in said passage and having metal to metal contact throughout its length with said plate and the bottom of the reservoir and barrel and provided with a port adapted to register with said registering ports.

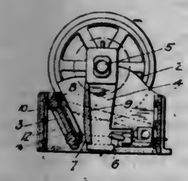
[Claims 6 to 31 not printed in the Gazette.]

1,254,191. GRADING AND EARTH-MOVING MACHINE. WALTER S. BALES, Des Moines, Iowa. Filed Jan. 9, 1915. Serial No. 1,414. (Cl. 37—24.)



A digging machine comprising in combination a truck, a bracket frame mounted for vertical movement in advance of and carried by said truck, a frame mounted for reciprocation on said bracket frame and in a direction transverse to the body of the truck, means for reciprocating said reciprocating frame, a plurality of spaced endless digging devices mounted on said reciprocating frame, said digging devices cutting a path of greater width than said truck, and means whereby said bracket frame may be raised or lowered.

1,254,192. ROCK-CRUSHER. JOSEPH S. BARTLEY, Denver, Colo. Filed Jan. 29, 1917. Serial No. 145,201. (Cl. 83—53.)



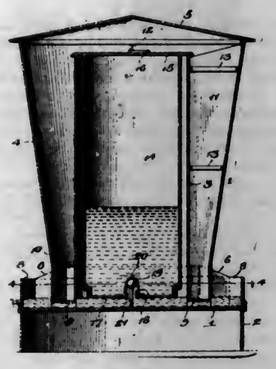
1. A jaw for rock crushers comprising a bed-plate having in its face, a groove which is open at the lower end thereof, and a face-plate removably secured upon the face of the bed plate and having an up and downwardly extending slot in register with said groove.

3. A jaw for rock crushers comprising a bed-plate having in its face, a groove which is open at the lower end thereof, and a face-plate removably secured upon the face of the bed plate and having a slot in register with said groove, said groove being wider than said slot to facilitate the downward passage of material entering through the slot.

4. A rock crusher comprising a pair of jaws spaced at their lower ends to provide a passage of restricted width for the discharge of crushed material, one of said jaws having an up and downwardly extending slot of a width substantially equal to that of said passage, and in connection therewith, a channel to conduct material passing through the slot, to a point of discharge at the lower end of the jaw.

[Claim 2 not printed in the Gazette.]

1,254,193. COMBINED POULTRY FEEDER AND DRINKING-FOUNTAIN. GEORGE W. BEACH, Saybrook, Conn., and CLAYTON VON CULIN, New York, N. Y. Filed Oct. 2, 1916. Serial No. 123,370. (Cl. 119—52.)

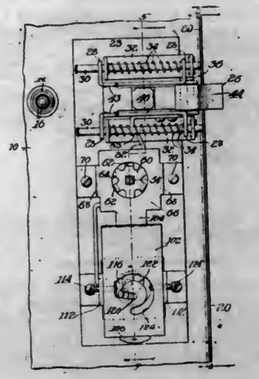


A poultry feeding and watering device comprising a pan having a hopper wall rising therefrom, a water tank within said wall, and partitions extending across the space between said hopper wall and the pan wall to divide said space into feed and water pockets, said water pockets communicating with said tank and said hopper wall having notches in its lower end extending between said water pockets to place the feed pockets in communication with the space between said tank and the hopper wall, certain of said partitions extending vertically across said notches; in combination with removable partitions in said space between the tank and hopper walls and abutting the inner edges of said last named partition.

1,254,194. EMERGENCY-LOCK. FERNANDO J. LE BEAU, Chicago, Ill., assignor of one-half to Frederick Lundin, Chicago, Ill. Filed Mar. 12, 1917. Serial No. 154,143. (Cl. 70—29.)

1. A device of the class described, in combination, a suitable support, a latch mechanism, a lever pivoted a distance from the latch mechanism and engaging the latch mechanism to operate it, an enlargement upon said lever provided with an elongated slot extending transversely thereof, a pivoted operating shaft so located as to extend through said elongated slot in the lever, and means carried by said shaft engaging the enlargement of the lever, so placed that rotating the shaft in either direction will correspondingly rock the lever.

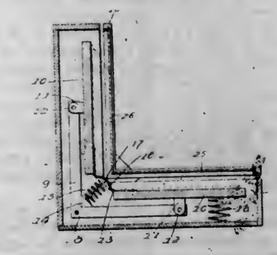
2. A device of the class described, in combination, a suitable support, a latch mechanism, a lever pivoted a distance from the latch mechanism and engaging the latch mechanism to operate it, an enlargement upon said lever provided with an elongated slot extending transversely thereof, a pivoted operating shaft so located as to extend through said elongated slot in the lever, and means carried by said shaft engaging the enlargement of the lever, so placed that rotating the shaft in either direction will correspondingly rock the lever, said engaging means being also so located that the lever may be rocked entirely independently of said lugs and the shaft connected therewith.



6. In a device of the class described, in combination, a suitable support, a latch mechanism, a lever pivoted a distance from the latch mechanism and engaging the latch mechanism to operate it, an enlargement upon said lever provided with an elongated slot extending transversely thereof, a pivoted operating shaft so located as to extend through said elongated slot in the lever, lugs carried by said shaft embracing the outside of the enlargement of the lever, so placed that rotating the shaft in either direction will correspondingly rock the lever, said lugs being also so located that the lever may be rocked entirely independently of said lugs and the shaft connected therewith, and a key-controlled locking device adapted to secure said lugs and shaft without interfering with movement of the lever.

[Claims 3 to 5 and 7 not printed in the Gazette.]

1,254,195. COPY-HOLDER. GEORGE C. BEIDLER, Rochester, N. Y. Filed Jan. 28, 1914. Serial No. 815,026. (Cl. 45—86.)



1. In a copy holder, copy supports for retaining part of the copy at an angle with relation to another part of the copy, means between the said supports and having reciprocal movement for exerting pressure on the copy at the angle thereof, and means for resisting the pressure of the said means for exerting pressure.

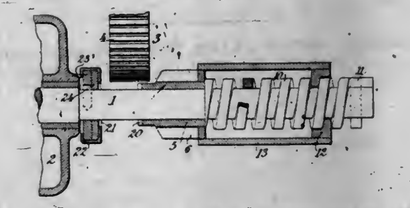
2. In a copy holder, copy supports for retaining part of the copy at an angle with relation to another part of the copy, means for exerting pressure on the copy at the angle thereof to urge it outwardly, and means fitting the angle of the copy for exerting pressure on the copy in a direction opposite to the pressure exerted by the first mentioned means.

3. In a copy holder, copy supports at an angle to each other, means for yieldingly holding the copy supports, means between the copy supports for pressing copy outwardly, and angular means for holding the copy against the support and the last mentioned means.

4. In a copy holder, means for supporting bound sheets in open position, means mounted to move outwardly between the first mentioned means for exerting pressure on the sheets substantially at their junction, and angular means pressing the copy at the angle thereof for resisting the pressure of the said means for exerting pressure.

5. In a copy holder, backing plates, means for supporting the backing plates at an angle to each other, a flexible connection between the adjacent edges of the backing plates, means for exerting pressure on the flexible connection and a member coacting with the pressure exerting means for wedging the leaves of a copy at their points of attachment to each other.

1,254,196. AUTOMATIC CLUTCHING OR STARTING DEVICE. CARL BERGMANN, Jr., West Hoboken, N. J. Filed Dec. 23, 1916. Serial No. 138,546. (Cl. 74—7.)



1. A driven shaft, an axially movable driving part upon said shaft, a coiled spring, a complementary driven part, and means for producing relative axial movement between said shaft and one of said spring and driving part to bring said driving part into engagement with said complementary driven part.

3. A driven shaft, an axially movable driving part upon said shaft, a coiled spring fixed to said shaft, a complementary driven part, and means for producing relative axial movement between said spring and said driving part to bring said driving part into engagement with said complementary driven part.

4. A driven shaft, an axially movable driving pinion upon said shaft, a coiled spring fixed upon said shaft, a nut connected to said pinion and adapted to mesh with said coiled spring, a complementary driven part, and means for driving said shaft, said shaft, through the medium of the engagement of said spring and nut, shifting said driving pinion into engagement with said complementary driven part.

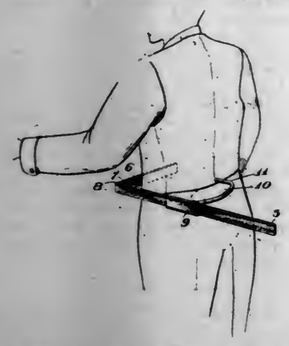
5. A driven shaft, an axially movable driving pinion upon said shaft, a coiled spring fixed upon said shaft, a nut, a sleeve connecting said nut to said pinion, said nut being adapted to mesh with said coiled spring, a complementary driven part, and means for driving said shaft, said shaft, through the medium of the engagement of said spring and nut, shifting said driving pinion into engagement with said complementary driven part.

[Claims 2 and 6 not printed in the Gazette.]

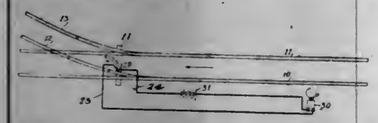
1,254,197. MEASURING INSTRUMENT. EDWARD C. BERRIMAN, Chicago, Ill. Filed Dec. 26, 1916. Serial No. 138,815. (Cl. 33—2.)

A measuring instrument comprising a straight calibrated member, a straight arm hingedly connected to said member, said member providing an abutment which limits its outward swinging movement of said arm when the latter is disposed normally with respect to said member, a slide on said calibrated member, and a finger secured to said slide and movable therewith, said finger being outwardly curved adjacent said slide and having an inwardly

directed tip at its free end opposite the free end of said arm, the calibrations on said member indicating the perpendicular distance from said arm to the tip of said finger.



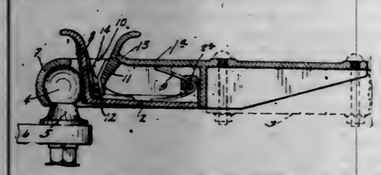
1,254,198. SIGNAL-ALARM FOR SWITCHES. GÁBOR BÁCSI, Gary, W. Va. Filed Dec. 19, 1916. Serial No. 137,790. (Cl. 246—21.)



1. In a safety-alarm for railway switches, a housing located directly below a movable switch rail, a slot in said housing equal in length to the movement of said rail, an electric switch in the housing having two terminal contacts, one of which is fixed in the vertical plane of said rail when open, a bridging contact arm pivoted upon the other terminal contact and engageable with the first one to close a circuit, and insulated means through said slot positively connecting said bridging arm with said rail whereby coincidentally to move the former with the latter.

[Claim 2 not printed in the Gazette.]

1,254,199. POLE-COUPLING. MILTON D. BRICE and ALFRED L. BRICE, Minneapolis, Minn. Filed May 22, 1916. Serial No. 99,134. (Cl. 213—67.)

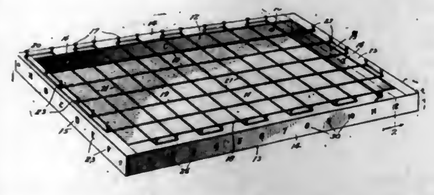


1. In a pole coupler, the combination with a ball, of an approximately U-shaped socket member having a socket engaging one side of the said ball, a dog pivoted to said socket member and having a free end portion engageable with the opposite side of said ball, and a spring pressed lock lever pivoted to said dog and engageable with said socket member to hold said dog in an operative position.

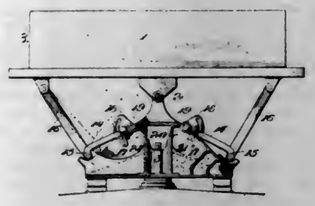
[Claim 2 not printed in the Gazette.]

1,254,200. SEED-TESTING TRAY. FRANK A. BURGESS, Geneva, Ill. Filed Dec. 22, 1916. Serial No. 138,382. (Cl. 47—30.)

A seed testing device, comprising a tray provided with pins spaced around the margins thereof, and a single flexible cord threaded back and forth between said pins in parallel relation longitudinally and transversely of the tray to form a plurality of substantially rectangular seed planting compartments.



1,254,201. COMPRESSION-LOCK FOR DUMP-CARS. WILLIAM L. BURNER, JAMES D. BENBOW, and DAVID GREENE, Columbus, Ohio, assignors to The Kilbourne & Jacobs Manufacturing Company, Columbus, Ohio. Filed Mar. 19, 1917. Serial No. 155,855. (Cl. 105—190.)



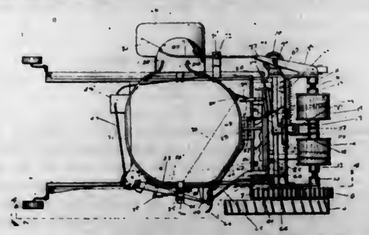
1. In a car having a bed adapted to be tilted for dumping and an underframe, a bar arranged for engagement through compression with said car bed and underframe to maintain said car bed in normal position, a shaft, a rocker arm thereon, a link pivotally associated with said bar and said rocker arm, said rocker arm being slotted to permit said link to accommodate its position to the movement of the lock bar on the side of the car bed which is elevated during the dumping operation, without disturbing the normal position of the shaft on that side.

2. In a car having a car bed adapted to be tilted for dumping and an underframe, a bar pivoted on said car bed and adapted for engagement under compression with said underframe to support said car bed against tilting, an operating shaft mounted on said car, a rocker arm having a slot therein on said shaft, a link having pivotal connection with said bar at one end and with said rocker arm through said slot at its other end, and a stop adapted for engagement with said link when the said parts are in normal position.

3. In a car having a car bed adapted to be tilted for dumping and an underframe, a bar pivoted on said car bed and adapted to engage said underframe to support said car bed against tilting, an operating shaft mounted on said car, a rocker arm on said shaft, a link formed with a nose thereon having pivotal connection with said bar at one end and with said rocker arm at its other end, a stop on said underframe adapted to be engaged by said nose when the said parts are in normal position.

1,254,202. STOOKING-MACHINE. DAVID BUSHBY, Keddleston, Saskatchewan, Canada. Filed Aug. 29, 1917. Serial No. 188,866. (Cl. 56—121.)

1. In combination in a stooking machine, a supporting frame, a sheaf receiving basket mounted thereon, a carriage reciprocable on said frame, means for reciprocating said carriage, a stooker frame mounted in said carriage and consisting of a fixed section and a section adapted to open and close, a spring acting to open this latter section, means for preventing the action of said spring, means for releasing said opening member, to be actuated by said spring, means for delivering sheaves from said basket to said stooker frame, and means for operating said stooker frame to deposit a stook therefrom.

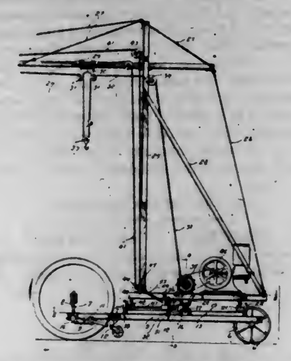


22. In a stooking machine, a yielding stook-forming frame adapted to have a sheaf-receiving opening, in combination with a compressor band arranged within said frame behind said opening, means for keeping said band under tension to hold the sheaves together in position for a stook, and means for freeing said band from tension when said frame is fully supplied.

25. In a stooking machine, a stooker-frame, in combination with a compression band normally under tension arranged within said frame for compressing the sheaves, and means for relieving said band from tension at a certain time.

[Claims 2 to 21, 23, and 24 not printed in the Gazette.]

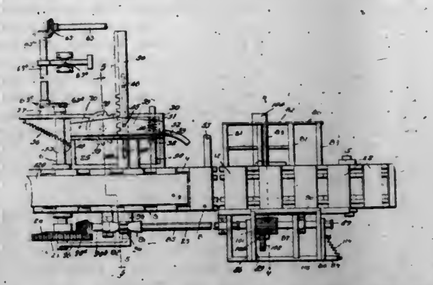
1,254,203. CORN-SHOCK-LOADING MACHINE. GARFIELD H. CALEY, Waterford, Wis., assignor of one-third to Herman J. Hembrook, Waterford, Wis. Filed Nov. 10, 1916. Serial No. 130,531. (Cl. 212—56.)



1. A machine of the class described including a turntable, means for rotating the turntable including a shaft journally carried thereby, a boom carried by the turntable, a carriage movable on the boom, a hoisting rope carried by the carriage, a main drive shaft, a clutch controlled hoisting rope drum mounted on the main drive shaft, a shifting rope connected with the carriage, a drum for the shifting rope, an intermediate shaft, clutch connections between said intermediate shaft and the shifting rope drum and first named shaft, and a drive connection between the main drive shaft and said intermediate shaft.

2. A machine of the class described including a turntable, a trio of shafts disposed parallel to each other and journally carried by said turntable, a clutch controlled hoisting rope drum mounted on one of said shafts, a clutch controlled shifting rope drum disposed on another of said shafts, a clutch controlled driving connection between the other of said shafts and the shifting rope shaft, a geared connection between the last mentioned shaft and the hoisting rope shaft, means for rotating the hoisting rope shaft, whereby to actuate said other shafts, a boom carried by the turntable, a carriage movable on the boom, a hoisting rope carried by the carriage and connected with said hoisting rope drum, a shifting rope connected with the carriage and the shifting rope drum, and means operable by one of said shafts for rotating said turntable.

1,254,204. BRICK-CONVEYER. CHARLES CONNOR, Redfield, S. D. Filed Oct. 28, 1914. Serial No. 869,129. (Cl. 25—1.)

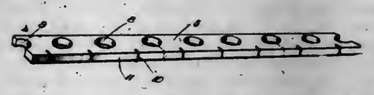


1. In a brick conveyer structure, a conveyer, means for automatically feeding brick carrying pallets to said conveyer and means operated synchronously with the movement of said conveyer for forcing the pallets therefrom.

7. In a brick conveyer structure, a supporting frame, a conveyer operatively carried by said supporting frame, means for operating said conveyer, a track supported transversely of said supporting frame, a car carried by said track, means carried by said car for automatically feeding brick carrying pallets upon said conveyer, means for causing said car to move synchronously with said conveyer for a short distance, and automatic means for releasing said car for independent movement of said conveyer for returning it to normal pallet receiving position, a shaft supported by said supporting structure and extending longitudinally thereof, a frame carried by said supporting structure and extending transversely therefrom and in a horizontal plane, a plurality of arms supported by said frame, and means connecting said shaft and said arms for moving said arms outwardly over said conveyer for forcing pallets from said conveyer.

[Claims 2 to 6 not printed in the Gazette.]

1,254,205. NAILING STRIP OR BLOCK. EDWIN B. COSBY, Kansas City, Mo. Filed Feb. 12, 1917. Serial No. 148,096. (Cl. 72—105.)



1. A nailing strip comprising a flat body member having apertures therein forming mortar key recesses, and having separated portions along a longitudinal edge for the purpose set forth.

2. A nailing strip comprising a flat body member having perforations therein for receiving a mortar key, having recesses in the opposite ends of the strip and having separated portions extending from its opposite longitudinal edges and adapted for separate removal therefrom.

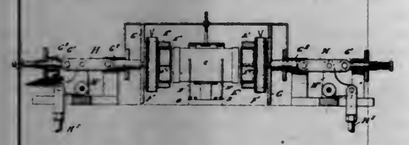
3. The combination with building blocks comprising end and intermediate cross webs, of a nailing strip comprising a flat body member adapted for seating between the building blocks and having apertures therethrough registering with said block webs to receive a mortar key.

1,254,206. PACKAGE-TIE. GEORGE T. CULL, Wickliffe, Ky. Filed June 20, 1916. Serial No. 104,768. (Cl. 24—18.)



A package tie comprising a fastening member made of sheet metal having a central body portion, two oppositely arranged lateral wing shaped portions and an extended tail portion through the latter of which is formed a perforation, a notch being formed between the two wing portions in front of the body and between each wing portion and the tail, said notches being wider at their inner ends than at their outer ends and having semi-circular bottoms, and a length of cord or twine secured in the perforation in the tail portion and adapted to be wrapped about the package and then about the body of the fastening member within the aforesaid notches to provide a non-sliding fastening for the cord or twine.

1,254,207. MACHINE FOR APPLYING PAPER ENDS TO PAPER CAN-BODIES. WILLIAM J. CULLEN, Detroit, Mich., assignor to Detroit Can Company, Detroit, Mich., a Corporation of New Jersey. Filed Mar. 17, 1913. Serial No. 754,706. (Cl. 93—55.)



1. In a machine for conforming paper ends to the bodies of vessels, the combination of a series of successively arranged cup-shaped dies, means for heating said dies, means for feeding said bodies with paper ends loosely applied thereto successively from one die to the next die, and means for causing said dies to conform the paper ends around the exteriors of said bodies, whereby said ends receive successive conformations and are caused to fit said bodies and maintain the shape to which they have been conformed.

11. In a machine for conforming separate paper ends to vessel bodies, in combination: a series of opposing cup-shaped dies arranged at successive stations for compressing and conforming said ends exteriorly on said bodies; means for feeding said bodies and ends successively to said stations and means for actuating said dies.

12. In a machine for conforming separate paper ends to vessel bodies, in combination: a series of opposing cup-shaped dies arranged at successive stations for compressing and conforming said ends; means for heating said dies; means for feeding said bodies and ends successively to said stations and means for actuating said dies.

14. In a machine for conforming separate paper ends to vessel bodies, in combination: a series of opposing cup-shaped dies arranged at successive stations for compressing and conforming said ends; electric resistance coils carried by said dies; means for feeding said bodies and ends successively to said stations; means for actuating said dies; and means for causing the bodies with applied ends to remain central between and disengaged from opposing dies when the dies are withdrawn.

[Claims 2 to 10, 13 to 15, 17, and 18 not printed in the Gazette.]

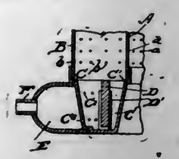
1,254,208. ENVELOP-OPENER. NORVAL CUNNINGHAM, Pennsboro, W. Va. Filed Dec. 14, 1915. Serial No. 66,841. (Cl. 120—35.)

An envelop opener including a channeled handle member, a flat spring secured at its intermediate portion on the bottom of the channel, a knife blade pivotally mounted in one end of the channel and movable into and out of the channel, the pivotal portion of the blade being formed with an inclined notch in the inner edge thereof for the reception of the adjacent end of the spring at times, a lug on said blade outwardly of the notch for engagement with the end of the spring to hold the blade extended from



the channel at an acute angle, said inner edge of the pivotal portion of the blade being also formed with a flattened face for engagement by the inner face of the adjacent end of the spring at times to hold the blade within the channel, and a fingerpiece on the pivotal portion of the blade projecting beyond the end of the handle for moving the blade into and out of the channel.

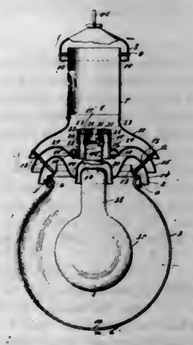
1,254,209. HYDROCARBON-BURNER. HAWLEY E. DAINES, Orion, Mich., assignor to Gas Oil Stove Company, Detroit, Mich., a Corporation of Michigan. Filed Sept. 27, 1916. Serial No. 122,338. (Cl. 158—86.)



2. In a hydrocarbon burner, a vaporizing chamber including inner and outer walls offset to form spaced ledges, the outer wall of the chamber having relatively small apertures, inner and outer cylindrical chimneys seated on the respective ledges of the vaporizing chamber walls, a seamless fuel channel substantially semi-circular in cross section surrounding the vaporizing chamber with its open side rigidly secured to the outer wall of the vaporizing chamber with the upper free edge of the channel disposed immediately under the ledge of the outer wall of the chamber, the chamber and channel having communication through said relatively small apertures in the outer wall of the chamber whereby the escape of unpleasant odors from the channel incident to the heating of the oil is prevented.

[Claim 1 not printed in the Gazette.]

1,254,210. ELECTRIC-LIGHT FIXTURE. JOHN H. DALE, New York, N. Y., assignor to Dale Lighting Fixture Company, a Corporation of New York. Filed Apr. 3, 1915. Serial No. 18,890. (Cl. 173—358.)

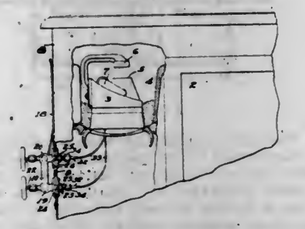


2. A socket for electric lamps comprising a base and metallic shell mounted therein, said base and shell each having ventilating passages therein communicating with each other.

3. A socket for electric incandescent lamps comprising a base having a chamber therein and a central ventilating passage in its top communicating with said chamber, a metallic shell mounted in said base having an opening in its top communicating with the opening in said base, and a contact mounted in said chamber projecting through said opening in said shell, said opening in said shell being of greater size than said contact.

[Claims 1 and 4 to 6 not printed in the Gazette.]

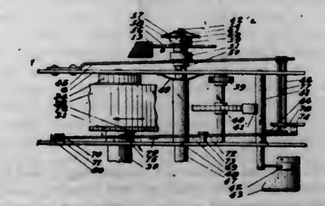
1,254,211. VALVE FOR GAS-BURNERS. WILBUR F. DAY, St. Paul, Minn. Filed June 5, 1916. Serial No. 101,770. (Cl. 158—120.)



1. The combination, with a stove and a liquid fuel burner mounted in the fire box thereof, of a casing having a fuel supply passage running lengthwise thereof, valve casings having ducts communicating with the ends of said passage and needle valves for said ducts, said casings having nipples formed thereon for passing through openings in the wall of the stove, said nipples having chambers formed therein and ball valve carriers loosely mounted in said chambers and having passages therethrough, balls mounted loosely within said carriers and having a limited movement therein for closing said passages against backward flow of the fuel back of the burner flame, tubes connected with the burners respectively and couplings for connecting said tubes with said nipples.

2. A valve for controlling the flow of liquid fuel to a burner comprising a casing having a fuel supply duct therein and a needle valve for said duct, a flexible tube leading from said duct to the burner, a cage mounted in said duct between said needle valve and said tube and having a port therethrough, and a valve loosely mounted in said cage for closing said port.

1,254,212. ALARM-CLOCK. FREDERICK S. DENISON, Minneapolis, Minn., assignor to Minneapolis Heat Regulator Company, Minneapolis, Minn., a Corporation. Filed Dec. 17, 1915. Serial No. 67,385. (Cl. 58—17.)

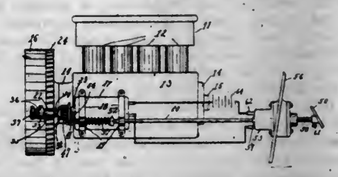


1. An alarm clock comprising a time mechanism, an alarm attachment including a gear driven from said time mechanism, a pin mounted therein, flanges disposed upon opposite sides of said gear and having notches therein and cam surfaces to receive said pin at predetermined intervals, and means becoming operative when said pin enters either of said notches to release said alarm attachment.

3. An alarm clock comprising a time mechanism, an alarm attachment having a vibratable hammer and arm extending from the shaft of the hammer, a drum containing a spring and connected by a train of gears with the shaft of the hammer to vibrate the hammer, a slidable spring influenced bar having a part positioned to be brought into the path of movement of the arm of the hammer shaft, projections on said bar and the spring drum, respectively, and means for bringing said projections into engagement with each other at a predetermined time to shift the bar and bring it into the path of movement of the arm of the hammer shaft to check the vibration of the hammer.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,254,213. ENGINE-STARTER. EDWARD I. DEUTSCH, Cincinnati, Ohio. Filed Nov. 17, 1916. Serial No. 131,884. (Cl. 74—7.)



1. A starter for engines comprising in combination a pair of gears whose axes of rotation are substantially parallel and provided with teeth at angles to said axes, means comprising a moving member for causing axial movement between said gears for causing drive connection between the same, and automatic means moving said moving member to the side of the path of said axial movement.

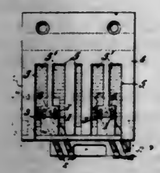
2. A starter for engines comprising in combination a pair of gears whose axes of rotation are substantially parallel and provided with teeth at angles to said axes, one of said gears arranged for connection with the engine and the other of said gears arranged for connection with a starting motor, means comprising a moving member for causing axial movement between said gears for causing drive connection between the same, the angularity of said teeth causing reverse axial movement between said gears upon excess of peripheral speed of said engine gear with relation to the peripheral speed of said motor gear, and automatic means moving said moving member out of the path of said reverse axial movement.

6. In a starter for engines, the combination with the crank-shaft of the engine, of a plurality of gears provided with teeth extending at angles to the axis of rotation of said crank-shaft, one of said gears having operative connection with said crank-shaft, means comprising a moving member coacting with a gear of said plurality of gears causing axial movement between said gears for causing drive connection between the same, and automatic releasing means between said moving member and said last-named gear whereby said last-named gear moves to the side of said moving member.

9. In a starter for engines, the combination with a gear arranged for initially driving an engine, a pinion arranged to mesh with said gear, said gear and pinion having substantially parallel axes of rotation and provided with teeth at an angle to said axes of rotation, a drive-shaft for said pinion, a driving connection between said drive-shaft and pinion, manual means for moving said pinion axially for engagement of the teeth of said pinion with the teeth of said gear and for engagement of said driving connection, a trip operated by said pinion for disengaging said manual means, the angularity of said teeth causing reverse movement of said pinion upon excess of peripheral speed of said gear with relation to the peripheral speed of said pinion, and tripping means for automatically returning said manual means to normal pinion-engaging position.

[Claims 3 to 5, 7, 8, and 10 to 12 not printed in the Gazette.]

1,254,214. THROAT-PLATE FOR DOUBLE-CHAIN-STITCH MACHINES. ALBERT H. DE VOE, Westfield, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Dec. 1, 1916. Serial No. 134,253. (Cl. 112—5.)

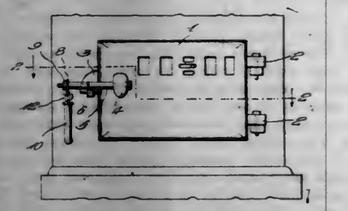


1. In a multiple thread chain-stitch machine, in combination, work-feeding mechanism, a needle, a thread carrying looper, and a throat-plate provided with a needle-hole and having a wall located in rear of the needle-hole and inclined to the line of seam-formation whereby in the formation of stitches the limbs of a needle-loop are deflected from the path of the needle.

2. In a throat-plate provided with one or more elongated needle-holes, a bar-like member having a front wall or face arranged across each elongated needle-hole at an inclination to its length, said front wall or face terminating a substantial distance below the upper face of the throat-plate.

[Claim 2 not printed in the Gazette.]

1,254,215. FURNACE-DOOR HANDLE. JAMES L. DICKINSON, Centralia, Ill. Filed Mar. 8, 1917. Serial No. 153,435. (Cl. 110—176.)

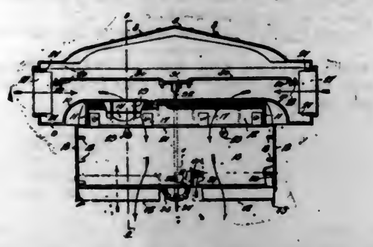


In a device of the character described a furnace door, a knob on said door, said knob having an opening transversely therethrough, an arm passing through said opening, a sleeve carried by said arm, the inner end thereof abutting said knob, a link member having an opening in each of its ends, a handle of non-heat conducting material connected through one of said openings with said link member, the other of said openings passing over the outer end of said arm and abutting the outer end of said sleeve, a nut holding said link and said sleeve on said arm.

1,254,216. VENTILATOR. GEORGE A. L. DRAWS, Milwaukee, Wis. Filed Jan. 13, 1917. Serial No. 142,164. (Cl. 98—31.)

1. A ventilator comprising a T-shaped casing including a body portion and a head portion, said head portion being formed by two telescoping sections, the outer section thereof being bulged outwardly in a relatively wide V and the inner section having its wall broken for communication with the body portion, said wall being inwardly offset at the sides of its aperture to form curved deflecting surfaces, and means in the head portion for controlling the entrance of air thereto.

2. A ventilator comprising a T-shaped casing including a body portion and a head portion, the outer wall of said head portion being bulged outwardly in a relatively wide V and the inner wall being apertured for communication with the body portion, inwardly offset curved portions extending along the sides of said aperture to provide a communication with the atmosphere and to form air deflecting surfaces extending through substantially a quarter circle in said head portion, a passage beneath said aperture and communicating with the atmosphere and with a passage in the body portion and the passage formed by said curved deflecting surfaces, and means in the head portion for controlling the entrance of air thereto.



3. A ventilator comprising a T-shaped casing including a body portion and a head portion, said head portion being formed by two telescoping sections, the outer section being bulged outwardly in a relatively wide V and the inner section having its wall apertured to communicate with the body portion, inwardly offset and curved deflecting surfaces in the wall of the inner section and at the sides of its aperture, said wall being inclined rearwardly from its bottom edge and terminating at the aperture and forming openings communicating with the atmosphere, and a partition near the bottom of the body portion forming an outlet passage communicating with said openings formed in the bottom of the wall of said inner section substantially as described.

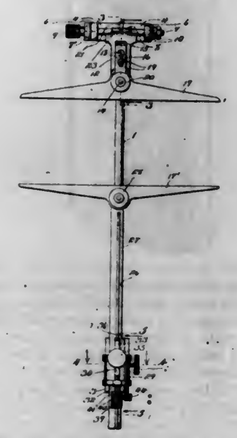
1,254,217. BOTTLE-BRUSH. ULYSSES G. DRUMMOND, Kersey, Colo. Filed June 8, 1916. Serial No. 102,540. (Cl. 141—7.)



1. A bottle cleaning implement comprising a handle, a brushing element provided upon one end thereof, a second brushing element mounted on the handle and comprising a cup element having a central opening through which the handle passes, resilient members having portions extending diametrically across the inner face of the cup element with their intermediate portions engaging the handle and their extremities engaging the sides of said cup element, and a cleaning element secured within said cup element.

2. A bottle cleaning implement comprising a handle, a brushing element provided upon one end thereof, and a second brushing element mounted on the handle comprising a cup shaped element having a central opening through which the handle passes, resilient members within the cup member adapted to engage the sides thereof, and the handle to frictionally retain the cup element in any position subsequent to adjustment longitudinally of the handle, and a cleaning element secured within the cup element.

1,254,218. MEASURING INSTRUMENT. HENRY ESKELINEN, Milwaukee, Wis. Filed May 31, 1917. Serial No. 171,809. (Cl. 33—163.)



1. A measuring device as described comprising a yoke frame the arms of which are provided with portions extending laterally of said arms, a blade member adjustably secured to one of said portions, a bar slidably mounted in the other of said portions, and a second blade member adjustably secured to the inner end of said bar.

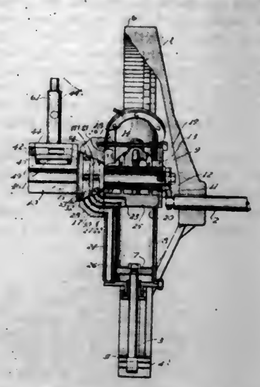
2. A measuring instrument as described comprising a yoke frame member, the arms of which are provided with portions extending laterally of said arms, a blade member adjustably secured to one portion thereof, an arm slidably mounted in the other of said portions, a second blade member adjustably carried by the inner end of said arm, and means in connection with the first blade member for securing the micrometric adjustment of the instrument substantially as described.

3. A measuring instrument as described comprising a yoke frame member, the arms of which are provided with portions extending laterally of said arms, a blade member adjustably secured to one portion of said frame, a second blade member adjustably carried by the other portion of said frame, transversely alined ears formed on the portion of said frame carrying the first named blade, and means journaled in said ears and connected with the first blade member for securing the micrometric adjustment of the instrument substantially as described.

[Claims 4 and 5 not printed in the Gazette.]

1,254,219. ENGINE. JOHN FORSTROM, Chicago, Ill. Filed Apr. 22, 1916. Serial No. 92,853. (Cl. 121—64.)

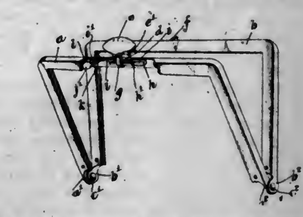
1. An engine, comprising a driven rotatable member, a plurality of pistons radially mounted on said member, a plurality of cylinders coöperating with said pistons, said cylinders being mounted to rotate around a support therefor which is eccentric to the support for said driven rotatable member, and a valve structure arranged to supply an operating fluid to said cylinders during their rotation, said valve structure being provided with two sets of four annularly alined grooves, passages connecting the opposite grooves of opposite sets, and adjustable means for supplying steam to any pair of communicating grooves



and providing an outlet from two pairs of the remaining grooves.

[Claim 2 not printed in the Gazette.]

1,254,220. BAG-FASTENER. FRANZ A. FULLER, Newark, N. J., assignor to J. E. Mergott Company, Newark, N. J., a Corporation of New Jersey. Filed Nov. 21, 1914. Serial No. 873,261. (Cl. 70—116.)



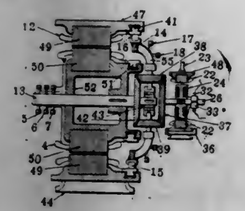
1. A bag fastener embodying therein a channeled member having an opening therethrough adapted to receive the spring lug of a lift member or knob, a lift member or knob having a spring lug thereon adapted to be projected through said opening and within said channeled member, a looped spring having parallel sections, one of said sections being operatively connected with said lug and the other section terminating in a projection extending angularly thereto, a keeper carried by said channeled member, engaging the said projection and tensioning said spring, and a nose or catch adapted to be mounted upon a member movable with relation to said channeled member and to be operatively engaged by said lift member or knob.

2. A bag fastener embodying therein a channeled member having an opening therethrough adapted to receive the spring lug of a lift member or knob, a lift member or knob having a spring lug thereon adapted to be projected through said opening and within said channeled member, a looped spring having parallel sections, one of said sections being operatively connected with said lug and the other section terminating in a projection extending angularly thereto, a keeper comprising an angular bracket one arm of which is permanently attached to said channeled member and the other arm of which is recessed to engage said projection and tension said spring, and a nose or catch adapted to be mounted upon a member movable with relation to said channeled member and to be operatively engaged by said lift member or knob.

3. A bag fastener embodying therein a channeled member having an opening therethrough adapted to receive the spring lug of a lift member or knob, a lift member or knob having a lug thereon provided with an angular spring socket and adapted to be projected through said

opening and within said channeled member, a looped spring having parallel sections, the end of one of said sections having an angularly formed end adapted to have a sliding fit with said spring socket and the other section terminating in a projection extending angularly thereto, a keeper carried by said channeled member engaging the said projection and tensioning said spring, and a nose or catch adapted to be mounted upon a member movable with relation to said channeled member and to be operatively engaged by said lift member or knob.

1,254,221. ALTERNATING-CURRENT MOTOR. VALÈRE A. FYNN, St. Louis, Mo., assignor to Wagner Electric Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed Feb. 14, 1917. Serial No. 148,513. (Cl. 172—280.)



1. In an alternating current motor, the combination of an inducing member provided with a polyphase winding, an induced member provided with a commuted winding, a set of working brushes coöperating therewith, means for revolving said brushes at such speed as to cause the relative speed of the brushes and the inducing member to equal the synchronous speed, and means in circuit with the brushes for deriving a direct current E. M. F. from the inducing member.

2. In an alternating current motor, the combination of an inducing member provided with a polyphase winding, an induced member provided with a commuted winding, a set of working brushes coöperating therewith, means for maintaining the axis of said brushes in that axis of the commuted winding in which the induced potential is of maximum value, and brushes coöperating with the polyphase winding of the inducing member to derive a direct current E. M. F. therefrom, said brushes being in circuit with the working brushes.

7. In an alternating current motor, the combination of an inducing member provided with a polyphase winding, an induced member provided with a commuted winding, a set of working brushes coöperating therewith, means for revolving said brushes at such speed as to cause the relative speed of the brushes and the inducing member to equal the synchronous speed, and brushes coöperating with the polyphase winding on the inducing member to derive a direct current E. M. F. therefrom, said brushes being in circuit with the working brushes and coaxial therewith.

13. In an alternating current motor, the combination of an inducing member provided with a polyphase winding, brushes coöperating therewith, an induced member provided with a commuted winding and brushes coöperating therewith, said brushes being in circuit with the brushes coöperating with the polyphase winding on the inducing member, and means for causing the axis of the brushes coöperating with the induced member to coincide with the axis of each phase of the polyphase inducing winding when the voltage impressed on that phase is approximately zero.

[Claims 2, 4 to 6, and 8 to 12 not printed in the Gazette.]

1,254,222. CONTAINER. LEONARD GERHARDT, Arlington, Md., assignor to Tin Decorating Company of Baltimore, Baltimore, Md., a Corporation of New Jersey. Filed Sept. 9, 1916. Serial No. 119,189. (Cl. 221—62.)

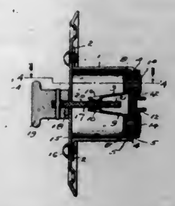
1. A container having a sector-like head including vertical converging side walls and vertical end walls, and a sector-like perforated cap overlying the top wall of the head and adapted to swing relatively thereto, said cap being of relatively greater area than said head and having depending converging side flanges adapted to contact with the side walls of the head to limit the swinging movement of the cap relative to the head.



5. A container having a sector-like head including vertical converging side walls and vertical end walls, each of said end walls having a horizontally disposed groove therein, and a perforated top wall, and a perforated cap overlying the top wall of the head and of relatively greater area than said head, said cap having a depending flange at one end thereof provided with a series of inturned tongues lying in the groove of one of said end walls of the head, the opposite end of said cap having a depending flange provided with an inturned edge portion lying in the groove of the other end wall of the head, said cap also having depending side flanges adapted to contact with the side walls of the head to limit the movement of the cap relative to the head.

[Claims 2 to 4 and 6 not printed in the Gazette.]

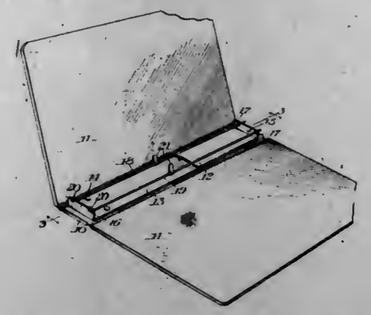
1,254,223. LOW-VOLTAGE ELECTRIC SWITCH. MONROE GUETT, Hartford, Conn., assignor to The Hart & Hegeman Manufacturing Company, Hartford, Conn., a Corporation of Connecticut. Filed June 22, 1917. Serial No. 176,296. (Cl. 175—283.)



1. An electric switch having a cup-shaped receptacle, a face plate closing the upper end of the receptacle, a piece of thin sheet insulating material extending diametrically across and movable inward and outward within the receptacle, said insulating piece having two perforations through it flatwise within the receptacle and having a stem that extends through the face plate, a metallic eyelet fixed in one of said perforations and extending from wide face to wide face of said insulating piece, and a pair of conducting spring fingers having their inner ends secured to the bottom of the receptacle and their outer ends pressing against the wide faces of said insulating piece, said fingers being provided with bosses struck out toward each other from near their outer ends which bosses are adapted to fit into the opening through the eyelet when the insulating piece is drawn outward and enter the unoccupied perforation when the insulating piece is moved inward.

[Claim 2 not printed in the Gazette.]

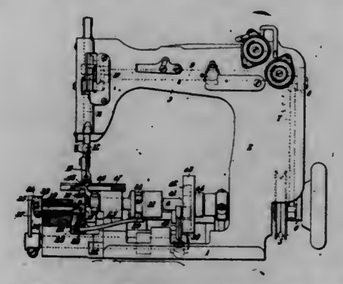
1,254,224. BINDER. CHARLES E. HAUSER, Chicago, Ill., assignor to Reding & Hauser, Chicago, Ill., a Partnership consisting of Louis M. Reding and said Charles E. Hauser. Filed Sept. 25, 1916. Serial No. 121,956. (Cl. 129—38.)



1. A device of the character described comprising a cover, means for removably mounting a book in said cover, said means including a pair of supports and resilient holders mounted upon one of said supports and loosely held in the other support, said holders being adapted by bending to be disengaged from and associated with said last aforesaid support, and finger pieces slidably mounted on said holders whereby they may be released from said support.

2. A device of the character described comprising a cover, means for removably mounting a book in said cover, said means including a pair of supports and resilient holders swingingly mounted upon one of said supports and loosely held in the other support, said holders being adapted by bending to be disengaged from and associated with said last aforesaid support, and finger pieces slidably mounted on said holders whereby they may be released from said support.

1,254,225. SEWING-MACHINE LOOPER MECHANISM. MARTIN HEMLEB, Elizabeth, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Aug. 3, 1915. Serial No. 43,358. (Cl. 112—5.)

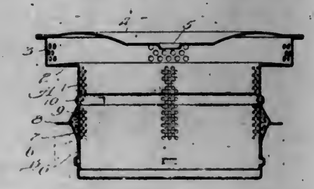


1. In a sewing machine, in combination, an actuating shaft, a looper-supporting rock-shaft, a looper-carrier mounted to rock with but movable lengthwise relative to said rock-shaft, a looper mounted upon said carrier, means connected with the actuating shaft for rocking the looper-supporting shaft, a vibrating lever mounted upon a fixed fulcrum and operatively connected with and adapted to impart to said carrier movements lengthwise of said rock-shaft, and an operative connection between said lever and the actuating shaft.

6. In a sewing machine, in combination, an actuating shaft carrying a cam element, feeding mechanism, a plurality of reciprocating needles in tandem arrangement relative to the direction of feed, a looper cooperating with said needles and having its blade directed within the line of feed, a looper-carrier, a rock-shaft upon which said carrier is endwise-movably mounted and disposed upon the opposite side of the line of feed from said cam element, means connected with said actuating shaft for rocking said rock-shaft, a lever carrying a follower engaging said cam element and having an operative connection with said looper-carrier substantially within a plane embracing the axes of said actuating shaft and said rock-shaft, and a fulcrum for said lever at one side of said actuating shaft.

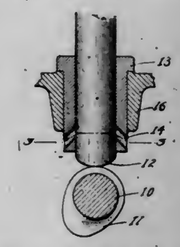
[Claims 2 to 5 and 7 not printed in the Gazette.]

1,254,226. OIL-BURNER. RUDOLPH HOFFMAN, Kankakee, Ill., assignor to Sears, Roebuck and Company, Chicago, Ill., a Corporation of New York. Filed Nov. 21, 1917. Serial No. 203,144. (Cl. 67—63.)



An air distributer for an oil burner having, in combination, a vertical sleeve, an upwardly flaring annular flange surrounding and secured to the sleeve, an outwardly extending annular wick flange connected to the upper portion of the upwardly flaring flange, and a frusto-conical upwardly tapering ring extending from the inner portion of the wick flange to the sleeve, said sleeve, upwardly flaring flange and upwardly tapering ring being perforated and providing an annular mixing chamber arranged to discharge the mixture directly above the wick flange.

1,254,227. BEARING FOR RECIPROCATING RODS. GEORGE T. HUBER, Gloucester, Mass., assignor of one-half to Abbott S. Coffin, Gloucester, Mass. Filed Nov. 1, 1917. Serial No. 199,734. (Cl. 74—86.)



1. A device for controlling excess creeping of oil in the bearing of a reciprocating rod, comprising the provision of a hole leading obliquely through the bearing, backward with respect to the prevailing direction in which the oil is moving in the bearing, with adjacent parts adapted to permit escape of oil which enters the hole.

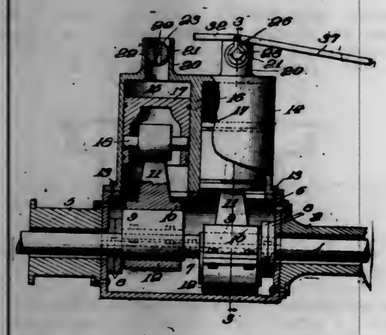
3. A device for controlling excess creeping of oil in the bearing of a reciprocating rod, comprising the provision of a hole leading through the bearing from the surface of the rod obliquely backward with respect to

the prevailing direction in which the oil is moving in the bearing, the hole being located near that end of the bearing at which the oil enters.

2. The combination, with a cam shaft, a cam thereon, a rod extending upward therefrom and operated thereby, a casing around the cam adapted to hold oil, and a bearing for the rod, of a device for controlling excessive creeping of oil through the bearing, comprising the provision of holes leading downward and outward from the interior surface of the bearing and discharging oil therefrom to the interior of the casing.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,254,228. BRAKE DEVICE FOR MOTOR-VEHICLES. CLARENCE HULBERT, Auburn, N. Y., assignor of one-fourth to Porter Beardsley and one-fourth to Erwin C. Soper, Auburn, N. Y. Filed July 27, 1916. Serial No. 111,740. (Cl. 188—5.)



1. The combination with a rotatable shaft, of a plurality of stationary sleeves in which said shaft rotates, a casing supported by said sleeves, a cam mounted on said shaft within said casing, a cylinder carried by said casing and provided with a passage opening into the atmosphere, a piston mounted in said cylinder for drawing air into and forcing air out of said cylinder through said passage, a rod connecting the piston and cam, a normally opened valve mounted in said passage, and means for closing said valve.

3. The combination with a rotatable shaft, of a plurality of spaced sleeves in which said shaft rotates, flanges provided on the adjacent ends of said sleeves, a longitudinally split two-part casing located between said sleeves and detachably secured to said flanges, detachable means for securing the two parts of the casing together, a plurality of oppositely disposed cams fixed to said shaft within said casing, packing rings mounted on the shaft between the cams and the ends of the casing, a cylinder block detachably secured to said casing and having a plurality of bores, a passage placing each of the bores in communication with the atmosphere, a piston mounted in each of said bores for drawing air into and forcing air out of the bores through said passages, rods connecting said pistons and cams, a normally open valve located in each of said passages, and means for simultaneously closing said valves.

4. The combination with a rotatable shaft, of a plurality of oppositely disposed cams fixed to said shaft, a plurality of cylinders stationarily mounted adjacent said shaft and each provided on its top with a single passage for conducting atmospheric air into and out of its respective cylinder, pistons mounted in said cylinders, rods connecting said pistons and said cams, a tapered valve barrel located in each of said passages, and provided with a longitudinal bore and a transverse air port, an angular extension provided upon the large end of each of said barrels, a control lever mounted upon each of said extensions and provided with a counter-sunk angular aperture, a bolt having an angular head resting in each of said apertures and extending through the barrel to a position beyond the opposite end of the same, a washer provided upon the outer end of each of said bolts, springs located between the washers and said passages for drawing the barrels into the passages, and a part connecting said levers for joint movement.

[Claim 2 not printed in the Gazette.]

1,254,229. PROCESS FOR PREPARING ALUMS FROM CLAY OR OTHER SIMILAR NATURAL COMPOUNDS OF ALUMINA. LOUIS L. JACKSON, New York, N. Y., assignor of one-half to Odus C. Horney, New York, N. Y. Filed Jan. 11, 1917. Serial No. 141,802. (Cl. 23—13.)

1. In the process of preparing alum from clay, forming silica in an almost entirely insoluble condition, soda alum and sodium sulfate, by heating the clay in an uncalcined condition with niter cake.

3. In the process of preparing alum from clay, forming silica in an almost entirely insoluble condition, soda alum and sodium sulfate, by heating the clay in an uncalcined condition with niter cake and subsequently separating the insoluble silica from the soluble ingredients.

4. In the process of preparing alum from clay, forming silica in an almost entirely insoluble condition, soda alum and sodium sulfate, by subjecting the uncalcined clay and niter cake to a temperature not below 150 degrees C. and below the temperature required to decompose niter cake alone and subsequently separating the insoluble silica from the soluble ingredients.

[Claim 2 not printed in the Gazette.]

1,254,230. PROCESS FOR DECOMPOSING SILICATES OF MAGNESIUM. LOUIS L. JACKSON, New York, N. Y., assignor of one-half to Odus C. Horney, New York, N. Y. Filed Jan. 19, 1917. Serial No. 143,242. (Cl. 23—13.)

1. The process of decomposing those silicates of magnesium which are resistant to the action of acids, which consists in heating an admixture of the silicate and a hydrate of an alkali metal, and treating the insoluble part of the product with an acid.

2. The process of decomposing those silicates of magnesium which are resistant to the action of acids, which consists in heating an admixture of the silicate and a hydrate of an alkali metal, thereby forming an alkaline silicate and an insoluble product, separating out the alkaline silicate, treating the insoluble residue with an acid to decompose the same, separating out the magnesium salt, washing the residue, and joining the washings and the magnesium salt so separated out.

3. The process of decomposing soapstone which consists in heating an admixture of soapstone and sodium hydroxid, separating out the dissolved silica, and treating the insoluble residue with a dilute acid.

1,254,231. MANUALLY-OPERATED INFLATING-PUMP. ROBERT REYNOLD JACKSON, South Kensington, London, England. Filed Sept. 5, 1916. Serial No. 118,510. (Cl. 230—27.)

1. A tire inflating pump including a stationary plunger and a reciprocating barrel of extended length whereby the upper end thereof constitutes a handle for the operator when standing upright, and an offset stirrup at the lower end of said barrel whereby the latter may be operated by the conjoint use of hand and foot.

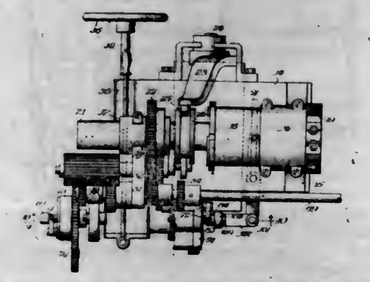
2. A tire inflating pump including a stationary plunger, a reciprocating barrel, a tubular sheath extensibly fitted to the upper end of said barrel to provide an operator's hand grip, and a laterally projecting foot stirrup carried by the lower end of the barrel.

3. An inflator comprising a stationary plunger, a reciprocating barrel of great length, a foot step at the foot end of said barrel, a heel to said foot step, a spring interposed between said foot step and the head of the base of the plunger, and a recess on the underside of said head,



said head engaging in said recess when the barrel is turned around after compressing said spring.

1,254,232. TURRET-FEED CONTROL. JOHN H. JANN, Chicago, Ill. Filed Nov. 9, 1916. Serial No. 130,367. (Cl. 29—64.)

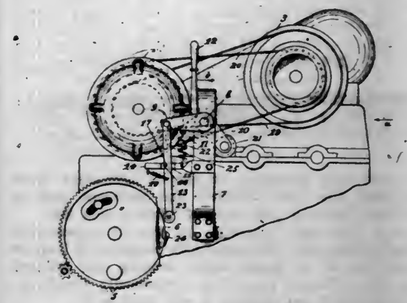


1. In a machine of the character described, the combination of a power shaft, a plurality of drive gears fixed thereon, a hollow counter shaft, a plurality of driven gears loosely mounted thereon and connected respectively with said drive gears, a plurality of clutches adapted to connect said driven gears with said counter shaft, a rod disposed within said hollow counter shaft and connected with each of said clutches, a worm shaft driven from said counter shaft, a cam drum driven from said worm shaft, a turret slide, a lever actuated by said cam drum for reciprocating said slide, a second lever connected at one end with said rod and provided at its other end with a cam follower, and a plurality of cam members adjustably mounted on said drum in position to successively engage said follower whereby said second lever is actuated to move said rod in opposite directions so as to connect and disconnect said clutches in alternation.

[Claims 2 to 5 not printed in the Gazette.]

1,254,233. AUTOMATIC SPEED-CHANGING ATTACHMENT FOR GEAR-CUTTING MACHINES. JAMES P. JOHNSON, Cleveland, Ohio. Filed Dec. 13, 1916. Serial No. 136,635. (Cl. 90—9.)

3. Mechanism adapted to be attached to a gear cutting machine and to coöperate with the feed and driving mechanism of said machine for changing the speed at a determined period in the cutting of a gear, comprising differential speed controlling elements, a rocker member having arms extending therefrom at different angles, idlers mounted on said arms that alternately engage the different speed controlling elements of the driving mechanism, a bracket attached to the body of the machine, a bar connected with the rocker member for engagement with the bracket and thereby retain said rocker with one idler in engagement, means coöperating with the feed mechanism for disengaging the bar from the bracket at a certain determined period, and means connected with the rocker member for disengagement of the one idler and engagement of the other when said bar is released.



4. In mechanism for the purpose set forth, feed mechanism and driving mechanism embodying differential speed pulleys, belts connecting the driving and driven pulleys, said belts being loose on said pulleys, a rocker member mounted in permanent bearings, idlers carried by said rocker member and adapted for alternate engagement with the belts to thereby tighten same, a manually operative member attached to said rocker member, a bracket attached to the body of the machine, a bar connected with the rocker member for engagement with the bracket to thereby retain said rocker with one idler in engagement, means coöperating with the feed mechanism for disengaging the bar from the bracket at a certain period, and means connected with the rocker member for disengagement of the one idler and engagement of the other when said bar is released.

[Claims 1, 2, and 5 to 8 not printed in the Gazette.]

1,254,234. INSECT-TRAPPING SCREEN. GEORGE M. JONES, Galt, Cal. Filed Apr. 10, 1916. Serial No. 90,063. (Cl. 43—22.)

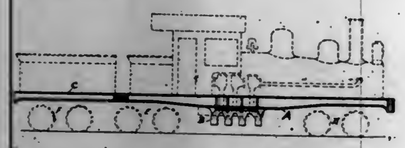


An insect trapping screen comprising a rectangular frame, a rigid projecting plate at each edge of the frame, each plate having a recess formed in its lower edge, screen secured to the edges of the frame and into the recesses and over the plates to form a pocket in the screen, the rigidity of the plates holding the screen around the pocket from collapsing in order to hold the pocket freely open, the screen at the top edge of the pocket

being provided with a plurality of enlarged openings, and a trapping compartment with which such openings communicate.

1,254,235. [WITHDRAWN.]

1,254,236. ENGINE-PLATFORM. WALTER E. JONES, Lima, Ohio. Filed July 5, 1917. Serial No. 178,618. (Cl. 105—227.)

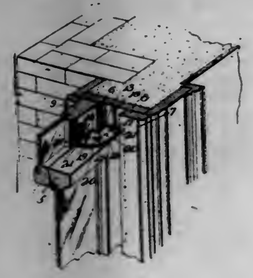


1. A cast steel platform for geared locomotives comprising side sills, body bolsters, end members, and an engine shaft housing cast integral with a side sill.

2. In a cast steel platform for geared locomotives, the combination with the component members or body of the platform, of an engine shaft housing cast integral with a side sill and projecting downwardly therefrom.

[Claims 3 to 5 not printed in the Gazette.]

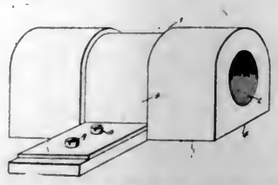
1,254,237. WEATHER-STRIP. NIS A. JUHL, Chicago, Ill. Filed Mar. 23, 1917. Serial No. 156,891. (Cl. 20—69.)



1. A weather-strip for windows comprising a flexible packing plate and a backing plate secured thereto, the packing plate having edge portions which project from the edges of the backing plate, there being two adjacent ones of such edge portions arranged at a right angle to each other and having different dimensions, with an inwardly directed recess at the corner of said edges, and each of said edges having sash cord receiving recesses intermediate their ends, said packing plate also having projecting edge portions at the outer ends of each of the aforesaid edge portions and extending at right angles thereto.

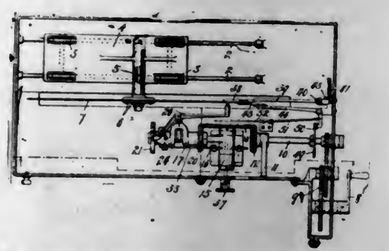
2. A weather-strip for windows comprising a flexible packing plate and a backing plate secured thereto, the packing plate having edge portions which project from the edges of the backing plate, there being two adjacent ones of such edge portions arranged at a right angle to each other, with an inwardly directed recess at the corner thereof, one of said edge portions being dimensioned to seat in the groove in which the window sash slides and having a portion at a right angle thereto to seat against one of the side walls of the groove, the parting strip of the window frame being received within the aforesaid recess, and the other one of the aforesaid edge portions being positioned to engage one side of the stile of the other sash, the edge portions of the backing plate corresponding to the aforesaid edge portions of the packing plate being downwardly directed to impinge on the packing plate.

1,254,238. PIPE-COUPLING. MICHAEL J. KELLY, Ocean View, Cal. Filed Oct. 9, 1917. Serial No. 195,617. (Cl. 137—28.)



A threaded pipe sleeve having a circumferential groove around its central portion and a flat base, a flat plate upon which the sleeve rests and which fits said groove, and a clamp fitted into the groove around the sleeve, the flat plate and clamp adapted to secure the sleeve to an object.

1,254,239. FEED MEANS FOR FILM-DISKS. FREDERICK E. KOELLA, Toledo, Ohio. Filed Sept. 22, 1916. Serial No. 121,576. (Cl. 88—18.8.)



1. The combination with a rotatable film-disk, of a film engaging member, and mechanism for operating said member to impart periodical frictional film wiping movements thereto.

2. The combination with a rotatable film-disk, of a film engaging member, and mechanism operable to periodically move said member into and out of film engaging position and to impart an oscillatory film turning movement thereto when in film engaging position, with the axis of such oscillating movement substantially parallel to the film axis.

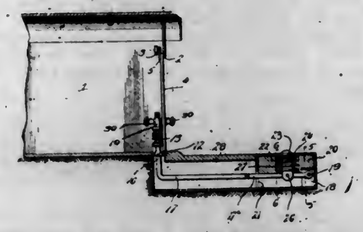
5. The combination with a rotatable disk-like member, of a feed lever mounted at one side of said member for movements in different directions with respect thereto, mechanism operable to move said lever in one direction into and out of member engaging position and to move the lever in a different direction when in member engaging position to impart rotary movement to said member, and means for adjusting the film feeding stroke of the lever.

14. The combination with a disk mounted for rotary and transverse movements, of mechanism operable to periodically engage said disk and to impart simultaneous rotary and transverse movements thereto, and means for adjusting said mechanism to vary the extent of transverse moving of the disk by said mechanism at each feeding operation thereof.

16. In a moving picture machine, a film mounted for rotary movements and for movements transverse to its axis, a member mounted for rocking movements in a plane substantially parallel to the plane of rotation of the film and adapted when rocked to have wiping engagement with the film to rotate the same, the rocking axis of said member being offset from the axis of rotation of said film whereby the rocking movement of said member is eccentric to the film axis and adapted to impart transverse movement to the film.

[Claims 3, 4, 6 to 13, 15, and 17 not printed in the Gazette.]

1,254,240. LATCH-RELEASER. STEVE KULICH, New York, N. Y. Filed Dec. 13, 1916. Serial No. 136,718. (Cl. 70—118.).



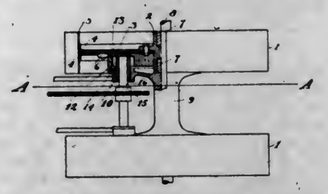
1. In door securing means, the combination of two oppositely movable doors, a locking bar carried by each door, a rockably mounted securing rod normally engaging said locking bar so as to prevent lateral movement of the door, and means for moving said securing rod into inoperative position.

2. In door securing means, the combination of two oppositely movable doors, a locking bar mounted on each door and provided with a bore in its lower end, a securing rod having a locking pin adapted to normally engage into said bore, means for normally holding said securing rod raised, and means for depressing said rod so as to release the locking bar.

6. In a door securing means the combination of two oppositely movable doors, a locking bar mounted movably on each door, means for normally holding said bar in depressed position, a pivot member engaged with said locking bar to prevent lateral movement of the door, said means being pivotally mounted, means for normally retaining said pivot member in engagement with said locking bar, and means for moving said pivot means upon its pivot to release said locking bar and permit lateral movement of the door.

[Claims 8 to 5 not printed in the Gazette.]

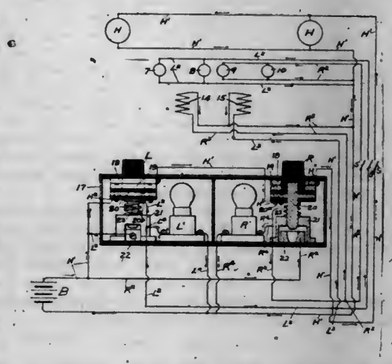
1,254,241. BULL-GEAR AND DRIVING-WHEEL FOR TRACTION-ENGINES. LOUIS A. LA FOND, Minneapolis, Minn. Filed May 5, 1916. Serial No. 95,699. (Cl. 74—7.)



1. In a driving wheel and bull gear, the combination of a dead shaft, two hub flanges journaled on said dead shaft, a disk concentrically mounted on each of said hub flanges and rigidly attached thereto, a wheel rim rigidly carried by the outer periphery of each of said disks, a bull gear mounted on the inner side of each of said disks, a double flanged pinion member mounted on said dead shaft, one of said flanges being positioned so as to close the inner side of one of said bull gears, and the other of said flanges being positioned so as to close the inner side of the other of said bull gears, an aperture in each of said flanges, a bull pinion shaft journaled in said aperture, and a bull pinion at each end of said bull pinion shaft coacting with said bull gears.

2. In a driving wheel and bull gear the combination of a dead shaft, a spool shaped pinion support mounted on said shaft and having a flange at each end thereof, each of said flanges having an aperture therein, a bull pinion shaft journaled in each of said apertures, a bull pinion carried by each of said bull pinion shafts, a disk mounted on each end of said dead shaft, and an internal bull gear carried by each of said disks and coacting with the respective bull pinion, the flanges of said spool shaped pinion support closing the inner side of each of said bull gears, an oil retainer being positioned between each of said bull gears and the co-acting flange of said support to retain oil within said bull gear.

1,254,242. DIRECTION-INDICATOR. HOWARD J. LAMBERT, Portland, Oreg., assignor of one-half to James Griggs, Tacoma, Wash. Filed Nov. 18, 1914. Serial No. 872,754. (Cl. 177—337.)



2. In combination with an automobile and the head-lights thereof, a direction indicator comprising a housing having an indicator opening in its side and a lamp therein, a source of electricity with circuit connections to said head-lights and the lamp in said housing, and switch mechanism connected in said circuits for opening the circuit to said head-lights and closing the circuit to said lamp in said indicator housing, whereby to more distinctly display said indicator opening in said housing.

4. A direction indicator, comprising in combination with the head-lights of a motor car, a housing divided into three compartments and having an indicator opening in its side, extending across said compartments and having its opposite ends pointing in different directions, electric lamps in said compartments, indicator members pivotally mounted in said compartments and adapted to be moved into and out of register with said opening, magnets for moving said members, a source of electricity with circuit connections to said lamps and said magnets, and to said head-lights, and switch buttons connected into said circuits and adapted when pressed to break the circuit to the head-lights and to complete circuits to the lamps in said compartments, and the magnets, one button controlling the lamp in one end of the housing and a light in the middle compartment and one of the magnets, and the other button controlling the lamp in the other end of the housing and one in the middle compartment and a magnet, substantially as described.

[Claims 1 and 3 not printed in the Gazette.]

1,254,243. MATCH-HOLDER. ALBERT R. LARRABEE, New York, N. Y. Filed May 10, 1916, Serial No. 96,480. Renewed Aug. 11, 1917. Serial No. 185,798. (Cl. 206—31.)

1. In a match package holder of the character described, a backing, a match support, a key portion ar-

ranged slightly above said support and separated therefrom and forward of said backing, one end of said key portion being free to permit a match package to be slid on to the same by a movement transversely of said support and longitudinally of said key.

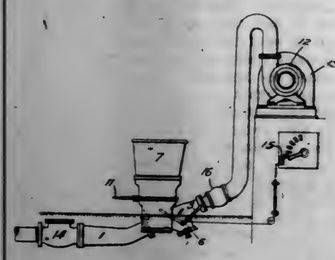


2. In a match package holder of the character described, a backing, a match support, a key portion arranged slightly above and separated from said support and forward of said backing, said key portion being in the form of a blade projecting from one side of said device transversely toward the other side, one end of said blade being free to receive a match package whereby said package may be slid laterally into final holding position.

3. In a match package holder of the character described, a backing, a match support carried thereby, a key portion for transversely engaging a match package, said key portion being arranged slightly above and disconnected from said support and substantially parallel thereto and forward of said backing.

4. In a match package holder, a main frame including a backing, a match support at the front and rear thereof, transversely arranged key portions at the front and back of said devices slightly above said support and separated therefrom, one end of each key being free to receive a match package whereby said package may be slid laterally into its final holding position.

1,254,244. APPARATUS FOR THE REMOVAL OF COAL-ASH. MAURICE LEBLANC, Croissy, France, assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed May 9, 1914. Serial No. 837,557. (Cl. 114—186.)



1. In a device of the character described, a hopper for delivering ash, a two part nozzle, one part of which is longitudinally adjustable with relation to the other part, means for delivering actuating water to said nozzle and means dependent on the relative positions of said parts for controlling the starting operation of said water delivery means.

[Claim 2 not printed in the Gazette.]

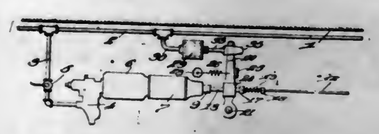
1,254,245. DOOR-CHECK. JULIUS C. LEHMANN, Brooklyn, N. Y. Filed Dec. 6, 1916. Serial No. 135,341. (Cl. 16—87.)

1. The combination with a door and door frame, of a door check including a cylindrical casing forming a dash-pot and having a head at one end thereof, a cap applied to the opposite end of the cylindrical casing and formed with a contracted neck, a piston member slidably mounted within the cylindrical casing and completely housed between the cap and head during the full limit of its movement, a compression spring arranged within the cylinder and engaging the piston member to resist the outward movement thereof, a tension spring connected to the piston and extending through the contracted neck of the cap, said contracted neck serving as a guide for the tension spring, means for securing the head end of the cylinder to one element of the closure, and means for securing the projecting end of the tension spring to the other element of the closure, said tension spring serving to yieldably draw the members of the closure together.



2. The combination with a door and door frame, of a door check including a cylindrical casing forming a dash-pot, a head applied to one end of the cylindrical casing, a cap applied to the opposite end of the cylindrical casing and formed with a central opening surrounded by an outwardly projecting neck, said cap providing an interior shoulder at the end of the cylindrical casing, a piston member slidably mounted within the cylindrical casing and completely confined between the cap and head during the full limit of its movement, a compression spring arranged within the cylinder and interposed between the shoulder provided by the cap and the piston, a coiled tension spring arranged within the compression spring and connected at one end thereof to the piston, the opposite end of the tension spring extending through the neck of a cap which serves as a guide for the tension spring, means for securing the head end of the cylinder to one element of the closure, and means for securing the projecting end of the tension spring to the other element of the closure, said tension spring serving to yieldably draw the members of the closure together.

1,254,246. AUXILIARY BRAKE MECHANISM. ROBERT B. LIEDLOFF, Spokane, Wash. Filed Mar. 27, 1917. Serial No. 157,842. (Cl. 188—1.)



1. In combination, an air brake system, automatically acting mechanism for maintaining the brake in an air-set position upon air leakage from the system and freeing the actuating portion of said system for recoil to a normal position, and means controlled by the air of said system for normally maintaining said mechanism inoperative prior to air leakage and releasing said mechanism for automatic operation upon leakage from said system, substantially as described.

2. In combination, an air brake system, auxiliary mechanism adapted to maintain the brake in an air-set position and being free from positive connection with the brake actuating portion of said system, and means controlled by the air of said system for normally maintaining said auxiliary mechanism inoperative prior to air leakage and releasing said mechanism for operation upon air leakage from the system, substantially as described.

3. In combination, an air brake system, auxiliary mechanism for holding the brakes in an air-set position and being free from positive connection with the brake actuating portion of said system, and means energized by the air of said system under an operative pressure for maintaining said mechanism inoperative and releasing said means upon decrease of pressure in said system to permit said mechanism to operate, substantially as described.

4. In combination, an air brake system, auxiliary clutch mechanism for holding the brakes in an air-set position and being free from positive connection with the brake actuating portion of said system, and means energized by the air of said system under an operative pressure for maintaining said mechanism inoperative and releasing said means upon decrease of pressure in said system to permit said mechanism to operate, substantially as described.

5. In an air brake system, a brake rod connected for actuation by said system to set the brakes, and automatically acting mechanism independent from that portion of the system actuating said rod for holding said rod to an air brake set position upon release of stress on said rod by said system, substantially as described.

[Claims 6 to 16 not printed in the Gazette.]

1,254,247. LIGHTING-FIXTURE. BRECKINRIDGE LONG, St. Louis, and WILLIAM C. BURTON, Webster Groves, Mo. Filed July 25, 1917. Serial No. 182,781. (Cl. 240—92.)



1. In a lighting fixture, a horizontal translucent wall, an illuminant support supported above said wall, upwardly diverging walls at the sides of said illuminant support, an upper reflector supported by said illuminant support having a central section extending over the illuminants and being parallel with said translucent wall, and downwardly deflecting walls at the sides of said central portion extending over the side edges of the walls at the sides of the illuminant support.

2. A lighting fixture, comprising a support including a plurality of lamp sockets arranged in longitudinal series, and upwardly diverging reflecting walls at opposite sides of said support having their upper edges in the same horizontal plane, in combination with an upper reflector composed of a central horizontal reflecting wall above the lamp sockets extending on both sides to the vertical planes in which the diverging reflecting walls terminate, and side walls inclined downwardly from the horizontal wall at acute angles relative to the planes of the first-named reflecting walls, said side walls being wholly outside the vertical planes in which the upper edges of the first-named reflecting walls terminate.

3. A lighting fixture, comprising a support, means in said support for mounting an illuminant therein, and upwardly diverging reflecting walls at opposite sides of said support, in combination with an upper reflector including a horizontal downwardly reflecting wall extending on both sides to the vertical planes in which the upwardly diverging reflecting walls terminate, and a downwardly reflecting side wall inclined downwardly from the horizontal wall at an acute angle relative to one of the upwardly diverging reflecting walls, said side wall being wholly outside of the vertical plane in which said last-named upwardly reflecting diverging wall terminates.

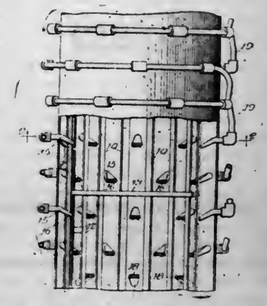
[Claims 4 to 10 not printed in the Gazette.]

1,254,248. METHOD AND MEANS FOR DEHAIRING. THOMAS K. LOWRY, Chicago, Ill. Filed May 27, 1916. Serial No. 100,211. (Cl. 17—11.)

1. The method of de-hairing the hides of animals which consists in subjecting the same to the action of jets of fluid under pressure applied obliquely to the surface.

4. The method of de-hairing the hides of animals which consists in subjecting the same to the action of jets of hot water under pressure.

7. The method of de-hairing the hides of animals which consists in subjecting the same to the action of jets of water under pressure of 150 pounds and upward at a temperature of 120 degrees and upward, said jets of water applied obliquely to the surface in a direction opposite the lay of the hair.

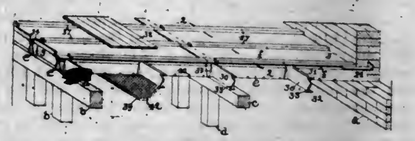


10. In an apparatus for de-hairing animals by pressure fluid impact, a chute, means to convey the carcass through said chute, nozzles arranged at an inclination to the direction of travel of the carcass and adapted to direct streams of water onto the surface thereof, and means to supply the said nozzles with water under high pressure.

14. The method of removing hair from hogs which consists of directing upon the carcass of the animal a jet of boiling water at sufficient velocity to remove the hair by the mechanical force of the water.

[Claims 2, 3, 5, 6, 8, 9, 11 to 13, 15, and 16 not printed in the Gazette.]

1,254,249. BUILDING CONSTRUCTION. CLARENCE T. MCFARLAND, Boston, Mass. Filed Dec. 8, 1913. Serial No. 805,382. (Cl. 189—34.)



1. In a building construction, in combination, a sheet metal floor plate comprising a plurality of beams and intermediate plate members of greater width than said beams, the latter having converging side wall members forming the lower part of the beam and shorter diverging members forming the upper part of the beam and separated at their widest part a distance which is less than the width of the lower part of the beam at its greatest width, said intermediate plate members being wider than the depth and width of the beam.

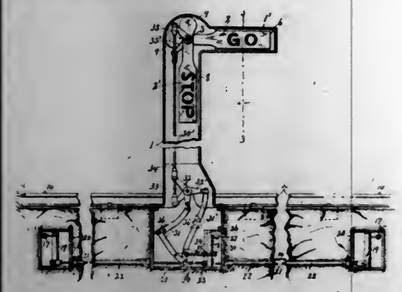
2. In a building construction, in combination, a sheet metal floor comprising a plurality of sheet metal beams having adjacent side walls separated from each other and integral with intermediate plate members of a greater width than said beams, nailer strips interposed between and supported by the side walls of said beams, and a flooring secured to said nailer strips.

3. In a building construction, in combination, a sheet metal floor plate comprising a plurality of beams integral with intermediate plate members of greater width than the depth of said beams, the latter having converging side wall members and shorter diverging members, and a nailer strip supported by the diverging members.

1,254,250. AUTOMATIC SIGNAL FOR RAILWAY-CROSSINGS. FREDRICK D. MCGINLEY, Pleasant Beach, and JOSEPH J. MICHELS, Syracuse, N. Y. Filed Dec. 26, 1916. Serial No. 139,036. (Cl. 246—48.)

1. In an automatic signal for railway crossings, the combination with a track, a signal tower and a signal on

the tower, of car-operated means for setting the signal, including an automatic device for locking the signal setting means in its set position, and car-operated restoring means for the setting means, including a yielding member, to allow the operation of said restoring means while the setting means is locked.

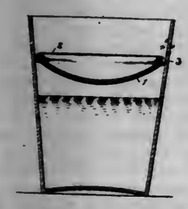


3. In an automatic signal for railway crossings, the combination with a track, a signal tower and a danger signal thereon, of a primary signal actuator arranged in proximity to one of the rails some distance from the crossing, to be operated by the car-wheel of an approaching car, means for transmitting motion from said actuator to the signal to set the same, said means including a self-locking toggle for holding the signal and its actuating means in their adjusted positions, and car-operated means near the crossing for breaking the toggle lock and restoring said signal and its operating mechanism to their normal positions, said restoring means being spring-connected to the setting means to allow the restoring means to be operated independently of the setting means.

10. In a signaling apparatus for railway crossings, the combination of a hollow tower having an offset portion at its upper end extending lengthwise of the track and provided with a sight-opening in one of its upright sides, a danger signal and a safety signal, both pivotally mounted coaxially within the upper portion of the tower and movable alternately into and out of said offset portion, the safety signal normally projecting into said offset portion and the danger signal normally extending into the upright portion of the tower, car-operated means for simultaneously rocking said signals in reverse directions from their normal positions so that the danger signal will assume a position within the offset and the safety signal will assume a position within the upright portion of the tower, said means including separate devices for automatically locking the signals in their set positions, and additional car-operated means for restoring the first-named means and signals operated thereby to their normal positions.

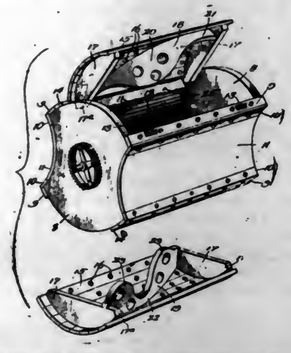
[Claims 2, 4 to 9, and 11 not printed in the Gazette.]

1,254,251. DRINKING-WEIR. ROLLO MORRIS MAGNUS, Duluth, Minn. Filed May 16, 1917. Serial No. 168,962. (Cl. 65—13.)



An article of manufacture, comprising a concavo-convex resilient disk having an enlarged annular bead about the rim thereof and a plurality of passage-ways formed in the bead substantially parallel with the axis of the disk.

1,254,252. CYLINDER FOR WASHING-MACHINES. LAWRENCE W. MAMMEN, Chicago, Ill. Filed Aug. 7, 1916. Serial No. 113,451. (Cl. 68—18.)



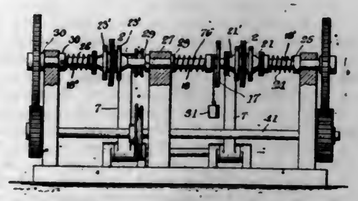
1. In a washing machine, the combination with a body portion provided with an open top, of a rotary cylinder container in said body portion comprising heads having corner pieces and imperforate corrugated concave wall sections secured thereto, and perforate convex door sections detachably secured to said corner pieces in a diametrically opposed relation, said door sections being removable through the open top of the said body portion, substantially as and for the purposes set forth.

3. A rotary container for a washing machine, comprising in combination a pair of heads, a series of alternate fixed corrugated wall sections and removable perforate door sections carried thereby and comprising the side boundary of the cylinder, oppositely disposed baffle members mounted on the door sections and having inwardly projecting portions disposed intermediately of the corrugated wall sections and diagonally in the path of the container contents.

4. A rotary cylinder container comprising heads, associated alternate perforate and corrugated concave wall sections carried by said heads, and a longitudinally disposed rib extending radially from the plane of the perforate wall section whereby to constitute a restricted marginal channel having its opening directed across the corrugations of the corrugated wall section.

[Claims 2 and 5 not printed in the Gazette.]

1,254,253. LENS-GROOVING MACHINE. FRANK B. MARCHANT, Brooklyn, N. Y. Filed Aug. 28, 1915. Serial No. 47,876. (Cl. 51—3.)



1. In a machine for cutting grooves in the edge of lenses, the combination substantially as described, of a rotating cutter and a rotating lens-holder rotating on parallel axes and one of which is axially adjustable to determine the position of the edge of the cutter with respect to the faces of the lens, means for holding the cutter yieldingly engaged with the edge of the lens as the latter rotates and means operatively connected by direct positive mechanical connection with the axially adjustable member to move the same positively in both directions and acting automatically to keep the edge of the cutter at the desired distance from the face or faces of the rotating lens around the whole periphery thereof.

6. In a machine for cutting a groove in the edge of a lens of finished peripheral contour, the combination with a rotating cutter mounted in a frame movable toward the edge of the lens, of means connected with said frame to keep the cutter in yielding engagement with the edge of the lens and means coöperating with said frame in all positions thereof to automatically stop the movement thereof with relation to the edge of the lens when the cutter edge has entered the lens to the required depth below the finished periphery thereof as and for the purpose described.

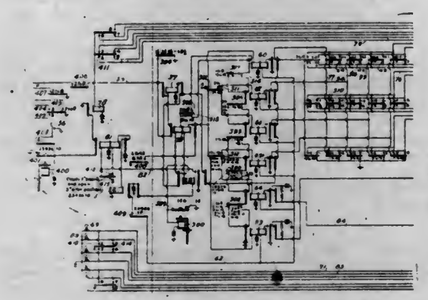
10. In a machine for cutting grooves in the edge of lenses, the combination of a rotating axially adjustable cutter, a rotating lens-holding chuck, means for retaining the cutter in engagement with the edge of the lens, a pattern rotating synchronously with said lens and formed in accordance with the required position of the cut in respect to the lens faces and a gage arm engaging said pattern and operatively connected with the cutter to determine the position of the same axially.

19. In a machine for grooving the edge of lenses, the combination substantially as described, of two rotating shafts one carrying a cutter and the other mounted parallel therewith and provided with means for coaxially-mounting a lens and a pattern and means connected with the cutter in immovable axial relation therewith and adapted to engage a face of the pattern to control the relation of the lens-carrier and cutter-carrier shafts in an axial direction.

21. In a machine for cutting a groove in the edge of a lens, the combination substantially as described, of a cutter frame carrying a rotary cutter and yieldingly pressed toward the edge of the lens, a cutter mounted on said frame and axially movable thereon, a rotary shaft carrying a lens, a pattern mounted co-axially with the lens and rotating therewith, a gage arm positively connected with the axially movable cutter and adapted to engage the face of the pattern to determine the position of the groove cut in the edge of the lens with respect to the faces thereof and carrying a member adapted to provide adjustable engagement with the edge of the pattern to operate as a depth gage whereby, on insertion of a grooved lens pattern in the lens clamp, and bringing the cutter into engagement therewith, the apparatus may be adjusted to produce the desired depth of cut.

[Claims 2 to 5, 7 to 9, 11 to 18, and 20 not printed in the Gazette.]

1,254,254. INDICATING SYSTEM. WILLIAM H. MATTHIES, Hackensack, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Dec. 29, 1916. Serial No. 139,521. (Cl. 179—27.)



1. In an indicating system, a plurality of signals, a multi-position counting device, means to move said counting device, means to display a desired signal in accordance with the extent of movement of said counting device, regardless of the position of said counting device at the beginning of its movement.

2. In an indicating system, a plurality of indicating signals, a multi-position counting device, means to advance said counting device through a desired number of positions, and means to display a signal indicative of the number of positions through which said counting device was moved, regardless of which position said counting device was in when started.

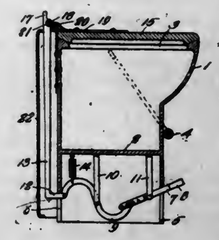
3. In an indicating system, a plurality of signals, a multi-position counting device, contacts controlled thereby, a combination of locking relays, means to energize certain ones of said relays in accordance with the position of said counting device before its operation, means to advance said counting device through a desired number of positions, and circuits controlled jointly at contacts of said relays and at contacts controlled by said counting device to cause the display of a signal indicative of the number of positions through which said counting device is moved, regardless of which position said counting device was in when started.

4. In an indicating system, a plurality of signals, a multi-position counting device, a combination of locking relays, means to energize certain ones of said relays in accordance with the position of said counting device before its operation, a starting circuit for said counting device controlled at contacts of said locking relays, and means to complete said starting circuit only when desired ones of said relays have been energized.

5. In an indicating system, a plurality of signals, a multi-position counting device, contacts controlled thereby, a combination of locking relays, means to energize certain ones of said relays in accordance with the position of said counting device before its operation, a starting circuit for said counting device controlled at contacts of said locking relays, means to complete said starting circuit only when desired ones of said relays have been energized, means to advance said counting device through a desired number of positions, and circuits controlled jointly at contacts of said relays and at contacts controlled by said counting device to cause the display of a signal indicative of the number of positions through which said counting device is moved, regardless of the position of said counting device at the beginning of its movement.

[Claims 6 to 8 not printed in the Gazette.]

1,254,255. PORTABLE COMMODE. PETROS G. MAVRAKIS, Cleveland, Ohio. Filed July 24, 1917. Serial No. 182,509. (Cl. 4—32.)



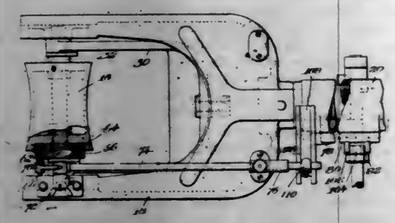
1. In a portable commode, the combination of the receptacle having a lid hinged thereon, a pull-bar for operating the lid, said pull-bar having an extension, and a lid strap secured to the lid and fulcrumed to the pull-bar at the base of the extension, the lid strap being shaped to avoid the hinge and engage the extension when the lid is open and brace the lid.

[Claims 2 and 3 not printed in the Gazette.]

1,254,256. SOLE-LEVELING MACHINE. WILLIAM C. MEYER, Beverly, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 9, 1915. Serial No. 20,250. (Cl. 12—34.)

1. A sole leveling machine, having, in combination, a jack for supporting a shoe having a sole attached thereto,

A vibratory sole leveling device, mechanism for causing a relative traverse of the device and the jack in a straight line to cause the device to move from the toe to the breast of the heel and vice versa, and automatically controlled means to actuate the device to always rub the sole in a direction to close and press down the channel dap of the sole.



4. A sole leveling machine, having, in combination, a shoe supporting jack, means to exert a rolling and a separate rubbing action upon the sole of the shoe supported upon the jack, and automatic mechanism for reversing the direction of the rubbing of said means.

14. A sole leveling machine, having, in combination, a jack for supporting a shoe having a sole attached thereto, a sole leveling device, mechanism for causing a relative traverse of the device and the jack to cause the device to advance from the toe to the breast of the heel and vice versa, and means to actuate the device to rub the sole in the direction of advance of the device when the curvature of the sole and the line of advance of the device converge, and to rub the sole in a direction opposite to the line of advance of the device when the curvature of the sole and the line of advance of the roll diverge.

16. A sole leveling machine, having, in combination, a shoe supporting jack, a sole leveling roll mounted to be freely rotatable, means to cause a relative traverse of the roll and jack to cause the roll to move longitudinally of the sole, means to vibrate the roll to give a rolling action to the sole in opposite directions, and means operated automatically to lock the roll from rotation in one direction only to cause a combined rolling and rubbing action to the sole.

[Claims 2, 3, 5 to 13, and 15 not printed in the Gazette.]

1,254,257. COMBINED REINFORCING-PLATE AND HINGE FOR CAR-DOORS. LOUIS G. MILLER and EDWARD C. LONG, Westmont borough, Pa. Filed Sept. 4, 1917. Serial No. 189,480. (Cl. 105—185.)



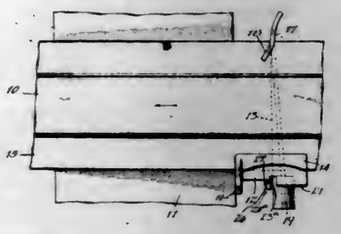
1. A reinforcing plate of deep U-section secured by its outstanding flanges to the hopper plate of a drop bottom car, the lower portion of said U-plate being adapted to receive the door hinge rod.

3. The combination with the floor sheet of a car, of a deep U-shaped reinforcing plate secured thereto by its outstanding flanges, a hinge rod within said U-shape reinforcing plate, slots in the lower part of said reinforcing plate, strap members the ends of which are in said slots and which encircle the hinge rod, and means for securing said strap members to a car door.

5. The combination with the hopper sheet of a car, of a deep U-shaped reinforcing plate secured near the edge thereof by its outstanding flanges, slots in the lower part of said reinforcing plate, a laterally extending hinge rod mounted within the lower part of said U-shaped reinforcing plate, means for preventing lateral movement of said hinge rod, strap members the ends of which are in said slots and mounted on said hinge rod, and means for securing said strap members to a car door.

[Claims 2 and 4 not printed in the Gazette.]

1,254,258. RAIL-ANCHOR. PHILIP W. MOORE, Evanston, Ill., assignor to The P & M Company, Chicago, Ill., a Corporation of Illinois. Filed May 21, 1917. Serial No. 169,934. (Cl. 238—4.)



1. A rail anchor comprising members embracing the base of the rail, one being a spring, which are capable of different interlocked engagements with each other to accommodate the anchor to rail bases of differing contour.

4. A rail anchor comprising a shoe engaging the rail base on one side thereof and a spring bar extending around said shoe and the opposite edge of the rail base, and adapted to have different interlocking engagements with the shoe to accommodate the anchor to rail bases of differing contour.

5. A rail anchor comprising a shoe engaging the rail base on one side thereof and a spring bar capable of torsional strain extending around said shoe and the opposite edge of the rail base, and adapted to have different interlocking engagements with the shoe, which subjects the spring to torsional strain, to accommodate the anchor to rail bases of differing contour.

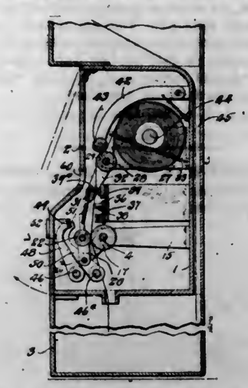
8. A rail anchor comprising a shoe engaging the rail base on one side thereof and a spring bar extending around said shoe and the opposite edge of the rail base, and means on said bar and shoe whereby said elements may have different interlocking engagements subjecting the spring bar to strains of different degrees.

26. A rail anchor comprising a shoe having a jaw adapted to fit over one edge of the base flange of a rail, a spring bar having a jaw adapted to engage the opposite edge of the rail base and provided at its opposite end with an enlargement, the portion of the spring member intervening between the said last mentioned jaw and said enlargement being twisted so that the jaw and enlargement will have a normal set in opposite directions, and said shoe member being formed with stepped notches adapted to be engaged by the enlargement of the spring member so as to subject said spring member to torsional strain.

[Claims 2, 3, 6, 7, and 9 to 25 not printed in the Gazette.]

1,254,259. WORKMAN'S TIME-RECORDING AND WAGE-CALCULATING MACHINE. LUCIUS E. MORE, St. Louis, Mo. Filed Feb. 7, 1914. Serial No. 817,204. (Cl. 234—53.)

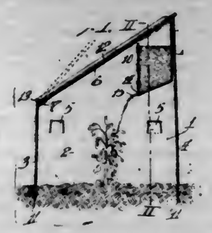
2. In a machine of the class described, a shaft, rollers mounted on said shaft, electrically operated time controlled means for imparting intermittent rotary movement to said shaft, pressure rollers adapted to cooperate with the rollers on the shaft, record strips adapted to pass between the pressure rollers and the rollers on the shaft, key-operated means for maintaining the pressure rollers in engagement with the record strips, means for



marking the record strips before they pass between the pairs of rollers, and means for severing the record strips.

[Claims 1, 2, and 4 to 6 not printed in the Gazette.]

1,254,260. COMBINED PROTECTOR AND GROWER FOR PLANTS. JOHN C. MUELLER, St. Louis, Mo. Filed May 7, 1915. Serial No. 26,655. (Cl. 47—22.)



1. A plant protector comprising an open topped closure, said closure having side walls that taper upwardly and inwardly, weakened portions formed on said side walls, said weakened portions adapted to be pressed outwardly and upwardly to provide means for sustaining a similarly constructed closure when said second mentioned closure is mounted over said first mentioned closure.

3. A plant protector having a pair of walls, each of said walls having their upper edges inclined in the same direction, each of said walls having their upper portions bent on themselves, each of said bent portions having a right angled portion formed thereon, said right angled bent portions forming ledges for the reception of a removably mounted cover.

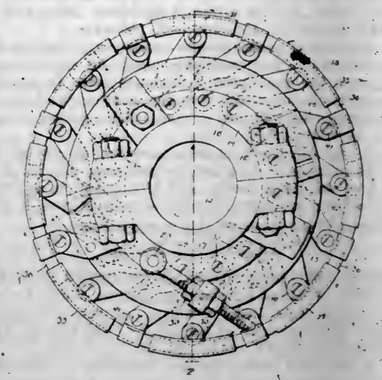
[Claim 2 not printed in the Gazette.]

1,254,261. EXPANSIBLE PULLEY. JULIUS MULLER, Ridgewood, N. Y. Filed Apr. 24, 1917. Serial No. 164,218. (Cl. 64—8.)

1. In a device of the class described, a hub, a rim, spokes connected with said rim and hub, and means around said hub to move said spokes and thereby cause expansion of said rim.

3. In a device of the class described, a rim, a hub, spokes connected with said rim and hub, and a rotatable member on said hub for moving said spokes around the hub and causing expansion of said rim.

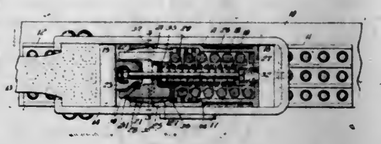
9. In a device of the class described, a hub, an expansible rim, spokes pivotally connecting said hub and rim, an annular member rotatably mounted on said hub and provided with spaced grooves, and studs on said spokes engaged in said grooves.



14. In a device of the class described, a hub, an expansible rim, flanges arranged in spaced relation on said hub, spokes pivotally connected at their outer ends to said rim, a ring rotatably mounted on one of said flanges, cleats for holding said ring against movement laterally in one direction, and pins connecting said cleats to said flanges and forming pivots for the inner ends of certain of said spokes.

[Claims 2, 4 to 8, 10 to 13, and 15 not printed in the Gazette.]

1,254,262. FRICTION SHOCK-ABSORBING MECHANISM. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed June 9, 1917. Serial No. 173,856. (Cl. 213—64.)



1. In a friction absorbing mechanism, the combination with a shell, friction shoes, wedging means, and a spring, of movable friction elements interposed between the shoes and shell, the friction surfaces of said elements which coact with the friction shoes, being adapted to change their inclination with respect to the line of movement of the shoes as the latter are forced inwardly of the shell.

2. In a friction shock absorbing mechanism, the combination with a shell, friction shoes, wedging means, and a spring, of movable friction elements interposed between the shoes and shell, the outer surfaces of said elements and the inner surfaces of said shell being correspondingly curved in a direction longitudinally of the shell to thereby permit said friction elements to vary their position with respect to the line of movement of the friction shoes.

3. In a friction shock absorbing mechanism, the combination with a cylinder, a plurality of friction shoes within the cylinder, a wedge co-acting with said shoes, and a spring for resisting movement of the shoes, of a plurality of friction elements interposed between the friction shoes and said shell, the number of said elements corresponding to the number of shoes, said shoes and elements having co-acting true cylindrical surfaces, said friction elements being shiftable longitudinally of the shell upon actuation of the mechanism.

[Claims 4 and 5 not printed in the Gazette.]

1,253,263. RUST-PROOFING IRON AND STEEL SURFACES. WALTER I. OESCHGER, Detroit, Mich., assignor to Parker Rust Proof Company of America, Detroit, Mich., a Corporation of Michigan. Filed Feb. 21, 1917. Serial No. 150,015. (Cl. 148—41.)

1. A new and useful process consisting of heating iron oxid with water and phosphoric acid and stirring while continuing the heat until a granular mass is obtained, placing this in an excess of water, heating the bath and immersing articles of iron or steel until a protective coating is formed thereon.

2. A new and useful process consisting of placing acid meta-phosphates of tungsten, molybdenum or any of the metals of the third, fourth, and fifth groups in an excess of water, and immersing therein articles of iron or steel.

[Claims 3 and 4 not printed in the Gazette.]

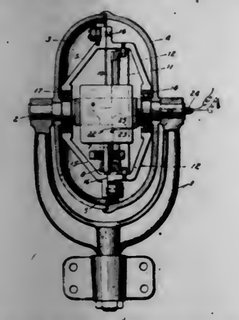
1,253,264. PROCESS FOR RUST-PROOFING IRON AND STEEL. WALTER I. OESCHGER, Detroit, Mich., assignor to Parker Rust Proof Company of America, Detroit, Mich., a Corporation of Michigan. Filed Feb. 21, 1917. Serial No. 150,016. (Cl. 148—41.)

1. A new and useful process consisting in subjecting articles of iron and steel to the action of fumes from acid meta-phosphates of tungsten, molybdenum or of any of the metals of the third, fourth and fifth groups, singly or in combination with each other.

5. A new and useful process consisting in subjecting articles of iron and steel to the action of fumes produced by heating acid meta-phosphates of iron.

[Claims 2 to 4 and 6 to 10 not printed in the Gazette.]

1,253,265. BELL. VICTOR W. PAGE, Bristol, Conn., assignor to The New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed Nov. 16, 1911. Serial No. 660,609. (Cl. 177—288.)



4. In a bell, an axle, a striker support mounted for rotation thereon, a motor carried upon said axle, and reduction gearing between said support and motor comprising an annular gear carried by said support and a pinion carried by the drive-shaft of said motor and in mesh with said gear; substantially as described.

6. In a bell, an axle mounted in a fixed position and carrying a motor thereon, movable and stationary members mounted on said axle adjacent said motor adapted to meet and sound, and means for operatively connecting said motor and said movable member; substantially as described.

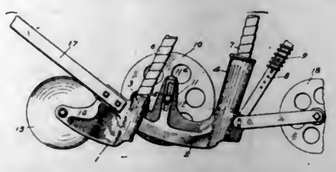
7. In a bell, a hollow axle, a striker support mounted for rotation thereon, an electric motor carried by said axle and having a driving shaft distinct from said axle, driving connections between said support and the driving shaft of said motor, a sounding member carried upon said axle, and current conductors leading from the exterior of said member through said axle to said motor; substantially as described.

9. In a bell, a support, a striker carrier mounted thereon and in the character of a cage, a motor within said carrier, and operative connections between said motor and carrier; substantially as described.

11. In a bell, an axle, a motor, striking arms rotatably carried upon said axle and extending therefrom to project over said motor, an annular gear carried by said arms and surrounding said motor, and a gear upon the driving shaft of said motor and in mesh with said annular gear; substantially as described.

[Claims 1 to 3, 5, 8, 10, and 12 to 16 not printed in the Gazette.]

1,254,266. FURROW-OPENER FOR SEEDING-MACHINES. CHARLES E. PATRIC, Springfield, Ohio. Filed May 29, 1916. Serial No. 100,540. (Cl. 111—80.)



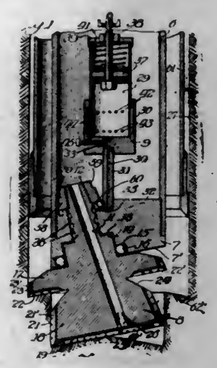
1. In a device of the character described, two connected furrow opening members arranged in line with each other relative to the line of travel, the forward member being arranged to open a furrow of greater depth than the other, and a ground breaking disk arranged ahead of said furrow opening members and supported thereby.

2. In a device of the character described, two connected furrow opening runners arranged in line with each other relative to the direction of travel, the forward runner being arranged in a lower plane than the rear runner so as to open a furrow of greater depth than said rear member, and a ground breaking disk arranged ahead of said runners and supported thereby.

4. In a device of the character described, a single casting having formed thereon two furrow opening runners arranged in line with each other relative to the line of travel, the forward runner being in a lower plane than the rear runner, said casting also having a conduit at the rear of each runner, the forward portion of the rear runner being connected to the conduit for the front runner at a point above the ground line and being narrower in width than said conduit.

[Claims 3 and 5 not printed in the Gazette.]

1,254,267. DRILL. ROWLAND O. PICKIN, Chicago, Ill. Filed Dec. 17, 1918. Serial No. 807,174. (Cl. 255—71.)



1. A boring tool mounted to roll upon the surface to be removed, said tool having a crushing surface lying in straight radial lines, and mounted on an axis inclined to the axis of the bore, and means for gyrating said tool around the axis of the bore, said axes intersecting at the center of the tool face.

5. In a drill, the combination of a hollow operating member adapted to conduct water, a head closing the lower end of said member, a cutter pivotally mounted in said head, a receptacle for containing a lubricating agent carried within said head, means providing a passageway between said receptacle and said cutter, and means for establishing communication between said passageway and the water in said member when the lubricating agent is exhausted.

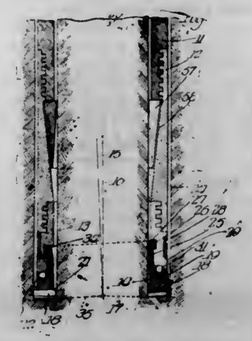
7. In a drill, the combination of a drill head, a cutter of frusto-conical form mounted in said drill head so that an element of the curved surface of said cutter is vertically disposed, and means for imparting a gyratory movement to said cutter, the base of said frusto-conical cutter being flat and provided with a plurality of cutting teeth and the edge of said cutter adjacent said base being cut to spherical form on a radius equal to the distance between the center of gyration and said vertical element of the curved face.

10. In a drill, the combination of an operating member, a head and an inclined gyratory cutter adapted to be used as a reamer and provided with a plurality of cutting portions, the lowermost portion having its greatest horizontal diameter equal substantially to the diameter of the bore hole before reaming whereby to permit said portion to act as a guide to maintain the operating member and upper portion of said cutter in central position.

12. In a rock drill, the combination of an operating member rotatable about its own axis, located at the center of the bore hole, and an inclined cutter of smaller diameter than the bore hole, rotatable about its own axis and also about the center of the bore hole, the cutter having a part for maintaining said operating member in said central position, and both said cutter and said operating member being removable through a casing following the progress of the cutter to line the bore hole.

[Claims 2 to 4, 6, 8, 9, and 11 not printed in the Gazette.]

1,254,268. CORE-DRILL. ROWLAND O. PICKIN, Chicago, Ill. Filed Feb. 6, 1914. Serial No. 816,881. (Cl. 255—72.)



1. In a core drill, the combination of a cutter having its axis inclined to the vertical, and means for imparting a gyratory movement to said cutter about a center of gyration at the intersection of the axis of said cutter and a line normal thereto and passing through the lowest cutting point of said cutter.

3. In a core drill, the combination of an annular cutter having cutting teeth formed on its inner and outer cylindrical faces, the cutting edges of said outer teeth being disposed in a zone of a sphere of radii equal to the distance between these edges and the axis of said cutter.

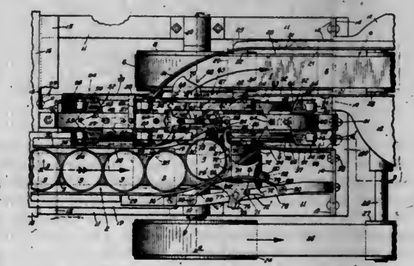
4. In a core drill, the combination of an operating member, an annular cutter carried thereby with its axis disposed angularly with respect to the axis of said operating member and provided with cutting teeth at its base, said teeth being extended beneath and from the inner and outer sides of the body portion of said cutter.

8. In a core drill, the combination of a rotatable operating member, a cutter carried thereby with its axis disposed angularly with respect to the axis of said operating member, anti-friction devices interposed between the bearing surfaces of said cutter and member, and a removable member positioned to engage said antifriction devices to take the wear on said operating member.

11. In a drill, the combination of an operating member, a hollow head split longitudinally at one side and provided with an internal annular groove, and a cutting tool having an outwardly extending projection disposed in said groove, the engagement between said operating member and head preventing expansion of said head when the parts are assembled.

[Claims 2, 5 to 7, 9, and 10 not printed in the Gazette.]

1,254,269. CAN-DRAINING MACHINE. STEFANO PITTALUGA, Los Angeles, Cal. Filed July 20, 1916. Serial No. 110,415. (Cl. 226—9.)



1. A draining machine for containers comprising a drum rotatable on a horizontal axis and means for conveying containers to, around with, and from said drum for the purpose specified; said means comprising a drainage cover adapted to retain the solid contents of the container in the container when inverted.

2. A draining machine for containers comprising a drum rotatable on a horizontal axis, means for automatically feeding containers to said drum, means to hold the containers and solid contents in place as the same are inverted and drained during rotation of the drum, and means for conveying the containers from the drum.

3. A draining machine for containers comprising a drum rotatable on a horizontal axis, a delivery conveyer mounted at one side of said drum and adapted to deliver containers thereto, means to hold the containers and solid contents in place as the same are inverted and drained during rotation of the drum, and a discharge conveyer mounted at the other side of said drum and adapted to carry the containers therefrom.

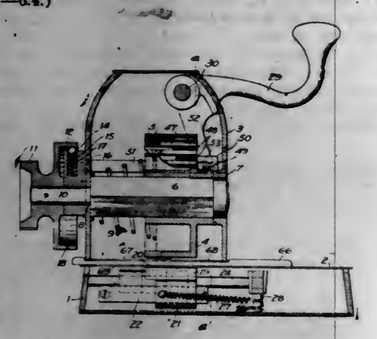
4. A draining machine for containers comprising a drum rotatable on a horizontal axis, a delivery conveyer mounted at one side of said drum and adapted to deliver containers thereto, means to hold the containers and solid contents in place as the same are inverted and drained during rotation of the drum, a drainage trough mounted below said drum to catch and carry away the drainings, and a discharge conveyer mounted at the other side of said drum and adapted to carry the containers therefrom.

5. The combination of a drum rotatable on a horizontal axis for draining containers; a delivery conveyer mounted at one side of said drum; a discharge conveyer mounted at the other side of said drum, said delivery and discharge conveyers being positioned on a level with the top of the drum and the containers being adapted to successively move onto the drum from the delivery conveyer, to revolve with said drum to and out of inverted position for one revolution, and to then succes-

sively move from the drum onto the discharge conveyer; and drainage covers revolving with the drum to retain the solid contents of the container while inverted.

[Claims 6 to 18 not printed in the Gazette.]

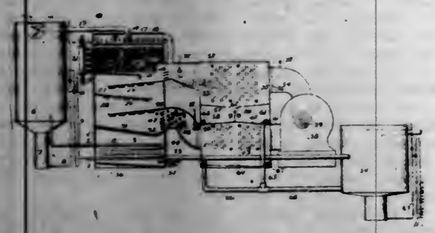
1,254,270. CHECK-WRITING MACHINE. HENRY J. PLANT, Rochester, N. Y., assignor to Defiance Check Writer Corporation, Rochester, N. Y., a Corporation of New York. Filed Apr. 14, 1916, Serial No. 91,014. Renewed July 10, 1917. Serial No. 179,769. (Cl. 197—6.4.)



25. In a printing machine, a rotary printing member having a plurality of lines of type thereon extending in the direction of the axis of turning of said member, an inking roller, a frame by which said roller is carried, a spring acting on said frame to hold the roller in co-operation with the printing member when the latter turns about its axis, and a device carried by said frame and adapted to engage the printing member when the printing member is moved in the direction of its axis.

[Claims 1 to 25 not printed in the Gazette.]

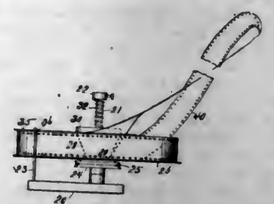
1,254,271. APPARATUS FOR DEHYDRATING OIL. ROBERT R. POLLAK, San Francisco, Cal. Filed July 6, 1914. Serial No. 849,162. (Cl. 196—25.)



8. An apparatus for dehydrating oil comprising a vessel, the top of which has a hinged portion, a perforated partition in said vessel, a horizontal series of perforated plates on to which the oil drips from said perforations, coils of steam pipes arranged in staggered relation with each other on to which said oil flows, means for controlling the supply of steam to said pipes by hand, thermostatic means for controlling said steam supply, a vertical series of inclined, perforated drip plates below said steam pipes in said vessel, coils of steam pipes beneath the several plates, a centrifugal blower, means for regulating the speed of said blower, a conduit leading from said blower to said vessel above the cooling chamber, a condenser in said conduit, means in a further portion of the conduit for heating air therein, a conduit leading from an upper portion of the vessel to the blower, two condensers in different portions of said conduit and individual chambers for receiving the liquids condensed thereby.

[Claims 1 to 7 not printed in the Gazette.]

1,254,272. ENDLESS-FILM REEL. SAUL PONON, Newark, N. J., assignor to Daylight Cinema Corporation, New York, N. Y., a Corporation of New York. Filed May 24, 1916. Serial No. 99,513. (Cl. 88—18.7.)



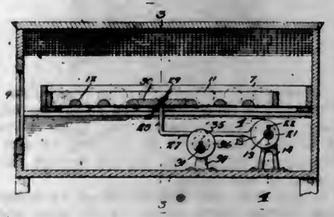
1. In a reel of the character described the combination of a supporting rod, a pulley journaled on the rod, a disk secured to the pulley, a guide block for a film journaled on the rod with one end normally bearing against the face of the disk and a flexible medium bearing against the other end of said block.

2. In a reel of the character described the combination of a supporting rod, a pulley journaled on the rod, a disk carried by the pulley, means to turn the pulley, a cone shaped guide block for a film journaled on the rod with one end normally bearing against the face of the disk and a spring bearing against the other end of said block.

3. In a reel of the character described the combination of a supporting block, a guide rod extending from said block, a pulley journaled on the said rod, a disk supported by said pulley, a cone shaped guide block for a film journaled on said rod and normally bearing on said disk, a spring bearing on the guide block, stanchions extending from the supporting block, a guide cover for said film supported on said stanchion and means to turn the pulley and disk and thereby continuously move the film permitting it to be discharged at its core and wound up at its outer portion on said disk.

4. In a reel of the character described the combination of a rotating disk, a rotating cone shaped guide block over the disk for an endless film, a stationary cover for the film and means to turn the disk and thereby discharge the film from its core and permit the discharge end to travel over the body of the film that is located around the guide block.

1,254,273. EGG-TURNING MECHANISM FOR INCUBATORS. ALFRED THRUSTON POPE, Louisville, Ky., assignor of one-half to Curran Pope, Louisville, Ky. Filed Apr. 27, 1917. Serial No. 165,025. (Cl. 119—44.)



5. In a sectional incubator, the combination with a plurality of egg drawers, of egg rolling frames mounted therein and adapted to reciprocate in the drawers, means to reciprocate the frame including a sectional shaft, a loose connection between the sections, a connecting rod for each frame having an eccentric connection with the shaft, and a detachable connection with the frame, and means for oscillating the shaft.

[Claims 1 to 4 and 6 to 13 not printed in the Gazette.]

1,254,274. EXPANDING DEVICE FOR SPECTACLE-RIMS. GEORGE E. PAYOR, Los Angeles, Cal. Filed Mar. 6, 1917. Serial No. 152,885. (Cl. 219—21.)

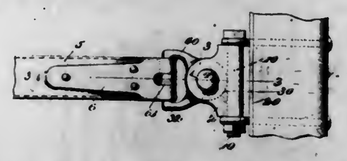


1. An expanding device comprising a tapered mandrel, an inner member within said mandrel, means for securing said mandrel to said inner member, a heating element on said inner member, and handle means secured to said inner member for supporting said device.

3. An expanding device comprising a tapered mandrel, a cylindrical member within said mandrel, a block of insulating material supported in said cylindrical member having passages therethrough, means engaging said block for securing said mandrel to said cylindrical member, insulating material on said cylindrical member, a coil on said last named insulating material, the ends of said coil extending through the passages in said block, and means for supporting said cylindrical member.

[Claims 2 and 4 not printed in the Gazette.]

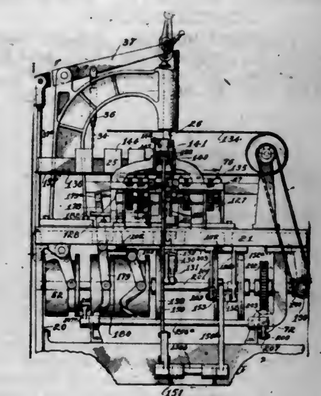
1,254,275. HAME AND TRACE CONNECTION. JOHN REICHERT, Racine, Wis. Filed July 21, 1916. Serial No. 573,129. (Cl. 54—30.)



A trace connection comprising a U-shaped metal clip having a rounded front bearing end 60, and rearwardly extending elongated approximately parallel sides, said clip between its longitudinal edges formed with an approximately U-shaped longitudinal cut in one side and extending into said bearing end and forming an intermediate finger 61, said finger being bent inwardly behind said bearing end to form a rear stop and bearing portion, and to lock the clip to the bar or member to which it is applied; the side opening formed by bending said finger inwardly adapted to be closed by the trace secured in said clip.

1,254,276. LABEL-APPLYING MACHINE. JAMES D. REIFSNYDER, Philadelphia, Pa., assignor to Stokes & Smith Company, Summerdale, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Mar. 20, 1915. Serial No. 15,717. (Cl. 216—53.)

1. In a label applying machine and in combination, oppositely disposed label applying means forming between them a throat into which a package and its label are to be forced to apply the label, means for feeding gummed labels over the throat, supports for the packages to be labeled located over the throat, a guide-way for the packages leading to said supports, an endless carrier moving transversely through said guide-way, means for pushing packages off the carrier into position on the supports, and a plunger for moving the packages from between the supports onto the label and into the throat to have the label applied thereto.



7. In a label applying machine, in combination, oppositely disposed brushes, means for positioning an adhesive label over said brushes, means for advancing a package and said label between said brushes, said brushes coöperating to apply the wrapper to three sides of the package and so that a pair of opposite edge flaps of the label project beyond the plane of the fourth side of the package, another brush movable transversely across the fourth side of the package to fold down one of said projecting edge flaps, means for moving said package bodily in a lateral path, and another brush disposed adjacent said lateral path and operating to fold down the other of said edge flaps upon the fourth side of said package.

10. In a label applying machine and in combination, oppositely disposed label applying means forming between them a throat into which a package and its label are to be forced to apply the label to the package, a table at one side of the throat for supporting an ungummed label, an aligning gage at the forward edge of the table for registering the forward edge of the label, a glue applying roller located above and at the forward edge of the table, means for periodically withdrawing said gage, reciprocating grippers for engaging the forward edge of the label and operating to draw the label forward under the roller when the gage is in its withdrawn position and for carrying the label forward to a position over the said throat, and a periodically reciprocating plunger for carrying the packages to be labeled into contact with the gummed label and down into the throat to have the label applied thereto by the label applying means.

16. In a label applying machine, in combination, a supporting table having a plurality of transverse slots therein, bars mounted to slide in said slots, grippers carried thereby, said table having a throat with wipers therein between which the package and label pass in applying the label to the package, means for forcing the package and its label between the wipers in the throat, means for reciprocating said bars to feed the labels one by one over said throat, and automatic means for operating the grippers at the limits of their travel to cause them to grip the label to advance it and then release the label when over said throat.

18. In a label applying machine, in combination, means for applying a label to the walls of a package, a throat between said label applying means through which the package and label move downwardly to pass said label apply-

ng means, a label feeding device comprising a plurality of movable grippers, means for reciprocating said grippers so as to advance the label to a point over said throat, one of said grippers being in line with said throat, a slide supporting said last-named gripper, and means for giving said slide a movement to move that gripper to clear the throat and thereby leave the throat unobstructed to permit the free passage of the package and label.

[Claims 2 to 6, 8, 9, 11 to 15, and 17 not printed in the Gazette.]

1,254,277. GASOLENE-BURNER. EVERETT REYNOLDS, Waynesburg, Ky., assignor of one-half to Arad K. Caldwell, Waynesburg, Ky. Filed Apr. 27, 1917. Serial No. 164,922. (Cl. 67—50.)

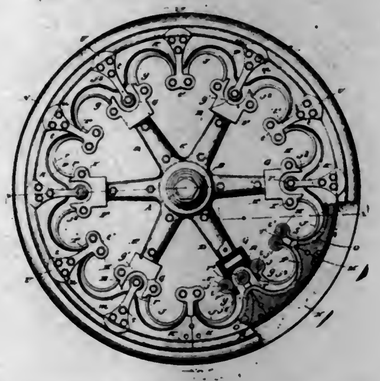


A burner comprising a supply pipe, a valve in said supply pipe, a generating pipe connected to and communicating with the supply pipe, a starting cup carried by the generating and supply pipe, inlet air pipes connected to and communicating with the generating pipe, a nozzle on the generating pipe and establishing a communication between the inlet and generating pipes, a mixing chamber secured to the inlet pipes, burner tubes depending from the mixing chamber, a rod formed integrally with the upper side of the mixing chamber, a conical shaped hood arranged over the mixing chamber and rod, a substantially U-shaped strap secured to the apex of the hood, and a cup-shaped deflecting member detachably secured to the upper end of the rod to secure the conical shaped hood to the mixing chamber, and means carried by the deflecting cup-shaped member for supporting the device in position.

1,254,278. RESILIENT WHEEL. WALTER E. ROBERTSON, Venus, Tex. Filed Aug. 13, 1914. Serial No. 856,561. (Cl. 152—49.)

1. A wheel having rigid spokes, a displaceable rim, and resilient suspending means for the outer ends of the spokes connected thereto at points within the said rim, said resilient means comprising oppositely disposed bowed springs connected at one end to the outer ends of the spokes and at the other end to a part of the rim, the rim having cradles upon which the springs may work, the ends of the springs remote from the spokes being adapted to initially engage the cradle, and when placed under pressure to gradually and progressively increase such engagement toward those ends of the springs connected to the spokes, in combination with ridge portions on the rim intermediate of the cradles normally facing radially the ends of the spokes, and buffer members supported by the rim adjacent the said ridges, the said ends of the spokes constituting yokes adapted normally to be free from said buffers but under pressure to be engaged thereby.

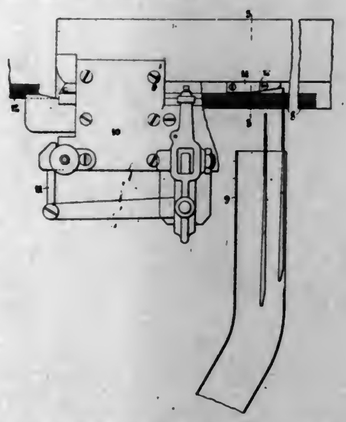
9. A wheel having rigid spokes formed with yokes at their outer ends, a rim, abutments on the rim adapted to engage the outer ends of the spokes under abnormal displacement of the rim, and yieldable suspension devices in the rim for said spokes connected to the rim and to the spokes to permit a rolling action of the rim within the said yokes, substantially as described.



17. In a vehicle wheel, means for yieldably suspending a part thereof comprising a pair of curved cradles, an opposing rigid member toward and from which the cradles move, and bowed springs connected at one end to said rigid member and at the opposite end to parts attached to the cradles, said springs being arranged to engage in a gradually increasing surface contact lengthwise thereof with the cradles, the end of the fixed member being located within a plane bounded by a line intersecting the outermost points of suspension of the spring, in combination with a buffer member arranged intermediate of the cradles and adapted to contact and play over the end of the fixed member.

[Claims 2 to 8 and 10 to 16 not printed in the Gazette.]

1,254,279. TYPOGRAPHICAL COMPOSING AND LINE-CASTING MACHINE. KARL RÖGER, Berlin, Germany, assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed June 29, 1914. Serial No. 847,825. (Cl. 199—33.)



1. In a typographical machine, the combination of a composed line of matrices and justifying spacers, the latter each being provided with the same distributing combination, a distributer box, a line transporter movable into operative relation to the distributer box, and a longitudinally ribbed rail along which the matrices and spacers are transferred from the transporter to the distributer box, and having a distributing combination to coöperate with those of the spacers and permit their disengagement therefrom.

2. In a typographical machine, the combination of a composed line of matrices and justifying spacers, the latter each being provided with the same distributing combination, a distributer box, a line transporter movable into operative relation to the distributer box, and a longitudinally ribbed rail along which the matrices and spacers are transferred from the transporter to the distributer box, and having a distributing combination to coöperate with those of the spacers and permit their disengagement therefrom, a cam piece attached to the rail and adapted to engage the upper ends of the spacers to insure their disengagement therefrom.

3. In a typographical machine, the combination of a composed line of matrices and justifying spacers, the latter each being provided with a pair of sustaining teeth, a distributer box, a line transporter movable into operative relation to the distributer box, a longitudinally ribbed rail along which the matrices and spacers are transferred from the transporter to the distributer box, and a conveying chute underlying the ribbed rail, the said ribbed rail having ribs discontinued above the chute to permit the spacers to drop therefrom into the chute during transfer.

4. In a typographical composing and line casting machine, the combination with a composed line of matrices and space bars, a distributer box adapted to separate the advancing matrices in succession, a permuted distributer rail receiving the matrices after such separation, a ribbed rail to which the space bars and matrices are attached by means of distributing teeth on those space bars and matrices before they reach the distributer box, a chute beneath this ribbed rail, the ribs of which latter to which the space bars are attached being discontinued over the chute, and cams attached to this ribbed rail also above the chute and adapted to depress the space bars.

5. In a typographical machine, the combination of distributing mechanism, a distributer box from which the matrices are fed individually thereto, a ribbed rail leading into the box, and justifying spacers formed with sustaining teeth to engage the rail, the said rail having its ribs cut away at a point in its length to permit the disengagement of the spacers therefrom, in the manner and for the purpose described.

[Claim 6 not printed in the Gazette.]

1,254,280. WINDOW. JOHN F. RUTH, St. Louis, Mo. Filed Mar. 24, 1913. Serial No. 756,556. (Cl. 189—78.)

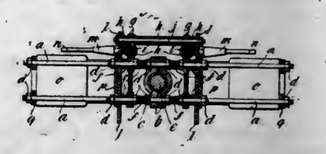


1. In combination with a hollow metallic sash having grooves to receive the margins of a sheet of glass and a sheet of glass having a wire mesh reinforce embedded therein and co-extensive only with the sheet of glass, a plurality of securing means engageable with the walls of said grooves in the sash and arranged to embrace said walls of the groove and a device at each securing means for creating added pressure to the walls of said grooves whereby to create such clamping pressures at the margins of the sheet of glass which will secure the wire mesh to the walls of the grooves in the sash so that in the event the body of the sheet of glass is broken the glass will be prevented from falling by reason of the wire mesh being secured in the sash.

2. In combination with a sheet of glass having a reinforce embedded therein and a sash arranged to surround the margins of the sheet of glass, a glass securing means and a device at the securing means whereby to create such clamping pressure to at least one margin of the sheet of glass which will secure the reinforce to the sash so that the sheet of glass will be prevented from loosening or falling by reason of the reinforce being secured to the sash.

[Claims 3 and 4 not printed in the Gazette.]

1,254,281. MULTICYLINDER INTERNAL-COMBUSTION ENGINE. ALBERT EDWARD SALWAY, Taibach, Wales. Filed May 28, 1917. Serial No. 171,528. (Cl. 121—105.)



1. A multi-cylinder engine construction including the combination with the cylinders, crank shaft, cam shafts and tappet rods, of a frame for supporting and maintaining said parts in assembled relation consisting of a plurality of rods having means secured to the outer ends thereof for clamping the heads of oppositely related cylinders, and means secured to the intermediate portions of certain of said rods for supporting the crank shaft, and other means located between said latter means and the ends of the rods for respectively supporting and guiding the said cam shaft and tappet rods.

2. A multi-cylinder engine construction including the combination with the cylinders, crank shaft, cam shafts and tappet rods, of a frame for supporting and maintaining said parts in assembled relation consisting of a plurality of continuous rods having cylinder-head clamping-plates secured to their outer ends for engaging and holding a plurality of cylinders, crank shaft bearing members secured to the intermediate portions of certain of said rods, tappet guide-supporting plates positioned on said rods adjacent the base of the cylinders, and cam shaft supporting and bearing elements also positioned on said rods and rigidly spaced thereon between the said tappet guide-supporting plates and crank shaft bearing members.

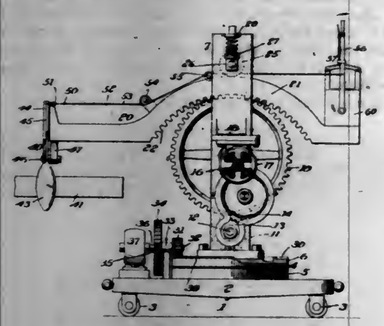
3. A multi-cylinder engine construction including the combination with the cylinders, crank shaft, cam shafts and tappet rods, of a frame for supporting and maintaining said parts in assembled relation consisting of a plurality of continuous rods arranged in transverse pairs and the latter being spaced longitudinally to clear the said cylinders, crank shaft bearing elements rigidly supported at the intermediate portions of said rods, tappet guide supports adjoining the base of said cylinders, cam shaft bearing members positioned on the rods, and means for rigidly spacing the said latter bearings between the tappet guide supports and the crank shaft bearings.

4. A multi-cylinder engine construction including in combination, a plurality of alined cylinders arranged in opposite groups, a frame including a plurality of spaced rods, means carried by the rods for clamping the heads and bases of the cylinders in each group, a crank shaft common to all of the cylinders of the said groups, a cam shaft common to all of the cylinders of each group, and means carried by the intermediate portion of said rods for supporting the said crank and cam shafts.

1,254,282. PORTABLE CRANE. JOHN J. SCHULZ, South San Francisco, Cal., assignor to Anna Schulz, South San Francisco, Cal. Filed Aug. 27, 1917. Serial No. 188,333. (Cl. 212—44.)

1. In a portable crane, supporting means, a gear mounted on said supporting means, a carrier, a segmental gear

on said carrier, meshing with and supported by said gear, means for rotating said gear to move said carrier forwardly and backwardly.

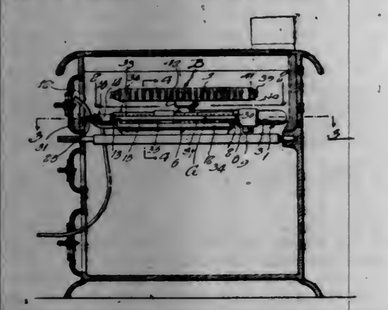


5. A crane comprising a support, a gear mounted on said support, a carrier, a segmental gear on said carrier meshing with said gear for moving said carrier forwardly and backwardly and for permitting vertical swinging movement of said carrier.

6. In a portable crane, supporting means, a gear mounted on said supporting means, a carrier, a segmental gear on said carrier meshing with said gear, a roller yieldingly mounted on said supporting means and engaging said carrier for preventing disengagement of said segmental gear and gear, and means for rotating said gear.

[Claims 2 to 4, 6, and 7 not printed in the Gazette.]

1,254,283. OIL-BURNER. GEORGE W. SMITH, Dayton, Ohio, assignor to American Burner Company, Buffalo, N. Y., a Corporation of Delaware. Filed Jan. 22, 1917. Serial No. 143,742. (Cl. 158—53.)



1. In a device of the class described, a body member comprising a J-shaped pipe, the arms thereof being parallel and disposed in the same horizontal plane, a base secured to the body member, a burner mounted on one of the arms of said member, an elongated gas generating tube of relatively small diameter secured to the other arm of said body member at one end, an H-shaped coupling pipe at the opposite end of said tube, a second tube closed at one end and connected at the opposite end to said coupling and extending in parallel relation to said first tube, an auxiliary burner on an arm of said J-shaped pipe adjacent one of the tubes, oil flow retarding material in one of said tubes and gas superheating means in the other, an oil supply valve in one arm of said coupling, a gas controlling valve in the other arm, and a priming pan in said base below said tubes.

2. In a device of the class described, a body member comprising a substantially J-shaped pipe, a pair of bosses extending in opposite directions from the long arm thereof adjacent its free end, a base secured to one of said bosses, a burner mounted on the other boss, and a gas generating member connected with the short arm of the body member.

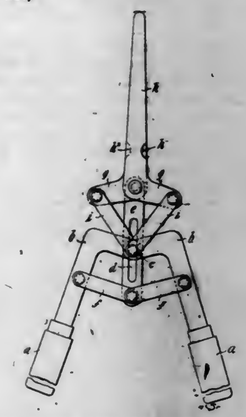
4. In a device of the class described, a body member, a base connected to said body member for supporting the same, a burner mounted upon said body member, a gas superheating tube connected to the body member, a valve in said gas superheating tube to control the flow of gas into said body member, a second gas generating tube connected with said superheating tube and a valve therein to control the flow of liquid fuel.

5. In a device of the class described, a base, a body member connected to said base, a burner on the body member, a gas generating tube connected to the body member, a valve in said tube to control the flow of gas into said body member, and a helical coil of aluminum wire surrounding the stem of said valve within the tube, whereby to prevent the formation of carbonaceous deposits in said gas generating tube.

8. In a device of the class described, a gas generating member, a gas supply pipe extending from said member, a branch pipe connected intermediate its ends to the end of said supply pipe, and an elongated tubular burner member on each end of the branch pipe, the ends of said branch pipe entering the burner members intermediate their ends, said burner members each having a pair of series of burner openings in their outer faces, the inner openings of said series being spaced from the ends of said branch pipe.

[Claims 3, 6, and 7 not printed in the Gazette.]

1,254,284. GARDEN-SHEARS, PRUNER, AND THE LIKE. RICHARD JOHN SOUTHWOOD, Upper Norwood, England. Filed Jan. 10, 1917. Serial No. 141,631. (Cl. 30—11.)



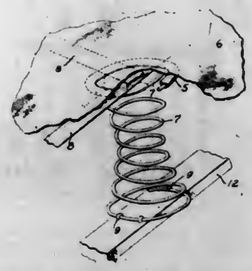
1. A device of the class described including a member having a slot, a pair of substantially L-shaped blades having opposite cutting edges and pivotally mounted on said member, links pivotally connected to the short arms of the L-shaped blades, a stud pivotally connecting the ends of the links and located in the central part of the slot when the blades are in matching relation, and means for reciprocating the stud to opposite sides of the center of the slot to cause the opposite cutting edges of the blades to alternately come into crossing relation.

2. A device of the class described including a bar having a slot, a pair of cutting blades having opposite cutting edges and pivotally connected by a common pivot to one end of said bar, links loosely connected with the cutting blades, a common pivot element for the other end of said links normally disposed in the middle of the slot in the bar, and means for shifting said common pivot in the slot to alternately bring the opposite cutting edges of the blades into crossing relation.

3. A device of the class described including a pair of cutting blades having a cutting edge at both sides thereof, members loosely connected with said blades and having a common point of connection, and means for shifting the connected parts of said members to one side or the other of the position the same occupies when the blades are in register to bring the opposite cutting edge portions of the latter alternately into shearing relation.

[Claims 4 to 7 not printed in the Gazette.]

1,254,285. UPHOLSTERY-SPRING MOUNTING. MATTHIAS STADTLER, San Jose, Cal. Filed Dec. 13, 1916. Serial No. 136,648. (Cl. 5—13.)



An upholstery spring mounting, consisting of a fabric top, crossed tapes arranged upon said top, and a flexible curved pocket adapted to receive the end of the spring and arranged at the intersection of said tapes and secured to said tapes and said fabric top.

1,254,286. APPARATUS FOR MOISTENING ABSORBENT MATERIAL. SARAH S. STAPLES, London, England. Filed July 25, 1917. Serial No. 182,805. (Cl. 43—22.)



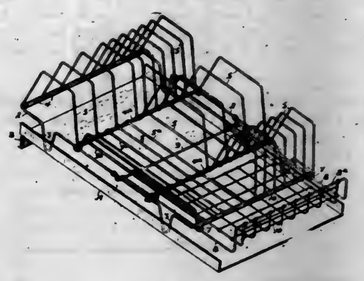
1. Apparatus for moistening absorbent material having an upper and a lower liquid reservoir, a groove in each reservoir, perforations connecting each reservoir with its groove, a rod located in each groove, and a sheet of absorbent material the upper and lower edges of which are wrapped around the rods and are in contact with parts of the sides of the grooves, substantially as set forth.

3. Apparatus for moistening absorbent material having an upper and a lower liquid reservoir, a groove in each reservoir, perforations connecting each reservoir with its groove, a rod located in each groove, a sheet of absorbent material the upper and lower edges of which are wrapped around the rods and are in contact with parts of the sides of the grooves, a filling aperture and air inlet in each reservoir, a closing device for each filling aperture and air inlet, an air outlet in each reservoir, a closing device for each air outlet, and means for suspending either reservoir in the upper position, substantially as set forth.

6. Apparatus for moistening absorbent material having an upper and a lower reservoir, a groove located in the body of each reservoir, perforations connecting each reservoir with its groove, a rod located in each groove, a sheet of absorbent material the upper and lower edges of which are fixed around the rods and are in contact with parts of the sides of the grooves, a combined filling aperture and air inlet in each reservoir, a closing device for each combined filling aperture and air inlet, an air outlet in each reservoir, and a closing device for each air outlet, substantially as set forth.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,254,287. DISH-DRYING RACK AND PAN. FREDERICK W. STERLING, San Francisco, Cal., assignor to F. C. Koerber Co., Oakland, Cal., a Copartnership. Filed Mar. 6, 1917. Serial No. 152,540. (Cl. 141—11.)



1. In a dish drying apparatus, a main frame having side bars and an end bar yokes depending from said end bar, a basket having a transverse bar the ends of which slidably engage with the side bars of the main frame, side bars for the basket slidably engaged through the yokes and connected to the transverse bar at the inner ends thereof, an end cross bar for the basket connected to the side bars thereof and extending above the latter, and a bottom and outer end wall for the basket connected to the cross bar and transverse bar thereof and spaced from the basket side bars and from the yokes.

2. In a dish drying apparatus, a main frame having guides, a basket having side bars sliding through said guides, means to slidably connect the inner ends of the basket side bars to the main frame, a cross bar for the outer end of the basket extending above the side bars thereof, and a bottom and end wall for the basket connected to said cross bar and arranged in the space between the guides.

3. In a dish drying rack, a frame composed of side and end bars, longitudinal wires at one side of the frame connected at their ends to the end bars and formed with end and central inverted U-parts, other longitudinal wires between the first named wires and the other side of the frame connected at one end to one of the end bars of the frame and having end inverted U-parts alined with the adjacent end inverted U-parts of the first named longitudinal wires and having their remaining parts extending in a horizontal plane to form a platform-like part and connected to the opposite end bar of the frame, the outer one of said second named longitudinal wires being arched upwardly to form a guard for the outer side of said platform-like part.

1,254,288. CABLE-TESTER. CHRISTOPHER D. STEWART, Ottawa, Ill., assignor to Stewart Bros., a Partnership consisting of Edward S. Stewart and Christopher D. Stewart, Ottawa, Ill. Filed June 22, 1916. Serial No. 105,116. (Cl. 175—183.)

2. In a device of the character described the combination with an exploring coil, of a flaring non-magnetic

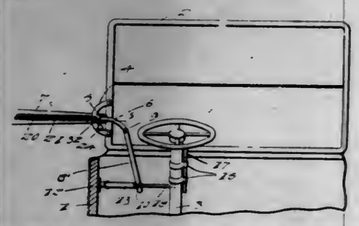
face plate for said coil, said face plate being symmetrical with respect to said coil, and being adapted for adjustment against the cylindrical sheath of a cable whereby said coil is influenced only by a field of force unsymmetrical with respect to said sheath.



6. In a device of the character described the combination with an exploring coil, of a flaring non-magnetic face plate for said coil, the apex of said flaring face plate extending inwardly of the outer portions of the upper convolutions of said coil, said face plate being unsymmetrical with respect to said coil and being adapted for adjustment against the cylindrical sheath of a cable whereby said coil is influenced only by a field of force unsymmetrical with respect to said sheath, and a magnetic core for said coil secured to said face plate.

[Claims 1 and 3 to 5 not printed in the Gazette.]

1,254,289. WIND-SHIELD CLEANER AND SIGNAL FOR AUTOMOBILES. WILLIAM H. STOUT, Baltimore, Md. Filed Nov. 8, 1916. Serial No. 130,138. (Cl. 21—148.)



1. A device of the character set forth comprising a member pivoted to a wind-shield, a cleaner carried by said member, means for swinging the member in a horizontal position in either direction to act as a signal when in one horizontal position and to act as a cleaner when in the other horizontal position.

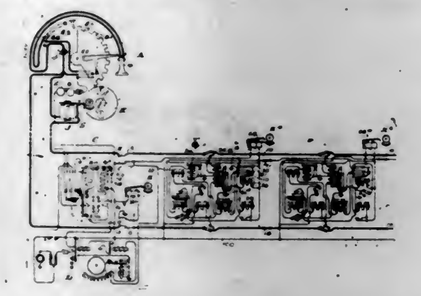
3. A device of the character set forth comprising a bracket, means for securing the bracket to a windshield, an arm journaled in said bracket, a signaling arm carried by said arm and normally retaining a vertical position, a cleaner secured to said signaling arm, and means connected with the first mentioned arm for swinging the signaling arm in a horizontal position in either direction to act as a signal when in one horizontal position and to act as a cleaner in the windshield when moving in the other horizontal position.

4. A device of the character set forth comprising a substantially U-shaped bracket secured to the windshield, a substantially L-shaped arm journaled in said bracket, a signaling arm carried by said L-shaped arm and normally maintaining a vertical position, a cleaner adjustably secured to the signaling arm, a rod pivoted to the L-shaped arm, and an operating rod connected to the said rod for swinging the signaling arm in a horizontal position in either direction to act as a signal when in one horizontal position and to clean the windshield when moving into the other horizontal position.

6. A device of the character set forth comprising a bracket secured to a windshield, a substantially L-shaped arm journaled in said bracket, a signaling arm carried by said L-shaped arm and normally maintaining a vertical position, a coil spring carried by said L-shaped arm and bearing against said signaling arm, said signaling arm having a longitudinal groove, a rubber cleaner adjustably secured in said groove, one arm portion of the L-shaped arm being curved downwardly, a rod pivoted to the curved end of the L-shaped arm, a pair of operating rods operatively connected with said rod to swing the signaling arm into horizontal position in either direction to act as a signal when in one horizontal position and to act as a cleaner when moving into the other horizontal position.

[Claims 2 and 5 not printed in the Gazette.]

1,254,290. TELEPHONE METER-SERVICE SYSTEM. HAROLD D. STROUD, Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 3, 1913. Serial No. 758,635. (Cl. 179—9.)



1. In a telephone system, an automatic switch, means for seizing said switch, means for operating said switch and for releasing the same, a time register associated with said switch, means for starting said register in operation when said switch is seized, and means for stopping said register when said switch is released, whereby said register automatically records the length of time that said switch is in use.

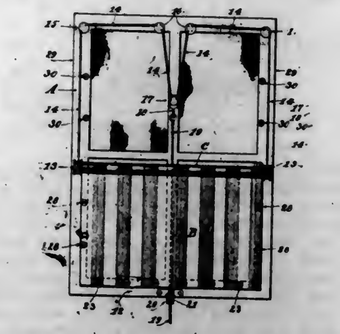
2. In a telephone system, an automatic switch, means for seizing said switch, means for operating and releasing the same, a time register associated with said switch, means normally locking said register against operation, a magnet controlling said locking means, means for energizing said magnet when said switch is seized to thereby release said register, and means for deënergizing said magnet when said switch is released to thereby again lock said register.

3. In a telephone system, a plurality of subscribers' lines, a series of automatic switches for use in establishing a connection between two of said lines, a time register associated with each of said switches, means normally locking said time registers against operation, means for unlocking a time register as soon as its associated switch is seized, and means for again locking said time register when its associated switch is released.

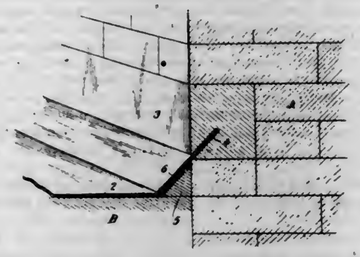
4. In a telephone system, subscribers' lines each provided with an individual line or trunk selecting switch, a time register associated with each switch, means controlled over a calling line for operating its individual switch upon the initiation of a call and for releasing the operated switch when disconnection is desired, and a circuit for controlling the operation of the associated time register, said circuit being closed when the associated switch is operated and opened when it is released.

1,254,291. CURTAIN AND FIXTURE FOR THE SAME. ALFRED C. SWANSON, Chicago, Ill. Filed Aug. 13, 1917. Serial No. 185,894. (Cl. 156—30.)

A curtain and fixture for the same, comprising, a frame, said frame including bottom, top, and side rails, a curtain, a roller, said curtain being attached at its lower end to said bottom rail, and its other end to said roller, a spool at each end of said roller, a pulley at each end of said top rail, other pulleys adjacent the center of said top rail, an equalizing roller having a downwardly extending loop, an operating cord, said operating cord having its ends fastened to said spools, said operating cord being wound around said spools in such a manner that when said operating cord is caused to pull the curtain roller upwardly to cause the curtain to unwind therefrom, said operating cord will be wound upon said spools, said operating cord being trained over said pulleys, a pull cord tied at one end to said loop, said pull cord passing from said loop behind said curtain and projecting from the lower end thereof, a snatch pulley below the lower end of said curtain to retain said pull cord in adjusted position, gromets at the bottom and the side margins of said curtain, and turn buttons at the bottom and side rails of said frame whereby the lower end of said curtain may be secured to the turn buttons at the bottom rail, or to turn buttons at the sides of said frame remote from said bottom rail.



1,254,292. ROOF-FLASHING. GEORGE E. SWENSON, Wayne Junction, Pa., assignor to The Barrett Company, New York, N. Y., a Corporation of West Virginia. Filed Jan. 17, 1917. Serial No. 142,838. (Cl. 108—26.)



1. In combination with a building roof and an abutting vertical wall, a flashing lying in a plane at an obtuse angle with said roof and extending therefrom into a groove in said wall, and being free to move therein as affected by expansion and contraction due to varying weather conditions.

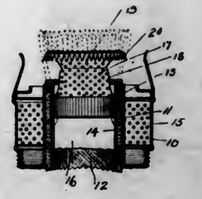
4. In combination with a building roof, an abutting wall and a cant-strip in the included angle, an element in said wall having an upwardly inclined groove, the lower wall of the groove being in substantial alinement with the face of said cant-strip, adapting the groove to receive flashing material to connect a roof covering with the wall without any part of said flashing material being arranged in a vertical position.

6. In combination, a building roof, an abutting vertical, grooved wall, a triangular cant-strip arranged in the included angle and a flashing strip overlying said roof and cant-strip and extending loosely into the groove in said wall and lying wholly in a non-vertical plane.

7. In combination, a building roof, an adjacent wall, a flashing block set in said wall slightly above said roof having an upwardly inclined groove in its face, the opening of which groove is at the bottom corner of said block, a triangular cant-strip fitted to the angle between the roof and wall with its face in alinement with the lower wall of said groove, and a flashing strip overlying said cant-strip and projecting into said groove being free to move therein as affected by the expansion and contraction of the roof covering or the building structure.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,254,293. BURNER. JOHN P. TRUESDELL, Providence, R. I. Filed Jan. 3, 1916. Serial No. 69,769. (Cl. 67—63.)



1. In an oil burner, a wick for forming the flame into a thin sheet and a notched plate located above the wick whose greatest diameter exceeds that of the wick for entering and dividing this sheet into a multiplicity of streams.

2. In an oil burner, a tubular wick for feeding the flame, and a center plate having a plurality of pointed fingers positioned to extend into the flame at a point a substantial distance above the wick when in raised position for dividing the flame into a plurality of streams.

3. In an oil burner, a tubular wick for feeding the flame and a member provided with a multiplicity of outwardly and downwardly extending fingers adapted to extend into the flame to interrupt its continuity.

[Claims 4 to 13 not printed in the Gazette.]

1,254,294. COLLAR. JOHN MANNING VAN HEUSEN, Boston, Mass. Filed June 16, 1917. Serial No. 175,053. (Cl. 2—67.)



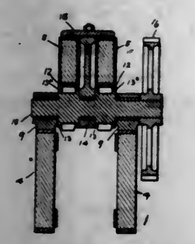
1. A collar of multiply interwoven fabric having a narrow portion of the edge of the multiply fabric turned and overlaid with a binding tape secured to the edge of the collar by a double row of stitches, one row passing through both the tape and the narrow turned edge of the collar and the other passing through the tape beyond the turned edge, substantially as described.

[Claims 2 and 3 not printed in the Gazette.]

1,254,295. POWER-SHOVEL. CLARENCE B. WESTON, Marion, Ohio, assignor to Ball Engine Company, Erie, Pa., a Corporation of Pennsylvania. Filed Jan. 20, 1915. Serial No. 3,359. (Cl. 37—16.)

1. In a power shovel, the combination of a boom formed with side members; a dipper stick operating between the side members of the boom; shipper shaft bearings on the

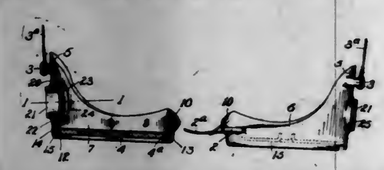
side members; a shipper shaft journaled in said bearings; a shipper pinion formed integrally with the shaft and located between the bearings; a rack on the dipper stick meshing with the pinion; and a retaining member journaled on the shaft between the bearings and having a sliding engagement with the dipper stick.



2. In a power shovel, the combination of a boom; a dipper stick operating in relation to said boom; a shipper shaft bearing on the boom; a shipper shaft journaled in said bearing; two shipper shaft pinions formed integrally with the shaft; racks on the dipper stick meshing said pinions; and a retaining member journaled on the shaft and having a sliding engagement with the stick.

[Claims 3 and 4 not printed in the Gazette.]

1,254,296. GOGGLES. FREDERICK WILLSON, Reading, Pa., assignor to T. A. Willson & Co., Inc., Reading, Pa., a Corporation of Pennsylvania. Filed Aug. 3, 1917. Serial No. 184,209. (Cl. 2—149.)



1. A goggle eye-cup having a front window, a wall ventilating opening, and a baffle plate for said opening spaced away from the wall of the cup and overlapping the edge of the opening.

2. A goggle eye-cup having a front window, a wall ventilating opening, and a separately formed baffle plate for said opening attached to the wall of the cup and overlapping the edges of the opening.

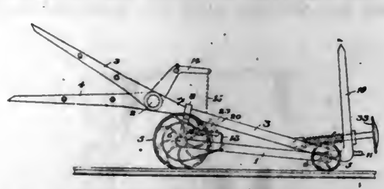
5. In combination with an eye-protector cup having a front window and a wall ventilating opening, a baffle-plate device having a shouldered hollow shank portion insertible into said opening, and means for retaining the inserted device.

6. An eye-protector cup for a beveled-edge lens, having a front window opening, a lens-edge contacting flange and an inclined retaining-ring offset forming between them a lens-edge receiving recess, and a spring retaining ring engaging between said inclined offset and the beveled edge of an inserted lens.

[Claims 3 and 4 not printed in the Gazette.]

1,254,297. MEANS FOR ARRESTING VEHICLES ON INCLINED RAILWAYS. JAMES RAYNEY LEACH ALLOTT and ERNEST DEAN, Kidsgrove, Stoke-upon-Trent, England. Filed Apr. 24, 1916. Serial No. 93,279. (Cl. 188—76.)

2. Means or devices for holding the vehicles on inclined rope railways stationary on the severance of the rope, comprising in combination a carriage adapted to run on the inclined track, a rearwardly projecting arm or sprag fulcrumed on the forward axle of the carriage, a second arm or sprag pivotally connected with the first mentioned arm or sprag and means for holding the said arm clear of the ground or for releasing the same to allow it to dig into the roadway, its impact with the roadway causing the first mentioned arm or sprag to swing upward on its fulcrum into impact with the roof.



3. Means or devices for holding the vehicles on inclined rope railways stationary on the severance of the rope, comprising in combination a carriage adapted to run on the inclined track and to be coupled on at the rear of the train of vehicles, a horizontally disposed spindle, arms or sprags pivotally connected therewith scissors fashion and in a vertically disposed plane in such manner that when closed toward one another they lie clear of the ground and of the roof, but when opened outward their ends embed themselves in the ground and roof of the roadway respectively.

7. A safety apparatus for inclined rope railways, comprising in combination a carriage adapted to run on the inclined track, and consisting of a frame mounted on wheels and axles and provided with a cradle member at its rear end, and a pair of arms or sprags pivoted together scissors fashion and fulcrumed on the forward axle, the said arms or sprags projecting from the rear of the carriage and adapted to normally rest in their inoperative position on the cradle.

9. In safety apparatus for arresting vehicles on inclined rope railways when accidentally released, the combination with a carriage adapted to run on the inclined track, of a pair of arms or sprags pivotally mounted on the carriage, a catch bolt so connected to the arms or levers as to normally hold them out of action, a pair of jaws adapted to clutch the catch bolt when closed together, a bell crank whose arms at one side of its pivot are adapted to hold the jaws in the closed position, and a governor so mounted on or in rotating connection with the carriage axle that its arms trip the said bell crank whenever the speed becomes abnormal, thus releasing the jaws and putting the sprags into action.

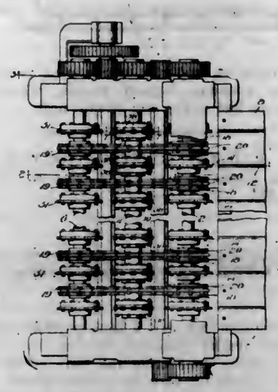
[Claims 1, 4 to 6, 8, and 10 not printed in the Gazette.]

1,254,298. ROLLING-PIN. WILLIAM ANTON, West Duluth, Minn. Filed Oct. 2, 1916. Serial No. 123,391. (Cl. 107—50.)



A device of the class described comprising a perforated cylinder having one end closed, said end having a central opening, a tubular handle projecting from said end and provided with an opening in its outer end alined with the first named opening, a perforated container slidable longitudinally in said cylinder and having its perforations normally out of registration with those in said cylinder, a plunger extending from one end of said container and through said alined openings whereby to permit of an adjustment of said container to register said openings, a spring coiled about said plunger and interposed between the adjacent end of said cylinder and the outer end of said handle for normally retaining said perforations out of registration, and a second handle carried by the end of the cylinder opposite to the first handle.

1,254,299. MACHINE FOR MAKING REINFORCED SHEATHING. FRED C. ARNY, Oak Park, Ill. Filed Oct. 29, 1917. Serial No. 198,921. (Cl. 154—1.)



1. In a machine of the character described, means for feeding a holding strip, a sheet of fabric, and an open-work metal sheet superimposed one upon the other; means for punching out tongues from the holding strip and driving them through said sheets; and means for clenching said tongues over portions of the metal sheet.

4. In a machine of the character described, means for feeding in unison with each other a holding strip, a sheet of fabric, and a sheet of metal in the form of strands connected together to form an open mesh, lying one upon the other; means for punching tongues from the holding strip and carrying them through said sheets in proximity to points at which the strands of the upper sheet are joined together; and means for clenching said tongues over the strands at the aforesaid points.

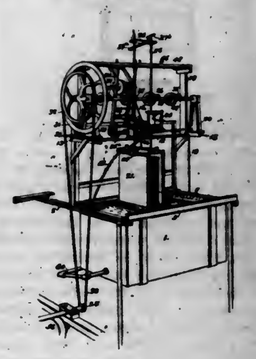
7. In a machine for securing together a holding strip, a sheet of fabric, and a sheet of expanded metal made up of strands connected by keys to form a diamond mesh, lying one upon the other; means adapted to engage alternate longitudinal rows of keys to feed the work continuously through the machine; and means adapted to act along the lines of the remaining longitudinal rows of keys to punch tongues out of the holding strip and clench them around the keys.

11. In a machine for securing together a holding strip, a sheet of fabric, and a sheet of expanded metal made up of strands connected by keys to form a diamond mesh, lying one upon the other; a table arranged in front of the machine and having a groove in its top for receiving and guiding said strip, means in alinement with said groove for punching tongues from said strip, forcing them through the sheets and clenching them over the expanded metal, and other means engaging with said sheets for feeding the work through the machine.

[Claims 2, 3, 5, 6, and 8 to 10 not printed in the Gazette.]

1,254,300. MACHINE FOR THE AUTOMATIC DEVELOPMENT OF PHOTOGRAPHIC PLATES AND FILMS. HINTON J. BAKER, Augusta, Ga. Filed Oct. 2, 1916. Serial No. 123,337. (Cl. 95—89.)

1. A plate or film developing mechanism that embodies, in combination; at least two solution holding tanks, a plate or film holder, a carriage that supports the film holder, means tending to constantly move the carriage and the holder from over one solution tank to the other, a hanger frame suspended from the carriage to which the plate holder is attached, means for holding the hanger frame and holder in elevated position, means to release the holding means to permit the hanger frame and the holder to gravitate, whereby the holder is immersed in the solution, detent devices to hold the carriage from movement as the holder remains in the solution, other means for raising the holder out of the solution, the said holder including a member adapted to trip the carriage holding detent when the plate carrying holder passes up out of the solution tank, whereby to permit the carriage and the holder to travel toward the next solution tank.

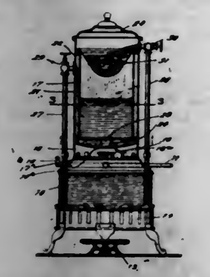


2. In an apparatus of the character stated, a plurality of tanks, an article holder adapted for insertion into and removal from the tanks, a raising and lowering mechanism for the said holder, a carriage for sustaining the said holder and raising and lowering mechanism, means for applying power to the said carriage to cause it to travel in one direction successively over the tanks, a detent device for holding the carriage against movement with the holder in position with relation to the respective tanks, the said detent including a projection extending into the path of movement of the said holder, whereby the said holder will release the said detent at times.

15. In an apparatus of the character described, an intermittently projected carriage, a vertically reciprocable plate holder carrier mounted thereon, means for reciprocating the said carrier also mounted on the carriage, said means including a winding drum mechanism, a driving shaft, means for connecting the said mechanism at times with the driving shaft whereby to set the winding drum mechanism into action, said mechanism including ratchet and check pawl devices, means operating at times for releasing and holding the said pawl released from the ratchet to thereby allow the drum to freely turn backward as the plate holder carrier gravitates, the said means including a lifting bar pivotally connected to the free end of the pawl, a rock shaft, said shaft and the lifting bar having interengaging members constructed to effect a pull on the lifting bar as the rock shaft is turned in one direction, devices operable by contact upon movement of the carriage for turning the rock shaft, other means for rendering the pawl releasing means ineffective so as to permit the pawl to engage with the ratchet, the said other means being set into action by the reciprocable plate holder carrier when it reaches its lowermost position, the said last named means including a spring arm that engages and holds the rock shaft to its rock position, and a member on the reciprocable plate holder carrier that engages and releases the spring arm that holds the rock shaft, means for turning the rock shaft back to its normal position, and a tension device for pulling the lifting arm back to the normal position whereby to lock the pawl into engagement with the ratchet.

[Claims 3 to 14 not printed in the Gazette.]

1,254,301. COFFEE-MAKING URN. SOLOMON BARBER, New York, N. Y. Filed Nov. 17, 1916. Serial No. 131,811. (Cl. 53—3.)



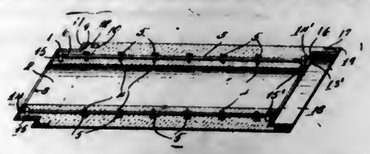
1. An apparatus for making coffee and the like, comprising a coffee receptacle having a coffee holder at its upper portion, a water receptacle having its walls spaced from the walls of said coffee receptacle and surrounding the coffee receptacle, the coffee and water receptacles having their bottoms adapted to be simultaneously heated by a burner, and a second water receptacle below the first two receptacles, adapted to be heated by another burner, and pipes passing from the interior of the second water receptacle to the interior of the coffee receptacle and the first water receptacle, for conducting heated water to the same to form a heated water jacket between the walls of said coffee receptacle and said first water receptacle and to make the coffee, said three receptacles forming one unitary structure.

2. An apparatus for making coffee or the like, comprising a coffee receptacle having a coffee holder at its upper portion, a water receptacle having its walls spaced from the walls of said coffee receptacle and surrounding the coffee receptacle, a second water receptacle below and spaced from the coffee receptacle and the first water receptacle and adapted to be heated by a burner, a secondary burner disposed at the upper side of said second water receptacle and adapted to simultaneously heat the bottoms of said coffee receptacle and first water receptacle, and pipes passing from the interior of the second water receptacle to the interior of the coffee receptacle and the first water receptacle, for conducting heated water to the same, to form a heated water jacket between the walls of said coffee receptacle and said first water receptacle and to make the coffee, said three receptacles forming one unitary structure.

3. An apparatus for making coffee or the like, comprising a coffee receptacle having a coffee holder at its upper portion and provided at its lower end with a reduced portion, a bottom for said reduced portion extending beyond said reduced portion, and side walls extending upwardly from said bottom in spaced relation to said coffee receptacle and constituting a water jacket therefor, a water receptacle below and in spaced relation to said coffee receptacle and water jacket surrounding the same, adapted to be heated by a burner, a secondary burner disposed at the upper side of said water receptacle and adapted to simultaneously and directly heat said coffee receptacle and said water jacket, and pipes passing from the interior of said water receptacle to the interior of said water jacket and said coffee receptacle, to form a heated water jacket, and to make coffee, said coffee receptacle, water jacket and water receptacle forming one unitary structure.

1,254,302. REINFORCED-CONCRETE PIPE. JOSEPH M. BELL and GUSS S. BROWN, Mount Gilead, Ohio. Filed Oct. 28, 1915. Serial No. 58,470. (Cl. 72—53.)

In a device of the class described, the combination of an elongated body having a central bore extending therethrough, a reduced neck formed upon one end of said body, thereby forming an abutment shoulder, a cap positioned upon said neck, said cap overhanging the end of said neck, a wall formed upon said cap and bearing upon said shoulder, a flange extending from said wall and fitting upon said body, whereby said neck and body



will be reinforced, and the overhanging portion of said cap having openings formed therein, whereby partial access may be had to the end of said neck.

1,254,303. RAILWAY CONSTRUCTION-CAR. WILLIAM R. BELL, Dunham, Ala. Filed Aug. 3, 1917. Serial No. 184,330. (Cl. 104—217.)



1. In a construction car, a body portion, end trucks, a plurality of trucks disposed between the end trucks, means for rigidly connecting the body portion with the end trucks, means for forming a loose pivotal connection between the body portion and the intermediate trucks, an endless conveyer carried by the body portion for supporting and transferring cross ties, and means carried by the body portion to drive the endless conveyer.

6. In a construction car, a wheeled body portion, spaced endless chains carried thereby, means to drive the chains, spacing members adapted to be arranged upon the body portion in proximity to the chains and to project above the chains for a substantial distance, and a trough connected with the body portion and arranged between the endless chains to receive and hold the spacing members.

10. In a construction car, a wheeled body portion, transverse rails secured thereto, rail holding devices supported by the rails and adapted to be shifted longitudinally of the rails, and rail conveying means carried by the body portion and arranged near the rail holding devices.

12. In a construction car, a wheeled body portion, an endless conveyer extending longitudinally thereof, a transverse shaft connected with one end of the body portion and driving the endless conveyer, an engine supported by the body portion, transmission gearing between the engine and said shaft, a drum carrying shaft arranged near the first named shaft and receiving its rotation therefrom, drums carried by the drum carrying shaft, means to render the drums active and inactive, and rail conveying means for operating with the drums.

[Claims 2 to 5, 7 to 9, and 11 not printed in the Gazette.]

1,254,304. RAILWAY-SWITCH. BENJAMIN B. BETTS, St. Louis, Mo. Filed Dec. 29, 1916. Serial No. 139,594. (Cl. 104—12.)



1. An improvement in the art of railway switch construction comprising in combination a main rail, a siding rail and a switch point rail of less dimensions than either of the other rails, said switch point rail maintaining throughout its length one base flange and the major portion of the other base flange.

2. An improvement in the art of railway switch construction comprising in combination a main rail, a siding rail and a switch point rail of less dimensions than either of the other rails, said switch point rail maintaining throughout its length one base flange and the major portion of the other base flange, and a rail chair at the junction of the siding and switch point rails having integral means for receiving and securing the heel of the switch point rail.

3. An improvement in the art of railway switch construction comprising in combination a main rail, a siding rail and a switch point rail of less dimensions than either of the other rails, said switch point rail maintaining throughout its length one base flange and the major portion of the other base flange, and spaced supports along the switch point rail and common to the main rail, having rail seats of different elevations, some of said supports having base flange engaging means to limit the movement of the switch point rail toward the main rail and the remainder of said supports permitting the shaped portion of one of the base flanges of the switch point rail to abut against the web of the main rail.

4. An improvement in the art of railway switch construction comprising in combination, a main rail, a siding rail and a switch point rail of less dimensions than either of the other rails, said switch point rail maintaining throughout its length one base flange and the major portion of the other base flange, and spaced supports along the switch point rail and common to the main rail, having rail seats of different elevations, some of said supports having base flange engaging means to limit the movement of the switch point rail toward the main rail and the remainder of said supports permitting the shaped portion of one of the base flanges of the switch point rail to abut against the web of the main rail, and said supports having undercut recesses for receiving and securing one base flange of the main rail, and rail bearing shoulders for the other flange of the main rail.

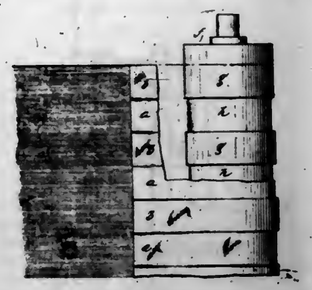
1,254,305. STREET-TRAFFIC SIGNAL. CLYDE W. BLAKESLEE, Chicago, Ill., assignor of twenty-four and one-half one-hundredths to Ira J. McDowell and twenty-four and one-half one-hundredths to Westly H. Westbrook, Chicago, Ill. Filed Jan. 24, 1916. Serial No. 73,917. (Cl. 116—22.)



1. A street traffic signal for street crossings comprising a hollow post; a shaft operating in said post; a signal mounted at the top of said post on said shaft; a gong; a clapper for said gong; means on said shaft for operating said clapper different numbers of times upon oscillating said shaft in different directions; and means for operating said shaft, substantially as described.

[Claims 2 and 3 not printed in the Gazette.]

1,254,306. MANUFACTURE OF COLLARS AND CUFFS. JOHN E. BOWEN, Lawrence, Mass., assignor to John Manning Van Heusen, Boston, Mass. Filed Oct. 20, 1915. Serial No. 56,841. (Cl. 139—9.)



1. A folding collar or cuff, made up of an inner panel and an outer panel woven in one piece with an intermediate curvilinear weakened edge fold portion; substantially as described.

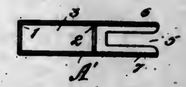
3. A folding collar or cuff, made up of an inner panel and an outer panel woven in one piece with an intermediate curvilinear edge fold portion of increased flexibility, the outer panel being woven longer than the inner panel, substantially as described.

5. A folding collar or cuff, made up of an inner panel and an outer panel of multiply fabric woven in one piece with an intermediate edge fold portion of increased flexibility, the outer panel being woven longer than the inner panel, substantially as described.

7. A folding collar or cuff, made up of an inner panel and an outer panel woven in one piece with an intermediate curvilinear edge fold portion, some of the warp threads of the fabric being omitted in the edge fold portion so as to weaken said portion; substantially as described.

[Claims 2, 4, 6, and 8 to 12 not printed in the Gazette.]

1,254,307. CIGARETTE OR CIGAR HOLDER. NISHAN M. BOYAJIAN, New York, N. Y. Filed Feb. 19, 1917. Serial No. 149,506. (Cl. 131—10.)



A holder of the class described comprising a tubular body, an internal flange in the body at a point intermediate its ends, and another internal flange at one end of the body and coöperating with the first-mentioned flange to form a nicotin-receiving chamber with central holes at both ends, the portion of the body opposite the end having the flange being shaped into jaws for gripping the article to be smoked, there being spaces between adjacent side edges of the jaws.

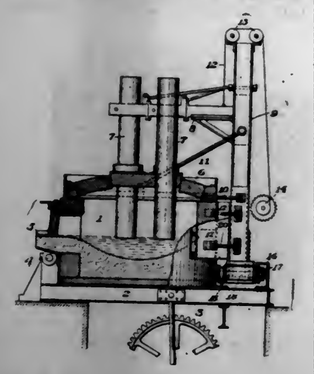
1,254,308. METALLURGICAL FURNACE. WILLIAM BUHL, Carnegie, Pa. Filed Aug. 20, 1917. Serial No. 187,238. (Cl. 204—64.)

1. In a metallurgical furnace the combination of a tilting bowl, movable means arranged to tilt with said bowl, and a furnace roof secured to said movable means.

5. In a metallurgical furnace the combination of a tilting bowl, a roof arranged to cover said bowl, and roof removing means movable on vertically inclined ways adjacent said bowl and to which said roof is rigidly secured.

16. In an electric furnace the combination of a tilting bowl, ways arranged to tilt with said bowl, electrode supporting masts mounted on said ways for horizontal movement relative to said bowl, a furnace roof, connec-

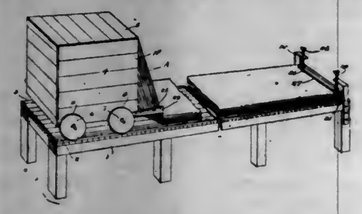
tion between said furnace roof and electrode supporting masts, and means comprising said masts and said ways



for raising said furnace roof from said bowl and removing it from position thereabove.

[Claims 2 to 4 and 6 to 15 not printed in the Gazette.]

1,254,309. MACHINE FOR LAYING OUT GOODS. CHESTER E. CLARK, Winnipeg, Manitoba, Canada. Filed Nov. 7, 1916. Serial No. 130,092. (Cl. 270—31.)

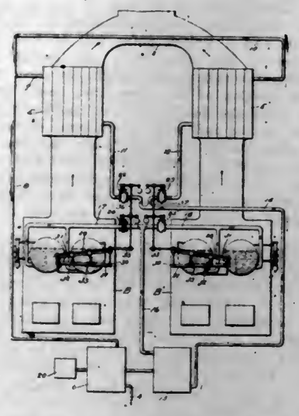


A machine for laying out a plurality of folded, rolled or otherwise packeted strips of goods comprising a box like truck having an open front, trays inserted within the box and providing receiving compartments for the respective packets, front and rear guiding rollers associated with each tray, said rollers receiving and guiding the extended ends of the packets and a plurality of guiding rollers mounted at the base of the truck at the front and adapted to receive separably the ends of the packets projected from the guiding rollers.

1,254,310. METHOD AND APPARATUS FOR HEATING AND SUPPLYING FEED-WATER TO BOILERS. CHARLES W. E. CLARKE, Brookline, and JOSEPH V. SANTRY, Roxbury, Mass. Filed Jan. 23, 1917. Serial No. 144,041. (Cl. 122—451.)

1. A system of the character described comprising the combination with a plurality of boilers and an economizer for each of said boilers, of means for forcing feed water through said economizers at a relatively high pressure, additional means arranged to take the water from said economizers and force it into said boilers, and automatic means constructed and arranged to distribute the flow of water to said boilers and also to said economizers in accordance with the relative feed water requirements of said boilers.

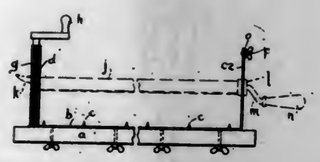
3. A system of the character described, comprising the combination with a plurality of boilers, an economizer for each of said boilers and pipe connections for leading feed water to said economizers and from the economizers to the boilers, of a pump for forcing the feed water into the economizers, a second pump for forcing the feed water from the economizers into the boilers, a valve in the outlet of each economizer, another valve in the feed water inlet to each boiler, and an automatic water regular for each boiler connected to both of said valves for its respective economizer and boiler and operating to close or open them simultaneously as the water in the boiler rises or falls.



6. The method of heating and supplying feed water to a plurality of boilers, which consists in using an economizer with each boiler, pumping the feed water into the economizers at substantially as high pressure as it is desirable to maintain in the economizers, pumping the feed water from the economizers into the boilers at substantially boiler pressure, and automatically distributing the flow of feed water between the economizers and also between the boilers in response to variations in the height of the water in the individual boilers.

[Claims 2, 4, 5, and 7 not printed in the Gazette.]

1,254,311. CLAMP FOR HOLDING CLOTH. ISRAEL COHEN, Detroit, Mich. Filed June 19, 1914. Serial No. 846,151. (Cl. 223—54.)



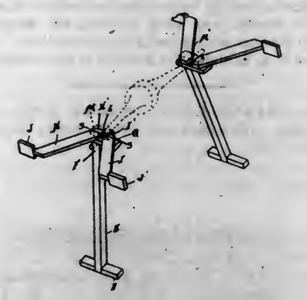
1. In an apparatus of the kind described, a clamping bar provided with a rotatable cam, an upright, a slot in which said cam may be adjusted, and means for rotating said cam to clamp it in adjusted position in said slot.

3. In an apparatus of the kind described, a clamping bar, an upright and a traveling block on said upright, means for adjusting the position of said block along said upright, and means for removably engaging one end of said clamping bar with said traveling block.

8. In an apparatus of the kind described, the combination of a pair of uprights, a clamping bar pivotally supported on one of said uprights and adjustable longitudinally thereof, and means for securing the other end of said clamping bar to the other upright at a desired position, substantially as and for the purpose described.

[Claims 2 and 4 to 7 not printed in the Gazette.]

1,254,312. DECKING SYSTEM. ALFRED COPONY, Detroit, Mich., assignor to Copony Auto-Loading Company, Detroit, Mich., a Corporation of Michigan. Filed July 23, 1917. Serial No. 182,211. (Cl. 105—15.)

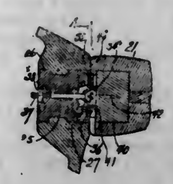


1. In a decking system for automobiles or the like in freight cars, the combination with a brace member extending diagonally upward from the floor of the car and inwardly from the side thereof, of a transverse brace member coöperating with said first-mentioned brace member.

4. In a decking system for automobiles or the like in freight cars, the combination with a brace member extending diagonally upward from the floor of the car and inwardly from the side thereof, of brace members cooperating therewith and extending diagonally inward from the sides of the car and toward each other, the inner ends of said last-mentioned brace member being spaced from each other to provide a recess within which the axle member of the automobile can be fastened.

[Claims 2 and 3 not printed in the Gazette.]

1,254,313. ADJUSTABLE COUPLING FOR WAX FIGURES. IRWIN G. CULVER, New York, N. Y. Filed Aug. 4, 1916. Serial No. 113,072. (Cl. 46—40.)



1. In a device the combination with one portion of a figure of a coupling member which can be secured in any angular position and a second coupling member in another portion of the figure adapted to lock with the first coupling member.

4. In a device of the character described the combination with a figure, of a supporting plug having a central opening therethrough and having a recess at one end of the plug coaxial with said central opening, the said plug also having a cylindrical cavity at its other end, a cylindrical coupling member in said cylindrical cavity comprising a peripheral flange with a cover, the outer face of said cover being in line with the outer face of the shoulder portion of said figure, a clamping screw extending through said supporting plug and coupling member, the latter having a seat for the head of the screw, a nut on the screw located in the recess of the supporting plug, the coaction of the screw and coupling member permitting the latter to be located in any angular position, a supporting plug in the arm of the figure, a coupling member in the arm fastened to the plug thereof and shaped to detachably lock with the other coupling member.

[Claims 2 and 3 not printed in the Gazette.]

1,254,314. SPRING-CUSHION STRUCTURE. FRANK P. D'ARCY, Kalamazoo, Mich. Filed Oct. 19, 1914. Serial No. 867,490. (Cl. 5—21.)



1. In a spring structure, the combination of a sheet metal supporting bar A-shaped in cross section and having inturned flanges at its edges, and helically coiled springs arranged in nested pairs with the bottom coils of the inner within the bottom coils of the outer, said bottom coils being saddle shaped and arranged to engage the apex of said supporting bar, the flanges of said supporting bar being clamped upon the bottom coils and inset between them.

2. In a spring structure, the combination of a supporting bar having inturned flanges at its edges, and helically coiled springs arranged in nested pairs with the bottom coil of the inner within the bottom coil of the outer and independently resting on said supporting bar, the flanges of said supporting bar being clamped upon the bottom coils of both springs and inset between them.

3. In a spring structure, the combination of a supporting bar having inturned flanges at its edges, and helically coiled springs arranged in nested pairs with the bottom coil of the inner within the bottom coil of the outer and independently resting on said supporting bar, the flanges of said supporting bar being clamped upon the bottom coils of both springs and supporting them rigidly in spaced relation.

1,254,315. WICKER FURNITURE. FRANK P. D'ARCY, Kalamazoo, Mich. Filed Dec. 18, 1916. Serial No. 137,598. (Cl. 155—3.)



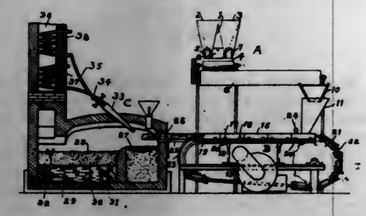
1. In an article of furniture of the class described, the combination of a pair of frame members having a mortise and tenon joint, a sheet metal reinforce for the mortised frame member curved in cross section to embrace the side thereof and conformed longitudinally thereto, disposed opposite the tenoned member and extending a substantial distance on both sides of the mortise, said reinforce being provided with perforations adjacent its longitudinal edges and secured by tacks engaging said perforations, and a wicker wrapping about said mortised member embracing and concealing said reinforce.

[Claims 2 and 3 not printed in the Gazette.]

1,254,316. PROCESS OF TREATING ORES. ARTHUR S. DWIGHT, New York, N. Y. Filed June 17, 1911, Serial No. 633,760. Renewed June 2, 1917. Serial No. 172,522. (Cl. 75—73.)

1. The herein described process of treating metal oxid ores which are initially in a fine or pulverulent condition, to form uniformly porous coherent thin agglomerated or sintered masses for introduction to the blast furnace, it consisting in forming a stratum or layer of such oxids

together with commingled pulverulent carbonaceous matter, said stratum being made thin to prevent the conserving of heat above a predetermined degree, igniting the carbonaceous matter at the exposed surface of the stratum, passing currents of combustion gas through the said stratum, causing the formation of carbon oxids within the mass, changing the degree of oxidation of the metal while in the presence of the carbon oxids and causing the metalliferous particles to unite and cohere at the time of the oxid transformation, and at a temperature below that of the silicification of the metal.



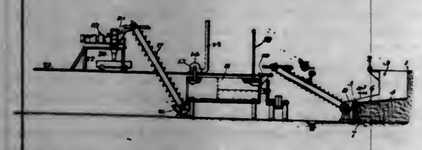
3. The herein described process of treating pulverulent iron ores containing oxids, lower in oxygen than ferrite to form uniformly porous solid coherent cakes or blocks, it consisting in forming a relatively thin stratum of the iron oxids commingled with pulverulent carbonaceous material, igniting the carbon at the exposed surface of the said stratum, passing currents of air through the said stratum from the surface of ignition, causing the combustion to pass to and through the interior of the said mass, causing the iron oxids to be oxidized to an extent equivalent to that of ferrite, and while the ferrite particles are in contact, permitting them to cohere at the time of reaction to form the agglomerated blocks or cakes as aforesaid.

9. The method of sintering fine ore or material, consisting in mixing such material with fine carbonaceous fuel, disposing the mixture in layer form, moving the layer without substantial disturbance thereof, igniting the carbonaceous fuel of the layer, and burning out the fuel and thereby sintering the ore into a cellular structure as it is carried along.

12. The method of sintering fine ore material, consisting in mixing it with fine carbon, feeding the mixture upon a moving conveyer, igniting the carbonaceous fuel at one point in its travel, and drawing gases down and out of the layer as the mixture is carried along beyond the ignition point.

[Claims 2, 4 to 8, 10, and 11 not printed in the Gazette.]

1,254,317. PROCESS OF CONVERTING GARBAGE INTO FOOD. WILLIAM H. FAUST, Los Angeles, Cal., assignor to Mahlon E. Faust, Los Angeles, Cal. Filed May 16, 1917. Serial No. 168,947. (Cl. 99—5.)



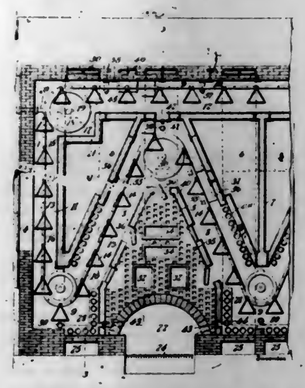
1. The process of converting garbage into food, which consists in cooking the garbage until dry, and then grinding the dried material.

2. The process of converting garbage into food, which consists in cooking the garbage for a comparative long period of time at near the boiling point to drive off the moisture, heating the cooked material for a comparatively short period of time to a much greater temperature to sterilize it, and then grinding the cooked and sterilized material.

5. The process of converting garbage into food, which consists in cooking and drying the garbage for a comparatively long period of time at a temperature of approximately 212 degrees Fahrenheit, heating the garbage thus cooked and dried to a temperature of approximately 400 degrees Fahrenheit to insure the destruction of all microorganisms therein, and then grinding the material thus treated to produce a granular food composition.

[Claims 3, 4, 6, and 7 not printed in the Gazette.]

1,254,318. BAKING-OVEN. WILLIAM FISCH, Birmingham, Ala. Filed May 21, 1914. Serial No. 839,970. (Cl. 107—57.)



1. In a baking oven, the combination with an endless carrier and a series of pivoted trays or shelves borne by the carrier, of a series of sections each comprising a furnace, opposing heat-storing structures, intervening hot-air passages, in which the carrier is adapted to travel and valved openings through the walls of the heat-storing structures leading into the passages.

5. In a baking oven comprising a series of sections, the combination in each section with a pyramidal heat-storing and distributing structure, of complemental heat-storing and distributing structures arranged to form passages in each section.

9. In a baking oven, the combination of a passage formed of a series of communicating passages, a heat storing chamber between adjacent sections of the passage, upright and overhead passages surrounding the heat storing chamber, means for controlling the delivery of heat from each heat storing chamber to its adjacent section of the passage and means for regulating the temperature in each passage.

[Claims 2 to 4 and 6 to 8 not printed in the Gazette.]

1,254,319. RADIATOR-REPAIR DEVICE. ELZIE H. FISHER and WILLIAM H. FOYE, Seattle, Wash. Filed Mar. 12, 1917. Serial No. 154,114. (Cl. 137—99.)

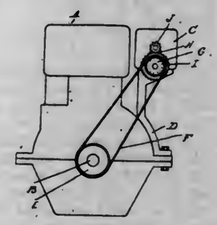


1. A repair device for injured radiators having alternate air passages and water chambers, comprising a pair

of patch plates and gaskets therefor, said patch plates being of such size as to overlap a plurality of the air passages, each of said plates having a plurality of bolt holes formed therein and bolts adapted to pass therethrough, said bolt holes being located in such spaced relation in the plates that when the device is in position said bolts lie upon opposite sides of the part to be repaired and pass through some of the air spaces not affected by the injury.

2. A repair device for injured radiators having alternate air passages and water chambers, comprising a pair of patch plates and gaskets therefor, said patch plates and gaskets being of such size as to overlap a plurality of the air passages, and means engaged with said plates and exerting a drawing action thereupon, to draw said plates toward each other and into engagement with the opposite faces of the radiator over the entire area covered by the gaskets.

1,254,320. AUTOMATIC BELT-TENSIONING MEANS FOR DRIVE MECHANISM. JOHN W. FITZ GERALD, Detroit, Mich. Filed Jan. 18, 1917. Serial No. 143,162. (Cl. 74—34.)

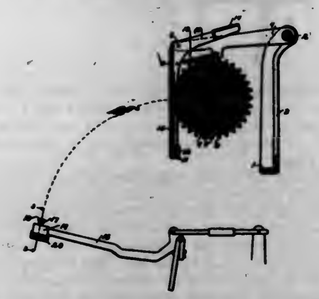


2. The combination with a drive mechanism and an electric generator constructed to maintain a substantially constant output at varying speeds, of a friction belt transmission therebetween, and means for maintaining a tension on said belt proportional to the torque and without regard to speed.

3. The combination with a drive mechanism and an electric generator constructed to maintain a substantially constant output upon variations in speed of the rotor, of a friction belt transmission between said drive mechanism and rotor, and means actuated by the varying torque between the rotor and stator for proportionately varying the tension upon the belt whereby there may be a decreased tension upon increased speed.

[Claims 1 and 4 not printed in the Gazette.]

1,254,321. TYPE-WRITER. WILLIAM R. FOX, Grand Rapids, Mich. Original application filed Nov. 6, 1909, Serial No. 526,552. Divided and this application filed Jan. 19, 1914. Serial No. 813,034. (Cl. 197—36.)



1. In a typewriter, a series of pin-pointed type, metal clips embracing said type and forming, with the rear thereof, sockets, and pads seated in said sockets on the back of said type.

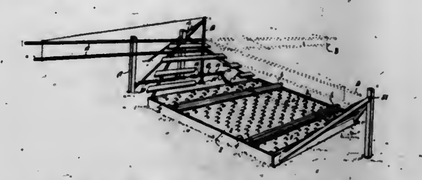
2. A metallic type bar carrying a metallic type and having a socket in which is seated a buffer of material softer than the type and against which a part of another type bar is adapted to strike.

3. A type bar having a socket in the rear of the impact face of the type, and a pad seated in said socket.

4. A type bar having a rearwardly opening socket, and a pad seated and secured in said socket and extending rearwardly from the type bar.

5. A type bar having a needle faced type and a socket in the rear of the type, and a pad seated and secured in said socket and extending rearwardly from the type bar.

1,254,322. RAILROAD CATTLE-GUARD. JOHN T. GIDCUMB, Dallas, Tex. Filed Sept. 1, 1917. Serial No. 189,379. (Cl. 39—18.)



1. In a cattle-guard gate, the combination with a platform pivotally supported at one end and freely movable at the other, of a gate adapted to swing across the track, connections between the platform and the gate to swing the latter when the platform is depressed, means for returning said gate to a normal position, and means for permitting the gate to swing on beyond its cross track position oppositely to its normal position.

2. In a stock guard gate for use on railroad crossing, a pivotal gate arranged adjacent to a railroad track, treadle platforms placed in the track and having one supported extremity with the other end movable, a shaft journaled transversely of said platform, arcuate arms fixed to the shaft and engaging the platform, an arm formed on the shaft, an arm fixed to the gate, a link slidably connecting said arm on the gate and said arm on the shaft, with a head formed on the link to permit the gate to move beyond its cross track position, and a coil spring for returning said gate to its original position.

1,254,323. BAG-FASTENER. THEODORE E. GRIMM, Newark, N. J., assignor to J. K. Osborn Manufacturing Company, Harrison, N. J., a Corporation of New Jersey. Filed May 29, 1917. Serial No. 171,677. (Cl. 70—116.)



1. In combination, two frame members movable relatively to each other, a catch member carried by one of said frame members and having locking engagement with the other of said frame members, of a slidably secured locking device secured to the front of the other frame member for engagement with the under side of the said catch member.

2. In a lock for satchels, the combination with a satchel having a catch member carried by one of the frame members for normally holding said satchel closed, of a locking member secured to the front of the other of said frame members, a chambered cap mounted on said last-named frame member, a single locking member slidably secured within said cap, said locking member being further provided with an eccentric for operating the same to cause it

to have locking engagement with the under side of said catch member.

3. In combination, two frame members movable relatively to each other, a catch member carried by one of said frame members and having locking engagement with the other of said frame members, and a locking device slidably secured to the front of the other frame member for engagement with the under side of the said catch member, said locking device comprising a chambered cap, a backing plate, an eccentric mounted to rotate in an aperture in said cap, a locking bar mounted upon said eccentric and means carried by said eccentric for operating said locking bar.

1,254,324. HORSE-COLLAR AND HAMES. GEORGE W. HAHN, Indianapolis, Ind. Filed May 5, 1916. Serial No. 95,576. (Cl. 54—18.)



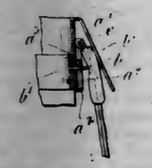
1. A horse-collar and hames including two hame parts having each a lock lever pivotally connected therewith, each lock lever being provided with a controlling arm, two coupling-bars inserted in the hame parts respectively and secured thereto by the lock levers respectively, and means for stationarily securing the controlling arms to the respective hame parts.

5. A horse-collar and hames comprising two hame parts oppositely arranged and having each a longitudinal channel in its outer side, the lower end of each part being provided with a coupling-bar, the coupling-bars being inter-connecting, and a yoke having two clamp heads provided with openings receiving the hame parts respectively, one of the heads having pivotal and swivel connections with the yoke, and each head being provided with a movable securing device extending into the channel and seated on the bottom of the channel of the part to secure the hame part to the head.

15. In a horse-collar and hames appliance, a pair of hame parts oppositely arranged and having each a longitudinally-extending channel in the outer side thereof, each channel having a lock lever pivoted therein and also a catch device supported in the channel to move toward or from the lever, each lever being provided with a laterally-elastic arm to be engaged when in normal position by the the catch device, in combination with a pair of inter-connectible coupling-bars insertible in the channels respectively and adapted to be forcibly engaged by the lock levers to secure the coupling-bars to the hame parts respectively.

[Claims 2 to 4 and 6 to 14 not printed in the Gazette.]

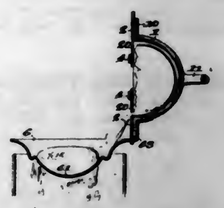
1,254,325. NECKTIE-HOLDER. GEORGE P. HUMPHREY, New Rochelle, N. Y. Filed Jan. 19, 1917. Serial No. 143,232. (Cl. 24—64.)



1. In combination with a scarf holder having a body portion provided with a slot, a collar button to enter the slot, and provided with an enlarged head to engage the holder and prevent lateral movement thereof, and a retainer carried by the holder to engage the lower edge of the collar and prevent vertical movement of the holder with relation to the collar, the retainer being held against disengagement with the collar by the locking engagement of the button with the holder.

[Claim 2 not printed in the Gazette.]

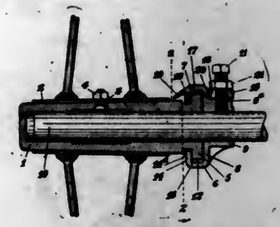
1,254,326. EGG BREAKER AND SEPARATOR. JAMES HUTCHISON and JOHN BREITFELD, Newport, Ky. Filed Oct. 15, 1917. Serial No. 196,718. (Cl. 65—12.)



3. As a new article, a device for the purpose stated comprising a body shaped for being conveniently held in the hand and including a finger receiving loop at the inner end, the outer portion having an egg receiving socket and a flat annular rim, a pair of oppositely disposed blades having cutting edges, the said blades being pivotally connected at one end to the flat rim, the other ends of the blades extending beyond the rim and formed with finger loops, means tending to normally swing the blades to the open position, the said blades being adapted, under finger pressure, to close over the egg socket opening, means that limit the closure movement of the blades and an egg separator attached to the body and projected forwardly from and at right angles to the plane of the rim face of the body.

[Claims 1, 2, and 4 not printed in the Gazette.]

1,254,327. SAND-BOX FOR WHEELS. ERIC JOHNSON, Moline, Ill., assignor to Deere and Company, Moline, Ill., a Corporation of Illinois. Filed Apr. 18, 1916. Serial No. 91,909. (Cl. 21—30.)



1. A sand-box for wheels comprising a main body portion adapted to be secured on an axle, and a cap pivotally supported on the body portion to form a continuous box and capable of being swung laterally in a substantially horizontal plane.

2. A sand-box for wheels comprising a main body portion adapted to be secured on an axle, and a cap pivotally supported on the body portion to form a continuous box and adapted to be raised on its pivot and swung laterally.

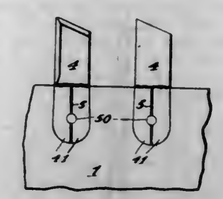
3. A sand-box for wheels comprising a main body portion adapted to be secured on an axle, and a cap pivotally supported on the body portion to form a continuous box and adjustable in a direction parallel with the axle.

4. A sand-box for wheels comprising a main body portion adapted to be secured on an axle, a cap pivotally supported on the body portion to form a continuous box, a collar on the body portion to fit on the axle, and a set screw forming a pivot for the cap and adapted to secure the collar on the axle.

5. A sand-box for wheels comprising a main body portion adapted to be secured on an axle, a collar on the body portion to fit on the axle, a cap pivotally supported on the body portion and forming therewith a continuous box, an extension on said cap projecting over the collar, and a set screw passing through said projection and collar to secure the latter to the axle and to operate as a pivot for the cap.

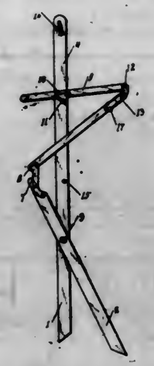
[Claim 6 not printed in the Gazette.]

1,254,328. SAW. JOHN MORGAN KANALL, Port Angeles, Wash., assignor of one-third to Kerr & McCord, Seattle, Wash., a Firm, and one-third to Michael Earles, Seattle, Wash. Filed July 11, 1916. Serial No. 108,560. (Cl. 143—153.)



A saw having teeth-receiving recesses increasing in width toward their bottoms, teeth having their root portion snugly fitting the mouths of said recesses, said roots being offset laterally just above the edge of the saw, and having a slit extending from the inner end of the tooth outward to the base of the offset portion, and having a rivet receiving hole therein, and a locking rivet swaged in said hole.

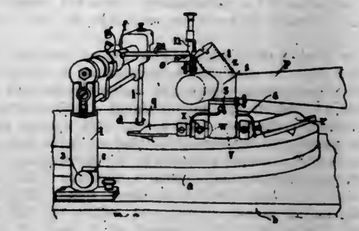
1,254,329. FOLDING CHAIR. WILLIAM E. KIDDER, Kalamazoo, Mich. Filed Feb. 11, 1914. Serial No. 818,127. (Cl. 155—8.)



1. In a folding chair, the combination of a seat, a back, pivoted front and rear legs disposed so that the rear legs collapse between the front, the front legs being extended into back members between which the back is pivoted by means of forwardly projecting pivot ears carried by the back and pivots on the back member, the lower end of the seat and the rear end of the back being pivotally connected by means of upwardly projecting coupling members carried by the seat and pivots on the back, the front end of the seat being pivotally connected to the upper ends of the rear legs by means of members mounted on the legs and pivots on the seat so that when the chair is collapsed the back is reversed and the seat swings up at the rear thereof with the back, seat, and rear legs within the plane of the front legs and back members, the said pivots being disposed so that the pivots connecting the seat and back move across a plane through the back and front seat pivots under stress thereby retaining the parts in collapsed position, and a rod extending between the front legs and positioned to support the rear end of the seat, the coupling members having stops engaging the rod limiting the forward movement of the seat when the chair is erected.

[Claim 2 not printed in the Gazette.]

1,254,330. SOUND RECORDING AND REPRODUCING MACHINE. DAVID FREDERICK MCQUIRE and KENNETH DOUGLAS MCQUIRE, Hornchurch, England. Filed June 1, 1917. Serial No. 172,304. (Cl. 274—13.)

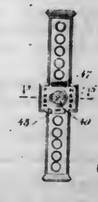


1. A sound recording and sound reproducing machine, comprising in combination a record supporting member, a member movable rectilinearly across the face of the record, a carrier for the recorder and reproducer, and means transmitting the movement of the movable member to the carrier and with which said carrier slidably engages.

3. A sound recording and sound reproducing machine comprising in combination a record supporting member, a tone arm, a bar movable rectilinearly across the face of the record and means slidable on said bar and supporting said tone arm.

[Claims 2 and 4 to 11 not printed in the Gazette.]

1,254,331. ELEVATOR SIGNAL SYSTEM. ALEXIS LE BLANC, New York, N. Y., assignor to Gurney Electric Elevator Company, Honesdale, Pa., a Corporation of Pennsylvania. Filed Apr. 16, 1913. Serial No. 761,435. (Cl. 177—336.)



1. In combination with an elevator car, a station signal transmitter, circuits therefor, means actuated by the movement of the car for changing said circuits whereby the same movement of the signal transmitter may be utilized for sending a down signal when the car is at the upper end of its run or is moving downward toward said transmitter, or an up signal when the car is at the lower end of its travel or is moving upward toward the transmitter.

2. In combination with an elevator car, a down signal transmission line, an up signal transmission line, a direction switch arranged to connect one or the other of said transmission lines with a supply of energy, means for causing the downward movement of the car to actuate the direction switch to connect the down signal transmission line with the supply of energy and for causing the

upward movement of the car to actuate the direction switch to connect the down signal transmission line with the supply of energy, a lost motion connection in said actuating means to permit a reversal of movement of the car through a material space without affecting the direction switch, and a station signal transmitter arranged to complete a circuit through whichever of said transmission lines is connected with the supply of energy.
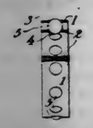
9. An elevator signal system comprising a single station signal transmitter arranged to send either down or up signals when actuated, and means at said transmitter to indicate which of said signals it will send.

11. An elevator signal system comprising a station push button means arranged to send down and up signals when actuated, a pair of lamps within said push button means, and means for illuminating one of said lamps when the push button means is in condition to send a down signal and for illuminating the other lamp when the push button means is in condition to send an up signal.

71. In combination with a plurality of elevator cars, a station door for each car, a door switch for each door, a down signal circuit running in series through the door switches at said station, an up signal circuit running in series through the door switches at said station and a station signal transmitter comprising a single push button for each car, means actuated by the movements of the cars, for so changing said circuits that any transmitter may send a signal through a down signal circuit or through an up signal circuit and means in said door switches for causing the opening of a door to break whichever signal circuit a signal has been sent through.

[Claims 3 to 8, 10, 12 to 70, and 72 to 80 not printed in the Gazette.]

1,254,332. BALL-RETAINER FOR BALL-BEARINGS. ROLAND WALLACE LINDHÉ, Moscow, Russia, assignor to Aktiebolaget Svenska Kullagerfabriken, Gottenberg, Sweden, a Corporation of Sweden. Filed Mar. 17, 1917. Serial No. 155,602. (Cl. 64—59.)

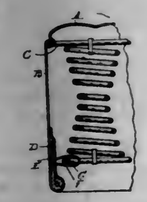


1. A ball retainer for ball bearings consisting of two separate rings having holes of regular geometrical outline for the balls and held together by the balls themselves, said ball retainer being characterized by this that the holes in both rings are of smaller diameter than the diameter of the balls.

2. A ball retainer according to claim 1, characterized by the rings being wholly or partly of conical or conoidal shape.

[Claim 3 not printed in the Gazette.]

1,254,333. CUSHION-SEAT. WILLIAM D. MCCULLOUGH, Detroit, Mich. Filed Jan. 31, 1916. Serial No. 75,423. (Cl. 155—25.)



1. The combination with a cushion of a depending skirt therefor, a spring frame for supporting said cushion having an edge bar adjacent said skirt, and bifurcated clips for embracing said edge bar insertible through said skirt from the inside thereof and adapted to be clenched thereover.

2. The combination with a cushion and a depending skirt therefrom, of a spring frame for supporting said cushion having an edge bar adjacent to said skirt, a slotted reinforcement for said skirt adjacent to said bar, and a bifurcated clip for embracing said bar insertible through the slot of said reinforcement and adapted to be clenched outside of the skirt.

[Claims 3 and 4 not printed in the Gazette.]

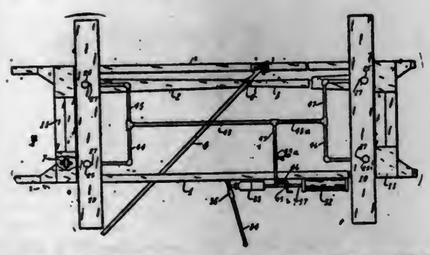
1,254,334. NECKTIE-STRETCHER. GUY A. MAHANEY, Joker, W. Va. Filed Mar. 29, 1917. Serial No. 158,366. (Cl. 223—19.)



1. A necktie stretcher comprising a flat body bent at its medial portion to provide spaced substantially V-shaped stretching members, a supporting loop arranged at the medial portions of the members, longitudinally extending guide flanges formed integrally with the inner face of one of said stretching members, a coiled spring arranged between the opposing faces of the members adjacent their enlarged ends for normally urging the members away from one another, and a locking ring slidably arranged over the members, and means carried by the locking ring to prevent the twisting of the locking ring upon the members.

[Claim 2 not printed in the Gazette.]

1,254,335. WEIGHING APPARATUS. JOHN MALENSHECK, West Allis, Wis. Filed Aug. 18, 1915. Serial No. 46,126. (Cl. 265—41.)



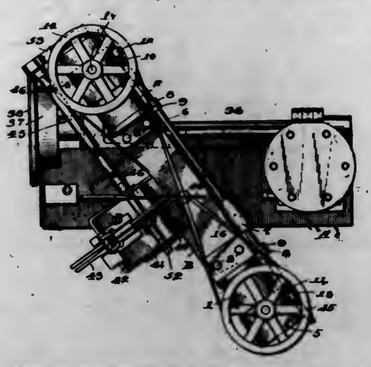
1. In a weighing apparatus for vehicles, the combination with a set of load supporting levers, and means for operatively connecting the same with weight indicating apparatus, of a set of auxiliary bolsters and hydraulic means for temporarily supporting a load carried by the vehicle from said levers, said hydraulic load supporting means including a set of cylinders having plungers therein having enlarged truncated-pyramidal shaped heads arranged within correspondingly shaped sockets with which the bolsters are provided, said plungers having side channels, adjustable stop pins carried by said cylinders projecting into said channels, a reservoir carried by the vehicle and a pump for forcing liquid from the reservoir to said cylinders.

2. The combination with a vehicle-frame, of a set of levers pivotally connected therewith, a set of hydraulic cylinders carried by said levers, upright plungers within said cylinders, said plungers having enlarged heads polygonal in cross-section, a set of load-supporting bolsters adapted to be lifted by said plungers and to load-supporting position, and having downwardly opening upwardly tapered sockets within which the said heads are fitted, a liquid-container carried by said frame, a pump adapted to deliver liquid from the container to said cylinders, together with a valved return-duct adapted to permit liquid to flow from the cylinders back to the container, and retaining keys between said heads and cylinders, said heads being seated upon the tops of said cylinders when the plungers are at the downward limit of their movement.

3. A weighing wagon comprising a wagon frame, a body normally resting thereon, scale mechanism carried by the frame and including load supporting levers each fulcrumed on the frame, a hydraulic jack between each lever and said body, and each comprising a cylinder and plunger, relatively movable and one engaging the body and the other having pivotal connection with the lever, the arrangement being such that the jacks together are adapted to transfer the entire weight of the body from the frame directly through said jacks to the scale mechanism, and hydraulic connections for operating the jacks.

4. In a weighing vehicle the combination with a vehicle frame, of a set of load supporting levers carried thereby, a vehicle body having a set of auxiliary bolsters, hydraulic means for temporarily supporting the body and its load from said levers, said hydraulic means including a set of cylinders each having a plunger therein, said plungers having enlarged heads with upwardly converging contact faces, and said bolsters having sockets shaped to correspond with and adapted to receive said heads.

1,254,336. MACHINE FOR MANUFACTURING SPIRALLY-WOUND TUBES. LEWIS C. MALTBY, Washington, D. C., assignor to The Stone Straw Company, Washington, D. C., a Corporation of New Jersey. Filed Feb. 21, 1916. Serial No. 79,754. (Cl. 93—80.)



1. The combination with a machine bed or frame, a bolster mounted thereon, a mandrel, means carried by the bolster for spinning strips of paper on the mandrel, and a glue-pot mounted on said bolster in such a position as to apply glue to one of the said strips.

3. The combination with a machine-bed or frame, of a bolster supported by the bed, a hollow cylindrical end secured to the bolster, a head slidably connected with said end, a main drive shaft arranged adjacent to said bolster, a horizontal shaft journaled in the hollow cylindrical end, a vertical shaft journaled in the head, mitergears on said shafts for transmitting motion from one to the other, means connected with the head and with one of said gears for moving the latter with the head, and means extending transversely into the hollow cylinder for transmitting motion from the drive shaft to said horizontal shaft.

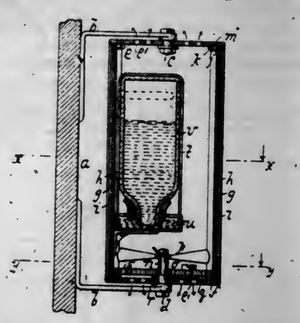
8. The combination with a machine-bed or frame, of a bolster, an end of the bolster being hollow, a shaft journaled in said hollow end and having miters splined thereto, shafts extending at right-angles to the horizontal shaft having miters which engage the spline miters on the horizontal shaft, means for keeping the miters together, and independent means for separately adjusting said two shafts extending at right-angles to the horizontal shaft in connection with the two splined miters on the horizontal shaft.

10. The combination with a machine-bed or frame, a bolster mounted thereon, a mandrel, and means mounted on said bolster for spinning strips of paper thereon into the form of a tube, of a glue-pot adjustably mounted on said bolster, a shaft journaled therein, a glue-wheel carried by said shaft, a drive-shaft, and means for transmitting motion therefrom to the glue-wheel shaft, and means whereby said glue-wheel shaft may be turned independently of its driving mechanism.

12. The combination with a machine-bed or frame, a bolster pivotally mounted thereon, a mandrel, a belt carried by the said bolster and means for driving said belt around the mandrel, of a glue-pot detachably mounted on said bolster, a glue-wheel, an extensible flexible means for transmitting motion from the driving mechanism to the last named shaft.

[Claims 2, 4 to 7, 9, and 11 not printed in the Gazette.]

1,254,337. DISINFECTING APPARATUS. JAMES H. MARSH, New York, N. Y. Filed Mar. 7, 1917. Serial No. 153,053. (Cl. 167—3.)



1. In a disinfecting apparatus the combination with a rotary cabinet adapted to contain a disinfectant, of means operated by the actuation of the cabinet for forcing the fumes from the disinfectant out of the cabinet.

2. In a disinfecting apparatus the combination with a rotary cabinet having perforated top and bottom adapted to contain the disinfectant, of means operated by the actuation of the cabinet for forcing the fumes from the disinfectant out of the top and bottom of the cabinet.

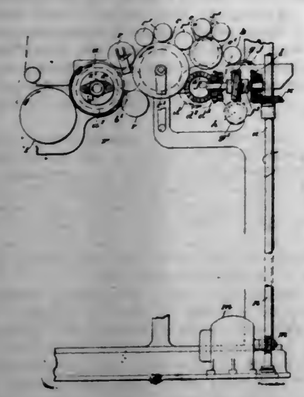
3. In a disinfecting apparatus the combination with a stationary object, of a cabinet adapted to contain a disinfectant rotatively mounted on the object, and means actuated by the rotation of the cabinet for expelling the fumes from the disinfectant out of the cabinet.

[Claims 4 to 7 not printed in the Gazette.]

1,254,338. INKING APPARATUS OF PRINTING PRESSES. GEORGE W. MASCORD, Barnes, London, England. Filed July 20, 1915. Serial No. 40,921. (Cl. 101—351.)

1. In inking mechanism for printing presses, ink supply mechanism comprising the fountain roller and the ductor roller, a motor by which these elements are operated independently of the press mechanism, mechanism by

which the ink distributing drum and ink distributing rollers may be operated from the press and elements by which the fountain roller and ductor roller may be operated from the press on a predetermined speed being attained, substantially as described.



3. Inking mechanism for printing presses, consisting of ink supply mechanism comprising a motor, a free wheel device between the motor and the ink supply mechanism, a worm and worm wheel device for causing the operation of the ductor roller, the said ductor roller ink distributing mechanism comprising the ink distributing drum and a free wheel device between the said ink distributing mechanism and the type cylinder, and a free wheel connection between the ink distributing mechanism and the ink supply mechanism, substantially as described.

[Claims 2 to 7 not printed in the Gazette.]

1,254,339. COLLAR. JOHN LAWRENCE MORGAN, Everett, Mass., assignor to John Manning Van Heusen, Boston, Mass. Filed May 22, 1917. Serial No. 170,224. (Cl. 139—9.)



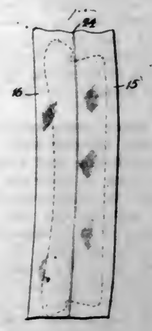
1. A folding collar, made up of an inner panel and an outer panel woven in one piece under the same tension and having an intermediate edge-fold portion, the outer panel being longer than the inner so that the collar will take on a curvilinear set when folded, substantially as described.

3. A folding collar, made up of an inner panel and an outer panel woven in one piece under the same tension and having an intermediate weakened edge-fold portion, the outer panel being longer than the inner so that the collar will take on a curvilinear set when folded, substantially as described.

7. A folding collar, made up of an inner panel and an outer panel woven in one piece and having an intermediate edge-fold portion, the outer panel being woven longer than the inner and being longer at its outer edge than at its inner edge; substantially as described.

[Claims 2, 4 to 6, and 8 to 10 not printed in the Gazette.]

1,254,340. COLLAR. JOHN LAWRENCE MORGAN, Everett, Mass., assignor to John Manning Van Heusen, Boston, Mass. Filed May 22, 1917. Serial No. 170,225. (Cl. 139—9.)



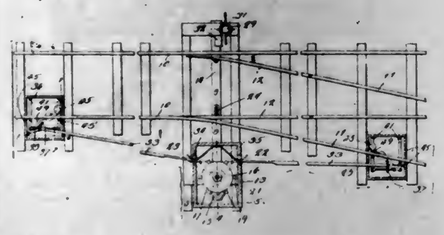
1. A folding collar, made up of an inner panel and an outer panel of two-ply fabric woven in one piece under the same tension and having an intermediate edge-fold portion, the outer panel being longer than the inner so that the collar will take on a curvilinear set when folded; substantially as described.

2. A folding collar, made up of an inner panel and an outer panel of two-ply fabric woven in one piece under the same tension and having an intermediate edge-fold portion, the outer panel being longer than the inner so that the collar will take on a curvilinear set when folded; substantially as described.

5. A folding collar made up of an inner panel and an outer panel of two-ply interwoven fabric woven in one piece and having an intermediate edge-fold portion, the outer panel being woven with an inherent curvilinear set; substantially as described.

[Claims 3, 4, and 6 to 8 printed in the Gazette.]

1,254,341. SWITCH-OPERATING MECHANISM. HAROLD E. MOUSE, Elkins, W. Va. Filed Apr. 23, 1917. Serial No. 163,955. (Cl. 104—23.)

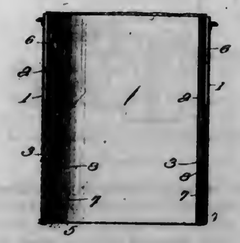


1. In a switch operating mechanism, the combination switch throwing mechanism associated with said switch, a trip mechanism associated with the main line and siding, each trip mechanism including a casing, a trip arm slidable therein and actuated to operate the switch throwing mechanism, means for operating said trip arm when the train is passing in either direction over the trip mechanism, and a locking device in said casing for normally retaining the trip arm in an inoperative position.

2. In a switch operating mechanism, the combination with a main line, a siding, and a switch therefor; of a switch throwing mechanism associated with said switch, a trip mechanism associated with the main line and siding, each trip mechanism including a casing, a trip arm slidable therein and actuated to operate the switch throwing mechanism, means for operating said trip arm when a train is passing in either direction over the trip mechanism, a locking device in said casing for normally retaining the trip arm in an inoperative position, and a depressible member actuated by the train to release said locking device.

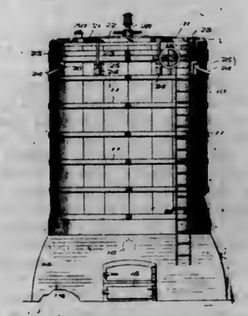
[Claims 3 and 4 not printed in the Gazette.]

1,254,342. WICK-HOLDER. CHARLES MUNZNER, Chicago, Ill., assignor to American Stove Company, St. Louis, Mo., a Corporation of New Jersey. Filed Apr. 28, 1917. Serial No. 165,160. (Cl. 67—69.)



An improved wick holder comprising a perforated cylinder having its lower end bent inwardly and upwardly to form an inner annular upwardly extending flange, and a plurality of upwardly extending integral elongated narrow arms carried by the flange and having their upper ends pointed and turned outwardly forming prongs adapted to enter a wick and held therein by the inner wall of a wick tube.

1,254,343. BOILER-KEIR. KO MURAI, San Francisco, Cal. Filed June 30, 1917. Serial No. 178,047. (Cl. 92—7.)



1. In a boiler keir, a tank, endless chains mounted within and at opposite sides of said tank, rods between said chains from which the material treated is suspended, and means for operating said chains to raise and lower the rods.

[Claims 2 to 14 not printed in the Gazette.]

1,254,344. CONDUIT FOR ELECTRIC WIRES. DANIEL HAYES MURPHY, Pittsburgh, Pa., assignor to The American Conduit Manufacturing Company, a Corporation of Pennsylvania. Filed Sept. 19, 1913. Serial No. 790,645. (Cl. 137—75.)

1. A new article of manufacture, comprising an iron or steel conduit having its surfaces provided with an acid-resisting non-corrosive combination coating comprising an electrodeposited layer of substantially pure lead and a superposed electrodeposited layer of substantially pure zinc.



2. A new article of manufacture, comprising an iron or steel conduit having one or more of its surfaces provided with an acid-resisting non-corrosive combination coating comprising an electrodeposited layer of substantially pure lead of sufficient thickness to withstand chemical corrosion, and a superposed electrodeposited layer of substantially pure zinc filling the recesses in the layer of lead and of sufficient thickness to prevent corrosion.

3. The method of providing an iron or steel conduit with an acid-resisting non-corrosive coating which will not be subject to electrolysis, which comprises electrodepositing upon the surfaces of said conduit a relatively thin layer of substantially pure lead and subsequently electrodepositing upon said lead covering a thin layer of substantially pure zinc to fill the minute recesses in the lead covering and provide a non-corrosive outer coating which will prevent electrolysis.

1,254,345. DEVICE FOR TRANSMITTING MOTION FROM PISTONS OF ENGINES TO CRANK-SHAFTS. EDWARD B. NOWOSIELSKI, Bloomfield, N. J. Filed Feb. 23, 1917. Serial No. 150,325. (Cl. 74—17.)



1. In a connecting rod, a shank comprising a sheet of metal bent to form a loop at one end of the shank and having at its other end outwardly extending bosses with ribs therein, and a bearing sleeve in the bosses.

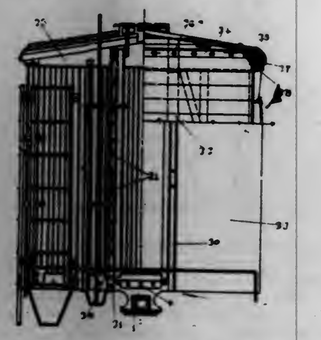
8. In a connecting rod, a crank-engaging bearing comprising a sheet of metal formed into opposed bosses, the side edges of the bearing being of unequal lengths at opposed points so that the seams are beyond the center of said bearing, and bolt sleeves within said folded portion, said bosses having ribs formed therein, the opposed portions of said bearing having depressions which are in register and form a tube extending downward from the

interior of said bearing and inclined in the direction of rotation of said bearing when in operation.

11. In a connecting rod, a shank comprising a sheet of metal bent to form a loop at one end of the shank and having outwardly extending arms which are arranged to abut, said abutting arms having outwardly extending bosses therein, the axes of said bosses being at a right angle to the axis of the loop, the bosses being formed with ribs therein, and a bearing sleeve in said bosses and contacting with the inner circular edges of said ribs.

[Claims 2 to 7, 9, and 10 not printed in the Gazette.]

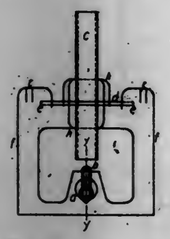
1,254,346. CAR CONSTRUCTION. KARL FRITJOF NYSTROM, St. Lambert, Quebec, Canada. Filed Feb. 19, 1917. Serial No. 149,597. (Cl. 105—192.)



1. In car construction, a wooden body, bars secured to the beams of the frame of said wooden body and extending up the end walls, a metal beam forming part of the underframe of the car, plates connecting said metal beam to said bars and truss rods extending from end to end of the underframe and rigid with said plates and metal beam.

2. In car construction, an underframe having a center sill in the form of a box girder, striking plates rigidly secured to the ends of said center sill, truss rods secured in said striking plates, angle bars secured to said striking plates and extending vertically, a body having side and end walls and vertical transverse and longitudinal beams in the framing, said angle bars being secured to vertical beams in said framing, angle bars secured to transverse beams in said body framing and to said vertical angle bars and angle bars securing the transverse beam angles to the longitudinal beams in said framing.

1,254,347. BUNSEN BURNER. LARRANCE PAGE, Berkeley, Cal. Filed Mar. 28, 1913. Serial No. 757,352. (Cl. 158—111.)



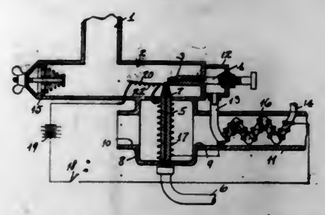
1. In a Bunsen burner, the combination of a circular base having a recess, and a conical inflexible gas admission tube immediately above the said recess, the lowest element of the conical surface of the said admission tube being parallel to the bottom of circular base.

2. In a gas burner the combination of a tube and a tube holding device, the said device consisting of a concavely curved part having a greater radius of curvature than the said tube, and a spring contacting the said tube opposite the said curved part.

3. In a gas burner the combination of a tube and a tube holding device, the said device consisting of a recessed part and a spring contacting the said tube opposite the said recessed part, the ends of said spring being held on opposite sides of said tube.

[Claims 4 and 5 not printed in the Gazette.]

1,254,348. CHARGE-FORMING DEVICE FOR EXPLOSION-MOTORS. ARTHUR E. PALMER, Cleveland, Ohio, assignor, by mesne assignments, to The Standard Parts Company, Cleveland, Ohio, a Corporation of Ohio. Filed Apr. 28, 1914. Serial No. 835,032. (Cl. 261—12.)



1. A carbureter for explosion engines comprising a mixing chamber, an upright fuel nozzle projecting thereinto, a horizontal air nozzle converging to said fuel nozzle, a slightly inclined plate disposed slightly below the level of said air nozzle upon the opposite side of said fuel nozzle, and means for heating said plate.

2. A carbureter for explosion engines comprising a mixing chamber, an upright fuel nozzle projecting thereinto, a horizontal air nozzle converging to said fuel nozzle, a slightly inclined plate disposed slightly below the level of said air nozzle upon the opposite side of said fuel nozzle, and means for heating said fuel nozzle and plate and also the air entering said air nozzle.

3. A carbureter for explosion engines comprising a mixing chamber, an upright fuel nozzle projecting thereinto, a horizontal air nozzle converging to said fuel nozzle, a slightly inclined plate disposed slightly below the level of said air nozzle upon the opposite side of said fuel nozzle, and an electric resistance heating element surrounding said fuel nozzle and lying against the bottom face of said plate.

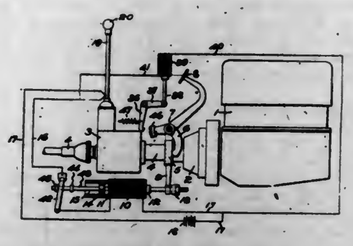
4. Carbureting devices for explosive engines comprising a mixing chamber, a preheating chamber, an upright fuel nozzle projecting through said preheating chamber and into said mixing chamber, a horizontal air nozzle converging to said fuel nozzle, a slightly inclined plate disposed slightly below the level of said air nozzle upon the opposite side of said fuel nozzle, and means for simultaneously heating said plate and said fuel nozzle.

5. Carbureting devices for explosive engines comprising a mixing chamber, a preheating chamber, conduits leading through said preheating chamber, one of said conduits being for the air and the other for the fuel, said fuel conduit terminating with a nozzle located in said mixing chamber, said air conduit leading to a horizontal air nozzle located in the mixing chamber and converging to said fuel nozzle, a slightly inclined plate disposed slightly below the level of said air nozzle upon the opposite side of said fuel nozzle, and means within said preheating chamber for heating said conduits and means within the mixing chamber for simultaneously therewith heating said plate.

[Claim 6 not printed in the Gazette.]

1,254,349. CLUTCH-RELEASING MECHANISM. THEODORE B. PATCH, Boston, Mass. Filed Oct. 18, 1916. Serial No. 126,405. (Cl. 74—39.)

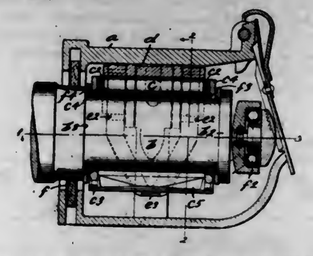
1. Clutch releasing means comprising a source of electricity, an electric circuit connected therewith, a clutch releasing member in the circuit and connected with the clutch, a gear shifting lever, a longitudinally movable head thereon and in the circuit, and means within the head for closing the circuit to actuate the releasing member.



8. Clutch releasing means comprising a source of electricity, an electric circuit connected therewith, a clutch releasing member in the circuit and connected with the clutch, a clutch holding member also in the circuit, and means for closing the circuit to actuate the clutch releasing member.

[Claims 2 to 7, 9, and 10 not printed in the Gazette.]

1,254,350. BEARING FOR ROLLERS. JULIUS A. PERKINS, New York, N. Y. Filed Mar. 12, 1913, Serial No. 753,700. Renewed June 15, 1917. Serial No. 175,038. (Cl. 64—39.)



1. A car journal box, an axle therein, a series of rollers about said axle, a roller bearing member in the top of said box and a detachable roller supporting strap having inwardly turned upper ends overlying said member adjacent each end of said rollers.

4. A car journal box, an axle therein, a series of rollers about said axle, a roller bearing member in the top of said box provided with recesses in the upper surface thereof, and a roller supporting strap arranged adjacent each end of said rollers and the upper ends of which are inwardly turned and rest in corresponding recesses, said straps being joined beneath said axle at the centers of said rollers.

[Claims 2 and 3 not printed in the Gazette.]

1,254,351. LAZY-CHAIN. DEXTER E. PHELPS, Wooster, Ohio, assignor to American Chain Company, Incorporated, Bridgeport, Conn., a Corporation of New York. Filed May 31, 1917. Serial No. 171,848. (Cl. 54—54.)

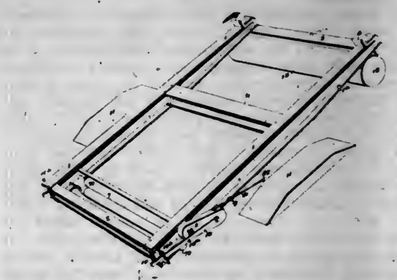
1. The lazy chain adapted to support a harness trace, comprising a snap hook attaching device for detachable connection with a breeching ring or the like, a swivel connected to said snap hook, connected curbed suspending links, a sheet metal stirrup support connected to said suspending links through an interposed connector, the side members of said stirrup support increasing in width and separating toward the lower part to form a rounded loop to accommodate the trace, the edges of said support being bent downward and formed with flanged down edges adjacent its bottom portion to form a convex supporting surface in said loop, a leather liner mounted within said loop and having edges projecting beyond the edges of said



support and eyelet connectors to secure said liner to said support and to hold together the ends of the support member.

[Claims 2 to 6 not printed in the Gazette.]

1,254,352. AUTOMOBILE-JACK. FREDERICK C. PREIFERT and FERDINAND SCHULZ, Beaver Crossing, Nebr. Filed Jan. 24, 1917. Serial No. 144,263. (Cl. 254—88.)



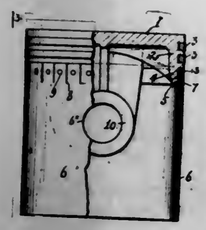
1. A vehicle jack comprising a lifter frame, a free bearing roller disposed transversely of the frame and on which the front end of the frame is supported for riding thereon, abutments on the front end of the frame to be engaged by the vehicle axle to move the frame forwardly under the power of the vehicle, the front part of the frame that engages the bearing roller being inclined whereby, as it moves forwardly with the bearing roller and rides over the said bearing roller, the front end will be elevated and the said frame thereby adapted to rock on the said roller as a fulcrum, whereby the rear end of the frame is elevated, and a drop support for the rear end of the frame when elevated, said drop support adapted to engage the ground and hold the frame against rolling movement on the bearing roller, said bearing roller adapted to roll on the ground as the frame is moved forwardly, said bearing roller and said drop support adapted to hold said frame in the elevated position.

3. A vehicle jack, comprising a lifter frame, a roller disposed transversely of the frame and on which the front end of the frame is supported for riding thereon, abutments on the front end of the frame for being engaged by the vehicle axle to move the frame forwardly under the power of the vehicle, the front part of the frame that engages the roller being inclined, whereby, as it is rolled forwardly the front end will be elevated, the said frame being adapted to rock on the said roller as a fulcrum, whereby the rear end of the frame is elevated, and means for sustaining the rear end of the frame when in the elevated position, the said means including legs loosely pivoted on the sides of the frame that drop to the floor when the rear end of the frame is elevated, and a detent

device for each leg that automatically moves to a locked engagement when the legs drop to the vertical position, whereby to hold the legs locked to the said vertical position.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,254,353. GAS-ENGINE PISTON. LESLIE R. PRIEST, Oakland, Cal. Filed Feb. 8, 1917. Serial No. 147,312. (Cl. 121—104.)



1. A piston comprising a head portion of relatively light metal; an independent skirt portion of a relatively hard, wear-resisting metal having a coefficient of expansion different from that of the head portion metal; and means joining said portions adapted to permit their unequal expansion.

3. A piston comprising a head member of relatively light metal, formed with a journal boss extending inwardly therefrom; an independent skirt portion of a relatively hard, wear resisting metal having a coefficient of expansion different from that of the head portion metal, said skirt portion surrounding and partially inclosing said boss in spaced relation; and means joining said portions adapted to permit their unequal expansion.

5. A piston comprising a head portion provided with annular circumferential grooves; packing rings positioned within said grooves; a cylindrical flange of less diameter than said grooved portion and extending downwardly therefrom; a pair of spaced journal bosses extending downwardly from said flange; a skirt portion, of substantially the same diameter as the grooved portion of said head, adapted to surround said bosses in spaced relation and to fit over said flange; said skirt being provided with a series of spaced lineally disposed slots extending downwardly from its upper end; inter-engaging screw threads formed upon the exterior of said flange and the interior of the slotted end of said skirt; and means for additionally securing said skirt upon said flange.

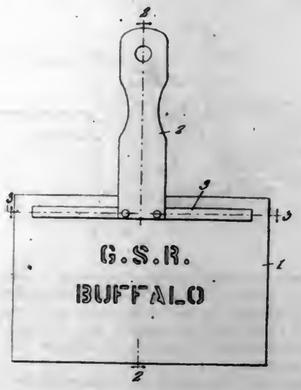
6. A piston comprising a head portion, a cylindrical skirt portion associated therewith, said skirt portion being formed upon one end with a plurality of longitudinally directed tongues, and means for independently securing each of said tongues to said head, to permit said skirt and said head to have unequal expansion and contraction.

[Claims 2, 4, and 7 not printed in the Gazette.]

1,254,354. STENCIL. GEORGE S. RACKLYEFT, Buffalo, N. Y. Filed Aug. 30, 1916. Serial No. 117,768. (Cl. 101—114.)

2. A stencil attachment comprising, in combination, a strip of resilient material bowed outwardly intermediate its ends, a portion of each end of the strip contacting with the front surface of a panel, means formed at the terminals of the strip for extending through the panel and engaging the back surface thereof, and a handle attached to the said strip and projecting at right angles therefrom.

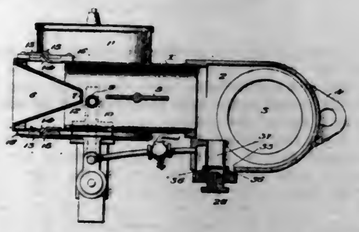
3. A stencil attachment comprising, in combination, a handle, a strip of material secured to the handle and bowed outwardly intermediate its ends, gripping elements carried by the said strip whereby the same may be attached to a stencil panel, the intermediate portion of the said strip being transversely disposed at an angle to the said gripping elements whereby the handle will extend at an angle to the said stencil panel.



5. A stencil attachment comprising, in combination, a strip of resilient material bowed outwardly intermediate its ends, a portion of each end of said strip being in close contact with the front surface of a panel, the main portion of the strip being disposed at an angle to the said end portions, the terminals of the strip being adapted to be extended through the panel adjacent one edge thereof, and bent to lie in contact with the back surface of the panel, and a handle attached to the angularly disposed portion of the said strip.

[Claims 1 and 4 not printed in the Gazette.]

1,254,355. FUEL-SUPPLYING DEVICE FOR INTERNAL-COMBUSTION ENGINES. HENRY M. REICHENBACH, Detroit, Mich. Filed June 3, 1916. Serial No. 101,602. (Cl. 261—48.)



1. In an atomizer for internal combustion engines, in combination, an air intake conduit, fuel feeding jets therein, means for feeding fuel to said jets, means for supplying air near to said jets, and means for providing an auxiliary air supply to said conduit, said last-named means consisting of a two-leaved Z-shaped valve, with leaves of unequal area.

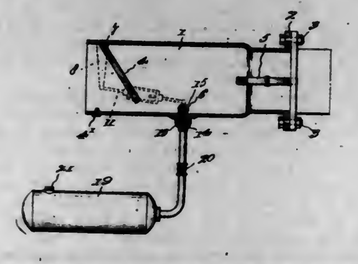
2. In an atomizer for internal combustion engines, in combination, an air intake conduit having primary air supply openings, fuel feeding means leading to said conduit, pairs of auxiliary air supply openings of unequal size, two-leaved Z-shaped valves in said last named openings, a spring for holding said Z-shaped valves in position, and means whereby pressure on one leaf of each valve tends to open said valve and pressure on the other leaf to close it, the pressure on the former being the greater.

5. In an atomizer for internal combustion engines, in combination, an intake conduit, an opening for admitting air to said conduit, a shaft mounted double valve for closing said opening, a friction disk fast on said shaft, a ratchet loose on said shaft in contact with said disk, a casing in which said disk and ratchet are mounted fast to a wall of said conduit, and a pawl secured to said casing in engagement with the teeth of said ratchet whereby the valve is retarded by the friction between the ratchet wheel and disk in movement to open, but is free to move to closing position carrying with it the disk and ratchet.

7. In an atomizer for internal combustion engines, in combination, an intake conduit, a rounded chamber connected tangentially with said conduit, and a conical chamber connected sidewise with the rounded chamber with its larger base next to said rounded chamber, whereby a swirling charge passes from one chamber to the other on its way to the engine and centrifugally separated fuel is collected and forced back against the draft, by centrifugal force upon the conical walls.

[Claims 3, 4, 6, 8, and 9 not printed in the Gazette.]

1,254,356. NEBULIZER AND VAPORIZER FOR INTERNAL-COMBUSTION ENGINES. HENRY M. REICHENBACH, Detroit, Mich. Filed June 3, 1916. Serial No. 101,603. (Cl. 261—16.)



1. In an atomizer for internal combustion engines, in combination, an intake conduit, a deflector plate movable in response to intake air pressure, a source of fuel supply, means for supplying air under pressure to the fuel, an air control device, and a connecting means between the deflector plate and the pressure air control device whereby the quantity of air under pressure entering with fuel is varied in proportion to the quantity of air entering the conduit.

2. In an atomizing device for internal combustion engines, in combination, an intake conduit, a deflector plate pivoted therein, fuel feed devices in advance of said plate, a tank for fluid under pressure, a pipe leading from said tank to the fuel devices, a valve for controlling flow through said pipe, and a connection between said valve and said deflector plate whereby the position of the plate under the influence of the engine-induced blast, determines the extent to which the valve is opened.

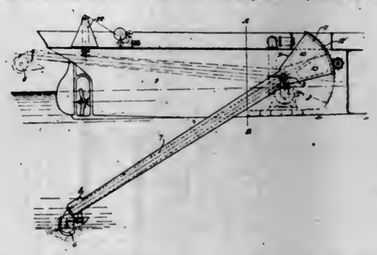
3. In an atomizing device for internal combustion engines, in combination, an intake conduit, fuel feeding devices open for discharge into said conduit, a yielding deflector plate adapted to deflect an engine-induced blast into proper relation to said fuel feed devices, a source of fluid under pressure, a pipe leading from said source to said fuel feed devices, a valve in said pipe, an arm on said valve, and a link connecting said deflector plate and said arm, whereby the position of the deflector plate as determined by the blast determines the extent to which the valve is opened.

4. In an atomizing device for internal combustion engines, in combination, an intake conduit, fuel feeding devices open for discharge of liquid fuel into said conduit, a pivoted deflector plate adapted to deflect an engine-induced blast past said fuel openings, means for supplying air under pressure through said feeding devices whereby additional air, and fuel are supplied to said blast, a link connecting said deflector plate and air supplying means said deflector and additional air supply being in controlled relation to the pull of the engine, so that in response to engine pull, the supply of air under pressure, and consequently of fuel from both sources, increases.

5. In an atomizing device for internal combustion engines, in combination, an intake conduit, a pivoted deflector plate therein, fuel supply means adapted to open into said conduit in effective relation to said plate, air pressure injecting means in injecting relation to said fuel supply means, a connection between said plate and air injecting means and means operated thereby for controlling injection in response to engine suction as the plate is deflected.

[Claim 6 is not printed in the Gazette.]

1,254,357. SUCTION-DREDGE. JOHN REID, New York, N. Y. Filed Apr. 6, 1914, Serial No. 829,967. Renewed July 12, 1917. Serial No. 180,240. (Cl. 37—9.)

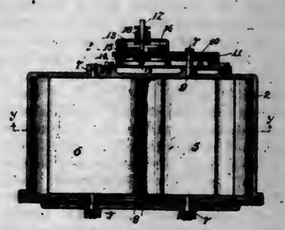


1. The combination with a hull of a vessel having a well leading therethrough and bearings in the walls of said well, of a dredge arm having at the outer end thereof a ballast compartment and at the inner end a ballast compartment, a suction pipe secured to said dredge arm, trunnions extending from said dredge arm to said bearings, and means for raising, lowering and holding said dredge arm.

3. The combination with the hull of a vessel having a well leading therethrough and bearings positioned upon opposite sides of said well and extending through the walls thereof, parallel suction pipes extending through said dredge arm, a head attached to the dredge arm and communicating with the suction pipes, a T extension formed upon the inner ends of the suction pipes and extending through opposite sides of the dredge arm and journaled in said bearings forming trunnions for the dredge arm, suction means communicating with the T extension of the suction pipes, said dredge arm having ballast compartments at its inner and outer ends, and means for raising and lowering and holding said dredge arm.

[Claim 2 not printed in the Gazette.]

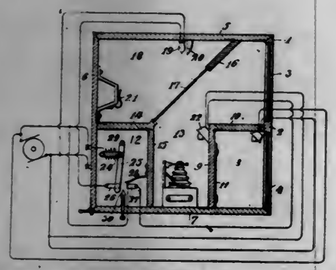
1,254,358. MEANS FOR PROVIDING EXPLOSIVE MIXTURES. BENTLEY L. RINEHART, Philadelphia, Pa. Filed Feb. 20, 1914. Serial No. 819,996. (Cl. 103—67.)



In a device of the character stated, a casing having inlet and outlet passages, a pair of freely revoluble in-

termeshing and geared devices within the casing and between the inlet and outlet passages thereof for measuring a current of air passing through the casing said revoluble devices being driven by the passage of the air through the casing, combined with a rotary gear pump positively geared with the revoluble devices so that it always rotates at the same relative speed as said devices and adapted to feed a fluid in a continuous manner and in measured quantities proportional to the measured quantities of air, means leading from the delivery side of the pump into the outlet side of the casing whereby the fluid is delivered and mixed with the measured quantities of air, and means within the pump proper for adjusting the capacity of the pump for pumping fluid for each revolution thereof.

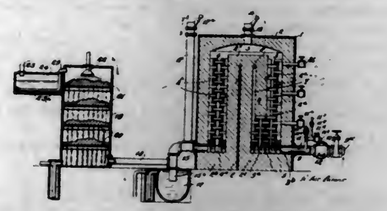
1,254,359. ADVERTISING DEVICE. DAVID ROBBINS, Clifton, Ariz. Filed Feb. 6, 1917. Serial No. 146,924. (Cl. 88—1.)



1. An optical illusion display device comprising a casing formed with a pair of independent sight openings in its front wall, having transparent closures; a partition in said casing forming independent compartments, each of said sight openings opening into one of said independent compartments, each of said compartments appearing when viewed through the sight openings, to occupy the entire space upon its respective side of the partition, but one of said compartments having a secret portion extending behind the other of said compartments out of the path of direct vision from both of said sight openings; an object to be displayed disposed within said first mentioned compartment in the direct path of vision through the sight opening into said compartment; a second object to be displayed disposed within the hidden space behind the last mentioned compartment; and means within said casing for cutting off the direct vision of said first article displayed and for substituting a vision of said second article through the same opening.

2. An optical illusion display device comprising a casing formed with a pair of independent sight openings in its front wall, having transparent closures; a partition in said casing forming independent compartments, each of said sight openings opening into one of said independent compartments, each of said compartments appearing when viewed through the sight openings, to occupy the entire space upon its respective side of the partition, but one of said compartments having a secret portion extending behind the other of said compartments out of the path of direct vision from both of said sight openings; an object to be displayed disposed within said first mentioned compartment in the direct path of vision through the sight opening into said compartment; a second object to be displayed disposed within the hidden space behind the last mentioned compartment, a transparent reflector interposed between said first mentioned article and the sight opening of said first mentioned compartment; means for alternately lighting the main portion of said first mentioned compartment and the hidden portion thereof whereby to make said transparent reflector alternately reflective and transparent, said transparent reflector being arranged to permit direct vision of said first article when transparent, and to enable reflected vision of said second article when reflective; and said second compartment being adapted to contain descriptive matter of either of said articles displayed.

1,254,360. PROCESS OF MANUFACTURING GASEOUS FUEL. JAMES R. ROSE, Edgeworth, Pa. Original application filed Nov. 29, 1915, Serial No. 64,100. Divided and this application filed May 19, 1916. Serial No. 98,552. (Cl. 48—198.)



1. The process of producing gaseous hydrocarbon fuel which comprises subjecting methane and the vapors of a liquid hydrocarbon to a temperature not materially less than 2200° F., whereby said gas and vapors are disassociated, and removing from such disassociated fluids a relatively high proportion of the carbon content, whereby a gas of high heating efficiency and of low carbon content will be produced.

2. The process of producing gaseous hydrocarbon fuel which comprises subjecting methane to a temperature not materially less than 2200° F., thereby to break up or disassociate the same, introducing into the resultant gaseous product the vapors of a liquid hydro-carbon, and passing the resultant mixture in contact with refractory material heated to a temperature of not materially less than 2200° F., whereby a gas of high heating efficiency and low carbon content will be produced.

3. The process of producing gaseous hydro-carbon fuel which comprises subjecting methane to a temperature sufficient to break up the molecules thereof, introducing into the resultant gaseous product the heated vapors of a liquid hydro-carbon, and bringing the temperature of the resultant mixture to a point not materially less than 2200° F., whereby a gas is produced of higher heating value and of lower carbon content than the original hydro-carbon fluids.

4. The process of producing gaseous hydro-carbon fuel, which comprises supplying methane and a second hydro-carbon fluid differing in carbon content therefrom through an elongated duct containing refractory material heated to a temperature of not materially less than 2200° F., whereby a gas of higher heating value and of lower carbon content than the original fluids will be produced.

5. The process of producing gaseous hydro-carbon fuel, which comprises supplying methane to one end of an elongated flue having refractory material therewithin, heated to a temperature of not materially less than 2200° F., supplying to an intermediate portion of said flue the fluids resulting from the heating of a liquid hydro-carbon, and conducting the mixture of fluids through said flue.

[Claims 6 and 7 not printed in the Gazette.]

1,254,361. MAGNETIC COMPASS. CHARLES FREDERICK RYLAND, Aldershot, England. Filed June 7, 1916. Serial No. 102,320. (Cl. 88—24.)

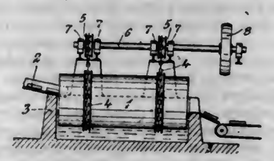
1. In a magnetic compass in combination, a casing comprising a cover part hinged to the remainder of the casing on an axis parallel to the compass part, said cover part being adapted to stand at an angle of 90° to the compass part, said cover part having an aperture therein and means thereon indicating the line of sight, and a reflector also mounted to turn about an axis parallel to the plane of the compass part, but mounted to turn independently of said cover part, said reflector being adapted to reflect the portion of the compass part in the line of sight, and means in position on the compass casing to indicate the line of sight on said reflector.



2. In a magnetic compass in combination, a casing comprising a cover part hinged to the remainder of the casing on an axis parallel to the compass part, said cover part being adapted to stand at an angle of 90° to the compass part, said cover part having an aperture therein and means thereon indicating the line of sight, and a reflector also mounted to turn about an axis parallel to the plane of the compass part, but mounted to turn independently of said cover part, said reflector being adapted to reflect the portion of the compass part in the line of sight, and means for indicating the line of sight on said reflector in position on the compass casing, said reflector being pivoted to said cover part.

3. In a magnetic compass in combination, a casing comprising a cover part hinged to the remainder of the casing on an axis parallel to the compass part, said cover part being adapted to stand at an ahgle of 90° to the compass part, said cover part having an aperture therein and means thereon indicating the line of sight, and a reflector also mounted to turn about an axis parallel to the plane of the compass part, but mounted to turn independently of said cover part, said reflector being adapted to reflect the portion of the compass part in the line of sight, and means in position on the compass casing to indicate the line of sight on said reflector, said reflector being pivoted to said cover part and being cut away in the line of sight.

1,254,362. MACHINE FOR PEELING THE BARK FROM SHORT LOGS INTENDED FOR THE MANUFACTURE OF WOOD-PULP AND THE LIKE. PEDER CHRISTIAN SCHAANNING, Vinderen, pr. Christiania, Norway, assignor, by direct and mesne assignments, to J. & A. Jensen Og Dahl, Christiania, Norway, a Partnership consisting of Harald Jensen and Knud Dahl. Filed June 3, 1915. Serial No. 31,845. (Cl. 144—208.)



1. In log barking machines, a water tank, a substantially cylindrical perforated barking drum in said water tank, annular guiding devices on said barking drum, a supporting frame, substantially parallel laterally separated suspending drive shafts mounted on said frame, alined drive rolls mounted on said shafts to coöperate with said guiding devices on said barking drum, and endless chain suspending members engaging said suspending guide rolls and said guiding devices to suspend and rotate said barking drum within said tank while allowing slight lateral movement and vibration of said drum, the opposite depending runs of said suspending members being at least substantially as far separated adjacent said guide rolls as adjacent said guiding devices.

2. In log barking machines, a water tank, a substantially cylindrical open ended perforated barking drum in said water tank, grooved tires on said barking drum, a supporting frame mounted on the sides of said water tank, parallel suspending drive shafts mounted on said frame alined grooved drive rolls mounted on said shafts so that their outside peripheral faces are substantially vertically above the lateral portions of the grooved tires of said barking drum, endless flexible suspending members engaging said suspending guide rolls and said grooved tires to suspend and rotate said barking drum within said tank.

1,254,363. FENCE-POST. WILLIAM M. SHAW, Greenville, Me. Filed May 5, 1916. Serial No. 95,661. (Cl. 256—52.)



2. In a fence post, a standard formed of a length of angle-iron provided with a plurality of apertures along its ridge, a channel-iron having its sides disposed at an angle and lying in close proximity to the sides of the said angle-iron, the said channel-iron being also provided with a plurality of apertures in horizontal alinement with the apertures in said angle-iron, fastening elements extending through the apertures, ears formed on the channel-iron and extending inwardly of the channel formed by the angle-iron, the said ears being arranged on opposite sides of the vertical center line of the said channel-iron and formed in staggered relation to each other.

[Claims 1 and 3 not printed in the Gazette.]

1,254,364. COMPOUND SUITABLE FOR TANNING. OTTO SCHMIDT and ARTHUR ANDRES, Ludwigshafen-on-the-Rhine, Germany, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Mar. 23, 1914. Serial No. 826,610. (Cl. 23—24.)

1. The process of producing water-soluble material suitable for use in tanning which consists in causing a phenolic body containing not more than one hydroxyl group in each nucleus, sulfuric acid and an aldehyde containing at least two carbon atoms, to react on one another in such a manner that the product contains at least one sulfonic acid group in the molecule.

2. The process of producing water-soluble material suitable for use in tanning by condensing together phenol, paraldehyde and sulfuric acid in such a manner that the product contains at least one sulfonic acid group in the molecule.

3. As new articles of manufacture, sulfonated condensation products of a phenolic body containing not more than one phenolic hydroxyl group in each nucleus, with sulfuric acid and an aldehyde containing at least two carbon atoms, which new compounds are light colored non-crystalline bodies containing sulfur, which are soluble in water, yielding almost colorless solutions, which become deeply colored on the addition of a solution of

ferric salt and which tan hides, giving useful leather, and which contain at least two aromatic residues joined together by a residue containing at least two carbon atoms.

4. As new articles of manfacture, the sulfonated condensation product from phenol, and paraldehyde, which product is a light colored amorphous body, containing sulfur, is soluble in water yielding an almost colorless solution, which becomes deeply colored on the addition of a solution of a ferric salt, which tans hides, giving a useful leather, and which contains at least two phenolic residues joined together by an acetaldehyde reside.

1,254,365. PROCESS OF TREATING PEAT AND MUCK FOR THE PREPARATION OF FERTILIZER. JAMES PAUL SCHROEDER, Washington, D. C. Filed Aug. 13, 1917. Serial No. 185,990. (Cl. 71—9.) (Dedicated to the public.)

1. A process for the treatment of peat for the preparation of fertilizer which consists of, first, digesting the raw peat with sulfuric acid which results in the hydrolysis of the nitrogenous compounds, occurring in the peat in the form of complex insoluble proteins, into simple compounds that are soluble in water and available for plant use, and second, of subsequently neutralizing the excess acid by adding to the digested material finely ground phosphate rock, which gives the mixture the proper chemical reaction and physical condition for application to the soil.

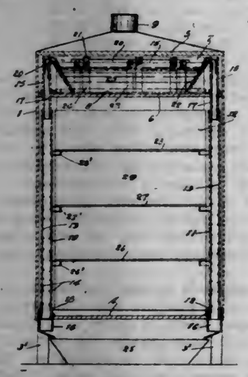
[Claim 2 not printed in the Gazette.]

1,254,366. PROCESS FOR TREATING PEAT AND MUCK FOR THE PREPARATION OF FERTILIZER. JAMES PAUL SCHROEDER, Washington, D. C. Filed Aug. 22, 1917. Serial No. 187,516. (Cl. 71—10.) (Dedicated to the public.)

1. A process for the treatment of peat for the production of fertilizer which consists of digesting raw peat, which has been made slightly alkaline with ammonia, under steam pressure whereby the nitrogenous compounds occurring in it in the form of complex, insoluble proteins are hydrolysed into simple compounds which are soluble in water and available for plant use.

2. A process for the preparation of a fertilizer from peat that will not revert to an acid reaction which consists in mixing intimately with the peat, hydrolyzed by digesting with steam under pressure, a small portion of ammonium sulfate and calcium carbonate which interact slowly and generate ammonia throughout the mass and neutralize any tendency to revert to an acid reaction.

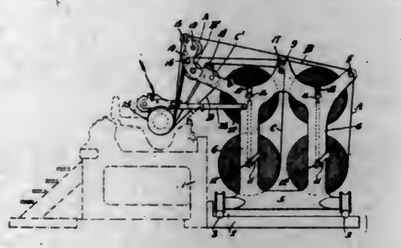
1,254,367. REFRIGERATOR. DANIEL J. SEIBERT, Winnipeg, Manitoba, Canada. Filed Dec. 4, 1916. Serial No. 134,992. (Cl. 45—133.)



1. A refrigerator depending upon the principle of evaporation for the performance of its cooling function, comprising an outer casing having a closed top and bottom and interiorly divided to present a top pan compartment and a lower cooling chamber, an air pipe leading from the top compartment, a water pan within the top compartment, a plurality of alined vertically disposed flat tubes located adjacent the inner walls of the casing and projecting through the bottom of the top compartment and the bottom of the casing, a plurality of upstanding fabric lined flues connecting the tubes in pairs and inclosing the sides of the coooling chamber and strips of absorbent material immersed in the water of the pan and adapted to feed water by capillarly action to the fabric lining of the flues.

2. A refrigerator depending upon the principle of evaporation for the performance of its cooling function, comprising an outer casing having a closed top and bottom and interiorly divided to present a top pan compartment and a lower cooling chamber, an air pipe leading from the top compartment, a water pan within the top compartment, a plurality of alined vertically disposed flat tubes located adjacent the inner walls of the casing and projecting through the bottom of the top compartment and the bottom of the casing, a plurality of removably mounted upstanding fabric lined flues telescoped on the tubes and inclosing the sides of the cooling chamber and strips of absorbent material immersed in the water of the pan and adapted to feed water by capillary action to the fabric lining of the flues.

1,254,368. MANIFOLDING ATTACHMENT FOR TYPEWRITERS. JOHN Q. SHERMAN and ADOLPH F. EUCHENHOFER, Dayton, Ohio, assignors to The Standard Register Company, Dayton, Ohio, a Corporation of Ohio. Filed Aug. 30, 1915. Serial No. 48,015. (Cl. 197—126.)



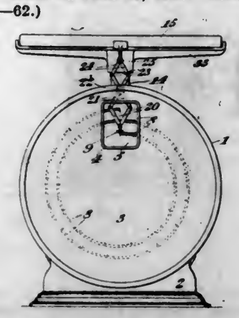
1. In a manifolding attachment for typewriters, the combination with the platen of the typewriter, of paper mounting means for a plurality of strips of paper located to one side of the platen, and paper feeding means independent of contact with the platen and located to the other side thereof, the same comprising in part rotary toothed members for engagement with successive perforations in the paper, for the purpose described.

6. In a manifolding attachment for typewriters having a carriage, means for mounting rolls of manifolding paper so as to move with the carriage, means for mounting rolls of carbon paper so as to move with the carriage, said latter means arranged so as to feed a strip of carbon paper between the pieces of manifolding paper, means for feeding the manifolding paper without engagement with the carbon paper, and said carbon paper holding means adapted to retain said carbon paper immovable between the manifolding sheets while said manifolding paper is being fed, said carbon paper holding means adapted to be released at will to permit the carbon paper to be frictionally drawn along with the pieces of manifolding paper.

11. In a manifolding device for typewriters, in combination with the platen of a typewriter, and a carriage therefor, a shaft located beyond the platen, toothed members adjustable along the shaft, and a plate having a series of slots for clearance of the toothed members, said plate being adapted to hold perforated manifolding sheets against the toothed members.

[Claims 2 to 5 and 7 to 10 not printed in the Gazette.]

1,254,369. WEIGHING-SCALE. WILHELM SIMONSSON, New York, N. Y. Filed July 28, 1908, Serial No. 445,686. Renewed June 19, 1917. Serial No. 175,712. (Cl. 265—62.)



1. A weighing scale having an index member mounted for turning movement and provided with graduations eccentrically arranged upon it, a pointer adapted, in the turning of the graduated member, to traverse the graduations thereof, and means in controlling relation both to the index member and pointer, operable to turn the graduated index member, and to move the pointer toward and from the rotative axis of the graduated member during its turning movement, to compensate for the eccentricity of the graduations thereon.

5. A weighing scale comprising a reciprocatory part adapted for connection with weighing mechanism and provided with spaced guide surfaces, guide members engaged with said spaced guide surfaces and adapted to guide the reciprocatory part during movement thereof, and a dash pot retarding device arranged between the spaced guiding surfaces of the reciprocatory part and having one of its members fixedly connected with said part and operable to assist in guiding the same, and to retard the reciprocatory movement thereof.

8. A weighing scale including a reciprocatory draft member, pendulating weighted levers arranged at opposite sides of the draft member and provided with curved extensions directed toward the same and adapted, when the parts are moved, to play in close proximity to the opposite sides of said draft member, fulcra whereon said levers are supported for rolling contact, connections extended from the draft member to the curved extensions of the respective levers, for operating said levers in unison with the movement of the draft member, and means engaged with the draft member operable to guide the same during its reciprocatory movements.

10. A weighing scale having a reciprocatory part adapted for connection with weighing mechanism, a guide member mounted for turning movement and having a perimetral portion arranged for rolling contact with the reciprocatory part to guide the same during its movement, and means to compel turning movement of the guide member in unison with the movement of the reciprocatory part.

15. A measuring instrument having a load support, a plurality of pendulating levers adapted for conjoint pivotal movement under the influence of a load rested upon said support, independent fulcrum devices whereon the respective levers are supported for pivotal movement in unison with each other, and spaced frame members whereon said fulcrum devices are independently supported affording connection between said fulcrum devices to hold the same in relation during the operation of said levers.

[Claims 2 to 4, 6, 7, 9, and 11 to 14 not printed in the Gazette.]

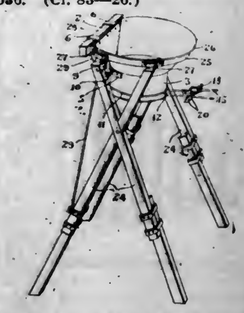
1,254,370. PRINTER'S QUOIN. PERCY SIMPSON, London, England. Filed July 27, 1917. Serial No. 183,102. (Cl. 254—42.)

1. A screw quoin comprising a pair of blocks with inclined faces and undercut grooves formed therein, a wedge piece with projecting tongues adapted to engage in the undercut grooves and to slide therein, a screw having a head bearing on the blocks, the shank of said screw engaging in a threaded recess in the wedge piece, and means for guiding the blocks in their expanding and contracting movements away from and toward one another, said guiding means being adapted also to limit directly the upward movement of the wedge piece and consequently the expanding movement of the blocks.



[Claim 2 not printed in the Gazette.]

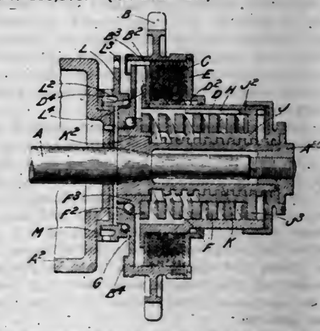
1,254,371. BAG-HOLDER. ROBERT LEWIS SMITH, Toronto, Ontario, Canada. Filed May 1, 1914. Serial No. 835,636. (Cl. 83—26.)



1. A bag holder, comprising, a rigid frame having hook supports on one side, a hopper secured to said frame on the side opposite to said hooks, and arms pivotally secured to said frame and extending around said hopper and adapted to grip the bag.

2. A bag holder, comprising, a rigid supporting frame, a hopper secured to said frame, a pair of semi-circular clamping arms pivotally secured at one end to said frame and encircling said hopper, a spring member secured to said frame and connected with said arms and adapted to swing them outwardly from the hopper to clear the bag, and means for clamping said arms to hold the bag.

1,254,372. CLUTCH MECHANISM. GEORGE ENOCH STANLEY, Coventry, England. Filed Nov. 28, 1916. Serial No. 133,878. (Cl. 192—10.)

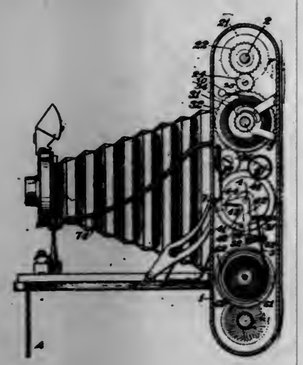


1. In a clutch mechanism, the combination of a driving shaft, a sleeve around said shaft, a screw thread on

shaft, a nut engaging said thread, a sliding driving connection between said nut and said sleeve, a shell around said sleeve, a friction clutch between said sleeve and said shell, a movable member attached to said shell, a spring between said movable member and said nut, and means for moving said member endwise, substantially as set forth.

2. In a clutch mechanism, the combination of a driving shaft, a bush attached thereto, a screw thread on said bush, a sleeve around said shaft, a nut engaging said thread, a sliding driving connection between said nut and said sleeve, a shell around said sleeve, a friction clutch between said sleeve and said shell, a movable member attached to said shell, a spring between said movable member and said nut, a disengaging ring bearing against said member, inclines on said ring, and fixed inclines engaged thereby, substantially as set forth.

1,254,373. AUTOMATIC FILM-FEED FOR CAMERAS. GUY E. STANSELL, Seattle, Wash. Filed Aug. 19, 1916. Serial No. 115,778. (Cl. 242—70.)



1. In combination, an automatic film feed for cameras, a feed control comprising a tape actuated by the film feed in conformity with the film and having spaced stops, a catch adapted to engage said stops and arrest the film feed, and means for releasing said catch.

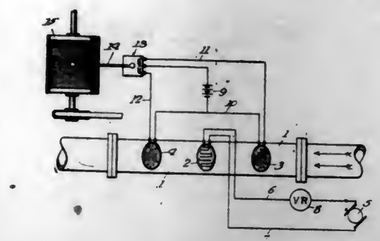
2. In combination, an automatic film feed for cameras, a feed control comprising a tape actuated by the film feed in conformity with the film and having spaced stops, a spring held catch normally engaging said stops, and means for automatically releasing said catch at a predetermined point.

7. In combination with a film camera having two film reels, two drums adapted to turn with said reels, a tape secured upon said drums and adapted to be wound from one drum to another, said tape having perforations at intervals corresponding to the intervals between the several exposures upon the film, a pin adapted to engage in said perforations, to stop the tape and film, means for automatically winding the tape upon a drum, and means for withdrawing said pin.

8. In combination with a film camera having two film reels, two drums adapted to turn with said reels, a tape secured upon said drums and adapted to be wound from one drum upon the other, a pin adapted to engage said tape to hold the same, means for automatically rotating said reels and drums to wind up the film and tape, a bell-crank lever engaging said pin at one end, a plunger mounted for reciprocation adjacent the other end of said bell-crank lever, and means controllable by the operator for reciprocating said plunger, said bell-crank lever being adapted to engage said plunger upon its return motion to withdraw said pin.

[Claims 3 to 6 and 9 not printed in the Gazette.]

1,254,374. METER. CARL C. THOMAS, Baltimore, Md. Filed June 27, 1916. Serial No. 106,107. (Cl. 73—167.)



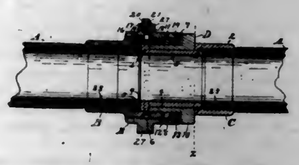
1. The method of measuring the flow of fluids which consists in causing a heat transfer at a constant rate between a stream of said fluid and a body or medium subjected thereto, and utilizing the effect on said fluid of the heat transfer in determining the rate of flow of the fluid.

8. A meter for measuring the flow of fluids comprising a housing, a heater in said housing, means for supplying heat to said heater at a constant rate, and temperature indicating means responsive to the temperature of the fluid before and after heating.

14. A meter for measuring the flow of fluids comprising a housing, an electric heater within said housing, means for supplying energy to said heater at a constant rate, electric resistance thermometer elements on opposite sides of said heater and a temperature difference recorder connected to said thermometer elements to record directly variations in the temperature of the fluid before and after heating.

[Claims 2 to 7, 9 to 13, and 15 not printed in the Gazette.]

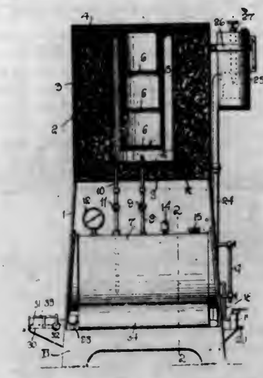
1,254,375. HOSE-COUPLING. EDWARD G. THOMPSON, Battle Creek, Mich. Filed Feb. 26, 1917. Serial No. 150,878. (Cl. 137—28.)



5. In a hose coupling comprising two coupling sections, the inner section of which is formed with an outwardly-extending flange at its coupling end and fitted with a rotative collar having oppositely-disposed lugs, one of which is longer and narrower than the other, the entering end of the outer section being enlarged and receiving the flanged coupling end of the inner section and its collar and having a groove and slot oppositely arranged to register with the lugs of said rotative collar, a packing gasket between the sections, a screw-threaded collar fitted on the enlarged end of said outer section and formed with a depending flange having oppositely-disposed notches adapted to register with the lugs of said rotative collar and the slot and groove in the entering end of said enlarged outer section, said enlarged end having a circumferential groove in its threaded surface coincident with the pitch of said threads and separated at its ends sufficient only to preclude the withdrawal of the lugs of said rotative collar through the notches in the flange of said screw-threaded collar when it is turned on its bearing, and an adjustable brake extending from said screw-threaded collar into said circumferential groove adapted to limit the rotation of said screw-threaded collar.

[Claims 1 to 4 not printed in the Gazette.]

1,254,376. COOKING APPARATUS. ADA I. THRUN, Craig, Colo. Filed July 14, 1917. Serial No. 180,638. (Cl. 126—276.)



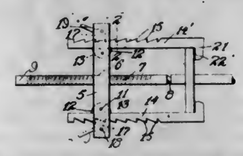
1. A cooking apparatus comprising a receptacle provided with a steam jacket, a boiler in communication with the steam jacket, an elongated burner positioned below the boiler at substantially the transverse center thereof and extending longitudinally of the boiler, and a plate underlying the burner for deflecting the heat of the burner toward the boiler, said plate being curved in cross section and extending beyond opposite sides of the boiler.

3. A cooking apparatus comprising a base, upstanding spaced plates carried by the base, a boiler positioned between and supported by the plates at a predetermined distance above the base, said plates serving as heads for the boiler, a receptacle supported by the plates above the boiler, said receptacle being provided with a steam jacket in communication with the boiler, a heating means interposed between the base and the boiler, and a plate supported by the base and extending below the heating means, said plate being curved in cross section and extending beyond opposite sides of the boiler.

5. A cooking apparatus comprising a portable body, a boiler supported by the body, a receptacle supported by the body above the boiler and provided with a steam jacket in communication with the boiler, a heating means supported by the body and positioned intermediate the base and boiler, a deflecting plate supported by the body and underlying the heating means, said plate being curved in cross section and extending beyond opposite sides of the boiler, a source of water supply carried by the body, and a feeding means leading from the source of water supply to the boiler.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,254,377. DEVICE FOR REMOVING WHEELS FROM SHAFTS. GEORGE THURMES, Hampton, Minn. Filed June 1, 1917. Serial No. 172,186. (Cl. 29—85.)

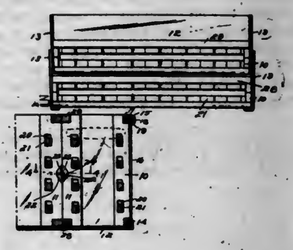


1. A tool of the class described comprising a follower member, an adjusting screw mounted therein, grapple arms held in pivotal and slidable contact with said follower member, bearing elements pivoted to said follower member and engaging said grapple arms to permit of a pivotal adjustment thereof, and supporting members pivotally connected to said follower member and engaging said grapple arms to prevent sliding movement thereof in one direction.

3. A tool of the class described, comprising a follower member having bifurcations at each end thereof, an adjusting screw mounted in said follower member, a semi-circular bearing block pivotally mounted in the inner end of each bifurcation, a supporting member pivotally mounted adjacent the outer end of each bifurcation and having a locking end, and a grapple arm interposed between said bearing element and said supporting member and extending transversely of said follower member, said grapple arm having rack teeth upon one edge thereof adapted to be engaged by said locking end of the supporting member whereby to prevent movement of said arm in one direction, the other edge of said arm engaging the flat surface of said bearing element whereby said arm may be pivotally adjusted relative to said follower member.

[Claim 2 not printed in the Gazette.]

1,254,378. SEED-CORN DRIER. OLE G. VOLD, Forest City, Iowa. Filed May 7, 1917. Serial No. 167,115. (Cl. 34—26.)



1. A seed corn rack having sections, each section being provided with a bottom and ends and a side wall, a frame for each section adapted to be opposite said side walls, means for securing said frame to said ends, said frame being adapted when said last means are inoperative to slide laterally within the section, and means for locking the assembled sections together with their open sides adjacent to each other.

2. A seed corn rack, having sections, each provided with a bottom and end walls, and side walls arranged to permit the free passage of air, vertically adjustable means within each section for supporting ears of corn loosely supported so as to be movable upwardly to accommodate large ears, and means for locking together the sections with their open sides adjacent to each other.

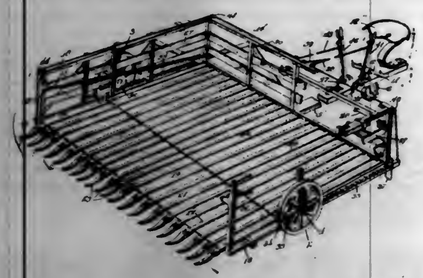
[Claims 3 and 4 not printed in the Gazette.]

1,254,379. HAY AND GRAIN SWEEP. MANASSEH WEBER, Didsbury, Alberta, Canada. Filed Jan. 29, 1915, Serial No. 5,120. Renewed June 19, 1917. Serial No. 175,708. (Cl. 56—137.)

1. A sweep comprising supporting wheels, a receiving rack stationarily mounted with respect to said wheels, a second receiving rack movably mounted in telescopic relation with respect to said first mentioned receiving rack and arranged to have the bottom thereof in close contact with the bottom of the first mentioned rack, and means to gather the crop product from the field and place the product in the receiving racks.

4. A sweep comprising supporting wheels, a receiving rack rigidly mounted on said wheels, a second receiving rack movably mounted in telescopic relation with respect to said first mentioned receiving rack and arranged to have the bottom thereof in close contact with the bottom of the first mentioned rack, means to hold said second rack contracted to a position adjacent said first rack and to resiliently permit the extension thereof to allow the receipt of crop product by both of said receiving racks, and means connected with said movable rack to be brought to

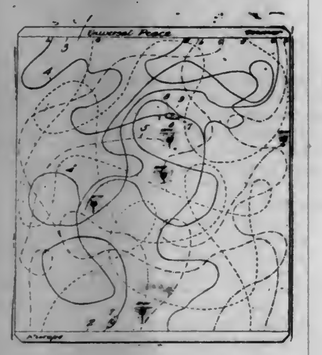
a relation to receive operating impetus from the turning of said wheels to cause retraction of said movable rack to its normal position and to discharge the crop product from the sweep.



5. A sweep comprising supporting wheels, a receiving rack consisting of a bottom and sides stationarily mounted with respect to said wheels, a second receiving rack consisting of a bottom having sides and a back upstanding therefrom telescopically and movably mounted between the sides of said first rack, and means to gather the crop product from the field into said receiving racks.

[Claims 2, 3, 6, and 7 not printed in the Gazette.]

1,254,380. GAME. JOHN WHITMORE, Higbee, Mo. Filed Feb. 8, 1917. Serial No. 147,425. (Cl. 46—21.)

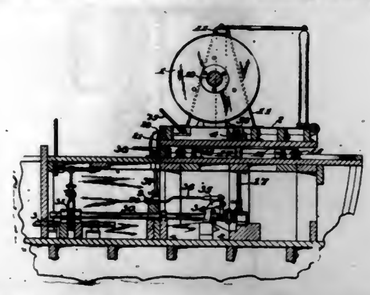


1. A game board having a base line at opposite margins, a plurality of irregular lines inscribed upon the board, terminating at the base lines, irregular lines starting from one base line, and branching, one branch terminating at the opposite base line, and the other branch returning to the starting base line, lines starting from one base line and terminating at points on the board intermediate the base lines, and symbols inscribed upon the board at the terminals of the lines which terminate at points intermediate of the bases to indicate submarine explosive mines.

2. Game pieces having hemispherical depressions upon their upper surfaces, and means for moving the pieces about comprising a rod having a spherical terminal adapted to enter the depression of the game piece.

1,254,381. SEINE-HAULING DEVICE. CHARLES A. WILLIAMS, Seattle, Wash. Filed May 22, 1917. Serial No. 170,205. (Cl. 254—136.)

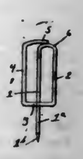
1. A seine hauling device comprising a turntable, a drum mounted on the turntable, a power shaft in the axis of the turntable, a shaft driven from the latter shaft and extending to an end of the drum, a shaft driven from the last named shaft and extending substantially radially of the drum, and intermeshing bevel gears



carried by said radial shaft and the drum, the one of said gears carried by the shaft being movable upon the shaft to be freed from the other, and means for manually shifting said gear.

[Claim 2 not printed in the Gazette.]

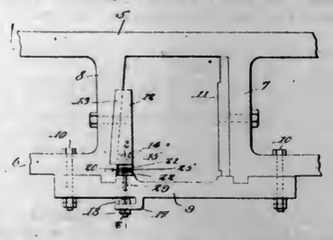
1,254,382. FASTENER. GINJIRO YOSHIZAWA, San Francisco, Cal. Filed Dec. 2, 1916. Serial No. 134,684. (Cl. 24—150.)



1. A fastener formed from a continuous piece of wire bent to provide an approximately rectangular frame, a pin positioned at the approximate transverse center of said frame and extending beyond the same, said pin being normally held in tight frictional engagement with the lower bar of said frame and being directed below said bar at a forward angle to the frame, the upper end of said pin being integrally connected to the upper end of one of the side bars of said frame by a connecting bar, and a bar integral with the other side bar of said frame and overlapping said connecting bar.

[Claim 2 not printed in the Gazette.]

1,254,383. WEDGE-SUPPORTING BLOCK FOR AXLE-BOXES. ISAAC B. ABRAHAM, Newport News, Va. Filed Oct. 8, 1917. Serial No. 195,424. (Cl. 105—113.)



1. In an axle box construction, a wedge supporting block having a wedge bolt receiving recess.

2. In an axle box construction, a wedge supporting block comprising sections and a shim therebetween, said sections and shim having wedge bolt receiving recesses.

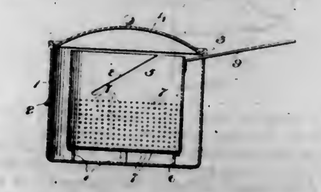
3. The combination with an axle box frame, a wear adjusting wedge fitting it, and an adjusting bolt connected to the wedge, of a wedge supporting block between the wedge and frame having a recess to accommodate said bolt.

4. The combination with an axle box frame, a wear adjusting wedge fitting it, and means between the wedge and frame for adjusting the wedge, of a wedge supporting block between the wedge and frame having a recess for accommodating said means.

5. The combination with an axle box frame, a wear adjusting wedge fitting it, and adjusting means between the wedge and frame, of a wedge supporting block between the wedge and frame comprising sections and a shim therebetween, the sections and shim each having a recess for accommodating said means.

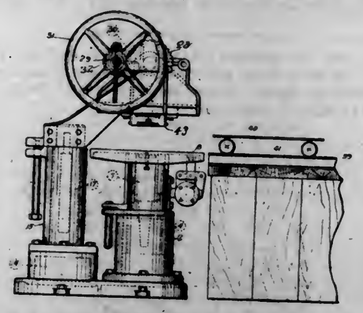
[Claims 6 to 24 not printed in the Gazette.]

1,254,384. COOKING UTENSIL. EMMA L. ALBRO, Nichols, N. Y. Filed Apr. 4, 1916. Serial No. 88,908. (Cl. 53—8.)



A cooking utensil comprising in combination an outer vessel, a second vessel therewithin in spaced relation thereto, having its bottom and lower half of its sides perforated, and a pair of oppositely disposed downwardly inclined slots formed in the upper portion of its sides to extend around the vessel in opposite directions, a third vessel snugly fitting the second, a pair of oppositely extending trunnions on the third vessel for engagement in the inclined slots of the second, and a handle for rotating the third vessel relative to the second whereby material disposed between the bottoms of the third and second vessels may be expressed through the perforations.

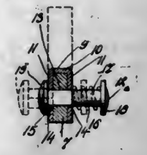
1,254,385. JAR MOLDING-MACHINE. JOHN T. ANDERSON, Davenport, Iowa. Filed Dec. 14, 1914. Serial No. 877,059. (Cl. 22—32.)



1. In a jar molding machine, a mold carrier, pattern withdrawing means consisting of a fluid pressure cylinder, a ram slidably engaging said cylinder and provided with upwardly and forwardly extending arms having pivotal engagement with said mold carrier; mold carrier inverting means secured to said pattern withdrawing means, and means independent of said pattern withdrawing means adapted to impart a jolting action to said mold carrier.

2. In a machine of the class set forth, a mold carrier, a vertically-movable support therefor, means for inverting the mold carrier, and means for jarring the mold carrier embodying a cylinder and ram, said ram being provided in its upper end with a supplemental ram cylinder, means carried by the ram for admitting fluid-pressure into said supplemental ram cylinder, said means being movable vertically with the ram, and a jarring plate provided with a supplemental ram working in said supplemental ram cylinder.

1,254,386. LOCKING-COUPLING. MARK NEIL ANDERSON, Sherburn, Minn. Filed Mar. 29, 1916. Serial No. 87,504. (Cl. 24—241.)

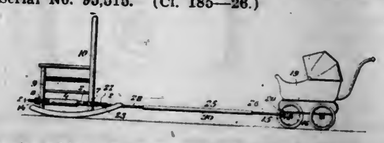


2. A locking device having locking members, one member being movable relatively to the other member, a transverse pivot bolt associated with said members and longitudinally slidable, said bolt having a head on each end, a cylindrical portion at one end, serving as a pivot for said members, and a polygonal portion at the opposite end to serve as a lock to prevent relative movement of said members, and resilient means to normally maintain one of said portions into cooperating relation with the pivot openings of said members.

4. A locking device comprising a lock member having a transverse opening for securing an article thereto and a square opening for a pivot pin, a second lock member of U-shape in cross section adapted to engage over the edge of the first lock member and having notches registering with its first named opening and also having similarly shaped pivot openings, a pivot pin passing through the pivot opening in both of said members and projecting beyond one side thereof, one portion of said pin being of similar shape to the pivot openings and adapted to prevent relative movement therebetween, the other portion of the pin being cylindrical and serving as a pivot for the two members to operate, a head on each end of said pin, and a spring surrounding the pin between one of said heads and the adjacent side of the locking device.

[Claims 1 and 3 not printed in the Gazette.]

1,254,387. ROCKING-CHAIR-OPERATED DEVICE. RICHARD H. BEILKE, Granton, Wis. Filed May 4, 1916. Serial No. 95,515. (Cl. 185—26.)



1. A rocking chair operated device including a clamp member capable of attachment to a chair and having a bearing associated therewith, a clamp member adapted for attachment to the part to be operated and having a bearing formed in conjunction therewith, and a connecting rod attached between said parts by being connected in the bearings thereof.

3. An attachment comprising a pair of attaching members having tubular extensions by which they are adjustably connected together, said attaching members provided with sockets, clamp members to be fitted in connection with said attaching members to mount the same in conjunction with a rocking chair, an adjustable clamp structure to be connected on one of the axles of a child's carriage, an adjustable attaching member adjustably fitted in connection with the attaching member aforesaid, means to hold said adjustable attaching member in the proper relation, and an adjustable connecting rod to be attached

between the adjustable attaching member and the clamp member to cause backward and forward rolling movement to be imparted to the carriage as the chair is rocked.

[Claim 2 not printed in the Gazette.]

1,254,388. FENCE-WIRE FASTENER. ALFRED BRADSHAW, Calgary, Alberta, Canada. Filed Apr. 18, 1917. Serial No. 163,029. (Cl. 256—48.)

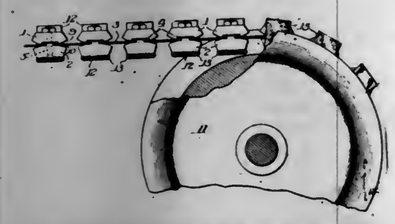


1. A fence-wire fastener formed from a strand of wire having a shank bent upon itself to provide a double retaining arm, the end of the shank being flattened and sharpened to form a spike, and a spring clip formed by bending the free end of the strand and having its terminal extended below the said retaining arm.

3. A fence-wire fastener formed from a strand of wire having a shank bent upon itself to provide a retaining arm, one end of the said shank being extended to provide a support for the said arm, the free end of the strand being bent beyond and curved forwardly over the retaining arm to provide a loop, the said loop giving a resiliency to the bent portion to provide a spring clip, the end of the spring clip being extended below the retaining arm and slightly spaced therefrom, to provide a receiving space between the clip and the retaining arm.

[Claim 2 not printed in the Gazette.]

1,254,389. DRIVING BELT OR CHAIN. FORREST WM. CAMP, Glenellyn, Ill. Filed Dec. 14, 1912. Serial No. 736,712. (Cl. 74—62.)



1. A driving belt, comprising a series of friction elements having flaring openings on opposite sides thereof, and short spans of metal ribbon connecting said elements and received within said openings, whereby the walls of said openings insure the bending of said metal to a curve of the proper radius when said belt is flexed.

3. In a driving belt, a resilient metal link having an enlargement at each end, in combination with wedge-shaped elements having recesses on opposite sides within certain of which said enlargements are clamped.

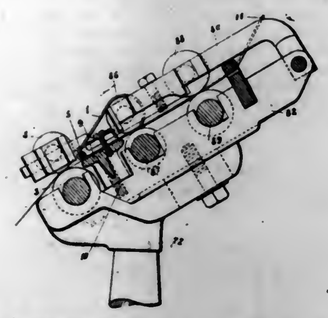
4. In a device of the class described, a link for a driving belt consisting of a piece of spring steel ribbon having opposite ends folded over to form enlarged extremities of the full effective width of said ribbon.

5. In a driving belt, a two-piece wedging element, one piece having a projection fitting loosely within a recess in said other piece, whereby a clearance is provided on each side of said projection.

6. A driving belt comprising friction elements and individual links of flexible metal connecting said elements, said elements having curved portions constituting forms over which said links may be bent to the desired radius when said belt is being flexed.

[Claim 2 not printed in the Gazette.]

1,254,390. SPINNING-FRAME. FERNANDO CASABLANCAS, Sabadell, Spain. Filed July 17, 1917. Serial No. 181,149. (Cl. 19—28.)

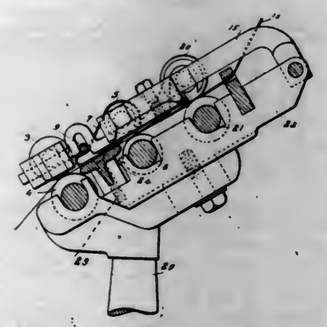


1. In a spinning frame, an endless belt to convey the roving to the drawing cylinders, a fixed plate over which said belt slides, said belt being tight and pressed against the plate, the roving passing between said belt and plate so that it is dragged along by the movement of the belt and conveyed to the drawing cylinders.

3. In a spinning frame, the combination of a fixed plate over which slides the roving, an endless belt that slides over said plate and drags along the roving in its motion, a rotary driving cylinder that drives said belt to convey the roving to the drawing cylinders, a guiding rod located very near to the drawing cylinders that guides the front curve or loop of the belt, said belt being suitably tight between said driving cylinder and said guiding rod; a spring acting on said guiding rod to press the belt against the plate in order that the belt drags along the roving in its motion conveying it to the drawing cylinders, and the pressure of the belt over the roving produces over it a sufficient retention to prevent that the fibers caught by the drawing cylinders can drag along with them the other fibers that have not yet been caught by the drawing cylinders.

[Claim 2 not printed in the Gazette.]

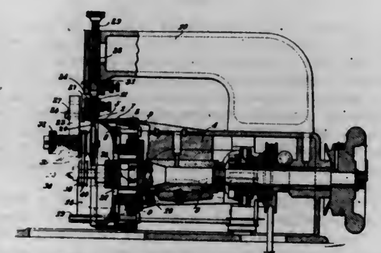
1,254,391. SPINNING-FRAME WITH CONDUCTING-BELT FOR THE ROVING. FERNANDO CASABLANCAS, Sabadell, Spain. Filed July 17, 1917. Serial No. 181,150. (Cl. 19—28.)



3. In a spinning frame, the combination of a fixed plate over which bears the roving when it is conveyed to the drawing cylinders, an endless belt that slides over said plate and drags along in itis motion the roving, conveying it to the drawing cylinders, said belt being loose in order to take the convexity resulting from its own rigidity, a pair of driving rollers that grip said belt and said roving and drive them, a guiding rod for the front curve or loop of said belt, said rod being sufficiently separated from the fixed plate in order not to exert any direct pressure over the part of the belt that grips the roving, and a double fork, the back prongs of which rests on the journals of the upper feeding cylinder, while the front prongs rest on the lower intermediate cylinder, and embrace the belt and the upper intermediate cylinder laterally, for the purpose of obviating any lateral displacement thereof.

[Claims 1 and 2 not printed in the Gazette.]

1,254,392. SKIVING-MACHINE. FRANK W. CHRISTY, Beverly, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 7, 1915, Serial No. 44,297. (Cl. 69—9.5.)



1. A skiving machine comprising a knife holder, a thin tubular knife blade, means for clamping the knife blade to the holder; a pair of grinding members positioned adjacent the inner and outer surfaces of the knife blade, and means for determining the position of the two grinding members with respect to opposite surfaces of the knife blade, constructed and arranged to cause the formation of a true circular cutting edge independently of eccentricities in the inner and outer surfaces of the knife blade.

2. A skiving machine, comprising a tubular skiving knife, a pair of grinding members supported adjacent to the inner and outer surfaces of the knife respectively, means for positioning one of the grinding members to form a beveled cutting face upon one surface of the knife, gaging mechanism for positively limiting the movement of the second grinding member in a direction toward the adjacent surface of the knife, and coöperating means for yieldingly maintaining the grinding member in the position determined by the gaging mechanism.

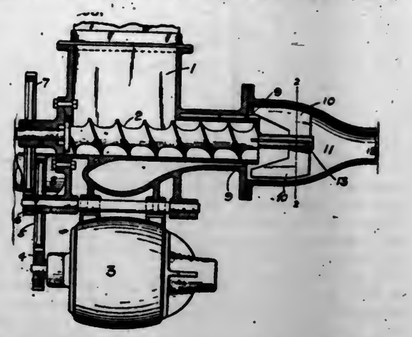
6. A skiving machine comprising a tubular skiving knife, a head located above the knife, a bracket carried by the head, a grinding disk supported by the bracket and projecting within the knife, and mechanism for adjusting the grinding disk axially in the bracket.

8. A skiving machine comprising a knife shaft, a tubular skiving knife supported upon one end of the knife shaft, a grinding disk, a shaft supporting the grinding disk within the knife substantially parallel to the knife shaft, and driving connections between the end of the knife shaft and grinding disk shaft.

9. A skiving machine comprising a tubular skiving knife, a head located above the knife, a bracket connected to the head and angularly adjustable with relation thereto, a grinding disk supported by the bracket in operative relation to one surface of the knife, means for rotating the grinding disk, and a sleeve bearing for the grinding disk threadedly engaging with the bracket to permit a bodily movement of the grinding disk in a rectilinear path.

[Claims 3 to 5 and 7 not printed in the Gazette.]

1,254,393. PULVERIZED-FUEL AND AIR FEEDER AND MIXER. GEORGE W. CLENDON, New York, N. Y., assignor, by mesne assignments, to Locomotive Pulverized Fuel Company, a Corporation of Delaware. Filed July 17, 1914. Serial No. 851,453. (Cl. 110—105.)



1. In a pulverized fuel apparatus, the combination of a mixing chamber having a discharge outlet, an air conduit having an orifice for discharging a hollow column of air into said chamber, a fuel conduit discharging within the hollow air column and terminating at the inner end of said chamber, means for feeding pulverized fuel at a predetermined rate through said fuel conduit, and a non-retarding rotatable device having its axis parallel with the air column and located at the end of the fuel conduit for agitating and commingling the fuel and air in said chamber.

2. In a pulverized fuel apparatus, the combination of a mixing chamber having a discharge outlet, an air conduit having an orifice opposite said outlet, for discharging a hollow column of air into said chamber, a fuel conduit having its discharge end within the hollow air column at the inner end of said chamber, means for feeding pulverized fuel at a predetermined rate through said conduit and into the hollow column of air, and a non-retarding means located at the end of the fuel conduit for agitating and commingling the fuel and air in said chamber.

3. In a pulverized fuel apparatus, the combination of a mixing chamber having a discharge outlet, an air conduit having an orifice opposite said outlet, for discharging a hollow column of air into said chamber, a fuel conduit having its discharge end within the hollow air column at the inner end of said chamber, means for feeding pulverized fuel at a predetermined rate through said conduit and into the hollow column of air, and non-retarding, rotatable vanes located at the end of the fuel conduit for agitating and commingling the fuel and air in said chamber.

6. In a pulverized fuel apparatus, the combination of a mixing chamber having a discharge outlet, an air conduit having an orifice for discharging a hollow column of air into said chamber, a fuel conduit discharging within the hollow air column at the inner end of said chamber, a screw conveyer for feeding pulverized fuel through said conduit, and a plurality of non-retarding rotatable vanes mounted on the shaft of the conveyer at the end of the fuel conduit for agitating and commingling the fuel and air in said chamber.

9. In a pulverized fuel apparatus, the combination of a mixing chamber having a discharge outlet, an air supply means having an orifice adapted to discharge a hollow column of air into said chamber, means for feeding pulverized fuel at a predetermined rate within the hollow air column into said chamber, an additional air supply means having orifices located around the main air supply and discharging into said chamber, and a rotatable mixing device located in said air currents within said chamber.

[Claims 4, 5, 7, 8, and 10 not printed in the Gazette.]

1,254,394. TOY. FRANK CLIFFORD, Milwaukee, Wis. Filed Apr. 13, 1917. Serial No. 161,846. (Cl. 46—14.)

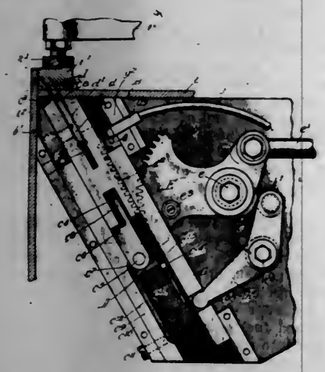


1. A chromatic toy comprising a member weighted at one side of its periphery, an axial pin on a handle carrying said member and adapted to cause its rotation by rapidly moving said parts circularly about an axis parallel to the axis of the rotating member, and colored sheets frictionally contacting with said member.

2. A chromatic toy comprising a handle with a pin shaft, a member rotatable freely upon said pin and weighted at one side of its periphery and adapted to be rotated by the rotating motion of said handle, and a plurality of colored sheets held in frictional contact with said rotating member and each other.

[Claims 3 and 4 not printed in the Gazette.]

1,254,395. INSIDE BOX-END-STAPLING MACHINE. EDWARD CRAIG, St. Joseph, Mich., assignor to Saranac Machine Company, Benton Harbor, Mich., a Corporation of Michigan. Filed Mar. 22, 1915. Serial No. 16,230. (Cl. 1—11.)

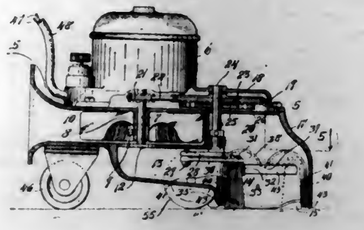


1. A machine for inserting staples outwardly through the heads and into the cleats of wirebound boxes, by successive operations inside of the box, comprising means for engaging the inner surfaces of the box to properly position the same for the insertion of the staples, and a staple forming and driving mechanism associated with said means, arranged to operate inside of the box, said mechanism including devices arranged to form the staple in the plane of insertion thereof, and said mechanism having a driver arranged to operate in said plane to carry the staple in a straight line directly from the forming position to the place of insertion.

9. A machine for inserting staples, comprising a staple-former, a staple-driver, a wire-cutter disposed at one side of said staple-former, a device to feed the wire across the path of said staple-former and staple-driver and wire-cutter, a member connected to actuate said staple-driver, a locking device to connect said staple-driver with said staple-former, means for automatically causing said locking device to unlock the staple-former from the staple-driver after the formation of the staple, an element for actuating said wire-cutter, and means on said member to operate said element, the arrangement being such that said staple-former has a longer stroke than said wire-cutter.

[Claims 2 to 8 and 10 to 13 not printed in the Gazette.]

1,254,396. VACUUM-CLEANER. CLIFFORD C. DANCE, Denver, Colo. Filed Aug. 30, 1915. Serial No. 48,001. (Cl. 15—60.)



1. A vacuum cleaner including a casing, a reciprocating brush and a reciprocating beater mounted in said casing and means connected with both of said elements for causing them to reciprocate in engagement with each other.

2. A vacuum cleaner including a casing having an intake opening, a guard extending across said opening, a reciprocating brush mounted in said casing above the guard, and having a portion extending through said guard to the surface to be cleaned, said guard being open to permit the extracted dirt and dust to enter.

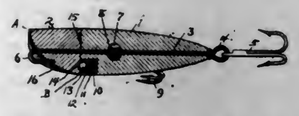
3. A vacuum cleaner including a brush and a beater mounted to reciprocate at right angles to each other, means for reciprocating the brush and an operative connection between the brush and the beater for actuating the latter.

4. A vacuum cleaner including a brush and a beater, mounted to reciprocate in right lines and at right angles to each other, means for reciprocating the brush and an operative connection between the brush and beater for imparting movement to the latter in one direction, and springs for imparting movement in the opposite direction.

5. A vacuum cleaner including a casing, a brush mounted to reciprocate therein and a beater also mounted to reciprocate, springs located in pockets formed in the casing and acting on the beater to impart movement in one direction, and an operative connection between the brush and beater for imparting movement in the opposite direction.

[Claims 6 and 7 not printed in the Gazette.]

1,254,397. FISH-BAIT. JOHN W. DICKENS, Fort Wayne, Ind. Filed Jan. 29, 1916. Serial No. 75,044. (Cl. 43—30.)

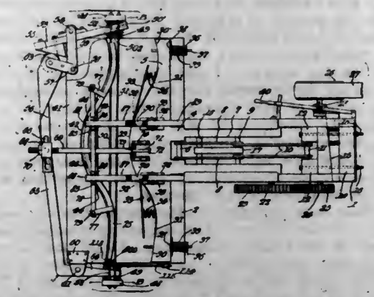


1. In a device of the class described, a body portion, a revolubly adjustable head portion, a spine extending through the body and head portions holding the same together, a series of hooks in connection with the device, and a spring pressed weight in the body portion bearing against the adjacent face of the head portion, there being recesses formed in the head portion for the engagement of the weight, said head portion having a concave face extending from a point on one side of its axis and receding therefrom to a point upon the opposite side thereof.

2. An artificial bait comprising a body portion, a series of hooks in connection therewith, and a head portion having a face that is transversely concave and longitudinally convex extending from a point upon one side of the axis thereof and receding therefrom to a point upon the opposite side thereof.

[Claims 3 to 5 not printed in the Gazette.]

1,254,398. SNATHE-PRESS. GEORGE M. FENN, Charlotte, Mich. Filed June 29, 1917. Serial No. 177,789. (Cl. 144—256.)



1. In a snathe press, a head and a former, one of which is fixed, the other of which is movable, the former having a crown and concaved seats on each side of the crown, the head being shaped to conform to the crown and the seats of the former; and spring strips assembled with the crown and projecting in front of the seats in spaced relation thereto.

6. In a snathe press, a head and a former, one of which is fixed, the other of which is movable, the former having a crown and concaved seats on each side of the crown, the head being shaped to conform to the crown, and including a concavity coacting with the crown; and a compression spring carried by the head and located in the concavity.

9. A snathe press constructed in accordance with claim 8, in combination with a compression spring interposed between the head and the spring strip; and compression springs interposed between the former and the spring strips of the former.

10. In a snathe press, a supporting structure; a head carried thereby; a former movable on the supporting structure and coöperating with the head to put the horizontal bends into a snathe; a removable form carried by the supporting structure; a presser movable on the supporting structure and coacting with the form to put the vertical bends into a snathe; and means actuated by the former and coacting with the form, to displace the form from its working position, whereby the form may be grasped for removal.

20. In a snathe press, a supporting structure; a head thereon; a former movable on the supporting structure toward and away from the head; a form on the supporting structure between the former and the head; a presser movable between the head and the former and coacting with the form; a plunger assembled with the presser and movable in the supporting structure; a toggle having its ends pivoted respectively to the plunger and the supporting structure; a radius rod mounted to swing on the supporting structure; a pitman forming a connection between the radius rod and the intermediate portion of the toggle; a spring carried by the supporting structure and engaging the radius rod to aid in advancing the radius rod and to aid in breaking over the toggle; an actuating means; and mechanism for operatively connecting the actuating means with the former and with the radius rod.

[Claims 2 to 5, 7, 8, and 11 to 19 not printed in the Gazette.]

1,254,699. MOTOR-DRIVEN AIRSHIP. ENRICO FORLANINI, Milan, Italy. Filed Sept. 14, 1914. Serial No. 861,608. (Cl. 244—3.)

1. In a dirigible balloon, the combination of a gas container or envelop; a plurality of transverse diaphragms disposed within said envelop and dividing the interior thereof into separate compartments; longitudinal diaphragms also disposed within the interior of said envelop and arranged radially therein, the second-named diaphragms intersecting the first-named diaphragms and being connected thereto along the lines of such intersection; a rigid girder arranged longitudinally at the lower portion of the balloon; and means for transmitting the lifting stresses from said longitudinal diaphragms to said girder.

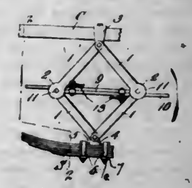


4. In a dirigible balloon, the combination, with a gas container or envelop, and a plurality of intersecting transverse and longitudinal diaphragms disposed within the interior of said envelop; of operating ropes entering said envelop in a substantially radial direction and secured to said diaphragms.

5. In a dirigible balloon, the combination of a gas container or envelop; an air chamber surrounding the same; a plurality of transverse diaphragms disposed within said envelop and dividing the interior thereof into separate compartments; longitudinal diaphragms also disposed within the interior of said envelop and arranged radially therein, the second-named diaphragms intersecting the first-named diaphragms and being connected thereto along the lines of such intersection; a rigid girder connected with said envelop; and lateral, catenary connections joined at their upper edges to the side portion of the envelop and at their lower edges to said girder, so as to render the external shape of the balloon independent of the degree of inflation of the envelop and of the pressure in the air chamber.

[Claims 2, 3, and 6 to 8 not printed in the Gazette.]

1,254,400. SHOCK-ABSORBER. VERDY E. GEE, Lemoore, Cal. Filed May 5, 1917. Serial No. 166,646. (Cl. 21—105.)

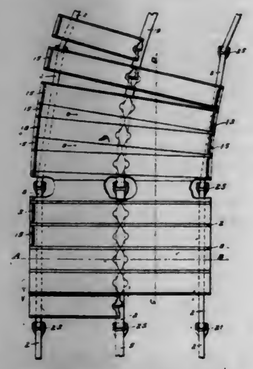


1. A shock absorber comprising four links of substantially the same length pivotally connected at their ends to form a substantially rectangular toggle-like frame, a pair of friction bars each secured at one end to said frame at diametrically opposite points, means for securing said bars with their faces in frictional engagement, auxiliary friction members carried by said bars, and means for connecting said frame with the chassis and springs of a vehicle at points at right angles to the points at which said bars are connected.

2. A shock absorber comprising four links of corresponding size and shape, each of which has an enlarged circular head at one end with an enlargement on one face of said head, bolts pivotally connecting the headed ends of said links in pairs, bolts pivotally connecting the other ends of said pairs of links to form a substantially rectangular toggle-like frame, friction bars having their faces arranged in sliding relation and one end thereof offset laterally and apertured to receive the bolts which connect the headed ends of the links, means for holding and conducting said bars in their sliding engagement, and auxiliary friction means carried by said holding means.

3. A shock absorber comprising four links of corresponding size and shape, each of which has an enlarged circular head at one end with an enlargement on one face of said head, bolts pivotally connecting the headed ends of said links in pairs, bolts pivotally connecting the other ends of said pairs of links to form a substantially rectangular toggle-like frame, friction bars having their faces arranged in sliding relation and one end thereof offset laterally and apertured to receive the bolts which connect the headed ends of the links, means for holding and conducting said bars in their sliding engagement, and auxiliary friction means carried by said holding means, said auxiliary means comprising a plurality of strips arranged on the outer faces of said bars adjacent the free ends thereof.

1,254,401. ROAD CONSTRUCTION. DWIGHT S. COLE and HERBERT B. GILLETTE, Grand Rapids, Mich. Filed Oct. 23, 1915. Serial No. 57,493. (Cl. 94—1.)



1. In a road construction, the combination of parallel rows of firmly mounted floor-supporting members longitudinal of the roadway; floor slabs cross-wise of and resting upon the top surfaces of said floor-supporting members, and means for securing one end of each of said floor slabs to one of said floor-supporting members so as to prevent the movement of said floor slabs cross-wise of said floor-supporting member—the other or unsecured ends of said floor slabs resting at or near their ends upon the top surface of another of the floor supporting members and being free to move thereon.

2. In a road construction, the combination of parallel rows of firmly mounted floor-supporting members longitudinal of the roadway; floor slabs cross-wise of and resting upon the top surfaces of said floor supporting members; means for securing one end of each of said floor slabs to one of said rows of floor-supporting members so as to prevent the movement of said floor slabs cross-wise of said floor-supporting member—the other or unsecured ends of said floor slabs resting at or near their ends upon the top surface of another of the floor-supporting members and being free to move thereon, and means for making tight joints between the adjoining edges of said floor slabs.

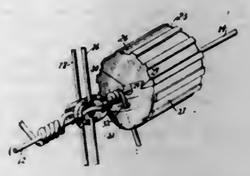
3. In a road construction, the combination of parallel rows of firmly mounted floor-supporting members longitudinal of the roadway; floor slabs cross-wise of and resting upon the top surfaces of said floor-supporting members; means for securing one end of each of said floor slabs to one of said rows of floor-supporting members so as to prevent the movement of said floor slabs cross-wise of said floor-supporting member—the other or unsecured ends of said floor slabs resting at or near their ends upon the top surface of another of the floor-supporting members and being free to move thereon; means for making tight joints between the adjoining edges of said floor slabs, and a curb at either or both margins of the driveway—said curb being constructed integrally with the outer ends of the floor slabs and rising above the traffic surface thereof to form a barrier to prevent vehicles from running off from the driveway.

4. In a road construction, the combination of parallel rows of firmly mounted floor-supporting members longitudinal of the roadway—each row of said floor-supporting members comprising a series of consecutive girders, each of which has a supporting post constructed integrally with and depending from one of its ends and means at the top portion of said post for supporting and maintaining in lateral position the end of the next consecutive girder thereto; floor slabs cross-wise of and resting upon the top surfaces of said floor-supporting members, and means for securing one end of each of said floor slabs to one of said floor-supporting members so as to prevent the movement of said floor slabs cross-wise of said floor-supporting member—the other or unsecured ends of said floor slabs resting at or near their ends upon the top surface of another of the floor-supporting members and being free to move thereon.

5. In a road construction, the combination of parallel rows of firmly mounted floor-supporting members longitudinal of the roadway—each row of said floor-supporting members comprising a series of consecutive girders, each of which has a supporting post constructed integrally with and depending from one of its ends and means at the top portion of said post for supporting and maintaining in lateral position the end of the next consecutive girder thereto; floor slabs cross-wise of and resting upon the top surfaces of said floor-supporting members; means for securing one end of each of said floor slabs to one of said floor-supporting members so as to prevent the movement of said floor slabs cross-wise of said floor-supporting member—the other or unsecured ends of said floor slabs resting at or near their ends upon the top surface of another of the rows of floor-supporting members and being free to move thereon, and means for making tight joints between the adjoining edges of said floor slabs.

[Claims 6 and 7 not printed in the Gazette.]

1,254,402. FENCE-SPLICER. JAMES L. GREENFIELD, Sandwich, Ill. Filed Apr. 19, 1916. Serial No. 92,129. (Cl. 140—122.)



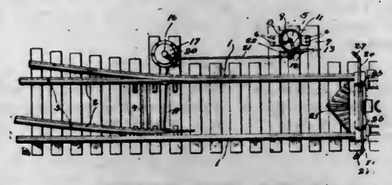
1. In a device of the kind described, in combination, a pair of cylinder parts constructed to interlock by relative longitudinal movement, and one of the said parts being longitudinally grooved to provide an axial opening through the cylinder formed by the interlocking of the said parts, and a lug projecting from the end of one of the said parts.

3. In a fence splicer, in combination, a cylinder divided upon a central longitudinal plane, the two parts of the cylinder having their meeting faces formed with complementary longitudinal dovetail tongue and groove, and the part having the tongue being longitudinally grooved centrally along the tongue, and an apertured lug projecting from one end of the said part of the cylinder having the tongue, the aperture of the lug being substantially radial to the axis of the said cylinder.

[Claim 2 not printed in the Gazette.]

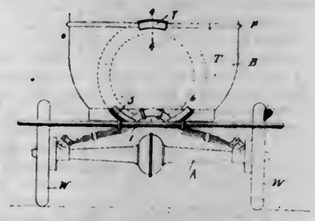
1,254,403. AUTOMATIC RAILWAY-SWITCH. ROBERT A. GULLION, Gallatin, Tex. Filed July 12, 1916. Serial No. 108,890. (Cl. 104—28.)

The combination with a railway track including movable switch points, of a switch stand having an annular vertically extending flange provided with angularly spaced notches, a vertical post journaled for rotation concentrically of said flange, an arm on the post adapted to contact with the flange and to normally be engaged in one of the said notches, a roller on the arm at the point



of contact, said arm being engageable by a projection upon a passing locomotive to cause the roller to ride out of the notch thereby moving the arm and rotating the post, permitting the roller to drop into the other notch, and means operable by rotation of the post to move the switch points.

1,254,404. COMBINED BUMPER AND TIRE-CARRIER. RUSSELL S. HARTZLER, Topeka, Ind. Filed Jan. 16, 1917. Serial No. 142,700. (Cl. 224—29.)

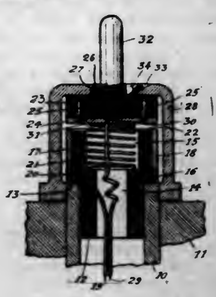


The combination with a vehicle having a cross bar at its rear end, of a pair of rearwardly projecting laterally spaced arms having inverted U-shaped sockets at their inner ends to fit over said cross bars and rigidly secured thereto, arcuate tire receiving members curved to conform to the shape of the periphery of a tire and mounted on said arms, midway their ends with their open faces facing each other, a rod connecting the free ends of said arms with its ends extended and performing the double function of an arm connector and a rear end bumper, a bracket carried by the vehicle body in a plane above said arms and midway between them, a coöperating similarly shaped tire engaging member carried by said bracket and facing downwardly being positioned to engage the periphery of a tire seated in said first mentioned tire receiving members whereby the tire is securely clamped in position.

1,254,405. ELECTRIC-HORN SWITCH. EDWARD E. JOHNSON, St. Paul, Minn. Filed Sept. 21, 1914. Serial No. 862,651. (Cl. 200—27.)

5. An electric switch for automobile horns comprising a standard, a cap on said standard having a hollow socket in the top thereof, an insulating plug fixed on the standard within the cap, a second insulating plug having a rounded projection seated within said socket, contact plates on said insulating plug having relatively circular contact surfaces, a spring supported by the fixed plug and holding the other plug against the cap and with the projection in said socket so that said contact plates are normally spaced one from the other and movable toward each other under both rectilinear and tilting action, and a finger rigidly secured to the extension of the movable plug.

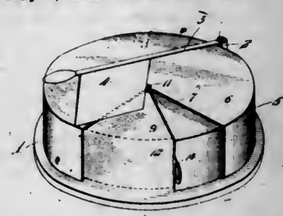
6. An electric switch for automobile horns comprising a standard, a cap on said standard, an insulating plug fixed on the standard within the cap, a second insulating plug, a spring holding said second plug against the cap and movable toward the other plug under both rectilinear and tiltable action, a cylindrical contact member surrounding the fixed plug and having an edge thereof exposed above the same, a plate on the other plug having its



outer limits extending above said exposed edge, and a finger rigidly connected with the top plug and extending through said cap.

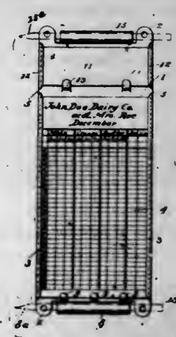
[Claims 1 to 4 not printed in the Gazette.]

1,254,406. CHEESE-COVER. SIDNEY L. KARR, Galt, Cal. Filed May 9, 1916. Serial No. 96,398. (Cl. 45—71.)



The combination with a cheese cutter including a base, a standard, and a knife bar pivoted to the standard of a cheese cover in the form of a cylindrical inverted container adapted to cover a cheese supported on the base, a segmental opening provided in the side of the cover, a pivoted segmental closure adapted to close the opening, and a clamp for securing the cover against displacement comprising a member engageable upon the standard, a member secured to the cover, and means for adjustably connecting the last two named members.

1,254,407. MILK-CARD HOLDER. HULDENA KEPPEL, St. Louis, Mo. Filed Apr. 21, 1916. Serial No. 92,661. (Cl. 40—17.)

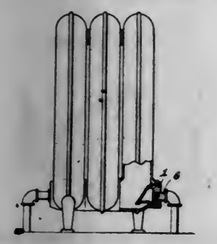


1. As a new article of manufacture, a substantially rectangular plate having means for attaching the same to a

substantially vertical support, said plate having side flanges on its vertical edges for retaining a slate at the upper portion of said plate, and for retaining a card on the lower portion of said plate, said flanges having gaps at an intermediate point on the length of said plate to permit the insertion of a card through said gaps from above, means on the face of said plate located between said gaps for engaging the lower edge of the slate to support the same, and means at the lower portion of said plate for engaging the lower edge of the card to support the same.

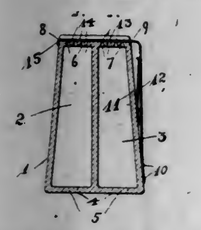
2. As a new article of manufacture, a substantially rectangular plate having means for attaching the same to a substantially vertical support, said plate having side flanges on its vertical edges for retaining a slate at the upper portion of said plate and a card on the lower portion, said flanges having gaps at an intermediate point on the length of said plate to permit the insertion of a card through said gaps from above, integral means on the face of said plate between said gaps to engage the slate and support the same, and integral means at the lower portion of said plate for engaging the lower edge of the card to support the same.

1,254,408. TRAP FOR STEAM-HEATING SYSTEMS. GEORGE H. KIRKHAM, Niles, Mich. Filed Dec. 2, 1914. Serial No. 875,091. (Cl. 182—15.)



A return trap for radiators including a chamber formed by a cylindrical wall and by end walls, one of the end walls being inclined with respect to the other to form an interior chamber having a gradually decreased area from bottom to top, and means for connecting the trap to the radiator to dispose the chamber wholly within the radiator, said chamber being formed in a cylindrical wall at the portion of maximum area of said chamber measured on a vertical plane, an inlet opening, and one end wall being formed above said inlet opening with a return pipe opening.

1,254,409. SALT AND PEPPER SHAKER. HIKOJIRO KOBAYASHI, Los Angeles, Cal. Filed Feb. 8, 1917. Serial No. 147,486. (Cl. 65—45.)



A salt and pepper shaker comprising separate compartments for salt and pepper, the separate compartments having separate discharge openings, two opposing sides of the shaker having extension ends projecting upwardly and overlapping the top to a suitable extent for forming a guiding member for a closure plate, a closure plate slidingly mounted over the top below the guiding members terminating in a bent end engaging over the edge of the shaker for terminating the shifting of the closure plate, the opposite end of the closure plate terminating in a spring member also bent over the shaker on the opposite side of the shaker top, and spaced from the shaker side and connected to the shaker side, all substantially as described.

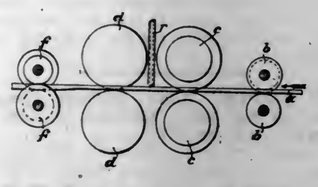
1,254,410. SAND AND GRAVEL WASHING AND SEPARATING MACHINE. FERDINAND KRENZER, Highland, Ill. Filed Mar. 17, 1917. Serial No. 155,525. (Cl. 83—60.)



1. In a separating machine, a rotatable drum, a cylindrical screen in said drum in spaced relation therefrom, a hopper engaged with the drum at one end, a plurality of circularly disposed series of pockets carried upon the opposite end of said drum, certain of said pockets communicating with the drum, certain others of said pockets communicating with the screen, and independent chutes projecting into the drum and arranged beneath the several series of pockets.

2. In a separating machine, a rotatable drum, a cylindrical screen in said drum in spaced relation therefrom and having one end spaced from the adjacent end of the drum, a hopper engaged with the drum at the opposite end, a circularly disposed series of pockets carried upon the inner face of the first mentioned end of the drum, an additional circularly disposed series of pockets carried upon the inner face of the end of the drum adjacent said first mentioned pockets, the last mentioned series of pockets communicating with the screen, the first mentioned series of pockets communicating with the drum, and independent chutes projecting through said end of the drum and arranged beneath the different series of pockets.

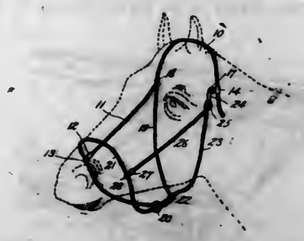
1,254,411. METHOD OF MANUFACTURING METAL FELLIES. RUDOLF KRONENBERG, Ohligs, Germany. Filed Oct. 30, 1917. Serial No. 199,887. (Cl. 219—10.)



An improved method of manufacturing metal-fellies with upturned electrically welded flanges, consisting in filling a cooling fluid into the channel-shaped space before and behind the electrodes, said intermediate space being closed against the escape of the cooling fluid by guiding rollers in front and by the molding rollers in the rear of said electrodes.

1,254,412. ROPE HALTER. JOHN KUB, Loyalton, S. D. Filed June 29, 1917. Serial No. 177,751. (Cl. 54—24.)

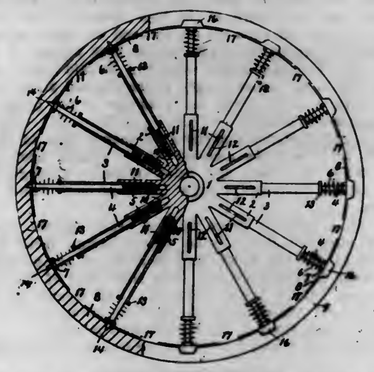
1. A halter comprising cheek pieces, a head stall, a throat latch, and a nose band and made of rope, one piece forming the head stall and a cheek piece, a second piece of rope forming the remainder of the halter, a clip on one end of each piece of rope forming the cheek pieces



connected to the nose band, and a disengageable connection connecting the throat latch with the head stall.

[Claim 2 not printed in the Gazette.]

1,254,413. RESILIENT WHEEL. JOZEF KWAPIEN, Westfield, Mass. Filed Aug. 21, 1917. Serial No. 187,336. (Cl. 152—31.)



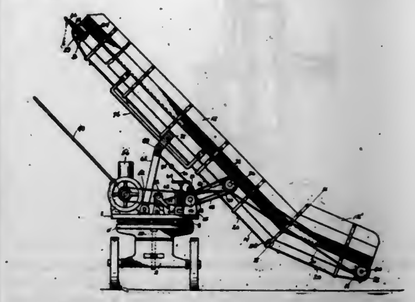
1. A resilient wheel comprising a hub, yielding spokes connected with said hub, said spokes comprising spring-pressed members provided with tire-supporting members, springs for said first-named members, and means to retract and hold said spring-pressed members in retracted position, with their springs under increased compression, for the purpose of mounting a tire on or removing it from said tire-supporting members.

4. The combination, in a resilient wheel, with a hub having hollow arms, tubular extensions attached to said arms, spokes slidingly arranged in said extensions and arms and having laterally projecting members at points somewhat remote from their outer terminals, nuts on said spokes in said arms, means to limit the movement of said nuts in said arms and to hold said nuts against rotation, and springs between the outer ends of said extensions and said projecting members, of saddle-pieces attachable loosely to said outer terminals of said spokes and bearing on said projecting members, and a tire mounted on said saddle-pieces, said spokes penetrating said tire after passing through said saddle-pieces.

[Claims 2 and 3 not printed in the Gazette.]

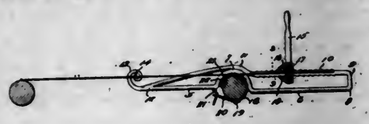
1,254,414. STACKING-MACHINE. PAUL P. LANTZ, Tampa, Kans. Filed Dec. 7, 1916. Serial No. 135,526. (Cl. 198—16.)

1. A stacking apparatus comprising a supporting structure, a horizontal shaft carried by said structure, an arm fixed to said shaft, a stacker frame pivoted to said arm, a stacker conveyer operating around said frame, means geared to said shaft for turning the same for angularly adjusting said frame about the axis of said shaft, and drive elements loosely journaled on said shaft and provided with drive connections to said conveyer for operating the latter.



2. A stacking apparatus comprising a supporting structure, a stacker frame, a supporting arm carried by said structure and pivotally connected to said stacker frame, means for angularly adjusting said arm with reference to said supporting structure in order to raise and lower said frame, guide rails secured to said stacker frame between said arm and one of the ends of said frame, a swinging frame pivotally mounted on said supporting structure and provided with rollers embracing opposite sides of each of said guide rails for coöperating with said arm in supporting said stacker frame, a ball pivoted to the opposite sides of said swinging frame, a cable connected to said ball, and means mounted on said supporting structure for operating said cable to adjust the position of said supporting frame.

1,254,415. WIRE-STRETCHER. JULIUS J. LARSON, Durand, Wis. Filed June 19, 1917. Serial No. 175,690. (Cl. 254—72.)



1. A wire stretcher, comprising side bars connected together at their respective ends to form a frame, one of said side bars being bowed inwardly for a portion of its length to provide a post receiving space, means for fastening the frame to the post, a lever arranged to travel along one of said side bars, and wire clamping members carried by said lever.

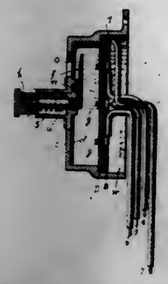
3. A wire stretcher including spaced side bars connected together at their respective ends to form a frame, one of said side bars having an intermediate portion thereof bowed inwardly to provide a post receiving space, a post engaging strip secured to said inwardly bowed portion, and a chain carried by said strip, said chain adapted to be passed around the post and secured to the frame, a wire stretching means supported on said frame.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,254,416. ENGINE-TROUBLE DETECTOR. SAMUEL LAZARUS, Cleveland, Ohio. Filed Oct. 18, 1915. Serial No. 56,510. (Cl. 175—183.)

1. A trouble detector for internal-combustion engines, comprising a casing and a series of electrical terminals therein, a finger provided with a stem slidable and rotatable in said casing and said finger adapted to be brought into spark-producing relations with said terminals and to be retired therefrom.

6. A trouble detector for multiple cylinder explosive engines, comprising a casing having a dial face with a



cavity on the inside thereof, a depressible finger behind said face provided with a projection adapted to enter said cavity, an arbor carrying said finger, a spring about said arbor adapted to hold said projection in said cavity, and an insulating base plate having a series of electrical terminals arranged in a circle thereon opposite said finger.

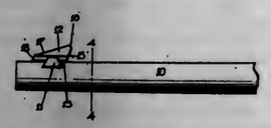
[Claims 2 to 5 not printed in the Gazette.]

1,254,417. MASONRY WALL CONSTRUCTION. GEORGE A. LEONARD, Sheffield, Iowa. Filed Oct. 4, 1915. Serial No. 54,085. (Cl. 72—106.)



In a device of the class described, a wall construction comprising a plurality of horizontal courses of blocks arranged in vertical succession with the blocks of each course staggered relative to the blocks of the adjacent course, each block having a rod slidably extended therethrough, said rods having hooks formed at each end, means for securing said hooks together between the blocks whereby a plurality of reinforcing rods may be formed in the wall, each of which rods extend throughout one course of blocks and is under normal tension throughout its length.

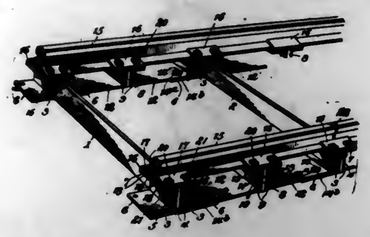
1,254,418. RIFLE-BEAD. GEORGE A. LINDSAY, Newton, Iowa. Filed Apr. 16, 1917. Serial No. 162,557. (Cl. 33—52.)



A rifle bead or sight comprising a copper plate, having a lower edge designed to be mounted on a rifle barrel, the upper edge of said plate having a portion inclined from its forward end upwardly and rearwardly, and having a sighting edge inclined from the upper rear end of the last described edge downwardly and rearwardly, said plate having a rearward edge extending from the lower edge of said sighting edge downwardly and forwardly.

1,254,419. COMBINED METALLIC CROSS-TIE, RAIL-BRACE, AND FASTENER. AMOS LIVINGSTON, Owego, N. Y. Filed Apr. 20, 1917. Serial No. 163,416. (Cl. 238—5.)

1. In a metallic cross tie and brace, spaced transversely extending ties, spaced channel plates having their webs fastened to said ties at the ends thereof, and having upper and lower flanges projecting from opposite sides of the ties, and means for detachably connecting together the lower flanges of the plates adjacent to each other.



2. In a metallic cross tie and brace, the combination with spaced transversely extending ties, of spaced channel plates having their webs arranged vertically and fastened to the ties at the ends of the latter, the ends of the ties and the plates extending beneath the rails, said plates having upper and lower horizontally disposed flanges, the width of said upper flanges being materially greater than the width of the base flanges of the rails, whereby when the rails are placed upon the upper flanges, a space is left on each side of the base flanges of the rails, rail fastening means supported in said spaces and connected to the upper flanges of the channel plates, and means for connecting the lower flanges of the plates in one continuous series.

8. A rail fastener composed of metal bent to form spaced resilient jaws adapted to be wedged upon the base flange of a rail, and bolts extending through the jaws of said fastener to draw the jaws more firmly together.

12. In a metallic cross tie and brace, spaced transversely disposed ties, channel plates having their webs secured to said ties at the ends thereof, and having upper and lower flanges projecting from both sides of the ties, the lower flanges being overlapped, and means for detachably and adjustably connecting the lower flanges adjacent to each other in their overlapped relation.

[Claims 3 to 7 and 9 to 11 not printed in the Gazette.]

1,254,420. AUTOMOBILE-WHEEL AUXILIARY BEARING. RAYMOND R. MCDONNELL, Chicago, Ill. Filed Dec. 4, 1916. Serial No. 135,036. (Cl. 21—30.)



1. In combination with an automobile wheel, an auxiliary bearing constructed with a stationary ring arranged to encircle the hub of the wheel and means to engage said ring for imposing the load of the vehicle directly on said wheel.

2. In combination with an automobile wheel, an auxiliary bearing constructed and arranged for imposing the load of the vehicle directly on said wheel, said wheel having an axle and housing therefor, and said bearing comprising a ring encircling said housing, means to attach said ring rigidly to the wheel, a member encircling said ring, anti-friction elements interposed between said ring and member, and means to support the load on said member.

3. In combination with an automobile wheel, an auxiliary bearing constructed and arranged for imposing the load of the vehicle directly on said wheel, said bearing comprising a ring disposed on the inner side of the wheel, a clamping member disposed on the outer side of the wheel, bolts extending through the wheel to connect said ring and member together, thereby to clamp the ring rigidly to the wheel, anti-friction devices engaging said ring, and means to engage said devices and thereby communicate the weight of the load to said bearing.

4. The combination set forth in claim 1, said bearing being detachable from said wheel without depriving the automobile of the use of said wheel.

5. The combination set forth in claim 1, said automobile having a rear axle upon the end of which said wheel is secured, and said bearing being detachable without interfering with the use thereafter of said wheel on said axle.

[Claims 6 to 11 not printed in the Gazette.]

1,254,421. COMPARTMENT-KILN. ROY H. MCELROY, Dayton, Ohio, assignor to The International Clay Machinery Co., Dayton, Ohio. Filed June 20, 1917. Serial No. 175,739. (Cl. 25—136.)



1. A kiln provided with a plurality of compartments, bag-walls at each side of said compartments, perforated floors for said compartments, said kiln being provided with burner openings behind said bag-walls, and individual air flues for said burner openings which lie beneath and communicate with said perforated floors.

2. A kiln provided with a plurality of compartments, bag-walls at each side of said compartments, perforated floors for said compartments, said kiln being provided with burner openings which discharge behind said bag-walls, and individual air flues for said burner openings lying beneath and communicating with said perforated floors, the flues for the burner openings on one side of the compartment being of greater length than the flues for the burner openings on the other side of the compartments.

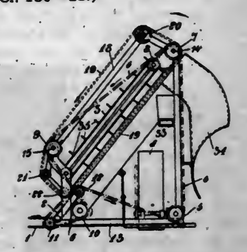
6. A kiln provided with a plurality of compartments, perforated floors for said compartments, bag-walls at each side of said compartments, said kiln being provided with burner openings which discharge behind said bag-walls, and individual air flues for said burner openings lying beneath and communicating with said perforated floor, and the floor above the right ends of the longer flues being solid.

13. A kiln provided with a plurality of compartments and gas ports, bag-walls at each side of said compartments, individual air-flues for said gas ports connecting said compartments, lateral draft flues connected to said air-flues, a main draft flue, and a removable hood connecting said draft flue.

15. A continuous kiln comprising a unitary structure provided with a plurality of compartments both rearwardly and forwardly communicating and having water-smoking openings, bag-walls at each side of said compartments, air flues connecting said compartments, a water-smoking flue for said kiln, and removable ducts connecting said water-smoking flue and said openings.

[Claims 3 to 5, 7 to 12, and 14 not printed in the Gazette.]

1,254,422. THRESHING-MACHINE. AUGUST MALMROS, Rönninge, Sweden. Filed May 3, 1916. Serial No. 95,068. (Cl. 130—21.)



1. In a threshing machine, the combination of a conveyer cloth for receiving the cut crop and for transporting the same in a direction substantially perpendicular to its longitudinal direction, a threshing apparatus at the discharge end of the conveyer cloth and adjustable in the longitudinal direction of the cut crop on the cloth, and an elevator device for transporting the crop approximately parallel to itself and in a direction substantially perpendicular to its longitudinal direction through the threshing apparatus in such manner that chiefly the ears become treated by the threshing apparatus, substantially as and for the purpose set forth.

3. In a threshing machine, a conveyer cloth for receiving the cut crop and for transporting the same in a direction substantially perpendicular to its longitudinal direction, a machine frame, rotating shafts journaled in said frame, a threshing apparatus at the discharge end of the conveyer cloth and adjustable in the longitudinal direction of the cut crop on the cloth and transversely to the feeding direction of said cloth, said threshing apparatus comprising a sieve, a frame, rollers journaled in said frame sliding on and rotating with the said rotating shafts, and an endless cloth on said rollers coöperating with the sieve, rollers journaled in the machine frame, and an endless elevator cloth on said rollers provided with projecting fingers for seizing the crop and transporting the same approximately parallel to itself and in a direction substantially perpendicular to its longitudinal direction through the threshing apparatus in such manner that the ears become treated between the sieve and the threshing cloth, substantially as and for the purpose set forth.

5. In a threshing machine, the combination of a conveyer cloth for receiving the cut crop and for transporting the same in a direction substantially perpendicular to its longitudinal direction, a threshing apparatus at the discharge end of the conveyer cloth and adjustable in the longitudinal direction of the cut crop on the cloth and transversely to the feeding direction of said cloth, said threshing apparatus comprising two members one of which is movable toward and away from the other, and an elevator device for transporting the crop approximately parallel to itself and in a direction substantially perpendicular to its longitudinal direction through the threshing apparatus in such manner that the ears become treated by the threshing members, substantially as and for the purpose set forth.

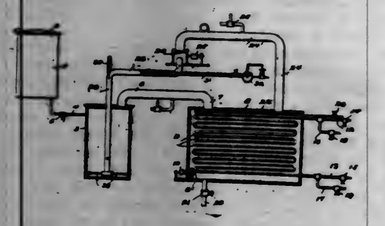
8. In a threshing machine, the combination of a conveyer cloth for receiving the cut crop and for transporting the same in a direction substantially perpendicular to its longitudinal direction, a threshing apparatus at the discharge end of the conveyer cloth and adjustable in the longitudinal direction of the cut crop on the cloth and transversely to the feeding direction of said cloth, said threshing apparatus comprising two members one of which is movable toward and away from the other, an elevator device for transporting the crop approximately parallel to itself and in a direction substantially perpendicular to its longitudinal direction through the threshing appara-

tus in such manner that the ears become treated by the threshing members, a box at the lower end of the threshing apparatus for receiving the threshed grain, an elevator movably connected at its lower end with the said box, and means at the upper end of the elevator for transmitting motion to the elevator in any position of the same, substantially as and for the purpose set forth.

9. In a threshing machine, the combination of a conveyer cloth for receiving the cut crop and for transporting the same in a direction substantially perpendicular to its longitudinal direction, a threshing apparatus at the discharge end of the conveyer cloth and adjustable in the longitudinal direction of the cut crop on the cloth and transversely to the feeding direction of said cloth, said threshing apparatus comprising two members one of which is movable toward and away from the other, an elevator device for transporting the crop approximately parallel to itself and in a direction substantially perpendicular to its longitudinal direction through the threshing apparatus in such manner that the ears become treated by the threshing members, a bottom projecting from said threshing apparatus, said bottom comprising a number of overlapping plates movable relatively to each other, one of said plates being secured to the threshing apparatus, substantially as and for the purpose set forth.

[Claims 2, 4, 6, and 7 not printed in the Gazette.]

1,254,423. APPARATUS FOR EVAPORATING MILK. JOSEPH HUDSON MASON, Prince Rupert, British Columbia, Canada. Filed Aug. 2, 1916. Serial No. 112,679. (Cl. 127—9.)



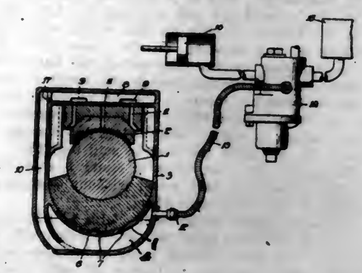
1. In a milk evaporator, the combination with an evaporating reservoir, of a drying chamber, a pipe for conducting air from the drying chamber to the evaporating reservoir and a return pipe to the drying chamber, a refrigerating brine coil in the drying chamber for congealing the moisture from the air and dehydrating same, and means for passing heat through said coil when out of operative relation with said evaporating reservoir.

2. In a milk evaporator, the combination with an evaporating reservoir, of a drying chamber, a pipe for conducting air from the drying chamber to the evaporating reservoir and a return pipe to the drying chamber, a refrigerating brine coil in the drying chamber for congealing the moisture from the air and dehydrating the air, and a water spray above said coil for removing the congealed moisture therefrom.

1,254,424. LUBRICATING SYSTEM FOR JOURNAL-BOXES. ROBERT S. MENNIE and ERNEST WANAMAKER, Chicago, Ill., assignors of one-third to William J. Tollerton, Chicago, Ill. Filed July 9, 1917. Serial No. 179,764. (Cl. 64—24.)

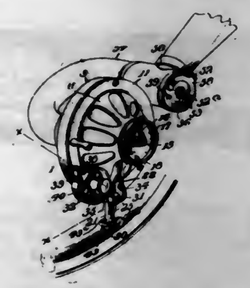
1. A journal box comprising a bearing, an oil reservoir, a chamber communicating therewith, and means whereby when the brakes of the train, equipped with said journal box, are released, oil from said reservoir is forced upwardly into said chamber and down over said bearing.

3. The combination with the air brake system of a train, of a journal box connected therewith and provided with a journal bearing, a lubricating medium therefor, and means whereby when the brakes of said train are released a portion of said lubricating medium is forced into contact with said bearing.



[Claim 2 not printed in the Gazette.]

1,254,425. SOUND-BOX. HENRY C. MILLER, Waterford, N. Y. Filed Apr. 10, 1914. Serial No. 831,002. (Cl. 274—37.)



1. In a sound box, the combination of a casing, including a stylus lever, a housing on the casing, a drum rotatively mounted in the housing, a wire wound around the drum and extended through and beyond a portion of the stylus lever, and means for gaging the movement of the wire.

13. In combination with a sound-box, a stylus-wire and a rotatable part on which the wire is wound and by which it is adjustable, the stylus bar, and means for operatively securing the free end of the wire to said bar.

20. In combination with a sound box, a stylus wire and a rotatable part on which the wire is wound and by which it is adjustable, the rotatable part having a groove wherein the wire is located.

23. In combination with a sound box, a stylus wire, and a rotatable part on which the wire is wound and by which it is adjustable, and means for securing one end of said wire to the rotatable part.

25. In combination with a sound box, the stylus bar, a stylus wire, means for operatively securing the free end of the wire to said bar, and a grooved rotatable part wherein the wire is located.

[Claims 2 to 12, 14 to 19, 21, 22, 24, and 26 to 31 not printed in the Gazette.]

1,254,426. GUARD FOR POCKET-BOOKS. WILLIAM A. MILLER, St. Louis, Mo. Filed Dec. 1, 1916. Serial No. 134,274. (Cl. 150—47.)

3. A guard mounted on the side face of a pocket book, and consisting of a tubular guide extending laterally with respect to the plane in which the pocket book lies, a member movably mounted in said guide and normally projecting therefrom to press against the inner face of the outer wall of the pocket in which the pocket book is carried and thereby hold the pocket book against accidental removal,



and a spring within said tubular guide for normally forcing said member outwardly.

[Claims 1, 2, and 4 not printed in the Gazette.]

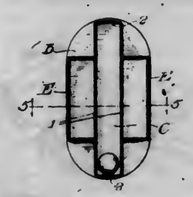
1,254,427. SAW-SET. EDWARD MOORE, Cumberland, Md. Filed Aug. 29, 1916. Serial No. 117,525. (Cl. 76—71.)



1. A saw set comprising a body portion having an extension therefrom, and said extension notched on diagonally opposite corners to give shape to the extension that the same may be fitted between adjacent teeth of a saw and upon turning of the tool will bend the adjacent teeth to be offset in opposite directions.

[Claim 2 not printed in the Gazette.]

1,254,428. TUMBLING TOY. HUBERT A. MYERS, Toledo, Ohio. Filed Mar. 21, 1917. Serial No. 156,241. (Cl. 46—40.)



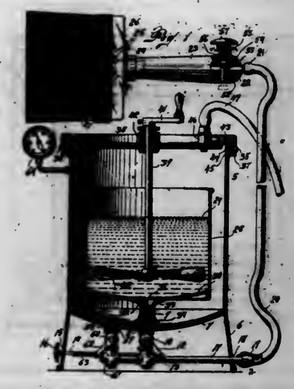
1. A toy comprising two oppositely disposed oblong sections of sheet material having rounded ends, transverse walls spacing said sections apart and forming a central longitudinal guide-way having closed ends, and a ball movable back and forth in said guide-way to roll the toy down hill upon an inclined surface.

3. The said toy (substantially as set forth in claims 1 and 2) having fillers between said sections at opposite sides of said guide-way, each filler comprising sheet material secured edgewise to said sections, so that inclosed spaces are formed at opposite sides of the guide-way.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,254,429. AUTOMATIC PAINTING APPARATUS. CHARLES H. PARMELEE, Denver, Colo. Filed Mar. 30, 1916. Serial No. 87,711. (Cl. 91—39.)

1. Apparatus of the class described, including a receptacle, a main tank adapted to receive the said receptacle, an outlet member connected with the bottom of the tank and extending both interiorly and exteriorly therefrom, the receptacle being equipped to be detachably connected with the interior portion of the tank outlet, a cover for



the tank, an agitator operably connected with the cover, and means for introducing air under pressure into the tank.

[Claims 2 to 4 not printed in the Gazette.]

1,254,430. VENEER PACKAGE. FRANKLIN G. PECK, Honor, Mich. Filed Aug. 14, 1914. Serial No. 856,731. (Cl. 217—1.)

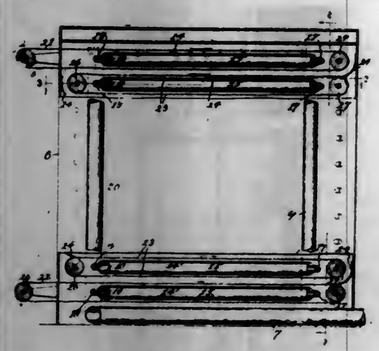


1. A cylinder shipping container comprising an inner cylinder composed of a plurality of relatively narrow strips of veneer, each formed as a closed hoop and arranged side by side, tape overlapping adjacent edges of said strips, and covering the cracks between said edges and an outer cylinder with the grain at right angles to the grain of the inner cylinder, for reinforcing the latter and backing up said tape.

3. A cylindrical veneer package comprising outer curved veneer strips arranged with the grain running substantially parallel to the axis of the cylinder, a plurality of reinforcing hoops for said outer veneer, an inner veneer lining for said package consisting of a plurality of cylindrical strips arranged side by side throughout the length of said cylinder, thin flexible material covering the cracks between said adjacent inner strips whereby the latter may be distorted without opening cracks entirely through said package, and heads secured in the opposite ends of said cylinder.

[Claim 2 not printed in the Gazette.]

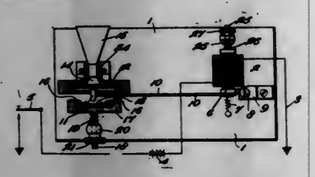
1,254,431. DRYING APPARATUS. JAMES LOUIS PIERCE, Manila, Philippine Islands, assignor to Pacific Commercial Company, Manila, Philippine Islands, a Corporation of Philippine Islands. Filed Dec. 28, 1916. Serial No. 139,239. (Cl. 34—12.)



2. In a drying apparatus, a housing, a plurality of superposed conveyers, a heating unit arranged adjacent each conveyer, means for leading heated air to said units, and means for leading the products of combustion to said units for supplementing the latter, without mixing therewith.

[Claims 1 and 3 not printed in the Gazette.]

1,254,432. TELEGRAPH RECEIVING INSTRUMENT. CHARLES ADAMS-RANDALL, Boston, Mass., assignor to Electrical Inventions Company, Boston, Mass., a Corporation. Filed Nov. 28, 1916. Serial No. 133,905. (Cl. 178—100.)



3. In a telegraphic receiving instrument the combination of an electro-magnet; an armature for said magnet; a sounding lever disconnected from but adapted to contact with and to be actuated by said armature and provided with a striking hammer; a pair of diaphragms of different diameters adapted to be alternately struck by said hammer; and means to adjust one of said diaphragms to and from said hammer, substantially as described.

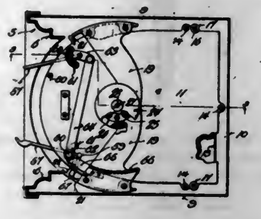
[Claims 1 and 2 not printed in the Gazette.]

1,254,433. SAFE. JOSEPH RAUWALD, Milwaukee, Wis., assignor to Key Safe Company, Milwaukee, Wis. Filed Mar. 6, 1917. Serial No. 152,570. (Cl. 109—2.)

1. A structure of the class described including a casing, a door for closing the casing, means for locking said door, means for moving said door including members having limited relative movement, and means connecting one of said members and the locking means for releasing said locking means upon relative movement of the said member with respect to the other member.

2. A structure of the class described including a casing, a door for closing the casing, means carried by and movable with the door for locking it, said locking means including a portion movable relatively with respect to the door, means for moving said door, and said door moving means being engageable with the door locking means in the closing position of said door.

3. A structure of the class described including a casing, a door for closing the casing, means for moving the door including a shaft and a lock spindle connected therewith in a manner permitting limited relative pivotal movement, means for locking the door and said means being operable by the lock spindle during its limited movement relative to the shaft.

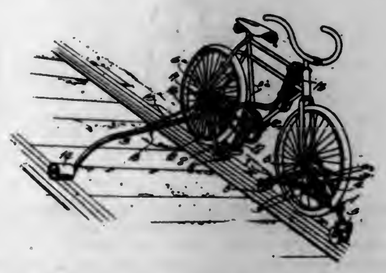


4. A structure of the class described including a casing, a door for closing the casing, means for moving the door including a shaft and a lock spindle connected therewith in a manner permitting limited relative pivotal movement, means carried by and movable with the door for locking it and including a slidable bar, and a lateral extension on the spindle detachably engageable with the slidable bar in the closing position of the door.

5. A structure of the class described including a casing, a pair of doors for closing the casing, an apertured inturned extension at the inner edge of one door, a hook member detachably engageable through said extension and secured to the other door, an operating car connected with said hook member, means for moving said doors including a shaft and a lock operating member connected therewith in a manner permitting limited relative movement, and said lock operating member being engageable with the said operating bar, in the closing position of said doors.

[Claims 6 to 12 not printed in the Gazette.]

1,254,434. RAILWAY ATTACHMENT FOR BICYCLES. AGOSTINO REA, Helper, Utah. Filed Oct. 29, 1917. Serial No. 199,104. (Cl. 105—247.)

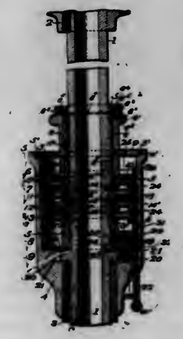


1. In a railway attachment for bicycles, means for guiding the front wheel along one of the rails, a fork pivoted to the rear portion of the bicycle frame and inclined downwardly and forwardly, said fork having a rail engaging roller on its lower end, a lateral brace arm extending from the bicycle frame and having a rail engaging roller, a rearwardly extending brace rod for said brace arm, and means connecting the rear end of said brace rod to said fork, whereby the rearward thrust of said rod will force said fork downwardly to maintain its roller in engagement with the rail.

4. In a railway attachment for bicycles, foldable means for guiding the front wheel along one of the rails, a fork pivoted to the rear portion of the bicycle frame and inclined downwardly and forwardly, said fork having a rail engaging roller and being foldable upwardly behind the bicycle seat when not in use, a lateral brace arm extending from the bicycle frame and having a rail engaging roller, a rearwardly extending brace rod for said arm pivoted to the latter, a vertical stud on the rear end of said rod, an apertured lug extending laterally from said fork and receiving said stud, said lug supporting said arm when the fork is folded upwardly and the arm folded rearwardly, and a second stud on said arm for reception in the aperture of said lug when the device is folded, whereby to prevent swinging of both said fork and arm.

[Claims 2 and 3 not printed in the Gazette.]

1,254,435. PERMUTATION-LOCK. EDMUND W. REUBER, Allentown, Pa. Filed Apr. 18, 1917. Serial No. 162,823. (Cl. 70—53.)



1. The combination of a relatively rotative element having a radially-extending notched disk, a permutation-lock-mechanism concentrically and axially encompassing the said rotative element and embodying a head having a dial face external of a stationary element, and a tumbler within the stationary element, and also embodying a plurality of tumblers,—the said stationary element inclosing the permutation-lock-mechanism and surrounding the rotative element,—and a bolt member partly within and partly outside of the stationary element, which comprises blocks extending between peripheral edges of the tumblers and adapted when the tumblers are in registry to move through their notches, and comprises also a bolt adapted to engage the notches of the notched disk on the rotative element, the operation of which bolt member either locks or releases the rotative element.

2. The combination of a relatively rotative element having a radially extending notched disk, a permutation-lock-mechanism concentrically and axially encompassing the rotative element and embodying a head having a dial face which rests upon a seat formed in the upper end of a stationary element, and a tumbler within the stationary element, and also embodying a plurality of tumblers,—the said stationary element inclosing the permutation-lock-mechanism and surrounding the rotative element,—a tumbler sleeve within the stationary element within which sleeve the rotative element is turnable as in a bearing,—spacing rings encompassing the tumbler sleeve, separating the tumblers and keyed against rotation about the tumbler sleeve,—and a bolt member partly within and partly without the stationary element, which comprises blocks extending between peripheral edges of the tumblers and adapted when the tumblers are in registry to move through their notches and comprises also a bolt adapted to engage the notches of the notched disk on the rotative element, the operation of which bolt member either locks or releases the rotative element.

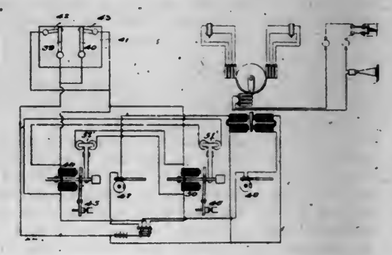
3. The combination of a relatively rotative element having bolt-receiving means at its side, a tumbler movable about said rotative element, a stationary element surrounding the tumbler and the rotative element, means surrounding the relatively rotative element and extending within and without the stationary element and constructed and arranged to impart motion to said tumbler, and a bolt member movable in the stationary element alongside and longitudinally of the rotative element and having a bolt for coöperation with the bolt-receiving means of the rotative element and also having means constructed and arranged to coöperate with the tumbler, whereby in one position of the tumbler the bolt is retained in the bolt-receiving means of the rotative element, and in another position of the tumbler the bolt may be displaced from said bolt-receiving means.

4. The combination of a relatively rotative element having bolt-receiving means at its side, a tumbler movable about said rotative element, a stationary element surrounding the tumbler and the rotative element, means surrounding the relatively rotative element and extending within and without the stationary element and constructed and arranged to impart motion to said tumbler, a bolt member movable in the stationary element alongside and longitudinally of the rotative element and having a bolt for coöperation with the bolt-receiving means of the rotative element and also having means constructed and arranged to coöperate with the tumbler, whereby in one position of the tumbler the bolt is retained in the bolt-receiving means of the rotative element and in another position of the tumbler the bolt may be displaced from said bolt-receiving means, and means for preventing casual movement of the bolt member while permitting movement of said member when it is subjected to stress.

5. The combination of a relatively rotative element having bolt-receiving means at its side, a tumbler movable about said rotative element, a stationary element surrounding the tumbler and the rotative element, means extending within and without the stationary element and constructed and arranged to impart motion to said tumbler, a bolt member movable in the stationary element alongside and longitudinally of the rotative element and having a bolt for coöperation with the bolt-receiving means of the rotative element and also having means constructed and arranged to coöperate with the tumbler, whereby in one position of the tumbler the bolt is retained in the bolt-receiving means of the rotative element, and in another position of the tumbler the bolt may be displaced from said bolt-receiving means, means for preventing casual movement of the bolt member while permitting movement of said member when it is subjected to stress, and means for preventing casual movement of the tumbler-moving means while permitting of movement of said means when subjected to stress.

[Claim 6 not printed in the Gazette.]

1,254,436. FILM-CONTROL MECHANISM FOR MOTION-PICTURE AND SOUND-REPRODUCING MEANS. HARRISON W. ROGERS, New York, N. Y. Filed Sept. 25, 1916. Serial No. 122,028. (Cl. 88—16.2.)



1. The combination with a motion picture projector machine and a sound reproducing machine, of mechanism for connecting the two for synchronous operation including a film, provided with an opening therein, a rotatable drum about which the film passes and through the

medium of the film is operated, a plurality of radially slidable pins carried by the drum for projection through the respective opening of the film, and a switch operating member disposed in the path of the pins and adapted to be operated by a projected pin.

5. The combination with a motion picture projecting machine, a sound reproducing machine, and transmission mechanism between the two and having a clutch, of electro-magnetical means for actuating the clutch and including a film provided with an opening, a rotary drum about which the film passes, a plurality of radially slidable pins carried by the drum and adapted to be retracted within and projected beyond the periphery of the drum, said pins being adapted when in alinement with the opening of the film to be projected, an electrical device for controlling the clutch, a source of electrical energy, a switch, a circuit including said switch, a source of electrical energy, and said clutch operating device, a slidable member having a projection disposed in the path to be engaged by a projected pin, and means carried thereby for controlling the switch.

9. The combination with a motion picture projector machine and a sound reproducing machine, a mechanism for connecting the two for synchronous operation, including a film, a rotatable member about which the film passes and which through the medium of the film, is operated, and coöperable switch operating means carried by the rotatable member and in the path thereof, said members being held out of operation by the film when the film is interposed therebetween and adapted to cooperate when released by the film.

[Claims 2 to 4 and 6 to 8 not printed in the Gazette.]

1,254,437. REVERSIBLE SEAT. HUGH ROSE, Stanmore, near Sydney, and ERNEST JOHN BICKFORD, Randwick, near Sydney, New South Wales, Australia, assignors to Flt Charles Petrie, trustee, Sydney, New South Wales, Australia. Filed Dec. 14, 1915. Serial No. 66,817. (Cl. 155—2.)



1. A reversible seat comprising a seat portion and end-frame supports, an axle connecting said end frames, seat bolsters pivoted on said axle, swinging arms pivoted on said axle, a back portion pivoted on said swinging arms, foot rests attached to said swinging arms and pivoted on said axle, and means for limiting the movement of said swinging arms.

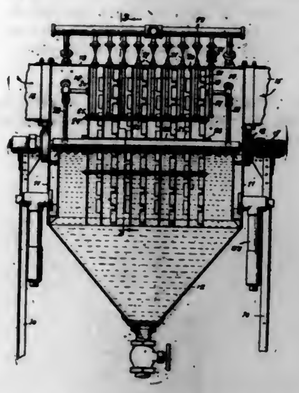
2. In a reversible seat having seat and back portions and end-frame supports, the combination of an axle connecting said supports, seat bolsters pivoted on said axle, swinging arms pivoted on said axle, said back portion being pivoted to said swinging arms, arm-rests attached to said swinging arms, foot-rests attached to said swinging arms and pivoted on said axle, and means for limiting the movement of said swinging arms.

5. In a reversible seat having seat and back portions and end-frame supports, the combination of an axle connecting and supporting said supports, bolsters pivoted on said axle, swinging arms pivoted on said axle, said back portion being pivoted between said swinging arms, arm rests attached to said swinging arms, stops on said arm rests for limiting the pivotal movement of said back portion, foot rests attached to said swinging arms and pivoted on said axle, and stops on said end-frame supports for limiting the movement of said swinging arms.

7. In a reversible seat, the combination with a supporting structure and a seat portion, of an axle fixedly mounted in said supporting structure, seat bolsters pivoted on said axle, swinging arms pivoted on said axle, and a back portion pivoted on said swinging arms, substantially as described.

[Claims 3, 4, 6, and 8 not printed in the Gazette.]

1,254,438. GAS-CLEANER. JOHN RUDDIMAN, Hastings-upon-Hudson, N. Y. Filed Apr. 25, 1917. Serial No. 164,424. (Cl. 261—92.)

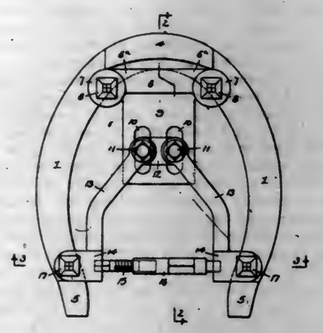


1. In a gas cleaner, a chamber having means for maintaining a supply of wash water in the lower portion thereof, a gas inlet and a gas outlet for the chamber, a pair of rotary perforated baffles dipping into the wash water and interposed between the gas inlet and gas outlet, the baffle adjacent the gas inlet having nozzles projecting from its perforations and serving to direct the gas passing therethrough against the interspaces between the perforations of the adjacent baffle.

6. In a gas cleaner of the type specified in claim 1, the arrangement of the perforations in each baffle plate in lines at right angles to each other, to secure the greatest possible passage area in a plate of given diameter.

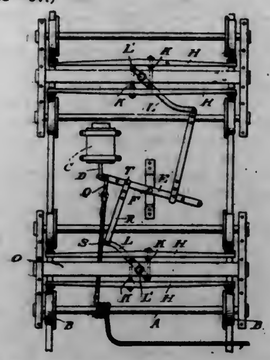
[Claims 2 to 5 and 7 not printed in the Gazette.]

1,254,439. DETACHABLE-CALK ATTACHMENT FOR HORSESHOES. JOSEPH SCHULTZ, Pottstown, Pa. Filed July 25, 1916. Serial No. 111,149. (Cl. 168—30.)



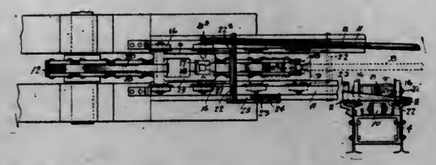
The combination of a horseshoe with a calk-carrying attachment comprising a calk-carrying bar having bosses in vertical engagement with the front portion of the shoe and having a plate extending rearwardly therefrom and provided with longitudinal slots, heads in vertical engagement with the heel portions of the shoe and having arms projecting forwardly therefrom, clamping bolts for said arms occupying said slots in the plate, and an adjustable strut for the heads, said strut comprising a threaded bolt in non-rotative engagement with one of said heads and a nut in threaded engagement with said bolt and in revoluble engagement with the opposite head.

1,254,440. BRAKE FOR CARS. JASPER SCOTT, Charleston, W. Va. Filed June 19, 1917. Serial No. 175,659. (Cl. 188—67.)



A truck device for checking cars, comprising, in combination with the truck of a car having cross beams, brake beams one upon either side of each cross beam, rods connected one to each brake beam and movable in opposite directions, a lever pivotally mounted upon each cross beam and having pivotal connections with the ends of the adjacent rods which are mounted upon the brake beams, an oscillating lever between the trucks, and having pivotal link connections with said levers which are mounted upon the cross beams, a hook adjustably connected to said oscillating lever, and a rope fastened to the hook and adapted to be wound about the axle journaled in one of the trucks.

1,254,441. MANDREL-MANIPULATOR. WILLIAM M. SELKIRK, North Belle Vernon, Pa., assignor to Pittsburgh Steel Products Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Jan. 30, 1917. Serial No. 145,427. (Cl. 205—22.)



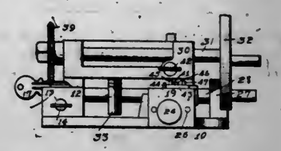
2. In a mandrel manipulator for rolled or drawn tubes, the combination of an extractor support, a mandrel extractor reversibly-movable on said support, power mechanism for actuating the extractor to extract the mandrel, ejecting mechanism, and connecttions between said support and said extractor for operating the ejecting mechanism.

6. In a mandrel manipulator for rolled or drawn tubes, the combination of an extractor bench, a draw buggy adapted to travel on the bench, means for operating the buggy to extract the mandrel, an ejector supported on the buggy and adapted to elevate the mandrel and eject it sidewise of the buggy, and means for operating the ejector, controlled by said first means.

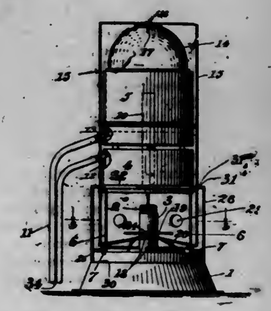
[Claims 1, 3 to 5, 7, and 8 not printed in the Gazette.]

1,254,442. METHOD OF CUTTING KEYS. CHANNING L. SMITH, Des Moines, Iowa. Filed Oct. 16, 1916. Serial No. 125,829. (Cl. 90—13.)

The method of duplicating keys for locks of the type which have a rotatable cylinder therein adapted to be secured in locked position by a row of pins mounted to slide into and out of said cylinder, consisting of first removing said cylinder with its tumbler pins from the lock, then placing a key blank in the key hole of the cylinder whereby the tumbler pins will be forced outwardly from the cylinder a distance equal to the depth of the notches in a key adapted to fit the lock, then cutting notches in a second key blank by a cutter controlled in its operation by said tumbler pins as a pattern.

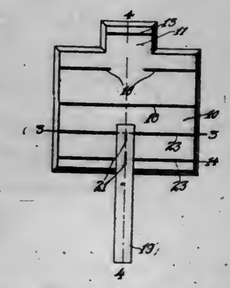


1,254,443. HOT APPLIANCE. CHARLES W. SPURR, Jr., Roxbury, Mass. Filed July 10, 1915, Serial No. 39,067. Renewed Oct. 22, 1917. Serial No. 198,003. (Cl. 126—210.)



In a hot appliance, the combination with a water circulating container, a supporting lamp having a burner tube, and a flexible twin-tube connecting with a heating pad, of an expansion dome, having an orifice, a sliding sleeve upon the burner tube to regulate the flame, a flange upon said sleeve, and a hinged rod with a stud seated in said dome orifice, said rod having arms depending at opposite sides of the water circulating container, and said arms having inwardly directed, yoke-like ends, to straddle said sleeve and bear upwardly against said flange, to communicate the movement of said dome to said sleeve.

1,254,444. FAN. FRANK STANISLAWSKI and PETER J. STANISLAWSKI, Galesville, Wis. Filed May 16, 1917. Serial No. 169,052. (Cl. 230—33.)



1. A toilet fan including a flat body, a handle connected to the body, one face of the body being formed

with a plurality of transverse grooves, and blades secured in said grooves and projecting at angle from the face of the body.

[Claim 2 not printed in the Gazette.]

1,254,445. VENTILATOR. HENRY JACOB STOUT, Philadelphia, Pa. Filed July 3, 1917. Serial No. 178,401. (Cl. 98—22.)



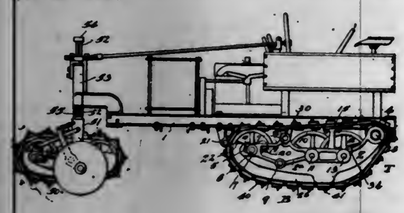
1. A ventilator comprising a frame having an opening, a shutter, said shutter having parts for engagement with the opposite surfaces of said frame adjacent said opening, and supporting means mounted independently of the shutter and disconnected therefrom, said shutter having a portion yieldable relatively to said supporting means and adapted to rest upon said means, said portion being adapted to slide thereon to permit the shutter to pivot within said opening, substantially as described.

2. A ventilator including a frame having an opening, a plurality of shutters having angularly disposed flanges and adapted to movably fit within said openings, parts on each of said shutters adapted to engage the forward and rear surfaces of the frame, retaining means on said frame having curved projections, members on each of said shutters adapted to frictionally engage and spring over said curved projections to hold the shutters in various pivotal positions, and resilient lips supported independently of the shutters and adapted to engage the rear parts on certain of said shutters, substantially as described.

3. A ventilator including a frame having an opening, a shutter having angularly disposed flanges and adapted to movably fit within said opening, parts on said shutter adapted to engage the forward and rear surfaces of said frame, retaining means on said frame having curved projections, and members on said shutter adapted to frictionally engage and spring over said curved projections to hold the shutter in various pivotal positions, substantially as described.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,254,446. TRACTION-MACHINE. WILLIAM STRAIT, Appleton, Wis. Filed July 7, 1914. Serial No. 849,602. (Cl. 21—114.)



1. In a traction machine, the combination of a main frame, a driving tractor pivoted thereto at each side near the rear, and a spring-supported steering unit pivotally mounted in the main frame near the front.

3. In a traction machine, the combination of a main frame, a drive shaft therein, tractor frame members pivoted thereon, a belt carried by the tractor frame members, guide means intermediate the main frame and the tractor frame to laterally brace the tractor, and spring means intermediate the main frame and tractor frame and independent of the guide means.

6. In a traction machine, the combination of a main frame, two tractor frames pivoted thereon and connected rigidly together, and spring-supporting means common to said tractors for supporting them flexibly in relation to the main frame.

7. In a traction machine, the combination of a main frame, two tractor frames pivoted thereon and connected rigidly together, and adjustable spring-supporting means common to said tractors for supporting them flexibly in relation to the main frame.

15. In a traction machine, the combination of a main frame, a tractor frame pivoted thereon, and a belt carried by the tractor frame, the lower stretch of the belt having a sharply convex fulcrum point a short distance in front of the pivot axis, a substantially straight upwardly directed portion to the rear thereof, and a forward portion lying substantially parallel to the ground for a considerable distance in front of said fulcrum point.

[Claims 2, 4, 5, 8 to 14, and 16 to 31 not printed in the Gazette.]

1,254,447. SOUND-DAMPING DEVICE FOR TALKING-MACHINES. DAVID L. SUITER, Philadelphia, Pa. Filed June 13, 1917. Serial No. 174,418. (Cl. 181—0.5.)



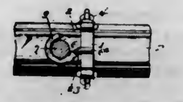
1. In a sound reproducing apparatus of the character recited,—the combination of a sound conduit having a valve throat opening laterally through it,—of a valve adapted to partly or entirely close the sound conduit and simultaneously partly or entirely open the valve throat,—sound-deadening substance occluding the exterior of the valve throat,—and means for controlling the valve.

2. In a sound producing apparatus of the character recited,—the combination with a sound conduit having a valve throat opening laterally through it,—of a valve consisting of a disk and a tubular closing plate so arranged with relation to the valve throat that when the closing plate uncovers the throat the disk closes the sound conduit,—and means for controlling the valve.

3. In a sound producing apparatus of the character recited,—the combination with a sound conduit having a valve throat opening laterally through it,—of a valve consisting of a disk and a tubular closing plate so arranged with relation to the valve throat that when the closing plate uncovers the throat the disk closes the sound conduit,—means for controlling the valve,—and a sound deadening substance occluding the exterior of said valve throat.

1,254,448. ANTISKID ATTACHMENT FOR WHEELS. WILLIAM A. TARR, Bethany, W. Va., assignor of one-half to A. Campbell Jobes, Wheeling, W. Va. Filed Jan. 4, 1917. Serial No. 140,541. (Cl. 152—14.)

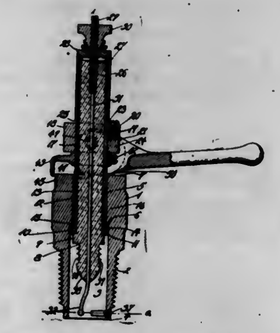
1. An anti-skid attachment for wheels, comprising a saddle-plate adapted for seating in straddling relation to a wheel felly, a flexible tread member connecting the opposite ends of said plate and adapted for assuming embracing relation to the wheel tire, one end of said member being detachably connected to said plate, and a laterally disposed fixed arm carried by said plate at a right angle to an adjacent spoke, said arm being terminated by a spoke-engaging hook.



2. An anti-skid attachment for wheels, comprising a metallic saddle-plate adapted for seating in close straddling relation to a wheel felly, a flexible tread member connecting the opposite ends of said plate and adapted to be disposed in embracing relation to the wheel tire, and a spoke-engaging hook having a shank mounted in fixed relation to said plate and disposed at right angles to an adjacent spoke, said hook having its entrance opening disposed out of alinement with its shank whereby it is rendered detachable from the spoke only when said plate is moved radially away from the felly to permit its ends to clear the latter when moved laterally.

3. An anti-skid attachment for wheels, comprising a saddle-plate adapted for seating in close straddling relation to a wheel felly, a flexible tread member connecting the opposite ends of said plate and adapted to be disposed in embracing relation to the wheel tire, at least one of the ends of said member being detachably connected, and a laterally disposed spoke-engaging hook carried in fixed relation to said plate and extending laterally therefrom substantially parallel to the adjacent portion of the felly, said hook being so disposed with respect to said plate that when said parts occupy their respective operative positions the hook prevents longitudinal movement of the plate.

1,254,449. SPARK-PLUG. WILLIAM S. THOMAS, Lock Haven, Pa. Filed June 13, 1916. Serial No. 103,384. (Cl. 123—169.)



1. The combination in a spark plug, of a body portion, an electrode holder therein and including a threaded jacket and an insulating member secured therein, a sleeve adjustably secured to the jacket, and a hand lever pivoted on said sleeve and having a portion for frictional engagement with said body portion, substantially as described.

5. The combination in a spark plug, of a body portion having a recess reduced in diameter for a portion of its length to form a shoulder, a jacket having a body portion of smaller diameter than the reduced diameter of the cavity, a projection formed on said jacket having a diameter larger than the reduced cavity and of smaller diameter than the main cavity, a hand lever pivotally supported by the jacket and having a portion for engagement with said body portion, and an electrode supported by said jacket, said hand lever being movable on its pivot to engage the body portion and thereby force the projection on the tube into engagement with the shoulder provided by said reduced recess, substantially as described.

12. The combination in a spark plug, of a body portion having a recess therein reduced for a portion of its length to form a shoulder, a jacket having a flanged end providing a downwardly facing shoulder, an electrode carried by the jacket, and means for moving the shoulder of the jacket upwardly into and downwardly out of engagement with the shoulder of the body portion, substantially as described.

15. The combination in a spark plug, of a body portion having a cavity reduced in diameter for a portion of its length producing a shoulder, a jacket of smaller diameter than the reduced portion of the cavity and having an annular flange designed to engage said shoulder, an electrode carried by said jacket, and means including a cam for actuating said jacket to move its flange into and out of contact with said shoulder, substantially as described.

[Claims 2 to 4, 6 to 11, 13, 14, 16, and 17 not printed in the Gazette.]

1,254,450. PROCESS FOR EXTRACTING POTASSIUM SALTS. FREDERICK TSCHIRNER, Newark, N. J. Filed Apr. 18, 1916. Serial No. 91,847. (Cl. 23—22.)

1. The process of extracting potassium salts from glauconite which consists in dehydrating, oxidizing the ferrous salts to the ferric form, uniting the potassium with chlorin, and leaching to extract the soluble potassium salts resulting.

2. The process of extracting potassium salts from glauconite which consists in dehydrating, mixing with a suitable alkali partly chlorinated, roasting and leaching to extract the soluble potassium salts.

3. The process of extracting potassium salts from glauconite which consists in dehydrating, mixing with calcium oxid and hypochlorite, roasting and leaching to extract the soluble potassium salts.

6. The process of extracting potassium salts from green sand which consists in mixing therewith a suitable proportion of gray calcareous marl, roasting, grinding in water and treating with chlorin gas, drying and roasting until the mass turns yellow and leaching to extract the soluble potassium salts.

7. The process of obtaining potassium salts from minerals containing ferrous and ferric iron and potassium, which consists in oxidizing the iron from the ferrous to the ferric state and causing the potassium to combine with chlorin at a suitable high temperature, and then leaching to extract the potassium chlorid so formed.

[Claims 4 and 5 not printed in the Gazette.]

1,254,451. PROCESS FOR EXTRACTING POTASSIUM SALTS. FREDERICK TSCHIRNER, Newark, N. J. Filed May 3, 1916. Serial No. 95,102. (Cl. 23—22.)

1. A process of obtaining soluble potassium compounds from a hydrous iron potassium silicate which comprises furnacing a mixture comprising such silicate, a finely divided calcareous material and a chlorid of an alkali-forming metal, at a temperature sufficient to convert the major part of the potassium content into a water-soluble state but below that necessary to produce volatilization of any material amount of the potassium present, and below that necessary to produce clinkering of the mass.

2. A process for obtaining soluble potassium compounds from glauconite, which comprises furnacing a mixture comprising glauconite, a finely divided calcareous material and a chlorid of an alkali-forming metal at a temperature sufficient to convert the major part of the potassium content into a water-soluble state, but below that necessary to produce volatilization of any material amount of the potassium present, and below that necessary to produce clinkering of the mass.

3. A process for obtaining soluble potassium compounds from an iron potassium silicate, which comprises furnacing a mixture comprising such silicate, lime sand, and

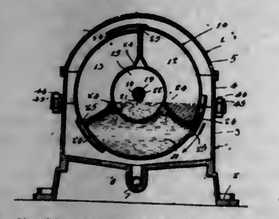
a chlorid of an alkali-forming metal, at a temperature sufficient to convert the major part of the potassium content into a water-soluble state, but below that necessary to produce volatilization of any material amount of the potassium present, and below that necessary to produce clinkering of the mass.

4. A process for obtaining soluble potassium compounds from iron potassium silicate, which comprises furnacing a mixture comprising such silicate, a finely divided calcareous material, and a chlorid of an alkali-forming metal, at a temperature of approximately 800 to 820° C.

5. In the production of soluble potassium compounds from hydrous iron potassium silicates, the step of heating a mixture of such a silicate, a calcareous material and a chlorid of an alkali-forming metal, such materials being proportioned in amounts corresponding to approximately 100 parts of green sand marl, 50 parts of lime sand and 30 parts of calcium chlorid, to render the potassium compounds soluble.

[Claim 6 not printed in the Gazette.]

1,254,452. LIQUID-MEASURING DEVICE. JAMES L. VAI and GIOVANNI VAI, Los Angeles, Cal. Filed Dec. 23, 1915. Serial No. 68,310. (Cl. 73—45.)



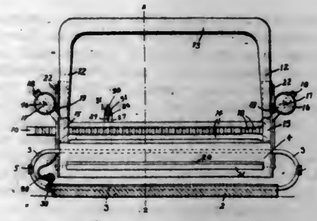
1. In a liquid measuring device, a circular rotary measuring member comprising a plurality of arcuate tanks secured to one another end to end, each tank being constructed in the form of a segment of an annular hollow body extending around and together forming a compartment centrally of the member having communication with each of the tanks, means to supply liquid to the compartment whereby the lowermost of the tanks is first filled and the next lowermost tank is partially filled to cause the members to rotate and the liquid to discharge from the first named tanks, each of said tanks having an outlet communicating with and extending from one end thereof concentric with the next adjacent tank, a receptacle, and means to withdraw and conduct a portion of the liquid from the compartment to the receptacle upon every revolution of the measuring member.

9. In a liquid measuring device, a housing, a shaft mounted within said housing, a rotary measuring member mounted upon the shaft and comprising a series of tanks and a central compartment, means to supply liquid to the compartment having communication with each of the tanks, a receptacle independent of the measuring member, said housing and measuring member having passages connecting the compartment with the receptacle, and means within the compartment to receive a portion of the liquid entering the compartment to conduct said liquid to the passages and receptacle once during every revolution of the member.

12. In a liquid measuring device, a housing, a horizontal shaft rotatably mounted within the housing, a liquid measuring member mounted upon the shaft to rotate therewith and comprising a series of tanks and a compartment centrally of the tanks, said tanks communicating with each other, and the compartment, said tanks having discharge openings, a sleeve surrounding the shaft and extending into the compartment, said sleeve having a discharge opening at its inner end communicating with the compartment, a liquid inlet pipe, communicating with the sleeve, said compartment having a series of discharge openings in one side wall thereof, a receptacle carried by the housing, and a discharge spout having communication with each of the discharge openings in the compartment and the receptacle and being carried by the measuring member.

[Claims 2 to 8, 10, 11, and 13 to 28 not printed in the Gazette.]

1,254,453. HAND PRINTING-MACHINE. PETE VALCON, Portland, Oreg. Filed Mar. 23, 1917. Serial No. 156,893. (Cl. 101—93.)

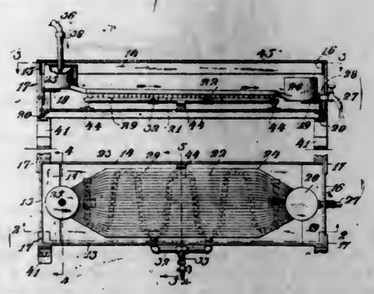


1. In a hand-printing machine, the combination of a type font having open notches adapted to receive type therein, a frame vertically movable in front of the open notches of the type font, a type bar endwise movable in the frame in front of the open notches of said font and being provided with correspondingly formed open notches to receive type from the font, an inking pad movable across the plane of the vertical movement of the type bar, and a platen arranged beneath the type bar to receive paper adapted to be impressed.

2. In a hand-printing machine, the combination of a fixed type font having open notches therein adapted to receive type, a vertical and endwise movable type bar arranged in front of the open notches of the font and provided with correspondingly formed notches adapted to receive type from the font, and a platen arranged beneath the type bar for supporting the object to be impressed.

[Claims 3 to 9 not printed in the Gazette.]

1,254,454. WATER-HEATING DEVICE. JULIUS PETER VION, Jersey City, N. J. Filed Dec. 19, 1916. Serial No. 137,804. (Cl. 126—350.)

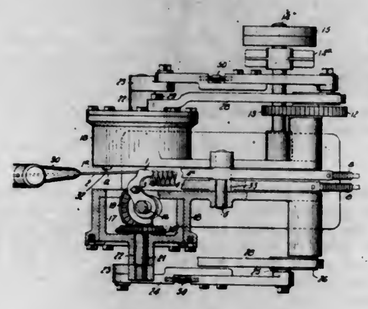


1. The herein-described portable water-heating device comprising a rectangular skeleton frame divided by inward supports into upper and lower parts, a water travelway formed with a plurality of channels V-shaped in cross-section mounted in the upper part, said channels being slightly inclined longitudinally and converging at each end, a water pocket combined with said travelway at each end in inclined communication with the converging channels thereof, and means disposed in the lower part for heating the water as it advances in the travelway from one pocket to the other.

5. In the herein described water heating device, the combination of a skeleton frame and means for supporting it in varying positions, an inwardly projecting support secured at each end of the frame, one support being relatively higher than the other, a water pocket mounted upon each support, a longitudinal water travelway connecting the pockets in slightly inclined position, said travelway having a main portion formed with a plurality of parallel V-shaped channels in cross-section, said channels at each end converging toward a center and so communicating with the pockets, said converging portions of the channels being inclined at a greater degree than the main portion, and means disposed below the main portion extending approximately the entire length thereof for heating water as it flows through the same by gravity from one pocket to the other.

[Claims 2 to 4 not printed in the Gazette.]

1,254,455. MACHINE FOR MAKING GARMENT-STAYS. FRANK L. O. WADSWORTH, Pittsburgh, Pa., assignor to The Spirella Company, Meadville, Pa., a Corporation of Pennsylvania. Filed Sept. 25, 1914. Serial No. 863,596. (Cl. 140—91.)



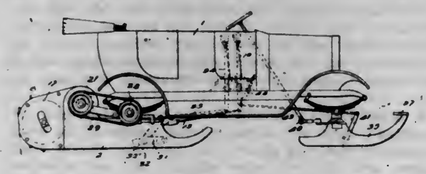
1. In wire bending apparatus, the combination of forming members around which the wire is bent, of bending members arranged to move alternately from opposite sides to bend the wire around said members, and means for rotating or rocking said bending members as they move.

2. In wire bending apparatus, the combination with forming members around which the wire is bent, and oppositely arranged bending members having a simultaneous oscillatory and rotating or rocking movement.

3. In wire bending apparatus, the combination of forming members around which the wire is bent, and cooperating oppositely arranged bending members mounted to oscillate on axes inclined to the plane in which the formed portion of the wire lies.

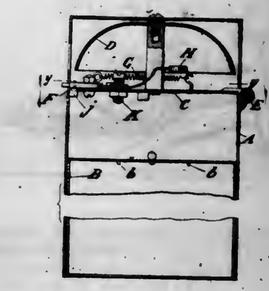
[Claims 4 to 8 not printed in the Gazette.]

1,254,456. SELF-PROPELLED SLED. AMI WARNER, Keene, N. Y. Filed Mar. 7, 1917. Serial No. 153,054. (Cl. 180—6.)



In a vehicle of the character described, the combination with the rear runner of the same, said runner having a recessed portion formed therein, of a spurred driving wheel arranged in said recessed portion and capable of moving vertically with relation to the runner, a substantially U-shaped bail connected to the spurred driving wheel, resilient means engaged with the bail for normally retaining the same in raised position, and manually operable means also engaged with said bail for moving the driving wheel into engagement with a surface.

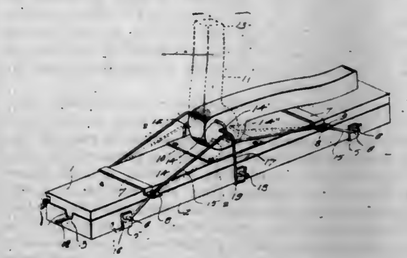
1,254,457. PROCESS FOR PREDETERMINING THE TIME NECESSARY FOR THE FERMENTATION OR RISING OF DOUGH FOR BREAD AND THE LIKE. ALFRED WATKINS, Hereford, England. Filed Aug. 24, 1915. Serial No. 47,199. (Cl. 99—10.)



2. A method for predetermining early in the process of fermentation or rising of dough for bread the length of time required to complete the said process, which consists in ascertaining the time required for a bolumetric expansion of 25 per cent. of the dough, and multiplying such time by a factor of 3.

[Claim 1 not printed in the Gazette.]

1,254,458. FENCE-STRETCHER CLAMP. GEORGE O. WILSON, Wheatley, Ky. Filed June 9, 1917. Serial No. 173,825. (Cl. 24—134.)



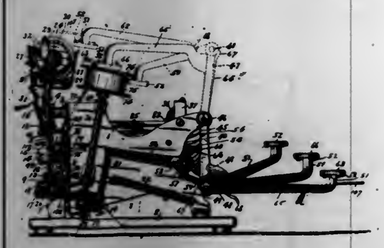
4. A fence wire stretcher including a pair of clamping elements, bars secured to the clamping elements, a lever, said lever having a cam at one end thereof, a wear plate secured to the upper clamping element and adapted to receive the flat surface of the cam of the lever when the lever is in position with the element locking the elements into engagement with one another as and for the purpose specified.

[Claims 1 to 3 not printed in the Gazette.]

1,254,459. PORTABLE FOLDING TYPE-WRITER. CLIO B. YAW, Arlington, N. J. Filed July 29, 1916. Serial No 111,988. (Cl. 197—186.)

1. In a portable folding typewriter the combination with a frame-work of a pair of normally depending suspension-links pivoted thereto, a suspended fulcrum-shaft supported by the free ends of said suspension-links and stopped against inward swinging movement by engage-

ment with said frame-work, a set of key-bars all of which are pivoted and alined on said fulcrum-shaft, upwardly extending rocking-arms connected with the pivoted ends of said key-bars, a set of pivoted type-bars, and spring retracted connecting-rods connected with said type-bars, the outer ends of said connecting-rods being pivoted to the free ends of said rocking-arms at points in alinement with the fulcrums of said suspension links.



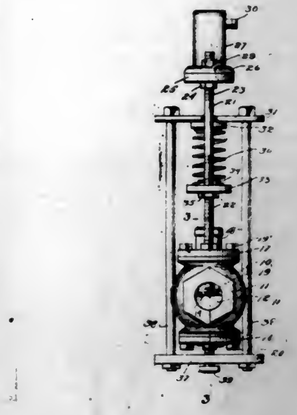
2. In a portable folding typewriter the combination with a frame work of a pair of normally depending suspension links pivoted thereto, a transverse suspended fulcrum shaft supported by the free ends of said suspension links and stopped against inward swinging movement by engagement with said frame-work, a set of key-bars all of which are pivoted and alined on said fulcrum shaft, upwardly extending rocking-arms connected with the pivoted ends of said key-bars, a set of pivoted type-bars normally arranged in horizontal forward extension and semi-circular disposition, means for normally supporting the free ends of said type-bars, a rocking-arm connected with the pivoted end of each type-bar, spring-retracted connecting-rods the main bodies of which extend horizontally beneath said type-bars, each connecting-rod being pivotally connected at its inner end with the rocking-arm of a type-bar, and said connecting-rods being provided at their outer ends with integrally formed upwardly extending arms, the free ends of said arms being pivotally connected respectively with the free ends of said rocking-arms of said key-bars at points in alinement with the fulcrums of said suspension links in a plane above and forward of said type-bars.

3. In a typewriter a frame-work, a longitudinally movable vertical carriage supported at the back of said frame-work, a platen-supporting frame mounted on said carriage so as to be capable of vertical shifting movements relative to said carriage, a rock-shaft journaled in said frame-work, lever-arms extending from said rock-shaft, a supporting-rail connected between said lever-arms upon which said platen-supporting frame rides, a rocking-arm connected with said rock-shaft, a slidable shift-bar pivoted to said rocking-arm, shift-levers pivoted to said frame-work so as to depend therefrom, means on said shift-bar engageable by said shift-levers, shift key-bars connected with the lower ends of said shift-levers, and spring-means for retaining said rocking-arm and interconnected parts in normal initial position.

[Claims 4 to 8 not printed in the Gazette.]

1,254,460. CONVERTIBLE VALVE. JAMES H. ZOBELL, Castlegate, Utah. Filed Oct. 9, 1916. Serial No. 124,597. (Cl. 137—53.)

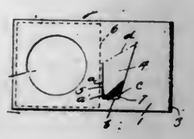
4. A device of the kind described including a valve body provided with a passage affording communication between the ends of said body, a valve controlling said passage, a bonnet on said body, a valve stem passing through said bonnet and carrying the valve, a plate extending transversely across the body on the side opposite the bonnet, a screw passing through said plate and engaging the body to vary the distance between said plate and body, rods rigidly connected to the body and extending therefrom parallel to the valve stem, a fluid pressure chamber provided with pipe connecting means and mounted on said rods in spaced relation to the body, said valve stem extending into the fluid pressure chamber, a piston on said valve in said chamber, a plate fixed to the valve stem transversely of the body and adjacent the chamber, bolts



connecting said plates to hold the same in fixed spaced relation, a third plate slidable on said stem and rods between the second plate and body, nuts screwed on said rods to hold the third plate adjustably spaced from the body, and a coil spring surrounding said valve stem between the second and third plates and bearing thereon.

[Claims 1 to 3 not printed in the Gazette.]

1,254,461. NUT-LOCK. GLENDON A. AIKEN, Pittsburgh, Pa. Filed Mar. 15, 1917. Serial No. 154,989. (Cl. 151—53.)

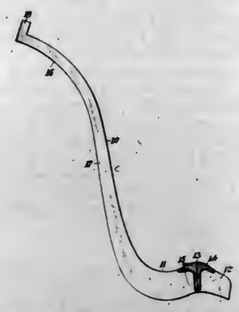


1. A nut lock, comprising a base member having a bolt receiving portion provided with a bolt receiving opening and a tongue having a base, which, when the tongue is bent up at said base, will throw the tongue across the limits of the bolt receiving portion and having a longitudinal side edge adjacent the opening and defined by two portions at an angle to each other, the tongue being so located that when bent up on said base, it will contact the apex of the side angle with the side face of a nut upon a bolt in said opening, and the free end portion of the tongue may be subsequently bent to contact the angularly lying side portion of the longitudinal edge of the tongue beyond the angle continuously with said nut face.

4. A nut lock, comprising a base member having a bolt receiving portion and a tongue lying outside of the limits of the bolt receiving portion, and having a distant longitudinal side and two sides adjacent the bolt receiving portion of lesser extent than the distant side and which are angularly directed to provide a point for initial engagement with a nut on the bolt receiving portion, and an edge to be rolled into full contact with the side of the nut.

[Claims 2 and 3 not printed in the Gazette.]

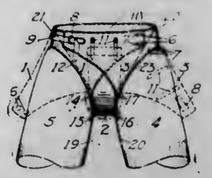
1,254,462. ARMY-LEGGING. CONRAD D'ANGELO, New York, N. Y. Filed July 12, 1917. Serial No. 180,063. (Cl. 36—2.)



1. As a new article of manufacture, a legging comprising a strip of material having at its lower end a curved portion the center of which is adapted to lie at the back of the ankle with the lower extremity extending over the front of the ankle, a relatively straight central portion adapted to be wound around the calf of the leg of the wearer, and an upper curved portion with an extension at an angle thereto at its extremity adapted to be tucked under the top fold of the legging.

[Claim 2 not printed in the Gazette.]

1,254,463. SUPPORTING-DRAWERS. MILLARD F. ARRINGTON, Jr., New Orleans, La. Filed June 11, 1914. Serial No. 844,571. (Cl. 128—38.)



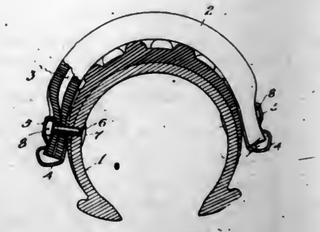
A nether-garment combining a torso or body member providing a triangular flap extending from the left side of the torso toward and terminating adjacent the right side thereof; means for securing said end under suitable tension; leg portions separately attached to said body portions along seam lines; and a supporting element extending upwardly from the crotch and having its upper end carried by and deriving support from the flap overlapping from the left hand side of the body portion.

1,254,464. TIRE-TREAD. HENRY M. BENSON, Los Angeles, Cal., assignor of one-half to Laura G. Fixen, Los Angeles, Cal. Filed Mar. 2, 1917. Serial No. 151,914. (Cl. 152—16.)

1. The combination with a tire, of tubular tread elements extending transversely across the tread portion of said tire, and means for rigidly attaching the ends of said tubular elements to the side walls of said tire.

3. The combination with a tire, of tubular tread elements extending transversely across the tread portion of said tire, and bolts passing through the ends of said tubular elements and the side walls of the tire, for securing the former to the latter.

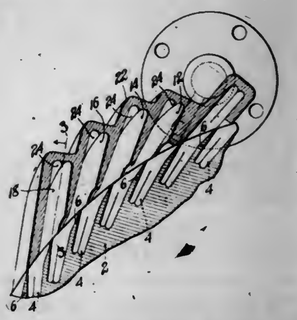
5. The combination with a tire, of tread elements extending transversely across the tread portion of said tire, and bolts passing through the ends of said elements and the side walls of the tire, for securing the former to the latter, clamps held by said bolts to extend over the ends thereof, and secondary clamps interposed between the elements and tire and extending over the ends of the elements to clench said first mentioned clamps.



7. The combination with a tire, of tubular tread elements attached to the side walls of said tire and extending across the tread portion thereof and reinforcing bands extending longitudinally through said tubular tread elements.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,254,465. ELASTIC-FLUID TURBINE. OLIVER D. H. BENTLEY, Boston, Mass., assignor to B. F. Sturtevant Company, Boston, Mass., a Corporation of Massachusetts. Filed May 5, 1913. Serial No. 765,552. (Cl. 253—54.)



1. An elastic fluid turbine having a circularly extending series of deflecting-surfaces, transversely arranged with respect to the plane of rotation of the turbine, the adjacent surfaces being substantially parallel and offset one from another, each of said surfaces being divided into a plurality of parallel channels with intermediate ribs extending above the bottoms of the channels on each side.

4. An elastic fluid turbine having, in combination, a rotor having reversing-buckets, and a stator comprising an inclined reversing bucket receiving the fluid from the rotor buckets and redirecting it to the same set of rotor buckets and an expanding nozzle having a trapezoidal mouth for delivering the elastic fluid at high velocity to the rotor, the mouth of said nozzle having one of its sides substantially parallel to the mouth of the inclined stator bucket and in proximity to the discharge side of said bucket, substantially as described.

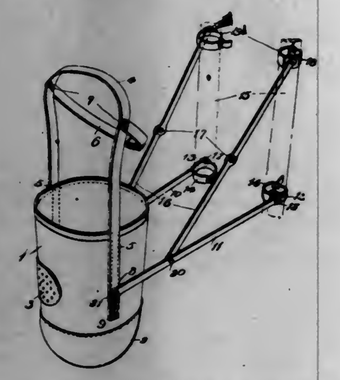
5. An elastic fluid turbine having a substantially U-shaped bucket of which the curved deflecting-surface extends, in cross-section, in a general direction normal to the plane of flow of the motive-fluid, but is provided with a longitudinally-extending rib which divides the bottom of the bucket into two substantially parallel channels, the rib projecting above the bottoms of the channels on each side thereof.

8. A bucket for an elastic fluid turbine having flat and substantially parallel end walls extending to the mouth

of the bucket and having a substantially semi-circular peripheral wall provided with a stream guiding rib or projection, substantially as described.

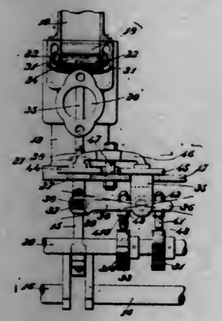
[Claims 2, 3, 6, 7, and 9 to 13 not printed in the Gazette.]

1,254,466. FEED-BAG. CLAIR L. BISHOP, Cedar Rapids, Iowa. Filed Sept. 1, 1916. Serial No. 118,090. (Cl. 119—67.)



In a device of the class described the combination with a container body having a looped supporting strap engageable with an animal's head to support the container thereon, of pairs of vertically spaced straps detachably connected to the hames, plates on said straps, a pair of parallel forwardly extending supporting arms pivoted at their inner ends to the plates on the lower straps, said arms extending forwardly to points adjacent the opposite sides of the container body, the outer ends of said arms having loops formed thereon, snap fasteners on opposite sides of said container body engageable with the said loops, and jointed brace arms having their inner ends connected to the plates on the upper straps and their lower outer ends connected to the supporting arms adjacent the forward extremities thereof.

1,254,467. VALVE-OPERATING MECHANISM FOR ENGINES. SAMUEL BLAIR, Trenton, N. J. Filed Apr. 2, 1917. Serial No. 159,164. (Cl. 123—91.)

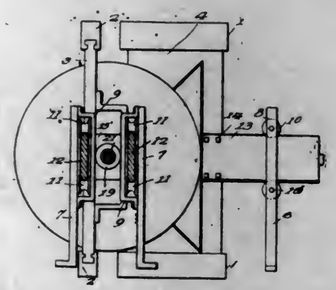


1. In an internal combustion engine, in combination, a cylinder, a valve movable into a plurality of positions to control the admission to and exhaust of gases from said cylinder, a valve operating member, and a pair of cams for operating said member, each of said cams having a circular portion, a low portion, and a high portion, the circular portions of both of said cams being simultaneously operative upon said member, and the high portion of each cam being operative coincidentally with the low portion of the other.

2. In an internal combustion engine, in combination, a crank case, a valve rod, a guide for said valve rod, a lever for operating said valve rod, a bracket to which said lever is pivoted, and a clamp for securing said guide and bracket to said crank case.

3. In an internal combustion engine, in combination, a crank case, a valve rod, a guide for said valve rod, a lever for operating said valve rod, a bracket to which said lever is pivoted, a clamp having a pair of arms engaging said guide and bracket, respectively, and a bolt for securing said clamp to said crank case.

1,254,468. POWER TRANSMISSION. EDUARD C. BOHLMANN, Adell, Wis. Filed June 2, 1917. Serial No. 172,512. (Cl. 74—26.)



2. In power transmission apparatus, guide members, bed plates slidable in said guides, standards, roller brackets on said standards and arranged adjacent said plates, laterally extending arms carried by the plates and slidably engaged with the roller brackets of said standards, a driving shaft, a driven shaft, interengaged beveled friction gears splined to the adjacent ends of said shafts, and housed by the bed plates and means connected with the plates for moving the same in opposite direction to vary the relation of the friction gears for establishing different speed ratios.

[Claims 1, 3, and 4 not printed in the Gazette.]

1,254,469. ORNAMENTATION. ALFRED BURKE, Brooklyn, N. Y. Filed Mar. 27, 1917. Serial No. 157,749. (Cl. 41—10.)



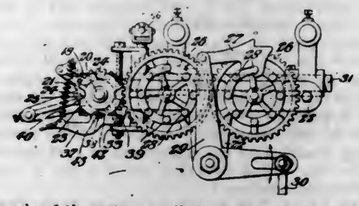
1. An ornamentation comprising a ground of flexible material and strips of the same material laid upon the ground to form a raised design, the strips having their ends integral with the ground.

3. An ornamentation comprising a ground of flexible material and series of oppositely disposed substantially V-shaped strips of the same material laid upon the ground, said strips having their ends integral with the ground and having their tips interlocked.

[Claim 2 not printed in the Gazette.]

1,254,470. MACHINE FOR REPEATING PATTERN-CARDS. WILLIAM K. CALDWELL, Philadelphia, Pa. Filed Oct. 11, 1916. Serial No. 124,969. (Cl. 164—114.)

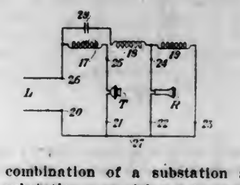
1. The combination with the main frame of a machine for repeating pattern cards, of a supplemental frame fixed to and extending forwardly from the main frame, a pattern cylinder having journals and also having a notched disk fixed to it, a spur gear on the main frame, a spur gear fixed to said disk and intermeshed with the spur gear on the main frame, carrying studs supported upon the supplemental frame and having brackets, upright cylinder-adjusting threaded bolts journaled in said brackets, threaded boxings receiving said bolts and in which the



journals of the pattern cylinder are mounted, and a yielding dog pivoted on the main frame and having means for entering the notches of the cylinder disk and also having apertures whereby the notch-entering means may be fixed at different points in the length of the dog.

[Claim 2 not printed in the Gazette.]

1,254,471. SIGNALING-CIRCUIT. GEORGE A. CAMPBELL, Montclair, N. J., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed Sept. 9, 1916. Serial No. 119,282. (Cl. 179—81.)



1. The combination of a substation and a telephone line, said substation comprising a transmitter, a receiver, a transformer coil in parallel with one of said elements, a terminal common to said line, transmitter and receiver, and two other transformer coils connecting the remaining terminals of said line, transmitter and receiver.

2. The combination of a substation and a telephone line, said substation comprising a transmitter, a receiver, a three-coil transformer and an auxiliary resistance incorporated in one of said coils and in parallel with one of said substation elements, a terminal common to said line, transmitter and receiver, the other three terminals of said elements being connected by two other coils of said transformer.

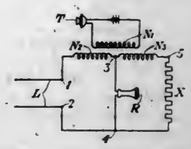
4. The combination of a substation and a telephone line, said substation comprising a transmitter, a receiver, a three-coil transformer and an auxiliary resistance incorporated in one of said coils and in parallel with one of said substation elements, a terminal common to said line, transmitter and receiver, the other three terminals of said elements being connected by two other coils of said transformer, the component elements of said substation being so proportioned that said line and auxiliary resistance are conjugate.

5. The combination of a substation and a telephone line, said substation comprising a transmitter, a receiver, a three-coil transformer and an auxiliary resistance incorporated in one of said coils and in parallel with one of said substation elements, a terminal common to said line, transmitter and receiver, the other three terminals of said elements being connected by two other coils of said transformer, the component elements of said substation being so proportioned that the impedance of the substation, as seen from the line is equal to that of the line.

7. The combination of a substation and a telephone line, said substation comprising a transmitter, a receiver, a three-coil transformer and an auxiliary resistance incorporated in one of said coils and in parallel with one of said substation elements, a terminal common to said line, transmitter and receiver, the other three terminals of said elements being connected by two other coils of said transformer, the component elements of said substation being so proportioned that said transmitter and receiver are conjugate, said line and auxiliary resistance are conjugate, the impedance of the substation, as seen from the line is equal to that of the line, the impedance of the combination consisting of line, receiver and auxiliary resistance, as seen from the transmitter, is equal to that of the transmitter.

[Claims 3, 6, and 8 to 14 not printed in the Gazette.]

1,254,472. SIGNALING-CIRCUIT. GEORGE A. CAMPBELL, Montclair, N. J., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed Sept. 9, 1916. Serial No. 119,283. (Cl. 179—81.)



1. In a two-way signaling system, a transmission circuit, a transmitting circuit proper including transmitting apparatus, a receiving circuit proper including receiving apparatus, a balancing circuit and a transformer having a plurality of windings, two of said circuits having a winding of said transformer therein and having a terminal in common with one of the other circuits, the remaining circuit being connected with the other circuits inductively only, the transformer ratios and the impedances of two of the four component elements consisting of said transmission circuit, said balancing circuit, said transmitting apparatus and said receiving apparatus being so proportioned with reference to the impedance of the other two that said receiving apparatus and transmitting apparatus are conjugate.

6. The combination of a substation and a telephone line circuit, said substation comprising a transmitting circuit proper including a transmitter, a receiving circuit proper including a receiver, an auxiliary resistance, and a transformer having a plurality of windings, said auxiliary resistance being incorporated in one winding of said transformer, windings of said transformer included in each of two of the three circuits, the circuits of three of the four component elements consisting of said line circuit, transmitter, receiver and auxiliary resistance having one terminal in common, the fourth component element being associated with the other component elements inductively only, the transformer ratios and the impedances of two of said component elements being so proportioned in accordance with the impedances of the other two that said receiver and transmitter are conjugate.

11. The combination of a substation and a telephone line, said substation comprising a transmitter, a receiver and a transformer having two low resistance windings and a high resistance winding, a common terminal for said line and said receiver, said high resistance winding being connected between said common terminal and the other terminal of said receiver, one of said low resistance windings being connected between the separate terminals of said line and said receiver, and said transmitter being connected across the other of said low resistance windings.

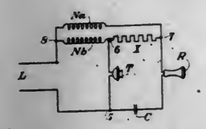
12. A telephone apparatus comprising a line, a subscriber's apparatus associated therewith, said apparatus comprising a transmitter, a receiver, an auxiliary resistance, and an induction coil having a plurality of windings, said receiver and resistance having common circuit terminals, one of said terminals being directly connected to one side of the line, and the other terminal being connected to the other side of the line through one winding of the transformer, said transmitter being serially con-

nected with another winding of the transformer and associated with the other elements inductively only.

15. The combination of a telephone line and a telephone station, said station including a transmitting element, a receiving element, an auxiliary element including a balancing resistance, and a multiple coil transformer, said line, receiving element and auxiliary element having a common terminal, one winding of said induction coil being included in said line, and a local circuit including another winding of said induction coil and said transmitting element in series.

Claims 2 to 5, 7 to 10, 13, and 14 not printed in the Gazette.]

1,254,473. SIGNALING-CIRCUIT. GEORGE A. CAMPBELL, Montclair, N. J., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed Sept. 9, 1916. Serial No. 119,284. (Cl. 179—81.)



1. The combination of a substation and a telephone line, said substation comprising a transmitter, a receiver, an auxiliary resistance, and a transformer having two windings, three of the four component elements consisting of line, transmitter, receiver and auxiliary resistance having one terminal in common, and having their other terminals connected by the windings of said transformer, and the fourth component element being also connected to two of said other terminals, the transformer ratios and the impedances of two of said component elements being so proportional with reference to the impedance of the other two of said component elements that said receiver and transmitter are conjugate.

2. The combination of a substation and a telephone line, said substation comprising a transmitter, a receiver, an auxiliary resistance, and a transformer having two windings, three of the four component elements consisting of line, transmitter, receiver and auxiliary resistance having one terminal in common, and having their other terminals connected by the windings of said transformer, and the fourth component element being also connected to two of said other terminals, the transformer ratios and the impedances of two of said component elements being so proportioned with reference to the impedance of the other two of said compound elements that said receiver and transmitter are conjugate, that said auxiliary resistance and said line are conjugate, that the impedance of the substation as seen from the line is equal to the impedance of the line and that the impedance of the combination consisting of the line, receiver and auxiliary resistance as seen from the transmitter is equal to the impedance of the transmitter.

6. A telephone apparatus, comprising a line, a transmitter, a receiver and an auxiliary resistance, three of said elements having a common terminal, an induction coil comprising two windings, said windings interconnecting the remaining terminals of the three elements, the fourth element being also connected to two of said other terminals.

13. A telephone apparatus comprising a line, a transmitter, a receiver and an auxiliary resistance, and an induction coil having a plurality of windings, said line, transmitter and receiver having a common terminal, the other terminals being connected through the windings of the transformer, said auxiliary resistance also being connected to two of said other terminals.

20. A telephone apparatus comprising a line, transmitter, receiver and auxiliary resistance, and a two winding induction coil, said line, transmitter and receiver having a common terminal, the other terminals being interconnected through the windings of the induction coil, two of said other terminals being also interconnected through said auxiliary resistance, said elements being proportioned in accordance with the following design formulæ:

$$R_1=\frac{y+1}{y}R_4$$

$$R_2=(y+1)R_4$$

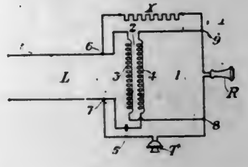
$$R_3=fyR_4$$

$$r=f'y$$

where R_1, R_2, R_3 and R_4 represent the characteristic resistance of the transmitter, receiver, auxiliary resistance and line respectively, r is the ratio between the number of turns on the two transformer windings, y is the ratio of the energy absorbed by the transmitter to that absorbed by the receiver during reception, and f y and f' y are functions of the constant y.

[Claims 2 to 4, 7 to 12, 14 to 19, and 21 to 25 not printed in the Gazette.]

1,254,474. SIGNALING-CIRCUIT. GEORGE A. CAMPBELL, Montclair, N. J., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed Sept. 9, 1916. Serial No. 119,285. (Cl. 179—81.)



1. In c ombination with a telephone line, a substation, said substation comprising a transmitter, a receiver, an auxiliary resistance, and a transformer, and circuit connections therefor, said elements being so proportioned and connected that the transmitter and receiver are conjugate, the impedance of the substation, as seen from the line, is equal to the impedance of the line, and the impedance of the combination, comprising the line, receiver, auxiliary resistance and transformer, as seen from the transmitter, is equal to the impedance of the transmitter.

8. A substation circuit comprising a transmitter, a receiver and a resistance, connected in series, a transformer winding in shunt with said transmitter and receiver, and a second transformer winding in shunt with said receiver and resistance.

14. The combination of a substation and a telephone line, said substation comprising a transmitter, a receiver, an auxiliary resistance and a transformer having two windings, said line, transmitter receiver and auxiliary resistance being serially connected, and said transformer windings connecting the terminals of said receiver to the terminals of said line, the impedances of said transmitter, receiver and auxiliary resistance and the relative number of turns of said windings of said transformer being so proportioned with reference to the characteristic impedance of said telephone line that said auxiliary resistance is conjugate with respect to said line, said receiver is conjugate with respect to said transmitter, the impedance of said substation as seen from said line, is equal to the impedance of said line, and the impedance of the combination, comprising the line, receiver, auxiliary resistance and transformer, as seen from said transmitter is equal to the impedance of said transmitter.

17. In a two-way signaling system, a circuit for the transmission and reception of signals, a transmitting circuit proper, a receiving circuit proper, a balancing circuit, and a transformer with a plurality of windings, said elements being so proportioned and related that said receiving circuit and said transmitting circuit proper are conjugate.

22. The combination of substation and a telephone line, said substation comprising a transmitter, a receiver, an auxiliary resistance and a two-winding transformer, said transmitter connecting one terminal of said line to one terminal of said receiver, said auxiliary resistance connecting the other terminal of said line to the other terminal of said receiver, one of said transformer windings being connected between the common terminal of said line and auxiliary resistance and the common terminal of said transmitter and receiver, and the other of said transformer windings being connected between the common terminals of line and transmitter and of receiver and auxiliary resistance, the component elements of said substation having approximately the following values,

$$r=\sqrt{y+1}$$

$$R_2=R_4$$

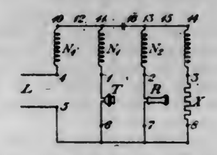
$$R_3=\frac{\sqrt{y+1}-1}{\sqrt{y+1}+1}R_4$$

$$R_1=\frac{\sqrt{y+1}-1}{\sqrt{y+1}+1}R_4$$

where R_1, R_2, R_3 and R_4 are the impedances of transmitter, receiver, auxiliary resistance and telephone line respectively, y is a factor having a value approximately unity and r is the ratio between the transformer windings.

[Claims 2 to 7, 9 to 13, 15, 16, and 18 to 21 not printed in the Gazette.]

1,254,475. SIGNALING-CIRCUIT. GEORGE A. CAMPBELL, Upper Montclair, N. J., assignor to American Telephone and Telegraph Company, a Corporation of New York. Original application filed Sept. 9, 1916, Serial No. 119,282. Divided and this application filed Mar. 15, 1917. Serial No. 154,983. (Cl. 179—81.)



1. The combination of a substation and a telephone line, said substation comprising a transmitter, a receiver and an auxiliary resistance, a terminal common to said line and three substation elements, a four coil transformer, each coil being individually in series with one of said four elements and a terminal common to said four coils.

6. The combination of a substation and a telephone line, said substation comprising a transmitter, a receiver and an auxiliary resistance, a terminal common to said line and three substation elements, a four coil transformer, each coil being individually in series with one of said four elements and a terminal common to said four coils, the component elements of said substation being so proportioned that said transmitter and receiver are conjugate, said line and auxiliary resistance are conjugate, the impedance of the substation, as seen from the line is equal to that of the line, the impedance of the combination consisting of line, receiver and auxiliary resistance, as seen from the transmitter, is equal to that of the transmitter.

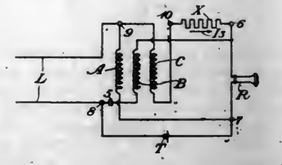
[Claims 2 to 5 and 7 to 11 not printed in the Gazette.]

1,254,476. SIGNALING-CIRCUIT. GEORGE A. CAMPBELL, Upper Montclair, N. J., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed May 18, 1917. Serial No. 169,543. (Cl. 179—81.)

1. In combination with a telephone line, a substation, said substation comprising a transmitter, receiver, auxiliary resistance and a transformer having three windings, said line, transmitter, receiver, auxiliary resistance and one winding of the transformer being connected in a series circuit, and the other two windings of said transformer being bridged across said series circuit.

4. In combination with a telephone line, a substation, said substation comprising a transmitter, receiver, auxiliary resistance and a transformer having three windings, said line, transmitter, receiver, auxiliary resistance and one winding of the transformer being connected in a series circuit, another of said windings being bridged across said circuit in shunt of said receiver and transmitter and the third winding being also bridged across said circuit.

5. A signaling system comprising a transformer and four fundamental elements consisting of a path for the transmission and reception of signals, a transmitting element, a receiving element, and a balancing element, said fundamental elements and one winding of said transformer being in a series circuit.

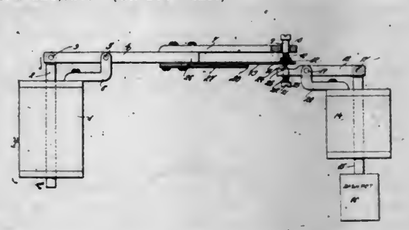


7. A signaling system comprising a transformer and four fundamental elements consisting of a path for the transmission and reception of signals, a transmitting element, a receiving element, and a balancing element, said fundamental elements and one winding of said transformer being in a series circuit, said transformer and said fundamental elements being so proportioned and related that said balancing element and said path are conjugate.

10. A signaling system comprising a transformer and four fundamental elements consisting of a path for the transmission and reception of signals, a transmitting element, a receiving element, and a balancing element, said fundamental elements and one winding of said transformer being in a series circuit, said transformer and said fundamental elements being so proportioned and related that said transmitting and receiving elements are conjugate; said path and said balancing element are conjugate; the impedance of the combination comprising said transmitting, receiving and balancing elements and said transformer, as seen from said path, is equal to the impedance of said path; and the impedance of the combination comprising said path, said receiving and balancing elements, and said transformer, as seen from the transmitting element, is equal to the impedance of said transmitting element.

[Claims 2, 3, 6, 8, and 9 not printed in the Gazette.]

1,254,477. CIRCUIT-BREAKING DEVICE. WALTER W. CARPENTER, Lansdowne, Pa. Filed Oct. 10, 1916. Serial No. 124,758. (Cl. 175—321.)



1. The combination in a circuit breaking device including two contacting members, of members forming supports for said contacting members, one of said members being elongated and comparatively flexible, a rigid lever secured to said latter member at a position remote from its contact member, means for moving said lever, an elongated auxiliary member throughout its entire length being spaced from and having a portion designed to be moved into engagement with said latter mentioned member at a position between its connection with said lever

and its contact member whereby the separation of the contact members is assured after the lever is moved, substantially as described.

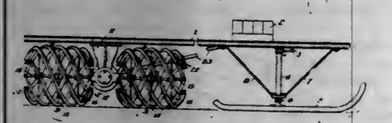
[Claims 2 and 3 not printed in the Gazette.]

1,254,478. SMOKE-STRAINER FOR PIPES. JOHN CHANCHUCK, Burlington, N. D. Filed June 13, 1916. Serial No. 103,401. (Cl. 131—12.)



A smoke strainer for pipe bowls including a foraminous receptacle for insertion in the pipe bowl, smoke filtering material arranged within the receptacle, a plate, an inclined annular flange depending from the outer edge of the plate and surrounding the upper edge of the receptacle for establishing a connection therebetween and arranged so as to engage the inner surface of the bowl of the pipe for removably supporting the receptacle, nipples projecting upwardly from the plate and terminating in openings, and a small pipe leading from the bottom of the receptacle for communicating with the outlet of the bowl for assuring of the passage of cool filtered smoke therethrough.

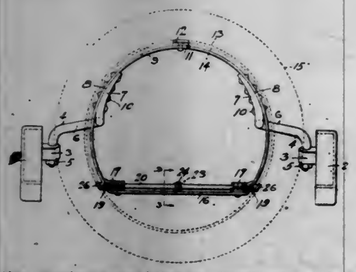
1,254,479. MOTOR-SLEIGH. JOHN S. CHISHOLM, Detroit, Mich. Filed May 5, 1916. Serial No. 95,687. (Cl. 180—3.)



1. A helical propelling member for motor driven sleighs comprising spaced apart parallel V-shaped angle bars, having their intermediate portions concentric with a central axis and having their outer ends terminating eccentrically thereto, and supporting spokes extending into the angle of the V-shaped bars, for positioning the said propelling member in open cage-like formation.

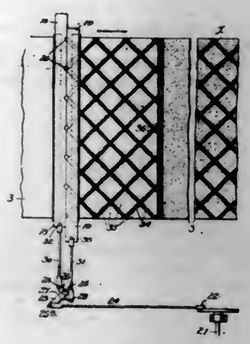
2. A helical propelling member for motor driven sleighs comprising spaced apart parallel V-shaped angle bars, having their intermediate portions concentric with a central axis and having their outer ends terminating eccentrically thereto, and spaced spider supports having heads adapted to fit within the angle of the V-shaped bars for positioning the said propelling member in open cake-like formation.

1,254,480. TIRE-CARRIER FOR AUTOMOBILES. ANDREW CHRISTIANSON, Butler, Pa. May 16, 1917. Serial No. 168,950. (Cl. 224—29.)



A tire carrier comprising a circular band having a straight lower portion, brackets carried thereby having guides, locking members in said guides, rods having right and left hand threaded ends engaging said locking members, and a pin connecting said rods.

1,254,481. APPARATUS FOR MANUFACTURING SHEATHING MATERIAL. CECIL M. CLARKE, Chicago, Ill. Filed Apr. 19, 1915. Serial No. 22,443. (Cl. 91—43.)



1. In apparatus of the character set forth, the combination with means for supporting a sheet coated with an adhesive material, members containing openings through which material is discharged, means for moving said members crosswise of said sheet, and relative to each other, and means for producing relative movement of said sheet and members lengthwise of said sheet.

4. In apparatus of the character set forth, the combination with means for supporting and feeding a sheet coated with an adhesive material, of a stationary hopper for coating material arranged above said sheet, and a shiftable perforated member controlling the discharge of the material from said hopper and positioned to be reciprocated crosswise of the sheet.

9. In apparatus of the character set forth, the combination with means for supporting and feeding a sheet coated with an adhesive material, of a hopper for coating material arranged above said sheet, a plurality of slides containing openings, the openings in one slide being adapted to register with the openings in the other slide when the slides are in a certain position, said slides being reciprocable in opposite directions crosswise of the path of movement of the sheet, and means for reciprocating said slides simultaneously in opposite directions.

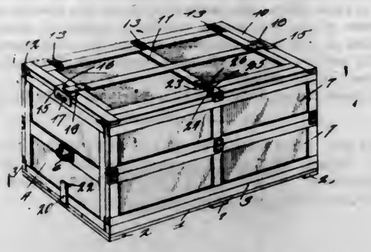
[Claims 2, 3, 5 to 8, 10, and 11 not printed in the Gazette.]

1,254,482. FOLDING SHIPPING-CRATE. CLAUDE B. DAVIS, Richmond, Va., assignor of one-third to Osbourn Wattson and one-third to Michael J. Dacy, Richmond, Va. Filed Oct. 24, 1916. Serial No. 127,457. (Cl. 217—15.)

5. In a collapsible crate, the combination with a bottom, a top structure and inwardly folding ends, said top structure consisting of a top frame and a cover carried thereby, and means carried by the cover and top frame to embrace the sides of the end pieces when the crate is set up.

6. In a collapsible crate, the combination with a bottom, a top structure and an inwardly folding end, said top structure consisting of a top frame and a cover carried thereby, a stop plate extending over the end of the frame to overlie its top and extend downwardly beyond its edge to provide abutments for the end, when the latter is extended, said stop plate having a slot in each of its horizontal and vertical elements, a plate carried by said cover to enter the slot in the horizontal element of the stop

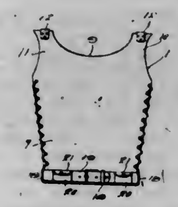
plate when the cover is closed and engage the inner side of the end, and a latch plate on the bottom to engage the



slot in the vertical element of the stop plate when the crate is folded.

[Claims 1 to 4 not printed in the Gazette.]

1,254,483. PROTECTOR. WHILMA LOUISE DE COURCEY, Buffalo, N. Y. Filed Oct. 23, 1915. Serial No. 57,601. (Cl. 89—36.)



1. A protector of the class described including an inner section formed of leather and having a layer of flannel on the inner surface thereof, flaps forming the front of the inner section and adapted to overlap each other, means for adjustably connecting the flaps, and a metallic section fitted over the inner section.

2. A protector of the class described including an inner section formed of leather and having a layer of flannel on the inner surface thereof, flaps forming the front of the inner section and adapted to overlap each other, means for adjustably connecting the flaps, and an outer adjustable metallic section fitted over the inner section.

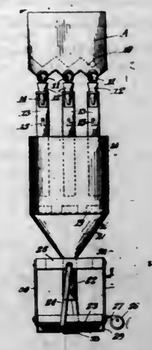
1,254,484. MACHINE FOR SEPARATING GOLD, SILVER, AND THE LIKE FROM SANDS. DANIEL DIVER, Calgary, Alberta, Canada. Filed Apr. 14, 1917. Serial No. 162,211. (Cl. 83—67.)

1. An apparatus for the purpose specified comprising a bath, a container therefor, a screen operatively mounted in the bath, means for oscillating the screen as a unit, and means for oscillating the bath and container in a direction transversely to the screen.

2. An apparatus of the class described comprising a bath, a container therefor, a screen located in the bath, means for oscillating the screen as a unit and simultaneously actuating the same in a vertical direction, and means for oscillating the bath and container transversely to the screen simultaneously actuating the bath in a vertical direction.

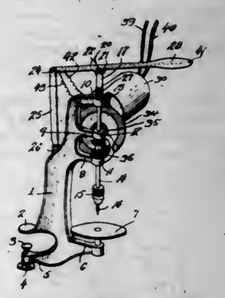
3. An apparatus of the class described, comprising a bath, a container therefor, a screen having dish sides in the bath, cam means for oscillating the screen as a unit and eccentric means for oscillating the bath and container in a direction transversely to the screen.

4. An apparatus of the class described, comprising a screen, links operatively supporting the screen, a bath container, links operatively supporting the bath, said screen being submerged in the bath container, cam means for oscillating the screen and eccentric means for oscillating the bath container at substantially right angles to the screen.



5. An apparatus of the class described, comprising a bath container having a depression in the bottom thereof, a screen operatively mounted in the bath, links pivotally supporting the screen, links pivotally supporting the bath container, eccentric means for oscillating the screen and simultaneously elevating the same and eccentric means for oscillating the bath container transversely to the screen and simultaneously elevating the same.

1,254,485. BENCH-DRILL. PAUL E. DOUGLASS, Flint, Mich. Filed Jan. 11, 1917. Serial No. 141,853. (Cl. 77—6.)



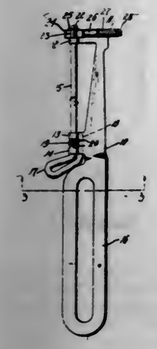
1. In a bench drill, the combination of a standard, a table carried thereby, a rotatably mounted drill spindle carried by the standard and movable toward and away from the table, a hand lever pivotally connected to the standard, a sleeve pivotally secured to the lever and extending about the upper end portion of the drill spindle, an expansion spring mounted about the spindle below the sleeve so as to normally hold the sleeve in raised position, and means for rotating the drill spindle.

4. In a bench drill, the combination of a standard provided with a plurality of spaced parallel arms, a table carried by the standard beneath said arms, a drill spindle rotatably mounted in the arms and movable toward and away from the table, a hand lever, a link pivotally secured at one end to the hand lever and at the other end to the standard, a sleeve carried by the hand lever and pivotally secured thereto, said sleeve extending downward about the upper end portion of the drill spindle, means for rotatably securing the drill spindle in the sleeve, an electric motor carried by the standard, driving connections between the motor and the drill spindle, a control switch carried by the hand lever and interposed in the circuit of said motor, and a coil spring mounted about the drill

spindle and confined between the top-most arm carried by the standard and the sleeve adapted to normally hold the drill spindle in raised position.

[Claims 2 and 3 not printed in the Gazette.]

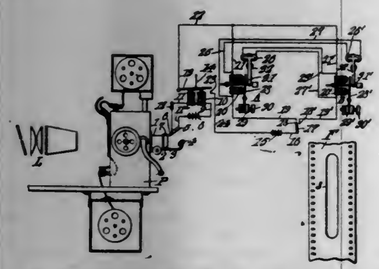
1,254,486. IGNITING DEVICE. WALTER DRAEGER, New York, N. Y. Filed Oct. 17, 1917. Serial No. 197,092. (Cl. 67—6.1.)



2. A pyrophoric igniting device, comprising a handle provided with bearings, a rod rotatably mounted in said bearings, means on said rod for limiting the rotation thereof in both directions and serving also as a finger piece for the manual operation of said rod, an abrading wheel fixedly attached to said rod, a pencil of spark producing material upon said handle in operative relation to said wheel, and a spring opposing the manual rotation of said rod and serving to rotate the same in opposite direction when said finger piece is released.

[Claim 1 not printed in the Gazette.]

1,254,487. FILM-CONTROLLED MECHANISM FOR SYNCHRONIZED MOTION-PICTURE AND SOUND-RECORD CARRIERS. CHARLES W. EBELING, Wheeling, W. Va. Filed Nov. 18, 1916. Serial No. 132,123. (Cl. 88—16.2.)

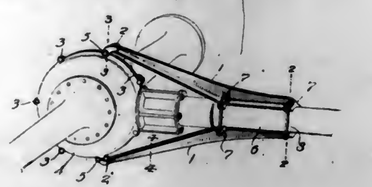


1. The combination with a lamp house, having a lamp, a motion picture projector machine having a lens tube and a sound reproducing machine for operation in synchronism with the projector machine, of a film provided with a light ray unobstructing portion, and means set in motion by the light rays projected through the unobstructing portion of the film to control the communication of motion from one machine to the other.

2. The combination with a motion picture projector machine having a lens tube, a film having a light ray unobstructing portion, and a sound reproducing machine connected to the motion picture machine for synchronous operation, of electrical means for controlling the operation of one of the machines relatively to the other, and including a primary electrical circuit including a source of electrical energy and an electro-magnet, and a selenium cell in said circuit and disposed to be affected by the rays of light after passage through the unobstructing portion of the film, and a secondary electrical circuit including a source of electrical energy, an electro-magnet, and a switch, the switch being controlled by the electro-magnet of the primary circuit.

[Claims 2 to 8 and 10 to 12 not printed in the Gazette.]

1,254,488. DRIVE-SHAFT-TUBE SUPPORT. HELMER O. EKERN, WILLIE L. EKERN, and EMIL A. EKERN, Flandreau, S. D. Filed Apr. 3, 1917. Serial No. 159,435. (Cl. 74—56.)



In a motor vehicle, the combination with a differential housing and a drive shaft housing, the two housings being connected by an outwardly extending joint, of two like stay members the one placed above and the other below the housings in vertical line throughout their extent, the forward portions of the stay members being in contact with the drive shaft housing and having front and rear opposed lateral extensions, the rear portions of the stay members inclining and terminating in forks to receive lugs of the differential housing, bolts connecting the forks and lugs of the differential housing, and other bolts connecting corresponding lateral extensions of the stay members and clamping the latter to the drive shaft housing.

1,254,489. RUBBER HEEL. GILBERT S. ELLITHORPE, Chicago, Ill. Filed Apr. 13, 1917. Serial No. 161,794. (Cl. 36—35.)



1. A heel of elastic material having a chamber in its side that is opposed to a shoe portion and also having a recess in its opposite side that surrounds and follows the contour of the said chamber, and a rigid plate arranged in the innermost portion of the said recess and also arranged and constructed for coöperation with heel attaching means to hold the heel firmly in contact throughout its opposed surface with a shoe portion.

4. A heel of elastic material having a chamber in its side that is opposed to a shoe portion and also having a recess formed and arranged to allow of easy compression of the chambered portion, and further having embedded in its tread portion a rigid stiffening plate.

[Claims 2 and 3 not printed in the Gazette.]

1,254,490. MULTIPLE-FUSE CARTRIDGE. FREDERICK A. FELDKAMP, Newark, N. J. Filed Nov. 6, 1916. Serial No. 129,645. (Cl. 175—278.)

1. In a multiple fuse cartridge, a casing having external terminal caps on its opposite ends one of which is a fixed cap and the other capable of movement relative to said casing, a plurality of fuse elements within said casing electrically connected at one end with the fixed terminal cap, and means controlled by the movement of said movable terminal cap for electrically connecting any one of said fuse elements with said movable terminal cap.

2. In a multiple fuse cartridge, a casing having external terminal caps on its opposite ends one of which is fixed and the other capable of movement relative to said casing, a plurality of fuse elements within said casing electrically connected at one end with the fixed terminal cap, means controlled by the movement of said movable terminal cap for electrically connecting any one of said fuse elements with said movable terminal cap, and radially disposed longitudinal partition members separating one fuse element from another.



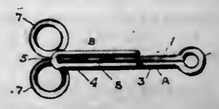
5. A multiple fuse cartridge comprising a casing, a portion of the interior of which is divided into a plurality of longitudinally extending separate fuse compartments, a transverse partition at one end of said fuse compartments, contact plates extending through said partition respectively into each fuse compartment, fuse elements connected with said contact plates so as to be respectively inclosed in an individual fuse compartment, a fixed terminal cap on one end of said casing, means for connecting the free ends of said fuse elements with said fixed terminal cap, a movable terminal cap on the opposite end of said casing, and a conducting means carried by said movable terminal cap extending into said casing toward the outer side of said partition and adapted to be engaged selectively with the external ends of said contact plates.

7. In a multiple fuse cartridge, a casing, a fixed terminal cap on one end thereof, a movable terminal cap on the other end thereof capable of a limited longitudinal movement and a rotary movement, an interior fixed transverse partition adjacent to that end of said casing upon which is arranged said movable terminal cap, radially and longitudinally disposed partition members extending through said casing on the inner side of said transverse partition, a portion of said partition members providing extension members projecting through and beyond the outer side of said transverse partition, contact-plates between said extension members extending through said transverse partition respectively into the chambers formed by said partition members, a fuse element connected with the inner ends of said contact plates and extending respectively through said chambers, means for connecting the free ends of said fuse elements with said fixed terminal cap, a contact finger secured to and extending into said casing from the end of said movable terminal cap toward the outer ends of said contact plates, said contact finger being moved by the longitudinal movement of said movable terminal cap into or out of engagement with one contact-plate, and by the rotary movement of the same after disengagement from the contact plate being turned to a position opposite any other contact plate.

9. In a multiple fuse cartridge, a casing, a fixed terminal cap telescoped over one end thereof, a movable terminal cap telescoped over the other end thereof capable of both longitudinal and rotary movement on said casing, means for limiting the longitudinal movement of said movable terminal cap, radially disposed longitudinal partition members disposed within a portion of said casing intermediate of its ends to form individual fuse compartments, a transverse partition at one end of said longitudinal partition members, the same having depressed seats in its circumference, contact plates secured in said seats, one end of each contact plate projecting on the outer side of said transverse partition, the opposite ends of said contact-plates extending respectively into said fuse compartments, a contact post connected with said fixed terminal cap so as to project into said casing, a spreader head at the free end of said contact post supported against the adjacent end of said longitudinal partition members, fuse elements respectively extending through each fuse compartment, an end of each fuse element being turned over said spreader head and secured to said contact post, the opposite end of each fuse element being secured to a contact plate, a contact finger secured to and extending into said casing from said movable terminal cap, said contact finger being moved by the longitudinal movement of said movable terminal cap into or out of engagement with the outer end of one contact plate, and by the rotary movement of the same after disengagement from one contact plate being turned to a position opposite any other contact plate.

[Claims 3, 4, 6, 8, and 10 not printed in the Gazette.]

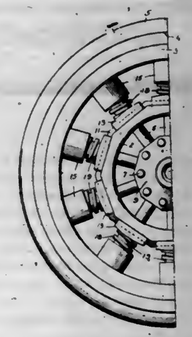
1,254,491. HOOK AND EYE. HERBERT STORMS FITZGERALD, Tarrytown, N. Y. Filed Oct. 3, 1917. Serial No. 194,486. (Cl. 24—228.)



1. A hook fastener including a base formed of a middle strand and two side strands of wire, the middle strand extending substantially the full length of the base while the side strands extend in opposite directions from an intermediate portion of the base to opposite ends thereof, and a hook member springing from said intermediate portion of the base and formed by returning one side strand and deflecting the other side strand upwardly, the middle strand and one side strand terminating at one end of the base in a fastening eye, while the middle strand and other side strand terminate at the other end of the base in fastening eyes.

[Claim 2 not printed in the Gazette.]

1,254,492. SPRING-WHEEL FOR AUTOMOBILES. LAURENCE B. FRAHN, New Decatur, Ala., assignor of one-half to Joseph W. Frahn, New Decatur, Ala. Filed May 19, 1915. Serial No. 29,241. (Cl. 152—32.)



A spring wheel comprising a hub, an outer rim, an intermediate rim secured to the hub and having a polygonal perimeter presenting a plurality of angularly related faces, a continuous polygonal rib formed on and located centrally between the side edges of said faces, said rib presenting a plurality of angularly related faces parallel to and longer than said first named faces, grooved slides embracing said rib and engaging the faces on the rib and intermediate rim, said rib holding the intermediate rim and slides against relative lateral movements, means connecting the outer rim to the slides for radial movements with relation thereto, said means holding the outer rim and slides against relative circumferential and lateral movements, and springs mounted on said means between the outer rim and slides.

1,254,493. LAMINATED SPRING. HERBERT FROOD, Chapel-en-le-Frith, England. Filed Aug. 8, 1917. Serial No. 185,177. (Cl. 26—33.)



1. An interleaving for laminated springs provided at its edges with enlargements.

3. An interleaving for laminated springs composed of textile material and provided at its edges with enlargements.

[Claims 2 and 4 not printed in the Gazette.]

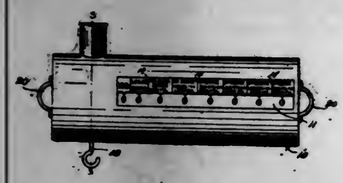
1,254,494. ART OF BREAD-MAKING. AUGUSTINE L. FROST, Chicago, Ill. Filed Dec. 1, 1914, Serial No. 875,003. Renewed July 5, 1917. Serial No. 178,819. (Cl. 99—10.)

1. The process of making bread, which consists in preparing a dough with coarsely-ground whole-cereal flour and a mixture containing sour milk, vegetable oil, sugar, salt and yeast, kneading the dough, and thereupon proofing and finally baking it.

3. The process of making bread, which consists in preparing a mixture of vegetable oil, in the proportion of about 3 oz., sugar, about 2 oz., salt and yeast, about ½ oz. each, and water-diluted sour milk, about 4 lbs., mixing the same with about 6 lbs. of coarsely-ground whole-cereal flour to form a dough, kneading the dough and thereafter subjecting it to a proofing heat with steam, and baking the dough.

[Claims 2 and 4 not printed in the Gazette.]

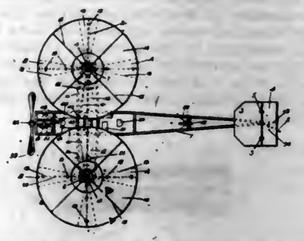
1,254,495. PARCEL-POST SCALE. DONALD L. GIBSON, Denton, Wis. Filed May 15, 1917. Serial No. 168,785. (Cl. 265—39.)



A weighing scale including a casing having a longitudinal slot in the front wall thereof, a drum mounted in the casing and having a shaft journaled in the ends of the casing, said drum being visible through said slot, a grooved drum secured on the shaft within the casing, a spring disposed above the drum and connected to the casing, a cord wound around the grooved drum and carrying a hook on the lower end and connected to the spring at its upper end, and handles on the ends of the casing whereby the device can be conveniently lifted and held while weighing packages.

1,254,496. REVOLVING AIR-PLANE. PAUL R. GOLDSWORTHY, San Jose, Cal. Filed Oct. 10, 1917. Serial No. 195,759. (Cl. 244—14.)

4. In revolving air planes the combination of a main frame, a cross frame, upright shafts, adapted to drive the revolving air planes, a plurality of wire truss rods adapted to support the revolving air planes, a plurality of truss rod supports, adapted to support the truss rods, a plurality of propelling flukes, means by which the propelling flukes are connected to the under side of the revolving air planes, a crank shaft fastened to the propelling flukes, roller blocks, to which the crank shafts are connected, cam tracks, which the roller blocks travel in adapted to open and close one edge of the propelling flukes up against the underside of revolving air planes at predetermined periods, means by which the revolving air



planes are operated, means by which the propelling flukes are operated, as shown and described.

[Claims 1 to 3 and 5 not printed in the Gazette.]

1,254,497. HOSE-NOZZLE-THREAD ADAPTER. CHARLES B. GREEN, Florence, N. J., assignor to Walter Wood, (trading as R. D. Wood & Co.,) Philadelphia, Pa. Filed Nov. 7, 1916. Serial No. 130,035. (Cl. 137—28.)



The combination in a hose nozzle thread adapter, of a hollow body portion having means at one end adapted to receive the coupling of a hose, and having at the opposite end a packing ring; lugs on the body portion having forked extremities and beveled rear sides; sliding jaws mounted in the forks of the lugs by means of pivot pins, each jaw having a slot therein through which the pivot pin extends and being adapted to engage at one end the thread on the hydrant nozzle and having a right angled portion at the opposite end; and a set screw mounted in the right angled portion and bearing against the leveled lugs so that, on turing the set screws, the jaws can be clamped to the nozzle and the packing on the end of the body portion will be forced against the end of the nozzle, making a tight joint.

1,254,498. GARMENT-SUPPORTER. JAMES E. HANGER, Jr., Washington, D. C. Filed June 5, 1917. Serial No. 173,023. (Cl. 241—1.)

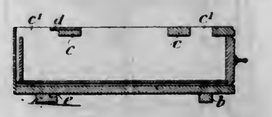


1. A hose supporter, comprising a pair of looped suspenders attached at one end to the back of a body garment and removably attached at the opposite end to the front thereof, each of which includes an adjustable elastic portion at one end and a non-elastic portion at the opposite end, a depending swiveled clip slidably carried on the non-elastic portion for attachment to the hose of the wearer, one of said suspenders being carried between the legs of the wearer and the other on the side

to maintain a constant and even tension on both sides of the hose, substantially as described.

2. A hose supporter comprising a pair of looped suspenders each of which is attached to the back of a body garment and removably attached at the opposite end to the front thereof, one of said suspenders being carried between the legs of the wearer and the other on the side, a clip slidably carried on each suspender for attachment to the hose and a band attached to both clips and surrounding the leg of the wearer, substantially as described.

1,254,499. DOMESTIC FURNITURE. AMBROSE HEAL, London, and HAMILTON TEMPLE SMITH, Brockley, England. Filed Feb. 11, 1916. Serial No. 77,650. (Cl. 45—93.)



1. An interlocking sectional structure comprising a plurality of sections, one of which is provided with a front batten and with a rear batten having a rabbet, another section having a front rail which is spaced away from the front of the same to provide a slot of substantially twice the width of the front batten and in which the front batten is adapted to be inserted and moved forward until it abuts against the front of the last named section, and a rear rail spaced from the rear of the second section and provided with tongues which engage the wall of the rabbet in the rear batten, when said rear batten is inserted in the space between the rear rail and the back of the second section, and moved forward.

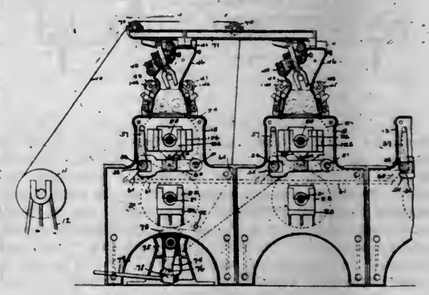
2. An interlocking sectional structure comprising a plurality of sections, one of which is provided at its bottom with a front batten and a rear batten having a rabbet, another section provided at its top with a front rail which is spaced away from the front of the same to provide a slot of substantially twice the width of the front batten and in which the front batten is adapted to be inserted and moved forward until it abuts against the front of the last named section, and a rear rail provided on the top of the second section and spaced away from the rear of the same and provided with rearwardly extending tongues which engage the wall of the rabbet in the rear batten, when said rear batten is inserted in the space between the rear rail and the back of the section, and moved forward.

3. An interlocking sectional structure comprising a plurality of sections, one of which is provided at its bottom with a front batten and a rear batten having a rabbet, another section provided at its top with a front rail which is spaced away from the front of the same to provide a slot of substantially twice the width of the front batten and in which the front batten is adapted to be inserted and moved forward until it abuts against the front of the last named section, a rear rail provided on the top of the second section and spaced away from the rear of the same and provided with rearwardly extending tongues which engage the wall of the rabbet in the rear batten, when said rear batten is inserted in the space between the rear rail and the back of the second section, and moved forward, and independent means for preventing the rails and battens from moving relative to one another.

4. An interlocking sectional structure comprising a section provided at its upper end with a front rail which is spaced away from the front of the section and a rear rail which is spaced away from the back of the section and is provided with rearwardly extending tongues, another section superposed upon the first section and provided on its bottom with a front batten which rests in the space between the front rail and the front of the other section, and with a rear batten which rests between the rear rail and the back of the other section and is provided with a rabbet in which the tongues rest, and pivoted latches provided on the first section for preventing movement of the battens relative to said rails.

5. An interlocking sectional structure comprising a plurality of sections, rails forming slots in such sections, tongues upon one of such rails and a section having battens designed to enter the slots in the open elements, a bolt adapted to pass through holes in the top and bottom of two auperposed sections, each of said holes having a countersink, a metal bush or cup fitting therein, and a nut having an oval boss engaging an oval hole in said bush.

1,254,500. MULTICOLOR-PRINTING PRESS. GEORGE K. HENDERSON, Indianapolis, Ind., assignor to International Printing Company, Indianapolis, Ind., a Corporation. Filed Apr. 3, 1916. Serial No. 88,547. (Cl. 101—180.)



1. A multiple color printing machine including a main frame, a plurality of color printing units mounted therein in successive order, each unit including an impression cylinder and a plate carrying cylinder, the cylinders in the successive units arranged to simultaneously act on a sheet of paper passing through the machine, means for operating all of said cylinders simultaneously, each plate carrying cylinder mounted in vertically movable bearings and in position when actuated to elevate each of said bearings, a cam construction for actuating the bearing for each unit, a crank arm connected with each cam, a connecting rod, and pins for removably pivoting said rod to each crank arm whereby power will be transmitted alike to all of said cams to afford the simultaneous vertical movement of all of the plate carrying cylinders.

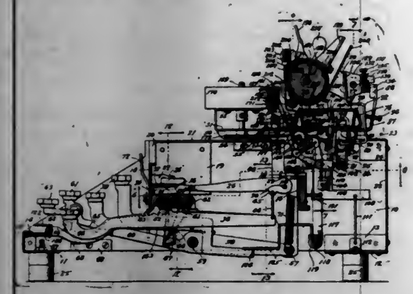
3. A multiple color printing machine including a frame, a series of color printing units arranged in successive order in said frame, means for simultaneously operating all of said units, each unit having an impression cylinder and a plate carrying cylinder, an auxiliary cylinder located beneath the impression cylinder of one unit, means for guiding a sheet of paper backwardly between said auxiliary cylinder and the adjacent impression cylinder for printing the reverse side of the sheet of paper, and means for moving said auxiliary cylinder into and out of engagement with said impression cylinder.

[Claims 2 and 4 not printed in the Gazette.]

1,254,501. TYPE-WRITING MACHINE. HUBERT K. HENRY, Chicago, Ill., assignor to Rex Typewriter Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 4, 1915. Serial No. 6,127. (Cl. 197—22.)

1. In a typewriting machine, the combination with a main frame and a type bar action mounted therein, of a vertically movable shift frame, a carriage bed mounted on said shift frame, a platen carriage on said bed, ribbon carrying and feeding mechanism mounted on said shift frame, a ribbon vibrator mounted on said shift frame, an escapement including a vertically disposed dog rocker having escapement dogs thereon and pivotally mounted

on said shift frame, key-controlled means for vertically moving said shift frame, means controlled by the type bar action for oscillating said dog rocker in the different positions of said shift frame, and devices mounted on said pivoted dog rocker for operating said ribbon vibrator and said ribbon feed mechanism, substantially as described.



8. In a front-strike typewriter, the combination with a vertically shifting frame and a platen carriage mounted thereon, an escapement for said platen carriage mounted on said shifting frame and including a vertically disposed, pivoted dog rocker, spool shafts at the ends of said shifting frame, a horizontal drive shaft, sets of gears connecting said drive shaft and said spool shafts, a support for said shaft centrally pivoted on said frame and arranged to alternately engage said sets of gears, a ratchet centrally mounted on said shaft, a pawl on said dog rocker for operating said ratchet, and means for oscillating said dog rocker in the different positions of said frame, substantially as described.

9. In a front-strike typewriter, the combination with the platen, carriage and carriage bed, of upwardly and rearwardly striking type-bars, a combined type-bar guide and ribbon vibrator pivotally mounted on said carriage bed and extending upwardly and forwardly from its pivot, a ribbon holder longitudinally adjustable on said combined guide and vibrator, and means for oscillating the latter, substantially as described.

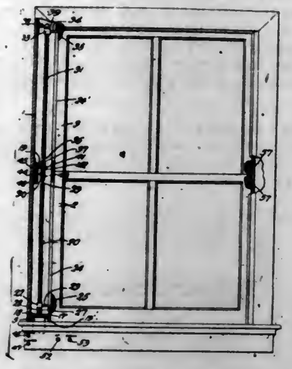
10. In a front-strike typewriter, the combination with a platen and upwardly and rearwardly striking type-bars, of oppositely disposed ribbon spools, a ribbon vibrator, a drive shaft for alternately actuating said spools, an escapement including a pivoted dog rocker, and means on said dog rocker for operating said shaft and said ribbon vibrator, substantially as described.

12. In a front strike vibrator, the combination with a platen carriage and a vertically shifting carriage bed of oppositely disposed ribbon spools mounted in front of the ends of said carriage bed and vertically shiftable therewith, a ribbon vibrator pivotally mounted on the front of said carriage bed below the printing point, a drive shaft for alternately actuating said spools mounted on the under side and adjacent the front of said carriage bed, a dog rocker pivotally mounted on said carriage bed in rear of said shaft and said vibrator, and devices mounted on said dog rocker for respectively operating said shaft and said vibrator, substantially as described.

[Claims 2 to 5, 7, 8, and 11 not printed in the Gazette.]

1,254,502. WINDOW-OPERATING DEVICE. CHARLES W. HOPPIE, Buffalo, N. Y., assignor of one-third to Samuel Rudin and one-third to Harry Marsey, Buffalo, N. Y. Filed Apr. 4, 1917. Serial No. 159,684. (Cl. 268—4.)

1. An operating device embodying a motor having an upright casing and a vertical armature rotatable therein, a rotatable member mounted upon said casing, a reduction gearing between said member and armature, a vertical drive shaft having its lower end attached to said member, a screw operated by said drive shaft, and a nut traveling upwardly and downwardly on said screw for raising and lowering a member.

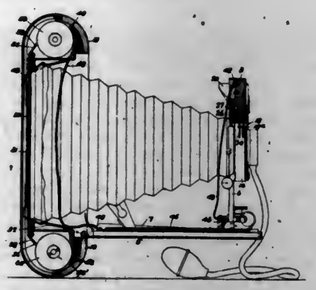


3. A window operating device embodying a pair of screws for the upper and lower sashes of a window, a reversible actuating means, means controlling the actuating means for operating it in opposite directions, controllable means for alternately connecting the actuating means with said screws, and nuts traveling upon said screws for carrying the upper and lower sashes with them.

5. A window operating device embodying a pair of screws for the upper and lower sashes of a window, nuts traveling upon said screws for carrying the upper and lower sashes with them, a reversible motor, up and down switches controlling said motor for raising and lowering the sashes, electrically operated means for alternately connecting the motor with the screws, and switches for the upper and lower sashes controlling said electrically operated means.

[Claims 2 and 4 not printed in the Gazette.]

1,254,503. CAMERA-SHUTTER CONTROL. EDWARD J. HUNT, West Orange, N. J. Filed Nov. 25, 1916. Serial No. 133,405. (Cl. 95—32.)



1. An apparatus to prevent double exposure with a photographic camera, comprising means to lock the shutter-lever, including a stop member adapted to project into the path of the lever, and electro-magnetic means for withdrawing said member from the path of the lever, an electric battery carried by the camera, conductors connecting said battery and said electro-magnetic means but having a normally open gap adjacent the sensitized sheet, and means actuated by the movement of said sheet into exposing position to cause the closure of said gap.

[Claims 2 and 3 not printed in the Gazette.]

1,254,504. COMBINED NECKTIE-FORMER AND STICK-PIN LOCK. FREDERICK J. JAGEMANN and JOSEPH F. BAZATA, New York, N. Y. Filed Mar. 23, 1917. Serial No. 156,859. (Cl. 24—155.)

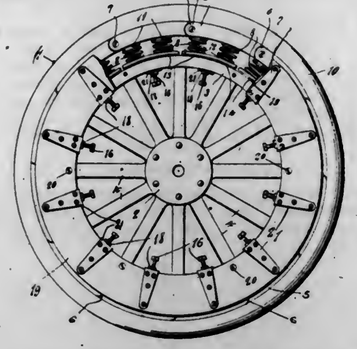


1. Means for shaping the display portion of four-in-hand neckties in service, comprising a forming device of stiff material to lie only against the reverse side of a necktie, over the entire width of the flowing portion thereof, just below the knot, and means for securing said forming device to the necktie.

5. In a combined necktie former and stick pin retaining device, the combination of a pair of pivotal members having opposed cam surfaces, and arranged to lie against the reverse side of a four-in-hand necktie in service over the entire width of the flowing portion thereof, below the knot, tensional means to draw said cam surfaces together to grip and hold an interposed stick pin, and means for separating said cam surfaces, to release the stick pin.

[Claims 2 to 4 not printed in the Gazette.]

1,254,505. SPRING-WHEEL. ADAM JOHN, Haverhill, Mass. Filed June 9, 1917. Serial No. 173,792. (Cl. 152—8.)

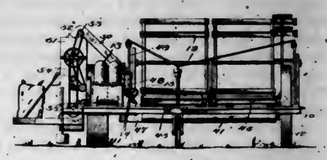


1. A spring wheel including an inner wheel, a flexible outer rim surrounding the inner wheel and composed of sections having transverse pivots connecting the sections, springs arranged in pairs and interposed between the inner wheel and the flexible rim, adjustable plates arranged concentric with the outer rim and guided on the inner wheel and being of approximately the length of the sections of the outer rim and receiving the pairs of springs, and radially arranged adjusting screws located between the guiding means thereof and engaging the plates at the inner faces of the same.

2. A spring wheel including an inner wheel, a flexible outer rim surrounding the inner wheel and composed of sections having transverse pivots connecting the sections, coiled springs arranged in pairs and interposed between the inner wheel and the flexible rim, adjustable plates of approximately the length of the sections of the outer rim arranged concentric with the latter and receiving the coiled springs, said plates being provided with inwardly extending stems arranged in pairs and guided in radial openings of the inner wheel, and radially arranged adjusting screws mounted on the inner wheel and operating between the said stems and engaging the plates at the inner faces of the same.

3. A spring wheel including an inner wheel, a flexible outer rim surrounding the inner wheel and composed of sections having transverse pivots connecting the sections, coiled springs arranged in pairs and interposed between the inner wheel and the flexible rim, adjustable plates of approximately the length of the sections of the outer rim arranged concentric with the latter and receiving the coiled springs, said plates being provided with inwardly extending stems arranged in pairs and guided in radial openings of the inner, wheel, yokes embracing the inner wheel substantially centrally of the said plates, and radially arranged adjusting screws piercing the yokes and operating between the said stems for varying the tension of the springs, said screws engaging the plates at the inner faces thereof.

1,254,506. THRESHING-MACHINE. JOHN D. JONES, Walla Walla, Wash. Original application filed Jan. 24, 1913, Serial No. 744,021. Divided and this application filed Feb. 24, 1913, Serial No. 750,204. Renewed Apr. 18, 1917. Serial No. 163,039. (Cl. 130—27.)



1. In a threshing mechanism, a wheel supported main frame, a cylinder journaled adjacent the front side of the main frame, a straw removing conveyer mounted upon the main frame and extending rearwardly from the cylinder, an auxiliary frame pivoted to the main frame in front of the cylinder, and projecting entirely beyond the forward end of said main frame, and a feeding conveyer carried by the auxiliary frame.

2. In a threshing mechanism, a wheel supported frame, a cylinder journaled upon and extending longitudinally of the frame, and a cleaner carried by the frame mounted wholly beyond one end of the cylinder and in axial alinement therewith, and means to convey grain from the cylinder to the cleaner.

3. In a threshing mechanism, a wheel supported frame, a cylinder mounted upon the frame and extending between the supporting wheels, a cleaner in axial alinement with the cylinder and carried by the frame with one of the supporting wheels interposed between the cylinder and cleaner, and means to convey grain from the cylinder across the path of travel of the supporting wheel to the cleaner.

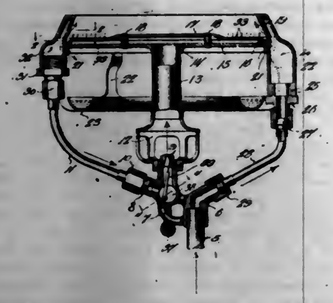
5. In a threshing mechanism, a frame, a cylinder mounted upon the frame, a cleaner spaced from one end of the cylinder and in substantial alinement therewith, and a motor carried by the frame and positioned in a plane intermediate the cylinder and cleaner.

[Claim 4 not printed in the Gazette.]

1,254,507. LIQUID-FUEL BURNER. EDWARD C. KAHN, Milwaukee, Wis. Filed Feb. 5, 1917. Serial No. 146,586. (C. 158—65.)

1. In a fluid fuel burner, a burner head comprising a circular bottom plate provided centrally with an inlet port, a top plate disposed in spaced relation thereabove, an annular bed of vertically extending jet apertures in the peripheral portion of the top plate and the central portion of one of the plates being outwardly offset whereby

to increase the height of the chamber defined by said plates.



2. In a fluid fuel burner, a burner head including a bottom plate provided with a central inlet port, a top plate spaced therefrom and provided with an annular bed of vertically extending jet apertures in its peripheral portion, and that portion of the top plate immediately inwardly of said jet apertures being inclined upwardly whereby the central portion of the plate is upwardly offset.

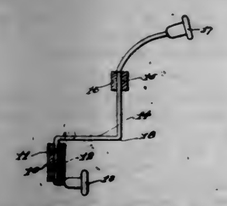
4. A fluid fuel burner comprising a circular burner head having vertically extending jet apertures, an annular vaporizing chamber disposed about the burner head and having its inner wall inclined inwardly to intersect the axes of the outermost apertures, and an annular apron depending from the vaporizing chamber whereby to form in conjunction with the peripheral wall of the burner head an air inlet passage.

5. In a fluid fuel burner, a pair of connected elbow sections, said sections comprising an obtuse elbow section and an acute elbow section, a supply pipe connected with one of said sections, a burner head, a mixing tube connected with the burner head and one of the elbow sections, a vaporizing chamber disposed adjacent the burner head and connected therewith, a fuel pipe connecting the vaporizing chamber and the elbow section connected with the supply pipe, a vapor pipe connecting the other elbow section and vaporizing chamber, and said pipes serving to support the burner head and vaporizing chamber upon the elbow sections.

7. In a fluid fuel burner, a pair of connected elbow sections comprising an obtuse elbow section and an acute elbow section, a supply pipe connected with the obtuse elbow section, a burner head, a mixing tube connected with the burner head and the acute elbow section, a vaporizing chamber disposed adjacent the burner head, a pipe connection between said obtuse elbow section and the vaporizing chamber, a vapor pipe connecting said acute elbow section and the vaporizing chamber, and controlling means carried by said acute elbow section, substantially as described.

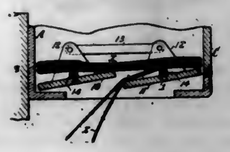
[Claims 3 and 6 not printed in the Gazette.]

1,254,508. COMBINATION WALL-RACK. JAMES E. KELLAR, Sistersville, W. Va. Filed Sept. 5, 1917. Serial No. 189,834. (Cl. 45—13.)



A combination wall rack including a strip arranged to be attached to a wall, a rail disposed in parallel relation above and outwardly of the strip, wire members disposed upwardly through the strip and rail, the lower ends of the wires below the strip being extended outwardly and upwardly and provided with coat receiving knobs, the upper ends of the wires above the rail being extended upwardly and outwardly and provided with hat receiving knobs, the portions of the wires between the strip and rail being extended outwardly in angular formation for supporting rearwardly thereof packages, umbrellas and the like.

1,254,509. DISPENSING-CABINET. FRANZ KISTEMANN, New York, N. Y., assignor, by mesne assignments, to Paper Service Co., Inc., a Corporation of New York. Filed Oct. 29, 1914. Serial No. 869,200. (Cl. 211—29.)



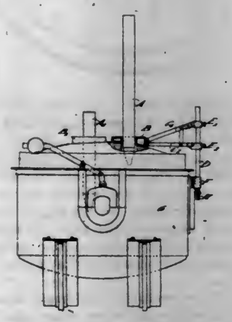
1. A dispensing cabinet having a delivery side with a delivery slot, and means actuated to rise and to press against the pile of sheets on the side of the delivery slot opposite that from which the sheet is being withdrawn and relieve the pressure upon the sheet during withdrawal.

6. A dispensing cabinet having a delivery side with a delivery slot and rocking sheet supporting plates on opposite sides of the slot, said plates being connected to rock in opposite directions during the withdrawal of a sheet, the edge of the plate over which the sheet is being withdrawn rocking away from the pile of sheets and the adjacent edge of the other plate rocking toward the pile of sheets, and single narrow supports carried by the plates and on which the sheets lie, to reduce friction on the sheets and provide space for rolling of the sheet in delivery.

9. A dispensing cabinet, having a bottom formed of plates 10, 11, separated to form the delivery slot and pivoted to rock vertically, said plates being linked together to rock simultaneously in opposite directions, and bars 14 extending upwardly from said plates, substantially as described.

[Claims 2 to 5, 7, 8, and 10 to 21 not printed in the Gazette.]

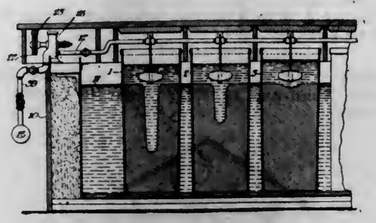
1,254,510. WATER-JACKET FOR ELECTRIC-FURNACE ELECTRODES. HAROLD JENNINGS KITCHEN, Luton, England. Filed Mar. 7, 1917. Serial No. 153,118. (Cl. 204—64.)



1. In connection with an electric furnace of the electrode type, water jackets surrounding the electrodes, the said jackets being supported above the roof but free of the latter, so that they can be adjusted in position both laterally and vertically.

2. In connection with an electric furnace of the electrode type, water jackets surrounding the electrodes and carried by arms adapted to slide on a vertical support and to rotate about the same, the said jackets being disposed slightly above but free of the roof of the furnace.

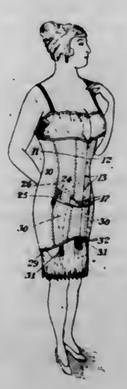
1,254,511. METHOD OF PRODUCING RAW-WATER CAN-ICE. GEORGE M. KLEUCKER, St. Louis, Mo. Filed July 7, 1915. Serial No. 38,448. (Cl. 62—172.)



1. The method of producing raw water can ice which consists of supplying to a can a quantity of water greater than required for the ice to be produced therein, allowing a portion of said water to flow away from the main body of water while still retaining it within the can then forcing the portion which has flown away into and through the remainder of said water to obtain an agitation thereof, and freezing said water as and for the purpose set forth.

[Claims 2 to 4 not printed in the Gazette.]

1,254,512. APPAREL-CORSET. DANIEL KOPS, New York, N. Y. Filed Oct. 16, 1917. Serial No. 196,806. (Cl. 2—73.)



1. In an apparel corset and in each corset body half thereof, self-reducing devices consisting only of the single strap on the outer surface of the garment with the forward end of the devices connected to the lower front steel section of the garment and adjustable to position at its opposite or rearward end adjacent the hip section of the garment to produce a circumferential pressure against the underlying portions of the body of the wearer, and means entirely located a substantial distance from the front steel for covering the adjustable rearward end of the self-reducing devices.

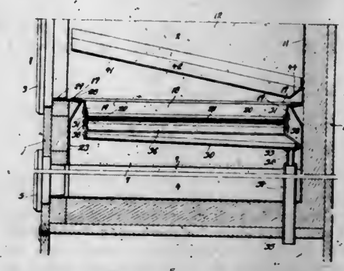
3. In an apparel corset and in each corset body half thereof, a single self-reducing strap adjustably connected at its forward end to the front steel section of the garment, means for adjustably connecting the opposite end of the self-reducing strap to the garment adjacent the hip section thereof, and means entirely located a substantial distance from the front steel for covering the rearward adjustable end of the self-reducing strap.

4. In an apparel corset and in each corset body half thereof, a single self-reducing strap adjustably connected at its forward end to the front steel section of the garment, means for adjustably connecting the opposite end of the self-reducing strap to the garment adjacent the hip section thereof, a depending hose supporter strap located in the corset a substantial distance from the front steel and adapted to cover and conceal the means for adjusting the rearward end of the self-reducing strap to position.

5. In an apparel corset and in each corset body half thereof, a single self-reducing strap adjustably connected at its forward end to the lower front steel section of the garment, lacing devices for connecting the opposite or rearward end of the self-reducing strap to the garment adjacent the hip section thereof, and a depending hose supporter strap secured in the garment above the lacing devices by which the self-reducing strap is adjustable to position at its rearward end and overlying these lacing devices to conceal the same and entirely located a substantial distance from the front steel, the said hose supporter strap passing beneath the outer portion of the garment immediately below the said lacing devices.

[Claim 2 not printed in the Gazette.]

1,254,513. REFRIGERATOR. RICHARD H. KRALL, Camden, N. J. Filed May 1, 1917. Serial No. 165,664. (Cl. 62—46.)



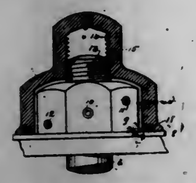
1. A refrigerator including a casing having an opening in one of its upright sides, a door for closing said opening, an inner wall made of sheet material having portions bent inwardly to provide a ledge substantially on a level with the bottom of said opening, a frame supported on said ledge and having a perforated bottom, and a deflector projecting inwardly from said wall sheet and having side portions extending at an angle downwardly on the side walls from portions adjacent said opening to the rear portion of the wall and across the rear of said wall, substantially as described.

2. A refrigerator including a casing having an opening in one of its upright sides, a door for closing said opening, an inner wall made of sheet material having portions bent inwardly to provide a ledge substantially on a level with the bottom of said opening, a frame supported on said ledge and having a perforated bottom, a deflector projecting inwardly from said wall sheet and having side portions extending at an angle downwardly on the side walls from portions adjacent said opening to the rear portion of the wall, sheds supported below said bottom of the frame and at opposite sides of the center thereof, and a water conducting tray supported below said sheds, said deflector being inclined sufficiently to permit the forward ends of the frame and tray to be raised into a position to be bodily slid out of said opening in the casing, substantially as described.

3. A refrigerator including a casing having an angular interior and an opening in one of its upright sides, a

door for closing said opening, an inner wall made of sheet material and being continuous around the angular portions of the interior of said casing, said wall having integral bulged portions extending along the sides and back and located at a position between the top and bottom of the casing and providing a ledge at a level adjacent the bottom of said opening, and an ice supporting frame adapted to rest upon said ledge, substantially as described.

1,254,514. NUT AND THREAD PROTECTOR. ADOLPH LEHMANN, Hicksville, N. Y., assignor to Mabel Christ, Hicksville, N. Y. Filed Feb. 14, 1917. Serial No. 148,686. (Cl. 85—32.)



The combination with a projecting thread, of a bolt, a perforated nut arranged thereon, a device upon said thread and having a petticoat entirely covering said nut, said petticoat having a recess at the free edge thereof and a packing ring within said recess and compressible therein by the surface engaged by said nut all combined for joint operation as herein specified.

1,254,515. BOX. HENRY LEIMAN, Tampa, Fla. Filed Feb. 14, 1916. Serial No. 78,223. (Cl. 229—14.)



1. In a box structure, an inner sectional lining including two opposite and relatively thick end panels whose side or longitudinal corners are recessed to produce flanges along their outer corners and marginal seats, and two relatively thin, opposite panels whose side edges lie within and fill said seats to the outer edges of said flanges; the said panels being disconnected from each other, an outer flexible and collapsible tubular sheath adapted to inclose all panels and holding them in engagement with each other, a bottom section having recessed corners in one plane to snugly fit up into said sheath and thereby sustain the same in such position, and a closure for the other end thereof.

[Claim 2 to 4 not printed in the Gazette.]

1,254,516. METAL-BENDING MECHANISM. ARTHUR L. LEWIS, Rochester, and JOHN L. TURNEY, Monaca, Pa. Filed Feb. 6, 1917. Serial No. 146,942. (Cl. 205—27.)

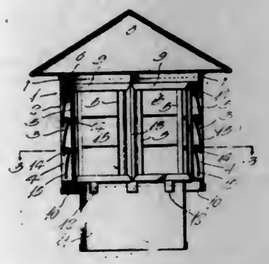


2. A metal bending mechanism of the class described including in combination a bending die, a movable tube forming device positioned at one end of said bending die, means including a piston for operating said tube forming device, another tube forming device positioned intermediate the length of the bending die, and means including a piston for operating said second mentioned tube forming device.

9. A metal bending mechanism of the class described, including in combination a bending die, a plurality of successively operated coöperating tube forming devices for said bending die, means for adjusting the relative position of said tube forming devices, guides for said tube forming devices, means for raising and lowering the said tube forming devices upon the bending die, and additional means for moving one of said tube forming devices within the bending die.

[Claims 1, 3 to 8, and 10 to 13 not printed in the Gazette.]

1,254,517. VENTILATOR. ALBERT H. LUMM, Toledo, Ohio. Filed Aug. 20, 1917. Serial No. 187,218. (Cl. 98—5.)



1. A ventilator of the class described comprising a housing closed at its top and open at its bottom and provided with a window, and an outwardly swinging shutter hinged at its upper edge on a horizontal pivot in said window, said shutter being bulged outwardly to adapt it to be opened by the draft passing into said housing through the open lower end of the same.

2. A ventilator of the class described comprising a housing closed at its top and open at its bottom and provided with a plurality of windows, and a series of outwardly swinging overlapping shutters hinged on horizontal pivots in each of said windows, said shutters being normally disposed in closed position and being bulged outwardly to cause them to be opened by the draft passing into the housing.

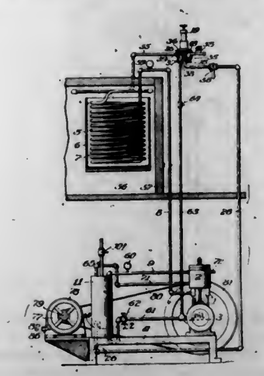
3. A ventilator of the class described comprising a housing closed at its top and open at its bottom and provided with a plurality of radially disposed windows, the vertical side edges of said windows being bent inwardly to form window casings, forms secured to the interior side of said housing and having portions disposed parallel to and spaced a slight distance from said window casings, and outwardly opening shutters having trunnions extending horizontally from the side edges near their upper ends, said trunnions projecting through said window casings and having their ends abutting against said forms to prevent them from shifting longitudinally.

4. A ventilator of the class described comprising a hollow housing provided with windows, strips of angle material having one of their portions crimped around the upper and lower edges of said housing, a crown for said housing secured to the strip of angle material which is disposed at the top of the same, and shutters for said windows.

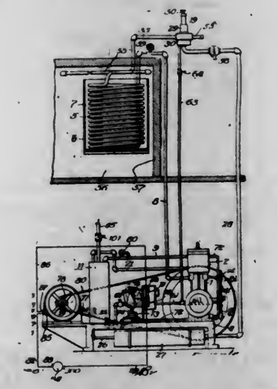
1,254,518. REFRIGERATING APPARATUS, AND OIL SEPARATOR AND CONDENSER MECHANISM THEREFOR. BENJAMIN S. MCCLELLAN, Chicago, Ill. Filed Dec. 23, 1915, Serial No. 68,375. Renewed Apr. 19, 1917. Serial No. 163,314. (Cl. 257—229.)

1. In a refrigerating apparatus of the class described, a condenser comprising in its construction an inner casing forming a condensing chamber having a gas inlet passage adapted to communicate with the compression chamber of a compressor, a refrigerating-liquid-outlet pipe having a liquid receiving opening communicating with the interior of said condensing chamber at a point above the level of the bottom of the condensing chamber, and adapted to contain refrigerating liquid for forming a liquid seal for said outlet pipe, an outer casing surrounding the inner casing and forming a water-compartment having inlet and outlet passages and adapted to contain water for cooling the condensing chamber, and a water-containing coil extending through said condensing chamber and adapted to be connected with a source of water supply.

[Claim 2 not printed in the Gazette.]



1,254,519. REFRIGERATING APPARATUS. BENJAMIN S. MCCLELLAN, Chicago, Ill. Filed Dec. 31, 1915, Serial No. 69,705. Renewed Oct. 6, 1917. Serial No. 195,203. (Cl. 62—127.)

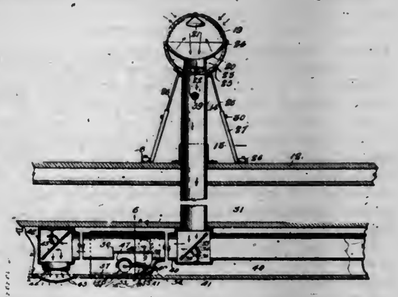


1. In a refrigerating apparatus of the class described, the combination of an expansion coil, a valve casing having a liquid inlet passage adapted to communicate with a source of volatile fluid supply, an expansion chamber having a volatile fluid outlet passage communicating with the expansion coil, a valve-controlled connecting passage adapted to connect said liquid inlet passage and said expansion chamber, an oil-containing reservoir extending below the level of the volatile fluid outlet passage and communicating with the expansion chamber, said oil-containing reservoir being located between said valve-controlled connecting passage and the expansion coil, and an oil outlet passage communicating with said oil containing reservoir.

5. In a refrigerating apparatus of the class described, the combination of a compressor having a compressor chamber, and provided with an oil reservoir adapted to contain oil for lubricating the compressor mechanism, an expansion valve casing having a volatile liquid inlet passage, and provided with an expansion chamber having a volatile fluid outlet passage adapted to communicate with an expansion coil, said expansion chamber of the valve casing having a lower oil-containing reservoir portion located below the level of said outlet passage and adapted to contain particles of oil separated from volatile fluid in said expansion chamber, a condenser having a condensing chamber provided with a volatile fluid inlet passage communicating with the compression chamber of the compressor, and having a liquid outlet passage communicating with the liquid inlet passage of said valve casing, an expansion coil connected with the volatile fluid outlet passage of the expansion chamber of the expansion valve casing, and having a return passage communicating with the compression chamber of the compressor, pressure-controlled valve mechanism provided with a valve-controlled connecting passage adapted to communicate with the liquid inlet passage in the valve casing, and with the expansion chamber, and an oil conduit forming an oil outlet passage leading from the oil-containing reservoir portion of said expansion chamber and adapted to communicate with the oil reservoir of the compressor.

[Claims 2 to 4 not printed in the Gazette.]

1,254,520. COMBINED LIGHT AND AIR TRANSMITTING APPARATUS. DANIEL M. MACDUFF, Detroit, Mich. Filed Oct. 14, 1916. Serial No. 125,760. (Cl. 88—57.5.)



1. In an apparatus as specified, the combination of a plurality of connected tubes, means for conducting the sun's rays in pencils through said tubes, means for producing artificial illumination in said tubes, an air vent in said tubes through which the air may circulate, the pencils of light from the sun's rays and from said artificial light being adapted to heat the air and accelerate the circulation thereof.

3. In an apparatus as specified, a tube, means connected to the tube for projecting daylight therethrough, an artificial light pivotally mounted at one side of the tube, and means for projecting said artificial light into the tube in the path of the daylight.

5. In an apparatus as specified, the combination of a hollow standard, a light-collecting element mounted on top of the standard, a reflector arranged beneath said element to receive rays of light therefrom and reflect the rays upwardly toward the central portion of the element, a second reflector mounted on the central portion of the element to receive said reflected light rays and being adapted to reflect the same downwardly through the standard, and means for distributing the light rays at the lower end of the standard.

8. In an apparatus as specified, a standard, a semi-globular prism mounted on the upper end of said standard, a concave reflector arranged beneath said prism to reflect rays of light from the prism upwardly to the intermediate portion thereof, a convex reflector mounted in the top of said prism adapted to reflect the rays of light from the concave reflector downwardly and centrally through the standard, a rectifying lens located in the top of said standard adapted to receive said rays of light and project the same downwardly through the standard in substantially straight pencils, and diffusing means connected to the lower end of the standard adapted to receive the pencils of light therefrom to diffuse the light for illuminating purposes.

9. In an apparatus of the character described, the combination of a hollow standard, a light collector on the upper end of said standard adapted to receive the rays of the sun thereagainst and to direct the rays in substantially parallel pencils downwardly through the standard, a junction box on the lower end of the standard, a branch tube leading outwardly from one side of the junction box, a reflector in the junction box adapted to direct the pencils of rays from the lower end of the standard into said branch tube, a terminal box on the outer end of the tube, a diffusing lens in the lower side of said box, a second reflector mounted in said terminal box, a casing surrounding said tube and extending below the same, said casing being adapted to be mounted directly above the ceiling of a building, an opening in the lower side of said casing adapted to open through the ceiling, an artificial light pivotally mounted in the lower end of said casing and adapted to be raised at times into said tubes, and light controlling means mounted in said casing and having connection with the lamp support adapted to be automatically actuated upon the raising of the light into operative position in the tubes.

[Claims 2, 4, 7, 9, and 10 not printed in the Gazette.]

1,254,521. PROCESS OF RECOVERING HIGH-GRADE POTASH PRODUCTS. JOHN R. MACMILLAN, Niagara Falls, N. Y., assignor to Niagara Alkali Company, Niagara Falls, N. Y., a Corporation of New York. Filed Oct. 9, 1916. Serial No. 124,575. (Cl. 23—22.)

1. In the separation of potassium and sodium the process which comprises gassing with carbon dioxid a concentrated solution carrying potassium and sodium carbonate till the sodium is substantially separated as sodium bicarbonate and then lowering the temperature till the potassium bicarbonate crystallizes out.

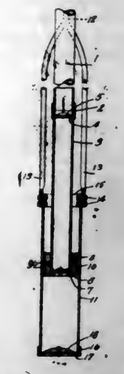
3. In the separation of potassium and sodium the process which comprises cooling a solution containing sodium and potassium carbonates till a portion of the sodium separates as normal carbonate, raising the temperature and gassing with carbon dioxid to convert the carbonates into bicarbonates, separating sodium bicarbonate and again lowering the temperature to cause potassium bicarbonate to crystallize out.

6. In the separation of potassium and sodium from alkaline liquids containing the same, the process which comprises concentrating such a liquid to about 40° Baumé, gassing with carbon dioxid at a temperature around 20–30° C. to deposit sodium as bicarbonate, cooling to or below the freezing point of water to cause a separation of potassium bicarbonate, removing such bicarbonate, reevaporating the mother liquor to about 40° Baumé and repeating the process.

9. The process of treating liquids containing potassium and sodium as carbonates and also containing other soluble salts which comprises evaporating such a liquid to a density of about 40° Baumé, separating the salts crystallizing out, chilling and removing separated crystals of normal sodium carbonate, warming and treating the mother liquor with carbon dioxid to separate more sodium as bicarbonate and again cooling to crystallize out potassium bicarbonate.

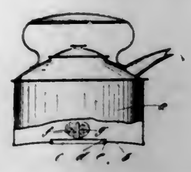
[Claims 2, 4, 5, 7, and 8 not printed in the Gazette.]

1,254,522. PUMP. JOHN C. MERRILL, San Martin, Cal. Filed June 22, 1916. Serial No. 105,222. (Cl. 103—72.)



A pump embodying a vertical pipe, a pair of rings threaded upon the lower end thereof, a pair of packing cups clamped between said rings and extending in opposite directions, a vertical reciprocatory cylinder movable on said packing cups, the lower ring having an inturned flange below the lower end of said pipe, a clack valve clamped by said flange against the lower end of said pipe, said flange providing a seat for said valve, and a check valve carried by the lower end of the cylinder.

1,254,523. DEVICE FOR AUGMENTING THE HEATING OF LIQUIDS IN KETTLES AND OTHER VESSELS. JOHN HENRY KEELEY MILLER, Wandsworth, London, England. Filed Aug. 21, 1917. Serial No. 187,480. (Cl. 210—23.)



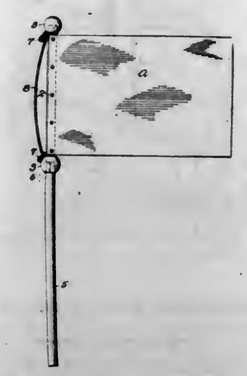
1. A vessel for heating liquids, comprising a hollow body of sheet metal and heat-conducting means consisting of a claw within the body and secured to the bottom thereof.

[Claims 2 to 10 not printed in the Gazette.]

1,254,524. FLAGSTAFF. BENJAMIN L. MINK, Philadelphia, Pa. Filed June 25, 1917. Serial No. 176,802. (Cl. 116—12.)

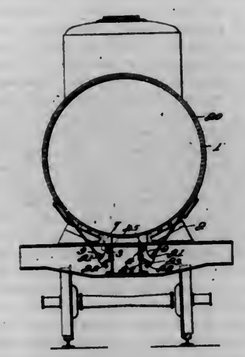
1. A flag staff comprising a pair of separable sections, the section to which the flag is secured having a socket, and the lower section having a split end that enters the said socket, and a slack cord attached to the flag-carrying section of the staff, the lower section of the staff being adapted to engage with the slack cord by its split end.

2. A separable flag staff of two parts, to one of which is secured the flag, and the other being adapted to be carried in the hand, the flag-carrying section being provided at its ends with enlargements, in the lower of which is a socket, and the upper end of the hand portion of the staff being split and of a size to closely fit the socket, and when inserted therein to have its ends forced toward each other, and a slack cord secured to the flag-carrying section of the staff and adapted to be made to enter the slit in the end of the handle part of the staff, when the staff parts are separated and it is desired to have the flag hang vertically as a banner.



3. A flag staff comprising a pair of separable sections, to one of which is secured a flag and at the lower end of which section is a socket, the other section having a split end that is adapted to enter the socket, and means attached to the flag-carrying section of the staff and adapted to be engaged by the split end of the lower section of the staff to support the flag vertically as a banner.

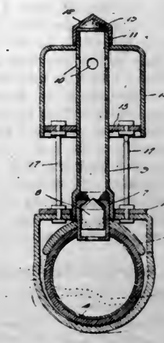
1,254,525. BAND-ANCHOR FOR TANK-CARS. GEORGE E. MITTINGER, Youngstown, Ohio. Filed Sept. 27, 1917. Serial No. 193,436. (Cl. 105—264.)



1. A tank band anchor, comprising a body-portion formed of a plate having a central outwardly extending central web having its lower end solid and curved outwardly and having an opening therethrough at an angle to the plate and through which passes the lower threaded end of the terminal and a nut on the threaded end below the web and preventing the longitudinal upward movement of the band.

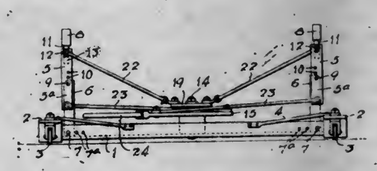
2. A tank band anchor, comprising a body-portion formed of a flat plate having laterally turned upper and lower ends, a hollow central integral web carried by the plate and having an outwardly curved lower solid end having an opening therethrough at an angle to the plate and through which the lower threaded end of the terminal of the band passes, the walls of the web having oppositely arranged openings extending at right angles to the other opening and through which the air pipe of the brake system passes.

1,254,526. AUTOMATIC TIRE-PUMP. MICHAEL D. MURRAY, Ambridge, Pa. Filed Sept. 15, 1916. Serial No. 120,307. (Cl. 152—11.)



In a device of the character described, in combination, a wheel rim, a pneumatic tire mounted upon said rim, a threaded pump connection secured in said tire and rim and having a valve seat, a valve in said pump connection, a tubular stem threadedly secured at one end to said pump connection, a rigid yoke consisting of an inner flat base portion engageable with said rim and an outer segmental portion engaging said tire, a cup-shaped member attached to said stem near its upper end, the extreme upper end of said stem being threaded, a gasket seated on the outer edge of said stem, a cap threaded on the threaded end of said stem and compressing said gasket, said stem having openings formed therein so as to communicate with the interior of said cup-shaped member, a pair of rods secured to the base of said yoke, and a piston fitting said cup-shaped member, so as to close the same, being secured to said rods and provided with air-inlet valves.

1,254,527. AUTOMOBILE-JACK. JOHN J. OLSON, Belview, Minn. Filed Apr. 21, 1917. Serial No. 163,671. (Cl. 254—9.)



1. A jack including an elongated base, a pair of toggle levers at each end of the base, the lower toggle lever of each pair being pivotally connected to the base, while the upper toggle lever of each pair is provided at its free end with a seat and at its pivot end with an extension, a pair of levers mounted upon the base at an intermediate point in its length, said levers being rigid with each other and arranged at an angle, links connecting the toggle lever extensions to the extremities of one lever, and links connecting the free ends of the upper toggle levers to the other lever.

3. A jack including an elongated base, a pair of toggle levers at each end of the base, the lower toggle lever of each pair being pivotally connected to the base, while the upper toggle lever of each pair is provided at its free end

with a seat and at its pivot end with an extension, a lever pivotally mounted upon the base at an intermediate point in its length, said lever being formed with a hub, a second lever having an adjustable interlocking connection with the hub so as to be set at different angles thereto and held rigidly therewith, link connections between one of the levers and the toggle lever extensions, and link connections between the other lever and the free ends of the upper toggle levers.

4. A jack including an elongated base, a pair of toggle levers at each end of the base, the lower toggle lever of each pair being pivotally connected to the base while the upper toggle lever of each pair is provided at its free end with a seat and at its pivot end with an extension, a lever pivotally mounted upon the base at an intermediate point in its length and formed with a hub having a series of openings therein, a second lever provided with lugs adapted to enter selected openings of the hub to hold the second lever rigidly in an adjusted position with respect to the first lever, means for locking the second lever in an adjusted position, link connections between one of the levers and the toggle lever extensions, and link connections between the other lever and the free ends of the upper toggle levers.

[Claims 2 and 5 not printed in the Gazette.]

1,254,528. MOLDING-ADAPTER. HENRY T. PAISTE, Philadelphia, Pa., assignor to H. T. Paiste Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Dec. 11, 1913. Serial No. 805,989. (Cl. 247—1.)



1. The combination of a conductor conduit, an electro-receptive device; an adapter interposed between said device and the conduit; clamping means engaging the conduit and carried by the adapter; and members engaging the electro-receptive device for operating the clamping means and holding said parts together.

4. The combination in an adapter of a box having its top bent downwardly in two sections to form an opening provided with downwardly inclined sides; with clamping means placed to hold a conductor conduit with its open face immediately adjacent the opening between said inclined sides.

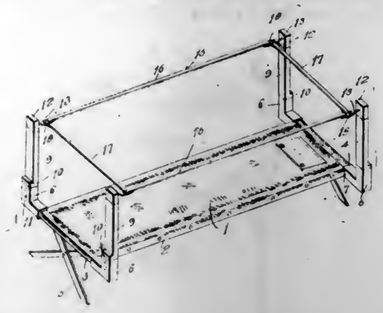
10. The combination of a flat open faced conduit with an adapter consisting of a box having an opening in one face and provided with clamping members recessed to receive said conduit, the recesses of said members being undercut and of a width greater than that of the conduit to permit of its introduction by a lateral movement followed by a rotary movement and formed to prevent removal of the conduit in a straightaway direction.

12. The combination in an adapter of a box recessed at its ends for the reception of a conductor conduit and having an opening in one face; with clamping plates mounted in said box and formed with undercut recesses for the reception of said conduit; means for moving said plates to clamping positions and springs tending to move said plates in opposition to said means.

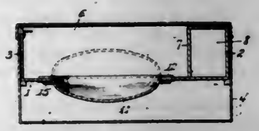
[Claims 2, 3, 5 to 9, 11, and 13 to 15 not printed in the Gazette.]

1,254,529. MOSQUITO-NET SUPPORT FOR COTS. FIDEL B. PANGANIBAN, Lobo, Batangas, Philippine Islands. Filed Sept. 19, 1917. Serial No. 192,127. (Cl. 5—14.)

A mosquito net support comprising a plurality of L-shaped couplings, said couplings having one of their sockets adapted to be removably secured to the end rails of a cot, and vertical uprights secured to each coupling, caps secured to the upper ends of the uprights, hooks carried by the caps, and an elastic tape carrying a net removably secured to the hooks, as and for the purpose specified.



1,254,530. TRAY FOR TRUNKS AND SUITCASES. NICHOLAS PAPAPETROU, Morgantown, W. Va. Filed Aug. 1, 1917. Serial No. 183,957. (Cl. 190—35.)



1. A tray for trunks, suit-cases and the like, comprising in its construction a compartment for hats, said compartment having an apertured bottom, a member slidable into and out of closing relation to the aperture in said bottom, and a reversible hat-holding tray consisting of a dished body and a body-encircling rim, said hat tray being adapted in one position to have its rim seat upon said bottom with its body projected downward through said aperture, and in reversed position to have its rim seat upon said bottom with its body in upstanding position.

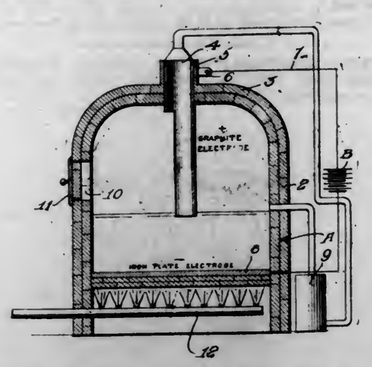
3. A tray for trunks, suit-cases and the like, comprising in its construction a compartment for hats, said compartment having an apertured bottom, a supporting member carried on the under side of and parallel to said bottom at a spaced distance from the latter, said member having an aperture in register with the bottom aperture, a plate mounted upon said supporting member and slidable into and out of closing relation to the aperture in said bottom, and a reversible hat holding tray consisting of a dished body and a body-encircling rim, said hat tray being adapted in one position to have its rim seat upon said bottom with its body projected downward through said aperture, and in reversed position to have its rim seat upon said bottom with its body in upstanding position.

[Claim 2 not printed in the Gazette.]

1,254,531. METHOD OR PROCESS OF SMELTING ZINC. ISAK PARTANEN, Telluride, Colo. Filed Feb. 2, 1916. Serial No. 75,723. (Cl. 204—19.)

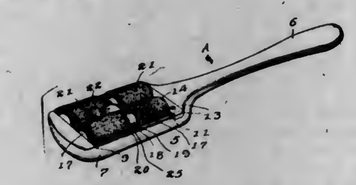
1. The method of electrolytically smelting zinc, which consists in chloridizing "blue powder" with chlorin, fusing the zinc chlorid and hypochlorite thus produced, and then electrolyzing the said zinc chlorid and hypochlorite to separate the pure metal.

3. The method of electrolytically smelting zinc which consists in chloridizing the "blue powder" with chlorin in the presence of moisture, fusing the zinc chlorid and hypochlorite thus produced to free pure metal and nascent chlorin, withdrawing the pure metal and chlorin, replenishing the supply of "blue powder," and then reintroducing the nascent chlorin previously freed.



[Claim 2 not printed in the Gazette.]

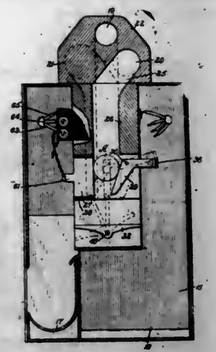
1,254,532. TOOTH-BRUSH. FREDERICK N. PAUL, Flagstaff, Ariz. Filed July 9, 1917. Serial No. 179,458. (Cl. 15—39.)



A tooth brush comprising a brush body including a brush head having a recess therein, spaced shafts rotatably mounted in said brush head to extend longitudinally of said recess, rollers on said shafts having bristles thereon, said rollers having annular grooves provided with inclined walls, gear teeth formed on a wall of each of said grooves, a yoke mounted on said brush head centrally of said recess, a shaft rotatably mounted in said yoke, a roller fixed to said shaft, and gear wheels on said shaft at opposite ends of said yoke engaging the teeth on the walls of said grooves.

1,254,533. TELEPHONE COLLECTION-BOX. OSCAR A. PEDERSEN, New York, N. Y. Filed Apr. 4, 1917. Serial No. 159,631. (Cl. 194—8.)

1. A telephone collection box comprising a plurality of separate coin-receiving chutes; a plurality of rocking figures for supporting coins deposited in said chutes and at the lower extremity thereof, said fingers each extending in line with and across the path of one of said chutes; a plurality of terminal blocks, said blocks equaling in number and disposed in parallel relation to said fingers, each of said blocks coöperating with one of said fingers for supporting the coins deposited in said chutes; and a plurality of electric circuits, each incorporating one of said blocks, and a signal device to be operated by a coin when mechanically connecting one of said blocks and one of said fingers; a rocking member mechanically connected with said fingers for rocking the same to remove them from the path of said chutes and from supporting relation to coins; and an electric circuit embodying an electromagnet operatively related to said rocking member, and a manually controlled switch disposed in service relation to said signal devices, the closure of which energizes said electromagnet to oscillate the rocking member and associate parts for the release of any coins which may be supported by said fingers.



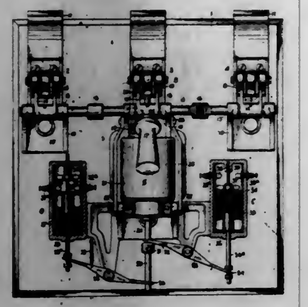
2. A telephone collection box comprising a plurality of separate coin-receiving chutes; a plurality of rocking fingers for supporting coins deposited in said chutes and at the lower extremity thereof, said fingers each extending in line with and across the path of one of said chutes; a plurality of terminal blocks, said blocks equaling in number and disposed in parallel relation to said fingers, each of said blocks coöperating with one of said fingers for supporting the coins deposited in said chutes; a plurality of electric circuits, each incorporating one of said blocks, and a signal device to be operated by a coin when mechanically connecting one of said blocks and one of said fingers; a rocking member operatively connected with said fingers for rocking the same to remove them from the path of said chutes and from supporting relation to coins, said rocking member being adapted to rock in opposite directions for delivery of said coins in opposite directions; and a plurality of electric circuits, each embodying an electromagnet operatively related to said rocking member, and a plurality of manually controlled switches for closing said circuits, said circuits being adapted for rocking said rocking member in opposite directions for delivering the released coins in opposite directions.

1,254,534. REMOTE-CONTROL ELECTRIC SWITCH. CHARLES EMILE PELLETIER, New Orleans, La. Filed Feb. 2, 1915, Serial No. 5,653. Renewed Oct. 2, 1917. Serial No. 194,416. (Cl. 175—281.)

1. The combination of a main switch including relatively movable contacts for opening and closing the circuit, a movable carrier for the movable contact, a solenoid including separate windings, a core actuated by the solenoid, a toggle device connected with the carrier and also connected with the core, whereby the latter operates through the toggle device for moving the carrier to and from closed circuit position, secondary electromagnetically operated switches for respectively opening and closing the circuits of the solenoid windings, said secondary switches having movable elements, and interlocking mechanical devices between the movable elements of the secondary switches and the solenoid core, whereby the secondary switches can operate only in a predetermined sequence.

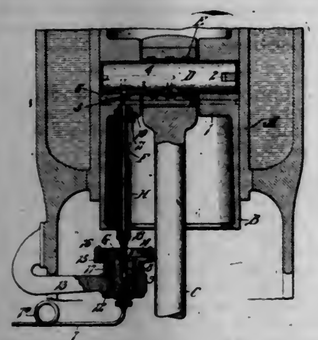
2. The combination of a main switch including fixed and movable contacts, electrical means including separate windings for respectively moving the movable contact to and from closed circuit position, a closing switch for closing the circuit of one winding, an opening switch for closing the circuit of the other winding, said switches being disposed adjacent to the said electrical means, levers connected with the movable elements of the closing and opening switches, and lost motion connection be-

tween the levers and the movable element of the said electrical means, whereby the closing switch is automatically opened after the main switch begins to close and the opening switch is automatically opened after the main switch begins to open.



3. The combination of a main switch having a movable contact element, a solenoid having a core connected with the said element and separate windings operating on the core, a closing switch for closing the circuit of one winding to effect the closing of the main switch, an opening switch for closing the circuit of the other winding to effect the opening of the main switch, the opening and closing switches each having a solenoid including a movable core, levers connected with the said movable cores, and a lost motion connection between the levers and the core of the first-mentioned solenoid, whereby the closing switch is automatically opened after the main switch begins to close, and the opening switch is automatically opened after the main switch begins to open.

1,254,535. LUBRICATING MECHANISM FOR PISTON-MACHINES. GEORGE D. POGUE, St. Louis, Mo. Filed May 4, 1916. Serial No. 95,380. (Cl. 184—27.)

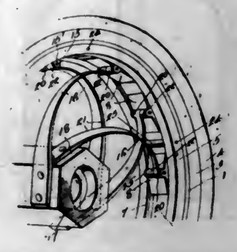


1. In a machine of the character described, a reciprocating piston, an oil conduit that travels with the piston, and an oil container mounted on a stationary part of the machine and provided with an opening into which one end of said oil conduit moves when the piston is in operation, said container being normally separated from the oil conduit and the opening in said container being so proportioned with relation to the exterior of said conduit that the movement of the conduit into said container causes oil to be forced through said conduit.

11. In a machine of the character described, a reciprocating piston, an oil tube carried by said piston, and a yieldingly mounted oil container into which the free end of said oil tube projects when the piston is in operation.

[Claims 2 to 12 and 14 to 18 not printed in the Gazette.]

1,254,536. RESILIENT WHEEL. JOHN D. PURSEL, New York, N. Y. Filed Mar. 24, 1917. Serial No. 157,274. (Cl. 152—50.)



1. In a resilient wheel, the combination of a hub, a rim, series of resilient spokes having their inner ends fastened to the hub, shoes slidable circumferentially of the rim and having the outer extremities of the spokes attached thereto, each of said shoes being of a width equal to the combined width of the outer ends of adjacently disposed series of spokes and having lugs in laterally spaced relation to each other, and each spoke having a knuckle at its outer extremity, a coupling pin inserted through said lugs and knuckle, and a spacing sleeve inclosing a portion of said pin between said knuckle and one of said lugs, each shoe being formed with a concaved seat for the respective knuckle described on an arc concentric with the coupling pin.

2. In a resilient wheel, the combination of a hub, a rim, resilient curvilinear spokes fastened to the hub and decreasing in width toward their outer extremities, shoes to which the outer extremities of the spokes are attached slidable circumferentially of the rim, said spokes being arranged in a plurality of circular series, the spokes of one series being curved oppositely to the spokes of the adjacent series and crossing the latter between the hub and rim, the inner adjacent edges of the spokes being disposed in parallelism, and annular bearing shoulders for the outer faces of said shoes arranged in laterally spaced relation to each other.

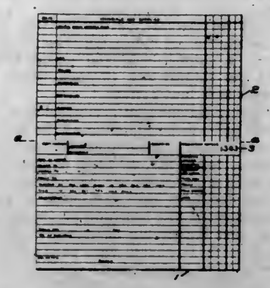
3. In a resilient wheel, the combination of a hub, a rim, resilient curvilinear spokes fastened to the hub and decreasing in width toward their outer extremities, shoes to which the outer extremities of the spokes are attached slidable circumferentially of the rim, said spokes being arranged in a plurality of circular series, the spokes of one series being curved oppositely to the spokes of the adjacent series and crossing the latter between the hub and rim, the inner adjacent edges of the spokes being disposed in parallelism, and means on said rim for limiting and cushioning the sliding movements of said shoes.

1,254,537. COSTMETER EQUIPMENT. JOHN T. QUIGLEY, Boston, Mass., assignor to Costmeter Company, Boston, Mass., a Corporation of Massachusetts. Filed Dec. 29, 1915. Serial No. 69,281. (Cl. 129—16.7.)

1. A record and filing blank having printed matter thereon spaced from a folding line, a filing number adjacent said line, the tops of the numerals being next thereto, whereby said blank may be folded to provide a smooth edged unit for vertical filing.

2. A record and filing blank having printed matter on the obverse thereof and on the reverse a scale adapted to measure and record symbolic representations of the cost of an operation or operations, the printed matter and scale being arranged in spaced relation to a folding line, whereby said blank may be folded to provide a smooth edged unit for vertical filing.

4. A record and filing blank having printed matter on the obverse thereof and on the reverse a scale adapted to measure and record symbolic representations of the cost of an operation or operations, the printed matter and scale being arranged in spaced relation to a folding line, whereby said blank may be folded to provide a smooth edged unit for vertical filing and the blank space thereby left being of such size as to permit the attachment of other sheets thereto.



8. A record and filing blank having printed matter on the reverse thereof spaced from a folding line whereby the blank may be folded to provide a smooth edged unit for vertical filing the blank space left being of such size as to permit attachment of other sheets thereto which are disposed interiorly of the folded blank.

16. A record filing sheet having a linear scale representing money value depicted thereon, the money unit expressed in terms of the length unit being the constant pi times an integral factor, said sheet being adapted to have attached thereto a record strip dimensionally representative of time cost in such relation to the scale that its money value may be determined therefrom.

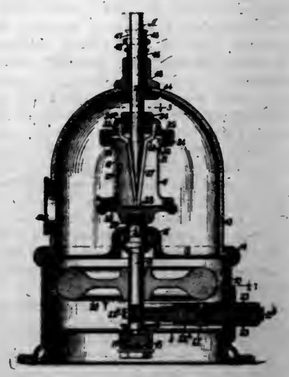
[Claims 3, 5 to 7, 9 to 15, and 17 to 19 not printed in the Gazette.]

1,254,538. PUZZLE-BOX. FRANK C. RICE, Newport, R. I. Filed Feb. 9, 1916. Serial No. 77,225. (Cl. 46—41.)



A box of the character set forth comprising a body portion provided on its forward end with an upstanding apertured tongue, a lid therefor provided on its forward end with a pin adapted to engage in the opening of the tongue upon the locked position of said lid, said lid having a pocket formed therein and opening out through the upper face thereof, and the side walls forming the pocket being provided with diametrically disposed recesses intersected at their lower ends by a slot formed in the bottom of the pocket, a cover plate having a pocket formed in the under face thereof for the reception of a spherical member, a pivot pin passing through the cover plate to one side of its pocket and protruding through the slot formed in the bottom wall of the pocket of the lid and adapted to engage with one of the recesses of the lid pocket upon the swinging of the cover plate to a distance equaling three-fourths portion of its complete revolution to dispose the pivot in non-obstructing relation with respect to the spherical locking member to displace the spherical locking member from the pocket of the cover lid into the pocket of the cover plate and causing the displacement of the pin from the said tongue.

1,254,539. PENCIL-SHARPENER. THOMAS ALFRED RUDDLE and NIELS CHRISTIAN AHL, Philadelphia, Pa. Filed Aug. 9, 1917. Serial No. 185,270. (Cl. 120—93.)

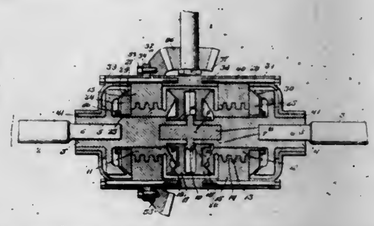


2. A cutter head for pencil sharpeners, including knives, and feed and guide rollers rockably supported at one end in the head and radially adjustable at their opposite ends in said head.

6. In a cutter head for pencil sharpeners, the combination of knives rockably supported at one end in the cutter head, concavo-convex disks on the cutter head at the opposite end, one of said disks being turnable and formed with eccentric slots, and the other of said disks having radial slots, guide rollers between the knives, the knives and rollers being disposed at an angle to the axis of rotation of the cutter head, carriers for said rollers, the said knives and carriers each having a member projecting through a radial and conical slot in the respective disks, and means to turn the disk having the eccentric slots to vary the angular positions of the knives and rollers.

[Claims 1, 3 to 5, and 7 not printed in the Gazette.]

1,254,540. DIFFERENTIAL GEARING. ARTHUR C. RUDEN, East Cleveland, Ohio. Filed Apr. 21, 1917. Serial No. 163,695. (Cl. 74—7.)



1. In differential gearing, the combination of a driving shaft, a sectional driven countershaft, driven clutch members carried by the countershaft sections, automatically shiftable driving clutch members movable longitudinally of the countershaft sections, and means actuated by said driving shaft operating to move said shiftable clutch members into and out of engagement with the first named clutch members, said means embodying a rotatable housing surrounding the countershaft sections, and clutch shifting members carried by said housing and engaging said shiftable clutch members.

3. In a differential gearing, the combination of a driving shaft, a sectional driven countershaft, driven clutch members carried by the countershaft sections, each countershaft section having two of such clutch members arranged in spaced relation to each other with their clutch

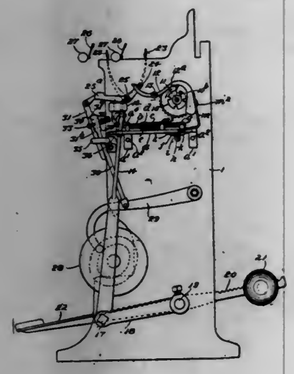
faces facing each other, automatically shiftable driving clutch members movable longitudinally of the countershaft sections, and means actuated by said driving shaft operating to move said shiftable clutch members into and out of engagement with the first named clutch members, said means embodying a rotatable housing surrounding the countershaft sections, and clutch shifting members carried by said housing and engaging said shiftable clutch members.

4. In differential gearing, the combination of a driving shaft, a sectional driven countershaft, driven clutch members carried by the countershaft sections, automatically shiftable driving clutch members movable longitudinally of the countershaft sections, and means actuated by said driving shaft operating to move said shiftable clutch members into and out of engagement with the first named clutch members, said means embodying a rotatable housing surrounding the countershaft sections and geared to and actuated by said driving shaft, and clutch shifting members carried by said housing and engaging said shiftable clutch members.

5. In differential gearing, the combination of a driving shaft, a sectional driven countershaft, driven clutch members carried by the countershaft sections, automatically shiftable driving clutch members movable longitudinally of the countershaft sections, means actuated by said driving shaft operating to move said shiftable clutch members into and out of engagement with the first named clutch members, and a center supporting shaft serving to hold the adjacent ends of the countershaft sections in alinement.

[Claim 2 not printed in the Gazette.]

1,254,541. WARPING-MACHINE. ARSÈNE SAULNIER, Waltham, Mass., assignor, by mesne assignments, to Draper Corporation, Hopedale, Mass., a Corporation of Maine. Filed June 21, 1915. Serial No. 35,241. (Cl. 28—31.)



1. In a warping-machine, in combination, a roll engaging with the yarns and having combined therewith a device operated thereby for registering the length of yarns passing through the machine, means for occasioning stoppage by unshipping of the driving-power on passage of a predetermined length of yarns, the shipper-devices for the driving mechanism of the machine controlled by such means, a yarn-stop-motion also controlling the said shipper-devices, and a lock by which the said shipper-devices are locked automatically in unshipped condition when tripped through the action of the said means but left unlocked and capable of being operated to reship the driving connections into action when tripped on breakage or failure of a yarn.

9. In a warping machine, in combination, shipper-devices, clock mechanism, an indicating lever controlling the shipper-devices, a shipper-lock, and means intermediate the lever and the shipper-lock through which the lever calls the shipper-lock into action, said means adjustable to render the shipper-lock idle.

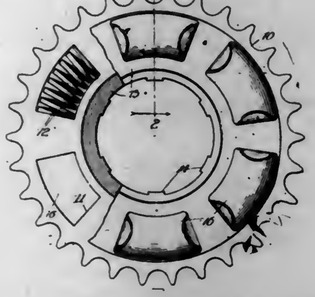
11. In a warping machine, in combination, shipper-devices, an indicating lever controlling the shipper-devices, clock mechanism constructed to produce movements of the indicating lever of different extents, a shipper-lock, and a latch for the shipper-lock operated to free the latter in case of a movement of given extent of the indicating lever and remaining in control thereof in case of a movement of less extent.

18. In a warping machine, in combination, shipper-devices, clock mechanism, an indicating lever controlling the shipper devices, a shipper-lock, and means intermediate the lever and the shipper-lock through which the lever calls the shipper-lock into action.

20. In a warping machine, in combination, a yarn-stop-motion adapted to occasion shipping of the driving-power in case of yarn-failure, the shipper-devices of said machine including a detent-bar, as 14, a shipper-lock adapted to engage with said detent-bar to lock the shipper-devices with the driving-power unshipped, a detent normally keeping said shipper-lock out of engagement with the detent-bar, and registering devices including a scroll and a scroll-lever that renders said yarn-stop-motion effective to occasion unshipping when a predetermined length of yarn has been registered and that also operates said detent to free the shipper-lock for engagement with said detent-bar to lock the shipper-devices with the driving-power unshipped.

[Claims 2 to 8, 10, 12 to 17, and 19 not printed in the Gazette.]

1,254,542. COMPENSATING SPROCKET. FRANK W. SCHWINN, Chicago, Ill. Filed Aug. 3, 1917. Serial No. 184,183. (Cl. 74—29.)



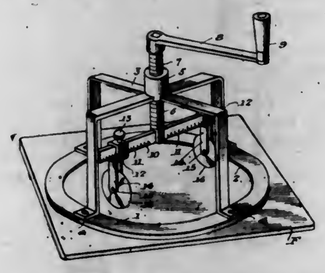
3. A compensating sprocket comprising a toothed annulus having a plurality of sector-shaped apertures therein, helical compression springs arranged in said apertures with their axes lying along the circumferential center lines of the apertures, said springs having a diameter exceeding the thickness of the sprocket and a normal length exceeding the length of said apertures, a pair of side plates sandwiching said toothed annulus between them and having recesses in their inner faces adapted to receive the projecting portions of said springs and to form end abutments for the same, and means for securing said side plates upon a driven member.

4. A compensating sprocket comprising a toothed annulus having a plurality of sector-shaped apertures therein, helical compression springs arranged in said apertures with their axes lying along the circumferential center lines of the apertures, said springs having a diameter exceeding the thickness of the sprocket, a pair of side plates bearing upon the faces of said toothed annulus and sandwiching the same between them, said plates having recesses in their inner faces adapted to receive the projecting portions of said springs and to form end abutments for the same, means for causing said side plates to frictionally engage the faces of said toothed annulus, and means for securing said plates upon a driven member.

[Claims 1 and 2 not printed in the Gazette.]

1,254,543. [WITHDRAWN.]

1,254,544. GASKET-CUTTER. WARNER W. SLAYBACK, Ponca City, Okla. Filed June 15, 1917. Serial No. 174,973. (Cl. 164—82.)



1. In a gasket cutter, the combination with an annular base, a skeleton frame mounted thereon, a nut carried by the center of the frame and axially in alinement with the center of the base, the threads within the nut being of gentle pitch, and a main shaft threaded through said nut; of means at the upper end of the shaft for rotating it in either direction, a sweep secured across its lower end and having graduations marked on its arms, sleeves adjustably disposed on said arms, forks carried by the sleeves, and a rotary cutter mounted in each fork.

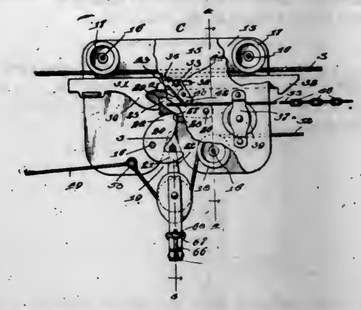
2. In a gasket cutter, the combination with an annular base, a skeleton frame mounted thereon, a nut carried by the center of the frame and axially in alinement with the center of the base, the threads within the nut being of gentle pitch, and a main shaft threaded through said nut; of a crank handle at the upper end of said shaft, a sweep secured across the lower end of the shaft and rectangular in cross-section, sleeves adjustably mounted on the arms of said sweep, and rotary cutters carried by said sleeves.

3. In a gasket cutter, the combination with an annular base rabbeted around its inner periphery, a skeleton frame mounted thereon and having a nut over the center of the base, a main shaft threaded through said nut and having operating means at its upper end, a sweep at the lower end of the shaft within the frame, and rotary cutters carried by said sweep; of a plurality of washers whereof each has its outer edge flanged and its inner edge rabbeted, said washers and base making up a series of elements adapted to be nested, for the purpose set forth.

4. In a gasket cutter, the combination with an annular base, a frame mounted thereon, a shaft rotatably mounted through the axis of said frame, and the cutting mechanism carried by said shaft; of a series of washers of different size making up with said base a set of nested elements, each flanged at its outer edge and rabbeted at its inner edge whereby the elements may be interengaged and applied as required.

1,254,545. LOGGING APPARATUS. IRA SMITH, Bellingham, Wash. Filed Apr. 24, 1917. Serial No. 164,213. (Cl. 212—98.)

1. A carriage having side walls provided with recesses in their lower edges, a pivoted locking member having a bill adapted to extend across the opening thus formed, said locking member having a head provided with a tooth, a dog having a notch engaging said tooth, and a projecting nose, and a longitudinally slidable unlocking bar having a beveled lug for engagement with the dog.



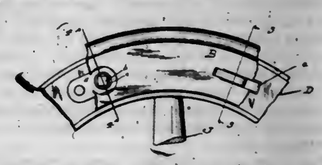
3. A carriage having side walls provided with recesses in their lower edges, a pivoted locking member having a bill adapted to extend across the opening thus formed, said locking member having a head provided with a tooth, a dog having a notch engaging said tooth, and a projecting nose, and a longitudinally slidable unlocking bar having a beveled lug for engagement with the dog, said unlocking bar being spring actuated in a non-engaging direction with respect to the dog, and said unlocking bar being extended forwardly and rearwardly of the carriage and provided with a hook at its front end.

5. A carriage of the class described having side walls provided with recesses at their lower edges, a pivoted locking member having a bill adapted to extend across the recess thus formed, and a weighted head adapted to gravitationally retract the bill and to occupy an obstructing positon across the opening, said head having a tooth at its upper end, a pivoted dog having a notch engaging said tooth and a projecting nose, a slidably supported spring retracted unlocking bar having a beveled lug adapted to engage the nose of the dog, and means for actuating the unlocking bar, in combination with a block having a bail adapted for engagement with the bill of the locking member, and means for hoisting said block in engagement with the carriage.

8. A carriage having side walls provided with recesses combining to form an opening, a locking member having a bill adapted to be disposed across said opening, a yoke swingingly connected with the carriage and having a curved flange at its lower portion, and a block having a swinging supporting hook and a keeper for said hook, said keeper being provided with a laterally extending finger, in combination with a choker line having a loop engaging the supporting hook, a retaining line connecting the choker line with the block, and means for hoisting the block in engagement with the locking member of the carriage.

[Claims 2, 4, 6, and 7 not printed in the Gazette.]

1,254,546. AUTOMOBILE-WHEEL RIM. JAMES DE WITT SMITH, Orland, Cal., assignor of one-half to Julius M. Utz, Orland, Cal. Filed Nov. 11, 1915. Serial No. 60,911. (Cl. 152—21.)



1. The combination with a wheel having a fixed and a removable tire engaging plate, of means for retaining said removable plate in proper position, said means consisting

of pivoted clamps mounted in the felly of said wheel, a ring plate next to the fixed plate, said pivoted clamps engaging said ring plate and removable plate, and locking keys for preventing the pivoted clamps from disengaging the removable plate, substantially as described.

[Claim 2 not printed in the Gazette.]

1,254,547. MUSICAL INSTRUMENT KNOWN AS BONES. SAMUEL SUSSMAN, New York, N. Y. Filed June 15, 1917. Serial No. 174,844. (Cl. 46—46.)

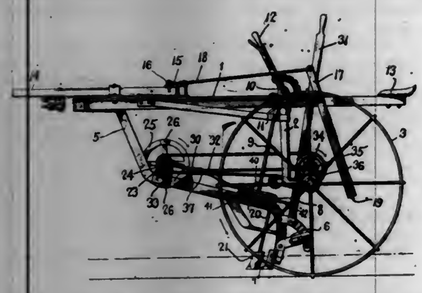


1. In a musical instrument in combination, bones with metal attachments, and means for electrically connecting them.

2. In a musical instrument in combination, bones having a metal part attached to one end, wires connected with said metal parts and means for electrically charging the wires for the purpose described.

3. In a musical instrument, in combination, bones having a metal attachment near one end of same, wires connecting the metal attachment for making electrical contact and a collar to support and associate the several wires for the purpose described.

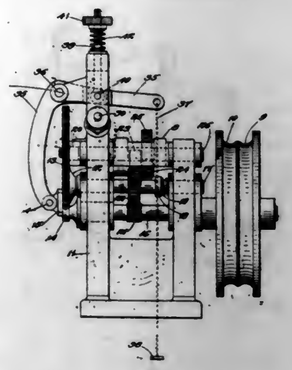
1,254,548. COTTON-CHOPPER. OTTIS LEWIS SUTTON, Beckman, Ky. Filed Aug. 25, 1917. Serial No. 188,133. (Cl. 97—45.)



1. A cotton chopper comprising a wheel mounted frame, beams attached to the frame, blades carried by the beams and spaced from each other, shafts journaled upon the beams, blades carried by the shafts, means for holding the shafts toward each other whereby the edges of the last mentioned blades are normally held in close proximity to each other, a shaft journaled upon the beams, means for rotating said shaft from one of the supporting wheels of the frame, a disk carried by the shaft and having a lug adapted to engage the first mentioned shafts and means for operating the disk intermittently from the second mentioned shaft.

2. A cotton chopper comprising a wheel mounted frame, beams attached to the frame, shafts journaled upon the beams and having forwardly extending portions, a spring connecting said portions of the shafts together, blades carried by the said shafts, a shaft journaled upon the beams, means for operating the last mentioned shaft from one of the supporting wheels, a disk mounted upon the last mentioned shaft and having a lug adapted to engage the first mentioned shafts to spread the same and means for intermittently operating the disk from the second mentioned shaft.

1,254,549. INSOLE-TRIMMING MACHINE. EUGENE H. TAYLOR, Hyde Park, Mass.; George A. Taylor administrator of said Eugene H. Taylor, deceased. Filed Apr. 3, 1916. Serial No. 88,510. (Cl. 12—17.)



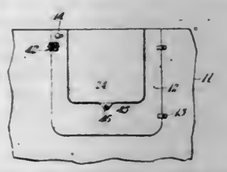
1. In a trimming machine, the combination of an abutment and a feed wheel coöperating with each other to feed the work, and a yieldingly mounted disk knife having its cutting edge in a plane substantially coincident with the plane of one face of the feed wheel.

3. In a trimming machine, the combination of an abutment and a yieldingly mounted feed wheel coöperating therewith to feed the work, a yieldingly mounted knife having its cutting edge in a plane substantially coincident with the plane of one face of the feed wheel, and a presser foot operating to hold the insole against the other face of the feed wheel.

6. In a machine of the character described, the combination of a pair of feed wheels each having an end face in substantially the same plane, a disk knife, the axes of said feed wheels and of the knife being parallel, and a spring acting on the disk knife and tending to move it endwise of its axis and toward the said end faces of the feed wheels.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,254,550. DOOR-SEAT FOR AUTOMOBILES. WILLIAM E. TRIMLETT, Los Angeles, Cal. Filed Mar. 27, 1917. Serial No. 157,825. (Cl. 21—43.)



1. In combination, a swinging door, and a seat pivotally supported on the door, said seat having a portion extending outwardly from the door and a portion extending inwardly therefrom.

2. In combination, a swinging door having a portion of the top cut out, and a seat pivotally mounted in said cut out portion of the door.

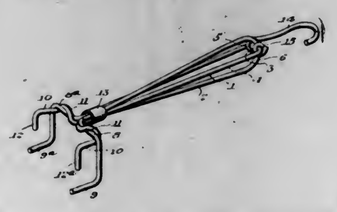
3. In combination, a swinging door having a portion of the top cut out, and a seat pivotally mounted in said cut out portion of the door, a portion of said seat being adapted to complete the cut out portion of the door when in closed position.

4. A seat for automobiles comprising a swinging door having a cut out portion at its top, a seat in said cut out portion pivotally attached to the door, said seat having an outwardly extending portion beyond the door and an inwardly extending portion within the door, said outwardly extending portion being adapted to fill the cut out portion of the door when in closed position, and said door having a recess to receive the inwardly extending portion of the seat when in closed position.

5. A seat for automobiles comprising a swinging door, a seat pivotally mounted thereon partially extending beyond the door, a back pivotally connected to the seat, means for folding the back against the seat, and means for supporting said seat in open position, said supporting means comprising a swinging bracket pivotally connected to the under side of said seat.

[Claims 6 and 7 not printed in the Gazette.]

1,254,551. LIFTER FOR COOKING UTENSILS. WALTER H. TUCKER, Flagstaff, Ariz. Filed July 9, 1917. Serial No. 179,452. (Cl. 65—32.)

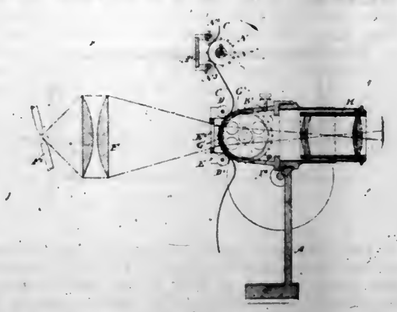


1. A lifter of the class described, comprising a pair of members each having a doubled handle portion, the bight of one of which is at right-angles to that of the other and engaged therewith, the said members being in contact at the inner end of the handle, one of said members having outwardly turned ends terminating respectively in lower and upper hooks, the other member having outwardly turned ends arranged in coils around the outwardly turned ends of the first-named member and terminating respectively in upper and lower hooks.

2. A lifter of the class described, comprising a pair of members each having a doubled handle portion, the bight of one of which is at right-angles to that of the other and engaged therewith, the said members being in contact at the inner end of the handle, one of said members having outwardly turned ends terminating respectively in lower and upper hooks, the other member having outwardly turned ends arranged in coils around the outwardly turned ends of the first-named member and terminating respectively in upper and lower hooks, a ferrule passing around and securing the inner ends of the handle portions of said members together, and a hook at the outer end of the handle portion of the lifter and having coils engaging the bight of the handle portion of one of the members and the opposite sides of the bight of the handle portion of the other member.

1,254,552. MOVING-PICTURE MACHINE. MATTHIAS J. VINIK, New York, N. Y. Filed Jan. 29, 1914. Serial No. 815,162. (Cl. 88—18.2.)

1. A moving picture machine provided with spaced revoluble members arranged between a condenser and an objective and around a portion of which the film passes, means for intermittently operating the members and means for feeding the film to said members.

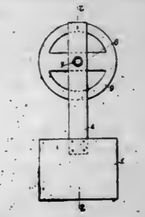


3. A moving picture machine provided with feeding means for moving the film through the machine by rolling contact, and optical correcting means for correcting the projection of the image on the curved portion of the film.

8. In a moving picture machine, the combination with a condenser, an objective, and a support arranged between the condenser and objective and provided with an opening for the rays of light, of a pair of spaced feed wheels mounted in the support, friction rollers mounted in the upper and lower portions of the support whereby to cause the film to pass around a portion of said wheels, and means for intermittently operating the feed wheels.

[Claims 2 and 4 to 7 not printed in the Gazette.]

1,254,553. FOLDING CROSS. HANS T. WALROW, New York, N. Y. Filed Aug. 17, 1917. Serial No. 186,725. (Cl. 46—37.)



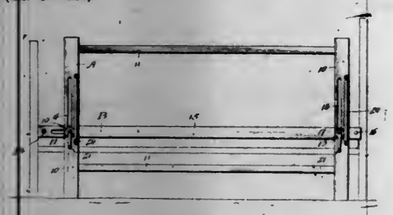
1. A folding cross comprising a base, a pair of upstanding members connected with said base, and a ring member pivotally connected to said up-standing members said ring member being formed with a transverse member acting with the up-standing members to produce a cross.

2. A folding cross comprising a base, a pair of upstanding members, means for securing and passing through said base and upstanding members, connecting the upstanding members together and the base, an eyelet arranged in said up-standing members, a transverse member pivotally mounted in said eyelet and merging into arc shaped sections for producing a ring portion whereby the transverse bar may be arranged at right angles to the up-standing members for producing a cross or arranged parallel therewith for indicating a supported ring structure.

5. A folding cross comprising a base, a pair of upstanding members, means pivotally connecting the said up-standing members with said base whereby said base may be moved pivotally between said up-standing members, and a transverse bar pivotally connected with said up-standing members, said bar being movable to a position parallel with said up-standing members.

[Claims 3 and 4 not printed in the Gazette.]

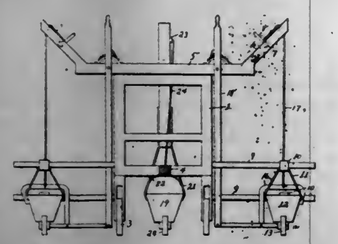
1,254,554. INVALID-SUPPORT. WILLIAM P. WALTER, Angola, Ind. Filed Feb. 16, 1916. Serial No. 78,725. (Cl. 5—45.)



1. The combination with a bedstead, of an invalid support embodying a stationary frame, said frame including corner posts arranged in pairs at the opposite sides of the bedstead, parallel side and end rails connecting the corner posts, a movable frame arranged inwardly of the corner posts and supported thereon for vertical adjustment above the bedstead, said movable frame including spaced parallel side and end rails, said side rails being longitudinally slotted adjacent one end, transverse shafts carried by the side rails of the movable frame and associated with the corner posts to permit said frame a vertical adjustment with respect to said posts, one of said shafts being arranged in said slots and a sheet of flexible material carried by the end rails of the movable frame.

2. The combination with a bedstead, of an invalid support embodying a stationary frame, said frame including corner posts arranged in pairs at the opposite sides of the bedstead, side and end rails connecting the corner posts, said corner posts having vertically disposed slots, a second frame disposed above the bedstead inwardly of the corner posts, said second frame including parallel side and end rails, said side rails having longitudinally disposed slots registering with the slots in the corner posts, transversely disposed shafts carried by the second mentioned frame and having their extremities passed through the slots in the corner posts and said side rails, means for adjusting the movable frame vertically in the slots of the corner posts, and a sheet of flexible material secured to the end rails of the movable frame.

1,254,555. PLANTER. GORDON WARFIELD, Helena, Ark. Filed July 18, 1917. Serial No. 181,321. (Cl. 111—59.)



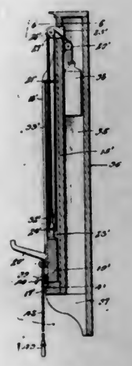
2. A planter comprising a wheel mounted frame, a beam disposed transversely thereon and having upwardly and outwardly disposed arms, drums journaled upon the arms, guide arms carried at the opposite sides of the frame, hopper mechanisms slidably mounted upon the guide arms, means for sliding the hopper mechanisms, and flexible elements connected with the hopper mechanisms and trained around the drum.

3. A planter comprising a wheel mounted frame, a beam disposed transversely thereof, guide arms carried at the opposite sides of the frame, blocks slidably mounted upon the guide arms, links pivotally connected with the blocks, hoppers pivotally connected with the links, bails attached to the hoppers, means supported upon the beam and connected with the bails for raising and lowering the hoppers, means for sliding the blocks and hoppers, an intermediate hopper mechanism connected with the frame and means for raising or lowering the last mentioned hopper mechanism.

4. In a planter a frame, guide arms mounted thereon, blocks slidably mounted upon the guide arms, means for sliding the blocks, links pivotally connected with the blocks, a hopper connected with the links and means for raising and lowering the hopper.

[Claim 1 not printed in the Gazette.]

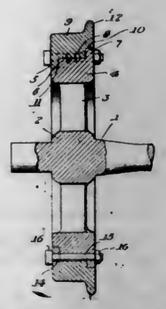
1,254,556. HARNESS-HOOK. PETER L. WEIMERSKIRSCH, Kellogg, Minn. Filed Sept. 21, 1917. Serial No. 192,578. (Cl. 248—25.)



2. In a device of the class described, a board having vertical guide cleats at the sides thereof, a supporting block adjacent to the lower ends of the guide cleats and bumpers adjacent to the upper ends of said cleats, a slide guided between the cleats and having a harness supporting hook, and means including a hoisting element, guide pulleys over which said hoisting element is trained, a counterweight and a pull-rope whereby said slide and related parts may be raised and lowered, and interengaging latch and catch members whereby the slide may be secured at the downward limit of its movement in contact with the base block; said pull-rope serving also to resist upward movement of the slide under the influence of the counterweight.

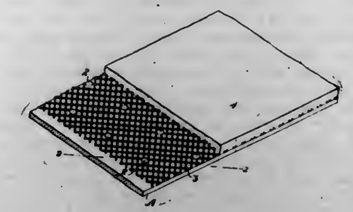
[Claim 1 not printed in the Gazette.]

1,254,557. CAR-WHEEL. MARK W. WITHAM, Portland, Me. Filed June 15, 1917. Serial No. 174,940. (Cl. 105—158.)



A wheel comprising a central part having a cylindrical rim provided with an annular recess in one edge and a cylindrical flange at its other edge, the adjoining walls of said parts being at right angles to each other, and a tread provided with a cylindrical inner circumference having an annular recess in one edge and a cylindrical flange at its other edge, the adjoining walls of said parts being at right angles to each other, said flanges having holes therein and the cylindrical rim and circumference having transverse grooves therein registering with said holes when the flange on one member is in engagement with the annular recess on the other member, said channels being of greater longitudinal length than the holes, and bolts passing through said holes and channels.

1,254,558. METAL LINING. AUGUST A. ZEITLER, Oakland, Cal. Filed Sept. 24, 1917. Serial No. 192,881. (Cl. 206—2.)

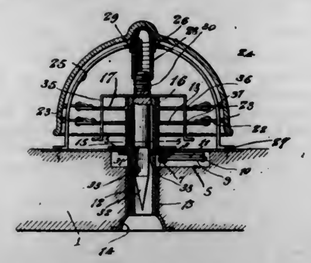


1. The combination with a metal plate, of a metal lath secured on one side thereof, said side of the plate being coated with tin, and a lead lining for the plate forming a union with the tin coating and being secured against creeping or sagging by the metal lath.

2. A metal housing for evaporators comprising an exterior metal shell, a wire mesh secured on the inner face of said shell, and a lead lining secured to the shell by the wire mesh.

3. A metal housing for evaporating tanks and the like comprising a metal shell, the inner face of which is tinned, a wire mesh on the tinned face, rivets securing said wire mesh, and a lead lining for the metal shell secured by the wire mesh.

1,254,559. ALARM-LOCK. JOHN E. ZMUDZINSKI, Brooklyn, N. Y. Filed Apr. 3, 1915. Serial No. 18,975. (Cl. 116—61.)



1. In an alarm lock, a sleeve, a shank rotatably mounted in said sleeve and extending outwardly of the same, a bell inclosing said sleeve and shank, a latch operatively connected to said sleeve, a second sleeve rotatably inclosing said first mentioned sleeve, a series of disks carried by said second sleeve, means carried by said disks for striking said bell when the disks are rotated, and means for engaging said first-mentioned sleeve and shank to operate said latch and ring said bell.

2. In an alarm lock, a sleeve, a shank rotatably mounted in said sleeve and extending outwardly of the same, a bell inclosing said sleeve and shank, a latch operatively connected with said sleeve, a second sleeve rotatably inclosing said first named sleeve, a series of disks carried by said second sleeve, means carried by said disks for striking said bell when the disks are rotatel, the inner portion of said shank being reduced and non-circular in cross section, and a key for rotating said first-mentioned sleeve to operate said latch, said key having an aperture non-circular in cross section to receive the reduced end of said shank, whereby said shank is rotated and the bell rung.

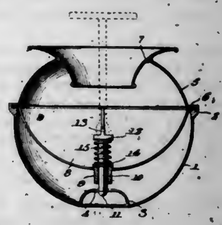
1,254,560. SHOPPER'S CATALOGUE. HENRY B. ABEL, Valley Stream, N. Y. Filed Sept. 13, 1916. Serial No. 119,832. (Cl. 11—17.)



6. A shopper's catalogue having at its bound edge a portion outlined by weakened intersecting lines, extending through all leaves of the catalogue and including a bound part of the catalogue, said portion being smaller than the catalogue and containing on its several leaves reference data relating to the subject matter contained on the several leaves respectively constituting the body of the catalogue, and adapted to be removed to form a pocket reference book.

[Claims 1 to 5 not printed in the Gazette.]

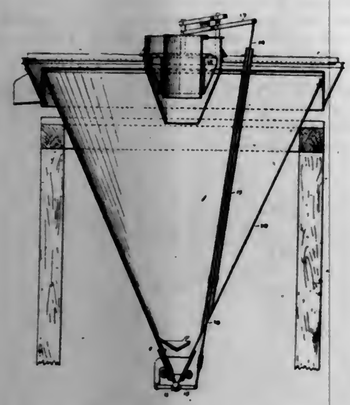
1,254,561. CUSPIDOR. LOUIS E. ADAMS, Raven, Alberta, Canada. Filed Dec. 1, 1916. Serial No. 134,370. (Cl. 4—38.)



1. A cuspidor comprising a body having at its central portion a stand provided with a slot and having in the vicinity of its edge an inwardly disposed ledge, a hood having a shoulder adapted to rest upon the ledge, a spider carried by the hood and provided with a sleeve and a spring pressed bolt turnably mounted in the sleeve and having a head portion adapted to be inserted through the said slot and caught under the opposite edges thereof.

2. A cuspidor comprising a body provided at its central portion with a stand having a slot and also having in the vicinity of its edge an inwardly disposed ledge, a hood having its upper edge bounded by a transversely curved flange, said hood also having a shoulder which rests upon the said ledge, a spider carried by the hood and provided with a sleeve, a spring pressed bolt slidably mounted in the sleeve and having a head adapted to be inserted through the slot and caught under the opposite side portions thereof.

1,254,562. AUTOMATIC SEPARATING DEVICE. CHARLES ALLEN, El Paso, Tex. Filed July 3, 1917. Serial No. 178,348. (Cl. 83—82.)



1. In an automatic separator, a settling tank having a valve controlled discharge orifice at its bottom, a float arranged near the top of the tank for controlling the valve, and connections between the float and valve including a link extending downwardly within the tank and projecting through an opening in the tank near the bottom thereof, and a housing for said link secured to the wall of the tank around said opening and extending above the top of the tank.

2. In an automatic separator, an inverted, cone-shaped settling tank having a valve controlled discharge orifice at its apex, a float arranged near the top of the tank for controlling said valve, connections between the float and valve comprising a lever for the float, a link connected to the lever and extending downwardly within the tank and passing through an opening in the wall of the tank near the bottom thereof, a connection between the lower link and the valve on the exterior of the tank, and a pipe housing said link secured to the wall of the tank around said opening and projecting above the top of the tank.

3. In an automatic separator, an inverted, cone-shaped settling tank having a valve controlled discharge orifice at its apex, a float arranged near the top of the tank for controlling the valve, actuating means for the valve located exteriorly of the tank, and an operating connection extending from said actuating means upwardly through the side of the tank to said float.

1,254,563. BREAD-KNIFE. WILLIAM ANDERSON, Harrisburg, Pa. Filed May 9, 1916. Serial No. 96,411. (Cl. 30—9.)



A bread knife including a blade having a cutting edge, a series of short and very fine teeth of uniform dimensions extending from the blade throughout its length and defining the cutting edge, said blade having a flat side, and the opposite side of the blade being beveled throughout its length, said bevel extending from the point of the teeth beyond the depth of the latter to a point approximately in a plane with the longitudinal center of the blade, thus defining a perfectly flat smooth deflecting surface.

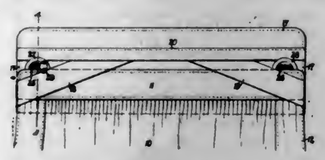
1,254,564. CHALK-HOLDER. THOMAS APOSTLE, Kenton, Ohio. Filed Sept. 15, 1916. Serial No. 120,403. (Cl. 46—8.)



1. A chalk holder comprising a body having a circumferential series of pockets opening at both sides of the body, each pocket being adapted to receive a piece of chalk of a shape corresponding to the configuration of the pocket, a shoulder arranged within each pocket forming a seat for the chalk and maintaining the latter inwardly of the adjacent side of the body, a cover detachably secured to the opposite side of the body and closing the adjacent ends of said pockets, a coil spring arranged within each pocket and bearing against said cover and the chalk and operating to maintain the chalk seated against said shoulder, and an eye bolt extended through said body and cover with the eye thereof disposed above the cover as and for the purpose described.

2. A chalk holder comprising a body having a circumferential series of pockets opening at both sides of the body, each pocket being adapted to receive a piece of chalk of a shape corresponding to the configuration of the pocket, a shoulder arranged within each pocket forming a seat for the chalk and maintaining the latter inwardly of the adjacent side of the body, a cover detachably secured to the opposite side of the body and closing the adjacent ends of said pockets, and an eye bolt extended through the said body and cover with the eye thereof disposed above the cover as and for the purpose described.

1,254,565. DETACHABLE SHIRT-CUFF. FRANK J. ARNEY, New York, N. Y. Filed July 7, 1917. Serial No. 179,201. (Cl. 2—79.)



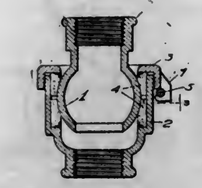
2. In combination, a shirt sleeve provided with a sleeve band having button receiving openings, and a cuff having retaining means under which the sleeve band is adapted to be passed and having buttonholes in front of the retaining means and registering with the openings of the sleeve band, whereby provision is made for securely holding the cuff in position on the sleeve band and the latter closed by a cuff button.

4. A cuff having a multi-ply cuff body provided on the inner face of the innermost ply with diagonally disposed retaining bands extending from the sides of the cuff toward each other and forward, the retaining bands being attached at the ends to the cuff body and being free of the inner face of the cuff body intermediate the attached ends, buttonholes formed on the cuff body in front of the forward edges of the said retaining band, and a longitudinally extending band overlying the forward ends of the said diagonal retaining bands and secured to the cuff body.

[Claims 1 and 3 not printed in the Gazette.]

1,254,566. FLEXIBLE JOINT. FRANCIS N. BARD, Chicago, Ill. Filed Mar. 16, 1914. Serial No. 824,903. (Cl. 137—88.)

1. A flexible joint comprising a ball, a casing, a cap having a screw-threaded engagement with said casing and having a portion which overlaps a portion of said casing and an engaging piece pivotally connected with the overlapping portion of said cap and projecting beneath the end thereof and adapted to be moved into sliding engagement with the casing beyond the end of said cap so as to resist relative movement between them.



2. A flexible joint comprising a casing, a cap connected with said casing, an engaging piece pivotally mounted upon one of said parts and adapted to be brought into sliding frictional engagement with the other part when they are assembled to hold the parts against relative movement.

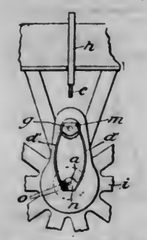
3. A flexible joint comprising a casing having an unbroken exterior surface, a cap having a screw-threaded engagement with said casing, a piece movably mounted on said cap and extending circumferentially therealong and bent out of alinement with its point of attachment to the cap, said piece adapted to be moved so as to engage the unbroken exterior surface of the casing and resist relative movement between the cap and casing.

4. A flexible joint comprising a casing, a cap having a screw-threaded engagement with said casing, an engaging piece movably connected with said cap and having bent ends, said bent ends adapted to be brought into engagement with the exterior surface of the casing, so as to resist relative movement between the cap and casing.

5. A flexible joint comprising a casing, a cap having a screw-threaded engagement with said casing, a lug connected with said cap and provided with a receiving space, an engaging part movably mounted in said receiving space and having bent ends on opposite sides of said lug, said bent ends adapted to be brought into engagement with the casing.

[Claims 6 and 7 not printed in the Gazette.]

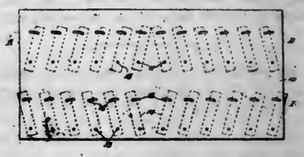
1,254,567. ARRANGEMENT FOR DRIVING TACHOMETERS ON LOCOMOTIVES. WILHELM BECKMANN, Berlin, Germany. Filed May 19, 1914. Serial No. 839,662. (Cl. 235—96.)



1. A driving mechanism for locomotive tachometers, comprising, in combination a crank having at one end a connection with one element of the running gear of the locomotive, so as to be rotated thereby, such connection being disposed eccentrically of said element; a shaft carried by the locomotive framework and connected directly to the other end of said crank; said shaft being disposed in axial alinement with the center about which said crank rotates, and said crank including in it a yielding connection to compensate for variations in the distance between the axes of said shaft and said eccentric connection due to the vertical motion of said framework relative to said running gear when the driving mechanism is in action; and a connection between said shaft and the tachometer to drive the latter from the former.

[Claim 2 not printed in the Gazette.]

1,254,568. COMBINED DRAG AND HARROW. JOHN C. BLOOMFIELD, East Columbus, Ohio. Filed Apr. 14, 1917. Serial No. 162,075. (Cl. 55—22.)



1. A device of the character described embodying a platform, spaced parallel rows of blades swingingly mounted upon the platform, each row being subdivided into separate series, the respective series of each row being capable of movement toward and away from each other for changing the angular relationship of the respective series, and means for simultaneously adjusting said series.

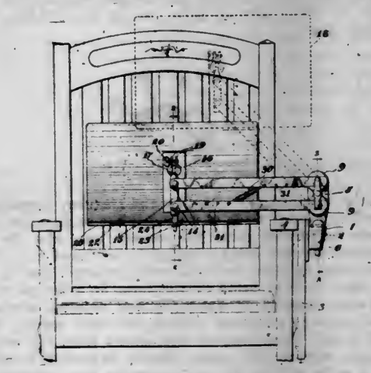
2. A device of the class described embodying a platform, spaced parallel rows of blades swingingly mounted upon said platform, and means for simultaneously adjusting said blades for changing the angular relationship of the respective rows for the purpose specified.

3. A device of the character described embodying a platform, spaced parallel rows of blades mounted thereon for swinging movement, means simultaneously adjusting said blades for changing the angular relationship of the respective rows, and means for holding said blades fixed relative to the platform in any of their adjusted positions.

7. A device of the class described embodying a platform, spaced parallel rows of blades mounted thereon and capable of swinging movement, the blades of one row being capable of an adjustment in a reverse direction to the blades of the adjacent row, each row being subdivided into a separate series of blades, the series of each row being capable of adjustment in a reverse direction, and means for simultaneously adjusting the blades in series of each row for the purpose described.

[Claims 4 to 6 not printed in the Gazette.]

1,254,569. BOOK-HOLDER. CHARLES L. BOAL, Zanesville, Ohio. Filed Jan. 27, 1917. Serial No. 144,904. (Cl. 45—82.)



In a device of the class described, a main standard having conical friction bearing members on one side, a

holder, a standard supporting the holder, parallel bars pivotally connected to said standards, and arranged for movement in a vertical plane to raise or lower the holder, said bars having concave friction bearing recesses in frictional contact with the bearing members of the standard and the pivots which connect the said bars to the main standard extending through the centers of said bearings, a clamping bar bearing against the parallel bars at a point opposite said bearings and engaging the said pivots, and an adjusting screw connecting the clamping bar to the main standard and provided with an adjusting nut.

1,254,570. ROPE-GRIP. BIRNEY BOARDMAN BOSWORTH, New York, N. Y. Filed Sept. 18, 1916. Serial No. 120,874. (Cl. 24—115.)



2. As an article of manufacture, a rope grip, comprising a handle provided near one end with an eye for the passage of a rope and disposed at an angle to the axis of the handle, the handle being provided exteriorly with a lengthwise extending groove beginning at the other end of the handle and gradually merging with the margin of the eye nearest the first-named end of the handle.

3. As an article of manufacture, a rope grip, comprising a handle provided near one end with an eye for the passage of a rope and disposed at an angle to the axis of the handle, the handle being provided exteriorly with a lengthwise extending groove adapted to receive the rope, one end of the groove having a curved bottom portion terminating at the eye and forming an acute angle with the eye end nearest the said end of the handle.

[Claim 1 not printed in the Gazette.]

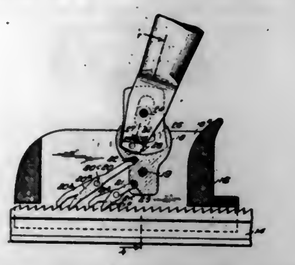
1,254,571. COMBINED ROPE-COUPLING AND TRAVELER. BIRNEY BOARDMAN BOSWORTH, New York, N. Y. Filed Oct. 9, 1916. Serial No. 124,681. (Cl. 254—135.)



1. A combined rope coupling and traveler, comprising a coupling member made of a single piece of metal having a crease lengthwise along the median line, and the said coupling member being adapted to surround and clampingly hold in place two rope ends arranged side by side, the said traveler being in the form of a ferrule within the major portion of which the said coupling member is firmly held by frictional contact, the other portion of the said ferrule being reduced and spaced from the coupling member opposite the crease thereof to provide a passage for a guide rod for the said combined rope coupling and traveler to slide on.

[Claims 2 and 3 not printed in the Gazette.]

1,254,572. OIL-WELL JACK. HARRY E. BROWN, Augusta, Kans. Filed May 5, 1917. Serial No. 166,690. (Cl. 255—35.)



1. A wrench jack including a carriage adapted to travel on the wrench sector, a lever mounted on the carriage and pawls on the lever to engage the wrench sector, said lever comprising a main lever and an auxiliary lever, the latter carrying the said pawls; together with means to connect said levers to operate in unison as a single lever or to compound the leverage and cause the main lever to relatively rock the auxiliary lever.

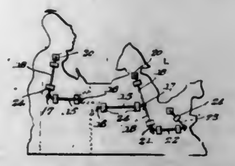
2. In a jack, a carriage, a lever comprising a main and an auxiliary lever and means to connect said levers to operate in unison as a single lever or to connect the levers so that the main lever rocks the auxiliary lever relatively to the main lever; together with means to actuate the carriage by the movements of the said lever.

4. A jack comprising a carriage, a main lever, an auxiliary lever fulcrumed on the carriage, pawls on said auxiliary lever to engage a rack, means forming a slot and pin connection between the levers, and means adapted to fulcrum the main lever on the auxiliary lever and cause the slot and pin connection to actuate the auxiliary lever or to rock the levers to move as a single lever on the fulcrum of the auxiliary lever.

6. In a wrench of the class described, a sector and a brace to detachably brace the sector against a drill rod, the said brace comprising a body presenting arms and a head extending in the opposite direction from the arms and having a recess to engage a drill rod, said head being adjustable upon the brace, the said arms having hooks at their outer ends and having members inward from the hooks and spaced from the latter a distance to receive the sector.

[Claims 3 and 5 not printed in the Gazette.]

1,254,573. TOY. EUGENE BURKART, Philadelphia, Pa. Filed Apr. 11, 1917. Serial No. 161,243. (Cl. 46—40.)

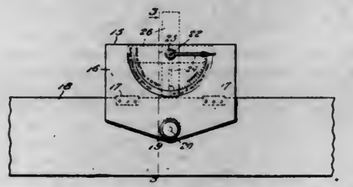


1. A toy of the class described, the combination with a base and a wall pivotally connected therewith, oscillating figures mounted upon the said wall, cranks extending from said figures and journaled in said wall, connecting links detachably connected with the free ends of said cranks, a crank shaft journaled for rotation upon said base and operable to rock said crank arms through the agency of said links, and a propeller carried by the upper end of said crank shaft for rotating the latter when subjected to atmospheric disturbances.

4. A toy of the class described comprising a wall, a plurality of movable figures on said wall, a rotary crank shaft, a linked connection between the crank portions of the shaft and said figures, for imparting thereto an oscillating movement and a propeller wheel on the crank shaft operable in a horizontal plane for rotating the crank shaft when subjected to atmospheric disturbances.

[Claims 2 and 3 not printed in the Gazette.]

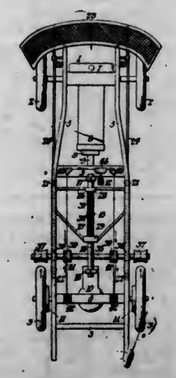
1,254,574. LEVELING DEVICE. ERNEST AUBREY BUTLER and WILLIAM ANGELO NICHOLS, Toronto, Ontario, Canada. Filed Apr. 14, 1916. Serial No. 91,217. (Cl. 33—213.)



2. In a device of the class described, a housing having side walls, a longitudinally slotted top wall and transverse braces terminally connected with the side walls, means for securing said housing on a straight edge, a scale on the outer face of one of the side walls, a shaft supported for rotation in the side walls, a casing carried by said shaft and containing a spirit level, said casing being adapted to be projected through the longitudinal slot in the top wall of the housing, and a pointer fixed adjustably on the shaft for coöperation with the scale.

[Claim 1 not printed in the Gazette.]

1,254,575. AUTOMOBILE. JOHN CAC, Philadelphia, Pa. Filed Mar. 23, 1917. Serial No. 157,055. (Cl. 180—83.)



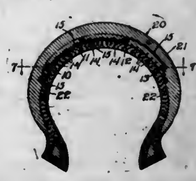
1. In an automobile, having front and rear wheels, the combination with a chassis having a motor, tail shaft, clutch, brakes, control lever, stationary bearing bar with an abutment collar, and slide bearings; of a slide frame having slide bars mounted in said slide bearings, cross bars with bearings respectively in front of and behind said abutment, and opposite alined bearings for a brake shaft, and a front guard carried by said slide bars; springs interposed between said abutment and said frame cross bars, respectively in front of and behind said abutment, whereby said frame is normally resiliently retained at the forward limit of its movement; a brake shaft journaled in said alined bearings in said slide frame; friction wheels on said brake shaft, arranged to respectively engage said rear wheels when said guard is thrust rearwardly to a predetermined extent; winding drums on said brake shaft, respectively upon opposite sides of said bearing bar; cable sheaves journaled on said chassis behind said brake shaft, respectively in alinement with said drums; cable sheaves on said chassis in front of said control lever; cables, each secured at one end to one of said drums and at the other end to said control lever, and extending rearwardly from said drums around said rear sheaves, and thence around said front sheaves, to said lever; whereby said lever is shifted forwardly, to stop the automobile, when said front guard is thrust rearwardly.

3. In an automobile, the combination with a chassis having a motor, control lever, a stationary abutment, and slide bearings; of a slide frame mounted in said slide bearings, having opposite alined bearings for a brake shaft, and carrying a front guard; springs interposed between said abutment and said frame, respectively in front of and behind said abutment, whereby said frame is normally resiliently retained at the forward limit of its movement; a brake shaft journaled in said alined bearings in said slide frame; a wheel on said brake shaft, arranged to turn said shaft, by engagement with a supporting wheel of said automobile, when said guard is thrust rearwardly to a predetermined extent; a winding drum on said brake shaft; and a cable connecting said drum to said control lever; whereby said lever is automatically shifted to stop the automobile, when said front guard is thrust rearwardly.

5. In an automobile, the combination with a chassis having a motor, control lever, and slide bearings; of a slide frame mounted in said slide bearings, and carrying a front guard; a wheel on said frame arranged to engage a supporting wheel of said automobile, when said guard is thrust rearwardly to a predetermined extent; and means operatively connecting said wheel with said lever; whereby said lever is automatically shifted to stop the automobile, when said front guard is thrust rearwardly.

[Claims 2 and 4 not printed in the Gazette.]

1,254,576. TIRE. LEON JAY CAMPBELL, Chicago, Ill. Original application filed May 25, 1914. Serial No. 840,677. Divided and this application filed Nov. 20, 1914. Serial No. 873,080. (Cl. 152—13.)



A tire, composed of rubber, and a fabric, the latter comprising a body consisting of interwoven warp and woof threads, and a plurality of laterally spaced, relatively stout threads, the latter projecting above the body of the fabric and being embedded in the rubber of the tire.

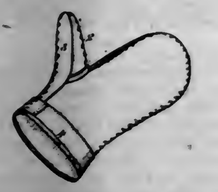
1,254,577. PICK FOR MUSICAL INSTRUMENTS. RICHARD J. CARPENTER and THOMAS G. TOWNER, Oakland, Cal. Filed July 15, 1915. Serial No. 40,015. (Cl. 84—117.)



A pick for musical instruments comprising a flat resilient body, and a layer of flat sheet cork lying against

and attached to one face only of said body and conforming to the contour of the body, said cork layer being of less area than the area of the face of the body to which attached.

1,254,578. MITTEN. ROBERT N. CARSON, San Francisco, Cal. Filed May 14, 1917. Serial No. 168,403. (Cl. 2—102.)

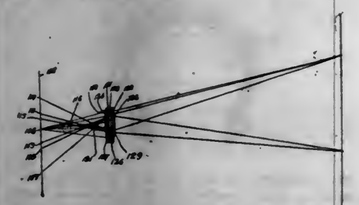


1. A mitten composed of similar and independent front and back members each having its opposite edges similarly shaped so that the position of said edges may be reversed, said side edges of each member connected by an uninterrupted curved edge, a thumb front having a base edge formed of straight converging portions secured respectively to a straight side edge of both members, and a thumb back secured to the thumb front.

6. A mitten composed of independent equally sized and similarly shaped front and back members, each having straight and similarly shaped side edges so that the position of said edges may be reversed, an inner thumb segment having the base formed of upwardly converging edges meeting centrally at an obtuse angle, and said base edges stitched to contiguous straight edges of the front and back members, and a back thumb segment having its upper portion stitched to the upper portion of the inner thumb segment and its lower portion stitched to the contiguous front and back members and said main members stitched together from their junction with the thumb.

[Claims 2 to 5 not printed in the Gazette.]

1,254,579. SHADER FOR CAMERAS. MARK W. COLLET, Philadelphia, Pa. Filed Jan. 27, 1915. Serial No. 4,678. (Cl. 95—65.)

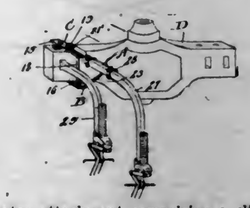


1. The combination with a photographic camera having a lens, of a shader having an obstructor cutting off a portion of the light from an area of the image plane of the camera, and placed within the camera at a substantial distance back of the lens, but sufficiently near the lens so that a number of lines can be drawn from every part of the image plane of the camera to the undiaphragmed portion of the lens without being cut by the obstructor whereby, without obliteration of any portion of the image, the intensity of the light thereon may be locally diminished.

2. The combination with a photographic camera having a lens of a shader having obstructors cutting off a portion of the light from an area of the image plane of the camera and placed within the camera a substantial distance back of the lens, but sufficiently near the lens so that a number of lines can be drawn from every point in the image plane of the camera to the undiaphragmed portion of the lens without being cut by the obstructors, whereby, without obliteration of any portion of the image, the intensity of the light thereon may be locally diminished.

3. The combination with a photographic camera having a lens of a shader having an obstructor cutting off a portion of the light from an area of the image plane of the camera and placed within the camera a substantial distance back of the lens, but sufficiently near the lens so that a number of lines can be drawn from every point in the image plane of the camera to the undiaphragmed portion of the lens without being cut by the obstructor whereby, without obliteration of any portion of the image, the intensity of the light thereon may be locally diminished, the said shader being capable of being adjusted transversely to the optical axis of the lens.

1,254,580. CULTIVATOR ATTACHMENT. LOCIA COTTON, Holdenville, Okla. Filed Dec. 29, 1916. Serial No. 139,643. (Cl. 97—35.)

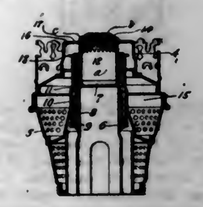


1. A cultivator attachment comprising a clip including top and bottom members and clamping bolts connecting the same, a bolt extending upwardly from the top member intermediate the clamping bolts, a standard carrying arm pivoted on said upwardly extending bolt for swinging movement in a horizontal plane, and means for securing the standard carrying arm in various adjusted positions.

2. A cultivator attachment comprising a clip including top and bottom members and clamping bolts connecting the same, a bolt extending upwardly from the top member intermediate the clamping bolts, a standard carrying arm pivoted on said upwardly extending bolt for swinging movement in a horizontal plane, and means for securing the standard carrying arm in various adjusted positions, said means including a rosette member fixed on the upper face of the top member of the clip, surrounding the bolt, and a mating rosette portion formed on the under face of the standard carrying arm.

[Claim 3 not printed in the Gazette.]

1,254,581. BURNER. CORTLAND WOODBURY DAVIS, Chicago, Ill., assignor to The Mantle Lamp Company of America, Chicago, Ill., a Corporation of Illinois. Filed Dec. 22, 1913. Serial No. 808,238. (Cl. 67—38.)



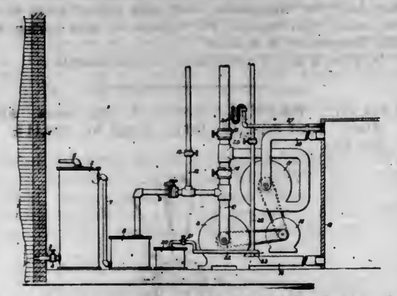
1. In a central draft burner of the blue flame wick type, including a burner cone having a substantially horizontal flange at its upper extremity, a wick, a wick tube, and a flame spreader mounted on the wick tube to have a portion thereof extend above the horizontal flange of the burner cone, said flame spreader having a tubular perforated body portion adapted to closely fit within the wick tube, and a frusto-conical portion, above the flange of the burner cone, said top portion having an oblique annular portion provided with an annular row of perforations for the admission of air obliquely to the flame of the wick above the flange of the cone.

3. A blue flame burner of the wick type comprising a burner cone, a wick tube, a wick, and a flame spreader mounted on the wick tube, said flame spreader having an imperforate horizontal top and a cylindrical wall provided with a plurality of rows of perforations extending from a predetermined point in the cylindrical wall toward the imperforate top to admit air to a flame whether set high or low, and a straight annular wall connecting the top plate with the cylindrical wall positioned on a plane above the top of the burner cone, said annular wall being provided with a row of perforations to permit air to pass from the interior of the spreader obliquely into a flame when set high and over a flame when low.

5. A flame spreader comprising a tubular, cylindrical body, the outer face of which is unobstructed, said body being provided with perforations at its upper portion, and a frusto-conical portion having an imperforate horizontal top plate and an oblique annular portion provided with a row of perforations which extend circumferentially around the said spreader in said oblique portion thereof.

[Claims 2, 4, and 6 to 14 not printed in the Gazette.]

1,254,582. SYSTEM OF EXTINGUISHING FIRE. DANVILLE DECKER, Rockville Center, N. Y. Filed Jan. 13, 1917. Serial No. 142,180. (Cl. 169—10.)



1. In a device for extinguishing fire, a fan member for drawing gases from a smoke stack and forcing the same into a compartment, means for drawing air from said compartment, and manually operated elements for causing said fan and said means to act as a circulating system for circulating gases in said compartment.

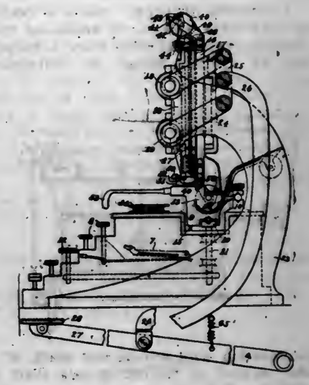
2. In a device for extinguishing fire in a compartment, a fan for drawing gases from a smoke stack and forcing the same in said compartment, means for cooling said gas, means for removing the sulfur from said gas, a fan for removing the air from said compartment, manually operated elements for causing said fans to act as circulating members after the air has been removed, manually operated means for causing the first mentioned fan to force air into said compartment, a manually operated member for causing the second mentioned fan to expel the gases from said compartment whereby said compartment is first filled with a smothering gas and then the gas is circulated in said compartment and finally the gas is expelled and fresh air substituted.

3. A device for extinguishing fire, comprising a pump or fan for drawing gases from a supply and forcing the same into a compartment or inclosure, means for cooling said gases before they reach said fan, means for removing sulfur from said gases before they reach said fan, means for supplying an additional amount of carbonic acid gas to the outlet pipe of said fan, a fan for withdrawing the air from said compartment and manually actuated means for causing said fan to circulate the gases in said compartment.

6. The process of extinguishing fires, consisting in the cooling of a certain quantity of coal gas, removing sulfur therefrom, forcing said purified gas into a compartment where the fire is located for smothering the fire, removing the air from said compartment substantially as fast as the gas is supplied, and then circulating the gas in the compartment.

[Claims 4, 5, 7, and 8 not printed in the Gazette.]

1,254,583. COMBINED TYPE-WRITING AND PRINTING MACHINE. TRIMBLE DE ROODE, New York, N. Y. Filed May 16, 1914. Serial No. 838,918. (Cl. 101—46.)



1. The combination with a typewriting machine having a movable carriage, of a platen mounted on the carriage in position to coact with the type of the typewriting machine, a second platen also mounted on the carriage and movable therewith, means for moving the first platen and thereby moving a sheet from the first platen over the surface of the second platen, means independent of the first platen for supporting a form of type in position to coact with said second platen and means for moving the second platen and the form of type relatively to effect printing from the form of type.

7. The combination with a typewriting machine having a movable carriage, of a platen mounted on the carriage in position to coact with the type of the typewriting machine, a flat platen mounted on the carriage in a substantially vertical position with its lower edge adjacent to said first mentioned platen, means on the carriage for supporting an ink-ribbon, an ink-ribbon held by said means in coaction with both of said platens, both of the platens being located on the same side of the ink-ribbon, and means for supporting a form of type in position to coact with said flat platen.

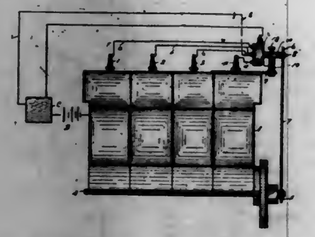
12. The combination with a typewriting machine having a movable carriage, of a platen mounted on the carriage, a second platen mounted adjacent to said first mentioned platen so that a sheet may be moved from the same over the surface of the second platen, a stop adapted to be mounted in position to be engaged by the edge of a sheet when the latter is being moved over the surface of said second platen, means for moving a sheet out of coaction with the stop, and means for supporting a type-form in position for coaction with said second platen.

23. The combination with a typewriting machine having a movable carriage, of a platen mounted on the carriage in position to coact with the type of the typewriting machine, a second platen mounted on the carriage adjacent to said first mentioned platen so that line-spacing movement of a sheet about the first platen carries the sheet over the surface of said second platen, means independent of the first platen for supporting a type-form in position to coact with said second platen and an impression controlling device adapted to be engaged by the type of the typewriting mechanism.

28. The combination with a typewriting machine having a movable carriage, of a platen mounted on the carriage in position to coact with the type of the typewriting machine, a second platen mounted on the carriage with one of its edges adjacent to the first mentioned platen, means on the carriage for supporting an ink-ribbon in cooperative relation to both platens with both of the platens lying on the same side of the ribbon, and means for supporting a type-form in coöperative relation to the second platen.

[Claims 2 to 6, 8 to 11, 13 to 22, 24 to 27, 29, and 30 not printed in the Gazette.]

1,254,584. IGNITION DEVICE. ARTHUR DICKERSON, Salt Lake City, Utah, assignor to Dickerson Manufacturing Company, Salt Lake City, Utah, a Corporation. Filed Sept. 17, 1917. Serial No. 191,882. (Cl. 123—168.)



1. The combination with a rotatable shaft, of a distributer rotor secured on the end of said shaft having portions of its periphery annular and other portions flat and with a radially disposed recess cut in its end face; a distributer arm carried in said recess; an insulating casing within which the said rotor is operated; a cap for said casing; conductor wires secured in said cap against which said arm is adapted to bear; and a timer element carried in the periphery of said casing consisting of a sleeve, a nut, an insulating tube connecting said sleeve and nut, a contact thimble carried in said nut, a contact plunger carried in said sleeve adapted to bear at one end on the peripheric face of said rotor and to be brought in contact with said thimble at the other end as said shaft is rotated.

[Claim 2 not printed in the Gazette.]

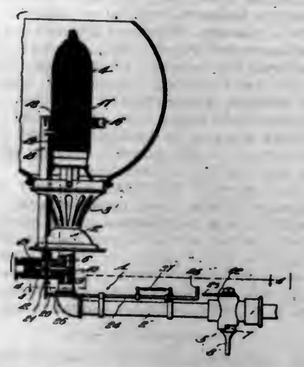
1,254,585. RAILWAY-TIE. LEANDER DUNCAN, Butte, Mont. Filed May 23, 1917. Serial No. 170,403. (Cl. 238—3.)



In a railway tie, the combination with a reinforced concrete body and a strong stiff metal bed plate embedded therein, said bed plate having a plurality of threaded holes therein, of a resilient cushion located in the tie and supported upon said bed plate, a flat metal tie plate supported upon the cushion and adapted to receive the base flange of the rail directly thereon, said cushion and tie plate being provided with vertical holes registering with said threaded holes, and a pair of threaded bolts passing down through said vertical holes into the threaded holes and having heads engaging the edges of the base flange to lock all of the parts together.

1,254,586. AUTOMATIC CUT-OFF FOR GAS-BURNERS. LEON WILLIAM EDWARDS, Forest City, Pa. Filed Feb. 12, 1917. Serial No. 148,152. (Cl. 67—116.)

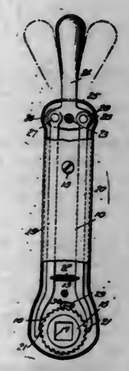
1. In a device of the class described, the combination with a supply pipe, a burner on the end thereof, a cut-off valve in said pipe, a contractile spring for normally retaining said valve closed, an upright post carried by the burner, an annular thermostat surrounding said burner and having one end attached to the end of the post, a link pivoted to the other end of the thermostat, an up-



right rock shaft having a crank on its upper end connected with said link, and an arm on the lower end of the shaft for engagement with said cut-off valve to hold the same open against the tension of said spring when the thermostat is heated.

[Claims 2 and 3 not printed in the Gazette.]

1,254,587. WRENCH. EDWIN L. ERICKSON, Aitkin, Minn. Filed Sept. 25, 1917. Serial No. 193,114. (Cl. 81—61.)



1. A wrench comprising a hollow handle, a nut engaging socket journaled transversely through one end of the handle and having ratchet teeth around the same in the hollow of the handle, a pair of spaced levers extending longitudinally within the handle and having engaging ends in connection with the ratchet teeth at diametrically opposite sides of the said socket; and a lever fulcrumed in the opposite end of the handle and movable independently thereof, said last named lever having extensions at diametrically opposite sides of its fulcrum to which the opposite ends of said ratchet levers are pivoted.

2. A wrench comprising a hollow handle having a transversely slotted opening at one end and having spaced openings adjacent its opposite end, a nut engaging socket member journaled through the last named openings of the handle and having an annular series of ratchet teeth therearound within the hollow of the handle, ratchet engaging levers extending longitudinally through the handle

and engaging diametrically opposite sides of the socket member at one end, and a lever fulcrumed at its opposite end within the opposite end of the handle, said lever projecting beyond the respective end of the handle in the general direction of the longitudinal axis of the latter and working in the slotted opening of the handle, and said lever being further provided with lateral extensions projecting at diametrically opposite sides of its fulcrum and to which the opposite ends of said ratchet levers are pivotally connected.

1,254,588. SOAPLIKE DETERGENT AND THE MANUFACTURE THEREOF. WILLIAM FELDENHEIMER, London, England. Filed Apr. 12, 1917. Serial No. 161,606. (Cl. 87—16.)

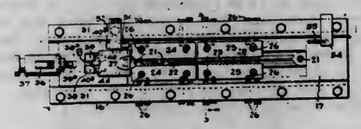
1. The process of manufacturing a soap-like detergent or "soap-stock" from lyes such as commonly result from the boiling process with separation of glycerin in the manufacture of soap, consisting in adding to the lyes when at a temperature of between 80° to 90° C. with the glycerin therein, ground maize-cones in the proportion of approximately 15% by weight of the lyes, substantially as set forth.

4. The process of manufacturing a soap-like detergent or "soap-stock" from lyes such as commonly result from the boiling process with separation of glycerin in the manufacture of soap, consisting in adding to the lyes when at a temperature of between 80° and 90° C. with the glycerin therein, ground maize-cones in the proportion of approximately 15% by weight of the lyes and 15% by weight of china-clay, substantially as set forth.

5. The process of manufacturing a soap-like detergent from the lyes containing glycerin resulting from soap manufacture, which consists in adding ground maize-cones to the lyes, substantially as set forth.

[Claims 2, 3, and 6 not printed in the Gazette.]

1,254,589. SHAPER-FIXTURE FOR BROACHING DOVETAIL ENDS OF TURBINE-BUCKETS AND THE LIKE. JOHN FORSMAN, Quincy, Mass., assignor to General Electric Co., a Corporation of New York. Filed Jan. 21, 1916. Serial No. 73,405. (Cl. 90—33.)



1. The combination with a shaper having a sliding head and a supporting table, of a fixture carried by the table comprising a stationary member, cutting tools fixed thereon, a carrier slidable on the stationary member, clamping members on the carrier for clamping the part upon which work is to be performed, means controlled by the movement of the carrier for automatically closing said clamping members, and means connecting the carrier to the sliding head of the shaper.

2. The combination with a shaper having a sliding head and a supporting table, of a fixture carried by the table comprising a stationary member, cutting tools fixed thereon, a carrier slidable on the stationary member, clamping members on the carrier for clamping the part upon which work is to be performed, means controlled by the movement of the carrier for automatically releasing said clamping members, and means connecting the carrier to the sliding head of the shaper.

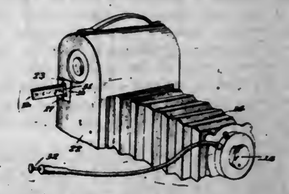
3. The combination with a shaper having a sliding head and a supporting table, of a fixture carried by the table comprising a stationary member, cutting tools fixed thereon, a carrier slidable on the stationary member, clamping members on the carrier for clamping the part upon which work is to be performed, means controlled by the movements of the carrier for automatically closing and releasing said clamping members, and means connecting the carrier to the sliding head of the shaper.

4. The combination with a shaper having a sliding head and a supporting table, of a fixture carried by the table comprising a stationary member, cutting tools fixed thereon, a carrier slidable on the stationary member, clamping members on the carrier for clamping the part upon which work is to be performed, one of said clamping members being fixed to the carrier, a frame movable on the carrier to which the other clamping member is secured, means controlled by the movements of the carrier for automatically moving said frame to close and release the clamping members, and means connecting the carrier to the sliding head of the shaper.

5. In an apparatus of the character described, the combination of a stationary member, cutting tools fixed thereon, a carrier slidable on the stationary member having an opening therein, clamping members on the carrier, one of them being fixed to the carrier in said opening, a frame slidable on the carrier and partially located in said opening, the other clamping member being fixed to said frame within the opening, and means controlled by the movement of the carrier for moving the frame on the carrier to bring the clamping members into and out of clamping position.

[Claim 6 not printed in the Gazette.]

1,254,590. INDICIA DEVICE FOR CAMERAS. WILLIAM F. GONDAWARE, Oceanpark, Cal. Filed Feb. 24, 1916, Serial No. 80,174. Renewed Dec. 19, 1917. Serial No. 207,980. (Cl. 95—1.1.)



1. In a camera, a box for the reception of a sensitized element, a bar arranged to extend transversely of the sensitized element, said bar having a longitudinal guide channel, and a translucent strip formed with a flange adapted to be engaged by said channel the body of the strip to depend from the bar adjacent the sensitized element.

6. In a camera, a box for the reception of a sensitized element, a pivotally mounted bar arranged to extend transversely of the sensitized element, said bar having a longitudinal guide channel, a translucent strip formed with a flange adapted to be engaged by said channel to suspend the strip adjacent the sensitized element, and means for locking the pivoted bar against movement.

12. In a camera, a box having a side opening, a pivoted shield extending across said opening, said shield having a passage therethrough, an indicia strip insertible through said passage, and means for yieldably holding the shield in several positions.

[Claims 2 to 5 and 7 to 11 not printed in the Gazette.]

1,254,591. CUTLERY ARTICLE. FREDERICK HACHMANN, St. Louis, Mo., assignor of one-fourth to George S. Haskell, Chicago, Ill., and one-half to Fred C. Schoenthaler, St. Louis, Mo. Filed Aug. 21, 1915. Serial No. 46,688. (Cl. 30—9.)

2. A cutlery article comprising a handle, a blade provided with a handle engaging tang having an aperture, and a spur provided at the forward end of the handle and disposed to engage said aperture.

3. A cutlery article comprising a handle, a blade provided with a handle engaging tang having an aperture, and a reinforcing piece at the forward end of the handle having a spur disposed to engage said aperture.

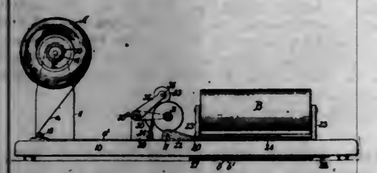
4. A cutlery article comprising a handle, a blade provided with a handle engaging tang having an aperture, and a reinforcing cap applied with the forward end of



the handle and having a spur disposed to engage said aperture.

[Claims 1 and 5 not printed in the Gazette.]

1,254,592. MANIFOLDING DEVICE. HORACE HANNERS, East Orange, N. J. Filed Sept. 4, 1917. Serial No. 189,552. (Cl. 11—36.)



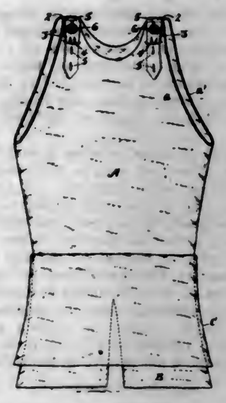
1. A manifolding device including a table and means to dispose a strip of paper folded on itself above the table surface, means to support a roll of carbon sheets at a side of the first means, a guide roller above the table surface beneath which a carbon sheet may be passed from the roll transversely through folds of the paper strip, and a second roller at the opposite side of the first means from the first roller and approximately level with the table surface, the said table having a vertical slot at the second roller through which the carbon sheet may pass from said second roller.

2. In a device of the class described, including a table and means to fold a strip of paper on said table; means to support a roll of carbon paper, a guide roller adjacent to the last mentioned means at a side of the paper folding means, a second roller at the opposite side of said paper folding means, said table having a vertical slot adjacent to the second roller for the passage of the carbon sheet to the under side of the table, and a guide on the table at the under side between which guide and the under surface of the table the carbon sheet is adapted to be accommodated.

3. In a device of the class described, including a table and means to fold a strip of paper on said table; means to support a roll of carbon paper, a guide roller adjacent to the last mentioned means at a side of the paper folding means, a second roller at the opposite side of said paper folding means, said table having a vertical slot adjacent to the second roller for the passage of the carbon sheet to the under side of the table, and a guide on the table at the under side which guide is spaced from the under surface of the table to permit of the carbon sheet being freely movable through said space without being immovably clamped by said guide, the said guide consisting of a flat plate pivotally secured at one end to turn in its own plane parallel with the under face of the table.

4. In a manifolding device including a table and means to support a roll of paper so that a strip of paper may be passed over the table surface; the herein described manifolding means including a fixture secured to the table and presenting a bottom plate and sides, a roller mounted adjacent to the roll supporting means, a second roller mounted at its ends in said sides and disposed transversely of the table, a paper retaining bar secured to said sides of the fixture above the bottom thereof, and a third roller revolubly supported in the table at the opposite side of the retaining bar from the second roller, and depressed with respect to the table surface sufficient for the paper to pass from the first roller, beneath the second roller, be bent around said third roller and returned to the second roller, said second roller being at an elevation from the bottom plate of the fixture to permit the strip of paper to pass from the roll supporting means about the first roller and extend in flat form from the first roller to the third roller and beneath the second roller without contact therewith, the said retainer bar being below the top surface of the second roller and at approximately the level of the bottom of said second roller.

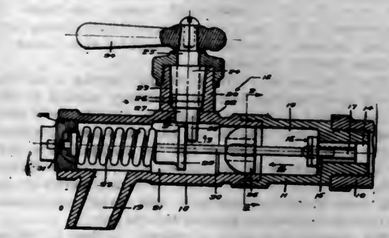
1,254,593. ADJUSTABLE BATHING-SUIT. WILLIAM R. HEBER, Berkeley, Cal., assignor to Princeton Knitting Mills, Richmond, Cal., a Corporation of California. Filed Apr. 28, 1917. Serial No. 163,829. (Cl. 2—144.)



1. A bathing suit composed of a body piece and integral trunks, said body piece being open at the top to form a head opening and armholes, shoulder straps connected to the back and having button holes at their free end parts, the front face of the body piece having slots formed below the top of the body piece to receive the free end parts of the straps so as to enable the latter to be engaged to the rear of the front face of the body piece and be concealed thereby, and buttons on the front face of the body piece above and adjacent to the slots to receive the buttonholes of the straps to thereby hold the free ends of the latter in said slots of the front of the body piece.

[Claim 2 not printed in the Gazette.]

1,254,594. SAFETY-FAUCET. GEORGE A. HIDDEN, Coronado, Cal., assignor of one-third to Elmer Sidney Welch, San Diego, Cal. Filed May 21, 1917. Serial No. 170,090. (Cl. 137—4.)

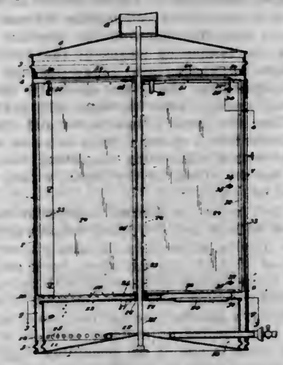


1. A faucet comprising a sleeve adapted to be connected with a water supply pipe, the bore of said sleeve being reduced at the connecting end, a slidable valve member mounted within the reduced portion of the bore and adapted to overlap its edges at its inner end, a faucet housing detachably secured to the free end of the sleeve and in communication therewith, a plunger extending longitudinally of the faucet housing and the sleeve, shoulders formed upon said plunger to hold it centrally of the housing and sleeve, a spring adapted to hold one end of the plunger against the end of the valve member, and means for opposing the expansion of the spring and relieving the valve from the end of the plunger, whereby the water pressure within the pipe will move the valve member and permit water to flow through the faucet housing.

3. A faucet comprising a valve sleeve adapted to screw into a water supply pipe at one end, a faucet housing screwed into the opposite end of said valve sleeve, said faucet having a central cylindrical opening extending as a continuation of the central opening in the valve sleeve, a shoulder in said valve sleeve, a valve port extending through one end of the sleeve, a cylindrical valve member having a portion slidably positioned within said port and having an enlarged end portion normally bearing upon said shoulder, flutes formed longitudinally along the sides of the valve member within the port, a plunger rod abutting against the inner end of the valve member and extending longitudinally through the central openings of the sleeve and housing, a spider formed around the plunger rod and adapted to hold the plunger centrally and permit water to pass thereby, a fixed shoulder formed upon the plunger, an expansion coil spring bearing against said fixed shoulder and holding the end of the plunger rod against the valve member whereby the valve may be moved from its seat under the pressure within the pipe, an eccentric pin adapted to be brought to bear against said fixed shoulder to manually reciprocate the plunger rod in a direction to permit the valve to open under fluid pressure, operating means for moving the eccentric pin, and adjusting means for regulating the expansive force of the spring.

[Claim 2 not printed in the Gazette.]

1,254,595. LAUNDRY-DRIER. CHARLES J. HOLUB, Newport, Ky., assignor to The Williamson Heater Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Sept. 13, 1915. Serial No. 50,288. (Cl. 34—28.)

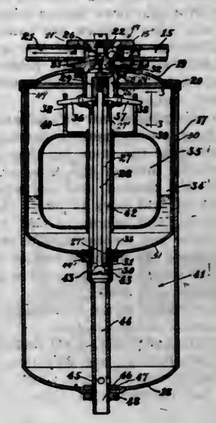


1. A device of the nature disclosed comprising an outer casing forming a drier chamber, a rotatable work support therein, an inner casing below said work support forming a heating chamber, a heater element within said heating chamber, the heating chamber being provided with escape apertures to permit the escape of the products therefrom, and means for deflecting said products and guarding the escape apertures.

5. A device of the nature disclosed comprising a casing forming a drier chamber having a door opening affording access to said chamber and apertured to maintain air circulation therethrough, a work support journaled in the drier chamber and formed of a series of partition plates defining separate work receiving compartments adapted to be moved into registry with the door opening, means retarding the air circulation through any one of the work receiving compartments when in registry with the door opening, and a heat radiating element within the casing below the work support.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,254,596. AUTOMATIC FUEL-FEED FOR AUTOMOBILE-ENGINES. EDWARD A. HUENE, Los Angeles, Cal., assignor to Clara A. Huene, Los Angeles, Cal. Filed Mar. 14, 1917. Serial No. 154,847. (Cl. 158—36.)



1. In an automatic fuel feed for internal combustion engines, an outer cylindrical shell normally open at the top and closed at the bottom, an inner cylindrical shell normally open at the top and closed at the bottom and fitting loosely within the outer cylindrical shell, a gasket fitting against the open end of the inner cylindrical shell and against the open end of the outer shell, a cap fitting against the gasket, a valve frame having two horizontal legs, and a side leg extending downwardly through the center of the cap and fixed therein and extending through the bottom of the inner cylindrical shell and extending through the bottom of the outer cylindrical shell; there being nuts to fix the leg in the bottom of the inner cylindrical shell and nuts to fix the leg in the bottom of the outer cylindrical shell so as to draw the inner cylindrical shell against the gasket and draw the outer cylindrical shell against the gasket; means for leading liquid fuel through one of the horizontal legs to the inner cylindrical shell, means for connecting the other horizontal leg to the engine manifold, and float controlled valve means in the inner cylindrical shell for regulating the flow of fuel under the suction of the engine.

4. In an automatic fuel feed for internal combustion engines, the combination with an engine provided with a fuel intake manifold and a gaseous fuel carbureter, of a liquid fuel supply tank, a vacuum feed chamber in communication with said supply tank and with said engine manifold, a gravity fuel basin in communication with said vacuum chamber and said carbureter, means whereby liquid fuel may pass from said supply tank to said vacuum chamber, valves controlling the communicating passages between the supply tank, the engine manifold, the vacuum chamber, and the fuel basin, a float mounted within said vacuum chamber, and means whereby said float, by reason of a changing liquid fuel level, positively operates said valves; so that when the float goes down the suction of the engine will draw fuel from the supply tank and discharge it to the gravity basin and so that when the basin is sufficiently filled the suction of the engine will be shut off.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,254,597. SAW-CLAMP. EDWARD N. HUSSEY, Vineland, N. J. Filed Nov. 4, 1916. Serial No. 129,595. (Cl. 76—78.)

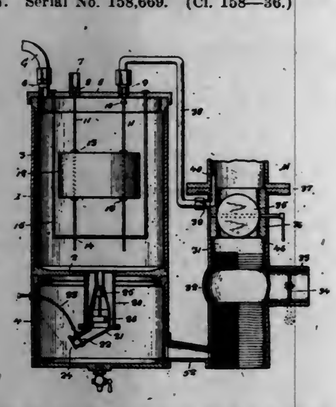


4. A saw clamp consisting of a pair of parallel extending clamping jaws, bowed and resilient saw engaging surfaces formed with said jaws, means connected with the extremities of said jaws to draw the bowed portions together so as to effect the securing of the saw therebetween, and horizontally extending webs projecting from said jaws and operable to facilitate the securing of the clamp to a stationary support.

6. A saw clamp embodying a pair of resilient coöperating saw engaging jaws, means passing through one end of the jaws for connecting the same together, adjustable clamping means passing through the jaws at point adjacent the opposite end thereof and operable to compress the extremities of said jaws to effect the securing of a saw therebetween, and means carried by the adjustable clamping means and embracing one extremity of the saw, tending to force the opposite end of the saw in contact with the jaw connecting means for preventing any lateral movement of said saw.

[Claims 1 to 3 not printed in the Gazette.]

1,254,598. COMBINED GAS-FEED AND CARBURETER. HENRY A. IMHOFF, Chillicothe, and BENGIMAN F. COOKE and WILLIAM A. RHULMAN, Hamden, Ohio. Filed Mar. 30, 1917. Serial No. 158,669. (Cl. 158—36.)



1. The herein described combined liquid fuel feeder and carbureter, the same comprising a feeder portion having an upright casing with an internal partition dividing it into upper and lower compartments, a connection between said compartments having a check valve, a gas line connecting the upper compartment with a remote fuel tank at a lower level, and a float in this compartment; and the carbureter portion having an upright casing connected at its lower end with a low point in the lowermost of said compartments and at its upper end with the inlet manifold, regulated means for admitting air, a main valve, an L-shaped nipple in said casing between the main valve and manifold and with its inner end directed toward the engine, a nipple on the body of the feeder connected with the outer end of said L-shaped nipple, and a valve in the feeder-nipple controlled by its float.

2. The herein described combined liquid fuel feeder and carbureter, the same comprising a feeder portion having an upright casing with an internal partition dividing it into upper and lower compartments, said partition having a hole, a valve casing depending from the partition around said hole and deflected at its lower end into an oblique spout, a check valve at the lower end of said spout, a needle valve and its float within said casing above the spout, the float causing this valve to close upwardly, a gas line connecting the upper compartment with a remote fuel tank standing at a lower level, a nipple in the top of this compartment, and a valve in said nipple closed by the rise of a liquid within the compartment; and the carbureter portion having a casing connected at its lower end with said lower compartment below the check valve in the latter and at its upper end with the inlet manifold, means for regulating the volume of air and liquid fuel admitted, a main valve, and connections between the casing adjacent said main valve and the nipple on the feeder casing, for the purpose set forth.

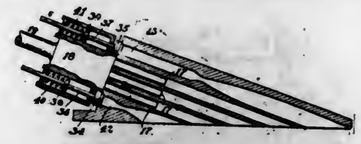
3. The herein described combined liquid fuel feeder and carbureter, the same comprising a feeder portion having an upright casing with an internal partition dividing it into upper and lower compartments, said partition having a hole, a valve casing depending from the partition around said hole and deflected at its lower end into an oblique spout, a check valve at the lower end of said spout, a hand valve within the spout, a handle on the exterior of the casing controlling this valve, a needle valve and its float within said casing above the spout, the float causing this valve to close upwardly, a gas line connecting the upper compartment with a remote fuel tank standing at a lower level, a nipple in the top of this compartment, and a valve in said nipple closed by the rise of the liquid within the compartment; and the carbureter portion having a casing connected at its lower end with said lower compartment below the check valve in the latter and at its upper end with the inlet manifold, a main valve, and connections between the casing adjacent said main valve and the nipple on the feeder casing, for the purpose set forth.

4. The herein described liquid fuel feeder for internal combustion engines, the same comprising an upright casing having a transverse partition dividing it into upper and lower compartments, connections between its lower compartment and the carbureter and between the carbureter and the intake manifold, connections between its upper compartment and a remote source of liquid fuel standing at a lower level, connections between its upper compartment and the manifold for creating a partial vacuum in the former by means of the suction in the latter, means for closing said connections as the liquid in this compartment rises, an upwardly closing float valve whose casing opens through said partition and stands within the lower compartment and whose lower end is deflected into a spout, a check valve on said spout, and a float within said casing controlling the closing of the valve by the rising of the liquid within the lower compartment.

5. In a fuel feeder for internal combustion engines, the combination with an upright casing whose upper end contains three nipples, whose body contains a transverse partition pierced with an opening, whose lower end is closed, and whose lower portion is connected with the carbureter; of an upwardly closing valve in the opening of said transverse partition, a gas line leading from one of said nipples to a fuel tank located at a lower level, a downwardly closing air valve in one of the remaining nipples and an upwardly closing valve in the other, connections between the last named nipple and the inlet manifold of the engine, a bail hanging from the upper head of the casing within the same above its partition, rods depending from said valves and slidably mounted in the lower portion of the bail, nuts on said rods, and a float mounted on them between said nuts, the whole for use substantially as described.

1,254,599. NOZZLE CONTROL FOR TURBINES. WILLIAM J. IRWIN, Wilkinsburg, Pa. Filed Aug. 17, 1914. Serial No. 857,031. (Cl. 121—118.)
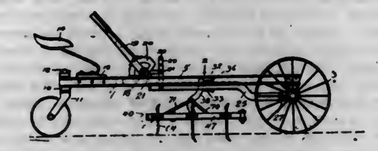
1. In a turbine, a plurality of nozzles, a plurality of wedge-shaped valves extending within said nozzle, and a valve head to which said valves are rigidly connected, and resiliently supported puppet valves carried by said head.



13. In a turbine, a plurality of nozzles, a plurality of valves for said nozzles, a common carrier for said valves and adapted to reciprocate the same, some of said valves having longitudinal movement with respect to said carrier so as to open at a later time than others of said valves.

[Claims 2 to 12 not printed in the Gazette.]

1,254,600. FURROW-FILLER AND CULTIVATOR. GEORGE JEFFREY, Irvine, Cal. Filed July 23, 1917. Serial No. 182,231. (Cl. 97—34.)



1. In a cultivator, a front axle, a frame mounted at its front end upon the axle, a caster under the rear end of the frame, lifting levers pivoted in the frame at their forward ends and rigidly connected at their rear ends, a rock-shaft mounted transversely at the rear of the frame, a hand-lever mechanism for operating the rock-shaft, a crank-arm connecting the rock-shaft to the bar connecting the rear ends of the lifting levers, a bar construction mounted transversely upon the central portions of the lifting levers and adapted for adjustment longitudinally of the lifting levers, and cultivator units adjustably connected to the ends of the bar construction.

4. A cultivator comprising a carriage, a lifting lever pivotally mounted at the forward end of said carriage for vertical swinging movement, adjustable means for raising and lowering the rear end of the lifting lever, a pair of parallel bars secured transversely of the lifting lever, cultivator units adapted to be supported by the bars, clamping means for securing said units in vertical and horizontal adjustment in relation to said bars, and means for separately and adjustably disposing the units at various angles to the horizontal.

[Claims 2 and 3 not printed in the Gazette.]

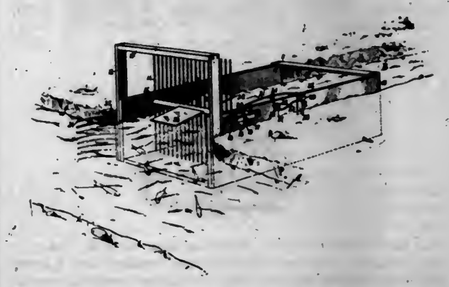
1,254,601. UMBRELLA. PAUL A. JONES, Irrigon, Oreg. Filed Dec. 29, 1916. Serial No. 139,633. (Cl. 135—26.)



1. In an umbrella, a staff composed of sections, one section being provided at its end with a socket having in its side walls L-shaped slots and downwardly disposed extremities at the inner ends thereof, the adjacent section being provided at its end with outstanding lugs adapted to enter the said slots and the extremities thereof, and a spring pressed block carried in the last mentioned section and projecting beyond the end thereof and adapted to engage the top wall of the socket whereby the lugs are held in the downwardly disposed extremities of the slots.

2. An umbrella comprising a staff, ribs hingedly connected therewith, said ribs being provided at their free ends with offset portions having laterally disposed lugs, extensions having bands which slidably receive the ribs and adapted to receive the said offset portions thereof whereby the outer surfaces of the ribs and extensions may aline with each other, braces pivotally connected with the bands and a ring slidably mounted upon the staff of the umbrella and pivotally connected with the said braces.

1,254,602. FISH-SCREEN. JAMES OLIVER KAPADER, Fort Bidwell, Cal. Filed Aug. 2, 1917. Serial No. 184,112. (Cl. 61—5.)



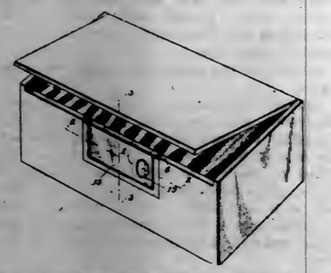
1. In a device of the class described, a screen, a support in which the screen is journaled to turn on a horizontal axis, paddles on the screen at about right angles thereto, and latch means to hold the screen upright with the paddles approximately horizontal, said latch means including a disk fixed on a journaled of the screen to partake of the movements thereof, said disk having diametrically opposite depressions, and a spring-pressed latch bearing against said spring and yieldable by a turning movement thereof, said depressions being adapted to receive the bearing portion of said spring latch and being so located relatively to the spring and paddles for one of the depressions to be positioned for receiving the latch when the screen is upright and the paddles horizontal.

2. In a device of the class described, a screen, a support in which the screen is journaled to turn on a horizontal axis, paddles on the screen at about right angles thereto, and latch means to hold the screen upright with the paddles approximately horizontal, said latch means including a disk fixed on the journal of the screen to partake of the movements thereof, said disk having diametrically opposite depressions, a resilient latch rod bearing against and having an end adapted to engage in a depression of the disk and yieldable to a turning movement of the latter, a spring secured between its ends to the said support, one end of the spring engaging said latch rod, and an element fixed on the support and having a series of teeth with either of which the other arm of the spring is engageable.

1,254,603. HUMIDOR. GEORGE A. KALLENBERGER, Newark, N. J. Filed May 22, 1917. Serial No. 170,284. (Cl. 131—30.)

3. The combination with a receptacle having a side wall formed with an edge opening recess, of a humidor attachment comprising a body formed with edge opening

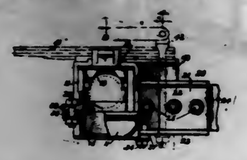
channels, the body being positioned in said recess and the wall around said recess being received in said channels, a pan removably fitted into said body and a tongue



formed on one end of said pan, said tongue being adapted to engage the inner side of the receptacle wall.

[Claims 1 and 2 not printed in the Gazette.]

1,254,604. JOURNAL-BOX. LEWIS E. KEIL, St. Louis, Mo., assignor to St. Louis Car Company, St. Louis, Mo., a Corporation of Missouri. Filed Apr. 17, 1917. Serial No. 162,669. (Cl. 105—243.)



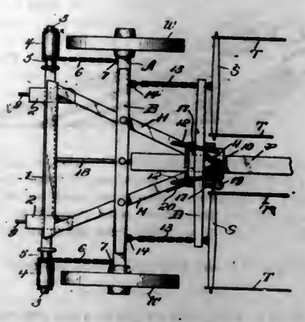
1. In combination, a truck having a side beam, a journal box having an upper bearing member and a lower lubricant containing member, the upper bearing member having an integral sidewise extending bracket fitting the end of the said side beam, bolts permanently fastening the said bracket to the said side beam, bolts fastening the outer side of the said lower lubricant containing member removably to the said upper bearing member, and bolts fastening the inner side of the said lower lubricant containing member to the bottom of the said bracket.

2. In combination, a truck having a side beam, a journal box having an upper bearing member and a lower lubricant containing member, the upper bearing member having at its inner side an integral sidewise extending bracket having a vertical web, top and bottom flanges and a T-shaped tongue extending integrally from the top flange for the attachment of the spring support for the car body, the said bracket fitting against one face of the web of the side beam and the corresponding flanges, fastening means fastening the bracket to the side beam, and fastening means removably fastening the said lower lubricant containing member to the under side of the said upper bearing member, sundry of the last-named bolts engaging the bottom flanges of the said bracket.

[Claims 3 and 4 not printed in the Gazette.]

1,254,605. AUTOMATIC BRAKE. CHARLES H. KILGORE, Palmersville, Tenn. Filed May 23, 1917. Serial No. 170,512. (Cl. 21—9.)

1. In an automatic brake, the combination with a brake beam having trunnions at its extremities, a friction wheel rotatably mounted on each trunnion and having a winding drum on its hub, the wheels standing opposite the vehicle wheels, guides in which said beam is movably mounted, and springs pressing the beam normally in a direction to apply the friction wheels to the wagon wheels; of a doubletree slidably and pivotally mounted on the running gear, means for connecting the traces with the doubletree, trip mechanism whereby forward movement of the doubletree relative to the running gear moves the brake beam against the tension of its springs and throws off the brakes, and chains connecting said winding drums with the axle.



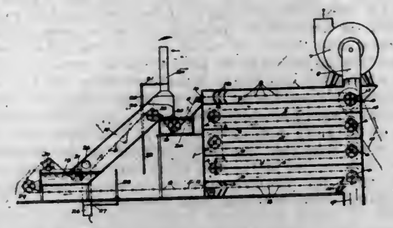
2. In an automatic brake, the combination with a brake beam having trunnions at its extremities, a friction wheel rotatably mounted on each trunnion and having a winding drum on its hub, the wheels standing opposite the vehicle wheels, guides in which said beam is movably mounted, and springs pressing the beam normally in a direction to apply the friction wheels to the vehicle wheels; of chains connecting said winding drums with the axle, a push rod leading from the center of the brake beam forward, a rock lever pivoted between its ends to the running gear forward of the axle and to whose lower end said push rod is connected, and means actuated by tension on the traces for bearing the upper end of said rock lever forward, for the purpose set forth.

3. In an automatic brake, the combination with a brake beam having trunnions at its extremities, a friction wheel rotatably mounted on each trunnion and having a winding drum on its hub, the wheels standing opposite the vehicle wheels, guides in which said beam is movably mounted, and springs pressing the beam normally forward to apply the friction wheels to the vehicle wheels; of chains connecting said winding drums with the axle, a push rod leading from the center of the brake beam forward, a U-shaped rock lever whose arms are pivoted in an upright position astride the front ends of the hounds forward of the axle and whose connecting cross bar is pivotally connected with the front end of said pushrod, and a whiffle tree pivotally and slidably mounted on the hounds in rear of the upper ends of said arms and adapted to press said ends forward when the traces are under tension.

4. In an automatic brake, the combination with a slidable brake beam, rolling brakes mounted thereon adjacent the wheels of the vehicle and each having a winding drum, yielding means bearing said beam in a direction to apply the brakes, and chains connecting the winding drums with the front axle; of a U-shaped rock lever whose arms are pivoted to opposite sides of the hounds forward of said axle, a pushrod connecting the cross bar at the lower ends of said arms with the center of said brake beam, the upper end of one arm having a foot piece, and a double tree slidably mounted on said hounds in rear of the upper ends of said arms and adapted to press them forward when the traces are under tension.

5. In an automatic brake, the combination with a slidable brake beam, rolling brakes mounted thereon adjacent the wheels of the vehicle and each having a winding drum, yielding means bearing said beam in a direction to apply the brakes, and chains connecting the winding drums with the front axle; of a U-shaped rock lever whose arms are pivoted to opposite sides of the hounds forward of said axle, a pushrod connecting the cross bar at the lower ends of said arms with the center of said brake beam, a catch carried by one of said hounds and adapted to engage the upper and of one arm, and a double tree slidably mounted on the hounds in rear of said arms and adapted to bear their upper ends forward when the traces are under tension.

1,254,606. EVAPORATOR. RALPH W. KING and HERBERT G. MILLER, The Dalles, Oreg.; said King assignor to said Miller. Filed Apr. 14, 1917. Serial No. 162,163. (Cl. 34—12.)

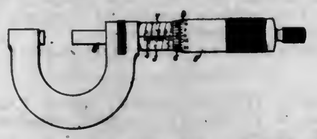


1. In a device of the character referred to, in combination, a drier chamber with means for causing a circulation of air therethrough, a bleaching chamber, or conduit, with reservoir sealing means at its inlet and outlet, a traveling conveyer arranged to travel through said drier chamber and through said bleaching chamber, means being provided for dipping said traveling conveyer through said sealing reservoirs at the inlet and outlet to said bleaching chamber, and means for supporting matter to be dried on said travel conveyer, substantially as described.

2. In a device of the character referred to, a housing with baffle members therein, means for causing the circuitous circulation of air therethrough, a traveling conveyer with means for directing the same through said circuitous course in said housing, means for supporting matter to be dried on said traveling conveyer, a separate chamber, or conduit, for treating the matter to be dried before it enters said drier housing, and means fo directing said traveling conveyer through said treating chamber, or conduit, before it enters said drier, substantially as described.

[Claims 3 and 4 not printed in the Gazette.]

1,254,607. MICROMETER. WILLIAM F. KOCH, Brooklyn, N. Y. Filed June 27, 1917. Serial No. 177,257. (Cl. 33—166.)

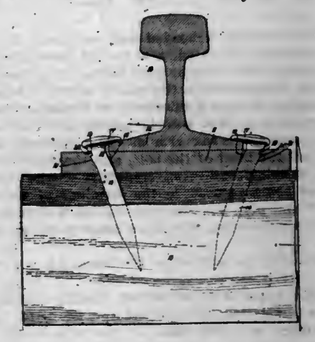


1. In a micrometer, a sleeve having linear scales of the English and metric systems, one of said scales being disposed on a straight line parallel to the elements forming the surface of the sleeve and the other of said scales being disposed on a spiral about the surface of the sleeve, the zeros of said scales coinciding, a thimble movable over the sleeve longitudinally and revolubly and having a linear scale formed about the circumference of said thimble, and means for moving the thimble so that its longitudinal movement is proportional to its rotary movement, said last mentioned scale being adapted to cooperate with the scales on the sleeve.

2. In a micrometer, a sleeve having linear scales of the English and metric systems, the English scale being disposed on a straight line running parallel to the axis of the sleeve and the metric scale on a spiral, the zeros of said scales coinciding, a thimble movable over the sleeve, longitudinally and revolubly, means for moving the thimble so that its longitudinal movement is proportional to its rotary movement, and a scale about the circumference of said thimble disposed to coöperate with the scales on the sleeve.

3. In a micrometer, a sleeve, linear scales of the English and metric systems on said sleeve, one of said scales being disposed on a straight line parallel to the axis of the sleeve and the other on a spiral, the two scales originating from a common point, a thimble movable over the sleeve, longitudinally and revolubly, means for moving the thimble so that its longitudinal movement is proportional to its rotary movement, the pitch of the spiral scale bearing a predetermined relation to the movement of the thimble over the sleeve, and a scale or scales about the circumference of the thimble disposed to coöperate with the scales on the sleeve.

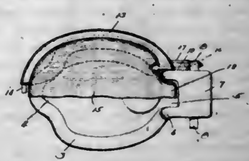
1,254,608. RAIL-FASTENING. SAMUEL BOOTH KULL, New Canaan, Conn. Filed Apr. 26, 1917. Serial No. 164,741. (Cl. 238—4.)



1. A rail fastening, comprising a rail supporting plate forming a rest for the base of the rail and adapted to rest on the tie, said supporting plate having converging apertures on opposite sides of the rail base, and spikes, one for each plate aperture and having its head engaging the top of the rail base, the spikes and the walls of the plate apertures having interlocking members engaging one the other at the time the head of a spike engages the base of a rail.

2. A rail fastening, comprising a rail supporting plate having a rest for the base of a rail and adapted to rest on the tie, the supporting plate having converging apertures each provided in its outer wall with a retaining shoulder, and spikes, one for each plate aperture and each provided with a notch adapted to engage the said retaining shoulder at the time the head of the spike engages the rail base and the head is forced outward to bend the neck of the spike in an outward direction.

1,254,609. TOILET-BOWL. HARRY T. LALLY, Jr., Alameda, Cal. Filed May 17, 1916. Serial No. 98,192. (Cl. 4—18.)



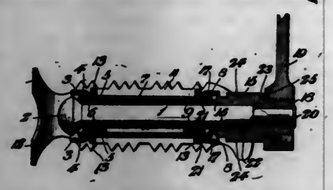
2. A toilet bowl, a roll rim around the upper edge of said bowl, said rim being curved to form recesses at the front and back of said bowl, a seat comprising two parts separated at the front and back, a lid, a tongue on said lid extending into said back recess, and a hinge connection for said seat and said lid.

[Claims 1 and 3 not printed in the Gazette.]

1,254,610. PEDAL FOR VELOCIPEDES, BICYCLES, &c. RICHARD G. LEDIG, Philadelphia, Pa. Filed May 16, 1917. Serial No. 168,940. (Cl. 208—70.)

1. In a pedal for a bicycle or the like, a bolt-like member, a pedal proper rotatably mounted thereon, a tubular

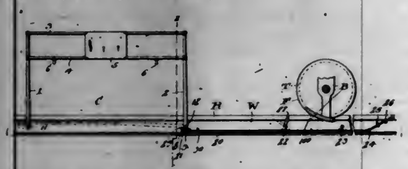
plug having a stub, said bolt being passed through the bores of said stub and plug, the terminal portion of said bolt being secured on the outer end of said stub.



10. A pedal proper, a headed bolt on which the pedal proper is rotatably mounted, a barrel adapted to encircle said bolt, cups with which said barrel is connected, a tubular plug through which the end of said bolt is passed, said plug having thereon a tubular stub through which the terminal portion of said bolt is passed, said stub being adapted to carry a crank arm of the velocipede, one of said cups and the head of the bolt, and the other cup and said plug forming ball-races respectively, the terminal of said bolt being secured to the terminal of said stub, the bore of said plug and the adjacent portion of the bolt having thereon abutting shoulders adapted to space said ball races.

[Claims 2 to 9 not printed in the Gazette.]

1,254,611. RAILROAD-CROSSING GATE. VICTOR A. LILLQUIST, Superior, Wis. Filed Apr. 24, 1917. Serial No. 164,195. (Cl. 269—5.)

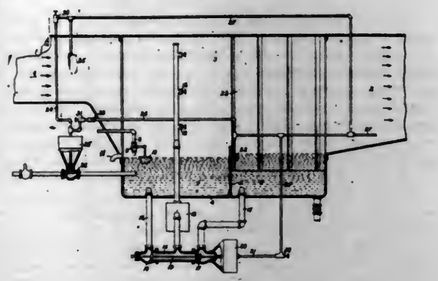


1. In a railroad crossing, the combination with upright strips adapted to be pivoted at their lower ends to the web of the rail at the highway crossing, parallel slats pivotally connecting said strips and constituting the gate body, an arm projecting rigidly from the lower end of one of said strips and deflected out of line therewith, and a spring for frictionally engaging and holding said arm when the gate rises; of a rod pivotally connected with the lower end of said arm and leading along the flange side of the rail in the direction of an approaching train, links pivotally connecting this rod with the rail-web, a gate opening finger rising rigidly from the link nearest the gate alongside the ball of the rail, and a contact head at the outer end of the rod, for the purpose set forth.

2. In a railroad crossing, the combination with strips adapted to be pivoted at their lower ends to the web of the rail at the highway crossing, slats connecting said strips and constituting the gate body, an arm projecting rigidly from the lower end of one of said strips, and a spring for frictionally engaging and holding said arm when the gate rises; of a rod pivotally connected with said arm and extending along the flange side of said rail in the direction of an approaching train, its outer end being bent obliquely upward and provided with a head at its extremity adapted to be projected above the ball of the rail, a guide through which the oblique end is slidably mounted, and a gate opening finger pivoted to the rod and to the rail adjacent the gate and raised alongside said rail when the gate is raised, for the purpose set forth.

1,254,612. APPARATUS FOR PURIFYING AND HUMIDIFYING AIR. ADOLPH W. LISSAUER, New York, N. Y. Original application filed Aug. 22, 1916, Serial No. 116,266. Divided and this application filed May 4, 1917. Serial No. 166,844. (Cl. 261—39.)

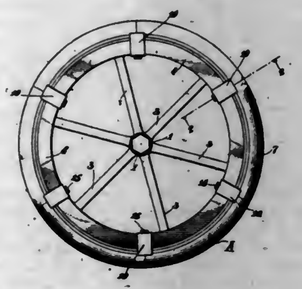
3. An apparatus for purifying and humidifying air, comprising in combination,—an air chamber having a sump divided into two parts, said chamber having means whereby air may be circulated through the chamber across the two parts of the sump, means for supplying and heating the water in one part of sump, a thermostat affected by the temperature of the air current entering the chamber for controlling the supply of heat, said part of sump having an overflow to maintain the water level therein constant and below the water level in the other part, spray-forming means in the path of the air current, means for eliminating the excess of moisture from the air and directing it to said other part of sump, a pump for driving water to the spray-forming means, means for supplying to the pump a mixture of water from both parts of the sump, a second thermostat affected by the temperature of the water in the said other part of the sump for controlling the mixture, and the heating means independently of the first mentioned thermostat.



5. An apparatus for purifying and humidifying air, comprising in combination,—an air chamber through which an air current may be passed, means for supplying moisture to the air current, means for eliminating the excess of moisture supplied, a supply of water, means for heating the supply of water, a thermostat influenced by the initial wet-bulb temperature of the air current entering the chamber for controlling the heating means, means for forming a mixture of the water collected and that from the supply before delivering it to the means for supplying moisture, and a thermostat affected by the temperature of the moisture collected for controlling the mixing means and the heating means.

[Claims 2 to 4 not printed in the Gazette.]

1,254,613. VEHICLE-WHEEL. ARTHUR V. LYALL, New York, N. Y. Filed Jan. 10, 1911. Serial No. 601,862. (Cl. 152—9.)



A wheel comprising a felly, a sectional metal rim surrounding said felly, a section of rubber tire vulcanized to each section of said sectional rim, clamps for securing said sectional rim to said felly, each clamp comprising a pair of substantially L-shaped members the bases of which are adapted to overlap each other on the interior of the felly and the stems of which are provided with

lips adapted to overlap the ends of adjacent sections of said sectional rim, and means to retain said members in position.

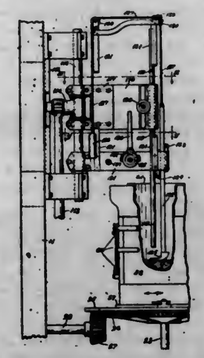
1,254,614. IRONING-BOARD LACE. CLARA A. MCDOWELL, Redondo Beach, Cal. Filed May 8, 1917. Serial No. 167,267. (Cl. 24—140.)



1. A lace device especially adapted to be applied to the spread of an ironing board comprising strips of fabric provided at their inner edges with eyelets, hooks carried at the outer edges of the said strips and adapted to engage the edge portions of the spread, lace cords threaded through the eyelets, bar pins provided at their sides with eyes, the end portions of the said lace cord being carried through the said eyes and then extended back through the terminal eyelets of the strips and adapted to be tied together.

2. A lace device especially adapted to be used for holding a spread in position upon an ironing board comprising fabric strips, eyelets applied to the inner edges of the said strips, hooks applied to the outer edges of the said strips and adapted to engage the spread of the ironing board, cords threaded through the said eyelet and crossing each other and connecting the strips together, bar pins provided at their sides with eyes, the end portions of the said cords being threaded through the said eyes, said bar pins adapted to be secured to the edges of the spread above the surface of the ironing board, the said end portions of the said cords from the said bar pins being carried back and threaded through the end eyelet and adapted to be tied together.

1,254,615. MACHINE FOR MOLDING SECTIONS OF CONDUIT-PIPE. GEORGE MCKENZIE, Everett, Wash. Filed Jan. 16, 1917, Serial No. 142,755. Renewed Oct. 10, 1917. Serial No. 195,859. (Cl. 25—37.)

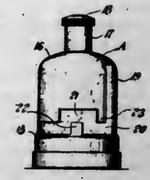


1. In a machine of the class described, the combination with a frame; of two horizontally swinging brackets adapted each to support and carry a mold and further adapted to be swung each at a different time to carry a mold to the same position within said frame and to support said mold in said position; controllable mechanism for communicating swinging movements to said brackets; means for communicating rotary motion to a mold disposed on either of said brackets while said mold is in said position within said frame; a counter-balanced bar slidably mounted in suitable guiding supports above said position within said frame, said bar being adapted to project downwardly into a mold disposed in said position; a shoe fixed on the lower end of said bar to rest on the surface of the contents of said mold whereby said bar will be raised in response to filling said mold with matter to be molded; a tamping rod frictionally supported adjacent to and parallel with said bar and adapted operatively to strike its lower end surface against the top surface of said shoe, thereby to tamp the contents of said mold; and means for communicating reciprocal vertical movements to said tamping rod.

2. A molding machine of the class described, which embodies a revoluble support for a mold; a bracket arm adjustably mounted on a suitable support to extend horizontally therefrom to a point over said revoluble support; a counter-balanced bar mounted to be vertically slidable on said bracket arm; a shoe fixed on the lower end of said counter-balanced bar; a tamping rod disposed adjacent to and parallel with said counter-balanced bar and adapted to strike its lower end surface on the top of said shoe in response to reciprocal vertical movements of said tamping rod; a supporting arm on which said tamping rod is frictionally mounted; a vertical guiding support on which said supporting arm is slidably mounted to adapt it to be reciprocally moved in vertical directions thereon; and means for communicating reciprocal vertical movements to said supporting arm.

3. A molding machine of the class described, which embodies a counter-balanced bar provided with a shoe on its lower end; a guiding support with which said counter-balanced bar is associated to be vertically slidable with respect thereto, said guiding support being adjustable in sidewise directions and in vertical directions; a tamping rod disposed adjacent to and parallel with said counter-balanced bar and adapted to strike its lower end surface on the top of said shoe in response to reciprocal vertical movements of said tamping rod; a supporting arm on which said tamping rod is frictionally and slidably mounted, said supporting arm being adjustable in sidewise directions; a vertical guiding support on which said supporting arm is slidably mounted to adapt it to be reciprocally moved in vertical directions; and means for communicating reciprocal vertical movements to said supporting arm.

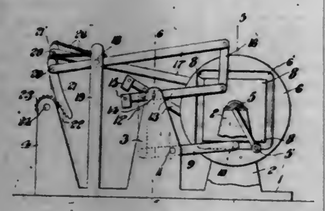
1,254,616. POISON-CONTAINER. WALLACE A. MARTINDALE, Charleston, S. C. Filed Apr. 17, 1916. Serial No. 91,823. (Cl. 215—113.)



A poison container comprising a receptacle having an external annular offset, said receptacle having also a shoulder and a neck rising therefrom, said receptacle being provided in the outer face thereof with an uninterrupted vertical groove extending between the shoulder and the offset and adjacent to said offset with a horizontal groove communicating at the lower end with the vertical groove, the top wall of said horizontal groove having an upwardly extending substantially inverted U-shaped recess, the bottom wall of the horizontal groove having a lug extending in the direction of said recess between the ends thereof, and said recess being separated from the vertical groove by a lug that extends downwardly with respect to the top wall thereof, said grooves, recess and lugs combining to form a tortuous channel; in combination with a shell or casing having at its lower end an annular flange producing a shoulder or offset to engage the offset of the receptacle, said shell having an interiorly

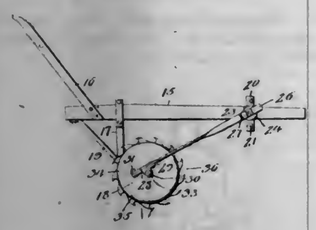
disposed lug adapted for engagement with the tortuous channel of the receptacle; said shell having a shoulder and neck provided with a detachable closure.

1,254,617. POWER-TRANSMITTING DEVICE. EDWARD F. MONTGOMERY and REUBEN B. BURNHAM, Burkeville, Tex., assignors, by direct and mesne assignments, of seventy one-hundredths to said Burnham and fifteen one-hundredths to J. F. Westbrook, Burkeville, Tex., and fifteen one-hundredths to S. H. Westbrook, Farrsville, Tex. Filed May 9, 1916. Serial No. 96,432. (Cl. 74—54.)



In a device of the class described, the combination with a driving wheel having cams in its opposite faces; of a series of multiplying levers pivoted between their ends, rollers on the long arms of the first levers engaging said cams, links connecting the short arms of the first and second levers and the long arms of the second and tertiary levers, means on the last-named levers for transmitting power to a driven element, and weights on the short arms of the second levers counterbalancing them and said first levers.

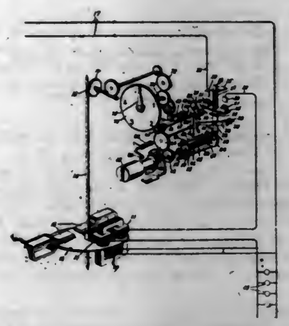
1,254,618. FENDER FOR PLOWS. WILLIAM BURR MOON, Jacksonville, and FRANCIS MARIAN GRISSOM, Troup, Tex. Filed Mar. 9, 1915, Serial No. 13,188. Renewed Sept. 21, 1917. Serial No. 192,625. (Cl. 97—13.)



A plow attachment comprising a clamp, a concave faced boss connected therewith, a bolt extending axially through the boss, a convex disk mounted on the bolt in frictional engagement with said boss, said disk having diametrically opposite recesses, a bar mounted on the bolt and engaging the recesses in the friction disk, a tightening nut on said bolt, and a disk carrying member pivotally connected with the bar for movement in an approximately horizontal plane.

1,254,619. PREPAYMENT APPARATUS. PETER C. MORGANTHALER, Fort Wayne, Ind., assignor to General Electric Company, a Corporation of New York. Filed May 9, 1916. Serial No. 96,325. (Cl. 235—132.)

1. A prepayment apparatus comprising a rotatable member, means actuated by the delivery of a commodity to be sold for driving said member, a manually rotatable member, means including two worm gears one of which is longitudinally movable and a pinion engaging the worm gears for operatively connecting said members, an electric circuit including a switch for controlling the delivery of the commodity, means actuated by said manually rotatable shaft for moving said switch to its circuit-closing position, means for locking said switch in its circuit-closing position, and means whereby said longitudinally movable worm gear operates to release said locking means when said worm gear has moved its full distance in one direction.



2. A prepayment apparatus comprising an electric circuit including a switch, a rotatable shaft, means actuated by the delivery of a commodity to be sold for driving said shaft, a second rotatable shaft adapted to be manually rotated in a direction relatively opposite to the direction of rotation of said first mentioned shaft, means including a differential gearing operatively connecting said shafts, means actuated by said manually rotatable shaft for moving said switch to its circuit-closing position, means for locking said switch in its circuit-closing position, and means whereby said differential gearing operates to release said locking means when said first mentioned rotatable shaft completes a predetermined number of revolutions after the movement of said switch to its circuit-closing position.

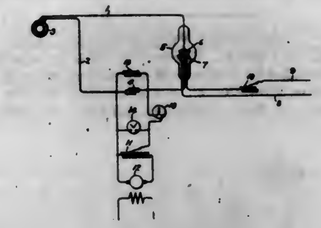
3. A prepayment apparatus comprising an electric circuit including a switch, a rotatable shaft, means actuated by the delivery of a commodity to be sold for driving said shaft, a second rotatable shaft adapted to be manually rotated in a direction relatively opposite to the direction of rotation of said first mentioned shaft, means including two worm gears one of which is longitudinally movable and a pinion engaging the worm gears for operatively connecting said shafts, means actuated by said manually rotatable shaft for moving said switch to its circuit-closing position, means for locking said switch in its circuit-closing position, and means whereby said longtudinally movable worm gear operates to release said locking means when said worm gear has moved its full distance in one direction.

4. A prepayment apparatus comprising a rotatable shaft, a meter for driving said shaft, a manually rotatable shaft arranged for longitudinal movement, a worm gear on each of said shafts, a pinion engaging said worm gears, an electric circuit controlling means operatively associated with said meter, means for moving said circuit controlling means to its circuit-closing position when said manually rotatable shaft is rotated, means for locking said circuit controlling means in its circuit-closing position, and means whereby said longitudinally movable shaft operates to release said locking means when said shaft has moved its full distance in one direction.

5. A prepayment apparatus comprising an electric circuit including a switch, a rotatable shaft, means actuated by the delivery of a commodity to be sold for driving said shaft, a second rotatable shaft arranged for longitudinal movement, means for manually rotating said second shaft in a direction relatively opposite to the direction of rotation of said first mentioned shaft, a worm gear on each of said shafts, a pinion engaging said worm gears, means for moving said switch to its circuit-closing position when said second shaft is manually rotated, means for locking said switch in its circuit-closing position, and means whereby said second shaft operates to release said locking means when this shaft has longitudinally moved its full distance in one direction.

[Claims 6 to 10 not printed in the Gazette.]

1,254,620. METHOD OF AND MEANS FOR MEASURING VOLTAGES. MAX G. NEWMAN, Lanesboro, Mass., assignor to General Electric Company, a Corporation of New York. Filed Mar. 1, 1917. Serial No. 151,730. (Cl. 175—183.)



1. Means for measuring the maximum value of voltage in an electric circuit comprising a condenser connected to the circuit, a rectifier in series with said condenser, a source of direct current, means for obtaining from said source a potential equal to the potential across said condenser and means for measuring the potential thus obtained.

6. The method of measuring the maximum value of a voltage wave which consists in first charging a condenser with the voltage to be measured, then adjusting the potential of a separate source of direct current applied to the condenser so that a galvanometer in series with said source will show no deflection, and then measuring the potential of said source which is applied to the condenser.

[Claims 2 to 5 not printed in the Gazette.]

1,254,621. TILTING PLATFORM FOR MINE-CAR DUMPS. JAMES A. NOLAN, Bowerston, Ohio. Filed Sept. 30, 1916. Serial No. 123,146. (Cl. 214—11.)

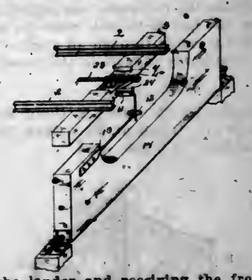


2. In a device of the class described, a car-control mechanism comprising a pair of oppositely operating car stops, an operating shaft connected to said car stops, an arm on said shaft having oppositely projecting ends, a rock shaft below the operating shaft and having an arm fixed thereto with oppositely projecting ends, links connecting pairs of oppositely connecting ends on said shafts, a right angular projection on the free end of the rock shaft and a depending arm on the tilting platform, said arm having an arcuate slot engaging the free end of said rock shaft.

[Claim 1 not printed in the Gazette.]

1,254,622. CONTROL MECHANISM FOR AUTOMATIC SAFETY MINE-CAR CAGERS. JAMES A. NOLAN, Bowerston, Ohio. Filed Sept. 30, 1916. Serial No. 123,147. (Cl. 214—12.)

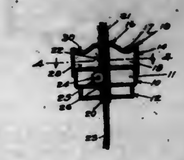
3. In a device of the class described, a rock shaft of a car operating mechanism, a laterally swinging arm on the end of the rock shaft having a right angular projection or pin, a lip on said pin, a freely swinging vertically disposed arm carried by the pin, a lander and a loop



carried by the lander and receiving the freely swinging arm.

[Claims 1 and 2 not printed in the Gazette.]

1,254,623. LAMP-BURNER. MICHAEL OROS, Seattle, Wash. Filed Sept. 30, 1916. Serial No. 123,179. (Cl. 67—53.)

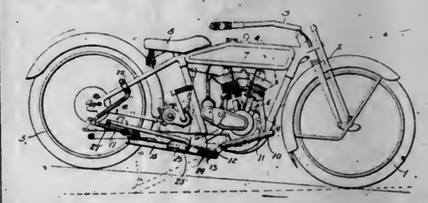


3. A lamp burner comprising a body portion having two separate compartments, a wick guide projecting upwardly through the lowermost of said compartments and terminating in the uppermost of said compartments, wick moving means in said lowermost compartment, and a wick guide projecting downwardly into said uppermost compartment in alinement with said first named wick guide and having its lower end spaced from the upper end of said first named wick guide.

4. A lamp burner comprising a body portion having an upper and a lower compartment divided by a partition wall said partition wall having a vent hole therethrough, a two part wick guide extending upwardly through said compartments the two parts of said wick guide being spaced apart to leave an opening between the two ends thereof within said upper compartment, and a vent hole in the top wall of said upper compartment.

[Claims 1, 2, 5, and 6 not printed in the Gazette.]

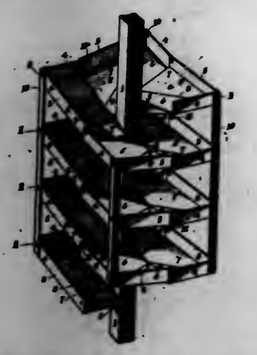
1,254,624. FOLDING STAND FOR MOTOR-CYCLES. GEORGE BETTS and EARL C. CORBY, Richmond, Cal., assignors, by direct and mesne assignments, of sixty-five one-hundredths to said Betts, fifteen one-hundredths to Jas. P. Arnold, and twenty one-hundredths to Joseph F. Brooks, Richmond, Cal. Filed Sept. 12, 1916. Serial No. 119,641. (Cl. 207—78.)



1. The combination, with a motorcycle, of a folding support, said support being pivoted to the frame at a lower portion thereof, a pair of jointed links connected with the support and a portion of the cycle frame to raise or lower the support, a foot pedal pivotally connected with the support adjacent the point at which it

is secured to the motorcycle frame, and a link connecting said foot pedal and jointed links and forming a toggle connection between the foot pedal and jointed links whereby pressure on the foot pedal will raise the machine, the foot pedal being movable through an angle of nearly 180 degrees, and locking the support in the raised or lowered position.

1,254,625. COAL-CHUTE. GARY N. GRAY, Scranton, and JOHN J. MCNULTY, Olyphant, Pa. Filed July 19, 1915. Serial No. 40,600. (Cl. 193—42.)



1. A coal chute comprising a plurality of steps the opposite side portions of each step being inclined toward a diagonal line extending from the upper toward the lower end thereof and the lower end of the bottom of each step overlapping the adjacent side edge of each succeeding step and means for supporting the said steps in fixed relation to each other.

4. A coal chute comprising a plurality of steps arranged in spiral relation, each step being adapted to discharge coal or similar material on the next succeeding step and each step being provided with means which tends to prevent the increase of the momentum of the coal in its travel toward the bottom of the chute.

7. A spiral chute or separator comprising a succession of plates each having its face in two forwardly downwardly inclined planes meeting along a substantially diagonal line.

[Claims 2, 3, 5, 6, and 8 not printed in the Gazette.]

1,254,626. HOSIERY-FINISHING FORM. LYLE F. GRAY, Beaver Dam, Wis., assignor to Paramount Hosiery Form Drying Co., Chicago, Ill., a Corporation of Illinois. Filed Mar. 19, 1917. Serial No. 155,889. (Cl. 223—17.)

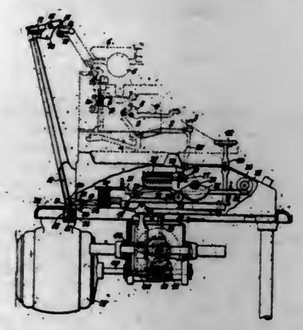


1. A hosiery drying and shaping form including a foot-portion comprising sides, each consisting of a primary fabric-flattening and smoothing surface extending inwardly from the edges of the portion and an auxiliary gore-smoothing surface disposed approximately centrally of said edges extending longitudinally of the foot-portion and merging into said primary surfaces, a section of said auxiliary surface outstanding beyond the plane of the primary surface.

3. A hosiery drying and shaping form including a foot-section having oppositely-disposed fabric-ironing sides comprising a primary flattening and smoothing surface and an auxiliary fabric-shrinking surface encompassed by the primary surface and comprising a pyramidal portion and a fabric-anchoring portion.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,254,627. COMBINED TYPE-WRITING AND COMPUTING MACHINE. FREDERICK A. HART, Jersey City, N. J., assignor to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Filed Sept. 18, 1911. Serial No. 649,832. (Cl. 235—62.)



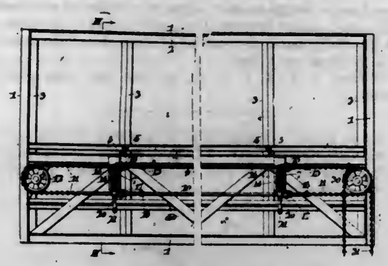
1. A combined typewriting and computing machine having a letter-feeding carriage, computing mechanism, and typewriter numeral keys for indexing numbers to be run into said computing mechanism; and comprising, in combination, a normally ineffective power device for running numbers indexed into said computing mechanism, a device provided with an independent source of power for controlling the effectiveness of said power device and to render the same ineffective on completion of the running in of the numbers indexed, and means connected to said carriage for momentarily acting on said control device at the movement of said carriage on the writing of a numeral in units place.

3. A combined typewriting and computing machine having computing mechanism, a letter-feeding carriage, means for indexing numbers, and a general operator for running into the computing mechanism the number indexed; and comprising, in combination, a motor for said general operator, means for inciting said motor to action, an electric circuit independent of the motor circuit for acting on said inciting means, and means brought into action on a letter-feeding movement of said carriage, for momentarily closing said independent circuit.

12. In a combined typewriting and computing machine, the combination with a letter-feeding carriage and indexing devices for setting up numbers, of a computing mechanism into which they are later carried from said indexing devices, means for operating said mechanism comprising a motor and an electric circuit therefor, means controlled by a letter-feeding movement of said carriage for automatically closing said circuit, automatically connecting said motor to the computing mechanism, for automatically keeping said circuit closed during a cycle of operations of said computing mechanism and for automatically disconnecting said motor and opening the circuit.

[Claims 2, 4 to 11, and 13 to 29 not printed in the Gazette.]

1,254,628. MECHANISM FOR OPERATING SWINGING SASHES. HARVEY E. HERSH, Allentown, Pa., assignor to Hersh & Brother, Allentown, Pa., a Copartnership consisting of George Willis Hersh, Edgar E. Hersh, Harvey E. Hersh, and Edgar E. Hersh, executor of James N. Hersh, deceased. Filed Feb. 26, 1917. Serial No. 150,918. (Cl. 16—28.)

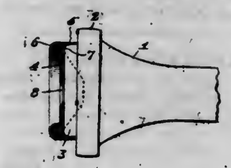


1. The mechanism for imparting axial rotation to a swinging sash, consisting of two horizontal slide rods; means for obtaining alternate reciprocation thereof; a pulley set on an axis parallel to that on which the sash swings; a chain passing around the pulley with its extremities fast to the rods, whereby the reciprocation of the rods rotates said pulley; and an arm and link by which rotation of the pulley imparts swinging motion to the sash.

2. Mechanism for imparting axial rotation to parallel swinging sashes including in combination slide rods parallel to the axis on which the sashes swing; means for obtaining alternate reciprocation of said rods; brackets rigidly mounted in proximity to said rods; a pulley mounted in each of said brackets in position between said rods; a pair of guide pulleys mounted in each bracket at right angles to the pulley; a chain passing around the pulley and guide pulleys in each bracket with its extremities fast to the rods whereby the reciprocation of the rods rotates said pulley; and connections whereby the rotation of each pulley imparts swinging motion to a sash.

[Claim 3 not printed in the Gazette.]

1,254,629. EAR-CUSHION. THOMAS W. MILLER, Ashland, Ohio, assignor to The Faultless Rubber Company, Ashland, Ohio, a Corporation of Ohio. Filed Aug. 17, 1917. Serial No. 186,697. (Cl. 179—182.)



1. An ear cushion for telephone receivers and the like, comprising a cup, and a resilient ring disposed within said cup, and adapted, when said cup is placed in operative position on a receiver or other article, to contact with the surface of said article, said cup lying between said ring and the ear of the user.

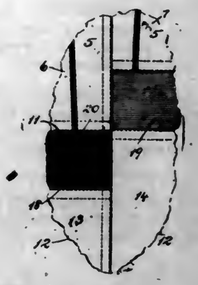
2. A structure as specified in claim 1, in which the resilient ring is formed of sponge rubber.

5. A structure as specified in claim 1, in which the cup is formed with an annular bulge to receive the ring.

6. A structure as specified in claim 5, in which the cup is flanged to engage over the ear-piece of the receiver or other article.

[Claims 3 and 4 not printed in the Gazette.]

1,254,630. COMBINATION-GARMENT. ELI OPPENHEIM, Baltimore, Md., assignor to Oppenheim, Oberndorf & Co. Inc., Baltimore, Md., a Corporation of Maryland. Filed May 1, 1916. Serial No. 94,527. (Cl. 2—144.)



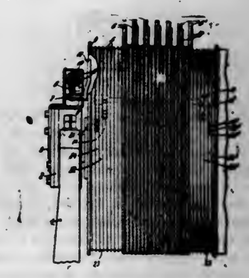
1. A combination garment comprising a body portion and a drawers portion both having a front placket,—the material of the body and the material of the drawers being separated at the front of the garment in a direction crosswise of the placket, and said garment having strips of ventilating material at the front and at opposite sides of the placket which strips connect the body and drawers portion.

3. A combination garment comprising a body portion having a front and a drawers portion having a front said body and drawers fronts being connected by strips of non-elastic open-mesh ventilating material and the garment having a back with a posterior flap.

5. A combination garment having a body portion and a drawers portion the body and drawers being connected at the front by strips of non-elastic ventilating material and said body and drawers being connected at the back by an elastic material the strips of ventilating material at the front being lower on the garment than the elastic material connection at the rear, and at the rear said garment having a posterior flap that terminates at the elastic material connection.

[Claims 2 and 4 not printed in the Gazette.]

1,254,631. SAFETY DEVICE FOR ELEVATORS. OSCAR F. SHEPARD, Cincinnati, Ohio, assignor to The Warner Elevator Manufacturing Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Nov. 6, 1916. Serial No. 129,688. (Cl. 254—173.)



In a device of the class described, a rotating drum peripherally formed with a spiral cable-way and with orifices for tripping dogs, a rock shaft within the drum adjacent the periphery, a pair of rock arms on the shaft near the opposite ends of the drum, having trip-dogs projecting through appropriate drum orifices in the cable travel limit portions of the cable-way, tension means holding the dogs normally in projecting position, a trip arm

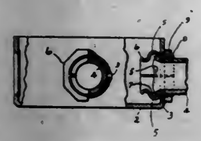
fixed to one of said rock members and projecting beyond the end of the drum, an electric switch supported adjacent said end of the drum having a member to be tripped positioned in the path of movement of the said trip arm.

1,254,632. RUBBER COMPOSITION. EDGAR W. SNYDER, Los Angeles, Cal., assignor, by mesne assignments, to Ocotillo Products Company, a Corporation of Delaware. Filed Aug. 9, 1917. Serial No. 185,344. (Cl. 106—23.)

2. An elastic composition comprising rubber and ocotillo gum in the approximate proportions of from 1 to approximately 100 parts of ocotillo gum to 100 parts of rubber.

[Claim 1 not printed in the Gazette.]

1,254,633. JUNCTION-BOX COUPLING FOR ELECTRIC CONDUITS. JOHN N. SCISM, Brooklyn, N. Y. Filed Dec. 21, 1911. Serial No. 667,146. (Cl. 247—1.)



1. The combination of a junction-box, a conduit extending into said junction-box and having a manually-bent outwardly extending lip, the transverse extent of which is less than the length of the circumference of the conduit, the box being provided with a part having a seat to receive said lip, and means connected with said part, to retain the conduit in fixed relation with the box.

2. The combination of a junction-box having an opening, a conduit extending into the junction-box through said opening, the conduit within the box having a manually-bent outwardly extending lip, the transverse extent of which is less than the circumference of the conduit, an annular coupling sleeve having an annular groove to receive said lip, and securing means having threaded engagement with the coupling sleeve and acting to retain the conduit in fixed relation with the junction box.

1,254,634. RAIL-ANCHOR. HAROLD G. WARR, Chicago, Ill., assignor to The P. & M. Co., Chicago, Ill., a Corporation of Illinois. Filed Jan. 27, 1917. Serial No. 144,983. (Cl. 238—4.)



2. A rail anchor comprising a laterally bowed resilient yoke provided with a ridge on its upper surface and opposed rail base clamping jaws thereon which are normally spaced from each other a distance less than that between the edges of the rail base.

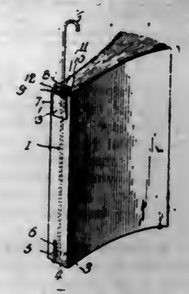
5. A rail anchor comprising a resilient yoke having a ridge on its upper surface which is remote from the edges of the rail base and is adapted to contact with the bottom of the rail, and opposed base clamping jaws thereon having upper extremities for contact with the upper surface of the rail base and having inner surfaces for engagement with the opposite edges of the rail base, said inner surfaces being normally spaced apart a distance less than that between said edges, one of said extremities having an inwardly and downwardly slanting guiding surface for preliminary engagement with the edge of the rail base.

11. A rail anchor comprising a yoke and a plurality of opposed rail base engaging jaws, said yoke being normally twisted and adapted to be sprung when forced into position on a rail, whereby said yoke assumes a position of less distortion when in operative position.

12. A rail anchor comprising a rearwardly bowed yoke terminating in opposed rail base engaging jaws, a plurality of depending tie-abutments intermediate said yoke and said jaws, said yoke being normally twisted, the adjacent surfaces of said tie-abutments being normally positioned at an angle to each other by reason of said twisted yoke, and means whereby said surfaces are brought into substantially parallel relation when said anchor is sprung into position on a rail.

[Claims 1, 3, 4, 6 to 10, and 13 not printed in the Gazette.]

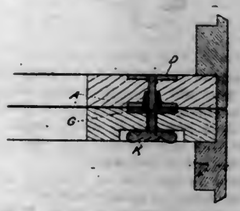
1,254,635. HOLDER FOR BOOKS, BOUND DOCUMENTS, AND THE LIKE. HARRY R. APPLEGATE, Chicago, Ill. Filed Feb. 26, 1917. Serial No. 150,929. (Cl. 129—38.)



4. A book holder comprising a main body member made of wire, said body member terminating at one end in a hook or bail, the other end of said body member being bent to provide a loop arranged at right angles to the said main body member, said loop terminating in a comparatively short, upturned member arranged parallel with but spaced from the said main body members, and a sheet metal clamping member adapted to be impaled upon said main body member from its hook end, said clamping member consisting of two horizontal wall members, connected along one edge by an upright wall member, one of said horizontal wall members having a flange depending from that edge opposite that connected to said upright wall, said horizontal wall sections having alined holes arranged substantially near said upright wall members by means of which said clamping member is impaled upon said main body member.

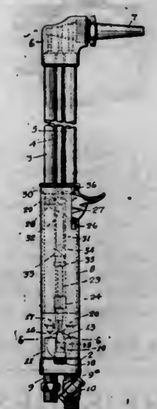
[Claims 1 to 3 not printed in the Gazette.]

1,254,636. INTERMEMBERING AND INTERLOCKING DEVICE. JOHN F. BARGHAUSEN, Washington, D. C. Filed Dec. 2, 1915. Serial No. 64,792. (Cl. 45—78.) (Dedicated to the public.)



An intermembering and interlocking device comprising, in combination, a lock plate with threaded opening adapted to be placed on the inside of an upper case, a plate with a larger opening adapted to be placed underneath said lock plate on the outside of said case, a plate, having a tapered hollow pin adapted to be placed on top of the outside of a bottom case, said pin projecting through the plate on the bottom of the upper case for preventing lateral shifting of the said cases, and a thumb bolt extending through all of said plates and fastening in said lock plate, substantially as described.

1,254,637. CUTTING-TORCH. WORTHY C. BUCKNAM, Marion, and HENRY CAVE, Elizabeth, N. J., assignors to Davis-Bournonville Company, New York, N. Y., a Corporation of New York. Filed Apr. 25, 1917. Serial No. 164,325. (Cl. 158—27.4.)



1. In a cutting torch, the combination with a handle having a grip with a fore and aft slot forwardly of the portion grasped by the hand and conduits for the gases including a cutting oxygen conduit, of a valve for opening and closing said conduit inside the handle in rear of said slot, a trigger pivoted on a transverse axis inside the grip and having its finger portion projecting through said fore and aft slot for movement longitudinally of the grip, and connections inside the grip whereby rearward movement of the trigger unseats the valve.

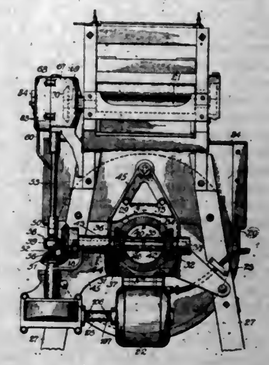
2. In a cutting torch having a handle and conduits for the gases, the combination of a valve for opening and closing one of the conduits, a fore and aft operating trigger pivoted upon a fixed transverse axis in the handle, a longitudinal thrust member for opening the valve, and means operable by the trigger and constructed to be carried rotatively past a center to operate said thrust member and to hold the same and the valve in the open condition.

3. In a cutting torch having a handle and conduits for the gases, the combination of a longitudinally movable valve in the handle for opening and closing the cutting oxygen conduit, a longitudinally movable trigger projecting from the handle, and a toggle connection between the trigger and valve.

4. In a cutting torch having a handle and conduits for the gases, the combination of a valve mounted for movement lengthwise of the rear part of the handle to open and close one of the conduits, a spring to seat the valve, a fore and aft movable finger-piece forwardly of the valve, and a longitudinally disposed toggle and rod inside the handle for opening the valve under the action of the finger-piece.

5. In a cutting torch having a handle and conduits for the gases, the combination of a valve chamber in the rear part of the handle, a valve therein movable lengthwise of the handle, a spring in the chamber for locking the valve, a thrust rod entering the chamber to open the valve, from which it is disconnected, and a finger-piece and self-locking toggle for operating said rod.

1,254,638. ELECTRIC WASH-MACHINE. WALTER J. CONLON, Chicago, Ill. Filed Apr. 20, 1914. Serial No. 833,045. (Cl. 74—50.)

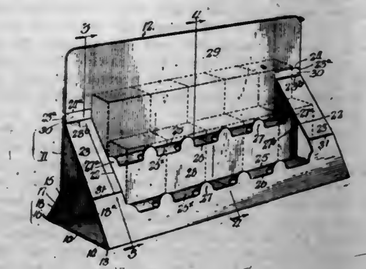


1. In a combined washing machine and wringer, a washing drum shaft, a wringer shaft, a power shaft, reversing gear and clutch mechanism for operatively connecting said wringer shaft with said power shaft, gearing and a clutch for operatively connecting said washing drum shaft with said power shaft, and interlocking mechanism for preventing driving engagement of the clutch for the washing drum shaft while the clutch for the wringer shaft is in engagement to drive the wringer shaft in a forward direction.

10. In combination, a shaft, a bevel gear thereon, a bearing for said shaft on the back of said bevel gear and preventing movement of said gear in that direction, a shaft at right angles to said first shaft and having a square end adjacent to said first shaft, a bearing preventing endwise motion of said second shaft, a bevel gear having a hub provided with a square socket loosely fitting over the square end of said shaft, said gear meshing with said first gear, and a friction clutch mounted between said gear and said hub.

[Claims 2 to 9 not printed in the Gazette.]

1,254,639. COLLAPSIBLE DISPLAY-STAND. ARTHUR C. LANG, Chicago, Ill., assignor to N. K. Fairbank Company, Chicago, Ill., a Corporation of New Jersey. Filed June 14, 1916. Serial No. 103,608. (Cl. 211—24.)

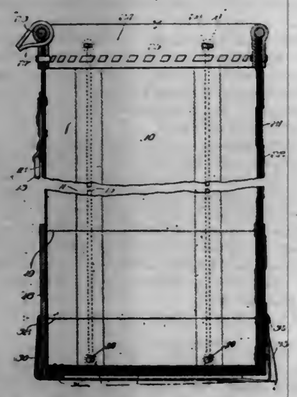


2. A collapsible stand comprising a base piece, a back piece and a front piece, the base being attached to the back piece and the front piece being attached respectively to the base and to the back piece, the front piece being cut and scored to provide end braces connecting the base piece directly with the back piece and to provide a part adapted to fold to form a plurality of shelves arranged in the manner of steps, and said base, back and front piece being constructed so as to be capable of being folded into superposed relations.

4. A collapsible stand comprising a base piece, a back piece and a front piece, the base piece being scored to provide a flap at the front, to which the bottom of the front piece is secured and being scored at the back to provide a flap to which the back piece is secured, and an intermediate web adapted to brace the back piece in its upright position, said base piece also being cut to provide tongues to engage the front face of the bottom of the back piece and a tongue to provide an intermediate support for the front piece, the back piece consisting of an upright sheet secured to the rear flap of the base piece, and the front piece consisting of a sheet cut to provide end braces for the stand, which are inclined to the back piece and secured at their upper ends thereto, and which is cut and scored intermediate said brace pieces to provide parts adapted to fold into the form of substantially horizontal stepped supports or shelves, with a plurality of tongues projecting above the plane of said stepped supports along the front edges thereof, and the top part of said front piece being bent into a vertical plane and secured to the front of said back piece.

[Claims 1 and 3 not printed in the Gazette.]

1,254,640. GOLF-BAG. CHARLES R. STEVENSON, Mishawaka, Ind., assignor to National Veneer Products Company, Mishawaka, Ind., a Corporation of Indiana. Filed Mar. 7, 1913. Serial No. 752,574. (Cl. 224—45.)



1. In a golf bag, a flexible side wall, a rigid bottom, leather stays along the side wall, metal stay rods within said leather stays, said metal stay rods having their ends formed to make eyes, a cuff around the lower end of the side wall, rivets through said cuff and through the adjacent eyes of the stay rods, and a rawhide reinforcing member having a portion thereof around the said cuff over the heads of said rivets and another portion extending under said rigid bottom.

2. In a golf bag, a flexible side wall, a rigid bottom, leather stays along the side wall, metal stay rods within said leather stays, a cuff around the lower end of said side wall, and rivets through said cuff and said stay rods.

4. A golf bag, comprising a side wall 10, a handle 18 secured thereto, the leather cuff 18 around the outside of said wall at the bottom thereof, the rigid bottom 29, the rawhide reinforcing member 30 secured to said rigid bottom and to said cuff and side wall, and a metal clamp 33 over the meeting edges of said rawhide member on the side of said bag opposite said handle.

[Claim 3 not printed in the Gazette.]

1,254,641. FLOOR-BOX. FREDRICK B. ADAM, St. Louis, Mo., assignor to Frank Adam Electric Company, St. Louis, Mo., a Corporation of Missouri. Filed Apr. 10, 1916. Serial No. 90,131. (Cl. 247—6.)

1. An outlet box, comprising a lower portion provided at its upper end with a circular opening, an upper portion provided with a tubular part that projects downwardly into said opening and which is enough smaller than said opening to permit the upper portion to be arranged in an angular position with relation to said lower portion, a rim on said lower portion provided on its inner edge with an annular groove, and a friction ring, substantially round in cross section arranged in said groove so that it will surround the tubular part of said upper portion and exert sufficient frictional pressure on same to temporarily hold it in adjusted position during the operation of installing the box.

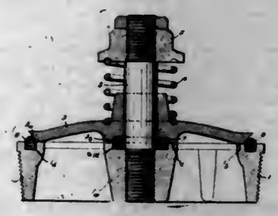


3. An outlet box, consisting of a hollow member that is adapted to be set in a floor, wall or ceiling, a reversible cover for said member, both sides of which are finished so that the cover will present an ornamental appearance when either side of same is exposed to view, an integral nozzle or perforated projection on one side of said cover through which an electrical conductor can be led into the interior of the box, and a plug screwed into the opposite side of said cover and set flush with same so as to serve as a closure for said nozzle when the nozzle is not in use.

[Claims 2 and 4 not printed in the Gazette.]

REISSUES.

14,423. VALVE. EUGENE M. SCOVILLE, Dade City, Fla., assignor to Scoville Pump Valve Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 6, 1917. Serial No. 190,690. Original No. 1,161,257, dated Nov. 23, 1915, Serial No. 879,138, filed Dec. 26, 1914. (Cl. 103—66.)

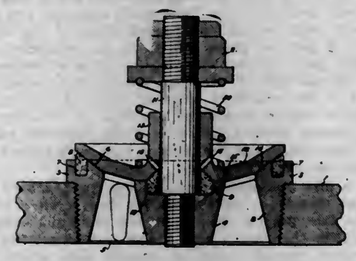


1. A valve comprising two parts, a valve seat and a valve adapted to seat directly on said seat, and a ring of soft yielding material retained by one of said parts to provide a stubby packing portion in the form of a cantaliver projecting from said part and adapted to be forced against an adjacent surface of the other of said parts by the pressure of the fluid in opposition to the cantaliver when the fluid attempts to escape by the valve but so positioned that it will not be displaced by said other part.

2. A valve comprising two parts, a valve seat and a puppet type of valve adapted to seat directly on said seat, one of said parts having a circular recess formed therein and extending generally parallel to the valve axis, and a ring of soft yielding material retained within and projecting from said recess to provide a stubby packing portion in the form of a cantaliver and adapted to be forced against an adjacent surface of said other of said parts by the pressure of the fluid in opposition to the cantaliver when the fluid attempts to escape by the valve but so positioned that it will not be displaced by said other part.

3. A valve comprising two parts, a valve seat and a valve adapted to seat directly on said seat, said parts having surfaces coming into junction to form a V-shaped groove at the pressure side of the seating when the valve is closed, and a ring of soft yielding material retained by one of said parts to provide between said surfaces a cantaliver packing portion adapted to be forced against the other of said parts by the pressure of the fluid in opposition to the cantaliver when the fluid attempts to escape by the valve but so positioned that it will not be displaced by said other part.

14,424. VALVE. EUGENE MCCLELLAN SCOVILLE, Dade City, Fla., assignor to Scoville Pump Valve Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 6, 1917, Serial No. 190,691. Original No. 1,191,481, dated July 18, 1916, Serial No. 66,180, filed Dec. 10, 1915. (Cl. 103—66.)



1. A valve device comprising a valve seat having central and peripheral seating areas, a valve adapted to directly engage said areas, and a gasket of compressible material associated with the central seating area and adapted to be forced by fluid pressure against the valve, said valve having openings therethrough adjacent said gasket to induce a flow of fluid over the gasket and adjacent seating area to clean the same when the valve is open.

2. A valve device comprising a valve seat having central and peripheral seating areas, a valve adapted to directly engage said areas, and gaskets of compressible material associated with the central and peripheral seating areas and adapted to be forced by the fluid pressure against the valve, said valve having openings therethrough adjacent the inner gasket to induce a flow of fluid over the gasket and adjacent seating area to clean the same when the valve is open.

3. A valve device comprising a valve seat having a central seating area and a beveled peripheral seating area, a valve having a generally dish-shaped face adapted to directly engage said areas, and a gasket of compressible material positioned within a recess adjacent the central seating area and adapted to be forced by the fluid pressure against the valve, said valve having openings therethrough adjacent said gasket to induce a flow of fluid over the gasket and the adjacent seating area to clean the same when the valve is open.

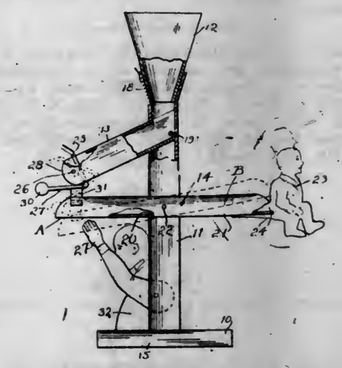
4. A valve device comprising a valve seat having a central seating area and a beveled peripheral seating area, a valve having a generally dish-shaped face adapted to directly engage said areas, and gaskets of compressible material positioned in recesses adjacent the central and peripheral seating areas and adapted to be forced by the fluid pressure against the valve, said valve having openings therethrough adjacent the inner gasket to induce a flow of fluid over the gasket and the adjacent seating area to clean the same when the valve is open.

5. A valve device comprising a valve seat having a rim and a central hub, a beveled seating area on the rim, a seating area on the hub, a valve having a generally dish-shaped face adapted to directly engage said areas, and flexible gaskets positioned in recesses adjacent the seating areas and adapted to be forced by the flow of fluid pressure against the valve, said valve having openings therethrough adjacent the gasket carried by the hub to induce a flow of fluid over the gasket and adjacent seating area to clean the same when the valve is open.

6. A valve comprising two parts, a valve seat and a valve adapted to seat directly on said seat, one of said parts having a surface continuous with the seating and the other of said parts having another surface at an angle to said seating, and a ring of yielding material mounted on said other of said parts at said surface to provide a stubby packing portion in the form of a cantaliver projecting from said part and adapted to be forced against said surface of said first part by the pressure of the fluid in opposition to said cantaliver when the fluid attempts to escape by the valve but so positioned that it will not be displaced by said valve.

7. A valve comprising two parts, a beveled valve seat and a valve having an operative face of flaring shape adapted to seat directly on said seat, and a ring of yielding material mounted on said seat to provide a stubby packing portion in the form of a cantaliver projecting from said seat and adapted to be forced against said operative face of said valve by the pressure of the fluid in operative face of said valve by the pressure of the fluid in escape by the valve but so positioned that it will not be displaced by said first part.

14,425. TOY. JOHN H. SIMPSON, Providence, R. I., assignor to Benjamin F. Bain, Pittsburgh, Pa. Filed Dec. 19, 1917. Serial No. 207,978. Original No. 1,167,945. dated Jan. 11, 1916, Serial No. 16,691, filed Mar. 24, 1915. (Cl. 46—37.)



1. A toy including a standard, a see-saw pivoted thereto, a hopper carried by the standard, a chute communicating with the hopper, and having its outer end arranged to deliver material to one end of the see-saw, a valve for the outer end of the chute, means carried by the see-saw for normally holding the valve in open position, and means for automatically moving the valve to closed position when said first mentioned means moves away from the valve upon the swinging of the see-saw.

2. A toy including a hollow standard, a hopper mounted in the upper end thereof, a discharge chute having its inner end extending into the standard to receive material from the hopper, a valve carried by the outer end of the chute for controlling the discharge of material therefrom, a see-saw pivotally attached to the standard, a longitudinally adjustable manikin attached to one end of the see-saw, and a valve trip member carried by the other end of the see-saw, said manikin being adapted to normally hold the trip member in engagement with the valve for maintaining the same in open position.

3. A toy including a hollow standard, a hopper mounted in the upper end thereof, a discharge chute having its

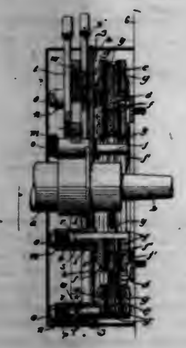
inner end extending into the standard to receive material from the hopper, a valve carried by the outer end of the chute for controlling the discharge of material therefrom, a see-saw pivotally attached to the standard, a longitudinally adjustable manikin attached to one end of the see-saw, said manikin being adapted to normally hold the opposite end of the see-saw in engagement with the valve for maintaining the same in open position, and a counter-balance carried by the valve for moving the same in closed position, immediately subsequent to the discharging of material upon the see-saw sufficient to cause the swinging of the same.

4. A toy including a standard, a see-saw pivoted thereto, a chute having its outer end arranged to deliver material to one end of the see-saw, a valve for the outer end of the chute, means carried by the see-saw for normally holding the valve in open position, and means for automatically moving the valve to closed position when said first mentioned means moves away from the valve upon the swinging of the see-saw.

5. A toy including a support, a see-saw pivoted thereto, an inclined chute having a discharge means at its lower end arranged to deliver material to one end of the see-saw, a device for controlling the passage of material through said means, means carried by the see-saw for moving the controlling device to discharge position as the end of the see-saw approaches the lower end of the chute, and means for moving the controlling means to non-discharging position when the end of the see-saw moves away from said lower end of the chute.

6. A toy including a support, a see-saw pivoted thereto, an inclined chute having a discharge means at its lower end in position to deliver material to one end of the see-saw, and means whereby the movement of the see-saw causes the intermittent discharge of material to the end thereof.

14,423. AUTOMOBILE-BRAKE. WILLIAM W. ROACH, Philadelphia, Pa., assignor of six one-hundredths to Edward A. Teepell, West Philadelphia, Pa., and one-third to Harry J. Waring, New York, N. Y. Filed Apr. 22, 1916. Serial No. 93,036. Original No. 1,171,655, dated Feb. 15, 1916, Serial No. 29,061, filed May 19, 1915. (Cl. 74—13.)



1. A disk brake comprising a friction disk turning with the wheel, a pair of annular friction plates, said plates arranged on opposite sides of the disk, a fixed plate and a number of pockets carried thereby, slides secured to the nearer friction plate and extending into said pockets, slides secured to the more distant friction plate and extending into said pockets and beyond the other slides, wedges each extending between a pair of slides in one of the pockets, and a manually operable turnable device carrying said wedges.

2. A disk brake comprising a friction disk turning with the wheel, a pair of annular friction plates, said plates arranged on opposite sides of the disk, a series of pairs of slides secured to the respective plates, a turnable ring, a series of wedges carried on one face of the ring and movable between the slides of the respective pairs, and an arm for operating the ring.

3. A disk brake comprising a friction disk turning with the wheel, two pairs of annular friction plates located at different distances from the wheel's axis, the two plates of each pair located on opposite sides of the disk, and means to simultaneously move the two plates of each pair toward each other against opposite faces of the disk.

4. A disk brake comprising a wheel, a friction disk, brackets secured to the wheel and supporting the disk, two annular friction brakes on opposite sides of the disk inside said brackets, means to simultaneously move the outside plates toward each other against the disk, and independent means to simultaneously move the inside plates toward each other against the disk.

5. A disk brake comprising a friction disk turning with the wheel, two pairs of annular friction plates located at different distances from the wheel's axis, the two plates of each pair located on opposite sides of the disk, a series of pairs of slides secured to the respective plates of each pair, two turnable rings, a series of wedges carried on one face of one ring and movable between the slides of the respective pairs of slides of one series, a series of wedges carried on one face of the other ring and movable between the slides of the respective pairs of the other series, and independently operable arms for operating the respective rings.

6. A disk brake comprising an axle tube, a fixed plate secured thereto, an axle within the tube, a wheel secured to the axle, pockets secured to said plate and extending parallel to the wheel's axis, a disk in fixed relation with the wheel, friction plates on opposite sides of the disk, slides secured to said plates and extending into said tubular pockets, turnable arms, and wedges carried thereby extending into said pockets and adapted when turned with their arms, to cause the slides to move in opposite directions and thereby frictionally apply the friction plates to the disk.

7. A disk brake comprising a member having pockets, a disk turning with the wheel, friction plates on opposite sides thereof, pairs of slides connected to the plates, the two slides of each pair connected to opposite plates and entering a pocket, manually operable wedges each adapted to engage the two slides of a pair and move their corresponding plates toward each other against the disk, threaded plugs closing the pockets, and a spring confined in each pocket between the plug and one of the slides.

8. A brake comprising a friction disk rotating with the wheel, two non-rotatable friction elements of different diameters, and means for arbitrarily actuating either of said non-rotatable friction elements, independently of the other, into braking engagement with the rotatable disk.

9. A brake comprising two pairs of non-rotatable friction elements, of different diameters, a friction disk turning with the wheel interposed between the two elements of each of said pairs, and means for arbitrarily actuating either of said pairs independently of the other into braking engagement with said rotatable disk.

10. A double friction brake for motor vehicles and the like, comprising the combination with the fixed rear axle, the driving shaft therein, and the wheel connected to said shaft, of a friction disk rigidly secured to said wheel, independent pairs of friction rings secured to said axle on each side of said disk, and independent, manually operable means for forcing said rings into engagement with said disk.

11. A brake for motor vehicles comprising a friction disk, connections between the same and the wheel to be braked such that said disk rotates with the wheel, two pairs of non-rotatable friction rings flanking said disk one ouside the other, and independent means to actuate each pair of rings to retard said disk.

12. A brake for a shaft, comprising a friction disk rotatable with the shaft, two non-rotatable friction rings, one within the other, on one side of said shaft, two similar rings on the other side of said shaft, means to cause the pair of larger rings to engage said disk and independent means to cause the pair of smaller rings to engage the same.

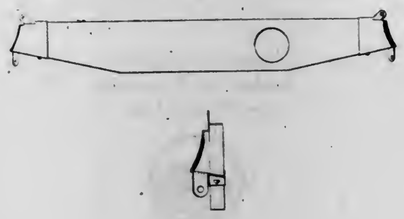
DESIGNS.

51,701. LIGHTING-FIXTURE. HARRY C. ADAM, St. Louis, Mo. Filed Oct. 5, 1917. Serial No. 194,991. Term of patent 3½ years.



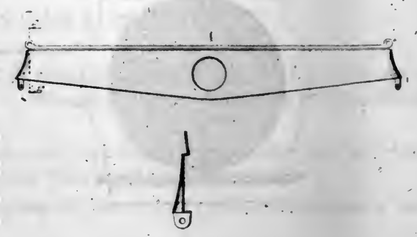
The ornamental design for a lighting fixture as shown.

51,702. INSTRUMENT-BOARD FOR VEHICLES. JOSEPH BERG, Chicago, Ill., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill., a Corporation of Virginia. Filed Feb. 6, 1917. Serial No. 147,006. Term of patent 7 years.



The ornamental design for an instrument board for vehicles, as shown.

51,703. INSTRUMENT-BOARD FOR AUTOMOBILES. JOSEPH BERG, Chicago, Ill., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill., a Corporation of Virginia. Filed Jan. 27, 1917. Serial No. 145,008. Term of patent 7 years.



The ornamental design for an instrument board for automobiles, as shown.

51,704. WELL AND CISTERN COVER. ALFRED E. LYLE, Armstrong, Mo. Filed Sept. 1, 1915. Serial No. 48,558. Term of patent 14 years.

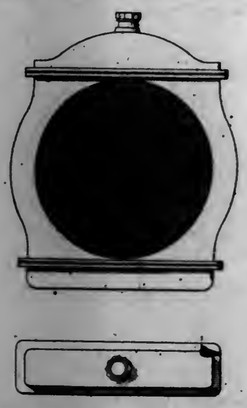
The ornamental design for a well and cistern cover, as shown.

51,705. VALVE-SEAT REMOVER. ARTHUR MCNAIR, Contesville, Pa. Filed Nov. 24, 1917. Serial No. 203,850. Term of patent 3½ years.



The ornamental design for a valve seat remover as shown.

51,706. RADIATOR FOR AUTOMOBILES. WILLIAM FULTON MELHUISH, Jr., Farmingdale, N. Y. Filed Oct. 24, 1917. Serial No. 198,320. Term of patent 14 years.



The ornamental design of a radiator for automobiles as shown.

51,707. CANDY. JAMES THOMAS MORTON, Kansas City, Mo., assignor to J. T. Morton Gum Co., Kansas City, Mo., a Corporation of Missouri. Filed July 10, 1917. Serial No. 179,757. Term of patent 3½ years.



The ornamental design for candy as shown.

TRADE-MARKS

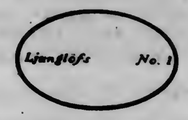
PUBLISHED JANUARY 22, 1818.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

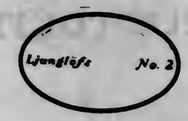
As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 93,085. (CLASS 17. TOBACCO PRODUCTS.) R. WILTON, New York, N. Y. Filed Feb. 24, 1916.



Particular description of goods.—Snuff.
Claims use since Feb. 10, 1916.

Ser. No. 93,086. (CLASS 17. TOBACCO PRODUCTS.) R. WILTON, New York, N. Y. Filed Feb. 24, 1916.



Particular description of goods.—Snuff.
Claims use since Feb. 10, 1916.

Ser. No. 93,796. (CLASS 38. PRINTS AND PUBLICATIONS.) INTERNATIONAL ASSOCIATION OF HEAT AND FROST INSULATORS AND ASBESTOS WORKERS, St. Louis, Mo. Filed Mar. 23, 1916.

International Association
Heat and Frost Insulators
and Asbestos Workers



Particular description of goods.—Printed Books, Periodicals Published Quarterly, Pamphlets, and Circulars Used Between Different Units of the Association for the Furtherance of Its Objects.
Claims use since July 6, 1904.

Ser. No. 95,696. (CLASS 39. CLOTHING.) THE CAMPE CORPORATION, New York, N. Y. Filed June 8, 1916.



Particular description of goods.—Knitted Underwear in One and Two Piece Units.
Claims use since Apr. 12, 1912.

Ser. No. 97,375. (CLASS 39. CLOTHING.) THE J. MILLER CO., Racine, Wis. Filed Aug. 16, 1916.

MILLER
MADE

The mark consists of the name "Miller," distinctively displayed, and also the syllable "ade." In other words, the initial letter "M" and the terminal letter "R" of the said name are capitalized, and they are extended downward on parallel lines, and the syllable "ade" is disposed between them and under the body of the name "Miller."
Particular description of goods.—Leather Shoes.
Claims use since September, 1914.

Ser. No. 97,880. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ORANGE COUNTY REALTY COMPANY, Anaheim, Cal. Filed Sept. 9, 1916.



Consisting of the word "Roswal," appearing in red letters upon a green background.

Particular description of goods.—Walnuts.

Claims use since Aug. 11, 1916.

Ser. No. 98,931. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) PENNSYLVANIA LAWN MOWER WORKS, Philadelphia, Pa. Filed Oct. 27, 1916. Under ten-year proviso.

PENNSYLVANIA TRIO

Particular description of goods.—Lawn-Mowers.

Claims use continuously in its business and in the business of its predecessors, the word "Pennsylvania" in the business of its predecessors, John Braun and John Braun & Sons, since January, 1878, and the word "Trio," in association with the word "Pennsylvania," in the business of its predecessor, John Braun & Sons, since May, 1916.

Ser. No. 98,957. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SAAL BROTHERS, New York, N. Y. Filed Oct. 28, 1916.



Particular description of goods.—Butter and Eggs.

Claims use since June, 1916.

Ser. No. 99,369. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BENNETT-GUMPPER-WRIGHT-COMPANY, Detroit, Mich. Filed Nov. 18, 1916.



Particular description of goods.—Carbon-Remover and Lubricant for Use in Connection with Liquid Fuel.

Claims use since Oct. 1, 1916.

Ser. No. 100,609. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CASTLE BROTHERS, San Francisco, Cal. Filed Jan. 15, 1917.

COWBOY

Particular description of goods.—Prunes, Dried Peaches, Dried Apricots, Dried Pears, Raisins, Dried Apples, and Dried Pitted Plums.

Claims use since the year 1903.

Ser. No. 100,987. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) FERGUSON & TIMPSON LIMITED, Glasgow, Scotland, and London, England. Filed Jan. 27, 1917.

WHITE HEATHER

The trade-mark consists of the two words "White Heather."

Particular description of goods.—Composition Machinery Packing.

Claims use since the month of April, 1916.

Ser. No. 101,248. (CLASS 12. CONSTRUCTION MATERIALS.) UNITED STATES GYPSUM COMPANY, Chicago, Ill. Filed Feb. 8, 1917.

"STRUCTOLITE"

Particular description of goods.—Calcined Gypsum.

Claims use since Jan. 6, 1917.

Ser. No. 102,097. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PLANTERS NUT & CHOCOLATE CO., Wilkes-Barre, Pa. Filed Mar. 12, 1917.



Particular description of goods.—Whole Blanched Salted Peanuts.

Claims use since March, 1910.

Ser. No. 102,339. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) E. DWIGHT MCCAIN, Frederick, Md. Filed Mar. 22, 1917.

HILL CREST

Particular description of goods.—Fresh Apples, Peaches, Pears, and Plums.

Claims use since July 1, 1916.

Ser. No. 103,320. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DYER PACKING CO., Vincennes, Ind. Filed Apr. 26, 1917.



Particular description of goods.—Canned Vegetables and Canned Pork and Beans.

Claims use since January, 1908.

Ser. No. 104,214. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) JEWELERS AUTO EMBLEM MANUFACTURING CO., Providence, R. I. Filed June 2, 1917.



Particular description of goods.—Automobile-Emblems Made of or Plated with Precious-Metal Ware, Including Nickel-Silver.

Claims use since May 28, 1917.

Ser. No. 104,476. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) JAMES D. BARTON, Chicago, Ill. Filed June 18, 1917.



Particular description of goods.—An Oil for Treating and Preserving the Handles of Golf and Similar Athletic Clubs.

Claims use since June 4, 1917.

Ser. No. 104,575. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) EVERETT HEANEY & COMPANY, INC., New York, N. Y. Filed June 21, 1917.



Particular description of goods.—Bleached Cotton Shirtings and Colored Woven Cotton Dress Goods.

Claims use since May 1, 1917.

Ser. No. 104,597. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) FRANK B. PERRY, Newton Center, Mass. Filed June 21, 1917.

RADIO BLINKER

Particular description of goods.—A Portable Electric-Circuit Making and Breaking Device for Operating Either a Buzzer or a Lamp.

Claims use since Apr. 23, 1917.

Ser. No. 104,868. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN MORRELL & Co., Ottumwa, Iowa. Filed July 5, 1917.



Particular description of goods.—Mince-Meat, Orange Marmalade, and Plum-Pudding and Sausage.
Claims use since November, 1902, on mince-meat; February, 1914, on marmalade; and December, 1906, on plum-pudding; since January, 1902, on sausage.

Ser. No. 104,967. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE REMILLER Co., New York, N. Y. Filed July 10, 1917.



Particular description of goods.—Liquid Soap, Olive-Oil Soap, Toilet Soap, and Violet Soap, and Shaving-Cream.
Claims use since Jan. 1, 1912.

Ser. No. 105,141. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) BELL 2 IN 1 TYRE Co., INC., Richmond, Va. Filed July 20, 1917.



Particular description of goods.—A Rebuilder Compound of Rubber and Fabric for Rubber Tires.
Claims use since Sept. 11, 1916.

Ser. No. 105,503. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE ERA-PATTERSON MILLING COMPANY, Coffeyville, Kans. Filed Aug. 6, 1917.



Particular description of goods.—Wheat-Flour.
Claims use since June 26, 1917.

Ser. No. 105,595. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. H. HAKIM & Co., New York, N. Y. Filed Aug. 11, 1917.



Particular description of goods.—Olive-Oils, Corn Salad-Oils, Salad Peanut-Oils, and Salad-Oil Pressed from Cotton-Seed.
Claims use since July 26, 1917.

Ser. No. 105,619. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) KERNEY MANUFACTURING COMPANY, Chicago, Ill. Filed Aug. 13, 1917.



Particular description of goods.—Asbestos Table-Pads.
Claims use since August, 1900.

Ser. No. 105,645. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE THOMSON WOOD FINISHING Co., Philadelphia, Pa. Filed Aug. 14, 1917.



Particular description of goods.—Ready-Mixed, Liquid, Paste, and Dry-Powder Paints and Enamels, Varnishes, and Fillers for Wood and Metal Work, Concrete and Plaster Walls, Building, Floor, Roof, Porch, and other Housework, Furniture, Vehicles, Ships, and Boats.
Claims use since about June 15, 1917.

Ser. No. 105,729. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE CHILCOTE-SARGENT Co., Cleveland, Ohio. Filed Aug. 20, 1917.

Particular description of goods.—A Developing Agent for Treating Photographic Films, Plates, and Papers.
Claims use since Aug. 16, 1917.

Ser. No. 105,891. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) LEOUSI CLONNEY & Co., New York, N. Y. Filed Aug. 27, 1917.



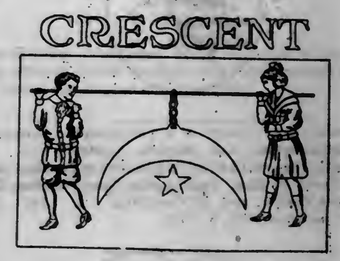
The star being yellow.
Particular description of goods.—Chamois and Sponges.
Claims use since Dec. 1, 1902.

Ser. No. 105,892. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) LEOUSI CLONNEY & Co., New York, N. Y. Filed Aug. 27, 1917.



The star being blue.
Particular description of goods.—Chamois and Sponges.
Claims use since Dec. 1, 1902.

Ser. No. 105,993. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WM. B. POPE, Philadelphia, Pa. Filed Aug. 31, 1917.



Particular description of goods.—Salted Peanuts.
Claims use since June 1, 1917.

Ser. No. 106,144. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE RHEINSTROM BROTHERS COMPANY, Cincinnati, Ohio. Filed Sept. 8, 1917.



Particular description of goods.—Conserved Cherries, Glacé Cherries, Glacé Pineapple Cores, Glacé Pineapple Pieces, Glacé Pineapple Fritters, Glacé Pineapple Fingers, Glacé Plums, Glacé Grapes, Glacé Limes, Glacé Cumquats, Glacé Figs, Assorted Glacé Fruits, Crystallized Peaches, Crystallized Pears, Crystallized Ginger, Sauce and Marshmallow Topping.
Claims use since Jan. 1, 1900.

Ser. No. 106,155. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BURLINGTON VINEGAR & PICKLE WORKS, Burlington, Iowa. Filed Sept. 10, 1917.

HAWKEYE

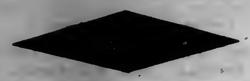
Particular description of goods.—Vinegar, Pickles, Mustards, Olives, Relishes, Chow-Chow, Piccalilli, Catsup, Horse-Radish, Salad-Dressing, and Fruit Jellies.
Claims use since on or about 1876.

Ser. No. 106,171. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JENNIE AGAN, Los Angeles, Cal. Filed Sept. 11, 1917.

Mme Mariska Aldrich

The trade-mark consists of a photographic representation of my daughter, Mme. Mariska Aldrich.
Particular description of goods.—Face-Creams, Face-Powder, Tooth-Powder, Tooth-Paste, Tooth-Washes, Hair-Tonic, Foot-Powder, and All Cosmetics.
Claims use since Aug. 5, 1917.

Ser. No. 106,195. (CLASS 33. GLASSWARE.) CREW LEVICK COMPANY, Philadelphia, Pa. Filed Sept. 12, 1917.



Particular description of goods.—Glare-Eliminating Devices for Headlights, in the Nature of Refractors.
Claims use since about Oct. 8, 1916.

Ser. No. 106,279. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HARLAN PRODUCTS COMPANY, Indianapolis, Ind. Filed Sept. 17, 1917.

Pan-lan

Particular description of goods.—Poultry and Stock Regulators.
Claims use since Sept. 7, 1917.

Ser. No. 106,327. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) SURETY MANUFACTURING COMPANY, St. Louis, Mo. Filed Sept. 19, 1917.

MOON

Particular description of goods.—Heel and Toe Plates.
Claims use since July 15, 1917.

Ser. No. 106,333. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHRIST BARUXES, Newark, Ohio. Filed Sept. 20, 1917.

THE SULTAN

Particular description of goods.—Candies, Chocolates, and Bonbons.
Claims use since July 1, 1917.

Ser. No. 106,340. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE DREADNAUGHT TIRE & RUBBER CO., Orangeville, Md. Filed Sept. 20, 1917.



No claim being made to the pictorial representation of the tire apart from the mark shown in the drawing.
Particular description of goods.—Rubber Vehicle-Tires and Inner Tubes Therefor.
Claims use since about June 1, 1914.

Ser. No. 106,353. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) ST. LOUIS TIN & SHEET METAL WORKING COMPANY, St. Louis, Mo. Filed Sept. 20, 1917.

IN-GOOD

Particular description of goods.—A Suitcase.
Claims use since July 2, 1917.

Ser. No. 106,398. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) STEFAN SCHNEIDER, Chicago, Ill. Filed Sept. 22, 1917.



Particular description of goods.—Ball-Bearings.
Claims use since Jan. 1, 1917.

Ser. No. 106,452. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE WALTER M. LOWNEY COMPANY, Boston, Mass. Filed Sept. 26, 1917.

Kinder

Particular description of goods.—Candy.
Claims use since Sept. 13, 1917.

Ser. No. 106,462. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE DRY MILK COMPANY, New York, N. Y. Filed Sept. 27, 1917.

HONOR

Particular description of goods.—Dry Milk, (Lac Desiccatum.)
Claims use since July 1, 1916.

Ser. No. 106,464. (CLASS 39. CLOTHING.) EUGENE J. MURPHY, Los Angeles, Cal. Filed Sept. 27, 1917.

Gene Murphy

The name "Gene Murphy" in the handwriting of Eugene J. Murphy, the applicant.
Particular description of goods.—Negligée and Dress Shirts.
Claims use since Dec. 1, 1914.

Ser. No. 106,466. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SUNBEAM CHEMICAL COMPANY, Chicago, Ill. Filed Sept. 27, 1917.

ALLADIN

The trade-mark consisting of the word "Alladin."
Particular description of goods.—Dyes Combined with Soaps.
Claims use since on or about Sept. 15, 1917.

Ser. No. 106,474. (CLASS 38. PRINTS AND PUBLICATIONS.) THE CREDIT CLEARING HOUSE, New York, N. Y. Filed Sept. 28, 1917.



Particular description of goods.—Trade and Credit Publications Issued Monthly and Semi-Annually.
Claims use since about July, 1916.

Ser. No. 106,569. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) AMOVINE LABORATORIES, New York, N. Y. Filed Oct. 3, 1917.



Particular description of goods.—Shampoo, Toilet Borax, Face-Lotions, Hair-Tonics, Eczema-Salves, Healing-Salves, and Milk of Magnesia.
Claims use since July 24, 1917.

Ser. No. 106,576. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HALL & RUCKEL, New York, N. Y. Filed Oct. 3, 1917.

LaBelle

Particular description of goods.—Face-Powder.
Claims use since June 14, 1917.

Ser. No. 106,589. (CLASS 39. CLOTHING.) MORTON SAMUELS, Baltimore, Md. Filed Oct. 3, 1917.



Particular description of goods.—Boots and Shoes of Leather, Rubber, Felt, Canvas, Cloth, and Combinations Thereof.
Claims use since July 17, 1917.

Ser. No. 106,645. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN A. WHEELIS, Havre, Mont. Filed Oct. 6, 1917.



The portrait shown being that of myself.
Particular description of goods.—A Preparation for Rheumatism.
Claims use since August, 1917.

Ser. No. 106,675. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) SANFORD NARROW FABRIC CO., INC., New York, N. Y. Filed Oct. 8, 1917.

Cinderella

Particular description of goods.—Cotton and Silk Braids.
Claims use since August, 1912.

Ser. No. 106,678. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) JOHN TUIASKU, Eureka, Cal. Filed Oct. 8, 1917.



Particular description of goods.—Saw-Guides.
Claims use since February, 1917.

Ser. No. 106,679. (CLASS 39. CLOTHING.) GARRIT P. VAN LOPIK, Grand Haven, Mich. Filed Oct. 8, 1917.



Particular description of goods.—Women's Outer and Under Skirts, Dress-Waists, Shirt-Waists, and Under-Waists, Middy-Blouses, and Underwear Both of Textile and Knitted Material, Single-Piece and Union-Suit; Men's Middy-Blouses, Khaki Coats, Trousers, Hats, and Textile and Knitted Underwear, Both Single-Piece and Union-Suits.
Claim use since Aug. 10, 1917.

Ser. No. 106,745. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) ARTHUR WELLS RICHARDS, Hartford, Conn. Filed Oct. 12, 1917.



Particular description of goods.—Powder for Cleansing the Surfaces of Lenses of Eyeglasses and other Glass Structures.
Claims use since September, 1917.

Ser. No. 106,764. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) WINDSOR SOAP CO., Buffalo, N. Y. Filed Oct. 13, 1917.

JAPONICA

Particular description of goods.—Soap.
Claims use since about Sept. 23, 1917.

Ser. No. 106,765. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) BAUER & BLACK, Chicago, Ill. Filed Oct. 15, 1917. Under ten-year proviso.

B&B

Particular description of goods.—Oil-Muslin and Rubber Sheeting.
Claims use since Nov. 14, 1893.

Ser. No. 106,778. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) THE P. & M. CO., Chicago, Ill. Filed Oct. 15, 1917.



Particular description of goods.—Metal Rail-Anchors, Anticreepers, Tie-Plates, Splice-Bars, Guard-Rail Clamps, and Rail-Bond Wire-Holders.
Claims use since Sept. 15, 1917.

Ser. No. 106,878. (CLASS 39. CLOTHING.) NATHAN KRAUSKOPF COMPANY, New York, N. Y. Filed Oct. 20, 1917.



Particular description of goods.—Infants' and Children's Dresses and Children's Underskirts and Combination-Undersuits Made of Textile Materials.
Claims use since Oct. 13, 1917.

Ser. No. 106,882. (CLASS 39. CLOTHING.) MCCAWLEY & CO. INC., Baltimore, Md. Filed Oct. 20, 1917.

M.W.S.

Particular description of goods.—Men's Dress and Negligée Woven-Fabric Shirts, Drawers, and Union-Suits, and Women's and Children's Overalls, All of Which are Made of Woven Fabric.
Claims use since about Jan. 1, 1910.

Ser. No. 106,891. (CLASS 43. THREAD AND YARN.) BAIRD-NORTH CO., Augusta, Me., and Providence, R. I. Filed Oct. 22, 1917.

LIBERTY

Particular description of goods.—Knitting and Crocheting Yarns.
Claims use since Oct. 19, 1917.

Ser. No. 106,905. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) CARLISLE CORD TIRE COMPANY, INC., New York, N. Y. Filed Oct. 23, 1917.

LIGHTNING

Particular description of goods.—Automobile-Tires of Rubber and Fabric.
Claims use since Aug. 1, 1917.

Ser. No. 106,914. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) BLACK EAGLE MANUFACTURING CO., Birmingham, Ala. Filed Oct. 24, 1917.

RED DEVIL



Particular description of goods.—A Compound for Treating Belts, Ropes, and Cables.
Claims use since Feb. 7, 1916.

Ser. No. 106,920. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NEW YORK KAOLIN MANUFACTURING CO. INC., New York, N. Y. Filed Oct. 24, 1917.

NU-MO

Particular description of goods.—Medicinal Preparation Used Locally in the Treatment of Pneumonia, Pleurisy, Rheumatism, Swollen Glands, Boils, Carbuncles, Chilblains, Sprains, Swellings, and Bruises.
Claims use since Apr. 13, 1917.

Ser. No. 106,954. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MIDLAND MILLING COMPANY, Kansas City, Mo. Filed Oct. 25, 1917.

Common Sense

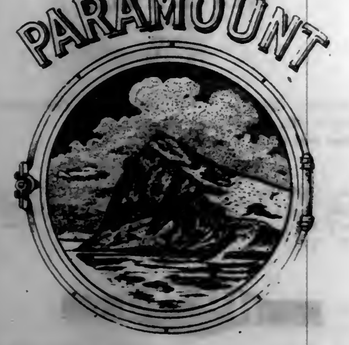
Particular description of goods.—Wheat-Flour.
Claims use since July 17, 1917.

Ser. No. 107,041. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) JOHN B. ADT, Baltimore, Md. Filed Oct. 31, 1917. Under ten-year proviso.

ADT

Particular description of goods.—Dewatering-Presses, Strainer-Reels, Tobacco-Cutters, Tobacco-Granulators, Tobacco-Casing Machines, Tobacco-Dressing Machines, Tobacco-Ordering Machines, Tobacco-Wringing Machines, Tobacco-Stem-Rolling Machines, Licorice-Dissolving Machines, Tobacco-Stem Separators, Cheese-Cutters, Tobacco-Mixing Machines, Tobacco Sifting and Grading Machines, Cork-Granulators, Tobacco-Scrap Cutters, Tobacco-Packing Machinery, and Snuff-Milling Machinery.
Claims use since on or about Mar. 1, 1877.

Ser. No. 107,060. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) PACIFIC MILLS, Lawrence and Boston, Mass. Filed Oct. 31, 1917.



The horizontal lining indicates blue.
Particular description of goods.—Cotton Piece Goods.
Claims use since December, 1915.

Ser. No. 107,063. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) PACIFIC MILLS, Lawrence and Boston, Mass. Filed Oct. 31, 1917.



Particular description of goods.—Cotton Piece Goods.
Claims use since December, 1915.

Ser. No. 107,088. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHAPIN & COMPANY, Hammond, Ind., and Chicago, Ill. Filed Nov. 1, 1917.

A-R-O

Particular description of goods.—Dairy Feed.
Claims use since Oct. 23, 1917.

Ser. No. 107,141. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PITTSBURG ELEVATOR COMPANY, Pittsburg, Kans. Filed Nov. 3, 1917.

PECO

Particular description of goods.—Cornmeal, Corn-Chops, Whole-Wheat Flour, Hen Feed, Chick Feed, and Alfalfa, Blue-Grass, Timothy, and Red-Top Seeds.
Claims use since about October, 1914.

Ser. No. 107,146. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) ABRASIVE COMPANY, Philadelphia, Pa. Filed Nov. 5, 1917.

Borolon

Particular description of goods.—Grinding and Polishing Wheels.
Claims use since Aug. 8, 1917.

Ser. No. 107,158. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) S. H. HIRSCH & CO. INC., New York, N. Y. Filed Nov. 5, 1917.

LOS ANDES

Particular description of goods.—Cheese.
Claims use since Jan. 1, 1917.

Ser. No. 107,168. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PROVIDENCE CHURNING COMPANY, Providence, R. I. Filed Nov. 5, 1917.

NUT-MAID

Comprising the words "Nut-Maid."
Particular description of goods.—Oleomargarin.
Claims use since July, 1916.

Ser. No. 107,212. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) MENDEL CODDON, Los Angeles, Cal. Filed Nov. 7, 1917.

SUPERL

Particular description of goods.—Metal-Polish.
Claims use since Jan. 15, 1908.

Ser. No. 107,284. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) NATIONAL LEAD COMPANY, New York, N. Y. Filed Nov. 10, 1917.



Particular description of goods.—Red Lead.
Claims use since Nov. 9, 1911.

Ser. No. 107,285. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) NATIONAL LEAD COMPANY, New York, N. Y. Filed Nov. 10, 1917.



Particular description of goods.—Linseed-Oil.
Claims use since Jan. 18, 1912.

Ser. No. 107,307. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE HAYS FRUIT CO., Yakima, Wash. Filed Nov. 12, 1917.

HAYSMARK

Particular description of goods.—Fresh Pears and Apples.
Claims use since Aug. 1, 1916.

Ser. No. 107,347. (CLASS 37. PAPER AND STATIONERY.) J. C. BLAIR COMPANY, Huntingdon, Pa. Filed Nov. 13, 1917.



Particular description of goods.—Paper for Writing and Printing Purposes, Drawing-Paper, Pencil-Paper, Envelops, Writing-Tablets, Pencil-Tablets, Drawing-Tablets, Spelling-Tablets, and Blank Books.
Claims use since Feb. 4, 1916.

Ser. No. 107,348. (CLASS 37. PAPER AND STATIONERY.) J. C. BLAIR COMPANY, Huntingdon, Pa. Filed Nov. 13, 1917.



Particular description of goods.—Paper for Writing and Printing Purposes, Drawing-Paper, Pencil-Paper, Envelops, Writing-Tablets, Pencil-Tablets, Drawing-Tablets, Spelling-Tablets, and Blank Books.
Claims use since Feb. 4, 1916.

Ser. No. 107,349. (CLASS 37. PAPER AND STATIONERY.) J. C. BLAIR COMPANY, Huntingdon, Pa. Filed Nov. 13, 1917.



Particular description of goods.—Paper for Writing and Printing Purposes, Drawing-Paper, Pencil-Paper, Envelops, Writing-Tablets, Pencil-Tablets, Drawing-Tablets, Spelling-Tablets, and Blank Books.
Claims use since Feb. 4, 1916.

Ser. No. 107,350. (CLASS 37. PAPER AND STATIONERY.) J. C. BLAIR COMPANY, Huntingdon, Pa. Filed Nov. 13, 1917.



Particular description of goods.—Paper for Writing and Printing Purposes, Drawing-Paper, Pencil-Paper, Envelops, Writing-Tablets, Pencil-Tablets, Drawing-Tablets, Spelling-Tablets, and Blank Books.
Claims use since Feb. 3, 1916.

Ser. No. 107,351. (CLASS 37. PAPER AND STATIONERY.) J. C. BLAIR COMPANY, Huntingdon, Pa. Filed Nov. 13, 1917.



Particular description of goods.—Paper for Writing and Printing Purposes, Drawing-Paper, Pencil-Paper, Envelops, Writing-Tablets, Pencil-Tablets, Drawing-Tablets, Spelling-Tablets, and Blank Books.
Claims use since Sept. 21, 1917.

Ser. No. 107,400. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) WESTERN BEVERAGE CO., Seattle, Wash. Filed Nov. 15, 1917.



Particular description of goods.—Apple Cider and Fruit Juices and Extracts in General to be Used for Beverage Purposes.
Claims use since about Feb. 26, 1917.

Ser. No. 107,437. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NORTHWESTERN FRUIT EXCHANGE, Seattle, Wash. Filed Nov. 17, 1917.

ALLIES

Particular description of goods.—Candied Apples, Candied Strawberries, Candied Pears, Candied Prunes, Candied Peaches, and Candied Apricots.
Claims use since Oct. 29, 1917.

Ser. No. 107,440. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) A. H. PERFECT & CO., Fort Wayne, Ind. Filed Nov. 17, 1917.

MERRIT

Particular description of goods.—String-Beans, Sugar-Corn, Peas, Cut Stringless Beans, Wax-Beans, Pineapples, Molasses, Peaches, Hominy, Tomatoes, Apricots, Green Gage Plums, Egg-Plums, White Wax-Beans, and Coffee, All of Which are Canned.
Claims use since Oct. 28, 1904.

Ser. No. 107,441. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE PHONOHARP COMPANY, Boston and East Boston, Mass. Filed Nov. 17, 1917.

PEDOPLANE

Particular description of goods.—Velocipedes.
Claims use since on or about Oct. 1, 1917.

Ser. No. 107,443. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE SOLVAY PROCESS COMPANY, Solvay, N. Y. Filed Nov. 17, 1917.

CROWN

Consisting of the word "Crown."
Particular description of goods.—Paper-Filling Material.
Claims use since May 24, 1917.

Ser. No. 107,444. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE SOLVAY PROCESS COMPANY, Solvay, N. Y. Filed Nov. 17, 1917. Under ten-year proviso.

SOLVAY

The trade-mark consisting of the word "Solvay."
Particular description of goods.—Soda-Ash, Crystals of Soda, Caustic Soda, Monohydrate Crystals, and Calcium Chlorid.
Claims use since Jan. 31, 1884.

Ser. No. 107,473. (CLASS 38. PRINTS AND PUBLICATIONS.) THE NATIONAL ARMY NEWS COMPANY, St. Louis, Mo. Filed Nov. 19, 1917.

National Army News

Particular description of goods.—A Fortnightly Periodical.
Claims use since on or about the 3d day of November, 1917.

Ser. No. 107,495. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRANK L. ROUSSEAU, Pittsburgh, Pa. Filed Nov. 20, 1917.

LAME-DUCK

Particular description of goods.—Corn-Plaster.
Claims use since Nov. 1, 1916.

Ser. No. 107,516. (CLASS 15. OILS AND GREASES.) THE G. T. WOFFORD OIL CO., Birmingham, Ala. Filed Nov. 21, 1917.

Woco

Particular description of goods.—Gasolene.
Claims use since May 1, 1916.

Ser. No. 107,527. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GREELEY CHEMICAL COMPANY, Dover, Del., and New York, N. Y. Filed Nov. 22, 1917.

GREOLIVOL

Particular description of goods.—A Reconstructive Tonic.
Claims use since Nov. 12, 1917.

Ser. No. 107,530. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE HOLLAND-INDIA OIL COMPANY, New York, N. Y. Filed Nov. 22, 1917.

Kaja

Particular description of goods.—An Oil for Effecting the Cure of Rheumatism.
Claims use since Oct. 24, 1917.

Ser. No. 107,533. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MOUSTAKIS BROTHERS, Salem, Mass. Filed Nov. 22, 1917.

Mastormade

Particular description of goods.—Candy.
Claims use since Aug. 12, 1915.

Ser. No. 107,537. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) WM. SIMPSON, SONS & CO., Philadelphia, Pa. Filed Nov. 22, 1917.



The picture being fanciful.
Particular description of goods.—Cotton Piece Goods, Cotton Dress Goods, Cotton and Silk Dress Goods, and Cotton and Worsted Dress Goods.
Claims use since about Oct. 15, 1917.

Ser. No. 107,538. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MAX WOHLGEMUTH, New York, N. Y. Filed Nov. 22, 1917.

JELI-ODIN

Particular description of goods.—A Preparation of Iodin in a Jelly Form.
Claims use since Oct. 20, 1917.

Ser. No. 107,571. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE REMOVO CO., Syracuse, N. Y. Filed Nov. 23, 1917.

RE-MO-VO

Particular description of goods.—A Depilatory Powder.
Claims use since Sept. 8, 1917.

Ser. No. 107,578. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE SENTANEL REMEDIES COMPANY, INC., Cincinnati, Ohio. Filed Nov. 23, 1917.

Bioferen

Particular description of goods.—Nerve-Tonic in Tablet Form.
Claims use since Sept. 22, 1917.

Ser. No. 107,588. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EDWIN E. CARNEAL, Washington, D. C. Filed Nov. 24, 1917.

ZIG-ZAG

Particular description of goods.—A Compound for Curing Leaks in Automobile-Radiators.
Claims use since Oct. 17, 1917.

Ser. No. 107,611. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CALIFORNIA SPRAY CHEMICAL COMPANY, Watsonville, Cal. Filed Nov. 26, 1917.

ORTHO

Particular description of goods.—Insecticides, Fungicides, and Disinfectants.
Claims use since Mar. 10, 1907.

Ser. No. 107,633. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MODERN DRUG & COMMERCIAL CO. INC., New York, N. Y. Filed Nov. 27, 1917.

MDC

Particular description of goods.—An Artificially-Prepared Medicinal Water.
Claims use since Aug. 25, 1917.

Ser. No. 107,643. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AMERICAN BUTTERINE CO., Jersey City, N. J. Filed Nov. 28, 1917.

MILKONUT

Particular description of goods.—Oleomargarin.
Claims use since January, 1917.

Ser. No. 107,690. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FREDERICK STEARNS & Co., Detroit, Mich. Filed Nov. 30, 1917.

Day Dream

Particular description of goods.—Perfumes, Face-Powders, and Toilet Waters.
Claims use since Nov. 1, 1917.

Ser. No. 107,691. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FREDERICK STEARNS & Co., Detroit, Mich. Filed Nov. 30, 1917.

ABSOCLEAN

Particular description of goods.—Disinfectant, Deodorant, and Germicide.
Claims use since Sept. 25, 1917.

Ser. No. 107,692. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) GILBERT I. STADEKER, Chicago, Ill. Filed Nov. 30, 1917.

SEE-SAFE

Particular description of goods.—An Automobile-Wind-Shield Wiper.
Claims use since Sept. 15, 1917.

Ser. No. 107,699. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE F. BEAUMONT NATIONAL-CROUSTADE MANUFACTURING COMPANY, INC., New York, N. Y. Filed Dec. 1, 1917. Under ten-year proviso.

CROUSTADE

Particular description of goods.—Cups or Dish-Like Receptacles Made of Fried or Baked Pastry.
Claims use since 1877.

Ser. No. 107,727. (CLASS 48. MALT EXTRACTS AND LIQUORS.) THE MUESSEL BREWING CO., South Bend, Ind. Filed Dec. 3, 1917.

Silver Cup

Particular description of goods.—A Non-Intoxicating Beverage of a Malt Nature.
Claims use since Nov. 10, 1917.

Ser. No. 107,765. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE FRUITED CEREAL COMPANY, Dover, Del., and Quincy, Ill. Filed Dec. 5, 1917.



Particular description of goods.—A Special Food Product Comprising a Combination of Cereals and Fruits.
Claims use since Oct. 6, 1917.

Ser. No. 107,798. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILSON CHEMICAL COMPANY, Council Bluffs, Iowa. Filed Dec. 6, 1917.

PARAZONE

Particular description of goods.—Deodorizing and Disinfecting Perfume.
Claims use since Oct. 18, 1917.

Ser. No. 107,799. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILSON CHEMICAL COMPANY, Council Bluffs, Iowa. Filed Dec. 6, 1917.

PARATHOL

Particular description of goods.—Disinfectant.
Claims use since Oct. 25, 1917.

Ser. No. 107,804. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) BUDD WHEEL CORPORATION, Philadelphia, Pa. Filed Dec. 7, 1917.

BUDD

Particular description of goods.—Vehicle-Wheels and Parts Thereof.
Claims use since Feb. 24, 1917.

Ser. No. 107,817. (CLASS 15. OILS AND GREASES.) THE PORTOLA OIL COMPANY, San Francisco, Cal. Filed Dec. 7, 1917.

PORTOLA

Particular description of goods.—Lubricating Oils and Greases.
Claims use since June 23, 1917.

Ser. No. 107,822. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) WILLARD STORAGE BATTERY COMPANY, Cleveland, Ohio. Filed Dec. 7, 1917.

TAWZAK

Particular description of goods.—Storage Batteries and Parts Thereof.
Claims use since about the middle of November, 1917.

Ser. No. 107,839. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOSEPH MAURICE HOLLANDER, Rankin, Pa. Filed Dec. 8, 1917.

Cintoria

Particular description of goods.—A Laxative.
Claims use since Jan. 7, 1907.

Ser. No. 107,845. (CLASS 15. OILS AND GREASES.) THE MOUNT HOOD SOAP CO., Portland, Oreg. Filed Dec. 8, 1917.

Oil-no-more

Particular description of goods.—A Lubricant Used as a Substitute for Oil.
Claims use since the year 1905.

Ser. No. 107,870. (CLASS 6. CHEMICALS. MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) KOMAN TABLET COMPANY, Columbus, Ohio. Filed Dec. 10, 1917.

Nitelets

Particular description of goods.—Laxative Preparations.
Claims use since Oct. 20, 1917.

Ser. No. 107,900. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) TURKISH REMEDY COMPANY, Brooklyn, N. Y. Filed Dec. 11, 1917.



Particular description of goods.—A Remedy for the Treatment of Corns.
Claims use since July 15, 1915.

Ser. No. 107,931. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ALBERT E. BROWN, Mobile, Ala. Filed Dec. 13, 1917.

CHLORAQ

Particular description of goods.—An Antiseptic Mouth-Wash.
Claims use since Dec. 3, 1917.

Ser. No. 107,941. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PARK GILMORE, INC., Covington, Ky. Filed Dec. 13, 1917.

Mor-Glo

Particular description of goods.—Rouge.
Claims use since Nov. 28, 1917.

Ser. No. 107,990. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PURITY PRODUCTS CORPORATION, Boston, Mass. Filed Dec. 15, 1917.

Boilax

Particular description of goods.—Tablets for Skin Eruptions.
Claims use since July 12, 1917.

Ser. No. 108,127. (CLASS 48. MALT EXTRACTS AND LIQUORS.) THE JAMES HANLEY BREWING COMPANY, Providence, R. I. Filed Dec. 24, 1917.

A HAPPY NICKEL

The words "A Happy Nickel."
Particular description of goods.—Ale.
Claims use since April, 1917.

LABELS

REGISTERED JANUARY 22, 1918.

20,453.—*Title:* "ALLEN SODERING PASTE." (For Soldering-Flux, Paste Form.) L. B. ALLEN CO., INC., Chicago, Ill. Filed May 21, 1917.

20,454.—*Title:* "ALLEN SODERING SALTS." (For Soldering-Flux, Granular Form.) L. B. ALLEN CO., INC., Chicago, Ill. Filed May 21, 1917.

20,455.—*Title:* "ALLEN SODERING LIQUID." (For Soldering-Flux, Liquid Form.) L. B. ALLEN CO., INC., Chicago, Ill. Filed May 21, 1917.

20,456.—*Title:* "ALLEN SODERING SALTS." (For Soldering-Flux, Granular Form.) L. B. ALLEN CO., INC., Chicago, Ill. Filed May 21, 1917.

20,457.—*Title:* "ALLEN SODERING PASTE." (For Soldering-Flux, Paste Form.) L. B. ALLEN CO., INC., Chicago, Ill. Filed October 25, 1917.

20,458.—*Title:* "ALLEN SODERING SALTS." (For Soldering-Flux, Granular Form.) L. B. ALLEN CO., INC., Chicago, Ill. Filed October 25, 1917.

20,459.—*Title:* "ALLEN SODERING PASTE." (For Soldering-Flux, Paste Form.) L. B. ALLEN CO., INC., Chicago, Ill. Filed October 25, 1917.

20,460.—*Title:* "ALLEN SODERING LIQUID." (For Soldering-Flux, Liquid Form.) L. B. ALLEN CO., INC., Chicago, Ill. Filed October 25, 1917.

20,461.—*Title:* "ALLEN SODERING LIQUID." (For Soldering-Flux, Liquid Form.) L. B. ALLEN CO., INC., Chicago, Ill. Filed October 25, 1917.

20,462.—*Title:* "BARBANELL'S PERSPIRATION CORRECTOR." (For Deodorizing Preparation.) FABIAN BARBANELL, San Francisco, Cal. Filed November 21, 1917.

20,463.—*Title:* "AN IDEAL BEVERAGE." (For a Non-Intoxicating Beverage.) BEADLESTON & WOERZ, New York, N. Y. Filed November 17, 1917.

20,464.—*Title:* "BEECH-NUT BRAND COUGH DROPS." (For Cough-Drops.) BEECH-NUT PACKING COMPANY, Canajoharie, N. Y. Filed November 13, 1917.

20,465.—*Title:* "ALMOND SMASH." (For a Fruit Flavoring-Syrup for Soft Drinks.) SAMUEL BLACKMAN, Philadelphia, Pa. Filed January 8, 1918.

20,466.—*Title:* "BLEW." (For Fresh Apples.) E. T. BLEW COMPANY, Grandview, Wash. Filed January 4, 1918.

20,467.—*Title:* "POLLY BRAND NEUFCHATEL CHEESE." (For Neufchâtel Cheese.) BREAKSTONE & LEVINE, New York, N. Y. Filed August 15, 1917.

20,468.—*Title:* "NO. 13 AUTO POLISH." (For Automobile-Polish.) BUQUOR MOTOR CO., El Paso, Tex. Filed November 9, 1917.

20,469.—*Title:* "TAR OFF." (For a Preparation for Taking Off or Removing Tar and Road-Oils from Automobiles.) HENRY S. CASTOR, Philadelphia, Pa. Filed December 14, 1917.

20,470.—*Title:* "100% PURE CLARX NEW PROCESS WHOLE WHEAT FLOUR." (For Whole-Wheat Flour.) CLARX MILLING COMPANY, Minneapolis, Minn. Filed August 21, 1917.

20,471.—*Title:* "TOOTH PICKS." (For Toothpicks.) CUTTER-TOWER COMPANY, INC., New York, N. Y. Filed November 21, 1917.

20,472.—*Title:* "LASSES-TAYTERS." (For Molasses and Sweet-Potato Yams.) G. H. DUNBAR & SONS, INC., New Orleans, La., and Gulfport, Miss. Filed November 2, 1917.

20,473.—*Title:* "CALCERBS." (For a Pharmaceutical Preparation.) ECKMAN MANUFACTURING COMPANY, Philadelphia, Pa. Filed December 3, 1917.

20,474.—*Title:* "DENVER MUD." (For Plastic Dressings.) THE GERMICIDE COMPANY, Denver, Colo. Filed October 18, 1917.

20,475.—*Title:* "GUITTARD'S PURE." (For Chocolate.) GUITTARD COMPANY, San Francisco, Cal. Filed January 4, 1918.

20,476.—*Title:* "LINFLAX SUITING." (For Suitings.) HELLER & LONG, New York, N. Y. Filed November 17, 1917.

20,477.—*Title:* "DEA WONDERFUL SALVE." (For a Salve.) JOSEPH KORINEK, Chicago, Ill. Filed June 16, 1917.

20,478.—*Title:* "OLMSTEAD'S SILK OIL." (For a Prepared Oil for Softening and Degumming Raw Silk.) LOOS & DILWORTH, Philadelphia, Pa. Filed November 22, 1917.

20,479.—*Title:* "HAIR FOREVER." (For Hair-Tonic.) MANGAN & Co., New York, N. Y. Filed November 26, 1917.

20,480.—*Title:* "PERFECTION ORANGE GRAPEFRUIT MARMALADE." (For Marmalade.) CHARLES H. MOSS, Malden, Mass. Filed November 9, 1917.

20,481.—*Title:* "SAVOY BREAD." (For Tomato Paste.) MT. HOLLY CANNING CO., Mount Holly, N. J. Filed November 28, 1917.

20,482.—*Title:* "LOYALTY BREAD." (For Bread.) RALPH L. NAFZIGER, Kansas City, Mo. Filed November 23, 1917.

20,483.—*Title:* "LACTONADE." (For a Non-Alcoholic Beverage.) OMAHA BEVERAGE CO., Omaha, Nebr. Filed November 27, 1917.

20,484.—*Title:* "WEST-FALLS." (For Hair-Dressing.) JOSEPH PALAZZOLO, New York, N. Y. Filed November 9, 1917.

20,485.—*Title:* "PERKINS ROYAL EXTRA BLEND COFFEE." (For Coffee.) ROBY P. PERKINS, Baltimore, Md. Filed October 6, 1917.

20,486.—*Title:* "PORT-O-LIVE." (For a Tonic.) PORT-O-LIVE TONIC COMPANY, Los Angeles, Cal. Filed November 19, 1917.

20,487.—*Title:* "PURITAN BRAND." (For Beverages and Non-Alcoholic Drinks.) PURITAN MFG. CO., Portland, Oreg. Filed April 11, 1916.

20,488.—*Title:* "SANI-FOLD TOOTH BRUSH." (For Tooth-Brushes.) THE SANI-FOLD COMPANY OF CALIFORNIA, San Francisco, Cal. Filed November 26, 1917.

20,489.—*Title:* "THE FAIR SEX." (For Ladies' Skirts.) HENRY SHAPIRO & Co., Baltimore, Md. Filed November 6, 1917.

20,490.—*Title:* "FUJI'S." (For Bead Molasses.) SHINSAKU NAGANO, Chicago, Ill. Filed January 3, 1918.

20,491.—*Title:* "FUJI." (For Chop-Suey Sauce.) SHINSAKU NAGANO, Chicago, Ill. Filed January 8, 1918.

20,492.—*Title:* "BONNIE-B-SLIP-PON VEIL." (For Veils.) SILVERBERG IMPORT CO. INC., New York, N. Y. Filed November 9, 1917.

20,493.—*Title:* "PEARL OIL." (For Illuminating-Oil.) STANDARD OIL COMPANY, San Francisco, Cal. Filed November 8, 1917.

20,494.—*Title:* "BRANDO HAT." (For a Non-Intoxicating Beverage.) GEORGE S. STEINBERG, Council Bluffs, Iowa. Filed October 17, 1917.

20,495.—*Title:* "RUMO." (For a Non-Intoxicating Beverage.) GEORGE S. STEINBERG, Council Bluffs, Iowa. Filed October 17, 1917.

20,496.—*Title:* "EVERSHARP." (For Leads for Pencils.) WAHL ADDING MACHINE COMPANY, Chicago, Ill. Filed November 20, 1917.

20,497.—*Title:* "SUBMARINE-DRAG." (For a Game.) WILLIS G. YOUNG, Chicago, Ill. Filed

PRINTS

REGISTERED JANUARY 22, 1918.

4,847.—*Title:* "PURITY FIRST." (For a Chocolate Confection.) COMMON SENSE NOVELTY CO., Chicago, Ill. Filed November 12, 1917.

4,848.—*Title:* "EVERLAST." (For Concrete-Hardening.) CONCRETE HARDENING CO., INC., New York, N. Y. Filed December 22, 1916.

4,849.—*Title:* "OPENING THE CASE." (For Wheat Breakfast Food.) CREAM OF WHEAT CO., Minneapolis, Minn. Filed January 5, 1918.

4,850.—*Title:* "ED' SAYS HE SAVES A NICKEL EVERY TIME HE SMOKES A CINCO CIGAR." (For Cinco Cigars.) OTTO EISENLOHR AND BROS., INC., Philadelphia, Pa. Filed January 4, 1918.

4,851.—*Title:* "SCHLITZ BOCK." (For Species of Beer Known as Bock.) THE GUTLER LITHOGRAPHIC COMPANY, Milwaukee, Wis. Filed January 3, 1918.

4,852.—*Title:* "DELICIOUS INSTANT CHILE RECIPES." (For Instant-Chilli.) THE INSTANT PRODUCTS COMPANY, Kansas City, Mo. Filed July 9, 1917.

4,853.—*Title:* "A DAILY CARTOON BY SYKES." (For The Evening Ledger.) PUBLIC LEDGER COMPANY, Philadelphia, Pa. Filed January 4, 1918.

4,854.—*Title:* "PREPARE FOR A RAINY DAY." (For Bank-Signs.) THE TWENTIETH CENTURY COMPANY, Chicago, Ill. Filed October 1, 1917.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

BURT *v.* COATS AND CAMERON. COATS AND CAMERON *v.* BURT.

Decided December 3, 1917.

1. INTERFERENCE—DISCLOSURE IN BRITISH PROVISIONAL SPECIFICATION.

Contentions of Coats and Cameron as to count 2 carefully considered, but *Held* that Burt in his provisional specification sufficiently disclosed the elements of this count to enable one skilled in the art to understand their construction and mode of operation.

2. SAME—SAME—SPECIFICATIONS ADDRESSED TO THOSE SKILLED IN THE ART.

As to count 3, having in mind that provisional specifications are addressed to those skilled in the art, the statement in Burt's provisional specification that the crank-pin is *jointed* to the valve-sleeve and the disclosure as to how the valve-sleeve is to move when the crank-pin is actuated by the crank-disk is a sufficient disclosure of the pin on the valve-sleeve.

3. SAME—INTERPRETATION OF SPECIFIC CLAIMS.

When dealing with an improvement in a well-developed art and it is established that one party is the prior inventor of the broad subject-matter of that improvement, the more specific counts should be interpreted in the light of the general disclosure. Count 3 awarded to Burt.

Mr. J. A. Watson for the appellant, (1112).

Mr. H. S. Hill and *Mr. R. M. Everett*, for the appellees, (1112.)

Mr. H. S. Hill and Mr. R. M. Everett for the appellants, (1113.)

Mr. J. A. Watson for the appellee, (1113.)

PATENT appeals Nos. 1112 and 1113.

ROBB, *J.:*

Appeals from decisions of the Patent Office in an interference proceeding.

There were three counts before the tribunals below, and they read as follows:

1. A four-cycle engine valve system, comprising a main cylinder having inlet and outlet ports located substantially in the same plane, at right angles to the axis of the cylinder and near its head, a separately movable valving cylinder having ports that coact with the main cylinder ports, a piston moving within the valving cylinder, means for oscillating said valving cylinder with less than semi-rotation, to carry the ports into and out of registry laterally, and means for reciprocating said valving-cylinder with a stroke less than the stroke of the piston to carry said ports into and out of alinement longitudinally, for controlling the admission, compression, retention during explosion, and final expulsion of the working medium.

2. The combination with a cylinder of an internal combustion engine having inlet and exhaust ports, of a sleeve in axial coincidence with said cylinder and having ports adapted to register with said ports of the cylinder, an eccentric longitudinal projection on said sleeve, a crank having its axis substantially perpendicular to the axis of the sleeve, means pivotally connecting said crank to said projection, and means for turning said crank.

3. The combination with a cylinder on an internal combustion engine having inlet and exhaust ports, of a sleeve in axial coincidence with said cylinder and having ports adapted to register with said ports of the cylinder, a pin projecting eccentrically and longitudinally from said sleeve, a rotary member having its axis substantially perpendicular to the axis of the sleeve, and a crank pin connecting said rotary member and pin and having a sliding engagement with one of said parts.

The Patent Office tribunals in turn awarded counts 1 and 2 to Burt, and Coats and Cameron have acquiesced in the award as to count 1 but have appealed as to count 2. The Examiner of Interferences and the Board of Examiners-in-Chief awarded priority to Burt as to count 3, but the Commissioner, according the count a more strict and technical interpretation, awarded it to Coats and Cameron, and Burt appealed.

The invention marks an advance in an art that already was quite well developed and relates to means for operating a single sleeve-valve in a four-cycle internal-combustion engine, so as to give the valve both a longitudinal and a lateral or oscillating movement, by which the inlet and exhaust ports of the engine are opened and closed at the proper times. In other words, by this invention simpler means are provided for accomplishing the purpose sought.

Neither party has taken testimony, Burt relying upon the filing date of his British provisional specification of August 6, 1909, and his complete specification on February 2, 1910. While Coats and Cameron filed a provisional specification on July 19, 1909, they here rely upon their complete specification filed January 17, 1910. If, therefore, the Burt provisional specification contains a disclosure of counts 2 and 3, here in issue, priority must be awarded him.

While we have carefully considered the contentions of Coats and Cameron as to count 2, we nevertheless are convinced that the tribunals of the Patent Office correctly found that Burt, in his provisional specification, sufficiently disclosed the elements of this count to enable one skilled in the art to understand their construction and mode of operation. For the reasons stated by the tribunals of the Patent Office, we affirm their decision as to this count.

The Commissioner based his reversal of the decisions of the lower tribunals as to count 3 upon the ground that this count specifies a pin on the

cylinder in addition to the crank-pin, and that this pin is not described in Burt's provisional specification. Where, as here, we are dealing with an improvement in a well-developed art and it is convincingly established that one party is the prior inventor of the broad subject-matter of that improvement, the more specific counts should be interpreted in the light of the general disclosure. While no drawing accompanied Burt's provisional specification, he did say that—

the sleeve is slightly longer than the full length of the cylinder, the extra length projecting beyond the lower or outer end of the cylinder itself where it is provided with a pin, projecting from and jointed to its outer circumference, which pin is engaged by a crank disk, or the like.

In his American application Burt describes the crank-pin as having—

its projecting outer end *hinged* to the ears aforesaid on the lower end of the sleeve,

but having in mind that these specifications are addressed to those skilled in the art, it would be giving the word "jointed" in the British specification a strained and unnatural interpretation, we think, to hold that it meant anything other than a hinge-joint. Of course, a rigid joint would have made impossible the desired motion of the valve-sleeve. Giving the word "jointed" the meaning which it would convey to any one familiar with the art, we have the hinge-pin which connects the crank-pin to the valve-sleeve. In other words, the statement in Burt's provisional specification that the crank-pin is *jointed* to the valve-sleeve and the disclosure as to how the valve-sleeve is to move when the crank-pin is actuated by the crank-disk, is a sufficient disclosure of the pin to which the Commissioner refers. It will not be denied that a hinge-joint is a well-known device, and, in employing such a joint, Burt disclosed—

a pin projecting eccentrically and longitudinally from said sleeve,

for the hinge-joint pin is such an element.

The decision is affirmed as to count 2 and reversed as to count 3.

U. S. Circuit Court of Appeals—Sixth Circuit.

JACKSON CUSHION SPRING CO. *v* ADLER,

Decided May 18, 1917.

243 FED. REP., 386.

1. PATENTS—VALIDITY AND INFRINGEMENT.
The Adler and Sullivan patent, No. 991,187, for a spring-cushion for the seats and backs of automobiles, conceding its validity, is of narrow scope, its range of equivalents small, and its practical utility doubtful, and, as so construed, *Held* not infringed.

2. SAME—SCOPE—PRIOR ART.
A patent the application for which was filed prior to that for the patent in suit is *prima facie* a part of the prior art and may be considered in the limitations it imposes on the scope of the patent in suit.

APPEAL from the District Court of the United States for the Eastern District of Michigan; Arthur J. Tuttle, judge.

Suit in equity by Theodore L. A. Adler and William G. Sullivan against the Jackson Cushion Spring Company. Decree for complainants, and defendant appeals. Reversed.

Mr. Edw. N. Pagelsen for the appellant.
Mr. Stuart C. Barnes for the appellees.

Before KNAPPEN and DENISON, Circuit Judges, and SATER, District Judge.

SATER, *Dis. J.:*

(1) The controversy in this case relates to the portion of springs in automobile-backs which supports the shoulder, neck, and head of automobile occupants. The lower court concluded that the defendant (appellant here) had infringed claims 1 and 6 of the plaintiffs' (appellees') Patent No. 991,187, issued May 2, 1911, on their application filed November 24, 1909. The defendant appealed. The claims in question are shown in the margin.[1]

In upholstering the top portion of automobile-seat backs, it had been usual to attach to the rigid trimming-rail at the top of the back a rather expensive roll of hair in a duck or canvas casing. The leather back was then fitted over such roll. The roll, not having the same yielding quality as the back-springs, frequently matted, sagged downward, and became unpleasant to the seat occupant. The patentees' purpose was to obviate these objectionable features by providing a spring edge at the top of the seat-back which would yield uniformly with the adjacent portion of the back-springs and maintain the contour of the upholstery and the comfort of the occupant. Incidentally it was claimed on the hearing that economy in the use of hair is effected. To accomplish their purpose they employed helical springs arranged in series, held together by tie-wires, and fastened either directly to the seat-back or to a supporting metal frame placed against such back. The row of helical springs near the top of the back projects horizontally and is necessarily placed some distance from the top edge of the seat. Extending upward and rearward from the top of each side of each helical spring is an arm, which, at the highest point of its arch and over the top of the seat-back or trimming-rail, is formed into a downwardly-projecting convolute coil. The two arms are formed from a continuous wire which is so bent, where it reaches the top of the seat-back, as to lie horizontally on it for the support of the

[1] 1. In combination with a supporting frame, a helical spring rising therefrom and adapted to oscillate along its helical axis, an arched spring uniting the support and the free end of the helical spring, the arch extending beyond the edge of the supporting frame and forming a support for an upholstering cover extending from the plane of the top of the helical spring around the edge of the frame, and a pair of connecting and bracing members extending from the curved portion of said arch spring to corresponding portions of similar adjacent springs, one of said members being resilient and the other being relatively rigid, substantially as described.

6. A spring seat, having in combination with a supporting frame and a row of helical springs attached at one end of each to portions of said frame appreciably spaced from the edge thereof, a corresponding number of arched springs, one for each of the row of helical springs, and attached at their tops to the top portion thereof, said arched springs extending convolutely therefrom over and outside of the edge of the frame, with their base portions engaging there against, a relatively rigid connecting bar extending parallel to the edge of the frame and attached to the lower arched portion of each of said last-named springs, and a resilient connecting member extending parallel to said bar and to the edge of the frame, being attached to the upper arched portion of each of said last-named springs, whereby a strain imposed on any one of said arched springs is yieldingly communicated to the other springs and yieldingly opposed accordingly, substantially as described.

spring thereon and its convenient attachment thereto. One arch-arm may, if preferred, be used instead of two. To preserve the parallel relation between the arms, two classes of cross-stays are used. The stay of the first class, which is resilient and nearer the helical springs, is hooked around the arms, and, to permit it to yield under strain, may have eyelets or convolute curves between them. Springs of this class, instead of being of the character just mentioned, may assume the helical form of greater resiliency. The stay of the second class is affixed to the arched arms at or about their highest point, above the convolute coil, and some distance from their attachment to the frame, and is of sufficient rigidity to transmit from one spring to another any lengthwise strains imposed upon it. It is not contemplated that the stay shall remain stationary. The patentees assert that their arched springs with their connecting stay members constitute an edge-cushioning structure, any of whose members will yield to a strain directly imposed on it, and that the extent of the yielding is reduced from what it would otherwise be by the pull of the two stays which transmit some of the strain to the immediately adjacent arched spring members and a lesser amount to those farther from the point of greatest strain. The yielding character of the resilient stay, which is located where the greatest strain occurs, causes a less pull on the arched springs than does the relatively unyielding stay. The result is that with but little upholstery—

the top edge, against which the user's body rests, is rendered most yielding and soft.

They also claim that their mode of construction of edge-springs allows them to retain their proper position, keeps the upper portion of the seat-back cushion in proper shape, and greatly increases the action and efficiency of the adjacent cushion-springs, to which they are united, by relieving them from the direct pressure and downward weight of the upholstery and that in consequence a lighter and softer wire may be used with an increased possibility of forming a very soft and elastic back.

(2) Young, to accomplish the same purpose as plaintiffs, filed an application on November 1, 1909, which is shown in the record, and obtained a patent, No. 1,155,391, on October 5, 1915, for upholstering a seat-back. The patent issued subsequent to the date of the decree in the lower court. At the top of the seat-back, where the frame is attached to it, is what he terms a border-wire running lengthwise of the back. At the top of the outer edge of the topmost series of helical springs is another border-wire. Extending convolutely from one of these border-wires to the other are spring-arches. On each side of the coil flat metallic strips or stays arranged horizontally and parallel with the top of the seat-back rest upon and are fastened to the arches or curved arms to tie them together and to support the hair stuffing. The top of his seat-back spring differs from plaintiffs', in that his stays are not wire, but metal strips, are apparently of the same size, and are differently located on the arched springs, which do not, like plaintiffs', extend rearwardly beyond the trimming-rail, and this convolute coil is in front of and above, but not over, such rail. It is obvious that if the seat-back were turned about so that the top edge of the trimming-rail would be in the same position as the front edge of the seat, the spring construction adopted by plaintiffs and by Young respectively would answer quite as well for the front of the seat as for the top of its back. The awkward phraseology in the descriptive portion of plaintiffs' patent is doubtless due to the effort to make it applicable to a seat-cushion as well as to the top of a seat-back. Claim 5 in the plaintiffs' patent, one of their broadest claims, and claim 8, of the Young patent, are both for an edge-spring for a cushion-seat, and are both couched in precisely the same language. An interference was declared November 12, 1912, and decided in Young's favor, which decision, no appeal from it having been taken, remains in full force. We are not unmindful that the claim of plaintiffs' patent, put in interference, is not the same as either of the claims in suit, but it is clear that Young's device responds quite as well as plaintiffs' to their claim 5, and that although Young's spring arrangement has not been adjudicated to anticipate that of plaintiffs as to the limited claims which alone are now in issue, the priority of the invention as to his entire device presumed from the earlier filing of his application (*Electric Controller & S. Co.* v. *Westinghouse E. & Mfg. Co.*, 171 Fed., 83, 87; 96 C. C. A., 187, C. C. A. 6) makes Young's patent a part of the prior art, and, as his invention was conceived and reduced to practice as an entirety, it may be thus considered in the limitations it imposes on the scope of the plaintiffs' invention. The prior art, as disclosed by the record, shows that spring edges for spring-seats and kindred structures, convolute coils, arched springs, stays or connectors of various designs, resilient and non-resilient, or of varying degrees of resiliency, were old in the art before plaintiffs began their experimenting. Their patent is a narrow one, and its range of equivalents small. This further appears from a consideration of the Schultz and Sweeney patent, issued August 1, 1911, on their application of March 30th preceding, in accordance with which patent, except as to one added member hereafter to be mentioned, the defendant as a licensee operated. The normally flat ribbons of resilient wire bent into sinuous curves, employed by Schultz and Sweeney, are joined at their lower ends at the topmost row of helical springs, to downward connecting-rods, from which connecting-points they are bent or arched upward beyond the top of the seat-back and then downward and forward that their ends may be fastened to the upper horizontal bar of the metal frame, which bar is attached to the top of the wooden seat-back or to its top front portion. Their arched top springs do not in cross-section differ materially in appearance from plaintiffs', excepting that they have no convolute coils. Unlike plaintiffs', they are made of sinuous or wavy instead of

round wires, and are connected not by two continuous resilient wire stays, one of which is more resilient than the other, but by two or more rows of resilient wire coiled springs, all of which are above and beyond the helical springs and are not a part of a continuous wire, but are separate and distinct, each extending from one sinuous or wavy arch to the next adjoining only. The added member in defendant's commercialized form of such device, to which member allusion above is made, was inserted at the suggestion of defendant's principal customer, and consists of a thin flat metal strip or bar about one and one-half inches wide, placed vertically and edgewise at or near the rear top edge of the wooden frame of the seat-back. Its upper edge is bent over toward the front into an imperfect roll. The wavy arched spring-wires are held to its rear side by clips, and pass downward and forward under such bar, their ends being fastened to the upper horizontal metal strip of the spring-supporting frame, although they might be fastened, it would seem to the front edge of the top of the wooden frame, if the manufacturer should choose so to do.

The plaintiffs' patent must have issued on account of the restrictions placed on their combination of their connecting-stays with the arched springs and the offices thereby performed. Plaintiffs' relatively rigid stay is susceptible of much motion, laterally, vertically, and rearwardly. This freedom of movement is attainable only by its location upon the arched springs at a distance from the rigid framework of the seat-back. Were it located at or on such framework, it would not be free to move endwise to perform its function of transmitting from one spring to another any lengthwise strains imposed upon it, nor would it move readily forward or rearward, if at all. The portion of the arches extending between the framework and the stay yields with the residue of such arches when pressure is applied to such stay. The yielding and soft qualities of the plaintiffs' spring construction are so pronounced as to cause its rejection by manufacturers because it is not strong enough to maintain and hold in position the hair stuffing, and, if made strong enough to do that, is lacking in resiliency. The weight of the evidence would seem to indicate its impracticability as a working device, if constructed within the terms of the patent. Its construction, moreover, requires expensive machinery. The defendant's added strip or bar is not the equivalent of the relatively rigid connecting-stay shown in the patent in suit. It is differently located and does not perform the same, or substantially the same, function or operate in a similar manner. It is so near the top of the seat-back and the point at which the ends of the arches are attached, and is so rigid in itself and so firmly held by the numerous wires passing over and around it and attached to the metal frame as to render it incapable of any motion, even before the upholstering is done, which appreciably affects the arched springs, and, after the stuffing and leather cover are adjusted, the application of a considerable force falls perceptibly to move the stay endwise, rearward, forward, or downward. The frictional contact of an occupant's back with the leather covering can produce no noticeable impression on such stay or bar, and such member consequently performs no function in transmitting from one spring to another any lengthwise strains. An essential feature of plaintiffs' spring construction—a feature on which they lay much stress—is therefore wanting in defendant's device. The defendant's arches are not convolutely extended, and in reality terminate at the top of the metal strip or stay which serves substantially the same purpose as an extension upward of the top of the seat-back. If such metal strip may be likened to plaintiffs' relatively rigid stay, it must then be conceded that defendant's device is devoid of all arched spring construction between such stay and the trimming-rail, and that the transmission of lengthwise strains resides in the resilient coiled spring-stay alone. The defendant's structure is commercially operative and successful, and has gone into extensive use. It differs materially from the plaintiffs' in the result attained and the means of attaining it. Conceding the validity of the patent in suit, but considering its place in the art and its questionable utility, to give it a broad construction would operate to discourage rather than promote inventive talent. Infringement is not made out, and the judgment of the trial court is therefore reversed.

A discussion of the charge of piracy from the Young and the Schultz and Sweeney inventions so freely made against the plaintiffs is unnecessary. In view of the conclusions reached, defendant's motion to remand to take additional evidence is denied.

An order may be taken in accordance with the foregoing.

ADJUDICATED PATENTS.

(U. S. D. C.) The Bliss patent, No. 773,917, for improvements in electrical distribution, consisting of primary generator, means for driving it, etc., *Held* not anticipated and not infringed by devices manufactured by complainant. *Consolidated Ry. Electric Lighting & Equipment Co.* v. *United States Light & Heat Corp.*, 246 Fed. Rep., 127.

(U. S. D. C.) The Carrier patent, No. 854,270, for humidifying air, *Held* to show invention and to be infringed. *Buffalo Forge Co.* v. *City of Buffalo*, 246 Fed. Rep., 135.

(U. S. D. C.) The Kennedy patent, No. 1,019,482, for improved method of charging storage batteries used in car-lighting systems, *Held* to show invention only in so far as providing method for measuring time during which current passed to battery, etc., and not to be infringed. *Consolidated Ry. Electric Lighting & Equipment Co.* v. *United States Light & Heat Corp.*, 246 Fed Rep., 127.

(U. S. C. C. A.) The Lewis patent, No. 704,844, for manifolding device, consisting of package provided with series of separate stubs in combination with series of writing and copying sheets, *Held*, in view of prior art, not to show invention. *General Manifold & Printing Co.* v. *Simple Account Sales Book Co.*, 246 Fed. Rep., 125.

(U. S. C. C. A.) The Weeks patent, No. 665,622, for manifold-paper provided with surface of hardened carbon, etc., *Held* not to show invention, having been anticipated. *General Manifold & Printing Co.* v. *Simple Account Sales Book Co.*, 246 Fed. Rep., 125.

THE
OFFICIAL GAZETTE
OF THE
United States Patent Office.

Vol. 246—No. 5. TUESDAY, JANUARY 29, 1918. Price—$5 per year.
[PUBLISHED FEBRUARY 8, 1918.]

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Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

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Issue of January 29, 1918.

Patents	479	No. 1,254,642 to No. 1,255,120,	inclusive.
Designs	2	No. 51,708 to No. 51,709,	inclusive.
Trade-Marks	74	No. 120,235 to No. 120,308,	inclusive.
Labels	2	No. 20,498 to No. 20,499,	inclusive.
Prints	2	No. 4,855 to No. 4,856,	inclusive.
Reissues	3	No. 14,427 to No. 14,429,	inclusive.
Total	562		

Notice—Assistant Examiner Examination.

The Civil Service Commission has announced an open competitive examination for the position of Assistant Examiner in the Patent Office on February 13, 14, and 15, 1918. Qualified persons are urged to enter this examination. Entrance salary, $1,500 per annum.

Application blanks and information as to where the examination will be held may be obtained from the Civil Service Commission, Washington, D. C.

ADJUDICATED PATENTS.

(U. S. D. C.) The Cohn and Weiner patent, No. 1,121,581, for improved process for cutting and fitting wearing-apparel, *Held* invalid for want of novelty. *Cohn, Rissman & Co.* v. *Hickey-Freeman Co.*, 246 Fed. Rep., 256.

(U. S. C. C. C. A.) The Curtis patent, No. 1,016,214, for a knit collar-piece, *Held* to show invention, but not to be infringed. *Guiterman Bros.* v. *Finch, Van Slyck & McConville*, 246 Fed. Rep., 255.

Adverse Decisions in Interference.

PATENT NO. 1,160,332.

On December 29, 1917, a decision was rendered that Joseph Slomer was not the first inventor of the subject-matter covered by claims 1 to 97, inclusive, of his Patent No. 1,160,332, subject, "Fence-machines," and no appeal having been taken within the time allowed such decision has become final.

Changes in Classification.

(ORDER No. 2,369.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., January 24, 1918.

The following change in the classification of inventions is hereby directed, to take effect immediately:

In class 105, Railway Rolling-Stock, (Division XXXIV,) establish subclass—

Locomotives—
274. Drive-wheel turners.

The patents contained in this subclass have been taken from class 105, Railway Rolling-Stock, subclasses 17, Locomotives, and 132, Car-movers, Flange or axle grip.

J. T. NEWTON,
Commissioner.

Changes in Classification.

(ORDER No. 2,370.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., January 25, 1918.

The following change in the classification of inventions is hereby directed, to take effect immediately:

In class 36, Boots, Shoes, and Leggings, (Division XI,) abolish the following subclass, with its definition:

Sole-attaching means—
20. Processes.

The patents formerly contained in this subclass have been placed for the most part in class 36, Boots, Shoes, and Leggings, subclass 12, Sole-attaching means, and the subclasses indented thereunder, and class 12, Boot and Shoe Making, subclasses 142, Processes, and 145, Processes, Lasting.

J. T. NEWTON,
Commissioner.

Suspension of Actions on Applications.

RULE 77. If an applicant neglect to prosecute his application for one year after the date when the last official notice of any action by the Office was mailed to him, the application will be held to be abandoned, as set forth in Rule 171.

Suspensions will only be granted for good and sufficient cause, and for a reasonable time specified. Only one suspension may be granted by the Primary Examiner; any further suspension must be approved by the Commissioner.

Whenever action upon an application is suspended upon request of an applicant, and whenever an applicant has been called upon to put his application in condition for interference, the period of one year running against the application shall be considered as beginning at the date of the last official action preceding such actions.

Whenever, during a time when the United States is at war, publication of an invention by the granting of a patent might, in the opinion of the Commissioner, be detrimental to the public safety or defense or might assist the enemy or endanger the successful prosecution of the war, he may suspend action on the application therefor.

APPLICATIONS UNDER EXAMINATION.

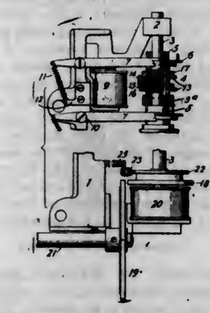
Condition at Close of Business January 25, 1918.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended.	
314	1. Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Railway Gates; Planting; Scattering Unloaders; Trees, Plants, and Flowers.	Dec. 4	Dec. 5	274
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	Oct. 3	Oct. 12	302
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Heating; Metal-Founding; Metallurgical Apparatus; Metallurgy; Plastic Metal Working.	Dec. 13	Dec. 25	97
234	4. Conveyers; Elevators; Excavating; Hoisting; Material or Article Handling; Pneumatic Despatch; Pushing and Pulling Implements; Railway Mail Delivery; Store-Service; Traversing Hoists.	Dec. 7	Jan. 4	152
167	5. Bookbinding; Harvesters; Jewelry; Music	Oct. 10	Nov. 14	271
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Substance Preparation.	July 5	Sept. 25	457
312	7. Educational Appliances; Games and Toys; Optics; Velocipedes	Sept. 20	Nov. 24	512
133	8. Beds; Chairs; Flexible-Sheet Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Oct. 29	Dec. 7	472
221	9. Air and Gas Pumps; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Marine Propulsion.	June 1	Dec. 27	516
235	10. Carriages and Wagons; Motor Vehicles	July 27	Dec. 5	777
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Spring Devices; Whips and Whip Apparatus.	Oct. 22	Jan. 11	241
322	12. Journal-Boxes, Pulleys, and Shafting; Machine Elements	Sept. 27	Nov. 19	589
329	13. Ammunition and Explosive Charge Making; Bolt, Nail, Nut, Rivet, and Screw Making; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Oct. 15	Nov. 17	474
323	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Sept. 20	Dec. 4	266
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Nov. 20	Dec. 24	278
112	16. Electric Signaling-A; Radiant Energy; Telegraphy; Telephony	July 26	Nov. 5	486
307	17. Ornamentation; Paper Manufactures; Printing; Type Casting; Sheet Material Associating or Folding; Sheet Feeding or Delivering; Type Setting.	Nov. 5	Dec. 3	91
239	18. Fluid-Pressure Regulators; Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Oct. 5	Oct. 15	368
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels	July 30	Nov. 2	461
179	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Jan. 3	Dec. 18	233
212	21. Brakes and Gins; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Aug. 4	Oct. 23	258
240	22. Aeronautics; Firearms; Ordnance	Oct. 3	Nov. 26	285
219	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	Aug. 14	Nov. 27	368
144	24. Apparel; Apparel Apparatus; Sewing-Machines; Garment Supporters	Nov. 26	Dec. 17	159
315	25. Agitating; Butchering; Centrifugal Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers; Gas Separation.	Dec. 12	Dec. 10	148
105	26. Electricity, Generation; Motive Power	July 11	July 25	569
214	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus	Oct. 29	Nov. 16	365
225	28. Internal-Combustion Engines	Aug. 17	Oct. 23	617
147	29. Boring and Drilling; Coopering; Fire-Escapes; Ladders; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking Tools.	Sept. 1	Nov. 12	374
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines	Sept. 10	Nov. 30	439
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Sugar and Salt.	Nov. 6	Nov. 3	248
278	32. Gas and Liquid Contact Apparatus; Heat Exchange; Packaging Liquids; Refrigeration	June 11	Dec. 14	726
70	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving; Roofs.	Nov. 24	Nov. 24	212
304	34. Railways; Railway Rails and Joints; Railway Rolling Stock; Railway Ties and Fasteners	Nov. 30	Jan. 10	62
87	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Signals; Toilet	Aug. 20	Nov. 20	616
204	36. Driers; Geometrical Instruments; Measuring Instruments; Photography; Force Measuring	Oct. 23	Nov. 23	540
107	37. Electric Lamps; Electricity, Circuit Makers and Breakers; Electricity, Conduits; Electricity, General Applications.	July 25	Oct. 2	676
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells	Dec. 17	Jan. 2	132
220	39. Water Distribution; Multiple Valves	July 17	Oct. 22	489
278	40. Baggage; Bottles and Jars; Check-Controlled Apparatus, Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Oct. 13	Dec. 6	459
126	41. Railway Draft Appliances; Resilient Tires and Wheels	Oct. 17	Oct. 25	345
114	42. Electricity, Conductors; Railway Signaling; Electricity-Transmission to Vehicles; Electric Signaling	July 20	Oct. 8	673
382	43. Baths and Closets; Dispensing; Dispensing Beverages; Electricity, Medical and Surgical: Fire-Extinguishers; Sewerage: Surgery; Water Purification.	Oct. 24	Nov. 3	360
288	44. Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices: Boats and Buoys; Ships	Oct. 9	Dec. 8	235
379	45. Clutches; Lubrication; Motors; Railway Brakes	Sept. 8	Oct. 3	452
	Oldest new case, June 1; oldest amended, July 25.			
	Total number of applications awaiting action			17,254
163	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Dec. 14	Jan. 11	569
	Designs	Dec. 11	Dec. 22	281
	Labels and Prints	Dec. 6	Dec. 27	62

PATENTS

GRANTED JANUARY 29, 1918.

1,254,642. AUTOMATIC CIRCUIT-CHANGING SWITCH. ARTHUR H. ADAMS, Sparkill, N. Y., and LIPA POLINKOWSKY, London, England, assignors to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Aug. 4, 1916. Serial No. 113,106. (Cl. 179—27.5.)



1. In an automatic circuit changing switch, a rotatable shaft, a plurality of operating members independently and loosely mounted thereon, a plurality of springs one for each of said operating members, one end of each spring being connected to said shaft and the other end to its respective operating member, individual means for independently moving said operating members, and a common means for subsequently rotating said shaft to wind up said springs.

2. In an automatic circuit changing device, a rotatable shaft, a plurality of independently operable members mounted on said shaft, individual spring means for driving said members, individual escapement mechanism for said members for controlling the movement thereof, and a common means for rewinding said springs.

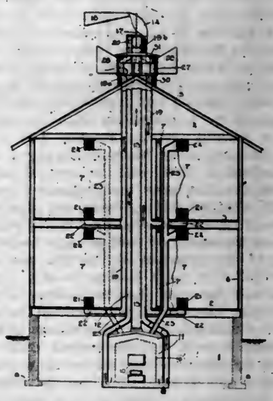
3. In an automatic circuit changing switch comprising a frame, a rotatable shaft held by said frame, a plurality of sets of switch springs mounted on said frame, a plurality of sets of contact operating members independently and loosely mounted on said shaft adapted to operate said switch springs, spring means for driving said contact operating members, individual escapement means mounted on said frame for controlling the movement of said contact operating members, and a common means for rewinding said springs after said escapement means have been operated.

4. In an automatic circuit changing switch, a rotatable shaft, a plurality of independently and loosely operable members mounted on said shaft, each adapted when started to complete a cycle of movement and so interconnected that they are successively operated, individual spring means for driving said members, individual escapement mechanism for said members for controlling the movement thereof, and a common mechanism for rewinding said springs after the last of said operating members has completed its cycle of movement.

5. An automatic circuit changing switch comprising a rotatable shaft, a plurality of contact operating members independently rotatably mounted on such shaft, springs connected to such shaft and operating members and means for rotating such shaft to wind up said springs.

[Claims 6 and 7 not printed in the Gazette.]

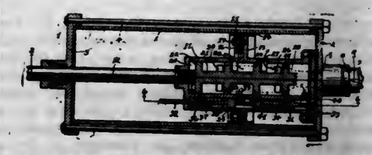
1,254,643. HEATING AND VENTILATING SYSTEM FOR BUILDINGS. GUSTAF H. AKERLUND, Bray, Minn. Filed Mar. 2, 1917. Serial No. 151,954. (Cl. 237—48.)



2. In a house heating and ventilating system, the combination with a fire apparatus, of a smokestack therefrom up through the building and its roof, a fresh air tube spaced about the smoke-stack and extending to a point between the roof and the top of the smoke-stack, a foul air tube spaced about the fresh air tube and having its upper part reduced in diameter above the top of the fresh air tube, and below said reduction formed into outwardly arched tubular branches between which the fresh air is to pass into the top of the fresh air tube; a rotary hood mounted on the top of the smoke stack and the foul air tube and means for the wind to act on and turn said hood with its closed side to the wind, and a rotary wind chamber about the part of the foul air tube having spaces for the wind to enter the fresh air tube, said wind chamber having a front opening for the wind to enter and means for the wind to act on and hold the chamber with the opening against the wind, said means consisting of two lateral rearwardly diverging vanes one fixed at each side of the wind chamber.

[Claim 1 not printed in the Gazette.]

1,254,644. WATER-MOTOR. FRANK E. ALLEN and JOHN M. LIEB, Columbus, Ohio. Filed May 10, 1916. Serial No. 96,487. (Cl. 138—2.)



1. A water motor comprising a cylinder, a piston movable within said cylinder, a valve and valve chamber within said piston for controlling the admission and ex-

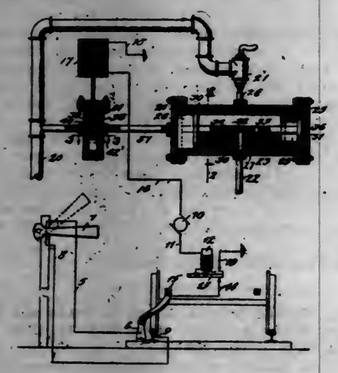
haust of both ends of the cylinder, exhaust and intake pipe conduits attached to said piston to communicate with said valve chamber, said pipes slidably passing through said cylinder, and means for changing the position of said valve to govern the direction of movement of the piston, said means being operated by engagement with the cylinder ends when the piston has reached either end of its stroke.

4. A water motor comprising a cylinder, a piston having a pair of valve chambers therein movable within said cylinder, exhaust and intake pipe conduits attached to said piston to communicate with the valve chamber, said pipes slidably passing through said cylinder, a main valve within one of said chambers for governing the admission and exhaust of both ends of the cylinder, an auxiliary valve for controlling the proper positioning of said main valve, and end projections on said auxiliary valve for shifting it by engagement with the cylinder ends when the piston reaches either end of its stroke.

5. A water motor comprising a cylinder, a piston having a pair of valve chambers therein movable within said cylinder, exhaust and intake pipe conduits attached to said piston to communicate with the valve chamber, said pipes slidably passing through said cylinder, both of said conduits being in communication with both of said chambers, a main valve in one of said chambers controlling the admission and exhaust of water to and from both ends of said cylinder, an auxiliary valve in the other of said chambers for admitting live water to one end or the other of said main valve to govern the direction of movement of the piston, said piston being also provided with ports leading to said auxiliary valve from points in the rear of either end of said main valve to permit the exhaust of the pocketed water when the main valve is shifted, and end projections on said auxiliary valve for shifting it by engagement with the cylinder ends when the piston reaches either end of its stroke.

[Claims 2 and 3 not printed in the Gazette.]

1,254,645. TRAIN-STOP. WILLOUGHBY MOULTON AVERY and JOHN BINGHAM BOOTH, Greensboro, N. C., assignors of two-thirds to said Avery and one-third to said Booth. Filed July 13, 1916. Serial No. 109,101. (Cl. 246—58.)



1. In an automatic train stop embodying an air brake system, a valve mechanism disposed between the supply pipe from the main reservoir of the system and the train pipe, and normally held open by the air pressure from the supply pipe, an auxiliary valved connection between the said supply pipe and the valve mechanism for admitting air from the supply pipe to the valve mechanism to operate the latter against the pressure of the air normally acting thereon, and controlling means for the auxiliary valved connection actuated by the motion of the train.

6. In an automatic train stop, the combination of an electric circuit, an air brake system, means for controlling the passage of air between the supply pipe from the main reservoir of said system and the train pipe and including a casing having piston chambers therein of different areas, pistons mounted in said chambers, a valve connecting said pistons and normally in position to permit passage of air from said supply pipe and said train pipe, means connecting said supply pipe with said casing for producing an inequality of air pressure in the latter whereby said valve and pistons are actuated to produce an application of the brakes, and means operated by said electric circuit for controlling the passage of air through the last-named means.

9. In an automatic train stop, the combination of an automatically controlled electric circuit, an air brake system, means for controlling the passage of air between the supply pipe from the main reservoir of said system and the train pipe and including a casing having piston chambers therein of different areas, pistons mounted in said chambers, a valve connecting said pistons and normally in position to permit passage of air from said supply pipe and said train pipe, means connecting said supply pipe with said casing for producing an inequality of air pressure in the latter whereby said valve and pistons are actuated to produce an application of the brakes, means operated by said electric circuit for controlling the passage of air through the last-named means, and a second circuit, for maintaining the means controlled by first said electric circuit in position to permit of said passage of air during the progress of the train.

[Claims 2 to 5, 7, 8, and 10 not printed in the Gazette.]

1,254,646. METHOD OF MAKING EYEPIECE-CAPS. JOHN J. BAUSCH, Rochester, N. Y., assignor to Bausch & Lomb Optical Company, Rochester, N. Y., a Corporation of New York. Filed Jan. 25, 1917. Serial No. 144,862. (Cl. 18—59.)



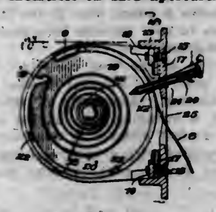
1. The method of making eye piece caps for optical instruments, consisting in forming from a semi-plastic vulcanizable compound a ring having an annular face groove, placing a machined ferrule within said groove, pressing the unvulcanized ring compound into intimate contact with portions of the ferrule, vulcanizing said compressed compound around the ferrule, and removing surplus material from the vulcanized compound ring to reduce it to finished form.

5. The method of making eye piece caps for optical instruments, consisting in forming from a semi-plastic vulcanizable compound a ring having an annular face groove, placing within said groove a screw threaded ferrule having inner edge serrations and an adjacent flaring side portion, pressing the unvulcanized ring compound into intimate contact with the screw thread, the serrations and the flare of the ferrule, vulcanizing said compressed compound around the ferrule, and removing surplus material from the vulcanized compound ring to reduce it to finished form.

[Claims 2 to 4 not printed in the Gazette.]

1,254,647. SASH-BALANCE. WILLIAM BENNETT, Rochester, N. Y., assignor to Caldwell Manufacturing Company, Rochester, N. Y., a Corporation of New York. Filed June 8, 1915. Serial No. 32,983. (Cl. 16—148.)

In a sash balance, the combination with a drum, a casing inclosing it embodying a face plate located beyond the periphery of the drum and a spring for rotating the latter in one direction, of a flexible sash sustaining member wound upon the drum, said face plate and drum each having an aperture located at one side of the plane occupied by the flexible member and adapted to register, a removable pin insertible in said apertures in a direc-



tion transversely to the axis of the drum and coöperating therewith to temporarily lock the drum to facilitate the attachment of the sustaining member to the sash.

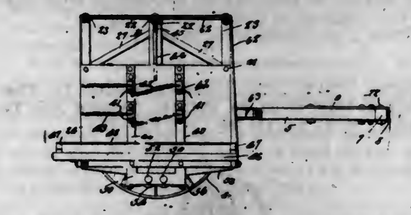
1,254,648. SEPARABLE FASTENER. IDA V. BENOIT, Brooklyn, N. Y. Filed Mar. 20, 1917. Serial No. 156,041. (Cl. 24—218.)



8. In a separable fastener, a socket member comprising an outer and an inner portion adapted to be placed on opposite sides of the material, a resilient member coiled within one of said portions and forming a yielding jaw to engage a stud, one portion of said member being formed into a material piercing threaded projection, said other portion having a threaded aperture adapted to receive said projection.

[Claims 1 to 7 and 9 not printed in the Gazette.]

1,254,649. BOLL-WEEVIL EXTERMINATOR. LONNIE ANDERSON BEVIS, Roanoke, Ala. Filed May 15, 1917. Serial No. 168,757. (Cl. 43—1.)

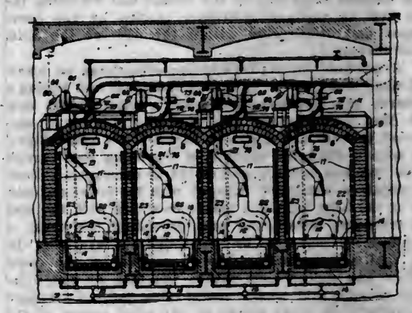


1. In a boll weevil exterminator, a wheel-mounted frame; pans carried thereby; flexible strips extended longitudinally of the frame and coacting with the inner edges of the pans; and spring arms carried by the pans and supporting the strips, certain of the spring arms lying in the path of the standing plants, whereby the said spring arms will be plant-actuated to loosen the strips, thereby permitting a passage of the plants between the strips, the spring arms constituting means for tightening the strips whereby to impart a lateral movement to the plants.

4. In a boll weevil exterminator, a wheel-mounted frame including a top and sides; depending beaters having their upper ends pivoted to the top of the frame; substantially horizontal beaters located in front of and to the rear of the depending beaters and having their outer ends pivoted to the sides of the frame; and spring means operatively connected with the last specified beaters for controlling the movements thereof.

[Claims 2 and 3 not printed in the Gazette.]

1,254,650. RECIRCULATION SYSTEM. CHARLES BOLLINGER, Chicago, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Aug. 3, 1916. Serial No. 113,012. (Cl. 34—46.)

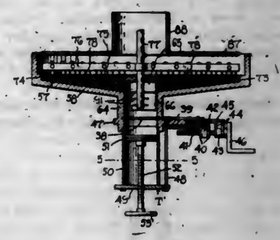


1. In a re-circulating system, the combination with a fan comprising two units, of a duct for supplying air connected to one of said units, means into which said air is forced by said fan unit, a duct interconnecting said means and said other fan unit whereby the air is drawn from said means, and means interconnecting said first-mentioned means and said second unit for recirculating said air.

2. In a re-circulating system, the combination with a fan comprising two units, of a duct for supplying air connected with one of said units, means for regulating the amount of air drawn into said duct, a chamber into which said air is forced by said fan unit, a duct interconnecting said chamber and said other fan unit whereby air is drawn from said chamber, a second duct interconnecting said chamber and said second unit whereby the air in said chamber may be re-circulated, an exhaust duct connected to said second duct, and adjusting means whereby the air from said chamber may be re-circulated through said chamber or exhausted into said exhaust duct.

[Claims 3 to 8 not printed in the Gazette.]

1,254,651. ORE-SEPARATOR. CHARLES E. BROWN, Lawton, Okla. Filed Mar. 27, 1917. Serial No. 157,614. (Cl. 83—88.)



1. A machine for separating ore comprising an annular trough mounted for vibratory movement and having a discharge chute leading therefrom, a substantially concave disk supported by the annular trough and surrounded thereby and provided in its lower central portion with a discharge opening, a depending boss carried by the disk and defining said discharge opening, a collecting container detachably engaged with the lower end portion of the boss, and agitating means co-acting with the disk and extending within the boss depending therefrom.

2. A machine for separating ore comprising an annular trough mounted for vibratory movement and having a discharge chute leading therefrom, a substantially concave disk supported by the annular trough and surrounded thereby and provided in its lower central portion with a

discharge opening, a depending boss carried by the disk and defining said discharge opening, a collecting container detachably engaged with the lower end portion of the boss, and agitating means co-acting with the disk and extending within the boss depending therefrom, a cover member supported by the trough and overlying the disk, and an upstanding hopper carried by the cover member and discharging within the disk at the axial center thereof.

3. A machine for separating ore comprising an annular trough mounted for vibratory movement and having a discharge chute leading therefrom, a substantially concave disk supported by the annular trough and surrounded thereby and provided in its lower central portion with a discharge opening, a depending boss carried by the disk and defining said discharge opening, a collecting container detachably engaged with the lower end portion of the boss, agitating means co-acting with the disk and extending within the boss depending therefrom, a cover member supported by the trough and overlying the disk, and an upstanding hopper carried by the cover member and discharging within the disk at the axial center thereof, said cover member being flat and arranged substantially at right angles to the axial center of the disk.

4. A machine for separating ore comprising an annular trough mounted for vibratory movement and having a discharge chute leading therefrom, a substantially concave disk supported by the annular trough and surrounded thereby and provided in its lower central portion with a discharge opening, a depending boss carried by the disk and defining said discharge opening, a collecting container detachably engaged with the lower end portion of the boss, agitating means co-acting with the disk and extending within the boss depending therefrom, a slide valve co-acting with the depending box for controlling travel therethrough, and means carried by the boss for imparting endwise movement to the valve.

5. A machine for separating ore comprising an annular trough mounted for vibratory movement and having a discharge chute leading therefrom, a substantially concave disk supported by the annular trough and surrounded thereby and provided in its lower central portion with a discharge opening, a depending boss carried by the disk and defining said discharge opening, a collecting container detachably engaged with the lower end portion of the boss, agitating means co-acting with the disk and extending within the boss depending therefrom, a cover member supported by the trough and overlying the disk, an upstanding hopper carried by the cover member and discharging within the disk at the axial center thereof, said cover member extending within the disk and the major diameter of the cover member being less than the mean diameter of the upper portion of the disk.

1,254,652. DOUBLE HITCH. HENRY BULTHAUS, Byron, Ill. Filed July 30, 1917. Serial No. 183,524. (Cl. 59—87.)

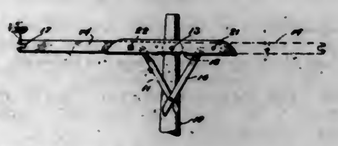


An open link consisting of a single length of wire bent to form a single elongated convolution, one end of the wire being bent to lie diagonally across the convolution and reversely bent to follow the end of the convolution in spaced and substantially parallel relation thereto.

1,254,653. FENCE. WILLIAM L. BUTCHER, Bringhurst, Ind. Filed Sept. 15, 1917. Serial No. 191,558. (Cl. 256—11.)

1. In a device of the kind described, a bracket adapted to be secured to a fence post, a swinging arm pivoted at one end to said bracket and arranged to swing from one end of the bracket to the other, said arm being arranged to receive a guard wire in its extremity, and releasable means to hold the arm in adjusted position relative to said bracket.

2. In a device of the kind described, the combination with a fence post, of a channel member secured to said post and extending transversely of the fence on opposides thereof, a swinging arm having one end pivoted within said channel member at the center thereof, said arm being provided with a bolt receiving opening spaced from its pivot point and having its free end arranged



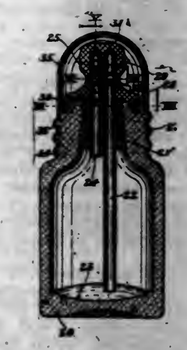
to receive and retain a guard wire, said bracket having openings through its sides wherewith the opening in the arm is arranged to be brought into registry, a bolt removably passed through certain of the openings in the bracket and the opening in the arm, and a guard wire held in the outer end of said arm.

1,254,654. ARCH-SUPPORT. ROSE S. CARLING, Los Angeles, Cal., assignor to Pneumatic Surgical Appliance Company, Los Angeles, Cal., a Corporation of California. Filed Mar. 28, 1917. Serial No. 158,046. (Cl. 36—71.)

1. An arch support comprising a flexible insole, a pocket attached along the inner edge of the insole and adapted to swing outwardly for the insertion of a pneumatic pad, and a pneumatic pad in said pocket; so that the pocket containing the pad swings under the insole and produces an arch support, said support being highest at its longitudinal center and inner edge.

[Claim 2 not printed in the Gazette.]

1,254,655. AMPUL. PAUL CARPENTER, Chicago, Ill. Filed Aug. 8, 1910, Serial No. 576,218. Renewed June 14, 1917. Serial No. 174,780. (Cl. 215—78.)

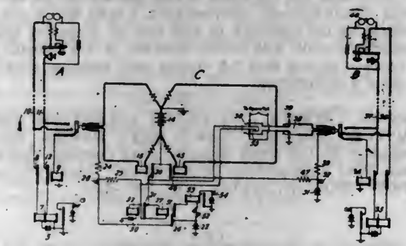


7. In combination with a receiving vessel, an indented inlet tube, an indented outlet tube, a frangible covering in which said tubes are embedded, said covering engaging the top of said vessel, means whereby a portion of said tubes extending beyond said indentations may be grasped to facilitate fracture, and a cap to prevent accidental shock to said means.

[Claims 1 to 6 and 8 to 11 not printed in the Gazette.]

1,254,656. [WITHDRAWN.]

1,254,657. TELEPHONE-EXCHANGE SYSTEM. HENRY P. CLAUSEN, Mount Vernon, N. Y., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed Mar. 13, 1915. Serial No. 14,106. (Cl. 179—73.)



1. A telephone exchange system comprising a plurality of telephone lines, a link circuit for interconnecting the lines, a signaling device, interrupter mechanism, an operating circuit for the signaling device including the interrupter mechanism completed upon connection of the link circuit with a calling telephone line, an operator's telephone set, a listening switch for connecting the operator's telephone set in circuit with the connected telephone line, and means responsive to the actuation of the listening switch for interrupting the operating circuit.

2. In a telephone exchange system, a plurality of telephone lines, a link circuit for interconnecting the lines, a signaling device, interrupter mechanism, a relay operating upon connection of the link circuit with a telephone line to include the interrupter mechanism in circuit with the signaling device, an operator's telephone set, a switching device for including the operator's telephone set in circuit with the connected telephone line, and means actuated upon the operation of the switching device for causing the deënergization of said relay.

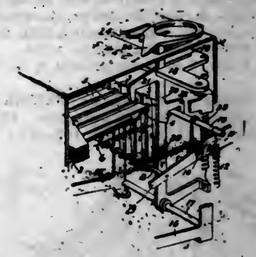
3. In a telephone exchange system, a plurality of telephone lines, a link circuit for interconnecting the lines, a signaling device, a circuit therefor, interrupter mechanism, a relay operating upon connection of the link circuit with a telephone line to include the interrupter mechanism in circuit with the signaling device, a listening key, and a circuit completed upon the actuation of the listening key to cause the deënergization of said relay.

1,254,658. IMPULSE-TRANSMITTING DEVICE OR SENDER. HENRY P. CLAUSEN, Mount Vernon, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Oct. 26, 1916. Serial No. 127,928. (Cl. 177A—341.)

1. In an impulse transmitting device, a plurality of vibrating members, each member being arranged to transmit impulses of a different frequency of vibration, means for normally holding said members under tension, and a single means common to said plurality of vibrating members for selecting a member and for operating said first mentioned means to start said selected member vibrating.

2. In an impulse transmitting device, a plurality of vibrating members, means for normally maintaining said members under tension, and means for operating said first mentioned means to start a selected member vibrating.

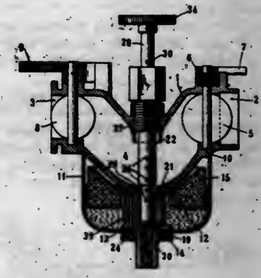
4. In an impulse transmitting device, a plurality of vibrating members, a plurality of contact springs, a plurality of catches, each catch being associated with a vibrating member to normally hold it in engagement with its associated contact spring, and an adjustable finger lever for selectively operating said catches.



6. In an impulse transmitting device, a plurality of vibrating members, a plurality of contact springs respectively associated therewith, a plurality of catches, each catch being associated with a vibrating member to normally hold it in engagement with a contact spring, and a finger lever arranged for movement to operate any one of said catches to withdraw it from engagement with its associated members, and at the same time to allow the remaining vibrating members to move out of engagement with their respective contact springs.

[Claims 3 and 5 not printed in the Gazette.]

1,254,659. CARBURETER. JOSEPH C. COULOMBE, Lowell, Mass. Filed Dec. 3, 1914. Serial No. 875,304. (Cl. 261—41.)



2. In a carbureter having an automatically controlled fuel chamber, a venturi, a fuel well extending below the venturi, a stand-pipe separating said well from the fuel supply, said stand-pipe having openings within the well and above the well within the venturi and means for adjusting said openings.

3. In a carbureter having an automatically controlled fuel supply, a venturi, a stand-pipe open to the atmosphere and communicating with the fuel supply, said stand-pipe having openings above and below the bottom of the venturi and means for adjusting the size of the openings.

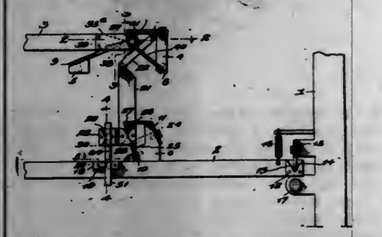
4. In a carbureter having an automatically controlled fuel supply and a venturi, a stand-pipe extending through said venturi and communicating with the oil supply, a well surrounding said stand-pipe and separated from the oil supply by said stand-pipe, adjustably openings intermediate the stand-pipe well and venturi, and an adjustable hollow spindle for adjusting and feeding fuel to the openings.

6. In a carbureter having a fuel supply, a venturi, a stand-pipe communicating with the venturi and the fuel supply, a fuel well open to the venturi and surrounding the stand-pipe for a substantial portion of its length and a chamber open to the fuel supply and opening to the venturi above the well.

7. In a carbureter having a fuel supply, a venturi, a stand-pipe communicating with the venturi and the fuel supply, a fuel well having an enlarged opening into the venturi and surrounding the stand-pipe for a substantial portion of its length, a chamber open to the fuel supply and the venturi, a throttle valve at one end of the venturi and a by-pass communicating with the fuel well and opening adjacent to the throttle valve.

[Claims 1, 5, and 8 to 10 not printed in the Gazette.]

1,254,660. BEARING FOR TYPE-WRITER ACTIONS. FRANK A. CRITZ, JR., West Point, Miss. Filed May 31, 1917. Serial No. 171,934. (Cl. 197—27.)



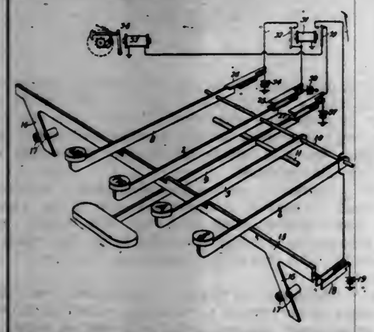
1. A bearing of the kind described comprising a supported member having a V-notch cut therein, side plates carried by said member and having notches at an angle to the notch of the supported member, the apices of said notches contacting, and coöperating members engaging said notches respectively.

3. In a bearing for typewriter type bars, a bar having upper and lower notches, and an end notch, and supporting fingers engaging said notches, the notches extending toward a common point.

4. A bearing for typewriter bars provided with notches at an angle to each other, and having their apices in alinement, and engaging and supporting means resting loosely in said notches.

[Claims 2 and 5 not printed in the Gazette.]

1,254,661. COUNTING APPARATUS. AMOS FREDERICK IXXON, Newark, N. J., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed May 24, 1915. Serial No. 30,004. (Cl. 235—92.)



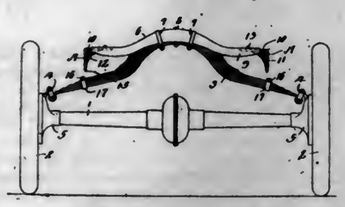
1. A counting apparatus comprising a registering mechanism, an electromagnet for controlling the operation of said mechanism, a switch, a relay energized by the operation of said switch to partly prepare an operating circuit for said electromagnet, a second switch for completing the operating circuit thus prepared to effect a registration, and an independently actuated switch for effecting the energization of said electromagnet to cause a registration when said relay is deënergized.

2. In a counting apparatus, the combination of a registering mechanism, an electromagnet for effecting the operation of said mechanism, an energizing circuit for said electromagnet, a shift key for preparing said energizing circuit, a plurality of double case keys, and means operated by one of said keys for closing a switch in said prepared circuit to effect a registration.

3. In a counting apparatus, the combination of a registering mechanism, an electromagnet for effecting the operation of said mechanism, an energizing circuit for said electromagnet, a shift key, means operated by the actuation of said shift key for preparing said energizing circuit, a plurality of double case keys, and means operated thereby for closing a switch in said prepared circuit to effect a registration.

4. In a counting apparatus, the combination of a plurality of keys, a registering mechanism, an electromagnet for controlling the operation of said mechanism, an energizing circuit for said electromagnet, a shift key, a relay operated by the actuation of said key for preparing said energizing circuit, and means operated by the actuation of another of said keys for closing said prepared circuit to effect a registration.

1,254,662. SPRING AND FRAME SUPPORTER FOR MOTOR-VEHICLES. JOSEPH DOTTI, Madison, Wis., assignor to The Dotti Manufacturing Company, Madison, Wis., a Corporation of Wisconsin. Filed Nov. 16, 1916. Serial No. 131,723. (Cl. 267—19.)



1. A vehicle frame, a bolster extending transversely thereof and having parallel longitudinal flanges extending downwardly therefrom, and an arched body supporting main spring centrally secured to the bolster and terminally connected with the axle-housing, in combination with auxiliary body supporting units interposed between the bolster ends and said spring, each unit comprising a downwardly extending member located beyond the adjacent end of the bolster and above and normally out of contact with the body supporting spring but adapted to rest upon said spring when an abnormal load is imposed on the bolster.

10. An axle housing, a bolster extending longitudinally thereof, an arched body-supporting main spring centrally secured to the bolster and terminally connected to the axle housing, both end portions of the spring lying in the same vertical plane longitudinally of the axle housing, in combination with auxiliary body supporting units interposed between the end portions of the bolster and the corresponding end portions of the spring, said bolster and spring constituting two members and said units being rigidly attached at one end to one only of said members, each of the units including a resilient member and a telescopic housing for said member, said housing being so constructed and arranged that the movable portion thereof is maintained in proper alinement with the other of the two members regardless of whether the unit engages said member or not.

[Claims 2 to 9 and 11 to 15 not printed in the Gazette.]

1,254,663. METHOD OF TREATING METAL PARTS TO PREVENT SOLDER ADHERING THERETO. LOUIS W. DOWNES, Providence, R. I., assignor to D & W Fuse Company, Providence, R. I., a Corporation of Rhode Island. Filed July 10, 1917. Serial No. 179,668. (Cl. 175—273.)

1. A method of preventing the soldering together of the metal parts of an electric fuse by the blowing of the inclosed fuse link consisting of treating the metal surfaces to prevent adhering of the molten metal thereto.



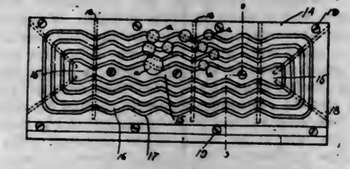
2. A method of preventing the soldering together of the metal parts of an electric fuse by the melting of the link therein, consisting of coating the exposed surface of the metal parts with a non-solder-adhering material.

3. A method of preventing soldering together of the metal parts of an electric fuse by the melting of the link therein consisting in oxidizing the surfaces of the metal parts.

4. A method of preventing soldering together of the metal parts of an electric fuse by the melting of the link therein consisting in the application of chemicals to the surfaces of the metal parts to oxidize the same.

5. A method of preventing the soldering together of the metal parts of an electric fuse when the link therein is blown consisting in subjecting the parts to an oxidizing heat before being positioned in the fuse.

1,254,664. METHOD OF FORMING MAGNETIC CHUCKS. LOUIS W. DOWNES and RALPH CLIFTON PATTON, Providence, R. I., assignors to D & W Fuse Company, Providence, R. I., a Corporation of Rhode Island. Filed Sept. 12, 1916. Serial No. 119,763. (Cl. 29—148.)

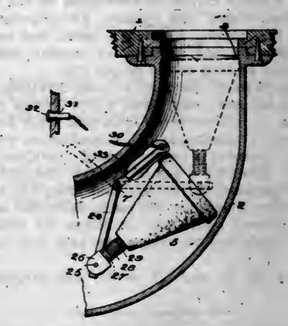


An improved process of constructing a magnetic chuck member which consists in molding an outer frame and a central pole member and a plurality of intermediate flux carrying frames all as one integral piece by connecting them on one edge by an integral web thereby forming a series of deep grooves between said members, inserting a plurality of supporting tie bars of low magnetic permeability through all of said members, introducing a filling of non-magnetic material into said grooves causing it to flow about said bars and so lock itself and all the parts permanently in position, and subsequently removing said web to separate said members magnetically.

1,254,665. MODULATOR FOR SOUND-PRODUCING MACHINES. JAMES C. DRAKE, Rochester, Minn., assignor to Sears, Roebuck & Company, Chicago, Ill., a Corporation of New York. Filed June 6, 1916. Serial No. 101,909. (Cl. 181—5.)

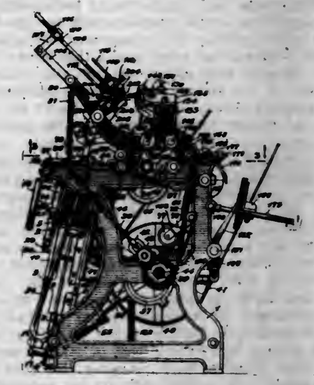
1. In a sound producing device, a passageway having a sound receiving opening, and a modulator fitted to said opening comprising the following instrumentalities: a hollow conical body with its large end fitted to the opening and its small end pointed in the direction of transmission of the sound, and means extending through the side of the passageway for moving said body to and from the opening.

2. In apparatus of the class described, a sound opening, a conduit extending from said opening, and a modulator fitted to said conduit comprising the following instrumentalities: a transverse rock shaft extending through a wall of the conduit, a lever on said rock shaft, a non-resonant body tapering from one end to the other, with its larger end adapted in one position to close and in other positions to partially or completely open the conduit or passageway, a resilient connection between the small end of said body and the end of the rock shaft arranged to positively transmit motion therebetween in both operative movements, and means outside the conduit to move said shaft.



3. In apparatus of the class described, a sound opening, a conduit extending from said opening, and a modulator fitted to said conduit comprising the following instrumentalities; a transverse rock shaft extending through a wall of the conduit, a lever on said rock shaft, a non-resonant body tapering from one end to the other, with its larger end adapted in one position to close and in the other positions to partially or completely open the conduit or passageway, a pivoted abutment on the inner end of said rock shaft, and a coiled spring flexible connection between said abutment and the small end of said body, with means outside the conduit to rock said shaft.

1,254,666. ENVELOP-MACHINE. CARL O. EKVALL, New York, N. Y., assignor to General Paper Goods Manufacturing Co., New York, N. Y., a Corporation of New York. Filed June 30, 1916. Serial No. 106,763. (Cl. 93—61.)



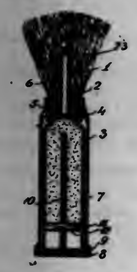
1. In an envelop machine, the combination with an envelop blank table, of mechanism for lifting a blank from said table, mechanism for receiving said blank from the blank lifting mechanism and propelling the same, a patch container, mechanism for applying gum to a patch in said container and then lifting the patch therefrom, mechanism for receiving the patch from the gumming mechanism and applying the same to the blank during the movement of said blank.

16. In an envelop machine, the combination with a vertically movable blank table, of an oscillating shaft above said table and mechanism for oscillating said shaft, a suction tube secured on said shaft and adapted to lift a blank from the table, a pair of rollers for receiving the blank lifted by the suction tube and moving the same forward, a slotted rotating cylinder, and another roller, said cylinder and roller adapted to coöperate to apply a patch to a blank moved between them by the rollers, a jaw contained within said cylinder for coöperating with the slot in the cylinder to grasp a patch, and mechanism on the outside of said cylinder for causing said jaw to grip or release a patch at the proper time.

28. In an envelop machine, a main rotatable shaft, a blank table, an oscillating blank picker driven from said shaft, a pair of rollers driven from said shaft for moving a lifted blank, a rotating cylinder, mechanism within said cylinder for grasping a patch, a patch container, a patch gummer for gumming a patch in said container and removing the gummed patch from said container to the rotating cylinder, means on the main shaft for oscillating the patch gummer and a pair of rollers for pressing the blank and patch applied thereto by said first mentioned rollers.

[Claims 2 to 15 and 17 to 27 not printed in the Gazette.]

1,254,667. CONTAINER FOR SOAP PASTE AND OTHER LIQUID AND SEMILIQUID MATERIALS. JOEL B. FESLER, New York, N. Y. Filed Apr. 22, 1913. Serial No. 762,847. (Cl. 221—79.)



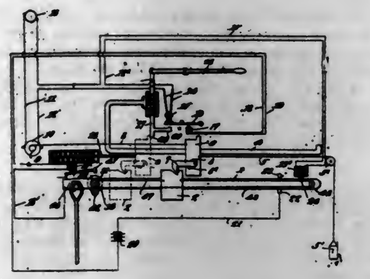
1. A dispensing container for liquid and semiliquid materials, comprising a rigid receptacle having at one end an outlet, a piston within said receptacle, said piston perforated to receive a feed screw, and a thin layer of sealing material covering said piston and initially closing such perforation of the piston and having a thickened edge portion pressing tightly against the sides of the said receptacle and thereby forming a guide for the piston and a tight joint between said piston and receptacle.

2. A dispensing container for liquid and semi-liquid materials comprising a receptacle having at one end an outlet, and having an outwardly turned flange surrounding such outlet, a discharge tube having a base of compressible plastic material extending across such outlet and over said flange, and a retaining cap fitting over the said base and having its edge turned over into engagement with the under side of said projecting flange of the container, whereby said discharge tube is held in place with reference to said container, the said cap pressing the base portion of said discharge tube tightly against said flange whereby a joint is formed between said base of said discharge tube and the said flange of said container, the said base of said discharge tube having initially an outwardly projecting rib which is displaced inwardly by the pressure exerted by said retaining cap on said rib, thereby forming on the base of the discharge tube an inwardly projecting rib pressing against the mouth portion of the receptacle.

3. A dispensing container such as described comprising a receptacle having at one end a discharge opening and having within it a piston, centrally perforated to receive a feed screw, a cap secured to and covering the other end of said receptacle and arranged to prevent withdrawal of the piston, said cap being centrally perforated to receive a feed screw and to guide the same while being inserted through the piston, and said piston being provided with a thin frangible layer initially closing its perforation.

4. A dispensing container such as described comprising a receptacle having at one end a discharge opening and having within it a piston, centrally perforated to receive a feed screw, and a cap covering the other end of said receptacle and itself centrally perforated to receive a feed screw, and a layer of frangible material interposed between said closing cap and the end of said receptacle and, when unbroken, closing the perforation in said cap and the corresponding perforation in the piston.

1,254,668. AUTOMATIC WEIGHING-SCALE. SAMUEL T. FOSTER, Jr., Laredo, Tex. Filed June 5, 1915. Serial No. 32,357. (Cl. 265—7.)



1. In a weighing apparatus, the combination with a scale beam and a poise slidable thereon; of operating means for advancing the poise and another means for moving it backwardly along the beam, means for arresting the advancement of the poise when the beam tilts, a recording device including a recording member and a marking element coöperable therewith, means for advancing the recording member proportionately to the advance of the poise along the beam; means operated when the beam drops to operate the marking element, means for bringing the operating means into operation for advancing the poise, means operated when the beam drops to set the operating means into operation for moving the poise backwardly along the beam to its initial position, and means operated when the poise is returned to initial position to stop the operating means.

2. In a weighing apparatus, the combination with a scale beam and a poise slidable thereon, of operating means for advancing the poise and another means for moving it backwardly along the beam, a recording device including a recording drum or type wheel and a marking element coöperable therewith, a screw carried by said drum or wheel and threadedly engaged to said beam, means operatively connecting said screw and the poise whereby the drum is rotated and shifted proportionately to the amount that the poise is advanced along the beam, means operated when the beam drops to operate the marking element, means for setting the operating means into operation for advancing the poise, means operated when the beam drops to set the operating means into operation for moving the poise backwardly along the beam, and means operated when the poise is returned to initial position to stop the operating means.

3. In a weighing apparatus, the combination of a scale beam, a poise slidable thereon, a screw mounted on said beam, a recording drum or type wheel operated by said screw, means operatively connecting the screw and poise whereby the drum or wheel is rotated and moved longitudinally by said screw proportionately to the movement of said poise along said beam, a marking element in cooperative relation to said drum or wheel, and means for actuating said marking element in coöperative relation to the movements of said beam.

4. In a weighing apparatus, a scale beam, a poise carried thereby, means for moving said poise to and fro on said beam, a recording device including a recording member and a coöperating marking member, means for moving the recording member rotatively and longitudinally proportionately to the movement of said poise on said beam, means operated by the depression of said beam by said poise for operating said marking member, and means operated by the return of said poise to its initial position to stop the operating means of the poise.

5. In a weighing apparatus, a scale beam, a poise carried by and slidable thereon, means for advancing and retracting said poise along said beam, a recording device and a coöperating marking element in coöperative relation to said poise, means for operating said recording device rotatively and longitudinally as said poise is advanced along said beam, means for actuating said marking element upon the depression of said beam by said poise, and means operated by the return of said poise to its initial position for stopping the operating means of the poise.

1,254,669. GOLF-BAG. WALTER G. FOVARGUE, Glencoe, Ill. Filed Nov. 12, 1915. Serial No. 61,074. (Cl. 224—45.)



1. In a golf bag, the combination of side wall and a bottom, and a top closure for said bag comprising flexible walls divided longitudinally throughout substantially the entire length thereof, and means for securing the free longitudinal edges of said walls in closed relation.

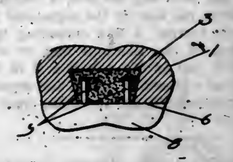
6. In a golf bag, the combination of side walls and a bottom, a top closure for said bag comprising flexible walls divided longitudinally throughout substantially the entire length thereof, eyelets in the free longitudinal edges of said walls, and a strap adapted to be threaded through said eyelets.

[Claims 2 to 5 not printed in the Gazette.]

1,254,670. MANUFACTURE OF ARTIFICIAL TEETH. LUTHER W. FROMM, Nome, Alaska. Filed Aug. 7, 1917. Serial No. 184,854. (Cl. 32—9.)

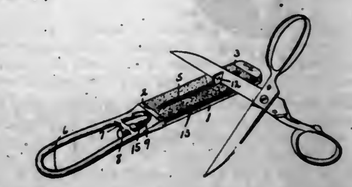
1. The method of repairing artificial teeth which consists in preserving in the backing of a crown, plate, or bridge the pin stumps remaining upon the breaking away of a tooth-front, providing a repair tooth-front with a pin-receptive cavity of excess transverse dimensions for the admission of said stumps, supplying said cavity with a suitable cement, and then uniting the said backing and front by pressure applied to effect a true fit of the front upon the backing and maintaining for a period sufficient to allow the cement to set.

2. A new article of manufacture an artificial tooth-front provided with a rearwardly opening pin receptive cavity adapted to receive a pair of pin-stumps of predetermined relative disposition, the transverse dimensions



of said cavity being in excess of that actually required to admit said pin stumps whereby a range of apjustability for the purpose specified is gained.

1,254,671. SHARPENER FOR KNIVES, SCISSORS, AND THE LIKE. STEPHEN H. GALLAGHER, Utica, N. Y. Filed May 18, 1917. Serial No. 169,515. (Cl. 51—7.)



1. In a device of the class described, a base an abrasive element mounted on the base, said base and abrasive element having alined slots, and a guide projecting through said slots and movable therein.

2. In a device of the class described, a base, an abrasive element mounted on the base, said base and abrasive element having alined slots, a guide projecting through said slots and movable therein, and spring means for tensioning the guide.

3. In a device of the class described, a base, an abrasive element mounted on the base, a rod connected to the base, a guide having a bearing journaled on the rod, and a finger projecting above the abrasive element.

4. In a device of the class described, a base, an abrasive element mounted on the base, said base and abrasive element having alined slots, a rod connected to the base and extending in substantial parallelism with the slot, a guide having a bearing journaled on the rod, a finger projecting through said alined slots, and a spring on the rod for tensioning the guide.

1,254,672. PRESSURE-GAGE. PHILO M. GELATT, La Crosse, Wis., assignor to National Gauge and Equipment Co., La Crosse, Wis., a Corporation of Wisconsin. Filed Apr. 3, 1916. Serial No. 88,606. (Cl. 73—109.)



A pressure indicator comprising a substantially cylindrical casing having a dial face and scale thereon, a spindle journaled in the casing, an indicator secured on the spindle to traverse the scale, a spring coiled around the spindle and adapted to return the latter to initial position, a segmental gear journaled to oscillate in the casing, a pinion on the spindle in mesh with the

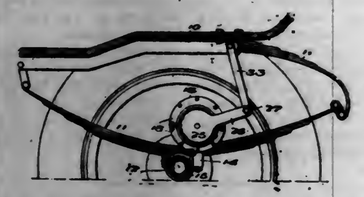
gear, a Bourdon tube secured at one end to lie substantially concentric with the casing and out of contact therewith except at the fixed end thereof, a bendable curved arm extending from the hub of the segmental gear oppositely to the body thereof, a link extending tangentially from the free end of the Bourdon tube to which it is pivoted to the free end of the curved arm to which it is pivoted, and a stop adapted to arrest the segmental gear when the indicator has reached the outer limit of motion on the scale.

1,254,673. TOBACCO-PIPE. JOSEPH GIACCONE, Brooklyn, N. Y. Filed Aug. 25, 1917. Serial No. 188,094. (Cl. 131—12.)



A tobacco pipe the bowl of which is provided with the usual chamber at the bottom of which is a supplemental chamber which communicates with a bore which opens downwardly through the bottom of the bowl, the stem portion of the pipe being also provided with a bore which communicates with the supplemental chamber and with a by-pass forming a communication between said last named bore and the bore in the bottom of the bowl, and a spring-operated valve device countersunk in the bottom of the bowl and flush therewith and adapted to close the bore which opens downwardly therethrough from the supplemental chamber.

1,254,674. SHOCK-ABSORBER. WILLIAM O. GILBERT, Omaha, Nebr. Filed June 9, 1916. Serial No. 102,635. (Cl. 21—105.)



1. In a shock-absorber for spring supported vehicles, the combination with a relatively fixed support and bearings thereon, of a retarding member mounted in said bearings and rotatable in one direction, a second retarding member in frictional engagement with said first named member and rotatable in both directions, means to impart a movement of rotation to said members on movement of the vehicle body and flexure of the springs, a series of ratchet teeth on said first member, and a series of pawls slidably mounted in said support, any one of which may engage said ratcheted member.

2. In a shock-absorber for spring supported vehicles, the combination with a fixed casing, a shaft mounted thereon, a pair of disks mounted on said shaft and rotatable therewith in both directions, a retarding member freely mounted on said shaft and in engagement with said disks and rotatable therewith in one direction, means to impart a movement of rotation to said shaft, disks and member on movement of the vehicle body and flexure of the springs, a series of ratchet teeth on said retarding member, and a series of pawls slidably mounted in said casing, any one of which may engage said ratcheted member.

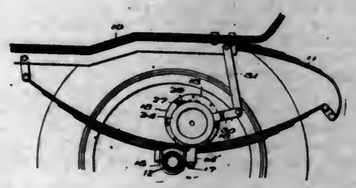
3. In a shock-absorber for spring supported vehicles, the combination with a relatively fixed casing, of a shaft rotatably mounted therein, a pair of disks mounted on said shaft and rotatable therewith in both directions, a retarding member between and in frictional engagement with said disks and rotatable therewith in one direction, means for adjusting said disks relative to said retarding member to vary the friction therebetween, means to impart a movement of rotation to said shaft, disks and retarding member on movement of the vehicle body and flexure of the springs, a series of ratchet teeth on said retarding member, and a series of pawls slidably mounted in said casing, any one of which may engage said ratcheted member.

4. In a shock-absorber for spring supported vehicles, the combination with a relatively fixed casing, of a shaft mounted therein, a pair of disks mounted on said shaft and rotatable therewith in both directions, a retarding member between and in frictional engagement with said disks and rotatable therewith in one direction, means for adjusting the disks relative to said retarding member to vary the friction therebetween, means to impart a movement of rotation to said shaft, disks and retarding member on movement of the vehicle body and flexure of the springs, a series of ratchet teeth on said retarding member, guideways or seats in the walls of said casing, a series of pawls slidably mounted in said guideways and adapted to act by gravity therein, any one of said pawls being adapted to engage the teeth of said ratcheted member.

5. In a shock-absorber for spring supported vehicles, the combination with a casing, of a retarding member rotatable in both directions, a second retarding member in frictional engagement with said first named member and rotatable therewith in one direction, a series of ratchet teeth on said second retarding member, means to impart a movement of rotation to said members on movement of the vehicle body and flexure of the springs, a plurality of guideways or seats above said second member and converging toward the center of rotation of said shaft, and a series of gravity pawls slidably mounted in said guideways, any one of said pawls being adapted to engage said ratcheted member.

[Claims 6 to 21 not printed in the Gazette.]

1,254,675. SHOCK-ABSORBER. WILLIAM O. GILBERT, Omaha, Nebr. Original application filed June 9, 1916, Serial No. 102,635. Divided and this application filed Oct. 14, 1916. Serial No. 125,540. (Cl. 21—105.)



1. In a shock absorber for spring supported vehicles, the combination with a casing, of a shaft mounted in the casing, a frictional disk mounted upon the shaft on the outside of said casing, a retarding member about the periphery of said disk, means for imparting a movement of rotation to said frictional disk and retarding member on movement of the vehicle body and flexure of the spring, and means within the casing to prevent rotation of said frictional disk on return movement of the vehicle body.

2. In a shock absorber for spring supported vehicles, the combination with a casing, of a shaft mounted in the casing, a frictional disk mounted upon the shaft on the outside of said casing, a brake band about the periphery of said disk, means for imparting a movement of rotation to said brake band and frictional disk on movement of the vehicle body and flexure of the spring, and means within the casing to prevent rotation of said frictional disk on return movement of the vehicle body.

3. In a shock absorber for spring supported vehicles, the combination with a casing, of a retarding member having a wheel within said casing, and a retarding element on the outside of the casing and rotatable with said wheel, a second retarding element encircling said retarding element of the first retarding member and rotatable therewith in both directions, means to impart a movement of rotation to said retarding members on movement of the vehicle body and flexure of the springs, and means within the casing for engaging said wheel to prevent rotation of the first retarding member upon return movement of the vehicle body.

4. In a shock absorber for spring supported vehicles, the combination with a casing, of a retarding member having rotating retarding elements without and on each side of said casing, retarding members encircling and in frictional engagement with each of said retarding elements of the first retarding member, means for varying the friction between said retarding members and elements, means to impart a movement of rotation to all of said retarding members on movement of the vehicle body and flexure of the spring, and means for preventing rotation of said first retarding member upon return movement of the vehicle body.

5. In a shock absorber for spring supported vehicles, the combination with a casing, of a shaft mounted in the casing, a ratchet wheel within the casing fixedly mounted on the shaft, a frictional disk fixedly mounted on said shaft on either side of said casing, a brake band about the peripheries of said disks, means for imparting a movement of rotation to said brake bands and frictional disks on movement of the vehicle body and flexure of the springs, and means within the casing adapted to engage said ratchet wheel to prevent rotation of said frictional disks on return movement of the vehicle body.

[Claims 6 to 10 not printed in the Gazette.]

1,254,676. METHOD OF TREATING FERROUS ALKALI SILICATES. WALTER GLAESER, Fullerton, Pa., assignor, by mesne assignments, to Potash Extraction Corporation, New York, N. Y., a Corporation of New York. Filed Mar. 9, 1917. Serial No. 153,723. (Cl. 23—22.)

1. In a method of treating ferrous alkali silicates, the step which consists in heating a mixture of anhydrous calcium chlorid and anhydrous ferrous alkali silicate in a non-oxidizing atmosphere at a temperature of about 800° C.

4. In a method of treating ferrous alkali silicates, the steps which consist in drying a mixture of finely divided ferrous alkali silicate and calcium chlorid at a temperature insufficient to oxidize the ferrous iron present, and then heating such dried mixture in a non-oxidizing atmosphere at a temperature of about 800° C.

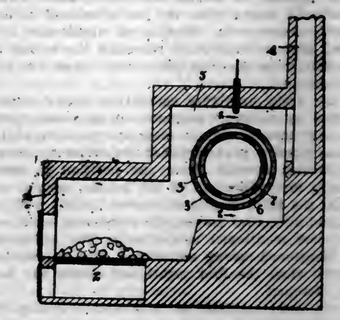
5. In a method of treating ferrous alkali silicates, the steps which consist in drying a mixture of finely divided ferrous alkali silicate and calcium chlorid at not over 270° C. and then heating such dried mixture in a non-oxidizing atmosphere at a temperature of about 800° C.

8. In a method of treating ferrous alkali silicates, the steps which consist in heating a mixture of finely divided ferrous alkali silicate and calcium chlorid with a finely divided porous material at a temperature sufficient to drive off the moisture and combined water, but insufficient to oxidize the ferrous iron present, and then heating such dried mixture in a non-oxidizing atmosphere at a temperature of about 800° C.

[Claims 2, 3, 6, 7, and 9 to 11 not printed in the Gazette.]

1,254,677. METHOD OF TREATING POTASH-BEARING SILICATES. WALTER GLAESER, Brooklyn, N. Y., assignor, by mesne assignments, to Potash Extraction Corporation, New York, N. Y., a Corporation of New York. Filed Mar. 9, 1917. Serial No. 153,724. (Cl. 23—22.)

1. In a method of treating potash bearing silicates, the steps which consist in drying a mixture of finely divided silicate, and a water soluble metal chlorid, and then heating the same out of contact with the atmosphere at a temperature above 900° C.



2. In a method of treating potash bearing silicates, the steps which consist in drying a mixture of finely divided silicate, and a water soluble metal chlorid, and then heating the same out of contact with the atmosphere with a reducing contact substance at a temperature above 900 degrees C.

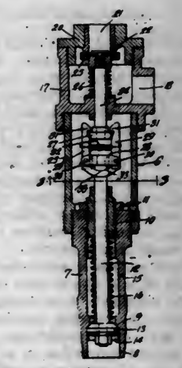
3. In a method of treating potash bearing silicates, the steps which consist in drying a mixture of finely divided silicate, and a water soluble metal chlorid at a temperature of about 500° F., and then heating the the same in a non-oxidizing atmosphere at a temperature above 900 degrees C.

9. In a method of treating potash bearing silicates, the steps which consist in thoroughly mixing finely divided silicate with about an equal amount of a water soluble metal chlorid and about five per cent. of a reducing oxid of iron, drying such mixture, and then heating the same in a non-oxidizing atmosphere at a temperature of above 900° C.

10. In a method of treating potash bearing silicates, the steps which consist in thoroughly mixing finely divided silicate with about an equal amount of calcium chlorid and about five per cent. of a reducing oxid of iron, drying such mixture, and then heating the same in a non-oxidizing atmosphere at a temperature of above 900° C.

[Claims 3, 4, 6 to 8, and 11 to 14 not printed in the Gazette.]

1,254,678. AIR-BRAKE APPLIANCE. FRANK GOFF, Camden, N. J. Filed Nov. 11, 1916. Serial No. 130,856. (Cl. 188—14.)



1. An air brake appliance embodying means moved to one position by reservoir pressure and movable to an-

other position upon a predetermined reduction in reservoir pressure, means movable from one position to another for effecting an application of the brakes, and means for moving the second mentioned means with the first mentioned means upon the predetermined reduction in reservoir pressure for effecting an application of the brakes and then automatically releasing the second mentioned means when the first mentioned means has moved a certain distance.

2. An air brake appliance embodying means moved to one position by reservoir pressure, spring means tending to move said means against reservoir pressure to move said means upon a predetermined reduction in reservoir pressure, means movable from one position to another for effecting an application of the brakes, spring means for moving the third mentioned means to first mentioned position, and means for moving the third mentioned means with the first mentioned means under the influence of the first mentioned spring means and then automatically releasing it when the first mentioned means has moved a certain distance.

3. An air brake appliance embodying a normally closed valve for permitting the flow of pressure fluid to the atmosphere from a brake pipe when the valve is opened, means moved to one position by reservoir pressure, means tending to move said means against reservoir pressure for moving said means upon the predetermined reduction in reservoir pressure, and means for moving the valve to open position when the first mentioned means is moved against reservoir pressure and then automatically releasing the valve when the first mentioned means has moved a certain amount.

4. An air brake appliance embodying means moved to one position by reservoir pressure and movable to another position upon the predetermined reduction of reservoir pressure, means movable from one position to another for effecting an application of the brakes and returned to first mentioned position when released, and a clutch for moving the second mentioned means with the first mentioned means when the pressure is reduced for applying the brakes and operable for releasing the second mentioned means after the first mentioned means has moved a certain amount.

5. An air brake appliance embodying a member moved to one position by reservoir pressure, means tending to move said member to another position for moving said member to second mentioned position upon a predetermined reduction in reservoir pressure, a valve movable to open position for opening a brake pipe to the atmosphere, said valve closing when released and having a stem, and a clutch for connecting said member and stem to move said stem with said member and against reduced reservoir pressure, said clutch being operable to release the valve when said member has moved a certain amount.

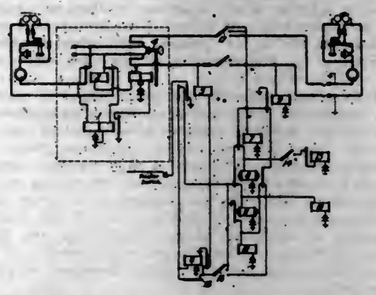
[Claims 6 and 7 not printed in the Gazette.]

1,254,679. AUTOMATIC TELEPHONE-EXCHANGE SYSTEM. CHARLES L. GOODRUM, New York, N. Y., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed July 23, 1915. Serial No. 41,587. (Cl. 179—18.)

1. In a telephone exchange system, a telephone line, a switch, terminals of said line at said switch, a trunk line having terminals arranged for engagement by said line terminals, a magnet for causing such engagement, a circuit for said magnet completed upon the initiation of a call upon said line, and a holding circuit for said magnet extending through a talking conductor contact of said line and trunk at said switch.

2. In a telephone system, a subscriber's line, a switch, multiple terminals of said line at said switch, trunk lines having terminals arranged to be engaged by said line terminals, a magnet for causing engagement of said line terminals with said trunk terminals, a line relay, a circuit for said magnet controlled by said line relay, and a holding circuit for said magnet extending through talking contacts of said switch.

3. In a telephone exchange system, a telephone line, a switch, multiple terminals of said line at said switch, trunk lines having terminals arranged for engagement by said line terminals, an operating magnet for causing such engagement, a circuit for said magnet completed upon the initiation of a call on said line, a cutoff relay for said line, and a holding circuit for said magnet and cutoff relay in series through one of the talking contacts of said switch.

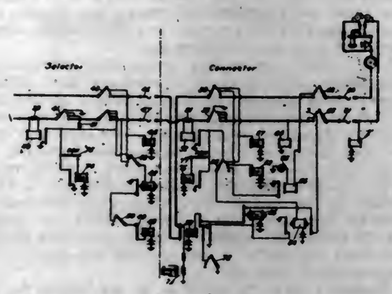


8. In a telephone exchange system, a telephone line, a switch, multiple terminals of said line at said switch, trunk lines having terminals arranged for engagement by said line terminals, an operating magnet for causing such engagement, a circuit for said magnet completed upon the initiation of a call on said line, a cut-off relay for said line, and a holding circuit for said magnet and cut-off relay in series, said holding circuit including a portion of a talking conductor of said telephone line.

9. In a telephone system, a subscriber's line, a switch, multiple terminals of said line at said switch, trunk lines having terminals arranged for engagement with said line terminals, an operating magnet for causing such engagement, a selector switch at which each trunk line terminates, a release magnet for each selector switch, and a holding circuit for said operating magnet controlled through talking contacts of said switch and a contact of the release magnet of the associated selector switch.

[Claims 4 to 7 not printed in the Gazette.]

1,254,680. AUTOMATIC TELEPHONE SYSTEM. CHARLES L. GOODRUM, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Jan. 3, 1916. Serial No. 69,920. (Cl. 179—18.)



1. In a telephone system, a talking conductor, a magnet, contacts controlled by said magnet, a relay, a circuit for said magnet extending through contacts of said relay, a test relay, and a circuit for said test relay extending through front contacts of said magnet, back contacts of said relay, and said talking conductor.

2. In a telephone exchange system, a talking conductor, a magnet, contacts controlled thereby, a relay, a circuit for said magnet extending through front contacts of said relay, a test relay, and a circuit for said test relay extending through front contacts of said magnet, back contacts of said relay, and said talking conductor.

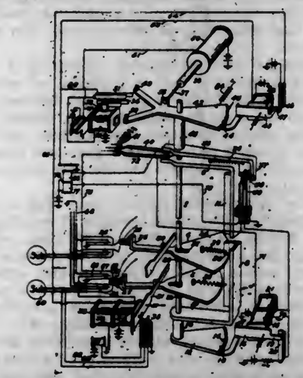
3. In a telephone exchange system, a talking conductor, an escape magnet, a relay, means for energizing said relay, a circuit for said magnet extending through front contacts of said relay, means for deënergizing said relay upon connection being made to a wanted line, a test relay, and a circuit for said test relay extending through front contacts of said magnet, back contacts of said relay, and talking conductor.

4. In a telephone system, a conductor, a relay in parallel with a portion of said conductor, a switch for selecting said conductor to form part of a talking circuit, an energizing circuit for said relay completed upon such selection, and means controlled by said relay upon its energization for including a resistance in its circuit to cause its deënergization.

5. In a telephone system, a conductor, a relay joined to said conductor, a switch for selecting said conductor to form part of a talking circuit, an energizing circuit for said relay completed upon such selection, a circuit changing device, an operating magnet for said device, and a circuit for said magnet closed by said relay upon its energization, whereby said device is operated to include a resistance in the circuit of said relay to cause its deenergization.

[Claims 6 to 10 not printed in the Gazette.]

1,254,681. NON-NUMERICAL SWITCH. CHARLES L. GOODRUM, Brooklyn, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Sept. 11, 1916. Serial No. 119,509. (Cl. 179—27.5.)



1. In a non-numerical switch, in combination, contacts serving as terminals of incoming lines and outgoing lines, automatic switching means for interconnecting said contacts, means for preselecting the contact of an idle outgoing line, and rotatable means for preselecting the contact of a second idle outgoing line and for actuating said first-mentioned preselecting means.

2. In a non-numerical switch, in combination, sets of passive contacts, contact-makers mounted to interconnect said passive contacts, means for operating said contact-makers, means for preselecting sets of idle contacts, and means for preselecting second sets of idle contacts and for actuating said first-mentioned preselecting means.

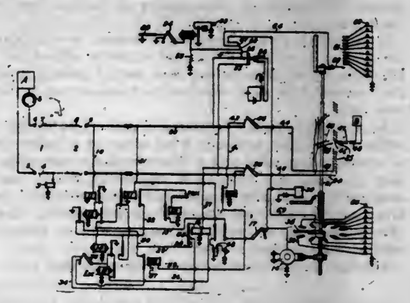
3. In a non-numerical switch, a plurality of sets of passive contacts, a plurality of contact-makers mounted to bring said sets of contacts into conductive relation, means controlling said contact makers for preselecting an idle set of contacts, and means for preselecting a second set of contacts and serving to operate said first-mentioned preselecting means.

4. In a non-numerical switch, a plurality of sets of passive contacts, a plurality of contact-makers mounted to bring said sets of contacts into conductive relation, a member mounted to normally place said contact-makers in operative relation to idle sets of contacts, a second member normally held in operative relation to second sets of idle contacts and controlling said first-mentioned member, and means operating to move said second members when one of said sets of contacts becomes busy.

6. In a non-numerical switch, a plurality of sets of passive contacts, a plurality of plungers mounted to bring said sets of contacts into conductive relation, means for actuating said plungers, a member normally positioning idle plungers in operative relation to idle sets of contacts, a second member to which said first mentioned member is resiliently connected and serving to move said first mentioned member, means for locking said first member in the position to which it is moved and for releasing said first member when a plunger has been actuated, means for operating said second member, and means operating to lock said second member in operative relation to idle sets of contacts when said first and second-mentioned members are out of alinement.

[Claim 5 not printed in the Gazette.]

1,254,682. TELEPHONE-EXCHANGE SYSTEM. CHARLES L. GOODRUM, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Feb. 10, 1917. Serial No. 147,802. (Cl. 179—27.)



1. In a telephone exchange system, the combination with telephone lines, means including connector switches for interconnecting said lines, means associated with said connectors for designating the line upon which a connector is set, said means being prepared for actuation upon the setting of the connector, and manual means for actuating said designating means.

3. In a telephone exchange system, the combination with telephone lines, means including connector switches for interconnecting said lines, a latent visual signal associated with said connectors for designating the line upon which a connector is set, said signal being established upon the setting of the connector, an annunciator for each connector, means for operating the same, an operator's telephone set, and manual means for connecting said set to the calling line and for displaying said signal.

7. In a telephone exchange system, the combination with telephone lines, means including connector switches for interconnecting said lines, said connector switches having a rotary and a vertical movement, banks of lamps for indicating the tens and units digits of the called line, two groups of terminals on the connector for said lamp groups, a brush movable with the shaft during the rotary movement thereof to prepare a circuit for one of the lamps of the tens group, said brush being free to rotate with said shaft but being prevented from being elevated therewith, a second brush on said shaft for engagement with the terminals of the units group of lamps said brush partaking only of the vertical movement of the

shaft and preparing a circuit for a units lamp when the connector is set, and manual means for completing said circuits.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,254,683. TROLLEY-STOP. JAMES HUDSON GRAPEVINE, Peoria, Ill. Filed May 31, 1916. Serial No. 100,877. (Cl. 104—224.)



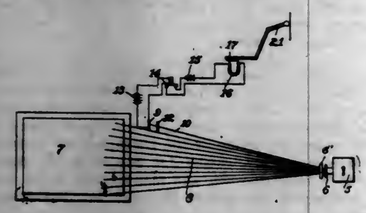
1. A stop for trolleys comprising a pivotal mounting for the stop, said mounting being beyond the end of a trolley track, a stop structure mounted thereon and normally occupying a position slightly beyond the end of a trolley track in such manner that the trolley will be prevented from accidentally running over the end of its track, and means for operating said stop structure to permit the removal or introduction of trolleys from or to the track.

2. A trolley stop comprising a member located beyond the end of a trolley track and separate therefrom and affording a pivotal mounting for a stop, a gravity retained stop mounted on said member, and means for operating said stop.

5. A trolley track comprising a pair of apertured side walls, an end wall normally lying adjacent a trolley track, a bottom flange affording a finger-hold for operating the stop, a cross bar forming a movement limit, counterweights for normally retaining said end walls in operative position, a supporting bolt or pin passing through the perforation in said side walls, and a supporting bracket for said bolt or pin.

[Claims 3 and 4 not printed in the Gazette.]

1,254,684. METHOD AND APPARATUS FOR SYNCHRONOUSLY PRODUCING SOUNDS TO ACCOMPANY MOTION-PICTURES. ELMER LEWIS GREENSFELDER, Baltimore, Md. Filed Mar. 30, 1916. Serial No. 87,788. (Cl. 88—16.2.)

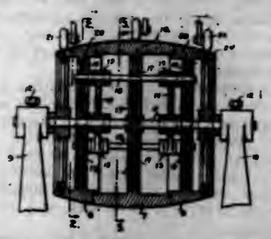


1. The hereindescribed method of producing musical sounds and the like synchronously with the actions in a motion picture film that is being projected, consisting in photographing upon a film sound marks in given relation to the pictures, simultaneously projecting the pictures and rays of light through the sound marks, whereby the pictures will be thrown on a screen and the light from the sound marks will be directed upon selenium cells to close electric circuits and operate suitable sound producing instruments.

5. Apparatus for synchronously producing musical sounds and the like to accompany the projection of motion pictures comprising a picture film having sound marks thereon, sound producing instruments, electro-magnetic operating means therefor, electric circuits including said electro-magnetic means, light-operated means for closing and opening said circuits, and means for simultaneously projecting the pictures and light through the sound marks onto said light-operated means.

[Claims 2 to 4 and 6 to 10 not printed in the Gazette.]

1,254,685. APPARATUS FOR SHAPING FABRICS. OLIVER GROSVENOR, New York, N. Y., assignor to Morgan & Wright, a Corporation of Michigan. Filed Aug. 17, 1916. Serial No. 115,364. (Cl. 154—10.)



1. A device for forming fabric comprising a drum divided circumferentially into a plurality of sections, and positive transmission means for positively connecting said sections causing independent rotation of the same, at fixed differential speeds.

2. A device for forming fabrics comprising a drum divided circumferentially into a plurality of sections, and positive transmission means positively connecting the respective sections whereby the outer sections are positively driven at a fixed rate of speed different from that of the central section.

3. A device for forming fabrics comprising a drum divided circumferentially into a plurality of sections, means for driving said sections at different relative, fixed speeds comprising a central fixed gear, an internal gear on the central section, planetary gears meshing with said gears, shafts to which said planetary gears are fixed and connections between said shafts and the outer sections for driving the latter.

4. A device for forming fabrics comprising a drum divided circumferentially into a plurality of sections, and means for driving said sections at different relative speeds, comprising a central fixed gear, an internal gear on the central section, planetary gears meshing with said gears, shafts to which said planetary gears are attached, outer gears fixed on said shafts and internal gears on said outer sections meshing with the last named gears.

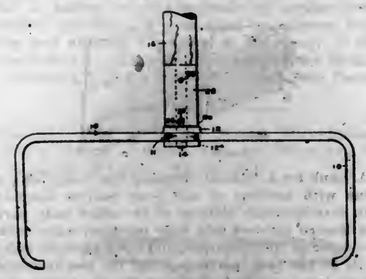
5. A device for forming fabrics comprising a drum divided circumferentially into a plurality of sections and tooth-gearing for positively connecting said sections causing interdependent rotation of the same at variable speeds.

1,254,686. HANDLE ATTACHMENT. ALBERT M. GAUBBS, Warsaw, Ind. Filed Sept. 6, 1917. Serial No. 189,917. (Cl. 15—24.)

3. In combination, a bail having a pair of fixed disks provided with alined apertures, teeth on one disk, a handle, a threaded bolt carried by said handle, said bolt adapted to freely pass through one disk and engage the threaded aperture in the other disk, and means carried by said handle for yieldingly engaging the teeth on the disk and preventing accidental separation of the parts.

4. In combination, a bail having a pair of fixed disks provided with alined apertures, teeth carried on one disk, a handle, a threaded bolt carried by said handle, said bolt adapted to freely pass through one disk and engage the threaded aperture in the other disk, a pawl carried by said handle for engaging the teeth on the disk, and means for holding said pawl normally into engagement with said teeth.

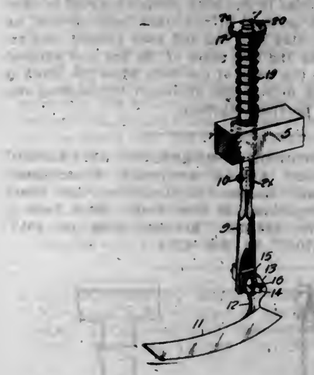
5. In combination, a bail having a pair of fixed disks provided with alined apertures, teeth on one disk, a handle, means on said handle adapted to freely pass



through one disk and engage the other disk, and means carried by said handle for engaging the teeth on the disk and for preventing accidental separation of the parts.

[Claims 1 and 2 not printed in the Gazette.]

1,254,687. WEEDER. HENRY HALES, Havre, Mont. Filed June 28, 1916. Serial No. 106,845. (Cl. 97—11.)



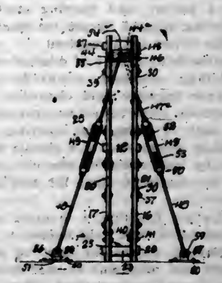
1. In an agricultural implement, a frame, a shaft mounted to turn in the frame, a spring connected with the upper end of the said shaft, a standard vertically adjustable in the shaft, a substantially horizontal blade provided with a vertical shank at one end, and means for adjustably securing the shank to the lower end of the standard, whereby the blade may be set to cut in a horizontal plane or at angles thereto.

3. In an agricultural implement, a frame, a tubular shaft mounted to turn in the shaft, a spring connected with the said shaft, a standard vertically adjustable in the shaft, a substantially horizontal blade provided with a vertical shank having an enlarged and arc-shaped upper end provided with a curved slot, a block between the standard and the shank of blade and having an arc-shaped face with which the enlarged arc-shaped end of the shank engages, and a bolt passing through the standard, block and slot of the shank of the blade.

[Claim 2 not printed in the Gazette.]

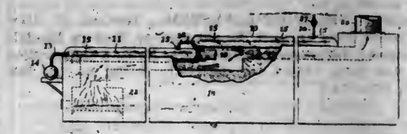
1,254,688. SHIPPING-CASE. FRANK L. HAMILTON, Ford City, Pa., assignor of one-half to William E. Gregg, Ford City, Pa. Filed Mar. 3, 1914. Serial No. 822,147. (Cl. 217—5.)

In combination, a plate glass shipping box adapted to be supported in shipment upon one edge, a brace pivoted at one end to the end of the box adjacent the other edge of the box, and a foot piece pivoted to the other end of



the brace and adapted to be secured to the body of the car in which the box is shipped.

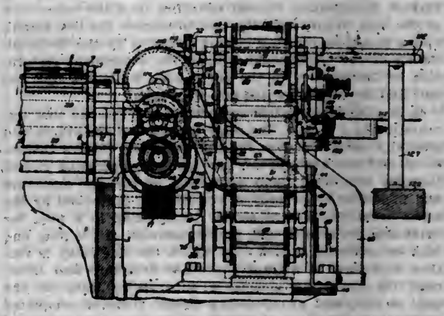
1,254,689. APPARATUS FOR EVAPORATING LIQUIDS. EDWARD HART, Easton, Pa. Filed Nov. 15, 1917. Serial No. 202,189. (Cl. 23—1.)



2. In an evaporating and concentrating apparatus, in combination, a plurality of elongated tubular evaporators arranged horizontally in cascade series and provided at the top with liquid inlet and vapor escape openings, connecting pipes between the evaporators and arranged to maintain a body of liquid in each with vapor spaces above the liquid, means for supplying liquid to the upper end of the series, means for collecting the more or less concentrated liquid delivered at the lower end of the series, and means for heating the evaporators.

[Claims 1 and 3 to 5 not printed in the Gazette.]

1,254,690. TESTING PROCESS AND MACHINE. ALLEN B. HAZARD, Berwyn, Ill., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed Sept. 1, 1915. Serial No. 48,513. (Cl. 83—02.)



1. In a testing machine, a pair of contact elements, means for passing the articles to be tested between said elements, and selecting mechanism controlled by the cooperation of said articles with said contact elements.

2. In a testing machine, a pair of contact elements constituting circuit terminals, a conveyer for passing the articles to be tested between said elements to bridge the latter and close a circuit, and ejecting mechanism controlled by the closing of said circuit for ejecting articles whose conductivity is less than required.

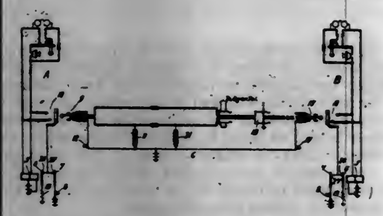
3. In a testing machine, a pair of contact elements one of which is yieldingly mounted, means for establishing a minimum distance between said elements, a conveyer for passing the articles to be tested between said elements in contact with both of them, and ejecting means electrically controlled by the closing of a circuit through said contact elements by said articles, whereby said articles are tested both for continuity and for minimum dimensions.

4. In a fuse testing machine, a hopper, a magazine, means for carrying fuses from said hopper to said magazine, testing mechanism, means for carrying said fuzes in regular order from said magazine to said testing mechanism, means for discarding imperfect fuses, and means for distributing perfect fuzes in equal numbers to a plurality of different points.

5. The combination with a belt conveyer, of a channel adjacent to one end thereof, said channel having an inclined portion, and a horizontal portion with stops at both ends of the latter portion.

[Claims 6 to 22 not printed in the Gazette.]

1,254,691. TELEPHONE SYSTEM. EDWARD E. HINRICHSEN, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Apr. 24, 1917. Serial No. 164,223. (Cl. 179—74.)



1. A telephone system comprising a telephone line extending from a subscriber's station to a central office, an electromagnet connected with the line, an armature for the electromagnet attracted upon partial energization thereof following removal of the receiver from the switchhook, a line signal actuated upon attraction of the armature, a link circuit for extending the telephone line, another armature for the electromagnet attracted upon the further energization thereof resulting from the connection of the link circuit with the line to restore the line signal, and a signal in the link circuit actuated by the deënergization of the electromagnet upon the subsequent restoration of the receiver to the switchhook while the link circuit and the telephone line are connected.

6. A telephone system comprising a telephone line terminating in a jack, a line relay having two armatures and partially energized over the line upon the closure thereof to attract one armature, a line lamp, an operating circuit therefor completed upon attraction of the one armature and including a normally closed contact controlled by the other armature, a cord circuit terminating in a plug for extending the line circuit, the engagement of the plug and jack establishing a path over which the line relay is further energized to attract the other armature and interrupt the operating circuit, a supervisory lamp in the cord circuit, and an operating circuit therefor completed by the deënergization of the line relay upon the opening of the line circuit and including the normally closed contact of the line relay and contacts of the engaged plug and jack.

[Claims 2 to 5 not printed in the Gazette.]

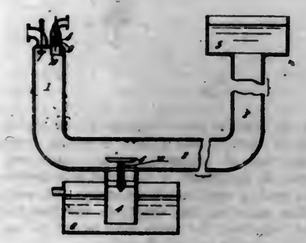
1,254,692. FOLDABLE SHIPPING-BOX. CHARLES HOFMAN, Rochester, N. Y., assignor, by mesne assignments, to Bertha Virginia Hofman, Rochester, N. Y. Filed May 24, 1916. Serial No. 99,500. (Cl. 229—37.)



1. A blank for a foldable shipping box, comprising body portions with sections of one body portion adapted to overlap corresponding sections of the other body portion, an end located between said body portions, walls connecting the end and body portions, and adapted to lie adjacent to walls of the body portions when the box is folded to afford an inset end, extensions at the free edges of said end adapted to lie adjacent to the walls of the body when the box is folded, a second end connected to one of the body portions by a wall adapted to lie adjacent to a wall of the body when the box is folded, and extensions carried by the free edges of the second end and adapted to be located adjacent to the walls of the body when the blank is folded, the said end extensions acting to hold the aforesaid overlapping sections of the body portions together.

2. A blank for a foldable shipping box comprising body portions with sections of one body portion adapted to overlap corresponding sections of the other body portion, an end, a wall connecting said end and body portion, and extensions carried by the free edges of the end and adapted to lie adjacent to the walls of the body when the blank is folded, and acting to hold the aforesaid overlapping sections of the body portions together.

1,254,693. METHOD OF COMPRESSING AN ELASTIC FLUID. HERBERT ALFRED HUMPHREY, Westminster, London, England, assignor to Humphrey Gas Pump Company, a Corporation of New York. Filed June 1, 1909, Serial No. 499,339. Renewed June 19, 1917. Serial No. 175,705. (Cl. 230—21.)



1. The method of compressing an elastic fluid by means of liquid descending from a higher to a lower level or pressure, which consists in permitting a flow of said liquid until it attains velocity, then utilizing the momentum of the liquid partly to compress and deliver compressed elastic fluid, and partly to store energy in an elastic cushion to produce a reverse movement of the liquid and thus cause a fresh charge of elastic fluid to enter the region of compression.

4. The method of compressing an elastic fluid by the movement of liquid from a higher to a lower level, which consists in permitting a flow to waste until required velocity is secured, then interrupting the flow to waste and utilizing the momentum of the liquid to compress and deliver compressed elastic fluid, and also to compress an elastic cushion to reverse the movement of the liquid and utilizing the momentum to entrain fresh elastic fluid, varying the effective mass of the liquid in the reverse movement.

9. The method of compressing an elastic fluid by a column of liquid of sufficient volume and path of travel to enable it to attain useful momentum, which consists in permitting a gravity actuated movement of the liquid until it attains velocity sufficient to acquire useful momentum, utilizing said momentum to compress the elastic fluid, and utilizing a portion of the energy of the compressed fluid to reverse the movement of the liquid.

[Claims 2, 3, and 5 to 8 not printed in the Gazette.]

1,254,694. FLY-WHEEL. RALPH HUMPHRIES, Vancouver, British Columbia, Canada. Filed Aug. 7, 1917. Serial No. 184,927. (Cl. 74—6.)

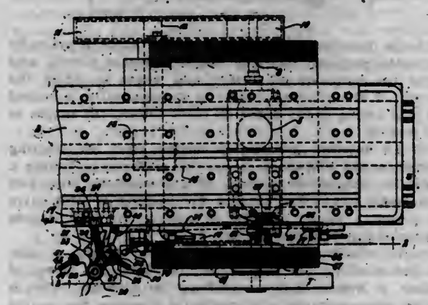


1. A fly wheel, comprising a light hollow wheel body the bottom of the hollow of which is inclined slightly downward from the rim toward the shaft to which it is secured, projections across the hollow adjacent the rim and a mobile material within the hollow that will gravitate toward the hub of the wheel when the wheel is at rest and will move outward to the rim under the action of centrifugal force when the wheel is rotated and will be engaged by the projections at the rim and be impelled to travel with the wheel.

5. A fly wheel, comprising a thin light disk having an upwardly and backwardly recurved rim and a depression adjacent the hub by which the disk is secured to the shaft, said recurved rim having radial projections across the hollow formed by the recurved edge and a series of metal balls in the depression that will move outward against the rim under the action of centrifugal force when the wheel is rotated and will engage the radial projections of the rim and be impelled to travel with the wheel.

[Claims 2 to 4 not printed in the Gazette.]

1,254,695. DRIVING MECHANISM. REYNOLD JANNEY, New York, N. Y., assignor to The Waterbury Tool Company, a Corporation of Connecticut. Filed Feb. 21, 1913. Serial No. 749,789. (Cl. 90—48.)



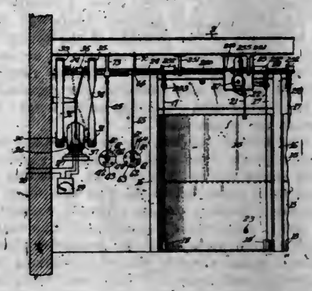
1. The combination of a reciprocatory member, driving mechanism for reciprocating said member, comprising a controller shiftable in opposite directions past a neutral position to effect the reversal of said reciprocatory member, an oscillatory operating device, said reciprocatory member having means for moving said oscillatory operating device back and forth, and means supported independently of said reciprocatory member and actuated by said operating device, comprising a spring and a lost motion connection, for moving said controller to reversing position after the reciprocatory member has commenced and before it has completed its movement in each direction.

3. The combination of a reciprocatory member, driving mechanism for reciprocating said member, comprising a controller shiftable in opposite directions past a neutral position to effect the reversal of said reciprocatory member, a lever operatively connected with said controller, a spring-actuated arm oscillatory about the axis of movement of said lever and provided with a stud, the lever having an arcuate slot to receive said stud, and means operative with said reciprocatory member for tensioning the spring of said spring-actuated arm when the reciprocatory member has moved a predetermined distance in each direction.

4. The combination of a reciprocatory member, driving mechanism for reciprocating said member, comprising a controller shiftable in opposite directions past a neutral position to effect the reversal of said reciprocatory member, a lever operatively connected with said controller, a spring-actuated arm oscillatory about the axis of movement of said lever and provided with a stud, the lever having an arcuate slot to receive said stud, means operative with said reciprocatory member for tensioning the spring of the spring actuated arm when the reciprocatory member has moved a predetermined distance in each direction, the spring when tensioned shifting the arm to effect the movement of the controller, and manually adjustable means for governing the degree of opposite movements of said spring actuated arm.

[Claims 2 and 5 not printed in the Gazette.]

1,254,696. DOOR OPENING AND CLOSING MECHANISM. GEORGE F. JENKINS, La Grange, Ill. Filed May 29, 1916. Serial No. 100,458. (Cl. 268—8.)



1. A system of door control, for a plurality of doors, comprising a door-operating mechanism for each door, a rotatable shaft extending to the doors, means located at a remote point for selectively connecting any door operating mechanism to the shaft, a source of power for rotating the shaft, and means to automatically disconnect said door from its operating mechanism after the door has been operated.

3. A system of door-control, for a plurality of doors divided into groups, comprising a door-operating mechanism for each door; means, remote from the doors, for selecting the group; similar means for selecting the door, in the selected group; a rotatable shaft extending to all of the doors for energizing the door-operating mechanism of the selected door, to open or to close said door and means extending from the selector to each door operating mechanism to connect the rotatable shaft thereto.

7. A system of door-control, for a plurality of doors divided into a plurality of groups of doors, comprising a door-operating mechanism, one for each door; a power shaft, connectible to said door-operating mechanisms; another shaft extending to all said door-operating mechanisms, axially movable to select the group and rotatable to

select a given door of the selected group, whereby to connect the selected door-operating mechanism to said power shaft; door-selecting means for rotating the said shaft; group-selecting means for axially moving said shaft and means, near the limit of movement of said doors, to positively disconnect said door-operating mechanism from said power shaft.

[Claims 2, 4 to 6, and 8 not printed in the Gazette.]

1,254,697. ADJUSTABLE SUPPORT FOR ELECTRIC LAMPS. JOHAN PETTER JOHANSSON, Fauna, Enköping, Sweden. Filed Jan. 2, 1917. Serial No. 140,297. (Cl. 248—6.)



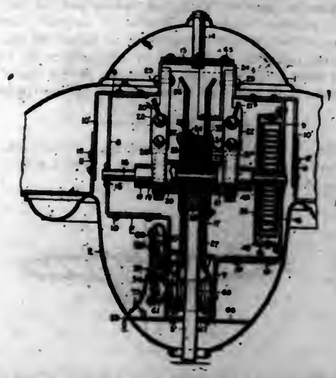
1. An adjustable support for electric lamps comprising a flexible electric conductor, a bracket, a friction joint pivotally connected to said bracket, a second frictional joint pivotally connected to the first mentioned joint and perpendicular thereto, a rigid stem pivotally connected to the second joint, said bracket, joints and stem being hollow to permit of the passage of the conductor therethrough, said joints being capable of accommodating rollers on both sides of said conductor, guiding rollers arranged in pairs in said joints, an electric lamp attached to the free end of said conductor, and a weight for taking up slack in the conductor.

2. An adjustable support for electric lamps comprising a flexible electric conductor, a bracket, a friction joint pivotally connected to said bracket, a second frictional joint pivotally connected to the first mentioned joint and perpendicular thereto, a stem pivotally connected to the second joint, said bracket, joints and stem being hollow to permit of the passage of the conductor therethrough, said joints being capable of accommodating rollers on both sides of said conductor, said stem being made of a plurality of telescopic parts, the outermost part being detachable, guiding rollers arranged in pairs in said joints, an electric lamp attached to the free end of said conductor, and a weight for taking up slack in the conductor.

1,254,698. WINDING DEVICE FOR DROP-LIGHTS. CARL V. JOHNSON, Goldfield, Nev., assignor to Indispensable Manufacturing Co., Goldfield, Nev. Filed Apr. 3, 1915, Serial No. 20,216. Renewed Aug. 8, 1917. Serial No. 185,186. (Cl. 240—71.)

1. A chandelier including a body, a drop-light winding mechanism in the body and including a supporting frame, said body being made in sections, ears on one of the sections, and fastening means for securing the ears to the said frame.

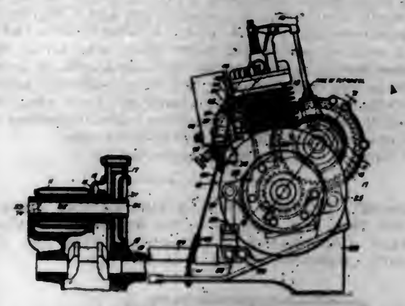
7. In a drop-light, the combination of a spring-turned wheel, a conductor cord adapted to wind on the wheel and consisting of two conductors, collector rings connected with the wheel, said wheel having openings through which the conductors extend to the respective collector rings to which the conductors are connected, and a strain device mounted on the wheel and engaging the conductor cord to prevent strains being exerted on the conductors where they are connected with the collector rings, said strain device consisting of a member extending through



the wheel from one side to the other and engaging over the conductor cord.

[Claims 2 to 6 not printed in the Gazette.]

1,254,699. ENGINE. EDWARD A. JOHNSTON, Chicago, Ill., assignor to International Harvester Corporation, a Corporation of New Jersey. Filed Feb. 11, 1915. Serial No. 7,483. (Cl. 123—179.)



1. In combination, an engine to be started, a pivotally mounted auxiliary starting engine movable toward and from the engine to be started, and means by which the power of the starting engine is automatically increased as it is swung bodily about its pivot toward the engine to be started.

3. An internal combustion engine used for starting purposes and adapted to be moved, said engine having a valve to control the passage of a combustible fuel, and automatic means for varying the opening of said valve to permit a varied quantity of combustible fuel to pass as the engine is moved bodily.

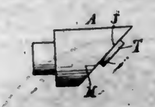
5. In combination, an engine to be started, a controlled auxiliary starting engine, the developed power of which is automatically varied as the distance between said engines is varied, and means for changing the control from automatic to manual.

[Claims 2, 4, and 6 to 8 not printed in the Gazette.]

1,254,700. ANTICATHODE. EDWIN W. KELLY, Philadelphia, Pa. Filed Sept. 30, 1916. Serial No. 122,960. (Cl. 250—35.)

4. An anti-cathode comprising a mass of metal comprising iron, and a refractory member of metal welded directly to said mass.

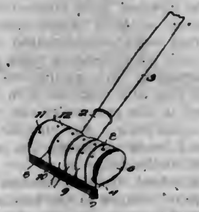
8. An anti-cathode comprising a mass of iron and nickel alloy having a co-efficient of linear expansion ap-



proximately equal to that of tungsten, and a member of tungsten in heat conductive relation therewith.

[Claims 1 to 3, 5 to 7, and 9 to 12 not printed in the Gazette.]

1,254,701. MARKING AND SHADING PEN. GEORGE B. KEPLINGER, Chicago, Ill. Filed Apr. 12, 1916. Serial No. 90,675. (Cl. 120—43.)



1. In a marking device of the class described, a reservoir divided into a plurality of ink compartments and provided with ink ducts communicating with the interior of the compartments and with the marking edge of the reservoir, the said marking edge being divided into a plurality of marking lengths, one of said lengths containing ducts leading from a plurality of said ink compartments.

3. In a marking device of the class described, a reservoir having a marking edge, the said edge being formed with a notch dividing the same into separate marking lengths, and the said edge being formed with ink ducts opening through the said separate lengths and communicating with the interior of the reservoir.

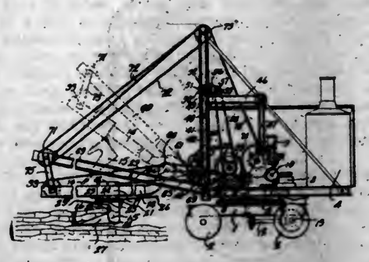
6. In a marking device of the class described, an inclosed reservoir of celluloid or like material, ovate-acuminate in shape, the lower portions of the walls of said reservoir being integrally united to provide a rigid marking edge having a row of capillary ink ducts located relatively close together and opening at their lower ends through the said edge and at their upper ends communicating with the interior of the reservoir, said reservoir having a vent opening and a capillary filling opening.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,254,702. EXCAVATING-MACHINE. CHARLES B. KING and FRANK RENZENBERGER, Marion, Ohio, and GRANT HOLMES, Danville, Ill., assignors to The Marion Steam Shovel Company, Marion, Ohio, a Corporation of Ohio. Filed June 16, 1917. Serial No. 175,075. (Cl. 214—102.)

2. In a machine of the character described, an upright frame comprising two pairs of parallel members spaced apart to form guide-ways, blocks slidably mounted between said parallel members, having flanges to engage the forward edges of said parallel members and having lugs extending beyond the forward edges of said parallel members, means for moving said blocks along said guide-way and for holding the same in their adjusted positions, a dipper supporting device pivotally connected with the lugs of said blocks, an excavating dipper carried by said device and movable lengthwise thereof, and means for actuating said dipper.

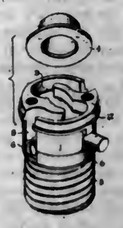
12. In a machine of the character described, a supporting structure, a vertically adjustable member mounted on said structure, a rigid dipper supporting device pivotally mounted on said adjustable member, an excavating dipper carried by said device and movable lengthwise thereof, a boom pivotally mounted on a fixed axis on said supporting structure, and a connection between said boom and said dipper supporting device near the outer end thereof.



18. In a machine of the character described, a supporting structure, a dipper supporting device connected with said structure, an excavating dipper carried by said dipper supporting device for movement lengthwise thereof, said dipper having its side walls tapered toward the forward edge thereof and having a rearwardly and downwardly extending rib arranged above, and between the planes of, said side members, and means to actuate said dipper.

[Claims 1, 3 to 11, 13 to 17, and 19 not printed in the Gazette.]

1,254,703. STRAIN-RELIEF FOR PENDENT ELECTRICAL DEVICES. CHARLES J. KLEIN, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed June 6, 1914. Serial No. 843,525. (Cl. 173—322.)

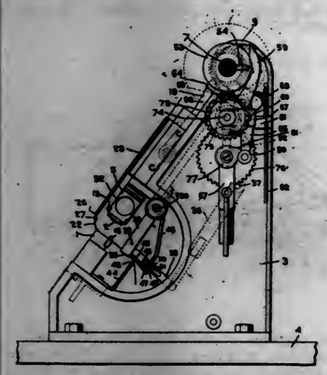


1. In a pendent electrical device, in combination, a casing having an opening for conductors, an insulating base therein having terminals for connection with such conductors and having tortuous grooves extending from adjacent said terminals to a point in alinement with the opening in said casing, said grooves having an acute angle at a point out of alinement with the opening of said casing, and means interposed between said base and a section of said casing for retaining such conductors within a portion of said grooves.

5. In a pendent lamp socket, in combination, a casing having a removable conductor-receiving section, an insulating base in said casing having terminals for connection with such conductors and having tortuous open grooves extending from said terminals to a point in alinement with the opening in said conductor-receiving section of said casing, said grooves having side walls presenting acute angles, and an insulating filler loosely disposed within said conductor-receiving portion and adapted to be clamped thereby upon the top of said base for retaining such conductors within the grooves in the latter.

[Claims 2 to 4 and 6 to 8 not printed in the Gazette.]

1,254,704. MARKING-MACHINE. GEORGE KNIGHT, Brockton, Mass. Filed Jan. 25, 1915. Serial No. 4,101. (Cl. 41—7.)



1. In a device of the class described, the combination with a platen, of a die member movable toward and from the platen, means to feed a strip carrying printing material between the die member and platen, said means comprising a pivotally-mounted yoke-shaped member, a strip-gripping bar pivotally sustained by said member, a vibrating actuating arm connected to said strip-gripping bar and by which the yoke member is oscillated, movement of said arm in one direction causing the bar to grip the strip and giving the feeding device its feeding movement, and movement in the opposite direction releasing the bar from the strip and giving the feeding device its return movement.

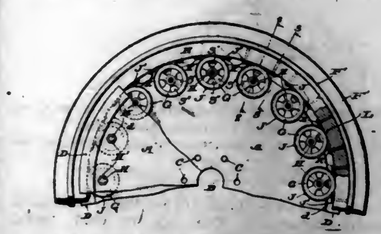
5. In a marking machine, the combination with a platen, of a die member, means to give the die member and platen a relative movement toward and from each other, a feeding device for feeding a strip carrying printing material between the die member and platen, said device comprising a pivotally-mounted yoke-shaped member, a strip-gripping bar pivoted to said member, a vibrating actuating arm and a link connecting said arm and bar whereby movement of the link in one direction causes the bar to grip the strip and gives the yoke-shaped member a strip-feeding movement, while movement of the link in the opposite direction releases the gripping bar and gives the yoke-shaped member its return movement, and a strip-clamping device rendered operative by the movement of the link to clamp the strip and prevent return movement of the feeding device.

11. In a device of the class described, the combination with a frame, of a platen sustained thereby, a reciprocating plunger mounted on the frame, a die member carried by the plunger, a driving element for reciprocating the plunger, a clutch forming an operative connection between the driving element and plunger, a carrier movably mounted on the frame and adapted to be placed in either operative or inoperative position, clutch-disengaging means on said carrier which when the carrier is in operative position is situated to disengage the clutch at the time that the die member is in printing position, said clutch-disengaging means being inoperative to disengage the clutch when the carrier is in inoperative position.

13. In a device of the class described, the combination with a platen, of a plunger movable toward and from the platen, a die member carried by the plunger, a shaft by which said plunger is operated, a driving element, a clutch for connecting said driving element to said shaft, and means automatically to disengage said clutch when the die member is in printing position and to render said clutch operative again after a predetermined time interval, said means being shiftable into or out of operative position.

[Claims 2 to 4, 6 to 10, 12, and 14 not printed in the Gazette.]

1,254,705. RESILIENT WHEEL FOR VEHICLES. JOHN L. KUNZ, Milwaukee, Wis. Filed Apr. 5, 1917. Serial No. 159,921. (Cl. 152—28.)



1. In a resilient wheel, the combination with a pair of supporting disks adapted to be connected with a hub, of a felly, an annular series of rubber cushions mounted upon said supporting disks, and arranged in an annular series within the felly, said cushions being provided with central grooves formed in their peripheries, and a series of bands for connecting said cushions with the felly, said bands being located in the grooves of the cushions, each of said cushions comprising a flat circular rubber block around which such band extends,—the ends of said band being secured to the felly.

2. In a resilient wheel, the combination with a pair of disks adapted to be secured to the hub, a felly loosely embraced between the outer margins of said disks, an annular row of circular rubber cushions interposed between said disks, connections extending through said disks and through the central portions of said cushions, and resilient bands embracing the peripheries of the cushions, except at the outer sides, and having their extremities secured to the felly.

1,254,706. TRACK FOR SLIDING DOORS. GEORGE B. KURTZON, Chicago, Ill., assignor to Garden City Plating & Manufacturing Company, Chicago, Ill., a Firm composed of George B. and Morris Kurtzon. Filed June 25, 1917. Serial No. 176,765. (Cl. 104—4.)



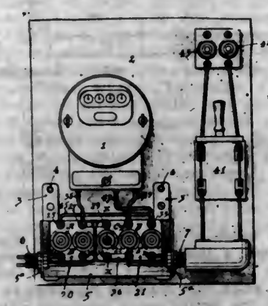
1. A track or runner for sliding doors comprising a strip of metal of substantially L-shaped cross-section, and lateral bracing lugs stamped out of one of the flanges of said strip and extended in alinement with the horizontal flange thereof.

3. A track or runner for sliding doors comprising a strip of metal bent mediate its longitudinal edges to provide an upright flange and a lateral flange at substantially right angles thereto whereby a track base of substantially L-shaped cross-section is provided, and lateral bracing lugs stamped out of the upright flange and extended in alinement with the horizontal flange thereof.

[Claims 2 and 4 not printed in the Gazette.]

1,254,707. METER CUT-OUT AND TESTING DEVICE. EARLE A. LE FEVRE, Buffalo, N. Y. Original application filed July 25, 1913, Serial No. 781,100. Divided and this application filed Jan. 2, 1914. Serial No. 809,863. (Cl. 175—183.)

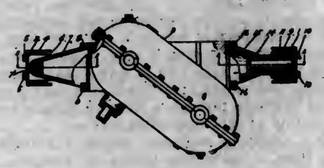
1. In a cut-out and testing device of the type described, in combination with a base carrying the electrical connections, three standard cups capable of being electrically closed by standard fuse-plugs, elements interposed between the standard cups normally connected through the meter current coil and consisting of a non-standard cup constituting a gap when the second of said cups is electrically disconnected which is incapable of being closed by a standard fuse element, a special connecting element therefor and a binding post consisting of a cup standard in form but having its two poles permanently closed and adapted to receive a standard plug capable of affording connection with the test load.



4. In a cut-out and testing device of the type described, in combination with a base carrying the electrical connections, three standard cups on said plate, the first cup being between the leading-out wire from the generator and the meter coil wire, the second between said meter coil wire and the wire leading to load, and the third in the wire leading back from load to the generator, a cup interposed between said first and second cups having its poles connected respectively one pole to each of said first and second cups, an upstanding post in said interposed cup to prevent the same from being closed electrically by a standard plug, a special plug therefor apertured to fit over said post, and a binding-post in the form of a standard cup but with its poles permanently connected electrically, and a standard plug therefor, whereby the current may be shunted past the meter without interruption of service and the meter tested.

[Claims 2 and 3 not printed in the Gazette.]

1,254,708. GEAR-CASE MOUNTING FOR MOTOR-VEHICLES. HOWARD M. LEONARD, Jackson, Mich. Filed Mar. 27, 1917. Serial No. 157,850. (Cl. 74—56.)



1. In a structure of the class described, the combination of a pair of channeled side bars disposed facing inwardly, a transmission case, oppositely disposed pivot blocks secured in said side bars, a longitudinally disposed hanger pivot carried by one of said pivot blocks and a pair of longitudinally disposed trunnion block pivots carried by the other pivot block, a trunnion block mounted on said trunnion block pivots, a transverse hanger pivot carried by said trunnion block, and hangers mounted on opposite sides of said transmission case, one of said hangers being mounted on said longitudinal hanger pivot and the other on said transverse hanger pivot.

2. In a structure of the class described, the combination of a pair of side bars, a transmission case, oppositely disposed pivot blocks mounted on said side bars, a longitudinally disposed hanger pivot carried by one of said pivot blocks and a pair of longitudinally disposed trunnion block pivots carried by the other pivot block, a trunnion block mounted on said trunnion block pivots, a transverse hanger pivot carried by said trunnion block, and hangers mounted on opposite sides of said transmission case, one of said hangers being mounted on said longitudinal hanger pivot and the other on said transverse hanger pivot.

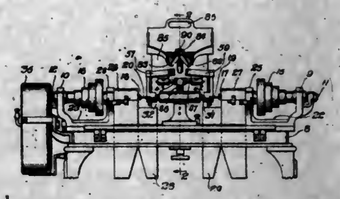
4. In a structure of the class described, the combination of a pair of spaced supporting bars, a transmission case disposed between said bars, a longitudinally disposed hanger pivot carried by one of said bars and a longitudinally disposed trunnion block pivot carried by the other bar, a trunnion block mounted on said trunnion block pivot, a transverse hanger pivot carried by said trunnion block, and transmission case hangers, one of said hangers being mounted on said longitudinal hanger pivot and the other on said transverse hanger pivot.

5. In a structure of the class described, the combination of spaced supporting bars, pivot blocks mounted on said bars, a transmission case, a longitudinal pivotal connection connecting one end of said case to one of said pivot blocks and a combined longitudinal and transverse pivot connection connecting the other end of said transmission case to the other pivot block.

6. In a structure of the class described, the combination of spaced longitudinal frame supports, a transmission case, a longitudinal pivotal connection connecting one end of said case to one of said supports and a combined longitudinal and transverse pivot connection connecting the other end of said transmission case to the other of said supports.

[Claim 3 not printed in the Gazette.]

1,254,709. TAPPING-MACHINE. DAVID LEVINGER and OLOF ANDERSON, Chicago, Ill., assignors to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed July 28, 1916. Serial No. 111,762. (Cl. 10—130.)

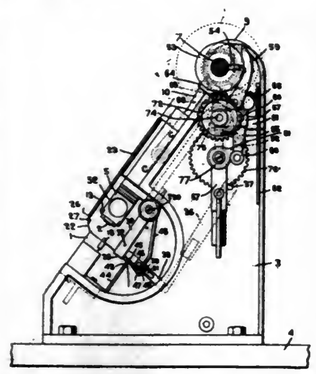


2. A machine for tapping articles comprising in combination, a tapping means, a stationary article storing means, an automatic guiding means which may be reciprocated between said tapping means into which the articles are delivered from said storing means and which automatically feeds said articles to said tapping means, one for each stroke thereof, resilient means interposed between said tapping means and said guiding means whereby the speed of said guiding means is independent of the lead of said tapping means, and means for automatically ejecting the articles after they have been tapped.

6. A machine for tapping nuts comprising in combination, a pair of rotating taps, reciprocating means placed intermediate said taps for automatically feeding nuts to said taps, a resilient means interposed between said taps and said reciprocating means, a stationary storing means from which the nuts are fed to said reciprocating means, and means for reciprocating said means between said taps.

10. A machine for tapping nuts comprising in combination, a stationary storing means, an automatic nut feeding means, a pair of rotatable taps, means for reciprocating said feeding means between said taps whereby a nut is automatically fed to a tap at each stroke of said feed means, a resilient cushion interposed between said taps and said nuts as the nuts are fed to said taps, and

1,254,704. MARKING-MACHINE. GEORGE KNIGHT, Brockton, Mass. Filed Jan. 25, 1915. Serial No. 4,101. (Cl. 41—7.)



1. In a device of the class described, the combination with a platen, of a die member movable toward and from the platen, means to feed a strip carrying printing material between the die member and platen, said means comprising a pivotally-mounted yoke-shaped member, a strip-gripping bar pivotally sustained by said member, a vibrating actuating arm connected to said strip-gripping bar and by which the yoke member is oscillated, movement of said arm in one direction causing the bar to grip the strip and giving the feeding device its feeding movement, and movement in the opposite direction releasing the bar from the strip and giving the feeding device its return movement.

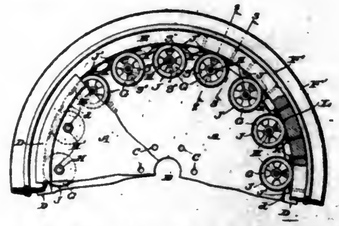
5. In a marking machine, the combination with a platen, of a die member, means to give the die member and platen a relative movement toward and from each other, a feeding device for feeding a strip carrying printing material between the die member and platen, said device comprising a pivotally-mounted yoke-shaped member, a strip-gripping bar pivoted to said member, a vibrating actuating arm and a link connecting said arm and bar whereby movement of the link in one direction causes the bar to grip the strip and gives the yoke-shaped member a strip-feeding movement, while movement of the link in the opposite direction releases the gripping bar and gives the yoke-shaped member its return movement, and a strip-clamping device rendered operative by the movement of the link to clamp the strip and prevent return movement of the feeding device.

11. In a device of the class described, the combination with a frame, of a platen sustained thereby, a reciprocating plunger mounted on the frame, a die member carried by the plunger, a driving element for reciprocating the plunger, a clutch forming an operative connection between the driving element and plunger, a carrier movably mounted on the frame and adapted to be placed in either operative or inoperative position, clutch-disengaging means on said carrier which when the carrier is in operative position is situated to disengage the clutch at the time that the die member is in printing position, said clutch-disengaging means being inoperative to disengage the clutch when the carrier is in inoperative position.

13. In a device of the class described, the combination with a platen, of a plunger movable toward and from the platen, a die member carried by the plunger, a shaft by which said plunger is operated, a driving element, a clutch for connecting said driving element to said shaft, and means automatically to disengage said clutch when the die member is in printing position and to render said clutch operative again after a predetermined time interval, said means being shiftable into or out of operative position.

[Claims 2 to 4, 6 to 10, 12, and 14 not printed in the Gazette.]

1,254,705. RESILIENT WHEEL FOR VEHICLES. JOHN L. KUNZ, Milwaukee, Wis. Filed Apr. 5, 1917. Serial No. 159,921. (Cl. 152—28.)



1. In a resilient wheel, the combination with a pair of supporting disks adapted to be connected with a hub, of a felly, an annular series of rubber cushions mounted upon said supporting disks, and arranged in an annular series within the felly, said cushions being provided with central grooves formed in their peripheries, and a series of bands for connecting said cushions with the felly, said bands being located in the grooves of the cushions, each of said cushions comprising a flat circular rubber block around which such band extends,—the ends of said band being secured to the felly.

2. In a resilient wheel, the combination with a pair of disks adapted to be secured to the hub, a felly loosely embraced between the outer margins of said disks, an annular row of circular rubber cushions interposed between said disks, connections extending through said disks and through the central portions of said cushions, and resilient bands embracing the peripheries of the cushions, except at the outer sides, and having their extremities secured to the felly.

1,254,706. TRACK FOR SLIDING DOORS. GEORGE B. KURTZON, Chicago, Ill., assignor to Garden City Plating & Manufacturing Company, Chicago, Ill., a Firm composed of George B. and Morris Kurtzon. Filed June 25, 1917. Serial No. 176,765. (Cl. 104—4.)



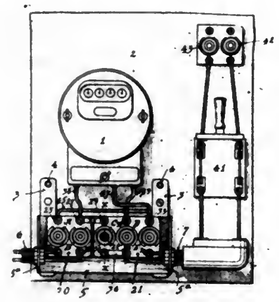
1. A track or runner for sliding doors comprising a strip of metal of substantially L-shaped cross-section, and lateral bracing lugs stamped out of one of the flanges of said strip and extended in alinement with the horizontal flange thereof.

3. A track or runner for sliding doors comprising a strip of metal bent mediate its longitudinal edges to provide an upright flange and a lateral flange at substantially right angles thereto whereby a track base of substantially L-shaped cross-section is provided, and lateral bracing lugs stamped out of the upright flange and extended in alinement with the horizontal flange thereof.

[Claims 2 and 4 not printed in the Gazette.]

1,254,707. METER CUT-OUT AND TESTING DEVICE. EARLE A. LE FEVER, Buffalo, N. Y. Original application filed July 25, 1913, Serial No. 781,100. Divided and this application filed Jan. 2, 1914. Serial No. 809,863. (Cl. 175—183.)

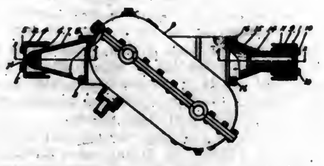
1. In a cut-out and testing device of the type described, in combination with a base carrying the electrical connections, three standard cups capable of being electrically closed by standard fuse-plugs, elements interposed between the standard cups normally connected through the meter current coil and consisting of a non-standard cup constituting a gap when the second of said cups is electrically disconnected which is incapable of being closed by a standard fuse element, a special connecting element therefor and a binding post consisting of a cup standard in form but having its two poles permanently closed and adapted to receive a standard plug capable of affording connection with the test load.



4. In a cut-out and testing device of the type described, in combination with a base carrying the electrical connections, three standard cups on said plate, the first cup being between the leading-out wire from the generator and the meter coil wire, the second between said meter coil wire and the wire leading to load, and the third in the wire leading back from load to the generator, a cup interposed between said first and second cups having its poles connected respectively one pole to each of said first and second cups, an upstanding post in said interposed cup to prevent the same from being closed electrically by a standard plug, a special plug therefor apertured to fit over said post, and a binding-post in the form of a standard cup but with its poles permanently connected electrically, and a standard plug therefor, whereby the current may be shunted past the meter without interruption of service and the meter tested.

[Claims 2 and 3 not printed in the Gazette.]

1,254,708. GEAR-CASE MOUNTING FOR MOTOR-VEHICLES. HOWARD M. LEONARD, Jackson, Mich. Filed Mar. 27, 1917. Serial No. 157,850. (Cl. 74—56.)



1. In a structure of the class described, the combination of a pair of channeled side bars disposed facing inwardly, a transmission case, oppositely disposed pivot blocks secured in said side bars, a longitudinally disposed hanger pivot carried by one of said pivot blocks and a pair of longitudinally disposed trunnion block pivots carried by the other pivot block, a trunnion block mounted on said trunnion block pivots, a transverse hanger pivot carried by said trunnion block, and hangers mounted on opposite sides of said transmission case, one of said hangers being mounted on said longitudinal hanger pivot and the other on said transverse hanger pivot.

2. In a structure of the class described, the combination of a pair of side bars, a transmission case, oppositely disposed pivot blocks mounted on said side bars, a longitudinally disposed hanger pivot carried by one of said pivot blocks and a pair of longitudinally disposed trunnion block pivots carried by the other pivot block, a trunnion block mounted on said trunnion block pivots, a transverse hanger pivot carried by said trunnion block, and hangers mounted on opposite sides of said transmission case, one of said hangers being mounted on said longitudinal hanger pivot and the other on said transverse hanger pivot.

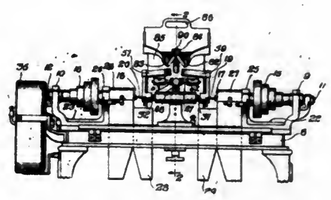
4. In a structure of the class described, the combination of a pair of spaced supporting bars, a transmission case disposed between said bars, a longitudinally disposed hanger pivot carried by one of said bars and a longitudinally disposed trunnion block pivot carried by the other bar, a trunnion block mounted on said trunnion block pivot, a transverse hanger pivot carried by said trunnion block, and transmission case hangers, one of said hangers being mounted on said longitudinal hanger pivot and the other on said transverse hanger pivot.

5. In a structure of the class described, the combination of spaced supporting bars, pivot blocks mounted on said bars, a transmission case, a longitudinal pivotal connection connecting one end of said case to one of said pivot blocks and a combined longitudinal and transverse pivot connection connecting the other end of said transmission case to the other pivot block.

6. In a structure of the class described, the combination of spaced longitudinal frame supports, a transmission case, a longitudinal pivotal connection connecting one end of said case to one of said supports and a combined longitudinal and transverse pivot connection connecting the other end of said transmission case to the other of said supports.

[Claim 3 not printed in the Gazette.]

1,254,709. TAPPING-MACHINE. DAVID LEVINGER and OLOF ANDERSON, Chicago, Ill., assignors to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed July 28, 1916. Serial No. 111,762. (Cl. 10—130.)



2. A machine for tapping articles comprising in combination, a tapping means, a stationary article storing means, an automatic guiding means which may be reciprocated between said tapping means into which the articles are delivered from said storing means and which automatically feeds said articles to said tapping means, one for each stroke thereof, resilient means interposed between said tapping means and said guiding means whereby the speed of said guiding means is independent of the lead of said tapping means, and means for automatically ejecting the articles after they have been tapped.

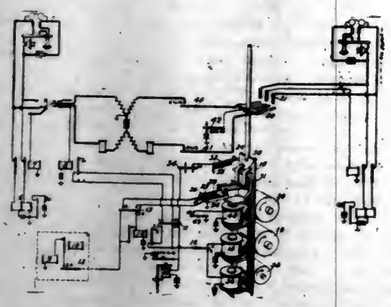
6. A machine for tapping nuts comprising in combination, a pair of rotating taps, reciprocating means placed intermediate said taps for automatically feeding nuts to said taps, a resilient means interposed between said taps and said reciprocating means, a stationary storing means from which the nuts are fed to said reciprocating means, and means for reciprocating said means between said taps.

10. A machine for tapping nuts comprising in combination, a stationary storing means, an automatic nut feeding means, a pair of rotatable taps, means for reciprocating said feeding means between said taps whereby a nut is automatically fed to a tap at each stroke of said feed means, a resilient cushion interposed between said taps and said nuts as the nuts are fed to said taps, and

means for feeding said tapped nuts along the shank of the tap and automatically ejecting said nuts from said shank.

[Claims 1, 3 to 5, 7 to 9, 11, and 12 not printed in the Gazette.]

1,254,710. SELECTOR-SWITCH-MOVEMENT-CONTROLLING CIRCUIT. ALBEN E. LUNDELL, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Jan. 29, 1916. Serial No. 75,131. (Cl. 179—27.5.)



1. In an automatic switch mechanism, having stationary and movable contacts, a circuit controlling the movement of said movable contacts in the selection of stationary contacts, and means independent of said movable contacts but operated in the movement of said movable contacts to lock the same in position and to control said circuit.

2. An automatic switching mechanism, having a primary and secondary movement, stationary and movable contacts, a circuit controlling the primary movement of said mechanism, means operated during the primary movement to control said circuit, a circuit controlling the secondary movement of said mechanism, and means operated during the secondary movement to lock said movable contacts in position and control said second circuit.

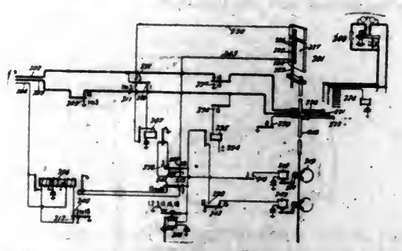
3. In an automatic switching mechanism, having stationary and movable contacts, a circuit controlling the movement of said movable contacts in the selection of stationary contacts, and a pawl operated in the movement of said movable contacts to lock the same in position and control said circuit.

12. In a controlling system for switching mechanism, having primary and secondary movement, stationary contact springs divided into groups, movable contact springs cooperating with said stationary contacts, means operated in the primary movement of said switch to select a desired group of stationary contacts, a circuit controlling the secondary movement of said switch to select a particular set of contacts in the group selected, and means operated by the overthrow of said movable contacts resulting from the group selection to position said movable contacts and prepare the circuit controlling the individual contact selection.

13. In an automatic switch controlling system, stationary terminals divided into groups, a switch carriage carrying terminals to cooperate with said stationary terminals, a constantly rotating power shaft for group selection, a magnetic clutch controlling the connection of said switch carriage with said power shaft for group selection, means operable to control said magnetic clutch to select the desired group, a constantly rotating power shaft for individual contact selection, a magnetic clutch controlling the connection of said switch carriage with said power shaft for individual contact selection, a circuit controlling the said second magnet, and means operated by the overthrow of said brush carriage following the group selection to position the brush carriage and prepare the controlling circuit of said magnetic clutch for individual contact selection.

[Claims 4 to 11 not printed in the Gazette.]

1,254,711. TELEPHONE-EXCHANGE SYSTEM. ALBEN E. LUNDELL, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed June 13, 1916. Serial No. 103,388. (Cl. 179—27.)



1. In a telephone exchange system, a plurality of incoming lines, a trunk line, connecting means in which said trunk line terminates, a plurality of interconnecting means by which said incoming lines may be extended to said trunk line, testing means associated with the connecting means, restoring means for said interconnecting and connecting means, means for operating the restoring means of said connecting means in response to the restoration of said interconnecting means, and means for preventing the extension of an incoming line to said trunk line while any one of said interconnecting or said connecting means is actuated.

2. In a telephone exchange system, a plurality of incoming lines, a trunk line, selector switches in which said incoming lines terminate, a selectively operable switching device in which said trunk line terminates, controlling apparatus for operating any of said selector switches to seize said trunk line, said switching device being operable by said controlling apparatus, testing means associated with each of the selector switches, restoring means for said selector switches and said switching device, means operable in response to the restoration of a selector switch for operating the restoring means of said switching device, and means for preventing the seizure of the busy trunk line while any of said selector switches or said selectively operable device are operated.

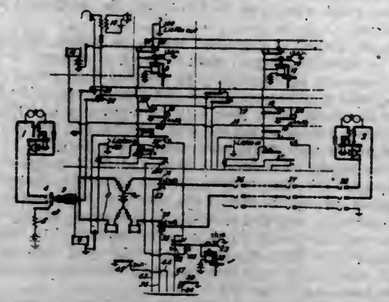
3. In a telephone exchange system, a plurality of incoming lines, an outgoing line, connecting means in which said outgoing line terminates, a plurality of interconnecting means for extending said incoming lines to the outgoing line, means for operating said interconnecting and connecting means, a test contact for each of said interconnecting means, a relay for said outgoing line, means for connecting a busy potential to said test contacts upon the actuation of any of said interconnecting means, and means for connecting a busy potential to said test contacts through a winding of said relay upon the actuation of said connecting means.

9. In a telephone exchange system, a plurality of incoming lines, a connecting means, an outgoing line terminating therein, a plurality of interconnecting means by which said incoming lines may be extended to said outgoing line, test contacts for said interconnecting means, a relay having two windings and a third differential winding, a releasing means for each of said interconnecting means, and a releasing means for said connecting means controlled by said relay, means operated upon the seizure of said outgoing line by any of said interconnecting means for energizing said two windings of the relay, means operative while said interconnecting and connecting means are actuated for short-circuiting the differential winding of said relay, means operative upon the release of said interconnecting means for energizing said third differential winding of the relay, means for connecting a busy potential to said test contacts upon the seizure of said outgoing line by any of said interconnecting means, and means for connecting a busy potential to said test contacts through the differential winding of said relay upon the actuation and during the release of said connecting means.

10. In a telephone exchange system, a plurality of incoming lines, a selector switch for each of said incoming lines, a connector switch, a trunk line leading thereto, controlling apparatus for causing any one of said selector switches to seize said trunk line and for setting said connector switch, a test contact for each of said selector switches, a relay associated with said connector switch having two windings, a circuit closed through said relay windings upon the seizure of said trunk line by any one of said selectors, means for connecting a busy potential to said test contacts, a third, differential winding for said relay, means for short-circuiting said winding while the selector switches and a connector switch are set, releasing means for said connector controlled by said relay and a releasing means for each of said selector switches, means for energizing the third winding of said relay upon the release of said selector switch, and means for connecting the busy potential to the test contacts through said third winding of the relay during the setting and the release of said connector switch.

[Claims 4 to 8 not printed in the Gazette.]

1,254,712. TELEPHONE-EXCHANGE SYSTEM. ALBEN E. LUNDELL, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed June 17, 1916. Serial No. 104,232. (Cl. 179—27.)



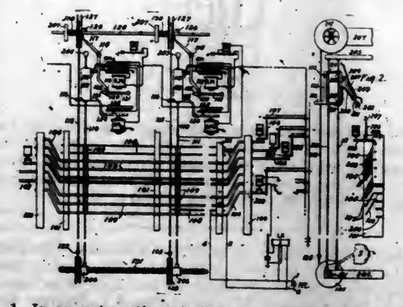
1. In a telephone exchange system, a plurality of lines, a plurality of connecting circuits by means of which said lines may be interconnected, an operator's telephone set, a switch for each of said connecting circuits adapted to associate said telephone set therewith, and means controlled by one switch while at rest for actuating another switch.

2. In a telephone exchange system, a plurality of lines, a plurality of connecting circuits by means of which said lines may be interconnected, an operator's telephone set, a switch for each connecting circuit adapted to associate said telephone set therewith and having a normal, a resting and a listening-in position, means operative upon the extension of a connecting circuit to a calling line for moving the associated switch to its resting position, means controlled by said switch in its resting position for moving another switch which is in the listening-in position, and means controlled by said later mentioned switch for moving the first mentioned switch into the listening-in position.

3. In a telephone exchange system, a plurality of lines, a plurality of connecting circuits by means of which said lines may be interconnected, an operator's telephone set, a switch for each of said connecting circuits for associating said telephone set therewith and having a resting and a listening-in position, and means controlled by any one of said switches when moved into the resting position for actuating another switch which is in the listening-in position.

4. In a telephone exchange system, a plurality of lines, a plurality of connecting circuits for said lines, an operator's telephone set, a switch for each of said circuits for connecting said telephone set thereto and having a resting and a listening-in position, a relay, means for actuating said relay when any of said switches is in the listening-in position, means controlled by one switch for moving another out of the listening-in position, and means controlled by said relay for moving any switch into the listening-in position.

1,254,713. AUTOMATIC SWITCH. FRANK A. LUNDQUIST, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Nov. 20, 1916. Serial No. 132,394. (Cl. 179—27.5.)



1. In an automatic switch, a gravity operated carriage, an arm on said carriage, stop members normally positioned out of the path of movement of said carriage arm, means for moving a selected stop member into the path of movement of said arm, and means controlled by the engagement of an arm with the selected stop member for moving the stop member out of the path of movement of arms on subsequently operated carriages.

2. In an automatic switch, a gravity operated carriage, an arm on said carriage, stop members normally positioned out of the path of movement of said carriage arm, electromagnetic means for moving a selected stop member into the path of movement of said arm and holding it in said path, and means controlled by the engagement of an arm with a selected stop member for moving said stop member out of the path of movement of arms on subsequently operated carriages and stopping the carriage whose arm is engaged, said electromagnetic means serving to dissipate the momentum of said falling carriage.

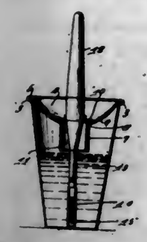
3. In an automatic switch, movable rods in which subscribers' lines terminate, a rod being associated with each line, gravity operated carriages in which trunk lines terminate, said carriages being adapted when released to traverse and make contact with said rods, means operated on the initiation of a call for positioning a subscriber's rod in the path of any carriage which may fall, and means actuated upon the operation of said means for releasing a carriage.

4. In an automatic switch, movable rods and fixed terminal strips in which subscribers' lines terminate, a rod and a strip being associated with each line, gravity operated carriages in which trunk lines terminate, each carriage being provided with means for connecting a selected rod and strip to the trunk line with which said carriage is associated, means for holding each carriage in normal position when its associated trunk line is idle, said means operating to prevent the fall of any other carriage during the fall of its associated carriage, means for moving a subscriber's rod into selectable position upon the initiation of a call, and means operated upon the actuation of said rod-moving means for rendering ineffective the holding means of a carriage associated with an idle trunk.

1,254,714. COMBINED MARKING-POT AND BRUSH. CHARLES C. MCCOMBS, Frisco, Tex. Filed May 15, 1917. Serial No. 168,715. (Cl. 91—66.)

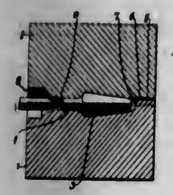
The combination with a marking pot comprising a body, said marking pot provided with a cover having a depend-

ing neck formed thereon, said cover provided with a ledge formed adjacent the bowl of said cover and said neck, of a brush comprising a handle, said handle provided with a depending sleeve adapted to fit in said neck of said cover for constituting a closure therefor, said



sleeve provided with an overhanging flange upon the top thereof, said flange adapted to fit upon said ledge for supporting said brush upon said cover, and said sleeve adapted to constitute a receptacle for receiving drippings from said brush while the same is in use.

1,254,715. METHOD OF MAKING SHANKS FOR BORING-TOOLS. ELMER T. MCPHERSON, Wilmington, Ohio, assignor to The Irwin Auger Bit Company, Wilmington, Ohio, a Corporation of Ohio. Original application filed Dec. 23, 1915, Serial No. 68,307. Divided and this application filed Apr. 20, 1916. Serial No. 92,348. (Cl. 76—101.)



1. The herein described method of making tapered shanks with flat sides which consists in heating the stock to the required temperature, placing the heated stock between dies of suitable contour to produce a shank of predetermined size, subjecting said shank to successive impacts of said dies, meanwhile turning the stock between impacts, forming a notch at one end of the shank, placing the roughly formed shank on a surface in a predetermined position, subjecting the said shank to the successive impacts of another surface arranged at an angle to the first-mentioned surface so that it will squarely engage the flat side of the shank and meanwhile turning the shank between impacts yet retaining the same in the same relative predetermined position and then severing the shank at the notch.

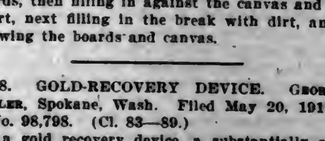
[Claims 2 to 4 not printed in the Gazette.]

1,254,716. DRAIN-COCK. JOHN J. MADEKSHO, Chicago, Ill. Filed Sept. 7, 1916. Serial No. 118,873. (Cl. 137—4.)



A drain cock of the class described comprising a supporting tube, a nozzle threadedly mounted upon said supporting tube, the passage through said nozzle comprising an angularly-shaped socket, a spring in said nozzle, a ball valve mounted upon said spring and normally in valve open position, the ball valve adapted to be engaged by the edges of the socket and moved into position to close the passage through the supporting tube when the nozzle is rotated in one direction.

1,254,717. METHOD OF REPAIRING LEVEE BREAKS. CAMIEL DE MEYER, Blythe, Cal. Filed May 2, 1917. Serial No. 165,965. (Cl. 61—30.)



1. A method of repairing breaks in levee banks, consisting of first putting a sheet of canvas over the break in the bank, after which it is pinned down by suitable stakes, then placing a retaining wall along the bank and extending upwardly in a manner to form a continuation of the face of the levee and cross the break therein, then placing a canvas strip over the wall and covering the strip with dirt to exclude the water from the break, after which the break is filled and the strip and wall removed.

2. A method of repairing breaks in levees, consisting in covering the break with a sheet of canvas formed with eyelets by which it may be pinned to the ground after which stakes are driven through the eyelets to hold the canvas in place, then a pair of cables are stretched, one along the top of the levee and another parallel thereto, a series of boards are then temporarily fastened to the cables extending along the bank and their opposite end supported by the parallel cable, then the supporting cable is removed to permit the boards to fall downwardly and form a retaining wall along the break, after which a piece of canvas is placed to cover the wall thus formed, then dirt is filled in upon the canvas and against the wall and in the rear thereof, and thereafter the canvas and boards are removed.

3. A method of repairing breaks in levees consisting in first covering the break with a sheet of canvas formed with eyelets around its edges, then staking the canvas to the ground through the eyelets, after which a pair of cables are stretched across the break, one of the cables being along the top of the levee and the other one spaced a distance therefrom and along the inner face thereof, then stringing a series of boards by means of hooks to the first-named cable and supporting their opposite ends by the second cable above the break and the length thereof, then withdrawing the second-named cable from beneath the boards and permitting them to fall simultaneously along the side of the bank and across the break, then spreading a second piece of canvas over the boards, then filling in against the canvas and boards with dirt, next filling in the break with dirt, and then withdrawing the boards and canvas.

1,254,718. GOLD-RECOVERY DEVICE. GEORGE M. MINKLER, Spokane, Wash. Filed May 20, 1916. Serial No. 98,798. (Cl. 83—89.)

1. In a gold recovery device, a substantially straight sluice having bottom concentrator boards extending across said sluice and being in spaced relation to each other longitudinally of said sluice and said boards being successively stepped downwardly in the direction of the stream, troughs between adjacent boards normally closed against outlet whereby the water level in each trough will be normally flush with the intake edge of its adjacent lowermost board and will be below the discharge edge of its adjacent higher board, said boards having grooves slightly obliquely disposed to the direction of flow to receive and retard progress of gold particles and cause sub-current flows at a slight angle to the direction of the main or surface flow and at a reduced rate of speed with respect to the main flow, whereby retardation of the sub-currents will precipitate the slower moving precious particles to the bottom of the trough while the eddies initiated by descent of the angular sub and surface flows will float and prevent descent of the lighter particles down into the troughs, substantially as described.

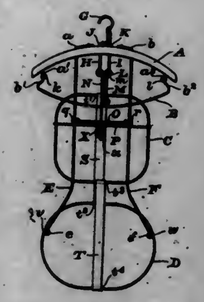


2. In a gold recovery device, a substantially straight sluice having bottom concentrator boards extending across said sluice and being in spaced relation to each other longitudinally of said sluice and said boards being successively stepped downwardly in the direction of the stream, troughs between adjacent boards normally closed against outlet whereby the water level in each trough will be normally flush with the intake edge of its adjacent lowermost board and below the discharge edge of its adjacent uppermost board, the said boards having grooves slightly obliquely disposed to the direction of flow to receive and retard progress of gold particles and the adjacent boards having their grooves extending obliquely in different directions with respect to adjacent boards, the grooves receiving and retarding progress of gold particles and causing sub-current flows at a reduced speed with respect to the main flow, whereby retardation of the sub-current will precipitate the slower moving and heavy precious particles to the bottoms of the troughs upon discharge thereinto while the eddies initiated by descent of the angular sub and surface flows into the trough will float and prevent descent of the lighter particles down into the troughs to permit the stream to carry such lighter particles down the sluice, substantially as described.

3. In a gold recovery device, a sluice having a bottom, troughs in spaced relation with respect to each other and extending transversely of said sluice, a concentrator board between said troughs and extending across said sluice and having an intake edge substantially flush with the upstream trough and a discharge edge at an elevation to the level in the downstream trough, said board having grooves slightly obliquely disposed to the direction of flow extending substantially longitudinally of said sluice and terminating at the intake and discharge edges of said board for deflecting sub-current angular to the flow of the main surface current and retarding advancing movement of the heavier precious particles, whereby said heavier precious particles will be precipitated to the bottom of the downstream trough while discharge of the angular sub and surface currents will generate eddies in the downstream trough and float the lighter particles to permit the stream to carry the latter downwardly in the sluice, substantially as described.

4. In a gold recovery device, a sluice having bottom, concentrator boards extending thereacross and being spaced apart from each other successively increasing distances longitudinally downwardly of said sluice and said boards being also stepped downwardly in said sluice in the direction of flow at successively increasing distances, a trough at each transverse edge of each board whereby the stream will successively first discharge into a trough and then onto a board, said boards having obliquely disposed grooves extending from one trough edge to the other of said boards at a gentle angle to the direction of flow for receiveing and retarding the rate of speed of heavier precious particles, substantially as described.

1,254,719. GARMENT FORM AND HANGER. HERMAN MOSCHCOWITZ, New York, N. Y. Filed Sept. 25, 1914. Serial No. 863,496. (Cl. 211—13.)



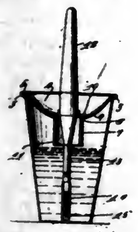
1. In an improvement of the kind described, the combination of a garment hanger, supporting means comprising two wires mounted on the hanger and a wire cross-piece connecting the two wires midway of their lengths, firmly attached to the same; a dress form consisting of three wire parts adapted to display the chest, bust and hips of a garment, the chest part hinged to the hanger and the bust and hip parts hinged to the supporting means at separate points thereon and capable of moving in a plane at right angles to said supporting means; and means for moving the said forms from a point in the same plane with the supporting means to a plane at right angles thereto, consisting of a hook passing through the hanger and capable of moving freely therein and attached by suitable connecting rods to the chest and bust forms and readily capable of controlling the same; and the hip form connected by suitable means to the bust form.

2. In an improvement of the kind described, the combination of a garment hanger with supporting means comprising two wires mounted upon the hanger, a wire cross-piece midway of the lengths of the two supporting wires firmly attached to the same; a wire form adapted to display the bust of a garment consisting of a wire frame of irregular shape, two of its sides being connected by a transverse wire hinged to the said cross wire in the said supporting means and capable of moving at right angles thereto or lying against the said supporting means in the same plane; a hook having two separate arms mounted in the said hanger and passing through the same, the ends of the two arms of the said hook being connected by a connecting rod with the cross piece of the said wire form, the whole being adapted to close the said wire form against the supporting means and bring it within the same plane therewith or to draw the wire form into a plane at right angles to said supporting means according as the hook is moved in said hanger.

4. In an improvement of the kind described, the combination of a garment hanger with supporting means comprising two wires mounted on the hanger, a cross wire midway of the lengths of the two supporting wires firmly attached to the same; means for displaying the chest, and upper parts of a garment consisting of a wire suitably bent and hinged at the ends to the said hanger and capable of moving in a plane at right angles to said hanger or being drawn into the same plane therewith, a hook having two separate arms mounted in the said hanger and passing through the same, the two arms of the said hook being connected by a wire rod curved for connecting the ends of the said arms to form a shank; a wire rod connecting the said shank and the said wire form, the whole being adapted to draw said form into the same plane with the supporting means or to draw the said wire form into a plane at right angles to the supporting means according as the hook is moved in the said hanger.

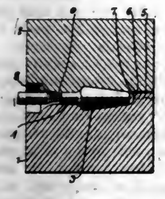
[Claim 3 not printed in the Gazette.]

ing neck formed thereon, said cover provided with a ledge formed adjacent the bowl of said cover and said neck, of a brush comprising a handle, said handle provided with a depending sleeve adapted to fit in said neck of said cover for constituting a closure therefor, said



sleeve provided with an overhanging flange upon the top thereof, said flange adapted to fit upon said ledge for supporting said brush upon said cover, and said sleeve adapted to constitute a receptacle for receiving drippings from said brush while the same is in use.

1,254,715. METHOD OF MAKING SHANKS FOR BORING-TOOLS. ELMER T. MCPHERSON, Wilmington, Ohio, assignor to The Irwin Auger Bit Company, Wilmington, Ohio, a Corporation of Ohio. Original application filed Dec. 23, 1915, Serial No. 68,307. Divided and this application filed Apr. 20, 1916. Serial No. 92,348. (Cl. 76—101.)



1. The herein described method of making tapered shanks with flat sides which consists in heating the stock to the required temperature, placing the heated stock between dies of suitable contour to produce a shank of predetermined size, subjecting said shank to successive impacts of said dies, meanwhile turning the stock between impacts, forming a notch at one end of the shank, placing the roughly formed shank on a surface in a predetermined position, subjecting the said shank to the successive impacts of another surface arranged at an angle to the first-mentioned surface so that it will squarely engage the flat side of the shank and meanwhile turning the shank between impacts yet retaining the same in the same relative predetermined position and then severing the shank at the notch.

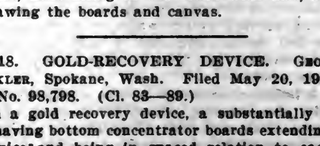
[Claims 2 to 4 not printed in the Gazette.]

1,254,716. DRAIN-COCK. JOHN J. MADEKSHO, Chicago, Ill. Filed Sept. 7, 1916. Serial No. 118,873. (Cl. 137—4.)



A drain cock of the class described comprising a supporting tube, a nozzle threadedly mounted upon said supporting tube, the passage through said nozzle comprising an angularly-shaped socket, a spring in said nozzle, a ball valve mounted upon said spring and normally in valve open position, the ball valve adapted to be engaged by the edges of the socket and moved into position to close the passage through the supporting tube when the nozzle is rotated in one direction.

1,254,717. METHOD OF REPAIRING LEVEE BREAKS. CAMIEL DE MEYER, Blythe, Cal. Filed May 2, 1917. Serial No. 165,965. (Cl. 61—30.)



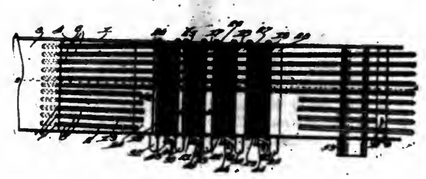
1. A method of repairing breaks in levee banks, consisting of first putting a sheet of canvas over the break in the bank, after which it is pinned down by suitable stakes, then placing a retaining wall along the bank and extending upwardly in a manner to form a continuation of the face of the levee and cross the break therein, then placing a canvas strip over the wall and covering the strip with dirt to exclude the water from the break, after which the break is filled and the strip and wall removed.

2. A method of repairing breaks in levees, consisting in covering the break with a sheet of canvas formed with eyelets by which it may be pinned to the ground after which stakes are driven through the eyelets to hold the canvas in place, then a pair of cables are stretched, one along the top of the levee and another parallel thereto, a series of boards are then temporarily fastened to the cables extending along the bank and their opposite end supported by the parallel cable, then the supporting cable is removed to permit the boards to fall downwardly and form a retaining wall along the break, after which a piece of canvas is placed to cover the wall thus formed, then dirt is filled in upon the canvas and against the wall and in the rear thereof, and thereafter the canvas and boards are removed.

3. A method of repairing breaks in levees consisting in first covering the break with a sheet of canvas formed with eyelets around its edges, then staking the canvas to the ground through the eyelets, after which a pair of cables are stretched across the break, one of the cables being along the top of the levee and the other one spaced a distance therefrom and along the inner face thereof, then stringing a series of boards by means of hooks to the first-named cable and supporting their opposite ends by the second cable above the break and the length thereof, then withdrawing the second-named cable from beneath the boards and permitting them to fall simultaneously along the side of the bank and across the break, then spreading a second piece of canvas over the boards, then filling in against the canvas and boards with dirt, next filling in the break with dirt, and then withdrawing the boards and canvas.

1,254,718. GOLD-RECOVERY DEVICE. GEORGE M. MINKLER, Spokane, Wash. Filed May 20, 1916. Serial No. 98,798. (Cl. 83—89.)

1. In a gold recovery device, a substantially straight sluice having bottom concentrator boards extending across said sluice and being in spaced relation to each other longitudinally of said sluice and said boards being successively stepped downwardly in the direction of the stream, troughs between adjacent boards normally closed against outlet whereby the water level in each trough will be normally flush with the intake edge of its adjacent lowermost board and will be below the discharge edge of its adjacent higher board, said boards having grooves slightly obliquely disposed to the direction of flow to receive and retard progress of gold particles and cause sub-current flows at a slight angle to the direction of the main or surface flow and at a reduced rate of speed with respect to the main flow, whereby retardation of the sub-currents will precipitate the slower moving precious particles to the bottom of the trough while the eddies initiated by descent of the angular sub and surface flows will float and prevent descent of the lighter particles down into the troughs, substantially as described.

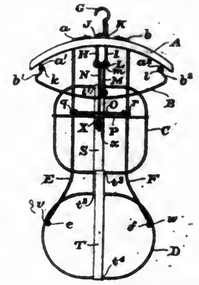


2. In a gold recovery device, a substantially straight sluice having bottom concentrator boards extending across said sluice and being in spaced relation to each other longitudinally of said sluice and said boards being successively stepped downwardly in the direction of the stream, troughs between adjacent boards normally closed against outlet whereby the water level in each trough will be normally flush with the intake edge of its adjacent lowermost board and below the discharge edge of its adjacent uppermost board, the said boards having grooves slightly obliquely disposed to the direction of flow to receive and retard progress of gold particles and the adjacent boards having their grooves extending obliquely in different directions with respect to adjacent boards, the grooves receiving and retarding progress of gold particles and causing sub-current flows at a reduced speed with respect to the main flow, whereby retardation of the sub-current will precipitate the slower moving and heavy precious particles to the bottoms of the troughs upon discharge thereinto while the eddies initiated by descent of the angular sub and surface flows into the trough will float and prevent descent of the lighter particles down into the troughs to permit the stream to carry such lighter particles down the sluice, substantially as described.

3. In a gold recovery device, a sluice having a bottom, troughs in spaced relation with respect to each other and extending transversely of said sluice, a concentrator board between said troughs and extending across said sluice and having an intake edge substantially flush with the upstream trough and a dischage edge at an elevation to the level in the downstream trough, said board having grooves slightly obliquely disposed to the direction of flow extending substantially longitudinally of said sluice and terminating at the intake and discharge edges of said board for deflecting sub-current angular to the flow of the main surface current and retarding advancing movement of the heavier precious particles, whereby said heavier precious particles will be precipitated to the bottom of the downstream trough while discharge of the angular sub and surface currents will generate eddies in the downstream trough and float the lighter particles to permit the stream to carry the latter downwardly in the sluice, substantially as described.

4. In a gold recovery device, a sluice having bottom, concentrator boards extending thereacross and being spaced apart from each other successively increasing distances longitudinally downwardly of said sluice and said boards being also stepped downwardly in said sluice in the direction of flow at successively increasing distances, a trough at each transverse edge of each board whereby the stream will successively first discharge into a trough and then onto a board, said boards having obliquely disposed grooves extending from one trough edge to the other of said boards at a gentle angle to the direction of flow for receiveing and retarding the rate of speed of heavier precious particles, substantially as described.

1,254,719. GARMENT FORM AND HANGER. HERMAN MOSCHCOWITZ, New York, N. Y. Filed Sept. 25, 1914. Serial No. 863,496. (Cl. 211—13.)



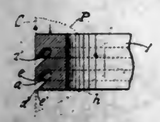
1. In an improvement of the kind described, the combination of a garment hanger, supporting means comprising two wires mounted on the hanger and a wire cross-piece connecting the two wires midway of their lengths, firmly attached to the same; a dress form consisting of three wire parts adapted to display the chest, bust and hips of a garment, the chest part hinged to the hanger and the bust and hip parts hinged to the supporting means at separate points thereon and capable of moving in a plane at right angles to said supporting means; and means for moving the said forms from a point in the same plane with the supporting means to a plane at right angles thereto, consisting of a hook passing through the hanger and capable of moving freely therein and attached by suitable connecting rods to the chest and bust forms and readily capable of controlling the same; and the hip form connected by suitable means to the bust form.

2. In an improvement of the kind described, the combination of a garment hanger with supporting means comprising two wires mounted upon the hanger, a wire cross-piece midway of the lengths of the two supporting wires firmly attached to the same; a wire form adapted to display the bust of a garment consisting of a wire frame of irregular shape, two of its sides being connected by a transverse wire hinged to the said cross wire in the said supporting means and capable of moving at right angles thereto or lying against the said supporting means in the same plane; a hook having two separate arms mounted in the said hanger and passing through the same, the ends of the two arms of the said hook being connected by a connecting rod with the cross piece of the said wire form, the whole being adapted to close the said wire form against the supporting means and bring it within the same plane therewith or to draw the wire form into a plane at right angles to said supporting means according as the hook is moved in said hanger.

4. In an improvement of the kind described, the combination of a garment hanger with supporting means comprising two wires mounted on the hanger, a cross wire midway of the lengths of the two supporting wires firmly attached to the same; means for displaying the chest, and upper parts of a garment consisting of a wire suitably bent and hinged at the ends to the said hanger and capable of moving in a plane at right angles to said hanger or being drawn into the same plane therewith, a hook having two separate arms mounted in the said hanger and passing through the same, the two arms of the said hook being connected by a wire rod curved for connecting the ends of the said arms to form a shank; a wire rod connecting the said shank and the said wire form, the whole being adapted to draw said form into the same plane with the supporting means or to draw the said wire form into a plane at right angles to the supporting means according as the hook is moved in the said hanger.

[Claim 3 not printed in the Gazette.]

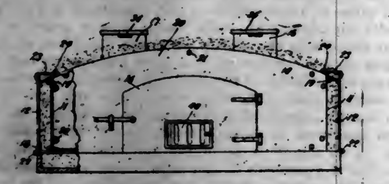
1,254,720. PACKING-RING. ARDEN J. MUMMERT, St. Louis, Mo., assignor to McQuay-Norris Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed Feb. 19, 1916. Serial No. 79,334. (Cl. 121—108.)



1. A piston-head packing ring for engine cylinders comprising a resilient imperforate split band provided with a peripheral basin bounded on one side by a wall terminating in an edge clearing the walls of the cylinder, and on the opposite side by a wall terminating in a cutting edge operating to scrape the oil from the cylinder walls into the basin with a forward stroke of the piston, and with a second peripheral basin spaced from, and rearward of, the first mentioned basin, said second basin being bounded by opposing walls terminating in edges disposed on the periphery of the cylinder defining the bearing surface of the ring between the basins, the edge of the rear wall of the second basin operating as a cutting edge with a forward stroke of the piston.

[Claims 2 to 4 not printed in the Gazette.]

1,254,721. OVEN. JAMES J. NEEDHAM and GEORGE SCHEIDELER, New York, N. Y. Filed Aug. 28, 1917. Serial No. 188,557. (Cl. 107—62.)



1. In an oven the combination of a hollow base, hinged side walls and top, front and rear walls insulated inside and out with asbestos, an opening in the top and a draft chimney running along the top to a chimney opening for the purpose specified.

3. In an oven the combination of a hollow base and a sliding removable floor, hinged side walls and top, front and rear walls insulated inside and out with asbestos, an opening in the top and a draft chimney running along the top, the end over the opening being larger than the end entering the chimney opening for the purpose specified.

6. In a portable, collapsible oven the combination of a base with a sliding oven floor, hinged side walls and top, hinged means for providing an insulation barrier for containing the heat, orifices in the roof of the oven, channels, one end of which cover each orifice, extending along the top of the oven and entering the chimney, a hinged cap on the chimney, front and rear walls of the oven constructed with asbestos insulation on the outside and inside, a door on the front wall with the usual slide draft for the purpose specified.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,254,722. KNIT FABRIC. OWEN F. OAKES, Boston, Mass. Filed Nov. 6, 1916. Serial No. 129,636. (Cl. 66—4.)

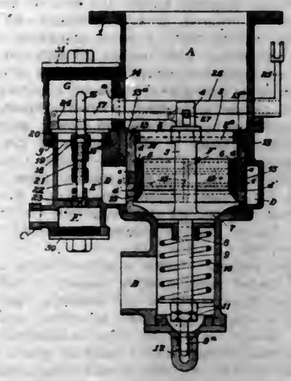
2. A sleeve for sweaters or the like embracing a knit tube tapered continuously from end to end, containing the same number of longitudinal rows of stitches throughout its length which are tapered to correspond to the taper of the sleeve, the circular courses of stitches being formed of progressively and gradually increasing length from the small to the large end, the progressively lengthened stitches after a considerable number of courses have been knit, being composed of a yarn element of relatively larger bulk to partially compensate for the constantly



increasing length of the stitches, substantially as described.

[Claim 1 not printed in the Gazette.]

1,254,723. CARBURETER. FREDERICK S. ORRM, Baltimore, Md. Filed Feb. 8, 1916. Serial No. 77,094. (Cl. 261—41.)



1. A carbureter having a chamber with a plurality of gasolene ports leading through the wall thereof, a piston valve working in said chamber and covering and uncovering said ports, means for supplying gasolene by gravity through said ports when uncovered and an air supply valve connected to move in unison with said piston valve.

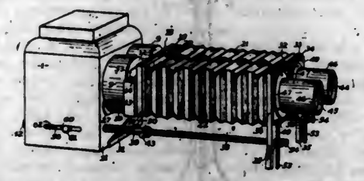
2. A carbureter having a cylindrical chamber adapted for connection at its upper end with the engine intake and having a plurality of gasolene ports leading through the wall at different heights, an annular piston valve working in said chamber, means for feeding gasolene by gravity through said ports when uncovered by the piston valve, an air supply passage connected to the bottom of said chamber and a valve closing said air supply passage and connected to move in unison with said piston valve.

3. A carbureter having a carbureting chamber with a plurality of ports in the walls thereof at different elevations, a hollow piston valve working in said chamber, means for feeding gasolene through said ports by gravity when the ports are uncovered, an air supply passage to the bottom of said chamber, a valve controlling the passage of air to the chamber, a valve above the piston valve controlling the passage of the mixture from said chamber and means connecting said three valves for causing them to operate in unison.

4. A carbureter comprising a cylindrical carbureting chamber having gasolene ports through the wall thereof at different elevations, a cylindrical piston valve in said chamber uncovering said ports, a valve for controlling the admission of air to the bottom of said carbureting chamber, a valve for controlling the passage of the mixture from said chamber, said three valves being connected to operate in unison and an operating arm having a lost motion connection with said valves.

[Claims 5 to 9 not printed in the Gazette.]

1,254,724. UNITARY DISSOLVING-VIEW PROJECTION APPARATUS. WILLIAM L. PATTERSON, Rochester, N. Y., assignor to Bausch & Lomb Optical Company, Rochester, N. Y., a Corporation of New York. Filed May 22, 1917. Serial No. 170,275. (Cl. 88—24.)



1. A projection apparatus comprising a single lamp house, a plurality of light sources therein, a plurality of optical condensers respectively arranged in front of the respective light sources, a plurality of slide chambers one arranged respectively in front of each condenser, a plurality of collapsible bellows sections respectively held with their rear ends next the respective slide chambers, a movable front frame portion by which the front ends of the bellows sections are supported, and a plurality of objectives on the front frame portion in line with the respective bellows sections, slide chambers, condensers, and light sources.

5. In projection apparatus, a bellows interposed in plural optical systems and comprising a single front plate, a single rear plate, and a plurality of collapsible bellows sections corresponding in number with the optical systems and connected at opposite ends to the respective front and rear plates.

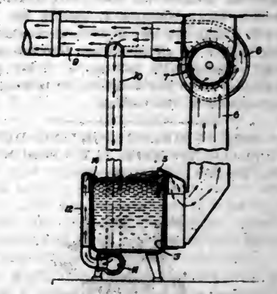
11. In projection apparatus, the combination with a single lamp house, two light sources therein, two optical systems respectively fronting said light sources and each including an objective, and a slide holder and light passage interposed in each optical system, the objectives of the two optical systems being relatively adjustable laterally to assure true coincidence of their fields of illumination.

17. In projection apparatus, the combination with a lamp house having front and rear walls, longitudinal guides passing through the house and fixed to the walls thereof, a movable front frame plate, and an objective of the projector optical system carried by the plate, of guides fixed to said front plate and movable on the lamp house guides, a plate slidably supported on the latter guides within the lamp house, and a light source mounted on the plate.

[Claims 2 to 4, 6 to 10, and 12 to 16 not printed in the Gazette.]

1,254,725. VAPOR AND FUME CONTROLLING SYSTEM. GEORGE ALGER PENNOCK, Oak Park, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Aug. 16, 1916. Serial No. 115,207. (Cl. 98—55.)

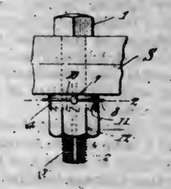
1. A fume or vapor controlling system comprising in combination, a tank in which fume emitting substances may be placed, means placed along the upper edge of one side of said tank from which a blast of air can be blown across the tank, an exhaust means placed along the upper edge of the opposite side of said tank, and means whereby a stream of air is blown from said first-mentioned means and drawn into said exhaust means, said stream of air carrying the escaping fumes into said exhaust means.



2. In a vapor or fume controlling system, the combination with a container, of a nozzle extending along the upper edge of one side of said container, a funnel-shaped exhaust hood mounted on and extending along the opposite side of said container, a fan, a pipe connecting said hood and said fan, and a blast supply pipe connecting said nozzle and said fan, whereby the fumes rising from said container will be controlled by the combined blast and suction and forced into said hood.

3. In a vapor or fume controlling system, the combination with a container, of an exhaust hood extending along the upper edge of one side of said container, an exhaust means including a fan connected to said hood, a stack exhaust pipe terminating at said fan, a blast nozzle extending along the upper edge of the opposite side of said container, a blast supply means interconnecting said stack exhaust and said nozzle, said fan forcing a part of the air from the stack exhaust through said nozzle which in combination with the air drawn into the hood by said fan will force the fumes rising from said container into said stack exhaust.

1,254,726. NUT-LOCK. ARTHUR G. PORTER, Charleston, Ill. Filed June 6, 1917. Serial No. 173,151. (Cl. 151—13.)



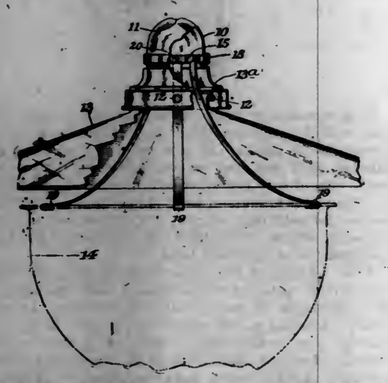
1. In a nut lock the combination with a bolt having a longitudinal groove in the threaded end portion thereof, of a base washer slidably mounted on the bolt, said washer a base washer slidably mounted on the bolt, said washer having ratchet teeth, a nut engaging the threaded portion of the bolt and having teeth for engaging the teeth on the base washer, a locking pin extending through the washer and into the groove in the bolt, yieldable and detachable means for holding the pin to the base washer.

2. In a nut lock the combination with a bolt having a longitudinal groove in the threaded end portion thereof, of a base washer slidably mounted on the bolt, said washer having ratchet teeth, a nut engaging to the threaded portion of the bolt and having teeth engaging the teeth on the base washer, a locking pin extending into the washer and into the groove in the bolt, and yieldable and detachable means for holding the pin to the base washer, said holding means including a resilient bail having inturned terminals projecting into opposed portions of the base washer.

1,254,727. BLEACHING, SCOURING, AND DECORTICATING FABRICS OR FIBROUS MATTER. ANDREW POULSON, Widnes, England. Filed Feb. 12, 1917. Serial No. 148,291. (Cl. 8—2.)

The improved process for bleaching textile fabric or other material, which consists in boiling the material to be bleached in a solution of commercial washing soda and sodium bicarbonate so as to soften the gummy material therein, and subsequently adding a small quantity of sodium hypochlorite to the solution containing the fabric, and a continuation of the boiling.

1,254,728. SEMI-INDIRECT-LIGHTING DEVICE. ALFRED S. POWELL, New York, N. Y. Filed Nov. 3, 1917. Serial No. 200,209. (Cl. 240—92.)

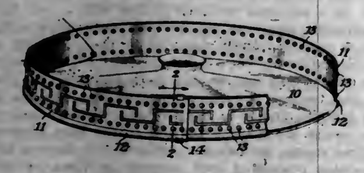


1. A semi-indirect lighting device, comprising an element in the form of a shell adapted to surround a lamp-socket and having means for supporting a flaring reflector or shade; and a supporting element for a diffusing bowl comprising a contractible and expansible ring inside of said shell above the reflector supporting means and provided with a plurality of downwardly and outwardly extending arms; said elements being provided with cooperating means for detachably securing the contractible and expansible ring in position.

2. A semi-indirect lighting device, comprising a shell adapted to surround a lamp-socket, having means for supporting a flaring reflector or shade and having on its inside above said means a circumferential recess; and a contractible and expansible ring removably fitted into said recess and equipped with a plurality of downwardly and outwardly extending arms.

3. A semi-indirect lighting device, comprising a shell adapted to surround a lamp-socket, having means for supporting a flaring reflector or shade and having on its inside above said means a circumferential recess provided with apertures; and a contractible and expansible ring removably fitted into said recess and equipped with a plurality of downwardly and outwardly extending arms, the ring being also provided with outwardly extending pins projecting into the apertures in said recess.

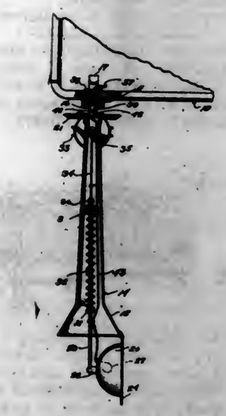
1,254,729. DEVICE FOR ORNAMENTING SHADES OR REFLECTORS. ALFRED S. POWELL, New York, N. Y. Filed Nov. 3, 1917. Serial No. 200,210. (Cl. 240—108.)



1. A device for ornamenting a flat shade or reflector, comprising a contractible and expansible split ring of sheet metal provided with means for engaging the edge of the shade or reflector the ends of the ring being overlapped and provided with coöperating means to prevent expansion, whereby the ring can be adjusted to fit the reflector and the joint at the ends of the ring is rendered unnoticeable.

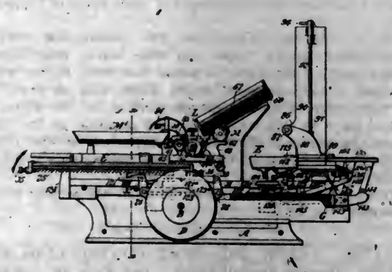
[Claims 2 and 3 not printed in the Gazette.]

1,254,730. AUTOMOBILE-SIGNAL. JÓZEF PROTASIAK, Milwaukee, Wis. Filed Feb. 5, 1917. Serial No. 146,822. (Cl. 116—31.)



In a device of the kind described, a bracket, a shaft journaled in said bracket, a finger piece on the shaft, a second shaft journaled in the bracket, a hollow arm on the second shaft, a gear fixedly connected to the hollow arm, a gear fixed on the first shaft and meshing with the first-mentioned gear, a drum fixed on the first shaft, a signal hinged at one side to one side of the free end of the hollow arm and movable into and out of the arm, a push rod in the hollow arm and having one end pivotally connected to the signal in spaced relation to the hinge thereof, a spring normally urging said push rod outward, and a flexible strand wound around said drum and having one end connected to the push rod.

1,254,731. PRINTING-MACHINE. WILLIAM REYNOLDS, Passaic, N. J., assignor, by mesne assignments, to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 13, 1911. Serial No. 620,729. (Cl. 101—55.)



1. In a printing machine, the combination with a movable carriage, having a seat for an address form, a rigidly supported rockable stack for holding address forms, means for moving an address form from the stack onto said seat, means for causing said moving means to act and place the address form on the carriage during the movement of the carriage toward the stack, and means acting during the reverse movement of the carriage to dislodge an address form from said seat.

4. In a printing machine, the combination of a movable carriage having a seat for an address form, means for delivering address forms in succession at a point approached by the carriage, a member for moving an address form from said point onto the said seat and an ejector for dislodging an address form from said seat after printing, said ejector being actuated by the movement of the carriage to dislodge the address form, and actuated in the opposite direction by an address form moving onto its seat.

7. The combination of a carriage having a seat for a printing form, a holder for carrying a form dislodged from the seat, and two oppositely reciprocating ejecting members, the one operable to engage a form on the seat and the other operable to engage a form on said holder.

11. In a printing machine, the combination of a seat for an address form, a movable device to retain a form on said seat, a changeable salutation-printing device, means for changing the salutation-printing device, and means controlling the action of the said changing means, said controlling means having a connection with the said movable form-retaining device.

13. In a printing machine, the combination of a magazine, a plurality of address forms arranged therein, a reciprocatory bed, means for delivering an address form from the magazine to said bed, a feeler carried by the bed, means for causing said feeler to engage with an address form positioned on the bed, a plurality of salutation forms, and means controlled by the feeler for positioning the required salutation form in printing position.

[Claims 2, 3, 5, 6, 8 to 10, 12, and 14 to 17 not printed in the Gazette.]

1,254,732. DIE. WALDO ALTON RICH, Jr., Framingham, Mass., assignor to Dennison Manufacturing Company, Framingham, Mass., a Corporation of Massachusetts. Filed Apr. 18, 1917. Serial No. 162,899. (Cl. 101—28.)

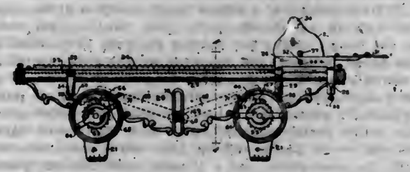


1. A die comprising separable interlocking sections and unitary means wholly disposed upon the top face of the die to lock all of said sections against relative movement.

11. A die comprising separable interlocking sections having a transverse recess, a locking bar in said recess, and a handle having a projection extending through said bar into a die section to retain said bar in locking position.

[Claims 2 to 10 not printed in the Gazette.]

1,254,733. DUPLICATOR. ALOIS BENJAMIN SALIGER, New York, N. Y., assignor, by mesne assignments, to The Beck Duplicator Company, a Corporation of New York. Filed May 9, 1916. Serial No. 96,465. (Cl. 101—133.)



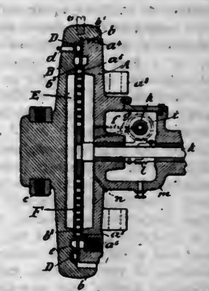
1. In a duplicator, the combination with a frame having a bed and a duplicating medium thereon; of a carriage movably mounted on said frame and provided with means adapted to depress a sheet of paper or the like on to said duplicating medium and with means adapted to strip same from said medium, said stripping means comprising a pair of rollers pivotally secured to said carriage and adapted to lie side by side with their line of contact approximately in the plane of said duplicating medium one roller on one side of said plane and the other roller on the other side of said plane at the beginning of the stripping operation whereby a sheet of paper on said medium may enter between said rollers, but said stripping rollers being adapted to be swung out of said relation to said plane after said stripping operation has been begun.

4. In a duplicator, the combination with a frame having a rack, a bed, and a duplicating medium on said bed; of a carriage movably mounted on said frame and provided with means adapted to depress a sheet of paper or the like on to said duplicating medium and with means adapted to strip same from said medium; of an adjustable stop adapted to limit the movement of said carriage upon said frame, said stop comprising a member movably mounted on said frame and a pin movable in said movable member, adapted normally to engage with said rack.

6. In a duplicator, the combination with a frame having a rack, a bed, and a duplicating medium on said bed; of a carriage movably mounted on said frame and provided with means adapted to depress a sheet of paper or the like on to said duplicating medium and with means adapted to strip same from said medium; of an adjustable stop adapted to limit the movement of said carriage upon said frame, said stop comprising a member movably mounted on said frame and a pin movable in said movable member and provided with a projecting toe adapted to engage with said rack and a spring adapted to bring about such engagement.

[Claims 2, 3, 5, and 7 to 17 not printed in the Gazette.]

1,254,734. EMULSIFYING APPARATUS. HANS HENRIK SCHOU, Copenhagen, Denmark, assignor to Flakes A/S, Copenhagen, Denmark. Filed July 12, 1916. Serial No. 108,958. (Cl. 99—2.)



1. In a disk emulsifier, a disk casing comprising two disk members, means for securing the two members together and an inflatable ring located between the said members.

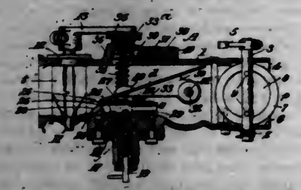
7. In a disk emulsifier, a disk casing comprising two coöperating disk members of which one is fixed and the other movable, a jointed carrier on the fixed member having at its outer end a supporting ring in which the movable member is mounted to turn on its axis, and male and female interrupted screw threads on the said members, by which they are adjustably secured together on closing the casing.

[Claims 2 to 6 not printed in the Gazette.]

1,254,735. CARBURETER. RALPH SHIPMAN, Sunbury, Pa. Filed Mar. 19, 1915, Serial No. 15,484. Renewed June 20, 1917. Serial No. 175,977. (Cl. 261—41.)

1. In a carbureter for explosive engines, the combination with a casing having a main air passageway therethrough and an auxiliary air passageway therein, the latter having a main spraying orifice and an auxiliary

spraying orifice at the rear of said main orifice, of a fuel nozzle communicating with said auxiliary passageway, and a valve in the main air passageway normally checking the flow of air past said auxiliary orifice and adapted to open in response to increased draft through the casing.



3. In a carbureter for explosive engines, the combination with a casing having a main air passageway therethrough and an auxiliary air passageway therein, the latter having a main spraying orifice and an auxiliary spraying orifice at the rear of said main orifice, of a fuel nozzle communicating with said auxiliary passageway at the rear of said auxiliary orifice, and a valve normally extending across the main air passageway in advance of said auxiliary orifice and adapted to open in response to increase draft through the casing.

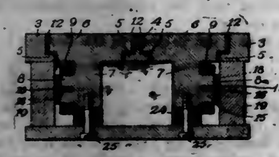
4. In a carbureter for explosive engines, the combination with a casing having a main air passageway therethrough and an auxiliary air passageway therein, the latter having a main spraying orifice and an auxiliary spraying orifice at the rear of said main orifice, of a fuel nozzle communicating with said auxiliary passageway at the rear of said auxiliary orifice, and a hinged draft controlled valve normally extending across the main air passageway and having its free end adjacent said main spraying orifice.

7. In a carbureter for explosive engines, the combination with a casing having a main air passageway therethrough and an auxiliary air passageway therein, the latter having a series of main spraying orifices extending transversely of the casing at its forward end and a transverse series of auxiliary spraying orifices at the rear of said main series, of a fuel nozzle communicating with said auxiliary passageway, and a valve in the main passageway normally checking the flow of air past said auxiliary orifices and adapted to open in response to increased draft through the casing.

12. In a carbureter for explosive engines, the combination with a casing having a main air passageway therethrough of a spraying device within the casing comprising a hollow head extending transversely of the casing and a tubular stem projecting rearwardly from the head, the head having a spraying orifice and the stem having a bushing in its inlet end, a fuel nozzle communicating with said stem in advance of the bushing, and a draft-controlled valve extending across said passageway adjacent said head.

[Claims 2, 5, 6, 8 to 11, and 13 not printed in the Gazette.]

1,254,736. MAGNETIC CHUCK. FRANK L. SIMMONS, Millbury, Mass., assignor to The Taft-Peirce Manufacturing Company, Woonsocket, R. I., a Corporation of Rhode Island. Filed Nov. 5, 1914. Serial No. 870,531. (Cl. 175—21.)

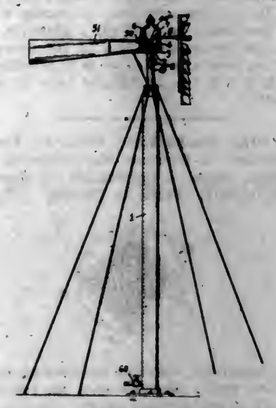


1. A magnetic chuck having a work holding face constituted by a plurality of oppositely energized individual pole pieces, each of said pole pieces having a laterally extending core, and a coil disposed vertically upon each core, whereby to be exposed by the removal of the side wall of the chuck.

2. A magnetic chuck comprising a housing or shell, a work holding face constituted by a plurality of individual oppositely energized pole pieces having portions depending within said housing or shell, lateral projections on said depending portions arranged in a row along one side of the chuck, and coils disposed upon said projections for exposure by the removal of one of the sides of said housing or shell.

3. A magnetic chuck comprising a housing or shell, open at its upper end, a detachable face plate, comprising a frame superposed on said shell, and a plurality of individual oppositely energized pole pieces, extending in a row from side to side of said frame with their ends supported thereby, and a core depending from each pole piece, within the space inclosed by said shell.

1,254,737. MEANS FOR GENERATING AND STORING POWER. WALTER DUNN SMITHEY, Bay City, Tex. Filed June 8, 1917. Serial No. 173,625. (Cl. 230—32.)



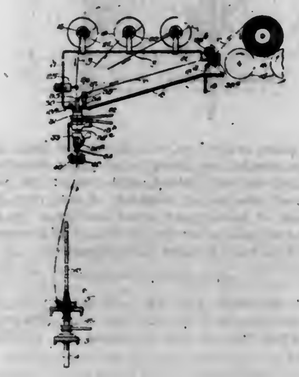
1. In combination, a hollow tower provided at its upper end with an annular track, a wind mill rotatably mounted on the track and including a crank shaft, a flange on the interior of the tower, an air pump cylinder having a flange mounted on the interior flange within the hollow tower, inlet and outlet valves in the cylinder, a cap mounted on the flange and over the top of the flanged cylinder, inlet and outlet valves in the cap, air inlet and outlet ports formed in the tower, cylinder, and cap, the outlet ports communicating with the tower below the top of the cylinder, and the inlet ports communicating with the atmosphere, a piston in the pump cylinder, and a pitman connecting the piston and the crank shaft.

2. In combination, a hollow tower provided at its upper end with an annular flange, a yoke rotatably supported on the flange, means for holding the yoke in position on the flange, a wind mill mounted on the yoke, including a crank shaft, a flange on the interior of the tower, an air pump supported on the interior flange, said air pump including a piston and valved air inlet and outlet ports, the outlet ports communicating with the tower below the top of the pump, and the inlet ports communicating with the atmosphere, and a pitman connecting the piston and the crank shaft.

5. In combination, a hollow tower provided at its upper end with an annular track, a yoke rotatably supported on the track, a wind mill mounted on the yoke including a crank shaft, a flange on the interior of the tower, an air pump supported on the interior flange, said air pump including upper and lower inlet and outlet valves and a piston, the upper and lower inlet valves communicating with the tower, one of said inlet valves having a spring to normally hold same open until the speed of the piston reaches a point to create velocity sufficient to close the valve against the tension of the spring, and a connection between the piston and the wind mill.

[Claims 3 and 4 not printed in the Gazette.]

1,254,738. SPINNING-FRAME. DEXTER STEVENS and GEORGE CLARKE, Esmond, R. I., assignors to The Esmond Mills, Esmond, R. I., a Corporation of Massachusetts. Filed Oct. 19, 1916. Serial No. 126,598. (Cl. 28—6.)



1. In a spinning frame for covering yarns, spinning means in combination with means for drawing the covering component only, means for leading a core component to the spinning means, and twisting means for applying the covering component to the core component operating between elements of the drawing means.

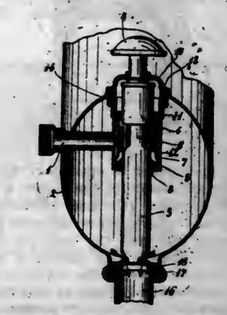
2. A spinning frame having in combination spinning means, widely separated primary and secondary draft rolls, means for supplying to be drawn between said draft rolls an applied roving, and means for supplying a core yarn to contact with said applied roving only at a point relatively near to said secondary rolls, and twisting means operating on the material near the secondary draft rolls and between the primary and secondary draft rolls whereby to spin together undrawn core yarn and drawn applied roving.

[Claims 3 to 5 not printed in the Gazette.]

1,254,739. FLUSHING APPARATUS. ROBERT STICKDORN, Zurich, Switzerland, assignor to Albert Eckstein, New York, N. Y. Filed Apr. 23, 1917. Serial No. 163,882. (Cl. 4—5.)

1. In a flushing apparatus, an air chamber, a casing therein, a water supply conduit communicating with the casing, a flush-pipe arranged to communicate with the air chamber, a differential piston movably mounted in the casing and adapted to directly control communication between the air chamber and casing and between the air chamber and the flush pipe.

7. In a flushing apparatus of the character described, an air-chamber, a casing mounted therein, a water supply branch directly connected to said casing, a flush pipe directly connected to said air chamber, and a differential piston guided in said casing and having a recessed portion, the latter being adapted to effect communication between said water supply branch and the interior of the air chamber while one end of the piston controls communication between the interior of the air-chamber and the flush-pipe, said piston being so arranged relatively to the water supply branch that in its normal position it is kept in the uppermost position by the pressure of the water and is moved during the whole duration of the movement effecting communication between the interior of the air-chamber and the flush pipe by the pressure prevailing in said supply branch.



9. In a flushing apparatus of the character described, an air-chamber consisting of two halves, the meeting ends of which inclose an angle and are situated below their outer ends, a casing mounted in the meeting part of the two halves of the air-chamber, a water supply member communicating with the casing, a flush-pipe communicating with the chamber, and a differential piston guided in said casing and adapted to effect a direct communication between said water supply member and the interior of the air-chamber and to control the communication between said chamber and the flush-pipe.

[Claims 2 to 6, 8, and 10 not printed in the Gazette.]

1,254,740. FURRING-NAIL. ARDON M. STINE, Los Angeles, Cal., assignor of one-fourth to Fred E. Potts, Los Angeles, Cal. Filed Mar. 14, 1917. Serial No. 154,723. (Cl. 85—10.)

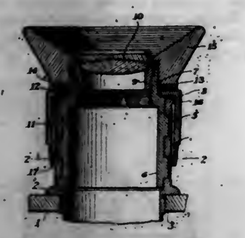


1. A furring nail having a shank adapted to be driven into sheathing, having an abutment to engage the outer face of said sheathing, having a second abutment spaced from the first named abutment to engage the inner face of metal lath, and having a headed member adapted to pass through the lath and to be bent inward toward the lath to hold said lath against the second abutment.

2. A furring nail having a shank adapted to be driven into sheathing, having means projecting from opposite sides of the shank to space metal lath from the sheathing, and having a headed member adapted to project through the metal lath and to be bent inward toward said lath to hold the lath against movement away from the sheathing.

3. A furring nail having a shank, abutments projecting laterally from the shank at different locations lengthwise of said shank, and a headed member adapted to be bent toward the shank substantially as and for the purpose described.

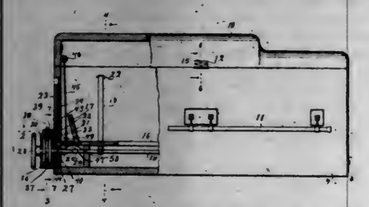
1,254,741. OPTICAL INSTRUMENT. CHARLES H. SCOUT, Rochester, N. Y., assignor to Crown Optical Company, Rochester, N. Y., a Corporation of New York. Filed Jan. 8, 1917. Serial No. 141,139. (Cl. 88—32.)



1. An optical instrument, a stationary sleeve, an eye-piece tube axially adjustable in the sleeve, a diopter ring mounted on said eye-piece tube and depending therefrom about the stationary sleeve, screw threads on the inner face of the diopter ring and the outer face of the stationary sleeve, the diopter ring having a smooth inner face above the threads whereas the stationary ring has a smooth outer face below its threads so that the threads on each part may operate over a smooth portion on the other part during the adjustment of the eye-piece and will cooperate to limit the normal outward adjustment.

2. In an optical instrument, a stationary sleeve, an eye-piece tube axially adjustable in the sleeve, a diopter ring mounted on said eye-piece tube and depending therefrom about the stationary sleeve, and two stops for limiting the outward axial movement of the eye-piece tube, one arranged on the inner face of the diopter ring and the other arranged on the outer face of the sleeve, at least one of said stops being in the form of screw threads, while the other is formed to permit the diopter ring to be turned to effect coöperation between the stops in order to enable the diopter ring to be detached from the stationary tube over the free end of the latter.

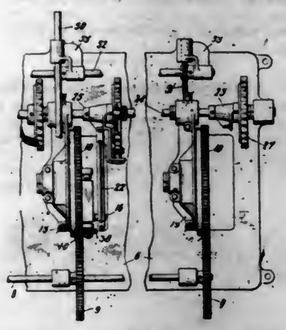
1,254,742. CASKET. JAMES SVANDA, Milwaukee, Wis. Filed May 18, 1917. Serial No. 169,528. (Cl. 27—3.)



The combination, with a casket, of a body supporting platform disposed therein, a shaft within the casket, platform supporting straps mounted within the casket for raising and lowering said platform on the rotation of said shaft, a shaft actuating device comprising a shaft detachably secured to the first named shaft, a brake and a casing for the brake provided with an inwardly extending lug, said casket having an opening therein for receiving said lug, means carried by the casket for engaging the lug to detachably secure the brake-casing thereto, and a plate slidably mounted on the casket adjacent said opening to cover the same when the shaft actuating device is removed.

1,254,743. VARIABLE-SPEED TRANSMISSION MECHANISM. WILLIAM ELFORD THOMAS, Brooklyn, N. Y. Filed June 23, 1917. Serial No. 176,536. (Cl. 74—54.)

1. In a variable speed transmission mechanism, a shaft, a series of gears fixed on said shaft, a second series of gears driven each one individually by a gear in the first series, a second shaft, a series of ratchet wheels fixed on said second shaft, a crank pin on each said second gears arranged in equal angular distances apart around the common axis of said gears, a lever for each of said crank pins, said levers being arranged to rock in overlapping succession, a pawl on each of said levers for imparting once during each rocking movement, a stepping movement to a corresponding ratchet wheel, and means for adjusting simultaneously the radial distance of said pins from the common axis of said second gears to change the speed of said ratchet wheels in relation to that of the second gears.



[Claims 2 to 4 not printed in the Gazette.]

1,254,744. SILAGE-COVER. WILLIAM H. TINDALL, Barker Creek, and JOHN E. VAN DAM, Traverse City, Mich. Filed Oct. 11, 1916. Serial No. 125,089. (Cl. 217—86.)



1. In a silage cover, a sectional frame adapted to be placed within a silo, and a fabric secured to each of said sections and the various fabrics being adapted to meet.

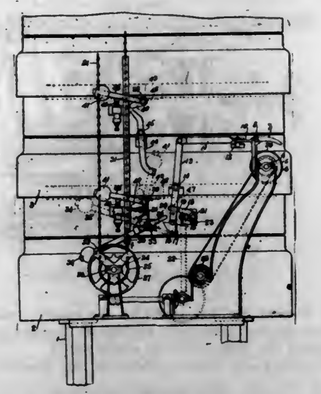
3. In a silage cover, a ring adapted for insertion in the silo, a frame arranged in said silo and adapted to move inwardly and outwardly thereof, and means on said ring for supporting said frame.

7. In a silage cover, a ring, brackets carried by said ring, an expansible cover, the said cover including a plurality of arcuate rim sections, the said sections being adapted to rest in said brackets, and means for moving said ring within said silo.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,254,745. GATE-CONTROLLING DEVICE FOR COOKERS. RUSSELL A. TRACE, Dayton, Ohio, assignor to Buckeye Iron and Brass Works, Dayton, Ohio, a Corporation of Ohio. Filed Apr. 19, 1917. Serial No. 163,164. (Cl. 87—6.)

2. In a cooker, the combination, with a plurality of receptacles adapted to discharge material from the preceding receptacle into the succeeding receptacle, and means for stopping the discharge of material, of mechanism for operating said stopping means, means for stopping said operating mechanism so arranged that said operating mechanism will continue in operation until the material in the last receptacle has reached a predetermined height.



4. In a cooker, the combination, with a plurality of receptacles adapted to discharge material in succession from the first to the last receptacle, and devices for stopping the discharge of said material, of means for operating said devices, means for connecting power to said operating means and disconnecting it therefrom, said connecting and disconnecting means being so arranged that the power will be disconnected from said operating means after the discharge from the first receptacle has been stopped and being arranged to connect the power to said operating means if the material in the last receptacle has not reached a predetermined height, and locking mechanism for locking said operating means against further operation when the material in the last receptacle reaches said predetermined height and until the material falls below said height.

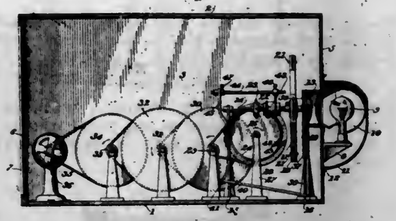
11. In a cooker, the combination, with a plurality of receptacles, each upper receptacle having a discharge opening leading to the next lower receptacle, gates to control the respective discharge openings and actuating devices for imparting movement to said gates, a controlling device comprising a flexible member supported adjacent to said cooker, means for imparting lengthwise movement to said flexible member, a tripping block carried by said flexible member, a blade pivoted in the lowest receptacle resting upon the surface of the material therein, adapted to unlock a means to shift a power belt into operative position to operate said flexible member when the material in said lowest receptacle falls below a predetermined level, means actuated by said tripping block to shift said power belt into inoperative position, and means to lock said power belt shifting device in inoperative position.

14. In a cooker, the combination, with a plurality of receptacles, each upper receptacle having a discharge opening leading to the next lower receptacle, gates to control the respective discharge openings, actuating devices for imparting movement to said gates, a controlling device comprising a vertically movable member, a part carried by said member to successively engage the actuating device for each of said gates to open that gate, a blade resting upon the surface of the material in the lowest receptacle adapted to unlock a power belt shifting device and to permit said power belt to operate said controlling device, means operable by said controlling device to reshift said belt shifting device to place the belt in inoperative position to stop said controlling device irrespective of the level of the material in the lowest receptacle, and means to lock said belt shifting device in inoperative position.

18. In a cooker, the combination, with a plurality of receptacles, and means permitting the gravity discharge of material in each receptacle to the next in succession, devices, controlled by the level of the material in the lowest receptacle, for controlling the operation of said means, said devices constantly tending to cause operation of said discharge means, and being restrained from causing such operation when the material in said lowest receptacle is at a predetermined level.

[Claims 1, 3, 5 to 10, 12, 13, and 15 to 17 not printed in the Gazette.]

1,254,746. CHANGEABLE EXHIBITOR FOR CARDS, PICTURES, SIGNS, AND THE LIKE. HARRY J. TROXELL, Gettysburg, Pa. Filed Aug. 20, 1917. Serial No. 187,179. (Cl. 88—27.)



1. In a changeable exhibitor, a casing provided with a screen at one end thereof, a projecting apparatus at the other end thereof, a rotatable disk provided with a plurality of slides interposed in said projecting apparatus, a pin-wheel mounted to turn with said disk, and a grooved cam coöperating with said pin-wheel for imparting intermittent rotary motion thereto and to said disk.

2. In a changeable exhibitor, a light-proof casing provided with a screen, a condensing lens, a projecting lens, a rotatable slide-carrier interposed between said lenses, a source of light for said lenses whereby the views on said slides are projected upon the screen, a constantly actuated grooved cam coacting with a pin-wheel for imparting intermittent rotation to said slide carrier, and a shutter operable during the rotation of said slide carrier for obstructing the passage of light.

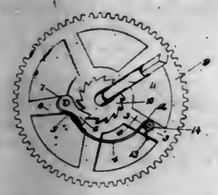
3. In a changeable exhibitor, a screen, a projecting apparatus, a rotatable slide carrying disk interposed in said projecting apparatus, a cam and pin-wheel mechanism for imparting intermittent rotary motion to said disk, constantly actuated transmission mechanism connected with said cam for imparting constant rotary motion thereto, a source of light for said projecting apparatus, a shutter slidably mounted between said source of light and said disk, and means operated by said cam for interposing said shutter between said light and disk when said disk rotates.

4. In a changeable exhibitor, a projecting apparatus comprising a stationary condensing lens, an adjustable projecting lens and an intermittently-rotated slide-carrying disk interposed between said lenses, a number of slide holders arranged radially of said disk and adapted by rotation to be brought into focus between said lenses, a shaft on which said disk is mounted, a pin-wheel on said shaft having pins of a number to correspond with the number of slides of said disk, a cam adapted to engage said pins to impart step-by-step rotation to said disk whereby at each step a slide is brought into focus between said lenses, a shutter mounted to slide between said condensing lens and disk during the rotation of the disk, a cam and lever mechanism so timed as to impart motion to said shutter in proper relation to the rotation of said disk, and means for supplying power to said moving parts.

1,254,747. WIRE CLICK-SPRING AND FASTENING-RIVET THEREFOR. FREDERICK WEHINGER, Waterbury, Conn., assignor to Waterbury Clock Co., Waterbury, Conn., a Corporation. Filed Sept. 6, 1917. Serial No. 189,986. (Cl. 74—16.)

The combination with a wire click-spring adapted at its free end to be engaged with a click and formed at its

opposite end with a fastening-loop the free end of which is bent at an angle to form a retaining-end; of a rivet



passing through the said loop and having an undercut grooved head adapted to grip the loop for the purpose of holding the spring in place.

1,254,748. SPRAY-NOZZLE. GEORGE A. WEIDLICH, Battle Creek, Mich., assignor to A-B Stove Company, Battle Creek, Mich. Filed Mar. 14, 1917. Serial No. 154,834. (Cl. 137—17.)



1. In a spray nozzle, the combination of a body member provided with a head having a flat face with a centrally disposed discharge orifice and an eccentrically disposed discharge orifice, said body having a passage therethrough terminating in an enlarged head chamber, said head chamber having an annular rib providing a constriction spaced from the end thereof, a tip threaded for adjustment upon said head and having a flat face coöperating with the flat face of said head and provided with an outwardly expanded discharge orifice disposed eccentrically and adapted to register with the eccentrically disposed discharge orifice of said head when the tip is in one position, and coacting stops on said head and tip limiting the rotating movement of said tip, for the purpose specified.

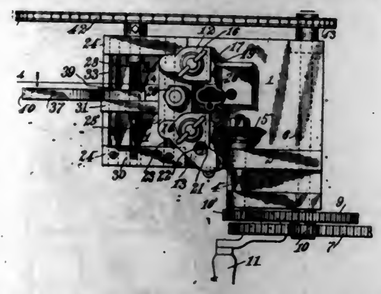
2. In a spray nozzle, the combination of a body member provided with a head having a flat face with a centrally disposed discharge orifice and an eccentrically disposed discharge orifice, a tip threaded for adjustment upon said head and having a flat face coöperating with the flat face of said head and provided with a discharge orifice disposed eccentrically and adapted to register with the eccentrically disposed discharge orifice of said head when the tip is in one position, for the purpose specified.

3. In a spray nozzle, the combination of a body member provided with a centrally disposed discharge orifice and an eccentrically disposed discharge orifice, and a tip threaded for adjustment upon said head and having a discharge orifice disposed eccentrically, for the purpose specified.

4. In a nozzle, the combination of a body member provided with a flat discharge face having a central discharge orifice, and a second discharge orifice disposed at one side thereof, and a cap mounted on said body for rotative and axial adjustment and provided with a discharge orifice disposed at one side of its center and adapted to be brought into register with the second discharge orifice of said body member.

1,254,749. KEY-CUTTING MACHINE. NELSON D. WELLS, Dayton, Ohio. Filed July 21, 1917. Serial No. 181,970. (Cl. 90—13.)

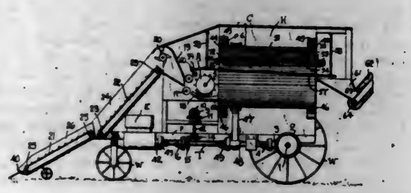
1. In a machine of the character specified, a carriage having clamps thereon for holding a key blank and a pattern key, a rotary cutter engaging said key blank, a slide fixed to said carriage, transverse shafts supporting said slide and serving as guides therefor in the movement thereof, one of said shafts forming a pivot upon which the carriage may be swung from or toward the cutter, a screw-shaft, threaded jaws attached to said slide and engaging said screw-shaft whereby the carriage is actu-



ated to feed the key blank to the cutter, said threaded jaws being provided with extensions forming handles for releasing the jaws from the screw-shaft.

[Claims 2 and 3 not printed in the Gazette.]

1,254,750. THRESHING-MACHINE. BENNO WIELER, Laird, Saskatchewan, Canada. Filed Sept. 28, 1916. Serial No. 122,675. (Cl. 130—21.)

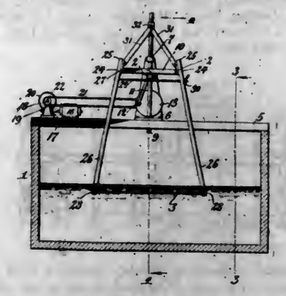


1. A grain separator including a cylindrical tubular body open at opposite ends and mounted for rotary movement about substantially a horizontal axis, means for rotating the same, a table disposed through the cylindrical body and supported independently thereof, said table within the cylindrical body being provided with an opening adjacent the receiving end of said cylindrical body, an endless conveyer supported by the table and extending through the opening of the table, the upper stretch of said conveyer traveling in a direction toward the opening in the table, a screen disposed through the cylindrical body below the table, and means for delivering grain within the cylindrical tubular body at the receiving end thereof and below the screen.

2. A grain separator including a cylindrical tubular body open at opposite ends and mounted for rotary movement about substantially a horizontal axis, means for rotating the same, a table disposed through the cylindrical body and supported independently thereof, said table within the cylindrical body being provided with an opening adjacent the receiving end of said cylindrical body, an endless conveyer supported by the table and extending through the opening of the table, the upper stretch of said conveyer traveling in a direction toward the opening in the table, a screen disposed through the cylindrical body below the table, said screen being supported independently of the cylindrical body, means for vibrating said screen, and means for delivering grain within the cylindrical tubular body at the receiving end thereof and below the screen.

1,254,751. ETCHING-MACHINE. CHARLES N. WENDELGASS, Buffalo, N. Y. Filed Jan. 13, 1916. Serial No. 71,853. (Cl. 41—9.)

1. A plate etching machine, comprising a treating tank adapted to contain an etching-solution, a vertically-reciprocating member, a cross head secured to said reciprocating member, a plurality of depending supporting arms pivoted to said cross head, and means for moving said arms toward each other for causing the same to engage opposite edges of said plate.



2. A plate etching meachine, comprising a tank adapted to contain an etching-solution, a vertically-reciprocating slide, two levers pivoted on said slide and having arms movable vertically in said solution and adapted to support a plate to be etched, and means for compelling said arms to move in unison toward and from each other.

3. A plate etching machine, comprising a tank adapted to contain an etching-solution, a vertically-reciprocating slide, two levers pivoted on said slide and each having a lower arm and an upper arm, the lower arms of both levers being adapted to receive the plate to be etched between them, a sleeve movable vertically on said slide between said levers, and links connecting said sleeve with the arms of said levers.

4. A plate etching machine, comprising a tank adapted to contain an etching solution, a vertically reciprocating slide, two levers pivoted on said slide and each having a lower arm and an upper arm, the lower arms of both levers being adapted to receive the plate to be etched between them, a sleeve movable vertically on said slide between said levers, links connecting said sleeve with the arms of said levers, and means for pressing the lower arms of said levers against opposite edges of said plate.

5. A plate etching machine, comprising a tank adapted to contain an etching-solution, a vertically-reciprocating slide, two levers pivoted on said slide and each having a lower arm and an upper arm, the lower arms of both levers being adapted to receive the plate to be etched between them, a sleeve movable vertically on said slide between said levers, links connecting said sleeve with the arms of said levers, and a clamping bolt connecting said levers and operating to press the lower arms thereof against opposite edges of said plate.

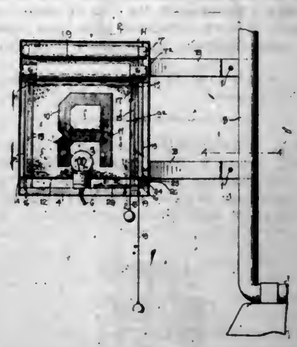
[Claim 6 not printed in the Gazette.]

1,254,752. SIGNAL. LOUIS F. WESCHE, Webb, Iowa. Filed June 23, 1917. Serial No. 176,612. (Cl. 40—85.)

1. A signal comprising a housing provided with visual openings in opposite walls thereof, a pair of transversely disposed rollers positioned within the housing, one of said rollers automatically rotating in one direction, a pair of webs secured to the automatically rotating roller, one of said webs being disposed over the second roller, means co-acting with the webs for extending the same over the visual openings, and releasable means for locking said webs against the action of the automatically rotating roller.

2. A signal comprising a housing provided with visual openings in opposite walls thereof, a pair of transversely disposed rollers positioned within the housing, one of said rollers automatically rotating in one direction, a pair of webs secured to the automatically rotating roller, one of said webs being disposed over the second roller, means co-acting with the webs for extending the same over the visual openings, releasable means for locking said webs against the action of the automatically rotating roller, and means extending exteriorly of the housing for rendering said releasable means inoperative.

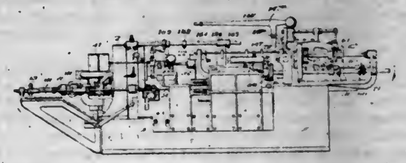
3. A signal comprising a housing provided with visual openings in opposite walls thereof, a pair of transversely disposed rollers positioned within the housing, one of said rollers automatically rotating in one direction, a pair of webs secured to the automatically rotating roller,



one of said webs being disposed over the second roller, means co-acting with the webs for extending the same over the visual openings, releasable means for locking said webs against the action of the automatically rotating roller, and guide members positioned within the housing and co-acting with the free end portions of the webs.

[Claims 4 to 6 not printed in the Gazette.]

1,254,753. MACHINE FOR MANUFACTURING TWIST-DRILLS AND OTHER ARTICLES. CHARLES H. WHIPPLE, Walkerville, Ontario, Canada, assignor to A. D. Wilt, Jr., Detroit, Mich. Filed Apr. 23, 1914. Serial No. 833,832. (Cl. 29—38.)



5. In a machine of the kind described, the combination with a tool holder and a reciprocating blank carrier, a shaft on which the blank carrier is mounted and by the rotation of which the blanks are turned, means for rotating the shaft at a predetermined speed, a spiral groove in said shaft, and a fixed stop engaging therewith, whereby a varying movement of rotation of desired character, according to the shape of said groove, may be imparted to the shaft.

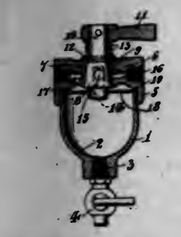
10. In a machine of the kind described, the combination with a stationary tool holder, of a reciprocating blank carrier, means for adjusting the position of the cutting tools operated by a cam on the reciprocating blank carrier shaft, a means for returning the said means to normal position after each movement of the said shaft secured to the shaft by means of a spring so as to form a yielding connection therewith.

16. In a machine of the kind described, the combination with a tool holder and a blank carrier movable with respect thereto, of relief cutters carried by the holder, movable supports therefor, means for individually adjusting each of said cutters angularly with respect to the blank, and a part movable by the blank holder for forcing said supports apart at a given point in the travel of the blank carrier.

22. In a machine of the class described, the combination of fixed tool carrier, relatively stationary heads rotatably mounted upon said tool carrier, clearance cutters provided with shafts rotatably mounted in said rotating heads, means for individually adjusting each of said rotating heads to determine the character of cut, means for moving the cutters axially of their shafts toward and from the blank, and means for rotating each of said cutters comprising a power-shaft the axis of which coincides with the axis of each rotatable head, and means for operatively connecting the cutter shaft with the power shaft.

[Claims 1 to 4, 6 to 9, 11 to 15, 17 to 21, and 23 not printed in the Gazette.]

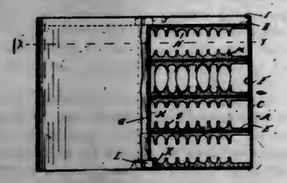
1,254,754. COMBINED TRAP AND GASOLENE-STRAINER. JOHN V. WHITBECK, Cleveland, Ohio, assignor to The Chandler Motor Car Company, Cleveland, Ohio, a Corporation of Ohio. Filed May 2, 1914. Serial No. 835,807. (Cl. 137—7.)



1. In a device of the class described, a cap having a recess on one side, a valve engaging member fitted in said recess, said cap having an opening extending therethrough, the inner portion of said opening being frusto-conical with the lower end adjacent the recess, a cone plug valve fitted in the frusto-conical portion of said opening, said plug having a reduced extension rotatably mounted in said valve engaging member, and having a passageway extending through said extension, said cap provided with a passageway designed to open from said passageway through the valve.

2. In a device of the class described, a cap having a recess on one side, a valve engaging member fitted in said recess, said cap having an opening extending therethrough, the inner portion of said opening being frusto-conical with the lower end adjacent the recess, a cone plug valve fitted in the frusto-conical portion of said opening, said plug having a reduced extension rotatably mounted in said valve engaging member, and having a passageway extending through said extension, said cap provided with a passageway designed to open from said passageway through the valve, said valve provided with a stem extending exteriorly of the cap and a notched lock washer adapted to hold the valve in its set position.

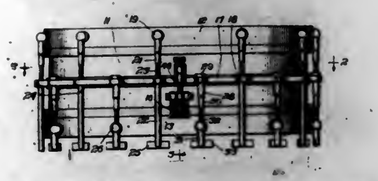
1,254,755. PACKAGE. EUGENE W. WILSON, Springfield, Ill. Filed June 7, 1915. Serial No. 32,509. (Cl. 217—26.5.)



2. In a package, a tray comprising a sheet-metal member formed with a peripheral flange, and a layer of rubber upon each face of said sheet formed with a plurality of article receiving sockets.

[Claim 1 not printed in the Gazette.]

1,254,756. DRUM. TOM WILSON, Chicago, Ill., assignor to Wilson-Jacobs Drum Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 5, 1913. Serial No. 804,896. (Cl. 84—10.)

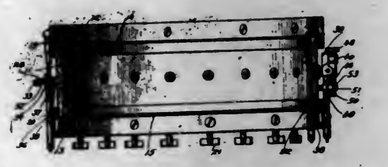


1. In a drum, a shell, a member fixed on said shell, a pair of hoops, and two independent sets of adjusting mechanism for adjusting said hoops independently of each other relatively to said shell, said sets of mechanism each being connected to one of said hoops and to said member fixed on said shell.

10. In a drum, a shell, a member fixed on said shell, a pair of hoops, and two independent sets of adjusting mechanism for adjusting said hoops relatively to said shell, said sets of mechanism each being connected to one of said hoops and to said member fixed on said shell, each of said sets of mechanism comprising a plurality of adjustable devices distributed around the periphery of said shell and having operating members located adjacent one head of said drum, the adjustable devices of one set of mechanism being located to alternate with the adjustable devices of the other set of mechanism.

[Claims 2 to 9 not printed in the Gazette.]

1,254,757. DRUM. TOM WILSON, Chicago, Ill., assignor to Wilson-Jacobs Drum Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Original application filed Dec. 5, 1913, Serial No. 804,896. Divided and this application filed Mar. 23, 1914. Serial No. 826,800. (Cl. 84—127.)



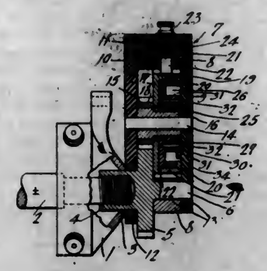
1. In a snare drum, a series of screws mounted on one side of the drum, internally screw-threaded blocks on said screws, and snares connected to said blocks, whereby the snares can be separately strained.

9. In a snare drum, a channel-shaped clip attached to one side of the drum, a link pivoted on said clip between the opposite flanges thereof, a bearing member pivotally connected to the opposite end of said link and extending outwardly therefrom, a stem rotatably mounted in said bearing member and having an enlarged head, the end of said stem opposite said head being threaded, and a clamping member attached to the snares of said drum and threadedly engaged by said stem.

[Claims 2 to 8 not printed in the Gazette.]

1,254,758. MECHANICAL RECTIFIER. ARTHUR WILLIAM WINTERBORNE, San Antonio, Tex. Filed June 24, 1916. Serial No. 105,678. (Cl. 175—364.)

1. A mechanical rectifier comprising a frame embodying a ring and strips at opposite sides thereof, a gear mounted for rotation between said strips centrally of the ring, rectifier rings rotatable with said gear within the first mentioned ring and having alternately arranged segments, brushes carried by the first mentioned ring engageable with said segments, and a second gear meshing with the first mentioned gear and disposed between one strip and the first mentioned ring, the second mentioned gear having a portion extending through said strip for attachment with a driving element.



2. A mechanical rectifier comprising a frame embodying a ring and front and rear strips extending across the faces thereof, an axle engaged with said strips centrally of the ring, a gear having a hub rotatable upon the axle and projecting forwardly from said gear, said gear being arranged adjacent the rear strip, a second gear meshing with the aforesaid gear and disposed between the rear strip and ring, the second gear having a pintle extending within said ring and a socketed hub extending through the rear strip for attachment to a driving shaft, a pair of rectifier rings carried by the hub of the first mentioned gear within the frame ring and having alternately arranged segments, and brushes carried by the frame ring and engageable with said segments.

3. A rectifier embodying a rotatable member, a rectifier ring mounted thereon and having segments projecting therefrom, a second rectifier ring rotatable with said member and having segments projecting between and insulated from the aforesaid segments, brushes engageable with said segments, an insulating ring disposed between said rotatable member and segments, said insulating ring having an annular recess, a metallic ring carried by the insulating ring within said recess and second mentioned rectifier ring, a brush engageable with the metallic ring, and a centrifugal circuit breaker for connecting and disconnecting the metallic ring and second mentioned rectifier ring.

4. A rectifier embodying a frame, an axle carried thereby, a gear mounted upon the axle and having a hub projecting therefrom, a flat rectifier ring mounted upon said hub and secured to said gear, said ring having segments projecting from its marginal portion, a second rectifier ring having segments projecting between and insulated from the aforesaid segments, brushes carried by the frame engageable with said segments, an insulating ring of U-shaped section fitting between said hub and segments and having its back resting against the first mentioned rectifier ring, a metallic ring fitted upon the central portion of the insulating ring and having arcuate slots, and arcuate centrifugal arms pivoted to the last mentioned ring in said slots and swingable outwardly by centrifugal action, said arms having contacts to engage the second mentioned rectifier ring.

1,254,759. HOSE-SUPPORTER. CHARLES C. ZABRISKIE, Detroit, Mich. Filed July 5, 1917. Serial No. 178,504. (Cl. 241—6.)

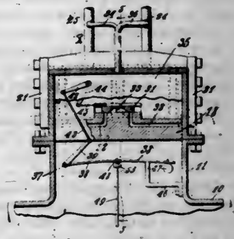
1. A hose-supporter comprising a band for partially encircling the leg, loops at the ends of said band each having one side substantially perpendicular to the longitudinal dimension of the band and another side at an oblique angle thereto, and a strip forming a complementary portion of said band with end portions passing freely about the oblique sides of said loops and obliquely crossing each other, the lower ends of said obliquely-crossing portions being provided with fasteners for engaging the hose.



2. A hose-supporter comprising a band for partially encircling the leg, loops at the opposite ends of said band each having one side substantially perpendicular to the longitudinal axis thereof and another side in oblique relation thereto, a flat strip forming a complementary portion of said band having end portions passing freely around the oblique sides of said loops and crossing each other, means for holding said portions in crossed relation to each other, and fasteners at the lower ends thereof for engaging the hose.

[Claims 3 to 5 not printed in the Gazette.]

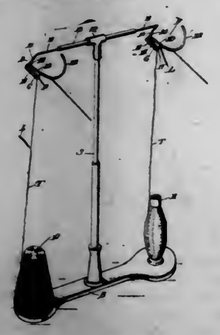
1,254,760. LIQUID-ELEVATOR. ANDREW A. ATKINS, Mineral, Va. Filed Aug. 9, 1916. Serial No. 114,066. (Cl. 103—8.)



1. In a device of the class described, the combination with a source of fluid supply, a piston for controlling said supply, a valve for operating said piston, a shaft, a connection between the shaft and said valve whereby the latter will be moved upon rocking movement of the former, a rod secured to said shaft, a second rod pivoted to the end of the first mentioned rod, a fulcrum for the outer end of the second rod, a weight on said second rod beyond said fulcrum, a slide rod connected to the pivot of said first and second mentioned rods, stops on said slide rod, and a float slidably mounted on said slide rod, substantially as described.

2. In combination, a tank having inlet and exhaust pipes with check valves therein, a source of fluid supply, an outlet in the upper end of said tank, a piston for controlling said fluid supply and said outlet, a valve for operating said piston, a rock shaft for operating said valve, a pair of rods pivoted together at their ends, a connection between one of said rods and said rock shaft, the other of said rods being fulcrumed inwardly from its ends, a weight on the outer end of the said last mentioned rod, a vertically disposed rod connected at one end to said connected rods and depending therefrom into said tank, a float slidably mounted on said vertical rod, and stops on the upper and lower ends of said rod, substantially as described.

1,254,761. GUIDE AND TENSION DEVICE FOR REMOVING SNARLS, KINKS, &c., FROM YARN OR THREAD. SILAS E. BAILEY, Elmira Heights, N. Y., assignor to Elmira Knitting Mills, Elmira, N. Y., a Corporation of New York. Filed Mar. 23, 1917. Serial No. 157,010. (Cl. 242—157.)



1. A guide and tension device for removing snarls, kinks, etc., from yarn or thread, said device comprising a guide eye or loop open at its upper end whereby the yarn or thread may be inserted therein by a movement in a direction transverse of its length, and a tension member connected to said guide loop and extending beyond the closed end thereof, said tension member having an upwardly extending portion to prevent the escape of the thread or yarn as it runs around and is drawn from the tension member.

3. A combined guide and tension device for removing snarls, kinks, etc., from yarn or thread, said device comprising a single piece of stiff wire circular in cross section having a part doubled upon itself to form a deep guide eye or loop closed at the lower end and open at its upper end whereby said eye may be readily threaded, said wire also having a hook shape tension member formed therein and consisting of a downwardly curved shank portion joined at its upper end to the upper end of one side of said guide eye, the free end of said tension member being curved upwardly and forming a continuation of the downwardly curved shank so as to prevent the escape of the thread or yarn from the tension member as it runs around and is pulled through the device.

5. The combination with a base, of a standard mounted on said base, and a plurality of combined guide and tension devices carried by said standard, each of said devices comprising a guide eye or loop open at its upper end whereby said eye may be readily threaded and a tension member connected to the guide eye or loop and extending beyond the closed end thereof against which the thread or yarn bears in passing through the guide eye or loop, said tension member having an upwardly extending portion to prevent the escape of the thread or yarn as it runs around and is drawn from the tension member.

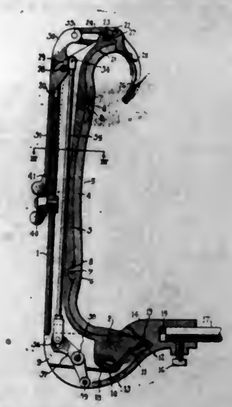
[Claims 2 and 4 not printed in the Gazette.]

1,254,762. BOW-REST FOR VEHICLES. GEORGE I. BAIL, Detroit, Mich. Filed Feb. 10, 1917. Serial No. 147,808. (Cl. 21—61.)

1. A bow rest comprising a socket member, an arm carried thereby and adapted to be swung outwardly, a pivoted closure member carried by the upper end of said arm, and means carried by said arm and connected to said closure member adapted for holding said arm rigid relative to said socket member and said closure member in a closed position.

2. A bow rest comprising a socket member, a movable arm carried thereby, a pivoted closure member carried by said arm, means carried by said arm for simultaneously fixing said arm relative to said socket member and said closure member relative to said arm.

3. A bow rest comprising a socket member, an arm carried thereby and having a foot portion for engagement with said socket member to maintain said arm rigid relative thereto, and means carried by said arm and connected to said socket member and adapted for shifting said arm to release the toe portion thereof relative to said socket member.

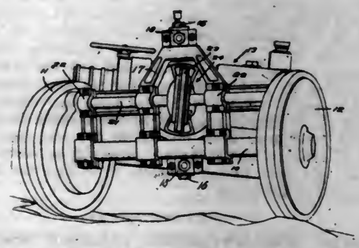


6. A bow rest comprising a socket member having a rib, an arm loosely connected to said socket member adapted to engage superposed bows and having a toe portion adapted to engage the rib of said socket member to maintain said arm rigid relatively thereto, means at the upper end of said arm adapted to engage the uppermost bow, and means coöperating with said upper bow engaging means and with said toe and rib in maintaining said arm rigid.

9. A bow rest comprising a socket member, a hollow arm loosely connected thereto and having a toe portion extending into said socket member and adapted to maintain said arm rigid relative thereto, a pivoted closure member carried by the upper end of said arm, a lever connected to said arm, and adapted for moving said closure member relative to said arm, and means extending through said arm and articulating said lever relative to said socket member so that said arm may be shifted relative to said socket member.

[Claims 4, 5, 7, 8, and 10 not printed in the Gazette.]

1,254,763. UNIVERSAL DRIVING-JOINT FOR TRACTORS, &c. JOHN P. BARKER, Glendale, Cal., assignor, by mesne assignments, to Homer Motors Company, Los Angeles, Cal., a Corporation of Arizona. Filed Nov. 28, 1916. Serial No. 133,973. (Cl. 180—42.)



1. A dirigible power driven vehicle axle, comprising a non-rotatable axle member, traction wheels rotatably mounted upon the ends of said member, a jack-shaft housing superimposed upon said axle member, a jack-shaft rotatably mounted within said housing and adapted to drive the traction wheels, a vertically extending pivot pin

mounted upon said jack-shaft housing mid-way its length and adapted to be engaged by a frame bracket thereby providing the axle member with horizontal movement, means whereby said frame bracket may be secured to a vehicle frame in a manner to provide the axle member with vertical swinging movement, a universal driving member secured to said jack-shaft and disposed upon the line of coincidence of the vertical and horizontal axes of the axle member, a driving sprocket mounted upon said universal driving member and adapted to impart movement of rotation thereto, and means whereby the driving sprocket will be maintained in a vertically alined position irrespective of the angular disposition of the jack-shaft in relation thereto.

2. In a power transmission for the steering wheels of a vehicle, a jack-shaft and axle housing, an axle rigidly mounted in the housing, traction wheels rotatably mounted upon the ends of the axle, a jack-shaft rotatably mounted in the housing parallel with the axle, means connecting the ends of the jack-shaft to the traction wheels for driving the traction wheels, pivot pins extending upwardly and downwardly from the housing, a frame bracket in which the pivot pins operate, a frame secured to the frame bracket; the bracket being adapted to rotate relative to the frame, thereby providing the housing with horizontal movement upon the pivot pins and with vertical swinging movement upon the connection between the bracket and the frame; a universal driving member secured to the jack-shaft and disposed upon the line of coincidence of the vertical and horizontal axes of the axle, a driving sprocket mounted upon said universal driving member and adapted to impart movement of rotation thereto, and means whereby the driving sprocket will be maintained in a vertically alined position irrespective of the angular disposition of the jack-shaft in relation thereto.

3. In a power transmission for the steering wheels of a motor vehicle, a jack-shaft an axle housing, an axle mounted in the housing, wheels upon the ends of the axle, a jack-shaft mounted in the housing, connections between the jack-shaft and the wheels for driving the wheels, a frame bracket embracing the housing and pivotally connected thereto, a main frame to which the frame bracket is rotatably connected upon a longitudinal axis; so that the housing may swing horizontally to steer the vehicle and may vibrate vertically due to the unevenness of the road; and a universal driving gear for the jack-shaft.

4. In a power transmission for the steering wheels of a motor vehicle, a jack-shaft and axle housing, n jack-shaft rotatably mounted in the housing, a transmission sprocket, and outer universal joint ring fixed within the sprocket, an inner universal joint ring within the outer ring, a center block within the inner universal joint ring and fixed upon the jack-shaft, diametrically opposed pivot pins connecting center block to the inner ring, diametrically opposed pivot pins connecting the inner ring to the outer ring and arranged at right angles to the first pins, and a stabilizer block having a groove to receive the sprocket teeth and engaging the sides of the sprocket, said stabilizer block having a stud rigidly mounted.

1,254,764. METHOD OF DELINEATING OR REPRODUCING PICTURES AND DESIGNS. ROY C. BECK, EDWARD A. OWENS, and JACOB H. STEINMAN, San Francisco, Cal., assignors to Selectasine System, San Francisco, Cal., a Corporation of California. Filed Dec. 1, 1915. Serial No. 64,441. (Cl. 101—115.)



1. A method of producing multi-colored pictures or designs which comprises successively forcing a plurality of colors through a single screen which is partly blocked out after each color run in such a way that at least a part of a succeeding color will extend over part of a preceding color.

2. A method of reproducing multi-colored pictures from a master pattern, which comprehends the application on a suitably colored background of a card or other surface to be treated, successive colors making up the picture to be copied through the medium of a screen by tracing on the screen the area or areas on the master pattern corresponding to the color of the aforesaid background, blocking said area or areas, laying the screen upon the said surface to be treated, applying a coloring medium through the open meshes of the screen by squeegee action, washing out the paint from the screen without affecting the previously blocked areas, re-tracing on the screen from the master pattern the colored areas in the master pattern corresponding to the color just run, blocking out on the screen these traced areas, applying a succeeding color and repeating the cycle of operations until all the colors in the master pattern have been reproduced upon the said surface to be treated.

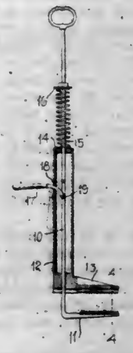
4. A method of producing multi-colored pictures or designs which comprises successively forcing a plurality of colors through a single partly blocked out screen which is differently reblocked after each color run in such a way that at least part of a succeeding color will extend over part of a preceding color.

7. A method of producing multi-colored pictures or designs which comprises successively forcing a plurality of colors through a single screen which is partly blocked out after each color run in such a way that a succeeding color will be superposed upon superposed preceding colors.

10. A method of reproducing multicolored pictures which comprehends the application of successive colors making up the picture to be reproduced upon a surface to be treated, through the medium of a tightly stretched screen maintained in close contact with the surface to be treated while a particular color is being applied by means of a squeegee, each color being applied through a partly different portion of the screen from that through which any other color is applied, and blocking out on the screen each successive color area after the preceding color has been applied through the screen so as to render a part of the previously permeable portion of the screen impermeable to the succeeding color runs.

[Claims 3, 5, 6, 8, and 9 not printed in the Gazette.]

1,254,765. FIRE-POKER AND CLINKER-PICKER. FRANKLIN BINN, Trenton, N. J. Filed Apr. 4, 1917. Serial No. 159,838. (Cl. 126—321.)

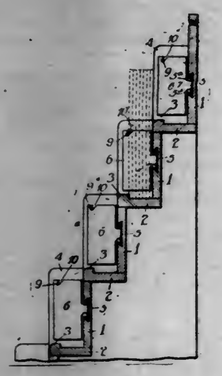


1. An implement of the character described comprising a shank having a jaw, a second jaw slidably mounted on the shank for movement toward and from the coacting jaw, said jaws being angular in cross section and fitting one within the other and being longitudinally tapered.

2. An implement of the character described comprising a shank having an angular jaw at one end, a sleeve slid-

ably mounted on the shank for longitudinal movement and having a jaw coacting with the first named jaw, a handle having a curved portion extending through a slot in the sleeve and pivoted to the shank, and a spring urging the sleeve and shank in opposite directions and the jaws toward each other, a rotative movement of the handle in a position parallel with the sleeve acting to shift the shank and sleeve to a position where the jaws are open.

1,254,766. CASE OR RACK FOR DISPLAYING PAMPHLETS, PRINTED FORMS, AND LIKE MATTER. LEONARD J. BLADES, Jr., Chicago, Ill. Filed Mar. 20, 1915. Serial No. 15,876. (Cl. 40—124.)



1. In a structure of the character described, a horizontal casing section arranged for the reception of articles to be displayed, said section being provided with a retaining groove extending longitudinally along the rear wall thereof, and vertical partitions each provided with a base adapted to make locked engagement restraining sliding movement at any point in said retaining groove when turned from an inclined to a vertical position at right angles to a plane passing vertically through the groove.

5. In a structure of the character described, a section for the reception of articles to be displayed provided with a retaining groove extending longitudinally at the back of said section, vertical partitions each equipped with a base adjustably engaged in said retaining groove, said partitions being formed with a slot adjacent the top front corner of each, and a rod secured to the sides of the section and engaging said slots in the partition.

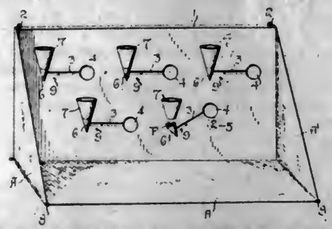
6. In a structure of the character described, a section for the reception of articles to be displayed, vertical partitions adjustably secured in said section, said partitions being each formed with an inclined slot extending downwardly and forwardly from the top edge of the partition at a point near the top front corner thereof, and a rod secured to sides of the section and engaging said slots in the partition.

7. In a structure of the character described, a horizontal casing section arranged for the reception of articles to be displayed, removable vertical partitions horizontally adjustable in said section, and a rod engaging each partition adjacent its top front corner for retaining contained articles within the compartments between the partitions.

8. In a structure of the character described, a casing section provided with a longitudinal retaining groove formed with marginal overhanging flanges, and a partition formed with a base portion arranged to engage along two opposite edges beneath said flanges and also formed with a connecting neck portion, said base being bent along a line parallel with one engaging edge.

[Claims 2 to 4 and 9 not printed in the Gazette.]

1,254,767. GAME APPARATUS. GEORGE J. BOLTON, Sayre, Pa. Filed Apr. 9, 1917. Serial No. 160,775. (Cl 46—59.)

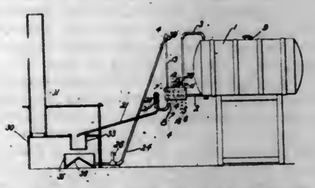


2. A device of the character described comprising an arm mounted for rocking movement, a cup carried by said arm, a projectile adapted to be received within said cup, a tubular member positioned above the cup and with which the cup normally engages, and means for limiting the movement of the portion of the arm provided with the cup away from the tubular member.

5. A device of the character described comprising a board provided with a plurality of value indicia, arms engaged intermediate their length with the board for rocking movement, a disk carried by one end portion of each of the arms and normally overlying the indicia on the board, a cup carried by the opposite end portion of the arm, a tubular member carried by the board above the arm, the cup carried by the arm normally engaging an end of said board, and a stop carried by the board and coacting with the arm for limiting the movement of the cup away from the tubular member.

[Claims 1, 3, and 4 not printed in the Gazette.]

1,254,768. FUEL-FEEDING MEANS. GEORGE W. BOTHWELL, Ontario, Cal. Filed June 5, 1916. Serial No. 101,773. (Cl. 158—40.)



1. The combination of a fuel tank having a fuel outlet, an air supply pipe communicating with the upper portion of said tank for supplying air thereto, a fuel delivery pipe provided with a regulating means, a valve casing provided with a passage communicating with said fuel outlet, with a passage communicating with said air supply pipe, and a passage communicating with said fuel delivery pipe, an air inlet pipe leading upwardly from the upper end of the last named passage and communicating at its upper end with the outer air, the passage which is in communication with said air supply pipe opening into the last named passage at a higher level than the passage communicating with the fuel outlet and a valve in the passage communicating with the fuel outlet.

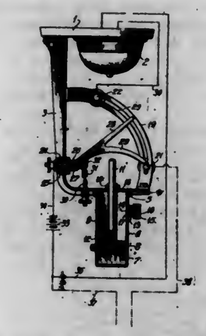
2. The combination of a fuel tank having an outlet, a burner, a fuel delivery pipe connected to said outlet and having a regulating valve, a feed pipe leading from said valve to said burner, an air supply pipe communicating with the upper part of said tank, passage means communicating with said air supply pipe and adapted to be flooded by fuel from said outlet, to maintain definite feed at said regulating valve, an air inlet pipe communicating with said passage means and extending upwardly therefrom, and a pipe extension leading from said air inlet pipe to said burner and adapted to be flooded by fuel at said burner, to cut off the fuel supply on accumulation of fuel at the burner.

3. The combination of a fuel tank having a fuel outlet and an air inlet, a heater, a feed pipe pivotally connected to said fuel outlet and adapted to fold up against said tank or to be turned down to deliver fuel to the heater, an air inlet pipe connected to said air inlet and having an extension pivotally connected thereto and adapted to be extended to connect with the heater and having an air inlet opening adapted to be flooded by fuel at the heater.

4. In combination with a fuel tank, outlet means connected to said tank to receive fuel therefrom, air inlet means connected to the upper portion of the tank, a fuel delivery connection communicating with said fuel outlet means, and provided with regulating means, said air inlet means having a portion communicating with the fuel outlet means so as to be flooded by accumulation of fuel between the tank and the regulating means, and valve means for shutting off both the fuel outlet means and the air inlet means.

5. In combination with a liquid supply tank, liquid outlet means connected to said tank to receive liquid therefrom, an air supply pipe connected to the upper portion of said tank above the level of the liquid in said tank, said air supply pipe having a portion extending above said tank, and a liquid delivery connection communicating with said liquid outlet means and provided with regulating means, an air inlet pipe, and a passage means communicating with said air inlet pipe and with said air supply pipe and having a portion communicating with said liquid outlet means between the tank and the regulating means, so as to be flooded by accumulation of fuel between the tank and the regulating means.

1,254,769. ALARM. CLARENCE A. BRACONIER, Wayne, Mich. Filed June 9, 1917. Serial No. 173,739. (Cl. 200—32.)

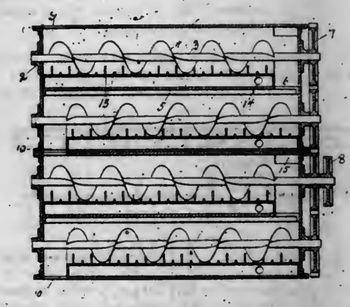


1. In a float operated circuit closer, a hanger, a segment member carried thereby, adjustable contact members carried by said segment member and adapted for open and closed circuits of an alarm, a pivoted bifurcated member carried by said hanger normally in engagement with one of said contact members and adapted to be raised to engage the other contact member, a cylinder carried by said hanger adapted to contain an expansive liquid, a piston in said cylinder adapted to be elevated by the expansive force of said liquid, a plunger actuated by an upward movement of said piston to raise said bifurcated member, a spring interposed between said plunger and said piston, and a relief valve in proximity to the upper end of said cylinder.

[Claim 2 not printed in the Gazette.]

1,254,770. GRAIN-DRIER. FOREST BROMLEY, Decatur, Ill. Filed Mar. 16, 1916. Serial No. 84,511. (Cl. 34—45.)

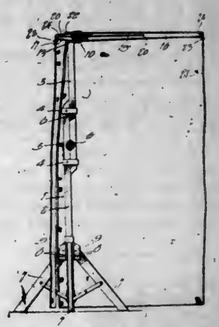
1. An apparatus of the character described, including in combination a casing having inlet and discharge openings, a partition within the casing dividing it into an upper and a lower compartment, said partition terminating short of the end wall so that the compartments intercommunicate, a conveyer in each compartment, each of said compartments having a false bottom formed on a concave to approximate the curve of the conveyer and to provide an air compartment therein, means for supplying air to said air compartments whereby grain is subjected to the action of the air during its passage along the false bottoms.



4. In an apparatus of the character described, a section comprising a casing having an inlet opening in its top and an outlet opening in its bottom in alinement with each other so that a plurality of sections may be superposed one upon the other with the outlet opening of the top section registering with the inlet opening of the adjacent section below and so on, a partition within the casing dividing it into an upper and a lower compartment, said partition terminating short of the end wall so that the compartments intercommunicate, a conveyer in each compartment, each of said compartments having a false bottom formed on a concave to approximate the curve of the conveyer and to provide an air compartment therein, means for supplying air to said air compartments whereby grain is subjected to the action of the air during its passage along the false bottoms.

[Claims 2 and 3 not printed in the Gazette.]

1,254,771. PORTABLE BATH-HOUSE. JOHN L. BROWN, Minneapolis, Minn. Filed Dec. 1, 1916. Serial No. 134,392. (Cl. 135—9.)

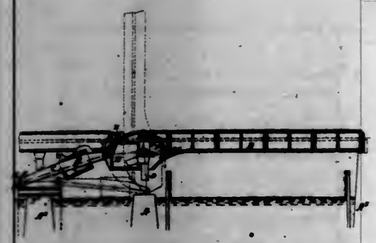


2. A device of the character described comprising a longitudinally adjustable vertically disposed standard having a folding base, a bolt extending through said standard near the top thereof, a substantially U-shaped bracket rotatably mounted on said bolt and adapted to be positioned at one side of said standard, locking means positioned on said standard to hold said bracket in vertical position, a plurality of arms pivoted on said bracket and

adapted to swing to various radial positions when the bracket is horizontally disposed, means for holding said arms in spaced relation when radially disposed and a removable curtain supported on said arms.

[Claims 1 and 3 not printed in the Gazette.]

1,254,772. BASCULE-BRIDGE. THOMAS ELLIS BROWN, Jr. Morristown, N. J. Filed Jan. 31, 1917. Serial No. 145,578. (Cl. 14—36.)



1. In a bascule bridge, a counterweight, a beam supporting said counterweight and connected by a pivot to the rearwardly extended end of said bridge, a roller supporting said beam and a substantially horizontal track supporting said roller.

2. In a bascule bridge, a counterweight, a beam supporting said counterweight and connected by a pivot to said bridge and having its rearward end supported by a track adapted to guide said end of said beam in a substantially horizontal path during the opening and closing of the bridge.

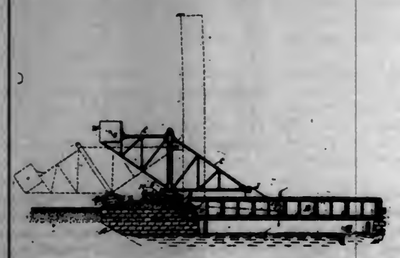
3. In a bridge the combination of a movable span, a counterweight, a beam supporting said counterweight and having one end connected by a pivot to said span, a roller supporting the other end of said beam and a substantially horizontal track supporting said roller.

4. In a bridge the combination of a movable span, a counterweight, a beam supporting said counterweight and having one end directly connected by a pivot to the rearwardly projecting end of said span, a roller supporting the other end of said beam and a track supporting said roller.

5. In a bridge the combination of a movable span, a counterweight, a beam supporting said counterweight and having one end connected by a pivot to said span, a roller supporting the other end of said beam and a track supporting said roller and adapted to cause the theoretical axis as described to move in a horizontal line during the opening and closing of the span.

[Claims 6 to 18 not printed in the Gazette.]

1,254,773. BASCULE-BRIDGE. THOMAS ELLIS BROWN, Jr. Morristown, N. J. Filed Aug. 2, 1917. Serial No. 184,128. (Cl. 14—36.)



1. The combination in a bascule bridge, of a movable span pivotally connected at its heel to a fixed part of the bridge, a counterweight carrying structure pivotally connected to said span, a counterweight on the rearward end of said structure and a central support for said structure adapted to travel backward and forward on a substantially horizontal track, as said span rotates to its open and closed positions.

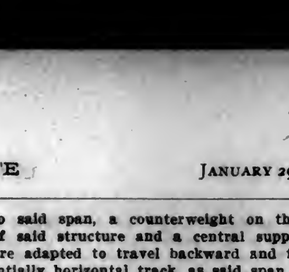
2. The combination in a bascule bridge, of a movable span pivotally connected at its heel to a fixed part of the bridge, a counterweight, a carrying structure for said counterweight pivotally connected to said span, a truck supporting said structure between said counterweight and said span, and adapted to travel backward and forward on a track as said span rotates, said track so shaped that said counterweight balances said span in all its positions.

3. The combination in a bascule bridge of a movable span pivotally connected at its heel to a fixed part of the bridge, a counterweight, a carrying structure for said counterweight pivotally connected to said span, a truck supporting said structure between said counterweight and said span and adapted to travel backward and forward on a substantially horizontal track and means to move said structure backward and forward and rotate said span to its open and closed positions.

4. In a bascule bridge, a movable span rotatably connected at its heel to a fixed part of the bridge structure, a traveling frame pivotally connected to said span and movable therewith, a counterweight carried on the rearward end of said frame, supporting means for said frame between said counterweight and said span, a substantially horizontal track for said supporting means and said track adapted to control the vertical motion of said counterweight to balance said span in all its positions.

[Claims 5 and 6 not printed in the Gazette.]

1,254,774. STARTING MECHANISM FOR COMBUSTION-ENGINES. ALFRED BÜCHI, Winterthur, Switzerland, assignor to Busch-Sulzer Bros.-Diesel Engine Company, St. Louis, Mo., a Corporation of Missouri. Filed Apr. 12, 1912. Serial No. 690,234. (Cl. 123—181.)



1. In apparatus for starting combustion engines by compressed air, the combination with an engine cylinder of a valve for escape of excess pressure therefor and means for admitting compressed air through such valve for starting the engine.

2. In apparatus for starting combustion engines by compressed air, the combination with an engine cylinder, of a loaded valve therefor closing toward the same and provided with communications respectively representing an escape for excess cylinder pressure and an inlet thereto for compressed air, valve mechanism operating to close one of such communications and open the other, and means for suitably controlling the admission of compressed air through said inlet to start the engine therewith.

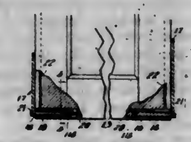
3. In combination with a cylinder of a combustion engine, valve mechanism providing an escape for excess pressure from the cylinder and a compressed air inlet to it, controlling means whereby either of such communications may be closed and the other opened, and engine-driven means for controlling the passage of compressed air through said compressed air inlet for starting the engine.

4. In a combustion engine, valve mechanism controlling passages representing an air inlet to the engine cylinder and an escape for excess pressure therefrom, said mechanism being shiftable to close one passage and open the other, a loaded valve in the escape passage, and a device for shifting said valve mechanism.

5. In a combustion engine, valve mechanism controlling communications respectively representing an escape for excess pressure from the cylinder and an air inlet thereto, and comprising a valve member shiftable between closing and opening positions with respect to said escape passage, and means for operating said member in its escape-closing position to admit compressed air to the cylinder at or about the engine dead center.

[Claims 6 to 26 not printed in the Gazette.]

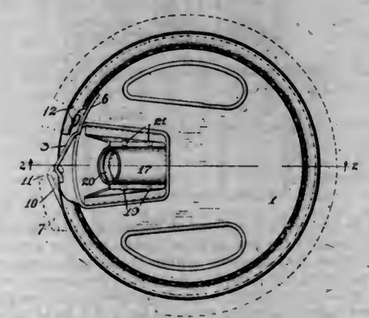
1,254,775. WINDOW CONSTRUCTION. LOUIS M. CARL, Chicago, Ill., assignor of one-half to Elisabeth Carl, Chicago, Ill. Filed Apr. 21, 1913. Serial No. 762,483. (Cl. 20—43.)



1. A window construction comprising a frame having guides for a window sash and adapted to permit a sash mounted therein to be swung inwardly when in lowered position, a sash mounted in said guides, sash cords and weights, hollow sleeves rotatably positioned in said sash near its lower end, the ends of said cord being secured in said sleeves, said sleeves forming pivots about which said sash may move, and pivot-bearing members for engaging said sleeves between the cords and adjacent surfaces of said sash.

[Claims 2 and 3 not printed in the Gazette.]

1,254,776. MOP. CHARLES A. CHANNELL, Chicago, Ill., assignor to Channell Chemical Company, a Corporation of Illinois. Original application filed Sept. 24, 1913, Serial No. 791,519. Divided and this application filed Jan. 19, 1916. Serial No. 72,937. (Cl. 15—13.)

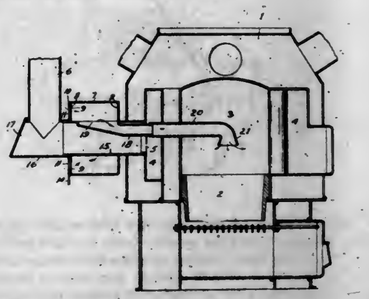


1. In a device of the class described, a mop head, comprising a flat plate provided with a grooved peripheral flange having a plurality of apertures therein, a mop fabric and clamping means engaged in said apertures to hold said mop fabric clamped in position in the groove in said flange.

3. In a device of the class described, a sheet metal mop head stamped to provide a bottom and an outwardly grooved flange extending therearound, said flange having a plurality of apertures therein, a socket cover plate attached on said bottom, a plurality of projecting pointed members on said flange adapted to firmly engage the mop fabric to prevent its displacement, a rod engaged within the mop fabric and in one of said apertures, and a locking member pivotally engaged in the other of said apertures of said flange, and connected to said rod to tighten and lock the rod and the mop fabric into said grooved flange.

[Claim 2 not printed in the Gazette.]

1,254,777. HOT-AIR FEED FOR FURNACES. WILLIAM B. COLEGROVE, Detroit, Mich. Filed Aug. 8, 1917. Serial No. 185,024. (Cl. 126—112.)



1. The combination with a combustion chamber having a smoke pipe communicating therewith, of an air heating drum surrounding said pipe and having an air inlet opening therein, and a hot air feed pipe within said smoke pipe and having its inlet end in communication with said drum laterally through the wall of said smoke pipe and having its outlet end extended through the inlet end of said smoke pipe and terminating in a discharge nozzle within said combustion chamber.

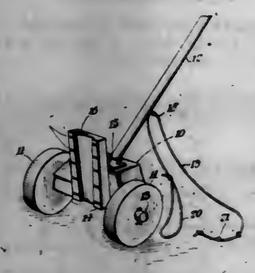
2. The combination with a combustion chamber having a smoke pipe communicating therewith, of an air heating drum concentrically embracing said pipe and having damper controlled air inlet openings in one end thereof, a hot air flue within said smoke pipe and communicating with said drum through a lateral opening in the wall of said pipe, said flue extending at one end through the inlet end of said smoke pipe, and a feed pipe extending from said flue and terminating in a downwardly turned discarge nozzle centrally within said combustion chamber.

3. A hot air feed for a combustion chamber comprising a section of smoke pipe adapted for connection with said chamber, an air heating drum closed at its ends and receiving axially therethrough said smoke pipe, said drum having a circular series of damper controlled air inlet ports in one end thereof, a hot air flue arranged longitudinally within said smoke pipe and in communication laterally through the wall thereof with the interior of said drum and having its outlet end within the inlet end of said smoke pipe, and a feed pipe extension for said flue having a nozzle adapted to discharge into said combustion chamber.

1,254,778. TRUCK FOR TRANSPORTING HEAVY FLOWER-POTS. DAVID COMFORT, Thomasville, Ga. Filed Mar. 17, 1917. Serial No. 155,465. (Cl. 21—65.)

1. A truck of the character described; comprising a body portion, carrying wheels therefor, a handle projecting from the body portion, an upright clamp shoe arranged at the front of the said portion and pivoted thereto at a point above the axis of the wheels, whereby when the truck is moved toward a flower pot the upper portion of the shoe impinges against the inclined wall of the pot and the shoe is bodily tilted to cause its outer face to coincide with the angle of the wall, and a flexible binder on the handle adapted to be passed around the body of the pot.

2. An apparatus of the character described, comprising a body portion, carrying wheels therefor, a handle projecting from the body portion, an upright clamp shoe arranged at the front of said portion and pivoted thereto at a point above the axis of the wheels, whereby when the truck is moved toward a flower pot the upper portion of the shoe impinges against the inclined wall of the pot and the shoe is bodily tilted to cause its outer face to coincide with the angle of the wall, said outer face having a longitudinal channel therein, and a flexible binder on the handle adapted to be passed around the body of the pot.



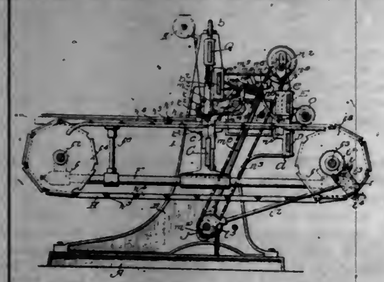
3. An apparatus of the character described, comprising a body portion, carrying wheels therefor, a handle projecting from the body portion, an upright clamp shoe arranged at the front of said portion and pivoted thereto at a point above the axis of the wheels, said shoe having a longitudinally channeled outer face and the side walls of the channel having a series of transverse cuts or kerfs therein, and a flexible binder on the handle.

4. An apparatus of the character described, comprising a body portion, carrying wheels therefor, a handle projecting from the body portion, an upright clamp shoe arranged at the front of said portion and pivoted thereto at a point above the axis of the wheels, said shoe having in its outer face a longitudinal tapering channel, and a flexible binder on the handle.

6. An apparatus of the character described, comprising a body portion, carrying wheels therefor, a handle projecting from the body portion, an upright clamp lever at the front of said portion, a hinge connection between said lever and body portion, the lower member of said lever being heavier than the upper member thereof and being movable from and against the outer side of the body portion and a flexible binder on the handle.

[Claim 5 not printed in the Gazette.]

1,254,779. WIRE-BOUND-CRATE-SIDE MACHINE. EDWARD CRAIG and WILLIAM H. RAY, St. Joseph, Mich. Filed Mar. 20, 1912. Serial No. 684,971. (Cl. 1—14.)



1. A machine for stapling suitably prepared materials together to form blanks for the sides of boxes or crates, comprising an endless traveling work holder for the blank materials, a stapler, a staple wire feed mechanism for said stapler, and means governed by the traveling motion of said work holder for automatically tripping out the said mechanism between blanks, without interrupting the reciprocation of the said stapler, said means including a controller therefor arranged to be engaged by the materials.

7. A machine for stapling suitably prepared materials to form blanks for the sides of boxes or crates, comprising means for moving the work along, means for wiring the blanks, mechanism for cutting the blanks apart, and floating means resting on the moving work for automatically controlling said mechanism.

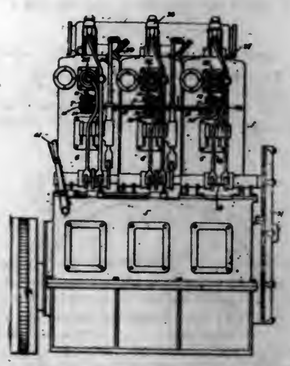
19. A machine for stapling suitably prepared materials to form blanks for the sides of boxes or crates, comprising instrumentalities for successively producing the blanks in connected series, having provisions for making blanks of different lengths, and mechanism for cutting the blanks apart, said mechanism having means for engaging the blanks to properly time the operation of said mechanism.

31. In a machine for making box-blanks, feeding means for driving the material through the machine, stapling means, means including an element supported by the blanks and operated by the box-blank material and serving automatically to intermittently interrupt the action of the stapling means upon said material, and means to form spaces in the material before the stapling thereof.

46. A box-blank machine comprising instrumentalities for feeding materials and inserting fastening devices therein, and means for automatically interrupting the driving of the fastening devices, without stopping the machine, including an element which directly engages the materials and operates by movement thereof into and out of the plane of the traveling blanks to govern the operation of said means, said element being operated a plurality of times for each blank.

[Claims 2 to 6, 8 to 18, 20 to 30, and 32 to 45 not printed in the Gazette.]

1,254,780. RELIEF-VALVE CONTROL FOR DIESEL ENGINES. GREGORY C. DAVISON, New London, Conn., assignor to Electric Boat Company, New York, N. Y., a Corporation of New Jersey. Filed Mar. 15, 1916. Serial No. 84,264. (Cl. 123—182.)

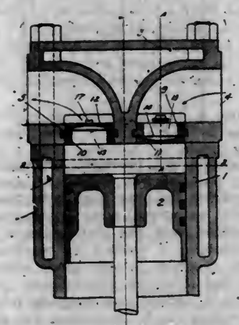


1. In an internal combustion engine, a cylinder, a relief valve adapted to open automatically upon the occurrence of a certain high pressure within the cylinder, and means for operating the valve irrespective of the pressure within the cylinder including a hand actuated instrumentality located closely adjacent the cylinder and a hand actuated instrumentality located at a point removed from said cylinder.

8. In a multi-cylinder internal combustion engine, a plurality of cylinders arranged in line, an automatically operated relief valve on each cylinder, the several valves being arranged in line, a rock-shaft extending parallel to but displaced from the line of the relief valves, a plurality of operating levers loosely mounted on the rock-shaft and each engaging the movable member of a relief valve so that rocking the lever on the rock-shaft opens the corresponding relief valve, means for rocking the rock-shaft, and means mounted on the rock-shaft and engaging said levers but disconnected therefrom so that rocking movement of the rock-shaft operates all of said levers simultaneously.

[Claims 2 to 7, 9, and 10 not printed in the Gazette.]

1,254,781. VALVE FOR AIR-COMPRESSORS AND THE LIKE. GEORGE K. DAVOL, San Francisco, Cal., assignor, by mesne assignments, to P. H. Reardon, San Francisco, Cal. Filed Feb. 2, 1916. Serial No. 75,782. (Cl. 230—34.)



1. In an air compressor the combination of a valve seat having a series of slots or ports, a plurality of separate flexible automatically operated valve plates bearing on the said seat and means for moving the said valve plates across or along the face of the said seat, to cover or uncover the said ports.

3. In a compressor the combination of a valve seat having a series of parallel ports or openings, a plurality of separate flexible elastic automatically operated valve plates of rectangular form, loosely held in parallel positions against the face of the said valve seat, and means for shifting or moving the said valve plates simultaneously along or across the said valve seat to cover or uncover the said ports.

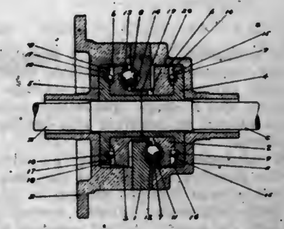
5. In a compressor the combination of a valve seat having a series of separate ports or openings, a plurality of separate flexible valve plates, a stop plate or guard plate disposed in front of the said valve seat, the said stop plate loosely holding the said valve plates individually in contact with the said seat but allowing the said valve plates to bend away from the said seat, and means for shifting the said stop plate together with the said valve plates across the said valve seat to cover or uncover the said ports.

9. In a compressor the combination of a valve seat having a plurality of slots or ports, a stop or guard plate held in front of or against the said seat and movable along or across the said seat, a series of separate flexible flat valve plates held between the said seat and the said movable guard plate, the said valve plates being held by loose engagement at their ends with the said stop or guard plate while their center portions have a less confined degree of movement, permitting a flexture or bowing away from the said seat at their center portions and means for shifting or moving the said guard plate together with the said valve plates across or along the said valve seat.

17. In a compressor the combination of a valve seat of length greater than its width having a plurality of transverse ports formed therein, a plurality of separate flexible elastic valve plates, held parallel to the said ports, a groove on each side of the said valve seat faces running lengthwise of the valve seat, a movable guard or stop plate held against the face of the said valve seat, a rib formed on each side of the said guard or stop plate, the said ribs entering the said grooves formed on the face of the said valve seat, the said ribs being cut out or recessed to embrace and hold the ends of the said valve plates and means for shifting or moving the said guard or stop plate together with the said valve plates relative to the said valve seat.

[Claims 2, 4, 6 to 8, 10 to 16, and 18 to 21 not printed in the Gazette.]

1,254,782. DIFFERENTIAL MECHANISM. HARLEY A. DORMAN, Detroit, Mich. Filed Aug. 8, 1914. Serial No. 855,741. (Cl. 74—7.)



1. A driving mechanism including a divided shaft, a main drive plate, a set of side plates actuating the shaft sections, a set of lock plates between said drive plate and side plates, a plurality of balls placed in opposed pockets of the drive plate and lock plates, each of said lock plates carrying a plurality of balls that will lock the lock plates to the side plates when the shaft sections are turning at practically the same speed and will unlock a side plate form its lock plate when one shaft section rotates faster than the other.

3. A driving mechanism including a divided shaft, a main drive plate, a set of side plates actuating the shaft sections, a set of lock plates between said drive plate and side plates, releasable clutching means between said lock plates and side plates, a plurality of balls carried in the opposed pockets of the drive plate and lock plates, each of said lock plates having tongues fitted into notches of the other lock plate so that its rotation is limited with respect to the other lock plate, which will permit the alinement of the opposed pockets of one lock plate with the drive plate, unlocking the corresponding side plate, and allowing one shaft section to rotate faster than the other.

6. A driving mechanism including a divided shaft, a main drive plate, a set of side plates actuating the shaft sections, a set of lock plates between said side plates and drive plate, a plurality of balls carried by opposed pockets of the drive plate and lock plates, releasable clutching means between the side plates and lock plates, the said lock plates having tongues so proportioned to the spaces between the said lock plates, drive plate, and side plates, that both shaft sections cannot run free of the drive plate at the same time.

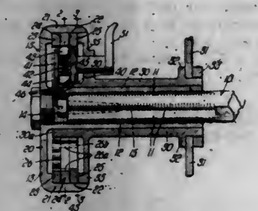
[Claims 2, 4, and 5 not printed in the Gazette.]

1,254,783. INDEXING MECHANISM FOR PERMUTATION-LOCKS. ERNEST G. ELDRIDGE, Alhambra, Cal. Filed Jan. 20, 1917. Serial No. 143,498. (Cl. 70—53.)

1. Indexing mechanism, embodying a plurality of indexing members movable together and having indexing notches at different spacings on the several members, and a single coöperating indexing member adapted to coöperate with any one of the movable members.

2. Indexing mechanism, embodying a plurality of indexing members movable together and having indexing notches at different spacings on the several members, a single coöperating indexing member adapted to coöperate with any one of the movable members to indicate relative movement thereof by sense of touch, and means to hold said coöperating member in position to coöperate with any

one of the movable members when once placed in such position by manual action.



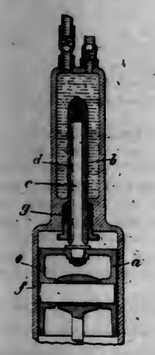
3. Indexing mechanism, embodying a plurality of rotatable notched indexing members movable together and having indexing notches at different spacings on the several members, and a single coöperating movable indexing member adapted to coöperate with any one of the rotatable members.

4. Indexing mechanism, embodying a plurality of notched circular members lying side by side, the notches in said members being at different spacings on the several members, a single coöperating indexing member adapted to coöperate with the several notched members, means to cause rotation of all the notched members relative to the coöperating member, and means to cause lateral adjustment of the coöperating member to coöperate with any one of the notched members.

5. Indexing mechanism, embodying a plurality of coaxial rotatable notched disks lying side by side, said disks being rotatable together and having their notches at different spacings in the several disks, and a single transversely movable coöperating indexing member adapted to coöperate with any one of the notched disks.

[Claims 6 to 15 not printed in the Gazette.]

1,254,784. PISTON FOR HYDRAULIC PUMPS. ROBERT ERNAULT-PELTERIE, Paris, France. Filed Oct. 12, 1917. Serial No. 196,314. (Cl. 103—83.)

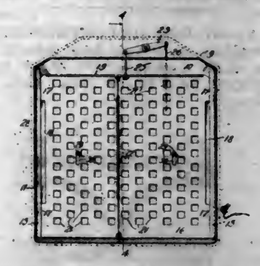


1. A high pressure pump comprising a piston and a cross-head, said cross-head having a width relatively great as regards the diameter of the piston, said piston having greater transverse freedom with respect to the cross-head than the transverse clearance of said cross-head to its guide.

2. A high pressure pump according to claim 1, said piston having a recess in its underside and said cross head having a rod thereon connected to said piston within said recess, said rod having the clearance in said recess necessary to allow said greater transverse freedom of the piston with respect to the cross-head.

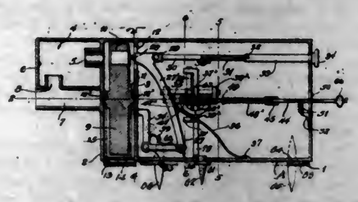
3. A high pressure pump according to claim 1, said cross-head having a rod thereon connected to said piston, said rod having the clearance necessary to allow said greater transverse freedom of the piston with respect to the cross-head.

1,254,785. SHIELD OR PROTECTOR FOR RADIATORS. WALTER C. FARRELL, Buffalo, N. Y., assignor of one-half to John F. Schamel, Buffalo, N. Y. Filed Mar. 6, 1915. Serial No. 12,528. (Cl. 257—132.)



The combination of a protector comprising an integral outer section containing a number of openings therein, means for securing the outer section in front of an automobile radiator, an integral inner section adapted to move vertically parallel with the plane of said outer section and also containing a number of openings adapted to register with openings in the outer section, operating means controlled from the driver's seat for moving the inner section in a vertical plane and relatively to the fixed section, and spring means connecting the fixed and movable sections for returning the movable section to normal position.

1,254,786. ALARM DEVICE. ALPHONSE FERNANDEZ, Washington, D. C. Filed Dec. 7, 1915. Serial No. 65,571. (Cl. 116—42.)



1. In an alarm device, a firing mechanism including a firing pin, a latch for holding said pin retracted, arms in connection with said latch, a bracket capable of tilting in directions at an angle to each other and adapted when tilted to engage said arms to move the same and said latch to retracted position, a trigger rod mounted for sliding and oscillatory movement, and a connection between said rod and said bracket.

2. In an alarm device, a firing mechanism including a firing pin, a latch for holding said pin retracted, a lever capable of oscillating in directions at right angles to each other, a bracket on said lever, arms in connection with said latch and adapted to be engaged by said bracket, and a trigger rod connected to said lever.

5. In an alarm device, the combination with a cartridge holder, of a firing lever, means tending to force said lever into engagement with the cartridge, a latch for holding said lever retracted, arms secured to said latch and projecting radially therefrom, a bracket mounted for oscillation adjacent said latch and having radially disposed arms, the said bracket arms being adapted to contact and force said latch arms into retracted position, a trigger connected to said bracket for rocking the same, and the said trigger being capable of oscillating in directions at right angles to each other.

[Claims 3, 4, 6, and 7 not printed in the Gazette.]

1,254,787. ADVERTISING DEVICE. ALPHONSE FERNANDEZ, Washington, D. C. Filed Jan. 10, 1917. Serial No. 141,646. (Cl. 40—52.)



1. In a device of the class described, a polygonal drum, the edges of each of the sides of said drum being provided with grooves, a plate for each side of said drum and having its edges engaged in said grooves, a rod connected to each plate, a common rod connecting all of the first mentioned rods, and means for reciprocating said common rod.

4. In a device of the class described, a polygonal drum, each side of said drum having a pair of oppositely disposed grooves, a plate mounted for sliding movement on each side of said drum and in said grooves, means for sliding said plates, and means for rotating said drum.

6. In a device of the class described, a drum comprising a plurality of hingedly connected sections, each of said sections being telescopic, and means for radially moving said sections.

12. In a device of the class described, a drum including a plurality of sections and being capable of being expanded or contracted, a plurality of bars arranged within said drum and being capable of moving radially therein, connections between certain of said sections and said bars, and means for moving said bars.

17. In a device of the class described, a drum comprising a plurality of telescopic sections, a shaft extending centrally through said drum, gears rotatably mounted on said shaft and in spaced relation to each other, rack bars carried by said shaft and in mesh with said gears, the said bars being capable of moving radially within said drum, a counter shaft carried by said first named shaft and in spaced relation to the latter, pinions on said counter shaft in mesh with said gears, means for rotating said counter shaft, and clutches for establishing or breaking a connection between said gears and said first mentioned shaft.

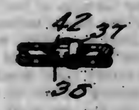
[Claims 2, 3, 5, 7 to 11, 13 to 16, and 18 to 20 not printed in the Gazette.]

1,254,788. PLASTIC FLOORING COMPOSITION. LOUIS FLECCHIA, Philadelphia, Pa. Filed Aug. 14, 1916. Serial No. 114,753. (Cl. 106—24.)

1. A plastic composition comprising ground asbestos to approximately 300 lbs.; pigment, finely ground, approximately 200 lbs.; Japan varnish approximately 7½ gals.; asphaltic varnish approximately 6 gals. and linseed oil approximately 2½ gals.

2. A plastic composition containing ground asbestos, 300 pounds; dry pigment, 170 pounds; white lead, 40 pounds; Japan varnish, 7½ gallons; asphaltic varnish 6 gallons, and linseed oil, 2 gallons.

1,254,789. BUTTON SNAP-FASTENER. GEORGE FLESSA, Berkeley, Cal. Filed Mar. 17, 1917. Serial No. 155,456. (Cl. 24—110.)

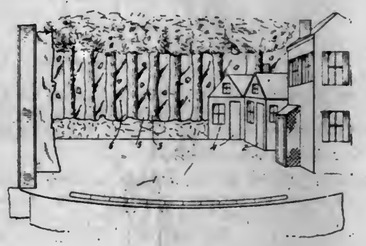


1. A snap fastener comprising a pair of button-shaped engaging members, one of which has an opening, a stud carried by the other member to extend through said opening, and having a laterally offset engaging head, and a spring adjacent the stud acting to normally shift the same laterally in the opening to engaged position.

5. A snap fastener comprising a pair of engaging members, one of which has an opening, a stud pivotally connected to the other member to extend through said opening and having an engaging head, a spring bearing against the said stud to normally hold the same in engaged position, and a diametrically projecting handle rotatably supported by said last-named member to which the stud is connected.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,254,790. FIRE-ILLUSION APPARATUS. IDA MAY FULLER, New York, N. Y. Filed Jan. 23, 1917. Serial No. 143,900. (Cl. 46—70.)



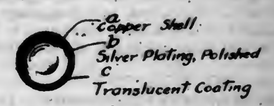
1. In fire illusion apparatus, the combination with a sheet supported to be billowed by air currents, of an air guiding surface placed in proximity thereto so as to leave a compact space between said sheet and said surface, means for illuminating said sheet, and means for directing air currents between said sheet and said surface to billow said sheet in a manner simulating flames of fire.

3. A stage apparatus comprising a sheet, curtain or the like, a normally invisible background behind said curtain representing a surface exposed to fire, means for forcing air between said partition and said curtain to billow it, means for illuminating said billowing sheet to produce an illusion of fire, said curtain being removable to expose said background and represent the after effect of fire.

5. In fire illusion apparatus, the combination with a sheet suspended to loosely billow, means for directing air currents along said sheet to billow it, means for illuminating said sheet to produce areas of light and shade which sweep across the sheet and simulate flames, and pieces of reflecting material scattered over said sheet and attached thereto in position to receive said illumination and intermittently glitter and represent flying sparks of fire.

[Claims 2 and 4 not printed in the Gazette.]

1,254,791. IMITATION PEARL. PAUL B. GANZINOTTI, North Bergen, N. J., assignor to Joseph H. Meyer Bros., New York, N. Y., a Corporation of New York. Filed Mar. 31, 1917. Serial No. 159,046. (Cl. 91—68.)



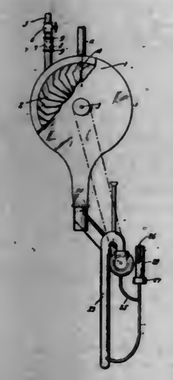
1. An imitation pearl comprising a metal bead having a dense highly polished silver surface, and a translucent coating of substantially non-nacreous composition comprising a cellulosic varnish and a small amount of added material to increase its optical density and to give it the

desired color and appearance by virtue of the light rays reflected through the coating from the mirror-like surface beneath.

2. An imitation pearl comprising a metal bead having a dense highly polished silver surface, and a translucent coating thereon comprising a cellulosic varnish containing a small amount of white pigment.

[Claim 3 not printed in the Gazette.]

1,254,792. APPARATUS FOR DILUTING LIQUIDS. ANGEL M. GARCÍA Y GARCÍA, Habana, Cuba. Filed Dec. 21, 1916. Serial No. 138,220. (Cl. 259—26.)



1. A device for mixing liquids, comprising a fluid driven motor, a mixing chamber, means for conveying the ingredients of the mixture separately into the mixing chamber, and means for conveying the discharge from the fluid motor into said mixing chamber.

4. In an apparatus for mixing liquids, the combination of a water motor, a mixing chamber, stirring and straining devices in the mixing chamber, means for conveying the discharge water from the motor into said mixing chamber, a pipe for supplying another ingredient to said last named means, a discharge pipe from the mixing chamber, and a hydrometer inserted between the said mixing chamber and said last named discharge pipe.

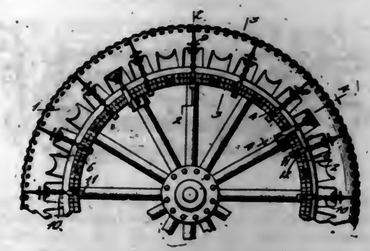
5. In a mixing apparatus for liquids, the combination of a water motor, a mixing chamber, stirring and straining devices within the mixing chamber, a driving connection between the motor and said stirring and straining devices, a pipe connecting said mixing chamber with the water motor to receive the discharge from the motor, a supply conduit for another ingredient terminating in said pipe, a discharge pipe from the mixing chamber, a test vessel, a tubing connecting said vessel with the mixing chamber, and a pipe for returning the overflow from said test vessel into the discharge pipe of the mixing chamber.

6. In a mixing apparatus for liquids, the combination of a water motor, a mixing chamber, a shaft rotatably mounted in said mixing chamber, a driving connection between said shaft and said motor, a plurality of straining plates rigidly mounted on said shaft, and agitators each comprising a pair of companion plates inserted between each two strainers in said mixing chamber.

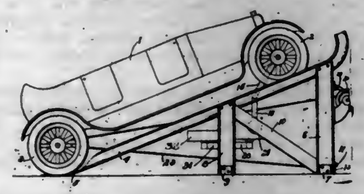
[Claims 2, 3, and 7 not printed in the Gazette.]

1,254,793. RUBBER-TIRE PROTECTOR. LOUIS W. GEEREKEY, Douglas, Ariz.; J. A. Ketcherside administrator of said Louis W. Geerekey, deceased. Filed Aug. 8, 1916. Serial No. 113,890. Renewed Dec. 4, 1917. Serial No. 205,437. (Cl. 152—16.)

The combination with a wheel rim and tire, of metal covering and protecting sections, means for securing them on the tire, which consist of chains and plates secured thereto and brackets applied to the wheel felly and having slots for receiving the said plates, and means for securing the latter adjustably, as described.



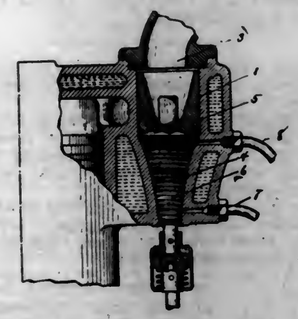
1,254,794. VEHICLE-REPAIR STAND. OLLIE C. GEORGE, Chicago, Ill. Filed Apr. 18, 1917. Serial No. 163,022. (Cl. 29—89.)



1. An elevating frame for a vehicle comprising inclined track members, means associated therewith for hauling a vehicle upwardly thereon, and automatically operating mechanism to retain a vehicle in elevated position on said track members.

[Claims 2 to 5 not printed in the Gazette.]

1,254,795. ROTARY VALVE. JOHN GOOD, Brooklyn, N. Y. Filed Apr. 5, 1916. Serial No. 88,998. (Cl. 123—177.)



1. A rotary valve comprising, in combination, a casing member and a rotary valve member having a tapered seat thereon, the seating surfaces of one of said members being constituted by the lands between a multiplicity of fine grooves cut therein, and means for cooling the casing.

2. A rotary valve comprising, in combination, a casing member and a rotary valve member having a tapered seat thereon, the seating surface of one of said members being constituted by the lands of a continuous screw thread cut in said member, said lands being of substantially the same width as the grooves between them.

5. The combination of a casing, a rotary valve member comprising opposed unlubricated pressureless port-sealing surfaces and axially tapered lubricated seating surfaces adapted to support said port-sealing surfaces in said pressureless relation, one of said seating surfaces being constituted by the lands of a screw-thread, and means for cooling the casing.

[Claims 3 and 4 not printed in the Gazette.]

1,254,796. COATING OF PIPES. EDWIN T. GREENFIELD, Kiamesha, N. Y. Filed Nov. 27, 1915. Serial No. 63,824. (Cl. 91—70.3.)

1. In the coating of an iron or steel pipe the method which comprises cleaning the pipe on both the exterior and interior exposed metal portions thereof, applying a flux to one of said portions only, leaving the portion not to be coated exposed, immersing or dipping said pipe in a molten bath comprising zinc, removing the said pipe from the bath and allowing or causing the molten metal to flow from the portion of the pipe which was left clean and which was not provided with a flux whereby the resulting article will be a pipe having a zinc coating upon only that portion to which the flux was applied.

5. The method of treating an iron or steel pipe which method comprises cleaning the exposed metal on both the exterior and interior thereof by means of a suitable pickle, washing the pipe so that the exposed metal on the interior thereof will be clean and free from the pickle, applying a suitable flux to the exterior of the pipe, leaving the clean interior exposed, then passing the pipe into a bath of molten metal containing zinc and after the pipe has been removed from the molten metal allowing or causing the molten metal to flow from said exposed metal on the clean exposed interior of the pipe and removing any excess metal from the exterior of the pipe thus leaving the pipe with a coating of zinc on the exterior thereof only.

8. The manufacture of a pipe so that it will have a coated exterior and an exposed metal interior by the method which comprises taking an iron or steel pipe subjecting the exterior and interior of said iron or steel pipe to the pickling action of a bath containing sulfuric acid, washing said pickled pipe with water so that the pickled interior and pickled exterior portions thereof will be cleaned, applying a flux containing muriatic acid to the exterior portion of the pipe leaving the interior portion of the pipe exposed and in the condition existing after washing, dipping said pipe in a bath of molten metal containing zinc, removing said pipe from said bath, removing any excess molten metal on the exterior of the pipe, and allowing the molten metal on the interior of the pipe to flow from the washed pickled interior surface.

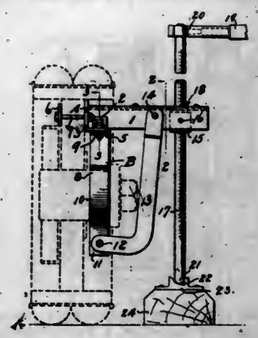
[Claims 2 to 4, 6, and 7 not printed in the Gazette.]

1,254,797. LIFTING-JACK. WILLIAM GRIES, Newark, N. J. Filed Jan. 17, 1917. Serial No. 142,845. (Cl. 254—100.)

1. A lifting jack comprising a beam member having means at one end for engaging beneath a wheel felly and also having means suspended therefrom to clampingly embrace a wheel hub, and a lifting screw for the other end of said beam.

4. A lifting jack comprising a beam member, having wheel-felly and wheel-hub-engaging means near one end, a pivotally supported nut element near the other end, a lifting screw engaging with said nut and disposed at an angle to the beam, a detachable bearing socket for the lower end of said screw, and ratchet operating means for the upper end of said screw.

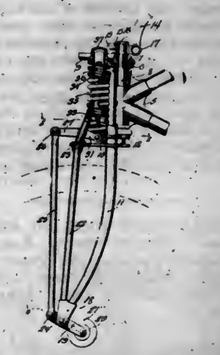
7. A lifting jack comprising a channeled beam member, an angular engaging member secured to one end of said beam and having a rounded engaging outer edge portion, a spoke clamping plate, bolts for connecting said spoke clamping plate with the engaging member, a hub engaging bracket depending from one flange of said engaging member, an angular brace connecting the lower end of said hub-engaging bracket and the intermediate portion of said beam, a nut pivotally mounted between the walls of the channel beam, a lifting screw working in said nut and disposed at an angle to said beam, a separate bearing



socket for one end of said screw, and means at the other end of said screw for operating the same.

[Claims 2, 3, 5, 6, and 8 not printed in the Gazette.]

1,254,798. SPRING MOTOR-CYCLE FORK. WILLIAM S. HARLEY, Milwaukee, Wis., assignor to Harley-Davidson Motor Co., Milwaukee, Wis. Filed June 29, 1917. Serial No. 177,701. (Cl. 208—97.)

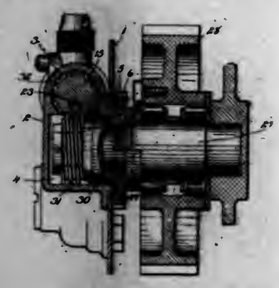


5. A spring fork structure comprising the combination with a frame and fork bars carried thereby, of a wheel, means for mounting said wheel on the lower ends of said fork bars, a member rotatably carried by the frame, links pivoted to said member at one end, their other ends being connected with the lower end of the fork bars, a sleeve carried by said frame, a spring seating plate carried by said member, and a spring surrounding said sleeve, one end of said spring bearing against said spring seating plate and the other end against a portion of said frame.

6. A spring fork structure comprising the combination with a frame and fork bars carried thereby, of a wheel carried by the lower ends of said fork bars, a member rotatably carried by the frame, links pivoted to said member at one end, their other ends being connected with the lower end of the fork bars, a sleeve carried by said frame, a spring seating plate carried by said member, a stem extending from the plate into the sleeve and headed therewithin, and a spring disposed within the sleeve and surrounding said stem, one end of said spring engaging the head of said stem and the other end contacting with the end of said sleeve.

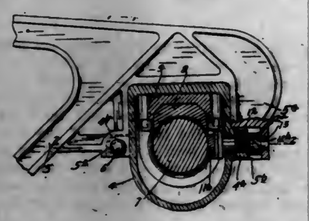
[Claims 1 to 4 and 7 not printed in the Gazette.]

1,254,799. OIL-DISTRIBUTING MECHANISM. WILLIAM S. HARLEY, Milwaukee, Wis., assignor to Harley-Davidson Motor Co., Milwaukee, Wis. Filed Sept. 19, 1917. Serial No. 192,115. (Cl. 184—33.)



A distributing mechanism comprising a casing open at one end and closed at the other, a fluid receiving member rotatably mounted in the casing and spaced from the closed end thereof, said member having a longitudinally extending bore disposed to one side of its rotative axis, a plunger slidable in said bore and projectable beyond one end of the member, means for closing the open end of the casing, a pin extending inwardly of the closed end of the casing and engaging the end of the member to hold the same spaced therefrom, a circular cam-plate disposed in the casing between the closed end thereof and the adjacent end of the member to be engaged by the projecting end of the plunger, one portion of the edge of said plate being provided with an open end slot, said plate also having a central circular opening of greater diameter than said pin for receiving the same, a pivot pin extending transversely of the casing between the end thereof and the adjacent end of the member, said pivot pin being slidably disposed in said open end slot, a set-bolt threaded through the end of the casing for engagement with one side of the cam-plate at a point remote from said pivot pin, whereby to rock the same on said pin, and means for revolving the member.

1,254,800. SIDE-THRUST BEARING FOR RAILWAY-CAR AXLES. WILLIAM HARTILL-LAW, Minneapolis, Minn., assignor to Beamless Car Truck Self-Adjusting Brake Company, Minneapolis, Minn., a Corporation of Minnesota. Filed Mar. 30, 1917. Serial No. 158,575. (Cl. 64—25.)



1. The combination with a truck side frame and an axle journaled thereto, of a lateral thrust bearing independent of said journal proper, anchored to said side frame and resisting lateral movements of said axle in a horizontal direction.

2. The combination with a truck side frame and journal box anchored thereto, of an axle journaled in said box, and a lateral thrust bearing independent of the journal proper, anchored to said side frame and resisting lateral movement of the axle in a horizontal direction.

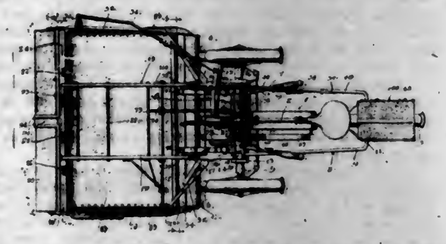
3. The combination with a truck side frame and journal box anchored thereto, of an axle journaled in said box, and a lateral thrust bearing independent of the journal proper, anchored against said side frame and resisting lateral movement of the axle in a horizontal direction, the said thrust device having an axle engaging head that is self-adjusting in a vertical direction to compensate for wear of the journal proper.

8. The combination with a truck side frame and journal box anchored thereto, of an axle, an axle engaging bearing within said box carrying the box and its load on said axle, and a thrust bearing comprising a thrust bolt extended horizontally through one side of said journal box and provided at its inner end with an axle engaging thrust head, and an adjusting screw engaging said thrust bolt and reacting against said side frame, the head of said screw having an angular recess and the said frame having a perforation alined with said recess, whereby a tool may be applied to said angular recess to thereby rotate and adjust said screw.

[Claims 2, 3, 5, and 7 not printed in the Gazette.]

1,254,801. [WITHDRAWN.]

1,254,802. STREET-SWEEPER. FRED C. HOFFER, Los Angeles, and JESSE FRANK SMEDLEY, Pasadena, Cal., assignors to Motorcycle Sweeper Company, Los Angeles, Cal., a Corporation of California. Filed July 11, 1916. Serial No. 108,561. (Cl. 15—17.)



1. In a street sweeper, a frame adapted to be secured to a vehicle frame and to extend in front thereof, a brush supporting frame pivotally connected with the first named frame, a brush rotatably mounted in the brush supporting frame, means to operate the brush, a rubbish receiving means, and a frame supporting said means and connected with the first named frame.

2. In a street sweeper, a vehicle frame, a wheel supporting the frame, a frame secured to the vihcle frame, and extending in front thereof, a rotary brush connected with the second named frame and being vertically adjustable, a rubbish receptacle, an elevator for conveying rubbish swept up by the brush to the receptacle, means to operate the elevator, and a connection between the brush and elevator for moving the elevator with the brush.

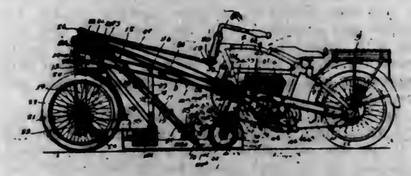
3. In a street sweeper, a vehicle frame, a vertically adjustable frame, means for connecting the vertically adjustable frame with the vehicle frame, a frame secured to and depending from the vertically adjustable frame, a rubbish receptacle supported by the last named frame, a brush supporting frame connected with said connecting means, a brush carried by said brush supporting frame, means to rotate the brush, and means to convey rubbish swept up by the brush to the receptacle.

4. In a street sweeper, a vehicle frame, a vertically adjustable frame, means to connect the vertically adjustable frame with the vehicle frame, a frame secured to the outer end of and depending from the vertically adjustable frame, wheels secured to and supporting the last named frame, a brush supporting frame connected with said connecting means, a brush carried by said brush supporting frame, and means to operate the brush.

5. In a street sweeper, a vehicle frame including a front axle, wheels on the front axle and means to steer said wheels, bars secured to the vehicle on opposite sides thereof and extending along the sides of the vehicle over and upon the front axle, bars secured to the ends of said first named bars and extending outwardly and upwardly from the axle, a frame hinged to the outer end of said last named bars, a second frame secured to and depending from the last named frame, wheels secured to the last named frame, and steering means connected with said wheels and the steering means of the vehicle.

[Claims 6 to 20 not printed in the Gazette.]

1,254,803. STREET-SWEEPER. FRED C. HOFFER, Los Angeles, and JESSE FRANK SMEDLEY, Pasadena, Cal., assignors to Motorcycle Sweeper Company, Los Angeles, Cal., a Corporation of California. Filed Aug. 7, 1916. Serial No. 113,435. (Cl. 15—17.)



1. In a street sweeper, a vehicle frame, a frame secured to the opposite sides of the vehicle frame and extending forwardly and upwardly in front thereof, a sweeping brush connected with the last named frame, means to operate the brush, and wheels connected with the first and last named frames.

2. In a street sweeper, a vehicle frame, a frame secured to the vehicle frame comprising bars on opposite sides and extending in front thereof, a rotary sweeping brush connected with the second named frame, means to operate the brush, and wheels connected with and supporting the outer end of the second named frame.

3. A street sweeper comprising a vehicle frame, a frame secured to the vehicle frame and extending in front thereof, a rotary sweeping brush connected with the second named frame, means to raise and lower the brush, means to operate the brush, and wheels supporting the first and second named frames.

4. In a street sweeper, a vehicle frame, a frame secured to the vehicle frame and comprising bars on opposite sides and extending in front of the vehicle frame, a rotary sweeping brush, a frame for supporting the brush connected with the second named frame, means to operate the brush, a frame secured to the outer end of the second named frame, and wheels connected with the last named and vehicle frames.

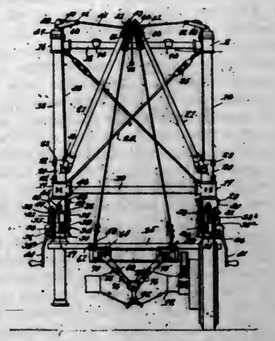
5. In a street sweeper, a vehicle frame, steering means on said frame, a frame secured to the vehicle frame comprising bars on opposite sides of and extending in front of the vehicle frame, a rotary sweeping brush connected with the bars, wheels connected with the bars, and steering connections between the wheels and steering means.

[Claims 6 to 17 not printed in the Gazette.]

1,254,804. HOISTING APPARATUS FOR AUTOMOBILES. ERNEST HOLMES, Chattanooga, Tenn. Filed Nov. 16, 1917. Serial No. 202,292. (Cl. 212—38.)

1. In a hoisting apparatus for automobiles, a truck, a frame mounted thereon including hollow posts, sectional collars clamped to the posts, arms on the sectional collars, hoisting gearing mounted on the said posts, cables operated by the said hoisting gearing and extending through the mast, a head trunnioned in the mast and having pulleys thereon for the engagement of the cables, a guide on each head through which one of the cables operates, arms, means for pivotally connecting the arms to the masts, cable guiding means on the outer ends of the arms, and means for holding the arms together.

4. In a truck, masts on the truck, sectional collars clamped to the masts, arms on the said sectional collars, hoisting gearing supported by the said masts, a cable operated by each hoisting gearing, an arm pivotally and oscillatingly mounted on one of the said masts, a cable moved by each of the hoisting mechanisms, one of the said cables being connected to one of the arms and the other



of said cables operating to hoist the load, apertured lugs on the outer ends of the said arms adapted to coact with each other, and means for coupling the lugs together.

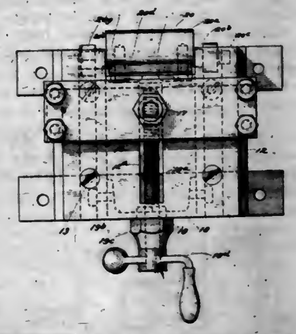
[Claims 2 and 3 not printed in the Gazette.]

1,254,805. WELDING COMPOSITION. JOHN A. HOPE, Montreal, Quebec, Canada. Filed Sept. 1, 1916. Serial No. 118,137. (Cl. 75—187.)

2. A high-speed steel and low carbon iron welding composition consisting of 50% ferro-silicon and burnt borax in equal proportions.

[Claim 1 not printed in the Gazette.]

1,254,806. BELT-CUTTING MACHINE. THOMAS HORSMAN, Chicago, Ill., assignor to Chicago Belting Company, a Corporation of Illinois. Filed Oct. 23, 1915. Serial No. 57,439. (Cl. 164—36.)



1. In a device of the class described, a table, a guide member carried thereby, a cutter carrying member adjustably mounted with respect to said table and guide member, a cutter carried thereby, and means to adjust said cutter carrying member relative to said table and guide to vary the angle of cut, said cutter carrying member being constructed and arranged to permit adjustment of said cutter relative thereto in a plane substantially perpendicular to the plane of movement of material to be cut.

[Claim 2 not printed in the Gazette.]

1,254,807. [WITHDRAWN.]

1,254,808. PROTECTIVE SHIELD FOR AUTOMOBILE MECHANICS. ARTHUR BENGMAN JONES, Cambridge, Mass. Filed Feb. 28, 1917. Serial No. 151,440. (Cl. 2—190.)



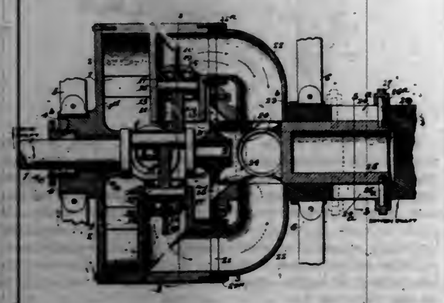
1. A protector of the class described including a back shield formed of upper and lower pad sections, connected by a transverse flexible web, a front strap thereon at the upper pad section of the shield, shoulder straps connected at the back with the said upper pad section and having means to adjustably connect with the said front strap, a waist strap on the lower pad section of the shield, and means associated with the waist strap to prevent vertical displacement of the shield.

2. A protector of the class described including a back shield formed of upper and lower pad sections connected by a transverse flexible web, means to secure the pad sections on the wearer over the clothing, said means including a waist strap on the front of the lower pad section, connecting at its ends therewith, knee shields, retaining means on the said knee shields, and means connecting the knee shields with the waist strap.

3. A protector of the class described, including a back shield formed of upper and lower pads, said pads being connected by a transverse foldable web, a front strap on the upper pad adapted to pass beneath the arms and across the chest of the wearer, shoulder straps connected with the upper pad and with the said front strap, and a waist strap connected with the lower pad to range transversely at the front of the wearer.

[Claim 3 not printed in the Gazette.]

1,254,809. POWER-TRANSMITTING MECHANISM. MILO KELLEY and EDWARD RUSSELL STEVENSON, Oakland, Oreg. Filed July 13, 1915. Serial No. 39,705. (Cl. 192—18.)



1. In a fluid transmission, the combination of a drive and a driven shaft, a casing interposed between the shafts and connected with the driven shaft to rotate therewith, a crank disposed within the casing and rotatable with the drive shaft, cylinders arranged within the casing and in communication therewith at their inner ends, pistons operable within the cylinders and connected with the said crank and provided with outwardly opening valves, a valve chamber in communication with the outer ends of the cylinders, and with the central portion of the casing, and a valve for controlling the passageways in communication with the said valve chamber.

3. In a fluid transmission, the combination of longitudinally alined power and driven shafts, the driven shaft having a valve chamber in its inner end, a casing interposed between the shafts and journaled upon the power shaft, and rotatable with the driven shaft and in communication with the valve chamber thereof, a crank within the casing and rotatable with the power shaft, inner open ended cylinders arranged within the casing and rotatable therewith, pistons operable within the cylinders and connected with the said crank, and provided with outwardly opening valves, connecting means between the casing and valve chamber and formed with passageways, and a valve for controlling the said passageways.

5. In a device of the character described, a fluid casing, a drive shaft projecting into an opening in the casing at one side, said shaft having a crank, a valve chamber secured to the fluid casing having peripheral openings and fluid circulating ports, said ports constantly communicating with the fluid casing, open bottomed cylinders in the fluid casing having lateral openings, a fluid passage-way between said lateral openings in the cylinders and peripheral openings in the valve chamber, a shiftable valve for diminishing the area of fluid inlet from the fluid passage-way to the valve chamber, and pistons in the cylinders and actuated by the drive shaft crank for maintaining a fluid circulation while the fluid passage-ways are open.

[Claims 2 and 4 not printed in the Gazette.]

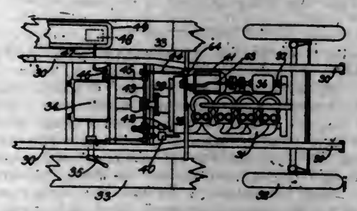
1,254,810. DYEING. HEXTALL HARVEY KELSEY, London, England, assignor to Norman Malcolmson, London, England. Filed June 4, 1917. Serial No. 172,845. (Cl. 8—5.)

2. A process of dyeing by putting the material that is to be dyed into a bath of water containing a sea-weed of the menalosperm group.

4. The addition to a dyeing liquid derived from the melanosperm sea-weed of sulfuric acid for the purpose of intensifying or varying the color imparted by the liquid to the material dyed.

[Claims 1 and 3 not printed in the Gazette.]

1,254,811. ENGINE STARTING, LIGHTING, AND IGNITION SYSTEM. CHARLES F. KETTERING, Dayton, Ohio, assignor to The Dayton Engineering Laboratories Company, a Corporation of Ohio. Original application filed Apr. 17, 1911, Serial No. 621,512. Divided and this application filed Apr. 19, 1915. Serial No. 22,310. (Cl. 74—7.)



1. In an engine starting device, the combination with an engine, of a starting device therefor; means for operatively connecting said starting device to said engine; and means actuated by said engine for preventing the connection of the starting device as such to the engine, once it has been disconnected and the engine is operating under its own power.

5. In an engine starting system, the combination with an engine and a starting device therefor, including an electric motor having an armature shaft; shiftable intermediate gearing for connecting said armature shaft and engine for starting purposes; and means controlled by the speed of the engine for preventing the movement of the shiftable gearing to connect the engine and starting device together, when the engine and starting device have once been disconnected and the engine is self-actuating.

8. In an engine starting device, the combination with an engine, of a dynamo electric machine for starting the engine; two independent sets of connections between the electric machine and the engine; and an operating member for controlling said connections, constructed to break the first of said connections when the second connection is established for starting the engine by the electric machine, and vice versa establishing said first connection to thereby drive the electric machine from the engine when the aforesaid second or starting connection is broken.

12. The combination with an engine having a shaft, a starting motor, and means for operatively connecting said said motor to said shaft, of means controlled by centrifugal force for preventing the establishment of said operative connection.

17. In combination, two gear wheels, one of which is relatively shiftable into and out of mesh with the other, and mechanical means which automatically prevents the meshing of said gear wheels when one of them is rotating.

[Claims 2 to 4, 6, 7, 9 to 11, 13 to 16, 18, and 19 not printed in the Gazette.]

1,254,812. ELECTRIC-SWITCH CASING. CHARLES J. KLEIN, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Dec. 8, 1913, Serial No. 805,291. Renewed June 25, 1917. Serial No. 176,925. (Cl. 175—282.)



1. In a surface switch of the character described, in combination, an insulating supporting base, an inclosing cover to rest thereon, a switch mechanism mounted on said base within said cover and having an operating member extending through the latter and means for detachably locking said cover to said base independently of said switch operating lever, said means comprising oppositely disposed recesses in the walls of said cover and correspondingly located rigid lugs secured to said base and fitting into said recesses when said cover is positioned on said base, said cover intermediate said recesses having radial play with respect to said base whereby the same is compressible at points removed from said recesses to release it from said lugs.

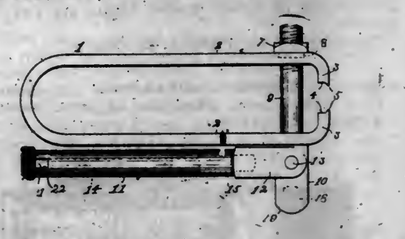
2. In a device of the character described, in combination, a surface having a switch thereon, a cover to be mounted on said surface and to inclose said switch, and latching means for said surface and cover comprising a plurality of beveled lugs on one and a plurality of correspondingly located shoulders on the other, said cover intermediate said latching means having radial play with respect to said surface, whereby the same is compressible at such points to release said latching means.

3. In a device of the character described, in combination, a circular switch base having oppositely disposed rigid lugs protruding therefrom and a resilient cover to be mounted on said base and encircle said lugs, the extremities of said lugs being bent outwardly at substantially right angles to form hooks, said cover having oppositely disposed marginal slots adapted to receive the reciprocating push bar of an inclosed switch mechanism and also having oppositely disposed openings spaced from its margin and from said slots, the extremities of said lugs being adapted to coact with the sides of said openings to lock said base and cover together, said cover intermediate said openings being free to move inwardly over said base whereby the sides of said openings may be withdrawn from engagement with said lugs to release said cover.

4. In a device of the character described, in combination, a circular base having an annular shoulder, a switch mechanism on said base, having a reciprocating operating member, a resilient cover to inclose said switch mechanism and abut said annular shoulder of said base, and latching means to releasably lock said cover to said base, said means comprising oppositely disposed beveled shoulders on said base and correspondingly located recesses in said cover, the sides of said cover intermediate said recesses having radial play with respect to said base whereby said cover may be compressed at points removed from said recesses to release the sides of the latter from said shoulders.

5. In a device of the character described, in combination, a circular base having an annular shoulder, a switch mechanism on said base, having a reciprocating operating member, a resilient cover to inclose said switch mechanism and abut said annular shoulder on said base, and latching means to releasably lock said cover to said base, said means comprising a plurality of rigid beveled shoulders on said base and correspondingly located recesses in said cover, the edge of said cover in line with said recesses being notched to facilitate attachment of said cover to said base.

1,254,813. WRENCH. ARNOLD M. LAKE, Argos, Ind. Filed June 22, 1917. Serial No. 176,327. (Cl. 81—165.)



1. A wrench of the class described, comprising opposing knife-edged jaws held normally apart by spring action, a screw for forcing said jaws together and a lever arm pivoted upon an extended portion of said screw, said arm being adapted when in one position to turn said screw upon its axis and when in another to rotate said jaws upon the axis of the article gripped thereby.

2. A screw-calk wrench comprising adjustable opposing jaws provided with indenting means for indenting a screw-calk to prevent the jaws from slipping, a screw for compressing said jaws, and a lever arm pivotally attached to said screw to enable it to be moved at substantially right angles to the axis of said screw and likewise to a position in alinement with the axis of the screw.

4. A wrench of the class described, comprising adjustable counterpart jaws having means upon their opposing faces for penetrating an article to be gripped, a screw for forcing said jaws together, said screw having an extension upon one end and a lever arm jointedly connected to said extension to enable it to first rotate said screw and then to rotate said wrench upon an axis at right angles to that of said screw.

[Claim 3 not printed in the Gazette.]

1,254,814. THERMOSTAT. EDWIN B. LANE, West Hoboken, N. J. Filed Nov. 4, 1916. Serial No. 129,605. (Cl. 200—31.)

7. A thermostat combining an expanding tube, a substantially non-expanding rod mounted therein, a mem-

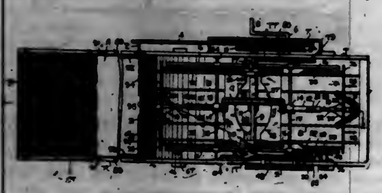
ber having a seat for said rod and mounted for movement with the rod in a direction axially of the rod, a pair of converging springs seated in said member, a second member having seats for said springs, means for maintaining said springs under tension, the expansion of the expanding tube permitting the springs to straighten and break contact when a predetermined temperature is ex-



ceeded, the contraction of said expanding tube causing the first member to re-approach the second and cause the springs to contact and close the circuit again, and means for adjusting the second member toward and away from the first.

[Claims 1 to 6 not printed in the Gazette.]

1,254,815. WASHING APPARATUS. ANTHONY M. LAUB, Cresco, Iowa. Filed June 30, 1917. Serial No. 177,902. (Cl. 141—9.)



1. In a washing apparatus, a tub, a plurality of carrying means supported for rotary movement and adapted to travel through the tub, means for intermittently rotating said carrying means, a brushing means co-acting with each of the carrying means, said brushing means being supported for rotary movement and traveling with the carrying means, each of said carrying means comprising two relatively movable members, and means for holding said relatively movable members against independent movement.

2. In a washing apparatus, a tub, a plurality of carrying means supported for rotary movement and adapted to travel through the tub, means for intermittently rotating said carrying means, a brushing means co-acting with each of the carrying means, said brushing means being supported for rotary movement and traveling with the carrying means, each of said carrying means comprising two relatively movable members, means for holding said relatively movable members against independent movement, said holding means being also operable to adjust said relatively movable members toward or from each other.

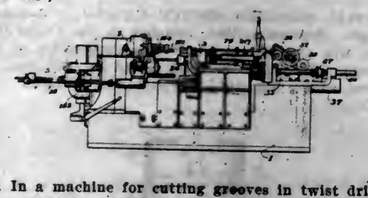
3. A washing apparatus, comprising a tub, a shaft intersecting said tub, a plurality of arms rotatably supported by the shaft and radiating therefrom, a cleansing means operatively engaged with each of the arms, means co-acting with the arms for holding the same against movement around the shaft, and driven means co-acting with the arms for intermittently moving same about the shaft, said last named means also serving to disengage the holding means from the arms.

6. A washing apparatus, comprising a tub, a plurality of radiating arms adapted to rotate in unison about a common center, a driven member, an arm radiating from said driven member, relatively movable arms carried by said last named arm, one of said relatively movable arms being provided with a lateral extension adapted to overlie one of the first named radiating arms to cause said radiating arms to travel in unison with the arm radiating from the driven member, automatic means for normally maintaining the angular portion of one of the relatively movable arms out of the line of travel of the radiating arms, and automatic means for maintaining the angular extension of one of the relatively movable arms in a position to overlie one of the first named radiating arms for a predetermined distance along the path of travel of the arm radiating from the driven member.

10. In a washing machine, a tub, carrying means traveling therethrough, a yoke positioned within the tub, and mounted for swinging movement, a cradle pivotally supported by the lower portion of the yoke, brushing means carried by the cradle, and means for swinging the yoke.

[Claims 4, 5, and 7 to 9 not printed in the Gazette.]

1,254,816. MACHINE FOR MANUFACTURING TWIST-DRILLS AND OTHER ARTICLES. ERNEST J. LEES, Cleveland, Ohio, assignor to A. D. Wilt, Jr., Detroit, Mich. Filed Apr. 11, 1914. Serial No. 831,122. (Cl. 29—38.)



7. In a machine for cutting grooves in twist drills or other articles, a tool holder, a plurality of cutting tools swiveled to such tool holder, a work holder, in combination with means for effecting a swiveling movement of said cutting tools comprising a reciprocating member movable with the work holder, and means operatively connected to such cutting tools and actuated by the movement of said movable member.

15. In a machine of the kind described, the combination with a reciprocating blank carrier normally locked against rotation, of a spring adapted to be compressed by the movement of the said carrier backward and released by the forward movement of the same at a predetermined point in its travel, a plunger operated by said spring, means to rotate the carrier and a controlling pawl operated by the plunger to lock or release the means imparting rotation to the carrier, as set forth.

56. In a machine of the kind described, the combination with a tool holder and a blank carrier movable with respect thereto, of relief cutters on the tool holder and a blank carrier movable with respect thereto, means for simultaneously adjusting said cutters longitudinally and pivotally with respect to the axis of the blank and means for adjusting said cutters longitudinally with respect to their own axes.

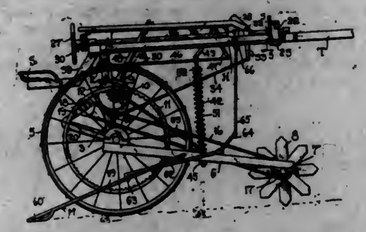
63. In a machine of the class described, the combination of a pair of relatively fixed rotatable clearance cutters, of reciprocating means for presenting a blank to the action of said cutters, means for rotating said blank during the cutting action, means for positively maintaining a fixed relation between said cutter while the latter are acting upon the blank, means for automatically actuating the positive means to inoperative position whereby said cutters are adapted to be withdrawn from the blank at a predetermined point to permit the return of the latter to

normal position, and means for adjusting said cutters with respect to the axis of said blank to accommodate various sizes thereof.

69. In a machine of the class described, the combination of a fixed tool carrier, relatively stationary heads rotatably mounted on said tool carrier, clearance cutters provided with shafts rotatably mounted in said rotating heads, means for rotatably adjusting said heads to determine the character of the cut, means for moving the cutter axially of their shaft toward and from the blank, and means for rotating each of said cutters comprising a power shaft the axis of which is coincident with the axes of each rotatable head, and means for operatively connecting the cutter shafts with the power shaft.

[Claims 1 to 6, 8 to 14, 16 to 55, 57 to 62, 64 to 68, and 70 to 74 not printed in the Gazette.]

1,254,817. HARROW. INGRAM LESLIE, John, Ky. Filed May 7, 1917. Serial No. 166,979. (Cl. 97—25.)



1. A harrow including a movable section, a ground engaging member carried by the section, means for imparting movement to the section in one direction, a second ground engaging member operatively engaged with the harrow section, and co-acting means carried by the harrow section and the second ground engaging member for throwing the second ground engaging member into an inoperative position upon movement of the harrow section in one direction.

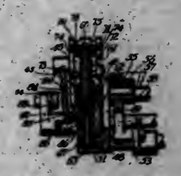
3. A harrow including a swinging section, a ground engaging member carried by the section, means for imparting swinging movement to the section in one direction, a second ground engaging member pivotally engaged with the harrow section, a rock arm carried by the harrow section, the outer end portion of the arm having sliding engagement with the second ground engaging member, and means co-acting with the rock arm for moving the same upwardly upon the movement of the harrow section in one direction.

5. A harrow including a frame, a shaft rotatably supported by the frame, clutch controlled means for rotating the shaft and including a sliding member, a harrow section carried by the frame and mounted for swinging movement, means for imparting movement to the harrow section in one direction, an arm pivotally engaged with the harrow section, and having its free end portion operatively engaged with the sliding member of the clutch, an intermediate portion of the arm being inclined, and a guide carried by the frame through which the inclined portion of the arm is directed, said inclined portion of the arm and guide serving to render the clutch controlled means to driving the shaft inoperative upon movement of the harrow section in one direction.

[Claims 2 and 4 not printed in the Gazette.]

1,254,818. WORK-HANDLING MECHANISM FOR BLINDSTITCH SEWING-MACHINES. JOHN G. LEWIS, St. Louis, Mo. Original application filed Dec. 24, 1910, Serial No. 599,071. Patented Feb. 22, 1916, No. 1,172,812. Divided and this application filed Dec. 6, 1913. Serial No. 805,160. (Cl. 112—24.)

1. In a blind stitch sewing machine, the combination of a presser-foot having an opening, a plunger working into said opening to present work therethrough, a clamp coöperating with said presser foot contiguous to the plunger, said clamp and plunger being bodily movable together and one yieldingly carried by the other, and means to reciprocate that one which carries the other.



11. In a blind stitch sewing machine, the combination of a presser foot having a cloth opening, a plunger to work into said cloth opening, means for reciprocating said plunger toward and from the cloth opening, and a cup-shaped clamp member yieldingly mounted upon the plunger.

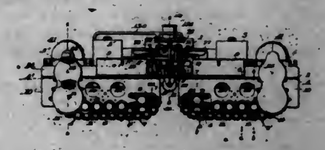
20. In a blind stitch sewing machine, the combination of a presser foot having an opening, a front guide part carried by said presser foot contiguous to said opening, a yielding plunger to coöperate with said opening and front guide part, and means to reciprocate said plunger between predetermined limits of travel.

27. In a blind stitch sewing machine, the combination of a frame providing a base, and an overhanging arm, stitch-forming mechanism, and a stationary presser foot carried by said arm, a base providing fixed bearings at opposite ends, three shafts in the base having fixed bearings therein, and located in a sectional area of small compass, a plunger operatively connected to one of said shafts for reciprocation to coöperate with the presser foot, a feed dog operatively connected to the other two shafts to receive from one thereof a horizontal component of movement and from the other its vertical component of movement, and means to depress said feed dog to an inoperative plane without disturbing its shaft.

31. In a blind stitch sewing machine, the combination of a presser foot, a plunger, means to reciprocate said plunger toward and from said presser foot, and a clamp disposed on the same side of the presser foot as the plunger and mounted to tilt transversely of the line of feed.

[Claims 2 to 10, 12 to 19, 21 to 26, 28 to 30, 32, and 33 not printed in the Gazette.]

1,254,819. ENDLESS AUTOMATIC TRACK-LAYING AND GROUND-TREADING POWER-OPERATED TRACTION-ENGINE. JOHN GEORGE LEYNER, Larkspur, Colo. Filed July 28, 1915. Serial No. 42,274. (Cl. 180—9.)



1. A tractor comprising a rigid platform, a treader frame having a flat deck adapted to contact with said platform substantially throughout its surface, a pivotal connection between said platform and said deck and means between the platform and the deck for keeping them in contact.

2. A tractor comprising a rigid platform, a treader-frame having a flat deck adapted to contact with said platform substantially throughout its surface, a pivotal connection between said platform and said deck adjacent one end of the latter and means between the platform and the deck for keeping them in contact.

3. A tractor comprising a rigid platform, a treader-frame having a flat deck adapted to contact with said

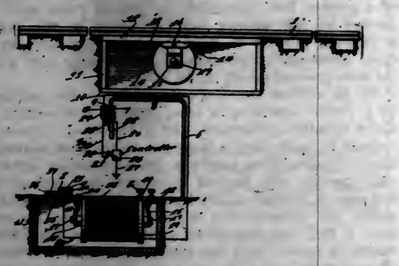
platform substantially throughout its surface, a pivotal connection between said platform and said deck adjacent one end of the latter and tongue and groove mechanism between the platform and the deck for admitting of relative pivotal motion therebetween, but preventing separation of the contacting surfaces.

62. In a tractor device the combination of a treader-frame comprising side walls, a deck covering said walls and a jointed endless ground treader substantially filling the space between said walls.

63. In a tractor device the combination of a treader-frame comprising side walls and a deck covering said walls, a jointed endless ground treader substantially filling the space between the walls, a plurality of shafts carried by the side walls and a plurality of carriers on each shaft for operatively supporting the treader.

[Claims 4 to 61 and 64 to 66 not printed in the Gazette.]

1,254,820. ELECTRIC SWITCH. ANDREW J. LILLY, Glen Morgan, W. Va. Filed May 26, 1917. Serial No. 171,157. (Cl. 104—155.)



1. In a device of the class described, the combination of a plurality of pivotally mounted switch points, an electromagnet carried adjacent said switch points, armatures carried by said switch points, hanger brackets connected to said electromagnet and extending into alinement with said armatures, means for forming a circuit for energizing said electromagnet whereby when the electromagnet is energized the magnetism will attract said armatures so as to swing said switch points, and means for returning said switch points to their normal position after the circuit has been broken.

2. In a device of the class described, the combination of a plurality of pivotally mounted switch points, a casing carried adjacent said switch points, supporting strips carried by said casing, hanger brackets secured to said supporting strips, an electromagnet mounted upon said hanger brackets, said hanger brackets projecting within said supporting strips, armatures mounted upon said switch points in alinement with the upper projecting ends of said hanger brackets, means for forming a circuit for energizing said electromagnet whereby the magnetism in said hanger brackets will attract said armatures for swinging said switch points.

[Claims 3 and 4 not printed in the Gazette.]

1,254,821. SHOE-POLISHING CABINET. REID J. MCCARDLE, Buffalo, N. Y. Filed Mar. 19, 1917. Serial No. 155,843. (Cl. 15—58.)

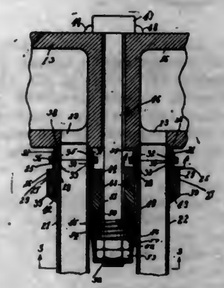
1. In a device of the character described the combination with a substantially oblong casing having the bottom wall thereof removed, of a brush member including a body portion, the body portion having a recessed portion provided in the sides thereof, coiled springs mounted in said recessed portions, a cap member adapted to inclose the coiled springs, means extending through the cap members into engagement with the body of the brush to limit the movement of the cap members, and enlargements formed on the casing adapted to receive the cap members for a purpose specified.

2. In a device of the character described the combination with a brush, of a casing, the bottom of the casing being open, the body of the brush forming a closure for said opening, enlargements formed on said casing, slidable plungers mounted on the body of the brush adapted to engage the enlargement to retain the brush within the casing, and a sheet metal member mounted on the brush adapted to limit the inward movement thereof for a purpose specified.



3. In a shoe polishing cabinet, the combination with a brush, of a casing having the bottom thereof open, the body of the brush having recesses formed therein, plungers slidably mounted in said recesses, and means associated with the casing to receive the plungers and thus retain the body of the brush within the open bottom.

1,254,822. JOINT CONNECTION. ISAAC MANNHEIMER, Cincinnati, Ohio. Filed Nov. 23, 1916. Serial No. 132,978. (Cl. 137—98.)



1. In a device of the character described, the combination with headers of a superheating system, of a superheating element having a pair of ends adapted to be connected to said headers, each of said ends provided with a bearing face, a connecting member for each of said ends, each of said connecting members having an end provided with a bearing face adapted to engage said respective first-named bearing faces, the other end of each of said connecting members provided with a convex bearing face, said headers respectively provided with openings having countersunk sockets communicating therewith, said convex bearing faces received in said sockets and coacting with the walls of said sockets for forming ball and socket joint connections, said connecting members provided with means to rotate the same respectively between and in contact with said first-named bearing faces and said walls of said sockets while maintaining equal distance between said ends of said superheating element and said headers, and means for clamping said ends of said superheating element and said walls of said sockets toward one another with said connecting members between the same.

2. In a device of the character described, the combination with headers of a superheating system, of a superheating element having a pair of ends adapted to be connected to said headers, each of said ends provided with an end bearing face, said headers respectively provided with sockets, said sockets provided with concave bearing walls, a pair of connecting members, each of said connecting members having one end provided with an end bearing face, its other end provided with a convex bearing face, and its outer periphery provided with rotating means, said bearing faces on said connecting members coacting respectively with said first-named end bearing faces and said concave bearing faces for forming ball and socket joints, constructed and arranged for grinding said joints by rotation of said connecting members while maintaining equal distance between said first-named ends and said headers, and means for clamping said first-named ends and said headers toward one another with said connecting members between the same.

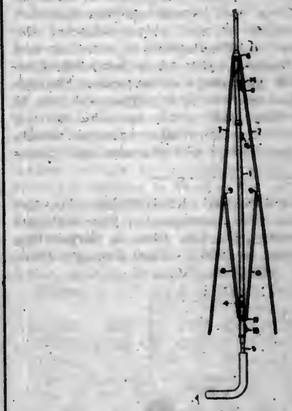
3. In a device of the character described, the combination with a pair of headers of a superheating system, of a superheating element having a pair of ends, said ends adapted to be respectively removably connected to said headers, a rotatable connecting member between each of said ends and the header with which it coacts, said rotatable connecting members and said headers and ends provided with coacting joint faces, each of said connecting members provided with means for rotating the same during maintenance of equal distance between said ends and said headers, a yoke coacting with said respective ends, a tension-member having attachment with said headers and passing through said yoke for clamping said ends, connecting members and headers together, and a spring surrounding said tension-members and cushioning the pressure exerted thereby, said tension-member and spring located between said ends of said superheating element.

4. In a device of the character described, the combination with a pair of headers of a superheating system, of a superheating element having a pair of ends, said ends adapted to be respectively removably connected to said headers, a rotatable connecting member between each of said ends and the header with which it coacts, said rotatable connecting members and said headers and ends provided with coacting joint faces, each of said connecting members provided with means for rotating the same during maintenance of equal distance between said ends and said headers, a yoke coacting with said respective ends, a tension-member having attachment with said headers and passing through said yoke for clamping said ends, connecting members and headers together, a spring surrounding said tension-member and cushioning the pressure exerted thereby, said tension-member and spring located between said ends of said superheating element, insulating material surrounding said spring, and a cap received about said insulating material.

5. In a device of the character described, the combination with headers of a superheating system, of a superheating element having a pair of ends adapted to be removably connected to said headers, a connecting member for each of said ends and said respective headers, said connecting members and said ends and headers having ground joints between them at the respective ends of said connecting members, said connecting members provided with means for rotating the same during maintenance of axial distance between said ends and headers, each of said ends provided with an enlargement, a collar about each of said ends, said collar and enlargement at each of said ends provided with coacting faces and said collars independently shiftable, a yoke coacting with said collars, and a tension-member received between said ends of said superheating element and having connection with said headers for clamping said collars against said enlargements and said connecting members between said ends of said superheating element and said headers.

1,254,823. FOLDING UMBRELLA. JOHN T. MANNING, Brookline, Mass. Filed Apr. 16, 1917. Serial No. 162,288. (Cl. 135—46.)

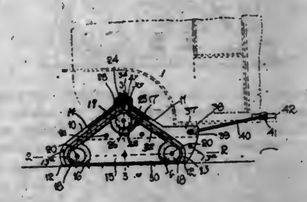
2. In an umbrella, the combination with a compound umbrella stick comprising an outer tubular member and an inner jointed member extending through the outer member and slidable longitudinally thereof, of ribs hinged to the outer member, a runner slidable on the outer member and connected to the ribs, a latch carried by the inner member and adapted to lock the two members together when they are in extended position, and a latch-releasing



projection carried by one of the ribs and adapted to engage the latch when the umbrella is closed.

[Claim 1 not printed in the Gazette.]

1,254,824. DRIVING-RUNNER FOR AUTOMOBILES. JOSSEF MARCINKO, Cleveland, Ohio. Filed June 13, 1917. Serial No. 174,571. (Cl. 180—5.)



1. A driving sled runner for motor vehicles open on its bottom and approximately triangular in form, forward and rear guiding sprocket wheels disposed within the runner adjacent its bottom, a driving sprocket wheel mounted in the upper portion of the runner for vertical movement, a driving sprocket chain passing over said sprocket wheels and provided with calks, and means for vertically shifting the driving sprocket wheel relatively to the body of the runner to thereby tighten the sprocket chain.

2. A driving sled runner for motor vehicles comprising a frame formed with downwardly divergent forward and rear portions, the apex of the frame being formed with an upwardly extending recess, plates secured to the frame on each side thereof, guiding sprocket wheels rotatably mounted in said plates adjacent the lower end of the runner, vertically disposed supporting members extending upward into said recess of the frame, a driving sprocket wheel rotatably mounted in said supporting members, and a screw passing through the top of the frame and operatively engaging the supporting members to thereby vertically adjust said supporting members and the sprocket wheel to tighten the sprocket chain, and a sprocket chain having calks passing around said sprocket wheels.

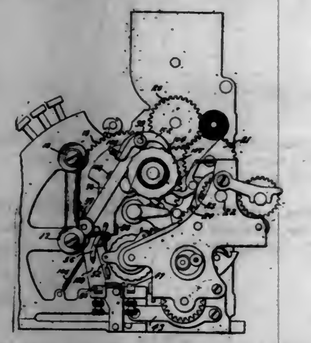
3. A driving sled runner for motor vehicles, open on its bottom, forward and rear guiding sprocket wheels disposed within the runner adjacent the bottom, a yoke mounted for vertical adjustment in the upper end of the runner, a driving sprocket wheel carried by said yoke, and a driving sprocket chain passing over the sprocket wheels and provided with calks.

4. A driving sled runner for motor vehicles comprising a frame having downwardly divergent forward and rear

portions, the apex of the frame being formed with an upwardly extending recess, plates secured to the frame on each side thereof and formed with vertical slots extending downward from said recess, guiding sprocket wheels rotatably mounted in said plates adjacent the lower end of the runner, a yoke disposed in said slots and vertically adjustable therein, a driving sprocket wheel rotatably mounted in said yoke, and a screw passing through the top of the frame and operatively engaging said yoke to thereby vertically adjust said yoke and the driving sprocket wheel relatively to the guiding sprocket wheels to tighten the sprocket chains, and the sprocket chains

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1,254,825. TICKET-PRINTING REGISTER. HAAKON A. MARTIN, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (Incorporated in 1906.) Filed Jan. 29, 1913. Serial No. 744,920. (Cl. 101—70.)



1. In a machine of the class described, the combination with a main operating mechanism, of means normally locking it against operation, a printing device comprising a cylinder normally detached from the machine but insertible therein and having devices for printing the name of a station and the serial numbers of tickets sold to that station, connections whereby the insertion of said cylinder into the machine releases the locking means and means for actuating said serial number device upon an operation of the machine.

7. In a machine of the class described, the combination with a main operating mechanism, of price printing and operators' identifying type carriers, manipulative devices controlling said type carriers, a plurality of station devices separately insertible into the printer, said devices carrying type to print the names of destination stations and type carriers for serially numbering the tickets sold to the stations, means in the machine for operating the consecutive numbering type carriers to advance same when the main operating mechanism is operated, and means actuated by the main operating mechanism for taking impressions from all of the above mentioned type carriers.

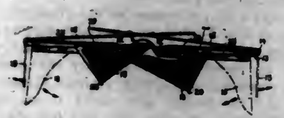
10. In a machine of the class described, the combination with a main printing device, of an auxiliary printing device, inking means for the main printing device, and a single means for simultaneously operating said inking means and auxiliary device.

[Claims 2 to 6, 8, 9, and 11 to 16 not printed in the Gazette.]

1,254,826. EYEGLASSES. LAURENCE C. MARTIN, Providence, R. I. Filed Sept. 11, 1916. Serial No. 119,417. (Cl. 2—149.)

1. In eyeglass construction, in combination, a rim shaped to form a pair of channels, a protective lens formed of heavy glass constituted and adapted to resist the effect of a blow securely mounted in the forward channel, an optical lens mounted in the rear channel in parallel relation to said protective lens, and means adapted to hold the ends of said rim in position with the edges of said lenses closely embraced by said channels.

2. In eyeglass construction, in combination, a protective lens, a resilient rim embracing said lens, a protective device pivoted to the upper and lower portions of said rim and adapted to swing outwardly into a position extending rearwardly from the rim, a bridge connected with one side of said rim, and means securing the ends of said rim one to another at a point between said bridge and said pivotal connection with said protective device.



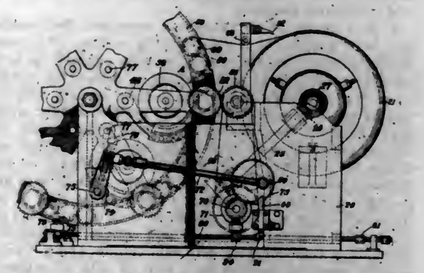
4. In eyeglass construction, in combination, a protective lens having a beveled edge, and an extreme edge at a greater angle with the plane of the lens than said bevel, a rim forming a channel, the walls of which are at an angle substantially equal to that between the bevel surface of said lens and the opposite surface thereof, and means adapted to hold said rim tightly about said lens with its extreme edge surface out of contact with the bottom of said channel.

5. In eyeglass construction, in combination, a protective lens, an optical lens, a single device embracing the edges of said lenses and holding them substantially parallel, and a releasable catch securing the ends of said device one to another.

8. In eyeglass construction, in combination, a rim forming a channel, the walls of which diverge at a predetermined angle, a protective lens the edge portions of which converge as substantially said angle, the edge portion of said lens being shaped to fit snugly within said channel and out of contact with the bottom of said channel, and a releasable catch adapted to secure the ends of said rim one to another.

[Claims 3, 6, 7, and 9 not printed in the Gazette.]

1,254,827. TIRE-BUILDING MACHINE. THOMAS MIDGLEY, Lancaster, Ohio, assignor to Morgan & Wright, a Corporation of Michigan. Filed Mar. 6, 1915. Serial No. 12,537. (Cl. 154—10.)



1. A tire building machine embodying a ring core, means for driving the same, feed rolls for respective different widths of fabric, means for successively positioning the feed rolls for application of their fabric to the core, and means operatively connecting the feed rolls for positive driving by the core driving means as they arrive opposite the point where they are to be used.

2. A tire building machine embodying a ring core, means for driving the same, feed rolls for respective different widths of fabric, means for successively positioning the rolls for application of their fabric to the core, respective drive shafts for said feed rolls, and a coupling operatively connecting each drive shaft with the core driving means as the corresponding feed roll arrives at the point where it is to be used.

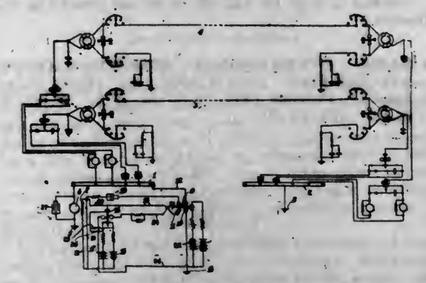
3. A tire building machine embodying a ring core, means for driving the same, feed rolls for respective different widths of fabric, means for successively positioning the rolls for application of their fabric to the core, respective drive shafts for the feed rolls, a single coupling for connecting each drive shaft with the core driving means, and a clutch operatively connected with the coupling and automatically moved to active position when a predetermined tension comes upon the fabric.

4. A tire building machine embodying a frame, a turret rotatively mounted on the frame, feed rolls for respective different widths of fabric disposed in spaced relation on the turret, driven shafts carried by the turret for rotating respective feed rolls, a driving means on the frame positioned to operatively engage the driven shafts successively, a ring core on the frame, means for driving the ring core, and means for positively driving the drive shaft from the core driving means.

5. A tire building machine embodying a frame, a step rotated turret thereon, feed rolls on the turret for respective different widths of tire fabric, driven shafts on the turret for respective feed rolls, a drive shaft on the frame positioned to operatively engage the driven shafts successively, means for imparting a step rotation to the turret, means for locking the turret stationary upon engagement of any particular driven shaft with the drive shaft, a ring core on the frame, means for driving the ring core, and means for positively driving said drive shaft from the ring core driving means.

[Claim 6 not printed in the Gazette.]

1,254,828. METHOD OF AND MEANS FOR COMPENSATING FOR DISTURBANCES OF EARTH POTENTIAL. JOSEPH W. MILNOR, New York, N. Y., assignor to The Western Union Telegraph Company, New York, N. Y., a Corporation of New York. Filed Mar. 10, 1917. Serial No. 153,822. (Cl. 178—69.)



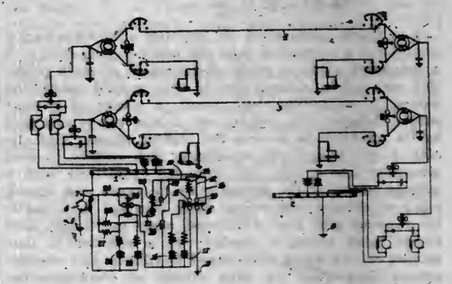
1. The herein described method of equalizing the potential between a grounding point of a system of electrical communication and true earth potential, which consists in connecting such grounding point to ground and normally maintaining in such ground connection an alternating potential of high frequency and minimal value, and during times of difference of potential between such grounding point and true earth potential prolonging the waves of one direction or the other, according to circumstances, of such alternating potential and causing them to increase in voltage to compensate for the potential disturbance at the grounding point.

2. The herein described method of compensating for potential disturbance at an earthing point of a system of electrical communication, which consists in including between the said system of communication and its earthing point a generator having a field by variation of current flow through which the direction and voltage of the current of the generator may be varied, passing a current through such field and reversing such current at a high rate during times of little or no potential disturbance, and thereby preventing the generator current from building up to a material value, and during times of material disturbance prolonging said field current waves of the one direction or the other, according to circumstances, and thereby causing the current of said generator to build up to compensate for such potential disturbance.

8. A ground connection for a system of communication comprising a connection from one point of such system to a grounding point at which disturbance of earth potential may exist, a generator in such ground connection having a controlling field circuit, a source of current supply therefor, two relays having magnet coils, and sources of current supply therefor, and having armatures and contact points and connections whereby each relay, when operated, reverses the current in the magnet circuit of the other relay, one of said relays arranged likewise to reverse the current in the field circuit, a condenser in the magnet circuit of the other relay preventing a steady current from flowing therethrough, said second relay having a further magnet circuit, and another ground connection from said system of communication passing through said further magnet circuit.

[Claims 3 to 7 and 9 to 16 not printed in the Gazette.]

1,254,829. MEANS FOR COMPENSATING FOR DISTURBANCES OF EARTH POTENTIAL. JOSEPH W. MILNOR, New York, N. Y., assignor to The Western Union Telegraph Company, New York, N. Y., a Corporation of New York. Filed Mar. 10, 1917. Serial No. 153,823. (Cl. 178—69.)



1. A ground connection for a system of communication comprising a connection from one point of such system to a grounding point at which disturbances of earth potential may exist, a generator in such ground connection having a controlling field circuit, a source of current supply therefor, two relays, one of said relays arranged by its vibration to reverse the current in said field circuit, the other relay provided with means for causing its own vibration and connected to said first mentioned relay to cause such first mentioned relay to vibrate, such second relay having a magnet coil in addition to that magnet coil by which it is caused to vibrate, and another ground connection for such system of communication passing through such second magnet coil of such second relay.

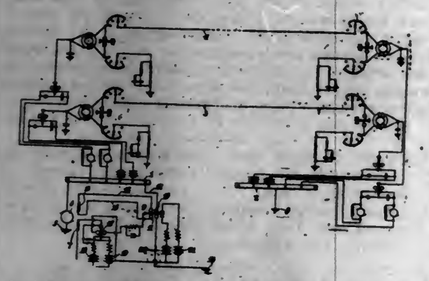
4. In a system of communication comprising a correcting generator, the combination with such correcting generator, of two relays, one of said relays arranged by its vibration to reverse the current in the field circuit of said generator, the other relay provided with means for causing its own vibration, and connected to such first mentioned relay to cause such first mentioned relay to vibrate, such second relay having a magnet coil in addition to that magnet coil by which it is caused to vibrate, such second magnet coil serving for the control of said relay.

10. A ground connection for a system of communication comprising a connection from one point of such system to a grounding point at which disturbances of earth potential may exist, a generator in such connection having a controlling field circuit, a source of current supply therefor, two relays, one controlling such source of current supply and arranged when operated to reverse the flow of current through that field circuit, the second relay comprising means for causing it to vibrate continuously normally, and connected to the first relay to cause such first relay to vibrate correspondingly, and means causing said sec-

ond relay, in the event of potential disturbance, to linger against its one contact or the other, according to the character of the potential disturbance.

[Claims 2, 3, 5 to 9, and 11 to 14 not printed in the Gazette.]

1,254,830. MEANS FOR COMPENSATING FOR DISTURBANCES OF EARTH POTENTIAL. JOSEPH W. MILNOR, New York, N. Y., assignor to The Western Union Telegraph Company, New York, N. Y., a Corporation of New York. Filed Mar. 10, 1917. Serial No. 153,824. (Cl. 178—69.)



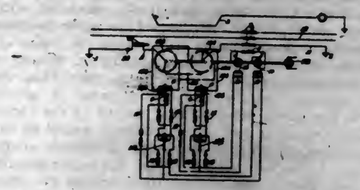
1. A ground connection for a system of communication comprising a connection from one point of such system to a grounding point at which disturbances of earth potential may exist; a generator in such ground connection having a controlling field circuit, a source of current supply therefor, two relays, one of said relays arranged by its vibration to reverse the current in said field circuit, a coil inductively associated with respect to said generator field circuit and connected operatively with a magnet circuit of the second relay, to cause such second relay to vibrate, said second relay provided with means for causing said first mentioned relay to vibrate, said second relay having a magnet coil in addition to that magnet coil by which it is caused to vibrate, and another ground connection for such system of communication passing through such second magnet coil of such second relay.

2. In a system of communication comprising a correcting generator, the combination with a correcting generator having a controlling field circuit, relay means arranged by vibration to reverse the current in said field circuit; a coil inductively associated with respect to said generator field circuit, and arranged to maintain said relay means in vibration, said relay means having a controlling magnet in addition to that coil by which it is caused to vibrate.

3. In a system of communication comprising a correcting generator arranged to correct for external disturbances imparted to the system, the combination with a correcting generator having a controlling field circuit, relay means arranged by its vibration to reverse the current in said field circuit, said relay means having an operating magnet, a coil inductively associated with said generator field circuit, and connected operatively with said magnet to cause the vibration of such relay means, such relay means having also another control magnet, and a control circuit subjected, like such system of communication, to the disturbance, and passing through said controlling magnet.

1,254,831. METHOD OF AND MEANS FOR CORRECTING FOR ALTERNATING-CURRENT ELECTROMAGNETIC INDUCTION AND FOR ALTERNATING-CURRENT EARTH POTENTIAL. JOSEPH W. MILNOR, New York, N. Y., assignor to The Western Union Telegraph Company, New York, N. Y., a Corporation of New York. Filed Mar. 10, 1917. Serial No. 153,825. (Cl. 178—69.)

1. The herein described method of correcting for alternating current disturbance in systems of communication which comprises opposing to the disturbing alternating voltage a voltange of the same frequency and phase and of opposite sign and automatically regulating such opposing voltage in accordance with variations of the disturbing voltage.

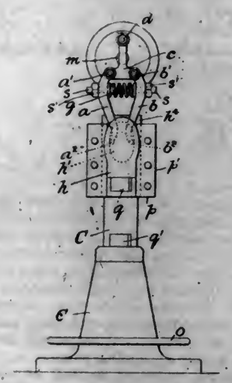


3. The herein described method of correcting for alternating current disturbance in system of communication, which comprises producing an alternating correcting voltage of substantially the same frequency and phase as the disturbing voltage but of opposite sign and opposing the disturbing voltage in such system by said correcting voltage, and automatically regulating the value of such correcting voltage by flow of current in a control conductor exposed, like such system, to the influence of the alternating current disturbance.

14. The combination with a system of communication, of a plurality of alternating current generators comprising means for opposing the voltage generated thereby to alternating current voltage otherwise present in said system, and comprising also field control means operated in accordance with flow of alternating current in such system and operating to regulate such generators separately but in harmony to produce an opposing voltage corresponding in phase and value to the said alternating current voltage otherwise present in the system.

[Claims 2, 4 to 13, and 15 to 22 not printed in the Gazette.]

1,254,832. POWER-HAMMER, STAMPING-MACHINE, AND THE LIKE. JOHN MITCHELL and ALBERT BINNS, Keighley, England. Filed Nov. 26, 1915. Serial No. 63,429. (Cl. 78—40.)



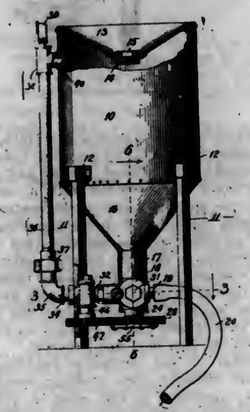
In a power hammer, a reciprocating block or hammer, grooves formed therein, an opening formed approximately centrally in said block, levers having lateral extensions pressed into engagement with the surfaces surrounding said central opening, a link to which the opposite ends of said levers are pivoted, a single spring intervening between said levers to press their lateral extremities into engagement with said surfaces surrounding said central opening, means for adjusting the tension of said spring, and means for reciprocating said link.

1,254,833. ACTIVATED-SLUDGE TREATMENT. WILLIAM C. MOOR, Fort Worth, Tex., assignor to Armour and Company, Chicago, Ill., a Corporation of Illinois. Filed July 9, 1917. Serial No. 179,499. (Cl. 71—8.)

5. The method of de-hydrating activated sludge which consists in heating the same above 30° C., then subjecting the same to the action of sulfuric acid whereby coagulation takes place accompanied by the generation of gas therein and the coagulated sludge is caused to float, and then separating the coagulated floating sludge from the liquid, and drying.

[Claims 1 to 4 and 6 not printed in the Gazette.]

1,254,834. SPRAYING APPARATUS. WILLIAM P. MOTT, Chicago, Ill. Filed Dec. 27, 1911. Serial No. 668,140. (Cl. 51—12.)



1. In a device of the class described, a receptacle, a duct leading from said receptacle, a duct leading to said receptacle, a passage communicating with an air supply and connecting said ducts, means to control the communication of said passage with said air supply, said means being also adapted to control the communication of said second named duct with said passage, other means to control the communication of said first named duct with said passage, both of said means being adapted to operate in correlation.

2. In a device of the class described, a receptacle, a duct leading from said receptacle, a duct leading to said receptacle, a passage communicating with an air supply and communicating with said ducts, means to control the communication of said first named duct with said passage, means to control the communication of said second named duct with said passage, and also to control the communication of said air supply with said passage, said last named means being adapted in different positions to permit air only to pass through said passage, or to permit the passage of air to said receptacle only, or to permit the passage of air through said passage and to said receptacle simultaneously.

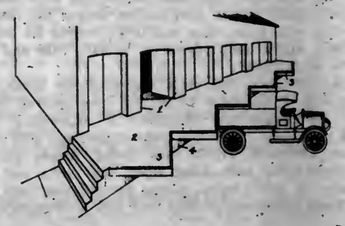
3. In a device of the class described, a receptacle, a duct leading from said receptacle, a duct leading to said receptacle, a passage communicating with said ducts and also with an air supply, means to control the communication of said first named duct with said passage, means to control the communication of said second named duct with said passage, and also to control the communication of said air supply with said passage, said last named means being adapted in different positions to permit air only to pass through said passage, or to close the communication of said air supply to said passage, or to permit the passage of air to said receptacle only, or to permit the passage of air through said passage and to said receptacle simultaneously.

4. In a device of the class described, a receptacle, a duct leading from said receptacle, a duct leading to said receptacle, a passage communicating with an air supply and communicating with said ducts, means to control the communication of said first named duct with said passage, and means to control the communication of said second named duct with said passage, and also to control the communication of said air supply with said passage, said last named means being adapted in different positions to permit air only to pass through said passage, or to permit the passage of air to said receptacle only, or to permit the passage of air through said passage and to said receptacle simultaneously, said first named means being adapted to allow the passage of material from said receptacle when said second named means is in its last named position.

5. In a device of the class described, a receptacle, a duct leading from said receptacle, a duct leading to said receptacle, a passage communicating with an air supply, and communicating with said ducts, means to control the communication of said first named duct with said passage, means to control the communication of said second named duct with said passage and also to control the communication of said air supply with said passage, said last named means being adapted in different positions to permit air only to pass through said passage, or to permit the passage of air to said receptacle only, or to permit the passage of air through said passage and to said rectacle simultaneously, said first named means being adapted to allow the passage of material from said receptacle when said second named means is in its last named position, both of said means being interconnected so that said first named means will allow material from said receptacle to pass through said first named duct to said passage when said second named means is in its last named position.

[Claims 6 to 8 not printed in the Gazette.]

1,254,835. LOADING-PLATFORM. ALBERT A. MUDGE, Cleveland, Ohio. Filed Sept. 10, 1917. Serial No. 190,495. (Cl. 104—62.)



1. A platform of the class described having edged portions so disposed to each other that a vehicle may stand with its side in loading or unloading relation to one portion while its end is in similar relation to the other portion.

3. A platform of the class described having a "zigzag" edge, as and for the purpose specified.

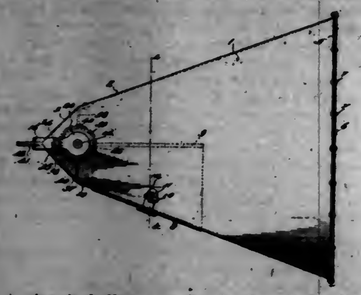
6. In a structure of the character set forth, the combination of a platform having edge portions so disposed to each other that a vehicle may stand with its side in loading or unloading relation to one portion while its end is in similar relation to the other portion, and a platform support inset from the edge of the platform to provide wheel clearance beneath such edge.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,254,836. ACTIVATED-SLUDGE TREATMENT. GEORGE B. MULLOY, Chicago, Ill., assignor to Armour and Company, Chicago, Ill., a Corporation of Illinois. Filed July 9, 1917. Serial No. 179,457. (Cl. 210—18.)

The improvement in the activated sludge method of treatment as applied to industrial sewage which consists in preliminary diluting the raw sewage with effluent liquid from previously treated sewage.

1,254,837. SIGN. JOHN D. MUMFORD, Silver Creek, N. Y. Filed May 4, 1916. Serial No. 95,413. (Cl. 40—132.)



1. A sign including a casing having converging rear side portions polished to form a reflector, a yoke secured to the casing having a flange for supporting the casing, on a bracket, the yoke having portions extending into the casing and having a clamp at the bottom and a bearing at the top, a bracket member held by the clamp, a globe having caps provided with bearing portions for engaging the bracket at the bottom and the bearing portion of the yoke at the top, means for rotating the globe and caps in the respective bearings, and a lamp supported by the yoke and disposed in the globe.

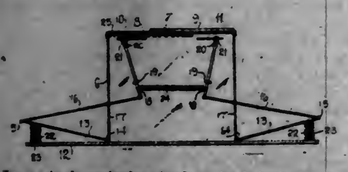
3. In a device of the class described, the combination of a casing, a yoke secured to said casing and having a curved portion supporting the casing, said yoke having portions extending into said casing and having a clamp at the bottom and a bearing head at the top, a globe positioned within said casing, means for rotatably supporting said globe upon said clamp and said bearing head, means for rotating said globe, and a lamp supported by said yoke and interposed in said globe.

5. In a device of the class described, the combination of a casing, a one-piece yoke secured to said casing and projecting thereinto, said yoke supporting said casing, a globe positioned within said casing, means for rotatably supporting said globe upon said yoke, means for rotating said globe, and a lamp supported by said yoke and interposed in said globe.

7. In a device of the class described, the combination of a casing, a one-piece U shaped yoke secured to said casing and projecting thereinto, a supporting flange formed upon said yoke, said yoke supporting said casing, a globe positioned within said casing, means for rotatably supporting said globe upon said yoke and independently of said casing, means for rotating said globe and a lamp supported on said yoke and interposed in said globe.

[Claims 2, 4, and 6 not printed in the Gazette.]

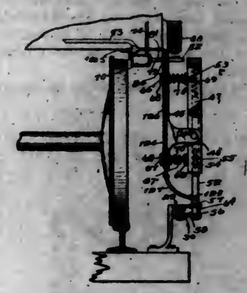
1,254,838. STOCK-WATERING TANK. LESTER B. MURRAY, Kenosha, Wis. Filed Sept. 15, 1917. Serial No. 191,627. (Cl. 119—62.)



1. In a stock watering tank, a tank body having a central longitudinal bar extending across the top thereof, slidable cover plates normally closing the top of the tank at opposite sides of sid bar, one of said cover plates being movable beneath said central bar and the other cover plate over the central bar, and animal actuated means for independently moving the cover plates to open position.

[Claims 2 and 3 not printed in the Gazette.]

1,254,839. TRAIN-CONTROL SYSTEM AND APPARATUS. WILLIAM BROOKS MURRAY, Danville, Ill., assignor to The Miller Train Control Corporation, Staunton, Va., a Corporation of Virginia. Filed Dec. 27, 1913. Serial No. 809,086. (Cl. 246—58.)



1. Apparatus of the character described, comprising a pivoted member to be suitably mounted upon a vehicle, an element carried by the pivoted member and movable longitudinally thereof and provided with a contact, a ramp arranged in the path of travel of the contact and adapted when engaging the same to swing the element and member in one direction, means for actuating train stopping means embodying a member adapted when in one position to be engaged by the first named member upon the movement thereof in one direction, and an electrical device adapted when energized to shift the second named member so that it will not be engaged by the first named member upon the said movement thereof.

6. Apparatus of the character described, comprising fluid pressure operated train stopping means, a valve to control the operation of the same, a pivoted member adapted to operate the valve under certain conditions, electrically operated means for controlling the operation of the valve by the pivoted member, means to move the pivoted member including an element connected therewith and freely movable longitudinally thereof, and mechanical means to move the element laterally.

8. In a train control system, a track divided by insulating means into blocks, a plurality of ramps for guarding the entrance end of each block and arranged in superposed relation, each ramp being formed in a plurality of insulated ramp sections, a source of current, means connecting one ramp section of each ramp with the source of current, and means connecting and disconnecting the other ramp section with and from the source of current.

9. Apparatus of the character described, comprising a track, a ramp arranged near the track, a vehicle to travel on the track, a movable mechanically operated structure connected with the vehicle, signaling means permanently adapted to be operated by the movement of the structure in one direction, a second signaling means adapted to be operated by a corresponding movement of the structure under certain track conditions, train stopping means adapted to be operated by a corresponding movement of the structure under certain track conditions, and electrically operated means adapted when energized for rendering the second signaling means and the train stopping means inoperative, substantially as described.

10. In apparatus of the character described, a track, a ramp arranged near the track, a vehicle to travel upon the track, an apertured support secured to the vehicle, a member pivotally connected with the support and adapted to engage with the ramp to be moved thereby, rods mounted to reciprocate within the apertures of the support and engaging with the member near its ends, spring surrounding the rods to oppose the swinging movement of the member, and train control means adapted to be operated by the movement of the member in one direction.

[Claims 2 to 5, 7, and 11 not printed in the Gazette.]

1,254,840. VALVE-OPERATING MECHANISM. OWEN M. NACKER, Detroit, Mich., assignor of one-half to Alanson P. Brush, Detroit, Mich. Filed Apr. 14, 1917. Serial No. 162,220. (Cl. 74—1.)



1. The combination with a puppet-valve, of a reciprocating member controlling the movement of said valve, and means for imparting to said member a substantially constant velocity during a portion of its movement where said valve is adjacent to its seat.

4. The combination with a puppet-valve, of a rotary cam for controlling the movement of said valve, said cam being fashioned to impart a substantially uniform velocity to the valve during a predetermined angular movement of the cam.

6. The combination with a puppet-valve of mechanism for opening and closing said valve provided with means for imparting substantially constant velocity to said valve when adjacent to its seat irrespective of variable amounts of back-lash within said mechanism.

9. The combination with a puppet-valve, of mechanism for opening and closing said valve provided with means for imparting to the valve during initial opening and final closing movements thereof, a predeterminedly-limited and substantially-constant velocity irrespective of variations in back-lash within said mechanism.

[Claims 2, 3, 5, 7, and 8 not printed in the Gazette.]

1,254,841. ACTIVATED-SLUDGE TREATMENT. GUY L. NOBLE, Chicago, Ill., assignor to Armour and Company, Chicago, Ill., a Corporation of Illinois. Filed July 9, 1917. Serial No. 179,456. (Cl. 210—18.)

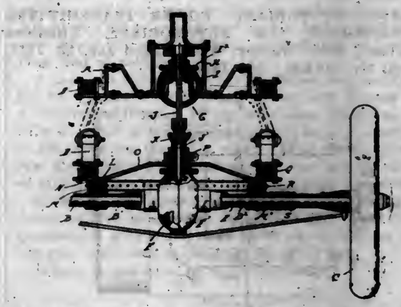
1. The improvement in the activated sludge method of treatment as applied to sewage, which consists in drawing off the activated sludge from previously treated sewage, aerating such sludge after its withdrawal to enhance the virility of the aerobic organisms therein, and inoculating the raw sewage with such re-vitalized sludge.

2. The improvement in the activated sludge method of treatment as applied to sewage, which consists in drawing off the activated sludge from previously treated sewage, aerating such sludge for a period of about three hours after its withdrawal to enhance the virility of the aerobic organisms therein, and inoculating the raw sewage with such re-vitalized sludge.

1,254,842. FRONT-AXLE-MOUNTING MECHANISM. ELMER H. OVERSMITH, Jonesville, Mich., assignor, by mesne assignments, to Brazil Motors Company, Brazil, Ind., a Corporation of Indiana. Filed Feb. 16, 1917. Serial No. 149,118. (Cl. 180—42.)

1. In a motor vehicle, a drive axle, means for driving said axle, a frame, springs supporting said frame, complementary circle bars upon said axle, and a cross connection between said circle bars and springs, said cross connection having a substantially central aperture through which said driving means passes.

3. In a motor vehicle, a drive axle provided with a differential gearing and a housing for said gearing, said housing having a cylindrical portion, a frame, springs supporting said frame, a circle bar upon said axle, a complementary circle bar, a cross connection secured to said complementary circle bar and provided with a substantially central aperture for enaging said cylindrical portion, said springs resting upon opposite ends of said cross connection, a common means for securing said springs, opposite ends of the cross connection and the complementary circle bar to each other, and means for retaining said cross connection in place upon said cylindrical portion of the housing.



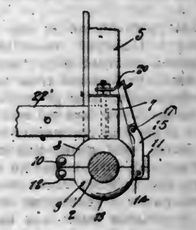
5. In a motor vehicle, the combination with a drive axle, means for driving said axle, and a housing upon said axle inclosing said driving means, of a frame, springs supporting said frame, a circle bar upon said axle, a complementary circle bar, a cross connection between said complementary circle bar and springs, means for securing said complementary circle bar, cross connection and springs to each other, and means for securing said cross connection to said housing upon the drive axle, whereby said complementary circle bar is secured to said circle bar upon the drive axle.

7. In a motor vehicle, drive shafts, differential gearing therefor, a substantially vertically extending driving connection for said gearing, a housing for said gearing and a fifth wheel comprising complementary circle bars upon said drive shafts positioned substantially concentric with and by said housing.

8. In a motor vehicle, a drive axle, driving means for said axle, a frame, springs supporting said frame, and a fifth wheel upon said axle carrying said springs, said fifth wheel having a cross-connection provided with a substantially central aperture through which said driving means passes.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,254,843. DISK-HARROW BOXING. GEORGE N. PALSER, North Loup, Nebr. Filed June 17, 1916. Serial No. 104,196. (Cl. 55—30.)



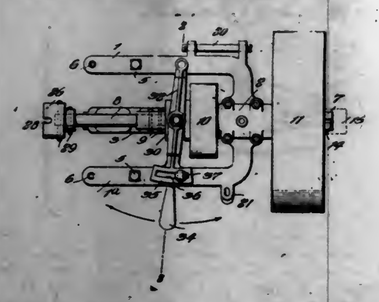
1. In a disk harrow boxing structure, the combination with a pair of pivotally connected bearing members, of a substantially inverted U-shaped extension formed upon one of said members, a bolt attached to and extending through said extension, and a hitch bar pivotally mounted upon said bolt.

3. In a disk harrow structure, the combination with a pair of pivotally connected bearing members, of a sub-

stantially inverted U-shaped extension formed upon one of said members, a bolt attached to and extending through said extension, a hitch bar pivotally mounted upon said bolt, a locking lever for holding said members in a closed shaft supporting position, and means carried by said bolt for engaging said lever to hold it against accidental movement.

[Claims 2 and 4 not printed in the Gazette.]

1,254,844. STATIONARY POWER-TRANSMITTING ATTACHMENT FOR AUTOMOBILES. THEODORE PAULSEN, Sedro Woolley, Wash. Filed Jan. 23, 1917. Serial No. 143,926. (Cl. 180—53.)



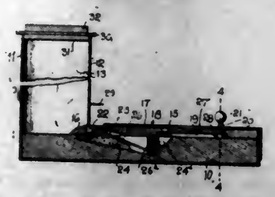
1. An automobile attachment of the character described comprising a frame having means to detachably engage the forward cross bar of an automobile frame in forwardly projecting relation, a driven shaft mounted in said frame and having means to engage the automobile power shaft, a pulley carried by the said driven shaft, an arm inclined upwardly from one side of the attachment frame and movably connected thereto, a rod extending upwardly from the opposite side of said frame and connected to said arm, a fan supported by said arm, and a belt connecting the fan with the said driven shaft, said rod having an adjustable connection with the said frame, for the purpose described.

2. An automobile attachment of the character described, comprising a U-shaped frame having the ends of its extensions provided with means to detachably engage the forward cross bar of the automobile frame, and having a forward centrally disposed bearing, an axially movable shaft having a forward enlarged portion journaled in the said bearing, and having a rear reduced portion provided with a clutch at its rear end, a pulley detachably connected to the forward end of the enlarged portion of the shaft, and a lever in connection with the frame having a yoke engaging a portion of the shaft whereby to shift the latter longitudinally in its bearing on the frame.

3. An automobile attachment of the character described, comprising a U-shaped frame having the rear ends of its extensions provided with clamps for detachable engagement with the forward cross bar of the automobile frame, a supporting arm pivotally connected at its forward end to the lower forward end of the said U-shaped frame, and projecting rearwardly between the extensions of the frame, said supporting arm being also provided at its rear end with means to adjustably and detachably engage the forward cross bar of the automobile frame, and power transmitting connections carried by the said detachable frame and having means to engage the motor shaft of the automobile.

4. An automobile attachment of the character described comprising a frame detachably engageable with the automobile frame in forwardly projecting relation, a longitudinally shiftable shaft carried by said detachable frame for engagement with the motor shaft of the automobile, and having a pulley at its forward end, and means for shifting the said shaft longitudinally into and out of engaged position, including an annularly grooved collar carried by the shaft, a shifting lever mounted on the detachable frame and provided with a yoke in engagement with the said grooved collar, and means connecting the said detachable frame and the said shifting member whereby the latter may be secured in adjusted position.

1,254,845. MATCH-DISPENSING BOX. ALLEN A. PHILLIPS, Fresno, Cal. Filed June 27, 1917. Serial No. 177,301. (Cl. 206—24.)



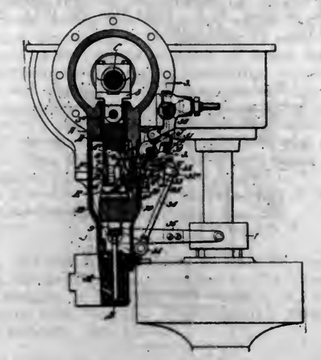
1. A device of the character described comprising a base, a container mounted upon one end of the base and having vertical walls, the front wall being cut away, a slide having a beveled end and having a transverse groove on its upper face, the slide being shiftable into or out of the container, the under face of the slide having longitudinally extending grooves intersecting the transverse groove on the upper face of the slide, a U-shaped member rockingly mounted on the base and providing arms disposed in alinement with the grooves on the under face of the slide and movable upward through said grooves, the U-shaped member being provided with a lug normally extending upward at a plane at right angles to the plane of the arms, and means on the under face of said slide engaging the lug when the slide is retracted to thereby throw the arms upward and project a match from the groove.

4. A device of the character described comprising a base formed upon its upper face with an approximately U-shaped recess having a rearward extension, a U-shaped member mounted in said recess and having an extension at its middle disposed at right angles to the legs of the U-shaped member, a match container mounted upon one end of the base and having rear, side and front walls, the front wall being cut away adjacent the base, a slide mounted upon the base and having a beveled forward wall and a transverse match receiving groove in its upper face just rearward of the forward end, the under face of the slide being formed with a pair of longitudinally extending grooves alining with the arms of the U-shaped groove in the base, and the under face of the slide being also formed with a longitudinally extending groove alining with the upwardly extending portion of said U-shaped member, the forward wall of said groove being adapted to engage with the upwardly extending portion of the U-shaped member to rock the U-shaped member, a cover plate operatively connected to the sides of the base and extending over the slide and formed with a longitudinally extending slot, a handle passing through the slot and into the slide, and a plurality of match deflectors projecting out from the front wall of the container.

[Claims 2, 3, and 5 not printed in the Gazette.]

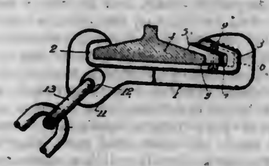
1,254,846. FUEL-PUMP FOR OIL-ENGINES. GEORGE D. POGUE, St. Louis, Mo. Original application filed July 19, 1915, Serial No. 40,678. Divided and this application filed Feb. 11, 1916. Serial No. 77,628. (Cl. 123—140.)

1. A fuel pump for supplying liquid fuel to an internal combustion engine provided with a plunger-operating mechanism that comprises a primary actuating member that moves when the engine is in operation, a variable-stroke member that imparts movement to the plunger of the pump and a connecting device for transmitting movement from one of said members to the other, a tripping device for rendering said connecting device inoperative sooner or later on one stroke of said plunger-operating mechanism, a mechanism combined with the governor of the engine for controlling said tripping device, a manually-operated means for holding said connecting device in an inoperative condition so as to cause the variable-stroke member to remain at rest when the primary actuating member is in operation, and a device under the control of said manually-operated means for governing a medium that is used to start the engine.



2. A fuel pump for supplying liquid fuel to an internal combustion engine provided with a plunger-operating mechanism that comprises a primary actuating member that moves when the engine is in operation, a variable-stroke member that imparts movement to the plunger of the pump and a connecting device for transmitting movement from one of said members to the other, a tripping device for rendering said connecting device inoperative sooner or later on one stroke of said plunger-operating mechanism, a mechanism combined with the governor of the engine for controlling said tripping device, a manually-operated means for holding said connecting device in an inoperative condition so as to cause the variable-stroke member to remain at rest when the primary actuating member is in operation, and a device under the control of said manually-operated means for governing a medium that is used to start the engine, said manually-operated means being so constructed that when it is moved to cause said controlling device to cut off the starting medium the connecting device of the plunger-operating mechanism will be rendered operative and thus cause the pump to feed fuel to the engine.

1,254,847. TRACK-CLAMP. FREDERICK A. PRESTON, Highland Park, Ill., assignor to The Madden Company, Chicago, Ill., a Corporation of Illinois. Filed June 21, 1916. Serial No. 104,985. (Cl. 238—4.)



1. A track clamp comprising a transverse member having an opening therein adapted to receive a chain or cable, whereby said transverse member may be anchored to the road bed, an integral jaw at one end of said transverse member adapted to fit one side of rail bases of different sections and an adjustable member carried by said transverse member at the other end thereof and arranged to fit the other side of the said rail bases.

2. A track clamp comprising a transverse member having an opening therein to receive a chain or cable, an integral jaw at one end thereof, a larger integral jaw at the other end thereof, and a wedging member received between said jaw and the rail base side and having an extension in engagement with the top of the rail base.

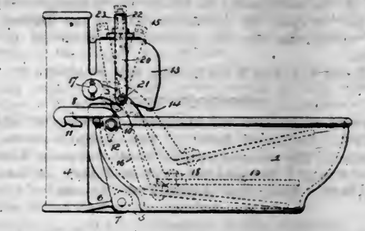
3. A track clamp comprising a transverse member having an opening therein, a jaw at one end thereof having a vertical wall equal to the maximum thickness of the rails to which it may be applied and having a larger jaw at the other end thereof and a wedge fitting within said larger jaw and having a vertical wall of less height than that of said first jaw.

4. A track clamp comprising a transverse member having an opening therein, a jaw at one end thereof having a vertical wall equal to the maximum thickness of the rails to which it may be applied and having a larger jaw at the other end thereof, a wedge fitting within said larger jaw and having a vertical wall of less height than that of said first jaw and a pin for locking said wedge in place.

5. A device of the class described, comprising a transverse member adapted to be wedged into firm frictional engagement with the base of a rail and means for anchoring said transverse member to the road bed.

[Claim 6 not printed in the Gazette.]

1,254,848. WATERING DEVICE FOR CATTLE. HUGO C. RASSMANN, Beaver Dam, Wis. Filed Feb. 12, 1917. Serial No. 148,137. (Cl. 119—75.)



1. In a watering device for cattle, the combination with a bowl and water supply means over the bowl provided with a valve, of a pivotal lever provided with a platform disposed within the bowl, and a saddle pivoted to said lever exteriorly of the bowl and engaging the stem of the valve.

5. In a watering device for cattle, the combination with a water pipe and a valved discharging means communicating therewith, of a bowl hinged to said pipe under the valved discharging means, a lug projecting laterally from said water pipe, and a latch, hinged to the hinged side of the bowl in position to ride over and automatically latch on said lug when the bowl is raised to normal horizontal position.

6. In a watering device for cattle, the combination with a supporting member and a bowl member hinged thereto, of connected latch arms adapted to be disposed at respective sides of one of said members and engaging the other member.

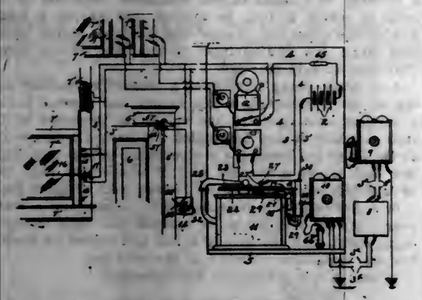
8. In a watering device for cattle, the combination with a support and a bowl hinged thereto, of a latch arm hinged within the bowl and provided with a stop toe, and a lug on the support to receive said latch arm.

[Claims 2 to 4, 7, and 9 to 11 not printed in the Gazette.]

1,254,849. BURGLAR-ALARM. WILLIS C. REED, Cambridge, Ill. Filed Aug. 10, 1915. Serial No. 44,758. (Cl. 179—5.)

1. In a burglar-alarm, an electric circuit, a sound-reproducing instrument, means unintentionally operable by an intruder, for starting said instrument to operate, a telephone including a hook-switch and a receiver normally

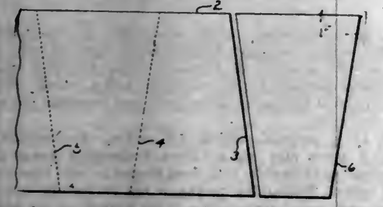
in engagement with said hook-switch, mechanical means connected to said sound-reproducing instrument, for holding said hook-switch in inoperative position, means operable by said instrument for releasing said hook-switch, whereby the sound from the instrument will be received by said telephone, and a telephone station associated with said circuit and adapted to receive a call instantly upon said sound-reproducing instrument commencing to operate.



3. A burglar alarm, comprising a sound reproducing instrument, a telephone transmitter, means governed by the instrument for holding the transmitter inoperative, a circuit, alarms included in said circuit, remote means adapted upon actuation to close the circuit, means operated by the instrument to render the transmitter operative and to open the circuit to cut out the alarms, and stop mechanism for the instrument governed by the circuit.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,254,850. METHOD OF MAKING PAPER DRINKING-CUPS. LOUIS S. REYNAL, New Britain, Conn., assignor to The American Paper Goods Company, Kensington, Conn., a Corporation of New Jersey. Filed Jan. 15, 1917. Serial No. 142,389. (Cl. 93—35.)



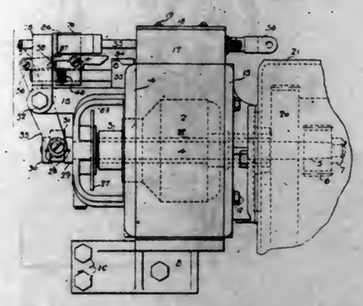
1. A method of making drinking cups which comprises cutting from a sheet in web form a succession of blanks along oppositely inclined angles, so that each cut will form the side of one blank and the side of a succeeding blank, then transversely folding the blanks on lines alternately at opposite sides of the longitudinal center line of the sheet and finally closing against liquid leakage the sides of the transversely folded blanks to form drinking cups.

4. A method of making a drinking cup from a blank having converging side edges, which comprises folding the blank on itself along a straight line at one side of the transverse center line of the blank to produce two leaves of different lengths, the side edges of the longer leaf thus converging toward the open end of the folded blank, and the side edges of the shorter leaf diverging toward said open end, then applying an adhesive to both leaves near their side edges, for the entire length of the short leaf, then folding the lateral portions of both leaves on themselves along lines which diverge toward the open end of the blank to cause the parts of the blank which have the adhesive to adhere only to the outer surface of the long leaf.

8. A method of making a drinking cup from a blank having converging side edges, which comprises longitudinally scoring the blank, transversely folding the same to produce superimposed leaves, and then closing the lateral portions of the leaves to produce a drinking cup.

[Claims 2, 3, and 5 to 7 not printed in the Gazette.]

1,254,851. ENGINE-STARTER. JULIUS H. RICHARDS, Newark, N. J., assignor to Splitdorf Electrical Company, Newark, N. J. Filed Dec. 14, 1914. Serial No. 877,146. (Cl. 172—239.)



1. In apparatus of the class described, the combination of an engine, an electric motor having an armature, a source of power for said motor and switching mechanism for applying said source of power to said motor, said motor having two shafts one within the other, the outer shaft serving as a support for the inner shaft, and means whereby any rotation of one produces a corresponding rotation of the other of said shafts, one of said shafts being adapted to be connected to said engine and the other of said shafts having said motor armature mounted thereon, said means serving also to break said connection between the said shaft and said engine, substantially as and for the purpose described.

5. In apparatus of the class described, the combination of an engine driven member, an electric motor having a hollow armature shaft and bearings therefor, a driving shaft within said armature shaft, a source of power for said motor and means for connecting said source of power to said motor armature, driving means in permanent driving engagement between said two shafts, and means operated by the first mentioned means for connecting the driving shaft to said engine driven member, substantially as described.

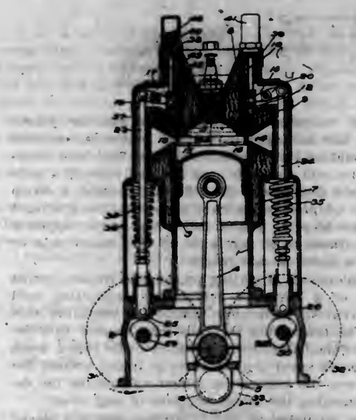
22. In apparatus of the class described, in combination, an engine, a rotatable member on said engine, an electric motor having an armature supported on a hollow shaft, bearings for said shaft, a second shaft supported within said hollow shaft, said inner shaft extending at both ends beyond the motor frame, keys in one of said shafts and corresponding keyways on the other of said shafts, a gear mounted on one of said shaft extensions, a battery, a switch having fixed switch blades and connecting blocks mounted on slidable members, a pawl clutch carried on one of said members, a pawl carried by the other of said members, a connecting lever between said pawl and one of the shaft extensions, means for connecting said lever to said shaft extension, said pawl adapted to engage said pawl clutch when the sliding member on which it is mounted is moved, said switch blocks being arranged to close the circuit from said source of power through said armature, whereby the said gear is engaged with the rotatable member on said engine and said engine is started, substantially as and for the purpose described.

33. In apparatus of the class described, in combination, an engine, a member driven by said engine, an electric motor having a shaft projecting at both ends of its casing, a gear wheel on one of said shaft projections, a source of power for said motor, a switching mechanism adapted to be connected to one of said shaft projections, said switching mechanism when operated causing said projecting shaft to move axially, thereby carrying said gear wheel toward engagement with said engine driven member and further serving to apply, after a predetermined interval of time, the said source of power to said motor should said gear wheel meet with obstruction in its path of engagement with said engine driven member, substantially as described.

35. In combination, a nonself-starting engine, a self starting motor having two shafts one within the other, one of which is adapted to be connected by axial movement thereof to said engine, a source of power for said motor, switching mechanism for connecting one of said shafts to said engine and said power to said motor, a compensating device associated with said switching mechanism whereby a part of said mechanism may move independent of the other parts to apply power to said motor should said shaft in being connected to said engine meet with an obstruction, for the purpose described.

[Claims 2 to 4, 6 to 21, 23 to 32, 34, and 36 to 38 not printed in the Gazette.]

1,254,852. INTERNAL-COMBUSTION ENGINE. ADOLPH ROSNER, Bridgeport, Conn., assignor to The "Locomobile" Company of America, New York, N. Y., a Corporation of West Virginia. Filed Sept. 27, 1911. Serial No. 651,508. (Cl. 123—75.)



2. In an internal combustion engine, the combination of a cylinder, a cylinder head having an inwardly projecting portion, a slide valve working between the cylinder head and the cylinder and presenting a substantially smooth interior to the walls of the head, said valve having a portion adapted to be projected beyond the cylinder head to close the cylinder port.

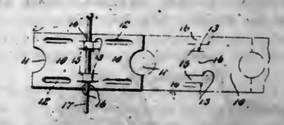
3. In an internal combustion engine the combination with a cylinder having admission and exhaust ports, a cylinder head having a portion projecting into the cylinder, arc-shaped slide valves closely fitting the space between the cylinder head and the cylinder but adapted to be projected beyond the cylinder head, each to close its port, and means for preventing the access of high pressure to the sides of the valves facing the cylinder head.

4. An internal combustion engine having a cylinder, a piston, a cylinder port, an integrally projecting cylinder head, and a segmental arc-shaped slide valve presenting a substantially smooth face in sliding contact with said cylinder head and adapted to be projected beyond the same to close the port.

8. An internal combustion engine having a cylinder, a piston, a cylinder port, an internally projecting cylinder head, a segmental, arc-shaped slide valve presenting a substantially smooth face in sliding contact with said head and adapted to be projected beyond the same to close the port, and operating connections for moving the valve connected thereto through an opening in the cylinder wall on which the valve seats.

[Claims 1, and 5 to 7 not printed in the Gazette.]

1,254,853. SUPPORT AND TIE FOR CONCRETE-REINFORCING BARS. GEORGE R. SCHOENTHALER, Chicago, Ill. Filed June 28, 1915. Serial No. 36,666. (Cl. 72—122.)



1. A reinforcement supporting device comprising a supporting member in the form of a ductile sheet metal blank shaped and bent to provide angularly disposed members and a loop across the line of bend therebetween, and a ductile tie member retained by said loop and secured therein by the metal drawn on the line of bend in the shaping of the supporting member.

3. An article of the class described comprising a supporting member consisting of a blank of ductile sheet metal cut and bent to provide angularly disposed members and a loop adjacent the line of bend therebetween, and a ductile tie member retained in said loop and secured therein by metal displaced on the line of bend in the shaping of the supporting member.

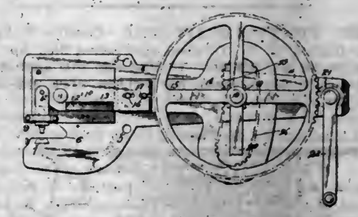
6. An article of the class described comprising a supporting member of ductile sheet metal having deflected portions bent into angular relationship, a portion of said member being slotted to form a loop extending across the line of bend and having its ends integral with the deflected portions respectively, and a ductile tie member disposed in said loop and retained on the supporting member by clamping coöperation of the loop and adjacent portion of the supporting member.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,254,854. COMPOSITION OF MATTER. FRANK T. SCHULLER, Minneapolis, Minn. Filed Aug. 6, 1917. Serial No. 184,649. (Cl. 75—1.)

A composition of matter consisting of aluminum, tin and phosphorus incorporated and combined in proportions of ninety-six to ninety-eight per cent. of aluminum, three and three-fourths to one and eleven-sixteenths per cent. of tin, and one-fourth of one per cent. to three-sixteenths of one per cent. of phosphorus.

1,254,855. PUNCHING AND CUTTING MACHINE. JACOB SCHWARTZKOPF, Stanford, Mont. Filed Aug. 11, 1916. Serial No. 114,436. (Cl. 164—14.)

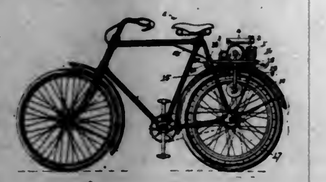


1. In a device of the class described, the combination with fixed and movable jaws, the said movable jaw being provided with elongated openings, an arm, bolts connecting said arm with said movable jaw through said elongated openings, spaced concentric rack members at the ex-

tremity of said arm, the said rack members being connected at their extremities, teeth on portions of said connections, a pinion arranged between said rack portions and adapted to engage with the same one at a time, and means for rotating said pinion, substantially as described.

[Claim 2 not printed in the Gazette.]

1,254,856. POWER-TRANSMISSION MECHANISM. HORACE LAWRENCE SHARPE, Balham, London, England, assignor to The London and Westminster Industrial Syndicate Limited, London, England. Filed Apr. 26, 1916. Serial No. 93,750. (Cl. 74—26.)

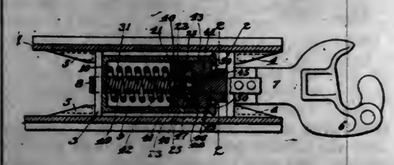


1. Gear for transmitting power from a motor, comprising a bar pivoted at one end coaxially with the crank shaft of the motor, a shaft journaled on the other end of the bar, a friction wheel and a sprocket wheel on the shaft, a sprocket wheel on the motor shaft, a sprocket chain joining the two sprocket wheels, a power transmitting wheel carrying an annular driving surface within its periphery, the parts being arranged so that the friction wheel may be disposed relative to said annular driving surface to contact with the driving surface at such point on the surface that the contact pressure of the friction wheel on the surface is increased as increased force is transmitted to the power transmitting wheel, and means for moving the friction wheel out of contact with the driving surface.

4. Apparatus for transmitting power from a motor to a bicycle or other road vehicle, comprising the combination of a motor adapted to be secured to the frame of the vehicle above a road wheel of the vehicle, a device on the road wheel having annular driving surfaces within the periphery of the wheel, sprocket wheels on opposite ends of the motor shaft, a bar at each side of the vehicle pivoted at one end coaxially with the crank shaft of the motor, a shaft journaled on the free end of each bar, a friction wheel and a sprocket wheel on each shaft, a sprocket chain joining each sprocket wheel last-mentioned and the sprocket wheel on the motor shaft on that side of the vehicle, the parts being so arranged that each friction wheel may be disposed relative to one of the annular driving surfaces in contact therewith at such point thereon that the contact pressure of the friction wheel is increased as increased pressure is transmitted to the driving surface, and means for moving the friction wheel out of contact with the driving surface.

[Claims 2 and 3 not printed in the Gazette.]

1,254,857. FRICTION DRAFT-GEAR. CLIFTON W. SHERMAN, Buffalo, N. Y. Original application filed Apr. 23, 1914, Serial No. 833,898. Divided and this application filed Aug. 1, 1917. Serial No. 183,955. (Cl. 213—64.)

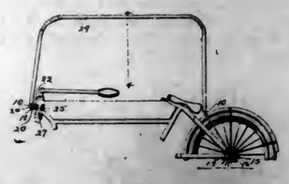


1. A friction draft gear comprising a friction member, a plurality of friction shoes engaging with said friction member and having inner faces and inclined outer faces, and a wedge member having a reduced neck arranged between said shoes, an inwardly tapering face engaging with the outer inclined faces of said shoes and an outwardly turned face engaging with the inner faces of said shoes, said friction member having shoulders against which the shoes bear with their front or outer ends.

5. A friction draft gear comprising a friction member, a plurality of outer friction shoes engaging said friction member and having inclined inner and outer ends, a wedge member having a reduced neck arranged between said shoes and tapering faces at the outer and inner ends of said neck engaging with the outer and inner inclined faces of said outer shoes, a plurality of inner shoes engaging with said friction member, a plurality of inner wedge sections engaging their inclined faces with said inner shoes and their outer ends with said wedge member, and springs engaging with the rear ends of said inner shoes and wedge sections.

[Claims 2 to 4 not printed in the Gazette.]

1,254,858. TOP FOR BICYCLES AND MOTOR-CYCLES. ISAAC SHMELSTEIN, Mason City, Iowa. Filed Feb. 13, 1917. Serial No. 148,445. (Cl. 135—7.)



1. A frame composed of mating arched members placed side by side and arranged in vertical planes on opposite sides of the median line of a motorcycle or bicycle, a cross-bar connecting said members near one end thereof, a yoke connecting said members at the other end thereof, a clamp on said yoke adapted to embrace a steering head of said motorcycle or bicycle, means for securing the opposite end of said frame to a rear axle of said motorcycle or bicycle, and a cover on said frame.

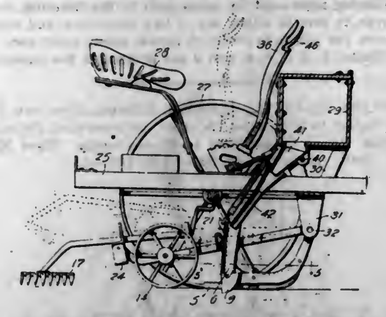
3. The combination of mating arched side frames, means independent of a cover or vehicle for connecting said frames adjacent to their ends, means for mounting said frames on and connecting the ends only thereof to a vehicle, and a detachable cover, adapted to be rolled when not in use, which cover is adapted to be folded around the frames between the connecting means and means for detachably connecting the folded portions of said cover.

5. A frame composed of mating arched members placed side by side, an integral cross-bar connecting said members near one end thereof, end portions of said members beyond said cross-bar being arranged in converging planes and adapted to be secured to the rear axle of a motorcycle or bicycle, the forward ends of said members being turned inwardly and threaded to receive nuts, a yoke comprising mating members having alining bars apertured at their extreme ends to receive said inturned end portions of the frame members, said alining bars being formed with arms on their inner abutting ends which arms extend at right angles to the bars and are adapted to be connected by a bolt, said arms being formed with mating clamp members adapted to engage and embrace a steering head of said motorcycle or bicycle, said clamp members being adapted to be connected by a bolt.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,254,859. DRILL. HENRY MORTIMER SIEMANN, Fort Lupton, Colo. Filed July 6, 1917. Serial No. 178,894. (Cl. 111—61.)

1. A drill of the character specified, comprising a frame, an axle journaled transversely of the frame, wheels on the axle, and a series of planting units connected to the frame, each unit comprising a runner in the form of a plane plate having its front end upturned and having a V-shaped notch at its rear end, a shoe delivering at the notch and adjustably connected to the runner, a wheel in rear of the shoe, a pair of bars between which the wheel is journaled, the shoe having an arm extending forwardly between the front ends of the bars, said bars and arm being pivoted to the frame, the shoe having a hook engaging the bars, and a rake supported behind the wheel by the bars, a handle connected to the rake at one end and pivoted to the bars at the other, and means connected to the shoes for lifting the same, each handle having an extension engaging beneath the axle to lift the rake when the shoes are lifted.

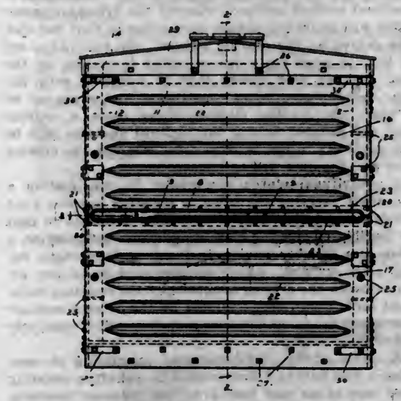


5. In a drill of the character specified, a seeder unit comprising a runner, a shoe connected to the runner, the runner having a covering arm in rear of the shoe, a covering wheel, and a rake, arranged in the order named from front to rear, a pair of bars between which the wheel is journaled and adapted for connection at their front ends to a supporting frame, said bars supporting the shoe and runner, and the rake having a handle pivoted intermediate its ends to the bars.

7. In a drill of the character specified, seeding units comprising dropping shoes, runner plates for smoothing the path in front of the shoes, each plate having covering means, a compacting wheel, and a rake behind said wheel.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,254,860. SHEET-METAL CAR END. VINTON E. SISSON, Chicago, Ill., assignor to Walter P. Murphy, Chicago, Ill. Filed Oct. 13, 1913. Serial No. 794,951. (Cl. 105—192.)



1. A car end comprising an upper section and a lower section each provided with stiffening ribs and an intermediate section provided with a horizontal stiffening rib, the edges of the upper and lower sections connected to said intermediate section being similarly cut away so as to fit the corrugation of the intermediate section.

2. In a railway car, the combination with the longitudinal frame members of the car, of a sheet metal end panel formed with a plurality of horizontal corrugations and means for securing the vertical edges of said panel, at the corners of the panel, to the respectively adjacent longitudinal frame members of the car.

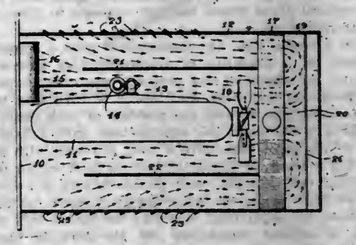
6. In a railway box car, the combination with the side sills, side plates and side girths of the car, of a sheet metal end panel formed with a plurality of horizontal corrugations extending across the car end from side to side, attaching members for securing the upper and lower corners of the panel to said side plates and side sills, respectively, and attaching members for securing the panel at points intermediate its corners to the side girths of the car.

13. In a railway car, the combination with the framing of the car, of a sheet metal end panel comprising metallic end sheets formed with parallel corrugations and means for securing said sheets together, which forms a rigidifying element extending across the panel parallel to said corrugations; said corrugations being spaced apart distances substantially equal to their widths so as to provide a series of ribs, functioning as beams of substantially equal strength, which project alternately in opposite directions one from the other.

15. A sheet metal end structure for a railway car comprising an end sheet formed with a plurality of horizontal corrugations which terminate within the edges of the sheet so as to leave flat stiffening margins at the sides of said sheet, said corrugations being spaced apart distances substantially equal to their widths whereby the entire corrugated portion of the sheet, between the flat margins, forms a plurality of ribs of substantially equal strength projecting alternately in opposite directions one from the other; said flat margins being provided with stiffening members which extend at right angles to the plane of the sheet and are in rigid relation to the frame of the car so as to constitute upright beams to take the stresses on said horizontal corrugations.

[Claims 3 to 5, 7 to 12, and 14 not printed in the Gazette.]

1,254,861. AUTOMOBILE. EDWIN E. SMEETH, Oak Park, Ill., assignor to Jennie H. Smeeth, Oak Park, Ill. Filed Jan. 8, 1917. Serial No. 141,328. (Cl. 123—170.)



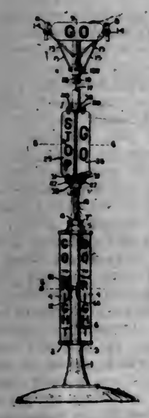
1. In an automobile, the combination of an internal combustion engine, a radiator in front of said engine, means for drawing air backward through said radiator and directing it upon said engine, and means for preventing air from passing backward through said radiator from the atmosphere without first passing partially across the front face of the radiator.

2. In an automobile, the combination of an internal combustion engine, a radiator in front of said engine, a casing providing an inclosed air space in front of said radiator, means for forcing air backward upon said engine from said air space, and means for admitting air to said air space at its edges only whereby such air must pass partially along the face of the radiator before it passes backward through the radiator.

3. In an automobile, the combination of an internal combustion engine, a radiator in front of said engine, a casing removably secured in position providing an inclosed air space in front of said radiator, means for forcing air backward through said radiator from said air space and directing it upon said engine, and means for feeding air to said air space at the edges thereof, comprising means for warming such air before it passes backward through the radiator into contact with the engine.

[Claims 4 to 10 not printed in the Gazette.]

1,254,862. TRAFFIC-SIGN. HARVEY C. STROUT, Gloucester, Mass., assignor to Traffic Sign & Signal Company, Gloucester, Mass., a Corporation of Massachusetts. Filed Mar. 3, 1917. Serial No. 152,217. (Cl. 40—68.)



1. In a traffic sign, the combination with a vertical supporting standard capable of turning about a vertical axis, of a plurality of traffic directing panels, each pivotally mounted thereon to turn about a horizontal axis, means to turn the standard about its axis to cause each panel to face in either one of two directions, and means operative in any position of the standard to turn said panels so as to present their traffic-directing faces either in a vertical plane where they are exposed to view, or in a horizontal plane.

4. In a traffic sign, the combination with a supporting standard, of a plurality of traffic-directing panels surrounding the standard and pivotally mounted thereon to turn about vertical axes, and means to turn said panels simultaneously to reverse the position of each panel.

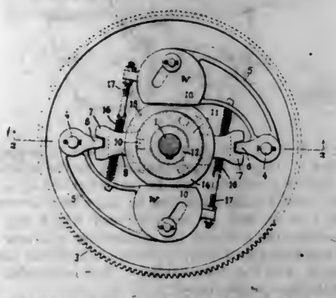
7. In a traffic sign, the combination with a base provided at its upper edge with a head provided with panel-receiving grooves, of a plurality of traffic-directing panels occupying said grooves, said panels having a relatively long vertical dimension and relatively-short transverse dimension, an upper head engaging the upper ends of the panels, a tubular connecting rod for drawing the two heads toward each other and clamping the panels securely between them, a supporting standard, set into the tubular connecting rod, traffic-directing panels carried by the standard, and means for turning the standard in said connecting rod thus to present the panels thereon in different directions.

10. In a traffic sign, the combination with a base provided at its upper edge with a head having a plurality of radially-extending panel-receiving grooves, of a connecting member rising from said head and situated axially thereof, a plurality of radially-extending traffic-directing panels situated outside of said connecting member and having their lower ends occupying the grooves of said head, each panel having a relatively long vertical dimension and a relatively short transverse dimension, an upper head engaging the upper ends of said panels, and means cooperating with the connecting member for clamping the upper head against the panels.

11. In a traffic sign, the combination with a base provided at its upper edge with a head having panel-receiving grooves, of a plurality of traffic-directing panels occupying said grooves, each panel having a relatively long vertical dimension and a relatively short transverse dimension, an upper head engaging the upper ends of said panels, a connecting member for drawing the two heads toward each other and clamping the panel securely between them, a supporting standard, other traffic-directing panels pivotally mounted thereon above the first-named traffic-directing panels, said supporting standard being capable of turning movement to cause each traffic-directing panel thereon to face in either one of two directions, and means to turn the pivotally-mounted panels about their axes.

[Claims 2, 3, 5, 6, 8, and 9 not printed in the Gazette.]

1,254,863. CLUTCH. ALFRED M. SUTHER, Allentown, Pa., assignor to Schaum & Uhlinger, Incorporated, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Mar. 2, 1916. Serial No. 81,572. (Cl. 192—8.)



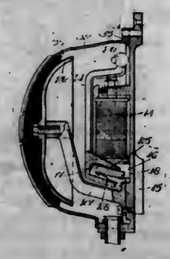
1. A friction clutch of the class described comprising in combination a disk, a shaft carrying the same, a resisting member fixed relatively to said disk, a driving member between said disk and said resisting member, a clutch closing and releasing means between said driving member and said resisting member which means comprises balls that engage a member having inclined surfaces or wedged portions and means rotatable with the driving member constructed and arranged so that as the driving member reaches a certain speed there will be imparted a relative movement between the balls as a set and the member having inclined wedged surfaces whereby the driving member and disk will be forced toward each other so that the disk will be driven by the driving member, the balls as a set being held in place by a spacer which is carried by the driving member, said means that is rotatable with the driving member also being constructed and arranged so that when the driving member slows down a certain amount the member having the inclined surfaces will be moved relatively to the balls as a set whereby the driving member and the disk will be released.

3. A centrifugal clutch comprising in combination a disk, a shaft carrying the same, a resisting member fixed relatively to said disk, a driving member arranged so that it can forcibly engage the disk so as to rotate the latter, a movable cam member having inclined surfaces, balls engaging said surfaces, which member and balls are arranged between the driving member and the resisting member, and centrifugal means carried by the driving member and arranged to move the cam-shaped member relatively to the driving member.

8. A clutch of the class described comprising in combination a disk having a hub secured to a shaft, a resisting member carried on said hub, a driving member revolubly mounted upon said hub and located between said disk and said resisting member, a series of balls, a spacing-ring for said balls which ring is secured to and movable with said driving member, a cam member having cam surfaces which engage said balls, which cam member and balls are located between the resisting member and the driving member so as to provide means for closing and releasing the clutch, and weighted arms pivotally mounted upon said driving member and operatively engaging said cam member so as to move said cam member relative to said balls which are held in place by said spacing-ring.

[Claims 2 and 4 to 7 not printed in the Gazette.]

1,254,864. ELECTRIC ALARM. EVERETT S. TABER, Canton, Mass., assignor to Samson Electric Company, Canton, Mass., a Corporation of Massachusetts. Filed Mar. 30, 1915. Serial No. 17,987. (Cl. 177—7.)



1. An electric alarm comprising a bell, an electromagnet, an oscillatory armature for said magnet, and an oscillatory bell hammer substantially coaxial with said armature and provided with a lever arm which is permanently out of circuit and movable by the armature when the latter is attracted, said arm being normally held in yielding contact with the armature and separable therefrom by the momentum of the hammer, so that the arm has oscillatory movements of greater amplitude than those of the armature, whereby, when the armature is attracted, the hammer is first projected against the bell and is then slightly retracted therefrom.

5. An electric alarm comprising a bell, a base having spaced-apart standards, an electro-magnet having its poles adjacent to said standards, pivots supported by said standards and engaged with the armatures, and a hammer having oppositely projecting angular fulcrum arms projecting over the ends of the armature and mounted to turn on said pivots, and a lever arm projecting over the inner side of the armature, normally held in yielding contact therewith, and separable therefrom by the momentum of the hammer.

7. An electric alarm comprising a base having an outwardly projecting bracket, a bell supported by said bracket, an oscillatory hammer fulcrumed between the base and the bell, electro-mechanical hammer-operating mechanism located between the base and the bell, and a protective cover attached to the base and inclosing the bell, the hammer, and the hammer-operating mechanism, said cover having sound conducting openings, and outwardly projecting flanges surrounding said openings.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,254,865. FLY-SCREEN-FABRIC HOLDER. CHARLES O. TESSIM, White Plains, N. Y. Filed Sept. 7, 1915. Serial No. 49,325. (Cl. 156—14.)



1. As a new article of manufacture, a window screen comprising in combination, the screening material and flexible screen fabric holder-bars adapted to be bowed and sprung into required position between the casings of the opening to be screened.

3. A fly-screen-fabric holder-bar comprising in combination a bar flexible as and for the purpose described, means by which the screen fabric may be attached to the bar, the screen fabric, and means at the ends of the bar, adapted, through the endwise pressure of the bowed bar, to hold the said bar in position between the casings of the opening to be screened.

5. A screen-fabric holder-bar consisting of a pair of flexible strips adapted to be sprung into place and suitably formed upon their opposed faces so as to hold the screen fabric when they are placed in juxtaposition, clips at the ends of the two strips adapted to hold them together, end prongs adapted to hold the strips in position between the casings of the opening to be screened, and means near the middle of the strips adapted to hold the pair of strips in contact with the screening material.

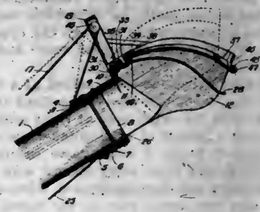
[Claims 2, 4, 6, and 7 not printed in the Gazette.]

1,254,866. PROCESS FOR THE MANUFACTURE OF DRYING-OILS. FELIX CARL THIELE, Coffeyville, Kans., assignor to Cudahy Refining Company, Coffeyville, Kans., a Corporation of Maine. Filed Aug. 6, 1913. Serial No. 783,237. (Cl. 23—24.)

A process for the manufacture of drying oils which consists in treating kerosene containing a material proportion of cyclo-paraffins with a halogen, acidulating the chlorinated oil so formed, and treating the mixture of acid chlorinated oil with a metal.

1,254,867. [WITHDRAWN.]

1,254,868. PNEUMATIC-STACKER HOOD. HALBERT C. WALLACE and JESSE I. WALLACE, Kansas City, Mo. Filed Jan. 10, 1916. Serial No. 71,237. (Cl. 193—21.)



2. The combination with a stacker spout, of a hood comprising an attaching collar movable over the spout and bolted to the top thereof and straps connecting said collar and spout at intervals about the same, whereby the collar may be applied to spouts of different diameter and any surplus of space located at the bottom of the spout; the said collar having an outstanding curved bead extending circumferentially thereabout, a neck comprising a collar overlying the first named collar, and having a bead inclosing the bead thereon to provide for circumferential movement of the parts and an anchorage against longitudinal movement of the hood.

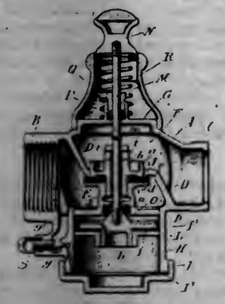
3. A stacker hood comprising side members, a bar located at the upper, rear portion of the hood and provided with upstanding studs, a curved plate having support at the rear on said lip and having apertures through which the studs are projected, stud members on the front end of said plate projecting laterally beyond the sides of the hood, and flexible members on said sides for engaging said studs to anchor the plate.

4. A stacker hood comprising side members, and having a deflector plate at its forward end spaced from the lower edges of said side members, a curved plate located between the side members with its forward end projected beneath said deflector plate and having a bead at its for-

ward end, a rod carried in said head and having its ends projected beyond the sides of the plate, means for anchoring the ends of the rod, and means for securing the curved plate to the hood along the longitudinal edges of the plate.

[Claims 1 and 5 not printed in the Gazette.]

1,254,869. FLUSHING-VALVE. EARL G. WATROUS, Chicago, Ill. Filed Apr. 13, 1914. Serial No. 831,480. (Cl. 137—93.)



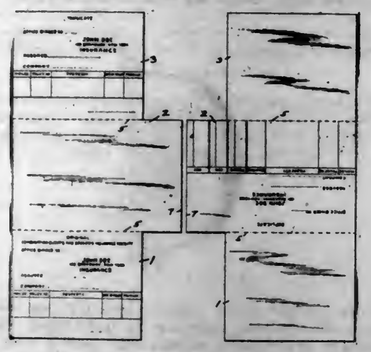
1. In a flushing valve, the combination of a valve body having diametrically-opposed pipe connections and a cylinder projecting from it at right angles to said pipe connections, a piston slidingly engaging said cylinder and permitting restricted leakage of water, a main valve carried by said piston, a second piston also slidingly engaging said cylinder, a spring-pressed supplemental valve carried by the latter piston and coöperating with the first-mentioned piston to open and close relatively free communication between the inlet and outlet sides of the valve through said piston and main valve, and means for manually moving the second piston to unseat the supplemental valve and open communication between the opposite sides of the main valve through said main valve and the first-mentioned piston.

2. In a flushing valve, the combination of a valve body having diametrically-opposed pipe connections and a cylinder projecting from the valve body at right angles to said pipe connections, a piston in said cylinder permitting restricted leakage of water, a main valve carried by said piston, said piston and valve being formed with a passage providing relatively free communication between the piston chamber and the outlet side of the valve, a second piston in said cylinder, a supplemental valve carried by the second piston and coöperating with the first-mentioned piston to control the passage through the same and the main valve, a valve-stem extending axially through the main valve and the first-mentioned piston and secured at one end to the second piston, a pressure-piece secured to the opposite end of said valve stem, a spring surrounding the latter end of the valve stem and confined by said pressure-piece, and an inclosing cap or bonnet upon the valve body for said spring, valve stem and pressure-piece.

6. In a flushing valve, the combination of the valve body A having the pipe connections B—C and the internal diaphragm D separating its interior into the inlet chamber E and outlet chamber F, and having the cylinder H projecting from the valve body at right angles to the pipe connections B—C, said cylinder having the by-pass *gg'* controlled by the regulating screw S, the piston K in the cylinder H permitting restricted leakage of water, the main valve J carried by said piston and coöperating with the diaphragm D, said piston K and valve J being formed with a passage providing relatively free communication with the outlet side of the valve, the piston L in the cylinder H at the outer side of the piston K, the supplemental valve O carried by the piston L and coöperating with the piston K to control the passage through the same and the main valve, the valve stem M extending axially through the main valve and piston K and secured to the piston L, the pressure-piece N secured upon the opposite end of said valve stem, the spring Q surrounding said stem and confined by said pressure-piece, and the cap or bonnet R screwed upon the valve body and inclosing said spring, valve stem and pressure-piece.

[Claims 2 to 4 and 7 to 11 not printed in the Gazette.]

1,254,870. MEANS USED IN ACCOUNTING. WALTER L. WEBSTER, Brooklyn, N. Y. Filed Sept. 9, 1916. Serial No. 119,278. (Cl. 11—23.)



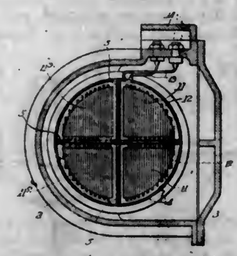
1. A triplicate invoice and receipt comprising a sheet divided into three separable coupons by weakening lines, two of said coupons being inscribed on their obverse faces with suitable data and the third coupon being inscribed on its reverse face with inverted similar data, one coupon having one side extending beyond the side edges of the other coupons, whereby when the coupons are folded together at their adjacent edges with manifolding material between they may all be written upon simultaneously and one of the coupons receive matter which is not to appear on the other coupons, two of said coupons constituting receipt forms to be receipted by the payee, one of which is ultimately sent to the broker and the other to the payer.

2. A triplicate invoice and receipt comprising a sheet divided transversely into three separable coupons by weakening lines, the upper and lower coupons being inscribed on their obverse faces with suitable data and the third coupon being inscribed on its reverse face with inverted similar data and having one side edge extending beyond the side edges of the first mentioned coupons whereby when the coupons are folded together at their adjoining edges along said weakening lines with intervening manifolding material they may all be written upon simultaneously and the third coupon receive matter not appearing on the other coupon, two of said coupons constituting receipt forms to be receipted by the payee, one of which is ultimately sent to the broker and the other to the payer.

1,254,871. METER. JOHN C. WILSON, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Aug. 1, 1913. Serial No. 782,427. (Cl. 73—68.)

1. A meter adapted to divide a flowing stream of fluid into a plurality of proportionate streams, means for measuring the flow of one of said proportionate streams and means for insuring that the proportionality of the streams is maintained, said latter means being adapted to measure the flow in any or all other of said proportionate streams at will.

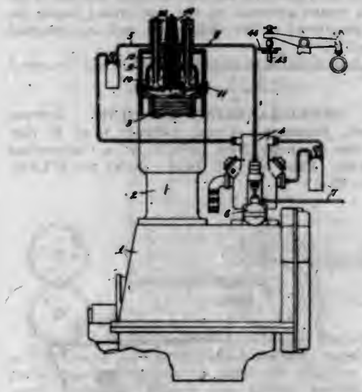
4. A meter comprising means for dividing a flowing stream of fluid into a plurality of separate streams, an electrical resistance device interposed across the path of flow of one of said separate streams, and additional electrical resistance devices interposed across the path of flow of the remainder of said fluid to offer the same proportionate obstruction thereto as is offered by said first resistance device, whereby any or all of said resistance devices may be used to measure the flow of fluid.



13. A fluid meter having a housing adapted to divide a flowing stream of fluid into a plurality of proportionate streams, means for measuring the flow of one of said proportionate streams including normally stationary parts only in the stream, and flow resisting means in each of the other proportionate streams having parts corresponding in shape and distribution to said stationary parts first named for insuring that the proportionality of the streams remains the same under varying rates of flow.

[Claims 2, 3, and 5 to 12 not printed in the Gazette.]

1,254,872. FUEL-INLET-VALVE MECHANISM. ALEXANDER WINTON, Lakewood, Ohio, assignor to The Winton Gas Engine & Mfg. Co., Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 12, 1914. Serial No. 876,971. (Cl. 123—32.)

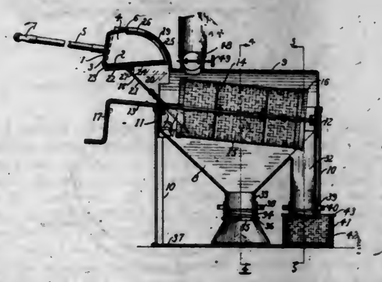


1. A fuel and air mixing valve structure comprising a casing having a discharge, a longitudinally disposed opening therein forming an air supply port, a fuel supply port extending from the outside of the casing to a point near the discharge end of said casing and communicating with the air supply port, a fuel and air mingling block arranged in the air supply port and communicating therewith, and also communicating with the fuel supply, a discharge plug arranged in the end of said casing adapted to hold said mingling block in place and provided with a plurality of mixing cups arranged in said plug and each having a plurality of minute openings in the bottom, a discharge valve arranged in said plug, and means for actuating said valve.

2. A fuel and air mixing valve structure comprising a casing having a discharge, a longitudinally disposed opening therein forming an air supply port, a fuel supply port extending from the outside of the casing to a point near the discharge end of said casing and communicating with the air supply port, a fuel and air mingling block arranged in the air supply port and communicating therewith and also communicating with the fuel supply, a discharge plug arranged in the end of said casing adapted to hold said mingling block in place and provided with a plurality of mixing cups arranged in said plug and each having a plurality of minute openings in the bottom, a discharge valve arranged in said plug, and a valve stem extending through the mixing cups, through the mingling block and the casing for actuating said valve.

3. A fuel and air mixing valve structure comprising a casing having a central longitudinally disposed opening for the passage of air for a valve stem and terminating at the lower end in a mingling chamber, a fuel supply opening extending longitudinally through the casing and communicating with the mingling chamber, a mingling block arranged in the mingling chamber and provided with an annular recess for receiving fuel from the fuel supply port and diagonally disposed openings for supplying fuel to the centrally disposed opening in said block, a plug in the lower end of said casing and having a mixing chamber and a discharge opening, a plurality of mixing cups arranged in said mixing chamber, and each comprising a cylindrical portion and a bottom flange provided with minute openings and a centrally disposed opening, a discharge valve for controlling the discharge through the centrally disposed opening in said mixing cups, through the opening in said mingling block, through the air supply opening, and out through the top of the casing.

1,254,873. APPARATUS FOR SIFTING ASHES. FRANK D. WULFF, Chicago, Ill. Filed Dec. 20, 1916. Serial No. 137,999. (Cl. 83—60.)



1. An apparatus for sifting ashes, sand, or the like, comprising a hopper provided with discharge openings, a drum of foraminous material arranged in said hopper, a cover for said hopper being provided with an inlet chute, and a scoop adapted to be received within said inlet chute and forming a closure therefor.

2. An apparatus for sifting ashes, sand or the like, comprising a hopper formed with discharge openings, a drum of foraminous material rotatably arranged in said hopper, a cover for said hopper provided with an inlet chute, said chute leading into one end of said drum, and a scoop adapted to be received in said inlet chute and to be oscillated from normal into discharging position, said scoop forming a closure for said chute in both positions.

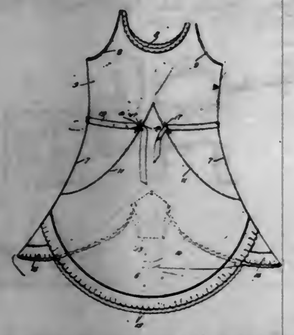
4. An apparatus for sifting ashes, sand or the like, comprising a hopper formed with discharge openings, a drum of screening material rotatably arranged in said hopper, a cover for said hopper provided with an inlet chute, said chute including an arcuate upper wall and an inclined lower wall terminatig in a horizontal front portion, a scoop adapted to be received within said chute to rest with its bottom on said horizontal front portion of the chute and adapted to be swung into engagement with said inclined wall, said scoop forming a closure for said chute in horizontal and slanting position.

6. An apparatus for sifting ashes, sand or the like, comprising a hopper formed with discharge openings, a screening drum arranged in said hopper, a cover for said hopper having an inlet chute, said chute including an arcuate upper wall and an inclined bottom wall merging into a horizontal front portion, a hood in said chute comprising a bottom wall partly resting on said horizontal front portion, said walls conforming to the curvature of the upper wall of the chute, and a bridge interconnecting the side walls of said hood, said bridge being in engagement with the inner side of the arcuate wall of the inlet chute, and a scoop adapted to be received within said hood, said scoop and said hood being adapted to be swung into engagement with the inclined wall of said chute, substantially as described.

7. An apparatus for sifting ashes, sand or the like, comprising a hopper formed with discharge openings, a screening drum arranged in said hopper, a cover for said hopper having an inlet chute, said chute including an arcuate upper wall and an inclined bottom wall merging into a horizontal front portion, a hood in said chute comprising a bottom wall partly resting on said horizontal front portion, said walls conforming to the curvature of the upper wall of the chute, and a bridge interconnecting said side walls, said hood being pivotally secured within said inlet chute to engage the horizontal front portion and the inclined portion of the bottom wall of said chute respectively, and a scoop adapted to be received within said hood and forming a closure therefor.

[Claims 3 and 5 not printed in the Gazette.]

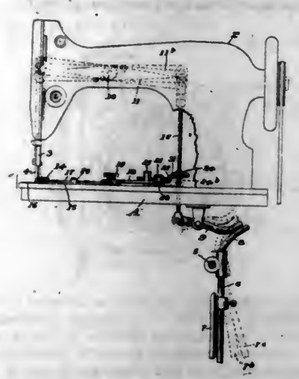
1,254,874. UNDERGARMENT. MEYER ZIMRING, Brooklyn, N. Y. Filed Feb. 26, 1917. Serial No. 150,938. (Cl. 2—144.)



1. An undergarment comprising an upper garment, a petticoat forming a depending continuation thereof and having a circular bottom, drawers having upper and lower edges converging upwardly to central points and projecting downwardly and outwardly beyond the lower circular edge of the petticoat, said drawers being secured at their outer portions near the lower edge of said petticoat, seams converging upwardly from the points at which said drawers are secured to said petticoat whereby the upper edges of said drawers are fastened to the petticoat and a flap whereby opposite portions of said drawers at the angles formed by the lower converging edges thereof are detachably connected together.

2. An undergarment comprising an upper garment, a petticoat, drawers, seams converging upwardly from the sides of the garment to the center thereof in the region of the waist line, the upper edges of said drawers terminating along said seams whereby double thicknesses of material at the hip portions of the garment are avoided, a flap permanently secured to the lower edge of said drawers at an intermediate point and coöperating devices on said flap and drawers whereby the front and back portions of the lower edge of the latter are detachably connected together.

1,254,875. ADJUSTABLE HEMMER. MAURICE BALLIN, Oakland, Cal., assignor to Neustadter Bros., San Francisco, Cal., a Corporation of California. Filed Nov. 8, 1916. Serial No. 130,160. (Cl. 270—89.)

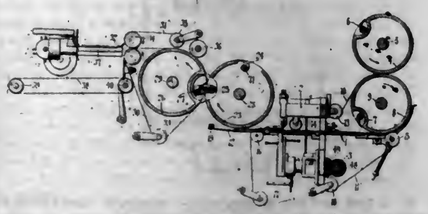


1. The combination with the presser foot and the needle on a sewing machine of an adjustable hemmer adapted to form hems of varying widths positioned adjacent the presser foot, and means for adjusting the hemmer during the sewing operation to change the width of the hem during the sewing operation.

7. The combination with the presser foot on a sewing machine and means for lifting same, of a hemmer mounted adjacent to the presser foot, said hemmer comprising a stationary section and a movable section, a slidably mounted bar to which the movable hemmer section is attached, and means actuated by the foot-lifting means for imparting movement to the sliding bar and the attached hemmer section.

[Claims 2 to 6 and 8 to 11 not printed in the Gazette.]

1,254,876. SHEET-HANDLING MACHINE. HOWARD M. BARBER, Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of Delaware. Filed Nov. 12, 1914. Serial No. 871,848. (Cl. 270—75.)

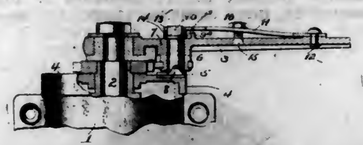


1. A stitcher mechanism, means for feeding signatures thereto, movable means independent of the stitcher mechanism for arresting the movement of the signatures during the stitching operation, rotary means including grippers for positively removing the stitched signatures from the stitcher mechanism in the line of their travel to the stitcher mechanism, and means for folding and delivering said signature.

2. A stitcher mechanism, means for feeding signatures thereto, at a certain speed, movable means independent of the stitcher mechanism for arresting the movement of the signatures during the stitching operation, and means for positively removing the stitched signatures from the stitcher mechanism in the line of their travel to the stitcher mechanism, at a speed equal to or greater than their feeding-in speed.

[Claims 3 to 11 not printed in the Gazette.]

1,254,877. DOOR CHECK AND CLOSER. CHARLES A. BERRY, Stamford, Conn., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Filed Nov. 8, 1916. Serial No. 130,199. (Cl. 189—49.)

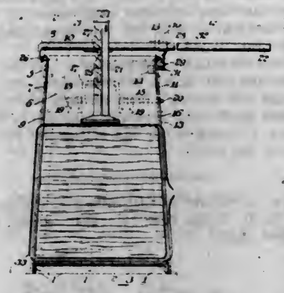


1. In a door check and closer, the combination with the casing provided thereon with a stop, the lever arm, a dog carried by the lever arm to engage said stop to hold the door open, and a spring secured to the lever arm and adapted to press the dog toward the casing, of a member destructible by heat disposed between said spring and the dog.

4. In a door check and closer, the combination of a casing, a stop thereon, a lever arm, a dog carried by the lever arm to engage said stop, a spring secured to the lever arm, a fusible member between the free end of said spring and said dog, and a lug on the lever arm to receive said spring when the fusible member has been reduced by heat.

[Claims 2 and 3 not printed in the Gazette.]

1,254,878. BALING DEVICE. RICHARD L. BINDER, Philadelphia, Pa. Filed Dec. 26, 1916. Serial No. 138,768. (Cl. 100—4.)



1. A baler comprising a bin having an angle iron frame, a rectangular bottom supported thereon, cross pieces supported by said bottom in separated relation to provide ways, upwardly tapered ends having portions of their bottoms fixed to said frame, an upwardly tapered back having its bottom fixed to said frame and its ends fixed to the ends aforesaid, and an upwardly tapered front having its bottom connected in movable relation with said frame and its ends connected with said ends first named, said back and front having slots therein registering with said ways.

2. A baler comprising a bin having the form of a truncated pyramid with outwardly turned flanges at the tops of oppositely disposed parts thereof, in combination with means engaged by said flanges for pressing material contained in said bin.

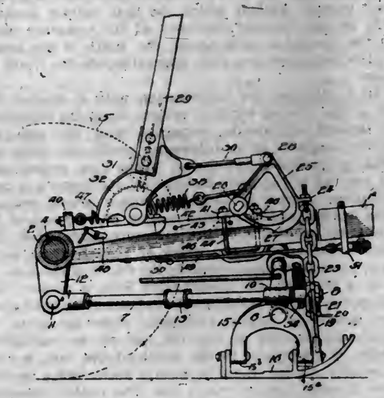
3. A baler comprising a bin having a base, a movable side connected to said base and provided with end flanges, in combination with ends adapted to be engaged by said flanges, said ends having means coacting with flanges aforesaid for holding said side in assembled relation thereto.

4. A baler comprising a bin having the form of a truncated pyramid with ends provided with outwardly extending flanges and a detachable side provided with end flanges adapted for engaging the ends aforesaid and the flanges thereon.

5. A baler comprising a bin in combination with a ram and a lever having means for engaging it in fulcrumed relation to a side of said bin, means for engaging it in bearing relation with said ram, and a yoke for engaging it to a side of said bin whereby said ram is adapted to be maintained under pressure.

[Claims 6 to 8 not printed in the Gazette.]

1,254,879. MOWER. JOHN C. BOHMKER, Bradley, Ill., assignor to Sears, Roebuck and Company, Chicago, Ill., a Corporation of New York. Filed Mar. 14, 1917. Serial No. 154,665. (Cl. 56—74.)



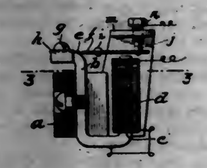
5. A mower having, in combination, a main frame, a secondary frame swingingly connected to the main frame, a finger bar pivoted to the secondary frame, a winding segment pivoted on one of said frames and extending toward the finger bar, an arm fixed to the segment and extending in substantially the opposite direction, a flexible connection between said arm and the finger bar, a bell crank pivoted on the main frame, a flexible connection between the winding segment and the bell crank, a lever on the main frame and connected to the bell crank for lifting the latter, a spring connected to the bell crank, and a spring connected to the winding segment, said springs coöperating to counterbalance the finger bar.

8. A mower having, in combination, a main frame, a secondary frame swingingly connected to the main frame, the secondary frame comprising a front bar and a push bar, a member connecting the grassward end of the front bar to the forward end of the push bar, and a yoke pivoted upon the front bar at opposite sides of said connecting member.

15. A mower having, in combination, a main frame, a front bar pivoted to the main frame, a push bar pivoted to the main frame, a bracket rigidly uniting the forward end of the bush bar and the grassward end of the front bar, a brace bar connected at its rear end to the push bar, a bracket connecting the forward portion of the brace bar to the front bar, and a yoke having a sleeve rotatably mounted upon the grassward end of the front bar, said sleeve having an opening therein through which the first mentioned bracket projects, the stubbleward end of said sleeve lying between said brackets.

[Claims 1 to 4, 6, 7, and 9 to 14 not printed in the Gazette.]

1,254,880. ELECTRIC VIBRATOR. WILLIAM C. BRINTON, Jr., Kennett Square, Pa., assignor to Philips-Brinton Company, Kennett Square, Pa., a Corporation of Pennsylvania. Filed Oct. 24, 1916. Serial No. 127,333. (Cl. 175—349.)



1. In a vibrator, the combination with a magnet the width of the core of which is several times its thickness, of an inherently elastic vibratable armature plate in proximity to one end of the core and whose lengthwise extension is transverse to the width of the core, a contact member carried by the armature plate, and a second contact member against which the first contact member is held by the inherent resiliency of the armature plate when the magnet is deënergized, the width of the armature plate being not less than approximately the width of the core.

2. In a vibrator, the combination with a magnet the width of the core of which is several times its thickness, of a support electrically connected with the core, an armature composed of an inherently elastic flat plate extending in proximity to one end of the core, means confining one end of the plate flat against its support, a contact member carried by the plate, and a second contact member against which the first contact member is held by the inherent resiliency of the armature plate when the magnet is deënergized, the width of the armature plate being not less than approximately the width of the core.

3. In a vibrator, the combination with a magnet the width of the core of which is several times its thickness, of an inherently elastic vibratable armature plate in proximity to one end of the core and whose lengthwise extension is transverse to the width of the core, a contact member carried by the armature plate, and a second contact member against which the first contact member is held by the inherent resiliency of the armature plate when the magnet is deënergized, the width of the armature plate being not less than approximately the width of the core and the length of the armature plate between its fixed support and its contact member not substantially exceeding twice its width.

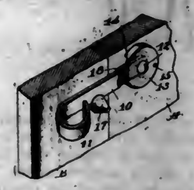
[Claim 4 not printed in the Gazette.]

1,254,881. WINDOW-SHADE SUPPORT. PHILIP CHAPPELL BROWNE, Portland, Oreg. Filed Nov. 18, 1915. Serial No. 61,335. (Cl. 156—23.)



The combination with a pair of spring actuated window shades, of a pair of frames pivotally secured to the window casing, bearings in each of said frames for the mounting of said shades, means whereby the free end of one shade may be secured to the other frame and means whereby the frames may be adjusted outwardly to any desired angle to permit of various parallel and angular adjustments of the shades with respect to the window.

1,254,882. REVERSIBLE CABINET-LATCH. FRANK E. BUCHANAN, Rockford, Ill., assignor to National Lock Company, Rockford, Ill., a Corporation of Illinois. Filed Oct. 22, 1915. Serial No. 57,232. (Cl. 70—44.)

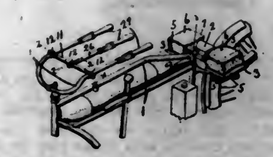


1. A reversible cabinet latch comprising a bolt, a fastening device on which one end of the bolt is pivotally supported, a shell inclosing said end of the bolt and the fastening device and comprising a plate having an angular peripheral flange, said flange having an elongated slot through which the bolt projects, and a catch to coöperate with said bolt, the parts being arranged to be mounted in either of two reversed positions, in which the shell is in different relative positions with respect to the pivot of the bolt and the catch to bring one or the other of the opposite ends of said slot into supporting relation to the bolt.

2. A reversible latch comprising a bolt, a pivot for same, a catch to coöperate with the bolt, and a shell inclosing the pivot end of the bolt and provided with a slot through which the bolt projects, the latch being reversible and the shell being shiftable with respect to the pivot to bring either end of said slot into supporting relation to the bolt.

3. A reversible latch comprising a bolt and its pivot, a catch for the bolt, and a shell inclosing the pivoted end of the bolt and having a slot through which the bolt extends, said shell being partially rotatable with respect to said pivot, to bring either end of the slot into supporting relation to the bolt.

1,254,883. MOTOR-CYCLE. BERT S. CHILSON, Fayetteville, N. Y. Filed July 22, 1914. Serial No. 852,396. (Cl. 208—111.)



1. In a wheeled vehicle having wheels alined from front to rear thereof, the combination with a frame of seats secured thereto and disposed respectively upon opposite sides of said frame and each extending entirely to one side of the point of connection to the frame, a U-shaped steering member mounted on the frame and having its side portions disposed symmetrically upon opposite sides of the frame and constituting handle bars, and a third handle bar disposed between the two first-named bars and removably secured to the U-shaped steering member.

2. In a wheeled vehicle having wheels alined from front to rear thereof, the combination with a frame, of seats secured thereto and disposed respectively upon opposite sides of said frame and each extending entirely to one side of the point of connection to the frame, a U-shaped steering member mounted on the frame and having its side portions disposed symmetrically upon opposite sides of the frame and constituting handle bars, a cross bar connecting said side portions of the U-shaped steering member, and a third handle bar disposed between the two first-named bars and secured to said cross bar and extending rearwardly and in substantial alinement with said frame.

1,254,884. PNEUMATIC-TIRE SHOE AND METHOD OF MAKING SAME. GEORGE H. CHINNOCK, Brooklyn, N. Y. Filed Mar. 9, 1917. Serial No. 153,573. (Cl. 154—14.)



1. A pneumatic tire shoe comprising a carcass and a layer of tread rubber and one or more cores located between the tread rubber and carcass and embedded in recesses of the tread rubber and composed of rubber of a softer and more yielding nature than the tread rubber itself.

2. A tire shoe comprising an annularly ribbed tread having embedded in it one or more cores of a resilient material which is more soft than the rubber of the tread itself, each such core located about midway of one of the ribs of such tread.

4. The herein described method of making pneumatic tire shoes which comprises applying to a tire carcass a strip of flexible material having cemented thereon one or more soft rubber, unvulcanized or partly vulcanized, cores, applying tread rubber to the carcass, and over and around such core or cores, and then vulcanizing the said tread rubber, and in so doing completing the vulcanization of the rubber of the core or cores.

[Claim 3 not printed in the Gazette.]

1,254,885. DRIVING MECHANISM FOR SELF-PROPELLED VEHICLES. HERBERT M. CLARK, Oshkosh, Wis. Filed July 27, 1916. Serial No. 111,545. (Cl. 74—7.)



1. In a driving mechanism for a self-propelled vehicle, the combination with a drive member, of driven members loosely mounted with respect to said drive member, a reversible driving connection between said drive member and each of said driven members, and means for separately and independently controlling each of said driving connections.

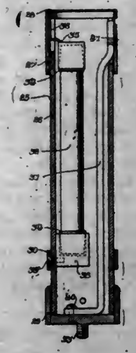
2. In a driving mechanism for self-propelled vehicles the combination, with a drive shaft, of driven members, loosely mounted thereon, reversible pawl and ratchet connections between said drive shaft and each of said driven members, and means for separately and independently controlling each of said driving connections.

3. In a driving mechanism for self-propelled vehicles, the combination with a drive shaft, of driven members loosely mounted thereon, reversely arranged pawls mounted upon the opposite sides of each of said driven members, reversely arranged ratchet wheels for each of said driven members slidably mounted on the drive shaft and coöperating with said pawls, and separate means for moving the ratchet wheels for each of said driven members to independently connect one set of pawls and ratchet wheel for one of said driven members and independently disconnect the other set.

4. In a driving mechanism for self-propelled vehicles, the combination, with a drive shaft, of driven members loosely mounted thereon, reversely arranged pawls mounted upon opposite sides of each of said driven members, reversely arranged ratchet wheels for each of said driven members slidably mounted on the drive shaft and coöperating with said pawls, means for normally maintaining corresponding pawls and ratchets for said driven members in driving engagement and separate means for moving the ratchet wheels for each driven member to independently connect or disconnect the pawls and ratchets.

5. In a driving mechanism for self-propelled vehicles, the combination, with a drive shaft, of driven members loosely mounted thereon, reversely arranged pawls mounted upon opposite sides of each of said driven members, reversely arranged ratchet wheels for each of said driven members slidably mounted on the drive shaft and coöperating with said pawls, spring means for normally maintaining corresponding pawls and ratchets for said driven members in driving engagement, and separate means for moving the ratchet wheels for each of said driven members to independently connect or disconnect the pawls and ratchets for the driven members.

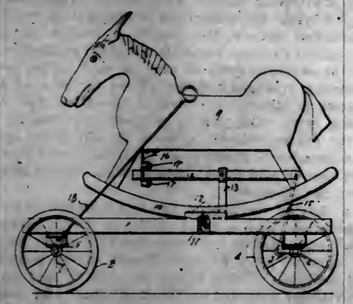
1,254,886. CUT-OUT FOR ELECTRIC CIRCUITS. NICHOLAS J. CONRAD, Chicago, Ill., assignor to Schweitzer & Conrad, Chicago, Ill., a Corporation of Illinois. Filed June 4, 1917. Serial No. 172,624. (Cl. 175—282.)



1. In a cut-out, a tubular member of insulation having a relatively stationary contact therein for connecting to one side of the line a coöperating plug member having a pair of relatively movable contacts for engaging said relatively stationary contact means on said plug for connecting to the other side of the line, a conductor of low resistance between said means and one of said pair of relatively movable contacts and a high resistance conductor connected between said means and the other of said pair of relatively movable contacts.

[Claims 2 to 5 not printed in the Gazette.]

1,254,887. TOY. PAUL A. DAVIS, Sequim, Wash. Filed Apr. 25, 1917. Serial No. 164,330. (Cl. 208—42.)



The combination with a rocking hobby horse of a frame work upon which the rockers of the hobby horse rest, a crank shaft revoluably mounted upon said frame work, traction wheels secured to said crank shaft, a walking beam pivotally secured to said frame work, a crank rod connecting one end of said walking beam to the said crank, a bracket secured to the said hobby horse and co-operating with the other end of the said walking beam, whereby a rocking motion of the hobby horse will rotate the crank shaft and cause the traction wheels to revolve.

1,254,888. REGULATOR. EDWARD J. DEEGAN and WILLIAM HODGSON, New York, N. Y. Filed Apr. 22, 1916. Serial No. 92,967. (Cl. 236—6.)



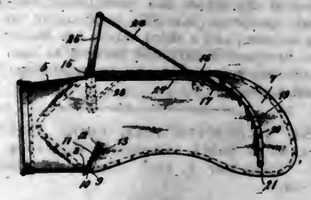
1. A regulator of the character designated for interposition in a gas supply conduit, comprising a coupling section in the form of a pipe adapted for direct engagement with sections of said gas supply conduit, said coupling pipe section being formed with an internal perforate partition disposed transversely of the length and dividing it into a main pressure chamber and an attenuated pressure chamber, with lateral ports on either side of said partition opening into a diaphragm chamber, said diaphragm chamber, an elastic resilient imperforate diaphragm hermetically sealed therein and adapted to control the auxiliary flow of gas through said lateral ports to the attenuation chamber, and a volatile fluid interposed between said diaphragm and the outer wall of said diaphragm chamber, whereby a constant minimum gas supply to the attenuated pressure chamber is afforded by the perforate partition supplemented by an auxiliary supply thereto through the lateral ports controlled by the diaphragm, for the purpose set forth.

[Claim 2 not printed in the Gazette.]

1,254,889. PNEUMATIC-STACKER HOOD. AUGUST P. DETERMANN, Lyons, Iowa. Filed Oct. 1, 1917. Serial No. 194,153. (Cl. 193—21.)

1. In a pneumatic stacker hood, the combination with a tubular extension, of side plates extending in parallel spaced relation therefrom, a straw guide located between said side plates, an adjustable throat plate in said tubular extension and adapted to deflect an air blast against said straw guide, a downwardly curved air deflector between said side plates and at the outer end of said straw guide.

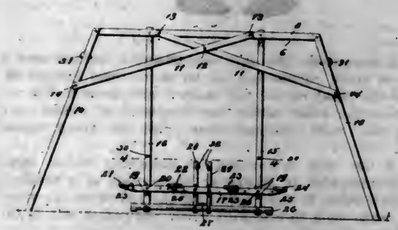
3. The combination with a pneumatic stacker hood of a shaft rotatably mounted on said hood, a straw guide secured to said shaft and comprising curved rods in spaced parallel relation, curved side bars secured to the ends of said shaft and extending beyond and parallel with said rods, an air deflector secured to the ends of said side bars beyond straw guide, said air deflector corresponding in curvature with said side rods and being provided with openings.



5. The combination with a pneumatic stacker hood of a curved sheet metal air deflector supported thereon, vertical ribs formed on the inner surface of said air deflector and in spaced relation, openings between said ribs, the upper edge of said openings being pressed inwardly and the lower edge pressed outwardly.

[Claims 2, 4, and 6 not printed in the Gazette.]

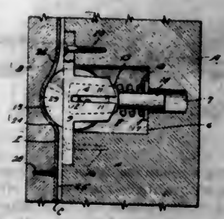
1,254,890. SWING. STEPHEN A. DOUGLASS, St. Louis, Mo. Filed Aug. 26, 1916. Serial No. 117,080. (Cl. 155—35.)



4. A swing comprising a supporting frame, a pair of parallel and normally vertical hangers pivoted to said supporting frame, an adjustable seat rail pivotally connecting said hangers, seats mounted on said seat rail between and outside of the hangers, a platform pivotally secured to the hangers and positioned below the seat rail spaced apart therefrom, and parallel therewith, a lever pivotally connecting the seat rail and platform and positioned between the hangers, stops secured to the supporting frame for limiting the outward movement of the hangers, and an adjustable operating handle carried by said levers.

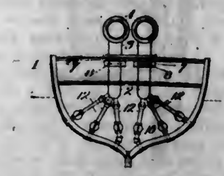
[Claims 1 to 3 and 5 not printed in the Gazette.]

1,254,891. SASH-RETAINER. EDWARD R. EDWARDS, Jersey City, N. J. Filed July 8, 1916. Serial No. 108,196. (Cl. 16—54.)



In a sash retainer, the combination with an element of a window provided with a recess and a bore at the inner end of the recess communicating therewith, of a plate adapted to be secured over the recess and having an opening therethrough and provided at opposite sides of the opening with pairs of spaced-apart projections extending into the recess and forming guide-ways at the opposite sides of the opening, a fork slidably arranged between the pairs of projections, a roller mounted in the fork, a spindle extending transversely through the fork for supporting the roller and projecting beyond the ends thereof into said guide-ways, a spring surrounding said stem, and a washer carried upon the stem against the inner end of the spring and adapted to bear against the inner face of the recess to retain the spring in position and center the stem in line with the plate, said plate having ledges provided with recesses at the opposite sides of the opening therethrough adapted to receive the forward end of the fork therein when projected by said spring to prevent injury to said spindle when the roller is projected through said plate.

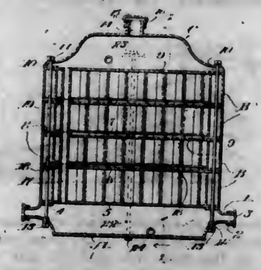
1,254,892. ANTI-WATER-ADHESION EQUIPMENT FOR VESSELS. JOHN ELNIFF, Kansas City, Mo. Filed June 1, 1917. Serial No. 172,827. (Cl. 114—67.)



2. A vessel provided at its stern end below the water level, with rearwardly facing nozzles, a pair of large pipes provided with front ends for facing the wind from any quarter, a valve controlling each pipe, and a set of small pipes connecting each of said first-named pipes with the nozzles at opposite sides of the keel of the vessel.

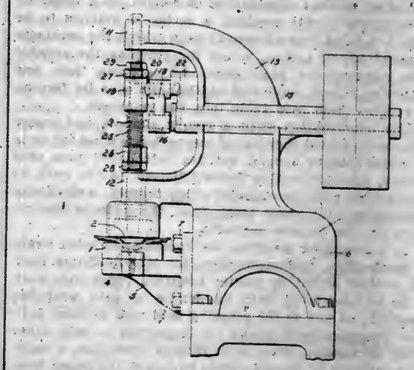
[Claim 1 not printed in the Gazette.]

1,254,893. SECTIONAL RADIATOR FOR INTERNAL-COMBUSTION ENGINES. ALPHONSO EMELE, Mariners Harbor, N. Y. Filed May 2, 1914. Serial No. 835,987. (Cl. 257—125.)



A radiator for automobiles comprising a plurality of unit sections, a plurality of said sections having raised bottom walls and having rests at their ends, each raised bottom wall being bent downwardly at its front longitudinal edge to form a shield flange, said shield flange being adapted to overlap the top wall of the next adjacent section to shield the top wall of the adjacent section and also constitute a guide for seating the section to which it is attached, said raised bottom wall being bent downwardly to form a rest flange, said rest flange being adapted to rest upon the upper surface of the top wall of the next adjacent section, thus properly spacing said sections, circulating pipes carried by said walls, the upper ends of said circulating pipes projecting above said top walls of a plurality of said sections, gaskets carried on said projecting ends, the lower ends of said tubes projecting below said raised bottom walls and being flared to form bells adapted to receive the gaskets and projecting ends of the tubes of the next adjacent section therebelow.

1,254,894. MACHINE FOR OPERATING ON SOLES. EDWARD ERICKSON, Beverly, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 22, 1916. Serial No. 92,855. (Cl. 12—21.)

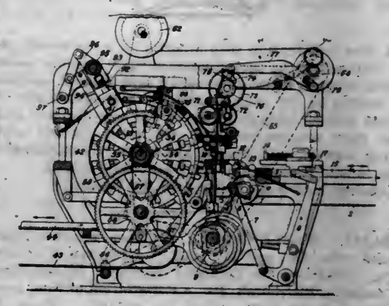


1. A machine for shaping flat soles, having in combination, a stationary sole support across which the sole is fed and having a curved recess formed therein, a hammer having a rounded face coöperating with the recess in the sole support to shape a sole, means for supporting the hammer for movement in a direction normal to the plane of the feed of the sole, and mechanism for reciprocating the hammer to impart a series of blows to the sole and curve the sole both longitudinally and transversely as the sole is fed under the hammer.

3. A machine for operating upon soles, having, in combination, a stationary sole support provided with a flat face in which a curved depression is formed and across which the sole is fed, a stem slidingly supported for vertical movement in the machine frame above the sole support, a hammer having a rounded face and secured to the lower end of the stem, an actuating shaft, a collar yieldingly connected with the stem, a driving crank connected to the actuating shaft, and connections between the collar and driving crank for reciprocating the hammer.

[Claim 2 not printed in the Gazette.]

1,254,895. SEALING AND WRAPPING MACHINE. MILFORD BERRIAN FERGUSON, Brooklyn, N. Y., assignor, by mesne assignments, to Package Machinery Company, Boston, Mass., a Corporation of Massachusetts. Filed Apr. 26, 1913. Serial No. 763,903. (Cl. 93—7.)



4. The wrapper edge folding and sealing mechanism as a sub-combination of the elements of a machine of the kind described, comprising a rotary support, a retainer carried thereby, a wiper mounted independently of the rotary support and adapted to reciprocate tangentially

over the opening of said retainer, and heating and cooling surfaces over which the retainer passes in its advancing movement.

5. In a machine of the character described, the combination with a rotary turret having a series of retainers and folding devices coöperating therewith, of a conveyer for delivering to the machine a series of articles to be wrapped, a table into alinement with which the retainers are moved one at a time, means for grasping the articles on the conveyer by their ends and carrying them one at a time on to said table and additional means for forcing said articles from said table into the retainers.

6. The combination with a rotary support and series of retainers carried thereby, of means for folding the ends of wrapper sheets around articles introduced into said retainers, pivoted heating boxes adjacent to the path of the retainers and on opposite sides thereof, and means for swinging said boxes away from the path of the retainers, for the purpose set forth.

7. In a wrapping machine, the combination with wrapping mechanism, and mechanism for intermittingly feeding a web of waxed or similar prepared paper into position to be associated with an article by said wrapping mechanism, of means for severing said web to form individual wrappers, and means for imparting to said paper feeding mechanism, after each feeding operation, a backward movement of limited extent to detach the paper from surfaces to which it may have adhered.

[Claims 1 to 3 and 8 not printed in the Gazette.]

1,254,896. NON-REFILLABLE BOTTLE. JOSÉ VILA FERNANDEZ, Campechuela, Cuba, assignor to Maria Rodrignez y Sol, Trinidad, Santa Clara, Cuba. Filed Oct. 5, 1916. Serial No. 123,935. (Cl. 215—69.)

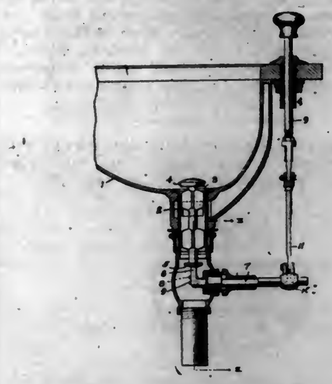


6. The combination with a bottle, of a stationary stopper disposed in the neck thereof, a valve member movable in said stopper, a valve formed on said member, said member having an air chamber therein, a pneumatically controlled plunger slidable in one end of said chamber and in fluid tight engagement with the walls thereof, and a spring between said stopper and closure to compress the fluid in said chamber and hold said valve closed.

[Claims 1 to 5 not printed in the Gazette.]

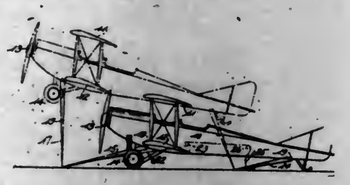
1,254,897. WASTE-VALVE. WILLIAM FRANKENBERGER, Louisville, Ky., and HALLOCK N. GILLETTE, Pittsburgh, Pa., assignors to Standard Sanitary Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Aug. 24, 1917. Serial No. 187,973. (Cl. 4—24.)

1. In a waste valve, the combination of a casing, a stopper vertically movable therein and having a tapered face at its lower end, a lifting finger beneath the stopper rotatable upon an axis substantially perpendicular to and lying substantially in the same plane as that of the stopper, and means for limiting the alternate movement of the finger, the line of thrust of the stopper upon the finger when the stopper is in elevated position being at one side of the axis of rotation of the finger, whereby the lowering of the finger to permit the stopper to fall will effect a preliminary raising of the stopper.



2. In a waste valve, the combination of a casing, a stopper vertically movable therein and having a conical face at its lower end, and a lifting finger beneath the stopper rotatable upon an axis substantially perpendicular to and lying substantially in the same plane as that of the stopper, said finger having a tapered face at its upper end adapted to substantially register with the conical face of the stopper when the stopper is held in elevated position by the finger.

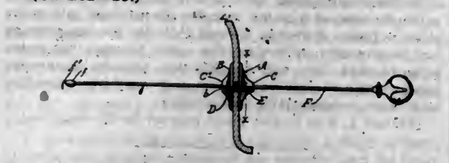
1,254,898. SELF-LAUNCHING AEROPLANE. NORRIS H. FROST, West Hoboken, N. J. Filed Oct. 16, 1917. Serial No. 196,811. (Cl. 244—2.)



1. An aeroplane having a pair of frames pivotally secured thereto, one adjacent to the front end and the other adjacent to the rear end, each of said frames having their front lower ends adapted to rest upon the ground and swing about said lower front ends to raise the aeroplane when the tractive or propelling effect of the aeroplane propeller acquires sufficient force to raise the aeroplane, the front frame being of greater length than the rear frame, whereby the front end of the aeroplane is raised to a greater extent than the rear end during the launching.

2. In combination, an aeroplane, a pair of frames of different lengths, the longer frame having pivotal connections with the aeroplane adjacent the front end of the latter and the shorter frame having pivotal connections with the aeroplane adjacent to the rear end of the latter, said frames occupying downwardly and forwardly extending positions and having their lower front ends held against forward movement during the launching to insure the upward and forward movement of the aeroplane as said frames swing about their lower ends as pivots with the front end of the aeroplane rising to a greater distance than the rear end.

1,254,899. HAT-FASTENER. ERNST J. GUENSEL, Milwaukee, Wis. Filed June 26, 1915. Serial No. 36,425. (Cl. 132—25.)

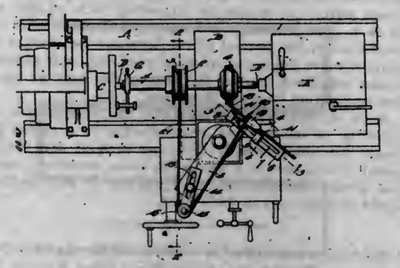


1. A hat fastener comprising the combination with a hat pin, of a set of clamping members adapted to respectively engage the inner and outer faces of a hat crown, said members having a tubular passage through which the pin extends, and motion resisting means in said passage adapted for frictional pressure upon the pin, the inner clamping member having a socket at the inner end of said passage, and the pin having an inner tapered head adapted to be received in said socket when the hat pin is in releasing position.

3. A hat fastener, comprising the combination with a hat pin, of a pair of clamping disks adapted to respectively engage the inner and outer faces of a hat crown, conically tapered, outwardly projecting hubs on said disks provided with alining passages, the passage of the hub of the outer disk being reduced at its outer portion to substantially the diameter of the hat pin, pressure resisting means in the last named passage adjacent its reduced portion, a screw threaded in the passages for securing the disks together, and for engaging the motion resisting means, said screw being provided with a passage for the hat pin and having its corresponding end spaced inwardly from the outer end of the passage of the inner disk hub to define a socket and the hat pin having an inner head adapted to be received in said socket when the pin is in a retracted position.

[Claim 2 not printed in the Gazette.]

1,254,900. DEVICE FOR POINTING SPINDLES. ALBERT M. GUILLET, Charlotte, N. C. Filed June 28, 1917. Serial No. 177,547. (Cl. 51—10.)



1. A spindle pointing device comprising a rotating member, a pulley and a grinding wheel mounted upon said rotating member, a supporting table, a supporting plate adjustably mounted at one end of said supporting table and provided with means for receiving and supporting a spindle in position to be ground by said grinding wheel, a second plate adjustably mounted at the other end of said table, a pair of tightening pulleys mounted upon said second plate, and a belt passing around said pulleys and the whirl of the spindle for imparting a rotary motion to the latter.

2. A spindle pointing device comprising a rotating member, a pulley and a grinding wheel mounted upon said rotating member, a supporting table, a pair of posts mounted upon said supporting plate and extending upwardly from the same, said posts being each provided with a pair of rollers for receiving and supporting a spindle thereon in position to be ground by said grinding wheel, a tightening pulley adjustably mounted at the other end of said table, and a belt passing around said pulleys and the whirl of the spindle for imparting a rotary motion to the latter.

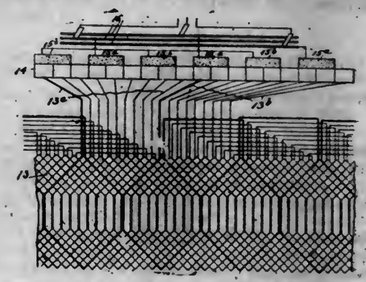
3. A spindle pointing device comprising a shaft adapted to be inserted between the centers of a machine lathe and rotated by the latter, a pulley and a grinding wheel upon said shaft, a supporting table adapted to be adjustably mounted upon the carriage of the lathe and provided with means for receiving and supporting a spindle thereon in position to be ground by said grinding wheel, a tightening pulley carried by said table, and a belt passing around said pulleys and the whirl of said spindle for imparting a rotary motion to the latter.

1,254,901. MUFFLER. FERRIS HADDAD, Windber, Pa. Filed Feb. 7, 1917. Serial No. 147,215. (Cl. 121—116.)



In combination with a muffler, a housing disposed at one side of the muffler at an end portion thereof and in communication therewith, said housing being provided with an induction opening, the face of the housing opposed to said induction opening being open, an upwardly swinging valve coacting with said open face and hingedly connected with the top of the housing, the intermediate portion of the valve snugly fitting within the housing, a resilient member secured at one end to the bottom of the housing, said member being of such a length as to extend in advance of the open face of the housing, said resilient member being provided with a shoulder overlying the free end portion of the valve for maintaining the valve in closed position, the portion of the resilient member in advance of the shoulder being of such a length as to permit the same to be readily engaged by a foot of a person, a loop extending from the bottom of the housing forwardly of the open face of the casing and through which the resilient member is directed, a portion of the resilient member in advance of the shoulder contacting with said loop for limiting the downward movement of the resilient member, and automatic means for opening the valve upon release of the shoulder of the resilient member from the valve upon depression of the free end portion of said resilient member.

1,254,902. ADJUSTABLE-SPEED MOTOR. WILLIS W. HALE, Cleveland, Ohio, assignor of one-fourth to Neal G. Gray, Cleveland, Ohio. Filed Nov. 20, 1915. Serial No. 62,472. (Cl. 172—280.)



1. In an alternating current motor, a stator and a rotor, one of said elements having a primary or inducing winding comprising a plurality of open circuit component windings unconnected internally of said element, means for supplying a polyphase alternating current to

said winding and for connecting the component windings thereof to form a polyphase alternating current winding by which a progressive or traveling field may be produced, said means comprising two sets of coöperating contact devices, the devices of one set being connected to the component windings, and devices of the other set being adapted to be connected to the source of current, and means for causing a relative movement between said devices whereby the phase grouping of the component windings is continually changed.

2. In an alternating current motor, a stator and a rotor, one of said elements having a primary or inducing winding comprising a plurality of open circuit component windings unconnected internally of said element, means for supplying a polyphase alternating current to said windings and for connecting the component windings to form a polyphase alternating current winding by which a progressive or traveling field may be produced, said means comprising two sets of contact devices, one set of devices consisting of commutator segments connected to the component windings, and the other set consisting of brushes engaging the commutator, and means for causing a relative movement between said devices whereby the phase grouping of the component windings is continually changed.

3. In an alternating current motor, a stator and a rotor, one of said elements having a primary or inducing winding comprising a plurality of open circuit component windings unconnected internally of said element, means for supplying a polyphase alternating current to said windings and for connecting the component windings to form a polyphase alternating current winding having a number of coils per phase and by which a progressive or traveling field may be produced, said means comprising two sets of contact devices, the devices of one set being connected to the component windings, and devices of the other set being adapted to be connected to the source of current, and means for causing a relative movement between said devices whereby the phase grouping of the component windings is continually changed.

4. In a three phase alternating current motor, a stator and a rotor, one of said elements having a plurality of independent or open circuit windings adapted to be connected externally in groups to form a three phase winding, means for grouping the open circuit windings and for supplying current thereto comprising a commutator to which the leads of said windings are connected and six brushes engaging the commutator and serving through the commutator to group said windings into a three phase winding and to supply a three phase current thereto, and means for causing the brushes and commutator to be relatively and continuously rotated to continuously change the phase groupings of the said windings.

1,254,903. AUTOMATIC TIRE-PUMP. CHALMERS G. HALL, U. S. Army. Filed Feb. 9, 1917. Serial No. 147,684. (Cl. 152—11.)

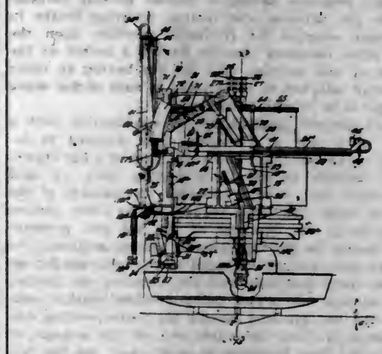


2. The combination with a traveling and rotating part, of a pump carried thereon and following a trochoidal path, a plunger forming a part of said pump and being movable in an outward direction by centrifugal force, and spring means for moving the plunger on the return inward stroke, substantially as described.

6. The combination with a tire valve stem having a valve therein, of a pump cylinder placed over said valve stem, a piston traveling in said cylinder for compressing air therein and delivering the same through the valve stem to said tire, and a projection on said piston for encountering the air valve stem and positively unseating said valve, substantially as described.

[Claims 1, 3 to 5, and 7 not printed in the Gazette.]

1,254,904. GLASS-WORKING MACHINE. ORIN A. HANFORD, Orange, N. J., assignor to Empire Machine Company, a Corporation of Maine. Filed Nov. 11, 1914. Serial No. 871,562. (Cl. 49—20.)

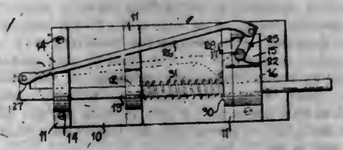


1. In a glass-working machine, the combination with a series of independent units, of means for driving such units in a closed path and with a definite velocity when in motion, means for independently arresting each of such units, and means under the control of the operator for again causing each unit to resume its motion.

2. In a glass-working machine, the combination of a plurality of units, means for moving such units in a closed path, and means for arresting each of said units at each of a plurality of definite positions in such path, means under the control of the operator for causing each unit to move from one of such positions, and automatic means energized thereby for causing the unit at the following position to move therefrom.

3. In a glass-working machine, the combination of a plurality of independent units moving in a closed path, means for independently arresting each of said units to permit elongation of a gather of glass contained thereby, and means actuated by the elongation of such gather to again put the unit in movement.

1,254,905. AUTOMATIC LOCK FOR BARN-DOORS. ERNEST HEINEMANN, Alma, Wis. Filed Nov. 6, 1916. Serial No. 129,825. (Cl. 70—42.)



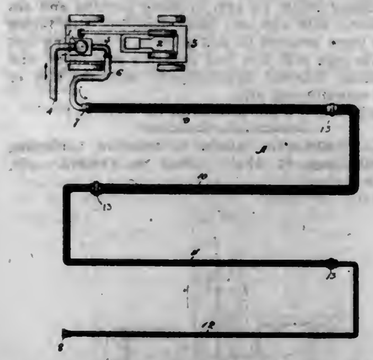
1. In a latch of the character described, a bolt, a spring urging the bolt in one direction to a projected position, an actuating member having limited movement in the arc of a circle and operatively connected to the bolt to shift it in either direction, a movement of said member in one direction shifting the bolt rearward against the action of the spring and then forward with the expansion of the spring upon a further movement of the actuating member in the same direction, and a stop limiting the forward movement of the bolt when the actuating member is rotated in the said direction to thereby prevent the complete projection of the bolt, the actuating member being shiftable in the opposite direction to that first named to shift the bolt rearward against the force of the spring and then permit the spring to fully project the bolt upon a further movement of the actuating member in the same direction.

2. In a latch of the character described, a longitudinally movable bolt, a spindle mounted for rotation and for longitudinal movement at right angles to the plane of the bolt, said spindle having a radially extending arm, a link connecting the bolt to the arm, a spring urging the spindle longitudinally in one direction, and a detent fixed with relation to the spindle with which the arm is adapted to engage when the bolt has been shifted to a projected position and urged in one direction by said spring.

3. In a latch of the character described, a supporting base, a bolt longitudinally movable upon the supporting base, a spindle extending through the supporting base and mounted therein for rotation and longitudinal movement, a spring surrounding the spindle and urging the spindle longitudinally in one direction, an arm extending from the spindle, a link connecting the arm to the bolt, a detent lug projecting from the base and disposed in the path of movement of the arm when the spindle is retracted by the spring to thereby hold the spindle in a position to project the bolt, and spring actuated means which when the spindle has turned to retract the bolt resists an initial movement of the spindle to project the bolt.

[Claims 4 to 7 not printed in the Gazette.]

1,254,906. SURFACE-IRRIGATING SYSTEM. ALEXANDER FRANKLIN HENDERSON, Winnipeg, Manitoba, Canada. Filed Aug. 24, 1916. Serial No. 116,669. (Cl. 137—65.)



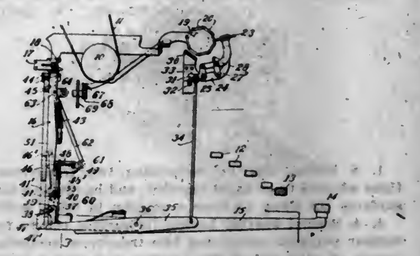
1. In an irrigating system, a distributing medium comprising a closed flexible conductor adapted for connection with a source of water supply under pressure and formed from fabric of increasing openness as the distance increases from the supply point.

3. An irrigating system comprising means to supply water under pressure and means to distribute the same, said last means comprising conduit having one end connected with the first means and the other end closed, said conduit being formed from a plurality of connected flexible hose sections of mesh fabric of increasing fineness from the closed end of the conduit to the connected end of the same.

4. An irrigating system comprising means to supply water under pressure and means to distribute the same, said last means comprising a conductor having one end connected with the first means and the other end closed, said conductor being formed from a plurality of connected flexible fabric hose sections of increasing diameter and decreasing perviousness from the closed to the connected end of the conductor.

[Claim 2 not printed in the Gazette.]

1,254,907. BOOKKEEPING-MACHINE. FERDINAND M. HOLMES, Everett, Mass. Filed May 4, 1917. Serial No. 166,468. (Cl. 197—177.)



1. Writing mechanism having a carriage, with escapement and release; a column stop device; and actuating means for working the latter and the release; combined with a controller normally fixed in controlling position during operation of the machine and connections whereby the said stop device works only as permitted by the controller.

21. Writing mechanism having a carriage with escapement and release; column stops and means capable of engaging them comprising a multiplicity of lugs; levers for throwing them separately into stop engaging position; means for actuating the escapement release and a universal bar connecting it to all of said levers whereby it is actuated by any one of them; a universal bar connected with said lugs and moving them all into and out of connection with said levers; and a controller automatically controlling such movement; the two said universal bars coöperating with each other, the lug bar having a part acting as a latch and the escapement bar as its keeper when in position for release of said escapement and the said latch part of the lug bar constituting a keeper for the escapement bar to prevent its return to position for reëngagement of the escapement while the lug bar is in position disconnecting the lugs.

31. Writing mechanism having a carriage with escapement and release; a series of column stops and a lug capable of engaging them; and means predeterminedly arranged and normally fixed in position during operation of the machine whereby the movement of the carriage along the writing line controls the moving of the lug out of and into line for engaging one of said column stops.

[Claims 2 to 20, 22 to 30, and 32 to 36 not printed in the Gazette.]

1,254,908. METHOD OF TREATING POLYSULFID SOLUTIONS. EDWARD C. HOLTON, Olmsted Falls, Ohio, assignor to The Sherwin-Williams Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 1, 1915. Serial No. 64,477. (Cl. 167—6.)

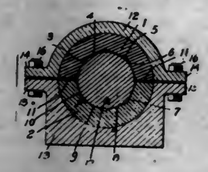
1. In a method of stabilizing polysulfids, the step which consists in addition to a prepared polysulfid solution of specific gravity of 35°–40° Baumé or equivalent, of cane sugar in an amount equal to from one to five per cent. of the weight of polysulfid solution.

2. In a method of stabilizing polysulfids, the steps which consist in addition to a prepared polysulfid solution of 35°–40° Baumé, or equivalent, of cane sugar in an amount equal from one to five per cent. of weight of the solution, rapidly evaporating such solution to dryness, and then pulverizing the dried product.

3. An insecticidal compound comprising lime sulfur and cane sugar in the proportions of approximately eight to one.

4. In a method of stabilizing polysulfids, the step which consists in the addition to a prepared polysulfid solution of a substance formed by combining a water-soluble carbohydrate with an alkaline earth metal.

1,254,909. JOURNAL-BEARING. GEORGE A. HOWE, Pittsburgh, Pa. Filed Aug. 2, 1917. Serial No. 184,140. (Cl. 64—10.)



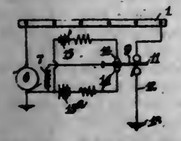
1. A journal bearing comprising two transverse sections adapted to be fitted together, and having the interior surfaces cut away to form a polygon in cross section.

4. A journal bearing having its surface cut to form a regular polygon, comprising two transverse sections, and means at each end of the bearing to retain a lubricant therein.

10. A bearing for cylindrical journals, comprising two sections having a plurality of plane bearing surfaces, and a packing member at each end of the bearing to retain a lubricant therein.

[Claims 2, 3, 5 to 9, 11, and 12 not printed in the Gazette.]

1,254,910. MEANS FOR COMPENSATING FOR DISTURBANCES OF EARTH POTENTIAL. PAUL J. HOWE, Ridgewood, N. J., assignor to The Western Union Telegraph Company, New York, N. Y., a Corporation of New York. Filed Mar. 10, 1917. Serial No. 153,830. (Cl. 178—69.)

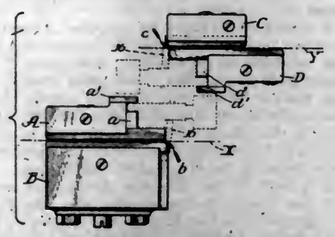


5. A ground connection for systems of communication comprising a connection from one point of such system to a grounding point at which disturbance of earth potential may exist, a generator in such connection having two opposing field coils, a conductor, other than the main conductor or conductors of such system or systems of communication, through which current, due to the disturbance of earth potential, will flow, a polar relay having a controlling magnet interposed in said conductor, and having two variable resistance means operated in opposite senses, relatively, by movements of the armature of said relay, each of said variable resistance means being in circuit with one of the two opposing field coils of said generator, and a source of current supply connected to both of said field coils and to said variable resistance means, whereby, when said variable resistance means are of equal resistance, the said field coils neutralize one another, and whereby, as the resistance of one variable resistance means is increased and the resistance of the other variable resistance means is decreased by the action of said relay, the one field coil or the other is caused to predominate.

[Claims 1 to 4 not printed in the Gazette.]

1,254,911. SCRAPER FOR FILM-SPLICING MACHINES. ALBERT S. HOWELL, Chicago, Ill., assignor to Bell & Howell Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 27, 1916. Serial No. 133,771. (Cl. 154—42.)

1. The combination with a film-splicing machine provided with two pairs of clamping members each pair adapted to receive one end of the film to be spliced, each pair of said members provided with a shoulder upon which the end of the film to be spliced rests and having a guideway parallel thereto, of a scraper consisting of a member provided with means engaging and operable in either guideway, and a blade carried by said member adapted to operate upon the portion of the film resting upon said shoulder.



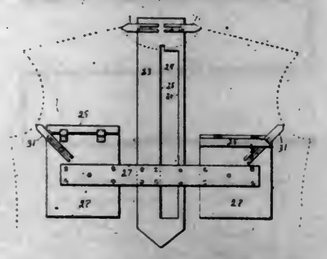
4. The combination with a film-splicing machine provided with clamping members adapted to receive one end of the film to be spliced, said members provided with a shoulder upon which the end to be spliced rests and having a guideway parallel thereto, of a scraper consisting of a block provided with a spring arm parallel and adjacent thereto, a blade carried between said arm and block, means for securing said blade in position, and devices on said block engaging and operable in the guideway of said clamping members.

6. A scraper for film-splicing machines comprising a suitably shaped block, an arm disposed parallel and adjacent thereto, a blade inserted between said block and arm, a clamping bolt engaging said arm and tapped into said block, and a guide flange disposed longitudinally upon the side of said block opposite said arm.

7. A scraper for film-splicing machines comprising a suitably shaped block, an arm disposed parallel and adjacent thereto, said arm and block provided with facing grooves, a blade inserted in said grooves, a clamping bolt extended through said arm and engaging said block, and a guide flange disposed longitudinally upon the side of said block opposite said arm.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,254,912. TEMPLET. SAMUEL M. JENKINS, Louisville, Ky. Filed Aug. 27, 1917. Serial No. 188,515. (Cl. 33—14.)

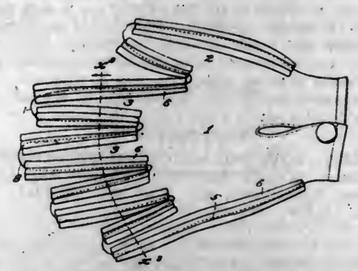


5. A central member provided with a longitudinal slot, extensible gages thereon, a transverse bar attached thereto, a member carried by said bar on each side of the central member, a part on the second members adapted to extend the area thereof, and an extensible gage on each of said members.

[Claims 1 to 4 not printed in the Gazette.]

1,254,913. BUTLER'S GLOVE. JAMES C. KITAMURA, Los Angeles, Cal. Filed June 17, 1916. Serial No. 104,637. (Cl. 15—16.)

1. A glove comprising a body having fingers and flaps connected to the adjacent sides of the fingers and extending edgewise beyond the front faces of the fingers and adapted to overlap to cover said faces, and to be separated to expose said faces.



2. A glove comprising a body having fingers and flaps connected to the adjacent sides of the fingers and extending edgewise beyond the front faces of the fingers and adapted to overlap to cover said faces, and leaving the finger tips bare of flaps.

1,254,914. VEGETABLE DYE AND METHOD OF PREPARING THE SAME. ISIDOR KITSEE, Philadelphia, Pa. Filed Nov. 26, 1915. Serial No. 63,867. (Cl. 8—6.)

1. The method of producing fast dyes which consists in adding to a vegetable base, chlorids of two different metals, one of said metals being combined also with an alkali.

2. The method of producing fast dyes which consists in adding to a vegetable base a metallic chlorid and a metallic ammonium chlorid.

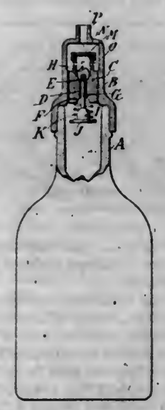
3. The method of producing fast dyes which consists in adding to a vegetable base, chlorid of zinc and ammonium copper chlorid.

4. As a new composition of matter, a dye comprising a vegetable base, and chlorids of two different metals one of which is combined with an alkali.

6. As a new composition of matter, a dye comprising a vegetable base, chlorid of zinc and ammonium copper chlorid.

[Claim 5 not printed in the Gazette.]

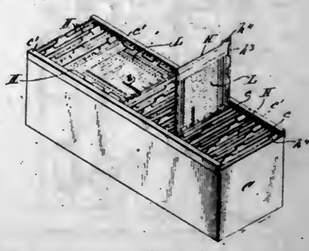
1,254,915. NON-REFILLABLE BOTTLE. LOUIS LANDOLFI, New York, N. Y., assignor of one-half to Michael Pascocello and one-half to John D. Caruso, New York, N. Y. Filed Dec. 26, 1913. Serial No. 808,846. (Cl. 215—61.)



1. A non-refillable bottle having a diaphragm provided with valve seats on its opposite sides, an outwardly opening valve contacting with the outer seat and an inwardly opening valve contacting with the inner seat, said valves being connected to move together, a spring normally tending to hold the outer valve on its seat, and a plate connected with the lower valve and arranged below the diaphragm, and exposed to the impact of the liquid.

[Claim 2 not printed in the Gazette.]

1,254,916. LEDGER CARD SYSTEM, &c. ARTHUR L. LEE, Jamaica, N. Y. Filed May 1, 1917. Serial No. 165,684. (Cl. 129—16.)



1. A card system of the character designated, comprising a case formed with a series of coincidentally opposed upright grooves and a series of holders adapted to receive and support a series of record reference cards, each holder being formed with bottom end trunnions fitting in said case grooves, so that each individual holder may be raised and used *in situ* without detachment from the case and without derangement of the other holders in the system, as set forth.

2. A card system of the character designated, comprising a casing formed with a series of coincidentally opposed upright grooves and a series of holders each adapted to receive and support two separate record reference cards, one on each side thereof, each holder being formed with bottom end trunnions fitting in said case grooves, so that each individual holder may be raised and used *in situ* without detachment from the case and without derangement of the other holders in the system, as set forth.

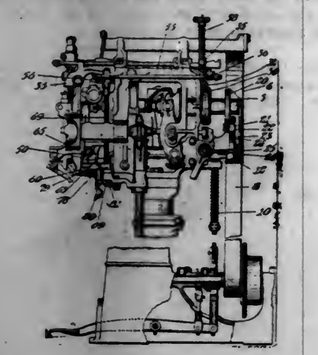
3. A card system of the character designated, comprising a case formed with a series of coincidentally opposed upright grooves closed at top, and a series of holders adapted to receive and support a series of record reference cards, each holder being formed with bottom end trunnions fiting in said case grooves, so that each individual holder may be raised and used *in situ* without detachment from the case and without derangement of the holders in the system, as set forth.

4. A card system of the character designated, comprising a case formed with a series of coincidentally opposed upright grooves, and a series of holders adapted to receive and support a series of record reference cards, each holder being formed with spring clip retaining means and with bottom end trunnions fitting in said case grooves, so that each individual holder may be raised and used *in situ* without detachment from the case and without derangement of the other holders in the system, as set forth.

1,254,917. LASTING-MACHINE. RONALD F. MCFEELY, Beverly, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 18, 1913. Serial No. 807,476. (Cl. 12—2.)

8. A machine of the class described having, in combination, an upper stretching gripper, upper fastening mechanism, an edge gage adjustable to position the shoe for the reception of tacks at different distances from the edge of the shoe bottom, tack supplying mechanism arranged to deliver tacks of different sizes and connections between the gage and said supplying mechanism arranged to cause the latter to deliver tacks of one size when the gage is positioned to locate the tacks at one distance from the shoe edge and to deliver tacks of a different size

when the gage is positioned to locate the tacks at a different distance from the shoe edge, said connections having provision for adjustment of the gage to provide for differently locating the limits of movement of the gage.



15. A machine of the class described having, in combination, an upper stretching gripper, tack driving mechanism, a thin edge gage, a thick edge gage arranged to swing into and out of operative position, tack supplying mechanism arranged to deliver long and short tacks, and connected means for effecting the delivery of short tacks, retraction of both gages, and the movement of the thick edge gage into operative position.

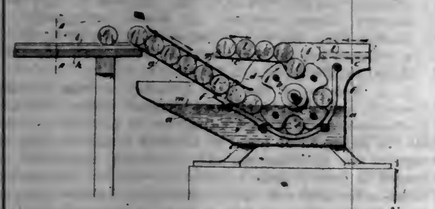
20. In a lasting machine, the combination of lasting mechanism, power means for operating the lasting mechanism to do its work, manually controlled means for effecting the operation of the lasting mechanism and upper securing means, and automatic means for stopping the machine after the upper securing operation.

22. A step-by-step type of lasting machine having a gripper, means for actuating the gripper repeatedly in continuous operation of the machine, means to stop the machine automatically at the end of its cycle, and means for manually controlling the operation of the gripper during the major portion of the cycle.

24. A machine of the class described having, in combination, an upper stretching gripper, means for operating the gripper to do its work, upper fastening mechanism, a treadle and friction clutch for controlling the operation of the gripper, a brake, means for tripping off the brake by initial movement of the treadle leaving the gripper under the control of the operator through the friction clutch until approximately the end of the cycle, and means operating if the treadle is released after the upper is stretched and fastened to set the brake and stop the machine at the end of the cycle.

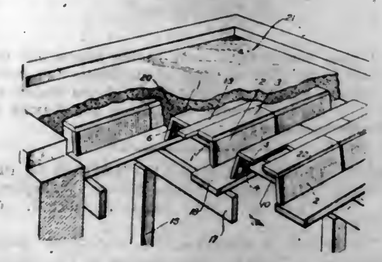
[Claims 1 to 7, 9 to 14, 16 to 19, 21, 23, and 25 to 29 not printed in the Gazette.]

1,254,918. LACQUERING OR PAINTING MACHINE FOR TINS AND SIMILAR CLOSED RECEPTACLES. RALPH MACHIN, Ratcliff, London, England. Filed May 5, 1916. Serial No. 95,599. (Cl. 91—46.)



A can lacquering machine comprising a drying table, a tank for the lacquer, the said tank having an elongated portion on the delivery side of the machine, an open inclined delivery way overlying the elongated portion of the tank and leading to the drying table, a notched wheel mounted to rotate in the tank and a bed in said tank beneath the wheel, a portion of which bed is concentric with the wheel and a portion tangential thereto, the said tangential portion forming with the inclined delivery way, a continuous path up which the cans are pushed through intermediate cans, to the drying table by the rotation of the notched wheel.

1,254,919. DOME FOR CONCRETE STRUCTURES. EDWARD C. MARQUA, HANS VON UNWERTH, and JOHN H. BYRD, Kansas City, Mo. Filed Jan. 12, 1917. Serial No. 141,986. (Cl. 25—131.5.)



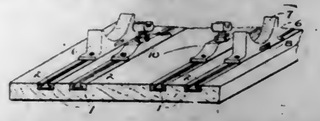
2. In a dome for concrete construction, a body formed in sections, each section comprising side and top members, means connecting the tops of opposite paired members to form an integral structure thereof, and cross members adapted for support on the sides of said sections and spacing the same to retain the dome in functional position.

3. In a dome for concrete construction, a body formed in separate sections each comprising a top and side member, an insert removably located between the top members of the separate sections, and means connecting said sections to retain the parts in functional position.

7. The combinatin of a plurality of domes, each consisting of paired body members comprising hingedly connected side and top members, an insert located between the spaced edges of the top members of each dome and projecting from the end of one dome into a like space in an abutting dome, means connecting the top members of said domes with the insert to retain the top members and insert in functional relation, and cross members supported on and extending between the side members and supporting the tops and inserts.

[Claims 1 and 4 to 6 not printed in the Gazette.]

1,254,920. FREIGHT-CAR-FLOOR CONSTRUCTION. BERTON M. MATHIAS, Minneapolis, Minn. Filed June 13, 1917. Serial No. 176,625. (Cl. 105—15.)



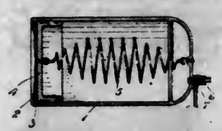
1. In a freight car floor the combination of floor members, one of which is a longitudinal bar having a longitudinal T slot therein.

4. In a freight car floor the combination of floor members one of which is a longitudinal bar having a T slot running longitudinally therein and a wheel supporting member adapted to receive an automobile wheel, and means for fastening said wheel support to said longitudinal bar.

8. In a freight car floor the combination of floor members one of which is a bar having a longitudinal T slot therein, a wheel supporting member adapted to receive therein an automobile wheel, said wheel supporting member having positioned below the support for receiving said wheel an aperture for passing therethrough a strap for the purpose of securing said wheel to said support.

[Claims 2, 3, and 5 to 7 not printed in the Gazette.]

1,254,921. AIR-SUPPLY TANK. HENRY J. MEENGS, Vriesland, Mich. Filed Dec. 27, 1916. Serial No. 139,229. (Cl. 230—25.)

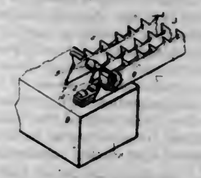


1. In combination, a tank, a follower therein, spring means tending to carry the follower toward one end of the tank, a gasket against which the follower seats when the tank is filled with air under pressure sufficient to overcome the spring, and valve mechanism in said end of the tank for permitting the entrance of air into the tank but normally stopping the escape therefrom, substantially as described.

2. In combination, a tank having an open end, an annular ledge turned inwardly at said open end, a gasket seated against the inner sides of the ledge, a follower movably mounted in the tank, a spring connected to the follower and closed end of the tank, said spring being located within the air chamber of the tank and expanding as air is entered into said chamber, and valve mechanism in said tank for permitting the entrance of air into the tank but normally preventing the escape therefrom, substantially as described.

3. In combination, a tank having an open end, an annular ledge turned inwardly at said open end, a gasket seated against the inner sides of the ledge, a follower movably mounted in the tank, a coiled spring having its coils progressively increasing in diameter connected to the follower and closed end of the tank, and valve mechanism in said closed end of the tank for permitting the entrance of air therein but normally stopping escape of air therefrom, substantially as described.

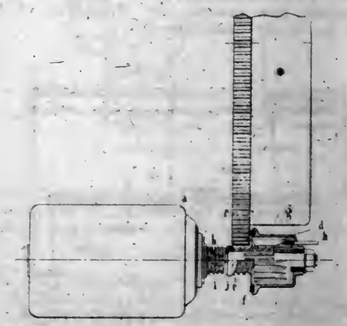
1,254,922. RAILWAY CATTLE-GUARD. CHARLES HENRY MERRITT, Birmingham, Ala. Filed Nov. 23, 1917. Serial No. 203,572. (Cl. 256—18.)



A railway cattle guard comprising longitudinal bars provided along their upper edges with laterally inclined teeth, a plurality of cross connecting bolts passed through the bars, spacers surrounding the bolts between the bars, the alternate bars terminating immediately below the bolt and the intermediate bars being elongated downwardly to support the weight of the whole cattle guard.

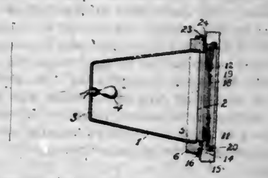
1,254,923. ELECTRIC STARTER FOR INTERNAL-COMBUSTION ENGINES. ALBERT HENRY MIDGLEY, Acton Vale, England, assignor of one-half to C. A. Vandervell and Company Limited, Acton Vale, England. Filed July 19, 1917. Serial No. 181,643. (Cl. 74—7.)

An electric starter for internal combustion engines comprising in combination an electric motor having an armature shaft capable of longitudinal displacement, a toothed gear, one member of which is connected with the engine to be started while the other member thereof consists of a helically threaded pinion, a helical thread on the longitudinally displaceable armature shaft in engagement with the helically threaded pinion, and a friction device constituted by two members, one of which is supported on the longitudinally displaceable shaft so as to be capable of relative rotation thereon, together with the helically threaded pinion, and be compelled positively to follow



the longitudinal displacement of the armature shaft, the distance between the members of the friction device being shorter than the distance between the members of the toothed gear, whereby the friction device is brought into operation during the longitudinal displacement of the armature shaft and before the initial engagement of the members of the toothed gear, as set forth.

1,254,924. SIGN-DISPLAY APPARATUS. HARLEY N. MILLER, Cleveland, Ohio, assignor to Nicholas Weigler, Cleveland, Ohio. Filed Feb. 3, 1916. Serial No. 76,037. (Cl. 40—132.)



In a sign display apparatus, the combination of a flange, a yieldable gasket fixed to the flange, a rear glass plate fastened to the gasket, a frame, the frame being hinged to said flange, a cushion arranged between the flange and the frame, a gasket of yieldable material carried by said frame, a front glass plate adapted to rest loosely against the last mentioned gasket and coöperate with the rear glass plate for holding a sign therebetween, means for preventing the front glass plate falling from the frame when open, and means for holding said frame in closed position, substantially as described.

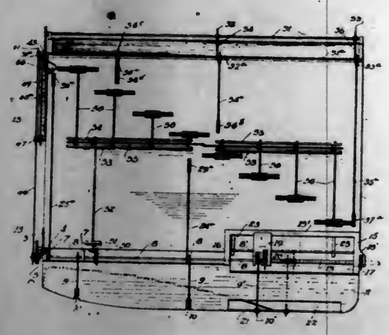
1,254,925. PICTURE-LIFTER. GEORGE E. MORSE, Brockton, Mass. Filed July 21, 1917. Serial No. 182,055. (Cl. 57—110.)



A picture lifter comprising an elongated member, a plate secured to an end portion of said member and ex-

tending therebeyond, and a tongue struck from the extended portion of the plate, said tongue being arranged on an incline relative to the elongated member.

1,254,926. CANE-STRIPPING APPARATUS. MILLER M. MURCHISON, New Decatur, Ala. Filed Mar. 11, 1916. Serial No. 83,597. (Cl. 130—31.)



1. A cane stripping apparatus comprising a stripping compartment, means to deliver the cut stalks in horizontal position to said compartment, means to move the stalks sidewise through said compartment, and a plurality of diagonally arranged strippers adapted to successively engage and strip the stalks as they are passed through said compartment.

2. In a cane stripping apparatus, in combination, a platform into which the unstripped stalks fall, a stripping compartment opening onto the platform, means to advance the stalks sidewise across the platform and up through said compartment, means to top the stalks, a plurality of strippers disposed crosswise of the stripping compartment so as to act on the whole stalk, and means to operate said strippers to cause them to alternately move alongside of and then to clear the stalks so as to permit them to continue their passage through the stripping compartment.

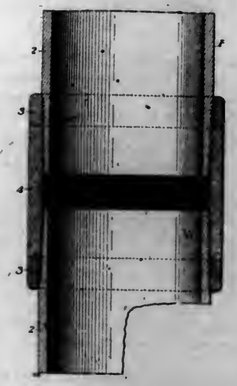
5. In a cane stripping apparatus, a stripping compartment, means to feed cane sidewise through said compartment, and a plurality of stripping mechanisms disposed to act successively on different parts of the cane and jointly to strip the cane, each of said mechanisms comprising a pair of arms, links having a fixed pivot and connected to the under ends of said arms, cranks 180° apart and connected to an intermediate part of the under portions of the arms, there being slots in the stripping compartment through which the upper ends of said blades project during a portion of their travel, and means to drive the crank, substantially as described.

8. In a cane stripping apparatus, a stripping compartment, and means to pass the cane in substantially horizontal position therethrough, a diagonal series of strippers working lengthwise of and successively on the cane as it is advanced through said compartment, the said means to advance said cane through the compartment comprising a set of carrier chains operating from the diagonal series of strippers toward the top of the compartment, and another set of carrier chains working from the bottom of the compartment toward said series of strippers, none of said carrier chains crossing the diagonal line of strippers.

10. In a platform disposed from front to rear of the machine and adapted to receive the cut cane, a cane stripping apparatus, a stripping compartment rising at an incline from one side edge of the platform, spaced walls, carriers to advance the stalks sidewise across said platform and upwardly through said compartment, a diagonal series of strippers to successively act on and strip the fodder from the stalks as they are passed through said compartment, said strippers and conveyers acting to convey the fodder to the forward end of the apparatus, a trough to receive the fodder, and a conveyer chain moving in said trough and adapted to discharge the fodder therefrom, substantially as described.

[Claims 3, 4, 6, 7, and 9 not printed in the Gazette.]

1,254,927. COUPLING FOR DRILL-PIPES. WILLIAM M. NECKERMAN, Youngstown, Ohio, assignor to The Youngstown Sheet & Tube Company, Youngstown, Ohio, a Corporation of Ohio. Filed Sept. 27, 1916. Serial No. 122,388. (Cl. 137—28.)



1. A pipe coupling of the character described, comprising pipe sections having threaded ends, the inner end portions of the thread having flattened crowns and roots, a locking ring on the end of each pipe section and covering one end of the thread thereon, the entering portions of the threads of said rings also having flattened crowns and roots to seat on the flattened crowns and roots of the inner end portions of the threads on the pipe sections, and a threaded coupling sleeve connecting the inner ends of the pipe sections to each other and engaging one face of each locking ring; substantially as described.

2. A pipe coupling of the character described, comprising pipe sections having tapered threads on the ends thereof, a locking ring having a tapered internal thread on the end of each pipe section and covering one end of the thread thereon, and a coupling sleeve having tapered threads therein connecting the ends of the pipe sections to each other and engaging both locking rings, some of the threads in the outer ends of the locking rings differing in cross section from the cross section of the threads at the inner ends of said rings; substantially as described.

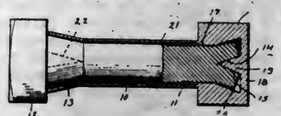
1,254,928. SPRING SUSPENSION FOR MOTOR-VEHICLES. EMIL A. NELSON, Ronville, Mich. Filed Dec. 17, 1914. Serial No. 877,654. (Cl. 267—27.)



1. A new article of manufacture, comprising a cantaliver spring having involute ends, means for pivotally attaching said spring intermediate its ends to a member to be supported thereby, said member being so located as to provide a spring with a long and a short arm, means for connecting the involute end of the short arm of said spring to said member to be supported, and means for connecting the involute end of the long arm of said member to a supporting member.

[Claim 2 not printed in the Gazette.]

1,254,929. NUT-LOCK. JOHN E. NEWTON, Grand Marais, Minn., assignor of one-half to James Pinkerton, Grand Marais, Minn. Filed June 6, 1916. Serial No. 101,933. (Cl. 151—31.)



A nut lock comprising a bolt having a diametrical slit at one end thereof, an inclined shoulder adjacent the opposite end, a nut fitted upon said bolt having one end of the bore enlarged, an end wall closing the enlarged end of said bore, a tapered lug carried by said end wall and adapted to engage and spread or expand the slitted end of said bolt, and a tubular extension carried by said nut and being of a length approximately the length of the bolt to receive said bolt and having its free end slitted to be expanded by the inclined shoulder of the bolt after the same has passed through an object, as and for the purpose specified.

1,254,930. CHECK-SORTER. SAMUEL D. PAGE, Des Moines, Iowa. Filed Apr. 30, 1917. Serial No. 165,686. (Cl. 129—16.)

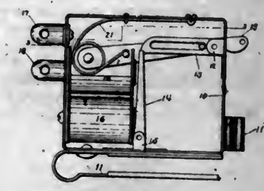


1. In a device of the class described, a fixed base, a wall thereon inclined upwardly and away from said base near one side thereof, rods secured to said wall and extending away therefrom in parallel relation to each other, spaced above said base, a movable wall member adjacent to the edge of said first wall, said second wall having rods extending toward the first wall parallel with each other and with said first rods, spaced above said base, said base having a recess extending from its edge adjacent to said second wall toward its free edge spaced from its upper and lower surfaces, a rod secured to said second wall extending into said recess having at its inner end a horizontal angular extension, means extended into said recess near the edge of the base adjacent to the second wall, and adapted to fill part of said recess for forming a stop for engaging said extension, and separator sheets slidably mounted on the rods extending from said walls.

2. In a device of the class described, a base, a wall thereon adjacent to one edge thereof, rods secured to said wall and extending away therefrom in parallel relation, above the base, a movable wall member slidably mounted on said base adjacent to the opposite edge thereof from said first wall, said movable wall member having rods extending toward the first wall, parallel with each other and with said first rods, spaced above said base, a member on said movable wall member, extending into said base, and means for limiting the outward movement of said last described member.

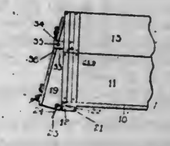
1,254,931. MEANS FOR OPERATING CAMERA-SHUTTERS. BENJAMIN LOT PARKER, Genoa, Ill. Filed July 13, 1916. Serial No. 108,969. (Cl. 74—93.)

In a trip mechanism, a casing, a horizontal operating lever pivotally mounted at one end in said casing, the opposite end being adapted to upward and downward movement, a trip lever mounted in said casing having a slidable connection with said operating lever near the free end thereof, an armature in said casing upon which the



free end of said trip lever normally rests and electrically operated means for disconnecting said armature from the free end of said trip lever for the purpose set forth.

1,254,932. COMBINED SCOOP-BOARD AND END-GATE. SOLOMON PENTICO, Woodward, Iowa. Filed Mar. 13, 1917. Serial No. 154,613. (Cl. 21—21.)

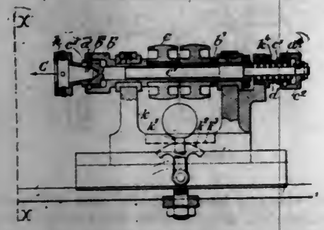


1. In a device of the class described, the combination of a wagon bed, an end gate member, means for connecting the lower edge of said end gate member to the lower part of the wagon bed and to hold the lower ends of the end gate member in different positions relative to the lower part of the wagon bed, plates secured to the side of the wagon bed and extending rearwardly therefrom, having upward extensions at their rear ends, said end gate being provided with slots of greater length from top to bottom than the width of said plates, said plates and end gate having coacting means for locking the upper portion of the end gate to the wagon bed, said plates being designed to support the end gate and allow certain pivotal movement thereof when the lower end of the end gate is swung rearwardly from the wagon bed.

2. In a device of the class described, the combination of a wagon bed with a combined end gate and scoop board, means for adjustably connecting the lower end of the end gate with the lower part of the wagon bed, and means for adjustably connecting the upper end of the end gate with the upper portion of the wagon bed, said means comprising plates extending rearwardly from the wagon bed, said end gate having slots of greater length from top to bottom than the width of said plates from top to bottom, and adapted to receive said plates, said plates being of such length as to permit the end gate to slide rearwardly thereon a limited distance without moving off the plates, and means for limiting the outward sliding movement of the end gate on said plates.

3. In a device of the class described, the combination of a wagon bed, with a combined scoop board and end gate, a cleat below the lower end of the wagon bed and flush with the rear edge thereof, a hinge slidably mounted in said block, means on said hinge for limiting such sliding movement, said hinge having a portion designed to be secured to the rear surface of the end gate, the parts being so arranged that when the end gate is closed, the hinge is locked against sliding movement whereby when the end gate is swung rearwardly at its upper end the hinge may be slid for a limited distance and the lower edge of the end gate and the pivotal line of the hinge will be supported by said cleat.

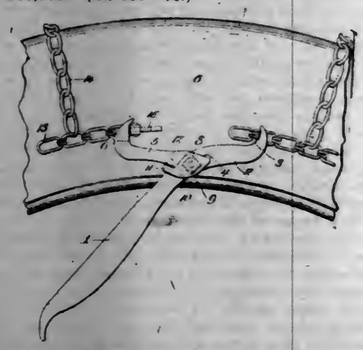
1,254,933. DRILLING, SCREW-CUTTING, AND OTHER SIMILAR MACHINE. EMILE PEUCH, Bourges, and ALPHONSE ARBEY, Beure, France. Filed July 17, 1913, Serial No. 779,535. Renewed Dec. 18, 1917. Serial No. 207,797. (Cl. 10—89.)



2. In a machine of the character described, the combination of a carriage; a sleeve journaled in said carriage and having an enlarged member at the inner end; a pulley on said sleeve; a shaft passing through said sleeve and having an enlarged member on the outer end, and one on the inner end associated with said first named member; an additional member associated with said member at the outer end of said shaft; one of each pair of adjacent associated members being provided with an annular groove, and the other with a plurality of longitudinal grooves; and balls in said annular grooves and each engaging a longitudinal groove.

[Claims 1 and 3 not printed in the Gazette.]

1,254,934. WHEEL-CHAIN-TIGHTENING TOOL. AUSTIN R. POOL, Wetmore, Kans., assignor of one-half to S. Thornburrow, Wetmore, Kans. Filed Oct. 30, 1916, Serial No. 128,641. Renewed Nov. 24, 1917. Serial No. 203,860. (Cl. 254—78.)



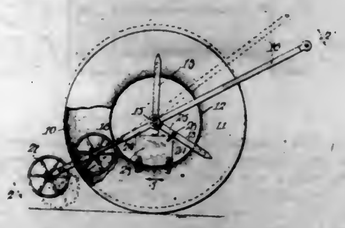
2. A chain tightening tool, comprising a lever terminating at one end in a jaw and provided with a longitudinal slot, a pivot bolt extending through said slot, a jaw having a bifurcated end fitting astride the lever and engaging said pivot bolt, and a part retained on said pivot bolt at one side of the bifurcated jaw and provided with a wedge point fitting flatly in the bifurcation of said last-named jaw and adapted to be clamped between the base of the bifurcation and the lever.

[Claim 1 not printed in the Gazette.]

1,254,935. CONCRETE-MIXER. PAUL F. REIMANN, Chicago, Ill. Filed Mar. 16, 1917. Serial No. 155,161. (Cl. 33—73.)

1. In a concrete mixer the combination with a substantially cylindrical drum, of an outside propelling handle for the same, a roller bearing against the inner periphery of the drum, and a bracket in which said roller is journaled and which is rigidly fixed with relation to the handle.

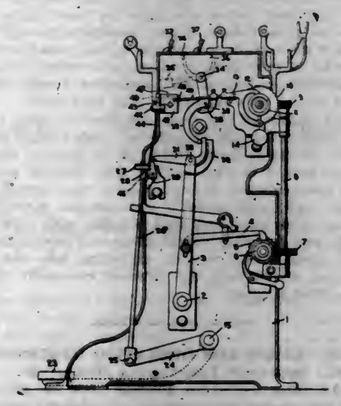
2. In a concrete mixer the combination with a substantially cylindrical drum, of central end bearings on the same, an axle mounted in the bearings, an outside propelling handle for the drum rigidly secured to the axle, a roller bearing against the inner periphery of the drum, and a bracket in which said roller is journaled and which is rigidly fixed to the axle.



3. In a concrete mixer the combination with a substantially cylindrical drum, of an axle concentrically and loosely mounted therein, an outside propelling handle embracing the drum, rigidly secured to opposite ends of the axle and extending rearwardly thereof, a bracket within the drum, rigidly secured to the axle and extending forwardly thereof, a roller journaled in the bracket and bearing against the inner periphery of the drum, extensions on the handles protruding forwardly of the axle, and anti-friction means carried on the forward ends of the extensions.

4. In a concrete mixer the combination with a substantially cylindrical drum, of an axle concentrically and loosely mounted therein, an outside propelling handle embracing the drum, rigidly secured to opposite ends of the axle and extending rearwardly thereof, a bracket within the drum, rigidly secured to the axle and extending forwardly thereof, a roller journaled in the bracket and bearing against the inner periphery of the drum, extensions on the handles protruding forwardly of the axle, and a single wheel carried on the forward ends of said extensions, said roller and wheel being substantially opposite the longitudinal center of the drum.

1,254,936. WARPING-MACHINE. ALONZO E. RHOADES, Hopedale, Mass., assignor, by mesne assignments, to Draper Corporation, Hopedale, Mass., a Corporation of Maine. Filed June 19, 1915. Serial No. 35,068. (Cl. 28—31.)

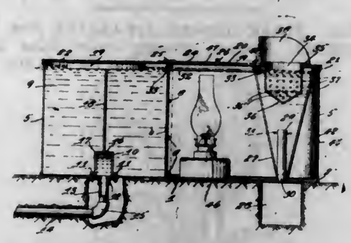


1. In a warping machine comprising warp measuring mechanism, warp end absence or failure detecting mechanism, stop motion mechanism actuated both by said measuring mechanism upon the completion of a predetermined length of warp and by said detecting mechanism upon the absence or failure of a warp end, said stop motion mechanism comprising a longitudinally movable shipper rod provided with a shoulder, means engaging said shoulder to prevent actuating movement of said rod and thus maintain the stop motion mechanism inoperative, a knock-off lever for said rod, means to engage said rod in and maintain it in actuated position, and means actuated by the measuring mechanism upon the completion of a predetermined length of warp to actuate said knock-off lever and cause said engaging means to engage said rod.

2. In a warping machine comprising warp measuring mechanism, warp end absence or failure detecting mechanism, stop motion mechanism actuated both by said measuring mechanism upon the completion of a predetermined length of warp and by said detecting mechanism upon the absence or failure of a warp end, said stop motion mechanism comprising a reciprocable starting and stopping member, locking means coöperating with said member, a pivotally mounted U-shaped lever one arm of which controls said locking means and the other arm of which is controlled by said measuring mechanism whereby the measuring mechanism upon its actuation of the stop motion mechanism operates the U-shaped lever to lock the starting and stopping member in inoperative position.

3. A warping machine comprising warp measuring mechanism, stop motion mechanism actuated both by the said measuring mechanism upon the completion of a predetermined length of warp and also by the absence or failure of a warp end, and means including a U-shaped pivoted lever to lock the warping machine in inoperative position actuated by the measuring mechanism upon the completion of a predetermined length of warp.

1,254,937. HOG-WATERING APPARATUS. ROBERT W. RYON, Talmage, Kans. Filed Aug. 16, 1917. Serial No. 186,569. (Cl. 119—73.)



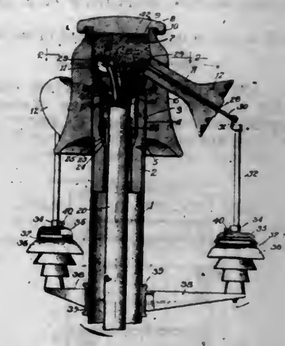
2. In a hog waterer apparatus of the class described, the combination of an inverted cone like container, means for removably closing the bottom of said container, a cup extending into said container, said cup having a plurality of openings, means for supplying said container with water, whereby the water level of said cup will be equal to the water level of said container, said openings permitting refuse deposited therein when the hog is drinking to pass into said cone-like container, the incline of the cone-like container causing the refuse to settle in the bottom of the container, whereby when so desired the bottom of said container may be opened so as to permit the refuse to pass therefrom.

[Claims 1, 3, and 4 not printed in the Gazette.]

1,254,938. CABLE-TERMINAL POLE. EDMUND O. SCHWEITZER, Chicago, Ill. Filed Sept. 21, 1914. Serial No. 862,640. (Cl. 247—12.)

1. The combination of a tubular post, a pothead mounted at the upper end thereof, a cable extending up in the interior of the post and having its conductors spread within the interior of the pothead, insulating compound inside of the pothead sealing the cable conductors therein, connections extending through the walls of the pothead and connected with the ends of the cable conductors therein, protective devices located outside of the pothead and connected with the outer ends of said connecting devices, and cross arms mounted on the post below the pothead, said protective devices being supported by said cross arms.

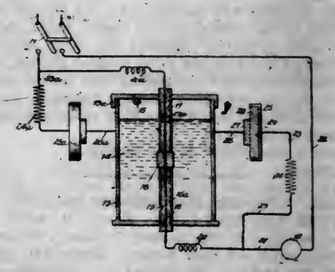
4. The combination of a tubular post, a pothead member mounted upon said post and having an interior chamber, and a heating device arranged within said chamber.



15. The combination of a tubular post, a tubular member at the upper end of said post, a pothead at the upper end of said tubular member, means located within the pothead and extending across the upper end of the tubular member for closing the bore thereof around a cable located in said tubular member, and supplemental means closing the tubular bore of said tubular member around said cable below said aforesaid closing means, said first mentioned closing means comprising a metal bracket mounted upon the upper end of said mounting member and closing the same except for a central opening to accommodate the cable and said supplemental closing means comprising an annular member surrounding the cable and extending to the surface forming the bore of said mounting member.

[Claims 2, 3, 5 to 14, and 16 to 22 not printed in the Gazette.]

1,254,939. MEANS AND METHOD FOR METERING ELECTRICITY. EDMUND O. SCHWEITZER, Chicago, Ill. Filed Mar. 6, 1916. Serial No. 82,347. (Cl. 171—266.)



1. In a system for the distribution and measuring of alternating current the combination with an electrolytic cell comprising an anode, cathode, and an electrolyte, an electricity conducting work circuit connected in series with the anode, a pair of reactance coils in the work circuit, one on each side of the anode, and a pair of shunts leading to the cathode from opposite sides of the anode

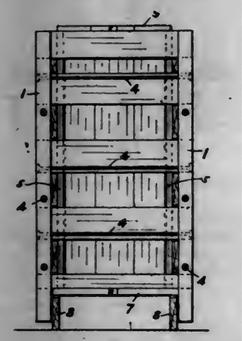
beyond the reactance coils, and a rectifier and non-inductive resistance in each of said shunts.

2. In combination with an electricity conducting work circuit, an electrolytic bath in which a portion of the conducting circuit is immersed, a shunt for diverting a fractional part of the current traversing the immersed portion of said circuit into the electrolytic bath, and an alternating current rectifier in said shunt.

5. In a system of electrical distribution a circuit connected with a source of alternating current supply, and means for rectifying and utilizing a fractional part of the electrical energy traversing said circuit electrolytically to destroy the effective conductivity of a part of said circuit.

[Claims 3, 4, and 6 to 26 not printed in the Gazette.]

1,254,940. ASSEMBLY AND PACKING CRATE FOR STORAGE BATTERIES. EDWARD WANTON SMITH, Philadelphia, Pa. Filed Apr. 5, 1917. Serial No. 159,900. (Cl. 219—36.)



1. An assembly and packing crate for storage batteries consisting of the combination of corner strips, side pieces having ends projecting opposite the inner faces of the corner strips and adapted to be secured thereto for shipping, and removable bolts connecting the corner strips for drawing up the side pieces during assembly.

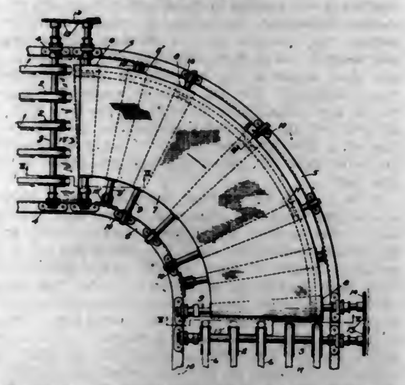
3. An assembly and packing crate for storage batteries consisting of the combination of corner strips, side pieces having ends projecting opposite the inner faces of the corner strips and adapted to be secured thereto for shipping, removable bolts connecting the corner strips for drawing up the side pieces during assembly, and a bottom structure arranged inside and extending beyond the corner strips.

4. An assembly and packing crate for storage batteries consisting of the combination of corner strips, side pieces having ends projecting opposite the inner faces of the corner strips and adapted to be secured thereto for shipping, removable bolts connecting the corner strips for drawing up the side pieces during assembly, and a top structure arranged inside the corner strips and adjustable in respect to the crate.

[Claim 2 not printed in the Gazette.]

1,254,941. CORNER FOR CONVEYERS FOR NEWSPAPERS AND THE LIKE. EDWIN M. SNOW, Lowell, Mass., assignor to The Lamson Company, Boston, Mass., a Corporation of New Jersey. Filed Mar. 30, 1915. Serial No. 18,131. (Cl. 193—4.)

1. An arcuate conveyer comprising a belt of fabric, flexible in all directions, and lower sides which travel in opposite directions and presenting a carrying surface the inner and outer edges of which are arced, grooved means for supporting said carrying surface, and a laterally flexible, extended bead upon said belt for engaging said grooved means to hold said belt against lateral displacement, said bead projecting from said belt a distance at least twice the thickness of said belt.

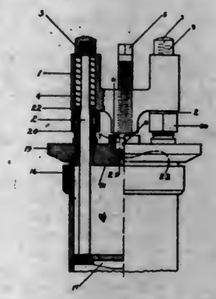


2. A conveyer comprising a belt having upper and lower sides which travel in opposite directions and presenting a carrying surface the inner and outer edges of which are arced, grooved means for supporting said carrying surface, and a linked bead upon said belt for engaging said grooved means to hold said belt against lateral displacement.

3. An arcuate conveyer comprising a belt of fabric, flexible in all directions and having upper and lower sides which travel in opposite directions and presenting a carrying surface the inner and outer edges of which are arced, recessed means for supporting said carrying surface, and means upon a surface of said belt other than the carrying surface thereof for engaging said recessed means to hold said belt against lateral displacement with respect to its normal arcuate line of travel.

[Claims 4 and 5 not printed in the Gazette.]

1,254,942. FLASK-CLOSING APPARATUS FOR VULCANIZERS. GEORGE BURWELL SNOW, Long Beach, Cal. Filed June 22, 1917. Serial No. 176,377. (Cl.

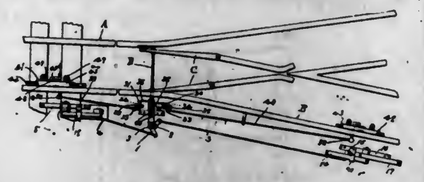


1. A flask closing device for vulcanizers, consisting of a platform situated in the vulcanizer and suspended on rods passing through the cover thereof, a cross-head, slidably connected to the said rods, springs interposed between the cross-head and the said rods by means of nuts upon the said rods, and a central actuating screw; substantially as described.

[Claims 2 and 3 not printed in the Gazette.]
18—7.)

1,254,943. SWITCH-THROWING DEVICE. GARNET SPENCER, Madison, S. C. Filed Sept. 19, 1916. Serial No. 120,989. (Cl. 104—77.)

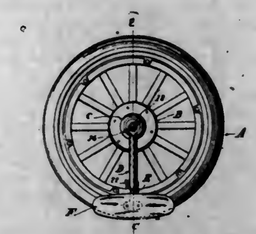
1. In a train actuated railway switch, the combination with the switch operating rod. of a locking element for the rod, and train actuated releasing mechanism for the locking element consisting of a depressible block, and means for connecting the block to the locking element and adapted to effect release of the locking element upon depression of the block and to effect engagement between the locking element and the switch operating rod upon the return of the block to normal position.



3. In a railway switch, the combination with the switch operating rod; of a bell crank lever pivotally connected to the rod; a pair of pivoted levers disposed, respectively, on opposite sides of the switch operating rod; connections between the pivoted levers and the arms of the bell crank lever, whereby to effect movement of the switch operating rod in one direction when one of the levers is operated and to effect movement of the switch operating rod in the other direction when the other lever is operated; a locking element engaging the switch operating rod; and means for simultaneously withdrawing the locking element from engagement with the switch operating rod upon the operation of either of the levers, so as to admit of the switch operating rod being operated.

[Claim 2 not printed in the Gazette.]

1,254,944. MUD-GUARD FOR MOTOR-VEHICLE WHEELS. SHIRLEY Q. STANLEY, Chicago, Ill. Filed Feb. 15, 1917. Serial No. 148,733. (Cl. 21—23.)



In a device of the nature described, the combination, with a motor vehicle wheel having a central hub, of a pivot bolt connected with said hub, and projecting therefrom, a tubular member, said tubular member having at its upper end a cap, there being on said cap a flattened portion, said flattened portion having an opening therethrough, a bushing in said opening, antifriction rollers in said bushing and bearing on said pivot bolt, said flattened portion being at one side of the axial line of said tubular member, a rod in said tubular member, said tubular member being longitudinally slotted, said rod having a series of spaced apart, transverse holes, a bolt in one of said holes and vertically movable in said slot, and a shield at the lower end of said rod, the lower edge of said shield being close to the ground over which said wheel is moving.

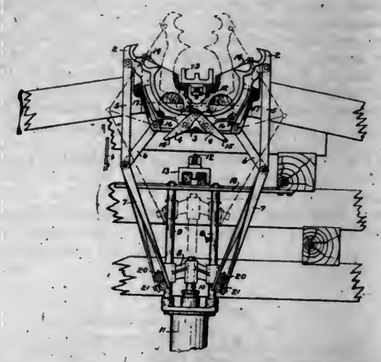
1,254,945. SKIRT-MARKER. FLORENCE STOCKDALE, Chicago, Ill. Filed Mar. 15, 1917. Serial No. 155,033. (Cl. 33—9.)

A skirt marker comprising the combination with a base having an upright extending therefrom; of a marking plate having front and rear edges and provided with a slot in its rear edge for receiving said upright therein, a



spring arm on said plate, and means for forcing said arm against the upright, whereby to adjustably bind the marking plate at any desired point on the upright.

1,254,946. STEAM LOG-HOLDER FOR CUT-OFF SAWS. WILLIAM HENRY TROUT, Milwaukee, Wis. Filed June 8, 1917. Serial No. 173,884. (Cl. 143—125.)



2. In combination, a frame, a pair of elements connected to said frame by a common pivot, a jaw pivoted to each of said elements, and means for moving said jaws and said elements about said common pivot.

8. In combination, a frame, a pair of elements connected to said frame by a common pivot, a jaw pivoted to each of said elements, a floating link pivoted to each of said jaws, a reciprocable piston, a cross-head movable by said piston, means for guiding said cross-head, linkage connecting said cross-head and said floating links, and elements pivotally connecting said floating links and said frame.

[Claims 1, 3 to 7, and 9 to 11 not printed in the Gazette.]

1,254,947. PARACHUTE-EQUIPPED AEROPLANE. WILLIAM A. UTTZ, Kansas City, Mo. Filed June 1, 1917. Serial No. 172,825. (Cl. 244—21.)



1. An aeroplane having a fuselage, a seat detachably secured in the fuselage, a hollow container secured to and

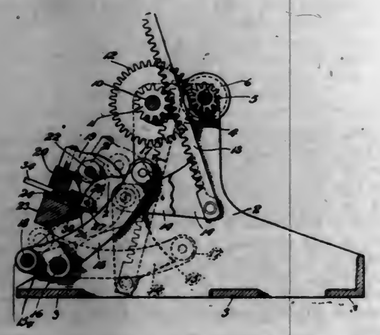
at the underside of the fuselage, a folded parachute within the container, a suitably guided flexible connection between the parachute and said seat, and manually controlled means for freeing the parachute from the container to cause the former to open and through said flexible connection draw the seat rearwardly and downwardly and disengage it from the fuselage.

3. An aeroplane having a section of the lower side of its fuselage movable from position, means for latching said section in closed position, a seat detachably secured in the aeroplane above said movable section of the fuselage, a folded parachute within a container, a suitably guided flexible connection between the parachute and seat, and manually controlled means for freeing the parachute from the container so that it may open and cause said cable to draw the seat rearwardly and downwardly through the fuselage and trip said latch mechanism and effect movement of the fuselage section from its path.

12. The combination of an aeroplane having a detachable cage, a longitudinally extending container provided with a longitudinal slot and tracks at opposite sides of said slot, a carriage mounted on said tracks and capable of rolling off the rear ends thereof, a flexible connection between said carriage and said cage, a folded parachute in the container, a flexible connection between the parachute and said carriage by way of said slot, a folded parachute member in the container rearward of the parachute, a cable connecting the parachute member with the parachute, manually-controlled spring-actuated means for ejecting the parachute member rearwardly from the container, and spring-actuated means for opening the parachute member when free from the container, to cause it to withdraw the parachute from the container to effect the detachment of the cage from the aeroplane.

[Claims 2 and 4 to 11 not printed in the Gazette.]

1,254,948. BELT-HOOK-FASTENING MACHINE. ANTHONY VANDERVELD, Grand Rapids, Mich., assignor to Clipper Belt Lacer Company, a Corporation of Michigan. Filed Jan. 2, 1917. Serial No. 140,259. (Cl. 1—50.)

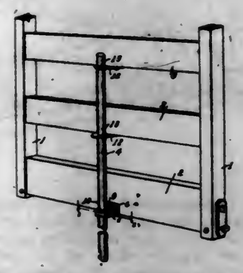


1. In a machine of the character described, a support, an anvil on the support, means for holding a plurality of belt staples in parallel relation to each other on the anvil, a lever pivotally mounted between its ends on the support below the anvil, jaw supporting arms pivotally connected to one end of the lever and extending above the anvil, a pressure jaw connected to said arms, and means for elevating the opposite end of the lever to thereby move the pressure jaw toward the anvil, substantially as described.

3. In a machine of the character described, a support, an anvil lying transversely of and at the front of the support, jaw carrying arms pivotally mounted at one end below the anvil and extending upwardly and to the rear and then curved forward at their upper ends, a pressure jaw carried at the upper ends of said arms, and means for moving said pressure jaw toward the anvil with a decreasing rate of speed, said moving means being operated at a constant speed, substantially as described.

[Claims 2 and 4 to 11 not printed in the Gazette.]

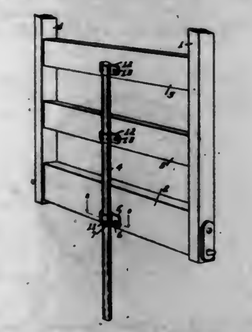
1,254,949. CHAIR-BACK. JERROLD F. WALTON, Sturgis, Mich. Filed Apr. 26, 1915. Serial No. 23,834. (Cl. 155—27.)



1. The combination of an adjustable back, a detachable arm with a round straight shank part, clip members secured to the said back, having holes in line to receive the said arm, the bottom one of which has a slotted hole and a portion folded over with a round hole registering with the bottom hole, a projection on said arm adapted to pass the slots to coact with the said clip to retain the arm in position, as specified.

[Claims 2 to 4 not printed in the Gazette.]

1,254,950. CHAIR-BACK. JERROLD F. WALTON, Sturgis, Mich. Filed Apr. 26, 1915. Serial No. 23,835. (Cl. 155—27.)



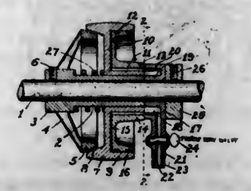
1. The combination with an adjustable chair back of a detachable arm with a round straight shank part, clip members secured to the back sides of the cross bars of said back, embracing the said shank, the clip member on the bottom bar being provided with a bayonet joint slot, a projection on the said arm to engage the said bayonet joint slot to support the arm in position, as specified.

3. In a chair, the combination of a hinged back comprising side and cross bars, a detachable arm in said back with a round straight shank, clips mounted on said cross bars and embracing said arm retaining the same in position, and means on said arm coacting with one of said clips to support the arm longitudinally.

[Claim 2 not printed in the Gazette.]

1,254,951. FLUID-OPERATED CLUTCH. CHARLES M. WARD, Cleveland, Ohio. Filed Aug. 4, 1915. Serial No. 43,505. (Cl. 192—18.)

1. The combination with a rotatable spindle of a driving pulley rotatably supported thereby and adapted to slide longitudinally thereon, means fixed to the spindle adapted to be engaged by the driving pulley, the driving pulley being bored out at one side, a disk within the bored out portion of the driving pulley, the disk being provided with ports leading to the bored out portion of the driving pulley, a head upon the spindle and engaging said disk, the head having a recess therein communicating with said ports, and the head being stationary, substantially as described.

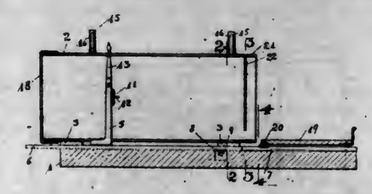


3. The combination with a rotatable spindle of an elongated sleeve fixed thereto, a beveled ring carried by the sleeve, a driving pulley loosely mounted upon the elongated sleeve and adapted to slide longitudinally thereon, the driving pulley having a beveled surface adapted to lockingly engage said beveled ring, the driving pulley being bored out thereby leaving a diaphragm and bushing, a disk within the bored out portion of the driving pulley and rotatably mounted upon the bushing, the disk being provided with grooves adjacent said bushing, and means for introducing a fluid pressure to said grooves for forcing the beveled surface of the driving pulley into locking engagement with said beveled ring and said means being stationary and engaging said disk, substantially as described.

5. The combination with a rotatable spindle of an elongated sleeve fixed thereto, a beveled ring carried by the sleeve, a driving pulley loosely mounted upon the elongated sleeve and adapted to slide longitudinally thereon, the driving pulley having a beveled surface adapted to lockingly engage said beveled ring, the driving pulley being bored out thereby leaving a diaphragm and bushing, a disk within the bored out portion of the driving pulley and having a boss rotatably mounted upon the bushing, the boss of the disk being provided with grooves adjacent said bushing, a stationary head loosely mounted upon the spindle, the head having a circular recess communicating with said grooves, the head abutting the end of said boss and the end of said sleeve, the head having a stem, the stem being provided with an opening leading to said circular recess, a control plug arranged in said stem, and a spring on said sleeve tending to force the beveled surface of the driving pulley out of engagement with said beveled ring, substantially as described.

[Claims 2 and 4 not printed in the Gazette.]

1,254,952. WEIGHT AND MEASUREMENT INDICATOR. EMERY D. WATERBURY, Sawtelle, Cal. Filed Aug. 22, 1916. Serial No. 116,296. (Cl. 31—68.)



1. A weight indicator comprising a holder having means at one end for closing upon the circumference of the material disposed in the holder, a measurement-indicating scale provided on the holder near the adjustable end of the holder, a follower slidably mounted on the holder carrying an indicator, and a longitudinally disposed scale yieldably and exchangeably held above the holder adjacent to the indicator.

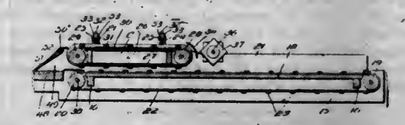
2. A weight indicator of the class described comprising a holder having means at one end for adjustably fitting over the material inserted into the holder, a measurement-indicating scale provided on the holder near the adjustable end of the holder, a follower slidably mounted on the holder carrying an indicator, and the scale yieldably and exchangeably held above the holder adjacent to the indicator, the scale being constructed in conformity with the measurement-indication on the holder for indicating the weight in relation to the measurement indication on the holder.

3. A weight indicator consisting of a support, a follower mounted for longitudinal movement thereon and carrying an indicator, a scale mounted on said support for coaction with said indicator, said scale being adjustable longitudinally, and resilient means for holding said scale in adjusted position.

4. A weight indicator consisting of a support, a follower mounted for longitudinal movement thereon, a plural measuring scale arranged longitudinally of said support and exchangeably mounted for longitudinal movement, and a resilient indicating finger carried by said follower and having its path adjacent to said scale.

5. The combination with a base, a tubular casing mounted sidewise thereon, and having longitudinally extending diametrically opposite slots in its top and bottom, a rack-bar mounted for longitudinal movement in said base below said casing, a pinion meshing with said rack for reciprocating it longitudinally, a follower fixed to said rack-bar and projecting transversely of said casing through the bottom slot therein, an indicating finger carried by said follower and projecting through the top slot in said casing, clamp members secured to opposite ends of said casing at the top thereof, and a plural scale mounted in said clamp members.

1,254,953. FEEDER FOR CORN-SHREDDERS. BERT W. WHITE, Conde, S. D. Filed June 1, 1917. Serial No. 172,280. (Cl. 193—14.)



1. In a machine of the class described, a main frame comprising side members and a platform, rollers supported in the side members adjacent to the front and rear ends of the platform, an endless conveyer guided over said rollers and over the platform, a floating frame supported above the endless conveyer and adjacent to the discharge end thereof, an endless conveyer carried by said frame, means for driving the endless conveyers, a feed board supported beyond the discharge end of the first mentioned conveyer, and hingedly supported doors closing in the direction of the feed board.

[Claim 2 not printed in the Gazette.]

1,254,954. STREET-INDICATOR FOR STREET-CARS. ADOLF A. WINKLER, Great Falls, Mont. Filed Sept. 27, 1915. Serial No. 52,851. (Cl. 40—57.)

1. In a changeable exhibitor, the combination with a route tape and rollers upon which said tape is to be wound, a motor, and means connecting the rollers operatively with the motor to be driven thereby, of a supply circuit, a branch circuit, magnetically operable means to close the circuit of the motor and being controlled by said branch circuit, and a magnetically released brake for engagement with one of the rollers, said brake adapted to be released when current is supplied to the motor circuit.

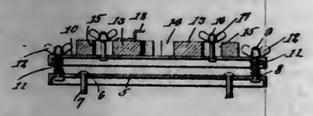
2. In a changeable exhibitor, the combination with a route tape and rollers upon which said tape is to be wound, a motor, and means connecting the rollers operatively with the motor to be driven thereby, of a supply circuit, a branch circuit, magnetically operable means interposed in the branch circuit to close the circuit of the motor, a brake for engagement with one of the rollers when said motor stops, an electro-magnet shunted across the motor circuit and operable to withdraw said brake from engagement with the roller when the motor circuit is closed for the purpose specified.



3. In a changeable exhibitor, the combination with a route tape and rollers upon which said tape is to be wound, a motor, and means connecting the rollers operatively with the motor to be driven thereby, of a supply circuit, a branch circuit, magnetically operable means interposed in the branch circuit to close the circuit of the motor, a circuit closer operable by mechanical engagement with one of the rollers to break the motor circuit after each revolution of said roller to stop the motor, and a brake engageable with one of the rollers, said brake being disengaged from operative position by magnetic means communicating with the motor circuit and adapted to be energized when the motor is started.

4. In a changeable exhibitor, the combination with a route tape and rollers upon which said tape is to be wound, a motor, and means connecting the rollers operatively with the motor to be driven thereby, of a supply circuit, a branch circuit, an electro-magnet interposed in said branch circuit, a starting switch for the motor interposed in the circuits thereof, a stopping switch interposed in series with said starting switch, said starting switch being operable by said electro-magnet when the branch circuit is energized, an electro-magnetic brake operable to release the rollers upon energization of the motor circuits, and a double-throw switch interposed between said starting and stopping switches to completely rewind the tape when required.

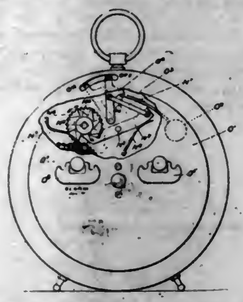
1,254,955. DEVICE FOR PRINTING BRUSH-BACKS. WILBUR F. WITHERELL, Argyle, N. Y., assignor of one-half to Frank Hurley, Glens Falls, N. Y. Filed July 25, 1917. Serial No. 182,760. (Cl. 101—41.)



In an attachment for printing presses, a base plate, means for securing same to the press, an impression plate, means for yieldingly supporting the impression plate, guide members adjustably mounted on the impression plate, the said guide members having cut out portions forming a seat, and means for clamping the guide blocks in their adjusted positions.

1,254,956. ALARM-CLOCK. ALPHONSO A. WOELFEL, Centralia, Wash. Filed Mar. 14, 1917. Serial No. 154,890. (Cl. 58—16.)

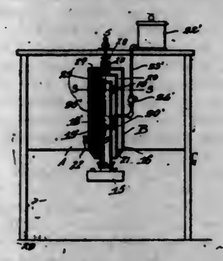
1. In an alarm clock, in combination with a vibrating hammer, a manually operable cut-off member for holding said hammer against action, a link connected to said cut-off member, a pivoted lever connected to said link, and a cam connected to be operated with the winding of



said alarm, said cam being adapted to move said lever by a cam engagement therewith.

[Claim 2 not printed in the Gazette.]

1,254,957. MOISTENING DEVICE FOR INCUBATORS. MURREL D. AIRGOOD, Punxsutawney, Pa. Filed Aug. 28, 1916. Serial No. 117,330. (Cl. 261—13.)

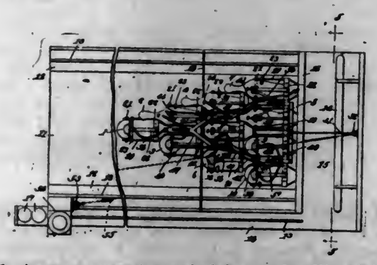


1. In a moistening device for incubators, the combination with a heater and a flue casing having an air inlet and an exit communicating with the interior of the incubator, of a receptacle supported within the flue casing and containing absorbent refractory material, and means for supplying water to said receptacle.

3. In a device of the class described, a heater, a flue casing, a supporting member of heat conductive material extending through a wall of the flue casing, a receptacle supported at one end of the supporting member containing absorbent refractory material, a heat conductive body carried at the other end of the supporting member and positioned in the path of the flame of the heater, and means for supplying water to the receptacle.

[Claim 2 not printed in the Gazette.]

1,254,958. GAME APPARATUS. HANS P. ANDERSON, Fargo, N. D. Filed June 21, 1917. Serial No. 176,157. (Cl. 46—54.)



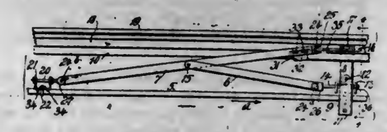
1. A game apparatus embodying a plurality of targets adapted to be upset, and means under the control of one target for upsetting other targets when said target is upset.

4. A game apparatus embodying a frame, pins pivoted thereto, a tripping device for upsetting pins in rear of another pin, and detent means controlled by the last mentioned pin for holding the tripping device inactive until the last mentioned pin is upset.

7. A game apparatus embodying a frame, a plurality of targets pivotally secured in the frame and adapted to be upset, resilient means for moving the targets toward and retaining them in upset position, upsetting mechanism pivoted to the frame and to some of the targets, detents for the mechanism pivoted to the frame, trips for the detents, and connections between the trips and other targets.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,254,959. WINDOW-OPERATING DEVICE. NILS H. ANDERSON, Bridgeport, Conn., assignor to Gerhard F. Drouve, Bridgeport, Conn. Filed Apr. 24, 1917. Serial No. 164,113. (Cl. 16—28.)



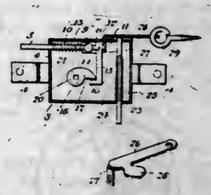
1. A window operating device comprising an actuating rod, a long and short lever between the rod and window, one end of the long lever pivotally supported to a fixed member carried by the rod, the other end of said lever pivotally supported to a member movable parallel with the rod and mounted in a support carried by the window, the short lever pivotally supported by one end to the long lever and its opposite end to a member carried by a fixed suport and also movable parallel with the rod.

2. A window operating device comprising an actuating rod, a long and short operating lever, the inner end of the long lever pivotally supported to a fixed member carried by the rod, the opposite end of said lever pivotally supported to a member movable parallel with the rod and supported on the window, the short lever pivotally supported to the long lever and to a member movable parallel with the rod and carried by a fixed support, and means carried by the long lever and located between its pivotal supports to engage means provided on the window sill for locking the window in closed position.

3. A window operating device comprising an actuating rod, two operating levers between the rod and window, said levers pivoted together, the inner end of one of the levers pivotally supported to a member carried by the rod, the outer end of said lever pivoted to a sliding member supported on the window, means carried by said lever adapted to engage means on the window sill for locking the window in closed position, the inner end of the other lever pivoted to a sliding member mounted in a fixed support, the pivotal points of said levers connected with said sliding members being at right angles with the center line of the actuating rod in any of the positions occupied by said levers.

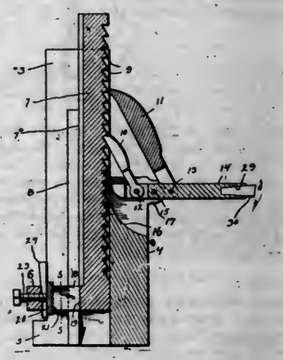
1,254,960. LOCK. TOM M. ANDERSON, Jr., Knoxville, Tenn., assignor of one-third to George W. Mayer, Harriman, Tenn. Filed June 20, 1917. Serial No. 175,898. (Cl. 70—5.)

1. The combination in a lock of a casing formed in one side with a slot, said casing further formed with an opening spaced apart from said slot, a spring-pressed bolt slidably mounted in said casing, said bolt having a nose normally extending across said slot, a spring-pressed dislodging pin mounted within the casing and having one end projecting outwardly through said opening, and a hook adapted to be secured to a movable member, said hook having a tongue adapted for entering said slot and engaging with the nose of said bolt, said hook further having a portion adjacent said tongue adapted to engage against said dislodging pin, whereby said hook will be entirely displaced from said slot when disengaged from said bolt.



2. The combination in a lock of a casing formed in one side with a slot, said casing further formed with an opening spaced apart from said slot, a shank on the bolt extending outwardly through said casing whereby the bolt may be manually actuated, a spring-pressed bolt slidably mounted in said casing, said bolt having a nose normally extending across said slot, a spring-pressed dislodging pin mounted within the casing and having one end projecting outwardly through said opening, and a hook adapted to be secured to a movable member, said hook having a tongue adapted for entering said slot and engaging with the nose of said bolt, said hook further having a portion adjacent said tongue adapted to engage against said dislodging pin, whereby said hook will be entirely displaced from said slot when disengaged from said bolt.

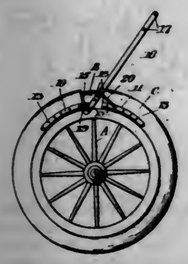
1,254,961. DEVICE FOR PULLING BOLTS AND PIPES. ALBERT L. ANDREWS, Wymore, Nebr. Filed May 23, 1916. Serial No. 99,431. (Cl. 254—18.)



2. A device of the class described including a frame, a vertically movable lifting bar guided in the frame and provided at the lower portion with an arm having an opening, said lifting bar being also provided at the inner end of the opening with a relatively fixed jaw, a horizontally adjustable jaw operating in and extending through the opening of the said arm and provided above and below the same with lugs arranged in pairs and slidably interlocking the adjustable jaw with the arm and preventing vertical movement when the adjustable jaw is in its normal engaging position and permitting the removal of the adjustable jaw from the opening when the said adjustable jaw is turned out of such position, an adjusting screw mounted in the outer end of the arm and engaging the adjustable jaw for moving the same inwardly, and an independently movable wedge interposed between the adjustable jaw and the outer end wall of the said opening.

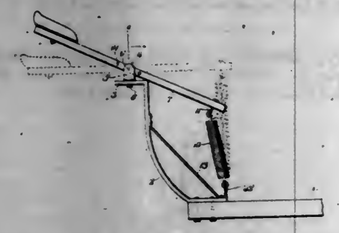
[Claim 1 not printed in the Gazette.]

1,254,962. TIRE-PROTECTOR. GEORGE DUNCAN ARBUTHNOT, Northfield Station, Ontario, Canada, assignor to John Wpod, Harrison's Corners, Ontario, Canada, and (Mrs.) Tessa McKay, Cornwall, Ontario, Canada. Filed Dec. 8, 1916. Serial No. 135,809. (Cl. 254—81.)



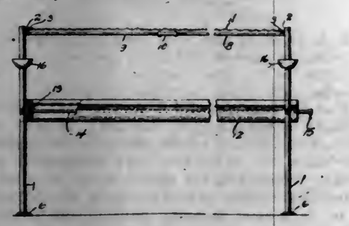
A device of the class and for the use described including a double lever, short inwardly bent arms on one end, longer inwardly bent arms adjustably pivoted on the lever, and hand grip spacing elements between the opposite ends of the lever.

1,254,963. SPRING-SEAT. LEWIS E. BAKER, Hudson, Ill. Filed Jan. 16, 1917. Serial No. 142,688. (Cl. 155—25.)



A spring seat including an upright having a lower portion to be secured to a structure, the upper end of the upright having a lateral extension, a clevis pivotally mounted on the lateral extension, a seat carrying beam pivotally mounted in the clevis for movement at right angles to the movement of the clevis on the upright, and a spring connected to the upright and to one end of the beam remote from the clevis.

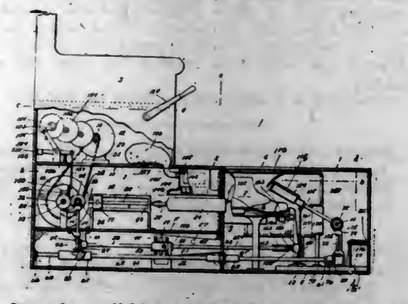
1,254,964. POULTRY-ROOST. JOHN L. BARR, Gentryville, Ind. Filed June 27, 1916. Serial No. 106,234. (Cl. 119—22.)



1. A poultry roost comprising upright corner posts, a receptacle supported by the posts, a roosting screen of rectangular formation having its corners provided with rings, hooks carried by the upper ends of the posts and engageable with the said rings, each pair of end posts carrying a cross piece having its terminals fixed to the posts, a lug formed on each of the cross pieces, and an operating rod mounted in the said lugs and provided with a turn-buckle whereby the said cross pieces may be adjusted relatively to each other for tensioning the said roosting screen.

[Claim 2 not printed in the Gazette.]

1,254,965. SHOE-POLISHING MACHINE. JOHN H. BECK, Salt Lake City, Utah. Filed Apr. 24, 1917. Serial No. 164,236. (Cl. 15—61.)



1. In a shoe polishing machine, the combination with a shoe support, of a movable frame, polishing means mounted on said movable frame, an extension arm on said movable frame adapted to be engaged by the front of a shoe on said support, a spring means adapted to position said movable frame with said extension arm in engagement with the front of a shoe.

2. In a shoe polishing machine, the combination with a shoe support, of a movable frame, polishing means mounted on said frame, means for intermittently engaging said polishing means with a shoe on said support, and means engageable with the shoe on said support for positioning said frame for proper engagement of the polishing means with the shoe.

4. In a shoe polishing machine, the combination with a shoe support, of a movable brush element adapted to intermittently engage the surface of a shoe on said support, driving means therefor, a movable frame, a supplemental polishing means movably mounted on said frame, means having operable connection with said driving means for intermittently engaging said supplemental polishing means with a shoe when said brush element is out of engagement with the shoe, and means engageable with the shoe for positioning said movable frame for proper engagement of the supplemental polishing means with the shoe.

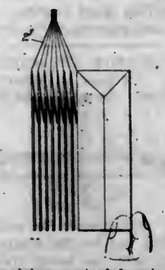
6. In a shoe polishing machine, the combination with a motor, of a movable brush element, a driving connection between said motor and said brush element, a controlling shaft, a driving connection between said motor and said controlling shaft including a reducing gear train, means for applying polish, a supplemental polishing means in driving relation with said means for applying polish, a driving connection between said movable brush element and said polish applying means including a clutch element, a cam on said controlling shaft, a lever actuated by said cam and having an operable connection with said clutch element whereby said polish applying means and said supplemental polishing means are rendered inactive for a predetermined period.

[Claims 3, 5, 7, and 8 not printed in the Gazette.]

1,254,966. PACKAGE-CONTAINER. SAMUEL J. BENS, Herkimer, N. Y. Filed Oct. 17, 1916. Serial No. 126,195. (Cl. 206—57.)

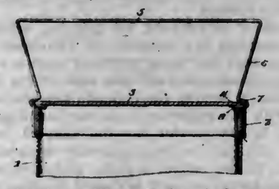
1. A paper bag having a rectangular bottom with a tab extending from said bottom and integrally attached at its base thereto, said tab comprising material, which to the point where it connects with the bag bottom is cut from within the margin of the said bottom, substantially as described.

7. A pack of bags, each collapsed and with its bottom folded against its side and having a tab extending from the extreme edge of its folded bottom and integral therewith, said tab comprising material cut from the bottom section of the bag, substantially as described.



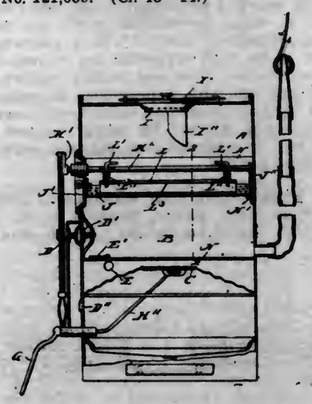
[Claims 2 to 6 not printed in the Gazette.]

1,254,967. BASKET-HANDLE. FRANCIS C. BERTRAM, Portland, N. Y. Filed Mar. 16, 1917. Serial No. 155,348. (Cl. 217—125.)



In combination with a basket body provided at its sides with staples, and a cover having at its opposite sides notches, a basket handle comprising a single piece of resilient material having an intermediate grip portion and converging side portions, the lower ends of the said side portions merging into outwardly disposed loops which engage through the said staples, the lower portions of the said loops being downwardly curved, the notches of the cover being adapted to receive the outer portions of the loops when the cover is in position upon the top edge of the basket body.

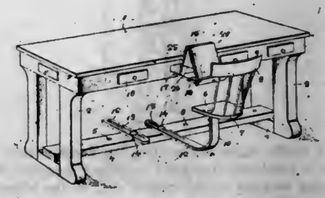
1,254,968. SULFUR-SPRAY APPARATUS. GIUSEPPE BIANCHIN, Treviso, Italy. Filed Sept. 19, 1916. Serial No. 121,059. (Cl. 43—14.)



2. In an apparatus of the character specified, the combination, with a casing having an opening in one wall thereof; of a perforated bottom plate adapted to be inserted through and withdrawn from said opening; a standard fixed to the rear end of said plate; a cover fixed to the front end of said plate to close said opening; a horizontal shaft supported at opposite ends by said cover and standard; a depending scraper carried by said shaft and embodying a plate having opposite edges thereof turned downward; and means for rocking said shaft so as to swing the scraper plate backward and forward across the bottom plate, thereby to pulverize the material under treatment and discharge it through the perforations in said bottom plate; said scraper plate being normally forced toward said bottom plate, but adjustable away from the same, to regulate the distance between its said edges and said bottom plate.

[Claim 1 not printed in the Gazette.]

1,254,969. READING-TABLE. LILLIAN BLAYNEY, Oakdale, Iowa. Filed Feb. 27, 1914. Serial No. 821,523. (Cl. 45—31.)



An article of furniture comprising a table like body, hook rests arranged in rows upon opposite sides of said body, the book rests in a row upon one side of said body being out of alinement with the book rests in the row upon the opposite sides of said body, and chairs connected with said body beneath said book rests and arranged in rows upon opposite sides of said body to extend beyond said book rests and in line therewith, said book rests and chairs being movable toward and away from each other.

1,254,970. PROCESS OF MAKING BETA-NAPHTHOL BENZOATE. GUSTAV BLIEBERGER, New York, N. Y., assignor to Anthony-Hammond Chemical Works, Inc., New York, N. Y., a Corporation of New York. Filed Dec. 5, 1916. Serial No. 135,243. (Cl. 23—24.)

1. The improvement in the art of producing beta naphthol benzoate, consisting in slowly heating the beta naphthol, allowing benzoyl chlorid to drop onto the heated beta naphthol, constantly stirring the mass, condensing and returning any evaporated benzoyl chlorid, and allowing any occurring hydro-chloric acid gas to escape.

2. The improvement in the art of producing beta naphthol benzoate, consisting in slowly heating the beta naphthol, constantly stirring the heated beta naphthol, allowing constantly renewed very small quantities of benzoyl chlorid in form of drops to act on and combine with part of the large excess of the heated beta naphthol, condensing and returning any evaporated benzoyl chlorid, and allowing any occurring hydro-chloric acid gas to escape.

4. The improvement in the art of producing beta naphthol benzoate, consisting in keeping about 110 parts of beta naphthol in a heated condition while constantly stirring, allowing constantly renewed very small quantities of benzoyl chlorid in form of drops to act on and combine with part of the large excess of the heated beta naphthol until about 170 parts of benzoyl chlorid have been applied, condensing and returning any evaporated benzoyl chlorid, and allowing any occurring hydro-chloric acid gas to escape.

6. The improvement in the art of producing beta naphthol benzoate, consisting in keeping about 110 parts of beta naphthol in a heated condition, allowing about 170 parts of benzoyl chlorid to gradually drop onto the heated beta naphthol while constantly stirring the mass,

condensing and returning any evaporated benzoyl chlorid, allowing any occurring hydro-chloric acid gas to escape, and purifying the combined mass to obtain the final product.

[Claims 3 and 5 not printed in the Gazette.]

1,254,971. TRAFFIC-SIGNALING DEVICE. WILLIAM L. BRADLEY, Richmond, Va. Filed Nov. 8, 1915. Serial No. 60,873. (Cl. 116—22.)

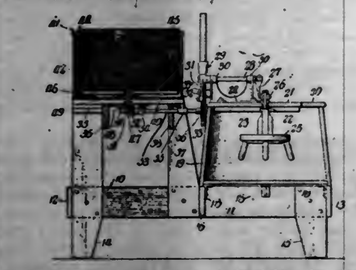


1. In a traffic signaling device, the combination with a sleeve, of a relatively movable standard mounted therein, signal arms secured to the upper end of the standard, a post mounted adjacent the sleeve and having an umbrella mounted on the upper end thereof, the said standard having an offset portion for the accommodation of the umbrella and a handle for rotating the standard.

2. In a device of the class described, the combination with a stationary sleeve, of a signal arm carrying standard rotatably mounted in said sleeve, a bell located adjacent the sleeve, a knocker for said bell, a lever for actuating the knocker having a cam on one end thereof and a handle secured to the standard, the cam being located in the path of movement of the handle so that it will be depressed upon the movement of the handle.

3. In a device of the class described, the combination with a stationary sleeve, of a signal arm carrying standard rotatably mounted therein, a bell located adjacent the sleeve, a knocker for said bell, a lever for actuating the knocker having a two-faced cam and a handle secured to the standard and adapted when moved in opposite directions to engage these faces of said cams successively to actuate the lever, the said sleeve including means for limiting the movement of the handle to a predetermined position with relation to each cam face.

1,254,972. LAUNDRY APPARATUS. HENRY BRAUNLICH, Davenport, Iowa. Filed Jan. 14, 1916. Serial No. 72,051. (Cl. 68—15.)



7. A laundry apparatus, comprising in combination with a washing machine, a centrifugal extractor and means for operating the washing machine and the extractor in connected relation, the washing machine having an alternating rotary operating member and the extractor having a basket adapted to be continuously rotated, a prime moving lever common to both the washing machine and to the extractor, means operatively connecting the lever with the alternating rotary operating member of the washing machine, and means operatively connecting the lever with the rotary member of the extractor, including high speed gearing.

[Claims 1 to 6 not printed in the Gazette.]

1,254,973. PERFORATOR ATTACHMENT FOR PRINTING-PRESSES. THOMAS A. BREWER, Louisville, Ky. Filed Nov. 18, 1916. Serial No. 132,214. (Cl. 164—98.)

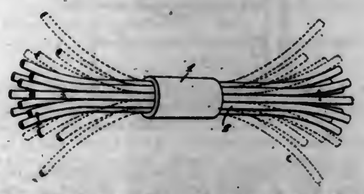


1. A perforator attachment for printing presses comprising a supporting bar having means of attachment to the press grippers, said bar being provided with a dovetailed guideway opening toward one side of the bar, and said bar having a slot in the opposite side thereof communicating with the guideway, a carrier bar, a perforator blade carried by said bar and adapted to project through the slot, and holders provided with dove-tailed members engaging the dove-tailed guideway of the supporting bar and means for resiliently mounting the carrier bar in the holders.

2. A perforator attachment for printing presses comprising a supporting bar adapted for attachment to the press grippers, said bar being provided with a longitudinal guideway, opening toward one side of the bar, and said bar having a slot in the opposite side thereof communicating with the guideway, a carrier bar, a perforator blade carried by the carrier bar and adapted to project through the slot, and holding members engageable with the guideway in the supporting bar and provided with means of attachment to said bar, said holding members having sockets to receive the ends of the carrier bar and springs in said sockets arranged to permit the carrier bar and blade to be moved in one direction for making an impression and serving to return said bar and blade to normal position after the impression is made.

3. A perforator attachment for printing presses comprising a main supporting bar adapted to extend horizontally between and to be secured to a pair of grippers, said bar being provided with a longitudinal guideway opening toward one side of the bar, and said bar having a slot in the opposite side thereof communicating with the guideway, a carrier bar, and a perforator blade carried by the carrier bar and adapted to project though the slot, and holding members adapted to fit within the guideway and provided with means of attachment to the supporting bar and adapted to engage and hold the carrier bar, and an auxiliary supporting bar provided with a guideway and slots similar to the main supporting bar to receive and support a carrier bar, blade and holding members, and provided at one end with a projection to engage the guideway in the main supporting bar and with means for fastening it thereto, whereby the carrier bar and blade last named may be supported from the main supporting bar in a vertical position.

1,254,974. EXERCISING AND MASSAGING DEVICE. GEORGE WASHINGTON BRIGGS, Brooklyn, N. Y. Filed Aug. 21, 1917. Serial No. 187,430. (Cl. 46—69.)



3. A combined exercising and massaging device including a tubular flexible grip, and a cluster of flexible tubes held together at their centers by the grip and projecting freely beyond the ends of the grip.

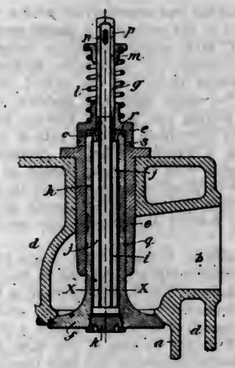
[Claims 1 and 2 not printed in the Gazette.]

1,254,975. VALVE-CAP. RAY R. BROWN, Hamburg, Iowa. Filed Oct. 14, 1916. Serial No. 125,629. (Cl. 152—12.)



In a device of the class described, a casing having an enlarged portion adjacent one end thereof, a tapered elastic lining within said casing extending beyond said enlarged portion, a circumferentially extending flange on said lining adjacent its larger end snugly fitting within said enlarged portion, said flange having a circumferentially extending groove therein, and a cap engaging said end of said lining adjustably connected with the enlarged portion of said casing.

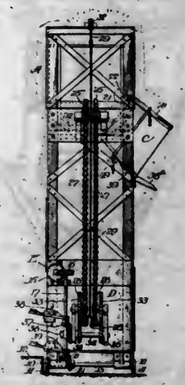
1,254,976. ENGINE-VALVE. ETTORE BUGATTI, Paris, France. Filed Feb. 15, 1917. Serial No. 148,770. (Cl. 123—177.)



1. An engine valve having an axially bored reciprocating stem of two diameters, a sleeve wherein the part of larger diameter moves as a piston, perforations in the part of larger diameter for passage of cooling fluid between the interior of the sleeve and the interior of the stem, perforations in the part of smaller diameter for passage of cooling fluid between an external source and the interior of the stem, a tube extending the bore of the part of smaller diameter into the bore of the part of larger diameter and partitions in the space between the said tube and the internal face of the axial bore of the part of larger diameter.

2. An engine valve having an axially bored reciprocating stem of two diameters, a sleeve wherein the part of larger diameter moves as a piston, perforations in the part of larger diameter for passage of cooling fluid between the interior of the sleeve and the interior of the stem, perforations in the part of smaller diameter for passage of cooling fluid between an external source and the interior of the stem, a tube extending the bore of the part of smaller diameter into the bore of the part of larger diameter, partitions in the space between the said tube and the internal face of the axial bore of the part of larger diameter and perforations for passage of fluid between an external source and the interior of the sleeve.

1,254,977. DUMPING APPARATUS. GEORGE W. BULLEY, Chicago, Ill., assignor to Mercury Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 6, 1914. Serial No. 829,783. (Cl. 214—122.)



1. The combination with a cart to be dumped, of dumping apparatus combining a tower, a cradle mounted for vertical reciprocation within the tower and adapted to receive and carry the cart, a horizontally pivoted dumping bar positioned to engage one end of the cart during the travel of the cradle and oscillate the cart from an upright position in the cradle to a dumping position and back to an upright position, and a catch to limit the oscillation of the cart when it has reached a dumping position.

11. The combination with a cart, of a vertically reciprocating cart carrying cradle combining rails horizontally pivoted at their forward ends in the cradle, gradually depressed from a point adjacent their forward ends to a point adjacent their rearward ends, means operable during the descent of the cradle to oscillate the rails about their pivots, and means operable by the cart in its discharge to return the rails to cart receiving position.

16. The combination of an elevator shaft, an elevator arranged to travel therein, a dumping device arranged to hold one side of the cart while it is traveling with the elevator, and mechanism for raising and lowering the elevator while the end of the cart is being held to roll the cart on its wheels on said elevator and thus rotate the cart into dumping position on the elevator and restore it to normal position.

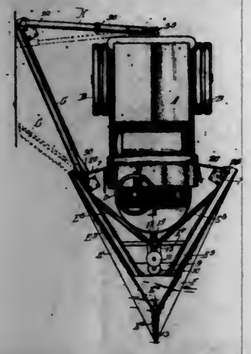
[Claims 2 to 10, 12 to 15, and 17 to 21 not printed in the Gazette.]

1,254,978. SNOW-PLOW. GEORGE W. BULLEY, Chicago, Ill., assignor to Mercury Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 25, 1915. Serial No. 16,895. (Cl. 37—35.)

2. The combination of a propelling vehicle having steering mechanism for itself, an independent plow connected with and adapted to be propelled by said vehicle, a steering wheel supporting said plow, and means connecting said wheel with said vehicle steering mechanism for steering the plow in unison with said vehicle.

5. The combination of a wheel supported plow having shares meeting at their forward ends and diverging rearwardly to form a triangular-shaped structure, and a power propelled tractor having rear supporting wheels and a single forward supporting wheel and positioned with its forward end within the triangular structure, and a coupling between the plow and tractor; connected to apply propelling power at a single point between the shares and forward of the center of the triangle.

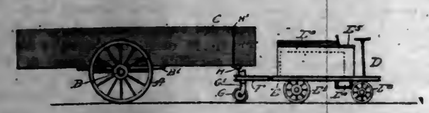
12. The combination of a plow comprising angularly related shares meeting at their forward ends and diverging rearwardly, wheels supporting the rear end of said shares of said plow, a steering wheel positioned within and supporting the bow of the plow, a frame for the plow shares for holding them in proper relation, a propelling vehicle having steering mechanism operable from the operator's position on the vehicle and having its forward



portion positioned within the general confines of the plow and connected to the plow frame at a point where the preponderance of weight of the plow is forward of the point of connection, and means controlled from the operator's position on the vehicle for actuating the plow steering wheel simultaneously with the steering mechanism of the vehicle.

[Claims 1, 3, 4, and 6 to 11 not printed in the Gazette.]

1,254,979. VEHICLE. GEORGE W. BULLEY, Chicago, Ill., assignor to Mercury Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 21, 1917. Serial No. 150,080. (Cl. 21—137.)



1. The combination of a lumber bunker, a power propelled tractor, an intermediate trailer connected to said tractor and having means for supporting one end of the load on the bunker.

3. The combination of a lumber bunker, a power propelled tractor, a trailer pivotally connected with the rear end of the tractor and having an independent wheel support, and a load supporting member on said trailer for supporting one end of the load carried by the bunker.

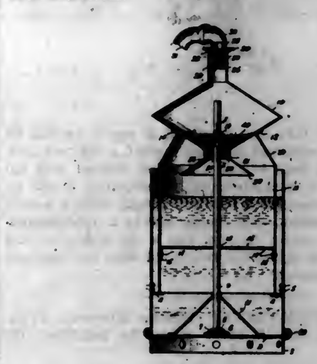
5. The combination of a lumber bunker, a power propelled tractor, a trailer articulated with said tractor and having independent wheel supporting means, and a load supporting member carried by said trailer upon which one end of the load carried by the bunker is supported.

7. The combination of a power tractor, a triangular frame pivotally mounted at separated points on the rear end of the tractor to swing vertically, a caster supporting wheel supporting the apex end of said frame, and a swiveled bar on said frame.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,254,980. GAS-MACHINE. CHARLES W. CAMPBELL, Lyons, Ind., assignor to The Lions Acetylene Gas Light Company, Lyons, Ind. Continuation of application Serial No. 877,106, filed Dec. 14, 1914. This application filed Mar. 9, 1915. Serial No. 13,210. (Cl. 48—53.2.)

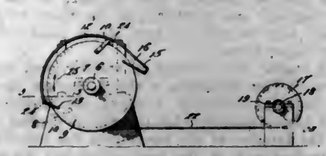
1. In a gas machine, a water tank, a gas bell movable in the tank, and a carbid receptacle carried by the bell, said receptacle having an annular mouth and a flaring member surrounding the mouth, of a nut member in the mouth, a centrally perforated plug secured to the nut and longitudinally adjustable thereon, a rod member passing through the plug and adjustably connected to the bottom of the water tank, a cone member secured to the bottom of the tank and having a central aperture through which the rod passes, and said rod having a longitudinal groove providing a carbid pocket which is normally arranged in the carbid receptacle but disposed to provide a communication between the said receptacle and the water tank at certain times in the movement of the bell as the gas is used therefrom.



2. In a gas machine, the combination with a water tank, a gas bell movable in the tank, and a carbid receptacle carried by the bell, said carbid receptacle being diamond-shaped in cross-section, an adjustable perforated valve plug upon the outlet mouth of the carbid receptacle, a rod carried by the water tank and passing through the valve plug and having the portion thereof normally received within the receptacle formed with a longitudinal groove providing a carbid pocket, a coupling member threadedly engaging with the outlet mouth of the carbid receptacle, a gas filtering member secured to the coupler and disposed within the said outlet mouth of the carbid receptacle, and a flexible supply pipe also secured to the coupler.

3. In a gas machine, a water tank, a gas bell movable in the tank, a carbid receptacle carried by the bell and in communication therewith by a feed passage, a valve member adjustably arranged in said passage and having a projecting edge constituting a feed orifice, a plunger permanently secured to the bottom of the tank and having a longitudinal groove formed in one side thereof adjacent its upper end, means to brace the rod, guiding means on the bell coöperating with the rod to hold the bell against lateral movement, said plunger rod closely fitting said feed orifice throughout the movements of the gas bell and carbid receptacle.

1,254,981. MECHANICAL MOVEMENT. GEORGE H. CATER, Antioch, Cal. Filed June 15, 1917. Serial No. 175,011. (Cl. 74—14.)



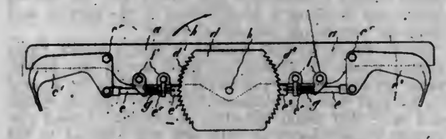
1. In a mechanical movement, a drive shaft and means for imparting motion thereto, a wheel connected with the drive shaft, a spring influenced driven shaft, a flexible element associated therewith, and means upon the wheel

of the drive shaft designed to intermittently engage with the said flexible element whereby to turn the driven shaft against the influence of its spring, to wind said spring and to permit of the same imparting a reverse rotary movement to the driven shaft when the flexible element has been released by the means upon the wheel.

4. In a mechanical movement, two shafts, one designed to be continuously rotated in one direction, a flexible element wound around and secured to the second shaft and having a loose connection with the first mentioned shaft, means, upon the first mentioned shaft co-engaging with the exible element for positively locking the said element thereto to cause the second mentioned shaft to be rotated by the first mentioned shaft for a predetermined distance and said means also designed to release said flexible element, and means, upon the second mentioned shaft for imparting a rotary movement thereto in a reverse direction from that imparted by the connection with the flexible element with the first mentioned shaft for a length of time corresponding to the release of the flexible element by the said first mentioned shaft.

[Claims 2 and 3 not printed in the Gazette.]

1,254,982. CONTROLLING DEVICE. RENÉ CAUDRON, Issy les Moulineaux, France. Filed Feb. 15, 1917. Serial No. 148,871. (Cl. 244—29.)



2. In a controlling device for aeroplanes, the combination of a main controlling member, a pair of pedals movably connected to said member and through the medium of which said member is actuated, a retaining member, and clutches coöperative with said retaining member to hold the controlling member in different adjusted positions, said clutches being releasable automatically by actuation of the respective pedals.

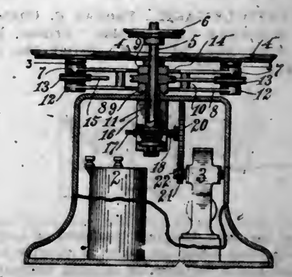
4. In a controlling device of the character described, the combination of a main controlling member, a pair of pedals movably connected thereto and through the medium of which said member is actuated, a retaining member, and a pair of clutches controlled by the respective pedals, each clutch permitting relative movement between the controlling and retaining members in one direction and locking such parts from movement in an opposite direction.

5. In a controlling device of the character described, the combination of a pivoted controlling member having a pair of pedals pivotally mounted thereon at opposite sides of its axis, a retaining member having reversely acting and oppositely positioned ratchet sectors co-axial with the pivot of the controlling member, and ratchet pawls coöperative with the respective ratchet sectors, said pawls being operatively connected to the respective pedals and being releasable automatically by the movement of such pedal relatively to the controlling member incident to actuation of such pedal and the controlling member.

[Claims 1 and 3 not printed in the Gazette.]

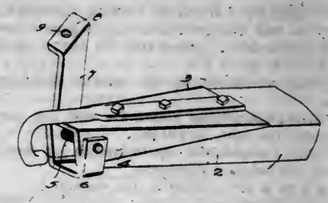
1,254,983. WINDOW-DISPLAY DEVICE. JOHN M. CHADWICK, Dayton, Ohio. Filed July 16, 1917. Serial No. 180,755. (Cl. 211—20.)

In a device of the character specified, the combination of a base member, a perpendicular stationary shaft mounted therein, a drive shaft mounted on said stationary shaft and extending above the base member, two series of radiating arms spaced apart and united to rotate as a single frame, the lower portion of said frame being connected to the driving shaft and the upper portion thereof inclosing the stationary shaft, a series of individually rotatable tables mounted above said frame, individual shafts for said tables mounted to rotate in the ends of the two series of arms constituting said frame, a pulley fixed to each of said shafts within the space between said arms, a drive pulley mounted upon the sta-



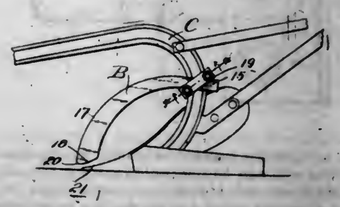
tionary shaft above the driving shaft, an endless driving belt engaging said last named pulley and the first named pulleys to rotate the individual tables, and means on the interior of the base for operating said driving shaft, substantially as specified.

1,254,984. TRAILER-COUPLING. PETER A. CHRISTIANSON, Ellendale, Minn. Filed Apr. 2, 1917. Serial No. 159,243. (Cl. 213—67.)



A trailer coupling of the class described including a plate adapted to be secured to one end of a draft beam and projecting therefrom, the projecting portions of said plate having downwardly bent sides, a pivot pin carried thereby, a hook member carried on said plate and projecting from the end thereof, a substantially U-shaped latch mounted on said pin, a coiled spring carried by the pin and engaging the latch to normally hold the base portion of the same between the hook and plate and across the open end of said hook, and an extension on one end of said latch with a laterally bent end to form a handle for operating the said latch.

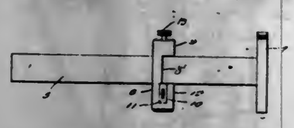
1,254,985. PLOW-COLTER. JOSEPH A. CLOUATRE, Brittany, La. Filed Jan. 5, 1917. Serial No. 140,817. (Cl. 97—6.)



The combination with a plow having a beam and a standard, of an arcuate sword-shaped colter blade mounted on the standard and extending forwardly below the beam, said blade having its terminal portion cut-off obliquely in an upward and rearward direction

and rounded at the extreme end thereof, said blade having a cutting edge extending around the rounded end portion and merging in the obliquely cut-off portion.

1,254,986. SHINGLE-GAGE. THOMAS R. CONDON and THOMAS SCHUAMAN, Summerside, Prince Edward, Canada. Filed Aug. 23, 1916. Serial No. 116,550. (Cl. 33—42.)



A device of the class described composed of a rectangular block, said block being cut away to provide a lateral transverse slot and a rectangular opening communicating with said slot, a rectangular strip passing through said slot and slidably fitting the rectangular opening in said block, said block being also formed with a longitudinal recess opening out into so as to communicate with said slot, said longitudinal recess being formed at one end of said block and having substantially parallel side walls adapted to form a clamp, and an adjustable bolt tapped through said block at the end opposite said clamp and adapted to engage said strip so as to secure said block upon said strip.

1,254,987. ALLOY. HUGH S. COOPER, Cleveland, Ohio, assignor to The Cooper Research Company, Cleveland, Ohio, a Corporation. Filed Oct. 15, 1917. Serial No. 196,592. (Cl. 75—1.)

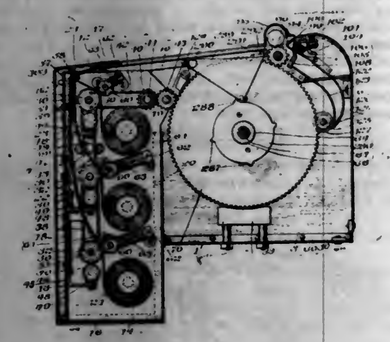
1. An alloy composed of the metals aluminum and beryllium.

2. An alloy, comprising aluminum and one per cent. to ninety-nine per cent. beryllium.

6. An alloy, composed of one to twenty per cent. beryllium, with the balance aluminum.

[Claims 3 to 5 not printed in the Gazette.]

1,254,988. AUTOGRAPHIC REGISTER. HENRY M. CROUSE and GEORGE G. NEWELL, Chicago, Ill. Filed June 5, 1915. Serial No. 32,293. (Cl. 11—36.)



1. An autographic register including, in combination, a case having side and bottom walls, a cover for said case having its front end hingedly connected therewith and including a writing plate, a paper feeding roller journaled upon the opposite end of said cover in rear of said writing plate, and a coacting paper feeding roller journaled in the side walls of said case below said first mentioned roller.

16. An autographic register including, in combination, a case, a writing plate carried by said case, means including a measured throw mechanism for feeding superposed ribbons of paper longitudinally across said plate, means for feeding ribbons of manifolding material transversely across said plate between the ribbons of paper, and means carried by said case and operative to sever record slips from one or more of the paper ribbons, said means including a fixed blade carried by said case and disposed above and transversely of the ribbons of paper beyond the manifolding material, a pivoted coacting blade carried by said case, means for directing one or more of the ribbons of paper between said blades, means actuated by said measured throw mechanism for moving said pivoted blade in a cutting direction to sever record slips from the ribbons of paper, means for guiding the severed record slips into superposed sequential relation within said case, said means including downwardly curved converging plates carried by said case and disposed in rear of said cutting blades and adapted to receive the record slips between them, one of said guide plates being extended beyond the other at their delivery ends, and a rotatable feeding roll coöperating with the guide extension.

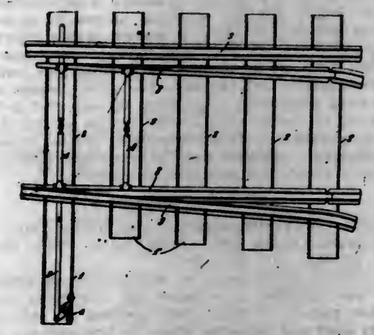
20. In an autographic register, a platen paper feeding mechanism including a shaft for feeding the paper across said platen, a toothed disk secured to said shaft, and means located intermediate said platen and the feeding means and including a lever located in the path of said teeth for perforating the web of paper.

25. In an autographic register, a case, a platen, paper feeding means for feeding the paper across said platen, paper severing means, and means for guiding the severed record slips into superimposed sequential relation within said case, said means including downwardly curved converging plates carried by said case and disposed in the rear of said severing means, one of said plates being extended beyond the other at the delivery end, and feeding means coöperating with said extended plate.

31. An autographic register including, in combination, a platen, paper feeding means for feeding the paper across said platen, printing rolls, means for rotating said printing rolls simultaneously with said paper feeding means, means for causing the paper to engage the printing rolls at each actuation of said feeding means, and means for adjusting said printing rolls rotatably on their axes independent of said rotating means.

[Claims 2 to 15, 17 to 19, 21 to 24, 26 to 30, 32, and 33 not printed in the Gazette.]

1,254,989. HEAD-BLOCK FOR SWITCH-STANDS. J. CORWIN CRUM, Scott City, Kans. Filed Oct. 1, 1917. Serial No. 194,231. (Cl. 104—12.)



1. A head block for switch stands, comprising a channel member provided with a depressed portion in the edge of each side flange, the bottom of the depression offset downwardly at each end to provide a seat for the base flange of a rail, and the end walls of the depression undercut.

3. A head block for switch stands, comprising a channel member provided with depressions in the edges of the side flanges, said depressions forming rail seats, rails seated in the seats, switch points sliding on the side flanges of the channel member, a bridle bar connecting the switch points, a switch stand connected to the bridle bar, and means for securing the switch stand to the head block.

[Claim 2 not printed in the Gazette.]

1,254,990. AUTOMATIC SHAVER. JAMES ERNEST DALBY, Port Anson, Ontario, Canada. Filed June 9, 1916. Serial No. 102,783. (Cl. 30—12.)



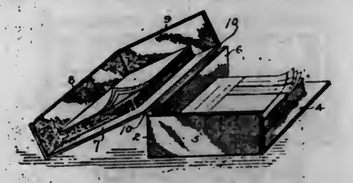
1. In a device of the class described, the combination of a housing, a tube carried by and extending beyond said housing, operating means carried within said housing, a pitman connected to said operating means and extending through said tube, an elongated substantially semi-circular guard carried upon said tube, spring strips carried within said guard, a blade supporting clip supported by said strips, whereby said blade supporting clip may be reciprocated, said pitman being connected to said clip so as to rapidly reciprocate the same.

2. In a device of the class described, the combination of a housing, operating means carried within said housing, a tube mounted upon said housing, a guard carried upon said tube, an adjusting means carried upon said guard, spring strips carried by said adjusting means, a blade supporting clip carried by the ends of said strips, said clip being adapted to carry a blade, a pitman connected to said clip and extending through said tube, said pitman being connected to the operating means of said housing so as to be reciprocated for reciprocating said blade supporting clip.

6. In a device of the class described, the combination of a guard, spring strips carried within said guard, a blade supporting clip carried by said strips, whereby said blade will be supported, and means for reciprocating said clip.

[Claims 3 to 5 and 7 to 9 not printed in the Gazette.]

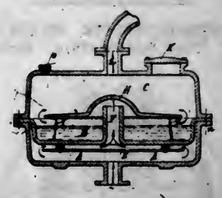
1,254,991. PAPER-FILE. HARRY H. DARST, Dayton, Ohio. Filed Nov. 27, 1916. Serial No. 133,720. (Cl. 129—43.)



4. A file box comprising a cover unit and a body unit upon which the cover unit is supported in inclined position when the box is open, each unit being completely open on one side and one end, said units engaging each other in reversed relation when closed whereby the open side and end of one unit will be closed by the closed side and end of the complementary unit.

[Claims 1 to 3 and 5 not printed in the Gazette.]

1,254,992. APPARATUS FOR THE MANUFACTURE OF A MIXTURE OF SULFUR DIOXID AND NITROGEN. LOUIS DESCAMPS, Chateauroux, France. Filed July 14, 1916. Serial No. 109,304. (Cl. 23—1.)



1. Apparatus for manufacturing sulfur dioxid industrially free from oxygen, comprising an air chamber with a baffle, a sulfur pan, a cap for reflecting the air entering the pan, and a combustion chamber provided with an exit pipe, substantially as described.

3. Apparatus for manufacturing sulfur dioxid industrially free from oxygen, comprising a pan adapted to contain molten sulfur, a cap above said pan, an air inlet through said pan, a deflector above said inlet adapted to deflect and guide the air in a thin layer over the surface of the sulfur in said pan, and means for heating air entering said inlet, said means comprising a baffle-plate beneath said pan adapted to conduct air in a thin layer along the heated under side of said pan to said air inlet.

4. Apparatus for manufacturing sulfur dioxid industrially free from oxygen, comprising a pan adapted to contain molten sulfur, a cap above said pan, an air inlet through said pan, a deflector above said inlet adapted to deflect and guide the air in a thin layer over the surface of the sulfur in said pan, and means for heating air entering said inlet comprising a jacket A in which said pan sets, said cap, pan and jacket having flanges adapted to be bolted together.

[Claim 2 not printed in the Gazette.]

1,254,993. CRUTCH. JOSEPH A. DESJARDINS, Nordegg, Alberta, Canada. Filed Jan. 12, 1916. Serial No. 71,788. (Cl. 135—50.)



In combination, a crutch post having a handle secured at its upper end, said handle being provided at its opposite ends with reduced rectangular shoulders, a pair of similarly shaped brace arms each having an intermediate straight portion and curved portions curving in opposite directions with respect to the straight portion, a shoulder rest secured to the upper ends of said brace arms, the straight portions of said brace arms being provided substantially throughout their lengths with elongated rectangular grooves in which the rectangular shoulders of

said handle are adapted to slide relatively to said brace arms, a cross bar connecting the lower curved portions of said brace arms, and means for locking said cross bar adjustably on said crutch post.

1,254,994. AUTOMOBILE-TIRE. HYMAN DIENER, Washington, D. C. Filed Dec. 12, 1916. Serial No. 136,429. (Cl. 152—16.)

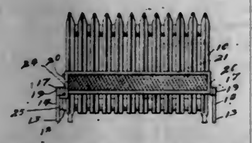


1. A tire including a body formed of layers of fabric respectively cut longitudinally, on the bias and transversely, said layers being boiled in salt water, waterproofed and stitched together, a tread section for the body and beads therefor.

2. As an article of manufacture, a body comprising layers of fabric respectively cut longitudinally, on the bias and transversely of their length, said layers being boiled in salt water, water-proofed and secured together.

3. As an article of manufacture, a body comprising layers of fabric, respectively cut longitudinally, on the bias and transversely of their length, said layers being boiled in salt water, water-proofed and stitched together longitudinally and transversely.

1,254,995. RADIATOR FOOT-REST. BERNARD J. DUEHR, Big Island, Va. Filed May 28, 1917. Serial No. 171,488. (Cl. 237—77.)



1. The combination with a radiator having an inlet valve provided with a stem, of a foot rest movably mounted on the radiator and normally held in elevated position, but adapted to be lowered to an operative position, and means carried by the foot rest for engagement with the said stem to open the valve when the rest is lowered to operative position.

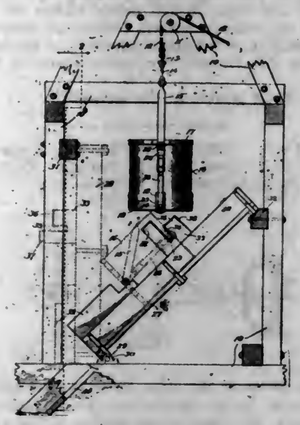
[Claim 2 not printed in the Gazette.]

1,254,996. [WITHDRAWN.]

1,254,997. HOISTING AND DUMPING APPARATUS. LUCIEN EATON, Ishpeming, Mich. Filed Oct. 27, 1916. Serial No. 128,109. (Cl. 214—116.)

1. The combination of a bucket, hoisting devices connected to said bucket above and in line with its center of gravity, a support movable into and out of the path of said bucket, and coöperating dumping guides and trunnions mounted on said support and on said bucket at points below and in line with the center of gravity of the latter, said dumping guides having means to shift the lower end of the bucket in one direction as the latter is lowered and thereby tilt the bucket in the opposite direction, substantially as described.

4. In a hoist and dump, the combination of a bucket, hoisting devices connected to said bucket above its center of gravity, a chute shiftable into and out of an inclined position across the path of said bucket and coöperating dump guides and trunnions mounted on said chute and on said bucket below its center of gravity, guides having



means to move the lower end of the bucket toward the upper end of said chute and automatically dump said bucket into and toward the lower end of said chute as said bucket is lowered.

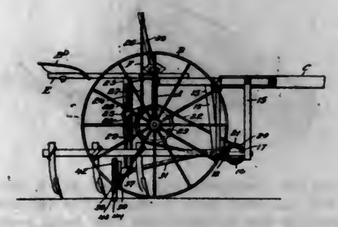
[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,254,998. IRON WINDOW. HEINRICH EITEL, Dusseldorf, Germany, assignor to Firm "Fenestra" Fabrik für Eisenhochbau G. M. B. H., Dusseldorf-Obercassel, Germany. Filed Dec. 30, 1913. Serial No. 809,440. (Cl. 189—64.)



The combination of a metal sash, a rabbeted putty bar detachably secured thereto, the sash having inwardly projecting edges to securely hold the putty in place, and separate strips placed in the sash to reduce the amount of putty.

1,254,999. COTTON-CHOPPER. WILLIAM R. FELKER, Rogers, Ark., and JOHN FORD, Springfield, Tenn. Filed Sept. 11, 1917. Serial No. 190,860. (Cl. 97—46.)

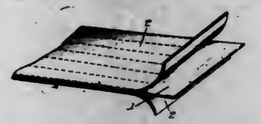


1. A cotton chopping device comprising a driven longitudinal shaft, a swingingly supported tubular member, a rod telescoping in the tubular member, a supporting member carried by the rod, a movable chopping device guided on the supporting member, and means for transmitting motion to the chopping device from the driven longitudinal shaft.

3. A cotton chopping device comprising a driven longitudinal shaft, a swingingly supported tubular member, a rod telescoping in the tubular member, a supporting member carried by the rod, means for adjusting the rod to effect vertical adjustment of the supporting member, sprocket carrying shafts journaled in the supporting member, a connection between one of said shafts and the longitudinal driven shaft, said connection including a universal joint, a chain trained over the sprockets, shanks connected with links of the chain at suitable intervals and chopping blades carried by the shanks.

[Claims 2 and 4 not printed in the Gazette.]

1,255,000. TIRE CONSTRUCTION. ALAN R. FERGUSSON, Chicago, Ill. Filed Apr. 29, 1916. Serial No. 94,315. (Cl. 152—13.)

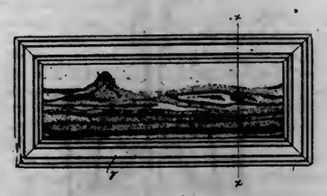


1. A tire comprising a body portion having a composite sheet therein consisting of a layer of rubber both vulcanized and stitched to a layer of fabric, and a second layer of rubber vulcanized to said first layer, rubber to rubber throughout its area, whereby the second layer will be firmly attached to the first layer and the danger of blistering between the layers to a large extent eliminated.

2. A tire consisting of a plurality of superposed separate composite sheets, each separate sheet being made up of a layer of fabric having a layer of rubber stitched and vulcanized on each side thereof, the said stitching being confined to each sheet separately, said sheets being vulcanized together rubber to rubber, and a covering portion and comparatively thick tread vulcanized to the outermost said layer so as to be attached thereto rubber to rubber.

3. A tire consisting of a body portion, having a composite sheet therein consisting of a layer of fabric with a layer of rubber stitched and vulcanized upon each side thereof, the stitching being confined to said composite sheet, and a tread portion of rubber vulcanized to one of said sheets of rubber throughout its area, whereby the tread will be firmly attached to the tire, substantially as described.

1,255,001. PICTURE AND DESIGN MADE FROM DRY EARTHS AND PROCESS OF MAKING THE SAME. MARGARET M. FLAMMER, Balboa, Canal Zone. Filed Nov. 10, 1915. Serial No. 60,755. (Cl. 41—21.)

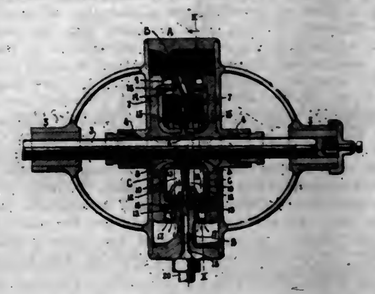


1. The herein described method of making pictures and colored designs which consists in arranging in a free, undivided space colored earths in pulverulent condition to produce the desired lights, shades and pictorial effects, compacting the earths as arranged, and confining them by a transparent retainer.

3. A picture the shaded and colored portions of which are formed from colored earths arranged to produce the desired pictorial effect, and confined in a free, undivided space between retaining surfaces, one of which is transparent.

[Claims 2 and 4 not printed in the Gazette.]

1,255,002. TURBINE. LOUIS S. FLATAU, St. Louis, Mo. Filed Oct. 17, 1917. Serial No. 197,086. (Cl. 253—90.)



1. A turbine engine comprising a housing provided with a partition, rotary vane carrying members at opposite sides of said partition, hollow annular fluid-receiving members secured to opposite sides of said partition to form inlet chambers for the fluid under pressure, said annular inlet chambers and partition being between said rotary vane carrying members, and annular outlet chambers being formed around the vane carrying members at opposite sides of said partition.

3. A compound turbine engine comprising a stationary housing provided with a stationary partition whereby it is divided into two compartments, rotary vane carrying members arranged in the compartments at opposite sides of said partition, each of said rotary vane carrying members comprising a disk provided with a circular row of vanes extending laterally from its outer margin, a power shaft connecting said rotary vane carrying members, hollow annular inlet members arranged at opposite sides of said partition and surrounded by the circular rows of vanes, each of said annular inlet members comprising a web having an inner annular flange screwed to the partition, and an outer annular flange closely fitted to said partition, the last mentioned annular flange having ports for the discharge of fluid onto the adjacent vanes, annular outlet chambers being formed around the vanes at opposite sides of the partition, and said partition being ported to place the outlet chamber at one side of the partition in free communication with the hollow inlet member at the opposite side of the partition, thereby permitting the fluid under pressure to flow successively through the inlet and outlet chamber at one side of said partition and then through the inlet and outlet chambers at the opposite side of said partition.

[Claims 2 and 4 not printed in the Gazette.]

1,255,003. PLAYING-CARDS. OMAR E. GETTEMY, Monmouth, Ill. Filed Nov. 13, 1916. Serial No. 131,033. (Cl. 46—25.)



1. A deck of cards having a plurality of sets, the cards in each set being in duplicate and distinguished by designations, the series of designations being identical in all the sets, two duplicates in each of two of the sets.

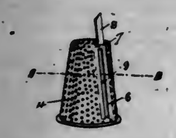
which bear different designations, being provided with identical distinguishing marks.

2. A deck of cards having a plurality of sets, the cards in each set being a duplicate and distinguished by numerical designations, the series of designations being identical in all the sets, two duplicates in each of two of the sets, which bear different numerical designations, being provided with identical distinguishing marks.

3. A deck of cards having a plurality of sets, each set differently colored from the other sets, the cards in each set being in duplicate and distinguished by numerical designations thereon, two identical cards in one set which have one numerical designation, and two identical cards in another set which have a different numerical designation, being provided with an identical distinguishing mark.

4. A deck of forty-eight cards, composed of four equal suits, each suit having a distinctive color, each suit having two identical sets of six cards each, the cards in each set being distinguished by numerical designations, as follows: one, two, three, four, five, and ten, the cards designated "three" in one suit and the cards designated "four" in one other suit, being provided with an identical distinguishing mark.

1,255,004. THIMBLE. ALEXANDER GIBSON, Rosebrook, via Port Fairy, Victoria, Australia, assignor of one-half to David Gibson, Melbourne, Victoria, Australia. Filed Feb. 23, 1916. Serial No. 79,931. (Cl. 223—51.)



1. In a thimble, an outer casing slotted longitudinally, and having an opening in the head of the casing additional to and in line with the slot; an inner lining closely fitting within the casing; a knife blade housed between the casing and lining in line with the slot, for projection and retraction through the second-named opening.

[Claim 2 not printed in the Gazette.]

1,255,005. PLANTER. WILLIAM S. GRAHAM, Canton, Ill., assignor to Parlin & Orendorff Company, Canton, Ill., a Corporation of Illinois. Filed June 21, 1916. Serial No. 105,043. (Cl. 111—80.)



1. In a planter, the combination with a frame and a furrow-opener connected therewith, of a chute in rear of said furrow-opener, and means for adjustably securing said chute closer to or farther from said furrow-opener, said means comprising an arm connected with said chute and having an arc-shaped head, an arc-shaped member connected with the frame, and means for adjustably securing said head and member together.

2. In a planter, the combination with a frame and a furrow-opener connected therewith, of a chute in rear of said furrow-opener, and means for adjustably securing said chute closer to or farther from said furrow-opener, said means comprising an arm connected with said chute and having an arc-shaped head, an arc-shaped member connected with the frame, one of said last-named parts being provided with a slot, and a bolt passing through said slot and through a suitable opening in the other part.

3. In a planter, the combination with a frame and a furrow-opener connected therewith, of a chute in rear of said furrow-opener, and means for adjustably securing said chute closer to or farther from said furrow-opener, said means comprising an arm connected with said chute and with a fixed member, said arm and member having complementary convex and concave surfaces in engagement with each other, and means for adjustably securing said engaging surfaces together to vary the distance between the furrow-opener and the discharge end of the chute.

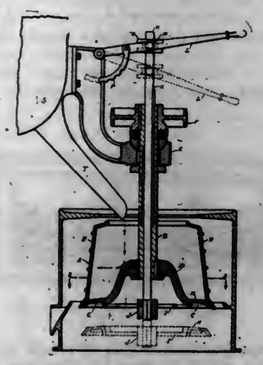
1,255,006. GARMENT-SUPPORTER. CARL HANSON, Hills, Minn. Filed Apr. 1, 1916. Serial No. 88,215. (Cl. 24—245.)



2. In a garment supporter comprising a supporting loop portion provided with a sleeve, a frame portion comprising a bar engaging with the said sleeve and merging into a contracted neck portion and beyond said neck portion forming a bulged central portion one side of which is projected to form a contracted U-shaped termination provided with an eye, the opposite side of said bulged central frame portion terminating in an elongated loop slidably engaging with the said eye and yieldingly forming a closure for the open end of the said U-shaped portion; a flexible element having one end secured to the said sleeve, a plate carried at the opposite end of said flexible element, and a button carried by said plate and disposed in the U-shaped termination of the frame portion but capable of removal therefrom when the said elongated loop is moved out of the open end of said U-shaped portion.

[Claim 1 not printed in the Gazette.]

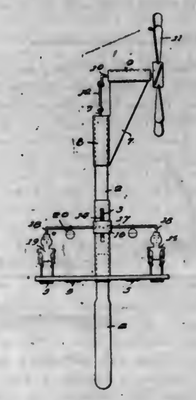
1,255,007. CENTRIFUGAL MACHINE. UNO F. S. HARTMAN and ALBERT HENRY LA CASSE, Crockett, Cal. Filed May 22, 1917. Serial No. 170,175. (Cl. 210—35.)



1. In a centrifugal machine, the combination of a revolving frustrum-shaped perforated shell, having the outer extremity of its base provided with segmental openings or ports, the frustrum-shaped perforated shell connected by arms to a hub of any desired shape, said hub secured to a tubular shaft, a tubular shaft supported in a pivoted bearing at its upper end, and provided with a pulley as means for rotating said shaft, a movable revolving ring having suitable projections on its upper side which closely fit into the segmental openings or ports at the base of the revolving frustrum-shaped perforated shell, and operated at will, for the purpose of closing or opening the aforesaid openings or ports, said movable revolving ring, having arms connected to a hub, which is secured to a slidable revolving shaft, said slidable revolving shaft provided with a groove, a key on the inside of the tubular shaft engaging in said groove of the slidable revolving shaft, as a means for rotating the slidable shaft and the tubular shaft synchronously, and a lever or other suitable means for raising or lowering the tubular shaft, as and for the purpose set forth.

[Claims 2 to 4 not printed in the Gazette.]

1,255,008. AMUSEMENT DEVICE. ELWOOD HAWKINS, Cape May, N. J. Filed Sept. 19, 1917. Serial No. 192,109. (Cl. 46—40.)



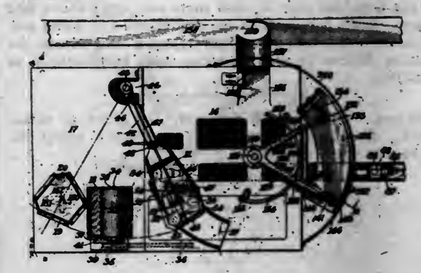
1. In a toy, a base, a hollow vertical rod on said base, a fan rotatably mounted on the upper end of the rod, figures movably connected to the rod and arranged adjacent said base, and means connecting the fan to said figures for imparting vibratory motion thereto upon rotation of the former.

2. In a toy, a base, a hollow vertical rod on said base, a fan rotatably mounted on the upper end of said rod, figures movbly engaged with the rod and arranged adjacent said base, and a pitman extending through the hollow rod and connected to the fan and the figures for imparting vibratory motion thereto at times.

3. In a toy, a base, a hollow vertical rod on said base having diametrically disposed slots formed in the lower portion thereof, a fan rotatably mounted on the upper end of said rod, a pitman extending through the rod and connected to said fan, a cross-arm movably engaged with the lower end of the pitman through said slots, and figures carried upon the opposite ends of the cross arm and arranged adjacent said base.

4. In a toy, a circular base, a hollow vertical rod on said base having the lower portion thereof provided with diametrically disposed slots, a bracket arranged upon the upper end of the rod, a fan journaled in bearings on said bracket, a pitman extending through the rod and having one end thereof connected to the fan, a plate arranged upon the lower end of the pitman having the sides thereof extending through said slots, a cross arm secured to the plate, figures carried upon the opposite ends of said cross arm and arranged adjacent the circular base, and bracket means arranged on the base and for the purpose set forth.

1,255,009. WRAPPING-MACHINE. GILBERT F. HELSON, New York, N. Y., assignor to E. R. Durkee and Company, New York, N. Y., a Firm. Filed Feb. 28, 1917. Serial No. 151,397. (Cl. 271—33.)
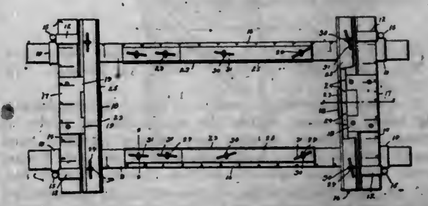


1. In a wrapping machine, in combination, a frame, and bed supported thereby, a wrapper holder, a paste roller located between said bed and said wrapper holder, a wrapper carrier, a vertical shaft to the top of which said carrier is fixed, means for giving a partial rotation to said shaft whereby said carrier is swung outward from the bed and over said wrapper holder, and lowered to engage said paste roller during such movement, means for lowering said carrier in contact with the uppermost wrapper in said holder and then raising it, and means for returning said carrier clear of the paste roller to its normal position over the bed.

4. In a wrapping machine, in combination, a frame and bed supported thereby, a wrapper holder, a paste roller located between said bed and said wrapper holder, a wrapper carrier provided with paste collecting strips on its under side, a release plate connected to said carrier and movable therewith, a vertical shaft to the top of which said carrier is fixed, means for giving a partial rotation to said shaft whereby said carrier is swung outward from the bed across said paste roller and above said wrapper holder, said collecting strips contacting with the paste roller during said movement, means for lowering said carrier so that the glued strips contact with the uppermost wrapper in said holder and then raising it, means for returning said carrier clear of said paste roller to its normal position over the bed, means for depressing said release plate while the carrier is in such position, and means for again raising it.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

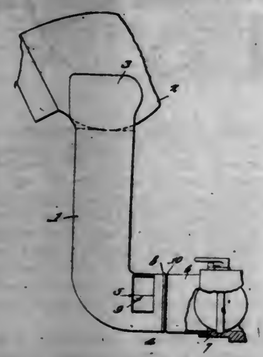
1,255,010. CURTAIN-STRETCHER. JAMES R. HOPKINS, Vine Grove, Ky., assignor of one-half to William C. Woods, Vine Grove, Ky. Filed Aug. 29, 1916. Serial No. 117,554. (Cl. 45—24.)



1. In a device of the class described, a plurality of movable stretcher bars, each bar being provided with a longitudinally extending groove, a clamp on each bar, a foot portion on each clamp extending into the adjacent groove, and means for moving said foot portions laterally of said groove and toward and away from the bottoms thereof, substantially as described.

2. In a device of the class described, longitudinal and lateral main and frame bars adjustably secured to each other, stretcher bars secured to said lateral bars, a plate secured to each of said frame bars, a tongue projecting downwardly and forwardly from each plate, arms projecting from the ends of each plate and lying above said tongue, clamp bars carried by said plates and being supported between said arms and tongues, and means for securing fabrics to said clamping bars, substantially as described.

1,255,011. AIR-INTAKE DEVICE. CHARLES A. HORNBURG, Devine, Tex. Filed May 21, 1917. Serial No. 169,992. (Cl. 137—32.)



1. An air intake device embodying an air intake pipe having means at one end to fit an exhaust manifold of an engine for receiving heated air, the other end of the pipe extending at an angle and having a cool air inlet opening, and a sleeve having one end fitting within the second mentioned end of the intake pipe and provided with an opening adapted to be brought into and out of registration with the aforesaid opening by the rotation of the sleeve, the sleeve having means between its ends to bear against the second mentioned end of the pipe.

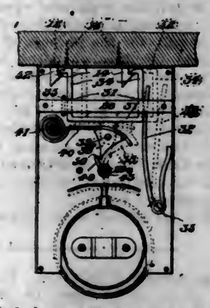
3. An air intake device embodying an air intake pipe for heated air having a cool air inlet opening near its discharge end, an air regulator comprising a sleeve having one end rotatably fitting the discharge end of said pipe and provided with an opening adapted to be turned into and out of registration with the aforesaid opening, the sleeve having outstanding means between its ends to bear against the discharge end of said pipe and to provide an internal valve seat, a flap valve hinged to the sleeve to swing against said seat toward said pipe, and a spring connecting said valve and sleeve for yieldably seating the valve.

[Claim 2 not printed in the Gazette.]

1,255,012. TRUNK-LOCK. ALBERT HUDZIAK, Kemmerer, Wyo. Filed July 28, 1917. Serial No. 183,321. (Cl. 70—27.)

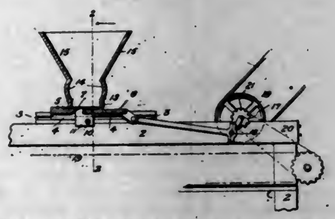
1. A lock comprising a casing, a keeper having depending hooks arranged within the case when the device is closed, a U-shaped locking bolt having terminal hook flanges within the path of movement of the said keeper hooks and having opposite notches therein, a strip carried by the opposite sides of the casing freely arranged within the said notches, and a key manipulated actuator for said bolt.

2. A lock comprising a casing, a keeper having depending hooks arranged within the case when the device is closed, a U-shaped locking bolt having terminal hook flanges within the path of movement of the said keeper hooks and having opposite notches therein, a strip carried by the opposite sides of the casing freely arranged within the said notches, a triangular shaped actuator pivoted to said bolt having a depending sharpened lug, a positioning spring engaging the side of said actuator opposite the said lug, a key post within the casing adjacent the said



lug a key adapted for positioning upon the said post having its bit provided with a groove in its free end adapted for the reception of the said lug during the operation of the device.

1,255,013. VEGETABLE SLICING AND SHREDDING MACHINE. EDWIN G. IRELAND, Steveston, British Columbia, Canada. Filed Sept. 21, 1917. Serial No. 192,551. (Cl. 146—7.)



1. In a vegetable slicing and shredding machine which includes a suitable frame, a hopper, a knife frame horizontally slidable across the underside of the hopper, the said frame having a plate across each end with a space between the adjacent edges, the planes of the upper surfaces of the plates being parallel to one another and in which means is provided for adjusting the distance between the surface planes of the two plates; a knife blade secured along the edge of the upper plate which is adjacent the lower plate, and a series of shredding knives fixedly located with relation to said slicing knife across the underside of the lower plate and projecting upward against the underside of the slicing knife.

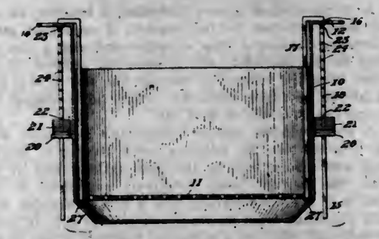
2. In a vegetable slicing and shredding machine in which is included a suitable frame, a hopper, a slicing knife horizontally movable across the lower end of the hopper; a series of shredding knives carried on a bolt with distance pieces holding the knives the required distance apart, each of said knives being shaped to project upward beyond the end of the lower plate into contact with the underside of the slicing knife, means for securing the rod of shredding knives to the underside of the knife frame, and means for securing said shredding knives against rotation on said rod and in fixed relation to said slicing knives.

3. A vegetable slicing and shredding machine, comprising the combination with a suitable frame, of a hopper within which the vegetables to be sliced and shredded are retained, a slicing knife horizontally movable across the lower end of the hopper, and a series of shredding knives carried on a bolt with distance pieces holding the knives the required distance apart, each of said knives being shaped to project upward beyond the end of the lower plate into contact with the underside of the slicing knife, means for securing the rod of shredding knives to the underside of the knife frame and means for securing said shredding knives against rotation on said rod and in fixed relation to said slicing knife.

4. In a vegetable slicing and shredding machine in which is provided a suitable frame, a hopper in which the vegetables to be sliced and shredded are retained, a knife frame adapted to lie under the hopper and having its surface adjacent the hopper formed in two levels, a horizontal knife sustained by the upper level; a series of vertical shredding knives carried by said frame and adapted to project up from the lower to the upper level to present vertical cutting edges between the two levels, the cutting edges of the shredding knives lying normal to the cutting edge of the horizontal or slicing knife and means for imparting motion between the knife frame and the hopper, said shredding knives adapted to lie in engagement with said horizontal knife and having portions to project under the lower level of the surface of the knife frame whereby to hold said shredding knives rigidly and fixedly in place.

5. In a vegetable slicing and shredding machine in which is provided a supporting frame, a hopper fixedly sustained on said frame, a knife frame horizontally movable beneath the hopper, guides on the supporting frame for sustaining the knife frame, said knife frame having a plate across each end with a space between the adjacent edges, one of said plates being at a lower level than the other plate whereby to form a "stop," a horizontal slicing knife on the upper plate whose cutting edge lies adjacent to the stop, means for adjusting the distance between the surface planes of the two plates and means for imparting reciprocation to the knife frame, a rod projecting across the knife frame, a plurality of shredder knives mounted on the rod spacing elements between the shredder knives, each of said shredder knives including a body adapted to lie under the lower knife frame plate and including knife elements projecting upwardly into engagement with the under side of the slicing knife, the cutting edges of said shredder knives lying substantially normal to the cutting edge of the slicing knife.

1,255,014. BOILER. WACLAW JANISZEWSKI, Cudahy, Wis., assignor of one-half to Joseph Romanowski, Cudahy, Wis. Filed July 9, 1917. Serial No. 179,382. (Cl. 53—1.)

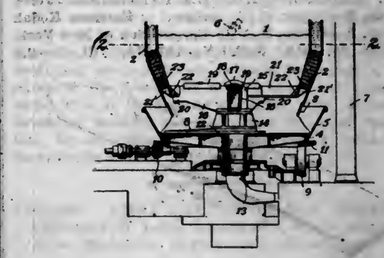


1. A boiler comprising a kettle, projecting handles for said kettle, inverted U-shaped rods spanning opposite portions of said kettle and slidably arranged through said handles, a tray attached to said rods within the kettle, elevating springs operatively connected to said rods and adjustment retaining means for said rods.

3. A boiler comprising a kettle having opposite handles, plates carried by the kettle beneath said handles, U-shaped rods having their adjacently positioned arms arranged within the kettle and with their other arms slidably arranged through said handles and plates outside of the kettle, a tray detachably connected to the lower ends of said rods within the kettle, springs encircling said other rod arms and seated upon said plates, pin connections between said springs and rods, said handles being provided with slots adapted for the passage of said pins therethrough, said rods having spaced notches in the outer arms thereof, and swinging latches secured to said handles adapted for reception within said notches to retain the tray in its adjusted positions.

[Claim 2 not printed in the Gazette.]

1,255,015. GAS-PRODUCER. EBENEZER A. W. JEFFERIES, Worcester, Mass., assignor to Morgan Construction Company, Worcester, Mass., a Corporation of Massachusetts. Filed Dec. 14, 1914. Serial No. 877,004. (Cl. 48—85.1.)



1. In gas producer, a rotating ash pan having an unobstructed ash supporting surface, and a fuel containing section carried by said ash pan.

2. In a gas producer, a fuel section, an ash support below said fuel section and concentric therewith, said ash support having a wholly unobstructed surface from the center to the periphery thereof, and a member connecting said ash support to said fuel section to constrain their rotation in unison.

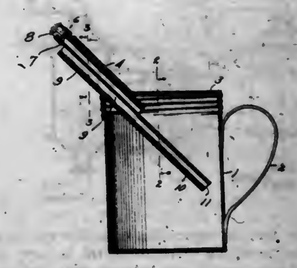
3. In a gas producer, an ash pan, a fuel section above said ash pan, there being a continuous and unobstructed space between the wall of said fuel section and the wall of said ash pan, and means for supporting said fuel section from said ash pan.

4. In a gas producer, an ash pan, a fuel section above said ash pan, there being a continuous and unobstructed space between the wall of said fuel section and the bottom of said ash pan, and means for supporting said fuel section from said ash pan.

5. In a gas producer, an ash pan, a fuel section above said ash pan, there being continuous annular spaces between the wall of said fuel section and the wall and bottom of said ash pan, and means for supporting said fuel section from said ash pan to permit the rotation of said parts in unison.

[Claims 6 to 10 not printed in the Gazette.]

1,255,016. GREASING DEVICE. ALBERT T. JENSEN, Norma, N. D. Filed Nov. 6, 1916. Serial No. 129,791. (Cl. 65—12.)



A fountain greasing device, comprising in combination, a container, an inclined spout entered into the wall of said container and terminating near its top, a greasing element mounted upon the end of said spout, and adapted to be fed therethrough, a second spout surrounding the feed spout outside of said wall and having a continuing extension passing through said wall and ending in a portion which extends to a point near the opposite side of the can so that the contents of the can will flow away therefrom when the can is tipped, said portion being of

such restricted diameter as to prevent flow of fluid therethrough upon tilting the container, due to partial vacuum created by such tendency of flow.

1,255,017. PHOTOGRAPHIC-FILM CARTRIDGE. JOHN G. JONES, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed Aug. 28, 1916. Serial No. 117,274. (Cl. 95—9.)



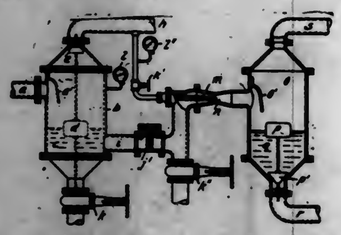
1. In a photographic film cartridge, the combination with a strip of sensitive film and a leader connected to the outer end thereof, of a backing strip for the film and a coupling strip of relatively thin material connecting the backing to the leader and provided with a transversely creased fold to relieve the backing of winding tension and place the tension on the film strip.

3. In a photographic film cartridge, the combination with a strip of sensitive film and a leader connected to the outer end thereof, of a backing strip for the film, a coupling strip connecting the backing to the leader and an extension on the leader overlapping the seam between the coupling strip and backing.

6. In a photographic film cartridge, the combination with a strip of sensitive film, a leader, and a backing strip, of a sticker connected at one end to the face of the backing strip and at the other end to the face of the leader and provided with an intermediate transverse fold, a sticker connected at one end to the film strip and at the other to the leader at the same point as the first mentioned strip, and an extension on the leader overlapping the fold in the said first mentioned strip and also the seam at its point of connection with the backing.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,255,018. PROCESS AND APPARATUS FOR THE SEPARATION OF OILS AND GASES. PHILIP JONES, Santa Maria, Cal. Filed Mar. 30, 1916. Serial No. 87,806. (Cl. 183—39.)



1. A process for the separation of mixed gas and oils under pressure consisting of reducing the velocity of the flowing mixture to permit the oils to settle by gravity thence passing the gas through a constrained passage and the oils through another constrained passage, the constraint on the gas and the constraint on the oil causing the separation to proceed under pressure above the atmosphere.

3. A process for the separation of mixed gas and oils under pressure consisting of reducing the velocity of the flowing mixture to permit the oils to settle by gravity thence passing the gas through a constrained passage and the oils through another constrained passage, the constraint on the gas and the constraint on the oil causing the separation to proceed under pressure above the atmosphere, the constraint on the gas being automatically controlled by the oil level.

5. Apparatus for the separation of gas and oils, consisting of a receiving chamber adapted to receive the mixed oils and gas in which separation takes place by gravity, a restricted outlet for the oils, a restricted outlet for the gas.

7. Apparatus for the continuous separation of mixed oils and gas consisting of a receiving chamber within which and while under pressure above the atmosphere separation of the oils from the gas takes place by gravity, a restricted outlet for the oils, an automatically adjustable restricted outlet for the gas, the restricted outlets adapted to maintain pressure within the receiving chamber during the separation.

8. Apparatus for the continuous separation of oils and gas from the mixture thereof flowing from wells under pressure and consisting of a receiving chamber within which the mixture is introduced and maintained under pressure while separation takes place by a restricted passage for the oils, a passage for the gas with an admission valve thereto, said valve under the control of the rate of the oil separation so as to maintain the gas during separation under pressure.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,255,019. STORM-WINDOW OPENER. GEORGE H. KELLEY, Aberdeen, S. D. Filed June 20, 1917. Serial No. 175,763. (Cl. 20—55.)



1. A storm-window opener including a bracket, an adjuster head swiveled to the bracket, a combined guide and stop bar having a stop shoulder and also a slot extending to the shoulder, and a push-rod secured to the adjuster head and extending through the slot of said bar, the push-rod having a cross-bar on its end to engage the back and the shoulder of said bar.

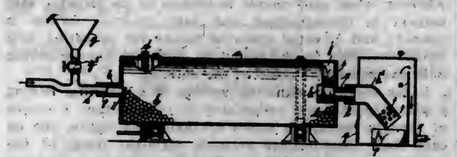
3. A storm-window opener comprising a bracket having a journal box, an adjuster head having a journal thereon and also a bore in the head transversely of the journal, the journal being rotatively supported in the journal box, the head having also a screw-threaded hole therein extending from its front end to said bore in alinement with said journal, a set-screw inserted in the screw-threaded hole, a push-rod extending through said bore and engaged by said set-screw, and a combined guide and stop bar with which the push-rod coöperates.

[Claim 2 not printed in the Gazette.]

1,255,020. PROCESS OF PRODUCING CHLORIN AND SULFATE OF SODIUM BY CATALYSIS. HERMAN B. KIPPER, New York, N. Y. Filed July 5, 1916. Serial No. 107,502. (Cl. 23—10.)

1. The process of transforming sodium chlorid, sulfur dioxid and oxygen into chlorin and sodium sulfate in one continuous operation which comprises mixing a catalyst with the sodium chlorid, applying heat, agitating the mixture and bringing sulfur dioxid and oxygen into contact therewith.

3. The process of transforming sodium chlorid, sulfur dioxid and oxygen into chlorin and sodium sulfate in one continuous operation which comprises mixing a catalyst with the sodium chlorid, maintaining this mixture at a temperature of approximately 600° C., agitating the mixture and bringing sulfur dioxid and oxygen into contact therewith.



5. The process of transforming sodium chlorid, sulfur dioxid and oxygen into chlorin and sodium sulfate by catalysis in one continuous operation which comprises mixing ferric oxid with the sodium chlorin, maintaining this mixture at a temperature of approximately 600° C., agitating the mixture and bringing sulfur dioxid and oxygen into contact therewith.

9. In the process of transforming sodium chlorid, sulfur dioxid and oxygen into chlorin and sodium sulfate, the step of mixing a catalyst with the sodium chlorid, heating this mixture, agitating it, bringing sulfur dioxid and oxygen into contact with the mixture and propagating the reaction by means of the moving catalyst therein.

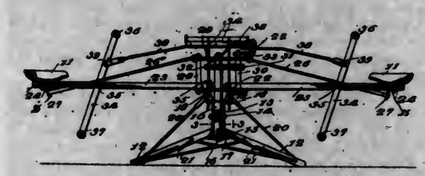
[Claims 2, 4, and 6 to 8 not printed in the Gazette.]

1,255,021. MILK-BOILER. JOHN KOSTOLEK, New York, N. Y. Filed Feb. 5, 1917. Serial No. 146,633. (Cl. 53—1.)



In a liquid boiling utensil the combination with a vessel having a flat bottom, of a curved flask open on top and bottom and consisting of a body portion widest at its bottom and gradually reduced in diameter to form a comparatively very narrow neck at its top, said flask having at its bottom a number of notches distributed around its circumference and inwardly directed flat flanges arranged between said notches, the outer surface of said flanges being even and flush with the bottom edge of the flask and adapted to rest on the flat bottom of the vessel so that the capillary action of the liquid between said flanges and the bottom will hold the flask firmly in position during the boiling process.

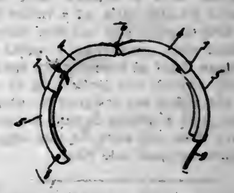
1,255,022. ROUNDABOUT. CHARLES W. KRATHWOHL, Chicago, Ill. Filed July 25, 1917. Serial No. 182,705. (Cl. 46—27.)



1. A roundabout comprising a rotatable seat-carrying frame composed of vertically spaced plates and seat-supporting arms extending radially therefrom, a stationary shaft on which the plates are rotatably mounted, a spur gear fast on said shaft, a shaft journaled in the aforesaid plates, a pinion fast on the last-mentioned shaft and meshing with the spur gear, a crank on the pinion shaft, manually operable levers carried by the aforesaid arms, and pitman connections between the levers and the crank.

2. A roundabout comprising a stationary shaft, a sleeve carried by said shaft and having outturned wings at its lower end, legs abutting at their inner ends against the shaft and seating thereat between the wings, a plate secured to the lower end of the shaft and engaging the under side of the legs at the inner ends thereof, braces extending between the sleeve and the outer ends of the legs, braces connecting the legs, and a rotatable seat-carrying frame mounted on the shaft.

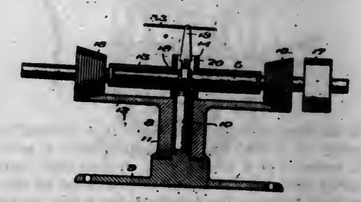
1,255,023. JOINT-PROTECTOR FOR SEWER-PIPES. FREDERICK W. LANG, Minneapolis, Minn. Filed Apr. 22, 1916. Serial No. 92,880. (Cl. 137—29.)



1. The combination with pipe sections connected by a loose joint, and cement applied around said joint, of an annular joint protector comprising a plurality of sections, certain of said sections being connected by a hinge joint for circumferential flexibility and other of said sections being connected for lateral flexibility.

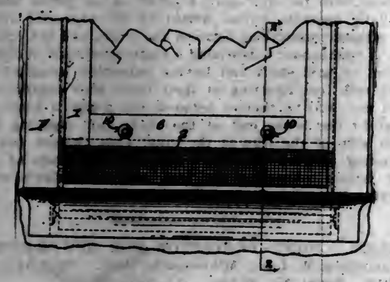
2. The combination with pipe sections connected by a loose joint, and cement applied around said joint, of an annular joint protector comprising a plurality of sections, certain of said sections being connected by a hinge joint for circumferential flexibility and other of said sections being connected for lateral flexibility, and a fastener for connecting the ends of said protector.

1,255,024. MOTION-TRANSMITTING MEANS. ARTHUR S. LANICH, Baraboo, Wis. Filed Mar. 29, 1917. Serial No. 158,439. (Cl. 74—26.)



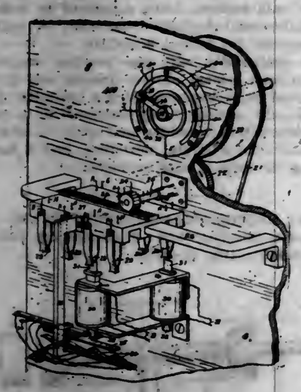
Motion transmission means comprising a spindle having a base plate, a drum rotatable on the spindle and having a disk beveled at its side remote from the base plate, a sleeve bearing fixedly mounted on the spindle at the opposite side of the drum, with reference to the base plate, and having a flanged opening at an intermediate point of its length, a shaft rotatable and movable endwise in the sleeve bearing, reversely arranged beveled pulleys fixed on said shaft and adapted to be alternately engaged with the disk, a collar disposed in the flanged opening of the tubular bearing and loosely mounted and held against endwise movement on the shaft, and a lever connected with said collar and fulcrumed in the flange of the opening at an intermediate point in the length of the tubular bearing.

1,255,025. WINDOW-SCREEN. BENJIMAN CASPER LAUBE, Germantown, Pa. Filed Mar. 23, 1917. Serial No. 156,978. (Cl. 156—39.)



The combination with a window sash having longitudinal grooves in its side rails, of a frame having stiles each provided with a combined weather strip and screen guide, said guides each comprising a metal strip folded longitudinally upon itself at transversely spaced intervals to form laterally spaced ribs projecting at right angles from said strip and which are designed to enter the grooves in the sash rails, and a screen having means for connection to the lower sash rail with its side edges positioned to enter said guides between said ribs.

1,255,026. ELEVATOR SIGNALING SYSTEM. HARRY G. LEE, Tacoma, Wash. Filed Mar. 29, 1915. Serial No. 17,654. (Cl. 177—336.)



1. In an elevator signaling system in a building having a plurality of floors, the combination with a source of electric energy; of a plurality of circuits each including a manually operated signal switch positioned on one floor intermediate between the terminal floors and an electromagnet, the ends of said circuit being connected to the opposite terminals of the source of electric energy; a plurality of alternate circuits, one for each said first circuits and each including a contact switch adapted to be closed by the action of a current in said electromagnet, one end of each alternate circuit being connected to the corresponding first circuit between the manually operated switch and the electromagnet therein and the other end thereof being connected to the same side of the source of electric energy to which said manually operated switch is connected, whereby when said manually operated signal switch of any of said first circuits is closed an electric current will energize the electromagnet of said circuit, and whereby when said electromagnet is thus energized said alternate circuit is closed and the current for said electromagnet flows therethrough; a plurality of circuit breakers one positioned in each of said first circuits between the source of electric energy and said electromagnet, whereby when said circuit is broken by an elevator said magnet is demagnetized and said contract switch is opened; and elevator operated means for operating said circuit-breakers in succession at positions corresponding with the successive floors of the building.

3. An elevator signaling system in a building having a plurality of floors comprising in combination, a source of electric energy; a series of indicating lights, one on each floor intermediate between terminal floors of the building; parallel light-circuits, each having a common terminal and an independent terminal, said independent terminals being grouped adjacent each other, said common terminal being connected to one side of the source of electric energy; and a sliding contact operated by the elevator and adapted to engage simultaneously a plurality of said independent light-circuit terminals and connected to the opposite side of the source of electric energy, and arranged whereby said floor-lights are lighted when said elevator is approaching the respective floors but each light is darkened when the elevator has passed the floor on which it is positioned.

8. In an elevator signaling system, the combination with a source of electric energy; of a magnet-circuit including a manually operated signal-switch and an electromagnet, the ends of said circuit being connected to the opposite terminals of the source of electric energy; a signal-light circuit connected at its ends to opposite terminals of said source of electric energy and including a signal-light positioned within an elevator; a contact-switch within said signal-light circuit and operated by the electromagnet within said magnet-circuit, whereby when said magnet is energized said contact-switch is closed; a direction-switch in said signal-light circuit, said switch being operated by the elevator whereby said switch is closed when the elevator is traveling in one direction but is open when it is traveling in the opposite direction; a floor-switch in said signal-light circuit, said switch being operated by the elevator whereby said switch is closed when the elevator reaches a predetermined position but is open at all other positions, whereby said signal-light is lighted in the elevator when said last three switches are closed but is darkened when any of said switches is open; and an elevator-operated circuit-breaker positioned in said magnet-circuit between the source of electric energy and said electromagnet, whereby when said magnet-circuit is broken by an elevator said electromagnet is demagnetized and said contact-switch is opened and said signal-light circuit is broken.

[Claims 2, 4 to 7, and 9 to 13 not printed in the Gazette.]

1,255,027. SUCTION MECHANISM FOR DENTAL PLATES. JOHN LEHNER, Pittsburgh, Pa. Filed Mar. 21, 1917. Serial No. 156,477. (Cl. 32—4.)

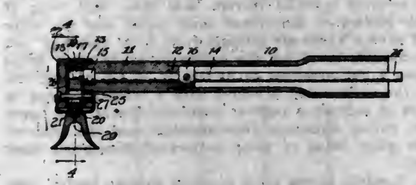


1. The combination of a dental plate of hard material, apertures extending completely through the palatable portion of the plate, a rubber suction trough positioned in each aperture having its closed portion protruding slightly below the lower surface of the plate and its free continuous edge protruding slightly above said plate and means for holding said cup within the aperture.

2. The combination of a dental plate of hard material, apertures extending completely through the palatable portion of the plate, a rubber suction trough positioned in each aperture having its closed portion protruding slightly below the lower surface of the plate and its free continuous edge protruding slightly above said plate and a tongue and groove engagement between the trough and the wall of the aperture for holding the said trough within the aperture.

3. As an article of manufacture, a suction cup for dental plates having an open top, a closed bottom and an encircling rib for securing the cup in position within the dental plate.

1,255,028. MASSAGE IMPLEMENT. OMER LEONARD and AXEL T. JOHNSON, Chicago, Ill. Filed Aug. 3, 1917. Serial No. 184,189. (Cl. 128—16.)



1. In a massaging implement, the combination of a housing, a rotatable shaft, a pitman, an eccentric member on said shaft and engaging said pitman for reciprocating and oscillating the latter, a relatively stationary member adjacent said pitman, a pin and slot connection between said last-named member and pitman forming a pivot for said pitman upon which the latter rocks and reciprocates and a massage device operatively connected with said pitman.

3. In a massaging implement, the combination of a rotatable shaft, a housing having a removable section, a pitman in said housing, an eccentric member on said shaft and engaging said pitman for reciprocating and oscillating the latter, said pitman containing an elongated slot, a pin securing in place said removable section of the housing and extending through said slot and forming a pivot upon which said pitman rocks and reciprocates, and a massage-device operatively connected with said pitman.

7. In a massaging implement, the combination of a drive-member, a movable element carrying a massage-device, mechanism for operating said element from said drive-member, a housing for said mechanism and through which said element extends, and guard-means in the form of a cup of flexible material, carried by said element and surrounding and substantially closing the open end-portion of said housing.

[Claims 2, 4 to 6, 8, and 9 not printed in the Gazette.]

1,255,029. AXLE-ARM. ROBERT LIGGITT, Durham, Ontario, Canada. Filed Mar. 1, 1917. Serial No. 151,781. (Cl. 64—22.)



1. The combination with an axle arm and bushing sleeve, of a packing washer surrounding the axle arm and bearing against the sleeve end, of a removable abutment carried by the axle arm, and resilient means bearing at one end against such abutment and at the opposite end against the washer.

3. The combination with an axle arm having an enlargement at its inner end having an annular groove therein, of a bushing sleeve mounted upon the axle arm and having a flange enlargement at its inner end bearing against the enlargement of the axle arm and protruding radially therefrom, a packing washer surrounding the enlargement of the axle arm and bearing against the flange enlargement of the bushing sleeve, a metal ring surrounding the enlargement of the axle arm and bearing against the packing washer, a split ring fitting into the groove of the axle arm enlargement and protruding therefrom, and a compression spring extending between the split ring and the metal ring.

4. The combination with an axle arm having a reduced threaded outer end, a nut threaded on such reduced end having an enlarged recessed inner portion, a bushing sleeve mounted upon the axle arm, the inner end of which extends into the recess of the nut, a packing washer surrounding the bushing sleeve and bearing against the enlargement of the nut, an abutment carried by the bushing sleeve, and a compression spring extending between the abutment and washer.

[Claim 2 not printed in the Gazette.]

1,255,030. COVER FOR ELECTRIC-LAMP SOCKETS. CURTIS A. LIMBACH, Brooklyn, N. Y., assignor to J. H. White Manufacturing Company, Brooklyn, N. Y., a Corporation of New York. Filed Sept. 1, 1917. Serial No. 189,235. (Cl. 240—115.)



1. The combination with a lamp socket provided with an exterior annular band adjacent its upper end, and a shade-holder detachably connected to the lower end of the socket, of a socket-cover comprising a circular hollow body open at both ends, the upper half being of uniform diameter and the lower half curved outwardly, said cover being clamped between said annular band upon the socket and the top of said shade-holder.

[Claim 2 not printed in the Gazette.]

1,255,031. PROCESS OF PRODUCING IMITATION FABRIC. HENRY R. LISTER, New York, N. Y., assignor to Joseph Benn & Sons, Inc., Greystone, R. I., a Corporation of Rhode Island. Filed Mar. 5, 1913. Serial No. 752,160. (Cl. 26—2.)



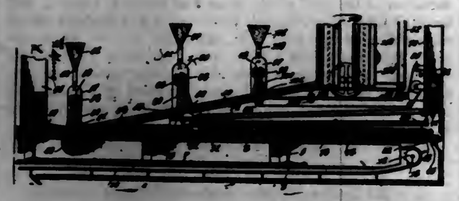
2. The method of producing a fabric in imitation of Persian lamb, which comprises taking a curly pile fabric, knitting a net having irregular meshes, placing the two in close juxtaposition, and subjecting them to the action of steam under pressure.

9. The method of producing a fabric in imitation of Persian lamb, which comprises winding a suitable pile fabric and a net of irregular convolutions together, steaming them in the roll, allowing the roll to cool, then unwinding the roll, and drying the fabric.

17. A net for the production of imitation fabrics, said net being made of twisted cord strands arranged in irregular convolutions so as to form open meshes irregularly distributed throughout the net.

[Claims 1, 3 to 8, and 10 to 16 not printed in the Gazette.]

1,255,032. PRINTING AND ADDRESSING MACHINE. LEVI MCMILLAN, Wilmington, N. C. Filed Dec. 7, 1916. Serial No. 135,665. (Cl. 101—49.)



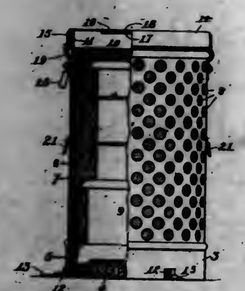
1. A printing and addressing machine including means to accomplish uninterrupted movement of the subject matter to be printed and addressed through the machine, means to accomplish printing action during such movement, and means to subsequently imprint an address while the subject matter is still moving.

8. A printing and addressing machine including means to convey the subject matter to be printed and addressed through the machine, means to print upon the matter, means to imprint an address upon the subject matter, means to imprint the address from the same imprinting upon a record strip to thus give a permanent visible record of the addressing of the subject matter, and means to date the record strip.

18. A printing and addressing machine adapted for use in conjunction with strips of paper including means to continuously conduct the strip through the machine, means to place addresses upon the strip at spaced apart points, means to print the same addresses upon envelops in which inclosures are to be placed, means to cut the strip to discharge the same from the machine in separate sheets of predetermined size and each having an address printed thereon, and means to discharge the envelops from the machine in such relation that the addressed envelops will each be placed with the sheet having a like address thereon.

[Claims 2 to 7, 9 to 17, and 19 to 39 not printed in the Gazette.]

1,255,033. SAFETY-CASING FOR OIL OR GAS HEATERS. WILLIAM H. MCNUTT, New York, N. Y., assignor to McNutt Can Sales Co., New York, N. Y., a Corporation of New York. Filed Oct. 25, 1917. Serial No. 198,393. (Cl. 126—202.)

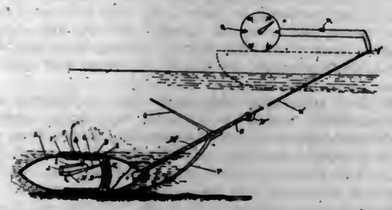


1. A safety casing for a kerosene burning heater, comprising a bottom member in the form of a fluid-tight pan having a comparatively short side wall, a pair of adjacent cylindrical side walls extending up from the inner wall of said pan and rigidly secured together thereto, a ring of sheet metal of substantially U-shape in section at the top of said two walls inclosing their upper edges and securely fastened thereto, said inner wall being of finely perforated flame-proof sheet metal, and the outer wall having numerous comparatively large openings, and a removable cover for the casing.

2. A safety casing for a kerosene burning heater, comprising a bottom member in the form of a fluid-tight pan having a comparatively short side wall, a pair of adjacent cylindrical side walls extending up from the inner wall of said pan and rigidly secured together thereto, a ring of sheet metal of substantially U-shape in section at the top of said two walls inclosing their upper edges and securely fastened thereto, said inner wall being of finely perforated flame-proof sheet metal, and the outer wall having numerous comparatively large openings, and a removable cover for the casing, the cover being provided with a central opening in which is secured a pair of apertured plates, the upper plate having numerous large openings and the adjacent lower plate being of finely perforated flame-proof sheet metal.

3. A safety casing for a kerosene burning heater, comprising a bottom member in the form of a fluid-tight pan having a comparatively short side wall, a pair of adjacent cylindrical side walls extending up from the inner wall of said pan and rigidly secured together thereto, a ring of sheet metal at the top of said two walls securely fastened thereto, said inner wall being of finely perforated flame-proof sheet metal, and the outer wall having numerous comparatively large openings, and a removable cover for the casing.

1,255,034. AUTOMATIC SOUNDING DEVICE. ARCHIBALD O. MASON, Detroit, Mich. Filed July 29, 1916. Serial No. 112,083. (Cl. 73—5.)



1. In a sounding device, the combination of a casing adapted to be submerged, said casing having a flexible diaphragm, a multiplying lever mounted in said casing, a rock arm also mounted in said casing, a connection between said diaphragm and multiplying lever and between the latter and said rock arm for transmitting the movement of said diaphragm to said rock arm, and an indicating device controlled by movement of said rock arm.

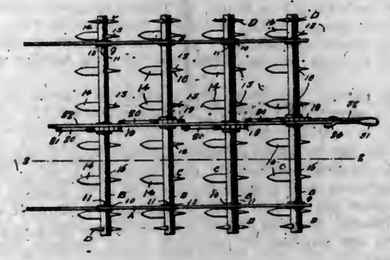
4. In a sounding device, the combination with a casing adapted to be submerged, of a member connected to said casing at its forward end, means connected to said member and extending beneath the lower part of the front end of said casing for protecting the same from any obstructions and means connected to said member for automatically depressing said casing to the bottom when in use.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,255,035. SELF-CLEANING HARROW AND CULTIVATOR. JOHN C. MINER, Security, Tex. Filed Aug. 12, 1916. Serial No. 114,545. (Cl. 55—11.)

1. A self-cleaning harrow and cultivator comprising in combination, beams, a plurality of revoluble carriers supported thereby, combined harrowing and cultivating teeth on said carriers with the harrowing portions at one side of each carrier, and the cultivating portions at the opposite sides thereof, and means for releasably retaining said carriers individually in adjusted set positions with respect to said beams and capable of releasing all of said carriers simultaneously to permit them to rotate in unison.

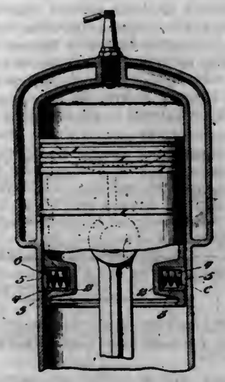
4. A self-cleaning harrow and cultivator comprising in combination, beams, revoluble carriers supported thereby, crosswise of said beams and in succeeding relation from the rear to the front of the machine, combined harrow and cultivating teeth on said carriers with the harrowing portions at one side of each carrier, and the cultivating portions at the opposite side thereof, and means permitting independent rotation of any of said carriers so as to arrange either the harrowing or cultivating portions of said teeth lowermost, or harrowing portions of the teeth of a forward carrier in advance of cultivating portions of the teeth of a succeeding carrier, said means capable of restraining all of said carriers against rotation.



6. In a machine of the character described, the combination of a plurality of beams arranged in parallelism and provided with alined transverse bores, cylindrical carriers extending through said bores and revoluble therein, detachable devices at each side of each beam, on each carrier, maintaining said beams in parallel spaced relation, soil working teeth carried by said carriers, and means for retaining said carriers in an adjusted set position with respect to said beams.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,255,036. PISTON. WILLIAM F. MINNICK, Cleveland, Ohio. Filed Jan. 10, 1917. Serial No. 141,687. (Cl. 74—85.)



1. In combination with a piston and its rod, a friction device carried by said piston comprising a member movable radially with relation to the latter and its cylinder, said member being disposed transversely of the pivotal connection between the piston and its rod, and a spring tending to hold said member projected into contact with the cylinder.

2. As an article or manufacture a piston having radially disposed recesses, friction elements within said recesses adapted to be projected into engagement with the walls of a cylinder, said friction elements having their outer or contact surfaces convex and springs tending to hold said elements projected.

1,255,037. LEAD-WIRE TERMINAL. BERNARD H. OESTRICHER, New York, N. Y. Filed July 10, 1917. Serial No. 179,614. (Cl. 173—269.)



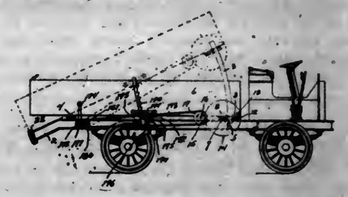
1. A lead wire terminal comprising a body member having a socket adjacent one end thereof, a pocket stamped up adjacent the socket end of the body member, band members stamped up in the said body member so that the bared end of a lead wire may be received between the said bands with its extremity lying in said pocket, an outturned part extending at an angle from the opposite end of the body member, and a clamp at the extremity of the outturned part, the said clamp being adapted to engage the insulation at the end of a lead wire.

2. A lead wire terminal comprising a body member formed of an obverse and a reverse plate, bands stamped up in opposite directions from the said plates and adapted to receive the bared end of an insulated lead wire, and a clamp adapted to engage the insulation at the end of the wire.

5. A lead wire terminal comprising a body member having an obverse plate and a reverse plate, a socket formed in one end of the said plates, band members stamped up in the obverse plate in spaced positions, a pocket stamped up in the reverse plate, a band also stamped up in the reverse plate so that the bared end of a lead wire may be received and secured between the said bands and pocket, an outturned part at the other extremity of the reverse plate, and a U-shaped clamp connected to the outturned part adapted to engage the insulation at the end of a lead wire.

[Claims 3 and 4 not printed in the Gazette.]

1,255,038. DUMPING APPARATUS. LOUIS T. OLSON, Detroit, Mich. Filed Nov. 12, 1914. Serial No. 871,657. (Cl. 21—20.)



1. In apparatus of the character described, in combination with a frame having an angularly disposed depending rear portion, of a box hinged between the ends thereof to the frame adjacent the angularly disposed portion, companion gear trains attached to the box and racks on the frame for elevating the forward end of the box, sprockets carried on the frame having chains for operating the gear trains, and locking means for maintaining the box in an elevated position.

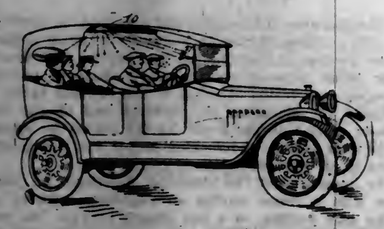
2. In apparatus of the character described, in combination with a frame having an angularly disposed depending rear portion, of a box hinged between the ends thereof to the frame adjacent the angularly disposed portion, and means for raising or lowering the forward end of the box comprising, curved rack bars pivotally supported by the frame and extending upwardly each side of the box, a shaft secured to the box, gears thereon meshing with the rack bars, a roller engaging each rack bar upon the side opposite the said gear, a frame for each roller adapted to hold the roller in its proper position relative

to its companion gear, a gear train on each side of the box for rotating said gear shaft, sprocket wheels carried by the frame having chains for operating the gear trains, said sprockets being movably mounted on the frame and springs yieldably holding the sprockets from movement.

3. In apparatus of the character described, in combination, a frame having an angularly disposed depending rear portion, a box adapted to discharge a load by gravity at the rear end hinged between the ends thereof to the frame adjacent the angularly disposed portion, spring bumpers carried by said angularly disposed portion engaged by the rear end of the box when elevated; means for raising or lowering the forward end of the box comprising, curved rack bars pivotally supported by the frame and extending upwardly each side of the box, a shaft secured to the box, gears thereon meshing with the rack bars, means for maintaining the rack bars in engagement with said gears, a gear on each end of said shaft adjacent the first named parts, a second shaft carried by the box, a gear adjacent each end thereof meshing with said last named gears, a sprocket wheel on said second shaft adjacent each side of the box near the forward end, a second set of sprocket wheels movably mounted on the frame near the rear end, sprocket chains connecting the rear sprocket wheels with the forward ones, a crank for jointly operating the rear set of sprocket wheels, a pair of notched bars on each side of the box pivoted to the frame, means on the box adapted to engage said notches when the box is raised, a spring for holding each bar in contact with the engaging means, and means for releasing said bars.

4. In apparatus of the character described, in combination, a frame having an angularly disposed depending rear portion, a box adapted to discharge a load by gravity at the rear end hinged between the ends thereof to the frame adjacent the angularly disposed portion, spring bumpers carried by said angularly disposed portion engaged by the rear end of the box when elevated; means for raising or lowering the forward end of the box comprising, curved rack bars pivotally supported by the frame and extending upwardly each side of the box, a shaft secured to the box, gears thereon meshing with the rack bars, means for maintaining the rack bars in engagement with said gears, a gear on each end of said shaft adjacent the first named parts, a second shaft carried by the box, a gear adjacent each end thereof meshing with said last named gears, a sprocket wheel on said second shaft adjacent each side of the box near the forward end, a second set of sprocket wheels movably mounted on the frame near the rear end, sprocket chains connecting the rear sprocket wheels with the forward ones and a crank for jointly operating the rear set of sprocket wheels.

1,255,039. DETACHABLE REFLECTOR. OTHO M. OTTS, Jamestown, N. Y. Filed Oct. 18, 1917. Serial No. 197,352. (Cl. 240—7.)



1. The combination with a vehicle top, of a reflecting element attached to the underside of said vehicle top, and a lamp on said vehicle having a projecting reflector to project a light shaft upon said reflecting element to deflect said light shaft upon the occupants of said vehicle.

2. A reflector comprising a piece of fabric having a reflecting surface, spaced flaps on said piece of fabric to fold and attach thereto, said fabric having a hole in the line of said fold and a hook having an anchor shaped shank to extend through said hole and be held by said fold.

[Claims 3 to 6 not printed in the Gazette.]

1,255,040. GOLD-DUST COLLECTOR. EDWARD WILLIAM OUSLEY, St. James, Mo. Filed Apr. 2, 1917. Serial No. 159,302. (Cl. 32—5.)



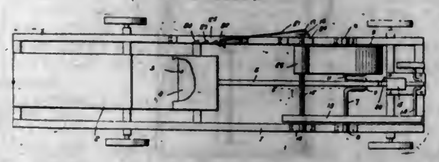
1. A dust collector as described comprising a substantially funnel-shaped body, a dust receptacle to be secured on its lower end, a foraminous guard to be disposed on the lower end of said body, a transparent guard at the top thereof, the sides of said body being apertured to permit of the insertion of the hands of an operator therethrough.

2. A dust collector as described comprising a substantially funnel-shaped body, a dust receptacle on its bottom, a transparent guard member disposed over the top of said collector, the said collector being provided with apertures in its sides to permit of the insertion of the hands of an operator below said transparent guard member, a hook member hingedly secured on said body to engage over the shoulders of an operator, and means on said body whereby to secure the same on a support as desired.

6. A dust collector as described comprising substantially a funnel-shaped body having a side portion projecting above the top of the body, an upwardly projecting lip at the opposite side of the body, the top edge of said upwardly projecting portion being disposed above the top of said lip, a pair of arched supporting members extending between the tops of said upwardly projecting portions, a sheet of transparent material secured thereto, the sides of said body below the arched supporting members being deeply recessed to provide apertures therein, a receptacle for dust detachably secured on the lower end of said body, and means on said body to attach the collector to an operator or to a support as desired.

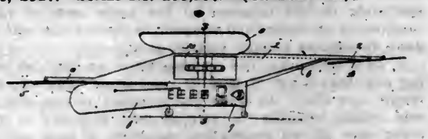
[Claims 3 to 5 not printed in the Gazette.]

1,255,041. HAY-PRESS. ALVAH PAYNE and CHARLES W. MCFARLANE, Orange, Tex. Filed Apr. 27, 1916. Serial No. 93,934. (Cl. 74—26.)



In a device as set forth, a supporting frame, a driven friction drum, a shaft rotatably supported by said frame and being mounted to permit of the limited pivotal movement, a driving friction wheel carried by said shaft and adapted for frictional engagement with said driven friction drum, an arm pivotally supported by said supporting frame, one end of said shaft rotatably carried by said arms, a rod connected to said arm, a hand lever connected to said rod for rocking said arm for moving said friction wheel into or out of engagement with said friction drum.

1,255,042. AIRSHIP. JAMES H. PEARSON, Bloomfield, Ind., assignor of one-third to James Hasler and one-third to Charles E. Fuller, Bloomfield, Ind. Filed Oct. 6, 1917. Serial No. 195,150. (Cl. 244—16.)



1. An airship including a sustaining body, tiltable controlling planes at the front and back ends of the body, upwardly diverging sustaining planes at the sides of the body, and paddle wheel propellers partly housed within the side portions of the body and revoluble about normally vertical axes set inwardly from the sides of the body.

2. An airship including a sustaining body having upwardly and forwardly inclined front and back ends, tiltable controlling planes at the front and back ends of the body, upwardly diverging sustaining planes at the sides of the body, housings within the side portions of the body, propellers mounted for rotation within the housings about normally vertical axes, the axes of the propellers being set inwardly from the sides of the body and concentric with the housings, and a car fixedly connected to and extending downwardly from the body.

1,255,043. CHIROPODIST'S OR SURGEON'S INSTRUMENT. FREDERICK O. PEASE, Chicago, Ill. Filed Sept. 24, 1913, Serial No. 791,509. Renewed Dec. 6, 1917. Serial No. 205,894. (Cl. 30—23.)



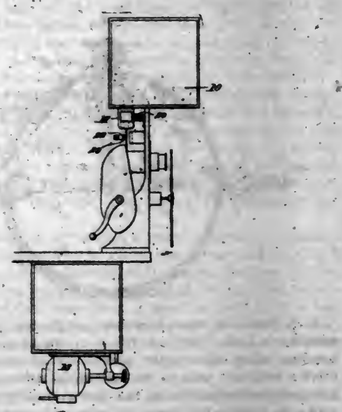
1. An instrument of the kind specified comprising a rod terminating at one end in a cutting blade having convergent side-faces meeting in a cutting edge at one extreme end of the rod, a narrow flange along one edge of the cutting blade and extending beyond the cutting edge of the latter a distance substantially equal to the projection of said flange beyond the side faces of the blade, said flange extending longitudinally relatively to the rod and at a slight incline to the latter, the cutting edge of said blade rising from the upper face of said flange at a slight incline to the plane of the latter.

2. An instrument of the kind specified comprising a rod terminating at one end in a cutting blade having convergent side faces meeting in a cutting edge at one extreme end of the rod, a narrow bevel-edged flange along one edge of the cutting blade and extending beyond the cutting edge of the latter a distance substantially equal to the projection of said flange beyond the side faces of the blade, said flange extending longitudinally relatively to the rod and at a slight incline to the latter, the cutting edge of said blade rising from the upper face of said flange at a slight incline to the plane of the latter.

1,255,044. MOTION-PICTURE APPARATUS. IRA F. PECK, Greenwood, Miss. Filed Mar. 11, 1916. Serial No. 83,541. (Cl. 88—17.)

1. An improvement in motion picture apparatus comprising electrically operated film feeding mechanism, a pivoted arm, a film engaging detector carried by one end of said arm, a contact bar secured between its ends to the other end of said arm, stationary contacts operating with said bar, and means acting on the contact end of said arm to normally hold the contact bar out of engagement with the stationary contacts.

5. As an improvement in motion picture apparatus, electrically operated film feeding mechanism, a circuit controlling device for said mechanism, means controlled by the film for maintaining said controlling device in a normally operative position, and film-clamping fire-extinguishing means governed by said controlling device.



8. As an improvement in motion picture apparatus, a film clamping device located within said guide, and having guiding means engaging one wall of the guide, and means governed by the film for normally holding said clamping device out of engagement with said film.

[Claims 2 to 4, 6, 7, and 9 to 17 not printed in the Gazette.]

1,255,045. IMPRINT. CHRISTOPHER PEEL, Coscob, Conn. Filed June 15, 1917. Serial No. 174,848. (Cl. 11—13.)



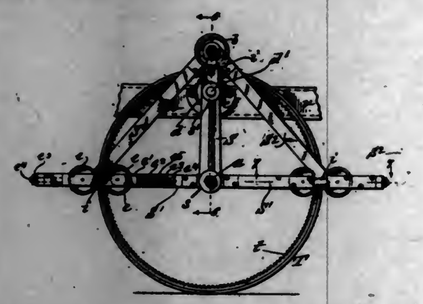
A currency note comprising a sheet of suitable material having both sides thereof imprinted alike with identically the same duplex unitary design extending the full length of the note and consisting each of parallel facsimiles inverted with relation to each other and blending into and united medially base to base with like means partly on each side of the longitudinal medial line throughout the length of the note and merging into each other, whereby both faces of the note present the same appearance from any point of view, rendering it unnecessary to turn the note either transversely or longitudinally in order to read or arrange the same.

1,255,046. VEHICLE-WHEEL. CHRISTOPHER PEEL, Coscob, Conn. Filed July 11, 1917. Serial No. 179,814. (Cl. 180—10.)

1. A wheel of the character designated comprising an annular elastic resilient tread, a load-supporting roller outside of and bearing upon the upper periphery of said tread, and means in horizontal alinement with the axle journal for contacting with the tread when the latter is unduly deflected out of its normal circular shape, to retain the center of the tread substantially in vertical alinement with the axis of said load-supporting roller.

2. A wheel of the character designated comprising an annular elastic resilient tread, a load-supporting roller outside of and bearing upon the upper periphery of said tread, means in horizontal alinement with the axle jour-

nal for contacting with the tread when the latter is unduly deflected, said means being elastic and resilient.



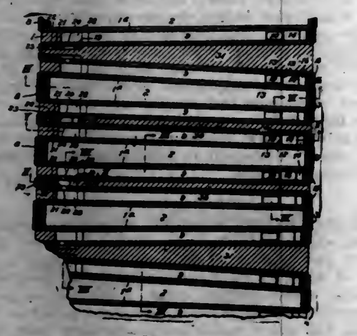
3. A wheel of the character designated, comprising an annular elastic resilient tread, a load-supporting roller bearing upon the upper periphery of said tread, and elastic resilient means in horizontal alinement with the axle journal for retaining the center of said tread substantially in vertical alinement with the axis of said load supporting roller, and for limiting the elliptical deflection of said tread, for the purpose described.

4. A wheel of the character designated, comprising an annular elastic resilient tread, a load-supporting roller bearing upon the upper periphery of said tread, and elastic resilient means contacting with the tread when the latter is unduly deflected out of its normal circular shape.

13. A wheel of the character designated, comprising an annular elastic resilient tread, a load supporting roller bearing upon the upper periphery of said tread, a suspender pendent from the axis of said load supporting roller and supporting an axle journal and also supporting at its lower extremity a buffer roller for limiting the vertical depression of said elastic resilient tread, said suspender being also formed with horizontal extensions in alinement with said axle journal, and buffer rollers mounted on said horizontal extensions and arranged to restrict the horizontal deflection of said tire, for the purpose described.

[Claims 5 to 12 and 14 to 16 not printed in the Gazette.]

1,255,047. COKE-OVEN. PIERRE PLANTINGA, Cleveland, Ohio. Filed July 26, 1916. Serial No. 111,521. (Cl. 202—9.)

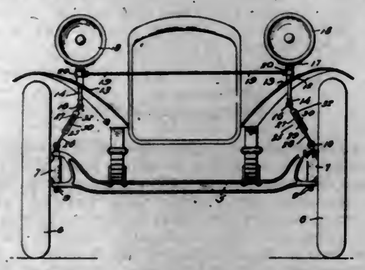


1. In a coke oven, the combination of an inclined coking chamber; a set of parallel combustion chambers arranged one above the other and adjacent to one side of said coking chamber; a vertical duct adjacent to the lower ends of the combustion chambers of said set; a gas supply for supplying fuel gas to said duct; a plurality of air inlets, one such inlet being located adjacent to the lower end of each said combustion chamber; a vertical duct communicating with the upper ends of the combustion chambers of each set; a waste gas flue connected with such last-named vertical duct and a plurality of means operative independently of each other and respectively located adjacent to the upper ends of said combustion chambers and adapted to control the exit of gases through said upper vertical duct.

2. In a coke oven, the combination of an inclined coking chamber; a set of parallel combustion chambers arranged one above the other and adjacent to one side of said coking chamber; a vertical duct adjacent to the lower ends of the combustion chambers of such set; a gas supply for supplying fuel gas to said vertical duct; a plurality of air inlets, one of such inlets being located adjacent to the lower end of each such combustion chamber; a vertical duct communicating with the upper ends of all of the said combustion chambers of said set and connected with a waste gas outlet; said upper ends of said combustion chambers communicating directly with said upper vertical duct; and a plurality of independently operable valves respectively located opposite the upper ends of said combustion chambers, each valve being adapted to control communication between the combustion chamber adjacent thereto and said upper vertical duct.

[Claims 3 and 4 not printed in the Gazette.]

1,255,048. DIRIGIBLE HEADLIGHT. ROGER POCHON, Grayson, Nebr. Filed June 27, 1917. Serial No. 177,328. (Cl. 240—62.)



The combination with a vehicle and the steering knuckle therefor; a pin connecting the parts of said knuckle, a shouldered portion on said pin, the rotatable part of said knuckle being provided with the shouldered recess for the accommodation of the shouldered portion of said pin, an eye on the upper end of said pin, a lamp socket having its vertically disposed bore mounted above said pin, a lamp post rotatably mounted in said socket and projecting at one end below the latter, a telescopic link connecting the lower end of said post and said eye, and a spring in said link for holding the latter extended.

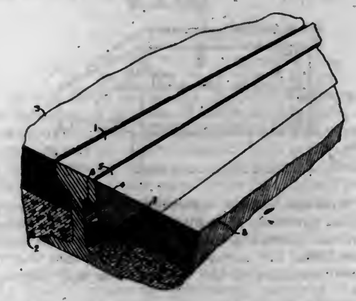
1,255,049. PROCESS OF PRINTING FABRICS. GEORGE PRIFOLD, Linwood, Pa., assignor to The Congoleum Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Apr. 24, 1917. Serial No. 164,283. (Cl. 8—5.)

2. The process herein described of printing woven fabrics, said process consisting in mixing a color capable of dyeing the fabric and a vehicle capable of being dried and dusted out of the fabric, printing the fabric with said color, then subjecting the printed fabric to steam so as to cause the coloring matter to enter the body of the fabric, then drying the fabric so as to reduce the vehicle to a solid, then brushing out the vehicle in the form of dust, leaving the color in the fabric.

4. The process herein described of printing woven fabrics, said process consisting in printing the fabric with a composition consisting of an aniiin color and a starchy vehicle, subjecting the fabric to the action of moisture and heat to cause the aniiin colors to penetrate the fabric, then drying the fabric to solidify the vehicle, then removing the vehicle from the fabric, leaving the aniiin color therein, and then sizing the back of the fabric.

[Claims 1 and 3 not printed in the Gazette.]

1,255,050. METHOD OF FORMING FLANGE-GROOVES AND MOLDS THEREFOR. JAMES H. QUINBY, San Jose, Cal. Filed June 12, 1917. Serial No. 174,245. (Cl. 94—1.)



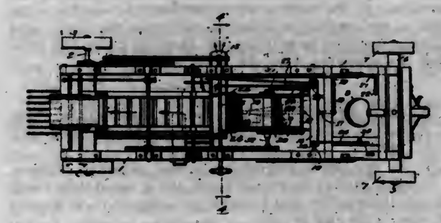
1. The method of forming a flange groove in asphalt pavements along the inner side of a rail, which consists in positioning a mold strip parallel with the inner edge of the rail and upon the asphalt prepared for rolling, rolling the strip simultaneously with the asphalt, and finally removing the said strip.

2. The method of forming a flange groove in asphalt pavements and along the inner side of a rail, which consists in bedding a mold strip in the asphalt parallel with the rail and against its inner edge and with the inner edge of its upper surface substantially flush with said asphalt, said asphalt being in condition for rolling, then rolling the said strip simultaneously with the said asphalt and finally removing the said strip.

3. The method of forming a flange groove in asphalt pavements and along the inner side of a rail, which consists in bedding a mold strip in the asphalt with its upper end and outer edge substantially parallel with and a distance above the upper and inner edge of the rail, and its upper and inner edge substantially flush with said asphalt, said asphalt being in condition for rolling, then rolling the said strip simultaneously with the said asphalt and finally removing the said strip.

4. The method of forming a flange groove in asphalt pavements and along the inner side of a rail, which consists in bedding a mold strip having an ogee compression surface in the asphalt and parallel with the inner edge of the rail, said asphalt being prepared for rolling, then simultaneously rolling said asphalt and said strip, and finally removing said strip.

1,255,051. VEGETABLE-HARVESTER. JOHN WILL RADKE, Dollar Bay, Mich. Filed Sept. 8, 1916. Serial No. 118,994. (Cl. 55—107.)



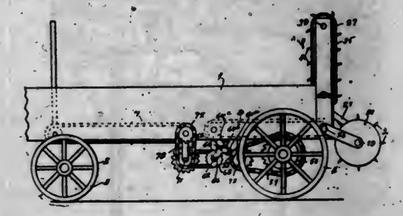
1. In a vegetable harvester, a wheel supported frame, a casing supported at the front of the frame and having a slotted passage in its bottom, said passage having its side walls converging toward the rear of the casing for receiving the tops of the vegetables, a blade pivoted on the bottom of the casing and mounted to move across the opening for cutting the tops, means for swinging the blade, a reel within the casing for receiving the tops from the casing, and a discharge chute to which the reel delivers.

2. In a vegetable harvester, a wheel supported frame, a casing supported at the front of the frame and having a slotted passage in its bottom, said passage having its side walls converging toward the rear of the casing for receiving the tops of the vegetables, a blade pivoted on the bottom of the casing and mounted to move across the opening for cutting the tops, and means for swinging the blade.

3. In a vegetable harvester, a wheel supported frame, a casing supported at the front of the frame and having a slotted passage in its bottom, said passage having its side walls converging toward the rear of the casing for receiving the tops of the vegetables, a blade pivoted on the bottom of the casing and mounted to move across the opening for cutting the tops, a reel within the casing for lifting the tops therefrom, and a connection between the reel and the blade for swinging the same.

4. In a vegetable harvester, a wheel supported frame, a casing supported at the front of the frame and having a slotted passage in its bottom, said passage having its side walls converging toward the rear of the casing for receiving the tops of the vegetables, and a blade pivoted on the bottom of the casing and mounted to move across the opening for cutting the tops.

1,255,052. STRAW-SPREADER. WELLINGTON RANDALL, Marysville, Wash. Filed June 30, 1914. Serial No. 848,214. (Cl. 275—5.)



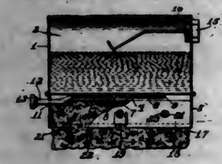
1. A fertilizer distributer comprising a wheel supported vehicle body, side boards secured to the body, a front conveyer belt mounted between the side boards, a rear conveyer belt, between the side boards, a follower carried by the upper run of the front conveyer belt, a vertically disposed belt located at the rear end of the body above the rear conveyer belt, a distributer located at the rear end of the body, means for driving the rear conveyer belt, the vertical belt and the distributer, means by which the front conveyer belt may be driven in a clockwise or counter clockwise direction.

2. A fertilizer distributer comprising a wheel supported body, side boards secured to the body, a front conveyer belt located between the side boards, a rear conveyer belt located between the sides, a distributer located at the rear end of the body, a follower carried by the upper run of the front conveyer belt, means for driving the rear conveyer belt and distributer, and means by which the front conveyer belt may be driven in a clockwise or counter clockwise direction.

3. A manure spreader, a supporting frame having front and rear traction wheels, a horizontal conveyer carried by said frame, a vertical standard supported by said conveyer, a second horizontal conveyer carried by said frame and positioned in a slightly higher elevation than said first named conveyer, means for intermittently operating said second named conveyer by the traction wheels of said supporting frame for gradually feeding a load of straw from said frame, a rotary spreader suspended rearwardly from said supporting frame and operated by the traction

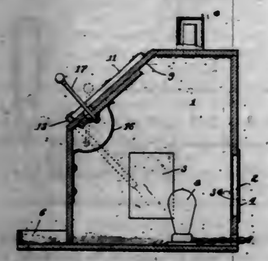
of said frame, a vertical conveyer carried by said supporting frame and operable by the traction thereof for the feeding of the straw to said spreader, and means for reversing the direction of travel of the first named conveyer.

1,255,053. BLACKBOARD-CLEANER. GILBERT G. SATRUM and INGVALD B. SNARTEMO, Oslo Settlement, Tex. Filed May 15, 1917. Serial No. 168,800. (Cl. 15—67.)



A blackboard cleaner comprising a water receptacle of elongated form having its longitudinal sides made to conform to the hand and having perforations in its bottom, a flange projecting below said bottom and forming a rectangular casing, a valve on the bottom for controlling said perforations, shoulders on said flange, a sponge cage of less height than the flange and adapted to fit within the casing, spring projections on said cage for engaging with said shoulders to hold the cage within the casing and means for removably holding the sponge in said cage.

1,255,054. POST-CARD-PRINTING APPARATUS. RUDOLF SCHOLER, Idagrove, Iowa. Filed Apr. 7, 1917. Serial No. 160,473. (Cl. 95—73.)

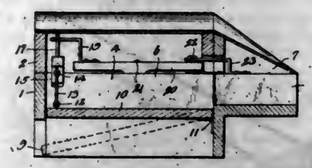


1. A photographic printing apparatus comprising a casing having a wall section provided with an opening, a frame hingedly mounted upon the casing and having an opening adapted to register with the first mentioned opening, securing devices for the said frame, a panel hingedly connected with the frame and adapted to close within the same, a light located within the casing, a curtain located between the light and the first mentioned opening and means for moving the curtain.

2. A photographic printing apparatus comprising a casing having a wall section provided with an opening, a frame hingedly connected with the casing and having an opening adapted to register with the first mentioned opening, a panel hinged to said frame and adapted to close within the opening thereof, a source of light located within the casing, a frame hingedly connected with the casing and located within the same, a curtain carried by the last mentioned frame, a spring bearing against the last mentioned frame and being under tension with a tendency to hold the curtain over the opening in the wall section of the casing, and means for moving the last mentioned frame.

3. A photographic printing apparatus comprising a casing having a wall section provided with an opening, a frame hinged to said wall section and having an opening extending in from its lower edge and adapted to register with the opening in the casing, a panel hinged in the opening in the said frame, a source of light located within the casing, a spring pressed frame mounted within the casing and having an opening adapted to register with the opening in the casing, a curtain carried by the last mentioned frame and adapted to normally lie over the opening in the casing, and a rod passing transversely through the casing and connected with the second mentioned frame.

1,255,055. HYDRAULIC PUMP. WILLIAM H. SEELY, Pinson, Ala. Filed Nov. 10, 1916. Serial No. 130,679. (Cl. 103—67.)



2. A hydraulic motor comprising a pair of swinging paddles, a partition separating said paddles, a pivoted end for said partition, means operated by said paddles for controlling the movement of the pivoted end, and means for transferring the motion from said paddles to a pump.

3. A hydraulic motor comprising a pair of swinging paddles, a partition separating said paddles, a pivoted element for controlling the operation of the paddles, a transverse rocking lever operated by said paddles, a bifurcated member carried by said lever, a pivoted arm engaging said bifurcated member and said swinging partition and means for transferring the motion from said paddles to a pump.

4. A hydraulic motor comprising a casing, chambers provided in said casing, swinging paddles in said chambers, inlets for said chambers, a gate alternately opening and closing the inlets, a transverse rocking lever operated by said paddles, a pivoted arm engaging said rocking lever, a sliding connection between said lever and said gate and means for transferring the motion from said paddles to a pump.

[Claims 1, 5, and 6 not printed in the Gazette.]

1,255,056. PLATE-LIFTER. JOHN SELIG, Pickering, La. Filed Aug. 3, 1917. Serial No. 184,272. (Cl. 65—32.)



A pan lifter formed of a single length of wire looped at its medial portion to provide a pair of spaced downwardly inclined arms, the terminals of the arms curved outwardly and inwardly to provide a pair of resilient clamping members, the terminals of the clamping members inclined upwardly to provide spacing members and the terminals of the spacing members forming handles, the terminals of the handles wrapped about the spacing members and clamping members to reinforce the same, said spacing members permitting the operator to readily position the clamping members about a pan.

1,255,057. EYE-SHADE. CLIFTON B. SHOEMAKER, Glendora, Cal. Filed June 1, 1917. Serial No. 172,291. (Cl. 2—149.)

1. An eye shade comprising a nose engaging support, a housing carried by said support and a collapsible shade element carried by said housing and adapted to be incased therein, when not in use.

2. An eye shade comprising a nose engaging support, a housing carried by said support a collapsible shade element carried by said housing and adapted to be incased therein, when not in use, and means for frictionally holding said shade element in collapsed position within said housing.



4. An eye shade comprising a pair of shade elements, each fashioned in the form of spherical segments, of flexible material, arcuate longitudinally extending reinforcing ribs carried by said elements, with their ends lapping and pivotally connected, and yieldable means for frictionally holding said lapped ends in adjusted position.

6. An eye shade comprising a pair of shade elements, each fashioned in the form of a transversely and longitudinally curved segment, of flexible material, a casing shaped to conform to one edge of one of said elements and in which said element is designed to be housed, said casing having means for detachably mounting it on the upper edge of an eyeglass lens, and means for holding said elements in folded position in said casing.

[Claims 3 and 5 not printed in the Gazette.]

1,255,058. HAME. FREDERICK VAN HEUSEN SKINNER, Ganonoque, Ontario, Canada, assignor to The Skinner Company Limited, Ganonoque, Ontario, Canada, a Corporation of Ontario. Filed Sept. 24, 1917. Serial No. 193,034. (Cl. 54—25.)



A one piece metallic cover for a hame comprising a substantially rectangular blank having a pointed extension at one end nearer one longitudinal edge than the other whereby a core may be encircled by the cover and the extension bent over the top and down the other side so that the core will be completely enveloped by the cover.

1,255,059. MAKING ELECTRICAL BONDS. EDWIN E. SLICK and CHARLES W. PARKHURST, Westmont borough, Pa. Filed Apr. 28, 1915. Serial No. 24,567. (Cl. 113—112.)

1. The method of forming an electric bond which consists of inserting a cable within a surrounding sleeve, then fusing the end of said cable and part of said sleeve adjacent thereto, by applying a melting heat to the end of the cable to unite the ends of the strands thereof, said heat being so localized that the adjacent interior portions of the sleeve are also fused, joining the cable thereto, whereby an electric junction is had.

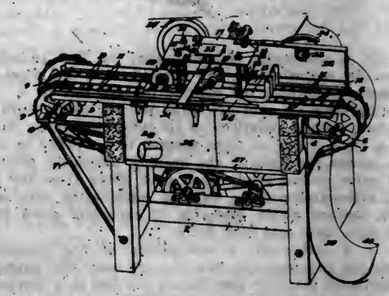
3. The method of forming an electric bond which consists of inserting a cable part way into an inclosing sleeve, then fusing metal of similar composition in and filling said opening, whereby the end of said cable and said sleeve are integrally united.



6. The method of forming an electric bond which consists of inserting a cable part way into a surrounding sleeve closely fitting the sides thereof, leaving an open space adjacent to the end of said cable, then applying a melting heat to the end of said cable to unite the strands thereof, said heat being so localized that the adjacent interior portions of the sleeve are fused, then fusing metal in said space, thus integrally joining the end of said cable to said sleeve.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,255,060. TIE-PLUG MACHINE. HARRY G. SMART, St. Cloud, Minn. Filed May 14, 1915. Serial No. 28,061. (Cl. 144—12.)



1. The combination, in a tie-plug machine, with a suitable table, of parallel endless conveyers traversing said table, cutter-heads located, above and below the table, between said conveyers, parallel spring-controlled presser bars arranged above said table and conveyers, and a saw arranged between said presser bars, in line with said cutter-heads, substantially as described.

[Claims 2 and 3 not printed in the Gazette.]

1,255,061. SHAVING APPARATUS. DANIEL RAYMOND SMITH, New York, N. Y. Filed Aug. 2, 1916. Serial No. 112,808. (Cl. 132—32.)

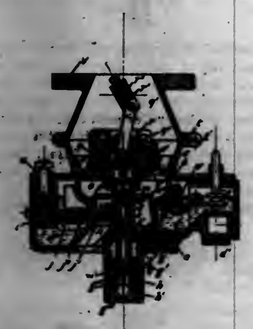


1. In a shaving apparatus, a pair of open ended case sections of semi-oblate shape in cross section and hingedly

connected along one edge, a partition between said sections rigidly connected with one of said sections, and flanged caps into which the ends of said sections extend holding said sections in closed position.

2. In a shaving apparatus, an open ended brush handle of oblate shape in cross section, a flanged cap into which one end of a handle extends, a brush head slidably mounted within said handle, and a follower between said brush head and cap slidably connected with said handle.

1,255,062. CARBURETER. JAMES A. SPEED and ARTHUR G. BROOKE RIDLEY, San Francisco, Cal. Filed Sept. 14, 1914. Serial No. 861,521. (Cl. 261—41.)



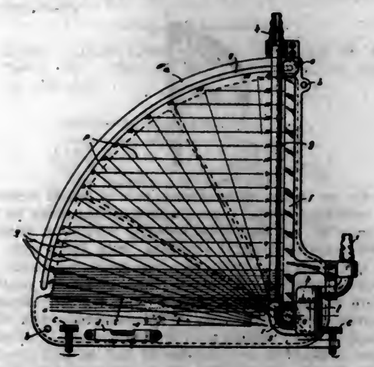
1. In a carbureter, a multiplicity of fuel passages, means for adjusting the flow through each fuel passage, a discharge member for distributing the fuel in a carbureting chamber, said discharge member being movable to admit varying quantities of air into said mixing chamber, a valve of conical form adapted to be opened by suction, means for limiting the opening movement thereof, said valve closing freely upon back firing from the engine, attenuated passage ways in combination with said valve through which discharge of exploding gases may take place upon said back firing.

2. In a carbureter, a multiplicity of fuel passages, means for adjusting the flow through each fuel passage, a distributer plate for distributing the fuel in a carbureting chamber, said distributer plate formed with a slidable surface engaging to cover or uncover more or less of the discharge area of said fuel passages, a carbureting chamber, said distributer plate being movable to admit varying quantities of air into said carbureting chamber and a valve of conical form adapted to be opened by suction, and adjustable means for limiting the opening movement of said valve and distributer plate.

3. In a carbureter, a multiplicity of fuel passages, means for adjusting the flow through each fuel passage, a discharge member for distributing the fuel in a carbureting chamber, said discharge member being movable to admit varying quantities of air into said carbureting chamber, a valve of conical form adapted to be opened by suction, means for limiting the opening movement thereof, said valve closing freely upon back firing from the engine, attentuated passage ways in combination with said valve through which discharge of exploding gases may take place upon said back firing and adjustable means for limiting the opening movement of said conical valve and distributer plate.

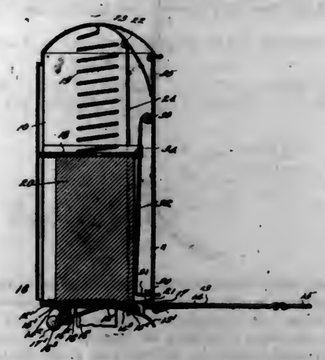
1,255,063. DRAFT-GAGE. WILLIAM H. STEVENS, Altoona, Pa. Filed July 1, 1916. Serial No. 107,009. (Cl. 73—31.)

1. In combination in a gage, a U-tube comprising an indicating arm through which the height of the liquid therein may be observed and a reservoir communicating with the lower end of such arm, means whereby the arm and its reservoir are mounted for swinging movement about a pivot at the lower end of the arm, and a surface over which the arm swings provided with graduations for reading the height of level of the liquid in the arm at its different positions of inclination.



2. In combination in a gage, a U-tube comprising an indicating arm through which the height of the liquid therein may be observed and a reservoir communicating with the lower end of such arm, means whereby the arm and its reservoir are mounted for swinging movement about a pivot at the lower end of the arm, and an upright sector over which the arm swings, such sector being provided with horizontal graduations and with radial lines crossing the horizontal graduations and provided with other graduations constituting scales.

1,255,064. DISPENSING DEVICE. ALEXIUS SUNDEN, Centralia, Wash. Filed May 15, 1917. Serial No. 168,838. (Cl. 146—7.)



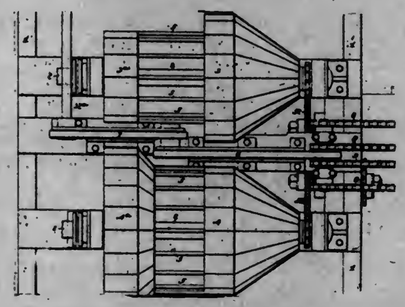
1. A soap dispensing device embodying a receptacle having an open end, a cutting element arranged to reciprocate across said open end, a spring pressed follower arranged within the receptacle for maintaining the soap in position with respect to the knife whereby a slice may be severed from the soap, a hinged cover for the receptacle, means for locking the cover in closed position, and means timely operated by movement of the follower for releasing said cover.

6. A soap dispensing device embodying a bottomless receptacle, a cutting device arranged to reciprocate across the open bottom, and including an element constituting a closure for said bottom, and a cutting blade, said blade being spaced from said element whereby a slice is severed from the soap when the cutting device is moved in one direction, a slide superimposed upon said element, cooperating inclined portions forming part of said element and slide respectively, whereby the latter is elevated and lowered upon reverse movements thereof, to vary the distance between said slide and cutting blade to regulate the thickness of the slice, a threaded stem associated with the slide and projecting through an opening in said element, a bearing receiving said stem, and a member threadedly associated with said stem whereby the slide may be adjusted in either direction upon reverse rotation of said member.

7. A soap dispensing device embodying a bottomless receptacle, a cutting device arranged to reciprocate across the open bottom, a spring pressed follower arranged within the receptacle, a transverse shaft, a spring coiled about said shaft and having its extremities coextensive in length with the length of the receptacle, and said cutting device being formed with notches to receive said extremities whereby said device is automatically returned from an active to an inactive position.

[Claims 2 to 5 not printed in the Gazette.]

1,255,065. HECKLING-MACHINE. ANTONIO TERESA, Philadelphia, Pa. Filed Feb. 2, 1914. Serial No. 815,934. (Cl. 13—2.)



2. The combination, in a heckling machine, of means for carrying the leaves forwardly in a direction transverse to their length, and heckling drums disposed one on each side of said conveyer, said heckling drums rotating in a direction transverse to the direction of movement of the leaves, being of frusto-pyramidal form, and having at the points of meeting of the sides of the pyramid projecting teeth, those of one drum acting upon those portions of the leaves which project in one direction from the conveyer and the teeth of the other drum acting upon those portions of the leaves which project in the opposite direction from said conveyer.

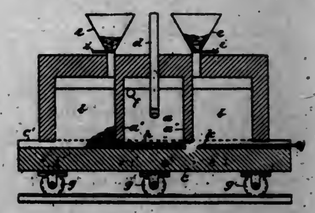
5. The combination, in a heckling machine, of a conveyer for carrying the leaves forwardly in a direction transverse to their length, heckling drums flanking said conveyer, and means for drawing the leaf laterally through the conveyer at one point in its travel, said means comprising a clamping device for the leaf laterally separated from the conveyer, and a deflector interposed between the conveyer and said clamping device and serving to bend that portion of the leaf which normally bridges the space between the conveyer and the clamping device and thereby increase the length of leaf necessary to bridge said space.

8. The combination, in a heckling machine, of the conveyer for carrying the leaf through the machine in a direction transverse to its length, and a heckling drum flanking said conveyer and having groups of teeth each consisting of a plurality of longitudinal rows, the teeth of one row being out of line with but overlapping the teeth of the adjoining row or rows.

10. The combination, in a heckling machine, of the conveyer for carrying the leaf through the machine in a direction transverse to its length, and a heckling drum flanking said conveyer, said heckling drum consisting of a hollow shell having projecting teeth for acting on the leaf, said teeth having grooved faces and said grooves extending to the interior of the drum so as to provide passages from the interior to the exterior of the drum through said grooved faces of the teeth.

[Claims 1, 3, 4, 6, 7, and 9 not printed in the Gazette.]

1,255,066. PROCESS AND APPARATUS FOR PRODUCING ZINC AND THE LIKE. FILIP THARALDSEN, Christiania, Norway. Filed Aug. 18, 1916. Serial No. 115,605. (Cl. 204—63.)



2. The process for the continuous production of zinc and other volatile metals from their ores comprising introducing the charge in the shape of an approximately horizontal layer, continuously into an electric radiation furnace, heating the surface of the layer by means of radiant electric heat to liberate the vapors of the volatile metal, principally in said surface, conducting said vapors through a separate outlet into a condenser, and removing the residues of the charge.

4. An electric radiation furnace for extracting zinc and other volatile metals from their ores comprising a furnace chamber whose bottom is constituted by a movable table, said chamber having openings between said table and the lower edges of its side walls which extend transversely to the motion of the table, said openings permitting the charge to enter the furnace chamber on one side, that the residue can leave the chamber on the other side, the lower edge of the furnace wall cutting off the top of the charge and forming the same to a convenient surface as the charge is passing through the opening into the furnace chamber.

[Claims 1, 3, 5, and 6 not printed in the Gazette.]

1,255,067. FISH-HOOK. WILLIS E. THATCHER, Cameron, Wis. Filed Aug. 22, 1917. Serial No. 187,629. (Cl. 43—7.)

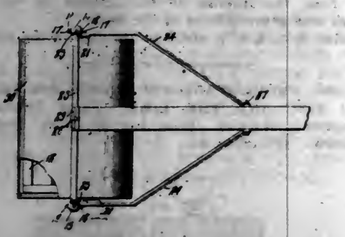


1. A fish hook comprising an inverted U-shaped supporting member, bearings formed integrally with the eyes of the terminals of the arms of the U-shaped member, a bait retaining pin carried by one of the bearing eyes and detachably secured to the other arm, and bait supporting hooks removably and slidably mounted in the bearing eyes of the supporting members, as and for the purpose specified.

4. A fish hook including a supporting member, bearing eyes formed integrally with the supporting member, a bait retaining pin carried by one of the supporting members and removably secured to the other supporting member, reversible fish hooks slidably and removably mounted in the bearing eyes of the supporting member, a retaining loop carried by the hook, said retaining hook facilitating the supporting of one of the bait when arranged in the suppotting member by the pin.

[Claims 2 and 3 not printed in the Gazette.]

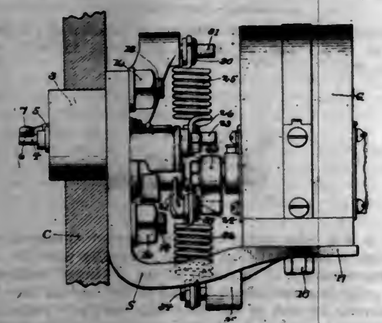
1,255,068. STALK-CUTTER. ROY DE WITT THOMPSON, Tolbert, Tex. Filed Dec. 2, 1916. Serial No. 134,680. (Cl. 55—61.)



1. A stalk cutter comprising a carrier bar, a yoke having depending arms and provided with a pin connected with the rear end of the carrier bar, bracing bars having their forward ends connected with the carrier bar and having their rear ends terminating adjacent the arms of the yoke, a drum including heads, cutting blades carried by the heads, stub shafts extending from the heads and terminating in enlarged spherical end portions, and bearings including upper and lower cups positioned about the enlarged ends of said stub shafts and having extensions forming necks to receive the stub shafts, and bracket arms extending from the upper and lower cups and connected with the bracing bars and the arms of said yoke.

2. A stalk cutter comprising a drum including cutting blades, stub shafts extending from the drum and provided with enlarged heads, a yoke provided with depending arms, bracing bars having their ends terminating adjacent the arms of said yoke, and bearings having upper cups connected with the arms of said yoke and lower cups engaging the upper cups and connected with the bracing bars, the cups being positioned about the heads of said stub shafts and having extensions forming necks through which the stub shafts pass.

1,255,069. IGNITION DEVICE. HARRY RANDOLPH VAN DEVENTER, Sumter, S. C., assignor to Splitdorf Electrical Company, Newark, N. J., a Corporation of New Jersey. Filed Sept. 18, 1917. Serial No. 191,983. (Cl. 123—149.)



1. An ignition device comprising a two part supporting bracket, means for independently supporting the parts of the bracket, ignition electrodes carried by one part of said bracket and a generator carried by the other part of said bracket and electrically connected to said electrodes.

2. An ignition device comprising a two-part supporting bracket, means for independently supporting the parts of the bracket on the cylinder wall of the engine, ignition electrodes carried by one part of said bracket and a generator carried by the other part of said bracket and electrically connected to said electrodes.

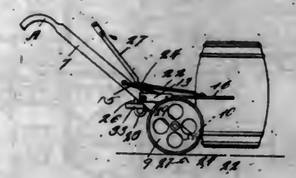
3. An ignition device comprising a two part bracket, means for independently supporting the parts of the bracket on the cylinder wall of the engine, a fixed and a movable electrode carried by one part of said bracket, and a generator carried by the other part of said bracket and electrically connected to said electrodes.

4. An ignition device comprising a two-part supporting bracket, means for independently supporting the parts of the bracket on the cylinder wall of the engine, ignition electrodes carried by one part of said bracket and a generator carried by the other part of said bracket and electrically connected to said electrodes, and an interlocking connection between the bracket parts whereby the same may be held in a predetermined relation to each other.

5. An ignition device comprising a two-part bracket, means for independently supporting the parts of the bracket on the cylinder wall of the engine, a fixed and a movable electrode carried by one part of said bracket, and a generator carried by the other part of said bracket and electrically connected to said electrodes, and an interlocking connection between the bracket parts whereby the same may be held in a predetermined relation to each other.

[Claims 6 to 10 not printed in the Gazette.]

1,255,070. BARREL-TRUCK. GEORGE W. WALLER, Hastings, Fla. Filed Jan. 17, 1917. Serial No. 142,866. (Cl. 21—121.)
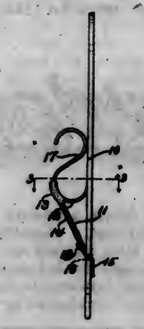


1. A barrel truck comprising a frame, a forwardly extending supporting member carried by the frame, a transverse member mounted in the frame, forwardly extending divergent members pivoted at their rearward ends to the transverse member and resting upon the supporting member, said divergent members having barrel engaging hooks at their free ends, means for holding the divergent members yieldably against movement away from each other, a lever pivotally mounted in the frame, spreader rods connected with the lever and with the divergent members for movement of the said members away from each other when the lever is moved in one direction, and barrel engaging points carried by the frame below the divergent members.

2. A barrel truck comprising a frame, a forwardly extending support carried by the frame, arms pivotally connected at their rearward ends with the frame and extending forwardly in divergent relation and resting upon the supporting member, said arms being arranged to grip a barrel at their forward ends, a lever mounted for movement in a plane between the arms, rods connected with the lever and with the arms, for movement of the arms upon their pivots away from each other when the lever is moved in one direction, means for holding the arms yieldably against such movement and barrel engaging points carried by the frame below the arms.

3. A barrel truck comprising a frame including side members, a plate disposed transversely between the side members and having ends engaged therethrough, a supporting member having portions secured upon the ends of the plate outwardly of the side members and including also a portion extending transversely of the frame forwardly thereof, barrel gripping arms disposed to rest upon the transverse portion of the supporting member, said gripping arms being pivoted at their rearward ends to the plate for movement of their forward ends toward and away from each other, a bracket secured to the side members of the frame and extending therebetween, a lever pivotally mounted in the bracket for forward and rearward movement, spreader rods pivoted to the barrel engaging arms and pivotally connected with the lever for movement to separate the gripping arms when the lever is moved in one direction, and barrel engaging points carried by the frame.

1,255,071. LANTERN-HOOK. HARRY JOHN WINN, River Falls, Wis. Filed May 16, 1917. Serial No. 169,025. (Cl. 248—23.)



1. A lantern suspending device comprising a body, a suspending hook extending from said body and provided with an upper web, the body being provided with a slot beneath the hook, a latching strip secured to the hook and having its lower end portion extending through the slot and having its upper end portion bent to provide a bill extending above the hook and in operative relation to the body, and abutment means extending from the hook upon opposite sides of the latching strip to prevent transverse movement of the latching strip.

[Claim 2 not printed in the Gazette.]

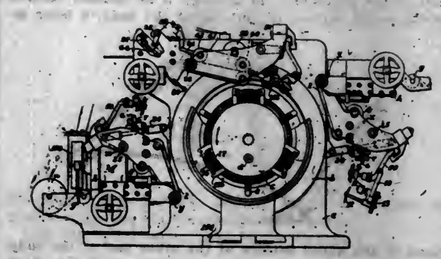
1,255,072. COMB-CLEANER. HARRY JOHN WINN, River Falls, Wis. Filed May 16, 1917. Serial No. 169,026. (Cl. 15—25.)



1. A comb cleaning device comprising a housing having side walls terminating at their lower ends in spaced relation, the lower portion of one of the side walls being pivotally mounted at its lower end for permitting the lower section of the wall to swing outwardly to an open position, a fabric strip connected with the pivoted end of the wall section and extending to rest upon the lower end of the second wall when the pivoted wall section is in a closed position, and comb cleaning means within the housing.

2. A housing having side walls terminating at their lower ends in spaced relation, the lower portion of one side wall being pivotally mounted at its lower end for permitting the lower section of the wall to swing outwardly to an open position, a closure for the open space between the walls connected with the pivoted end of the wall section and extending to rest upon the lower end of the second wall when the pivoted wall section is in a closed position, and cleaning means within the housing.

1,255,073. TIRE-BUILDING MACHINE. ADRIAN O. ABBOTT, Jr., Detroit, Mich., assignor of one-half to William B. Norton, Detroit, Mich. Filed Dec. 8, 1916. Serial No. 135,757. (Cl. 154—10.)



1. In a tire building machine, the combination of carcass building instrumentalities and tread building and applying instrumentalities arranged to automatically cooperate in building a tire.

12. In a tire building machine, the combination of a fabric laying and smoothing instrumentality, a tread laying and smoothing instrumentality, and a master cam for bringing the fabric laying and smoothing instrumentality into engagement with the core and upon the disengagement of this instrumentality bringing the tread laying and smoothing instrumentality into engagement with the core.

27. In a tire building machine, and in a strip laying and smoothing instrumentality thereof, a strip stroking device comprising a plurality of spring arms and means for positively driving said arms, said arms being arranged to strike and smooth the strip upon the tire.

60. In a tire building machine, and in a tread-applying instrumentality thereof, the combination of a plurality of storage rolls, a plurality of liner take-up rolls, feed rolls, said rolls being so arranged that the various strips that go to make up a composite tread are drawn off from the storage rolls and fed together to form a compound strip, and automatic means for feeding and applying said strip as it is formed directly to the carcass.

84. In a tire building machine, a master cam provided with a cam race, a fabric-laying and smoothing instrumentality, connections between the race and instrumentality for drawing the latter onto and away from the core, the said master cam being provided with a second cam race, a tread laying and smoothing instrumentality, connections between the second race and the second instrumentality for drawing the latter onto and away from the carcass, bead-applying apparatus, a gear segment on the cam, connections between the bead-applying apparatus and the gear segment for causing the apparatus to approach the carcass between the operations of the first-mentioned instrumentalities, a chuck slidable toward and away from the instrumentalities and apparatus above enumerated, segments on said cam, and connections between the segments and the chuck for causing the chuck to draw into the machine before the said instrumentalities and apparatus operate and for causing the chuck to withdraw from the machine when said instrumentalities and apparatus have done with operating.

[Claims 2 to 11, 13 to 26, 28 to 59, 61 to 83, and 85 to 87 not printed in the Gazette.]

1,255,074. DRAWING-FRAME. ALLAN J. BARBER, Woonsocket, R. I. Filed Feb. 9, 1917. Serial No. 147,577. (Cl. 45—131.)

1. In a drawing frame, a body curved from its middle portion downwardly and in the direction of opposite ends, the body at its ends being bent downwardly, outwardly and upwardly to form two transverse grooves, and two members for pressing a paper over the convex upper surface of the body and the ends of the paper into the grooves.

5. In a drawing frame, a resilient body having opposite ends bent downwardly, outwardly and upwardly to form transverse grooves, two members for pressing a piece of paper against the upper surface of the body and the ends of the paper into the grooves, a tie member secured to the under surface of one end of the body, a lever se-



cured to the under surface of the other end of the body, the tie member being secured to the lever so that a movement of the lever will draw the ends of the body in the direction of each other to curve the upper surface of the body.

[Claims 2 to 4 not printed in the Gazette.]

1,255,075. PRESSURE GREASE-CUP. RUDOLPH BOSSHARD, Mount Wilson Solar Observatory, Cal. Filed June 18, 1917. Serial No. 175,540. (Cl. 184—38.)



1. A pressure grease cup provided with a plunger head externally threaded to form a cap-seat; said grease cup being provided above the plunger head with a nipple, a plunger packing cup mounted on the nipple above the cap seat and adapted to be threaded into a grease cup, means on the nipple to hold the plunger packing cup in place and a hollow internally threaded grease cap screwed onto the cap seat; the plunger packing cup contacting with the interior of the cap.

2. A pressure grease cup comprising a tubular body, a plunger head externally threaded to form a cap seat on said body, an externally threaded nipple above said plunger head, a hollow grease cap screwed onto the cap seat, a yielding plunger packing cup on the nipple, a jam-nut on the nipple to hold the plunger packing cup in place and a hollow grease cap screwed onto the plunger packing cup and the cap seat.

5. A pressure grease cup comprising a nipple, a wrench seat above the nipple, an externally threaded shank of larger diameter than the wrench seat, a plunger head externally threaded to form a grease cap seat above the shank, a nipple above the plunger head, an internally threaded grease cap adapted to screw onto the cap seat and to accommodate the shank, a plunger packing cup secured to the nipple and threaded onto the grease cap, and a jam-nut screwed onto the externally threaded shank and against the end of the grease cap, said jam-nut being chambered to accommodate the grease cap seat and provided with a rim to jam against the lower end of the grease cap.

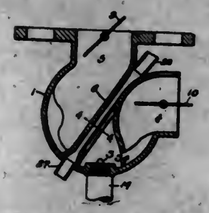
[Claims 3 and 4 not printed in the Gazette.]

1,255,076. ADVERTISING DEVICE. WILLIAM F. BRINGE, Milwaukee, Wis., assignor to Theodore Leubusher and Benjamin F. Salzstein, Milwaukee, Wis. Filed Sept. 30, 1916. Serial No. 123,088. (Cl. 40—146.)



In an advertising device, a placard member of flexible and resilient material, and a plurality of spears secured thereto, said spears being adapted for insertion in a suitable body to support said placard member thereon whereby the placard member between the spears may be flexed in any of a plurality of curves and so held.

1,255,077. CARBURETER. GEORGE M. BROWN, Cambridge, Mass. Filed July 10, 1916. Serial No. 108,282. (Cl. 261—12.)



1. A carbureter comprising a mixing chamber, a fuel duct for introducing fuel into said chamber, an inlet duct and a mixture delivery duct for passing a current of air through the region of said fuel duct each extending into said mixing chamber and presenting their respective openings to the side thereof, one on one side and the other on the other side of the fuel inlet duct, a baffle member disposed in the path of said current of air at a point beyond said fuel duct, and means for heating said baffle member.

2. A carbureter comprising a mixing chamber, a fuel duct for introducing fuel into said chamber, and inlet and outlet ducts in said chamber respectively on opposite sides of said fuel duct for passing a current of air through the region of said fuel duct at an angle thereto thereby aspirating fuel therefrom, at least one of said ducts having an elongated opening disposed transversely of the path of the current of air and transversely of the one duct so that as the volume of said current of air varies by virtue of variations of pressure in said outlet duct the amount of fuel aspirated from said fuel duct varies in direct proportion to said variation of volume of air.

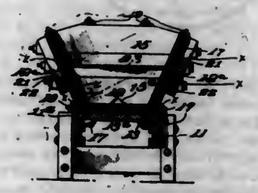
3. A carbureter comprising a mixing chamber, a fuel duct for introducing fuel into said chamber, an inlet duct and a mixture delivery duct for passing a current of air through the region of said fuel duct each extending into said mixing chamber and presenting their respective openings to the side thereof, one on one side and the other on the other side of the fuel inlet duct, one side of said outlet duct being disposed in the path of said current of air at a point beyond said fuel duct and constituting a baffle member, and means for heating said baffle member.

4. A carbureter comprising a mixing chamber, a fuel duct for introducing fuel into said chamber, and inlet and outlet ducts in said chamber respectively on opposite sides of said fuel duct for passing a current of air through the region of said fuel duct at an angle thereto thereby aspirating fuel therefrom, said outlet duct having elongated openings laterally displaced on opposite sides of the path of said current of air and angularly disposed with relation to said outlet duct, whereby as the volume of said current of air varies by virtue of variations of pressure in said outlet duct the amount of fuel aspirated from said fuel duct varies in proportion to said variation of volume of air.

5. A carbureter comprising a mixing chamber, an air inlet duct on one side of said chamber for admitting a current of air into said chamber, an outlet duct on the other side of said chamber for delivering said current of air from said chamber, the outlet duct having an elongated opening disposed obliquely to the outlet duct, a fuel duct intermediate said inlet and outlet ducts for introducing a jet of fuel into said current of air transversely thereof, and a baffle surface in the path of said current of air beyond said fuel duct for causing the air and the fuel to commingle before passing to said outlet duct, said outlet duct being arranged transversely of said current of air and having an enlarged portion intermediate its ends at one side of said current of air.

[Claims 6 to 15 not printed in the Gazette.]

1,255,078. TANK OR TROUGH CONSTRUCTION. SAMUEL T. CASTLEMAN, Louisville, Ky., assignor to Long Life Lumber Company, Incorporated, Louisville, Ky., a Corporation of Kentucky. Filed May 8, 1917. Serial No. 167,344. (Cl. 217—4.)



1. A tank or trough having a wall comprising a plurality of planks in edge-to-edge engagement, the edges of the planks being so formed that the said wall tends to arch, means securing said planks together, and means tending to flatten out the arch, thereby maintaining a tight joint between the planks.

3. A collapsible watering trough comprising side walls, ends, and bottom, said side walls and bottom each consisting of a plurality of planks fitted together by tongues and grooves, at least one of said planks having its edges beveled so that the planks tend to lie in different planes, bolts extending loosely through each set of planks and drawing them together, and means drawing said side walls, ends and bottom together in such manner as to maintain them substantially plane and water-tight.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,255,079. NON-REFILLABLE BOTTLE. CLARENCE E. CEDERVALL, Rockford, Ill. Filed May 1, 1917. Serial No. 165,771. (Cl. 215—12.)

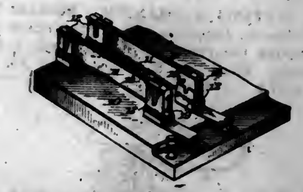
7. The combination with a bottle neck having a seat formed therein, of a cylindrical locking member supported on said seat and having locking engagement with said neck, a stopper positioned in said cylindrical member, a plate closing the upper end of said member and provided with spaced openings, a pair of cutters engaging said stopper, each of said cutters consisting of a substantially



triangular body portion, and an extension adapted to pass through one of the openings in the plate.

[Claims 1 to 6 not printed in the Gazette.]

1,255,080. FUSE. WALLACE L. COOK, Chicago, Ill. Filed Feb. 9, 1917. Serial No. 147,546. (Cl. 175—278.)

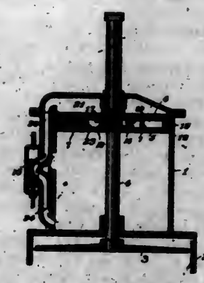


1. A fuse of the character described comprising a flat insulating shell, a duct longitudinally of said shell, end caps for said shell, and a fuse wire in said duct, said end caps having holes out of register with said duct whereby the extremities of said fuse wire may be bent over the edges of said shell at said duct to thus extend along the end faces of said end cap, said extremities being soldered to said end faces.

4. A fuse of the character described comprising a flat insulating shell, a duct longitudinally of said shell, end caps for said shell, and a fuse wire in said duct, said end caps having holes therethrough, the extremities of said fuse wire extending through said holes along the end faces of said caps, said extremities being soldered to said end faces away from said holes, said end caps consisting of punching fitting said shell and being secured thereto by prick punched protrusions.

[Claims 2 and 3 not printed in the Gazette.]

1,255,081. PISTON. GEORGE L. COWAN, East Ryegate, Vt., assignor to Holyoke Machine Company, Holyoke, Mass., a Corporation of Massachusetts. Filed Apr. 28, 1916. Serial No. 94,111. (Cl. 121—104.)



A piston for the purpose described, including separable plates or heads spaced from each other, each plate having an inwardly opening valve, said valves being retained in a guided position by means of bolts located be-

tween the heads and secured to the separable plates, a compression spring between the head of each of the bolts and the valves to maintain the same closed, one of the heads having a hub for attaching the piston rod thereto and an annular ring or rib of the same height as the hub and having ports therethrough to permit fluid under pressure to pass therethrough and other openings for guiding arc-shaped expansion members toward and away from the packing material, said inwardly opening valves being located within the annular ring, said arc-shaped members being located near the outer edge of the plates, whereby as the piston reciprocates fluid under pressure will pass to the interior of the piston and through the ports in the rib, for the purpose of moving the arc-shaped expansion members against the packing material, one of the heads resting on the hub and ring for spacing the plates yet permitting the arc-shaped expansion members and packing material to have free movement between the heads.

1,255,082. [WITHDRAWN.]

1,255,083. DIPPING MECHANISM. MICHAEL F. DAVORAN, Cincinnati, Ohio, assignor to The Crane & Breed Manufacturing Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Aug. 3, 1917. Serial No. 184,266. (Cl. 214—17.)



1. In dipping mechanism of the character described, the combination of a track, an article-support, means causing travel of said article-support lengthwise of said track, means raising said article-support during said travel, latching means maintaining said article-support in raised position during travel of the same, and means causing raising of said article-support to an intermediate elevation and causing travel of said article-support in said intermediate elevation.

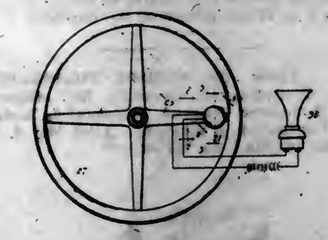
3. In dipping mechanism of the character described, the combination of a track, an article-carrier suspended therefrom, means moving said carrier along said track, said article-carrier comprising a main frame and a supplemental suspension frame, a pivoted actuating part having operative connection with said supplemental suspension frame and with relation to which said supplemental suspension frame has lengthwise movement for moving the latter relative to said main frame, and a supplemental track with which said pivoted actuating part coacts for causing movement of said supplemental suspension frame relative to said main frame.

13. In dipping mechanism of the character described, the combination of a track, an article-carrier suspended therefrom, means propelling said carrier along said track, said carrier comprising a main frame and an article-support, a sheave journaled in said main frame, a flexible connection between said sheave and article-support, a lever pivoted to said main frame, a supplemental track, and lateral positioning means between said supplemental track and the pivot-portion and between said supplemental track and the swinging portion of said lever for causing operative parallelism between the travel of said lever and said track, and said supplemental track causing movement of the free end of said lever by travel of said lever lengthwise of said supplemental track whereby to change the elevation of said article-support.

22. In dipping mechanism of the character described, the combination of a suspension frame, an article-support movable up and down thereon, means causing travel of said suspension frame, a sheave journaled in said suspension frame, a flexible connection between said sheave and said article-support, a lever having operative connection with said sheave for rotating the same, means arranged to be contacted by said lever for swinging the same whereby to change the elevation of said article-support, and spring means for cushioning movement of said lever.

[Claims 2, 4 to 12, 14 to 21, and 23 not printed in the Gazette.]

1,255,084. SWITCH. WILLIAM W. DEAN, Chicago, Ill., assignor, by mesne assignments, to Benjamin Electric Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 18, 1913. Serial No. 749,185. (Cl. 200—27.)



1. In an electric switch, the combination with cooperating switch contacts, one of said contacts being circular in form and the other adapted to be brought into engagement with said circular contact at any point to close the electric circuit, of operating means connected with said contacts having a rectilinear and tilting movement and arranged to bring the contacts into engagement by either movement to close the electric circuit.

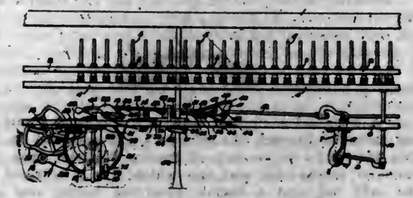
11. In an electric switch, coöperating switch contacts, a contact-actuating member rectilinearly movable to contact-closing position by pressure applied at its center and tiltable by pressure applied about its center, and a fulcrum member on which the operating member fulcrums when tilted, the point of electrical contact being radially outside of and beyond the fulcrum member.

15. In a circuit controller, the combination of a stationary member and a skirted movable member slidable and tiltable with reference thereto and having the skirt overhanging the margin thereof, guiding means controlling said movable member as it slides with respect to said stationary member, and a plurality of fulcrums about which said movable member tilts with respect to said stationary member, and an electric switch controlled by said movable member and operated by sliding or tilting said movable member with respect to said stationary member.

31. A tipping switch comprising a stationary contact, a contact-actuating member having a universal tilting movement with respect to said stationary contact and rotatable with respect to said stationary contact, a contact mounted on the under surface of said actuating member for engagement with said stationary contact for closing the circuit when the actuating member is operated and arranged to be ground against said stationary contact by the rotation of said movable member to clean the contact surfaces, and a mounting for said movable member permitting said universal tilting movement and the rotation of the same.

[Claims 2 to 10, 12 to 14, and 16 to 30 not printed in the Gazette.]

1,255,085. BUNCH-BUILDER FOR WINDING-MECHANISM. JOHN B. DONOVAN, North Adams, Mass., assignor of one-half to James K. Lanning, Fall River, Mass. Filed May 27, 1914. Serial No. 841,360. (Cl. 242—43.6.)



1. In a traverse motion for winding yarn on yarn receivers, a yarn receiver support, yarn guiding means, means to cause a relative to and fro movement between the yarn guiding means and said receiver, and said movement comprising a number of preliminary, bunch forming strokes and a succeeding number of body-forming strokes and means to retard said movement during a part of each of said preliminary strokes.

11. In a traverse motion for winding yarn on yarn receivers, a yarn receiver support, yarn guiding means, means to cause a relative to and fro movement between the yarn guiding means and said receiver, and traverse modifying means coöperating to form a bunch of wound layers of lengths gradually increasing in downward direction only.

13. In a traverse motion for winding yarn on yarn receivers, yarn receiver supports, yarn guiding means, a builder element, a traverse-causing tensile connection between said element and said yarn guiding means, and means comprising a mechanism suspended between the terminals of said connection and a coöperating mechanism apart from said connection and controlled by said builder element to cause the formation of a yarn bunch.

38. In a traverse motion for winding yarn on yarn receivers, a yarn receiver support, yarn guiding means, means to cause a relative to and fro movement between the yarn guiding means and said receiver, said movement comprising a number of preliminary bunch forming strokes of progressively increasing amplitude or length and a succeeding number of body-forming strokes and means to retard said movement during a part of each of said preliminary strokes.

[Claims 2 to 10, 12, 14 to 37, and 39 not printed in the Gazette.]

1,255,086. WRAPPER FOR AUTOMOBILE-TIRES, &c. ALFRED E. DUBEY, Brooklyn, N. Y., assignor to Domestic Mills Paper Company, New York, N. Y., a Corporation of New York. Filed Dec. 10, 1915. Serial No. 66,070. (Cl. 150—54.)



1. A temporary wrapper consisting of a strip of non-self-sustaining material having a shoulder formed along each edge, the shoulders being upon opposite faces of the strip, said shoulders having inner sides adapted to overlap and abut one another when the strip is wrapped about the body to be covered.

3. A wrapper comprising a strip of non-self-sustaining material having shoulders formed on its opposite edges, each shoulder being formed by bending over the material of the strip a plurality of times, the shoulders being formed on opposite faces of the strip.

7. In combination, a body to be covered and a temporary covering therefor comprising a strip of non-self-sustaining material wound in overlapping turns thereabout, protuberances being provided on opposite sides of said strip, the protuberances of each turn overlapping and abutting the similar edges of the adjacent turns.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,255,087. AUTOMATIC OILER. WILLIAM A. FREDERICK, Boston, Mass., assignor to The Motor Car Equipment Company, New York, N. Y., a Corporation of New York. Filed June 26, 1917. Serial No. 177,119. (Cl. 184—69.)



1. An automatic oiler adapted for use on mechanisms having a back-and-forth movement, said oiler having a reservoir provided with an outflow duct leading from an upper portion thereof whereby oil can not escape through said duct under normal stationary conditions, a capillary device to elevate small quantities of oil above the level of that in the reservoir, and a vibrator having motion imparted thereto solely by the said back-and-forth movement of said mechanism and mounted to move between a position of contact with said capillary device and a position to deliver oil to said duct.

2. An automatic oiler having a reservoir provided with an outflow duct leading from an upper portion thereof whereby oil can not escape through said duct under normal stationary conditions, a capillary device surrounding said duct and extending above it, and a vibrator free to move back-and-forth above the end of said tube by a jarring or slight movement of the reservoir and intermittently contact with said capillary device, the oil adhering to said vibrator after each contact being free to flow from said vibrator down said tube by gravity.

3. An automatic oiler having a reservoir provided with an outflow duct leading from an upper portion thereof whereby oil can not escape through said duct under normal stationary conditions, a tube having a lining of absorbent material surrounding said duct and extending above it, and a vibrator mounted to move between a position of contact with said lining and a position to deliver oil to said duct.

[Claims 4 to 16 not printed in the Gazette.]

1,255,088. AUTOMATIC OILER. WILLIAM A. FREDERICK, Boston, Mass., assignor to The Motor Car Equipment Company, New York, N. Y., a Corporation of New York. Continuation of application Serial No. 126,415, filed Oct. 16, 1916. This application filed Sept. 25, 1917. Serial No. 193,094. (Cl. 184—69.)

1. An automatic oiler having a reservoir provided with an outflow duct, a wick in said duct, a guide adjacent the inner end of the duct, a wick having its upper end adjacent the other end of the guide, and a roller on said guide and free to be vibrated back and forth between the said wicks.

2. An automatic oiler comprising a reservoir having a horizontal guide in its upper portion, a wick leading from the reservoir to one end of the guide, an outflow wick leading from the other end of the guide, and a roller free to vibrate on the guide between the wicks.



3. An automatic oiler having a reservoir provided with an outflow duct leading from its upper portion whereby oil in the lower portion of the reservoir cannot escape through said duct under normal stationary conditions, a wick for transmitting oil through said duct by capillary attraction, said wick being above the normal level of oil in the reservoir, a vibrator free to be moved by the jarring resulting from the operation of the machine carrying the oiler, means for supporting the vibrator above said normal level of oil, and means for supplying limited quantities of oil to said vibrator for transmission by the vibrator to the wick.

[Claims 4 to 8 not printed in the Gazette.]

1,255,089. TREE SURGERY. GEORGE K. FREEMAN, Santa Barbara, Cal. Filed Oct. 16, 1916. Serial No. 126,016. (Cl. 47—36.)



1. The method of tree surgery, which consists in removing the decayed matter from the tree, forming a cavity therein, tracing the bark back from the mouth of the cavity, thereby leaving the wood exposed around the mouth of the cavity, partially filling said cavity with a plastic asphaltum mixture, securing a wire mesh within the mouth of the cavity, placing a wall of plastic cementitious material over said filler and about the wire mesh within the mouth of the cavity, covering said wall with an artificial bark, and painting said exposed wood about said cavity with a resinous mixture.

2. The method of tree surgery, which consists in removing the decayed matter from a tree, forming a cavity therein, filling said cavity to within a short distance of the opening with a plastic material, securing a sheet of wire mesh within the mouth of said cavity, spacing said wire mesh away from the face of the filler, filling the space between the face of the filler and the mouth of the opening with a cementitious mixture, embedding the wire mesh therein, and coating the cementitous mixture with an artificial bark.

1,255,090. VALVE. ROBERT A. GALLY, Cincinnati, Ohio, assignor to The Baldwin Company, Cincinnati, Ohio. Filed Aug. 14, 1917. Serial No. 186,224. (Cl. 137—4.)

1. A port and a circular seat surrounding the port; a rod extended through the said port and seat in the axis thereof; a valve disk of greater diameter than the diameter of the said seat and which disk is centered on the said rod, and a flexible sheet-like facing over one entire face of the said valve disk, and which face is toward the said port, and which said facing is attached to the said disk adjacent the edge of said disk, but free from attachment to the major part of the said one face of the said disk; and a follower on the said rod and contacting the said facing of the disk which is faced toward the said port, the said follower being of less diameter than the said port but of a sufficient diameter to prevent bagging of said flexible facing.



4. A port and a circular seat surrounding the port; a rod extended through the said port and seat and in the axis thereof; a valve disk of greater diameter than the diameter of the said seat and which disk is centered on the said rod, and a flexible sheet-like facing over one entire face of the said valve disk, and which face is toward the said port, and which said facing is attached to the said disk adjacent the edge of said disk, but free from attachment to major part of the said one face of the said disk; and a follower on the said rod and contacting the said facing of the disk which is faced toward the said port, the said follower being of less diameter than the said port but of a sufficient diameter to prevent bagging of said flexible facing, the face of the said follower toward the said facing being slightly convex.

7. A valve disk; a flexible facing over one face of the said disk; a circular valve seat less in diameter than the said disk and normally contacting the said facing, the said facing being free from attachment to the said face opposite to the said seat but attached to the said disk at a part beyond that opposite to the circumference of the said seat; a valve rod extended loosely through the center of the said disk and extending through the said facing and in snug engagement therewith; a circular follower on the said rod and contacting the said facing and adapted to prevent an undesirable amount of yielding of the said facing away from the said disk.

12. A valve disk; a flexible facing on each face of the said disk and extended from the center of the said disk outwardly of the said disk without attachment to the said disk at the center or for some distance therefrom, but each said facing attached to the said disk at a distance from the said center and completely around on a circular line of the said disk, each said circular line being substantially concentric with the said center of the said disk; and a rod extended loosely through the center of the said disk and snugly through both the said facings, one of the said facings being of greater diameter than the other said facing; and a circular valve seat less in diameter than the unattached part of the said facing of the greater diameter and normally contacting the said unattached part of the said facing of the greater diameter.

[Claims 2, 3, 5, 6, 8 to 11, and 13 to 16 not printed in the Gazette.]

1,255,091. QUICK-DETACHABLE DUST-CAP. LESTER L. GARIBALDI, Oakland, Cal. Filed Mar. 15, 1916. Serial No. 84,350. (Cl. 152—12.)



1. In combination with a pneumatic tire and its valve, a valve stem and a screw-threaded fastening nut therefor, a dust cap for said stem fitting loosely thereon, spring actuated locking connections between said cap and nut, said locking connections comprising a shell formed on the exterior of said nut, a flanged and recessed plate on said shell, wings on the cap to enter said recesses, a collar beneath said recessed plate, a spring for pressing said collar into engagement with said plate, lugs on said collar normally seated beneath the flanges of said plate, whereby the wings on the cap may be inserted through the recesses to lie between the lugs on the collar, and the cap thereupon turned to present its wings beneath the flanges on said plate, whereupon the lugs on said collar will be moved into register with the recesses and said collar pressed outwardly by the spring to thereby lock itself and the dust cap against further rotation.

4. In combination with a pneumatic tire and its valve, a valve stem and a screw-threaded fastening nut therefor, a dust cap for said stem fitting loosely thereon, and spring actuated locking connections between said cap and nut, said locking connections comprising a recessed plate on said nut, wings on the cap to enter said recesses, and a collar, spring-pressed against said plate and having locking lugs to enter said recesses, when the cap is turned to move the wings out of register with the recesses.

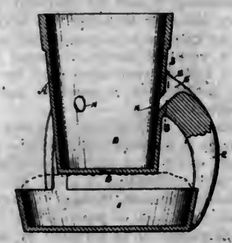
[Claims 2 and 3 not printed in the Gazette.]

1,255,092. HORSESHOE. ROBERT CYRIL HAMILTON, Sangudo, Alberta, Canada. Filed Mar. 27, 1917. Serial No. 157,689. (Cl. 168—36.)



A hore shoe having two openings in its bottom one behind the other, one of the openings being curved upwardly and away from the other opening, a calk having two upwardly extending projections one of the projections being straight and the other being curved away from the straight projection, the projections being of the same size as the openings in the horse shoe so that the curved projection may be introduced into the curved opening in the horse shoe and the calk may be turned to move the straight projection into the other opening, the curved projection fitting the curved opening snugly and the straight projection fitting the other opening snugly when the calk is moved into normal position, and means to secure one of the projections to the horse shoe.

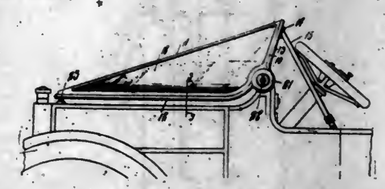
1,255,093. FLOWER-POT. SIM REEVES HARPER, Bryan, Ohio. Filed Sept. 22, 1917. Serial No. 192,811. (Cl. 47—19.)



1. An article of the class described adapted to be employed as a flower pot or jardinière and including a flower pot, a saucer beneath the same, and handle members rigidly uniting the pot; the said pot having an inlet orifice in a side thereof between the top and bottom, one of the said handle members having an opening in register with and leading to the said inlet orifice.

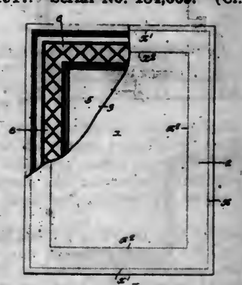
2. A flower pot having an inlet in a side thereof between the top and bottom for supplying a liquid to the pot, and a handle member on the pot at a side thereof, the said handle member at its juncture with the pot having an opening in register with the said inlet orifice and presenting side guard flanges constituting the said opening a funnel.

1,255,094. WIND-SHIELD. SETH M. HINO, Lander, Wyo. Filed Aug. 29, 1916. Serial No. 117,519. (Cl. 21—148.)



The combination with an automobile body including side walls having bearings extending therefrom of a shield comprising a frame including side bars extending in diverging relation, an intermediate bar extending from the connected forward ends of the side bars at upward incline toward its rear end, rear bars connecting the side bars with the intermediate bar, side plates carried by said bars, a bottom plate fitting into seats formed in the side bars, bearings extending from the rear bars to engage the bearings of the automobile body, and means for releasably holding the bearings in tight engagement to hold the shield in an adjusted position.

1,255,095. FLOOR-COVERING. RALPH G. JACKSON, Chester, Pa., assignor to The Congoleum Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Aug. 6, 1917. Serial No. 184,669. (Cl. 154—49.)



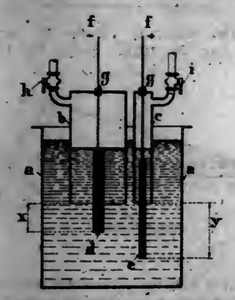
1. A floor covering having a felt base and a painted wearing surface; and a series of reinforcing stitches extending through the base for preventing tearing of the felt, the painted wearing surface covering the stitches on the surface of the material.

2. A floor covering having a saturated felt base and having a painted wearing surface; and a series of reinforcing stitches formed near the edge of the base so as to prevent tearing of the same, the openings in the felt formed by the stitches being closed by the saturating material, the painted wearing surface concealing the stitches.

1,255,096. ELECTROLYTIC APPARATUS. GEORGES FRANÇOIS JAUBERT, Paris, France. Filed July 26, 1917. Serial No. 183,020. (Cl. 204—5.)

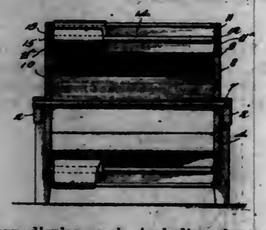
1. An electrolytic apparatus comprising a receptacle containing an electrolyte, a relatively large gas bell having its lower end disposed in the electrolyte, a relatively small gas bell also having its lower end disposed in the electrolyte, said gas bells being spaced apart, an electrode covered by each of said gas bells, the areas of the electrodes which are exposed to the action of the electrolyte being inversely proportional to the quantity of gas liberated in their respective bells.

2. An electrolytic apparatus comprising a receptacle containing an electrolyte, a relatively large gas bell having its lower end disposed in the electrolyte, a relatively small gas bell also having its lower end disposed in the



electrolyte, each of said gas bells having an electrode, the active surface of the electrodes being inversely proportional to the quantity of gas liberated in their respective bells, and the volume of the corresponding bells being proportional to the volume of gas set free.

1,255,097. DISPLAY-RACK. BERT J. KOEHLER, Brenham, Tex. Filed Mar. 23, 1916. Serial No. 86,200. (Cl. 211—18.)



1. A rotary display rack, including drum heads with recesses, dispensing receptacles supported between said drum heads in the recesses, means arranged in said receptacles for rotatably supporting the material to be dispensed, and means for holding the drum in an adjusted position.

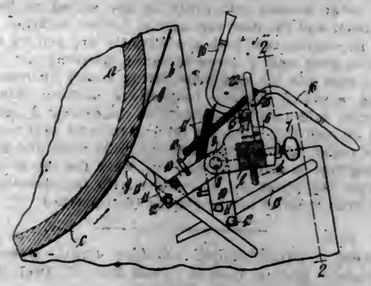
3. A rotary display rack including a drum having heads with recesses on the inside surfaces, one of the recesses having an aperture communicating therewith, a receptacle supported between the heads of the drum in each of the opposing pairs of recesses, and a drum shaft journaled in the receptacle with one end extending into the aperture, said end being square to receive a crank.

4. A rotary display rack including a drum, the drum including heads having recesses, receptacles supported between the heads in the recesses, hinged covers for the receptacles, said covers having slots, shafts rotatably supported in the receptacles one end of each of the shafts being squared, said shafts being arranged to support a roll of goods, one end thereof being adapted to extend through the slot in the cover, a support including a table for the drum, and a guide strip on the table extending into proximity with the drum for receiving the goods as it is unrolled from the shaft.

5. A rotary display rack including a drum having heads, a supporting shaft passing through the heads, a supporting frame for receiving the shaft and forming a bearing therefor, a hinged table having a graduated edge mounted on the frame, a spring latch adapted to engage one of the drum heads for holding the drum from rotation, means for holding the spring latch out of operative engagement with the drum head, receptacles between the drum heads, said receptacles having hinged and slotted covers, goods supporting shafts in the receptacles being adapted to hold a roll of goods, the end of which being adapted to project through the slot, and a deflector upon the frame for guiding the goods from a receptacle onto the table into registration with the graduations.

[Claim 2 not printed in the Gazette.]

1,255,098. STRIP-CUTTING APPARATUS. GEORGE H. LEWIS, Chicopee Falls, Mass., assignor to The Fisk Rubber Company, Chicopee Falls, Mass., a Corporation of Massachusetts. Filed Feb. 27, 1917. Serial No. 151,359. (Cl. 164—38.)



1. A cutting device for slitting a web of material, comprising in combination, a roll for feeding the web, a knife normally held by gravity away from the roll, normally contracted elastic means connected to said knife, means for elongating the elastic means and thereby yieldingly forcing the knife against said roll, and devices to hold the elastic means in elongated position.

4. The combination with a calender roll, of a bar mounted adjacent thereto, a plurality of cutting devices thereon, each comprising a member axially slidable on the bar, means to clamp the member to the bar, a knife pivotally supported on the member and arranged to be held by gravity away from the roll, a lever pivoted to the member, elastic means connecting the lever and knife, said elastic means being normally contracted, said lever arranged when swung on its pivot to draw the knife into engagement with the roll through said elastic connecting means and when swung to a further position to elongate said elastic means, and releasable devices to hold the lever in said last-named position.

7. A cutting device comprising in combination, a knife, a carrier therefor, resilient means connected to the carrier at one end, and means to move the other end of said means to a predetermined position to bring the carrier and hold the knife against the work to be cut with a constant predetermined pressure.

8. In combination, a roll for material to be cut into strips, a knife mounted adjacent the roll, means operable to move the knife to a predetermined position against the roll and a resilient device arranged to be stressed by said means and to thereafter hold the knife in said predetermined position by a constant and yielding predetermined force.

9. In combination with a roll on which material may be cut into strips, a support adjacent and parallel to the axis of the roll, a series of adjustable cutting devices on the support, each comprising a knife movable into predetermined position against the roll for cutting, operable means to move the knife to position for cutting including a spring arranged to be stressed by said means for the purpose of yieldingly holding the knife in the predetermined position by a constant predetermined force.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

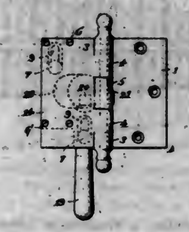
1,255,099. METHOD AND APPARATUS FOR MOLDING RUBBER GOODS. GEORGE H. LEWIS, Chicopee Falls, Mass., assignor to The Fisk Rubber Company, Chicopee Falls, Mass., a Corporation of Massachusetts. Filed Aug. 24, 1917. Serial No. 187,951. (Cl. 18—5.)

2. A method of molding rubber goods, which consists in applying a layer of uncured rubber to the periphery or face of a drum covered with shallow molds which are slightly less in depth than the thickness of said layer, in applying pressure windings of fabric, wire and the like against the rubber layer to force it into the molds and thereby heavily score the under face of the layer, in vulcanizing the uncured rubber while so held to the drum, and in dividing the cured sheet of rubber along the scored lines.

7. Apparatus for molding rubber goods, comprising, a drum, wedge-shaped dividing walls on the peripheral face of the drum to form shallow molds, and means to hold the drum for rotation, whereby a sheet of rubber may be laid over the face of the drum and pressure windings may be applied over said sheet to force it into the shallow molds, said drum being constructed to enter a vulcanizing apparatus together with the rubber and pressure windings thereon.

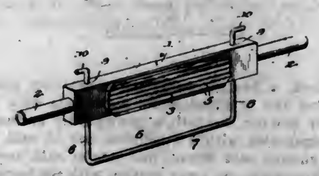
[Claims 1, 3 to 6, 8, and 9 not printed in the Gazette.]

1,255,100. HINGE. ULYSSES G. MCQUEEN, New York, N. Y. Filed Jan. 3, 1916. Serial No. 70,074. (Cl. 16—106.)



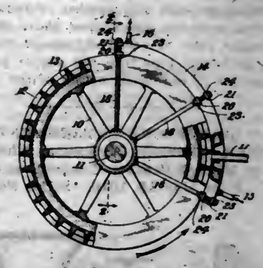
A combined hinge and casement lift, comprising, two leaves mounted for horizontal movements relatively, one of said leaves being adapted to be secured to the frame, an attaching plate slidable over the other leaf, the other leaf having vertical under cut slots therein, studs between the attaching plate and said other leaf and having portions freely slidable in said slots, a face plate secured to the opposite side of said other leaf and closing against said slots, the said face plate abutting the first leaf when the hinge is closed, and lifting mechanism carried by the attaching plate and co-acting with said other leaf to permit the casement to be raised and lowered therefrom.

1,255,101. HAND-RUBBER. HENRY MARSHALL, New York, N. Y., assignor of one-half to Edmund V. Grimes, New York, N. Y. Filed July 10, 1917. Serial No. 179,743. (Cl. 68—8.)



A hand rubber comprising a head having a rubbing surface, hand grips at the ends of the head, and a clothes clamp carried by the head and comprising a bar parallel with one side of the head and side branches having parallel side arms freely sliding through the head and provided with angular extensions adapted to co-act with the head to limit the sliding movement of the clamp relatively to the head, and an elastic tubing fitting all portions of the bar and serving to induce friction between the side branches and said head to assist in holding the clamp in a relatively fixed position when engaged with the clothes.

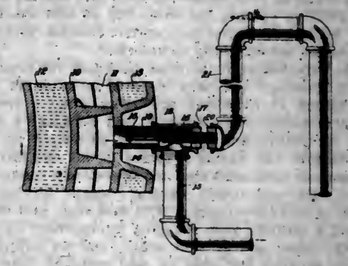
1,255,102. MACHINE FOR CASTING LEAD PIGS. JOHN F. MILLER, Trail, British Columbia, Canada. Filed Sept. 26, 1916. Serial No. 122,186. (Cl. 22—61.)



1. In a machine for casting lead pigs, the combination with a shaft and a mold wheel thereon having a series of open molds on its periphery, of an outer stationary arc-shaped water-jacket closely fitting the periphery of the wheel to close the molds as they pass, collars, on opposite sides of the mold wheel in which the said shaft rotates, and means connecting the said water-jacket to the collars to hold the former in close contact with the periphery of the mold-wheel.

2. In a machine for casting lead pigs, the combination with a shaft and a mold-wheel thereon having a plurality of outwardly open molds, of an outer stationary arc-shaped water-jacket fitting the periphery of the wheel to close the molds as they pass, a pair of non-rotating collars closely encircling the shaft on opposite sides of the mold-wheel, and radius-rods connecting the said water-jacket to said collars to maintain the jacket in close contact with the wheel.

1,255,103. LEAD-SUPPLY SYSTEM FOR PIG-CASTING MACHINES. JOHN F. MILLER, Trail, British Columbia, Canada. Filed Sept. 26, 1916. Serial No. 122,187. (Cl. 22—70.)

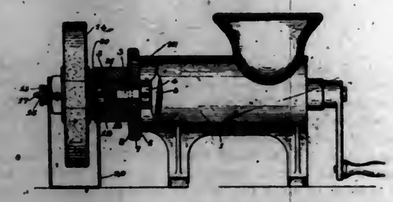


1. In a machine for casting lead pigs, the combination with a mold wheel provided with open molds on its periphery, of an outer arc-shaped member fitting the periphery to close the molds as they pass, a supply pipe extending through said member to deliver molten lead to the molds, and a return pipe connected with the supply pipe to carry off the excess metal, the return pipe being arched above the supply pipe outlet to maintain a column of lead of substantially constant height above said outlet.

2. In a machine for casting lead pigs, the combination with a revolving mold wheel having a plurality of open molds on its periphery, of an arc-shaped member fitting said periphery to close the molds as they pass, a supply pipe extending through said member to deliver molten lead to the molds, an intake tube of relatively small diameter inside the supply pipe, arranged with its inlet orifice adjacent to the outlet orifice of the supply pipe, to receive excess metal, and a return pipe connected to the other end of the intake tube for carrying off the excess metal.

3. In a machine for casting lead pigs, the combination with the revolving mold wheel having a plurality of open molds on its periphery, of an arc-shaped member fitting said periphery to close the molds as they pass, a supply pipe extending through said member to deliver molten lead to the molds, a return pipe arched above the supply pipe, and an intake tube of relatively small diameter extending from the return pipe into the supply pipe and terminating adjacent to the outlet orifice of the latter.

1,255,104. GRINDSTONE ATTACHMENT FOR MEAT-CHOPPERS. ARTHUR MITCHELL, Chicago, Ill., assignor to Mitchell-Bennett Company, a Corporation of Illinois. Filed May 15, 1916. Serial No. 97,713. (Cl. 51—7.)



1. In an attachment of the class described, the combination of a housing; a rotary element mounted in said housing; a rotary grind stone detachably connected with said housing; an operative connection between said grind stone and one end of said rotary element; and resilient means for normally holding said grind stone in operative relation with said rotary element, substantially as described.

3. In an attachment of the class described, the combination of a housing; a rotary element mounted in said housing; a bearing member detachably connected with said housing; a shaft mounted for rotary and longitudinal movement in said bearing member and adapted for operative engagement with said rotary element; and an elongated resilient yoke connected with said bearing member and pressing against the outer end of said shaft for normally holding the latter in operative relation with said rotary element, substantially as described.

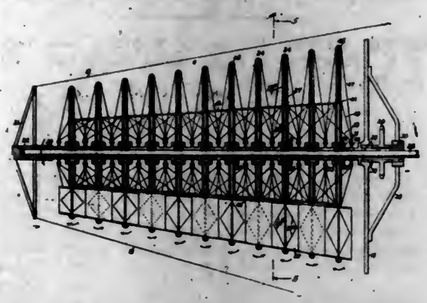
5. In an attachment of the class described, the combination of a housing; a rotary element mounted in said housing having an exteriorly projecting stud; a bearing member detachably connected with said housing; a shaft mounted for rotary and longitudinal movement in said bearing member and having a socket in one end adapted for engagement with said stud for operatively connecting said stud with said rotary element; means for holding said shaft in operative relation with said stud, said means comprising a resilient yoke engaging intermediate its ends against the outer end of said shaft; and an adjustable connection between the ends of said resilient yoke and said bearing member, substantially as described.

9. In an attachment of the class described, the combination of a housing; a rotary element mounted in said housing having an exteriorly projecting stud; a bearing member detachably connected with said housing; a shaft mounted for rotary and longitudinal movement in said bearing member and having a socket in one end adapted for engagement with said stud for operatively connecting said shaft with said rotary element; means for holding said shaft in operative relation with said stud, said means comprising a cross piece on said bearing member; a resilient yoke engaging intermediate its ends against the outer end of said shaft; a pin on the outer end of said shaft engaging an opening in said yoke; and means connecting said cross piece and yoke whereby the latter may be flexed to exert a pressure against said shaft, substantially as described.

10. In an attachment of the class described, the combination of a housing open at one end and having a seat constituted therein; a rotary element mounted in said housing having a stud at the end thereof corresponding with the open end of said housing; a bearing member having one end snugly fitting said seat; an annular keeper mounted on said housing adapted for engagement with said end of said bearing member to lock the same to said housing; a pin and slot connection between said housing and said bearing member for locking the latter against relative rotary movement; and a shaft rotatably mounted in said bearing member for locking the latter against relative rotary movement; and a shaft rotatably mounted in said bearing member and operatively engaging with said stud, substantially as described.

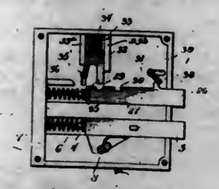
[Claims 2, 4, and 6 to 8 not printed in the Gazette.]

1,255,105. FLYING-MACHINE. MICHAEL F. MORRISSEY, Muskegon, Mich. Filed May 15, 1917. Serial No. 168,641. (Cl. 170—154.)



In a flying machine, a transverse normally fixed shaft, a series of individual paddle wheels mounted to turn in unison on said shaft, drive means for said paddle wheels, fixtures on the ends of said shaft, coacting feathering means on the paddle wheels and on said shaft, means to turn the shaft relatively to the said fixtures and to the said paddle wheels, and guys exerting end thrust between the said fixtures and the said shaft, independently of the paddle wheels.

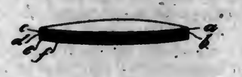
1,255,106. DOOR-LOCK. ANDREI OLTEAN, Mohawk, Mich. Filed Feb. 24, 1915. Serial No. 10,294. (Cl. 70—76.)



In a lock, a casing, a spring-pressed bolt slidable in said casing and provided in its upper side with notches, means for moving the bolt, a downwardly spring-pressed detent engageable within a selected one of said notches, ribs for guiding said detent, one side of said detent having a right-angular cut-away portion with the vertex of the angle rounded, and a key having its bit engageable within the cut-away portion of said detent whereby said detent may be retracted, one of said ribs serving as a stop for the bit of said key when said detent is in its retracted position.

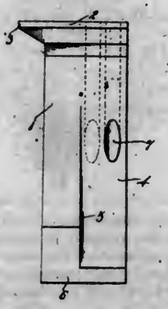
1,255,107. SHOE-SOLE. THOMAS CROMPTON REDFERN, Hyde, England. Filed June 16, 1916. Serial No. 104,005. (Cl. 154—46.)

As an article of manufacture, a shoe sole consisting of a number of layers of fibrous material disposed with the fibers in one layer lying substantially transversely to the fibers in another, and a layer of canvas inserted between



the upper layer of fibrous material and the next layer, the whole being vulcanized together under pressure.

1,255,108. SPIKE. WILLARD C. ROBERTS, Lindenwood, Ill. Filed Dec. 7, 1915. Serial No. 65,561. (Cl. 85—19.)

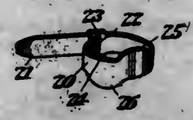


5. A spike comprising a body portion of a width equal to approximately twice its thickness and having a portion of its side walls tapered to provide a longitudinal shoulder at each side of the body, the portion of the body at one side of the shoulder simulating a conventional spike, the remaining portion of the body being of tapered formation, the said tapered portion being provided with diagonally extending openings, each opening having one terminal in one of the tapered sides of the said tapered portion and its opposite terminal in the head of the spike, the end of the body of the spike being tapered to provide a sharpened end edge, the said tapered sides of the tapered portion merging into the said tapered end, keys arranged in the said diagonal openings, the said keys having their ends slightly curved outwardly for permitting them to curve when forced through the said diagonal openings.

11. A spike comprising a body portion of relatively great width, one half of the body portion simulating a conventional spike and the other half being of wedge shape.

[Claims 1 to 4 and 6 to 10 not printed in the Gazette.]

1,255,109. MATRIX-BAND FOR DENTAL PURPOSES. WILLIAM W. RUSS, Lawrence, Kans. Filed May 19, 1917. Serial No. 169,716. (Cl. 32—17.)

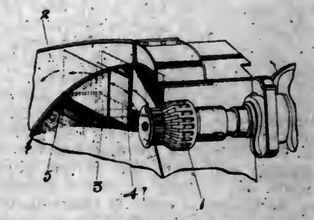


1. A matrix band comprising a strip of material having a slot extending transversely thereof near one end, and ears extending laterally from the edge of the band at points adjacent the slot.

2. A matrix band comprising a strip of material having a slot extending transversely thereof near one end, said band including ears extending laterally from the edges thereof at points adjacent the slot and portions offset laterally from opposite edges of the band at different distances from the ends thereof.

3. In a device of the class described, a band provided with a slot extending transversely near one end thereof, and with a plurality of ears extending from opposite edges of the band, portions of each of said ears being positioned on opposite sides of the slot, the free end of the band passing through the slot and the ears being forced into engaging position for contacting with oppositely located portions of the band, said ears extending transversely of the slot when engaged.

1,255,110. DUST-COLLECTING HOOD. ERNEST FREDERICK BARNETT, Leicester, England, assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed May 8, 1917. Serial No. 167,345. (Cl. 12—88.)



1. In a machine of the class described, a rotary tool for removing material from the work, and a collector for the removed material having an orifice adjustable around the tool.

2. In a machine of the class described, a rotary tool for removing material from the work, and a collector for the material removed having an orifice that portion of whose edge which is nearest the operating point of the tool in the direction of rotation is arranged to be adjusted around the periphery of the tool, whereby it may intercept a dust stream proceeding from a variable position on the tool.

4. In a machine of the class described, a rotary tool for removing material from the work, and a collector having an orifice for the admission of the material removed, the orifice carrying portion of the collector being constructed and arranged for adjustment in two directions perpendicular to the axis of the rotating tool.

5. In a machine of the class described, a rotary tool for removing material from the work, and a collector having an orifice for the admission of the material removed, the orifice carrying portion of the collector being constructed and arranged for rotary and sliding adjustment relative to the point of operation of the tool.

[Claims 3 and 6 not printed in the Gazette.]

1,255,111. SPRINKLER-HEAD. HERBERT H. BUFFUM, Laconia, N. H., assignor to Estey Watch Tool Company, Laconia, N. H., a Corporation of New Hampshire. Filed May 10, 1917. Serial No. 167,808. (Cl. 169—5.)



1. In a sprinkler head having a valve and frame, retaining means for the valve comprising levers having arms engaging valve and frame which coöperatively form a toggle and also having relatively divergent retaining arms and a bond between said latter arms comprising an inner plate connected to one arm, an outer locking plate secured to said first mentioned plate by fusible solder and having a hook-like extension which has a bill extended substantially at right angles entering and terminally supported by said first plate and another plate connected

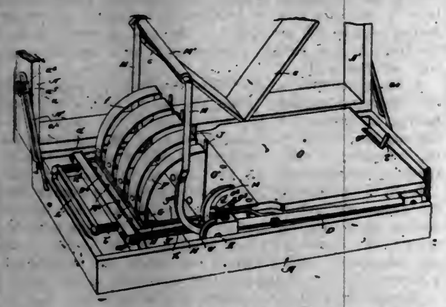
to the other arm having a crossbar engaging and suspended by said extension, said first mentioned plate engaging said last mentioned plate at the inner side thereof and supporting the same throughout the major portion of its length.

2. In a sprinkler head having a valve and frame, retaining means for the valve comprising levers having arms engaging valve and frame which coöperatively form a toggle and also having relatively divergent retaining arms, an outer link connected to one retaining arm comprising two substantially coplanar plates having a hook and eye connection and an inner plate connected to the other arm lapping on and secured by means of fusible solder to both outer plates of the link throughout substantially equal lengths, said inner plate having a transverse portion engaging the hook which hook terminates substantially flush with the inner surface of the plate.

3. A device of the class described comprising, in combination, a plate, a second plate lapping on the first, the two plates having registering apertures, a locking plate having a flat body portion applied to said first mentioned plate and lying substantially in the plane of the second plate and also having an offset hook portion entering through said registering apertures and fusible solder securing together said parts, said several plates being of equal width and forming a compact assembly comprising two thicknesses of metal of substantially equivalent form and having comparatively smooth surfaces.

[Claims 4 and 5 not printed in the Gazette.]

1,255,112. LOOSE-LEAF-BINDING MACHINE. HENRY M. CRIPPEN, Athens, Ohio, assignor of two-thirds to Field Scott and Harley H. Hanning, Athens, Ohio. Filed July 13, 1917. Serial No. 180,248. (Cl. 129—7.)



1. In a loose leaf binding machine, the combination with a plurality of receiving pins, of a bodily movable plurality of punches movable in one direction to punch the leaves and then movable in another direction to carry the punched leaves or sheets over the said pins, whereby the leaves or sheets may be moved from the punches to the pins.

2. In a loose leaf binding machine, the combination with a plurality of receiving pins, of a bodily movable plurality of punches, and a normally retracted follower or stripper carried thereby; said punches being movable from the punching position over the pins to bring the punches into alinement therewith to permit the follower or stripper to deposit the punched leaves or sheets upon the pins.

3. In a loose leaf binding machine, the combination with a plurality of receiving pins, of a plurality of punches adapted to be moved into alinement with the pins to permit the punched leaves or sheets to be transferred to the pins, and a sheet guide leading to the pins to hold the leaves or sheets in position.

11. In a loose leaf binding machine, the combination with receiving pins for the punched sheets and means on which the pins are mounted at one end, of a movable carrier extending to the fixed ends of the pins to lie under the impaled sheets, and an adjustable clamping mechanism on that end of the carrier next to said pins to clamp the pile of sheets thereupon; said carrier adapted to be swung up with the clamped pile of sheets into position for securing or sewing same.

19. In a loose leaf binding machine, a three-part casing or box; the middle section being open at its top and bottom and hinged to the rear edge of the lower section, a sheet receiving and evening box held in the said open section and having its sides converging downwardly and inwardly when said section is raised, in combination with a sheet punching mechanism mounted in the lower or base section.

[Claims 4 to 10, 12 to 18, 20, and 21 not printed in the Gazette.]

1,255,113. GREASE-CUP. ARZENO J. DILLEY, Muir, Mich., assignor of one-half to Fred W. Green, Ionia, Mich. Filed Apr. 9, 1917. Serial No. 160,688. (Cl. 184—38.)



1. A grease cup comprising a body portion having a discharge orifice and adapted to contain a grease capsule, a cap removably secured to the body portion, a plunger, a screw for actuating the plunger to collapse a capsule, and a finger carried by the cap for picking up a collapsed capsule.

4. A grease cup comprising a body portion having a discharge orifice and adapted to contain a capsule, a cap removably secured to the body portion, a screw positioned within the cap and having a shank extending through the cap, a handle mounted on the shank outside the cap, a plunger having a threaded engagement with the screw, said plunger having a plurality of recesses formed in the periphery thereof, fingers mounted on the cap and positioned in said recesses respectively, and hooks on the fingers adapted to engage a capsule.

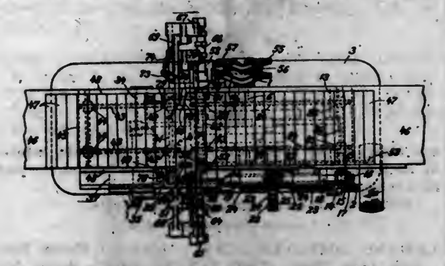
6. The combination with a capsule having one end open and its opposite end closed except for a central perforation, of a grease cup comprising a body portion having a small discharge opening and a transverse wall about the opening arranged to furnish a perpendicular abutment for the full open end of the capsule, a cap removably secured to the body portion, a longitudinally stationary screw rotatably mounted on the cap and adapted to extend through the central perforation in the closed end of said capsule, a plunger having a threaded engagement with said screw for collapsing the capsule, and fingers mounted on the cap and provided with hooks adapted to engage the open end of the capsule to hold the capsule relatively to the plunger and withdraw it from the body portion.

[Claims 2, 3, 5, and 7 not printed in the Gazette.]

1,255,114. MACHINE FOR DRILLING BOOKS. GEORGE B. DRACH, Jersey City, N. J., assignor to Jersey City Printing Company, Jersey City, N. J., a Corporation of New Jersey. Original application filed Jan. 16, 1917, Serial No. 142,627. Divided and this application filed May 4, 1917. Serial No. 166,336. (Cl. 144—93.)

2. In a drilling machine, an endless book conveyer and means for intermittently stopping the same for predetermined intervals, a drill mounted adjacent thereto, means for advancing and retracting said drill during the periods of rest of said conveyer, means for feeding a stack of edgewise disposed books or the like from the path of said conveyer into the path of said drill, said means being operative during such periods of rest, and means for returning said stack to said conveyer, whereby a plurality of books are pierced at each advance of the drill.

3. In a drilling machine, an endless book conveyer and means for intermittently stopping same for predetermined intervals, a drill mounted adjacent thereto, means for advancing and retracting said drill during the periods of rest of said conveyer, means for feeding a stack of books or the like from the path of said conveyer into the path of said drill, said means being operative during such periods of rest, guides for positioning said books in the path of said drill, and means for returning to the path of the conveyer one less than the number of books first fed into the path of the drill, so that the last book of each stack becomes the first of the succeeding stack.



6. In a drilling machine, an endless book conveyer and means for intermittently stopping same for predetermined intervals, a drill mounted adjacent thereto, means for advancing and retracting said drill during the periods of rest of said conveyer, means for feeding books or the like transversely from the path of said conveyer into the path of said drill, said means being operative during such periods of rest, guides for positioning said books in the path of said drill, means for returning said books into alinement with said conveyer, a second conveyer in the plane of the first adapted to receive the drilled books, and means for timing the periods of motion of said second conveyer in correspondence with those of the first conveyer.

13. In a book drilling machine, a horizontal conveyer adapted to convey a plurality of edgewise disposed book stacks, and guides therefor, said conveyer being interrupted intermediate its length, one of said guides being offset at the point opposite said interruption, means for intermittently progressing said stacks between said guides in timed relation to the action of a plunger adapted to displace one of said stacks into the offset portion of said guide, means adapted to drill all the books of said displaced stack save the last, and partially to drill the last, means for returning all the books of said displaced stack except the partially drilled book to said conveyer and into register with the other stacks, and means for advancing the stacks across the interrupted portion of said conveyer, said means comprising in part the books themselves, whereby a single book is advanced the length of the offset portion of said guide.

[Claims 1, 4, 5, and 7 to 12 not printed in the Gazette.]

1,255,115. TIRE FOR WHEELS. JAMES C. EAKENS, Golden, N. Mex. Filed Dec. 9, 1914. Serial No. 876,385. (Cl. 152—8.)



1. The described device consisting of a pair of channel members, bearing members on the inner of said channel members, levers pivoted to said bearing members and springs connecting said levers, said springs being arcuate and having loose bearing against said outer member, springs having returned ends intermediate of said first springs, the last springs mounted on said levers and bearing against said outer member, other bearing members alternating with said bearing members, links pivoted thereto, long links pivoted to said links and short links pivotally connecting said long links and levers, and spring connecting the short links on one side of said lever to the short links on the other side of said lever.

7. A tire comprising a rim member, an encircling outer member, a plurality of bowed springs for supporting the outer member, and a lever for each spring rockably carried by the rim member and having the opposite ends of the respective spring secured thereto.

11. A tire comprising a rim member, an encircling outer member, a plurality of bowed springs for supporting the outer member, a lever for each spring rockably carried by the rim member and having the opposite ends of the respective spring secured thereto, outer member supporting springs joining the opposing ends of adjacent levers, a plurality of bearing members alternately arranged with the levers, and a link connecting each end of the levers to the adjacent bearing member.

[Claims 2 to 6, 8 to 10, and 12 to 22 not printed in the Gazette.]

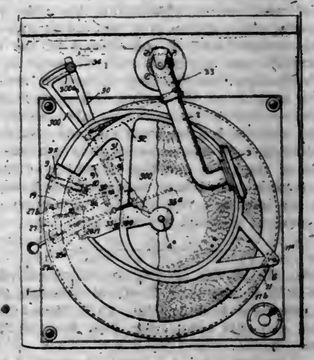
1,255,116. METHOD OF RENDERING CONCRETE RESISTANT TO MOISTURE. ABRAHAM E. HORN, New York, N. Y. Filed Oct. 20, 1917. Serial No. 197,617. (Cl. 106—25.)

1. The process of waterproofing concrete which comprises adding thereto a solution comprising ammonium resinate.

14. The process of waterproofing concrete which comprises adding thereto an accelerator of the formation of colloidal bodies present in Portland cement, said accelerator containing a compound of rosin and ammonia.

[Claims 2 to 13 not printed in the Gazette.]

1,255,117. AUTOMATIC RECORD-REPEATING MEANS FOR PHONOGRAPHS AND THE LIKE. RICHARD JAMES PRETTIE, Jamaica, N. Y., assignor to The Aeolian Company, a Corporation of Connecticut. Filed July 31, 1915. Serial No. 42,950. (Cl. 274—15.)



1. In a phonograph repeat device, the combination, with a sound-box and a turn-table; of a conveyer rotatable about the same axis as the turn-table and adapted at the ending of the record to pick up the sound box and bring it back to the beginning of the record; means for normally holding said conveyer against rotation; means for automatically releasing said holding means when the sound-box reaches the end of the record; and driving means carried by said turn-table for movement relative to the same into position to engage said conveyer after the latter has been released from said holding means, there-

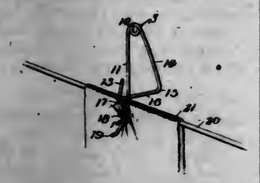
by to cause said conveyer to rotate in unison with said conveyer.

2. In a phonograph repeat device, the combination of an operatively supported sound-box, a normally stationary conveyer adapted at the ending of the record to rotate with it and to pick up the sound-box and convey it to the beginning of the record, a releasable stop normally holding the conveyer stationary as aforesaid, a dog on the turn-table movable into and out of driving engagement with the conveyer, and means automatically operated when the sound-box reaches the end of the record to move the dog into driving engagement with the conveyer and also to release the stop.

3. In a phonograph repeat device, the combination of an operatively supported sound-box, a normally stationary conveyer adapted at the ending of the record to rotate with it and to pick up the sound-box and convey it to the beginning of the record, a releasable stop normally holding the conveyer stationary as aforesaid, a dog on the turn-table movable into and out of driving engagement with the conveyer, said dog when in driving position acting also to release the stop, and means automatically operated from the position of the sound-box to move the dog into its conveyer-engaging position when the sound-box is at the end of the record, and to move the dog out of its conveyer-engaging position when the conveyer has reset the sound-box at the beginning of the record.

[Claims 4 to 9 not printed in the Gazette.]

1,255,118. WIRE CLOTHES-PIN. JAMES MCROBERTS, What Cheer, Iowa, assignor of one-third to A. W. McDonough, What Cheer, Iowa. Filed Oct. 17, 1916. Serial No. 126,167. (Cl. 24—139.)



A clothes pin of the class described formed of a single strand of wire coiled intermediate its ends to form a straight arm and a spring arm, said spring arm diverging from the straight arm, a loop formed on the lower end of the straight arm in a plane at right angles to the plane in which the arms are disposed, a laterally and inwardly extending portion on the spring arm projecting through the upper section of the said loop, the end of said portion being bent back upon itself and adapted to engage a clothes line to hold the same securely against the adjacent side of the loop, and the extremity of the line engaging portion extending outwardly and downwardly through the loop to a point below the bottom thereof to form a garment gripping portion.

1,255,119. ELECTRICAL BOND. EDWIN E. SLICK and CHARLES W. PARKHURST, Westmont borough, Pa. Original application filed Apr. 28, 1915, Serial No. 24,567. Divided and this application filed Nov. 18, 1915. Serial No. 62,085. (Cl. 178—278.)

1. In an electrical bond a terminal provided with a riveting plug, a back portion or head formed integral therewith, a sleeve projecting at an inclination from said back, a cable, the end of which is inserted in said sleeve, a portion of the end of said cable being fused and the strands integrally united and secured to fused portions of the inner surface of said sleeve, said cable and sleeve being composed of similar materials, whereby an integral union is provided between said sleeve and said cable.

3. An electrical bond, comprising a riveting plug having an integral head or back, an integral hollow sleeve projecting from said back, the interior edges of said sleeve being rounded, a cable, the end of which is inserted in said sleeve, a portion of the end of said cable being fused and the strands integrally united and secured to fused portions of the inner surface of said sleeve, said cable



and sleeve being composed of similar materials, whereby an integral union is provided between said sleeve and said cable.

[Claims 2 and 4 not printed in the Gazette.]

1,255,120. DISPLAY-CABINET. JOSEPH J. WETOR, Random Lake, Wis. Filed July 19, 1917. Serial No. 181,595. (Cl. 211—14.)

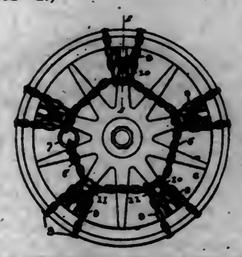


1. In a cabinet of the class described, a shelf comprising a plurality of spaced parallel bars, I-shaped strips, a flange depending from each edge of the base of said strips, said flanges straddling the parallel bars and secured thereto, and a slide disposed between each pair of strips, said slides being held between the heads and bases of the strips.

2. In a cabinet of the class described, a shelf comprising a plurality of spaced parallel bars, a plurality of spaced, parallel, I-shaped strips, each formed by bending an elongated plate longitudinally upon itself, bending the portion of the plate midway its longitudinal side edges and adjacent the line of its longitudinal bend to provide a head, the free ends of the plate being bent to provide spaced attaching flanges to straddle the parallel bars, and a slide disposed between each pair of strips, said slides being held between the heads and bases of said strips.

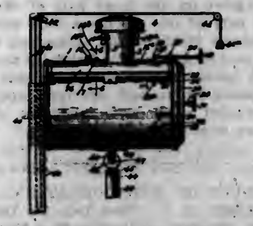
REISSUES.

14,427. ANTISKIDDING DEVICE FOR WHEEL-TIRES. ALBERT ELIAS CANFIELD, Kingston, Pa., assignor of three-fifths to George M. Pace, Kingston, Pa. Filed Nov. 14, 1917. Serial No. 202,092. Original No. 1,233,978, dated July 17, 1917. Serial No. 91,927, filed Apr. 18, 1916. (Cl. 152—2.)



The combination with a wheel including spokes and a felly having a tire thereon, of a retaining chain of less circumference than the wheel, and adapted to extend circumferentially of said wheel, and upon one side thereof, gripping chains having one of their ends secured to the retaining chain and arranged in pairs, the gripping chains of each pair adapted to extend upon each side of the spokes from one side of the wheel and about the tire to the other side of the wheel, hooks secured to the free ends of the gripping chains and to the retaining chain upon each side of the connection of the other ends of said gripping chains to the retaining chain, and means for adjustably securing the ends of the retaining chain together.

14,428. ADJUSTABLE FLOOD AND SPOT LIGHT. WILLIAM J. DAVIS, JR., and ALBERT P. NIEDLINGER, Chicago, Ill. Filed Nov. 29, 1915. Serial No. 64,198. Original No. 1,140,880, dated May 25, 1915, Serial No. 869,901, filed Nov. 2, 1914. (Cl. 240—3.)



1. In apparatus of the class described, a casing having an opening at one end, an adjustable reflector mounted in said casing and directed toward said opening, said opening being as large in size as said reflector, said casing having an aperture in a wall thereof, an incandescent lamp supported entirely in the aperture in said wall and projecting transversely to the axis of said reflector, and means operable from the outside of said casing for adjusting said lamp with respect to the walls of said aperture.

2. In apparatus of the class described, a casing open at one end, a support upon which said casing is adjustably mounted, a reflector mounted in said casing and directed toward the open end thereof, a chimney mounted on the top of said casing, an incandescent lamp located in said casing, means mounted in said chimney for supporting said lamp with its filament located on the focal axis of said reflector, said reflector being relatively flat and said lamp being entirely in front of said reflector, and means operable from the outside of said chimney for adjusting said lamp longitudinally of said focal axis.

3. In apparatus of the class described, a casing open at one end, a reflector mounted in said casing and directed toward said opening, said casing having an aperture in the upper side thereof, a chimney mounted over said aperture, supporting means mounted in said chimney, a lamp carried by said supporting means and carrying a part extending through said aperture with the light-emitting means thereof located on the focal axis of said reflector, and means operatively connected with said supporting means for sliding said supporting means parallel to said focal axis.

4. In apparatus of the class described, a casing open at one end and having an aperture in the upper side thereof, a reflector mounted in said casing and directed toward the open end thereof, a chimney mounted on top of said casing over said aperture, an incandescent lamp extending transversely to the focal axis of said reflector within said casing with its filament located on said focal axis, means extending between the walls of said chimney for supporting said lamp, said lamp being located entirely in front of said reflector, and means operable from the out side of said casing for adjusting said lamp bodily parallel to said focal axis.

5. In apparatus of the class described, an apertured casing, a chimney surrounding the aperture of the casing, a lamp supported by the chimney and projecting into the casing, a reflector mounted in said casing, and means for adjusting said chimney with respect to said casing.

6. In apparatus of the class described, a casing having an aperture in one end thereof, a standard upon which said casing is adjustably mounted, a reflector of substantially the same size as said casing mounted therein and directed toward said aperture, an incandescent lamp supported on the wall of said casing and extending transversely to the focal axis of said reflector entirely in front of the same, means for adjusting said lamp transversely to and parallel with the focal axis of said reflector, means for ventilating said casing, and a non-refracting closure for the aperture in said casing.

7. In apparatus of the class described, an apertured casing, a lamp projecting through the aperture in the casing, a reflector mounted in the casing, and means to permit rotation of said lamp about an axis transverse to the axis of said reflector and for automatically effecting a longitudinal movement of said lamp during said rotation.

8. In apparatus of the class described, a casing having an opening at one end, a reflector mounted in said casing and directed toward said opening, a supplementary casing mounted on one wall of said casing, a lamp supported entirely by said supplementary casing and projecting into said first-mentioned casing transversely to the focal axis of said reflector, and means operable from the outside of both of said casings during the operation of said lamp for sliding said lamp longitudinally of and parallel to said focal axis.

9. In apparatus of the class described, a casing having an opening at one end, a reflector mounted in said casing and directed toward said opening, a lamp located in said opening in front of said reflector transversely to the focal axis thereof with the light-emitting means located on said axis, said casing having an aperture in the wall thereof, a supplementary casing mounted over said aperture, supporting means connected to said lamp and mounted in said supplementary casing, and means for sliding said lamp support parallel to said focal axis.

10. In apparatus of the class described, a casing, a reflector mounted in said casing, a lamp mounted in said casing in front of said reflector, means operable from the outside of said casing for adjusting said reflector longitudinally of its axis with respect to said lamp, and means for adjustably securing said reflector to said casing at different points around its periphery.

11. In apparatus of the class described, a cylindrical casing having an aperture at one end, a reflector mounted in said casing, means coacting with said casing and operable from the outside thereof for reciprocating said reflector therein, and means coacting with the rim of said reflector for adjustably securing the same to said casing.

12. In apparatus of the class described, a cylindrical casing having an aperture at one end, a reflector mounted in said casing, means coacting with said casing for reciprocating said reflector therein, said casing having longitudinal slots therein adjacent said reflectors, lugs carried by said reflector and projecting through said slots, and clamping means engaging said lugs.

13. In apparatus of the class described, an apertured casing, a reflector in said casing, a chimney over the aperture in said casing, said chimney comprising means for supporting a lamp in said casing, plates carried by said chimney and adjustably connected to said casing, and means connected to said casing and coacting with one of said plates for moving said chimney with respect to said casing.

14. In apparatus of the class described, a casing, a reflector mounted therein, said casing having an opening therethrough in front of said reflector, a chimney over said opening, said chimney comprising two telescoping sleeves, means for connecting one of said sleeves to said casing, and means carried by the other sleeve for supporting a lamp.

15. In apparatus of the class described, a casing, a reflector mounted therein, said casing having an opening therethrough in front of said reflector, a chimney over said opening, said chimney comprising two telescoping

sleeves, means for connecting one of said sleeves to said casing, and means carried by the other sleeve for supporting a lamp, said means being adjustable with respect to said sleeve for varying the position of said lamp with respect to said sleeve.

16. In apparatus of the class described, a casing, a reflector mounted therein, said casing having an opening therethrough in front of said reflector, a chimney over said opening, said chimney comprising two telescoping sleeves, means for connecting one of said sleeves to said casing, means carried by the other sleeve for supporting a lamp, said sleeves being relatively rotatable, one of said sleeves having inclined slots therethrough, and lugs carried by the other sleeve and projecting through said slots, whereby relative rotation of said sleeves causes movement of said lamp-supporting means in the direction of the axis of said chimney.

17. In apparatus of the class described, a casing, a reflector mounted therein, said casing having an opening therethrough in front of said reflector, a chimney over said opening, said chimney comprising two telescoping sleeves, means for connecting one of said sleeves to said casing, means carried by the other sleeve for supporting a lamp, and a hood carried by the said last-named sleeve and spaced upwardly therefrom, whereby ventilating spaces are provided.

18. In apparatus of the class described, a cylindrical casing having a focal aperture at one end and a closure at the other, a reflector mounted in said casing and directed toward said focal aperture, a lamp mounted in said casing in front of said reflector, said closure having a plurality of apertures therethrough, and an outer wall disposed opposite said apertures and having a vent therethrough.

19. In apparatus of the class described, a casing having an opening in one end thereof, a reflector mounted in said casing and directed toward said opening, said casing having an aperture in the upper wall thereof, a chimney mounted over said aperture, supporting means mounted in said chimney, a lamp carried by said supporting means and extending downwardly into said casing transversely to the focal axis of said reflector, a hood mounted over the upper end of said chimney and spaced therefrom, and means for adjusting said lamp longitudinally of the focal axis of said reflector.

20. In apparatus of the class described, the combination of a ventilated casing having a focal aperture in one end thereof and a closure in the other end, an adjustable ventilated chimney operatively secured to said casing, a lamp carried by said chimney and projecting into said casing, a reflector mounted between said lamp and closure and directed toward said focal aperture, said reflector being adapted to reflect the rays from said lamp and project the same through the focal aperture of said casing, means for centering and adjusting said lamp, and means for operating said chimney.

21. In apparatus of the class described, a casing having a focal aperture, a reflector mounted in said casing and directed toward said focal aperture, a lamp mounted in said casing in front of said reflector, and means controlled from the outside of said casing when said apparatus is in operation for independently adjusting said lamp transversely to and substantially parallel to the focal axis of said reflector while preventing irregular movement of said lamp.

22. In apparatus of the class described, a casing open at one end, a reflector mounted in said casing and directed toward said opening, said casing having an aperture through a lateral wall thereof, an incandescent lamp mounted in said casing in front of said reflector and carrying a part extending through said aperture, supporting means mounted over said aperture and connected to said part of said lamp, said supporting means being slidably mounted with respect to said casing to permit movement of said lamp longitudinally of the focal axis of said reflector, and means comprising an operating screw for moving said supporting means to adjust the position of said lamp.

23. In apparauts of the class described, a casing open at one end, a reflector mounted in said casing and directed toward said opening, said casing having an aperture through the upper wall thereof, a chimney mounted over said aperutre, a lamp located with its filament on the focal axis of said reflector and extending into said chimney, means connected to the wall of said chimney for supporting said lamp, and a rotatable element mounted in said chimney for moving said lamp transversely to said focal axis.

24. In apparatus of the class described, a casing having an opening at one end, a reflector of substantially the same size as said casing mounted therein and directed toward said opening, said casing having a relatively large aperture in the upper wall thereof, an incandescent lamp having its filament on the focal axis of said reflector and having a part of less thickness than said aperture extending upwardly therethrough, supporting means connected to said part of said lamp and slidably mounted with respect to said casing to move parallel to said focal axis, a closure mounted above said aperture, and operating mechanism mounted above said casing for sliding said lamp supporting means.

14,429. PRODUCT OF HYDROGENATION. CARLETON ELLIS, Montclair, N. J. Filed Dec. 18, 1917. Serial No. 207,790. Original application filed Mar. 29, 1912, Serial No. 686,988. Divided and application filed Feb. 9, 1917, Serial No. 147,554. Original No. 1,226,620, dated May 15, 1917. (Cl. 23—28.)

1. As a new product, a suspension of a colloidal "non-noble metal" catalyst in a hydrogenated organic material.

2. Colloidal nickel suspended in hydrogenated fatty material.

3. A "colloidal non-noble metal-containing catalyst" suspended in a hydrogenated organic material, and suitable for use as a catalyst in hydrogenation processes.

4. A catalyst made by setting free nickel in an extremely finely divided state, from an easily decomposable nickel compound, in an oil vehicle.

5. Colloidal nickel in fatty oil containing unsaturated components.

6. A catalyzer made by setting free nickel from a solution of nickel oleate in an oil.

7. Metallic nickel in a non-settling state of fineness, suspended in an oil-vehicle, said nickel being highly conducive to hydrogen absorption by unsaturated components present in said vehicle.

8. Colloidal nickel carried in an organic vehicle.

9. A free colloidal catalytic metal of the nickel type in an oily vehicle containing chemically unsaturated fatty oil.

10. A free metal having an atomic weight between 56 and 59, said metal being in a colloidal state, suspended in an oil capable of uniting with hydrogen, in the presence of said free metal.

11. A free metal having an atomic weight, between 48 and 63.6, said metal being in a colloidal state, carried in an oil.

12. A metal having an atomic weight between 56 and 59, in a non-settling state of fineness, suspended in an organic vehicle, said metal being in the free state and being highly catalytically active and capable of producing by catalysis, a union between hydrogen and unsaturated components present in said organic vehicle.

13. A "colloidal non-noble metal-containing catalyst" carried in an organic vehicle.

14. Colloidal non-noble catalytic free metal in a fatty oil.

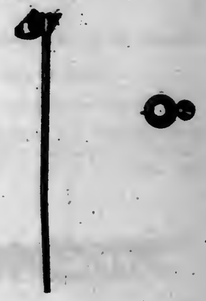
DESIGNS.

51,708. COMB. LOUIS MYERS, Detroit, Mich. Filed Nov. 30, 1917. Serial No. 204,769. Term of patent 14 years.



The ornamental design for a comb substantially as shown.

51,709. SEED-PLANTER. MAUDE B. WYATT, Kildare, Okla. Filed Mar. 26, 1917. Serial No. 157,572. Term of patent 3½ years.



The ornamental design for a seed planter as shown.

TRADE-MARKS

PUBLISHED JANUARY 29, 1918.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 89,615. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) H. G. SAAL COMPANY, Chicago, Ill. Filed Oct. 2, 1915.

Polly Prim

Particular description of goods.—Polishing-Gloves.
Claims use since Feb. 11, 1911.

Ser. No. 91,314. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) KOHLER CO., Kohler, Wis. Filed Dec. 8, 1915.

It's in the Kohler Enamel

Particular description of goods.—Cast-Metal Plumbing Ware with Vitreous-Enamel Coating—Namely, Bath-Tubs, Sitz-Baths, Foot-Baths, Receptors, Children's Baths, Lavatories, Washbowls, Sanitary Drinking-Fountains, Kitchen-Sinks, Slop-Sinks, Sinks Known as Laundry-Trays, Sink-Backs, Drain-Boards, Urinals, Closet-Bowls, Closet-Tanks, and Combination Sinks and Laundry-Trays.
Claims use since Aug. 7, 1915.

Ser. No. 92,688. (CLASS 2. RECEPTACLES.) KEINER-WILLIAMS STAMPING CO., New York and Richmond Hill, N. Y. Filed Feb. 7, 1916.

K-W

Particular description of goods.—Ice-Cream Cans, Milk-Cans, Soda-Water Tanks, Ice-Cream Bricks, Brick-Tanks, Melon-Molds, and Shipping-Drums.
Claims use since January, 1908.

Ser. No. 94,030. (CLASS 39. CLOTHING.) L. CANDEE & COMPANY, New Haven, Conn. Filed Apr. 1, 1916.

Saint Nick

Particular description of goods.—Rubber Boots and Shoes.
Claims use since May 11, 1915.

Ser. No. 96,581. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) DOMESTIC LAUNDRY EQUIPMENT CORPORATION, New York, N. Y. Filed July 15, 1916.

"DOMESTIC"

Particular description of goods.—Clothes-Driers.
Claims use since May 29, 1916.

Ser. No. 98,497. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) THE KALO SHOP, Chicago, Ill. Filed Oct. 7, 1916.

KALO

Particular description of goods.—Flat and Hollow Tableware and Cutlery; Flat and Hollow Household Utensils and Implements; Flat and Hollow Mountings and Ornaments; Toilet, Smokers', and Vanity Articles; Sewing Articles; Desk-Fittings, (Not a Part of the Structure;) Bib-Holders; Bells; Picture-Frames; Hair Ornaments and Fastening Devices; and Dog-Collars Made Wholly or Partly of or Plated with Precious Metal, and Jewelry for Personal Adornment—Namely, Bracelets; Brooches; Pins; Buttons; Links and Studs; Chains; Charms; Clasps; Crosses; Fobs; Lockets; Necklaces; Necklets; Pendants; Rings; and Slides.
Claims use since Sept. 1, 1900.

Ser. No. 98,587. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) CARPENTER-MORTON COMPANY, Boston, Mass. Filed Oct. 12, 1916. Under ten-year proviso.

CAMPBELL'S

Particular description of goods.—Varnishes, Varnish-Stains, Stains, Enamels, and Oil-Finishes for Wood and Like Surfaces.
Claims use since 1886.

Ser. No. 98,856. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE BLACK MEDICINE COMPANY, San Diego, Cal. Filed Oct. 24, 1916.

Stumeze

Particular description of goods.—A Preparation for the Treatment of Diseases of the Stomach.
Claims use since Oct. 12, 1916.

Ser. No. 99,070. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SPICER BROTHERS (COLONIAL & FOREIGN) LTD., London, England. Filed Nov. 3, 1916.



Particular description of goods.—Chlorid of Lime, Tartaric Acid, Lead Acetate, White Arsenic, Caustic Potash, Lactic Acid, Nitrate of Potash, Oxalic Acid, Glacial Acetic Acid, Carbonate of Potash, Liquid Ammonia, Silicate of Soda, Soda Crystals, Caustic Soda, Soda Ash, Sulfate of Alumina, Alum, and Bichromate of Potash.
Claims use since the 13th of April, 1916.

Ser. No. 99,121. (CLASS 32. FURNITURE AND UPHOLSTERY.) THE GLOBE-WERNICKE COMPANY, Cincinnati, Ohio. Filed Nov. 6, 1916. Under ten-year proviso.

Globe-Wernicke

Particular description of goods.—Bookcases, Filing-Cabinets, Filing-Cases, and Office-Cabinets as Articles of Office Furniture.
Claims use since May, 1894.

Ser. No. 99,270. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) J. C. DEAGAN MUSICAL BELLS, Chicago, Ill. Filed Nov. 13, 1916.

SONG BELLS

Particular description of goods.—Xylophones.
Claims use since Jan. 29, 1915.

Ser. No. 99,405. (CLASS 27. HOROLOGICAL INSTRUMENTS.) THE HAMPDEN WATCH COMPANY, Canton, Ohio. Filed Nov. 20, 1916. Under ten-year proviso.

NEW Keelmary

Particular description of goods.—Watches and Watch-Movements.
Claims use since the 1st day of November, 1888.

Ser. No. 99,756. (CLASS 12. CONSTRUCTION MATERIALS.) E. W. ELLIS LUMBER COMPANY, Grand Rapids, Mich. Filed Dec. 7, 1916.

WOOD-PUTTY

Particular description of goods.—Wood Beading.
Claims use since about Jan. 1, 1914.

Ser. No. 100,442. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) MILTON BRADLEY CO., Springfield, Mass. Filed Jan. 8, 1917.

At the Front

Particular description of goods.—Games and Outfits of Toy Soldiers and Pistols.
Claims use since 1906.

Ser. No. 100,720. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) MOUNT VERNON-WOODBERRY MILLS, INCORPORATED, Baltimore, Md. Filed Jan. 18, 1917. Under ten-year proviso.

FRANKLINVILLE DUCK MILLS EXTRA

Particular description of goods.—Cotton Duck.
Claims use since prior to Feb. 20, 1895.

Ser. No. 100,986. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) E. I. DU PONT DE NEMOURS & COMPANY, Wilmington, Del. Filed Jan. 27, 1917.



The representation of the arrow being red in color.
Particular description of goods.—Smokeless Shotgun and Rifle Powders, Black Blasting-Powder, Black Fuse-Powder, Black Sporting-Powder, Dynamite, Gelignite, and Blasting-Gelatin.
Claims use since Dec. 9, 1916.

Ser. No. 101,197. (CLASS 39. CLOTHING.) THE SHOECRAFT SHOP, INC., New York, N. Y. Filed Feb. 6, 1917.

SHOE CRAFT

No claim being made to the word "Shoe" apart from the mark shown in the drawing.
Particular description of goods.—Ladies' and Misses' Leather Boots and Shoes.
Claims use since the year 1918.

Ser. No. 101,321. (CLASS 18. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) CLINTON WIRE CLOTH COMPANY, Clinton, Mass. Filed Feb. 12, 1917.



The representation of a roll of wire-netting being included in the drawing solely for the purpose of illustrating the mode of applying the trade-mark and of itself forming no part of the mark. The trade-mark consists of a line of red color incorporated in the selvage of the fabric.
Particular description of goods.—Woven-Wire Fabrics.
Claims use since on or about Feb. 1, 1911.

Ser. No. 101,643. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ISADORE M. FISCHER, Jr., Savannah, Ga. Filed Feb. 24, 1917.

NO. 63

Particular description of goods.—Medicines Used in the Treatment of Malarial Fevers, Colds, and La Grippe.
Claims use since June, 1916.

Ser. No. 102,545. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE WOODSTOCK TYPEWRITER COMPANY, Woodstock, Ill. Filed Mar. 28, 1917.



Particular description of goods.—Type-Writers and Type-Writer Parts.
Claims use since Oct. 7, 1916.

Ser. No. 102,546. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE WOODSTOCK TYPEWRITER COMPANY, Woodstock, Ill. Filed Mar. 28, 1917.

WOODSTOCK

Consisting of the word "Woodstock," with the upper and lower extremities of the "W" and "K" extended above and below the word, simulating colored ribbons.
Particular description of goods.—Type-Writers and Type-Writer Parts.
Claims use since Oct. 7, 1916.

Ser. No. 102,941. (CLASS 37. PAPER AND STATIONERY.) THE JOHN HOBERG CO., Green Bay, Wis. Filed Apr. 13, 1917.



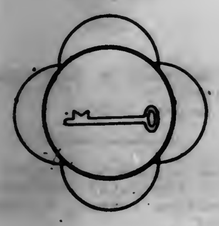
Particular description of goods.—Toilet-Paper.
Claims use since Oct. 16, 1916.

Ser. No. 102,984. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) FRANKEL CONNECTOR CO., INC., New York, N. Y. Filed Apr. 14, 1917.

FRANKEL

Particular description of goods.—Electric Connectors, Taps, Lugs, Plugs, Spark-Plugs, Binding-Posts, Studs, Elbows, Equalizers, Reducers, Splicing-Sleeves, Grounding Devices, and Testing-Clips.
Claims use since September, 1916.

Ser. No. 103,038. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ANCHEL OXEE, Tompkinsville, N. Y. Filed Apr. 16, 1917.



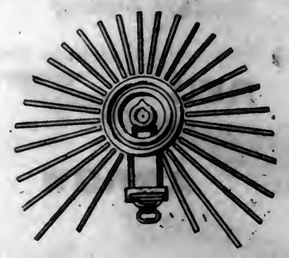
Particular description of goods.—A Salve for Boils, Carbuncles, Sullens, Blood-Poison, Open or Festered Sores, Blisters, and the Like, and a Liniment for Rheumatism, Swollen Glands, Nervous Rheumatism, and in the Treatment of Neuritis, Both for External Use.
Claims use since Jan. 29, 1917.

Ser. No. 103,280. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BALFOUR, GUTHRIE & CO., San Francisco, Cal. Filed Apr. 25, 1917.



Particular description of goods.—Orchard-Sprays.
Claims use since Jan. 1, 1913.

Ser. No. 103,513. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) SPLITDORF ELECTRICAL COMPANY, Newark, N. J. Filed May 3, 1917.



Particular description of goods.—Electrical Apparatus—Namely, Combined Electric Lamps and Generators.
Claims use since Aug. 1, 1916.

Ser. No. 103,546. (CLASS 12.) CONSTRUCTION MATERIALS.) SEARS, ROEBUCK AND CO., Chicago, Ill. Filed May 4, 1917.



Particular description of goods.—A Plastic Substance and Liquid Substance for Repairing Roofs.
Claims use since Jan. 1, 1917.

Ser. No. 103,944. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MARY DE BAR, St. Paul, Minn. Filed May 19, 1917.



Particular description of goods.—Medical Compound Used in the Treatment of Inflammation of the Kidneys and Bladder, Backaches, and Dropsical Tendencies.
Claims use since May 1, 1917.

Ser. No. 104,179. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) FAIRB BROS. & CO., LIMITED, Leicester, England. Filed June 1, 1917.

HURCULACES

Particular description of goods.—Boot, Shoe, and Corset Laces.
Claims use since Nov. 3, 1913.

Ser. No. 104,239. (CLASS 12. CONSTRUCTION MATERIALS.) TUFBREC PRODUCTS COMPANY, Seattle, Wash. Filed June 4, 1917.

TUFBREC

Particular description of goods.—Tuff-Breccia as a Building Material.
Claims use since Mar. 20, 1917.

Ser. No. 104,396. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) MERRY OPTICAL COMPANY, Kansas City, Mo. Filed June 11, 1917.

Protexwel

Particular description of goods.—Goggles.
Claims use since Apr. 15, 1917.

Ser. No. 104,434. (CLASS 12. CONSTRUCTION MATERIALS.) ASBESTOS PROTECTED METAL COMPANY, Pittsburgh, Pa. Filed June 14, 1917.

PLASTITE

The cross-lines indicate shading.
Particular description of goods.—Plastic Cement for Roofs, Skylights, Gutters, Flashings, Stand-Pipes, Tiles, Slates, and other Similar Constructions.
Claims use since Apr. 14, 1917.

Ser. No. 104,504. (CLASS 38. PRINTS AND PUBLICATIONS.) PERIODICAL PUBLISHING CO., Grand Rapids, Mich. Filed June 18, 1917.

OFFICIAL BULLETIN
GRAND RAPIDS FURNITURE MARKET

Particular description of goods.—Bulletin Published Semi-Annually.
Claims use since June 22, 1914.

Ser. No. 104,578. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE HOLLIDAY CHEMICAL COMPANY, Pittsburgh, Pa. Filed June 21, 1917.

CERELENE

Particular description of goods.—A Composition for Treatment of Wounds, Cuts.
Claims use since June 5, 1917.

Ser. No. 104,641. CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE DENVER ROCK DRILL MANUFACTURING COMPANY, Denver, Colo. Filed June 23, 1917.

WAUGH

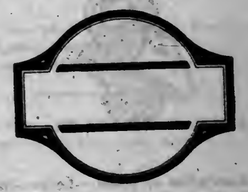
Particular description of goods.—Rock-Drills, Drill-Bits, and Drill-Sharpeners.
Claims use since 1908.

Ser. No. 104,658. (CLASS 1. RAW OR PARTLY PREPARED MATERIALS.) AFRICAN ASSOCIATION, LIMITED, Liverpool, England. Filed June 25, 1917.



The trade-mark consists of the representation of a manilla penetrated by an arrow.
Particular description of goods.—Logs for Use as Sawmill Material.
Claims use since about August, 1911.

Ser. No. 104,765. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE NASH MOTORS COMPANY, Kenosha, Wis. Filed June 29, 1917.



Particular description of goods.—Automobiles and Motor-Trucks.
Claims use since Apr. 2, 1917.

Ser. No. 104,862. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE LEE SPRING COMPANY, Brooklyn, N. Y. Filed July 5, 1917.



Particular description of goods.—Compression, Extension, and Torsion Springs.
Claims use since June 21, 1917.

Ser. No. 104,947. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) SHEBOYGAN MINERAL WATER CO., Sheboygan, Wis. Filed July 9, 1917. Under ten-year proviso.

Sheboygan

Particular description of goods.—Ginger-Ale and Sarsaparilla.
Claims use since the year 1894.

Ser. No. 104,948. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) UHLEMANN OPTICAL CO., Chicago, Ill. Filed July 9, 1917.

"Uhlco"

Particular description of goods.—Ophthalmic Mountings, Parts, and Fixtures.
Claims use since June 20, 1917.

Ser. No. 105,007. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE RAM ENGINEERING COMPANY, Columbus, Ohio. Filed July 12, 1917.

RAM



Particular description of goods.—Locks—Namely, Upon Switch-Locks in Connection with Automobiles.
Claims use since about Feb. 1, 1917.

Ser. No. 105,105. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) HELENE L. SWENEY, Boston, Mass. Filed July 18, 1917.



No claim being made to the exclusive use of the representation of the article apart from the mark as shown.
Particular description of goods.—Hooks for Portières and Draperies and Similar Purposes.
Claims use since Jan. 25, 1917.

Ser. No. 105,227. (CLASS 39. CLOTHING.) FITCHBURG GARMENT CO., Fitchburg, Mass. Filed July 24, 1917.

Lotta Ware

Said trade-mark comprising the words "Lotta Ware" in the handwriting of Nellie M. Jewett, an employee of said firm.
Particular description of goods.—Children's Dresses, Bloomers, and Rompers.
Claims use since June 9, 1917.

Ser. No. 105,869. (CLASS 39. CLOTHING.) ALLAN H. WAAS, Oakland, Cal. Filed July 30, 1917.

Allan H. Waas.

Consists of a facsimile of my signature.
Particular description of goods.—Neckwear—Namely, Neckties, Neckscarfs, Cravats, Bow-Ties, and Stocks.
Claims use since May 1, 1917.

Ser. No. 105,887. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DRS. F. G. & J. C. SMITH, Bethany, Mo. Filed July 31, 1917.

R

The name "Drs. F. G. & J. C. Smith" being in the handwriting of one of the members of the firm—to wit, Dr. F. G. Smith.
Particular description of goods.—A Medicinal Preparation for Asthma, Hay-Fever, and Bronchitis.
Claims use since July 1, 1917.

Ser. No. 105,895. (CLASS 38. PRINTS AND PUBLICATIONS.) CONSUMERS' GUIDE PUBLISHING COMPANY, INC., New York, N. Y. Filed Aug. 1, 1917.



Particular description of goods.—Semi-Annual Publications.
Claims use since July 12, 1917.

Ser. No. 105,419. (CLASS 35. BELTING HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) BROWNLOW BYRNS, Detroit, Mich. Filed Aug. 2, 1917.

Sealpack

Particular description of goods.—Metallic Packing-Rings.
Claims use since May 15, 1917.

Ser. No. 105,511. (CLASS 32. FURNITURE AND UPHOLSTERY.) WILHELM MUSIC MASTER COMPANY, Sturgis, Mich. Filed Aug. 6, 1917.



Particular description of goods.—Phonograph and Record Cabinets.
Claims use since about July, 1915.

Ser. No. 105,638. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE AMEN CHEMICAL SCIENTIFIC INSTITUTE, New York, N. Y. Filed Aug. 14, 1917.

AMEN

Particular description of goods.—Pills and Ampuls for Injections to be Used as a Treatment of Tubercular Affections.
Claims use since Aug. 9, 1917.

Ser. No. 105,908. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) WALTER A. WETTERWALD, New York, N. Y. Filed Aug. 27, 1917.

Burnall

Particular description of goods.—Apparatus for Making Paper Briquets.
Claims use since Aug. 1, 1917.

Ser. No. 105,973. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EDWARD J. WESSELS, New York, N. Y. Filed Aug. 30, 1917.

MITUS

Particular description of goods.—Developers.
Claims use since May 1, 1917.

Ser. No. 105,981. (CLASS 33. GLASSWARE.) CORNING GLASS WORKS, Corning, N. Y. Filed Aug. 31, 1917.

CONAPHORE

Particular description of goods.—Cover-Glasses for Vehicle-Headlights.
Claims use since Nov. 1, 1916.

Ser. No. 106,070. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) HAGEMEISTER BREWING COMPANY, Green Bay, Wis. Filed Sept. 5, 1917.

CAMEO



Particular description of goods.—A Non-Alcoholic Non-Intoxicating Cereal Beverage.
Claims use since May 5, 1917.

Ser. No. 106,116. (CLASS 33. GLASSWARE.) THE K. K. IMPORTING CO. INC., New York, N. Y. Filed Sept. 7, 1917.



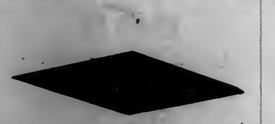
Particular description of goods.—Watch-Glasses.
Claims use since on or about the 1st day of November, 1916.

Ser. No. 106,149. (CLASS 15. OILS AND GREASES.) BLIVEN & CARRINGTON, INC., New York, N. Y. Filed Sept. 10, 1917. Under ten-year proviso.



Particular description of goods.—Lubricating-Oils.
Claims use since July 1, 1886.

Ser. No. 106,193. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) CREW LEVICK COMPANY, Philadelphia, Pa. Filed Sept. 12, 1917.



Particular description of goods.—Polishing-Cloths.
Claims use since about the 4th day of May, 1916.

Ser. No. 106,265. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SKINNER MFG. CO., Omaha, Nebr. Filed Sept. 15, 1917.



The name of Paul F. Skinner being the signature of the president of the applicant company and the picture associated with the signature being fanciful.
Particular description of goods.—Macaroni.
Claims use since Aug. 17, 1917.

Ser. No. 106,411. (CLASS 39. CLOTHING.) MARSHALL FIELD & COMPANY, Chicago, Ill. Filed Sept. 24, 1917.



Particular description of goods.—Knitted Underwear.
Claims use since about Jan. 1, 1908.

Ser. No. 106,465. (CLASS 38. PRINTS AND PUBLICATIONS.) THEODORE C. MARCEAU, New York, N. Y. Filed Sept. 27, 1917.



The lining appearing on the drawing is used merely for the purpose of shading and not otherwise.
Particular description of goods.—Photographs.
Claims use since Aug. 1, 1917.

Ser. No. 106,470. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BEAUFORT TRUCK GROWERS ASSOCIATION, Beaufort, S. C. Filed Sept. 28, 1917.

SEA ISLAND

Particular description of goods.—Fresh Potatoes.
Claims use since May 10, 1917.

Ser. No. 106,484. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) LYRAPHONE COMPANY OF AMERICA, Wilmington, Del.; Washington, D. C., and New York, N. Y. Filed Sept. 28, 1917.



The right to the exclusive representation of the disk is hereby disclaimed.
Particular description of goods.—Phonographic Records for Talking-Machines.
Claims use since Apr. 15, 1917.

Ser. No. 106,567. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) WILLIAMS BRUSH CO., Philadelphia, Pa. Filed Oct. 2, 1917.

Airlite

Particular description of goods.—Tooth-Brushes, Nail-Brushes, and Hair-Brushes.
Claims use since about Oct. 25, 1913.

Ser. No. 106,577. (CLASS 39. CLOTHING.) HAMILTON, BROWN SHOE COMPANY, St. Louis, Mo. Filed Oct. 3, 1917.

Fifth Ave.

Particular description of goods.—Leather Boots and Shoes.
Claims use since Mar. 1, 1912.

Ser. No. 106,578. (CLASS 39. CLOTHING.) HAMILTON, BROWN SHOE COMPANY, St. Louis, Mo. Filed Oct. 3, 1917.

Popular

Particular description of goods.—Leather Boots and Shoes.
Claims use since Jan. 14, 1896.

Ser. No. 106,606. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) LONGFORD COMPANY OF AMERICA, Cambridge, Mass. Filed Oct. 4, 1917.

COMDELCAR

Particular description of goods.—Automobile Trucks, Chassis, for Automobile Parts and Accessories—Namely, Side Frames, Springs, Axles, Truss-Rods, Running-Boards, Brackets, Brake-Rods, Mud-Pans, Universal Joints—for Automobiles and Automobile Drive-Shafts.
Claims use since Aug 1, 1917.

Ser. No. 106,607. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE WILLIAM S. MERRELL CHEMICAL COMPANY, Cincinnati, Ohio. Filed Oct. 4, 1917.

MERCO

Particular description of goods.—Toilet Cream and Dental Cream.
Claims use since Mar. 26, 1917.

Ser. No. 106,626. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN VARGA, Linden, N. J. Filed Oct. 5, 1917.



John Varga

Being a portrait of myself.
Particular description of goods.—A Palliative for Rheumatism.
Claims use since about Sept. 28, 1915.

Ser. No. 106,691. (CLASS 39. CLOTHING.) K-K SHOE COMPANY, Corry, Pa. Filed Oct. 9, 1917.

KORRY-KROME

Particular description of goods.—Boots, Shoes, and Slippers Made of Leather.
Claims use since October, 1916.

Ser. No. 106,777. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) NUGO DEVICE CORPORATION, New York, N. Y. Filed Oct. 15, 1917.

NULOCK

Particular description of goods.—A Locking Safety Device on Steering-Posts of Automobiles.
Claims use since June, 1917.

Ser. No. 106,781. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SUNBEAM CHEMICAL COMPANY, Chicago, Ill. Filed Oct. 15, 1917.

Never say "Dye" — say "RIT"

Particular description of goods.—Dyes Combined with Soap.
Claims use since about Sept. 1, 1917.

Ser. No. 106,787. (CLASS 39. CLOTHING.) MYRON H. LEWIS, New York, N. Y. Filed Oct. 16, 1917.

SLEEPTITE

Comprising the word "Sleeptite" within a panel.
Particular description of goods.—Men's, Women's, and Children's Pajamas, Night-Robes, and Sleeping-Garments.
Claims use since Sept. 1, 1916.

Ser. No. 106,802. (CLASS 10. FERTILIZERS.) THE AMERICAN AGRICULTURAL CHEMICAL COMPANY, New York, N. Y. Filed Oct. 17, 1917.

RED APPLE

Particular description of goods.—Fertilizer.
Claims use since Mar. 24, 1917.

Ser. No. 106,803. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) WILBUR S. BURNS, Grand Rapids, Mich. Filed Oct. 17, 1917.

BOBBIE BURNS

The portrait being that of Robert Burns, the deceased Scottish poet.
Particular description of goods.—Laundry Soap.
Claims use since January, 1916.

Ser. No. 106,805. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHAPIN-SACKS MANUFACTURING COMPANY, Washington, D. C. Filed Oct. 17, 1917.

"The Liberty Brick"

No claim is made for the word "Brick" apart from the mark shown.
Particular description of goods.—Ice-Cream.
Claims use since Oct. 15, 1917.

Ser. No. 106,827. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) BEAN SPRAY PUMP CO., San Jose, Cal. Filed Oct. 18, 1917.



Particular description of goods.—Spraying Apparatus for Trees and Plants, Centrifugal Pumps, and Tractors.
Claims use since August, 1909.

Ser. No. 106,850. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) ABRAHAM WEBER, New York, N. Y. Filed Oct. 18, 1917.

WHITE ROSE

Comprising the words "White Rose."
Particular description of goods.—A Polishing and Cleaning Compound for Furniture, Floors, Automobile-Bodies, and other Polished Surfaces.
Claims use since May 24, 1907.

Ser. No. 106,888. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) TAYLOR, CLAPP & BEALL, New York, N. Y. Filed Oct. 20, 1917.

TAYCLABEA

Particular description of goods.—Cotton Piece Goods.
Claims use since Oct. 1, 1917.

Ser. No. 106,892. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) COHN & ROSENBERGER, INC., New York, N. Y. Filed Oct. 22, 1917.

SILVO

Particular description of goods.—Hat-Pins, Sash-Pins, Collar-Pins, and Belt-Buckles Made of or Plated with Precious Metal, Bar-Pins, Brooches, Scarf-Pins, Ear-Rings, Lavallières, Cuff-Buttons, Finger-Rings, and Bracelets.
Claims use since the 1st day of September, 1917.

Ser. No. 106,912. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) RUSSELL B. TOWER, Cohasset, Mass. Filed Oct. 23, 1917.

Jernet

The lines in the border of the mark do not indicate color and are simply ornamental.
Particular description of goods.—Hair-Nets.
Claims use since Oct. 1, 1917.

Ser. No. 106,917. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) GOLDMAN COSTUME COMPANY, New York, N. Y. Filed Oct. 24, 1917.

Betty Wales

Comprising the words "Betty Wales" and "Ploshkin," with the doll figures, all within a rectangle.
Particular description of goods.—Straight, Blended, Compounded, and Imitation Whisky, Brandy, Cordials, Rum, Gin, Rock and Rye, Liqueurs, Cocktails, and Punches.
Claims use since Jan. 5, 1917.

Ser. No. 106,942. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) DINHOFER BROS., New York, N. Y. Filed Oct. 25, 1917.

Ginault

Particular description of goods.—Brooch-Mountings, Lavallière-Mountings, Finger-Ring Mountings, Scarf-Pin Mountings, Cluster-Mountings, Bracelet-Mountings, Ear-Ring Mountings, Bar-Pin Mountings, Watch-Bracelet Mountings, and Pendant-Mountings.
Claims use since the 23d day of October, 1917.

Ser. No. 106,966. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ASSOCIATED IMPORT & EXPORT CO. INC., New York, N. Y. Filed Oct. 26, 1917.

AJECO

Particular description of goods.—Aniline Dyes.
Claims use since Aug. 27, 1917.

Ser. No. 106,974. (CLASS 32. FURNITURE AND UPHOLSTERY.) THE MARIETTA MFG. CO., Indianapolis, Ind. Filed Oct. 26, 1917.

VitaMetal

Particular description of goods.—Metal Table-Frames, Brackets for Plate-Glass Display-Cases, Metal Legs for Counters and Show-Cases, and Metal Shoes for Tables Set Up for Restaurant-Counters.
Claims use since Aug. 1, 1917.

Ser. No. 106,968. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) W. PORTER BARNES, Santa Rosa, Cal. Filed Oct. 27, 1917.

POWERENE

Particular description of goods.—A Fuel Intensifier and Decarbonizer.
Claims use since October, 1915.

Ser. No. 107,004. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF. DRAPER CORPORATION, Portland, Me., and Hopedale, Mass. Filed Oct. 29, 1917. Under ten-year proviso.

HARDAKER

Particular description of goods.—Loom-Temples.
Claims use since at least as early as August, 1885.

Ser. No. 107,035. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) ST. MUNGO MANUFACTURING COMPANY OF AMERICA, Newark, N. J. Filed Oct. 30, 1917.

COLONEL

Particular description of goods.—Golf-Balls.
Claims use since August, 1905.

Ser. No. 107,120. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ALBERT MINTY, London, England. Filed Nov. 2, 1917.

MINYON

Particular description of goods.—Toilet Creams.
Claims use since Feb. 1, 1905.

Ser. No. 107,127. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE AMERICAN AUTO PRODUCTS COMPANY, Denver, Colo. Filed Nov. 3, 1917.

"LITTLE GIANT"

Particular description of goods.—Silencers and Braces for Automobile Steering-Rods.
Claims use since Nov. 10, 1916.

Ser. No. 107,129. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ERNEST F. W. BOLDT, Albion, Mich. Filed Nov. 3, 1917.



Particular description of goods.—Laying-Tonic for Poultry and a Remedy for Use in the Treatment of Roup and Cholera.
Claims use since Oct. 13, 1917.

Ser. No. 107,130. (CLASS 38. PRINTS AND PUBLICATIONS.) DRAPER CORPORATION, Portland, Me., and Hopedale, Mass. Filed Nov. 3, 1917.

Labor Saving Looms

Particular description of goods.—Serial Publication Issued at Irregular Intervals.
Claims use since 1904.

Ser. No. 107,132. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) FRANK S. HODSON, Philadelphia, Pa. Filed Nov. 3, 1917.



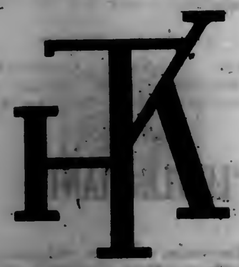
Particular description of goods.—A Metallic Zinc Alloy.
Claims use since July 16, 1917.

Ser. No. 107,153. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) DONIGER & COMPANY, INC., New York, N. Y. Filed Nov. 5, 1917.

WITE FANG

Particular description of goods.—Tooth, Hair, Nail, and Cloth Brushes.
Claims use since January, 1916.

Ser. No. 107,199. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ARNOLD KRAUSS, Los Angeles, Cal. Filed Nov. 6, 1917.



Particular description of goods.—A Hair-Tonic.
Claims use since Sept. 1, 1917.

Ser. No. 107,236. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) LESSER, WHITMAN & CO. INC., New York, N. Y. Filed Nov. 8, 1917.



Particular description of goods.—A Fabric Having a Cotton Warp and a Filling of Wool or Mohair or Alpaca Used Either Singly or Combined.
Claims use since Oct. 8, 1917.

Ser. No. 107,269. (CLASS 38. PRINTS AND PUBLICATIONS.) PACIFIC COAST PUBLISHING COMPANY, San Francisco, Cal. Filed Nov. 9, 1917.

PACIFIC COAST MERCHANT

Particular description of goods.—A Monthly Periodical.
Claims use since January, 1903.

Ser. No. 107,318. (CLASS 32. FURNITURE AND UPHOLSTERY.) THE KWICK-BATH CORPORATION, Wilson, N. C. Filed Nov. 12, 1917.

KWICK-BATH

Particular description of goods.—Bath-Cabinets.
Claims use since August, 1912.

Ser. No. 107,320. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LASH'S BITTERS CO., New York, N. Y. Filed Nov. 12, 1917.



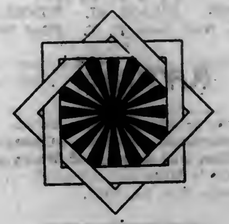
Particular description of goods.—Tonic Bitters to be Used as a Tonic and Appetiser.
Claims use since Sept. 12, 1917.

Ser. No. 107,333. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) NAVY LEAGUE OF THE UNITED STATES, Washington, D. C. Filed Nov. 12, 1917.



Particular description of goods.—Fancy Silk or Cloth Bags Designed for Holding Knitting or Sewing Material.
Claims use since Aug. 1, 1917.

Ser. No. 107,346. (CLASS 37. PAPER AND STATIONERY.) J. C. BLAIR COMPANY, Huntingdon, Pa. Filed Nov. 13, 1917.



Particular description of goods.—Paper for Writing and Printing Purposes, Drawing-Paper, Pencil-Paper, Envelops, Writing-Tablets, Pencil-Tablets, Drawing-Tablets, Spelling-Tablets, and Blank Books.
Claims use since Feb. 8, 1917.

Ser. No. 107,416. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) SHULTZ BELTING COMPANY, St. Louis, Mo. Filed Nov. 16, 1917. Under ten-year proviso.

SHULTZ

Particular description of goods.—Belting and Belt-Lacings Composed Wholly or Partially of Leather, Fabric, or Rubber.
Claims use since about July, 1877.

Ser. No. 107,417. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) SHULTZ BELTING COMPANY, St. Louis, Mo. Filed Nov. 16, 1917.

TROUT

Particular description of goods.—Belting and Belt-Lacings Composed Wholly or Partially of Leather, Fabric, or Rubber.
Claims use since about Jan. 1, 1911.

Ser. No. 107,422. (CLASS 39. CLOTHING.) MORRIS H. ZIMMERMAN, New York, N. Y. Filed Nov. 16, 1917.

Aviator

Particular description of goods.—Children's Clothing—to wit, Suits, Overcoats, and Caps.
Claims use since Nov. 13, 1917.

Ser. No. 107,450. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) WOODWARD-WAGNER COMPANY, Philadelphia, Pa. Filed Nov. 17, 1917.

PARABAL

Particular description of goods.—A Tank-Ball.
Claims use since October, 1915.

Ser. No. 107,469. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) WALDEMAR KALITZKY, Milwaukee, Wis. Filed Nov. 19, 1917.

SPARKLAN

Particular description of goods.—Soluble Washing Compound for Washing Clothes and Textile Fabrics.
Claims use since on or about Oct. 15, 1917.

Ser. No. 107,494. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) DAVE RUBINGER & BRO., INC., New York, N. Y. Filed Nov. 20, 1917.



Particular description of goods.—Velvets, Corduroys, Silks, Velveteens, Serges, Woolens, Cheviots, All in the Piece.
Claims use since 1st day of December, 1916.

Ser. No. 107,498. (CLASS 39. CLOTHING.) OSCAR A. BERMAN, Cincinnati, Ohio. Filed Nov. 21, 1917.

Ironall

Particular description of goods.—Wearing-Apparel—Namely, Work-Shirts, Trousers, Coats, Overalls, Pants, Vests, Suits, Aprons, Bibs, Jackets, Gloves, Caps, Rompers, Blouses, Waists, Skirts, Cloaks, Dresses, Sacks, Kimonos, Sweaters, Stockings, Bootees, Leather Shoes.
Claims use since Oct. 15, 1917.

Ser. No. 107,528. (CLASS 39. CLOTHING.) HARRIS-POLK HAT CO., St. Louis, Mo. Filed Nov. 22, 1917.

"Pefi"

Particular description of goods.—Caps and Hats.
Claims use since Dec. 1, 1916.

Ser. No. 107,577. (CLASS 30. CROCKERY, EARTHENWARE, AND PORCELAIN.) THE SUMMIT CHINA COMPANY, East Akron and Cleveland, Ohio. Filed Nov. 23, 1917.

CLEVE-RON

Particular description of goods.—Semiporcelain Dinner-Ware.
Claims use since July, 1917.

Ser. No. 107,581. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) WHITIN MACHINE WORKS, Whitinsville, Mass. Filed Nov. 23, 1917. Under ten-year proviso.

WHITIN

Particular description of goods.—The Following Textile Machines, (Not Including Spinning and Twisting Rings:) Bale-Breakers, Mixing-Lattices, Willows, Picker-Feeds, Openers, Lappers, Card-Feeds, Revolving Flat Cards, Roller-Cards, Card-Condensers, Card-Grinders, Drawing-Frames, Slubbers, Intermediate Frames, Roving-Frames, Spinning-Frames, Spoolers, Twisting-Machines, Reels, Quilling-Machines, Sliver-Lap Machines, Ribbon-Lap Machines, Combing-Machines, Looms, and Beamers.
Claims use since 1840.

Ser. No. 107,597. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) THE VANT WOUD RUBBER CO., Brooklyn, N. Y. Filed Nov. 24, 1917.

KWICK-ON

Particular description of goods.—Nursing-Nipples and Glass Bottles to be Used in Connection with the Same.
Claims use since the 22d day of November, 1917.

Ser. No. 107,623. (CLASS 12. CONSTRUCTION MATERIALS.) THE OHIO HYDRATE & SUPPLY COMPANY, Woodville, Ohio. Filed Nov. 26, 1917.

Particular description of goods.—Lime.
Claims use since Nov. 12, 1917.

Ser. No. 107,625. (CLASS 47. WINES.) ALEX D. SHAW & Co., New York, N. Y. Filed Nov. 26, 1917.

RATTAN

Consists of the arbitrary word "Rattan."
Particular description of goods.—Cocktails Composed of Vermuth, Wine, and Bitters, of Which the Predominating Ingredient is Wine.
Claims use since Nov. 14, 1917.

Ser. No. 107,640. (CLASS 39. CLOTHING.) NIMROD B. TICHENOR, New York, N. Y. Filed Nov. 27, 1917.

Pay Check

Comprising the words "Pay Check."
Particular description of goods.—Overalls and Work-Clothes—viz., Work Pants, Shirts, and Jumpers.
Claims use since Nov. 1, 1917.

Ser. No. 107,660. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) E. & Z. VAN RAALTE, New York, N. Y. Filed Nov. 28, 1917.

LIBERTY BELLE

Particular description of goods.—Veils.
Claims use since the 5th day of November, 1917.

Ser. No. 107,661. (CLASS 37. PAPER AND STATIONERY.) WEST VIRGINIA PULP & PAPER COMPANY, New York, N. Y. Filed Nov. 28, 1917.

MADA

Particular description of goods.—Writing-Papers.
Claims use since Nov. 7, 1917.

Ser. No. 107,662. (CLASS 37. PAPER AND STATIONERY.) WEST VIRGINIA PULP & PAPER COMPANY, New York, N. Y. Filed Nov. 28, 1917.

ORIGA

Particular description of goods.—Bond-Paper.
Claims use since Nov. 8, 1917.

Ser. No. 107,663. (CLASS 37. PAPER AND STATIONERY.) WEST VIRGINIA PULP & PAPER COMPANY, New York, N. Y. Filed Nov. 28, 1917.

MARVA

Particular description of goods.—Bond-Paper.
Claims use since Nov. 8, 1917.

Ser. No. 107,664. (CLASS 37. PAPER AND STATIONERY.) WEST VIRGINIA PULP & PAPER COMPANY, New York, N. Y. Filed Nov. 28, 1917.

IRONIA

Particular description of goods.—Writing-Paper.
Claims use since Nov. 7, 1917.

Ser. No. 107,665. (CLASS 37. PAPER AND STATIONERY.) WEST VIRGINIA PULP & PAPER COMPANY, New York, N. Y. Filed Nov. 28, 1917.

COVMONT

Particular description of goods.—Writing-Paper.
Claims use since Nov. 7, 1917.

Ser. No. 107,666. (CLASS 37. PAPER AND STATIONERY.) WEST VIRGINIA PULP & PAPER COMPANY, New York, N. Y. Filed Nov. 28, 1917.

VERDURO

Particular description of goods.—Bond-Paper.
Claims use since Nov. 8, 1917.

Ser. No. 107,673. (CLASS 39. CLOTHING.) M. BLUMENTHAL AND COMPANY, Hartford, Conn. Filed Nov. 30, 1917.

Venus

Particular description of goods.—Ladies' and Misses' Hats.
Claims use since July 2, 1917.

Ser. No. 107,684. (CLASS 17. TOBACCO PRODUCTS.) JOSEPH P. MANNING CO., Boston, Mass. Filed Nov. 30, 1917.

MANCO

Comprising the word "Manco."
Particular description of goods.—Cigars, Cigarettes, Smoking and Chewing Tobacco.
Claims use since July, 1914.

Ser. No. 107,686. (CLASS 37. PAPER AND STATIONERY.) SAFEPACK PAPER MILLS, Boston, Mass. Filed Nov. 30, 1917.

Criss # cross

Particular description of goods.—Material in Sheet Form Composed or Consisting of Paper or Paper and Textile Combined, Either Plain or Treated by Coating or Impregnation so as to be Partly or Wholly Waterproof or Impervious Adapted for Use in Wrapping, Packing, and Lining Merchandise and Containers for Merchandise and Articles of Manufacture, and Adapted also for Covers for Merchandise and Articles of Manufacture.
Claims use since about June 15, 1917.

Ser. No. 107,695. (CLASS 27. HOROLOGICAL INSTRUMENTS.) WESTERN CLOCK CO., Peru, Ill. Filed Nov. 30, 1917.

GLO-BEN

Particular description of goods.—Clocks and Watches.
Claims use since Nov. 26, 1917.

Ser. No. 107,701. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) COSGROVE & COMPANY, Johnstown, Pa. Filed Dec. 1, 1917.

FRANCO

Particular description of goods.—Bituminous Coal.
Claims use since Aug. 15, 1917.

Ser. No. 107,702. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) COSGROVE & COMPANY, Johnstown, Pa. Filed Dec. 1, 1917.



Particular description of goods.—Bituminous Coal.
Claims use since Aug. 15, 1917.

Ser. No. 107,709. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) MULTIKRAFT INCORPORATED, Rochester, N. Y. Filed Dec. 1, 1917.

MULTIKRAFT

Particular description of goods.—Games and Toys—Namely, Horses, Wagons, Automobiles, Cannons, and Cannons and Target, Battle-Ships, Wooden Animals, Metal Animals, Sleds, Coaster-Wagons, Guns, Building-Blocks, and Games, Such as Game of Skill in Shooting at Certain Targets with Cannon or Guns.
Claims use since Oct. 29, 1917.

Ser. No. 107,746. (CLASS 39. CLOTHING.) ELY & WALKER DRY GOODS CO., St. Louis, Mo. Filed Dec. 4, 1917.

PROTEX

Particular description of goods.—Men's Outer Shirts.
Claims use since Oct. 24, 1917.

Ser. No. 107,747. (CLASS 48. MALT EXTRACTS AND LIQUORS.) FIDELIO BREWING COMPANY, INC., New York, N. Y. Filed Dec. 4, 1917.

FIDO

Particular description of goods.—A Malt Beverage Containing Less Than One-Half of One Per Cent. Alcohol and Commonly Known as a Soft Drink.
Claims use since Nov. 19, 1917.

Ser. No. 107,749. (CLASS 39. CLOTHING.) CHLOE B. HOWE, Topeka, Kans. Filed Dec. 4, 1917.

Clotelle

Particular description of goods.—Confiners, Camisoles, Corsets, Corset-Covers, and Chemise.
Claims use since October, 1906.

Ser. No. 107,778. (CLASS 17. TOBACCO PRODUCTS.) TOBACCO PRODUCTS CORPORATION, New York, N. Y. Filed Dec. 5, 1917.

SUNSET LIMITED
888

Particular description of goods.—Cigars, Cigarettes, Smoking and Chewing Tobacco.
Claims use since about July 1, 1916.

Ser. No. 107,783. (CLASS 12. CONSTRUCTION MATERIALS.) THOMAS BRADY, Bayonne, N. J. Filed Dec. 6, 1917.

METALOID

Particular description of goods.—A Dry Powder and a Liquid to be Used Together in Repairing Leaks or Cracks in Lead or Iron Pipes, Water-Backs, Boilers, Radiators, Castings, Stone Washtubs, Sinks, Automobile Cylinders and Radiators, Ammonia-Pipes.
Claims use since the 10th day of November in the year 1917.

Ser. No. 107,792. (CLASS 39. CLOTHING.) PETER W. ROUSS, New York, N. Y. Filed Dec. 6, 1917.

OVER THERE



Particular description of goods.—Negligée and Work Shirts.
Claims use since Nov. 23, 1917.

Ser. No. 107,797. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) WILSON CHEMICAL COMPANY, Council Bluffs, Iowa. Filed Dec. 6, 1917.

PARAFOME

Particular description of goods.—Liquid Soap.
Claims use since Oct. 20, 1917.

Ser. No. 107,810. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) JOHN GRAF COMPANY, Milwaukee, Wis. Filed Dec. 7, 1917. Under ten-year proviso.

Silver Sand

Particular description of goods.—Mineral Waters and Effervescing Beverages.
Claims use since June 1, 1885.

Ser. No. 107,835. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) FORDOM TEXTILE COMPANY, INC., New York, N. Y. Filed Dec. 8, 1917.

FORTEXCO

Consisting of the coined word "Fortexco."
Particular description of goods.—Cotton Piece Goods.
Claims use since Oct. 19, 1917.

Ser. No. 107,872. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) THE GEORGE S. KELLEY CO., INC., Providence, R. I. Filed Dec. 10, 1917.

SOCIETY

Particular description of goods.—Dress-Fasteners and Hair-Ribbon Fasteners Which are Made of Brass or Nickel-Silver and Plated with a Gilding Metal.
Claims use since May, 1916.

Ser. No. 107,882. (CLASS 12. CONSTRUCTION MATERIALS.) SIPO PRODUCTS COMPANY, St. Paul, Minn. Filed Dec. 10, 1917.

BI-SEAL

Particular description of goods.—Prepared Roofing, Asphalt Shingles, Lath, Wall-Board, Sheathing-Papers, Tarred and Asphalt Felts, Roofing-Pith, Asphalt Roof-Coatings.
Claims use since Sept. 10, 1917.

Ser. No. 107,883. (CLASS 12. CONSTRUCTION MATERIALS.) SIPO PRODUCTS COMPANY, St. Paul, Minn. Filed Dec. 10, 1917.

SEAL-CO

Particular description of goods.—Asphalt Roofing.
Claims use since Oct. 1, 1917.

Ser. No. 107,897. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) PURITY BREWING COMPANY, Minneapolis, Minn. Filed Dec. 11, 1917.

Carmo

Particular description of goods.—A Soft Drink That is a Non-Intoxicating Maltless Beverage.
Claims use since on or about Nov. 22, 1917.

Ser. No. 107,980. (CLASS 39. CLOTHING.) FAUNCE & SPINNEY, INC., Lynn, Mass. Filed Dec. 15, 1917.

OVER THE TOP

Particular description of goods.—Boots and Shoes Made of Leather or Leather and Cloth.
Claims use since Dec. 1, 1917.

Ser. No. 107,983. (CLASS 48. MALT EXTRACTS AND LIQUORS.) D. HAYDEN MONTGOMERY, Cairo, Ill. Filed Dec. 15, 1917.

NEO

Particular description of goods.—Non-Intoxicating Malt Beverages.
Claims use since Sept. 1, 1916.

Ser. No. 108,069. (CLASS 39. CLOTHING.) BLUM SHOE MANUFACTURING CO., Dansville, N. Y. Filed Dec. 20, 1917.

HOMY

Particular description of goods.—Slippers Having Felt Uppers.
Claims use since June 1, 1917.

Ser. No. 108,223. (CLASS 27. HOROLOGICAL INSTRUMENTS.) JAMES F. MANSFIELD, New York, N. Y. Filed Dec. 29, 1917.

"GLOWNITE"

Particular description of goods.—Watches and Clocks.
Claims use since on or about Dec. 5, 1917.

TRADE-MARK REGISTRATIONS GRANTED

JANUARY 29, 1918.

120,235. ATHLETIC UNDERWEAR, UNION-SUITS, PAJAMAS, NIGHT-SHIRTS, DRESS-SHIRTS, WORK-SHIRTS, RAIN-COATS, AND DUSTERS. THE ALVO COMPANY, Ashland, Ohio.
Filed September 4, 1917. Serial No. 106,018. PUBLISHED NOVEMBER 27, 1917.

120,236. METAL SNAP-FASTENERS USED TO FASTEN WEARING-APPAREL. AMERICAN FASTENER CO., Waterbury, Conn.
Filed August 27, 1917. Serial No. 105,883. PUBLISHED OCTOBER 23, 1917.

120,237. PATENT MEDICINE KNOWN AS ANDRON FOR THE PREVENTION OF CERTAIN NAMED DISEASES. ANDRON HYGIENIC CO., INC., New York, N. Y.
Filed May 3, 1917. Serial No. 103,500. PUBLISHED NOVEMBER 27, 1917.

120,238. COMPOUND FOR REPAIRING RUBBER ARTICLES AND CEMENT TO BE USED THEREWITH. ATLAS AUTO SUPPLY COMPANY, Chicago, Ill.
Filed December 4, 1916. Serial No. 99,696. PUBLISHED NOVEMBER 13, 1917.

120,239. PERFUME, TOILET WATER, SACHET, FACE-POWDER, FACE-CREAM, SMELLING-SALTS, AND LIQUID FACE-POWDER. THE BALDWIN PERFUMERY CO., Chicago, Ill.
Filed September 10, 1917. Serial No. 106,151. PUBLISHED NOVEMBER 20, 1917.

120,240. CLINICAL THERMOMETERS, HYPODERMIC SYRINGES, AND PARTS THEREOF. BECTON, DICKINSON & CO., Rutherford, N. J.
Filed October 5, 1917. Serial No. 106,611. PUBLISHED NOVEMBER 27, 1917.

120,241. CERTAIN NAMED DETERGENT, ABRASIVE, AND POLISHING MATERIALS. BENNETT AND BENNETT, Brooklyn, N. Y.
Filed September 20, 1917. Serial No. 106,335. PUBLISHED NOVEMBER 13, 1917.

120,242. COTTON BAGS. BEMIS BRO. BAG CO., St. Louis, Mo.
Filed September 4, 1917. Serial No. 106,019. PUBLISHED NOVEMBER 20, 1917.

120,243. POCKET EYEGLASS-SHIELDS. EDWARD H. BINNS, Pittsburgh, Pa.
Filed August 29, 1917. Serial No. 105,929. PUBLISHED NOVEMBER 27, 1917.

120,244. CORSETS. BIRDSEY-SOMERS COMPANY, New York, N. Y.
Filed August 29, 1917. Serial No. 105,930. PUBLISHED NOVEMBER 27, 1917.

120,245. TOILET SOAP. A. BOURJOIS & CO., INC., New York, N. Y.
Filed September 19, 1917. Serial No. 106,309. PUBLISHED NOVEMBER 13, 1917.

120,246. TOILET SOAP. A. BOURJOIS & CO., INC., New York, N. Y.
Filed September 17, 1917. Serial No. 106,272. PUBLISHED NOVEMBER 20, 1917.

120,247. STOUT AND ALE. EDWARD & JOHN BURKE, LIMITED, Dublin and Belfast, Ireland.
Filed August 8, 1917. Serial No. 105,538. PUBLISHED NOVEMBER 20, 1917.

120,248. COLLARS, CUFFS, HOSIERY, GLOVES, OVERALLS, UNION-SUITS AND TWO-PIECE SUITS OF KNITTED AND TEXTILE MATERIAL. BURNHAM-MUNGER-ROOT DRY GOODS CO., Kansas City, Mo.
Filed August 9, 1915. Serial No. 88,492. PUBLISHED NOVEMBER 27, 1917.

120,249. SILK, FOULARDS, FLORENTINES, SATINS, VELVETS, AND PLUSHES IN THE PIECE AND SILK AND VELVET RIBBONS. CHENEY BROTHERS, South Manchester, Conn.
Filed August 1, 1917. Serial No. 105,394. PUBLISHED NOVEMBER 20, 1917.

120,250. CERTAIN NAMED MUSICAL INSTRUMENTS AND SUPPLIES. C. G. CONN, LTD., Elkhart, Ind.
Filed March 21, 1917. Serial No. 102,307. PUBLISHED NOVEMBER 20, 1917.

120,251. SNAP-FASTENERS. JAMES B. CROWLEY, San Francisco, Cal.
Filed September 26, 1917. Serial No. 106,488. PUBLISHED OCTOBER 23, 1917.

120,252. TIRE-PUNCTURE REPAIRING OR SEALING POWDER. DEFIANCE CHEMICAL COMPANY, Norfolk, Va.
Filed October 19, 1917. Serial No. 106,855. PUBLISHED NOVEMBER 27, 1917.

120,253. ATOMIZERS AND NEBULIZERS. THE DE VILBISS MANUFACTURING COMPANY, Toledo, Ohio.
Filed August 20, 1917. Serial No. 105,730. PUBLISHED NOVEMBER 13, 1917.

120,254. SWEATERS, SWEATER-COATS, JERSEYS, JERSEY-COATS, KNITTED SCARFS, AND KNITTED CAPS. ESS ARR KNITTING MILLS, INC., Brooklyn, N. Y.
Filed August 7, 1917. Serial No. 105,517. PUBLISHED NOVEMBER 20, 1917.

120,255. CERTAIN NAMED BILLETS, BEAMS, PLATES, INGOTS AND METALS. FEDERAL EXPORT CORPORATION, New York, N. Y.
Filed December 6, 1916. Serial No. 99,744. PUBLISHED OCTOBER 23, 1917.

120,256. SOAP IN CAKE AND POWDERED FORM. LOUIS FELD, Kansas City, Mo.
Filed May 31, 1917. Serial No. 104,154. PUBLISHED NOVEMBER 13, 1917.

120,257. NON-ALCOHOLIC SOFT-DRINK BEVERAGE AND SYRUP FOR MAKING THE SAME. EDWARD FROHN, Brooklyn, N. Y.
Filed August 6, 1917. Serial No. 105,491. PUBLISHED NOVEMBER 20, 1917.

120,258. TREATMENT FOR CERTAIN NAMED TROUBLES. HANAN KWAICHI EBZIMA, New York, N. Y.
Filed September 27, 1917. Serial No. 106,463. PUBLISHED NOVEMBER 20, 1917.

120,259. COLLARS AND DRESS, NEGLIGÉE, AND WORK SHIRTS. HALL, HARTWELL & CO., Troy, N. Y.
Filed September 17, 1917. Serial No. 106,280. PUBLISHED NOVEMBER 20, 1917.

120,260. NON-ALCOHOLIC CARBONATED BEVERAGES TO BE SOLD AS SOFT DRINKS. FRANK J. HEWLETT, Salt Lake City, Utah.
Filed October 3, 1917. Serial No. 106,579. PUBLISHED NOVEMBER 20, 1917.

120,261. LINIMENT USED EXTERNALLY FOR THE TREATMENT OF GOUT, NEURALGIA, BACKACHE, RHEUMATISM, LUMBAGO, COLDS, AND SPRAINS. JOSEPH MAURICE HOLLANDER, Braddock, Pa.
Filed September 29, 1917. Serial No. 106,508. PUBLISHED NOVEMBER 27, 1917.

120,262. CREAM OF TARTAR, BLUING, AMMONIA, EPSOM SALTS, BAKING-SODA, AND BAKING-POWDER. HOWARD & CASEY CO., Mount Vernon and Marion, Ill.
Filed September 29, 1917. Serial No. 106,506. PUBLISHED NOVEMBER 27, 1917.

120,263. SHOE AND LEATHER POLISHES. RICE & HUTCHINS, INC., Boston, Mass.
Filed March 16, 1916. Serial No. 93,583. PUBLISHED NOVEMBER 20, 1917.

120,264. CERTAIN NAMED RECEPTACLES. INDIVIDUAL DRINKING CUP CO. INC., New York, N. Y.
Filed July 11, 1917. Serial No. 104,986. PUBLISHED NOVEMBER 27, 1917.

120,265. SNAP-FASTENERS. KEYSTONE SNAP FASTENER CORPORATION, Philadelphia, Pa.
Filed April 14, 1917. Serial No. 102,986. PUBLISHED JUNE 5, 1917.

120,266. COMPOUND, A SUBSTITUTE FOR LARD. KINGAN & COMPANY, LIMITED, Belfast, Ireland, and Indianapolis, Ind.
Filed August 16, 1917. Serial No. 105,688. PUBLISHED NOVEMBER 13, 1917.

120,267. CERTAIN NAMED FURNITURE. KOBLER & MILLER COMPANY, Buffalo, N. Y.
Filed August 29, 1917. Serial No. 105,944. PUBLISHED NOVEMBER 20, 1917.

120,268. COTTON PIECE GOODS. LAKESIDE MILLS, Burlington, N. C.
Filed September 19, 1917. Serial No. 106,325. PUBLISHED NOVEMBER 27, 1917.

120,269. MIXED FEED FOR DAIRY-CATTLE. THE LARROWE MILLING CO., Cohocton, N. Y., and Detroit, Mich.
Filed July 24, 1917. Serial No. 105,233. PUBLISHED SEPTEMBER 11, 1917.

120,270. BELTS FOR WEAR. LAZ. LEVI, New York, N. Y.
Filed September 12, 1917. Serial No. 106,210. PUBLISHED NOVEMBER 20, 1917.

120,271. ARTIFICIAL EAR-DRUM. ABBURY O. LEONARD, New York, N. Y.
Filed May 19, 1917. Serial No. 103,957. PUBLISHED NOVEMBER 27, 1917.

120,272. WHISKY. TRAIN & MCINTYRE, LIMITED, Glasgow, Scotland.
Filed August 28, 1916. Serial No. 97,678. PUBLISHED NOVEMBER 20, 1917.

120,273. LETTERED DICE FOR PLAYING A GAME. EARL H. MCKERC, Auburn, Wash.
Filed May 29, 1917. Serial No. 104,142. PUBLISHED NOVEMBER 27, 1917.

120,274. TEXTILE BATH-RUGS. R. H. MACY & CO., New York, N. Y.
Filed August 20, 1917. Serial No. 105,745. PUBLISHED NOVEMBER 27, 1917.

120,275. COATS, VESTS, AND TROUSERS. R. H. MACY & CO., New York, N. Y.
Filed August 20, 1917. Serial No. 105,748. PUBLISHED NOVEMBER 20, 1917.

120,276. CERTAIN NAMED NON-INTOXICATING BEVERAGES. WILLIAM F. MAHONY, Washington, D. C.
Filed October 10, 1917. Serial No. 106,704. PUBLISHED NOVEMBER 27, 1917.

120,277. SANITARY AND ABSORPTIVE PADS AND BANDAGES. THE MENOPAD MFG. CO., Providence, R. I.
Filed October 20, 1917. Serial No. 106,881. PUBLISHED NOVEMBER 27, 1917.

120,278. WHEAT-FLOUR. THE MIDLAND MILLING COMPANY, Kansas City, Mo., assignor to Midland Milling Company, a Corporation.
Filed June 19, 1917. Serial No. 104,529. PUBLISHED NOVEMBER 13, 1917.

120,279. INSECTICIDE USED FOR DESTROYING INSECTS. NICOTINE MFG. CO., St. Louis, Mo.
Filed September 29, 1917. Serial No. 106,514. PUBLISHED NOVEMBER 27, 1917.

120,280. EARTHENWARE RECEPTACLES FOR PERISHABLE GOODS. NYA AKTIEBOLAGET TERRACOTTA, Mölndal, Sweden.
Filed May 9, 1917. Serial No. 103,677. PUBLISHED NOVEMBER 27, 1917.

120,281. STOCKINGS. O'CALLAGHAN & FEDDEN, New York, N. Y.
Filed August 20, 1917. Serial No. 105,751. PUBLISHED NOVEMBER 20, 1917.

120,282. STOCKINGS. O'CALLAGHAN & FEDDEN, New York, N. Y.
Filed August 20, 1917. Serial No. 105,752. PUBLISHED NOVEMBER 20, 1917.

120,283. WOODEN PIPE. PACIFIC CREOSOTING COMPANY, Seattle, Wash.
Filed May 21, 1917. Serial No. 103,989. PUBLISHED NOVEMBER 27, 1917.

120,284. WRITING-PAPER AND LEAD-PENCILS. PENINSULAR CHEMICAL CO., Detroit, Mich.
Filed August 26, 1916. Serial No. 97,651. PUBLISHED NOVEMBER 20, 1917.

120,285. CERTAIN NAMED FOODS. THE PERKINS-EPENETER PICKLE CO., Denver, Colo.
Filed June 21, 1917. Serial No. 104,598. PUBLISHED NOVEMBER 13, 1917.

120,286. RAZOR-STROPS. PIKE MANUFACTURING COMPANY, Pike and Littleton, N. H.; Evansville, Vt.; Orleans, Ind.; Hot Springs, Ark., and New York, N. Y.
Filed September 25, 1917. Serial No. 106,428. PUBLISHED NOVEMBER 27, 1917.

120,287. FOLDING COTS. ISAAC S. PURCELL, Chicago, Ill., assignor to Tentobed Company, Chicago, Ill., a Corporation of Illinois.
Filed May 7, 1917. Serial No. 103,578. PUBLISHED NOVEMBER 20, 1917.

120,288. COTTON, LINEN, SILK, AND WOOL PIECE GOODS AND MIXTURES OF THESE VARIOUS MATERIALS. RICE-STIX DRY GOODS COMPANY, St. Louis, Mo.
Filed September 14, 1917. Serial No. 106,252. PUBLISHED NOVEMBER 20, 1917.

120,289. BEDSPREADS, PILLOW-SHAMS, AND RAG CARPETS. LAURA T. RILEY, Poughkeepsie, N. Y.
Filed July 7, 1917. Serial No. 104,913. PUBLISHED NOVEMBER 20, 1917.

120,290. COFFEE. ROANOKE COFFEE AND SPICE CO., Roanoke, Va.
Filed June 23, 1917. Serial No. 104,649. PUBLISHED NOVEMBER 13, 1917.

120,291. NON-ALCOHOLIC CARBONATED MALTLESS BEVERAGE AND SYRUP FOR MAKING THE SAME. RICHARD M. SCHLESINGER, New Athens, Ill.
Filed May 17, 1917. Serial No. 103,906. PUBLISHED NOVEMBER 27, 1917.

120,292. CERTAIN NAMED CHEMICAL PREPARATION USED AS A BINDER AND SURFACE COATING. GEORGE J. SCHOEFFEL, New York, N. Y.
Filed September 25, 1916. Serial No. 98,226. PUBLISHED NOVEMBER 27, 1917.

120,293. LADIES' TEXTILE ATHLETIC UNDERWEAR IN ONE AND TWO PIECE GARMENTS. D. E. SICHER & CO., New York, N. Y.
Filed September 19, 1917. Serial No. 106,328. PUBLISHED NOVEMBER 20, 1917.

120,294. LADIES' OUTER SUITS, COATS, DRESS-WAISTS, HATS, AND SWEATERS. M. J. STEINBERG HAT & FUR COMPANY, St. Louis, Mo.
Filed September 4, 1917. Serial No. 106,040. PUBLISHED NOVEMBER 20, 1917.

120,295. CERTAIN NAMED BUILDING CONSTRUCTION. THE STERLING LUMBER CO., Cincinnati, Ohio.
Filed February 21, 1917. Serial No. 101,582. PUBLISHED NOVEMBER 20, 1917.

120,296. OINTMENT OR SALVE FOR THE TREATMENT OF OLD SORES, CANCERS, NEW CUTS, ECZEMA, &c. MARY J. STRONG, Portland, Oreg.
Filed April 30, 1917. Serial No. 103,399. PUBLISHED NOVEMBER 20, 1917.

120,297. WOOD AND LEATHER HEELS, SOLES, AND SHOES. B. F. STURTEVANT CO., Hyde Park, Mass., and Keene, N. H.
Filed August 23, 1917. Serial No. 105,846. PUBLISHED NOVEMBER 27, 1917.

120,298. WINES. THE SWEET VALLEY WINE COMPANY, Sandusky, Ohio.
Filed August 20, 1917. Serial No. 105,757. PUBLISHED NOVEMBER 27, 1917.

120,299. AERO-PROPELLERS. SCHWEIZER AND WEST MANUFACTURING COMPANY, Chicago, Ill.
Filed August 11, 1917. Serial No. 105,606. PUBLISHED NOVEMBER 20, 1917.

120,300. LADIES' DRESS AND SHIRT WAISTS. SOL GROSS & CO., New York, N. Y.
Filed August 18, 1917. Serial No. 105,723. PUBLISHED NOVEMBER 20, 1917.

120,301. PREPARED CHALK AND WHITING FOR MEDICINAL PURPOSES. THE THOMAS MANUFACTURING CO., Baltimore, Md.
Filed February 26, 1917. Serial No. 101,715. PUBLISHED JULY 17, 1917.

120,302. SLIPPERS, SHOES, BOOTEES, SOLES AND LININGS FOR SLIPPERS OR SHOES, &c. BERNHARD ULMANN CO., INC., New York, N. Y.
Filed August 30, 1917. Serial No. 105,956. PUBLISHED NOVEMBER 20, 1917.

120,303. PHONOGRAPHS. VITANOLA TALKING MACHINE CO., Chicago, Ill.
Filed October 16, 1917. Serial No. 106,797. PUBLISHED NOVEMBER 13, 1917.

120,304. WATCHES. WALTHAM WATCH COMPANY, Waltham, Mass.
Filed September 18, 1917. Serial No. 106,237. PUBLISHED NOVEMBER 20, 1917.

120,305. WASH-BRAIDS, FANCY BRAIDS, WASH-INSERTIONS, AND FANCY INSERTIONS FOR DRESSES, APRONS, AND UNDERGARMENTS. WEBBING & EDGING CORP., New York, N. Y.
Filed September 11, 1917. Serial No. 106,188. PUBLISHED OCTOBER 23, 1917.

120,306. SWEATERS. PHILIP WHITE, Philadelphia, Pa.
Filed February 17, 1917. Serial No. 101,466. PUBLISHED NOVEMBER 27, 1917.

120,307. NON-ALCOHOLIC MALTLESS BEVERAGE SOLD AS A SOFT DRINK AND SYRUP FOR MAKING SAME. CLIFFORD H. WILKINSON, West New York, N. J.
Filed May 22, 1917. Serial No. 104,016. PUBLISHED NOVEMBER 27, 1917.

120,308. PREPARATION FOR WORMS IN STOCK. WILSON REMEDY COMPANY, Lake Butler, Fla.
Filed August 31, 1917. Serial No. 106,005. PUBLISHED NOVEMBER 20, 1917.

LABELS

REGISTERED JANUARY 29, 1918.

20,498.—*Title:* "EDDIE'S EVERLASTING BLACK DYE." (For Dye.) EDWARD J. REILLY & Co., Baltimore, Md. Filed November 6, 1917.

20,499.—*Title:* "WALLACE'S LIVERADE. AIDS THE LIVER." (For a Remedy for Constipation; Sour Stomach, Indigestion, Sick Headache, Dizziness, Biliousness, and Torpid Liver.) LIVERADE MEDICINE Co., Fulton, Ky. Filed October 19, 1917.

PRINTS

REGISTERED JANUARY 29, 1918.

4,855.—*Title:* "P. A. PLAYS THE SMOKE GAME WITH ALL THE CARDS ON THE TABLE." (For Smoking-Tobacco.) R. J. REYNOLDS TOBACCO COMPANY, Winston-Salem, N. C. Filed November 30, 1917.

4,856.—*Title:* "SMOKING P. A. IS LIKE SHIFTING INTO HIGH." (For Smoking-Tobacco.) R. J. REYNOLDS TOBACCO COMPANY, Winston-Salem, N. C. Filed November 30, 1917.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

U. S. Circuit Court of Appeals—Sixth Circuit.

LEMLEY *v.* DOBSON-EVANS CO.

Decided June 5, 1917.

248 FED. REP., 391.

1. PATENTS—SUIT FOR INFRINGEMENT—EVIDENCE.
The printed date of the filing of the application as shown on the officially-printed copy of the patent will be accepted as correct in the absence of objection.

2. SAME—SAME—DEFENSES—ANTICIPATION.
A patent the application for which antedates that for the patent in suit is a part of the prior art and, if anticipatory, may be shown in defense of a suit for infringement under subdivision 4, section 4920, Revised Statutes, (Comp. St., 1916, sec. 9466[4],) as evidence that the patentee "was not the original or first inventor or discoverer" of the thing patented, since the filing of the application was constructively a reduction to practice by the prior applicant and carries with it the presumption that he had at that time made the invention.

3. SAME—INVENTION—LOOSE-LEAF BINDER.
The Schade patent, No. 819,461, for a loose-leaf binder, in view of the prior art is void for lack of invention.

APPEAL from the District Court of the United States for the Eastern Division of the Southern District of Ohio; John E. Sater, judge.

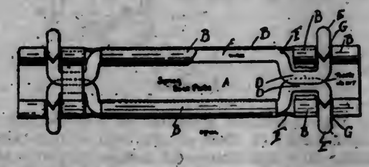
Suit in equity by the Dobson-Evans Company against S. T. Lemley. Decree for complainant, and defendant appeals. Reversed.

Mr. Stuart C. Barnes for the appellant.
Mr. Chester C. Shepherd for the appellee.

Before KNAPPEN and DENISON, Circuit Judges, and SANFORD, District Judge.

DENISON, *Cir. J.*:

In a suit brought by the Dobson-Evans Company against Lemley, based upon the first four claims of patent to Schade, No. 819,461, May 1, 1906, for improvements in loose-leaf binders, the district court thought claims 1, 2, and 4 were valid and infringed, and the usual interlocutory decree was entered. Lemley, the defendant below, brings this appeal. There were several earlier binders of the Schade type. They comprised two or more leaf-holding rings or eyes centrally divided into half-rings and with the halves hinged together so that they were adapted to be opened and receive loose sheets with prepared punched holes and then to be closed, whereby the sheets were strung upon the rings. They also embodied a holding cover or plate, whereby the rings and their hinges were retained in proper relative position. The closest resemblance to Schade, in both form and function, is found in Pitt, two years earlier. (See *Irving-Pitt Co.* v. *Twinlock Co.*, D. C., 220 Fed., 825; *Id.*, C. C. A. 2, 225 Fed., 1022; 140 C. C. A., 603; *Irving-Pitt Co.* v. *Trussell*, C. C. A. 2, 240 Fed., 780; —— C. C. A., ——; *Irving-Pitt Co.* v. *Blackwell*, C. C. A. 8, 238 Fed., 177; —— C. C. A., ——. See 240 Fed., 730, for drawing.) Pitt provided a back-plate of the desired length, and bent so as to form, in lateral cross-section, the arc of a circle with inturned lips. Within this back-plate and under the retaining-lips he put two rigid flat plates side by side, hinged together, so that the plates constituted hinge-leaves, their combined width being slightly greater than the chord of the back-plate arc. The back-plate was made of resilient material, and the result was that the hinge between the two flat plates would form a toggle-joint so that they would naturally fall into an obtuse angle, either above or below the line of the lips of the back-plate, and be held there by the spring action of the back-plate, and their motion in either direction would be limited by the back-plate or its lips. To the two opposite hinged plates, Pitt fastened the lower ends of his half-rings. When the upper meeting ends of the ring-sections were forced apart, the toggle-joint would spring into its upper position and the ring would be held open. When the ring-sections were closed, the joint would spring into the lower position and hold them there. The resiliency of the back-plate, yielding as the toggle-jointed back-plates passed the horizontal plane, imparted to the ring-sections this capacity to be held in either position in which they were placed. Schade adopted the Pitt structure, except that he substituted for each of Pitt's two flat toggle-jointed plates, to which ring-sections were soldered or otherwise rigidly fastened, a continuous wire, the first part of which was held longitudinally and pivoted under one lip of the back-plate, the second part of which was bent out into a lateral plane so as to go slightly past the center of the back-plate and then back again to the edge of it, forming a hinge-leaf, and the remaining part of which was then developed into a half-ring in a plane approximately at right angles to the planes both of the first and second parts. When two of these wire sections were opposed and in suitable engagement provided at the point where they met, they constituted a toggle-joint operating like Pitt. This construction is shown in the drawing herewith reproduced and is recited in claim 1 shown in the margin.[1]



It is not claimed that Schade is anticipated in the complete sense by the prior art, but the defense

[1] 1. In a temporary or loose-leaf binder, the combination with a base-plate made of spring sheet metal, of separable eyes mounted pivotally directly on the edges of said base-plate and having bent wire arms, the arms of the two opposite separable eyes being engaged to form toggle-levers between the sides of the spring base-plate substantially as set forth.

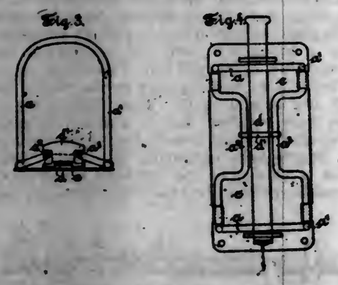
is that, in view of this art, the change made by him did not involve invention. Rightly to apprehend this art, further structures must be described. By an English patent, Lindner had shown a continuous-wire half-ring, leaf-offset and edge-pivot of a form very close to Schade's corresponding parts; but the two leaf-offsets did not reach each other, and were held in one position by a sliding clamp instead of being held in alternative positions by a spring-pressure. Blackmer and Robson also showed two wires, each developed into a half-ring, and each containing an offset portion like Schade. In this, as in Lindner, the two offset portions did not touch each other, but, unlike Lindner and like Schade, the offset portion served as a lever which, under spring-pressure, held the ring open or closed. An incasing spring member formed an abutment against which this lever rested. Normally, it held the ring closed, and when the ring was forced open, the lever passed the point where the spring would throw it back and the spring held it open. McMillan, instead of using Pitt's flat plates, carried his ring-sections themselves to the point of meeting where they were united with a hinge or pivot rod, and he so mounted them in the edges of the base-plate that they constituted the spring-pressed toggle-joint. The following selected figures from Lindner, Blackmer and Robson, and McMillan illustrate the description that has been given.



Blackmer and Robson.



McMillan.



Lindner.

(1) The patent of McMillan is No. 794,536, and was issued July 11, 1905, on application filed October 13, 1904. The Blackmer and Robson patent was applied for April 28, 1904, and issued August 29, 1905, being No. 798,157. It is urged that these are not a part of the art prior to Schade whose application was filed January 17, 1905, after the filing of Blackmer and Robson and of McMillan, but before the issue of either. There is no evidence in the record as to the respective dates of invention, save that afforded by the usual printed copies of the three patents admitted by stipulation, and by the certified copy of the McMillan file-wrapper and contents. While, in case of objection and insistence upon strict proof, it might be necessary to produce a copy of the Patent Office record in order to show the filing date, yet the practice of relying upon the date shown on the officially-printed copy has now become so general that, in this circuit, the printed date is accepted as proof whenever objection is not made. (*Drewson* v. *Hartje Co.*, 131 Fed., 734, 738; 65 C. C. A., 548.) We, therefore, assume that the filing dates of these patents are as above stated.

(2) This court held, in *Drewson* v. *Hartje Co.*, *supra*, (131 Fed., at p. 739; 65 C. C. A., 548,) that a patent, the filing date of which antedated the filing date of the patent in suit, was, *prima facie*, anticipatory; and we have repeatedly accepted and applied that rule, (*e. g.*, *Electric Co.* v. *Westinghouse Co.*, 171 Fed., 83, 87; 96 C. C. A., 187; *Jackson Co.* v. *Adler*, May 18, 1917, 243 Fed., 386; —— C. C. A., ——; *Twentieth Century Co.* v. *Loew Co.*, 243 Fed., 373; —— C. C. A., ——, May 8, 1917.) To rely upon these cases would be sufficient; but the contrary proposition is urged upon us so often and is observed to such an extent in current decisions that it seems to deserve reëxamination. The cases, found cited to support the claim that such a patent is not part of the prior art, are collected in the margin.[2] We are satisfied that the confusion arises out of a question of pleading, and has no foundation in matter of substance.

The patent statute (R. S. sec. 4920; Comp. St., 1916, sec. 9466) catalogues five supposedly-independent matters of defense, and requires the pleading of those which are to be relied upon. The separation is not analytically perfect; the last clause (*b*) of "third" seems to belong to "fifth," and since the patentee could not possibly be the first inventor of something that, before his invention, had been patented to or described by another, the entire first clause (*a*) of "third" seems quite unnecessary. However, we have to deal with the statute as it is. The two classes now material are:

> Third (*a*) that it [the invention] had been patented or described in some printed publication prior to his supposed invention or discovery thereof, or (*b*) more than two years prior to his application for a patent therefor. * * *
>
> Fourth. That he was not the original and first inventor or discoverer of any material and substantial part[3] of the thing patented.

Since an invention is not "patented" and the patent is not "published" until issued, it is apparent that when a patent is pleaded under this third defense and the fourth defense is not involved, its application date is of no importance whatever. It is equally sure that where the tendered issue is whether the patentee was the first inventor (fourth defense) and it appears that another had made the invention, the date of that other's patent, or whether he ever had a patent, or whether the prior description was by printing or without, is immaterial; the date of his invention is the vital thing.

Under the familiar Patent Office rule, the filing of an allowable application is a constructive reduction to practice,[4] and so there must be a presumption that the patentee had made his invention at the date of his filing. The cases where a substantial change in the invention is made pending the application are exceptional, and, of course, he who alleges an exception must prove it.[5] The existence of the presumption is worked out and declared, with perhaps unnecessary care, by the first circuit court of appeals in *Automatic Co.* v. *Pneumatic Co.*, (166 Fed., 288, 293; 92 C. C. A., 206.) Hence, it assuredly follows that if a patent in suit was applied for January 15th, and there is nothing to carry the patentee's invention back of that date, and if a patent disclosing the same invention was issued to another in July upon an application filed January 1st, this tends to show that the patentee of the patent in suit was not the first inventor. This has been distinctly held not only in *Drewson* v. *Hartje*, *supra*, but by the Seventh Circuit Court of Appeals, (*Barnes Co.* v. *Walworth Co.*, 60 Fed., 605, 606; 9 C. C. A., 154,) by Acheson, C. J., (*Westinghouse* v. *Chartiers Co.*, C. C., 43 Fed., 582, and cases cited on p. 588,) and by the Second Circuit Court of Appeals, (*Sundh Co.* v. *Interborough Co.*, 198 Fed., 94, 97; 117 C. C. A., 280,) and it has been expressly recognized and applied by the Supreme Court, (*Pope Co.* v. *Gormully Co.*, 144 U. S., 238, 244; 12 Sup. Ct., 637; 36 L. Ed., 420,) by Mr. Justice Bradley, (*Kearney* v. *Lehigh Co.*, D. C., 32 Fed., 320, 322, 323,) and by the Second Circuit Court of Appeals, (*Hillard* v. *Fisher Co.*, 159 Fed., 439, 441; 86 C. C. A., 469; *Otis Co.* v. *Interborough Co.*, 222 Fed., 501, 502; 138 C. C. A., 97.)

Turning to the cases cited *contra*, *Bates* v. *Coe*, in using the language so often quoted (98 U. S., on pp. 33, 34; 25 L. Ed., 68) is speaking solely of "evidence to sustain the second [third] defense," and this restriction has not been observed when it has been quoted as if applicable to all defenses. In *Horton Co.* v. *White Lily Co.* (C. C. A., 7) the court was considering two patents to the same inventor, a very different situation. In some, as in *Anderson* v. *Collins*, (C. C. A., 8,) it is carefully recognized that the ruling involves only the third defense. In others, the state of the pleadings does not appear. Some seem to depend upon a distinction between "anticipation" and "priority of invention," applying the former name to the third defense and the latter to the fourth, though we do not see why "anticipation" is not properly applicable to both. So far as any of the other cases may be distinctly inconsistent with the proposition of the preceding paragraph, we must think them erroneous.

It was the common, if not universal, practice under the old equity rules for an answer to recite under one paragraph all the older patents relied upon, and then, under another, to repeat all the names of the patentees with their places of residence. In deference to the simplifying spirit of the new rules, the defendant here pleaded that the patentee was not the first inventor—

> but that said invention was first made by the applicants of the patents recited in paragraph 9.

In such cases, there is no question of pleading, but the pertinence of the earlier filing date is clear. We should hesitate to reach the other result, even when the fourth defense was not pleaded in terms. Since patenting to another before the invention of the patent in suit necessarily implies denial that the patent in suit was issued to the first inventor, to plead the third defense is usually itself to plead the fourth, and it would be unfortunate that an invalid patent should be held valid only because a good defense had been pleaded by a wrong name. Any amendments that might seem necessary would doubtless be allowed on request, with due regard to the prejudice, if any, thereby caused.

(3) When we consider this prior art, including McMillan and Blackmer and Robson, we are forced to conclude that Schade took no inventive step. His continuous wire, developed into three parts, each part having a function, can be found merged in Pitt's hooks and flat plates, yet there would be ingenious, and, we assume patentable, novelty in observing this continuous wire and developing it out of its merged condition, if it had been a new thing after it was developed; and so Pitt alone will not serve to invalidate. McMillan makes his hooks or rings out of wire, and extends the hooks themselves to a meeting-point, making a toggle-lever hinge, and pivotally mounts the rings on the edges of the backplate. The language of Schade's claim 1, if given the broad meaning which could naturally be attributed to the selected words, plainly reads upon McMillan; and yet this is not conclusive of the question of invention, since the language of the claim, by reference to the specification, might fairly imply that the "bent wire arms" of the claim referred to arms bent up laterally and to hinge-leaves of the general type shown rather than those which were mere continuations of the hook in the same plane, like McMillan. Even Lindner, considered by itself or in association with the others, would not necessarily negative invention, since the wire offset of Lindner, shaped like Schade's wire offset, had no function as a spring-pressed lever, and to combine the thought of such a shaped and formed continuous wire with Pitt's thought of spring-actuated toggle-levers might well be considered a patentable combination. We are convinced, however, that Blackmer and Robson furnish the final and unanswerable argument against invention. With a continuous-wire member generally, undistinguishable from Schade and embodying the three functions of a separable retaining-hook, an edge-pivot and a doubly-bent offset portion operating as a spring-pressed lever, we find that this offset made contact with and passed by and was held in selected position by a resilient abutment located just above the offset. Pitt had disclosed a ring-section provided with an extension which made contact with a resilient abutment located at one side, viz, the opposite member of the same form. It follows that when Schade appeared, the toggle-lever-hinge form of Pitt and the spring-pressed-lever-arm form of Blackmer and Robson were known equivalents, and what Schade did was to substitute one for the other as one of the members of his otherwise unchanged combination. He accomplished no "new result," in any sense of that ambiguous phrase, except that his substituted form was perhaps cheaper to make, stronger and more smoothly operating in this old combination than the equivalent element which it displaced. The mechanical modification required, considered either from the viewpoint of substituting the Blackmer and Robson continuous wire for the Pitt hook and plate, or substituting the Pitt toggle-lever interlock for the Blackmer and Robson lever and casing interlock, was merely to extend the Blackmer and Robson offsets until they were hinged together. In view of all that was before him in these several patents, we cannot think that this was more than the expected ability of the skilled artisan. (*Fare Register Co.* v. *Ohmer*, C. C. A. 6, 238 Fed., 182, and cases cited at p. 187; 151 C. C. A., 258; *Budd Co.* v. *New England Co.*, C. C. A. 6, 240 Fed., 415, and cases cited on p. 417; —— C. C. A., ——.)

The remaining claims involved in the appeal fall with claim 1. The decree is reversed, and the case remanded, with instructions to dismiss the bill.

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[2] (*Bates* v. *Coe*, 98 U. S., 31; 25 L. Ed., 68; *Diamond Co.* v. *Kelly*, C. C., 120 Fed., 282, 287; *Anderson* v. *Collins*, C. C. A. 8, 122 Fed., 451, 458; 58 C. C. A., 669; *Thompson-Houston Co.* v. *Ohio Co.*, C. C., 130 Fed., 542, 546; *Hck* v. *Kutz*, C. C., 132 Fed., 758, 764; *Ajax Co.* v. *Brady Co.*, C. C., 155 Fed., 409, 415; *Union Co.* v. *Smith*, C. C., 173 Fed., 288, 291; *Gray Co.* v. *Baird Co.*, C. C. A. 7, 174 Fed., 417, 421; 98 C. C. A., 353; *Gen. Elec. Co.* v. *Allis Co.*, C. C., 190 Fed., 165, 170; *Johns Pratt Co.* v. *Freeman*, C. C. A. 3, 204 Fed., 288; 122 C. C. A., 512, (by affirmance of D. C., 201 Fed., 356, 360;) *Horton Co.* v. *White Lily Co.*, C. C. A. 7, 213 Fed., 471, 476; 130 C. C. A., 117; *Alvord* v. *Smith*, D. C., 216 Fed., 150, 154.)

[3] Since the thing patented is a unit, to which "any material and substantial part of" is essential, and since no patent is found to be either anticipated or infringed except by comparison with devices containing every substantial and material part, the special force of the quoted words is not evident.

[4] (*Duryea* v. *Rice*, 28 App. D. C., 423; *Computing Co.* v. *Standard Co.*, C. C. A. 6, 195 Fed., 508, 511; 115 C. C. A., 418; *Sundh Co.* v. *Interborough Co.*, C. C. A. 2, 198 Fed., 94, 97; 117 C. C. A., 280.)

[5] (*Webster Co.* v. *Higgins*, 105 U. S., 580, 594; 26 L. Ed., 1177.)

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., January 21, 1918.

The Tropico Co., its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Augustus F. Weppner, 176 York street, Buffalo, N. Y., for registration of a trade-mark and trade-mark registered August 26, 1913, No. 93,249, to The Tropico Co., 102–104 Greenwich street, New York, N. Y., and a notice of such declaration sent by registered mail to The Tropico Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the Tropico Co., its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

F. W. H. CLAY, *Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., January 21, 1918.

Greene Shoe Co., its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Albert H. Weinbrenner Co., of Milwaukee, Wis., for registration of a trade-mark and trade-mark registered February 25, 1902, No. 37,846, to the Greene Shoe Co., of 605 Wyandotte street, Kansas City, Mo., and a notice of such declaration sent by registered mail to said Greene Shoe Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Greene Shoe Co., its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

F. W. H. CLAY, *Assistant Commissioner.*

[Vol. 246. No. 5.]

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TO THE

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JANUARY, 1918.

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DIGEST

OF THE

DECISIONS OF THE COMMISSIONER OF PATENTS AND OF THE UNITED STATES COURTS.

JANUARY, 1918.

[Decisions of the Court of Appeals of the District of Columbia are indicated by one star (*), of the United States Circuit Court of Appeals by the letter c, and of the Supreme Court of the United States by two stars (**).]

ABANDONMENT.

APPLICATIONS—FORFEITED—RENEWAL REBUTS ANY PRESUMPTION OF ABANDONMENT.
The granting of a renewal application by the Commissioner of Patents rebuts any presumption of abandonment.
[*Murphy v. Thompson, 824.

ANTICIPATION.

See Construction of Specifications and Patents; Suits for Infringement, 2.

CLAIMS.

INTERPRETATION OF SPECIFIC.
When dealing with an improvement in a well-developed art and it is established that one party is the prior inventor of the broad subject-matter of that improvement, the more specific counts should be interpreted in the light of the general disclosure. Count 3 awarded to Burt.
[*Burt v. Coats and Cameron. Coats and Cameron v. Burt, 1031.

COMMISSIONER OF PATENTS.

See Abandonment; Jurisdiction of the Court of Appeals of the District of Columbia.

CONCEALMENT OF INVENTION.

See Priority of Invention, 1.

INTERFERENCE—REDUCTION TO PRACTICE.
Where after reduction to practice an inventor puts aside his invention for approximately two years until he discovers that his rival has placed the invention upon the market, *Held* that he is not entitled to an award of priority over his more diligent rival.
[*Dreckschmidt v. Schaefer and Holmes, 301.

CONSTRUCTION OF RULES.

See Interference, 1, 3.

CONSTRUCTION OF SPECIFICATIONS AND PATENTS.

PATENTS—VALIDITY OF REISSUE—ACETYLENE-GAS-GENERATING LAMP.
The Baldwin reissue patent, No. 13,542 (original No. 821,580), for acetylene-gas-generating lamp, claim 4, the principal feature of which are that the water-tube extends down into the mass of the carbid and that within it is a movable rod or stirrer which controls the flow of water and also is used to break up the slaked carbid which cakes at the delivery end of the tube, was not anticipated, discloses invention, and is not invalid as broadening the invention of the original patent, because the rod is not limited to one having a bent arm.
[**Abercrombie & Fitch Company and Justrite Manufacturing Company v. Baldwin and John Simmons Company, 567.

CONSTRUCTION OF STATUTES.

See Jurisdiction of the Court of Appeals of the District of Columbia; Suits for Infringement, 2.

DATE OF FILING APPLICATIONS.

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DILIGENCE.

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DISCLOSURE OF INVENTION.

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ELEMENTS.

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EVIDENCE.

See Priority of Invention, 3, 4, 5, 6; Suits for Infringement.

FOREIGN PROVISIONAL SPECIFICATION—BRITISH.

See Interference, 4; Specifications.

INFRINGEMENT.

See Particular Patents, 1.

INTERFERENCE.

See Claims; Concealment of Invention; Priority of Invention.

1. RIGHT TO MAKE THE CLAIM.
Where E., the junior party in a three-party interference, questions the right of B. to make a count of the issue, but does not challenge the right of G., the senior party, to make the claim, *Held* that Rule 130 is not applicable.
[*Elsom v. Bonner and Golde, 299.

2. JUDGMENT ON THE RECORD.
Record reviewed and *Held* that judgment on the record was properly rendered against E. [*Elsom v. Bonner, 300.

3. EACH ELEMENT MATERIAL.
The rule confirmed that all limitations appearing in the counts of an interference will in interference proceedings in the Patent Office be regarded as material to the invention covered thereby.
[*Bijur v. Rushmore, 300.

4. DISCLOSURE IN BRITISH PROVISIONAL SPECIFICATION.
Contentions of Coats and Cameron as to count 2 carefully considered, but *Held* that Burt in his provisional specification sufficiently disclosed the elements of this count to enable one skilled in the art to understand their construction and mode of operation.
[*Burt v. Coats and Cameron. Coats and Cameron v. Burt, 1031.

JUDGMENT ON THE RECORD.

See Interference, 2.

JURISDICTION OF THE COURT OF APPEALS OF THE DISTRICT OF COLUMBIA.

APPEAL FROM COMMISSIONER OF PATENTS.

The statute does not provide for an appeal to the court of appeals from a ruling by the Commissioner of Patents or of any of the subordinate tribunals affirming the patentability of a claimed invention. [*Elsom v. Bonner and Golde, 290.

LIMITATION OF CLAIMS.

See Interference, 3.

LIMITATION OF PATENT.

SCOPE—PRIOR ART.

A patent the application for which was filed prior to that for the patent in suit is *prima facie* a part of the prior art and may be considered in the limitations it imposes on the scope of the patent in suit. [4 Jackson Cushion Spring Co. v. Adler, 1032.

PARTICULAR PATENTS.

See Construction of Specifications and Patents; Interference, 4; Specifications.

1. ADLER AND SULLIVAN—No. 991,187—SPRING-CUSHION FOR AUTOMOBILES—VALIDITY AND INFRINGEMENT.

The Adler and Sullivan patent, No. 991,187, for a spring-cushion for the seats and backs of automobiles, conceding its validity is of narrow scope, its range of equivalents small, and its practical utility doubtful, and, as so construed, *Held* not infringed.
[4 Jackson Cushion Spring Co. v. Adler, 1032

2. SCHADE—No. 819,461—LOOSE-LEAF BINDER—INVENTION.

The Schade patent, No. 819,461, for a loose-leaf binder, in view of the prior art is void for lack of invention.
[4 Lemley v. Dobson-Evans Co., 1203.

PATENTABILITY.

See Jurisdiction of the Court of Appeals of the District of Columbia.

PRIORITY OF INVENTION.

See Abandonment; Claims; Concealment of Invention.

1. LACK OF DILIGENCE.

Where D. did nothing with his invention from the time S. and H. entered the field until they filed their application, *Held* that priority was properly awarded to S. and H.
[*Drechschmidt v. Schaefer and Holmes, 301.

2. RIGHT TO MAKE CLAIMS.

Where the counts include an armature axially movable and the device built and operated by B. prior to the filing date of R. did not contain this specific element, *Held* that priority was properly awarded to R. [*Bijur v. Rushmore, 301.

3. PROPERLY AWARDED.

Evidence reviewed and *Held* that priority was properly awarded to A. [*Hill v. Allen, 567.

4. SAME.

The evidence reviewed and *Held* that priority was properly awarded to D. [*Hamilton v. Dunn, 823.

5. SAME.

Record reviewed and *Held* that priority was properly awarded to R., the senior party. [*Porter and Rider v. Rider, 824.

6. DATE OF FILING—RENEWAL APPLICATION.

Record reviewed and *Held* that the [redacted] application of T. related back to his original filing date and priority was properly awarded to him. [*Murp[redacted] v. Thompson, 824.

REDUCTION TO PRACTICE.

See Concealment of Invention; Priority of Invention, 1; Suits for Infringement, 2.

REISSUES.

See Construction of Specifications and Patents.

RENEWAL OF FORFEITED APPLICATIONS.

See Abandonment; Priority of Invention, 6.

RIGHT TO MAKE CLAIMS.

See Interference, 1; Priority of Invention, 2.

SCOPE OF PATENT.

See Limitation of Patent; Particular Patents, 1.

SPECIFIC CLAIMS.

See Claims.

SPECIFICATIONS.

ADDRESSED TO THOSE SKILLED IN THE ART.

As to count 3, having in mind that provisional specifications are addressed to those skilled in the art, the statement in Burt's provisional specification that the crank-pin is *jointed* to the valve-sleeve and the disclosure as to how the valve-sleeve is to move when the crank-pin is actuated by the crank-disk is a sufficient disclosure of the pin on the valve-sleeve.
[*Burt v. Coats and Cameron. Coats and Cameron v. Burt, 1031.

STATE OF THE ART.

See Claims; Limitation of Patent; Particular Patent, 2; Suits for Infringement, 2.

SUITS FOR INFRINGEMENT.

1. DATE OF FILING—EVIDENCE.

The printed date of the filing of the application as shown on the officially-printed copy of the patent will be accepted as correct in the absence of objection. [4 Lemley v. Dobson-Evans Co., 1203.

2. DEFENSES—ANTICIPATION.

A patent the application for which antedates that for the patent in suit is a part of the prior art and, if anticipatory, may be shown in defense of a suit for infringement under subdivision 4, section 4920, Revised Statutes, (Comp. St., 1916, sec. 9466[4],) as evidence that the patentee "was not the original or first inventor or discoverer" of the thing patented, since the filing of the application was constructively a reduction to practice by the prior applicant and carries with it the presumption that he had at that time made the invention. [4 Id.

TRIBUNALS OF THE PATENT OFFICE.

See Jurisdiction of the Court of Appeals of the District of Columbia.

VALID PATENTS.

See Construction of Specifications and Patents; Particular Patents, 1.

VOID PATENT.

See Particular Patents, 2.

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ALPHABETICAL LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED DURING THE MONTH OF JANUARY, 1918.

[Abbreviations: "Gaz."—Official Gazette.]

A. Kimball Company. (See Anthony and Wallin, assignors.)
A. Kimball Company. (See Thompson, Arthur G., assignor.)
A. Schrader's Son. (See Burke, Wilbur B., assignor.)
A-B Stover Company. (See Weidlich, George A., assignor.)
A. C. Penn, Inc. (See Greenbrier, Harry W., assignor.)
A. C. K. Belting Co. (See Arbetter, Samuel, assignor.)
Aalborg, Christian, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Switching apparatus. No. 1,253,659; Jan. 15; v. 246; p. 708.
Aalborg, Christian, and A. H. Bakken, Wilkinsburg, Pa., assignors to Westinghouse Electric and Manufacturing Company. Switching apparatus. No. 1,253,660; Jan. 15; v. 246; p. 708.
Aalborg, Christian, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Trolley. No. 1,253,661; Jan. 15; v. 246; p. 708.
Abbey, Simeon A. (See Buxton and Abbey.)
Abbott, Adrian O., Jr., assignor of one-half to W. B. Norton, Detroit, Mich. Tire-building machine. No. 1,255,078; Jan. 29; v. 246; p. 1103.
Abbott, Chauncey, W., assignor to American Conduit Manufacturing Company, Pittsburgh, Pa. Metal conduit for electric wires. No. 1,252,314; Jan. 1; v. 246; p. 252.
Abbott, Harry R. (See Puckett and Abbott.)
Abbott, William G., Jr., Wilton, N. H. Apparatus for cleaning the interior of tubular members. No. 1,252,072; Jan. 1; v. 246; p. 185.
Abbott, William G., Jr., Wilton, N. H., assignor to Atlantic Terra Cotta Company, New York, N. Y. Cutting-machine. No. 1,252,531; Jan. 8; v. 246; p. 349.
Abel, Henry B., Valley Stream, N. Y. Shopper's catalogue. No. 1,254,560; Jan. 22; v. 246; p. 985.
Abraham, Herbert, New York, N. Y. Plastic cement and making same. No. 1,253,454; Jan. 15; v. 246; p. 651.
Abraham, Isaac B., Newport News, Va. Wedge-supporting block for axle-boxes. No. 1,254,383; Jan. 22; v. 246; p. 934.
Abram Cox Stove Company. (See Mott, Abram C., Jr., assignor.)
Abramson, Alfred C., Rockford, Ill. Lamp. No. 1,253,765; Jan. 15; v. 246; p. 738.
Achert, William K., assignor to The United States Printing and Lithograph Company, Cincinnati, Ohio. Display-support. No. 1,252,073; Jan. 1; v. 246; p. 186.
Acheson Corporation. (See Acheson, Edward G., assignor.)
Acheson, Edward G., assignor to Acheson Corporation, New York, N. Y. Deflocculating solid materials and agents therefor. No. 1,253,556; Jan. 15; v. 246; p. 678.
Achterkirch, William C., Ogilvie, Minn. Bulletin or notice board. No. 1,252,640; Jan. 8; v. 246; p. 381.
Ackerman, Emil. (See Truitt and Ackerman.)
Adam, Fredrick B., assignor to Frank Adam Electric Company, St. Louis, Mo. Floor-box. No. 1,254,641; Jan. 22; v. 246; p. 1008.
Adam Hilger, Limited. (See Twyman and Green, assignors.)
Adams, Arthur H., Sparkill, N. Y., and L. Polinkowsky, London, England, assignors to Western Electric Company, Incorporated, New York, N. Y. Automatic circuit-changing switch. No. 1,254,642; Jan. 29; v. 246; p. 1037.
Adams, Harry E., Pensacola, Fla. Buckle. No. 1,253,455; Jan. 15; v. 246; p. 651.
Adams, Louis E., Raven, Alberta, Canada. Cuspidor. No. 1,254,561; Jan. 22; v. 246; p. 985.
Adams, Porter H., Brookline, and F. Meyer, Canton, Mass. Alarm-bell. No. 1,253,602; Jan. 15; v. 246; p. 709.
Adams-Randall, Charles, assignor to Electrical Inventions Company, Boston, Mass. Telegraph receiving instrument. No. 1,254,432; Jan. 22; v. 246; p. 948.
Adams, William G., Roanoke, Va. Bridge construction. No. 1,252,873; Jan. 8; v. 246; p. 446.
Addressograph Company. (See Reynolds, William, assignor.)
Adler, Bror A., assignor to P. A. Lorenz, Chicago, Ill. Differential. No. 1,252,641; Jan. 8; v. 246; p. 381.
Adriance Machine Works. (See Calleson, Amos, assignor.)
Aeolian Company, The. (See Dickinson, Joseph H., assignor.)
Aeolian Company, The. (See Prettie, Richard J., assignor.)
Aeschbach, Friedrich, Aarau, Switzerland. Machine for molding pieces of dough. No. 1,252,765; Jan. 8; v. 246; p. 417.
Ahern, Frank T., New York, assignor to F. Strauss, Yonkers, N. Y. Push-toy jigger. No. 1,251,458; Jan. 1; v. 246; p. 3.
Ahl, Niels C. (See Ruddle and Ahl.)
Ahlering, Frederick R., Port Reading, N. J. Fountain shaving-brush. No. 1,252,380; Jan. 8; v. 246; p. 905.
Ahlers, Philip J., New York, N. Y. Puttee. No. 1,253,537; Jan. 15; v. 246; p. 678.
Aiken, Glendon A., Pittsburgh, Pa. Nut-lock. No. 1,254,461; Jan. 22; v. 246; p. 956.
Aikman, Burton S., assignor to National Brake & Electric Company, Milwaukee, Wis. Pump and pumping system. No. 1,253,558; Jan. 15; v. 246; p. 678.
Aikman, Burton S., assignor to National Brake & Electric Company, Milwaukee, Wis. Pump and pumping system. No. 1,253,559; Jan. 15; v. 246; p. 679.
Airgood, Murrel D., Punxsutawney, Pa., Moistening device for incubators. No. 1,254,057; Jan. 29; v. 246; p. 1182.
Akerlund, Gustaf H., Bray, Minn. Heating and ventilating system for buildings. No. 1,254,643; Jan. 29; v. 246; p. 1037.
Aktiebolaget Ljungströms Angturbin. (See Ljungström, Fredrik, assignor.)
Aktiebolaget Separator. (See Lindgren, Hans O., assignor.)
Aktiebolaget Svenska Kullagerfabriken. (See Lindhé, Roland W., assignor.)
Alaj, Antonio, Cleveland, Ohio. Mechanical water-horse for aquatic sports. No. 1,253,329; Jan. 15; v. 246; p. 612.
Albert, George F., Pittsburgh, Pa. Display device. No. 1,253,456; Jan. 15; v. 246; p. 651.
Albertson, R. W., *et al.* (See McCue, Leo, assignor.)
Albritton, Thomas A. (See Geiger, Cornelius, M., assignor.)
Albro, Emma L., Nichols, N. Y. Cooking utensil. No. 1,254,384; Jan. 22; v. 246; p. 935.
Alden, John L., Ludlow, Mass. Dust-separator. No. 1,253,766; Jan. 15; v. 246; p. 739.
Alderfer, Frederick G. (See Alderfer, John M., assignor.)
Alderfer, John M., Akron, assignor of one-half to F. G. Alderfer, Medina, Ohio. Crate. No. 1,254,186; Jan. 22; v. 246; p. 878.
Aldredge, Robert E., Pleasant Hill, La. Jewel-setter. No. 1,253,116; Jan. 8; v. 246; p. 521.
Aldrich, George W., Antigo, Wis. Washing-machine cylinder. No. 1,254,187; Jan. 22; v. 246; p. 878.
Alexander, Abraham, New York, N. Y. Press. No. 1,252,532; Jan. 8; v. 246; p. 349.
Allard, Andrew J., Richmond, Va. Time-operated circuit-controlling means. No. 1,252,874; Jan. 8; v. 246; p. 446.
Allen, Austin R., Bigspring, Nebr. Crutch. No. 1,253,117; Jan. 8; v. 246; p. 521.
Allen, Carroll. (See Blumenberg, Henry, Jr., assignor.)
Allen, Charles, El Paso, Tex. Automatic separating device. No. 1,254,562; Jan. 22; v. 246; p. 986.
Allen, Frank E., and J. M. Lieb, Columbus, Ohio. Water-motor. No. 1,254,644; Jan. 29; v. 246; p. 1037.
Allen, George H., North Fremantle, Western Australia, Australia. Generator for gas-producer plants. No. 1,254,107; Jan. 22; v. 246; p. 855.
Allen, George W., assignor to B. F. Sturtevant Company, Boston, Mass. Pump for pneumatic cleaners. No. 1,254,188; Jan. 22; v. 246; p. 878.
Allen, Harry, Cleveland, Ohio. Vehicle-wheel. No. 1,253,321; Jan. 15; v. 246; p. 782.
Allen, Jesse H., assignor of one-half to B. S. Miller, Columbus, Ga. Lug-strap support. No. 1,252,215; Jan. 1; v. 246; p. 224.
Allen, Napoleon B., Brooklyn, N. Y. Curtain-stretcher. No. 1,252,981; Jan. 8; v. 246; p. 480.
Allen, Willis E., Auburn, Me. Wire clothes-pin. No. 1,253,767; Jan. 15; v. 246; p. 739.

Alley, Daniel N., and A. E. Miller, Peru, Ind. Window-shade fixture. No. 1,252,982; Jan. 8; v. 246; p. 480.
Allis-Chalmers Manufacturing Company. (See Trout, William H., assignor.)
Allott, James R. L., and E. Dean, Kidsgrove, Stoke-upon-Trent, England. Means for arresting vehicles on inclined railways. No. 1,254,297; Jan. 22; v. 246; p. 910.
Alquist, S. P. (See White, George P., assignor.)
Altorfer, Alpheus W., Roanoke, assignor to Power Washing Machine Co., Peoria, Ill. Driving mechanism. No. 1,251,854; Jan 1; v. 246; p. 125.
Alvey, Benjamin H., Louisville, Ky. Automobile-top. No. 1,251,731; Jan. 1; v. 246; p. 87.
Aman, Frank A., Cincinnati, Ohio. Roller-coaster. No. 1,253,768; Jan. 15; v. 246; p. 739.
Ambruson, Henrik J., assignor to Morgan Construction Company, Worcester, Mass. Gas-producer. No. 1,252,642; Jan. 8; v. 246; p. 382.
American Barking Drum Company. (See Berger and Gnettler, assignors.)
American Burner Company. (See Smith, George W., assignor.)
American Can Company. (See Taylor, William E., assignor.)
American Can Company. (See Wood, Frederick P., assignor.)
American Can Company. (See Young, John M., assignor.)
American Chain Company. (See Phelps, Dexter E., assignor.)
American Chain Company. (See Weed, Harry D., assignor.)
American Conduit Manufacturing Company. (See Abbott, Chauncey W., assignor.)
American Conduit Manufacturing Company, The. (See Murphy, Daniel H., assignor.)
American Graphophone Company. (See Woods, Clinton E., assignor.)
American Laundry Machinery Company, The. (See Daly, Michael, assignor.)
American Laundry Machinery Company. (See Hecker, Hugo A., assignor.)
American Laundry Machinery Co. (See Kane and Couch, assignors.)
American Moistening Company. (See Comins, Frank B., assignor.)
American Multigraph Company, The. (See Trundle, George T., assignor.)
American Optical Company. (See Moore, William N., assignor.)
American Paper Goods Company, The. (See Reynal, Louis S., assignor.)
American Piano Company. (See Borcyk, Anthony W., assignor.)
American Piano Company. (See Russell, Guy M., assignor.)
American Safety Explosives Company. (See Kennedy and Bailey, assignors.)
American Steam Conveyer Corporation. (See Webster, Towner K., Jr., assignor.)
American stove Company. (See Munzner, Charles, assassignor.)
American Telephone and Telegraph Company. (See Campbell, George A., assignor.)
American Telephone and Telegraph Company. (See Espenschild, Lloyd, assignor.)
American Telephone and Telegraph Company. (See Martin, William H., assignor.)
American Telephone and Telegraph Company. (See Shaw, Thomas, assignor.)
American Thread Company, The. (See Clark, Robert K., assignor.)
American Tobacco Company, The. (See Vale, Alfred G., assignor.)
American Valve and Meter Compony, The. (See Anderson, Frank C., assignor.)
Ames, Arthur N., assignor, by mesne assignments, to Commercial Machine Company, Franklin, N. H. Knit fabric. No. 1,252,983; Jan. 8; v. 246; p. 481.
Ames, Robert Y., Gidea Park, Essex, and W. Haywood, Birminghan, England. Roofing-tile. No. 1,251,950; Jan. 1; v. 246; p. 150.
Amo, Robert G., St. Louis, Mo. Device for preventing leakage of lubricant from motor-vehicle axles. No. 1,252,984; Jan. 8; v. 246; p. 481.
Amrein, August, Amsterdam, N. Y. Machine for printing fibrous substances. No. 1,252,985; Jan. 8; v. 246; p. 481.
Anchor Cap & Closure Corporation. (See Hull, Herbert H., assignor.)
Anders, Hanns R., Perth Amboy, N. J., assignor to The Roessler & Hasslacher Chemical Co., New York. N. Y. Bleaching. No. 1,251,614; Jan. 1; v. 246; p. 51.
Anders, Hanns R., Perth Amboy, N. J., assignor to The Roessler & Hasslacher Chemical Co., New York, N. Y. Process of and apparatus for treating fibers. No. 1,252,986; Jan. 8; v. 246; p. 481.
Anderson, Arthur L., Juneau, Wis. Magnetic lifter for cans. No. 1,251,732; Jan. 1; v. 246; p. 87.
Anderson, Axel, St. Paul, assignor to Russel Grader Manufacturing Company, Minneapolis, Minn. Conveyer-belt carrier and tightening device for belts thereon. No. 1,254,014; Jan. 22; v. 246; p. 829.
Anderson-Barngrover Manufacturing Company. (See Baker, John S., assignor.)
Anderson, Charles. (See Dragon and Anderson.)
Anderson, Clarence A., Abilene, Kans. Telephone toll set. No. 1,252,216; Jan. 1; v. 246; p. 224.
Anderson, Edward L., Pittsburgh, Pa. Potash extraction. No. 1,253,560; Jan. 15; v. 246; p. 679.
Anderson, Flora W. (See Hunt and Anderson.)
Anderson, Frank C., assignor to The American Valve and Meter Company, Cincinnati, Ohio. Switch-stand latch. No. 1,253,200; Jan. 15; v. 246; p. 573.
Anderson, George C., Racine, Wis. Tool-holder. No. 1,253,769; Jan. 15; v. 246; p. 739.
Anderson, Hans P., Fargo, N. D. Game apparatus. No. 1,254,958; Jan. 29; v. 246; p. 1132.
Anderson, Henry R. W., *et al.*, administrators. (See Thomas and Davies.)
Anderson, James, and J. G. Fleming, Columbus, assignors of fifty-one one-hundredths to H. E. Vance, Franklin county, Ohio. Tractor. No. 1,252,643; Jan. 8; v. 246; p. 382.
Anderson, James C., Washington, D. C. Making automobile-tires. No. 1,254,015; Jan. 22; v. 246; p. 829.
Anderson, James C., Washington, D. C. Tire. No. 1,254,016; Jan. 22; v. 246; p. 829.
Anderson, John H., St. Paul, Minn. Combination shoveling-board and end-gate. No. 1,252,381; Jan. 8; v. 246; p. 305.
Anderson, John R., Moline, Ill. Folding table. No. 1,252,766; Jan. 8; v. 246; p. 418.
Anderson, John T., Davenport, Iowa. Jar molding-machine. No. 1,254,385; Jan. 22; v. 246; p. 935.
Anderson, Mark N., Sherburn, Minn. Locking-coupling. No. 1,254,886; Jan. 22; v. 246; p. 935.
Anderson, Nils H., assignor to The Noiseless Typewriter Company, Middletown, Conn. Type-writing machine. No. 1,252,382; Jan. 8; v. 246; p. 305.
Anderson, Nils H., assignor to G. F. Drouve, Bridgeport, Conn. Window-operating device. No. 1,254,959; Jan. 29; v. 246; p. 1133.
Anderson, Olof. (See Levinger and Anderson.)
Anderson, Tom M., Jr., Knoxville, assignor of one-third to G. W. Mayer, Harriman, Tenn. Lock. No. 1,254,960; Jan. 29; v. 246; p. 1133.
Anderson, William, Harrisburg, Pa. Bread-knife. No. 1,254,563; Jan. 22; v. 246; p. 986.
Andracek, Anton, *et al.* (See Muzik, John, assignor.)
Andres, Arthur. (See Schmidt and Andres.)
Andrews, Albert L., Wymore, Nebr. Device for pulling bolts and pipes. No. 1,254,961; Jan. 29; v. 246; p. 1133.
Andrews, Asa H., Jr. (See Bretton, Harry S., assignor.)
Andrus, Farlie R., Motley, Minn. Ice-loader. No. 1,254,108; Jan. 22; v. 246; p. 856.
Anfindsen, Christian B., Charleroi, assignor to Pittsburgh Steel Company, Pittsburgh, Pa. Apparatus for winding wire. No. 1,253,330; Jan. 15; v. 246; p. 612.
Anholdt, Anders P. (See Glern and Anholdt.)
Anthony-Hammond Chemical Works. (See Blieberger, Gustav, assignor.)
Anthony, Joseph G., St. Louis, Mo. Traffic-signal. No. 1,251,949; Jan. 1; v. 246; p. 150.
Anthony, Marcus O., Englewood, and G. A. Wallin, Scotch Plains, N. J., assignors to A. Kimball Company, New York, N. Y. Pin-ticket-attaching device. No. 1,254,017; Jan. 22; v. 246; p. 820.
Anton, William, West Duluth, Minn. Rolling-pin. No. 1,254,298; Jan. 22; v. 246; p. 910.
Apostle, Thomas, Kenton, Ohio. Chalk-holder. No. 1,254,564; Jan. 22; v. 246; p. 986.
App, Oliver O., New York, N. Y. Power-actuated implement. No. 1,253,501; Jan. 15; v. 246; p. 680.
Appelbaum, Julius, New York, N. Y. Calendar. No. 1,253,562; Jan. 15; v. 246; p. 680.
Appelman, Erastus W. (See Daubenberg and Appelman.)
Applegate, Harry R., Chicago, Ill. Holder for books, bound documents, and the like. No. 1,254,635; Jan. 22; v. 246; p. 1006.
Appleton, Frank, Philadelphia, Pa., assignor, by mesne assignments, to Scott & Williams, Incorporated. Defective-yarn detector for knitting-machines. No. 1,251,459; Jan. 1; v. 246; p. 3.
Appleton, Frank, Philadelphia, Pa., assignor, by mesne assignments, to Scott & Williams, Incorporated. Defective-needle detector for knitting-machines. No. 1,251,460; Jan. 1; v. 246; p. 3.
Arbetter, Samuel, assignor to A. C. K. Belting Co., Chicago, Ill. Belt-coupling. No. 1,252,767; Jan. 8; v. 246; p. 418.
Arbey, Alphonse. (See Peuch and Arbey.)
Arbuthnot, George D., Northfield Station, assignor to J. Wood, Harrison's Corners, and T. McKay, Cornwall, Ontario, Canada. Tire-protector. No. 1,254,962; Jan. 29; v. 246; p. 1134.
Arey, Fred C., Oak Park, Ill. Machine for making reinforced sheathing. No. 1,254,299; Jan. 22; v. 246; p. 911.
Arey, Samuel E., assignor of one-half to J. J. Hern, Fellows, Cal. Sucker-rod hanger. No. 1,251,615; Jan. 1; v. 246; p. 51.
Argo, Horace E., Oak Park, Ill. Grease-cup. No. 1,253,922; Jan. 15; v. 246; p. 782.
Armour and Company. (See Moor, William C., assignor.)
Armour and Company. (See Mulloy, George B., assignor.)
Armour and Company. (See Noble, Guy L., assignor.)
Armstrong Bros. Tool Co. (See Robinson, William S., assignor.)
Armstrong, Eliot, Buffalo, N. Y. Hose-supporter. No. 1,252,987; Jan. 8; v. 246; p. 482.

Armstrong, Philander S., *et al.* (See Cummings, Daniel J., assignor.)
Arney, Frank J., New York, N. Y. Detachable shirt-cuff. No. 1,254,565; Jan. 22; v. 246; p. 986.
Arnold, Frank K. (See Sevigne and Arnold.)
Arnold, George T. (See Breuckman, Franklin C., assignor.)
Arnold, Jas. P., *et al.* (See Betts and Corey, assignors.)
Arnold, William A., *et al.* (See MacKay, William H., assignor.)
Arrington, Millard F., Jr., New Orleans, La. Supporting-drawers. No. 1,254,463; Jan. 22; v. 246; p. 957.
Arvidson, Clarence G. (See Ebelhare and Arvidson.)
Ashdown, Herbert H., assignor to W. G. Armstrong, Whitworth and Company, Limited, Newcastle-upon-Tyne, England. Casting steel ingots. No. 1,251,951; Jan. 1; v. 246; p. 150.
Ashmusen, Henry W., assignor to Ashmusen Manufacturing Company, Kings Park, N. Y. Pump. No. 1,252,875; Jan. 8; v. 246; p. 446.
Ashmusen Manufacturing Company. (See Ashmusen, Henry W., assignor.)
Ashworth, Fred, Beverly, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Guard for shoe-stitching machines. No. 1,253,331; Jan. 15; v. 246; p. 612.
Atkins, Andrew A., Mineral, Va. Liquid-elevator. No. 1,254,760; Jan. 29; v. 246; p. 1073.
Atkinson, George C., Georgetown, Tex. Waterproof car-door. No. 1,251,855; Jan. 1; v. 246; p. 125.
Atkinson, Thomas N., St. Louis, Mo. Necktie holder and former. No. 1,253,457; Jan. 15; v. 246; p. 651.
Atlantic Terra Cotta Company. (See Abbott, William G., Jr., assignor.)
Atlee, Joshua W., Riverton, N. J. Portable cargo batten-cleat. No. 1,252,533; Jan. 8; v. 246; p. 350.
Atterbury, Grosvenor, New York, N. Y., assignor to Standardized Housing Corporation. Sectional cementitious structure. No. 1,254,100; Jan. 22; v. 246; p. 856.
Atwood, Earl K., Waterville, Me. Feeding mechanism for conditioning-machines. No. 1,253,923; Jan. 15; v. 246; p. 782.
Aue, Carlton W., Granite Falls, Wash. Coupling mechanism for log-carriages. No. 1,252,644; Jan. 8; v. 246; p. 383.
Auel, Carl B., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Temperature-regulating device. No. 1,253,201; Jan. 15; v. 246; p. 573.
Austin, Allen C., Syracuse, N. Y. Pressing-machine. No. 1,252,988; Jan. 8; v. 246; p. 482.
Austin, Arthur A., Pittsburgh, Pa. Lighting-fixture. No. 1,253,458; Jan. 15; v. 246; p. 651.
Auto Pneumatic Action Company. (See Johnson, Oscar, assignor.)
Automatic Electric Company. (See Martin, Talbot G., assignor.)
Automatic Electric Company. (See Stolp, Samuel S., assignor.)
Automatic Electric Company. (See Stroud, Harold, assignor.)
Automatic Electric Company. (See Willis, Bernard D., assignor.)
Automatic Phono-Stop Company. (See Rider, Herbert E., assignor.)
Autopress Company, The. (See Freeman, Rufus A., assignor.)
Autosales Gum & Chocolate Company. (See Grover, Albert D., assignor.)
Averitt. Robert W., Fort Worth, Tex. Heater. No. 1,253,118; Jan. 8; v. 246; p. 522.
Avery, W. & T. (See Howles, Walter R., assignor.)
Avery, Willoughby M., and J. B. Booth, Greensboro, N. C., assignors of two-thirds to said Avery and one-third to said Booth. Train-stop. No. 1,254,645; Jan. 29; v. 246; p. 1038.
Ayerst, Harry C., assignor to Sanitary Pulp Products Company, Seattle, Wash. Machine for liquid-proofing vessels. No. 1,252,315; Jan. 1; v. 246; p. 252.
B, B. Manufacturing Company. (See Beebe, Charles S., assignor.)
B. F. Avery & Sons. (See Ray, Charles T., assignor.)
B. F. Sturtevant Company. (See Allen, George W., assignor.)
B. F. Sturtevant Company. (See Bentley, Oliver D. H., assignor.)
Babcock & Wilcox Company, The. (See Jacobus, David S., assignor.)
Babich, George G., New York, N. Y. Grave-lining. No. 1,251,616; Jan. 1; v. 246; p. 52.
Bachmann, Siegmund, Chicago, Ill. Coat-hanger. No. 1,251,461; Jan. 1; v. 246; p. 3.
Badische Anilin & Soda Fabrik. (See Kardos and Nawiasky, assignors.)
Badische Anilin & Soda Fabrik. (See Schmidt and Andres, assignors.)
Bagley, Carl E., Welcome, Minn. Tractor attachment for automobile-wheels. No. 1,251,617; Jan. 1; v. 246; p. 52.
Bahls, Otto, and T. Siebert, Jr., New York, N. Y., assignors of one-half to said Bahls and one-half to said Siebert, Jr. Plug for electric conductors. No. 1,251,618; Jan. 1; v. 246; p. 52.
Bahmler, Floyd E., Solon, Iowa. Automatic railway-switch. No. 1,254,018; Jan. 22; v. 246; p. 830.
Bahnik, Emil. (See Pauer and Bahnik.)
Bahnson, Frederic F., Winston-Salem, N. C. Air-moistening device. No. 1,254,189; Jan. 22; v. 246; p. 879.
Baier, Charles A., and C. E. Merritt, Kansas City, Mo. Reinforced concrete-form. No. 1,252,645; Jan. 8; v. 246; p. 383.
Bailey, Charles A., Cromwell, Conn. Toy pistol. No. 1,251,462; Jan. 1; v. 246; p. 4.
Bailey Charles W. (See Matteson and Bailey.)
Bailey, Gilbert E. (See Kennedy and Bailey.)
Bailey, Silas E., Elmira Heights, assignor to Elmira Knitting Mills, Elmira, N. Y. Guide and tension device for removing snarls, kinks, &c., from yarn or thread. No. 1,254,761; Jan. 29; v. 246; p. 1074.
Bain, Benjamin F. (See Simpson, John H., assignor.) (Reissue.)
Bair, George I., Detroit, Mich. Bow-rest for vehicles. No. 1,254,762; Jan. 29; v. 246; p. 1074.
Baird, Bruce E., *et al.* (See Baird, Robert M., assignor.)
Baird, Robert M., assignor of one-third to B. E. Baird and one-third to W. E. Baird, Salt Lake City, Utah. Demountable rim. No. 1,253,119; Jan. 8; v. 246; p. 522.
Baird, W. Eccles, *et al.* (See Baird, Robert M., assignor.)
Baker, Clarence C., Alameda, and E. A. Chandler, San Francisco, Cal. Changeable sign. No. 1,251,733; Jan. 1; v. 246; p. 87.
Baker, Henry C. (See Jones, John D., assignor.)
Baker, Hinton J., Augusta, Ga. Machine for the automatic development of photographic plates and films. No. 1,254,300; Jan. 22; v. 246; p. 911.
Baker, John S., Evansville, Wis. Windmill. No. 1,251,619; Jan. 1; v. 246; p. 53.
Baker, John S., Los Angeles, assignors to Anderson-Barngrover Manufacturing Company, San Jose, Cal. Cooking apparatus. No. 1,252,217; Jan. 1; v. 246; p. 225.
Baker, Lewis A., Elgin, Ill. Filling-machine. No. 1,254,190; Jan. 22; v. 246; p. 879.
Baker, Lewis E., Hudson, Ill. Spring-seat. No. 1,254,963; Jan. 29; v. 246; p. 1134.
Baker-Vawter Company. (See Kuehl, Ludwig T., assignor.)
Bakken, Andrew H. (See Aalborg and Bakken.)
Bakos, John, Newark, N. J. Aeronautical garment. No. 1,254,110; Jan. 22; v. 246; p. 856.
Baldwin Company, The. (See Gally, Robert A., assignor.)
Baldwin Company, The. (See Tower, Herschel E., assignor.)
Bales, Walter S., Des Moines, Iowa. Grading and earth-moving machine. No. 1,254,191; Jan. 22; v. 246; p. 880.
Ball Brothers Glass Manufacturing Company. (See Ludington, Lawrence L., assignor.)
Ball Engine Company. (See Weston, Clarence B., assignor.)
Ball, Henry P., assignor, by mesne assignments, to S. Sternau & Co., Inc., Brooklyn, N. Y. Stove for burning solid fuel. No. 1,254,019; Jan. 22; v. 246; p. 830.
Ball, Herman F., Bronxville, assignor to Economy Devices Corporation, New York, N. Y. Safety draw-bar. No. 1,252,646; Jan. 8; v. 246; p. 383.
Ballard, Frederick F., Davenport, Iowa. Operating-headlight. No. 1,252,989; Jan. 8; v. 246; p. 483.
Ballard, George L., assignor to Wildman Mfg. Co., Norristown, Pa. Dog form of circular-knitting machines. No. 1,253,563; Jan. 15; v. 246; p. 681.
Ballin, Maurice, Oakland, assignor to Neustadter Bros., San Francisco, Cal. Adjustable hemmer. No. 1,254,875; Jan. 29; v. 246; p. 1110.
Balthasar, Harry G., assignor to Combination Auto Lock Company, St. Louis, Mo. Combination valve control. No. 1,253,770; Jan. 15; v. 246; p. 740.
Baltimore Oil Engine Company. (See Wygodsky, Leon, assignor.)
Balzer, Fritz. (See Bartholomew and Balzer.)
Balzer, Fritz, assignor to Troy Laundry Machinery Company, Ltd., Chicago, Ill. Pneumatically-controlled friction driving mechanism for ironing-machines. No. 1,251,734; Jan. 1; v. 246; p. 88.
Bannan, John P. (See Williams, Frederic W., assignor.)
Bannon, Joseph B., and N. C. Rhodes, Grawn, Mich. Bean-sorter. No. 1,251,735; Jan. 1; v. 246; p. 88.
Bányai, Mór, Tolna, Hungary. Process and device for the manufacture of real oriental carpets. No. 1,251,620; Jan. 1; v. 246; p. 53.
Barber, Allan J., Woonsocket, R. I. Drawing-frame. No. 1,255,074; Jan. 29; v. 246; p. 1163.
Barber, Guy M., assignor of one-third to W. M. Wootten, Los Angeles, Cal. Hydrocarbon-burner. No. 1,251,952; Jan. 1; v. 246; p. 150.
Barber, Howard M., Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y. Sheet-handling machine. No. 1,252,768; Jan. 8; v. 246; p. 418.
Barber, Howard M., Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y. Delivery mechanism for printing-presses. No. 1,253,332; Jan. 15; v. 246; p. 612.
Barber, Howard M., Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y. Sheet-handling machine. No. 1,254,876; Jan. 29; v. 246; p. 1110.
Barber, John W., Newton, Mass. Package. No. 1,253,564; Jan. 15; v. 246; p. 681.
Barber, Solomon, New York, N. Y. Coffee-making urn. No. 1,254,301; Jan. 22; v. 246; p. 912.

Barber, Thomas W., Westminster, London, England. Method for the recovery of fatty and other matters from liquids. No. 1,251,621; Jan. 1; v. 246; p. 53.

Barbour, George H., Pittsburgh, Pa. Railway-track structure and making same. No. 1,252,647; Jan. 8; v. 246; p. 383.

Barclay, Benjamin B. (See Sproul and Barclay.)

Bard, Francis N., Chicago, Ill. Flexible joint. No. 1,254,560; Jan. 22; v. 246; p. 986.

Bardeen Corporation, The. (See Harris, Ford W., assignor.)

Barghausen, John F., Washington, D. C. Intermembering and interlocking device. No. 1,254,636; Jan. 22; v. 246; p. 1006.

Barker, John P., Glendale, assignor, by mesne assignments, to Homer Motors Company, Los Angeles, Cal. Self-lubricating tractor-wheel. No. 1,253,120; Jan. 8; v. 246; p. 522.

Barker, John P., Glendale, assignor, by mesne assignments, to Homer Motors Company, Los Angeles, Cal. Universal driving-joint for tractors, &c. No. 1,254,763; Jan. 29; v. 246; p. 1074.

Barker, Reuben F., Portland, Oreg. Rotary valve for explosive-engines. No. 1,251,953; Jan. 1; v. 246; p. 151.

Barker, Thomas J., and F. L. Miller, Rosedale, Kans. Joist-form. No. 1,253,333; Jan. 15; v. 246; p. 613.

Barkow, Frank G., Los Angeles, Cal. Game. No. 1,253,202; Jan. 15; v. 246; p. 573.

Barley, Thomas K., Sedalia, Mo. Metal rake-tooth tip. No. 1,251,622; Jan. 1; v. 246; p. 53.

Barna, Joseph W., Chicago, Ill., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Machine for setting blind eyelets. No. 1,253,121; Jan. 8; v. 246; p. 522.

Barnes, Frederick W., and G. F. Phillips, assignors to Eastman Kodak Company, Rochester, N. Y. Photographic-dark-room lamp. No. 1,252,383; Jan. 8; v. 246; p. 306.

Barnes, Melvin E. (See Barnes, Wilbur E. and M. E.)

Barnes, Wilbur E. and M. E., Newark, N. J. Loom. No. 1,253,565; Jan. 15; v. 246; p. 681.

Barnett, Ernest F., Leicester, England, assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Dust-collecting hood. No. 1,255,110; Jan. 29; v. 246; p. 1173.

Barnett, Maurice, and L. Burgess, New York, N. Y. Producing alumina. No. 1,252,384; Jan. 8; v. 246; p. 306.

Barnett, Maurice, and L. Burgess, New York, N. Y. Producing aluminum sulfate. No. 1,252,648; Jan. 8; v. 246; p. 384.

Barnett, Maurice, and L. Burgess, New York, N. Y. Producing aluminum nitrid. No. 1,252,649; Jan. 8; v. 246; p. 384.

Barnett, William, Portland, Oreg. Adjustable sink-bracket. No. 1,253,924; Jan. 15; v. 246; p. 782.

Barney, Frank P., Chartley, Mass. Snap-fastener. No. 1,253,566; Jan. 15; v. 246; p. 681.

Barnhart, Willard R. (See Blair, James A., assignor.)

Baron, Michael, Newark, N. J. Life-preserver. No. 1,253,122; Jan. 8; v. 246; p. 523.

Barr, Albert D., McHue, Ark. Ferment and making the same. No. 1,253,334; Jan. 15; v. 246; p. 613.

Barr, Carl, Chicago, Ill. Electric switch. No. 1,251,856; Jan. 1; v. 246; p. 126.

Barr, Francis A., Fresno, Cal. Drier. No. 1,252,650; Jan. 8; v. 246; p. 384.

Barr, John H., New York, and H. A. Carhart, Syracuse, assignors to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,252,218; Jan. 1; v. 246; p. 225.

Barr, John L., Gentryville, Ind. Poultry-roost. No. 1,254,964; Jan. 29; v. 246; p. 1134.

Barrett Company, The. (See Swenson, George E., assignor.)

Barrett, John B., Clifton Station, Va. Means for indicating the position of submarine craft. No. 1,252,876; Jan. 8; v. 246; p. 446.

Barrett, John B., Clifton Station, Va. Means for indicating the position of self-propelled vessels. No. 1,252,877; Jan. 8; v. 246; p. 447.

Barrett, William J. (See Lago and Barrett.)

Barry, Walter F., Orange, N. J. Grinding or polishing apparatus. No. 1,254,111; Jan. 22; v. 246; p. 857.

Bart, Joseph, Arlington, N. J., assignor of one-half to P. Habenschaden, New York, N. Y. Non-refillable bottle. No. 1,251,736; Jan. 1; v. 246; p. 88.

Bartels, Arthur, Westgate, Iowa. Wagon-stanchion. No. 1,251,463; Jan. 1; v. 246; p. 4.

Bartholomew, William, and F. Balzer, assignors to Troy Laundry Machinery Company, Ltd., Chicago, Ill. Time-controlled mechanism for cylinder washing-machines. No. 1,251,737; Jan. 1; v. 246; p. 89.

Bartlett, Charles H., Cambridge, Mass. Ledger-holder. No. 1,253,567; Jan. 15; v. 246; p. 681.

Bartlett, Charles H., Cambridge, Mass. Book-holder. No. 1,253,568; Jan. 15; v. 246; p. 682.

Bartley, Joseph S., Denver, Colo. Rock-crusher. No. 1,254,192; Jan. 22; v. 246; p. 880.

Bascom, Helen W., Pasadena, Cal. Knife-cleaner. No. 1,252,316; Jan. 1; v. 246; p. 252.

Bastian, August H., Hillsdale, Oreg. Motion-translating mechanism. No. 1,254,112; Jan. 22; v. 246; p. 857.

Bateman Manufacturing Company. (See Willis, Leland, assignor.)

Bates, Clarence A., assignor to The Bryant Electric Company, Bridgeport, Conn. Bridging device for fuse-receptacles. No. 1,252,219; Jan. 1; v. 246; p. 225.

Bates, Fred P., Filer, Idaho. Address-printing machine. No. 1,253,771; Jan. 15; v. 246; p. 740.

Bates, Harlen C., Graniteville, Mo. Cattle-guard. No. 1,253,459; Jan. 15; v. 246; p. 652.

Bathurst, Charles, *et al.*, administrators. (See Thomas and Davies.)

Battey, Paul L., Glencoe, Ill. Power generation. No. 1,253,203; Jan. 15; v. 246; p. 574.

Bauch, William, Blue Island, Ill. Game-board. No. 1,252,534; Jan. 8; v. 246; p. 350.

Bauder, Will H., *et al.* (See King, Joseph, assignor.)

Baudry, Paul L., Paris, France. Bottling mineral waters. No. 1,252,535; Jan. 8; v. 246; p. 350.

Bauer, Gus, *et al.* (See Myers, Charles E., assignor.)

Bauer, Theodor von, Tautenburg, in Thuringia, Germany, assignor to B. Zwillinger, New York, N. Y. Coke-oven. No. 1,253,445; Jan. 15; v. 246; p. 648.

Bausch, John J., assignor to Bausch & Lomb Optical Company, Rochester, N. Y. Making eyepiece-caps. No. 1,254,646; Jan. 29; v. 246; p. 1038.

Bausch & Lomb Optical Company. (See Bausch, John J., assignor.)

Bausch & Lomb Optical Company. (See Paterson, William L., assignor.)

Baverey, François, Quillins, assignor to Societe du Carburateur Zenith, Lyon, France. Carbureter. No. 1,251,623; Jan. 1; v. 246; p. 54.

Bawtree, Alfred E. (See Hadfield and Bawtree.)

Bayne, George G. (See James, Perry C., assignor.)

Bayonne Steel Casting Company. (See Cook, Erben, assignor.)

Bazata, Joseph F. (See Jagemann and Bazata.)

Beach, Chester H., assignor to Wisconsin Electric Company, Racine, Wis. Sewing-machine motor. No. 1,252,317; Jan. 1; v. 246; p. 253.

Beach, Clarence E., Binghamton, N. Y., assignor, by mesne assignments, to The Gamewell Fire Alarm Telegraph Company, Auxiliary alarm system. No. 1,253,335; Jan. 15; v. 246; p. 613.

Beach, George W., Saybrook, Conn., and C. Von Culin, New York, N. Y. Combined poultry feeder and drinking-fountain. No. 1,254,193; Jan. 22; v. 246; p. 880.

Beach, Howard L. (See Varney and Beach.)

Beamless Car Truck Self-Adjusting Brake Company. (See Hartill-Law, William, assignor.)

Beard, Eli D., Soda Springs, Idaho. Tent. No. 1,253,123; Jan. 8; v. 246; p. 523.

Beard, Percy M., Hardinsburg, Ky. Foldable extension-step for railway-cars. No. 1,253,560; Jan. 15; v. 246; p. 682.

Beardsley, Chester H., Arlington, Oreg. Vehicle-signal. No. 1,254,113; Jan. 22; v. 246; p. 857.

Beardsley, Edwin W., trustee. (See Quill, Charles J., assignor.)

Beardsley, Porter, *et al.* (See Hulbert, Clarence, assignor.)

Beardsley, Robert F., assignor to Kalamazoo Corset Company, Kalamazoo, Mich. Ventilating-section for corsets. No. 1,252,990; Jan. 8; v. 246; p. 483.

Beardsley, Robert F., assignor to Kalamazoo Corset Company, Kalamazoo, Mich. Ventilating-section for corsets. No. 1,252,991; Jan. 8; v. 246; p. 483.

Beaty, Lawrence N. (See Haggerty and Beaty.)

Beaudry, Henri. (See Samuel, John, assignor.)

Beaudry, Henri, Montreal, Quebec, Canada. Belt-buckle. No. 1,253,336; Jan. 15; v. 246; p. 614.

Bechtolt, Clarence E., assignor to The Recording and Computing Machines Company, Dayton, Ohio. Fare-box. No. 1,252,051; Jan. 8; v. 246; p. 384.

Beck Duplicator Company, The. (See Saliger, Alois B., assignor.)

Beck, John H., Salt Lake City, Utah. Shoe-polishing machine. No. 1,254,965; Jan. 29; v. 246; p. 1134.

Beck, Roy C., E. A. Owens, and J. H. Steinman, assignors to Selectasine System, San Francisco, Cal. Delineating or reproducing pictures and designs. No. 1,254,764; Jan. 29; v. 246; p. 1075.

Becker, Johannes P., Berkeley, Cal. Automobile turning-signal light. No. 1,253,337; Jan. 15; v. 246; p. 614.

Becker, Robert A., assignor to C. Tremain, Poughkeepsie, N. Y. Transmission-line connector. No. 1,251,464; Jan. 1; v. 246; p. 4.

Beckham, J. J. (See East, Arthur R., assignor.)

Beckman, Fritz S., Grundy Center, Iowa. Automobile-signal. No. 1,253,124; Jan. 8; v. 246; p. 523.

Beckmann, Wilhelm, Berlin, Germany. Arrangement for driving tachometers on locomotives. No. 1,254,567; Jan. 22; v. 246; p. 987.

Bedecs, Louis. (See Losoncy, Jozsef, assignor.)

Beebe, Charles S., assignor to B. B. Manufacturing Company, Racine, Wis. Sled. No. 1,253,338; Jan. 15; v. 246; p. 614.

Beebe, Gaylord W., Clayton, Ga. Check-protector. No. 1,252,536; Jan. 8; v. 246; p. 350.

Beebe, Norman H., Davenport, Iowa, assignor to Lee Broom & Duster Company, Lincoln, Nebr. Broom-clamping machine. No. 1,252,992; Jan. 8; v. 246; p. 483.

Beery, Samuel M., Eagle township, Boone county, assignor to T. A. and E. E. Merriman, Brown township, Ind. Reversible wheel-rim. No. 1,252,077; Jan. 1; v. 246; p. 187.

Behrman, Marcus B., New York, N. Y. Seal-tag. No. 1,254,021; Jan. 22; v. 246; p. 831.

Beidler, George C., Rochester, N. Y. Copy-holder. No. 1,254,195; Jan. 22; v. 246; p. 881.

Beilke, Richard H., Granton, Wis. Rocking-chair-operated device. No. 1,254,387; Jan. 22; v. 246; p. 935.

Beltman, Albert B., East Cleveland, Ohio. Combined tire-carrier and luggage-receptacle. No. 1,253,339; Jan. 15; v. 246; p. 615.

Belco Sanitary Mfg. Co. (See Vient, Benjamin A., assignor.)

Belk, James B., Charlottesville, Va. Display-cabinet. No. 1,253,125; Jan. 8; v. 246; p. 523.

Bell, Alfred B., assignor to Hale and Kilburn Company, Philadelphia, Pa. Hinge and casing therefor. No. 1,254,020; Jan. 22; v. 246; p. 830.

Bell & Howell Company. (See Howell, Albert S., assignor.)

Bell, Joseph M., and G. S. Brown, Mount Gilead, Ohio. Reinforced-concrete pipe. No. 1,254,302; Jan. 22; v. 246; p. 912.

Bell, Louis, Newton, assignor of one-half to himself, and one-half to W. G. Wolfe, Wakefield, Mass. Ophthalmic lens. No. 1,253,998; Jan. 15; v. 246; p. 803.

Bell, William R., Dunham, Ala. Railway construction-car. No. 1,254,303; Jan. 22; v. 246; p. 912.

Bell, William T., Vivian, La. Oil-saver. No. 1,252,652; Jan. 8; v. 246; p. 384.

Bellamy, Louis W., Madison, Ind. Pencil and the like. No. 1,253,126; Jan. 8; v. 246; p. 524.

Benbow, James D. (See Burner, Benbow, and Greene.)

Bender, Allan P., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Protective system for transformers. No. 1,251,738; Jan. 1; v. 246; p. 89.

Bender, George E., assignor of one-third to F. G. Rapp, Chicago, Ill. Disk-record-filing device. No. 1,252,078; Jan. 1; v. 246; p. 187.

Benedict, Bernard, assignor to National Carbon Company, New York, N. Y. Portable electric light. No. 1,254,114; Jan. 22; v. 246; p. 857.

Bengough, James, Niagara Falls, N. Y., and J. F. Gaynor, Bridgeport, Conn. Autographic register. No. 1,252,385; Jan. 8; v. 246; p. 306.

Benjamin Electric Manufacturing Company. (See Benjamin, Reuben B., assignor.)

Benjamin Electric Manufacturing Company. (See Dean, William W., assignor.)

Benjamin, Reuben B., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill. Electric-lamp socket. No. 1,251,739; Jan. 1; v. 246; p. 90.

Bennett, Alan M. (See Florandin and Bennett.)

Bennett, William, assignor to Caldwell Manufacturing Company, Rochester, N. Y. Sash-balance. No. 1,254,647; Jan. 29; v. 246; p. 1038.

Benoit, Ida V., Brooklyn, N. Y. Separable fastener. No. 1,254,648; Jan. 29; v. 246; p. 1039.

Bens, Samuel J., Herkimer, N. Y. Package-container. No. 1,254,966; Jan. 29; v. 246; p. 1134.

Benson, Axle, and E. C. Shaw, assignors to The Crane Manufacturing Company, Galesburg, Ill. Baling-press. No. 1,251,740; Jan. 1; v. 246; p. 90.

Benson, Emil, Jasper, Minn. Dish-drainer. No. 1,252,220; Jan. 1; v. 246; p. 225.

Benson, Henry M., assignor of one-half to L. G. Fixen, Los Angeles, Cal. Tire-tread. No. 1,254,464; Jan. 22; v. 246; p. 957.

Benson, Otto E., White Cloud, Kans. Combination vehicle lift and stand. No. 1,253,127; Jan. 8; v. 246; p. 524.

Bentley, Oliver D. H., West Roxbury, assignor to B. F. Sturtevant Company, Hyde Park, Mass. Governer mechanism. No. 1,252,769; Jan. 8; v. 246; p. 418.

Bentley, Oliver D. H., assignor to B. F. Sturtevant Company, Boston, Mass. Elastic-fluid turbine. No. 1,254,465; Jan. 22; v. 246; p. 957.

Beranek, Joseph. (See Beranek, Ludwig and J.)

Beranek, Ludwig and J., Chicago, Ill. Window-seat. No. 1,252,386; Jan. 8; v. 246; p. 306.

Bergen, George B., Springfield, Ohio. Tent-peg. No. 1,252,387; Jan. 8; v. 246; p. 307.

Bergen Point Iron Works. (See Smith, Augustus, assignor.)

Berger, Joseph G. (See Hauser, John A., assignor.)

Berger, Ole L., Port Edwards, Wis., and H. Guettler, Escanaba, Mich., assignors to American Barking-Drum Company, Chicago, Ill. Apparatus for removing and recovering bark. No. 1,253,340; Jan. 15; v. 246; p. 615.

Bergius, Friedrich, and J. Billwiller, Hanover, Germany. Producing liquid or soluble organic combinations from hard coal and the like. No. 1,251,954; Jan. 1; v. 246; p. 151.

Bergmann, Carl, Jr., West Hoboken, N. J. Automatic clutching or starting device. No. 1,254,196; Jan. 22; v. 246; p. 881.

Bergner, Adolf, Berne, Switzerland. Wire-cutter. No. 1,252,537; Jan. 8; v. 246; p. 351.

Berklite, Alonzo H., assignor of one-half to J. B. Bader, Waynesboro, Pa. Metallic railway-tie. No. 1,251,624; Jan. 1; v. 246; p. 54.

Berman, Oscar A., Cincinnati, Ohio. Overall and suspenders. No. 1,252,221; Jan. 1; v. 246; p. 226.

Bermingham, John C., Kansas City, Mo. Paper-roll protector. No. 1,253,128; Jan. 8; v. 246; p. 524.

Bernstein Manufacturing Company. (See Weaver, William A., assignor.)

Berriex, Jean F. (See Chiron and Berriex.)

Berriman, Edward C., Chicago, Ill. Measuring instrument. No. 1,254,197; Jan. 22; v. 246; p. 881.

Berry, Charles A., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Door check and closer. No. 1,254,877; Jan. 29; v. 246; p. 1111.

Berry, Harry J., assignor of one-fourth to W. W. George, Portland, Oreg. Spark-plug. No. 1,253,570; Jan. 15; v. 246; p. 682.

Berry, John F., Lufkin, Tex. Folding coach-step. No. 1,252,993; Jan. 8; v. 246; p. 484.

Bertocchi, Salvatore, Newark, N. J. Wind musical instrument. No. 1,252,653; Jan. 8; v. 246; p. 385.

Bertram, Francis C., Portland, N. Y. Basket-handle. No. 1,254,967; Jan. 29; v. 246; p. 1135.

Bertucci, Peter J., Cliffside, N. J. Toy. No. 1,253,772; Jan. 15; v. 246; p. 741.

Betts, Anson G., Asheville, N. C. Electrodeposition of metals. No. 1,252,654; Jan. 8; v. 246; p. 385.

Betts, Benjamin B., St. Louis, Mo. Switch-point rail. No. 1,252,538; Jan. 8; v. 246; p. 351.

Betts, Benjamin B., St. Louis, Mo. Railway-switch. No. 1,254,304; Jan. 22; v. 246; p. 912.

Betts, George, and E. C. Corey, assignors of sixty-five one-dredths to said Betts, fifteen one-hundredths to J. P. Arnold, and twenty one-hundredths to J. F. Brooks, Richmond, Cal. Folding stand for motor-cycles. No. 1,254,624; Jan. 22; v. 246; p. 1003.

Betulander, Gotthilf A., Södertörns Villastad, Sweden, and N. G. Palmgren, assignors to The Relay Automatic Telephone Company, Limited, London, England. Automatic or semi-automatic telephone-exchange system. No. 1,251,955; Jan. 1; v. 246; p. 151.

Beutlich, Richard F., assignor to The 20th Century Machinery Company, Chicago, Ill. Pasteurizing apparatus. No. 1,251,465; Jan. 1; v. 246; p. 4.

Bever, Roy, Centralia, Wash. Swivel-hook. No. 1,252,222; Jan. 1; v. 246; p. 226.

Bevington, Edward, Hamilton, Ohio. Automobile-carried signal mechanism. No. 1,251,625; Jan. 1; v. 246; p. 54.

Bevis, Lonnie A., Roanoke, Ala. Boll-weevil exterminator. No. 1,254,649; Jan. 29; v. 246; p. 1039.

Bianchin, Giuseppe, Treviso, Italy. Sulfur-spray apparatus. No. 1,254,968; Jan. 29; v. 246; p. 1135.

Bickford, Ernest J. (See Rose and Bickford.)

Bickley, Ralph N., Minneapolis, Minn. Differential-transmission mechanism. No. 1,252,388; Jan. 8; v. 246; p. 307.

Bickley, Ross M., assignor to Heyl & Patterson, Inc., Pittsburgh, Pa. Apparatus for handling coal. No. 1,251,626; Jan. 1; v. 246; p. 54.

Bicsi, Gabor, Gary, W. Va. Signal-alarm for switches. No. 1,254,198; Jan. 22; v. 246; p. 882.

Bie, Albert, Winterthur, Switzerland, assignor to Busch-Sulzer Bros.-Diesel Engine Company, St. Louis, Mo. Engine-cylinder. No. 1,251,627; Jan. 1; v. 246; p. 55.

Bilgram, Hugo, Philadelphia, Pa. Automatic braking device for compensation-gears of automobiles and other similar vehicles. No. 1,251,466; Jan. 1; v. 246; p. 4.

Billinghurst, Charles B., Pierre, S. D. Device for controlling shock. No. 1,253,129; Jan. 8; v. 246; p. 524.

Billwiller, John. (See Bergius and Billwiller.)

Binder, Richard L., Philadelphia, Pa. Baling device. No. 1,254,878; Jan. 29; v. 246; p. 1111.

Binn, Franklin, Trenton, N. J. Fire-poker and clinker-picker. No. 1,254,765; Jan. 29; v. 246; p. 1075.

Binns, Albert. (See Mitchell and Binns.)

Bint, George F., Moseley, Birmingham, England. Plug for shell or projectile cases. No. 1,253,773; Jan. 15; v. 246; p. 741.

Birdsall, Wilfred T., Montclair, N. J., assignor, by mesne assignments, to Westinghouse Electric and Manufacturing Company. Vapor apparatus. No. 1,251,628; Jan. 1; v. 246; p. 55.

Birk, George. (See Fries and Birk.)

Birkenmaier, Theodore, St. Louis, Mo. Water-controlling mechanism for laundry-tubs. No. 1,252,079; Jan. 1; v. 246; p. 187.

Birkes, Elijah M., St. Joseph, Mo. Window-ventilator. No. 1,252,770; Jan. 8; v. 246; p. 419.

Bishop, Clair L., Cedar Rapids, Iowa. Feed-bag. No. 1,254,466; Jan. 22; v. 246; p. 958.

Bishop, George E., Cleveland, Ohio. Automobile-curtain. No. 1,253,341; Jan. 15; v. 246; p. 615.

Bittner, Charles, Stafford, Kans. Doubletree. No. 1,252,223; Jan. 1; v. 246; p. 226.

Bittner, Walter E., Beckley, Conn. Ladder-hook. No. 1,252,224; Jan. 1; v. 246; p. 226.

Bixby, Allan S., Indianapolis, Ind., assignor to The National Malleable Castings Company, Cleveland, Ohio. Molding-machine. No. 1,252,771; Jan. 8; v. 246; p. 419.

Bixby, Walter, Dorchester, assignor to The Lamson Company, Boston, Mass. Selectively-actuated mechanism. No. 1,252,080; Jan. 1; v. 246; p. 188.

Blachly, Frederick A., Council Bluffs, Iowa. Cylinder boring and grinding machine. No. 1,252,994; Jan. 8; v. 246; p. 484.

Blackall, Robert H., Lake Mahopac, assignor to Ratchet Brake Company, New York, N. Y. Ratchet-brake mechanism. No. 1,252,539; Jan. 8; v. 246; p. 351.

Blackburn, Jasper, Webster Groves, Mo. Hinged guy-clamp. No. 1,252,540; Jan. 8; v. 246; p. 352.
Blackman, John H. (See Moody and Blackman.)
Blackstone Manufacturing Company, The. (See More, Glenn, assignor.)
Blades, Leonard J., Jr., Chicago, Ill. Case or rack for displaying pamphlets, printed forms, and like matter. No. 1,254,766; Jan. 29; v. 246; p. 1076.
Blair, James A., assignor of forty-nine one-hundredths to W. E. Barnhart, Spokane, Wash. Train-order-delivering apparatus. No. 1,252,389; Jan. 8; v. 246; p. 307.
Blair, John, Jr., Rock Springs, Wyo. Combined pneumatic and steel tire. No. 1,252,081; Jan. 1; v. 246; p. 188.
Blair, Samuel, Trenton, N. J. Valve-operating mechanism for engines. No. 1,254,467; Jan. 22; v. 246; p. 958.
Blakeslee, Clyde W., assignor of twenty-four and one-half one-hundredths to I. J. McDowell and twenty-four and one-half one-hundredths to W. H. Westbrook, Chicago, Ill. Street-traffic signal. No. 1,254,305; Jan. 22; v. 246; p. 913.
Blaw-Knox Company. (See Knox, Luther L., assignor.)
Blayney, Lillian, Oakdale, Iowa. Reading-table. No. 1,254,969; Jan. 29; v. 246; p. 1135.
Bletcher, Ralph E., Spokane, Wash. Silencer. No. 1,251,956; Jan. 1; v. 246; p. 152.
Blieberger, Gustav, assignor to Anthony-Hammond Chemical Works, Inc., New York, N. Y. Making beta-naphthol benzoate. No. 1,254,970; Jan. 29; v. 246; p. 1135.
Blixt, Terry, and E. E. Frozeth, Minneapolis, Minn., said Blixt assignor to N. E. Frozeth, Chicago, Ill. Door-wedging mechanism. No. 1,251,467; Jan. 1; v. 246; p. 5.
Block, Paul J., Ballinger, Tex. Tongue-supporting attachment for cultivators and planters. No. 1,252,225; Jan. 1; v. 246; p. 226.
Bloomdahl, Albin G. (See Dick and Bloomdahl.)
Bloomfield, John C., East Columbus, Ohio. Combined drag and harrow. No. 1,254,568; Jan. 22; v. 246; p. 987.
Blumenberg, Henry, Jr., assignor to C. Allen, Los Angeles, Cal. Treating phosphate materials. No. 1,251,741; Jan. 1; v. 246; p. 90.
Blumenberg, Henry, Jr., assignor to C. Allen, Los Angeles, Cal. Treating phosphate material. No. 1,251,742; Jan. 1; v. 246; p. 91.
Blumenberg, Henry, Jr., assignor to C. Allen, Los Angeles, Cal. Making acid calcium phosphates. No. 1,252,318; Jan. 1; v. 246; p. 253.
Blumrick, Howard G., Auburn, N. Y. Display-form. No. 1,251,957; Jan. 1; v. 246; p. 152.
Boal, Charles L., Zanesville, Ohio. Book-holder. No. 1,254,569; Jan. 22; v. 246; p. 987.
Boberg, Teofron. (See Söderlund and Boberg.)
Bock, Adam, Brooklyn, N. Y. Cutting-tool. No. 1,252,082; Jan. 1; v. 246; p. 188.
Bock, Edward S., Ellinwood, Kans. Air-brake mechanism. No. 1,253,130; Jan. 8; v. 246; p. 525.
Bodge, William, Nutley, N. J. Rotary pump. No. 1,253,460; Jan. 15; v. 246; p. 652.
Boersma, Hendrik F. (See Hambloch, Anton H., assignor.)
Bohlinger, Alfred P., St. Louis, Mo. Antifriction device. No. 1,252,541; Jan. 8; v. 246; p. 352.
Bohlmann, Eduard C., Adell, Wis. Power transmission. No. 1,254,468; Jan. 22; v. 246; p. 958.
Bohmker, John C., Bradley, assignor to Sears, Roebuck and Company, Chicago, Ill. Mower. No. 1,254,879; Jan. 29; v. 246; p. 1111.
Bolg, James H. C., Los Angeles, Cal. Cotton-picker device. No. 1,253,774; Jan. 15; v. 246; p. 741.
Bollinger, Charles, Chicago, Ill., assignor to Western Electric Company, New York, N. Y. Recirculation system. No. 1,254,650; Jan. 29; v. 246; p. 1039.
Bolton, George J., Sayre, Pa. Game apparatus. No. 1,254,767; Jan. 29; v. 246; p. 1076.
Bolus, William G., Corliss, assignor to J. T. Webers, Racine Junction, Wis. Manually-wielded seeder. No. 1,252,542; Jan. 8; v. 246; p. 352.
Bone, William A., J. W. Wilson, Leeds, and C. D. McCourt, assignors to Radiant Heating Limited, London, England. Heat-developing apparatus. No. 1,253,342; Jan. 15; v. 246; p. 616.
Bonichou, J. Ernest. (See Hall, William D., assignor.)
Bonk, Edward, and M. Plotka, Chilton, Wis. Can-handling device. No. 1,252,226; Jan. 1; v. 246; p. 227.
Bonneau, Louis C., St. Denis, and V. E. Hasenfratz, Levallois-Perret, France. Treatment of the residue from gas purification known as crude ammoniac. No. 1,253,571; Jan. 15; v. 246; p. 683.
Bonney-Floyd Company, The. (See Dorsey, Walter A., assignor.)
Bonney-Floyd Company, The. (See Floyd, Walter B., assignor.)
Boone, Millard F., Pensacola, Fla. Belt-tightener for power transmission. No. 1,252,227; Jan. 1; v. 246; p. 227.
Boos, Edward H., Missoula, Mont. Type-composing apparatus. No. 1,252,083; Jan. 1; v. 246; p. 189.
Booth, John B. (See Avery and Booth.)
Borcyk, Anthony W., Rochester, assignor to American Piano Company, New York, N. Y. Treadle and lower-door operating mechanism. No. 1,251,958; Jan. 1; v. 246; p. 152.
Borden, William H., Winchester, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Work-support. No. 1,253,461; Jan. 15; v. 246; p. 652.
Borden's Condensed Milk Company. (See Campbell, Charles H., assignor.)
Bosart, Oscar M., Indianapolis, Ind. Piston-ring. No. 1,251,743; Jan. 1; v. 246; p. 91.
Bosler, George N. (See Schuhmann, Richard J., assignor.)
Boss, John C., Elkhart, Ind. Apparatus for drying of brick. No. 1,253,925; Jan. 15; v. 246; p. 783.
Bossbard, Rudolph, Mount Wilson Solar Observatory, Cal. Pressure grease-cup. No. 1,255,075; Jan. 29; v. 246; p. 1164.
Boston Wire Stitcher Company. (See Maynard, Arthur H., assignor.)
Bosworth, Birney B., New York, N. Y. Rope-grip. No. 1,254,570; Jan. 22; v. 246; p. 988.
Bosworth, Birney B., New York, N. Y. Combined rope-coupling and traveler. No. 1,254,571; Jan. 22; v. 246; p. 988.
Bosworth, Wilbur M., Norfolk, Va. Steel reinforcement for freight-cars. No. 1,253,131; Jan. 8; v. 246; p. 525.
Bothwell, George W., Ontario, Cal. Fuel-feeding means. No. 1,254,768; Jan. 29; v. 246; p. 1076.
Bounds, John W., and T. J. McDaniel, Kannapolis, N. C. Shuttle-check. No. 1251,744; Jan. 1; v. 246; p. 91.
Bousfield, Charlie J., Bay City, Mich. Valve-lifting tool. No. 1,251,629; Jan. 1; v. 246; p. 55.
Boutilier, Otto, Winnipeg, Manitoba, Canada. Nut-lock. No. 1,252,995; Jan. 8; v. 246; p. 485.
Bouvier, Marie, Paris, France. Chafing-shield. No. 1,251,468; Jan. 1; v. 246; p. 5.
Bowden, Jesse L., Warren, R. I. Ticket-holder. No. 1,253,132; Jan. 8; v. 246; p. 525.
Bowen, George W. (See Zerk and Drake, assignors.)
Bowen, John E., Lawrence, assignor to J. M. Van Heusen, Boston, Mass. Manufacture of collars and cuffs. No. 1,254,306; Jan. 22; v. 246; p. 913.
Bowen, Melvin I., Harlan, Ky. Rail-clamp. No. 1,253,133; Jan. 8; v. 246; p. 525.
Bower, Harry A., Boston, Mass. Drum. No. 1,252,878; Jan. 8; v. 246; p. 447.
Bowers, Benjamin S., Grand Rapids, Minn. Combined air-gage and magnet-tester. No. 1,251,745; Jan. 1; v. 246; p. 91.
Bowles, Joseph R. (See Hughes, Robert D., assignor.)
Bowles, Joseph R., Lynchburg, Va. Tire-chain holder. No. 1,253,926; Jan. 15; v. 246; p. 783.
Boyajian, Nishan M., New York, N. Y. Cigarette or cigar holder. No. 1,254,307; Jan. 22; v. 246; p. 913.
Boyd, James H. C. (See Telfer and Boyd.)
Boyd, Samuel A. (See Sons, Ernest L., assignor.)
Boyens, Henry F., Schneider, Ind. Furrow-wheel-steering mechanism. No. 1,252,228; Jan. 1; v. 246; p. 227.
Boyer, William J., Chicago, Ill. Grip-chain for tires. No. 1,254,023; Jan. 22; v. 246; p. 831.
Boyle, Edmund F. (See Meister, Surles, and Boyle.)
Brabson, Tom, Brooklyn, N. Y. Dump-cart. No. 1,251,469; Jan. 1; v. 246; p. 5.
Brackett, George S., Flemington, W. Va. Rail-tie. No. 1,253,663; Jan. 15; v. 246; p. 709.
Braconier, Clarence A., Wayne, Mich. Alarm. No. 1,254,769; Jan. 29; v. 246; p. 1077.
Bradley, Charles S., New York, N. Y. Reducing agent and producing same. No. 1,253,775; Jan. 15; v. 246; p. 742.
Bradley, William L., Richmond, Va. Traffic-signaling device. No. 1,254,971; Jan. 29; v. 246; p. 1136.
Bradshaw, Alfred, Calgary, Alberta, Canada. Fence-wire fastener. No. 1,254,338; Jan. 22; v. 246; p. 936.
Bradshaw, Granville E., Hersham, Walton-on-Thames, England. Internal-combustion-engine cylinder. No. 1,252,319; Jan. 1; v. 246; p. 253.
Bradshaw, John A., Paton, Iowa. Strainer for gasolene-tanks. No. 1,253,927; Jan. 15; v. 246; p. 783.
Bradshaw, William M., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electrical measuring instrument. No. 1,253,204; Jan. 15; v. 246; p. 574.
Brady, Alexander, Newton Lower Falls, assignor to New England Confectionery Company, Boston, Mass. Machine for dumping material. No. 1,253,343; Jan. 15; v. 246; p. 616.
Brady, Alexander, Newton Lower Falls, assignor to New England Confectionery Company, Boston, Mass. Dumping-machine. No. 1,253,664; Jan. 15; v. 246; p. 709.
Brady Wireless Corn Planter Company. (See Lanham, Colonel W., assignor.)
Bragg, James, assignor to Specialty Shoe Machinery Company, St. Joseph, Mo. Shoe-nailing machine. No. 1,252,378; Jan. 1; v. 246; p. 270.
Brammar, George, Suisun City, Cal. Pot and pan lifter. No. 1,253,928; Jan. 15; v. 246; p. 784.
Braud, Herbert A., Chicago, Ill. Combined drinking-straw and container. No. 1,254,115; Jan. 22; v. 246; p. 858.
Brandum, Emmet C., Frazee, Minn. Piston-ring. No. 1,251,630; Jan. 1; v. 246; p. 56.
Bransford, Joseph, Fellows, Cal. Door latch and lock. No. 1,251,631; Jan. 1; v. 246; p. 56.
Brant, Frank O., San Francisco, Cal. Display-figure. No. 1,251,857; Jan. 1; v. 246; p. 126.
Brassert, Hermann A. (See Walker, George M., assignor.)
Braun, Carl F., San Francisco, Cal. Twin strainer. No. 1,253,344; Jan. 15; v. 246; p. 617.
Brauner, Pincus, and L. W. Rosen, assignors to A. E. Brion, New York, N. Y. Film-shifting device for cameras. No. 1,253,205; Jan. 15; v. 246; p. 574.

Braunlich, Henry, Davenport, Iowa. Laundry apparatus. No. 1,254,972; Jan. 29; v. 246; p. 1136.
Brazee, George, Seattle, Wash. Signal device for automobiles. No. 1,252,655; Jan. 8; v. 246; p. 385.
Brazil Motors Company. (See Oversmith, Elmer H., assignor.)
Brecht Company. (See Gillespie, Alan K., assignor.)
Bredenberg, Alfred, Champlain, N. Y., assignor of one-half to The Sheridan Iron Works and one-half to T. W. & C. B. Sheridan Company. Book binding or covering machine. No. 1,252,879; Jan. 8; v. 246; p. 448.
Breen, Michael J., Louisville, Ky. Gage-glass. No. 1,252,656; Jan. 8; v. 246; p. 385.
Breese, Orville V., Scottsbluff, Nebr. Drag attachment for plows. No. 1,251,632; Jan. 1; v. 246; p. 56.
Breining, Edward W., Bellevue, Ky. Presser-foot lock. No. 1,253,134; Jan. 8; v. 246; p. 526.
Breitfeld, John. (See Hutchison and Breitfeld.)
Brenier, Emil G., Cincinnati, Ohio. Candy-starching device. No. 1,252,390; Jan. 8; v. 246; p. 308.
Brennan, James L., Marshall, Mich. Truss. No. 1,253,135; Jan. 8; v. 246; p. 526.
Brennan, John S., Milwaukee, Wis. Automatic damper control. No. 1,251,633; Jan. 1; v. 246; p. 57.
Bretton, Harry S., New York, N. Y., assignor to A. H. Andrews, Jr., Aurora, Ill. Container. No. 1,252,543; Jan. 8; v. 246; p. 353.
Breuckman, Franklin C., assignor of one-half to G. T. Arnold, Mackinac Island, Mich. Carriage-return mechanism for type-writers. No. 1,251,746; Jan. 1; v. 246; p. 91.
Breuckman, Franklin C., assignor of one-half to G. T. Arnold, Mackinac Island, Mich. Line-spacing attachment for type-writers. No. 1,251,747; Jan. 1; v. 246; p. 92.
Brewer, Harry and N. G., Sidney, Nebr. Oil-burner. No. 1,252,229; Jan. 1; v. 246; p. 227.
Brewer, Henry, assignor to Winchester Repeating Arms Co., New Haven, Conn. Insulated grip for bayonet-carrying shoulder-arms. No. 1,253,665; Jan. 15; v. 246; p. 709.
Brewer, John H., Louisville, Ky. Tent. No. 1,253,776; Jan. 15; v. 246; p. 742.
Brewer, Noah G. (See Brewer, Harry and N. G.)
Brewer, Thomas A., Louisville, Ky. Perforator attachment for printing-presses. No. 1,254,973; Jan. 29; v. 246; p. 1136.
Brewster & Co. (See Campbell, Alfred L., assignor.)
Brewster Film Corporation. (See Brewster, Percy D., assignor.)
Brewster, Percy D., East Orange, N. J. Color cinematography. No. 1,253,130; Jan. 8; v. 246; p. 526.
Brewster, Percy D., East Orange, N. J. Color cinematography. No. 1,253,137; Jan. 8; v. 246; p. 527.
Brewster, Percy D., East Orange, assignor to Brewster Film Corporation, Newark, N. J. Light-splitting device for color photography. No. 1,253,138; Jan. 8; v. 246; p. 527.
Brice, Alfred L. (See Brice, Milton D. and A. L.)
Brice, Milton D. and A. L., Minneapolis, Minn. Pole-coupling. No. 1,254,190; Jan. 22; v. 246; p. 882.
Bridgeport Hardware Manufacturing Corporation, The. (See Hobbs and Gibbs, assignors.)
Bridgwood, Charlotte A., Westwood, N. J. Wind-shield cleaner. No. 1,253,929; Jan. 15; v. 246; p. 784.
Briel, Henry G., Ottawa, Ill. Safety-valve. No. 1,253,930; Jan. 15; v. 246; p. 784.
Briggs, George W., Brooklyn, N. Y. Exercising and massaging device. No. 1,254,974; Jan. 29; v. 246; p. 1136.
Briggs, Warren R., Stratford, Conn. Demountable tire-rim. No. 1,252,391; Jan. 8; v. 246; p. 308.
Briggs, William L., Gadsden, Ala. Double-row corn-cutter. No. 1,252,880; Jan. 8; v. 246; p. 448.
Brigham-Hopkins Co. (See Mertz, Harry, assignor.)
Bright, Virginia B., Fayetteville, Tenn. Package and baggage tie. No. 1,251,470; Jan. 1; v. 246; p. 5.
Bringe, William F., assignor to T. Leubusher and B. F. Salzstein, Milwaukee, Wis. Advertising device. No. 1,255,076; Jan. 29; v. 246; p. 1164.
Brinton, William C., Jr., assignor to Philips-Brinton Company, Kennett Square, Pa. Electric vibrator. No. 1,254,880; Jan. 29; v. 246; p. 1112.
Brion, Adolph E. (See Brauner and Rosen, assignors.)
Bristol, Harold B., St. Louis, Mo. Loose-leaf binder. No. 1,253,206; Jan. 15; v. 246; p. 575.
Brock, Richard H., Kissimmee, Fla. Clothes-drying rack. No. 1,253,931; Jan. 15; v. 246; p. 785.
Brodie, John L., London, England. Helmet or head-shield. No. 1,251,959; Jan. 1; v. 246; p. 152.
Bromley, Forest, Decatur, Ill. Grain-drier. No. 1,254,770; Jan. 29; v. 246; p. 1077.
Bromley, John, Brooklyn, N. Y. Detachable shoe-tongue. No. 1,253,777; Jan. 15; v. 246; p. 742.
Brondersley, Niels C., Minden, Nebr. Leaf-spring oiler. No. 1,253,139; Jan. 8; v. 246; p. 527.
Brooks, Jesse M., Chicago, Ill. Electric sign. No. 1,251,471; Jan. 1; v. 246; p. 6.
Brooks, Joseph F., *et al.* (See Betts and Corey, assignors.)
Brooks, Winfred M., East Orange, N. J., assignor to E. J. Brooks & Co., New York, N. Y. Box-strap seal. No. 1,251,858; Jan. 1; v. 246; p. 126.
Brooks, Winfred M., East Orange, N. J., assignor to E. J. Brooks & Co., New York, N. Y. Box fastener and seal. No. 1,252,370; Jan. 1; v. 246; p. 268.
Bropson, James, Cleveland, Ohio. Plumber's furnace. No. 1,253,778; Jan. 15; v. 246; p. 742.
Brott, Andrew, Sidney, Nebr. Beet-harvesting machine. No. 1,252,230; Jan. 1; v. 246; p. 228.
Brown, Augustus F., Havre de Grace, assignor to Maryland Metal Cross Tie Co., Baltimore, Md. Metallic railway-tie and rail-fastening. No. 1,253,779; Jan. 15; v. 246; p. 742.
Brown & Bigelow. (See Shourt, James M., assignor.)
Brown, Charles E., Lawton, Okla. Ore-separator. No. 1,254,651; Jan. 29; v. 246; p. 1039.
Brown, George M., Cambridge, Mass. Carbureter. No. 1,255,077; Jan. 29; v. 246; p. 1164.
Brown, Guss S. (See Bell and Brown.)
Brown, Harold W., Ithaca, N. Y., assignor to Westinghouse Electric and Manufacturing Company. Electrical protective device. No. 1,253,207; Jan. 15; v. 246; p. 575.
Brown, Harry E., Augusta, Kans. Oil-well jack. No. 1,254,572; Jan. 22; v. 246; p. 988.
Brown, John L., Minneapolis, Minn. Portable bath-house. No. 1,254,771; Jan. 29; v. 246; p. 1077.
Brown, John M., Hamilton, Ontario, Canada. Shell-marking machine. No. 1,253,463; Jan. 15; v. 246; p. 653.
Brown, John R., assignor to The Ohio Brass Company, Mansfield, Ohio. Rail-bond. No. 1,253,462; Jan. 15; v. 246; p. 652.
Brown, Morris H., Yonkers, N. Y. Bending-machine. No. 1,252,371; Jan. 1; v. 246; p. 268.
Brown, Ray R., Hamburg, Iowa. Valve-cap. No. 1,254,975; Jan. 29; v. 246; p. 1137.
Brown, Thomas E., Jr., Morristown, N. J. Bascule-bridge. No. 1,251,634; Jan. 1; v. 246; p. 57.
Brown, Thomas E., Jr., Morristown, N. J. Bascule-bridge. No. 1,254,772; Jan. 29; v. 246; p. 1078.
Brown, Thomas E., Jr., Morristown, N. J. Bascule-bridge. No. 1,254,773; Jan. 29; v. 246; p. 1078.
Brown, Thomas J., Crawfordsville, Iowa. Overshoe-retainer. No. 1,253,140; Jan. 8; v. 246; p. 527.
Brown, W. Frank, High Point, N. C., Combined ash pan and sifter. No. 1,253,780; Jan. 15; v. 246; p. 743.
Brown, William H., Cleveland, Ohio. Making lubricating spring-eyes. No. 1,253,464; Jan. 15; v. 246; p. 653.
Brown, William J., assignor to Splitdorf Electrical Company, Newark, N. J. Attaching means for ignition breaker-boxes. No. 1,251,472; Jan. 1; v. 246; p. 6.
Brownlee, Zenas H., Cleveland, Ohio. Burner for natural gas. No. 1,253,781; Jan. 15; v. 246; p. 743.
Browne, Philip C., Portland, Oreg. Window-shade support. No. 1,254,881; Jan. 29; v. 246; p. 1112.
Bruce, William M., Jr., Springfield, Ohio. Wireless telegraphy. No. 1,251,473; Jan. 1; v. 246; p. 6.
Bruhn, Friedrich W. G., Berlin, Germany. Indicating apparatus for shafts. No. 1,251,859; Jan. 1; v. 246; p. 126.
Brumberg, Eli. (See Davis and Brumberg.)
Bruner, Meylert, Newton, and W. V. Neal, Boston, Mass., assignors, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Shoe-turning machine. No. 1,253,345; Jan. 15; v. 246; p. 617.
Brush, Alanson P. (See Nacker, Owen M., assignor.)
Brust, Tofel T., Putnam, Okla. Rail joint and brace. No. 1,252,231; Jan. 1; v. 246; p. 228.
Bryan, Edgar J., Riverside, Cal. Coil-forming machine. No. 1,253,782; Jan. 15; v. 246; p. 743.
Bryan, William D., assignor of one-half to G. M. Godfrey, North Carrollton, Miss. Valved piston. No. 1,254,024; Jan. 22; v. 246; p. 832.
Bryant, Augustus H., Glen Ridge, N. J. Safety-razor. No. 1,252,996; Jan. 8; v. 246; p. 485.
Bryant, Charles A., Clanton, Ala. Compound for destroying boll-weevils. No. 1,253,932; Jan. 15; v. 246; p. 784.
Bryant Electric Company, The. (See Bates, Clarence A., assignor.)
Buchanan, Frank, Syracuse, N. Y. Electrode for electric-arc lamps. No. 1,253,572; Jan. 15; v. 246; p. 683.
Buchanan, Frank E., assignor to National Lock Company, Rockford, Ill. Reversible cabinet-latch. No. 1,254,882; Jan. 29; v. 246; p. 1112.
Büchi, Alfred, Winterthur, Switzerland, assignor to Busch-Sulzer Bros.-Diesel Engine Company, St. Louis, Mo. Starting mechanism for combustion-engines. No. 1,254,774; Jan. 29; v. 246; p. 1078.
Buchsbaum, Samuel, Chicago, Ill. Pull-socket. No. 1,253,141; Jan. 8; v. 246; p. 528.
Buchtel, Luise A., New York, N. Y. Paper-doll-display board. No. 1,252,772; Jan. 8; v. 246; p. 419.
Buckeye Iron and Brass Works. (See Trace, Russell A., assignor.)
Buckeye Steel Castings Company, The. (See Larsen and Johnson, assignors.)
Buckingham, James F., Coventry, England. Incendiary bullet and shell. No. 1,251,960; Jan. 1; v. 246; p. 153.
Bucknam, Worthy C., Marion, and H. Cave, Elizabeth, N. J., assignors to Davis-Bournonville Company, New York, N. Y. Cutting-torch. No. 1,254,637; Jan. 22; v. 246; p. 1007.
Buck, Turney E., Springfield, Ill. Draft-controller. No. 1,252,773; Jan. 8; v. 246; p. 419.
Buell, Roy D., Chicago, Ill. Explosion-whistle alarm. No. 1,252,232; Jan. 1; v. 246; p. 228.
Buffalo Steam Roller Company. (See Richardson, Jeffers F., assignor.)

Buffum, Herbert H., assignor to Estey Watch Tool Company, Laconia, N. H. Sprinkler-head. No. 1,255,111; Jan. 29; v. 247; p. 1173.

Burzatti, Ettore, Paris, France. Engine-valve. No. 1,254,976; Jan. 29; v. 246; p. 1137.

Bush, Carl H., Cleveland, Ohio. Railway signaling system. No. 1,253,208; Jan. 15; v. 246; p. 576.

Bush, William, Carnegie, Pa. Metallurgical furnace. No. 1,254,308; Jan. 22; v. 246; p. 913.

Bush, Archer A., Spring Creek, Pa. Rail-joint. No. 1,252,392; Jan. 8; v. 246; p. 308.

Bushard, Lewis H. (See Temple and Bullard.)

Bushey, George W., assignor to Mercury Manufacturing Company, Chicago, Ill. Dumping apparatus. No. 1,254,977; Jan. 29; v. 246; p. 1137.

Bushey, George W., assignor to Mercury Manufacturing Company, Chicago, Ill. Snow-plow. No. 1,254,978; Jan. 29; v. 246; p. 1137.

Bushey, George W., assignor to Mercury Manufacturing Company, Chicago, Ill. Vehicle. No. 1,254,979; Jan. 29; v. 246; p. 1138.

Bushaus, Henry, Byron, Ill. Double hitch. No. 1,254,652; Jan. 29; v. 246; p. 1040.

Bush, Belle L., *et al.* (See Cuthbert, John W., assignor.)

Bush, Charles M., *et al.* (See Cuthbert, John W., assignor.)

Bushnell, William O., and O. G. Williams, assignors of one-half to Q. A. Gates and one-half to said Bushnell, Wilkes-Barre, Pa. Attachment for telephones. No. 1,253,191; Jan. 8; v. 246; p. 542.

Bushing Iron Works. (See Driscoll, Denuis L., assignor.)

Busch, Frederick R., assignor of nine one-hundredths to J. West and nine one-hundredths to E. West, Seattle, Wash. Motor-sled. (Reissue.) No. 14,418; Jan. 8; v. 246; p. 545.

Bushess, Frank A., Geneva, Ill. Seed-testing tray. No. 1,254,200; Jan. 22; v. 246; p. 882.

Bushess, Louis. (See Barnett and Burgess.)

Bushorn, Edwin, Hoboken, N. J. Cooling-tower. No. 1,252,774; Jan. 8; v. 246; p. 420.

Bushanek, Frank, assignor to Herbold Chair Co., Chicago, Ill. Chair. No. 1,253,346; Jan. 15; v. 246; p. 617.

Bushart, Eugene, Philadelphia, Pa. Toy. No. 1,254,573; Jan. 22; v. 246; p. 988.

Bushe, Alfred, Brooklyn, N. Y. Ornamentation. No. 1,254,409; Jan. 22; v. 246; p. 958.

Bushe, Wilbur B., Cleveland, Ohio, assignor to A. Schrader's Son, Incorporated, Brooklyn, N. Y. Dust-cap for valves or the like. No. 1,253,573; Jan. 15; v. 246; p. 688.

Bushett, John W., assignor to The Burkett Manufacturing Company, Columbus, Ohio. Internal-combustion engine. No. 1,253,933; Jan. 15; v. 246; p. 785.

Bushett Manufacturing Company, The. (See Burkett, John W., assignor.)

Bushitt, Floyd A., assignor to The Recording and Computing Machines Company, Dayton, Ohio. Fare-box. No. 1,252,657; Jan. 8; v. 246; p. 386.

Bushlew, Charles R., Yonkers, N. Y. Thermostatic circuit-controller. No. 1,252,393; Jan. 8; v. 246; p. 308.

Bushlin, Charles T., Whitinsville, assignor of one-half to W. L. Goodrich, Springfield, Mass. Repairing device for steam-hammers. No. 1,252,084; Jan. 1; v. 246; p. 189.

Bushner, William L., J. D. Benbow, and D. Greene, assignors to The Kilbourne & Jacobs Manufacturing Company, Columbus, Ohio. Compression-lock for dump-cars. No. 1,254,201; Jan. 22; v. 246; p. 882.

Bushnham Basket Company. (See Burnham, Charles, assignor.)

Bushnham, Charles, Los Angeles, Cal. Box-making ejecting mechanism. No. 1,252,546; Jan. 8; v. 246; p. 354.

Bushnham, Charles, Los Angeles, Cal., assignor to Burnham Basket Company. Box-making machine. No. 1,252,544; Jan. 8; v. 246; p. 353.

Bushnham, Charles, Los Angeles, Cal., assignor to Burnham Basket Company. Box-making machine. No. 1,252,545; Jan. 8; v. 246; p. 353.

Bushnham, Reuben B. (See Montgomery and Burnham.)

Bushns, Rosanna M., Manitowoc, Wis. Pie-pan cover. No. 1,251,860; Jan. 1; v. 246; p. 127.

Bushrows, Arthur, Freedom, N. Y. Runners and propelling mechanism for automobile-trucks. No. 1,252,233; Jan. 1; v. 246; p. 229.

Bushrt Machine Company. (See Whitehurst and Wild, assignors.)

Bushton, William C. (See Long and Burton.)

Bushch, Barney L., Chicago, Ill. Lighting system for automobiles. No. 1,253,142; Jan. 8; v. 246; p. 528.

Bushch, Conrad J., Wyomissing, Pa. Fountain-brush. No. 1,253,934; Jan. 15; v. 246; p. 785.

Bushch-Sulzer Bros.-Diesel Engine Company. (See Bie, Albert, assignor.)

Bushch-Sulzer Bros.-Diesel Engine Company. (See Büchi, Alfred, assignor.)

Bushch-Sulzer Bros.-Diesel Engine Company. (See Dietze, Carl, assignor.)

Bushch-Sulzer Bros.-Diesel Engine Company. (See Furrer, Rudolf A., assignor.)

Bushh, Paul H. (See Nyary, Anthony, assignor.)

Bushby, David, Keddleston, Saskatchewan, Canada. Stooking-machine. No. 1,254,202; Jan. 22; v. 246; p. 882.

Butcher, Arthur L. (See Kistler and Butcher.)

Butcher, Joseph, Brooklyn, N. Y. Combined receptacle and foot-rest. No. 1,252,775; Jan. 8; v. 246; p. 420.

Butcher, William L., Bringhurst, Ind. Fence. No. 1,254,653; Jan. 29; v. 246; p. 1040.

Butler Company, The. (See Powers, George A., assignor.)

Butler, E. (See McFall, Patrick W., assignor.)

Butler, Ernest A., and W. A. Nichols, Toronto, Ontario, Canada. Leveling device. No. 1,254,574; Jan. 22; v. 246; p. 989.

Butler, Helen M., Milton, Pa. Tire-armor. No. 1,252,394; Jan. 8; v. 246; p. 309.

Butler, Wilbert P., Denton, Md. Ridger. No. 1,252,658; Jan. 8; v. 246; p. 386.

Butterworth, Frank, London, England. Screen for cinematographic projection. No. 1,251,961; Jan. 1; v. 246; p. 153.

Butzow, Henry G., Sycamore, Ill. Dust-cap for valve-stems. No. 1,252,085; Jan. 1; v. 246; p. 189.

Buxton, Gustavus T., and S. A. Abbey, Charlotte, N. C. Filter-screen. No. 1,254,025; Jan. 22; v. 246; p. 832.

Bybee, William E. (See Johnson and Bybee.)

Bye, Edwin A. (See Mayer and Bye.)

Byrd, John H. (See Marqua, Von Unwerth, and Byrd.)

Byrne, Matthew D., Waterbury, Conn. Traction-shoe. No. 1,252,997; Jan. 8; v. 246; p. 485.

C. A. Vanderwell and Company, Limited. (See Midgley, Albert H., assignor.)

C. B. Cottrell & Sons Company. (See Barber, Howard M., assignor.)

C. G. Sargent's Sons Corporation. (See Sargent, Frederick G., assignor.)

Cac, John, Philadelphia, Pa. Automobile. No. 1,254,575; Jan. 22; v. 246; p. 989.

Cade, Jack. (See Cade, James W. and J.)

Cade, James W. and J., Mount Carmel, S. C. Motor-vehicle jack. No. 1,252,395; Jan. 8; v. 246; p. 309.

Caldwell, Arad K. (See Reynolds, Everett, assignor.)

Caldwell, Frank, Cincinnati, Ohio. Valve for gasolene and other liquid fuels. No. 1,253,143; Jan. 8; v. 246; p. 528.

Caldwell, John T., Menan, Idaho. Washboard-holder. No. 1,251,861; Jan. 1; v. 246; p. 127.

Caldwell Manufacturing Company. (See Bennett, William, assignor.)

Caldwell, Sanford. (See Harris, Albert, assignor.)

Caldwell, William K., Philadelphia, Pa. Machine for repeating pattern-cards. No. 1,254,470; Jan. 22; v. 246; p. 958.

Caley, Garfield H., assignor of one-third to H. J. Hembrook, Waterford, Wis. Corn-shock-loading machine. No. 1,254,203; Jan. 22; v. 246; p. 883.

Calgaro, Floravante L., Claridge, Pa. Submarine-catching net. No. 1,251,748; Jan. 1; v. 246; p. 92.

Calleson, Amos, assignor to Adriance Machine Works, Inc., Brooklyn, N. Y. Bottle filling and sealing machine. No. 1,252,881; Jan. 8; v. 246; p. 448.

Callow, John M., Salt Lake City, Utah, assignor to Metals Recovery Company, Augusta, Me. Ore-concentrating apparatus. No. 1,253,935; Jan. 15; v. 246; p. 786.

Calthrop, Everard R., London, and F. G. Lynde, Belvedere, assignors to The Vibrocel Company Limited, London, England. Construction of tanks, reservoirs, and the like. No. 1,252,547; Jan. 8; v. 246; p. 354.

Camel Company. (See Hartough, Edward W., assignor.)

Cameron, Duncan, assignor of one-third to W. J. Jackson, and one-third to J. N. Conro, White Sulphur Springs, Mont. Resilient wheel. No. 1,252,086; Jan. 1; v. 246; p. 189.

Camp, Forrest W., Glenellyn, Ill. Driving belt or chain. No. 1,254,389; Jan. 22; v. 246; p. 936.

Camp, Harry L., Lynchburg, Va. Box-stay. No. 1,252,234; Jan. 1; v. 246; p. 229.

Campbell, Alfred L., Elmhurst, N. Y., assignor to Brewster & Co. Shaft-coupling for motor-cars. No. 1,251,635; Jan. 1; v. 246; p. 57.

Campbell, Charles H., assignor to Borden's Condensed Milk Company, New York, N. Y. Apparatus for treating liquids. No. 1,253,347; Jan. 15; v. 246; p. 618.

Campbell, Charles W., assignor to The Lions Acetylene Gas Light Company, Lyons, Ind. Gas-machine. No. 1,254,980; Jan. 29; v. 246; p. 1138.

Campbell, E. S., *et al.* (See Ward, John A., assignor.)

Campbell, George A., Montclair, N. J., assignor to American Telephone and Telegraph Company. Signaling-circuit. No. 1,254,116; Jan. 22; v. 246; p. 856.

Campbell, George A., Montclair, N. J., assignor to American Telephone and Telegraph Company. Signaling-circuit. No. 1,254,117; Jan. 22; v. 246; p. 858.

Campbell, George A., Montclair, N. J., assignor to American Telephone and Telegraph Company. Signaling-circuit. No. 1,254,118; Jan. 22; v. 246; p. 859.

Campbell, George A., Montclair, N. J., assignor to American Telephone and Telegraph Company. Signaling-circuit. No. 1,254,471; Jan. 22; v. 246; p. 959.

Campbell, George A., Montclair, N. J., assignor to American Telephone and Telegraph Company. Signaling-circuit. No. 1,254,472; Jan. 22; v. 246; p. 959.

Campbell, George A., Montclair, N. J., assignor to American Telephone and Telegraph Company. Signaling-circuit. No. 1,254,473; Jan. 22; v. 246; p. 960.

Campbell, George A., Montclair, N. J., assignor to American Telephone and Telegraph Company. Signaling-circuit. No. 1,254,474; Jan. 22; v. 246; p. 960.

Campbell, George A., Upper Montclair, N. J., assignor to American Telephone and Telegraph Company. Signaling-circuit. No. 1,254,475; Jan. 22; v. 246; p. 961.

Campbell, George A., Upper Montclair, N. J., assignor to American Telephone and Telegraph Company. Signaling-circuit. No. 1,254,476; Jan. 22; v. 246; p. 961.

Campbell, Harry E., New York, N. Y. Metal window-frame. No. 1,252,087; Jan 1; v. 246; p. 190.

Campbell, Leon J., Chicago, Ill. Tire. No. 1,254,576; Jan. 22; v. 246; p. 989.

Camper, Dorsey B., Elgin, Ill. Automatic catch or lock. No. 1,252,776; Jan. 8; v. 246; p. 420.

Canadian Hart Wheels Limited. (See Williams, James F., assignor.)

Candee, Zenas P., assignor to Waterbury Farrel Foundry and Machine Company, Waterbury, Conn. Feed mechanism. No. 1,252,390; Jan. 8; v. 246; p. 309.

Candee, Zenas P., assignor to The Waterbury Farrel Foundry and Machine Company, Waterbury, Conn. Feed mechanism. No. 1,253,345; Jan. 15; v. 246; p. 618.

Canfield, Albert E., assignor of three-fifths to G. M. Pace, Kingston, Pa. Antiskidding device for wheel-tires. (Reissue.) No. 14,427; Jan. 29; v. 246; p. 1176.

Caraballo, Martin, Tampa, Fla. Auxiliary air-valve for gas-engines. No. 1,251,962; Jan. 1; v. 246; p. 153.

Carbart, Herbert A. (See Barr and Carhart.)

Carl, Elizabeth. (See Carl, Louis M., assignor.)

Carl, Louis M., assignor of one-half to E. Carl, Chicago, Ill. Window construction. No. 1,254,775; Jan. 29; v. 246; p. 1079.

Carle, Harold, Buffalo, N. Y., assignor to F. N. Burt Company, Limited, Toronto, Canada. Box-assembling machine. No. 1,251,963; Jan. 1; v. 246; p. 154.

Carling, Rose S., assignor to Pneumatic Surgical Appliance Company, Los Angeles, Cal. Arch-support. No. 1,254,654; Jan. 29; v. 246; p. 1040.

Carlson, Arthur J., Dovetail, Mont. Vehicle construction. No. 1,252,320; Jan. 1; v. 246; p. 253.

Carlson, Gustave, Chicago, Ill. Drain-connector. No. 1,252,548; Jan. 8; v. 246; p. 355.

Carlson, John L. (See McCord and Carlson.)

Carlson, Per H. (See Ecker, Walter, assignor.)

Carnegie, Alfred Q. (See Parsons, Carnegie, and Cook.)

Carpenter, Clifford C., Akron, Ohio. Finder for cameras. No. 1,253,144; Jan. 8; v. 246; p. 529.

Carpenter, Paul, Chicago, Ill. Ampul. No. 1,254,655; Jan. 29; v. 246; p. 1040.

Carpenter, Richard J., and T. G. Towner, Oakland, Cal. Pick for musical instruments. No. 1,254,577; Jan. 22; v. 246; p. 989.

Carpenter, Walter W., Lansdowne, Pa. Circuit-breaking device. No. 1,254,477; Jan. 22; v. 246; p. 961.

Carpenter, Warren W., Newark, N. J., assignor by mesne assignments to Western Electric Company, Incorporated. Telephone-exchange system. No. 1,251,637; Jan. 1; v. 246; p. 58.

Carper, Albert A., Catonsville, Md., assignor to The Stone Straw Company, Washington, D. C. Machine for manufacturing spirally-wound straws. No. 1,252,235; Jan. 1; v. 246; p. 229.

Carr Fastener Company. (See Carr, Fred S., assignor.)

Carr, Fred S., Brookline, assignor to Carr Fastener Company, Cambridge, Mass. Stud-and-socket fastener. No. 1,253,349; Jan. 15; v. 246; p. 618.

Carr, Fred S., Brookline, assignor to Carr Fastener Company, Cambridge, Mass. Turn-button fastener. No. 1,253,350; Jan. 15; v. 246; p. 619.

Carrie, Franklin G., administrator. (See Carrie, Mervyn E.)

Carrie, Mervyn E., deceased, Philadelphia, Pa.; F. G. Carrie, administrator, New York, N. Y. Gyroscopic compass. No. 1,253,574; Jan. 15; v. 246; p. 688.

Carrie, Mervyn E., deceased, Philadelphia, Pa.; F. G. Carrie, administrator, assignor of fifteen one-hundredths to G. A. Rossiter, Brooklyn, N. Y. Gyroscopic compass. No. 1,253,666; Jan. 15; v. 246; p. 710.

Carroll, Frank H., Denver, Colo. Condiment-holder. No. 1,253,465; Jan. 15; v. 246; p. 653.

Carroll, Thomas J., Dewey, Okla. Pipe attachment. No. 1,253,145; Jan. 8; v. 246; p. 529.

Carroll, William J., assignor to Sargent & Company, New Haven, Conn. Indicator-lock. No. 1,252,549; Jan. 8; v. 246; p. 355.

Carson, Carl F., Faxon, Okla. Cattle-poke. No. 1,252,882; Jan. 8; v. 246; p. 449.

Carson, Frank, St. Louis, Mo. Street-railway car. No. 1,252,236; Jan. 1; v. 246; p. 230.

Carson, Robert N., San Francisco, Cal. Mitten. No. 1,254,578; Jan. 22; v. 246; p. 990.

Carter, Rice & Company. (See Sevigne and Arnold, assignors.)

Carter, Russell S., Hewlett, N. Y. Shock-absorber. No. 1,252,397; Jan. 8; v. 246; p. 309.

Carter, William W., Needham, Mass. Rubber substitute and making the same. No. 1,251,862; Jan. 1; v. 246; p. 127.

Carter, William W., Needham, Mass. Rubber substitute and making the same. No. 1,251,863; Jan. 1; v. 246; p. 127.

Caruso, John D., *et al.* (See Landolfi, Louis, assignor.)

Carvalho, José A. de, Jr., Rio de Janeiro, Brazil. Dental-blowpipe burner. No. 1,253,946; Jan. 15; v. 246; p. 789.

Carvalho, Leslie R. N., assignor to Paragon Metal Cap Co., Brooklyn, N. Y. Machine for making receptacle-closures. No. 1,254,026; Jan. 22; v. 246; p. 832.

Casablancas, Fernando, Sabadell, Spain. Spinning-frame. No. 1,254,390; Jan. 22; v. 246; p. 936.

Casablancas, Fernando, Sabadell, Spain. Spinning-frame with conducting-belt for the roving. No. 1,254,391; Jan. 22; v. 246; p. 936.

Casanovas, Baltasar F. de, and R. Rubió y Roger, Barcelona, Spain. Time-fuse. No. 1,253,947; Jan. 15; v. 246; p. 789.

Caskey, Thomas H., Jr., Caney, Ky. Cooking-vessel attachment. No. 1,253,146; Jan. 8; v. 246; p. 529.

Casler, Herman, Canastota, N. Y. Center-indicator. No. 1,252,777; Jan. 8; v. 246; p. 421.

Cason, James M., Piedmont, S. C. Thresher. No. 1,252,398; Jan. 8; v. 246; p. 310.

Casper, Charles, Belton, Mo. Lock for mail-bags, trunks, boxes, and the like. No. 1,252,883; Jan. 8; v. 246; p. 449.

Cassard, Hamilton. (See McCaffray, Edmund, assignor.)

Castagner, Arthur R., Minneapolis, Minn. Carbureter. No. 1,253,936; Jan. 15; v. 246; p. 786.

Castanho, Elisiario, São Paulo, Brazil. Device for preventing derailment. No. 1,252,998; Jan. 8; v. 246; p. 485.

Caster, George W., Ottumwa, Iowa. Cement-block machine. No. 1,252,659; Jan. 8; v. 246; p. 386.

Castle, Frank, Sprigg, W. Va. Farm-gate. No. 1,253,783; Jan. 15; v. 246; p. 743.

Castleman, Samuel T., assignor to Long Life Lumber Company, Louisville, Ky. Tank or trough construction. No. 1,255,078; Jan. 29; v. 246; p. 1165.

Cater, George H., Antioch, Cal. Mechanical movement. No. 1,254,961; Jan. 29; v. 246; p. 1138.

Catron, Wm. M., *et al.* (See McGahan, George A., assignor.)

Caudle, Melven A., assignor of one-half to R. A. Hill, Mabscott, W. Va. Harrow attachment. No. 1,251,636; Jan. 1; v. 246; p. 57.

Caudron, René, Issy les Moulineaux, France. Controlling device. No. 1,254,982; Jan. 29; v. 246; p. 1139.

Cave, Henry. (See Bucknam and Cave.)

Cecil, William A., assignor of one-half to R. R. Williams, Evansville, Ind. Preserving wood. No. 1,253,667; Jan. 15; v. 246; p. 710.

Cedervall, Clarence E., Rockford, Ill. Non-refillable bottle. No. 1,255,079; Jan. 29; v. 246; p. 1165.

Celite Products Company. (See Thatcher, Harry S., assignor.)

Central Specialty Manufacturing Co. (See Walker, Frank O., assignor.)

Central Tool Company, The. (See Jaques, Fernando O., Sr., assignor.)

Chadwick, John M., Dayton, Ohio. Window-display device. No. 1,254,983; Jan. 29; v. 246; p. 1139.

Chadwick, Lee S., East Cleveland, Ohio. Automatic control mechanism for vehicles. No. 1,251,639; Jan. 1; v. 246; p. 59.

Chadwick, Lee S., East Cleveland, assignor to The Cleveland Metal Products Company, Cleveland, Ohio. Oil-burner. No. 1,251,638; Jan. 1; v. 246; p. 58.

Chamberlain, Louie H. (See Yaryan and Chamberlain.)

Chamberlain, Robert J. (See Hirsh, Leo, assignor.)

Chamberlain, Zear J., and F. Low, St. Louis, Mo. Nut-cracker. No. 1,254,119; Jan. 22; v. 246; p. 859.

Champion, John W., Colorado Springs, Colo. Railway-tie. No. 1,253,784; Jan. 15; v. 246; p. 744.

Champney, Ralph P., Worcester, Mass. Driving apparatus. No. 1,252,550; Jan. 8; v. 246; p. 355.

Chanchuck, John, Burlington, N. D. Smoke-strainer for pipes. No. 1,254,478; Jan. 22; v. 246; p. 962.

Chandler, Earl A. (See Baker and Chandler.)

Chandler Motor Car Company, The. (See Whitbeck, John V., assignor.)

Channell, Charles A., Chicago, Ill., assignor to Channell Chemical Company. Mop. No. 1,254,776; Jan. 29; v. 246; p. 1079.

Channell Chemical Company. (See Channell, Charles A., assignor.)

Chapparro R., Roberto, Valparaiso, Chile. Mixer. No. 1,253,785; Jan. 15; v. 246; p. 744.

Chapman, Fred H., Winchester, Mass. Spindle. No. 1,253,351; Jan. 15; v. 246; p. 619.

Chappell, Andrew J., Samantha, Ala. Vehicle-brake. No. 1,253,668; Jan. 15; v. 246; p. 710.

Chase, Frank S., assignor to The Progressive Manufacturing Company, Torrington Conn. Automatic screw-slotting machine. No. 1,252,884; Jan. 8; v. 246; p. 449.

Chase, William H., assignor, by mesne assignments, to Draper Corporation, Hopedale, Mass. Filling-catcher for looms. No. 1,253,148; Jan. 8; v. 246; p. 530.

Chatillon, Ralph F., Greenburg, N. Y., assignor to John Chatillon & Sons. Scale. No. 1,251,640; Jan. 1; v. 246; p. 59.

Chemical Development Company. (See McElroy, Karl P., assignor.)

Chenoweth, Alexander C., assignor to Chenoweth Concrete Revetment Company, Inc., New York, N. Y. Protective covering. No. 1,253,209; Jan. 15; v. 246; p. 576.

Chenoweth Concrete Revetment Company. (See Chenoweth, Alexander C., assignor.)

Chicago Belting Company. (See Horsman, Thomas, assignor.)
Chicago Mill and Lumber Company. (See Quinn, Don L., assignor.)
Childers, William R., Oilfields, Cal. Drilling-tool joint. No. 1,253,149; Jan. 8; v. 246; p. 530.
Chilson, Bert S., Fayetteville, N. Y. Motor-cycle. No. 1,254,883; Jan. 29; v. 246; p. 1112.
Chinnock, George H., Brooklyn, N. Y. Pneumatic-tire shoe and making same. No. 1,254,884; Jan. 29; v. 246; p. 1113.
Chiron, Hippolyte M., and J. F. Berriex, San Francisco, Cal. Flying-machine. No. 1,253,937; Jan. 15; v. 246; p. 786.
Chisholm, John S., Detroit, Mich. Motor-sleigh. No. 1,254,479; Jan. 22; v. 246; p. 962.
Chism, William J., Charles City, Iowa. Nut-lock. No. 1,252,088; Jan. 1; v. 246; p. 190.
Chorzempa, Joseph, Cicero, Ill. Cuspidor-holder. No. 1,252,778; Jan. 8; v. 246; p. 421.
Chrapla, Josepf Martin, Pa. Figure toy. No. 1,252,779; Jan. 8; v. 246; p. 421.
Christ, Mabel. (See Lehmann, Adolph, assignor.)
Christensen, Niels A., Milwaukee, Wis. Starting apparatus for internal-combustion engines. No. 1,253,466; Jan. 15; v. 246; p. 653.
Christensen, Niels A., Milwaukee, Wis. Internal-combustion engine. No. 1,253,669; Jan. 15; v. 246; p. 710.
Christenson, George, Jamaica, N. Y., assignor to H. W. Johns-Manville Company. Slack-take-up for fluid-pressure brake systems. No. 1,251,641; Jan. 1; v. 246; p. 59.
Christenson, George, Jamaica, N. Y., assignor to H. W. Johns-Manville Company. Slack-take-up for fluid-pressure brake systems. No. 1,251,642; Jan. 1; v. 246; p. 60.
Christenson, George, Jamaica, N. Y., assignor to H. W. Johns-Manville Company. Automatic slack-adjuster for brake systems. No. 1,251,643; Jan. 1; v. 246; p. 60.
Christianson, Andrew, Butler, Pa. Tire-carrier for automobiles. No. 1,254,480; Jan. 22; v. 246; p. 962.
Christianson, Peter A., Ellendale, Minn. Trailer-coupling. No. 1,254,984; Jan. 29; v. 246; p. 1139.
Christie, Thomas C., and E. A. Edmon, Lebanon, Ohio. Engine-starter. No. 1,253,150; Jan. 8; v. 246; p. 530.
Christy, Frank W., Beverly, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Skiving-machine. No. 1,254,392; Jan. 22; v. 246; p. 937.
Chryst, William A. (See Kettering and Chryst.)
Chubb, Lewis W., Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company. Contact making and breaking device. No. 1,253,210; Jan. 15; v. 246; p. 576.
Chubb, Lewis W., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electrical testing device. No. 1,253,211; Jan. 15; v. 246; p. 577.
Chubb, Lewis W., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electrical measuring instrument. No. 1,253,212; Jan. 15; v. 246; p. 577.
Church, Harold D., assignor to Packard Motor Car Company, Detroit, Mich. Motor-vehicle. No. 1,253,670; Jan. 15; v. 246; p. 711.
Cilley, Raymond, Brooklyn, N. Y. Power-truck for vehicles. No. 1,251,749; Jan. 1; v. 246; p. 92.
Cincinnati Butchers Supply Company, The. (See Schmidt, Oscar C., assignor.)
Cincinnati Time Recorder Company, The. (See Lawton, Hugh M., assignor.)
Cissna, Robert H., Chicago, Ill. Wire-laying tool. No. 1,253,467; Jan. 15; v. 246; p. 654.
Claren, Ferdinand L., and H. Stelzner, assignors to Drägerwerk, Heinr. & Bernh. Dräger, Lübeck, Germany. Diver's helmet. No. 1,252,780; Jan. 8; v. 246; p. 422.
Clark, Ailce, Chase City, Va. Ticket-holder. No. 1,252,237; Jan. 1; v. 246; p. 230.
Clark, Chester E., Winnipeg, Manitoba, Canada. Machine for laying out goods. No. 1,254,309; Jan. 22; v. 246; p. 914.
Clark, Dudley B., Jamestown, N. Y. Cigar and pipe lighter. No. 1,253,575; Jan. 15; v. 246; p. 684.
Clark, Frederick J., and W. H. Wyman, assignors to Eastman Machine Co., Buffalo, N. Y. Cloth-cutting machine. No. 1,253,352; Jan. 15; v. 246; p. 619.
Clark, Frederick W., assignor to Clark Paper & Manufacturing Company, Rochester, N. Y. Cushion-pad. No. 1,251,964; Jan. 1; v. 246; p. 154.
Clark, Herbert M., Oshkosh, Wis. Driving mechanism for self-propelled vehicles. No. 1,254,885; Jan. 29; v. 246; p. 1113.
Clark, Nelson D., assignor to Union Special Machine Company, Chicago, Ill. Looper mechanism for sewing-machines. No. 1,251,474; Jan. 1; v. 246; p. 7.
Clark, Norris E., Plainville, Conn. Clip. No. 1,252,781; Jan. 8; v. 246; p. 422.
Clark Paper & Manufacturing Company. (See Clark, Frederick W., assignor.)
Clark, Robert K., West Springfield, Mass., assignor to The American Thread Company, Jersey City, N. J. Apparatus for treating yarn. No. 1,253,999; Jan. 15; v. 246; p. 804.
Clark, Robert K., West Springfield, Mass., assignor to The American Thread Company, Jersey City, N. J. Cotton yarn and producing the same. No. 1,254,000; Jan. 15; v. 246; p. 804.
Clark, Sarah, Contact, Nev. Hen-roost. No. 1,253,938; Jan. 15; v. 246; p. 787.
Clark, Walter I., Bridgeport, Nebr. Brake-locking attachment for Ford automobiles. No. 1,252,238; Jan. 1; v. 246; p. 23[illegible]
Clark, Zachriah T., Portland, Oreg. Composition for hardening steel and similar metals. No. 1,253,786; Jan. 15; v. 246; p. 744.
Clarke, Cecil M., Chicago, Ill. Apparatus for manufacturing sheathing material. No. 1,254,481; Jan. 22; v. 246; p. 962.
Clarke, Charles W. E., Brookline, and J. V. Santry, Roxbury, Mass. Method and apparatus for heating and supplying feed-water to boilers. No. 1,254,310; Jan. 22; v. 246; p. 914.
Clarke, David E. G., Bayonne, N. J. Dust-collector for vacuum-cleaners. No. 1,253,939; Jan. 15; v. 246; p. 787.
Clarke, George. (See Stevens and Clarke.)
Clarke, Harry N., assignor to The Corte-Scope Company, Cleveland, Ohio. Stereoscope. No. 1,252,089; Jan. 1; v. 246; p. 190.
Clarke, John A., Jr., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Control apparatus. No. 1,253,213; Jan. 15; v. 246; p. 577.
Clarkson, Thomas, Chelmsford, England. Feed-water-supply apparatus for steam-generators. No. 1,252,239; Jan. 1; v. 246; p. 230.
Clausen, Henry P., Mount Vernon, assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,251,475; Jan. 1; v. 246; p. 7.
Clausen, Henry P., Mount Vernon, assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,251,644; Jan. 1; v. 246; p. 61.
Clausen, Henry P., Mount Vernon, assignor to Western Electric Company, Incorporated, New York, N. Y. Testing arrangement. No. 1,251,750; Jan. 1; v. 246; p. 93.
Clausen, Henry P., Mount Vernon, assignor to Western Electric Company, Incorporated, New York, N. Y. Selective switch. No. 1,251,751; Jan. 1; v. 246; p. 93.
Clausen, Henry P., Mount Vernon, assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange. No. 1,252,399; Jan. 8; v. 246; p. 310.
Clausen, Henry P., Mount Vernon, assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,253,671; Jan. 15; v. 246; p. 711.
Clausen, Henry P., Mount Vernon, N. Y., assignor, by mesne assignments, to Western Electric Company. Telephone-exchange system. No. 1,254,657; Jan. 29; v. 246; p. 1041.
Clausen, Henry P., Mount Vernon, assignor to Western Electric Company, New York, N. Y. Impulse-transmitting device or sender. No. 1,254,658; Jan. 29; v. 246; p. 1041.
Clausen, Henry P., Mount Vernon, and C. L. Goodrum, New York, assignors to Western Electric Company, Incorporated, New York, N. Y. Telephone system. No. 1,251,752; Jan. 1; v. 246; p. 93.
Clausen, Herman, assignor of three-eighths to W. D. Tripple, Seattle, Wash. Letter-sheet envelop. No. 1,254,001; Jan. 15; v. 246; p. 804.
Clawson, James T., Ivanhoe, Minn. Clothes-line. No. 1,252,240; Jan. 1; v. 246; p. 231.
Clay, Cassius M., Mexico, Mo. Hose-coupling. No. 1,252,660; Jan. 8; v. 246; p. 386.
Clay, Harry C., Columbus, Ind., assignor to Emerson-Brantingham Company, Rockford, Ill. Clutch. No. 1,253,787; Jan. 15; v. 246; p. 744.
Clayton, William R., Evanston, Ill. Method of preservation. No. 1,252,090; Jan. 1; v. 246; p. 191.
Clement, Edward E. (See Hill, Myron F., assignor.)
Clendenin, John C., Lynn, Mass., assignor to General Electric Company. Motor control. No. 1,253,151; Jan. 8; v. 246; p. 530.
Clendon, George W., New York, N. Y., assignor, by mesne assignments, to Locomotive Pulverized Fuel Company. Pulverizer-fuel and air feeder and mixer. No. 1,254,393; Jan. 22; v. 246; p. 937.
Cleveland Dental Manufacturing Company, The. (See Risley, Sheridan, assignor.)
Cleveland Metal Products Company, The. (See Chadwick, Lee S., assignor.)
Cleveland Tractor Company, The. (See White, Rollin H., assignor.)
Clifford, Frank, Milwaukee, Wis. Toy. No. 1,254,394; Jan. 22; v. 246; p. 938.
Clinton, Thomas J., assignor to United Refrigerators Company, Detroit, Mich. Preserving perishable products. No. 1,251,476; Jan. 1; v. 246; p. 7.
Clipper Belt Lacer Company. (See Vanderveld, Anthony, assignor.)
Close, James, Newark, N. J. Furniture. No. 1,253,214; Jan. 15; v. 246; p. 577.
Close, Loyd W., Manhattan, Mont. Sectional wheel-rim. No. 1,254,120; Jan. 22; v. 246; p. 860.

Clouatre, Joseph A., Brittany, La. Plow-colter. No. 1,254,985; Jan. 29; v. 246; p. 1139.
Clover, Howard K., Los Angeles, Cal., assignor to Electrical Products Corporation, Wilmington, Del. Electric water-heater. No. 1,252,661; Jan. 8; v. 246; p. 387.
Cluett, Peabody and Co. (See Kennedy and Connolly, assignors.)
Coalson, Archie D., Birmingham, Ala. Frog. No. 1,252,400; Jan. 8; v. 246; p. 310.
Coast, John W., Jr., Tulsa, Okla., assignor, by mesne assignments, to The Process Company. Distilling hydrocarbons. No. 1,252,401; Jan. 8; v. 246; p. 311.
Coast, John W., Jr., assignor to The Process Company, Tulsa, Okla. Cracking hydrocarbons. No. 1,252,999; Jan. 8; v. 246; p. 485.
Coast, John W., Jr., assignor to The Process Company, Tulsa, Okla. Apparatus for cracking hydrocarbons. No. 1,253,000; Jan. 8; v. 246; p. 486.
Coatalen, Louis, assignor of one-half to Sunbeam Motor Car Company, Limited, Wolverhampton, England. Joint for use in linkwork. No. 1,251,965; Jan. 1; v. 246; p. 154.
Coatalen, Louis, assignor of one-half to Sunbeam Motor Car Company Limited, Wolverhampton, England. Oil-filter for use on internal-combustion engines. No. 1,253,576; Jan. 15; v. 246; p. 684.
Coatalen, Louis, assignor of one-half to Sunbeam Motor Car Company Limited, Wolverhampton, England. Lubrication system for internal-combustion engines. No. 1,253,940; Jan. 15; v. 246; p. 787.
Cobb, Edward S., Whittier, Cal., assignor to Cobb Shockless Cross Corporation, New York, N. Y. Switch and frog. No. 1,252,662; Jan. 8; v. 246; p. 387.
Cobb, Edward S., Whittier, Cal., assignor to Cobb Shockless Crossing Corporation, New York, N. Y. Rail-support. No. 1,252,663; Jan. 8; v. 246; p. 387.
Cobb, Edward S., Whittier, Cal., assignor to Cobb Shockless Crossing Corporation, New York, N. Y. Railway intersection. No. 1,252,664; Jan. 8; v. 246; p. 388.
Cobb, Hyman S., Birmingham, Ala. Picture-frame. No. 1,253,152; Jan. 8; v. 246; p. 531.
Cobb Shockless Cross Corporation. (See Cobb, Edward S., assignor.)
Cochran, Roy B. (See Miller, Volney T., assignor.)
Cochrane, Wilbur A., Sea Cliff, N. Y. Reflector. No. 1,251,477; Jan. 1; v. 246; p. 8.
Cock, Christer, London, England. Variable-speed gear. No. 1,252,241; Jan. 1; v. 246; p. 231.
Cockrill, Charles F., Salinas, Cal. Clothes-pin. No. 1,253,468; Jan. 15; v. 246; p. 654.
Cody Burglar Alarm Company. (See Cody, James M., assignor.)
Cody, James M., Seattle, Wash., assignor to Cody Burglar Alarm Company. Burglar-alarm. No. 1,251,864; Jan. 1; v. 246; p. 127.
Coffin, Abbott S. (See Huber, George T., assignor.)
Cohen, Israel, Detroit, Mich. Clamp for holding cloth. No. 1,254,311; Jan. 22; v. 246; p. 914.
Coin Machine Manufacturing Company. (See Potter, Thomas I., assignor.)
Colburn, S. M. (See Kees, Frederick, assignor.)
Cole, Arthur D., St. Paul, Minn. Line-drive for walking-tractors. No. 1,252,402; Jan. 8; v. 246; p. 311.
Cole, Clifford W., Camden, N. J. Automobile attachment. No. 1,252,551; Jan. 8; v. 246; p. 356.
Cole, Dwight S., and H. B. Gillette, Grand Rapids, Mich. Road construction. No. 1,254,401; Jan. 22; v. 246; p. 940.
Cole, Frederick W., Newton, Mass., assignor to Gamewell Fire Alarm Telegraph Company, New York, N. Y. Electric signal system. No. 1,253,001; Jan. 8; v. 246; p. 486.
Cole, Noel S., Newbern, Tenn. Seed-saving attachment for mowers. No. 1,253,153; Jan. 8; v. 246; p. 531.
Cole, Stokes, Montreal, Quebec, Canada. Railway-appliance interlock. No. 1,254,121; Jan. 22; v. 246; p. 860.
Colegrove, William B., Detroit, Mich. Hot-air feed for furnaces. No. 1,254,777; Jan. 29; v. 246; p. 1079.
Collar, Floyd J., Alameda, Cal. Electric locking device. No. 1,253,788; Jan. 15; v. 246; p. 745.
Collet, Mark W., Philadelphia, Pa. Shader for cameras. No. 1,254,579; Jan. 22; v. 246; p. 990.
Collins, Lee A., Louisville, Ky. Automatic telephone fire-alarm. No. 1,252,665; Jan. 8; v. 246; p. 388.
Collins, Roy V., West Newton, Mass. Switch-operating mechanism. No. 1,254,122; Jan. 22; v. 246; p. 860.
Collins, Walter H., Summit, N. J. Chicken exerciser and feeder. No. 1,253,002; Jan. 8; v. 246; p. 486.
Colson, Henry H., Chicago, Ill. Pump. No. 1,253,003; Jan. 8; v. 246; p. 487.
Columbian Bronze Corporation. (See Patrick, Robert A., assignor.)
Colvin, Lawrence L., Louisville, Ky. Automobile-shield. No. 1,251,865; Jan. 1; v. 246; p. 128.
Combination Auto Lock Company. (See Balthasar, Harry G., assignor.)
Comer, John W., Chickasha, Okla. Protective shoe for pneumatic tires. No. 1,253,154; Jan. 8; v. 246; p. 531.
Comfort, David, Thomasville, Va. Truck for transporting heavy flower-pots. No. 1,254,778; Jan. 29; v. 246; p. 1079.
Comins, Frank B., Newton, Mass., assignor to American Moistening Company. Atomizer. No. 1,251,753; Jan. 1; v. 246; p. 94.
Commercial Machine Company. (See Ames, Arthur N., assignor.)
Computing Scale Company, The. (See Hopkinson, Joseph, assignor.)
Comstock, Daniel F., Brookline, assignor, by mesne assignments, to Technicolor Motion Picture Corporation, Boston, Mass. Cinematography. No. 1,252,321; Jan. 1; v. 246; p. 253.
Condon, Thomas R., and T. Schurman, Summerside, Prince Edward Canada. Shingle-gage. No. 1,254,986; Jan. 29; v. 246; p. 1140.
Congoleum Company, The. (See Howson, Henry, assignor.)
Congoleum Company, The. (See Jackson, Ralph G., assignor.)
Congoleum Company, The. (See Prifold, George, assignor.)
Conlan, David, Jr., New York, N. Y. Electric fixture. No. 1,252,403; Jan. 8; v. 246; p. 311.
Conlon Electric Washer Company. (See Wassell, Clifford R., assignor.)
Conlon, Walter J., Chicago, Ill. Electric wash-machine. No. 1,254,638; Jan. 22; v. 246; p. 1007.
Connolly, Charles M. (See Kennedy and Connolly.)
Connolly, Joseph B. (See Connolly, Thomas A. and J. B.)
Connolly, Thomas A. and J. B., Washington, D. C. Internal-combustion engine. No. 1,253,004; Jan. 8; v. 246; p. 487.
Connor, Charles, Redfield, S. D. Brick-conveyer. No. 1,254,204; Jan. 22; v. 246; p. 883.
Conrad, Nicholas J., assignor to Schweitzer & Conrad, Inc., Chicago, Ill. Lightning-arrester. No. 1,251,754; Jan. 1; v. 246; p. 94.
Conrad, Nicholas J., assignor to Schweitzer & Conrad, Chicago, Ill. Cut-out for electric circuits. No. 1,254,886; Jan. 29; v. 246; p. 1113.
Conran, William F., Brooklyn, N. Y. Stand-pipe system. No. 1,253,005; Jan. 8; v. 246; p. 487.
Conro, James N., *et al.* (See Cameron, Duncan, assignor.)
Conroy, John D., Chokio, Minn. Wheel-scraper. No. 1,253,155; Jan. 8; v. 246; p. 532.
Conte, Antonio, Syracuse, N. Y. Shoe. No. 1,251,966; Jan. 1; v. 246; p. 154.
Continental Motors Corporation. (See Hopkins, Henry, assignor.)
Continental Motors Corporation. (See Walker, Glenn J., assignor.)
Continental Motors Corporation. (See Weinhardt, Robert A., assignor.)
Converse, Frederick S., Westwood, Mass. Sleeping garment or bag. No. 1,254,124; Jan. 22; v. 246; p. 861.
Conwell, Laura E. (See Conwell, Myers C., assignor.)
Conwell, Myers C., assignor to L. E. Conwell, Larchmont, N. Y. Antifreezing attachment for explosive-engine-cooling systems. No. 1,253,789; Jan. 15; v. 246; p. 745.
Cook, Charles S., Pittsburgh, and H. H. Rudd, Edgewood, Pa., assignors to Westinghouse Electric and Manufacturing Company. Transformer heat-regulating system. No. 1,254,002; Jan. 15; v. 246; p. 804.
Cook, Erben, Brooklyn, N. Y., assignor to Bayonne Steel Casting Company, Bayonne, N. J. Anchor. No. 1,253,006; Jan. 8; v. 246; p. 487.
Cook, Jesse F., Meridian, Miss. Bedclothes-clamp. No. 1,252,885; Jan. 8; v. 246; p. 450.
Cook, Stanley S. (See Parsons, Carnegie, and Cook.)
Cook, Wallace L., Chicago, Ill. Fuse. No. 1,255,080; Jan. 29; v. 246; p. 1165.
Cooke, Benjamin F. (See Imhoff, Cooke, and Rhulman.)
Cooley, Ambrose O., Havre de Grace, Md. Machine for peeling tomatoes. No. 1,252,322; Jan. 1; v. 246; p. 254.
Coolidge, William D., Schenectady, N. Y., assignor to General Electric Company. Roentgen-ray device. No. 1,253,156; Jan. 8; v. 246; p. 532.
Cooper, Charles J., assignor of one-half to H. W. Cooper Saddlery Hardware Mfg. Company, Moline, Ill. Socket and sheath connection for wire cables. No. 1,254,027; Jan. 22; v. 246; p. 832.
Cooper, Charles R. (See Copony, Alfred, assignor.)
Cooper, Hugh S., assignor to The Cooper Research Company, Cleveland, Ohio. Alloy. No. 1,254,987; Jan. 29; v. 246; p. 1140.
Cooper, Isidor, Brooklyn, assignor to Otis-Flagg Corporation, New York, N. Y. Clamp. No. 1,252,323; Jan. 1; v. 246; p. 254.
Cooper, J. S., *et al.* (See McGahan, George A., assignor.)
Cooper Research Company, The. (See Cooper, Hugh S., assignor.)
Coopersmith, Rudolph, Toronto, Ontario, Canada. Woven-wire mattress. No. 1,253,469; Jan. 15; v. 246; p. 654.
Copeland, Lucius D., Sawtelle, Cal. Water-tank. No. 1,253,941; Jan. 15; v. 246; p. 787.
Copony, Alfred, assignor of one-half to C. R. Cooper, Chicago, Ill. Draft-rigging for railway-cars. No. 1,253,790; Jan. 15; v. 246; p. 745.
Copony, Alfred, assignor to Copony Auto-Loading Company, Detroit, Mich. Decking system. No. 1,254,312; Jan. 22; v. 246; p. 915.
Copony Auto-Loading Company. (See Copony, Alfred, assignor.)

Corbett, Carrol A., Grand Rapids, Mich. Advertising device. No. 1,251,755; Jan. 1; v. 246; p. 94.
Cordaro, Giuseppe, Brooklyn, N. Y. Carrier. No. 1,251,866; Jan. 1; v. 246; p. 128.
Cordell, James W., Talladega, Ala. Wheel-rim. No. 1,252,886; Jan. 8; v. 246; p. 450.
Corey, Earl C. (See Betts and Corey.)
Corkery, William E., Wadena, Iowa. Soldering-tool. No. 1,253,215; Jan. 15; v. 246; p. 578.
Cornwell, William O., Indianapolis, Ind. Seat arrangement for automobiles and other structures. No. 1,252,242; Jan. 1; v. 246; p. 231.
Corrall, Herbert, Parkview, Helensburgh, and J. M. Forbes, Scotstoun, Glasgow, Scotland, assignors to The Singer Manufacturing Company. Feeding mechanism for sewing-machines. No. 1,252,666; Jan. 8; v. 246; p. 389.
Corrall, Herbert, Parkview, Helensburgh, and B. A. Stevens, Singer, Clydebank, Scotland, assignors to The Singer Manufacturing Company. Multiple-needle lock-stitch sewing-machine. No. 1,254,123; Jan. 22; v. 246; p. 861.
Corson, Henry J., Bridesville, British Columbia, Canada. Windmill. No. 1,253,942; Jan. 15; v. 246; p. 788.
Corte-Scope Company, The. (See Clarke, Harry N., assignor.)
Corwin, Elmer G., Stillwater, Minn. Making thermal boxes. No. 1,253,007; Jan. 8; v. 246; p. 488.
Cosby, Edwin B., Kansas City, Mo. Nailing strip or block. No. 1,254,206; Jan. 22; v. 246; p. 883.
Cosby, Eric L. H., Fillmore, Cal. Cable-system-well-drilling tool. No. 1,253,791; Jan. 15; v. 246; p. 745.
Coss, Frank, Greencastle, Ind. Bracket for kitchen-cabinets. No. 1,252,091; Jan. 1; v. 246; p. 191.
Coss, Frank, Greencastle, Ind. Record-cabinet. No. 1,253,008; Jan. 8; v. 246; p. 488.
Costa, Anthony, assignor to The Gravity Carbureter Company, Cleveland, Ohio. Carbureter. No. 1,253,577; Jan. 15; v. 246; p. 684.
Costmeter Company. (See Quigley, John T., assignor.)
Cotton, Locia, Holdenville, Okla. Cultivator attachment. No. 1,254,580; Jan. 22; v. 246; p. 990.
Coubal, Laudimire J., Hibbing, Minn. Penmanship-guide. No. 1,254,028; Jan. 22; v. 246; p. 833.
Couch, Forrest J. (See Kane and Couch.)
Couiombe, Joseph C., Lowell, Mass. Carbureter. No. 1,254,659; Jan. 29; v. 246; p. 1041.
Cowan, George L., East Ryegate, Vt., assignor to Holyoke Machine Company, Holyoke, Mass. Piston. No. 1,255,081; Jan. 29; v. 246; p. 1165.
Cowley, James T., Minot, assignor to The Lamson Company, Boston, Mass. Device for moving articles from one level to another. No. 1,251,478; Jan. 1; v. 246; p. 8.
Cox, Abraham B., Cherry Valley, assignor to General Reduction Gas and By-Products Company, New York, N. Y. Purifying potassium chlorid. No. 1,252,784; Jan. 8; v. 246; p. 422.
Cox, Abraham B., Cherry Valley, assignor to General Reduction Gas & By-Products Company, New York, N. Y. Mortar for fire-bricks. No. 1,252,785; Jan. 8; v. 246; p. 422.
Cox, Irwin, San Francisco, Cal. Polish and cleanser. No. 1,253,353; Jan. 15; v. 246; p. 620.
Cox, John W., Erie, Pa. Truck-platform. No. 1,252,786; Jan. 8; v. 246; p. 422.
Cox, Warren R., Cleveland, Ohio. Means for locking sparking units. No. 1,253,470; Jan. 15; v. 246; p. 654.
Crabill, Pearl P. (See Turner and Crabill.)
Craig, Edward, assignor to Saranac Machine Co., St. Joseph, Mich. Book-stitcher machine. No. 1,253,354; Jan. 15; v. 246; p. 620.
Craig, Edward, St. Joseph, assignor to Saranac Machine Company, Benton Harbor, Mich. Inside box-end-stapling machine. No. 1,254,895; Jan. 22; v. 246; p. 938.
Craig, Edward, and W. H. Ray, St. Joseph, Mich. Wire-bound-crate-side machine. No. 1,254,779; Jan. 29; v. 246; p. 1080.
Cramer, Philipp, assignor to M. Schaefer, Newark, N. J. Ruler for blackboards. No. 1,252,243; Jan. 1; v. 246; p. 232.
Crane & Breed Manufacturing Company, The. (See Davoran, Michael F., assignor.)
Crane, Charles E., Seattle, Wash. Regulator for oil-gas burners. No. 1,253,578; Jan. 15; v. 246; p. 685.
Crane, John P., Indian Orchard, Mass. Doffing device for spinning-machines. No. 1,252,404; Jan. 8; v. 246; p. 312.
Crane Manufacturing Company, The. (See Benson and Shaw, assignors.)
Crawford, Charles F., Liberty, N. Y. Horse-restraining device. No. 1,252,667; Jan. 8; v. 246; p. 389.
Crawford, George S., La Salle, Colo. Attachment for sulky-plows. No. 1,253,948; Jan. 15; v. 246; p. 788.
Crawford, James C., Los Angeles, Cal. Plant-setting machine. No. 1,252,668; Jan. 8; v. 246; p. 389.
Crawley, Thomas F., Newton, Miss. Automatic carriage-return for type-writers, line-spacers, and reverse tabulators. No. 1,251,867; Jan. 1; v. 246; p. 128.
Crede, Edward. (See Wagner, Louis, assignor.)
Creighton, Melvin, and A. W. Dixon, Rensselaer Falls, N. Y. Forming dies for sign characters. No. 1,253,009; Jan. 8; v. 246; p. 489.
Creveling, John L., New York, N. Y., assignor to Safety Car Heating and Lighting Company. Car-lighting system. No. 1,251,479; Jan. 1; v. 246; p. 8.
Creveling, John L., New York, N. Y., assignor to Safety Car Heating and Lighting Company. Reversible brush-holder for use with dynamos. No. 1,251,645; Jan. 1; v. 246; p. 61.
Creveling, John L., New York, N. Y., assignor to Safety Car Heating and Lighting Company. Reversible brush-holder for use with dynamos. No. 1,253,157; Jan. 8; v. 246; p. 532.
Crippen, Henry M., assignor of two-thirds to F. Scott and H. H. Hanning, Athens, Ohio. Loose-leaf-binding machine. No. 1,255,112; Jan. 29; v. 247; p. 1174.
Critz, Frank A., Jr., West Point, Miss. Bearing for type-writer actions. No. 1,254,660; Jan. 29; v. 246; p. 1042.
Crook, Delbert H., San Pedro, Cal. Grade-indicator for vehicles. No. 1,251,756; Jan. 1; v. 246; p. 95.
Cross, William G., Olney, Tex. Boiler-cleaner. No. 1,251,480; Jan. 1; v. 246; p. 9.
Crouse, Henry M., and G. G. Newell, Chicago, Ill. Autographic register. No. 1,254,988; Jan. 29; v. 246; p. 1140.
Crown Optical Company. (See Stout, Charles H., assignor.)
Croy, Frank E., Watauga, Tenn. Sash-lock. No. 1,252,405; Jan. 8; v. 246; p. 312.
Crum, J. Corwin, Scott City, Kans. Head-block for switch-stands. No. 1,254,989; Jan. 29; v. 246; p. 1140.
Crum, Lyman G., Jamestown, N. D. Gripping means for job-presses. No. 1,251,868; Jan. 1; v. 246; p. 128.
Cudahy Refining Company. (See Thiele, Felix C., assignor.)
Cudmore, Thomas V., Austin, Minn. Valve-grinding machine. No. 1,252,406; Jan. 8; v. 246; p. 312.
Cull, George T., Wickliffe, Ky. Package-tie. No. 1,254,206; Jan. 22; v. 246; p. 884.
Cullen, William J., assignor to Detroit Can Company, Detroit, Mich. Machine for applying paper ends to paper can-bodies. No. 1,254,207; Jan. 22; v. 246; p. 884.
Culver, Irwin G., New York, N. Y. Adjustable coupling for wax figures. No. 1,254,813; Jan. 22; v. 246; p. 915.
Cummings, Daniel J., New Haven, assignor of one-third to P. S. Armstrong, Westville, and one-third to E. Gouin, New Haven, Conn. Traffic-signal. No. 1,252,244; Jan. 1; v. 246; p. 232.
Cumpston, Edward H., Jr., assignor to Todd Protectograph Company, Rochester, N. Y. Check-writer. No. 1,252,787; Jan. 8; v. 246; p. 423.
Cunningham, Norval, Pennsboro, W. Va. Envelop-opener. No. 1,254,208; Jan. 22; v. 246; p. 884.
Currey, Herschel E., Baker, Oreg. Burner. No. 1,252,552; Jan. 8; v. 246; p. 356.
Currier, Harry C., Minneapolis, Minn. Stationery-file. No. 1,252,002; Jan. 1; v. 246; p. 191.
Currier, Hiram D., assignor to Kellogg Switchboard & Supply Company, Chicago, Ill. Call-answering meter for cord-circuits. No. 1,251,967; Jan. 1; v. 246; p. 155.
Currier, Oliver D., Crown Point, N. Y. Sanitary seat-cover. No. 1,254,029; Jan. 22; v. 246; p. 838.
Cushing, Richard L., Tiskilwa, Ill. Metal fence-post. No. 1,252,245; Jan. 1; v. 246; p. 232.
Cuthbert, John W., assignor of one-fourth to C. M. Bump and one-fourth to B. L. Bump, Bay City, Mich. Game apparatus. No. 1,251,481; Jan. 1; v. 246; p. 9.
Cutler-Hammer Mfg. Co., The. (See Evans, Clarence T., assignor.)
Cutler-Hammer Mfg. Co., The. (See Henderson, Clark T., assignor.)
Cutler-Hammer Mfg. Co., The. (See Klein, Charles J., assignor.)
Cutler-Hammer Mfg. Co., The. (See Montgomery and Schantz, assignors.)
Cutler-Hammer Mfg. Co., The. (See Wilson, John C., assignor.)
D & W Fuse Company. (See Downes, Louis W., assignor.)
D & W Fuse Company. (See Downes and Patton, assignors.)
D'Angelo, Conrad, New York, N. Y. Army-legging. No. 1,254,462; Jan. 22; v. 246; p. 957.
D'Arcy, Frank P., Kalamazoo, Mich. Spring-cushion structure. No. 1,254,314; Jan. 22; v. 246; p. 915.
D'Arcy, Frank P., Kalamazoo, Mich. Wicker furniture. No. 1,254,315; Jan. 22; v. 246; p. 915.
Dacy, Michael J., *et al.* (See Davis, Claude B., assignor.)
Daggett, Daniel, Omaha, Nebr. Colt and calf weaner. No. 1,253,944; Jan. 15; v. 246; p. 788.
Dahlke, Edward H., Bonne Terre, and M. L. Sinclair, Frankclay, Mo. Switch. No. 1,253,156; Jan. 8; v. 246; p. 532.
Dahlstrom, John. (See Turner and Dahlstrom.)
Daines, Hawley E., Orion, assignor to Gas Oil Stove Company, Detroit, Mich. Hydrocarbon-burner. No. 1,254,209; Jan. 22; v. 246; p. 884.
Dake, Charles W., assignor to Pyle-National Electric Headlight Company, Chicago, Ill. Car end. No. 1,254,030; Jan. 22; v. 246; p. 833.
Dake, Edward B., Muskegon, Mich. Piston-ring. No. 1,252,324; Jan. 1; v. 246; p. 254.
Dalby, William E. (See Wilson and Dalby.)
Dale, John H., New York, N. Y., assignor to Dale Lighting Fixture Company. Electric-light fixture. No. 1,254,210; Jan. 22; v. 246; p. 884.
Dale Lighting Fixture Company. (See Dale, John H., assignor.)
Daley, James E., Port Anson, Ontario, Canada. Automatic shaver. No. 1,254,990; Jan. 29; v. 246; p. 1141.

Dalmas, Amedeus, Oakland, Cal. Holder for watches and the like. No. 1,251,757; Jan. 1; v. 246; p. 95.
Dalton, Edward, Baldwinsville, and J. C. Dalton, New York, N. Y. Rake. No. 1,253,355; Jan. 15; v. 246; p. 620.
Dalton, James C. (See Dalton, Edward and J. C.)
Dalwigk, Hermann, assignor of one-half to H. Pianta, San Antonio, Tex. Automobile-tire. No. 1,252,246; Jan. 1; v. 246; p. 233.
Daly, Michael, assignor to The American Laundry Machinery Company, Cincinnati, Ohio. Brake for centrifugal machines. No. 1,251,482; Jan. 1; v. 245; p. 9.
Daly, Timothy, New York, N. Y. Exercise and game apparatus. No. 1,252,407; Jan. 8; v. 246; p. 313.
Dance, Clifford C., Denver, Colo. Vacuum-cleaner. No. 1,254,396; Jan. 22; v. 246; p. 988.
Daniel, John, assignor to Koehring Machine Company, Milwaukee, Wis. Concrete-mixing machine. No. 1,253,945; Jan. 15; v. 246; p. 788.
Darlington, Howard D., Dayton, Ohio. Cabinet talking-machine. No. 1,253,010; Jan. 8; v. 246; p. 489.
Darrah, William A., Mansfield, Ohio. Incandescent lamp. No. 1,252,372; Jan. 1; v. 246; p. 268.
Darst, Harry H., Dayton, Ohio. Paper-file. No. 1,254,991; Jan. 29; v. 246; p. 1141.
Dash, Morris, Philadelphia, Pa. Drain-pipe cleaner. No. 1,254,125; Jan. 22; v. 246; p. 861.
Daubenberg, Willard, and E. W. Appelman, Postville, Iowa. Attachment for submarines. No. 1,252,408; Jan. 8; v. 246; p. 313.
Daugherty, Ruth E., Chicago, Ill. Garment-staying device. No. 1,253,792; Jan. 15; v. 246; p. 745.
Daughtry, William E., Birmingham, Ala. Combined cover and filing-cabinet for music-record rolls and the like. No. 1,252,247; Jan. 1; v. 246; p. 233.
Davenport, Herman A., Brockton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Sole-pressing machine. No. 1,251,869; Jan. 1; v. 246; p. 129.
Davey, Albert I. (See Leach, William W., assignor.)
Davey, Bruce C., Chicago, Ill. Cement. No. 1,253,011; Jan. 8; v. 246; p. 489.
Davidson, Harry O., assignor to The Hydraulic Pressed Steel Company, Cleveland, Ohio. Concrete-form. No. 1,252,093; Jan. 1; v. 246; p. 192.
Davies, William R. (See Thomas and Davies.)
Davis-Bournonville Company. (See Bucknam and Cave, assignors.)
Davis, Charles M., and E. Brumberg, Hoquiam, Wash. Illuminated sign. No. 1,252,248; Jan. 1; v. 246; p. 233.
Davis, Charles T., assignor to Davis & Geck, Inc., Brooklyn, N. Y. Suture and making the same. No. 1,254,031; Jan. 22; v. 246; p. 833.
Davis, Claude B., assignor of one-third to O. Watson and one-third to M. J. Dacy, Richmond, Va. Folding shipping-crate. No. 1,254,462; Jan. 22; v. 246; p. 962.
Davis, Cortland W., assignor to The Mantle Lamp Company of America, Chicago, Ill. Burner. No. 1,254,581; Jan. 22; v. 246; p. 990.
Davis & Geck. (See Davis, Charles T., assignor.)
Davis, Miriam R., St. Louis, Mo. Noise-reducing type-writer support or stand. No. 1,253,473; Jan. 15; v. 246; p. 655.
Davis, Paul A., Sequin, Wash. Toy. No. 1,254,887; Jan. 29; v. 246; p. 1114.
Davis, William J., Jr., and A. P. Nirdlinger, Chicago, Ill. Adjustable flood and spot light. (Reissue.) No. 14,428; Jan. 29; v. 246; p. 1177.
Davis, William T., *et al.* (See Smith, James A., assignor.)
Davison, Gregory C., New London, Conn., assignor to Electric Boat Company, New York, N. Y. Relief-valve control for Diesel engines. No. 1,254,780; Jan. 29; v. 246; p. 1080.
Davison, John A., Franklin, Alaska. Bullet. No. 1,252,325; Jan. 1; v. 246; p. 255.
Davol, George K., assignor, by mesne assignments, to P. H. Reardon, San Francisco, Cal. Valve for air-compressors and the like. No. 1,254,781; Jan. 29; v. 246; p. 1081.
Davoran, Michael F., assignor to The Crane & Breed Manufacturing Company, Cincinnati, Ohio. Dipping mechanism. No. 1,255,083; Jan. 29; v. 246; p. 1166.
Dawbarn, Waring L., Hartsdale, N. Y. Water-heating attachment for stoves. No. 1,252,553; Jan. 8; v. 246; p. 356.
Dawson, Donald, Victoria, British Columbia, Canada, Templet. No. 1,252,328; Jan. 1; v. 246; p. 255.
Day, Edgar K., assignor, by mesne assignments, to Whitaker-Glessner Company, Wheeling, W. V. Metal furring-strip. No. 1,253,216; Jan. 15; v. 246; p. 578.
Day, Richard M., Hudson, S. D. Gas-engine. No. 1,253,159; Jan. 8; v. 246; p. 533.
Day, Wilbur F., St. Paul, Minn. Valve for gas-burners. No. 1,254,211; Jan. 22; v. 246; p. 885.
Day, William A., assignor to Gorham Manufacturing Company, Providence, R. I. Combined chalice and paten. No. 1,251,646; Jan. 1; v. 246; p. 62.
Daylight Cinema Corporation. (See Ponon, Saul, assignor.)
Days, William J., Dorchester, Mass. Sliding-door hanger. No. 1,251,483; Jan. 1; v. 245; p. 9.
Dayton Engineering Laboratories Company, The. (See Kettering, Charles F., assignor.)
Dayton Engineering Laboratories Company, The. (See Kettering and Chryst, assignors.)
Dayton, Frederick M., New York, N. Y. Toy-balloon valve. No. 1,251,758; Jan. 1; v. 246; p. 95.
De Bolt, Charles L. and D., Des Moines, Iowa. Swingle-tree safety trace-holding device. No. 1,251,968; Jan. 1; v. 246; p. 155.
De Bolt, David. (See De Bolt, Charles L. and D.)
De Courcey, Whilma L., Buffalo, N. Y. Protector. No. 1,254,483; Jan. 22; v. 246; p. 963.
De Laval, Carl G., Orange, N. J., and R. Heimbecker, New York, N. Y., assignors to Henry R. Worthington. Compound meter. No. 1,251,484; Jan. 1; v. 245; p. 10.
De Lay, Eli M., Chattanooga, Tenn. Fluid-pressure-operated apparatus for stopping automobiles or the like. No. 1,253,357; Jan. 15; v. 246; p. 621.
De Long, Oscar, Conesville, Ohio. Railway tie-holder. No. 1,252,249; Jan. 1; v. 246; p. 234.
De Luce, Robert, Oakland, Cal. Treating sulfid ores of lead. No. 1,251,485; Jan. 1; v. 245; p. 10.
De Meyer, Camiel, Blythe, Cal. Repairing levee-breaks. No. 1,254,717; Jan. 29; v. 246; p. 1060.
De Minico, Frank, assignor to Pollard-Alling Manufacturing Company, New York, N. Y. Printing mechanism. No. 1,251,969; Jan. 1; v. 246; p. 155.
De Roode, Trimble, New York, N. Y. Combined type-writing and printing machine. No. 1,254,583; Jan. 22; v. 246; p. 991.
De Soto, Fred J., assignor of one-third to C. F. Kaiser, and one-third to W. H. Morris, Valley Springs, Cal. Automatic safety-brake. No. 1,251,871; Jan. 1; v. 246; p. 129.
De Voe, Albert H., Westfield, N. J., assignor to The Singer Manufacturing Company. Sewing-machine. No. 1,251,872; Jan. 1; v. 246; p. 129.
De Voe, Albert H., Westfield, N. J., assignor to The Singer Manufacturing Company. Sewing-machine. No. 1,251,873; Jan. 1; v. 246; p. 130.
De Voe, Albert H., Westfield, N. J., assignor to The Singer Manufacturing Company. Sewing-machine. No. 1,251,970; Jan. 1; v. 246; p. 155.
De Voe, Albert H., Westfield, N. J., assignor to The Singer Manufacturing Company. Throat-plate for double-chain-stitch machines. No. 1,254,214; Jan. 22; v. 246; p. 886.
De Voe, Chauncey, New York, N. Y. Sash-fastener. No. 1,253,474; Jan. 15; v. 246; p. 655.
De Witt, Arthur T., Fort Wayne, Ind., assignor of two-thirds to F. L. De Witt and one-third to M. Schiffer, Chicago, Ill. Switch-operating mechanism. No. 1,252,329; Jan. 1; v. 246; p. 255.
De Witt, Fred L., *et al.* (See De Witt, Arthur T., assignor.)
Dean, Clyde T., Chicago, Ill., assignor to R. Sattler, Cincinnati, Ohio, and L. J. Morand, Covington, Ky. Ink-saving attachment for embossing-presses. No. 1,252,400; Jan. 8; v. 246; p. 313.
Dean, Ernest. (See Allott and Dean.)
Dean, John F. (See Gove, Henry H., assignor.)
Dean, William W., assignor, by mesne assignments, to Benjamin Electric Manufacturing Company, Chicago, Ill. Switch. No. 1,255,084; Jan. 29; v. 246; p. 1166.
Deanes, Sid A., West Point, Miss. Dispensing device. No. 1,253,579; Jan. 15; v. 246; p. 685.
Decker, Danville, Rockville Center, N. Y. System of extinguishing fire. No. 1,254,582; Jan. 22; v. 246; p. 991.
Decker, Frederick J., Rochester, assignor to Niagara Sprayer Company, Middleport, N. Y. Dusting and spraying apparatus. No. 1,253,672; Jan. 15; v. 246; p. 712.
Dedichen, Herman, and O. Halse, assignors to Union Co., Christiania, Norway. Refining and deodorizing raw turpentine-oils. No. 1,253,793; Jan. 15; v. 246; p. 746.
Deegan, Edward J., and W. Hodgson, New York, N. Y. Regulator. No. 1,254,888; Jan. 29; v. 246; p. 1114.
Deem, Albert B., Indianapolis, Ind. Automatic oil-burner. No. 1,253,794; Jan. 15; v. 246; p. 746.
Deere and Company. (See Johnson, Eric, assignor.)
Defiance Check Writer Corporation. (See Plant, Henry J., assignor.)
Del Rivero, Luis, Los Angeles, Cal. Siphon-bottle head. No. 1,252,313; Jan. 1; v. 246; p. 252.
Delaney, William H., Peoria, Ill. Store-cabinet. No. 1,253,356; Jan. 15; v. 246; p. 620.
Delano, James K., New York, N. Y. Electrical system for use with internal-combustion engines. No. 1,253,217; Jan. 15; v. 246; p. 578.
Demuth, William H., assignor of one-half to F. S. Smith, Owosso, Mich. Trash-catcher for flumes. No. 1,252,410; Jan. 8; v. 246; p. 314.
Dendinger, Michael J., Rapid City, S. D. Hay-stacker. No. 1,251,759; Jan. 1; v. 246; p. 95.
Denison, Frederick S., assignor to Minneapolis Heat Regulator Company, Minneapolis, Minn. Alarm-clock. No. 1,254,212; Jan. 22; v. 246; p. 885.
Dennison Manufacturing Company. (See Rich, Waldo A., Jr., assignor.)
Denver Rock Drill Manufacturing Company, The. (See Smith, William A., assignor.)
Denser, Gottfried, Glendale, N. Y. Garbage-can. No. 1,251,870; Jan. 1; v. 246; p. 129.
Derrech, Michael, Cleveland, Ohio. Railway-switch. No. 1,252,788; Jan. 8; v. 246; p. 423.

Derrow, Philip, Chicago, Ill. Combined advertising device and memoranda-holder. No. 1,252,250; Jan. 1; v. 246; p. 234.

Descamps, Louis, Chateauroux, France. Apparatus for the manufacture of a mixture of sulfur dioxid and nitrogen. No. 1,254,992; Jan. 29; v. 246; p. 1141.

Desjardins, Joseph A., Nordegg, Alberta, Canada. Crutch. No. 1,254,993; Jan. 29; v. 246; p. 1141.

Dessoliers, Hippolyte, Algiers, Algeria. System of producing heat-rains by means of sheets of water of slight depth. No 1,252,670; Jan. 8; v. 246; p. 389.

Determann, August P., Lyons, Iowa. Pneumatic-stacker hood. No. 1,254,889; Jan. 29; v. 246; p. 1114.

Detroit Can Company. (See Cullen, William J., assignor.)

Detroit Pressed Steel Company. (See Putnam, Alden L., assignor.)

Deutsch, Edward I., Cincinnati, Ohio. Engine-starter. No. 1,254,213; Jan. 22; v. 246; p. 885.

Dewart, Robert E., Milford, Ind. Beet-topper. No. 1,254,004; Jan. 15; v. 246; p. 805.

Dewart, Robert E. Milford, Ind. Beet-topper. No. 1,253,356; Jan. 15; v. 246; p. 621.

Dewey Davenport Company. (See Dewey, Josiah A., assignor.)

Dewey, Frederic L., assignor to Parlin & Orendorff Company, Canton, Ill. Cultivator. No. 1,253,359; Jan. 15; v. 246; p. 621.

Dewey, Josiah A., assignor to Dewey Davenport Company, San Francisco, Cal. Folding bed. No. 1,252,789; Jan. 8; v. 246; p. 423.

Dexter Company, The. (See George, William H., assignor.)

Di Piero, Filippo, Youngstown, Ohio. Signal appliance. No. 1,253,476; Jan. 15; v. 246; p. 656.

Diamond Match Company, The. (See Paridon, Michael, assignor.)

Dick, Ralph H., and A. G. Bloomdahl, assignors to The Safe-Cabinet Co., Marietta, Ohio. Heat-resisting cabinet. No. 1,252,790; Jan. 8; v. 246; p. 423.

Dickens, John W., Fort Wayne, Ind. Fish-bait. No. 1,254,397; Jan. 22; v. 246; p. 938.

Dickerson, Arthur, assignor to Dickerson Manufacturing Company, Salt Lake City, Utah. Ignition device. No. 1,254,584; Jan. 22; v. 246; p. 992.

Dickerson Manufacturing Company. (See Dickerson, Arthur, assignor.)

Dickinson, Harry S., Moline, Ill., assignor to Moline Plow Company. Disk-scraper. No. 1,251,874; Jan. 1; v. 246; p. 130.

Dickinson, James L., Centralia, Ill. Furnace-door handle. No. 1,254,215; Jan. 22; v. 246; p. 886.

Dickinson, Joseph H., Cranford, N. J., assignor to The Aeolian Company. Phonograph. No. 1,252,411; Jan. 8; v. 246; p. 314.

Dickinson, Joseph H., Cranford, N. J., assignor to The Aeolian Company. Brake. No. 1,253,475; Jan. 15; v. 246; p. 656.

Dickinson, Lewis E., Boonton, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y. Protective device for electric circuits. No. 1,252,412; Jan. 8; v. 246; p. 314.

Diehl, Frederick, assignor to Diehl Manufacturing Co., Elizabeth, N. J. Drive-wheel. No. 1,253,795; Jan. 15; v. 246; p. 746.

Diehl Manufacturing Co. (See Diehl, Frederick, assignor.)

Diehl Manufacturing Company. (See Zabriskie, Henry L., assignor.)

Diehl, Rudolph. (See Stainkamp, Francis A., assignor.)

Diener, Hyman, Washington, D. C. Automobile-tire. No. 1,254,994; Jan. 29; v. 246; p. 1142.

Dietze, Carl, Winterthur, Switzerland, assignor to Busch-Sulzer Bros.-Diesel Engine Company, St. Louis, Mo. Internal-combustion engine. No. 1,254,032; Jan. 22; v. 246; p. 833.

Diiger, John E., Yankton, S. D. Steering-gear attachment. No. 1,251,875; Jan. 1; v. 246; p. 130.

Dilley, Arzeno J., Muir, assignor of one-half to F. W. Green, Ionia, Mich. Grease-cup. No. 1,255,113; Jan. 29; v. 246; p. 1174.

Dillon, Friend E., Wheeling, W. Va., assignor, by mesne assignments, to The Dillon Lens & Manufacturing Company, Bridgeport, Ohio. Auto-lens. No. 1,253,012; Jan. 8; v. 246; p. 489.

Dillon, George W., Des Moines, Iowa. Nut-lock. No. 1,252,554; Jan. 8; vol. 246; p. 357.

Dillon Lens & Manufacturing Company, The. (See Dillon, Friend E., assignor.)

Diver, Daniel, Calgary, Alberta, Canada. Machine for separating gold, silver, and the like from sands. No. 1,254,494; Jan. 22; v. 246; p. 963.

Dix, James H., Plymouth township, Montgomery county, Pa. Cellar. No. 1,252,791; Jan. 8; vol. 246; p. 424.

Dixon, Amos F., Newark, N. J., assignor, by mesne assignments, to Western Electric Company. Counting apparatus. No. 1,254,661; Jan. 29; v. 246; p. 1042.

Dixon, Andrew W. (See Creighton and Dixon.)

Doat, Egbert O., Canastota, S. D. Grain-car door. No. 1,253,160; Jan. 8; vol. 246; p. 533.

Doble, William A., assignor to Pelton Water Wheel Company, San Francisco, Cal. Valve. No. 1,253,013; Jan. 8; vol. 246; p. 490.

Dockray, Mary J., administratrix. (See Dockray, Peter J.)

Dockray, Peter J., Woonsocket, R. I. Stop-motion for combers and the like. No. 1,252,095; Jan. 1; v. 246; p. 192.

Dockray, Peter J., deceased; M. J. Dockray, administratrix, Woonsocket, R. I. Stop-motion for combers and the like. No. 1,252,096; Jan. 1; v. 246; p. 193.

Dockray, Peter J., deceased; M. J. Dockray, administratrix, Woonsocket, R. I. Stop-motion for combers and the like. No. 1,252,097; Jan. 1; v. 246; p. 193.

Dockray, Peter J., deceased; M. J. Dockray, administratrix, Woonsocket, R. I. Stop-motion for combers and the like. No. 1,252,098; Jan. 1; v. 246; p. 193.

Dodd, Herbert J., Herne Hill, England. Tobacco-pipe. No. 1,252,251; Jan. 1; v. 246; p. 234.

Dodds, Ethan I. (See Stafford and Dodds.)

Dodds, Redus D., Humble, Tex. Device for extracting cores from wells. No. 1,252,555; Jan. 8; v. 246; p. 357.

Dodge, Adiel Y., Chicago, Ill. Automatic train-stop. No. 1,252,330; Jan. 1; v. 246; p. 256.

Dodge, Claude R., Salt Lake City, Utah. Electric-cord protector. No. 1,251,991; Jan. 1; v. 246; p. 162.

Dodson, Alcada F., Milan, Mo. Alarm device for gasolene-tanks. No. 1,252,671; Jan. 8; v. 246; p. 390.

Doering, Charles, Jr., and H. H., Oak Park, Ill. Apparatus for dispensing drinking-cups and beverages. No. 1,252,413; Jan. 8; v. 246; p. 315.

Doering, Henry H. (See Doering, Charles, Jr., and H. H.)

Doherty, Henry L., New York, N. Y. Treating liquids to remove dissolved salts. No. 1,251,486; Jan. 1; v. 246; p. 10.

Doherty, Henry L., New York, N. Y. Making alloys. No. 1,252,887; Jan. 8; v. 246; p. 450.

Dolge, Karl A., Westport, Conn. Embalming-board. No. 1,253,673; Jan. 15; v. 246; p. 712.

Domestic Mills Paper Company. (See Dubey, Alfred E., assignor.)

Dominy, John, Goodell, Iowa. Toy. No. 1,253,300; Jan. 15; v. 246; p. 622.

Donati, Joseph. (See Sassli, Eugene H., assignor.)

Donner, Percy E. (See Snyder, Jacob R., assignor.)

Donovan, John B., North Adams, assignor of one-half to J. K. Lanning, Fall River, Mass. Bunch-builder for winding mechanism. No. 1,255,085; Jan. 29; v. 246; p. 1167.

Donovan, John J., Boston, Mass. Separator-trap. No. 1,252,099; Jan. 1; v. 246; p. 193.

Doralte, Ona, Chicago, Ill. Seat-strap. No. 1,252,252; Jan. 1; v. 246; p. 234.

Doremus, Effie F., administratrix. (See Doremus, Willard D.)

Doremus, Willard D., deceased; E. F. Doremus, administratrix, Washington, D. C. Dispensing device. No. 1,253,218; Jan. 15; v. 246; p. 578.

Dorey, George B., Montreal, Quebec, Canada, assignor to Rodger Ballast Car Company, Chicago, Ill. Car construction. No. 1,251,647; Jan. 1; v. 246; p. 62.

Dorion, Michael, Rumford, Me. Yeast-cake cabinet. No. 1,252,327; Jan. 1; v. 246; p. 255.

Dorman, Harley A., Detroit, Mich. Differential mechanism. No. 1,254,782; Jan. 29; v. 246; p. 1081.

Dorsett, William N., *et al.* (See Smith, James A., assignor.)

Dorsey, Walter A., assignor to The Bonney-Floyd Company, Columbus, Ohio. Pipe-coupling and repair-sleeve. No. 1,252,888; Jan. 8; v. 246; p. 450.

Dotti, Joseph, assignor to The Dotti Manufacturing Company, Madison, Wis. Spring and frame supporter for motor-vehicles. No. 1,254,662; Jan. 29; v. 246; p. 1042.

Dotti Manufacturing Company, The. (See Dotti, Joseph, assignor.)

Dougherty, Terence, Brooklyn, N. Y. Railway-car fender. No. 1,253,014; Jan. 8; v. 246; p. 490.

Doughty, Marcus L., and J. W. Ferguson, Chicago, Ill. Time-controlled mechanism. No. 1,251,760; Jan. 1; v. 246; p. 96.

Douglas, William B., assignor to W. & B. Douglas, Middletown, Conn. Pump. No. 1,252,889; Jan. 8; v. 246; p. 451.

Douglass, Leon F., San Rafael, Cal. Camera. No. 1,253,796; Jan. 15; v. 246; p. 746.

Douglass, Paul E., Flint, Mich. Bench-drill. No. 1,254,485; Jan. 22; v. 246; p. 963.

Douglass, Stephen A., St. Louis, Mo. Swing. No. 1,254,890; Jan. 29; v. 246; p. 1114.

Douthitt, Frank H., *et al.* (See Olson, Oscar L., assignor.) (Reissue.)

Dove, Bascom A. (See Farr and Dove.)

Dovel, James P., Birmingham, Ala. Ore-washing plant. No. 1,252,414; Jan. 8; v. 246; p. 315.

Dowlin, Morris, Henniker, N. H. Clock striking mechanism. No. 1,252,100; Jan. 1; v. 246; p. 194.

Downes, Louis W., assignor to D & W Fuse Company, Providence, R. I. Treating metal parts to prevent solder adhering thereto. No. 1,254,663; Jan. 29; v. 246; p. 1042.

Downes, Louis W., and R. C. Patton, assignors to D & W Fuse Company, Providence, R. I. Forming magnetic chucks. No. 1,254,664; Jan. 29; v. 246; p. 1043.

Doyle, James S. (See Hedley and Doyle.)

Drach, George B., assignor to Jersey City Printing Company, Jersey City, N. J. Machine for drilling books. No. 1,255,114; Jan. 29; v. 247; p. 1174.

Draeger, Walter, New York, N. Y. Igniting device. No. 1,254,486; Jan. 22; v. 246; p. 964.

Drägerwerk Heinr. & Bernh. Dräger. (See Claren and Stelzner, assignors.)

Dragon, Jesse, and C. Anderson, Enaville, Idaho. Sawtooth. No. 1,252,672; Jan. 8; v. 246; p. 390.

Drake, George W. (See Zerk and Drake.)

Drake, James C., Rochester, Minn., assignor to Sears, Roebuck & Company, Chicago, Ill. Modulator for sound-producing machines. No. 1,254,665; Jan. 29; v. 246; p. 1043.

Draper Corporation. (See Chase, William H., assignor.)

Draper Corporation. (See Rhoades, Alonzo E., assignor.)

Draper Corporation. (See Saulnier, Arsène, assignor.)

Draper Corporation. (See Stimpson, Edward S., assignor.) (Reissue.)

Drawa, George A. L., Milwaukee, Wis. Ventilator. No. 1,254,216; Jan. 22; v. 246; p. 886.

Drew, Arthur, deceased; S. Nield, Wythall, near Alvechurch, and E. A. Osborne, executors, assignors of one-half to W. H. Osborne and one-half to E. A. Osborne, Wythall, near Alvechurch, England. Springfork for cycles, motor-cycles, and the like. No. 1,251,992; Jan. 1; v. 246; p. 162.

Drew Carrier Company. (See Kaiser and Peters, assignors.)

Driscoll, Dennis L., assignor of one-half to Bunting Iron Works, Coalinga, Cal. Combination overshot rotary milling-cutter. No. 1,253,015; Jan. 8; v. 246; p. 490.

Drouve, Gerhard F. (See Anderson, Nils H., assignor.)

Drucklieb, Paul A., assignor to New York Cigarette Machine Company, New York, N. Y. Cigarette-finishing machine. No. 1,253,590; Jan. 15; v. 246; p. 685.

Drummond, Ulysses G., Kersey, Colo. Bottle-brush. No. 1,254,217; Jan. 22; v. 246; p. 886.

Dubey, Alfred E., Brooklyn, assignor to Domestic Mills Paper Company, New York, N. Y. Wrapper for automobile-tires, &c. No. 1,255,086; Jan. 29; v. 246; p. 1167.

Duchrau, William, Visalia, Cal. Hat attachment. No. 1,254,126; Jan. 22; v. 246; p. 861.

Duck, John J., Toledo, Ohio. Bushing for electric wiring. No. 1,251,487; Jan. 1; v. 246; p. 11.

Duckham, Arthur M., Ashtead, England. Treatment of furnace-bricks. No. 1,252,415; Jan. 8; v. 246; p. 315.

Duehr, Bernard J., Big Island, Va. Radiator foot-rest. No. 1,254,995; Jan. 29; v. 246; p. 1142.

Duff Manufacturing Company, The. (See Van Hamersveld, John, assignor.)

Dufresne, Jere C., Rahway, N. J. Chuck. No. 1,252,253; Jan. 1; v. 246; p. 235.

Dugan, Albert J., Crowley, La. Fan. No. 1,251,876; Jan. 1; v. 246; p. 131.

Dugas, Napoleon, Little Falls, Minn. Sack-holder. No. 1,253,948; Jan. 15; v. 246; p. 789.

Dulch, Steven, assignor of one-half to W. Hughes, Colfax, Iowa. Washing-machine gearing. No. 1,251,993; Jan. 1; v. 246; p. 163.

Dula, Caleb C., New York, N. Y. Cigar or cigarette package. No. 1,253,219; Jan. 15; v. 246; p. 579.

Dulle, Joseph J., Kansas City, Mo. Elevator-gate-operating apparatus. No. 1,252,331; Jan. 1; v. 246; p. 256.

Dumars, Horace, New Suffolk, N. Y. Advertising display-machine. No. 1,253,220; Jan. 15; v. 246; p. 579.

Dunbar, David, Glasgow, Scotland. Filtering of water and other liquids or the like. No. 1,253,674; Jan. 15; v. 246; p. 713.

Duncan, Arthur L., and C. E. Forry, assignors to H. G. Prince & Company, Oakland, Cal. Can-end separating and feeding machine. No. 1,253,797; Jan. 15; v. 246; p. 747.

Duncan, Leander, Butte, Mont. Railway-tie. No. 1,254,585; Jan. 22; v. 246; p. 992.

Duncan, William M., Alton, Ill. Car-wheel. No. 1,253,478; Jan. 15; v. 246; p. 656.

Duner, John C., Wheaton, Ill. Closet-locking device. No. 1,252,556; Jan. 8; v. 246; p. 357.

Dunlop Rubber Company, The. (See Macbeth, Colin, assignor.)

Dunn, Edward L., U. S. Marine Corps. Type-writer platen-roll-shifting means. No. 1,252,416; Jan. 8; v. 246; p. 316.

Dunn, Irwin L., Marietta, Ohio, assignor to Petroleum Patents Company, Chicago, Ill. Process and apparatus for increasing the production of oil-wells. No. 1,252,557; Jan. 8; v. 246; p. 357.

Dunn, Raymond J., Hartford, Conn. Calipers. No. 1,251,648; Jan. 1; v. 246; p. 62.

Dunne, George W., Muskegon, Mich. Forming multicrank-shaft blanks. No. 1,252,673; Jan. 8; v. 246; p. 390.

Dunner, Julius, Brooklyn, N. Y. Hinge. No. 1,253,798; Jan. 15; v. 246; p. 747.

Dupuis, Joseph, Fall River, Mass. Let-off mechanism for looms. No. 1,254,127; Jan. 22; v. 246; p. 862.

Durkee and Company, E. R. (See Helson, Gilbert F., assignor.)

Dutchess Tool Company. (See Van Houten, Frank H., assignor.)

Dutchess Tool Company. (See Van Houten, John M. and F. H., assignors.)

Dutt, David. (See Evans and Dutt.)

Dwight, Arthur S., New York, N. Y. Treating ores. No. 1,254,316; Jan. 22; v. 246; p. 915.

Dwyer, William O. (See Frank and Dwyer.)

E. Horton & Son Company. (See Morrow, Alexander P., assignor.)

E. Kirstein Sons Company. (See Kirstein and McDonnell, assignors.)

E. J. Brooks & Co. (See Brooks, Winfred M., assignor.)

E. T. Fraim Lock Company. (See Fraim, Samuel E., assignor.)

Eader, John B. (See Berklite, Alonzo H., assignor.)

Eakens, James C., Golden, N. Mex. Tire for wheels. No. 1,255,115; Jan. 29; v. 247; p. 1175.

Eagle, Elias P., Townville, S. C. Pencil-sharpener. No. 1,253,221; Jan. 15; v. 246; p. 580.

Earles, Michael, *et al.* (See Kanall, John M., assignor.)

Earp-Thomas, George H., Glen Ridge, N. J. Bacterial product and process of preparing same. No. 1,252,332; Jan. 1; v. 246; p. 257.

East, Arthur R., Delia, assignor of one-half to J. J. Beckham, Limestone county, Tex. Cotton-chopper-tool-lifting mechanism. No. 1,252,674; Jan. 8; v. 246; p. 391.

Eastman Kodak Company. (See Barnes and Phillips, assignors.)

Eastman Kodak Company. (See Folmer, William F., assignor.)

Eastman Kodak Company. (See Jones, John G., assignor.)

Eastman Machine Co. (See Clark and Wyman, assignors.)

Eaton, George M. (See Webster and Eaton.)

Eaton, Lucien, Ishpeming, Mich. Hoisting and dumping apparatus. No. 1,254,997; Jan. 29; v. 246; p. 1142.

Ebelhare, William H., and C. G. Arvidson, assignors to The Stenotype Company, Indianapolis, Ind. Type-writing machine. No. 1,252,890; Jan. 8; v. 246; p. 451.

Ebelhare, William H., and C. G. Arvidson, assignors to The Stenotype Company, Indianapolis, Ind. Stenographic type-writing machine. No. 1,252,891; Jan. 8; v. 246; p. 451.

Ebeling, Charles W., Wheeling, W. Va. Film-controlled mechanism for synchronized motion-picture and sound-record carriers. No. 1,254,487; Jan. 22; v. 246; p. 964.

Eberle, Elsa, executrix. (See Eberle, Gustav.)

Eberle, Gustav, deceased; E. Eberle, executrix, Stuttgart, Germany. Preparation of amino compounds by fermentation. No. 1,254,033; Jan. 22; v. 246; p. 834.

Eckart, Charles F., Olaa, Territory of Hawaii. Increasing the yield of sugar-cane. No. 1,252,101; Jan. 1; v. 246; p. 194.

Ecker, Walter, assignor of one-half to P. H. Carlson, Middletown, Conn. Tool-holder and guide combination. No. 1,253,799; Jan. 15; v. 246; p. 747.

Eckert, Frederick F., Ragersville, Ohio. Rail-spike. No. 1,251,488; Jan. 1; v. 246; p. 11.

Eckhart, Daniel, North Bend, Nebr. Fastener. No. 1,252,892; Jan. 8; v. 246; p. 452.

Eckmann, Siegmund. (See Peck and Eckmann.)

Eckstein, Albert. (See Stickdorn, Robert, assignor.)

Eclipse Gas Stove Company. (See Green, Michael J., assignor.)

Eclipse Machine Company. (See McDermott and Kennington, assignors.)

Econometer Company. (See Gebhart, John C., assignor.)

Economic Machinery Company. (See Stake, Herman, assignor.)

Economy Devices Corporation. (See Ball, Herman F., assignor.)

Economy Folding Box Co., The. (See Houghland, Frank H., assignor.)

Edelson, Harry, assignor to Regal Button Works, Inc., Philadelphia, Pa. Snap-fastening for garments, &c. No. 1,253,016; Jan. 8; v. 246; p. 491.

Edmon, Elmer A. (See Christie and Edmon.)

Edmunds and Jones Corporation. (See Godley, Charles E., assignor.)

Edrington, Hiram, Turners Station, Ky. Car-fender. No. 1,252,558; Jan. 8; v. 246; p. 358.

Edward G. Budd Manufacturing Company. (See Ledwinka, Joseph, assignor.)

Edward Katzinger Co. (See Katzinger, Sidney C., assignor.)

Edwards & Co. (See Miller, Christian, assignor.)

Edwards, Edward R., Jersey City, N. J. Sash-retainer. No. 1,254,891; Jan. 29; v. 246; p. 1114.

Edwards, Leon W., Forest City, Pa. Automatic cut-off for gas-burners. No. 1,254,586; Jan. 22; v. 246; p. 992.

Edwards, Oliver M. (See Ohnstrand, Enoch, assignor.)

Edwards, Thomas J. (See Osgood, Walter P., assignor.)

Ehmcke, George H. F., Fremont, Nebr. Lawn-trimmer. No. 1,252,675; Jan. 8; v. 246; p. 391.

Ehrlich, John D., Berwick, La. Protection of vessels against torpedoes and mines. No. 1,253,017; Jan. 8; v. 246; p. 491.

Eitel, Heinrich, Dusseldorf, Germany, assignor to "Fenestra" Fabrik für Eisenhochbau G. m. b. H., Dusseldorf-Obercassel, Germany. Iron window. No. 1,254,998; Jan. 29; v. 246; p. 1142.

Ekern, Emil A. (See Ekern, Helmer O., W. L., and E. A.)

Ekern, Helmer O., W. L., and E. A., Flandreau, S. D. Drive-shaft-tube support. No. 1,254,488; Jan. 22; v. 246; p. 964.

Ekern, Willie L. (See Ekern, Helmer O., W. L., and E. A.)

Ekvall, Carl O., assignor to General Paper Goods Manufacturing Co., New York, N. Y. Envelop-machine. No. 1,254,666; Jan. 29; v. 246; p. 1043.

Elder, Leonard G. (See Garnett, Thomas W., assignor.)

Eldridge, Ernest G., Alhambra, Cal. Indexing mechanism for permutation-locks. No. 1,254,783; Jan. 29; v. 246; p. 1081.

Electric Coat Company. (See Davison, Gregory C., assignor.)

Electric Weighing Company. (See Messiter, Edwin H., assignor.)
Electrical Inventions Company. (See Adams-Randall, Charles, assignor.)
Electrical Products Corporation. (See Clover, Howard K., assignor.)
Electro-Chemical Supply & Engineering Company. (See Meigs, Curtis C., assignor.)
Electro-Pneumatic Gear Shift Corporation. (See MacPherson, John G., assignor.)
Eliett, Frederick S., Elmira, N. Y. Free-wheel device. No. 1,252,893; Jan. 8; v. 246; p. 452.
Ellis, Carleton, Montclair, N. J. Product of hydrogenation. (Reissue.) No. 14,429; Jan. 29; v. 246; p. 1178.
Ellis-Foster Company. (See Wells, Alfred A., assignor.)
Ellison, Frank H., Rib Lake, Wis. Game apparatus. No. 1,253,471; Jan. 15; v. 246; p. 655.
Ellison, George. (See Glasner and Ellison.)
Ellithorpe, Frederick T., Chicago, Ill. Game-indicator. No. 1,253,479; Jan. 15; v. 246; p. 657
Ellithorpe, Gilbert S., Chicago, Ill. Rubber heel. No. 1,254,489; Jan. 22; v. 246; p. 964.
Elmira Knitting Mills. (See Bailey, Silas E., assignor.)
Elniff, John, Kansas City, Mo. Anti-water-adhesion equipment for vessels. No. 1,254,802; Jan. 29; v. 246; p. 1115.
Emele, Alphonso, Mariners Harbor, N. Y. Sectional radiator for internal-combustion engines. No. 1,254,893; Jan. 29; v. 246; p. 1115.
Emerson-Brantingham Company. (See Clay, Harry C., assignor.)
Emerson-Brantingham Company. (See Krieg, Alfred, assignor.)
Emerson-Brantingham Company. (See Waterman, Lewis E., assignor.)
Empire Duplex Gin Company. (See Meurling, Ivar, assignor.)
Empire Machine Company. (See Hanford, Orin A., assignor.)
Engel, Karl, Arlington, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Shoe-sole. No. 1,254,128; Jan. 22; v. 246; p. 862.
Engelberg, Arthur, Oakland, Cal. Account-book. No. 1,252,333; Jan. 1; v. 246; p. 257.
Engelke, Ewald O., Cleveland, Ohio. Electric switch. No. 1,252,417; Jan. 8; v. 246; p. 316.
England, Wallace R. (See Fonnesbeck and England.)
Englen, Frederick J., South Omaha, Nebr. Filling-machine. No. 1,253,018; Jan. 8; v. 246; p. 491.
English, Peter, assignor to Monorail Company of America, Detroit, Mich. Railway switch and crossover. No. 1,253,800; Jan. 15; v. 246; p. 747.
Enholm, Hilmer N., Lomax, Ill. Chair-leg extension. No. 1,251,649; Jan. 1; v. 246; p. 62.
Enholm, Hilmer N., assignor to Weather-Proof Watering Trough and Tank Mfg. Co. Inc., Burlington, Iowa. Mold for weatherproof watering-troughs. No. 1,251,650; Jan. 1; v. 246; p. 63.
Enke, Martin F., Oakland, Cal. Ladder. No. 1,251,761; Jan. 1; v. 246; p. 96.
Erdle, Reiner, Brooklyn, N. Y., assignor of one-half to H. W. Sagasel, Ridgefield Park, N. J. Speed-recorder. No. 1,252,102; Jan. 1; v. 246; p. 194.
Erichsen, Abraham M., Christiania, Norway. Process and apparatus for testing metal sheets, &c. (Reissue.) No. 14,421; Jan. 8; v. 246; p. 547.
Erickson, Edward, Beverly, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Machine for operating on soles. No. 1,254,894; Jan. 29; v. 246; p. 1115.
Erickson, Edwin L., Aitkin, Minn. Wrench. No. 1,254,587; Jan. 22; v. 246; p. 992.
Erickson, Frederic W., New York, N. Y. Marine buoy. No. 1,252,559; Jan. 8; v. 246; p. 358.
Erickson, Nellie M., Portland, Oreg. Bed-pan. No. 1,251,877; Jan. 1; v. 246; p. 131.
Erwin, Charles A., Moberly, Mo. Resilient wheel. No. 1,253,801; Jan. 15; v. 246; p. 748.
Eskelinen, Henry, Milwaukee, Wis. Measuring instrument. No. 1,254,218; Jan. 22; v. 246; p. 887.
Esmond Mills, The. (See Stevens and Clarke, assignors.)
Esnault-Pelterie, Robert, Paris, France. Piston for hydraulic pumps. No. 1,254,784; Jan. 29; v. 246; p. 1082.
Espenschied, Lloyd, Hollis, N. Y., assignor to American Telephone and Telegraph Company. Core for magnetic coils. No. 1,251,651; Jan. 1; v. 246; p. 63.
Essen, Eric E., Brooklyn, N. Y. Fire-check valve. No. 1,251,489; Jan. 1; v. 246; p. 11.
Esterline, John W., Indianapolis, Ind. Constant-temperature recording instrument. No. 1,251,702; Jan. 1; v. 246; p. 96.
Estey Watch Tool Company. (See Buffum, Herbert H., assignor.)
Etaix, Louis, Paris, France. Plant for the manufacture of coffee extract. No. 1,254,129; Jan. 22; v. 246; p. 862.
Euchenhofer, Adolph F. (See Sherman and Euchenhofer.)
Euston, Harry D., Quincy, Mass. Sheet-metal-polishing machine. No. 1,253,675; Jan. 15; v. 246; p. 713.
Evans, Atlee O. (See Evans, Owen J. and A. O.)
Evans, Clarence T., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electric switch. No. 1,252,560; Jan. 8; v. 246; p. 358.
Evans, Frank, and D. Dutt, assignors of one-third to B. O. Markham, Riverdale, Mich. Trip for railway-switches. No. 1,253,802; Jan. 15; v. 246; p. 748.
Evans, Guy J., Buffalo, N. Y. Addressing-machine. No. 1,253,361; Jan. 15; v. 246; p. 622.
Evans, Owen J. and A. O., Canton, Ohio. Safety-signal. No. 1,251,490; Jan. 1; v. 246; p. 11
Evans, Paul S., assignor to Mobile Steel Company, Mobile, Ala. Syrup-evaporator. No. 1,251,763; Jan. 1; v. 246; p. 97.
Evans, Price, Sadorus, Ill. Hair-pin. No. 1,253,101; Jan. 8; v. 246; p. 533.
Everett, Francis D., Saranac Lake, N. Y. Slack-adjuster. No. 1,252,792; Jan. 8; v. 246; p. 424.
Everitt, W., et al. (See Horn, Charles A., assignor.)
Everlasting Valve Company. (See Patterson, Franklin M., assignor.)
F. A. Hardy & Company. (See Troppman, Charles J., assignor.)
F. N. Burt Company. (See Carle, Harold, assignor.)
F. N. Burt Company, The. (See Holly, Carlos, assignor.)
F. N. Burt Company. (See Miller, John J., assignor.)
F. N. Burt Company. (See Palmer, Lyndon C., assignor.)
Faber, Henry B., New York, N. Y. Thickener. No. 1,253,162; Jan. 8; v. 246; p. 533.
Fachini, Stefano, Milan, Italy. Combustion of liquid fuels. No. 1,252,793; Jan. 8; v. 246; p. 424.
Faidley, William D., Jr., Clifton Forge, J. W. Morris, Iron Gate, and S. A. Patterson, Clifton Forge, Va. Machine for removing and replacing metal parts of trainpipe couplings. No. 1,252,676; Jan. 8; v. 246; p. 391.
Faidley, William D., Jr., Clifton Forge, J. W. Morris, Iron Gate, and S. A. Patterson, Clifton Forge, Va. Machine for removing and replacing metal parts of trainpipe couplings. No. 1,252,677; Jan. 8; v. 246; p. 392.
Falk, Arthur, assignor to Falk Tobacco Co., New York, N. Y. Dispensing receptacle or package. No. 1,253,222; Jan. 15; v. 246; p. 580.
Falk Tobacco Co. (See Falk, Arthur, assignor.)
Fallis, William S., Raleigh, N. C. Hand-level. No. 1,253,163; Jan. 8; v. 246; p. 534.
Far West Manufacturing Co. (See White, Dick C., assignor.)
Farbwerke vorm. Meister Lucius & Bruning. (See Rohmer, Martin, assignor.)
Farkas, Karl, assignor of one-half to A. B. Lisle, Providence, R. I. Lubricating refractory wires during drawing the same. No. 1,253,862; Jan. 15; v. 246; p. 623.
Farmer, Edward E., Struthers, assignor to The Youngstown Sheet & Tube Company, Youngstown, Ohio. Die for rivet and nail machines. No. 1,251,652; Jan. 1; v. 246; p. 63.
Farmes, Charles, assignor of one-half to J. M. Martin, Minneapolis, Minn. Artificial bait. No. 1,251,994; Jan. 1; v. 246; p. 163.
Farney, Asa W., Kansas City, and F. W. Jansky, St. Joseph, Mo. Riprap. No. 1,252,678; Jan. 8; v. 246; p. 392.
Farnsworth, Sidney W., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Cathode structure for vapor-converters. No. 1,253,223; Jan. 15; v. 246; p. 580.
Farr, Charles A., and B. A. Dove, Dallas, Tex. Printing roller-cleaning device. No. 1,253,363; Jan. 15; v. 246; p. 623.
Farrell, Walter C., assignor of one-half to J. F. Schamel, Buffalo, N. Y. Shield or protector for radiators. No. 1,254,785; Jan. 29; v. 246; p. 1082.
Farwell, Charles. (See Queenan and Farwell.)
Fasanello, Sebastian, et al. (See Gotti, Constantine J., assignor.)
Fassinger, Charles, assignor to Oliver Iron & Steel Company, Pittsburgh, Pa. Heating-furnace. No. 1,252,561; Jan. 8; v. 246; p. 359.
Fassinger, Charles, assignor to Oliver Iron & Steel Company, Pittsburgh, Pa. Feeding apparatus. No. 1,252,562; Jan. 8; v. 246; p. 359.
Fath, George H. (See Peters, Fath, and Miller.)
Faultless Rubber Company, The. (See Miller, Thomas W., assignor.)
Faust, Mahlon E. (See Faust, William H., assignor.)
Faust, William H., assignor to M. E. Faust, Los Angeles, Cal. Converting garbage into food. No. 1,254,317; Jan. 22; v. 246; p. 916.
Fay, Alpheus, Louisville, Ky. Means for preparing food products. No. 1,251,878; Jan. 1; v. 246; p. 131.
Fearell, Walter C. (See Olinger and Fearell.)
Fee, Francis J., New York, N. Y. Automatic sprinkler-head. No. 1,253,019; Jan. 8; v. 246; p. 492.
Feldenheimer, William, London, England. Soap-like detergent and the manufacture thereof. No. 1,254,588; Jan. 22; v. 246; p. 993.
Feldkamp, Frederick A., Newark, N. J. Multiple-fuse cartridge. No. 1,254,490; Jan. 22; v. 246; p. 964.
Felicetti, John B., Philadelphia, Pa. Writing-instrument holder. No. 1,253,164; Jan. 8; v. 246; p. 534.
Felker, William R., Rogers, Ark., and J. Ford, Springfield, Tenn. Cotton-chopper. No. 1,254,999; Jan. 29; v. 246; p. 1142.

Fellows, Edwin R., assignor to The Fellows Gear Shaper Company, Springfield, Vt. Generating gear-teeth. No. 1,252,679; Jan. 8; v. 246; p. 392.
Fellows Gear Shaper Company, The. (See Fellows, Edwin R., assignor.)
Felsenthal, Gabriel, Chicago, Ill. Picture-frame. No. 1,253,803; Jan. 15; v. 246; p. 748.
Felts, James B. (See Hagewood, John T., assignor.)
Fencl, Frank L., and F. M. Hinkle, Table Rock, Nebr. Gun. No. 1,254,130; Jan. 22; v. 246; p. 863.
"Fenestra" Fabrik für Eisenhochbau G. m. b. H. (See Eitel, Heinrich, assignor.)
Fenn, George M., Charlotte, Mich. Snathe-press. No. 1,254,398; Jan. 22; v. 246; p. 930.
Ferguson, John W. (See Doughty and Ferguson.)
Ferguson, Milford B., Brooklyn, N. Y., assignor, by mesne assignments, to Package Machinery Company, Boston, Mass. Sealing and wrapping machine. No. 1,254,895; Jan. 29; v. 246; p. 1115.
Fergusson, Alan R., Chicago, Ill. Tire construction. No. 1,255,000; Jan. 29; v. 246; p. 1143.
Fernandez, Alphonse, Washington, D. C. Alarm device. No. 1,254,786; Jan. 29; v. 246; p. 1082.
Fernandez, Alphonse, Washington, D. C. Advertising device. No. 1,254,787; Jan. 29; v. 246; p. 1083.
Fernandez, José V., Campechuela, assignor to M. Rodriguez y Sol, Trinidad, Santa Clara, Cuba. Non-refillable bottle. No. 1,254,896; Jan. 29; v. 246; p. 1116.
Feroldi, Enrico, Turin, Italy. Carburetor. No. 1,253,949; Jan. 15; v. 246; p. 789.
Ferrell, Louis, Sikeston, Mo. Hook. No. 1,253,804; Jan. 15; v. 246; p. 748.
Ferriss, Edward, assignor to W. J. Schwab, Minneapolis, Minn. Indestructible marking device for castings. No. 1,251,491; Jan. 1; v. 246; p. 12.
Fesler, Joel B., New York, N. Y. Container for soap paste and other liquid and semiliquid materials. No. 1,254,667; Jan. 29; v. 246; p. 1044.
Fichten, Frank M., Milwaukee, Wis. Bed-spring brace. No. 1,253,805; Jan. 15; v. 246; p. 749.
Field, Hardin G., Denver, Colo. Rotary valve for internal-combustion engines. No. 1,253,364; Jan. 15; v. 246; p. 623.
Filiewicz, Harry, Aberdeen, Wash. Sunken-ship signal. No. 1,253,583; Jan. 15; v. 246; p. 686.
Finley, Charles F., Fort Collins, Colo. Horse hay-rake. No. 1,251,492; Jan. 1; v. 246; p. 12.
Finne, William L., Elizabeth, N. J. Coil-box for condensers. No. 1,251,493; Jan. 1; v. 246; p. 12.
Finne, William L., Elizabeth, N. J. Rail-chair. No. 1,253,020; Jan. 8; v. 246; p. 492.
Firestone Tire & Rubber Company, The. (See Moyer, Fredellia H., assignor.)
Firestone Tire & Rubber Company, The. (See Stevens, William C., assignor.)
Fisch, William, Birmingham, Ala. Baking-oven. No. 1,254,318; Jan. 22; v. 246; p. 916.
Fischer, Fred C., Robstown, Tex. Aerocompass. No. 1,253,190; Jan. 8; v. 246; p. 542.
Fischer, Harry H., Cincinnati, Ohio. Plate-rack. No. 1,253,950; Jan. 15; v. 246; p. 790.
Fishack, Edmond H., Gypsum, Ohio. Machine for manufacturing plaster-board. No. 1,253,676; Jan. 15; v. 246; p. 713.
Fisher, Charles J., Niagara Falls, N. Y. Lathe-chuck. No. 1,253,224; Jan. 15; v. 246; p. 580.
Fisher, Elzie H., and W. H. Foye, Seattle, Wash. Radiator-repair device. No. 1,254,319; Jan. 22; v. 246; p. 916.
Fisher, James B. (See Mackie and Fisher.)
Fisher, Joseph O., U. S. Navy. Method of and apparatus for injecting fuel into combustion-chambers. No. 1,252,254; Jan. 1; v. 246; p. 235.
Fisk Rubber Company, The. (See Lewis, George H., assignor.)
Fitz Gerald, John W., Detroit, Mich. Automatic belt-tensioning means for drive mechanism. No. 1,254,320; Jan. 22; v. 246; p. 917.
Fitz, Peter. (See Fitz, Will and P.)
Fitz, Will and P., Bremond, Tex. Rocker attachment. No. 1,252,418; Jan. 8; v. 246; p. 316.
Fitzgerald, Edward E., Minden, La. Resawing-mill. No. 1,252,894; Jan. 8; v. 246; p. 452.
Fitzgerald, Herbert S., Tarrytown, N. Y. Hook and eye. No. 1,254,491; Jan. 22; v. 246; p. 965.
Fixen, Laura G. (See Benson, Henry M., assignor.)
Flakes A/S. (See Schou, Hans H., assignor.)
Flammer, Margaret M., Balboa, Canal Zone. Picture and design made from dry earths and making the same. No. 1,255,001; Jan. 29; v. 246; p. 1143.
Flannery Bolt Company. (See Flannery, John R., assignor.)
Flannery Bolt Company. (See Stafford and Dodds, assignors.)
Flannery, John R., assignor to Flannery Bolt Company, Pittsburgh, Pa. Stay-bolt structure. No. 1,252,334; Jan. 1; v. 246; p. 257.
Flatau, Louis S., St. Louis, Mo. Turbine. No. 1,255,002; Jan. 29; v. 246; p. 1143.
Flecchia, Louis, Philadelphia, Pa. Plastic flooring composition. No. 1,254,788; Jan. 29; v. 246; p. 1083.
Fleischman, Isedore. (See Fleischman, Jacob and I.)
Fleischman, Jacob and I., Jersey City, N. J. Automobile-radiator. No. 1,252,794; Jan. 8; v. 246; p. 425.
Fleming, John G. (See Anderson and Fleming.)
Flessa, George, Berkeley, Cal. Button snap-fastener. No. 1,254,789; Jan. 29; v. 246; p. 1083.
Fletcher, William H., et al. (See Mackay, William H., assignor.)
Flora, Ellsworth E., Chicago, Ill., assignor to Signode System Incorporated. Providing flat metal strips with sealing-sleeves. No. 1,252,680; Jan. 8; v. 246; p. 392.
Florandin, Charles H., and A. M. Bennett, Westfield, assignors to W. E. Tuttle, Jr., receiver, Garwood, N. J. Electric welding. No. 1,251,764; Jan. 1; v. 246; p. 97.
Floyd, Walter B., assignor to The Bonney-Floyd Company, Columbus, Ohio. Car-wheel. No. 1,252,895; Jan. 8; v. 246; p. 452.
Flynn, Clement L., Bellingham, Wash., assignor to Welles Thompson Company, Minneapolis, Minn. Silo. No. 1,254,131; Jan. 22; v. 246; p. 863.
Folmer, William F., Rochester, N. Y. Snap-fastener. No. 1,252,255; Jan. 1; v. 246; p. 235.
Folmer, William F., assignor to Eastman Kodak Company, Rochester, N. Y. Panoramic camera. No. 1,252,494; Jan. 1; v. 246; p. 12.
Fondiller, William, assignor to Western Electric Company, Incorporated, New York, N. Y. Loading unit for telephone systems. No. 1,253,365; Jan. 15; v. 246; p. 623.
Fonger Fender Company. (See Fonger, William, assignor.)
Fonger, William, assignor to Fonger Fender Company, Chicago, Ill. Fender for automobiles, &c. No. 1,252,021; Jan. 8; v. 246; p. 492.
Fonnesbeck, Leon, and W. B. England, Logan, Utah. Device for bending hair-springs. No. 1,251,765; Jan. 1; v. 246; p. 97.
Fontaine, Robert A. (See Greer and Fontaine.)
Fontaine, Robert A., assignor of one-half to G. T. Greer, Roanoke, Va. Brick-handling apparatus. No. 1,252,890; Jan. 8; v. 246; p. 452.
Foote, Robert E., Harvey, assignor to Scully Jones & Company, Chicago, Ill. Tapered sleeve. No. 1,252,335; Jan. 1; v. 246; p. 257.
Forbes, James M. (See Corrall and Forbes.)
Ford, John. (See Felker and Ford.)
Ford, Marquis C., Denver, Colo. Feed-regulator for concrete-mixers. No. 1,253,022; Jan. 8; v. 246; p. 493.
Ford, Silas M., St. Paul, Minn. Machine for making lathboard. No. 1,251,879; Jan. 1; v. 246; p. 131.
Ford, William H., assignor to The Shredded Wheat Company, Niagara Falls, N. Y. Machine for separating and cleaning grain. No. 1,253,951; Jan. 15; v. 246; p. 790.
Forester, George L., Asheville, N. C. Switch. No. 1,253,165; Jan. 8; v. 246; p. 534.
Forlanini, Enrico, Milan, Italy. Motor-driven airship. No. 1,254,399; Jan. 22; v. 246; p. 939.
Formon, August, Passaic, N. J. Direct-warping machine. No. 1,252,419; Jan. 8; v. 246; p. 316.
Forry, Charles E. (See Duncan and Forry.)
Forsberg, Oscar F., Yonkers, assignor to Western Electric Company, Incorporated, New York, N. Y. Impulse-sending mechanism. No. 1,251,495; Jan. 1; v. 246; p. 13.
Forsberg, Oscar F., Yonkers, assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone desk-stand. No. 1,251,995; Jan. 1; v. 246; p. 163.
Forsberg, Oscar F., Yonkers, N. Y., assignor, by mesne assignments, to Western Electric Company. Telephone-exchange switching mechanism. No. 1,252,420; Jan. 8; v. 246; p. 317.
Forsman, John, Quincy, Mass., assignor to General Electric Co. Shaper-fixture for broaching dovetail ends of turbine-buckets and the like. No. 1,254,589; Jan. 22; v. 246; p. 993.
Forstrom, John, Chicago, Ill. Engine. No. 1,254,219; Jan. 22; v. 246; p. 887.
Fort Pitt Bedding Company. (See Sleeth, Montgomery, assignor.)
Forward, Chauncey B., Urbana, Ohio. Combined furnace and boiler and steam-superheater. No. 1,251,880; Jan. 1; v. 246; p. 132.
Foster Machine Company. (See McKean, John O., assignor.)
Foster, Samuel T., Jr., Laredo, Tex. Automatic weighing-scale. No. 1,254,668; Jan. 29; v. 246; p. 1044.
Foster, Walter, Plainfield, N. J., assignor to Niles-Bement-Pond Company, New York, N. Y. Reciprocating mechanism and system of motor control therefor. No. 1,252,897; Jan. 8; v. 246; p. 453.
Fovargue, Walter G., Glencoe, Ill. Golf-bag. No. 1,254,669; Jan. 29; v. 246; p. 1045.
Fowler, Charles E., Seattle, Wash. Dam. No. 1,254,005; Jan. 15; v. 246; p. 805.
Fowler, Joel J., Athens, Ga. Safety cut-out-plug puller. No. 1,251,496; Jan. 1; v. 246; p. 13.
Fowler, John W. (See Terry and Fowler.)
Fox, George R., Pleasanton, Nebr. Cultivator. No. 1,253,480; Jan. 15; v. 246; p. 657.
Fox, Thomas J. (See Miller and Fox.)
Fox, William R., Grand Rapids, Mich. Type-writer. No. 1,254,321; Jan. 22; v. 246; p. 917.
Foxlee, John E., Chicago, Ill. Oven. No. 1,253,366; Jan. 15; v. 246; p. 623.
Foye, William H. (See Fisher and Foye.)
Fraber, Thomas J., Washington, D. C. Concrete construction for ceilings for buildings. No. 1,253,952; Jan. 15; v. 246; p. 790.
Frahn, Joseph W. (See Frahn, Laurence B., assignor.)

Frahn, Laurence B., assignor of one-half to J. W. Frahn, New Decatur, Ala. Spring-wheel for automobiles. No. 1,254,492; Jan. 22; v. 246; p. 965.

Fraim, Samuel R., Lancaster, Pa., assignor to The E. T. Fraim Lock Company. Lock-case. No. 1,253,677; Jan. 15; v. 246; p. 713.

Fraim, Samuel R., Lancaster, Pa., assignor to The E. T. Fraim Lock Company. Ward-cylinder for locks. No. 1,253,678; Jan. 15; v. 246; p. 714.

Fraim, Samuel R., Lancaster, Pa., assignor to The E. T. Fraim Lock Company. Combined lock and latch. No. 1,253,679; Jan. 15; v. 246; p. 714.

Francis, Albert W., *et al.* (See Richards, John M., assignor.)

Frank Adam Electric Company. (See Adam, Frederick B., assignor.)

Frank, John J., and W. O. Dwyer, Pittsfield, Mass., assignors to General Electric Company. Electrical winding. No. 1,253,166; Jan. 8; v. 246; p. 534.

Frank, Joseph, assignor to T. L. Green, New York, N. Y. Coal-hole cover. No. 1,252,795; Jan. 8; v. 246; p. 425.

Frankenberger, William, Louisville, Ky., and H. N. Gillette, assignors to Standard Sanitary Manufacturing Company, Pittsburgh, Pa. Waste-valve. No. 1,254,897; Jan. 29; v. 246; p. 1116.

Franz, Max. (See Soehnlein, Kusenberg, and Franz.)

Fraser, Joseph, Parnell, Auckland, New Zealand. Bin for holding flour, sugar, and the like. No. 1,253,581; Jan. 15; v. 246; p. 686.

Frazer, Walter L., San Diego, Cal. Pneumatic-tube-stem dust-cap. No. 1,253,806; Jan. 15; v. 246; p. 749.

Frazier, Oliver B., Elwood, Ind. Lawn-mower. No. 1,252,421; Jan. 8; v. 246; p. 317.

Frederick Osann Company. (See Lyons, Morris, and Nielson, assignors.)

Frederick Osann Company. (See Plumley, Raymond L., assignor.)

Frederick, William A., Boston, Mass., assignor to The Motor Car Equipment Company, New York, N. Y. Automatic oiler. No. 1,255,087; Jan. 29; v. 246; p. 1167.

Frederick, William A., Boston, Mass., assignor to The Motor Car Equipment Company, New York, N. Y. Automatic oiler. No. 1,255,088; Jan. 29; v. 246; p. 1167.

Frederickson, Clayton E., assignor to Frederickson Engineering Corporation, Chicago, Ill. Derrick. No. 1,252,336; Jan. 1; v. 246; p. 257.

Frederickson Engineering Corporation. (See Frederickson, Clayton E., assignor.)

Freeman, George K., Santa Barbara, Cal. Tree surgery. No. 1,255,089; Jan. 29; v. 246; p. 1168.

Freeman, Rufus A., Flushing, assignor to The Autopress Company, New York, N. Y. Printing-machine. No. 1,252,422; Jan. 8; v. 246; p. 317.

French & Hecht. (See Ploehn, John H., assignor.)

French, Morgan C., Denver, Colo. Display-holder. No. 1,253,225; Jan. 15; v. 246; p. 580.

Frennett, Lewis N., San Diego, Cal. Signaling apparatus. No. 1,252,563; Jan. 8; v. 246; p. 359.

Friberg, Arvid T. and G. G., Frederic, Wis. Threshing-machine. No. 1,253,167; Jan. 8; v. 246; p. 535.

Friberg, Gunard G. (See Friberg, Arvid T. and G. G.)

Fries, Frank J., and G. Birk, Pacific, Mo. Device for converting automobiles into prime movers. No. 1,253,953; Jan. 15; v. 246; p. 791.

Friess, Emil, Chicago, Ill. Portable pipe-vise stand. No. 1,252,423; Jan. 8; v. 246; p. 317.

Friess, Gustav A., Chicago, Ill. Sheet-delivery mechanism for printing-presses. No. 1,252,681; Jan. 8; v. 246; p. 392.

Frink, Harvey W. G., Carroll, Nebr. Hog-oiler. No. 1,252,256; Jan. 1; v. 246; p. 235.

Frisbee, Byron, *et al.* (See Shaut, Edwin J., assignor.)

Frisbee, Gabriel A., Vona, Colo. Smoking-pipe attachment. No. 1,253,954; Jan. 15; v. 246; p. 791.

Frisbie Motor Company, The. (See Frisbie, Russell A., assignor.)

Frisbie, Russell A., assignor to The Frisbie Motor Company, Middletown, Conn. Internal-combustion engine. No. 1,252,796; Jan. 8; v. 246; p. 425.

Frisby, Joseph P., *et al.* (See Kline, Walter, assignor.)

Fritsche, Joseph, Puente, Cal. Bean-vine cutter. No. 1,252,337; Jan. 1; v. 246; p. 257.

Fritsche, Otto, New Ulm, Minn. Amusement device. No. 1,252,257; Jan. 1; v. 246; p. 236.

Fromm, Luther W., Nome, Alaska. Manufacture of artificial teeth. No. 1,254,670; Jan. 29; v. 246; p. 1045.

Frood, Herbert, Chapel-en-le-Frith, England. Laminated spring. No. 1,254,493; Jan. 22; v. 246; p. 966.

Frost, Augustine L., Chicago, Ill. Bread-making. No. 1,254,494; Jan. 22; v. 246; p. 966.

Frost, Norris H., West Hoboken, N. J. Self-launching aeroplane. No. 1,254,898; Jan. 29; v. 246; p. 1116.

Frozeth, Ernst E. (See Blixt and Frozeth.)

Frozeth, Nils E. (See Blixt and Frozeth, assignors.)

Fry, Walter L., Detroit, Mich., assignor to Springfield Body Corporation of New York, New York, N. Y. Anti-rattler. No. 1,253,582; Jan. 15; v. 246; p. 686.

Fuerst, Alfred, New York, N. Y. Adjustable garment. No. 1,251,996; Jan. 1; v. 246; p. 163.

Fulkerson, Nina E. (See Van Vorst and Fulkerson.)

Fullenweider, Henry N., Waveland, Ind. Transmission-gearing for motor-vehicles. No. 1,252,338; Jan. 1; v. 246; p. 258.

Fuller, Allen A., Birmingham, Ala., assignor to Fuller Elevator Equipment Company. Automatic signaling mechanism for starting elevators. No. 1,253,807; Jan. 15; v. 246; p. 749.

Fuller, Charles E., *et al.* (See Pearson, James H., assignor.)

Fuller Elevator Equipment Company. (See Fuller, Allen A., assignor.)

Fuller, Franz A., assignor to J. E. Mergott Company, Newark, N. J. Bag-fastener. No. 1,254,220; Jan. 22; v. 246; p. 887.

Fuller, Frederick L., assignor to The National Cash Register Company, Dayton, Ohio. Transfer mechanism for accounting-machines. No. 1,253,367; Jan. 15; v. 246; p. 624.

Fuller, Ida M., New York, N. Y. Fire-illusion apparatus. No. 1,254,790; Jan. 29; v. 246; p. 1083.

Fullerton, Clarence A., New York, N. Y. Deal-plate. No. 1,251,997; Jan. 1; v. 246; p. 163.

Fullman, James M. G., Pittsburgh, Pa. Floor-outlet box. No. 1,251,497; Jan. 1; v. 246; p. 13.

Fulton, James F., Anderson, Ind. Tractor-plow. No. 1,251,498; Jan. 1; v. 246; p. 14.

Funk, James M., Ottawa, Ill. Aeroplane. No. 1,252,389; Jan. 1; v. 246; p. 258.

Furan, Lars L., Thief River Falls, Minn. Razor-blade-stropping device. No. 1,253,226; Jan. 15; v. 246; p. 581.

Furrer, Rudolf A., Winterthur, Switzerland, assignor to Busch-Sulzer Bros.-Diesel Engine Company, St. Louis, Mo. Combustion-engine locomotive. No. 1,254,034; Jan. 22; v. 246; p. 834.

Furst, John K., assignor to Pennsylvania Engineering Works, New Castle, Pa. Hot-metal mixer. No. 1,254,035; Jan. 22; v. 246; p. 834.

Furthmiller, John J., Elkton, S. D. Curtain-hanger. No. 1,253,368; Jan. 15; v. 246; p. 624.

Fynn, Valère A., assignor to Wagner Electric Manufacturing Company, St. Louis, Mo. Alternating-current motor. No. 1,254,221; Jan. 22; v. 246; p. 888.

G. E. M. Engineering Company. (See Mottlau, August J., assignor.)

Gaffers, Harman B., Watervliet, N. Y. Ladder. No. 1,253,481; Jan. 15; v. 246; p. 657.

Gair, Blair W., Chicago, Ill. Door closing and checking mechanism. No. 1,253,369; Jan. 15; v. 246; p. 624.

Gaisser, Alice R. (See Gaisser, Louis E., assignor.)

Gaisser, Louis E., assignor to A. R. Gaisser, Louisville, Ky. Wrench. No. 1,253,227; Jan. 15; v. 246; p. 581.

Gallagher, Stephen H., Utica, N. Y. Sharpener for knives, scissors, and the like. No. 1,254,671; Jan. 29; v. 246; p. 1045.

Galligan, Edward H., Seekonk, Mass. Surgical instrument. No. 1,253,955; Jan. 15; v. 246; p. 791.

Gally, Robert A., assignor to The Baldwin Company, Cincinnati, Ohio. Music-player exhaust-muffler. No. 1,252,373; Jan. 1; v. 246; p. 268.

Gally, Robert A., assignor to The Baldwin Company, Cincinnati, Ohio. Valve. No. 1,255,090; Jan. 29; v. 246; p. 1168.

Gamage, Harry C., New York, N. Y., assignor to W. H. Simpson, East Orange, N. J. Saw. No. 1,252,424; Jan. 8; v. 246; p. 318.

Gamewell Fire Alarm Telegraph Company, The. (See Beach, Clarence E., assignor.)

Gamewell Fire Alarm Telegraph Company. (See Cole, Frederick W., assignor.)

Gampp, David J., Kane, Pa. Awning-blind. No. 1,251,499; Jan. 1; v. 246; p. 14.

Gannaway, Alonzo M., McCoy, Ky. Conveyer. No. 1,252,425; Jan. 8; v. 246; p. 318.

Ganzinotti, Paul B., North Bergen, N. J., assignor to Joseph H. Meyer Bros., New York, N. Y. Imitation pearl. No. 1,254,791; Jan. 29; v. 246; p. 1083.

García y García, Angel M., Habana, Cuba. Apparatus for diluting liquids. No. 1,254,792; Jan. 29; v. 246; p. 1084.

Garden City Plating & Manufacturing Company. (See Kurtzon, George B., assignor.)

Garfield, James R., trustee. (See Webster, Harry G., assignor.)

Garibaldi, Lester L., Oakland, Cal. Quick-detachable dust-cap. No. 1,255,091; Jan. 29; v. 246; p. 1168.

Garman, Adrian S., Philadelphia, Pa. Medicine-cabinet. No. 1,254,132; Jan. 22; v. 246; p. 863.

Garnett, Thomas W., assignor of one-half to L. G. Elder, Salina, Kans. Window-blind and lace-curtain holder. No. 1,253,808; Jan. 15; v. 246; p. 749.

Garrett H. Smith, Inc. (See Nagel, Gustav J., assignor.)

Garrison, Thomas E. (See Wadleigh and Garrison.)

Garvin Machine Company, The. (See McClellan, Edward J., assignor.)

Garwood Company. (See Pauli, Carl, assignor.)

Gas Oil Stove Company. (See Daines, Hawley E., assignor.)

Gates, Quincy A. (See Bunnell and Williams, assignors.)

Gault, John A., Lancaster, Wis. Submarine-destroyer. No. 1,253,482; Jan. 15; v. 246; p. 657.

Gauntt, Forest G., Fort Wayne, Ind., assignor to W. J. Savage Company, Knoxville, Tenn. Cereal-cutter. No. 1,252,898; Jan. 8; v. 246; p. 453.

Gaynor, John F. (See Bengough and Gaynor.)

Gebhart, John C., assignor, by mesne assignments, to Econometer Company, St. Louis, Mo. Machine for measuring textile fabric and computing the price thereof. No. 1,252,258; Jan. 1; v. 246; p. 236.

Gebhart, John C., assignor, by mesne assignments, to Econometer Company, St. Louis, Mo. Machine for measuring textile fabric and computing the price thereof. No. 1,252,340; Jan. 1; v. 246; p. 258.

Gee, Verdy E., Lemoore, Cal. Shock-absorber. No. 1,254,400; Jan. 22; v. 246; p. 939.

Geerekey, Louis W., deceased, Douglas, Ariz.; J. A. Ketcherside, administrator. Rubber-tire protector. No. 1,254,793; Jan. 29; v. 246; p. 1084.

Geiger, Cornelius M., assignor of one-half to T. A. Albritton, Bee Ridge, Fla. Safety-cover for gondola-cars. No. 1,252,259; Jan. 1; v. 246; p. 236.

Geisler, Paul A., Milwaukee, Wis. Machine for digging out railway-ties. No. 1,252,564; Jan. 8; v. 246; p. 360.

Gelatt, Philo M., La Crosse, Wis. Gage-casing. No. 1,252,682; Jan. 8; v. 246; p. 393.

Gelatt, Philo M., La Crosse, Wis. Tank-gage. No. 1,252,683; Jan. 8; v. 246; p. 393.

Gelatt, Philo M., assignor to National Gauge and Equipment Co., La Crosse, Wis. Pressure-gage. No. 1,254,672; Jan. 29; v. 246; p. 1045.

Gelner, Henry, Garner, Iowa. Bridge. No. 1,253,809; Jan. 15; v. 246; p. 750.

General Container Corporation. (See Gill, Lewis W., assignor.)

General Electric Company. (See Clendenin, John C., assignor.)

General Electric Company. (See Coolidge, William D., assignor.)

General Electric Co. (See Forsman, John, assignor.)

General Electric Company. (See Frank and Dwyer, assignors.)

General Electric Company. (See Junggren, Oscar, assignor.)

General Electric Company. (See Martin and Thompson, assignors.)

General Electric Company. (See Morganthaler, Peter C., assignor.)

General Electric Company. (See Newman, Max G., assignor.)

General Electric Company. (See Seede, John A., assignor.)

General Electric Company. (See Sieber, Ferdinand, assignor.)

General Electric Company. (See Thomson, Elihu, assignor.)

General Paper Goods Manufacturing Co. (See Ekvall, Carl O., assignor.)

General Reduction Gas and By-Products Company. (See Cox, Abraham B., assignor.)

Gentes, Dan O. (See Gentes, Jacob J. and D. O.)

Gentes, Jacob J. and D. O., Miami, Okla. Slime separator and classifier. No. 1,251,500; Jan. 1; v. 246; p. 14.

Gentzel, Nils, Newark, assignor to K. E. Olson & Son, Inc., Normandy Place, Irvington, N. J. Composition for making metallic leaf. No. 1,253,956; Jan. 15; v. 246; p. 791.

George, Ollie C., Chicago, Ill. Vehicle-repair stand. No. 1,254,794; Jan. 29; v. 246; p. 1084.

George P. Clark Company. (See Irrgang, William F., assignor.)

George T. Johnson Company, The. (See Johnson, George T., assignor.)

George, W. W. (See Berry, Harry J., assignor.)

George, William H., assignor to The Dexter Company, Fairfield, Iowa. Operating-gear for washing-machines. No. 1,253,023; Jan. 8; v. 246; p. 493.

George, William H., assignor to The Dexter Company, Fairfield, Iowa. Gearing. No. 1,253,024; Jan. 8; v. 246; p. 494.

Gerhardt, Leonard, Arlington, assignor to Tin Decorating Company of Baltimore, Baltimore, Md. Container. No. 1,254,222; Jan. 22; v. 246; p. 888.

Gerken, Frederick, New York, N. Y. Spark-plug. No. 1,253,584; Jan. 15; v. 246; p. 686.

Gesellschaft für Elektro-Osmose m. b. H. (See Schwerin, Botho, assignor.)

Gettemy, Omar E., Monmouth, Ill. Playing-cards. No. 1,255,003; Jan. 29; v. 246; p. 1143.

Getz, John B., assignor to Getz Power Washer Co., Morton, Ill. Gearing for washing-machines. No. 1,254,133; Jan. 22; v. 246; p. 863.

Getz Power Washer Co. (See Getz, John B., assignor.)

Giaccone, Joseph, Brooklyn, N. Y. Tobacco-pipe. No. 1,254,673; Jan. 29; v. 246; p. 1046.

Giannotto, John, Brooklyn, N. Y. Burglar-proof sash-lock. No. 1,253,810; Jan. 15; v. 246; p. 750.

Gibaut, Percy B., London, England. Holder for papers. No. 1,253,811; Jan. 15; v. 246; p. 750.

Gibbs, Charles W. (See Hobbs and Gibbs.)

Gibson, Alexander, Rosebrook, via Port Fairy, assignor of one-half to D. Gibson, Melbourne, Victoria, Australia. Thimble. No. 1,255,004; Jan. 29; v. 246; p. 1144.

Gibson, David. (See Gibson, Alexander, assignor.)

Gibson, Donald L., Delton, Wis. Parcel-post scale. No. 1,254,495; Jan. 22; v. 246; p. 966.

Gidcumb, John T., Dallas, Tex. Railway cattle-guard. No. 1,254,322; Jan. 22; v. 246; p. 917.

Gieracki, Wladyslaw, Avon, Conn. Life-saving suit. No. 1,253,370; Jan. 15; v. 246; p. 625.

Giern, James B., and A. P. Anholtt, Detroit, Mich. Center-finder. No. 1,253,680; Jan. 15; v. 246; p. 714.

Giesberg, Adolf. (See Moore, Charles F., assignor.)

Gilberg, Charles G., Rockford, Ill. Pneumatic action. No. 1,251,501; Jan. 1; v. 246; p. 14.

Gilberg, Charles G., Rockford, Ill. Device for aiding wounded or injured persons. No. 1,252,260; Jan. 1; v. 246; p. 236.

Gilbert, William O., Omaha, Nebr. Shock-absorber. No. 1,254,674; Jan. 29; v. 246; p. 1046.

Gilbert, William O., Omaha, Nebr. Shock-absorber. No. 1,254,675; Jan. 29; v. 246; p. 1046.

Gilfillan, Sherman L., Minneapolis, Minn. Card-selecting apparatus for card systems. No. 1,251,502; Jan. 1; v. 246; p. 15.

Gill, Lewis W., assignor to General Container Corporation, New York, N. Y. Paper-cylinder manufacture. No. 1,253,371; Jan. 15; v. 246; p. 625.

Gillespie, Alan K., assignor to Brecht Company, St. Louis, Mo. Refrigerator. No. 1,252,505; Jan. 8; v. 246; p. 360.

Gillette, Hallock N. (See Frankenberger and Gillette.)

Gillette, Herbert B. (See Cole and Gillette.)

Gillmor, Horatio G., Washington, D. C. Rail-anchor. No. 1,254,134; Jan. 22; v. 246; p. 864.

Gilman, George H., Claremont, N. H., assignor, by mesne assignments, to Sullivan Machinery Company, Boston, Mass. Drilling-machine. No. 1,252,374; Jan. 1; v. 246; p. 269.

Gilman, George H., Claremont, N. H., assignor, by mesne assignments, to Sullivan Machinery Company, Boston, Mass. Drilling apparatus. No. 1,252,375; Jan. 1; v. 246; p. 269.

Gilmer, James S., Knoxville, Tenn. Painting apparatus. No. 1,252,103; Jan. 1; v. 246; p. 194.

Gilson, J. H., *et al.* (See McCue, Leo, assignor.)

Gindele, Harrison, Cincinnati, Ohio. Preparing photographic-film cartridges. No. 1,251,766; Jan. 1; v. 246; p. 97.

Girvin, Charles W., assignor of one-tenth to V. G. Scott, Philadelphia, Pa., and one-tenth to H. G. Seitz, New York, N. Y. Electrical precipitation of particles from fluid streams. No. 1,252,104; Jan. 1; v. 246; p. 195.

Gladwill, Rudolph H., assignor to Patent Holding Company, Ada, Okla. Check-indorsing machine. No. 1,253,025; Jan. 8; v. 246; p. 494.

Glaeser, Walter, Fullerton, Pa., assignor, by mesne assignments, to Potash Extraction Corporation, New York, N. Y. Treating ferrous alkali silicates. No. 1,254,676; Jan. 29; v. 246; p. 1047.

Glaeser, Walter, Brooklyn, assignor, by mesne assignments, to Potash Extraction Corporation, New York, N. Y. Treating potash-bearing silicates. No. 1,254,677; Jan. 29; v. 246; p. 1047.

Glasener, John H., Mansfield, Ohio. Jack. No. 1,253,483; Jan. 15; v. 246; p. 658.

Glasner, Frank, and G. Ellison, Hinton, Iowa. Foldable drinking-cup. No. 1,253,168; Jan. 8; v. 246; p. 535.

Gleason, John L., Jamaica Plain, Mass. Signaling device. No. 1,251,998; Jan. 1; v. 246; p. 164.

Globe Ticket Company. (See Henkle, Edward A., assignor.)

Glueck, William J., East St. Louis, Ill. Carpenter's tool. No. 1,253,957; Jan. 15; v. 246; p. 791.

Gnade, Edward R., Oil City, assignor to Oil Well Supply Company, Pittsburgh, Pa. Apparatus employed in the formation of wells. No. 1,252,426; Jan. 8; v. 246; p. 318.

Godfrey, George M. (See Bryan, William D., assignor.)

Godley, Charles E., assignor to Edmunds and Jones Corporation, Detroit, Mich. Lamp-mounting. No. 1,252,684; Jan. 8; v. 246; p. 393.

Godley, Charles E., assignor to Edmunds and Jones Corporation, Detroit, Mich. Lamp-support. No. 1,252,685; Jan. 8; v. 246; p. 393.

Godwin, Charley D. (See Godwin, Raymond D. and C. D.)

Godwin, Raymond D. and C. D., Cement, Okla. Nut-lock. No. 1,253,958; Jan. 15; v. 246; p. 792.

Goetz, Victor J., Philadelphia, Pa. Centrifugal refrigerating-machine. No. 1,253,026; Jan. 8; v. 246; p. 494.

Goff, Frank, Camden, N. J. Air-brake appliance. No. 1,254,678; Jan. 29; v. 246; p. 1047.

Gold Car Heating & Lighting Company. (See Gold, Edward E., assignor.)

Gold, Edward E., assignor to Gold Car Heating & Lighting Company, New York, N. Y. Gasket for hose-couplings. No. 1,251,767; Jan. 1; v. 246; p. 98.

Gold, Egbert H. (See MacFarland and Shoemaker, assignors.)

Goldberg, Elias T., Bridgeport, Conn. Artificial tooth. No. 1,253,585; Jan. 15; v. 246; p. 687.

Golden, John H., Buffalo, N. Y. Carbureter. No. 1,253,484; Jan. 15; v. 246; p. 658.

Golding, William H., Tenafly, N. J. Combined square and bevel. No. 1,252,797; Jan. 8; v. 246; p. 425.

Goldsworthy, Paul R., San Jose, Cal. Revolving air-plane. No. 1,254,496; Jan. 22; v. 246; p. 966.

Goljan, Wactaw, Cosmopolis, Wash. Hat-securing means. No. 1,252,798; Jan. 8; v. 246; p. 426.

Gongaware, William F., Oceanpark, Cal. Indicia device for cameras. No. 1,254,590; Jan. 22; v. 246; p. 993.

Good Inventions Co. (See Good, John, assignor.)

Good, John, Brooklyn, N. Y. Rotary valve. No. 1,254,795; Jan. 29; v. 246; p. 1085.

Good, John, assignor to Good Inventions Co., Brooklyn, N. Y. Fuel-charge-supply apparatus. No. 1,253,681; Jan. 15; v. 246; p. 714.
Good, John, assignor to Good Inventions Co., Brooklyn, N. Y. Kerosene-engine. No. 1,253,682; Jan. 15; v. 246; p. 715.
Goodall Worsted Company. (See Nutter, William S., assignor.)
Goodman, Nathan J., St. Louis, Mo. Protector for laundried shirts. No. 1,253,683; Jan. 15; v. 246; p. 715.
Goodrich, Wilson L. (See Burlin, Charles T., assignor.)
Goodrum, Charles L. (See Clausen and Goodrum.)
Goodrum, Charles L. (See Lattig and Goodrum.)
Goodrum, Charles L. (See McQuarrie and Goodrum.)
Goodrum, Charles L., New York, N. Y., assignor, by mesne assignments, to Western Electric Company, Incorporated. Two-wire multiple automatic telephone system. No. 1,251,503; Jan. 1; v. 246; p. 15.
Goodrum, Charles L., New York, N. Y., assignor, by mesne assignments, to Western Electric Company, Incorporated. Machine-switching telephone-exchange systems. No. 1,251,504; Jan. 1; v. 246; p. 16.
Goodrum, Charles L., New York, N. Y., assignor, by mesne assignments, to Western Electric Company, Incorporated. Transmission system. No. 1,252,427; Jan. 8; v. 246; p. 319.
Goodrum, Charles L., New York, N. Y., assignor, by mesne assignments to Western Electric Company. Automatic telephone-exchange system. No. 1,254,679; Jan. 29; v. 246; p. 1048.
Goodrum, Charles L., assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,251,505; Jan. 1; v. 246; p. 16.
Goodrum, Charles L., assignor to Western Electric Company, Incorporated, New York, N. Y. Testing arrangement. No. 1,253,226; Jan. 15; v. 246; p. 581.
Goodrum, Charles L., assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,253,684; Jan. 15; v. 246; p. 715.
Goodrum, Charles L., assignor to Western Electric Company, New York, N. Y. Automatic telephone system. No. 1,254,680; Jan. 29; v. 246; p. 1048.
Goodrum, Charles L., assignor to Western Electric Company, New York, N. Y. Telephone-exchange system. No. 1,254,682; Jan. 29; v. 246; p. 1049.
Goodrum, Charles L., Brooklyn, assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,251,768; Jan. 1; v. 246; p. 98.
Goodrum, Charles L., Brooklyn, assignor to Western Electric Company, New York, N. Y. Non-numerical switch. No. 1,254,681; Jan. 29; v. 246; p. 1049.
Goodsell, Kathleen T., New York, N. Y. Lock. No. 1,253,169; Jan. 8; v. 246; p. 536.
Goodwin, Albert S., and C. C. Hurd, Tacoma, Wash. Stump-burner. No. 1,251,653; Jan. 1; v. 246; p. 64.
Goodwin, Willis N. McKenna, assignor of one-half to V. H. May, Seattle, Wash. Skid. No. 1,251,881; Jan. 1; v. 246; p. 132.
Gordon, George C., assignor to The Park Drop Forge Company, Cleveland, Ohio. Counterbalanced crank-shaft. No. 1,253,586; Jan. 15; v. 246; p. 687.
Gorham Manufacturing Company. (See Day, William A., assignor.)
Gorman, John I., Cleveland, Ohio. Trap for floor-drains, shower-baths, and the like. No. 1,251,506; Jan. 1; v. 246; p. 16.
Goss, Oliver P. M., Seattle, Wash. Preserving wood. No. 1,252,428; Jan. 8; v. 246; p. 319.
Gotti, Constantine J., Tuckahoe, assignor of one-third to S. Fasanello, Brooklyn, and one-third to W. F. Peck, New York, N. Y. Moving-picture apparatus. No. 1,253,372; Jan. 15; v. 246; p. 625.
Gottko, Emery A., Bayonne, N. J. Soot-distributer. No. 1,252,686; Jan. 8; v. 246; p. 394.
Goubert, Floris, Paris, France. Snap-fastener. No. 1,252,261; Jan. 1; v. 246; p. 237.
Gouin, Edward, *et al.* (See Cummings, Daniel J., assignor.)
Gove, Henry H., assignor of one-half to J. F. Dean, Biddeford, Me. Rotary valve for internal-combustion engines. No. 1,251,769; Jan. 1; v. 246; p. 98.
Gow, Alexander M., Duluth, Minn. Dump-car. No. 1,251,770; Jan. 1; v. 246; p. 99.
Graham, Andrew W., assignor of one-half to E. M. Treat, Buffalo, N. Y. Combined ledger-type memorial and sepulcher. No. 1,253,812; Jan. 15; v. 246; p. 751.
Graham, Arthur, New York, N. Y. Electrical ignition for internal-combustion engines. No. 1,253,587; Jan. 15; v. 246; p. 687.
Graham, Charles F., Dayton, Ohio. Shade-bracket. No. 1,253,373; Jan. 15; v. 246; p. 626.
Graham, John G., Granite City, Ill. Sheet-metal-doubling machine. No. 1,252,270; Jan. 1; v. 246; p. 239.
Graham, Robert C., Sr., Point Pleasant, N. J. Wire clothes-pin. No. 1,252,262; Jan. 1; v. 246; p. 237.
Graham, William S., assignor to Parlin & Orendorff Company, Canton, Ill. Planter. No. 1,255,005; Jan. 29; v. 246; p. 1144.
Grand Rapids Show Case Company. (See Vanderveld, Anthony, assignor.)
Grant, Frederick C., Denver, Colo. Pedal attachment for automobiles. No. 1,251,999; Jan. 1; v. 246; p. 164.
Grant, Harlo R., Chicago, Ill. Display-frame. No. 1,254,036; Jan. 22; v. 246; p. 834.
Grapevine, James H., Peoria, Ill. Trolley-stop. No. 1,254,683; Jan. 29; v. 246; p. 1050.
Graveley, Harry V. N., London, England. Side splash-guard for motor-vehicles and other road-vehicles. No. 1,253,959; Jan. 15; v. 246; p. 792.
Gravity Carbureter Company, The. (See Costa, Anthony, assignor.)
Gray & Davis Inc. (See Ledig, Jacob, assignor.)
Gray, Eddie L., Tupelo, Miss. Folding poultry-crate. No. 1,252,341; Jan. 1; v. 246; p. 259.
Gray, Edward E., Plano, Ill., assignor to Gray Pneumatic Gear Shift Company. Fluid-pressure motor and transmission apparatus. No. 1,252,790; Jan. 8; v. 246; p. 426.
Gray, Gary N., Scranton, and J. J. McNulty, Olyphant, Pa. Coal-chute. No. 1,254,625; Jan. 22; v. 246; p. 1004.
Gray, Herbert L. (See Sanborn, William H., assignor.)
Gray, Lyle F., Beaver Dam, Wis., assignor to Paramount Hosiery Form Drying Co., Chicago, Ill. Hosiery-finishing form. No. 1,254,626; Jan. 22; v. 246; p. 1004.
Gray, Neal G. (See Hale, Willis W., assignor.)
Gray Pneumatic Gear Shift Company. (See Gray, Edward E., assignor.)
Gray, Robert D., Ridgewood, N. J. Reflecting-condenser for enlarging photographs. No. 1,253,813; Jan. 15; v. 246; p. 751.
Gray, Robert H., Columbia, Mo. Ventilating attachment for shirt-neckbands. No. 1,252,263; Jan. 1; v. 246; p. 237.
Gray, Wilbur A., Canonsburg, Pa. Current-controlling mechanism for automobile-lights. No. 1,251,507; Jan. 1; v. 246; p. 17.
Green, Alfred. (See Twyman and Green.)
Green, Charles B., Florence, N. J., assignor to R. D. Wood & Co., Philadelphia, Pa. Hose-nozzle-thread adapter. No. 1,254,497; Jan. 22; v. 246; p. 966.
Green, Fred W. (See Dilley, Arzeno J., assignor.)
Green, Harold J., Bolton, England. Gas-producer. No. 1,252,000; Jan. 1; v. 246; p. 164.
Green, Michael B., Memphis, Tenn. Oil-press. No. 1,252,342; Jan. 1; v. 246; p. 259.
Green, Michael J., assignor to Eclipse Gas Stove Company, Rockford, Ill. Wall-burner. No. 1,252,687; Jan. 8; v. 246; p. 394.
Green, Thomas L. (See Frank, Joseph, assignor.)
Greenbrier, Harry W., Newark, N. J., assignor to A. C. Penn, Inc., New York, N. Y. Safety-razor. No. 1,254,037; Jan. 22; v. 246; p. 835.
Greene, Alvin P., Watertown, N. Y. Attachment for paper-feeding machines. No. 1,253,588; Jan. 15; v. 246; p. 687.
Greene, David. (See Burner, Benbow, and Greene.)
Greene, Frank, Chicago, Ill. Camera. No. 1,251,654; Jan. 1; v. 246; p. 64.
Greenfield, Edwin T., Kiamesha, N. Y. Coating of pipes. No. 1,254,796; Jan. 29; v. 246; p. 1085.
Greenfield, James L., Sandwich, Ill. Fence-splicer. No. 1,254,402; Jan. 22; v. 246; p. 940.
Greensfelder, Elmer L., Baltimore, Md. Method and apparatus for synchronously producing sounds to accompany motion-pictures. No. 1,254,684; Jan. 29; v. 246; p. 1050.
Greenwood Chemical Company. (See Truell, Calista Z., assignor.)
Greer, G. T. (See Fontaine, Robert A., assignor.)
Greer, George T., and R. A. Fontaine, Roanoke, Va. Loading and unloading attachment for vehicles. No. 1,252,899; Jan. 8; v. 246; p. 453.
Greer, Urasmus G., Anderson, Mo. Shock-loader. No. 1,253,170; Jan. 8; v. 246; p. 536.
Gregg Company, The. (See Gregg, Otis T., assignor.)
Gregg, Otis T., assignor to The Gregg Company, Limited, Hackensack, N. J. Metallic cross-tie. No. 1,251,508; Jan. 1; v. 246; p. 17.
Gregg, William E. (See Hamilton, Frank L., assignor.)
Grewe, John, Cincinnati, Ohio. Tire. No. 1,253,960; Jan. 15; v. 246; p. 792.
Gries, William, Newark, N. J. Lifting-jack. No. 1,254,797; Jan. 29; v. 246; p. 1085.
Griffin, Henry W., New York, N. Y., assignor to The Union Switch & Signal Company, Swissvale, Pa. Railway signaling. No. 1,254,038; Jan. 22; v. 246; p. 835.
Griffin, John B., assignor to Landers, Frary & Clark, New Britain, Conn. Percolator-pump. No. 1,251,509; Jan. 1; v. 246; p. 17.
Griffin, Joseph W., New York N. Y., and F. M. McHugh, Weehawken, N. J. Train control. No. 1,253,027; Jan. 8; v. 246; p. 495.
Griffith, Walter R. (See Holliday, Thomas B., assignor.)
Griggs, James. (See Lambert, Howard J., assignor.)
Grimes, Edmund V. (See Marshall, Henry, assignor.)
Grimm, Philip C., and J. A. Van Sickle, Lincoln, Wash. Automobile power-jack. No. 1,252,688; Jan. 8; v. 246; p. 394.
Grimm, Theodore E., Newark, assignor to J. K. Osborn Manufacturing Company, Harrison, N. J. Bag-fastener. No. 1,254,323; Jan. 22; v. 246; p. 917.
Grimsrud, Emil, Antelope, Mont. Plow. No. 1,253,961; Jan. 15; v. 246; p. 792.
Grings, Casper H., Waterloo, Iowa. Cover for windshields. No. 1,253,814; Jan. 15; v. 246; p. 751.

Grinnell, Brayton C., Vancouver, British Columbia, Canada. Glove. No. 1,252,900; Jan. 8; v. 246; p. 454.
Grissom, Francis M. (See Moon and Grissom.)
Grohn, Henry P., assignor to C. A. Shoemaker, Chicago, Ill. Tank-car. No. 1,253,028; Jan. 8; v. 246; p. 495.
Grohnert, Alfred F., assignor of one-half to A. F. Martel, Burlingame, Cal. Automatic controlling device for pumping plants. No. 1,252,348; Jan. 1; v. 246; p. 259.
Gross, Jacob, Brooklyn, N. Y. Button-shoe and upper therefor. No. 1,254,039; Jan. 22; v. 246; p. 836.
Grosvenor, Oliver, New York, N. Y., assignor to Morgan & Wright. Apparatus for shaping fabrics. No. 1,254,685; Jan. 29; v. 246; p. 1050.
Grosvenor, William M., Grantwood, N. J. Hay-drying and the like. No. 1,251,510; Jan. 1; v. 246; p. 18.
Groth, Norbert, Brooten, Minn. Neckwear. No. 1,252,344; Jan. 1; v. 246; p. 260.
Groth, Perrie A., Lisbon, N. D. Calf-weaner. No. 1,252,345; Jan. 1; v. 246; p. 260.
Grove, Winfield S., Manila, Philippine Islands. Pulp and waste removing and fiber-cleaning machine. No. 1,253,029; Jan. 8; v. 246; p. 495.
Grover, Albert D., New York, N. Y., assignor to Autosales Gum & Chocolate Company. Coin-controlled vending-machine. No. 1,254,040; Jan. 22; v. 246; p. 836.
Grow, Chester, La Harpe, Kans. Internal-combustion engine. No. 1,253,171; Jan. 8; v. 246; p. 536.
Grubbs, Albert M., Warsaw, Ind. Handle attachment. No. 1,254,686; Jan. 29; v. 246; p. 1050.
Gruber, Ernest W., Baltimore, Md. Sign-supporting structure. No. 1,252,429; Jan. 8; v. 246; p. 319.
Gruenberg, George J., New York, N. Y. Rowing-vehicle. No. 1,252,430; Jan. 8; v. 246; p. 319.
Grumme, Frederick J., Indianapolis, Ind., assignor, by mesne assignments, to C. F. Yegge, trustee, Evanston, Ill. Wire-bound-box-blank machine. No. 1,253,962; Jan. 15; v. 246; p. 793.
Grush, Elmer B., Beverly, Mass., assignor, my mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Separating shoes and lasts. No. 1,253,589; Jan. 15; v. 246; p. 688.
Gubelman, Frederick J., Englewood, N. J. Printing mechanism. No. 1,252,431; Jan. 8; v. 246; p. 320.
Guensel, Ernst J., Milwaukee, Wis. Hat-fastener. No. 1,254,800; Jan. 29; v. 246; p. 1117.
Guess, George A., Oakville, Ontario, Canada. Electrolytically separating nickel from copper. No. 1,251,511; Jan. 1; v. 246; p. 18.
Guett, Monroe, assignor to The Hart & Hegeman Manufacturing Company, Hartford, Conn. Electric snap-switch. No. 1,251,771; Jan. 1; v. 246; p. 99.
Guett, Monroe, assignor to The Hart & Hegeman Manufacturing Company, Hartford, Conn. Spindle construction for electric switches. No. 1,251,772; Jan. 1; v. 246; p. 99.
Guett, Monroe, assignor to The Hart & Hegeman Manufacturing Company, Hartford, Conn. Hinge. No. 1,251,773; Jan. 1; v. 246; p. 99.
Guett, Monroe, assignor to The Hart & Hegeman Manufacturing Company, Hartford, Conn. Low-voltage electric switch. No. 1,254,223; Jan. 22; v. 246; p. 888.
Guettler, Herbert. (See Berger and Guettler.)
Guilford, William C. J., Harrison, Me. Foot-massaging machine. No. 1,253,229; Jan. 15; v. 246; p. 582.
Guilford, William C. J., Harrison, Me. Hand-operating massaging apparatus. No. 1,253,230; Jan. 15; v. 246; p. 582.
Guilford, William C. J., Harrison, Me. Passive massage implement. No. 1,253,231; Jan. 15; v. 246; p. 582.
Guilford, William C. J., Harrison, Me. Power-operated massaging apparatus. No. 1,253,232; Jan. 15; v. 246; p. 583.
Guilford, William C. J., Harrison, Me. Abdominal massage implement. No. 1,253,233; Jan. 15; v. 246; p. 583.
Guillet, Albert M., Charlotte, N. C. Device for pointing spindles. No. 1,254,000; Jan. 29; v. 246; p. 1117.
Guillion, Robert A., Gallatin, Tex. Automatic railway-switch. No. 1,254,403; Jan. 22; v. 246; p. 940.
Gunnarson, Enoch C., New York, N. Y. Exhaust-valve muffler. No. 1,251,655; Jan. 1; v. 246; p. 64.
Gunnarson, Enoch C., of the United States Navy. Smoking-pipe cleaner. No. 1,251,774; Jan. 1; v. 246; p. 100.
Gunnarson, Enoch C., Brooklyn, N. Y. Diver's telephone-muffler. No. 1,253,485; Jan. 15; v. 246; p. 658.
Gurn, Michael D., Bridgeport, Conn. Feed-bag holder. No. 1,253,815; Jan. 15; v. 246; p. 752.
Gurney Electric Elevator Company. (See Le Blanc, Alexis, assignor.)
Gustafson, Adolph P., assignor to M. Schulz Company, Chicago, Ill. Pneumatic action for player-pianos and the like. No. 1,253,030; Jan. 8; v. 246; p. 496.
Gustafson, Karl G., Mullan, Idaho. Crosscut-saw handle. No. 1,252,105; Jan. 1; v. 246; p. 195.
Guthrie, Wade H., Charleston, W. Va. Automatic air-controlling device for gas-engines. No. 1,253,963; Jan. 15; v. 246; p. 793.
Gysler, Joseph, San Francisco, Cal. Wind-shield cleaner. No. 1,251,775; Jan. 1; v. 246; p. 100.
H & B American Machine Company. (See Riley, Charles E., assignor.)
H. G. Prince & Company. (See Duncan and Forry, assignors.)
H. J. Smith Tractor Company. (See Smith, Henry J., assignor.)
H. T. Paiste Company. (See Paiste, Henry T., assignor.)
H. W. Cooper Saddlery Hardware Mfg. Company. (See Cooper, Charles J., assignor.)
H. W. Johns-Manville Company. (See Christenson, George, assignor.)
Haas, Frederick W., Pittsburgh, Pa. Water-cooling tower. No. 1,253,234; Jan. 15; v. 246; p. 583.
Habenschaden, Peter. (See Bart, Joseph, assignor.)
Hachmann, Frederick, St. Louis, Mo., assignor of one-fourth to G. S. Haskell, Chicago, Ill., and one-half to F. C. Schoenthaler, St. Louis, Mo. Cutlery article. No. 1,254,591; Jan. 22; v. 246; p. 903.
Hack, John A., Tonkawa, Okla. Guard-house. No. 1,253,964; Jan. 15; v. 246; p. 793.
Hackleman, Martin L., Morristown, Ind. Agricultural implement. No. 1,252,452; Jan. 8; v. 246; p. 320.
Hackley, Guy, Anolt, Mo. Shock-loader. No. 1,253,031; Jan. 8; v. 246; p. 496.
Haddad, Ferris, Windber, Pa. Muffler. No. 1,254,901; Jan. 29; v. 246; p. 1117.
Haddield, George H., Mitcham, and A. E. Bawtree, Sutton, assignors to Haddields (Merton) Limited, Mitcham, England. Treatment of decorative surfaces. No. 1,252,001; Jan. 1; v. 246; p. 165.
Haddields (Merton) Limited. (See Haddield and Bawtree, assignors.)
Hagedorn, Carl F., Chicago, Ill., assignor to Mineral Products Corporation, New York, N. Y. Separation of alunite from associated rock and gangue. No. 1,253,590; Jan. 15; v. 246; p. 688.
Hagedorn, Carl F., Chicago, Ill., assignor to Mineral Products Corporation, New York, N. Y. Separation of alunite from associated rock or gangue. No. 1,253,591; Jan. 15; v. 246; p. 688.
Hagel, Albert, Jr., Newark, N. J. Burglar-alarm. No. 1,251,882; Jan. 1; v. 246; p. 132.
Hagen, Mathias N., and G. H. Karstedt, Minneapolis, Minn. Bottle-carrying case. No. 1,251,512; Jan. 1; v. 246; p. 18.
Hagen, Robert, Dayton, Ohio. Pneumatic-tube vulcanizer. No. 1,252,106; Jan. 1; v. 246; p. 195.
Hagewood, John T., assignor of one-half to J. B. Felts, Clarksville, Tenn. Cross-tie. No. 1,252,566; Jan. 8; v. 246; p. 360.
Haggerty, James S., and L. N. Beaty, Mannington, W. Va. Cigar-wrapper cutter. No. 1,251,656; Jan. 1; v. 246; p. 64.
Hagstrom, Oscar J., Berwyn, Ill. Combination stop-action for organs. No. 1,253,685; Jan. 15; v. 246; p. 716.
Hahn, George W., Indianapolis, Ind. Horse-collar and hames. No. 1,254,324; Jan. 22; v. 246; p. 918.
Haigler, William G., Colorado Springs, Colo. Pneumatic vehicle-tire. No. 1,252,107; Jan. 1; v. 246; p. 195.
Hain, Albert J., Lakewood, Ohio. Producing printing-plates. No. 1,252,800; Jan. 8; v. 246; p. 426.
Hair, Charley M., Grundy Center, Iowa. Folding draw-bar for harrows. No. 1,251,883; Jan. 1; v. 246; p. 132.
Haish, Jacob, De Kalb, Ill. Fence-post and cutting the same. No. 1,251,513; Jan. 1; v. 246; p. 18.
Hale, Edward E., Guelph, Ontario, Canada. Folding cardboard egg box or carrier. No. 1,252,002; Jan. 1; v. 246; p. 165.
Hale and Kilburn Company. (See Bell, Alfred B., assignor.)
Hale and Kilburn Company. (See Kilburn, John E., assignor.)
Hale, Willis W., assignor of one-fourth to N. G. Gray, Cleveland, Ohio. Adjustable speed-motor. No. 1,254,902; Jan. 29; v. 246; p. 1117.
Hales, Henry, Havre, Mont. Weeder. No. 1,254,087; Jan. 29; v. 246; p. 1051.
Hall, Adelbert M., Baldwin, Kans. Dirigible headlight for automobiles. No. 1,253,172; Jan. 8; v. 246; p. 537.
Hall, Arthur J., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Control apparatus. No. 1,253,235; Jan. 15; v. 246; p. 584.
Hall, Chalmers G., U. S. Army. Automatic tire-pump. No. 1,254,903; Jan. 29; v. 246; p. 1118.
Hall, Dorothy, Los Angeles, Cal. Plastic composition suitable for making carved flower-beads and making the same. No. 1,253,236; Jan. 15; v. 246; p. 584.
Hall, Ernest E., New Eltham, London, England. Zigzag-course control. No. 1,253,816; Jan. 15; v. 246; p. 752.
Hall Switch & Signal Co. (See Kendall, Allen B., assignor.)
Hall, William D., West Philadelphia, Pa., assignor of one-half to J. E. Bonichon. Portable door-securing device. No. 1,252,003; Jan. 1; v. 246; p. 165.
Halleck, William C. (See Le Fevre, George A., assignor.)
Hallner, Andrew, Arboga, Cal. Spring-wheel. No. 1,252,689; Jan. 8; v. 246; p. 394.
Hallner, Andrew, Arboga, Cal. Vehicle-spring. No. 1,252,690; Jan. 8; v. 246; p. 395.
Halse, Ole. (See Dedichen and Halse.)
Hambloch, Anton H., Andernach-on-Rhine, Germany, assignor to H. F. Boersma, The Hague, Netherlands. Manufacture of building-cement. No. 1,252,264; Jan. 1; v. 246; p. 237.
Hamel, Charles W., Wellston, Mo. Game apparatus. No. 1,252,691; Jan. 8; v. 246; p. 395.
Hamilton, Amos B., Visalia, Cal. Spring-wheel. No. 1,253,965; Jan. 15; v. 246; p. 794.

Hamilton, Frank L., assignor of one-half to W. E. Gregg, Ford City, Pa. Shipping-case. No. 1,254,688; Jan. 29; v. 246; p. 1051.

Hamilton, Paul W. (See Hamilton, Philip E. and P. W.)

Hamilton, Philip E. and P. W., Beaver Falls, Pa. Automatic numbering device for photoprinting-machines. No. 1,252,627; Jan. 1; v. 246; p. 186.

Hamilton, Robert C., Sangudo, Alberta, Canada. Horseshoe. No. 1,255,092; Jan. 29; v. 246; p. 1169.

Hammer, Delos E., High Point, N. C. Type-writer attachment. No. 1,252,265; Jan. 1; v. 246; p. 237.

Hammer, Edna I., Ames, Iowa. Adjustable supporting-rod. No. 1,253,496; Jan. 15; v. 246; p. 659.

Hammetter, August H. (See Pfefferkorn and Schloerb, assignors.)

Hammond, Myron B., assignor to Thomas P. Taylor Co., Bridgeport, Conn. Man's garter. No. 1,253,686; Jan. 15; v. 246; p. 716.

Hampton, William J., Pittsburgh, and W. H. Ritts, Etna, assignors to Spang, Chalfant and Co. Incorporated, Pittsburgh, Pa. Rolling-mill. No. 1,251,514; Jan. 1; v. 246; p. 19.

Hampton, William J., Pittsburgh, and W. H. Ritts, Etna, assignors to Spang, Chalfant and Co., Incorporated, Pittsburgh, Pa. Rolling-mill. No. 1,251,515; Jan. 1; v. 246; p. 19.

Hanahan, Marion L., Dothan, Ala. Manufacturing sulfuric acid. No. 1,253,238; Jan. 15; v. 246; p. 584.

Hancock, Frank E., and E. F. Hoffman, Kenosha, Wis. Automobile-lock. No. 1,252,567; Jan. 8; v. 246; p. 360.

Hanford, Orin A., Orange, N. J., assignor to Empire Machine Company. Glass-working machine. No. 1,254,904; Jan. 29; v. 246; p. 1118.

Hanger, James E., Jr., Washington, D. C. Garment-supporter. No. 1,254,496; Jan. 22; v. 246; p. 966.

Hann, Frank V., Carlstadt, N. J. Paper-clip. No. 1,251,884; Jan. 1; v. 246; p. 133.

Hanners, Horace, East Orange, N. J. Manifolding device. No. 1,254,592; Jan. 22; v. 246; p. 994.

Hanning, Harley H., *et al.* (See Crippen, Henry M., assignor.)

Hansen, Bertram M., San Francisco, Cal. Centering means for phonographic-records and the like. No. 1,253,874; Jan. 15; v. 246; p. 626.

Hanson, Carl, Hills, Minn. Garment-supporter. No. 1,255,906; Jan. 29; v. 246; p. 1144.

Hanson & Van Winkle Company, The. (See King, Willis G., assignor.)

Hansuch, Frederick, Grasstree, Queensland, Australia. Wood-cutter. No. 1,251,885; Jan. 1; v. 246; p. 133.

Hapgood, Clarence H., Toledo, Ohio, assignor, by mesne assignments, to Toledo Scale Company, Newark, N. J. Weighing-scale. No. 1,253,230; Jan. 15; v. 246; p. 585.

Hardesty, Rudd, Denver, Colo. Sign-making apparatus. No. 1,251,516; Jan. 1; v. 246; p. 19.

Hardin, Jacques J., Oak Park, assignor to Monarch Tool & Machinery Company, Chicago, Ill. Fountain-brush. No. 1,253,082; Jan. 8; v. 246; p. 496.

Hardinge Brothers. (See Hardinge, Franklin, assignor.)

Hardinge, Franklin, assignor to Hardinge Brothers, Chicago, Ill. Lathe head-stock. No. 1,252,346; Jan. 1; v. 246; p. 260.

Harger, John, Honolulu, Hawaii. Running-stitch sewing-machine. No. 1,253,173; Jan. 8; v. 246; p. 537.

Harley-Davidson Motor Co. (See Harley, William S., assignor.)

Harley, William S., assignor to Harley-Davidson Motor Co., Milwaukee, Wis. Spring motor-cycle fork. No. 1,254,798; Jan. 29; v. 246; p. 1085.

Harley, William S., assignor to Harley-Davidson Motor Co., Milwaukee, Wis. Oil-distributing mechanism. No. 1,254,799; Jan. 29; v. 246; p. 1086.

Harnell, Charles H., Union township, Montgomery county, Ind. Sectional burial-vault. No. 1,253,174; Jan. 8; v. 246; p. 537.

Harris, John L., Niagara Falls, N. Y. Kiln. No. 1,253,487; Jan. 15; v. 246; p. 659.

Harpe, Sim E., Bryan, Ohio. Flower-pot. No. 1,255,093; Jan. 29; v. 246; p. 1169.

Harrington, Clinton O., assignor to The Union Switch & Signal Company, Swissvale, Pa. Adjustment of relay contact-fingers. No. 1,254,135; Jan. 22; v. 246; p. 864.

Harris, Albert, assignor of one-half to S. Caldwell, Denver, Colo. Valve-gear. No. 1,252,692; Jan. 8; v. 246; p. 395.

Harris, Ford W., assignor to The Bardeen Corporation, Los Angeles, Cal. Process and apparatus for treating drill-pipe. No. 1,253,966; Jan. 15; v. 246; p. 794.

Harris, George L., Memphis, Tenn. Automobile-signal. No. 1,251,517; Jan. 1; v. 246; p. 20.

Harris, Harry E., Bridgeport, Conn. Tapping and threading machine. No. 1,253,817; Jan. 15; v. 246; p. 752.

Harris, Henry K., Westminster, London, England. Telepraxmitting apparatus for transmitting electrical impulses. No. 1,253,818; Jan. 15; v. 246; p. 753.

Harris, Luster F., and W. L. Williams, Cleburne, Tex. Incubator-regulator. No. 1,253,593; Jan. 15; v. 246; p. 688.

Harsha, Charles L., *et al.*, executors. (See MacPherson, John G.)

Hart, Edward, Easton, Pa. Apparatus for evaporating liquids. No. 1,254,689; Jan. 29; v. 246; p. 1051.

Hart, Fred E., San Francisco, Cal. Porcelain tooth-crown and backing adjustment. No. 1,253,967; Jan. 15; v. 246; p. 794.

Hart, Frederick A., Jersey City, N. J., assignor to Underwood Computing Machine Company, New York, N. Y. Combined type-writing and computing machine. No. 1,254,627; Jan. 22; v. 246; p. 1004.

Hart & Hegeman Manufacturing Company, The. (See Guett, Monroe, assignor.)

Hart, Henry R., New York, N. Y. Helmet for use of aviators and the like. No. 1,251,657; Jan. 1; v. 246; p. 65.

Hart, James, Johnstown, Pa. Drill-chuck. No. 1,253,240; Jan. 15; v. 246; p. 585.

Hart, Thomas M., assignor to P. M. Stewart, trustee, New York, N. Y. Hydrocarbonaceous or bituminous product and making the same. No. 1,252,433; Jan. 8; v. 246; p. 320.

Hart, William H. (See Zindel and Hart.)

Hartill-Law, William, assignor to Beamless Car Truck Self-Adjusting Brake Company, Minneapolis, Minn. Side-thrust bearing for railway-car axles. No. 1,254,800; Jan. 29; v. 246; p. 1086.

Hartman, Alfred E., assignor of two-thirds to J. B. Sipe, Pittsburgh, Pa. Egg-carrier. No. 1,252,568; Jan. 8; v. 246; p. 361.

Hartman, Samuel P., Kansas City, Mo. Can holding and opening device. No. 1,252,108; Jan. 1; v. 246; p. 196.

Hartman, Uno F. S., and A. H. La Casse, Crockett, Cal. Centrifugal machine. No. 1,255,007; Jan. 29; v. 246; p. 1144.

Hartough, Edward W., St. Louis, Mo., assignor to Camel Company, Chicago, Ill. Flush car-door. No. 1,252,004; Jan. 1; v. 246; p. 165.

Hartsler, Russell S., Topeka, Ind. Combined bumper and tire-carrier. No. 1,254,404; Jan. 22; v. 246; p. 941.

Harwood, F. L., *et al.* (See McCue, Leo, assignor.)

Haselhoff, John H., Highland, Wis. Straw or hay loading apparatus. No. 1,252,901; Jan. 8; v. 246; p. 454.

Hasenfratz, Victor E. (See Bonneau, Louis C., assignor.)

Haskell, George S., *et al.* (See Hachmann, Frederick, assignor.)

Hasler, James, *et al.* (See Pearson, James H., assignor.)

Hastings, Cornelius G., Glendale, Cal., assignor to Hastings Tunnel System Company. Block and interlocking means therefor. No. 1,254,136; Jan. 22; v. 246; p. 864.

Hastings, Herbert, Brighton, N. Y. Combined fan and alarm-signal. No. 1,253,488; Jan. 15; v. 246; p. 659.

Hastings Tunnel System Company. (See Hastings, Cornelius G., assignor.)

Hasty, John B., San Bernardino, Cal. Drilling-machine. No. 1,253,594; Jan. 15; v. 246; p. 688.

Hatch, Arthur E. (See Lovejoy, Arthur W., assignor.)

Hauser, Charles E., assignor to Reding & Hauser, Chicago, Ill. Binder. No. 1,254,224; Jan. 22; v. 246; p. 889.

Hauser, John A., assignor of one-half to J. G. Berger, Dayton, Ohio. Stretcher-spring. No. 1,253,595; Jan. 15; v. 246; p. 689.

Hausman, Clement F., Ochelata, Okla. Protecting-shield for contact devices. No. 1,253,968; Jan. 15; v. 246; p. 794.

Haussinger, Lawrence, Alhambra, Cal. Combined baby-chair and common chair. No. 1,253,241; Jan. 15; v. 246; p. 585.

Havone Corporation. (See Lotka, John, assignor.)

Hawkins, Elwood, Cape May, N. J. Amusement device. No. 1,255,008; Jan. 29; v. 246; p. 1145.

Hawkins, May, Tar Kiln, Ark. Colt-weaner. No. 1,251,886; Jan. 1; v. 246; p. 133.

Hayes Wheel Company. (See Kistler and Butcher, assignors.)

Haywood, William. (See Ames and Haywood.)

Hazard, Allen B., Berwyn, Ill., assignor, by mesne assignments, to Western Electric Company. Testing process and machine. No. 1,254,090; Jan. 29; v. 246; p. 1051.

Hazlett, H. A. (See Rader, Joe, assignor.)

Heal, Ambrose, London, and T. Smith, Brockley, England. Domestic furniture. No. 1,254,499; Jan. 22; v. 246; p. 967.

Hearnshaw, Frank J., Chicago, Ill. Elevator-door. No. 1,252,266; Jan. 1; v. 246; p. 238.

Heber, William R., Berkeley, assignor to Princeton Knitting Mills, Richmond, Cal. Adjustable bathing-suit. No. 1,254,593; Jan. 22; v. 246; p. 994.

Hecker, Hugo A., assignor to American Laundry Machinery Company, Cincinnati, Ohio. Glove-cleaning machine. No. 1,251,518; Jan. 1; v. 246; p. 20.

Heckman, Ora E., Akron, Ohio. Cross-wrapping machine. No. 1,252,109; Jan. 1; v. 246; p. 196.

Hedley, Frank, Yonkers, and J. S. Doyle, Mount Vernon, N. Y. Car-truck. No. 1,252,434; Jan. 8; v. 246; p. 321.

Heilrath, Christian. (See Redburn and Heilrath.)

Heimbecker, Roland. (See De Laval and Heimbecker.)

Heinemann, Ernest, Alma, Wis. Automatic lock for barn-doors. No. 1,254,905; Jan. 29; v. 246; p. 1118.

Heinen, Frank C. (See McCanna and Heinen.)

Heinzen, Frank M., Madison, Minn. Insulated-wire grip. No. 1,253,819; Jan. 15; v. 246; p. 753.

Heishman, Joseph H., Port Huron, Mich. Wheat scalping and conditioning machine. No. 1,254,008; Jan. 15; v. 246; p. 807.

Heivner, John G., Orland, Cal. Animal-control device. No. 1,251,519; Jan. 1; v. 246; p. 20.

Heller, Herman S., San Francisco, Cal. Ice-machine. No. 1,252,801; Jan. 8; v. 246; p. 426.

Hellmund, Rudolf E., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. System of control. No. 1,251,658; Jan. 1; v. 246; p. 65.

Hellmund, Rudolf E., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Control system. No. 1,251,659; Jan. 1; v. 246; p. 65.

Hellmund, Rudolf E., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Control system for alternating-current motors. No. 1,251,660; Jan. 1; v. 246; p. 66.

Helson, Gilbert F., New York, N. Y. Apparatus for filling bottles. No. 1,253,820; Jan. 15; v. 246; p. 753.

Helson, Gilbert F., assignor to E. R. Durkee and Company, New York, N. Y. Wrapping-machine. No. 1,255,009; Jan. 29; v. 246; p. 1145.

Hembrook, Herman J. (See Caley, Garfield H., assignor.)

Hemleb, Martin, Elizabeth, N. J., assignor to The Singer Manufacturing Company. Sewing-machine looper mechanism. No. 1,254,225; Jan. 22; v. 246; p. 889.

Hendershott, William H., Parkersburg, W. Va. Collapsible stand or table. No. 1,251,661; Jan. 1; v. 246; p. 66.

Henderson, Alexander F., Winnipeg, Manitoba, Canada. Surface-irrigating system. No. 1,254,906; Jan. 29; v. 246; p. 1119.

Henderson, Clark T., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Control system. No. 1,252,902; Jan. 8; v. 246; p. 454.

Henderson, George K., assignor to International Printing Company, Indianapolis, Ind. Multicolor-printing press. No. 1,254,500; Jan. 22; v. 246; p. 967.

Henderson, John E., assignor of one-third to C. E. Koester, Fort Myers, Fla. Coaster-brake. No. 1,253,821; Jan. 15; v. 246; p. 754.

Hendey Machine Company, The. (See Knight, George H., assignor.)

Hendrickson Machine Company, The. (See Noyes, Mayhew E., assignor.)

Henkle, Edward A., assignor to Globe Ticket Company, Philadelphia, Pa. Coupon-ticket. No. 1,253,033; Jan. 8; v. 246; p. 497.

Henkle, Willard G., Garrison, Iowa. Locking device for gates. No. 1,253,822; Jan. 15; v. 246; p. 754.

Henning, John F., assignor to Janesville Barb Wire Co., Janesville, Wis. Fence-post brace construction. No. 1,252,569; Jan. 8; v. 246; p. 361.

Henry, Ferdinand G., New York, N. Y. Internal-combustion engine. No. 1,253,969; Jan. 15; v. 246; p. 795.

Henry, Hubert K., assignor to Rex Typewriter Company, Chicago, Ill. Type-writing machine. No. 1,254,501; Jan. 22; v. 246; p. 967.

Henry R. Worthington, Inc. (See De Laval and Heimbecker, assignors.)

Henson, William M., Savoy, Tex. Seed screening and selecting means for cotton-gins. No. 1,251,520; Jan. 1; v. 246; p. 21.

Herhold Chair Co. (See Burjanek, Frank, assignor.)

Herm, Joseph, Los Angeles, Cal. Railway-crossing. No. 1,253,102; Jan. 8; v. 246; p. 542.

Hern, Jay J. (See Arey, Samuel E., assignor.)

Hersh & Brother. (See Hersh, Harvey E., assignor.)

Hersh, Harvey E., assignor to Hersh & Brother, Allentown, Pa. Mechanism for operating swinging sashes. No. 1,254,628; Jan. 22; v. 246; p. 1005.

Herzog, Soma, New York, N. Y. Hobby-horse. No. 1,252,693; Jan. 8; v. 246; p. 396.

Hess, Henry, Philadelphia, Pa. Coating articles. No. 1,252,005; Jan. 1; v. 246; p. 166.

Hesser, Clarence A., Newbern, N. C. Logging-car. No. 1,252,435; Jan. 8; v. 246; p. 321.

Hettinger, Carl F., Boston, Mass. Filtering apparatus. No. 1,251,662; Jan. 1; v. 246; p. 66.

Hewitt, Richard B., assignor to Thermo-Electro Starter Company, Detroit, Mich. Controlling system for explosive-engines. No. 1,252,694; Jan. 8; v. 246; p. 396.

Hey, David M., assignor to Vacuum Dyeing Machine Company, Chattanooga, Tenn. Dyeing apparatus. No. 1,254,006; Jan. 15; v. 246; p. 806.

Hepl & Patterson. (See Bickley, Ross M., assignor.)

Heyward, Thomas S., Bluffton, S. C. Life-buoy. No. 1,253,034; Jan. 8; v. 246; p. 497.

Hibbard, John W. (See Smith, Friend W., Jr., assignor.)

Hick, Harry J., assignor, by mesne assignments, to The McCaskey Register Company, Alliance, Ohio. Filing appliance. No. 1,251,521; Jan. 1; v. 246; p. 21.

Hick, Harry J., assignor to The McCaskey Register Company, Alliance, Ohio. Filing appliance. No. 1,251,663; Jan. 1; v. 246; p. 67.

Hick, Harry J., assignor, by mesne assignments, to The McCaskey Register Company, Alliance, Ohio. Filing appliance. No. 1,253,375; Jan. 15; v. 246; p. 626.

Hick, Harry J., assignor to The McCaskey Register Company, Alliance, Ohio. Hinge for filing-appliance cases. No. 1,253,376; Jan. 15; v. 246; p. 627.

Hickey, George N., Detroit, Mich., assignor to United States Airplane and Engine Company. Engine. No. 1,252,436; Jan. 8; v. 246; p. 321.

Hicks, Oscar H., and W. T. Russell, Chicago, Ill.; said Russell assignor to said Hicks. Wind-shield cleaner. No. 1,253,377; Jan. 15; v. 246; p. 627.

Hicks, Robert B., assignor to William E. Quimby, Inc., New York, N. Y. Pump control. No. 1,253,687; Jan. 15; v. 246; p. 716.

Hidden, George A. Coronado, assignor of one-third to E. S. Welch, San Diego, Cal. Safety-faucet. No. 1,254,594; Jan. 22; v. 246; p. 994.

Higgins, Foster L., Milo, Me. Writing-pad. No. 1,253,970; Jan. 15; v. 246; p. 795.

Higgins, George H. (See Jennison and Higgins.)

High, Ernest F., Arrington, Kans. Disk harrow. No. 1,253,175; Jan. 8; v. 246; p. 537.

Hight, Charles O., Sparta, Ga. Lathing-hatchet. No. 1,252,903; Jan. 8; v. 246; p. 455.

Hill, John W., Fairview, Mont. Paper box. No. 1,253,193; Jan. 8; v. 246; p. 543.

Hill, Myron F., Boston, Mass., assignor of one-half to E. E. Clement, Washington, D. C. Telephone-exchange. No. 1,253,688; Jan. 15; v. 246; p. 717.

Hill, Rufus A. (See Caudle, Melven A., assignor.)

Hills, John H., and J. M. Mason, Philadelphia, Pa. Theft-detector for automobiles and other vehicles. No. 1,252,110; Jan. 1; v. 246; p. 196.

Hiller, Joseph L. Mattapoisett, Mass., assignor to Pennsylvania Crusher Company, New York, N. Y. Coal-breaker construction. No. 1,254,137; Jan. 22; v. 246; p. 865.

Himebaugh, Clayton D., assignor to Sheffield Mfg. Co., Burr Oak, Mich. Hand-planter. No. 1,252,802; Jan. 8; v. 246; p. 427.

Hines, Thomas C., Ripley, Miss. Boll-weevil catcher. No. 1,253,176; Jan. 8; v. 246; p. 538.

Hinkle, Francis M. (See Pencl and Hinkle.)

Hino, Seth M., Lander, Wyo. Wind-shield. No. 1,255,094; Jan. 29; v. 246; p. 1169.

Hinrichsen, Edward E., assignor to Western Electric Company, New York, N. Y. Telephone system. No. 1,254,691; Jan. 29; v. 246; p. 1052.

Hipsher, Mack F., Idol, Tenn. Hook-and-eye clevis. No. 1,253,971; Jan. 15; v. 246; p. 796.

Hirmer, Andrew M., Millvale, Pa. Flying-machine. No. 1,252,904; Jan. 8; v. 246; p. 455.

Hirning, Wilhelm, Rupert, Idaho. Beet-harvesting machine. No. 1,251,664; Jan. 1; v. 246; p. 67.

Hirose, Yoshisuke, Berkeley, Cal. Step-ladder. No. 1,251,776; Jan. 1; v. 246; p. 100.

Hirsh, Leo, assignor of one-half to R. J. Chamberlain, Chillicothe, Mo. Electric riveting-tool. No. 1,251,665; Jan. 1; v. 246; p. 67.

Hiss, Fielder I., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Field-coil support. No. 1,253,242; Jan. 15; v. 246; p. 585.

Hitchcock, Charles F., Berkeley, Cal. Flexible tractor-tread. No. 1,253,378; Jan. 15; v. 246; p. 627.

Hitt, Thomas G., Seattle, Wash. Fire-cracker. No. 1,253,596; Jan. 15; v. 246; p. 689.

Hitt, Thomas G., Seattle, Wash. Fire-cracker. No. 1,253,597; Jan. 15; v. 246; p. 689.

Hobbs, Edward W., Surrey, England. Artificial arm and hand and actuating means therefor. No. 1,253,823; Jan. 15; v. 246; p. 755.

Hobbs, Willis F., and C. W. Gibbs, assignors to The Bridgeport Hardware Manufacturing Corporation, Bridgeport, Conn. Means for locking tool-shanks and ferrules to handles. No. 1,253,379; Jan. 15; v. 246; p. 628.

Hockett, Walter E., assignor to Rice Manufacturing Co., Indianapolis, Ind. Broom construction. No. 1,254,138; Jan. 22; v. 246; p. 865.

Hodgson, Arthur F., Jarvis, Ontario, Canada. Bee-escape board. No. 1,252,437; Jan. 8; v. 246; p. 321.

Hodgson, William. (See Deegan and Hodgson.)

Hoel, Harold, Christine, N. D. Rake-cleaner. No. 1,254,041; Jan. 22; v. 246; p. 836.

Hoff, Selmer O., Trail, Minn. Tire. No. 1,253,598; Jan. 15; v. 246; p. 689.

Hoffer, Fred C., Los Angeles, and J. F. Smedley, Pasadena, assignors to Motorcycle Sweeper Company, Los Angeles, Cal. Street-sweeper. No. 1,254,802; Jan. 29; v. 246; p. 1086.

Hoffer, Fred C., Los Angeles, and J. F. Smedley, Pasadena, assignors to Motorcycle Sweeper Company, Los Angeles, Cal. Street-sweeper. No. 1,254,803; Jan. 29; v. 246; p. 1087.

Hoffman, Addison F., Pittsburgh, Pa. Making iron pigment. No. 1,251,522; Jan. 1; v. 246; p. 21.

Hoffman, Frank, Sorum, S. D. Engine-starter. No. 1,251,523; Jan. 1; v. 246; p. 21.

Hoffman, George D., Pasadena, Cal., assignor to Hoffman Specialty Company, Chicago, Ill. Automatic air-valve for steam-radiators. No. 1,252,267; Jan. 1; v. 246; p. 238.

Hoffman, George F., Philadelphia, Pa. Flag. No. 1,253,380; Jan. 15; v. 246; p. 628.

Hoffman, John J., Milan, Mo. Scaffold-supporting means. No. 1,252,438; Jan. 8; v. 246; p. 321.

Hoffman, Julius, Hermann, Mo. Package-tie. No. 1,253,972; Jan. 15; v. 246; p. 796.

Hoffman, Morris J., Chicago, Ill. Coupon-ticket-printing machine. No. 1,251,887; Jan. 1; v. 246; p. 133.

Hoffman, Paul N., New York, N. Y. Feather-pine Christmas tree and making same. No. 1,253,035; Jan. 8; v. 246; p. 497.

Hoffman, Ronald F. (See Hancock and Hoffman.)

Hoffman, Rudolph, Kankakee, assignor to Sears, Roebuck and Company, Chicago, Ill. Oil-burner. No. 1,254,226; Jan. 22; v. 246; p. 889.

Hoffman Specialty Company. (See Hoffman, George D., assignor.)

Hofman, Bertha V. (See Hofman, Charles, assignor.)

Hofman, Charles, assignor, by mesne assignments, to B. V. Hofman, Rochester, N. Y., Foldable shipping-box. No. 1,254,692; Jan. 29; v. 246; p. 1052.

Hogan, Herbert J., Flint, Mich. Vehicle-signal. No. 1,253,689; Jan. 15; v. 246; p. 717.

Hogan, John J., Bridgeport, Conn. Gas-engine. No. 1,253,599; Jan. 15; v. 246; p. 690.

Hogan, Katherine V., Chicago, Ill. Bungalow-apron. No. 1,251,524; Jan. 1; v. 246; p. 22.

Hoge, James B., Cleveland, Ohio. Municipal traffic-control system. No. 1,251,666; Jan. 1; v. 246; p. 68.

Hohme, Gustav W. E., Castor, Alberta, Canada. Shoe-stretcher. No. 1,253,973; Jan. 15; v. 246; p. 796.

Holden, Genton P., Jackson county, Minn. Colter. No. 1,253,974; Jan. 15; v. 246; p. 796.

Holdfast Nut & Bolt Company. (See Woodward, Irving C., assignor.)

Holland Lighting and Specialty Company. (See Olinger and Fearell, assignor.)

Holliday, John S., Wilkinsburg, assignor to The Union Switch & Signal Company, Swissvale, Pa. Railway signaling system and relay adapted for use therein. No. 1,254,139; Jan. 22; v. 246; p. 865.

Holliday, Thomas B., Potosi, assignor of one-half to W. R. Griffith, Moro, Tex. Corn or grain knife. No. 1,252,803; Jan. 8; v. 246; p. 427.

Hollingshead, William B., Chicago, Ill. Duplex envelop. No. 1,252,804; Jan. 8; v. 246; p. 425.

Hollis Automatic Traction Jack Company. (See Hollis, Otis A., assignor.)

Hollis, Otis A., assignor to Hollis Automatic Traction Jack Company, Pittsburgh, Pa. Vehicle-wheel tire. No. 1,253,381; Jan. 15; v. 246; p. 628.

Holly, Carlos, Lockport, assignor to The F. N. Burt Company, Limited, Buffalo, N. Y. Box-machine. No. 1,253,690; Jan. 15; v. 246; p. 717.

Holmes, Amos and A. H., Birmingham, England. Machine for the manufacture of multiple letter-sheets or cards. No. 1,253,824; Jan. 15; v. 246; p. 755.

Holmes, Arthur H. (See Holmes, Amos and A. H.)

Holmes, Charles M., Jacksonville, Fla. Detachable cord sending-machine cut-in. No. 1,252,570; Jan. 8; v. 246; p. 361.

Holmes, Ernest, Chattanooga, Tenn. Hoisting apparatus for automobiles. No. 1,254,804; Jan. 29; v. 246; p. 1087.

Holmes, Ferdinand M., Everett, Mass. Bookkeeping-machine. No. 1,254,907; Jan. 29; v. 246; p. 1119.

Holmes, Grant. (See King, Renzenberger, and Holmes.)

Holmes, Thomas J., Chicago, Ill. Lubricator. No. 1,253,036; Jan. 8; v. 246; p. 497.

Holmes, Walter G., Rochester, N. Y. Sterilizer. No. 1,252,571; Jan. 8; v. 246; p. 361.

Holmes, Walter G., Rochester, N. Y. Sterilizer. No. 1,252,572; Jan. 8; v. 246; p. 362.

Holt, Charles L., assignor to Holt Roof Connection Co., Lawrence, Mass. Roof connection for drain-pipes. No. 1,252,573; Jan. 8; v. 246; p. 362.

Holt, Harry O., Brooklyn, N. Y. Engine-indicator. No. 1,253,825; Jan. 15; v. 246; p. 756.

Holt Roof Connection Co. (See Holt, Charles L., assignor.)

Holton, Edward C., Olmsted Falls, assignor to The Sherwin-Williams Company, Cleveland, Ohio. Treating polysulfid solutions. No. 1,254,908; Jan. 29; v. 246; p. 1119.

Holtvoigt, Henry B., assignor to The Ohio Rake Company, Dayton, Ohio. Caster-wheel for agricultural implements. No. 1,252,574; Jan. 8; v. 246; p. 362.

Holub, Charles J. Newport, Ky., assignor to The Williamson Heater Company, Cincinnati, Ohio. Laundry-drier. No. 1,254,595; Jan. 22; v. 246; p. 995.

Holverson, Thomas, Washington, D. C. Player-piano. No. 1,252,111; Jan. 1; v. 246; p. 197.

Holycross, Thomas J. (See Huhndorf and Holycross.)

Holyoke Machine Company. (See Cowan, George L., assignor.)

Homer Motors Company. (See Barker, John P., assignor.)

Homestead, Wilson R., Carmel, Me. Sanitary pipette. No. 1,252,847; Jan. 1; v. 246; p. 260.

Hoover, Harry J., Norwood, Ohio. Gas-range. No. 1,252,575; Jan. 8; v. 246; p. 363.

Hope, John A., Montreal, Quebec, Canada. Welding composition. No. 1,254,805; Jan. 29; v. 246; p. 1087.

Hope, Ralph W., Birmingham, England. Glazing-bar of roofs and the like. No. 1,252,439; Jan. 8; v. 246; p. 322.

Hopedale Manufacturing Company. (See Northrup, Jonas, assignor.)

Hopkins, Henry, assignor, by mesne assignments, to Continental Motors Corporation, Detroit, Mich. Shaft-balancing machine. No. 1,252,695; Jan. 8; v. 246; 396.

Hopkins, James R., assignor of one-half to W. C. Woods, Vine Grove, Ky. Curtain-stretcher. No. 1,255,010; Jan. 29; v. 246; p. 1145.

Hopkins, Selden R., Chicago, Ill. Adjustable shade or map roll. No. 1,253,382; Jan. 15; v. 246; p. 629.

Hopkinson, Joseph, assignor to The Computing Scale Company, Dayton, Ohio. Last-slice holder. No. 1,251,525; Jan. 1; v. 246; p. 22.

Hopple, Charles W., assignor of one-third to S. Rudin and one-third to H. Marsey, Buffalo, N. Y. Window-operating device. No. 1,254,502; Jan. 22; v. 246; p. 968.

Horn, Abraham E., New York, N. Y. Rendering concrete resistant to moisture. No. 1,255,116; Jan. 29; v. 246; p. 1175.

Horn, Charles A., Woodhaven, N. Y., assignor of one-fourth to W. Everitt, East Orange, and one-fourth to H. E. Lombard, Bloomfield, N. J. Attachment for umbrellas. No. 1,251,526; Jan. 1; v. 246; p. 23.

Horn, Frank M., Marmarth, N. D. Plowshare. No. 1,253,177; Jan. 8; v. 246; p. 538.

Horn, Walter M. W., Teplitz, Austria. Ceramic moldable composition. No. 1,251,888; Jan. 1; v. 246; p. 134.

Hornburg, Charles A., Devine, Tex. Air-intake device. No. 1,255,011; Jan. 29; v. 246; p. 1146.

Horney, Odus C. (See Jackson, Louis L., assignor.)

Horsman, Thomas, Chicago, Ill., assignor to Chicago Belting Company. Belt-cutting machine. No. 1,254,806; Jan. 29; v. 246; p. 1087.

Horstmann, Frederick W., Kearney, N. J. Centrifugal separator. No. 1,253,037; Jan. 8; v. 246; p. 498.

Horstmann, William H., Overbrook, Pa. Shock-absorber. No. 1,252,006; Jan. 1; v. 246; p. 166.

Hosch, Walter E., assignor to Measuregraph Company, St. Louis, Mo. Winding-drum. No. 1,253,248; Jan. 15; v. 246; p. 586.

Hosick, Jennie M., and A. D. Lowenthal, Louisville, Ky.; said Lowenthal assignor to said Hosick. Chair-supporting truck. No. 1,251,777; Jan. 1; v. 246; p. 100.

Hottinger, Emil, Philadelphia, Pa. Cage for antifriction-bearings. No. 1,252,007; Jan. 1; v. 246; p. 166.

Hough, Azel C., Janesville, Wis. Porch-shade. No. 1,252,112; Jan. 1; v. 246; p. 197.

Hough, Azel C., assignor to Hough Shade Corporation, Janesville, Wis. Shade-fixture. No. 1,252,113; Jan. 1; v. 246; p. 197.

Hough, Samuel, Atco, N. J., assignor of one-half to T. A. Schmitt, Philadelphia, Pa. Adjustable and improved cutting-head for boring out shells. No. 1,251,527; Jan. 1; v. 246; p. 23.

Hough Shade Corporation. (See Hough, Azel C., assignor.)

Houghland, Frank H., assignor to The Economy Folding Box Co., Cincinnati, Ohio. Folding container. No. 1,253,489; Jan. 15; v. 246; p. 659.

Houston, William J., *et al.* See Miller, William G., assignor.)

Howard, Charles, and H. Lawson, assignors of one-third to A. M. Imhoff, Holtville, Cal. Wheel. No. 1,253,975; Jan. 15; v. 246; p. 796.

Howard, John H., Colfax, Wash. Tug-hook for harness. No. 1,251,528; Jan. 1; v. 246; p. 23.

Howe, Frank D., Akron, Ohio. Carbureter. No. 1,252,440; Jan. 8; v. 246; p. 322.

Howe, Fred C., New Haven, Conn. Portable fan. No. 1,254,042; Jan. 22; v. 246; p. 837.

Howe, George A., Pittsburgh, Pa. Journal-bearing. No. 1,254,909; Jan. 29; v. 246; p. 1120.

Howe, James A., assignor to Taylor Instrument Companies, Rochester, N. Y. Compass. No. 1,253,197; Jan. 8; v. 246; p. 544.

Howe, Junius A., assignor to J. J. Howe, New York, N. Y. Recording-register. No. 1,251,880; Jan. 1; v. 246; p. 134.

Howe, Junius J. (See Howe, Junius A., assignor.)

Howe, Paul J., Ridgewood, N. J., assignor to The Western Union Telegraph Company, New York, N. Y. Means for compensating for disturbances of earth potential. No. 1,254,910; Jan. 29; v. 246; p. 1120.

Howell, Albert S., assignor to Bell & Howell Company, Chicago, Ill. Scraper for film-splicing machines. No. 1,254,911; Jan. 29; v. 246; p. 1120.

Howells, Frank E., *et al.* (See Peris, Nicholas U., assignor.)

Howland, Frank W., Chicago, Ill. Folding receptacle. No. 1,253,490; Jan. 15; v. 246; p. 660.

Howles, Walter R., assignor to W. & T. Avery, Limited, Smethwick, England. Pendulum weighing-scale. No. 1,251,529; Jan. 1; v. 246; p. 24.

Howson, Henry, assignor to The Congoleum Company, Philadelphia, Pa. Pin for printing-blocks. No. 1,253,038; Jan. 8; v. 246; p. 498.

Hoyle, Aaron T., Casar, N. C. Nut-lock. No. 1,252,441; Jan. 8; v. 246; p. 322.

Hoyt, Daniel, East Orange, assignor of one-half to The National Lock Washer Company, Newark, N. J. Sash-lock. No. 1,253,826; Jan. 15; v. 246; p. 756.

Hren, Joseph, Brooklyn, N. Y. Book-backing machine. No. 1,252,114; Jan. 1; v. 246; p. 197.

Hruby, Otto J., *et al.* (See Mueller, August E., assignor.)

Hruby, Thomas J., *et al.* (See Mueller, August E., assignor.)

Hubbell, John E., Philadelphia, Pa., assignor to L. Wilputte, New Rochelle, N. Y. Coke-oven. No. 1,254,007; Jan. 15; v. 246; p. 806.

Huber, George T., assignor of one-half to A. S. Coffin, Gloucester, Mass. Bearing for reciprocating rods. No. 1,254,227; Jan. 22; v. 246; p. 889.

Hubert, Conrad. (See O'Neill, Henry G., assignor.)

Huberty, August, Canton, Ohio. Lawn-trimmer. No. 1,254,140; Jan. 22; v. 246; p. 886.

Hudson, Everett G., Brockton, Mass. Variable display or demonstrating device. No. 1,253,244; Jan. 15; v. 246; p. 586.

Hudziak, Albert, Kemmerer, Wyo. Trunk-lock. No. 1,255,012; Jan. 29; v. 246; p. 1146.

Huene, Clara A. (See Huene, Edward A., assignor.)

Huene, Edward A., assignor to C. A. Huene, Los Angeles, Cal. Automatic fuel-feed for automobile-engines. No. 1,254,596; Jan. 22; v. 246; p. 995.

Huether, Henry, Cincinnati, Ohio. Horseshoe attachment. No. 1,252,442; Jan. 8; v. 246; p. 322.

Hug, Alexander G. (See Scott and Hug.)

Hugg, William H., Elizabeth, N. J., assignor to The Singer Manufacturing Company. Looper-carrier for sewing-machines. No. 1,252,696; Jan. 8; v. 246; p. 397.

Hughes, Isaac L., Youngstown, Ohio. Straightening rolled metal bars and the like. No. 1,252,115; Jan. 1; v. 246; p. 198.

Hughes, Louis S., and C. H. Wolcott, Chicago, Ill. Treating ferruginous waters. No. 1,254,009; Jan. 15; v. 246; p. 807.

Hughes, Marion A., Benkelman, Nebr. Motor-sled. No. 1,251,530; Jan. 1; v. 246; p. 24.

Hughes, Robert D., assignor of one-half to J. R. Bowles, Lynchburg, Va. Double-acting air-pump. No. 1,253,976; Jan. 15; v. 246; p. 797.

Hughes, William. (See Dulch, Steven, assignor.)

Huguelet, William P., Chicago, Ill. Envelop-machine. No. 1,253,383; Jan. 15; v. 246; p. 629.

Huhndorf, Gustave, Tono, and T. J. Holycross, Vador, Wash. Automatic engine-stop. No. 1,253,977; Jan. 15; v. 246; p. 797.

Hulbert, Clarence, assignor of one-fourth to P. Beardsley and one-fourth to E. C. Soper, Auburn, N. Y. Brake device for motor-vehicles. No. 1,254,228; Jan. 22; v. 246; p. 890.

Hull, Herbert H., Lakewood, Ohio, assignor, by mesne assignments, to Anchor Cap & Closure Corporation, Brooklyn, N. Y. Closure for containers. No. 1,253,491; Jan. 15; v. 246; p. 660.

Hull, Herbert H., Lakewood, Ohio, assignor, by mesne assignments, to Anchor Cap & Closure Corporation, Brooklyn, N. Y. Side-seal closure. No. 1,253,492; Jan. 15; v. 246; p. 660.

Hull, John C., Gasport, N. Y. Spray-gun. No. 1,253,245; Jan. 15; v. 246; p. 586.

Hultquist, Charles A., Los Angeles, Cal. Pneumatic tool. No. 1,253,827; Jan. 15; v. 246; p. 757.

Hultquist, Charles A., Los Angeles, Cal. Drill-steel-retaining device. No. 1,253,828; Jan. 15; v. 246; p. 757.

Humbert, Ernest, Welland, Ontario, Canada. Making metals in electric furnaces. No. 1,252,443; Jan. 8; v. 246; p. 323.

Humble, Charles B., Erie, Pa. Clothes-line fastener. No. 1,251,778; Jan. 1; v. 246; p. 101.

Humphrey Gas Pump Company. (See Humphrey, Herbert A., assignor.)

Humphrey, George P., New Rochelle, N. Y. Necktie-holder. No. 1,254,325; Jan. 22; v. 246; p. 918.

Humphrey, Herbert A., Westminster, London, England, assignor to Humphrey Gas Pump Company. Compressing an elastic fluid. No. 1,254,603; Jan. 29; v. 246; p. 1052.

Humphreys, Charles A., Carrick, Pa. Gage. No. 1,254,141; Jan. 22; v. 246; p. 866.

Humphries, Ralph, Vancouver, British Columbia, Canada. Fly-wheel. No. 1,254,094; Jan. 29; v. 246; p. 1053.

Hunt, Alice N., and F. W. Anderson, Washington, D. C. Sleeping and lounging accoutrement. No. 1,253,039; Jan. 8; v. 246; p. 498.

Hunt, Charles, New York, N. Y. Detaching-hook. No. 1,251,581; Jan. 1; v. 246; p. 24.

Hunt, Charles, New York, N. Y. Detaching-gear. No. 1,252,116; Jan. 1; v. 246; p. 198.

Hunt, Edward J., West Orange, N. J. Camera-shutter control. No. 1,254,503; Jan. 22; v. 246; p. 968.

Hunt, William F., New York, N. Y. Unloading, storing, and reloading of material. No. 1,254,022; Jan. 22; v. 246; p. 831.

Hunter, Albert, Spokane, Wash. Power-driven hammer. No. 1,251,067; Jan. 1; v. 246; p. 68.

Hunter Dry Kiln Company, The. (See Hunter, Harry, assignor.)

Hunter, Harry, assignor to The Hunter Dry Kiln Company, Indianapolis, Ind. Dry-kiln. No. 1,254,142; Jan. 22; v. 246; p. 866.

Hurd, Charles C. (See Goodwin and Hurd.)

Hurd, Enos A., Woodward, Okla. Skirt-marker. No. 1,252,805; Jan. 8; v. 246; p. 427.

Hurley, Frank. (See Witherell, Wilbur F., assignor.)

Hussey, Edward N., Vineland, N. J. Saw-clamp. No. 1,254,597; Jan. 22; v. 246; p. 996.

Hutchinson, Charles W., Milwaukee, Wis. Tennis-racket. No. 1,252,576; Jan. 8; v. 246; p. 363.

Hutchison, Alfred W., and H. C. Warne, Chicago, Ill. Mail bundle-tie. No. 1,252,577; Jan. 8; v. 246; p. 363.

Hutchison, James, and J. Breitfeld, Newport, Ky. Egg breaker and separator. No. 1,254,826; Jan. 22; v. 246; p. 918.

Hutchison, Walter A. (See Yoggerst and Hutchison.)

Hutton, Edward S., Lapel, Ind. Glass-mold. No. 1,253,246; Jan. 15; v. 246; p. 587.

Hutton, Ernest, Wayland, Ky. Blasting-gun. No. 1,252,117; Jan. 1; v. 246; p. 198.

Hutton, Ernest, Wayland, Ky. Blasting-gun. No. 1,252,118; Jan. 1; v. 246; p. 199.

Hutton, Ernest, Wayland, Ky. Firing-terminal of blasting-guns. No. 1,252,119; Jan. 1; v. 246; p. 199.

Hydraulic Pressed Steel Company, The. (See Davidson, Harry O., assignor.)

Ideal Heat & Draft Regulator Co. (See Wolf, Gustav, assignor.)

Ikeda, Yuuyemon, Gardena, Cal. Swimming appliance. No. 1,252,697; Jan. 8; v. 246; p. 397.

Illinois Tool Works. (See Olson and Richer, assignors.)

Illinois Tool Works. (See Reinle, William F., assignor.)

Imhoff, Andy M. (See Howard and Lawson, assignors.)

Imhoff, Henry A., Chillicothe, B. F. Cooke and W. A. Rhulman, Hamden, Ohio. Combined gas-feed and carbureter. No. 1,254,598; Jan. 22; v. 246; p. 996.

Indiana Manufacturing Company, The. (See Wadleigh and Garrison, assignors.)

Indispensable Manufacturing Co. (See Johnson, Carl V., assignor.)

Ingells, James, Muskegon, Mich. Direction-indicator. No. 1,253,040; Jan. 8; v. 246; p. 498.

Ingersoll Milling Machine Company, The. (See Johnson, John R., assignor.)

Inman Manufacturing Company. (See Joslin, Frank M., assignor.)

International Canning Machinery Co. (See Phelps, Paul, assignor.)

International Clay Machinery Co., The. (See McElroy, Roy H., assignor.)

International Harvester Corporation. (See Johnston, Edward A., assignor.)

International Harvester Corporation. (See Smith, William H. F., assignor.)

International Paper Company. (See White, Ambrose H., assignor.)

International Precipitation Company. (See Schmidt and Roberts, assignors.)

International Precipitation Company. (See Schmidt, Walter A., assignor.)

International Printing Company. (See Henderson, George H., assignor.)

International Time Recording Company of New York. (See Knistrom, August, assignor.)

Inwood, Mary C., administratrix. (See Inwood, Richard G.)

Inwood, Richard G., deceased, South Bend, Ind.; M. C. Inwood, administratrix. Box and making the same. No. 1,252,120; Jan. 1; v. 246; p. 199.

Ireland, Edwin G., Steveston, British Columbia, Canada. Vegetable slicing and shredding machine. No. 1,255,013; Jan. 29; v. 246; p. 1146.

Irrgang, William F., assignor to George P. Clark Company, Windsor Locks, Conn. Lifting-truck. No. 1,253,178; Jan. 8; v. 246; p. 538.

Irrgang, William F., assignor to George P. Clark Company, Windsor Locks, Conn. Lifting and lowering apparatus. No. 1,253,179; Jan. 8; v. 246; p. 539.

Irwin Auger Bit Company, The. (See McPherson, Elmer T., assignor.)

Irwin, William J., Wilkinsburg, Pa. Nozzle control for turbines. No. 1,254,599; Jan. 22; v. 246; p. 906.

Isherwood, Joseph W., and J. W. Stewart, London, England. Construction of tank-vessels. No. 1,252,008; Jan. 1; v. 246; p. 167.

Iveson, Albert E., Fall River, Mass. Attachment for fountain-brushes. No. 1,253,978; Jan. 15; v. 246; p. 798.

J. & A. Jensen Og Dahl. (See Schananning, Peder C., assignor.)

J. E. Mergott Company. (See Fuller, Franz A., assignor.)

J. H. Sager Company. (See Sager, James H., assignor.)

J. H. White Manufacturing Company. (See Limbach, Curtis A., assignor.)

J. K. Osborn Manufacturing Company. (See Grimm, Theodore E., assignor.)

Jachimczak, Stanislaw, Gary, Ind. Domestic appliance. No. 1,252,807; Jan. 8; v. 246; p. 428.

Jackson, Carl J., Superior, Wis. Door construction. No. 1,251,779; Jan. 1; v. 246; p. 101.

Jackson, Louis L., assignor of one-half to O. C. Horney, New York, N. Y. Preparing alums from clay or other similar natural compounds of alumina. No. 1,254,229; Jan. 22; v. 246; p. 890.

Jackson, Louis L., assignor of one-half to O. C. Horney, New York, N. Y. Decomposing silicates of magnesium. No. 1,254,230; Jan. 22; v. 246; p. 890.

Jackson, Ralph G., Chester, assignor to The Congoleum Company, Philadelphia, Pa. Floor-covering. No. 1,255,095; Jan. 29; v. 246; p. 1169.

Jackson, Robert R., South Kensington, London, England. Manually-operated inflating-pump. No. 1,254,231; Jan. 22; v. 246; p. 890.

Jackson, Wilber. (See Kennedy, Charles W., assignor.)

Jackson, Wm. J., *et al.* (See Cameron, Duncan, assignor.)

Jacobs, Alonzo, Kansas City, Mo., assignor to Jacobs Gum Company. Vending-machine. No. 1,252,121; Jan. 1; v. 246; p. 199.

Jacobs Gum Company. (See Jacobs, Alonzo, assignor.)

Jacobs, Henry W. (See Levy and Jacobs.)

Jacobs, Theodore, Mooreton, N. D. Sickle-grinder. No. 1,253,829; Jan. 15; v. 246; p. 757.

Jacobsen, Jens H. H., Herloev, Denmark. Manufacturing radio-active mineral-water salts. No. 1,253,830; Jan. 15; v. 246; p. 758.

Jacobus, David S., Jersey City, assignor to Babcock & Wilcox Company, Bayonne, N. J. Steam-boiler. No. 1,252,444; Jan. 8; v. 246; p. 323.
Jaeger, Friedeman E., Oak Park, Ill. Mechanical movement. No. 1,252,698; Jan. 8; v. 246; p. 397.
Jagemann, Frederick J., and J. F. Bazata, New York, N. Y. Combined necktie-former and stick-pin lock. No. 1,254,504; Jan. 22; v. 246; p. 969.
Jahn, Carl R., Schlebusch, near Cologne, assignor to Sprengstoff A.-G. Carbonit, Hamburg, Germany. Explosive substance. No. 1,253,691; Jan. 15; v. 246; p. 718.
Jakobsson, Herman, Philadelphia, Pa. Limber. No. 1,251,890; Jan. 1; v. 246; p. 134.
Jaksch, John B., Milwaukee, Wis. Fire-escape. No. 1,251,780; Jan. 1; v. 246; p. 101.
James, Charley, Corydon, Iowa. Barrel-stand. No. 1,253,493; Jan. 15; v. 246; p. 660.
James, Frances L., Wausaukee, Wis. Combined corset-cover and brassière. No. 1,254,043; Jan. 22; v. 246; p. 837.
James, George A., San Francisco, Cal. Thermostatic device. No. 1,253,041; Jan. 8; v. 246; p. 499.
James, John, Fort Atkinson, Wis. Stall equipment. No. 1,253,494; Jan. 15; v. 246; p. 661.
James, Perry C., Macomb, assignor to G. G. Bayne, Bushnell, Ill. Latch. No. 1,251,781; Jan. 1; v. 246; p. 102.
James, William A., Bishopville, S. C. Coupling. No. 1,253,831; Jan. 15; v. 246; p. 758.
Jameson, Clarence W. (See Thompson and Jameson.)
Janesville Barb Wire Co. (See Henning, John F., assignor.)
Janiszewski, Waclaw, assignor of one-half to J. Romanowski, Cudahy, Wis. Boiler. No. 1,255,014; Jan. 29; v. 246; p. 1147.
Jann, John H., Chicago, Ill. Turret-feed control. No. 1,254,232; Jan. 22; v. 246; p. 891.
Janney, Reynolds, New York, N. Y., assignor to The Waterbury Tool Company. Driving mechanism. No. 1,254,695; Jan. 29; v. 246; p. 1053.
Jansky, Frank W. (See Farney and Jansky.)
Janson, Theodore E., Cortland, N. Y. Gearing device. No. 1,253,979; Jan. 15; v. 246; p. 798.
Janssen, Niels B., Kansas City, Mo. Conveying and cleaning table. No. 1,253,495; Jan. 15; v. 246; p. 661.
Jaques, Fernando O., Sr., Providence, assignor to The Central Tool Company, Auburn, R. I. Micrometer-caliper thimble. No. 1,252,009; Jan. 1; v. 246; p. 167.
Jarusz, Leon, Milwaukee, Wis. Floor-cleaner. No. 1,252,806; Jan. 8; v. 246; p. 427.
Jaubert, George F., Paris, France. Electrolytic apparatus. No. 1,255,086; Jan. 29; v. 246; p. 1169.
Jay, Webb, Chicago, Ill. Liquid-supply gage. No. 1,251,668; Jan. 1; v. 246; p. 68.
Jefferies, Ebenezer A. W., assignor to Morgan Construction Company, Worcester, Mass. Gas-producer. No. 1,255,015; Jan. 29; v. 246; p. 1147.
Jeffrey, George, Irvine, Cal. Furrow-filler and cultivator. No. 1,254,600; Jan. 22; v. 246; p. 997.
Jenkins, George F., La Grange, Ill. Door opening and closing mechanism. No. 1,254,696; Jan. 29; v. 246; p. 1053.
Jenkins, Samuel M., Louisville, Ky. Templet. No. 1,254,912; Jan. 29; v. 246; p. 1120.
Jennings, Emerson P., Jr., Lehighton, Pa. Collating device. No. 1,253,247; Jan. 15; v. 246; p. 587.
Jennings, Emerson P., Jr., Lehighton, Pa. Platen-gripper. No. 1,253,248; Jan. 15; v. 246; p. 587.
Jennings, Victor H., Worcester, Mass., assignor to Universal Patents Company, Woonsocket, R. I. Woven carrier. No. 1,251,891; Jan. 1; v. 246; p. 134.
Jennings, Victor H., Worcester, Mass., assignor, by mesne assignments, to Universal Patents Company, Woonsocket, R. I. Woven carrier. No. 1,252,268; Jan. 1; v. 246; p. 239.
Jennings, William. (See Montgomery, James E., assignor.)
Jennison, Jesse, and G. H. Higgins, Cortland, N. Y. Sheet-metal bow. No. 1,251,532; Jan. 1; v. 246; p. 25.
Jensen, Albert T., Norma, N. D. Greasing device. No. 1,255,016; Jan. 29; v. 246; p. 1147.
Jensen, George C., Oakland, Cal. Lock mechanism for motor-vehicles. No. 1,251,782; Jan. 1; v. 246; p. 102.
Jensen, George C., Oakland, Cal. Locking device for levers. No. 1,253,384; Jan. 15; v. 246; p. 629.
Jensen, Gunnar, Swissvale, Pa., assignor to Westinghouse Electric and Manufacturing Company. Stroboscopic device. No. 1,251,669; Jan. 1; v. 246; p. 69.
Jenssen, Gunnar D., New York, N. Y. Means for making sulfite acid liquor and the like. No. 1,251,533; Jan. 1; v. 246; p. 25.
Jersey City Printing Company. (See Drach, George B., assignor.)
Jessop, Earl P., Brooklyn, N. Y. Automatic stop for railway-trains. No. 1,253,042; Jan. 8; v. 246; p. 499.
Jewell, Samuel, Negaunee, Mich. Safety cross-head for mine-hoists. No. 1,252,122; Jan. 1; v. 246; p. 199.
Jira, Frederick, San Francisco, Cal. Automatic guard and circuit-breaker. No. 1,253,832; Jan. 15; v. 246; p. 758.
Jobes, A. Campbell. (See Tarr, William A., assignor.)
Johansson, Johan P., Fauna, Enköping, Sweden. Adjustable support for electric lamps. No. 1,254,697; Jan. 29; v. 246; p. 1054.
Johansson, John, Helsingfors, and C. G. Tigerstedt, Elimä, Finland, Russia. Sawing logs. No. 1,252,446; Jan. 8; v. 246; p. 323.
John, Adam, Haverhill, Mass. Spring-wheel. No. 1,254,505; Jan. 22; v. 246; p. 969.
John Chatillon & Sons. (See Chatillon, Ralph F., assignor.)
John Douglas Company, The. (See McNeil, Daniel W., assignor.)
John Douglas Company, The. (See McNeil, John, assignor.)
Johnsdorf, Alfred C. R., Seattle, Wash. Padlock. No. 1,253,249; Jan. 15; v. 246; p. 588.
Johnson, Adolph, Coronado, Cal. Combined hose-rack and valve. No. 1,252,699; Jan. 8; v. 246; p. 398.
Johnson, Albert E., Beverly, Mass., assignor, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J. Machine for making insoles. No. 1,252,848; Jan. 1; v. 246; p. 260.
Johnson, Alfred C., Detroit, Mich. Tractor. No. 1,253,833; Jan. 15; v. 246; p. 758.
Johnson, Axel T. (See Leonard and Johnson.)
Johnson, Billie, Temple, Tex. Cotton-picker. No. 1,252,578; Jan. 8; v. 246; p. 363.
Johnson, Carl E., St. Paul, Minn. Water-jacketed valve-cap and spark-plug. No. 1,253,043; Jan. 8; v. 246; p. 499.
Johnson, Carl V., assignor to Indispensable Manufacturing Co., Goldfield, Nev. Winding device for drop-lights. No. 1,254,698; Jan. 29; v. 246; p. 1054.
Johnson, Charles D. and P. C., Halifax, Nova Scotia, Canada. Engine-piston. No. 1,252,269; Jan. 1; v. 246; p. 239.
Johnson, Charles L., assignor of one-half to N. B. Johnson, Morrisville, Pa. Window-sash bower. No. 1,253,180; Jan. 8; v. 246; p. 539.
Johnson Coin Counting Machine Company. (See Johnson, Jay M., assignor.)
Johnson, Eddie E., Toledo, Ohio. Vacuum street-cleaning machine. No. 1,252,905; Jan. 8; v. 246; p. 455.
Johnson, Edward E., St. Paul, Minn. Electric-horn switch. No. 1,254,405; Jan. 22; v. 246; p. 941.
Johnson, Elmo, and W. E. Bybee, Quincy, Ill. Direction-indicator for motor-vehicles. No. 1,252,700; Jan. 8; v. 246; p. 398.
Johnson, Eric, assignor to Deere and Company, Moline, Ill. Sand-box for wheels. No. 1,254,327; Jan. 22; v. 246; p. 918.
Johnson, George T. (See Larsen and Johnson.)
Johnson, George T., Melrose, assignor to The George T. Johnson Company, Boston, Mass. Paper-dispensing device. No. 1,251,892; Jan. 1; v. 246; p. 134.
Johnson, James P., Cleveland, Ohio. Automatic speed-changing attachment for gear-cutting machines. No. 1,254,233; Jan. 22; v. 246; p. 891.
Johnson, Jay M., Chicago, Ill., assignor to Johnson Coin Counting Machine Company. Coin inspection and counting machine. No. 1,251,534; Jan. 1; v. 246; p. 26.
Johnson, Jay M., Chicago, Ill. Ticket-canceling and coin-fare box. No. 1,253,980; Jan. 15; v. 246; p. 798.
Johnson, John D. A., Muskegon, Mich. Washing-machine. No. 1,252,808; Jan. 8; v. 246; p. 428.
Johnson, John E., assignor to The O. and J. Machine Company, Worcester, Mass. Label applying and gripping mechanism. No. 1,253,250; Jan. 15; v. 246; p. 588.
Johnson, John R., assignor to The Ingersoll Milling Machine Company, Rockford, Ill. Work-support. No. 1,254,044; Jan. 22; v. 246; p. 837.
Johnson, Newton B. (See Johnson, Charles L., assignor.)
Johnson, Oscar, New York, N. Y., assignor to Auto Pneumatic Action Company. Pedal and panel operating mechanism. No. 1,252,446; Jan. 8; v. 246; p. 324.
Johnson, Peter C. (See Johnson, Charles D. and P. C.)
Johnson, Warren, New Orleans, La. Pavement. No. 1,253,600; Jan. 15; v. 246; p. 690.
Johnson, William S., Waco, Tex. Mechanical starter. No. 1,252,579; Jan. 8; v. 246; p. 364.
Johnston, Edward A., Chicago, Ill., assignor to International Harvester Corporation. Engine. No. 1,254,699; Jan. 29; v. 246; p. 1054.
Johnston, Forrest H., Toledo, Ohio. Music-leaf turner. No. 1,253,181; Jan. 8; v. 246; p. 539.
Johnston, Stephen G., Barboursville, W. Va. Kiln. No. 1,253,182; Jan. 8; v. 246; p. 540.
Jones, Arthur B., Cambridge, Mass. Protective shield for automobile mechanics. No. 1,254,808; Jan. 29; v. 246; p. 1088.
Jones, E. A. (See Welland, George W., assignor.)
Jones, Elmer M., assignor to Jones Signal System Company, Atlanta, Ga. Signal system for electric cars. No. 1,253,385; Jan. 15; v. 246; p. 630.
Jones, Francis M., Oakland, Cal. Bicycle-hanger. No. 1,251,783; Jan. 1; v. 246; p. 102.
Jones, Fred A., Lakewood, Ohio. Furnace-lining material and producing same. No. 1,251,535; Jan. 1; v. 246; p. 26.
Jones, George M., Galt, Cal. Insect-trapping screen. No. 1,254,234; Jan. 22; v. 246; p. 891.
Jones, James. (See Slack, Irvin, assignor.)
Jones, John D., Walla Walla, assignor of one-half to H. C. Baker, Walla Walla county, Wash. Harvesting and threshing machine. No. 1,253,601; Jan. 15; v. 246; p. 690.
Jones, John D., Walla Walla, Wash. Threshing-machine. No. 1,254,506; Jan. 22; v. 246; p. 969.
Jones, John G., assignor to Eastman Kodak Company, Rochester, N. Y. Photographic-film cartridge. No. 1,255,017; Jan. 29; v. 246; p. 1148.

Jones, Leslie B., Newport, Wash. Stump-puller. No. 1,253,183; Jan. 8; v. 246; p. 540.
Jones, Owen H., assignor to F. M. Pomeroy, Hartford, Conn. Ball-cock. No. 1,252,701; Jan. 8; v. 246; p. 398.
Jones, Paul A., Irrigon, Oreg. Umbrella. No. 1,254,601; Jan. 22; v. 246; p. 997.
Jones, Philip, Santa Maria, Cal. Process and apparatus for the separation of oils and gases. No. 1,255,018; Jan. 29; v. 246; p. 1148.
Jones Signal System Company. (See Jones, Elmer M., assignor.)
Jones, Walter E., Lima, Ohio. Engine-platform. No. 1,254,236; Jan. 22; v. 246; p. 892.
Jordan, Madison, Clarke county, Miss. Scalding-tank. No. 1,252,580; Jan. 8; v. 246; p. 364.
Joseph A. Vogel Co. (See Kirby, Howard M., assignor.)
Joseph/Benn & Sons. (See Lister, Henry R., assignor.)
Joseph H. Meyer Bros. (See Ganzinotti, Paul B., assignor.)
Joseph, Irwin S., Rahway, N. J. Recovering the ingredients from waste roofing, &c. No. 1,253,386; Jan. 15; v. 246; p. 630.
Joslin, Frank M., assignor to Inman Manufacturing Company, Inc., Amsterdam, N. Y. Gearing. No. 1,251,784; Jan. 1; v. 246; p. 103.
Juhl, Fred H. L., Stuttgart, Ark. Scissors attachment. No. 1,251,893; Jan. 1; v. 246; p. 135.
Juhl, Nis A., Chicago, Ill. Weather-strip. No. 1,254,237; Jan. 22; v. 246; p. 892.
Junggren, Oscar, Schenectady, N. Y., assignor to General Electric Company. Elastic-fluid turbine. No. 1,253,834; Jan. 15; v. 246; p. 758.
Juntunen, Jacob, Perth, N. D. Coupling. No. 1,252,349; Jan. 1; v. 246; p. 261.
Just, John H., Syracuse, N. Y. Indicator. No. 1,251,670; Jan. 1; v. 246; p. 69.
Juttner, August, Sullivan, Wis. Animal-releasing device. No. 1,252,581; Jan. 8; v. 246; p. 364.
K. E. Olson & Son. (See Gentzel, Nils, assignor.)
Kadow, August, assignor to The Westlake Machine Company, Toledo, Ohio. Glass-forming machine. No. 1,251,671; Jan. 1; v. 246; p. 69.
Kafader, James O., Fort Bidwell, Cal. Fish-screen. No. 1,254,602; Jan. 22; v. 246; p. 997.
Kahn, Edward C., Milwaukee, Wis. Liquid-fuel burner. No. 1,254,507; Jan. 22; v. 246; p. 969.
Kaiser, August J., and F. C. Peters, assignors to Drew Carrier Company, Waterloo, Wis. Stall-guard. No. 1,252,447; Jan. 8; v. 246; p. 324.
Kaiser, Conrad F., *et al.* (See De Soto, Fred J., assignor.)
Kaiser, Henry, Detroit, Mich. Shoe. No. 1,253,496; Jan. 15; v. 246; p. 661.
Kalamazoo Corset Company. (See Beardsley, Robert F., assignor.)
Kallenberger, George A., Newark, N. J. Humidor. No. 1,254,603; Jan. 22; v. 246; p. 997.
Kaminsky, Bennett, Indianapolis, Ind. Drinking-fountain. No. 1,253,251; Jan. 15; v. 246; p. 588.
Kampff, Albert R., New York, N. Y. Thawing device for hydrants. No. 1,253,692; Jan. 15; v. 246; p. 718.
Kanall, John M., Port Angeles, assignor of one-third to Kerr & McCord and one-third to M. Earles, Seattle, Wash. Saw. No. 1,254,828; Jan. 22; v. 246; p. 919.
Kane, John, and F. J. Couch, Rochester, N. Y., assignors to American Laundry Machinery Co., Cincinnati, Ohio. Treadle mechanism. No. 1,252,582; Jan. 8; v. 246; p. 364.
Kane, Thomas H., Youngstown, Ohio, assignor to Trussed Concrete Steel Company, Detroit, Mich. Constructing buildings. No. 1,253,387; Jan. 15; v. 246; p. 630.
Kansaka, Kiyataro, Pasadena, Cal. Vehicle-top. No. 1,253,835; Jan. 15; v. 246; p. 759.
Kapelman, Felix G., New York, N. Y. Guard for baby-chairs. No. 1,253,044; Jan. 8; v. 246; p. 364.
Kardos, Michael, Charlottenburg, and P. Nawiasky, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Bluish-green vat dyes and making them. No. 1,253,252; Jan. 15; v. 246; p. 589.
Karr, Sidney L., Galt, Cal. Cheese-cover. No. 1,254,406; Jan. 22; v. 246; p. 941.
Karstedt, George H. (See Hagen and Karstedt.)
Katzinger, Sidney C., assignor to Edward Katzinger Co., Chicago, Ill. Dough-cutter. No. 1,253,836; Jan. 15; v. 246; p. 759.
Katzprowsky, Samuel, Berkeley, Cal. Treating dried fruit. No. 1,253,045; Jan. 8; v. 246; p. 500.
Kavgas, Nicklaus, New York, and W. K. Zweeres, Brooklyn, N. Y. Butter-dispensing apparatus. No. 1,253,602; Jan. 15; v. 246; p. 691.
Keagy, Clinton D., New Castle, Pa. Disinfecting device. No. 1,253,603; Jan. 15; v. 246; p. 691.
Keating, John B., Oakland, Cal. Line-shaft lubricator. No. 1,253,837; Jan. 15; v. 246; p. 759.
Keckler, Charles W., Newark, N. J., assignor, by mesne assignments, to Western Electric Company, Incorporated. Telephone system. No. 1,251,536; Jan. 1; v. 246; p. 26.
Kees, Frederick, assignor of one-half to S. M. Colburn, Minneapolis, Minn. Door. No. 1,252,448; Jan. 8; v. 246; p. 324.
Keil, Lewis E., assignor to St. Louis Car Company, St. Louis, Mo. Journal-box. No. 1,254,604; Jan. 22; v. 246; p. 998.
Kellar, James E., Sistersville, W. Va. Combination wall-rack. No. 1,254,508; Jan. 22; v. 246; p. 970.
Keller, John H., Iowa City, Iowa. Road-machine. No. 1,253,184; Jan. 8; v. 246; p. 540.
Kelley, George H., Aberdeen, S. D. Storm-window opener. No. 1,255,019; Jan. 29; v. 246; p. 1148.
Kelley, Milo, and E. R. Stevenson, Oakland, Oreg. Power-transmitting mechanism. No. 1,254,809; Jan. 29; v. 246; p. 1088.
Kellogg Switchboard & Supply Company. (See Currier, Hiram D., assignor.)
Kellum, Alonzo D., Newbern, N. C. Log-dog. No. 1,252,583; Jan. 8; v. 246; p. 365.
Kellum, Orlando E., and A. H. Sweetland, assignors to National Street and Station Indicator Company, Los Angeles, Cal. Indicator-reversing means. No. 1,253,388; Jan. 15; v. 246; p. 631.
Kelly, Edwin W., Philadelphia, Pa. Anticathode. No. 1,254,700; Jan. 29; v. 246; p. 1054.
Kelly, Henry D., Kansas City, Mo. Faucet. No. 1,252,702; Jan. 8; v. 246; p. 398.
Kelly, Hugh A., Stratford, N. H. Repair-link. No. 1,254,148; Jan. 22; v. 246; p. 867.
Kelly, Michael J., Ocean View, Cal. Pipe-coupling. No. 1,254,238; Jan. 22; v. 246; p. 892.
Kelly, Sherman L., Toledo, Ohio. Electric heating element. No. 1,253,253; Jan. 15; v. 246; p. 589.
Kelsey, Hextall H., assignor to N. Malcolmson, London, England. Dyeing. No. 1,254,810; Jan. 29; v. 246; p. 1088.
Kemp, John M., Des Moines, Iowa. Builder's level and guide. No. 1,251,785; Jan. 1; v. 246; p. 103.
Kempny, Karl, Cleveland, Ohio. Bullet-proof helmet. No. 1,251,537; Jan. 1; v. 246; p. 27.
Kendall, Allen B., Elizabeth, N. J., assignor to Hall Switch & Signal Co. Selector-relay. No. 1,253,194; Jan. 8; v. 246; p. 543.
Kennedy, Charles W., Clarence, assignor of one-half to W. Jackson, Macon, Mo. Four-wheel drive mechanism. No. 1,253,606; Jan. 15; v. 246; p. 692.
Kennedy, Howard S., and C. M. Connolly, assignors, by mesne assignments, to Cluett, Peabody and Co., Inc., Troy, N. Y. Shirt. No. 1,252,449; Jan. 8; v. 246; p. 325.
Kennedy, Joseph A., assignor to Tubular Woven Fabric Company, Pawtucket, R. I. Conduit for electrical conductors. No. 1,253,046; Jan. 8; v. 246; p. 500.
Kennedy, William H., and G. E. Bailey, Los Angeles, Cal., assignors to American Safety Explosives Company. Extracting potash and other values from tobacco. No. 1,253,497; Jan. 15; v. 246; p. 661.
Kennington, William O. (See McDermott and Kennington.)
Kentucky Stamping Company. (See Terstegge, Albert L., assignor.)
Kepler, Irwin F., Akron, Ohio. Steering-gear lock for motor-vehicles. No. 1,253,498; Jan. 15; v. 246; p. 662.
Keplinger, George B., Chicago, Ill. Marking and shading pen. No. 1,254,701; Jan. 29; v. 246; p. 1055.
Keppel, Huldena, St. Louis, Mo. Milk-card holder. No. 1,254,407; Jan. 22; v. 246; p. 941.
Kerr & McCord *et al.* (See Kanall, John M., assignor.)
Kestenman, Abraham and C. H., Providence, R. I. Lingerie-clasp. No. 1,252,906; Jan. 8; v. 246; p. 456.
Kestenman, Charles H. (See Kestenman, Abraham and C. H.)
Ketcham, Nathaniel. (See McGregor and Ketcham.)
Ketcherside, J. A., administrator. (See Geerekey, Louis W.)
Kethley, Jacob D., Munday, Tex. Watchmaker's tool. No. 1,252,584; Jan. 8; v. 246; p. 365.
Kettering, Charles F., and W. A. Chryst, Dayton, Ohio, assignors to The Dayton Engineering Laboratories Company. Ignition system. No. 1,253,389; Jan. 15; v. 246; p. 631.
Kettering, Charles F., Dayton, Ohio, assignor to The Dayton Engineering Laboratories Company. Engine starting, lighting, and ignition system. No. 1,254,811; Jan. 29; v. 246; p. 1088.
Key Safe Company. (See Rauwald, Joseph, assignor.)
Keyes, Frederick G., Hoboken, N. J., assignor to National Automatic Refrigerator Company. Refrigeration. No. 1,251,538; Jan. 1; v. 246; p. 27.
Keys, William A., New York, N. Y. Neckwear. No. 1,252,450; Jan. 8; v. 246; p. 325.
Kicklighter, Charles H., Atlanta, Ga. Apparatus for electric welding. No. 1,252,809; Jan. 8; v. 246; p. 428.
Kicklighter, Charles H., Pasadena, Cal., assignor to Westinghouse Electric & Manufacturing Company. Voltage-regulator. No. 1,252,451; Jan. 8; v. 246; p. 325.
Kidder, William E., Kalamazoo, Mich. Folding chair. No. 1,254,329; Jan. 22; v. 246; p. 919.
Kiest, William P., Newdale, Idaho. Trace-carrier. No. 1,253,838; Jan. 15; v. 246; p. 760.
Kilbourne & Jacobs Manufacturing Company, The. (See Burner, Benbow, and Greene, assignors.)
Kilburn, John E., assignor to Hale and Kilburn Company, Philadelphia, Pa. Car-seat support. No. 1,253,047; Jan. 8; v. 246; p. 500.
Kilgore, Charles H., Palmersville, Tenn. Automatic brake. No. 1,254,605; Jan. 22; v. 246; p. 998.

Kimble, Martin, Wayne, N. J. Front drive for motor-driven vehicles. No. 1,253,839; Jan. 15; v. 246; p. 760.
Kinder, John R., Jr., Ladd, Ill. Solder. No. 1,252,010; Jan. 1; v. 246; p. 167.
King, Charles B., F. Renzenberger, Marion, Ohio, and G. Holmes, Danville, Ill., assignors to The Marion Steam Shovel Company, Marion, Ohio. Excavating-machine. No. 1,254,702; Jan. 29; v. 246; p. 1055.
King & Company, O. E. (See Strong, Sutton, assignor.)
King, Frederick J. A. (See Moore and King.)
King, George A., Maple Falls, Wash. Steering mechanism for vehicles. No. 1,254,144; Jan. 22; v. 246; p. 867.
King, James T., Toronto, Ontario, Canada. Electrolytic apparatus. No. 1,254,045; Jan. 22; v. 246; p. 837.
King, Joseph, Mexico, assignor of one-fourth to G. M. Whitney and one-fourth to W. H. Bauder, New Haven, N. Y. Bean-snipping machine. No. 1,253,254; Jan. 15; v. 246; p. 589.
King, Matthew L., Bradley, Ill. Form for masonry structures. No. 1,253,981; Jan. 15; v. 246; p. 798.
King, Ralph W., and H. G. Miller, The Dalles, Oreg.; said King assignor to said Miller. Evaporator. No. 1,254,606; Jan. 22; v. 246; p. 999.
King, William B., Boston, Mass. Gas-burner. No. 1,253,604; Jan. 15; v. 246; p. 691.
King, William M. (See Wright, Rink, assignor.)
King, Willis R., assignor to The Hanson & Van Winkle Company, Newark, N. J. Mechanical plating-machine. No. 1,254,046; Jan. 22; v. 246; p. 838.
Kinnane, Aloysius J., Knoxville, Tenn. Boiler-flue ferrule. No. 1,252,585; Jan. 8; v. 246; p. 365.
Kinnear Manufacturing Company, The. (See Rosenberg, Ralph H., assignor.)
Kipper, Herman B., Muskegon, Mich. Purifying crude benzol. No. 1,253,048; Jan. 8; v. 246; p. 500.
Kipper, Herman B., New York, N. Y. Producing chlorin and sulfate of sodium by catalysis. No. 1,255,020; Jan. 29; v. 246; p. 1148.
Kirby, Howard M., assignor to Joseph A. Vogel Co. Inc., Wilmington, Del. Flushing mechanism. No. 1,253,982; Jan. 15; v. 246; p. 799.
Kirchner, Henry W., assignor to River and Rail Transportation Company, St. Louis, Mo. Interchangeable-unit car. No. 1,252,810; Jan. 8; v. 246; p. 428.
Kirfman, John S., Des Moines, Iowa. Tree-protecting device. No. 1,251,786; Jan. 1; v. 246; p. 103.
Kirkham, George H., Niles, Mich. Trap for steam-heating systems. No. 1,254,408; Jan. 22; v. 246; p. 942.
Kirkpatrick, Cecil L., Wagner, S. D. Hog-feeder. No. 1,251,672; Jan. 1; v. 246; p. 70.
Kirstein, Henry E., and W. E. McDonnell, assignors to E. Kirstein Sons Company, Rochester, N. Y. Eyeglasses. No. 1,253,255; Jan. 15; v. 246; p. 590.
Kiser, Curtin G., Washington township, Clarion county, Pa. Pipe-connecting device. No. 1,251,539; Jan. 1; v. 246; p. 27.
Kistemann, Franz, New York, N. Y., assignor, by mesne assignments, to Paper Service Co., Inc. Dispensing-cabinet. No. 1,254,569; Jan. 22; v. 246; p. 970.
Kistler, William, and A. L. Butcher, assignors to Hayes Wheel Company, Jackson, Mich. Lathe. No. 1,252,271; Jan. 1; v. 246; p. 240.
Kitamura, James C., Los Angeles, Cal. Butler's glove. No. 1,254,913; Jan. 29; v. 246; p. 1120.
Kitchen, Harold J., Luton, England. Water-jacket for electric-furnace electrodes. No. 1,254,510; Jan. 22; v. 246; p. 970.
Kitowski, Ferdinand J., St. Cloud, Minn. Device for forming eyes on springs. No. 1,252,123; Jan. 1; v. 246; p. 200.
Kitsee, Isidor, Philadelphia, Pa. Mechanism for producing designs on pile fabrics. No. 1,253,049; Jan. 8; v. 246; p. 501.
Kitsee, Isidor, Philadelphia, Pa. Supplying pile fabrics with designs. No. 1,253,050; Jan. 8; v. 246; p. 501.
Kitsee, Isidor, Philadelphia, Pa. Vegetable dye and preparing the same. No. 1,254,914; Jan. 29; v. 246; p. 1121.
Kitton, John C., Chicago, Ill. Condenser. No. 1,251,894; Jan. 1; v. 246; p. 135.
Klaiber, Maximilian, North Hackensack, N. J. Temperature-annunciator. No. 1,252,811; Jan. 8; v. 246; p. 429.
Klausch, Max, Chicago, Ill. Drapery-support. No. 1,253,693; Jan. 15; v. 246; p. 718.
Kleisaas, Gotfred A., Sanborn, N. D. Train-order-delivering device. No. 1,251,895; Jan. 1; v. 246; p. 135.
Klein, Charles J., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electric switch. No. 1,252,586; Jan. 8; v. 246; p. 365.
Klein, Charles J., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electric candle and the like. No. 1,252,587; Jan. 8; v. 246; p. 366.
Klein, Charles J., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Strain-relief for pendent electrical devices. No. 1,254,703; Jan. 29; v. 246; p. 1055.
Klein, Charles J., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electric-switch casing. No. 1,254,812; Jan. 29; v. 246; p. 1089.
Klein, Frederick, trustee. (See Terwilliger, William H., assignor.)
Klein, Henry, New York, N. Y. Interior partition. No. 1,253,499; Jan. 15; v. 246; p. 662.
Kleinschmidt, Anthony F., Indianapolis, Ind. Automobile-inclosure. No. 1,251,540; Jan. 1; v. 246; p. 27.
Kleucker, George M., St. Louis, Mo. Producing raw-water can-ice. No. 1,254,511; Jan. 22; v. 246; p. 971.
Kline, Axel L. (See Larrowe and Kline.)
Kline, Walter, Lake, assignor of one-third to F. L. Kryder and one-third to J. P. Frisby, Akron, Ohio. Pneumatic tire. No. 1,252,703; Jan. 8; v. 246; p. 390.
Klocke, William H., Woodhaven, N. Y. Rear-axle housing. No. 1,252,812; Jan. 8; v. 246; p. 429.
Klok, Carl R., Chicago, Ill., assignor, by mesne assignments, to United Table-Bed Company. Folding bed. No. 1,253,390; Jan. 15; v. 246; p. 631.
Klok, Carl R., Chicago, Ill., assignor, by mesne assignments, to United Table-Bed Company. Folding bed. No. 1,253,391; Jan. 15; v. 246; p. 632.
Klok, Carl R., Chicago, Ill., assignor, by mesne assignments, to United Table-Bed Company. Folding bed. No. 1,253,392; Jan. 15; v. 246; p. 632.
Knapp, Jacob, assignor to The Sechler and Company, Cincinnati, Ohio. Running-gear for trailers. No. 1,252,588; Jan. 8; v. 246; p. 366.
Knell, John, North Robinson, Ohio. Auxiliary oil-reservoir. No. 1,251,971; Jan. 1; v. 246; p. 156.
Knight, Albert B., Toledo, Ohio. Machine for scoring, cracking off, and glazing electric bulbs or other articles of glassware. No. 1,251,541; Jan. 1; v. 246; p. 28.
Knight, George, Brockton, Mass. Marking-machine. No. 1,254,704; Jan. 29; v. 246; p. 1056.
Knight, George H., assignor to The Hendey Machine Company, Torrington, Conn. Belt-shifting mechanism. No. 1,252,350; Jan. 1; v. 246; p. 261.
Knistrom, August, Binghamton, assignor to International Time Recording Company of New York, Endicott, N. Y. Recording-lock. No. 1,253,051; Jan. 8; v. 246; p. 501.
Knorr, Theodore H., Breckenridge, assignor of one-half to H. A. Recen, Denver, Colo. Oven. No. 1,252,272; Jan. 1; v. 246; p. 240.
Knox, Harry A., Chicopee Falls, Mass. Internal-combustion engine. No. 1,253,607; Jan. 15; v. 246; p. 692.
Knox, Luther L., Avalon, assignor to Blaw-Knox Company, Pittsburgh, Pa. Chill for open-hearth furnaces. No. 1,251,787; Jan. 1; v. 246; p. 103.
Knox, Luther L., Avalon, assignor to Blaw-Knox Company, Pittsburgh, Pa. Valve-operating system. No. 1,251,788; Jan. 1; v. 246; p. 104.
Kobayashi, Hikojiro, Los Angeles, Cal. Salt and pepper shaker. No. 1,254,400; Jan. 22; v. 246; p. 942.
Kobelt, Valerius, Berlin-Schöneberg, Germany. Elimination of manganese and iron from water. No. 1,253,840; Jan. 15; v. 246; p. 760.
Koch, William F., Brooklyn, N. Y. Micrometer. No. 1,254,607; Jan. 22; v. 246; p. 999.
Kochendorfer, Frederic S., Chicago, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y. Baking-oven. No. 1,252,813; Jan. 8; v. 246; p. 429.
Koehler, Bert J., Brenham, Tex. Display-rack. No. 1,255,097; Jan. 29; v. 246; p. 1170.
Koehring Machine Company. (See Daniel, John, assignor.)
Koella, Frederick E., Toledo, Ohio. Feed means for film-disks. No. 1,254,239; Jan. 22; v. 246; p. 892.
Koerber Co., F. C. (See Sterling, Frederick W., assignor.)
Koester C. E. (See Henderson, John E., assignor.)
Kohl, John A., Cuyahoga Falls, Ohio. Car stop or brake. No. 1,252,589; Jan. 8; v. 246; p. 366.
Kompula, Matt A., Calumet, Mich. Implement for twisting wire. No. 1,252,500; Jan. 8; v. 246; p. 369.
Koppin, Harry K. (See Tompkins and Koppin.)
Kops Bros. (See Kops, Waldemar, assignor.)
Kops, Daniel, New York, N. Y. Brassière. No. 1,252,124; Jan. 1; v. 246; p. 200.
Kops, Daniel, New York, N. Y. Apparel-corset. No. 1,253,053; Jan. 8; v. 246; p. 502.
Kops, Daniel, New York, N. Y. Apparel-corset. No. 1,254,512; Jan. 22; v. 246; p. 971.
Kops, Waldemar, assignor to Kops Bros., New York, N. Y. Brassière. No. 1,253,052; Jan. 8; v. 246; p. 502.
Kornbrath, Rudolph J. (See Wiedeman, Frank X., assignor.)
Koshalko, Charles, Cleveland, Ohio. Air-operated toy. No. 1,251,673; Jan. 1; v. 246; p. 70.
Kostiw, William, Buffalo, N. Y. Ship-protector. No. 1,252,814; Jan. 8; v. 246; p. 430.
Kostolek, John, New York, N. Y. Milk-boiler. No. 1,255,021; Jan. 29; v. 246; p. 1149.
Kovalski, Feodor, West Lynn, Mass. Padlock. No. 1,252,815; Jan. 8; v. 246; p. 430.
Kozatek, Joseph, New Kensington, Pa. Folding bed. No. 1,252,351; Jan. 1; v. 246; p. 201.
Krafft, Frederick W., Berkeley, Cal. Garment supporter and stretcher. No. 1,252,125; Jan. 1; v. 246; p. 200.
Kraft, Henry P. (See Schweinert and Kraft.)
Krall, Richard H., Camden, N. J. Refrigerator. No. 1,254,513; Jan. 22; v. 246; p. 971.
Kramer, Ernest, *et al.* (See McQueen, Clarence A., assignor.)
Krathwohl, Charles W., Chicago, Ill. Roundabout. No. 1,255,022; Jan. 29; v. 246; p. 1149.
Krenzer, Ferdinand, Highland, Ill. Sand and gravel washing and separating machine. No. 1,254,410; Jan. 22; v. 246; p. 942.
Krieg, Alfred, Minneapolis, Minn., assignor to Emerson-Brantingham Company, Rockford, Ill. Connecting-rod. No. 1,253,841; Jan. 15; v. 246; p. 760.

Krogel, Gustave, Paterson, N. J. Safety appliance for aeroplanes. No. 1,251,896; Jan. 1; v. 246; p. 135.
Kronenberg, Rudolf, Ohligs, Germany. Manufacturing metal follies. No. 1,254,411; Jan. 22; v. 246; p. 942.
Kropp, Walter, Elberfeld, Germany, assignor to Synthetic Patents Co., Inc., New York, N. Y. Pharmaceutical product. No. 1,252,452; Jan. 8; v. 246; p. 325.
Kryder, Frank L., *et al.* (See Kline, Walter, assignor.)
Kub, John, Loyalton, S. D. Rope halter. No. 1,254,412; Jan. 22; v. 246; p. 942.
Kubovy, Frank. (See Ruzicka and Kubovy.)
Kuebler, Adolph W., assignor to Stromberg Motor Devices Company, Chicago, Ill. Bracket for electric lamps or the like. No. 1,253,983; Jan. 15; v. 246; p. 799.
Kuehl, Ludwig T., assignor, by mesne assignments, to Baker-Vawter Company, Benton Harbor, Mich. Metal filing-case. No. 1,252,816; Jan. 8; v. 246; p. 430.
Kuen, Eugene A., Cincinnati, Ohio. Automobile-lamp. No. 1,252,907; Jan. 8; v. 246; p. 456.
Kugelman, Arthur. (See Kugelman, Harry, assignor.)
Kugelman, Harry, assignor of one-half to A. Kugelman, Portsmouth, Ohio. Envelop-sealing device. No. 1,252,817; Jan. 8; v. 246; p. 431.
Kulich, Steve, New York, N. Y. Latch-releaser. No. 1,254,240; Jan. 22; v. 246; p. 893.
Kull, Samuel B., New Canaan, Conn. Rail-fastening. No. 1,254,608; Jan. 22; v. 246; p. 999.
Kummer, John W., Edgemont, Nev. Double roller-bearing. No. 1,253,984; Jan. 15; v. 246; p. 799.
Kunkely, Edward J., New York, N. Y. Favor snapper and cracker. No. 1,253,500; Jan. 15; v. 246; p. 662.
Kunkle, George R., Richmond, Ind. Spring-motor. No. 1,251,972; Jan. 1; v. 246; p. 156.
Kunz, John L., Milwaukee, Wis. Resilient wheel for vehicles. No. 1,254,705; Jan. 29; v. 246; p. 1056.
Kupchak, Stephen, Rosevear, Alberta, Canada. War-automobile. No. 1,253,605; Jan. 15; v. 246; p. 691.
Kupperstein, Morris M., Hartford, Conn. Electrically-operated gold-beating machine. No. 1,252,076; Jan. 1; v. 246; p. 186.
Kurowski, Alfred G. F., Brooklyn, assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,252,819; Jan. 8; v. 246; p. 431.
Kurowski, Alfred G. F., Brooklyn, assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,252,820; Jan. 8; v. 246; p. 432.
Kurth, Edward, Bloomfield, Nebr. Whip-socket lock. No. 1,253,256; Jan. 15; v. 246; p. 590.
Kurth, Edward, Bloomfield, Nebr. Whip-socket lock. No. 1,253,257; Jan. 15; v. 246; p. 590.
Kurtz, Samuel E., Sac City, Iowa. Conduit-coupling and making same. No. 1,251,973; Jan. 1; v. 246; p. 156.
Kurtzon, George B., assignor to Garden City Plating & Manufacturing Company, Chicago, Ill. Track for sliding doors. No. 1,254,706; Jan. 29; v. 246; p. 1056.
Kusenberg, Carl. (See Soehnlein, Kusenberg, and Franz.)
Kwapien, Jozef, Westfield, Mass. Resilient wheel. No. 1,254,413; Jan. 22; v. 246; p. 943.
La Casse, Albert H. (See Hartman and La Casse.)
La Dow, John, assignor of one-half to P. Whiting, Los Angeles, Cal. Traction-wheel. No. 1,253,056; Jan. 8; v. 246; p. 503.
La Fond, Louis A., Minneapolis, Minn. Bull-gear and driving-wheel for traction-engines. No. 1,254,241; Jan. 22; v. 246; p. 893.
La Porte, Norbert M., Baltimore, Md., assignor, by mesne assignments, to The Motor Cooling Systems Company. Circulation control. No. 1,253,695; Jan. 15; v. 246; p. 719.
Labombarde, Elie W. (See Labombarde and Sidebotham, assignors.)
Labombarde, Leon E., and M. H. Sidebotham, assignors to E. W. Labombarde, Nashua, N. H. Envelop-machine. No. 1,253,054; Jan. 8; v. 246; p. 502.
Labrie, George, Methuen, Mass. Roller-latch. No. 1,253,393; Jan. 15; v. 246; p. 633.
Lacy, Burritt S., Sewaren, N. J., assignor, by mesne assignments, to The Roessler & Hassiacher Chemical Company. Manufacturing alcohols. No. 1,253,055; Jan. 8; v. 246; p. 503.
Laforge, Auguste P., Lincoln, Cal. Resilient tire. No. 1,253,985; Jan. 15; v. 246; p. 800.
Lago, Raymond N., and W. J. Barrett, San Francisco, Cal. Inner-tube protector. No. 1,253,501; Jan. 15; v. 246; p. 663.
Lake, Arnold M., Argos, Ind. Wrench. No. 1,254,813; Jan. 29; v. 246; p. 1089.
Lally, Harry T., Jr., Alameda, Cal. Toilet-bowl. No. 1,254,609; Jan. 22; v. 246; p. 999.
Lambert, Daniel F., West Concord, Minn. Garment-stretcher. No. 1,253,608; Jan. 15; v. 246; p. 693.
Lambert, Frank, assignor to Thomson Meter Company, Brooklyn, N. Y. Current fluid-meter. No. 1,253,502; Jan. 15; v. 246; p. 663.
Lambert, Howard J., Portland, Oreg., assignor of one-half to J. Griggs, Tacoma, Wash. Direction-indicator. No. 1,254,242; Jan. 22; v. 246; p. 893.
Lamble, Robert C., Austin, Tex. Churn-dasher. No. 1,253,394; Jan. 15; v. 246; p. 633.
Lamson Company, The. (See Bixby, Walter, assignor.)
Lamson Company, The. (See Cowley, James T., assignor.)
Lamson Company, The. (See Snow, Edwin M., assignor.)
Landers, Frary & Clark. (See Griffin, John B., assignor.)
Landis, Samuel K., Lancaster, Pa. Combination turret-lathe. No. 1,251,542; Jan. 1; v. 246; p. 29.
Landolfi, Louis, assignor of one-half to M. Pascocello and one-half to J. D. Caruso, New York, N. Y. Non-refillable bottle. No. 1,254,915; Jan. 29; v. 246; p. 1121.
Lane, Edwin B., West Hoboken, N. J. Thermostat. No. 1,254,814; Jan. 29; v. 246; p. 1089.
Lang, Arthur C., assignor to N. K. Fairbank Company, Chicago, Ill. Collapsible display-stand. No. 1,254,639; Jan. 22; v. 246; p. 1007.
Lang, Frederick W., Minneapolis, Minn. Joint-protector for sewer-pipes. No. 1,255,023; Jan. 29; v. 246; p. 1149.
Lange, Henry, *et al.* (See McQueen, Clarence A., assignor.)
Lanham, Colonel W., Joliet, assignor, by mesne assignments, to Brady Wireless Corn Planter Company, Chicago, Ill. Corn-planter. No. 1,253,694; Jan. 15; v. 246; p. 718.
Lanich, Arthur S., Baraboo, Wis. Motion-transmitting means. No. 1,255,024; Jan. 29; v. 246; p. 1140.
Lanier, Ivey L., Hickory, N. C. Adding-machine. No. 1,252,704; Jan. 8; v. 246; p. 399.
Lanning, James K. (See Donovan, John B., assignor.)
Lanning, James K., Boston, Mass. Stop-motion for looms. No. 1,253,395; Jan. 15; v. 246; p. 633.
Lantz, Paul P., Tampa, Kans. Stacking-machine. No. 1,254,414; Jan. 22; v. 246; p. 943.
Larrabee, Albert R., New York, N. Y. Match-holder. No. 1,254,243; Jan. 22; v. 246; p. 893.
Larrowe, Arthur M., and A. L. Kline, Canisteo, N. Y. Ice-cream dipper. No. 1,253,057; Jan. 8; v. 246; p. 503.
Larsen, Hans T., Portland, Oreg. Wrench. No. 1,251,789; Jan. 1; v. 246; p. 104.
Larsen, Jacob C., and G. T. Johnson, assignors to The Buckeye Steel Castings Company, Columbus, Ohio. Six-wheel-truck construction for railway-cars. No. 1,253,842; Jan. 15; v. 246; p. 761.
Larson, David C. (See Lindquist and Larson.)
Larson, Julius J., Durand, Wis. Wire-stretcher. No. 1,254,415; Jan. 22; v. 246; p. 943.
Larson, Wilhelm L., East Grand Forks, Minn. Rain-alarm. No. 1,253,986; Jan. 15; v. 246; p. 800.
Lasker, William W., Brooklyn, assignor to Powers Accounting Machine Company, New York, N. Y. Extensible hammer mechanism. No. 1,253,696; Jan. 15; v. 246; p. 719.
Lathrop, Harry D., and W. H. Paulson, Chicago, Ill. Can-discharging mechanism for can-washing machines. No. 1,252,453; Jan. 8; v. 246; p. 326.
Latta, Emmit G., Syracuse, N. Y. Type-writing machine. No. 1,253,258; Jan. 15; v. 246; p. 591.
Lattig, Jacob W., Glenside, Pa., and C. L. Goodrum, assignors to Western Electric Company, Incorporated, New York, N. Y. Automatic telephone system. No. 1,251,543; Jan. 1; v. 246; p. 29.
Laub, Anthony M., Cresco, Iowa. Washing apparatus. No. 1,254,815; Jan. 29; v. 246; p. 1090.
Lauer, Benjamin C., Germantown, Pa. Window-screen. No. 1,255,025; Jan. 29; v. 246; p. 1150.
Lavin, Thomas J., *et al.* (See Myers, Charles E., assignor.)
Lawlor, Emery L., Youngstown, Ohio. Revolving flag-holder. No. 1,251,897; Jan. 1; v. 246; p. 136.
Lawlor, Simeon C., Chicago, Ill. Mopping appliance. No. 1,251,974; Jan. 1; v. 246; p. 157.
Lawson, Harry. (See Howard and Lawson.)
Lawson, Oscar L., and J. H. Reed, Lynn, Mass. Looper mechanism for leather-sewing machines. No. 1,252,352; Jan. 1; v. 246; p. 262.
Lawton, Hugh M., Bellevue, Ky., assignor to The Cincinnati Time Recorder Company, Cincinnati, Ohio. Time-recorder. No. 1,253,185; Jan. 8; v. 246; p. 540.
Layman, Florence P. (See Layman, Hiram D., assignor.)
Layman, Hiram D., assignor of one-half to F. P. Layman, Portage, Pa. Radiator. No. 1,251,898; Jan. 1; v. 246; p. 136.
Lazarides, Platon, New York, N. Y. Tool-holder. No. 1,252,705; Jan. 8; v. 246; p. 390.
Lazarus, Peter L. (See Winegarden, Arey V., assignor.)
Lazarus, Samuel, Cleveland, Ohio. Engine-trouble detector. No. 1,254,416; Jan. 22; v. 246; p. 943.
Le Beau, Fernando L., assignor of one-half to F. Lundin, Chicago, Ill. Emergency lift-latch. No. 1,252,454; Jan. 8; v. 246; p. 326.
Le Beau, Fernando J., assignor of one-half to F. Lundin, Chicago, Ill. Emergency-lock. No. 1,254,194; Jan. 22; v. 246; p. 880.
Le Blanc, Alexis, New York, N. Y., assignor to Gurney Electric Elevator Company, Honesdale, Pa. Elevator signal system. No. 1,254,331; Jan. 22; v. 246; p. 919.
Le Fever, Earle A., Buffalo, N. Y. Meter cut-out and testing device. No. 1,254,707; Jan. 29; v. 246; p. 1056.
Le Fevre, George A., assignor of one-half to W. C. Halleck, New York, N. Y. Railway-tie. No. 1,253,610; Jan. 15; v. 246; p. 694.
Leach, William W., assignor of one-half to A. I. Davey, Mansfield, Ohio. Polisher. No. 1,253,697; Jan. 15; v. 246; p. 720.
Lebert, Albert J., Hazel, S. D. Grain-binder attachment. No. 1,252,908; Jan. 8; v. 246; p. 456.
Leblanc, Maurice, Croissy, France, assignor to Westinghouse Electric & Manufacturing Company. Apparatus for the removal of coal-ash. No. 1,254,244; Jan. 22; v. 246; p. 894.

Ledig, Jacob, Jamaica Plain, assignor to Gray & Davis Inc., Cambridge, Mass. Storage-battery support. No. 1,252,706; Jan. 8; v. 246; p. 400.
Ledig, Richard G., Philadelphia, Pa. Pedal for velocipedes, bicycles, &c. No. 1,254,610; Jan. 22; v. 246; p. 999.
Ledwinka, Joseph, assignor to Edward G. Budd Manufacturing Company, Philadelphia, Pa. Rib for automobile-bodies. No. 1,251,975; Jan. 1; v. 246; p. 157.
Ledwinka, Joseph, assignor to Edward G. Budd Manufacturing Company, Philadelphia, Pa. Removable seat for vehicles. No. 1,251,976; Jan. 1; v. 246; p. 157.
Ledwinka, Joseph, assignor to Edward G. Budd Manufacturing Company, Philadelphia, Pa. Adjustable-seat structure. No. 1,251,977; Jan. 1; v. 246; p. 158.
Lee, Albert P., assignor to Lee Loader & Body Co., Chicago, Ill. Loading device. No. 1,251,790; Jan. 1; v. 246; p. 104.
Lee, Albert P., assignor to Lee Loader & Body Co., Chicago, Ill. Dumping-vehicle. No. 1,253,058; Jan. 8; v. 246; p. 504.
Lee, Albert P., assignor to Lee Loader & Body Co., Chicago, Ill. Dumping-hopper. No. 1,253,059; Jan. 8; v. 246; p. 504.
Lee, Arthur, Herscher, Ill. Portable power transmission. No. 1,253,396; Jan. 15; v. 246; p. 634.
Lee, Arthur L., Jamaica, N. Y. Ledger-card system, &c. No. 1,254,916; Jan. 29; v. 246; p. 1121.
Lee Broom & Duster Company. (See Beebe, Norman H., assignor.)
Lee, Harry G., Tacoma, Wash. Elevator signaling system. No. 1,255,026; Jan. 29; v. 246; p. 1150.
Lee Loader & Body Co. (See Lee, Albert P., assignor.)
Lee, William F., Syracuse, N. Y. Automobile-wheel hub. No. 1,252,455; Jan. 8; v. 246; p. 326.
Lee, William H., assignor to Syracuse Chilled Plow Company, Syracuse, N. Y. Harrow. No. 1,253,609; Jan. 15; v. 246; p. 693.
Leeds & Northrup Company, The. (See Macbeth and Smith, assignors.)
Leeland, Ole S., Pierre, S. D. Combination autograph, portrait, and calendar mount. No. 1,251,791; Jan. 1; v. 246; p. 105.
Lees, Ernest J., Cleveland, Ohio, assignor to A. D. Wilt, Jr., Detroit, Mich. Machine for manufacturing twist-drills and other articles. No. 1,254,816; Jan. 29; v. 246; p. 1090.
Lehmann, Adolph, assignor to M. Christ, Hicksville, N. Y. Nut and thread protector. No. 1,254,514; Jan. 22; v. 246; p. 972.
Lehmann, Julius C., Brooklyn, N. Y. Door-check. No. 1,254,245; Jan. 22; v. 246; p. 804.
Lehner, John, Pittsburgh, Pa. Suction mechanism for dental plates. No. 1,255,027; Jan. 29; v. 246; p. 1150.
Leiman, Henry, Tampa, Fla. Box. No. 1,254,515; Jan. 22; v. 246; p. 972.
Lempdes, Adolphe H. R. de, Senonches, France. Cartridge-indicator for repeating or automatic small-arms. No. 1,252,094; Jan. 1; v. 246; p. 192.
Lenders, Adolph W. H., Cedar Rapids, Iowa. Size and making same. No. 1,253,307; Jan. 15; v. 246; p. 634.
Leng, William M., Havelock, Ontario, Canada. Valve-gear. No. 1,253,503; Jan. 15; v. 246; p. 663.
Lenske, Charles H., Chicago, Ill. Resilient wheel. No. 1,252,456; Jan. 8; v. 246; p. 327.
Leo, Isaac, Chicago, Ill. Cooling device for automobile-tires. No. 1,253,259; Jan. 15; v. 246; p. 591.
Leonard, George A., Sheffield, Iowa. Masonry wall construction. No. 1,254,417; Jan. 22; v. 246; p. 944.
Leonard, Howard M., Jackson, Mich. Gear-case mounting for motor vehicles. No. 1,254,708; Jan. 29; v. 246; p. 1057.
Leonard, Omer, and A. T. Johnson, Chicago, Ill. Massage implement. No. 1,255,028; Jan. 29; v. 246; p. 1151.
Leopold, Nathan F. (See McCanna and Helnen, assignors.)
Leslie, Ingram, John, Ky. Harrow. No. 1,254,817; Jan. 29; v. 246; p. 1091.
Letzeisen, Louis, Hartford, Conn. Spectacles. No. 1,252,126; Jan. 1; v. 246; p. 200.
Leubusher, Theodore, *et al.* (See Bringe, William F., assignor.)
Lever, John W., Columbia, S. C. Separating mechanism for cotton-seed hullers. No. 1,252,273; Jan. 1; v. 246; p. 241.
Levin, Arthur, Winnipeg, Manitoba, Canada. Window-blind attachment. No. 1,251,899; Jan. 1; v. 246; p. 136.
Levinger, David, and O. Anderson, Chicago, Ill., assignors to Western Electric Company, New York, N. Y. Tapping-machine. No. 1,254,709; Jan. 29; v. 246; p. 1057.
Levinson, David, Chicago, Ill. Protecting pad or armor. No. 1,253,260; Jan. 15; v. 246; p. 592.
Levy, Edward D., Springfield, Mo., and H. W. Jacobs, Topeka, Kans. Tank-car. No. 1,251,978; Jan. 1; v. 246; p. 158.
Lewis, Arthur L., Rochester, and J. L. Turney, Monaca, Pa. Metal-bending mechanism. No. 1,254,510; Jan. 22; v. 246; p. 972.
Lewis, George H., assignor to The Fisk Rubber Company, Chicopee Falls, Mass. Adjustable die. No. 1,252,821; Jan. 8; v. 246; p. 432.
Lewis, George H., assignor to The Fisk Rubber Company, Chicopee Falls, Mass. Power-driven wrench. No. 1,253,398; Jan. 15; v. 246; p. 634.
Lewis, George H., assignor to The Fisk Rubber Company, Chicopee Falls, Mass. Strip-cutting apparatus. No. 1,255,098; Jan. 29; v. 246; p. 1170.
Lewis, George H., assignor to The Fisk Rubber Company, Chicopee Falls, Mass. Method and apparatus for molding rubber goods. No. 1,255,099; Jan. 29; v. 246; p. 1170.
Lewis, George S., Oak Park, assignor to Mead Cycle Company, Chicago, Ill. Sprocket. No. 1,251,979; Jan. 1; v. 246; p. 158.
Lewis, George W., Grinnell, Iowa. Centrifugal extractor. No. 1,253,987; Jan. 15; v. 246; p. 800.
Lewis, Jerry, Little Rock, Ark. Burner-controlling mechanism. No. 1,252,707; Jan. 8; v. 246; p. 400.
Lewis, John G., St. Louis, Mo. Work-handling mechanism for blindstitch sewing-machines. No. 1,254,818; Jan. 29; v. 246; p. 1091.
Lewis, Leroy M., Merion, Pa. Retarding-valve. No. 1,252,457; Jan. 8; v. 246; p. 327.
Lewis, Leslie H., Claremont, N. H. Combination measuring instrument. No. 1,253,399; Jan. 15; v. 246; p. 635.
Lewis, Samuel H., Richmond, Va. Power reverse-gear. No. 1,252,458; Jan. 8; v. 246; p. 327.
Lewis, Samuel H., Richmond, Va. Pressure-operated valve-gear-shifting mechanism. No. 1,252,459; Jan. 8; v. 246; p. 328.
Lewis, William, Norfolk, Va. Mail-delivery apparatus. No. 1,251,980; Jan. 1; v. 246; p. 158.
Lewis, William J., Dunlap, Kans. Window-screen. No. 1,251,981; Jan. 1; v. 246; p. 159.
Leyner, John G., Larkspur, Colo. Endless automatic track-laying and ground-treading power-operated traction-engine. No. 1,254,819; Jan. 29; v. 246; p. 1091.
Lidgerwood Manufacturing Company. (See Miller and Ruggles, assignors.)
Lieb, John M. (See Allen and Lieb.)
Lieber, Jean, Lausanne, Switzerland. Liquid-fuel burner. No. 1,254,145; Jan. 22; v. 246; p. 867.
Liebknecht, Otto, Frankfort-on-the-Main, Germany, assignor to The Roessler & Hasslacher Chemical Company, New York, N. Y. Making alkali perborates. No. 1,253,000; Jan. 8; v. 246; p. 504.
Liebknecht, Otto, Frankfort-on-the-Main, Germany, assignor to The Roessler & Hasslacher Chemical Company, New York, N. Y. Making alkali perborates. No. 1,253,061; Jan. 8; v. 246; p. 505.
Liedloff, Robert B., Spokane, Wash. Auxiliary brake mechanism. No. 1,254,246; Jan. 22; v. 246; p. 894.
Lifschütz, Isaac, Hamburg, Germany. Obtaining wax-like substances from lanolin. No. 1,252,591; Jan. 8; v. 246; p. 367.
Liggitt, Robert, Durham, Ontario, Canada. Axle-arm. No. 1,255,029; Jan. 29; v. 246; p. 1151.
Liliquist, Axel, Mullan, Idaho. Rotary engine. No. 1,253,062; Jan. 8; v. 246; p. 505.
Liliquist, Victor A., Superior, Wis. Railway-crossing gate. No. 1,254,611; Jan. 22; v. 246; p. 1000.
Lilly, Andrew J., Glen Morgan, W. Va. Electric switch. No. 1,254,820; Jan. 29; v. 246; p. 1092.
Limbach, Curtis A., assignor to J. H. White Manufacturing Company, Brooklyn, N. Y. Cover for electric-lamp sockets. No. 1,255,030; Jan. 29; v. 246; p. 1151.
Linderme, Theodore G., Detroit, Mich. Bottle-cover-placing machine. No. 1,252,460; Jan. 8; v. 246; p. 328.
Lindgren, Hans O., assignor to Aktiebolaget Separator, Stockholm, Sweden. Lubricating device for turbine-driven centrifugal machines. No. 1,253,400; Jan. 15; v. 246; p. 635.
Lindhé, Roland W., Moscow, Russia, assignor to Aktiebolaget Svenska Kullagerfabriken, Gottenberg, Sweden. Ball-retainer for ball-bearings. No. 1,254,332; Jan. 22; v. 246; p. 920.
Lindquist, David L., and D. C. Larson, Yonkers, N. Y., assignors to Otis Elevator Company, Jersey City, N. J. Motor-controlling apparatus. No. 1,253,063; Jan. 8; v. 246; p. 505.
Lindsay, George A., Newton, Iowa. Rifle-bead. No. 1,254,418; Jan. 22; v. 246; p. 944.
Lingo, William T., Philadelphia, Pa. Work-holding mechanism for lathes and the like. No. 1,252,274; Jan. 1; v. 246; p. 241.
Lintz & Eckhardt. (See Unger, Hugo, assignor.)
Lions Acetylene Gas Light Company, The. (See Campbell, Charles W., assignor.)
Lisle, Arthur B. (See Farkas, Karl, assignor.)
Lissauer, Adolph W., New York, N. Y. Apparatus for purifying and humidifying air. No. 1,254,612; Jan. 22; v. 246; p. 1000.
Lister, Henry R., New York, N. Y., assignor to Joseph Benn & Sons., Graystone, R. I. Imitation fabric and producing same. No. 1,255,031; Jan. 29; v. 246; p. 1151.
Little Giant Manufacturing & Sales Company. (See Mordaunt, Harry G., assignor.)
Little, Malle, Cleveland, Ohio. Hair-binder. No. 1,251,900; Jan. 1; v. 246; p. 136.
Liversidge, Horace P., Philadelphia, Pa. Insulating-support. No. 1,252,353; Jan. 1; v. 246; p. 262.
Livingston, Amos, Owego, N. Y. Combined metallic cross-tie, rail-brace, and fastener. No. 1,254,419; Jan. 22; v. 246; p. 944.
Ljungström, Fredrik, assignor to Aktiebolaget Ljungströms Angturbin, Finspong, Sweden. Multiple-phase-motor regulating resistance. No. 1,251,982; Jan. 1; v. 246; p. 159.

Llopart, Ramón B., assignor to Mineral Refining and Chemical Corporation, St. Louis, Mo. Smelting-furnace. No. 1,253,064; Jan. 8; v. 246; p. 505.
Locer, George B., Fort Logan, Colo. Corn-husker. No. 1,253,611; Jan. 15; v. 246; p. 694.
Lockard, Marcus M., Meridian, Miss. Canning apparatus. No. 1,253,843; Jan. 15; v. 246; p. 761.
Lockwood, Burns D., Bellevue, assignor to Pressed Steel Car Company, Pittsburgh, Pa. Six-wheel truck. No. 1,251,674; Jan. 1; v. 246; p. 70.
Lockwood, James H., Bridgeport, Conn. Connection for electric conductors. No. 1,251,983; Jan. 1; v. 246; p. 159.
"Locomobile" Company of America, The. (See Riker, Andrew L., assignor.)
"Locomobile" Company of America, The. (See Rosner, Adolph, assignor.)
Locomotive Pulverized Fuel Company. (See Clendon, George W., assignor.)
Lofton, Herbert M., Chattanooga, Tenn. Valve. No. 1,251,792; Jan. 1; v. 246; p. 105.
Logsdon, Frederick G., Davenport, Wash. Weeding implement. No. 1,253,504; Jan. 15; v. 246; p. 664.
Lombard, Harold E., *et al.* (See Horn, Charles E., assignor.)
Lombard Governor Company, The. (See Warren, Henry E., assignor.)
London and Westminster Industrial Syndicate Limited, The. (See Sharpe, Horace L., assignor.)
Long, Adam A., Rochester, N. Y. Talking-machine. No. 1,251,675; Jan. 1; v. 246; p. 70.
Long, Adam A., assignor to The Tailors' Accessories Company, Rochester, N. Y. Cleaning-machine. No. 1,252,127; Jan. 1; v. 246; p. 201.
Long, Breckinridge, St. Louis, and W. C. Burton, Webster Groves, Mo. Lighting-fixture. No. 1,254,247; Jan. 22; v. 246; p. 895.
Long, Edward C. (See Miller and Long.)
Long Life Lumber Company. (See Castleman, Samuel T., assignor.)
Loomis, Albert C., West Orange, N. J. Eyeglasses. No. 1,254,047; Jan. 22; v. 246; p. 838.
Looze, Edward S., Flint, Mich. Hose-connector. No. 1,253,065; Jan. 8; v. 246; p. 506.
Lorber, Harry F., Monongahela, Pa. Rail-joint. No. 1,252,275; Jan. 1; v. 246; p. 241.
Lorenz, Harry R., and H. W. Ojendyk Ashton, Nebr. Combined rim and casing. No. 1,253,988; Jan. 15; v. 246; p. 801.
Lorenz, Peter A. (See Adler, Bror A., assignor.)
Lorimer, John H., Philadelphia, Pa. Apparatus for treating air with liquids. No. 1,253,401; Jan. 15; v. 246; p. 636.
Lorioli, Filippo, assignor to V. Tommasini, Milan, Italy. Machine for shaping and cutting out alimentary pastes. No. 1,252,822; Jan. 8; v. 246; p. 432.
Losoncy, Jozsef, assignor of one-half to L. Bedecs, Reading, Pa. Garbage-can. No. 1,251,984; Jan. 1; v. 246; p. 160.
Lotka, John, Demarest, N. J., assignor to Havone Corporation, New York, N. Y. Cigarette-container. No. 1,253,505; Jan. 15; v. 246; p. 664.
Loud, Henry S., New York, N. Y. Process and apparatus for impregnating wood and other porous materials with preservative liquid. No. 1,253,844; Jan. 15; v. 246; p. 761.
Love, James E., Woonsocket, R. I. Cream-dipper. No. 1,253,612; Jan. 15; v. 246; p. 694.
Lovejoy, Arthur W., assignor to A. E. Hatch, Lowell, Mass. Duplex clamp. No. 1,253,402; Jan. 15; v. 246; p. 636.
Lovekin, Luther D., Philadelphia, Pa., assignor to Westinghouse Electric & Manufacturing Company. Heat-conserving apparatus. No. 1,252,592; Jan. 8; v. 246; p. 367.
Lovekin, Luther D., Philadelphia, Pa., assignor to Westinghouse Electric & Manufacturing Company. Apparatus for conserving heat. No. 1,252,593; Jan. 8; v. 246; p. 367.
Low, Arthur B., Denver, Colo. Prepared fuel. No. 1,252,909; Jan. 8; v. 246; p. 456.
Low, Frank. (See Chamberlain and Low.)
Lowenthal, Adolph D. (See Hosick and Lowenthal.)
Lowry, Thomas K., Chicago, Ill. Method and means for dehairing. No. 1,254,248; Jan. 22; v. 246; p. 895.
Lucke, Charles E., New York, N. Y. Apparatus for preventing pulsations in gas-mains. No. 1,253,845; Jan. 15; v. 246; p. 762.
Ludington, Lawrence L., assignor to Ball Brothers Glass Manufacturing Company, Muncie, Ind. Mechanical movement. No. 1,252,823; Jan. 8; v. 246; p. 432.
Luke, Frank H., and C. R. Millar, Tarquah, Gold Coast Colony, Africa. Valve and tap. No. 1,252,910; Jan. 8; v. 246; p. 456.
Lumiere, Louis, Lyons, France, assignor to Victor Talking Machine Company. Acoustical instrument. No. 1,253,613; Jan. 15; v. 246; p. 694.
Lumm, Albert H., Toledo, Ohio. Ventilator. No. 1,254,517; Jan. 22; v. 246; p. 972.
Lundell, Alben E., assignor to Western Electric Company, Incorporated, New York, N. Y. Machine-switching telephone-exchange system. No. 1,251,544; Jan. 1; v. 246; p. 29.
Lundell, Alben E., assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,252,461; Jan. 8; v. 246; p. 328.
Lundell, Alben E., assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,252,911; Jan. 8; v. 246; p. 457.
Lundell, Alben E., assignor to Western Electric Company, New York, N. Y. Selector-switch-movement-controlling circuit. No. 1,254,710; Jan. 29; v. 246; p. 1058.
Lundell, Alben E., assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,254,711; Jan. 29; v. 246; p. 1058.
Lundell, Alben E., assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,254,712; Jan. 29; v. 246; p. 1059.
Lundén, Harald L. R. (See Thorssell and Lundén.)
Lundin, Frederick. (See Le Beau, Fernando J., assignor.)
Lundquist, Frank A., assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone switching system. No. 1,251,545; Jan. 1; v. 246; p. 29.
Lundquist, Frank A., assignor to Western Electric Company, Incorporated, New York, N. Y. Automatic switching mechanism. No. 1,252,462; Jan. 8; v. 246; p. 329.
Lundquist, Frank A., assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,252,463; Jan. 8; v. 246; p. 329.
Lundquist, Frank A., assignor to Western Electric Company, Incorporated, New York, N. Y. Automatic switching mechanism. No. 1,253,698; Jan. 15; v. 246; p. 720.
Lundquist, Frank A., assignor to Western Electric Company, New York, N. Y. Automatic switch. No. 1,254,713; Jan. 29; v. 246; p. 1059.
Lundquist, Frank A., Chicago, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y. Automatic switch. No. 1,251,985; Jan. 1; v. 246; p. 160.
Lundquist, Frank A., Chicago, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,252,464; Jan. 8; v. 246; p. 330.
Lyall, Arthur V., New York, N. Y. Vehicle-wheel. No. 1,254,613; Jan. 22; v. 246; p. 1000.
Lyhne, Anker S., Bridgeport, Conn. Combination-case for flash-lights. No. 1,253,846; Jan. 15; v. 246; p. 763.
Lynch Brennan Inc. (See Lynch, Joseph, assignor.)
Lynch, Buford A. (See Weaver, John W., assignor.)
Lynch, Joseph, Dumont, N. J., assignor to Lynch Brennan Inc., New York, N. Y. Frame. No. 1,253,847; Jan. 15; v. 246; p. 763.
Lynde, Francis G. (See Calthrop and Lynde.)
Lyon, Harold L., and S. S. Peck, Honolulu, Hawaii. Making decolorizing agents and the products thereof. No. 1,251,546; Jan. 1; v. 246; p. 30.
Lyon, Howard, Gloucester City, assignor to Welsbach Light Company, Gloucester, N. J. Protecting device for incandescent lamps. No. 1,251,547; Jan. 1; v. 246; p. 30.
Lyons, Harry C., New York, N. Y. Coffee-urn. No. 1,251,548; Jan. 1; v. 246; p. 30.
Lyons, Robert L., Waltham, H. W. Morris, Roxbury, and C. I. Nielsen, Arlington, Mass., assignors to Frederick Osann Company, New York, N. Y. Sewing-machine. No. 1,253,614; Jan. 15; v. 246; p. 694.
M. Schulz Company. (See Gustafson, Adolph P., assignor.)
M. Welte & Sons, The. (See Welte, Carl M, assignor.)
MacAlpine, Hermann B. (See Phelan and MacAlpine.)
MacCallum, Frank A., Brookline, Mass. Protector for electric circuits. No. 1,252,919; Jan. 8; v. 246; p. 459.
MacCaskie, Peter M., Hot Springs, Alaska. Sound-modifier for phonographs. No. 1,253,407; Jan. 15; v. 246; p. 637.
MacFarland, Helon B., Chicago, Ill., and R. J. Shoemaker, Topeka, Kans., assignors of one-half to said MacFarland and one-half to E. H. Gold, Chicago, Ill. Material for insulating and like purposes and manufacturing same. No. 1,252,468; Jan. 8; v. 246; p. 331.
MacKay, John F., Bordentown, N. J. Brooder. (Reissue.) No. 14,419; Jan. 8; v. 246; p. 546.
MacKay, William H., Andover, Me., assignor to W. A. Arnold and W. H. Fletcher, Paterson, N. J. Self-propelled vehicle. No. 1,251,903; Jan. 1; v. 246; p. 137.
MacMillan, Arthur W., Chicago, Ill. Surveying apparatus. No. 1,253,069; Jan. 8; v. 246; p. 507.
MacMillan, John R., assignor to Niagara Alkali Company, Niagara Falls, N. Y. Recovering high-grade potash products. No. 1,254,521; Jan. 22; v. 246; p. 974.
MacPherson, John G., deceased, Philadelphia; M. L. MacPherson and C. L. Harsha, executors, Canonsburg, Pa., assignors to Electric-Pneumatic Gear Shaft Corporation, Wilmington, Del. Combined clutch and gear shifting mechanism for motor-vehicles. No. 1,252,131; Jan. 1; v. 246; p. 202.
MacPherson, Mary L., *et al.*, executors. (See MacPherson, John G.)
Macartney, Jack. (See Macartney, John H and J.)
Macartney, John H. and J., Los Angeles, Cal. Centrifugal attritional pulverizer. No. 1,253,619; Jan. 15; v. 246; p. 696.
Macbeth, Colin, assignor to The Dunlop Rubber Company, Limited, Birmingham, England. Tire for vehicle and similar wheels. No. 1,254,050; Jan. 22; v. 246; p. 839.

Macbeth, Norman, New York, N. Y., and I. B. Smith, Ambler, assignors to The Leeds & Northrup Company, Philadelphia, Pa. Illuminometer. No. 1,252,598; Jan. 8; v. 246; p. 369.

Macdonald, Maynard F., Victoria, British Columbia, Canada. Apparatus for developing moving-picture films. No. 1,252,599; Jan. 8; v. 246; p. 369.

Macduff, Daniel M., Detroit, Mich. Combined light and air transmitting apparatus. No. 1,254,520; Jan. 22; v. 246; p. 973.

Machin, Ralph, Ratcliff, London, England, Lacquering or painting machine for tins and similar closed receptacles. No. 1,254,918; Jan. 29; v. 246; p. 1122.

Mackie, Mitchell, and James B. Fisher, assignors to Waukesha Motor Company, Waukesha, Wis. Internal-combustion engine. No. 1,251,798; Jan. 1; v. 246; p. 107.

Mackie, William J., St. Louis, Mo. Riveting. No. 1,253,850; Jan. 15; v. 246; p. 764.

Madden Company, The. (See Preston, Frederick A., assignor.)

Madden, Patrick J., Chicago, Ill. Plumbing-fixture. No. 1,253,506; Jan. 15; v. 246; p. 664.

Madeksho, John J., Chicago, Ill. Drain-cock. No. 1,254,716; Jan. 29; v. 246; p. 1060.

Madsen, Carl M., Sunburst, N. C. Offset for sawmill-carriages. No. 1,252,132; Jan. 1; v. 246; p. 202.

Maechler, Walter, Chicago, Ill. Feed mechanism for ice-shaving machines. No. 1,252,600; Jan. 8; v. 246; p. 370.

Magee, James, 2d. (See Rush, Theodore H., assignor.)

Magnus, Rollo M., Duluth, Minn. Drinking-weir. No. 1,254,251; Jan. 22; v. 246; p. 896.

Magoon, Bert C., New Castle, N. H. Doughnut-lifter. No. 1,251,989; Jan. 1; v. 246; p. 161.

Maguire, Walter R., Dorchester, Mass. Toilet-seat. No. 1,253,851; Jan. 15; v. 246; p. 764.

Mahaney, Guy A., Joker, W. Va. Ticket-holder. No. 1,253,070; Jan 8; v. 246; p. 507.

Mahaney, Guy A., Joker, W. Va. Necktie-stretcher. No. 1,254,334; Jan. 22; v. 246; p. 920.

Maine, Andrew J., Appleton, Wis. Car-mover. No. 1,252,354; Jan. 1; v. 246; p. 262.

Maine, Herbert E., Providence, R. I. Shoe-sizer. No. 1,252,020; Jan. 8; v. 246; p. 459.

Maise, Herman C., assignor to Springfield Body Corporation of New York, Springfield, Mass. Hinge for vehicle-bodies. No. 1,251,550; Jan. 1; v. 246; p. 31.

Maise, Herman C., Detroit, Mich., assignor to Springfield Body Corporation of New York, New York, N. Y. Drop-window. No. 1,251,551; Jan. 1; v. 246; p. 31.

Maise, Herman C., Detroit, Mich., assignor to Springfield Body Corporation of New York, New York, N. Y. Automobile-body. No. 1,251,990; Jan. 1; v. 246; p. 162.

Malchow, Charles B., Warner, N. H. Folding twin bed. No. 1,251,799; Jan. 1; v. 246; p. 108.

Malcolmson, Norman. (See Kelsey, Hextall H., assignor.)

Malensheck, John, West Allis, Wis. Weighing apparatus. No. 1,254,335; Jan. 22; v. 246; p. 920.

Malmros, August, Rönninge, Sweden. Threshing-machine. No. 1,254,422; Jan. 22; v. 246; p. 945.

Maltby, Lewis C., assignor to The Stone Straw Company, Washington, D. C. Machine for manufacturing spirally-wound straws. No. 1,252,284; Jan. 1; v. 246; p. 244.

Maltby, Lewis C., assignor to The Stone Straw Company, Washington, D. C. Machine for manufacturing spirally-wound tubes. No. 1,254,336; Jan. 22; v. 246; p. 921.

Mamaux, John J., Pittsburgh, Pa. Canopy. No. 1,251,904; Jan. 1; v. 246; p. 137.

Mammen, Lawrence W., Chicago, Ill. Washing-machine. No. 1,254,051; Jan. 22; v. 246; p. 839.

Mammen, Lawrence W., Chicago, Ill. Cylinder for washing-machines. No. 1,254,252; Jan. 22; v. 246; p. 896.

Mandel, Isaac, New York, N. Y. Hygienic garbage-receptacle. No. 1,253,020; Jan. 15; v. 246; p. 696.

Manley, Vernon H., Aberdeen, S. D. Hanger. No. 1,253,852; Jan. 15; v. 246; p. 764.

Manley, Thomas F., East Liverpool, Ohio. Convertible receptacle for hot-water and fountain-syringes. No. 1,252,285; Jan. 1; v. 246; p. 244.

Mannheimer, Isaac, Cincinnati, Ohio. Joint connection. No. 1,254,822; Jan. 29; v. 246; p. 1092.

Manning, John T., Brookline, Mass. Folding umbrella. No. 1,254,823; Jan. 29; v. 246; p. 1093.

Mantle Lamp Company of America, The. (See Davis, Cortland W., assignor.)

Marcellino, Francis, Brooklyn, N. Y. Music-sheet turner. No. 1,252,355; Jan. 1; v. 246; p. 262.

Marchand, Charles, deceased. Portland, Oreg.; M. L. Marchand, administratrix, assignor to The Marchand Process Company, Chicago, Ill. Treating by-product liquors from wood sulfite plants. No. 1,253,853; Jan. 15; v. 246; p. 764.

Marchand, Charles, deceased, Kimberly, Wis.; M. L. Marchand, administratrix, assignor to The Marchand Process Company, Chicago, Ill. Treating liquors from wood-pulp sulfite plants. No. 1,253,854; Jan. 15; v. 246; p. 765.

Marchand, Marie L., administratrix. (See Marchand, Charles.)

Marchand Process Company, The. (See Marchand, Charles, assignor.)

Marchant, Frank B., Brooklyn, N. Y. Lens-grooving machine. No. 1,254,253; Jan. 22; v. 246; p. 896.

Marcinko, Jossef, Cleveland, Ohio. Driving-runner for automobiles. No. 1,254,324; Jan. 29; v. 246; p. 1093.

Marconi Wireless Telegraph Company of America. (See Weagant, Roy A., assignor.)

Marcus, Samuel, New York, N. Y. Artificial eyes for dolls, display-figures, and the like. No. 1,252,469; Jan. 8; v. 246; p. 331.

Marinier, Ernest E., Paris, France. Printing and goffering fabrics. No. 1,252,710; Jan. 8; v. 246; p. 401.

Marino, James, Duluth, Minn. Automatic fire-alarm. No. 1,253,071; Jan. 8; v. 246; p. 508.

Marion Steam Shovel Company, The. (See King, Renzenberger, and Holmes, assignors.)

Markham, Burtis O. (See Evans and Dutt, assignors.)

Markiel, Henry J., Westfield, N. Y. Automatic trap-nest. No. 1,253,855; Jan. 15; v. 246; p. 765.

Marks, John C., Chicago, Ill. Flower-pot. No. 1,251,552; Jan. 1; v. 246; p. 31.

Marois, Henri, Lewiston, Me. Instrument for applying liquid finish to shoes. No. 1,253,408; Jan. 15; v. 246; p. 637.

Marqua, Edward C., H. Von Unwerth, and J. H. Byrd, Kansas City, Mo. Dome for concrete structures. No. 1,254,019; Jan. 29; v. 246; p. 1122.

Marquette, Melvon A., San Francisco, Cal. Tire-inflater. No. 1,253,856; Jan. 15; v. 246; p. 765.

Marquette, William V. B., Yonkers, N. Y. Hanger. No. 1,251,800; Jan. 1; v. 246; p. 108.

Marsey, Harry, *et al.* (See Hoppie, Charles W., assignor.)

Marsh, James H., New York, N. Y. Disinfecting apparatus. No. 1,254,337; Jan. 22; v. 246; p. 921.

Marshall, Henry, assignor of one-half to E. V. Grimes, New York, N. Y. Hand-rubber. No. 1,255,101; Jan. 29; v. 246; p. 1171.

Martel, Adelard F. (See Grohnert, Alfred F., assignor.)

Martin, Alberta, Portland, Me. Baby-swing. No. 1,252,133; Jan. 1; v. 246; p. 202.

Martin, David W., and R. F. Thompson, Schenectady, N. Y., assignors to General Electric Company. Electromagnet. No. 1,253,409; Jan. 15; v. 246; p. 638.

Martin, Haakon A., assignor to The National Cash Register Company, Dayton, Ohio. Ticket-printing register. No. 1,254,825; Jan. 29; v. 246; p. 1094.

Martin, Harold H., Seattle, Wash. Cost-filing device. No. 1,253,410; Jan. 15; v. 246; p. 638.

Martin, Joseph M. (See Farmes, Charles, assignor.)

Martin, Laurence C., Providence, R. I. Eyeglasses. No. 1,254,820; Jan. 29; v. 246; p. 1094.

Martin, Myron R., St. Louis Park, Minn. Grinding disk or bur. No. 1,251,905; Jan. 1; v. 246; p. 138.

Martin, Talbot G., Chicago, Ill., assignor, by mesne assignments, to Automatic Electric Co. Semi-automatic telephone trunking system. No. 1,253,703; Jan. 15; v. 246; p. 722.

Martin, Talbot G., Chicago, Ill., assignor, by mesne assignments, to Automatic Electric Company. Semi-automatic telephone system. No. 1,254,012; Jan. 15; v. 246; p. 808.

Martin, Thomas P., Jr., Oklahoma, Okla. Loose-leaf passbook. No. 1,254,052; Jan. 22; v. 246; p. 839.

Martin, William H., New York, N. Y., assignor to American Telephone and Telegraph Company. Signaling-circuit. No. 1,254,146; Jan. 22; v. 246; p. 867.

Martindale, Wallace A., Charleston, S. C. Poison-container. No. 1,254,616; Jan. 22; v. 246; p. 1001.

Martinson, Fred, Chinook, Mont. Seeder. No. 1,253,021; Jan. 15; v. 246; p. 697.

Martocci-Pisculli, Leon, New York, N. Y. Formaldehyde thermometer-holder. No. 1,253,857; Jan. 15; v. 246; p. 765.

Marvin, Frederick B., New York, N. Y. Traction-machine. No. 1,251,553; Jan. 1; v. 246; p. 32.

Marvin, Frederick B., New York, N. Y. Tree-surgery implement. No. 1,251,554; Jan. 1; v. 246; p. 32.

Maryland Metal Cross Tie Co. (See Brown, Augustus F., assignor.)

Mascord, George W., Barnes, London, England. Inking apparatus of printing-presses. No. 1,254,338; Jan. 22; v. 246; p. 921.

Mason, Archibald O., Detroit, Mich. Automatic sounding device. No. 1,255,034; Jan. 29; v. 246; p. 1152.

Mason, Charles T., Sumter, S. C., assignor to Splitdorf Electrical Company, Newark, N. J. Ignition-dynamo. No. 1,252,601; Jan. 8; v. 246; p. 370.

Mason, Joseph H., Prince Rupert, British Columbia, Canada. Apparatus for evaporating milk. No. 1,254,423; Jan. 22; v. 246; p. 946.

Mason, Joseph M. (See Hills and Mason.)

Mason, Lenox S., Birmingham, Ala. Tank-level recorder. No. 1,251,679; Jan. 1; v. 246; p. 71.

Masson, Henry N., New York, N. Y. Window-screen. No. 1,252,286; Jan. 1; v. 246; p. 245.

Masters, Arthur R., Beatrice, Nebr. Bed-spring. No. 1,253,858; Jan. 15; v. 246; p. 765.

Masterson, Harry C., Cle Elum, Wash. Rake. No. 1,252,134; Jan. 1; v. 246; p. 203.

Mathias, Berton M., Minneapolis, Minn. Rod-splicing clamp. No. 1,252,711; Jan. 8; v. 246; p. 401.

Mathias, Berton M., Minneapolis, Minn. Freight-car-floor construction. No. 1,254,920; Jan. 29; v. 246; p. 1122.

Mathias, Frank J., Fremont, Ohio. Spark-plug. No. 1,253,072; Jan. 8; v. 246; p. 508.

Matter, Oskar, Troisdorf, assignor, by mesne assignments, to The Vereinigte Koln-Rottweiler Pulverfabriken, Berlin, Germany. Initial igniter. No. 1,254,147; Jan. 22; v. 246; p. 867.

Matteson, Charles E., and C. W. Bailey, Maud, Okla. Dirigible headlight. No. 1,254,053; Jan. 22; v. 246; p. 889.

Matthies, William H., Hackensack, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y. Indicating system. No. 1,254,254; Jan. 22; v. 246; p. 897.

Mavrakis, Petrea G., Cleveland, Ohio. Portable commode. No. 1,254,255; Jan. 22; v. 246; p. 897.

Maxted, Edward B., Walsall, England. Manufacture of pure hydrogen. No. 1,253,622; Jan. 15; v. 246; p. 697.

Maxwell, George S., assignor to A. R. Serven, trustee, Washington, D. C. Internal-combustion engine. No. 1,253,623; Jan. 15; v. 246; p. 697.

May, Valentine H. (See Goodwin, Willis N., assignor.)

Mayer Brothers Company. (See Mayer and Bye, assignors.)

Mayer, Charles P., Elisabeth, N. J., assignor to Rotary Meter Company. Lubrication system for rotary meters. No. 1,254,054; Jan. 22; v. 246; p. 840.

Mayer, George W. (See Anderson, Tom M., Jr., assignor.)

Mayer, Lorenz L. (See Mayer and Bye.)

Mayer, Louis, and E. A. Bye, assignors to Mayer Brothers Company, Mankato, Minn. Tractor. No. 1,252,356; Jan. 1; v. 246; p. 263.

Mayer, Louis and L. L., and E. A. Bye, assignors to Mayer Brothers Company, Mankato, Minn. Axle-mount for tractors. No. 1,253,073; Jan. 8; v. 246; p. 508.

Maynard, Arthur H., Warwick, R. I., assignor to Boston Wire Stitcher Company, Augusta, Me. Wire-stitching machine. No. 1,252,011; Jan. 1; v. 246; p. 167.

McBride, Ira W., and O. H. Shade, Brooklyn, N. Y. Gasolene-indicator. No. 1,252,912; Jan. 8; v. 246; p. 457.

McCaffray, Edmund, Mount Washington, assignor to H. Cassard, Baltimore, Md. Screw-bushing for fastening boxes. No. 1,251,676; Jan. 1; v. 246; p. 71.

McCaleb, Robert C., Chicago, Ill. Centrifugal washing and drying machine. No. 1,253,403; Jan. 15; v. 246; p. 636.

McCallum, Ingersoll W., Cambridge, Mass. Cultivator. No. 1,252,128; Jan. 1; v. 246; p. 201.

McCanna, Benjamin T., and F. C. Heinen, assignors of one-half to N. F. Leopold, Chicago, Ill. Internal-combustion engine. No. 1,251,793; Jan. 1; v. 246; p. 105.

McCart, Henry E., Delhi, La. Spring-wheel. No. 1,253,066; Jan. 8; v. 246; p. 506.

McCarty, Harry C., Williamsport, Pa. Dust-guard for journal-boxes. No. 1,252,708; Jan. 8; v. 246; p. 400.

McCaskey Register Company, The. (See Hick, Harry J., assignor.)

McClain, Allen, Xenia, Ohio. Casket-trimming truck. No. 1,252,276; Jan. 1; v. 246; p. 241.

McClellan, Benjamin S., Chicago, Ill. Refrigerating apparatus, and oil separator and condenser mechanism therefor. No. 1,254,518; Jan. 22; v. 246; p. 972.

McClellan, Benjamin S., Chicago, Ill. Refrigerating apparatus. No. 1,254,519; Jan. 22; v. 246; p. 973.

McClellan, Edward J., New York, N. Y., assignor to The Garvin Machine Company. Swivel-jaw spindle and chuck. No. 1,251,986; Jan. 1; v. 246; p. 160.

McClintic-Marshall Company. (See Vasdahl, Hans, assignor.)

McCloskey, George W., *et al.* (See Pearson, John R., assignor.)

McCollough, William A., Webster City, Iowa. Hopper for feeding-troughs. No. 1,252,594; Jan. 8; v. 246; p. 367.

McCombs, Charles C., Frisco, Tex. Combined marking pot and brush. No. 1,254,714; Jan. 29; v. 246; p. 1059.

McConnell, Bertram S., Lakewood, Ohio. Expansion-joint. No. 1,252,912; Jan. 8; v. 246; p. 457.

McCord, Charles D., and J. L. Carlson, Edenburg, Pa. Shade-hanger. No. 1,253,699; Jan. 15; v. 246; p. 721.

McCourt, Cyril D. (See Bone, Wilson and McCourt.)

McCoy, James P. A., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Condensation product and method of producing the same. No. 1,253,261; Jan. 15; v. 246; p. 592.

McCoy, James P. A., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Phenolic condensation product. No. 1,253,262; Jan. 15; v. 246; p. 592.

McCoy, James P. A., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Preparing phenolic condensation products. No. 1,253,404; Jan. 15; v. 246; p. 636.

McCrae, Charles L., Tucumcari, N. Mex. Steam-boiler regulator. No. 1,253,999; Jan. 15; v. 246; p. 801.

McCready, Charles T., Onley, Va. Vine-cutter. No. 1,252,914; Jan. 8; v. 246; p. 458.

McCredie, Reid J., Buffalo, N. Y. Shoe-polishing cabinet. No. 1,254,821; Jan. 29; v. 246; p. 1092.

McCrone, John W., Muldoon, Tex. Lamp-burner. No. 1,252,709; Jan. 8; v. 246; p. 400.

McCue, Leo, assignor of one-fifth to F. L. Harwood, one-fifth to E. W. Albertson, one-fifth to J. H. Gilson, and one-fifth to N. M. Whipple, Chicago, Ill. Drier for sensitised plates. No. 1,253,900; Jan. 15; v. 246; p. 801.

McCulloch, John A., McKeesport, assignor to National Tube Company, Pittsburgh, Pa. Pipe-joint. No. 1,251,901; Jan. 1; v. 246; p. 136.

McCullough, William D., Detroit, Mich. Cushion-seat. No. 1,254,333; Jan. 22; v. 246; p. 920.

McDaniel, Thomas J. (See Bounds and McDaniel.)

McDermott, Franklin P., Jr., and W. O. Kennington, Anderson, Ind., assignors, by mesne assignments, to Eclipse Machine Company, Elmira, N. Y. Gearing. No. 1,253,263; Jan. 15; v. 246; p. 592.

McDonagh, William J., Concord, New South Wales, Australia. Neckwear attachment device. No. 1,251,794; Jan. 1; v. 246; p. 106.

McDonald, Alexander Y., and D. Sullivan, Glace Bay, Nova Scotia, Canada. Table-dish. No. 1,251,549; Jan. 1; v. 246; p. 31.

McDonald, Charles D., Chicago, Ill. Appliance for die-presses or the like. No. 1,252,277; Jan. 1; v. 246; p. 241.

McDonald, Charles D., Chicago, Ill. Attachment for the feed-bars of die-presses or the like. No. 1,252,278; Jan. 1; v. 246; p. 242.

McDonald, Charles D., Chicago, Ill. Work-separating means. No. 1,252,279; Jan. 1; v. 246; p. 242.

McDonald, Charles D., Chicago, Ill. Suction-cup. No. 1,252,280; Jan. 1; v. 246; p. 242.

McDonald, John I., St. Joseph, Mo. Templet for the manufacture of cuffs. No. 1,251,677; Jan. 1; v. 246; p. 71.

McDonnell, Raymond R., Chicago, Ill. Automobile-wheel auxiliary bearing. No. 1,254,420; Jan. 22; v. 246; p. 944.

McDonnell, William E. (See Kirstein and McDonnell.)

McDonough, A. W. (See McRoberts, James, assignor.)

McDowell, Clara A., Redondo Beach, Cal. Ironing-board lace. No. 1,254,614; Jan. 22; v. 246; p. 1001.

McDowell, Ira J., *et al.* (See Blakeslee, Clyde W., assignor.)

McElroy, Karl P., Washington, D. C. Laboratory apparatus. No. 1,254,048; Jan. 22; v. 246; p. 838.

McElroy, Karl P., assignor to Chemical Development Company, Washington, D. C. Manufacture of chlorhydrins. No. 1,253,615; Jan. 15; v. 246; p. 695.

McElroy, Karl P., assignor to Chemical Development Company, Washington, D. C. Making chlorhydrins. No. 1,253,616; Jan. 15; v. 246; p. 695.

McElroy, Karl P., Washington, D. C., assignor to Chemical Development Company. Process of and apparatus for oxidizing hydrocarbons. No. 1,253,617; Jan. 15; v. 246; p. 695.

McElroy, Roy H., assignor to The International Clay Machinery Co., Dayton, Ohio. Compartment-kiln. No. 1,254,421; Jan. 22; v. 246; p. 945.

McEwen, Willard M., Chicago, Ill. Control mechanism for electric fans. No. 1,252,595; Jan. 8; v. 246; p. 368.

McFall, Patrick W., assignor of one-half to E. Butler, Madison, Ark. Colter-fastener. No. 1,252,915; Jan. 8; v. 246; p. 458.

McFarland, Charles M., *et al.* (See Watkins, Thomas C., assignor.)

McFarland, Clarence T., Boston, Mass. Building construction. No. 1,254,249; Jan. 22; v. 246; p. 895.

McFarland, Frank J., Portland, Oreg. Automobile-locking means. No. 1,251,987; Jan. 1; v. 246; p. 161.

McFarlane, Arthur R., Minneapolis, Minn. Scale. No. 1,252,916; Jan. 8; v. 246; p. 458.

McFarlane, Charles W. (See Payne and McFarlane.)

McFeely, Ronald F., Beverly, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Lasting-machine. No. 1,254,917; Jan. 29; v. 246; p. 1121.

McGahan, George A., Cincinnati, Ohio, assignor of one-fifth to W. M. Catron and one-fifth to C. I. Ross and J. S. Cooper, Somerset, Ky. Poultry-coop. No. 1,253,067; Jan. 8; v. 246; p. 506.

McGinley, Frederick D., Pleasant Beach, and J. J. Michels, Syracuse, N. Y. Automatic signal for railway-crossings. No. 1,254,250; Jan. 22; v. 246; p. 895.

McGrath, Maurice K., assignor to Western Electric Company, Incorporated, New York, N. Y. Selector-switch. No. 1,251,795; Jan. 1; v. 246; p. 106.

McGraw, Edwin, Milton, Ind. Detachable door extension. No. 1,253,618; Jan. 15; v. 246; p. 696.

McGregor, Henry A., and N. Ketcham, Bakersfield, Cal. Piston. No. 1,252,281; Jan. 1; v. 246; p. 243.

McHugh, Francis M. (See Griffin and McHugh.)

McIntosh, David W. (See Smith, Harry C., assignor.)

McIntyre, Elmer E., Pittsburgh, Pa. Steering-knuckle for automobiles or motor-vehicles. No. 1,252,282; Jan. 1; v. 246; p. 243.

McIntyre, Michael M., assignor, by mesne assignments, to The Standard Parts Company, Cleveland, Ohio. Plate-bending machine. No. 1,251,878; Jan. 1; v. 246; p. 71.

McKay, Betta L., Newburgh, N. Y. Renovator and dust-collector. No. 1,253,264; Jan. 15; v. 246; p. 592.

McKay, Tessa, *et al.* (See Arbuthnot, George D., assignor.)

McKean, John O., assignor to Foster Machine Company, Westfield, Mass. Tension mechanism for winding-machines. No. 1,254,049; Jan. 22; v. 246; p. 838.

McKee, Robert B., Des Moines, Iowa. Sanitary collapsible fruit-box. No. 1,251,796; Jan. 1; v. 246; p. 106.

McKeever, Charles, Jersey City, N. J. Vehicle-lamp. No. 1,252,917; Jan. 8; v. 246; p. 458.
McKeever, Charles, Jersey City, N. J. Vehicle-lamp. No. 1,253,848; Jan. 15; v. 246; p. 763.
McKenzie, George, Everett, Wash. Machine for molding sections of conduit-pipe. No. 1,254,615; Jan. 22; v. 246; p. 1001.
McKeown, Samuel C., assignor to Splitdorf Electrical Company, Newark, N. J. Brush for electrical apparatus. No. 1,253,265; Jan. 15; v. 246; p. 593.
McLachlan, John C., Toronto, Ontario, Canada. Shell-turning machine. No. 1,252,129; Jan. 1; v. 246; p. 201.
McLane, John J., Boston, Mass. Demountable split-rim tool. No. 1,251,902; Jan. 1; v. 246; p. 137.
McLaughlin, John C., East Orange, N. J. Universal golf-club. No. 1,253,700; Jan. 15; v. 246; p. 721.
McLaughlin, John F., Jamaica Plain, Mass. Making shoes. No. 1,252,283; Jan. 1; v. 246; p. 244.
McLeod, Malcolm J., *et al.* (See Miller, William G., assignor.)
McLeskey, James M., Memphis, Tenn. Shade-hanger. No. 1,252,130; Jan. 1; v. 246; p. 201.
McMillan, Levi, Wilmington, N. C. Tread portion for shoes. No. 1,253,701; Jan. 15; v. 246; p. 721.
McMillan, Levi, Wilmington, N. C. Printing and addressing machine. No. 1,255,032; Jan. 29; v. 246; p. 1152.
McMillin, Oliver B., assignor, by mesne assignments, to Pittsburgh Rolls Corporation, Pittsburgh, Pa. Alloy of iron. No. 1,252,596; Jan. 8; v. 246; p. 368.
McMyler Interstate Company, The. (See McMyler, John, assignor.)
McMyler, John, assignor to The McMyler Interstate Company, Cleveland, Ohio. Car-tilting apparatus. No. 1,253,068; Jan. 8; v. 246; p. 507.
McNaught, Harry W., Indianapolis, Ind. Display apparatus. No. 1,252,597; Jan. 8; v. 246; p. 368.
McNeil, Daniel W., assignor to The John Douglas Company, Cincinnati, Ohio. Machine for molding ceramics. No. 1,253,405; Jan. 15; v. 246; p. 637.
McNeil, John, assignor to The John Douglas Company, Cincinnati, Ohio. Drain-coupling for porcelain troughs. No. 1,253,406; Jan. 15; v. 246; p. 637.
McNevin, Alfred D., Detroit, Mich. Compass-compensating device. No. 1,253,849; Jan. 15; v. 246; p. 763.
McNicholas, John J., assignor to Notaseme Hosiery Company, Philadelphia. Picture-frame. No. 1,252,918; Jan. 8; v. 246; p. 459.
McNulty, John J. (See Gray and McNulty.)
McNutt Can Sales Co. (See McNutt, William H., assignor.)
McNutt, William H., assignor to McNutt Can Sales Co., New York, N. Y. Safety-casing for oil or gas heaters. No. 1,255,033; Jan. 29; v. 246; p. 1152.
McPherson, Elmer T., assignor to The Irwin Auger Bit Company, Wilmington, Ohio. Making shanks for boring-tools. No. 1,254,715; Jan. 29; v. 246; p. 1060.
McPherson, James L., Pittsburgh, Pa. Necktie holder and presser. No. 1,253,702; Jan. 15; v. 246; p. 721.
McQuarrie, James L., Montclair, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y. Electrical signaling system. No. 1,251,797; Jan. 1; v. 246; p. 107.
McQuarrie, James L., Montclair, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y. Automatic selective switch. No. 1,251,988; Jan. 1; v. 246; p. 161.
McQuarrie, James L., Montclair, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y. Electric switch. No. 1,252,465; Jan. 8; v. 246; p. 330.
McQuarrie, James L., Montclair, N. J., and C. L. Goodrum, assignors to Western Electric Company, Incorporated, New York, N. Y. Machine-switching telephone system. No. 1,252,466; Jan. 8; v. 246; p. 331.
McQuay-Norris Manufacturing Company. (See Mummert, Arden J., assignor.)
McQueen, Clarence A., Rushville, Mo., assignor of one-third to E. Kramer and one-third to H. Lange, Grant Park, Ill. Transplanter. No. 1,252,467; Jan. 8; v. 246; p. 331.
McQueen, Ulysses G., New York, N. Y. Hinge. No. 1,255,100; Jan. 29; v. 246; p. 1171.
McQuire, David F. and K. D., Hornchurch, England. Sound recording and reproducing machine. No. 1,254,830; Jan. 22; v. 247; p. 919.
McQuire, Kenneth D. (See McQuire, David F. and K. D.)
McRoberts, James, assignor of one-third to A. W. McDonough, What Cheer, Iowa. Wire clothes-pin. No. 1,255,118; Jan. 29; v. 247; p. 1176.
McTaggart, Malcolm. (See Papini, Anthony, assignor.)
Meacham, John H., Rochester, N. H., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Shoe-support. No. 1,253,624; Jan. 15; v. 246; p. 698.
Mead Cycle Company. (See Lewis, George S., assignor.)
Measuregraph Company. (See Hosch, Walter E., assignor.)
Mechano Gear Shift Co. (See Richardson, Bayard E., assignor.)
Meengs, Henry J., Vriesland, Mich. Air-supply tank. No. 1,254,921; Jan. 29; v. 246; p. 1123.
Meese, Louis F. W., Minneapolis, Minn. Advertising-displaying machine. No. 1,251,555; Jan. 1; v. 246; p. 32.
Megrdis Company. (See Menden, William S., assignor.)
Meier, Fredrich H., Marshalltown, Iowa. Sectional-block pile. No. 1,252,612; Jan. 1; v. 246; p. 168.
Meier, William, Jersey City, N. J. Feed-bag support. No. 1,252,602; Jan. 8; v. 246; p. 370.
Meigs, Curtis C., assignor to Electro-Chemical Supply & Engineering Company, Philadelphia, Pa. Manufacture of acid and waterproof cement. No. 1,252,013; Jan. 1; v. 246; p. 168.
Meiselbach, August D., Chicago, Ill. Vehicle-support. No. 1,252,135; Jan. 1; v. 246; p. 203.
Meissner, George R., Albia, assignor to L. R. West, Osceola, Iowa. Cigar-holder. No. 1,252,857; Jan. 1; v. 246; p. 263.
Meister, Alfred A., J. W. Surles, and E. F. Boyle, Houston, Tex. Locomotive drifting-valve. No. 1,253,074; Jan. 8; v. 246; p. 508.
Melcher, Irving, Minneapolis, Minn. Grain-tight closure for box-cars. No. 1,252,603; Jan. 8; v. 246; p. 370.
Melchior, Felix M. A. A., assignor to Société Anonyme des Combustibles Industriels, Paris, France. Apparatus for treating or distilling hydrocarbons or liquids likely to form emulsions. No. 1,253,411; Jan. 15; v. 246; p. 638.
Melling, Herman W., Jackson, Mich. Demountable rim. No. 1,252,470; Jan. 8; v. 246; p. 332.
Meiniker, Abraham, Brooklyn, N. Y. Collapsible cradle. No. 1,252,824; Jan. 8; v. 246; p. 433.
Melton, William, Jr., Neola, Iowa. Air-inlet device. No. 1,253,266; Jan. 15; v. 246; p. 593.
Menden, William S., Brooklyn, N. Y., assignor to Megosin Company, Inc. Automatic device for controlling the signal-lights of vehicles. No. 1,252,825; Jan. 8; v. 246; p. 433.
Mennie, Robert S., and E. Wanamaker, assignors of one-third to W. J. Tollerton, Chicago, Ill. Lubricating system for journal-boxes. No. 1,254,424; Jan. 22; v. 246; p. 946.
Mente, William H. (See Steele, John G., assignor.)
Mercury Manufacturing Company. (See Bulley, George W., assignor.)
Merendino, Giuseppe, New York, N. Y. Tool for resoling shoes. No. 1,253,704; Jan. 15; v. 246; p. 722.
Mergenthaler Linotype Company. (See Röger, Karl, assignor.)
Merrill, John C., San Martin, Cal. Pump. No. 1,254,522; Jan. 22; v. 246; p. 974.
Merrill Process Company. (See Merrill, Willis C., assignor.)
Merrill, Willis C., Boston, Mass. Apparatus for heating and applying asphaltic or bituminous materials. No. 1,252,376; Jan. 1; v. 246; p. 269.
Merrill, Willis C., assignor, by mesne assignments, to Merrill Process Company, Boston, Mass. Oil-tank. No. 1,251,801; Jan. 1; v. 246; p. 108.
Merriman, Eddie E., *et al.* (See Beery, Samuel M., assignor.)
Merriman, Tilford A., *et al.* (See Beery, Samuel M., assignor.)
Merritt, Arthur A., Worcester, Mass., assignor to Willcox & Gibbs Sewing Machine Co., New York, N. Y. Sewing-machine. No. 1,253,507; Jan. 15; v. 246; p. 665.
Merritt, Charles E. (See Baier and Merritt.)
Merritt, Charles H., Birmingham, Ala. Railway cattle-guard. No. 1,254,922; Jan. 29; v. 246; p. 1123.
Mertz, Harry, Baltimore, Md., assignor to Brigham-Hopkins Co. Air-cushion sweat-band. No. 1,253,859; Jan. 15; v. 246; p. 766.
Messinger, Eugene, Marshalltown, Iowa. Collapsible receptacle. No. 1,252,712; Jan. 8; v. 246; p. 401.
Messiter, Edwin H., Brooklyn, assignor to Electric Weighing Company, New York, N. Y. Compensator for automatic weighing-machines. No. 1,251,680; Jan. 1; v. 246; p. 72.
Messiter, Edwin H., Brooklyn, assignor to Electric Weighing Company, New York, N. Y. Vibratory actuator. No. 1,251,681; Jan. 1; v. 246; p. 72.
Messiter, Edwin H., Brooklyn, N. Y. Vibratory actuator. No. 1,252,826; Jan. 8; v. 246; p. 433.
Metal Office Furniture Company. (See Wege, Peter M., assignor.)
Metal Specialty Company, The. (See Schoell, Eugene F., assignor.)
Metals Recovery Company. (See Callow, John M., assignor.)
Metz, George F. (See Schreurs and Metz.)
Metzger, Joseph, Brooklyn, N. Y. Portable tool. No. 1,253,705; Jan. 15; v. 246; p. 722.
Meurling, Ivar, Brooklyn, assignor to Empire Duplex Gin Company, New York, N. Y. Doffer-machine. No. 1,254,148; Jan. 22; v. 246; p. 868.
Meyer, Frederick. (See Adams and Meyer.)
Meyer, Friedrich W., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Rectifying system. No. 1,253,267; Jan. 15; v. 246; p. 593.
Meyer, Richard E., Detroit, Mich. Explosive-engine. No. 1,252,471; Jan. 8; v. 246; p. 332.
Meyer, William C. Beverly, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Sole-leveling machine. No. 1,254,256; Jan. 22; v. 246; p. 897.
Michels, Joseph J. (See McGinley and Michels.)
Middleditch, Lyman, New York, N. Y. Sheet-registering mechanism. No. 1,252,604; Jan. 8; v. 246; p. 371.
Midgley, Albert H., assignor of one-half to C. A. Vandervell and Company Limited, Acton Vale, England. Electric starter for internal-combustion engines. No. 1,254,923; Jan. 29; v. 246; p. 1123.

Midgley, Thomas, Lancaster, Ohio, assignor to Morgan & Wright. Tire-building machine. No. 1,254,827; Jan. 29; v. 246; p. 1004.
Miesner, Martin D., Altenburg, Mo. Combined table and bed. No. 1,252,713; Jan. 8; v. 246; p. 402.
Miffin, Benjamin F., Trenton, N. J. Display-cabinet. No. 1,252,287; Jan. 1; v. 246; p. 245.
Miles, Casper W., Anderson township, Hamilton county, Ohio. Method and apparatus for ventilating and refrigerating. No. 1,252,472; Jan. 8; v. 246; p. 382.
Millar, Charles R. (See Luke and Millar.)
Millar, David, St. Louis, Mo. Tire. No. 1,252,921; Jan. 8; v. 246; p. 459.
Miller, Albert E. (See Alley and Miller.)
Miller, Albert F. (See Peters, Fath, and Miller.)
Miller, B. S. (See Allen, Jesse H., assignor.)
Miller, Charles G., Lee, Mass. Artificial Christmas tree. No. 1,252,922; Jan. 8; v. 246; p. 460.
Miller, Charles T., Macon, Ga. Flushing-valve. No. 1,251,802; Jan. 1; v. 246; p. 108.
Miller, Charles T., Macon, Ga. Intermittently-operated flush-tank valve. No. 1,251,803; Jan. 1; v. 246; p. 109.
Miller, Charles T., Macon, Ga. Actuating device for automatic flush-tank valves. No. 1,251,804; Jan. 1; v. 246; p. 109.
Miller, Christian, New York, N. Y., assignor to Edwards & Co. Door-releaser. No. 1,251,682; Jan. 1; v. 246; p. 72.
Miller, Daniel D., assignor to Western Electric Company, Incorporated, New York, N. Y. Testing device. No. 1,251,556; Jan. 1; v. 246; p. 33.
Miller, Ellen. (See Miller, Joseph P., assignor.)
Miller, Frank L. (See Barker and Miller.)
Miller, Gustave L., Geneseo, Ill. Corn-husker. No. 1,253,508; Jan. 15; v. 246; p. 665.
Miller, Harley N., assignor to N. Weigler, Cleveland, Ohio. Sign-display apparatus. No. 1,254,924; Jan. 29; v. 246; p. 1123.
Miller, Henry C., Waterford, N. Y. Sound-box. No. 1,254,425; Jan. 22; v. 246; p. 946.
Miller, Herbert G. (See King and Miller.)
Miller, Herman F., Wittenberg, Wis. Wagon-stake. No. 1,253,412; Jan. 15; v. 246; p. 639.
Miller, Isaac N., Mount Vernon, Ill. Sanitary cuspidor. No. 1,251,805; Jan. 1; v. 246; p. 110.
Miller, Jacob E., and T. J. Fox, Coon Rapids, Iowa; said Miller assignor to said Fox. Disk garden-plow. No. 1,253,860; Jan. 15; v. 246; p. 766.
Miller, John F., Trail, British Columbia, Canada. Machine for casting lead pigs. No. 1,255,102; Jan. 29; v. 246; p. 1171.
Miller, John F., Trail, British Columbia, Canada. Lead-supply system for pig-casting machines. No. 1,255,103; Jan. 29; v. 246; p. 1171.
Miller, John H. K., Wandsworth, London, England. Device for augmenting the heating of liquids in kettles and other vessels. No. 1,254,523; Jan. 22; v. 246; p. 974.
Miller, John J., Buffalo, N. Y., assignor to F. N. Burt Company, Limited, Toronto, Canada. Box-assembling machine. No. 1,252,014; Jan. 1; v. 246; p. 168.
Miller, Joseph P., assignor of one-half to E. Miller, Philadelphia, Pa. Automobile safety-box. No. 1,251,806; Jan. 1; v. 246; p. 110.
Miller, Louis G., and E. C. Long, Westmont borough, Pa. Reinforcing and hinge plate for cars. No. 1,251,683; Jan. 1; v. 246; p. 73.
Miller, Louis G., and E. C. Long, Westmont borough, Pa. Combined reinforcing-plate and hinge for car-doors. No. 1,254,257; Jan. 22; v. 246; p. 898.
Miller, Nils, Portland, Oreg., assignor, by mesne assignments, to Portland Industrial Company. Door-hanger. No. 1,253,509; Jan. 15; v. 246; p. 665.
Miller, Robert E., New York, N. Y. Sliding caster for furniture. No. 1,252,827; Jan. 8; v. 246; p. 433.
Miller, Thomas H. (See Sanford, Miller, and Torrey.)
Miller, Thomas S., South Orange, N. J. Load hoisting and transfer apparatus. No. 1,252,474; Jan. 8; v. 246; p. 333.
Miller, Thomas S., South Orange, N. J., and L. G. Ruggles, New York, N. Y., assignors of one-half to Lidgerwood Manufacturing Company. Hoisting-engine. No. 1,252,473; Jan. 8; v. 246; p. 333.
Miller, Thomas W., assignor to The Faultless Rubber Company, Ashland, Ohio. Ear-cushion. No. 1,254,629; Jan. 22; v. 246; p. 1005.
Miller Train Control Corporation, The. (See Murray, William B., assignor.)
Miller, Victor, St. Paul, Minn. Gate. No. 1,253,510; Jan. 15; v. 246; p. 666.
Miller, Volney T., assignor of one-half to R. B. Cochran, Hutchinson, Kans. Attachment for telephones. No. 1,253,861; Jan. 15; v. 246; p. 766.
Miller, William A., St. Louis, Mo. Guard for pocket-books. No. 1,254,426; Jan. 22; v. 246; p. 946.
Miller, William G. Toronto, Ontario, Canada, assignor of one-third to M. J. McLeod and one-third to W. J. Houston, Detroit, Mich. Controlling mechanism for roller fire-shutters. No. 1,254,149; Jan. 22; v. 246; p. 868.
Mills, Herbert S. (See Sandell, Henry K., assignor.)
Milnor, Joseph W., assignor to The Western Union Telegraph Company, New York, N. Y. Method of and means for compensating for disturbances of earth potential. No. 1,254,828; Jan. 29; v. 246; p. 1095.
Milnor, Joseph W., assignor to The Western Union Telegraph Company, New York, N. Y. Means for compensating for disturbances of earth potential. No. 1,254,829; Jan. 29; v. 246; p. 1095.
Milnor, Joseph W., assignor to The Western Union Telegraph Company, New York, N. Y. Means for compensating for disturbances of earth potential. No. 1,254,830; Jan. 29; v. 246; p. 1096.
Milnor, Joseph W., assignor to The Western Union Telegraph Company, New York, N. Y. Methods of and means for correcting for alternating-current electromagnetic induction and for alternating-current earth potential. No. 1,254,831; Jan. 29; v. 246; p. 1096.
Miner, John C., Security, Tex. Self-cleaning harrow and cultivator. No. 1,255,035; Jan. 29; v. 246; p. 1152.
Miner, Newton E., Grand Rapids, Mich. Railway-tie. No. 1,253,862; Jan. 15; v. 246; p. 766.
Miner, William H. (See O'Connor, John F., assignor.)
Miner, William H., Chazy, N. Y. Roller side bearing. No. 1,252,858; Jan. 1; v. 246; p. 263.
Miner, William H., Chazy, N. Y. Friction draft-gear for railway-cars. No. 1,252,859; Jan. 1; v. 246; p. 263.
Mineral Products Corporation. (See Hagedorn, Carl F., assignor.)
Mineral Refining and Chemical Corporation. (See Llopart, Ramón E., assignor.)
Mink, Benjamin L., Philadelphia, Pa. Flagstaff. No. 1,254,524; Jan. 22; v. 246; p. 974.
Minkler, George M., Spokane, Wash. Gold-recovery device. No. 1,254,718; Jan. 29; v. 246; p. 1060.
Minneapolis Heat Regulator Company. (See Denison, Frederick S., assignor.)
Minnick, William F., Cleveland, Ohio. Piston. No. 1,255,036; Jan. 29; v. 246; p. 1153.
Missouri Lamp and Manufacturing Company. (See Seim, August, assignor.)
Mitchell, Arthur, Chicago, Ill., assignor to Mitchell-Bennett Company. Grindstone attachment for meat-choppers. No. 1,255,104; Jan. 29; v. 246; p. 1172.
Mitchell-Bennett Company. (See Mitchell, Arthur, assignor.)
Mitchell, Clarence C., Cincinnati, Ohio. Laundry-marking machine. No. 1,253,863; Jan. 15; v. 246; p. 767.
Mitchell, Georgia E., Alma, Mich. Button-attaching device. No. 1,254,055; Jan. 22; v. 246; p. 840.
Mitchell, John E., St. Louis, Mo. Machine for cutting pieced lifts and for building logs or heel-blanks therefrom. No. 1,252,136; Jan. 1; v. 246; p. 203.
Mitchell, John E., and D. Parks, St. Louis, Mo. Log-cutting machine. No. 1,252,137; Jan. 1; v. 246; p. 204.
Mitchell, John, and A. Binns, Keighley, England. Power-hammer, stamping-machine, and the like. No. 1,254,832; Jan. 29; v. 246; p. 1096.
Mittendorf, Frederick W., Addieville, Ill. Graining-tool. No. 1,253,268; Jan. 15; v. 246; p. 593.
Mittinger, George E., Youngstown, Ohio. Band-anchor for tank-cars. No. 1,254,525; Jan. 22; v. 246; p. 975.
Miura, Takaji, Los Angeles, Cal. Automobile turn-table. No. 1,253,864; Jan. 15; v. 246; p. 767.
Mobile Steel Company. (See Evans, Paul S., assignor.)
Moeller, William J., Wyoming, assignor to The Philip Carey Manufacturing Company, Lockland, Ohio. Bag. No. 1,253,269; Jan. 15; v. 246; p. 594.
Moench, Frederick, Rushville, Ill. Check-row planter. No. 1,252,923; Jan. 8; v. 246; p. 460.
Moffatt, James R., assignor to Union Special Machine Company, Chicago, Ill. Needle-operating mechanism for sewing-machines. No. 1,252,015; Jan. 1; v. 246; p. 169.
Moffatt, James R., assignor to Union Special Machine Company, Chicago, Ill. Trimming mechanism for sewing-machines. No. 1,253,865; Jan. 15; v. 246; p. 767.
Moler, Jacob C., Mulberry, Kans. Coal-drill-socket-retaining apparatus. No. 1,253,511; Jan. 15; v. 246; p. 666.
Moline Plow Company. (See Dickinson, Harry S., assignor.)
Moline Plow Company. (See Trolley, Isaac, assignor.)
Monahan, Charles W., Pittsburgh, Pa. Signal. No. 1,252,288; Jan. 1; v. 246; p. 245.
Monarch Tool & Machinery Company. (See Hardin, Jacques J., assignor.)
Mongan, John P., Minneapolis, assignor of one-half to G. H. Schindeldecker, Jr., St. Paul, Minn. Piston-ring. No. 1,251,807; Jan. 1; v. 246; p. 110.
Monorail Company of America. (See English, Peter, assignor.)
Monroe Calculating Machine Company. (See Phinney, Edgar E., assignor.)
Montgomery, Edward F., and R. B. Burnham, assignors of seventy one-hundredths to said Burnham, fifteen one-hundredths to J. F. Westbrook, Burkeville, and fifteen one-hundredths to S. H. Westbrook, Farrsville, Tex. Power-transmitting device. No. 1,254,617; Jan. 22; v. 246; p. 1002.
Montgomery, James E., assignor of one-third to W. Jennings, Lancaster, Ky. Wheel-rim. No. 1,253,866; Jan. 15; v. 246; p. 767.
Montgomery, Theodore D., East Orange, N. J., and L. C. Schantz, assignors to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Welding-controller. No. 1,253,196; Jan. 8; v. 246; p. 544.
Moody, Herman, and J. H. Blackman, Peoria, Ill. Valve-lifter. No. 1,253,270; Jan. 15; v. 246; p. 594.

Moon-Hopkins Billing Machine Company. (See Thieme, Otto, assignor.)
Moon, William B., Jacksonville, and F. M. Grissom, Troup, Tex. Fender for plows. No. 1,254,618; Jan. 22; v. 246; p. 1002.
Moor, William C., Fort Worth, Tex., assignor to Armour and Company, Chicago, Ill. Activated-sludge treatment. No. 1,254,833; Jan. 29; v. 246; p. 1097.
Moore, Alice, and F. J. A. King, Vancouver, British Columbia, Canada. Composition of matter to facilitate the whipping of cream. No. 1,253,706; Jan. 15; v. 246; p. 723.
Moore, Arlington, Newark, N. J. Paper receptacle. No. 1,252,828; Jan. 8; v. 246; p. 434.
Moore, Charles F., West Roxbury, assignor, by mesne assignments, to A. Giesberg, Boston, Mass. Marine motor. No. 1,252,860; Jan. 1; v. 246; p. 264.
Moore, David H., Oklahoma, Okla. Vehicle-tire. No. 1,253,271; Jan. 15; v. 246; p. 594.
Moore, Edward, Cumberland, Md. Saw-set. No. 1,254,427; Jan. 22; v. 246; p. 947.
Moore, Frederick H., Melrose, Mass. Paper-package. No. 1,252,138; Jan. 1; v. 246; p. 204.
Moore, Philip W., Evanston, assignor to The P & M Company, Chicago, Ill. Rail-anchor. No. 1,254,258; Jan. 22; v. 246; p. 898.
Moore, William C., Lakewood, Ohio, assignor, by mesne assignments, to National Carbon Company, Inc. Making metal powder. No. 1,254,056; Jan. 22; v. 246; p. 840.
Moore, William J. P., New York, N. Y. Driving mechanism. No. 1,251,557; Jan. 1; v. 246; p. 35.
Moore, William J. P., New York, N. Y. Control mechanism for automobiles and other vehicles and machines. No. 1,254,057; Jan. 22; v. 246; p. 840.
Moore, William N., Washington, D. C., assignor to American Optical Company, Southbridge, Mass. Eyeglasses. No. 1,252,139; Jan. 1; v. 246; p. 204.
Morand, Leo J., *et al.* (See Dean, Clyde T., assignor.)
Moratta, Mathew, Princeton, Ind. Piston packing-ring. No. 1,251,906; Jan. 1; v. 246; p. 138.
Mordaunt, Harry G., Salt Lake City, Utah. Camera. No. 1,253,077; Jan. 8; v. 246; p. 509.
Mordaunt, Harry G., Salt Lake City, Utah. Film-winding device for cameras. No. 1,253,078; Jan. 8; v. 246; p. 510.
Mordaunt, Harry G., Salt Lake City, Utah. Camera. No. 1,253,079; Jan. 8; v. 246; p. 510.
Mordaunt, Harry G., Salt Lake City, Utah, assignor of one-half to Little Giant Manufacturing & Sales Company, Omaha, Nebr. Film-signal for cameras. No. 1,253,075; Jan. 8; v. 246; p. 509.
Mordaunt, Harry G., Salt Lake City, Utah, assignor of one-half to Little Giant Manufacturing & Sales Company, Omaha, Nebr. Film-winding device. No. 1,253,076; Jan. 8; v. 246; p. 509.
More, Glenn, assignor to The Blackstone Manufacturing Company, Jamestown, N. Y. Operating-gearing for washing-machines. No. 1,252,924; Jan. 8; v. 246; p. 460.
More, Lucius E., St. Louis, Mo. Workman's time-recording and wage-calculating machine. No. 1,254,259; Jan. 22; v. 246; p. 898.
Morgan Construction Company. (See Ambruson, Henrik J., assignor.)
Morgan Construction Company. (See Jefferies, Ebenezer A. W., assignor.)
Morgan, John L., Everett, assignor to J. M. Van Heusen, Boston, Mass. Collar. No. 1,254,339; Jan. 22; v. 246; p. 922.
Morgan, John L., Everett, assignor to J. M. Van Heusen, Boston, Mass. Collar. No. 1,254,340; Jan. 22; v. 246; p. 922.
Morgan, William H., Marseilles, Ill. Water heater and purifier. No. 1,254,058; Jan. 22; v. 246; p. 841.
Morgan & Wright. (See Groavenor, Oliver, assignor.)
Morgan & Wright. (See Midgley, Thomas, assignor.)
Morganthaler, Peter C., Fort Wayne, Ind., assignor to General Electric Company. Prepayment apparatus. No. 1,254,619; Jan. 22; v. 246; p. 1002.
Morphis, Thomas M., Bynum, N. C. Third-rail fifth-leg bed-brace. No. 1,253,625; Jan. 15; v. 246; p. 698.
Morreau, Emile V., Marshall, Tex. Sandpapering-machine. No. 1,253,080; Jan. 8; v. 246; p. 511.
Morris, Harold W. (See Lyons, Morris, and Nielsen.)
Morris, James W., New York, N. Y., assignor to The Sinpar Company. Heat-engine. No. 1,253,413; Jan. 15; v. 246; p. 629.
Morris, Jolly L., Crafton, Pa. Automatic weighing apparatus. No. 1,253,081; Jan. 8; v. 246; p. 511.
Morris, John W. (See Faidley, Morris, and Patterson.)
Morris, William H., *et al.* (See De Soto, Fred J., assignor.)
Morrison, Augustus H., Amsterdam, N. Y. Strip-feeding means. No. 1,252,140; Jan. 1; v. 246; p. 205.
Morrissey, Michael F., Muskegon, Mich. Flying-machine. No. 1,255,105; Jan. 29; v. 246; p. 1172.
Morrow, Alexander P., Elmira, N. Y., assignor to E. Horton & Son Company, Windsor Locks, Conn. Chuck. No. 1,251,558; Jan. 1; v. 246; p. 34.
Morse Door Lock Company, The. (See Morse, Homer F. and E. A., assignors.)
Morse, Ezra A. (See Morse, Homer F. and E. A.)
Morse, George E., Brockton, Mass. Picture-lifter. No. 1,254,980; Jan. 29; v. 246; p. 1123.
Morse, Homer F. and E. A., assignors to The Morse Door Lock Company, Fort Morgan, Colo. Permutation-lock. No. 1,251,559; Jan. 1; v. 246; p. 34.
Moschcowitz, Herman, New York, N. Y. Garment form and hanger. No. 1,254,719; Jan. 29; v. 246; p. 1061.
Moss, Alfred C., Ogden, Utah. Autographic camera. No. 1,252,605; Jan. 8; v. 246; p. 371.
Motor Car Equipment Company, The. (See Frederick, William A., assignor.)
Motor Cooling Systems Company, The. (See La Porte, Norbert M., assignor.)
Motorcycle Sweeper Company. (See Hoffer and Smedley, assignors.)
Mott, Abram C., Jr., assignor to Abram Cox Stove Company, Philadelphia, Pa. Combined coal and gas range. No. 1,253,707; Jan. 15; v. 246; p. 723.
Mott, Joseph C., Great Neck, N. Y. Collar. No. 1,254,059; Jan. 22; v. 246; p. 841.
Mott, William P., Chicago, Ill. Spraying apparatus. No. 1,254,834; Jan. 29; v. 246; p. 1097.
Mottlau, August J., assignor to G. E. M. Engineering Company, Philadelphia, Pa. Governor for fluid-pumps. No. 1,254,060; Jan. 22; v. 246; p. 841.
Mouse, Harold E., Elkins, W. Va. Switch-operating mechanism. No. 1,254,341; Jan. 22; v. 246; p. 922.
Mowery, George E., Lancaster, Ohio. Music-leaf turner. No. 1,253,708; Jan. 15; v. 246; p. 723.
Moyer, Fredellia H., assignor to The Firestone Tire & Rubber Company, Akron, Ohio. Tire-making machine. No. 1,252,925; Jan. 8; v. 246; p. 461.
Moyer, William W., Camden, N. J., assignor to Victor Talking Machine Company. Method of making styli, &c. No. 1,251,907; Jan. 1; v. 246; p. 138.
Moyer, William W., Camden, N. J., assignor to Victor Talking Machine Company. Stylus for sound-reproducing machines. No. 1,251,908; Jan. 1; v. 246; p. 139.
Moyer, William W., Camden, N. J., assignor to Victor Talking Machine Company. Machine for making styli. No. 1,251,909; Jan. 1; v. 246; p. 139.
Mudge, Albert A., Cleveland, Ohio. Loading-platform. No. 1,254,835; Jan. 29; v. 246; p. 1097.
Mueller, August E., assignor of one-third to T. J. Hruby and one-third to O. J. Hruby, Chicago, Ill. Crutch and artificial limb. No. 1,254,061; Jan. 22; v. 246; p. 842.
Mueller, Emil C., Jr., Elizabeth, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone-transmitter mouthpiece. No. 1,252,475; Jan. 8; v. 246; p. 333.
Mueller, Frederick W., Baltimore, Md. Camera. No. 1,252,820; Jan. 8; v. 246; p. 434.
Mueller, John C., St. Louis, Mo. Combined protector and grower for plants. No. 1,254,260; Jan. 22; v. 246; p. 899.
Mueller, Max M., Chicago, Ill. Lock for steering mechanism. No. 1,252,362; Jan. 1; v. 246; p. 264.
Mueller, William, Junction, Tex. Canning apparatus. No. 1,252,926; Jan. 8; v. 246; p. 461.
Muir, Wellington W., Baltimore, Md. Cooling system. No. 1,252,927; Jan. 8; v. 246; p. 462.
Mulkins, Reginald G., Ottawa, Ontario, Canada. Speed-changing mechanism. No. 1,252,476; Jan. 8; v. 246; p. 334.
Muller, Friederich, assignor to Pratt & Whitney Company, Hartford, Conn. Lathe. No. 1,252,928; Jan. 8; v. 246; p. 462.
Muller, Friederich, assignor to Pratt & Whitney Company, Hartford, Conn. Magazine mechanism. No. 1,252,929; Jan. 8; v. 246; p. 462.
Muller, Julius, Ridgewood, N. Y. Expansible pulley. No. 1,254,261; Jan. 22; v. 246; p. 899.
Müller, Oscar F., Dorchester, assignor to Thorp & Martin Typewriter Co., Boston, Mass. Type-writer platen. No. 1,254,150; Jan. 22; v. 246; p. 869.
Mulloy, George B., assignor to Armour and Company, Chicago, Ill. Activated-sludge treatment. No. 1,254,836; Jan. 29; v. 246; p. 1097.
Multi-Signal Company, The. (See Waite, Wilbur M., assignor.)
Mumford, John D., Silver Creek, N. Y. Sign. No. 1,254,837; Jan. 29; v. 246; p. 1098.
Mummert, Arden J., assignor to McQuay-Norris Manufacturing Company, St. Louis, Mo. Packing-ring. No. 1,254,720; Jan. 29; v. 246; p. 1062.
Mundorf, William C., York, Pa. Antiskid device for vehicle-wheels. No. 1,253,626; Jan. 15; v. 246; p. 698.
Munzner, Charles, Chicago, Ill., assignor to American Stove Company, St. Louis, Mo. Wick-holder. No. 1,254,342; Jan. 22; v. 246; p. 923.
Mural Ko, San Francisco, Cal. Boiler-keir. No. 1,254,343; Jan. 22; v. 246; p. 923.
Murchek, Paul, Sharon, Pa. Low-pressure gas-alarm and automatic shut-off. No. 1,251,806; Jan. 1; v. 246; p. 110.
Murchison, Miller M., New Decatur, Ala. Cane-stripping apparatus. No. 1,254,926; Jan. 29; v. 246; p. 1124.
Murphy, Charles W., Logansport, Ind. Indicator for magazines. No. 1,251,910; Jan. 1; v. 246; p. 139.
Murphy, Daniel H., Pittsburgh, Pa., assignor to The American Conduit Manufacturing Company. Conduit for electric wires. No. 1,254,344; Jan. 22; v. 246; p. 923.
Murphy, Walter P. (See Sisson, Vinton E., assignor.)
Murray, John G., Chester, Pa. Device for supporting cycles. No. 1,251,684; Jan. 1; v. 246; p. 73.

Murray, Joseph B. (See Murray, Thomas E., Jr., and J. B.)
Murray, Lester B., Kenosha, Wis. Stock-watering tank. No. 1,254,838; Jan. 29; v. 246; p. 1098.
Murray, Michael D., Ambridge, Pa. Automatic tire-pump. No. 1,254,526; Jan. 22; v. 246; p. 975.
Murray, Ray C., Marquette, Mich. Valve-assembly remover. No. 1,253,367; Jan. 15; v. 246; p. 768.
Murray, Thomas E., New York, N. Y. Electric fuse. No. 1,252,141; Jan. 1; v. 246; p. 205.
Murray, Thomas E., New York, N. Y. Electrical welding. No. 1,252,142; Jan. 1; v. 246; p. 205.
Murray, Thomas E., New York, N. Y. Localizing and eliminating imperfections in electrically-welded joints. No. 1,252,290; Jan. 1; v. 246; p. 246.
Murray, Thomas E., Jr., Brooklyn, N. Y. Apparatus for electrical welding. No. 1,252,145; Jan. 1; v. 246; p. 206.
Murray, Thomas E., Jr., Brooklyn, N. Y. Method of and apparatus for electrically welding plates or bars together. No. 1,252,146; Jan. 1; v. 246; p. 206.
Murray, Thomas E., Jr., Brooklyn, N. Y. Electrically making openings of desired configuration in metal plates. No. 1,252,147; Jan. 1; v. 246; p. 207.
Murray, Thomas E., Jr., Brooklyn, N. Y. Method of and apparatus for electrically dividing metal plates. No. 1,252,148; Jan. 1; v. 246; p. 207.
Murray, Thomas E., Jr., Brooklyn, N. Y. Producing integral projections on metal plates. No. 1,252,289; Jan. 1; v. 246; p. 246.
Murray, Thomas E., Jr., and J. B., Brooklyn, N. Y. Process of and apparatus for welding metal bodies and for annealing said bodies at the welded joint. No. 1,252,144; Jan. 1; v. 246; p. 206.
Murray, Thomas E., and H. R. Woodrow, New York, N. Y.; said Woodrow assignor to said Murray. Electric welding-machine. No. 1,252,143; Jan. 1; v. 246; p. 206.
Murray, William B., Danville, Ill., assignor to The Miller Train Control Corporation, Staunton, Va. Train-control system and apparatus. No. 1,254,839; Jan. 29; v. 246; p. 1098.
Muse, Claude, St. Louis, Mo. Detachable adjustable slipper-strap. No. 1,252,149; Jan. 1; v. 246; p. 207.
Muzik, John, assignor of one-third to J. Suchanek and one-third to A. Andracek, Eureka, Cal. Auto-tire. No. 1,252,830; Jan. 8; v. 246; p. 434.
Myers, Charles E., assignor of one-half to J. Wellacher and one-half to T. J. Lavin, W. A. Rheinheimer, and G. Bauer, St. Louis, Mo. Forming stitches. No. 1,252,150; Jan. 1; v. 246; p. 207.
Myers, Hubert A., Toledo, Ohio. Tumbling toy. No. 1,254,425; Jan. 22; v. 246; p. 947.
Myskow, Theodore, Detroit, Mich. Wire basket for boilers. No. 1,251,560; Jan. 1; v. 246; p. 34.
N. K. Fairbank Company. (See Lang, Arthur C., assignor.)
Nachman, Fred A., Chicago, Ill. Cushion construction. No. 1,253,272; Jan. 15; v. 246; p. 594.
Nacker, Owen M., assignor of one-half to A. P. Brush, Detroit, Mich. Valve-operating mechanism. No. 1,254,840; Jan. 29; v. 246; p. 1099.
Nagel, Gustav J., assignor to Garrett H. Smith, Inc., New York, N. Y. Cigar-band. No. 1,254,151; Jan. 22; v. 246; p. 869.
Nakamigawa, Tetsushiro, New York, N. Y. Fly-trap. No. 1,252,151; Jan. 1; v. 246; p. 207.
Nakashima, George K., Stockton, Cal. Sanitary toilet-seat covering. No. 1,253,512; Jan. 15; v. 246; p. 666.
Naron, Emily A., Warren, Ark. Currycomb. No. 1,253,414; Jan. 15; v. 246; p. 639.
Nash, John, Dryden, Oreg. Adjustable triangle and gear-tooth plotter. No. 1,251,809; Jan. 1; v. 246; p. 111.
Natalis, Octave C., Charleston, W. Va. Strength-regulator for tankdrawn machine window-glass. No. 1,251,561; Jan. 1; v. 246; p. 35.
National Automatic Refrigerator Company. (See Keyes, Frederick G., assignor.)
National Blank Book Company. (See Schade, John, assignor.)
National Brake & Electric Company. (See Aikman, Burton S., assignor.)
National Carbon Company. (See Benedict, Bernard, assignor.)
National Carbon Company. (See Moore, William C., assignor.)
National Cash Register Company, The. (See Fuller, Frederick L., assignor.)
National Cash Register Company, The. (See Martin, Haakon A., assignor.)
National Chemical Co. (See Seltenreich, John J., assignor.)
National Gauge and Equipment Co. (See Gelatt, Philo M., assignor.)
National Lock Company. (See Buchanan, Frank E., assignor.)
National Lock Washer Company, The. (See Hoyt, Daniel, assignor.)
National Malleable Castings Company, The. (See Bixby, Allan S., assignor.)
National Malleable Castings Company, The. (See Stephenson, John W., assignor.)
National Manufacturing and Specialty Company. (See Scott and Hug, assignors.)
National Street and Station Indicator Company. (See Kellum and Sweetland, assignors.)
National Supply Company, The. (See Wright, Clyde S., assignor.)
National Tube Company. (See McCulloch, John A., assignor.
National Veneer Products Company. (See Stevenson, Charles R., assignor.)
Nawiasky, Paul. (See Kardos and Nawiasky.)
Neal, Walter V. (See Bruner and Neal.)
Nebeling, Edmund R., New York, N. Y. Safety-pin. No. 1,252,930; Jan. 8; v. 246; p. 463.
Neckerman, William M., assignor to The Youngstown Sheet & Tube Company, Youngstown, Ohio. Coupling for drill-pipes. No. 1,254,927; Jan. 29; v. 246; p. 1124.
Neeb, Arthur J., Utica, Minn. Automatic litter-carrier. No. 1,252,477; Jan. 8; v. 246; p. 334.
Needham, James J., and G. Scheideler, New York, N. Y. Oven. No. 1,254,721; Jan. 29; v. 246; p. 1062.
Neikirk, John O., Lombard, Ill. Draft-gear for railway-cars. No. 1,251,911; Jan. 1; v. 246; p. 139.
Nell, Joseph B., Filbert, S. C. Cotton-picker. No. 1,252,016; Jan. 1; v. 246; p. 169.
Nelsen, Laurits W., Pontiac, Ill. Culvert. No. 1,254,153; Jan. 22; v. 246; p. 869.
Nelson, Carl J., Palermo, N. D. Combination spade and crowbar. No. 1,253,472; Jan. 15; v. 246; p. 655.
Nelson, Emil A., Ronville, Mich. Spring suspension for motor-vehicles. No. 1,254,928; Jan. 29; v. 246; p. 1124.
Nelson, Frithiof, Rockford, Ill. Knitting-machine. No. 1,252,152; Jan. 1; v. 246; p. 208.
Nelson, George W., assignor to The Standard Sewing Machine Company, Cleveland, Ohio. Sewing-machine. No. 1,252,931; Jan. 8; v. 246; p. 463.
Nelson, James D., Cincinnati, Ohio. Electric signal system. No. 1,254,152; Jan. 22; v. 246; p. 869.
Nelson, John, Rathdrum, Idaho. Cattle-guard. No. 1,252,153; Jan. 1; v. 246; p. 208.
Nenninger, Oscar A., Newark, N. J. Condenser and distilling device. No. 1,252,154; Jan. 1; v. 246; p. 208.
Nesbitt, Alexander, Paterson, N. J. Automatic reel and let-off for electric-lighting devices. No. 1,253,415; Jan. 15; v. 246; p. 640.
Nesbitt, William J., Los Angeles, Cal. Heel-cutting apparatus. No. 1,253,514; Jan. 15; v. 246; p. 667.
Neubauer, Ferdinand, Cleveland, Ohio. Combination-lock. No. 1,252,606; Jan. 8; v. 246; p. 371.
Neumann, Louis, assignor of one-half to F. X. Steffans, New York, N. Y. Surface-gage. No. 1,253,082; Jan. 8; v. 246; p. 511.
Neustadter Bros. (See Ballin, Maurice, assignor.)
New Departure Manufacturing Company, The. (See Page, Victor W., assignor.)
New England Confectionery Company. (See Brady, Alexander, assignor.)
New England Confectionery Company. (See Spear, George H., assignor.)
New Haven Clock Co. (See Porter, Wilson E., assignor.)
New York Cigarette Machine Company. (See Drucklieb, Paul A., assignor.)
Newbury, Herbert A., White Swan, Wash. Table. No. 1,253,083; Jan. 8; v. 246; p. 511.
Newcomb, Harold A., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Vacuum regulation for rectifiers. No. 1,251,562; Jan. 1; v. 246; p. 35.
Newell, George G. (See Crouse and Newell.)
Newell, Henry G., Le Raysville, Pa. Battery-saver for telephones. No. 1,253,084; Jan. 8; v. 246; p. 512.
Newman, Harold J. (See Newman, Milton G. and H. J.)
Newman, Max G., Lanesboro, Mass., assignor to General Electric Company. Method of and means for measuring voltages. No. 1,254,620; Jan. 22; v. 246; p. 1003.
Newman, Milton G. and H. J., Huron, S. D. Engine-valve. No. 1,252,155; Jan. 1; v. 246; p. 208.
Newton, John E., assignor of one-half to J. Pinkerton, Grand Marais, Minn. Nut-lock. No. 1,254,929; Jan. 29; v. 246; p. 1125.
Niagara Alkali Company. (See MacMillan, John R., assignor.)
Niagara Sprayer Company. (See Decker, Frederick J., assignor.)
Nichols, William A. (See Butler and Nichols.)
Nickerson, Charles F., Reading, Mass. Protector for pneumatic tires. No. 1,253,273; Jan. 15; v. 246; p. 595.
Nield, Samuel, *et al.*, executors. (See Drew, Arthur.)
Nielsen, Carl L. (See Lyons, Morris, and Nielsen.)
Niemann and Company. (See Niemann, Frederick A., assignor.)
Niemann, Frederick A., assignor to Niemann and Company, Chicago, Ill. Change-making machine. No. 1,253,515; Jan. 15; v. 246; p. 667.
Niles-Bement-Pond Company. (See Foster, Walter, assignor.)
Nirdlinger, Albert P. (See Davis and Nirdlinger.) (Reissue.)
Nixon, Willard D., Jr., Cincinnati, Ohio. Safety stop or bumper for railway-cars. No. 1,252,607; Jan. 8; v. 246; p. 371.
Noble, Guy L., assignor to Armour and Company, Chicago, Ill. Activated-sludge treatment. No. 1,254,841; Jan. 29; v. 246; p. 1099.
Noiseless Typewriter Company, The. (See Anderson, Nils H., assignor.)

Nolan, James A., Bowerston, Ohio. Tilting platform for mine-car dumps. No. 1,254,621; Jan. 22; v. 246; p. 1003.

Nolan, James A., Bowerston, Ohio. Control mechanism for automatic safety mine-car cagers. No. 1,254,622; Jan. 22; v. 246; p. 1003.

Noll, Ray C., Pleasant Gap, Pa. Tire-chain. No. 1,254,154; Jan. 22; v. 246; p. 869.

Nordstrom, Nils W., Brooklyn, N. Y. Removable denture. No. 1,251,912; Jan. 1; v. 246; p. 140.

Nordstrom, Nils W., Brooklyn, N. Y. Artificial denture. No. 1,252,291; Jan. 1; v. 246; p. 246.

Norquest, John E., Richmond, Va., assignor to P. Lorillard Company, New York, N. Y. Safety cutting mechanism. No. 1,252,932; Jan. 8; v. 246; p. 463.

Norquest, John E. Richmond, Va., assignor to P. Lorillard Company, New York, N. Y. Cigar and cheroot trimming mechanism. No. 1,252,933; Jan. 8; v. 246; p. 464.

Norquest, John E., Richmond, Va., assignor to P. Lorillard Company, New York, N. Y. Pasting mechanism for cigar and cheroot machines. No. 1,252,934; Jan. 8; v. 246; p. 464.

Norquest, John E., Richmond, Va., assignor to P. Lorillard Company, New York, N. Y. Bunch-carrier for cigar and cheroot machines. No. 1,252,935; Jan. 8; v. 246; p. 464.

Norris, William C., Mount Pleasant, Tex. Terrace-marker. No. 1,253,510; Jan. 15; v. 246; p. 667.

Northrop, Jonas, assignor to Hopedale Manufacturing Company, Hopedale, Mass. Warp stop-motion for looms. No. 1,252,292; Jan. 1; v. 246; p. 246.

Northrop, Jonas, Hopedale, assignor to Hopedale Manufacturing Company, Milford, Mass. Shuttle. No. 1,252,293; Jan. 1; v. 246; p. 247.

Northrop, Jonas, Hopedale, assignor to Hopedale Manufacturing Company, Milford, Mass. Shuttle. No. 1,252,294; Jan. 1; v. 246; p. 247.

Northrup, Elmer C., assignor, by mesne assignments, to Savings Union Bank and Trust Company, San Francisco, Cal. Two-table nailing-machine. No. 1,251,913; Jan. 1; v. 246; p. 140.

Norton, William B. (See Abbott, Adrian O., Jr., assignor.)

Notaseme Hosiery Company. (See McNicholas, John J., assignor.)

Nothaft, Joseph, Moos, near Langenisarhofen, Germany. Harvesting-machine. No. 1,252,608; Jan. 8; v. 246; p. 371.

Nowosielski, Edward B., Bloomfield, N. J. Device for transmitting motion from pistons of engines to crank-shafts. No. 1,254,345; Jan. 22; v. 246; p. 923.

Noyes, Hazlehurst R., Savannah, Ga. Hair-pin. No. 1,252,936; Jan. 8; v. 246; p. 465.

Noyes, Mayhew E., assignor to The Hendrickson Machine Company, Cleveland, Ohio. Worm-grinding machine. No. 1,252,478; Jan. 8; v. 246; p. 334.

Nuckolls, Samuel H., Atlanta, Ga. Reinking-machine for the ribbons of multigraph-machines. No. 1,253,869; Jan. 15; v. 246; p. 768.

Nugent, William W., Chicago, Ill. Combined filter and water-separator. No. 1,252,017; Jan. 1; v. 246; p. 169.

Nutter, William S., assignor to Goodall Worsted Company, Sanford, Me. Fabric. No. 1,252,018; Jan. 1; v. 246; p. 170.

Nyary, Anthony, assignor to P. H. Bush, Chicago, Ill. Door-lock. No. 1,253,416; Jan. 15; v. 246; p. 640.

Nyhus, Edward, Ivanhoe, Minn. Harness-hanger. No. 1,253,870; Jan. 15; v. 246; p. 768.

Nystrom, Karl F., St. Lambert, Quebec, Canada. Car construction. No. 1,254,346; Jan. 22; v. 246; p. 924.

O. and J. Machine Company, The. (See Johnson, John E., assignor.)

O'Brien, Luke D., Berkeley, Cal. Garment-stretcher. No. 1,253,085; Jan. 8; v. 246; p. 512.

O'Connell, David D., Spokane, Wash. Automatic stop for railways. No. 1,253,086; Jan. 8; v. 246; p. 512.

O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Buffer mechanism for passenger-cars. No. 1,251,685; Jan. 1; v. 246; p. 73.

O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Adjustable side bearing for railway-cars. No. 1,252,295; Jan. 1; v. 246; p. 247.

O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Draft-rigging yoke. No. 1,252,296; Jan. 1; v. 246; p. 247.

O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Side bearing. No. 1,252,297; Jan. 1; v. 246; p. 247.

O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction-gear for draft-riggings. No. 1,252,937; Jan. 8; v. 246; p. 465.

O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Roller side bearing. No. 1,253,087; Jan. 8; v. 246; p. 512.

O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Spring draft-rigging. No. 1,253,088; Jan. 8; v. 246; p. 512.

O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Belt and nut lock. No. 1,253,709; Jan. 15; v. 246; p. 723.

O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction shock-absorbing mechanism. No. 1,254,262; Jan. 22; v. 246; p. 890.

O'Donnell, John F., Midland, Pa. Valve mechanism. No. 1,251,563; Jan. 1; v. 246; p. 35.

O'Neill, Henry G., assignor of one-half to C. Hubert, New York, N. Y. Engine-starting apparatus. No. 1,253,871; Jan. 15; v. 246; p. 768.

O'Neill, William T., Northlack, Saskatchewan, Canada. Wire-cutter. No. 1,253,627; Jan. 15; v. 246; p. 698.

Oakes, Owen F., Boston, Mass. Knit fabric. No. 1,254,722; Jan. 29; v. 246; p. 1062.

Oberholtzer, John M., Wooster, Ohio. Hay-rake. No. 1,252,156; Jan. 1; v. 246; p. 209.

Ocotillo Products Company. (See Snyder, Edgar W., assignor.)

Oehler, John G., St. Louis, Mo. Submarine minnow. No. 1,251,810; Jan. 1; v. 246; p. 111.

Oeschger, Walter I., Detroit, Mich. Priming-cock. No. 1,252,157; Jan. 1; v. 246; p. 209.

Oeschger, Walter I., assignor to Parker Rust Proof Company of America, Detroit, Mich. Rust-proofing iron and steel surfaces. No. 1,254,263; Jan. 22; v. 246; p. 900.

Oeschger, Walter I., assignor to Parker Rust Proof Company of America, Detroit, Mich. Rust-proofing iron and steel. No. 1,254,264; Jan. 22; v. 246; p. 900.

Oestricher, Bernard H., New York, N. Y. Lead-wire terminal. No. 1,255,037; Jan. 29; v. 246; p. 1153.

Ogawa, Yeitaro, Kusunoki Machi, Kobe, Japan. Speed-reducing gear arrangement for steam-turbines. No. 1,253,710; Jan. 15; v. 246; p. 724.

Ogden, J. Edward. (See Tomkinson, Charles C., assignor.)

Ohio Brass Company, The. (See Brown, John R., assignor.)

Ohio Rake Company, The. (See Holtvoight, Henry B., assignor.)

Ohlrogge, John, Chilton, Wis. Wagon. No. 1,252,714; Jan. 8; v. 246; p. 402.

Ohnstrand, Enoch, assignor to O. M. Edwards, Syracuse, N. Y. Extension spring-roller. No. 1,252,832; Jan. 8; v. 246; p. 435.

Oil Well Supply Company. (See Gnade, Edward R., assignor.)

Ojendyk, Henry W. (See Lorens and Ojendyk.)

Okel, Fred, Wheeling, W. Va. Toy. No. 1,252,158; Jan. 1; v. 246; p. 209.

Olinger, James R., Del Rey, Cal. Adjustable support for mirrors. No. 1,253,517; Jan. 15; v. 246; p. 667.

Olinger, Thomas, and W. C. Fearell, assignors to Holland Lighting and Specialty Company, Holland, Mich. Clean-out for acetylene-generators. No. 1,252,938; Jan. 8; v. 246; p. 465.

Oliver, Doctor F., Oakland, Cal. Pencil. No. 1,253,711; Jan. 15; v. 246; p. 724.

Oliver Iron & Steel Company. (See Fassinger, Charles, assignor.)

Ollard, James C., Tacoma, Wash., assignor to Ollard Trolley Wheel Company, Dover, Del. Logging-block bearing. No. 1,251,686; Jan. 1; v. 246; p. 74.

Ollard Trolley Wheel Company. (See Ollard, James C., assignor.)

Olsen, Frederik J., Eskebjerggaard per Svebölle, Denmark. Free-wheel hub with a plurality of gears. No. 1,252,939; Jan. 8; v. 246; p. 466.

Olson, Carl G., and J. R. Richer, assignors to Illinois Tool Works, Chicago, Ill. Hob-testing machine. No. 1,254,062; Jan. 22; v. 246; p. 842.

Olson, John J., Belview, Minn. Automobile-jack. No. 1,254,522; Jan. 22; v. 246; p. 975.

Olson, Loues T., Detroit, Mich. Dumping apparatus. No. 1,255,038; Jan. 29; v. 246; p. 1153.

Olson, Oscar L., St. Paul, Minn., assignor of one-half to F. H. Douthitt, Clinton, Iowa, and one-half to A. E. Soderlind, Braham, Minn. Check-row potato-planter. (Reissue.) No. 14,422; Jan. 15; v. 246; p. 809.

Oltean, Andrei, Mohawk, Mich. Door-lock. No. 1,255,106; Jan. 29; v. 246; p. 1172.

Oppenheim, Ell, assignor to Oppenheim, Oberndorf & Co., Inc., Baltimore, Md. Combination-garment. No. 1,254,636; Jan. 22; v. 246; p. 1005.

Oppenheim, Oberndorf & Co. (See Oppenheim, Ell, assignor.)

Ordway, Joseph H., Brookline, Mass. Means for stiffening box-toes. No. 1,251,914; Jan. 1; v. 246; p. 140.

Ordway, Joseph H., Brookline, Mass. Manufacture of box-toes. No. 1,252,298; Jan. 1; v. 246; p. 248.

Orem, Frederick S., Baltimore, Md. Carbureter. No. 1,254,723; Jan. 29; v. 246; p. 1062.

Oros, Michael, Seattle, Wash. Lamp-burner. No. 1,254,623; Jan. 22; v. 246; p. 1003.

Osborne, Edith A., *et al.*, executors. (See Drew, Arthur.)

Osborne, William H. (See Drew, Arthur, assignor.)

Osborne, William L., Chicago, Ill., assignor to The Richardson-Phenix Co., Milwaukee, Wis. Self-acting cushion and check valve. No. 1,252,940; Jan. 8; v. 246; p. 466.

Osgood, Walter P., Malden, assignor to T. J. Edwards, Melrose, Mass. Embossing-machine. No. 1,252,299; Jan. 1; v. 246; p. 248.

Ossman, Michael J., Leadville, Colo. Toy. No. 1,253,712; Jan. 15; v. 246; p. 724.

Ossman, Michael J., Leadville, Colo. Hatchet. No. 1,253,713; Jan. 15; v. 246; p. 724.

Osteen, Percy C., Anderson, S. C. Autographic camera. No. 1,251,915; Jan. 1; v. 246; p. 140.

Osterhout, Garret B., Providence, R. I., assignor to Willcox & Gibbs Sewing Machine Co., New York, N. Y. Sewing-machine take-up. No. 1,253,518; Jan. 15; v. 246; p. 667.

Osterhout, Garret B., Providence, R. I., assignor to Willcox & Gibbs Sewing Machine Co., New York, N. Y. Looper and looper mechanism. No. 1,253,519; Jan. 15; v. 246; p. 668.

Ostertag, John H., Columbia, Pa. Drying-tumbler. No. 1,253,520; Jan. 15; v. 246; p. 668.

Otis, Daniel H., Madison, Wis. Bookkeeping system. No. 1,253,714; Jan. 15; v. 246; p. 724.

Otis Elevator Company. (See Lindquist and Larson, assignors.)

Otis-Flagg Corporation. (See Cooper, Isidor, assignor.)

Otte, Otho M., Jamestown, N. Y. Detachable reflector. No. 1,255,039; Jan. 29; v. 246; p. 1154.

Ouchie, Elmer L., Detroit, Mich., assignor to The Rudolph Wurlitzer Manufacturing Company, North Tonawanda, N. Y. Automatic musical instrument. No. 1,252,479; Jan. 8; v. 246; p. 335.

Ousley, Edward W., St. James, Mo. Gold-dust collector. No. 1,255,040; Jan. 29; v. 246; p. 1154.

Oversmith, Elmer H., Jonesville, Mich., assignor, by mesne assignments, to Brazil Motors Company, Brazil, Ind. Front-axle drive mechanism. No. 1,252,609; Jan. 8; v. 246; p. 372.

Oversmith, Elmer H., Jonesville, Mich., assignor, by mesne assignments, to Brazil Motors Company, Brazil, Ind. Steering mechanism. No. 1,252,610; Jan. 8; v. 246; p. 372.

Oversmith, Elmer H., Jonesville, Mich., assignor, by mesne assignments, to Brazil Motors Company, Brazil, Ind. Front-axle-mounting mechanism. No. 1,254,842; Jan. 29; v. 246; p. 1099.

Owen, Henry A., assignor to The Whitin Machine Works, Whitinsville, Mass. Weft-feeler mechanism for looms. No. 1,251,687; Jan. 1; v. 246; p. 74.

Owens, Arthur P., Bradford, Ill. Plow depth-regulator. No. 1,253,089; Jan. 8; v. 246; p. 513.

Owens, Edward A. (See Beck, Owens, and Steinman.)

Ozanne, Henry T., Paris, France. Busk and stay-fastening. No. 1,253,521; Jan. 15; v. 246; p. 668.

P. Lorillard Company. (See Norquest, John E., assignor.)

P & M Company, The. (See Moore, Philip W., assignor.)

P. & M. Co., The. (See Warr, Harold G., assignor.)

Pace, George M. (See Canfield, Albert E., assignor. (Reissue.)

Pacific Commercial Company. (See Pierce, James L., assignor.)

Pacific Electric Welder & Manufacturing Co. (See Thornblade, Carl H., assignor.)

Package Machinery Company. (See Ferguson, Milford B., assignor.)

Packard Motor Car Company. (See Church, Harold D., assignor.)

Page, Larrance, Berkeley, Cal. Bunsen burner. No. 1,254,347; Jan. 22; v. 246; p. 924.

Page, Michael, Schuylkill Haven, Pa. Condiment-holder. No. 1,252,159; Jan. 1; v. 246; p. 209.

Page, Rescue B., Los Angeles, Cal. Folding bed. No. 1,253,872; Jan. 15; v. 246; p. 769.

Page, Samuel D., Des Moines, Iowa. Check-sorter. No. 1,254,930; Jan. 29; v. 246; p. 1125.

Page, Tom S., *et al.* (See Shant, Edwin J., assignor.)

Page, Victor W., assignor to The New Departure Manufacturing Company, Bristol, Conn. Bell. No. 1,254,265; Jan. 22; v. 246; p. 900.

Pagel, Theodore J., Minneapolis, Minn. Rotary pump. No. 1,252,160; Jan. 1; v. 246; p. 210.

Pain, Henry J., New York, N. Y. Toy. No. 1,253,715; Jan. 15; v. 246; p. 725.

Paiste, Henry T., assignor to H. T. Paiste Company, Philadelphia, Pa. Wireless receptacle. No. 1,253,873; Jan. 15; v. 246; p. 769.

Paiste, Henry T., assignor to H. T. Paiste Company, Philadelphia, Pa. Attachment-plug. No. 1,253,874; Jan. 15; v. 246; p. 769.

Paiste, Henry T., assignor to H. T. Paiste Company, Philadelphia, Pa. Molding-adapter. No. 1,254,528; Jan. 22; v. 246; p. 976.

Palmer, Arthur E., assignor, by mesne assignments, to The Standard Parts Company, Cleveland, Ohio. Charge-forming device for explosion-motors. No. 1,254,848; Jan. 22; v. 246; p. 924.

Palmer, Chester M., Aurora, Ill. Rotary engine. No. 1,253,716; Jan. 15; v. 246; p. 725.

Palmer, Leon W., Unity, Pa. Combined elevating and conveying machine. No. 1,253,717; Jan. 15; v. 246; p. 725.

Palmer, Lyndon C., assignor to F. N. Burt Company, Limited, Buffalo, N. Y. Coating mechanism. No. 1,252,019; Jan. 1; v. 246; p. 170.

Palmer, Truman G., Chicago, Ill. Gas-heater. No. 1,253,090; Jan. 8; v. 246; p. 513.

Palmer, Truman G., Chicago, Ill. Gas-burner. No. 1,253,091; Jan. 8; v. 246; p. 513.

Palmgren, Nils G. (See Betulander and Palmgren.)

Palser, George N., North Loup, Nebr. Disk-harrow boxing. No. 1,254,843; Jan. 29; v. 246; p. 1099.

Panganiban, Fidel B., Lobo, Batangas, Philippine Islands. Mosquito-net support for cots. No. 1,254,529; Jan. 22; v. 246; p. 976.

Paolicelli, Joseph, New York, N. Y. Bottle-safe. No. 1,252,480; Jan. 8; v. 246; p. 335.

Papapetrou, Nicholas, Morgantown, W. Va. Tray for trunks and suitcases. No. 1,254,530; Jan. 22; v. 246; p. 976.

Paper Service Co. (See Kistemann, Franz, assignor.)

Papini, Anthony, South Bethlehem, assignor of forty-one one-hundredths to M. McTaggart, Bethlehem, Pa. Permutation-padlock. No. 1,252,715; Jan. 8; v. 246; p. 402.

Paragon Metal Cap Co. (See Carvalho, Leslie R. N., assignor.)

Paramount Hosiery Form Drying Co. (See Gray, Lyle F., assignor.)

Paramount Hosiery Form Drying Co. (See Smith and Prosser, assignors.)

Paridon, Michael, Oswego, N. Y., assignor to The Diamond Match Company, Chicago, Ill. Take-off mechanism for match-machines. No. 1,252,941; Jan. 8; v. 246; p. 467.

Park Drop Forge Company, The. (See Gordon, George C., assignor.)

Parker, Benjamin L., Genoa, Ill. Means for operating camera-shutters. No. 1,254,931; Jan. 29; v. 246; p. 1125.

Parker, Frederick R., Chicago, Ill. Electrical protector. No. 1,252,942; Jan. 8; v. 246; p. 467.

Parker, George D., Riverside, Cal. Gravity fruit-separating apparatus. No. 1,252,833; Jan. 8; v. 246; p. 435.

Parker, James O. and V. M., Lakin, Kans. Music-leaf turner. No. 1,253,092; Jan. 8; v. 246; p. 513.

Parker, Jennie B., Albion, Mich. High-chair tray. No. 1,254,155; Jan. 22; v. 246; p. 870.

Parker, Richard B., assignor to Semet-Solvay Company, Solvay, N. Y. Recovering light oils. No. 1,252,481; Jan. 8; v. 246; p.335.

Parker Rust Proof Company of America. (See Oeschger, Walter I., assignor.)

Parker, Viva M. (See Parker, James O. and V. M.)

Parkhurst, Charles W. (See Slick and Parkhurst.)

Parkin, William M., Pittsburgh, Pa. Treating water containing sulfuric acid and iron salts. No. 1,251,564; Jan. 1; v. 246; p. 36.

Parks, Dennis. (See Mitchell and Parks.)

Parlin & Orendorff Company. (See Dewey, Frederic L., assignor.)

Parlin & Orendorff Company. (See Graham, William S., assignor.)

Parmeley, Charles H., Denver, Colo. Automatic painting apparatus. No. 1,254,429; Jan. 22; v. 246; p. 947.

Parsons, Charles A., A. G. Carnegie, Newcastle-upon-Tyne, and S. S. Cook, Wallsend, England; said Carnegie and Cook assignors to said Parsons. Gear-cutting machine. No. 1,252,482; Jan. 8; v. 246; p. 336.

Parsons, Joseph, Lakeville, Conn. Fireplace heating system. No. 1,251,916; Jan. 1; v. 246; p. 140.

Parsons, Richard C., London, England. Fluid pump, turbine, and the like. No. 1,254,156; Jan. 22; v. 246; p. 870.

Parsons, William S., Grove Park, assignor to J. Stone & Company Limited, Deptford, England. Refuse-ejector for ships. No. 1,251,917; Jan. 1; v. 246; p. 141.

Partanen, Isak, Telluride, Colo. Smelting zinc. No. 1,254,531; Jan. 22; v. 246; p. 976.

Pascocello, Michael, *et al.* (See Landolfi, Louis, assignor.)

Passer, Fred E., Wells, Minn. Wild-pea mill. No. 1,253,875; Jan. 15; v. 246; p. 770.

Pastore, Cesare, Sessa Aurunca, Italy. Electric safety device against housebreaking, burglary, and the like. No. 1,252,834; Jan. 8; v. 246; p. 435.

Patch, Theodore B., Boston, Mass. Clutch-releasing mechanism. No. 1,254,348; Jan. 22; v. 246; p. 924.

Patchen, Thomas P., Dunlap, Iowa. Sled-runner attachment. No. 1,252,161; Jan. 1; v. 246; p. 210.

Patent Holding Company. (See Gladwill, Rudolph H., assignor.)

Pathé, Emile, Paris, France, assignor to Pathe Freres Phonograph Company, New York, N. Y. Talking-machine. No. 1,251,565; Jan. 1; v. 246; p. 36.

Pathe Freres Phonograph Company. (See Pathé, Emile, assignor.)

Patric, Charles E., Springfield, Ohio. Furrow-opener for seeding-machines. No. 1,254,266; Jan. 22; v. 246; p. 900.

Patrick, Robert A., assignor to Columbian Bronze Corporation, Freeport, N. Y. Machine for generating the pitch of propeller-blades. No. 1,254,063; Jan. 22; v. 246; p. 842.

Patrick, Robert A., assignor to Columbian Bronze Corporation, Freeport, N. Y., Making patterns for propeller-blades. No. 1,254,064; Jan. 22; v. 246; p. 843.

Patterson, Franklin M., Jersey City, N. J., assignor, by mesne assignments, to Everlasting Valve Company. Internal-combustion steam-generator. No. 1,253,522; Jan. 15; v. 246; p. 668.

Patterson, James A., Sherman township, Clay county, Kans. Rotary road-making machine. No. 1,253,876; Jan. 15; v. 246; p. 770.

Patterson, Samuel A. (See Faidley, Morris, and Patterson.)

Patterson, William L., assignor to Bausch & Lomb Optical Company, Rochester, N. Y. Unitary dissolving-view projection apparatus. No. 1,254,724; Jan. 29; v. 246; p. 1063.

Pattison, Mildred, St. Paul, Minn. Skein-holding device. No. 1,252,483; Jan. 8; v. 246; p. 336.

Patton Bin & Fixture Company, The. (See Patton, William, assignor.)

Patton, Ralph C. (See Downes and Patton.)

Patton, William, assignor to The Patton Bin & Fixture Company, Cincinnati, Ohio. Dispensing apparatus. No. 1,252,022; Jan. 1; v. 246; p. 171.

Pauer, Joseph, and E. Bahnik, Cleveland, Ohio. Grinding-machine. No. 1,252,162; Jan. 1; v. 246; p. 210.
Paul, Frederick N., Flagstaff, Ariz. Tooth-brush. No. 1,254,532; Jan. 22; v. 246; p. 977.
Paull, Carl, Sound Beach, Conn., assignor to Garwood Company, Garwood, N. J. Mechanical movement. No. 1,252,484; Jan. 8; v. 246; p. 336.
Paull, Carl, Sound Beach, Conn., assignor to Garwood Company, Garwood, N. J. Mechanical movement. No. 1,252,485; Jan. 8; v. 246; p. 336.
Paulsen, Theodore, Sedro Woolley, Wash. Stationary power-transmitting attachment for automobiles. No. 1,254,844; Jan. 29; v. 246; p. 1100.
Paulson, Swen, Heber City, Utah. Knife. No. 1,252,486; Jan. 8; v. 246; p. 336.
Paulson, Walter H. (See Lathrop and Paulson.)
Pauly, Albert A., Youngstown, Ohio. Molding apparatus. No. 1,253,901; Jan. 15; v. 246; p. 801.
Payne, Alvah, and C. W. McFarlane, Orange, Tex. Hay-press. No. 1,255,041; Jan. 29; v. 246; p. 1154.
Payne, Edwin C., Tacoma, Wash. Device for measuring heights of trees and the like. No. 1,253,877; Jan. 15; v. 246; p. 770.
Payne, George V., Chicago, Ill. Method for ascertaining the location of leaks in underground fluid-pressure pipes. No. 1,252,487; Jan. 8; v. 246; p. 337.
Payne, George V., Chicago, Ill. Ascertaining leaks in underground fluid-pressure pipes. No. 1,252,488; Jan. 8; v. 246; p. 337.
Pearson, James H., assignor of one-third to J. Hasler and one-third to C. E. Fuller, Bloomfield, Ind. Airship. No. 1,255,042; Jan. 29; v. 246; p. 1155.
Pearson, John R., assignor to himself, G. W. McCloskey, and C. Y. Van Doren, Brooklyn, N. Y. Metallic box. No. 1,252,489; Jan. 8; v. 246; p. 337.
Pease, Frederick O., Chicago, Ill. Chiropodist's or surgeon's instrument. No. 1,255,043; Jan. 29; v. 246; p. 1155.
Peck, Franklin G., Honor, Mich. Veneer package. No. 1,254,430; Jan. 22; v. 246; p. 947.
Peck, Ira F., Greenwood, Miss. Motion-picture apparatus. No. 1,255,044; Jan. 29; v. 246; p. 1155.
Peck, Irving W., Macon, Ga. Wind-shield. No. 1,252,611; Jan. 8; v. 246; p. 372.
Peck, Irving W., Macon, Ga. Cushion-cover for fruit-crates. No. 1,253,628; Jan. 15; v. 246; p. 698.
Peck, John S., Altrincham, and S. Eckmann, Whalley Range, England, assignors to Westinghouse Electric and Manufacturing Company. Control system for fly-wheel motors. No. 1,251,688; Jan. 1; v. 246; p. 74.
Peck, Samuel S. (See Lyon and Peck.)
Peck, Walter F., *et al.* (See Gotti, Constantine J., assignor.)
Petersen, Oscar A., New York, N. Y. Telephone collection-box. No. 1,254,533; Jan. 22; v. 246; p. 977.
Peil, Christopher, Coscob, Conn. Imprint. No. 1,255,045; Jan. 29; v. 246; p. 1155.
Peil, Christopher, Coscob, Conn. Vehicle-wheel. No. 1,255,046; Jan. 29; v. 246; p. 1155.
Peerless Motor Car Company, The. (See Strickland, William R., assignor.)
Peerless Motor Car Company, The. (See Wadsworth, George R., assignor.)
Pelton, John R., New York, N. Y. Mechanism for mechanically transferring items of account. No. 1,253,417; Jan. 15; v. 246; p. 640.
Pelt, Earl W., Cleveland, Ohio. Signaling apparatus. No. 1,252,163; Jan. 1; v. 246; p. 211.
Pelletier, Charles E., New Orleans, La. Remote-control electric switch. No. 1,254,534; Jan. 22; v. 246; p. 977.
Pelzer, Alfred, St. Paul, Minn. Snow-elevating machine. No. 1,252,164; Jan. 1; v. 246; p. 211.
Penton, George W., Fruitland, Iowa. Reflector. No. 1,253,274; Jan. 15; v. 246; p. 595.
Penton Water Wheel Company. (See Doble, William A., assignor.)
Pentozak, John, Pe Ell, Washington. Nut-lock. No. 1,253,523; Jan. 15; v. 246; p. 669.
Pentock, George A., Oak Park, Ill., assignor to Western Electric Company, New York, N. Y. Vapor and fume controlling system. No. 1,254,725; Jan. 29; v. 246; p. 1063.
Pennsylvania Crusher Company. (See Hilier, Joseph L., assignor.)
Pennsylvania Engineering Works. (See Furst, John K., assignor.)
Pennsylvania Tank Car Company. (See Stevenson, Frank E., assignor.)
Penny Package Corporation. (See Tarasch, Louis C., assignor.)
Pentico, Solomon, Woodward, Iowa. Combined scoop-board and end-gate. No. 1,254,982; Jan. 29; v. 246; p. 1126.
Pepper, David E., and H. Strelow, Venice, Cal. Oil-burner. No. 1,252,716; Jan. 8; v. 246; p. 403.
Perey, Hubert. (See Perey, John F. and H.)
Perey, John F. and H., Brooklyn, N. Y. Turnstile. No. 1,254,065; Jan. 22; v. 246; p. 843.
Perin, Nicholas U., Steelton, assignor of one-third to F. E. Howells and one-third to R. G. Warren, Harrisburg, Pa. Hydraulic, steam, or air valve. No. 1,252,490; Jan. 8; v. 246; p. 338.
Perkins, Charles, Bridgewater, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Machine for use in the manufacture of nails. No. 1,254,157; Jan. 22; v. 246; p. 870.
Perkins, Julius A., New York, N. Y. Bearing for rollers. No. 1,254,350; Jan. 22; v. 246; p. 925.
Perkins, Sim F., Henderson, Tex. Plow attachment. No. 1,252,491; Jan. 8; v. 246; p. 338.
Perla, Salvatore, New York, N. Y. Automatic musical instrument. No. 1,252,835; Jan. 8; v. 246; p. 435.
Perlmutter, David G., New York, N. Y. Combination article of furniture. No. 1,252,165; Jan. 1; v. 246; p. 211.
Perrin, John G., Detroit, Mich. Tire-carrier for automobiles. No. 1,251,689; Jan. 1; v. 246; p. 75.
Perry, Reuben W., Spencer, Mass. Sharpening device. No. 1,252,612; Jan. 8; v. 246; p. 373.
Peters, Fay C. (See Kaiser and Peters.)
Peters, John F., Edgewood Park, Pa., assignor to Westinghouse Electric & Manufacturing Company. Polyphase reactance-coil. No. 1,253,275; Jan. 15; v. 246; p. 595.
Peters, Melville E., G. H. Fath, and A. F. Miller, assignors to The Peters Patent Rights Company, Denver, Colo. Box-covering machine. No. 1,251,811; Jan. 1; v. 246; p. 111.
Peters, Melville E., G. H. Fath, and A. F. Miller, assignors to The Peters Patent Rights Company, Denver, Colo. Apparatus for neutralizing the curling of freshly-gummed blanks. No. 1,251,812; Jan. 1; v. 246; p. 112.
Peters, Melville E., G. H. Fath, and A. F. Miller, assignors to The Peters Patent Rights Company, Denver, Colo. First-stage treatment for box-wrapping machines. No. 1,251,813; Jan. 1; v. 246; p. 112.
Peters, Melville E., G. H. Fath, and A. F. Miller, assignors to The Peters Patent Rights Company, Denver, Colo. Second-stage treatment for box-wrapping machines. No. 1,251,814; Jan. 1; v. 246; p. 113.
Peters, Melville E., G. H. Fath, and A. F. Miller, assignors to The Peters Patent Rights Company, Denver, Colo. Box-transferring mechanism for box-wrapping machines. No. 1,251,815; Jan. 1; v. 246; p. 113.
Peters, Melville E., G. H. Fath, and A. F. Miller, assignors to The Peters Patent Rights Company, Denver, Colo. Combined second and third stage turn-in and finishing treatment for box-wrapping machines. No. 1,251,816; Jan. 1; v. 246; p. 113.
Peters, Melville E., G. H. Fath, and A. F. Miller, assignors to The Peters Patent Rights Company, Denver, Colo. Gummed-blank wipers for tight and loose types of blank-wrapping work. No. 1,251,817; Jan. 1; v. 246; p. 114.
Peters, Melville E., G. H. Fath, and A. F. Miller, assignors to The Peters Patent Rights Company, Denver, Colo. End-turn-in wiper for wrapping the end edges of boxes with gummed blanks. No. 1,251,818; Jan. 1; v. 246; p. 115.
Peters Patent Rights Company, The. (See Peters, Fath, and Miller, assignors.)
Petersen, Anker, Winthrop, Mass. Strand-guide for braiding-machines. No. 1,254,006; Jan. 22; v. 246; p. 843.
Petersen, Oluf G., Somerset, Ky. Unloading apparatus for bottom-dump cars. No. 1,252,717; Jan. 8; v. 246; p. 403.
Petersohn, August W., Anrora, Ill. Smoking-pipe. No. 1,253,878; Jan. 15; v. 246; p. 771.
Peterson, George A., Oakland, Cal. Apparatus for transforming pressure. No. 1,253,718; Jan. 15; v. 246; p. 725.
Peterson, Jonathan. (See Warner, Ethel G., assignor.)
Peterson, Miles E., Pemeta, Okla. Focusing attachment for cameras. No. 1,251,690; Jan. 1; v. 246; p. 75.
Petinot, Napoleon G., assignor to United States Alloys Corporation, New York, N. Y. Treating iron or steel. No. 1,252,023; Jan. 1; v. 246; p. 171.
Petinot, Napoleon G., assignor to United States Alloys Corporation, New York, N. Y. Manufacturing iron solid. No. 1,252,024; Jan. 1; v. 246; p. 172.
Petix, Angelo, New York, N. Y. Gas-cock and the like. No. 1,253,003; Jan. 8; v. 246; p. 514.
Petrie, Fitt C., trustee. (See Rose and Pickford, assignors.)
Petroleum Patents Company. (See Dunn, Irwin L., assignor.)
Petter, Ernest W., London, England. Means for controlling the supply of liquid fuel to internal-combustion engines. No. 1,252,166; Jan. 1; v. 246; p. 212.
Pettle, Charles A., Brooklyn, N. Y. Non-skidding traction-wheel. No. 1,251,819; Jan. 1; v. 246; p. 116.
Pettit, Charles A., St. Louis, Mo. Tractor for plows and the like. No. 1,252,167; Jan. 1; v. 246; p. 212.
Peuch, Emile, Bourges, and A. Arbey, Beure, France. Drilling, screw-cutting, and other similar machine. No. 1,254,953; Jan. 29; v. 246; p. 1126.
Pfefferkorn, William L., and A. P. Schloerb, assignors of one-third to A. H. Hammetter, Milwaukee, Wis. Extension-table. No. 1,253,719; Jan. 15; v. 246; p. 726.
Phalen, Albert E., Sandusky, Wis. Automobile pulling attachment. No. 1,253,524; Jan. 15; v. 246; p. 669.
Phelan, John C., and H. B. MacAlpine, Cleveland, Ohio. Moistening attachment for type-writer ribbons. No. 1,251,691; Jan. 1; v. 246; p. 75.
Phelps, Dexter E., Wooster, Ohio, assignor to American Chain Company, Incorporated, Bridgeport, Conn. Lazy-chain. No. 1,254,351; Jan. 22; v. 246; p. 925.
Phelps, Paul, Milwaukee, assignor to International Canning Machinery Co., Owen, Wis. Measuring apparatus. No. 1,252,613; Jan. 8; v. 246; p. 373.
Philip Carey Manufacturing Company, The. (See Moeller, William J., assignor.)

Philips-Brinton Company. (See Brinton, William C., Jr., assignor.)
Phillips, Allen A., Fresno, Cal. Match-dispensing box. No. 1,254,845; Jan. 29; v. 246; p. 1100.
Phillips, George F. (See Barnes and Phillips.)
Phillips, John H., Jr., Jackson, Mich. Phonograph. No. 1,253,276; Jan. 15; v. 246; p. 595.
Phillips, Robert A., Taylorville, Ill. Cord-holder. No. 1,252,300; Jan. 1; v. 246; p. 248.
Phinney, Edgar E., assignor to Monroe Calculating Machine Company, New York, N. Y. Calculating-machine. No. 1,253,879; Jan. 15; v. 246; p. 771.
Phoenix Glass Company, The. (See Pickhardt, Harry, assignor.)
Pianko, Mendel, Chicago, Ill. Curtain-window. No. 1,253,625; Jan. 15; v. 246; p. 669.
Pianta, Hannibal. (See Dalwigk, Hermann, assignor.)
Pickard, Ella M., Oklahoma, Okla. Hair-curler. No. 1,253,880; Jan. 15; v. 246; p. 771.
Pickhardt, Harry, New York, N. Y., assignor to The Phoenix Glass Company, Pittsburgh, Pa. Lighting-fixture. No. 1,253,881; Jan. 15; v. 246; p. 771.
Pickin, Rowland O., Chicago, Ill. Drill. No. 1,254,267; Jan. 22; v. 246; p. 900.
Pickin, Rowland O., Chicago, Ill. Core-drill. No. 1,254,268; Jan. 22; v. 246; p. 901.
Pieper, Alphonse F. (See Pieper, Oscar H. and A. F.)
Pieper, Oscar H. and A. F., Rochester, N. Y. Hot-air syringe. No. 1,252,614; Jan. 8; v. 246; p. 374.
Pierce, James L., assignor to Pacific Commercial Company, Manila, Philippine Islands. Drying apparatus. No. 1,254,431; Jan. 22; v. 246; p. 948.
Pierson, Edward, Clarke Station, Ind. Necktie-stretcher. No. 1,253,720; Jan. 15; v. 246; p. 726.
Pigott, George W., Harrisonville, Ohio. Railway-spike. No. 1,251,560; Jan. 1; v. 246; p. 86.
Pike, Robert F., Fall River, Mass. Garment-supporter. No. 1,252,168; Jan. 1; v. 246; p. 212.
Pile, John R., Owensboro, Ky. Napkin-holder. No. 1,253,277; Jan. 15; v. 246; p. 596.
Pilson, James R., Vanguard, Saskatchewan, Canada. Door-hinge. No. 1,253,882; Jan. 15; v. 246; p. 772.
Pine, James K. P., Lansingburg, assignor to United Shirt and Collar Company, Troy, N. Y. Collar. No. 1,253,418; Jan. 15; v. 246; p. 640.
Pinkerton, James. (See Newton, John E., assignor.)
Pittaluga, Stefano, Los Angeles, Cal. Can-draining machine. No. 1,254,269; Jan. 22; v. 246; p. 901.
Pittsburgh Lamp Brass & Glass Company. (See Yokel, Frank, assignor.)
Pittsburgh Plate Glass Company. (See Slingluff, Harry G., assignor.)
Pittsburgh Rolls Corporation. (See McMillin, Oliver B., assignor.)
Pittsburgh Steel Company. (See Anfindsen, Christian B., assignor.)
Pittsburgh Steel Products Company. (See Selkirk, William M., assignor.)
Plant, Henry J., assignor to Defiance Check Writer Corporation, Rochester, N. Y. Check-writing machine. No. 1,254,270; Jan. 22; v. 246; p. 902.
Plantiko, John, Withee, Wis. Stone-gatherer. No. 1,253,094; Jan. 8; v. 246; p. 514.
Plantinga, Pierre, Cleveland, Ohio. Coke-oven. No. 1,255,047; Jan. 29; v. 246; p. 1156.
Platt, Clarence D., Bridgeport, Conn. Entrance-switch. No. 1,252,492; Jan. 8; v. 246; p. 338.
Platt, Clarence D., Bridgeport, Conn. Inclosed-switch construction. No. 1,252,493; Jan. 8; v. 246; p. 338.
Platt, Clarence D., Bridgeport, Conn. Electric switch. No. 1,254,067; Jan. 22; v. 246; p. 844.
Platt, Leon D., Cleveland, Ohio. Serving-table. No. 1,252,020; Jan. 1; v. 246; p. 170.
Player, Donald W., Folkestone, England. Moving-picture apparatus. No. 1,253,883; Jan. 15; v. 246; p. 772.
Ploehn, John H., assignor to French & Hecht, Davenport, Iowa. Lap-weld and producing same. No. 1,252,025; Jan. 1; v. 246; p. 172.
Plotka, Michael. (See Bouk and Plotka.)
Plumley, Raymond L., Wilmington, Del., assignor to Frederick Osann Company, New York, N. Y. Straw-sewing machine. No. 1,252,169; Jan. 1; v. 246; p. 212.
Pneumatic Scale Corporation. (See Robinson, George A., assignor.)
Pneumatic Surgical Appliance Company. (See Carling, Rose S., assignor.)
Pochon, Roger, Grayson, Nebr. Dirigible headlight. No. 1,255,048; Jan. 29; v. 246; p. 1156.
Pogue, George D., St. Louis, Mo. Lubricating mechanism for piston-machines. No. 1,254,535; Jan. 22; v. 246; p. 978.
Pogue, George D., St. Louis, Mo. Fuel-pump for oil-engines. No. 1,254,846; Jan. 29; v. 246; p. 1100.
Polack, Charles F., York, Pa. Attachment for automobiles. No. 1,252,943; Jan. 8; v. 246; p. 467.
Polinkowsky, Lipa. (See Adams and Polinkowsky.)
Poliak, Robert R., San Francisco, Cal. Apparatus for dehydrating oil. No. 1,254,271; Jan. 22; v. 246; p. 902.
Pollard-Alling Manufacturing Company. (See De Minico, Frank, assignor.)
Pomeroy, Bennard H., Rochester, assignor, by mesne assignments, to R. E. Dietz Company, New York, N. Y. Tubular lantern. No. 1,252,836; Jan. 8; v. 246; p. 436.
Pomeroy, Florence M. (See Jones, Owen H., assignor.)
Pomeroy, Ralph E. H., McGill, Nev. Roaster-furnace top. No. 1,251,692; Jan. 1; v. 246; p. 75.
Ponon, Saul, Newark, N. J., assignor to Daylight Cinema Corporation, New York, N. Y. Endless-film reel. No. 1,254,272; Jan. 22; v. 246; p. 902.
Pool, Austin R., assignor of one-half to S. Thornburrow, Wetmore, Kans. Wheel-chain-tightening tool. No. 1,254,934; Jan. 29; v. 246; p. 1126.
Poole, George H., Perth, Ontario, Canada. Hydraulic fountain-brush. No. 1,252,837; Jan. 8; v. 246; p. 436.
Pope, Alfred T., assignor of one-half to C. Pope, Louisville, Ky. Egg-turning mechanism for incubators. No. 1,254,273; Jan. 22; v. 246; p. 902.
Pope, Curran. (See Pope, Alfred T., assignor.)
Porcelain Enamel and Manufacturing Company, The. (See Türk, Heinrich, assignor.)
Porphir, Elmer, Pittsburg, Kans. Shot-firing device. No. 1,251,820; Jan. 1; v. 246; p. 115.
Portee, Arthur G., Charleston, Ill. Nut-lock. No. 1,254,726; Jan. 29; v. 246; p. 1063.
Portella, Silvio P., São Paulo, Brazil. Sunken-ships-emerging apparatus. No. 1,253,526; Jan. 15; v. 246; p. 669.
Porter, Wilson E., assignor to New Haven Clock Co., New Haven, Conn. Mantel chime-clock. No. 1,252,170; Jan. 1; v. 246; p. 213.
Portland Industrial Company. (See Miller, Nils, assignor.)
Portnoy, Gdalle, Lynchburg, Va. Collar-button. No. 1,252,171; Jan. 1; v. 246; p. 213.
Postle, Ethan, Linton, N. D. Automatic boiler feed mechanism. No. 1,253,095; Jan. 8; v. 246; p. 514.
Postolowski, John, New York, N. Y. Cigarette-case. No. 1,252,944; Jan. 8; v. 246; p. 467.
Potash Extraction Corporation. (See Glaeser, Walter, assignor.)
Potter, Thomas I., assignor to Coin Machine Manufacturing Company, Portland, Oreg. Coin-delivering machine. No. 1,252,021; Jan. 1; v. 246; p. 171.
Potthoff, Louis, Flushing, N. Y. Tumbling apparatus. No. 1,251,567; Jan. 1; v. 246; p. 36.
Potthoff, Louis, Flushing, N. Y. Electroplating apparatus. No. 1,251,568; Jan. 1; v. 246; p. 37.
Potthoff, Louis, Montclair, N. J., and G. W. Schweinsberg, Brooklyn, N. Y.; said Schweinsberg assignor to said Potthoff. Electroplating apparatus. No. 1,251,569; Jan. 1; v. 246; p. 37.
Potts, Fred E. (See Stine, Ardon M., assignor.)
Poulson, Andrew, Widnes, England. Bleaching, scouring, and decorticating fabrics or fibrous matter. No. 1,254,727; Jan. 29; v. 246; p. 1064.
Powell, Alfred S., New York, N. Y. Semi-indirect-lighting device. No. 1,254,728; Jan. 29; v. 246; p. 1064.
Powell, Alfred S., New York, N. Y. Device for ornamenting shades or reflectors. No. 1,254,729; Jan. 29; v. 246; p. 1064.
Power Washing Machine Co. (See Altorfer, Alpheus W., assignor.)
Power y Zabala, Jose, West Ferry, Dundee, Scotland. Machine for sewing hemp soles. No. 1,253,762; Jan. 15; v. 246; p. 738.
Powers Accounting Machine Company. (See Lasker, William W., assignor.)
Powers, George A., assignor of one-half to The Butler Company, Butler, Ind. Ratchet force-pump. No. 1,252,718; Jan. 8; v. 246; p. 403.
Pradier, Enogat C., Detroit, Mich., assignor to Société Anonyme du Carburateur, Zenith, Lyon, France. Carbureter. No. 1,251,570; Jan. 1; v. 246; p. 37.
Prall, Nathan C., Carlisle, Iowa. Cultivator attachment. No. 1,251,821; Jan. 1; v. 246; p. 116.
Pratley, Harry H., Kansas City, Mo. Sound-producing device. No. 1,251,918; Jan. 1; v. 246; p. 141.
Pratt, Martha B., Albany, N. Y. Can. No. 1,252,494; Jan. 8; v. 246; p. 339.
Pratt & Whitney Company. (See Müller, Friederich, assignor.)
Pregenzer, Joseph M., Chicago, Ill. X-ray tube. No. 1,253,721; Jan. 15; v. 246; p. 726.
Preifert, Frederick C., and F. Schuls, Beaver Crossing, Nebr. Automobile-jack. No. 1,254,352; Jan. 22; v. 246; p. 925.
Premru, Ivan, South Norwalk, Conn. Mechanical hand-fan. No. 1,251,571; Jan. 1; v. 246; p. 38.
Prendergast, James, Syracuse, N. Y. Puzzle. No. 1,251,822; Jan. 1; v. 246; p. 116.
Pressed Steel Car Company. (See Lockwood, Burns D., assignor.)
Pressloid Company, The. (See Schreurs and Metz, assignors.)
Preston, Ben H., Monroe, Wis. Measuring instrument. No. 1,253,096; Jan. 8; v. 246; p. 515.
Preston, Frederick A., Highland Park, assignor to The Madden Company, Chicago, Ill. Track-clamp. No. 1,254,847; Jan. 29; v. 246; p. 1101.
Prettie, Richard J., Jamaica, N. Y., assignor to The Aeolian Company. Sound-box. No. 1,253,527; Jan. 15; v. 246; p. 670.
Prettie, Richard J., Jamaica, N. Y., assignor to The Aeolian Company. Automatic record-repeating means for phonographs and the like. No. 1,255,117; Jan. 29; v. 247; p. 1175.

Price, Charles S., Rutherford, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y. Electrical protective apparatus. No. 1,251,572; Jan. 1; v. 246; p. 38.
Price, Harry, Boston, Mass. Oil vaporizer and burner. No. 1,252,301; Jan. 1; v. 246; p. 248.
Price, Willie S., Thomasville, Ga. Window-screen. No. 1,251,823; Jan. 1; v. 246; p. 116.
Pribbe, Herman C., Blue Island, Ill. Draft-gear. No. 1,253,186; Jan. 8; v. 246; p. 541.
Pribbe, Herman C., Blue Island, Ill. Draft-gear. No. 1,253,187; Jan. 8; v. 246; p. 541.
Priel, Martin W., Spokane, Wash. Antiskid device. No. 1,253,722; Jan. 15; v. 246; p. 726.
Priest, Leslie R., Oakland, Cal. Gas-engine piston. No. 1,254,353; Jan. 22; v. 246; p. 926.
Priester, Philip G., Catonsville, Md. Alarm-bell. No. 1,251,919; Jan. 1; v. 246; p. 142.
Prifold, George, Linwood, assignor to The Congoleum Company, Philadelphia, Pa. Printing fabrics. No. 1,255,049; Jan. 29; v. 246; p. 1156.
Prime, Joseph C., Hornell, N. Y. Leather-cutting machine. No. 1,252,172; Jan. 1; v. 246; p. 213.
Princeton Knitting Mills. (See Heber, William R., assignor.)
Pringle, William T., Wyncote, Pa. Electric switch. No. 1,252,838; Jan. 8; v. 246; p. 436.
Prichard, John J., Birmingham, England. Inflated apparatus for preventing drowning and assisting swimming. No. 1,252,173; Jan. 1; v. 246; p. 213.
Process Company, The. (See Coast, John W., Jr., assignor.)
Proctor, Walter S., Candler, N. C. Shaving-brush. No. 1,252,710; Jan. 8; v. 246; p. 404.
Prucunier, Henry E., Chicago, Ill. Lamp holder and adjuster. No. 1,254,068; Jan. 22; v. 246; p. 844.
Progressive Manufacturing Company, The. (See Chase, Frank S., assignor.)
Prosser, Thomas W. (See Smith and Prosser.)
Protasiak, Józef, Milwaukee, Wis. Automobile-signal. No. 1,254,730; Jan. 29; v. 246; p. 1064.
Prouty, George W., Dorchester, Mass. Machine for wrapping bales. No. 1,253,884; Jan. 15; v. 246; p. 772.
Provost, Peter, Milwaukee, Wis. Grain-drier. No. 1,251,573; Jan. 1; v. 246; p. 38.
Pryor, George E., Los Angeles, Cal. Expanding device for spectacle-rims. No. 1,254,274; Jan. 22; v. 246; p. 903.
Puckett, Robert B., and H. R. Abbott, St. Louis, Mo. Heel. No. 1,253,278; Jan. 15; v. 246; p. 596.
Puckett, Robert B., and H. R. Abbott, St. Louis, Mo. Manufacturing tenoned heels. No. 1,253,279; Jan. 15; v. 246; p. 596.
Puckett, Robert B., and H. R. Abbott, St. Louis, Mo. Apparatus for use in operating upon shoe-soles. No. 1,254,010; Jan. 15; v. 246; p. 807.
Pummill, George R., Corsicana, Tex. Hinge gage and marking tool. No. 1,251,693; Jan. 1; v. 246; p. 76.
Pursel, John D., New York, N. Y. Resilient wheel. No. 1,254,536; Jan. 22; v. 246; p. 978.
Putnam, Alden L., assignor to Detroit Pressed Steel Company, Detroit, Mich. Forming metallic wheels. No. 1,253,419; Jan. 15; v. 246; p. 641.
Putnam, Alden L., assignor to Detroit Pressed Steel Company, Detroit, Mich. Demountable wheel. No. 1,253,420; Jan. 15; v. 246; p. 641.
Pyle-National Electric Headlight Company. (See Dake, Charles W., assignor.)
Quantz, Albert T., Rock Hill, S. C. Loom. No. 1,253,902; Jan. 15; v. 246; p. 802.
Queenan, William, and C. Farwell, Aurora, Ill. Door for freight-cars. No. 1,252,026; Jan. 1; v. 246; p. 172.
Quigley, John T., assignor to Costmeter Company, Boston, Mass. Costmeter equipment. No. 1,254,537; Jan. 22; v. 246; p. 978.
Quill, Charles J., assignor, by mesne assignments, to E. W. Beardsley, trustee, San Francisco, Cal. Current-rectifier. No. 1,252,615; Jan. 8; v. 246; p. 374.
Quinby, James H., San Jose, Cal. Method of forming flange-grooves and molds therefor. No. 1,255,050; Jan. 29; v. 246; p. 1157.
Quinn, Don L., Oak Park, Ill., assignor to Chicago Mill and Lumber Company. Feed-trough for poultry-crates. No. 1,253,723; Jan. 15; v. 246; p. 727.
Quinones, Alfredo, New Orleans, La. Electrical exercising device. No. 1,253,885; Jan. 15; v. 246; p. 773.
R. Hoe and Co. (See Roesen, Oscar, assignor.)
R. D. Wood & Co. (See Green, Charles B., assignor.)
R. E. Dietz Company. (See Pomeroy, Bennard H., assignor.)
Raboun, Wiley T., and W. F. Schultheiss, San Diego, Cal. Equipment for green-sand molding. No. 1,252,945; Jan. 8; v. 246; p. 467.
Rackleyeft, George S., Buffalo, N. Y. Stencil. No. 1,254,354; Jan. 22; v. 246; p. 926.
Rader, Joe, assignor of one-half to H. A. Hazlett, Belva, Okla. Rail-joint. No. 1,253,724; Jan. 15; v. 246; p. 727.
Radiant Heating Limited. (See Bone, Wilson, and McCourt, assignors.)
Radke, John W., Dollar Bay, Mich. Vegetable-harvester. No. 1,255,051; Jan. 29; v. 246; p. 1157.
Radovich, Harry, New York, N. Y. Wheel rim and tire construction. No. 1,252,839; Jan. 8; v. 246; p. 437.
Radtfeldt, Fred A., Zearing, Iowa. Harness-vise. No. 1,253,725; Jan. 15; v. 246; p. 727.
Rakestraw, Thomas G., Detroit, Mich. Steam-trap. No. 1,252,720; Jan. 8; v. 246; p. 404.
Ralls, James C., Sheffield, England. Door-fastening for motor-cars, carriages, and other vehicles. No. 1,252,027; Jan. 1; v. 246; p. 172.
Ramsay, Hugh V., Gloucester City, N. J. Hoisting apparatus. No. 1,252,174; Jan. 1; v. 246; p. 213.
Randall, Charles C., Olean, N. Y. Linotype-machine. No. 1,253,726; Jan. 15; v. 246; p. 727.
Randall, Charles F., Chicago, Ill. Dumping mechanism for vehicle-containers. No. 1,251,574; Jan. 1; v. 246; p. 38.
Randall, John A., Minneapolis, Minn. Potato-digger. No. 1,251,575; Jan. 1; v. 246; p. 39.
Randall, Myron R., Waupaca, Wis. Gun-sight and mounting therefor. No. 1,251,694; Jan. 1; v. 246; p. 76.
Randall, Wellington, Marysville, Wash. Straw-spreader. No. 1,255,052; Jan. 29; v. 246; p. 1157.
Rapp, Fred G. (See Bender, George E., assignor.)
Rasmussen, Andrew, Racine Junction, Wis. Power hack-saw-machine. No. 1,253,421; Jan. 15; v. 246; p. 641.
Rasmussen, Oswald E., West Hoboken, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,252,028; Jan. 1; v. 246; p. 172.
Rasner, Abraham, *et al.* (See Richards, John M., assignor.)
Rassmann, Hugo C., Beaver Dam, Wis. Watering device for cattle. No. 1,254,848; Jan. 29; v. 246; p. 1101.
Ratchet Brake Company. (See Blackall, Robert H., assignor.)
Rateau Battu Smoot Company. (See Smoot, Charles H., assignor.)
Rathbun, Irving C., Whitehall, Mich. Cotter-pin extractor. No. 1,252,840; Jan. 8; v. 246; p. 437.
Rauwald, Joseph, assignor to Key Safe Company, Milwaukee, Wis. Safe. No. 1,254,433; Jan. 22; v. 246; p. 948.
Ray, Charles T., assignor to B. F. Avery & Sons, Louisville, Ky. Cultivator. No. 1,253,993; Jan. 15; v. 246; p. 802.
Ray, William F., Chicago, Ill. Tire or interliner structure. No. 1,251,576; Jan. 1; v. 246; p. 39.
Ray, William H. (See Craig and Ray.)
Ray, William R., San Francisco, Cal. Oil-burner. No. 1,253,422; Jan. 15; v. 246; p. 642.
Rayburn, Charles F., Moscow, Idaho. Excavating-machine. No. 1,252,175; Jan. 1; v. 246; p. 214.
Rea, Agostino, Helper, Utah. Railway attachment for bicycles. No. 1,254,434; Jan. 22; v. 246; p. 948.
Read, Elkins, Lonaconing, Md. Rail-clip. No. 1,252,946; Jan. 8; v. 246; p. 468.
Read, Frank P., Chicago, Ill. Record-file. No. 1,253,629; Jan. 15; v. 246; p. 698.
Read, Marion G., New York, N. Y. Water-heating fireplace grate and basket. No. 1,252,176; Jan. 1; v. 246; p. 214.
Reagan Bale Company. (See Taft, John A., assignor.)
Reap, Michael H., Scranton, Pa. Coal-handling-jig gate. No. 1,252,947; Jan. 8; v. 246; p. 468.
Reardon, P. H. (See Davol, George K., assignor.)
Reardon, Robert E., Ottawa, Ontario, Canada. Rod for target practice. No. 1,254,069; Jan. 22; v. 246; p. 844.
Reardon, Robert E., Ottawa, Ontario, Canada. Target-holder for practice-rods having casings. No. 1,254,070; Jan. 22; v. 246; p. 844.
Recen, Henry A. (See Knorr, Theodore H., assignor.)
Recording and Computing Machines Company, The. (See Bechtolt, Clarence E., assignor.)
Recording and Computing Machines Company, The. (See Burkitt, Floyd A., assignor.)
Recording and Computing Machines Company, The. (See Wuebben, Bernard H., assignor.)
Redburn, George W., and C. Heilrath, Sacramento, Cal. Resilient vehicle-wheel. No. 1,253,280; Jan. 15; v. 246; p. 596.
Redfern, Thomas C., Hyde, England. Shoe-sole. No. 1,255,107; Jan. 29; v. 246; p. 1172.
Redfield, Josiah B., North Platte, Nebr. Mouth-gag. No. 1,252,177; Jan. 1; v. 246; p. 214.
Reding & Hauser. (See Hauser, Charles E., assignor.)
Reece Button Hole Machine Company, The. (See Zaleski, Frank, assignor.)
Reed, James H. (See Lawson and Reed.)
Reed, Leo S., assignor to Wiley Pump & Manufacturing Co., McKeesport, Pa. Governor-blade pump. No. 1,252,841; Jan. 8; v. 246; p. 437.
Reed, Willis C., Cambridge, Ill. Burglar-alarm. No. 1,254,849; Jan. 29; v. 246; p. 1101.
Rees, Edmund S. G., Stafford, England. Evacuation and compression of gases. No. 1,252,178; Jan. 1; v. 246; p. 215.
Rees, James P. (See Strick and Reese.)
Reese, Louis C., assignor to Werner & Pfleiderer Co., Inc., Saginaw, Mich. Oven-furnace. No. 1,253,188; Jan. 8; v. 246; p. 541.
Reeve, Sidney A., Tompkinsville, N. Y. Internal-combustion engine. No. 1,253,528; Jan. 15; v. 246; p. 670.
Reeves, Frank N., Newark, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,252,948; Jan. 8; v. 246; p. 469.
Regal Button Works. (See Edelson, Harry, assignor.)
Regal, John, Jr., Lundgren, Minn. Trap. No. 1,253,886; Jan. 15; v. 246; p. 773.

Reichenbach, Henry M., Detroit, Mich. Fuel-supplying device for internal-combustion engines. No. 1,254,355; Jan. 22; v. 246; p. 926.
Reichenbach, Henry M., Detroit, Mich. Nebulizer and vaporizer for internal-combustion engines. No. 1,254,356; Jan. 22; v. 246; p. 927.
Reichenberger, Leo H., Mount Hope, Kans. Hub attachment. No. 1,251,020; Jan. 1; v. 246; p. 142.
Reichert, John, Racine, Wis. Hame and trace connection. No. 1,254,275; Jan. 22; v. 246; p. 903.
Reid, John, New York, N. Y. Suction-dredge. No. 1,254,357; Jan. 22; v. 246; p. 927.
Reif, Ellen W., Lindenwold, N. J. Toy. No. 1,252,616; Jan. 8; v. 246; p. 374.
Reifsnyder, James D., assignor to Stokes & Smith Company, Summerdale, Philadelphia, Pa. Label-applying machine. No. 1,254,276; Jan. 22; v. 246; p. 903.
Reiling, Theodore G., Louisville, Ky. Tag-printing press. No. 1,252,949; Jan. 8; v. 246; p. 469.
Reimann, Paul F., Chicago, Ill. Concrete-mixer. No. 1,254,935; Jan. 29; v. 246; p. 1126.
Reinile, William F., assignor to Illinois Tool Works, Chicago, Ill. Chuck. No. 1,254,071; Jan. 22; v. 246; p. 845.
Reizenstein, Charles L., Pittsburgh, Pa. Decorated glassware. No. 1,251,577; Jan. 1; v. 246; p. 40.
Relay Automatic Telephone Company, The. (See Betulander and Palmgren, assignors.)
Remington Typewriter Company. (See Barr and Carhart, assignors.)
Remington Typewriter Company. (See Yaw, Clio B., assignor.)
Rennells, Leon E., Albany, Oreg. Cut-out device for telephone-transmitters. No. 1,251,695; Jan. 1; v. 246; p. 76.
Renzenberger, Frank. (See King, Renzenberger, and Holmes.)
Requa, Ralph W., Chico, Cal. Combined fish-screen and debris-remover. No. 1,252,617; Jan. 8; v. 246; p. 375.
Reschke, William F., Wichita, Kans. Attachment for lister-cultivators. No. 1,253,529; Jan. 15; v. 246; p. 670.
Reuter, Edmund W., Allentown, Pa. Permutation-lock. No. 1,254,435; Jan. 22; v. 246; p. 949.
Rex Typewriter Company. (See Henry, Hubert K., assignor.)
Reynal, Louis S., New Britain, assignor to The American Paper Goods Company, Kensington, Conn. Making paper drinking-cups. No. 1,254,850; Jan. 29; v. 246; p. 1102.
Reynolds, Benjamin S., Madison, Wis. Concrete-mixing machine. No. 1,253,097; Jan. 8; v. 246; p. 515.
Reynolds, Everett, assignor of one-half to A. K. Caldwell, Waynesburg, Ky. Gasolene-burner. No. 1,254,277; Jan. 22; v. 246; p. 904
Reynolds, William, Passaic, N. J., assignor, by mesne assignments, to Addressograph Company, Chicago, Ill. Printing-machine. No. 1,254,731; Jan. 29; v. 246; p. 1064.
Rheinheimer, William A., *et al.* (See Myers, Charles E., assignor.)
Rhoades, Alonzo E., assignor, by mesne assignments, to Draper Corporation, Hopedale, Mass. Warping-machine. No. 1,254,936; Jan. 29; v. 246; p. 1126.
Rhodes, Henry J., Rochester, N. Y. Food compound. No. 1,252,029; Jan. 1; v. 246; p. 173.
Rhodes, Nafe C. (See Bannon and Rhodes.)
Rhuiman, William A. (See Imhoff, Cooke, and Rhulman.)
Rice, Frank C., Newport, R. I. Puzzle-box. No. 1,254,538; Jan. 22; v. 246; p. 979.
Rice, Harry A. H., Duncan, British Columbia, Canada. Trolling-spoon. No. 1,252,721; Jan. 8; v. 246; p. 404.
Rice Manufacturing Co. (See Hockett, Walter E., assignor.)
Rich, Homer B., Alston, Mass. Receptacle. No. 1,251,921; Jan. 1; v. 246; p. 142.
Rich, Waldo A., Jr., assignor to Dennison Manufacturing Company, Framingham, Mass. Die. No. 1,254,732; Jan. 29; v. 246; p. 1065.
Richards, Elmer, Los Angeles, Cal. Valve. No. 1,253,098; Jan. 8; v. 246; p. 515.
Richards, John M., Beaver Falls, assignor of one-fourth to A. Rasner, Pittsburgh, one-fourth to A. W. Francis, Beaver Falls, and one-fourth to E. M. S. Young, Crafton, Pa. Cutter. No. 1,252,495; Jan. 8; v. 246; p. 339.
Richards, Julius H., assignor to Splitdorf Electrical Company, Newark, N. J. Engine-starter. No. 1,254,851; Jan. 29; v. 246; p. 1102.
Richardson, Bayard E., assignor to Mechano Gear Shift Co., Grand Rapids, Mich. Gear-shifting mechanism. No. 1,253,887; Jan. 15; v. 246; p. 773.
Richardson, Henry. (See Watkins, Orin H., assignor.)
Richardson, Jeffers F., assignor to Buffalo Steam Roller Company, Buffalo, N. Y. Scarifier. No. 1,252,950; Jan. 8; v. 246; p. 470.
Richardson-Phenix Co., The. (See Osborne, William L., assignor.)
Richardson, Wellington G., Cambridge, Mass. Life-preserver. No. 1,252,842; Jan. 8; v. 246; p. 438.
Richer, Joseph R. (See Olson and Richer.)
Rider, Herbert E., Brooklyn, N. Y., assignor to Automatic Phono-Stop Company, Inc. Automatic stop for phonographs and other rotary mechanism. No. 1,252,951; Jan. 8; v. 246; p. 470.
Ridge, Stockwell A., Elmira, N. Y. Glare-shield for automobiles. No. 1,253,281; Jan. 15; v. 246; p. 597.
Ridgeway, W. A., *et al.* (See Ward, John A., assignor.)
Ridley, Arthur G. B. (See Speed and Ridley.)
Riecken, William E., assignor to Western Electric Company, Incorporated, New York, N. Y. Shaping-machine. No. 1,251,578; Jan. 1; v. 246; p. 40.
Rieder, Ernest, Lake Forest, Ill. Mortising-machine. No. 1,251,579; Jan. 1; v. 246; p. 40.
Riedler, Alois, Berlin, Germany. Crank-shaft. No. 1,254,159; Jan. 22; v. 246; p. 870.
Riesenecker, Peter, Chicago, Ill. Means for and method of operating on canned goods. No. 1,252,302; Jan. 1; v. 246; p. 249.
Rigby, George E., Manchester, England. Adjusting means for the driving belts or chains of motor-cycles and the like. No. 1,252,952; Jan. 8; v. 246; p. 470.
Riker, Andrew L., Bridgeport, Conn., assignor to The "Locomobile" Company of America, New York, N. Y. Internal-combustion engine. No. 1,253,630; Jan. 15; v. 246; p. 699.
Riley, Charles E., Newton, Mass., assignor to H & B American Machine Company, Pawtucket, R. I. Apparatus for distributing cotton or other materials. No. 1,251,580; Jan. 1; v. 246; p. 41.
Rinehart, Bentley L., Philadelphia, Pa. Means for providing explosive mixtures. No. 1,254,358; Jan. 22; v. 246; p. 927.
Rintelman, Anton H., Chicago, Ill. Sound-reproducing machine. No. 1,252,843; Jan. 8; v. 246; p. 438.
Risley, Sheridan, assignor to The Cleveland Dental Manufacturing Company, Cleveland, Ohio. Dental tool. No. 1,252,179; Jan. 1; v. 246; p. 215.
Ritchie, John, New York, N. Y. Latch for automobile-doors. No. 1,253,530; Jan. 15; v. 246; p. 671.
Ritts, William H. (See Hampton and Ritts.)
River and Rail Transportation Company. (See Kirchner, Henry W., assignor.)
Rivera, José S., Habana, Cuba. Machine for writing musical characters and indications. No. 1,251,922; Jan. 1; v. 246; p. 142.
Roach, William W., Philadelphia, assignor of six one-hundredths to E. A. Teepell, West Philadelphia, Pa., and one-third to H. J. Waring, New York, N. Y. Automobile-brake. (Reissue.) No. 14,426; Jan. 22; v. 246; p. 1010.
Robbins, David, Clifton, Ariz. Advertising device. No. 1,254,359; Jan. 22; v. 246; p. 928.
Roberson, Ella, Tulia, Tex. Chute for garbage. No. 1,253,099; Jan. 8; v. 246; p. 516.
Roberts, Charles C., Ansonia, Conn. Machine and method for coating with metal. No. 1,252,363; Jan. 1; v. 246; p. 264.
Roberts, George C. (See Schmidt and Roberts.)
Roberts, Gus F., Fries, Va. Cleaner for spinning-machines. No. 1,252,180; Jan. 1; v. 246; p. 215.
Roberts, James M., St. Joseph, Mo. Wire-stretcher. No. 1,252,953; Jan. 8; v. 246; p. 470.
Roberts, Lyman R., Rutherford, N. J., assignor to Underwood Typewriter Company, New York, N. Y. Automatic type-writer operator. No. 1,252,844; Jan. 8; v. 246; p. 438.
Roberts, Lyman R., Rutherford, N. J., assignor to Underwood Typewriter Company, New York, N. Y. Automatic type-writer operator. No. 1,252,845; Jan. 8; v. 246; p. 439.
Roberts, Lyman R., Rutherford, N. J., assignor to Underwood Typewriter Company, New York, N. Y. Automatic type-writer operator. No. 1,252,846; Jan. 8; v. 246; p. 439.
Roberts, Roy P., Chicago, Ill. Carbureter attachment. No. 1,252,303; Jan. 1; v. 246; p. 249.
Roberts, Samuel A., Corsicana, Tex. Resilient wheel. No. 1,253,531; Jan. 15; v. 246; p. 671.
Roberts, Willard C., Lindenwood, Ill. Spike. No. 1,255,108; Jan. 29; v. 246; p. 1173.
Roberts, William, Springfield, Ohio. Power-transmitting attachment for automobile-wheels. No. 1,252,847; Jan. 8; v. 246; p. 439.
Robertson, Walter E., Venus, Tex. Resilient wheel. No. 1,254,278; Jan. 22; v. 246; p. 904.
Robins, William. (See Scott and Robins.)
Robinson, Ardith J., Garibaldi, Oreg. Automatic cut-off for water-glasses. No. 1,253,727; Jan. 15; v. 246; p. 728.
Robinson, Charles A., Beacon, assignor to R. S. Tompkins, Fishkill-on-the-Hudson, N. Y. Fur-mixed felt. No. 1,253,532; Jan. 15; v. 246; p. 671.
Robinson, George A., Wollaston, assignor to Pneumatic Scale Corporation, Limited, Quincy, Mass. Carton-blank-feeding machine. No. 1,252,030; Jan. 1; v. 246; p. 173.
Robinson, William S., assignor to Armstrong Bros. Tool Co., Chicago, Ill. Planer-tool holder. No. 1,252,031; Jan. 1; v. 246; p. 173.
Rodd, Fredrick W., Cleveland, Ohio. Machine for threading screws. No. 1,253,631; Jan. 15; v. 246; p. 699.
Roderick Lean Manufacturing Company. (See Warne, Frederick C., assignor.)
Rodger Ballast Car Company. (See Dorey, George B., assignor.)
Rodger Ballast Car Company. (See Yost, Winfield H., assignor.)
Rodriguez y Sol, M. (See Fernandez, José V., assignor.)

Hoesen, Oscar, assignor to R. Hoe and Co., New York, N. Y. Inking mechanism for plate-printing machines. No. 1,253,423; Jan. 15; v. 246; p. 642.

Hoesen, Oscar, assignor to R. Hoe and Co., New York, N. Y. Driving mechanism for plate-printing machines. No. 1,253,424; Jan. 15; v. 246; p. 642.

Hoessler & Hasslacher Chemical Co., The. (See Anders, Hanns R., assignor.)

Hoessler & Hasslacher Chemical Company, The. (See Lacy, Burritt S., assignor.)

Hoessler & Hasslacher Chemical Company, The. (See Liebknecht, Otto, assignor.)

Hoessler & Hasslacher Chemical Co., The. (See Weber, Friedrich W., assignor.)

Hoyer, Karl, Berlin, Germany, assignor to Mergenthaler Linotype Company, Typographical composing and line-casting machine. No. 1,254,279; Jan. 22; v. 246; p. 904.

Hogers, Almira V., administratrix. (See Rogers, Charles W.)

Hogers, Charles W., deceased, Kansas City, Mo.; A. V. Rogers, administratrix. Beet-harvesting machine. No. 1,253,426; Jan. 15; v. 246; p. 643.

Hogers, Clarence T., New York, N. Y. Coasting-sled. No. 1,253,425; Jan. 15; v. 246; p. 642.

Hogers, Harrison W., New York, N. Y. Sound-transmitting apparatus. No. 1,253,533; Jan. 15; v. 246; p. 671.

Hogers, Harrison W., New York, N. Y. Film-control mechanism for motion-picture and sound-reproducing means. No. 1,254,436; Jan. 22; v. 246; p. 949.

Hogers, James C., Birmingham, Ala. Garter. No. 1,253,728; Jan. 15; v. 246; p. 728.

Hohmer, Martin, Gersthofen, near Augsburg, Germany, assignor to Farbwerke Vorm. Meister Lucius & Bruning, Höchst-on-the-Main, Germany. Producing nitrogen simultaneously with oxids of nitrogen. No. 1,253,534; Jan. 15; v. 246; p. 671.

Holph, Benjamin M., Dixon, Ill. Ditching-machine. No. 1,252,496; Jan. 8; v. 246; p. 339.

Homanowski, Joseph. (See Janiszewski, Waclaw, assignor.)

Honning, Adolph. (See Ronning, Andrean G. and A.)

Honning, Andrean G. and A., Boyd, assignors to United States Ensilage Harvester Company, Minneapolis, Minn. Silo-filling fixture. No. 1,251,606; Jan. 1; v. 246; p. 76.

Hose, Arie, Newton, Iowa. Stalk-cutter. No. 1,251,824; Jan. 1; v. 246; p. 116.

Hose, Elias B., Bozeman, Mont. Unloading attachment for sweep-rakes. No. 1,252,723; Jan. 8; v. 246; p. 405.

Hose, Hugh, Stanmore, near Sydney, and E. J. Bickford, Randwick, near Sydney, assignors to F. C. Petrie, trustee, Sydney, New South Wales, Australia. Reversible seat. No. 1,254,437; Jan. 22; v. 246; p. 950.

Hose, James R., Edgeworth, Pa. Apparatus for producing combustible fuel. No. 1,252,032; Jan. 1; v. 246; p. 174.

Hose, James R., Edgeworth, Pa. Manufacturing gaseous fuel. No. 1,252,033; Jan. 1; v. 246; p. 174.

Hose, James R., Edgeworth, Pa. Manufacturing gaseous fuel. No. 1,254,360; Jan. 22; v. 246; p. 928.

Hosen, Louis W. (See Brauner and Rosen.)

Hosenberg, Ralph H., assignor to The Kinnear Manufacturing Company, Columbus, Ohio. Driving mechanism for automobiles. No. 1,252,034; Jan. 1; v. 246; p. 175.

Hosenblatt, Joseph, Providence, R. I. Eyeglass-mounting. No. 1,251,561; Jan. 1; v. 246; p. 41.

Hosenfield, William W., New York, N. Y. Suction-cleaner. No. 1,253,535; Jan. 15; v. 246; p. 672.

Hosner, Adolph, Bridgeport, Conn., assignor to The "Locomobile" Company of America, New York, N. Y. Internal-combustion engine. No. 1,254,852; Jan. 29; v. 246; p. 1103.

Hoss, C. I., *et al.* (See McGahan, George A., assignor.)

Hoss, George, Kansas City, Mo. Producing road-surfacing material. No. 1,252,722; Jan. 8; v. 246; p. 405.

Hoss, Matt F., Windfall, Ind. Motor-vehicle construction. No. 1,253,729; Jan. 15; v. 246; p. 728.

Hosser, John O., Mill Hall, Pa. Artificial eye. No. 1,253,888; Jan. 15; v. 246; p. 778.

Hossiter, George A. (See Carrie, Mervyn E., assignor.)

Hotary Meter Company. (See Mayer, Charles P., assignor.)

Hothermel, Samuel W., Brooklyn, assignor to The Western Union Telegraph Company, New York, N. Y. Mechanical phase-corrector for multiplex-telegraph distributers. No. 1,253,880; Jan. 15; v. 246; p. 774.

Hottman, George, New York, N. Y. Envelop-clasp. No. 1,253,427; Jan. 15; v. 246; p. 643.

Hounds, Theodore, Poplar, Mont. Oil-can. No. 1,253,890; Jan. 15; v. 246; p. 774.

Howlands, Percy O., Liverpool, England. Apparatus for vaporizing hydrocarcons. No. 1,252,955; Jan. 8; v. 246; p. 471.

Hoy, Joseph O. H., Montreal, Quebec, Canada. Fitting-form. No. 1,252,618; Jan. 8; v. 246; p. 375.

Hoyce, Howard W., Chicago, Ill., assignor to Semet-Solvay Company, Solvay, N. Y. Automatic controller. No. 1,252,497; Jan. 8; v. 246; p. 339.

Hoyster, David O., St. Louis, Mo. Combined motion-picture apparatus and phonograph. No. 1,252,804; Jan. 1; v. 246; p. 249.

Hubber Regenerating Company. (See Steinle, William J., assignor.)

Hubió y Rogers, Ramon. (See Casanovas and Rubió y Rogers.)

Huckardt, Gustav, New Hampton, Iowa. Combined lamp and battery-tester. No. 1,253,282; Jan. 15; v. 246; p. 597.

Hudd, Harold H. (See Cook and Hudd.)

Huddiman, John, Hastings-upon-Hudson, N. Y. Gas-cleaner. No. 1,254,438; Jan. 22; v. 246; p. 950.

Huddle, Thomas A., and N. C. Ahl, Philadelphia, Pa. Pencil-sharpener. No. 1,254,539; Jan. 22; v. 246; p. 979.

Huden, Arthur C., East Cleveland, Ohio. Differential gearing. No. 1,254,540; Jan. 22; v. 246; p. 979.

Hudin, Samuel, *et al.* (See Hoppie, Charles W., assignor.)

Hudolph Wurlitzer Manufacturing Company, The. (See Ouchie, Elmer L., assignor.)

Hudsinski, John S., Perry, Wyo. Link-padlock. No. 1,253,100; Jan. 8; v. 246; p. 516.

Huggles, Louis G. (See Miller and Huggles.)

Hunkle, John F., Cleveland, Ohio. Gear-shifting mechanism. No. 1,252,305; Jan. 1; v. 246; p. 249.

Hush, Theodore H., assignor to J. Magee, 2d, Bloomsburg, Pa. Stop-motion for looms. No. 1,253,632; Jan. 15; v. 246; p. 699.

Huss, William W., Lawrence, Kans. Matrix-band for dental purposes. No. 1,255,109; Jan. 29; v. 246; p. 1173.

Hussell, George H., Florence, Ala. Cattle-guard. No. 1,254,072; Jan. 22; v. 246; p. 845.

Hussell Grader Manufacturing Company. (See Anderson, Axel, assignor.)

Hussell, Guy M., Rochester, assignor to American Piano Company, New York, N. Y. Treadle-shifting and door-opening mechanism for automatic player-pianos. No. 1,252,035; Jan. 1; v. 246; p. 175.

Hussell, William T. (See Hicks and Russell.)

Husso, Andrew, Fitchburg, Mass. Swimming device. No. 1,252,619; Jan. 8; v. 246; p. 375.

Huth, John F., St. Louis, Mo. Window. No. 1,254,280; Jan. 22; v. 246; p. 905.

Huzicka, Joseph, and F. Kubovy, Prince George county, Va. Wagon for collecting and conveying ashes. No. 1,252,181; Jan. 1; v. 246; p. 215.

Ryan, Michael C., Phoenix, N. Y. Magnet thermal electric-light flasher. No. 1,251,825; Jan. 1; v. 246; p. 117.

Rydell, Carl, Manila, Philippine Islands. Boat releasing and restraining device for boat-launching apparatus. No. 1,253,101; Jan. 8; v. 246; p. 516.

Rydquist, Adolph, Rochester, N. Y. Check-controlled apparatus. No. 1,252,036; Jan. 1; v. 246; p. 175.

Ryland, Charles F., Aldershot, England. Magnetic compass. No. 1,254,361; Jan. 22; v. 246; p. 928.

Ryon, Robert W., Talmage, Kans. Hog-watering apparatus. No. 1,254,937; Jan. 29; v. 246; p. 1127.

S. Sternau & Co. (See Ball, Henry P., assignor.)

S.-P. Vaporizer Co. (See Von Wladkowsky, Julius, assignor.)

S.-P. Vaporizer Company. (See Willis, Frederick M., assignor.)

Safe-Cabinet Co., The. (See Dick and Bloomdale, assignors.)

Safety Car Heating and Lighting Company. (See Creveling, John L., assignor.)

Sagazii, Henry W. (See Erdle, Reiner, assignor.)

Sager, James H., assignor to J. H. Sager Company, Rochester, N. Y. Bumper for automobiles. No. 1,251,697; Jan. 1; v. 246; p. 77.

Sager, James H., assignor to J. H. Sager Company, Rochester, N. Y. Bumper for automobiles. No. 1,251,698; Jan. 1; v. 246; p. 77.

Salcines, Lecticio, Guantánamo, Cuba. Centrifugal machine. No. 1,253,428; Jan. 15; v. 246; p. 643.

Salerni, Marie-Therese E. (See Vincent, Heller A., assignor.)

Saliger, Alois B., New York, N. Y., assignor, by mesne assignments, to The Beck Duplicator Company. Duplicator. No. 1,254,733; Jan. 29; v. 246; p. 1066.

Salinas y Souza, Benigno, Duran, assignor to A. C. Smith, Habana, Cuba. Automatic cane-juice filter. No. 1,254,160; Jan. 22; v. 246; p. 871.

Salway, Albert E., Talbach, Wales. Multicylinder internal-combustion engine. No. 1,254,281; Jan. 22; v. 246; p. 905.

Salzstein, Benjamin F., *et al.* (See Bringe, William F., assignor.)

Sammon, Bernard J., Penn township, Allegheny county, assignor of one-half to F. Uhlenhaut, Jr., Pittsburgh, Pa. Rail-brace and tie-plate. No. 1,251,923; Jan. 1; v. 246; p. 143.

Sampson, Sidney, Duluth, Minn. Electric switch. No. 1,252,498; Jan. 8; v. 246; p. 340.

Samson Electric Company. (See Taber, Everett S., assignor.)

Samuel, John, assignor to H. Beaudry, Montreal, Quebec, Canada. Belt attachment. No. 1,251,924; Jan. 1; v. 246; p. 143.

Samuel, John, assignor to H. Beaudry, Montreal, Quebec, Canada. Belt attachment. No. 1,253,429; Jan. 15; v. 246; p. 644.

Sanborn, William H., Larchmont, N. Y., assignor of one-half to H. L. Gray, Washington, D. C. Feed-bag for horses. No. 1,252,037; Jan. 1; v. 246; p. 175.

Sandbo, Anton L., Rock Island, Ill. Vaporizer. No. 1,251,582; Jan. 1; v. 246; p. 41.

Sandell, Henry K., assignor to H. S. Mills, Chicago, Ill. Dental alloy. No. 1,252,038; Jan. 1; v. 246; p. 176.

Sandstrom, Carl E. (See Sandstrom, Claude O. and C. E.)

Sandstrom, Claude O. and C. E., Indianapolis, Ind. Direction-indicater. No. 1,252,724; Jan. 8; v. 246; p. 405.

Sanford, George R., T. H. Miller, and B. Torrey, Jr., Syracuse, assignors to Semet-Solvay Company, Solvay, N. Y. Separating liquids having different boiling-points. No. 1,252,725; Jan. 8; v. 246; p. 405.

Sanitary Pulp Products Company. (See Ayerst, Harry C., assignor.)

Sanseal Corporation, The. (See Westlake, Albert, assignor.)

Santostefano, Giorgia della Cerda, Viareggio, Italy. Electric-light switch. No. 1,253,147; Jan. 8; v. 246; p. 529.

Santry, Joseph V. (See Clarke and Santry.)

Saranac Machine Co. (See Craig, Edward, assignor.)

Sargent, Charles E., Indianapolis, Ind. Sound-concentrating device. No. 1,252,039; Jan. 1; v. 246; p. 176.

Sargent & Company. (See Carroll, William J., assignor.)

Sargent, Frederick G., Westford, assignor to C. G. Sargent's Sons Corporation, Graniteville, Mass. Drier. No. 1,254,073; Jan. 22; v. 246; p. 845.

Sassli, Eugene H., assignor of forty one-hundredths to J. Donati, Chicago, Ill. Aerial amusement device. No. 1,252,306; Jan. 1; v. 246; p. 250.

Sather, Edmund O., Berkeley, Cal. Oil-distributer for internal-combustion engines. No. 1,252,182; Jan. 1; v. 246; p. 216.

Satrum, Gilbert G., and I. B. Snartemo, Oslo Settlement, Tex. Blackboard-cleaner. No. 1,255,053; Jan. 29; v. 246; p. 1158.

Sattler, Rudolph, *et al.* (See Dean, Clyde T., assignor.)

Saulnier, Arsène, Waltham, assignor, by mesne assignments, to Draper Corporation, Hopedale, Mass. Warping-machine. No. 1,254,541; Jan. 22; v. 246; p. 980.

Saunders, Charles B., Barrington, Ill. Bee-feeder. No. 1,251,583; Jan. 1; v. 246; p. 41.

Savings Union Bank and Trust Company. (See Northrup, Elmer C., assignor.)

Sawyer, Burnside E., Fitchburg, Mass. Making crochet-hooks. No. 1,254,161; Jan. 22; v. 246; p. 871.

Scarborough, Henry. (See Steere, Clarence E., assignor.)

Schaanning, Peder C., Vinderen, pr., assignor of one-half to J. & A. Jensen Og Dahl, Christiania, Norway. Machine for peeling the bark from short logs intended for the manufacture of wood-pulp and the like. No. 1,254,362; Jan. 22; v. 246; p. 929.

Schade, John, assignor to National Blank Book Company, Holyoke, Mass. Loose-leaf binder. No. 1,253,430; Jan. 15; v. 246; p. 644.

Schaefer, Magdalena. (See Cramer, Philipp, assignor.)

Schaller, Elmer. (See Sears, Walter C., assignor.)

Schamel, John F. (See Farrell, Walter C., assignor.)

Schanck, Emery J., Centralia, Wash. Engineer's valve. No. 1,253,282; Jan. 15; v. 246; p. 597.

Schantz, Leroy C. (See Montgomery and Schantz.)

Schatz, Henry J. (See Taylor and Schatz.)

Schaum, Otto W., Philadelphia, Pa. Machine for grinding balls. No. 1,252,364; Jan. 1; v. 246; p. 264.

Schaum, Otto W., Philadelphia, Pa. Ball-grinding machine. No. 1,252,365; Jan. 1; v. 246; p. 265.

Schaum, Otto W., Philadelphia, Pa. Ball-grinding machine. No. 1,252,366; Jan. 1; v. 246; p. 266.

Schaum & Uhlinger. (See Suther, Alfred M., assignor.)

Scheel, George L., Chicago, Ill. Hair fluffer and perfumer. No. 1,252,499; Jan. 8; v. 246; p. 340.

Scheideler, George. (See Needham and Scheideler.)

Scheithe, Arthur C., Chicago, Ill. Hair-cutting tool. No. 1,251,925; Jan. 1; v. 246; p. 143.

Schiffer, M., *et al.* (See De Witt, Arthur T., assignor.)

Schindeldecker, George H., Jr. (See Mongan, John P., assignor.)

Schindele, Peter E., Tolna, N. D. End-gate. No. 1,253,431; Jan. 15; v. 246; p. 644.

Schleber, Albert, New Orleans, La. Envelop-fastening device. No. 1,252,848; Jan. 8; v. 246; p. 440.

Schlesinger, Alexander H., New York, N. Y. Portable fence. No. 1,251,926; Jan. 1; v. 246; p. 143.

Schlink, Frederick J., Washington, D. C. Scale-beam. No. 1,251,584; Jan. 1; v. 246; p. 42.

Schlirf, Herman, Milwaukee, Oreg. Flag game. No. 1,253,891; Jan. 15; v. 246; p. 774.

Schloerb, Albert P. (See Pfefferkorn and Schloerb.)

Schmidt, Henry F., Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company. Turbine apparatus. No. 1,252,956; Jan. 8; v. 246; p. 471.

Schmidt, Oscar C., assignor to The Cincinnati Butchers Supply Company, Cincinnati, Ohio. Meat-cutting machine. No. 1,253,892; Jan. 15; v. 246; p. 774.

Schmidt, Otto, and A. Andres, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Compound suitable for tanning. No. 1,254,364; Jan. 22; v. 246; p. 929.

Schmidt, Walter A., and G. C. Roberts, assignors to International Precipitation Company, Los Angeles, Cal. Apparatus for electrical separation of suspended particles from gases. No. 1,252,183; Jan. 1; v. 246; p. 216.

Schmidt, Walter A., assignor to International Precipitation Company, Los Angeles, Cal. Process and apparatus for accelerating chemical reactions. No. 1,252,726; Jan. 8; v. 246; p. 405.

Schmitt, Thomas A. (See Hough, Samuel, assignor.)

Schneider, Peter F., Detroit, Mich. Washing-machine. No. 1,253,536; Jan. 15; v. 246; p. 672.

Schneider, Philipp, St. Louis, Mo. Button. No. 1,251,927; Jan. 1; v. 246; p. 143.

Schnoor, Alexander F. C., Omaha, Nebr. Fish driving, loading, and delivery system. No. 1,252,500; Jan. 8; v. 246; p. 340.

Schoell, Eugene F., assignor, by mesne assignments, to The Metal Specialty Company, New Britain, Conn. Top. No. 1,253,195; Jan. 8; v. 246; p. 543.

Schoener, Herman, St. Cloud, Minn. Combined hand hoe and shaver. No. 1,253,284; Jan. 15; v. 246; p. 598.

Schoenthaler, Fred C., *et al.* (See Hachmann, Frederick, assignor.)

Schoenthaler, George R., Chicago, Ill. Support and tie for concrete-reinforcing bars. No. 1,254,858; Jan. 29; v. 246; p. 1103.

Schofield, George H., Leigh, England. Safety supporting device for mine and the like lift-cages. No. 1,253,633; Jan. 15; v. 246; p. 700.

Scholl, Max, Houston, Tex. Time-switch. No. 1,253,893; Jan. 15; v. 246; p. 775.

Scholze, Rudolf, Idagrove, Iowa. Post-card-printing apparatus. No. 1,255,054; Jan. 29; v. 246; p. 1158.

Schonbrunn, Max, New York, N. Y. Combination-spring-tool holder. No. 1,252,040; Jan. 1; v. 246; p. 176.

Schou, Hans H., assignor to Flakes A/S. Copenhagen, Denmark. Emulsifying apparatus. No. 1,254,734; Jan. 29; v. 246; p. 1065.

Schreurs, Paul R., and G. F. Metz, assignors to The Pressloid Company, Muscatine, Iowa. Artificial pearl. No. 1,252,849; Jan. 8; v. 246; p. 440.

Schreurs, Paul R., and G. F. Mets, assignors to The Pressloid Company, Muscatine, Iowa. Pearl-shell composition. No. 1,252,850; Jan. 8; v. 246; p. 440.

Schreyer, Walter B., Detroit, Mich. Detachable link. No. 1,252,184; Jan. 1; v. 246; p. 216.

Schroder, Frederick F., Cincinnati, Ohio. Picture-frame. No. 1,254,162; Jan. 22; v. 246; p. 871.

Schroeder, Carl H., Des Moines, Iowa. Seed-sprouter. No. 1,251,826; Jan. 1; v. 246; p. 117.

Schroeder Headlight Co. (See Werzner, Edward H., assignor.)

Schroeder, James P., Washington, D. C. Treating peat and muck for the preparation of fertilizer. No. 1,254,365; Jan. 22; v. 246; p. 930.

Schroeder, James P., Washington, D. C. Treating peat and muck for the preparation of fertilizer. No. 1,254,366; Jan. 22; v. 246; p. 930.

Schuhmann, Richard J., assignor of one-half to G. N. Bosler, Louisville, Ky. Advertising device. No. 1,253,537; Jan. 15; v. 246; p. 672.

Schuller, Frank T., Minneapolis, Minn. Composition of matter. No. 1,254,854; Jan. 29; v. 246; p. 1103.

Schultheiss, William F. (See Rabun and Schultheiss.)

Schultz, Joseph, Pottstown, Pa. Detachable calk attachment for horseshoes. No. 1,254,439; Jan. 22; v. 246; p. 950.

Schulz, Anna. (See Schulz, John J., assignor.)

Schulz, Ferdinand. (See Preifert and Schulz.)

Schulz, John J., assignor to A. Schulz, South San Francisco, Cal. Portable crane. No. 1,254,282; Jan. 22; v. 246; p. 905.

Schurman, Thomas. (See Condon and Schurman.)

Schuyler, Sampson, Long Branch, N. J. Game device. No. 1,252,957; Jan. 8; v. 246; p. 472.

Schwab, William J. (See Ferriss, Edward, assignor.)

Schwanke, Clarence A., Willow City, N. D. Operating mechanism for washing-machines. No. 1,253,634; Jan. 15; v. 246; p. 700.

Schwartzkopf, Jacob, Stanford, Mont. Punching and cutting machine. No. 1,254,855; Jan. 29; v. 246; p. 1103.

Schwarz, Frank, McCleary, Wash. Loom. No. 1,254,074; Jan. 22; v. 246; p. 846.

Schwarz, Frederick, Berne, Ind. Horizontal rotating swing. No. 1,251,928; Jan. 1; v. 246; p. 144.

Schwarz, Richard E., Detroit, Mich. Machine for molding artificial stone. No. 1,253,730; Jan. 15; v. 246; p. 728.

Schweinert, Maximilian C., West Hoboken, and H. P. Kraft, Ridgewood, N. J. Tire-valve. No. 1,251,585; Jan. 1; v. 246; p. 42.

Schweinsberg, George W. (See Potthoff and Schweinsberg.)

Schweitzer & Conrad. (See Conrad, Nicholas J., assignor.)

Schweitzer, Edmund O., Chicago, Ill. Brush for electrical machinery. No. 1,251,827; Jan. 1; v. 246; p. 117.

Schweitzer, Edmund O., Chicago, Ill. Cable-terminal pole. No. 1,254,938; Jan. 29; v. 246; p. 1127.

Schweitzer, Edmund O., Chicago, Ill. Means and method for metering electricity. No. 1,254,939; Jan. 29; v. 246; p. 1127.

Schwerin, Botho, assignor to Gesellschaft für Elektro-Osmose m. b. H., Frankfort-on-the-Main, Germany. Diaphragm for electrolytical and electro-osmotical purposes. No. 1,252,185; Jan. 1; v. 246; p. 217.

Schwinn, Frank W., Chicago, Ill. Compensating sprocket. No. 1,254,542; Jan. 22; v. 246; p. 980.

Sciam, John N., Brooklyn, N. Y. Junction-box coupling for electric conduits. No. 1,254,633; Jan. 22; v. 246; p. 1006.

Scotford, Louis K., Chicago, Ill. Sound-box adjustment for talking-machines. No. 1,251,828; Jan. 1; v. 246; p. 118.

Scott, Clinton A., and A. G. Hug, assignors, by mesne assignments, to National Manufacturing and Specialty Company, Chicago, Ill. Razor-blade sharpener. No. 1,252,367; Jan. 1; v. 246; p. 266.
Scott, Field, *et al.* (See Crippen, Henry M., assignor.)
Scott, Jasper, Charleston, W. Va. Brake for cars. No. 1,254,440; Jan. 22; v. 246; p. 957.
Scott, John H., Portland, Oreg. Automobile-seat. No. 1,253,432; Jan. 15; v. 246; p. 644.
Scott, Robert W., Leeds Point, N. J., assignor to Scott & Williams, Incorporated. Knitting-machine. No. 1,251,586; Jan. 1; v. 246; p. 42.
Scott, Valentine G., *et al.* (See Girvin, Charles W., assignor.)
Scott, William C. H., London, and W. Robins, Dartford, England. Rotary-valve internal-combustion engine. No. 1,253,538; Jan. 15; v. 246; p. 672.
Scott & Williams. (See Appleton, Frank, assignor.)
Scott & Williams. (See Scott, Robert W., assignor.)
Scoville, Eugene M., Dade City, Fla., assignor to Scoville Pump Valve Company, Chicago, Ill. Valve. (Reissue.) No. 14,423; Jan. 22; v. 246; p. 1008.
Scoville, Eugene M., Dade City, Fla., assignor to Scoville Pump Valve Company, Chicago, Ill. Valve. (Reissue.) No. 14,424; Jan. 22; v. 246; p. 1009.
Scoville Pump Valve Company. (See Scoville, Eugene M., assignor.) (Reissue.)
Scully Jones & Company. (See Foote, Robert E., assignor.)
Seabright Co. (See Wright, Wilbur L., assignor.)
Seacord, Emily A., Galesburg, Ill. Eaves-trough protector. No. 1,251,929; Jan. 1; v. 246; p. 144.
Seacrist, Elwood R., Meadville, Pa. Apparatus for reclaiming metals from waste. No. 1,253,539; Jan. 15; v. 246; p. 673.
Seamon, Albert H., Crockett, Tex. Cotton-chopper. No. 1,252,958; Jan. 8; v. 246; p. 472.
Sears, Roebuck and Company. (See Bohmker, John C., assignor.)
Sears, Roebuck & Company. (See Drake, James C., assignor.)
Sears, Roebuck and Company. (See Hoffman, Rudolph, assignor.)
Sears, Walter C., assignor of one-half to E. Schaller, Indianapolis, Ind. Ice-cream-pail filler. No. 1,253,731; Jan. 15; v. 246; p. 729.
Sebring, Theosis C., Pueblo, Colo. Refuse and low-grade-fuel burning apparatus. No. 1,252,041; Jan. 1; v. 246; p. 176.
Sechler and Company, The. (See Knapp, Jacob, assignor.)
Sedlin, John, Chicago, Ill. Means for severing sheet metal. No. 1,252,727; Jan. 8; v. 246; p. 406.
Seede, John A., Schenectady, N. Y., assignor to General Electric Company. Electric furnace control apparatus. No. 1,253,732; Jan. 15; v. 246; p. 729.
Seely, Thomas H., Boston, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Wax-thread shoe-sewing machine. No. 1,253,635; Jan. 15; v. 246; p. 700.
Seely, William H., Pinson, Ala. Hydraulic pump. No. 1,255,055; Jan. 29; v. 246; p. 1158.
Segel, Michael, New York, assignor to E. M. Uebelmesser, Bayside, N. Y. Auxiliary-film-feed mechanism. No. 1,252,042; Jan. 1; v. 246; p. 177.
Seibert, Daniel J., Winnipeg, Manitoba, Canada. Refrigerator. No. 1,254,867; Jan. 22; v. 246; p. 930.
Seim, August, assignor to Missouri Lamp and Manufacturing Company, St. Louis, Mo. Electric-light fixture. No. 1,251,699; Jan. 1; v. 246; p. 77.
Seitz, Horace G., *et al.* (See Girvin, Charles W., assignor.)
Selectasine System. (See Beck, Owens, and Steinman, assignors.)
Selig, John, Pickering, La. Plate-lifter. No. 1,255,056; Jan. 29; v. 246; p. 1158.
Selig Polyscope Company, The. (See Selig, William N., assignor.)
Selig, William N., assignor to The Selig Polyscope Company, Chicago, Ill. Moving-picture camera. No. 1,253,285; Jan. 15; v. 246; p. 598.
Selkirk, William M., North Belle Vernon, assignor to Pittsburgh Steel Products Company, Pittsburgh, Pa. Mandrel-manipulator. No. 1,254,441; Jan. 22; v. 246; p. 951.
Seltenreich, John J., Chicago, Ill., assignor to National Chemical Co., Syracuse, N. Y. Collar-molding machine. No. 1,252,186; Jan. 1; v. 246; p. 217.
Semet-Solvay Company. (See Parker, Richard B., assignor.)
Semet-Solvay Company. (See Royce, Howard W., assignor.)
Semet-Solvay Company. (See Sanford, Miller, and Torrey, assignors.)
Semet-Solvay Company. (See Tillinghast, Alexander R., assignor.)
Semetink, Ilia, assignor of one-sixth to F. Wakaluk, Vegreville, Alberta, Canada. Antibalking device. No. 1,253,783; Jan. 15; v. 246; p. 729.
Senicesbaugh, Samuel S., Aurora, Ill. Carton. No. 1,254,163; Jan. 22; v. 246; p. 872.
Serrao, A. Ralph, trustee. (See Maxwell, George S., assignor.)
Sessions, Hugh E., Columbia, S. C. Delinting cotton-seed hulls and recovering uncut seed. No. 1,253,894; Jan. 15; v. 246; p. 775.
Sevigne, Henri A., Winthrop, Mass., and F. K. Arnold, Nashua, N. H., assignors of forty-five one-hundredths to said Sevigne and fifty-five one-hundredths to Carter, Rice & Company, Boston, Mass. Wrapping-machine. No. 1,253,636; Jan. 15; v. 246; p. 701.
Sexton, Lowry, The Dalles, Oreg. Return-bend for joining pipe. No. 1,253,433; Jan. 15; v. 246; p. 645.
Shade, Ora H. (See McBride and Shade.)
Shane, Conrad B., Chicago, Ill. Garment. No. 1,252,187; Jan. 1; v. 246; p. 217.
Shane, Conrad B., Chicago, Ill. Garment. No. 1,252,188; Jan. 1; v. 246; p. 217.
Shanklin, Benjamin M., Springfield, Mass. Transfer-punching apparatus. No. 1,254,164; Jan. 22; v. 246; p. 872.
Sharpe, Horace L., Balham, assignor to The London and Westminster Industrial Syndicate Limited, London, England. Power-transmission mechanism. No. 1,254,856; Jan. 29; v. 246; p. 1104.
Shaut, Edwin J., Canisteo, assignor to T. S. Page and B. Frisbee, Hornell, N. Y. Antisetting device for hens. No. 1,253,434; Jan. 15; v. 246; p. 645.
Shaw, Edward C. (See Benson and Shaw.)
Shaw, Thomas, Hackensack, N. J., assignor to American Telephone and Telegraph Company. Shield for magnetic coils. No. 1,251,700; Jan. 1; v. 246; p. 77.
Shaw, William M., Greenville, Me. Fence-post. No. 1,254,363; Jan. 22; v. 246; p. 929.
Sheely, Samuel N., Portsmouth, Va. Keel-block. No. 1,253,540; Jan. 15; v. 246; p. 673.
Sheffield Mfg. Co. (See Himebaugh, Clayton D., assignor.)
Sheinman, Morris, New York, N. Y. Burglar-proof spring-lock. No. 1,253,734; Jan. 15; v. 246; p. 730.
Shepard, Oscar F., assignor to The Warner Elevator Manufacturing Company, Cincinnati, Ohio. Safety device for elevators. No. 1,254,631; Jan. 22; v. 246; p. 1005.
Shepherd, Frank D., Salt Lake City, Utah. Puppet-valve for internal-combustion engines. No. 1,252,501; Jan. 8; v. 246; p. 340.
Sheridan Iron Works, The, *et al.* (See Bredenberg, Alfred, assignor.)
Sherman, Clifton W., Buffalo, N. Y. Friction draft-gear. No. 1,251,930; Jan. 1; v. 246; p. 144.
Sherman, Clifton W., Buffalo, N. Y. Friction draft-gear. No. 1,254,857; Jan. 29; v. 246; p. 1104.
Sherman, John Q., and A. F. Euchenhofer, assignors to The Standard Register Company, Dayton, Ohio. Manifolding attachment for type-writers. No. 1,254,868; Jan. 22; v. 246; p. 930.
Sherwin-Williams Company, The. (See Holton, Edward C., assignor.)
Sherwood, William W., Grand Rapids, Mich. Painting, varnishing, or coating machine. No. 1,251,701; Jan. 1; v. 246; p. 78.
Shestakoff, Peter. (See Tarassoff and Shestakoff.)
Shipley, Thomas, York, Pa. Refrigerating or ice-making apparatus. No. 1,253,895; Jan. 15; v. 246; p. 775.
Shipman, Ralph, Sunbury Pa. Carbureter. No. 1,254,735; Jan. 29; v. 246; p. 1065.
Shmelstein, Isaac, Mason City, Iowa. Top for bicycles and motor-cycles. No. 1,254,858; Jan. 29; v. 246; p. 1104.
Shoemaker, Charles A. (See Grohn, Henry P., assignor.)
Shoemaker, Charles A., Chicago, Ill. Tank-car. No. 1,252,959; Jan. 8; v. 246; p. 472.
Shoemaker, Clifton B., Glendora, Cal. Eye-shade. No. 1,255,057; Jan. 29; v. 246; p. 1158.
Shoemaker, Robert J. (See MacFarland and Shoemaker.)
Shore, Madison L., Raleigh, N. C. Shipping-crate fastener. No. 1,253,637; Jan. 15; v. 246; p. 701.
Short, Charles E., Akron, Ohio. Nut-lock. No. 1,253,638; Jan. 15; v. 246; p. 701.
Shourt, James M., assignor to Brown & Bigelow, St. Paul, Minn. Cap-printing machine. No. 1,252,043; Jan. 1; v. 246; p. 177.
Shrauger, Darius E., Atlantic, Iowa. Metallic window frame and sash. No. 1,252,851; Jan. 8; v. 246; p. 440.
Shredded Wheat Company, The. (See Ford, William H., assignor.)
Shreeve, Herbert E., Milburn, N. J., assignor, by mesne assignments, to Western Electric Company, Incorporated. Protective circuit. No. 1,252,502; Jan. 8; v. 246; p. 341.
Shriver, Howard N., Beachmont, Mass. Cigar tuck-cutter and perforator. No. 1,252,044; Jan. 1; v. 246; p. 177.
Shultz, James, St. Joseph, Mo. Merry-go-round. No. 1,252,852; Jan. 8; v. 246; p. 440.
Shultz, John D., Atalissa, Iowa. Hay-loader. No. 1,252,503; Jan. 8; v. 246; p. 341.
Shults, Sherman T., McCammon, Idaho. Tire-inflating device. No. 1,251,829; Jan. 1; v. 246; p. 118.
Sibille, John, Grand Coteau, La. Lug for tractors. No. 1,252,960; Jan. 8; v. 246; p. 473.
Sidebotham, Melvin H. (See Labombarde and Sidebotham.)
Sieber, Ferdinand, Charlottenburg, Germany, assignor to General Electric Company. Insulator. No. 1,253,736; Jan. 15; v. 246; p. 730.
Siebert, Theodore, Jr. (See Bahls and Siebert.)
Siegfried, Ira D., Cleveland, Ohio. Heat-insulating covering. No. 1,251,830; Jan. 1; v. 246; p. 118.
Siemann, Henry M., Fort Lupton, Colo. Drill. No. 1,254,859; Jan. 29; v. 246; p. 1104.

Sierad, Albert E., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Restraining device for electric switches. No. 1,253,286; Jan. 15; v. 246; p. 598.
Sieveking, Martinus, Lake Mahopac, N. Y. Internal-combustion engine. No. 1,252,045; Jan. 1; v. 246; p. 177.
Sieverkropp, Henry R., Racine, Wis. Engine-starter. No. 1,253,287; Jan. 15; v. 246; p. 599.
Sigler, Charles A., Bloomfield, Nebr. Cultivator attachment. No. 1,253,102; Jan. 8; v. 246; p. 517.
Sign, Fred, Westboro, Wis. Weapon. No. 1,252,853; Jan. 8; v. 246; p. 440.
Signode System Incorporated. (See Flora, Ellsworth E., assignor.)
Silcock, Robert H., Buffalo Gap, S. D. Automatic feeding mechanism for hard-grease cups. No. 1,251,702; Jan. 1; v. 246; p. 78.
Simmons, Albert H., assignor to Union Special Machine Company, Chicago, Ill. Trimming mechanism for sewing-machines. No. 1,253,737; Jan. 15; v. 246; p. 730.
Simmons, Frank L., Millbury, Mass., assignor to The Taft-Peirce Manufacturing Company, Woonsocket, R. I. Magnetic chuck. No. 1,254,736; Jan. 29; v. 246; p. 1066.
Simon, Emil J., New York, N. Y. Spark-gap for the production of powerful electrical oscillations. No. 1,253,103; Jan. 8; v. 246; p. 517.
Simonsson, Wilhelm, New York, N. Y. Weighing-scale. No. 1,254,369; Jan. 22; v. 246; p. 931.
Simpson, John H., Providence, R. I., assignor to B. F. Bain, Pittsburgh, Pa. Toy. (Reissue.) No. 14,425; Jan. 22; v. 246; p. 1009.
Simpson, Joseph P., Pomona, Cal. Smokeless orchard-heater. No. 1,253,288; Jan. 15; v. 246; p. 599.
Simpson, Percy, London, England. Printer's quoin. No. 1,254,370; Jan. 22; v. 246; p. 931.
Simpson, William H., Chicago, Ill. Self-binding sheet-music cover. No. 1,253,435; Jan. 15; v. 246; p. 645.
Simpson, Willis H. (See Gamage, Harry C., assignor.)
Sinclair, Montie L. (See Lahlke and Sinclair.)
Singer Manufacturing Company, The. (See Corrall and Forbes, assignors.)
Singer Manufacturing Company, The. (See Corrall and Stevens, assignors.)
Singer Manufacturing Company, The. (See De Voe, Albert H., assignor.)
Singer Manufacturing Company, The. (See Hemleb, Martin, assignor.)
Singer Manufacturing Company, The. (See Hugg, William H., assignor.)
Singiser, John P., Rochester, N. Y. Automatic valve. No. 1,252,046; Jan. 1; v. 246; p. 178.
Sinpar Company, The. (See Morris, James W., assignor.)
Sipe, Bruce E., Hiawatha, Kans. Hog-oiler. No. 1,252,728; Jan. 8; v. 246; p. 406.
Sipe, James B. (See Hartman, Alfred E., assignor.)
Sisson, Vinton E., assignor to W. P. Murphy, Chicago, Ill. Sheet-metal car end. No. 1,254,860; Jan. 29; v. 246; p. 1105.
Sivard, Einar L. M., Amityville, N. Y. Winch mechanism for raising and lowering life-boats. No. 1,253,541; Jan. 15; v. 246; p. 673.
Sjostrom, Adi W., Waltham, Mass. Vehicle-runner. No. 1,253,738; Jan. 15; v. 246; p. 731.
Skinner Company Limited, The. (See Skinner, Frederick V., assignor.)
Skinner, Frederick V., assignor to The Skinner Company Limited, Ganonoque, Ontario, Canada. Hame. No. 1,255,058; Jan. 29; v. 246; p. 1159.
Slack, Irvin, assignor of one-fourth to J. Jones, Pagosa Springs, Colo. Railway-tie. No. 1,253,896; Jan. 15; v. 246; p. 776.
Slayback, Warner W., Ponca City, Okla. Gasket-cutter. No. 1,254,544; Jan. 22; v. 246; p. 931.
Sleeth, Montgomery, Bellevue, assignor to Fort Pitt Bedding Company, Pittsburgh, Pa. Spring structure. No. 1,253,739; Jan. 15; v. 246; p. 731.
Slick, Edwin E., and C. W. Parkhurst, Westmont borough, Pa. Making electrical bonds. No. 1,255,059; Jan. 29; v. 246; p. 1159.
Slick, Edwin E., and C. W. Parkhurst, Westmont borough, Pa. Electrical bond. No. 1,255,119; Jan. 29; v. 246; p. 1176.
Slingluff, Harry G., Mount Vernon, Ohio, assignor to Pittsburgh Plate Glass Company, Pittsburgh, Pa. Glass-tank. No. 1,251,931; Jan. 1; v. 246; p. 144.
Slingluff, Harry G., Mount Vernon, Ohio, assignor to Pittsburgh Plate Glass Company, Pittsburgh, Pa. Glass-drawing apparatus. No. 1,251,932; Jan. 1; v. 246; p. 144.
Smart, Harry G., St. Cloud, Minn. Tie-plug machine. No. 1,255,060; Jan. 29; v. 246; p. 1159.
Smedley, Jesse F. (See Hoffer and Smedley.)
Smeeth, Edwin E., assignor to J. H. Smeeth, Oak Park, Ill. Automobile. No. 1,254,861; Jan. 29; v. 246; p. 1105.
Smeeth, Jennie H. (See Smeeth, Edwin E., assignor.)
Smith, A., Columbus. (See Salinas y Souza, Benigno, assignor.)
Smith, Augustus, Roselle, assignor to Bergen Point Iron Works, Bayonne, N. J. Wagon. No. 1,253,897; Jan. 15; v. 246; p. 776.
Smith, Channing L., Des Moines, Iowa. Cutting keys. No. 1,254,442; Jan. 22; v. 246; p. 951.
Smith, Daniel E., New York, N. Y. Shaving apparatus. No. 1,255,061; Jan. 29; v. 246; p. 1159.
Smith, Daniel W., Machias, Me. Bucksaw. No. 1,253,898; Jan. 15; v. 246; p. 776.
Smith, Edward W., Philadelphia, Pa. Assembly and packing crate for storage batteries. No. 1,254,940; Jan. 29; v. 246; p. 1128.
Smith, Frank G., Elizabeth, N. J. Railway appliance. No. 1,252,620; Jan. 8; v. 246; p. 375.
Smith, Frank S. (See Demuth, William H., assignor.)
Smith, Friend W., Jr., Bridgeport, Conn., assignor to J. W. Hibbard, New York, N. Y. Account deposit-book. No. 1,252,961; Jan. 8; v. 246; p. 473.
Smith, George W. Dayton, Ohio, assignor to American Burner Company, Buffalo, N. Y. Oil-burner. No. 1,254,283; Jan. 22; v. 246; p. 906.
Smith, Hamilton T. (See Heal and Smith.)
Smith, Harry B., Brooklyn, N. Y., assignor to Stokes & Smith Company, Philadelphia, Pa. Quick-opening box. No. 1,253,436; Jan. 15; v. 246; p. 646.
Smith, Harry C., assignor of one-half to D. W. McIntosh, Santa Barbara, Cal. Necktie form and display device. No. 1,253,289; Jan. 15; v. 246; p. 599.
Smith, Henry J., Minneapolis, assignor to H. J. Smith Tractor Company, Hennepin county, Minn. Reversing-gearing. No. 1,254,075; Jan. 22; v. 246; p. 846.
Smith, Ira, Bellingham, Wash. Logging apparatus. No. 1,254,545; Jan. 22; v. 246; p. 981.
Smith, Irving B. (See Macbeth and Smith.)
Smith, James A., assignor of one-third to W. N. Dorsett and one-third to W. T. Davis, Washington, D. C. Combined molded arch-support and shoe-sole. No. 1,253,639; Jan. 15; v. 246; p. 702.
Smith, James D., assignor of one-half to J. M. Uts, Orland, Cal. Automobile-wheel rim. No. 1,254,546; Jan. 22; v. 246; p. 981.
Smith, James F., Smith Center, Kans. End-gate. No. 1,252,854; Jan. 8; v. 246; p. 441.
Smith, Karl D., Battle Creek, Mich. Vacuum-tank. No. 1,254,165; Jan. 22; v. 246; p. 872.
Smith, Percy M., Hamilton, Ontario, Canada, and T. W. Prosser, Beaver Dam, Wis., assignors to Paramount Hosiery Form Drying Co., Chicago, Ill. Hosiery-drying apparatus. No. 1,253,994; Jan. 15; v. 246; p. 802.
Smith, Richard H., Savannah, Ga. Fishing-hook-leader-adjusting terminal and outrigger device. No. 1,252,621; Jan. 8; v. 246; p. 376.
Smith, Robert L., Toronto, Ontario, Canada. Bag-holder. No. 1,254,371; Jan. 22; v. 246; p. 931.
Smith, Sampson G., Plainfield, N. J. Pneumatic-tire armor. No. 1,253,740; Jan. 15; v. 246; p. 731.
Smith, Samuel A., Everton, Ark. Mechanical movement. No. 1,253,437; Jan. 15; v. 246; p. 646.
Smith, Sidney C. (See Wolfsberg and Smith.)
Smith, Thomas M., Baltimore, Md. Signal for auto-drivers. No. 1,253,104; Jan. 8; v. 246; p. 517.
Smith, William A., Denver, Colo., assignor to The Denver Rock Drill Manufacturing Company. Rock-drill. No. 1,253,290; Jan. 15; v. 246; p. 599.
Smith, William A., assignor to The Denver Rock Drill Manufacturing Company, Denver, Colo. Drill-sharpener. No. 1,253,291; Jan. 15; v. 246; p. 600.
Smith, William A., assignor to The Denver Rock Drill Manufacturing Co. Doily mechanism for drill-sharpeners. No. 1,253,292; Jan. 15; v. 246; p. 600.
Smith, William H. F., Milwaukee, Wis., assignor to International Harvester Corporation. Friction-clutch. No. 1,254,076; Jan. 22; v. 246; p. 846.
Smith, William J., Waterbury, Conn. Separable fastener. No. 1,251,831; Jan. 1; v. 246; p. 119.
Smith, William T., Columbia, S. C. Cheese-centering device. No. 1,252,189; Jan. 1; v. 246; p. 218.
Smithey, Marvin, Lawrenceville, Va. Meter. No. 1,252,622; Jan. 8; v. 246; p. 376.
Smithey, Walter D., Bay City, Tex. Means for generating and storing power. No. 1,254,737; Jan. 29; v. 246; p. 1066.
Smoot, Charles H., assignor to Rateau Battu Smoot Company, New York, N. Y. Pressure-regulator for a flow of fluid. No. 1,252,623; Jan. 8; v. 246; p. 376.
Snartemo, Ingvald B. (See Satrum and Snartemo.)
Snook, Homer C., Cynwyd, and G. H. White, Haverford, Pa. X-ray apparatus. No. 1,252,504; Jan. 8; v. 246; p. 341.
Snow, Edwin M., Lowell, assignor to The Lamson Company, Boston, Mass. Corner for conveyers for newspapers and the like. No. 1,254,941; Jan. 29; v. 246; p. 1128.
Snow, George B., Long Beach, Cal. Flask-closing apparatus for vulcanizers. No. 1,254,942; Jan. 29; v. 246; p. 1128.
Snyder, Edgar W., Los Angeles, Cal., assignor, by mesne assignments, to Ocotillo Products Company. Rubber composition. No. 1,254,632; Jan. 22; v. 246; p. 1006.
Snyder, Frederick T., Oak Park, Ill. Electric furnace. No. 1,254,077; Jan. 22; v. 246; p. 846.
Snyder, Frederick T., Oak Park, Ill. Steel process. No. 1,254,078; Jan. 22; v. 246; p. 847.
Snyder, Frederick T., Oak Park, Ill. Electric smelting-furnace. No. 1,254,079; Jan. 22; v. 246; p. 847.
Snyder, Frederick T., Oak Park, Ill. Electrode-holder. No. 1,254,080; Jan. 22; v. 246; p. 847.
Snyder, Jacob E., assignor to P. E. Donner, Pittsburgh, Pa. Steam-engine reversing-gear. No. 1,252,190; Jan. 1; v. 246; p. 218.
Societe Anonyme Des Automobiles Et Cycles Peugeot. (See Truffault, Jules M. M., assignor.)

Société Anonyme des Combustibles Industriels. (See Melchior, Felix M. A. A., assignor.)
Société Anonyme du Carburateur Zenith. (See Pradier, Emogat C., assignor.)
Société du Carburateur Zenith. (See Baverey, François, assignor.)
Soderlind, Anton E., et al. (See Olson, Oscar L., assignor.) (Reissue.)
Söderlund, Olof, and T. Boberg, Clapham Park, assignors to Techno Chemical Laboratories Limited, London, England. Distillation of liquids. No. 1,252,962; Jan. 8; v. 246; p. 473.
Soehnlein, Friedrich W., C. Kusenberg, and M. Franz, Wiesbaden, Germany. Driving-chain. No. 1,253,542; Jan. 15; v. 246; p. 674.
Soles, Henry G., Connell, Wash. Washing-machine. No. 1,253,890; Jan. 15; v. 246; p. 776.
Sons, Ernest L., assignor of one-half to S. A. Boyd, Pittsburgh, Pa. Leak-stopper. No. 1,253,293; Jan. 15; v. 246; p. 601.
Soper, Erwin C., et al. (See Hulbert, Clarence, assignor.)
Sorensen, Henry, et al. (See Ward, John A., assignor.)
Sorochinsky, Bronislaw, Cosmopolis, Wash. Hat-securing means. No. 1,252,855; Jan. 8; v. 246; p. 441.
Southwood, Richard J., Upper Norwood, England. Garden shears, pruner, and the like. No. 1,254,284; Jan. 22; v. 246; p. 906.
Spang, Chalfant and Co. (See Hampton and Ritts, assignors.)
Spangler, Fred, Midway, Wis. Mechanical movement. No. 1,252,729; Jan. 8; v. 246; p. 406.
Spear, George H., North Reading, assignor, by mesne assignments, to New England Confectionery Company, Boston, Mass. Transfer mechanism. No. 1,253,640; Jan. 15; v. 246; p. 702.
Specialty Shoe Machinery Company. (See Bragg, James, assignor.)
Speed, James A., and A. G. B. Ridley, San Francisco, Cal. Carbureter. No. 1,255,082; Jan. 29; v. 246; p. 1160.
Spencer, Frank B., Thornberg, Pa. Spring nut-lock. No. 1,251,832; Jan. 1; v. 246; p. 119.
Spencer, Garnet, Madison, S. C. Switch-throwing device. No. 1,254,943; Jan. 29; v. 246; p. 1128.
Spencer, Samuel M., Eutaw, Ala. Cross-arm bracket for telegraph-poles. No. 1,251,703; Jan. 1; v. 246; p. 78.
Sperry, Arthur B. (See Williams and Sperry.)
Spery, Charles F., Chicago, Ill. Grease-cup. No. 1,251,587; Jan. 1; v. 246; p. 42.
Spery, Charles F., Chicago, Ill. Grease-cup. No. 1,252,730; Jan. 8; v. 246; p. 407.
Spiegel, Alexander S., Chicago, Ill. Shingle. No. 1,251,704; Jan. 1; v. 246; p. 78.
Spies, Julius P., Belleville, Ill. Package-tie. No. 1,252,624; Jan. 8; v. 246; p. 376.
Spiess, Jules, Buffalo, N. Y. Train-controlling mechanism. No. 1,252,047; Jan. 1; v. 246; p. 178.
Spirella Company, The. (See Wadsworth, Frank L. O., assignor.)
Splitdorf Electrical Company. (See Brown, William J., assignor.)
Splitdorf Electrical Company. (See Mason, Charles T., assignor.)
Splitdorf Electrical Company. (See McKeown, Samuel C., assignor.)
Splitdorf Electrical Company. (See Richards, Julius H., assignor.)
Splitdorf Electrical Company. (See Van Deventer, Harry R., assignor.)
Splitdorf Electrical Company. (See Werner, Leo J., assignor.)
Sprague, Theodore A., et al. (See Watkins, Thomas C., assignor.)
Sprengstoff A.-G. Carbonit. (See Jahn, Carl R., assignor.)
Springfield Body Corporation of New York. (See Fry, Walter L., assignor.)
Springfield Body Corporation of New York. (See Maise, Herman C., assignor.)
Sproul, James B., and B. B. Barclay, Piedmont, Ohio. Nut and bolt lock for rail-joints. No. 1,252,903; Jan. 8; v. 246; p. 473.
Spurr, Charles W., Jr., Roxbury, Mass. Hot appliance. No. 1,254,443; Jan. 22; v. 246; p. 951.
St. Louis Car Company. (See Keil, Lewis E., assignor.)
Stadtler, Mathias, San Jose, Cal. Upholstery-spring mounting. No. 1,254,285; Jan. 22; v. 246; p. 907.
Stafford, Benjamin E. D., and E. I. Dodds, assignors to Flannery Bolt Company, Pittsburgh, Pa. Stay-bolt structure. No. 1,252,307; Jan. 1; v. 246; p. 250.
Stafford, Benjamin E. D., and E. I. Dodds, assignor to Flannery Bolt Company, Pittsburgh, Pa. Stay-bolt structure. No. 1,252,308; Jan. 1; v. 246; p. 250.
Stafford, Benjamin E. D., and E. I. Dodds, assignors to Flannery Bolt Company, Pittsburgh, Pa. Stay-bolt structure. No. 1,252,309; Jan. 1; v. 246; p. 250.
Stafford, Benjamin E. D., and E. I. Dodds, assignors to Flannery Bolt Company, Pittsburgh, Pa. Stay-bolt structure. No. 1,252,310; Jan. 1; v. 246; p. 251.
Stafford, Clarence B., San Francisco, Cal. Cleaner for fuse-contacts. No. 1,252,964; Jan. 8; v. 246; p. 474.
Stahlkamp, Francis A., assignor of one-half to R. Diehl, New York, N. Y. Designograph. No. 1,254,003; Jan. 15; v. 246; p. 805.
Stair, Oscar H., Flatonia, Tex. Spindle-lubricator. No. 1,252,191; Jan. 1; v. 246; p. 218.
Stake, Herman, assignor to Economic Machinery Company, Worcester, Mass. Means for wiping seal-strips upon bottles. No. 1,253,905; Jan. 15; v. 246; p. 803.
Staley, Ora, Indianapolis, Ind. Portable vulcanizer. No. 1,254,106; Jan. 22; v. 246; p. 872.
Stamm, Fredrick A., Grand Rapids, Mich. Carrier for fruit-jars. No. 1,251,588; Jan. 1; v. 246; p. 43.
Standard Parts Company, The. (See McIntyre, Michael M., assignor.)
Standard Parts Company, The. (See Palmer, Arthur E., assignor.)
Standard Parts Company, The. (See Utz, John G., assignor.)
Standard Register Company, The. (See Sherman and Euchenhofer, assignors.)
Standard Sanitary Manufacturing Company. (See Frankenberger and Gillette, assignors.)
Standard Sewing Machine Company, The. (See Nelson, George W., assignor.)
Standardized Housing Corporation. (See Atterbury, Grosvenor, assignor.)
Stanford, Charles D., Bangor, Me. Automobile-seat attachment. No. 1,252,192; Jan. 1; v. 246; p. 218.
Stanislawski, Frank and P. J., Galesville, Wis. Fan. No. 1,254,444; Jan. 22; v. 246; p. 951.
Stanislawski, Peter J. (See Stanislawski, Frank and P. J.)
Stanley, George E., Coventry, England. Driving mechanism of motor-cycles and the like. No. 1,251,933; Jan. 1; v. 246; p. 145.
Stanley, George E., Coventry, England. Clutch mechanism. No. 1,254,372; Jan. 22; v. 246; p. 931.
Stanley, Shirley Q., Chicago, Ill. Mud-guard for motor-vehicle wheels. No. 1,254,944; Jan. 29; v. 246; p. 1129.
Stannard, S. Grant, Long Beach, Cal. Automobile-tire-saving device. No. 1,252,625; Jan. 8; v. 246; p. 377.
Stansell, Guy E., Seattle, Wash. Automatic film-feed for cameras. No. 1,254,373; Jan. 22; v. 246; p. 932.
Staples, Elial M., Elizabeth, N. J. Glare-dimmer. No. 1,252,193; Jan. 1; v. 246; p. 219.
Staples, Sarah S., London, England. Apparatus for moistening absorbent material. No. 1,254,286; Jan. 22; v. 246; p. 907.
Starker, Charles W., Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company. Gear. No. 1,253,294; Jan. 15; v. 246; p. 601.
Stavert, Thomas C., McGill, Nev. Pencil attachment. No. 1,253,900; Jan. 15; v. 246; p. 776.
Stearn, Franklin A., Paterson, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone system. No. 1,254,081; Jan. 22; v. 246; p. 847.
Stebbins, Noah, Detroit, Mich. Alarm-signal. No. 1,253,741; Jan. 15; v. 246; p. 731.
Stecker, August, Osborn, Wis. Vehicle lifting-jack. No. 1,252,048; Jan. 1; v. 246; p. 179.
Stedman, Burton P., Peoria, Ill. Gate. No. 1,253,742; Jan. 15; v. 246; p. 732.
Steele, John G., assignor of one-half to W. H. Mente, St. Louis, Mo. Scraper. No. 1,253,901; Jan. 15; v. 246; p. 777.
Steele, William E., Chicago, Ill. Hinge. No. 1,253,641; Jan. 15; v. 246; p. 702.
Steere, Clarence E., assignor of one-half to H. Scarborough, Milwaukee, Wis. Fluid-fuel-supply apparatus for internal-combustion engines. No. 1,253,642; Jan. 15; v. 246; p. 702.
Steffans, Francis X. (See Neumann, Louis, assignor.)
Steil, Peter, Fairbanks, Alaska. Beet topper, digger, and loader. No. 1,251,589; Jan. 1; v. 246; p. 43.
Steinhart, Kurt W., Tacoma, Wash. Stovepipe. No. 1,253,902; Jan. 15; v. 246; p. 777.
Steinle, William J., Elmhurst Heights, N. Y., assignor to Rubber Regenerating Company. Tire-building machine. No. 1,252,049; Jan. 1; v. 246; p. 179.
Steinman, Edward F., Cincinnati, Ohio. Headlight-lens. No. 1,252,505; Jan. 8; v. 246; p. 341.
Steinman, Jacob H. (See Beck, Owens, and Steinman.)
Steinmetz, Joseph A., Philadelphia, Pa. Means for protecting vessels against submarines. No. 1,253,295; Jan. 15; v. 246; p. 601.
Steinmetz, Wallace A., Thurston, Ohio. Wrench. No. 1,251,934; Jan. 1; v. 246; p. 145.
Stelzner, Hermann. (See Claren and Stelzner.)
Stenotype Company, The. (See Ebelhare and Arvidson, assignors.)
Stephenson, John W., Toledo, assignor to The National Malleable Castings Company, Cleveland, Ohio. Rail-anchor. No. 1,251,705; Jan. 1; v. 246; p. 79.
Stephenson, John W., Toledo, assignor to The National Malleable Castings Company, Cleveland, Ohio. Rail-joint. No. 1,252,368; Jan. 1; v. 246; p. 267.
Sterling, Frederick W., San Francisco, assignor to F. C. Koerber Co., Oakland, Cal. Dish-drying rack and pan. No. 1,254,287; Jan. 22; v. 246; p. 907.
Stevens, Bertram A. (See Corrall and Stevens.)
Stevens, Charles E., Jr., and E. W., Detroit, Mich. Recording-gage. No. 1,253,438; Jan. 15; v. 246; p. 646.
Stevens, Deland M., Muskegon Heights, Mich. Combined bottle carrier and opener. No. 1,253,903; Jan. 15; v. 246; p. 777.
Stevens, Dexter, and G. Clarke, assignors to The Esmond Mills, Esmond, R. I. Spinning-crane. No. 1,254,738; Jan. 29; v. 246; p. 1067.

Stevens, Edward W. (See Stevens, Charles E., Jr., and E. W.)
Stevens, Harry A., Batavia, Ill. Water-fountain and feed-hopper. No. 1,251,935; Jan. 1; v. 246; p. 145.
Stevens, Merton P., East Orange, N. J. Shade-holder. No. 1,252,506; Jan. 8; v. 246; p. 342.
Stevens, Robert H., Newark, N. J. Sanitary closure for containers. No. 1,252,104; Jan. 1; v. 246; p. 219.
Stevens, William C., assignor to The Firestone Tire & Rubber Company, Akron, Ohio. Machine for making tire-carcasses. No. 1,253,105; Jan. 8; v. 246; p. 517.
Stevens, William H., Altoona, Pa. Draft-gage. No. 1,255,083; Jan. 29; v. 246; p. 1160.
Stevenson, Charles R., assignor to National Veneer Products Company, Mishawaka, Ind. Golf-bag. No. 1,254,640; Jan. 22; v. 246; p. 1008.
Stevenson, Edward E. (See Kelley and Stevenson.)
Stevenson, Frank M., assignor, by mesne assignments, to Pennsylvania Tank Car Company, Sharon, Pa. Tank-car. No. 1,253,745; Jan. 15; v. 246; p. 732.
Stevenson, John R., Glasgow, Scotland. Stentering or stretching device for steam can drying-machines for textile fabrics. No. 1,253,643; Jan. 15; v. 246; p. 703.
Stewart Bros. (See Stewart, Christopher D., assignor.)
Stewart, Christopher D., assignor to Stewart Bros., Ottawa, Ill. Cable-tester. No. 1,254,288; Jan. 22; v. 246; p. 907.
Stewart, George T., Larrabee, Iowa. Stock-watering trough. No. 1,251,590; Jan. 1; v. 246; p. 44.
Stewart, John K., deceased, Chicago, Ill.; J. B. Stewart, executrix. Spring-starter of automobile-engines. No. 1,252,626; Jan. 8; v. 246; p. 377.
Stewart, John W. (See Isherwood and Stewart.)
Stewart, Julia B., executrix. (See Stewart, John K.)
Stewart, Perez M., trustee. (See Hart, Thomas M., assignor.)
Stewart, Thomas B., Portola, Cal. Fume-condenser. No. 1,252,731; Jan. 8; v. 246; p. 407.
Stickdorn, Robert, Zurich, Switzerland, assignor to A. Eckstein, New York, N. Y. Flushing apparatus. No. 1,254,739; Jan. 29; v. 246; p. 1067.
Stickney, Charles A., Chicago, Ill. Telephone-exchange apparatus. No. 1,254,167; Jan. 22; v. 246; p. 873.
Stickney, Charles A., Chicago, Ill. Telephone coin-box. No. 1,254,168; Jan. 22; v. 246; p. 873.
Stiles, Thomas G., Arlington, N. J. Switch mechanism. No. 1,253,439; Jan. 15; v. 246; p. 646.
Stiles, Thomas G., assignor to The T. Geo. Stiles Company, Arlington, N. J. Pipe-carrier. No. 1,253,440; Jan. 15; v. 246; p. 647.
Stimpson, Edward S., assignor to Draper Corporation, Hopedale, Mass. Temple thread-cutter for looms. (Reissue.) No. 14,420; Jan. 8; v. 246; p. 546.
Stine, Ardon M., assignor of one-fourth to F. E. Potts, Los Angeles, Cal. Furring-nail. No. 1,254,740; Jan. 29; v. 246; p. 1067.
Stinson, Charles H., Watertown, S. D. Clutch mechanism. No. 1,252,050; Jan. 1; v. 246; p. 179.
Stockdale, Florence, Chicago, Ill. Skirt-marker. No. 1,254,945; Jan. 29; v. 246; p. 1129.
Stocking, Edgar B., deceased, Washington, D. C.; S. C. Stocking, executrix. Clothes-wringer. No. 1,252,311; Jan. 1; v. 246; p. 251.
Stocking, Sarah C., executrix. (See Stocking, Edgar B.)
Stocks, Harry B., Northenden, England. Apparatus for recording sounds photographically. No. 1,252,965; Jan. 8; v. 246; p. 474.
Stoddard, Charles F., Boston, Mass. Musical instrument. No. 1,253,744; Jan. 15; v. 246; p. 732.
Stoddard, Charles F., Boston, Mass. Automatic musical instrument. No. 1,254,082; Jan. 22; v. 246; p. 848.
Stoddart, John H., Jamestown, N. D. Lock mechanism. No. 1,251,591; Jan. 1; v. 246; p. 44.
Stokes, Evert E., Indianapolis, Ind. Detachable broom-handle. No. 1,253,904; Jan. 15; v. 246; p. 777.
Stokes, Francis J., Philadelphia, Pa. Agitator-conveyer for driers and the like. No. 1,253,543; Jan. 15; v. 246; p. 674.
Stokes & Smith Company. (See Reifsnyder, James D., assignor.)
Stokes & Smith Company. (See Smith, Harry B., assignor.)
Stolp, Samuel S., assignor to Automatic Electric Company, Chicago, Ill. Measured-service telephone system. No. 1,254,083; Jan. 22; v. 246; p. 848.
Stone, Albert F., Montclair, N. J. Carton-case for collapsible tubes. No. 1,252,051; Jan. 1; v. 246; p. 180.
Stone & Company Limited, J. (See Parsons, William S., assignor.)
Stone Straw Company, The. (See Carper, Albert A., assignor.)
Stone Straw Company. (See Maltby, Lewis C., assignor.)
Storer, Norman W., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Locomotive. No. 1,252,052; Jan. 1; v. 246; p. 180.
Stortz Gear Shift Company. (See Stortz, John H., assignor.)
Stortz, John H., Philadelphia, Pa., assignor to Stortz Gear Shift Company, Wilmington, Del. Speed-selecting indicator. No. 1,253,745; Jan. 15; v. 246; p. 732.
Story, Ward B., Brooklyn, assignor to Ward B. Story Company, Inc., New York, N. Y. Delivery mechanism for printing-presses. No. 1,252,556; Jan. 8; v. 246; p. 441.
Story, Ward B., Brooklyn, assignor to Ward B. Story Company, Inc., New York, N. Y. Sheet-piler. No. 1,252,557; Jan. 8; v. 246; p. 441.
Stout, Charles H., assignor to Crown Optical Company, Rochester, N. Y. Optical instrument. No. 1,254,741; Jan. 29; v. 246; p. 1068.
Stout, Henry J., Philadelphia, Pa. Ventilator. No. 1,254,445; Jan. 22; v. 246; p. 952.
Stout, William H., Baltimore Md. Wind-shield cleaner and signal for automobiles. No. 1,254,289; Jan. 22; v. 246; p. 908.
Strack, Henry C., Owego, N. Y. Garden-tool. No. 1,252,027; Jan. 8; v. 246; p. 377.
Strait, William, Appleton, Wis. Traction-machine. No. 1,254,446; Jan. 22; v. 246; p. 952.
Stratton, Jesse, Lexington, Ky. Mail-bag catching and delivering apparatus. No. 1,252,053; Jan. 1; v. 246; p. 180.
Straub, Eli S., Los Angeles, Cal. Door opener and closer. No. 1,251,833; Jan. 1; v. 246; p. 119.
Straubel, Louis A., Green Bay, Wis. Machine for interfolding and counting paper toweling and the like. No. 1,253,644; Jan. 15; v. 246; p. 703.
Straus, Samuel, New York, N. Y. Pull-socket for electric lamps. No. 1,253,296; Jan. 15; v. 246; p. 601.
Strauss, Ferdinand. (See Ahern, Frank T., assignor.)
Strauss, Louis, Brooklyn, N. Y. Garment. No. 1,252,054; Jan. 1; v. 246; p. 181.
Strayer, Harvey F., Los Angeles, Cal. Necktie-fastener. No. 1,252,858; Jan. 8; v. 246; p. 442.
Streit, Valentine, Alvord, Iowa. Invalid-lifter. No. 1,252,859; Jan. 8; v. 246; p. 442.
Strelow, Henry. (See Pepper and Strelow.)
Strick, John H., and J. P. Rees, Neath, South Wales. Machine for cleaning and branning tin plates and terne plates. No. 1,252,055; Jan. 1; v. 246; p. 181.
Strickland, William R., assignor to The Peerless Motor Car Company, Cleveland, Ohio. Radiator-support. No. 1,251,834; Jan. 1; v. 246; p. 119.
Stromberg Motor Devices Company. (See Kuebler, Adolph W., assignor.)
Strong, Sutton, assignor to O. E. King & Company, Indianapolis, Ind. Copyist's line-guide. No. 1,253,906; Jan. 15; v. 246; p. 778.
Stroud, Harold D., assignor to Automatic Electric Company, Chicago, Ill. Telephone meter-service system. No. 1,254,200; Jan. 22; v. 246; p. 908.
Strout, Harvey C., assignor to Traffic Sign & Signal Company, Gloucester, Mass. Traffic-sign. No. 1,254,862; Jan. 29; v. 246; p. 1106.
Strutt, William, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Brush-raising device. No. 1,251,835; Jan. 1; v. 246; p. 120.
Stuchfield, Tom P., Birmingham, England. Variable-speed gearing for motor-cycles. No. 1,253,544; Jan. 15; v. 246; p. 674.
Study, Leonard, Thurman, Iowa. Fan-propeller. No. 1,252,195; Jan. 1; v. 246; p. 219.
Stufflebeam, Albert, Paris, Ark. Shaft-coupling. No. 1,251,836; Jan. 1; v. 246; p. 120.
Suchanek, John, et al. (See Muzik, John, assignor.)
Suderov, Abraham, New York, N. Y. Setting for precious stones. No. 1,252,966; Jan. 8; v. 246; p. 474.
Suiter, David L., Philadelphia, Pa. Sound-damping device for talking-machines. No. 1,254,447; Jan. 22; v. 246; p. 952.
Sullivan, Daniel. (See McDonald and Sullivan.)
Sullivan Machinery Company. (See Gilman, George H., assignor.)
Sunbeam Motor Car Company Limited. (See Coatalen, Louis, assignor.)
Sundberg, Emanuel W., assignor to Wagner Electric Manufacturing Company, St. Louis, Mo. Controller-regulator. No. 1,252,732; Jan. 8; v. 246; p. 407.
Sunden, Alexius, Centralia, Wash. Dispensing device. No. 1,255,064; Jan. 29; v. 246; p. 1160.
Superior Type Company, The. (See Willard, Maurice L., assignor.)
Surles, John W. (See Meister, Surles, and Boyle.)
Sussman, Samuel, New York, N. Y. Musical instrument known as bones. No. 1,254,547; Jan. 22; v. 246; p. 982.
Suther, Alfred M., Allentown, assignor to Schaum & Uhlinger, Philadelphia, Pa. Clutch. No. 1,254,863; Jan. 29; v. 246; p. 1106.
Sutter, Jacob, New York, N. Y. Soldering apparatus. No. 1,253,906; Jan. 15; v. 246; p. 778.
Sutton, Ottis L., Hickman, Ky. Cotton-chopper. No. 1,254,548; Jan. 22; v. 246; p. 982.
Svanda, James, Milwaukee, Wis. Casket. No. 1,254,742; Jan. 29; v. 246; p. 1068.
Swanson, Alfred C., Chicago, Ill. Curtain and fixture for the same. No. 1,254,291; Jan. 22; v. 246; p. 908.
Swart, Charles H., Watervliet, N. Y. Gage-cock. No. 1,252,733; Jan. 8; v. 246; p. 407.
Swartz, Ira, Coalinga, Cal. Well-bailing device. No. 1,253,106; Jan. 8; v. 246; p. 518.
Swaykus, John C., and A. Tkacs, Lackawanna, N. Y. Train-pipe coupling. No. 1,251,837; Jan. 1; v. 246; p. 120.
Sweetland, Arthur H. (See Kellum and Sweetland.)
Sweetman, Littleton W. (See Zelber and Sweetman.)
Swenson, George E., Wayne Junction, Pa., assignor to The Barrett Company, New York, N. Y. Roof-flashing. No. 1,254,292; Jan. 22; v. 246; p. 909.

Swingle, Charles M., Cleveland, Ohio. Electrotherapeutic rejuvenator. No. 1,253,107; Jan. 8; v. 246; p. 518.
Swisher, Frank E., Hoopeston, Ill. Corn-husker. No. 1,252,734; Jan. 8; v. 246; p. 408.
Sykes, Brook, Toronto, Ontario, Canada. Calendar. No. 1,251,838; Jan. 1; v. 246; p. 121.
Synthetic Patents Co. (See Kropp, Walter, assignor.)
Syracuse Chilled Plow Company. (See Lee, William H., assignor.)
Szabat, Walenty, Depue, Ill. Horological device. No. 1,252,735; Jan. 8; v. 246; p. 408.
Szakacs, Bertalan, Hardieville, Alberta, Canada. Resilient wheel. No. 1,252,736; Jan. 8; v. 246; p. 408.
T. A. Willson & Co. (See Willson, Frederick, assignor.)
T. Geo. Stiles Company, The. (See Stiles, Thomas G., assignor.)
T. W. & C. B. Sheridan Company *et al.* (See Bredenberg, Alfred, assignor.)
Taber Carbureter Company, The. (See Taber, George H., assignor.)
Taber, Everett S., assignor to Samson Electric Company, Canton, Mass. Electric alarm. No. 1,254,864; Jan. 29; v. 246; p. 1107.
Taber, George H., assignor to The Taber Carbureter Company, Inc., Binghamton, N. Y. Air-valve for carbureters. No. 1,254,084; Jan. 22; v. 246; p. 849.
Taft, John A., assignor to Reagan Bale Company, San Antonio, Tex. Bearing for baling-presses. No. 1,251,936; Jan. 1; v. 246; p. 146.
Taft-Peirce Manufacturing Company, The. (See Simmons, Frank L., assignor.)
Tailors' Accessories Company, The. (See Long, Adam A., assignor.)
Tannaka, Naho, Boston, Mass. Telephone-receiver. No. 1,252,056; Jan. 1; v. 246; p. 181.
Tannaka, Naho, Boston, Mass. Telephone-transmitter. No. 1,252,057; Jan. 1 v. 246; p. 182.
Tanner, Emil E., Milwaukee, Wis. Safety device for elevators. No. 1,252,737; Jan. 8; v. 246; p. 409.
Tarasch, Louis C., Brooklyn, assignor to Penny Package Corporation, New York, N. Y. Vending-machine. No. 1,254,085; Jan. 22; v. 246; p. 849.
Tarassoff, Konstantin, Moscow, and P. Shestakoff, Petrograd, Russia. Obtaining hard products of condensation of phenols and formaldehyde. No. 1,252,507; Jan. 8; v. 246; p. 342.
Tarr, William A., Bethany, assignor of one-half to A. C. Jobes, Wheeling, W. Va. Antiskid attachment for wheels. No. 1,254,448; Jan. 22; v. 246; p. 952.
Tartaglione, Joseph, Paterson, N. J. Shuttle. No. 1,254,109; Jan. 22; v. 246; p. 873.
Taussig, Joseph, Chicago, Ill. Bracket. No. 1,254,170; Jan. 22; v. 246; p. 873.
Taylor, Arthur A., and H. J. Schatz, Omaha, Nebr. Combined fire and burglar alarm. No. 1,252,196; Jan. 1; v. 246; p. 219.
Taylor, Cecil H., Alma, Mich. Universal joint. No. 1,253,108; Jan. 8; v. 246; p. 518.
Taylor, Eugene H., deceased, Hyde Park, Mass.; G. A. Taylor, administrator. Insole-trimming machine. No. 1,254,549; Jan. 22; v. 246; p. 982.
Taylor, George A., administrator. (See Taylor, Eugene H.)
Taylor, Harold B., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electrical measuring instrument. No. 1,253,297; Jan. 15; v. 246; p. 601.
Taylor Instrument Companies. (See Howe, James A., assignor.)
Taylor, John L., Oakmont, Pa. Metal barge construction. No. 1,253,645; Jan. 15; v. 246; p. 703.
Taylor, William, Ford City, Ontario, Canada, assignor to W. A. Case & Son Manufacturing Company, Buffalo, N. Y. Valve-operating mechanism. No. 1,253,109; Jan. 8; v. 246; p. 519.
Taylor, William E., Eastport, Me., assignor to American Can Company, New York, N. Y. Key-opening can. No. 1,254,171; Jan. 22; v. 246; p. 874.
Taylor, William O., Limerick, assignor to Wildman Mfg. Co., Norristown, Pa. Stop-motion. No. 1,254,086; Jan. 22; v. 246; p. 850.
Taylor, William O., Limerick, assignor to Wildman Mfg. Co., Norristown, Pa. Stop-motion for knitting-machines. No. 1,254,087; Jan. 22; v. 246; p. 850.
Taylor, William O., Limerick, assignor to Wildman Mfg. Co., Norristown, Pa. Stop-motion for knitting-machines. No. 1,254,088; Jan. 22; v. 246; p. 850.
Technicolor Motion Picture Corporation. (See Comstock, Daniel F., assignor.)
Techno Chemical Laboratories Limited. (See Söderlund and Boberg, assignors.)
Teed, Edgar G., Butte, Mont. Oil-burner. No. 1,251,839; Jan. 1; v. 246; p. 121.
Teeling, John F., Wayville, N. Y. Fishing-line holder. No. 1,253,746; Jan. 15; v. 246; p. 733.
Teppell, Edward A., *et al.* (See Roach, William W., assignor.) (Reissue.)
Teeple, John E., Montclair, N. J. Extracting rosin, turpentine, and oils. No. 1,252,058; Jan. 1; v. 246; p. 182.
Teetor Company. (See Teetor, Martin, assignor.)
Teetor, Martin, assignor to Teetor Company, Des Moines, Iowa. Calculating-machine. No. 1,252,738; Jan. 8; v. 246; p. 409.
Tefft, Frederick A., Toledo, Ohio. Electric connector. No. 1,254,172; Jan. 22; v. 246; p. 874.
Teleszky, Mike, Jenners, Pa. Guard for calender-machines. No. 1,251,840; Jan. 1; v. 246; p. 121.
Telfer, John S. G., and J. H. C. Boyd, London, England. Ventilating-fan. No. 1,252,508; Jan. 8; v. 246; p. 342.
Temple, Jacob A., and L. H. Bullard, Kalamazoo, Mich. Device for cooling calender-rolls. No. 1,253,298; Jan. 15; v. 246; p. 602.
Templeton, Oliver M., Indianapolis, Ind. Vehicle-curtain light. No. 1,253,907; Jan. 15; v. 246; p. 778.
Teresa, Antonio, Philadelphia, Pa. Heckling-machine. No. 1,255,065; Jan. 29; v. 246; p. 1161.
Terry, Edward, Brixton, England. Coat-rug. No. 1,252,628; Jan. 8; v. 246; p. 378.
Terry, Henry W., and J. W. Fowler, Toronto, Ontario, Canada. Teat-cup. No. 1,252,860; Jan. 8; v. 246; p. 442.
Terry, Joseph T., Jr., Mascot, Tenn. Concentration of ore. No. 1,254,173; Jan. 22; v. 246; p. 874.
Terstegge, Albert L., assignor to Kentucky Stamping Company, Louisville, Ky. Feed or water trough. No. 1,252,861; Jan. 8; v. 246; p. 442.
Terwilliger, William H., Amsterdam, N. Y., assignor to F. Klein, trustee. Shuttle for sewing-machines. No. 1,253,646; Jan. 15; v. 246; p. 703.
Tessier, Charles O., White Plains, N. Y. Fly-screen-fabric holder. No. 1,254,865; Jan. 29; v. 246; p. 1107.
Tharaldsen, Filip, Christiania, Norway. Process and apparatus for producing zinc and the like. No. 1,255,066; Jan. 29; v. 246; p. 1161.
Thatcher, Harry S., assignor to Celite Products Company, Los Angeles, Cal. Plaster or cement composition and making the same. No. 1,251,841; Jan. 1; v. 246; p. 121.
Thatcher, Harry S., assignor to Celite Products Company, Los Angeles, Cal. Plaster composition. No. 1,251,842; Jan. 1; v. 246; p. 121.
Thatcher, Willis E., Cameron, Wis. Fish-hook. No. 1,255,067; Jan. 29; v. 246; p. 1161.
Thebert, Frederick T., Bessemer, Mich. Rotatable seesaw. No. 1,254,174; Jan. 22; v. 246; p. 874.
Therien, Joseph H., San Francisco, Cal. Drying-room. No. 1,251,937; Jan. 1; v. 246; p. 146.
Thermo-Electro Starter Company. (See Hewitt, Richard B., assignor.)
Theroux, Ernest G., Emmitsburg, Md. Table attachment for invalid-beds. No. 1,253,441; Jan. 15; v. 246; p. 647.
Thiel, Henry C., Chicago, Ill. Signal device. No. 1,252,059; Jan. 1; v. 246; p. 182.
Thiele, Felix C., assignor to Cudahy Refining Company, Coffeyville, Kans. Manufacture of drying-oils. No. 1,254,866; Jan. 29; v. 246; p. 1107.
Thieme, Otto, assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo. Mount for key-bars. No. 1,253,299; Jan. 15; v. 246; p. 602.
Thomas, Carl C., Baltimore, Md. Meter. No. 1,254,374; Jan. 22; v. 246; p. 932.
Thomas, Daniel R., Oklahoma, Okla. Tire-shoe. No. 1,254,089; Jan. 22; v. 246; p. 851.
Thomas, Egbert S., Nevada City, Cal. Cover-holder and stove-lid lifter. No. 1,252,197; Jan. 1; v. 246; p. 219.
Thomas, Frank C., New York, N. Y., assignor to United Exhibitors Advertising Corporation, Wilmington, Del. Display apparatus. No. 1,252,629; Jan. 8; v. 246; p. 378.
Thomas, Horace T., Lansing, Mich. Grinding process. No. 1,252,509; Jan. 8; v. 246; p. 342.
Thomas, Hubert S. (See Thomas and Davies.)
Thomas, Nora C. B., *et al.*, administrators. (See Thomas and Davies.)
Thomas P. Taylor Co. (See Hammond, Myron B., assignor.)
Thomas, Reinhold, Brooklyn, N. Y. Phonograph. No. 1,251,592; Jan. 1; v. 246; p. 44.
Thomas, Richard B., deceased, London, England, H. S. Thomas, Llandaff, and W. R. Davies, Whitchurch, Wales; N. C. B. Thomas, H. R. W. Anderson, and C. Bathurst, administrators. Apparatus for manipulating metallic articles. No. 1,252,198; Jan. 1; v. 246; p. 220.
Thomas, Walter, Nanaimo, British Columbia, Canada. Process of and apparatus for distilling oil and other liquid. No. 1,253,747; Jan. 15; v. 246; p. 733.
Thomas, William E., Brooklyn, N. Y. Variable-speed-transmission mechanism. No. 1,254,743; Jan. 29; v. 246; p. 1068.
Thomas, William S., Lock Haven, Pa. Spark-plug. No. 1,254,449; Jan. 22; v. 246; p. 953.
Thompson, Arthur G., assignor to A. Kimball Company, New York, N. Y. Pin-ticket. No. 1,252,862; Jan. 8; v. 246; p. 443.
Thompson, Clarence L., Port Washington, N. Y. Car-seat. No. 1,253,196; Jan. 8; v. 246; p. 543.
Thompson, Edward G., Battle Creek, Mich. Hose-coupling. No. 1,254,375; Jan. 22; v. 246; p. 932.
Thompson, Eugene W., New London, Conn. Horseshoe. No. 1,252,863; Jan. 8; v. 246; p. 443.
Thompson, Gilbert, Burns, Mont. Feeder for pneumatic stackers. No. 1,254,175; Jan. 22; v. 246; p. 875.
Thompson, John E., and C. W. Jameson, assignors to Thompson & Jameson, Chicago, Ill. Reversing-switch for elevator-motors. No. 1,252,739; Jan. 8; v. 246; p. 409.
Thompson, Oliver S., Compton, Cal. Method of and means for correcting test-papers. No. 1,252,199; Jan. 1; v. 246; p. 220.

Thompson, Ralph E., Brookline, Mass. Indicating mechanism. No. 1,253,300; Jan. 15; v. 246; p. 602.
Thompson, Reinert, Wautoma, Wis. Machine for stringing seed-corn. No. 1,252,200; Jan. 1; v. 246; p. 220.
Thompson, Robert F. (See Martin and Thompson.)
Thompson, Robert M., Tacoma, Wash. Preserving fish and products thereof. No. 1,252,865; Jan. 8; v. 246; p. 443.
Thompson, Roy D., Holbert, Tex. Stalk-cutter. No. 1,255,068; Jan. 29; v. 246; p. 1162.
Thompson, Thomas E., Monrovia, Cal. Educational device. No. 1,253,908; Jan. 15; v. 246; p. 778.
Thomson Electric Welding Company. (See Von Henke, Edmund J., assignor.)
Thomson, Elihu, Swampscott, Mass., assignor to General Electric Company. Electric meter. No. 1,252,201; Jan. 1; v. 246; p. 220.
Thomson Meter Company. (See Lambert, Frank, assignor.)
Thornblade, Carl H., assignor to Pacific Electric Welder & Manufacturing Co., Seattle, Wash. Metal fish-basket. No. 1,252,740; Jan. 8; v. 246; p. 410.
Thornburrow, S. (See Pool, Austin R., assignor.)
Thorp & Martin Typewriter Co. (See Müller, Oscar F., assignor.)
Thorsell, Lars W., Waterbury, Conn. Automatic thread-rolling machine. No. 1,254,176; Jan. 22; v. 246; p. 875.
Thorssell, Carl T., and H. L. R. Lundén, Gottenborg, Sweden. Production of oxalic acid. No. 1,251,938; Jan. 1; v. 246; p. 146.
Thrun, Ada I., Craig, Colo. Cooking apparatus. No. 1,254,376; Jan. 22; v. 246; p. 933.
Thurmes, George, Hampton, Minn. Device for removing wheels from shafts. No. 1,254,377; Jan 22; v. 246; p. 933.
Tigerstedt, Carl G. (See Johansson and Tigerstedt.)
Tillinghast, Alexander R., assignor to Semet-Solvay Company, Solvay, N. Y. Making sodium ferrocyanid. No. 1,252,741; Jan. 8; v. 246; p. 410.
Tillinghast, Alexander R., assignor to Semet-Solvay Company, Solvay, N. Y. Making sodium ferrocyanid. No. 1,252,742; Jan. 8; v. 246; p. 410.
Tilton, Fred N., Hartford, Conn. Screw threader and pointer. No. 1,252,630; Jan. 8; v. 246; p. 378.
Tin Decorating Company of Baltimore. (See Gerhardt, Leonard, assignor.)
Tindall, William H., Barker Creek, and J. E. Van Dam, Traverse City, Mich. Silage-cover. No. 1,254,744; Jan. 29; v. 246; p. 1068.
Tippel, Anthony T., St. Paul, Minn. Bow-facing oar. No. 1,252,743; Jan. 8; v. 246; p. 410.
Tirrill, Allen A., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electrical regulator. No. 1,252,060; Jan. 1; v. 246; p. 182.
Tjosvold, Carl M., Kramer, N. D. Check-writer. No. 1,252,202; Jan. 1; v. 246; p. 221.
Tkacz, Alex. (See Swaykus and Tkacz.)
Tobias, Frank C., Fort Wayne, Ind. Portable tram. No. 1,253,301; Jan. 15; v. 246; p. 603.
Todd Protectograph Company. (See Cumpston, Edward H., Jr., assignor.)
Toledo Scale Company. (See Hapgood, Clarence H., assignor.)
Toledo Scale Company. (See Wetzel, Lewis C., assignor.)
Tollerton, William J. (See Mennie and Wanamaker, assignors.)
Tolley, Samuel, Abingdon, Ill. Pole or tongue cap for neck-yoke connections. No. 1,253,909; Jan. 15; v. 246; p. 778.
Tomkinson, Charles C., Plainfield, N. J., assignor to J. E. Ogden, Mountainville, N. Y. Door-counterbalancing system. No. 1,253,302; Jan. 15; v. 246; p. 603.
Tomlin, Wesley R., Fort Collins, Colo. Garment-scale. No. 1,253,303; Jan. 15; v. 246; p. 603.
Tommasini, Vitaliano. (See Loriolf, Filippo, assignor.)
Tompkins, Henry M., Detroit, and H. K. Koppin, Jackson, Mich. Door-latch. No. 1,253,545; Jan. 15; v. 246; p. 675.
Tompkins, Ralph S. (See Robinson, Charles A., assignor.)
Toohey, John E., Grand Rapids, Mich. Framing-machine. No. 1,254,177; Jan. 22; v. 246; p. 875.
Toronto Type Foundry Company. (See Trudelle, Philip D., assignor.)
Torrey, Bates, Jr. (See Sanford, Miller, and Torrey.)
Torrey, Levi F., Cleveland, Ohio. Spring-fitting machine. No. 1,253,304; Jan. 15; v. 246; p. 604.
Torrey, Lewis H., Worcester, Mass. Suspension device. No. 1,253,647; Jan. 15; v. 246; p. 704.
Tower, Herschel E., assignor to The Baldwin Company, Cincinnati, Ohio. Musical-instrument air-governor check. No. 1,253,110; Jan. 8; v. 246; p. 519.
Towner, Thomas G. (See Carpenter and Towner.)
Tozer, William, Milner, British Columbia, Canada. Egg-box filler. No. 1,253,442; Jan. 15; v. 246; p. 647.
Trace, Russell A., assignor to Buckeye Iron and Brass Works, Dayton, Ohio. Gate-controlling device for cookers. No. 1,254,745; Jan. 29; v. 246; p. 1068.
Traffic Sign & Signal Company. (See Strout, Harvey C., assignor.)
Trane Company. (See Trane, Reuben N., assignor.)
Trane, Reuben N., assignor to Trane Company, La Crosse, Wis. Heating system. No. 1,252,967; Jan. 8; v. 246; p. 474.
Treat, Ellis M. (See Graham, Andrew W., assignor.)
Tremain, Charles. (See Becker, Robert A., assignor.)
Trevor, James E., Hartford, Conn., assignor, by mesne signments, to United States Envelope Company, Springfield, Mass. Envelop-machine. No. 1,252,968; Jan. 8; v. 246; p. 475.
Trevor, James E., Hartford, Conn., assignor, by mesne assignments, to United States Envelope Company, Springfield, Mass. Envelop-machine. No. 1,252,969; Jan. 8; v. 246; p. 476.
Trimlett, William E., Los Angeles, Cal. Door-seat for automobiles. No. 1,254,550; Jan. 22; v. 246; p. 982.
Tripple, William D. (See Clausen, Herman, assignor.)
Trist, Arthur R., London, England. Governing device for automatically controlling the supply of feed-water to steam-boilers and for like purposes. No. 1,251,843; Jan. 1; v. 246; p. 122.
Trolley, Isaac, Poughkeepsie, N. Y., assignor to Moline Plow Company. Harvester-reel support. No. 1,251,939; Jan. 1; v. 246; p. 146.
Troppman, Charles J., assignor to F. A. Hardy & Company, Chicago, Ill. Aviator's goggles. No. 1,254,090; Jan. 22; v. 246; p. 851.
Trout, William H., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis. Saw-mount. No. 1,251,844; Jan. 1; v. 246; p. 122.
Trout, William H., Milwaukee, Wis. Steam log-holder for cut-off saws. No. 1,254,946; Jan. 29; v. 246; p. 1129.
Troxell, Harry J., Gettysburg, Pa. Changeable exhibitor for cards, pictures, signs, and the like. No. 1,254,746; Jan. 29; v. 246; p. 1069.
Troy Laundry Machinery Company. (See Balzer, Fritz, assignor.)
Troy Laundry Machinery Company. (See Bartholomew and Balzer, assignors.)
Trudelle, Philip D., assignor to Toronto Type Foundry Company, Limited, Toronto, Ontario, Canada. Wire-reel. No. 1,254,091; Jan 22; v. 246; p. 851.
Truell, Calista Z., Lawrence, assignor to Greenwood Chemical Company, Lowell, Mass. Insecticide. No. 1,252,510; Jan. 8; v. 246; p. 343.
Truesdell, John P., Providence, R. I. Burner. No. 1,254,293; Jan. 22; v. 246; p. 909.
Truffault, Jules M. M., assignor to Societe Anonyme Des Automobiles Et Cycles Peugeot, Paris, France. Shock-absorber. No. 1,253,648; Jan. 15; v. 246; p. 704.
Truitt, Joseph E., and E. Ackerman, Chicago, Ill. Shutter. No. 1,251,593; Jan. 1; v. 246; p. 44.
Trundle, George T., assignor to American Multigraph Company, Cleveland, Ohio. Addressing mechanism. No. 1,252,970; Jan. 8; v. 246; p. 476.
Trussed Concrete Steel Company. (See Kane, Thomas H., assignor.)
Tschirner, Frederick, Newark, N. J. Extracting potassium salts. No. 1,254,450; Jan. 22; v. 246; p. 953.
Tschirner, Frederick, Newark, N. J. Extracting potassium salts. No. 1,254,451; Jan 22; v. 246; p. 953.
Tsuruoka, Kamenoshin, Honolulu, Hawaii. Bean-cutter. No. 1,252,744; Jan. 8; v. 246; p. 411.
Tubular Woven Fabric Company. (See Kennedy, Joseph A., assignor.)
Tucker, Walter H., Flagstaff, Ariz. Lifter for cooking utensils. No. 1,254,551; Jan. 22; v. 246; p. 983.
Tulloss, Rees E., Cambridge, Mass. Measuring instrument. No. 1,253,305; Jan. 15; v. 246; p. 604.
Turbayne, William A., assignor to U. S. Light & Heat Corporation, Niagara Falls, N. Y. Rheostat and operating means therefor. No. 1,251,594; Jan. 1; v. 246; p. 45.
Turbayne, William A., assignor to U. S. Light & Heat Corporation, Niagara Falls, N. Y. Generator-regulator. No. 1,251,595; Jan. 1; v. 246; p. 45.
Turbayne, William A., Buffalo, assignor, by mesne assignments, to U. S. Light & Heat Corporation, Niagara Falls, N. Y. Automatic regulator. No. 1,251,706; Jan. 1; v. 246; p. 79.
Turbayne, William A., assignor, by mesne assignments, to U. S. Light & Heat Corporation, Niagara Falls, N. Y. Regulator for electric generators. No. 1,251,707; Jan. 1; v. 246; p. 79.
Turbayne, William A., assignor, by mesne assignments, to U. S. Light & Heat Corporation, Niagara Falls, N. Y. Regulator for electric generators. No. 1,251,708; Jan. 1; v. 246; p. 80.
Turbayne, William A., assignor, by mesne assignments, to U. S. Light & Heat Corporation, Niagara Falls, N. Y. Electrical system of regulation and starting. No. 1,252,511; Jan. 8; v. 246; p. 343.
Türk, Heinrich, assignor to The Porcelain Enamel and Manufacturing Company, Baltimore, Md. Door-operating device. No. 1,253,996; Jan. 15; v. 246; p. 803.
Turnbull, Lawrence W., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Brush-holding device. No. 1,251,845; Jan. 1; v. 246; p. 122.
Turner, Charles P., Chicago, Ill. Adjustment for reclining-chairs. No. 1,251,709; Jan. 1; v. 246; p. 80.
Turner, Eli H., Jefferson, Okla. Kafir-corn header. No. 1,252,631; Jan. 8; v. 246; p. 378.
Turner, Frank M., and J. Dahlstrom, Pittsburgh, Pa. Device for operating car-couplings. No. 1,252,061; Jan. 1; v. 246; p. 183.

Turner, James, and P. P. Crabill, Springfield, Ohio. Bumper for automobiles. No. 1,253,306; Jan. 15; v. 246; p. 604.
Turner, Walter V., Wilkinsburg, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Electro-pneumatic brake. No. 1,251,596; Jan. 1; v. 246; p. 46.
Turney, John L. (See Lewis and Turney.)
Tuttle, William E., Jr., receiver. (See Florandin and Bennett, assignors.)
Tveten, Olaus O., Grand Forks, N. D. Revolving harrow. No. 1,253,307; Jan. 15; v. 246; p. 604.
20th Century Machinery Company, The. (See Beutlich, Richard F., assignor.)
Twyman, Frank, and A. Green, assignors to Adam Hilger, Limited, London, England. Method and apparatus for finishing prisms or lenses or combinations of the same. No. 1,252,512; Jan. 8; v. 246; p. 343.
Twyman, Frank, and A. Green, assignors to Adam Hilger Limited, London, England. Apparatus for finishing prisms or lenses or combinations of the same. No. 1,253,308; Jan. 15; v. 246; p. 605.
Tyrrell, Frederick S., Winnetka, Ill. Photoprinting apparatus. No. 1,252,513; Jan. 8; v. 246; p. 343.
Tyson, Frank, Canton, Ohio. Bottle-crate-emptying machine. No. 1,253,748; Jan. 15; v. 246; p. 733.
U. S. Light & Heat Corporation. (See Turbayne, William A., assignor.)
U. S. Light & Heat Corporation. (See Zimmerman, Thomas, assignor.)
Uebelmesser, Elisabeth M. (See Segel, Michael, assignor.)
Uhlenhaut, Fritz, Jr. (See Sammon, Bernard J., assignor.)
Ulch, James J., Des Moines, Iowa. Automobile-signal. No. 1,251,940; Jan. 1; v. 246; p. 147.
Ulleland, Nels, Kent, Wash. Quick-acting hose-coupling. No. 1,253,309; Jan. 15; v. 246; p. 605.
Underwood Computing Machine Company. (See Hart, Frederick A., assignor.)
Underwood Computing Machine Company. (See Wright, Walter, assignor.)
Underwood, Fred F., Greenfield, Mass. Threading device for curtain-rods. No. 1,253,749; Jan. 15; v. 246; p. 734.
Underwood Typewriter Company. (See Kurowski, Alfred G. F., assignor.)
Underwood Typewriter Company. (See Roberts, Lyman R., assignor.)
Unger, Hugo, assignor to Lintz & Eckhardt, Berlin, Germany. Hemstitch sewing-machine. No. 1,252,745; Jan. 8; v. 246; p. 411.
Union Co. (See Dedichen and Halse, assignors.)
Union Special Machine Company. (See Clark, Nelson D., assignor.)
Union Special Machine Company. (See Moffatt, James R., assignor.)
Union Special Machine Company. (See Simmons, Albert H., assignor.)
Union Switch & Signal Company, The. (See Griffin, Henry W., assignor.)
Union Switch & Signal Company, The. (See Harrington, Clinton O., assignor.)
Union Switch & Signal Company, The. (See Holliday, John S., assignor.)
United Exhibitors Advertising Corporation. (See Thomas, Frank C. assignor.)
United Refrigerators Company. (See Clinton, Thomas J., assignor.)
United Shirt and Collar Company. (See Pine, James K. P., assignor.)
United Shoe Machinery Company. (See Davenport, Herman A., assignor.)
United Shoe Machinery Company. (See Johnson, Albert E., assignor.)
United Shoe Machinery Corporation. (See Ashworth, Fred, assignor.)
United Shoe Machinery Corporation. (See Barna, Joseph W., assignor.)
United Shoe Machinery Corporation. (See Barnett, Ernest, assignor.)
United Shoe Machinery Corporation. (See Borden, William H., assignor.)
United Shoe Machinery Corporation. (See Bruner and Neal, assignors.)
United Shoe Machinery Corporation. (See Christy, Frank W., assignor.)
United Shoe Machinery Corporation. (See Engel, Karl, assignor.)
United Shoe Machinery Corporation. (See Erickson, Edward, assignor.)
United Shoe Machinery Corporation. (See Grush, Elmer B., assignor.)
United Shoe Machinery Corporation. (See McFeely, Ronald F., assignor.)
United Shoe Machinery Corporation. (See Meacham, John H., assignor.)
United Shoe Machinery Corporation. (See Meyer, William C., assignor.)
United Shoe Machinery Corporation. (See Perkins, Charles, assignor.)
United Shoe Machinery Corporation. (See Seely, Thomas H., assignor.)
United Shoe Machinery Corporation. (See Winkley, Erastus E., assignor.)
United States Airplane and Engine Company. (See Hickey, George N., assignor.)
United States Alloys Corporation. (See Petinot, Napoleon G., assignor.)
United States Ballage Harvester Company. (See Ronning, Andrean G. and A., assignors.)
United States Envelope Company. (See Trevor, James E., assignor.)
United States Printing and Lithograph Company, The. (See Achert, William K., assignor.)
United Table-Bed Company. (See Klok, Carl E., assignor.)
Universal High Power Telephone Company. (See Williams, Cassius M., assignor.)
Universal Patents Company. (See Jennings, Victor H., assignor.)
Upthegrove, William, Vernon township, Isabella county, Mich. Wagon-rack. No. 1,251,597; Jan. 1; v. 246; p. 46.
Utts, William A., Kansas City, Mo. Parachute-equipped aeroplane. No. 1,254,947; Jan. 29; v. 246; p. 1129.
Utz, John G., assignor, by mesne assignments, to the Standard Parts Company, Cleveland, Ohio. Apparatus for lubricating. No. 1,251,941; Jan. 1; v. 246; p. 147.
Uts, Julius M. (See Smith, James D., assignor.)
Vil, Giovanni. (See Vil, James L. and G.)
Vil, James L. and G., Los Angeles, Cal. Liquid-measuring device. No. 1,254,452; Jan. 22; v. 246; p. 954.
Vail, Joseph M., Bryan, Ohio. Fly-spat. No. 1,254,092; Jan. 22; v. 246; p. 852.
Valcke, William F., Jr., Chicago, Ill. Rheostat. No. 1,252,203; Jan. 1; v. 246; p. 221.
Valcon, Pete, Portland, Oreg. Hand printing-machine. No. 1,254,453; Jan. 22; v. 246; p. 954.
Vale, Alfred G., assignor to The American Tobacco Company, New York, N. Y. Tobacco-package. No. 1,251,598; Jan. 1; v. 246; p. 46.
Valeri, Olindo, Genoa, Italy. Metal bag. No. 1,252,204; Jan. 1; v. 246; p. 221.
Van Dam, John E. (See Tindall and Van Dam.)
Van Deventer, Harry R., Sumter, S. C., assignor, by mesne assignments, to Splitdorf Eelectrical Co., Newark, N. J. Armature for ignition-dynamos. No. 1,252,514; Jan. 8; v. 246; p. 344.
Van Deventer, Harry R., Sumter, S. C., assignor to Splitdorf Electrical Company, Newark, N. J. Ignition device. No. 1,255,069; Jan. 29; v. 246; p. 1162.
Van Doorn, Charles E., Rochester, N. Y. Mop-pail. No. 1,253,649; Jan. 15; v. 246; p. 705.
Van Doren, Charles Y., *et al.* (See Pearson, John R., assignor.)
Van Dorn, Herbert E., Chicago, Ill. Draft and buffing gear. No. 1,251,942; Jan. 1; v. 246; p. 147.
Van Dorn, Herbert E., Chicago, Ill. Draw-bar carrier. No. 1,251,943; Jan. 1; v. 246; p. 148.
Van Guelpen, Louis J., Cincinnati, Ohio. Air-cooled tool. No. 1,253,650; Jan. 15; v. 246; p. 705.
Van Hamersveld, John, Avalon, assignor to The Duff Manufacturing Company, Pittsburgh, Pa. Locking mechanism for gear-shifts. No. 1,252,205; Jan. 1; v. 246; p. 221.
Van Heusen, John M. (See Bowen, John E., assignor.)
Van Heusen, John M. (See Morgan, John L., assignor.)
Van Heusen, John M., Boston, Mass. Collar. No. 1,254,294; Jan. 22; v. 246; p. 909.
Van Hoevenberg, Henry, Lake Placid Club, N. Y. Photographic apparatus. No. 1,254,013; Jan. 15; v. 246; p. 808.
Van Houten, Frank H. (See Van Houten, John M. and F. H.)
Van Houten, John M. and F. H., assignors to Dutchess Tool Company, Beacon, N. Y. Machine for molding dough and like plastic substances. No. 1,253,443; Jan. 15; v. 246; p. 647.
Van Houten, Frank H., assignor to Dutchess Tool Company, Beacon, N. Y. Dough-advancing roll. No. 1,253,444; Jan. 15; v. 246; p. 648.
Van Sickle, James A. (See Grimm and Van Sickle.)
Van Vorst, Charles B., and N. E. Fulkerson, Los Angeles, Cal. Mattress and cushion. No. 1,253,750; Jan. 15; v. 246; p. 734.
Vacuum Dyeing Machine Company. (See Hey, David M., assignor.)
Vancamp, Orlan S., Kansas City, Mo. Fresh-air bed. No. 1,251,846; Jan. 1; v. 246; p. 122.
Vance, Herman E. (See Anderson and Fleming, assignors.)
Vanderlip, Louis C., Elkhart, Ind. Explosion-engine. No. 1,251,847; Jan. 1; v. 246; p. 122.
Vanderveld, Anthony, assignor to Grand Rapids Show Case Company, Grand Rapids, Mich. Sectional store furniture. No. 1,253,546; Jan. 15; v. 246; p. 675.
Vanderveld, Anthony, Grand Rapids, Mich., assignor to Clipper Belt Lacer Company. Belt-hook-fastening machine. No. 1,254,948; Jan. 29; v. 246; p. 1130.
Vanneman, William C., Anderson, Ind. Toy. No. 1,252,515; Jan. 8; v. 246; p. 344.
Varney, Theodore, Pittsburgh, and H. L. Beach, Edgewood Park, Pa., assignors to Westinghouse Electric and Manufacturing Company. Electrically-operated switch. No. 1,251,848; Jan. 1; v. 246; p. 123.
Vasdahl, Hans, Swissvale, assignor to McClintic-Marshall Company, Pittsburgh, Pa. Adjustable rail-clamp. No. 1,252,971; Jan. 8; v. 246; p. 476.
Vaughan, Calvin C., Onaway, Mich. Music-leaf turner. No. 1,251,599; Jan. 1; v. 246; p. 46.

Vaughan, Henry M., Newton, Iowa. Washing-machine. No. 1,253,751; Jan. 15; v. 246; p. 734.
Vegely, Oliver E., Chicago, Ill. Golf-tee. No. 1,251,944; Jan. 1; v. 246; p. 148.
Velde, Ernest A., Cedar Rapids, Iowa. Rock-pulveriser. No. 1,253,547; Jan. 15; v. 246; p. 675.
Vereinigte Koln-Rottweiler Pulverfabriken, The. (See Matter, Oskar, assignor.)
Vernon, Seward S., Paterson, N. J. Compressed-air-power plant. No. 1,251,849; Jan. 1; v. 246; p. 123.
Vest, Thomas L., Parkville, Mo. Ice-tongs. No. 1,253,111; Jan. 8; v. 246; p. 519.
Vibrocel Company, The. (See Calthrop and Lynde, assignors.)
Victor Talking Machine Company. (See Lumiere, Louis, assignor.)
Victor Talking Machine Company. (See Moyer, William W., assignor.)
Victor Talking Machine Company. (See Wickes, Clarence S., assignor.)
Videgaray, Federico, Mexico, Mexico. Wardrobe-trunk. No. 1,252,516; Jan. 8; v. 246; p. 344.
Vient, Benjamin A., assignor to Belco Sanitary Mfg. Co., Buffalo, N. Y. Enameling composition. No. 1,251,710; Jan. 1; v. 246; p. 80.
Vierow, Thomas S., Jersey City, N. J. Bumper for automobiles. No. 1,251,600; Jan. 1; v. 246; p. 47.
Vincent, Clarence D., Rogers, Mich. Auxiliary steam-intake for intake-manifolds. No. 1,253,910; Jan. 15; v. 246; p. 779.
Vincent, Hellier A., London, assignor, by mesne assignments, to Marie-Therese E. Salerni, Sydenham Hill, London, England. Safety-razor. No. 1,254,093; Jan. 22; v. 246; p. 852.
Vinik, Matthias J., New York, N. Y. Moving-picture machine. No. 1,254,552; Jan. 22; v. 246; p. 983.
Vion, Julius P., Jersey City, N. J. Water-heating device. No. 1,254,454; Jan. 22; v. 246; p. 954.
Visel, Clifton E., New Haven, Conn. Valve mechanism. No. 1,253,311; Jan. 15; v. 246; p. 606.
Vogt, Engelbert J., Grand Rapids, Mich. Adjustable bracket. No. 1,254,094; Jan. 22; v. 246; p. 852.
Voje, Frank W., St. Paul, Minn., Billiard-cue. No. 1,252,632; Jan. 8; v. 246; p. 379.
Vold, Ole G., Forest City, Iowa. Seed-corn drier. No. 1,254,878; Jan. 22; v. 246; p. 933.
Vom Baur, Carl H., Douglaston, N. Y. Electric furnace. No. 1,252,633; Jan. 8; v. 246; p. 379.
Von Allmen, Christian, Louisville, Ky. Wheel. No. 1,254,178; Jan. 22; v. 246; p. 876.
Von Culin, Clayton. (See Beach and Von Culin.)
Von Henke, Edmund J., assignor to Thomson Electric Welding Company, Lynn, Mass. Welding and annealing high-speed steel. No. 1,252,746; Jan. 8; v. 246; p. 411.
Von Henke, Edmund J., assignor to Thomson Electric Welding Company, Lynn, Mass. Welding high-speed steel. No. 1,253,189; Jan. 8; v. 246; p. 542.
Von Reppert, Richard, St. Louis, Mo. Calculating-machine. No. 1,253,310; Jan. 15; v. 246; p. 605.
Von Unwerth, Hans. (See Marqua, Von Unwerth, and Byrd.)
Von Wladkowsky, Julius, assignor to S.-P. Vaporizer Co., New York, N. Y. Gaseous-fuel mixer. No. 1,254,102; Jan. 22; v. 246; p. 854.
Vorel, Joseph E., Milwaukee, Wis. Apparatus for treating hides. No. 1,254,179; Jan. 22; v. 246; p. 876.
Vormeng, Henry A., Rochester, N. Y. Gage-cock. No. 1,252,206; Jan. 1; v. 246; p. 222.
Vrba, Frank J., Newkirk, Okla. Wagon-spring. No. 1,253,651; Jan. 15; v. 246; p. 705.
W. A. Case & Son Manufacturing Company. (See Taylor, William, assignor.)
W. & B. Douglas. (See Douglas, William B., assignor.)
W. G. Armstrong-Whitworth and Company Limited. (See Ashdown, Herbert H., assignor.)
W. G. Armstrong-Whitworth and Company Limited. (See Wilson and Dalby, assignors.)
W. J. Savage Company. (See Gauntt, Forest G., assignor.)
Wadell, Edward B., Sr., Williamson, W. Va. Safety gage-cock. No. 1,254,011; Jan. 15; v. 246; p. 808.
Wadleigh, George E., and T. E. Garrison, Toledo, Ohio, assignors to The Indiana Manufacturing Company, Indianapolis, Ind. Bean-saving device for threshing-machines. No. 1,253,312; Jan. 15; v. 246; p. 606.
Wadsworth, Frank L. O., Pittsburgh, assignor to The Spirella Company, Meadville, Pa. Machine for making garment-stays. No. 1,254,455; Jan. 22; v. 246; p. 955.
Wadsworth, George R., assignor to The Peerless Motor Car Company, Cleveland, Ohio. Starter for internal-combustion engines. No. 1,251,711; Jan. 1; v. 246; p. 80.
Wagner Electric Manufacturing Company. (See Fynn, Valere A., assignor.)
Wagner Electric Manufacturing Company. (See Sundberg, Emanuel W., assignor.)
Wagner, Hans, Magdeburg, Germany. Method and apparatus for transporting incompressible fluid. No. 1,253,548; Jan. 15; v. 246; p. 676.
Wagner, Louis, assignor of one-half to E. Crede, Newberg, Oreg. Agricultural machine. No. 1,251,945; Jan. 1; v. 246; p. 148.
Wagner, William W., Easton, Pa. Railway signal-circuit. No. 1,253,911; Jan. 15; v. 246; p. 779.
Wais, Charles C., Cincinnati, Ohio. Vehicle-wheel. No. 1,253,752; Jan. 15; v. 246; p. 734.
Wais, Charles C., Cincinnati, Ohio. Vehicle-wheel. No. 1,253,753; Jan. 15; v. 246; p. 735.
Waite, Wilbur M., Boston, assignor to The Multi-Signal Company, Charlestown, Mass. Electric signal device. No. 1,253,912; Jan. 15; v. 246; p. 779.
Wakaliuk, Fedor. (See Semotiuk, Ilia, assignor.)
Wakimoto, John S., Grand Island, Nebr. Chalk-line holder and reel. No. 1,251,712; Jan. 1; v. 246; p. 81.
Walden, Frederick E., Worcester, assignor to Walden Tool Company, Boston, Mass. Handcuff. No. 1,252,517; Jan. 8; v. 246; p. 345.
Walden Tool Company. (See Walden, Frederick E., assignor.)
Walker Company, The. (See Walker, Sheridan A., assignor.)
Walker, Edwin P., Monroe, Wash. Combination foldable box and table. No. 1,253,913; Jan. 15; v. 246; p. 780.
Walker, Frank O., assignor to Central Specialty Manufacturing Co., Chicago, Ill. Bath-room fixture. No. 1,252,207; Jan. 1; v. 246; p. 222.
Walker, George M., assignor of one-half to H. A. Brassert, Chicago, Ill. Spare-wheel support. No. 1,251,713; Jan. 1; v. 246; p. 81.
Walker, Glenn J., assignor to Continental Motors Corporation, Detroit, Mich. Gage. No. 1,252,634; Jan. 8; v. 246; p. 379.
Walker, Henry B., Lancaster, Ohio. Temper-screw for well-drilling. No. 1,252,866; Jan. 8; v. 246; p. 448.
Walker, Sheridan A., Elmhurst, N. Y., assignor, by mesne assignments, to The Walker Company, Wilmington, Del. Shiftable car-seat. No. 1,252,747; Jan. 8; v. 246; p. 412.
Walker, Sheridan A., Elmhurst, N. Y., assignor, by mesne assignments, to The Walker Company, Wilmington, Del. Shifting mechanism for car-seats. No. 1,252,748; Jan. 8; v. 246; p. 412.
Wall, Bert, Mason City, Iowa. Drawer-mounting. No. 1,252,867; Jan. 8; v. 246; p. 444.
Wallace, Barbara, executrix. (See Wallace, John S.)
Wallace, Halbert C. and J. I., Kansas City, Mo. Pneumatic-stacker hood. No. 1,254,868; Jan. 29; v. 246; p. 1107.
Wallace, Henry P., Butler, Ga. Fender for fireplaces. No. 1,253,446; Jan. 15; v. 246; p. 649.
Wallace, Jesse I. (See Wallace, Halbert C. and J. I.)
Wallace, John S., deceased; B. Wallace, executrix, Burlington, N. D. Power-transmitting device. No. 1,252,062; Jan. 1; v. 246; p. 183.
Waller, George W., Hastings, Fla. Barrel-truck. No. 1,255,070; Jan. 29; v. 246; p. 1162.
Wallick, George W., Sturgis, Mich. Wheel for tractors. No. 1,251,850; Jan. 1; v. 246; p. 124.
Wallin, Gustaf A. (See Anthony and Wallin.)
Walls, Marion C., Clayton, Ind. Pump. No. 1,253,914; Jan. 15; v. 246; p. 780.
Walrow, Hans T., New York, N. Y. Folding cross. No. 1,254,553; Jan. 22; v. 246; p. 983.
Walter, Harrison B., Danville, Ill. Rolling deck and form for solid-end boxes. No. 1,253,754; Jan. 15; v. 246; p. 735.
Walter, Otto, Jr., De Kalb, Ill. Roofing-tile machine. No. 1,252,208; Jan. 1; v. 246; p. 222.
Walter, William P., Angola, Ind. Invalid-support. No. 1,254,554; Jan. 22; v. 246; p. 984.
Walton, James, Phoenicia, N. Y. Mine-picker. No. 1,252,518; Jan. 8; v. 246; p. 345.
Walton, Jerrold F., Sturgis, Mich. Adjustable chair. No. 1,251,714; Jan. 1; v. 246; p. 81.
Walton, Jerrold F., Sturgis, Mich. Chair-back. No. 1,254,949; Jan. 29; v. 246; p. 1130.
Walton, Jerrold F., Sturgis, Mich. Chair-back. No. 1,254,950; Jan. 29; v. 246; p. 1130.
Walton, John, Erie, Pa. Gearing for locomotives. No. 1,252,519; Jan. 8; v. 246; p. 345.
Wanamaker, Ernest. (See Mennie and Wanamaker.)
Wanner, Albert, Jr., New York, N. Y. Manufacture of chair-seats. No. 1,251,715; Jan. 1; v. 246; p. 81.
Wanner, Albert, Jr., New York, N. Y. Joint. No. 1,251,716; Jan. 1; v. 246; p. 82.
Ward, Albert E., Palmer, Saskatchewan, Canada. Gearless differential. No. 1,254,180; Jan. 22; v. 246; p. 876.
Ward B. Story Company. (See Story, Ward B., assignor.)
Ward, Charles M., Cleveland, Ohio. Fluid-operated clutch. No. 1,254,951; Jan. 29; v. 246; p. 1130.
Ward, John A., assignor of one-fourth to E. S. Campbell, one-fourth to W. A. Ridgeway, and one-fourth to H. Sorensen, Spokane, Wash. Electric ore-furnace. No. 1,252,635; Jan. 8; v. 246; p. 390.
Ward, John S. (See Windridge, Frederick N., assignor.)
Ward, William L., Saguache, Colo. Power-transmission mechanism. No. 1,252,200; Jan. 1; v. 246; p. 222.
Ward, William W., Dublin, Ga. Harrow and drag. No. 1,254,095; Jan. 22; v. 246; p. 852.
Warfield, Gordon, Helena, Ark. Planter. No. 1,254,555; Jan. 22; v. 246; p. 984.
Waring, Harry J., *et al.* (See Roach, William W., assignor.) (Reissue.)
Warne, Frederick C., assignor to Roderick Lean Manufacturing Company, Mansfield, Ohio. Two-row cultivator. No. 1,252,749; Jan. 8; v. 246; p. 412.
Warne, Henry C. (See Hutchison and Warne.)

Warner, Ami, Keene, N. Y. Self-propelled sled. No. 1,254,456; Jan. 22; v. 246; p. 955.
Warner Elevator Manufacturing Company, The. (See Shepard, Oscar F., assignor.)
Warner, Ethel G., Washington, D. C., assignor to J. Peterson, Brooklyn, N. Y. Plug-tobacco. No. 1,253,313; Jan. 15; v. 246; p. 606.
Warner, George M., Washington county, Minn. Safety device for skates. No. 1,253,314; Jan. 15; v. 246; p. 606.
Warr, Harold G., assignor to The P. & M. Co., Chicago, Ill. Rail-anchor. No. 1,254,634; Jan. 22; v. 246; p. 1006.
Warren Clock Company. (See Warren, Henry E., assignor.)
Warren, Henry E., Ashland, Mass., assignor to Warren Clock Company, Portland, Me. Mechanism for automatically operating timing mechanism. No. 1,251,946; Jan. 1; v. 246; p. 148.
Warren, Henry R., assignor to The Lombard Governor Company, Ashland, Mass. Electromagnetic actuator. No. 1,252,312; Jan. 1; v. 246; p. 251.
Warren, Robert G., *et al.* (See Peris, Nicholas W., assignor.)
Warshauer, Alexander, Cambridge, Mass. Double-breasted garment. No. 1,252,750; Jan. 8; v. 246; p. 413.
Wassell, Clifford R., assignor to Conlon Electric Washer Company, Inc., Chicago, Ill. Electric heating element. No. 1,253,915; Jan. 15; v. 246; p. 780.
Waterbury Clock Co. (See Wehinger, Frederick, assignor.)
Waterbury, Emery D., Sawtelle, Cal. Weight and measurement indicator. No. 1,254,952; Jan. 29; v. 246; p. 1131.
Waterbury Farrel Foundry and Machine Company. (See Candee, Zenas P., assignor.)
Waterbury Farrel Foundry and Machine Company, The. (See Wilcox, Richard L., assignor.)
Waterbury Tool Company, The. (See Janney, Reynold, assignor.)
Waterman, Lewis E., assignor to Emerson-Brantingham Company, Rockford, Ill. Disk drill. No. 1,253,755; Jan. 15; v. 246; p. 735.
Watkins, Alfred, Hereford, England. Predetermining the time necessary for the fermentation or rising of dough for bread and the like. No. 1,254,457; Jan. 22; v. 246; p. 955.
Watkins, Oria H., Kenosha, Wis., assignor to H. Richardson, Chicago, Ill. Wire fabric. No. 1,253,652; Jan. 15; v. 246; p. 705.
Watkins, Thomas C., Ingram, assignor of one-third to T. A. Sprague, Bellevue, and one-third to C. M. McFarland, Ingram, Pa. Vehicle-tire. No. 1,251,717; Jan. 1; v. 246; p. 82.
Watrous, Earl G., Chicago, Ill. Flushing-valve. No. 1,254,869; Jan. 29; v. 246; p. 1108.
Watts, Daniel J., Iron River, Mich. Powder-punch and fuse-holder. No. 1,251,718; Jan. 1; v. 246; p. 82.
Wattson, Osbourn, *et al.* (See Davis, Claude B., assignor.)
Waukesha Motor Company. (See Mackie and Fisher, assignors.)
Weagant, Roy A., Roselle, N. J., assignor to Marconi Wireless Telegraph Company of America, New York, N. Y. Wireless signaling apparatus. No. 1,252,520; Jan. 8; v. 246; p. 346.
Weather-Proof Watering Trough and Tank Mfg. Co. (See Enholm, Hilmer N., assignor.)
Weatherford, Joseph H., Memphis, Tenn. Sanitary chair. No. 1,252,751; Jan. 8; v. 246; p. 413.
Weaver, John W., Detroit, Mich., assignor of one-half to B. A. Lynch, Washington, D. C. Air-valve for gasolene-engines. No. 1,252,972; Jan. 8; v. 246; p. 477.
Weaver, Marion C., Bushnell, Ill. Trough. No. 1,252,521; Jan. 8; v. 246; p. 346.
Weaver, William A., assignor to Bernstein Manufacturing Company, Philadelphia, Pa. Folding bedstead. No. 1,253,549; Jan. 15; v. 246; p. 676.
Weber Chimney Company, The. (See Woodworth, Charles P., assignor.)
Weber, Friedrich W., Perth Amboy, N. J., assignor to The Roessler & Hasslacher Chemical Co., New York, N. Y. Catalyzer and making the same. No. 1,252,973; Jan. 8; v. 246; p. 477.
Weber, Manasseh, Didsbury, Alberta, Canada. Hay and grain sweep. No. 1,254,379; Jan. 22; v. 246; p. 933.
Weber, Mathias J., Chicago, Ill. Coin-controlled weighing-scale. No. 1,252,752; Jan. 8; v. 246; p. 413.
Webers, John T. (See Bolus, William G., assignor.)
Webster, Arthur T., Peoria, Ill. Bed-pan. No. 1,252,868; Jan. 8; v. 246; p. 444.
Webster, Harry G., Chicago, Ill., assignor, by mesne assignments, to J. R. Garfield, trustee, Cleveland, Ohio. Telephone-exchange system. No. 1,252,974; Jan. 8; v. 246; p. 477.
Webster, Henry R., Horsforth, near Leeds, England. Gas-testing apparatus. No. 1,252,975; Jan. 8; v. 246; p. 477.
Webster, John E., Pittsburgh, and G. M. Eaton, Wilkinsburg, Pa., assignors to Westinghouse Electric and Manufacturing Company. Apparatus for and method of tempering gears and pinions. No. 1,253,315; Jan. 15; v. 246; p. 607.
Webster, Towner K., Jr., Evanston, assignor, by mesne assignments, to American Steam Conveyor Corporation, Chicago, Ill. Ash-conveyer. No. 1,252,522; Jan. 8; v. 246; p. 346.
Webster, Walter L., Brooklyn, N. Y. Means used in accounting. No. 1,254,870; Jan. 29; v. 246; p. 1108.
Weed, Harry D., Syracuse, N. Y., assignor, by mesne assignments, to American Chain Company, Incorporated, Bridgeport, Conn. Antiskidding device for vehicle-wheels. No. 1,253,113; Jan. 8; v. 246; p. 520.
Wege, Peter M., assignor to Metal Office Furniture Company, Grand Rapids, Mich. Metal furniture. No. 1,251,719; Jan. 1; v. 246; p. 82.
Wege, Peter M., assignor to Metal Office Furniture Company, Grand Rapids, Mich. Desk. No. 1,251,720; Jan. 1; v. 246; p. 83.
Wehinger, Frederick, assignor to Waterbury Clock Co., Waterbury, Conn. Wire click-spring and fastening-rivet therefor. No. 1,254,747; Jan. 29; v. 246; p. 1069.
Wehr, Rudolph, New York, N. Y. Internal-combustion engine. No. 1,252,753; Jan. 8; v. 246; p. 414.
Weidely, George A., Indianapolis, Ind. Radiator-mounting for automobiles. No. 1,254,181; Jan. 22; v. 246; p. 876.
Weidlich, George A., assignor to A-B Stove Company, Battle Creek, Mich. Spray-nozzle. No. 1,254,748; Jan. 29; v. 246; p. 1070.
Weigler, Nicholas. (See Miller, Harley N., assignor.)
Weilacher, John, *et al.* (See Myers, Charles E., assignor.)
Weiland, George W., assignor of one-third to E. A. Jones, Scranton, Pa. Machine for forming dishes or receptacles. No. 1,253,316; Jan. 15; v. 246; p. 607.
Weimerskirsch, Peter L., Kellogg, Minn. Harness-hook. No. 1,254,556; Jan. 22; v. 246; p. 984.
Weinhardt, Robert A., Chicago, Ill., assignor, by mesne assignments, to Continental Motors Corporation, Detroit, Mich. Manifold. No. 1,252,636; Jan. 8; v. 246; p. 380.
Weisenberg, David, South Bethlehem, Pa. Baker's peel. No. 1,254,096; Jan. 22; v. 246; p. 852.
Weiss, Carl W., Brooklyn, N. Y. Internal-combustion engine. No. 1,254,097; Jan. 22; v. 246; p. 853.
Weiss, Simon. (See Wisnyei and Weiss.)
Welwoda, Frieda L. (See Welwoda, Mathias, assignor.)
Welwoda, Mathias, assignor to F. L. Welwoda, Brooklyn, N. Y. Combination strainer and separator. No. 1,251,601; Jan. 1; v. 246; p. 47.
Welch, Elmer S. (See Hidden, George A., assignor.)
Welles Thompson Company. (See Flynn, Clement L., assignor.)
Wells, Alfred A., Caldwell, N. J., assignor to Ellis-Foster Company. Making nitric acid from ammonia. No. 1,252,976; Jan. 8; v. 246; p. 478.
Wells, Fredrick B., Stevenage, England. Sheaf-binder harvesting-machine. No. 1,252,063; Jan. 1; v. 246; p. 183.
Wells, Nelson D., Dayton, Ohio. Key-cutting machine. No. 1,254,749; Jan. 29; v. 246; p. 1070.
Welsbach Light Company. (See Lyon, Howard, assignor.)
Welsch, Otis D., Kimberly, Nev. Process of and apparatus for ore concentration. No. 1,253,653; Jan. 15; v. 246; p. 706.
Welscher, Christina L., Fontanelle, Iowa. Skirt-gage. No. 1,253,916; Jan. 15; v. 246; p. 780.
Welte, Carl M., assignor to M. Welte & Sons, Inc., New York, N. Y. Controller mechanism for mechanical musical instruments. No. 1,252,064; Jan. 1; v. 246; p. 183.
Wendelgass, Charles N., Buffalo, N. Y. Etching-machine. No. 1,254,751; Jan. 29; v. 246; p. 1070.
Wennberg, Carl J., Milton, Mass. Chain-fastening device. No. 1,252,523; Jan. 8; v. 246; p. 346.
Wenthe, Herman H., Chicago, Ill. Impression-seal. No. 1,253,756; Jan. 15; v. 246; p. 736.
Wern, Gust. P., New York, N. Y. Corn-buttering device. No. 1,253,917; Jan. 15; v. 246; p. 781.
Werner, Leo J., assignor to Splitdorf Electrical Company, Newark, N. J. Ignition system. No. 1,254,182; Jan. 22; v. 246; p. 877.
Werner & Pfleiderer Co. (See Reese, Louis C., assignor.)
Werzner, Edward H., assignor to Schroeder Headlight Co., Inc., Evansville, Ind. Headlight. No. 1,252,065; Jan. 1; v. 246; p. 184.
Wesche, Louis F., Webb, Iowa. Signal. No. 1,254,752; Jan. 29; v. 246; p. 1071.
Weser Bros. Inc. (See Weser, John A., assignor.)
Weser, Elsie L., administratrix. (See Weser, John A.)
Weser, John A., deceased; E. L. Weser, administratrix, assignor to Weser Bros. Inc., New York, N. Y. Talking-machine. No. 1,253,317; Jan. 15; v. 246; p. 608.
West, Bailey H., Makanda, Ill. Stretcher-clamp for woven wire. No. 1,252,869; Jan. 8; v. 246; p. 444.
West, Eva, *et al.* (See Burch, Frederick R., assignor.) (Reissue.)
West, Joe, *et al.* (See Burch, Frederick R., assignor.) (Reissue.)
West, L. R. (See Meissner, George R., assignor.)
Westbrook, J. F., *et al.* (See Montgomery and Burnham, assignors.)
Westbrook, S. H., *et al.* (See Montgomery and Burnham, assignors.)
Westbrook, Westly H., *et al.* (See Blakeslee, Clyde W., assignor.)
Westcott, Arthur D., Porteau, British Columbia, Canada. Hose-pipe clasp. No. 1,252,637; Jan. 8; v. 246; p. 380.
Westcott Engineering Co. (See Westcott, Oliver J., assignor.)
Westcott, Oliver J., Maywood, assignor to Westcott Engineering Co., Chicago, Ill. Side-paneled bridge. No. 1,252,066; Jan. 1; v. 246; p. 184.
Western Electric Company. (See Adams and Polinkowsky, assignors.)

Western Electric Company. (See Bollinger, Charles, assignor.)
Western Electric Company. (See Carpenter, Warren W., assignor.)
Western Electric Company. (See Clausen and Goodrum, assignors.)
Western Electric Company. (See Clausen, Henry P., assignor.)
Western Electric Company. (See Dickinson, Lewis E., assignor.)
Western Electric Company. (See Dixon, Amos F., assignor.)
Western Electric Company. (See Fondiller, William, assignor.)
Western Electric Company. (See Forsberg, Oscar F., assignor.)
Western Electric Company. (See Goodrum, Charles L assignor.)
Western Electric Company. (See Hazard, Allen B., assignor.)
Western Electric Company. (See Hinrichsen, Edward E., assignor.)
Western Electric Company. (See Keckler, Charles W., assignor.)
Western Electric Company. (See Kochendorfer, Frederic S., assignor.)
Western Electric Company. (See Lattig and Goodrum, assignors.)
Western Electric Company. (See Levinger and Anderson, assignors.)
Western Electric Company. (See Lundell, Alben E., assignor.)
Western Electric Company. (See Lundquist, Frank A., assignor.)
Western Electric Company. (See Matthies, William H., assignor.)
Western Electric Company. (See McGrath, Maurice K., assignor.)
Western Electric Company. (See McQuarrie, James L., assignor.)
Western Electric Company. (See McQuarrie and Goodrum, assignors.)
Western Electric Company. (See Miller, Daniel D., assignor.)
Western Electric Company. (See Mueller, Emil C., Jr., assignor.)
Western Electric Company. (See Pennock, George A., assignor.)
Western Electric Company. (See Price, Charles S., assignor.)
Western Electric Company. (See Rasmussen, Oswald E., assignor.)
Western Electric Company. (See Reeves, Frank N., assignor.)
Western Electric Company. (See Riecken, William E., assignor.)
Western Electric Company. (See Shreeve, Herbert E., assignor.)
Western Electric Company. (See Stearn, Franklin A., assignor.)
Western Electric Company. (See Williams, Samuel B., Jr., assignor.)
Western Electric Company. (See Williams and Sperry, assignors.)
Western Electric Company. (See Young, Frederick V., assignor.)
Western Union Telegraph Company. (See Howe, Paul J., assignor.)
Western Union Telegraph Company, The. (See Milnor, Joseph W., assignor.)
Western Union Telegraph Company, The. (See Rothermel, Samuel W., assignor.)
Westinghouse Air Brake Company, The. (See Turner, Walter V., assignor.)
Westinghouse Electric and Manufacturing Company. (See Aalborg and Bakken, assignors.)
Westinghouse Electric and Manufacturing Company. (See Aalborg, Christian, assignor.)
Westinghouse Electric and Manufacturing Company. (See Auel, Carl B., assignor.)
Westinghouse Electric and Manufacturing Company. (See Bender, Allan P., assignor.)
Westinghouse Electric and Manufacturing Company. (See Birdsall, Wilfred T., assignor.)
Westinghouse Electric and Manufacturing Company. (See Bradshaw, William M., assignor.)
Westinghouse Electric and Manufacturing Company. (See Brown, Harold W., assignor.)
Westinghouse Electric and Manufacturing Company. (See Chubb, Lewis W., assignor.)
Westinghouse Electric and Manufacturing Company. (See Clarke, John A., Jr., assignor.)
Westinghouse Electric and Manufacturing Company. (See Cook and Rudd, assignors.)
Westinghouse Electric and Manufacturing Company. (See Farnsworth, Sidney W., assignor.)
Westinghouse Electric and Manufacturing Company. (See Hall, Arthur J., assignor.)
Westinghouse Electric and Manufacturing Company. (See Hellmund, Rudolf E., assignor.)
Westinghouse Electric and Manufacturing Company. (See Hiss, Fielder I., assignor.)
Westinghouse Electric and Manufacturing Company. (See Jensen, Gunnar, assignor.)
Westinghouse Electric & Manufacturing Company. (See Kicklighter, Charles H., assignor.)
Westinghouse Electric & Manufacturing Company. (See Leblanc, Maurice, assignor.)
Westinghouse Electric & Manufacturing Company. (See Lovekin, Luther D., assignor.)
Westinghouse Electric and Manufacturing Company. (See McCoy, James P. A., assignor.)
Westinghouse Electric and Manufacturing Company. (See Meyer, Friedrich W., assignor.)
Westinghouse Electric and Manufacturing Company. (See Newcomb, Harold A., assignor.)
Westinghouse Electric and Manufacturing Company. (See Peck and Eckmann, assignors.)
Westinghouse Electric and Manufacturing Company. (See Peters, John F., assignor.)
Westinghouse Electric & Manufacturing Company. (See Schmidt, Henry F., assignor.)
Westinghouse Electric & Manufacturing Company. (See Sierad, Albert E., assignor.)
Westinghouse Electric and Manufacturing Company. (See Starker, Charles W., assignor.)
Westinghouse Electric and Manufacturing Company. (See Storer, Norman W., assignor.)
Westinghouse Electric and Manufacturing Company. (See Strutt, William, assignor.)
Westinghouse Electric and Manufacturing Company. (See Taylor, Harold B., assignor.)
Westinghouse Electric and Manufacturing Company. (See Tirrill, Allen A., assignor.)
Westinghouse Electric and Manufacturing Company. (See Turnbull, Lawrence W., assignor.)
Westinghouse Electric and Manufacturing Company. See Varney and Beach, assignors.)
Westinghouse Electric and Manufacturing Company. See Webster and Eaton, assignors.)
Westlake, Albert, New York, N. Y., assignor to The Sanseal Corporation. Bottle capping and sealing machine. No. 1,252,977; Jan. 1; v. 246; p. 270.
Westlake Machine Company, The. (See Kadow, August, assignor.)
Weston, Clarence B., Marion, Ohio, assignor to Ball Engine Company, Erie, Pa. Power-shovel. No. 1,254,295; Jan. 22; v. 246; p. 909.
Weston, Louis B., Brockton, Mass. Means for preventing shoes from treading over. No. 1,254,098; Jan. 22; v. 246; p. 853.
Wetherington, Herbert M., Vanceboro, N. C. Gate. No. 1,252,754; Jan. 8; v. 246; p. 414.
Wetor, Joseph J., Random Lake, Wis. Display-cabinet. No. 1,255,120; Jan. 29; v. 247; p. 1176.
Wetzel, Lewis C., assignor, by mesne assignments, to Toledo Scale Company, Toledo, Ohio. Weighing-scale. No. 1,253,318; Jan. 15; v. 246; p. 608.
Whalley, Enoch, Willimansett, Mass. Truck. No. 1,253,757; Jan. 15; v. 246; p. 736.
Wheary, George H., Racine, Wis. Wardrobe-cabinet. No. 1,251,947; Jan. 1; v. 246; p. 149.
Whipple, Charles H., Walkerville, Ontario, Canada, assignor to A. D. Wilt, Jr., Detroit, Mich. Machine for manufacturing twist-drills and other articles. No. 1,254,753; Jan. 29; v. 246; p. 1071.
Whipple, Nelson M., *et al.* (See McCue, Leo, assignor.)
Whitaker, George S., Wilkes-Barre, Pa. Dental retainer and making same. No. 1,253,654; Jan. 15; v. 246; p. 706.
Whitaker-Glessner Company. (See Day, Edgar K., assignor.)
Whitaker, James S., assignor of one-half to H. C. Wilson, San Francisco, Cal. Boat-propeller. No. 1,253,918; Jan. 15; v. 246; p. 781.
Whitaker, Lloyd D., Farmville, Va. Spring-tensioned closure for receptacles. No. 1,252,870; Jan. 8; v. 246; p. 444.
Whitbeck, John V., assignor to The Chandler Motor Car Company, Cleveland, Ohio. Combined trap and gasolene-strainer. No. 1,254,754; Jan. 29; v. 246; p. 1072.
White, Ambrose H., Brooklyn, N. Y., assignor to International Paper Company. Test-valve mechanism for drying-cylinders. No. 1,251,602; Jan. 1; v. 246; p. 47.
White-American Locomotive Sander Company. (See White, William H., assignor.)
White, Bert W., Conde, S. D. Feeder for corn-shredders. No. 1,254,953; Jan. 29; v. 246; p. 1131.
White, Clinton E., Irvington, N. J. Adjustable music-roll spool for automatic musical instruments. No. 1,251,603; Jan. 1; v. 246; p. 48.
White, Dick C., assignor to Far West Manufacturing Co., Albany, Oreg. Ladder. No. 1,253,114; Jan. 8; v. 246; p. 520.
White, Edwin L., Brooklyn, N. Y. Holder for light-transmitting bowls and reflectors. No. 1,252,067; Jan. 1; v. 246; p. 184.
White, Edwin L., Brooklyn, N. Y. Holder for light-transmitting bowls. No. 1,252,977; Jan. 8; v. 246; p. 478.
White, George H. (See Snook and White.)
White, George P., Parsons, Kans., assignor of one-half to S. P. Alquist, Detroit, Mich. Furnace. No. 1,252,210; Jan. 1; v. 246; p. 223.
White, John A., assignor of one-half to W. P. Wood, Oceanpark, Cal. Spring-latch protector. No. 1,252,524; Jan. 8; v. 246; p. 347.
White, Rollin H., Shaker Heights, assignor to The Cleveland Tractor Company, Euclid, Ohio. Tractor. No. 1,253,319; Jan. 15; v. 246; p. 608.

White, Walter M., Rockymount, Va. Display-rack for gloves. No. 1,253,320; Jan. 15; v. 246; p. 609.
White, William H., assignor to White-American Locomotive Sander Company, Roanoke, Va. Sanding device for locomotives. No. 1,252,211; Jan. 1; v. 246; p. 223.
Whitehurst, John L., and C. H. Wild, Baltimore, Md., assignors to Burt Machine Company. Machine for casing or boxing cans. No. 1,253,907; Jan. 15; v. 246; p. 603.
Whittin Machine Works, The. (See Owen, Henry A., assignor.)
Whiting, Perry. (See La Dow, John, assignor.)
Whitmore, John, Higbee, Mo. Game. No. 1,254,380; Jan. 22; v. 246; p. 934.
Whitney, Charles W., Chicago, Ill. Air lift-pump. No. 1,253,115; Jan. 8; v. 246; p. 521.
Whitney, George M., et al. (See King, Joseph, assignor.)
Whittington, James, Port Jervis, N. Y. Lock for steering-wheels of automobiles. No. 1,252,755; Jan. 8; v. 246; p. 414.
Wickes, Clarence S., Merchantville borough, N. J., assignor to Victor Talking Machine Company. Molding-press. No. 1,251,851; Jan. 1; v. 246; p. 124.
Wickes, Powers A. (See Younie and Wickes.)
Widelman, Frank X., assignor of one-half to R. J. Kornbrath, Hartford, Conn. Adjustable clamp. No. 1,252,638; Jan. 8; v. 246; p. 381.
Widerrecht, Fred, Wapello, Iowa. Gate-hinge. No. 1,253,655; Jan. 15; v. 246; p. 706.
Wieland, Heinrich, Munich, Germany. Producing novel addition compounds of the desoxycholic acid. No. 1,252,212; Jan. 1; v. 246; p. 223.
Wieler, Beano, Laird, Saskatchewan, Canada. Threshing-machine. No. 1,254,750; Jan. 29; v. 246; p. 1070.
Wilber, Oscar H., Jr., New Boston, Mass. Device to prevent double exposure in cameras. No. 1,253,321; Jan. 15; v. 246; p. 609.
Wilcox, Jay, Grand Rapids, Mich. Tree-sprayer. No. 1,252,756; Jan. 8; v. 246; p. 415.
Wilcox, Richard L., assignor to The Waterbury Farrel Foundry and Machine Company, Waterbury, Conn. Feed mechanism. No. 1,253,322; Jan. 15; v. 246; p. 609.
Wilcox, Richard L., assignor to The Waterbury Farrel Foundry and Machine Company, Waterbury, Conn. Method for pointing and threading screws, bolts, and similar articles. No. 1,253,323; Jan. 15; v. 246; p. 610.
Wild, Charles H. (See Whitehurst and Wild.)
Wildman Mfg. Co. (See Ballard, George L., assignor.)
Wildman Mfg. Co. (See Taylor, William O., assignor.)
Wiley Pump & Manufacturing Co. (See Reed, Leo S., assignor.)
Wilkes, Harry D., New York, N. Y. Penmanship guide-chart. No. 1,253,758; Jan. 15; v. 246; p. 736.
Wilkins, Roy A., Salt Lake City, Utah. Stringed musical instrument. No. 1,253,550; Jan. 15; v. 246; p. 676.
Willard, Maurice L., assignor to The Superior Type Company, Chicago, Ill. Inking-pad. No. 1,251,721; Jan. 1; v. 246; p. 83.
Willcox & Gibbs Sewing Machine Co. (See Merritt, Arthur A., assignor.)
Willcox & Gibbs Sewing Machine Co. (See Osterhout, Garret B., assignor.)
Willey, Isaac F., Philadelphia, Pa. Ironing-machine. No. 1,252,213; Jan. 1; v. 246; p. 223.
Willey, Isaac F., Philadelphia, Pa. Quill and housing for moisture-extractors for drying clothes. No. 1,252,214; Jan. 1; v. 246; p. 224.
Willey, Isaac F., Philadelphia, Pa. Quill and housing for moisture-extractors for drying clothes. No. 1,253,551; Jan. 15; v. 246; p. 677.
William E. Quimby, Inc. (See Hicks, Robert B., assignor.)
Williams Boltless Rail Joint Manufacturing Company. (See Williams, Willis D., assignor.)
Williams, Cassius M., Seattle, assignor of one-half to Universal High Power Telephone Company, King county, Wash. Audiphone. No. 1,253,656; Jan. 15; v. 246; p. 707.
Williams, Charles A., Seattle, Wash. Seine-hauling device. No. 1,254,381; Jan. 22; v. 246; p. 934.
Williams, Fredrick W., assignor to J. P. Bannan, New York, N. Y. Explosive-engine. No. 1,252,757; Jan. 8; v. 246; p. 415.
Williams, James F., assignor to Canadian Hart Wheels Limited, Hamilton, Ontario, Canada. Machine for molding emery-wheels. No. 1,254,133; Jan. 22; v. 246; p. 877.
Williams, John A., Richmond Hill, assignor to The Williams-Purchas Manufacturing Co., Morris Park, N. Y. Needle-holder. No. 1,254,099; Jan. 22; v. 246; p. 863.
Williams-Purchas Manufacturing Co., The. (See Williams, John A., assignor.)
Williams, Robert R. (See Cecil, William A., assignor.)
Williams, Samuel A., Los Angeles, Cal. Mechanical movement. No. 1,252,758; Jan. 8; v. 246; p. 415.
Williams, Samuel B., Jr., Brooklyn, assignor to Western Electric Company, Incorporated, New York, N. Y. Signaling control system for telephone-exchanges. No. 1,251,604; Jan. 1; v. 246; p. 48.
Williams, Samuel B., Jr., Brooklyn, and A. B. Sperry, assignors to Western Electric Company, Incorporated, New York, N. Y. Machine-switching telephone-exchange system. No. 1,252,978; Jan. 8; v. 246; p. 479.
Williams, Samuel B., Jr., Brooklyn, assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,253,657; Jan. 15; v. 246; p. 707.
Williams, Owen G. (See Bunnell and Williams.)
Williams, Walter L. (See Harris and Williams.)
Williams, William E., Chicago, Ill. Universal joint for power-transmission. No. 1,252,068; Jan. 1; v. 246; p. 184.
Williams, William E., Chicago, Ill. Universal joint. No. 1,253,919; Jan. 15; v. 246; p. 781.
Williams, Willis D., St. Louis, Mo., assignor to Williams Boltless Rail Joint Manufacturing Company, Prescott, Ariz. Rail-joint clamp. No. 1,251,605; Jan. 1; v. 246; p. 48.
Williamson, Edward B., Richmond, Va. Bundling device for lumber-trimming machines and the like. No. 1,253,447; Jan. 15; v. 246; p. 649.
Williamson Heater Company, The. (See Holub, Charles J., assignor.)
Williamson, James C., Cordele, Ga. Lubricant-supplying device for engines. No. 1,251,606; Jan. 1; v. 246; p. 49.
Williamson, John S., Forest Park, Md. Door-operating device. No. 1,253,448; Jan. 15; v. 246; p. 649.
Willis, Bernard D., assignor to Automatic Electric Company, Chicago, Ill. Testing system for party-lines. No. 1,252,970; Jan. 8; v. 246; p. 479.
Willis, Frederick M., assignor to S. F. Vaporizer Company, New York, N. Y. Fuel-mixer. No. 1,254,100; Jan. 22; v. 246; p. 854.
Willis, Leland, assignor to Bateman Manufacturing Company, Grenloch, N. J. Combined fertilizer and seed-planter. No. 1,253,759; Jan. 15; v. 246; p. 736.
Willson, Frederick, assignor to T. A. Willson & Co., Inc., Reading, Pa. Goggles. No. 1,254,296; Jan. 22; v. 246; p. 910.
Wilputte, Louis. (See Hubbell, John E., assignor.)
Wilputte, Louis, New Rochelle, N. Y. Coke-oven. No. 1,253,760; Jan. 15; v. 246; p. 737.
Wilson, Eugene W., Springfield, Ill. Package. No. 1,254,755; Jan. 29; v. 246; p. 1072.
Wilson, George O., Wheatley, Ky. Fence-stretcher clamp. No. 1,254,458; Jan. 22; v. 246; p. 955.
Wilson, H. C. (See Whitaker, James S., assignor.)
Wilson-Jacobs Drum Manufacturing Company. (See Wilson, Tom, assignor.)
Wilson, James W. (See Bone, Wilson, and McCourt.)
Wilson, John B., Pasco, Wash. Wedge-retaining device. No. 1,254,101; Jan. 22; v. 246; p. 854.
Wilson, John C., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Meter. No. 1,254,871; Jan. 29; v. 246; p. 1108.
Wilson, John S., and W. E. Dalby, London, assignors of one-third to W. G. Armstrong-Whitworth and Company Limited, Newcastle-upon-Tyne, England. Sighting apparatus for measuring angular velocities. No. 1,252,379; Jan. 1; v. 246; p. 271.
Wilson, Leonard B., Bellevue, Pa. Anti-skid-chain applicator. No. 1,251,607; Jan. 1; v. 246; p. 49.
Wilson, Peter J., Chicago, Ill. Toy. No. 1,253,449; Jan. 15; v. 246; p. 649.
Wilson, Silvestre F., Fruitvale, Cal. Fastener. No. 1,253,658; Jan. 15; v. 246; p. 708.
Wilson, Thomas, Downieville, Cal. Vehicle-frame suspension. No. 1,252,759; Jan. 8; v. 246; p. 415.
Wilson, Tom, assignor to Wilson-Jacobs Drum Manufacturing Company, Chicago, Ill. Drum. No. 1,254,756; Jan. 29; v. 246; p. 1072.
Wilson, Tom, assignor to Wilson-Jacobs Drum Manufacturing Company, Chicago, Ill. Drum. No. 1,254,757; Jan. 29; v. 246; p. 1072.
Wilt, A. D., Jr. (See Lees, Ernest J., assignor.)
Wilt, A. D., Jr. (See Whipple, Charles H., assignor.)
Winchester Repeating Arms Co. (See Brewer, Henry, assignor.)
Windridge, Frederick N., assignor of one-third to J. S. Ward, Cherrydale, Va. Indicating apparatus for gasolene-tanks, &c. No. 1,253,324; Jan. 15; v. 246; p. 610.
Winegarden, Arey V., assignor of one-half to P. L. Lazarus, Wichita, Kans. Supplemental traction attachment for vehicles. No. 1,252,571; Jan. 8; v. 246; p. 445.
Winkler, Adolph A., Great Falls, Mont. Street-indicator for street-cars. No. 1,254,954; Jan. 29; v. 246; p. 1131.
Winkler, Carl, Berne, Switzerland. Device for driving the impression-cylinders of printing-machines. No. 1,252,069; Jan. 1; v. 246; p. 195.
Winkley, Erastus E., Lynn, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Feed mechanism. No. 1,251,852; Jan. 1; v. 246; p. 124.
Winn, Harry J., River Falls, Wis. Lantern-hook. No. 1,255,071; Jan. 29; v. 246; p. 1163.
Winn, Harry J., River Falls, Wis. Comb-cleaner. No. 1,255,072; Jan. 29; v. 246; p. 1163.
Winscott, Silas, Sturgeon, Mo. Vehicle-wheel rim. No. 1,253,325; Jan. 15; v. 246; p. 610.
Winscott, Silas, Sturgeon, Mo. Honeycomb cushion-tire. No. 1,253,552; Jan. 15; v. 246; p. 677.
Winterborne, Arthur W., San Antonio, Tex. Mechanical rectifier. No. 1,254,758; Jan. 29; v. 246; p. 1072.

Winterhoff, Benjamin F., Elkhart, Ind. Apparatus for smoothing and calibrating tapered and curved hollow metal bodies, such as bows for wind instruments. No. 1,253,553; Jan. 15; v. 246; p. 677.
Winters, David L., Philadelphia, Pa. Spark-plug tester. No. 1,252,639; Jan. 8; v. 246; p. 381.
Winton, Alexander, Lakewood, assignor to The Winton Gas Engine & Mfg. Co., Cleveland, Ohio. Fuel-inlet-valve mechanism. No. 1,254,872; Jan. 29; v. 246; p. 1109.
Winton Gas Engine & Mfg. Co., The. (See Winton, Alexander, assignor.)
Wisconsin Electric Company. (See Beach, Chester H., assignor.)
Wisnyel, George, and S. Weiss, Akron, Ohio. Fruit-gatherer. No. 1,253,554; Jan. 15; v. 246; p. 678.
Witham, Mark W., Portland, Me. Car-wheel. No. 1,254,557; Jan. 22; v. 246; p. 984.
Witherell, Wilbur F., Argyle, assignor of one-half to F. Hurley, Glens Falls, N. Y. Device for printing brush-backs. No. 1,254,955; Jan. 29; v. 246; p. 1132.
Woelfel, Alphonso A., Centralia, Wash. Alarm-clock. No. 1,254,956; Jan. 29; v. 246; p. 1132.
Wohlrab, Paul B., Racine, Wis. Steering-shaft transmission. No. 1,251,722; Jan. 1; v. 246; p. 83.
Wolcott, Clifford H. (See Hughes and Wolcott.)
Wold, Ernest, Superior, Wis. Clothes-line prop. No. 1,253,326; Jan. 15; v. 246; p. 610.
Wolf, Gustav, assignor to Ideal Heat & Draft Regulator Co., Inc., New York, N. Y. Damper-regulator. No. 1,252,980; Jan. 8; v. 246; p. 480.
Wolf, Melanie, New York, N. Y. Surgical basin. No. 1,253,555; Jan. 15; v. 246; p. 678.
Wolfe, Walter G. (See Bell, Louis, assignor.)
Wolff, Paul, Pittsburgh, Pa. Window chair or scaffold. No. 1,254,103; Jan. 22; v. 246; p. 854.
Wolfsberg, Richard, and S. C. Smith, Los Angeles, Cal. Circuit-breaker. No. 1,253,761; Jan. 15; v. 246; p. 737.
Wondra, Franz, Schenectady, N. Y. Flying-machine. (Reissue.) No. 14,417; Jan. 1; v. 246; p. 271.
Wondra, Franz, Schenectady, N. Y. Explosion gas-turbine. No. 1,252,369; Jan. 1; v. 246; p. 267.
Wood, Frederick P., Oak Park, Ill., assignor to American Can Company, New York, N. Y. Friction-top paper can. No. 1,254,184; Jan. 22; v. 246; p. 878.
Wood, John, et al. (See Arbuthnot, George D., assignor.)
Wood, Walter H., Seattle, Wash. Clothes-lifter. No. 1,253,450; Jan. 15; v. 246; p. 650.
Wood, W. Perry. (See White, John A., assignor.)
Woodard, William E., Schenectady, N. Y. Rod-drive for locomotives. No. 1,253,451; Jan. 15; v. 246; p. 650.
Woodland, Cleveland W., Lind, Wash. Well-drilling trip. No. 1,253,327; Jan. 15; v. 246; p. 611.
Woodrow, Harry R. (See Murray and Woodrow.)
Woods, Clinton E., assignor to American Graphophone Company, Bridgeport, Conn. Combined governor and speed-indicator for talking-machines. No. 1,253,328; Jan. 15; v. 246; p. 611.
Woods, William C. (See Hopkins, James R., assignor.)
Woodward, Irving C., assignor to Holdfast Nut & Bolt Company, Chicago, Ill. Retapping-tool. No. 1,252,525; Jan. 8; v. 246; p. 347.
Woodworth, Charles P., Chicago, Ill., assignor to The Weber Chimney Company. Concrete-chimney form. No. 1,252,526; Jan. 8; v. 246; p. 347.
Wootten, William M. (See Barber, Guy M., assignor.)
Wordingham, George, Milwaukee, Wis. Garment-hanger. No. 1,251,948; Jan. 1; v. 246; p. 149.
Wright, Clyde S., assignor to The National Supply Company, Toledo, Ohio. Wire-rope clamp. No. 1,251,723; Jan. 1; v. 246; p. 84.
Wright, Memory G., Pinehill, Tex. Car-door seal. No. 1,252,760; Jan. 8; v. 246; p. 416.
Wright, Rink, assignor of one-half to W. M. King, Omaha, Nebr. Mechanism for automatically operating doors. No. 1,251,724; Jan. 1; v. 246; p. 84.
Wright, Walter, assignor to Underwood Computing Machine Company, New York, N. Y. Combined type-writing and computing machine. No. 1,251,725; Jan. 1; v. 246; p. 84.
Wright, Walter, assignor to Underwood Computing Machine Company, New York, N. Y. Combined type-writing and computing machine. No. 1,251,726; Jan. 1; v. 246; p. 85.
Wright, Wilbur L., Baltimore, Md., assignor to Seabright Co., Inc., Fulton, N. Y. Paper bottle and the like. No. 1,251,727; Jan. 1; v. 246; p. 85.
Wuebben, Bernard H., assignor to The Recording and Computing Machine Company, Dayton, Ohio. Farebox. No. 1,252,527; Jan. 8; v. 246; p. 347.
Wulff, Frank D., Chicago, Ill. Apparatus for sifting ashes. No. 1,254,873; Jan. 29; v. 246; p. 1106.
Wygodsky, Leon, New York, N. Y., assignor, by mesne assignments, to Baltimore Oil Engine Company, Baltimore, Md. Starting means for internal-combustion engines. No. 1,253,452; Jan. 15; v. 246; p. 650.
Wygodsky, Leon, assignor to Baltimore Oil Engine Company, Baltimore, Md. Relief-valve for internal-combustion engines. No. 1,254,104; Jan. 22; v. 246; p. 854.
Wyman, William H. (See Clark and Wyman.)
Yale & Towne Manufacturing Company, The. (See Berry, Charles A., assignor.)
Yaryan, William F., and L. H. Chamberlain, Clarinda, Iowa. Snap-flask jacket. No. 1,253,920; Jan. 15; v. 246; p. 781.
Yaw, Clio B., Arlington, N. J., assignor to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,251,608; Jan. 1; v. 246; p. 49.
Yaw, Clio B., Arlington, N. J. Portable folding type-writer. No. 1,254,459; Jan. 22; v. 246; p. 955.
Yegge, C. Fred, trustee. (See Grumme, Frederick J., assignor.)
Yoggerst, Lawrence G., and W. A. Hutchison, Springfield, Ill. Device for drying salt in shakers or other receptacles. No. 1,252,872; Jan. 8; v. 246; p. 445.
Yokel, Frank, assignor to Pittsburgh Lamp Brass & Glass Company, Pittsburgh, Pa. Inverted incandescent gas-lamp. No. 1,254,105; Jan. 22; v. 246; p. 855.
Yoshizawa, Ginjiro, San Francisco, Cal. Fastener. No. 1,254,882; Jan. 22; v. 246; p. 934.
Yost, Winfield H., Montreal, Quebec, Canada, assignor to Rodger Ballast Car Company, Chicago, Ill. Car construction. No. 1,251,609; Jan. 1; v. 246; p. 50.
Young, Edwin M. S., et al. (See Richards, John M., assignor.)
Young, Frederick V., Newark, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,251,728; Jan. 1; v. 246; p. 85.
Young, Jackson B., Oakland, Cal. Machine for making hollow ware from pulp. No. 1,252,761; Jan. 8; v. 246; p. 416.
Young, John H., Bartlesville, Okla. Shock-absorber. No. 1,254,106; Jan. 22; v. 246; p. 855.
Young, John M., assignor to American Can Company, San Francisco, Cal. Can-soldering apparatus. No. 1,251,729; Jan. 1; v. 246; p. 86.
Young, Philip E., Fairhaven, Mass. Focusing device. No. 1,252,762; Jan. 8; v. 246; p. 416.
Youngs, Fred E., Detroit, Mich. Pipe-bending tool. No. 1,251,610; Jan. 1; v. 246; p. 50.
Youngstown Sheet & Tube Company, The. (See Farmer, Edward E., assignor.)
Youngstown Sheet & Tube Company, The. (See Neckerman, William M., assignor.)
Younie, Lewis E., and P. A. Wickes, Portland, Oreg. Valve. No. 1,251,730; Jan. 1; v. 246; p. 86.
Zabriskie, Charles C., Detroit, Mich. Hose-supporter. No. 1,254,759; Jan. 29; v. 246; p. 1073.
Zabriskie, Henry L., Westfield, assignor to Diehl Manufacturing Company, Elizabeth, N. J. Oscillating motor. No. 1,253,199; Jan. 8; v. 246; p. 544.
Zahner, Edward J., Canton, Ohio. Sheet-metal house. No. 1,253,764; Jan. 15; v. 246; p. 738.
Zahner, Edward J., Canton, Ohio. Sheet-metal house. No. 1,253,764; Jan. 15; v. 246; p. 738.
Zaleski, Frank, Somerville, assignor to The Reece Button Hole Machine Company, Boston, Mass. Clutch. No. 1,251,611; Jan. 1; v. 246; p. 50.
Zanvettor, Augusto, West Hoboken, N. J. Machine for making magnesia in granular form. No. 1,251,612; Jan. 1; v. 246; p. 51.
Zeitler, August A., Oakland, Cal. Metal lining. No. 1,254,558; Jan. 22; v. 246; p. 985.
Zelber, John F., and L. W. Sweetman, New York, N. Y. Window-cleaner. No. 1,251,852; Jan. 1; v. 246; p. 125.
Zerk, Oscar, Cleveland, and G. W. Drake, South Euclid, Ohio, assignors, by mesne assignments, to G. W. Bowen, Auburn, N. Y. Thread-milling machine. No. 1,252,763; Jan. 8; v. 246; p. 417.
Ziegler, Louis, Lyndhurst, N. J. Mechanical movement. No. 1,252,070; Jan. 1; v. 246; p. 185.
Zielinski, Mieczyslaw A., New York, N. Y. Shoe-clamp. No. 1,252,764; Jan. 8; v. 246; p. 417.
Zielinski, Peter, Palatka, Mich. Window-lock. No. 1,252,528; Jan. 8; v. 246; p. 348.
Zimmerman, Fredrick W. (See Zimmerman, Henry L. and F. W.)
Zimmerman, Henry L. and F. W., assignors to Zimmerman Steel Co., Lone Tree, Iowa. Cable take-up. No. 1,252,071; Jan. 1; v. 246; p. 185.
Zimmerman Steel Co. (See Zimmerman, Henry L. and F. W., assignors.)
Zimmerman, Thomas, assignor to U. S. Light & Heat Corporation, Niagara Falls, N. Y. Automobile starting, generating, and distributing apparatus. No. 1,252,529; Jan. 8; v. 246; p. 348.
Zimring, Meyer, Brooklyn, N. Y. Undergarment. No. 1,254,874; Jan. 29; v. 246; p. 1110.
Zindel, Barney, and W. H. Hart, Green Bay, Wis. Steam-boiler feeder. No. 1,254,185; Jan. 22; v. 246; p. 878.
Zmudzinski, John E., Brooklyn, N. Y. Alarm-lock. No. 1,254,559; Jan. 22; v. 246; p. 985.
Zobell, James H., Castlegate, Utah. Convertible valve. No. 1,254,460; Jan. 22; v. 246; p. 956.
Zollinger, Christian, Fort Wayne, Ind. Combination-lock for electric switches. No. 1,252,530; Jan. 8; v. 246; p. 349.
Zook, Morris A., Wilkinsburg, Pa. Traction-machine. No. 1,251,613; Jan. 1; v. 246; p. 51.
Zorn, William H., Harrisburg, Nebr. Automobile-gate. No. 1,253,453; Jan. 15; v. 246; p. 650.
Zweeres, William K. (See Kavgas and Zweeres.)
Zwillinger, Bernhard. (See Bauer, Theodor von, assignor.)

ALPHABETICAL LIST OF PATENTEES OF DESIGNS.

Abelson, Joseph J., Newark, N. J. Ring. No. 51,687; Jan. 15; v. 246; p. 809.
Adam, Harry C., St. Louis, Mo. Lighting-fixture. Nos. 51,669–70; Jan. 8; v. 246; p. 548.
Adam, Harry C., St. Louis, Mo. Lighting-fixture. No. 51,701; Jan. 22; v. 246; p. 1011.
Ainsworth, George E., Great Neck, N. Y. Electric-light fixture. No. 51,629; Jan. 1; v. 246; p. 272.
American Optical Company. (See Poeton, Lawrence, assignor.)
Auto Bill Post Inc. (See De Doory, Ladislaus, assignor.)
Berg, Joseph, assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill. Instrument-board for vehicles. No. 51,702; Jan. 22; v. 246; p. 1011.
Berg, Joseph, assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill. Instrument-board for automobiles. No. 51,703; Jan. 22; v. 246; p. 1011.
Berkovitz, Adolph, and S. Fried, New York, N. Y. Phonograph-cabinet. No. 51,630; Jan. 1; v. 246; p. 273.
Black & White Cab Company. (See Cole, Walter B., assignor.)
Boscacci, Milton, Oakland, Cal. Statuette. No. 51,671; Jan. 8; v. 246; p. 548.
Brockman, Harry T., Cleveland, Ohio. Patriotic emblem, pin, or button. No. 51,688; Jan. 15; v. 246; p. 810.
Carpenter, Robert F., Cleveland, Ohio. Metal stall. No. 51,672; Jan. 8; v. 246; p. 548.
Chandler, William L., Mishawaka, Ind., assignor to National Safety Council, Chicago, Ill. Danger-sign. No. 51,631; Jan. 1; v. 246; p. 273.
Chase, Theron P., and A. Ward, Jr., Detroit, Mich. Automobile-body. No. 51,632; Jan. 1; v. 246; p. 273.
Cole, Walter B., assignor to Black & White Cab Company, Inc., New York, N. Y. Emblem. No. 51,673; Jan. 8; v. 246; p. 549.
Collins, Fred J., Rockford, Ill. Flower-basket. No. 51,633; Jan. 1; v. 246; p. 273.
Davis, Simon E., assignor to Levi Strauss & Co., San Francisco, Cal. Children's one-piece outer garment. No. 51,674; Jan. 8; v. 246; p. 549.
De Doory, Ladislaus, assignor to Auto Bill Post Inc., Boston, Mass. Advertising-automobile. No. 51,634; Jan. 1; v. 246; p. 273.
De Sabato, Paul, Bialrsville, Pa. Waffle-iron. No. 51,661; Jan. 1; v. 246; p. 279.
Dittrick, John, Elmsley, Ontario, Canada. Toy cannon. No. 51,675; Jan. 8; v. 246; p. 549.
Endicott, Johnson & Company. (See Johnson, Harry L., assignor.)
Essayan, Harold G., Brookline, Mass. Emblem. No. 51,635; Jan. 1; v. 246; p. 273.
Farr, Edward A., Meriden, Conn. Crumb-tray. No. 51,676; Jan. 8; v. 246; p. 549.
Fellman, Max, Columbus, Ohio. Badge. No. 51,689; Jan. 15; v. 246; p. 810.
Fellom, Lelia M., Los Angeles, Cal. Doll. No. 51,677; Jan. 8; v. 246; p. 549.
Flannery, John L., Jr., New York, N. Y. Display card or mounting. Nos. 51,636–8; Jan. 1; v. 246; p. 274.
Frankel, Mortimer, assignor to Wilmort Manufacturing Company, Chicago, Ill. Crumb-sweeper. No. 51,639; Jan. 1; v. 246; p. 274.
Frawley, Edward P., New York, N. Y. Desk-cabinet. No. 51,640; Jan. 1; v. 246; p. 274.
Fried, Samuel. (See Berkovitz and Fried.)
Giese, Richard S., Pittsburgh, Pa. Single-unit reflector. No. 51,690; Jan. 15; v. 246; p. 810.
Grindley, William H., Stone, England, assignor to Wm. S. Pitcairn Corporation. Dish. No. 51,678; Jan. 8; v. 246; p. 550.
Hargrave, John M., Cincinnati, Ohio. Tool-handle. No. 51,641; Jan. 1; v. 246; p. 275.
Hatch, William F., assignor to The Palmolive Company, Milwaukee, Wis. Soap-dispenser. No. 51,691; Jan. 15; v. 246; p. 810.
Hem, Halvor O., assignor to Toledo Scale Company, Toledo, Ohio. Scale-casing. No. 51,692; Jan. 15; v. 246; p. 810.
Humphrey, Alfred H., New York, N. Y. Gas-stove. No. 51,642; Jan. 1; v. 246; p. 275.
Indiana Rubber & Insulated Wire Company. (See Selberling, Albert F., assignor.)
Inflexible Co. (See Schwarber, Henry, assignor.)
International Silver Co. (See Pretat, Frederick E., assignor.)
J. T. Morton Gum Co. (See Morton, James T., assignor.)
Johnson, Harry L., assignor to Endicott, Johnson & Company, Johnson City, N. Y. Shoe-sole. No. 51,643; Jan. 1; v. 246; p. 275.
Johnson, Harry L., assignor to Endicott, Johnson & Company, Johnson City, N. Y. Shoe. Nos. 51,644–6; Jan. 1; v. 246; pp. 275–6.
Jolly, Benjamin R., Raleigh, N. C. Badge, charm, stick-pin, flag, sign, fob, or emblem. No. 51,679; Jan. 8; v. 246; p. 550.
Kieffer, Eugene T., Philadelphia, Pa., assignor to Victor Talking Machine Company. Cabinet for a talking-machine. Nos. 51,693–4; Jan. 15; v. 246; pp. 810–11.
Lawton, Joseph, Trenton, N. J. Grave-marker. No. 51,647; Jan. 1; v. 246; p. 276.
Leeks, George A., assignor to Stopglare, Limited, Hamilton, Ontario, Canada. Headlight-lens. No. 51,648; Jan. 1; v. 246; p. 276.
Levi Strauss & Co. (See Davis, Simon E., assignor.)
Link, Charles W., Los Angeles, Cal. Automobile-top. Nos. 51,680–1; Jan. 8; v. 246; p. 550.
Lovegrove, Norman H., Seattle, Wash. Finger-ring. No. 51,682; Jan. 8; v. 246; p. 550.
Lyle, Alfred E., Armstrong, Mo. Well and cistern cover. No. 51,704; Jan. 22; v. 246; p. 1011.
MacLachlan, Lachlan, Grand Rapids, Mich. Casing for sound-producing instruments. No. 51,653; Jan. 1; v. 246; p. 277.
Macbeth, Norman, New York, N. Y. Lamp-fixture. Nos. 51,649–52; Jan. 1; v. 246; pp. 276–7.
Mason, Dudley M., assignor to The Mason Tire & Rubber Company, Kent, Ohio. Tire-tread. No. 51,683; Jan. 8; v. 246; p. 550.
Mason Tire & Rubber Company, The. (See Mason, Dudley M., assignor.)
McIntyre, Charles H. (See Muni, Frank E., assignor.)
McNair, Arthur, Coatesville, Pa. Valve-seat remover. No. 51,705; Jan. 22; v. 246; p. 1011.
Melhuish, William F., Jr., Farmingdale, N. Y. Radiator for automobiles. No. 51,706; Jan. 22; v. 246; p. 1012.
Morton, James T., assignor to J. T. Morton Gum Co., Kansas City, Mo. Candy. No. 51,707; Jan. 22; v. 246; p. 1012.
Muni, Frank E., West Nutley, N. J. Military badge. No. 51,684; Jan. 8; v. 246; p. 551.
Muni, Frank E., Nutley, N. J., assignor to C. H. McIntyre, trustee, Boston, Mass. Badge. No. 51,695; Jan. 15; v. 246; p. 811.
Myers, Louis, Detroit, Mich. Comb. No. 51,708; Jan. 29; v. 246; p. 1179.
National Safety Council. (See Chandler, William L., assignor.)
Newton, Frank H., San Francisco, Cal. Phonograph-cabinet. No. 51,696; Jan. 15; v. 246; p. 811.
Palmolive Company, The. (See Hatch, William F., assignor.)
Pitcairn, Wm. S. (See Grindley, William H., assignor.)
Poeton, Lawrence, assignor to American Optical Company, Southbridge, Mass. Temple. No. 51,654; Jan. 1; v. 246; p. 277.
Pretat, Frederick E., Waterbury, assignor to International Silver Co., Meriden, Conn. Spoon, fork, or similar article. No. 51,655; Jan. 1; v. 246; p. 277.
Pruitt, Conrad D., San Francisco, assignor to The Pruitt-Helmer Company, Los Angeles, Cal. Postage-stamp-vending-machine case. Nos. 51,656–8; Jan. 1; v. 246; p. 278.
Pruitt-Helmer Company, The. (See Pruitt, Conrad D., assignor.)
Roberts, Edwin E., Hamilton, Ohio. Toy chair. No. 51,659; Jan. 1; v. 246; p. 278.
Rubin, Harry, Baltimore, Md. Lighting-fixture. No. 51,660; Jan. 1; v. 246; p. 278.
Schwarber, Henry, Weehawken, assignor to Inflexible Co., West New York, N. J. Embroidered lace. Nos. 51,698–700; Jan. 15; v. 246; p. 811.
Selberling, Albert F., assignor to Indiana Rubber & Insulated Wire Company, Jonesboro, Ind. Vehicle-tire. No. 51,697; Jan. 15; v. 246; p. 811.
Simpson, Charles E. (See Smith, Charles F., assignor.)
Smith, Charles F., assignor of one-half to C. E. Simpson, Chicago, Ill. Button, badge, or similar article. No. 51,662; Jan. 1; v. 246; p. 279.
Stewart-Warner Speedometer Corporation. (See Berg, Joseph, assignor.)
Stifel, Edward W., Wheeling, W. Va. Textile fabric. No. 51,685; Jan. 8; v. 246; p. 551.
Stopglare, Limited. (See Leeks, George A., assignor.)
Toledo Scale Company. (See Hem, Halvor O., assignor.)
Turner, Jesse L., Morgantown, W. Va. Bowl for goldfish. No. 51,663; Jan. 1; v. 246; p. 279.
Tykarsky, Tadeusz, Trenton, N. J. Poison-bottle. No. 51,664; Jan. 1; v. 246; p. 279.
Victor Talking Machine Company. (See Kieffer, Eugene T., assignor.)
Walker, Howard H., Cambridge, Mass. Finger-ring or similar article. Nos. 51,665–8; Jan. 1; v. 246; pp. 279–80.
Ward, Artemas, Jr. (See Chase and Ward.)
Will & Baumer Co., The. (See Will, Harold H., assignor.)
Will, Harold H., assignor to The Will & Baumer Co., Syracuse, N. Y. Candle-lamp. No. 51,686; Jan. 8; v. 246; p. 551.
Wilmort Manufacturing Company. (See Frankel, Mortimer, assignor.)
Wyatt, Maude B., Kildare, Okla. Seed-planter. No. 51,709; Jan. 29; v. 246; p. 1179.

ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

A. Bourjois & Co., Inc., New York, N. Y. Certain named toilet preparations. No. 120,064; Jan. 8; v. 246; p. 563.

A. Bourjois & Co., Inc., New York, N. Y. Certain named toilet preparations. No. 120,161; Jan. 15; v. 246; p. 819.

A. Bourjois & Co., Inc., New York, N. Y. Toilet soap. Nos. 120,245–6; Jan. 29; v. 246; p. 1199.

A. D. Edwards & Son, Los Angeles, Cal. Trousered garment for women's and children's wear. No. 120,021; Jan. 1; v. 246; p. 297.

Abrahams, Edgar E., Boston, Mass. Paper boxes and drinking-cups, bonbon-cups, folding cartons, &c. No. 120,152; Jan. 15; v. 246; p. 819.

Adam Scheidt Beverage Co., Norristown, Pa. Non-intoxicating cereal beverage sold as a soft drink. No. 120,044; Jan. 1; v. 246; p. 298.

Adt, John B., Baltimore, Md. Certain named driers, coolers, and cookers. No. 120,051; Jan. 8; v. 246; p. 563.

Aktieselskabet Scandinavian Pencil Wood Company, Odense and Kjøge, Denmark. Wood which by treatment has been made suitable for pencil-wood. No. 120,052; Jan. 8; v. 246; p. 563.

Alabama-Georgia Syrup Company, Montgomery, Ala. Table-syrup. No. 120,005; Jan. 1; v. 246; p. 297.

All-Package Grocery Stores Co., New York, N. Y. Certain named toilet preparations. No. 120,053; Jan. 8; v. 246; p. 563.

Allen Pressure System Co., New York, N. Y. Valves, pressure-reducers, and piping used in equipment for a dispensing system. No. 120,153; Jan. 15; v. 246; p. 819.

Alvo Company, The, Ashland, Ohio. Athletic underwear, union-suits, pajamas, shirts, &c. No. 120,235; Jan. 29; v. 246; p. 1199.

American Fastener Co., Waterbury, Conn. Metal snap-fasteners for wearing-apparel. No. 120,236; Jan. 29; v. 246; p. 1199.

American Lead Pencil Co., New York, N. Y. Rubber erasers. No. 120,054; Jan. 8; v. 246; p. 563.

American Manganese Bronze Company, Inc., New York, N. Y., and Philadelphia, Pa. Propellers for boats. No. 120,006; Jan. 1; v. 246; p. 297.

American Pressweld Radiator Corporation, Detroit, Mich. Radiators, radiator-sections, fittings, and gas-heaters. No. 120,154; Jan. 15; v. 246; p. 819.

Ammann, Henry, Pittsburgh, Pa. Cleaning liquid for shoes. No. 120,055; Jan. 8; v. 246; p. 563.

Anderson, Henry T., Baltimore, Md. Leather boots and shoes. No. 120,155; Jan. 15; v. 246; p. 819.

Anderson & McClinton, Clarkesville, Tex. Mattresses. No. 120,156; Jan. 15; v. 246; p. 819.

Andron Hygienic Co., Inc., New York, N. Y. Patent medicine known as andron for the prevention of certain named diseases. No. 120,237; Jan. 29; v. 246; p. 1199.

Anheuser-Busch Brewing Association, St. Louis, Mo. Draft-beer. No. 120,157; Jan. 15; v. 246; p. 819.

Appleton Company, Lowell, Mass. Cotton flannels. No. 120,007; Jan. 1; v. 246; p. 297.

Argus Manufacturing Company, Chicago, Ill. Pencil and pen clasps, paper-fasteners, and envelop-moisteners. No. 120,056; Jan. 8; v. 246; p. 563.

Armstrong Cork Company, Pittsburgh, Pa. Slip-insoles for shoes. No. 120,057; Jan. 8; v. 246; p. 563.

Armstrong Packing Company, Dallas, Tex. Bacon, Vienna-style sausage, skinned and sugar-cured hams. No. 120,008; Jan. 1; v. 246; p. 297.

Arnone, Cyrus, New York, N. Y. Hair-tonic. No. 120,158; Jan. 15; v. 246; p. 819.

Astral, Limited, Hendon, England. Textile collars, cuffs, and shirt-fronts. No. 120,058; Jan. 8; v. 246; p. 563.

Athenian Manufacturing Company, Philadelphia, Pa. Medicinal tonic for certain named diseases, hair-tonic, foot-powder and facial cream. No. 120,059; Jan. 8; v. 246; p. 563.

Atlantic Refining Company, The, Philadelphia, Pa. Medicinal and wool oils, petrolatums, and glycerinum petrae. No. 120,060; Jan. 8; v. 246; p. 563.

Atlas Auto Supply Company, Chicago, Ill. Compound for repairing rubber articles and cement to be used therewith. No. 120,238; Jan. 29; v. 246; p. 1199.

Aunt Jemima Mills Company, St. Joseph, Mo. Pancake, buckwheat, corn, and wheat flours. No. 120,159; Jan. 15; v. 246; p. 810.

Aunt Jemima Mills Company, St. Joseph, Mo. Pancake, buckwheat, corn, and wheat flours. No. 120,160; Jan. 15; v. 246; p. 819.

B. F. Goodrich Company, The, New York, N. Y. Rubber boots with leather tops. No. 120,188; Jan. 15; v. 246; p. 820.

B. F. Goodrich Company, The, New York, N. Y. Rubber shoes. No. 120,189; Jan. 15; v. 246; p. 820.

B. F. Sturtevant Co., Hyde Park, Mass., and Keene, N. H. Wood and leather heels, soles, and shoes. No. 120,297; Jan. 29; v. 246; p. 1201.

Baldwin Perfumery Co., The, Chicago, Ill. Perfume, toilet water, sachet, face-powder, &c. No. 120,239; Jan. 29; v. 246; p. 1199.

Barnet Leather Co., New York, N. Y. Finished calf-leather. No. 120,061; Jan. 8; v. 246; p. 563.

Becton, Dickinson & Co., Rutherford, N. J. Clinical thermometers, hypodermic syringes, and parts thereof. No. 120,240; Jan. 29; v. 246; p. 1199.

Bemis Bro. Bag Co., St. Louis, Mo. Cotton bags. No 120,242; Jan. 29; v. 246; p. 1199.

Bennett & Bennett, Brooklyn, N. Y. Certain named detergent, abrasive, and polishing materials. No. 120,241; Jan. 29; v. 246; p. 1199.

Bernhard Ulmann Co., Inc., New York, N. Y. Slippers, shoes, bootees, soles, and linings for slippers or shoes, &c. No. 120,302; Jan. 29; v. 246; p. 1201.

Berry, Nella E., Buffalo, N. Y. Certain named toilet preparations and remedies for external use. No. 120,062; Jan. 8; v. 246; p. 563.

Billow Washable Pillow Company, The, Columbus, Ohio. Pillows. No. 120,009; Jan. 1; v. 246; p. 297.

Binns, Edward H., Pittsburgh, Pa. Pocket eyeglass-shields. No. 120,243; Jan. 29; v. 246; p. 1199.

Birdsey-Somers Company, New York, N. Y. Corsets. No. 120,244; Jan. 29; v. 246; p. 1199.

Black & Sons, J., Birmingham, Ala. Men's outer suits and overcoats. No. 120,010; Jan. 1; v. 246; p. 297.

Bloom & Millman, New York, N. Y. Middy-blouses, sport-suits, shirt-waists, dresses, outer suits. No. 120,011; Jan. 1; v. 246; p. 297.

Booth Packing Company, The, Baltimore, Md. Canned vegetables. No. 120,012; Jan. 1; v. 246; p. 297.

Bowman Drug Co., Oakland, Cal. Ant-poison. No. 120,065; Jan. 8; v. 246; p. 563.

Brondi, Edward, New York, N. Y. Coffee. No. 120,162; Jan. 15; v. 246; p. 819.

Brown Durrell Co., Boston, Mass. Hosiery. No. 120,066; Jan. 8; v. 246; p. 563.

Brown, Nelson H., Boston, Mass. Alarm-clocks and movements therefor. No. 120,067; Jan. 8; v. 246; p. 563.

Brown Shoe Company, Inc., St. Louis, Mo. Leather shoes. No. 120,068; Jan. 8; v. 246; p. 563.

Burkhardt Bros. Company, The, Cincinnati, Ohio. Sport coats and skirts for women. No. 120,013; Jan. 1; v. 246; p. 297.

Burnham-Munger-Root Dry Goods Co., Kansas City, Mo. Collars, cuffs, hosiery, gloves, overalls, &c. No. 120,248; Jan. 29; v. 246; p. 1199.

Burton & Davis Co., New York, N. Y. Canned fruits and vegetables. No. 120,163; Jan. 15; v. 246; p. 819.

Butterfly Tinting Company, The, Minneapolis, Minn. Chemical compound used as a dye. No. 120,164; Jan. 15; v. 246; p. 819.

C. G. Conn, Ltd., Elkhart, Ind. Certain named musical instruments and supplies. No. 120,250; Jan. 29; v. 246; p. 1199.

C. H. Evans & Sons, Hudson, N. Y. Non-alcoholic beverage made of malt and hops. No. 120,086; Jan. 8; v. 246; p. 564.

California Packing Corporation, San Francisco, Cal. Certain named foods. No. 120,014; Jan. 1; v. 246; p. 297.

Capper and Capper, Detroit, Mich. Golf-balls. No. 120,015; Jan. 1; v. 246; p. 297.

Carbonell, E. A. Delgado, New York, N. Y. Tonics for certain named diseases. No. 120,077; Jan. 8; v. 246; p. 563.

Case Hardening Service Company, The, Cleveland, Ohio. Case-hardening or carbonising compound. No. 120,070; Jan. 8; v. 246; p. 563.

Cataract City Milling Co., Niagara Falls, N. Y. Wheat-flour. No. 120,165; Jan. 15; v. 246; p. 819.

Ceesna, C. E., Chicago, Ill. Medicated tablets for a blood and nerve tonic. No. 120,071; Jan. 8; v. 246; p. 563.

Chace, William W., Brooklyn, assignor to Jennings Lace Works Corp., New York, N. Y. Laces. No. 120,166; Jan. 15; v. 246; p. 819.

Champion Spark Plug Company, Toledo, Ohio. Spark-plugs, spark-plug porcelains and parts. No. 120,167; Jan. 15; v. 246; p. 819.

Chas. A. Schieren Company, New York, N. Y. Rawhide lacing. No. 120,117; Jan. 8; v. 246; p. 565.

Cheney Brothers, South Manchester, Conn. Silk, foulards, florentines, &c., in the piece, silk and velvet ribbons. No. 120,249; Jan. 29; v. 246; p. 1199.
Cleveland Home Brewing Co., The, Cleveland, Ohio. Beer. No. 120,168; Jan. 15; v. 246; p. 819.
Cleveland Provision Company, The, Cleveland, Ohio. Ham. No. 120,169; Jan. 15; v. 246; p. 819.
Cloverdale Spring Company, Baltimore, Md. Certain named mineral waters and non-alcoholic beverages. No. 120,016; Jan. 1; v. 246; p. 297.
Coates, Wallace B., Jr., Lynn, Mass. Certain named toilet preparations. No. 120,072; Jan. 8; v. 246; p. 563.
Collat, Samuel, New York, N. Y. Certain named clothing. No. 120,017; Jan. 1; v. 246; p. 297.
Community Marvel Millers' Association, Owensboro, Ky. Wheat and whole-wheat flours and flour blended from wheat and corn. No. 120,170; Jan. 15; v. 246; p. 819.
Community Marvel Millers' Association, Owensboro, Ky. Bread. No. 120,171; Jan. 15; v. 246; p. 819.
Converse & Company, New York, N. Y. Cotton piece goods. No. 120,073; Jan. 8; v. 246; p. 563.
Crawford, George S., McKeesport, Pa. A vitaminic product for addition to food. No. 120,172; Jan. 15; v. 246; p. 819.
Crea, Myra L., Fargo, N. D. Liquid preparation for keeping the hair fluffy and curly. No. 120,074; Jan. 8; v. 246; p. 563.
Cremoline Disinfecting Co., St. Louis, Mo. Disinfectants, insect-exterminators, stock-dip, and chemical solution. No. 120,075; Jan. 8; v. 246; p. 563.
Crowley, James B., San Francisco, Cal. Snap-fasteners. No. 120,251; Jan. 29; v. 246; p. 1199.
Cygnet Bear Car Company, Buffalo, N. Y. Wheeled trailer-cars for attachment to motor-cycles and the like. No. 120,018; Jan. 1; v. 246; p. 297.
Daniels Motor Car Company, Reading, Pa. Automobiles and automobile radiators and hub-caps. No. 120,173; Jan. 15; v. 246; p. 819.
Darling, J. Frank, New York, N. Y. Oil-cloth and linoleum. No. 120,019; Jan. 1; v. 246; p. 297.
Dawley, Laura R., New York, N. Y. Certain named toilet preparations. No. 120,076; Jan. 8; v. 246; p. 563.
De Sarak, Dr. Albert Count, Washington, D. C. Bulletins issued periodically. No. 120,114; Jan. 8; v. 246; p. 565.
De Vilbiss Manufacturing Company, The, Toledo, Ohio. Atomizers and nebulizers. No. 120,253; Jan. 29; v. 246; p. 1199.
Defiance Chemical Company, Norfolk, Va. Tire-puncture repairing or sealing powder. No. 120,252; Jan. 29; v. 246; p. 1199.
Deltox Grass Rug Company, Oshkosh, Wis. Furniture. No. 120,174; Jan. 15; v. 246; p. 819.
Dixie Auto Signal Company, Chicago, Ill. Automobile electric signal-lamps. No. 120,175; Jan. 15; v. 246; p. 819.
Donahey, Moore & Donahey, Uhrichsville, Ohio. Earthenware tile for building construction. No. 120,020; Jan. 1; v. 246; p. 297.
Dorsch, Max E., Chicago, Ill. Rat and mouse traps. No. 120,079; Jan. 8; v. 246; p. 563.
Doty, Baron S., Graham, Tex. Skin-lotion. No. 120,176; Jan. 15; v. 246; p. 819.
Double Eccentric Piston Ring Corporation, St. Louis, Mo. Piston-rings. No. 120,177; Jan. 15; v. 246; p. 819.
Doughten, H. W., New York, N. Y. Grass and field seeds. No. 120,080; Jan. 8; v. 246; p. 564.
Du Pont Fabrikoid Company, Wilmington, Del. Silk, satin, serge, and other woven fabrics provided with a coating to give the appearance of leather. No. 120,081; Jan. 8; v. 246; p. 564.
Duncan, Marguerite A., East Chattanooga, Tenn. Preparation for certain named diseases. No. 120,178; Jan. 15; v. 246; p. 819.
Eagle Pencil Company, New York, N. Y. Lead-pencils. No. 120,082; Jan. 8; v. 246; p. 564.
Eastman Kodak Company, Rochester, N. Y. Photographic dry-plates. No. 120,179; Jan. 15; v. 246; p. 819.
Eau Claire Baking Company, Eau Claire, Wis. Bread. No. 120,180; Jan. 15; v. 246; p. 819.
Edward & John Burke, Limited, Dublin and Belfast, Ireland. Stout and ale. No. 120,247; Jan. 29; v. 246; p. 1199.
Eesima, Hanan K., New York, N. Y. Treatment for certain named troubles. No. 120,258; Jan. 29; v. 246; p. 1199.
Erhardt, Pierre, Paris, France. Chemical preparation used as a poultice. No. 120,083; Jan. 8; v. 246; p. 564.
Eisenstadt Manufacturing Co., St. Louis, Mo. Finger-rings. No. 120,084; Jan. 8; v. 246; p. 564.
Engineering Magazine Company, The, New York, N. Y. Series of printed books, which series has not yet been completed. No. 120,085; Jan. 8; v. 246; p. 564.
Err Arr Knitting Mills, Inc., Brooklyn, N. Y. Sweaters, sweater-coats, jerseys, jersey coats, knitted scarfs and caps. No. 120,254; Jan. 29; v. 246; p. 1199.
Eureka Liquid Wheel Tightener Company, Modesta, Cal. Liquid preparations for expanding wood. No. 120,181; Jan. 15; v. 246; p. 820.
Everett, Heaney & Company, Inc., New York, N. Y. Cotton goods in the piece. No. 120,182; Jan. 15; v. 246; p. 820.
Federal Export Corporation, New York, N. Y. Certain named billets, beam, plates, ingots, and metals. No. 120,255; Jan. 29; v. 246; p. 1199.
Feld, Louis, Kansas City, Mo. Soap in cake and powdered form. No. 120,256; Jan. 29; v. 246; p. 1199.
Fickett Manufacturing Co., Atlanta, Ga. Mops. No. 120,022; Jan. 1; v. 246; p. 297.
Fisher Governor Company, The, Marshalltown, Iowa. Certain named valves. No. 120,183; Jan. 15; v. 246; p. 820.
Fitzgerald, Asa L., Chattanooga, Tenn. Remedy for sweaty feet. No. 120,089; Jan. 8; v. 246; p. 564.
Forest Products Chemical Company, Memphis, Tenn. Wood-preserving oils. No. 120,090; Jan. 8; v. 246; p. 564.
Fox River Paper Co., Appleton, Wis. Writing-paper. Nos. 120,091–3; Jan. 8; v. 246; p. 564.
Freydberg Bros., Inc., New York, N. Y. Catalogues published semi-annually. No. 120,094; Jan. 8; v. 246; p. 564.
Frohn, Edward, Brooklyn, N. Y. Non-alcoholic soft-drink beverage and syrup for making the same. No. 120,257; Jan. 29; v. 246; p. 1199.
Galena-Signal Oil Company, Franklin, Pa. Illuminating, heating, and lubricating oils, paraffin waxes, and greases. No. 120,184; Jan. 15; v. 246; p. 820.
Gasau-Thompson Company, Brooklyn, N. Y. Wire fabrics used particularly as spring-bottoms for beds, davenettes, couches, &c. No. 120,185; Jan. 15; v. 246; p. 820.
Gasorator Co., The, Bridgeport, Conn. Liquid-fuel vaporizers. No. 120,186; Jan. 15; v. 246; p. 820.
General Laboratories, Madison, Wis. Antiseptics, germicides, and deodorants. No. 120,110; Jan. 8; v. 246; p. 564.
Geo. A. Slater Limited, Montreal, Quebec, Canada. Leather boots, shoes, slippers, and sandals. No. 120,119; Jan. 8; v. 246; p. 565.
George Borgfeldt & Co., New York, N. Y. Certain named toilet preparations. No. 120,063; Jan. 8; v. 246; p. 563.
Gerberg, Morris, New York, N. Y. Certain named toys. No. 120,023; Jan. 1; v. 246; p. 297.
Germo Manufacturing Company, St. Louis, Mo. Tonic and remedy for fowls. No. 120,095; Jan. 8; v. 246; p. 564.
Goldman & Company, J., Norfolk, Va. Leather soles and heels, rubber heels and soles, and insoles. No. 120,131; Jan. 8; v. 246; p. 565.
Goldman Costume Company, New York, N. Y. Linoleum and like goods and certain articles made therefrom. No. 120,096; Jan. 8; v. 246; p. 564.
Goodridge-Call Lumber Company, Minneapolis, Minn., and Great Falls, Mont. Water and weather proof building and roofing material. No. 120,190; Jan. 15; v. 246; p. 820.
Gordon's Dry Gin Company, Limited, The, New York, N. Y. Dry and Old Tom gins. No. 120,024; Jan. 1; v. 246; p. 297.
Gordon, Sewall & Co., Inc., Houston, Tex. Brooms. No. 120,025; Jan. 1; v. 246; p. 297.
Gottschalk, Hugo, Reedsville, Pa. Bread, crackers, cakes, and pastry. No. 120,191; Jan. 15; v. 246; p. 820.
Gregg, Marjorie T., Boston, Mass. Trousers. No. 120,132; Jan. 8; v. 246; p. 565.
Gross & Co., Sol, New York, N. Y. Ladies' dress and shirt waists. No. 120,300; Jan. 29; v. 246; p. 1201.
Gutta Percha & Rubber Manufacturing Company, The, New York, N. Y. Belting of rubber and fabric. No. 120,192; Jan. 15; v. 246; p. 820.
H. T. Dewey & Sons Co., New York, N. Y. Medicinal tonic. No. 120,078; Jan. 8; v. 246; p. 564.
H. M. B. Company, The, Amherst, Mass. Plasters for treating cancers. No. 120,097; Jan. 8; v. 246; p. 564.
Haas Brothers, New York, N. Y. Silk piece goods. No. 120,193; Jan. 15; v. 246; p. 820.
Hall, Hartwell & Co., Troy, N. Y. Collars and dress, negligé, and work shirts. No. 120,259; Jan. 29; v. 246; p. 1199.
Hamilton Manufacturing Co., Cincinnati, Ohio. Preparation for relief of certain named ailments and diseases. No. 120,098; Jan. 8; v. 246; p. 564.
Hansen, John M., Cleveland, Ohio. Show-cases, cedar chests, house-screens. No. 120,026; Jan. 1; v. 246; p. 297.
Harris, Albert, San Francisco, Cal. Certain named clothing. No. 120,099; Jan. 8; v. 246; p. 564.
Hawkes & Son, London, England. Cases for carrying wind and string musical instruments. No. 120,194; Jan. 15; v. 246; p. 820.
Hay, Clarence C., Como, Miss. Hair-dressing. No. 120,100; Jan. 8; v. 246; p. 564.
Hayes-Diefenderfer Co., Inc., New York, N. Y. Extensions for automobile-chassis, also automobile bodies, windshields, dashes, and springs. No. 120,027; Jan. 1; v. 246; p. 297.
Hecht & Company, Washington, D. C. Refrigerators and ice-boxes. No. 120,101; Jan. 8; v. 246; p. 564.
Hewlett, Frank J., Salt Lake City, Utah. Non-alcoholic carbonated beverages to be sold as soft drinks. No. 120,260; Jan. 29; v. 246; p. 1199.
Hill-Independent Mfg. Co., Philadelphia, Pa. Hand-stamps. No. 120,102; Jan. 8; v. 246; p. 564.
Hirschman, Henry, Memphis, Tenn. Liniment for relief of certain named ailments. No. 120,103; Jan. 8; v. 246; p. 564.

Holden, Hiram, Manchester, N. H. Border-strip for use in boots and shoes. No. 120,196; Jan. 15; v. 246; p. 820.
Hollander, Joseph M., Braddock, Pa. Liniment used externally for the treatment of gout, neuralgia, colds, &c. No. 120,261; Jan. 29; v. 246; p. 1200.
Hollister Drug Company Incorporated, Madison, Wis. Herb laxative. No. 120,104; Jan. 8; v. 246; p. 564.
Howard & Casey Co., Mount Vernon and Marion, Ill. Cream of tartar, bluing, ammonia, Epsom salts, &c. No. 120,262; Jan. 29; v. 246; p. 1200.
Huenefeld Company, The, Cincinnati, Ohio. Burners and wicks for stoves, furnaces, and ranges. No. 120,105; Jan. 8; v. 246; p. 564.
Hupp Motor Car Corporation, Richmond, Va., and Detroit, Mich. Automobiles. No. 120,028; Jan. 1; v. 246; p. 297.
Individual Drinking Cup Co., Inc., New York, N. Y. Certain named receptacles. No. 120,264; Jan. 29; v. 246; p. 1200.
Ivah, May K., Baltimore, Md. Certain named toilet preparations. No. 120,197; Jan. 15; v. 246; p. 820.
J. L. Prescott Company, New York, N. Y. Shoe and leather polish. No. 120,216; Jan. 15; v. 246; p. 821.
J. M. Ney Company, The, Hartford, Conn. Tooth-filling compound. No. 120,147; Jan. 8; v. 246; p. 566.
James Buchanan & Co. Ltd., London, England, and Glasgow and Mulben, Speyside, Scotland. Whisky. No. 120,069; Jan. 8; v. 246; p. 563.
James Heddon's Sons, Dowagiac, Mich. Artificial bait. No. 120,195; Jan. 15; v. 246; p. 820.
Jennings Lace Works Corporation. (See Chace, William W., assignor.)
John M. Given, Inc., Pittsburgh, Pa.; New York, N. Y., and Chicago, Ill. Hosiery. No. 120,187; Jan. 15; v. 246; p. 820.
Johnson, Frances, Grand Junction, Colo. Salad. No. 120,029; Jan. 1; v. 246; p. 297.
Jordan Marsh Company, Boston, Mass. Dresses. No. 120,138; Jan. 8; v. 246; p. 565.
Kaut-Reith Shoe Company, The, Carthage, Mo. Boots and shoes of kid, leather, and canvas. No. 120,106; Jan. 8; v. 246; p. 564.
Kelley & Co., Thomas, Boston, Mass. Cotton, blankets, bedspreads, and sheets. No. 120,030; Jan. 1; v. 246; p. 297.
Kenmont Coal Company, The, Zanesville, Ohio. Coal. No. 120,107; Jan. 8; v. 246; p. 564.
Keystone Snap Fastener Corporation, Philadelphia, Pa. Snap-fasteners. No. 120,265; Jan. 29; v. 246; p. 1200.
Kil-Tone Company, The, Vineland, N. J. Insect-repellent. No. 120,108; Jan. 8; v. 246; p. 564.
Kingan & Company, Limited, Belfast, Ireland, and Indianapolis, Ind. Compound, a substitute for lard. No. 120,266, Jan. 29; v. 246; p. 1200.
Knickerbocker Motors, Inc., New York, N. Y. Tractors and automobile-tractor devices. No. 120,198; Jan. 15; v. 246; p. 820.
Kobler & Miller Company, Buffalo, N. Y. Certain named furniture. No. 120,267; Jan. 29; v. 246; p. 1200.
L. Sonneborn Sons, Inc., New York, N. Y. Liquid used as a disinfectant, sterilizer, cleanser, and deodorant. No. 120,120; Jan. 8; v. 246; p. 565.
Lakeside Mills, Burlington, N. C. Cotton piece goods. No. 120,268; Jan. 29; v. 246; p. 1200.
Landers, Frary & Clark, New Britain, Conn. Certain named articles having parts of or plated with precious metal. No. 120,031; Jan. 1; v. 246; p. 297.
Larrowe Milling Co., The, Cohocton, N. Y., and Detroit, Mich. Dairy feed. No. 120,269; Jan. 29; v. 246; p. 1200.
Leonard Asbury O., New York, N. Y. Glandular and massage oil. No. 120,109; Jan. 8; v. 246; p. 564.
Leonard, Asbury O., New York, N. Y. Artificial ear-drum. No. 120,271; Jan. 29; v. 246; p. 1200.
Levi, Laz., New York, N. Y. Belts for wear. No. 120,270; Jan. 29. v. 246; p. 1200.
M. J. Steinberg Hat & Fur Company, St. Louis, Mo. Ladies' outer suits, coats, dress-waists, hats, and sweaters. No. 120,294; Jan. 29; v. 246; p. 1201.
Mack, Oscar C., St. Louis, Mo. Chemical preparation used in detecting cotton or adulterants in woolens. No. 120,133; Jan. 8; v. 246; p. 565.
Macy & Co., R. H., New York, N. Y. Gloves. No. 120,032; Jan. 1; v. 246; p. 297.
Macy & Co., R. H., New York, N. Y. Hosiery. No. 120,033; Jan. 1; v. 246; p. 297.
Macy & Co., R. H., New York, N. Y. Textile bath-rugs. No. 120,274; Jan. 29; v. 246; p. 1200.
Macy & Co., R. H., New York, N. Y. Coats, vests, and trousers. No. 120,275; Jan. 29; v. 246; p. 1200.
Mahnken, Charles, Bayonne, N. J. Liniment for external use. No. 120,199; Jan. 15; v. 246; p. 820.
Mahoney, William F., Washington, D. C. Certain named non-intoxicating beverages. No. 120,276; Jan. 29; v. 246; p. 1200.
Mallinson and Company, H. R., New York, N. Y. Silk piece goods. No. 120,200; Jan. 15; v. 246; p. 820.
Manhasset Manufacturing Company, Providence, R. I. Cotton and linen woven tire-fabric piece goods. No. 120,134; Jan. 8; v. 246; p. 565.
Marion Steam Shovel Company, The, Marion, Ohio. Electric shovels. No. 120,203; Jan. 15; v. 246; p. 820.
Marion Stock Remedy Company, Ocala, Fla. Veterinary liniment for relief of certain named diseases. No. 120,135; Jan. 8; v. 246; p. 565.
Maritime Coating Corporation, New York, N. Y. Certain named construction materials. No. 120,034; Jan. 1; v. 246; p. 297.
Mason, Rose C., Saginaw, Mich. Foot-ointment. No. 120,201; Jan. 15; v. 246; p. 820.
Matchette, Frank J., Milwaukee, Wis., assignor to The Servidor Company, Wilmington, Del. Wall-cabinets. No. 120,035; Jan. 1; v. 246; p. 298.
Matchless Metal Polish Company, The, Chicago, Ill., and New York, N. Y. Buffing and polishing compounds in cake form for metals. Nos. 120,136–7; Jan. 8; v. 246; p. 565.
Matchless Metal Polish Company, Limited, The, Liverpool, England. Constructional toys for educational and amusement purposes. No. 120,202; Jan. 15; v. 246; p. 820.
Maupin, William H., Chicago, Ill. Carbonated beverage sold as a soft drink and flavoring-syrup therefor. No. 120,204; Jan. 15; v. 246; p. 820.
McGrath, Joseph P., Omaha, Nebr. Preparation for certain named ailments. No. 120,144; Jan. 8; v. 246; p. 565.
McKerg, Earl H., Auburn, Wash. Lettered dice for playing a game. No. 120,273; Jan. 29; v. 246; p. 1200.
Memminger, Henry E., Lakeland, Fla. Fertiliser. No. 120,140; Jan. 8; v. 246; p. 565.
Menopad Mfg. Co., The, Providence, R. I. Sanitary and absorptive pads and bandages. No. 120,277; Jan. 29; v. 246; p. 1200.
Merck & Co., New York, N. Y. Insecticides. No. 120,141; Jan. 8; v. 246; p. 565.
Merck & Co., New York, N. Y. Solution of hydrogen peroxid. No. 120,142; Jan. 8; v. 246; p. 565.
Midland Milling Company, The, Kansas City, Mo., assignor to Midland Milling Company. Wheat-flour. No. 120,278; Jan. 29; v. 246; p. 1200.
Migliaccio, Ginevra, New York, N. Y. Candy. No. 120,037; Jan. 1; v. 246; p. 298.
Milburn Wagon Company, The, Toledo, Ohio. Farm and business and delivery wagons and automobiles, both passenger and commercial. No. 120,038; Jan. 1; v. 246; p. 298.
Moco Laboratories, Oklahoma, Okla. Patches for the inner tubes and casings of pneumatic tires. No. 120,205; Jan. 15; v. 246; p. 820.
Monroe, Lizzie, San Francisco, Cal. Tapeworm remedy. No. 120,206; Jan. 15; v. 246; p. 820.
Montgomery Brothers Inc., Philadelphia, Pa. Certain named water and steam hose. No. 120,143; Jan. 8; v. 246; p. 565.
Moskowitz, David, Philadelphia, Pa. Preparation for extermination of rats. No. 120,139; Jan. 8; v. 246; p. 565.
Moyer, Harry W., Fullerton, Pa. Preparation and a liniment for the treatment of corns, rheumatism, &c. No. 120,207; Jan. 15; v. 246; p. 820.
Mutual Export & Import Corp., New York, N. Y. Moving-picture films. No. 120,208; Jan. 15; v. 246; p. 820.
N. K. Fairbank Company, The, Union township, near Guttenberg, N. J., and Chicago, Ill. Soap. No. 120,087; Jan. 8; v. 246; p. 564.
N. K. Fairbank Company, The, Union township, near Guttenberg, N. J., and Chicago, Ill. Scouring compound. No. 120,088; Jan. 8; v. 246; p. 564.
National Automatic Door Company, Chicago, Ill. Automatic doors. No. 120,209; Jan. 15; v. 246; p. 820.
National Casket Company, New York, N. Y. Burial-caskets, outside cases for same, and inner caskets to be placed within the burial-caskets. No. 120,210; Jan. 15; v. 246; p. 820.
Natural Soda Products Company, Keeler, Cal. Soda-ash and bicarbonate of soda. No. 120,145; Jan. 8; v. 246; p. 565.
New Era Manufacturing Company, The, St. Louis, Mo. Boys' shirts and waists. No. 120,146; Jan. 8; v. 246; p. 566.
Nicotine Mfg. Co., St. Louis, Mo. Insecticide used for destroying insects. No. 120,279; Jan. 29; v. 246; p. 1200.
Nonotuck Silk Company, Northampton, Mass. Thread and yarn made of silk, cotton, or wool. No. 120,211; Jan. 15; v. 246; p. 820.
Nya Aktiebolaget Terracotta, Mölndal, Sweden. Earthenware receptacles for perishable goods. No. 120,280; Jan. 29; v. 246; p. 1200.
O'Callaghan & Fedden, New York, N. Y. Stockings. Nos. 120,281–2; Jan. 29; v. 246; p. 1200.
Pacific Creosoting Company, Seattle, Wash. Wooden pipe. No. 120,283; Jan. 29; v. 246; p. 1200.
Paxton, Frederick H., Chicago, Ill. Granulated combination of certain salts for internal use. No. 120,212; Jan. 15; v. 246; p. 820.
Payne Chemical Company, Minneapolis, Minn. Dye. No. 120,213; Jan. 15; v. 246; p. 821.
Peet, Harry V., Columbus, Ohio. Gas stoves and warmers. No. 120,148; Jan. 8; v. 246; p. 566.
Peninsular Chemical Co., Detroit, Mich. Writing-paper and lead-pencils. No. 120,284; Jan. 29; v. 246; p. 1200.
Pennsylvania Central Brewing Co., The, Scranton, Pa. Beer. No. 120,214; Jan. 15; v. 246; p. 821.

Perfection Bed Spring Company, Mansfield, Ohio. Metal bed-springs and beds, folding beds, cots, and swings. No. 120,039; Jan. 1; v. 246; p. 298.
Perkins-Epeneter Pickle Co., The, Denver, Colo. Certain named foods. No. 120,285; Jan. 29; v. 246; p. 1200.
Petroccio, John, Waterbury, Conn. Scrub-brushes. No. 120,149; Jan. 8; v. 246; p. 566.
Pike Manufacturing Company, Pike and Littleton, N. H.; Evansville, Vt.; Orleans, Ind.; Hot Springs, Ark., and New York, N. Y. Razor-strops. No. 120,286; Jan. 29; v. 246; p. 1200.
Pittsburgh Compound Company, Pittsburgh, Pa. Oily compounds employed in drilling, tapping, and cutting metals. No. 120,215; Jan. 15; v. 246; p. 821.
Porcelain Enamel and Manufacturing Company of Baltimore, The, Baltimore, Md. Kitchen tables and cabinets and tops for same, and stools. No. 120,040; Jan. 1; v. 246; p. 298.
Pullastic Co. of Amer. Inc., The, New York, N. Y. Hat-linings. No. 120,217; Jan. 15; v. 246; p. 821.
Purcell, Isaac S., assignor to Tentobed Company, Chicago, Ill. Folding cots. No. 120,287; Jan. 29; v. 246; p. 1200.
Purity Cross, Inc., Providence, R. I. Food products—viz. jamalade and creamed chicken. No. 120,041; Jan. 1; v. 246; p. 298.
Pure Sanitary Drinking Fountain Co., Haydenville, Mass. Drinking-fountains and parts thereof. No. 120,218; Jan. 15; v. 246; p. 821.
Pyrene Manufacturing Company, New York, N. Y. Chemical heaters for therapeutical purposes for use in place of the usual hot-water bottle. No. 120,219; Jan. 15; v. 246; p. 821.
Pyrhodol & Chemical Co. Inc., The, Chicago, Ill. Antiseptic disinfectant mouth-wash, gargle, and deodorant. No. 120,150; Jan. 8; v. 246; p. 566.
Remiller Co., The, New York, N. Y. Certain named toilet preparations and the like. No. 120,111; Jan. 8; v. 246; p. 564.
Remington Typewriter Company, Ilion and New York, N. Y. Type-writer ribbons and carbon-paper. No. 120,220; Jan. 15; v. 246; p. 821.
Renton, Alexander, North Adams, Mass. Wrapped bread. No. 120,221; Jan. 15; v. 246; p. 821.
Rice & Hutchins, Inc., Boston, Mass. Shoe and leather polishes. No. 120,263; Jan. 29; v. 246; p. 1200.
Rice-Stix Dry Goods Company, St. Louis, Mo. Cotton, linen, silk, and wool piece goods and mixtures of these materials. No. 120,288; Jan. 29; v. 246; p. 1200.
Richards, Elizabeth, New York, N. Y. Certain named toilet preparation. No. 120,112; Jan. 8; v. 246; p. 564.
Rigaud, Henri, Paris, France, and New York, N. Y. Certain named toilet preparations. No. 120,113; Jan. 8; v. 246; p. 564.
Riley, Laura T., Poughkeepsie, N. Y. Bedspreads, pillow-shams, and rag carpets. No. 120,289; Jan. 29; v. 246; p. 1200.
Roanoke Coffee and Spice Co., Roanoke, Va. Coffee. No. 120,290; Jan. 29; v. 246; p. 1200.
Robinson, Hugh G., Albany, Cal. Rubber heel-plates. No. 120,151; Jan. 9; v. 246; p. 566.
Rogers & Thompson, Inc., New York, N. Y. Silk piece goods. No. 120,042; Jan. 1; v. 246; p. 298.
Sanitary Products Corp., The, Baltimore, Md. Outdoor water-closets or toilets. No. 120,223; Jan. 15; v. 246; p. 821.
Sanquoit Toilet Paper Co., New Hartford, N. Y. Toilet-paper. No. 120,115; Jan. 8; v. 246; p. 565.
Scattergood & Co., S. F., Philadelphia, Pa. Cattle feed. No. 120,043; Jan. 1; v. 246; p. 298.
Schermerhorn, Louis C., Paterson, N. J. Wire strings for musical instruments. No. 120,116; Jan. 8; v. 246; p. 565.
Schlesinger, Richard M., New Athens, Ill. Non-alcoholic carbonated maltless beverage and syrup for making same. No. 120,291; Jan. 29; v. 246; p. 1200.
Schoeffel, George J., New York, N. Y. Certain named chemical preparation used as a binder and surface coating. No. 120,292; Jan. 29; v. 246; p. 1200.
Schoenfeld, Fanny E., New York, N. Y. Printed booklets. No. 120,224; Jan. 15; v. 246; p. 821.
Schweizer and West Manufacturing Company, Chicago, Ill. Aero-propellers. No. 120,293; Jan. 29; v. 246; p. 1201.
Servidor Company, The. (See Matchette, Frank J., assignor.)
Sicher & Co., D. E., New York, N. Y. Ladies' textile athletic underwear in one and two piece garments. No. 120,203; Jan. 29; v. 246; p. 1201.
Silvers Manufacturing Company, Waterloo, Iowa. Portable sanitary closets. No. 120,118; Jan. 8; v. 246; p. 565.
Sparkling Silverspoon Co., Cleveland, Ohio. Non-alcoholic carbonated beverages. No. 120,045; Jan. 1; v. 246; p. 298.
Spratt & Co., Geo., Sheboygan, Wis. High chairs. No. 120,227; Jan. 15; v. 246; p. 821.
Spring River Stone Co., Carthage, Mo. Marble and building-stone. No. 120,046; Jan. 1; v. 246; p. 298.
St. Louis Brewing Association, St. Louis, Mo. Non-intoxicating non-alcoholic malt beverage. No. 120,226; Jan. 15; v. 246; p. 821.
Standard Woven Fabric Company, Walpole, Mass. Impregnated fabrics for certain named purposes. No. 120,121; Jan. 8; v. 246; p. 565.
Sterling Lumber Co., The, Cincinnati, Ohio. Certain named building construction. No. 120,295; Jan. 20; v. 246; p. 1201.
Stone, H. Bruce, Toledo, Ohio. Preparation for the treatment of venereal diseases. No. 120,122; Jan. 8; v. 246; p. 565.
Strong, Mary J., Portland, Oreg. Ointment or salve for the treatment of old sores, cancers, new cuts, eczema, &c. No. 120,296; Jan. 29; v. 246; p. 1201.
Stuebner's Sons, B., Brooklyn, N. Y. Liquid shampoos. No. 120,225; Jan. 15; v. 246; p. 821.
Sweet-Orr & Co., Inc., New York, N. Y. Overalls for women. No. 120,123; Jan. 8; v. 246; p. 565.
Sweet Valley Wine Company, The, Sandusky, Ohio. Wines. No. 120,298; Jan. 29; v. 246; p. 1201.
Sylvester Bros. Co., Seattle, Wash. Canned fruits, vegetables, and shrimp. No. 120,228; Jan. 15; v. 246; p. 821.
Taylor, Clapp & Beall, New York, N. Y. Cotton piece goods. Nos. 120,229–30; Jan. 15; v. 246; p. 821.
Thomas Manufacturing Co., The, Baltimore, Md. Prepared chalk and whiting for medicinal purposes. No. 120,301; Jan. 29; v. 246; p. 1201.
Todd, William A., Jr., St. Louis, Mo. Face-powder. No. 120,124; Jan. 8; v. 246; p. 565.
Tomkins, Kittie N., Tomkins Cove, N. Y. Growing and cut plants and flowers, bulbs, roots, seeds, vines, and trees. No. 120,125; Jan. 8; v. 246; p. 565.
Top Notch Company, Inc., The, College Point, N. Y. Canvas-uppered rubber-soled footwear. No. 120,231; Jan. 15; v. 246; p. 821.
Train & McIntyre, Limited, Glasgow, Scotland. Whisky. No. 120,272; Jan. 29; v. 246; p. 1200.
Trussed Concrete Steel Company, Detroit, Mich. Asbestos shingles and building-lumber. No. 120,047; Jan. 1; v. 246; p. 298.
United States Rubber Company, New York, N. Y. Rubber boots and shoes. Nos. 120,048–9; Jan. 1; v. 246; p. 298.
Universal Optical Corporation, Providence, R. I. Eye-glass-mountings. No. 120,232; Jan. 15; v. 246; p. 821.
Valentine Hat Company, The, New York, N. Y. Straw hats. No. 120,233; Jan. 15; v. 246; p. 821.
Vitanola Talking Machine Co., Chicago, Ill. Phonographs. No. 120,303; Jan. 29; v. 246; p. 1201.
Volpato, Vittorio, Milan, Italy. Fertilizers. No. 120,050; Jan. 1; v. 246; p. 298.
W. S. Rockwell Company, New York, N. Y. Industrial furnaces of all descriptions heated by gas, oil, or coal, burners for same, &c. No. 120,222; Jan. 15; v. 246; p. 821.
Waltham Watch Company, Waltham, Mass. Watches. No. 120,304; Jan. 29; v. 246; p. 1201.
Webbing & Edging Corp., New York, N. Y. Wash and fancy braids and insertions for dresses, aprons, and undergarments. No. 120,305; Jan. 29; v. 246; p. 1201.
West Virginia Pulp & Paper Company, New York, N. Y. Writing-paper. No. 120,126; Jan. 8; v. 246; p. 565.
West Virginia Pulp & Paper Company, New York, N. Y. Bristol-paper. No. 120,127; Jan. 8; v. 246; p. 565.
White, Philip, Philadelphia, Pa. Sweaters. No. 120,306; Jan. 29; v. 246; p. 1201.
Wightman & Hough Co., Providence, R. I. Certain named articles made of or plated with precious metal, including nickel-silver. No. 120,128; Jan. 8; v. 246; p. 565.
Wilder and Company, Chicago, Ill. Heels for boots and shoes. No. 120,129; Jan. 8; v. 246; p. 565.
Wilkinson, Clifford H., West New York, N. J. Non-alcoholic maltless beverage sold as a soft drink and syrup for making same. No. 120,307; Jan. 29; v. 246; p. 1201.
William S. Merrell Chemical Company, The, Cincinnati, Ohio. Flavoring extracts for making soda-fountain syrups and for use in cooking. No. 120,036; Jan. 1; v. 246; p. 298.
Williams Patent Crusher & Pulverizer Company, St. Louis, Mo. Reducing machinery. No. 120,234; Jan. 15; v. 246; p. 821.
Wilson Remedy Company, Lake Butler, Fla. Preparation for worms in stock. No. 120,308; Jan. 29; v. 246; p. 1201.
Women's Wear Company, New York, N. Y. Daily newspaper. No. 120,130; Jan. 8; v. 246; p. 565.

ALPHABETICAL LIST OF REGISTRANTS OF LABELS.

Barbanell, Fabian, San Francisco, Cal. "Barbanell's Perspiration Corrector." (For Deodorizing Preparation.) No. 20,462; Jan. 22; v. 246; p. 1029.
Beadleston & Woerz, New York, N. Y. "An Ideal Beverage." (For a Non-Intoxicating Beverage.) No. 20,463; Jan. 22; v. 246; p. 1029.
Beech-Nut Packing Company, Canajoharie, N. Y. "Beech-Nut Brand Cough Drops." (For Cough-Drops.) No. 20,464; Jan. 22; v. 246; p. 1020.
Blackman, Samuel, Philadelphia, Pa. "Almond Smash." (For a Fruit Flavoring-Syrup for Soft Drinks.) No. 20,465; Jan. 22; v. 246; p. 1020.
Breakstone & Levine, New York, N. Y. "Polly Brand Neufchatel Cheese." (For Neufchatel Cheese.) No. 20,467; Jan. 22; v. 246; p. 1029.
Buquor Motor Co., El Paso, Tex. "No. 13 Auto Polish." (For Automobile-Polish.) No. 20,468; Jan. 22; v. 246; p. 1029.
Cardinell-Vincent Company, San Francisco, Cal. "Bluvol." (For Tracing-Paper.) No. 20,443; Jan. 15; v. 246; p. 822.
Castor, Henry S., Philadelphia, Pa. "Tar-Off." (For a Preparation for Taking Off or Removing Tar and Road-Oils from Automobiles.) No. 20,469; Jan. 22; v. 246; p. 1029.
Clarx Milling Company, Minneapolis, Minn. "100% Pure Clarx New Process Whole Wheat Flour." (For Whole-Wheat Flour.) No. 20,470; Jan. 22; v. 246; p. 1029.
Cutter-Tower Company, Inc., New York, N. Y. "Tooth Picks." (For Toothpicks.) No. 20,471; Jan. 22; v. 246; p. 1020.
E. T. Blew Company, Grandview, Wash. "Blew." (For Fresh Apples.) No. 20,466; Jan. 22; v. 246; p. 1029.
Eckman Manufacturing Company, Philadelphia, Pa. "Calcerba." (For a Pharmaceutical Preparation.) No. 20,473; Jan. 22; v. 246; p. 1029.
G. H. Dunbar & Sons, Inc., New Orleans, La., and Gulfport, Miss. "Lasses-Tayters." (For Molasses and Sweet-Potato Yams.) No. 20,472; Jan. 22; v. 246; p. 1029.
Germicide Company, The, Denver, Colo. "Denver Mud." (For Plastic Dressings.) No. 20,474; Jan. 22; v. 246; p. 1029.
Guittard Company, San Francisco, Cal. "Guittard's Pure." (For Chocolate.) No. 20,475; Jan. 22; v. 246; p. 1029.
Haas, Baruch & Co., Los Angeles, Cal. "Nupak." (For Coffee.) No. 20,444; Jan. 15; v. 246; p. 822.
Heller & Long, New York, N. Y. "Linflax Suiting." (For Suitings.) No. 20,476; Jan. 22; v. 246; p. 1029.
Johansen Brothers Shoe Company, St. Louis, Mo. "Johansen Shoes." (For Shoes.) No. 20,445; Jan. 15; v. 246; p. 822.
King, Mme., Baltimore, Md. "Nu-Hair Restorer." (For a Preparation for the Hair.) No. 20,446; Jan. 15; v. 246; p. 822.
Korinek, Joseph, Chicago, Ill. "Dea Wonderful Salve." (For a Salve.) No. 20,477; Jan. 22; v. 246; p. 1029.
L. B. Allen Co., Inc., Chicago, Ill. "Allen Soldering Liquid." (For Soldering-Flux, Liquid Form.) No. 20,455; Jan. 22; v. 246; p. 1029.
L. B. Allen Co., Inc., Chicago, Ill. "Allen Soldering Liquid." (For Soldering-Flux, Liquid Form.) Nos. 20,460–1; Jan. 22; v. 246; p. 1029.
L. B. Allen Co., Inc., Chicago, Ill. "Allen Soldering Paste." (For Soldering-Flux, Paste Form.) No. 20,453; Jan. 22; v. 246; p. 1029.
L. B. Allen Co., Inc., Chicago, Ill. "Allen Soldering Paste." (For Soldering-Flux, Paste Form.) No. 20,457; Jan. 22; v. 246; p. 1029.
L. B. Allen Co., Inc., Chicago, Ill. "Allen Soldering Paste." (For Soldering-Flux, Paste Form.) No. 20,459; Jan. 22; v. 246; p. 1029.
L. B. Allen Co., Inc., Chicago, Ill. "Allen Soldering Salts." (For Soldering-Flux, Granular Form.) No. 20,454; Jan. 22; v. 246; p. 1029.
L. B. Allen Co., Inc., Chicago, Ill. "Allen Soldering Salts." (For Soldering-Flux, Granular Form.) No. 20,456; Jan. 22; v. 246; p. 1029.
L. B. Allen Co., Inc., Chicago, Ill. "Allen Soldering Salts." (For Soldering-Flux, Granular Form.) No. 20,458; Jan. 22; v. 246; p. 1029.
Liverade Medicine Co., Fulton, Ky. "Wallace's Liverade, Aids The Liver." (For a Remedy for Constipation, Sour Stomach, Indigestion, Sick Headache, Dizziness, Biliousness, and Torpid Liver.) No. 20,499; Jan. 29; v. 246; p. 1202.
Longman and Martinez, New York, N. Y. "Longman's Superior White Zinc." (For White Zinc.) No. 20,447; Jan. 15; v. 246; p. 822.
Loos & Dilworth, Philadelphia, Pa. "Olmstead's Silk Oil." (For a Prepared Oil for Softening and Degumming Raw Silk.) No. 20,478; Jan. 22; v. 246; p. 1029.
Mangan & Co., New York, N. Y. "Hairforever." (For Hair-Tonic.) No. 20,479; Jan. 22; v. 246; p. 1029.
Moss, Charles H., Malden, Mass. "Perfection Orange Grapefruit Marmalade." (For Marmalade.) No. 20,480; Jan. 22; v. 246; p. 1029.
Mt. Holly Canning Co., Mount Holly, N. J. "Savoy Brand." (For Tomato Paste.) No. 20,481; Jan. 22; v. 246; p. 1029.
Nafziger, Ralph L., Kansas City, Mo. "Loyalty Bread." (For Bread.) No. 20,482; Jan. 22; v. 246; p. 1029.
Nagano, Shinsaku, Chicago, Ill. "Tujifu." (For Bead Molasses.) No. 20,490; Jan. 22; v. 246; p. 1029.
Nagano, Shinsaku, Chicago, Ill. "Fujii." (For Chop-Suey Sauce.) No. 20,491; Jan. 22; v. 246; p. 1029.
Narragansett Dairy Company Ltd., Providence, R. I. "Butter-Nut Brand Nut-Margarine." (For Nut-Margarin.) No. 20,448; Jan. 15; v. 246; p. 822.
Omaha Beverage Co., Omaha, Nebr. "Lactonade." (For a Non-Alcoholic Beverage.) No. 20,483; Jan. 22; v. 246; p. 1029.
Palazzolo, Joseph, New York, N. Y. "West-Falls." (For Hair-Dressing.) No. 20,484; Jan. 22; v. 246; p. 1029.
Perkins, Roby P., Baltimore, Md. "Perkins Royal Extra Blend Coffee." (For Coffee.) No. 20,485; Jan. 22; v. 246; p. 1029.
Port-O-Live Tonic Company, Los Angeles, Cal. "Port-O-Live." (For a Tonic.) No. 20,486; Jan. 22; v. 246; p. 1029.
Puritan Mfg. Co., Portland, Oreg. "Puritan Brand." (For Beverages and Non-Alcoholic Drinks.) No. 20,487; Jan. 22; v. 246; p. 1029.
Reilly & Co., Edward J., Baltimore, Md. "Eddie's Everlasting Black Dye." (For Dye.) No. 20,498; Jan. 29; v. 246; p. 1202.
Sani-Fold Company of California, The, San Francisco, Cal. "Sani-Fold Tooth Brush." (For Tooth-Brushes.) No. 20,488; Jan. 22; v. 246; p. 1029.
Shapiro & Co., Henry, Baltimore, Md. "The Fair Sex." (For Ladies' Skirts.) No. 20,489; Jan. 22; v. 246; p. 1029.
Silverberg Import Co., Inc., New York, N. Y. "Bonnie-Slip-pon Veil." (For Veils.) No. 20,492; Jan. 22; v. 246; p. 1029.
Standard Oil Company, San Francisco, Cal. "Pearl Oil." (For Illuminating-Oil.) No. 20,493; Jan. 22; v. 246; p. 1029.
Steinberg, George S., Council Bluffs, Iowa. "Brando Hot." (For a Non-Intoxicating Beverage.) No. 20,494; Jan. 22; v. 246; p. 1029.
Steinberg, George S., Council Bluffs, Iowa. "Rumo." (For a Non-Intoxicating Beverage.) No. 20,495; Jan. 22; v. 246; p. 1029.
Taylor, Charles M., Jr., Maple Shade, N. J. "Taylor's Perfection." (For Imitation Coffee or Substitute for Coffee.) No. 20,449; Jan. 15; v. 246; p. 822.
Wahl Adding Machine Company, Chicago, Ill. "Eversharp." (For Leads for Pencils.) No. 20,496; Jan. 22; v. 246; p. 1029.
Woolman, Firm of E. W., Philadelphia, Pa. "A Square Meal." (For Milk-Bottles.) No. 20,450; Jan. 15; v. 246; p. 822.
Young, Willis G., Chicago, Ill. "Peg-At-My-Heart." (For a Game.) No. 20,451; Jan. 15; v. 246; p. 822.
Young, Willis G., Chicago, Ill. "Spear-Em." (For a Game.) No. 20,452; Jan. 15; v. 246; p. 822.
Young, Willis G., Chicago, Ill. "Submarine-Drag." (For a Game.) No. 20,497; Jan. 22; v. 246; p. 1029.

PRINTS.

Carter's Ink Co., The, Boston, Mass. "Keep Your Inkwell Filled With Carter's Writing Fluid." (For Ink.) No. 4,844; Jan. 15; v. 246; p. 822.

Common Sense Novelty Co., Chicago, Ill. "Purity First," (For a Chocolate Confection.) No. 4,847; Jan. 22; v. 246; p. 1030.

Cream of Wheat Co., Minneapolis, Minn. "Everlast." (For Concrete-Hardening.) No. 4,848; Jan. 22; v. 246; p. 1030.

Cream of Wheat Co., Minneapolis, Minn. "Opening The Case." (For Wheat Breakfast Food.) No. 4,849; Jan. 22; v. 246; p. 1030.

Gugler Lithographic Company, The, Milwaukee, Wis. "Schlitz Bock." (For Species of Beer Known as Bock.) No. 4,851; Jan. 22; v. 246; p. 1030.

Instant Products Company, The, Kansas City, Mo. "Delicious Instant Chile Recipes." (For Instant Chilli.) No. 4,852; Jan. 22; v. 246; p. 1030.

Otto Eisenlohr and Bros., Inc., Philadelphia, Pa. "'Ed' says he saves a nickel every time he smokes a Cinco Cigar." (For Cinco Cigars.) No. 4,850; Jan. 22; v. 246; p. 1030.

Public Ledger Company, Philadelphia, Pa. "A Daily cartoon by Sykes." (For The Evening Ledger.) No. 4,853; Jan. 22; v. 246; p. 1030.

R. J. Reynolds Tobacco Company, Winston-Salem, N. C. "P. A. plays the smoke game with all the cards on the table." (For Smoking-Tobacco.) No. 4,855; Jan. 29; v. 246; p. 1202.

R. J. Reynolds Tobacco Company, Winston-Salem, N. C. "Smoking P. A. is like shifting into high." (For Smoking-Tobacco.) No. 4,856; Jan. 29; v. 246; p. 1202.

Rubber & Celluloid Products Company, Newark, N. J. "Rubberset Shaving Brushes." (For Shaving-Brushes.) No. 4,845; Jan. 15; v. 246; p. 822.

Schulze, Paul, Chicago, Ill. "Victory Bread." (For Bread.) No. 4,846; Jan. 15; v. 246; p. 822.

Twentieth Century Company, The, Chicago, Ill. "Prepare For A Rainy Day." (For Bank-Signs.) No. 4,864; Jan. 22; v. 246; p. 1030.

ALPHABETICAL LIST OF INVENTIONS

FOR WHICH

PATENTS WERE ISSUED DURING THE MONTH OF JANUARY, 1918.

[Abbreviations: "Gaz."—Official Gazette.]

Account, Mechanism for mechanically transferring items of. J. R. Peirce. No. 1,253,417; Jan. 15; v. 246; p. 640.

Accounting-machines, Transfer mechanism for. F. L. Fuller. No. 1,253,867; Jan. 15; v. 246; p. 624.

Accounting means. W. L. Webster. No. 1,254,870; Jan. 29; v. 246; p. 1108.

Acetylene-generators, Clean-out for. T. Olinger and W. C. Fearell. No. 1,252,988; Jan. 8; v. 246; p. 465.

Acoustical instrument. L. Lumière. No. 1,253,618; Jan. 15; v. 246; p. 694.

Actuator, Vibratory. E. H. Messiter. No. 1,252,826; Jan. 8; v. 246; p. 433.

Adding-machine. I. L. Lanier. No. 1,252,704; Jan. 8; v. 246; p. 399.

Addressing-machine. G. J. Evans. No. 1,253,361; Jan. 15; v. 246; p. 622.

Addressing-machine. G. T. Trundle. No. 1,252,970; Jan. 8; v. 246; p. 476.

Adjustable bracket. E. J. Vogt. No. 1,254,094; Jan. 22; v. 246; p. 852.

Adjustable chair. J. F. Walton. No. 1,251,714; Jan. 1; v. 246; p. 81.

Adjustable clamp. F. X. Wiedeman. No. 1,252,038; Jan. 8; v. 246; p. 381.

Adjustable die. G. H. Lewis. No. 1,252,821; Jan. 8; v. 246; p. 432.

Adjustable-speed motor. W. W. Hale. No. 1,254,902; Jan. 29; v. 246; p. 1117.

Advertising device. W. F. Bringe. No. 1,255,076; Jan. 29; v. 246; p. 1164.

Advertising device. C. A. Corbett. No. 1,251,755; Jan. 1; v. 246; p. 94.

Advertising device. A. Fernandez. No. 1,254,787; Jan. 29; v. 246; p. 1083.

Advertising device. D. Robbins. No. 1,254,359; Jan. 22; v. 246; p. 928.

Advertising device. R. J. Schuhmann. No. 1,253,537; Jan. 15; v. 246; p. 672.

Advertising device and memoranda-holder, Combined. P. Derrow. No. 1,252,250; Jan. 1; v. 246; p. 234.

Advertising display-machine. H. Dumars. No. 1,253,220; Jan. 15; v. 246; p. 579.

Advertising-displaying machine. L. F. W. Meese. No. 1,251,555; Jan. 1; v. 246; p. 32.

Aerial amusement device. E. H. Sassil. No. 1,252,306; Jan. 1; v. 246; p. 250.

Aerocompass. F. C. Fischer. No. 1,253,190; Jan. 8; v. 246; p. 542.

Aeroplane. J. M. Funk. No. 1,252,339; Jan. 1; v. 246; p. 258.

Aeroplane, Parachute-equipped. W. A. Uttz. No. 1,254,947; Jan. 29; v. 246; p. 1129.

Aeroplane safety appliance. G. Krogel. No. 1,251,896; Jan. 1; v. 246; p. 135.

Aeroplane, Self-launching. N. H. Frost. No. 1,254,898; Jan. 29; v. 246; p. 1116.

Agricultural implement. M. L. Hackleman. No. 1,252,432; Jan. 8; v. 246; p. 320.

Agricultural machine. L. Wagner. No. 1,251,945; Jan. 1; v. 246; p. 148.

Air-brake appliance. F. Goff. No. 1,254,678; Jan. 29; v. 246; p. 1047.

Air-brake mechanism. E. S. Bock. No. 1,253,130; Jan. 8; v. 246; p. 525.

Air-gage and magnet-tester, Combined. B. S. Bowers. No. 1,251,745; Jan. 1; v. 246; p. 91.

Air-inlet device. W. Melton, Jr. No. 1,253,266; Jan. 15; v. 246; p. 593.

Air-intake device. C. A. Hornburg. No. 1,255,011; Jan. 29; v. 246; p. 1146.

Air-moistening device. F. F. Bahnson. No. 1,254,445; Jan. 22; v. 246; p. 879.

Air-plane, Revolving. P. R. Goldsworthy. No. 1,254,496; Jan. 22; v. 246; p. 966.

Air purifying and humidifying apparatus. A. W. Lissauer. No. 1,254,612; Jan. 22; v. 246; p. 1000.

Airship. J. H. Pearson. No. 1,255,042; Jan. 29; v. 246; p. 1155.

Airship, Motor-driven. E. Forlanini. No. 1,254,399; Jan. 22; v. 246; p. 939.

Air-supply tank. H. J. Meengs. No. 1,254,921; Jan. 29; v. 246; p. 1128.

Air with liquids, Apparatus for treating. J. H. Lorimer. No. 1,253,401; Jan. 15; v. 246; p. 636.

Alarm: *See*—
- Burglar-alarm.
- Electric alarm.
- Explosion whistle-alarm.
- Fire and burglar alarm.
- Fire-alarm.
- Gas-alarm.
- Rain-alarm.
- Signal-alarm.
- Telephone fire-alarm.

Alarm. C. A. Braconier. No. 1,254,769; Jan. 29; v. 246; p. 1077.

Alarm device. A. Fernandez. No. 1,254,786; Jan. 29; v. 246; p. 1082.

Alarm-lock. J. E. Zmudzinski. No. 1,254,559; Jan. 22; v. 246; p. 985.

Alarm-signal. N. Stebbins. No. 1,253,741; Jan. 15; v. 246; p. 731.

Alarm system, Auxiliary. C. E. Beach. No. 1,253,335; Jan. 15; v. 246; p. 613.

Alcohols, Manufacturing. B. S. Lacy. No. 1,253,055; Jan. 8; v. 246; p. 503.

Alimentary pastes, Machine for shaping and cutting out. F. Lorioli. No. 1,252,822; Jan. 8; v. 246; p. 432.

Alkali perborates, Making. O. Liebknecht. No. 1,253,060; Jan. 8; v. 246; p. 504.

Alkali perborates, Making. O. Liebknecht. No. 1,253,061; Jan. 8; v. 246; p. 505.

Alloy. H. S. Cooper. No. 1,254,987; Jan. 29; v. 246; p. 1140.

Alloy of iron. O. B. McMillin. No. 1,252,596; Jan. 8; v. 246; p. 368.

Alloys, Making. H. L. Doherty. No. 1,252,887; Jan. 8; v. 246; p. 450.

Alumina, Producing. M. Barnett and L. Burgess. No. 1,252,384; Jan. 8; v. 246; p. 306.

Aluminum nitrid, Producing. M. Barnett and L. Burgess. No. 1,252,649; Jan. 8; v. 246; p. 384.

Aluminum sulfate, Producing. M. Barnett and L. Burgess. No. 1,252,648; Jan. 8; v. 246; p. 384.

Alums from clay or other similar natural compounds of alumina, Preparing. L. L. Jackson. No. 1,254,229; Jan. 22; v. 246; p. 890.

Alunite from associated rock and gangue, Separation of. C. F. Hagedorn. No. 1,253,590; Jan. 15; v. 246; p. 688.

Alunite from associated rock or gangue, Separation of. C. F. Hagedorn. No. 1,253,591; Jan. 15; v. 246; p. 688.

Amino compounds by fermentation, Preparation of. G. Eberle. No. 1,254,033; Jan. 22; v. 246; p. 824.

Ammoniac, Treatment of the residue from gas purification known as crude. L. C. Bonneau and V. E. Hasenfratz. No. 1,253,571; Jan. 15; v. 246; p. 683.

Ampul. P. Carpenter. No. 1,254,655; Jan. 29; v. 246; p. 1040.

Amusement device. O. Fritsche. No. 1,252,257; Jan. 1; v. 246; p. 236.

Amusement device. E. Hawkins. No. 1,255,008; Jan. 29; v. 246; p. 1145.

Anchor. E. Cook. No. 1,253,006; Jan. 8; v. 246; p. 487.

Animal-control device. J. G. Helvner. No. 1,251,519; Jan. 1; v. 246; p. 20.

Animal-releasing device. A. Zuttner. No. 1,252,581; Jan. 8; v. 246; p. 364.

Annunciator, Temperature-. M. Klaiber. No. 1,252,811; Jan. 8; v. 246; p. 429.

Antibalking device. I. Semotiuk. No. 1,253,733; Jan. 15; v. 246; p. 729.

Anticathode. E. W. Kelly. No. 1,254,700; Jan. 29; v. 246; p. 1054.

Antifriction device. A. P. Bohlinger. No. 1,252,541; Jan. 8; v. 246; p. 352.

Antirattler. W. L. Fry. No. 1,253,582; Jan. 15; v. 246; p. 686.

Antiskid attachment for wheels. W. A. Tarr. No. 1,254,448; Jan. 22; v. 246; p. 952.

Antiskid-chain applicator. L. B. Wilson. No. 1,251,607; Jan. 1; v. 246; p. 49.

Antiskid device. M. W. Priel. No. 1,253,722; Jan. 15; v. 246; p. 726.

Antiskid device for vehicle-wheels. W. C. Mundorf. No. 1,253,626; Jan. 15; v. 246; p. 698.

Antiskidding device for vehicle-wheels. H. D. Weed. No. 1,253,118; Jan. 8; v. 246; p. 520.

Antiskidding device for wheel-tires. A. E. Canfield. (Reissue.) No. 14,427; Jan. 29; v. 246; p. 1176.

Apron, Bungalow-. K. V. Hogan. No. 1,251,524; Jan. 1; v. 246; p. 22.
Aquatic sports, Mechanical water-horse for. A. Alsj. No. 1,253,329; Jan. 15; v. 246; p. 612.
Arch-support. R. S. Carling. No. 1,254,654; Jan. 29; v. 246; p. 1040.
Arch-support and shoe-sole, Combined molded. J. A. Smith. No. 1,253,639; Jan. 15; v. 246; p. 702.
Arm and hand and actuating means therefor, Artificial. E. W. Hobbs. No. 1,253,823; Jan. 15; v. 246; p. 755.
Armature for ignition-dynamos. H. R. Van Deventer. No. 1,252,514; Jan. 8; v. 246; p. 344.
Ash-conveyer. T. K. Webster, Jr. No. 1,252,522; Jan. 8; v. 246; p. 346.
Ash pan and sifter, Combined. W. F. Brown. No. 1,253,780; Jan. 15; v. 246; p. 743.
Asphaltic or bituminous materials, Apparatus for heating and applying. W. C. Merrill. No. 1,252,376; Jan. 1; v. 246; p. 269.
Atomizer. F. B. Comins. No. 1,251,753; Jan. 1; v. 246; p. 94.
Audiphone. C. M. Williams. No. 1,253,656; Jan. 15; v. 246; p. 707.
Auto-driver's signal. T. M. Smith. No. 1,253,104; Jan. 8; v. 246; p. 517.
Auto-lens. F. E. Dillon. No. 1,253,012; Jan. 8; v. 246; p. 489.
Autographic register. J. Bengough and J. F. Gaynor. No. 1,252,585; Jan. 8; v. 246; p. 306.
Autographic register. H. M. Crouse and G. G. Newell. No. 1,254,986; Jan. 29; v. 246; p. 1140.
Automatic brake. C. H. Kilgore. No. 1,254,005; Jan. 22; v. 246; p. 998.
Automatic lock for barn-doors. E. Heinemann. No. 1,254,906; Jan. 29; v. 246; p. 1118.
Automatic regulator. W. A. Turbayne. No. 1,251,706; Jan. 1; v. 246; p. 79.
Automatic switch. F. A. Lundquist. No. 1,251,985; Jan. 1; v. 246; p. 160.
Automatic switch. F. A. Lundquist. No. 1,254,713; Jan. 29; v. 246; p. 1059.
Automobile. J. Cac. No. 1,254,575; Jan. 22; v. 246; p. 989.
Automobile. E. E. Smeeth. No. 1,254,861; Jan. 29; v. 246; p. 1103.
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Automobile attachment. C. F. Polack. No. 1,252,943; Jan. 8; v. 246; p. 467.
Automobile-bodies, Rib for. J. Ledwinka. No. 1,251,975; Jan. 1; v. 246; p. 157.
Automobile-body. H. C. Maise. No. 1,251,990; Jan. 1; v. 246; p. 162.
Automobile-brake. W. W. Roach. (Reissue.) No. 14,426; Jan. 22; v. 246; p. 1010.
Automobile-bumper. J. H. Sager. No. 1,251,697; Jan. 1; v. 246; p. 77.
Automobile-bumper. J. H. Sager. No. 1,251,698; Jan. 1; v. 246; p. 77.
Automobile-bumper. J. Turner and P. P. Crabill. No. 1,253,906; Jan. 15; v. 246; p. 604.
Automobile-bumper. T. S. Vierow. No. 1,251,600; Jan. 1; v. 246; p. 47.
Automobile-carried signal mechanism. E. Bevington. No. 1,251,625; Jan. 1; v. 246; p. 54.
Automobile-curtain. G. E. Bishop. No. 1,253,341; Jan. 15; v. 246; p. 615.
Automobile-driving mechanism. R. H. Rosenberg. No. 1,252,084; Jan. 1; v. 246; p. 175.
Automobile, &c., fender. W. Foager. No. 1,253,021; Jan. 8; v. 246; p. 492.
Automobile-gate. W. H. Zorn. No. 1,253,453; Jan. 15; v. 246; p. 650.
Automobile glare-shield. S. A. Ridge. No. 1,253,281; Jan. 15; v. 246; p. 597.
Automobile-hoisting apparatus. E. Holmes. No. 1,254,804; Jan. 29; v. 246; p. 1037.
Automobile-inclosure. A. F. Kleinschmidt. No. 1,251,540; Jan. 1; v. 246; p. 27.
Automobile-jack. J. J. Olson. No. 1,254,527; Jan. 22; v. 246; p. 975.
Automobile-jack. F. C. Preifert and F. Schulz. No. 1,254,352; Jan. 22; v. 246; p. 925.
Automobile-lighting system. B. L. Busch. No. 1,253,142; Jan. 8; v. 246; p. 528.
Automobile-lights, Current-controlling mechanism for. W. A. Gray. No. 1,251,507; Jan. 1; v. 246; p. 17.
Automobile-lock. F. R. Hancock and R. F. Hoffman. No. 1,252,567; Jan. 8; v. 246; p. 360.
Automobile-locking means. F. J. McFarland. No. 1,251,987; Jan. 1; v. 246; p. 161.
Automobile mechanism, Protective shield for. A. B. Jones. No. 1,254,808; Jan. 29; v. 246; p. 1088.
Automobile-pedal attachment. F. C. Grant. No. 1,251,999; Jan. 1; v. 246; p. 164.
Automobile-power jack. P. C. Grimm and J. A. Van Sickle. No. 1,252,688; Jan. 8; v. 246; p. 394.
Automobile-pulley attachment. A. E. Phalen. No. 1,253,524; Jan. 15; v. 246; p. 669.
Automobile safety-box. J. P. Miller. No. 1,251,800; Jan. 1; v. 246; p. 110.
Automobile-seat. J. H. Scott. No. 1,253,432; Jan. 15; v. 246; p. 644.
Automobile-seat attachment. C. D. Stamford. No. 1,252,109; Jan. 1; v. 246; p. 216.
Automobile-shield. L. L. Colvin. No. 1,251,865; Jan. 1; v. 246; p. 128.
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Automobile-signal. J. J. Uich. No. 1,251,940; Jan. 1; v. 246; p. 147.
Automobile signal device. G. Brazee. No. 1,252,655; Jan. 8; v. 246; p. 385.
Automobile spring-wheel. L. B. Frahn. No. 1,254,492; Jan. 22; v. 246; p. 965.
Automobile starting, generating, and distributing apparatus. T. Zimmerman. No. 1,252,529; Jan. 8; v. 246; p. 348.
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Automobile tire-carrier. J. G. Perrin. No. 1,251,689; Jan. 1; v. 246; p. 75.
Automobile-top. B. H. Alvey. No. 1,251,731; Jan. 1; v. 246; p. 87.
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Automobiles and other vehicles and machines, Control mechanism for. W. J. P. Moore. No. 1,254,057; Jan. 22; v. 246; p. 840.
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Automobiles, Driving-runner for. J. Marcinko. No. 1,254,824; Jan. 29; v. 246; p. 1093.
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Automobiles, Stationary power-transmitting attachment for. T. Paulsen. No. 1,254,844; Jan. 29; v. 246; p. 1100.
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Boll-weevil catcher. T. C. Hines. No. 1,253,176; Jan. 8; v. 246; p. 538.
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Boll-weevils, Compound for destroying. C. A. Bryant. No. 1,253,832; Jan. 15; v. 246; p. 785.
Bolt and nut lock. J. F. O'Connor. No. 1,253,709; Jan. 15; v. 246; p. 723.

Belts and pipes, Device for pulling. A. L. Andrews. No. 1,254,961; Jan. 29; v. 246; p. 1133.
Book, Account-. A. Engelberg. No. 1,252,333; Jan. 1; v. 246; p. 257.
Book, Account deposit-. F. W. Smith, Jr. No. 1,252,961; Jan. 8; v. 246; p. 478.
Book-backing machine. J. Hren. No. 1,252,114; Jan. 1; v. 246; p. 197.
Book binding or covering machine. A. Bredenberg. No. 1,252,879; Jan. 8; v. 246; p. 448.
Book-drilling machine. G. B. Drach. No. 1,255,114; Jan. 29; v. 246; p. 1174.
Book-holder. C. H. Bartlett. No. 1,253,568; Jan. 15; v. 246; p. 682.
Book-holder. C. L. Boal. No. 1,254,569; Jan. 22; v. 246; p. 987.
Book, Loose-leaf page-. T. P. Martin, Sr. No. 1,254,052; Jan. 22; v. 246; p. 839.
Books, bound documents, and the like, Holder for. H. R. Applegate. No. 1,254,635; Jan. 22; v. 246; p. 1006.
Bookkeeping-machine. F. M. Holmes. No. 1,254,907; Jan. 29; v. 246; p. 1119.
Bookkeeping system. D. H. Otis. No. 1,253,714; Jan. 15; v. 246; p. 724.
Boring and grinding machine, Cylinder. F. A. Blachly. No. 1,252,994; Jan. 8; v. 246; p. 484.
Boring-tools, Making shanks for. E. T. McPherson. No. 1,254,715; Jan. 29; v. 246; p. 1060.
Bottle capping and sealing machine. A. Westlake. No. 1,252,377; Jan. 1; v. 246; p. 270.
Bottle carrier and opener, Combined. D. M. Stevens. No. 1,253,903; Jan. 15; v. 246; p. 777.
Bottle-carrying case. M. N. Hagen and G. H. Karstedt. No. 1,251,512; Jan. 1; v. 246; p. 18.
Bottle-cover-placing machine. T. G. Linderme. No. 1,252,460; Jan. 8; v. 246; p. 328.
Bottle filling and sealing machine. A. Calleson. No. 1,252,881; Jan. 8; v. 246; p. 448.
Bottle-filling apparatus. G. F. Helson. No. 1,253,820; Jan. 15; v. 246; p. 753.
Bottle head, Siphon-. L. Del Rivero. No. 1,252,318; Jan. 1; v. 246; p. 252.
Bottle, Non-refillable. J. Bart. No. 1,251,736; Jan. 1; v. 246; p. 88.
Bottle, Non-refillable. C. E. Cedervall. No. 1,255,079; Jan. 29; v. 246; p. 1165.
Bottle, Non-refillable. J. V. Fernandez. No. 1,254,896; Jan. 29; v. 246; p. 1116.
Bottle, Non-refillable. L. Landolfi. No. 1,254,915; Jan. 29; v. 246; p. 1121.
Bottle-safe. J. Paolicelli. No. 1,252,480; Jan. 8; v. 246; p. 335.
Box, Sheet-metal. J. Jennison and G. H. Higgins. No. 1,251,532; Jan. 1; v. 246; p. 25.
Box: *See*—
Automobile safety-box. Outlet-box.
Bag-box. Paper box.
Bare-box. Puzzle-box.
Boldable box. Quick-opening box.
Floor-box. Sand-box.
Fruit-box. Shipping-box.
Journal-box. Sound-box.
Match-dispensing box. Telephone coin-box.
Metallic box. Telephone collection-box.
Box, H. Leiman. No. 1,254,515; Jan. 22; v. 246; p. 972.
Box and making the same. R. G. Inwood. No. 1,252,120; Jan. 1; v. 246; p. 199.
Box-assembling machine. H. Carle. No. 1,251,963; Jan. 1; v. 246; p. 154.
Box-assembling machine. J. J. Miller. No. 1,252,014; Jan. 1; v. 246; p. 168.
Box-blank machine, Wire-bound. F. J. Grumme. No. 1,253,962; Jan. 15; v. 246; p. 793.
Box-covering machine. M. E. Peters, G. H. Fath, and A. F. Miller. No. 1,251,811; Jan. 1; v. 246; p. 111.
Box-end-stapling machine, Inside. E. Craig. No. 1,254,395; Jan. 22; v. 246; p. 938.
Box fastener and seal. W. M. Brooks. No. 1,252,370; Jan. 1; v. 246; p. 268.
Box-machine. C. Holly. No. 1,253,690; Jan. 15; v. 246; p. 717.
Box-making ejecting mechanism. C. Burnham. No. 1,252,546; Jan. 8; v. 246; p. 354.
Box-making machine. C. Burnham. No. 1,252,544; Jan. 8; v. 246; p. 353.
Box-making machine. C. Burnham. No. 1,252,545; Jan. 8; v. 246; p. 353.
Box-stay. H. L. Camp. No. 1,252,234; Jan. 1; v. 246; p. 229.
Box-toes, Manufacture of. J. H. Ordway. No. 1,252,298; Jan. 1; v. 246; p. 248.
Box-toes, Means for stiffening. J. H. Ordway. No. 1,251,914; Jan. 1; v. 246; p. 140.
Box-wrapping machines, Box-transferring mechanism for. M. E. Peters, G. H. Fath, and A. F. Miller. No. 1,251,815; Jan. 1; v. 246; p. 113.
Box-wrapping machines, Combined second and third stage turn-in and finishing treatment for. M. E. Peters, G. H. Fath, and A. F. Miller. No. 1,251,816; Jan. 1; v. 246; p. 113.
Box-wrapping machines, First-stage treatment for. M. E. Peters, G. H. Fath, and A. F. Miller. No. 1,251,813; Jan. 1; v. 246; p. 112.
Box-wrapping machines, Second-stage treatment for. M. E. Peters, G. H. Fath, and A. F. Miller. No. 1,251,814; Jan. 1; v. 246; p. 113.
Boxes, Rolling desk and form for solid-end. H. B. Walter. No. 1,253,754; Jan. 15; v. 246; p. 735.
Brace: *See*—
Bed-brace. Rail-brace.
Bed-spring brace.
Bracket: *See*—
Adjustable bracket. Shade-bracket.
Cabinet-bracket. Sink-bracket.
Bracket. J. Taussig. No. 1,254,170; Jan. 22; v. 246; p. 873.
Braiding-machines, Strand-guide for. A. Petersen. No. 1,254,066; Jan. 22; v. 246; p. 843.
Brake: *See*—
Automatic brake. Coaster-brake.
Automobile-brake. Electropneumatic brake.
Car-brake. Safety-brake.
Centrifugal-machine brake. Vehicle-brake.
Brake. J. H. Dickinson. No. 1,253,475; Jan. 15; v. 246; p. 656.
Brake device for motor-vehicles. C. Hulbert. No. 1,254,228; Jan. 22; v. 246; p. 890.
Brake mechanism, Auxiliary. R. B. Liedloff. No. 1,254,246; Jan. 22; v. 246; p. 894.
Brake systems, Automatic slack-adjuster for. G. Christenson. No. 1,251,643; Jan. 1; v. 246; p. 60.
Brake systems, Slack-take-up for fluid-pressure. G. Christenson. No. 1,251,641; Jan. 1; v. 246; p. 59.
Brake systems, Slack-take-up for fluid-pressure. G. Christenson. No. 1,251,642; Jan. 1; v. 246; p. 60.
Brassière. D. Kops. No. 1,252,124; Jan. 1; v. 246; p. 200.
Brassière. W. Kops. No. 1,253,052; Jan. 8; v. 246; p. 502.
Bread-knife. W. Anderson. No. 1,254,563; Jan. 22; v. 246; p. 986.
Bread-making. A. L. Frost. No. 1,254,494; Jan. 22; v. 246; p. 966.
Brick-drying apparatus. J. C. Boss. No. 1,253,925; Jan. 15; v. 246; p. 783.
Brick-handling apparatus. R. A. Fontaine. No. 1,252,896; Jan. 8; v. 246; p. 452.
Bricks, Treatment of furnace-. A. M. Duckham. No. 1,252,415; Jan. 8; v. 246; p. 315.
Bridge. H. Gelner. No. 1,253,809; Jan. 15; v. 246; p. 750.
Bridge, Bascule-. T. E. Brown, Jr. No. 1,251,634; Jan. 1; v. 246; p. 57.
Bridge, Bascule-. T. E. Brown, Jr. No. 1,254,772; Jan. 29; v. 246; p. 1078.
Bridge, Bascule-. T. E. Brown, Jr. No. 1,254,773; Jan. 29; v. 246; p. 1078.
Bridge construction. W. G. Adams. No. 1,252,873; Jan. 8; v. 246; p. 446.
Bridge, Side-paneled. O. J. Westcott. No. 1,252,066; Jan. 1; v. 246; p. 184.
Brooder, J. F. MacKay, (Reissue.) No. 14,419; Jan. 8; v. 246; p. 546.
Broom-clamping machine. N. H. Beebe. No. 1,252,992; Jan. 8; v. 246; p. 483.
Broom construction. W. E. Hockett. No. 1,254,138; Jan. 22; v. 246; p. 865.
Broom-handle, Detachable. E. E. Stokes. No. 1,253,904; Jan. 15; v. 246; p. 777.
Brush, Bottle-. U. G. Drummond. No. 1,254,217; Jan. 22; v. 246; p. 886.
Brush, Fountain-. C. J. Busch. No. 1,253,934; Jan. 15; v. 246; p. 785.
Brush, Fountain-. J. J. Hardin. No. 1,253,032; Jan. 8; v. 246; p. 496.
Brush, Fountain shaving-. F. E. Ahlering. No. 1,252,380; Jan. 8; v. 246; p. 305.
Brush-holding device. L. W. Turnbull. No. 1,251,845; Jan. 1; v. 246; p. 122.
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Brushes, Attachment for fountain-. A. E. Iveson. No. 1,253,978; Jan. 15; v. 246; p. 798.
Buckle. H. E. Adams. No. 1,253,455; Jan. 15; v. 246; p. 651.
Buckle, Belt-. H. Beaudry. No. 1,253,336; Jan. 15; v. 246; p. 614.
Bucksaw. D. W. Smith. No. 1,253,898; Jan. 15; v. 246; p. 776.
Building construction. C. T. McFarland. No. 1,254,249; Jan. 22; v. 246; p. 895.
Buildings, Constructing. T. H. Kane. No. 1,253,387; Jan. 15; v. 246; p. 630.
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Bulletin or notice board. W. C. Achterkirch. No. 1,252,640; Jan. 8; v. 246; p. 381.
Bumper and tire-carrier, Combined. R. S. Hartzler. No. 1,254,404; Jan. 22; v. 246; p. 941.

Bunsen burner. L. Page. No. 1,254,847; Jan. 22; v. 246; p. 924.
Buoy, Marine. F. W. Erickson. No. 1,252,559; Jan. 8; v. 246; p. 358.
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Burglar-alarm. A. Hagel, Jr. No. 1,251,882; Jan. 1; v. 246; p. 132.
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Burner: *See*—
Bunsen burner. Lamp-burner.
Dental-blowpipe burner. Liquid-fuel burner.
Gas-burner. Oil-burner.
Gasolene-burner. Stump-burner.
Hydrocarbon-burner. Wall-burner.
Burner. H. E. Currey. No. 1,252,552; Jan. 8; v. 246; p. 356.
Burner. C. W. Davis. No. 1,254,581; Jan. 22; v. 246; p. 990.
Burner. J. P. Truesdell. No. 1,254,293; Jan. 22; v. 246; p. 909.
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Burning apparatus, Refuse and low-grade-fuel. T. C. Sebring. No. 1,252,041; Jan. 1; v. 246; p. 176.
Bushing for fastening boxes, Screw-. E. McCaffray. No. 1,251,676; Jan. 1; v. 246; p. 71.
Bush and stay-fastening. H. T. Ozanne. No. 1,253,521; Jan. 15; v. 246; p. 668.
Butter-dispensing apparatus. N. Kavgas and W. K. Zweeres. No. 1,253,602; Jan. 15; v. 246; p. 691.
Button, P. Schneider. No. 1,251,927; Jan. 1; v. 246; p. 143.
Button-attaching device. G. R. Mitchell. No. 1,254,055; Jan. 22; v. 246; p. 840.
Button, Collar-. G. Portnoy. No. 1,252,171; Jan. 1; v. 246; p. 213.
Button snap-fastener. G. Flessa. No. 1,254,789; Jan. 29; v. 246; p. 1083.
Cabinet bracket, Kitchen-. F. Coss. No. 1,252,091; Jan. 1; v. 246; p. 191.
Cabinet, Dispensing-. F. Klstemann. No. 1,254,509; Jan. 22; v. 246; p. 970.
Cabinet, Display-. J. B. Belk. No. 1,253,125; Jan. 8; v. 246; p. 523.
Cabinet, Heat-resisting. R. H. Dick and A. G. Bloomdahl. No. 1,252,790; Jan. 8; v. 246; p. 423.
Cabinet, Medicine-. A. S. Garman. No. 1,254,182; Jan. 22; v. 246; p. 863.
Cabinet, Record-. F. Coss. No. 1,253,008; Jan. 8; v. 246; p. 488.
Cabinet, Store-. W. H. Delaney. No. 1,253,356; Jan. 15; v. 246; p. 620.
Cabinet, Wardrobe-. G. H. Wheary. No. 1,251,947; Jan. 1; v. 246; p. 149.
Cabinet, Yeast-cake. M. Dorion. No. 1,252,327; Jan. 1; v. 246; p. 255.
Cable take-up. H. L. and F. W. Zimmerman. No. 1,252,071; Jan. 1; v. 246; p. 185.
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Cable-tester. C. D. Stewart. No. 1,254,288; Jan. 22; v. 246; p. 907.
Calculating-machine. E. E. Phinney. No. 1,253,879; Jan. 15; v. 246; p. 771.
Calculating-machine. M. Teetor. No. 1,252,738; Jan. 8; v. 246; p. 409.
Calculating-machine. R. Von Reppert. No. 1,253,310; Jan. 15; v. 246; p. 605.
Calendar. J. Appelbaum. No. 1,253,562; Jan. 15; v. 246; p. 680.
Calendar. B. Sykes. No. 1,251,838; Jan. 1; v. 246; p. 121.
Calendar-machine guard. M. Teleszky. No. 1,251,840; Jan. 1; v. 246; p. 121.
Calender-rolls, Device for cooling. J. A. Temple and L. H. Bullard. No. 1,253,298; Jan. 15; v. 246; p. 602.
Calipers. R. J. Dunn. No. 1,251,648; Jan. 1; v. 246; p. 62.
Call-answering meter for cord-circuits. H. D. Currier. No. 1,251,967; Jan. 1; v. 246; p. 155.
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Camera. F. Greene. No. 1,251,654; Jan. 1; v. 246; p. 64.
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Camera. H. G. Mordaunt. No. 1,253,079; Jan. 8; v. 246; p. 510.
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Camera, Autographic. P. C. Asteen. No. 1,251,915; Jan. 1; v. 246; p. 140.
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Camera film-shifting device. P. Brauner and L. W. Losen. No. 1,253,205; Jan. 15; v. 246; p. 574.
Camera film-signal. H. G. Mordaunt. No. 1,253,075; Jan. 8; v. 246; p. 509.
Camera-film-winding device. H. G. Mordaunt. No. 1,253,078; Jan. 8; v. 246; p. 510.
Camera-finder. C. C. Carpenter. No. 1,253,144; Jan. 8; v. 246; p. 529.
Camera-focusing attachment. M. E. Peterson. No. 1,251,690; Jan. 1; v. 246; p. 75.
Camera, Moving-picture. W. N. Selig. No. 1,253,285; Jan. 15; v. 246; p. 598.
Camera, Panoramic. W. F. Folmer. No. 1,251,494; Jan. 1; v. 246; p. 12.
Camera-shader. M. W. Collet. No. 1,254,579; Jan. 22; v. 246; p. 990.
Camera-shutter control. E. J. Hunt. No. 1,254,503; Jan. 22; v. 246; p. 968.
Camera-shutters, Means for operating. B. L. Parker. No. 1,254,931; Jan. 19; v. 246; p. 1125.
Cameras, Automatic film-feed for. G. E. Stansell. No. 1,254,373; Jan. 22; v. 246; p. 932.
Cameras, Device to prevent double exposure in. O. H. Wilber, Jr. No. 1,253,321; Jan. 15; v. 246; p. 609.
Cameras, Indicia device for. W. F. Gongaware. No. 1,254,590; Jan. 22; v. 246; p. 993.
Can: *See*—
Garbage-can. Oil-can.
Key-opening can. Paper can.
Can. M. B. Pratt. No. 1,252,494; Jan. 8; v. 246; p. 339.
Can-draining machine. S. Pittaluga. No. 1,254,269; Jan. 22; v. 246; p. 901.
Can-end separating and feeding machine. A. L. Duncan and C. E. Forry. No. 1,253,797; Jan. 15; v. 246; p. 747.
Can-handling device. E. Bonk and M. Plotka. No. 1,252,226; Jan. 1; v. 246; p. 227.
Can holding and opening device. S. P. Hartman. No. 1,252,108; Jan. 1; v. 246; p. 196.
Can-washing machines, Can-discharging mechanism for. H. D. Lathrop and W. H. Paulson. No. 1,252,453; Jan. 8; v. 246; p. 326.
Cans, Machine for casing or boxing. J. L. Whitehurst and C. H. Wild. No. 1,253,997; Jan. 15; v. 246; p. 803.
Cans, Magnetic lifter for. A. L. Anderson. No. 1,251,732; Jan. 1; v. 246; p. 87.
Canned goods, Means for and method of operating on. P. Riesenecker. No. 1,252,302; Jan. 1; v. 246; p. 249.
Canning apparatus. M. M. Lockard. No. 1,253,843; Jan. 15; v. 246; p. 761.
Canning apparatus. W. Mueller. No. 1,252,926; Jan. 8; v. 246; p. 461.
Candy-starching device. B. G. Bremer. No. 1,252,390; Jan. 8; v. 246; p. 308.
Cane, Increasing the yield of sugar-. C. F. Eckart. No. 1,252,101; Jan. 1; v. 246; p. 194.
Cane-stripping apparatus. M. M. Muchison. No. 1,254,926; Jan. 29; v. 246; p. 1124.
Canopy. J. J. Mamaux. No. 1,251,904; Jan. 1; v. 246; p. 137.
Car-brake. J. Scott. No. 1,254,440; Jan. 22; v. 246; p. 951.
Car-buffer mechanism, Passenger-. J. F. O'Connor. No. 1,251,685; Jan. 1; v. 246; p. 73.
Car cagers, Control mechanism for automatic safety mine-. J. A. Nolan. No. 1,254,622; Jan. 22; v. 246; p. 1003.
Car construction. G. B. Dorey. No. 1,251,647; Jan. 1; v. 246; p. 62.
Car construction. K. F. Nystrom. No. 1,254,346; Jan. 22; v. 246; p. 924.
Car construction. W. H. Yost. No. 1,251,609; Jan. 1; v. 246; p. 50.
Car-coupling-operating device. F. M. Turner and J. Dahlstrom. No. 1,252,061; Jan. 1; v. 246; p. 183.
Car-door, Flush. E. W. Hartough. No. 1,252,004; Jan. 1; v. 246; p. 165.
Car door, Freight-. W. Queenan and C. Farwell. No. 1,252,026; Jan. 1; v. 246; p. 172.
Car door, Grain-. E. O. Doak. No. 1,253,160; Jan. 8; v. 246; p. 533.
Car-door, Waterproof. G. C. Atkinson. No. 1,251,855; Jan. 1; v. 246; p. 125.
Car-doors, Combined reinforcing-plate and hinge for. L. G. Miller and E. C. Long. No. 1,254,257; Jan. 22; v. 246; p. 898.
Car draft-gear, Railway-. J. O. Neikirk. No. 1,251,911; Jan. 1; v. 246; p. 139.
Car, Dump-. A. M. Gow. No. 1,251,770; Jan. 1; v. 246; p. 99.
Car dumps, Tilting platform for mining-. J. A. Nolan. No. 1,254,621; Jan. 22; v. 246; p. 1003.
Car end. C. W. Dake. No. 1,254,030; Jan. 22; v. 246; p. 883.
Car end, Sheet-metal. V. E. Sisson. No. 1,254,860; Jan. 29; v. 246; p. 1105.
Car-fender. H. Edrington. No. 1,252,558; Jan. 8; v. 246; p. 358.
Car fender, Railway-. T. Dougherty. No. 1,253,014; Jan. 8; v. 246; p. 490.
Car-floor construction, Freight-. B. M. Mathias. No. 1,254,920; Jan. 29; v. 246; p. 1122.
Car friction draft-gear, Railway-. W. H. Miner. No. 1,252,359; Jan. 1; v. 246; p. 263.
Car, Interchangeable-unit. H. W. Kirchner. No. 1,252,810; Jan. 8; v. 246; p. 428.

Car-lighting system. J. L. Creveling. No. 1,251,479; Jan. 1; v. 246; p. 8.
Car-mover. A. J. Maine. No. 1,252,354; Jan. 1; v. 246; p. 262.
Car, Railway construction-. W. E. Bell. No. 1,254,303; Jan. 22; v. 246; p. 912.
Car-seat. C. L. Thompson. No. 1,253,196; Jan. 8; v. 246; p. 543.
Car-seat, Shiftable. S. A. Walker. No. 1,252,747; Jan. 8; v. 246; p. 412.
Car-seat-shifting mechanism. S. A. Walker. No. 1,252,748; Jan. 8; v. 246; p. 412.
Car-seat support. J. E. Kilburn. No. 1,253,047; Jan. 8; v. 246; p. 500.
Car stop or brake. J. A. Kohl. No. 1,252,589; Jan. 8; v. 246; p. 366.
Car, Street-railway. F. Carson. No. 1,252,236; Jan. 1; v. 246; p. 230.
Car, Tank-. H. P. Grohm. No. 1,253,028; Jan. 8; v. 246; p. 495.
Car, Tank-. E. D. Levy and H. W. Jacobs. No. 1,251,978; Jan. 1; v. 246; p. 158.
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Car, Tank-. F. M. Stevenson. No. 1,253,743; Jan. 15; v. 246; p. 732.
Car-tilting apparatus. J. McMyler. No. 1,253,068; Jan. 8; v. 246; p. 507.
Car-unloading apparatus, Bottom-dump-. O. G. Petersen. No. 1,252,717; Jan. 8; v. 246; p. 403.
Car-wheel. W. M. Duncan. No. 1,253,478; Jan. 15; v. 246; p. 656.
Car-wheel. W. B. Floyd. No. 1,252,895; Jan. 8; v. 246; p. 452.
Car-wheel. M. W. Witham. No. 1,254,557; Jan. 22; v. 246; p. 984.
Cars, Adjustable side bearing for railway-. J. F. O'Connor. No. 1,252,295; Jan. 1; v. 246; p. 247.
Cars, Band-anchor for tank-. G. E. Mittlinger. No. 1,254,525; Jan. 22; v. 246; p. 975.
Cars, carriages, and other vehicles, Door-fastening for motor-. J. C. Ralls. No. 1,252,027; Jan. 1; v. 246; p. 172.
Cars, Compression-lock for dump-. W. L. Burner, J. D. Benbow, and D. Greene. No. 1,254,201; Jan. 22; v. 246; p. 882.
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Engine-starter. T. C. Christie and E. A. Edmon. No. 1,253,150; Jan. 8; v. 246; p. 530.
Engine-starter. E. I. Deutsch. No. 1,254,215; Jan. 22; v. 246; p. 885.
Engine-starter. F. Hoffman. No. 1,251,523; Jan. 1; v. 246; p. 21.
Engine-starter. J. H. Richards. No. 1,254,851; Jan. 29; v. 246; p. 1102.
Engine-starter. H. R. Sieverkropp. No. 1,253,287; Jan. 15; v. 246; p. 599.
Engine starter, Internal-combustion-. G. R. Wadsworth. No. 1,251,711; Jan. 1; v. 246; p. 80.
Engine-starting apparatus. H. G. O'Neill. No. 1,253,871; Jan. 15; v. 246; p. 768.
Engine-starting apparatus, Internal-combustion-. N. A. Christensen. No. 1,253,466; Jan. 15; v. 246; p. 653.
Engine starting, lighting, and ignition system. C. F. Kettering. No. 1,254,511; Jan. 29; v. 246; p. 1068.
Engine-starting means, Internal-combustion-. L. Wygodsky. No. 1,253,452; Jan. 15; v. 246; p. 650.
Engine-starting mechanism, Combustion-. A. Büchi. No. 1,254,774; Jan. 29; v. 246; p. 1078.
Engine-stop, Automatic. G. Huhndorf and T. J. Holycross. No. 1,253,977; Jan. 15; v. 246; p. 797.
Engine-trouble detector. S. Lazarus. No. 1,254,416; Jan. 22; v. 246; p. 949.
Engines, Automatic air-controlling device for gas-. W. H. Guthrie. No. 1,253,963; Jan. 15; v. 246; p. 793.
Engines, Automatic fuel-feed for automobile-. E. A. Huene. No. 1,254,596; Jan. 22; v. 246; p. 995.

Engines, Bull-gear and driving-wheel for traction-. L. A. La Fond. No. 1,254,241; Jan. 22; v. 246; p. 893.
Engines, Controlling system for explosive-. R. B. Hewitt. No. 1,252,694; Jan. 8; v. 246; p. 396.
Engines, Electric starter for internal-combustion. A. H. Midgley. No. 1,254,923; Jan. 29; v. 246; p. 1123.
Engines, Electrical ignition for internal-combustion. A. Graham. No. 1,253,567; Jan. 15; v. 246; p. 687.
Engines, Electrical system for use with internal-combustion. J. K. Delano. No. 1,253,217; Jan. 15; v. 246; p. 578.
Engines, Fluid-fuel-supply apparatus for internal-combustion. C. E. Steere. No. 1,253,642; Jan. 15; v. 246; p. 702.
Engines, Fuel-supplying device for internal-combustion. H. M. Reichenbach. No. 1,254,355; Jan. 22; v. 246; p. 920.
Engines, Lubricant-supplying device for. J. C. Williamson. No. 1,251,606; Jan. 1; v. 246; p. 49.
Engines, Means for controlling the supply of liquid fuel to internal-combustion. E. W. Petter. No. 1,252,166; Jan. 1; v. 246; p. 212.
Engines, Nebulizer and vaporizer for internal-combustion. H. M. Reichenbach. No. 1,254,356; Jan. 22; v. 246; p. 927.
Engines, Sectional radiator for internal-combustion. A. Emele. No. 1,254,893; Jan. 29; v. 246; p. 1115.
Engines, Spring-starter of automobile-. J. K. Stewart. No. 1,252,626; Jan. 8; v. 246; p. 377.
Entrance-switch. C. D. Platt. No. 1,252,492; Jan. 8; v. 246; p. 338.
Envelop-clasp. G. Rottman. No. 1,253,427; Jan. 15; v. 246; p. 643.
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Envelop-fastening device. A. Schieber. No. 1,252,848; Jan. 8; v. 246; p. 440.
Envelop, Letter-sheet. H. Clausen. No. 1,254,001; Jan. 15; v. 246; p. 804.
Envelop-machine. C. O. Ekvall. No. 1,254,666; Jan. 29; v. 246; p. 1043.
Envelop-machine. W. P. Huguelet. No. 1,253,383; Jan. 15; v. 246; p. 629.
Envelop-machine. L. E. Labombarde and M. H. Sidebotham. No. 1,253,054; Jan. 8; v. 246; p. 502.
Envelop-machine. J. E. Trevor. No. 1,252,968; Jan. 8; v. 246; p. 475.
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Etching-machine. C. N. Wendelgass. No. 1,254,751; Jan. 29; v. 246; p. 1070.
Evaporator. R. W. King and H. G. Miller. No. 1,254,606; Jan. 22; v. 246; p. 999.
Excavating-machine. C. B. King, F. Renzenberger, and G. Holmes. No. 1,254,702; Jan. 29; v. 246; p. 1055.
Excavating-machine. C. F. Rayburn. No. 1,252,175; Jan. 1; v. 246; p. 214.
Exercise and game apparatus. T. Daly. No. 1,252,407; Jan. 8; v. 246; p. 313.
Exercising and massaging device. G. W. Briggs. No. 1,254,974; Jan. 29; v. 246; p. 1136.
Exercising device, Electrical. A. Quinones. No. 1,253,885; Jan. 15; v. 246; p. 773.
Exhibitor for cards, pictures, signs, and the like, Changeable. H. J. Troxell. No. 1,254,746; Jan. 29; v. 246; p. 1069.
Expansion-joint. B. S. McConnell. No. 1,252,913; Jan. 8; v. 246; p. 457.
Explosion-engine. L. C. Vanderlip. No. 1,251,847; Jan. 1; v. 246; p. 122.
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Explosive-engine. R. E. Meyer. No. 1,252,471; Jan. 8; v. 246; p. 332.
Explosive-engine. F. W. Williams. No. 1,252,757; Jan. 8; v. 246; p. 415.
Explosive mixtures, Means for providing. B. L. Rinehart. No. 1,254,356; Jan. 22; v. 246; p. 927.
Explosive substance. C. R. Jahn. No. 1,253,691; Jan. 15; v. 246; p. 718.
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Centrifugal extractor. Cotter-pin extractor.
Eye, Artificial. J. O. Rosser. No. 1,253,888; Jan. 15; v. 246; p. 773.
Eye-shade. C. B. Shoemaker. No. 1,255,057; Jan. 29; v. 246; p. 1158.
Eyeglass-mounting. J. Rosenblatt. No. 1,251,581; Jan. 1; v. 246; p. 41.
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Eyeglasses. W. N. Moore. No. 1,252,139; Jan. 1; v. 246; p. 204.
Eyelets, Machine for setting blind. J. W. Barna. No. 1,253,121; Jan. 8; v. 246; p. 522.
Eyepiece-cape, Making. J. J. Bausch. No. 1,254,646; Jan. 29; v. 246; p. 1038.
Eyes for dolls, display figures, and the like, Artificial. S. Marcus. No. 1,252,469; Jan. 8; v. 246; p. 331.
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Knit fabric.
Fabric. W. S. Neetler. No. 1,252,018; Jan. 1; v. 246; p. 170.
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Fan. F. and P. J. Stanislawski. No. 1,254,444; Jan. 22; v. 246; p. 951.
Fan and alarm-signal, Combined. H. Hastings. No. 1,253,488; Jan. 15; v. 246; p. 659.
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Feed-trough for poultry-crates. D. L. Quinn. No. 1,253,723; Jan. 15; v. 246; p. 727.
Feeder and drinking-fountain, Poultry. G. W. Beach and C. Von Culin. No. 1,254,193; Jan. 22; v. 246; p. 880.
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Garment and making the same. A. D. Barr. No. 1,253,884; Jan. 15; v. 246; p. 613.
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Fertilizer and seed-planter, Combined. L. Willis. No. 1,253,759; Jan. 15; v. 246; p. 736.
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Filter for use on internal-combustion engines, Oil-. L. Costalen. No. 1,253,576; Jan. 15; v. 246; p. 684.
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Fire-cracker. T. G. Hitt. No. 1,253,597; Jan. 15; v. 246; p. 689.
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Fish driving, loading, and delivery system. A. F. C. Schnoor. No. 1,252,500; Jan. 8; v. 246; p. 340.
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Flange-grooves and molds therefor, Method of forming. J. H. Quinby. No. 1,255,050; Jan. 29; v. 246; p. 1157.
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Floor-covering. R. G. Jackson. No. 1,255,095; Jan. 29; v. 246; p. 1169.
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Flow of fluid, Pressure-regulator for a. C. H. Smoot. No. 1,252,623; Jan. 8; v. 246; p. 376.
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Fluid, Method and apparatus for transporting incompressible. H. Wagner. No. 1,253,548; Jan. 15; v. 246; p. 676.
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Folding chair. W. E. Kidder. No. 1,254,329; Jan. 22; v. 246; p. 919.
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Food products, Means for preparing. A. Fay. No. 1,251,878; Jan. 1; v. 246; p. 131.
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Motor-cycle fork.
Form and hanger, Garment. H. Moschcowits. No. 1,254,719; Jan. 29; v. 246; p. 1061.
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Drinking-fountain. Water-fountain.
Frame: *See*—
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Drawing-frame. Window-frame.
Picture-frame.
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Fruit-box, Sanitary collapsible. R. B. McKee. No. 1,251,796; Jan. 1; v. 246; p. 106.
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Fruit-separating apparatus, Gravity. G. D. Parker. No. 1,252,833; Jan. 8; v. 246; p. 435.
Fruit, Treating dried. S. Katzprowsky. No. 1,253,045; Jan. 8; v. 246; p. 500.
Fuel and air feeder and mixer, Pulverized-. G. W. Clendon. No. 1,254,393; Jan. 22; v. 246; p. 937.
Fuel-charge-supply apparatus. J. Good. No. 1,253,681; Jan. 15; v. 246; p. 714.
Fuel-feeding means. G. W. Bothwell. No. 1,254,768; Jan. 29; v. 246; p. 1076.
Fuel into combustion-chambers, Method of and apparatus for injecting. J. O. Fisher. No. 1,252,254; Jan. 1; v. 246; p. 235.
Fuel, Manufacturing gaseous. J. R. Rose. No. 1,252,033; Jan. 1; v. 246; p. 174.
Fuel, Manufacturing gaseous. J. R. Rose. No. 1,254,360; Jan. 22; v. 246; p. 926.
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Orchard-heater.
Heater. R. W. Averitt. No. 1,253,118; Jan. 8; v. 246; p. 522.
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Hydrocarbonaceous or bituminous product and making the same. T. M. Hart. No. 1,252,433; Jan. 8; v. 246; p. 320.
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Center-indicator. Street-indicator.
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Lantern-hook. H. J. Winn. No. 1,255,071; Jan 29; v. 246; p. 1163.
Lantern, Tubular. B. H. Pomeroy. No. 1,252,836; Jan. 8; v. 246; p. 436.
Lap-weld and producing same. J. H. Ploehn. No. 1,252,025; Jan. 1; v. 246; p. 172.
Lasting-machine. R. F. McFeely. No. 1,254,917; Jan. 29; v. 246; p. 1121.
Latch. F. C. James. No. 1,251,781; Jan. 1; v. 246; p. 102.
Latch and lock, Door. J. Bransford. No. 1,251,631; Jan. 1; v. 246; p. 56.
Lath-board, Machine for making. S. M. Ford. No. 1,251,879; Jan. 1; v. 246; p. 131.
Latch, Door-. H. M. Tompkins and H. K. Koppin. No. 1,253,545; Jan. 15; v. 246; p. 675.
Latch, Emergency lift-. F. J. Le Beau. No. 1,252,454; Jan. 8; v. 246; p. 326.
Latch for automobile-doors. J. Ritchie. No. 1,253,580; Jan. 15; v. 246; p. 671.
Latch protector, Spring-. J. A. White. No. 1,252,524; Jan. 8; v. 246; p. 347.
Latch-releaser. S. Kulich. No. 1,254,240; Jan. 22; v. 246; p. 893.
Latch, Reversible cabinet-. F. E. Buchanan. No. 1,254,882; Jan. 29; v. 246; p. 1112.
Latch, Roller-. G. Labrie. No. 1,253,393; Jan. 15; v. 246; p. 633.
Latch, Switch-stand. F. C. Anderson. No. 1,253,200; Jan. 15; v. 246; p. 573.
Lath-board, Machine for making. S. M. Ford. No. 1,251,879; Jan. 1; v. 246; p. 131.
Lathe. W. Kistler and A. L. Butcher. No. 1,252,271; Jan. 1; v. 246; p. 240.
Lathe. F. Müller. No. 1,252,928; Jan. 8; v. 246; p. 462.
Lathe, Combination turret-. S. K. Landis. No. 1,251,542; Jan. 1; v. 246; p. 29.
Lathe head-stock. F. Hardinge. No. 1,252,346; Jan. 1; v. 246; p. 260.
Lathes and the like, Work-holding mechanism for. W. T. Lingo. No. 1,252,274; Jan. 1; v. 246; p. 241.
Laundry apparatus. H. Braunlich. No. 1,254,972; Jan. 29; v. 246; p. 1136.
Laundry-drier. C. J. Holub. No. 1,254,595; Jan. 22; v. 246; p. 995.
Laundry-marking machine. C. C. Mitchell. No. 1,253,863; Jan. 15; v. 246; p. 767.
Lawn-trimmer. G. H. F. Ehmcke. No. 1,252,675; Jan. 8; v. 246; p. 391.
Lawn-trimmer. A. Huberty. No. 1,254,140; Jan. 22; v. 246; p. 866.
Laying out goods, Machine for. C. E. Clark. No. 1,254,300; Jan. 22; v. 246; p. 914.
Lead, Treating sulfid ores of. R. De Luce. No. 1,251,485; Jan. 1; v. 246; p. 10.
Lead-wire terminal. B. H. Oestricher. No. 1,255,037; Jan. 29; v. 246; p. 1153.
Leak-stopper. E. L. Sons. No. 1,253,293; Jan. 15; v. 246; p. 601.
Leather-cutting machine. J. C. Prims. No. 1,252,172; Jan. 1; v. 246; p. 218.
Ledger-holder. C. H. Bartlett. No. 1,253,567; Jan. 15; v. 246; p. 681.
Legging, Army-. C. D'Angelo. No. 1,254,462; Jan. 22; v. 246; p. 957.
Lens-grooving machine. F. B. Marchant. No. 1,254,253; Jan. 22; v. 246; p. 896.
Lens, Ophthalmic. L. Bell. No. 1,253,998; Jan. 15; v. 246; p. 803.
Letter-sheets or cards, Machine for the manufacture of multiple. A. and A. H. Holmes. No. 1,253,824; Jan. 15; v. 246; p. 755.
Levee-breaks, Repairing. C. De Meyer. No. 1,254,717; Jan. 29; v. 246; p. 1060.
Level and guide, Builder's. J. M. Kemp. No. 1,251,785; Jan. 1; v. 246; p. 103.
Level, Hand-. W. S. Fallis. No. 1,253,163; Jan. 8; v. 246; p. 534.
Leveling device. E. A. Butler and W. A. Nichols. No. 1,254,574; Jan. 22; v. 246; p. 989.
Lever-locking device. G. C. Jensen. No. 1,253,384; Jan. 15; v. 246; p. 629.
Life-boats, Winch mechanism for raising and lowering. E. L. M. Sivard. No. 1,253,541; Jan. 15; v. 246; p. 673.
Life-buoy. T. S. Heyward. No. 1,253,034; Jan. 8; v. 246; p. 497.
Life-preserver. M. Baron. No. 1,253,122; Jan. 8; v. 246; p. 523.
Life-preserver. W. G. Richardson. No. 1,252,842; Jan. 8; v. 246; p. 438.
Life-saving suit. W. Gieracki. No. 1,253,370; Jan. 15; v. 246; p. 625.
Lifter: *See*—
Clothes-lifter. Picture-lifter.
Cooking-utensil lifter. Plate-lifter.
Doughnut-lifter. Pot and pan lifter.
Invalid-lifter. Valve-lifter.
Lifting and lowering apparatus. W. F. Irrgang. No. 1,252,179; Jan. 8; v. 246; p. 539.
Lifting-jack. W. Gries. No. 1,254,797; Jan. 29; v. 246; p. 1085.
Lifts and for building logs or heel-blanks therefrom, Machine for cutting pieced. J. E. Mitchell. No. 1,252,136; Jan. 1; v. 246; p. 203.
Light: *See*—
Automobile turning-signal light. Electric light.
Vehicle-curtain light.
Light and air transmitting apparatus, Combined. D. M. Macduff. No. 1,254,520; Jan. 22; v. 246; p. 973.

Light-transmitting bowls and reflectors, Holder for. E. L. White. No. 1,252,067; Jan. 1; v. 246; p. 184.
Light-transmitting bowls, Holder for. E. L. White. No. 1252,977; Jan. 8; v. 246; p. 478.
Lighting device, Semi-indirect. A. S. Powell. No. 1,254,728; Jan. 29; v. 246; p. 1064.
Lighting-fixture. A. A. Austin. No. 1,253,458; Jan. 15; v. 246; p. 651.
Lighting-fixture. B. Long and W. C. Burton. No. 1,254,247; Jan. 22; v. 246; p. 895.
Lighting-fixture. H. Pickhardt. No. 1,253,881; Jan. 15; v. 246; p. 771.
Lightning-arrester. N. J. Conrad. No. 1,251,754; Jan. 1; v. 246; p. 94.
Limber. H. Jakobason. No. 1,251,890; Jan. 1; v. 246; p. 134.
Line-shaft lubricator. J. B. Keating. No. 1,253,837; Jan. 15; v. 246; p. 759.
Lingerie-clasp. A. and C. H. Kestenman. No. 1,252,906; Jan. 8; v. 246; p. 456.
Lining, Metal. A. A. Zeitler. No. 1,254,558; Jan. 22; v. 246; p. 985.
Link, Detachable. W. B. Schreyer. No. 1,252,184; Jan. 1; v. 246; p. 216.
Link-work-joint. L. Coatalen. No. 1,251,965; Jan. 1; v. 246; p. 154.
Linotype-machine. C. C. Randall. No. 1,253,726; Jan. 15; v. 246; p. 727.
Liquid-diluting apparatus. A. M. Garcia y Garcia. No. 1,254,792; Jan. 29; v. 246; p. 1084.
Liquid-elevator. A. A. Atkins. No. 1,254,760; Jan. 29; v. 246; p. 1073.
Liquid-evaporating apparatus. E. Hart. No. 1,254,689; Jan. 29; v. 246; p. 1051.
Liquid-fuel burner. E. C. Kahn. No. 1,254,507; Jan. 22; v. 246; p. 969.
Liquid-fuel burner. J. Lieber. No. 1,254,145; Jan. 22; v. 246; p. 867.
Liquid fuels, Combustion of. S. Fachini. No. 1,252,793; Jan. 8; v. 246; p. 424.
Liquid-supply gage. W. Jay. No. 1,251,668; Jan. 1; v. 246; p. 68.
Liquid-treating apparatus. C. H. Campbell. No. 1,253,347; Jan. 15; v. 246; p. 618.
Liquids having different boiling-points, Separating. G. R. Bamford, T. H. Miller, and B. Torrey, Jr. No. 1,252,725; Jan. 8; v. 246; p. 405.
Liquids, Recovery of fatty and other matters from. T. W. Barber. No. 1,251,621; Jan. 1; v. 246; p. 53.
Liquids to remove dissolved salts, Treating. H. L. Doherty. No. 1,251,486; Jan. 1; v. 246; p. 10.
Litter-carrier, Automatic. A. J. Neeb. No. 1,252,477; Jan. 8; v. 246; p. 334.
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Lock: *See*—
Alarm-lock.
Automatic lock.
Automobile-lock.
Automobile-steering-wheel lock.
Bolt and nut lock.
Combination-lock.
Door-lock.
Electric-switch combination-lock.
Indicator-lock.
Nut and bolt lock.
Nut-lock.
Padlock.
Permutation-lock.
Presser-foot lock.
Recording-lock.
Sash-lock.
Spring-lock.
Trunk-lock.
Vehicle-steering-gear lock.
Whip-socket lock.
Window-lock.
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Lock and latch, Combined. S. R. Fraim. No. 1,253,679; Jan. 15; v. 246; p. 714.
Lock-case. S. H. Fraim. No. 1,253,677; Jan. 15; v. 246; p. 713.
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Locks, Indexing mechanism for permutation-. E. G. Eldridge. No. 1,254,783; Jan. 29; v. 246; p. 1081.
Locks, Ward-cylinder for. S. R. Fraim. No. 1,253,678; Jan. 15; v. 246; p. 714.
Locomotive. N. W. Storer. No. 1,252,052; Jan. 1; v. 246; p. 180.
Locomotive, Combustion-engine. R. A. Furrer. No. 1,254,034; Jan. 22; v. 246; p. 834.
Locomotive-gearing. J. Walton. No. 1,252,519; Jan. 8; v. 246; p. 345.
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Locomotives, Rod-drive for. W. E. Woodard. No. 1,253,451; Jan. 15; v. 246; p. 650.
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Log-carriage coupling mechanism. C. W. Aue. No. 1,252,644; Jan. 8; v. 246; p. 383.
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Logging apparatus. I. Smith. No. 1,254,545; Jan. 22; v. 246; p. 981.
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Loom warp stop-motion. J. Northrop. No. 1,252,292; Jan. 1; v. 246; p. 246.
Loom weft-feeler. H. A. Owen. No. 1,251,687; Jan. 1; v. 246; p. 74.
Looms, Filling-catcher for. W. H. Chase. No. 1,253,148; Jan. 8; v. 246; p. 530.
Looms, Temple thread-cutter for. E. S. Stimpson. (Reissue.) No. 14,420; Jan. 8; v. 246; p. 546.
Looper and looper mechanism. G. B. Osterhout. No. 1,253,519; Jan. 15; v. 246; p. 668.
Lubricating apparatus. J. G. Utz. No. 1,251,941; Jan. 1; v. 246; p. 147.
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Spindle-lubricator.
Lubricator. T. J. Holmes. No. 1,253,036; Jan. 8; v. 246; p. 497.
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Magnesia in granular form, Machine for making. A. Zanvettor. No. 1,251,612; Jan. 1; v. 246; p. 51.
Magnetic-coil shield. T. Shaw. No. 1,251,700; Jan. 1; v. 246; p. 77.
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Mail bundle-tie. A. W. Hutchison and H. C. Warne. No. 1,252,577; Jan. 8; v. 246; p. 363.
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Manganese and iron from water, Elimination of. V. Kobelt. No. 1,253,840; Jan. 15; v. 246; p. 760.
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Marine motor. C. F. Moore. No. 1,252,360; Jan. 1; v. 246; p. 264.
Marking-machine. G. Knight. No. 1,254,704; Jan. 29; v. 246; p. 1056.
Marking pot and brush, Combined. C. C. McCombs. No. 1,254,714; Jan. 29; v. 246; p. 1059.
Masonry structures, Form for. M. L. King. No. 1,253,981; Jan. 15; v. 246; p. 798.
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Massage implement, Abdominal-. W. C. J. Guilford. No. 1,253,233; Jan. 15; v. 246; p. 583.
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Massaging apparatus, Power-operated. W. C. J. Guilford. No. 1,253,232; Jan. 15; v. 246; p. 583.
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Measuring device, Liquid-. J. L. and G. Vill. No. 1,254,452; Jan. 22; v. 246; p. 954.
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Measuring instrument. E. C. Berriman. No. 1,254,197; Jan. 22; v. 246; p. 881.
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Metals in electric furnaces, Making. E. Humbert. No. 1,252,443; Jan. 8; v. 246; p. 323.
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Metallic leaf, Composition for making. N. Gentzel. No. 1,253,956; Jan. 15; v. 246; p. 791.
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Current fluid-meter.
Electric meter.
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Meters, Lubrication system for rotary. C. P. Mayer. No. 1,254,054; Jan. 22; v. 246; p. 840.
Micrometer. W. F. Koch. No. 1,254,607; Jan. 22; v. 246; p. 999.
Micrometer-caliper thimble. F. O. Jaques, Sr. No. 1,252,009; Jan. 1; v. 246; p. 167.
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Resawing-mill.
Rolling-mill.
Windmill.
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Current-motor.
Fluid-pressure motor.
Marine motor.
Oscillating motor.
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Photoprinting-machines, Automatic numbering device for. P. E. and P. W. Hamilton. No. 1,252,075; Jan. 1; v. 246; p. 186.
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Picture and design made from dry earth and making same. M. M. Flammer. No. 1,255,001; Jan. 29; v. 246; p. 1143.
Picture and sound-record carriers, Film-controlled mechanism for synchronized motion-. C. W. Ebeling. No. 1,254,487; Jan. 22; v. 246; p. 964.
Picture and sound-reproducing means, Film-control mechanism for motion-. H. W. Rogers. No. 1,254,436; Jan. 22; v. 246; p. 949.
Picture apparatus and phonograph, Combined motion-. D. O. Royster. No. 1,252,304; Jan. 1; v. 246; p. 249.

Picture apparatus, Moving-. C. J. Gotti. No. 1,253,372; Jan. 15; v. 246; p. 625.
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Pictures, Method and apparatus for synchronously producing sounds to accompany motion. E. L. Greensfelder. No. 1,254,684; Jan. 29; v. 246; p. 1050.
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Hair-pin. Safety-pin.
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Poke, Cattle-. C. F. Carson. No. 1,252,882; Jan. 8; v. 246; p. 449.
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Polysulfid solutions, Treating. E. C. Holton. No. 1,254,908; Jan. 29; v. 246; p. 1119.
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Potash extraction. E. L. Anderson. No. 1,253,569; Jan. 15; v. 246; p. 679.
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Potassium salts, Extracting. F. Tschirner. No. 1,254,451; Jan. 22; v. 246; p. 953.
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Power-transmission mechanism. H. L. Sharpe. No. 1,254,856; Jan. 29; v. 246; p. 1104.
Power-transmission mechanism. W. L. Ward. No. 1,252,209; Jan. 1; v. 246; p. 222.
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Power-transmitting device. E. F. Montgomery and R. B. Burnham. No. 1,254,617; Jan. 22; v. 246; p. 1002.
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Pump and pumping system. B. S. Aikman. No. 1,253,559; Jan. 15; v. 246; p. 679.
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Dish-drying rack.
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Radiator-repair device. E. H. Fisher and W. H. Foye. No. 1,254,319; Jan. 22; v. 246; p. 916.
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Rail-brace and tie-plate. B. J. Sammon. No. 1,251,923; Jan. 1; v. 246; p. 143.
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Rail-clip. E. Read. No. 1,252,946; Jan. 8; v. 246; p. 468.
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Railway cattle-guard. J. T. Gidcumb. No. 1,254,322; Jan. 22; v. 246; p. 917.
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Railway-crossing gate. V. A. Lillquist. No. 1,254,611; Jan. 22; v. 246; p. 1000.
Railway-crossing signal, Automatic. F. D. McGinley and J. J. Michels. No. 1,254,250; Jan. 22; v. 246; p. 895.
Railway intersection. E. S. Cobb. No. 1,252,664; Jan. 8; v. 246; p. 388.
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Railway signaling. H. W. Griffin. No. 1,254,038; Jan. 22; v. 246; p. 836.
Railway signaling system. C. H. Buhl. No. 1,253,208; Jan. 15; v. 246; p. 676.
Railway signaling system and relay adapted for use therein. J. S. Holliday. No. 1,254,139; Jan. 22; v. 246; p. 865.
Railway-spike. G. W. Pigott. No. 1,251,566; Jan. 1; v. 246; p. 36.
Railway-switch. B. B. Betts. No. 1,254,304; Jan. 22; v. 246; p. 912.
Railway-switch. M. Derrech. No. 1,252,788; Jan. 8; v. 246; p. 423.
Railway switch and crossover. P. English. No. 1,253,800; Jan. 15; v. 246; p. 747.
Railway-switch, Automatic. F. E. Bahmler. No. 1,254,018; Jan. 22; v. 246; p. 880.
Railway-switch, Automatic. E. A. Gullion. No. 1,254,403; Jan. 22; v. 246; p. 940.
Railway-switches, Trip for. P. Evans and D. Dutt. No. 1,253,802; Jan. 15; v. 246; p. 748.
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Railway-tie. I. Slack. No. 1,253,896; Jan. 15; v. 246; p. 776.
Railway-tie and rail-fastening, Metallic. A. F. Brown. No. 1,253,779; Jan. 15; v. 246; p. 742.
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Railway-train stop, Automatic. E. P. Jessop. No. 1,253,042; Jan. 8; v. 246; p. 499.
Railways, Automatic stop for. D. D. O'Connell. No. 1,253,086; Jan. 8; v. 246; p. 512.
Railways, Means for arresting vehicles on inclined. J. R. L. Allott and E. Dean. No. 1,254,297; Jan. 22; v. 246; p. 910.
Rain-alarm. W. L. Larson. No. 1,253,986; Jan. 15; v. 246; p. 800.
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Rake. E. and J. C. Dalton. No. 1,253,355; Jan. 15; v. 246; p. 620.
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Range, Combined coal and gas. A. C. Mott, Jr. No. 1,253,707; Jan. 15; v. 246; p. 723.
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Razor, Safety-. H. A. Vincent. No. 1,254,093; Jan. 22; v. 246; p. 852.
Reactance-coil, Polyphase. J. F. Peters. No. 1,253,275; Jan. 15; v. 246; p. 595.
Reading-table. L. Blayney. No. 1,254,969; Jan. 29; v. 246; p. 1135.
Receptacle. H. B. Rich. No. 1,251,921; Jan. 1; v. 246; p. 142.
Receptacle and foot-rest, Combined. J. Butcher. No. 1,252,775; Jan. 8; v. 246; p. 420.
Receptacle-closures, Machine for making. L. R. N. Carvalho. No. 1,254,026; Jan. 22; v. 246; p. 832.
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Receptacle, Folding. F. W. Howland. No. 1,253,490; Jan. 15; v. 246; p. 660.
Receptacles, Spring-tensioned closure for. L. D. Whitaker. No. 1,252,870; Jan. 8; v. 246; p. 444.
Reciprocating mechanism and system of motor control therefor. W. Foster. No. 1,252,897; Jan. 8; v. 246; p. 453.
Recirculation system. C. Bollinger. No. 1,254,650; Jan. 29; v. 246; p. 1039.
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Rectifiers, Vacuum regulation for. H. A. Newcomb. No. 1,251,562; Jan. 1; v. 246; p. 35.
Rectifying system. F. W. Meyer. No. 1,253,267; Jan. 15; v. 246; p. 593.
Reducing agent and producing same. C. S. Bradley. No. 1,253,775; Jan. 15; v. 246; p. 742.
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Refrigerating apparatus. B. S. McClellan. No. 1,254,519; Jan. 22; v. 246; p. 973.
Refrigerating apparatus, and oil separator and condenser mechanism therefor. B. S. McClellan. No. 1,254,518; Jan. 22; v. 246; p. 972.
Refrigerating-machine, Centrifugal. V. J. Goetz. No. 1,253,026; Jan. 8; v. 246; p. 494.
Refrigerating or ice-making apparatus. T. Shipley. No. 1,253,895; Jan. 15; v. 246; p. 775.
Refrigeration. F. G. Keyes. No. 1,251,588; Jan. 1; v. 246; p. 27.
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Electrical regulator.
Gas-burner regulator.
Generator-regulator.
Incubator-regulator.
Plow depth-regulator.
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Regulator. E. J. Deegan and W. Hodgson. No. 1,254,888; Jan. 29; v. 246; p. 1114.
Relay contact-fingers, Adjustment of. C. O. Harrington. No. 1,254,135; Jan. 22; v. 246; p. 864.
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Renovator and dust-collector. R. L. McKay. No. 1,253,264; Jan. 15; v. 246; p. 593.
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Reversible seat. H. Rose and E. J. Bickford. No. 1,254,437; Jan. 22; v. 246; p. 950.
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Salt in shakers or other receptacles, Device for drying. L. G. Yoggerst and W. A. Hutchison. No. 1,252,572; Jan. 8; v. 246; p. 445.
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Sand and gravel washing and separating machine. F. Krenzer. No. 1,254,410; Jan. 22; v. 246; p. 942.
Sand-box for wheels. E. Johnson. No. 1,254,327; Jan. 22; v. 246; p. 918.
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Scissors attachment. F. H. L. Juhl. No. 1,251,893; Jan. 1; v. 246; p. 135.
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Fish-screen.
Screw-slotting machine, Automatic. F. S. Chase. No. 1,252,884; Jan. 8; v. 246; p. 449.
Screw threader and pointer. F. N. Tilton. No. 1,252,630; Jan. 8; v. 246; p. 378.
Screw-threading machine. F. W. Rodd. No. 1,253,631; Jan. 15; v. 246; p. 699.
Screws, bolts, and similar articles, Pointing and threading. R. L. Wilcox. No. 1,253,323; Jan. 15; v. 246; p. 610.
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Seal-stripe upon bottles, Means for wiping. H. Stake. No. 1,253,995; Jan. 15; v. 246; p. 803.
Sealing and wrapping machine. M. B. Ferguson. No. 1,254,895; Jan. 29; v. 246; p. 1115.
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Car-seat. Toilet-seat.
Cushion-seat. Vehicle removable seat.
Reversible seat. Window-seat.
Seat-cover, Sanitary. O. D. Currier. No. 1,254,029; Jan. 22; v. 246; p. 833.
Seat covering, Sanitary toilet-. G. K. Nakashima. No. 1,253,512; Jan. 15; v. 246; p. 666.
Seat-strap. O. Doralite. No. 1,252,252; Jan. 1; v. 246; p. 234.
Seat structure, Adjustable-. J. Ledwinka. No. 1,251,977; Jan. 1; v. 246; p. 158.
Seed hullers, Separating mechanism for cotton-. J. W. Lever. No. 1,252,273; Jan. 1; v. 246; p. 241.
Seed-sprouter. C. H. Schroeder. No. 1,251,826; Jan. 1; v. 246; p. 117.
Seeder. F. Martinson. No. 1,253,621; Jan. 15; v. 246; p. 697.
Seeder, Manually-wielded. W. G. Bolus. No. 1,252,542; Jan. 8; v. 246; p. 352.
Seeding-machine furrow-opener. C. E. Patric. No. 1,254,266; Jan. 22; v. 246; p. 900.
Seesaw, Rotatable. F. T. Thebert. No. 1,254,174; Jan. 22; v. 246; p. 874.
Seine-hauling device. C. A. Williams. No. 1,254,381; Jan. 22; v. 246; p. 934.
Selective switch. H. P. Clausen. No. 1,251,751; Jan. 1; v. 246; p. 93.
Selective switch, Automatic. J. L. McQuarrie. No. 1,251,988; Jan. 1; v. 246; p. 161.
Selectively-actuated mechanism. W. Bixby. No. 1,252,080; Jan. 1; v. 246; p. 188.
Selector-switch. M. K. McGrath. No. 1,251,795; Jan. 1; v. 246; p. 106.
Sensitized-plate drier. L. McCue. No. 1,253,990; Jan. 15; v. 246; p. 801.
Separating device, Automatic. C. Allen. No. 1,254,562; Jan. 22; v. 246; p. 986.
Separator: *See*—
Centrifugal separator. Slime-separator.
Ore-separator.
Separator-trap. J. J. Donovan. No. 1,252,099; Jan. 1; v. 246; p. 193.
Serving-table. L. D. Platt. No. 1,252,020; Jan. 1; v. 246; p. 170.
Sewing hemp soles, Machine for. J. Power y Zabala. No. 1,253,762; Jan. 15; v. 246; p. 738.
Sewing-machine. A. H. De Voe. No. 1,251,872; Jan. 1; v. 246; p. 129.
Sewing-machine. A. H. De Voe. No. 1,251,873; Jan. 1; v. 246; p. 130.
Sewing-machine. A. H. De Voe. No. 1,251,970; Jan. 1; v. 246; p. 155.
Sewing-machine. R. L. Lyons, H. W. Morris, and C. I. Nielsen. No. 1,253,614; Jan. 15; v. 246; p. 694.
Sewing-machine. A. A. Merritt. No. 1,253,607; Jan. 15; v. 246; p. 665.
Sewing-machine. G. W. Nelson. No. 1,252,931; Jan. 8; v. 246; p. 463.
Sewing-machine feeding mechanism. H. Corrall and J. M. Forbes. No. 1,252,666; Jan. 8; v. 246; p. 389.
Sewing machine, Hemstitch-. H. Unger. No. 1,252,745; Jan. 8; v. 246; p. 411.
Sewing-machine looper-carrier. W. H. Hugg. No. 1,252,696; Jan. 8; v. 246; p. 397.
Sewing-machine looper mechanism. N. D. Clark. No. 1,251,474; Jan. 1; v. 246; p. 7.
Sewing-machine looper mechanism. M. Hemleb. No. 1,254,225; Jan. 22; v. 246; p. 889.
Sewing-machine looper mechanism, Leather-. O. L. Lawson and J. H. Reed. No. 1,252,352; Jan. 1; v. 246; p. 262;
Sewing-machine motor. C. H. Beach. No. 1,252,317; Jan. 1; v. 246; p. 253.
Sewing-machine, Multiple-needle lock-stitch. H. Corrall and R. A. Stevens. No. 1,254,123; Jan. 22; v. 246; p. 861.
Sewing-machine needle-operating mechanism. J. R. Moffatt. No. 1,252,015; Jan. 1; v. 246; p. 169.
Sewing-machine, Running-stitch. J. Harger. No. 1,253,173; Jan. 8; v. 246; p. 537.
Sewing-machine shuttle. W. H. Terwilliger. No. 1,253,646; Jan. 15; v. 246; p. 703.
Sewing machine, Straw-. R. L. Plumley. No. 1,252,169; Jan. 1; v. 246; p. 212.
Sewing-machine take-up. G. B. Osterhout. No. 1,253,518; Jan. 15; v. 246; p. 667.
Sewing-machine trimming mechanism. J. R. Moffatt. No. 1,253,865; Jan. 15; v. 246; p. 707.
Sewing-machine trimming mechanism. A. H. Simmons. No. 1,253,737; Jan. 15; v. 246; p. 730.
Sewing machine, Wax-thread shoe-. T. H. Seely. No. 1,253,635; Jan. 15; v. 246; p. 700.
Sewing-machines, Work-handling mechanism for blind-stitch. J. G. Lewis. No. 1,254,818; Jan. 29; v. 246; p. 1091.
Shade-bracket. C. F. Graham. No. 1,253,373; Jan. 15; v. 246; p. 626.
Shade-fixture. A. C. Hough. No. 1,252,113; Jan. 1; v. 246; p. 197.
Shade fixture, Window-. D. N. Alley and A. E. Miller. No. 1,252,982; Jan. 8; v. 246; p. 480.
Shade-hanger. C. D. McCord and J. L. Carlson. No. 1,253,699; Jan. 15; v. 246; p. 721.
Shade-hanger. J. M. McLeskey. No. 1,252,130; Jan. 1; v. 246; p. 201.
Shade-holder. M. P. Stevens. No. 1,252,506; Jan. 8; v. 246; p. 342.
Shade or map roll, Adjustable. S. R. Hopkins. No. 1,253,382; Jan. 15; v. 246; p. 629.
Shades or reflectors, Device for ornamenting. A. S. Powell. No. 1,254,729; Jan. 29; v. 246; p. 1064.
Shade support, Window-. P. C. Browne. No. 1,254,881; Jan. 29; v. 246; p. 1112.
Shaft-balancing machine. H. Hopkins. No. 1,252,695; Jan. 8; v. 246; p. 396.
Shaft blanks, Forming multicrank-. G. W. Dunne. No. 1,252,673; Jan. 8; v. 246; p. 390.
Shaft-coupling. A. Stufflebeam. No. 1,251,836; Jan. 1; v. 246; p. 120.
Shafts, Indicating apparatus for. F. W. G. Bruhn. No. 1,251,859; Jan. 1; v. 246; p. 126.
Shaping-machine. W. E. Riecken. No. 1,251,578; Jan. 1; v. 246; p. 40.
Sharpener, Drill-. W. A. Smith. No. 1,253,291; Jan. 15; v. 246; p. 600.
Sharpener for knives, scissors, and the like. S. H. Gallagher. No. 1,254,671; Jan. 29; v. 246; p. 1045.
Sharpener, Razor-blade. C. A. Scott and A. G. Hug. No. 1,252,367; Jan. 1; v. 246; p. 266.
Sharpeners, Dolly mechanism for drill-. W. A. Smith. No. 1,253,292; Jan. 15; v. 246; p. 600.
Sharpening device. R. W. Perry. No. 1,252,612; Jan. 8; v. 246; p. 373.
Shaver, Automatic. J. E. Daley. No. 1,254,990; Jan. 29; v. 246; p. 1141.
Shaving apparatus. D. R. Smith. No. 1,255,061; Jan. 29; v. 246; p. 1159.
Shears: *See*—
Garden-shears.

Sheathing, Machine for making reinforced. F. C. Arey. No. 1,254,299; Jan. 22; v. 246; p. 911.
Sheathing material, Apparatus for manufacturing. C. M. Clarke. No. 1,254,481; Jan. 22; v. 246; p. 962.
Sheet-handling machine. H. M. Barber. No. 1,252,768; Jan. 8; v. 246; p. 418.
Sheet-handling machine. H. M. Barber. No. 1,254,876; Jan. 29; v. 246; p. 1110.
Sheet-metal-doubling machine. J. G. Graham. No. 1,252,270; Jan. 1; v. 246; p. 239.
Sheet-metal house. E. J. Zahner. No. 1,253,763; Jan. 15; v. 246; p. 738.
Sheet-metal house. E. J. Zahner. No. 1,253,764; Jan. 15; v. 246; p. 738.
Sheet-metal-polishing machine. H. D. Euston. No. 1,253,675; Jan. 15; v. 246; p. 713.
Sheet-metal-severing means. J. Sedlin. No. 1,252,727; Jan. 8; v. 246; p. 406.
Sheet-piler. W. B. Story. No. 1,252,857; Jan. 8; v. 246; p. 441.
Sheet-registering mechanism. L. Middleditch. No. 1,252,604; Jan. 8; v. 246; p. 371.
Shell-marking machine. J. M. Brown. No. 1,253,463; Jan. 15; v. 246; p. 653.
Shell or projectile cases, Plug for. G. F. Bint. No. 1,253,773; Jan. 15; v. 246; p. 741.
Shell-turning machine. J. C. McLachlan. No. 1,252,129; Jan. 1; v. 246; p. 201.
Shells, Adjustable and improved cutting-head for boring out. S. Hough. No. 1,251,527; Jan. 1; v. 246; p. 23.
Shield, Chafing-. M. Bouvier. No. 1,251,468; Jan. 1; v. 246; p. 5.
Shingle. A. S. Spiegel. No. 1,251,704; Jan. 1; v. 246; p. 78.
Shingle-gage. T. R. Condon and T. Schurman. No. 1,254,986; Jan. 29; v. 246; p. 1140.
Ship-protector. W. Kostiw. No. 1,252,814; Jan. 8; v. 246; p. 430.
Ship signal, Sunken-. H. Filiewicz. No. 1,253,583; Jan. 15; v. 246; p. 686.
Ships-emerging apparatus, Sunken-. S. P. Portella. No. 1,253,526; Jan. 15; v. 246; p. 669.
Ships, Refuse-ejector for. W. S. Parsons. No. 1,251,917; Jan. 1; v. 246; p. 141.
Shipping-box, Foldable. C. Hofman. No. 1,254,692; Jan. 29; v. 246; p. 1052.
Shipping-case. F. L. Hamilton. No. 1,254,688; Jan. 29; v. 246; p. 1051.
Shirt. H. S. Kennedy and C. M. Connolly. No. 1,252,449; Jan. 8; v. 246; p. 325.
Shirt-neckbands, Ventilating attachment for. R. H. Gray. No. 1,252,263; Jan. 1; v. 246; p. 237.
Shirts, Protector for laundried. N. J. Goodman. No. 1,253,683; Jan. 15; v. 246; p. 715.
Shock-absorber. R. S. Carter. No. 1,252,397; Jan. 8; v. 246; p. 309.
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Shock-absorber. W. H. Horstmann. No. 1,252,006; Jan. 1; v. 246; p. 166.
Shock-absorber. J. M. M. Truffault. No. 1,253,648; Jan. 15; v. 246; p. 704.
Shock-absorber. J. H. Young. No. 1,254,106; Jan. 22; v. 246; p. 855.
Shock-absorbing mechanism, Friction. J. F. O'Connor. No. 1,254,262; Jan. 22; v. 246; p. 899.
Shock-controlling device. C. B. Billinghurst. No. 1,253,129; Jan. 8; v. 246; p. 524.
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Shoe. H. Kaiser. No. 1,253,496; Jan. 15; v. 246; p. 661.
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Shoe-clamp. M. A. Zielinski. No. 1,252,764; Jan. 8; v. 246; p. 417.
Shoe-nailing machine. J. Bragg. No. 1,252,378; Jan. 1; v. 246; p. 270.
Shoe-polishing cabinet. R. J. McCredie. No. 1,254,821; Jan. 29; v. 246; p. 1092.
Shoe-polishing machine. J. H. Beck. No. 1,254,965; Jan. 29; v. 246; p. 1134.
Shoe-sizer. H. E. Maine. No. 1,252,920; Jan. 8; v. 246; p. 459.
Shoe-stretcher. G. W. E. Hohme. No. 1,253,973; Jan. 15; v. 246; p. 796.
Shoe-support. J. H. Meacham. No. 1,253,624; Jan. 15; v. 246; p. 698.
Shoe-tongue, Detachable. J. Bromley. No. 1,253,777; Jan. 15; v. 246; p. 742.
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Shoe-turning machine. M. Bruner and W. V. Neal. No. 1,253,345; Jan. 15; v. 246; p. 617.
Shoes and lasts, Separating. E. B. Grush. No. 1,253,589; Jan. 15; v. 246; p. 688.
Shoes from treading over, Means for preventing. L. B. Weston. No. 1,254,098; Jan. 22; v. 246; p. 853.
Shoes, Instrument for applying liquid finish to. H. Marois. No. 1,253,408; Jan. 15; v. 246; p. 637.
Shoes, Making. J. F. McLaughlin. No. 1,252,283; Jan. 1; v. 246; p. 244.
Shoes, Tool for resoling. G. Merendino. No. 1,253,704; Jan. 15; v. 246; p. 722.
Shoes, Tread portion for. L. McMillan. No. 1,253,701; Jan. 15; v. 246; p. 721.
Shot-firing device. E. Porphir. No. 1,251,820; Jan. 1; v. 246; p. 115.
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Power-shovel.
Shoveling-board and end-gate, Combination. J. H. Anderson. No. 1,252,881; Jan. 8; v. 246; p. 305.
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Shutter. J. S. Truitt and E. Ackerman. No. 1,251,593; Jan. 1; v. 246; p. 44.
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Shuttle. J. Northrop. No. 1,252,294; Jan. 1; v. 246; p. 247.
Shuttle. J. Tartaglione. No. 1,254,169; Jan. 22; v. 246; p. 873.
Shuttle-check. J. W. Bounds and T. J. McDaniel. No. 1,251,744; Jan. 1; v. 246; p. 91.
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Sign characters, Forming dies for. M. Creighton and A. W. Dixon. No. 1,253,009; Jan. 8; v. 246; p. 489.
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Sign, Illuminated. C. M. Davis and E. Brumberg. No. 1,252,248; Jan. 1; v. 246; p. 233.
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Sign-supporting structure. E. W. Gruber. No. 1,252,429; Jan. 8; v. 246; p. 319.
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Auto-driver's signal. Ship-signal.
Automobile-signal. Traffic-signal.
Camera film-signal. Vehicle-signal.
Railway-crossing signal.
Signal. C. W. Monahan. No. 1,252,288; Jan. 1; v. 246; p. 245.
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Silencer. R. E. Bletcher. No. 1,251,956; Jan. 1; v. 246; p. 152.

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Skate safety device. G. M. Warner. No. 1,253,314; Jan. 15; v. 246; p. 606.
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Slicing and shredding machine, Vegetable. E. G. Ireland. No. 1,255,013; Jan. 29; v. 246; p. 1146.
Slime separator and classifier. J. J. and D. O. Gentes. No. 1,251,500; Jan. 1; v. 246; p. 14.
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Sludge treatment, Activated-. G. B. Mulloy. No. 1,254,836; Jan. 29; v. 246; p. 1097.
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Smelting-furnace. R. B. Liopart. No. 1,253,064; Jan. 8; v. 246; p. 505.
Smelting-furnace, Electric. F. T. Snyder. No. 1,254,079; Jan. 22; v. 246; p. 847.
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Soap paste and other liquid and semiliquid materials, Container for. J. B. Fesler. No. 1,254,667; Jan. 29; v. 246; p. 1044.
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Sodium ferrocyanid, Making. A. R. Tillinghast. No. 1,252,742; Jan. 8; v. 246; p. 410.
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Soldering-tool. W. E. Corkery. No. 1,253,215; Jan. 15; v. 246; p. 578.
Sole-leveling machine. W. C. Meyer. No. 1,254,256; Jan. 22; v. 246; p. 897.
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Soles, Apparatus for use in operating upon. R. B. Puckett and H. R. Abbott. No. 1,254,010; Jan. 15; v. 246; p. 807.
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Sound-box. R. J. Prettie. No. 1,253,527; Jan. 15; v. 246; p. 670.
Sound-concentrating device. C. E. Sargent. No. 1,252,089; Jan. 1; v. 246; p. 176.
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Sound recording and reproducing machine. D. F. and K. D. McQuire. No. 1,254,330; Jan. 22; v. 246; p. 919.
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Sound-reproducing machines, Stylus for. W. W. Moyer. No. 1,251,908; Jan. 1; v. 246; p. 139.
Sound-transmitting apparatus. H. W. Rogers. No. 1,253,533; Jan. 15; v. 246; p. 671.
Sounds photographically, Apparatus for recording. H. B. Stocks. No. 1,252,968; Jan. 8; v. 246; p. 474.
Sounding device, Automatic. A. O. Mason. No. 1,255,034; Jan. 29; v. 246; p. 1152.
Spade and crowbar, Combination. C. J. Nelson. No. 1,253,472; Jan. 15; v. 246; p. 655.
Spark-gap for the production of powerful electrical oscillations. E. J. Simon. No. 1,253,108; Jan. 8; v. 246; p. 517.
Spark-plug. H. J. Berry. No. 1,253,570; Jan. 15; v. 246; p. 682.
Spark-plug. F. Gerken. No. 1,253,584; Jan. 15; v. 246; p. 686.
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Spectacles. L. Letzeisen. No. 1,252,126; Jan. 1; v. 246; p. 200.
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Spike. W. C. Roberts. No. 1,255,108; Jan. 29; v. 246; p. 1173.
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Spindle. F. H. Chapman. No. 1,253,351; Jan. 15; v. 246; p. 619.
Spindle-lubricator. O. H. Stair. No. 1,252,191; Jan. 1; v. 246; p. 218.
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Spinning-frame. F. Casablancas. No. 1,254,390; Jan. 22; v. 246; p. 936.
Spinning-frame. D. Stevens and G. Clarke. No. 1,254,738; Jan. 29; v. 246; p. 1067.
Spinning-frame with conducting-belt for the roving. F. Casablancas. No. 1,254,391; Jan. 22; v. 246; p. 936.
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Laminated spring. Wagon-spring.
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Spring-eyes, Making lubricating. W. H. Brown. No. 1,253,464; Jan. 15; v. 246; p. 653.
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Turbine, Elastic-fluid. O. D. H. Bentley. No. 1,254,465; Jan. 22; v. 246; p. 957.
Turbine, Elastic-fluid. O. Junggren. No. 1,253,884; Jan. 15; v. 246; p. 758.
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Twist-drills and other articles, Machine for manufacturing. C. H. Whipple. No. 1,254,753; Jan. 29; v. 246; p. 1071.
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Demountable wheel.
Drive-wheel.
Fly-wheel.
Resilient wheel
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Traction-wheel.
Tractor-wheel.
Vehicle resilient wheel.
Vehicle-wheel.
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Tool-handle. J. M. Hargrave. No. 51,641; Jan. 1; v. 246; p. 275.
Toy cannon. J. Dittrick. No. 51,675; Jan. 8; v. 246; p. 549.
Toy chair. E. E. Roberts. No. 51,659; Jan. 1; v. 246; p. 278.
Valve-seat remover. A. McNair. No. 51,705; Jan. 22; v. 426; p. 1011.
Vehicles, Instrument-board for. J. Berg. No. 51,702; Jan. 22; v. 246; p. 1011.
Vending machine, Postage-stamp-. C. D. Pruitt. Nos. 51,656–8; Jan. 1; v. 246; p. 278.
Waffle-iron. P. De Sabato. No. 51,661; Jan. 1; v. 246; p. 279.
Well and cistern cover. A. E. Lyle. No. 51,704; Jan. 22; v. 246; p. 1011.

ALPHABETICAL LIST OF TRADE-MARKS.

Aero-propellers. Schweizer and West Manufacturing Company. No. 120,299; Jan. 29; v. 246; p. 1201.
Ant-poison. Bowman Drug Co. No. 120,065; Jan. 8; v. 246; p. 563.
Antiseptics, germicides, and deodorants. General Laboratories. No. 120,110; Jan. 8; v. 246; p. 564.
Atomizers and nebulizers. The De Vilbiss Manufacturing Company. No. 120,253; Jan. 29; v. 246; p. 1199.
Automobile-chassis, also automobile-bodies, wind-shields, dashes, and springs, Extensions for. Hayes-Diefenderfer Co. No. 120,027; Jan. 1; v. 246; p. 297.
Automobiles. Hupp Motor Car Corporation. No. 120,028; Jan. 1; v. 246; p. 297.
Automobiles and automobile radiators and hub-caps. Daniels Motor Car Company. No. 120,178; Jan. 15; v. 246; p. 819.
Bacon, Vienna-style sausage, skinned and sugar-cured hams. Armstrong Packing Company. No. 120,008; Jan. 1; v. 246; p. 297.
Bags, Cotton. Bemis Bro. Bag Co. No. 120,242; Jan. 29; v. 246; p. 1199.
Bait, Artificial. James Heddon's Sons. No. 120,195; Jan. 15; v. 246; p. 820.
Balls, Golf-. Capper & Capper. No. 120,015; Jan. 1; v. 246; p. 297.
Bed-springs and beds, folding beds, cots, and swings, Metal. Perfection Bed Spring Company. No. 120,030; Jan. 1; v. 246; p. 298.
Bedspreads, pillow-shams, and rag carpets. L. T. Riley. No. 120,289; Jan. 29; v. 246; p. 1200.
Beer. The Cleveland Home Brewing Co. No. 120,168; Jan. 15; v. 246; p. 819.
Beer. The Pennsylvania Central Brewing Co. No. 120,214; Jan. 15; v. 246; p. 821.
Beer, Draft-. Anheuser-Busch Brewing Association. No. 120,157; Jan. 15; v. 246; p. 819.
Belts for wear. L. Levi. No. 120,270; Jan. 29; v. 246; p. 1200.
Beverage and flavoring-syrup therefor, Carbonated. W. H. Maupin. No. 120,204; Jan. 15; v. 246; p. 820.
Beverage and syrup for making same, Non-alcoholic soft-drink. E. Frohn. No. 120,257; Jan. 29; v. 246; p. 1199.
Beverage and syrup for making the same, Non-alcoholic. R. M. Schlesinger. No. 120,291; Jan. 29; v. 246; p. 1200.
Beverage made of malt and hops, Non-alcoholic. C. H. Evans & Sons. No. 120,086; Jan. 8; v. 246; p. 564.
Beverage, Non-intoxicating cereal. Adam Scheidt Beverage Co. No. 120,044; Jan. 1; v. 246; p. 298.
Beverage, Non-intoxicating non-alcoholic malt. St. Louis Brewing Association. No. 120,226; Jan. 15; v. 246; p. 821.
Beverage sold as a soft drink and a syrup for making same, Non-alcoholic. C. H. Wilkinson. No. 120,307; Jan. 29; v. 246; p. 1201.
Beverages, Non-alcoholic carbonated. F. J. Hewlett. No. 120,260; Jan. 29; v. 246; p. 1199.
Beverages, Non-alcoholic carbonated. Sparkling Silver-spoon Co. No. 120,045; Jan. 1; v. 246; p. 298.
Beverages, Non-intoxicating. W. F. Mahony. No. 120,276; Jan. 29; v. 246; p. 1200.
Billets, beams, plates, ingots, and metals, Certain named. Federal Export Corporation. No. 120,255; Jan. 29; v. 246; p. 1199.
Blankets, bedspreads, and sheets, Cotton. T. Kelly & Co. No. 120,030; Jan. 1; v. 246; p. 297.
Booklets, Printed. F. E. Schoenfeld. No. 120,224; Jan. 15; v. 246; p. 821.
Books, which series has not yet been completed, Series of printed. The Engineering Magazine Company. No. 120,085; Jan. 8; v. 246; p. 564.
Boot and shoe border-strip. H. Holden. No. 120,196; Jan. 15; v. 246; p. 820.
Boot and shoe heels, Leather or soleoid and leather. Wilder and Company. No. 120,129; Jan. 8; v. 246; p. 565.
Boots and shoes, Kid, leather, and canvas. The Kaut-Reith Shoe Company. No. 120,106; Jan. 8; v. 246; p. 564.
Boots and shoes, Leather. H. T. Anderson. No. 120,155; Jan. 15; v. 246; p. 819.
Boots, shoes, slippers, sandals, Leather. Geo. A. Slater Limited. No. 120,119; Jan. 8; v. 246; p. 565.
Braids and insertions for dresses, aprons, and undergarments, Wash and fancy. Webbing & Edging Corp. No. 120,305; Jan. 29; v. 246; p. 1201.
Bread. Community Marvel Millers' Association. No. 120,171; Jan. 15; v. 246; p. 819.
Bread. Eau Claire Baking Company. No. 120,180; Jan. 15; v. 246; p. 819.
Bread, crackers, cakes, and pastry. H. Gottschalk. No. 120,191; Jan. 15; v. 246; p. 820.
Bread, Wrapped. A. Renton. No. 120,221; Jan. 15; v. 246; p. 821.
Brooms. Gordon, Sewall & Co. No. 120,025; Jan. 1; v. 246; p. 297.
Brushes, Scrub-. J. Petroccio. No. 120,149; Jan. 8; v. 246; p. 566.
Buffing and polishing compound for metals. The Matchless Metal Polish Company. Nos. 120,136–7; Jan. 8; v. 246; p. 565.
Building construction, Certain named. The Sterling Lumber Co. No. 120,295; Jan. 29; v. 246; p. 1201.
Bulletins issued periodically, Dr. Albert Count de Sarak. No. 120,114; Jan. 8; v. 246; p. 565.
Burners and wicks for stoves, furnaces, and ranges. The Huenefeld Company. No. 120,105; Jan. 8; v. 246; p. 564.
Cabinets, Wall-. F. J. Matcheitte. No. 120,035; Jan. 1; v. 246; p. 298.
Candy. G. Migliaccio. No. 120,037; Jan. 1; v. 246; p. 298.
Canned fruits and vegetables. Burton & Davis Co. No. 120,163; Jan. 15; v. 246; p. 819.
Canned fruits, vegetables, and shrimp. Sylvester Bros. Co. No. 120,228; Jan. 15; v. 246; p. 821.
Canned vegetables. Booth Packing Company. No. 120,012; Jan. 1; v. 246; p. 297.
Cars for attachment to motor-cycles and the like, Wheeled trailer-. Cygnet Bear Car Company. No. 120,018; Jan. 1; v. 246; p. 297.
Case-hardening or carbonizing compound. The Case Hardening Service Company. No. 120,070; Jan. 8; v. 246; p. 563.
Caskets and outside cases, Burial and inner. National Casket Company. No. 120,210; Jan. 15; v. 246; p. 820.
Catalogues published semi-annually. Freydberg Bros. No. 120,094; Jan. 8; v. 246; p. 564.
Chairs, High. G. Spratt & Co. No. 120,227; Jan. 15; v. 246; p. 821.
Chemical preparation used as a binder and surface coating, Certain named. G. J. Schoeffel. No. 120,292; Jan. 29; v. 246; p. 1200.
Cigarette, cigar, match, spectacle, eyeglass, and vanity cases. Wightman & Hough Co. No. 120,128; Jan. 8; v. 246; p. 565.
Cleaning liquid for shoes. H. Ammann. No. 120,055; Jan. 8; v. 246; p. 563.
Clocks and movements therefor, Alarm-. N. H. Brown. No. 120,067; Jan. 8; v. 246; p. 563.
Closets or toilets, Outdoor water-. The Sanitary Products Corporation. No. 120,223; Jan. 15; v. 246; p. 821.
Clothing, Certain named. S. Collat. No. 120,017; Jan. 1; v. 246; p. 297.
Clothing, Certain named. A. Harris. No. 120,099; Jan. 8; v. 246; p. 564.
Coal. The Kenmont Coal Company. No. 120,107; Jan. 8; v. 246; p. 564.
Coats and skirts for women, Sport. The Burkhardt Bros. Company. No. 120,013; Jan. 1; v. 246; p. 297.
Coats, vests, and trousers. R. H. Macy & Co. No. 120,275; Jan. 29; v. 246; p. 1200.
Coffee. E. Brondi. No. 120,162; Jan. 15; v. 246; p. 819.
Coffee. Roanoke Coffee and Spice Co. No. 120,290; Jan. 29; v. 246; p. 1200.
Collars and shirts. Hall, Hartwell & Co. No. 120,259; Jan. 29; v. 246; p. 1199.
Collars, cuffs, and shirt-fronts, Textile. Astral, Limited. No. 120,058; Jan. 8; v. 246; p. 563.
Collars, cuffs, hosiery, gloves, overalls, &c. Burnham-Muger-Root Dry Goods Co. No. 120,248; Jan. 29; v. 246; p. 1199.
Construction materials, Certain named. Maritime Coating Corporation. No. 120,034; Jan. 1; v. 246; p. 297.
Corsets. Birdsey-Somers Company. No. 120,244; Jan. 29; v. 246; p. 1199.
Cots, Folding. I. S. Purcell. No. 120,287; Jan. 29; v. 246; p. 1200.
Cotton, linen, silk, and wool piece goods and mixtures of same. Rice-Stix Dry Goods Company. No. 120,288; Jan. 29; v. 246; p. 1200.
Cotton piece goods. Converse & Company. No. 120,073; Jan. 8; v. 246; p. 563.
Cotton piece goods. Everett, Heaney & Company. No. 120,182; Jan. 15; v. 246; p. 820.
Cotton piece goods. Lakeside Mills. No. 120,268; Jan. 29; v. 246; p. 1200.
Cotton piece goods. Taylor, Clapp & Beall. Nos. 120,229–30; Jan. 15; v. 246; p. 821.
Cream of tartar, bluing, ammonia, &c. Howard & Casey Co. No. 120,262; Jan. 29; v. 246; 1200.

Detergent, abrasive, and polishing materials, Certain named. Bennett and Bennett. No. 120,241; Jan. 29; v. 246; p. 1199.
Dice for playing a game, Lettered. E. H. McKerg. No. 120,273; Jan. 29; v. 246; p. 1200.
Disinfectant, sterilizer, cleanser, and deodorant, Liquid. L. Sonneborn Sons. No. 120,120; Jan. 8; v. 246; p. 565.
Disinfectants, insect-exterminators, stock-dip, &c. Cremoline Disinfecting Co. No. 120,075; Jan. 8; v. 246; p. 563.
Doors, Automatic. National Automatic Door Company. No. 120,209; Jan. 15; v. 246; p. 820.
Dresses. Jordan Marsh Company. No. 120,138; Jan. 8; v. 246; p. 565.
Driers, coolers, and cookers, Certain named. J. B. Adt. No. 120,051; Jan. 8; v. 246; p. 563.
Drilling, tapping, and cutting metals, Oily compounds employed in. Pittsburgh Compound Company. No. 120,215; Jan. 15; v. 246; p. 821.
Drinking-fountains and parts thereof. Puro Sanitary Drinking Fountain Co. No. 120,218; Jan. 15; v. 246; p. 821.
Dye. Payne Chemical Company. No. 120,213; Jan. 15; v. 246; p. 821.
Dye, Chemical compound used as a. The Butterfly Tinting Company. No. 120,164; Jan. 15; v. 246; p. 819.
Ear-drum, Artificial. A. O. Leonard. No. 120,271; Jan. 29; v. 246; p. 1200.
Earthenware receptacles for perishable goods. Nya Aktiebolaget Terracotta. No. 120,280; Jan. 29; v. 246; p. 1200.
Eyeglass-mountings. Universal Optical Corporation. No. 120,232; Jan. 15; v. 246; p. 821.
Eyeglass-shields, Pocket. E. H. Binns. No. 120,243; Jan. 29; v. 246; p. 1199.
Fabrics for certain named purposes, Impregnated. Standard Woven Fabric Company. No. 120,121; Jan. 8; v. 246; p. 565.
Feed, Cattle. S. F. Scattergood & Co. No. 120,043; Jan. 1; v. 246; p. 298.
Feed for dairy-cattle, Mixed. The Larrowe Milling Co. No. 120,269; Jan. 29; v. 246; p. 1200.
Fertilizer. H. E. Memminger. No. 120,140; Jan. 8; v. 246; p. 565.
Fertilizers. V. Volpato. No. 120,050; Jan. 1; v. 246; p. 298.
Flannels, Cotton. Appleton Company. No. 120,007; Jan. 1; v. 246; p. 297.
Flavoring extracts. The William S. Merrell Chemical Company. No. 120,036; Jan. 1; v. 246; p. 298.
Flour, Wheat-. Cataract City Milling Co. No. 120,165; Jan. 15; v. 246; p. 819.
Flour, Wheat-. The Midland Milling Company. No. 120,278; Jan. 29; v. 246; p. 1200.
Flours. Aunt Jemima Mills Company. Nos. 120,159–60; Jan. 15; v. 246; p. 819.
Flours, Wheat, &c. Community Marvel Millers' Association. No. 120,170; Jan. 15; v. 246; p. 819.
Food products—viz., jamalade and creamed chicken. Purity Cross, Inc. No. 120,041; Jan. 1; v. 246; p. 298.
Food, Vitiminic product for addition to. G. S. Crawford. No. 120,172; Jan. 15; v. 246; p. 819.
Foods, Certain named. California Packing Corporation. No. 120,014; Jan. 1; v. 246; p. 297.
Foods, Certain named. The Perkins-Epeneter Pickle Co. No. 120,285; Jan. 29; v. 246; p. 1200.
Footwear, Canvas-uppered rubber-soled. The Top Notch Company. No. 120,231; Jan. 15; v. 246; p. 821.
Fuel vaporizers, Liquid-. The Gasorator Co. No. 120,186; Jan. 15; v. 246; p. 820.
Furnaces, burners for same, &c., Industrial. W. S. Rockwell Company. No. 120,222; Jan. 15; v. 246; p. 821.
Furniture. Deltox Grass Rug Company. No. 120,174; Jan. 15; v. 246; p. 819.
Furniture, Certain named. Kobler & Miller Company. No. 120,267; Jan. 29; v. 246; p. 1200.
Garment for women's and children's wear, Trousered. A. D. Edwards & Son. No. 120,021; Jan. 1; v. 246; p. 297.
Gins, Dry and Old Tom. The Gordon's Dry Gin Company. No. 120,024; Jan. 1; v. 246; p. 297.
Gloves. R. H. Macy & Co. No. 120,032; Jan. 1; v. 246; p. 297.
Hair-dressing. C. C. Hay. No. 120,100; Jan. 8; v. 246; p. 564.
Hair-tonic. C. Arnone. No. 120,158; Jan. 15; v. 246; p. 819.
Ham. The Cleveland Provision Company. No. 120,169; Jan. 15; v. 246; p. 819.
Hat-linings. The Pullastic Co. of Amer. No. 120,217; Jan. 15; v. 246; p. 821.
Hats, Straw. The Valentine Hat Company. No. 120,233; Jan. 15; v. 246; p. 821.
Heaters for use in place of the hot-water bottle, Chemical. Pyrene Manufacturing Company. No. 120,219; Jan. 15; v. 246; p. 821.
Heels, soles, and shoes, Wood and leather. B. F. Sturtevant Co. No. 120,297; Jan. 29; v. 246; p. 1201.
Hose, Certain named water and steam. Montgomery Brothers. No. 120,143; Jan. 8; v. 246; p. 565.
Hosiery. Brown Durrell Co. No. 120,066; Jan. 8; v. 246; p. 563.
Hosiery. John M. Given, Inc. No. 120,187; Jan. 15; v. 246; p. 820.
Hosiery. R. H. Macy & Co. No. 120,033; Jan. 1; v. 246; p. 297.
Hydrogen-peroxid solution. Merck & Co. No. 120,142; Jan. 8; v. 246; p. 565.
Insect-repellent. The Kil-Tone Company. No. 120,108; Jan. 8; v. 246; p. 564.
Insecticide. Nicotine Mfg. Co. No. 120,279; Jan. 29; v. 246; p. 1200.
Insecticides. Merck & Co. No. 120,141; Jan. 8; v. 246; p. 565.
Insoles for shoes, Slip-. Armstrong Cork Company. No. 120,057; Jan. 8; v. 246; p. 563.
Laces. W. W. Chace. No. 120,166; Jan. 15; v. 246; p. 819.
Lacing, Rawhide. Chas. A. Schieren Company. No. 120,117; Jan. 8; v. 246; p. 565.
Lard substitute. Kingan & Company. No. 120,266; Jan. 29; v. 246; p. 1200.
Laxative, Herb. Hollister Drug Company. No. 120,104; Jan. 8; v. 246; p. 564.
Leather, Finished calf-. Barnet Leather Co. No. 120,061; Jan. 8; v. 246; p. 563.
Liniment. C. Mahnken. No. 120,199; Jan. 15; v. 246; p. 820.
Liniment for relief of certain named ailments. H. Hirschman. No. 120,103; Jan. 8; v. 246; p. 564.
Liniment for the treatment of gout, neuralgia, colds, &c. J. M. Hollander. No. 120,201; Jan. 29; v. 246; p. 1200.
Linoleum and like goods and certain articles made therefrom. Goldman Costume Company. No. 120,096; Jan. 8; v. 246; p. 564.
Lotion, Skin-. B. S. Doty. No. 120,176; Jan. 15; v. 246; p. 819.
Marble and building-stone, Spring River Stone Co. No. 120,046; Jan. 1; v. 246; p. 298.
Mattresses. Anderson & McClinton. No. 120,156; Jan. 15; v. 246; p. 819.
Medicinal tonic. H. T. Dewey & Sons. No. 120,078; Jan. 8; v. 246; p. 563.
Medicinal tonic for certain named diseases, hair-tonic, foot-powder, facial cream. Athenian Manufacturing Company. No. 120,059; Jan. 8; v. 246; p. 563.
Medicine known as andron for the prevention of certain named diseases. Andron Hygienic Co. No. 120,237; Jan. 29; v. 246; p. 1199.
Middy-blouses, sport-suits, shirt-waists, &c. Bloom & Millman. No. 120,011; Jan. 1; v. 246; p. 297.
Mops. Fiskett Manufacturing Co. No. 120,022; Jan. 1; v. 246; p. 297.
Mouth-wash, gargle, and deodorant, Antiseptic disinfectant. The Pyrhodol & Chemical Co. No. 120,150; Jan. 8; v. 246; p. 566.
Musical-instrument cases. Hawkes & Son. No. 120,194; Jan. 15; v. 246; p. 820.
Musical-instrument strings, Wire. L. C. Schermerhorn. No. 120,116; Jan. 8; v. 246; p. 565.
Musical instruments and supplies, Certain named. C. G. Conn, Ltd. No. 120,250; Jan. 29; v. 246; p. 1199.
Newspaper, Daily. Women's Wear Company. No. 120,130; Jan. 8; v. 246; p. 565.
Oil-cloth and linoleum. J. F. Darling. No. 120,019; Jan. 1; v. 246; p. 297.
Oil, Glandular and massage. A. O. Leonard. No. 120,109; Jan. 8; v. 246; p. 564.
Oils, Petrolatums, and glycerinum petræ, Medicinal and wool. The Atlantic Refining Company. No. 120,060; Jan. 8; v. 246; p. 563.
Oils, waxes, and greases. Galena-Signal Oil Company. No. 120,184; Jan. 15; v. 246; p. 820.
Oils, Wood-preserving. Forest Products Chemical Company. No. 120,090; Jan. 8; v. 246; p. 564.
Ointment, Foot-. R. C. Mason. No. 120,201; Jan. 15; v. 246; p. 820.
Ointment or salve for old sores, cancers, new cuts, eczema, &c. M. J. Strong. No. 120,290; Jan. 29; v. 246; p. 1201.
Overalls for women. Sweet-Orr & Co. No. 120,123; Jan. 8; v. 246; p. 565.
Paper and lead-pencils, Writing-. Peninsular Chemical Co. No. 120,284; Jan. 29; v. 246; p. 1200.
Paper boxes and drinking-cups, bonbon-cups, folding cartons, &c. E. E. Abrahams. No. 120,152; Jan. 15; v. 246; p. 819.
Paper, Bristol-. West Virginia Pulp & Paper Company. No. 120,127; Jan. 8; v. 246; p. 565.
Paper, Toilet-. Sauquoit Toilet Paper Co. No. 120,115; Jan. 8; v. 246; p. 565.
Paper, Writing-. Fox River Paper Co. Nos. 120,091–3; Jan. 8; v. 246; p. 564.
Paper, Writing-. West Virginia Pulp & Paper Company. No. 120,126; Jan. 8; v. 246; p. 565.
Pencil and pen clasps, paper-fasteners, and envelop-moisteners. Argus Manufacturing Company. No. 120,056; Jan. 8; v. 246; p. 563.
Pencils, Lead. Eagle Pencil Company. No. 120,082; Jan. 8; v. 246; p. 564.
Perfume, toilet water, sachet, face-powder, &c. The Baldwin Perfumery Co. No. 120,239; Jan. 29; v. 246; p. 1199.
Phonographs. Vitanola Talking Machine Co. No. 120,303; Jan. 29; v. 246; p. 1201.
Photographic dry-plates. Eastman Kodak Company. No. 120,179; Jan. 15; v. 246; p. 819.
Picture films, Moving-. Mutual Export & Import Corp No. 120,208; Jan. 15; v. 246; p. 820.

Pillows. The Billow Washable Pillow Company. No. 120,009; Jan. 1; v. 246; p. 297.
Pipe, Wooden. Pacific Creosoting Company. No. 120,283; Jan. 29; v. 246; p. 1200.
Piston-rings. Double Eccentric Piston Ring Corporation. No. 120,177; Jan. 15; v. 246; p. 819.
Plants and flowers, bulbs, roots, seeds, vines, and trees, Growing and cut. K. N. Tomkins. No. 120,125; Jan. 8; v. 246; p. 565.
Plasters for treating cancers. The H. M. B. Company. No. 120,097; Jan. 8; v. 246; p. 564.
Powder, Face-. W. A. Todd, Jr. No. 120,124; Jan. 8; v. 246; p. 565.
Precious metal, Certain named articles having parts of or plated with. Landers, Frary & Clark. No. 120,081; Jan. 1; v. 246; p. 297.
Preparation and a liniment for the treatment of corns, rheumatism, &c. H. W. Moyer. No. 120,207; Jan. 15; v. 246; p. 820.
Preparation for certain named ailments. J. P. McGrath. No. 120,144; Jan. 8; v. 246; p. 565.
Preparation for certain named diseases. M. A. Duncan. No. 120,178; Jan. 15; v. 246; p. 819.
Preparation for keeping the hair fluffy and curly, Liquid. M. L. Crea. No. 120,074; Jan. 8; v. 246; p. 563.
Preparation for the relief of certain named ailments and diseases. Hamilton Manufacturing Co. No. 120,098; Jan. 8; v. 246; p. 564.
Preparation for the treatment of venereal diseases. H. B. Stone. No. 120,122; Jan. 8; v. 246; p. 565.
Preparation for worms in stock. Wilson Remedy Company. No. 120,308; Jan. 29; v. 246; p. 1201.
Preparation used as a poultice, Chemical. P. Ehrhardt. No. 120,083; Jan 8; v. 246; p. 564.
Preparation used in detecting cotton or adulterants in woolens, Chemical. O. C. Mack. No. 120,133; Jan. 8; v. 246; p. 565.
Prepared chalk for medicinal purposes. The Thomas Manufacturing Co. No. 120,301; Jan. 29; v. 246; p. 1201.
Propellers for boats. American Manganese Bronze Company. No. 120,006; Jan. 1; v. 246; p. 297.
Radiators, radiator-sections, fittings, and gas-heaters. American Pressweld Radiator Corporation. No. 120,154; Jan. 15; v. 246; p. 819.
Rat-extermination preparation. D. Moskowitz. No. 120,139; Jan. 8; v. 246; p. 565.
Razor-strops. Pike Manufacturing Company. No. 120,286; Jan. 29; v. 246; p. 1200.
Receptacles, Certain named. Individual Drinking Cup Co. No. 120,264; Jan. 29; v. 246; p. 1200.
Reducing machinery. Williams Patent Crusher & Pulverizer Company. No. 120,234; Jan. 15; v. 246; p. 821.
Refrigerators and ice-boxes. Hecht & Company. No. 120,101; Jan. 8; v. 246; p. 564.
Remedy for sweaty feet. A. L. Fitzgerald. No. 120,089; Jan. 8; v. 246; p. 564.
Remedy, Tapeworm. L. Monroe. No. 120,206; Jan. 15; v. 246; p. 820.
Rings, Finger-. Eisenstadt Manufacturing Co. No. 120,084; Jan. 8; v. 246; p. 564.
Rubber and fabric belting. The Gutta Percha & Rubber Manufacturing Company. No. 120,192; Jan. 15; v. 246; p. 820.
Rubber articles and cement to be used therewith, Compound for repairing. Atlas Auto Supply Company. No. 120,238; Jan. 29; v. 246; p. 1199.
Rubber boots and shoes. United States Rubber Company. Nos. 120,048–9; Jan. 1; v. 246; p. 298.
Rubber boots with leather tops. The B. F. Goodrich Company. No. 120,188; Jan. 15; v. 246; p. 820.
Rubber erasers. American Lead Pencil Co. No. 120,054; Jan. 8; v. 246; p. 563.
Rubber heel-plates. H. G. Robinson. No. 120,151; Jan. 8; v. 246; p. 566.
Rubber shoes. The B. F. Goodrich Company. No. 120,189; Jan. 15; v. 246; p. 820.
Rugs, Textile bath-. R. H. Macy & Co. No. 120,274; Jan. 29; v. 246; p. 1200.
Salad. F. Johnson. No. 120,029; Jan. 1; v. 246; p. 297.
Salts for internal use, Granulated combination of certain. F. H. Paxton. No. 120,212; Jan. 15; v. 246; p. 821.
Sanitary and absorptive pads and bandages. The Menopad Mfg. Co. No. 120,277; Jan. 29; v. 246; p. 1200.
Sanitary closets, Portable. Silvers Manufacturing Company. No. 120,118; Jan. 8; v. 246; p. 565.
Scouring compound. The N. K. Fairbank Company. No. 120,088; Jan. 8; v. 246; p. 564.
Seeds, Grass and field. H. W. Doughten. No. 120,080; Jan. 8; v. 246; p. 564.
Shampoos, Liquid. B. Stuebner's Sons. No. 120,225; Jan. 15; v. 246; p. 821.
Shingles and building-lumber, Asbestos. Trussed Concrete Steel Company. No. 120,047; Jan. 1; v. 246; p. 298.
Shirts and waists, Boys'. The New Era Manufacturing Company. No. 120,146; Jan. 8; v. 246; p. 566.
Shoe and leather polish. J. L. Prescott Company. No. 120,216; Jan. 15; v. 246; p. 821.
Shoe and leather polishes. Rice & Hutchins. No. 120,263; Jan. 29; v. 246; p. 1200.
Shoes, Leather. Brown Shoe Company. No. 120,068; Jan. 8; v. 246; p. 563.
Shovels, Electric. The Marion Steam Shovel Company. No. 120,203; Jan. 15; v. 246; p. 820.
Show-cases, cedar chests, and house-screens. J. M. Hansen. No. 120,026; Jan. 1; v. 246; p. 297.
Signal-lamps, Automobile. Dixie Auto Signal Company. No. 120,175; Jan. 15; v. 246; p. 819.
Silk, foulards, satins, &c., in the piece, silk and velvet ribbons. Cheney Brothers. No. 120,249; Jan. 29; v. 246; p. 1199.
Silk piece goods. Haas Brothers. No. 120,193; Jan. 15; v. 246; p. 820.
Silk piece goods. H. R. Mallinson and Company. No. 120,200; Jan. 15; v. 246; p. 820.
Silk piece goods. Rogers & Thompson. No. 120,042; Jan. 1; v. 246; p. 298.
Slippers and shoes, bootees, &c. Bernhard Ulmann Co. No. 120,302; Jan. 29; v. 246; p. 1201.
Snap-fasteners. J. B. Crowley. No. 120,251; Jan. 29; v. 246; p. 1199.
Snap-fasteners. Keystone Snap Fastener Corporation. No. 120,265; Jan. 29; v. 246; p. 1200.
Snap-fasteners for wearing-apparel, Metal. American Fastener Co. No. 120,236; Jan. 29; v. 246; p. 1199.
Soap. L. Feld. No. 120,256; Jan. 29; v. 246; p. 1199.
Soap. The N. K. Fairbank Company. No. 120,087; Jan. 8; v. 246; p. 564.
Soap, Toilet. A. Bourjois & Co. Nos. 120,245–6; Jan. 29; v. 246; p. 1199.
Soda-ash and bicarbonate of soda. National Soda Products Company. No. 120,145; Jan. 8; v. 246; p. 565.
Soles and heels, and insoles, Leather and rubber. J. Goldman & Company. No. 120,131; Jan. 8; v. 246; p. 565.
Spark-plugs, spark-plug porcelains and parts. Champion Spark Plug Company. No. 120,167; Jan. 15; v. 246; p. 819.
Stamps, Hand-. Hill-Independent Mfg. Co. No. 120,102; Jan. 8; v. 246; p. 564.
Stockings. O'Callaghan & Fedden. Nos. 120,281–2; Jan. 29; v. 246; p. 1200.
Stout and ale. Edward & John Burke. No. 120,247; Jan. 29; v. 246; p. 1199.
Stoves and warmers, Gas. H. V. Peet. No. 120,148; Jan. 8; v. 246; p. 566.
Suits and overcoats, Men's outer. J. Blach & Sons. No. 120,010; Jan. 1; v. 246; p. 297.
Suits, coats, dress-waists, hats, and sweaters, Ladies' outer. M. J. Steinberg Hat & Fur Company. No. 120,294; Jan. 29; v. 246; p. 1201.
Sweaters. P. White. No. 120,306; Jan. 29; v. 246; p. 1201.
Sweaters, sweater-coats, jerseys, &c. Ess Arr Knitting Mills. No. 120,254; Jan. 29; v. 246; p. 1199.
Syrup, Table-. Alabama-Georgia Syrup Company. No. 120,005; Jan. 1; v. 246; p. 297.
Tables and cabinets and tops for same and stools, Kitchen. The Porcelain Enamel and Manufacturing Company of Baltimore. No. 120,040; Jan. 1; v. 246; p. 298.
Tablets for a blood and nerve tonic, Medicated. C. E. Cessna. No. 120,071; Jan. 8; v. 246; p. 563.
Thermometers, hypodermic syringes, and parts thereof, Clinical. Becton, Dickinson & Co. No. 120,240; Jan. 29; v. 246; p. 1199.
Thread and yarn, Silk, cotton, or wool. Nonotuck Silk Company. No. 120,211; Jan. 15; v. 246; p. 820.
Tile for building construction, Earthenware. Donahey, Moore & Donahey. No. 120,020; Jan. 1; v. 246; p. 297.
Tire-fabric piece goods, Cotton and linen woven. Manhassit Manufacturing Company. No. 120,134; Jan. 8; v. 246; p. 565.
Tire-puncture repairing or sealing powder. Defiance Chemical Company. No. 120,252; Jan. 29; v. 246; p. 1199.
Tires, Patches for the inner tubes and casings of pneumatic. Moco Laboratories. No. 120,205; Jan. 15; v. 246; p. 820.
Toilet preparations and remedies for external use. N. E. Berry. No. 120,062; Jan. 8; v. 246; p. 563.
Toilet preparations and the like, Certain named. Remiller Co. No. 120,111; Jan. 8; v. 246; p. 564.
Toilet preparations, Certain named. All-Package Grocery Stores Co. No. 120,053; Jan. 8; v. 246; p. 563.
Toilet preparations, Certain named. George Borgfeldt & Co. No. 120,063; Jan. 8; v. 246; p. 563.
Toilet preparations, Certain named. A. Bourjois & Co. No. 120,064; Jan 8; v. 246; p. 563.
Toilet preparations, Certain named. A. Bourjois & Co. No. 120,161; Jan. 15; v. 246; p. 819.
Toilet preparations, Certain named. W. B. Coates, Jr. No. 120,072; Jan. 8; v. 246; p. 563.
Toilet preparations, Certain named. L. R. Dawley. No. 120,076; Jan. 8; v. 246; p. 563.
Toilet preparations, Certain named. M. K. Ivah. No. 120,197; Jan. 15; v. 246; p. 820.
Toilet preparations, Certain named. E. Richards. No. 120,112; Jan. 8; v. 246; p. 564.
Toilet preparations, Certain named. H. Rigaud. No. 120,113; Jan. 8; v. 246; p. 564.
Tonic and remedy for fowls. Germo Manufacturing Company. No. 120,095; Jan. 8; v. 246; p. 564.
Tonics. R. A. D. Carbonell. No. 120,077; Jan. 8; v. 246; p. 563.
Tooth-filling compound. The J. M. Ney Company. No. 120,147; Jan. 8; v. 246; p. 566.

Toys, Certain named. M. Gerberg. No. 120,023; Jan. 1; v. 246; p. 297.
Toys, Constructional. The Matchless Metal Polish Company. No. 120,202; Jan. 15; v. 246; p. 820.
Tractors and automobile tractor devices. Knickerbocker Motors. No. 120,198; Jan. 15; v. 246; p. 820.
Traps, Rat and mouse. M. E. Dorsch. No. 120,079; Jan. 8; v. 246; p. 562.
Treatment for certain named troubles. H. K. Eesima. No. 120,258; Jan. 29; v. 246; p. 1199.
Trousers. M. T. Gregg. No. 120,182; Jan. 8; v. 246; p. 565.
Type-writer ribbons and carbon-paper. Remington Type-writer Company. No. 120,220; Jan. 15; v. 246; p. 821.
Underwear, Ladies' textile athletic. D. E. Sicher & Co. No. 120,293; Jan. 29; v. 246; p. 1201.
Underwear, union-suits, pajamas, &c., Athletic. The Alvo Company. No. 120,235; Jan. 29; v. 246; p. 1199.
Valves, Certain named. The Fisher Governor Co. No. 120,183; Jan. 15; v. 246; p. 820.
Valves, pressure-reducers, and piping for a dispensing system. Allen Pressure System Co. No. 120,153. Jan. 15; v. 246; p. 819.
Veterinary liniment. Marion Stock Remedy Company. No. 120,135; Jan. 8; v. 246; p. 565.
Wagons and automobiles, Farm and delivery. The Milburn Wagon Company. No. 120,038; Jan. 1; v. 246; p. 298.
Waists, Ladies' dress and shirt. S. Gross & Co. No. 120,300; Jan. 29; v. 246; p. 1201.
Watches. Waltham Watch Company. No. 120,304; Jan. 29; v. 246; p. 1201.
Waterproof and weatherproof building and roofing material. Goodridge-Call Lumber Company. No. 120,190; Jan. 15. v. 246; p. 820.
Waters and non-alcoholic beverages, Mineral. Cloverdale Spring Company. No. 120,016; Jan. 1; v. 246; p. 297.
Whisky. James Buchanan & Co. No. 120,069; Jan. 8; v. 246; p. 562.
Whisky. Train & McIntyre. No. 120,272; Jan. 29; v. 246; p. 1200.
Wines. The Sweet Valley Wine Company. No. 120,298; Jan. 29; v. 246; p. 1201.
Wire fabrics used particularly as spring-bottoms for beds, &c. Gamut-Thompson Company. No. 120,185; Jan. 15; v. 246; p. 820.
Wood-expanding preparations, Liquid. Eureka Liquid Wheel Tightener Company. No. 120,181; Jan. 15; v. 246; p. 820.
Wood which by treatment has been made suitable for pencil-wood. Aktieselskabet Scandinavian Pencil Wood Company. No. 120,052; Jan. 8; v. 246; p. 563.
Woven fabrics provided with a coating to give the appearance of leather. Du Pont Fabrikoid Company. No. 120,081; Jan. 8; v. 246; p. 564.

ALPHABETICAL LIST OF LABELS.

"A Square Meal." (For Milk-Bottles.) E. W. Woolman. No. 20,450; Jan. 15; v. 246; p. 822.
"Allen Sodering Liquid." (For Soldering-Flux, Liquid Form.) L. B. Allen Co. No. 20,455; Jan. 22; v. 246; p. 1029.
"Allen Sodering Liquid." (For Soldering-Flux, Liquid Form.) L. B. Allen Co. Nos. 20,460–1; Jan. 22; v. 246; p. 1029.
"Allen Sodering Paste." (For Soldering-Flux, Paste Form.) L. B. Allen Co. No. 20,453; Jan. 22; v. 246; p. 1029.
"Allen Sodering Paste." (For Soldering-Flux, Paste Form.) L. B. Allen Co. No. 20,457; Jan. 22; v. 246; p. 1029.
"Allen Sodering Paste." (For Soldering-Flux, Paste Form.) L. B. Allen Co. No. 20,459; Jan. 22; v. 246; p. 1029.
"Allen Sodering Salts." (For Soldering-Flux, Granular Form.) L. B. Allen Co. No. 20,454; Jan. 22; v. 246; p. 1029.
"Allen Sodering Salts." (For Soldering-Flux, Granular Form.) L. B. Allen Co. No. 20,456; Jan. 22; v. 246; p. 1029.
"Allen Sodering Salts." (For Soldering-Flux, Granular Form.) L. B. Allen Co. No. 20,458; Jan. 22; v. 246; p. 1029.
"Almond Smash." (For a Fruit Flavoring-Syrup for Soft Drinks.) S. Blackman. No. 20,465; Jan. 22; v. 246; p. 1029.
"An Ideal Beverage." (For a Non-Intoxicating Beverage.) Beadleston & Woerz. No. 20,463; Jan. 22; v. 426; p. 1029.
"Barbanell's Perspiration Corrector." (For a Deodorising Preparation.) F. Barbanell. No. 20,462; Jan. 22; v. 246; p. 1029.
"Beech-Nut Brand Cough Drops." (For Cough-Drops.) Beech-Nut Packing Company. No. 20,464; Jan. 22; v. 246; p. 1029.
"Blew." (For Fresh Apples.) E. T. Blew Company. No. 20,466; Jan. 22; v. 246; p. 1029.
"Bluvel." (For Tracing-Paper.) Cardinell-Vincent Company. No. 20,448; Jan. 15; v. 246; p. 822.
"Bonnie-B-Slip-pon Veil." (For Veils.) Silverberg Import Co. No. 20,492; Jan. 22; v. 246; p. 1029.
"Brando Hot." (For a Non-Intoxicating Beverage.) G. S. Steinberg. No. 20,494; Jan. 22; v. 246; p. 1029.
"Butter-Nut Brand Nut-Margarine." (For Nut-Margarin.) Narragansett Dairy Company. No. 20,448; Jan. 15; v. 246; p. 822.
"Calcerbs." (For a Pharmaceutical Preparation.) Eckman Manufacturing Company. No. 20,473; Jan. 22; v. 246; p. 1029.
"Dea Wonderful Salve." (For a Salve.) J. Korinek. No. 20,477; Jan. 22; v. 246; p. 1029.
"Denver Mud." (For Plastic Dressings.) The Germicide Company. No. 20,474; Jan. 22; v. 246; p. 1029.
"Eddie's Everlasting Black Dye." (For Dye.) E. J. O'Reilly & Co. No. 20,498; Jan. 29; v. 246; p. 1202.
"Eversharp." (For Leads for Pencils.) Wahl Adding Machine Company. No. 20,496; Jan. 22; v. 246; p. 1029.
"Fuji's." (For Bead Molasses.) S. Nagano. No. 20,490; Jan. 22; v. 246; p. 1029.
"Fuji." (For Chop-Suey Sauce.) S. Nagano. No. 20,491; Jan. 22; v. 246; p. 1029.
"Guittard's Pure." (For Chocolate.) Guittard Company. No. 20,475; Jan. 22; v. 246; p. 1029.
"Hair Forever." (For Hair-Tonic.) Mangan & Co. No. 20,479; Jan. 22; v. 246; p. 1029.
"Johansen Shoes." (For Shoes.) Johansen Brothers Shoe Company. No. 20,445; Jan. 15; v. 246; p. 822.
"Lactonade." (For a Non-Alcoholic Beverage.) Omaha Beverage Co. No. 20,483; Jan. 22; v. 246; p. 1029.
"Lasses-Taytera." (For Molasses and Sweet-Potato Yams.) G. H. Dunbar & Sons. No. 20,472; Jan. 22; v. 246; p. 1029.
"Lindflax Suiting." (For Suitings.) Heller & Long. No. 20,476; Jan. 22; v. 246; p. 1029.
"Longman's Superior White Zinc." (For White Zinc.) Longman and Martinez. No. 20,447; Jan. 15; v. 246; p. 822.
"Loyalty Bread." (For Bread.) R. L. Nafziger. No. 20,482; Jan. 22; v. 246; p. 1029.
"No. 13 Auto Polish." (For Automobile-Polish.) Buquor Motor Co. No. 20,468; Jan. 22; v. 246; p. 1029.
"Nu-Hair Restorer." (For a Preparation for the Hair.) Mme. King. No. 20,446; Jan. 15; v. 246; p. 822.
"Nupak." (For Coffee.) Haas, Baruch & Co. No. 20,444; Jan. 15; v. 246; p. 822.
"Olmstead's Silk Oil." (For a Prepared Oil for Softening and Degumming Raw Silk.) Loos & Dilworth. No. 20,478; Jan. 22; v. 246; p. 1029.
"100% Pure Clarx New Process Whole Wheat Flour." (For Whole-Wheat Flour.) Clarx Milling Company. No. 20,470; Jan. 22; v. 246; p. 1029.
"Pearl Oil." (For Illuminating-Oil.) Standard Oil Company. No. 20,493; Jan. 22; v. 246; p. 1029.
"Peg-At-My-Heart." (For a Game.) W. G. Young. No. 20,451; Jan. 15; v. 246; p. 822.
"Perfection Orange Grapefruit Marmalade." (For Marmalade.) C. H. Moss. No. 20,480; Jan. 22; v. 246; p. 1029.
"Perkins Royal Extra Blend Coffee." (For Coffee.) R. P. Perkins. No. 20,485; Jan. 22; v. 246; p. 1029.
"Polly Brand Neufchatel Cheese." (For Neufchatel Cheese.) Breakstone & Levine. No. 20,467; Jan. 22; v. 246; p. 1029.
"Port-O-Live." (For a Tonic.) Port-O-Live Tonic Company. No. 20,486; Jan. 22; v. 246; p. 1029.
"Puritan Brand." (For Beverages and Non-Alcoholic Drinks.) Puritan Mfg. Co. No. 20,487; Jan. 22; v. 246; p. 1029.
"Rumo." (For a Non-Intoxicating Beverage.) G. S. Steinberg. No. 20,495; Jan. 22; v. 246; p. 1029.
"Sani-Fold Tooth Brush." (For Tooth-Brushes.) The Sani-Fold Company of California. No. 20,488; Jan. 22; v. 246; p. 1029.
"Savoy Brand." (For Tomato Paste.) Mt. Holly Canning Co. No. 20,481; Jan. 22; v. 246; p. 1029.
"Spear-Em." (For a Game.) W. G. Young. No. 20,452; Jan. 15; v. 246; p. 822.
"Submarine-Drag." (For a Game.) W. G. Young. No. 20,497; Jan. 22; v. 246; p. 1029.
"Tar Off." (For a Preparation for Taking Off or Removing Tar and Road-Oils from Automobiles.) H. S. Castor. No. 20,469; Jan. 22; v. 246; p. 1029.
"Taylor's Perfection." (For Imitation Coffee or Substitute for Coffee.) C. M. Taylor, Jr. No. 20,449; Jan. 15; v. 246; p. 822.
"The Fair Sex." (For Ladies' Skirts.) H. Shapiro & Co. No. 20,489; Jan. 22; v. 246; p. 1029.
"Tooth Picks." (For Toothpicks.) Cutter-Tower Company. No. 20,471; Jan. 22; v. 246; p. 1029.
"Wallace's Liverade, Aids The Liver." (For a Remedy for Constipation, Sour Stomach, Indigestion, Sick Headache, Dizziness, Biliousness, and Torpid Liver.) Liverade Medicine Co. No. 20,499; Jan. 29; v. 246; p. 1202.
"West-Falls." (For Hair-Dressing.) J. Palazzolo. No. 20,484; Jan. 22; v. 246; p. 1029.

PRINTS.

"A daily cartoon by Sykes." (For The Evening Ledger.) Public Ledger Company. No. 4,853; Jan. 22; v. 246; p. 1030.

"Delicious Instant Chile Recipes." (For Instant-Chilli.) The Instant Products Company. No. 4,852; Jan. 22; v. 246; p. 1030.

"Ed" says he saves a nickel every time he smokes a Cinco Cigar." (For Cinco Cigars.) Otto Eisenlohr and Bros. No. 4,850; Jan. 22; v. 246; p. 1030.

"Everlast." (For Concrete-Hardening.) Concrete Hardening Co. No. 4,848; Jan. 22; v. 246; p. 1030.

"Keep Your Inkwell Filled With Carter's Writing Fluid." (For Ink.) The Carter's Ink Co. No. 4,844; Jan. 15; v. 246; p. 822.

"Opening The Case." (For Wheat Breakfast Food.) Cream of Wheat Co. No. 4,849; Jan. 22; v. 246; p. 1030.

"P. A. plays the smoke game with all the cards on the table." (For Smoking-Tobacco.) R. J. Reynolds Tobacco Company. No. 4,855; Jan. 29; v. 246; p. 1202.

"Prepare For A Rainy Day." (For Bank-Signs.) The Twentieth Century Company. No. 4,854; Jan. 22; v. 246; p. 1030.

"Purity First." (For a Chocolate Confection.) Common Sense Novelty Co. No. 4,847; Jan. 22; v. 246; p. 1030.

"Rubberset Shaving Brushes." (For Shaving-Brushes.) Rubber & Celluloid Products Company. No. 4,845; Jan. 15; v. 246; p. 822.

"Schlitz Bock." (For Species of Beer Known as Bock.) The Guyler Lithographic Company. No. 4,851; Jan. 22; v. 246; p. 1030.

"Smoking P. A. is like shifting into high." (For Smoking-Tobacco.) R. J. Reynolds Tobacco Company. No. 4,856; Jan. 29; v. 246; p. 1202.

"Victory Bread." (For Bread.) P. Schulze. No. 4,846; Jan. 15; v. 246; p. 822.

CLASSIFICATION OF PATENTS

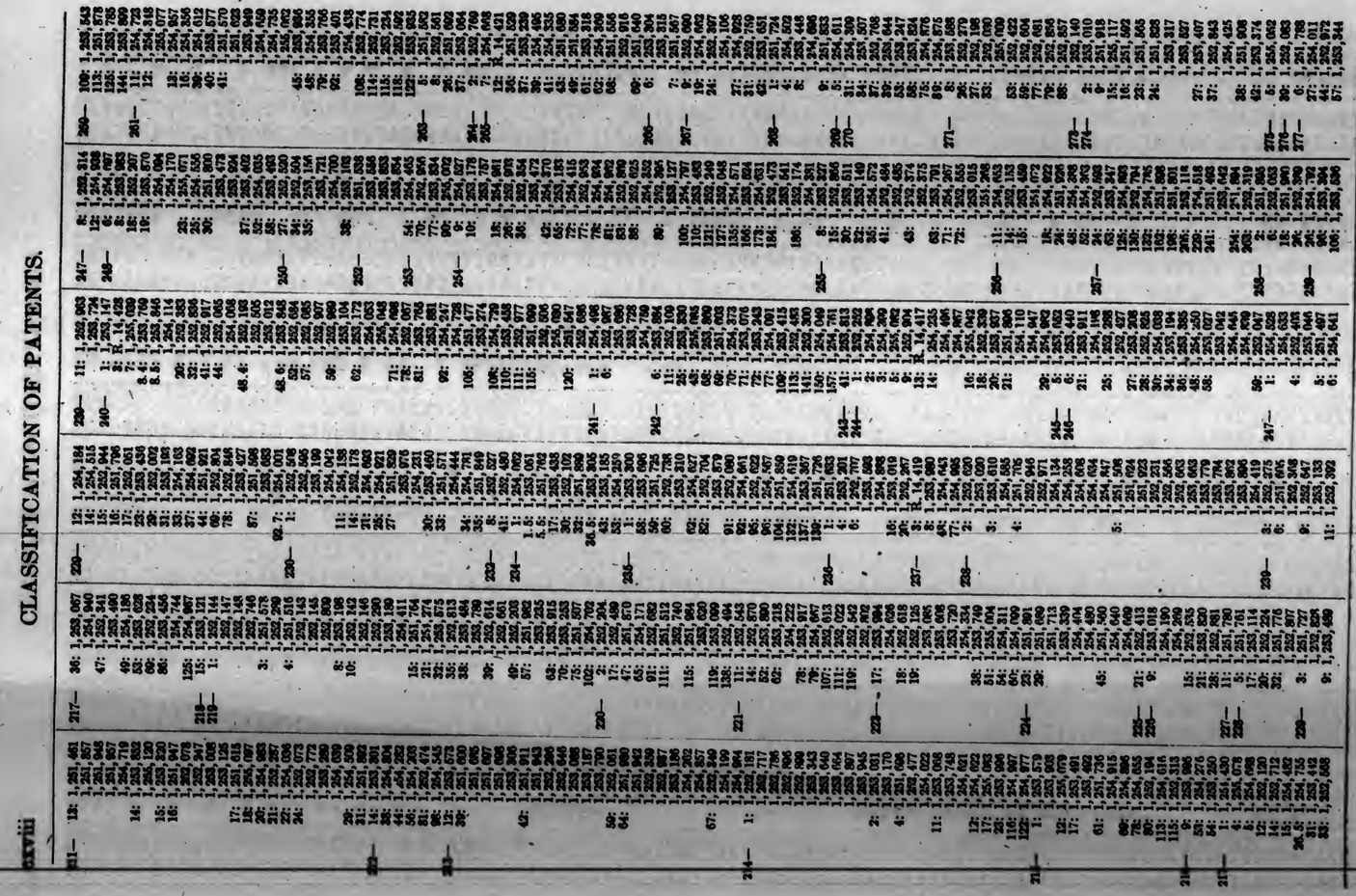
JANUARY, 1918.

NOTE.—First number—class, second number—subclass, third number—patent number.

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OFFICIAL GAZETTE

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1918

ERRATA.

1,255,576, page 134, in heading, name of first-mentioned patentee, for "Robert T. C. Bain" read *Robert F. C. Bain*.

1,255,650, page 155, seventh claim, line 4, for the word "nozzles" read *nozzle*.

1,255,660, page 158, second claim, line 3, for the word "side" read *face*.

1,256,795, page 568, second claim, line 1, for the word "magnet" read *magneto*.

1,257,642, page 851, in heading, residence of patentee, for "New Haven, Connecticut" read *Waterbury, Connecticut*, and in assignment, name of assignee, for the word "Scoville" read *Scovill*.

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THE OFFICIAL GAZETTE OF THE United States Patent Office.

Vol. 247—No. 1. TUESDAY, FEBRUARY 5, 1918. Price—$5 per year.
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The OFFICIAL GAZETTE is mailed under the direction of the Superintendent of Documents, Government Printing Office, to whom all subscriptions should be made payable and all communications respecting the Gazette should be addressed. Issued weekly. Subscriptions, $5.00 per annum; single numbers, 10 cents each.

Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

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Issue of February 5, 1918.

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Designs	38	No. 51,710	to No. 51,747,	inclusive.
Trade-Marks	158	No. 120,309	to No. 120,466,	inclusive.
Labels	9	No. 20,500	to No. 20,508,	inclusive.
Prints	2	No. 4,857	to No. 4,858,	inclusive.
Reissues	1	No. 14,430.		
Total	928			

Notice—Assistant Examiner Examination.

The Civil Service Commission has announced an open competitive examination for the position of Assistant Examiner in the Patent Office on February 13, 14, and 15, 1918. Qualified persons are urged to enter this examination. Entrance salary, $1,500 per annum.

Application blanks and information as to where the examination will be held may be obtained from the Civil Service Commission, Washington, D. C.

Amendment to Rules of Practice.

(ORDER No. 2,372.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., February 6, 1918.

Acting under the provisions of section 483 of the Revised Statutes and with the approval of the Secretary of the Interior, Rule 15 of the Rules of Practice in the Patent Office is amended by adding thereto the following:

"except that authorized officers of the Army and Navy will be allowed during the war to inspect cases which in the opinion of the Commissioner disclose inventions that might be of value in the prosecution of the war, after having filed a duly-executed oath with the Commissioner that no contents of any application will be divulged except as it may become necessary in the prosecution of the war."

so that the rule will read as follows:

"15. Pending applications are preserved in secrecy. No information will be given, without authority, respecting the filing by any particular person of an application for a patent or for the reissue of a patent, the pendency of any particular case before the Office, or the subject-matter of any particular application, unless it shall be necessary to the proper conduct of business before the Office, as provided by Rules 97, 103, and 108, except that authorized officers of the Army and Navy will be allowed during the war to inspect cases which in the opinion of the Commissioner disclose inventions that might be of value in the prosecution of the war, after having filed a duly-executed oath with the Commissioner that no contents of any application will be divulged except as it may become necessary in the prosecution of the war."

J. T. NEWTON,
Commissioner.

Applications Made to the Federal Trade Commission for Licenses under Enemy-Controlled Patents and Trade-Marks Pursuant to the "Trading with the Enemy Act."

Patent No. 13,848, (reissue,) December 15, 1914, to Georg Korndörfer and Baptist Reuter, of Höchst-on-the-Main, Germany, assignors to Farbwerke vorm. Meister Lucius & Brüning, of Höchst-on-the-Main, Germany, a corporation of Germany. Derivatives of diaminodioxyarsenobenzene and process of making same. License applied for by Farbwerke-Hoechst Co., New York, N. Y.

Copyright, Class D, No. 35,261, December 3, 1913, to Carl Reissner, of Dresden. "Die Dumme Doortje," by Marquardt Van Bryndt. License applied for by Jos. W. Stern & Co., 102–104 West Thirty-eighth street, New York, N. Y.

Patent No. 961,830, June 21, 1910, to Robert Zahn, of Plauen, Germany. Motion-transmitting mechanism. License applied for by Robert Reiner Importing Company, of Weehawken, N. J.

Changes in Classification.

(ORDER No. 2,371.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., January 29, 1918.

The following change in the classification of inventions is hereby directed, to take effect immediately:

In class 86, Ammunition and Explosive-Charge Making, (Division XIII,) establish the following subclass and definition:

Cartridge-packing—
48. Belt-loading.

48. CARTRIDGE-PACKING, BELT-LOADING. Machines for loading or filling belts with cartridges.

The patents contained in this subclass have been taken from class 89, Ordnance, subclass 1, Miscellaneous.

J. T. NEWTON,
Commissioner.

12-516

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business February 1, 1918.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended.	
314	1. Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Railway Gates; Planting; Scattering Unloaders; Trees, Plants, and Flowers.	Dec. 18	Dec. 13	254
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	Oct. 3	Oct. 12	301
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Heating; Metal-Founding; Metallurgical Apparatus; Metallurgy; Plastic Metal Working.	Jan. 4	Dec. 25	71
234	4. Conveyers; Elevators; Excavating; Hoisting; Material or Article Handling; Pneumatic Despatch Pushing and Puling Implements; Railway Mail Delivery; Store-Service; Traversing Hoists.	Jan. 8	Dec. 12	153
167	5. Bookbinding; Harvesters; Jewelry; Music	Oct. 18	Nov. 30	270
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Substance Preparation.	July 21	Oct. 2	477
312	7. Educational Appliances; Games and Toys; Optics; Velocipedes	Oct. 1	Dec. 1	512
133	8. Beds; Chairs; Flexible-Sheet Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Nov. 9	Nov. 27	464
221	9. Air and Gas Pumps; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Marine Propulsion.	June 12	Jan. 12	510
235	10. Carriages and Wagons; Motor Vehicles	Aug. 3	Dec. 12	755
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Spring Devices; Whips and Whip Apparatus.	Oct. 23	Jan. 18	235
322	12. Journal-Boxes, Pulleys, and Shafting; Machine Elements	Oct. 5	Dec. 3	573
329	13. Ammunition and Explosive Charge Making; Bolt, Nail, Nut, Rivet, and Screw Making; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Oct. 22	Dec. 18	447
323	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Oct. 8	Dec. 4	260
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Nov. 20	Dec. 27	271
112	16. Electric Signaling-A; Radiant Energy; Telegraphy; Telephony	July 26	Nov. 5	486
307	17. Ornamentation; Paper Manufactures; Printing; Type Casting; Sheet Material Associating or Folding; Sheet Feeding or Delivering; Type Setting.	Nov. 7	Jan. 5	83
229	18. Fluid-Pressure Regulators; Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Oct. 13	Oct. 15	368
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels	Aug. 21	Nov. 2	458
179	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Jan. 9	Jan. 4	231
212	21. Brakes and Gins; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Aug. 22	Oct. 23	248
249	22. Aeronautics; Firearms; Ordnance	Oct. 10	Dec. 5	281
219	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	Aug. 14	Nov. 27	376
144	24. Apparel; Apparel Apparatus; Sewing-Machines; Garment Supporters	Dec. 11	Dec. 17	153
315	25. Agitating; Butchering; Centrifugal Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers; Gas Separation.	Dec. 24	Dec. 20	142
105	26. Electricity, Generation; Motive Power	July 23	Aug. 6	565
214	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus	Nov. 6	Nov. 23	350
225	28. Internal-Combustion Engines	Aug. 29	Nov. 17	621
147	29. Boring and Drilling; Coopering; Fire-Escapes; Ladders; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking Tools.	Sept. 10	Nov. 22	350
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines	Sept. 11	Dec. 31	439
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Sugar and Salt.	Nov. 6	Nov. 6	241
278	32. Gas and Liquid Contact Apparatus; Heat Exchange; Packaging Liquids; Refrigeration	June 25	Jan. 2	722
70	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving; Roofs.	Dec. 3	Dec. 10	213
304	34. Railways; Railway Rails and Joints; Railway Rolling Stock; Railway Ties and Fasteners	Jan. 9	Jan. 21	65
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Signals; Toilet	Sept. 7	Nov. 27	598
204	36. Driers; Geometrical Instruments; Measuring Instruments; Photography; Force Measuring	Oct. 23	Nov. 28	637
107	37. Electric Lamps; Electricity, Circuit Makers and Breakers; Electricity, Conduits; Electricity, General Applications.	July 25	Oct. 13	647
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells	Dec. 17	Dec. 20	124
220	39. Water Distribution; Multiple Valves	July 17	Nov. 3	451
275	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Oct. 13	Dec. 7	463
125	41. Railway Draft Appliances; Resilient Tires and Wheels	Oct. 17	Nov. 6	358
114	42. Electricity, Conductors; Railway Signaling; Electricity-Transmission to Vehicles; Electric Signaling	Aug. 1	Oct. 3	672
382	43. Baths and Closets; Dispensing; Dispensing Beverages; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Oct. 26	Nov. 24	378
253	44. Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Ships	Oct. 26	Dec. 26	217
379	45. Clutches; Lubrication; Motors; Railway Brakes	Sept. 25	Oct. 8	435

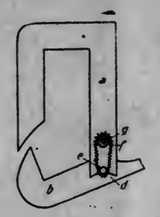
Oldest new case, June 12; oldest amended, Aug. 6.
Total number of applications awaiting action..... 16,926

63	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Dec. 31	Jan. 17	522
	Designs	Dec. 11	Jan. 5	269
	Labels and Prints	Jan. 22	Jan. 19	43

PATENTS

GRANTED FEBRUARY 5, 1918.

1,255,121. PIVOTAL JOINT BETWEEN AN ALTERNATING-CURRENT ELECTROMAGNET AND ITS ARMATURE. ALBERT AICHELE, Baden, Switzerland, assignor to Aktiengesellschaft Brown Boveri & Cie., Baden, Switzerland. Filed Dec. 30, 1916. Serial No. 139,907. (Cl. 175—345.)



1. In an alternating current electromagnet having an armature pivoted thereto, the combination of a bearing notch in said magnet, a pivot member on said armature coöperating with said bearing notch to form the pivotal connection between said armature and said magnet, and an endless elastic member engaging said armature and said magnet and having a constant tendency to keep said pivot member pressed into said bearing notch.

4. In an alternating current electromagnet having an armature pivoted thereto, the combination of a bearing notch in said magnet, a projection on said magnet located inward of said bearing notch, a pivot member on said armature coöperating with said bearing notch to form the pivotal connection between said armature and said magnet, an elastic closed loop composed of a helical spring looped under tension around said projection and said pivot member so as to have a constant tendency to press said pivot member in said bearing notch, and a plate-like member formed with a hole for engaging said projection and a hole for engaging said pivot member, located externally of said elastic closed loop, and means for retaining said plate-like member in place, whereby said elastic closed loop is prevented from slipping off said projection and said pivot member, and whereby also said armature is kept from falling away from said magnet in case of said elastic closed loop breaking.

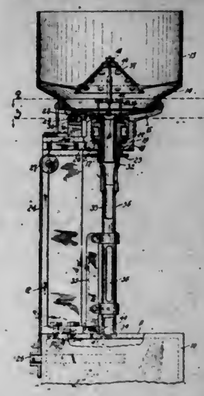
[Claims 2 and 3 not printed in the Gazette.]

1,255,122. FEEDING ATTACHMENT FOR CROWN-CORK-MAKING MACHINES. EMILIO ALBERTI, New York, N. Y., assignor to International Cork Company, Brooklyn, N. Y., a Corporation of New York. Filed Aug. 4, 1917. Serial No. 184,485. (Cl. 113—113.)

1. In a device of the character described, the combination with a hopper having a tubular outlet, of a stationary tube leading from said outlet and provided with a mouth having a diameter larger than that of said outlet, means for vibrating said tubular outlet in relation to said tube, and a plurality of stationary pins within said hopper around said outlet.

9. In a device of the character described, the combination with a hopper having a bottom provided with a tubular outlet, of means for vibrating said bottom and outlet, and a stationary cage within said hopper disposed around said outlet.

10. In a device of the character described, the combination with a hopper having a perforated bottom provided with a tubular outlet, of means for vibrating said bottom and outlet, and a plurality of stationary pins within said hopper around said outlet, the lower ends of said pins reaching within perforations in said bottom.



16. In a device of the character described, the combination with a hopper having a perforated bottom provided with a tubular outlet, of a stationary tube leading from said outlet and provided with a mouth having a diameter larger than that of said outlet, means for vibrating said bottom and outlet in relation to said tube, an inverted substantially funnel-shaped member disposed within said hopper a substantial distance above said outlet, and a plurality of pins depending from said funnel-shaped member and surrounding said outlet, the lower ends of said pins reaching within perforations in said bottom.

18. In a device of the character described, the combination with a hopper having a tubular outlet, of means for vibrating said outlet, an inverted substantially funnel-shaped member disposed within said hopper a substantial distance above said outlet, and a cage depending from said funnel-shaped member and surrounding said outlet.

[Claims 2 to 8, 11 to 15, and 17 not printed in the Gazette.]

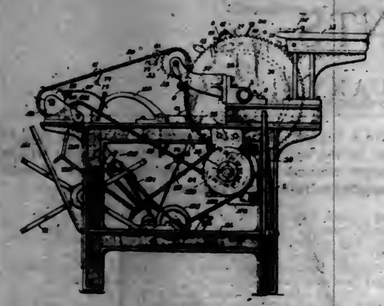
1,255,123. TEARING-MACHINE. THOMAS ALLATT, New Brighton, N. Y., assignor to Herrmann, Aukam & Co., New York, N. Y., a Corporation of New York. Filed Mar. 23, 1916. Serial No. 86,273. (Cl. 223—59.)

1. A tearing machine comprising in combination a cylindrical tearer-drum, a tearer-carriage secured to said cylindrical tearer-drum, a tearer movably mounted on said tearer-carriage, means for rotating said cylindrical tearer-drum and means for moving said tearer.

16. A tearing machine comprising in combination a tearing mechanism for tearing material transversely into separate pieces, and means for engaging the separated pieces of material as they are torn and conveying them away from said tearing mechanism.

20. A tearing-machine comprising in combination a tearer-carriage, a tearer movably mounted on said tearer-

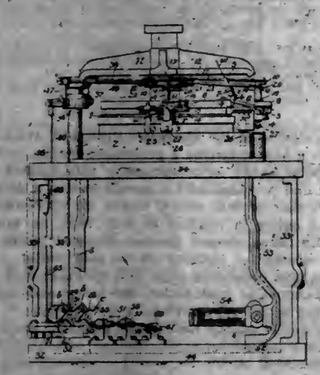
carriage, means on said tearer-carriage for holding material to be torn, a piling device, comprising a gripper and



means on said tearer carriage for forcing the material into engagement with said gripper.

[Claims 2 to 15, 17 to 28, and 30 to 39 not printed in the Gazette.]

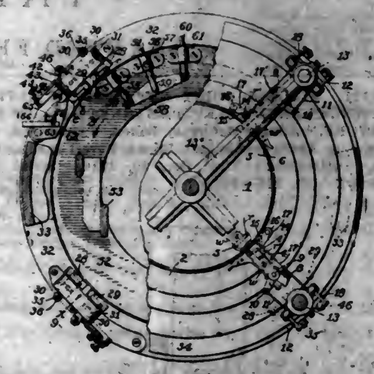
1,255,124. STRIPING MECHANISM FOR KNITTING-MACHINES. GEORGE LAWSON BALLARD, Norristown, Pa., assignor to Wildman Mfg. Co., a Corporation of Pennsylvania. Filed May 22, 1914. Serial No. 840,378. (Cl. 66—12.)



5. In combination in a circular knitting machine, a plurality of stripers, each comprising two pivotally mounted yarn feed fingers movable in a vertical plane, and a yarn cutter and clamp, an oscillating controller movable in a horizontal plane and having a cam action on said feed fingers for changing their relative positions, a circumferentially movable member arranged about the axis of the knitting head, connections therefrom to the oscillating controller, a second circumferentially movable member arranged about the axis of the knitting head, connections from said second member to the yarn cutters to move them simultaneously, said connections including a member oscillating about the axis of the oscillating controller, and means for operating said circumferentially movable members, said means operating the first circumferentially movable member step by step first in one direction and then in the other for performing successive yarn changing action and operating the second circumferentially movable member first in one direction and then in the other for performing the cutting operations, substantially as described.

[Claims 1 to 4, 6, and 7 not printed in the Gazette.]

1,255,125. YARN-CHANGING MECHANISM FOR CIRCULAR-KNITTING MACHINES. GEORGE L. BALLARD, Norristown, Pa., assignor to Wildman Mfg. Co., Norristown, Pa., a Corporation of Pennsylvania. Filed July 15, 1914. Serial No. 851,152. (Cl. 66—12.)



4. In combination in a knitting machine, a rotary needle cylinder, a yarn changer comprising two yarn fingers pivotally mounted, a pivoted controller swinging horizontally and having a cam portion to ride on the outer ends of the fingers, said controller being pivoted between the fingers, a yarn cutter moving in a horizontal plane, a pair of star wheels arranged on horizontal axes, a crank pin connected with one star wheel, a connection between the crank pin and the pivoted controller comprising a vertical rod, a bell crank lever, an arm on the axis of the pivoted controller, a horizontal rod extending inwardly from the bell crank lever to said arm, a cam member connected with the other star wheel, a connection between said cam member and the cutter comprising a vertical rod, a bell crank lever connected thereto, a horizontal rod extending inwardly toward the axis of the machine, an arm connected with the cutter and to which said last mentioned inwardly extending horizontal rod is connected and means for operating the star wheels step by step in one direction.

[Claims 1 to 3 and 5 to 12 not printed in the Gazette.]

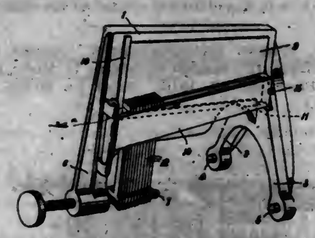
1,255,126. ELECTRIC SWITCH. CLARENCE A. BATES, Bridgeport, Conn., assignor to The Bryant Electric Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Mar. 27, 1917. Serial No. 157,695. (Cl. 175—293.)



4. In an electric switch having a line terminal and two branch terminals, a novel two position switch bar comprising a pair of spaced blades and a connecting bridge, said bridge and blades being integral, and one of said blades comprising a pair of contact arms, and the other being a single arm, the former blade being adapted to engage the line terminal, in both positions of the bar, and one of the branch terminals in one position of the bar, while the single arm blade is adapted to engage the other branch terminal in the other position of the bar.

[Claims 1 to 3 not printed in the Gazette.]

1,255,127. CONTOUR-INDICATING DEVICE. JOHN G. BAUKAT, Toronto, Ontario, Canada. Filed Dec. 14, 1916. Serial No. 137,035. (Cl. 33—175.)

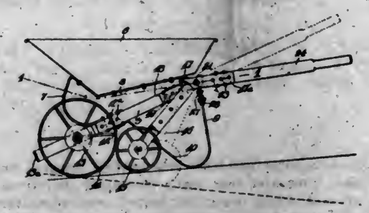


2. In a contour indicating device, a frame, members depending from said frame to receive an article, the contour reading of which is desired, therebetween, means to effect the securing of said article in position, and a plurality of parallel contour indicating integers supported by said frame and slidable with respect one to another whereby they may be brought into contact with a surface to be recorded, said integers being so fashioned that they will indicate upon a suitable card by their position, the position of the points of contact between said integers and said surface to be read, said frame being adapted to support said card in a definite position with respect to said integers.

4. In a contour indicating device, a record card carrying frame adapted to be secured to an article, the contour reading of which is desired, and a plurality of contour indicating integers movable with respect one to another and adapted to be brought into contact with a surface to be recorded, said integers being so fashioned that they will indicate upon said card, by their position, the position of the points of contact between said integers and said surface to be recorded, and a supporting member for said integers, said member being hinged to said frame, and adapted to normally bring said integers into juxtaposition with said card.

[Claims 1 and 3 not printed in the Gazette.]

1,255,128. WHEELBARROW. RICHARD W. BAILEY, Riverside, Ill. Filed Mar. 3, 1917. Serial No. 152,374. (Cl. 21—68.)



1. A wheelbarrow comprising a frame, a bed carried by the frame, a wheel supporting the forward end of the frame, an auxiliary wheel behind the first mentioned wheel, a support for the auxiliary wheel pivoted to the aforesaid frame to swing in a vertical plane, and handles connected to said support.

2. A wheelbarrow comprising a frame, a bed carried by the frame, a wheel supporting the forward end of the frame, an auxiliary wheel behind the first mentioned wheel, a support for the auxiliary wheel pivoted to the aforesaid frame to swing in a vertical plane, handles connected to said support, and means for limiting the upward swing of the handles.

3. A wheelbarrow comprising a frame having side rails, a bed carried by the side rails, a wheel supporting the forward end of the frame, an auxiliary wheel behind the first mentioned wheel, a support for the auxiliary wheel having lateral extensions which are pivotally connected to the side rails to permit the support to swing in a vertical plane, and handles connected to said extensions.

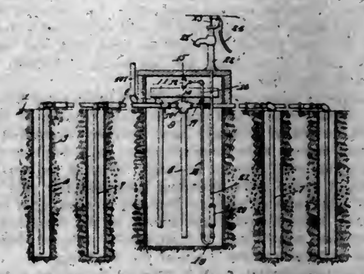
4. A wheelbarrow comprising a frame, handles pivoted to said frame to swing in a vertical plane, a bed carried by the frame, a wheel supporting the forward end of the frame, and an auxiliary wheel at the rear portion of the frame connected to the aforesaid handles to swing therewith.

1,255,129. SELF-FILLING FOUNTAIN-PEN. WILLIAM K. BUCKLES, Rifle, Colo. Filed Oct. 28, 1916. Serial No. 128,276. (Cl. 120—46.)



In a self-filling fountain pen, the combination with a barrel having one end closed, said closed end being provided with an arcuate slot and a collapsible reservoir therein, a plate associated with the reservoir and mounted for rocking movement, said plate being provided with a finger extending exteriorly of the barrel through the slot in the closed end of the barrel, and a member positioned exteriorly of the barrel, said member being held against movement longitudinally of the barrel and rotatably supported by the closed end of the barrel, the inner face of said member being provided with a radial slot into which extends the finger of the plate whereby rotation of the member in one direction serves to move the plate toward the reservoir to collapse the same.

1,255,130. SIPHONIC SYSTEM. DELAVAN V. BURRELL, Rocky Ford, Colo. Filed Aug. 3, 1917. Serial No. 184,294. (Cl. 166—1.)



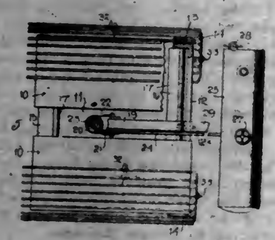
1. A device of the class described comprising a series of wells including an auxiliary well and a main well; a siphon having an intake leg extending into the auxiliary well and a discharge leg extending into the main well; an inverted U-shaped pipe communicating with the crown of the siphon and extending into one of the wells; and a pump in the outer leg of the U-shaped pipe and submerged in the liquid in the well wherein the U-shaped pipe is located.

2. A device constructed in accordance with claim 1 and further characterized by the fact that the U-shaped pipe embodies a trap extended below the end of the discharge leg where the length of the discharge leg is less than the height to which atmospheric pressure will sustain a column of water and below the crown of the siphon a greater distance than the height to which atmospheric pressure will sustain a column of water where the discharge leg is longer than the height to which atmospheric pressure will sustain a column of water.

3. A device constructed in accordance with claim 1, and further characterized by the fact that the outer leg of the U-shaped pipe is provided with an opening adapted to receive the liquid in the well wherein the U-shaped pipe extends and located above the pump.

4. A device constructed in accordance with claim 1, and further characterized by the fact that the U-shaped pipe embodies a trap extended below the end of the discharge leg where the length of the discharge leg is less than the height to which atmospheric pressure will sustain a column of water and below the crown of the siphon a greater distance than the height to which atmospheric pressure will sustain a column of water where the discharge leg is longer than the height to which atmospheric pressure will sustain a column of water, and characterized, further, by the fact that the outer leg of the U-shaped pipe is provided with an opening adapted to receive the liquid in the well wherein the U-shaped pipe extends, and located above the pump.

1,255,131. INSECT-DESTROYER. GEORGE W. CAMERON, Hondo, Tex. Filed Aug. 13, 1917. Serial No. 186,006. (Cl. 43—5.)



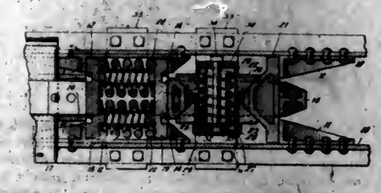
7. An insect destroyer including a cross bar to which draft devices are adapted to be attached, vertically disposed U-shaped clips mounted upon the cross bar, hood sections, each having a side wall and a top wall, the top walls being directed toward each other, the forward ends of the side walls being engaged in said clips, and a downwardly directed burner disposed between said top walls, the side walls of the hood sections being detachably engaged with the clips.

9. An insect destroyer comprising an incinerator having a front cross bar to which draft devices are adapted to be attached, laterally disposed hood sections connected to said cross bar at their forward ends, each hood section having a side wall and an inwardly directed top wall, a plurality of guard rods extending longitudinally over the top and side walls of each section and meeting at a common point, bolts holding said guards to the cross bar at said common point, and a downwardly directed burner mounted between the top walls of the hood section.

11. The combination with a wheeled frame, of a draw bar attached to the frame for vertical pivotal movement, an incinerator mounted upon the draw bar and traveling behind the frame, said incinerator being open at its bottom and having a downwardly directed burner therein, means mounted upon the frame for raising or lowering the draw bar, a fuel tank mounted upon the frame and operatively connected to the burner, and plant shaking devices mounted upon the frame forward of the incinerator and comprising a plurality of laterally and forwardly inclined members suspended flexibly from the frame, the rear ends of said members being spaced from the incinerator.

[Claims 1 to 6, 8, and 10 not printed in the Gazette.]

1,255,132. SPRING FRICTION-GEAR. ARGYLE CAMPBELL, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Apr. 13, 1916. Serial No. 90,835. (Cl. 213—64.)



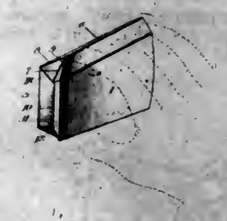
1. In a draft rigging for railway cars, the combination with draft sills, rear stops and front stops, and intermediate stops arranged to prevent rearward movement of an intermediate follower, front and rear end followers, and an intermediate follower, of a spring gear unit between one of said end followers and the intermediate follower, and a friction gear unit between said intermediate follower and the other end follower, two of said followers being movable in draft and only one in buff.

3. In a draft rigging, the combination with a spring gear and a friction gear, of a tandem yoke having an intermediate thimble provided with an integral wedge, cooperable with the friction gear unit.

6. As an article of manufacture, a yoke having an intermediate thimble provided with a wedge.

[Claims 2, 4, 5, 7, and 8 not printed in the Gazette.]

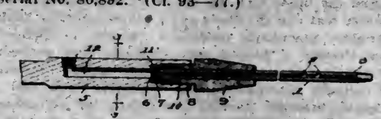
1,255,133. COLLAPSIBLE DRINKING-CUP. PAUL H. CARR, Washington, D. C. Filed Feb. 5, 1917. Serial No. 146,704. (Cl. 229—53.)



1. A collapsible drinking cup having integral bottom, and side, front and rear walls extending therefrom, certain of said walls being overlapped and adhesively secured together thereby presenting a cup having side walls of a substantially single thickness when folded together, said side walls being folded outwardly and the bottom wall folded inwardly when in collapsed position whereby the front and rear walls may lie in intimate contact throughout their major area, a score for an inward fold in the bottom wall, a score in the side walls, a portion of which is for an outward fold and a portion for an inward fold, all of said scores always lying in the same plane whereby the front and rear walls, above the inward fold of the bottom wall, are free to be in intimate contact with each other throughout their area, whereby inward pressure upon the outwardly folded side walls will move all of the walls of the cup to extended position and thus open the cup ready for use.

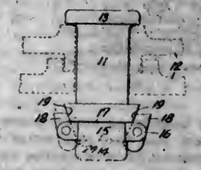
[Claim 2 not printed in the Gazette.]

1,255,134. MANDREL. FRANK CASEY, Washington, D. C., assignor to The Stone Straw Company, Washington, D. C., a Corporation of New Jersey. Filed Feb. 28, 1916. Serial No. 80,892. (Cl. 93—77.)



A mandrel comprising a stock having a channel therein, and a bore at the outer end of the channel of larger diameter than the channel, thereby forming a shoulder at the outer end thereof, a screw-threaded portion of still larger diameter than the bore at the extreme end of the stock, a tube having an enlarged inner end and a screw-threaded cap sleeved about the tube and engaging the enlarged end thereof and having a screw-thread engagement with the stock whereby the enlarged end of the tube is held therein against the shoulder.

1,255,135. CENTER-BEARING PIN. JAMES M. COLEMAN, Montreal, Quebec, Canada. Filed Apr. 24, 1917. Serial No. 164,238. (Cl. 105—108.)



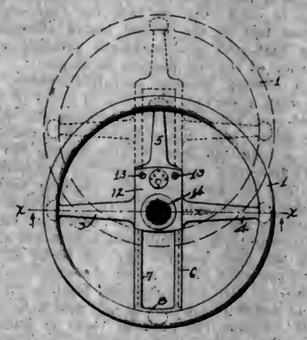
1. In a device of the character described, a pin having a key way, a key for the pin, a washer on the pin engaging said key, and automatically adjustable retaining heads on the key.

2. In a device of the character described, a recessed pin, a washer thereon, a key retaining the washer, and adjustable key retaining heads held by said washer in the pin recesses to hold the key against disconnection from the pin.

3. A device of the character described, comprising a pin having a key slot therein, a washer, a key in the pin slot retaining said washer, and pivoted retaining heads on the key.

[Claims 4 to 6 not printed in the Gazette.]

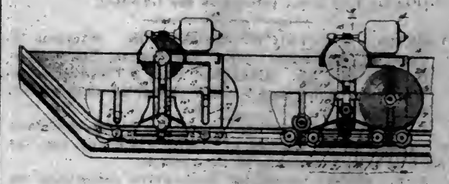
1,255,136. STEERING-WHEEL. LYMAN M. COOPER, Detroit, Mich., assignor of one-half to Thomas J. Clinton, Detroit, Mich. Filed Mar. 24, 1917. Serial No. 157,090. (Cl. 74—33.)



1. The combination with a shaft, of a head thereon adapted for rotation relative thereto, a steering wheel carried by the head and adapted to slide in a plane substantially at a right angle to the shaft, and releasable means carried by the head adapted to secure the head to rotate with the shaft and release the wheel to sliding movement or secure the wheel to the head and release the head to rotation relative to the shaft.

[Claims 2 to 6 not printed in the Gazette.]

1,255,137. COTTON-LAP-DYEING MACHINE. WILLIAM FRANKLIN COX, Danville, Va. Filed Apr. 3, 1916. Serial No. 88,646. (Cl. 8—19.)



1. An apparatus for treating fabric, the same comprising a tank for containing a bath, a truck adapted to pass into, through and out from such tank, beams mounted upon the truck and movable therewith, one of such beams adapted to have the goods to be treated wound thereon, and means for unwinding the goods from one beam and winding such goods upon the other beam.

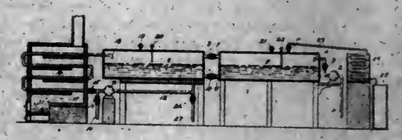
2. An apparatus for treating fabric, the same comprising a tank, a truck adapted to pass into, through and out from such tank, beams mounted upon the truck, the one adapted to receive the goods to be treated and the other adapted to have the goods wound thereon, means for rotating the beams to unwind the goods from one and wind such goods upon the other beam in alternation, and a compressing mechanism disposed between the two beams for subjecting the fabric to compressive action in its transfer from one beam to the other.

3. In an apparatus for treating material, the combination of a supporting frame, roller beds carried by the frame, beams supported upon the roller beds, and adapted to be positively driven thereby to effect the winding of material upon one of the beams and an unwinding of material from the other beam, a compressing means including a driven roller disposed intermediate of the two beams for subjecting the material in its transfer from one beam to another to a continuous compressing action, and means for imparting positive rotation in a common direction at a common rate of speed to the roller beds and to the driven roller of the compressing means.

9. An apparatus for treating material, comprising a tank for containing a bath, a trackway in the tank, a truck mounted for movement through the tank on the trackway, means on the truck for exposing goods to the bath and for compressing the goods in the bath, and means on the truck for driving the last said means.

[Claims 3, 4, 6 to 8, and 10 not printed in the Gazette.]

1,255,138. METHOD IN THE TREATMENT AND REFINING OF PETROLEUM. ROY CROSS, Kansas City, Mo. Filed Jan. 8, 1917. Serial No. 141,294. (Cl. 196—25.)



6. The process of producing light petroleum hydrocarbons from heavy petroleum hydrocarbons which con-

...ats in heating a body of the heavy hydrocarbons in a suitable container to a temperature not exceeding 450° C., passing the gases and vapors of the light hydrocarbons on their course to a condenser over and in contact with a second body of heavy hydrocarbons which serves as a supply for the first body, maintaining on both bodies a pressure of the developed hydrocarbon gases and vapors equal to or greater than their normal vapor pressure in equilibrium with the liquid phase at the temperature of the oil at the point of issuance into the condenser, supplying fresh oil to the second body of hydrocarbons equal to the combined withdrawal of vapors from the second body and carboniferous oil from the first body.

[Claims 1 to 5 not printed in the Gazette.]

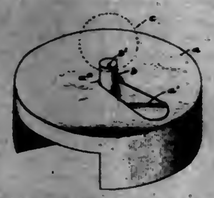
1,255,139. ELECTRICAL INSULATION. WILLIAM T. CUSHING, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Sept. 9, 1915. Serial No. 49,817. (Cl. 106—15.)

4. An electric insulating composition including a base, a varnish and a mixture of stearin pitch and coal tar pitch to retard oxidation of the varnish.

6. An electric insulating composition comprising asbestos and a binder therefor including a varnish of East India gum, China wood oil and rosin and an oxidation retarder of stearin pitch and coal tar pitch in the proportion of approximately two parts of the former to one part of the latter.

[Claims 2 to 5 not printed in the Gazette.]

1,255,140. ADJUSTABLE GOLF-BALL-TEE DEVICE. HOWARD L. DAVIS, Philadelphia, Pa. Filed May 11, 1917. Serial No. 167,877. (Cl. 46—4.)



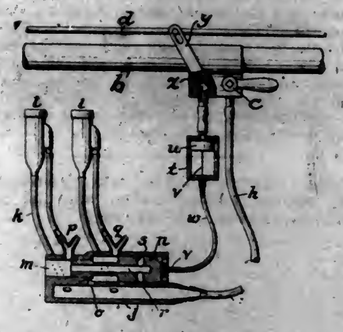
1. An adjustable golf ball tee, comprising a block having an oblong irregular-shaped trough and a vertically slotted plug or tee pivotally mounted in said trough and adapted to be wedgingly supported in variable different vertical positions from said block, substantially as and for the purposes described.

2. An adjustable golf-ball tee, comprising a block having a longitudinally arranged substantially egg-shaped trough and a vertically slotted plug or tee mounted in said trough and a cross-pin extending through the slotted portion of said plug or tee and having a concaved upper end to receive and support the ball and said plug of tee adapted to be wedgingly supported in variable different vertical positions from said block, substantially as and for the purposes described.

1,255,141. MILKING MACHINERY. NORMAN JOHN DAVSH, Poughkeepsie, N. Y., assignor to The De Laval Separator Company, a Corporation of New Jersey. Filed Feb. 3, 1917. Serial No. 146,383. (Cl. 31—101.)

1. In a milking machine operating system, the combination with a vacuum pipe line, of a set of two-chambered teat cups, pipe connections between the vacuum line and the inner teat cup chambers, pipe connections to the outer teat cup chambers and a pulsation valve adapted to produce pneumatic pulsations therein, a pneumatically actuated motor, a flexible mechanical connection between the motor and the pulsation valve, and means adapted to connect the motor alternately with relatively high and low pneumatic pressure thereby controlling its actuation and, through said flexible mechanical connection, controlling the actuation of the pulsation valve.

2. In a milking machine operating system, the combination with a vacuum pipe line, of a set of two-chambered teat cups, pipe connections between the vacuum line and the inner teat cup chambers, pipe connections to the outer teat cup chambers and a pulsation valve adapted to produce pneumatic pulsations therein, a cylinder, a piston therein, a flexible non-extensible wire connecting said piston and pulsation valve, and means to connect said cylinder alternately with relatively high and low pneumatic pressure, thereby controlling the actuation of said piston and, through said wire, the actuation of the pulsation valve.

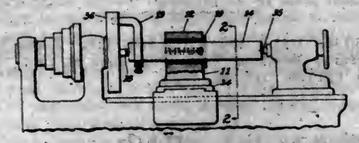


3. In a milking machine operating system, the combination with a vacuum pipe line, of a set of two-chambered teat cups, pipe connections between the vacuum line and the inner teat cup chambers, pipe connections to the outer teat cup chambers and a pulsation valve adapted to produce pneumatic pulsations therein, a cylinder, a piston therein, a flexible mechanical connection between said piston and pulsation valve, a drive rod, means to reciprocate the drive rod longitudinally, and means, including valve, actuated from the drive rod, to connect said cylinder alternately with relatively high and low pneumatic pressure.

4. In a milking machine operating system, the combination with a vacuum pipe line, of a set of double chambered teat cups, pipe connections between the vacuum line and the inner teat cup chambers, a valve chamber, pipe connections between the outer teat cup chambers and the valve chamber, and a reciprocable piston in the valve chamber adapted to produce pneumatic pulsations in the outer teat cup chambers, a cylinder and a piston therein, a flexible non-extensible wire connecting the two pistons, and means adapted to connect one face of the second piston alternately with relatively high and low pneumatic pressure, said pistons having pressure surfaces adjusted relatively to each other so that the connection of the last named face of the second piston alternately with relatively high and low pneumatic pressure will effect reciprocation of the two pistions in unison.

5. In a milking machine operating system, the combination with a vacuum pipe line, of a set of two-chambered teat cups, pipe connections between the vacuum line and the inner teat cup chambers, a pulsation valve chamber, a pulsation valve therein having end heads of different diameters both exposed to atmosphere, the space within the pulsation valve chamber between said heads being in communication with the vacuum line, pipe connections to the outer teat cup chambers adapted to be placed alternately in communication with the atmosphere and with the space between the end heads of the valve by the reciprocation of the latter, a flexible non-extensible wire connected with the larger end head of the pulsation valve, and means to alternately pull said wire and relieve said pull, whereby the pulsator valve is moved in one direction by the unbalanced pressure on its end heads and is moved in the other direction by a pull on the wire overcoming said unbalanced pressure.

1,255,142. METHOD OF MANUFACTURING PISTON-RINGS. JOHN F. DODGE and WILLIAM J. ALLEN, Detroit, Mich., assignors to Dodge Brothers, Detroit, Mich., a Corporation of Michigan. Filed May 12, 1917. Serial No. 168,111. (Cl. 29—156.1.)



4. The method of making piston rings which comprises closely confining the outer cylindrical surface of the ring and then subjecting the inner cylindrical surface to rolling wall compressing pressure, varying said pressure, as it travels about the axis of said ring, by eccentric increments or decrements having a common axis of eccentricity, advancing the application of said pressure along said axis in lines of equal pressure, and then cutting through said ring at the point where the pressure application has been substantially least.

5. The method of making piston rings which comprises subjecting the inner cylindrical surface of a hollow cylindrical casting of substantially uniform wall section to rolling wall compressing pressure, varying said pressure, as it travels about the axis of said cylinder, by eccentric increments or decrements having a common axis of eccentricity, advancing the application of said pressure progressively along said axis in lines of equal pressure, cutting said cylinder into rings and then cutting through each ring at the point where the pressure application has been substantially least.

7. The method of making piston rings which comprises pressing the inner wall of a hollow cylindrical casting of substantially uniform wall section into the contour of a cylinder having its axis parallel but eccentric to that of the outer wall while positively maintaining the external shape and size of said cylinder.

13. The improvement in the art of making piston rings, which consists in effecting a redistribution of the metal in a hollow cylindrical casting, of substantially uniform wall section, by exerting rolling wall compressing pressure progressively variably about the axis of said cylinder and along lines predetermined to produce a structure having its most compressed portion upon one side and its least compressed portion diametrically opposite to the thinnest portion, cutting said casting into rings and cutting through each ring where the wall compression is least.

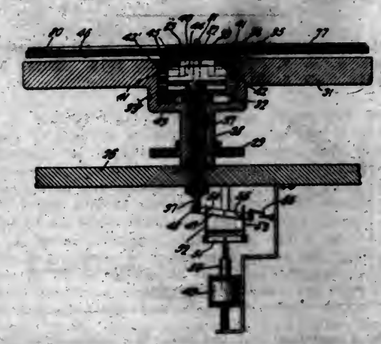
[Claims 1 to 3, 6, 8 to 12, 14, and 15 not printed in the Gazette.]

1,255,143. CONTROL MEANS FOR SOUND-REPRODUCING MACHINES. CHARLES W. EBELING, New York, N. Y. Filed Feb. 7, 1916. Serial No. 76,631. Renewed Dec. 18, 1917. Serial No. 207,798. (Cl. 74—46.)

1. In an apparatus of the character described, a continuously rotating driven member having a recess in one face thereof, and also having a clutch member, a stationary locking clutch member mounted in said recess, a driven member, and slidable means connected to the driven member and adapted to be engaged with either one of the clutch members, whereby the driven member is rotated with the driving member or held stationary.

3. In an apparatus of this character, the combination of a support, a continuously rotating disk mounted thereon, a rod mounted axially of and for longitudinal sliding movement through the disk, a pawl carried by the rod, a sound record support operably connected to the pawl, two independent means one rotatable with and the other stationary relative to the disk, whereby when one means is engaged by the engaging member the record support is rotated by the rotating member and when the other means is engaged the record support is held stationary, and means for actuating the rod.

7. In an apparatus of this character, the combination of a support, a continuously rotating disk carried thereby, two rings one made fast to the support and the other carried by the disk, the opposed faces of such rings being clutch faces, a sound record tablet support, a frame carried by the tablet support, a clutch member mounted



in said frame for sliding movement, a sliding rod mounted in the first support and connected to said clutch member and means for sliding the rod to actuate said clutch member relatively to the rings.

[Claims 2, 4 to 6, and 8 to 14 not printed in the Gazette.]

1,255,144. PROCESS OF OBTAINING TUNGSTATES. JOHN B. EKELEY and WILLIAM B. STODDARD, Boulder, Colo. Filed June 28, 1916. Serial No. 106,358. (Cl. 23—13.)

10. The process which comprises fusing a tungsten ore in a bath containing chlorid of sodium, sodium carbonate and silica.

14. The process which comprises grinding and wasting a tungsten ore, fusing the tungsten ore in a bath containing a halid of an alkali-forming metal, an alkali and sodium nitrate.

[Claims 1 to 9 and 11 to 13 not printed in the Gazette.]

1,255,145. MOTOR-VEHICLE. CHARLES G. ELLIS, JR., Plainville, Ind. Filed Apr. 17, 1917. Serial No. 162,765. (Cl. 180—3.)

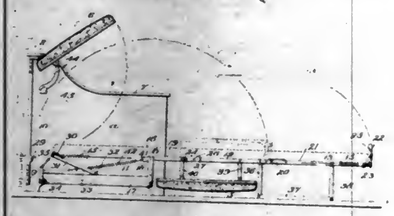


1. A motor vehicle of the character described comprising a body a shaft extending forwardly through the body, and carrying a propeller at its outer end, a power means, a clutch disk connected to the power means, a second clutch disk carried by the said shaft, a third clutch disk interposed between the two first mentioned clutched disks and having their peripheries in engagement, and means for shifting the said third clutch disk into and out of engagement with the peripheries of the other two clutch disks.

2. A motor vehicle of the character described comprising a body a shaft extending forwardly through the body, and carrying a propeller at its outer end, a power means, a clutch disk connected to the power means, a second clutch disk carried by the said shaft, a third clutch disk interposed between the two first mentioned clutched disks and having their peripheries in engagement, and means for

shifting the said third clutch disk into and out of engagement with the peripheries of the other two clutch disks, the said third disk being provided with a shaft fixed to the disk, means for slidably supporting the shaft, and manually operated means attached to the shaft for moving the latter to disengage the said third disk with the other two disks.

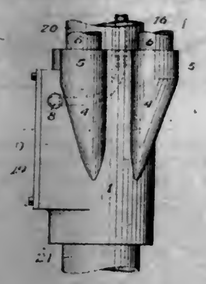
1,255,146. CONVERTIBLE SOFA. OSCAR FICHTENBAUM, Brooklyn, N. Y. Filed June 22, 1916. Serial No. 105,118. (Cl. 5—51.)



1. In a combined bed and sofa, the combination of a housing having a back, a folding bed frame, including a stationary section secured to the housing, an intermediate section pivotally connected to the stationary section, an end section connected to the intermediate section and adapted to be folded thereonto and link connections between the end section and one end of the intermediate sections for supporting said sections when the frame is unfolded, said links adapted to extend upwardly within the housing behind the back when the frame is folded.

2. In a combined bed and sofa, the combination of a housing, a sectional folding bed frame disposed within the housing, a movable seat mounted on said frame, an inclined back pivotally connected at its upper portion to said housing and having its lower free end portion engaging the top of the seat when said frame is in the folded position, said back adapted to be swung upwardly and outwardly, means associated with the back and housing for holding the back in its upper position, and folding link connections between sections of the frame for supporting said sections when the frame is unfolded, said links adapted to extend upwardly within the housing behind the back when the frame is folded.

1,255,147. CASING-HEAD. ROY L. FLETCHER, Cameron, W. Va. Filed Oct. 20, 1917. Serial No. 197,580. (Cl. 166—15.)



1. A casing head comprising a tubular body having a central bore therethrough and arranged to be connected to a well casing, and by-pass means integral with said tubular body and extending vertically thereof substantially parallel to the vertical axis of said tubular body.

5. A casing head comprising a tubular body having a central bore therethrough and arranged to be connected to a well casing, a plurality of vertically disposed by-passes so arranged about said tubular body as to provide space for a rock shaft having bearings therein, a rock shaft in said bearings, and a valve on said rock shaft arranged to close the central bore in said casing head.

[Claims 2 to 4 and 6 to 10 not printed in the Gazette.]

1,255,148. BALE AND PACKAGE TIE. JAMES EDWIN FORREST, Brooklyn, N. Y. Filed June 20, 1917. Serial No. 175,769. (Cl. 24—132.)



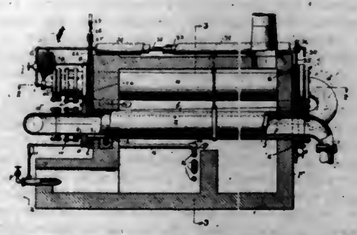
3. A bale or package tie embodying therein a stem adapted to have a rope or cord permanently connected therewith, fixed gripper jaws upon opposite sides of said stem, an open eye adjacent said stem and intermediate said gripper jaws, an oscillatory cleat having gripper jaws coöperating respectively with said first named gripper jaws, and a movable latch member carried by and projecting from one of the jaws of said cleat, whereby accidental escape of the rope or cord from adjacent said jaws is prevented.

5. A bale or package tie embodying therein a stem adapted to have a rope or cord permanently connected therewith, fixed gripper jaws upon opposite sides of said stem, an open eye adjacent said stem and intermediate said gripper jaws, an oscillatory cleat having gripper jaws coöperating respectively with said first named gripper jaws, a latch member pivotally mounted upon said cleat comprising a bell crank lever, one arm of which is adapted to be projected beyond the gripping face adjacent the ends of one of the jaws upon said cleat and the other arm of which projects beyond said cleat and has a notch therein adapted to receive a bight in the rope or cord, and a spring acting upon said bell crank lever.

6. A bale or package tie embodying therein a stem adapted to have a rope or cord permanently connected therewith, a head carried by said stem having an overhang at one side thereof toward said stem, said stem being recessed adjacent said overhang to form an eye, said head having gripper jaws thereon upon opposite sides of said stem and said eye, a projection substantially centrally of said head intermediate said jaws, and an oscillatory cleat mounted upon said projection and having gripper jaws thereon coöperating respectively with said first named gripper jaws.

[Claims 1, 2, and 4 not printed in the Gazette.]

1,255,149. APPARATUS FOR VAPORIZING HYDROCARBON OILS. CHAUNCEY B. FORWARD, Urbana, Ohio. Filed Feb. 5, 1916. Serial No. 76,376. (Cl. 196—3.)



1. The apparatus described comprising a furnace chamber, a plurality of retort sections in said furnace consisting each of an inner tube for oil and an outer tube for a steam jacket, the said outer tubes terminating with the furnace walls and the inner tubes extending beyond the wall thereof, packing for said outer tubes on said inner tubes and joints connecting the ends of the inner tubes outside the furnace wall.

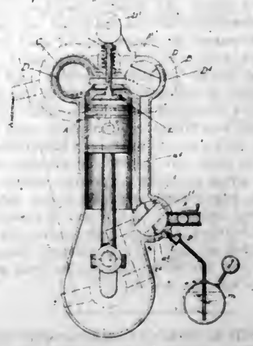
3. An apparatus as described, comprising a furnace and a sectional retort therein consisting of oil pipes extending through the walls thereof and steam jackets terminating at said walls having annular flanges at their ends and collars next to said flanges on said oil pipes provided with packing glands, and elbow joints connecting the ends of said oil pipes outside said glands, whereby expansion of said pipes can occur without causing leakage of the steam from said jackets.

5. In an apparatus as described, a plurality of retort sections at different elevations and provided with oil carrying tubes open one to the other at their ends and provided with steam jackets between their ends, in combination with a tubular oil heater having a steam jacket about the same and pipes from the jackets of said retort sections discharging into the jacket of said oil heater, and pipe connections from said oil heater and the jacket thereon arranged to discharge together into the upper of said retort sections.

6. In an apparatus as described, a retort consisting of inner and outer tubes spaced apart to form a jacket between them and means providing for unequal expansion of said tubes comprising a packing for the ends of the outer tube about said inner tube and in which said inner tube is slidable, and rollers supporting the corresponding end of the outer of said tubes behind said packing.

[Claims 2 and 4 not printed in the Gazette.]

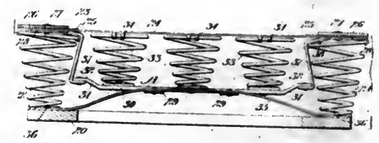
1,255,150. INTERNAL-COMBUSTION ENGINE. HUBERT F. FRANKLIN, Brooklyn, N. Y. Filed Dec. 6, 1916. Serial No. 135,324. (Cl. 123—79.)



1. In an internal combustion engine in combination with the exhaust valve, means to introduce the explosive charge into the crank case, a storage chamber in communication with the crank case and the working cylinder, an inlet valve to control the inflow of the charge to the working cylinder, a master valve interposed between said inlet valve, the exhaust valve and the working cylinder and controlling the flow of gases past said valves to the cylinder, and an independent valve to control the communication between the crank case and the storage chamber.

2. An internal combustion engine, air and oil inlet passages communicating with the crank case, a storage chamber in communication with the crank case and the working cylinder, whereby the charge may be forced under pressure into the storage chamber from the crank case by the piston, a valve to control the communication between the storage chamber and the working cylinder and an independent rotary valve provided with passages for controlling the inflow of air and fuel into the crank case and the communication between the crank case and the storage chamber.

1,255,151. SPRING STRUCTURE. GUSTAV A. FRANZ, Jackson, Mich. Filed Dec. 29, 1916. Serial No. 139,693. (Cl. 5—29.)



1. A spring structure comprising upper and lower frames, a front row of springs and a rear row of springs connecting the upper and lower frames, arch springs connected to the lower frame, an auxiliary frame connected to the arch springs, springs connected to the auxiliary frame and to the upper frame, and straps connected to the upper frame and the auxiliary frame.

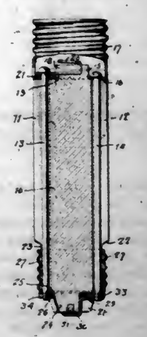
3. A spring structure comprising upper and lower frames, a front row of springs and a rear row of springs connected to the frames at the front and rear thereof, an auxiliary frame arranged intermediate the upper and lower frames, straps connecting the auxiliary frame with the upper frame, springs mounted on the auxiliary frame, and means connected to the lower frame and the auxiliary frame to coöperate with said straps to support the auxiliary frame and the springs carried thereby normally in operative position.

5. A spring structure comprising a frame, springs mounted on said frame, another frame disposed over said first frame, springs on said second frame, and straps secured to the second frame and depending from the top of the structure.

7. A spring structure comprising upper and lower frames, the lower frame being open, an auxiliary frame arranged between the upper and lower frames and having portions projecting beyond its sides into overlying relation to the lower frame, springs between the upper and lower frames, springs carried by the auxiliary frame, and means connected to both the upper frame and the lower frame and to the auxiliary frame to support the latter normally in operative position.

[Claims 2, 4, 6, and 8 not printed in the Gazette.]

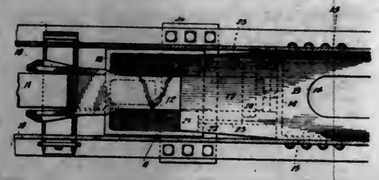
1,255,152. ELECTRIC SOCKET. FREDERIC P. GATES, Hartford, Conn., assignor to The Arrow Electric Company, Hartford, Conn., a Corporation of Connecticut. Filed Apr. 7, 1917. Serial No. 160,456. (Cl. 173—344.)



1. An extension socket comprising an elongated candle-like block of insulating material grooved on its opposite sides, center and shell contacts at each end thereof and screw bolts lying in said grooves and respectively engaging the terminal pairs to not only electrically connect the coördinated contacts, but to mechanically secure the same in position at opposite ends of the insulating block.

[Claims 2 to 4 not printed in the Gazette.]

1,255,153. RAILWAY DRAFT-RIGGING. WILLIAM A. GEIGER, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Sept. 5, 1916. Serial No. 118,395. (Cl. 213—64.)

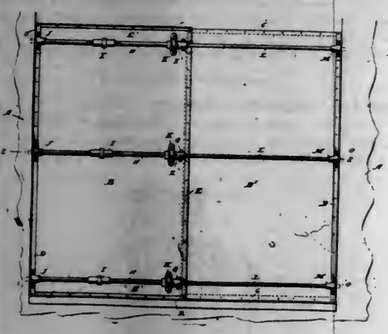


1. In a draft rigging, the combination with draft sills, of a gear including a friction shell between said sills, an abutment casting at the rear of the gear and secured to the sills, said casting having an arm extended forwardly to overlap said shell, said arm and shell having cooperating engaging shoulders arranged to prevent forward movement of the shell relatively to said casting under draft.

2. In a draft rigging, the combination with draft sills, of a gear including a friction shell between said sills, an abutment casting at the rear of the gear and secured to the sills, said casting having an arm extended forwardly to overlap said shell, said arm and shell having cooperating engaging shoulders arranged to prevent forward movement of the shell relatively to said casting under draft, and a saddle plate extending between the sills beneath the gear, said saddle plate and friction shell having coöperating engaging shoulders to prevent forward movement of the shell under draft.

[Claims 3 to 5 not printed in the Gazette.]

1,255,154. CAR-DOOR. FRANK J. GILROY, Buffalo, N. Y. Filed Apr. 3, 1915. Serial No. 19,030. (Cl. 20—30.)



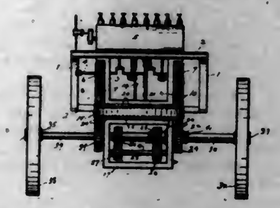
1. The combination with a grain carrying car having suitable holes in its door posts, of a closure for the lower part of the door opening, consisting of two laterally overlapping sliding door sections adapted to interlock marginally when extended to fit between the posts, telescoping rods mounted on the exterior of the sections and extending across the doorway to enter said holes when extending beyond the door margins, and means for forcibly projecting the rods into said holes.

2. The combination with a car door consisting of two horizontally sliding sections overlapped at their vertical sides and adapted to interlock when extended to fill the space between the car door posts, of a series of horizontal rods, each consisting of two telescoping sections, mounted upon the outer faces of the door sections to slide one within the other when one of said sections slides with respect to its companion, means for forcibly sliding the rod sections in either direction to control their engagement with the door posts, and means for positively locking the rods in post engaging position.

6. The combination with two horizontally sliding door sections each of thin metal having its margins stiffened by angle iron and adapted to interlock its companion when the two extend from side to side of a doorway, of a series of hollow, horizontal, extensible rods each slidably held in bearings upon one of the door sections, a corresponding series of rods sliding in bearings upon the other door section and always telescoping the hollow rods, respectively, and means for rigidly connecting the telescoping rods.

[Claims 3 to 5 not printed in the Gazette.]

1,255,155. FIFTH-WHEEL DRIVE FOR AUTOMOBILES. FRANK GLATZ, Kansas City, Mo. Filed Aug. 24, 1917. Serial No. 187,957. (Cl. 180—42.)



A fifth-wheel drive for automobiles, consisting of a turn-post provided with a supporting frame on its lower end, a chassis supportingly engaged by said turn-post, a plurality of driving gear wheels mounted on said chassis, a fifth wheel mounted idly on said turn-post and provided with cogs on its upper and lower sides, power receiving and power transmitting devices mounted on the chassis and connected between the upper side of said fifth wheel and said driving gear wheels, a tubular shaft revolubly mounted on the frame on said turn-post and provided with a gear wheel in engagement with the lower side of said fifth-wheel, a revolubly mounted tubular shaft floating in said first mentioned tubular shaft and provided on its outer end with a traction wheel, a revolubly mounted shaft floating in said last mentioned tubular shaft and provided on its outer end with a traction wheel and with a gear wheel in engagement with the lower side of said fifth-wheel, power receiving and power transmitting devices connected between said tubular shafts and operable by the gear wheel on said first mentioned tubular shaft to differentiate the motion of the shafts, and means for driving said driving gear wheels.

1,255,156. DEVICE FOR CLEANING AND BLOWING OFF BOILERS. JESSE GOFF, Joplin, Mo., assignor of one-fourth to Orville P. Mahoney and one-fourth to William D. Goff, Joplin, Mo. Filed Mar. 12, 1917. Serial No. 154,264. (Cl. 122—383.)



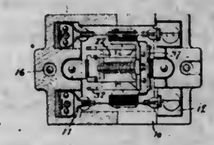
1. A combined blow-off and cleaner of the character described, comprising a pair of telescoped tubes having perforations for registration with each other, an outlet coupling connected with the outer tube and communicating with said inner tube when the perforations are in registering or non-registering positions, a T member fitted on the outer end of the inner tube and having a removable plug for permitting access to the inner tube, and a removable closure member in the inner end of said inner tube.

3. A combined blow-off and clean-out device for boilers comprising a pair of telescoped tubes having longitudinally alined perforations, the perforations being disposed with respect to each other to be brought successively one at a time into registration on longitudinal movement of the innermost tube, an outlet coupling connected with the outer tube and communicating with said inner tube when the perforations are in registering or non-registering position, a T member fitted on the outer end of the inner tube and having a removable plug for permitting access to the inner tube, a removable closure member in the inner end of said inner tube, a manually operated feed stem rotatably supported by the outlet coupling and having an internally threaded bore, and a feed screw engaged in the threaded bore and connected with the T member.

8. A combined blow-off and clean-out device for boilers comprising a pair of telescoped tubes having longitudinally alined perforations, the perforations being disposed with respect to each other to be brought successively one at a time into registration on longitudinal movement of the innermost tube, an outlet coupling connected with the outer tube and communicating with said inner tube when the perforations are in registering or non-registering position, a T member fitted on the outer end of the inner tube and having a removable plug for permitting access to the inner tube, a removable closure member in the inner end of said inner tube, a manually operated feed stem rotatably supported by the outlet coupling and having an internally threaded bore, a feed screw engaged in the threaded bore and connected with the T member, a stuffing box connected with the outlet coupling and slidably receiving the inner tube, a removable closure for the outer tube at its end opposite the end connected with the outlet coupling, a detachable nipple carried by the outlet coupling, and means carried by one tube and engageable with the other to limit the movement of the inner tube on actuating the stem, the stem and screw being disposed parallel with and at one side of the tubes, and a hand wheel on said stem.

[Claims 2 and 4 to 7 not printed in the Gazette.]

1,255,157. ELECTRIC SWITCH. GILBERT W. GOODRIDGE, Bridgeport, Conn., assignor to The Bryant Electric Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Nov. 6, 1916. Serial No. 129,794. (Cl. 175—293.)

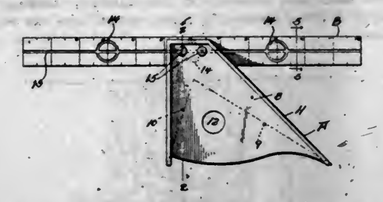


2. A switch mechanism comprising an oscillating switch bar having a bridge piece, abutments against which the opposite sides of said bridge piece impinge to limit the throw of the switch bar, in combination with a plate secured to the face of said bridge piece and having spring wings overlying the opposite sides of said bridge piece and spaced therefrom to cushion the impact of the switch bar against said abutment, together with a switch spring and a guide therefor piercing said spring plate and bridge piece.

[Claim 1 not printed in the Gazette.]

1,255,158. COMBINATION SQUARE AND BEVEL. HOLGER J. J. GRONAGER, Bridgeport, Conn., assignor of one-half to Erick Claeson, Bridgeport, Conn. Filed June 3, 1916. Serial No. 101,589. (Cl. 33—94.)

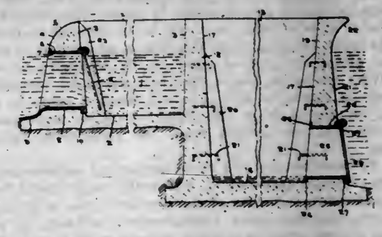
1. A tool of the class described having a blade member, a stock member therefor, one of said members having a main groove, and a groove following the path of a circle with which said main groove communicates, the other of said members having two projections to extend into the main groove and prevent relative turning movement of the members and movable into the second mentioned groove to permit turning movement of one member relatively to the other member.



3. A tool of the class described having a blade provided with a main groove and with an annular groove through the center of which the main groove passes, a stock provided with a recess into which the blade extends, said stock having overlapping walls for the blade at said recess and also having straight edges, set screws mounted in one of said walls and extending into and operating in said grooves, and said straight edges of the stock serving as abutments for the blade in adjusted position.

[Claim 2 not printed in the Gazette.]

1,255,159. TIDE-WATER-STORAGE SYSTEM. JACOB GUSTAFSON, Boise, Idaho. Filed Nov. 4, 1916. Serial No. 129,524. (Cl. 61—34.)



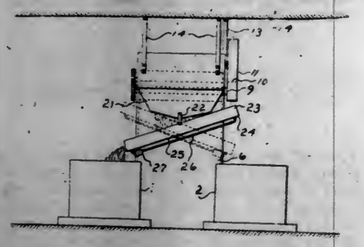
A hydraulic power producing system comprising a main reservoir having a sea wall provided with a plurality of inlet openings, said sea wall having its seaward edge rounded over to its inner edge, check gates for each of said inlet openings adaped to open under flood tide to permit the waves to freely wash over said sea wall and completely fill said main reservoir, an auxiliary reservoir disposed in a plane below that of said main reservoir and having a plurality of outlet openings in its sea wall, an upwardly and outwardly curved overhanging edge carried by last named sea wall to deflect the waves back into the sea and prevent them from washing over the sea wall into the auxiliary reservoir, check gates adapted to close said outlet openings under flood tide, and means establishing communication between said main reservoir and auxiliary reservoir.

1,255,160. COTTON-BALING APPARATUS. THOMAS G. HANEY, New London, Conn. Filed June 18, 1917. Serial No. 175,252. (Cl. 100—25.)

1. The combination of a plurality of baling presses, a chute above the baling presses, means for maintaining a supply of cotton to the chute, a member supported between its ends for oscillation by the chute, to receive cotton from the chute, and shiftable alternately to direct the cotton into the baling presses, and a weight associated with the member and slidable between positions at opposite sides of the center of motion of the member, and means for delivering a supply of cotton to the chute.

2. The combination of a plurality of baling presses, a chute above the baling presses, means for delivering a supply of cotton to the chute, a member supported between its ends for oscillation by the chute, to receive the cotton from the chute and shiftable alternately to

direct the cotton into the baling presses, said member having upwardly extending side walls, and means associated with said member for automatically holding the same in a tilted position to direct cotton into one of the presses.

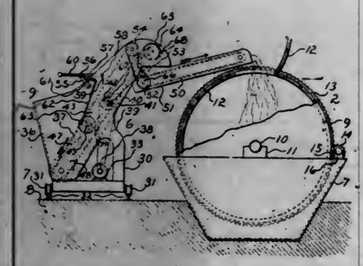


3. The combination of a plurality of baling presses, a chute above the baling presses, means for maintaining the supply of cotton to the chute, a member supported between its ends for oscillation by the chute, to receive the cotton from the chute and shiftable alternately to direct the cotton into the baling presses, a bale connected to the under side of the oscillatory member, near the ends thereof, and a weight slidable on said bale.

4. The combination of two coöperating and inclined endless conveyers, one of which is longer than the other, the inner runs of said conveyers being adapted to travel in the same direction approximately in parallelism, a concaved plate, one end of which is in proximity to the receiving end of the longer conveyer, means for supplying a body of cotton to said concaved plate, a chute to receive the cotton from the longer conveyer, and means for directing the cotton from the chute into baling means.

5. The combination of a chute having end and side walls which converge downwardly, a diverter comprising a bottom and sides, the sides of the diverter being pivoted to the sides of the chute approximately midway of the length of the diverter to thus permit oscillation of the diverter, separate receiving parts into which material is alternately directed by the diverter, and means for holding the diverter in its respective shifted positions.

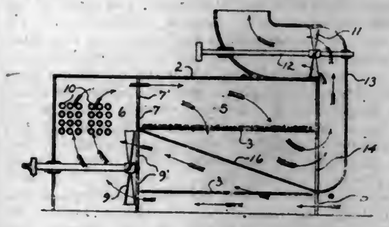
1,255,161. COTTON-BLEACHING APPARATUS. THOMAS G. HANEY, New London, Conn. Filed June 18, 1917. Serial No. 175,253. (Cl. 8—19.)



1. The combination of a hopper, an endless conveyer in the hopper, a series of rocking fingers extending across the conveyer between the ends thereof, to comb the material on the conveyer, and a rotary cylinder approximately at the delivery end of the conveyer and extending across the same, said rotary cylinder having a series of peripheral teeth to shred the material approximately at the time the material is discharged from the conveyer.

2. The combination of a hopper, an endless conveyer in the hopper set at an incline, a series of rocking fingers disposed in front of the forward run of the conveyer to comb the material between the ends of the conveyer, a rotary cylinder extending across the conveyer practically at the delivery end thereof and having a series of peripheral projections to shred the material practically at the time it is discharged from the conveyer, a second conveyer to receive the material from the first conveyer, and a bleaching device into which the material is discharged by the second conveyer.

1,255,162. DRIER. THOMAS G. HANEY, New London, Conn. Filed June 18, 1917. Serial No. 175,254. (Cl. 34—12.)



1. A drier comprising a casing having an inlet for atmospheric air, an endless reticulated conveyer in the casing, a heater in the casing, means for forcing the atmospheric air in contact with the heater and then heated through the upper run of the conveyer, and means for positively and at all times preventing the air after it has passed through said upper run from coming in contact with the air entering the casing.

2. A drier comprising a casing having an inlet for atmospheric air, an endless reticulated conveyer in the casing, a steam heater in the casing, means for forcing the atmospheric air in contact with the steam heater and through the upper run of the conveyer, and means for positively and at all times preventing the air after it has passed through said upper run from coming in contact with air entering the casing.

[Claims 3 to 7 not printed in the Gazette.]

1,255,163. GLOBE-HOLDER. RICHARD C. HAGER, Philadelphia, Pa. Filed May 17, 1916. Serial No. 98,223. (Cl. 240—115.)

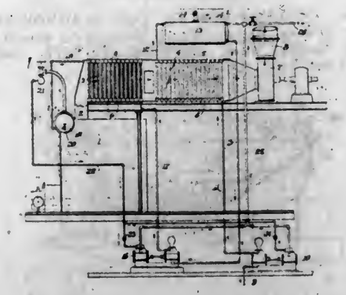


1. A globe holder comprising a channeled ring provided with bayonet slots on the outer side of the channel, the top of the channel being narrower than its bottom, said ring consisting of two semicircular parts joined by a hinge at one end and provided with means for connecting and disconnecting the ends opposite the hinge.

[Claims 2 to 4 not printed in the Gazette.]

1,255,164. METHOD OF AND APPARATUS FOR TREATING BOILER FEED-WATER. HERMAN C. HEATON, Chicago, Ill., assignor to The Babcock & Wilcox Company, Bayonne, N. J., a Corporation of New Jersey. Filed Dec. 8, 1914. Serial No. 876,005. (Cl. 122—420.)

1. The method of treating boiler feed water consisting in passing the water through the low pressure stage of a plural stage economizer, withdrawing the water and any contained air or gases from said stage and afterward allowing discharge of the air or gases therefrom, heating this water by exhaust steam and then passing the water through a high pressure stage of the economizer and then into a boiler.



2. A steam boiler plant comprising a boiler, a plural stage economizer arranged to be heated by the waste gases from the boiler, a tank intermediate the two stages of the economizer arranged to allow free discharge of the air or gases from the water entering from the low pressure stage, the connection from the low pressure stage to the tank being arranged to allow any contained air or gases to pass along with the water into said tank, means for passing the water and any air or gases contained therein through the low pressure stage of the economizer and thence into said tank, means for heating the water in said tank by the introduction of exhaust steam and means for then passing the water through the other stage of the economizer and then into the boiler.

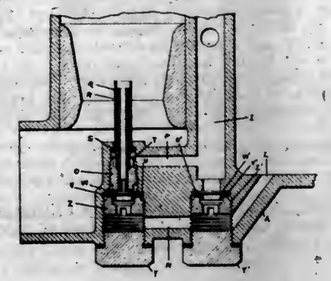
3. In combination, an economizer for treating boiler feed water comprising a plurality of stages made up of tubes through which the water is passed, means for heating said stages, a tank between two of the stages into which the water with contained air or gases flows after being heated in the first stage to thereby permit the escape of absorbed air and gases from the water, and means for further heating the water in said tank by the injection of exhaust steam, and means for forcing the water from said tank through the remaining stage or stages of the economizer and then into the boiler.

4. A steam boiler plant comprising a boiler, a plural stage economizer adapted to be heated by the waste gases of the boiler, a tank intermediate the two stages of the economizer and located above the level of the low pressure stage, means for passing the water with any contained air or gases through the low pressure stage of the economizer and thence upward into said tank, means for heating it in said tank by the introduction of exhaust steam and means for then passing the water through the other stage of the economizer and then into the boiler.

1,255,165. CARBURETER. VICTOR R. HEFTLER, Detroit, Mich., assignor to Societe Du Carbureteur Zenith, Lyon, France, a Corporation of France. Filed Feb. 24, 1916. Serial No. 80,282. (Cl. 137—80.)

1. A carbureter nozzle, having, in combination with the apertured carbureter wall, a tubular member having a flanged end engaging therethrough, a washer member provided with a calibrated aperture engaging across the flanged end of said tubular member, a peripherally overengaging inclosure for said washer, and means for forcing said washer member and its inclosure against the flanged end of said tubular member, thereby forcing the same against the inner face of the carbureter wall.

2. In a carbureter, an apertured shell, a terminally flanged tube extending thereinto, a perforated disk located adjacent the inner end of said tube, a peripherally arranged cushion for said disk, and means for holding said disk and its cushion in desired relation to the end of said tube and for adjustably forcing the flanged portion of said tube against these portions of the shell which surround the aperture therein.



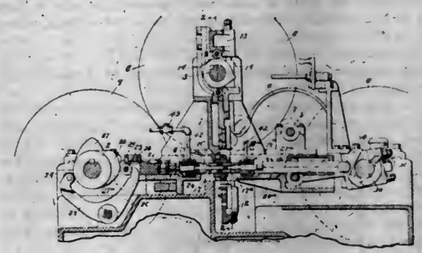
11. In a carbureter, the combination of a tube passing through the shell of the carbureter, its inner end being flanged and engaging over the adjacent portion of the carbureter shell, an apertured disk member adapted to control the flow of fuel from the carbureter through said tube, and an adjustable holding nut whereby said disk member may be held in close relation to the flanged end of said tube.

15. In a carbureter nozzle, in combination with an apertured portion of the carbureter shell, a pair of concentrically arranged tubes engaging therethrough, an apertured and peripherally cushioned disk controlling the inner end of one of said tubes, and adjustable holding members whereby the tubes may be held in place and whereby each disk may be forced into regulating position with respect to its tube.

19. The combination of a carbureter shell provided with a tubular nozzle, a removable perforated disk adapted to control the flow therethrough, a peripheral envelop for said disk, and adjustable means for forcing said disk and its envelop into controlling position with respect to said nozzle.

[Claims 3 to 10, 12 to 14, and 16 to 18 not printed in the Gazette.]

1,255,166. NUT-MACHINE. ERNEST HOLLINGS, Cleveland, Ohio. Filed Oct. 2, 1916. Serial No. 123,290. (Cl. 10—78.)



1. A nut forging machine, comprising a die block, a hollow plunger, a punch working in a chamber therein, a portion of said chamber being larger in cross sectional area than the punch, and means for supplying water to the chamber within said plunger.

2. A nut forging machine, comprising a die block, a hollow plunger, a punch working therein, means for supplying water to the space within said plunger, and a bushing on the punch and within said plunger.

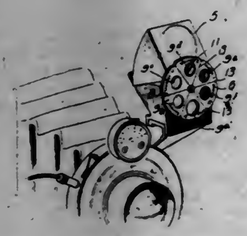
3. A nut forging machine, comprising a die block, a hollow plunger working therein and provided with a cavity, a solid punch sliding in said cavity and arranged to vary its effective volume, and means for supplying water to said cavity.

4. A nut forging machine, comprising a die block, a hollow plunger working therein and provided with a cavity, a punch sliding in said cavity and arranged to vary its effective volume, means for supplying water to said cavity, and a guiding sleeve entering said cavity.

5. A nut forging machine, comprising a die block, two hollow plungers in line with each other, punches therein, means for reciprocating said punches and plungers, and means for supplying water under pressure to said plungers.

[Claim 6 not printed in the Gazette.]

1,255,167. EXPOSURE-METER FOR CAMERAS. JOHN P. HOWIE, Columbia, S. C. Filed June 15, 1917. Serial No. 174,907. (Cl. 88—23.)



1. The combination with a photographic view finder having a lens, of a disk having a series of openings, said disk being rotatable on a fixed pivot to bring said openings successively into registration with the lens, certain of said openings being provided with light retarding means, different amounts of light being cut off in different openings, and a legend for each opening indicating the time of exposure.

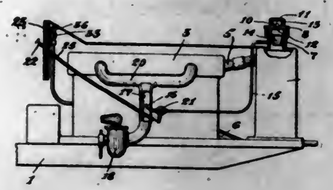
3. The combination with a photographic view finder having a lens, of a disk having a series of openings, said disk being rotatable on a fixed pivot to bring said openings successively into registration with the lens, certain of said openings being covered with light retarding plates, said plates being arranged to cut off different amounts of light for the different openings progressively, and a legend indicating the time of exposure disposed adjacent to each of said openings, said disk being provided with a series of radially extending lines dividing the disk into a series of triangular sections having an opening in each section, each of said triangular sections being of a distinctive color.

5. The combination with a photographic view finder having a lens, of a disk having a series of openings, said disk being rotatably mounted on a pivot secured to the view finder frame in front of the lens and said openings being arranged to be brought successively into registration with the lens, certain of said openings being covered with light retarding plates, said plates being arranged to cut off different amounts of light for the different openings progressively, a legend indicating the time of exposure disposed adjacent to each of said openings, said disk being provided with a series of radially extending lines dividing the disk into a series of triangular sections having an opening in each section, each of said triangular sections being of a distinctive color.

6. The combination with a photographic view finder having a lens, of a disk having a series of openings, said disk being rotatable on a fixed pivot to bring said openings successively into registration with the lens, certain of said openings being provided with light retarding means, so that different amounts of light are cut off by different openings, thereby modifying the entire amount of light received on the field of the view finder at will.

[Claims 2 and 4 not printed in the Gazette.]

1,255,168. COOLING SYSTEM FOR AUTOMOBILES. HENRY HUEBER, Seattle, Wash., assignor to Arnold A. Barkey, Seattle, Wash. Filed Feb. 12, 1917. Serial No. 147,993. (Cl. 123—175.)



In a cooling system for automobiles, a motor, a water jacket therefor, a radiator, inflow and outflow pipes connecting the water jacket with the lower and upper portions of said radiator, respectively, a gas intake pipe connected with the cylinders of said motor, a tube extending from the upper portion of said radiator into said intake pipe, said tube terminating within the latter in a nozzle disposed in the direction of the current of gas flowing through said intake pipe to produce suction in said tube and a partial vacuum in said radiator adjacent said outflow pipe, an air inlet pipe extending into the stream of water entering said water jacket to produce a suction in said inlet pipe, and a relief valve in said radiator.

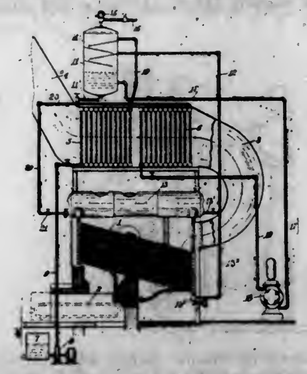
1,255,169. ROTARY ENGINE. SAMUEL HUESCHMID, Paterson, N. J. Filed Aug. 8, 1917. Serial No. 184,320. (Cl. 121—70.)



In a rotary steam engine, the combination of a plurality of cylinders, reciprocating valves for feeding the steam thereto, rods extending from each of said valves, a plate carried by the free ends of the rod of each valve, a rocking element having cam surfaces adapted to engage said plate, a shaft supported by said cylinders, radially disposed arms carried by said shaft each of which is adapted to contact the adjacent rocking element whereby to reciprocate the adjacent plate and actuate the valve to which it is connected, and means for driving said shaft.

1,255,170. STEAM-BOILER ECONOMIZER AND METHOD OF OPERATING THE SAME. DAVID S. JACOBUS, Jersey City, N. J., assignor to The Babcock & Wilcox Company, Bayonne, N. J., a Corporation of New Jersey. Filed Dec. 8, 1914. Serial No. 876,013. (Cl. 210—1.)

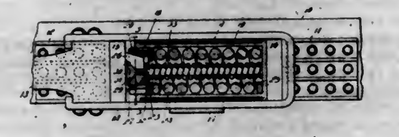
1. In the operation of boilers with artificially softened or naturally soft water, the process which consists in passing the main supply of water through a section of an economizer, then admixing such water with hot concentrated liquid from the boiler, and then forcing the mingled volume to another section of the economizer at a



higher pressure than the first section of the economizer, and thence into a boiler.

[Claims 2 to 12 not printed in the Gazette.]

1,255,171. FRICTION-GEAR. GEORGE A. JOHNSON, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Dec. 16, 1916. Serial No. 137,359. (Cl. 213—64.)



1. In a friction gear, the combination with a friction shell, of friction shoes coöperable therewith and having interior wedge faces, a plurality of wedge elements coöperable with said shoes, and loose means within said wedge elements for maintaining the latter in expanded, operative condition during compressive action of the gear, said elements and said means acting substantially as a solid unit to wedge the shoes outwardly, said means upon release action being free to move independently of said elements and thereby permit collapse of said elements.

2. In a frictional shock absorbing mechanism, the combination with a friction shell, of a plurality of friction shoes coöperative therewith and having wedge surfaces on their inner faces, resilient means for resisting movement of the shoes with respect to the shell, and a plurality of members located centrally of said shoes and adapted to act as a solid wedge in coöperation with said shoes under compressive action of the gear, one of said members being free to move independently of the other members during release and permit collapse thereof.

[Claims 3 to 5 not printed in the Gazette.]

1,255,172. RAILWAY-CAR FRICTION-GEAR. GEORGE A. JOHNSON, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Dec. 26, 1916. Serial No. 138,797. (Cl. 213—64.)

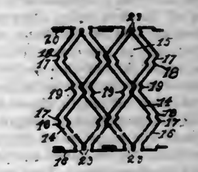
1. In a frictional shock absorbing mechanism, the combination with a friction shell, of friction shoes coöperable with said shell and having interior wedge faces, a spring, a plurality of wedge elements coöperable with said shoes, and means within said wedge elements and coacting therewith to hold the wedge elements in expanded operative position during compressive action of the mechanism and free to move with respect thereto during release, said means having portions overlapping the ends of the wedge elements through which pressure is transmitted to said elements during compressive action.



2. In a frictional shock absorbing mechanism, the combination with a friction shell, of a plurality of friction shoes, a spring, wedge elements coöperable with said shoes, and a plug extending within the shoes and adapted to hold the wedge elements in expanded operative position during compressive action of the gear, said plug having a flange overlapping the ends of said wedge elements and through which pressure is transferred to said elements during the compressive action of the mechanism, said plug being movable independently of said elements during release to thereby permit the wedge elements to collapse.

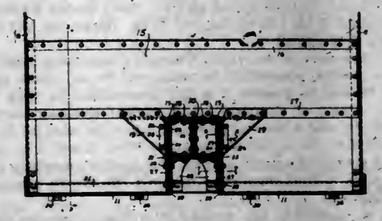
[Claims 3 and 4 not printed in the Gazette.]

1,255,173. RADIATOR. CLAYTON M. JONES, Jamestown, N. Y. Filed Sept. 30, 1915. Serial No. 53,218. (Cl. 257—130.)



In a radiator, pairs of metal sheets formed to provide vertical series of air flues each of approximately diamond shape in cross-section, the intermediate corners of the diamond shaped flues being provided with substantially L-shaped offsets which face downwardly and the top and bottom ends of two adjacent diamond shaped flues being connected by substantially Z-shaped parts formed by contacting relatively wide extensions of the pairs of plates which project beyond said top and bottom ends of the air flues, the air flues of the respective series being arranged in relatively staggered relation with said L-shaped offsets of one series disposed opposite to and spaced from the Z-shaped parts of the adjacent series to provide water passages of substantially equal width throughout, said Z-shaped extensions forming shoulders to hold the plates against upward or downward movement.

1,255,174. RAILWAY-CAR. BYERS W. KADEL, Roanoke county, Va. Filed June 2, 1917. Serial No. 172,428. (Cl. 105—185.)



1. A railway car having sides and a flanged center sill extending longitudinally of the car and within the cavity of the same, a diaphragm extending transversely of the car from side to side within the cavity of the car and above the center sill, said diaphragm being adapted to sup-

port the said center sill and the upper flanges of the latter being secured to the bottom of the diaphragm, and lateral brackets affixed to the center sill and extending outwardly and upwardly to the bottom of the diaphragm and adapted to further brace and tie the two parts together.

2. A railway car having sides and a center sill extending longitudinally of the car and within the cavity of the same, said center sill having horizontal, out-turned flanges at its upper and lower edges and having a vertical connecting web, a diaphragm extending transversely of the car from side to side within the cavity of the car and above the center sill, said diaphragm being adapted to support the said center sill and the upper flanges of the latter being secured to the bottom of the diaphragm, and lateral brackets shaped to fit the contour of the web and flanges of the center sill and affixed to the web and flanges of the same and extending outwardly and upwardly to the bottom of the diaphragm and adapted to further brace and tie the diaphragm and center sill together.

3. A railway car having a longitudinal center sill disposed for a portion of its length within the cavity of the car, the said center sill having out-turned upper and lower flanges, and vertical filler plates set within the space between the out-turned flanges of the center sill and adapted to transform the irregular side faces of the same into smooth faces where the same occur within the cavity of the car, the outer faces of said fillers coinciding with the outer faces of the center sill.

4. A railway car having a longitudinal center sill and a floor, a portion of the floor being disposed at some distance below the bottom face of the center sill, brackets secured to the under face of the center sill, and plates extending from the under face of the center sill to the car floor with their outer faces on line with the outer faces of the center sill and being affixed to the outer faces of the said brackets, said plates extending longitudinally of the car for the length of the same in which the floor is disposed beneath the said sills as above set forth.

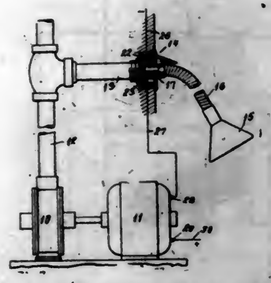
5. A railway car having sides, a floor and a center sill, the latter extending longitudinally of the car at some distance above the floor and within the cavity of the car and having horizontal, out-turned flanges at its upper and lower edges and having a vertical connecting web, a diaphragm extending transversely of the car from side to side within the cavity of the car and above the center sill, said diaphragm being adapted to support the said center sill and the upper flanges of the latter being secured to the bottom of the diaphragm, lateral brackets shaped to fit within the contour of the web and flanges of the center sill and affixed to the web and flanges of the same and extending outwardly and upwardly to the bottom of the diaphragm and adapted to further brace and tie the diaphragm and center sill together, filler plates within the vertical spaces between the flanges of the center sill with their outer faces on line with the outer faces of the center sill, and additional filler plates extending from beneath the sill to the car floor and on line with the first named filler plates.

[Claims 6 to 10 not printed in the Gazette.]

1,255,175. VACUUM-CLEANER. JOHN BLAKE KELLOGG, Orange, N. J. Filed July 10, 1916. Serial No. 108,296. (Cl. 173—326.)

1. A connector for vacuum cleaning apparatus comprising a casing adapted to be connected to an intake pipe, and formed to provide a socket communicating with the pipe, a pair of electrically independent terminal contact members, and a hose attachment connector adapted to be inserted in the socket and adapted when inserted to complete electrical circuit between the contact members and establish a fluid connection between the intake pipe and the hose.

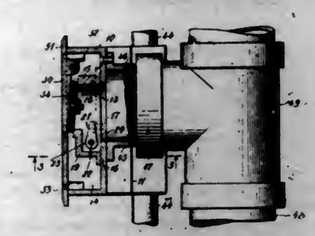
3. A connector for vacuum cleaning apparatus comprising a metal box or casing adapted to be attached to the intake end of a cleaning pipe, a hollow insulating block within the box formed to provide a cylindrical socket constituting a continuation of the interior of the pipe, a pair of terminal contact members mounted on the insulating block and constituting spaced parts of the cylindrical socket, and a hose attachment adapted to be inserted in the socket to complete electrical circuit between the contact members and to establish a fluid connection to the hose.



5. A connector for vacuum cleaning apparatus comprising a cleaning pipe, a metal box or casing attached to the intake end thereof, a hollow insulating block within the box formed to provide a cylindrical socket constituting a continuation of the interior of the pipe, a pair of terminal contact members mounted on the insulating block and constituting spaced parts of the cylindrical socket, and a hose attachment adapted to be inserted in the socket to complete electrical circuit between the contact members and to establish a fluid connection to the hose.

[Claims 2 and 4 not printed in the Gazette.]

1,255,176. WALL-RECEPTACLE FOR VACUUM CLEANING APPARATUS. JOHN BLAKE KELLOGG, Orange, N. J. Filed Dec. 26, 1916. Serial No. 139,003. (Cl. 173—326.)



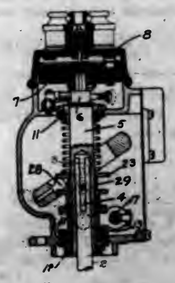
1. A receptacle for vacuum cleaning apparatus comprising a socket adapted to be connected to a suction pipe and adapted to receive a flexible hose connector, a quick break switch, a spring tending to hold the switch open, and means for retracting the spring and closing the switch, dependent upon the introduction of the hose connector into the socket.

4. A receptacle for vacuum cleaning apparatus comprising a casing having a hole in the bottom, a socket, adapted to receive a hose connector, secured to the bottom of the box in alinement with the hole, a quick break switch mounted within the box and insulated therefrom, and means for actuating the quick break switch dependent upon the introduction of a hose connector into the socket.

8. A receptacle for vacuum cleaning apparatus comprising a casing having a hole in the bottom, a socket, adapted to receive a hose connector, secured to the bottom of the box in alinement with the hole, a quick break switch mounted within the box and insulated therefrom, means for actuating the quick break switch dependent upon the introduction of a hose connector into the socket, and a connecting bushing forming a continuation of the socket.

[Claims 2, 3, 5 to 7, 9, and 10 not printed in the Gazette.]

1,255,177. IGNITION SYSTEM FOR COMBUSTION-ENGINES. CHARLES F. KETTERING, Dayton, Ohio, assignor to The Dayton Engineering Laboratories Company, a Corporation of Ohio. Filed July 29, 1914. Serial No. 853,789. (Cl. 123—117.)



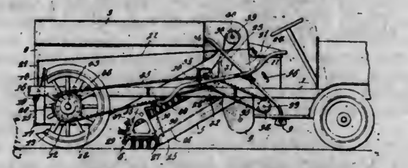
1. In an ignition system for combustion engines, the combination with a driving shaft, a sleeve connected therewith; a plurality of collars; an arm connected to one of said collars, a pin connected to said arm and passing through an angular slot in the sleeve and a longitudinal slot in said shaft; a governor mounted on the above mentioned arm and connected with said collar; a regulating spring for resisting said governor; and means for adjusting one of the other collars longitudinally on said sleeve.

2. In an ignition system, the combination with a set of contact elements operable to open and close an ignition circuit; of a driven timer cam to operate said contact elements; automatically controlled mechanism operable to advance the timer cam throughout a determined range of movement relative to its ordinary movement to vary the timing of the sparking impulses; and manually controlled means for adjusting the timer cam relative to its ordinary movement without affecting the operative range of movement of the speed controlled mechanism.

3. In an ignition system, the combination of a set of contact elements operable to open and close an ignition circuit; of a driven timer cam to operate said contact elements; automatically controlled mechanism for advancing the timer cam throughout a determined range of movement relative to the ordinary movement of said cam to vary the timing of the sparking impulses; and manually controlled means for actuating the automatically controlled mechanism to adjust the timer cam relative to its ordinary movement without affecting the adjusted position of the automatically controlled mechanism.

[Claims 4 to 6 not printed in the Gazette.]

1,255,178. STREET-CLEANING MACHINE. JOSEPH N. M. KEYZER, Lynchburg, Va. Filed Nov. 9, 1915. Serial No. 60,550. (Cl. 15—17.)



In a motor driven street cleaning machine the combination of a transversely extending transmission shaft, a power shaft, sprockets on the ends of said shafts, chains connecting opposed sprockets of each shaft, supporting wheels, sprockets movable therewith, a second set of sprockets adjacent each end of the transmission shaft chains connecting said sprockets and the wheel sprockets, a gear loosely mounted on the transmission shaft, a clutch for connecting said gear with the shaft, an endless traveling brush and a gear for driving said brush in mesh with said first gear.

1,255,179. COMBINATION-TOOL. JOHN KLAMER, Stevens Point, Wis., assignor of one-third to A. N. Sprafka, Stevens Point, Wis. Filed May 10, 1917. Serial No. 167,765. (Cl. 7—16.)

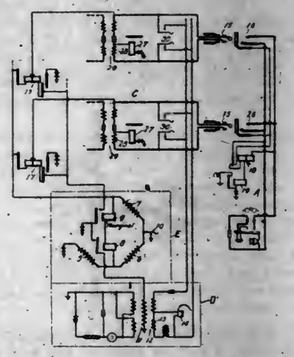


1. A combination tool comprising a cylindrical handle, a plurality of tools hinged adjacent one end of the handle, spaced guide ribs partially surrounding the said handle, a retaining ring journaled between the said ribs provided with a transverse slot adapted for selective positioning outwardly of said tools when the latter are in their released positions, and rotation-preventing means for the said ring.

3. A combination tool comprising a cylindrical handle, a plurality of tools hinged adjacent one end of the handle, spaced guide ribs partially surrounding the said handle, a retaining ring journaled between the said ribs provided with a transverse slot adapted for selective positioning outwardly of said tools when the latter are in their released positions, rotation-preventing means for the said ring, one of said ribs having a slot therethrough and the other having a socket in alinement with the said slot, a locking plate slidably arranged within the said rib slot adapted for seating with its free end within the said socket when the plate is arranged within the slot of said ring in its locking position, and a cover plate for the tools pivoted to the handle at the end thereof opposite the said ribs and arranged in spanning relation with respect to the said handle in substantial flat engagement with the latter when in its closed position overlying said tools.

[Claim 2 not printed in the Gazette.]

1,255,180. TELEPHONE SYSTEM. CHARLES W. KECKLER, Newark, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Apr. 26, 1917. Serial No. 164,635. (Cl. 179—58.)



1. A telephone system comprising a telephone line terminating in a plurality of sets of terminals, a plurality of link circuits, one being connected with one set of terminals, an operator's telephone set, a source of tone signaling current, a Wheatstone bridge circuit having three arms common to the link circuits, a fourth arm for the bridge connected therewith upon engagement of another link circuit with a terminal of another set, and means in the bridge responsive to the connection of the

fourth arm therewith to operatively associate the source of tone signaling current with the receiver of the operator's telephone set.

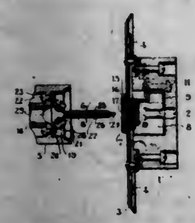
2. A telephone system comprising a telephone line terminating in a plurality of sets of terminals, a plurality of link circuits, one being connected with one set of terminals, an operator's telephone set, a source of tone signaling current, a Wheatstone bridge circuit having three arms common to the link circuits, a fourth arm for the bridge connected therewith upon engagement of another link circuit with a terminal of another set, and a relay in the bridge responsive to the connection of the fourth arm therewith to operatively associate the source of tone signaling current with the receiver of the operator's telephone set.

3. A telephone system comprising a telephone line terminating in a plurality of sets of terminals, a plurality of link circuits, one being connected with one set of terminals, an operator's telephone set, a source of tone signaling current, a Wheatstone bridge circuit common to the link circuits, means for altering the electrical condition of the bridge upon the engagement of another link circuit with a terminal of another set, and means in the bridge responsive to the altered condition thereof to operatively associate the source of tone signaling current with the receiver of the operator's telephone set.

14. A telephone system comprising a plurality of telephone lines, each terminating in a plurality of sets of terminals, a plurality of link circuits for interconnecting the line, an operator's telephone set, a Wheatstone bridge circuit normally connected to the link circuits and having three arms common thereto, a source of tone signaling current, a fourth arm for the bridge connected therewith upon connection of one of the link circuits with one set of terminals of a telephone line, a relay in the bridge responsive to the connection of the fourth arm thereto, a relay in the engaged link circuit operating upon response of the bridge relay to disconnect the bridge from the engaged link circuit and the fourth arm from the bridge, another fourth arm for the bridge connected therewith upon the subsequent engagement of another link circuit with a terminal of another set associated with the engaged line, and another relay in the bridge responsive to the connection of the second mentioned fourth arm thereto to operatively associate the source of tone signaling current and the receiver of the operator's telephone set.

[Claims 4 to 13 not printed in the Gazette.]

1,255,181. FLUSH RECEPTACLE. CHARLES J. KLEIN, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Oct. 28, 1913, Serial No. 797,873. Renewed June 25, 1917. Serial No. 176,924. (Cl. 173—330.)

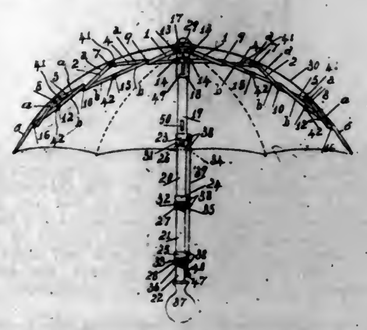


3. In an attachment plug, in combination, a recessed insulating base, a pair of contacts attached on opposite sides of said base in the recess thereof, said contacts being bent from their point of attachment toward each other and extending beyond said base in a parallel relation and in close proximity, a binding screw carried by each of said contacts contiguous to its point of attachment on said base and an insulating strip interposed between the projecting portions of said contacts and supported thereby.

4. In combination, a receptacle having a pair of parallel spaced contacts therein, a face plate for said receptacle having a plug opening, a closure for said opening comprising a divided member normally biased to close said opening, and a plug having a contact extension adapted to open said closure and electrically engage said contacts in said receptacle, said plug having a recess to inclose the exposed portion of said closure, said closure being adapted to hold said contact extension within said receptacle.

[Claims 1, 2, 5, and 6 not printed in the Gazette.]

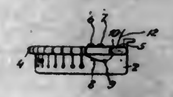
1,255,182. FOLDING UMBRELLA. JOHN KRUPSKI, Springfield, Ill. Filed Nov. 11, 1916. Serial No. 130,748. (Cl. 135—25.)



1. In a folding umbrella, the combination of a staff; a ring stationary on the staff; a runner adapted to slide on the staff; radial rods pivotally connected with the runner; first chordal rods pivotally connected with the ring and the respective radial rods and having buggy-top-joints adapted to break downwardly; and second chordal rods pivotally connected with the outer terminals of the respective radial rods, and pivotally connected with the respective first chordal rods and having buggy-top-joints adapted to break downwardly.

2. In a folding umbrella, the combination of a sectional staff comprising a cover-section, intermediate-sections and a handle-section adapted to inter-lock with each other; a stationary eye on the cover-section; a stationary eye and a hook on the handle-section; stationary eyes respectively adjacent to the respective terminals of the intermediate-sections; a cord secured to the eye of the cover-section and extending through the eyes of all the other sections; and a ring on said cord adapted to engage the hook of the handle-section to keep the cord taut to hold the sections together, and also adapted to prevent the sections, when separated, from slipping off the cord.

1,255,183. TENSION DEVICE FOR SEWING-MACHINE BOBBINS. JAMES LEATHEM, Lebanon, Pa., assignor to Herrmann Aukam & Co., New York, N. Y., a Corporation of New York. Filed May 4, 1914. Serial No. 836,166. (Cl. 112—23.)



1. A bobbin case for rotary hook sewing machines, comprising an outer flange adjacent the top of said bobbin case, a thread tension device situated on top of said flange but spaced away from the edge thereof, a thread opening in said bobbin case, and means for guiding the thread through said opening and beneath said tension device.

4. A bobbin case for rotary hook sewing machines comprising a rim and having a thread tension device on the top of its rim, having in its side a thread guiding opening and a thread slot, leading from the top of the bobbin case to such opening, and having in its rim a further thread guiding opening leading to said tension device.

[Claims 2 and 3 not printed in the Gazette.]

1,255,184. BOBBIN-CASE AND HOOK FOR SEWING-MACHINES. JAMES LEATHEM, Lebanon, Pa., assignor to Herrmann Aukam & Co., New York, N. Y., a Corporation of New York. Filed May 4, 1914. Serial No. 836,167. (Cl. 112—38.)

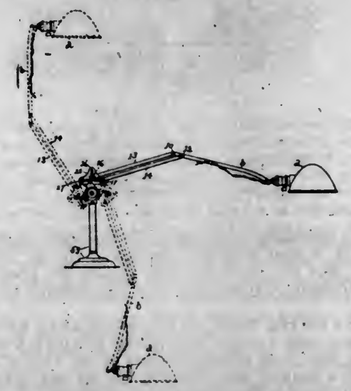


1. A bobbin case for rotary hook sewing machines having needle-thread-engaging means comprising a laterally projecting cylindrical lug spaced away from the top of said case.

3. The combination with a bobbin case provided with a pin shaped lug projecting laterally from the side of said case and spaced away from the top thereof, the outer face of said lug being inclined, said lug being adapted to engage a loop of needle thread of a rotary hook within which said bobbin case is located, said hook having the point of its beak located in proximity to such lug.

[Claims 2 and 4 not printed in the Gazette.]

1,255,185. ADJUSTABLE SUPPORTING APPARATUS. WILLIAM B. LEHMKUHL, Cambridge, Mass. Filed July 13, 1916. Serial No. 109,170. (Cl. 248—8.)



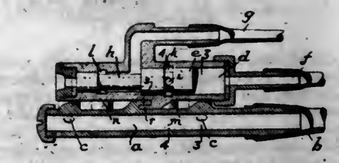
2. In an apparatus of the character described, in combination, a member provided with substantially horizontal slots and with a substantially vertical slot, a carrier to which said member is pivoted, a disk on which said carrier is mounted to turn thereon, means for clutching said member and carrier to said disk, a support for said disk, means for frictionally engaging said disk to hold it from rotating, a toggle movable in said slots, and means for moving said toggle.

5. In an apparatus of the character described, in combination, a supporting member, a toggle provided at its center and ends with devices which are in sliding engagement with said supporting member, means for operating said toggle to move the same on said supporting member, and a carrier for said supporting member rotatable in a substantially vertical plane.

9. In an apparatus of the character described, in combination, a supporting member, a toggle having the ends and center of its members in sliding engagement with said supporting member, a movable device to which an object to be supported is connected, and substantially parallel links connecting said toggle members with said movable device.

[Claims 1, 3, 4, and 6 to 8 not printed in the Gazette.]

1,255,186. MILKING-MACHINE CLUSTER. MEREDITH LEITCH, Poughkeepsie, N. Y., assignor to The De Laval Separator Company, a Corporation of New Jersey. Filed Mar. 1, 1917. Serial No. 151,681. (Cl. 31—101.)



1. A milking machine cluster comprising a milk member having a milk passage, a separable pulsation member having a valve chamber, tubes adapted for connection with the inflation chambers of double chamber teat cups supported by the pulsation member and communicating with the valve chamber, tubes adapted for connection with the teat chambers of double chamber teat cups supported by the milk member and communicating with the milk passage, and a valve in the valve chamber.

3. A milking machine cluster comprising a milk member having a milk passage, a pulsation member having a valve chamber, tubes adapted for connection with the teat chambers of double chamber teat cups supported by the milk member and communicating with the milk passage, tubes adapted for connection with the inflation chambers of double chamber teat cups supported by the pulsation member and communicating with the valve chamber, and coacting means on said members engageable and separable by longitudinal movement.

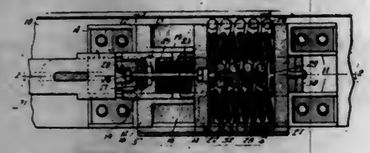
4. A milking machine cluster comprising a pulsation member and a milk member, branch tubes on each member, coacting hooks on said members engageable by movement longitudinally in one direction, and flexible tubes detachably engaging said branch tubes and adapted to prevent longitudinal movement of said members in the opposite direction.

9. A milking machine cluster comprising a milk member having a milk passage, a pulsation member having a valve chamber and located above and in substantial parallelism with the milk member, milk tubes extending from and on opposite sides of the milk member and shaped to conform to the pulsation member, and elbow-shaped pulsation tubes extending from and on opposite sides of the pulsation member and shaped to conform to the milk member.

11. A milking machine cluster comprising a milk member, a pulsation member having a longitudinally extending valve chamber of two diameters, a two diameter reciprocating valve in the pulsation member, the smaller end of the valve chamber being open to the atmosphere, a pulsation pipe connected with the larger end of the valve chamber, a suction pipe connected with the valve chamber between its ends, said valve having an axial air passage open at the smaller end of the valve and a cross port communicating with the axial passage in the larger section of the valve, tubes adapted for connection with the inflation chambers of double chamber teat cups and supported by the pulsation member and communicating with the smaller and larger sections respectively of the valve chamber, said milk member extending longitudinally of and parallel with the pulsation chamber and provided with a milk passage extending parallel with the valve chamber, and tubes adapted for connection with the teat chambers of double chamber teat cups and supported by the milk member and communicating with said longitudinally extending milk passage.

[Claims 2, 5 to 8, and 10 not printed in the Gazette.]

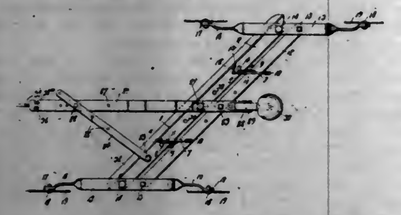
1,255,187. RAILWAY DRAFT-GEAR. GOODRICH Q. LEWIS, Wheaton, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Oct. 18, 1915. Serial No. 56,436. (Cl. 213—64.)



1. In a draft rigging, the combination with a relatively short stationary shell, friction elements coöperable therewith under buff, and twin arranged springs arranged to resist movement of said friction elements under buff, of a horizontal yoke acting to compress only said springs, under draft, said springs being insertible and removable while the shell and friction elements are in position.

[Claims 2 to 5 not printed in the Gazette.]

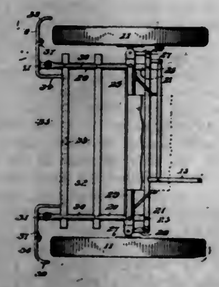
1,255,188. DITCHING AND GRADING MACHINE. ELMER LITTLE, Owensboro, Ky. Filed Sept. 26, 1917. Serial No. 193,364. (Cl. 37—7.)



1. In a scraping and ditching machine, a front plate, a beam mounted in parallel spaced relation therewith, end bars pivotally secured directly to the ends of said plate and beam, cutter disks rotatably mounted on the ends of each of said end bars and directed forwardly of the machine, a traction pole pivotally secured to the front plate and to the beam, a scraping blade carried by said front plate, said pole being in parallelism with the end bars, and means for normally preventing relative movement between said front plate and said beam.

[Claims 2 and 3 not printed in the Gazette.]

1,255,189. VEHICLE-FENDER. JAN LORENC, Philadelphia, Pa. Filed Aug. 30, 1917. Serial No. 188,952. (Cl. 105—33.)

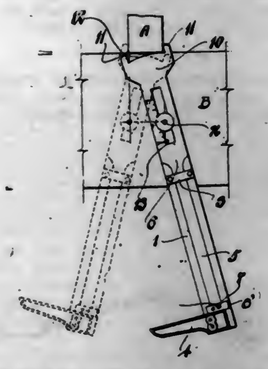


1. In combination with a vehicle having a front axle arranged with ground wheels mounted thereon and a steering connecting bar for the said wheels, a brace bar pivotally mounted parallel with said connecting bar, a girder arranged parallel with the said axle, parallel arms pivoted between the said girder and axle with the rear free ends of the arms pivoted between the said bars, and a buffer pivotally suspended from the forward ends of the arms extending to points forwardly of the wheels in constant parallelism with the said axle and bars.

4. In combination with a vehicle having a front axle arranged with ground wheels mounted thereon and a steering connecting bar for the said wheels, a brace bar pivotally mounted parallel with said connecting bar, a girder arranged parallel with the said axle, parallel arms pivoted between the said girder and axle with the rear free ends of the arms pivoted between the said bars, laterally projecting mounts carried by the vehicle, links pivotally connecting the said mounts and arms, slats arranged in constant parallelism pivotally connected between the said arms, transverse spacing lugs between the said girders and axle, depending posts upon the forward ends of said arms, a buffer comprising spaced wires pivotally mounted upon the said post and having their opposite free ends constantly positioned forwardly of the vehicle wheels and terminating in rearwardly grooved portions adjacent the outer sides of the wheels.

[Claims 2 and 3 not printed in the Gazette.]

1,255,190. FRIEZE-BOARD MARKER. WYLIE MCBRIDE, Spokane, Wash. Filed May 14, 1917. Serial No. 168,437. (Cl. 33—41.)



1. An instrument of the character described, consisting of a bar, a head carried at one end of the bar having spaced jaws and an arcuate face between the jaws, and a longitudinally adjustable scoring tool mounted on said bar.

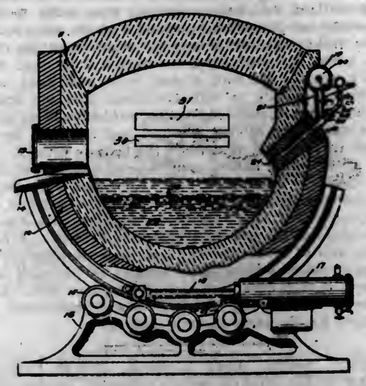
2. In a marking device, the combination with a bar having a head with a convex arcuate edge forming a movable contact point, and guiding elements at the ends of said edge, of a marking tool carried by the bar and co-acting with said edge as the contact point is moved.

1,255,191. PROCESS OF PRODUCING IRON AND STEEL. SAMUEL MCDONALD, Alhambra, Cal. Filed Dec. 6, 1916. Serial No. 135,899. (Cl. 75—48.)

1. A process of producing iron or steel providing a body of molten iron ore on top of the molten charge of iron or steel and blowing a gas containing a reducing agent downwardly against said iron ore, whereby portions of said iron ore are carried below the surface of said charge and reduced to iron or steel.

2. A process of producing iron or steel from iron ores, comprising melting a body of iron ore on top of a molten charge of iron or steel, and blowing a carbonaceous gas against said iron ore whereby said iron ore is carried below the surface of said charge and reduced to iron or steel.

3. A process of producing iron or steel from iron ores, comprising melting a body of iron ore on top of a molten charge of iron or steel, and blowing a non-oxidizing gas mixed with a powdered carbonaceous material against



said iron ore whereby said iron ore is carried below the surface of said charge and reduced to iron or steel.

1,255,192. MACHINE FOR IMPREGNATING FABRICS WITH RUBBER. ISAAC S. MCGIBHAN, New York, N. Y. Original application filed Dec. 17, 1915, Serial No. 67,473. Divided and this application filed May 20, 1916. Serial No. 98,994. (Cl. 91—18.)



1. A machine for filling fabric with rubber, consisting of a fabric drying mechanism, an impregnating mechanism, and compressing mechanism consisting of rollers having rubber yielding co-acting surfaces, said mechanism being so geared with a driving element as to synchronize their motion and avoid slipping or friction, and the static parts of the machine being disposed out of contact with the fabric as it passes through the mechanism.

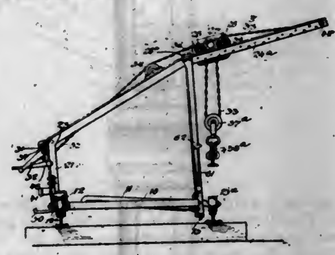
3. A machine for filling fabric with rubber including in combination, a fabric heating or drying mechanism, a vat, containing drums or rollers for alternately and transversely flexing the fabric while in solution and a drying or semi-vulcanizing device.

7. A mechanism for impregnating or coating fabric with rubber and a compressing machine including a spring pressed roller having a yielding surface that is adapted to force the rubber into and between the threads of the fabric without material distortion of said threads at their points of intersection.

[Claims 2, 4 to 6, 8, and 9 not printed in the Gazette.]

1,255,193. RAIL-LAYER. PATRICK H. MADDEN, Sparta, and FRANK L. PIERCE, La Crosse, Wis. Filed Oct. 30, 1913. Serial No. 798,192. (Cl. 212—11.)

1. In a rail layer, the combination of a truck, means for supporting said truck tiltably on one rail of a two-rail track, said means adapted to run on said rail, supporting means at the other side of the truck adapted to rest on the roadway between said track rails, a derrick embodying a rail-hoist and mounted upon said truck, said truck and derrick being manually tiltable transversely to permit the same to be shifted on one rail, and counterbalancing means to facilitate said tilting and shifting of said truck and derrick.



10. In a rail-layer, the combination of a truck, means for supporting the same on a track, a derrick on said truck comprising bars secured to one side of the truck extending upwardly therefrom and bent and converging toward the other side and upwardly converging standards at the latter side, a transversely extending upwardly and outwardly inclined elevated track on the derrick, a carriage on the elevated track, and a rail hoist on the derrick and connected to said carriage.

11. In a rail layer, the combination of a truck, wheels at one side thereof adapted to travel on one of two rails of a track, supporting means on the other side of the truck disposed between the rails, means whereby the truck may be tilted, a wheel adjustably connected to the truck and adapted to run on the rail on the other side of the track, and hoisting mechanism mounted on said truck.

[Claims 2 to 4 and 6 to 9 not printed in the Gazette.]

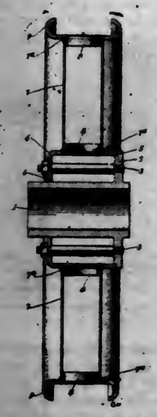
1,255,194. AUTOMOBILE-BODY. HERMAN C. MAISE, Springfield, Mass., assignor to Springfield Body Corporation of New York, Springfield, Mass., a Corporation of New York. Filed Aug. 23, 1916. Serial No. 116,418. (Cl. 21—62.)



1. In a device of the kind described, a door containing a recess, a window frame pivoted at the upper edge of the door and adapted to be swung from an operative position above the door to an inoperative position alongside of the door, a window slidably mounted in the frame and adapted to be lowered into the recess in the door, and a side member hinged to one side of the frame and adapted to be folded upon the frame and moved with it to an inoperative position alongside the door.

2. In a device of the kind described, a door containing a recess, a window frame pivoted at the upper edge of the door and adapted to be swung from an operative position above the door to an inoperative position alongside of the door, a window slidably mounted in the frame and adapted to be lowered into the recess in the door, and a side window adapted to be moved from a position substantially in the plane of the frame to a position alongside of the frame and to be swung with the frame to an inoperative position alongside the door.

1,255,195. WHEEL AND ITS MANUFACTURE. SETH G. MALBY, New York, N. Y. Filed July 17, 1916. Serial No. 109,657. (Cl. 29—174.)



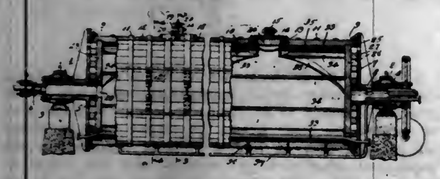
1. The process of connecting wheel spokes with a felly which consists in forming spoke-receiving apertures in a felly, inserting spokes through said apertures with their extremities projecting from the outer surface of the felly wall, and applying suitable fusing means to the spoke extremities to weld them to the felly.

35. A wheel comprising a felly, a hub member integrally formed as a cylindrical cup with a central perforation in its bottom, spokes connecting the felly with the cylindrical walls of the cup or hub member, a flanged barrel whose flange abuts the cup rim and whose tubular portion passes through the central perforation in the cup bottom, and tie members connecting the cup bottom and the said barrel flange.

36. A wheel comprising hub and felly members and spokes suitably connected with one of said members and having hollow ends welded in apertures in the other member, and cup-shaped plugs welded in said hollow spoke ends and with their cup bottoms flush with the surface of said other member.

[Claims 2 to 24 and 26 to 35 not printed in the Gazette.]

1,255,196. BARREL. JOHN L. MALM, Denver, Colo., assignor to The Midwest Metals Company, Denver, Colo. a Corporation of Colorado. Filed Apr. 26, 1915. Serial No. 24,015. (Cl. 259—30.)

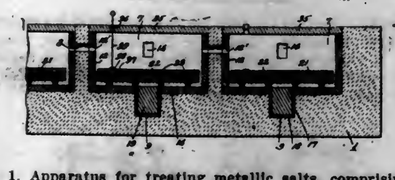


1. An agitating barrel, comprising a hollow cylindrical body closed at one end and provided at its opposite end with communication to a source of fluid pressure, the inner surface of said body being provided with a series of longitudinally extending baffles, a door in the wall of said body intermediate its ends, and additional baffles converging spirally in both directions from the ends of the body toward said door and intersecting the longitudinally disposed baffles, said spirally arranged baffles being adapted to collect the material and facilitate its discharge through the door.

2. An agitating barrel, comprising a hollow cylindrical body closed at one end and provided at its opposite end with communication to a source of fluid pressure, the inner surface of said body being provided with a series of longitudinally extending baffles, filter sheets on the inner wall of said body extending from baffle to baffle and supported thereby and forming with the inner surface of the wall of the body a series of filtrate receiving chambers, means for conducting the filtrate from said chambers, a door in the wall of said body, additional baffles converging spirally in both directions from the ends of said body toward said door, said spiral baffles being adapted to collect the filtered material and facilitate its discharge through the door when the body is rotated.

3. An agitating barrel, comprising a hollow cylindrical body closed at one end and at its opposite end provided with communication to a source of fluid pressure, the inner surface of said body being provided with a series of longitudinally extending baffles, a plurality of doors in the wall of said body, and sets of converging spirally arranged baffles on the inner surface of the body wall, one set for each door, said spirally arranged baffles being adapted to direct the material toward said doors and facilitate its discharge therethrough.

1,255,197. CELL. JOHN L. MALM, Denver, Colo., assignor to The Midwest Metals Company, Denver, Colo., a Corporation of Colorado. Filed Apr. 26, 1915. Serial No. 24,016. (Cl. 204—19.)



1. Apparatus for treating metallic salts, comprising a hollow casing having a cell chamber therein, the bottom of said chamber being provided with a trough-like well opening out through the cell wall, a metallic electrode filling said well and having its upper surface exposed to the metal deposited in the cell and also having one integral end portion extending out through the opening in the cell wall, and a second electrode lying above the first named electrode and also extending out beyond the wall of the cell.

4. Apparatus for treating metallic salts, comprising a casing having a cell chamber therein whose bottom is provided with a trough-like well, an electrode in said well having an integral portion extending out beyond the side wall of the cell, a second electrode lying above the first named electrode and also extending beyond the cell wall, and means for at any time determining the height of the electrolyte and the deposit of metal in the cell.

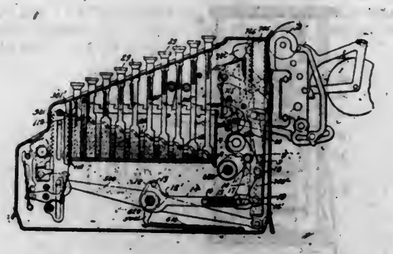
5. In apparatus for treating metallic salts, a casing having a cell chamber therein, a cathode in the bottom of the cell chamber, an anode within the cell and spaced from the cathode, and means for determining the height of the electrolyte and the deposit of metal in the cell at any stage in the operation.

7. In apparatus for treating metallic salts, a casing having a cell chamber therein, a cathode arranged in the bottom of the cell, an anode within the cell having an opening therethrough, an insulating tube in said opening, a cover for said cell, an opening through said cover in alinement with the opening in the insulating tube, and a bar passing through said openings and touching the bottom of the cell.

[Claims 2, 3, and 6 not printed in the Gazette.]

1,255,198. LISTING-MACHINE. MILES H. MANN, Terre Haute, Ind., assignor to International Money Machine Company, Terre Haute, Ind. Filed Dec. 13, 1915. Serial No. 66,606. (Cl. 235—58.)

1. In an accounting machine, the combination of accounting mechanism including accounting devices, controlling connections for moving selected of said devices to carry the same toward predetermined operating positions for preliminary adjustment, means to intentionally readjust all of said selected carriers to final operating position, and means to prevent action of the last means until said preliminary adjustment is completed.



5. In a machine of the class described, the combination of printing mechanism including type carriers, means for moving the carriers to preliminary positions, stops to differentially control the action of the last mentioned means and correspondingly control the said positioning of the carriers, alining teeth provided on the carriers, an alining ball coöperative with said teeth, means to engage the ball with the teeth, and an operating device for the ball comprising stops for normally holding the same out of engagement with the teeth and comprising means for shifting the ball after it has been engaged with the teeth.

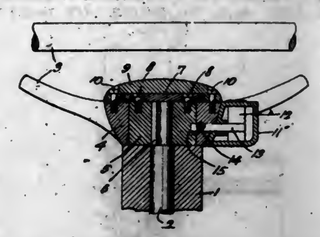
11. In a listing machine, the combination of printing mechanism including type carriers, controlling connections for moving said carriers toward a predetermined printing point for perliminary printing adjustment, an alining device for effecting a final alining readjustment of said carriers, an operating device for said alining device, a governor adapted to prevent the action of the operating device on said alining device until after completion of the preliminary adjustment of the carriers, operating means for the said controlling connections, and connections intermediate said operating means and the governor whereby the operating means is likewise controlled by the governor, and a main actuator coacting with the said controlling connections.

17. In combination, listing mechanism including type carriers, means controlling differential positioning of the latter, a main actuator governing the operation of said carriers, an alining device adapted to directly engage the carriers to aline the same, controlling parts intermediate the carriers and the main actuator for causing initial printing adjustment of the carriers, and operating means intermediate the alining device and the main actuator for effecting final alined adjustment of the carriers and comprising levers for shifting the alining device, operating arms connected with said levers, a drag bar connecting said operating arms with the main actuator, a rocker member on the main actuator for shifting said drag bar in opposite directions, and a connection between one of said arms and the drag bar.

21. In a machine of the class described, the combination of accounting devices, indexing means for controlling said accounting devices in accordance with a predetermined transaction, operating means for the accounting devices adapted to preliminarily move the same toward operating accounting positions, an actuating member to positively reset all of the accounting devices after the preliminary positioning of the same is completed by said operating means, and an instrumentality coacting with said actuating member to prevent its coöperation with the accounting devices until completion of the said preliminary movement of said devices.

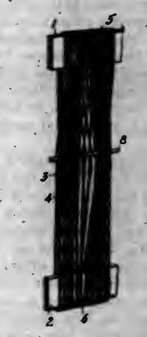
[Claims 2 to 4, 6 to 10, 12 to 16, and 18 to 20 not printed in the Gazette.]

1,255,199. STEERING-WHEEL. JAMES WILLIAM MARKHAM, Armstrong, Ind. Filed Oct. 13, 1916. Serial No. 125,440. (Cl. 74—33.)



A vehicle steering device embodying a steering column having a casing and a steering shaft therein having its upper end projecting therefrom, a bushing secured on said end of the shaft at the upper end of said casing, a retaining disk bearing against the bushing and having its edge portion projecting therefrom, securing means extending through the disk and engaging the bushing, a hand wheel having a hub rotatable upon the bushing and held between the upper end of said casing and edge portion of said disk, a cap fitting over said disk, securing means extending through the cap and engaging the hub, and means for connecting said hub and bushing.

1,255,200. LOOM-HARNESS. JAMES F. MATTHEWS, Fall River, Mass., assignor to American Warp Drawing Machine Company, Boston, Mass., a Corporation of Maine. Filed Sept. 3, 1908, Serial No. 451,534. Renewed Apr. 30, 1917. Serial No. 165,639. (Cl. 139—14.)



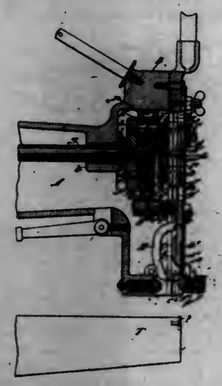
2. As a new article of manufacture a loom harness comprising a series of assembled eye supports so connected by the direct contacting engagement of the supports themselves as to cause the separation on one support from the series to be followed by the separation of the next adjacent support.

3. As a new article of manufacture a loom harness comprising upper and lower shafts, a plurality of heddle members each with its strands interlaced between the shafts with the strands of the next adjacent heddle member.

6. A loom harness comprising upper and lower harness shafts, a series of heddle members comprising each an eye having pairs of upper and lower strands, each pair of lower strands passing to the same side of the lower shaft and adjacent pairs passing to alternate sides thereof, the individual members of each upper pair passing to opposite sides of the upper shaft and each member of the upper pair being crossed about the adjacent but oppositely extending member of the next adjacent pair.

[Claims 1, 4, 5, 7, and 8 not printed in the Gazette.]

1,255,201. DIFFERENTIAL MOTION FOR WIRE-STITCHERS OR LIKE MACHINES. ARTHUR H. MAYNARD, Warwick, R. I., assignor to Boston Wire Stitcher Company, Augusta, Me., a Corporation of Maine. Filed May 26, 1916. Serial No. 100,022. (Cl. 1—2.)



1. In a differential-motion for wire-stitching machines or other apparatus, the combination with a rotating crank-disk, of an eccentric hub on said disk, a longitudinally contractible pitman journaled on said hub to be reciprocated therefrom, a crank-pin arranged eccentric to the center of the hub, and a connecting-rod journaled on the crank-pin to be reciprocated with a differential movement with respect to the pitman.

7. In a wire-stitching or stapling machine, the combination with a rotating crank-shaft, of a resiliently-extended longitudinally-contractible pitman connected to be reciprocated therefrom, a bender-bar connected to be operated from the pitman to form the staples from lengths of wire fed thereto, a connecting-rod also reciprocated from the crank-shaft with a longer stroke than that of the pitman, and a staple-driver connected to be reciprocated from the connecting-rod with a differential motion with respect to the bender-bar.

14. In a wire-stitching or stapling machine, the combination with means for holding the lengths of wire fed thereto to be formed into staples, of a reciprocable bender-bar for coöperating with said means to bend down the legs of the staple, and a longitudinally contractible pitman for reciprocating the bender-bar to adapt it to act against the work being stapled with a yielding pressure.

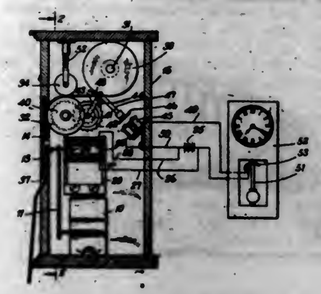
17. A longitudinally-contractible pitman for wire-stitchers or like machines comprising a member formed with an eccentric-strap and an arm extending therefrom, said arm having a longitudinal bore communicating with a larger bore extending axially therefrom, a rod slidable in the smaller bore and formed with a head seated against the bottom of the larger bore, a T-headed bearing secured to the outer end of the rod, and a coiled spring surrounding the arm and the rod and acting against the T-headed member to maintain the parts in extended relation.

[Claims 2 to 6, 8 to 13, 15, and 16 not printed in the Gazette.]

1,255,202. RECORDING INSTRUMENT. EDWIN H. [illegible], Brooklyn, N. Y., assignor to Electric Weighing Company, New York, N. Y., a Corporation of New York. Filed Sept. 25, 1915. Serial No. 52,552. (Cl. 234—1.5.)

1. A recording instrument comprising a transparent plate, a printing member, means for feeding a continuous strip of fabric so as to receive an impression from said printing member, and means adapted to press upon the back of the sheet opposite the transparent plate, for making a record only on the face of the sheet, said means being responsive to a variable to be recorded.

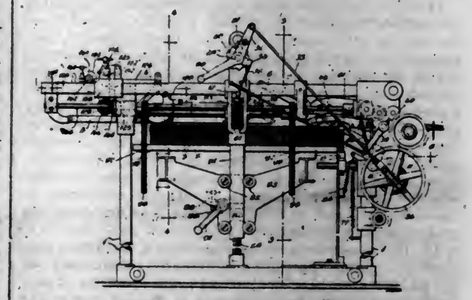
7. A recording instrument comprising a casing having a plate glass panel, a marker within the casing adjacent to the surface of the glass panel, means for actuating the marker in response to a variable to be recorded, a record sheet interposed between the glass panel and the marker



and characterized by the fact that marks made on its inner surface are visible on the opposite surface, and means for vibrating the marker into and out of engagement with the record sheet, whereby a dotted or broken line is visible from the outside of the casing through the panel.

[Claims 2 to 6 and 8 to 19 not printed in the Gazette.]

1,255,203. SHEET-FEEDING MACHINE. LYMAN MIDDLEDITCH, New York, N. Y. Filed July 6, 1914. Serial No. 849,285. (Cl. 271—40.)



1. A sheet individualizing device comprising: a support for a pile of superimposed sheets, combing means for separating a plurality of top sheets from the pile and for advancing the separated sheets, and controlling means for permitting the combing means to further advance previously separated sheets at a single comb without separating more sheets from the pile.

21. In a sheet individualizing device, a sheet support, a rocking arm resting with its free end on the pile, a friction feeding roll carried by said arm, a second rock arm above the first arm, a positively driven roll on said second arm resting on the friction feeding roll, means for lifting and lowering the first arm and thereby the second arm, means for imparting motion to the positively driven roll irrespective of the position of the arm, a second positively driven roll on the second arm, a lifting finger carried by the first arm, means for causing said lifting finger to move a sheet into engagement with the second positively driven roll, means for imparting a gradually accelerated speed to said second positively driven roll once to each cycle of the machine, and means for moving the sheets from underneath the first rocking arm.

31. A sheet individualizing device comprising: a support for a pile of superimposed sheets, combing means for separating a plurality of sheets from the pile and for advancing the separated sheets having a variable combing

interval, and means for automatically restricting a portion of the combing operation to sheets previously separated to maintain the separation of the sheets substantially uniform.

[Claims 2 to 20 and 22 to 30 not printed in the Gazette.]

1,255,204. CLUTCH-BRAKE. CHARLES W. MITCHELL, Philadelphia, Pa. Filed July 15, 1914. Serial No. 851,085. (Cl. 192—13.)



2. In a friction brake, a shaft, a wheel provided with a peripheral flange carried by the shaft, a sleeve provided with radial arms surrounding the shaft, a pair of bolts in radial alinement carried by each arm, a shoe to each arm adapted to bear against the flange of the wheel to join the shaft with the sleeve, each shoe provided with a radial slot to register with the bolts, and a yielding means operative between each shoe and a corresponding arm to equalize the bearing pressure between the shoes and the flange of the wheel, and means adapted to prevent the shoes from bearing against the flange of the wheel to disconnect the shaft from the sleeve.

[Claims 1 and 3 not printed in the Gazette.]

1,255,205. BRUSH CONNECTION FOR DYNAMO-ELECTRIC MACHINES. CHARLES P. MONTO, Cleveland, Ohio, assignor, by mesne assignments, to National Carbon Company, Inc., a Corporation of New York. Filed Mar. 26, 1917. Serial No. 157,347. (Cl. 200—26.)

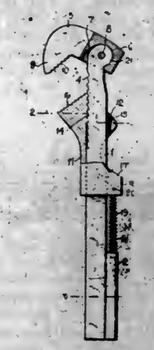


1. A contact member consisting of a brush having a cylindrical cavity and a hole substantially at right angles thereto, a stranded conductor having a split metal band around one end, said band being in said cavity and a screw in said hole projecting into the cable between the ends of the split band and wedging the said band against the walls of the cavity.

2. A contact member consisting of a brush having a cylindrical cavity and a hole substantially at right angles thereto, a stranded conductor having a split metal band around one end, the ends of the band being serrated and turned inwardly into the cable, said band being in said cavity and a screw in said hole projecting into the cable between the ends of the split band and wedging the said band against the walls of the cavity.

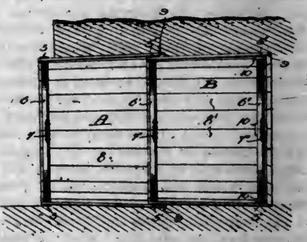
1,255,206. WRENCH. ANDREW J. MOORE, Tuscaloosa, Ala. Filed June 18, 1917. Serial No. 175,451. (Cl. 81—146.)

A pipe wrench comprising a shank, a jaw pivotally engaged with an end portion of the shank, a slidable jaw mounted upon the shank and co-acting with the pivoted jaw, opposed walls of the bore of the sliding jaw being in divergence, the inner end portion of one of said opposed walls being provided with teeth, the adjacent face of the shank being provided with teeth adapted to interlock with the first named teeth, a lateral extension carried by the shank at a point remote from the pivoted jaw, said lateral extension being provided with a bore, a rod pivotally engaged with the outer end of the sliding jaw and extending within the bore of the lateral extension of the shank, and a spring encircling the rod and interposed



between the outer end of the sliding jaw and the inner end of the lateral extension.

1,255,207. MEANS FOR FORMING CIRCULAR TUNNELING. JOHN W. MORGAN, Milwaukee, Wis. Filed Feb. 19, 1917. Serial No. 149,566. (Cl. 61—16.)



1. The method of projecting circular tunnels which consists in positioning concentric spaced rings transversely in the tunnel, in driving lagging boards between said rings, in removing the dirt in the space inclosed by the lagging boards, in positioning a second pair of circular rings within the forward ends of series of lagging boards, and in driving a second series of lagging boards between said second pair of rings and removing the dirt from the space bounded by said second set of lagging boards.

2. A tunnel comprising a circular series of lagging boards having their ends disposed in overlapped relation, and circular bracing rings disposed within each end of each series of lagging boards, certain of said rings being disposed between the overlapped ends of the boards.

3. A tunnel comprising a series of lagging boards having their ends disposed in overlapped relation, bracing rings engaging one end of each series of lagging boards at the inner wall thereof, retaining and guiding rings engaging the ends of said lagging boards engaged by said bracing rings at the outer wall thereof, said retaining rings being disposed between the overlapped ends of the boards substantially as described.

1,255,208. COUCH HAVING A DIVIDED RESTING-SURFACE. HEINRICH JULIUS MÜLLER, Schaffhausen, Switzerland. Filed June 3, 1916. Serial No. 101,489. (Cl. 5—12.)

1. In an invalid bed, the combination of a supporting frame, a head section pivoted to the frame, a body section pivoted to the supporting frame and completely separated at its inner end from the abutting end of the head section, devices connecting the abutting ends of said sections and

located outside of these ends and means for positively guiding the said connecting devices whereby the said ends are caused to move in unison, to keep in alinement, and are allowed to rock away from each other in the elevating movement of the head section and toward each other in the depressing movement of the head-section.



2. In an invalid bed, the combination of a supporting frame a head section pivoted to the frame, a body section pivoted to the frame and completely separated at its inner end from the abutting end of the head-section, scissors-like arms connecting the abutting ends of said sections and connected together and means for positively guiding the said scissors-like arms whereby the said ends are caused to move in unison, to keep in alinement, and are allowed to rock away from each other in the elevating movement of the head section and toward each other in the depressing movement of the head-section.

3. In an invalid bed, the combination of a supporting frame, a head-section pivoted to the frame, a body section pivoted to the supporting frame and completely separated at its inner end from the abutting end of the head-section, devices connecting the abutting ends of said sections and located outside of these ends, means for positively guiding the said connecting devices, whereby the said ends are caused to move in unison, to keep in alinement, and are allowed to rock away from each other in the elevating movement of the head-section and toward each other in the depressing movement of the head section, and means operable by the person on the bed for the purpose of locking said head section in its adjusted position for use.

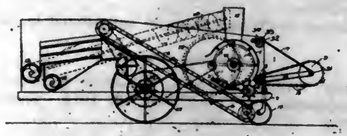
7. In an invalid bed, the combination of a supporting frame, a head-section pivoted to the frame, a body-section pivoted to the supporting frame and completely separated at its inner end from the abutting end of the head-section, devices connecting the abutting ends of said sections and located outside of these ends, means for positively guiding the said connecting devices, whereby the said ends are caused to move in unison, to keep in alinement, and are allowed to rock away from each other in the elevating movement of the head-section and toward each other in the depressing movement of the head-section, and a hinged flap fixed at each side to one of the said sections and adapted to bear freely upon the other section for the purpose of bridging the gaps occurring between the said sections and preventing the mattress from being nipped between said sections.

9. In an invalid bed, the combination of a supporting frame, a head-section pivoted to the frame, a body-section having a stepped foot portion pivoted to the supporting frame, a crank shaft movably mounted in the foot-portion of the body-section, a foot-section fixed on said crank shaft, eccentrics fixed on said crank shaft, raising springs connected at one end to the frame and at the other to the eccentrics by means of flexible tensile devices, means operable by the person on the bed for operating said crank shaft, and means operable by the said person for locking and unlocking said foot-section.

[Claims 3, 4, 6, 8, and 10 not printed in the Gazette.]

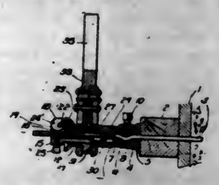
1,255,209. COMBINED HARVESTER. NOAH C. NELSON, Imperial, Cal. Filed Sept. 14, 1914. Serial No. 861,720. (Cl. 56—29.)

1. In a harvester, a suitable carriage, a threshing cylinder mounted in the carriage, a threshing concave mounted below and in opposition to the threshing cylinder, a lifting cylinder mounted directly in front of the concave and in opposition to the threshing cylinder, and an endless reel belt construction mounted with its rear end close to the passage between the two cylinders.



2. In a harvester, a suitable carriage, a threshing cylinder mounted in the carriage, a threshing concave mounted below and in opposition to the threshing cylinder, a lifting cylinder mounted directly in front of the concave and in opposition to the threshing cylinder, a pivoted frame connected to the front end of the carriage on a line with the passage between the two cylinders and extending forwardly, means for adjustably supporting the forward end of the frame, and an endless reel belt mounted to travel in the frame.
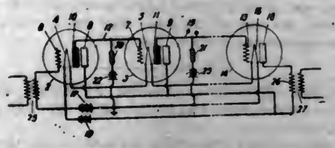
1,255,210. TIGHTENER FOR FORM-CLAMPS. GEORGE F. NEWTON, Independence, Mo., assignor to Wm. M. Bunting, Kansas City, Mo. Filed Nov. 29, 1915. Serial No. 64,039. (Cl. 254—29.)



2. The combination with a sleeve, having an exterior threaded portion, of a head on said sleeve provided with spaced ears, a cam pivotally mounted between said ears and having a head at one end and a tail at the opposite end, a spring engaging said tail and urging the cam head toward functional position, a barrel threaded onto the sleeve and adapted for engaging the cam tail to rock the same to non-functional position, a ratchet ring on the barrel, a wrench rotatably mounted on the barrel and anchored thereto by said ratchet ring, and a pawl pivotally mounted on the wrench member and adapted for engaging said ratchet ring.

[Claim 1 not printed in the Gazette.]

1,255,211. SYSTEM FOR THE SUCCESSIVE AMPLIFICATION OF ENERGIES. ALEXANDER MCLEAN NICOLSON, New York, N. Y., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed June 8, 1915. Serial No. 32,864. (Cl. 179—171.)



1. A thermionic translating device comprising an evacuated vessel containing an input electrode, a cathode, an anode and a fourth electrode between said cathode and anode, means for establishing a space current between said cathode and anode, and means for maintaining said fourth electrode at a negative potential with respect to said cathode.

5. An electrical system comprising an evacuated vessel containing an input electrode, a cathode, an anode and a fourth electrode between said cathode and anode, means for establishing a space current between said cathode and anode, an outgoing line, and means for impressing the variations in potential of said fourth electrode upon said line.

8. An electrical system comprising an evacuated vessel containing an input electrode, a cathode, an anode and a fourth electrode, a second evacuated vessel containing an input electrode, said fourth electrode and the input electrode of said second vessel being electrically connected with each other.

[Claims 2 to 4, 6, 7, 9, and 10 not printed in the Gazette.]

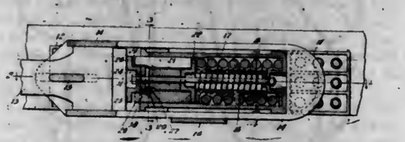
1,255,212. AUXILIARY SHOCK-ABSORBING MEANS FOR DRAFT-RIGGINGS. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Mar. 18, 1915. Serial No. 15,343. (Cl. 213—64.)



1. An auxiliary shock absorbing device for draft riggings comprising a casing, a combined friction shell and spring case slidably mounted therewithin, friction elements coöperable with said shell and a spring mounted in said case.

[Claims 2 to 7 not printed in the Gazette.]

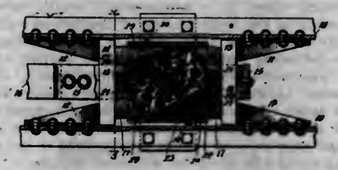
1,255,213. FRICTION-GEAR FOR RAILWAY-CAR DRAFT-RIGGINGS. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Mar. 18, 1915. Serial No. 15,350. (Cl. 213—64.)



1. A friction gear for draft riggings comprising a friction shell, shoes coöperable therewith, a wedge, a spring, a thrust block, and anti-friction rollers, each roller being interposed between and engaging the wedge, shoes and thrust block.

[Claims 2 to 5 not printed in the Gazette.]

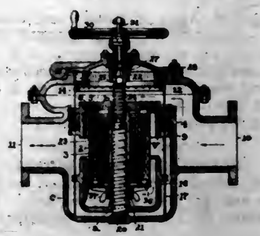
1,255,214. SPRING-DAMPENER. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Sept. 5, 1916. Serial No. 118,413. (Cl. 213—64.)



1. In a spring dampener, the combination with a pair of oppositely arranged, normally separated heads, the latter having recesses on their opposed faces, each recess having a concave friction surface, of plates frictionally engaging said surfaces and having convex friction surfaces, a spring extending between said plates, and a floating casing encircling said heads, said heads frictionally engaging said casing upon relative longitudinal movement between the heads.

[Claim 2 not printed in the Gazette.]

1,255,215. STRAINER. CHARLES OVERLY, Cleveland, Ohio. Filed Feb. 7, 1917. Serial No. 147,038. (Cl. 210—16.)



1. A strainer, comprising a casing having a cleaning port and a water passage, a main valve member to prevent the flow of water through said port, a plurality of concentric strainer members jointly supported for movement with said valve member within said passage and an auxiliary valve member to control the flow of water independently through the inner strainer member.

2. A strainer casing having a cleaning port in its top and a main water passage, a strainer basket removably mounted within said passage opposite said port, and valve means for controlling the passage and said port having a belt strainer member encircling said basket and mounted to move therewith to intersect said passage upon closing said port by said valve means.

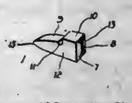
3. A strainer casing having a cleaning port and a fluid passage, valve means to close either said port or said passage, and a pair of concentric strainer members comprising a basket and a belt to guard said passage when said port is either open or closed.

4. A strainer casing having a cleaning port and a valve seat, a tubular valve member slidably mounted within said casing and adapted to engage said seat, a strainer basket and strainer belt mounted upon said member, and means to press said member to said seat.

5. A strainer casing and a tubular valve member slidably mounted therein having a flange, a strainer belt secured to said flange, and a strainer basket removably supported within said member.

[Claims 6 to 27 not printed in the Gazette.]

1,255,216. TYPE. PABLO PARIS, New York, N. Y. Filed Feb. 23, 1917. Serial No. 150,293. (Cl. 101—398.)



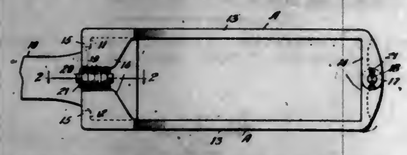
4. A type having one side extending in a plane unbroken surface, the opposite side having a transverse groove at the middle part, said grooved side being beveled from the groove to the rear end of the type to provide a sharp wedge, the beveled portion adjacent the groove being of less thickness than the type beyond the groove.

[Claims 1 to 3 and 5 to 7 not printed in the Gazette.]

1,255,217. TWO-PART YOKE. CALVIN B. PATCH, Glenellyn, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Sept. 8, 1916. Serial No. 118,970. (Cl. 213—42.)

1. A yoke of the character described comprising two members movably connected at their rear ends, said members having means at their forward ends for operatively engaging a draw bar, the forward ends of said arms being

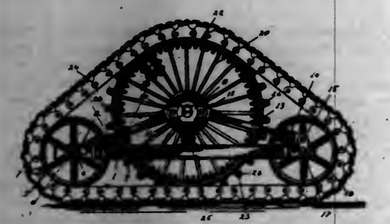
provided with overlapping portions at the sides thereof, and detachable means extending horizontally and parallel to the axis of the yoke through said overlapping portions



to thereby maintain the parts in operative position, said means being removable by movement in a direction parallel to the axis of the yoke.

[Claim 2 not printed in the Gazette.]

1,255,218. PLATFORM-TRACK WHEEL. THOMAS R. PAULSEN, Modesto, Cal., assignor of one-fifth to H. T. Johnson and one-fifth to Sylvan Latz. Filed May 7, 1917. Serial No. 166,817. (Cl. 21—150.)

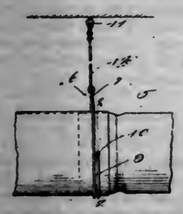


1. A traction wheel comprising a center axle, an axle spaced from each side of the center axle and having hinged connection therewith, a driving wheel mounted on the center axle, supporting wheels carried by the outer axles, and an endless platform supported by the outer wheels and supporting and driven by the center wheel.

2. A traction wheel comprising rigid supporting beams, a fixed axle at one end, and a slidable axle at the opposite end, a spring supported axle disposed centrally above the beams, said last named axle being in hinged connection with the end axles, supporting wheels mounted on the outer axles, a driving wheel mounted in the center axle, and an endless platform supported by the end wheels and supporting and driven by the center wheel.

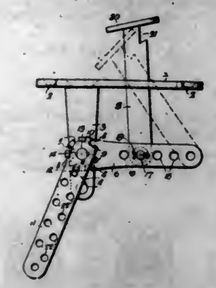
3. A traction wheel comprising supporting beams slotted at one end, an axle slidable in the slots, an axle fixed at the opposite ends of the beams, springs mounted centrally of the beams, an axle supported on the springs, rods hinged to the end axles and the center axle, supporting wheels carried on the outer axles, a driving wheel turnable on the center axle, and an endless platform supported by the outer wheels and supporting and driven by the center wheel.

1,255,219. STOVEPIPE-HANGER. CARL A. PEDERSEN, Wilson, Ark. Filed Feb. 21, 1917. Serial No. 150,060. (Cl. 126—308.)



A stove pipe hanger formed from a single length of material looped intermediate its ends to provide a suspending eye, the resultant end portions being reversely bent circularly from said eye and overlapped and having their terminals extending inwardly of the ring thus produced.

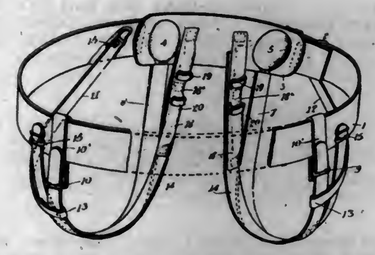
1,255,220. PEDAL. NICHOLAS A. PETRY, Philadelphia, Pa. Filed Oct. 26, 1917. Serial No. 198,628. (Cl. 74—81.)



1. The combination in a pedal of a supporting structure; a pair of lever arms of which one has a pair of projecting pins and the other has a circular series of openings for the reception of said pins; a pivot whereby the arms are fulcrumed on the supporting structure; and an operating member connected to one of said arms.

[Claims 2 to 5 not printed in the Gazette.]

1,255,221. TRUSS. JOHN HARLAND PICKERING, Aylmer, Ontario, Canada. Filed Nov. 3, 1917. Serial No. 200,126. (Cl. 128—26.)



1. In a rupture truss, the combination with the body belt and leg strap, of a supplemental elastic pressure strap secured to the front portion of the belt and extending downwardly at an acute angle to the leg strap, the opposite end being secured to a suitable portion of the truss, and a pad extending longitudinally of the supplemental pressure strap and extending downwardly from the upper front end thereof and secured thereto and having a depressed portion located intermediately of its length.

4. In a rupture truss, the combination with the body belt and leg strap, of a supplemental elastic pressure strap secured to the front portion of the belt and extending downwardly at an acute angle to the leg strap, the opposite end being secured to a suitable portion of the truss, a pneumatic pad extending longitudinally of the supplemental pressure strap and extending downwardly from the upper front end thereof and secured thereto and having a depressed portion located intermediately of its length, and supplemental rubber pads secured to the pneumatic pad above and below the depressed portion.

[Claims 2 and 3 not printed in the Gazette.]

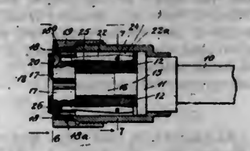
1,255,222. TRAILER-TRUCK. OSCAR C. POTTS, Unionville, Mo. Filed Apr. 22, 1916. Serial No. 93,005. (Cl. 21—137.)

A two wheeled trailer truck comprising a body frame having spaced side members drawn inwardly at their forward ends, cross bars connecting said side members, a forwardly extended tongue secured to said cross members and braced by said inwardly drawn side members, vertically mounted side boards secured on the said frame,



hooks at the upper rear corners of said side boards, fastening devices on the outer faces of said side boards and an eye member at the forward end of said tongue adapted for receiving a pin on a draft vehicle for the purpose set forth.

1,255,223. SCREW-CUTTING DIE. ALBERT J. PRANCE, Detroit, Mich., assignor to Murchey Machine and Tool Company, Detroit, Mich., a Corporation of Michigan. Filed July 12, 1916. Serial No. 108,785. (Cl. 10—95.)

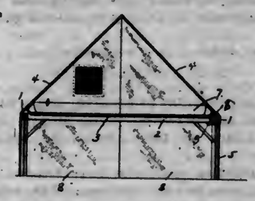


1. A screw-cutting die comprising a head, chasers carried thereby, each chaser having an aperture, and means for precisionizing the positions of said chasers radially, said means consisting of a shell surrounding said head, an annulus carried by said shell and having an inner beveled face, and means for moving said annulus on the shell longitudinally, and spring-actuated levers pivoted in the head and having their front ends disposed within said chaser apertures, for opening the chasers at a predetermined point of the advance movement of the head relatively to the shell.

6. A screw-cutting die comprising a head, chasers carried thereby and movable radially therein, each chaser having a drop-off face, a shell surrounding said head and having in its surrounding wall an aperture, an annulus carried by and movable on said shell for variably limiting the outward movement of said chasers, blocks carried by said shell and holding said chasers in closed-in positions, a tiltable lever pivotally seated in the head and passing through said aperture for moving said head relatively to the shell to open or close the chasers.

[Claims 2 to 5 not printed in the Gazette.]

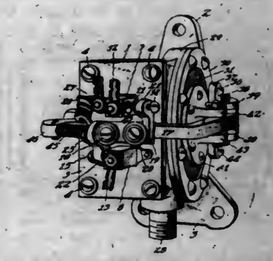
1,255,224. TENT FOR COTS AND THE LIKE. ISAAC S. PURCELL, Oak Park, Ill., assignor to Tentobed Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 7, 1916. Serial No. 124,216. (Cl. 5—5.)



3. The combination with a tent, of a cot therein having its side portions extending substantially contiguous with and relatively near the limitations of the tent, flaps carried by the tent and loosely overlapping adjacent portions of the cot to divide the tent into non-communicating compartments disposed above and below the cot respectively, and fastening means carried by the tent adjacent the juncture of the tent and flaps for positively securing the same to side portions of the cot.

[Claims 1, 2, and 4 not printed in the Gazette.]

1,255,225. ELECTRIC SWITCH. GUY R. RADLEY, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis, a Corporation of Wisconsin. Filed Dec. 18, 1911. Serial No. 666,538. (Cl. 175—308.)



1. In an electric switch, in combination, a pressure responsive member, a switch arm controlled thereby, a contact carried by said arm, a tubular support communicating with a source of reduced pressure and having a bored-out portion communicating with the interior thereof, a perforated cap fitted within said bored-out portion of said support, said cap serving as a coöperating contact for said first mentioned contact.

2. In an electric switch, in combination, a vacuum receptacle, a tubular support in communication with the interior of said chamber and provided with an enlarged counterbored portion, a perforated cap fitted within said counterbored portion to form a chamber, a switch arm mounted for actuation by pressure variations within said receptacle, a conically tapered pin carried by said arm to coöperate with said perforated cap both as a contact and as a valve, whereby upon separation of said pin from said cap circuit is interrupted therebetween and the incident arc is blown within said chamber.

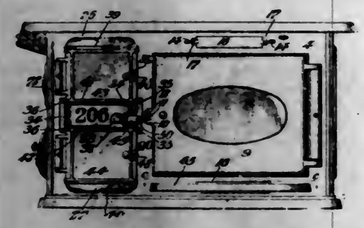
1,255,226. INDEX MEMBER. JAMES H. RAND, Newton, Mass. Filed Dec. 30, 1916. Serial No. 139,795. (Cl. 40—65.)



An index member comprising a sheet having an offset margin extending completely across one edge of the sheet, a sheath of transparent material embracing said offset

margin, having a flat front face extending across the recess formed by the offset margin and an inturned lip on its rear side engaging the shoulder of the offset margin, said sheath being open and unobstructed at both ends whereby said sheath is removable from the sheet by sliding the same lengthwise of the offset margin, and forms with the offset margin a hollow strip holder open at both ends, and a removable indicator strip adapted to slide endwise into and out of said open ended strip holder.

1,255,227. STOVE. SAMUEL V. REEVES, Haddonfield, N. J. Filed July 22, 1914. Serial No. 852,349. (Cl. 126—23.)



1. A stove having a front plate provided with an oven door and superposed doors at one side thereof, said plate having the same conformation on its top as on its bottom whereby the oven door is adapted without being disconnected from said front plate and without change to be reversed for a right or left arrangement of stove, the upper of said superposed doors forming without being disconnected from said front plate the fire chamber door with a left arrangement of the stove and the ash pit door with a right arrangement of stove, and the lower of said superposed doors forming with a left arrangement of the stove the ash pit door and with a right arrangement of the stove the fire chamber door.

3. A stove front plate having the same conformation at its top as at its bottom and provided with an oven opening, a fire chamber opening and an ash pit opening, doors movably carried by said plate and covering said openings and adapted to serve without being disconnected from said front plate for a right or left hand arrangement of the stove, catches on said front plate, means carried by each door to interlock with the same catch when said plate is arranged for either a left or a right hand arrangement of the stove part, cleaning openings on opposite sides of said oven door opening, and removable covers for said cleaning openings.

5. The combination with the end plate of a stove having an opening therethrough, of a water back consisting of a casting having its water chamber located substantially inwardly of said plate and having a panel projecting through said opening to form a continuation of said end plate, and the top and bottom of said water back having lugs 82 on its top and bottom and having its top and bottom of the same conformation whereby the water back may be reversed.

6. The combination with the end plate of a stove having in opening, of a water back consisting of an integral casting fixed to said end plate, and having the fire brick supporting lugs 84 and 85 at the ends, and the fire brick interlocking recess 86, and the lugs 82 on its top and bottom, the water chamber of said water back being substantially inwardly of said end plate and said water jacket having a panel extending into said opening and forming a continuation of said end plate.

7. A stove, having a plurality of dust passages, and provided with a front plate having an oven door and superposed doors at a side thereof, the top and bottom of said front plate having the same conformation whereby the oven door is adapted for both right or left hand arrangement of the stove, the upper of said superposed doors forming a fire chamber with a left hand arrangement of the stove and forming the ash pit door with a right hand arrangement of the stove, and said stove having an ash pit communicating with one or the other of said dust passages in accordance with its arrangement for a right or a left hand stove.

[Claims 2 and 4 not printed in the Gazette.]

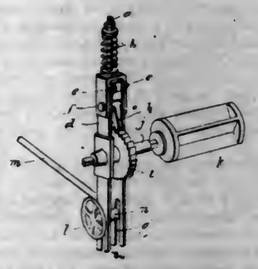
1,255,228. MOTOR-VEHICLE-CONTROLLING MECHANISM. JOHN E. RICHARDSON, Elmira Heights, N. Y. Filed May 2, 1917. Serial No. 165,906. (Cl. 74—81.)



1. A motor vehicle controlling mechanism comprising three closely adjacent foot pedals arranged to move in parallel paths, the tread of the central pedal being arranged to project toward the operator from the plane determined by the treads of the other two pedals a sufficient amount so that when it is depressed it will not have moved to the other side of said plane.

[Claim 2 not printed in the Gazette.]

1,255,229. VALVE-DRIVE DEVICE. WILLIAM RICHARDSON, Jr., Ensley, Ala. Filed May 1, 1917. Serial No. 165,676. (Cl. 74—16.)



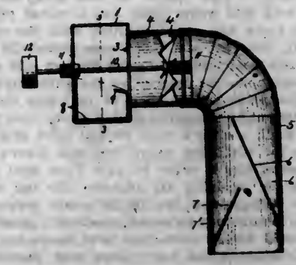
1. In a valve drive device, the combination of a pawl and ratchet, yielding means for applying the movement of one of said parts to the other, a movable pin on which said pawl is mounted and a rocker arm adapted to permit said pin to slide toward and away from said ratchet.

3. In a valve drive, the combination of a movable pawl, a ratchet, a pin on which said pawl is mounted, a rocker arm provided with slots to permit said pin to slide toward and away from said ratchet, a spring for pressing said pin toward the ratchet wheel, a jaw upon which the same is rested, a bolt to retain said spring and guides for keeping the movement of the jaw parallel with the rocker arm.

[Claim 2 not printed in the Gazette.]

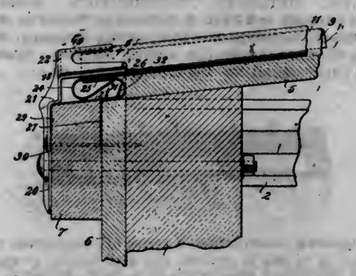
1,255,230. DUST-RECEIVER FOR GRINDING AND POLISHING MACHINES. FRED ROSSE, Penn Yan, N. Y. Filed Oct. 16, 1916. Serial No. 125,875. (Cl. 51—7.)

1. The combination with a rotary abrasive element, a dust-receiving case having an open side adjacent the abrasive element, a tubular fan case communicating with the dust-receiving case, a rotary fan in the fan case, an upright dust-collecting tube connected to the delivery end of the fan case and provided with interior pockets opening toward the fan case, and a tray slidable into and out of the dust-receiving case and provided with an overhanging inturned flange at the side adjacent the fan case.



2. The combination with a rotary abrasive element, a dust-receiving case having an open side adjacent the abrasive element, a fan case connected to the receiving case above the bottom thereof, a rotary fan in the fan case, and a dust-collecting tube having one end connected to the delivery end of the fan case and its other end extended downwardly and provided with partitions inclining inwardly and upwardly from the walls thereof to form interior pockets opening toward said delivery end of the fan case for collecting the dust and retaining it when the fan is at rest.

1,255,231. CAR-ROOF. THOMAS NATHAN RUSSELL, Chicago, Ill., assignor to Chicago-Cleveland Car Roofing Company, Chicago, Ill., a Corporation of Illinois. Filed May 12, 1916. Serial No. 97,154. (Cl. 108—5.)



1. In a metal car roof, in combination: a car roof frame; roof sheets movable within limits on said frame and formed at their eaves ends at points over the car frame with relatively large downward and inward bends of more than a semi-circle, from which bends the terminal portions of the sheets extend inward and upward under the body of the sheet and at an angle thereto; and hook strips under the roof sheets attached to the car frame and having hook flanges extending outward over and confining the terminal edges of the sheets.

3. In a metal car roof, in combination: a car roof frame; roof sheets movable within limits on said frame and formed at their eaves edges with hook flanges which are bent upward toward the under sides of the roof sheets; hook strips attached to the car frame and having hook flanges extending outward over the said flanges of the roof sheets; and eaves flashings independent of the hook strips, covering the fascia and extending inward between the roof sheet hook flanges and the hook strips, and formed with upstanding inner edges adapted to turn back water and to be drawn out from the hook seam in case of injury to the flashing.

[Claims 2 and 4 not printed in the Gazette.]

1,255,232. CAR-ROOF. THOMAS NATHAN RUSSELL, Chicago, Ill., assignor to Chicago-Cleveland Car Roofing Company, Chicago, Ill., a Corporation of Illinois. Filed May 13, 1916. Serial No. 97,395. (Cl. 108—5.)

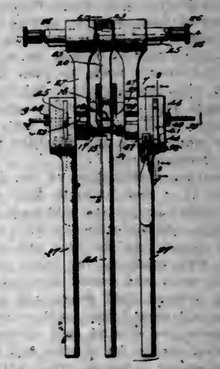


1. In a car roof, the combination of roof sheets having upstanding side flanges and inwardly extending eaves hook flanges joined with the sheets by wide and deep bends and inclined upward at an angle relative to the sheets, the outer ends of said roof sheets overhanging the substructure of the roof; seam caps loosely confining said side flanges; means for fixedly holding, and sustaining independently of the roof sheets, the eaves ends of said seam caps, so as to relieve the said bends of the roof sheet of the weight of the caps; and hook-stripping having outwardly extending hook-members arranged between the eaves ends of the roof sheets and the terminal portions of the said hook-flanges of the roof sheets and slidably confining the eaves ends of the roof sheets.

5. In a car roof, the combination of roof sheets having upstanding side flanges and inwardly extending eaves hook-flanges joined with the sheets by wide and deep bends and inclined upward at an angle to the sheets, the outer ends of said roof sheets overhanging the substructure of the roof; seam caps loosely and slidably confining said side flanges; means for fixedly holding, and sustaining independently of the roof sheets, the eaves ends of said seam caps; hook-stripping having outwardly extending hook-members arranged between the eaves ends of the roof sheets and the terminal portions of the said hook-flanges of the roof sheets and slidably confining the eaves ends of the roof sheets; and an eaves flashing entering between the roof sheets and the hook-stripping and terminating in an upwardly extended lip, the roof sheets being supported out of contact with said flashing.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,255,233. WIRE-CONNECTING DEVICE. ELLIS W. SCARBOROUGH and EDSON W. FLETCHER, Searsport, Me. Filed May 31, 1916. Serial No. 100,813. (Cl. 140—122.)

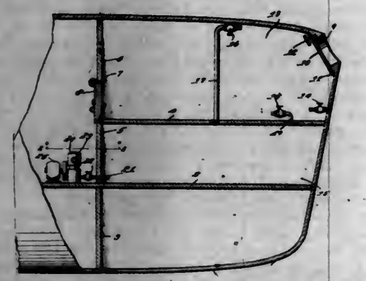


2. In a wire twisting device, a bar, a clamping member depending from said bar, a pair of shanks slidably mounted on said bar and one being disposed upon each side of said clamping member, a rotatable member carried by each shank and each having a central portion alined with the gripping faces of said clamping member, the said shanks and their respective rotatable members having slots therein adapted to be brought into registration, a lever rotatably mounted upon each rotatable mem-

ber, the said levers having slots adapted to aline with the slots in their respective rotatable members, means for establishing a power connection between said levers and their rotatable members, and wire holding shoulders on each of said rotatable members substantially as described.

[Claim 1 not printed in the Gazette.]

1,255,234. SUBMARINE CONSTRUCTION FOR DIVING PURPOSES. FREDERICK W. SCHOENEN, Great Falls, Mont. Original application filed Jan. 8, 1916, Serial No. 71,010. Divided and this application filed Sept. 30, 1916. Serial No. 123,050. (Cl. 61—7.)



1. In a submarine construction of the class described, the combination of a shell, a main floor carried within said shell, a partition supporting said main floor, a second floor spaced above said main floor, a wall carried by said main floor and supporting the rear end of said second floor, a second wall engaging the inner portion of said shell and resting upon said second floor, whereby a waste room is formed between said floors, and a diver's room is formed above said second floor, said second wall having an opening, means for closing said opening, said shell having an opening, means for closing said last-mentioned opening, said openings communicating with said diver's room, a pipe carried by said second floor and extending to the upper portions of said diver's room, a valve carried by said pipe, a valve carried by said shell, whereby water may pass through said last-mentioned valve into said diver's room, at which time the air from the diver's room may pass through said first-mentioned valve and said pipe into said waste room, an elbow carried by said second floor, a valve carried by said elbow, whereby after said second-mentioned valve is closed, said last-mentioned valve may be opened, so as to permit the water within the diver's room to pass into the waste room, at which time the air within the waste room will pass through said pipe, and said first-mentioned valve, into said diver's room, and means for conveying the water from the waste room and expelling the same upon the exterior of the submarine.

2. In a submarine construction of the class described, the combination of a shell, a main floor carried within said shell, a partition supporting said main floor, a second floor spaced above said main floor, a wall carried by said main floor and supporting the rear end of said second floor, a second wall engaging the inner portion of said shell and resting upon said second floor, whereby a waste room is formed between said floors, and a diver's room is formed above said second floor, said second wall having an opening, means for closing said opening, said shell having an opening, means for closing said last-mentioned opening, said openings communicating with said diver's room, a pipe carried by said second floor and extending to the upper portions of said diver's room, a valve carried by said pipe, a valve carried by said shell, whereby water may pass through said last-mentioned valve into said diver's room, at which time the air from the diver's room may pass through said first-mentioned valve and said pipe into said waste room, an elbow carried by said second floor, a valve carried by said elbow, whereby after said second-mentioned valve is closed, said last-mentioned valve may be opened, so as to permit the water within the diver's room to pass into the waste room, at which time the air within the waste room will pass through said pipe, and said first-mentioned valve, into said diver's room, a pump carried by said main floor, means for operating said pump, a pipe carried by said pump and communicating with said waste room, and a second pipe carried by said pump and communicating with the exterior of said shell, whereby said pump may draw the water from said waste room and expel same through said second-mentioned pipe upon the exterior of the submarine.

3. In a submarine construction of the class described the combination of an elongated shell, a waste room formed within said shell, a diver's room formed upon said waste room, means for admitting water into said diver's room, means for permitting a diver to pass from said diver's room, means for receiving air adjacent the top of said diver's room and passing the air into said waste room and whereby the air may be saved, means for passing the water from said diver's room into said waste room and means for exhausting the water from said waste room.

4. In a submarine construction of the class described, the combination of an elongated shell, a waste room formed adjacent one end of said shell, a diver's room formed upon said waste room, means for permitting a diver to pass into and out of said diver's room, a pipe connecting with the interior of said waste room adjacent the top thereof and projecting to a point near the top of said diver's room, a valve carried by the upper end of said pipe, means for admitting water into said diver's room at which time said valve may be operated for permitting air to pass from the upper portions of said diver's room through said pipe into said waste room, whereby the air may be saved and means for admitting the water from said diver's room into said waste room at which time air will repass through said pipe and said valve into the upper portions of said diver's room.

1,255,235. BUILDING CONSTRUCTION. ROBERT W. SCHWEIMLER and PAUL A. POULALION, Wheeling, W. Va., assignors to Compo-Tile Fireproofing Company, Wheeling, W. Va., a Corporation of West Virginia. Filed Aug. 31, 1917. Serial No. 189,128. (Cl. 72—66.)



In building construction, a series of composition blocks adapted to be laid in courses, and each having at approximately the center thereof a boss or lug adapted to form a leveling guide for a floor of plastic material capable of hardening and to act as a nailing block for sleepers or the like, the blocks being tied together transversely of the series by tie rods arranged at opposite sides of the bosses and secured to the blocks.

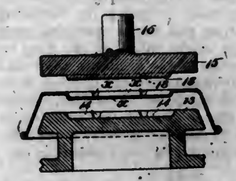
1,255,236. TILE OR BLOCK. ROBERT W. SCHWEIMLER and PAUL A. POULALION, Wheeling, W. Va., assignors to Compo-Tile Fireproofing Company, Wheeling, W. Va., a Corporation of West Virginia. Filed Sept. 17, 1917. Serial No. 191,865. (Cl. 106—34.)

1. A composition for tiles or blocks composed of cinders, slag, cement and plaster of Paris, in the following proportions: plaster of Paris, one part; cement, two parts; slag, two parts and cinders, four parts.

3. A composition for tiles or blocks composed of cinders, slag, cement and plaster of Paris, formed by crushing the cinders, thoroughly mixing the cinders, cement and slag dry, adding water until the mixture is thin enough to pour, adding the plaster of Paris, and molding the mixture.

[Claim 2 not printed in the Gazette.]

1,255,237. RESHAPED SHEET-METAL UTENSIL AND METHOD OF MAKING THE SAME. HENRI A. SAVIGNE, Winthrop, Mass. Filed Dec. 15, 1916. Serial No. 137,094. (Cl. 53—6.)



1. A sheet metal utensil re-shaped after having its bottom warped by the action of the heat, said utensil having the main portion of its bottom drawn flat with predetermined internal ribs having yielding sides.

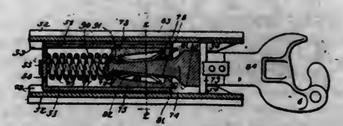
2. A sheet metal utensil re-shaped after having its bottom warped by the action of the heat, said utensil having its bottom provided with corrugations, the main area being drawn flat, whereby the sides of the corrugations may yield to compensate for expansion or contraction of the flat area.

3. A sheet metal utensil re-shaped after having its bottom warped by the action of the heat, said utensil having its bottom formed with equally distributed flat areas partially separated from each other by internal ribs in the form of a double cross.

5. The method of restoring heat-distorted sheet metal utensils to condition for practical use, consisting in drawing the metal of the bottoms of the utensil toward their central portions, forming internal ribs in said central portions, and flattening the areas around said ribs.

[Claim 4 not printed in the Gazette.]

1,255,238. FRICTION DRAFT-GEAR. CLIFTON W. SHERMAN, Buffalo, N. Y. Original application filed Apr. 23, 1914, Serial No. 833,898. Divided and this application filed Aug. 16, 1917. Serial No. 186,614. (Cl. 213—64.)

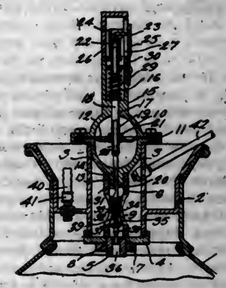


1. A frictional draft gear comprising a member having a friction surface, a set of friction shoes in frictional engagement with said member, a wedge movable lengthwise forwardly and rearwardly between said shoes, longitudinally operating spring means which resist the rearward movement of said wedge and shoes, and transversely operating spring means interposed between the outer sides of said wedge and the inner sides of said shoes.

2. A frictional draft gear comprising a member having a friction surface, a set of friction shoes having their outer longitudinal sides in frictional engagement with said friction member and their inner longitudinal sides provided with recesses, a wedge movable lengthwise between said shoes, longitudinal operating spring means which resist the rearward movement of said shoes and wedge, transversely operating spring means arranged in said recesses and engaging with said wedge, those parts of said shoes and wedges near to said longitudinally operating spring means being inclined at a comparatively acute angle and adapted to engage with each other as the wedge effects the initial part of its rearward movement, and those parts of the wedge and shoes remote from said longitudinally operating spring means being inclined at a less acute angle and adapted to engage each other after the wedge has effected the initial part of its rearward movement causing the shoes to move rearwardly with the wedge during the last part of the rearward movement of the latter.

[Claim 3 not printed in the Gazette.]

1,255,239. MILKING-MACHINE. SEBASTIAN SIS, St. Paul, Minn., assignor of one-half to Eberhard Hoehl, St. Cloud, Minn. Filed Apr. 16, 1917. Serial No. 162,366. (Cl. 31—99.)



1. In a milking machine a casing, a diaphragm in the casing, a receptacle secured to the casing, there being a communication between the receptacle and the casing, a pipe for conducting the milk from a source of supply to the recpetacle, a vacuum connection for the receptacle, and means coöperating with the diaphragm for intermittently and successively closing the vacuum connection; breaking the vacuum; and opening the vacuum connection.

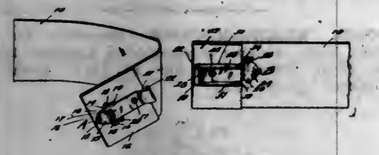
2. In a milking machine, a milk can, a closure for the can, a milk receiving receptacle carried by the closure, there being a vacuum in said can and receptacle, a pipe to convey milk from a source of supply to the receptacle, means controlled by the milk to partially break the vacuum, and an automatically actuated valve to admit air to the receptacle to discharge the milk to the can and restore the vacuum.

3. In a milking machine, a diaphragm, a casing for the diaphragm, a milk receptacle secured to the casing, means to reduce the pressure on one side of the diaphragm to cause suction, means for conveying milk from a source of supply to the receptacle under the action of the suction, and means coöperating with the diaphragm to break the suction; discharge the milk from the receptacle; and restore the suction.

4. In a milking machine, a diaphragm, a casing for the diaphragm, a milk receiving receptacle secured to the casing, there being a discharge port for the receptacle, a valve adapted to the port and controlled by the diaphragm, means for conducting milk from a source of supply to the receptacle, a vacuum connection for actuating the diaphragm to seat the valve and close the port, such connection producing a suction and drawing milk from a source of supply to the receptacle, and means, including the valve, coöperating with the diaphragm for stopping the suction, discharging the milk from the receptacle, and restoring the suction.

5. In a milking machine, a diaphragm, a casing for the diaphragm, a milk receiving receptacle secured to the casing, provided with a discharge port and having its interior in communication with the interior of the casing at one side of the diaphragm, a pipe to conduct milk to the receptacle, a valve adapted to the discharge port and controlled by the diaphragm, an automatic air inlet valve controlled by the diaphragm, means for producing a partial vacuum in the receptacle and communicating lower half of the casing to deflect the diaphragm, close the discharge port, and draw milk into the receptacle, whereby the vacuum is partially broken, and the diaphragm retracted to operate the air inlet valve, discharge the milk from the receptacle, and restore the vacuum.

1,255,240. FASTENING DEVICE. AUGUST STAHM, New York, N. Y. Filed Jan. 17, 1917. Serial No. 142,780. (Cl. 24—19.)

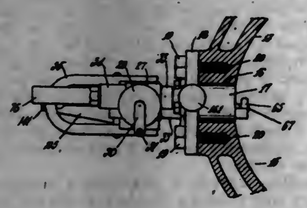


2. A fastener of the character described, comprising a pair of members, a hasp at one end of one of said members, a hook at one end of the other of said members, the free end of said hook extending toward the opposite end of said member containing the same, said hook adapted to be engaged with said hasp to permit swinging of one of said members about the other, from a position at which said members are disposed substantially parallel to each other and end to end, to a position substantially parallel to each other and superimposed, said hook and hasp adapted to maintain hooked engagement throughout said swinging movement, and coöperating fastening means provided on said members at a distance from the ends thereof containing said hook and hasp.

4. The combination with a flexible elongated member, of a fastener comprising a pair of members secured respectively to the ends of said elongated member, hooking means on the end of one of said members adjacent the end of said elongated member, hooking means on the end of the other of said members removed from the end of said elongated member, said elongated member being free from a point on said last mentioned member substantially removed from said hooking means, the free end of one of said hooking means extending toward the opposite end of the member containing the same, said hooking means adapted to be engaged with each other to permit swinging of one of said members about the other, and adapted to maintain hooked connection of said members through an angle of movement of more than ninety degrees, and coöperating fastening means provided on said members at a distance from the end thereof containing said hooking means.

[Claims 1 and 3 not printed in the Gazette.]

1,255,241. COMPRESSION-OPERATED IGNITION DEVICE. WARREN F. STANTON, Pawtucket, R. I., assignor to Matie C. Messler, Pawtucket, R. I. Filed June 24, 1916. Serial No. 105,649. (Cl. 123—149.)



1. In a compression operated ignition device, the combination of a current generating member, a crank on the member, an extension spring engaging the crank, a piston adapted to move the generating member on its axis against the tension of the spring, and means operating upon the spring for varying the torque upon the current generating member.

2. In a compression operated ignition device, the combination of an armature shaft, a piston actuated by the engine charge adapted to move the shaft in one direction, a crank on the shaft, a spring engaging the crank adapted to move the armature in the opposite direction, and means for increasing or decreasing the tension on the spring.

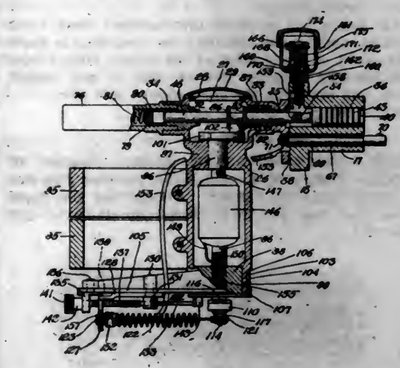
3. In a compression operated ignition device, the combination of an oscillatory armature shaft, a piston actuated by the engine charge adapted to oscillate the armature in one direction, a spring for returning the shaft to original position, and means operating upon the spring to vary the ratio of the initial to the final resistance offered to the motion of the armature shaft and piston.

33. In a compression operated ignition device, the combination with the frame, of an oscillatory armature shaft in the frame, a piston in the frame actuated by the engine charge operatively connected with the shaft, and pneumatic means in the frame for cushioning the advance of the piston.

34. In a compression operated ignition device, the combination with the frame, of an oscillatory armature shaft in the frame, a piston in the frame actuated by the engine charge operatively connected with the shaft, and hydraulic means in the frame for cushioning the advance of the piston.

[Claims 4 to 32 not printed in the Gazette.]

1,255,242. COMPRESSION-OPERATED IGNITION DEVICE. WARREN F. STANTON, Pawtucket, R. I., assignor to Matie C. Messler, Pawtucket, R. I. Original application filed June 24, 1916, Serial No. 105,649. Divided and this application filed Nov. 15, 1916. Serial No. 131,403. (Cl. 123—155.)



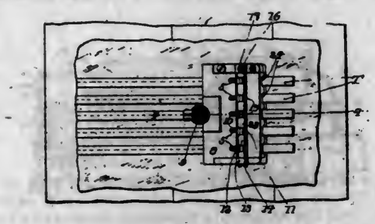
1. In a compression operated ignition device, the combination with an engine cylinder, of an igniter in the cylinder provided with a piston chamber opening into the cylinder, a piston in the chamber exposed to the charge in the cylinder and air passages in the igniter extending from the atmosphere to said piston chamber.

6. In a compression operated ignition device, the combination with an engine cylinder, of an igniter in the cylinder provided with a piston chamber, a hollow piston in the chamber, and means for admitting atmospheric air to the interior of the piston and for permitting the escape of said air therefrom.

10. In a compression operated ignition device, the combination with the igniter and casing, of a piston in the igniter actuated by the engine charge, an oscillatory armature shaft mounted in the casing, a piston shaft in the casing attached to the piston and operatively connected with the armature shaft, a head on the piston shaft, said casing being provided with an air chamber in alinement with the piston shaft, a reciprocatory sleeve in the chamber surrounding the head, a wall on one end of the sleeve provided with an air opening in the path of the head, and a flange on the other end of the sleeve also in the path of the head.

[Claims 2 to 5, 7 to 9, and 11 not printed in the Gazette.]

1,255,243. TAPE-GUIDE FOR SEWING-MACHINES. JOSEPH L. STENGEL, Cincinnati, Ohio, assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 9, 1917. Serial No. 147,593. (Cl. 112—8.)



1. The combination with a multiple needle stitching mechanism, of a series of tape guides for independently guiding tapes to the stitching mechanism, and means for simultaneously varying the capacity of the several tape guides.

2. The combination of a multiple needle stitching mechanism, a presser foot, a series of tape guides mounted on the presser foot for independently guiding tapes to the stitching mechanism, and means for simultaneously varying the capacity of the several tape guides.

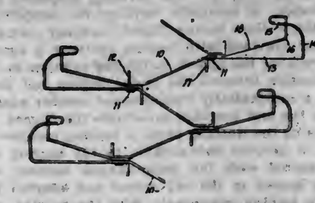
3. The combination with a multiple stitching mechanism, of a presser foot having tape guiding recesses, a series of tape guides for receiving the tape from said recesses and for directing the same to the needles of the stitching mechanism, and means for simultaneously varying the capacity of the several tape guides.

4. The combination with a multiple stitching mechanism, of a presser foot having a series of tape guiding recesses, a cylindrical member having a series of circumferential grooves adapted to receive the tapes from said recesses respectively and for guiding the tapes to the needles of the stitching mechanism, said grooves being of varying width, and means for adjusting the cylindrical member for presenting different tape guiding sections of the groove into operative relation with said guiding recesses.

6. A tape guide comprising a cylindrical guiding member having a series of spaced tape guiding grooves extending circumferentially about the same, each of said grooves being of similar construction and of varying width, means coöperating with said member whereby the same corresponding portion of each groove may be utilized to guide tapes of the same width, means for supporting said member, and means whereby said member may be turned about a central axis for adjusting the same to receive a series of tapes of different width.

[Claim 5 not printed in the Gazette.]

1,255,244. REINFORCEMENT FOR CONCRETE COVERINGS. ALEXANDER B. TAPPEN, Ossining, N. Y. Filed Mar. 6, 1914. Serial No. 822,846. (Cl. 72—109.)



1. A concrete reinforcement comprising a plurality of transverse wires bent to form portions adapted to hook over the edges of a flange and alternately disposed connections between adjacent wires alternating in respect of the longitudinal center of the reinforcement, each of said wires forming a brace from the flange to an adjacent connection and being secured thereto.

3. A concrete reinforcement comprising a plurality of transverse wires bent to form portions adapted to hook over the edges of a flange and alternately disposed, and connections between adjacent wires alternating in respect of the longitudinal center of the reinforcement, the end of the wires extending from the hook portions to adjacent connections and extending beyond the connection to form stop projections.

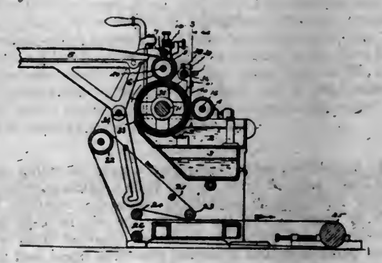
4. A concrete reinforcement comprising a plurality of transverse wires, hooks formed of bends in said wires adapted to hook over the edges of a flange, and stop projections formed by the ends of said wires, said wires being alternately disposed; welded connections between adjacent wires alternating in respect of the longitudinal center of the reinforcement, and braces formed of portions of the wires intermediate the hooks and adjacent connections secured to said connections.

5. A concrete reinforcement comprising a plurality of transverse wires bent to form portions adapted to hook over the edges of a flange and alternately disposed, and to form stop projections at each connection, connections between adjacent wires alternating in respect of the longitudinal center of the reinforcement, and a brace from the hook portion of the wire to an adjacent connection and extending beyond the connections to form other stop projections.

6. A concrete reinforcement comprising a plurality of transverse wires bent to form portions adapted to hook over the edges of a flange and alternately disposed, and to form stop projections at each connection, connections between adjacent wires alternating in respect of the longitudinal center of the reinforcement, and a brace from the hook portion of the wire to an adjacent connection and extending beyond the connections to form other stop projections; and twisted portions extending laterally beyond the hook portions.

[Claim 2 not printed in the Gazette.]

1,255,245. GUMMING-MACHINE. FREDERICK D. TAYLOR, Hartford, Conn., assignor to The Smyth Manufacturing Company, Hartford, Conn., a Corporation of Connecticut. Filed Oct. 3, 1917. Serial No. 194,440. (Cl. 91—51.)



1. In a machine for applying adhesive to sheets, the combination of an adhesive tank, an applying cylinder rotating in said tank, a feed roll coöperating with the cylinder for feeding the sheets, a gage roll for determining the thickness of the film of adhesive to be applied by the cylinder to the sheets, and means extending between the applying cylinder and the gage roll, said means being locatable longitudinally of said cylinder and roll in any position along the length thereof and adapted to be set tightly against the surface of the cylinder for removing all adhesive from sections of the cylinder and causing said removed adhesive to be deposited on and be carried away by the gage roll.

4. In a machine for applying adhesive to sheets, the combination of an adhesive tank, an applying cylinder

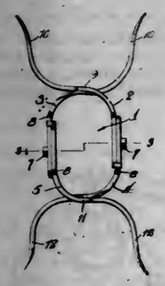
rotating in said tank, a gage roll for determining the thickness of the film of adhesive to be applied by the cylinder to the sheets, and means locatable longitudinally of said cylinder in any position along the length thereof and adapted to be set tightly against the cylinder for removing all adhesive from sections of the cylinder above the gage roll and causing said removed adhesive to be deposited on and be carried away by the gage roll.

7. In a machine for applying adhesive to sheets, the combination of an adhesive applying cylinder, a gage roll for determining the thickness of the film of adhesive to be applied by the cylinder to the sheets, and plates extending between the cylinder and the gage roll, said plates being locatable longitudinally of said cylinder and roll in any position along the length thereof and adapted to be set tightly against the surface of the cylinder for removing all adhesive from sections of the cylinder and causing said removed adhesive to be deposited on and be carried away by the gage roll.

8. In a machine for applying adhesive to sheets, the combination of an adhesive applying cylinder, a gage roll for determining the thickness of the film of adhesive to be applied by the cylinder to the sheets, a bar extending parallel to the axes of said cylinder and roll, blocks mounted on and adjustable along said bar to any required locality along the length of the cylinder and roll, and plates detachably secured to said blocks and adapted to have their ends sets in contact with sections of the surface of the cylinder between the cylinder and the roll for removing all adhesive from sections of the cylinder and causing said removed adhesive to be deposited on and be carried away by the gage roll.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,255,246. ANIMAL-POKE. MANUEL H. TEETER, McWillie, Okla., assignor of one-half to Richard M. Ralston, McWillie, Okla. Filed Jan. 17, 1917. Serial No. 142,885. (Cl. 119—138.)

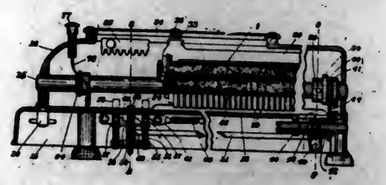


1. An animal poke comprising a yoke including upper and lower pairs of arms having their proximate ends overlapped and slidably adjustably connected together, each pair of arms at the top and bottom of the yoke being overlapped and pivotally connected together from which pivot point each arm is curved providing upper and lower guard members laterally spaced apart and movable toward each other to actuate the said overlapped portions of the arms.

[Claims 2 and 3 not printed in the Gazette.]

1,255,247. CHECK-WRITER. LIBANUS M. TODD, Rochester, N. Y., assignor, by mesne assignments, to Todd Protectograph Company, Rochester, N. Y., a Corporation of New York. Filed Sept. 22, 1915, Serial No. 51,976. Renewed June 27, 1917. Serial No. 177,404. (Cl. 197—6.2.)

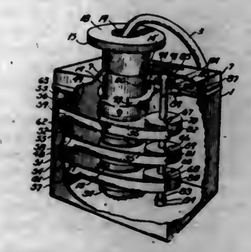
4. In a printing apparatus, a type carrier having thereon a plurality of type forms arranged in spaced relation and in alinement with each other to form a plurality of groups, an impression roller adapted for rolling printing contact individually with each of said type forms, and movable into and out of position for coöperation with said type forms, means for moving said carrier to select one of said groups of type forms for coöperation with the platen, means for moving said carrier to effect said rolling printing contact between the type forms and



platen, and manipulative means including a plurality of keys for varying the time of movement of the platen relative to said printing movement of the carrier to bring the platen into printing contact with any one of the type forms of said selected group.

[Claims 1 to 3 and 5 not printed in the Gazette.]

1,255,248. SWIVEL FOR TELEPHONE-BOXES. ALFRED TOLL, Kansas City, Mo. Filed May 10, 1915. Serial No. 27,266. (Cl. 173—324.)



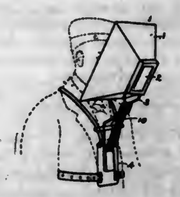
1. In combination with separated wires, one rotatable relative to the other, brushes on the separate wires adapted for coöperation to close a circuit therebetween, and manually operable means for actuating one of said brushes to make or break a connection thereof with the brush on the other wire.

2. The combination with a connection box, of line wires, flexible contact members connected with said line wires, a rotatable body within the box having brushes for engagement with the flexible contact members, a telephone instrument, wires connected with the instrument and said brushes and rotatable in the box, and manually operable means for actuating the flexible contact members to break their connection with said brushes.

23. The combination with a rotatable barrel having a contact member, of a brush normally engaging the contact member, a rotatable member for supporting the brush, slide collars having fingers normally clamping the barrel and provided with bearing portions, a spring normally retaining the fingers in holding relation to the barrel, connection between one of the fingers and the brush support, a substantially wedge-shaped member adapted for engaging the arm bearings to actuate the fingers, a housing inclosing the working parts, a bearing member on said housing, a grooved rod slidable in the bearing member and connected with the wedge-shaped member, a latch normally housed in the rod groove and adapted for projection to locking engagement with the bearing, yielding means for projecting the latch, and a pin slidably mounted in the housing and adapted for returning the latch to free the grooved rod.

[Claims 3 to 22 not printed in the Gazette.]

1,255,249. ELECTRIC-WELDING SHIELD. CHARLES B. WADE and ERNEST K. HERMAN, Roanoke, Va. Filed June 2, 1917. Serial No. 172,444. (Cl. 2—149.)

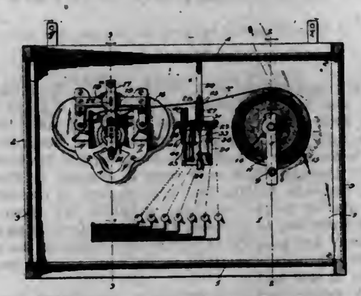


2. In a supporting device for welding shields, a plate, means for securing the same upon the wearer's breast, and an extension detachably attached to said plate and extending upwardly and outwardly and having at its upper extremity means for the attachment thereto of the shield.

4. In a supporting device for welding shields, a breastplate, straps extending therefrom over the wearer's shoulders and adapted to support the same, an upward extension from the breastplate carrying said shield at its upper end, and a cross bar on the said extension above the breastplate, the ends of the said cross bar being disposed beneath the shoulder straps.

[Claims 1 and 3 not printed in the Gazette.]

1,255,250. RECORDING MECHANISM. JAMES C. WARREN, Emporia, Va. Filed Jan. 11, 1916. Serial No. 71,600. (Cl. 234—12.5.)



4. A recording instrument including a recording element, a normally open electric circuit, means for closing said circuit, a pair of electromagnets, one of said magnets serving to effect the recording movement of said element when the circuit is closed, and means controlled by said element for throwing the second electromagnet into the circuit in series with the first magnet.

[Claims 1 to 3, 5, and 6 not printed in the Gazette.]

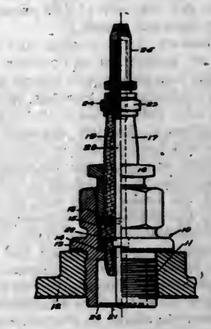
1,255,251. RULER. HENRY C. WATERS, Boston, Mass. Filed Jan. 2, 1917. Serial No. 140,026. (Cl. 33—107.)



1. A flexible ruler, provided with an offset handle having thin edged sides, projecting from the side of the ruler opposite to the ruling edge and adapted to be grasped by the thumb and the palm of the hand.

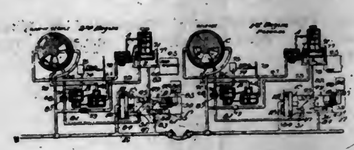
2. A flexible curved ruler, provided with an offset handle projecting from the side of the ruler opposite to the ruling edge and adapted to be grasped by the palm of the hand, leaving the fingers free to press upon the rulers.

1,255,252. SPARK-PLUG. JAMES MARTIN WATTS, Los Angeles, Cal. Filed Aug. 18, 1917. Serial No. 185,924. (Cl. 123—169.)



A spark plug comprising a metallic body having an external screw-thread upon its lower end and having a wrench seat upon its upper end and having a bore extending from its lower end to near the center and having a second reduced bore extending a short distance and having a third bore enlarged relative to the second bore and extending from its upper end and forming a shoulder at its junction with the second bore and being screw-threaded from the upper end; a packing in the third bore against the shoulder, a porcelain post having an end extending downwardly and fitting in the second bore and having a shoulder fitting in the third bore against the packing and having a reduced upper end forming a second shoulder and having a longitudinal central bore enlarged at its lower end and forming an internal shoulder, a second packing against the second shoulder, a packing nut around the porcelain post screw-seated in the upper end of the third bore against the second packing, an electrode stem fitting in said central bore and having an enlargement fitting against the shoulder in the central bore and having a screw-threaded upper end, a disk electrode fixed upon the lower end of the stem and fitting loosely in the first bore, a jam nut screw-seated upon the upper end of the stem and chambered to fit upon the upper end of the porcelain post, and a binding post screw-seated upon the upper end of the stem and against the jam nut.

1,255,253. DOUBLE-HEADING VALVE. WILLIS C. WEBSTER, Dubois, Pa., assignor to Buffalo Air-Brake Company, Phoenix, Ariz., a Corporation of Arizona. Filed May 28, 1915. Serial No. 31,029. (Cl. 188—1.)



1. In a fluid pressure brake system, the combination with a plurality of locomotive equipments coöperating with a common train line and each including a main reservoir, a brake valve adapted in running service and release positions to feed fluid to the train line, and a valve having a pressure chamber controlling feed of

fluid to the brake valve and train line in running service position of the brake valve and at the reduced train line pressure to maintain such pressure, of means in each equipment operable when the brake valve of such equipment is in running service position and upon movement of the brake valve of another equipment to release position to cause the feed and brake valves of the equipment, the brake valve of which is in running service position, to feed fluid to the train line at a rate solely dependent upon the relative pressures in the main reservoir and train line and the capacity of the passages forming the communication between them.

2. In a fluid pressure brake system, the combination with a plurality of locomotive equipments coöperating with a common train line and each including a main reservoir, a brake valve adapted, in running service and release positions, to feed fluid to the train line and a feed valve having a pressure chamber normally subject to train line pressure and vented in proportion to the venting of the train line, said pressure chamber controlling feed of fluid to the brake valve and train line in running service position of the brake valve and at the reduced train line pressure to maintain such pressure, of means in each equipment operable when the brake valve of such equipment is in running service position and upon movement of the brake valve of another equipment to release position to cause the feed and brake valves of the equipment, the brake valve of which is in running service position, to feed fluid to the train line at a rate solely dependent upon the relative pressures in the main reservoir and train line and the capacity of the passages forming the communication between them.

3. In a fluid pressure brake system, the combination with a plurality of locomotive equipments coöperating with a common train line and each including a main reservoir, a brake valve adapted, in running service and release positions, to feed fluid to the train line and a feed valve having a pressure chamber normally subject to train line pressure and vented in proportion to the venting of the train line, said pressure chamber controlling feed of fluid to the brake valve and train line in running service position of the brake valve and at the reduced train line pressure to maintain such pressure, of means operable upon a slight increase in train line pressure to establish communication between the main reservoir and pressure chamber of the feed valve.

43. In fluid pressure brake systems, the combination with a train line and a plurality of locomotive equipments each coöperating with the train line and each including a main reservoir, a brake valve and feed valves, of means operable upon one locomotive equipment to give another locomotive equipment control of the former's feed valves, main reservoir and brake valve, said means controlling one of the feed valves of the subservient equipment and permitting such equipment to charge the train line at a rate solely dependent upon the relative pressures in the main reservoir and train line and the capacity of the passages forming the communication between them when the brake valve of the controlling equipment is turned to release position.

[Claims 4 to 47 and 49 to 53 not printed in the Gazette.]

1,255,254. COLLAR-BUTTON. FREDERICK W. WERNER, Denver, Colo. Filed Feb. 12, 1916. Serial No. 77,936. (Cl. 24—101.)



The combination in a collar button, of a base, a shank rounded in cross section, and a head in the form of a flat bar, one end portion of which is outwardly curved and gradually reduced in thickness, and terminates in a blunt button-hole-inserting point, the said head tapering from its button-hole-inserting portion where it is widest, to its opposite end where it is narrowest, the portions of the head on each side of the shank being of unequal length, the curved end portion being made the longer, whereby when the curved end is inserted in a button-hole and the head turned to stand parallel with the said hole, the shorter portion of the head is passed through the hole by pressing on the said curved end.

1,255,255. FISHING-TACKLE. JAMES W. WHALEN, Richmond, Ind., assignor of one-half to William Estel Merryman, Richmond, Ind. Filed June 25, 1917. Serial No. 176,691. (Cl. 43—31.)

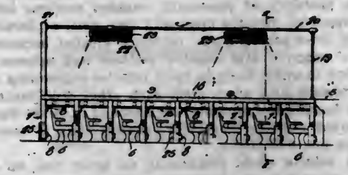


1. In combination with fishing tackle including an upper line which is relatively stationary, a lower line, and a hook secured to the lower end of the lower line, a device interposed between said lines and comprising a stem to the upper end of which the lower line is attached, a body through which said stem is adapted to slide, a spring normally holding said body upward to its limit, a lever pivoted to the body and to which the upper end of the lower line is attached, and a tooth protruding from said lever and adapted to engage in a notch in the stem to hold the body downward to its limit against the resiliency of said spring.

2. A fishing tackle comprising a cone-shaped body, a lever pivoted at one end to the lower end of the body, a tooth integral with said lever, a stem adapted to slide up and down through said body and having a notch formed therein intermediate of its length in which said tooth is adapted to engage, a spring surrounding said stem and adapted to normally pull said body upward when said lever is moved inward to withdraw the tooth from said notch, a line extending downward from the free end of the lever, and a line extending upward from the upper end of the stem.

3. A fishing tackle comprising in combination with an upper line adapted to extend to a pole, a lower line extending to a hook, the stem having its upper end attached to the lower end of the upper line, a body surrounding said stem and adapted to slide up and down thereon, a spring surrounding the upper portion of the stem one end of which is secured to the upper end of the stem and the other end secured to said body, a lever pivoted to the lower end of the head and curved away from the lower portion of the stem, a tooth extending inward from the upper end of the lever and adapted to engage in a notch in the stem to hold the stem upward to its limit against the contraction of said spring, the lower line being secured to the free end of the lever and passing freely through an eye in the lower end of the stem and then extending downward to the hook, all substantially as shown and described.

1,255,256. THEATRICAL RUNWAY. JOHN W. WHITEHEAD, Chicago, Ill. Filed June 15, 1917. Serial No. 175,046. (Cl. 46—70.)



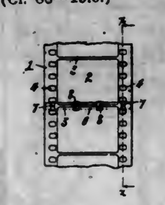
2. A theatrical device of the class described comprising a run-way adapted to extend outwardly of a stage, said run-way including a transparent bottom portion, illuminating means beneath the bottom portion, and reflecting means for throwing the light from said illuminating means through the transparent bottom portion.

4. A portable run-way of the class described, comprising adjustable vertical supports, a platform mounted upon the supports having its central portion transparent, means disposed beneath the said transparent portion for illuminating the run-way, and means disposed above the run-way for providing further illumination for the run-way.

6. A portable run-way of the class described comprising a series of vertical supports arranged in paired relation and having transverse bracing means, and sill extension members secured to the lower ends of the supports for permitting adjustment of the height thereof, said sill members connecting the longitudinally alined supports and having their inner edges grooved, a transparent floor portion fitting in said grooves, a trough disposed beneath the transparent portion, and lights in said trough.

[Claims 1, 3, and 5 not printed in the Gazette.]

1,255,257. SPLICING MEANS FOR FILMS. EDSON G. WHITMORE, Toledo, Ohio. Filed Feb. 7, 1916. Serial No. 76,850. (Cl. 88—19.5.)

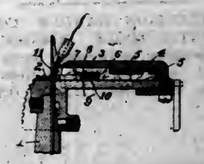


1. The combination with the lapped ends of a film having the end perforations thereof properly spaced, of a splicing member comprising a narrow bar-like strip extending substantially from one side edge to the other of the film over the lap and having a plurality of edge projections some of which extend through registering edge perforations of the film and others of which project through the film ends intermediate the edge perforations thereof, said projections being clenched over at their free ends lengthwise of the film and coöperating with said strip to securely unite the film ends.

2. A film splicing member comprising a bar-like strip having a pair of opposed ears adjacent to each end thereof for projecting through edge perforations of films and also having a plurality of edge spurs intermediate said sets of ears for projecting through adjacent end portions of the film.

1,255,258. INTERLOCKING SINKER AND WEB-HOLDER. FRANK WILCOMB, Norristown, Pa., assignor to Wildman Mfg. Co., Norristown, Pa., a Corporation of Pennsylvania. Filed Aug. 14, 1916, Serial No. 114,804. Renewed July 11, 1917. Serial No. 180,018. (Cl. 66—26.)

12. In combination, a needle carrier, web holders, sinkers overlying the web holders and having spaced apart shoulders for engaging the same, cam means for operating the sinkers, which in turn operate the web holders, and spring means engaging the web holders for additionally operating them, substantially as described.

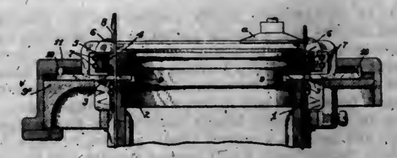


15. In combination, slidable web holders, and pivoted sinkers operating the web holders and means for operating the sinkers.

23. In combination in a knitting machine, web holders, sinkers separate from the web holders, a bed having guide grooves common to both the web holders and sinkers, and cam means for operating the sinkers, said sinkers operating the web holders, substantially as described.

[Claims 1 to 11, 13, 14, 16 to 22, 24, and 25 not printed in the Gazette.]

1,255,259. DETACHABLE PRESSER FOR SPRING-BEARD NEEDLES. FRANK WILCOMB, Norristown, Pa., assignor to Wildman M'f'g Co., Norristown, Pa., a Corporation of Pennsylvania. Filed Aug. 14, 1916. Serial No. 114,805. (Cl. 66—26.)



15. In combination spring beard needles, web holders, a bed having a machined upper surface for guiding the web holders, bits or pieces held stationary by but removable from the bed and extending between the web holders to guide them, sinkers interlocking with the web holders for operating them, cam means for operating the sinkers, said sinkers extending between and being guided by the said bits or pieces, said bits or pieces providing presser surfaces for the needle beards, and means for deflecting the needles for pressing, substantially as described.

[Claims 1 to 14 and 16 to 21 not printed in the Gazette.]

1,255,260. NEEDLE-CARRIER FOR KNITTING-MACHINES. FRANK WILCOMB, Norristown, Pa., assignor to Wildman Mfg. Co., Norristown, Pa., a Corporation of Pennsylvania. Filed June 30, 1916, Serial No. 106,840. Renewed July 11, 1917. Serial No. 180,017. (Cl. 66—21.)

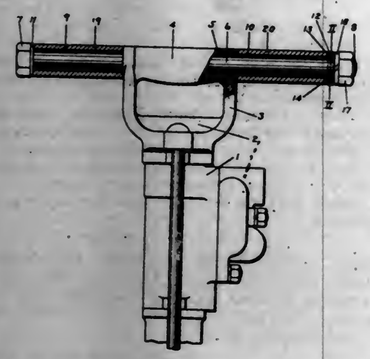


1. In combination, a needle cylinder, having grooves, quills inserted in said grooves and having openings in its

walls, the walls of the cylinder between the grooves being swaged into the openings in the quill walls, substantially as described.

[Claims 2 to 5 not printed in the Gazette.]

1,255,261. EXTENSION-HANDLE CONSTRUCTION FOR PNEUMATIC TOOLS. RUSSELL H. WILHELM, Easton, Pa., assignor to Ingersoll-Rand Company, Jersey City, N. J., a Corporation of New Jersey. Filed Sept. 22, 1916. Serial No. 121,560. (Cl. 74—83.)

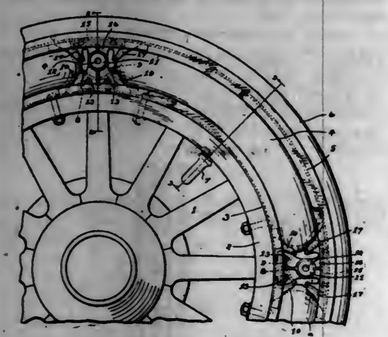


1. In an extension handle construction for pneumatic tools and the like, a handle portion, a bolt passing axially therethrough and projecting beyond the ends thereof, means for securing grip portions on the projecting ends of said bolt and means for maintaining the said grip securing means, handle and bolt in non-movable relationship.

6. In an extension handle construction for pneumatic tools and the like, a central handle portion, having a bore axially therethrough, a bolt passing through said bore and projecting beyond the extremities of said handle portion, an end bushing adjacent to one end of the bolt and a pin passing transversely through the bolt near said end having its ends projecting into recesses in the bushing at said end for securing the said bushing against rotative movement with respect to the bolt.

[Claims 2 to 5 and 7 to 12 not printed in the Gazette.]

1,255,262. VEHICLE-WHEEL. FREEMAN R. WILLSON, Worthington, Ohio. Filed Mar. 12, 1917. Serial No. 154,078. (Cl. 152—38.)



1. A vehicle wheel comprising an inner rim, an outer rim, a plurality of pneumatic cushion sections between and supported directly upon said two rims, a plurality of sets of interlocking guide members located between the ends of pairs of said cushion sections and between said rims to guide them in their relative cushioning movement toward and away from each other, and saddle portions for embracing the ends of said sections as a rotative cushion.

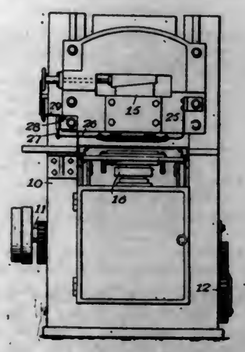
2. A vehicle wheel comprising an inner rim, an outer rim, a plurality of pneumatic cushion sections between and supported directly upon said two rims, a plurality of sets of interlocking guide members located between the ends of pairs of said cushion sections and between said two rims to guide them in their relative cushioning movement toward and away from each other, and means for rigidly locking the separable members of each set together to prevent relative movement between rims in case said sections are deflected.

3. A vehicle wheel comprising an inner rim, an outer rim, a plurality of pneumatic cushion sections between and supported directly upon said two rims, a plurality of sets of interlocking guide members located between the ends of said cushion sections and between said two rims to guide them in their relative cushioning movement toward and away from each other, the separable members of each set having transverse alining apertures, and pins to pass through said alining apertures to lock said members together to prevent relative movements between rims in case said sections are deflected.

6. A vehicle wheel comprising an inner rim, an outer rim, a plurality of pneumatic cushion sections between said two rims, each cushion section comprising a casing endless in a direction at right angles to the plane of the wheel and having side walls connected by rounded ends, said casing being open at its top and bottom sides, and a pneumatic inner tube located within each casing.

[Claims 4 and 5 not printed in the Gazette.]

1,255,263. COUNTER FOR INTAGLIO-PRESSES. JOHN E. WOODBURY, Worcester, Mass. Filed July 17, 1913. Serial No. 779,451. (Cl. 101—407.)



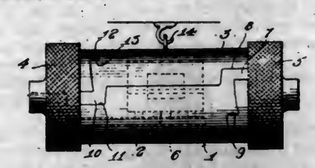
1. In an intaglio printing press, the combination with a counter made in two parts, one consisting of a soft blanket, of means for reciprocating one of said parts relatively to the other part.

8. In an intaglio printing press, the combination of a counter block supporting a counter, a frame surrounding the counter and engaging the counter block on opposite sides thereof whereby the frame is guided by the counter block longitudinally thereof, a blanket secured to said frame and engaging the operative face of the counter, a spring for normally holding said frame at one end of the counter, and means for reciprocating the frame in opposition to the spring.

10. In an intaglio printing press, the combination of a counter having a movable face, an arm connected with said movable face for operating it, a pivoted member having a stud thereon, said arm havig two notches for receiving said stud, and a vibrating member having a stud thereon and adapted to engage in either of said notches and connected with said pivoted member.

[Claims 2 to 7, 9, 11, and 12 not printed in the Gazette.]

1,255,264. TERMINAL COUPLING FOR ELECTRICAL CONDUCTORS. CHARLES W. WRIGHT, Topeka, Kans. Filed July 29, 1915. Serial No. 42,602. (Cl. 173—324.)

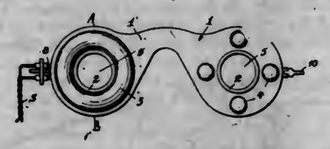


1. In a connector for electrical conductors, overlapping complemental connector sections having surfaces to permit mutual abutting engagement at their ends, the end of each section having a laterally offset extension for engagement in a corresponding recess formed in the abutting surface of the coacting section, whereby separation of the sections longitudinally and transversely is precluded.

2. In a connector for electrical conductors, overlapping complemental semi-cylindrical connector sections, having surfaces to permit mutual abutting engagement at their ends, the end faces of the sections and the abutting surfaces being convexed and concaved respectively in a diametrical direction, the end of each section having a longitudinally extended laterally offset extension for engagement in a corresponding recess formed in the abutting surface of the coacting section, whereby separation of the sections longitudinally, transversely, and laterally, is precluded.

3. In a connector for electrical conductors overlapping complemental semi-cylindrical connector sections, having mutual abutting engagement at their ends, the end of each section having a longitudinally extending laterally offset extension for engagement in a corresponding recess in the abutting face of the coacting section, whereby separation of the sections in a longitudinal and transverse direction is precluded, and caps mounted on the ends of the sections to preclude lateral separation of the sections.

1,255,265. ELECTRIC SPECTACLE LAMP AND FRAME. LADISLAUS ZACHARA, Sandpoint, Idaho. Filed Apr. 12, 1916. Serial No. 90,664. (Cl. 240—2.)



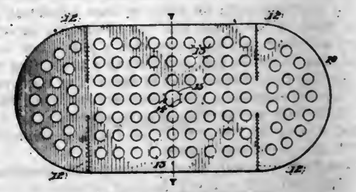
1. A spectacle frame having an opening therethrough, through which an object may be viewed, a tube secured in this opening and extending beyond the spectacle frame, an annular socket located around this tube, means for supplying current to this socket, an annular lamp having base contacts fitting into this socket and a passage into which said tube extends.

3. A lamp of annular shape having spaced exterior and interior walls, and a filament located therebetween, said interior wall being cylindrical and providing a passage through the lamp, a cylindrical base screw secured in this interior wall at its rear end and connected to one of the ends of the filament, a contact on the base of the lamp to which the other end of the filament is connected.

4. A spectacle frame comprising front and rear plates, said front having openings thereon throughout its own thickness to receive a liberal number of lamp bulbs, the rear plate having corresponding recesses with the front plate openings to receive the end of the base of the lamp bulb, a wiring passing through the center of said recesses having contact plates for the end terminal of the base of the lamp bulb.

[Claim 2 not printed in the Gazette.]

1,255,266. METALLIC SUPPORTING-SHELF AND METHOD OF MANUFACTURE. HERMAN W. ZAWADZKY, Waterbury, Conn. Filed July 28, 1917. Serial No. 183,301. (Cl. 29—148.)



1. An article of manufacture comprising a shelf formed of a single piece of perforated metal having struck down outwardly flaring flanges oppositely arranged adjacent the ends of the device and centrally depending spaced ears downwardly struck from the blank of the same width as said flanges and adapted therewith for supporting the device as well as for preventing the same from bending centrally.

3. A method of making a drain shelf consisting in providing an elongated sheet metal blank, crimping outwardly flaring fan-shaped portions in the blank at opposite points adjacent the ends of the latter, then stamping the said crimped portions outwardly centrally thereof forming outwardly flaring depending flanges upon one side of the blank, then punching a plurality of holes through the blank and then striking outwardly spaced ears from the central perforation upon the same side of the blank as the said flanges.

[Claim 2 not printed in the Gazette.]

1,255,267. SELF-LUBRICATING SPRING-BOLT. OSCAR ZERK, Cleveland, Ohio, assignor, by mesne assignments, to George W. Bowen, Auburn, N. Y. Filed Dec. 31, 1912. Serial No. 739,581. (Cl. 64—27.)



1. The combination of a hollow bolt having an oil cavity in the interior thereof, an opening leading from said cavity through the periphery of the bolt, the opening being of less size than the cavity whereby the cavity constitutes an oil reservoir, a capillary plug in the opening and extending into the cavity and being of less size than the cavity whereby the plug does not fill the cavity, and a spring pressing the plug outwardly, substantially as and for the purpose set forth.

4. A self-lubricating spring bolt comprising a hollow tubular body at one end, a cap screw threading into the other end of the body and including a threaded shank, an overhanging head and reduced shank projecting from the threaded shank, and an elastic washer mounted on the reduced shank, substantially as and for the purpose set forth.

6. In a self-lubricating spring bolt, the combination of a hollow bolt, the cavity of which opens through one end thereof, the hollow bolt also having an opening through the periphery thereof, a porous plug arranged in the opening, a spring pressing the plug outwardly and arranged in line with said opening and radially relatively to the axis of the bolt, and a plug secured in and closing the open end of the hollow bolt and having a head serving as a head for the bolt, substantially as and for the purpose specified.

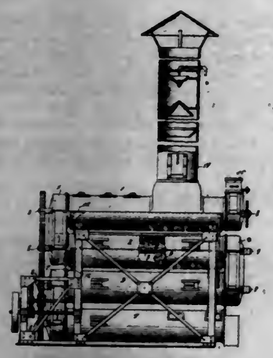
8. In a spring bolt, the combination of a tubular body and a head made integral therewith, the body being internally threaded near its free end, a cap screw screwing

into such threaded end and having a projecting head, an elastic packing carried on the inner end of the cap screw and adapted to tightly engage the thread, and a passage for lubricant from the interior of the bolt to the exterior.

10. The combination of a bolt having at one end a solid head and provided with an internal bore extending from its solid head to the other end, the bore being internally threaded adjacent to such other end, a cap screw screwing into such threaded end and having a projecting head, an oil opening from the interior of the bolt to its exterior, a wick in said opening, a peripheral groove about the exterior of the bolt at the exit of such opening, and a longitudinal groove on the surface of the bolt communication with the peripheral groove.

[Claims 2, 3, 5, 7, and 9 not printed in the Gazette.]

1,255,268. METHOD OF SLAKING LIME. ALBERT ZIMMERMAN, Brooklyn, N. Y., assignor to the estate of Lowell M. Palmer, deceased, Brooklyn, N. Y. Original application filed Feb. 12, 1915, Serial No. 7,757. Divided and this application filed Aug. 18, 1916. Serial No. 115,692. (Cl. 222—4.)



1. The process of hydrating lime which consists in feeding lime and in supplying water to the lime in excess of the amount required for slaking, passing a current of air over the lime and supplying heat from an external source to the lime and water in the slaking zone in addition to that which is created by the reaction between the lime and water, whereby a proper slaking temperature may be maintained with an amount of water present in excess of that required to slake the lime.

3. The method of slaking lime in an elongated container, which consists in continuously supplying unslaked lime to said container, continuously supplying water to the lime in quantities greatly in excess of the amount required for slaking, continuously stirring the mass under treatment and feeding it through the container, and applying heat from an external source to the lime and water in the slaking zone of said container in addition to that which is created by the reaction between the lime and water to prevent the temperature of the lime and water from falling below that required for proper slaking.

5. The method of slaking lime in a series of containers, which consists in supplying unslaked lime in mass in the first of said series of containers, supplying water thereto greatly in excess of the amount required for slaking said mass, applying heat from an external source to the lime and water in said first container in addition to that which is created by the reaction between the lime and water to prevent the temperature of the lime and water from falling below that required for proper slaking, passing the treated mass successively to the other containers, and applying additional heat to said treated mass while in one or more of said other containers to remove excessive moisture from the slaked lime.

[Claims 2 and 4 not printed in the Gazette.]

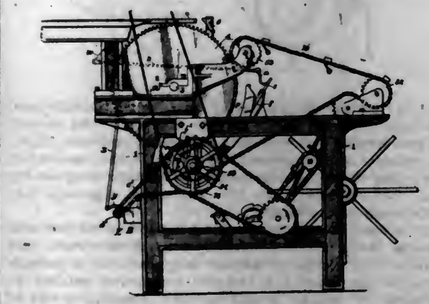
1,255,269. FISHING-ROD. FRANK W. ZINKIEWIEZ, Worcester, Mass. Filed May 10, 1916. Serial No. 96,669. (Cl. 265—63.)



1. A fishing rod handle, comprising a rod having a longitudinal bore in one end thereof and having a handle sleeve mounted thereabout, a metallic shell snugly fitted in said bore and co-extensive therewith, the outer end of the shell being laterally extended about the outer edge of said rod and into engagement with said sleeve to form a retaining flange for the latter, an expansion spring disposed in the shell and having one end secured to the inner end thereof, a graduated bar disposed in the shell and having its inner end connected to the free end of the spring and carrying a hook on its outer end.

2. A fishing rod handle, comprising a rod having a longitudinal bore in one end thereof and having a handle sleeve mounted thereabout, a metallic shell snugly fitted in said bore and co-extensive therewith, an expansion spring disposed in the shell and having one end secured to the inner end thereof, a graduated bar disposed in the shell to slidably engage with the walls thereof, the graduations on the bar adapted to coöperate with the outer edge of the rod, said bar having its inner end connected with the free end of the spring and having a hook member on its outer end.

1,255,270. TEARING-MACHINE. THOMAS ALLATT, New Brighton, N. Y., assignor to Herrmann Aukam & Co., New York, N. Y., a Corporation of New York. Filed July 25, 1916. Serial No. 111,122. (Cl. 228—59.)



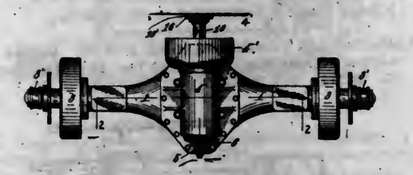
1. A tearing machine for tearing transversely strips of material hemmed on both sides, comprising means for cutting one hemmed side, means for tearing the material between the hemmed sides, and means for advancing the cutter to the other hemmed side and for causing it to sever such hemmed side.

6. A tearing machine for tearing transversely strips of material hemmed on both sides comprising a tearer having a knife mounted thereon, means for moving said tearer transversely across the material and means for operating said knife to cut the hemmed sides of the material.

9. A tearing machine for tearing transversely strips of material hemmed on both sides comprising a tearer, a knife mounted on said tearer, means for operating said knife to cut the first hem of the material, means for moving said tearer transversely across the material to tear the same, and electrically controlled means for operating said knife to cut the second hem.

[Claims 2 to 5, 7, 8, and 10 to 14 not printed in the Gazette.]

1,255,271. REAR-AXLE DRIVING MECHANISM FOR AUTOMOBILES. ALFONS ALTENBERG, Piqua, Ohio. Filed Mar. 23, 1917. Serial No. 156,881. (Cl. 180—53.)



1. The combination with the rear axle of a motor truck, differential gears thereon, a gear thereon for driving said rear axle, an engine driven transmission shaft geared to the driving gear of said rear axle, of an auxiliary drive shaft in the rear of said truck axle, and a clutch mounted in the rear of said axle and forming a power transmission medium between the driving shaft for said rear axle and the auxiliary drive shaft.

2. The combination with the rear axle of a motor truck, the differential gears thereon, a gear thereon through which said rear axle is driven, and a power transmission shaft geared to said axle driving gear, of an auxiliary drive shaft adapted to transmit power from said first-named transmission shaft to a machine to be driven in the rear of the truck, and a clutch in the rear of said axle for connecting and disconnecting said auxiliary drive shaft to and from said first-named shaft.

3. In a driving gear for automobile trucks, the combination with a rear truck axle, differential gears thereon, a gear thereon for driving said rear axle, a drive shaft geared to said driving gear and adapted to be driven by an engine-driven propeller shaft on one side thereof, an auxiliary shaft on the other side, and clutches mounted at the ends of said drive shaft and interposed between said auxiliary shaft, said propeller shaft and said drive shaft, whereby the power from the engine may be taken off the propeller shaft, may be transmitted to the rear axle, or taken off the auxiliary shaft.

4. The combination of the rear axle of a motor truck, the differential gears and driving gear thereof, an engine driven shaft geared to said driving gear, an auxiliary drive shaft, a clutch for connecting and disconnecting said auxiliary drive shaft to and from said engine driven shaft, said rear axle, and the differential and driving gears thereof and said clutch being inclosed in the rear axle casing and a cap attached thereto, substantially as described.

5. In a driving gear for automobile trucks, the combination with a rear truck axle, differential gears thereon, a gear thereon for driving said rear axle, a drive shaft geared to said driving gear and adapted to be driven by an engine driven propeller shaft on one side thereof, an auxiliary shaft on the other side, clutches mounted at the ends of said drive shaft and interposed between said auxiliary shaft, said propeller shaft and said drive shaft, whereby the power from the engine may be taken off the propeller shaft, may be transmitted to the rear axle, or taken off the auxiliary shaft, and a casing for said rear axle and clutches.

1,255,272. BUTTON-HOOK. FRANK J. ANDERSON, Great Falls, Mont. Filed Oct. 30, 1916. Serial No. 128,561. (Cl. 24—40.)

4. In a button hook, the combination of a handle provided with parallel spaced resilient arms, said arms being provided with alined apertures, a shank mounted between the resilient arms and provided with laterally disposed gudgeons mounted in said apertures, said shank being further provided with an integral hook, and a spring

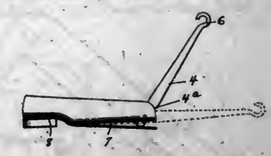
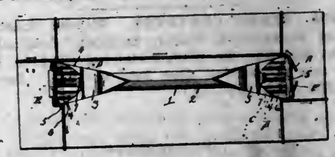


plate secured on the body and engaging the hook shank beyond its pivotal axis so as to secure the same in adjustment.

[Claims 1 to 3, 5, and 6 not printed in the Gazette.]

1,255,273. PACKAGE TIE AND HANDLE. FRANK J. ANDERSON, Great Falls, Mont. Filed Dec. 9, 1916. Serial No. 136,044. (Cl. 224—56.)



1. A package tie comprising a handle, a cylindrical sleeve formed at each terminal of the handle, the said sleeves having their end portions cut away and pressed inwardly to provide a pair of clips for each cylinder, and resilient gripping means associated with each sleeve.

8. In a package tie, the combination with a package and a binding cord therefor, of a handle, flanges integrally connected with the ends of the handle, sleeves formed at the ends of the flanges and carrying gripping means coacting with the said flanges and in engagement with a portion of said cord, the said sleeves provided with slits adjacent each end, and clips formed by inwardly bent end portions of the sleeves beyond the said slits.

[Claims 2 to 7 not printed in the Gazette.]

1,255,274. PICTURE HOOK OR HANGER. JOSEPH BABITZKY, Cleveland, Ohio, assignor of one-half to Jacob L. Goldman, Cleveland, Ohio. Filed Aug. 27, 1917. Serial No. 188,367. (Cl. 248—48.)



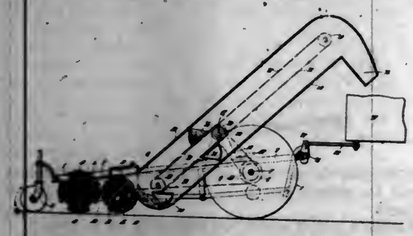
3. A hanger for pictures or the like comprising a piece of sheet metal folded on a vertical line to form opposite sides, each side being provided with a hook at its upper end, and having a slit extending inwardly through the bend and into said sides.

[Claims 1, 2, and 4 not printed in the Gazette.]

1,255,275. CONVEYER ADAPTED TO ROAD-SWEEPING MACHINES. WALTER BARNETT and JAMES FLORENDINE, Rugby, England. Filed Nov. 29, 1916. Serial No. 134,113. (Cl. 198—5.)

1. In conveyer mechanism applicable to road sweeping machines of the kind specified; the combination of a trough, an elevator casing fixed at its lower boot end to said trough, an elevated dividing ridge located at the junction between said trough and the boot of said elevator casing, a shaft extending through said trough, two oppositely inclined helical blades carried by said shaft the helical blade of one inclination meeting the helical

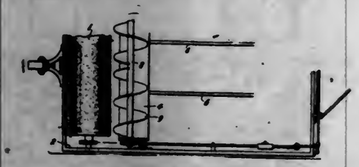
blade of the opposite inclination opposite the boot of said elevator casing to carry the refuse in said trough to a position adjacent to said boot of said elevator casing and to transfer the refuse from said trough over said



elevated dividing ridge into the boot of said elevator casing, and means for driving said shaft carrying said helical blades.

[Claims 2 and 3 not printed in the Gazette.]

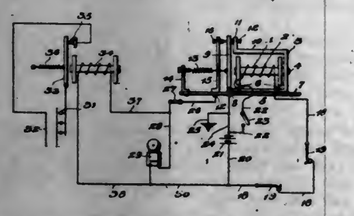
1,255,276. SCREW CONVEYER. WALTER BARNETT and JAMES FLORENDINE, Rugby, England. Original application filed Nov. 29, 1916, Serial No. 134,113. Divided and this application filed July 9, 1917. Serial No. 179,476. (Cl. 193—13.)



1. In a screw conveying mechanism; the combination with a segmental trough to receive the material to be conveyed and along which said material is to be traversed, a shaft extending through the length of said trough, bearing to carry said shaft, and means for revolving same; of a one piece helical blade composed of flexible and resilient material fixed on the said shaft to traverse the material along the trough.

[Claim 2 not printed in the Gazette.]

1,255,277. ELECTRIC FIRE AND BURGLAR ALARM. LEWIS E. BATES and VOLLIE V. HANKS, Houston, Tex. Filed Nov. 10, 1916. Serial No. 130,582. (Cl. 177—314.)

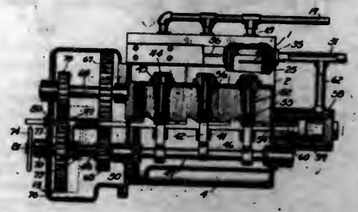


1. The combination of a relay having a coil of high resistance, a permanent magnet associated therewith and electrically connected to the coil, the armature of said relay engaging said permanent magnet when attracted by the coil, a normally closed circuit closer, a manual switch, a low voltage battery, circuit connections uniting said battery, switch, armature, coil, magnet, and circuit closer, and a signal controlled by the armature when the latter is retracted.

4. The combination of a relay having a high resistance coil and a permanent U-shaped magnet surrounding the same, the latter having its ends coacting with the armature of said relay, one end of said coil being electrically connected to one end of the magnet, the other end of the latter carrying a contact to be engaged by said armature when attracted, a spring to retract the armature and having a tension slightly greater than the attractive force of the permanent magnet, a battery circuit including a normally closed circuit closer and a manually actuated switch and said coil, said battery circuit being also connected to said armature and said magnet, a ground connection for said battery and an electric alarm device, a switch to control the latter, a contact for the armature to limit its movement under the action of said spring, and an alarm circuit including said device, said battery, the last mentioned switch, the last mentioned contact and the armature.

[Claims 2 and 3 not printed in the Gazette.]

1,255,278. AIR COMPRESSOR OR MOTOR. ROBERT G. BATTIN, Kansas City, Mo. Filed Dec. 27, 1915. Serial No. 68,712. (Cl. 230—37.)



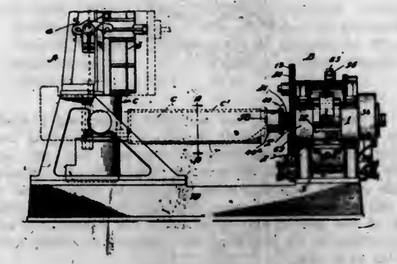
1. The combination with a cylinder having longitudinally spaced free and compressed air intake and exhaust ports, a reservoir in communication with the compressed air intake port, a slide valve in the cylinder for opening each of said ports independently of the other, a member for shifting the valve to alternately open the compressed air intake and exhaust ports, means for moving said member to position for closing said ports and opening the free air intake port and holding the valve in set position, a conduit for feeding the reservoir from the cylinder, and an automatic valve for controlling flow to said conduit.

5. The combination with a cylinder having longitudinally spaced free and compressed air intake ports and an exhaust port, of a reservoir feed conduit in communication with the cylinder, a conduit in communication with the compressed air intake port, a slide valve for controlling said port, a reciprocatory member having a shift arm thereon for actuating the valve, a cam for engaging said member to actuate said arm and yielding means for holding the said member against the cam, a shift bar cylinder, a piston in the said cylinder, a shift bar connected with said piston, and having a cam head for engaging said shift arm to move and hold the same against the tension of its spring, a spring for urging the said piston to move and hold the shift bar in operative relation to the shift arm, and connection between said cylinder and the conduit leading to the compressed air intake port for supplying fluid under pressure to the shift bar cylinder at the side of the piston opposite the spring.

7. The combination with a cylinder having longitudinally spaced free and compressed air intake ports and an exhaust port, of a reservoir conduit in communication with the compressed air intake port, a reservoir supply conduit in valved communication with the cylinder, a slide valve having separate ports for the several cylinder ports, a reciprocatory pin, a cam for actuating said pin, a spring for urging the pin to engagement with the cam, an arm on said pin connected with said valve, a slide bar having a cam head for engaging said arm, yielding means for urging the shift bar to operative position relative to the cam head, a piston on said shift bar, a cylinder inclosing said piston and connection between said last named cylinder and the reservoir conduit, whereby fluid under pressure is admitted to the shift bar cylinder simultaneously with admission thereof to the main cylinder.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,255,279. STEREOTYPE-PLATE-FINISHING APPARATUS. HENRY F. BECHMAN, Battle Creek, Mich., assignor to Duplex Printing Press Company, Battle Creek, Mich., a Corporation of Michigan. Filed July 12, 1915. Serial No. 39,449. (Cl. 29—21.)



1. Stereotype plate trimming mechanism comprising a rotatable plate-holder adapted to receive a stereotype plate, means controlled by centrifugal force for automatically locking the plate in the holder when the latter rotates in the proper direction, and means for trimming the plate while so locked and rotated.

2. Plate trimming mechanism comprising a rotatable plae-holder adapted to receive a plate, means controlled by centrifugal force for automatically locking the plate in the holder when the latter rotates in the proper direction, means for trimming the plate while so locked and rotated, and means for automatically returing the holder to initial position after the plate has been trimmed.

9. Plate trimming mechanism comprising a rotary holder adapted to receive a tubular plate, cutters adapted to trim the plate while in the holder, means for actomatically expanding and clamping the plate in the holder when the latter is rotated in one direction, means for rotating the plate-holder in said direction, means for retracting the cutters after they have trimmed the plate, means for thereafter stopping the rotation of the holder, and means for reversely rotating the holder until it reaches initial position.

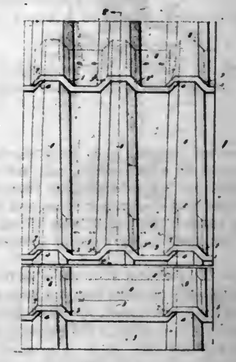
10. In a plate trimming mechanism, a rotatable plate-holder, a driving member, two sets of gearing between said driving member and said holder whereby the latter can be driven in opposite directions, clutches for throwing either set of gearing into operative relation with the driving member, means whereby when one clutch is engaged the other is automatically disengaged, manually operated means for engaging one clutch to start the trimming operation, and means for automatically engaging the other clutch upon the completion of the trimming operation.

31. In a plate trimming mechanism, a rotatable plate-holder adapted to contain a tubular plate, a stop within the holder adapted to engage one edge of the plate, a ring rotatably mounted upon the exterior of the holder, studs attached to said ring and projecting into the holder and adapted to engage the opposite edge of the plate, segmental levers pivotally mounted on said ring and having toothed segments adapted to engage opposed teeth on the holder, whereby when the holder is rotated in one direction said levers under the action of centrifugal force cause relative rotatorial displacement of the ring relative to the holder, and means for returning the ring and levers to normal position when the holder is stopped.

[Claims 3 to 8 and 11 to 30 not printed in the Gazette.]

1,255,280. ROOFING-TILE. WILLIAM P. BECK, Birmingham, Ala., assignor of one-half to A. C. Burns, Birmingham, Ala. Filed Aug. 1, 1917. Serial No. 183,947. (Cl. 108—10.)

1. A roofing tile which in plan is a parallelogram with alternate reversely tapering longitudinally raised and depressed portions, the under surface of each raised portion being adapted to make a wedge fit over the upper surface of the raised portion of an underlying tile when said tiles have a predetermined end lap joint, and reversely disposed parallel side flanges each extending the full length of the tile and together equaling in thickness the side wall of the raised portion lying opposite to them.



4. In a roofing tile, main body portion having parallel top and bottom end edges, one upturned flange along one side edge, a tapering raised portion having one downturned flange along the other edge, said flanges being similar and parallel and at an angle to a perpendicular line between the top and bottom edges of the tile, an upturned and a downturned flange of two adjacent tiles being adapted to form a side lap and lock joint, the two lapped flanges corresponding in height and thickness to the opposite side of said raised portion of the tile.

5. A tile having a body portion lying in two horizontal planes which taper reversely lengthwise of the tile and which are of equal thickness, similar straight reversely disposed parallel lap lock flanges disposed at an incline along each side edge, and a wall reversely inclined to the flanges and equal to their combined thickness which joins the two levels of said body.

7. A tile comprising a flat body portion having a deformed portion to form a raised tapering top face 6 connected to the body by reversely inclined side walls 5 and 7, a side locking flange 4 parallel with the wall 7 and on the opposite side of face 6 therefrom, said flange being disposed at an angle to the long axis of the tapering face 6, the flange 4 on one tile being adapted to underlie the wall 7 of an adjacent tile, and their combined thickness being equal to that of the wall 5.

8. A roofing tile having the shape of a non-rectangular parallelogram and composed of alternating flat and sloping portions, relatively disposed to form a plurality of flat tapering portions lying alternately in upper and lower trapezoids, one raised flat portion having an outwardly and downwardly sloping lock and lap flange forming one side edge of the tile and a depressed flat portion having an upturned outwardly sloping lock and lap flange forming the other side edge of the tile, said flanges and inclined portions being of constant size lengthwise of the tile while the flat portions are all of equal thickness but of constantly varying width, the two side flanges when lapped and locked having a cross-section corresponding to the cross-section of an inclined portion of the tile.

[Claims 2, 3, and 6 not printed in the Gazette.]

1,255,281. SOLE-EDGE-MOLDING MACHINE. FRANK E. BECKMAN, Haverhill, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed June 3, 1916. Serial No. 101,607. (Cl. 12—22.)

1. A machine for molding shoe soles having, in combination, a feed roll, a molding roll, an edge bending roll

and a gage mounted opposite the sole engaging face of the bending roll and adjustable in a plane substantially parallel with said face.

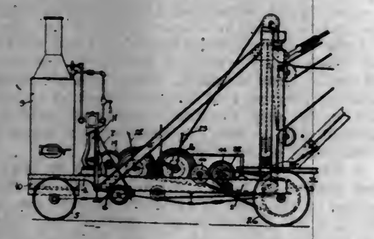


3. A machine for molding shoe soles having, in combination, a feed roll, an edge bending roll, for engaging the feather of a sole, having a face wider than the width of the widest feather to be operated upon, and an edge gage mounted on a carrier and adjustable along the feather engaging face for positioning soles of different widths of feather.

4. A machine for molding shoe soles having, in combination, a molding roll, an edge bending roll, a feed roll, a gage carrier and an edge gage mounted on said carrier which is adjustable in a plane substantially parallel with the face of the bending roll.

[Claim 2 not printed in the Gazette.]

1,255,282. PORTABLE POWER-SHOVEL. HENRY C. BECKWITH, Ravenna, Ohio, assignor to The John F. Byers Machine Company, Ravenna, Ohio, a Corporation of Ohio. Filed Mar. 31, 1916. Serial No. 87,919. (Cl. 21—146.)



A frame for a portable power bucket comprising spaced side members, intermediate members parallel and alined therewith, transverse members connecting said side and intermediate members and alined therewith, a plate supported upon said transverse, side and intermediate members and being provided with an opening located centrally therein, a boiler supported upon said plate over such opening, and an ash pan for said boiler supported below such opening in said plate on said intermediate members.

1,255,283. ELECTRIC BATTERY. RAYMOND C. BENNER and HARRY F. FRENCH, Fremont, Ohio, assignors to National Carbon Company, a Corporation of New Jersey. Filed July 13, 1916. Serial No. 109,049. (Cl. 204—38.)

1. In electric batteries, a negative element consisting of copper oxid and an oil containing sulfur in solution.

3. In electric batteries, an alkaline electrolyte, a positive electrode, a negative element of copper oxid containing an oil holding sulfur in solution, and a perforated container around said negative element.

6. The process of incorporating sulfur in a depolarizing mass, which consists in dissolving it in hot oil until it is substantially saturated, and soaking said depolarizing mass in a hot oil whereby sulfur crystallizes out on cooling.

[Claims 2, 4, and 5 not printed in the Gazette.]

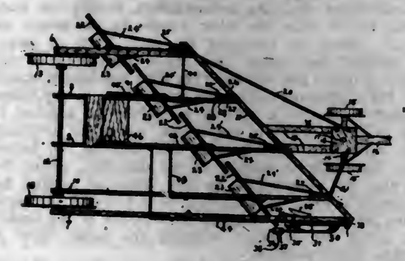
1,255,284. COW-TAIL HOLDER. JOHN BINGEN and WILLIAM A. BEAVER, Marshfield, Wis. Filed July 13, 1917. Serial No. 180,355. (Cl. 119—105.)



1. A device of the class described comprising a single piece of spring metal bent to form a tail engaging loop having spring tongues integral with said loop and normally within elongated slots at diametrically opposite points of said loop and being adapted to receive hair on the tail of the cow thereby additionally preventing slipping of the holder and arms extending rearwardly and terminating in leg engaging rolls adapted to clamp upon the leg of a cow.

[Claim 2 not printed in the Gazette.]

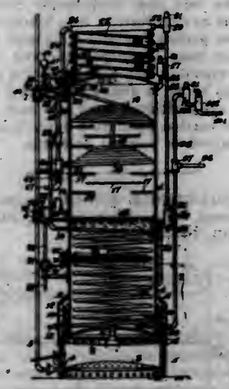
1,255,285. ROAD-GRADING MACHINE. BICK R. BONNEY, Omaha, Nebr., assignor of forty one-hundredths to V. F. Hofman and fifteen one-hundredths to C. O. Johnson, Havelock, Nebr. Filed Dec. 14, 1916. Serial No. 136,996. (Cl. 37—7.)



1. In combination with a frame having substantially parallel side plates and a cross-bar disposed at an oblique angle to and connected with the side plates, said frame being provided with front and rear wheels, tie-plates disposed at longitudinal intervals of and connected with the cross-bar, a plurality of scraper blades, a plurality of tongue-members each consisting of a pair of arms of unequal length mounted upon and adjacent to the ends of a scraper blade and extending forwardly convergingly for a mounting upon a tie-plate for disposing a scraper blade inclined to the longitudinal axis of the frame, an earth-working member including a weighted arm pivotally mounted upon a side plate and provided with axially mounted disks disposed at the front of one of said scraper blades in line with one of the rear wheels, means for elevating said earth-working member and scraper blades with reference to the frame, and means on the tie-plates connected with the cross-bar for adjusting the degree of inclination of the scraper blades transversely of said frame.

2. In combination with a frame having substantially parallel side plates and a cross-bar connected with the side plates, said frame being provided with front and rear wheels, tie-plates disposed at longitudinal intervals of and connected with the cross-bar, a plurality of scraper blades, a plurality of tongue-members each consisting of a pair of arms of unequal length mounted upon and adjacent to the ends of a scraper-blade and extending forwardly convergingly for a mounting upon a tie-plate for maintaining the scraper-blades at intervals longitudinally of and inclined with reference to the side plates, an earth-working member including a weighted arm pivotally mounted upon a side plate and provided with axially mounted disks disposed at the front of one of said scraper-blades in line with one of the rear wheels, means for elevating said earth-working member and scraper-blades with reference to said frame and means for adjusting the scraper-blades transversely of the frame.

1,255,286. REFRIGERATING APPARATUS. OTTO E. BORNHAUSER, Sandusky, Ohio, assignor of one-third to John E. Herman and one-third to Charles L. Wagner, Sandusky, Ohio. Filed Feb. 19, 1917. Serial No. 149,516. (Cl. 62—5.)



3. In a refrigeration apparatus, an absorption means comprising a casing with a cooling coil therein, means for heating liquid within the casing, baffles in the casing in the path of gas distilled from the liquid, and other cooling coils interspersed with the baffles.

7. A refrigerating apparatus comprising an absorption and distilling means, cooling means for the absorption portion of the apparatus, other cooling means for the distillate, means responsive to pre-determined temperature conditions in the absorption portion of the apparatus for controlling the cooling means for the distillate to condense the distillate into liquid form, and means responsive to accumulations of liquefied distillate to control the cooling means of the absorption portion of the apparatus.

8. A refrigerating apparatus of the intermittent absorption type comprising a generator-absorber; means for condensing the ammonia gas generated thereby; a receiver for the liquefied ammonia from said condenser; a burner and gas supply therefor for heating the generator-absorber; a water circulating system for cooling the ammonia condensing means; a cooling oil in the liquid containing portion of the generator-absorber included in a by-pass from the cooling water circulating system; and means responsive to variations in the level of the ammonia liquid in the receiver for turning on or off the gas supply and simultaneously therewith throwing the by-pass including the cooling coil in the generator-absorber out of, or into, circuit with the cooling water circulating system, according as the generator-absorber is acting as a generator or as an absorber, substantially as hereinbefore set forth.

9. In combination with the elements specified in the last preceding claim, thermostatically controlled means, responsive to variations in the temperature of the liquid in the generator-absorber for automatically cutting off the water supply from the cooling water circulating system whenever and so long as the temperature of the liquid in the generator-absorber falls below a predetermined limit, substantially as and for the purposes hereinbefore set forth.

10. In combination with the generator-absorber, the burner for heating the same, and the gas supply pipe for said burner; a valve on said pipe for turning on and off the gas supply; thermostatically-controlled means responsive to variations in temperature within the generator-absorber and operating to close said valve when said temperature exceeds a predetermined limit; and means whereby the valve, when once closed, is automatically locked in that position until released by hand, substantially as hereinbefore set forth.

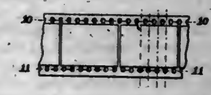
[Claims 1, 2, and 4 to 6 not printed in the Gazette.]

1,255,287. GREASE-CUP. GEORGE W. BOWEN, Auburn, N. Y. Filed June 21, 1918. Serial No. 775,015. (Cl. 184—48.)



A grease cup comprising a base including a head and a stem depending from the head, a cap threading on the head, a flat discoidal member having an opening slidably fitting the stem and held from rotation thereon, said discoidal member having an upturned annular marginal flange extending toward the head, and of sufficient diameter and width to inclose the head when the cap is removed, the flange being provided with means at its edge for coacting with the lower edge of the cap to resist turning of the cap, and a conical coil spring around the stem and connected at one end to the head and at its other end to the discoidal member.

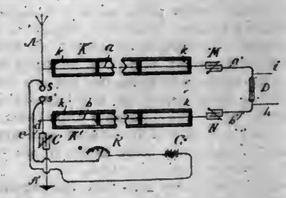
1,255,288. MOVING-PICTURE FILM. AUSTIN D. BRIXEY, New York, N. Y. Filed Sept. 19, 1914. Serial No. 862,423. (Cl. 88—19.5.)



1. A film for moving picture machines having perforations extending along each edge, the perforations along one edge being spaced the same distance as those along the other edge and staggered with relation thereto.

[Claims 2 to 4 not printed in the Gazette.]

1,255,289. ART OF UTILIZING HIGH-FREQUENCY ELECTRIC OSCILLATIONS. DAVID W. BROWN, New York, N. Y. Filed Aug. 9, 1916. Serial No. 113,859. (Cl. 250—20.)



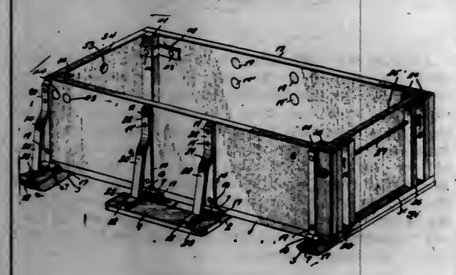
1. The method of increasing the effect of high frequency electric oscillations on detectors, consisting in generating and maintaining an independent field of electric energy on an interrupted receiving aerial by electric current of potential high enough to affect said detector, and insulating said current from said detector.

2. The method of increasing the effect of high frequency oscillations on detectors, consisting in generating and maintaining a field of electric energy on an interrupted receiving aerial independent of the high frequency oscillations by current electricity of strength more than sufficient to affect the detector, and insulating said independent current from the detector and earth.

6. The combination with a receiving aerial provided with a gap and a source of electricity to maintain an independent field of electric energy at said gap, of oscillation intensifiers comprising branch wires operatively connected with said aerial and electrically conductive envelops about said branch wires but insulated therefrom, and a detector operatively connected with said oscillation intensifiers.

[Claims 3 to 5 not printed in the Gazette.]

1,255,290. SECTIONAL WAGON-BED. WILLIAM H. BRYANT, Oakland City, Ind. Filed Oct. 26, 1915. Serial No. 58,014. (Cl. 21—7.)



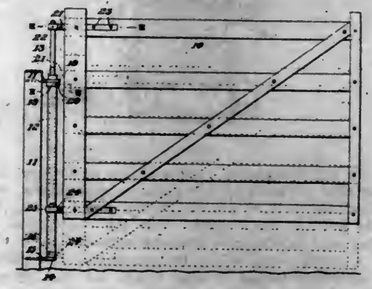
1. In a device of the class described, the combination of a base, sides positioned upon said base, plates carried upon the lower surface of said base and extending transversely there-across, bars positioned below the lower portions of said base and engaging said plates, bolts passing through said base, plates, and bars for holding the same in fixed engagement with each other, said plates terminating in rolled sleeves at their outer ends, brackets fixedly mounted upon the outer side portions of said sides and terminating in sleeves at their lower portions, pins carried by said last-mentioned sleeves, said pins being adapted to be passed into engagement with said first-mentioned sleeves, whereby said sides will be retained at their lower portions upon said base, and end members demountably carried by the end portions of said base so as to engage said sides, said end members being adapted to hold said sides in a vertical plane and prevent their rearward movement, whereby said sides will be removably retained in their correct positions.

2. In a device of the class described, the combination of a base, sides positioned upon said base, means for securing said sides to said base, braces fixedly secured upon the outer portions of said side members and extending outwardly toward their lower portions to terminate in horizontally extending elongated flat feet, elongated flat clips having upwardly extending lips formed at their outer ends, means for supporting said clips adjacent said base, said feet resting upon said clips for bracing said sides, said lips holding said feet from accidentally springing from engagement with said clips, said clips being of broad constructions so as to efficiently support said braces, and said clips permiting said feet to be moved to one side when said sides are removed from said base.

3. In a device of the class described, the combination of a base, sides positioned upon said base, plates carried upon the lower surface of said base and extending transversely thereacross, bars positioned below the lower portions of said base and engaging said plates, bolts passing through said base, plates, and bars for holding the same in fixed engagement with each other, retaining means formed upon the ends of said plates, securing means carried by said sides, said securing means engaging said retaining means for holding said sides upon said base, and means for retaining said sides in vertical planes.

4. In a device of the class described, the combination of a base, sides positioned upon said base, plates carried upon the lower surface of said base and extending transversely thereacross, bars positioned below the lower portions of said base and engaging said plates, bolts passing through said base, plates, bars, for holding the same in fixed engagement with each other, retaining means formed upon the ends of said plates, securing means carried by said sides and engaging said retaining means for holding said sides upon said base, clips fixedly carried upon said bars, said clips having vertical lips, braces fixedly secured upon the outer portions of said sides and extending outwardly toward their lower portions and terminating in horizontally extending feet, said feet being adapted to rest upon said clips so as to abut against said lips when said side members are positioned upon said base, whereby when said sides are carried upon said base, said sides will be positively retained in vertical positions.

1,255,291. ADJUSTABLE HINGE. ALLEN SMITH CHAFANT, Somerset, Ohio. Filed Apr. 18, 1917. Serial No. 162,961. (Cl. 16—49.)



1. A gate hinge comprising a journaled tubular vertical member, a pintle journaled and longitudinally shiftably arranged within the said tubular member, and supporting members, one of the same being fixedly attached to said pintle and the other vertically shiftably journaled exteriorly of said tubular member.

2. A gate hinge comprising a tubular socket adapted to be supported in journaled relations upon a post, a vertically shiftable pintle adapted to be secured to a gate and journaled in said socket and an adjustment-retaining strap member adapted to be carried by a gate shiftably arranged upon said socket.

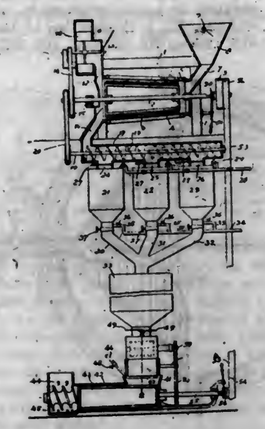
3. A gate hinge comprising upper and lower strap hinge members adapted to be carried by a gate, an upper eye screw and a lower hinge screw adapted to be carried by a post, a journaled socket tube carried by the said screws upon which the said lower strap member is vertically adjustably positioned and a pintle attached to the said upper strap member and shiftably arranged within the said socket.

1,255,292. PROCESS OF MAKING BREAD. DAVID CHIDLOW, Ridgefield, Conn., assignor to James F. Strachan and William S. Strachan, Montreal, Quebec, Canada. Filed Jan. 4, 1917. Serial No. 140,548. (Cl. 99—10.)

2. The herein described process of manufacturing bread from whole grain which consists in removing the outer skin of the grain without injuring the germinating property of the grain, then germinating the naked grain, and thereafter, while the naked germinated grain is still wet or moist crushing it to form a dough and then baking the same.

[Claim 1 not printed in the Gazette.]

1,255,293. PROCESS AND MACHINE FOR MAKING BREAD. DAVID CHIDLOW, Ridgefield, Conn., assignor to James F. Strachan and William S. Strachan, Montreal, Quebec, Canada. Filed June 12, 1917. Serial No. 174,213. (Cl. 99—10.)



1. The herein-described process of manufacturing dough from whole grain, which consists in removing the outer skin of the grain without injuring the germinating property of the grain, then germinating the naked or peeled grain to develop the germ, then separating the germinated grain from the liquid in which it was germinated, and crushing the grain in the presence of liquid substantially equal to from fifteen to twenty-five per cent. of the weight of the grain.

2. The herein-described process of manufacturing dough from whole grain, which consists in removing the outer skin of the grain without injuring the germinating property of the grain, then germinating the naked or peeled grain to develop the germ, then crushing the germinated naked or peeled grain, and adding liquid to the germinated grain as it is being crushed to form a dough.

3. In a machine for treating whole grain to form a dough, the combination of means for removing the outer skin of the grain without injuring the germinating property of the grain, a germinating tank or reservoir, means for transferring the naked or peeled grain to the germinating tank, grain crushing means to receive the naked or peeled grain after it has been germinated, and means for adding a liquid to the germinated grain to enable the grain crushing means to convert the germinated peeled grain into dough.

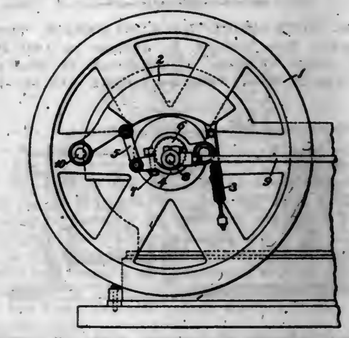
11. In a machine of the character described, the combination of means for peeling whole grain, a plurality of germinating tanks, a conveyer for carrying peeled grain from the peeling means to any one of said germinating tanks, means for selectively determining which of said tanks shall receive peeled grain from the conveyer, grain-crushing means connected to each of said germinating tanks that germinated grain from any one of the tanks may be treated by the crushing means, and a liquid supply pipe for delivering liquid to the crushing means to enable the germinated grain to be converted into dough.

[Claims 4 to 10 not printed in the Gazette.]

1,255,294. GOVERNOR. ADOLPH F. CHRISTMAS, Easton, Pa., assignor to Ingersoll-Rand Company, Jersey City, N. J., a Corporation of New Jersey. Filed Feb. 16, 1917. Serial No. 149,028. (Cl. 121—101.)

1. In a speed governor for engines, an arm mounted eccentrically of a fly wheel, said arm carrying a disk, a pin mounted upon said disk and said disk being adapted to be rotated in said arm.

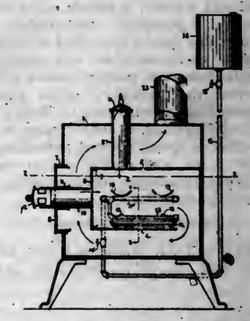
3. In a speed governor for engines, a centrifugal member adapted to vary the eccentricity of an arm, said arm being provided with an opening, a disk carrying a



pin mounted in said opening and means to clamp said disk in said opening.

[Claims 2 and 4 to 7 not printed in the Gazette.]

1,255,295. STOVE. CHARLES F. COOK, Houston, Tex., assignor of one-half to J. E. Walton, Houston, Tex. Filed Jan. 11, 1917. Serial No. 141,774. (Cl. 126—94.)

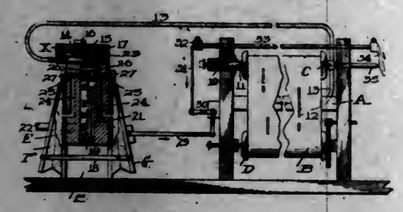


1. A sheet metal stove comprising top and bottom and front and rear walls, a combustion chamber within said stove comprising a top and bottom wall and a front wall, the walls of said combustion chamber extending from side to side of said stove and spaced respectively from the front and top and bottom walls thereof, a flue in the top wall of the stove at the rear thereof, a transverse air inlet extending through the front walls of the stove and combustion chamber, a burner in said combustion chamber arranged in the path of air entering said inlet, and an air outlet in the bottom wall of the combustion chamber at the rear thereof whereby air entering said inlet flows across said burner and out said outlet and around the exterior of the combustion chamber.

2. A sheet metal stove comprising top and bottom and front and rear walls, a combustion chamber within said stove comprising a top and bottom wall and a front wall, the walls of said combustion chamber extending from side to side of said stove and spaced respectively from the front and top and bottom walls thereof, a flue in the top wall of the stove at the rear thereof, a transverse air inlet extending through the front walls of the stove and combustion chamber, a burner in said combustion chamber comprising a drip pan, a nozzle above said pan and deflector plates above said nozzle arranged in the path of air entering said inlet, and an air outlet in the bottom wall of the combustion chamber at the rear

thereof whereby air entering said inlet flows across said burner and out said outlet and around the exterior of the combustion chamber.

1,255,296. NOTE-SHEET-TRACKING DEVICE. THOMAS DANQUARD, New York, N. Y., assignor to Auto Pneumatic Action Company, a Corporation of New York. Filed Aug. 25, 1911. Serial No. 646,054. (Cl. 84—161.)



1. The combination of a tracker, means for drawing a note sheet across the tracker, a single guide opening, two pneumatic motors for adjusting the lateral relation of the note sheet and tracker, a valve controlled by said guide opening, a pneumatic controlled by said valve and valves operated by said pneumatic for controlling the motor pneumatics.

2. The combination of a tracker, means for drawing a note sheet across the tracker, a single guide opening, two pneumatic motors for adjusting the lateral relation of the note sheet and tracker, a double valve controlled by said guide opening, a pneumatic controlled by said double valve, and two double valves controlled by said pneumatic for controlling the operation of the two motor pneumatics.

3. The combination of a tracker, means for drawing a note sheet across the tracker, a single guide opening, two motor pneumatics for adjusting the lateral relation of the note sheet and tracker, a double valve controlled by said guide opening, a spring pressed pneumatic controlled by said double valve, and double valves controlled by said spring-pressed pneumatic for controlling the action of the two motor pneumatics.

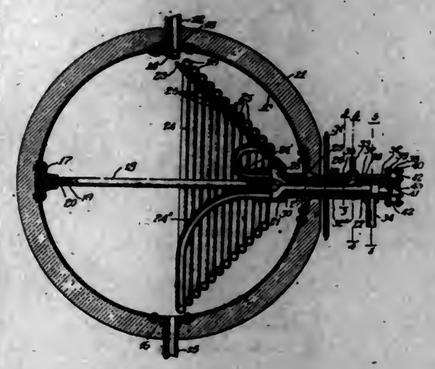
1,255,297. GATE-LATCH. WILLIAM HENRY DEW, Mercer, Tenn. Filed Sept. 25, 1917. Serial No. 193,142. (Cl. 70—28.)



1. A latching device for a gate comprising a latching frame, means passing through the center of said latching frame for securing the same to a support, latching rings carried by the respective ends of said latching frame, and means passing through one end of said latching frame and engaging a support for holding said latching frame from swinging upon said support.

2. A latching member for a gate comprising a latching frame having a centrally located inwardly extending lug, said latching frame being formed of a single sheet of material and folded at one end to produce a latching ring supporting loop, securing means passing through said lug and through the inner end of said latching ring supporting loop for holding said frame upon a support, said frame provided with a second laterally extending finger, said frame also provided with a laterally extending jaw for producing a second ring supporting pocket, and a pin passing through the outer end of said jaw and said finger for closing the end of said second ring supporting pocket and also for holding said frame from rotating upon a support.

1,255,298. STORAGE-TANK. FRED G. DICKERSON, Chicago, Ill., assignor, by mesne assignments, to Mojonnier Bros. Co., Chicago, Ill., a Corporation of Maine. Filed May 29, 1915. Serial No. 31,107. (Cl. 257—79.)



1. The combination with a casing containing an exhaust and an inlet passage, the exhaust passage being longer and of greater cross-sectional area than the inlet passage, of a head provided with continuations of said passages, and a coil mounted on said head, formed of a continuous tube terminating in the continuations of the passages aforesaid.

5. The combination with a tank, of a shaft therein, a casing extending through the wall of said tank, a head formed on said casing and supported by said shaft within the tank, said casing and head being provided with a plurality of passages, a coil connected to said passages and located within said tank, means for rotating said casing and coil, and means of communication between the passages of the casing and the exterior thereof irrespective of the radial or rotary position thereof.

8. The combination with a tank, of a rotary refrigerating coil arranged therein, a casing extending through the wall of the tank and adapted to rotate said coil, said casing being provided with passages for supplying gas to and exhausting it from said coil, a housing surrounding the projecting end of said casing, a supply pipe and an exhaust pipe secured to said housing, and ported rings at the terminals of said intake and exhaust pipes for supplying a constant means of connection between the latter and their respective passages in the casing.

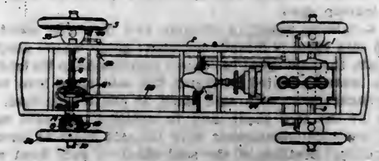
13. The combination with a tank, of a casing mounted for rotation in the wall thereof, and projecting from said wall, said casing being provided with a plurality of passages therein terminating at points along the longitudinal axis of said casing, a housing arranged to receive the projecting end of said casing, a supply pipe connected with said housing in alinement with the plane of the terminal of one end of said passage, a ring encircling said casing adjacent to said supply pipe, said ring being so constructed as to create a chamber forming means of constant communication between said supply pipe and its coöperating passage, said chamber being separated by said ring from the remainder of the housing, an exhaust pipe connected with the casing aforesaid for coöperation with the remaining passage, and a similar ring establishing means of communication between said exhaust pipe and said passage separating said means of communication from the remainder of said housing.

17. The combination of a tank, with a bearing in the wall thereof, a casing projecting through said bearing and terminating in a head at its inner end, a shaft supporting said head, and resilient means coöperating with said

shaft for compensating for the wear between the head, casing, and bearing.

[Claims 2 to 4, 6, 7, 9 to 12, 14 to 16, and 18 not printed in the Gazette.]

1,255,299. DRIVING MECHANISM. THEODORE DITMARS, Kansas City, Mo. Filed Jan. 20, 1915. Serial No. 3,278. (Cl. 180—43.)



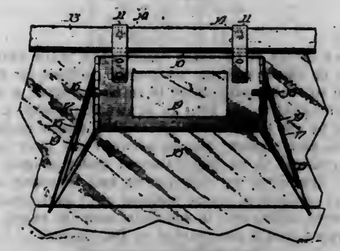
1. The combination with an axle, of a knuckle, a vertical knuckle pin mounting the knuckle on said axle and projecting above the latter, a spindle on said knuckle, a wheel on said spindle comprising a cupped body portion, a rack fixed to the cupped body portion, a plate fixed to the knuckle and closing the cupped body portion to form a rack chamber; the said plate having a slot therein, a beveled gear wheel rotatable on the knuckle pin and projected through the plate slot to engagement with the rack, and a drive shaft having a gear wheel meshing with the beveled gear wheel.

2. The combination with an axle, of a knuckle having a spindle, a vertical pin mounting the knuckle on the axle, a wheel comprising rim members and a cupped body comprising a hub and laterally turned edge flange, a plate fixed to the knuckle and lying within the edge of the flange to form a rack chamber, and having a slot above the axle, a rack fixed to the body member within said chamber, a beveled gear wheel rotatable on the knuckle pin and projected through the plate slot to engagement with said rack, and a drive shaft having a pinion meshing with the beveled gear wheel.

3. The combination with an axle, of a knuckle having a spindle, a vertical pin mounting the knuckle on the axle, a wheel comprising rim members and a cupped body comprising hub and laterally turned edge flange, a plate fixed to the knuckle and lying within the edge of the flange to form a rack chamber, and having a slot above the axle, a rack fixed to the body member within said chamber, a beveled gear wheel rotatable on the knuckle pin and projected through the plate slot to engagement with said rack, a drive shaft having a pinion meshing with the beveled gear wheel, and a housing for the beveled gear wheel and pinion and extending through the slot into the rack chamber.

[Claim 4 not printed in the Gazette.]

1,255,300. WIND-SHIELD PROTECTOR. JULIUS A. DYBLIE, Joliet, Ill. Filed Feb. 8, 1917. Serial No. 147,381. (Cl. 20—40.5.)



A wind-shield protector comprising a member extending outwardly from the wind-shield, a side member hingedly connected thereto and limited to movement in one direction by engagement with the wind-shield, and means for limiting its movement in the other direction.

1,255,301. BOAT RAISING AND LOWERING GEAR. EXEL EKBLOM, London, England, assignor of one-half to Alfred Charles Valogne, London, England. Filed Oct. 9, 1917. Serial No. 195,560½. (Cl. 9—22.)

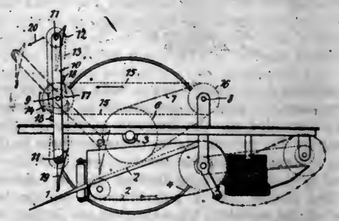


1. A lead-block for the falls of boats comprising a frame having provision to receive the ropes of the falls and adapted to travel up and down thereon with means for attaching the frame to a vessel.

7. A means for preventing the swinging of boats when lowered at a vessel's side, comprising a block adapted to fit over and to travel up and down with the falls of a boat and furnished with means whereby it can be held from the vessel.

[Claims 2 to 6 not printed in the Gazette.]

1,255,302. POTATO-DIGGING MACHINE. JENS LAURITS HENRIKSEN FAARBORG, Tranebjerg, Samsö, Denmark, assignor to the Firm of N. C. Breit & Co., Copenhagen, Denmark. Filed Dec. 31, 1915. Serial No. 69,521. (Cl. 55—109.)



In a potato-digging machine, the combination with a digging-iron and an elevator disposed behind the same, of a rotatable shaft, arms fixed on the shaft, other shafts journaled in the said arms, scraping implements fixedly mounted on the last-named shafts and adapted to move across the digging-iron during rotation of the first-named shaft, a stationary sprocket wheel disposed concentric to the first-named shaft, a sprocket wheel fixed on each of the second-named shafts, a chain passing around all of the said sprocket wheels, and means for rotating the first-named shaft.

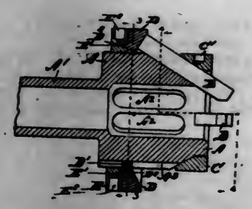
1,255,303. FLY-SWATTER. HANS P. FOGH, Seattle, Wash. Filed Apr. 18, 1916. Serial No. 92,056. (Cl. 43—1.)



A fly swatter comprising a handle having an extension at one end, a pin extending horizontally through the ex-

tension, a wire yoke coiled intermediate its ends, said coils engaging the ends of the pins, the inner cross end of the wire forming the yoke being coiled to form a spring, the axis of which is parallel with the axis of the pin, a swatting member including a wire frame covered with fine wire, a transverse yoke connecting the ends of the wire frame of the swatting member adjacent the coil spring, the free ends of the wire frame engaging in the ends of the coil spring and secured thereto, and a cord for rocking the pivoted yoke and the swatter, the coil spring between the latter yoke and the swatting member providing a resilient connection, whereby when the cord is pulled to kill a fly on a ceiling the swatting member will rest against and be parallel with said ceiling.

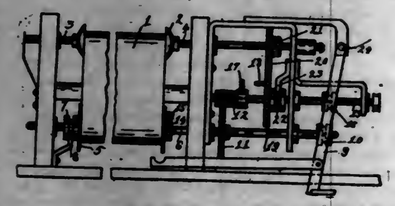
1,255,304. HOLLOW MILLING-TOOL. EMIL GAIRING, Detroit, Mich., assignor to Eclipse Interchangeable Counterbore Co., Detroit, Mich., a Corporation of Michigan. Filed May 5, 1917. Serial No. 166,545. (Cl. 29—105.)



1. A milling tool, comprising a body provided with inclined recesses, cutting blades seated in said recesses, a lock ring threaded on the forward portion of the body and engaging the cutting blades to secure them in the said recesses, a member slidable on the rear portion of the body and held from turning thereon and in contact with the cutting blades, and a nut threaded on the body in the rear of the member for adjusting the latter and the cutting blades, there being a matching annular rib and recess between the member and nut to hold them in fixed relative position.

2. In a hollow milling tool, a body portion provided with a central opening and longitudinal tapering slots, cutting blades fitted in said slots, a locking collar screw-threaded upon the forward end of the body and adapted to engage the edges of the cutter blades, a slidable ring keyed to the body portion having on one side a bevel face to receive the end of the cutter blades, and on its opposite face a projecting annular rib, an adjustable nut having a screw-threaded engagement with the body portion, provided with an annular recess to receive the annular rib of the slidable ring, whereby the ring may be supported concentric to the axis of the body portion.

1,255,305. MUSIC-ROLL GEARING. ROBERT A. GALLY, Cincinnati, Ohio, assignor to The Baldwin Company, Cincinnati, Ohio. Filed Sept. 17, 1917. Serial No. 191,805. (Cl. 84—166.)



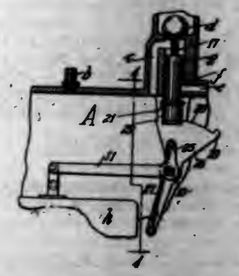
1. A take-up spool; a slidable and revoluble shaft on which said spool is loosely mounted; guide means adapted to retain the said spool in correct position as to its length; clutch means adapted to clutch the said spool into revoluble engagement with said shaft at one longitudinal position of the said shaft, and to unclutch the said spool from revoluble engagement with the said shaft at another longitudinal position of the said shaft; a gear fixed with the said spool shaft; a pinion constantly engaged with the said gear and fixed with a slidable and revoluble drive shaft parallel to the said spool shaft; and shifter means engaging the said spool shaft and adapted to slide the said shaft to its clutched and unclutched positions with the said take-up spool.

3. A take-up spool; a slidable and revoluble shaft on which said spool is loosely mounted; guide means adapted to retain the said spool in correct position as to its length; clutch means adapted to clutch the said spool into revoluble engagement with said shaft at one longitudinal position of the said shaft, and to unclutch the said spool from revoluble engagement with the said shaft at another longitudinal position of the said shaft; a gear fixed with the said spool shaft; a pinion constantly engaged with the said gear and fixed with a slidable and revoluble drive shaft parallel to the said spool shaft and shifter means engaging both said shafts; and adapted to move both the said shafts to and fro in one direction at the same time.

6. A revoluble and slidable shaft and means for constantly revolving the said shaft in one direction; a pinion fixed with the said shaft; a second revoluble and slidable shaft parallel to the said pinion shaft and a gear wheel fixed to the said second shaft and constantly meshed with the said pinion; a take-up spool; a music roll spindle and means adapted to drive the said spindle in reverse direction to the take-up revolution of the take-up spool; clutch means adapted to revolubly engage together the said reverse drive and the said first named shaft having the pinion thereon; and clutch means adapted to revolubly engage together the said take-up spool and the said second named shaft having the gear wheel thereon; and shifter means engaging the two said shafts and adapted to alternately cause the engagement of one or the other of the said clutch means and the disengagement of the other clutch means at that same time.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,255,306. FUEL-FEEDING DEVICE FOR CARBURETERS. PIERRE P. GILLES, Springfield, Mass. Filed May 21, 1917. Serial No. 170,099. (Cl. 158—36.)

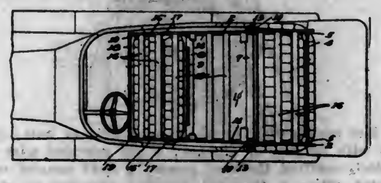


1. In a device of the class described, a valve adapted to be held in closed position by suction, a float by the rise and fall of which said valve is to be operated, a pivoted lever connected to the float to be swung thereby, a cam movable by the lever, a valve actuating means movable by the cam, and resilient means between the lever and the valve arranged to be slowly moved under gradual movement of the lever, all constructed and arranged so that the valve remains in closed position until said means have been moved sufficiently to suddenly open the valve.

[Claims 2 and 3 not printed in the Gazette.]

1,255,307. AUTOMOBILE-BED. WILLIAM H. GROVERMAN, Minneapolis, Minn. Filed Aug. 3, 1916. Serial No. 112,937. (Cl. 21—43.)

1. An automobile bed comprising side rails adapted to rest upon the backs of the front and rear seats, cross bars secured to said side rails for holding them in parallel relation, slats removably mounted on said rails and forming a support for the bedding, legs having a pivotal connection with the middle portion of said rails and provided with means for rigidly securing them when the bed is set up, said legs bearing against the side walls of the car and resting at their lower ends upon the floor of the tonneau, whereby the bed will be braced against lateral movement on the seats, for the purpose specified.



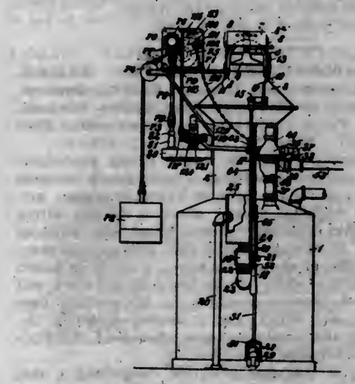
2. An automobile bed comprising side rails adapted to rest upon the backs of the front and rear seats, cross bars detachably connected to said side rails, one of said cross bars being mounted to engage the robe rack on the front seat and be braced thereby, and legs mounted on said side rails to rest upon the bottom of the car.

3. An automobile bed comprising side rails adapted to rest upon the backs of the front and rear seats of the car, cross bars therefor, longitudinal extensions provided on the forward ends of said rails, and means for rigidly but detachably connecting them to said rails, slats mounted on said extensions and forming therewith supports for the feet when the bed is in use, said extensions normally overhanging the front seat and when removed exposing said seat for the driver's use.

6. An automobile bed comprising side rails adapted to rest upon the backs of the front and rear seats, a cross bar connected at its ends to the middle portion of said rails, legs hinged to said cross bar and adapted to fold inwardly against said bar when the bed is taken apart, and said legs having projecting ends seated against the vertical faces of said side rails when the bed is set up and having means for temporarily securing them thereto, the lower ends of said legs resting upon the floor of the tonneau.

[Claims 4, 5, and 7 not printed in the Gazette.]

1,255,308. SAFETY APPLIANCE FOR ACETYLENE-GENERATORS. JOHN HARRIS, Cleveland, Ohio. Original application filed Oct. 12, 1914, Serial No. 866,194. Divided and this application filed Mar. 22, 1915. Serial No. 16,151. (Cl. 48—36.)



1. The combination with apparatus comprising a generating chamber having a filling valve, the filling valve having an operating handle that is provided with an abutment, of a member movable into and out of the path of said abutment, a vent valve for the apparatus, that is subjected to and adapted to be opened normally by gas pressure within the generating chamber, and connections between the aforesaid movable member and said vent valve whereby the movement of the member out of the path of the aforesaid abutment will open said vent valve.

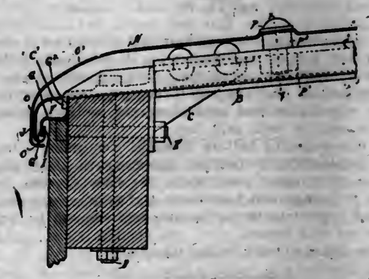
4. In apparatus of the character set forth, the combination with the cover of the carbid hopper and the securing means therefor, of a shield which covers said securing means and extends downward entirely therearound, a pair of links having their upper ends pivoted to the shield at diametrically opposite points and their lower ends pivotally connected to the hopper alongside the cover, the respective upper and lower pivotal points of the links being in axial alinement, a link of substantially the same length as the aforesaid links which has its upper end pivoted to the shield adjacent one of the former links, a shorter link connecting the lower pivotal point of said former link to the corresponding end of the last mentioned link, and means for swinging the shorter link.

5. In apparatus of the character set forth, the combination with the cover of the carbid hopper and the securing means therefor, of a shield which covers said securing means and extends downward entirely therearound, a pair of links having their upper ends pivoted to the shield at diametrically opposite points and their lower ends pivotally connected to the hopper alongside the cover, the respective upper and lower pivoted points of the links being in axial alinement, a link of substantially the same length as the aforesaid links which has its upper end pivoted to the shield adjacent one of the former links, a shorter link connecting the lower pivotal point of said former link to the corresponding end of the last mentioned link, an abutment carried by and between the first mentioned pair of links and arranged to engage the edge of the shield when the same is moved to ineffective position, and means for swinging the shorter link.

7. The combination with a gas generating system, of means whereby the system may be opened, a device normally blocking the operation of said means and movable from blocking position, a vent valve constantly subjected to the pressure within a system and capable of being actuated by excessive pressure therein, and connections between said device and valve whereby the movement of said device from blocking position will effect an actuation of the valve.

[Claims 2, 3, and 6 not printed in the Gazette.]

1,255,309. CAR-ROOF. DAVID W. HAWKSWORTH, Detroit, Mich., and FREDERICK M. WHYTE, Tarrytown, N. Y., assignors to Hutchins Car Roofing Company, Detroit, Mich., a Corporation of Michigan. Filed Nov. 15, 1913. Serial No. 801,288. (Cl. 108—5.4.)



1. In a car roof, the combination with carlines of load-sustaining metallic roofing plates extending from ridge to eave and spanning the spaces between said carlines and having a limited freedom of movement in the plane of the roof in all directions, and weather-proofing means between said plates constituting the sole active holding down means therefor.

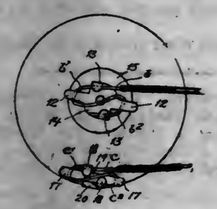
10. In a car roof, the combination with carlines, of a series of load-sustaining roofing plates spanning the spaces between said carlines and provided with upstanding side flanges, a depending eave flange, an inward, open return-bend on said eave flange, a metallic strip secured to the side plate of the car having an outwardly-extending portion overlapping the upper edge of the car siding and a depending flange spaced from said siding and loosely engaging the open return-bend of said plates, and carline caps embracing said carlines and upstanding side flange of said roofing plates, the ends of said caps merging into a depending eave flange overlapping the adjacent eave flanges of the plates and terminating in an inwardly-bent flange.

13. In a car roof, the combination with the side plates of the car, of carlines, brackets for connecting said carlines to said side plates, having a portion lying adjacent to the inner face of the side plate, a portion overlapping the top of said side plate and a depending flange engaging the outer face of said side plate, a series of roofing plates having depending eave flanges with inward, open return-bends, and a metallic strip of Z-bar section having a depending flange engaging said return-bends and an upwardly-extending flange between said depending flange on said bracket and said side plate forming an extended bearing for the former and being held from upward movement thereby.

17. In a car roof, the combination with the car side-plate, of carlines, brackets for securing said carlines to said side plate, roofing sheets between sid carlines having downwardly-extending return-bent eave flanges, a bolt extending laterally through said side plate for securing said bracket thereto and provided with a square head at its outer end, and a strip secured to the side-plate of the car having an outwardly-extending portion overlapping the upper edge of the car side and bearing against the head of said bolt, said strip being also provided with a downturned flange spaced from said siding and engaging the open return-bend of said plate.

[Claims 2 to 9, 11, 12, 14 to 16, 18, and 19 not printed in the Gazette.]

1,255,310. WIRE-ENGAGING BATTERY-TERMINAL. ALBERT F. HENDERSON, Middleton, Mass. Filed Mar. 15, 1917. Serial No. 154,941. (Cl. 173—259.)



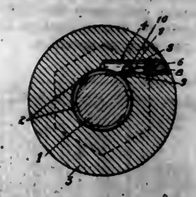
1. A wire-engaging battery terminal formed as a cleat composed of a body portion having a substantially flat outer face, and arms projecting from opposite edges of the body portion and adapted to engage portions of conducting wire bights and hold elongated portions of said bights in contact with said face.

3. A wire-engaging battery terminal comprising a body portion, oppositely projecting spaced-apart cleat arms raised at their outer ends above the body portion, and adapted to engage and hold down bights of a conducting wire, and oppositely facing hooked ears adapted to laterally confine said bights.

[Claim 2 not printed in the Gazette.]

1,255,311. NUT-LOCK. JOHN EDWARD HERMAN, Cincinnati, Ohio. Filed Mar. 7, 1917. Serial No. 153,064. (Cl. 151—11.)

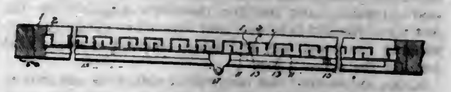
1. The combination of a recess, provided with a threaded end; a pawl secured to a threaded plug, disposed to enter said threaded end of said recess, whereby said pawl is positioned within said recess; a threaded aperture entering said recess at right angles thereto, and a bolt adapted thereto, said bolt having reduced sides at its end, both said pawl and said bolt being so constructed, arranged and disposed as to lock, each the other, against displacement.



3. The combination of a threaded axle or bolt; provided with notches or grooves; a nut provided with an exteriorly-entering threaded recess; a pawl secured to a threaded plug; a threaded aperture entering at right angles to said pawl, and a threaded bolt, provided with reduced sides at its interior portion—both said pawl and said bolt being constructed, arranged and disposed, each to lock the other against displacement, and whereby said nut is locked and unlocked.

[Claim 2 not printed in the Gazette.]

1,255,312. VENTILATOR. JULIAN HOLLAND, New York, N. Y. Filed May 23, 1917. Serial No. 170,396. (Cl. 98—27.)



1. A ventilator comprising a fixed frame provided with vanes alternately in shape in cross section of single and double channel irons and a movable frame provided with vanes in shape in cross section of single channel irons disposed at such intervals that the wings of the movable vanes will normally project midway between the wings of the opposite fixed vanes.

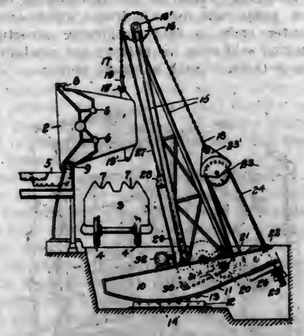
2. A ventilator comprising two frames adapted to be placed in the opening provided for the ventilator, one frame being fixed and the other movable, said frames provided with vanes having wings and the wings of the vanes on the movable frame extending into the openings between the wings of the vanes on the fixed frame and adapted when the movable frame is moved in one direction to abut against the oppositely extending wings and when the movable frame is moved in the opposite direction to provide indirect passages for the air.

[Claim 3 not printed in the Gazette.]

1,255,313. LADLE-TILTING APPARATUS. WILLIS T. HURST, Pittsburgh, and CARL L. KENNEY, Dormont, Pa., assignors to Pittsburgh Coal Washer Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 28, 1917. Serial No. 171,841. (Cl. 212—9.)

1. Automatically adjustable weight lifting mechanism comprising a supporting pedestal, a rocking base mounted thereon having a rigidly mounted upstanding mast provided with a terminal sheave wheel, a flexible lifting element passing over said sheave wheel and provided with a pulley at one side and a load engaging terminal at the other side of the sheave wheel, a series of power exerting strands of cable or the like and actuating and guiding devices therefor mounted on the rocking base and engaging said pulley, and a flexible reversing element engaging the terminal sheave wheel and the actuating device, substantially as described.

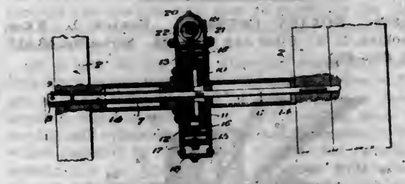
2. A device of the class described comprising a base having a convex under side, a pedestal for said base, a rigid mast on said base, a suitable sheave mounted on said mast, a flexible lifting element trained about said sheave, a drum upon which said element is adapted to be wound, and a second flexible element secured to said



sheave and trained about said drum and adapted to lower said lifting element when said drum is reversed.

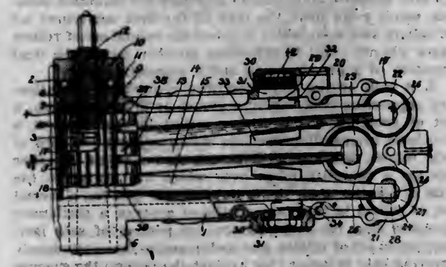
[Claims 3 to 9 not printed in the Gazette.]

1,255,314. DRIVING-GEARING FOR TRACTORS. CLARENCE W. JACKSON, Valier, Mont., assignor of fifty-five one-hundredths to David F. Mains and twenty-two and one-half one-hundredths to Alvin D. Rieder, Valier, Mont. Original application filed May 3, 1915, Serial No. 25,598. Divided and this application filed June 19, 1916. Serial No. 104,518. (Cl. 74—34.)



Transmission and propulsion gearing comprising an engine or power shaft, a driven shaft, worm gearing driven by said driven shaft, a counter-shaft, gears on said counter-shaft, gears on the driven shaft, clutches for connecting different ones of the sets of gears of the driven shaft and countershaft for active operation, a spring actuated driving gear slidably coupled to the power shaft and normally meshing with a gear on the countershaft, and a clutch adapted for coupling said spring-actuated gear to the driven shaft and for shifting it out of mesh with its mating gear on the countershaft.

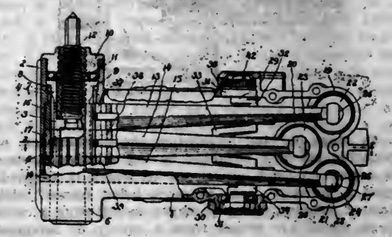
1,255,315. RATCHET OPERATING MECHANISM FOR DRILLS. FRANCIS A. JIMERSON, Athens, Pa., assignor to Ingersoll-Rand Company, Jersey City, N. J., a Corporation of New Jersey. Filed June 19, 1915. Serial No. 35,109. (Cl. 74—54.)



1. In a close corner drill, a ratchet mechanism comprising a spindle having teeth thereon, a series of pawl carrying levers, directly connected means to oscillate said levers around said spindle successively through the same angle of rotation and pawls set in said levers engaging said teeth, the pawl in each successive lever of the series being advanced with respect to the longitudinal axis of its lever an angular amount in the direction of the spindle rotation equal to the angular space occupied by a single spindle tooth divided by the number of levers.

[Claims 2 to 5 not printed in the Gazette.]

1,255,316. CLOSE-CORNER DRILL. FRANCIS A. JIMERSON, Athens, Pa., assignor to Ingersoll-Rand Company, Jersey City, N. J., a Corporation of New Jersey. Original application filed June 19, 1915, Serial No. 35,109. Divided and this application filed May 11, 1917. Serial No. 167,992. (Cl. 121—23.)



1. In a close corner drill, a spindle, a plurality of cylinders mounted at right angles to the axis of said spindle, pistons in said cylinders, ratchet levers engaging said spindle and directly connected to said pistons and a crank mechanism for equalizing and limiting the oscillation of said levers.

2. In a close corner drill, a spindle, a series of cylinders mounted at right angles to the axis of said spindle, one of said cylinders being at a less distance from the spindle than another and said cylinders having areas inversely proportional to their distances from said spindle, pistons in said cylinders, driving levers for said spindle oscillated by said pinions and a crank mechanism for equalizing the angular movement of said levers.

3. In a close corner drill, a spindle, a plurality of cylinders mounted at right angles to the axis of said spindle, one of said cylinders being at a less distance from the spindle than the others and one of said cylinders overlapping the others, pistons in said cylinders, driving levers for said spindle oscillated by said pistons and a crank mechanism for equalizing the angular movement of said levers.

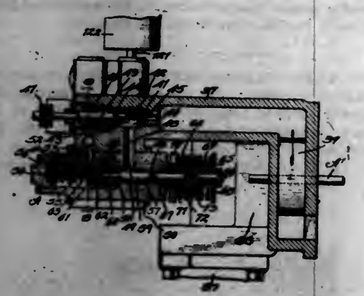
4. In a close corner drill, a spindle, three cylinders mounted at right angles to the axis of said spindle, one of said cylinders being at a less distance from the spindle than the others and said cylinders having areas inversely proportional to their distances from said spindle, one of said cylinders overlapping the others, pistons in said cylinders, driving levers for said spindle oscillated by said pistons and a crank mechanism for equalizing the angular movement of said levers.

1,255,317. AIR-CONTROLLING MECHANISM FOR GLASS-BLOWING MACHINES. AUGUST KADOW, Toledo, Ohio, assignor to The Westlake Machine Company, Toledo, Ohio, a Corporation of Ohio. Filed Sept. 11, 1912. Serial No. 719,865. (Cl. 49—19.)

1. In air controlling mechanism for glass blowing machines, the combination with a valve, of a movable actuating device for intermittently opening said valve, a packed bearing and a spring-pressed element mounted in the bearing and interposed between said actuating device and said valve which is normally free from both the valve and the actuating device.

5. In air controlling mechanism for glass blowing machines, the combination with a casing formed interiorly with a valve seat, a valve slidably mounted in said casing,

a follower extending through said casing in position to unseat said valve, a spring which normally holds the follower out of contact with said valve, means for moving said follower against said valve, and a collar on the inner end of said follower which limits the outward movement of the follower.



8. In glass blowing apparatus, the combination with cooperating machine elements having relative movement with respect to each other, one of which is adapted to support a blowpipe, said elements being formed with a system of communicating passages constituting a conduit through which air passes from a supply of compressed air to said blowpipe; of a valve which governs the admission of air to said blowpipe; means actuated by the relative movement between said elements for opening and closing said valve, and a needle valve which may be adjustably positioned to baffle or break the force of the air delivered to the blowpipe when said admission valve is open.

13. In glass-blowing apparatus, the combination with a blow-pipe, of air-controlling mechanism for the same comprising a valve casing provided with air-inlet and outlet ducts and formed with a seat, a valve of resilient material of the "Fuller ball" type adapted to bear against said seat, a spring to seat said valve, a follower capable of movement independent of the valve which projects into said casing and is adapted to unseat said valve, and means for imparting movement to the follower in the direction of its length.

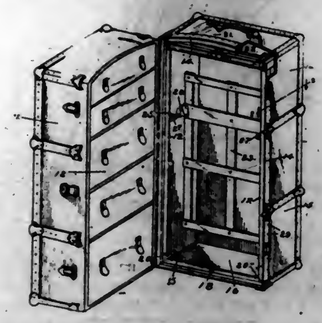
17. In glass-blowing apparatus, the combination with a revoluble blow-pipe and a finishing mold in which the blank is revolved and blown, of means providing a source of supply of low pressure air and a duct leading from the same to the blow-pipe, a valve to close said duct, mechanism for opening said valve while the blank is in the finishing mold, and an adjustable valve in said duct which is adapted in the operation of the machine to stand partially open to retard inflow through said duct so that the pressure is applied to the blank gradually when the first-named valve is opened.

[Claims 2 to 4, 6, 7, 9 to 12, 14 to 16, and 18 not printed in the Gazette.]

1,255,318. TRUNK. PATRICK J. KELLY, Chicago, Ill., assignor to P. Becker & Company, Chicago, Ill., a Corporation of Illinois. Filed May 28, 1915. Serial No. 30,987. (Cl. 190—12.)

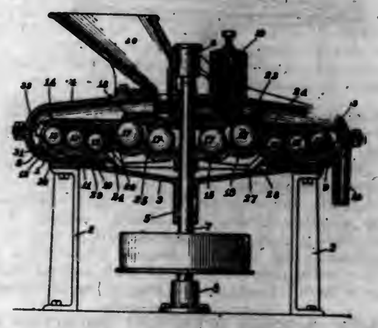
1. In a wardrobe trunk comprising a wardrobe section and a drawer section, the combination of a metallic flange on the outside of the wardrobe section into which the drawer section fits when the trunk is closed, and a rigidifying metal element angular in cross section arranged within the wall of said wardrobe section and secured thereto so as to provide a laterally projecting flange near the edge thereof which forms a stop for the drawers of the drawer section so as to hold them in closed position when the trunk is closed.

2. In a wardrobe trunk comprising a wardrobe section and a drawer section, the combination of a rigidifying metallic structure, angular in cross section, arranged within the edge and secured to the wall of the wardrobe section, a retaining frame for the clothing in the wardrobe section, guide rods for said frame which are secured at their outer ends to said rigidifying structure, and means engaging said rods for holding the retaining frame against the clothing in said wardrobe section.



3. A trunk comprising two sections, one having a hinged relation with the other, one of which is provided with a projecting rim into which the other section fits, and a metallic rigidifying structure in said first named section, angular in cross section, and secured to the edge of the trunk within said projecting rim.

1,255,319. ROTARY CRUSHER. HORACE L. KENT, Brooklyn, N. Y. Filed Aug. 20, 1915. Serial No. 46,417. (Cl. 83—45.)



3. A mill of the class described comprising in combination a supporting ring, a set of rollers carried thereby, an upper pressure ring, another set of rollers nearer to the axis of rotation than the first-mentioned rollers engaged by said pressure ring, and an intermediate rotatable member which rests upon the tops of the first mentioned set of rollers and upon which member the second set of rollers rests whereby said intermediate member serves the dual function of a pressure ring and a supporting ring.

5. A mill of the class described comprising a stationary supporting ring having a groove or grooves therein, a set of grinding or pulverizing rollers in said grooves, a rotatable intermediate member which engages the tops of said rollers, said intermediate member having on its upper portion a plurality of grooves which are nearer to the axis of rotation than the first-mentioned grooves, a second set of rollers in said last-mentioned grooves, a stationary pressure ring for engaging the top portion of said last-mentioned set of rollers, and spring means for continuously pressing said pressure ring against the rollers, the grooves in each set of grooves having a stepped-up arrangement whereby the material being operated upon must move upwardly as it passes outwardly through the machine.

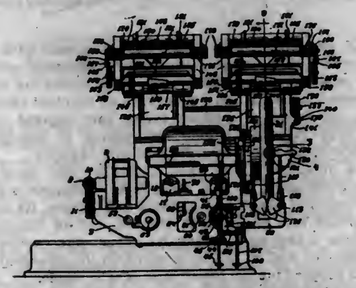
10. A grinding and pulverizing mill of the class described comprising in combination a casing, a stationary supporting ring having upon its upper surface one or more annular grooves, an outer set of rollers in said grooves, a rotatable intermediate member which presses downwardly against the tops of said set of rollers, said intermediate member having on its upper surface one or more annular grooves, an inner set of rollers located in said grooves, a pressure ring which engages and presses downwardly against the top of the inner set of rollers, and spring means for pressing the various members against the balls in the manner specified, the intermediate member having perforations whereby a screen is provided between the working space in which the inner rollers are located and the working space in which the outer rollers are located so that only material which is below a certain size will be permitted to enter the space in which the outer rollers are located.

17. A mill of the class described comprising in combination an outer supporting ring having annular grooved portions in its upper surface, a set of rollers in said grooved portions, an intermediate member for pressing downwardly against the tops of said rollers, said intermediate member having annular grooved portions on its upper surface, a set of rollers in said grooved portions, and a ring for pressing downwardly against said last-mentioned rollers, the grooved portions in said intermediate member and said supporting ring being so shaped that they will oppose the free outward movement of the material but will cause it to run up the sides of the grooved portions in the intermediate member, the grooves in the stationary member being shaped so that the material passing radially outward through the machine will have to travel up the sides of the grooved portions in the stationary member during treatment by the rollers.

19. A mill of the class described comprising in combination a supporting member having a groove on its upper surface, rollers located in said groove, a rotatable member engaging said rollers and pressing them downwardly, said rotatable member having passageways through which material to be operated upon is fed radially outwardly into the working space in which said rollers are located, which working space is defined by said supporting member and said rotatable member, and a scraper carried by said rotatable member for engaging the material as it passes outwardly from said working space.

[Claims 1, 2, 4, 6 to 9, 11 to 16, 18, and 20 to 25 not printed in the Gazette.]

1,255,320. MACHINE FOR FORMING OUTER CASINGS OF PNEUMATIC TIRES. GEORGE F. KNIGHT and BURDETTE M. FRANK, Canton, Ohio; said Frank assignor to said Knight. Filed Feb. 9, 1916. Serial No. 77,313. (Cl. 154—10.)



1. A machine of the character described, comprising the combination of a pair of co-acting rollers between which a sheet of fabric is arranged to be passed, a power driven annular form for drawing the sheet fabric from said rollers, a worm arranged to rotate said rollers and means interposed between said worm and said annular form for operating said worm, said worm preventing the rotation of said rollers when said form is stationary.

2. A machine of the character described, comprising a frame, a power driven annular form mounted in said frame, a pivoted frame mounted adjacent said annular form, a friction pulley mounted in said pivoted frame, a pair of co-acting rollers, between which a sheet of fabric is arranged to be passed, a worm arranged to drive said rollers, means interposed between said friction pulley and said worm for operating said worm, means for normally holding said pivoted frame in a position to hold said friction pulley out of engagement with said form, said friction pulley arranged to engage said form when the sheet fabric is attached to said form.

3. A machine of the character described, comprising a frame, a power driven annular form mounted in said frame, a pivoted frame mounted adjacent said annular form, a friction pulley mounted in said pivoted frame, a pair of co-acting rollers, between which a sheet of fabric is arranged to be passed, pinions mounted upon said rollers, a worm gear mounted upon said rollers, a worm mounted upon said pivoted frame and meshing with said worm gear, a spiral pinion mounted upon said worm, a spiral gear meshing with said spiral pinion, means interposed between said friction pulley and said spiral gear for driving said spiral gear, means for normally holding said pivoted frame in a position to hold said friction pulley out of engagement with said form, said friction pulley arranged to engage said form when the sheet fabric is attached to said form.

4. A machine of the character described comprising a frame, a power driven annular form mounted in said frame, a pivoted frame mounted adjacent said annular form, a shaft mounted in said pivoted frame, a friction cone pulley adjustably mounted upon said shaft, a pair of co-acting rolls between which a sheet of fabric is arranged to be passed, means interposed between said friction cone pulley and said rolls for rotating said rolls, means for normally holding said pivoted frame in a position to hold said friction cone pulley out of engagement with said form, said friction cone pulley arranged to engage said form when the sheet fabric is attached to said form.

6. A machine of the character described, comprising the combination of a plurality of sheet fabric supplies, a power driven annular form for drawing the sheet fabric from either source of supply, a roller interposed between each source of supply and said annular form, means controlled by the rotation of said annular form for rotating either of said rollers and means for shifting said form from either of said fabric supplies to the other supply.

[Claim 5 not printed in the Gazette.]

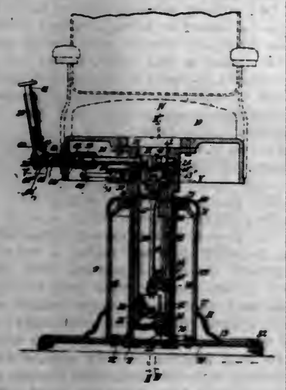
1,255,321. BARBER OR DENTAL CHAIR. GIUSEPPE CARMELO LARAIA, New York, N. Y. Filed Feb. 27, 1915. Serial No. 10,907. (Cl. 155—7.)

1. A barber or dental chair, comprising a seat, a piston on which said seat is mounted, a cylinder, and means for fixing said piston in said cylinder, comprising a plate on said piston, a screw for pressing said plate into contact with said cylinder, and means for turning said screw.

2. A barber or dental chair, comprising a seat, a piston on which said seat is mounted, a cylinder, and means for fixing said piston in said cylinder, comprising a plate on said piston, a screw for pressing said plate into contact with said cylinder, a crank for turning said screw, a rod attached to said crank, and means for operating said rod.

4. A barber or dental chair, comprising a piston adapted to support a seat, a cylinder, and means for fixing said piston in said cylinder, means for operating said fixing means, comprising an operating rod, an operating shaft, a cam on said shaft adapted to axially move said rod, and a shoulder on said cam adapted to transversely move said rod, whereby said rod may be moved to a position beneath the axis of said shaft when the rod is at or near the limit of its movement.

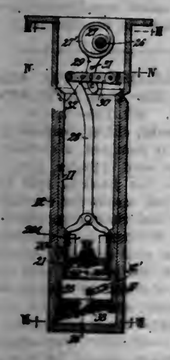
6. A barber or dental chair, comprising a piston adapted to support a seat, a cylinder, and means for fixing said piston in said cylinder, means for operating said fixing means, comprising an operating rod, an operating shaft, and a cam on said shaft adapted to axially move said rod, and a spring adapted to pull on said rod to normally retain said fixing means in inoperative position.



7. A barber or dental chair, comprising a reclinable back, a seat-carrying piston, a cylinder, a pump-plunger in said piston, a clamp for said back carried by said piston, a rock-shaft carried by said piston having means thereon for operating said pump-plunger, a handle for rocking said shaft, a sleeve on said rock shaft connected to said clamp, said rock-shaft being rotatably loose in said sleeve, a part axially slidable on said shaft having an arm adapted to engage said sleeve, a rod in said handle adapted to operate said axially slidable part, and a part intermediate said rod and axially slidable part, said shaft having a longitudinal slot for said axially slidable part and said intermediate part.

[Claims 3 and 5 not printed in the Gazette.]

1,255,322. HYDRAULIC MECHANISM FOR RAISING AND LOWERING THE SEATS OF CHAIRS AND THE LIKE. GIUSEPPE CARMELO LARAIA, New York, N. Y. Filed Feb. 24, 1917. Serial No. 150,654. (Cl. 138—9.)



1. A device of the character described, comprising a hydraulic piston, a cylinder and a pump carried by said piston for operating said piston, and means for operating said pump comprising a rock-shaft, a handle for operating said rock shaft, and an adjustable lever between said rock-shaft and pump.

4. A device of the character described, comprising a hydraulic piston, a cylinder for said piston, a pump plunger in said piston, a passageway for the passage of liquid from the cylinder to the piston, a slide controlling said passageway, and means on said pump plunger for operating said slide.

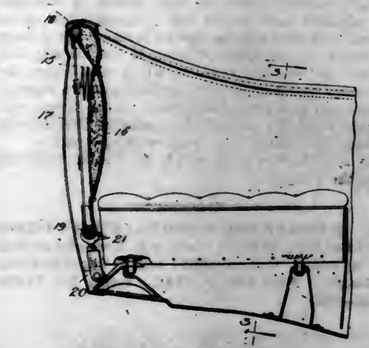
6. A device of the character described, comprising a hydraulic piston, a cylinder for said piston, a pump plunger in said piston, an opening between said piston and cylinder, and a slide valve controlling said opening, and a beveled flange on said pump plunger adapted to move said valve.

8. A device of the character described, comprising a hydraulic piston, a cylinder for said piston, a pump plunger in said piston, means for operating said plunger, comprising a rock shaft, a handle for operating said rock shaft, and an eccentric upon said rock shaft, and means for fixing said piston in position in said cylinder, comprising a cam on said shaft, and interengaging means on said cam and eccentric, said eccentric being adjustable with relation to said cam.

11. A device of the character described, comprising a cylinder, a hydraulic piston, a plunger carried by said piston for operating said piston, and means for operating said plunger, comprising a rock shaft, a handle for operating said rock shaft, and an eccentric adjustably mounted upon said rock shaft, a lever between said eccentric and plunger, and an adjustable connection between said lever and eccentric.

[Claims 2, 3, 5, 7, 9, and 10 not printed in the Gazette.]

1,255,323. REMOVABLE UPHOLSTERY FOR VEHICLES. JOSEPH LEDWINKA, Philadelphia, Pa., assignor to Edward G. Budd Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Original application filed Jan. 22, 1916, Serial No. 73,628. Divided and this application filed Mar. 21, 1916. Serial No. 85,596. (Cl. 155—43.)



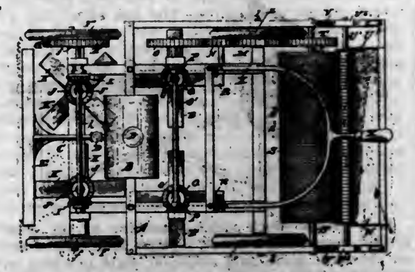
1. An automobile body shell, including seat back and side portions made up of a sheet metal stamping pressed to the required shape and contour and having its upper edge turned inwardly and formed into an inverted channel, and an upholstery or cushion frame unit engaged at its upper edge in said channel and means to detachably press said upper edge upwardly into said channel.

5. An automobile body shell, including seat back and side portions made up of a sheet metal stamping pressed to the required shape and contour and having its upper edge formed into an inverted channel, and an upholstery or cushion frame unit having its upper edge received in said channel, and a pivotally mounted longitudinal adjustable support for the lower edge of said frame.

7. An automobile body having an inturned flange at its upper edge in combination with a seat back cushion frame unit and means to adjust its upper edge upwardly against said flange.

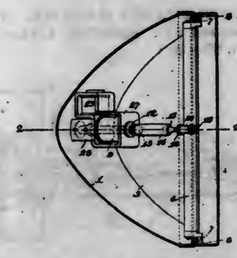
[Claims 2 to 4, 6, and 8 not printed in the Gazette.]

1,255,324. FLOOR-SCRUBBING MACHINE. LEON LEWANDOWSKI, Detroit, Mich., assignor of one-half to Anthony S. Fijalkowski, Detroit, Mich. Filed Dec. 9, 1916. Serial No. 135,933. (Cl. 15—14.)



In combination, a main roll embodying a plurality of yieldable disks arranged side by side to form a yieldable body, and a coöperating roll in yieldable driving contact with the main roll and provided with end plates to overlap the extremities of the main roll.

1,255,325. HEADLIGHT. HENRY G. MCCOMB, New York, N. Y. Filed Aug. 30, 1917. Serial No. 189,014. (Cl. 240—41.)



1. A headlight having a pivoted reflector, a source of light in fixed relation to the focal axis of the reflector, a solenoid, a connection between the core of the solenoid and the reflector, whereby when the former is energized the focal axis of the latter will be varied, a spring bolt for locking the core in either of its extreme positions, and a magnetic coil for withdrawing the bolt.

[Claims 2 and 3 not printed in the Gazette.]

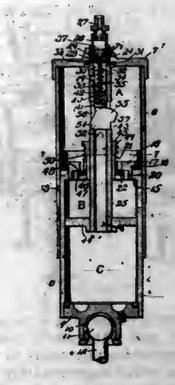
1,255,326. ELECTRICAL HEATING UNIT. ARNOLD NESBITT MACNICOL, Melbourne, Victoria, Australia. Filed June 16, 1914. Serial No. 845,487. (Cl. 219—63.)



1. An electrical heating unit consisting of a cylindrical support formed in sections, said sections having longitudinally arranged holes therein; a high resistance wire therein, the arrangement being such that by partial rotation of a section or sections the wire or wires may be locked at the joints of the said sections, substantially as described.

2. An electrical heating unit consisting of a support formed of a plurality of sections adapted to be moved into engagement one with the other, said sections having holes formed therein, a resistance wire in said holes, the arrangement being such that by the movement of the sections the wire may be locked at the joints of said sections, substantially as described.

1,255,327. AIR-CUSHION. GEORGE B. MARGLY, Kansas City, Mo. Filed Jan. 28, 1914. Serial No. 814,926. (Cl. 267—50.)



1. The combination with a source of supply for compressed fluid, of a telescopic air spring comprising two pistons adapted for inverse variation, and forming a pneumatic rebound cushion intermediate the two pistons.

4. The combination with a supply of compressed fluid, of a telescopic air spring having two pistons adapted for inverse variations, a pneumatic rebound cushion formed by, and intermediate, the two pistons, and means operable upon variation of the pistons for supplying and reducing fluid pressure within the spring, the said means being adapted for automatically varying the pressure in order to maintain a predetermined volume of fluid within the said spring.

8. A device of the character described, comprising initial cushions, and a rebound cushion interposed between the initial cushions, all of said cushions being adapted for variation under varying loads, means for supplying a pressure medium to the cushions, and means automatically operable upon variation of position of the cushions for controlling said supply means.

11. A device of the character described, comprising two initial and an intermediate rebound cushion adapted for inverse variations, and a valve operable by increased pressure in one of the initial cushions, to establish communication between the cushions, for the purpose set forth.

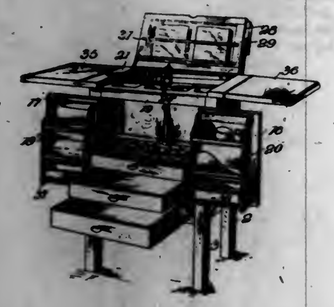
15. The combination with a cylinder, of a hollow piston slidably mounted within the cylinder and having apertures for establishing communication between the cylinder and piston chambers, a hollow shaft fixed in the head of the cylinder and slidably projected through the piston head, a piston on said shaft dividing the interior of the hollow piston into separate variable chambers, and an automatic valve controlling flow of air through the apertures in the piston head.

[Claims 2, 3, 5 to 7, 9, 10, 12 to 14, and 16 to 28 not printed in the Gazette.]

1,255,328. SEWING-CABINET. FREDERIC P. MITCHELL, Burlington, Vt. Filed Mar. 26, 1915. Serial No. 17,218. (Cl. 45—31.)

1. A sewing cabinet comprising a rectangular frame having parallel vertically arranged side walls and a vertical back wall, compartments within the frame extending from a point intermediate the edges of the side walls back to the back wall, the lower compartments being in the form of sliding drawers and the upper compartment having a front wall, a top having an opening corresponding substantially in size to that of the top compartment, and vertically arranged horizontally swinging members carrying compartments on their inner sides when folded inward, the swinging compartments occupying the space between the front edges of the side walls and the first-mentioned

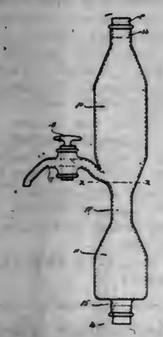
compartments, and a swinging cover for the said top compartment, the parts combined for the purpose described.



3. A sewing cabinet, comprising a frame having parallel vertically arranged side walls and a rear wall, a bottom drawer of a size approximately equal to the width of the side walls and of a width approximately equal to the distance between the side walls, compartments within the frame extending from a point intermediate the edges of the side walls back to the back wall, the lower compartments being in the form of sliding drawers, the upper compartment having an outer wall and an open top, and vertically arranged horizontally swinging doors hinged to the front edges of the side walls, said doors having at their inner sides inwardly extending compartments to occupy the space between the first said compartments and the front edges of the side walls when the doors are swung inward, and a top for the said open top compartment, the parts combined for the purpose described.

[Claim 2 not printed in the Gazette.]

1,255,329. APPARATUS FOR TESTING MILK AND MILK PRODUCTS. JULIUS JOHN MOJONNIER, Chicago, Ill., assignor to Mojonnier Bros. Co., Portland, Me., a Corporation of Maine. Filed Apr. 12, 1915. Serial No. 20,633. (Cl. 23—3.)



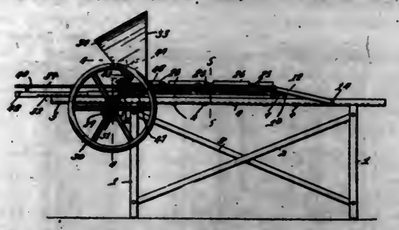
4. An extraction tube comprising an extraction and a settling chamber communicating through a contraction in said tube, each chamber terminating at its outer end in a neck, closures for said necks, and an outlet or discharge tube communicating with the contraction aforesaid.

6. A flask comprising a tube having its upper and lower ends expanded to create a plurality of inter-communicating chambers, and a discharge means coöperating with chambers at the point of communication therebetween.

7. A flask comprising a plurality of chambers, means of communication therebetween, and an outlet extending upwardly at an angle to said means of communication.

[Claims 1 to 3, 5, and 8 not printed in the Gazette.]

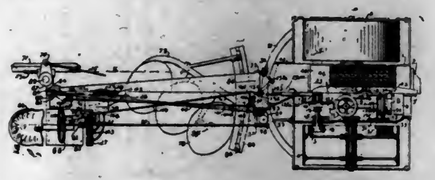
1,255,330. MACHINE FOR MAKING REINFORCED CONCRETE BLOCKS. DAVID MORGAN and RICHARD C. MAYLAND, Bloomington, Ill. Filed July 18, 1917. Serial No. 181,350. (Cl. 25—42.)



6. A plastic block making machine of the class described, comprising a frame, a pallet plate carried thereby, an abutment plate, said abutment plate provided with a plurality of sleeves supported thereon adapted to hold reinforcing wires adapted to pass longitudinally of said pallet plate, and having their ends fitting in said sleeves, and means passing through said sleeves for locking said reinforcing wires in a set position upon said pallet plate, a yoke plate secured to the side of rails of said frame and bearing against the outer ends of said abutment plate for bracing the same while the abutment plate is under pressure.

[Claims 1 to 5 not printed in the Gazette.]

1,255,331. EARTH-TILLING MACHINE. JOHN A. OSTENBERG, Campbell, Cal. Filed Nov. 1, 1916. Serial No. 128,932. (Cl. 97—30.)



1. An earth tilling machine comprising a draft engine, a frame pivotally connected thereto at a centrally disposed vertical axis and positively adjustable about said axis, a furrow wheel operatively mounted upon the rear end of said frame and mounted to operate about a vertical pivot, means for adjusting said furrow wheel at an angle to the draft line of said engine, mechanism connecting said furrow wheel and said engine for automatically adjusting said furrow wheel parallel with the draft line of said engine when said engine is advancing, and an earth tilling implement pivotally connected to said frame at a point adjacent said furrow wheel and positioned between said furrow wheel and said engine and laterally adjustable about said pivotal point.

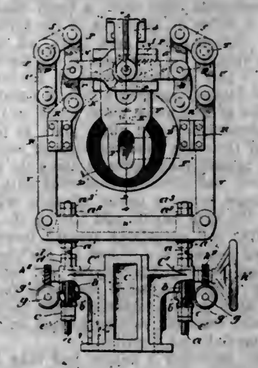
3. The combination of a draft engine, a frame pivotally connected thereto, a second frame carrying an earth tilling implement and pivotally connected to said first mentioned frame, a furrow wheel operatively and pivotally mounted on said first mentioned frame, means for pivotally adjusting said furrow wheel at an angle to the draft line of said engine, and mechanism connecting said furrow wheel and said engine for automatically adjusting said furrow wheel parallel with the draft line of said engine.

6. The combination of a draft engine and a frame pivotally connected thereto, said frame having a furrow wheel and a vertically adjustable frame carrying an earth tilling implement operatively mounted thereon, and means for effecting said vertical adjustment of said frame, said means comprising engine operated hoisting mechanism operatively connected thereto, an adjustable stop operatively positioned at the forward end thereof and an adjusting gage operatively positioned at the rear end thereof.

8. An earth tilling machine comprising, a draft engine, a frame pivotally connected thereto at a centrally disposed axis and capable of positive lateral adjustment about said axis, a laterally adjustable earth tilling implement pivotally connected to said frame, and means for causing said frame and said implement to assume a predetermined position with relation to said engine when said machine is advancing, said means comprising a furrow wheel pivotally mounted on said frame and having an arm revolubly mounted on the pivot thereof, a worm gear secured to said pivot adjacent said arm, a worm operatively mounted in said arm and meshing with said worm gear, manually operated means for operating said worm gear, a rod pivotally connected to said arm at one end and pivotally connected to said draft engine at a point adjacent said centrally disposed axis at the other end.

[Claims 2, 4, 5, 7, and 9 to 12 not printed in the Gazette.]

1,255,332. TOGGLE DRAWING-PRESS. ISAAC PATRICK, Hastings, Mich., assignor to Consolidated Press Company, Hastings, Mich., a Corporation of Michigan. Filed Apr. 6, 1917. Serial No. 160,212. (Cl. 113—46.)



1. In a press, the combination of a drawing-slide, means for reciprocating the slide; a blank-holder, a rock shaft, links connecting said shaft with the blank holder, a toggle connected with the shaft and with a relatively fixed point, a rocking pinion, a rack bar engaging the said pinion and connected with the toggle to straighten or break same, and means for oscillating said pinion.

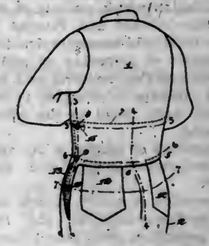
4. In a drawing press the combination of a drawing-slide, means for reciprocating said slide; a blank-holder-slide, rock shafts at opposite sides of the machine, toggles pivotally connecting said shafts with the blank-holder-slide; second toggles respectively connected with the said shafts and with relatively fixed points, a rocking pinion, a rack engaging said pinion, and connected with the second toggle to straighten or break same, and cam actuated means for oscillating said pinion.

9. In combination with a drawing-press having a reciprocating plunger, a main shaft and connections for operating said plunger, and a work-holder-slide; of means for operating said work-holder-slide comprising opposite rock shafts mounted on the frame of the machine, arms on said shafts, links connecting the arms on said shaft with the work-holder-slide, toggles pivotally connected with arms on said shafts, and with relatively fixed pivots, an oscillatory pinion, rack yokes engaging opposite sides of said pinion and extending in opposite directions and respectively connected with the pivot joints of the toggles to straighten or break same; and cam actuated means for oscillating said pinion.

13. In combination with a press having a reciprocatory drawing-slide, and means for operating said slide; a blank-holder slide, a rock shaft, a toggle connecting the rock shaft with the blank-holder-slide, a second toggle pivotally connected with an arm on said shaft and with a relatively fixed point, and cam actuated means directly connected with the pivot joint of the latter toggle for straightening or breaking such toggle.

[Claims 2, 3, 5 to 8, 10 to 12, and 14 to 16 not printed in the Gazette.]

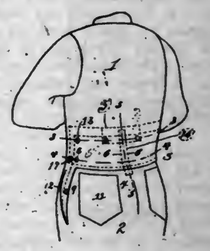
1,255,333. GARMENT. GEORGE W. PEASE, Pittsfield, Mass. Filed June 13, 1916. Serial No. 103,371. (Cl. 2—144.)



1. A union garment comprising a coat and trousers permanently united at some place in the front, the rear of said coat portion terminating at approximately the waist line, a back drop, and an extension of said back drop, said extension extending up inside of the back of the coat above the waist line, fastenings above the waist line connecting the upper corners of said extension to the coat at the sides of the latter, the upper edge of the extension being otherwise unsupported, detachable fastening means connecting the back drop to the coat portion at the waist line, and detachable fastening means for securing the back drop to the trousers.

[Claims 2 and 3 not printed in the Gazette.]

1,255,334. GARMENT. GEORGE W. PEASE, Pittsfield, Mass. Filed Aug. 24, 1916. Serial No. 116,613. (Cl. 2—144.)



1. A union garment comprising a coat and trousers permanently united at some place in the front, the back of the coat portion terminating at approximately the waist line, a back drop, said back drop extending up inside of the back of the coat to a considerable distance above the waist line, means for securing the back drop to the sides of the coat at approximately the waist line, and additional fastenings inside of the coat and located at a distance from the sides thereof and connecting the top of the back drop to the coat at a considerable distance above the first mentioned fastenings.

3. A union garment comprising a coat and trousers permanently united at some place in the front, the back of the coat portion terminating at approximately the waist line, a back drop, said back drop extending up inside of the back of the coat above the waist line, a flap containing button holes attached to the inside of the back of the coat above the waist line, buttons carried by the back drop engaging said button holes, and a dust excluding

flap secured to the inside of the back of the coat, and also inside of the button hole flap and extending down inside of the back drop.

[Claims 2 and 4 to 9 not printed in the Gazette.]

1,255,335. METHOD AND MEANS FOR APPLYING IODIN AND IODIN COMPOUNDS. GEORGE B. PEGRAM, New York, N. Y. Filed June 23, 1917. Serial No. 176,543. (Cl. 167—9.)

1. The method of bringing tetra-iodo-hexamethylenetetramin into solution which consists in dissolving potassium iodid in the solvent and thereby facilitating the solution of the tetra-iodo-hexamethylenetetramin.

3. In the method of preparing an addition compound of iodin and hexamethylenetetramin as a sterilizing agent, the step which consists in bringing it into solution by adding an alkali metal halid to the solvent along with the said compound.

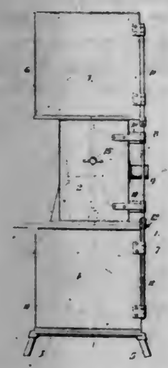
4. As a composition of matter, a dry tablet comprising tetra-iodo-hexamethylenetetramin and potassium iodid mixed therewith.

5. As a composition of matter, a dry tablet comprising tetra-iodo-hexamethylenetetramin and three to seven times as much potassium iodid mixed therewith.

6. As a composition of matter, an addition compound of iodin and hexamethylenetetramin, an alkali metal halid, and a liquid which in the presence of said halid acts as a solvent for said compound.

[Claims 2 and 7 not printed in the Gazette.]

1,255,336. MOTION-PICTURE-PROJECTING MACHINE. NICHOLAS POWER, Brooklyn, N. Y., assignor to Nicholas Power Company, New York, N. Y., a Corporation of Delaware. Filed Nov. 24, 1913. Serial No. 802,607. (Cl. 88—17.)



1. In a motion picture projecting machine, the combination of a projecting mechanism having a casing adapted to be closed, said casing having a latching mechanism, magazines for the film also provided with doors and connections between the casing and the magazine doors whereby the said casing and doors may be closed and opened as a unit, means for normally preventing the operation of the machine, and means operated by the latching mechanism when operated to latch the casing for enabling the machine to be operated.

2. In a motion picture machine the combination of a projecting mechanism having an inclosing casing, an upper magazine for the film of larger dimensions than the casing of the mechanism, said magazine being detachably supported by the mechanism, a lower magazine of larger dimensions than the mechanism suspended from the mechanism, said casing and said magazines having hinged doors on one side thereof with the axes of movement of the doors in the same vertical line and detachable connections in said doors whereby they may be opened and closed as a unit.

5. In a motion picture projecting machine, the combination of a casing adapted to be opened and closed, means for locking the casing, a shutter normally in position to cut off the light from the film, and means actuated by the locking means in its locking movement for shifting the shutter out of the path of light.

[Claims 3, 4, and 6 to 9 not printed in the Gazette.]

1,255,337. RAKE. HERMAN A. QUADE and ALFRED C. QUADE, Milwaukee, Wis. Filed May 7, 1917. Serial No. 166,353. (Cl. 55—146.)



1. In a rake including a handle and a rake head comprising a handle engaging socket having arms projecting therefrom and carrying at their outer ends a bar provided with depending rake teeth, a teeth cleaning angle plate having a series of apertures in its horizontal portion slidably engaging said rake teeth, an angle lever pivoted at its apex in the rake head at the junction of the arms thereof, a pair of arms carried by the outer end of said lever and loosely engaging a pair of openings in the vertical portion of said angle plate, stops on the ends of said arms outwardly of said angle plate to prevent the dislodgment of the same from the arms of said lever, an operating rod passing longitudinally along the handle and having its inner end pivotally connected with the inner end of the angle lever, a socket slidably engaging the outer end of the rake handle and having the outer end of the operating rod adjustably secured thereto, an expansible spring seated in a recess in the outer end of the handle and bearing against the end wall of said socket member to urge the same outwardly for normally retaining the angle plate against the rake teeth carrying bar, and a hand engaging portion formed on the socket member, substantially as described.

2. In a rake including a handle and rake head comprising a handle engaging socket, having arms projecting therefrom and carrying at their outer ends a bar provided with depending rake teeth, means for cleaning said teeth consisting of an angle plate having apertures therein slidably engaging said rake teeth, an angle lever pivoted in the rake head at the junction of the arms thereof, said lever having its end outward of its pivot forked and loosely secured to said angle plate, an operating rod passing longitudinally along the handle and having its inner end pivotally connected with the inner end of the angle lever, a socket member slidably secured to the outer end of the rake handle and having the outer end of the operating rod adjustably secured thereto, and means in said socket member for normally urging the operating rod outwardly to retain the angle plate against the rake teeth carrying bar, substantially as described.

1,255,338. MOVING-PICTURE FILM. CHARLES B. REARICK, New York, N. Y., assignor to Austin D. Brixey, New York, N. Y. Filed Sept. 24, 1914. Serial No. 863,876. (Cl. 88—19.5.)

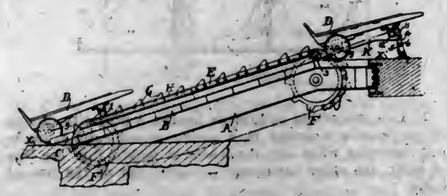


4. A moving picture film having perforations staggered with relation to each other along each side.

7. A moving picture film having along each edge an inner and an outer row of perforations, one row being staggered with relation to the other and the perforations of the inner rows on the two edges being directly opposite each other.

[Claims 1 to 3, 5, 6, and 8 not printed in the Gazette.]

1,255,339. ENDLESS CONVEYER. JESSE W. RENO, New York, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed May 6, 1916. Serial No. 95,771. (Cl. 104—18.)



1. In truck conveying apparatus, the combination of an endless, continuous traveling conveyer, and means at one end of the conveyer inclined to elevate one end of a truck as the latter is discharged from the conveyer.

2. In a hand truck conveying apparatus, the combination of a traveling inclined conveyer, and means, independent of the conveyer, at the upper end thereof, to sustain the front end of the truck, as the truck is discharged from the conveyer, in an inclined position, at a height suitable for a truckman to grasp its handles without stooping down to lift the front end of the truck from the floor.

3. In a hand truck conveying apparatus, the combination of a traveling inclined conveyer, and means, comprising a guide way, independent of the conveyer, at the upper end thereof, to sustain the front end of the truck, as the truck is discharged from the conveyer, in an inclined position, at a height suitable for a truckman to grasp its handles without stooping down to lift the front end of the truck from the floor.

20. In truck conveying apparatus, the combination of an endless, continuous traveling conveyer, and a truck comprising members adapted independently to engage the conveyer to move the truck therewith.

23. In truck conveying apparatus, the combination of an endless, continuous traveling conveyer, and a two-wheeled hand-truck comprising a member adapted to engage the conveyer and to support the free end of a truck, and a second member adapted to be engaged by the conveyer when the latter, at a discharge point, disengages the first named member.

[Claims 4 to 19, 21, and 22 not printed in the Gazette.]

1,255,340. IMPREGNATION OF WOOD, &c. MAX RÜPING, Berlin, Germany, assignor to Hulsberg & Cie., M. B. H., Charlottenburg, Germany, a Limited Liability Company of Germany. Filed Dec. 4, 1913, Serial No. 804,608. Renewed Dec. 7, 1917. Serial No. 205,952. (Cl. 99—12.)

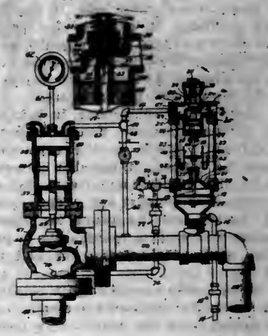
1. The method of preserving wood and similar materials, which consists in subjecting the material to steam, then subjecting the material to air or gas under pressure higher than that of the steam while the material is still subjected to the action of the steam, and then while maintaining the pressure around the material subjecting the same to an impregnating liquid under pressure.

5. The method of preserving wood and similar materials, which consists in subjecting the material to steam at less than fifteen pounds pressure, then subjecting the material to air or gas under greater pressure than the pressure of the steam while the material is still subjected to the action of the steam, and then while maintaining the pressure around the material subjecting the same to an impregnating liquid under still greater pressure.

7. The method of preserving wood and similar materials, which consists in first subjecting the material to pressure below that of the atmosphere, then subjecting the material to steam at less than fifteen pounds pressure, then subjecting the material to air or gas under greater pressure than that of the steam while the material is still subjected to the action of the steam, then while maintaining the pressure around the material subjecting the same to an impregnating liquid under still greater pressure, and finally relieving the pressure around the material and subjecting the same to a vacuum.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,255,341. PNEUMATIC PUMP. JUSTIN E. RUSSELL, Chicago, Ill. Filed May 11, 1917. Serial No. 167,929. (Cl. 103—8.)



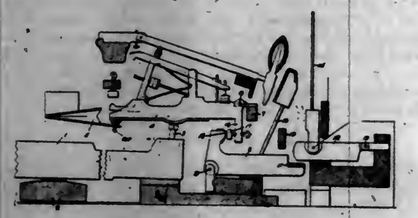
1. A pneumatic pump comprising, in combination, an evacuating chamber having a liquid inlet at the lower part thereof to permit liquid to rise therein, an outlet conduit leading from said lower part to a higher level, a source of compressed air, a valve for controlling the admission of compressed air to said chamber, an air actuated motor for closing said valve, air-actuated means for opening the same, means for slowly admitting air under pressure to said motor to hold said valve closed, a normally closed controlling valve for releasing air from said motor chamber and means in communication with said evacuating chamber and controlled by air pressure caused by the admission of liquid thereto, for opening said controlling valve.

4. A device of the character described, comprising an evacuating chamber having inlet and outlet conduits for the passage of liquid, a source of compressed air, a valve for controlling the admission of compressed air to said chamber, a motor for closing said valve, said motor being in communication with an air-chamber in constant communication with said source of compressed air, an adjustable valve for limiting the rate of flow of compressed air to said air chamber, means for quickly releasing air therefrom and means controlled by the rise of pressure in said evacuating chamber for controlling said air releasing means.

5. A device of the character described, comprising an evacuating chamber having inlet and outlet conduits for the passage of liquid, an air-chamber in communication therewith adapted to have the air therein compressed when liquid is admitted to said chamber, a source of compressed air, a valve for controlling the admission of compressed air to said evacuating chamber, a motor for closing said valve, said motor being inclosed in a casing in constant communication with said source of compressed air, means for arbitrarily limiting the rate of admission of air to said chamber, a normally closed valve for releasing the same and a motor in communication with said air-chamber for opening said valve.

[Claims 2 and 8 not printed in the Gazette.]

1,255,342. GRAND-PIANO ACTION. HENRY J. SANDLAS, West Forest Park, Md., assignor to American Piano Company, New York, N. Y., a Corporation of New Jersey. Filed May 12, 1913. Serial No. 766,942. (Cl. 84—233.)



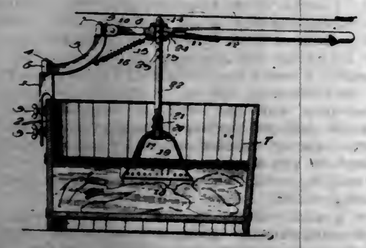
1. A grand piano action comprising, in combination, a wippen; a key arranged to operate directly upon the wippen; a back-catch arranged to be operated by the wippen separately from the key; automatic means to operate directly upon the wippen; and means to adjust the relation between the wippen and the back-catch.

3. A grand piano action comprising, in combination, a wippen; a key having adjustable means for acting upon the wippen; automatic means having adjustable means for acting upon the wippen; a movable back-catch support operated by the wippen; and means for relatively adjusting the back-catch support and wippen; the adjustable means of the key and the means for adjusting the back-catch support and wippen, coöperating to permit adjustment of the relationship of the key and the back-catch support.

5. A grand piano action comprising, in combination, a wippen having a fulcrum proximate one end; a key having means for acting upon the wippen at a point spaced from the wippen fulcrum; automatic means for operating the wippen independently of the key arranged to act upon the wippen at the opposite side of the point of attack of the key upon the wippen, from the wippen fulcrum; a back-catch support separate from the key; and means carried by the wippen and operating intermediate the wippen fulcrum and the point of attack of the key to transmit action from the wippen to the back-catch support.

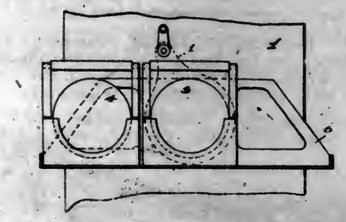
[Claims 2, 4, 6, and 7 not printed in the Gazette.]

1,255,343. WASHING-MACHINE. JOSEPH ANTHONY SCHLEHR, Chicago, Ill. Filed Oct. 30, 1916. Serial No. 128,537. (Cl. 68—19.)



A clothes washing machine comprising a tub, a horizontally swinging arm mounted on said tub and directed laterally and upwardly, a bearing mounted on the free end of said arm for horizontal turning, a lever fulcrumed at its front end to said bearing for vertical swinging, a clothes pounder having a vertical staff pivoted to said lever, and a coiled spring connected at one end to said lever adjacent the pivotal connection of said staff, the other end of said spring being anchored to said arm in substantially vertical alinement with said bearing, but below the same.

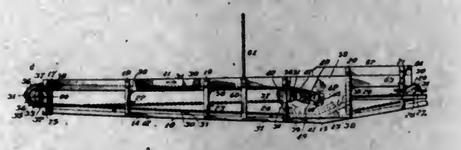
1,255,344. LIGHTING APPARATUS FOR MOTION-PICTURE MACHINES. MICHAEL SEGEL, New York, N. Y. Filed July 17, 1913. Serial No. 779,419. (Cl. 88—24.)



1. In a projecting apparatus having a plurality of sets of condensers mounted in a casing movable in a guideway whereby when one condenser is moved into the line of light, the other condenser is moved out of the line of light.

[Claims 2 and 3 not printed in the Gazette.]

1,255,345. CONVEYER. ARTHUR L. SHAW, Chicago, Ill. Filed May 20, 1916. Serial No. 98,855. (Cl. 193—8.)



1. A conveyer comprising a sub-frame and a trough; vertical posts connecting said parts together near the front end of the conveyer; a transversely positioned angle-bar underlying said trough, secured to said posts; a transversely positioned shaft having bearings secured to said posts; sprocket wheels and conveyer chains carried by said shaft; an apron underlying the floor of the trough, between said conveyer chains and extending forwardly beyond the shaft; another apron extending below the conveyer shaft and in front of said posts, said aprons secured to said angle bar and to the floor of the trough by rivets passing through said bar, aprons and trough.

2. A conveyer comprising a sub-frame and a trough spaced vertically therenbove, spaced apart posts connecting the sub-frame and trough at opposite sides thereof, the composite frame tapering in vertical dimension from a region midway the ends to each end, a drag chain structure to traverse the trough and supported at each end of the conveyer, a motor to drive the drag mounted between the trough and sub-frame at the region of the greatest vertical depth of the conveyer, gearing for driving the drag from the motor, said gearing being positioned outside the plan area of the trough, and parallel plates extending from the sub-frame to the trough outside the gearing and secured to the posts.

1,255,346. FAN. WILLIAM SPARKS, Jackson, Mich., assignor to The Sparks-Withington Company, Cleveland, Ohio, a Corporation of Ohio. Filed Nov. 27, 1916. Serial No. 133,618. (Cl. 170—173.)

1. In a fan, the combination with a web having a radiating blade of a second web secured to the first-named web, one of said webs having a tubular and axially extending flange constituting a hub, spaced flanges formed integrally with said hub and radiating outwardly therefrom to constitute a driving pulley, antifriction bearings within the hub, and a shaft mounted in the bearings.

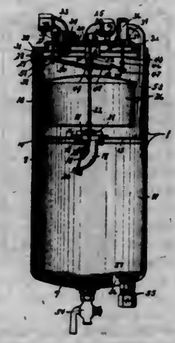
10. In a fan a pair of crossed members having central portions lying in contact with each other and a web secured to the contacting portion of said crossed members and having a tubular and axially extending flange constituting the hub.



16. A fan comprising radiating blades, a central tubular axially extending hub secured to the blades, said hub having an intermediate radially and outwardly extending bead and a radially and outwardly extending flange spaced from the bead, the portion of the hub between the bead and the flange being of greater diameter than the body of the hub to form an outwardly stepped portion at the bead, a sleeve fitted within the portion between the hub and the bead, a second sleeve fitted within the opposite end of the hub and secured thereto, a dished shaped bearing cup within each sleeve, said bearing cups disposed in opposite directions and having radially and outwardly extending flanges at their edges engaged with the sleeves and limiting movement of the bearing cups toward each other and having alined openings in their bases, balls within the cups, a shaft extending through the openings in the bearing cups, said shaft having radially projecting portions engaged with the balls in said cups, one of said portions being adjustable on said shaft, and means for locking the adjustable portion in predetermined position.

[Claims 2 to 9, 11 to 15, and 17 to 21 not printed in the Gazette.]

1,255,347. LIQUID-FEEDING DEVICE. WILLIAM SPARKS, Jackson, Mich., assignor to The Sparks-Withington Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 16, 1917. Serial No. 155,261. (Cl. 158—36.)

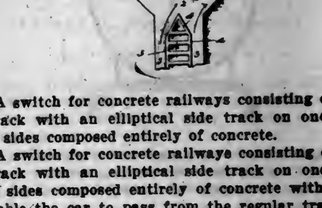


1. In an apparatus of the character described, a receptacle having a suction connection, a liquid inlet connection and an atmosphere connection, a valve controlling one of said connections and having an elongated stem, a float mounted on said stem and actuating said valve, a second valve controlling another of said connections, a lever pivoted within said chamber and connected to the second valve, and a spring connected to the lever and having a portion moving with said float to opposite sides of the pivotal axis of the lever.

9. A device for the purpose indicated, comprising a cup-shaped body, a plate extending transversely of the body and having a pair of annular flanges, the flange of larger diameter in contact with the interior wall of the body, an outlet nipple connected to the inner flange, a valve for said nipple, and a cover plate secured to the upper end of the cup-shaped body, said cover plate provided with a suction connection, an atmosphere inlet and a liquid inlet, and float operated means for controlling the two first-named connections.

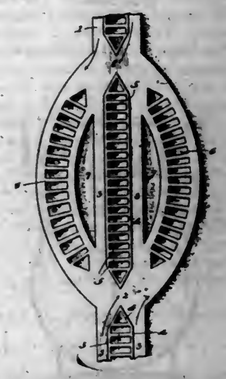
[Claims 2 to 8 and 10 to 16 not printed in the Gazette.]

1,255,348. FASTENING DEVICE FOR RIBBON-BOWS OR THE LIKE. VINCENT STONE, Chicago, Ill., assignor to Marshall Field & Company, a Corporation of Illinois. Filed Apr. 3, 1914. Serial No. 829,284. (Cl. 132—22.)



In a device of the class described, an elongated body member having a part thereof partially cut away to form an aperture therein, a U-shaped pin hinged on said body member at one end thereof and detachably engaging said body member at the other end thereof, a bowed clasp overlying the opposite side of said member and extending transversely thereof, said clasp being hinged to said body member at one side of said aperture and being provided with means to detachably engage the edge of said aperture opposite thereto, the partially cut-away portion of said body member extending transversely to the plane of said body member about its uncut edge opposite the edge of said aperture engaged by said clasp to form a flange parallel to the arms of said pin and extending between said arms, whereby when said device is in attached position said flange will coöperate with the arms of said pin to prevent displacement of said device from adjusted position.

1,255,349. SWITCH FOR CONCRETE RAILWAYS. ZACHARY T. SWEENEY, Columbus, Ind. Filed Oct. 1, 1917. Serial No. 194,289. (Cl. 104—178.)



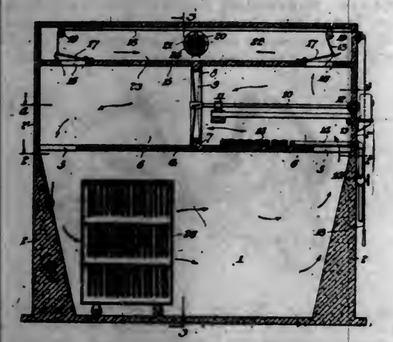
1. A switch for concrete railways consisting of a regular track with an elliptical side track on one or both of its sides composed entirely of concrete.

3. A switch for concrete railways consisting of a regular track with an elliptical side track on one or both of its sides composed entirely of concrete with a cutout to enable the car to pass from the regular track to the

side track and having the ends of the elevated portions of the tracks brought to a point where they approach the cut-out.

[Claim 2 not printed in the Gazette.]

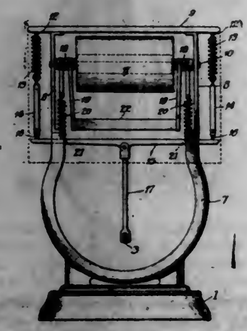
1,255,350. MECHANISM FOR DRYING MACARONI. LUIGI TAVANI and BERARDI SANTIBOCCO, West Chester, Pa. Filed Oct. 17, 1916. Serial No. 126,082. (Cl. 34—19.)



1. The mechanism for drying macaroni which consists in a drying compartment, means forming an air passage communicating therewith at both ends thereof, a fan for circulating air through said passage and compartment, and an exhaust chamber for drawing off air circulated through said passage and compartment.

2. The mechanism for drying macaroni which consists in a drying compartment having downwardly converging walls and ports extending substantially across the top thereof, means forming an air passage communicating with said compartment through said ports and having converging walls forming a throat, a circulating coil in said passage, means for forcing air through said passage and compartment and over said coil, an exhaust chamber communicating with said air passage, means for controlling the communication between said chamber and passage, and a fan for exhausting said chamber.

1,255,351. SCALE. WILLIAM G. TEMPLETON, Colorado Springs, Colo., assignor, by mesne assignments, to Toledo Scale Company, Toledo, Ohio, a Corporation of New Jersey. Filed Mar. 22, 1913. Serial No. 756,205. (Cl. 265—69.)



1. A scale comprising a load receiver, a spring for offsetting or counterbalancing the load on the scale, an indicator for indicating the weight of the load, and a spring connection between the weight off-setting spring and the indicator, having substantially the same expansion under equal changes of temperature as the first said spring and so connected that by its expansion and contraction it compensates for the expansion and contraction of the load off-setting spring.

3. In a weighing scale, and in combination with the frame and goods receiver thereof, a spring intermediate the frame and goods receiver for off-setting the load of the latter, an indicator, and a spring connected intermediate the goods receiver and the indicator having substantially the same expansion under equal changes of temperature as the first said spring for the correction of the expansion and contraction of the load off-setting spring.

8. In a weighing scale, and in combination with the frame and load receiver thereof, an equalizing bar 15, connected to the load receiver, means connected to the equalizer bar for off-setting the weight of the load, a rotary indicator journaled in the frame, a pair of drums mounted respectively at the opposite ends of the indicator, a ribbon wound upon each drum and connected at one end to a spring, the other end of which is connected to the equalizer bar, and a weight secured to the other end of said ribbons.

13. In a weighing scale, a goods-receiver, mechanism for connecting the goods-receiver with the load-offsetting means, load-offsetting means comprising a spring arranged to normally support a portion only of the weight of the goods-receiver and connecting mechanism, a vertically-movable weight for normally supporting the remainder of the weight of said members, a rotary indicator, and means secured to said weight and connecting mechanism for operating the rotary indicator, said last-named means including a spring.

[Claims 2, 4 to 7, 9 to 14, and 16 not printed in the Gazette.]

1,255,352. METAL CRATE. DUFFIELD B. THOMPSON, Richmond, Ind., assignor to James E. Palsgrove, Richmond, Ind. Filed Apr. 14, 1917. Serial No. 161,967. (Cl. 220—134.)

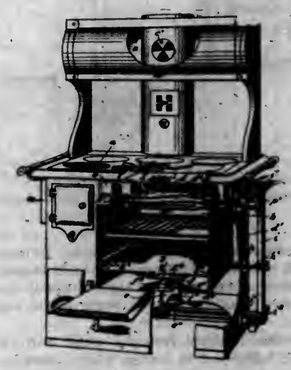


1. A sheet metal crate comprising two sides having flanges extending inward from each edge thereof, a bottom having a flange extending up from the front and the rear edges thereof and extending between the sides, sliding joints connecting the bottom and the sides, a top having a flange on one edge thereof and extending between the sides, a hinged flange connected to the other edge of the top and extending between the sides and adapted to be turned down at right angles to the top or to be turned out in alinement therewith, and sliding joints connecting the top and the sides.

3. A sheet metal crate comprising two sides each having inturned flanges protruding from its edges, a top and a bottom each adapted to slidably interlock with the ends of the sides, inturned flanges extending from the bottom, an inturned flange extending from one edge of the top, a hinged flange extending from the other edge of the top and means for securing the hinged flange at right-angles to the top, all substantially as set forth.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,255,353. COMBINED GAS AND SOLID-FUEL RANGE. GEORGE A. TINNERMAN, Cleveland, Ohio. Filed Feb. 23, 1910. Serial No. 545,347. (Cl. 126—36.)



1. In a combined gas and solid fuel range, the combination with a fire box, of an oven, inclosing spaced flue-walls from which the oven may be heated, an elongated removable gas burner positioned above the bottom of the oven by which it may also be heated, a gas-connection, a restricted air-duct positioned beneath and of materially less area than the burner, the same extending through the spaced flue-walls, and associated means for distributing air to the oven and adjacent to the extremities of the elongated burner, substantially as set forth.

2. The combination with a range, of a normally closed oven therefor, spaced bottom flue walls beneath said oven, an air-duct extending through the flue-walls to the oven, and an air-spreader positioned upon the oven bottom connecting with, but extending at a distance beyond the air-duct, substantially as set forth.

3. In a combined gas and solid fuel range, the combination with a fire box, of an oven, inclosing spaced flue-walls from which the oven may be heated by solid fuel, an elongated removable gas burner positioned above the bottom of the oven by which it may alternatively be heated, an air spreader associated with and substantially co-extensive with said elongated burner, a gas-connection, and a restricted air-duct, respectively extending through the spaced flue-walls to the oven and connecting with the burner and air-spreader, whereby combustion is facilitated in the closed oven; said air-duct being of materially less area than the burner and air-spreader to avoid obstruction in the inclosing flue, substantially as set forth.

7. In a range of the class described, the combination with a single restricted air duct to the external air, of a gas connection, a convertible oven to which said duct and gas connection lead, bottom flue-walls beneath said oven, and a removable member comprising an air spreader and an elongated burner-member superposed thereon, the same extending at a distance from, and being respectively adapted for connection with said air duct and gas connection, substantially as set forth.

8. In a range of the class described, the combination with the normally closed convertible oven thereof, of a removable elongated oven burner, a connecting gas pipe, an air spreader extending substantially the length of the burner and having perforations or openings for distributing air peripherally thereto, said burner and spreader being removably positioned just above the oven-bottom, bottom flue-walls, and a restricted air-duct extending therethrough registering with a small section of, and adapted to supply air to said spreader, substantially as set forth.

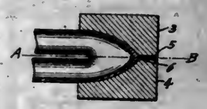
[Claims 4 to 6 not printed in the Gazette.]

1,255,354. LIFE-PRESERVING GARMENT. JOSEF J. TISCHER, Westbury, N. Y. Filed Oct. 12, 1917. Serial No. 196,245. (Cl. 137—28.)



A valve device for inflatable garments comprising a mouthpiece adapted for connection to a garment and having an air passage therein, a plug closing one end of said passage and having an opening, a valve stem slidable through the opening in said plug and extending longitudinally through said passage, a valve carried by said stem for closing the outer end of said passage, a spring for normally retaining said valve in closing position, said mouthpiece also having vents communicating with said passage whereby to permit of the escape of air from said garment, and a ring member adjustably mounted on said mouthpiece for normally closing said vents to prevent the escape of air.

1,255,355. METHOD OF MAKING RETURN-BENDS. CHARLES H. TRUE, Hammond, Ind., and CARL A. W. BRANDT, Bayside, N. Y., assignors to Locomotive Superheater Company, New York, N. Y., a Corporation of Delaware. Filed Mar. 24, 1917. Serial No. 157,237. (Cl. 29—157.)



1. The process of completing a pipe bend of the class referred to which comprises applying pressure on its outside near the open end so as to give the end a circular contour, swaging down said end so it is closed, and finally shaping said bend.

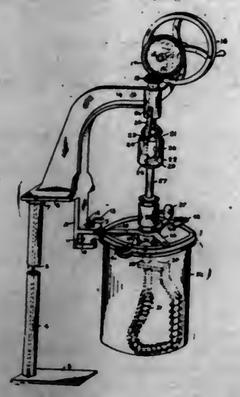
4. The process of completing a pipe bend of the class described which comprises shaping it by blows on the appropriate portions of its outside so as to give its end a circular contour, swaging it down so that it is closed and a certain amount of the metal adjacent to the end is in the form of a relatively short, solid, cylindrical piece and that portions of the pipe bend extend beyond the parallel planes tangent to both pipes, removing a part of the solid cylindrical piece, and flattening the end until all portions lie within said planes.

[Claims 2 and 3 not printed in the Gazette.]

1,255,356. TOOL-HOLDING MEANS OF FOOD-MACHINES. JOSEPHINE TRUST and HENRY TRUST, Brooklyn, N. Y. Filed May 17, 1917. Serial No. 169,170. (Cl. 64—13.)

2. In a machine of the class described, a driving spindle and chuck in combination therewith, means for retaining the chuck upon said spindle, engaging means upon said spindle, a cut away in said chuck having a cut-away por-

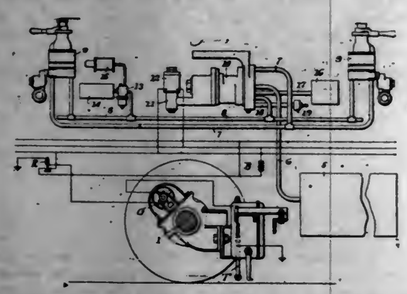
tion within which said engaging means is adapted to be seated, a tool spindle provided with a forked end and a



pin within said chuck adapted to engage the forked end of said tool spindle.

[Claim 1 not printed in the Gazette.]

1,255,357. SPEED-CONTROLLED BRAKE APPARATUS. WALTER V. TURNER, Edgewood borough, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Feb. 23, 1915. Serial No. 9,895. (Cl. 246—59.)



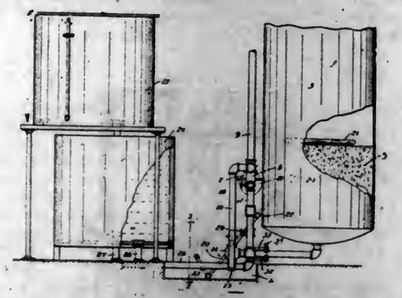
1. In a fluid pressure brake apparatus, the combination with a main reservoir and a brake pipe, of a valve having ports for venting fluid from the brake pipe, a piston normally subject to fluid pressure upon its opposite sides for actuating said valve, a fluid supply connection from the reservoir to one side of said piston, a speed controlled vent valve for releasing fluid from the other side of said piston, and means for moving said valve to the normal release position upon the equalization of fluid pressures on said piston.

5. In a fluid pressure brake apparatus, the combination with a train brake pipe, of a valve having ports for controlling a vent from said brake pipe, a piston subject to fluid pressure for actuating said valve, a speed controlled device for controlling the pressure in the chamber on one side of said piston, a timing reservoir, and means for connecting the piston chamber with either the speed controlled device or the timing reservoir.

8. In a fluid pressure brake apparatus, the combination with a magnet valve for controlling an application of the brakes, of a plurality of trip devices adapted to engage corresponding ramps along the track, contact switches operated by the respective trip devices and connected to the coil of said magnet, and a speed governor mechanism having a plurality of contacts connected to the respective circuits of the trip operated contacts.

[Claims 2 to 4, 6, and 7 not printed in the Gazette.]

1,255,358. PROCESS OF SOFTENING WATER. GEORGE H. UECKE, Minneapolis, Minn. Filed Feb. 19, 1917. Serial No. 149,391. (Cl. 210—1.)

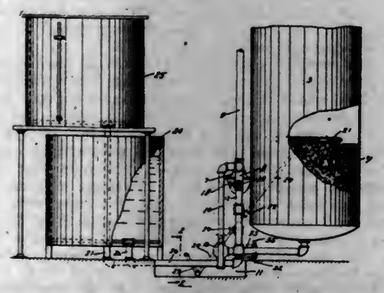


4. The process of regenerating a water softening substance, which consists in delivering upward therethrough, a rising column of regenerating liquid that is first relatively weak and then relatively stronger in the regenerating substance.

5. The process of regenerating a water softening substance that is immersed in water, which consists in displacing the water therefrom by forcing upward therethrough a rising column of regenerating liquid that is heavier than pure water and which regenerating liquid thus delivered is first relatively weak and then relatively strong in the regenerating substance.

[Claims 1 to 3 not printed in the Gazette.]

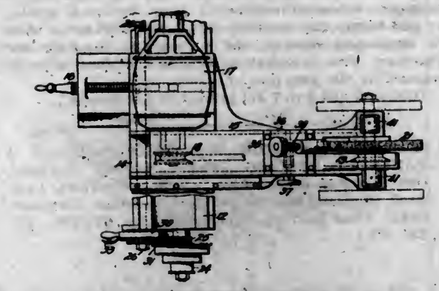
1,255,359. WATER-SOFTENING APPARATUS. GEORGE H. UECKE, Minneapolis, Minn. Original application filed Feb. 19, 1917, Serial No. 149,391. Divided and this application filed Mar. 21, 1917. Serial No. 156,306. (Cl. 210—1.)



1. In an apparatus of the kind described, the combination with a water receptacle containing a water softening substance, said receptacle having connections for the circulation of water through said softening substance, of a brine tank for containing a regenerating liquid, said tank having connections to the lower portion of said water receptacle for the delivery of the regenerating liquid in a rising column upward through said water softening substance, and a draw-off tube independent of said water circulating and brine delivery connections, leading from said water receptacle and having its receiving end in the vicinity of the upper surface of said water softening substance.

[Claims 2 to 10 not printed in the Gazette.]

1,255,360. CALENDER-ROLL GRINDER. WILLIAM A. UNDERWOOD, Worcester, and JOHN ZIMMERMAN, Auburn, Mass. Filed Mar. 23, 1917. Serial No. 157,038. (Cl. 51—4.)



1. In a portable calender roll grinder, the combination of a frame adapted to be applied directly to the end housings of a calender at different elevations, an arm carried by said frame and adapted to project in between the end housings of the calender frame, means on the frame for adjusting said arm so as to bring it into proper relation to the calender rolls, a shaft located at each end of said arm, a grinding wheel on one shaft and means for driving it on the other, a screw carried by said frame and connected with said arm, and means independent of said driving means for rotating said screw to move the arm back and forth.

2. In a portable calender roll grinder, the combination of a slide, means for moving said slide by power as a whole back and forth longitudinally, a motor frame carried by said slide having an arm extending inwardly, means for adjusting said motor frame transversely on the slide, a grinding wheel carried at the end of said arm, a motor mounted on said motor frame over said slide so as to be centrally supported thereby, and means movable as a whole with the motor frame for driving said grinding wheel from said motor.

3. In a portable calender roll grinder, the combination of a slide, means for moving said slide by power as a whole back and forth longitudinally, a frame carried by said slide and having an arm extending inwardly, means for adjusting said frame and arm transversely, a grinding wheel carried at the end of said arm, a motor mounted on the frame over said slide so as to be centrally supported thereby, means for driving said grinding wheel from said motor, a longitudinal screw supported by the frame, means independent of said motor for rotating said screw, and means on said frame for engaging the screw whereby the rotation of the screw will move the arm longitudinally.

4. In a calender roll grinder, the combination of a slide, means for moving said slide by power as a whole back and forth longitudinally, a frame carried by said slide and having an arm extending inwardly, means for adjusting said frame and arm transversely on the slide, a grinding wheel carried at the end of said arm, a motor mounted on the frame over said slide so as to be centrally supported thereby, means for driving said grinding wheel from said motor, and hand controlled change speed gearing for moving the slide in either direction.

1,255,361. DRAFT-RIGGING. HERBERT E. VAN DORN, Chicago, Ill. Filed May 26, 1917. Serial No. 171,069. (Cl. 213—42.)

1. In combination, a draw bar pivotally supported at its rear end for movements about a vertical axis, a coupler pivotally supported at the front end of the draw bar for movements about a horizontal axis, a spring cushion between the draw bar and the coupler for absorbing shocks in the longitudinal direction, a detachable yoke connected to the front end of the draw bar and extending underneath the coupler, and a spring cushion arranged in said yoke and supporting the coupler from below.

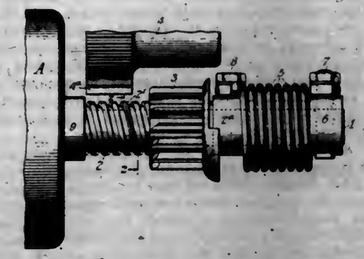


2. In combination, a housing, a coupler projecting into the front end of said housing, means for supporting the coupler so as to permit it to swing about a vertical axis, a cushion device between the rear end of the coupler and the housing, a yoke detachably connected to the housing and underlying the coupler in advance of the pivotal axis of the latter, and a spring cushion arranged within the yoke underneath the coupler.

10. In combination, a draft member adapted to be supported to a car structure and having in the front end thereof a chamber open at the bottom and in front, a coupler extending into said chamber, a spring cushion arranged within the chamber between the rear end of the coupler and the draft member for transmitting buffing and pulling strains from the coupler to the draft member, and a yieldable support for the front end of the coupler extending across the open bottom of said chamber.

[Claims 3 to 9 and 11 to 13 not printed in the Gazette.]

1,255,362. ENGINE-STARTER. HENRY E. VAN NESS, Elmira, N. Y., assignor to Eclipse Machine Company, Elmira, N. Y., a Corporation of New York. Filed May 16, 1917. Serial No. 168,952. (Cl. 74—7.)



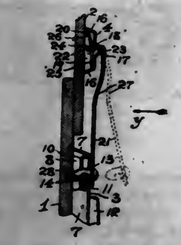
1. In a drive of the character described, the combination of a threaded shaft, a pinion screw-threaded thereon for rotary movement therewith and longitudinal movement thereof, and means mounted on one of the threads of such shaft and coacting with the pinion to prevent creeping thereof.

3. In a drive of the character described, the combination of a threaded shaft, a pinion screw-threaded thereon for rotary movement therewith and longitudinal movement thereof, and means mounted on one of the threads of such shaft and coacting with the pinion to prevent creeping thereof, such means comprising a spring in the form of a wire projecting slightly beyond the surface of such thread, and the said thread having a slot to receive such wire.

6. In a drive of the character described, the combination of a threaded shaft, a pinion screw-threaded thereon for rotary movement therewith and longitudinal movement thereof, and means mounted on one of the threads of such shaft and coacting with the pinion to prevent creeping thereof, said thread being located intermediate the threaded shaft to stop the said creeping movement in an early stage.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,255,363. LOCKING OR HOLDING CATCH. BENNO VOM EIGEN, Newark, N. J., assignor to August Goertz & Co., a Corporation of New Jersey. Filed Feb. 27, 1917. Serial No. 151,162. (Cl. 70—115.)



1. A catch comprising an upper chambered element and a lower element, said upper element having a slitted face-plate, a hasp-plate provided with a rearwardly extending means of suspension projecting through the slit of said face-plate and extending into the chamber of said upper element so that the hasp-plate is suspended from said upper element, a non-riveted spring entirely within the chamber of said upper element, said spring having a portion in engagement with said means of suspension, and means connected with said lower element with which the said hasp-plate is adapted to be brought into locked engagement.

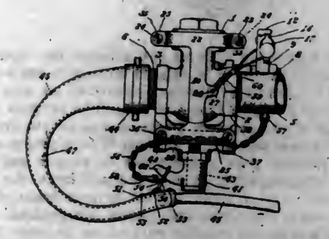
3. A catch comprising an upper chambered element and a lower element, said upper element having a slitted face-plate and an outwardly extending rib-like supporting member located beneath the slit in said face-plate, a hasp-plate provided with a rearwardly extending marginal lip projecting through said slit of said face-plate and extending into the chamber of said upper element and resting upon said supporting member so that the hasp-plate is suspended from said upper element, said marginal lip being provided with an opening, a spring within said upper element having portions in engagement with the inner surface of said face-plate and said spring extending into and being passed through the opening in said lip, and means connected with said lower element with which the said hasp-plate is adapted to be brought into locked engagement.

4. A catch comprising an upper and a lower element, said elements being surrounded by rearwardly extending marginal flanges, retaining lugs extending inwardly from one of the marginal flanges of said upper element, said upper element having a slitted face-plate and an outwardly extending rib-like supporting member located beneath the slit in said face-plate, a hasp-plate provided with a rearwardly extending marginal lip projecting into said slit and resting upon said supporting member so that the hasp-plate is suspended from said upper element, said marginal lip being provided with an opening, a V-shaped spring within said upper element, said spring extending into and being passed through the opening in said lip and having the apex of said spring in contact with the inner surface of the face-plate of said upper element and the shank-portions of said spring being in retained engagement with said retaining lugs, and means connected with the lower element with which said hasp-plate is adapted to be brought into locked engagement.

6. A catch comprising an upper and a lower element, said elements being surrounded by rearwardly extending marginal flanges, retaining lugs extending inwardly from one of the marginal flanges of said upper element, said upper element having a slitted face-plate and an outwardly extending rib-like supporting member located beneath the slit in said face-plate, a hasp-plate provided with a rearwardly extending marginal lip projecting into said slit and resting upon said supporting member so that the hasp-plate is suspended from said upper element, said marginal lip being provided with an opening, a V-shaped spring within said upper element, said spring extending into and being passed through the opening in said lips and having the apex of said spring in contact with the inner surface of the face-plate of said upper element and the shank-portions of said spring being in retained engagement with said retaining lugs, and a hasp-post extending rearwardly from the lower portion of said hasp-plate, combined with a lock-mechanism within said lower element, and a hasp-post engaging bolt connected with said lock-mechanism and adapted to be engaged by the hasp-post of the hasp-plate.

[Claims 2 and 5 to 7 not printed in the Gazette.]

1,255,364. MEANS FOR POSITIVELY OPENING A VALVE BY PULLING. HENRY WAIBEL, Cleveland, Ohio, assignor of one-third to Leroy W. Theis, Lakewood, Ohio, and one-third to Mark N. Nelson, Cleveland, Ohio. Filed Mar. 25, 1914. Serial No. 827,076. (Cl. 137—31.)



1. In means for positively opening a valve by pulling, the combination with a valve body, a hose coupled thereto, a hook swiveled upon said valve body, and a loop secured to a given portion of said hose and adapted to engage said hook.

2. In means for positively opening a valve by pulling, the combination with a standard valve body, a hose coupled thereto, a member removably clamped thereto, a hook movably secured to said member, and a reinforcing strip carried by said hose, said strip having a loop adapted to engage said hook.

4. In means for positively opening a valve by pulling, the combination of a pair of brackets adapted to embrace opposite sides of the valve body, means for drawing said brackets together, a block carried by said brackets and provided with an opening, a hose coupled to said valve, a valve-stem lever, and a chain passing through said opening and connecting said hose and lever.

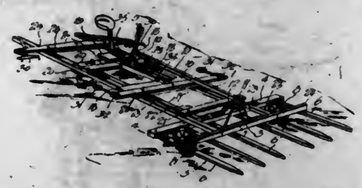
5. In means for positively opening a valve by pulling, the combination with a valve body, a valve-stem lever having an aperture, an auxiliary lever articulating with said valve-stem lever so as to have a shearing engagement therewith, said auxiliary lever having an aperture adapted to register with said aperture, and a seal including a portion passed through said apertures adapted to be severed by the co-action of said levers.

9. In means for positively opening a valve by pulling, the combination of a valve-stem lever, a standard fire hose coupled to the valve, a quick detachable reinforcing shoe said shoe being flexible and adjustable along said hose, and a limiting connection between said shoe and lever whereby the latter may be actuated in response to a pull upon the former.

[Claims 3 and 6 to 8 not printed in the Gazette.]

1,255,365. HAY-SWEEP. HUGH W. WATSON, Grand Island, Nebr. Filed July 16, 1917. Serial No. 180,912. (Cl. 56—137.)

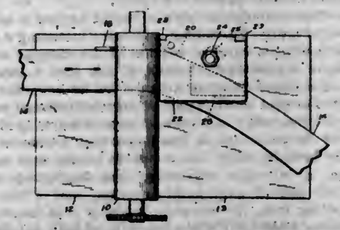
2. A hay sweep comprising a main portable frame having a fork at its front end, an auxiliary frame slidably supported on said main frame and including a pair of parallel side bars contacting slidably with the side bars of said main frame, a follower at the front end of said auxiliary frame for forcing the load forwardly from the fork, the rear end of said auxiliary frame projecting rearwardly beyond said main frame, means for preventing forward movement of said auxiliary frame until required, means for hitching an animal to said projecting end of the auxiliary frame, and a plurality of transverse bars secured to the two frames, the ends of said bars being positioned above and below and serving as guiding means for the side bars of said auxiliary frame.



3. A hay sweep comprising a main portable frame having a fork at its front end, said frame having front, rear, and intermediate transverse bars secured to the upper side of its side bars and extending beyond the same to provide fingers, said frame having an additional transverse bar beneath the rear transverse bar and also extending beyond the side bars, an auxiliary frame including a pair of parallel longitudinal side bars contacting slidably with the outer faces of said first named side bars and extending both forwardly and rearwardly therefrom, said side bars of said auxiliary frame being received between the rear fingers of said main frame and beneath the front and intermediate fingers thereof, a follower carried by the front end of said auxiliary frame for forcing the load from the fork, a doubletree carried by the rear end of said auxiliary frame, transverse bars secured to the side bars of said auxiliary frame and resting on the side bars of said main frame, and means for preventing forward sliding of the auxiliary frame until required.

[Claim 1 not printed in the Gazette.]

1,255,366. MACHINE FOR BENDING LEATHER EDGEWISE. JOHN N. WEIMER, Indianapolis, Ind. Filed Oct. 23, 1916. Serial No. 127,086. (Cl. 69—1.)

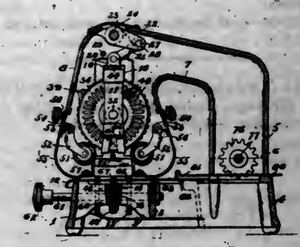


1. A combined splitting and edgewise bending machine for leather, comprising a pair of feed rollers having parallel axes for feeding the leather strip between them, a splitting knife for splitting the leather as it is discharged from said rollers, an intake guide bearing against the edge of the leather strip on the intake side of the rollers, and a bending guide bearing against the same edge of one of the parts of said leather strip on the discharge side of the rollers after the splitting has occurred, said bending guide being displaced toward the leather strip from that plane perpendicular to the axes of the rollers which contains the intake guide.

3. A combined splitting and edgewise bending machine for leather, comprising a pair of feed rollers having parallel axes for feeding the leather strip between them, a splitting knife for splitting the leather as it is discharged from said rollers, an intake guide bearing against the edge of the leather strip on the intake side of the rollers, and a bending guide bearing against the same edge of one of the parts of said leather strip on the discharge side of the rollers after the splitting has occurred, said bending guide being displaced toward the leather strip from that plane perpendicular to the axes of the rollers which contains the intake guide, said bending guide being pivotally mounted so that it can be adjusted to different positions relative to the aforesaid plane.

[Claims 2 and 4 not printed in the Gazette.]

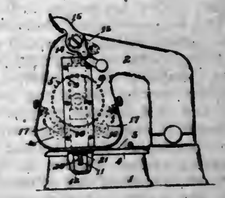
1,255,367. CHECK-WRITING MACHINE. HERMAN C. WELTER, Rochester, N. Y., assignor to Hall-Welter Company, Inc., Rochester, N. Y. Filed Mar. 3, 1916. Serial No. 81,797. (Cl. 197—6.4.)



5. The combination, in a check writing machine, of a casing the side walls of which have vertically extending openings forming guide-ways, a yoke slidable in said ways, cover plates for said openings for preventing lateral movement of the yoke, a type wheel revolubly supported in the yoke, an annular flange on one face of the type wheel slotted radially to form a plurality of equally spaced projections the outer ends of which are beveled, means for yieldingly holding the type wheel against rotation comprising a spring actuated plunger housed in the yoke and having one end conformed to engage between the beveled ends of two adjacent ones of said projections, a fixed locking member carried by one of said cover plates and adapted to engage between two adjacent ones of said projections to positively hold the type wheel against rotation, and means for reciprocating the yoke to bring said projections into and out of engagement with the said fixed locking member.

[Claims 1 to 4 and 6 to 12 not printed in the Gazette.]

1,255,368. PRINTING-DIE. HERMAN C. WELTER, Rochester, N. Y., assignor to Hall-Welter Company, Inc., Rochester, N. Y. Filed Mar. 10, 1917. Serial No. 153,862. (Cl. 101—19.)



1. In a printing machine of the character described, the combination with type characters of a die member comprising a channeled bar and a plurality of equally spaced parallel wires extending across the channel and secured to the bar, and an ink pad within said channel.

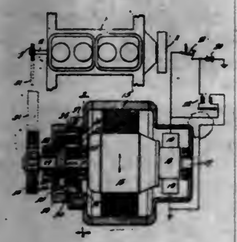
5. In a printing machine of the character described, the combination with type characters of a die member comprising a bar having side walls and a channel between them, such side walls having a plurality of equally spaced transverse slots, a grid formed of wires engag-

ing in the slots and extending across the said channel, means for securing the wires to the said bar, and an ink pad within said channel in engagement with the underside of the grid.

9. In a printing machine of the character described, the combination with type characters of a die member comprising a bar shouldered at its ends and having side walls with a channel between them, such side walls having a plurality of equally spaced transverse slots, a grid formed of wires engaging in said slots and extending across the channel with their ends turned down against said side walls, a retaining member for the wires comprising a plate having an opening adapting it to engage over the bar and the turned down ends of the wires, such plate being seated on the shouldered ends of the bar, and ears bent from the said side walls to hold the plate against removal.

[Claims 2 to 4, 6 to 8, and 10 not printed in the Gazette.]

1,255,369. STARTER-GENERATOR CONNECTION. JARL M. WEYDELL, Indianapolis, Ind. Filed Jan. 27, 1917. Serial No. 144,869. (Cl. 74—34.)



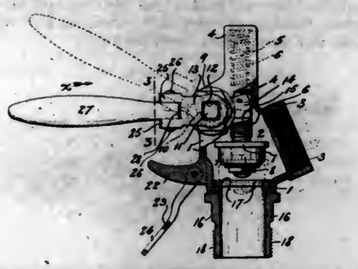
1. In combination, a dynamo-electric machine, a sun gear connected with the rotating member thereof, planet gears meshing with said sun gear, a member carrying said planet gears and arranged for connection to an internal combustion engine, a floating ring gear meshing with said planet gears, a stationary member, an overrunning clutch between said floating ring gear and said stationary member, and a slipping clutch between said floating ring gear and the member which carries the planet gears.

5. In combination, a dynamo-electric machine, a sun gear connected with the rotating member thereof, planet gears meshing with said sun gear, a member carrying said planet gears and arranged for connection to an internal combustion engine, a floating ring gear meshing with said planet gears, a stationary member, an overrunning clutch between said floating ring gear and said stationary member, and a connection including both a slipping clutch and an overrunning clutch between said ring gear and the member which carries said planet gears.

12. In combination, a dynamo-electric machine, a member arranged for connection to an internal combustion engine, an epicyclic gearing connecting said dynamo-electric machine and said member to produce a speed reduction when power is supplied through said gearing to said member, an overrunning clutch holding one part of said epicyclic gearing against rotation in one direction, and a slipping clutch connecting two of the parts of said epicyclic gearing and tending to cause such gearing to rotate as a unit, but permitting relative slipping between such parts when in the normal driving of the dynamo-electric machine as a generator by torque from said member the torque developed exceeds a predetermined value, by such slipping limiting the voltage developed by said dynamo-electric machine, said slipping clutch having as high frictional pressure between its parts at low speeds as at high speeds.

[Claims 2 to 4, 6 to 11, 13, and 14 not printed in the Gazette.]

1,255,370. SELF-CLOSING FAUCET AND WRENCH OR HANDLE THEREFOR. ABRAM W. WHEATON, Newark, N. J., assignor to A. W. Wheaton Brass Works, a Corporation of New Jersey. Filed May 17, 1916. Serial No. 98,002. (Cl. 137—4.)



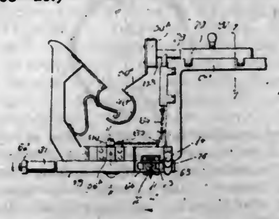
1. The combination with a faucet having a self-closing valve, of means for raising said valve including a rotatable shaft having a wrench-receiving end, a detachable wrench-member to engage said shaft, a handle-portion pivoted to said wrench-member so as to swing in a horizontal plane, a laterally extending arm connected with the pivoted end of said handle-portion, and a latch-nosing projecting from the exterior surface of said faucet beneath which said laterally extending arm of said handle-member may be swung to hold said wrench-member in operated position against the operation of said self-closing valve.

2. The combination with a faucet having a self-closing valve, of means for raising said valve including a rotatable shaft having a wrench-receiving end, a detachable wrench-member to engage said shaft, a handle-portion pivoted to said wrench-member so as to swing in a horizontal plane, a laterally extending arm connected with the pivoted end of said handle-portion, a latch-nosing projecting from the exterior surface of said faucet beneath which said laterally extending arm of said handle-member may be swung to hold said wrench-member in operated position against the operation of said self-closing valve, and a stop-means connected with said handle-portion and adapted to engage said wrench-member to limit the swing of said handle-member in the opposite direction.

3. The combination with a faucet having a self-closing valve, of means for raising said valve including a rotatable shaft having a squared portion at its exterior end, a detachable wrench-body having at one end a laterally directed squared opening adapted to fit over the squared portion of said shaft, a pair of vertically alined perforated lugs at the other end of said wrench-body, a pintle supported by said lugs, a handle-portion journaled on said pintle between said lugs so as to swing in a horizontal plane, a laterally extending arm connected with the pivoted end of said handle-portion, and a latch-nosing projecting from the exterior surface of said faucet beneath which said laterally extending arm of said handle-portion may be swung to hold said wrench-body in operated position against the operation of said self-closing valve.

4. The combination with a faucet having a self-closing valve, of means for raising said valve including a rotatable shaft having a squared portion at its exterior end, a detachable wrench-body having at one end a laterally directed squared opening adapted to fit over the squared portion of said shaft, a pair of vertically alined perforated lugs at the other end of said wrench-body, a pintle supported by said lugs, a handle-portion journaled on said pintle between said lugs so as to swing in a horizontal plane, a laterally extending arm connected with the pivoted end of said handle-portion, a latch-nosing projecting from the exterior surface of said faucet beneath which said laterally extending arm of said handle-portion may be swung to hold said wrench-body in operated position against the operation of said self-closing valve, and a stop-means connected with the pivoted end of said handle-portion on the side opposite said laterally extending arm adapted to engage said wrench-body to limit the swing of said handle-member in the opposite direction.

1,255,371. MAIL CATCHING AND DELIVERING MEANS. CHARLES H. WHITE, Glenwood Springs, Colo., assignor of one-third to Frank W. Goodrich, Glenwood Springs, Colo. Filed Sept. 27, 1916. Serial No. 122,457. (Cl. 258—19.)



1. In a mail delivering and receiving means, a hook adapted to engage a bag of mail, an arm pivotally mounted on the hook and having its outer end projecting beyond the hook and adapted to engage tripping means, a pin engaging the inner end of said arm and adapted to support a bag of mail, and means for moving the pin into inoperative position when the arm engages tripping means so as to cause it to be rocked about its pivotal axis.

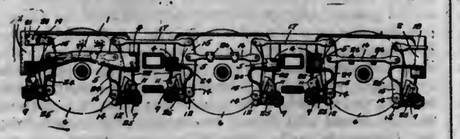
2. In a mail delivering and receiving means, a hook adapted to engage a bag of mail, an arm pivotally mounted on the hook and having its outer end projecting beyond the hook, a pin engaging the inner end of said arm and adapted to support a bag of mail, and a plate pivotally connected at its inner end to the inner end of the back bar of the hook and loosely connected at its outer end to the pin.

3. In a mail delivering and receiving means, a hook provided with opposed resilient gripping members adapted to engage a bag of mail, an arm pivotally mounted on the hook and having its outer end projecting beyond the hook, a pin engaging the inner end of said arm and adapted to support a bag of mail, and means for moving the pin into inoperative position when the arm is rocked about its pivotal axis.

4. In mail bag receiving and delivering means, a rectangular hook, a pair of opposed inwardly directed gripping jaws mounted on said hook in spaced relation and provided with resilient shanks secured to the front of said hook at each side thereof whereby said jaws may be forced apart so as to receive and grip a mail bag, and a resilient reinforcing member interposed between each of said gripping jaws and the adjacent arm of the hook so as to reinforce said jaws and hold the same in tight gripping engagement with a mail bag forced therebetween.

[Claim 5 not printed in the Gazette.]

1,255,372. CLASP-BRAKE MECHANISM. CHARLES HAINES WILLIAMS, Chicago, Ill., assignor to Chicago Railway Equipment Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 19, 1917. Serial No. 155,754. (Cl. 188—70.)



1. In a brake rigging, the combination of a beam member, brake heads carried adjacent the extremities thereof, suspension members for movably connecting the heads to truc portions, bearing members mounted on the beam intermediate the heads, supporting members carried by truck portions, bearing members mounted on the beam in front of the beam to afford guides and points of support for the beam, and power transmitting devices supported by the beam at points intermediate the heads and the bearing members.

2. In a brake rigging, the combination of a beam, brake heads carried adjacent the extremities thereof, suspension members for operatively connecting the heads with truck portions, bearing members carried by the beam intermediate the heads, supporting members associated with the truck and the bearing members to provide supports and guides for the beam in front of the suspension members, yielding pressure means associated with the supporting members to urge the beam to inoperative position, and power transmitting devices having operative association with the beam intermediate the heads and the bearing members.

4. In a brake rigging, the combination of a beam member, brake heads carried adjacent the extremities thereof, suspension members for operably connecting the heads to truck portions, power transmitting members operably associated with the beam member adjacent the heads, and elastic members having support upon truck portions and operably associated with the beam member to provide a flexible support therefor at points adjacent the power transmitting members and in front of the points of connection of the suspension members.

[Claims 3 and 5 not printed in the Gazette.]

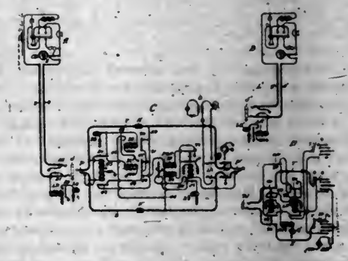
1,255,373. FLOOR-COVERING. SAMUEL M. WINKLER, New York, N. Y. Filed May 12, 1917. Serial No. 168,283. (Cl. 154—49.)

1. A floor covering comprising a backing of paper, one face of which is coated with a water-proofing composition, the other face of said backing having impressed thereon a composition of oxidized linseed oil, clay, resinous material and coloring pigment.

3. A floor-covering, comprising a backing of paper, one face of which has impressed thereon a composition of oxidized linseed oil, clay, rosin, gum and a coloring pigment, the other face of said backing being coated with a water-proofing composition.

[Claim 2 not printed in the Gazette.]

1,255,374. TELEPHONE SYSTEM WITH UNIVERSAL CORD-CIRCUIT. CHARLES S. WINSTON, Chicago, Ill., assignor to Kellogg Switchboard & Supply Company, Chicago, Ill., a Corporation of Illinois. Filed July 30, 1914. Serial No. 854,006. (Cl. 179—27.)



1. A telephone system comprising private branch exchange telephone lines, a cord circuit for interconnecting said lines, trunk circuits extending from the switchboard at the private branch exchange to an automatic exchange, a polarized relay connected in bridge of the calling end of the cord circuit, a source of current and means for connecting said source in circuit with said polarized relay when connection is made between the calling end of the cord and a private branch line to furnish transmitter current to said line, circuit connections whereby said polarized relay is connected in bridge of the automatic trunk exclusive of said source of current when the calling plug

is connected with said automatic trunk, and a relay for said cord circuit under substation control for transmitting impulses over said automatic trunk.

3. In a telephone system, a calling subscriber's line, a link circuit connected thereto provided with a polarized relay associated with the calling end thereof, called subscribers' lines of different characters, means for connecting the calling end of said link circuit to the said called lines, means for either directly bridging the said polarised relay across said link circuit or for including a source of transmitter current in said bridge, said last means being dependent upon the character of the called line connected with, and a relay, associated with the answering end of the cord circuit for shunting said polarized relay.

4. In a telephone system, a calling subscriber's line, a link circuit connected thereto, a called subscriber's line, an automatic switch temporarily associated with said link circuit and having access to said called subscriber's line, a supervisory relay bridged across the calling end of the said link circuit, and means controlled by the calling subscriber when operating said automatic switch for shunting said supervisory relay.

8. A telephone system including a calling subscriber's line and a called subscriber's line, a link circuit for connecting said lines in a conversational circuit, a supervisory relay bridged across the calling end of said link circuit, a combination supervisory and impulse relay bridged across the answering end of said link circuit, and means controlled over the calling line for operating said combination relay to shunt said supervisory relay.

9. A telephone system including a calling subscriber's line, an automatic switch, an operator's link circuit for connecting said subscriber's line to said automatic switch, a combination supervisory and impulse relay bridged across the answering end of said link circuit, and subscriber controlled means for operating said relay to transmit impulses to said automatic switch.

[Claims 2, 5 to 7, and 10 not printed in the Gazette.]

1,255,375. VALVE STRUCTURE FOR INTERNAL-COMBUSTION MOTORS. ALEXANDER WINTON, Lakewood, Ohio, assignor to The Winton Gas Engine & Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Apr. 27, 1914. Serial No. 834,738. (Cl. 158—77.)

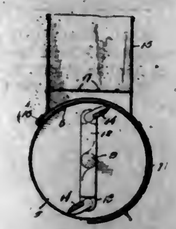


5. A valve structure for internal combustion motors, comprising a tubular casing member having air and fuel inlet openings and a discharge valve seat removed therefrom, a valve member mounted within said casing, one of said members being provided with a plurality of annular flanges out of contact with the other member and forming a plurality of annular mixing pockets, said group of flanges extending substantially from the air and fuel inlet to the discharge end of the casing and gradually varying in dimensions to gradually decrease the clearance past them from the inlet end to the discharge end of the casing, a discharge valve carried by said valve member and cooperating with the discharge valve seat, and a distributing member carried by one of said members and extending from the last flange toward the valve seat and gradually varying in dimensions toward the discharge end of the casing to decrease the area between said members.

[Claims 1 to 4 and 6 not printed in the Gazette.]

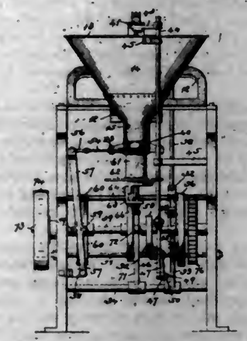
1,255,376. MIXING-MACHINE. FRED ANDERSON, Cedar Rapids, Iowa. Filed Mar. 6, 1917. Serial No. 152,821. (Cl. 259—25.)

1. A mixing machine, including a casing provided with an opening, a hopper surrounding said opening, a sliding door and adapted to close said opening, cutting members secured in said hopper in proximity to said opening, and agitating means arranged in said casing.



2. A mixing machine, including a casing provided with an opening, a hopper positioned on the casing and surrounding said opening, a plurality of cutting members secured in said hopper, guides secured to the opposite ends of the casing, a sliding door operating in said guides and adapted to close said opening, a rotatable shaft mounted in the casing, plates carried by said shaft, bars secured to the opposite ends of the shaft and rotatable therewith, and scrapers pivotally mounted between said bars and agitating blades carried by the shaft.

1,255,377. CAN-FILLING MACHINE. CHARLES H. AYARS, Salem, N. J., assignor to Ayars Machine Co., Salem, N. J., a Corporation of New Jersey. Filed Dec. 8, 1915. Serial No. 65,733. (Cl. 226—9.)



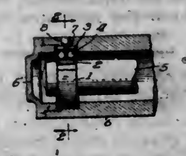
1. In a can-filling machine, the combination with a hopper having an outlet, of a plunger exposed on the interior of the hopper to move material toward said outlet; a second plunger also in the hopper and movable crosswise of the end of the first-named plunger, and the ends of said two plungers forming walls of a measuring space inside of the hopper to determine the bulk of material to be discharged, and means for holding the second plunger elevated while the first-named plunger makes a feed stroke.

2. In a can-filling machine, the combination with a hopper having an outlet, of a plunger exposed to the interior of the hopper to move material toward said outlet; a second plunger also exposed to the interior of the hopper and movable in a direction crosswise of the end of the first-named plunger said two plunger-ends forming walls of a measuring space in the hopper itself; means independent of both plungers for closing the escape from the measuring space while the first-named plunger is making its feed stroke and means for opening the escape from the measuring space when the second-named plunger makes a feed stroke.

3. In a can-filling machine, the combination with a hopper having an outlet, of a plunger in the hopper and having a concave forward end; a second plunger also in the hopper in alinement with the hopper outlet and having a convex surface to pass through the concave end of the first-named plunger,—the ends of said two plungers forming walls of a measuring space over said hopper-outlet; valve means in the hopper outlet beneath both of said plungers for opening and closing the outlet; means for keeping the valve closed when one plunger makes a stroke and means for opening the valve when the other plunger is making its stroke.

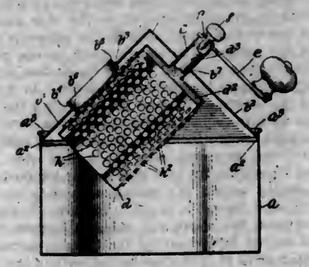
4. In a can-filling machine, the combination with a hopper having an outlet, of a plunger inside of the hopper and having a concave end; a second plunger also inside of the hopper in alinement with the hopper outlet and having a convex surface to pass through the concave end of the first-named plunger,—the ends of said two plungers forming walls of a measuring space over said hopper-outlet; a movable can-supporting table beneath the hopper-opening; valve means below both plungers and above the table; means for holding the valve closed when the plunger with the concave end makes its stroke, and means for moving the second plunger across the concave end of the first-named plunger to force the material through the hopper opening and valve into a can on the table.

1,255,378. ANTIFRICTION-BEARING. CHESTER H. BEACH, Racine, Wis., assignor to Wisconsin Electric Company, Racine, Wis., a Corporation of Wisconsin. Filed Aug. 1, 1917. Serial No. 183,827. (Cl. 64—36.)



The combination with a unitary structure comprising inner and outer race-ways having bearings interposed therebetween, of a housing for said unitary structure, a slot in the outer race-way of said unitary structure, and means carried by said housing projecting into said slot to prevent said outer race-way from creeping in a rotary direction within said housing, but permitting the same to move in a longitudinal direction therein.

1,255,379. VEGETABLE-GRATER. ISAAC BERTIN, New York, N. Y. Filed Sept. 26, 1917. Serial No. 193,277. (Cl. 146—9.)

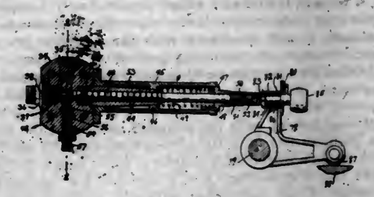


1. A device of the class described, comprising a container provided with a detachable cover having a side portion provided with an opening and a hollow cylindrical rotary grater detachably mounted in said cover and the axis of which is parallel with said side of the cover, one end of said grater being open and directed downwardly and the other end being provided with a spindle which passes through the cover and is provided with a crank.

2. A device of the class described, comprising a container open at the top and provided with a detachable, conical cover one side portion of said cover being provided with an opening and the opposite side portion with an opening which is provided with a sleeve, and a hollow cylindrical rotary grater mounted in said cover and provided with a stem which passes outwardly through said sleeve and is provided with a crank, the axis of said grater being parallel with the side of the cover having said opening and the lower end of said grater being open.

3. A device of the class described, comprising a container open at the top and provided with a detachable conical cover, one side portion of said cover being provided with an opening in which is secured a collar and the opposite side portion with an opening which is provided with a sleeve, and a hollow cylindrical rotary grater mounted in said cover and provided with a stem which passes outwardly through said sleeve and is provided with a crank, the axis of said grater being parallel with the side of the cover having said first-named opening and the lower end of said grater being open.

1,255,380. ATOMIZER FOR OIL-ENGINES. CARL A. BJORNSSON, Wellsville, N. Y., assignor to McEwen Bros., Wellsville, N. Y., a Corporation of New York. Filed Nov. 22, 1916. Serial No. 132,857. (Cl. 123—131.)



2. An atomizer for internal combustion engines including a body having an oil collection chamber and fuel and air supply connections thereto, a valve controlling the admission of compressed air into said chamber, said body being further provided with an unobstructed mixing chamber, and means interposed between the mixing chamber and the oil collection chamber and at all times affording communication therebetween for the separate delivery of oil and compressed air into the mixing chamber and at relatively different pressures.

5. An atomizer for internal combustion engines including a body provided with an oil collection chamber and air and fuel supply connections, an angularly projecting arm on said body, a member removably mounted in said arm and having a mixing chamber, said body being provided with spaced fuel and air passages, means interposed between the mixing chamber and said passages to direct fuel under pressure in a plurality of jets into the mixing chamber and to direct the air axially into the chamber at an angle with respect to the oil jets, a valve controlling the supply of compressed air to the oil collection chamber, and a spray nozzle mounted in the end of said arm.

8. An atomizer for internal combustion engines including a body having an oil collection chamber and an air passage extending at right angles to said chamber and in communication therewith, said passage being provided with a valve seat, oil inlet and supply pipes respectively connected to the collection chamber and air passage, an injecting nozzle, a disk interposed between the nozzle and the air passage and having a central opening coinciding with the nozzle bore but of smaller diameter than said bore, the valve body being further provided with a bypass in communication with the base of the oil chamber, said disk having an annular channel in its periphery with which the bypass communicates, a plurality of ducts leading from said channel to the end of the opening in the disk which is opposed to the nozzle bore, a normally closed valve engaged upon said seat, and means for intermittently opening the valve.

[Claims 1, 3, 4, 6, and 7 not printed in the Gazette.]

1,255,381. WRENCH. BENJAMIN BUNDY, Pasadena, Cal. Filed Sept. 9, 1916. Serial No. 119,262. (Cl. 81—161.)



1. A wrench including a shank provided with a threaded portion and a stationary jaw, a movable jaw mounted on the shank, a nut associated with the movable jaw and engageable upon the threaded portion of the shank, the nut having its threaded portion interrupted to permit disengagement thereof from the shank, and a second nut associated with the first and adapted to be moved into or out of engagement with the threaded portion of the shank when the first nut is in its aforesaid disengaged position.

3. A wrench including a shank provided with a threaded portion and a stationary jaw, a movable jaw mounted on the shank, a nut associated with the movable jaw, engageable upon the threaded portion of the shank and having an interrupted portion to permit its disengagement from the shank, a second nut pivoted to the first and having an internally theraded eccentric aperture, the second nut being movable relatively to the first when said first nut is in its aforesaid disengaged position, to engage or disengage the threaded portion of the shank.

4. A wrench including a shank provided with a threaded portion and a stationary jaw, a movable jaw mounted in the shank, a circular nut associated with the movable jaw, encircling the shank and engaging the threaded portion thereof, the nut having an interrupted portion permitting disengagement from the shank, a second nut, circular and conforming to the first and pivotally connected thereto, the second nut having an eccentric threaded opening, the second nut being movable out of alinement with the first when the first is in its aforesaid disengaged position to engage or disengage the threaded portion of the shank, and a yieldable stop on the first nut, engageable upon a stop on the jaw to indicate when said nut is in disengaged position.

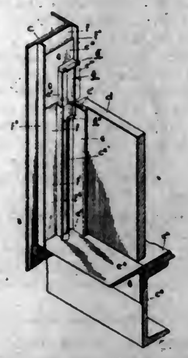
[Claim 2 not printed in the Gazette.]

1,255,382. GRAIN-CAR DOOR. RICHARD WEBB BURNETT, Montreal, Quebec, Canada. Filed Aug. 10, 1914. Serial No. 856,106. (Cl. 20—30.)

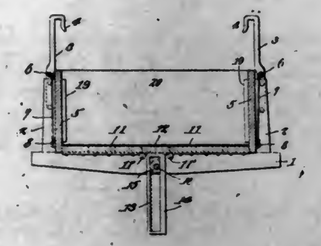
1. The combination with the side of a car having an opening and a door adapted to be moved through said opening, of a door-jamb constructed and arranged to support the door in closed position and be moved to a position clearing the door, of unitary means whereby the said door-jamb is locked in both door-supporting and door-clearing positions, said means consisting of a vertically slidable key adapted to lie in flat contact with the said door-jamb when locking the same.

2. The combination with the side of a car having a door opening, a door, and a door-jamb for the door and pivoted at its lower end in the door opening, of a unitary homogeneous member located above the door-jamb and having a socket and keyway the upper end of the door-jamb being pivoted in such socket and a key slidably mounted in said keyway for locking the door-jamb.

3. The combination with the side of a car having an opening and a door adapted to be moved through said opening, of a door-jamb constructed and arranged to support the door in closed position and be moved to a position clearing said door, of means whereby the said door-jamb is locked in door-supporting position, said locking means being constructed and arranged to assume the same position when locking the door-jamb in door-clearing position as in door-supporting position.



1,255,383. DUMP-WAGON. MELVIN BURRIS, Mendon, Ohio. Filed Mar. 28, 1917. Serial No. 157,996. (Cl. 21—20.)



1. A dumping wagon including bolsters and side stakes rising therefrom, supports secured to the side stakes, inwardly and downwardly bent ends on the supports adapted to straddle the sides of the wagon when in one position, wagon sides slidably mounted within the stakes, a bottom for the wagon, means for elevating the sides to dump the contents of the wagon and means for actuating the bottom to coöperate with the sides in dumping the contents.

2. A dumping wagon including bolsters and side stakes rising therefrom, supports secured to the side stakes, inwardly and downwardly bent ends on the supports, sides slidably mounted within the stakes, a shaft journaled in the supports and operable to lift the sides, flexible connections between the shaft and sides, a bottom for the wagon, and means for actuating the bottom to coöperate with the lifted sides in dumping the contents of the wagon.

3. A dumping wagon, comprising bolsters, a movable bottom supported on the bolsters; said bottom consisting of a vertically movable intermediate section, and wings hinged to opposed edges of the intermediate section; frames including opposed side bars depending from the intermediate section, one of said bars provided with a groove in its inner face, a rack formed on the opposed face of the other bar, a shaft journaled in the bolsters, pinions on the shaft and entering the grooves and engaging the racks of the frames, and means for rotating the shaft to elevate the intermediate section and dump the wagon.

1,255,384. MEANS FOR TRANSPORTING POLES OR THE LIKE. ADDI BENJAMIN CADMAN, Beloit, Wis., assignor, by mesne assiguments, to Warner Manufacturing Company, South Beloit, Ill., a Corporation of Wisconsin. Filed Sept. 5, 1916. Serial No. 118,415. (Cl. 21—38.)



1. Means for transporting poles or the like comprising, in combination, an automobile having a yoke attached to its rear axle, a tongue, a detachable ball-and-socket coupler, the ball element of which is carried by said yoke and the socket element by said tongue, a two-wheeled trailer cart having a body and a forwardly extending tongue, a pole supported on said body along the median line thereof, a plurality of devices binding the forward end of said pole to the first mentioned tongue, each device exerting a constant yielding pressure on the pole, a ball-and-socket coupling, of which the socket element is mounted on the forward end of the trailer tongue, means for binding the ball element to said pole, and means for binding the pole to the rear part of the trailer body and arranged to exert a constant yielding pressure on the pole, the first mentioned tongue being detachable from the automobile and the trailer tongue being then capable of direct attachment to the automobile through the coupling elements carried thereby.

9. Pole-transporting means comprising, in combination, a two-wheeled trailer cart having a forwardly extending tongue, a ball-and-socket coupling of which the socket element is mounted on said tongue, chains attached to the ball element and adapted to pass upwardly around a pole supported in the trailer to bind the pole to the tongue, means for binding the pole to the body of the trailer, and means independent of the trailer tongue for attaching the said pole to a drawing vehicle, whereby the trailer cart is drawn solely through the medium of the pole carried thereby.

19. Pole-transporting means comprising, in combination, a trailer having a tongue, an independent tongue, and means for connecting either of said tongues to a drawing vehicle comprising two similar coupling elements mounted on the two tongues respectively, and a complementary coupling element adapted to be mounted on the drawing vehicle.

22. Pole-transporting means comprising, in combination, a ball adapted to be mounted upon the rear portion of an automobile, a tongue carrying a socket at its forward end adapted to receive said ball, a two-wheeled trailer cart having a tongue provided on its forward end with a socket similar to the first-mentioned socket and also adapted to receive said ball when the socket of the first-mentioned tongue is disassociated from the ball whereby to directly connect the trailer cart to the automobile, and suitable means for securing a load to the trailer cart and to the first-mentioned tongue.

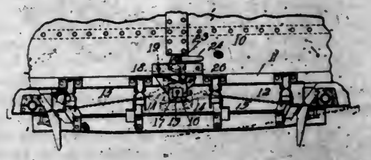
25. In a pole-transporting means, a vehicle tongue, a separable coupler, one element of which is mounted on said tongue, and means attached to the other coupler element and arranged to pass around the load to bind the load to the tongue.

[Claims 2 to 8, 10 to 18, 20, 21, 23, and 24 not printed in the Gazette.]

1,255,385. DOOR-OPERATING MECHANISM. ARGYLE CAMPBELL, Chicago, Ill., assignor to Enterprise Railway Equipment Company, Chicago, Ill. Filed May 14, 1917. Serial No. 168,402. (Cl. 105—185.)

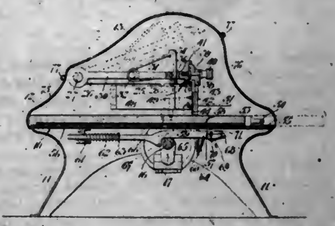
1. In a door operating mechanism, the combination with an operating shaft, of means associated with each end of the shaft for locking the same, an auxiliary shaft operable from either end, and means extending between said auxiliary shaft at each end and said first named means for moving the latter to release position.

2. In a door operating mechanism for cars and the like, the combination with a main shaft having a ratchet wheel thereon, of a pivoted pawl coöperable with said ratchet wheel, an auxiliary shaft operable from either end, a locking dog carried by said auxiliary shaft and coöperable with said pawl to engage and lock the latter in operative position, and means extending from said dog to the pawl for releasing the latter upon moving the dog to inoperative position.



3. In a door operating mechanism for cars, the combination with a main shaft extending transversely of the car, said main shaft having ratchet wheels on each end thereof, of an auxiliary shaft also extending transversely of the car from side to side, means for operating said auxiliary shaft from either end, a pawl coöperable with each ratchet wheel, dogs rigidly mounted on said auxiliary shaft and coöperable with and adapted to engage said pawls, and connections between each of said dogs and its corresponding pawl adapted to move the pawls to inoperative position upon rotative movement of the auxiliary shaft.

1,255,386. SINEW-CUTTING MACHINE. THOMAS J. CARRIGAN and JOHN B. EASTMAN, Los Angeles, and MATTHEW E. MAGILL, Pasadena, Cal.; said Eastman and said Magill assignors to said Carrigan. Filed Nov. 29, 1916. Serial No. 134,206. (Cl. 17—28.)



1. A meat fiber cutting machine comprising a table, a support for said table, a meat-board slidably mounted on the table, a cutter frame pivotally mounted on said support, a series of arms pivotally mounted on said support, means for elastically holding said arms on said frame, a series of blades mounted on each of said arms, and means for reciprocating said cutter frame.

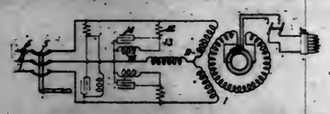
3. A meat fiber cutting machine comprising a table, a support for said table, a meat-board slidably mounted on the table, a shaft mounted on said support, a cutter frame pivotally mounted on said shaft, a series of arms pivotally mounted on said shaft, means for elastically holding said arms seated on said frame, a cutter head removably mounted on each of said arms, a series of knives mounted in each of said heads, a driving shaft mounted in said support, means for connecting said driving shaft to said cutter frame, and means operated by said driving shaft for imparting an intermittent movement to said meat-board.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,255,387. PROTECTIVE SYSTEM FOR ELECTRICAL APPARATUS. LEWIS W. CHUBB, Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Jan. 5, 1916. Serial No. 70,414. (Cl. 175—294.)

1. In an electric circuit, the combination with an inductive winding and means for connecting the winding to

the circuit, of an energy-absorbing means permanently connected across the winding, said means being adapted to constitute a parallel-resonant path for the current of normal frequency traversing the winding, and a series-resonant path for the current having the frequency of the impulse in the winding incident to disconnecting the same from the circuit.



8. The combination with an electrical apparatus comprising an inductive winding, electrical power conductors, and a switch for varying the connection between said apparatus and the power conductors, of an energy-consuming means permanently connected across the said apparatus and constituting a double-resonant path for precluding current of the normal frequency from traversing and for permitting currents of a predetermined relatively high frequency that are generated when the switch is opened to traverse the same.

[Claims 2 to 7 and 9 not printed in the Gazette.]

1,255,388. GOLF-BALL. HENRY Z. COBB, Winchester, Mass., assignor to Revere Rubber Company, a Corporation of Rhode Island. Filed Dec. 14, 1916. Serial No. 136,869. (Cl. 46—4.)



1. A resilient ball comprising a metallic core, a layer of elastic composition molded thereon and having a plurality of closed air pockets in said composition, and an elastic layer under tension for maintaining said elastic composition and the air in said pockets under high compression.

2. A resilient ball comprising a metallic core, an intermediate layer of elastic composition molded thereon, and having therein a plurality of air pockets, a thin layer of vulcanized rubber on said intermediate layer for closing and sealing the ends of said air pockets, and an elastic layer under tension for maintaining said elastic composition and the air in said pockets under high compression.

3. A resilient ball comprising an internal layer of elastic composition having therein a plurality of outer air pockets, a layer of rubber thread wound thereon under high tension and covering said pockets, and an external protective coating of plastic material.

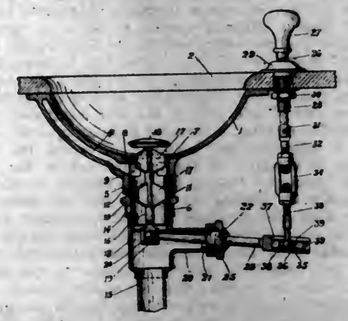
4. A resilient ball comprising a metallic core, an intermediate layer of elastic composition molded thereon and having a plurality of air pockets, a layer of rubber thread wound thereon under high tension and covering said pockets, and an external protective coating of hardened plastic material.

5. A resilient ball comprising a metallic core, an intermediate layer of elastic composition molded thereon and having therein a plurality of air pockets, a thin layer or jacket of pure rubber compound, a layer of rubber thread wound over said jacket under high tension, and an outer protective coating of hardened plastic material.

[Claims 6 to 11 not printed in the Gazette.]

1,255,389. BATH OR BASIN WASTE. LOUIS A. CORNELIUS, Grand Rapids, Mich. Filed Sept. 25, 1916. Serial No. 122,129. (Cl. 4—24.)

1. In combination with basin having a waste opening, a plug for closing the same, a rod depending from the plug, a cylindrical head having an opening therethrough at the lower end of the rod, a lever pivotally mounted between its ends, a ball on one end of the lever entering the opening in said head, an enlarged part on the opposite end of the lever having a cylindrical boring therein and slotted in one side, there also being provided a plurality of alined openings through the sides of said part, a rod having a spherical ball at one end said ball entering the boring in said part with the rod above the ball located in the slot, pins passed through said alined openings one at each side of the ball, a rod in alinement with said second mentioned rod, a turn buckle connecting the rods, an operating member pivotally connected to said last mentioned rod, and means to mount the operating member for vertical movements.



2. In a mechanism of the character described, a waste plug, a lever associated therewith for operating the same, operating means for actuating the lever, including a rod, a ball at the end of the rod, an enlarged part at one end of the lever provided with a cylindrical boring and a slot in the side communicating with said boring, said ball being received within the boring and means to retain the ball at any one of a plurality of positions in the length of said part.

1,255,390. PROCESS TO SEPARATE GLUTAMINIC ACID FROM OTHER AMINO ACIDS. ARNOLD CORTI, Dübendorf, near Zurich, Switzerland. Filed Dec. 8, 1916. Serial No. 135,846. (Cl. 23—24.)

1. The process of separating glutaminic acid from other amino acids, which consists in hydrolyzing albumins with mineral acid, filtering off the mineral acid solution, treating the latter with a neutralizing agent for the free and combined mineral acid, and separating the glutaminic acid.

2. The process of separating glutaminic acid from other amino acids, which consists in hydrolyzing albumins with mineral acid, filtering off the mineral acid solution, treating the latter with alkaline metal hydroxids sufficient to neutralize the free and combined mineral acid.

7. The process of separating glutaminic acid from other amino acids, which consists in hydrolyzing albumins with hydrochloric acid, filtering the acid solution while hot, mixing the filtrate with calcined soda, then cooling the mixture, filtering the latter, dissolving the residue in hot water, filtering the resultant solution, stirring a decolorizing charcoal into the latter, filtering the decolorized solution, evaporating the latter, cooling the same to obtain crystallization, and separating the crystals from the mother lye by centrifugation.

8. A process of separating glutaminic acid from other amino acids, which consists in treating the mineral acid solution of glutaminic and other amino acids (obtained by hydrolysis of albumins with mineral acids) with a compound having an alkaline reaction in quantity sufficient only to neutralize the hydrochloric acid present in the free or combined state.

[Claims 3 to 6 not printed in the Gazette.]

1,255,391. ELECTROLYTE. JOHN COULSON, Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 5, 1917. Serial No. 159,923. (Cl. 175—318.)

1. An electrolyte for electrolytic condensers, lightning arresters, rectifiers and the like comprising an aqueous solution containing a compound of arsenic.

2. An electrolyte for electrolytic condensers, lightning arresters, rectifiers and the like comprising an aqueous solution containing an alkali-radical compound of arsenic.

5. An electrolyte for electrolytic condensers, lightning arresters, rectifiers and the like comprising an aqueous solution containing an alkali-radical arsenate.

6. An electrolyte for electrolytic condensers, lightning arresters, rectifiers and the like comprising an aqueous solution containing potassium arsenate.

7. An electrolyte for electrolytic condensers, lightning arresters, rectifiers and the like comprising an aqueous solution containing not substantially more than 2% of potassium arsenate.

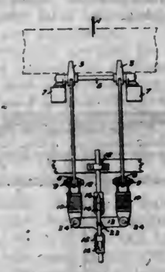
[Claims 3, 4, 8, and 9 not printed in the Gazette.]

1,255,392. BARREL. WILLIAM L. CROWE, Bethel, Conn., assignor of one-half to Charles E. Griffing and one-half to Andrew N. Griffing, Danbury, Conn. Filed Sept. 30, 1916. Serial No. 123,171. (Cl. 220—64.)



A barrel comprising a metallic body having at its end an outturned internal shoulder and a permanently inturned flange overhanging said shoulder and coöperating therewith to form a croze, a head formed in sections shaped to rest upon said shoulder and of such a size that its edge will extend beneath said flange, and an outwardly expansible locking ring capable of being sprung into position between the head and the overhanging flange.

1,255,393. LOG-DOGGING APPARATUS. GEORGE F. DE WEIN, Milwaukee, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis., a Corporation of Delaware. Filed July 1, 1916. Serial No. 107,482. (Cl. 143—125.)



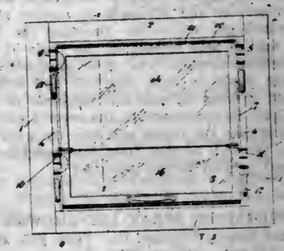
1. In combination, a log way, jaws movable transversely of said log way, a device for independently insuring the application of one set of said jaws to a log, a device for independently insuring the application of another set of said jaws to said log, and means common to said devices for conjointly insuring the application of the jaws of said sets to said log.

4. In combination, a log way, jaws movable transversely of said log way, a device for equalizing the pressures exerted by one set of said jaws upon a log, a device for equalizing the pressures exerted by another set of said jaws upon said log, and means for equalizing the actuating pressures upon said devices.

9. In combination, a log way, jaws movable transversely of said log way, a lever having its ends connected with one set of said jaws, a lever having its ends connected with another set of said jaws, a lever connecting the mid portions of said first mentioned levers, and means engaging the mid portion of said third lever for moving said jaws through said levers, said means exerting a pull upon said third lever for motion thereof in either direction.

[Claims 2, 3, and 5 to 8 not printed in the Gazette.]

1,255,394. WIND-SHIELD. FREDERICK A. DILLINGHAM, Troy, Ohio, assignor to The Troy Carriage Sun Shade Company, Troy, Ohio, a Corporation of Ohio. Filed Nov. 6, 1915. Serial No. 59,899. (Cl. 21—148.)



1. In a device of the character described, in combination with the front frame of a closed car body provided with an opening therein for the reception of a wind shield, side members adapted to be rigidly secured within said opening against the inner side faces of said frame, and extending to the top and bottom of the frame, said members provided with pivoting devices thereon for the shield.

2. In a device of the character described, in combination with the front frame of a closed car body provided with an opening therein for the reception of a wind shield, side members adapted to be rigidly secured within said opening against the inner side faces of said frame and extending to the top and bottom of the frame, said members provided with pivoting devices thereon for the shield flush with the inner faces of said side members.

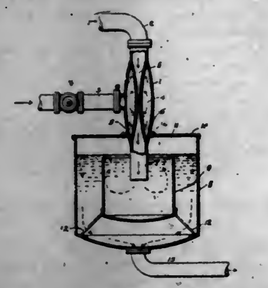
3. In a device of the character described, in combination with the front frame of a closed car body provided with an opening therein for the reception of a wind shield, side members adapted to be rigidly secured within said opening against the inner side faces of said frame and extending to the top and bottom of the frame, said members provided with pivoting devices thereon integral therewith and flush with the inner faces of said side members.

4. In a device of the character described, in combination with the front frame of a closed car body provided with an opening therein for the reception of a wind shield, side members adapted to be rigidly secured within said opening against the inner side faces of said frame and extending to the top and bottom of the frame, said members provided with pivoting devices thereon for the shield, and with a wiping strip inserted longitudinally therein the length thereof to close the opening between the shield and side members.

6. In a device of the character described, mounting means for a wind shield in the opening of a closed car body, comprising side members to be secured against the sides of said opening and extending the length of the sides of the shield, said members having upper and lower split collars formed integral therewith for an upper and a lower wind shield section.

[Claim 5 not printed in the Gazette.]

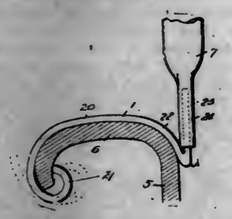
1,255,395. LIQUID-SEPARATOR AND THE LIKE. ARTHUR E. DURAM, Chicago, Ill. Filed May 5, 1913. Serial No. 765,540. (Cl. 210—1.)



1. In a device of the kind described, a reservoir having an outlet, in combination with a receptacle positioned within said reservoir and arranged to receive all liquid passing therethrough, means for directing the fluid toward a side wall of said receptacle, the walls of said receptacle extending upward into close proximity to the surface of the liquid in said reservoir and adapted to force all liquid passing through said reservoir to the surface of the liquid in the reservoir, the several parts being so proportioned that the liquid will lose the greater part of its velocity before it escapes from said receptacle.

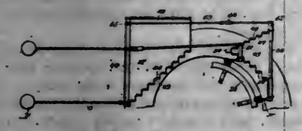
[Claim 2 not printed in the Gazette.]

1,255,396. CURTAINED SPRAY AND SHOWER BATH. JOHN ALBERT EATON, Chicago, Ill. Filed Feb. 23, 1917. Serial No. 150,431. (Cl. 4—26.)



The combination with a bath tub, of resilient clips mounted on the flange of the tub extending transversely of the flange and having under curved portions engaging the free edge of the flange and having vertically arranged shanks, and a framework having uprights engaged at their lower ends on the shanks whereby to removably support the framework on the tub.

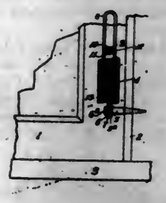
1,255,397. BOOK TYPE-WRITER. GEORGE CRAWFORD ELLIOTT, Brooklyn, N. Y., assignor, by direct and mesne assignments, to George Crawford Elliott, William H. Bisson, and Hudson T. Morton, trustees, designated as The Elliott Typewriter Company, Brooklyn, N. Y. Substitute for application Serial No. 639,599, filed July 20, 1911. This application filed Mar. 8, 1917. Serial No. 153,530. (Cl. 197—2.)



2. A book typewriting machine carriage comprising in combination type bars in circular open basket-like arrangement, rock shafts in a plane just above the upper ends of the type bars adjacent the rear end of the carriage, crank arm connections between said shafts and the type bars, a corresponding series of shafts in a plane below the upper ends of said type bars, rod connections between the outer ends of the opposing upper and lower shafts, key levers connected with the inner ends of the lower shafts, and a single shaft constituting a fulcrum common to all of said key levers, substantially as described.

[Claims 1, 2, and 4 to 7 not printed in the Gazette.]

1,255,398. WINDOW-LOCK. EMORY S. ENSIGN, East Orange, N. J., assignor to Rose Ensign, East Orange, N. J. Filed Mar. 3, 1917. Serial No. 152,420. (Cl. 16—18.)



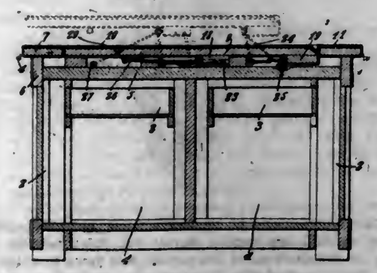
1. A window lock comprising a spring; and means for so attaching said spring to a window sash and frame that the opening of said window will tax the resiliency of said member; in combination with a noise-producer adapted for operation by said opening movement.

2. A window lock comprising a coiled spring; means for so attaching the ends of said spring to a window sash and frame that an opening movement of said sash will extend the coils of said spring; and a tongue mounted within said coil and adapted to rasp over a portion of said coils as they are extended.

3. A spiral spring; a stationary fastening for one end of said spring; a movable fastening for the opposite end of said spring; and a tongue adapted to rasp over some of the coils of said spring as said movable fastening is moved away from said stationary fastening.

4. A spiral spring; a stationary fastening for one end of said spring; a movable fastening for the other end of said spring; and a loop on said spring adapted to permit a limited free separation of said fastenings; in combination with a noise-producer adapted for operation by a further separation of said fastenings.

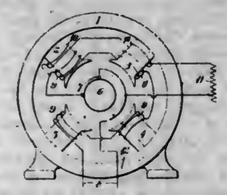
1,255,399. IRONING-TABLE. JOHN R. FERREN, Boyd, W. Va. Filed Aug. 17, 1916. Serial No. 115,484. (Cl. 68—10.)



1. An ironing table comprising a supporting structure having a top thereon, said top having a central opening shaped to have the form of a standard ironing board, an ironing board mounted in conjunction with the supporting structure to swing down within the opening thereof and form a continuation of the top and to be raised and elevated above the top for use, a shaft extending through the supporting structure and provided with an off-set portion hingedly connected with the ironing board, and a handle connected to said shaft and extended to be accessible exteriorly of the supporting structure through which manual turning of the shaft may be accomplished to thus obtain desired movement of the ironing board to the raised position.

2. An ironing table comprising a supporting structure having a top rim, a supporting member mounted across between the sides of the top rim below the upper edges thereof, a table top mounted upon the rim and provided with a central opening shaped to have the form of a standard ironing board, an ironing board shaped to be received within the opening of the table top to form a continuation of the surface thereof, connecting links arranged between said ironing board and the supporting member to mount the ironing board to be capable of movement to close within the opening and movement to rise and be supported above the top of the table, means to secure the ironing board against swinging movement to hold the same in the raised position, a shaft extended through the supporting structure to be held upon the supporting member and provided with an offset portion hingedly connected with the ironing board, and a handle connected to said shaft and extended to be accessible exteriorly of the supporting structure to allow manual turning of the shaft and to thus accomplish the desired movement of the ironing board.

1,255,400. DYNAMO-ELECTRIC MACHINE. RALPH E. FERRIS, Swissvale, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Aug. 7, 1914. Serial No. 855,543. (Cl. 171—228.)



1. In a dynamo-electric machine, the combination with a magnetizable frame having a plurality of polar projections, of a series-connected and a shunt connected field magnet winding arranged to produce a series and a compound magneto-motive force respectively in different portions of the frame and projections.

2. In a dynamo-electric machine, the combination with a plurality of polar projections, of a series-connected and a shunt-connected field magnet winding, one of which incloses each of the polar projections and the other of which incloses each of a predetermined number of adjacent projections.

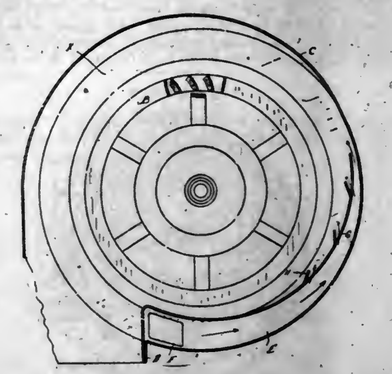
[Claims 3 and 4 not published in the Gazette.]

1,255,401. MUFFLER. PHELPS M. FREER, Detroit, Mich. Filed Apr. 17, 1916, Serial No. 91,663. Renewed May 21, 1917. Serial No. 170,083. (Cl. 123—194.)

1. In an engine, the combination with a rotary fan and a casing inclosing the same, of a tapering exhaust conduit surrounding said casing and discharging thereinto at its small end.

2. The combination with a rotary fan having a lateral inlet and tangential discharge, of an exhaust conduit surrounding said fan and casing and discharging tangentially into said casing in the direction of rotation of said fan.

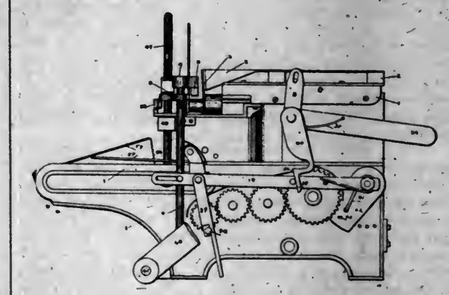
3. The combination with a rotary fan having a spiral casing and tangential discharge, of an exhaust conduit



surrounding said spiral casing and tapering to a point of discharge into said casing.

[Claims 4 to 8 not printed in the Gazette.]

1,255,402. PROCESS OF BUNCHING MATERIAL. HARRY T. FROEHLICK, Philadelphia, Pa., assignor to Bright Cigar Machine Company, a Corporation of Delaware. Filed June 26, 1916. Serial No. 105,977. (Cl. 131—39.)



1. The process of aggregating material consisting of, assembling a mass of the same in excess of the amount desired, bringing the mass to a definite dimension in one direction, and exerting a pressure limited to a definite amount upon it in another direction, and while in such condition cutting a definite shape from the same.

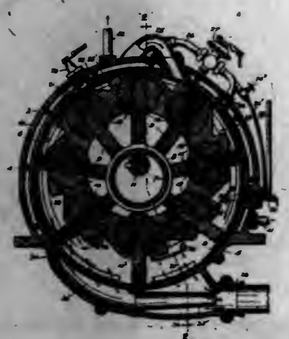
5. The method of forming a cigar bunch consisting of placing tobacco in a receptacle, bringing the sides of the receptacle in proximity to a cutting die together to a definite predetermined position, compressing the tobacco between the said sides then exerting a pressure limited to a definite amount upon the tobacco to force the same along said sides in front of a cutting die and to a predetermined density then cutting therefrom a filler of predetermined shape and density.

[Claims 2 to 4 not printed in the Gazette.]

1,255,403. ROTARY INTERNAL-COMBUSTION ENGINE. ALBERT R. GARDNER and PAUL WASHBURN, Seattle, Wash. Filed Oct. 30, 1915. Serial No. 58,777. (Cl. 123—16.)

1. In a rotary internal combustion engine having a circular chamber, a plurality of pistons revolubly mounted in said chamber, a fuel supply pipe for the chamber,

means rendered operative through the agency of a fluid compressed in one part of said chamber by the revolving pistons whereby the fuel is injected from said supply pipe into a part of said chamber whereat the fuel will be compressed with such fluid agent, and means to transfer the resultant compressed mixture into the firing portion of the chamber.



2. In an internal combustion engine, a circular chamber provided with fuel and air inlet openings, a gas exhaust opening, and inlet and outlet ventilating openings intermediate said exhaust opening and the aforesaid openings, a wheel rotatable about an axis eccentric of the chamber, a plurality of pistons revolvible about an axis concentric of said chamber, said pistons extending through the rim of said wheel, means to ignite charges of an explosive mixture of said fuel and air behind each piston successively whereby the pistons are driven to rotate said wheel, whereupon the latter coöperating with the pistons serve to discharge through said exhaust opening previously exploded charges, and means influenced by such discharges whereby a flow of air is caused to enter and leave the chamber through the respective ventilating openings.

3. In a rotary internal combustion engine, a chamber having fuel inlet and gas exhaust openings and also provided with ventilating openings, a compartment communicating with said chamber through said exhaust opening, a second compartment communicating with said chamber and provided with a discharge opening, and a nozzle extending from the first-named chamber into the second-named chamber and directed into the discharge opening of the latter whereby a current of air is induced to flow through said ventilating openings and the chamber by the power of the gas ejected from the nozzle.

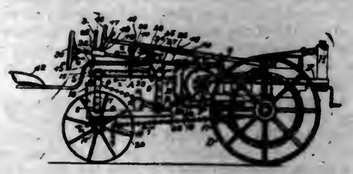
4. In an internal combustion engine, a casing, two wheels mounted for rotation in said casing, pistons therefor, shafts for the respective wheels, gear connections between said wheels whereby they are constrained to rotate in similar directions, and a firing chamber provided in said chamber intermediate said wheels to effect the rotation of the wheels through pressure obtaining by the explosion of gases in said firing chamber.

[Claims 4 to 6 not printed in the Gazette.]

1,255,404. TRACTOR. FRANK H. GRADEMAN, Findlay, Ohio, assignor to Star Tractor Company, Findlay, Ohio, a Corporation of Ohio. Filed July 10, 1917. Serial No. 179,761. (Cl. 180—12.)

1. A tractor including a frame, a draft element including a shaft portion having a yoke formed at one end thereof and the arms of the latter pivotally connecting with said frame, and an operator's control unit adjustably mounted on the said shaft portion of the draft element and including the steering gear, operator's seat, and engine control connections.

2. A tractor including a frame having a rack, a draft element including a shaft portion having a yoke formed at one end thereof and the arms of which yoke pivotally connect with said frame, an operator's control unit shiftably mounted on the said shaft portion of the draft element and including a steering wheel, extensible operating connections between said wheel and the rack, a yieldingly mounted and laterally adjustable driver's seat, and control levers having extensible connections with the engine of the tractor.



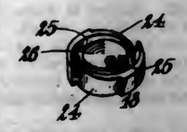
3. A tractor including a frame, a draft element having a yoke portion pivotally connected with the frame, an operator's control unit carried by the body portion of the draft element and including an adjustable bracket, a driver's seat, supports for said driver's seat fulcrumed at their intermediate portion upon a part of said bracket, a spring device associated with said bracket for engaging the free ends of the supports for said seat, and means adjustably mounted on the upstanding portion of said bracket for supporting the steering column and control levers.

5. A tractor including a frame, a draft element having a yoke portion pivotally connected with the frame, an operator's control unit carried by the draft element, means also carried by the draft element for connecting the same with the implement to be drawn, said means comprising a pair of pivotally suspended hanger brackets having means for securing the tongue of the implement to be drawn thereto at different elevations.

9. A tractor including a frame, a draft element having a yoke portion pivotally connected with said frame, means carried by the body of said draft elements for connecting with the implement to be drawn, an operator's control unit carried by the body portion of the draft element and including a member rigidly secured to said body portion of the draft element and having a toothed segment at one end, a bracket element comprising a channel bar and an upstanding arm, said channel bar of the bracket adapted to engage with the said segment, a spring for maintaining the channel bar in engagement with the segment, a clamping plate between said spring and channel bar, an operator's seat, bars for supporting the operator's seat fulcrumed at their intermediate portion on the portion of the upright member of the bracket which connects with the channel bar and having their free ends engaging beneath the clamping plate, means carried by the other end of said member having the segment for engaging the free end of the channel bar, a block adjustably carried by the upstanding arm of said bracket, and a steering post and control levers carried by said block.

[Claims 4 and 6 to 8 not printed in the Gazette.]

1,255,405. SPRINKLING OR SPRAYING DEVICE. BERT L. GIFFORD, Barker, N. Y., assignor to Gifford Manufacturing Company, Incorporated, Barker, N. Y., a Corporation of New York. Original application filed July 28, 1913, Serial No. 781,534. Divided and this application filed June 3, 1915. Serial No. 31,855. (Cl. 137—86.)



1. A nozzle comprising a casing having an internal shoulder, a twirler seated against said shoulder and having a marginal cut-away portion and a convolute passage in one face of said twirler having one end threof opening into said cutaway portion, and a disk secured to said casing spaced from said twirler, said disk having a central exit opening.

2. In a sprinkling or spraying device, a twirler comprising a circular body having marginal cutaway portions at diametrically opposite points and having in one face thereof convolute passages, the passages being spaced throughout their extent from the center of the body and each of said passages opening into one of said cutaway portions and overlapping the other passage.

6. In a sprinkling or spraying device, a twirler having a circular body portion, marginal cutaway portions at diametrically opposite points, convolute passages in one face of said body portion opening at one of their ends into said marginal cutaway portions, and openings through said body portion extending from the passages to the opposite face thereof.

9. In a sprinkling or spraying device, a twirler having a circular body portion provided with marginal cut-away portions at diametrically opposite points extending from face to face thereof, convolute passages in one face of said body portion opening at one of their ends into said marginal portions, and flanges at diametrically opposite points projecting from the opposite face of said twirler and extending from cut-away portion to cut-away portion of said body portion.

10. In a sprinkling or spraying device, a twirler comprising a circular body portion having a flat unbroken surface, and flanges extending from said surface at diametrically opposite points, said body portion being cut-away at its edge between adjacent ends of said flanges and the edge of said body portion where cutaway between said flanges being eccentric.

[Claims 3 to 5, 7, and 8 not printed in the Gazette.]

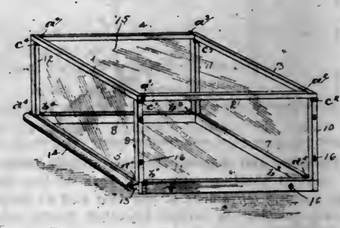
1,255,406. WELL-ROD COUPLING. ALTON E. GILBERT, Tulsa, Okla. Filed Jan. 10, 1917. Serial No. 141,639. (Cl. 255—30.)



1. A well rod coupling comprising male and female members, the latter of which consists of a flat body having a transverse squared opening, and the male member having a flat body provided with a laterally opening hook to interfit and extend through and beyond the said opening of the female member, said hook opposing a portion of the adjacent end of the body of the male member and having its inner engaging face provided with a portion extending beyond the female member and inclined toward the extreme end of the latter, the outer face of the hook and the end surface of the body of the male member being curved to permit of withdrawal of the hook in slightly inclined relation to the female member.

2. A well rod coupling comprising male and female members, the latter of which consists of a flat body having a transverse squared opening, and the male member having a flat body provided with a laterally opening hook to interfit and extend through and beyond the said opening of the female member, said hook opposing a portion of the adjacent end of the body of the male member and having its inner engaging face provided with a portion extending beyond the female member and inclined toward the extreme end of the latter, the said end surface of the body opposite the hook being spaced from the latter and extending closely adjacent to the extreme end of the female member when the hook is in engaged position, and the outer face of the hook and the end surface of the body of the male member being curved to permit of withdrawal of the hook in slightly inclined relation to the female member.

1,255,407. COLLAPSIBLE DISPLAY-CASE. JOSEPH FRANCIS GOETZ, Dayton, Ohio. Filed Feb. 23, 1915. Serial No. 9,956. (Cl. 211—25.)



1. In a collapsible skeleton structure of the character described, the combination of two rectangular frames spaced one from the other in parallel planes, each frame comprising two parallel spaced members and transverse members connecting said parallel members one to the other, diagonally disposed pivotal connections between each of the transverse members and the parallel members, whereby the transverse members of each frame may swing laterally in unison while maintaining the parallel relation of said parallel members of both frames, and interposed struts perpendicular to the plane of said rectangular frame connecting said frames one to the other, and diagonally disposed pivotal connections between each strut and the members of said parallel rectangular frames whereby said struts may swing laterally in unison while maintaining the parallel relation of the respective frame members.

3. In a collapsible skeleton frame of the character described, the combination of two rectangular frame members spaced one from the other in parallel planes, each frame comprising a plurality of side members hinged one to another and foldable to parallelism one with the other in a common plane, and a plurality of interposed struts perpendicular to the planes of said spaced frames and hinged thereto whereby they are foldable to parallelism one with another and with the planes of said frames, whereby the members constituting said frames and the interposed struts are foldable in relation one with another into a compact body in which the struts and frame members will all be parallel each with the other.

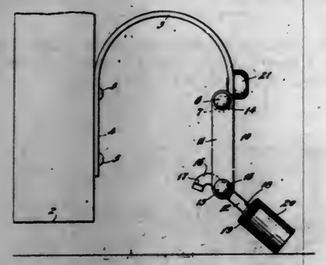
4. In a collapsible construction of the character described, the combination with a skeleton structure comprising two series of frame members and interposed strut members all foldable into parallelism each with the others, a roller mounted upon one of the foldable members, and a cover sheet carried by the roller adapted to inclose the skeleton frame when in erected position.

[Claim 2 not printed in the Gazette.]

1,255,408. DOOR-HOLDER. JOHN F. GOLDING, Washington, D. C. Filed May 29, 1915. Serial No. 31,255. (Cl. 16—79.)

1. A door holder comprising a swingable leg having a floor-engaging foot, and a pivot for said leg, said holder having a flexible spring, and means comprising two pivotally connected members which form said leg whereby the spring is flexed temporarily during the first part of the closing movement of the door and whereby the leg automatically assumes an inoperative trailing position in either direction except during said time when the spring is flexed.

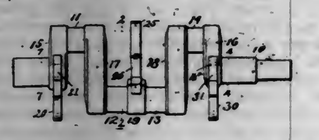
2. A door holder comprising a swingable leg having a floor-engaging foot, and a pivot for said leg, said holder having a flexible spring, and means comprising two pivotally connected members which form said leg whereby the spring is flexed temporarily as the leg assumes a vertical position during the first part of the closing move-



ment of the door and whereby the leg automatically assumes a vertical position without flexure of the spring during the opening movement of the door and an inoperative trailing position in either direction except during said time when the spring is flexed.

[Claims 3 to 10 not printed in the Gazette.]

1,255,409. COUNTERBALANCED CRANK-SHAFT. GEORGE C. GORDON, Cleveland, Ohio, assignor to The Park Drop Forge Company, Cleveland, Ohio, a Corporation of Ohio. Filed Jan. 5, 1917. Serial No. 140,686. (Cl. 74—5.)



1. In a counterbalanced crank shaft, the combination of a crank shaft and counter weights fixedly secured thereto, each in substantial opposition to the offcenter parts of the crank shaft which it is to counterbalance,—said counterweights and crank shaft being formed with shoulders which engage and oppose that movement of the counterweights relative to the crank shaft which centrifugal force tends to produce.

3. In a counterbalanced crank shaft, the combination of a crank shaft, and a counterweight welded thereto, said counterweight and crank shaft having interengaging shoulders which oppose and prevent that movement of the counterweight relative to the crank shaft which centrifugal force tends to produce.

[Claims 2 and 4 not printed in the Gazette.]

1,255,410. HAIR-CURLING MACHINE. ANTON F. GRABOWSKI, Chicago, Ill. Filed Mar. 8, 1915. Serial No. 13,071. (Cl. 118—39.)



1. In a hair curling machine, the combination of an endless conveyer, a hopper, picker mechanism for withdrawing the material from said hopper and depositing the same in a layer directly upon said conveyer, devices for concentrating the layer of material as it is advanced by said conveyer into a strand and for compressing the strand at the delivery end of said conveyer, and a rotary twisting head having means thereon for engaging and advancing the strand to thereby twist the portion of the strand between said head and said strand compressing devices.

12. In a hair curling machine, the combination with a feeder for advancing a layer of material and devices for concentrating and compressing the layer into a strand, of a rotary twisting head through which the strand passes in axial direction, a pair of rolls mounted on said head on opposite sides of the axis thereof and having smooth working faces for gripping the strand between them at the axis of said head, a gear concentric with said head, two shafts eccentrically mounted on said head and operatively connected to said gear and to said rolls, means for rotating said head and means for rotating said gear, substantially as described.

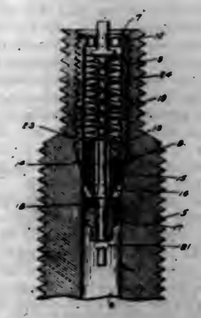
20. In a hair curling machine, the combination of a conveyer belt advancing a layer of material, a pair of converging belts above said conveyer belt for concentrating the latter thereon into a strand, means for driving said belts, a pressure device at the delivery ends of said belts for compressing the strand, and a rotary head having means for engaging and twisting the strand, substantially as described.

32. In a hair curling machine, the combination of a hopper having a discharge opening, a conveyer, a rotary toothed picker wheel operating through the opening in said hopper for withdrawing material therefrom and depositing the same in a layer on said conveyer, devices above said conveyer for concentrating and compressing the layer thereon into a strand, a rotary twisting head having feed rolls for gripping the strand between them, means for driving said picker wheel, said conveyer, said head and said feed rolls, and means for withdrawing the twisted strand from said head, substantially as described.

39. In a hair curling machine, the combination of an annular hopper having revoluble inner and outer portions and a stationary bottom provided with a discharge opening, a conveyer below said discharge opening, a picker wheel operating through said opening for withdrawing material from said hopper and depositing the same in a layer on said conveyer, means for driving said inner and outer hopper portions, said picker wheel and said conveyer, means for concentrating the layer of material into a strand, and means for twisting the strand, substantially as described.

[Claims 2 to 11, 13 to 19, 21 to 31, 33 to 38, and 40 to 55 not printed in the Gazette.]

1,255,411. AIR-VALVE FOR PNEUMATIC TIRES. LEMON GREENWALD, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed Jan. 6, 1916. Serial No. 70,561. (Cl. 152—12.)



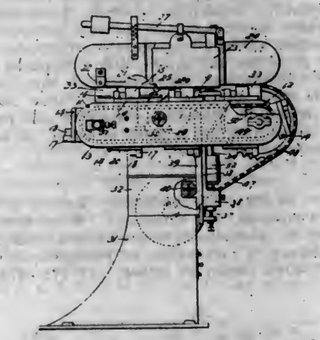
1. A removable valve part comprising an exteriorly screw threaded barrel, valve members and a valve stem carried by said barrel, a recess in said barrel, a non-rotatable part on the valve stem adopted to be received in the recess, and a formation on said stem by which it may be rotated together with the barrel.

3. A removable valve part comprising an exteriorly screw threaded barrel, valve members and valve stem carried by said barrel, a flat part on said valve stem extending above said barrel and a shoulder on said barrel adjacent the flat part and coöperating therewith to make a non-rotatable connection between the barrel and the valve stem.

5. A removable valve part comprising an exteriorly screw threaded barrel, an apertured plug closing the lower end of said barrel, a flange on the upper end of said barrel having a recess for the passage of air into and out of said barrel, a valve stem guiding formation on the flange, a valve carrying stem extending through said flange and movable longitudinally of said barrel but rotatively immovable in respect thereto and a valve on the stem adapted to close the aperture in said plug.

[Claims 2 and 4 not printed in the Gazette.]

1,255,412. HEEL-GROOVING MACHINE. GRANT M. HALL, Keene, N. H. Filed May 25, 1916. Serial No. 99,892. (Cl. 144—134.)



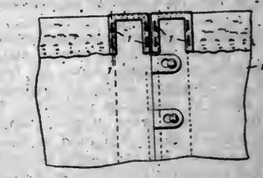
1. In a heel routing machine, a rotary cutter, an endless carrier traversing a path adjacent to the cutter and provided with blank rests or lags having transverse sharpened blank engaging keys, a stationary lateral guide having an operative edge parallel with the path of the carrier, a yielding presser foot for engagement with the upper side of the blank for holding the same firmly in contact with the rest or lag, a yielding blank holder having a sharpened blank engaging edge parallel with the path of the carrier, and means for operating said parts.

2. In a heel routing machine, a rotary cutter; a carrier traversing a path adjacent to the cutter and provided with blank supporting means; a grooving saw operating in a plane substantially at right angles to the plane in which the cutter operates; means for adjusting the saw transversely of the path traversed by the carrier; and means for adjusting the cutter in a direction substantially at right angles to the direction of adjustment of the saw, whereby a portion of the cutter may operate beyond the periphery of the saw.

3. In a heel routing machine, a rotary cutter; an endless carrier traversing a path adjacent the cutter and provided with a blank-rest having an abutment; a removable backing block carried by the rest and engaging the abutment; and a latch member carried by the abutment and engaging the block.

1,255,413. PROTECTOR FOR CORSET STEELS AND BONES. ANGELINE D. HALLENBECK, Brooklyn, N. Y. Filed June 2, 1916. Serial No. 101,301. (Cl. 2—76.)

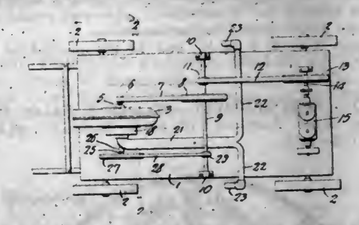
1. A protector for corset steels and bones formed from a blank having spaced side bars and a central transverse connecting portion, said protector comprising two approximately U-shaped sides and a connecting bend, said sides being of a size to frame and engage the terminal



portion of a corset steel or bone and fastening means for connecting the sides.

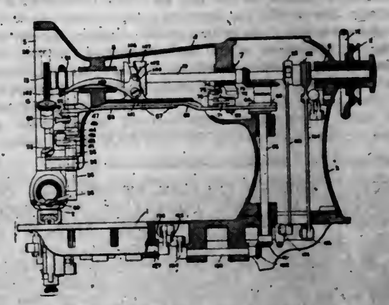
[Claim 2 not printed in the Gazette.]

1,255,414. BOLL-WEEVIL EXTERMINATOR. JAMES H. HARRISON, Ranger, SAMUEL E. HALL, Stephens county, and JOHN M. GHOLSON, Ranger, Tex. Filed Dec. 7, 1915. Serial No. 65,633. (Cl. 43—1.)



In an apparatus of the character described, a fan casing and chamber disposed side by side and attached to each other, that side of the casing adjacent to said chamber having an inlet opening, a centrifugal fan rotatable within the casing for sucking air through said opening from the chamber, a suction pipe connected to that side of the chamber opposite the casing in alinement with said inlet opening, a shaft journaled in said chamber below said pipe and opening, a reticulated disk carried by said shaft within said chamber with its upper portion extending across said opening, and a vertical brush mounted within the chamber at that side of the disk opposite said casing, said brush having bristles projecting toward said casing and engaging that side of the disk facing said pipe, said brush extending from said shaft to the margin of the disk.

1,255,415. BLINDSTITCHING-MACHINE FOR FELLING. THOMAS J. HAYES, Roslindale, Mass., assignor to Arbetter Felling Machine Company, Boston, Mass., a Corporation of Maine. Filed Apr. 9, 1914. Serial No. 830,789. (Cl. 112—24.)



1. A sewing machine for blind stitching comprising a work support, a curved oscillating needle and comple-

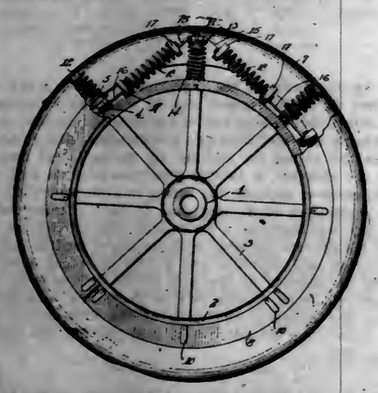
mental stitch forming mechanism, means for feeding the work across the work support and means for presenting the needle with the plane of its oscillation in the penetrating stroke parallel to the work supporting surface of the work support.

6. A sewing machine of the class described comprising a work support, a curved oscillating needle and complemental stitch forming mechanism, means for feeding the work across the work support, means for supporting said needle with its plane of oscillation parallel to the work supporting surface of said work support comprising a needle shaft the axis of which is normal to the plane of the work support, a needle bar and needle extending laterally therefrom and means for oscillating said shaft.

11. In a blind stitch sewing machine for felling a superimposed layer upon a base layer of material comprising a work support, a curved oscillating needle and complemental stitch forming mechanism located above the work support and means for feeding material over said work support, needle actuating mechanism comprising a needle bar, means for supporting the needle bar to permit lateral vibration, means for vibrating said needle bar laterally to form two rows of stitches and a needle guide carried by said needle bar supporting means and movable therewith to enter beneath the superimposed layer and steady and direct the needle during its oscillation.

[Claims 2 to 5, 7 to 10, and 12 not printed in the Gazette.]

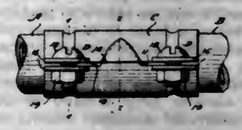
1,255,416. SPRING-WHEEL. MATHEW E. HEATH, Freewater, Oreg. Filed July 26, 1915. Serial No. 41,943. (Cl. 152—37.)



A wheel comprising a hub, a felly, spokes connecting the hub and felly, a tire slidably mounted on the felly, castings secured to the tire and felly, said castings having flanges formed thereon and ribs adjacent the flanges, projections formed on the tire and felly intermediate the castings, the casting on the tire being in alinement with the projections on the felly and the castings on the felly being in alinement with the projections on the tire, coiled springs held between the flanges of the castings and the alining projections, rods pivotally connected to the ribs of the tire and felly castings and having their free ends overlapping, disks secured to the rods, and coiled springs surrounding the rods between the disks.

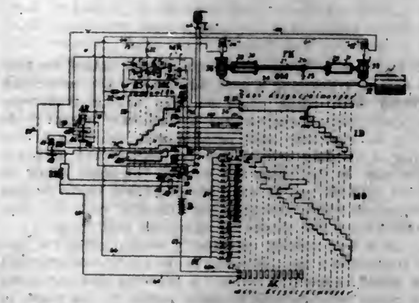
1,255,417. THREADLESS-PIPE SYSTEM FOR CONDUCTORS AND FOR CONVEYING THE VOICE. ERNEST W. HEDGES, Detroit, Mich. Filed Apr. 26, 1916. Serial No. 93,743. (Cl. 137—28.)

1. In a pipe system, the combination of two pipe sections, an expansible and contractile tubular coupling having a line of division longitudinally thereof, said pipe sections and coupling provided with circumferentially extending coacting projections and grooves which interengage when said pipe sections are in abutting relation, and said coupling provided with a pair of perforated extensions for each coacting projection and groove, one extension of each pair at each longitudinal edge of said coupling, and said perforations disposed with their axes in the same central plane as its respective projection and groove, and fastening devices for said extension passing through the perforations thereof and adapted to contact and hold said coupling into intimate contact with said pipe sections and concentrate the gripping action at the said co-acting projections and grooves.



2. In a pipe system, the combination of a pipe section, an element in communication with the bore of said pipe section, an expansible and contractile tubular coupling joining said pipe section and second mentioned element, said coupling slotted longitudinally and provided with a pair of perforated extensions at the longitudinal margins of said slot, said pipe section and coupling provided with circumferentially extending co-acting projection and groove which interengage, and the said perforations of said extensions having a common axis in the plane of said co-acting projection and groove, and a fastening device extending through said perforations of said coupling adapted to draw the same toward each other and bind the said coupling in intimate contact with said pipe section and concentrate the gripping action at the said co-acting projection and groove.

1,255,418. SYSTEM OF CONTROL. RUDOLF E. HELLMUND, Pittsburgh, and CHARLES C. WHITTAKER, Wilkinsburg, Pa., assignors to Western Electric Manufacturing Company, a Corporation of Pennsylvania. Filed Sept. 21, 1915. Serial No. 51,864. (Cl. 172—179.)



1. In a control system, the combination with a dynamo-electric machine, of means for manually governing the operation thereof, and means for automatically continuing the government of said machine under predetermined improper manipulation of said manual means.

3. In a control system, the combination with a dynamo-electric machine having an armature and a field-magnet winding, of a switching device for manually governing the acceleration thereof, and means dependent upon the tardy manipulation of said switching device and for effecting further acceleration of said machine.

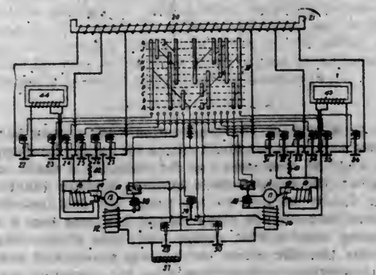
6. In a control system, the combination with a dynamo-electric machine having an armature and a field-magnet winding, of a multi-position controller for manually governing the acceleration of said machine, an armature-current-controlled switch adapted to effect circuit connections for continuing said acceleration under tardy operation of the controller accompanied by relatively low armature current, and a second armature-current-controlled switch adapted to prevent further circuit connections for temporarily arresting said acceleration under predetermined premature manipulation of the controller accompanied by relatively high armature current.

8. In a system of control, the combination with an energized transformer winding and an alternating-current motor, of circuit connections with said transformer winding for effecting the complete acceleration of said motor, manually-controlled step-by-step means for establishing said circuit connections, and means controlled by the armature current for automatically establishing said connections at a rate independent of the rate of movement of said manually-controlled means.

13. In a system of control, the combination with a dynamo-electric machine having an armature and a dynamo-electric machine having an armature and a field-magnet winding, of a step-by-step switching device for controlling the machine operation, a pair of electro-magnets for governing the actuation of said switching device, a step-by-step master controller having its initial position corresponding to an initial group of positions of said switching device and having its subsequent positions respectively corresponding to the subsequent positions of the switching device, a limit switch actuated by the main armature current and adapted to intermittently effect energization of one of said electro-magnets to move the switching device through only said group of positions, a relay device having its contact members connected in series-circuit relation with the contact members of the limit switch, and means respectively associated with the master controller and with the switching device for closing said relay device only when the switching device occupies any of said group of positions simultaneously with the occupation of its initial position by the master controller, whereby, if said limit switch contact members remain disconnected under relatively heavy armature current conditions, the switching device may be moved in a step-by-step manner by actuating the master controller to a subsequent position, returning it to its initial position to effect the closure of said relay device, and again actuating the controller to said subsequent position.

[Claims 2, 4, 5, 7, 9 to 12, and 14 not printed in the Gazette.]

1,255,419. CONTROL SYSTEM FOR DYNAMO-ELECTRIC MACHINES. RUDOLF E. HELLMUND, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Nov. 29, 1915. Serial No. 63,973. (Cl. 172—276.)



1. The combination with an alternating-current motor of the commutator type provided with an exciting field winding, of an inductive device, means for short circuiting a portion of said exciting field winding through said inductive device, and means for eliminating said portion of said winding and said inductive device from the main current path.

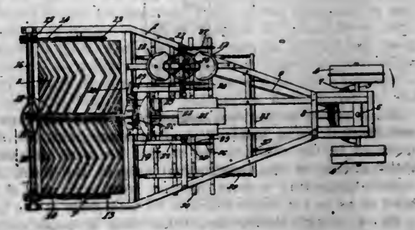
2. The combination with a pair of alternating current motors of the commutator type connected in series relation, with their exciting field windings immediately adjacent, of means for connecting together intermediate points in said exciting field windings, thus eliminating certain portions thereof from the main-current path, and means for short circuiting said eliminated portions.

6. The combination with an alternating-current motor of the commutator type provided with a commutating winding, of a source of alternating current to which said winding is directly connected, means for altering the connections of said motor to said source for changing the speed thereof, an auxiliary transformer, and automatic means for interposing said auxiliary transformer between said commutating winding and said source, said auxiliary transformer being adapted to provide a reduced excitation for said winding during abnormally small-load-current conditions at certain speeds.

7. The combination with an alternating current motor of the commutator type provided with a separately excited compensating winding, of means for adjusting the connections of said winding to said source during acceleration, and means for automatically reducing the excitation of said winding when the load current falls below a predetermined minimum value.

[Claims 3 to 5 not printed in the Gazette.]

1,255,420. COMBINED TRACTOR, ROLLER, AND HARROW. FRED W. HIRONIMUS, Mount Vernon, Ind., assignor of one-third to Richard Topper and one-third to George Mauer. Filed July 12, 1917. Serial No. 180,152.) (Cl. 180—20.)

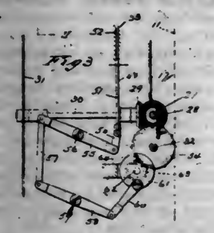


A tractor embodying a frame, a roller comprising sections disposed end to end and supporting the frame, steering means for the frame, a differential gearing at one side of the roller, a prime mover at the opposite side of the roller having a crank shaft parallel therewith, shafts extending toward the opposite sides from the differential gearing and connected to the respective roller sections at their opposite ends, a pair of friction disks carried by said crank shaft, a shaft extending between the roller sections and connected to the differential gearing to drive it, a dished friction wheel mounted on the last mentioned shaft between and having its edge alternately engageable with said friction disks, the crank of the crank shaft being arranged to work within said dished friction wheel when said wheel is moved close to the crank shaft, and manually operable means for shifting said friction wheel toward and away from the crank shaft and into and out of engagement with the friction disks.

1,255,421. CINEMATOGRAPHIC DEVICE. FREDERICK W. HOCHSTETTER and EDMUND HUGH PRYCE, New York, N. Y., assignors to H. P. Patents and Processes Company, Inc., a Corporation of New York. Filed Mar. 6, 1914. Serial No. 822,881. (Cl. 88—16.4.)

1. In a cinematographic device, the combination with means for transmitting a film before an exposure opening, of a color screen having complementary color divisions and adapted to be reciprocated across the path of exposure of the film, and intermittently operated means for

transmitting said film before the exposure opening, and an eccentric operated by said intermittently operated



means for moving said color screen in synchronism with said film.

[Claim 2 not printed in the Gazette.]

1,255,422. ROTARY BORING-DRILL. HOWARD R. HUGHES, Houston, Tex. Filed Nov. 5, 1917. Serial No. 200,266. (Cl. 255—71.)



11. A rotary boring tool comprising a head, the forward end thereof being hemispherical in shape, cutting disks mounted in the rounded end of said head on an axis at right angles to the longitudinal axis of the head, said cutters projecting a short distance from each side of the head so as to act simultaneously on both sides of the hole.

12. A rotary boring tool comprising a head, cutters housed in the forward end thereof, teeth on said cutters and water ducts in said head arranged to direct flushing water laterally across the upper part of said housing and between the teeth of said cutters for the purpose specified.

[Claims 1 to 10, 13, and 14 not printed in the Gazette.]

1,255,423. COMPOUNDS DERIVED FROM DIALLYLBARBITURIC ACID AND ALKALOIDS OF THE MORPHIN SERIES AND A PROCESS OF MAKING SAME. PAUL HÜSSY and WILLY FÖHRENBACH, Basel, Switzerland, assignors to Society of Chemical Industry in Basle, Basel, Switzerland. Filed Apr. 9, 1917. Serial No. 160,878. (Cl. 23—24.)

1. The described process for the manufacture of therapeutically valuable compounds consisting in acting with diallylbarbituric acid on an alkaloid of the morphin series.

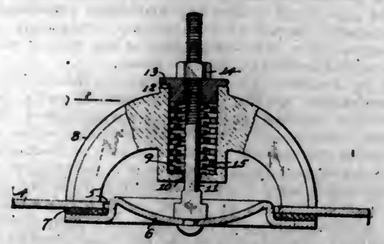
2. The described process for the manufacture of therapeutically valuable compounds, consisting in acting with diallylbarbituric acid on an alkaloid of the morphin series in presence of a solvent.

3. The described process for the manufacture of therapeutically valuable compounds, consisting in acting with diallylbarbituric acid on an alkaloid of the morphin series in presence of a diluent.

4. As new products the described therapeutically valuable compounds derived from diallylbarbituric acid and the alkaloids of the morphin series, which constitute well crystallized substances, easily soluble in hot water, alcohol, methylalcohol, acetone and acetic ether and insoluble in petroleum ether.

5. As a new article of manufacture the described therapeutically valuable compound derived from diallylbarbituric acid and ethylmorphin, which constitutes a white crystalline substance melting at 285° C. and dissolves easily in nearly all organic solvents with exception of the petroleum ether.

1,255,424. MANHOLE-BRIDGE. JOHN J. IRVINE, Pittsburgh, Pa. Filed Aug. 10, 1916. Serial No. 114,143. (Cl. 220—124.)



As an article of manufacture, for use with the man-hole cover of a boiler, a yoke having a recess therein and a bore at the bottom of said recess, a bolt passed upwardly through said bore and recess and beyond said yoke and adapted to be secured to a man-hole cover, a washer fitting snugly in the said recess and having a flange resting upon the yoke, said washer closing the open end of said recess and through which extends said bolt, a nut on said bolt and bearing on said washer, and a spring within said recess and engaging the washer and the bottom of the recess, said spring tending to force said washer outwardly of said recess.

1,255,425. HARROW. HANS P. JOHNSON, Racine, Wis. Filed Apr. 27, 1917. Serial No. 164,985. (Cl. 55—3.)



1. In a harrow, the combination with a drag bar and a cross bar, of a combined means for rigidly coupling the drag and the cross bars and for clamping a tooth on the drag bar, the said means including a bracket adapted for being fixedly secured to the cross bar and including a member that extends along side of the drag bar, a tooth clamping member that engages that side of the drag bar opposite the side where the bracket passes and nut and bolt connections coöperating with the clamping member and the bracket for clamping the tooth clamping member and the bracket against the drag bar.

2. A structure as specified in claim 1, said tooth clamping member including upper and lower lock shoulders for engaging the top and bottom edges of the drag bar.

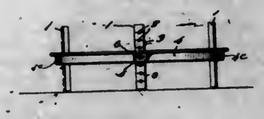
3. In a harrow, the combination with a drag bar and a cross bar, of a means for rigidly coupling the drag and the cross bars together and for clamping a tooth onto the drag bar, the said means including a bracket adapted for being fixedly secured to the cross bar and including a member that extends along one side of the drag bar, a yoke

shape tooth clamping member that engages the other side of the drag bar, said tooth clamping member including upper and lower shoulders for engaging the top and bottom edges of the drag bar and means for fixedly securing the said clamping member and the bracket onto the drag bar.

4. A structure as specified in claim 1, said tooth clamping member being yoke shaped and including a V-shaped seat for receiving one of the angled edges of the tooth, and a tooth engaging block having a V-shaped seat for engaging the opposite angled edge of the tooth, the said block having upper and lower flanges for looping over the upper and lower edges of the drag bar.

5. As a new article, a combined bar coupling and tooth clamping device for harrows, comprising an apertured flat body portion adapted for fitting against and secured on the under side of a harrow frame cross bar, a bracket arm integral with the said body that is pendent to the body and extended therefrom in a plane approximately forty-five degrees from the said body, said arm being adapted for extending over one side of a drag bar and including apertured ears located one above and the other below the drag bar top and bottom edges, a tooth clamping member having apertured bosses, a seat block for coöperating with the tooth clamping member and bolt and nut devices for coöperating with the apertured ears in the bracket arm and the bosses in the clamping plate.

1,255,426. SKIRT-GAGE. MARY J. JOHNSTON, Chicago, Ill. Filed Jan. 25, 1917. Serial No. 144,497. (Cl. 33—9.)



1. A skirt marking device, including a plurality of vertical supporting standards, having a series of cavities formed in the outer faces of said standards, an annular marking guide adjustably arranged upon the supporting standards, and means carried by the guide engageable with the various cavities formed in said supporting standards for maintaining the guide in various adjusted positions.

5. A skirt marking device, including an annular marking guide composed of sections, said sections having perforated offset portions and including standard guides, standards slidable in said guides, securing means for holding the standards in adjusted position, and securing means for engaging the perforations of the offset ends whereby the ring or marking guide is held in adjustment.

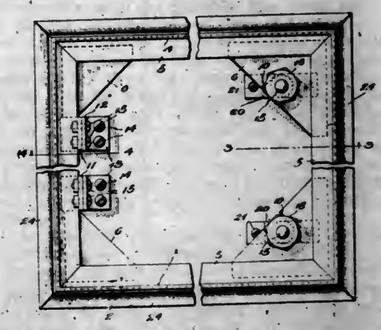
[Claims 2 to 4 not printed in the Gazette.]

1,255,427. LEVELING-BASE FOR FURNITURE. JAMES R. JONES, Jamestown, N. Y., assignor to Art Metal Construction Company, Inc., Jamestown, N. Y., a Corporation of Massachusetts. Filed Jan. 2, 1917. Serial No. 140,213. (Cl. 45—109.)

1. A base for furniture provided at its top with a furniture-receiving seat, the bottom of the base being inclined vertically at an angle to the top thereof and provided with means for adjusting the base to bring its top to a substantially horizontal position.

7. A base for furniture comprising a frame having upright sides, a substantially horizontal bifurcated brace plate in one corner thereof, a leg having an upper threaded end portion lying in the bifurcation and provided at its lower end with a foot to engage a floor or deck, a substantially U-shaped clip for connection with a floor or deck and provided with an opening receiving the shank of the leg, and an adjustable head fitted to the threaded part of the leg and having an annular seat receiving the walls of the bifurcation in the brace plate.

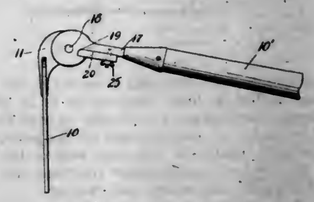
12. A base for furniture comprising a substantially rectangular frame having upright side walls, an angle bar extending around the interior of the frame near the top thereof with one flange at substantially right angles to the upright walls of the frame and constituting a seat for a piece of furniture, the bottom of the frame being inclined with respect to said seat, substantially horizontal brace plates within each corner of the frame, the brace plates at the deep end of the frame being bifurcated, a leg for engagement with a floor or deck at the shallow end of the frame, said leg being connected to the seat, and a



pair of legs for the deep end of the frame, each leg being received in the bifurcation of one of the brace plates and provided at its lower end with a foot for engagement with a deck or floor, the upper end portion of the leg being threaded, a substantially U-shaped clip for connection with a floor or deck and provided with an opening receiving the leg, and an adjustable head fitted to the threaded part of the leg and provided with an annular seat receiving the walls of the bifurcation in the brace plate.

[Claims 2 to 6 and 8 to 11 not printed in the Gazette.]

1,255,428. AGRICULTURE IMPLEMENT. RICHARD WILLIAM KENNEDY, Los Angeles, Cal. Filed June 16, 1917. Serial No. 175,203. (Cl. 55—38.)

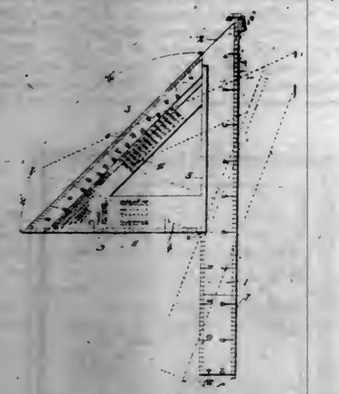


A device of the character described comprising in combination, a blade, an angular shank projecting from the top edge of said blade, and provided with a plurality, of notches, a handle, a pair of spaced ears provided with oppositely disposed notches, said notches being adapted to register with the notches in the shank, means carried by the handle and slidable into the notches of the spaced ears for engagement with one of the notches of the shank to prevent relative movement between the blade and the handle and means carried by the handle for locking the shank engaging means against movement relative to the handle.

1,255,429. COMBINATION SQUARE AND PROTRACTOR. ORAL LEWIS KILLION, Fairfield, Iowa. Filed Mar. 10, 1916. Serial No. 83,351. (Cl. 33—96.)

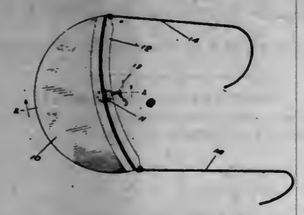
A square comprising a long blade and a short blade perpendicular thereto, a third blade connecting the long

and short blades and inclined thereto, a flange on each side of the square at right angles thereto and in alinement with the inner edge of the long blade, the inner vertical edges of the flanges being in coincidence with the inter-



section of the long and short blades, one or the other of the said flange edges acting as a pivot to revolve the square at the edge of a board, and said third blade having graduations radiating from said intersection, whereby various angles may be laid off.

1,255,430. LIGHT-DIMMING EYE-PROTECTOR. SAMUEL R. KING, Glenbrook, Conn. Filed May 17, 1917. Serial No. 169,359. (Cl. 2—149.)



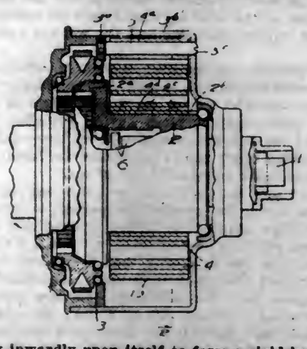
1. An eye protector comprising a carrier in the form of a flat strip having its inner edge curved to fit the wearer's forehead, bows hinged to the ends of said strip, and a curved protector or shield hinged at the middle of its inner edge to the middle of the outer edge of the carrier, whereby the carrier is held against the head and light is prevented from passing to the rear thereof.

[Claim 2 not printed in the Gazette.]

1,255,431. WINDING-MOUNT FOR POWER-SPRINGS. HENRY KOCOUREK, Jersey City, N. J., assignor to Julia B. Stewart, executrix of John K. Stewart, deceased. Filed Dec. 28, 1916. Serial No. 139,371. (Cl. 185—45.)

1. In a spring motor, a winding mount for a motor spring consisting of a cylinder having a longitudinal groove of which both sides form abrupt stop shoulders, in combination with a motor spring having its inner coil rendered a rigid closed ring by riveting the end of the spring at its outer lap, and having rigid with said ring interiorly thereof, a key fitted to said longitudinal channel of the mount.

2. In a spring motor, a winding mount for a motor spring consisting of a cylinder having a longitudinal groove of which both sides form abrupt stop shoulders, in combination with a motor spring having its inner coil rendered a rigid closed ring by riveting the inner end to the next outer lap of the coil, and having said inner end



folded back inwardly upon itself to form a rigid key fitted to said longitudinal channel of the mount.

1,255,432. STRAP-BRAKE. HENRY KOCOUREK, Jersey City, N. J., assignor to Julia B. Stewart, executrix of John K. Stewart, deceased. Filed Dec. 28, 1916. Serial No. 139,385. (Cl. 74—37.)



1. A strap brake comprising a metal strap for encompassing the wheel to be held by the brake, and a circumferential series of unattached shoes encompassed by the strap, each shoe having at one end a recess and at the other end a lug lodged in the recess of the next shoe.

3. A strap brake comprising a metal strap for encompassing the wheel to be held by the brake, and a circumferential series of unattached shoes encompassed by the strap, each shoe comprising a channel-shaped member and a reinforcing member having end lugs shaped to fit the channel of the first member and an intermediate shank connecting the lugs, the channel member having outwardly facing surfaces for lodgment on the strap, the lugs of the reinforcing member being flush with said surfaces when said reinforcing member is in position in the channel, whereby both said members of the shoe are exposed to the pressure of the strap.

[Claims 2 and 4 to 6 not printed in the Gazette.]

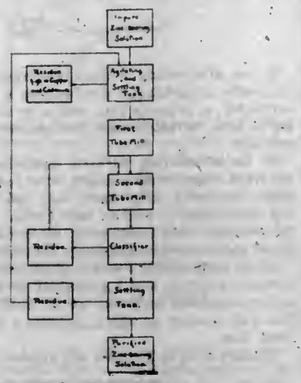
1,255,433. RECOVERING ZINC FROM ITS SOLUTIONS. FREDERICK LAIST and JAMES ORR ELTON, Anaconda, Mont., assignors to Anaconda Copper Mining Company, Anaconda, Mont., a Corporation of Montana. Filed June 16, 1916. Serial No. 104,081. (Cl. 204—18.)

1. The process of recovering zinc from its solutions, which consists in passing an electric current through a solution containing a zinc salt to a cathode presenting a surface of a metal more electropositive than zinc, said surface being substantially free from impurities electronegative to zinc, until a deposit suitable for stripping has been formed.

2. The process of recovering zinc from its solutions, which consists in passing an electric current through a solution containing a zinc salt to a cathode presenting a surface of aluminum substantially free from impurities electronegative to zinc, until a deposit suitable for stripping has been formed.

8. The process of recovering zinc from its solutions, which consists in passing an electric current through a solution containing a zinc salt to a cathode presenting a surface of substantially pure aluminum, until a deposit suitable for stripping has been formed.

1,255,434. METHOD OF PURIFYING ZINC-BEARING SOLUTIONS. FREDERICK LAIST and JAMES ORR ELTON, Anaconda, Mont., assignors to Anaconda Copper Mining Company, Anaconda, Mont., a Corporation of Montana. Filed June 16, 1916. Serial No. 104,082. (Cl. 75—18.)



1. In the purification of zinc-bearing solutions, the steps which consist in subjecting the solution to the action of successive bodies of material containing metallic zinc, collecting zinc-bearing material carried forward by the solution, and returning the same to a preceding stage of the purifying operation.

2. In the purification of zinc-bearing solutions, the steps which consist in agitating the solution in the presence of finely divided zinc to precipitate copper, further purifying the solution by contact with zinc surfaces, collecting zinc-bearing material from the solution, and returning the same to a preceding stage of the purifying operation.

3. In the purification of zinc-bearing solutions, the steps which consist in agitating the solution in the presence of finely divided zinc to precipitate a portion of the copper, and further purifying the solution by contact with zinc surfaces in a tube mill.

4. The method of purifying zinc-bearing solutions which consists in agitating the same with finely divided zinc, subjecting the partially purified solution to the action of moving zinc surfaces, collecting the zinc-bearing material carried forward by the solution, and returning the same to the purifying system at the agitating stage.

1,255,435. METHOD OF PURIFYING ZINC-BEARING SOLUTIONS. FREDERICK LAIST and JAMES ORR ELTON, Anaconda, Mont., assignors to Anaconda Copper Mining Company, Anaconda, Mont., a Corporation of Montana. Filed June 16, 1916. Serial No. 104,083. (Cl. 204—18.)

1. In a process of purifying zinc-bearing solutions, the step which consists in subjecting the impure solutions to the action of electrolytically deposited zinc sponge.

2. A process of purifying zinc-bearing solutions and recovering metallic zinc, which consists in passing an electric current through the impure solution from anode surfaces of zinc to purify the solution, and thereafter electrodepositing zinc from the purified solution.

3. A process of purifying zinc-bearing solutions, which consists in passing an electric current through the impure solution from anode surfaces of zinc under conditions to form a deposit of zinc sponge.

5. A process of purifying zinc-bearing solutions, which consists in passing an electric current through the impure solution from an anode surface of zinc, and thereafter agitating the partially purified solution in the presence of finely divided zinc to complete the purification.

[Claim 4 not printed in the Gazette.]

1,255,436. PROCESS OF RECOVERING ZINC FROM ORES. FREDERICK LAIST and JAMES ORR ELTON, Anaconda, Mont., assignors to Anaconda Copper Mining Company, Anaconda, Mont., a Corporation of Montana. Filed June 16, 1916. Serial No. 104,084. (Cl. 204—15.)

1. A cyclical process of recovering zinc from ores thereof containing arsenic or antimony, consisting in alternately leaching the ore with an acid solvent for zinc, and electrolytically precipitating zinc from the resulting solution, introducing iron into the solution subsequent to the electrolysis from an outside source and in proportion sufficient for the substantial elimination of arsenic and antimony, and removing the iron therefrom, together with the arsenic and antimony, by precipitation in the ferric state prior to the succeeding electrolysis.

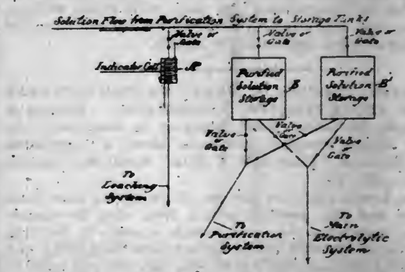
3. In a process of recovering zinc from ores thereof containing arsenic or antimony, the steps which consist in preparing a solution containing a ferric salt, and introducing the same into the leach in proportion sufficient for the substantially complete elimination of arsenic and antimony.

4. In a process of recovering zinc from ores thereof containing arsenic or antimony, the steps which consist in preparing an acid solution containing a ferrous salt, oxidizing the same by means of a compound containing manganese in a state of oxidation higher than the manganous state, and introducing the resulting solution containing ferric and manganous compounds into the leach in proportion sufficient for the substantially complete elimination of arsenic and antimony.

5. In a process of recovering zinc from ores thereof containing arsenic or antimony, the step which consists in introducing into the leach a solution containing ferric and manganous salts.

[Claim 2 not printed in the Gazette.]

1,255,437. ELECTRODEPOSITION OF METALS. FREDERICK LAIST and JAMES ORR ELTON, Anaconda, Mont., assignors to Anaconda Copper Mining Company, Anaconda, Mont., a Corporation of Montana. Filed June 16, 1916. Serial No. 104,085. (Cl. 204—1.)



1. In the deposition of metals by electrolysis, the combination with a purifying system, a storage system, and a main electrolytic system, of an indicator cell in the line of flow of the solution between the purifying and storage systems.

2. In the deposition of zinc, the combination with a purifying system, a storage system, and a main electrolytic system, of an indicator cell in the line of flow of the solution between the purifying and storage systems.

1,255,438. PROCESS OF TREATING ZINC ORES. FREDERICK LAIST, Anaconda, Mont., assignor to Anaconda Copper Mining Company, Anaconda, Mont., a Corporation of Montana. Filed July 10, 1916. Serial No. 108,461. (Cl. 75—18.)

1. The process of treating zinc ores containing iron, which consists in calcining the ore, leaching the calcine

with a solution containing sulfuric acid, precipitating the iron from the resulting solution by a material containing zinc oxid, separating the precipitate from the iron-free solution, furnacing said precipitate at a temperature materially below that of the calcination, said temperature sufficient to render the ferric compounds insoluble while avoiding substantial decomposition of zinc sulfate, and extracting the zinc sulfate from the furnaced product.

2. In a process of treating calcined zinc ores, the steps which consist in precipitating iron from impure zinc sulfate solutions by a material containing zinc oxid, furnacing the precipitate at a temperature below that of the calcination and below the decomposition point of zinc sulfate, and extracting the zinc sulfate from the furnaced product.

1,255,439. PROCESS OF RECOVERING ZINC FROM ORES. FREDERICK LAIST and JAMES ORR ELTON, Anaconda, Mont., assignors to Anaconda Copper Mining Company, Anaconda, Mont., a Corporation of Montana. Filed July 10, 1916. Serial No. 108,462. (Cl. 204—15.)

1. The process of recovering zinc from its ores, which consists in leaching the ore with an acid solvent for zinc, precipitating iron as a ferric compound, treating the resulting solution with finely-divided zinc to precipitate metals electronegative thereto, electrodepositing zinc in sponge form from portions of the treated solution, thereby further purifying such portions of the solution and preparing finely-divided zinc for use in the precipitating stage of the operation, depositing further quantities of zinc as reguline metal, and re-using the resulting acid solution in the leaching process.

2. In a process of recovering zinc from its ores, the steps which consist in successively treating an impure zinc-bearing solution with finely-divided zinc to precipitate metals electronegative to zinc, electrodepositing a portion of the zinc in the form of sponge from the thus-treated solution, and depositing further quantities of zinc from the purified solution as reguline metal.

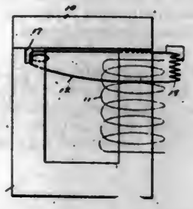
3. In a process of recovering zinc from its ores, the steps which consist in successively treating an impure zinc-bearing solution with finely-divided zinc to precipitate metals electronegative to zinc, depositing a portion of the zinc in the form of sponge from the thus-treated solution by electrolyzing the same with anode surfaces of zinc, and depositing further quantities of zinc from the purified solution with insoluble anodes.

1,255,440. PROCESS OF TREATING COMPLEX ORES OR CONCENTRATES THEREFROM. FREDERICK LAIST, Anaconda, Mont., assignor to Anaconda Copper Mining Company, Anaconda, Mont., a Corporation of Montana. Filed Nov. 3, 1916. Serial No. 129,332. (Cl. 204—15.)

The herein described process of recovering zinc, lead, copper and the precious metals from ores or concentrates containing the same, which consists in leaching the roasted ore with dilute sulfuric acid, separating and purifying the resulting zinc-bearing solution and recovering the zinc therefrom by electrolysis; smelting the residue containing the copper, lead, the precious metals and some zinc, and thereby producing a matte containing the copper and precious metals, and a fume consisting largely of oxids of lead and zinc; extracting the zinc from the fume by dilute sulfuric acid, leaving a residue high in lead; and recovering copper and the precious metals from the matte.

1,255,441. ALTERNATING-CURRENT ELECTROMAGNET. DAVID C. LARSON, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Dec. 1, 1915. Serial No. 64,446. (Cl. 175—338.)

1. An alternating current electromagnet comprising a core, a primary winding, and a secondary conductor having a portion inclosing the total flux in said core and another portion inclosing a fractional portion only of the flux.



3. An alternating current electromagnet of the type set forth comprising a core having a recess in its polar extremity, a primary coil, and a secondary winding having a turn, in said recess and another turn around the primary.

6. An alternating current electromagnet of the type set forth comprising a maget core having a recess in its polar extremity, a primary coil, and a secondary winding comprising a turn in said recess and a turn around the primary, said turns being so connected that their induced electro-motive forces act cumulatively.

8. An alternating current electromagnet comprising a primary winding, and a secondary or shading coil having series connected portions, one of which incloses the total flux and another of which incloses a portion only of the total flux.

[Claims 2, 4, 5, 7, and 9 not printed in the Gazette.]

1,255,442. DETACHABLE SHARE FOR THE TEETH OF CULTIVATOR AND SCARIFIER IMPLEMENTS. THOMAS C. LAWFORD, Croydon, Victoria, Australia. Filed Dec. 3, 1917. Serial No. 205,047. (Cl. 97—11.)



1. A share for the tines of scarifiers, cultivators and the like implements comprising a detachable flat blade portion having upstanding lugs adapted to lie against the sides of a tine, and a detachable wearing point having its rear part shaped to conform to the upper surface of the tine and its front end sharpened to a cutting edge.

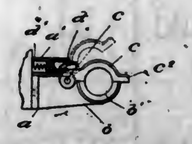
3. In a share for the tines of scarifiers, cultivators and the like implements a flat blade portion having a hole near the front thereof and inclined cutting edges, and upstanding lugs in advance of the hole to embrace opposite sides of the tines.

[Claims 2 and 4 not printed in the Gazette.]

1,255,443. BEARING-SUPPORT FOR TUBE-FRAME SPOOLS. CHARLES LEA, Dorchester, Mass. Filed Feb. 8, 1915. Serial No. 6,904. (Cl. 64—10.)

1. A bearing bracket for a tuft spool or other journal embracing upper and lower bearing members formed with registering semicircular bearing faces to form seats for the journal, one of said members being pivotally connected with the other about a pivotal axis substantially parallel to the journal axis to permit the opening and closing of the bearing, and locking means automatically movable in position to positively lock the two members together when the bearing is closed, substantially as described.

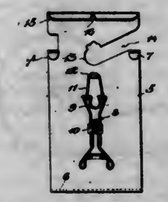
3. A supporting bearing bracket comprising upper and lower semicircular jaws arranged to form a complete bearing inclosing a supported journal, one of said bearing members being pivotally connected with the other, a detent movable into position to positively lock the two members in closed position, and a spring for moving said detent into locking position while permitting it to be released therefrom by pressure in the opposite direction, substantially as described.



5. A bearing bracket for a tuft-spool journal embracing a pair of opposed bearing members each provided with cooperating bearing recesses to form an encircling support for the journal, one of said members being movable in relation to the other in a plane substantially at right angles to the axis of the journal, and an interlocking detent movable in a direction transverse to said journal to interlock said members in operative relationship by a quick detachable engagement which permits their separation substantially as described.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,255,444. DISPLAY-STAND. MORRIS LEON and ALPHA B. VANCE, Fort Smith, Ark.; said Vance assignor to said Leon. Filed Sept. 14, 1916. Serial No. 120,149. (Cl. 211—24.)

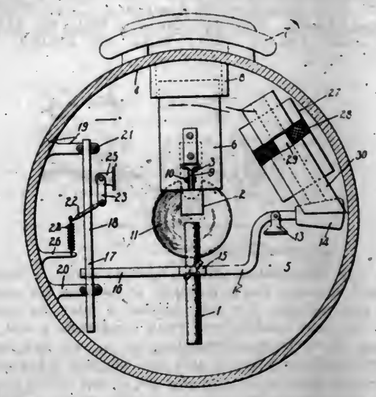


A platform for display-holders formed of sheet metal and arranged to be maintained normally at an inclination with respect to a support, the material of the platform being bent upwardly at its lower end to form an article-retaining flange, bent downwardly at the sides intermediately of the ends to form projections for engagement with a supporting cross-piece, and bent downwardly at its upper end to form a flange for engagement with a supporting cross-piece, said flange having a slot for reception of a headed member, and there being in the platform between its ends an opening for reception of an upright support, and an arm hinged to the lower portion of the platform and arranged at its free end to engage a fixed part.

1,255,445. REGULATING MECHANISM FOR ARC-LAMPS. GEORGE M. LITTLE, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 3, 1915. Serial No. 5,891. (Cl. 176—80.)

1. An arc lamp comprising an electrode holder, a rocker arm supporting the said electrode and pivotally supported intermediate its ends, means for effecting movement of said arm, a slidable member provided with a slot through which one end of said rocker arm projects, and means for permitting said member to move longitudinally in one direction but which precludes movement thereof in the opposite direction.

4. An arc lamp comprising an upright electrode, a pivotally mounted transverse member which supports said electrode, means for effecting movement of the transverse member, a slidable upright member provided with a slot through which one end of said transverse member projects and which is of sufficient extent to permit relative movement between the said transverse member and the said upright member, and a clutch ring embracing said slidable member and adapted to preclude downward movement thereof.



7. An arc lamp comprising an electrode holder, a rocker arm supporting the said electrode holder and pivoted intermediate its ends, a slidable member provided with a lost-motion connection with respect to the said rocker arm, and means for permitting longitudinal unidirectional movement of the said slidable member.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,255,446. DOLL. ULRIKA LÖFGREN, Lowell, Mass. Filed Oct. 7, 1913. Serial No. 793,946. (Cl. 46—40.)



1. A doll comprising a pliable and non-elastic wire frame formed with arms and legs each made of wire so bent as to be double with a loop at the end with no tips in the arms or legs, combined with a filling for the head and body, a cover for the head and body, a flexible covering for the arms and legs.

4. A doll which comprises a skeleton formed of one piece of pliable and non-elastic copper wire with a back bone and so bent that the arms and legs are double with a loop at the end and both tips are brought in closely to the back bone, a fabric which closely covers said wire, and a flexible filling, together with a covering for the filling of knitted textile material as described.

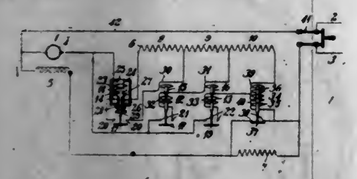
5. A doll comprising a wire skeleton formed with arms and legs each made of wire so bent as to be double with a loop at the end and with all tips brought inside the body, combined with a body filling which covers said tips, and a flexible covering for the arms and legs.

13. A doll comprising a pliable and non-elastic wire frame formed with arms and legs each made of wire so

bent as to be double with a loop at the end with no tips in the arms or legs, and a flexible covering for the arms and legs.

[Claims 2, 3, 6 to 12, 14, and 15 not printed in the Gazette.]

1,255,447. MOTOR-CONTROL SYSTEM. WALTER O. LUM, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 24, 1913, Serial No. 763,389. Renewed June 8, 1917. Serial No. 173,647. (Cl. 172—288.)



2. The combination with an electric motor, a starting resistor therefor, and a plurality of switches for controlling said resistor, of a field resistor, a relay for controlling said field resistor, said relay comprising a coil, and means for electrically connecting one of said switches to an intermediate point of said coil whereby a portion of said coil is shunted upon the closing of said switch.

3. The combination with an electric motor, a field resistor therefor, a relay switch for controlling said resistor, said switch having a coil which operates to maintain the closure of said switch when the armature current exceeds a predetermined value, of means for automatically varying said predetermined value.

9. The combination with a motor, of a starting resistor therefor, a series of progressively-operated switches for controlling said resistor, a field relay comprising an actuating coil, and means for electrically connecting the last in order of said switches to an intermediate point of said actuating coil.

10. The combination with a motor, of a starting resistor, a shunt circuit for said resistor, a field resistor, a switch for controlling said field resistor, said switch comprising an actuating coil connected in series with said starting resistor, said coil having a portion common to said series connection and said shunt circuit.

12. A motor controller provided with a field controlling relay sensitive to predetermined variations in the armature current, and means for increasing the sensitiveness of said relay for a temporary period in starting.

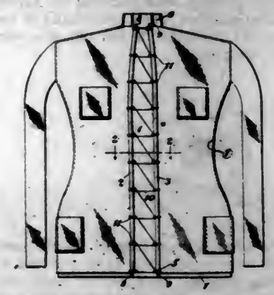
[Claims 1, 4 to 8, 11, 13, and 14 not printed in the Gazette.]

1,255,448. COAT STRETCHING OR TENSIONING DEVICE. PAUL LUNGSTRAS, St. Louis, Mo., assignor to Lungstras Dyeing & Cleaning Company, St. Louis, Mo., a Corporation of Missouri. Filed Oct. 1, 1917. Serial No. 194,207. (Cl. 223—19.)

1. A coat stretching or tensioning device, comprising a form substantially corresponding to the shape of a coat, a pair of tubes corresponding substantially in length with the height of said form and provided with a narrow longitudinal slot for the reception of the front edges of the coat, and means for drawing together said tubes after disposition thereof upon the coat, whereby the latter may be tensioned upon said form.

3. A coat stretching or tensioning device, comprising a form substantially corresponding to the shape of a coat, a pair of tubes corresponding substantially in length with the height of said form and provided with a narrow longitudinal slot for the reception of the front edges of the coat, hooks projecting from said tubes, and a cord or lacing connecting said hooks upon one of said tubes with those upon the other thereof, whereby said tubes may be drawn together so as to tension the coat upon said form.

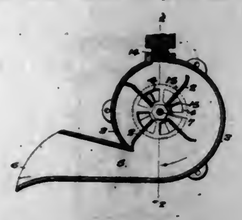
6. A coat stretching or tensioning device, comprising a form substantially corresponding to the shape of a coat, the front of said form being bulged outward from top to bottom along its median line, a pair of tubes corresponding substantially in length with the height of said form



and provided with a narrow longitudinal slot for the reception of the front edges of the coat, means for retaining said edges within said tubes, and means for drawing together said tubes after disposition thereof upon the coat, whereby the latter may be tensioned upon said form.

[Claims 2, 4, 5, and 7 not printed in the Gazette.]

1,255,449. CRUDE-OIL ATOMIZER AND AIR-MIXER. DUNCAN C. MCCAIG, Vancouver, British Columbia, Canada. Filed Feb. 27, 1917. Serial No. 151,336. (Cl. 158—77.)



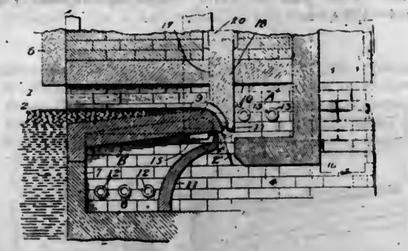
3. A fuel atomizer and air mixer, comprising a casing having a central partition dividing the same into two chambers, a centrifugal fan located in one of said chambers, a turbine wheel located in the other chamber, a common axis for said wheel and fan located eccentrically with relation to the axis of said chambers, means for admitting a jet of fluid tangentially into the turbine chamber to drive the turbine wheel, a burner outlet duct from said fan chamber through which the products in the fan chamber are delivered, valved air induction ports for said fan chamber arranged concentrically with relation to the axis of said fan, and an oil dropping duct for dropping oil onto the rotating fan blades at the top of the fan chamber, substantially as shown and described.

[Claims 1 and 2 not printed in the Gazette.]

1,255,450. GLASS MANUFACTURE. THOMAS J. MCCOY, Kane, Pa. Filed Apr. 4, 1912. Serial No. 688,408. (Cl. 49—3.)

1. An apparatus for making sheet glass comprising a glass tank for containing molten glass having a reduced extended end portion, an upwardly inclined bottom to said end portion forming the outer wall of said extending portion, adapted to form the glass extending outwardly over said inclined bottom into a sheet formation of a progressively reduced thickness, a horizontal movable carrier located directly beneath the outer wall adapted to divert the glass from a vertical to a horizontal plane, and means for conveying proper motion to said movable carrier to cause the glass deposited thereon to be maintained in sheet formation.

2. A sheet glass forming apparatus comprising a glass tank for containing molten glass having an extended end portion, an upwardly inclined bottom to said end portion forming the outer wall of said extended end portion, a diverted passage way adjacent to said outer wall through which the glass passes, a vertically movable refractory body located in said passage way, and means for varying the cross sectional area of said passage way by the movement of said refractory body.



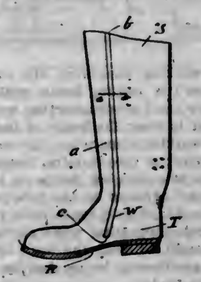
4. An apparatus of the character described comprising a delivery tank for molten glass having a covered extended end portion, an upwardly inclined bottom to said end portion forming the outer wall thereof, a downwardly extended passage way located within said cover end portion, a movable refractory body located within said passage way, and a horizontal movable carrier located directly beneath the point of the outer wall adapted to divert the downward movement of the glass to a horizontal plane.

5. A sheet glass forming apparatus, comprising a glass tank for containing molten glass having an extended end portion, an upwardly inclined bottom wall to said end portion, positioned to hold a portion of the volume of glass in the tank, a downwardly extended passageway located adjacent to the outer wall of the extended end portion through which said glass passes, and means for controlling the temperature within said passage, by varying the cross sectional area thereof.

6. An apparatus of the character described comprising a tank for molten glass having a covered extended end portion, an upwardly inclined bottom to said end portion forming the outer wall of said extended portion, a heating kiln formed within the outer wall of the extended end portion the top wall of said kiln forming the inclined bottom of said end portion, and means comprising a horizontal movable carrier located directly beneath the outer wall to divert the glass from a downward movement to a horizontal plane by which the glass overflow deposited thereon is maintained in sheet formation.

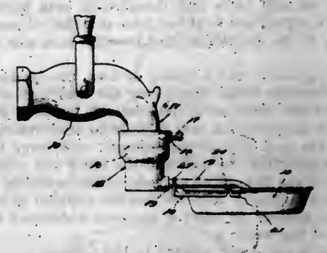
[Claim 3 not printed in the Gazette.]

1,255,451. VENTILATING BOOTS AND SHOES. DANIEL MCERLANE, Mankato, Minn. Filed Dec. 6, 1915. Serial No. 65,378. (Cl. 36—3.)



An article of footwear comprising a leg and a sole; and a single-layer tape-like strip of material formed separately from the leg and extended downwardly along the inside of the leg, the longitudinal edges of the strip being secured to the leg and the transverse end edges of the strip being spaced from the leg to form an air passage which is open axially at its ends, the lower end of the strip being spaced above the upper surface of the sole.

1,255,452. MACHINE FOR MEASURING LIQUIDS. CHRISTOPHER E. MANDEVILLE, Rahway, N. J. Filed June 22, 1916. Serial No. 105,248. (Cl. 221—98.)

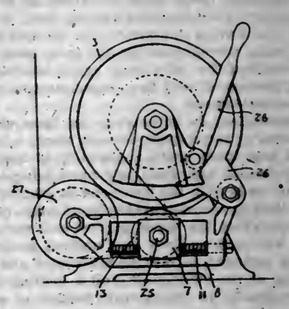


1. A liquid measuring device including a cup adapted for detachable engagement with a faucet nozzle, a spout leading from the cup, a measuring receptacle, and means carried by the spout for supporting the receptacle in engagement therewith, said means including a bail bent intermediate its length to form a spout receiving eye in a plane at right angles to the body of the bail and having its arms bent inwardly to form trunnions to pivotally support the receptacle off center, one of the arms being formed adjacent its trunnion with an upwardly and inwardly directed loop adapted to engage the receptacle when the latter has been tilted to a predetermined extent to prevent its being swung past center.

2. A liquid measuring device including a cup formed interiorly with frusto-conical faucet nozzle engaging surface, means for clamping the cup to such a nozzle, the bottom wall of the cup being formed with a channel opening at one end through the wall of the cup, a spout forming pipe projecting through such opening and cut-away to provide a trough seating in the channel, and a measuring receptacle swingingly supported upon the spout.

[Claims 3 to 5 not printed in the Gazette.]

1,255,453. GOVERNOR FOR LOWERING DEVICES. THOMAS HENRY MARTEN, Toronto, Ontario, Canada. Filed Jan. 28, 1916. Serial No. 74,746. (Cl. 254—186.)



1. In a governor for lowering devices, the combination with a rotatable drum supporting the load and a brake controlling said drum, of a fixed fulcrum support, a lever carried on said fulcrum and having one end supporting the load and the other end connected with said brake to

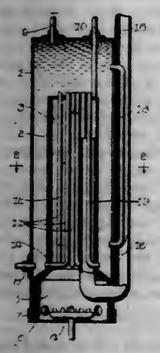
govern the speed of the lowering of the load, said lever being adjustably arranged upon said fulcrum and means carried by said lever and engaging said fulcrum to rigidly hold said lever in the adjusted positions on said fulcrum support.

3. In a governor for lowering devices, the combination with a frame, a load supporting drum rotatably mounted on said frame and a brake controlling the drum, of a rigid fulcrum support arranged on said frame, a block pivoted on said fulcrum, a lever adjustably mounted on said block and having one end supporting the load and the other end connected with said brake, and a screw spindle rotatably arranged on said lever and threaded in said block and adapted to adjust and hold the lever in adjusted positions according to the desired ratio of leverage each side of the fulcrum.

5. In a governor for lowering devices, the combination with a rotatable drum supporting the load and a brake controlling the drum, of a rigid fulcrum support, a lever adjustably supported on said fulcrum to alter the ratio of the leverage each side of the fulcrum, said lever having one end supporting the load and the other end connected with said brake to govern the speed of the lowering of the load, and a manually operated member adapted to engage the brake member to effect a pressure additional to the pressure of the load.

[Claims 2 and 4 not printed in the Gazette.]

1,255,454. HOT-WATER HEATER. JOHN MARTENS, Chicago, Ill. Filed Sept. 7, 1916. Serial No. 118,802. (Cl. 122—167.)



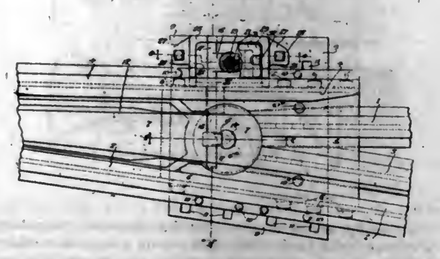
1. In combination, an outer shell, an inner shell of less diameter than said outer shell, a burner in said inner shell, a plurality of longitudinal heating tubes in said inner shell, a flue having downdraft and updraft portions, the former being arranged within the inner shell and the latter externally of the outer shell, and a heating tube in the updraft portion of said flue communicating with the space between said shells.

2. In combination, an outer shell, an inner shell, said shells including a water space between them, a burner in the base of said inner shell, a plurality of longitudinal heating tubes in said inner shell, said tubes being connected at their lower ends with the lower end of said waterspace and having their upper ends projecting through the top of said inner shell into the upper part of said water space, and a flue having downdraft and updraft portions, the former being arranged within the inner shell and the latter externally of the outer shell, and a heating tube disposed longitudinally in the updraft portion of said flue, said tube communicating at its free end with the space between said shells.

3. In combination, an outer shell, an inner shell spaced from said outer shell, a firebox formed below said inner shell, a burner in said firebox, a downwardly extending flue having its open end adjacent the top of said inner shell, said flue passing out of said inner shell adjacent the bottom of said shells, and extending up the exterior side of said outer shell and a heating tube in said flue.

[Claims 4 to 7 not printed in the Gazette.]

1,255,455. RAILWAY-SWITCH STRUCTURE. HARRY L. MILLER and RAYMOND B. FISHER, Chicago, Ill., assignors to The Buda Company, Chicago, Ill., a Corporation. Filed July 30, 1915. Serial No. 42,820. (Cl. 104—115.)

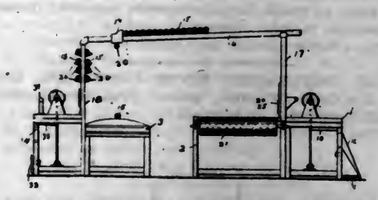


1. In a switch structure, the combination with a suitable base or support, of a tongue having a pivot pin dependent therefrom, a bearing for said pin formed in said base or support and said pin being provided upon its front side with a recess, a rock shaft extending transversely beneath the tongue in front of said pivot pin and having an arm entering said pin recess, and means connected to said rock shaft at its outer end for causing it to exert pressure upon the pivot pin of the tongue.

3. In a switch structure, the combination with a suitable base or support, of a tongue having a pivot pin dependent therefrom, a rock shaft extending transversely beneath the tongue adjacent its heel and having an arm engaging the recessed pivot pin of said tongue and having at its outer end a horizontally disposed arm, and a vertically disposed bolt passing through said arm at the outer end of the rock shaft to exert pressure upon the heel pivot of the tongue.

[Claims 2 and 4 not printed in the Gazette.]

1,255,456. RUBBER-WORKING APPARATUS. JOSEPH G. MOOMY, Erie, Pa. Filed Jan. 9, 1917. Serial No. 141,392. (Cl. 154—5.)



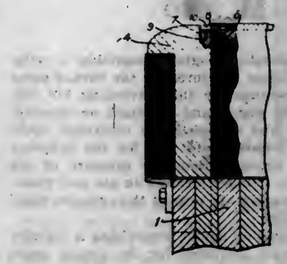
1. In a rubber-working apparatus, the combination of a cutting bench and a rolling bench with intervening spaces for operators; and pole-supporting ways above said benches at a height to clear the heads of the operators.

3. In a rubber-working apparatus, the combination of a pole-cleaning device; a tube-forming bench adjacent to and parallel to the pole-cleaning device; a tube-wrapping machine parallel and adjacent to the tube-forming bench and at the opposite side of said bench from the pole-cleaning device; and pole-supporting ways above said device and bench at a height to clear the head of an operator and extending to position to be reached by the operator of the pole-cleaning device.

5. In a rubber-working apparatus, the combination of a pole-cleaning machine; a sheet-cutting bench adjacent and parallel to the pole-cleaning machine; a tube-rolling bench parallel to the sheet-cutting bench, said benches having intervening spaces between them for operators; a tube-wrapping machine adjacent to and parallel to the tube-rolling bench; and pole-supporting ways above said benches at a height to clear the heads of the operators and extending to a position to be reached by the operator of the pole-cleaning machine, said ways being inclined to permit of the movement of the poles by rolling under the influence of gravity.

[Claims 2 and 4 not printed in the Gazette.]

1,255,457. DYNAMO-ELECTRIC MACHINE. GEORGE H. MURRAY, Jr., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Nov. 6, 1914. Serial No. 870,592. (Cl. 171—252.)



1. An amortisseur winding for dynamo-electric machines comprising a plurality of groups of electric conductors, each of said groups consisting of a plurality of parallel conductors embedded in the core of a field magnet, and a pair of similarly embedded conductors extending at right angles to, and located directly beneath the ends of, said parallel conductors and connected thereto, and means for connecting said groups of embedded conductors to form a closed electric circuit.

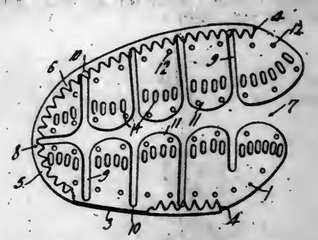
2. In the field magnet structure of a dynamo-electric machine, the combination with a magnet core provided with a plurality of parallel slots and other slots at right angles to said parallel slots, of a plurality of electric conductors carried in said slots, certain of said conductors having portions thereof superimposed upon the others, and means for connecting said conductors to form a closed electric circuit.

3. In the field magnet structure of a dynamo-electric machine, the combination with a plurality of magnet cores, each of said cores being provided with a pair of slots adjacent to the ends of said core and a plurality of parallel slots at right angles to, and opening into, said first named slots, of a plurality of electric conductors carried in said parallel slots and projecting into said first named slots, a plurality of similar conductors carried in said first named slots beneath the projecting portions of said parallel conductors, and means for connecting said slot-contained conductors to form a closed electric circuit.

[Claim 4 not printed in the Gazette.]

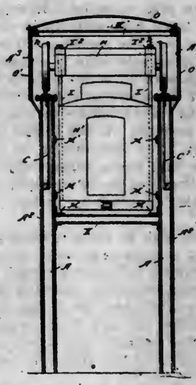
1,255,458. SHOE-SOLE. JOHN S. ORR, Augusta, Ky. Filed June 18, 1917. Serial No. 175,476. (Cl. 36—73.)

A metal protector of the class described, comprising a base of sufficient length to extend from the toe to the instep of an article of footwear, the base being provided with a continuous upstanding marginal flange terminated short of the rear end of the base, the flange having an inwardly extended continuous lip disposed approximately parallel to the base and serrated upon its inner edge to form bendable sole-engaging teeth, the base being provided with a straight and relatively narrow longitudinal opening extended from the rear edge of the base to a point close to the toe and tapered toward the toe, there being restricted transverse slots in the base and communicating with the longitudinal opening, the slots being outwardly extended to points close to the flange and



defining yieldable tongues provided with nailing perforations, the area of the tongues being greater than the area of the opening and the slots.

1,255,459. ELEVATED-RAILWAY SYSTEM. CHARLES E. PADGETT, Buffalo, N. Y. Filed June 18, 1917. Serial No. 175,449. (Cl. 104—4.)



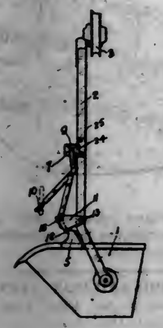
1. An elevated railway structure embodying vertical parallel supporting columns spaced apart to form a passageway between them for the accommodation of a car body, transverse beams connecting the columns below the car body space, and tracks on which the car travels mounted on the upper end of the columns in substantially the vertical axial line thereof, whereby the weight of the car will produce compression strains only in the supporting columns.

4. An elevated railway structure embodying vertical supporting columns arranged in pairs spaced apart for the accommodation of a car body between them, supporting rails mounted on the upper ends of the columns, and in substantial alinement therewith, extensions carried by the columns and projecting above the level of the supporting rails, transverse connections between the upper ends of the extensions and between the columns below the car body space, safety guard rails carried by the proximate sides of the pairs of columns and lower transverse connections, and an inclosing covering extending over the column extensions and upper transverse connections, whereby a way is defined between the columns for the car body and above the columns for the truck on which the car body is suspended.

8. In an elevated railway structure, the combination with the vertical columns arranged in pairs, spaced apart to form a car body space between their upper ends, and base plates mounted on the upper ends of said columns, of track plates carried by said base plates, and embodying continuous flange projections for overlying the rail flanges throughout the length of the rail and a rail seated beneath and held by said flanges.

[Claims 2, 3, and 5 to 7 not printed in the Gazette.]

1,255,460. LOCKING DEVICE FOR AERIAL-TRAMWAY BUCKETS. GEORGE PETERSON, Britannia Beach, British Columbia, Canada. Filed Apr. 21, 1917. Serial No. 163,698. (Cl. 105—269.)

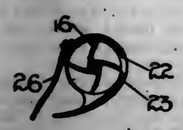


1. The combination with an aerial tramway bucket and its locking hooks, of latch dogs with which said hooks engage when the bucket is in the loaded position, and toggle elements for maintaining said dogs in engaging position.

2. The combination with an aerial tramway bucket and its locking hooks, of a transverse shaft mounted on the bucket pendant having its extremities turned downwardly, stirrups swingably mounted on the bucket pendant adjacent the said hooks, latch dogs carried by the said stirrups with which the said hooks engage when the bucket is in the loaded position, and levers extending between the said stirrups and the downwardly turned ends of the said shaft.

3. The combination with an aerial tramway bucket and its locking hooks, of a transverse shaft mounted on the bucket pendant having its extremities turned downwardly and forwardly, stirrups swingably mounted on the bucket pendant adjacent the said hooks, latch dogs carried by the said stirrups with which the said hooks engage when the bucket is in the loaded position, and levers extending between the said stirrups and the forwardly turned ends of the said shaft.

1,255,461. HAIR-CUTTING MACHINE. MANFRED PETRELLA, Buffalo, N. Y. Filed Nov. 26, 1915. Serial No. 68,588. (Cl. 30—1.)

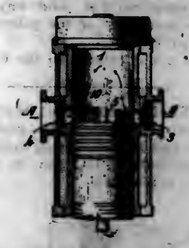


1. In a hair cutting device, a tapered casing formed with a longitudinal opening, a bracket projecting from the casing adjacent the opening and a tapered guide blade slidable through said bracket and having an oblique edge adapted to extend variably over said opening.

2. In a hair cutting machine, a tapered open-ended casing having an entrance opening and an exit opening formed therein, end caps for the casing, a discharge spout leading substantially tangentially from said casing in proximity to said exit opening, cutting means moving between the openings, a regulating guide adjustable over the entrance opening, a means to rotate said cutting element, and a receptacle supported by the spout over said exit opening.

1,255,462. TWO-STROKE-CYCLE COMBUSTION-ENGINE. ANDREAS RADOVANOVIC, Zurich, Switzerland. Filed Nov. 9, 1914. Serial No. 871,169. (Cl. 123—65.)

1. A two cycle combustion engine comprising a cylinder having a set of exhaust apertures for the burned gases and a set of inlet openings for the scavenging air controlled by the working piston and arranged on opposite sides of the cylinder, and openings in the cylinder between said sets for the injection of air under higher pressure than the pressure of the scavenging air into the cylinder forming an air wall therein to deflect the scavenging air toward the cylinder head, for the purpose specified.



2. A two cycle combustion engine comprising a cylinder having a set of exhaust apertures for the burned gases and a set of inlet openings for the scavenging air controlled by the working piston and arranged on opposite sides of the cylinder, and automatically controlled openings in the cylinder between said sets for the injection of air under higher pressure than the pressure of the scavenging air into the cylinder forming an air wall therein to deflect the scavenging air toward the cylinder head, for the purpose specified.

3. A two cycle combustion engine comprising a cylinder having a set of exhaust apertures for the burned gases and a set of inlet openings for the scavenging air controlled by the working piston, and arranged on opposite sides of the cylinder, and openings in the cylinder controlled by the piston for the injection of air under higher pressure than the pressure of the scavenging air forming an air wall in the cylinder to deflect the scavenging air, from its path across the cylinder, toward the cylinder head, for the purpose specified.

4. A two cycle combustion engine having a set of piston-controlled exhaust apertures, a set of piston-controlled openings for scavenging air, additional oppositely arranged piston-controlled air inlet openings upwardly directed and narrower than the aforesaid openings, and means for supplying air to said additional openings under higher pressure than the scavenging air thereby producing within the cylinder a wall of high pressure air across the cylinder in front of the openings for scavenging air for deflecting said scavenging air to the cylinder head.

1,255,463. THREAD-PROTECTOR FOR PIPES. NELSON H. RAYMOND, Buffalo, N. Y., assignor to Clifton Manufacturing Co., Jamaica Plain, Mass., a Corporation of New Jersey. Filed May 26, 1915. Serial No. 30,537. (Cl. 137—91.)



A new article of manufacture comprising a pipe having an external tapering thread at its end, an unthreaded seamless sleeve fitting frictionally upon the exterior of the pipe and covering the threads and the adjacent unthreaded part thereof and provided with an integral inwardly projecting annular flange engaging with the end of the pipe, and a protecting coating applied to the exposed surfaces of said conduit and said sleeve and flanges.

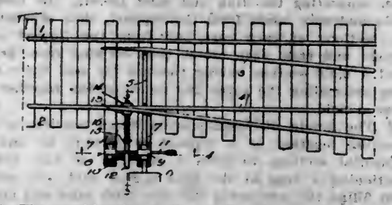
1,255,464. PIVOTED REVERSIBLE WINDOW. DONATO R. RISSOLO, Newark, N. J. Filed Sept. 15, 1916. Serial No. 120,211. (Cl. 20—42.)

In a pivoted stay supported reversible window, the combination with the window-sash having receiving sockets in its upper corners, of a supporting frame mounted in connection with each receiving-socket comprising a downwardly extending face-plate secured to said window-sash and extending upwardly over said receiving-socket, a back-plate connected in rearward spaced relation to said face-plate within said receiving-socket, a sliding fulcrum-stud projecting from the exterior face of said face plate adapted to ride in a vertical guide-groove of a window-frame, a



stem connected with said fulcrum-stud extending rearwardly through said face-plate, receiving-socket and back-plate, a sleeve on said stem adapted to extend through said face-plate and bear against said fulcrum-stud, and a push-spring coiled about said stem and bearing against said back-plate and the inner end of said sleeve to impart an outward thrust to said fulcrum-stud.

1,255,465. RAIL-LOCKING DEVICE. CARL ROCHELLE, Washington, N. C. Filed Nov. 28, 1916. Serial No. 133,070. (Cl. 104—25.)



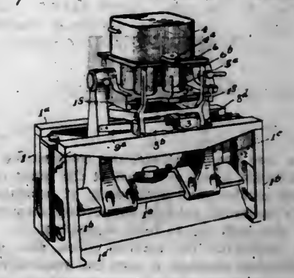
1. The combination with a railroad track having main track rails, of movable rails for switching purposes arranged to be moved into and out of engagement with said main track rails, a locking bar secured to one of said movable rails, a locking member arranged to engage said locking bar when said movable rail is in engagement with a main rail, and means for disengaging said locking member from said locking bar at will.

3. In a switching system, a main track rail, a movable rail arranged to be brought into and out of engagement with said main track rail, a rod pivotally secured to said movable rail, an abutment carried by the rod, a spring disposed upon the rod, one end of the spring bearing against said abutment and the other end of the spring bearing against the stationary rail, and gravity operated means for automatically locking the rod in its normal position.

6. In a switching system, a main track rail, a movable rail arranged to be brought into and out of engagement with said main track rail, a rod secured to said movable rail and provided with a slot, an abutment carried by the rod, a spring disposed upon the rod, one end of the spring bearing against said abutment and the other end of the spring bearing against the stationary rail, a lever pivoted at one end and having a portion arranged to enter the notch in said rod when the latter is in its normal position for locking the rod, and a foot lever for raising said locking lever to release the locking rod.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,255,466. MOLDING-MACHINE. DANIEL J. RYAN, Cleveland, Ohio. Filed Feb. 4, 1914, Serial No. 816,460. Renewed Sept. 4, 1917. Serial No. 189,682. (Cl. 22—50.)



1. In a machine for making molds, the combination with supporting means having a vertically movable frame, and a pattern support mounted on and movable with said frame, of a stripping plate movable upwardly and downwardly with said support and fitting over a pattern thereon, a member arranged out of the path of movement of said stripping plate but movable into the path of movement thereof when said stripping plate and frame are raised, to stop said plate in elevated position as said frame is being lowered, and means for operating said frame.

9. In a machine for making molds, the combination with a support, of a vertically movable frame having a pattern plate over which a mold structure is placed, a plurality of members movably mounted on said support, said members being arranged below and normally positioned beyond the limit of movement of the mold structure in the downward direction, but movable, when said frame is elevated, into the path of movement of the mold structure, whereby said members engage with and strip the mold structure as said frame is lowered, and means for operating said frame.

18. In a machine of the character described, the combination of a vertically movable frame, adapted to carry a pattern and a flask structure, means for stripping the flask structure from the pattern, the said means including a member swingably mounted below said frame and normally arranged in a horizontal position below it and the mold structure, but movable, when said frame is elevated, into a substantially upright position, whereby its free end is engaged by the mold structure during downward movement of said frame, and means for operating said frame.

27. In a machine of the character described, the combination of a support, a frame movable upwardly and downwardly on said support, a stripping plate mounted on and movable upwardly and downwardly with said frame, and means movably mounted on said support, the said means being normally arranged out of position for engagement with said stripping plate to permit it to move upwardly and downwardly with said frame, but movable, when the latter is in elevated position, into position to be engaged by said stripping plate during downward movement of said frame.

32. In apparatus of the character described, the combination of a vertically movable frame provided with a pattern and adapted to removably support a flask structure, a stripping plate mounted on and movable upwardly and downwardly with said frame, means for raising and lowering said frame, devices swingable into and out of the path of movement of said stripping plate when the

frame is elevated, whereby said stripping plate can be arrested during downward movement of the frame to strip the mold structure from the pattern, and means for operating the said devices in one direction.

[Claims 2 to 8, 10 to 17, 19 to 26, and 28 to 31 not printed in the Gazette.]

1,255,467. APPARATUS FOR MAKING CORES. DANIEL J. RYAN, Cleveland, Ohio. Filed Feb. 4, 1914. Serial No. 816,461. (Cl. 22—10.)



4. In a core box structure, the combination of a supporting member, a cap arranged at the inner end of said supporting member, and a plurality of separable sections removably mounted in said supporting member and cooperable with said cap to form a core box.

10. In apparatus for making cores, the combination of a supporting member, a core box removably mounted in said supporting member and comprising a plurality of sections, and interlocking means between the core box sections and said supporting member for determining the position of said sections in said member, said interlocking means being arranged for disengagement during the first part of the movement of the core box sections when the latter are removed from said supporting member.

14. In a core box structure, the combination of a plate provided with a core box supporting member, the open end of the member being disposed substantially flush with one surface of the plate, a core box removably mounted in the supporting member and comprising a plurality of sections and a cap, separable one from the other, and means for detachably securing the cap to the inner end of said member.

17. In an apparatus for making a plurality of cores formed of a single body of sand, the combination of a frame provided with a series of supporting members, a core box, comprising a plurality of side sections and an end section separable from each other, mounted in each of said supporting members, said side sections of each core box being removable from its supporting member, and a drag adapted to be secured on top of said frame, whereby the core boxes and drag may be filled with sand and tamped to constitute one body with the cores integrally connected to each other.

24. In apparatus for forming a core, the combination of a support having a core box receiving member, and a core box comprising separable sections freely insertible in and removable from the receiving member, whereby said core box sections can be removed with the formed core from the receiving member before they are separated one from the other, said core box sections having seat members which engage the wall of the receiving member and the wall of the latter at its open end being formed with an annular recess to receive the seat members at the outer ends of the core box sections.

Claims 1 to 3, 5 to 9, 11 to 13, 15, 16, 18 to 23, 25, and 26 not printed in the Gazette.]

1,255,468. PROCESS OF PREPARING SAND MOLDS FOR AND CASTING CUP-SHAPED ARTICLES. DANIEL J. RYAN, Cleveland, Ohio. Filed May 7, 1915. Serial No. 26,484. (Cl. 22—198.)

1. The herein described process which consists in assembling a plurality of core box sections and a gate and pouring basin pattern upon a support to form a core upside down with an adjacent pouring basin and a gate at one side of said core, positioning a drag at the open end of said core box, then filling said core box and drag with sand and tamping it to form an integral mass of sand in said drag and core box, then separating said drag and core box with the sand therein from the support, then separating the sections of the core box from the core formed therein, forming in sand in a cope a recess to receive said core and to constitute therewith a mold for a cup-shaped article having a gate leading laterally from its open end, then placing the cope and drag together with the core inside the mold cavity in the cope, the gate in the drag communicating at its outer end with the gate in the cope.



2. The herein described process which consists in assembling a plurality of sectional core boxes and a gate and pouring basin pattern upon a support to form a plurality of cores upside down with a centrally disposed pouring basin and gates extending radially at each side of each core, then positioning a drag at the open end of said core boxes, then filling said core boxes and drag with sand and tamping it to form an integral mass of sand in said drag and core boxes, then separating said drag and core boxes with the sand therein from the support, then separating the sections of each core box from the core formed therein, forming in sand in a cope recesses to receive said cores and to constitute therewith molds for cup-shaped articles, with gates extending laterally between the adjacent walls of adjoining recesses, and then placing the cope and drag together with each core inside one of said recesses in the cope, the gates in the drag communicating at their outer ends with the gates in the cope.

5. The herein described process of making a plurality of piston molds from green sand which consists in assembling together in a support a plurality of sets of correlated core box sections and a drag, to form cores, then filling the core boxes and drag with green sand and tamping it to form a series of cores from one mass of sand, then separating the drag and sand therein, the formed cores and core boxes from the support, then separating the sections of each core box from the formed core therein and from each other, then forming from green sand a mold section having recesses for said cores and then assembling the cores and mold section together to form a mold.

7. The herein disclosed process which consists in assembling together on a support a plurality of sets of segmental sections to form a plurality of core boxes, positioning a drag at the open end of said core boxes, then filling the core boxes and drag with sand and tamping it, then separating the drag and sand therein, formed cores and core boxes from the support, then moving in a lateral direction away from the axis of each core the segmental sections of the adjacent core box to separate them from the core and from each other, forming in sand in a cope a mold formed with a plurality of mold cavities having their axes arranged relative to and spaced from each other similar to the arrangement of and distance between the axes of the cores, and finally positioning said cope upon said drag with each core in and concentric to the wall of one of said mold cavities in said cope.

13. The herein described process of making green sand molds for cup-shaped articles, it consisting in assembling on a support a plurality of sectional core boxes, to form a plurality of cores upside down, and a pattern to form a pouring basin common to said cores and gates leading therefrom between the cores, positioning a drag at the open end of said core boxes, filling the core boxes and drag with green sand and tamping the same to form an integral mass, then inverting the core box support and removing said core boxes and drag with sand therein from said support, then separating the sections of each core box from the core within by moving them radially relative to the axis of said core, forming in green sand in a cope, which forms with said drag a flask, a plurality of mold cavities, each adapted to receive one of said cores, and a sprue hole having at its lower end a port adapted to register with said pouring basin in the drag and gates leading from said mold cavities and disposed to communicate with said gates in the core, and finally positioning said cope upon said drag with each said core concentric with one of said mold cavities.

[Claims 3, 4, 6, 8 to 12, and 14 to 16 not printed in the Gazette.]

1,255,469. METHOD OF MAKING VALVES. AUGUSTUS E. SCHLIEDER, Detroit, Mich., assignor to Schlieder Manufacturing Company, Detroit, Mich., a Corporation of Michigan. Filed June 28, 1915. Serial No. 36,710. (Cl. 29—157.)



1. The method of manufacturing valves which consists in forming a head with a central opening having an enlargement at one end, in placing said head onto a stem, in subjecting the stem at the base of said enlargement to heat and exerting pressure against the head end of the stem to cause the latter to become shortened and form a circumferential bead at its head portion, in subjecting the wall of said enlargement and said stem to heat and introducing molten metal into said enlargement to unite with the metal of the stem and the walls of said enlargement.

[Claims 2 and 3 not printed in the Gazette.]

1,255,470. SHOCK-GATHERER. HERMANN DAVID SCHNEIDER, Milverton, Ontario, Canada. Filed Feb. 24, 1916. Serial No. 80,118. (Cl. 214—2.)

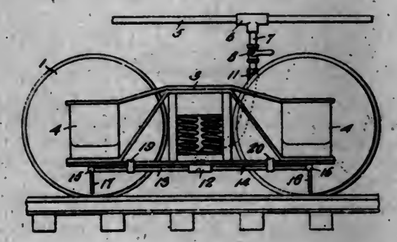


2. In a shock gatherer, a lifting reel comprising a shaft journaled at the front of the machine, disk members secured to said shaft, a plurality of shafts journaled in said disks and spaced equidistant from the center shaft and each having a plurality of rigid tines, cam members secured on the ends of said shafts, stationary cams adapted to engage said cam members and having circumferential portions extending the major portion of the orbit of rotation to hold said cams and the tines carried thereby rigidly extended, said stationary cams having recessed portions adapted to allow of the swinging of the cams to release the tine shafts and allow the tines to swing backwardly as they are being withdrawn from the sheaves, and yielding means engaging said tine shaft cams in their altered positions.

5. In a shock gatherer, a frame, a rotatable shock gathering member arranged at the front of said frame, shafts extending longitudinally of said frame and journaled in bearings secured to said frame at the sides and operating said shock gathering member, a driving shaft extending transversely of said frame and operating said longitudinal shafts, means for driving said driving shaft, an endless carrier extending upwardly from said gatherer, a rear axle and traction wheels, and bracket members secured to said frame and carrying swinging front wheels, said brackets having vertical slots therein through which the frame extends, and springs arranged in said slots to support said frame.

[Claims 1, 3, and 4 not printed in the Gazette.]

1,255,471. TRAIN-STOP. WALTER E. SCOTT, North Battleford, Saskatchewan, Canada. Filed Aug. 20, 1917. Serial No. 187,316. (Cl. 188—2.)



1. A train stop including in combination with an air brake system, valves of the turning plug type mounted adjacent each of the wheels of the train and having operating handles adapted to stand perpendicularly and to reach down to terminate closely adjacent the rails on which the wheels travel, a distributing pipe for each truck of the train, a connection from the distributing pipe to the main train line pipe, and branch pipes extending from said distributing pipe to the valves.

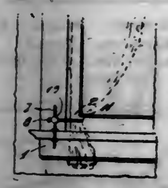
2. A train stop including in combination with an air brake system, valves of the turning plug type mounted adjacent each of the wheels of the train and having operating handles adapted to stand perpendicularly and to reach down to terminate closely adjacent the rails on which the wheels travel, a distributing pipe for each truck of the train, a connection from the distributing pipe to the main train line pipe, branch pipes extending from said distributing pipe to the valve, and a cut-off cock mounted in the connection from the train line pipe to the distributing pipe.

3. A train stop adapted for application in connection with an air brake system including a distributing pipe mounted transversely upon each truck, T-heads carried at the ends of said distributing pipes and having the branches connected therewith disposed forwardly and rearwardly, branch pipes connected with the T-heads terminating substantially beneath the oil boxes of the truck, cut off valves mounted at the ends of the branch pipes provided with handles adapted to stand perpendicularly and to reach down to lie closely adjacent to the wheels and to terminate substantially on a line with the rails upon which the wheels travel, and a connection from the train-line-pipe to the distributing pipe.

4. A train stop adapted for application in connection with an air brake system including a distributing pipe mounted transversely upon each truck, T-heads carried at the ends of said distributing pipes and having the branches connected therewith disposed forwardly and rearwardly, branch pipes connected with the T-heads terminating substantially beneath the oil boxes of the truck, cut off valves mounted at the ends of the branch pipes provided with handles adapted to stand perpendicularly and to reach down to lie closely adjacent to the wheels and to terminate substantially on a line with the rails upon which the wheels travel, a connection from the train-line-pipe to the distributing pipe, said valve handles being mounted to be capable of movement to lie close against the bottom strap of the arch-bar of the truck, clips by which the branch pipes are rigidly

connected with the bottom strap to thus mount and support the structure and a cut off cock mounted in the connection from the distributing pipe to the train-line-pipe.

1,255,472. WINDOW-CURTAIN HOLDER. THOMAS B. SCRIBNER, Orland, Cal. Filed Mar. 8, 1917. Serial No. 153,426. (Cl. 156—33.)

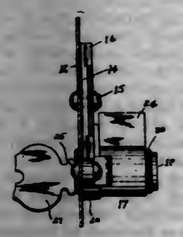


1. A window curtain holder of the class described comprising an adjustable clamp adapted to be secured to the vertical or horizontal portions of a window frame and composed of two jaws, one being movable toward and from the other and a curtain retaining member rotatably mounted on one of said jaws in a plane substantially at right angles to the path of movement of the clamping jaws.

2. A window curtain holder of the class described comprising an adjustable clamping member having a sliding jaw movable toward and away from the stationary jaw, a pivot stud extending from the stationary jaw in a plane at right angles to the path of movement of the sliding jaw, and a curtain retaining member rotatably mounted on said stud.

3. A window curtain holder of the class described comprising a stationary jaw having a shank extending substantially at right angles thereto and provided with an opening disposed parallel to said jaw, a movable jaw having a straight elongated shank extending parallel to the jaw and slidably disposed in said opening, a pivot stud formed of the shank of said stationary member and having a threaded socket therein, a curtain retaining member having a hook on one end, its other end being enlarged and provided with an opening to receive said pivot stud, a retaining screw disposed in said threaded socket, and a set screw carried by the shank of the stationary jaw to lock the sliding jaw thereto.

1,255,473. LOCK. JOHN H. SHAW, New Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Apr. 21, 1917. Serial No. 163,710. (Cl. 70—46.)



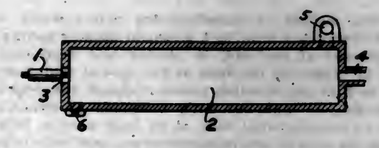
1. The combination of a plate, a pin tumbler lock having a casing and a key plug, located at the rear of said plate, the main portion of said casing being spaced rearwardly from the plate and the front end of said key plug extending forwardly out of the casing into an opening of said plate, means for securing said pin tumbler lock to said plate, an element to be operated mounted at the rear of said plate, and an operating projection on the forward end portion of the key plug between the pin tumbler lock casing and the plate for engaging said element to operate the same.

2. In a lock, a plate having an opening, a pin tumbler lock at the rear of said plate having a casing and a key plug, said casing spaced rearwardly from the plate and said key plug extending forwardly from the casing into said opening, an element to be operated mounted at the rear of said plate, and means of connection between said key plug and said element connected with the key plug in front of the pin tumbler lock casing.

3. In a lock, an escutcheon having an opening, a pin tumbler lock at the rear of said escutcheon having a casing including a pin tumbler extension and also having a key plug extending forwardly out of the casing into the opening of the escutcheon, an element to be operated mounted at the rear of said escutcheon, and an operating projection for said element on the forward end of the key plug in front of said pin tumbler extension.

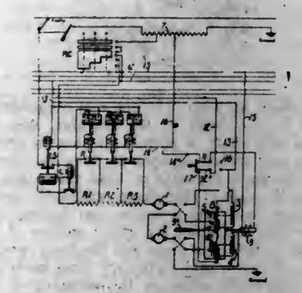
[Claims 4 to 25 not printed in the Gazette.]

1,255,474. METHOD OF RECOVERING FROM NITER CAKE PRODUCTS USEFUL IN THE ARTS. LAURENCE T. SHERWOOD, Connellsville, Pa. Filed Feb. 8, 1917. Serial No. 147,337. (Cl. 23—1.)



The method of recovering useful products from niter cake which consists in burning sulfur, and applying the heat of combustion to niter cake to decompose it into sulfur oxid and sodium sulfate, converting the sulfur-oxids of combustion and decomposition into sulfuric acid, and recovering the sodium-sulfate, substantially as described.

1,255,475. CONTROL SYSTEM. KARL A. SIMMON, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 4, 1913. Serial No. 804,703. (Cl. 175—294.)

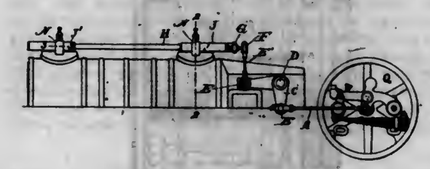


1. In an electric circuit, the combination with a plurality of motor field-winding sections, a plurality of co-operating relatively movable contact members in circuit with said field-winding sections and means for actuating said movable members to govern said field-winding sections, of means dependent upon abnormal electrical conditions of certain of said contact members for rendering certain of said actuating means inoperative.

11. The combination with a movable contact member, a coöperating stationary contact member and a main circuit conductor connected thereto, of a support for said stationary member, a fusible member, a tubular holder therefor having an opening through which a portion of said fusible member extends in operative proximity to said contact members and to said main conductor, a plurality of terminal members for said fusible member secured to the ends of said holder, resilient means for detachably holding said terminal members, and a plurality of arms severally secured to said support and to said resilient means for making auxiliary electrical connections to said fusible member.

[Claims 2 to 10 and 12 to 15 not printed in the Gazette.]

1,255,476. VALVE-GEAR. LE GRAND SKINNER, Erie, Pa. Filed July 20, 1917. Serial No. 181,882. (Cl. 121—101.)



1. The combination with an engine cylinder, valves and crank shaft, of a governor on the crank shaft, a rocker operatively connected to the governor, the axis of the rocker being transverse to the axis of the cylinder, a lay shaft extending parallel to the cylinder and connected to the rocker, and operating devices between the lay shaft and the valves, said devices being movable lengthwise of the cylinder with respect to the lay shaft, without varying the functional relation of the lay shaft to the valves or the governor.

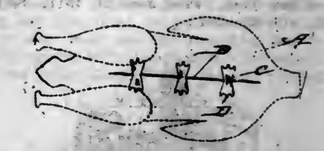
2. In an engine valve gear, the combination of a rocker oscillating on an axis at a right angle to the engine cylinder axis, a lay shaft parallel to the cylinder axis, and connecting means between the rocker and lay shaft, to operate the latter, said means including universal joints permitting variations in relative position between the shaft and rocker, the lay shaft being movable longitudinally relative to the cylinder, whereby expansion of the cylinder will not vary the angular relation of the lay shaft and the rocker.

3. The combination with an engine cylinder and its valves, of a valve-operating lay shaft extending beside the cylinder and parallel thereto, a lever vibrating on an axis at an angle to the axis of said shaft, and connected to the lay shaft, and means to operate the lever, the lay shaft being movable longitudinally relative to the cylinder, whereby expansion of the cylinder will not vary the angular relation of the lay shaft and the lever.

4. In a valve operating mechanism for engines, the combination with a governor on the engine shaft, of a rocker actuated thereby and having means to produce oscillation in a plane parallel to the center line of the engine, and means to convert said oscillations into oscillations in a plane at a right angle to said center line, the last mentioned means including a lay shaft extending parallel to said center line, the lay shaft being movable longitudinally relative to the cylinder, whereby expansion of the cylinder will not vary the angular relation of the lay shaft and the rocker.

5. In an engine valve-gear, the combination with an engine cylinder, its valves and crank shaft, of means actuated by the crank shaft to produce reciprocating movements in a plane parallel to the axis of the engine cylinder, and means to convert said movements into movements at a right angle to said axis and transmit same to the valves, the last mentioned means including devices to permit variation of the position of the valves without varying the angular relation of the movements so converted.

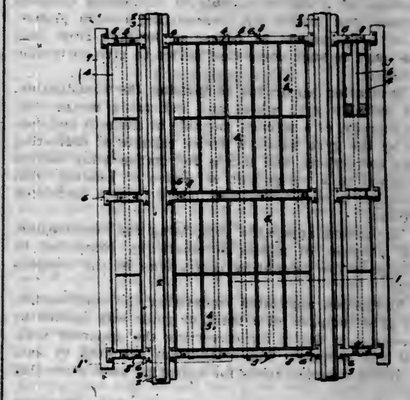
1,255,477. POULTRY APPLIANCE. GERTRUDE A. SMART, Madison, Nebr. Filed Mar. 6, 1917. Serial No. 152,773. (Cl. 24—87.)



1. As a new article of manufacture, a fastener for closing the slit in fowls, consisting of a plate having a central narrow portion spanning the slit and having flaring ends formed with barbs arranged out of line to enter the fowl at different points to insure a rigid fastening.

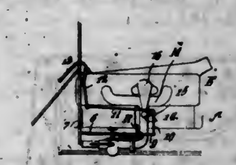
[Claim 2 not printed in the Gazette.]

1,255,478. CATTLE-GUARD. ALEXANDER W. SMITH, Agassiz, British Columbia, Canada. Filed Mar. 21, 1917. Serial No. 156,367. (Cl. 256—16.)



A cattle guard, comprising the combination with longitudinal timbers on which the track rails are carried throughout the length of the guard, of longitudinal timbers parallel thereto outside the track width, shaft bearers extending between and secured to the longitudinals, tubular shafts secured to the upper side of the bearers, and a series of short rollers of relatively large diameter mounted on said shafts to be independently rotatable thereon.

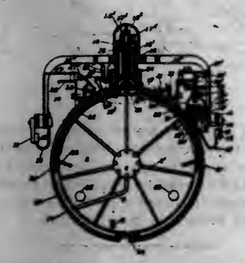
1,255,479. FOOT-ACCELERATOR. ARTHUR E. SPENCER, Lake City, Fla. Filed June 27, 1917. Serial No. 177,319. (Cl. 74—81.)



1. In a device of the class described, a valve operating lever, a slotted plate connected therewith, an apertured valve stem, a foot pedal operatively connected therewith, and a connection between said slotted plate and said lever stem.

[Claims 2 and 3 not printed in the Gazette.]

1,255,480. GYROSCOPIC NAVIGATION APPARATUS. ELMER A. SPERRY, Brooklyn, N. Y., assignor to The Sperry Gyroscope Company, Brooklyn, N. Y., a Corporation of New York. Filed June 21, 1911. Serial No. 634,595. (Cl. 33—204.)



1. Navigation apparatus comprising the combination with a suitable gyro-wheel and means, including a movable part, controlled thereby and capable of indicating course or heading, of a device capable of indicating compass corrections, and means for transmitting motion proportional to a component of course or heading from said movable part to such correction device to give correction indications.

23. Navigation apparatus comprising the combination, with a suitable gyro wheel and indicating means controlled thereby, of a member movable in azimuth and controlled by the gyro wheel, a device capable of indicating compass corrections, and means for transmitting motion proportional to a component of course or heading from said member to such correction device to give correction indications.

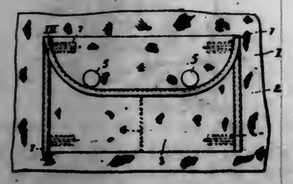
25. Navigation apparatus comprising the combination, with a compass, of means automatically controlled by said compass for computing corrections to the compass readings.

28. Navigation apparatus comprising the combination, with a gyro compass, of a track or guide way carried by said compass, a device for correcting the apparent readings of the compass, and mechanism actuated by said track, as the compass turns for operating such correcting device.

29. In gyro navigation apparatus, the combination with a gyro wheel, of a part associated therewith, means whereby said part is caused to partake of the apparent arc in azimuth movements of said wheel, a movable correction device positioned adjacent said part, an electric transmitter, means whereby the same is driven from the combined motions of said part and said device for transmitting corrected indications, a repeating device having indicating means and connections whereby the same is operated by such transmitter.

[Claims 2 to 22, 24, 26, 27, and 30 to 33 not printed in the Gazette.]

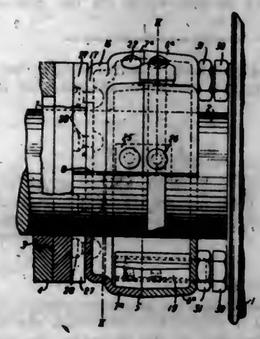
1,255,481. DETACHABLE POCKET. ERNEST SPRANGER, New York, N. Y. Filed Oct. 11, 1917. Serial No. 196,025. (Cl. 2—15.)



1. The combination with a pocket, of a plurality of fastening devices, each comprising a plate portion secured to the pocket, and a tongue to engage a fabric to which the pocket is to be attached, said devices being arranged in parallel pairs near the lateral edges of the pocket with the tongues pointing away from the adjacent lateral edges, whereby the fabric must be bunched to permit the pocket to be attached or detached.

[Claim 2 not printed in the Gazette.]

1,255,482. AXLE-COLLAR. CHARLES W. STARKER, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed July 14, 1915. Serial No. 39,776. (Cl. 105—66.)



1. The combination with an axle and a machine frame disposed thereon, of a divided collar inclosing the said axle, each member of the said collar comprising separate oppositely disposed portions, means for securing the said portions together in alinement, clamping means for the collar members, and members adjustable with respect to the said first named means for positioning the collar, as a whole, along the axle.

2. The combination with an axle and a machine frame disposed thereon, of a divided collar inclosing the said axle, each member of the said collar comprising separate and oppositely disposed semi-cup-shaped portions, means for securing the said portions together in alinement, clamping means for the collar members, and members adjustable with respect to the said first named means for positioning the collar as a whole along the axle.

3. An axle collar comprising oppositely disposed cup-shaped portions respectively having laterally extending walls and a member located entirely within said cup-shaped portions and engaging adjacent walls of the said cup-shaped portions and secured thereto.

[Claims 4 to 10 not printed in the Gazette.]

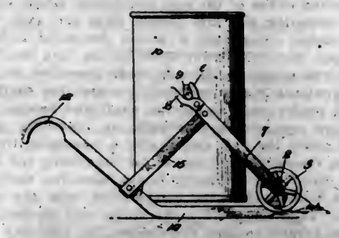
1,255,483. PROCESS OF CANNING MILK. HERMAN J. STARTZENBACH, Atlantic City, N. J. Filed June 23, 1916. Serial No. 105,348. (Cl. 99—8.)

1. The process of canning milk and cream which consists in pasteurizing and homogenizing and cooling the same, canning the cooled product, sterilizing the product in the cans by the application of heating and cooling mediums, and subjecting the canned product and the heating and cooling mediums to relative movement during sterilization, substantially as described.

[Claims 2 and 3 not printed in the Gazette.]

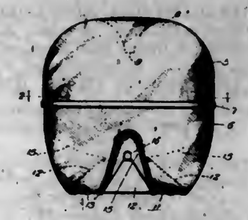
1,255,484. TRUCK. JOHN S. STEPHENS, Paterson, N. J. Filed Feb. 20, 1917. Serial No. 149,898. (Cl. 21—119.)

1. A truck comprising an axle bar, wheels carried by the ends of said bar, standards rising from said bar adjacent the wheels and having their upper ends formed into forwardly projecting seats, braces extending upwardly from the axle bar beyond the wheels and secured to the upper ends of the standards, the upper extremities of said braces being formed into rearwardly extending seats, and side members secured to the axle bar and extending upwardly and rearwardly therefrom.



2. A truck comprising spindles, wheels mounted on said spindles, pail-supporting members rising from said spindles, side members having their front extremities connected to said pail-supporting members and having arcuate portions eccentric to the spindles and extending from the spindles beyond the peripheries of said wheels whereby to form rockers by which the wheels may be raised, said side members having runner portions extending rearwardly from said arcuate portions, and a rigid connection between the side members and the pail-supporting members.

1,255,485. INSECT-TRAP. MARTIN STOFFEL, Ingleside, Ill. Filed June 27, 1917. Serial No. 177,250. (Cl. 43—22.)



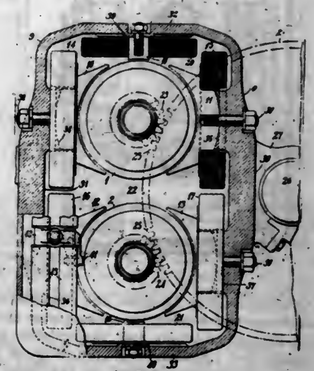
1. A fly trap comprising a compartment or chamber of spherical shape, formed of two hemispherical shells superimposed upon each other, one of said shells provided with a base-plate having angular extensions that are bent inwardly into said shell and the material forming said shell secured to the edges of said plate and said extensions and conforming to the contour thereof.

2. A fly trap comprising a dome shaped hollow shell of wire mesh, and a base section consisting of a shell of wire mesh having entrance cones extended into the interior thereof, and a base-plate to which the lower edges of said wire mesh are secured and which provides a support for said trap and is provided with inclined members leading to the apexes of said cones whereby one of the walls of said cones is formed.

3. A fly trap formed by securing a strip of wire mesh to a metal blank the latter being provided with angular extensions, said extensions adapted to be bent back into the interior of the chamber formed by said mesh and thereby form a plurality of entrance cones through which the insects have access to the interior of said trap.

1,255,486. DYNAMO-ELECTRIC MACHINE. NORMAN W. STORER, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed May 22, 1913. Serial No. 769,204. (Cl. 172—286.)

1. In a twin bi-polar dynamo-electric machine, the combination with a pair of armatures having their axes in different parallel lines and separated only by an air gap, a pair of polar members for each armature and a rectangular magnetizable frame associated with said polar members and inclosing said armatures and polar members, of magnetizing coils disposed upon said polar members adjacent to the respective armatures and adapted to force the main body of flux through a single magnetic circuit including both armatures, the polar members and side portions of said frame and the remaining flux in multiple magnetic circuits including the respective armatures, their associated polar members and the end portions of said frame.



2. In a twin bi-polar dynamo-electric machine, the combination with a pair of armatures having their axes in different parallel lines and separated only by an air gap, a unitary rectangular magnetizable frame inclosing said armatures and having end portions of small sectional area and side portions of relatively large sectional area, and a pair of main polar projections for each armature associated with the side portions, of magnetizing coils disposed upon the respective polar projections adjacent to the armatures, auxiliary commutating polar projections associated with the end portions, and magnetizing coils therefor.

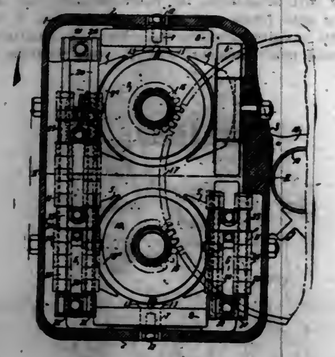
3. A duplex bi-polar dynamo-electric machine comprising an oblong substantially rectangular field magnet frome having two side-by-side pairs of main polar projections extending inwardly from the longer sides of the frame, the adjacent poles of the different pairs being of opposite polarity and the intervening portions of the frame being of larger cross section than the remaining portions, and having a commutating polar projection extending inwardly from each of the shorter sides of the frame, a coil upon each of said polar projections, and two armatures having substantially parallel axes located between the polar projections of said pairs and respectively adjacent to said commutating polar projections.

4. In a twin bi-polar dynamo-electric machine, the combination with a pair of armatures having their axes in different parallel lines and separated only by an air gap, a pair of polar members for each armature, and a rectangular magnetizable frame associated with said polar members and inclosing said armatures and polar members, of magnetizing coils disposed upon said polar members adjacent to the respective armatures and adapted to force the main body of flux through a single magnetic circuit including both armatures, the polar members, and side portions of said frame.

1,255,487. DYNAMO-ELECTRIC MACHINE. NORMAN W. STORER, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed May 11, 1914. Serial No. 837,699. (Cl. 172—286.)

1. In a dynamo-electric machine, the combination with an incasing frame and a plurality of rotatable members respectively having a current-delivering surface, of a supporting member internally carried by the ends of said

frame, insulating means inclosing said member, and current collecting devices secured to the supporting member to make contact with said current-delivering surfaces.

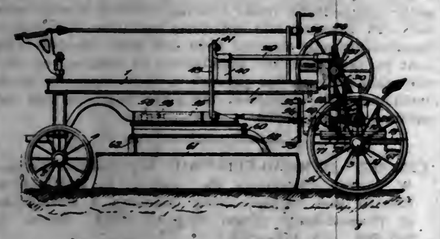


3. In a dynamo-electric machine, the combination with an incasing frame and a plurality of rotatable armatures arranged in parallel relation and respectively provided with a commutator cylinder, of a plurality of sets of supporting rods internally clamped to the ends of said frame and respectively located in proximity to similarly located portions of said commutator cylinders, all of said rods being disposed in substantially the same transverse plane, insulating covers severally disposed on said rods, a plurality of brush-holding devices severally clamped to said sets of rods, and a plurality of brushes severally disposed in said devices to make contact with said cylinder in said similarly located portions thereof.

5. In a dynamo-electric machine, the combination with an incasing frame provided with a pair of armatures having commutator cylinders arranged in parallel relation, of a plurality of pairs of supporting rods internally clamped to the ends of said frame and all disposed in substantially the same transverse plane, insulating wrappers for the several rods, a plurality of brush-holding devices clamped at predetermined intervals to said pairs of wrapped rods, rod-inclosing members having an external surface adapted to present a relatively long creepage distance and disposed between the corresponding devices and between each device and the adjacent end-frame, and a plurality of brushes severally disposed in said devices to make contact with said cylinders in planes substantially at right angles to the plane of said rods.

[Claims 2 and 4 not printed in the Gazette.]

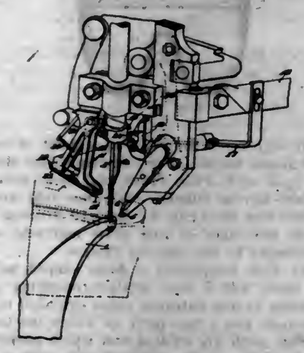
1,255,488. ROAD-GRADER. NELSON STORY, Jr., Bozeman, Mont. Filed June 24, 1916. Serial No. 105,550. (Cl. 37—49.)



1. In a road grader, the combination with the main frame, the axles supporting the frame and mounted to swing with respect thereto, the scraper, the rotatably connected circles for supporting the scraper, one circle being connected to the scraper, and the other being suspended from the frame, means for tilting the circles, means for rotating the lower circle on the upper circle, and means for connecting either of the said last-named means to the axle for operating the said means from the axle, said rotating means comprising a pinion journaled radially of the upper circle, the lower circle having rack teeth engaged by the pinion, a driving shaft journaled on the frame, an extensible and contractible connecting shaft between the pinion and the driving shaft and having universal joint connections therewith, an operating shaft journaled above the axle and having a releasable driving connection therewith, and means for connecting the driving shaft directly or indirectly to the operating shaft.

2. In a road grader, the combination with the main frame, the axles supporting the frame and mounted to swing with respect thereto, the scraper, the rotatably connected circles for supporting the scraper, one circle being connected to the scraper, and the other being suspended from the frame, means for tilting the circles, means for rotating the lower circle on the upper circle, and means for connecting either of the said last-named means to the axle for operating the said means from the axle, said tilting means comprising shafts journaled at the opposite sides of the frame and longitudinally thereof, each having a radial arm and a connection between each arm and the adjacent side of the upper circle, means for rotating either shaft, an operating shaft having a releasable driving connection with the axle, and means for connecting the operating shaft with the operating means of either of the first-named shafts.

1,255,489. THREAD-CUTTING MECHANISM. JAKOB TRIEM, Frankfort-on-the-Main, Germany, assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed June 9, 1913. Serial No. 772,566. (Cl. 112—33.)
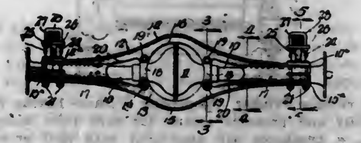


1. A shoe sewing machine having, in combination, stitch forming mechanism including a hooked needle, a thread cutter constructed to enter between the legs of a loop of thread held by the needle and normally positioned at one side of the path of movement of the needle, and actuating mechanism for moving the cutter between the two legs of the loop of thread held by the needle to sever one side of the loop of thread between the needle and work.

5. A shoe sewing machine comprising a straight hooked needle, a presser foot lifting bar, a presser foot supported by the bar, a thread cutter, an arm mounted upon the presser foot bar, a trip member pivotally supported on the arm, connections between the trip member and thread cutter, and means for automatically disconnecting the trip member and thread cutter upon raising the presser foot to a predetermined height.

6. A shoe sewing machine comprising a straight hooked needle, mechanism for actuating the needle to form a chain stitch, a stationary knife carrier, a knife blade slidingly mounted in the carrier, a retaining member hinged to the carrier and normally holding the knife blade in position, and actuating mechanism detachably connected to the knife blade.

[Claims 2 to 4 not printed in the Gazette.]

1,255,490. REINFORCING ATTACHMENT FOR THE REAR AXLES OF MOTOR-VEHICLES. HARRY B. VEHSTEDT, Chicago, Ill. Filed Jan. 2, 1917, Serial No. 140,027. Renewed Dec. 6, 1917. Serial No. 205,893. (Cl. 21—5.)



1. A reinforcing attachment for the rear axle housings of automobiles, comprising a beam having top and bottom flanges and an intermediate web, said web having an opening to receive the enlarged, inner ends of the housings, and means for attaching said web to said housings.

2. A reinforcing attachment for the rear axle housings of automobiles, comprising a beam having top and bottom flanges and an intermediate web, said web having an opening to receive the enlarged, inner ends of the housings and end parts adapted to engage the axle housings, and means for attaching said beam to said housings.

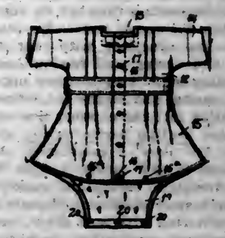
3. A reinforcing attachment for the rear axle housings of automobiles, comprising a beam having top and bottom flanges and an intermediate web, said web having an opening between its ends to receive the enlarged, inner ends of the housings, and end parts adapted to engage the axle housings, and means for attaching said beam to said axle housings at their ends and at points spaced therefrom.

4. A reinforcing attachment for the rear axle housings of automobiles, comprising a beam having top and bottom flanges and an intermediate web, said flanges diverging from the ends toward the middle of said beam, said web having an opening at its middle to receive the enlarged, inner ends of said housings and having parts at its ends adapted to engage the housings, and detachable straps associated with said beam for attaching it to said axle housings.

5. A reinforcing attachment for the rear axle housings of automobiles, comprising a beam having top and bottom flanges and an intermediate web, said flanges diverging from the ends of said beam toward its middle, said web having an opening at its middle to receive the enlarged, inner ends of said housings and having parts at its ends adapted to engage the housings, the top and bottom flanges being widened at their ends, straps adapted to be attached to the web near the opening at its middle and to engage the housings, and clamping blocks secured between the widened end parts of the top and bottom flanges of the beam, said blocks co-acting with the end parts of said web, to clamp the beam to the axle housings.

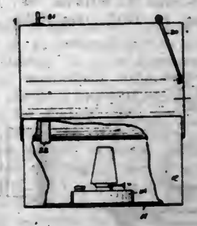
1,255,491. CHILD'S GARMENT. MARY T. VERDE, Boston, Mass. Filed Oct. 15, 1917. Serial No. 196,583. (Cl. 2—145.)

A child's garment comprising a body portion and a flaring skirt portion, and having a closed front and a divided back, the back divisions being adapted to be separably connected at their vertical edges, and provided at their lower ends with a transverse row of fastening members, and a flap projecting from the closed front midway between the said vertical edges, said flap having lateral edges forming outwardly projecting extensions of the lower edge of the skirt portion, an elongated outer edge transverse to said lateral edges, and a row of fastening members close to said outer edge and adapted to engage the fastening members on the divided back portion and form an elongated transverse connection between the flap and said back portion, normally maintaining the flap laterally extended in position to form the inner edges of two leg openings and conceal a diaper, the flap, when fastened,



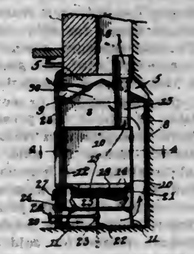
forming a septum which is substantially flush with the lower edge of the skirt portion, permitting free movement of the legs of the wearer, and giving the skirt portion the appearance of an undivided skirt, and being adapted, when unfastened, to be spread out flat, with the skirt portion, for convenience in washing and ironing.

1,255,492. CHICKEN-WATERER. JOSEPH VORBA, Gladbrook, Iowa. Filed Sept. 11, 1917. Serial No. 190,783. (Cl. 119—73.)



A waterer comprising a hollow base, having side and end walls, the side walls being inclined from their lower edges upwardly and toward each other, said end walls being curved to receive and support a tubular tank, a tubular tank resting upon the curved end walls of said base having supporting members thereon adapted to engage the side walls of said base for preventing rotation of the tank, and adapted also to support the tank on a flat surface, said tank having a trough at its forward end, a partition extending downwardly to position below the upper edge of said trough, and a heater in said base.

1,255,493. FIREPLACE STRUCTURE. JOSEPH H. WILLIAMS, Los Angeles, Cal. Filed June 18, 1914. Serial No. 844,895. (Cl. 126—123.)

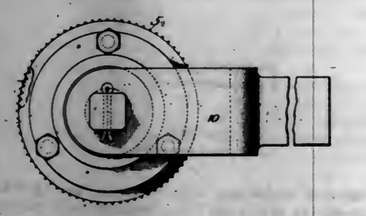


1. A fire place heater comprising a combustion chamber having an open front, a burner mounted in the said com-

bustion chamber for heating the same, an inclosing casing entirely surrounding the said combustion chamber and having a front opening coinciding with the front opening in the said combustion chamber, an air space being left between the casing at the sides, back, bottom and top, the said casing having lower and upper openings beneath and above said combustion chamber for the inlet and outlet of air within the room, and a fire place front plate having an opening coinciding with that of the combustion chamber and casing and having lower and upper opening coinciding with the lower and upper openings in the said outer casing, and means for delivering the products of combustion into the chimney flue of the fire place.

2. A fire place heating device having an inclosed casing set in the fire place, a combustion chamber having inclosed walls set in said casing, a front fire place plate covering said fire place, casing and combustion chamber, said casing, combustion chamber and plate having a large fire opening registering with each other, means for admitting draft into said combustion chamber through said plate, casing and combustion chamber walls, said casing being provided with an air space surrounding said chamber, the said casing having lower and upper openings beneath and above said combustion chamber for the inlet and outlet of air within the room from said air space, and means for delivering the products of combustion into the chimney flue from the combustion chamber of said heating device.

1,255,494. BUR FOR TREATING GRINDSTONES. GEORGE S. WITHAM, Jr., Hudson Falls, N. Y., assignor of one-half to George S. Witham, Sr., Hudson Falls, N. Y. Filed Aug. 17. 1917. Serial No. 186,726. (Cl. 125—19.)



1. A cylindrical bur for treating grindstones provided with a circular series of cutting teeth on its periphery, and with a circular relatively smooth bearing surface the diameter of which is considerably less than the periphery of the toothed portion of the bur but whose diameter is greater than the diameter at the inner ends of the teeth.

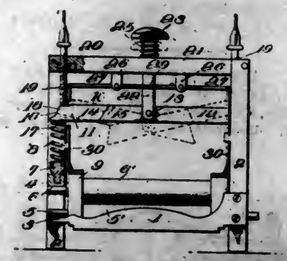
[Claims 2 and 3 not printed in the Gazette.]

1,255,495. AUTOMATIC PRESSURE-ROLL RELEASE FOR CLOTHES-WRINGERS. REA P. WRIGHT, Washington, D. C., assignor to John Francis Hemenway, New York, N. Y. Filed Jan. 12, 1917. Serial No. 141,995. (Cl. 68—32.)

1. A clothes wringer, comprising a frame having pressure rolls and pressure means for said rolls, a sectional bar associated with said pressure means, an operating member having a connection with said sectional bar, and means actuated by the abnormal separation of said roll for actuating said operating member to move the sections of said bar in position to release said pressure means.

2. A clothes wringer, comprising a frame having pressure rolls and pressure means for said rolls mounted therein, a sectional breakable bar associated with said pressure means, and an operating member for moving said sections in position to release said pressure means.

3. A clothes wringer, comprising a frame having pressure rolls and pressure means for said rolls mounted therein, a sectional breakable bar associated with said pressure means, said bar being formed of sections movable in one direction in respect to each other, and an operating member having a connection with said breakable bar for moving said bar in position to release said pressure means.



4. A clothes wringer, comprising a frame having pressure rolls and pressure means for said rolls mounted therein, a breakable bar associated with said pressure means, an operating member for breaking said bar to release said pressure means, and releasing members actuated by the abnormal separation of said pressure rolls having a connection with said operating member for automatically releasing the pressure on said pressure rolls.

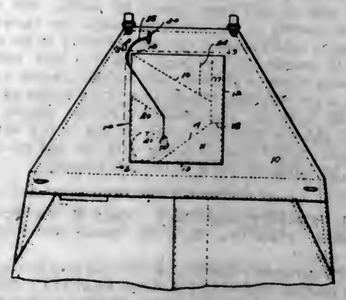
5. A clothes wringer, comprising a frame having pressure rolls and pressure means for said rolls mounted therein, a bar associated with said pressure means formed of two sections pivotally connected together, movable in respect to each other in one direction, and an operating member having a connection with the central portion of said bar for moving the sections thereof in respect to each other for releasing said pressure means.

[Claims 6 to 25 not printed in the Gazette.]

1,255,496. METHOD OF MAKING HOLLOW RUBBER TOYS. JOHN EDWARD ABLEE, Guelph, Ontario, Canada. Filed Aug. 24, 1917. Serial No. 188,027. (Cl. 18—58.)

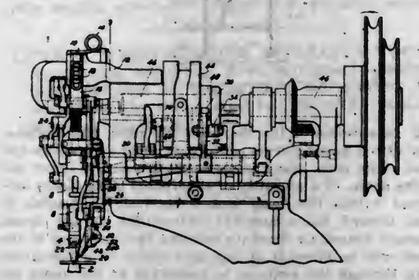
The method herein described of making hollow rubber animal toys consisting in forming the wall of the toy by dipping and then dividing the toy into two portions, then inserting and cementing an internal reinforcing band within the hollow toy to connect the divided portions of the toy together and then cementing a covering strip over the line of division on the exterior.

1,255,497. WATCH-POCKET. LOUIS C. ANKELE, Des Moines, Iowa, assignor to F. Brody & Sons. Filed Nov. 17, 1915. Serial No. 62,062. (Cl. 2—152.)



In a watch pocket comprising a rectangular piece of fabric and stitching for uniting same to a garment, said stitching including a horizontal row of stitching adapted to form the bottom of the pocket, a vertical row of stitching extending from one end of the bottom row of stitching and adapted to form one side of the pocket, a row of upwardly inclined stitching extended from the second end of the bottom stitching, a vertical row of stitching at the upper end of the last described stitching, said last two rows of stitching being adapted to form the second side of the pocket, an upwardly inclined row of stitching extended from the last described vertical stitching to a point above the first described side of the pocket, and an inclined row of stitching extended downwardly from the upper end of the first side of the pocket, the parts being so arranged that the inclined rows of stitching form inclined passageways extending at an angle to each other, which lead to the article holding portion of the pocket and the rows of stitching being so spaced that the passageways and the article holding portion are each of but slightly greater width than a watch.

1,255,498. SHOE-SEWING MACHINE. FRED ASHWORTH, Beverly, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Original application filed Jan. 27, 1913, Serial No. 744,465. Divided and this application filed Jan. 3, 1916. Serial No. 69,984. (Cl. 112—20.)



1. A shoe sewing machine having, in combination, stitch forming devices including a straight hook needle, a rotatable horn, feeding means comprising a movable awl bar, an awl movably mounted in the bar, means for moving the awl bar laterally, and means for moving the awl with relation to the awl bar into and out of engagement with the work in timed relation to the lateral movements of the awl bar.

2. A shoe sewing machine having, in combination, stitch forming devices including a straight hook needle, a rotatable horn, feeding means comprising an awl bar, an awl movably mounted in the bar, means for moving the awl bar laterally, and mechanism for moving the awl with relation to the awl bar into and out of engagement with the work, comprising a rack bar upon which the awl is carried, slidably mounted in the awl bar, a pinion rotatably mounted in the awl bar and engaging the rack bar, a second rack bar slidably mounted in the awl bar and engaging the pinion, and means for reciprocating the second rack bar.

3. A shoe sewing machine having, in combination, stitch forming devices including a straight hook needle, a rotatable horn, a presser foot, feeding means comprising a laterally movable awl bar, a connection between the awl bar and the presser foot for raising and lowering the awl bar in accordance with changes in the position of the presser foot, an awl movably mounted in the awl bar, and means for advancing and retracting the awl with relation to the awl bar into and out of engagement with the work.

7. A shoe sewing machine, having in combination, stitch forming devices including a straight hook needle, a work support, a presser-foot, a work-feeding awl, a swinging awl bar, an awl movably mounted in the bar, means for swinging the awl bar laterally, and means for moving the awl with relation to the awl bar into and out of engagement with the work in timed relation to the swinging movements of the awl bar.

8. A shoe sewing machine, having in combination, stitch forming devices including a hook needle, feeding means comprising a movable awl bar, an awl movably mounted in the bar, means for moving the awl bar laterally comprising an oscillatory lever, an awl movably mounted in the awl bar, mechanism for advancing and retracting the awl with relation to the awl bar into and out of engagement with the work in timed relation to the lateral movements of the awl bar comprising a series or relatively movable parts, a connection between one of said parts and the awl bar, and a pivotal connection between certain of said parts arranged to be brought into alinement with the axis of the oscillatory lever when the awl is at the limit of its advancing movement.

[Claims 4 to 6 and 9 not printed in the Gazette.]

1,255,499. MANUFACTURE OF WROUGHT-IRON. JAMES ASTON, Pittsburgh, Pa., assignor to A. M. Byers Company, Pittsburgh, Pa. Filed Aug. 18, 1917. Serial No. 186,830. (Cl. 75—197.)

1. The method of producing wrought-iron consisting in bringing refined iron to a welding heat in a silicate bath, and then squeezing and rolling the mingled slag and iron.

2. The method of producing wrought iron consisting in heating disintegrated refined iron when mingled with slag to a welding heat and then squeezing and rolling the same.

3. The method of producing wrought iron consisting in mingling disintegrated iron and molten slag, the point of fusion of which is lower than that of the iron, and then squeezing and working the metal at a welding heat to a product.

1,255,500. SOUND-RECORD. JONAS W. AYLSWORTH, East Orange, N. J., assignor to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Original application filed Feb. 11, 1910, Serial No. 543,236. Divided and this application filed May 24, 1915. Serial No. 30,197. (Cl. 106—22.)

1. As a new article of manufacture, a sound record or blank containing a final infusible phenolic condensation product which is sufficiently plastic when heated to be pressed or molded, and an inert filling material incorporated with said product in the proportion of at least 50 parts of filling material to 100 parts of condensation product, substantially as described.

3. As a new article of manufacture, a sound record or blank containing a final infusible phenolic condensation product which is sufficiently plastic when heated to be pressed or molded, and a filler of wood flour incorporated with said product in the proportion of at least 50 parts of filling material to 100 parts of condensation product, substantially as described.

6. As a new article of manufacture, a sound record or blank containing an infusible phenolic condensation product and a finely divided filling material in the proportion of at least 50 parts of filling material to 100 parts of condensation product, substantially as described.

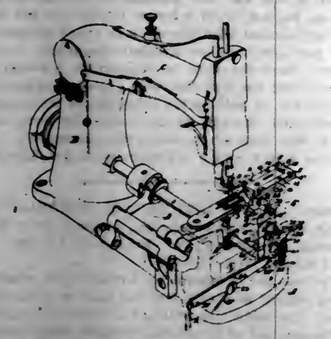
9. As a new article of manufacture, a sound record or blank containing an infusible phenolic condensation product of a phenol resin and a methylene containing compound or derivative and containing no catalytic agents or free or combined water and a finely divided filling material in the proportion of at least 50 parts of filling material to 100 parts of condensation product, substantially as described.

[Claims 2, 4, 5, 7, and 8 not printed in the Gazette.]

1,255,501. TAPE-CUTTING MECHANISM FOR SEWING-MACHINES. WILLIAM L. BARRON, New York, N. Y., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed May 11, 1914. Serial No. 837,684. (Cl. 112—33.)

1. In tape-cutting mechanism for sewing machines, the combination with a cutter-blade and a carrier therefor having a lateral guide-rib, of a supporting bracket formed with an open slot affording spaced arms abutting opposite faces of said carrier, a slide-plate secured to the carrier

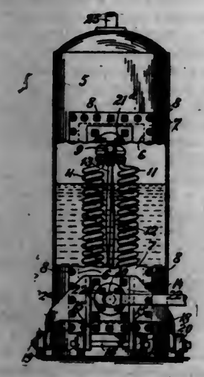
and confining one of said bracket-arms between its face and the guide-rib of the carrier, an operating lever and a connection between said lever and the slide-plate.



2. In a tape-handling device, means for shearing tape, including fixed and movable blades, means for feeding tape, a treadle-operable lever for effecting at will an action of each of said means on the tape, said lever being positively connected with said movable blade and actuating it in opposite directions and positively actuating in opposite directions said feeding means.

[Claims 3 to 8 not printed in the Gazette.]

1,255,502. EVAPORATOR. GEORGE HILLARD BENJAMIN, New York, N. Y. Filed Mar. 30, 1917. Serial No. 158,513. (Cl. 257—200.)



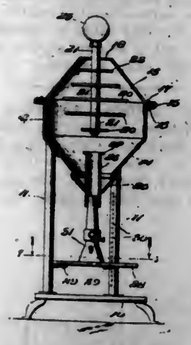
1. An improvement in an evaporating apparatus, comprising a containing shell having an opening therein, a door detachably secured over said opening, a heating element mounted on the door, and means for supporting the door and heating element located wholly without and independent of the casing.

8. An improvement in an evaporating apparatus, comprising a casing having an opening therein, a door detachably secured over said opening, a heating element mounted on the door and projecting within the casing, a feed pipe, a blow-off pipe and a vapor pipe connecting with the interior of the casing, and supporting means for the door and heating element located wholly without and not connected to the casing.

[Claims 2 to 7 not printed in the Gazette.]

1,255,503. HEATER. WILLIAM O. BIGGS, Detroit, Mich. Filed Oct. 11, 1916. Serial No. 125,055. (Cl. 126—85.)

1. A device of the character described including a base, a heating drum carried by the base and adapted for circulation of heated currents therethrough with the said drum formed with a conical lower terminal, a cap closing the lower terminal of the drum at its smaller end, a flue adjustable longitudinally through the cap with the cap removable for displacing the said flue, and a burner shelf mounted to support a burner to coöperate with the flue for directing heated currents from the burner through the drum.



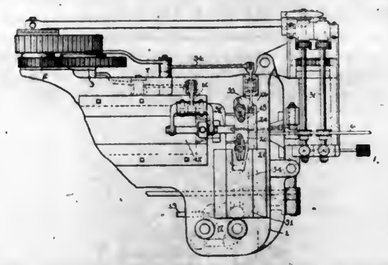
2. In a device of the character described, the combination with a heating drum contracted at its extremities and open at its ends, and a burner mounted at the lower end of the drum, of a plurality of superposed baffle plates supported within the drum and respectively decreasing in area toward the contracted extremities of the drum, whereby heated air currents entering the lower end of the drum will be directed by the said plates in a circuitous path through the drum to be restricted at the upper extremity of the drum and discharged at the upper end thereof.

3. In a device of the character described, the combination with a heating drum formed with conical extremities and open at its ends, and a burner mounted at the lower end of the drum, of a hanger projecting axially into the drum from the upper extremity thereof, and a plurality of flat disks mounted upon the hanger in superposed relation with the hanger extending axially through the said disks and with the disks providing baffle plates within the drum, the said disks being of graduated diameter decreasing from the central disk in the direction of the lower conical extremity of the drum and decreasing in diameter from the central disk in the direction of the upper conical extremity of the drum whereby heated air currents entering the lower end of the drum will be directed by the said plates in a circuitous path through the drum to be restricted at the upper extremity of the drum and discharged at the upper end thereof.

4. A device of the character described including a heating drum contracted at its upper extremity and open at the ends thereof, a burner mounted adjacent the lower end of the drum, and a plurality of baffle plates of graduated area arranged within the drum with certain of the said plates disposed within the contracted extremity thereof for directing heated currents from the burner in a circuitous path within the drum to be restricted within the upper extremity thereof by the contracted portion of the drum and directed out at its upper end.

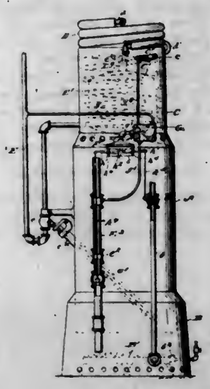
1,255,504. MANUFACTURE OF BOLTS AND THE LIKE. JOHN R. BLAKESLEE, Cleveland, Ohio, assignor to The Ajax Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Original application filed Aug. 30, 1913, Serial No. 787,470. Divided and this application filed Apr. 16, 1914. Serial No. 832,242. (Cl. 10—27.)

1. The improvement in the art of making bolts, spikes and the like, which consists in cutting off a section of a stock bar and simultaneously compressing the new end of the bar to roughly the desired cross-sectional form, and then heading such cutoff portion.



2. The improvement in the art of making bolts, spikes and the like, which consists in cutting off a section of a stock bar and simultaneously compressing the new end of the bar to roughly the desired cross-sectional form, and then heading such cutoff portion by longitudinal pressure.

1,255,505. REFRIGERATING APPARATUS. OTTO E. BORNHAUSER and JOHN EDWARD HERMAN, Sandusky, Ohio, assignors to The Wagner Refrigeration Company, Sandusky, Ohio. Filed Dec. 15, 1917. Serial No. 207,348. (Cl. 62—5.)

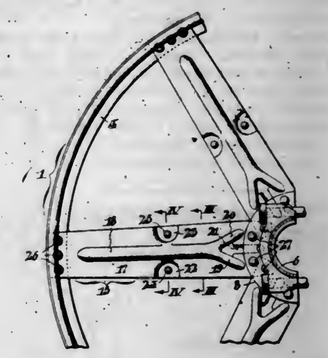


1. In a refrigerating apparatus of the intermittent absorption type, the combination with the generator-absorber, the condenser, the ammonia liquid receiver, a burner and gas supply therefor for heating the generator-absorber, a cooling water circulating system, and a cooling coil in the generator-absorber included in a by-pass from said system, of valves for controlling the gas supply to the burner, and the water supply to the by-pass including the cooling coil; a hydraulic diaphragm and chamber closed by said diaphragm; means responsive to variations in the level of the ammonia liquid in the receiver for admitting water under pressure to, and discharging it from, the hydraulic chamber; and connections between the gas and cooling coil valves and the hydraulic diaphragm whereby the opening and closing of said valves is controlled by the movements of said diaphragm.

2. In a refrigerating apparatus of the type specified, the combination with the generator-absorber, the condenser and the receiver, of a diaphragm check-valve device comprising essentially a diaphragm case, a diaphragm dividing the space within the diaphragm case into two chambers, the one chamber having an inlet connected with the gas space of the generator-absorber and an outlet connected to the inlet end of the condenser, and containing a check valve secured to and moving with the diaphragm in position to control said inlet, the other chamber having an inlet, which has a common connection with the outlet in the first mentioned chamber to the inlet end of the condenser, and a spring which tends to force the diaphragm in a direction to close the check valve upon the inlet communicating with the gas space of the generator-absorber, these parts being arranged for joint operation substantially as and for the purposes hereinbefore set forth.

3. The combination with the generator-absorber, the ammonia liquid receiver, the refrigerating or cooling chamber and the expansion within the same having an inlet communicating with the liquid receiver and a float operated valve for controlling said inlet, and an outlet communicating through suitable connections with the generator-absorber, of a thermostatic diaphragm check valve device for controlling said outlet, comprising essentially a check valve spring-pressed in a direction to normally close said outlet; a receptacle containing a body of liquid having a high coefficient of expansion; and an elastic diaphragm closing the receptacle, and tending when expanded to move the valve in a direction to open it against the stress of its opposing spring, these parts being arranged together for joint operation substantially as and for the purposes hereinbefore set forth.

1,255,506. PRESSED-METAL PULLEY. RUSSELL H. BOWEN, Philadelphia, Pa., assignor to The American Pulley Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Sept. 1, 1917. Serial No. 189,308. (Cl. 64—17.)

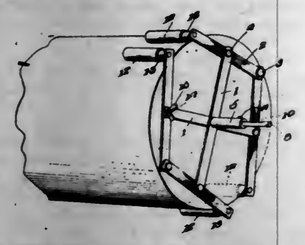


In a pressed metal pulley, the combination of a pair of similar spoke plates, each having a central longitudinal rib extending throughout the greater portion of its length, and a pair of inwardly projecting flat bottomed bosses extending from the edge of the spoke member toward the adjacent edge of the rib, the depth of said depressions corresponding to the distance of separation of the spoke plates, whereby an extended flat bearing for the proximate faces is afforded; a pulley rim comprising a flanged portion secured to the outer extremities of the spoke plates; and a hub member having flanges secured to the inner extremities of the spoke plates, substantially as set forth.

1,255,507. CENTERING DEVICE. FRANCIS H. BRENNAN, Albany, N. Y. Filed June 15, 1917. Serial No. 175,004. (Cl. 33—191.)

1. In a device of the class described, crossed pivoted center bars, oppositely arranged sets of side bars, the bars of each set being pivotally connected at their inner ends and between their ends being connected pivotally with the ends of the center bars, a marking element located at the pivot for the center bars, and a work-engag-

ing element carried and supported solely by the outer ends of each of the side bars.



2. In a device of the class described, crossed pivoted center bars, oppositely arranged sets of side bars, the bars of each set being pivotally connected at their inner ends and between their ends being connected pivotally with the ends of the center bars, a marking element located at the pivot for the center bars, and work-engaging elements carried by the outer ends of the side bars, the center bars being of greater length than the side bars whereby when the frame is adjusted for application to work of relatively large size, the work engaging members at each side of the frame will be relatively separated.

1,255,508. DEVELOPING COMPOSITION. THEODORE J. BREWSTER, Chester, Pa. Filed Feb. 25, 1915. Serial No. 10,601. (Cl. 95—88.)

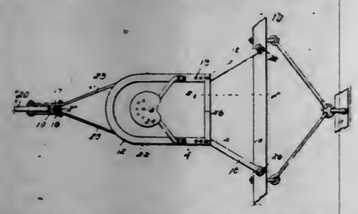
1. A developing composition containing paraphenylene-diamin as an active ingredient, combined with a catalyst and water, substantially as described.

2. A developing composition containing as an active ingredient para phenylene diamin, combined with a preservative, a catalyst, and water, substantially as described.

4. A developing bath for prolonged exposed emulsions of the character described, composed of para phenylene diamin, sodium sulfite, sodium nitrite, sodium carbonate, and water, substantially as described.

[Claim 3 not printed in the Gazette.]

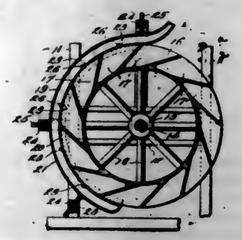
1,255,509. ONE-WHEEL HARROW-CART. JAY GOULD BRIDENSTINE, Audubon, Iowa. Filed July 9, 1917. Serial No. 179,554. (Cl. 55—91.)



1. A harrow cart comprising a forwardly opening U-shaped frame member, made of angle iron, having an upper horizontal flange and an outer downwardly extending flange, bars adjustably connected with the forward ends of said frame, said bars having at their forward ends diverging forwardly extending portions, means for securing said portions to the draw bar of a harrow, a forwardly opening U-shaped device extending rearwardly of said frame having at its forward ends forwardly extending diverging arms, said frame having openings through which said arms are extended, and means for securing said arms to said frame forwardly of said openings, and a caster wheel supported on said last described U-shaped member.

2. In a device of the class described, a U-shaped frame member, a second frame member secured to the rearward portion thereof, caster wheels supported on said second frame member, bars secured to the forward ends of said U-shaped frame, longitudinally adjustable thereon, said bars having arms extending forwardly and downwardly and diverging from each other adapted to be mounted on the draw bar of a harrow.

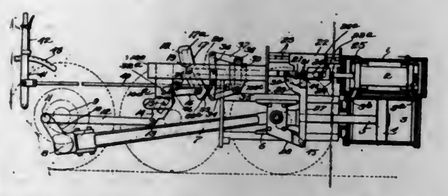
1,255,510. HYDROSTATIC OVERSHOT WATER-WHEEL. ROBERT J. BURGIN, Marion, N. C. Filed Jan. 12, 1917. Serial No. 142,075. (Cl. 253—30.)



1. The combination with a wheel rotatably mounted upon a support and provided with buckets opening around the periphery thereof, of a distributing chamber comprising an arcuate shaped receptacle having an inner wall adapted to be positioned to close the open ends of the buckets, said wall being provided with openings establishing communication between said buckets and chamber and transversely extending flanges provided by the cut out portions of the openings for directing the contents of the distributing chamber into the buckets.

2. The combination with a wheel, of a frame rotatably supporting said wheel, said frame including bars arranged transversely of said wheel, an arcuate distributing chamber and adjusting screws carried by said bars and engageable with said chamber for adjustably securing the latter against the periphery of the wheel.

1,255,511. VALVE-MOTION FOR FLUID-PRESSURE ENGINES. WILLIAM S. CLARKSON, New Haven, Conn. Filed July 28, 1915. Serial No. 42,416. (Cl. 121—97.)



1. A valve-motion having a part to be reciprocated comprising a rotary eccentric, a reciprocating eccentric-rod, and a connection to said part, and transmission means between said eccentric-rod and connection adapted to cause a like delay in the movement of said connection during the reversal at the ends of the stroke in each direction of said eccentric-rod.

8. A valve motion having a part to be reciprocated comprising a rotary eccentric, a link rocked thereby, a link-block sliding in said link, and a radius-rod connecting said block and said part to be reciprocated suspended on a linkage by a first member supported by a second member adapted to move said first member vertically when said first member is moved horizontally.

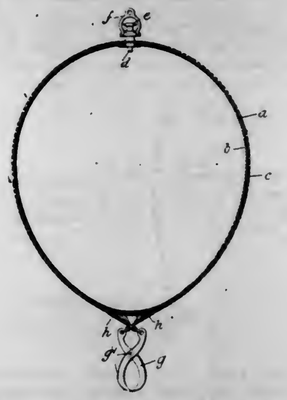
12. A device of the class described having a radius-bar and a vertically adjustable suspension therefor comprising a lifter lever and a radius link each movable about a relatively fixed center at one end thereof, a supporting link having members whose ends take over and are pivoted to the other ends of said radius link and said radius-bar respectively, and like links each pivoted at one end on one side of said lifter lever and at the other end on one side of said supporting link.

17. A valve-motion for fluid pressure engines and the like having a reciprocating piston and a reciprocating valve, a rotary eccentric, and a connection between said eccentric and valve comprising a lever having an arm moving with said piston, and means for varying the effective length of another arm of said lever during each stroke of said piston, whereby to vary the position of said valve with respect to said connections.

24. In an outside valve motion for steam locomotives, a valve and valve reciprocating devices, and means for imposing an increment of advance at the valve comprising a variable lever disposed on both sides of and symmetrically arranged with respect to the vertical central plane of the valve and said valve reciprocating devices.

Claims 2 to 7, 9 to 11, 13 to 16, and 18 to 23 not printed in the Gazette.]

1,255,512. MEANS FOR RAISING SUNKEN OBJECTS. JESSE CLEMENTS, Kent, England. Filed Mar. 14, 1917. Serial No. 154,662. (Cl. 114—54.)



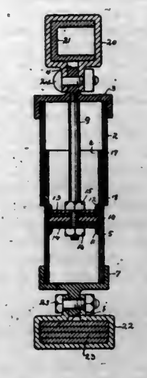
1. In a device of the character described, the combination with an expansible buoy, of object engaging means comprising relatively movable grippers, and means surrounding said buoy and having depending portions connected with said grippers whereby expansion of said buoy will draw said depending portions in opposite directions and close the grippers on any object between the same.

2. In a device of the character described, the combination with an expansible buoy, of a pair of pivotally connected grippers, a net work surrounding said buoy, and a connection between each gripper and said net-work whereby expansion of said buoy will draw said connections in opposite directions to close the grippers on any object therebetween.

1,255,513. SHOCK-ABSORBER. SAMUEL GOFF CONKLING, Brooklyn, N. Y. Filed Nov. 8, 1916. Serial No. 130,113. (Cl. 267—50.)

1. A shock absorber having a cylinder in two parts operable one within the other and having their non-adjacent ends closed, a piston operable in one part of said cylinder and having a piston rod connected to and operable with the other part of said cylinder, and piston rings upon the peripheries of said cylinders and coöperating with the closed ends of said cylinder to prevent the escape of air therefrom.

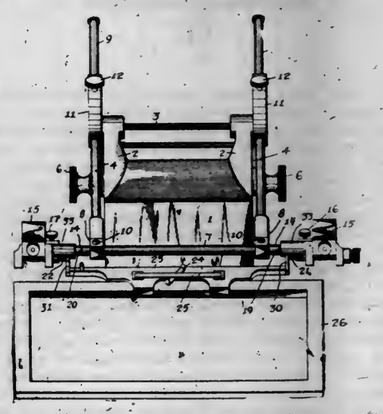
2. A shock absorber comprising a plurality of cylinders, the outer ends of which are entirely closed and the adjacent ends of which are open, one of said cylinders operating within the other said cylinder and a piston within the inner cylinder and secured to the outer cylinder, the outward movement of said cylinders causing a suction and the inward movement a compression upon both sides of said piston.



3. A shock absorber having a plurality of cylinders one movable in the other, the adjacent ends of each cylinder being open and the opposite ends of each cylinder being closed, said cylinders forming an air tight chamber between them and a piston having its rod secured to the outer cylinder and movable in the smaller cylinder and operating therein to compress the air between said piston and the closed end of one said cylinder.

4. A shock absorber having a plurality of cylindrical members entering one within the other, a packing ring upon the exterior of the inner said cylinder, and a packing ring upon the interior of said outer cylinder, means for closing the ends of said cylinders and a compression and suction means within the smaller of said cylinders and secured to the larger of said cylinders.

1,255,514. HOLDFAST FOR SHADING-FILMS. FLETCHER COWAN, Summit, N. J., assignor to Ben Day Inc., Summit, N. J., a Corporation of New Jersey. Filed Aug. 2, 1917. Serial No. 184,095. (Cl. 41—4.5.)



1. A portable holdfast for printing films of the kind comprising a base, a pair of parallel side rods slidingly and swingingly supported by the base, a forward hinge rod carried by said parallel rods, and micrometric pintle devices on the hinge rod for tiltably supporting and adjusting a film-frame, characterized by the base being a

massive, block-like, concentrated, small-aread support of substantial height as compared with its width.

2. A portable holdfast as set forth in claim 1 further characterized by the base being only about twice as wide as it is high.

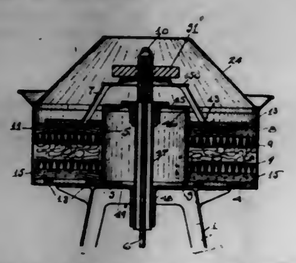
4. A portable holdfast for printing films of the kind comprising a base, a pair of parallel side rods slidingly and swingingly supported by the base, a forward hinge rod carried by said parallel rods, and micrometric pintle devices on the hinge rod for tiltably supporting and adjusting a film-frame, characterized by the base being a massive, block-like, concentrated support of a width materially less than the length of the hinge rod, and by the micrometric hinge devices being mounted on projecting ends of the hinge rods outside the parallel rods.

5. A portable holdfast for printing films of the kind comprising a base, swinging sectors thereon, parallel side rods slidingly supported by the sectors, a forward hinge rod carried by said parallel rods, and micrometric pintle devices on the hinge rod for tiltably supporting and adjusting a film-frame, characterized by a rod joining the sectors to compel the same and the parallel rods to swing in unison.

8. A portable holdfast for printing films comprising a base, upright standards rising from opposite ends of the base, swinging sectors carried thereby, side rods passing through the sectors, a hinge rod carried by the side rods, hinges carried by the hinge rod, a bracket for the film frame pivotally mounted on said hinges, ears mounted on the bracket each ear being provided with a projecting lobe arranged to swing and rest against the corresponding hinge for the film frame at each end of the hinge rod when the film frame is turned back from the work.

[Claims 3, 6, and 7 not printed in the Gazette.]

1,255,515. GLOVE-CLEANING MACHINE. ARTHUR R. CURTIS, Cleveland, Ohio. Filed Feb. 19, 1914. Serial No. 819,732. (Cl. 68—37.)



1. In a glove cleaning machine, the combination with a casing adapted to contain a cleaning solution; of two annular disk brushes mounted in said casing in a parallel relation, one of said brushes being oscillatory with respect to the other, and one of said two brushes having bristles inclined at less than right angles to the plane of said brush, such inclined bristles being operated, upon oscillation of said oscillatory brush, to resiliently feed the material placed between said brushes in one direction; and means adapted to cause oscillatory movement of one of said brushes with respect to the other.

7. In a glove cleaning machine, the combination of a vertically disposed, cylindrical casing open at its upper end and provided with a central aperture in its lower, closed end; a flange mounted about such aperture within said casing; a brush mounted upon the closed end of said casing; an oscillatorily mounted hollow shaft extending within such aperture; a second brush normally resting upon, and supported and driven by, said shaft; the weight of said brush maintaining the same against the gloves disposed upon said first-named brush with a certain amount of pressure; a rod reciprocably mounted within said shaft and adapted, when raised, to contact and lift said second brush from off said shaft; a pivotally mounted lever connected to said rod, and adapted, when operated, to raise the same; said lever being provided with a weight receiving platform, the addition of weights to said lever tending to raise said rod and said brush and decreasing the pressure of the latter against the gloves upon said first-named brush; and said second brush also being provided with a weight-receiving platform, the addition of weights to said brush increasing the pressure of the latter against the gloves upon said first-named brush.

10. In a glove cleaning machine, the combination of a casing adapted to contain a cleaning solution; a brush fixedly mounted upon the bottom of said casing; a second brush reciprocably mounted above said first-named brush and being provided with radially arranged drainage slots and annular guide rails to direct the cleaning solution through such drainage slots when said second-named brush is raised.

11. In a glove cleaning machine, the combination of an open casing adapted to contain a cleaning solution, a cover closing the open portion of said casing, a brush fixedly mounted in said casing, a second brush coöperatively mounted with respect to said fixed brush; and means for separating said brushes and simultaneously raising said cover.

[Claims 2 to 6, 8, and 9 not printed in the Gazette.]

1,255,516. FISH-HOOK GUARD. BURT C. DALLER, Detroit, Mich. Filed Feb. 16, 1917. Serial No. 148,960. (Cl. 43—7.)

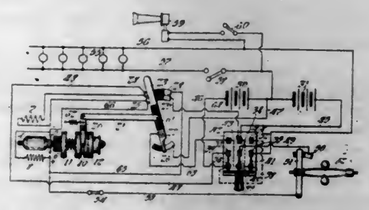


1. As a new article of manufacture, a guard for a plurality of hooks providing integral individual pockets adapted to inclose the barbed portions of the hooks.

4. A guard of the type described made of a single piece of material bent to provide individual communicating pockets having the walls thereof inbent to provide restricted passages into the pockets.

[Claims 2 and 3 not printed in the Gazette.]

1,255,517. STARTING AND CURRENT-SUPPLYING SYSTEM FOR AUTOMOBILES. THOMAS A. EDISON, West Orange, N. J. Filed July 31, 1912. Serial No. 712,391. (Cl. 171—315.)



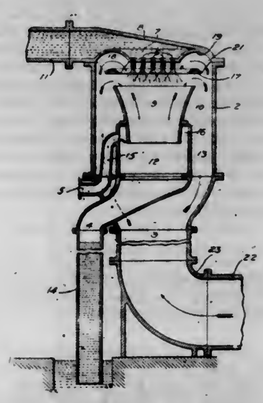
1. In a system of the class described, the combination of an internal combustion engine, a dynamo electric machine adapted to operate as a motor to start said engine or as a generator driven by said engine, a storage battery, a lighting circuit, and means for connecting said lighting circuit to a section only of said battery and for connecting the whole of said battery to said machine to operate said machine as a motor or another section of said battery to said machine for charging said battery, said machine always being maintained out of said circuit, substantially as described.

6. In apparatus of the class described, the combination of an internal combustion engine, a dynamo electric machine having a shunt winding and a normally short circuited series winding, a storage battery adapted to be connected to supply current to or receive current from said machine, power transmission mechanism normally operatively connecting said engine to said machine for driving said machine as a generator, torque multiplying power transmission mechanism adapted to connect operatively said machine to said engine to start the same, and means for rendering the first mentioned power transmission mechanism inoperative and the second mentioned power transmission mechanism operative and simultaneously rendering the series winding of said machine effective, substantially as described.

10. In a system of the class described, an internal combustion engine, a dynamo electric machine capable of operating as a motor and as a generator and having series and shunt windings, and means for controlling the connection of the machine to the engine to start the latter and for controlling the connection of the engine to the machine to drive said machine as a generator, said means being adapted to effect the short circuiting of said series winding when said machine is connected to the engine to be driven as a generator substantially as described.

[Claims 2 to 5, 7 to 9, and 11 not printed in the Gazette.]

1,255,518. BAROMETRIC CONDENSER. RAYMOND N. EHRHART, Edgewood, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Jan. 16, 1915. Serial No. 2,648. (Cl. 261—115.)

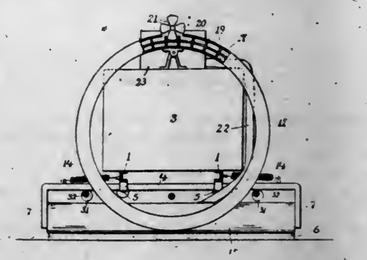


1. A parallel flow barometric condenser having a steam inlet at one end thereof, a water inlet at the other end, an exhaust pipe communicating with the steam inlet and on which the condenser is mounted, means located within the condenser for delivering steam from the inlet around the water delivery passages of the condenser to the water inlet end of the condenser, and a tail pipe communicating with a discharge port of the condenser and suspended from the condenser.

12. A parallel flow barometric condenser comprising a casing having a steam inlet port near the lower end thereof, a water inlet near the upper end, a water discharge port and an air offtake port, a mixing cone within the casing receiving water from the water inlet, a collecting chamber communicating with the discharge port and with the delivery end of the cone, a passage communicating with the air offtake port and the collecting chamber, and a passage formed within the casing for conveying steam entering the steam inlet around the collecting chamber and the mixing cone and for delivering the steam so conveyed into the water inlet end of the cone with the water.

[Claims 2 to 11 not printed in the Gazette.]

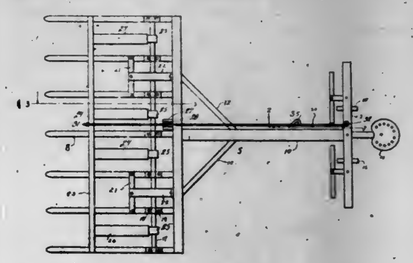
1,255,519. STREET-SWEEPER. ARCHIBALD F. ELLIS, Boston, Mass. Filed July 3, 1917. Serial No. 178,366. (Cl. 15—17.)



3. A street sweeper comprising a chassis frame, a channel iron bar extending transversely of the frame and projecting from its sides, the flanges of said bar being beneath, anti-friction rollers suitably supported and fitting between said flanges, springs normally retaining said bar centrally, and a rotary brush supported by said bar.

[Claims 1 and 2 not printed in the Gazette.]

1,255,520. HAY-RAKE. JAMES A. EPPERSON, La Veta, Colo. Filed May 24, 1915. Serial No. 30,072. (Cl. 56—137.)

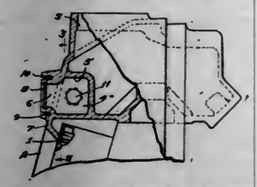


1. In combination with a hay rake, of means carried by said rake and operable for fully delivering the hay to a stacker, said means consisting of a transverse bar extending the width of the rake at right angles to the teeth of the latter, arms connected with said transverse bar, said arms being pivotally connected with the axle of said rake, a vertically disposed post positioned in the rear of said bar against which said bar is adapted to rest when in the inoperative position, and a flexible member connected with said bar and extending over said post for raising said bar to its inoperative position.

2. In combination with a hay rake, of means carried by said rake and operable for fully delivering the hay to a stacker, said means consisting of a transverse bar extending at right angles to the teeth of the rake, arms connected with said transverse bar, said arms being pivotally connected with said rake, means for raising and retaining said arms in vertical position, and a spring carried by the rake, said spring being engaged and held under tension by said transverse bar when the said arms

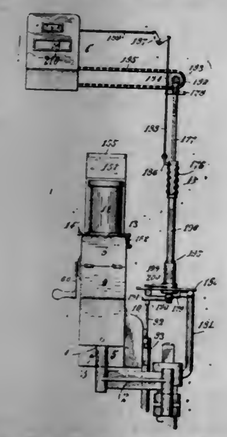
are in vertical position, said spring adapted to initially actuate said arms to horizontal position when the latter are released for disposing the said transverse bar in its operative position.

1,255,521. NAME-PLATE CONSTRUCTION FOR MOTOR-VEHICLES. FRANK R. FAGEOL, Oakland, Cal. Filed June 20, 1917. Serial No. 175,789. (Cl. 40—132.)



A vehicle radiator shroud of cast metal provided in its upper portion with an elongated integral compartment or chamber closed at its side and end walls by portions of said shroud and having an opening through the front wall thereof, a transparent plate positioned over the opening in the front wall of said shroud for closing said compartment or chamber, an open elongated frame engaging the edges of said plate, and means for clamping the said plate to the radiator shroud surrounding the said opening to retain said transparent plate in position over said opening.

1,255,522. FARE COLLECTING AND ACCOUNTING MACHINE. HENRY H. FEFELL and JOHN F. OHMER, Dayton, Ohio, assignors to Ohmer Fare Register Company, Dayton, Ohio, a Corporation of New York. Filed Mar. 19, 1914. Serial No. 825,840. (Cl. 235—32.)



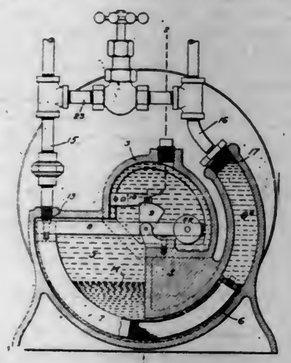
5. In a machine of the type specified, the combination with coin-selective mechanism, coin-value-registering mechanism, and a coin distributer, of a series of individual indicators slidable in vertical planes and adapted to indicate the values of all the coins received by said coin-selective mechanism and distributed by said coin distributer, means for selecting a specific indicator for operation, and common means for actuating said coin-selective mechanism, said coin-value-registering mechanism, said coin distributer and said indicators.

8. In a machine of the type specified, the combination of coin selective mechanism, a fare indicator, ticket canceling mechanism, and common means for actuating said coin selective mechanism, said fare indicator, and said ticket canceling mechanism.

21. In a machine of the type specified, a coin receiver, a coin selector adapted to receive coin from said receiver, a ticket receiver, a tilting table mounted in said coin receiver, tilting tables mounted in said ticket receiver, a toggle joint connection between the tilting table of said ticket receiver, a bell-crank lever connected to said toggle joint, and a connection between said bell-crank lever and the tilting table of the coin receiver, whereby all of said tilting tables are actuated in unison.

[Claim 1 to 4, 7 to 20, and 22 not printed in the Gazette.]

1,255,523. FLUID-FLOW-INDICATING METER. ERNEST F. FISHER, Pittsburgh, Pa., assignor to General Electric Company, a Corporation of New York. Filed June 24, 1914. Serial No. 847,035. (Cl. 73—167.)



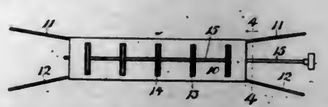
1. In a fluid velocity meter, a casing including two pressure chambers, a liquid seal between said chambers, an arc shaped piston pivotally mounted in the casing and extending through said seal, and adjustable means for varying the position of the center of gravity of the piston.

5. In a fluid velocity meter, a casing having two pressure chambers formed therein, a liquid seal between said chambers, an arc shaped piston pivotally mounted within the casing and extending through said seal, and adjustable means for varying the reactive force of the piston.

11. In an apparatus of the character described, the combination of means forming two communicating chambers, a pivotally mounted piston extending from one chamber to the other, a fluid seal between said chambers, and means forming conduits for conveying a leading and a trailing pressure to said chambers.

[Claims 2 to 4 and 6 to 10 not printed in the Gazette.]

1,255,524. HAT-FASTENING. ALFRED C. GALDI and ARMAND GALDI, Somerville, Mass. Filed Oct. 27, 1916. Serial No. 128,107. (Cl. 132—25.)



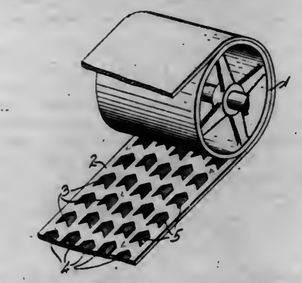
1. A hat-fastening, including an arcuate plate positioned within the hat and secured thereto, an arcuate pin having a radial terminal said radial terminal being fixed at its otherwise free end to an operating member rotatably supported upon the concaved surface of said plate at the longitudinal center of the latter, said arcuate pin having its free end adapted to work in a transverse slot in said plate.

2. A hat-fastening, including an arcuate plate member positioned upon the inside of the hat and secured thereto at its longitudinal edges, and having transverse spaced slots therein, a plurality of arcuate pins having radial terminals, said radial terminals being fixed to an operating member positioned within said arcuate plate-member, said pins working in said arcuate plate-member-slots, with their concaved surfaces facing the concaved surface of said arcuate plate-member.

4. A hat-fastening, including an arcuate plate positioned upon the inside of the hat, said arcuate plate having extending longitudinally therethrough fastening wire-members secured to the longitudinal edges of said plate and having projecting laterally divergent terminals for the retention of said wire-members in locked position, and arcuate pins, each having a radial terminal secured at one end to a longitudinal central operating wire-member, supported in bearings fixed to the concaved surface of said arcuate plate, said arcuate pins having their concaved surfaces facing the corresponding surfaces of said arcuate plate.

[Claim 3 not printed in the Gazette.]

1,255,525. ANTISLIP-BELT. PERRY G. GARDNER, Rutherford, N. J., assignor of one-half to Bound Brook Oil-Less Bearing Company, Boundbrook, N. J., a Corporation of New Jersey. Filed Mar. 22, 1917. Serial No. 156,733. (Cl. 74—62.)



1. A belt having a series of cups arranged transversely and longitudinally of the belt and upon its face, and adapted to have contact with a pulley whereby adhesion between the belt and pulley is increased.

2. A belt having traction cups arranged in parallel lines lengthwise of the belt and in parallel lines transversely thereof.

3. A belt having traction cups arranged longitudinally and transversely of said belt in a series of rows, said traction cups having parallel side walls extending longitudinally of the belt and end walls obliquely disposed with reference to the side walls.

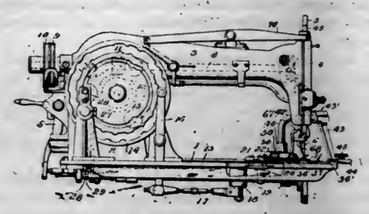
4. A belt having traction cups, each of said cups having parallel side walls arranged longitudinally of the belt and provided with end walls obliquely disposed to the side walls, two of said end walls projecting beyond the side walls and two of said end walls projecting between the side walls.

5. A belt having suction cups arranged longitudinally and transversely thereof, each of said cups having substantially parallel side walls extending longitudinally of the belt and provided with end walls, one end wall projecting beyond the limits of the side walls and the other end wall projecting between the said side walls, the end walls being parallel with reference to each other.

[Claim 6 not printed in the Gazette.]

1,255,526. SMOCKING DEVICE FOR SEWING-MACHINES. ALFRED GRIEB, Elizabeth, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Nov. 23, 1916. Serial No. 132,945. (Cl. 112—16.)

1. In a sewing machine, the combination with a frame and stitch-forming mechanism incorporated in said frame and including a reciprocating needle, of a fold-positioning blade extending on opposite sides of the needle-path and cut away to receive the needle, a fold-clamping plate, a support for said blade and plate, and means for vibrating said support relatively to said frame and laterally of said needle.



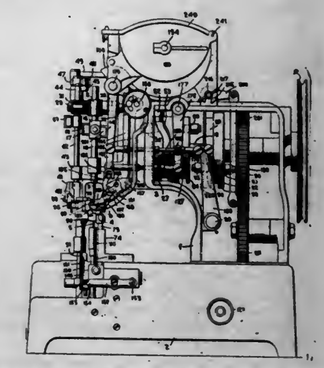
2. In a sewing machine, the combination with a frame and stitch-forming mechanism incorporated in said frame and including a reciprocating needle, of a work-supporting plate, a work-clamping plate, a fold-positioning blade interposed between said plates, a support carrying said plates and blade, and means for vibrating said support relatively to said frame and laterally of said needle.

3. In a sewing machine, in combination, a reciprocating needle, a work-supporting plate, a fold-positioning blade, a work-clamping plate, a support for said plates and blade, means for vibrating said support laterally of said needle and manually controlled means adapted to lift said clamping plate to release the work.

5. A smocking attachment for sewing machines comprising, a support adapted to be mounted above the bed-plate of the sewing machine, an arm carried by said support, superimposed fabric-supporting and clamping plates mounted on said support and a fold-positioning blade carried by said arm and positioned between said plates, said fold-positioning blade being cut away to receive the sewing machine needle.

[Claims 4 and 6 to 11 not printed in the Gazette.]

1,255,527. BUTTON-SEWING MACHINE. CHRISTIAN H. T. HAGELSTEIN, Boston, Mass., assignor to The Reece Button Hole Machine Company, Boston, Mass., a Corporation of Massachusetts. Filed Oct. 12, 1915. Serial No. 55,544. (Cl. 112—32.)



1. In a button-sewing machine, the combination with work-feeding means, of means to deliver successive shank-eyed buttons into attaching position with the shanks thereof extending in a direction parallel to the feeding movement of the work, and means to attach each button to the work as it is delivered into attaching position.

8. In a button-sewing machine, the combination with work-feeding means, of a chute to hold a plurality of shank-eyed buttons, said chute being normally closed at its delivery end to prevent the escape of buttons therefrom, means to vibrate the chute to present the last button therein into attaching position and then withdraw the

chute, means to attach to the work each button as it is brought into attaching position, means to open the end of the chute as it is withdrawn thereby to allow the attached button to be delivered therefrom, and a button pick-off to retain the other buttons in the chute when it is opened.

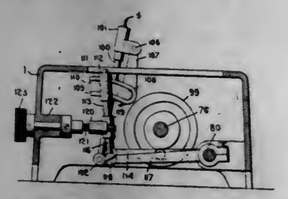
17. In a button-sewing machine, the combination with button-attaching mechanism, of a chute comprising in its construction two members separated to provide a button-receiving slot, the end of one of said members being movably mounted and constituting a gate to close the chute, and means to open the gate to allow the end button to be discharged therefrom.

22. In a button sewing machine, the combination with a frame, of button sewing mechanism, a button-receiving hopper pivotally mounted on said frame, a chute for conducting buttons from the hopper into attaching position, said chute being pivotally mounted to swing about the same axis as the hopper and relatively thereto, and means to vibrate the chute to present buttons successively into button-attaching position.

31. In a button-sewing machine, the combination with means to form interlocking primary and secondary loops of thread and draw the primary loop through the eye of a button, of a loop spreader having a stem provided with a projection, an oscillatory block in which said stem is mounted for turning movement, means to oscillate the block to carry said spreader into position to spread the secondary loop, a reciprocating plunger having a forked head shaped to receive said projection between the arms thereof in all positions of the oscillatory block, and means to reciprocate said plunger thereby to tip the spreader and deliver the spread loop over the button.

[Claims 2 to 7, 9 to 16, 18 to 21, 23 to 30, and 32 to 36 not printed in the Gazette.]

1,255,528. BUTTON-SEWING MACHINE. CHRISTIAN H. T. HAGELSTEIN, Boston, Mass., assignor to The Reece Button Hole Machine Company, Boston, Mass., a Corporation of Maine. Filed Jan. 2, 1917. Serial No. 140,152. (Cl. 112—8.)



1. In a button-sewing machine, the combination with a frame having a base portion and an overhanging arm, of a work-feeding prong, a prong-holding member, an actuating shaft journaled in the base portion of the frame, means actuated thereby to give the prong-holding member a vertical movement, a sleeve in which said member reciprocates, a rock-shaft having an arm pivotally connected to said sleeve and also having a second arm extending therefrom, an actuating member connected to said second arm, and a cam on the actuating shaft beneath the base portion of the frame for giving movement to said actuating member.

6. In a button-sewing machine, the combination with a work-feeding prong, of a prong-holding member, means to give said member a vertical movement, a rock-shaft having an arm connected to said prong-holding member so that oscillating movement of said rock-shaft will vibrate the prong-holding member, and means including a yielding link for oscillating the rock-shaft.

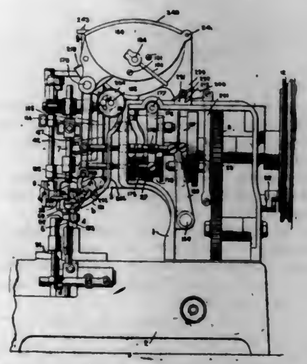
7. In a button-sewing machine, the combination with a work-feeding prong, of a prong-holding member, means to give said member a vertical movement, a sleeve in which said member reciprocates, a rock-shaft having an arm pivotally connected to said sleeve and also having a second arm extending therefrom, an oscillatory actuating member, and a yielding link connecting said actuating member and said second arm.

9. In a button sewing machine, the combination with a work-feeding prong, of a prong-holding member capable of both vertical and horizontal movement, a sleeve through which said member reciprocates, means to give said member a vertical movement in said sleeve, a rock-shaft connected to said sleeve so that oscillation of the rock-shaft will move the sleeve horizontally and thus give the prong its work-feeding movement, a vibrating actuating member, a connection between said member and said rock-shaft, and means for adjusting said connection thereby to adjust the length of the feeding movement of the prong without, however, changing the position of the prong during such adjustment.

11. In a button sewing machine, the combination with a work-feeding prong, of a prong-holding member, a guide through which said member reciprocates, means to give said member a vertical movement, a rock-shaft connected to said guide so that oscillation of the rock-shaft will give the prong its work-feeding movement, a vibrating actuating member, a connection between said member and said rock-shaft by which the movement of the actuating member is communicated to the rock-shaft, and means for adjusting said connection relative to the rock-shaft thereby to adjust the length of the feeding movement of the prong.

[Claims 2 to 5, 8, and 10 not printed in the Gazette.]

1,255,529. BUTTON-SEWING MACHINE. CHRISTIAN H. T. HAGELSTEIN, Boston, Mass., assignor to The Reece Button Hole Machine Company, Boston, Mass., a Corporation of Maine. Filed Jan. 2, 1917. Serial No. 140,153. (Cl. 112—32.)



1. In a button-sewing machine, the combination with button-sewing mechanism, of work-feeding means, a hopper, and a chute for conveying buttons from the hopper to the button-sewing mechanism, said chute extending downwardly from the hopper in a vertical direction and having its lower end curved laterally toward the button-sewing mechanism in a direction at right angles to the direction of feeding movement.

2. In a button-sewing machine, the combination with a hopper having one wall thereof formed in two sections situated out of alinement with each other, of a chute leading from the hopper, and an oscillatory button-feeding member situated between the sections of the wall of the hopper and having a portion thereof situated to operate on the buttons in the hopper and feed them to the chute.

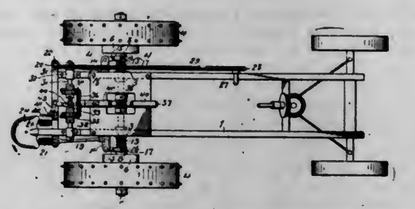
7. In a button-sewing machine, the combination with a hopper having a discharge opening, one wall of the hopper being made in two sections situated in substantial parallelism but spaced apart, of a chute communicating with said discharge opening and presenting front and back portions adjustable relative to each other to accommodate different sizes of buttons, a button-feeding member situated between said sections of the wall and operating to feed buttons from the hopper to the chute, and means maintaining one section of the hopper wall in alinement with the rear portion of the chute in all adjusted positions of the latter.

13. In a button-sewing machine, the combination with button-sewing mechanism, of a button-containing hopper, a chute communicating with the hopper and constructed to conduct buttons therefrom to the button-sewing mechanism, a rock-shaft journaled in the hopper and provided with a crank pin, a button-feeding member secured to the rock-shaft, and means including a longitudinally-compressible link detachably connected to the crank pin for oscillating the rock-shaft and button-feeding member.

18. In a button sewing machine, the combination with button-sewing mechanism, of a hopper, a chute to deliver buttons from the hopper to the button-sewing mechanism, a gate at the discharge end of the chute, and means to open the gate at the proper time in the cycle of operations to permit each button to be discharged therefrom as it is sewed to the work, said means including a yielding member having sufficient strength to operate the gate without yielding but which can be made to yield by manually applying pressure thereto thereby opening the gate.

[Claims 3 to 6, 8 to 12, 14 to 17, and 19 to 26 not printed in the Gazette.]

1,255,530. TRACTOR. HILLIS A. HARRAH, Pomona, Kans., assignor of one-half to Lizzie T. Leimbach, Rosedale, Kans. Filed June 7, 1917. Serial No. 173,376. (Cl. 180—17.)

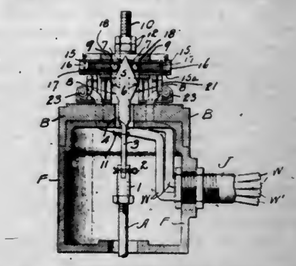


1. In a tractor, a rotary axle, two traction wheels rotatable thereon, means for rotating said axle, two friction clutches for respectively releasably locking said traction wheels to said axle and respectively including two members slidably splined to said axle and movable thereon to and from the locking position, means for normally forcing said slidable members to the locking position, a rock shaft, an operating pedal secured to said rock shaft, means actuated by said rock shaft for forcing one of said slidable members to the unlocked position, an oscillatable operating pedal, and means actuated by said oscillatable pedal for forcing the other slidable member to the unlocked position.

2. In a tractor, a rotary axle, two traction wheels rotatable thereon, two friction clutches for respectively locking said traction wheels to said axle and respectively including two members slidably splined to said axle and movable thereon to and from the locking position, means for normally forcing said slidable members to the locking position, two levers respectively connected with said slidable members for forcing them to the unlocked position, a rock shaft having a crank, a rod connecting said crank with one of said levers, an operating pedal secured to said rock shaft, an oscillatable pedal oscillatively mounted on said rock shaft, and a rod connecting the oscillatable pedal with the other lever.

3. In a tractor, a rotary axle, two traction wheels rotatable thereon, two clutches for respectively locking said wheels to said axle and including respectively two members slidably splined to said axle and movable thereon to and from the locking position, two springs for normally forcing said slidable members respectively to the locking position, two levers engaging said slidable members respectively for forcing them to the unlocked position, a rock shaft having a crank, an operating pedal secured to said rock shaft, an oscillatable operating pedal, and two rods having one set of ends respectively pivoted to said levers and having their other set of ends respectively pivoted to said crank and said oscillatable operating pedal.

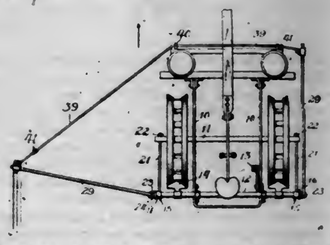
1,255,531. ELECTRICAL SNAP-SWITCH FOR WATER-PURIFYING APPARATUS. HARRY BUXTON HARTMAN, Scottdale, Pa., assignor to Electric Water Sterilizer Company, Scottdale, Pa., a Corporation of Pennsylvania. Filed Nov. 8, 1915. Serial No. 60,345. (Cl. 175—284.)



1. An automatic electrical switch including a reciprocating switch block having a slot, oppositely located resilient block shifting members carried by said block adjacent said slot, each of said members comprising a spring barrel and a spring pressed ball, the latter projecting into said slot at the end thereof, line wire terminal contacts located in the path of movement of said switch block, and a switching cam movable in said slot between the balls of the oppositely located block shifting members.

2. An automatic electrical switch including a switch base having a central opening, guide rods carried by said base, a switch mechanism including a movable switch block slidable on said guide rods, and a switching cam working through the opening in the switch base to operate said switch block, a cover for housing said switch mechanism and having openings for receiving the ends of said guide rods, and means on the ends of said guide rods for clamping the cover to the base.

1,255,532. MARKER FOR CORN-PLANTERS. RALPH W. E. HAYES, Galva, Ill., assignor of one-half to Hayes Pump & Planter Company, Galva, Ill., a Corporation of Illinois. Filed Sept. 11, 1917. Serial No. 190,728. (Cl. 97—82.)



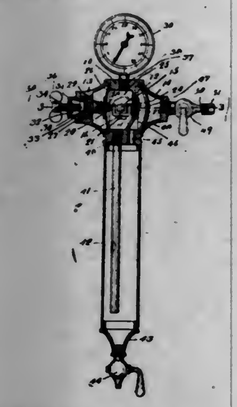
1. In a marker attachment for planters, the combination with a planter frame and a scraper bar rotatably mounted on said frame, of marker arms arranged at each side of the frame, a member associated with each of said arms to provide a pivotal mounting for one end thereof, one of said mountings being journaled upon each end of the scraper bar, whereby said bar may rotate without rotating the mounting, means for preventing longitudinal movement of said mountings with respect to the scraper bar, and a marker member on each of said marker arms, substantially as described.

3. In a marker attachment for planters, the combination with a planter frame and a scraper bar rotatably mounted thereon, of marker arms arranged upon each side of said frame, a sleeve journaled upon each end of the scraper bar, whereby said bar may revolve without revolving said sleeves, a socket portion extending from each of said sleeves, each socket portion forming a pivotal mounting for one end of a marker arm, means for holding said sleeves against longitudinal movement on the scraper rod, and marker members on each of said marker arms, substantially as described.

8. In a marker attachment for planters, the combination with a planter frame and a scraper bar rotatably mounted on said frame, of marker arms arranged at each side of the frame, a member associated with each of said arms to provide a pivotal mounting for one end thereof, one of said mountings being journaled upon each end of the scraper bar, whereby said bar may rotate without rotating the mounting, means for preventing longitudinal movement of said mountings with respect to the scraper bar, a marker member on each of said marker arms, a lug extending from each of said mountings, an anchoring member connected to said lugs and to a portion of said frame, and said lugs being arranged to receive an anchoring member extending cross-wise of the scraper bar or an anchoring member extending longitudinally of said bar, substantially as described.

[Claims 2, 4 to 7, 9, and 10 not printed in the Gazette.]

1,255,533. AIR-MODIFIER. STEPHEN J. HEINRICH, Newton Highlands, Mass. Filed Sept. 24, 1917. Serial No. 193,048. (Cl. 183—40.)



1. An air-controlling and modifying apparatus, comprising a single unitary structure including an entrance for compressed air, means for expanding said compressed air to a variable predetermined lower pressure and for maintaining said air at said lower pressure, means for collecting moisture from said air at said reduced pressure, means for filtering said pressure-reduced and moisture-extracted air to remove any solid substances contained in said air, and an air exit for said modified air.

2. An air-controlling and modifying apparatus, comprising in a single unitary structure an automatically-controlled pressure-reducing means for the air, moisture-separating means for the air, and filtering means for the extraction of solid particles from the air.

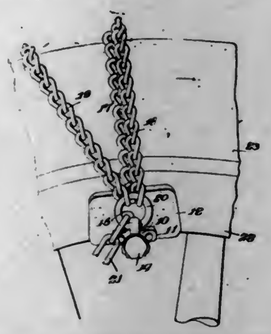
3. An air-controlling and modifying apparatus, comprising a body structure, an air nozzle disposed in a chamber in said body, means connecting said air nozzle with a source of compressed air, a flexible diaphragm secured in said body and forming a wall of the chamber therein, a valve stem secured to said flexible diaphragm having a face thereof disposed adjacent, and adapted to control, the opening of said air nozzle upon a movement of said diaphragm, whereby to regulate the flow of air from said nozzle into the chamber of said body, a cap securing said diaphragm to said body, a spring acting between said cap and said diaphragm whereby to resist a movement of said diaphragm due to the pressure of air in the chamber of which it forms a wall, pressure-adjusting means for said spring, means for extracting moisture from the expanded air and means to filter the expanded air.

4. An air-controlling and modifying apparatus including in a unitary structure, an entrance for compressed air, means for expanding said air to some lower predetermined pressure, means for maintaining the air at the lower pressure, and means for extracting foreign matter from the air.

9. An air-controlling and modifying apparatus including a hollow body structure having an air inlet port, end caps for said body structure, one of which has an air outlet port, means governing the flow of air through said air inlet into said body structure, means for removing solid particles from the air, and means for extracting moisture from the air, said means including a downwardly extending tube, one end of which is in communication with said hollow body structure, a pipe of larger diameter compared with said tube and forming a moisture-settling chamber secured to said body structure and inclosing said tube, said tube terminating in the lower part of the moisture-settling chamber, communicating means between the top of said chamber and the air-filtering means, closing-means for said pipe forming the settling-chamber, and means for withdrawing the collected moisture from the chamber.

[Claims 5 to 8, 10, and 11 not printed in the Gazette.]

1,255,534. EMERGENCY MUD OR NON-SKID DEVICE. ALFRED HONS, Berwick, Pa. Filed Oct. 14, 1916. Serial No. 125,681. (Cl. 152—14.)



1. A device of the character described including an attaching member, and a plurality of flexible road gripping elements carried thereby and adapted to overlie a wheel tire, one of the said elements being shorter than the others with the said last mentioned elements movable to coact with the shorter element.

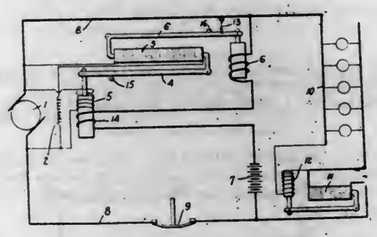
2. A device of the character described including an attaching member, and a plurality of road gripping elements of unequal length connected with the said member, the attaching member being operable to grip the shorter element about a wheel tire with the other of said elements movable around the tire with respect to said first mentioned element.

3. A device of the character described including an attaching member, a plurality of chains of unequal length each connected at one extremity with the said member, and means connecting the free extremities of the chains and disposed for engagement with said attaching member with the longer chains adapted to coöperate with the shorter chain.

4. A device of the character described including an attaching member, a plurality of chains of unequal length each connected at one extremity with the said member, and a ring connecting the free ends of the chains and disposed for engagement with the attaching member with the said member operable for tightening the shorter chain about a wheel tire.

5. A device of the character described including an attaching member, and a plurality of chains carried thereby and adapted to overlie a wheel tire, one of the said chains being shorter than the others with the said last mentioned chains movable to coact with the shorter chain.

1,255,535. ELECTRICAL SYSTEM OF DISTRIBUTION. JOHN W. JEPSON, Depew, N. Y., assignor to Gould Coupler Company, a Corporation of New York. Filed Jan. 21, 1914. Serial No. 813,415. (Cl. 171—313.)



2. In an electrical system of distribution, a generator driven at variable speed, a work circuit and storage battery connected to be fed thereby, a carbon pile for regulating the voltage of the generator, a current solenoid controlling the action of the pile responsive to current variations, and a solenoid having a voltage coil controlling the action of the pile to limit the voltage of the generator, said voltage solenoid having substantially no effect on the pile until the voltage of the generator reaches a predetermined value, said current solenoid being adapted to control the pile in the meantime and said voltage solenoid having a current coil opposing the voltage coil whereby when the voltage of the battery rises to a value sufficient to cause the voltage solenoid to control the pile the current in the current solenoid is more rapidly decreased.

4. In an electrical system of distribution, a generator driven at variable speed, a storage battery connected to be fed thereby, a carbon pile for regulating the voltage of the generator, a current solenoid controlling the action of the pile responsive to current variations, and a solenoid having a voltage coil controlling the action of the pile to limit the voltage of the generator, said voltage solenoid having substantially no effect on the pile until the voltage of the generator reaches a predetermined value, said current solenoid being adapted to control the pile in the meantime and said voltage solenoid having a current coil opposing the voltage coil and normally of relatively few ampere turns.

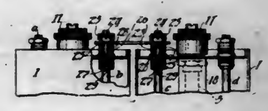
12. In an electrical system of distribution the combination of a generator, a storage battery connected to be charged thereby, means including a coil, serially connected between the generator and battery for regulating the current output of the generator, means for causing the voltage of the generator to be limited as the battery becomes charged, and means responsive to a decrease in current for causing said last mentioned means to limit the voltage of the generator to a lower value.

15. In an electrical system of distribution of the class wherein a variable speed generator charges a storage battery and when the battery becomes sufficiently charged a voltage coil becomes effective to regulate the generator for constant potential, the combination with said voltage coil of a coil traversed by current flowing to the battery which is acted upon by decreasing battery current to reduce the potential maintained constant by the voltage coil.

16. An electrical system of distribution wherein a generator charges a storage battery until the battery reaches some desired state of charge whereupon a voltage coil becomes effective to regulate the generator for constant potential, characterized by the fact that there is combined with said voltage coil a coil traversed by current flowing to the battery which is acted upon by decreasing battery current to reduce the potential maintained constant by the voltage coil.

[Claims 1, 3, 5 to 11, 13, and 14 not printed in the Gazette.]

1,255,536. GALVANIC BATTERY. HEINRICH H. MENO KAMMERHOFF, Orange, N. J., assignor to Edison Storage Battery Company, West Orange, N. J., a Corporation of New Jersey. Original application filed Feb. 9, 1914, Serial No. 817,493. Divided and this application filed Aug. 6, 1917. Serial No. 184,686. (Cl. 204—29.)



1. In a galvanic battery, a two-compartment conducting container the walls of which are inactive to the electrolyte of the battery, each compartment having battery elements therein, and means for maintaining said container and a battery element in each compartment at substantially the same potential, substantially as described.

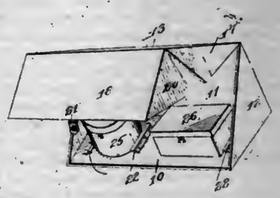
5. The combination with metallic containing means for galvanic batteries comprising a pair of compartments each having galvanic battery elements therein, of a conducting member electrically connecting the walls of said compartments, said conducting member also being electrically connected with a pair of battery poles of opposite polarity relatively disposed in said compartments, substantially as described.

7. A storage battery unit comprising conducting containing means having provision for forming dual compartments, and positive and negative elements in each of the compartments, the negative element of one compartment and the positive element of the other compartment being rigidly and electrically connected, substantially as described.

9. A storage battery unit comprising dual cell compartments, the walls of which are of conducting material and are exposed but inactive to the electrolyte, and positive and negative elements in each of the compartments so connected that the voltage of such unit is substantially twice the voltage obtainable from the elements in one of the cell compartments, substantially as described.

[Claims 2 to 4, 6, and 8 not printed in the Gazette.]

1,255,537. TOILET-CASE. GEORGE E. KEON, Verplanck, N. Y. Filed May 1, 1915. Serial No. 25,215. (Cl. 45—135.)

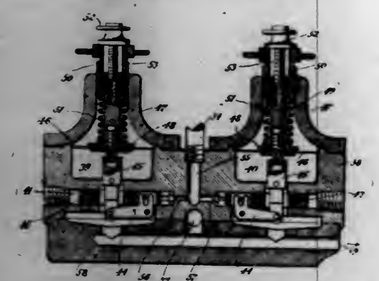


1. A foldable casing constructed of rigid material and consisting of three sections, one of said sections comprising the bottom and back wall of the casing rigidly connected together, the second section consisting of the top wall of the casing having one edge hingedly connected to the top edge of the back wall, the third section consisting of the front wall of the casing having one edge hingedly connected to the opposite edge of the top wall, said back, top and front walls being adapted to extend in alinement when the casing is opened, side walls for closing the ends

of the casing, each side wall comprising three sections, one secured to each section of the foldable casing and adapted to coöperate with each other when the box is folded to close the ends of the box.

2. A foldable box constructed of rigid material and comprising three sections, one section consisting of the bottom and back walls of the box rigidly connected together, the second section comprising the top wall of the box hingedly connected to the upper edge of the back wall, the third section comprising the front wall of the box hingedly connected to the opposite end of the top wall, side walls for closing the ends of the box each composed of three triangular sections one secured to each of said first mentioned sections of the box and adapted to lie edge to edge to complete the end walls when the box is folded.

1,255,538. AUTOMATIC PRESSURE-REGULATING VALVE. JOHN C. KITTON, Chicago, Ill. Filed Sept. 11, 1916. Serial No. 119,343. (Cl. 137—4.)



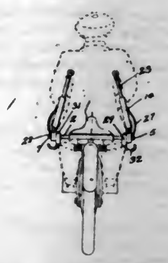
1. An automatic pressure regulating valve comprising a valve body having communicating inlet and outlet openings, a needle valve in said valve body controlling the communication between the inlet and outlet openings, a column carried by said valve body, a diaphragm body on said column and having a pressure inlet opening, a diaphragm in said body, means extending to said column and articulating said diaphragm and said needle valve so that flexure of said diaphragm actuates said needle valve, a screw in the top of said body adapted for regulating the flexure of said diaphragm, and means engaging the top of said screw and extending through said screw and articulated with said diaphragm adapted for moving said diaphragm to close said needle valve.

2. Automatic pressure regulating means comprising a valve body having communicating inelt and outlet openings, a needle valve in said body controlling the communication between said openings, a column carried by said valve body, a diaphragm body on said column providing a pressure chamber, a dual valve body connected to said column and having pressure chambers communicating with the pressure chamber of said diaphragm body by ports of different sizes, longitudinally alining needle valves movable to and from the ports of said dual valve body controlling pressure to the chambers of said dual valve body, diaphragms in all of said pressure chambers, means extending past said needle valves and articulating said diaphragms and said needle valves so that flexure of said diaphragms actuates said needle valves, means on said diaphragm and dual valve bodies adapted for regulating the flexure of said diaphragms and means adapted through said regulating means adapted for moving said diaphragms to close said needle valves.

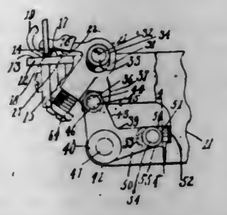
1,255,539. MOTOR-CYCLE BACK-REST. CHARLES KUDERER, Pittsburgh, Pa. Filed Aug. 22, 1917. Serial No. 187,684. (Cl. 208—138.)

1. In a device of the class described, a cycle including a seat; a substantially vertical support located at one side of the seat and provided at its upper end with means for engaging in the arm pit of a rider; and means for connecting the lower end of the support with the cycle in such relation to the seat that the support will occupy a substantially vertical position when in use, thereby to take part of the weight of the rider off of the seat.

[Claims 2 to 4 not printed in the Gazette.]



1,255,540. FOLDING-MACHINE. WILLIAM F. LAUTENSCHLAGER, Cincinnati, Ohio, assignor to Lorenz Muther, Newton, Mass. Filed Dec. 4, 1915. Serial No. 65,067. (Cl. 12—54.)

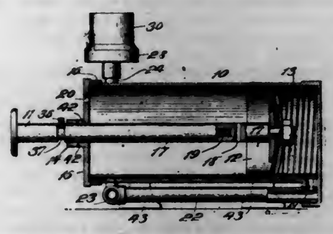


2. In combination, a pivoted mold-presser having a pressing-face, a pivot about which said fold-presser oscillates to press the work, a guide for said pivot extending at substantial right angles to said pressing-face along which said fold-presser yields, and means for oscillating said fold-presser by a force applied to said fold-presser in a direction transverse to the direction in which said guide extends.

12. In combination, a fold-presser having a pressing face and a pivotal connection about which it moves toward and from pressing position, said fold-presser being yieldable at said pivotal connection in a direction transverse to the plane of said pressing face, and means for oscillating said fold-presser applying an operating force thereto in a line transverse to its direction of yield.

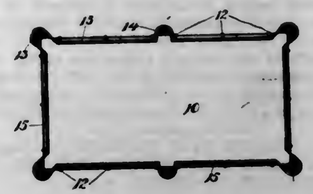
[Claims 1 and 3 to 11 not printed in the Gazette.]

1,255,541. CASTING-MACHINE FOR DENTAL WORK. SIGMUND M. LAUTER, Brooklyn, N. Y. Filed July 3, 1914. Serial No. 848,732. (Cl. 22—73.)



In a casting machine of the character described, a flask, a cup-support therefor, an exhausting apparatus, a pipe conduit connected at one end with the exhausting apparatus and at its other end supporting the cup-support at a substantial distance from the exhausting apparatus, said exhausting apparatus comprising a body portion having parallel walls and affording a commodious air chamber, a piston fitting said chamber and having a piston-rod extended through one end of said body-portion, a coiled spring at one side of said piston and adapted when under tension and unrestrained to move said piston in one direction, and locking means to secure said piston and piston-rod in opposition to the force of said spring, said piston and piston-rod when manually moved toward one end of said body portion serving to place said spring under tension and said piston when released so as to move under the action of said spring serving to suck or draw air through said flask and conduit into the end of said body-portion back of said piston, the other end of said body-portion having an air escape opening.

1,255,542. ADJUSTABLE POOL RAIL AND POCKET. JOHN E. LE COUR, Winthrop, Mass. Filed July 24, 1917. Serial No. 182,546. (Cl. 46—12.)

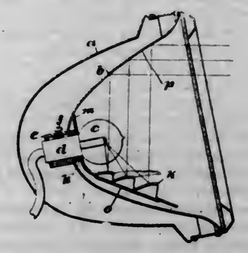


1. In combination with a table, a plurality of "side" pockets, a plurality of "corner" pockets, means for connecting said pockets, consisting of rails constructed to be telescoped within each other, and means for clamping the rails and pockets to the said table.

2. In combination, with a cloth-covered table, a plurality of independently constructed pockets, a plurality of rails comprising a plurality of sections designed to telescope within each other, means for fastening the pockets to said rails and means for clamping the said rails and pockets in their operative positions with respect to the said cloth covered table.

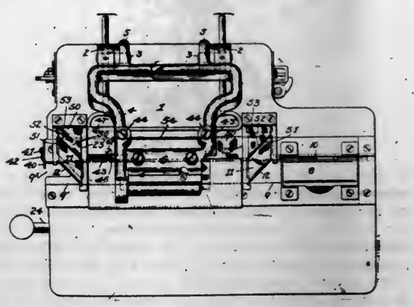
3. In combination with a table, a raised border consisting of a plurality of extensible sections, and pockets located at predetermined positions in said border, and means for clamping said border to the table.

1,255,543. REFLECTOR FOR HEADLIGHTS. WALTER W. LETTS, Cortland, N. Y. Filed Aug. 1, 1917. Serial No. 183,960. (Cl. 240—48.2.)



An attachment for headlights of automobiles comprising a plate of approximately triangular shape, a series of curved sections cut out of the plate, each arranged in a different plane and adapted to intercept the light from the lower part of the reflector and to reflect it to the upper part, and each being curved longitudinally and from front to rear, substantially as described.

1,255,544. ADDRESSING-MACHINE. ALEXANDER B. LYLE, Chattanooga, Tenn., assignor to Stickney & Montague, Chattanooga, Tenn. Filed Sept. 7, 1917. Serial No. 190,139. (Cl. 101—65.)



1. In a printing apparatus, a table, an impression arm pivotally mounted at the rear part of the table and having an impression head and handle at its free end, a feeder for individual printing plates moving in a direction transverse to the plane of movement of the impression arm, a hand operable lever pivotally mounted and swinging in a vertical plane and in a direction transverse to the plane of movement of the impression arm, and parallel with the direction of movement of the plate feeder, and a connection from said hand operable lever to the plate feeder, substantially as described.

6. In combination in a printing apparatus, a table, a hand operated impression arm pivotally mounted at the rear of said table, a runway for printing plates extending in a direction transverse to the plane of movement of the impression arm, an inking ribbon extending lengthwise of the runway at the impression point and thence rearwardly at its ends, ribbon spools and means for operating the same from the impression arm, a hopper for printing plates arranged at one end of the runway, a receiver for printing plates arranged at the other end of the runway, said receiver being located partly under the turned portion of the inking ribbon.

8. In combination a table, an impression arm pivoted thereto, a plate feeder and a receiver for the plates having an open bottom portion, and an open top and a spring pressed hinged flap for partially closing the side of said receiver, substantially as described.

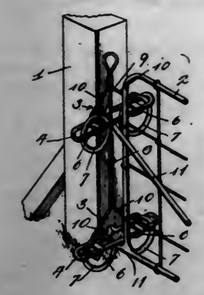
15. In combination in a printing apparatus, a table having a runway, individual printing plates adapted to fit said runway, means for feeding the plates along said runway, an impression member movable to and from the impression point at said runway, a supplemental printing member arranged to one side of the runway and inking ribbon means coöperating both with the printing plate and the supplemental printing member to make simultaneously a main and a supplemental impression, substantially as described.

[Claims 2 to 5, 7, 9 to 14, and 16 not printed in the Gazette.]

1,255,545. GATE-LATCH. DAVID D. MARTZ, Perkins, Okla. Filed Apr. 6, 1917. Serial No. 160,190. (Cl. 70—28.)

The combination with a latch bar of a gate and gate post, of a transversely extending elongated loop carried by the gate post, said loop being formed of a continuous bar and having its ends projected through the post, the ends of the loop extending beyond the post on both sides, a traversing strap surrounding each half of the loop, rings vertically slidable in the loop and surrounding

each of the traversing straps, a vertical bar carried by the post and vertically slidable through the loop, and



arms extending from the vertical bar and loosely engaging the rings to lift the latter when the bar is operated.

1,255,546. TOOL. JOHN C. MAXSON and WILLIAM O. WALKER, Corning, Kans. Filed Feb. 28, 1916. Serial No. 80,967. (Cl. 254—78.)

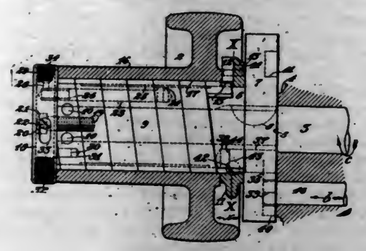


A special tool for placing anti-skid chains on motor vehicle tires, consisting of a bar having one end portion directed rearwardly with a compound curve, the chords of which are at an obtuse angle to the remainder of the bar and provided at its extremity with fingers spaced apart to receive a chain link therebetween, the bar having arc-shaped notches in the rear face of its body portion, a second member having a passage at one end in which the bar is received for sliding adjustments at times and having its opposite end portion directed away from the rearwardly directed end portion of the bar in the same plane and curved oppositely and similarly thereto and having spaced fingers directed toward the first-named fingers and adapted to receive a link between them, the outer wall of the passage having a rounded edge disposed to interchangeably engage the notches for pivotal movement of the second member to touch the inner wall of the passage against the bar at both sides of the second member at right angles to the bar, said inner wall of the passage being disposed to touch the bar with the finger ends in marked spaced relation.

1,255,547. FRICTION-CLUTCH. ARTHUR H. MAYNARD, Warwick, R. I., assignor to Boston Wire Stitcher Company, Portland, Me., a Corporation of Maine. Filed Jan. 31, 1917. Serial No. 145,609. (Cl. 74—46.)

1. In a clutch-device, the combination with a driving-member, of a member adapted to be driven therefrom, a spring-coil for frictionally engaging directly with one member to effect a driving connection with the other member, and means acting against the spring tension of the coil for releasing it from engagement, said means arranged to take the thrust of the driven-member through the coil to absorb the force of momentum as the parts are brought to rest.

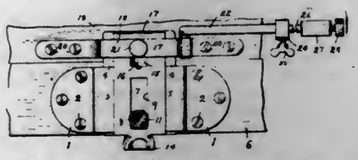
6. In a friction-clutch, the combination with a driving-member, of a member adapted to be driven therefrom, a spring-coil connected at one end to the driven-member to adapt it to expand to frictionally engage the bore of the driving-member, a collar connected with the opposite end of the coil and rotatable with respect to the driven-member to contract the coil, controlling-means for displacing the coil-contracting collar on the driven-member, and means movable into the path of said controlling-means to shift the collar to release the coil from driving engagement while causing the coil to take the thrust of the driven-element as the latter is brought to rest.



7. In a friction-clutch the combination with a rotatable element formed with a sleeve, of a helical spring surrounding the sleeve and secured thereto at one end, a driving-element having a bore fitted to receive the spring to be frictionally engaged by the peripheral surface thereof, a collar connected to the free end of the spring and rotatable with respect to the sleeve to contract the spring to release it from engagement with the driving-element, and means for effecting a relative displacement of the collar rotatively of the sleeve to release the spring whereby the driven-element is brought to rest with the spring acting as a shock-absorber to overcome its momentum.

[Claims 2 to 5 and 8 to 15 not printed in the Gazette.]

1,255,548. WINDOW-SASH FASTENER. CHARLES V. MONSON, Duluth, Minn. Filed May 21, 1917. Serial No. 169,820. (Cl. 16—143.)



1. A window sash fastener comprising two opposed guiding members spaced apart and fixed to the upper face of the upper rail of the lower half of the window sash, a reciprocal bolt intermediate of the guiding members, having an inclined thumb-screw receiving slot in the upper face thereof, a keeper rigidly fixed to the lower rail of the upper half of the sash and adapted to register with the co-operating end of the bolt, means for limiting the longitudinal movement of the bolt and an adjustable thumb-screw within the keeper for coöperative engagement with the inclined slot in the bolt, whereby the two adjacent window sash rails may be simultaneously drawn together.

2. A window sash fastener comprising two opposed guiding members spaced apart and fixed to the upper face of the upper rail of the lower half of the window sash, a reciprocal bolt intermediate of the guiding members, having an inclined thumb-screw receiving slot in the upper face thereof, a keeper rigidly fixed to the lower rail of the upper half of the sash and adapted to register with the coöperating end of the bolt, vertically adjustable spring controlled means for limiting the longitudinal movement of the bolt and locking same, and an adjustable thumbscrew within the keeper for drawing the adjacent rails of the sash together when in coöperative engagement with the inclined slot in the bolt.

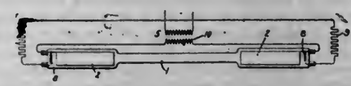
3. A window sash fastener of the character described, comprising a horizontally slidable bolt carried by one portion of the sash, a keeper adapted to register with the bolt and fixed to the opposite portion of the sash and a second keeper supported upon the first mentioned keeper and registerable with the bolt and means for slidably raising and lowering the second keeper to accommodate different opened conditions of the window.

4. A window sash fastener comprising a slidable bolt mounted upon one portion of the sash, a pivoted bolt adjustable within the slidable bolt for locking the latter against longitudinal movement, a fixed keeper upon the opposite portion of the sash adapted to register with the slidable bolt, a hollow supporting rod pivotally mounted upon the fixed keeper and an adjustable keeper vertically adjustably mounted upon the rod and adapted to register with the slidable bolt.

5. A window sash fastener comprising two opposed guiding members spaced apart and fixed to the upper face of the upper rail of the lower half of the window sash, a reciprocal bolt intermediate of the guiding members, an upwardly arched keeper rigidly fixed to the lower rail of the upper half of the sash and adapted to register with the coöperating end of the bolt, vertically adjustable spring controlled means mounted upon the bolt intermediate of the guiding member for limiting the longitudinal movement of the bolt and means for simultaneously drawing the adjacent sash rails tightly together and locking same.

[Claims 6 and 7 not printed in the Gazette.]

1,255,549. VAPOR ELECTRIC DEVICE. DANIEL McFARLAN MOORE, East Orange, N. J., assignor to General Electric Company, a Corporation of New York. Filed June 16, 1915. Serial No. 34,524. (Cl. 176—125.)



1. The combination in a gas electric lamp of a tubular receptacle containing a rarefied gas, electrodes within said receptacle, a source of constant current connected to said electrodes and adapted to produce a luminous discharge through the rarefied gas, material within said receptacle which evolves gas when heated, a permanently closed heating coil embedded in said gas evolving material, and a closed circuit in shunt to said electrodes which includes said heating coil, the resistance of said circuit being so adjusted that the current flowing therein will vary in such a way as to keep the density of the gas in said receptacle substantially constant.

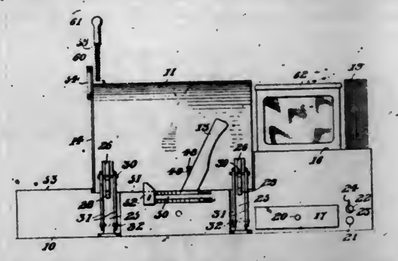
2. The combination in a gaseous conduction device of a receptacle containing a column of rarefied gas, electrodes within said receptacle, means for causing a discharge current to pass through said gas column between said electrodes, material within said receptacle which evolves gas when heated, a heating coil embedded in said gas evolving material and means for causing a current to flow through said heating coil which varies in such a way as to keep the density of the gas in said receptacle substantially constant.

3. The combination in a gaseous conduction device of a receptacle containing a rarefied gas, electrodes within said receptacle, a source of constant current connected to said electrodes to produce an electrical discharge through the rarefied gas, a second receptacle in communication with the first receptacle and containing a material which evolves gas when heated, and a heating circuit in shunt to the circuit between said electrodes for heating the gas evolving material to such a degree as to maintain the density of the gas substantially constant.

4. The combination in a gaseous conduction device of a receptacle containing a rarefied gas, electrodes within said receptacle, a source of constant current connected to said electrodes to produce an electrical discharge through the rarefied gas, a second receptacle in communication with said first receptacle but removed from the path of the electrical discharge and containing a material which evolves gas when heated, and a permanently closed heating circuit in shunt to the circuit between said electrodes for heating the gas evolving material to such a degree as to maintain the density of the gas substantially constant.

[Claims 5 to 11 not printed in the Gazette.]

1,255,550. CHEESE-CUTTER CABINET. OLLIE W. MURPHY, Phillipsburg, Ky. Filed May 7, 1917. Serial No. 167,079. (Cl. 31—68.)



1. A device of the class described comprising a base, a casing open at its forward end removably mounted upon the base, posts carried by the base outwardly of the casing, arms pivoted to said posts extending inwardly of the casing, adjusting means for said arms, a knife pivoted transversely of said open end of the casing and cheese mounting plates carried by the said arms.

2. A device of the class described comprising a base, a casing open at its forward end removably mounted upon the base, posts carried by the base outwardly of the casing, arms pivoted to said posts extending inwardly of the casing, adjusting means for said arms, a knife pivoted transversely of said open end of the casing, cheese mounting plates removably carried by the said arms having a longitudinal space therebetween, a pusher movably arranged within said space having a transverse portion arranged above the plates and step-by-step operating means for the said pusher.

3. A device of the class described comprising a base, a casing open at its forward end removably mounted upon the base, posts carried by the base outwardly of the casing, arms pivoted to said posts extending inwardly of the casing, adjusting means for said arms, a knife pivoted transversely of said open end of the casing, cheese mounting plates removably carried by the said arms having a longitudinal space therebetween, a pusher movably arranged within said space having a transverse portion arranged from above the plates, step-by-step operating means for the said pusher, a normally retracted pressing foot arranged adjacent the forward end of said casing and an adjustable gage stop for the said pusher.

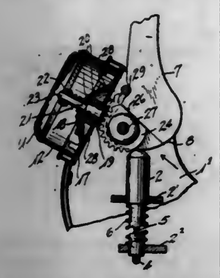
4. A cheese cabinet comprising a base, posts carried thereby, arms pivoted to the said posts, adjustment retaining links for the said arms pivoted to said posts, plates removably carried by the said arms in spaced relation adapted for tilting downwardly at one adjustment of the device, a cheese pusher slidably arranged between the said plates, operating means for the said pusher and an adjustable stop in the path of movement of the said operating means.

5. A cheese cabinet comprising a base, posts carried thereby, arms pivoted to the said posts, adjustment retaining links for the said arms pivoted to said posts, plates removably carried, by the said arms in spaced relation adapted for tilting downwardly at one adjustment of the device, a cheese pusher slidably arranged between the said plates, operating means for the said pusher, a casing removably carried by the said base inclosing said plates and pusher and a cutting blade normally arranged in closing relation with respect to the forward end of the casing.

1,255,551. FASTENER-FEEDING MECHANISM. LOUIS MYERS, Detroit, Mich., assignor to Machine Appliance Corporation, Brooklyn, N. Y., a Corporation of New York. Filed Apr. 21, 1917. Serial No. 163,544. (Cl. 218—15.1.)

1. In a mechanism for feeding fasteners, the combination of a cup having a bearing for a stud; a stud mounted therein; a reservoir through the bottom of which the

upper end of said stud passes; a washer upon said stud below said reservoir and fixed against axial movement relative to said stud; means for holding the bottom of said reservoir against said washer, so as to produce a driving friction, and means for moving said stud about its axis.



2. In a mechanism for feeding fasteners, the combination of a cup having a bearing for a stud; a stud mounted therein and having gear teeth on its lower end; a reservoir through the bottom of which the upper end of said stud passes; a washer upon said stud below said reservoir fixed against axial movement relative to said stud, and means for holding the bottom of said reservoir against said washer, said means consisting of a spring and a holding device upon the upper end of said stud; and a pivotally mounted handle having gear teeth driven thereby meshing with the gear teeth on said stud.

4. In a fastener machine, the combination of a cup having a bearing for a stud; a stud carried thereby; means for rotating said stud; a base plate mounted on said stud so as to be frictionally driven thereby, said base plate having around its periphery a series of perforations and an inverted cup having downward projections, providing openings for the passage of fasteners, and extensions from said projections passing through the holes in the base plate and secured therein.

6. In mechanism for feeding fasteners, the combination of a cup having a bearing for a stud, a magazine leading from said cup, a stud mounted in said bearing, a reservoir movable relatively to said stud and through the bottom of which said stud passes, means for reciprocating said stud, and means for holding said reservoir on said stud so that said reservoir tends to follow the reciprocating movements of said stud.

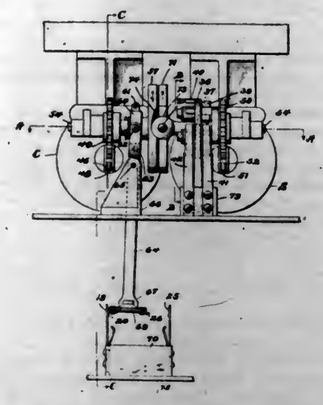
[Claims 3 and 5 not printed in the Gazette.]

1,255,552. SWITCHING MECHANISM. CARL P. NACHOD, Louisville, Ky., assignor to Nachod Signal Company, Inc., a Corporation of New York. Original application filed Sept. 18, 1914, Serial No. 862,264. Divided and this application filed Apr. 3, 1917. Serial No. 159,897. (Cl. 175—281.)

1. The combination with associated rotatable co-axial members, of means for rotating said members independently of each other, one of said members forcing the other longitudinally upon excess rotation of one of said members, and switching mechanism controlled by said longitudinally movable member.

9. The combination with associated co-axial rotatable members, of step-by-step mechanism for each of said members for rotating said members independently of each other, means on one of said members engaging the other for moving it longitudinally upon excess rotation of one of said members with respect to the other, and a movable member of switching mechanism actuated by said longitudinally movable member.

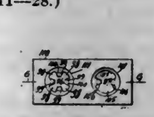
12. The combination with rotatable co-axial disks disposed side by side, of means for rotating said disks independently of each other, means on one of said disks forcing the other longitudinally upon excess movement of one of said disks over the other, a movable member of switching mechanism actuated by said longitudinally movable disk, and means causing said disks to rotate in unison after predetermined excess rotative movement of one of them.



13. The combination with rotatable co-axial disks disposed side by side, one of said disks having a cam surface, of a member carried by the other of said disks engaging said cam surface and moving said first named member longitudinally upon excess movement of one of said disks over the other, a pivoted contact member of switching mechanism actuated by said longitudinally movable disk, and means causing said disks to rotate in unison after predetermined excess rotative movement of one of them.

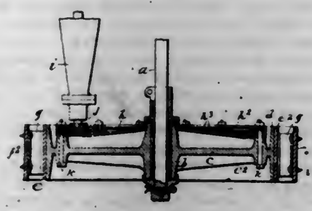
[Claims 2 to 8, 10, and 11 not printed in the Gazette.]

1,255,553. DISPLAY DEVICE. MAX NATHAN, Ridgefield Park, N. J. Filed Oct. 22, 1913. Serial No. 796,569. (Cl. 211—28.)



In a device of the character described a sheet of resilient material provided with an opening, said resilient sheet having prongs integral therewith extending in the plane of the sheet and into the opening and grooves formed in the ends of the prongs.

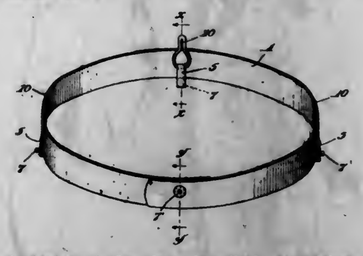
1,255,554. WHEEL. BOUDEWIJN B. NEUTEBOOM, Detroit, Mich. Filed June 16, 1917. Serial No. 175,073. (Cl. 74—28.)



1. In an automobile, the combination of a driving wheel, an internal gear wheel secured to said driving wheel concentric therewith, said gear wheel comprising arcuate toothed plates laid side by side and secured together, the constituent plates being spaced laterally from each other.

2. In an automobile, the combination of a driving wheel, an internal gear wheel secured to said driving wheel concentric therewith, said gear wheel consisting of toothed plates laid side by side and secured together, the constituent plates being short arcuate sections with the ends of the adjacent sections alternating so that adjacent plates are spaced from each other in a lateral direction.

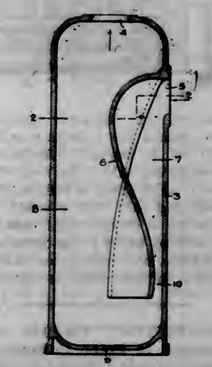
1,255,555. GARMENT-HOLDER. JACOB NEVSKY, Chicago, Ill. Filed June 26, 1915. Serial No. 36,560. (Cl. 241—9.)



1. A device of the class described comprising a belt adapted to encircle the waist of the wearer; a plurality of vertically disposed flexible fabric straps spaced upon said belt; means on the lower ends of said straps for connecting the same and trousers of the wearer; and means on the upper ends of said straps for connecting the same with the shirt of the wearer, substantially as described.

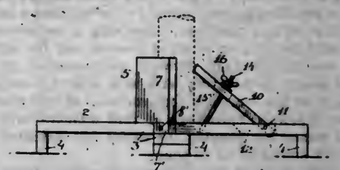
2. A device of the class described, comprising a belt adapted to encircle the waist of the wearer, a plurality of vertically disposed straps spaced upon said belt, said straps each being formed of a strip of flexible fabric doubled upon itself, said belt being slit adjacent each of said straps and one lap of the strap extending through the respective slit and the ends of the laps of said straps projecting below the lower edge of said belt and secured together, the upper ends of said strap being stitched to said belt above said slit forming a loop on the inner side of the belt, a shirt engaging element secured in said loop and fastening means on the outer face of the lower end of said straps for securing the same to a pair of trousers, substantially as described.

1,255,556. MUFFLER. WERNER M. NORDOREN, Charlottenburg, Germany, assignor to General Electric Company, a Corporation of New York. Filed Nov. 4, 1915. Serial No. 59,541. (Cl. 121—116.)



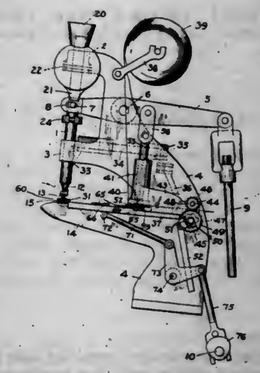
A muffler comprising a casing closed at one end and having an exit opening at the other end, said casing having an inlet opening in one side adjacent the end having the exit opening, and a partition wall which extends from a point between said openings toward the closed end of the casing, terminating short thereof, said partition being rounded out opposite the inlet opening to form with the side wall of the casing a pocket, and gradually approaching the side wall toward the closed end of the casing and at the same time gradually widening out so as to form a long narrow outlet passage between said partition and the side wall.

1,255,557. CHRISTMAS-TREE HOLDER. LUDWIG NORMAN, Brooklyn, N. Y., assignor, by mesne assignments, of one-half to Lucia G. Ziccardi and Maria Ziccardi. Filed Feb. 16, 1917. Serial No. 147,817. (Cl. 248—38.)



In a Christmas tree holder, a base consisting of horizontal cross arms intersecting at right-angles and one superposed upon and located in a plane above the other, an upright member having a wedge-form recess and consisting of two vertical bars intersecting at right-angles, resting upon the upper of said cross arms and having depending legs straddling the same and resting upon the lower cross arm, securing screws extending through said depending legs at right-angles thereto and to said bars and engaging the upper cross arm, said upper arm having a slot, and an oblique strut the lower end of which fits within said slot and the upper end of which has adjustable sliding engagement with the trunk of a tree located in the recess of the upright member, a pivotal bolt extending through said upper arm at the slotted part thereof and through the lower end of said strut, the latter having a slot, and an oblique bolt carried by said upper arm and extending upwardly and at about right-angles to said strut and engaging the slot thereof, and a nut threaded upon the upper end of said oblique bolt and engaging said strut.

1,255,558. WASHER AND STRING ATTACHING MACHINE. ABRAHAM NOVICK, New York, N. Y., assignor to F. L. Schmidt Company, New York, N. Y., a Corporation of New York. Filed Apr. 2, 1917. Serial No. 159,143. (Cl. 93—61.)



1. In a machine of the character described, means for delivering a top washer with a string therethrough and an eyelet into setting position, means for forming a bottom washer from a continuous web of paper, said washer forming means being located in spaced relation to the setting position, means for forwarding the finished bottom washer into setting position, and means for flanging the eyelet for fastening said washers and string to an envelop.

4. In a machine of the character described, means for forming a washer, means for engaging and forwarding said washer into setting position comprising a reciprocating slide, a slotted beveled edge at one end of said slide, said slide having indents therein for preventing rearward movement of the washer on said slide whereby the washer is advanced on each forward reciprocation of said slide and means for preventing the rearward movement of said washer with said slide on the rearward reciprocation of said slide.

7. In a machine of the character described, means for delivering a top washer with a string therethrough and an eyelet into setting position, means for forwarding a bottom washer into setting position comprising a reciprocating slide adapted for holding washers thereon and for advancing the washers on each forward reciprocation of said slide, and levers coöperating with said slide for engaging the washers on the rearward reciprocation of said slide for preventing rearward movement of said washers with said slide, and means for flanging the eyelet for fastening said washers and string to an envelop.

12. In a machine of the character described, means for delivering an eyelet into setting position, means for delivering a top washer with a string therethrough into setting position, means for forming bottom washers from a continuous web of paper comprising a reciprocating punch, a stationary die and a stationary pin coacting with said punch, means for forwarding the finished washer from the position where it is cut to the setting position, and means for flanging the eyelet for fastening said washers and string to an envelop.

16. In a machine of the character described, means for delivering an eyelet into setting position, means for delivering a top washer with a string therethrough into setting position, means for forming bottom washers from a continuous web of paper comprising a reciprocating punch, a stationary die and a stationary pin coacting with said punch, means for forwarding the finished washer from the position where it is cut to the position where it is set comprising a reciprocating slide for stripping the washer from said pin and for advancing the washer at each forward reciprocation of said slide into final setting position and means for preventing the rearward movement of said washer with said slide on the rearward reciprocation of said slide, and means for flanging the eyelet for fastening said washers and string to an envelop.

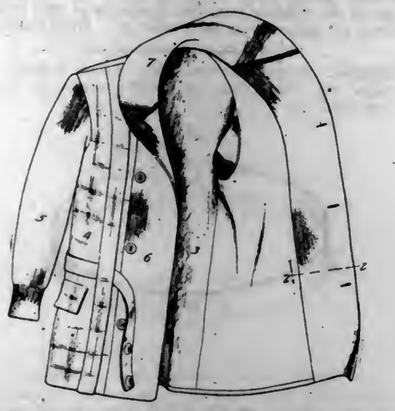
[Claims 2, 3, 5, 6, 8 to 11, 13 to 15, 17, and 18 not printed in the Gazette.]

1,255,559. GARMENT. DENNIS C. O'SHEA, Chicago, Ill. Filed May 29, 1917. Serial No. 171,659. (Cl. 2—118.)



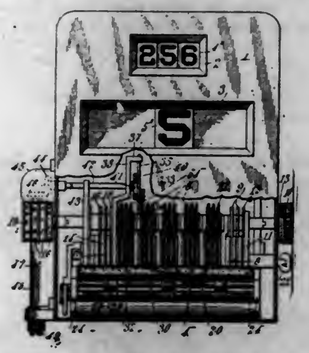
A sweater having in combination a knitted body portion, a neck portion knitted with a rack-stitch to resist stretching in both directions, and a knitted hood having a central band running from the upper edge of the rear of the neck forward to the front upper edge of the hood and having its two sides formed of sections ribbed in diagonally opposite directions from a central line, the ribbing in the rear portion of each side being substantially horizontal and the ribbing in the forward upper portion of each side being substantially vertical, for the purpose set forth.

1,255,560. GARMENT. DENNIS C. O'SHEA, Chicago, Ill. Filed May 29, 1917. Serial No. 171,660. (Cl. 2—61.)



The herein-described garment having a body portion of heavy woven fabric, knitted relatively flexible long sleeves, and a knitted relatively flexible front part, said front part being carried upward and around the neck to form a knitted shawl collar.

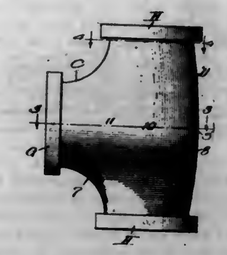
1,255,561. FARE REGISTERING AND RECORDING MACHINE. JOHN F. OHMER, Jr., Dayton, Ohio, assignor to Ohmer Fare Register Company, Dayton, Ohio. Filed Dec. 30, 1916. Serial No. 139,890. (Cl. 234—1.)



In a machine of the character specified, a mileage printing counter, means for actuating said counter from a movable part of a vehicle including an actuating wheel, a pawl engaging said actuating wheel, a pitman adapted to actuate said pawl, a roll carried by said pitman, a cam engaging said roll, a shaft through which said cam is actuated, a driving shaft adapted to actuate said shaft, said driving shaft being operated from a moving part of a vehicle, and means for taking impressions from said counters, substantially as specified.

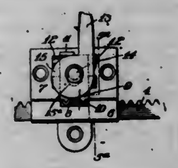
1,255,562. PIPE-FITTING. CHARLES A. OLSON, Chicago, Ill., assignor to Crane Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 21, 1917. Serial No. 187,397. (Cl. 137—75.)

1. In a high pressure system, the combination with a line constructed to conduct extremely high working pressures, of a fitting bored for interposition therein as part of said line and having a concaved crotch portion disposed at one side of the bore intermediate end portions of the fitting, the wall of the fitting provided extrenally with a gradual increase in metal thickness inwardly from said end portions and from said crotch portion toward the other side of the bore and distributed to form an external convex contour with the greatest metal thickness disposed about the maximum internal cross-sectional area of the fitting, and the least about said crotch and end portions, substantially as and for the purposes set forth.



2. An improvement in fittings of the type designed for interposition in lines conducting extremely high working pressures, the fitting having a through bore and a concaved crotch portion disposed at one side of the bore intermediate end portions of the fitting, the wall of the fitting provided with a gradual increase in metal thickness inwardly from said end portions and toward the other side of the bore from said crotch portion and distributed to form a convex contour with the greatest metal thickness disposed about the maximum internal cross-sectional area of the fitting and diminished in thickness at the crotch and end portions, said increase representing approximately eleven per cent. of the weight of the fitting; substantially as described and for the purposes set forth.

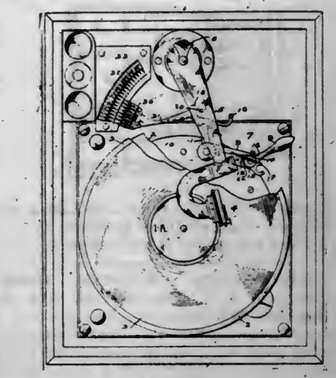
1,255,563. LOCKING MECHANISM FOR RECLINING-CHAIRS. OTTO L. OSTENDORF, Rochester, N. Y. Filed Oct. 27, 1915. Serial No. 58,262. (Cl. 155—27.)



In a locking mechanism, the combination with a slide embodying a rack, of a relatively stationary frame, a locking member comprising a base, a toothed flange at one edge of said base arranged for engaging the rack, a projection at the opposite edge of the base, lugs provided on the frame forming a guide for the locking member, a lever pivoted on the frame, and an eccentric formed on said lever and disposed between the toothed flange and the projection of the locking member for operating the latter.

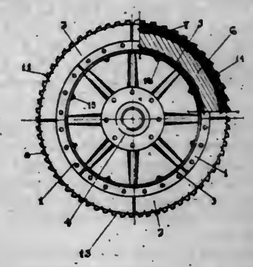
1,255,564. AUTOMATIC STOP-ADJUSTER. ORMOND H. PADDOCK, Toledo, Ohio. Filed Aug. 27, 1914. Serial No. 858,872. (Cl. 116—31.)

In a stop mechanism of a phonographic machine, the combination of a stationary arcuate scale having sharp arrow-headed division points, a relatively short Vernier scale having sharp arrow-headed division points, a rotatable arm for supporting the Vernier scale and moving the scale division points along the line of the division points of the first named scale, numerals located in the



bases of the arrow heads of one scale, and letters located in the bases of the other scale.

1,255,565. TIRE. ISRAEL PASCAL, Montreal, Quebec, Canada. Filed Feb. 14, 1917. Serial No. 148,583. (Cl. 152—4.)



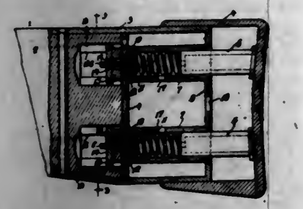
1. In a tire, a circular casing in channel form having transverse slats forming the covering, a plurality of tread members between said slats and having dovetailed inner surfaces, a band of spring material engaging said inner surfaces and locking said tread members and a resilient filling in said casing forming a bearing for said tread members.

2. In a tire, a circular casing in channel form having transverse slats forming the covering, a plurality of transverse tread members having contact edges formed by beveled outer surfaces and sloping ends, said tread members being inserted between said slat members, a resilient filling in said casing forming a bearing for said tread members and a spring steel band engaging the undersides for locking said tread members flexibly over said resilient filling.

1,255,566. SHOCK-ABSORBING DEVICE. CHRISTOPHER PEARSON, Philadelphia, Pa. Filed May 28, 1917. Serial No. 170,345. (Cl. 42—74.)

1. The combination of a gun, a plate secured to the butt end of the gun and having holes therein, said butt end having cavities extending inwardly from the plate and communicating with said holes, a jacket on the butt end of the gun and having an end plate spaced from said first plate, sleeves extending between the first plate and the jacket plate, a shoulder-engaging casing slidable on said jacket, plungers on said casing slidable within the sleeves,

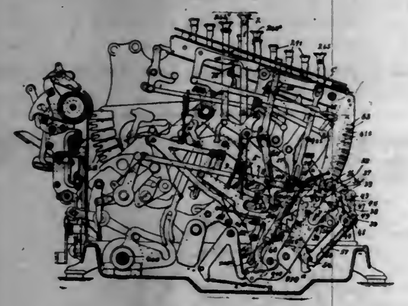
adjusting rods on said plungers extending through the holes in said first plate and into the cavities, nuts on said



rods and positioned in said cavities, and buffing springs within said sleeves, substantially as described.

[Claims 2 and 3 not printed in the Gazette.]

1,255,567. CALCULATING - MACHINE. HEBER C. PETERS, New York, N. Y. Filed Nov. 25, 1913. Serial No. 802,911. (Cl. 235—60.)



1. In an adding machine, a rack and two units wheels operating to engage said rack, in combination with means operating on occasion to move the rack under control of one units wheel one point beyond its normal maximum movement and means to engage the other units wheel with the rack to receive a registration corresponding with this movement of the rack.

11. In a calculating machine, the combination of a minuend accumulator, a subtrahend accumulator, and means controlled by the latter for adding in the minuend accumulator a single amount which is the true complement of the subtrahend.

28. In a calculating machine, the combination with a plurality of accumulators, of mechanism positioned in cooperative relation to said accumulators and adapted to be positioned by one accumulator and to register upon the other accumulator in one operation a single amount which represents the difference between the number appearing on the first named accumulator and the maximum totaling capacity of the machine plus one.

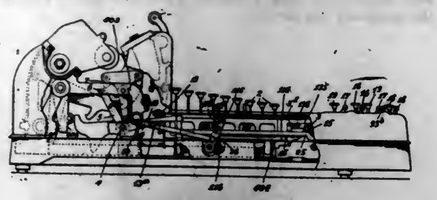
36. In an adding machine a rack, two adding wheels of lowest order, means for bringing said rack and said wheels into operative relation and means operating during a subtracting operation of the machine for moving said rack to rotate both of said wheels a complete revolution.

41. In a machine of the class described, the combination with two sets of registering wheels and their transfer or carrying mechanisms; of means for passing to one such set of wheels the true complement of a registration standing upon the other set under control of the latter.

[Claims 2 to 10, 12 to 27, 29 to 35, 37 to 40, 42, and 43 not printed in the Gazette.]

1,255,568. CALCULATOR. HEBER C. PETERS, New York, N. Y. Filed June 10, 1914. Serial No. 844,150. (Cl. 235—60.)

1. In a machine of the class described, the combination of a set of actuators; two sets of accumulating wheels rotatable in one direction only by said actuators; transfer mechanism for each set of wheels; and means for measuring the movements of the actuators by the wheels of one set while said actuators are at the same time effecting additive registration upon the wheels of the other set to perform subtraction by complemental addition from one set to the other.



6. In a machine of the class described, the combination of a set of actuators; two sets of accumulating wheels rotatable in one direction only by said actuators; transfer mechanism for each set of wheels; and means for measuring the movements of the actuators by true complemental rotation of the wheels of one set while said actuators are effecting registration upon the wheels of the other set.

31. In a machine of the class described, the combination of two sets of adding wheels; actuators therefor; means for measuring movements of the actuators by the registering condition of wheels of either set while disengaged from the actuators; and means for engaging the other set of wheels with the actuators to receive a registration corresponding with their thus measured movement.

41. In a calculating machine, in combination, two accumulators, means for rendering either accumulator active or wholly inactive at will, and means coöperable with one accumulator while inactive to effect a registration on the other active accumulator.

45. In an adding machine, a rack and two units wheels operating to engage said rack, in combination with means operating on occasion, during the addition of the complement in subtraction, to move the rack under control of either units wheel one point beyond its normal maximum movement and means to engage the other units wheel with the rack to receive a registration corresponding with this movement of the rack.

[Claims 2 to 5, 7 to 30, 32 to 40, 42 to 44, 46, and 47 not printed in the Gazette.]

1,255,569. MEANS FOR OPERATING RAILWAY-SWITCHES. JOHN P. ABERNATHY, St. Louis, Mo. Filed Dec. 14, 1916. Serial No. 136,844. (Cl. 104—24.)

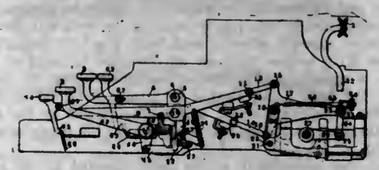


1. The combination of a switch point, means for moving the same in either direction including a member with its upper end let into said switch point, depressible means connected to and adapted to actuate the said member, the said depressible means being located on the side of the rail opposite the side on which the flange of the car wheel runs and comprising plungers slidably positioned in place, a roller or wheel adapted to depress the said plungers, a movable member bearing the said roller or wheel, and a trigger for moving and holding the said roller or wheel into the line of engagement with the said depressible means and being adapted, also, to release the same, said trigger being adapted for automatic engagement with retaining means as it is manually actuated.

2. The combination of a switch point, means for moving the same in either direction including a stud with its upper end socketed into said switch point, depressible means adapted to actuate the said stud, the said depressible means being located on the side of the rail opposite the side on which the flange of the car wheel runs and comprising plungers slidably positioned in place, a roller or wheel adapted to depress the said plungers, a movable member bearing the said roller or wheel, a trigger for moving the said roller or wheel into and holding the same in the line of engagement with the said plungers and being adapted, also, to release the same, and a duplication of the said roller or wheel, movable member, and trigger for throwing the said switch point in the opposite direction, said trigger being adapted for automatic engagement with retaining means as they are manually actuated.

[Claims 3 and 4 not printed in the Gazette.]

1,255,570. TYPE-WRITING MACHINE. NILS H. ANDERSON, Middletown, Conn., assignor to The Noiseless Typewriter Company, Middletown, Conn., a Corporation of Connecticut. Filed Oct. 11, 1913. Serial No. 794,595. (Cl. 197—72.)



1. In a typewriting machine, in combination, a carriage shift rail having a normal intermediate position, shift keys for moving the rail in opposite directions, and trains of connections between the keys and rail, including a floating lever common to the trains of connections and floating links intermediate the lever and said shift keys.

5. In a typewriting machine, in combination, a carriage shift rail having a normal intermediate position, shift keys for moving the rail in opposite directions, and connections between the keys and rail, including shift key levers and floating links forming a pair of toggles occupying a normally extending position, one of said toggles adapted to act as a brace when the other of said toggles is flexed to shift the shift rail.

12. In a typewriting machine, in combination, a shift rail adapted to be moved in opposite direction from a normal intermediate position, a support for said rail, an arm carried by said support, two conical members carried by said arm, two recessed members spaced apart adapted to be engaged by said conical members when the shift rail is shifted for silently arresting the movement of the shift rail, and means for independently adjusting the recessed members.

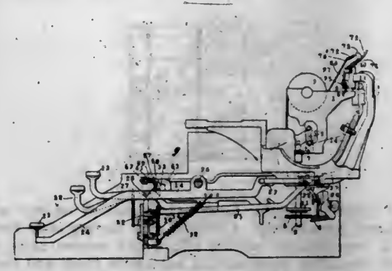
13. In a typewriting machine, in combination, a shift rail adapted to be shifted in opposite direction from a normal intermediate position, shift key levers, locking keys carried by said shift key levers for locking the shift rail in shifted position, and means for releasing the shift key lock by depressing the other shift key lever.

21. In a typewriting machine, in combination, a shift rail, a shift key in the keyboard of the machine, an intervening rock shaft connected with both of said parts, ball bearings supporting the ends of said rock shaft, an adjustable ball raceway for said bearings movable in the direction of the length of the rock shaft, and a housing for said bearings surrounding said raceway.

[Claims 2 to 4, 6 to 11, 14 to 20, and 22 to 27 not printed in the Gazette.]

1,255,571. TYPE-WRITING MACHINE. NILS H. ANDERSON, Middletown, Conn., assignor to The Noiseless Typewriter Company, Middletown, Conn., a Corporation of Connecticut. Filed Oct. 11, 1913. Serial No. 794,596. (Cl. 197—63.)

1. In a typewriting machine, in combination, a carriage, a key, a stop movable by said carriage about a vertical axis, and by said key about a transverse axis, key levers, and a line lock member for the latter having a permanent connection with said stop and movable thereby but only when said stop is moved by said carriage.

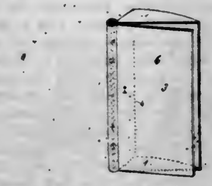


2. In a typewriting machine, in combination, a carriage, a stop therefor having a limited movement thereby, key levers, a line lock member for the latter movable at substantially right angles to the movement of said stop by said carriage, and operative connecting means between said member and said stop including a bell crank lever having a resilient connection with said member.

7. In a typewriting machine, in combination, a margin stop, a tabulator stop, a movable stop coöperative with said stops, means normally holding the movable stop in the path of the margin stop, a release key lever whereby said movable stop may be moved about a horizontal axis out of the path of travel of said margin stop, another key lever whereby the movable stop may be moved about the same axis into the path of the tabulator stop, means permitting a movement of said movable stop about a vertical axis when engaged by the tabulator stop or the margin stop, and a line lock device rendered effective by the last said movement.

[Claims 3 to 6 and 8 to 14 not printed in the Gazette.]

1,255,572. NON-REFILLABLE RECEPTACLE. MIGUEL DE MARIA ARRIOJA, New York, N. Y. Filed Mar. 17, 1916. Serial No. 84,758. (Cl. 221—78.)

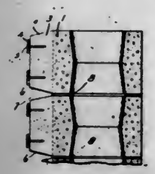


1. A non-refillable receptacle having the combination of a straight wall, an adjacent arched wall concentric with one of the edges of said wall, a wall hinged at said edge adapted to swing toward the interior side of said straight wall while its edge swings along said arched wall and bears thereagainst, means to prevent return swinging of said hinged wall, and a valve in said straight wall to permit the contents to issue therefrom upon swinging of said hinged wall.

3. A non-refillable receptacle having the combination of a straight wall, an adjacent arched wall, a hinged wall adapted to swing toward said straight wall and along said arched wall, means to prevent return swinging of said hinged wall, and a valve in said straight wall to permit the contents to issue therefrom upon swinging of said hinged wall.

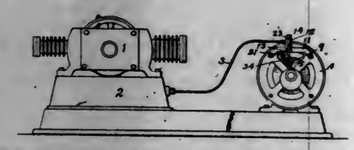
[Claims 2 and 4 not printed in the Gazette.]

1,255,573. BUILDING-BLOCK. GROSVENOR ATTERBURY, New York, N. Y., assignor to Standardized Housing Corporation, a Corporation of Delaware. Filed May 28, 1915. Serial No. 30,879. (Cl. 72—39.)



A concrete building block having cast on its face as an integral part thereof, a section of a furring strip formed of a cementitious mixture adapted to receive nails, said strip extending substantially across the block and having its ends beveled for the purpose described.

1,255,574. PRESSURE-RELEASE. ROLLIN L. BACHER, Cleveland, Ohio, assignor to The United States Air Compressor Company, Cleveland, Ohio, a Corporation of Ohio. Filed Aug. 29, 1916. Serial No. 117,436. (Cl. 230—24.)

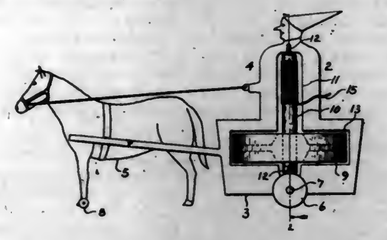


1. In apparatus of the character described, the combination with a motor, an air compressor and a suitable chamber for retaining the air under pressure; of an air conduit communicating with said chamber; motor parts actuated to an extreme position when the motor attains full operation; a bracket; means for supporting the latter; an element pivoted in said bracket and adapted to be actuated by said motor parts when the latter reach said extreme position; a chamber formed in said bracket and provided with an opening communicating with said air conduit; and a reciprocating plunger mounted in said chamber and adapted to be actuated by said pivoted element to close said opening in said chamber.

2. In apparatus of the character described, the combination with a motor, an air compressor and a suitable chamber for retaining the air under pressure; of an air conduit communicating with said chamber; a reciprocating shell member adapted to be actuated by the governor of the motor in one direction; means for moving said shell member in the other direction; a valve casing communicating with said conduit; a plunger in said valve casing, said plunger normally closing the communication between said valve casing and air conduit, said plunger being provided with a reduced end portion protruding from said valve casing; a rocker arm; a spring member supported upon said rocker arm and adapted to impinge upon the reduced end portion of said plunger; a movable element adapted to be actuated by the movement of said shell member in the first-mentioned direction and adapted to actuate said rocker arm; and supporting means for said valve casing, rocker arm and movable element.

1,255,575. WHEELED TOY. CLIFFORD E. BAILEY and FRED W. NANFELDT, New Haven, Conn., assignors, by direct and mesne assignments, to The A. C. Gilbert Company, New Haven, Conn., a Corporation of Connecticut. Filed Jan. 3, 1917. Serial No. 140,376. (Cl. 46—48.)

1. A wheeled toy comprising a body formed to represent an object or objects and provided with an axle at the rear portion thereof furnished with wheels at opposite sides of the body, the body being supported forward of the wheels of the axle and being immovable vertically during the movement of the toy along a support, a momentum wheel, and a spindle with which the momentum wheel is rigidly connected for rotation, the body having an opening to support the spindle and the wheel for movement about an upright axis, the axle having a disk to be engaged by said spindle on the rotation thereof, to thus propel the vehicle.

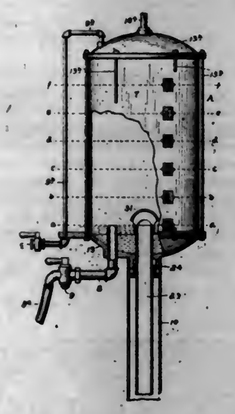


2. A toy comprising a flat body adapted to lie in a plane and formed to represent an object or objects, an axle supported by the rear portion of the body and having wheels at opposite sides of said body, the body being furnished with means forward of the axle to support the same, a spindle and a momentum wheel rotative therewith, the body being slotted to receive both the spindle and the momentum wheel, and means carried by the axle and actuated by the spindle for effecting the propulsion of the toy.

4. A toy comprising a flat body adapted to lie in a plane and formed to represent an object or objects, an axle supported by the rear portion of the body and provided with wheels at opposite sides of the body, the latter being furnished with means to support it at a point forward of the axle and the wheels thereof, a spindle, the body being slotted to receive the spindle and being furnished with means to rotatively support said spindle, a weighted momentum wheel to rotate with the axle, and a wheel on the axle at one side of the body to be engaged by the spindle to effect the rotation of the axle and therefore the propulsion of the toy.

[Claims 3 and 5 to 9 not printed in the Gazette.]

1,255,576. LIQUID-MEASURING APPARATUS. ROBERT T. C. BAIN, Pittsburgh, and GEORGE W. MACKENZIE, Jr., Rochester, Pa., assignors to Guarantee Liquid Measure Company, Rochester, Pa., a Corporation of Delaware. Filed Oct. 10, 1916. Serial No. 124,869. (Cl. 221—100.)

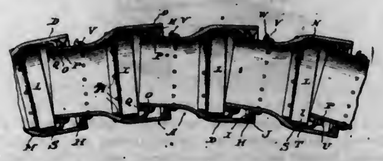


1. In combination with a transparent measuring tank having a series of level-indicating marks successively arranged upwardly beyond an initial level which is materially above the bottom of the tank; a delivery conduit extending within the measuring tank up to such initial level, and an adjustable supply and return pipe extending upwardly within said tank.

2. In combination with a transparent measuring tank having a series of level-indicating marks successively arranged upwardly beyond an initial level which is materially above the bottom of the tank; a delivery conduit extending within the measuring tank up to such initial level, a vertically adjustable supply and return pipe extending upwardly within the tank and adapted to be located with its upper terminal coincident with either of said level-indicating marks, and means for causing a flow of liquid through said pipe.

[Claim 3 not printed in the Gazette.]

1,255,577. FLEXIBLE PIPE-COUPLING OR FLEXIBLE PIPE. EDWARD FRANCIS BERRY, New Orleans, La. Filed Jan. 31, 1917. Serial No. 145,659. (Cl. 137—34.)



1. A flexible coupling of the character described comprising sealed interfitting members having coöperating bearing surfaces to constitute a ball joint, and said members being formed to permit telescopic movement of said members without breaking the sealed relation thereof, substantially as described.

27. A flexible pipe coupling comprising interfitting members arranged for a relatively free lateral play with reference to each other and a longitudinal play one over the other, in combination with coacting surfaces adapted to constitute a ball joint in one position of the parts, in combination with packing means for sealing the joint notwithstanding the varying positions of the members, said packing means having relatively free portions and means coöperating therewith for forcing said free portions into sealing engagement under pressure and suction within the coupling.

[Claims 2 to 26 and 28 not printed in the Gazette.]

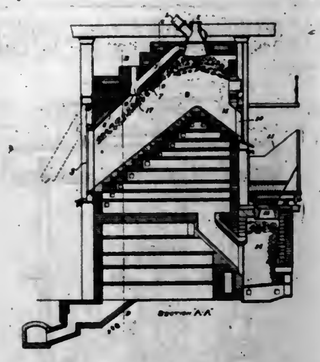
1,255,578. NASAL APPLIANCE. GEORGE BOXLEY, Troy, N. Y.; William Bolton and Ida Ella Bolton executors of said George Boxley, deceased. Filed Feb. 27, 1917. Serial No. 151,330. (Cl. 128—13.)



1. An appliance of the class described formed from a length of wire bent between its ends to provide a gripping portion, and spaced upwardly extending portions, the wire beyond the upper ends of the said spaced portions being bent to extend forwardly and upwardly and thence rearwardly, and beyond the rearwardly extending portions being provided with laterally bowed supporting portions.

2. An appliance of the class described formed from a single length of wire bent between its ends to provide an open bridge to grip the cartilage of the nose, the wire at the open side of the bridge being bent to form upwardly extending spaced portions and beyond the spaced portions being bent to extend forwardly and upwardly and thence rearwardly, the wire beyond the rearwardly extending portions being bent to extend downwardly and thence laterally and finally upwardly to form yieldable supporting loops.

1,255,579. COKE-OVEN. FREDERICK A. BREDEL and JOHN BERGMANN, St. Louis, Mo.; said Bergmann assignor to said Bredel. Filed Aug. 22, 1916. Serial No. 116,241. (Cl. 202—9.)



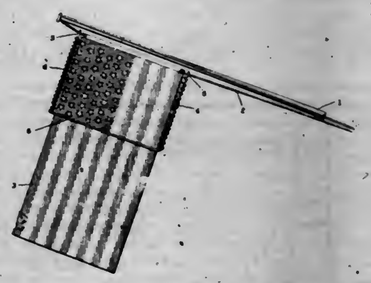
1. A coke oven having an inclined coal chamber that is adapted to be filled with coal, the bottom wall of said chamber being straight or continuous and top wall of said chamber being provided on its inner side with an offset for the purpose described.

5. A coke oven having an inclined coal chamber whose bottom wall is straight and whose top wall is rigid and provided on its inner side with an offset, located intermediate the upper and lower ends of the chamber, and a gas outlet formed in the offset portion of said top wall.

6. A coke oven having a coal chamber whose bottom wall lies in a continuous inclined plane, and whose top wall is composed of a plurality of sections lying in inclined planes differing from the plane of the bottom wall, and a substantially horizontally-disposed section joining said upper inclined planes so as to form an offset for the purpose described.

[Claims 2 to 4 not printed in the Gazette.]

1,255,580. MEANS FOR RETAINING FLAGS AND THE LIKE EXTENDED. CORNELIUS M. BROWN, Newark, N. J. Filed Sept. 25, 1915. Serial No. 52,576. (Cl. 116—12.)



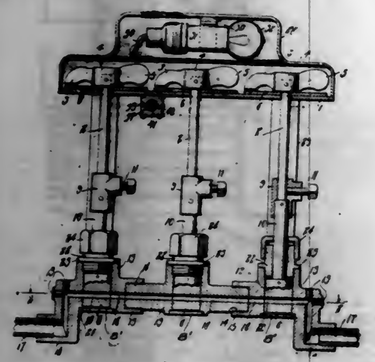
1. The hereindescribed means for retaining flags and the like extended, comprising a pair of arms spaced apart in substantially parallel relation to each other the width of a flag and providing means for retaining the same upon a flag supporting means, and a transverse restraining member connecting said arms at their ends opposite from said retaining means and providing parallel and separated portions adapted to receive a flag therebetween.

3. The hereindescribed means for retaining flags and the like extended, comprising a pair of arms spaced apart in substantially parallel relation to each other the width of a flag and having each a ring at its upper end for

supporting the same upon a flag support, and means at the other ends of said arms extending between said arms adapted to retain a flag.

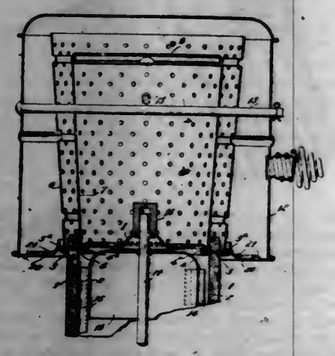
[Claims 2, 4, and 5 not printed in the Gazette.]

1,255,581. PERMUTATION-VALVE. JAMES R. BURKHART, Davenport, Iowa. Filed Apr. 18, 1916. Serial No. 92,061. (Cl. 277—69.)



A permutation valve, including a supporting plate, a hollow cover hingedly connected to said plate and forming a casing, dials mounted on said plate, supporting bars depending from said plate, a valve casing carried by the lower ends of said bars and equipped with a longitudinal bore, ported valve plugs rotatably mounted in said valve casing and intersecting said bore, valve stems carried by said plugs and extending upwardly through said plate and dials, said valve stems comprising upper and lower sections, independent sleeves fastened to the upper ends of said lower sections and adapted to rotatably receive the lower ends of said upper sections, fastening means carried by said sleeves to normally hold said upper sections stationary therein, combined handle and pointer means carried by the upper end of said valve stems to rotate with said valve and coöperate with said dials to indicate the position of the valve with respect to the longitudinal bore of the casing.

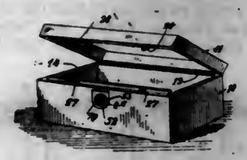
1,255,582. OIL-BURNER. LEE S. CHADWICK, East Cleveland, Ohio, assignor to The Cleveland Metal Products Company, Cleveland, Ohio, a Corporation of Ohio. Filed Apr. 7, 1916. Serial No. 89,573. (Cl. 158—88.)



1. A burner of the class described comprising a pair of wick tubes each having a ledge, a pair of perforated commingling tubes arranged to be supported one upon each of said ledges, each ledge having a flange rising from its edge remote from the wick tube thereby to form a channel in which the lower edge of the respective commingling tube rests, and a drum inclosing the commingling tubes, said drum having an annular bottom the inner portion of which extends inward and upward in close proximity to and above the ledge of the outer wick tube thereby to form a restricted air passageway between itself and such ledge.

[Claims 2 and 3 not printed in the Gazette.]

1,255,583. LOCK. HANS ANTON CHRISTENSEN and HANS CHRISTIAN MARIUS ANDREASEN, Cliffside, N. J. Filed Apr. 18, 1917. Serial No. 162,912. (Cl. 70—53.)



1. A lock composed of a casing having solid front and rear walls, said front wall having an annular depression formed in the face thereof and a vertical slot therethrough extending from the center to a point directly therebelow, a stud rigidly engaged in said rear wall, centrally thereof and extending into the casing, a disk movable within said casing, an annular peripherally grooved element formed with said disk having a slot engageable with said stud, an outer disk rotatably engaged in the mentioned depression, said outer disk having a slot registerable with the slot formed through said front wall, means on said outer disk whereby the position of said slot may be determined, an annular plate movable on the face of said outer disk, a pin fixed in said annular plate engaging said disks together, said pin being operable in the mentioned slots, a knob secured to said annular plate, means on said knob whereby the position of the slot in said inner disk may be determined, and by which said pin may be caused to traverse in said slot, one or more bolts combined with said casing, flexible connections between said bolts and said grooved element whereby when said knob, disks, and grooved element are moved down said bolts are retracted, and means formed in said front wall whereby said bolts may be held in a retracted position.

2. In a lock of the class described, the combination with a container, a cover hingedly engaged therewith, and a lock casing having front and rear walls secured to said container, of one or more bolts carried by said container, keepers carried by said cover engageable with said bolt, means for normally keeping said bolt or bolts in a locked position, a stud rigidly engaged with said rear wall extending into the space within said casing, an annular element rotatable on said stud, said annular element having a slot permitting it to slide on said stud, a pin rigidly engaged with said annular element and extending through a slot in the front wall of said casing, a disk rotatably engaged with the outer wall of said casing having an elongated slot alinable with the first named slot and in which said pin is movable, flexible connections between said bolt or bolts and said annular element, means for rotating said annular element interiorly of said casing, means for alining the slot in said disk with the mentioned slot in said front wall, and means combined with said pin for sliding said annular element and disk whereby said flexible connections are caused to retract said bolt or bolts.

3. In a lock of the class described, the combination with a container and a cover hingedly engaged therewith, of a pair of bolts slidably engaged in said container, keepers secured to said cover engageable by the outer ends of said bolts, means for maintaining said bolts in a normally engaged position, a permutation lock secured to said casing, said lock having a slidable element, flexible connections between the inner ends of said bolts and said slidable element whereby, when said lock is in an unlocked condition, the bolts may be retracted, and means combined with said lock for maintaining said bolts in a positively unlocked position.

1,255,584. GARMENT-DISPLAY FIXTURE. JAMES T. CLARK, Detroit, Mich., assignor of one-half to George S. Gritman, Detroit, Mich. Filed Jan. 7, 1915. Serial No. 923. (Cl. 211—16.)



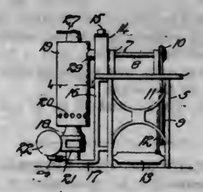
1. A garment display device comprising a casing open in front, a vertically positioned standard therein, and a U shaped garment support rotatably mounted thereon, the standard being positioned forward of the vertical center line of the case whereby, upon revolution of the support, the garments upon the circular side thereof are brought outwardly from the case to view, and upon turning the open side of the support toward the front of the case the garments are positioned entirely therewithin.

3. A garment fixture comprising a casing having a display side, a garment supporting member revolubly mounted therein, the garment support being adapted to hold the garments on the forward part thereof parallel with the display side to present the fronts of the garments to view and the remaining part of the garment support being adapted to hold the garments in radial position about the center of revolution, the center of revolution of the support being forward of the center line of the casing whereby, upon turning the same, the radially positioned garments are brought outward through the display side of the case.

5. In a display fixture for wearing apparel and the like, a garment supporting member substantially U-shaped in form revoluble in a horizontal plane, the center of the curved portion practically coinciding with the center of revolution, and the two ends of the support extending substantially parallel from the point of union with the curved portion allowing the garments supported therefrom to lie substantially parallel from the said center to the ends of the arms and to occupy a radial position about the circular portion of the support substantially shown and described.

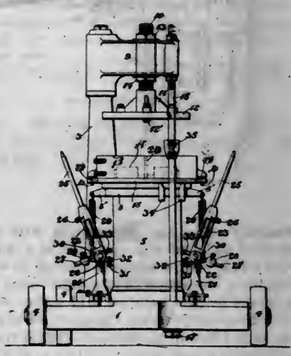
[Claims 2 and 4 not printed in the Gazette.]

1,255,585. HAIR-DRYING APPARATUS. JOSEPH A. CREW, Betterton, Md. Filed Jan. 15, 1917. Serial No. 142,452. (Cl. 34—26.)



An apparatus of the character described comprising a frame having a top, bearings carried by said top, a rotary shaft journaled in said bearings, a suction fan mounted on said top and driven by said shaft, a bracket depending from said top and having a horizontal portion, a heating device supported by said horizontal portion and including a casing, a burner below said casing, means for supplying fuel to said burner, a heating drum within said casing, and a connection between said casing and said fan for supplying heated air to the latter.

1,255,586. MOLDING-MACHINE. WILLIAM A. DENNEY, Quincy, Ill. Filed Oct. 10, 1917. Serial No. 195,695. (Cl. 22—26.)



1. A molding machine comprising a presser member, a flask elevating member beneath said presser member, and means for supporting a flask when said elevating member is lowered after molding operation, said supporting means being operable in response to movements of said elevating member.

2. A molding machine comprising a presser member, a flask elevating member beneath said presser member, and automatically operable means for supporting a flask in elevated position when said flask elevating member is lowered after molding operation.

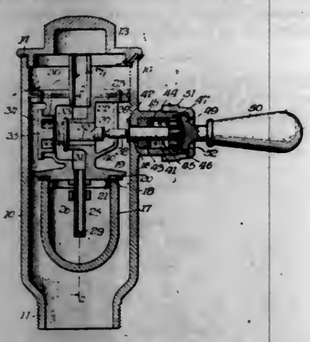
6. A molding machine comprising a presser member, flask elevating means movable toward and away from said presser member, movable flask rests by which a flask may be supported in elevated position when said flask elevating means is lowered relative to said presser member, and means for operating said flask rests including yieldable members having connection with said flask elevating means.

9. A molding machine comprising a presser member, a flask elevating member beneath said presser member, a pair of rock shafts, and means on said rock shafts coöperable with said flask elevating means for supporting a flask when it has been elevated to said presser member, said rock shafts having associated therewith means whereby the flask supporting members are returned to inoperative positions when the flask they serve to support is separated from the flask supporting members.

16. A molding machine comprising a base, an arm swingingly supported by said base, a presser member supported by said arm, a flask elevating member by which a flask may be raised to said presser member, a strain rod for connecting said arm to said base, and coöperable means associated with said flask elevating member and said strain rod whereby said arm may be held from movement pending the lowering of said flask elevating member relative to said pressed member, said last mentioned means comprising a pair of cheeks carried by said flask elevating member having inclined portions and a tapered collar carried by said strain rod adapted to engage the inclined portions of said cheeks.

[Claims 3 to 5, 7, 8, and 10 to 15 not printed in the Gazette.]

1,255,587. FLUSHING-VALVE. PERCY F. DE TAMBLE, Chicago, Ill., assignor of one-half to Frank Sampson and one-half to Isidore H. Stone, Chicago, Ill. Filed May 15, 1916. Serial No. 97,541. (Cl. 137—93.)



1. In a flushing valve, the combination with a casing having water inlet and discharge openings, of a main valve controlling the water inlet, a piston connected to said main valve and forming a movable wall of a differential pressure chamber, an intake by-pass between said water inlet opening and said differential pressure chamber, an out-flow by-pass between said differential pressure chamber and said discharge opening, a relief valve in said out-flow by-pass, and manually operable means for opening said relief valve and holding the same open during the opening movement of said main valve, said relief valve being self closing after a predetermined extent of opening movement of said main valve, and said manually operable means being adjustable to hold the relief valve open during varying extents of opening movement of said main valve.

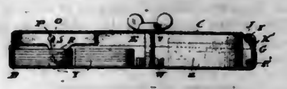
3. In a flushing valve, the combination with a casing, of a movable structure within said casing containing a relief passage, a relief valve seat and valve carried by said movable structure and controlling said relief passage, said relief valve having a stem projecting from said movable structure at right angles to the path of movement of the latter, a spring normally tending to close said relief valve, and a push-device mounted in a side wall of said casing and adapted to unseat said relief valve through contact with the outer end of its stem.

5. In a flushing valve, the combination with a casing, of a movable structure within said casing containing a relief passage, a relief valve seat and valve carried by said movable structure and controlling said relief passage, said relief valve having a stem projecting from said movable structure at right angles to the path of movement of the latter, a spring normally tending to close said relief valve, a push rod mounted in a side wall of said casing, a disk eccentrically mounted on the inner end of said push rod and adapted to unseat said relief valve through contact with the outer end of its stem, said push rod being adjustable about its longitudinal axis, and means for locking said push rod in any adjusted position against rotation under its normal endwise movement.

8. In a flushing valve, the combination of a casing having an inlet and an outlet, a piston-like main valve reciprocable in said casing and controlling communication between said inlet and outlet, an auxiliary valve carried by said main valve and governing the relief of pressure behind the piston-like valve, means by which said auxiliary valve may be temporarily unseated, and a rotatably adjustable plunger with an eccentric on the end engageable with said unseating means to actuate the same and wiped by said unseating means in the opening movement of the main valve, thereby making possible the adjustment of the action of the main valve.

[Claims 2, 4, 6, and 7 not printed in the Gazette.]

1,255,588. VULCANIZER. CHARLES BRITTIAN DRAKE, Norfolk, Va. Filed July 2, 1917. Serial No. 178,203. (Cl. 18—18.)

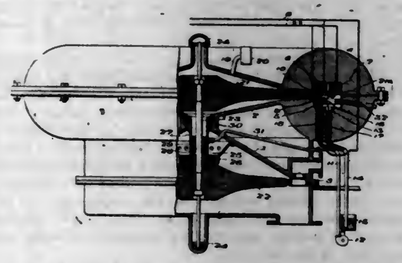


1. A combined container and vulcanizing device comprising oppositely disposed members connected to occupy a closed position or a reversed clamping position and a common means for securing the members in closed or clamping position.

9. A vulcanizing device of the character described comprising opposing container and clamping members adapted to be reversed from the containing to the clamping position, one of said members carrying a pivoted packing face adapted to be projected beyond the adjacent plane of the member which carries the same when in clamping position, and to be withdrawn into approximately the same plane when in closed position, said clamping face including a disk like part and pivot and bayonet slot connections between the same and opposite portions of the member carrying the same.

[Claims 2 to 8 and 10 to 12 not printed in the Gazette.]

1,255,589. TURBINE-DRIVEN ELECTRIC GENERATOR. ARTHUR S. DYSART, U. S. Navy. Filed Dec. 21, 1916. Serial No. 138,182. (Cl. 171—315.)



1. In an electric generator, the combination with a field magnet and an armature which are relatively rotatable, of a vapor or gas collector or brush for taking off the current.

9. In an electric generator, the combination with a field magnet and an armature which are relatively rotatable whose active polar portions are subject to vacuum, of liquid mercury exposed to the rotatable element aforesaid adapted, when subject to the vacuum, to provide a mercury vapor brush or current collector, and a vacuum pump which converts the mercury into a vapor brush or current collector, withdraws it with its entrained gas, releases the gas therefrom and returns it to effective position.

12. A turbo-generator comprising connected turbine and generator casings, the latter having a field magnet, a rotor operating in the turbine casing, an armature rotatable in the generator casing and having its periphery adjacent the field magnet, a common spindle for said rotor and armature, means for producing vacuum in the generator casing, a mercury vapor collector or brush for taking off the current from the armature, and a mercury seal for said spindle and casings where the spindle passes through from one casing to the other.

[Claims 2 to 8, 10, 11, and 13 to 17 not printed in the Gazette.]

1,255,590. CATALYZER AND PROCESS OF MAKING SAME. CARLETON ELLIS, Montclair, N. J. Filed Sept. 21, 1916. Serial No. 121,494. (Cl. 23—28.)

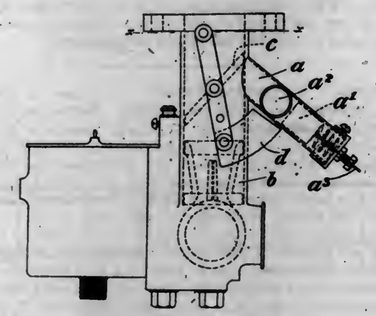
4. A process which comprises producing a catalytically active compound of a solid metalloid element and a catalytic metal, and without previous free exposure of such compound to air subjecting an organic substance to be hydrogenated to hydrogen while in the presence of such compound.

5. An active base carrying an active substantially non-oxidized catalytic chemical compound of a metal.

7. Nickel borid sealed in oily material.

[Claims 1 to 3, 6, 8, and 9 not printed in the Gazette.]

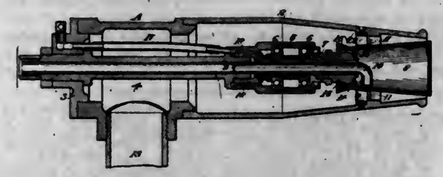
1,255,591. CARBURETER FOR INTERNAL-COMBUSTION ENGINES. HARRY G. FERGUSON, Belfast, Ireland. Filed Dec. 1, 1914. Serial No. 875,026. (Cl. 261—47.)



1. A carbureter having, in combination with the fuel and air inlet and throttle valve therefor, a tubular member communicating at one end with the carbureter and provided with an air inlet port in the side thereof, a piston slidable within the pipe and adapted to control the inlet port, a removable cover on the other end of said tubular member, elastic means interposed between said piston and said cover, means connected with said piston whereby same can be moved against said elastic means, and means movable in a plane transversely to the port and independent of said piston control whereby the amount of additional air supplied to the carbureter through said inlet port is also controlled simultaneously with and by the movements of the throttle valve.

2. A carbureter having, in combination with the fuel and air inlet and throttle valve therefor, a tubular member forming a source of additional air supply communicating with the carbureter behind the throttle valve and having an inlet port, a valve adapted to be actuated at will to control said inlet port, and an oscillatory shutter connected with the throttle valve in a plane transverse to said port and moved with said throttle valve to control the inlet port independently of said valve control.

1,255,592. CENTRIFUGAL OIL-BURNER. MILTON A. FESLER, San Francisco, Cal. Filed Oct. 24, 1916. Serial No. 127,403. (Cl. 158—77.)



1. In a centrifugal burner, the combination of a casing, an oil discharge and distributing cup mounted in the axis of the casing for rotation, the outer discharge end of the cup forming with the adjacent mouth of the casing an annular orifice for the discharge of a film of air around the cup to commingle with the oil discharged from the cup, means for delivering oil into the cup, a series of blades mounted on the exterior of the cup and constituting a fan, and a series of fixed direction blades mounted on the casing exteriorly to the cup and adjacent to the rotatable fan blades on the cup.
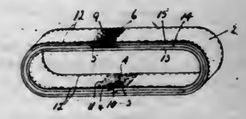
[Claims 2 to 6 not printed in the Gazette.]

1,255,593. DISTILLING COMBUSTIBLE MATERIALS. CHARLES FOXWELL, Baltimore, Md. Filed Feb. 23, 1917. Serial No. 150,560. (Cl. 23—21.)

3. The process of recovering benzol and ammonia from combustible materials which consists in treating the combustible materials with a solution of calcium chlorid and borax and then distilling said combustible materials in a by-product oven.

[Claims 1, 2, and 4 not printed in the Gazette.]

1,255,594. POWER-TRANSMISSION BELT. OTTO E. GEISEL, Philadelphia, Pa. Filed May 10, 1917. Serial No. 167,652. (Cl. 74—63.)



1. As an article of manufacture, an endless webbed belt, comprising a piece of single ply webbing, formed into superimposed layers with one layer passing through another layer, and having each end provided with warp threads, said warp threads overlapping, and means for stitching said overlapping warp threads to the inner layer of the webbing.

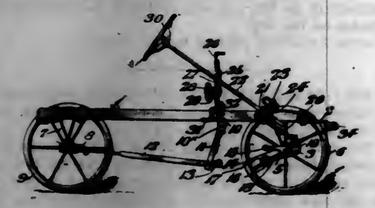
2. A belt comprising a section of webbing provided with a transverse slot intermediate its edges and transverse notches, projecting inwardly from its edges, the end adjacent the notches being passed through the slot, the ends being wound about that portion of the webbing lying between said slot and notches with the said ends overlapping each other, said overlapping ends being unraveled, and means for joining said unraveled ends to each other and to the inner portion of the webbing.

3. A belt comprising a section of webbing provided with a transverse slot intermediate its edges and transverse notches, projecting inwardly from its edges, the end adjacent the notches being passed through the slot, the ends being wound about that portion of the webbing lying between said slot and notches until one of the ends is inclosed by the plies of the webbing, and the other end overlies the region of the first named end, said ends being previously unraveled and means for joining said ends and the different plies of webbing together.

4. A belt comprising a section of webbing provided with a transverse slot intermediate its edges and transverse notches, projecting inwardly from its edges, the end adjacent the notches being passed through the slot forming a joint, the ends being wound about that portion of the webbing lying between said slot and notches with the said ends overlapping, said overlapping ends being unraveled, transverse stitches for joining the layers of webbing together in the region of the joint, other transverse stitches for joining the overlapping ends together and longitudinal stitches for joining the edges of the layers together.

5. The herein described method of producing a power transmission belt consisting in forming a slot and notches in the strip of material a predetermined distance apart, then passing the end adjacent the notches through the slot, winding the free ends upon that portion of the webbing between slot and notches until the ends overlap, then unraveling said ends and joining said ends to each other and the inner portion of the webbing.

1,255,595. CHILD'S VEHICLE. NIKOLAUS GERSON, Philadelphia, Pa., assignor to A. Mecky Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Aug. 6, 1917. Serial No. 184,623. (Cl. 208—114.)



1. In a velocipede, a steering device composed of a steering rod proper, an elbow connected with the running gear, a member adapted to couple said elbow and rod, and a tightening device on said member for said elbow and rod, said elbow being fixed to said coupling member and said rod being connected with said member by said tightening device and slidable in said member.

[Claims 2 to 11 not printed in the Gazette.]

1,255,596. FRUIT-PICKER. HERMAN GIELOW, Palatine, Ill. Filed Sept. 24, 1917. Serial No. 192,845. (Cl. 56—99.)



1. A fruit picker comprising two bowed frame members rigidly secured together, the one extending in a plane transverse to the plane of the other, a handle socket extending between and rigidly secured to the central portions of both frame members, said handle acting also as a brace between said frame members, one of said frame members also acting as a stationary jaw, a bowed, movable jaw pivotally secured to one of said frame members, and movable from an open position to a closed one contacting with the stationary jaw, springs between said jaws for swinging the movable jaw into open position, a jaw actuating member and a receptacle having its open upper end secured to said jaws.

[Claims 2 and 3 not printed in the Gazette.]

1,255,597. INDUSTRIAL ELECTRICAL CAPACITY-BATTERY. GEORGES GILES, Fribourg, Switzerland. Filed Oct. 16, 1916. Serial No. 125,947. (Cl. 250—41.)

1. In an industrial electrical capacity-battery an element comprising a dielectric plate, armatures applied directly to the faces of the plate, and fuses inserted between certain of the armatures of succeeding condensers and extending between same with portions thereof lying between the armatures thus connected and the dielectric plate.

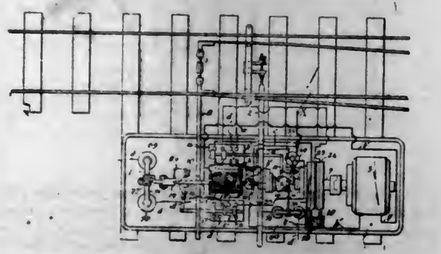
2. In an industrial electrical capacity-battery an element comprising a dielectric plate, armatures applied directly to the faces of the plate, fuses inserted between certain of the armatures of succeeding condensers and extending between same with portions thereof lying between the armatures thus connected and the dielectric



plate, and an insulating material in which the said dielectric plates and parts associated therewith are embedded.

[Claims 3 and 4 not printed in the Gazette.]

1,255,598. SWITCH-MACHINE. GARDNER B. GRAY, Pittsburgh, Pa. Filed Feb. 5, 1916. Serial No. 76,481. (Cl. 104—155.)



4. A switch machine comprising: a switch throwing means, a switch locking means, and a locking device for each means operative in its locking condition to cause the actuation of the other means.

36. A switch machine comprising: a rotatable member, a solenoid, a core for preventing the rotation of the rotatable member, a reciprocating member, electrical means for reciprocating said member, electrical means for locking said member against reciprocation, a circuit controller connected to said core arranged to control the means for actuating the reciprocating member, and a circuit controller connected to said rotatable member and arranged to control the reciprocating member locking means.

43. A switch machine including a rotatable member, a solenoid, a core for said solenoid, and means connected to said solenoid for preventing the rotation of the rotatable member.

51. A switch machine comprising: a throw rod, a rotatable shaft for actuating said throw rod, a crank on said shaft, an indented slideway in said rod into which said crank enters during a portion of its movement to actuate said rod, said crank being arranged to pass out of said slideway and thus out of engagement with said rod during another portion of its movement, and means carried by said shaft for locking said rod against movement while the crank is out of engagement with said slideway.

[Claims 1 to 3, 5 to 35, 37 to 42, and 44 to 50 not printed in the Gazette.]

1,255,599. LEVELING MEANS FOR WHEELED APPARATUS. JOHN E. GROSS, Walla Walla, Wash. Filed May 24, 1917. Serial No. 170,667. (Cl. 180—41.)

1. In a wheeled apparatus, the combination of a main frame, traction elements at the sides of the main frame, supporting frames for the traction elements pivoted to the main frame on axes parallel to the length of the latter, a third frame carried by the main frame and having a pivotal connection therewith to permit the main frame to tilt transversely, a rack bar connected to one of the supporting frames of the traction elements, a pinion carried by the third frame and meshing with the rack bar, and actuating means for the pinion carried by the third frame.

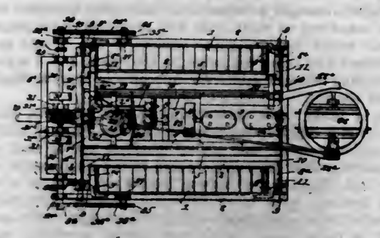
2. In a wheeled apparatus, the combination of a main frame, traction elements at the sides of the main frame, supporting frames for the traction elements pivoted to the main frame on axes parallel to the length of the latter, a third frame carried by the main frame and having a pivotal connection therewith to permit the main frame to tilt transversely, a transverse bar connected at its ends to the respective supporting frames of the traction elements, and having a pivotal connection intermediate its ends with the third frame, a rack bar connected to one of the supporting frames of the traction elements, a pinion carried by the third frame and meshing with the rack bar, and actuating means for the pinion carried by the third frame.

3. In a wheeled apparatus, the combination of a main frame, traction elements at the sides of the main frame, supporting frames for the traction elements pivoted to the main frame on axes parallel to the length of the latter, a third frame carried by the main frame and having a pivotal connection therewith to permit the main frame to tilt transversely, a cross connection between the aforesaid supporting frames, a drive shaft carried by the main frame, driven shafts flexibly connected to the ends of the drive shaft, said driven shafts being carried by the supporting frames of the traction elements, and driving connections between the driven shafts and the traction elements.

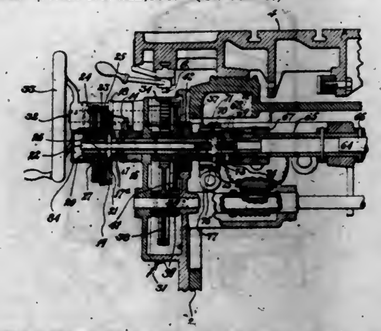
4. In a wheeled apparatus, the combination of a main frame, traction elements at the sides of the main frame, supporting frames for the traction elements pivoted to the main frame on axes parallel to the length of the latter, a third frame carried by the main frame and having a pivotal connection therewith to permit the main frame to tilt transversely, a transverse bar connected at its ends to the respective supporting frames of the traction elements, and having a pivotal connection intermediate its ends with the third frame, a drive shaft carried by the main frame, driven shafts flexibly connected to the ends of the drive shaft, said driven shafts being carried by the supporting frames of the traction elements, and driving connections between the driven shafts and the traction elements.

5. In a wheeled apparatus, the combination of a main frame, traction elements at the sides of the main frame, supporting frames for the traction elements pivoted to the main frame on axes parallel to the length of the latter, a third frame carried by the main frame and having a pivotal connection therewith to permit the main frame to tilt transversely, a rack bar connected to one of the supporting frames of the traction elements, a pinion carried by the third frame and meshing with the rack bar, actuating means for the pinion carried by the third frame, a drive shaft carried by the main frame, driven shafts flexibly connected to the ends of the drive shaft, said driven shafts being carried by the supporting frames of the traction elements, and driving connections between the driven shafts and the traction elements.

[Claim 6 not printed in the Gazette.]



1,255,600. FEEDING MECHANISM. BENGT M. W. HANSON, Hartford, Conn., assignor to Pratt & Whitney Company, Hartford, Conn., a Corporation of New Jersey. Original application filed Jan. 30, 1914, Serial No. 815,477. Divided and this application filed June 4, 1914. Serial No. 842,885. (Cl. 74—7.)



1. The combination of power-operable mechanism involving an intermittent feed device, hand-operable mechanism, a power-transmitting member, and means for connecting the power-operable mechanism or the hand-operable mechanism with the power-transmitting member and for throwing the intermittent feed device out of action when the hand-operable mechanism is in working relation with said power-transmitting member.

5. The combination of a shaft, a power operable member loose on said shaft, a second shaft, a sleeve rotative with the second shaft, a clutch member rotative with the first shaft, a clutch collar loose on the first shaft and shiftable alternately into operative relation with the power operable member and with the clutch member, the clutch collar having a constant driving connection with the said sleeve, mechanism involving an intermittent feed device for turning said power operable member, means for throwing the intermittent feed device out of operative relation when the clutch collar is in engagement with the said clutch member, and means supplemental to the intermediate feed device for rotating said first shaft.

9. The combination of a shiftable clutch collar, power operable mechanism, manually operable mechanism, and means for alternately throwing the power operable mechanism and the manually operable mechanism into working relation with said shiftable collar, and for throwing elements of the power operable mechanism out of working relation with each other when the manually operable mechanism is in working relation with said shiftable collar.

[Claims 2 to 4, 6 to 8, and 10 not printed in the Gazette.]

1,255,601. COMB. JOHN R. HARE, New Windsor, Md. Filed Jan. 27, 1917. Serial No. 144,939. (Cl. 119—87.)



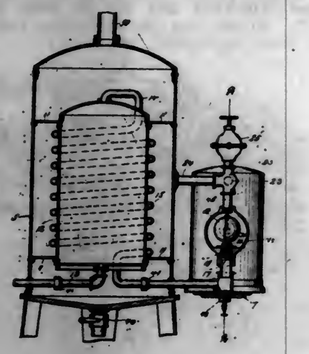
1. A device of the character described comprising a body having an upper wall and a lower wall, a leaf hingedly connected with the upper wall and provided with side flanges extending to the lower wall when the leaf is swung to rest upon the upper wall, and engaging teeth positioned beneath the free end portion of the upper wall.

[Claims 2 to 4 not printed in the Gazette.]

1,255,602. STEAM-GENERATOR. ELMER HARRISON, Chicago, Ill. Filed July 3, 1916. Serial No. 107,341. (Cl. 122—441.)

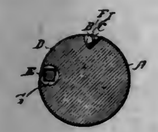
The combination of a steam boiler, a receiver connected to the steam space thereof and having an outlet, a water

tank in the receiver, a supply connection to said tank, and an outlet pipe establishing connection between the



tank and the boiler, and having a portion which encircles the outside of the tank in a coil.

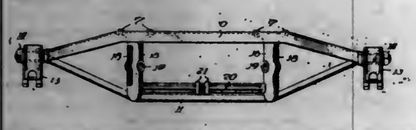
1,255,603. PRINTING-CLOTH FOR PRESSES. HEINRICH HARTMANN, Ahrensböck, Germany, assignor to Firm Globus, Gummi- & Asbestwerke G. M. B. H., Ahrensböck, Germany. Filed Feb. 3, 1916. Serial No. 76,006. (Cl. 272.)



1. In combination with a roller for printing presses, spaced grooves formed in the working face of said roller and extending longitudinally thereof, a cloth surrounding said roller, a beading formed on one edge of said cloth, means engaging said beading for securing said cloth in one of said grooves, and means mounted in the other of said grooves for tensioning said cloth around the roller.

2. In combination with a roller for printing presses, spaced grooves formed in the working face of said roller and extending longitudinally thereof, a cloth surrounding said roller, a beading formed on one edge of said cloth, a bar engaging said beading and said cloth for securing the same in one of said grooves, a plurality of screws extending through said bar and said cloth into said roller, and means engaged by the opposite end of said cloth and operable in the other of said grooves for tensioning said cloth around the roller.

1,255,604. BRAKE-BEAM. WILLIAM C. HEDGCOCK, Chicago, Ill., assignor to American Steel Foundries, Chicago, Ill., a Corporation of New Jersey. Filed July 5, 1917. Serial No. 178,584. (Cl. 188—22.)



1. A brake beam, comprising two spaced members which are operatively connected at their ends, mountings for brake heads, lever fulcrums extending between said members, and a member extending between said lever fulcrums to prevent displacement of the same.

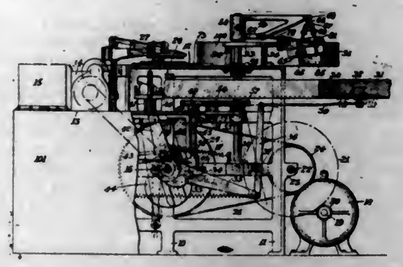
2. A brake beam, comprising spaced members having mountings for brake heads, lever fulcrums extending between said spaced members, and a member extending between said lever fulcrums to prevent displacement thereof.

3. A brake beam, comprising spaced members having parallel arranged portions and converging portions which are connected at their ends and providing mountings for brake heads, lever fulcrums secured to one of said spaced members and being connected to the other, and a spreader extending between said lever fulcrums to prevent displacement thereof.

4. A brake beam, comprising spaced members, one of which is a compression member and the other of which is a tension member, said spaced members having their ends connected, lever fulcrums secured to the compression member and engaging the tension member, a spreader extending between said lever fulcrums adjacent the tension member to prevent displacement of said lever fulcrums.

5. A brake beam, comprising spaced members, one of which is a compression member and the other of which is a tension member, said spaced members having their ends connected, lever fulcrums secured to the compression member and engaging the tension member, and a spreader extending between said lever fulcrums adjacent the tension member to prevent displacement of said lever fulcrums, said spreader having centrally arranged lugs providing for the attachment of a supporting device.

1,255,605. WRAPPING-MACHINE. GILBERT F. HELSON, Richmond, N. Y., assignor to E. R. Durkee and Company, New York, N. Y., a Firm. Filed Aug. 9, 1917. Serial No. 185,275. (Cl. 93—5.)



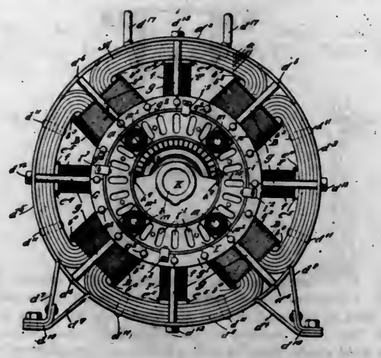
1. In a wrapping machine, in combination with a frame and bed supported thereby, a wrapping-block adjustably supported over the top of the bed at a height to contact with the periphery of the article to be wrapped, and means for moving said block in a circle.

5. In a wrapping machine, in combination, a frame and bed supported thereby, means for depositing a wrapper upon said bed, means for placing an article to be wrapped adjacent one edge of the wrapper so deposited, a wrapping-block adjustably supported above the bed at a height to contact with the periphery of the article so placed, a plurality of folding fingers attached to said block on opposite sides thereof, and means for moving said block in a circle over the top of the bed.

[Claims 2 to 4 and 6 to 10 not printed in the Gazette.]

1,255,606. DYNAMO-ELECTRIC MACHINE. WILLIAM T. HENSLEY, Connersville, Ind., assignor, by mesne assignments, to Bound Brook Engine & Mfg. Co., a Corporation of Delaware. Filed May 23, 1911. Serial No. 628,904. (Cl. 171—252.)

5. In a rotary dynamo electric machine, a field magnet construction comprising a laminated body, said body being composed of a plurality of sections, each section having the ends thereof turned inward to form the poles of the field, the surfaces of the laminæ of each section being parallel with the axis of rotation of the machine, each pole being composed of the inturned ends of two adjacent sections, the laminæ in the poles being disposed in parallel planes, and the laminæ between the poles being arranged concentrically with respect to each other and said axis, the outer laminæ being wider than the others to provide a casing having overhanging flanges for the field, which flanges are apertured, and feet integral with said casing.



9. In a rotary dynamo electric machine, a field magnet construction comprising a laminated body, said body being composed of a plurality of sections, each section having the ends thereof turned inward to form the poles of the field, the surfaces of the laminæ of each section being parallel with the axis of rotation of the machine, each pole being composed of the inturned ends of two adjacent sections, the laminæ in the poles being disposed in parallel planes, the laminæ between the poles being arranged concentrically with respect to each other and said axis, inter poles of laminated construction, the laminæ of said inter poles being arranged in parallel planes extending crosswise of said axis, each inter pole having the core thereof formed with an enlarged base which seats upon the inner surface of the said body, screws extending through said sections and into the said base of each inter pole, a winding for each inter pole, and a face plate secured to the end of each inter pole to secure the winding thereon.

12. In a dynamo electric machine, a field structure having a sheet metal casing forming a part thereof, feet integral with said casing, which feet are each formed by two portions of the sheet metal bent outwardly and fastened together at their ends, and angle iron bars connecting said feet together in pairs.

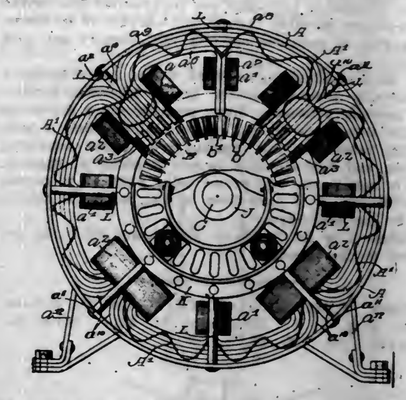
[Claims 1 to 4, 6 to 8, 10, 11, 13, and 14 not printed in the Gazette.]

1,255,607. DYNAMO-ELECTRIC MACHINE. WILLIAM T. HENSLEY, Connersville, Ind., assignor, by mesne assignments, to Bound Brook Engine & Mfg. Co., a Corporation of Delaware. Filed June 8, 1912. Serial No. 702,496. (Cl. 171—252.)

6. A dynamo electric machine comprising a laminated field structure of paramagnetic metal, main poles formed by the inturned ends of the laminæ, and interpoles formed by the inturned ends of certain of said laminæ.

10. A dynamo electric machine comprising a laminated field structure, poles formed by the inturned ends of the laminations of said field structures, the laminæ of said poles being disposed in planes parallel with the axis of the machine, the laminæ forming the outer, opposite surfaces of the poles being narrower than the laminæ forming the body of said poles, whereby corner recesses are formed in the poles and insulation suitably secured in the recesses of said poles.

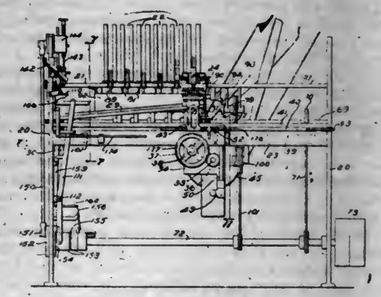
16. A dynamo electric machine comprising a body frame in the form of a ring composed of sections having inturned ends secured together to form the main poles of the field structure, windings on said inturned ends, said sections being each composed of laminated paramagnetic metal, the inner laminæ of said sections being extended inward to form interpoles, windings on said interpoles, an armature shaft, bearings for said shaft, and means whereby said bearings are supported by said laminated body frame,



said means including rods secured to the outside layer of the body frame, and said laminæ being rigidly united to stiffen the body frame.

[Claims 1 to 5, 7 to 9, and 11 to 15 not printed in the Gazette.]

1,255,608. HEEL-BUILDING MACHINE. FRANK HOLBROOK, Lynn, Mass.; Sarah A. Holbrook, Lynn, Mass., administratrix of said Frank Holbrook, deceased, assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 6, 1911. Serial No. 664,285. (Cl. 12—50.)



25. A heel building machine having, in combination, a lift assembling device, a series of lift magazines, means for producing relative longitudinal movement between the assembling device and the lift magazines, means for delivering lifts from the magazines to the assembling device, and means for uniformly varying the distance from the plane of the lift delivering means to the plane of the bottom lift of the heel being assembled during the interval between the engagement of successive lifts by the assembling device.

27. A heel building machine having, in combination, a series of lift magazines, a traveling lift assembling device, independent power actuated mechanism for delivering lifts from the magazines to the assembling device, and connections between said mechanism and said device for throwing the delivering mechanism into operation in timed relation to the travel of the assembling device.

34. In a heel-making machine, a heel-holder having a clamping device, a heel-forming device movable to said

heel-holder to deliver an assembled heel thereto, and means for automatically operating said clamping device as the heel is delivered to the holder by the forming device.

38. In a heel-building machine, in combination with a support for lifts and a holder for receiving heel-blanks, a carrier adapted to be rocked and reciprocated and having a heel-former mounted thereon and adapted to be moved alternately to positions opposite said support and said holder.

44. In a heel-building machine, a heel clamp having a horizontally disposed member, and a heel-form reciprocally movable between a filling position and a delivering position directly over said member, and having a heel-forming recess therein opening toward said delivering position and heel-engaging fingers mounted at opposite sides of said recess said fingers being yieldable to permit le wi drawal of le form from le heel, while the heel is held by the heel clamp.

[Claims 1 to 24, 26, 28 to 33, 35, and 37 to 43 not printed in the Gazette.]

1,255,609. UMBRELLA-RUNNER. FRANK W. HOWARD, New York, N. Y. Filed Sept. 17, 1914. Serial No. 862,162. (Cl. 135—38.)



1. In an umbrella, in combination, a stick, a locking member lying loosely against the side of the stick and unattached to the stick, a runner having a circumferential wall encircling the stick and the locking member and retaining the locking member in the space between the side of the stick and the circumferential wall of the runner, said locking member being movable relatively to the stick on an axis extending substantially parallel with the stick and runner and having a form adapted to jam the runner on the stick in one position of the locking member, and permit the free movement of the runner in another position of said locking member.

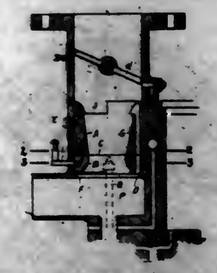
4. In an umbrella, in combination, a stick, a locking member lying loosely against the side of the stick and unattached to the stick, a runner encircling the stick and locking member and retaining the locking member adjacent the stick, said locking member consisting of a resilient stem rotatable on a longitudinal axis and adapted to jam the runner on the stick in one position of the locking member, and permit the free movement of the runner in another position of said locking member.

9. In an umbrella, in combination, a stick, a runner encircling the stick and consisting of a sleeve with an elongated socket extending longitudinally of and formed in the face of said sleeve adjacent the stick, a locking member having a stem disposed longitudinally in said socket and rotatable therein about an axis extending longitudinally with said stick, said stem having different dimensions in different radial directions from said axis whereby the rotation of said stem may lock said runner to said stick.

[Claims 2, 3, and 5 to 8 not printed in the Gazette.]

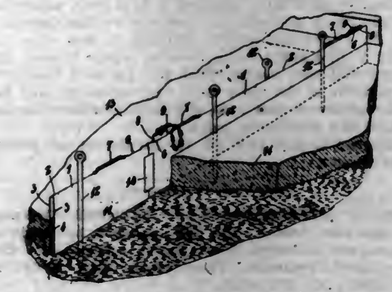
1,255,610. CARBURETER FOR INTERNAL-COMBUSTION ENGINES. JOHN FREDERICK HENRY HOWARTH, Marrickville, near Sydney, New South Wales, Australia. Filed June 8, 1916. Serial No. 102,388. (Cl. 261—63.)

1. In a carbureter, the combination of a tubular barrel, a horizontally divided Venturi choke tube inclosed in said barrel and having its upper section fixed therein and its lower section rotatable therein, both sections of the said choke tube having grooves cut lengthwise in their outer surfaces, the grooves extending into the uppermost part of the throat of said tube and being in communication with the atmosphere at their lower ends, and having lands between them of greater width than said grooves, a means for partially rotating the lower section of the said choke tube, thereby more or less displacing the grooves in the two sections of the choke tube, relative to each other and a fuel jet located in said choke tube.



2. In a carbureter, the combination of a tubular barrel and a horizontally divided Venturi choke tube inclosed in said barrel and having its upper section fixed therein and its lower section rotatable therein, both sections of the said choke tube having grooves cut lengthwise in the outer surfaces, the grooves extending into the uppermost part of the throat of said tube and through the lower section thereof into the foot box of the carbureter, and having lands between them of greater width than said grooves, a means for partially rotating the lower section of the choke tube thereby more or less displacing the grooves in the two sections of the choke tube relative to each other to admit a variable supply of air from said foot box into the mixing chamber, and a fuel jet located in said choke tube.

1,255,611. JOINT-STRIP-LAYING DEVICE AND METHOD. HARRY C. INNES, Cincinnati, Ohio, assignor to The Philip Carey Manufacturing Company, Lockland, Ohio, a Corporation of Ohio. Filed July 26, 1917. Serial No. 182,860. (Cl. 94—1.)



1. A joint-strip-laying device comprising an inverted channel to contain the strip while paving material is being laid on opposite sides thereof and adapted to be withdrawn after the paving material is laid, each channel having an extension from its end at one side to overlap an adjacent channel whereby said channels are held in alinement.

3. A joint-strip-laying device comprising an inverted channel to contain the strip while paving material is being laid on opposite sides thereof and adapted to be withdrawn after the paving material is laid, said channel having recesses in its sides up from the lower edges of said sides at intervals therealong whereby the paving material may come into direct contact with opposite sides of the joint strip as held in said channel.

6. The method of laying joint strips in concrete or similar pavements of initial fluid condition which consists in loosely flanking said strip by withdrawable means, placing said strip and said means in the position it is to occupy in the pavement with said means in position for being withdrawn upward, then pouring the concrete or the like on opposite sides of said means, and then withdrawing said means and allowing said concrete or the like to flow directly against said joint strip.

[Claims 2, 4, and 5 not printed in the Gazette.]

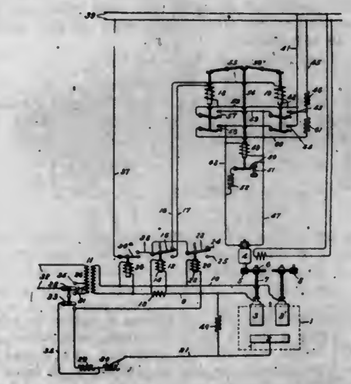
1,255,612. MUSIC-LEAF TURNER. MARTIN JELLUM, Clay Center, Kans. Filed Mar. 20, 1917. Serial No. 156,007. (Cl. 84—17.)



1. A leaf turning device comprising a casing having front and rear walls, said walls having pairs of opposed guide openings, slotted sprocket bars slidably mounted in and extending through said pairs of openings, said bars being smooth on both sides, whereby they may slide freely through said guide openings, sprocket wheels in said casing having teeth meshing with said bars, and a leaf-engaging crank arm rigidly connected to each of said wheels.

[Claim 2 not printed in the Gazette.]

1,255,613. ELECTRIC FURNACE-CONTROL APPARATUS. ALVIN D. KEENE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Sept. 5, 1917. Serial No. 189,870. (Cl. 204—64.)

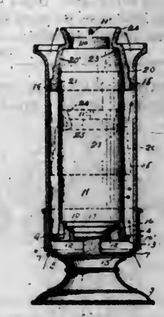


1. An electric furnace control apparatus comprising a plurality of electrodes, an electrical circuit connecting said electrodes to operate a plurality of arcs in series, means for controlling one of said arcs in response to variations of the current in said circuit, an electrical connection in shunt to said current-controlled arc and means for controlling another arc in response to voltage variations thereof.

6. An electric furnace apparatus comprising two movable electrodes, a stationary furnace conductor, an electrical circuit for said electrodes for operating a plurality of arcs in series between said movable electrodes and said stationary conductor, motor-operated means for adjusting one of said movable electrodes in response to variations of the current in said circuit, a resistance in shunt to the arc from said current-controlled electrode, and motor-operated means for adjusting the second electrode in response to voltage variations in said circuit.

[Claims 2 to 5 not printed in the Gazette.]

1,255,614. SANCTUARY-LAMP. EDWARD J. KNAPP, Syracuse, N. Y. Filed Oct. 17, 1917. Serial No. 197,155. (Cl. 67—21.)



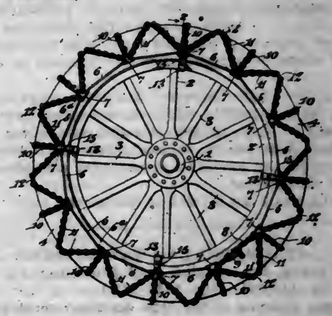
1. In a sanctuary lamp, the combination with the candle and the base, of a support for the candle located in the base, a rubber packing ring surrounding the support, a transparent cap mounted on the candle adapted when the candle melts away to telescope said packing ring for preventing escape of the melted wax from a cavity in said support.

3. A sanctuary lamp, including a candle, a support for the candle, a tapering rubber ring surrounding said support, a cap, said cap having a tapering hollow cylindrical portion telescoping the tapering top end of the candle adapted to gravitate toward said support as the candle melts and wastes away, the lower end of said portion adapted to partially telescope said rubber ring for sealing the joint between said cap and said support.

5. In a sanctuary lamp, a candle having a taper near its top, a support for said candle, a gravitative cap telescoping the top of the candle, said cap being tapered interiorly to conform to the taper of the candle, and a packing ring carried by the support, and telescoped by said cap when the latter completes its gravitative movement.

[Claims 2, 4, and 6 to 8 not printed in the Gazette.]

1,255,615. AUTOMOBILE-CHAIN. RALPH KNOX, New Bloomfield, Mo. Filed Mar. 7, 1917. Serial No. 153,076. (Cl. 152—14.)



1. In an automobile chain, side securing elements, each comprising a plurality of rigid rods, and triangular shaped

unbroken links loosely connected to the adjacent ends of the rods, and clamping members hinged to diametrically opposed links between the points of connection of the rods therewith at one side and detachably engageable with companion links at the other side, and tread chains connected to the links.

2. In an automobile chain, side securing elements, each comprising a plurality of rigid rods, and triangular shaped unbroken links loosely connected to the adjacent ends of the rods, and clamping members hinged to diametrically opposed links between the points of connection of the rods therewith at one side and detachably engageable with companion links at the other side, tread chains connected to the links, and snap fasteners on each clamping member for the detachable engagement thereof.

1,255,616. ADJUSTABLE PAD FOR SHOE-TONGUES. JOSEPH KOPPE, Canton, Ohio. Filed July 9, 1917. Serial No. 179,330. (Cl. 36—54.)



1. An article of the character described comprising an attaching strip adapted to be connected to the inner face of a shoe tongue, a pair of pad members formed of soft flexible material, the adjacent extremities of said pad members arranged to overlap, straps formed upon said pad members and extending around said attaching strip and a strap connected to one of said pad members and extending around the other of said pad members.

3. An article of the character described, comprising an attaching strip, a pair of relatively adjustable pad members, means for connecting said attaching strip to a shoe tongue and means for connecting the said pair of relatively adjustable pad members to the said attaching strip.

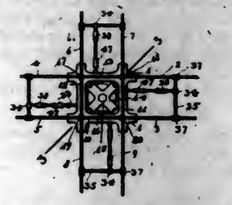
5. An article of the character described, comprising an attaching strip, a pair of relatively adjustable pad members formed of soft flexible material, means for holding the pad members in adjusted position on the attaching strip and means for attaching the pad members to a shoe tongue.

6. An article of the character described, comprising an attaching strip, a pair of relatively adjustable pad members formed of soft, flexible material, means for holding the pad members in adjusted position on the said attaching strip and means for securing the said attaching strip to a shoe tongue.

[Claims 2 and 4 not printed in the Gazette.]

1,255,617. AUTOMATIC RAILWAY-CROSSING. WILLIAM LENDER, Los Angeles, Cal. Filed Aug. 24, 1916. Serial No. 116,625. (Cl. 104—117.)

A railway crossing of the type described consisting of rail pivots turnably mounted in each intersection of the rails, operating means attached to the rail pivots, jar arresting means inserted into the operating means having stops making the movement of the operating means positive yieldingly, and an operating lever mounted between



the rails extending upwardly for oscillating movement in the path of a passing train to be operated by the train.

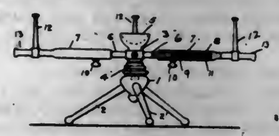
1,255,618. UNINFLAMMABLE LIQUIDS ADAPTED FOR USE IN INSULATING AND OTHER SIMILAR PURPOSES. GEORGES LÉPINE, Neuchatel, Switzerland. Original application filed Apr. 13, 1914, Serial No. 831,618. Divided and this application filed June 29, 1917. Serial No. 177,819. (Cl. 252.)

4. An uninflammable and insulating liquid comprising a mixture of

80 parts pentachlorethane
18 parts pentachlorobenzene
2 parts hexachlorobenzene with the addition of one part toluidin.

[Claims 1 to 3 not printed in the Gazette.]

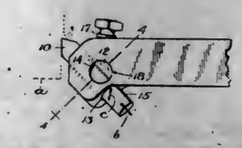
1,255,619. YARN-WINDER. MYRTLE A. LORD, Erie, Pa. Filed Aug. 2, 1916. Serial No. 112,832. (Cl. 242—118.)



1. In a yarn winder, the combination of a portable base; a rotating head with a vertical axis; telescopic arms carried by the head and extending horizontally therefrom, the tubular portion of the telescopic arms being provided with slots; and screws extending through the slots locking the arms in adjustment.

[Claim 2 not printed in the Gazette.]

1,255,620. METAL-WORKING TOOL. FRED P. LOVEJOY, Springfield, Vt. Filed Mar. 28, 1917. Serial No. 158,084. (Cl. 29—100.)



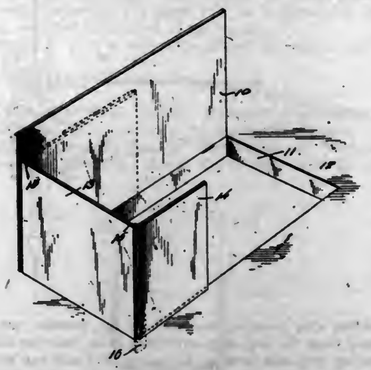
4. A metal-working tool comprising a cutter, a holder therefor having a socket for said cutter, said cutter and said socket being substantially cylindric, and means arranged to bear against one side of said cutter to force the cutter laterally against the wall of said socket, one of said cylindric elements being cut away through an arc of substantial length opposite said means; to insure two separate lines of contact between said cutter and holder.

[Claims 1 to 3 and 5 not printed in the Gazette.]

1,255,621. HATCHWAY-GUARD. FLORA J. MCACHRAN, Bloomfield, Iowa. Filed Aug. 29, 1917. Serial No. 188,833. (Cl. 94—7.)

1. A structure having a hatchway provided therein, a closure for the hatchway, and a guard for the hatchway

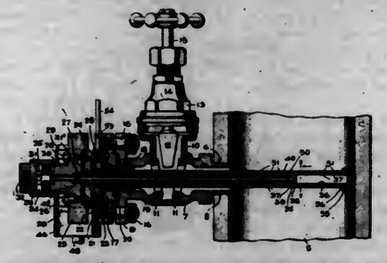
comprising a leaf hingedly connected with the closure for swinging outwardly, a second leaf hingedly connected with the outer end of the first mentioned leaf, and an abutment arm carried by the second leaf adjacent its pivoted end for fitting into the hatchway and engaging the wall thereof to limit the outward swinging movement of the guard.



3. A structure having a hatchway formed therein, a closure for the hatchway, and a guard for the hatchway comprising a section hingedly connected with the closure for swinging outwardly along one end of the hatchway, and a second section hingedly connected with the first mentioned section for swinging outwardly and extending along one side of the hatchway.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,255,622. NOZZLE-PLUG. EDWARD H. MCFARLAND, Boston, Mass., assignor to General Electric Company, a Corporation of New York. Filed Mar. 29, 1916. Serial No. 87,606. (Cl. 73—167.)



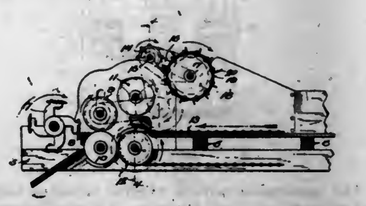
1. A nozzle plug comprising a base section having a passage through it and adapted to be fixed to a conduit, a second base section, an orifice tube carried by it and extending through the passage in the first base section, means for closing off the passage through the first base section, and means carried by the second base section and operable from outside the conduit for closing the orifice or orifices in the orifice tube.

3. The combination with a conduit through which a fluid to be metered flows, of a nozzle plug comprising a base section having a passage through it, which is fixed to the conduit with the passage in communication with the conduit, a valve for closing off the passage through the base section, a second base section connected to the first section, orifice tubes carried by the second section and extending through the passage in the first section into the conduit, said tubes having a close sliding fit with the outer end of the first base section, and a sleeve surrounding the orifice tubes and operable from outside the conduit for closing the orifices in said tubes.

7. In a nozzle plug, the combination of a member that is adapted to be mounted on the main through which the fluid flows, said member having an opening through it, a valve carried by the member which is open except when the parts are removed, a second member fixed to the first, means carried by the second member which are provided with orifices, said means extending through the valve and first member into the main and a device for pulling the orifice means out of the path of the valve to permit the latter to be closed.

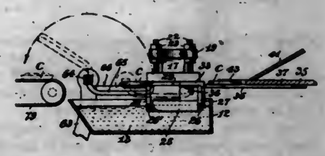
[Claims 2 and 4 to 6 not printed in the Gazette.]

1,255,623. FEED-CUTTER. OTTO MEILI and PAUL BLUMBERG, New Holstein, Wis. Filed Jan. 29, 1915. Serial No. 5,065. (Cl. 146—29.)



In a feed cutter having a rotary cutting means, a pair of relatively fixed lower feed rollers disposed rearwardly of the same and upon a common plane, and a conveyer belt carried by the rear lower feed roller, the combination of a series of three upper feed rollers, two of the series being associated with the lower feed rollers and the third roller of the series being positioned rearwardly of the first two rollers thereof and over the conveyer belt, means permitting independent yield of each upper feed roller, means limiting the downward movement of each upper feed roller whereby their working faces normally form a V-shaped feed throat in conjunction with the lower rollers and conveyer belt, and driving means for all of the feed rollers for imparting a progressive increase in the peripheral speed of the upper series of said rollers from the first to the third, and a uniform speed to the first roller of the upper series and the lower set of rollers.

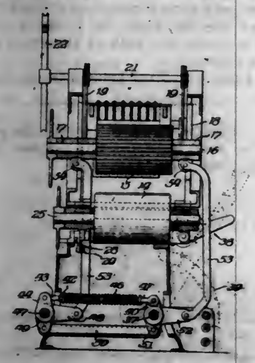
1,255,624. CAKE-COATING MACHINE. BARNEY J. MIRACKY, Little Ferry, N. J., assignor to National Biscuit Company, New York, N. Y., a Corporation of New Jersey. Filed May 11, 1916. Serial No. 96,752. (Cl. 91—4.)



1. In a coating machine of the class described, the combination with a tank for coating material, of a vertically reciprocable dipping frame, horizontally reciprocable feeding mechanism for feeding cakes to said frame, horizontally reciprocable receiving mechanism for receiving dipped cakes from said frame, a scraper bar supported on said dipping frame to reciprocate horizontally thereon below dipped cakes, said bar being normally disconnected from said feeding mechanism and receiving mechanism but being in the path thereof to be shifted toward the receiving mechanism before a dipping operation and to be shifted back by the receiving mechanism to scrape superfluous coating material from the cakes before they are received by the receiving mechanism.

[Claim 2 not printed in the Gazette.]

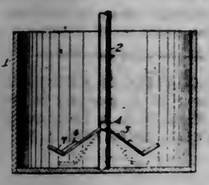
1,255,625. FEED-ROLL ADJUSTMENT. HARRISON J. MITCHELL, Beloit, Wis., assignor to P. B. Yates Machine Company, Beloit, Wis., a Corporation of Wisconsin. Original application filed June 25, 1915, Serial No. 36,167. Divided and this application filed Sept. 25, 1915. Serial No. 52,583. (Cl. 144—247.)



1. The combination with a machine including tools for acting on material supplied thereto, of feed rolls arranged one above the other to feed the material therebetween, the journal boxes of the upper roll guided for vertical movement in the machine frame, a lever controlled rock shaft, and yielding link connections between the rock shaft and the upper roll whereby to vertically adjust said roll, and a counterweight connected with the upper roll to facilitate the vertical adjustment thereof.

[Claims 2, 3, and 4 not printed in the Gazette.]

1,255,626. STIRRING DEVICE FOR STARCH-WASHING VATS. CHARLES C. MOORE, Middle River, Cal., assignor to Valron Manufacturing Company, Middle River, Cal., a Corporation of New York. Filed June 12, 1917. Serial No. 174,195. (Cl. 259—134.)



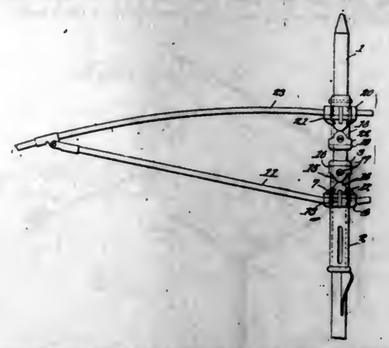
1. A stirring device for starch washing, comprising a revoluble shaft, arms extending from the shaft, and paddles loosely hung from the arms, each paddle formed of two strips joined along one longitudinal edge and disposed to form an obtuse angle to each other.

2. A stirring device for starch washing, comprising a revoluble shaft, arms extending from the shaft and floating paddles hung from the arms, each paddle formed of two strips joined along one longitudinal edge and disposed to form an obtuse angle to each other, whereby when the shaft is revolved the paddles will be automatically lowered.

3. A stirring device for starch washing, comprising a vat, a vertical shaft revoluble in the vat, arms extending from the shaft, straps loosely hung from the arms, and paddles secured to the straps, each of said paddles formed of two strips joined along one longitudinal edge and disposed to form an obtuse angle to each other.

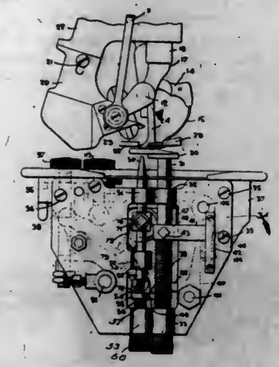
1,255,627. UMBRELLA. JOHN B. MORROW and CLAUS P. GREITZ, Brooklyn, N. Y. Filed June 22, 1916. Serial No. 105,242. (Cl. 135—28.)

In an umbrella, the combination with a member having an annular enlargement provided with sockets in one face and radial slots extending from the sockets, of elements having ball ends seated within the respective sockets, a cap bearing against the enlargement on the member and having slots registering with the slots in the enlargement,



a holding ring movably mounted on the member, ears extending from the cap, ears extending from the ring and cooperating with the ears on the cap to hold said cap pressed against the enlargement on the member, and means for holding the ring against movement relative to the cap.

1,255,628. BLINDSTITCH SEWING-MACHINE. HARLEY C. MOULTON, Dorchester, Mass., assignor to Arbetter Felling Machine Company, Boston, Mass., a Corporation of Maine. Filed Jan. 20, 1915. Serial No. 3,343. (Cl. 112—24.)



1. A sewing machine comprising a work support, a reciprocating needle and complementary stitch forming mechanism located above the work support; means for feeding the work across said work support in advance of each penetrating stroke of the needle, a bender, means for actuating the same and independent means for adjusting the thrust of the bender upon alternate strokes.

4. In a blind stitch sewing machine for felling a superimposed layer upon a base layer, a work support; a reciprocating needle and complementary stitch forming mechanism located above the work support; means for feeding the work across the work support; means for vibrating the needle to cause the same to reciprocate in different planes; a bender, means for actuating the same upon each penetrating stroke of the needle and means for varying the thrust of the bender upon alternate strokes.

7. In a sewing machine comprising a work support, a curved oscillating needle and complemental stitch forming mechanism located above the work support; means for feeding the work across the work support; means for vibrating the needle to cause the same to oscillate in different planes; a bender, means for thrusting the same through the work support to present the work to the needle comprising a toggle having one end connected to the bender and the other to a relatively stationary but adjustable supporting stand and means for oscillating the connection of the toggle links across the axial plane of the bender whereby the same will be reciprocated twice during each full oscillation of the toggle.

[Claims 2, 3, 5, 6, and 8 to 15 not printed in the Gazette.]

1,255,629. CHEESE-HOOP. RUDOLPH J. J. MUELLER, Sheboygan, Wis., assignor to Universal Oxygen Company, Sheboygan, Wis., a Corporation of Wisconsin. Filed Apr. 15, 1915. Serial No. 21,600. (Cl. 31—21.)



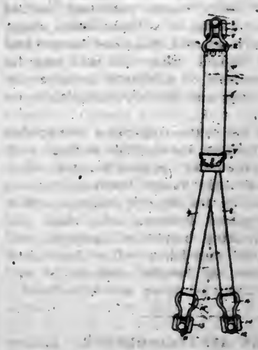
1. A sheet metal cheese hoop comprising a tapering body portion and a separately formed cylindrical top section, the body portion being formed at its larger end with an outwardly turned flange to which the lower edge of the cylindrical section is fused to make a tight joint and leave an internal shoulder to receive the lower edge of a bandage holding sleeve between which and said shoulder the bandage will be gripped.

2. A sheet metal cheese hoop comprising a tapering body portion and a separately formed cylindrical top section, the body portion being formed at its larger end with an outwardly turned flange having a rounded edge at its junction with the inner face of the body portion, and the lower edge of the cylindrical top section being fused to the flange to make a tight joint and leave an internal shoulder to receive the edge of a bandage holding sleeve.

3. A sheet metal cheese hoop comprising a body section having a bottom and an outturned flange at its upper end, a top section butt-welded at one end to said flange and forming therewith an internal shoulder at the junction of the sections, a split sheet metal bandage holding sleeve removably fitted into the top section against said shoulder and of the same thickness as the width of the shoulder, and a one-piece perforated metal follower fitting into said sleeve and the upper part of the body section of the hoop and formed with an upturned marginal flange presenting an extended face to the interior of the sleeve and hoop, said follower being formed at intervals on the upper side with bosses and having a plain, smooth under face.

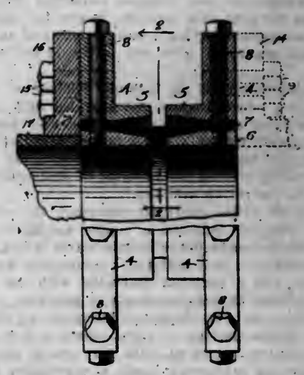
4. A metal cheese hoop comprising a tapering body section having a perforated bottom at its smaller end, a cylindrical top section attached to the larger end of the body section, an inwardly projecting shoulder being formed at the junction of the top and body sections, a split bandage holding sleeve removably fitted into said top section against said shoulder, and a perforated follower formed at intervals on the upper side with perforated undercut bosses and having a grooved periphery provided with a packing ring which fits snugly within said sleeve and the larger end of the body section.

1,255,630. GARTER. ANNA MARIE PETRULLO, Brooklyn, N. Y. Filed Nov. 23, 1916. Serial No. 132,977. (Cl. 241—1.)



A garter having a main body member, a loop formed therein, and an extension from said loop, a metallic loop secured in the loop of said garter, and a plate provided with a slot secured in the extension from said body member, a stud upon said plate adapted to be engaged with said metallic loop; a plurality of suspended members each having a loop formed therein, and an extension, a plate secured to each said extension, and a metallic loop secured in the loop of each said suspended member, and a button upon the said plates adapted to be engaged by said metallic loops; a buckle movable upon said body member secured to said suspended members, to adjust said suspended members in longitudinal relation with said body member, all combined for joint operation as herein specified.

1,255,631. EXPANSION-JOINT. REGINALD J. S. PIGOTT, Bridgeport, Conn. Filed July 19, 1916. Serial No. 110,119. (Cl. 137—84.)



1. An expansion joint for connecting pipes comprising a ring with a beveled exterior surface and a flange adapted to surround said ring with a beveled interior surface, a flexible tube surrounding said ring and interposed between said ring and said flange, and means passing through said ring, tubing and flange for clamping said tube, ring and flange together.

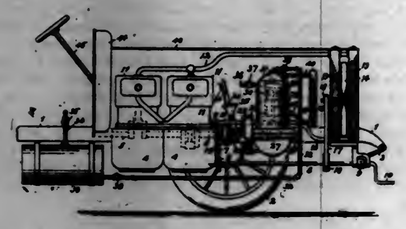
2. An expansion joint for connecting pipes comprising a ring with a beveled exterior surface and a flange adapted

to surround said ring with a beveled interior surface, a flexible tube surrounding said ring and interposed between said ring and said flange and radially extending bolts passing through said ring, tubing and flange for clamping the same together.

3. An expansion joint for connecting pipes comprising a pair of rings each beveled on its exterior surface with the ends thereof of least diameter opposed to each other, a pair of flanges, each of said flanges surround one of said rings and beveled on its interior surface, and a single flexible tube interposed between said rings and flanges and means for clamping said flanges, rings and said tube together to allow free movement of said tube between the beveled surfaces of said rings and flanges substantially as shown and described.

4. An expansion joint for connecting pipes comprising a pair of rings each beveled on its exterior surface with the ends thereof of least diameter opposed to each other, a pair of flanges, each of said flanges surrounding one of said rings and beveled on its interior surface, and a single flexible tube interposed between said rings and flanges and radially extending bolts for clamping said flanges, rings and said tube together to allow free movement of said tube between the beveled surfaces of said rings and flanges substantially as shown and described.

1,255,632. AUTOMOBILE AIR-COMPRESSOR. LORETO POCCIA, Mamaroneck, N. Y. Filed Mar. 6, 1917. Serial No. 152,664. (Cl. 123—171.)



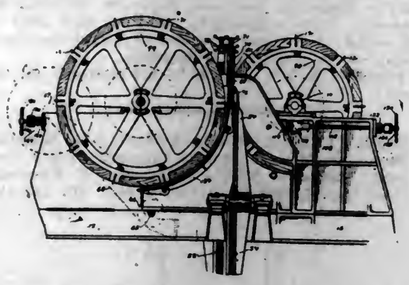
1. The combination of an internal combustion engine mounted upon a wheeled frame and provided with a water jacket, a radiator in two sections connected with said jacket, a fan between said sections, means for operating said fan, a compressor having a water jacket and an auxiliary radiator connected with the water jacket of said compressor.

2. The combination of an internal combustion engine mounted upon a wheeled frame and provided with a water jacket, a radiator connected with said water jacket, a compressor provided with a water jacket, a radiator connected with the water jacket of the compressor, a fan adapted to aid in cooling the radiator of said compressor and means for operating said fan.

3. In a device of the character described, the combination of an internal combustion engine having a water jacket, a radiator connected with said water jacket, a fan in close proximity to said radiator, a compressor having a water jacket, and a radiator connected with the jacket of said compressor in close proximity to said fan.

4. In a device of the character described, an internal combustion engine having a crank shaft and a water jacket, a radiator connected with said water jacket, a clutch member on said crank shaft, a compressor having a water jacket and a crank shaft provided with a clutch member adapted to engage the clutch member of the engine, means for operating the clutch member of the compressor shaft, an auxiliary shaft offset from the crank shaft of said engine and rotatably connected therewith, a radiator connected with the water jacket of said compressor. a fan arranged in close proximity to the compressor radiator and means for operating said fan.

1,255,633. FIBER-CLEANING MACHINE. ANGEL PONS, Buffalo, N. Y. Filed Mar. 3, 1913, Serial No. 751,874. Renewed July 26, 1917. Serial No. 183,022. (Cl. 13—18.)



1. In a fiber cleaning machine, the combination with movable carrier means and cleaning means adjacent to said carrier means, of an inner feed roller having its periphery in close proximity to the surface of said carrier means, a pair of smooth feed rollers adjacent to said inner feed rollers, a plurality of feed chains and a plurality of guide chains passing between said smooth rollers, whereby the leaves being treated will be conveyed to said feed rollers and said carrier means.

2. In a fiber cleaning machine, the combination with movable carrier means and cleaning means adjacent to said carrier means, of an inner feed roller having its periphery in close proximity to the surface of said carrier means, gripping means carried by said inner feed roller and shoes disposed beneath said gripping means, whereby the leaves being treated will be gripped and conveyed to said carrier means.

3. In a fiber cleaning machine, the combination with movable carrier means and cleaning means adjacent to said carrier means, of an inner feed roller having its periphery in close proximity to the surface of said carrier means, means for yieldably mounting said inner feed roller, gripping means carried by said feed roller, and yieldably supported shoes disposed beneath said gripping means, whereby the leaves being treated will be gripped and conveyed to said carrier means.

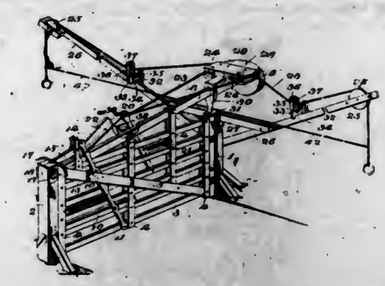
4. In a fiber cleaning machine, the combination with movable carrier means and cleaning means adjacent to said carrier means, of an inner feed roller having its periphery in close proximity to the surface of said carrier means, gripping means carried by said inner feed roller and spring pressed stripper means disposed between said gripping means, whereby the leaves being treated will be stripped from said inner feed roller as they are conveyed to said carrier means.

5. In a fiber cleaning machine, the combination with movable carrier means and cleaning means adjacent to said carrier means, of a plurality of shoe sections flexibly connected together and disposed above said carrier means, spring tension means for pressing said shoe sections toward said carrier means and screw adjusting means for controlling the position of the said shoe sections.

[Claims 6 to 14 not printed in the Gazette.]

1,255,634. GATE. WILLIAM POPE, Rockvale, Tenn. Filed Mar. 15, 1917. Serial No. 155,019. (Cl. 39—34.)

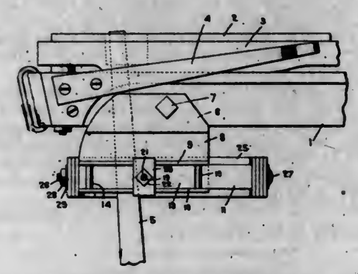
1. The combination of a supporting structure, a gate mounted for horizontal swinging movement on the supporting structure, a dog pivoted on said structure and spaced laterally from the gate, an open guide upon the upper side of the dog, guides on the supporting structure at opposite sides of the dog and above the horizontal plane of the same, an operating cable connected with the gate and passing around the last-mentioned guides and through the guide on the dog and acting on said guide to raise the dog, a spring bearing upon the dog and opposed to said cable, and a keeper on the gate arranged to ride under and engage the dog in opposition to the spring.



3. The combination of a swinging gate, a latch pivoted upon the gate and having its rear portion extending normally upward, a latch bar pivoted upon the gate with its upper end describing an arc intersecting the upper edge of the rear portion of the latch in the normal position of the same, the upper end of said latch bar being arranged to bear upon the upper edge of the latch, a lever mounted upon the gate, a connection between said lever and the latch bar, and means connected with the lever for releasing the latch and swinging the gate.

[Claim 2 not printed in the Gazette.]

1,255,635. LOOM-CHECK. ISAAC T. PROSSER, Chicopee Falls, Mass., assignor, by mesne assignments, to Draper Corporation, Hopedale, Mass., a Corporation of Maine. Filed Sept. 7, 1915. Serial No. 49,168. (Cl. 189—22.)



1. A picker check for looms comprising a rigid guiding member, a rigid slide bar reciprocably mounted thereon, means for causing uniform frictional resistance to the movement of said slide bar throughout the extent of its reciprocation, whereby its movement will be gradually checked, and picker stick engaging members formed entirely of sluggishly flexible material connected to the slide bar at each end thereof and extending laterally therefrom into the path of the picker stick and adapted to bend when engaged by the picker stick and gradually to check its movement in each direction without causing the picker stick to rebound.

2. A picker check for looms comprising a rigid guiding member, a rigid slide bar reciprocably mounted thereon, adjustable means for causing uniform frictional resistance to the movement of said slide bar throughout the extent of its reciprocation, whereby the movement of the slide bar will be gradually checked, flexible members projecting laterally from the ends of said slide bar adapted to be engaged by the picker stick and a check strap connected to the ends of said slide bar overlying said flexible members.

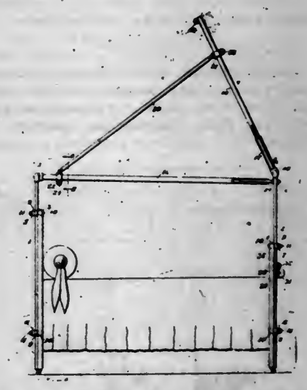
3. A picker check for looms comprising a rigid guiding member, a rigid slide bar reciprocably mounted thereon, adjustable means for causing uniform frictional resistance to the movement of said slide bar throughout the extent of its reciprocation, whereby the movement of the slide bar will be gradually checked, a plurality of short pieces of flexible scrap material secured to and projecting laterally from the ends of the slide bar adapted to be engaged by the picker stick and a check strap overlying said piece of material and connected at its ends to said slide bar.

4. A picker check for looms comprising a bracket having members adapted to engage the side and bottom of the lay and a depending member provided with a guideway extending in parallelism with the lay, a rigid slide bar reciprocably mounted in said guideway, means for causing uniform frictional resistance to the movement of said slide bar throughout its extent of reciprocation, a bolt extending longitudinally through said slide bar, picker stick engaging members formed entirely of sluggishly flexible material clamped by said bolt against the ends of said slide bar and extending laterally therefrom into the path of the picker stick and adapted to bend when engaged by the picker stick and gradually to check its movement in each direction without causing the picker stick to rebound.

5. In a loom comprising a lay, a picker stick, and means for actuating the same, a metal bracket secured to the lay and having a channel extending in parallelism with the lay, a slide bar reciprocably mounted in said channel, an extended bearing member resting upon said slide bar held against movement longitudinally of the channel and movable toward the bottom of the channel, a yoke secured to the walls of said channel, resilient means intermediate said yoke and said bearing member, means for adjusting the compression of said resilient means to adjustably force the bearing member against the slide bar to press the slide bar against the channel bottom whereby the slide bar will be held frictionally clamped between said bearing member and the channel bottom, flexible members carried by the slide bar at each end thereof to be engaged by the picker stick and a check strap overlying said flexible members.

[Claim 6 not printed in the Gazette.]

1,255,636. HOSPITAL-BED ATTACHMENT. PAUL RASCH, St. Louis, Mo. Filed Sept. 5, 1916. Serial No. 118,516. (Cl. 128—52.)



1. An attachment of the character described comprising members adapted to fit against the head and foot of a bed, means for retaining said members in position, a bar extending over the bed between said members, a hinged joint disposed at the upper extremity of one of said members, a rod connected therewith, a comparatively lengthy tube inclosing said rod and supported thereby, and devices for retaining said tube at any desired angle with relation to the surface of the bed.

3. An attachment of the character described comprising members adapted to fit against the head and foot of a bed, means for retaining said members in position, a plate extending across one of said members, pulleys depending

from said plate, means for varying the distance between said pulleys, and devices for the vertical adjustment of said plate.

[Claim 2 not printed in the Gazette.]

1,255,637. ADJUSTABLE SPARK-GAP. ALBERT E. READE, Petersburg, Va. Filed June 8, 1916. Serial No. 102,554. (Cl. 175—183.)



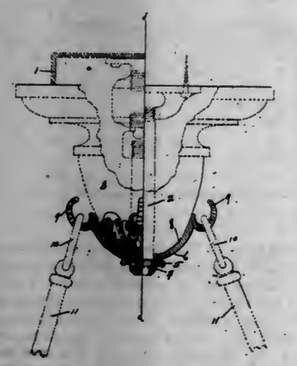
In a device of the class described, the combination of a plate with an insulating strip, said plate adapted to rest upon said insulating strip, a bolt passing through said plate for assisting in retaining the same upon said strip, a binding post passing through said strip and plate, a wire retaining means carried by said binding post, whereby an electric current may be supplied to said plate, said plate formed from a single sheet of metal and bent so as to provide an upwardly extending neck, said neck terminating in a depending tapering lip, said strip provided with an elongated slot so that the upper end of a spark plug may be passed therethrough, so as to permit the strip to be moved to an adjusted position, thereby permitting currents of different voltage to be used with the device for causing sparking at the outer end of the plug.

1,255,638. FOOD COMPOSITION. WILLIAM W. REED, Buffalo, N. Y. Filed Sept. 28, 1917. Serial No. 193,849. (Cl. 99—11.)

4. The herein described food composition approximating chocolate, 50 pounds; ground, shredded wheat, 25 pounds; fruit, 10 pounds; nuts, 10 pounds; and salt, ½ pound.

[Claims 1 to 3 not printed in the Gazette.]

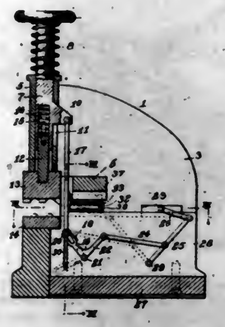
1,255,639. CHANDELIER CLUSTER-HOOK. ALFRED W. REISER, Toledo, Ohio, assignor to The Western Gas Fixture Co., Toledo, Ohio, a Corporation of Ohio. Filed July 27, 1917. Serial No. 183,127. (Cl. 240—78.)



1. A device of the character described, comprising a cup shaped member provided with a central opening at its lower portion and a plurality of hooks at its periphery adjacent the top of the cup shaped portion.

[Claims 2 to 7 not printed in the Gazette.]

1,255,640. PAPER-PINNING MACHINE. WILLIAM J. S. RITSCHER, Pittsburgh, Pa., assignor of one-half to William W. Woodruff, Pittsburgh, Pa. Filed Mar. 24, 1913. Serial No. 756,288. (Cl. 1—53.)



3. In an apparatus of the character described, the combination with a spring controlled plunger, of a reciprocating pin pusher, positively operable means actuated by the plunger for reciprocating the pusher, and means for raising the pusher during a reciprocation thereof.

7. In an apparatus of the character described, the combination with a plunger and paper crimping means, of a reciprocating combined pin pusher and carrier, and means actuated by the plunger for reciprocating the pin pusher and carrier.

11. In an apparatus of the character described, means including a plunger for crimping paper, and positively operable means actuated by the plunger for passing a pin through the crimped paper.

14. In a machine for fastening pieces of paper together, a pin strip, and means for withdrawing a selected pin from the strip and transferring it to paper-fastening position, said means operating to withdraw the pin in such a way as to maintain the strip unimpaired.

16. In a machine for fastening pieces of paper together, a pin strip, and means for withdrawing a selected pin from the strip and transferring it to paper-fastening position, said means including a reciprocating member adapted to withdraw the pin during its movement in one direction and apply it to the pieces of paper in another direction of its movement.

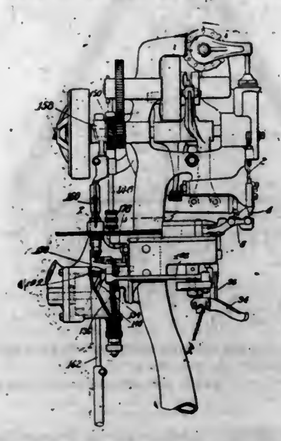
[Claims 1, 2, 4 to 6, 8 to 10, 12, 13, 15, and 17 to 28 not printed in the Gazette.]

1,255,641. MACHINE FOR USE IN THE MANUFACTURE OF BOOTS AND SHOES. WILLIAM THOMAS BUCKINGHAM ROBERTS, Leicester, England, assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed June 10, 1914. Serial No. 844,221. (Cl. 1—19.)

1. Work feeding and guiding mechanism comprising, in combination, a work holder, means including a single work holder operating element for moving said work holder bodily along a path corresponding substantially to the contour of the work received in said holder, and means for controlling the movement of said element to vary the size of the contour path described by said work holder in accordance with variations in the sizes of the work.

4. The combination with means for operating on a shoe, and a work holder arranged to carry the shoe past the operating means, of means set by the presentation of the shoe to said work holder whereby the path of the relative traversing movement of the operating means and the work holder is automatically determined by the size of the shoe being operated upon.

7. In a machine of the class described, means for operating upon the work, means for transporting the work bodily past said operating means to bring successive points on the work into operative relation thereto, means for constraining said transporting means to a predetermined path of movement, and means controlled by a characteristic of the work as it is presented to said transporting means for effecting the predetermination of said path.



10. Work feeding and guiding mechanism comprising, in combination, a work holder, means for supporting said work holder constructed and arranged for rectilinear movement of said holder in directions normal to each other, and means for compounding the rectilinear movements of said holder into a movement corresponding to the contour of the heel end of a shoe, said means comprising an operating element for the work holder and means for varying the action of the operating element on the work holder in accordance with the contour of the work.

12. In a machine of the class described, work feeding and guiding mechanism comprising a work holder adjustable to different sizes of shoes, means for moving said holder along a path corresponding to the contour of the part of the shoe embraced by said holder, and means for effecting a two-dimensional adjustment of said work holder constructed to effect a corresponding change in two dimensions of the contour path described by said work holder.

[Claims 2, 3, 5, 6, 8, 9, 11, and 13 to 38 not printed in the Gazette.]

1,255,642. BRICK. JOHN R. ROOT, Terre Haute, Ind. Filed Mar. 6, 1916. Serial No. 82,438. (Cl. 94—1.)

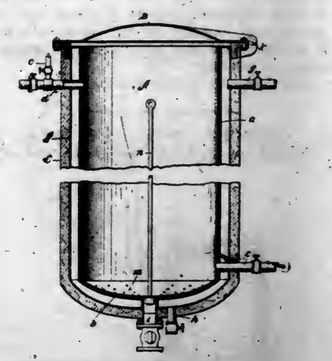


1. A brick having opposite flat faces, one of which is provided with a plurality of outstanding lugs arranged in upper and lower rows, the lugs of each row being opposite the spaces between the lugs of the other row.

2. A brick having opposite flat faces, one of which is rough, the other face being provided with a plurality of outstanding lugs arranged in upper and lower rows, the lugs of each row being opposite the spaces between the lugs of the other row.

3. A brick having opposite flat rough faces, one of which is provided with a plurality of outstanding lugs arranged in upper and lower rows, the lugs of each row being opposite the spaces between the lugs of the other row.

1,255,643. PRODUCTION OF A NITROGENOUS FERTILIZER FROM LEATHER WASTE. REED P. ROSE, Pittsburgh, Pa. Filed July 31, 1914. Serial No. 854,211. (Cl. 71—6.)



1. The method of producing a nitrogenous fertilizer from leather waste, which comprises subjecting the waste in the presence of steam, under steam pressure, ultimately substantially as high as 50 pounds per square inch, to the action of sulfuric acid of a strength not substantially exceeding a 10% solution.

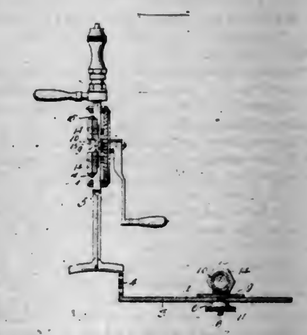
2. The method of producing a nitrogenous fertilizer from leather waste, which comprises subjecting the waste, under steam pressure, to the hydrolyzing action of dilute sulfuric acid, in the presence of steam at superatmospheric pressure, and finally raising the pressure until the product separates into a liquid and a solid.

3. The method of producing a nitrogenous fertilizer from leather waste, which comprises subjecting the waste, under steam pressure, to the hydrolyzing action of sulfuric acid and an oxidizing agent.

4. The method of producing a nitrogenous fertilizer from leather waste, which comprises subjecting the waste, under steam pressure, to the hydrolyzing action of dilute sulfuric acid and an oxidizing agent.

5. The method of producing a nitrogenous fertilizer from leather waste, which comprises subjecting the waste, under steam pressure ultimately substantially as high as 50 pounds per square inch, to the hydrolyzing action of dilute sulfuric acid and an oxidizing agent amounting to about 1% by weight of the charge.

1,255,644. PROTRACTOR-LEVEL FOR DRILLS AND OTHER TOOLS. DENNIS D. ROTH, Atlantic City, N. J. Filed Mar. 9, 1917. Serial No. 153,622. (Cl. 33—207.)

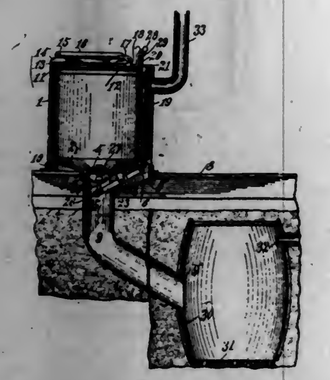


1. A protractor level for drills and analogous tools including a dial provided with graduations, an index

plate arranged centrally of and to coact with the dial and provided with a rearwardly extending screw passing through the said dial, a clamping nut mounted on the screw at the rear face of the dial, diametrically alined sleeves carried by the index plate and provided at their outer ends with caps, and a spirit or bubble tube mounted in the sleeves and exposed at the center of the index plate and the dial, said tube being arranged diametrically with relation to the dial.

[Claim 2 not printed in the Gazette.]

1,255,645. COMMODE. FRANKLIN E. ROUSH, Dayton, Ohio. Filed June 13, 1917. Serial No. 174,419. (Cl. 4—17.)



1. In an apparatus of the character specified, a casing having an interiorly concaved bottom with a central opening therein, and an outlet pipe projected from said bottom below the opening therein, said casing having a chambered extension on one side of the bottom thereof which communicates with said pipe extension, said pipe extension and said chambered extension projecting through an opening in the floor over which the casing is mounted, an apertured plate secured at the mouth of said casing and reducing the opening therein, a seat and a cover hinged to said plate above said opening, a tube projected into said chamber through the top plate and the bottom of said casing, a rod extending through said tube, a valve closing the opening in the bottom of said casing, a connection between said valve and said rod whereby the valve is operated to open and close the valve and means for securing the rod when in a position in which the valve is closed.

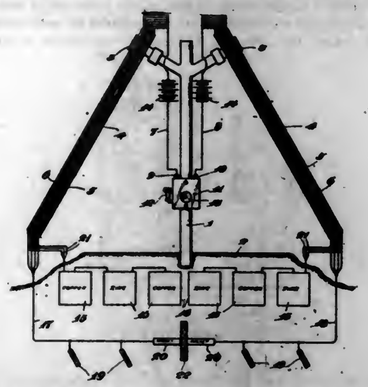
[Claim 2 not printed in the Gazette.]

1,255,646. MAGNETIC AERIAL APPARATUS. PATRICK J. RUDDY, Centralia, Pa. Filed Feb. 24, 1916. Serial No. 80,185. (Cl. 250—3.)

1. In a magnetic aerial apparatus of the character described, the combination with a support, and aerial cables, said cables comprising a plurality of alternately arranged magnets, substantially as described.

6. In an apparatus of the character described, the combination with two aerial cables, said cables comprising a plurality of oppositely arranged magnets, magnets located in the ground and connected to the cables, a sheet of glass spacing the magnets apart in the ground, a telephone, and wires connecting the poles of the telephone with the aerial cables, substantially as described.

9. In an apparatus of the character described, the combination with two aerial cables, said cables comprising a plurality of oppositely arranged magnets, magnets located in the ground and connected to the cables, a sheet of glass spacing the magnets apart in the ground, a telephone, and wires connecting the poles of the telephone with the aerial cables, electric batteries electrically connected to said last-mentioned wires, alternately arranged zinc and copper plates in the ground connected electrically with the cables,



and two of said plates spaced apart forming a gap between them, substantially as described.

[Claims 2 to 5, 7, and 8 not printed in the Gazette.]

1,255,647. GARTER. HERMAN SACKS, Chicago, Ill. Filed Feb. 13, 1915. Serial No. 8,079. (Cl. 241—6.)



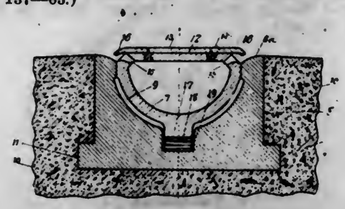
1. A hose supporter composed of a continuous band formed of two crossed sections, the portions of said sections at their point of intersection being permanently connected but each being unrestrainedly movable lengthwise relative to the other, fastening devices at the ends of said band adapted to detachably engage different portions of the top of the hose, and means for detachably connecting the adjoining ends of said sections.

3. A hose supporter composed of a continuous band formed of two crossed sections, the portion of each of said sections at its point of intersection with the other section comprising parallel strips unrestrainedly interlaced with like parallel strips of the other section, fastening devices at the ends of said band adapted to detachably engage different portions of the top of the hose, and means for detachably connecting the adjoining ends of said sections.

6. A hose supporter composed of a continuous band formed of two crossed sections, the portion of each of said sections at its point of intersection with the other section comprising parallel inelastic strips unrestrainedly interlaced with like parallel strips of the other section, one of said sections comprising an elastic portion adjustable in length, fastening devices at the ends of said band adapted to detachably engage different portions of the top of the hose, and means for detachably connecting the adjoining ends of said sections.

[Claims 2, 4, 5, and 7 to 9 not printed in the Gazette.]

1,255,648. FLUSHING-CONDUIT. JOSEPH SAGAN, Pittsburgh, Pa. Filed Feb. 27, 1917. Serial No. 151,237. (Cl. 137—65.)



1. A flushing conduit comprising a horizontally disposed casing having its upper extremity substantially flush with the surface of the ground in which it is laid, a pipe provided with discharge orifices adjacent the upper face thereof in said casing, a guard secured to the upper face of said pipe, and resilient means arranged to normally support said pipe with its upper face projecting above the upper extremity of said casing.

2. A flushing conduit comprising a horizontally disposed casing having its upper extremity substantially flush with the surface of the ground in which it is laid and having longitudinal projections extending interiorly thereof, a pipe in said casing provided with discharge orifices adjacent the upper face thereof, and resilient means arranged to normally support said pipe in contact with said projections and with its upper face projecting above the upper extremity of said casing.

3. A flushing conduit comprising a horizontally disposed pipe provided with discharge orifices adjacent its upper face, a guard secured to said pipe and overlying said orifices, and resilient means for yieldingly supporting said pipe in operative position relative to the surface of the ground in which it is laid.

4. A flushing conduit comprising a horizontally disposed casing having vertical recesses therein, resilient members in said recesses, and a pipe in said casing, said pipe being provided with discharge orifices and with stems arranged to enter the recesses in said casing and contact the resilient members therein.

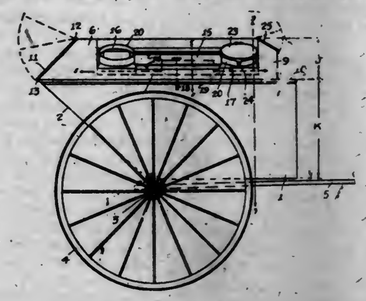
5. A flushing conduit comprising a horizontally disposed casing having its upper extremity substantially flush with the surface of the ground in which it is laid and having vertical recesses therein, resilient members in said recesses, a pipe provided with discharge orifices adjacent its upper face and having stems arranged to extend into said vertical recesses and contact the resilient members therein, and a guard secured to said pipe and overlying said orifices.

[Claim 6 not printed in the Gazette.]

1,255,649. SANITARY CART. DOMINICK SALVATI, Brooklyn, N. Y. Filed Aug. 3, 1916. Serial No. 112,900. (Cl. 214—1.)

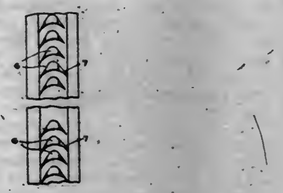
1. A cover for carts comprising a central raised body-portion and an inclined side portion depressed below the body-portion and extending lengthwise of the cover, the depressed portion having oppositely-arranged guides; a receiver disposed at each end of the depression; a slide co-operating with said guides; and means for causing said slide to be shifted in the guides to close one or the other of said receivers.

2. In combination with a cart having an unbroken body and an outwardly and upwardly inclined rear end, a cover having means through which the cart may be loaded at both sides, detachably secured to said cart, said cover having a downwardly and outwardly inclined rear end provided with an opening extending to the upper end of the inclined cart end, and an outwardly swinging gravital



lid carried by said cover for closing said opening, which will automatically swing open when the cart is dumped and automatically close when the cart is reset for use.

1,255,650. ELASTIC-FLUID TURBINE. FREDERICK SAMUELSON, Rugby, England, assignor to General Electric Company, a Corporation of New York. Filed Mar. 28, 1916. Serial No. 87,166. (Cl. 253—77.)



1. In an elastic fluid turbine, the combination of a wheel and working blades mounted thereon, the entrance edge of at least one working blade, but not more than several such blades spaced substantial distances apart, having its entrance edge projecting nearer to the preceding nozzle or row of blades than the other working blades, the number of working blades having such projecting edges depending on the peripheral speed of the wheel and the clearance between the entrance edges of the blades which do not have projecting edges and the preceding nozzle or row of blades.

2. The combination in an elastic-fluid turbine, of a bucket wheel having a blade, the entrance edge of which projects nearer to the preceding nozzle or row of blades than the next adjacent blades, such blade being formed of a metal which offers a greater resistance to erosion than the metal of the other blades.

4. The combination in an elastic-fluid turbine, of a bucket wheel having a blade, the entrance edge of which projects nearer to the preceding nozzle or row of blades than the next adjacent blades, the entrance edge of such blade being formed separate from and detachably connected to the other portion of the blade.

7. The combination in an elastic-fluid turbine, of a bucket wheel having blades at spaced points around it, the entrance edges of which project nearer to the preceding nozzles or row of blades than the others, the entrance edges of such blades being detachably connected to the other portions of said blades and formed of erosion resisting metal.

[Claims 3, 5, and 6 not printed in the Gazette.]

1,255,651. COUPLER FOR MUSICAL INSTRUMENTS. MELVIN L. SEVERY, Arlington Heights, Mass., and GEORGE B. SINCLAIR, Georgetown, Me. Filed Mar. 31, 1913. Serial No. 757,872. (Cl. 84—131.)



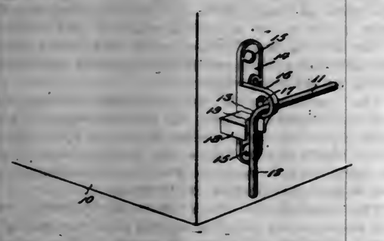
1. In combination with a series of sonorous bodies and with key-controlled means for vibrating the same; dampers for said bodies; means for withdrawing said dampers from the sonorous bodies with which they are respectively associated; and means controlled by a single key, connected with and serving to withdraw the dampers from a plurality of other sonorous bodies in predetermined musical relation to the body actuated by said key.

12. In a musical instrument, the combination of a series of tuned sonorous bodies; means for effecting vibration thereof; means for coupling the vibration-effecting means of a plurality of said bodies; dampers for said bodies; means common to a plurality of dampers for simultaneously retracting them; and a shock absorber connected with the retracting means and serving to absorb the shock and retard the fall of the retractor and coupled dampers.

13. In combination with a series of sonorous bodies; electric means for causing their vibration; dampers applied to said bodies; retracting mechanism common to dampers of a plurality of bodies in predetermined musical relation; electric means for actuating said damper-retracting mechanism; and a key provided with two circuit closers, one controlling delivery of current to the electric vibration-producing devices, and the other controlling delivery of current to the electric damper-retracting mechanism, the last-mentioned circuit closer being arranged to complete its circuit in advance of completion of that of the vibration-producing devices.

[Claims 2 to 11 and 14 to 40 not printed in the Gazette.]

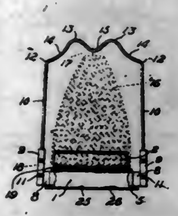
1,255,652. BRACKET. ARTHUR C. SHOCKEY, Shawnee, Okla. Filed Jan. 30, 1917. Serial No. 145,562. (Cl. 213—59.)



2. A device of the kind described consisting of an elongated base plate, a lug formed at right angles thereupon between its ends, a block formed upon the lower edge of said lug at right angles thereto and laterally of said base plate and extending below said lug, said lug and block having a common back wall, said lug being formed with a vertically disposed elliptical opening and said block being formed with a concave edge in line with said opening.

[Claim 1 not printed in the Gazette.]

1,255,653. MANTLE-CAP AND BURNER-CONE. CHARLES HAZOR SMITH, Chicago, Ill., assignor to The Mantle Lamp Company of America, Chicago, Ill., a Corporation of Illinois. Filed Oct. 15, 1915. Serial No. 55,963. (Cl. 67—38.)

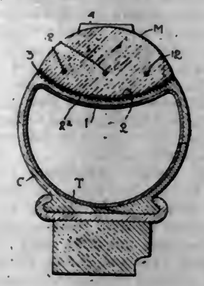


1. As an article of manufacture, a combined mantle cap and burner cone comprising a base having an annular flange provided with opposed notches which extend into the flange for a part of the depth thereof, the edge of the flange adjacent the notches being distorted to provide means to be engaged by a locking device.

2. As an article of manufacture, a burner cone-cap having a contracted upper portion terminating in an inturned annular flange, and a lower, annular flange forming the supporting base for said cone-cap provided with a notch, the flange being upset at its outer edge to secure the cap in its adjusted position on a burner.

[Claims 3 to 5 not printed in the Gazette.]

1,255,654. TIRE. STANLEY I. SMITH, Dudley township, Hardin county, Ohio. Filed May 7, 1917. Serial No. 167,074. (Cl. 152—10.)

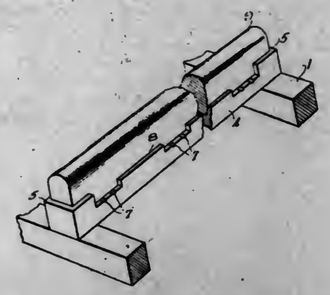


1. A tire structure consisting of a casing provided with a circumferentially disposed annular inbow in its tread portion, a tread member seated within said inbow, and holding means interposed between the tread member and the casing, each of said holding means including imposed strips secured one to the other at substantially their longitudinal centers and provided with angular terminals overlying the side faces of the tread member and the casing.

4. A tire structure consisting of a casing provided with a circumferentially disposed annular inbow in its tread portion, a tread member seated within said inbow, holding means interposed between the tread member and the casing, each of said holding means including imposed plates secured one to the other and provided with angular terminals overlying the side faces of the tread member and the casing, and securing members operatively engaged with the angular terminals and overlying the side faces of the casing.

[Claims 2 and 3 not printed in the Gazette.]

1,255,655. HEN-ROOST. MADISON B. SQUIRES, Walton, N. Y. Filed Nov. 21, 1916. Serial No. 132,654. (Cl. 119—25.)



A hen roost, including supports, and roost bars detachably secured to the supports, said roost bars consisting of a lower channel bar having closed ends, the side flanges of said channel bar provided with spaced cut-away portions, there being a longitudinal groove in the channel bar and transverse grooves communicating with the longitudinal groove and situated at the cut-away portions, and a perch bar detachably mounted in the channel bar.

1,255,656. RAZOR-SHARPENER. JAMES B. STEEDMAN, Louisville, Ky., assignor of one-third to John C. Cox and one-third to Louis Summers, Louisville, Ky. Filed Mar. 16, 1916. Serial No. 84,704. (Cl. 51—16.)



1. In a machine of the class described, a support, an abrading element mounted thereon, a member mounted upon the support for reciprocation beside the said element, a shaft mounted upon the said member, a blade holder carried by the shaft, a series of pins carried by the shaft and radiating therefrom and relatively displaced, and spaced trip members having stepped shoulders for engagement by the said pins at the ends of the strokes of the said member whereby to impart rotary motion to the blade holder at the termination of each stroke.

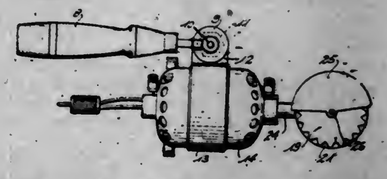
2. In a machine of the class described, a support, a member mounted upon the support for reciprocation, a shaft rotatably and slidably mounted upon the member, means for imparting sliding motion to the shaft upon reciprocation of the said member, spaced tripping members each having a series of tripping shoulders arranged in stepped relation, the said tripping members being arranged in the path of movement of one end of the shaft when the first-mentioned member is reciprocated, a blade holder carried by the shaft, and radial pins projecting from the said end of the shaft for engagement with the shoulders of the said tripping members whereby to reverse the shaft at the ends of the strokes of the first-mentioned member.

3. In a machine of the class described, a support, a member mounted upon the support for reciprocation, a shaft rotatably and slidably mounted upon the member, means for imparting sliding motion to the shaft upon reciprocation of the said member, spaced tripping members each having a series of tripping shoulders arranged in stepped relation, the said tripping members being arranged in the path of movement of one end of the shaft when the first-mentioned member is reciprocated, a blade holder carried by the shaft, radial pins projecting from the said end of the shaft for engagement with the shoulders of the said tripping members whereby to reverse the shaft at the ends of the strokes of the first-mentioned member, and means supporting the said tripping members for reversal whereby to position the same selectively above and below the plane of the said shaft.

4. In a machine of the class described, a support, an abrading member mounted thereon, a blade holder mounted for reciprocation upon the support beside the abrading element, the said blade holder being rotatable, a cam element carried by the blade holder, and a yieldably supported presser plate extending longitudinally above the support and coacting with the cam element in a manner tending to rotate the blade holder whereby to yieldably hold the same in position to maintain the edge of a blade carried thereby in contact with the abrading element.

5. In a machine of the class described, a support, an abrading element mounted thereon, a rotatably supported blade holder mounted for reciprocation beside the said element, a presser blade extending longitudinally above the said support, a cam element upon the blade holder engaging the underside of the said presser plate, the downward pressure exerted by the presser plate upon the cam element serving to yieldably hold the blade holder in position with the edge of a blade carried thereby in contact with the abrading element, a spring exerting downward pressure upon the presser plate, and means for adjusting the tension of the said spring.

1,255,657. SKINNING-MACHINE. SIGMUND STEINHEIMER, New York, N. Y. Filed Sept. 5, 1917. Serial No. 189,748. (Cl. 17—13.)



2. In a rotary skinning tool, the combination of a rotary blade having an exposed cutting edge, and a circular guard plate provided with a circular series of marginal teeth the crest of which teeth are included in an arc having the same radius as the rotary blade.

3. In a rotary skinning tool, the combination of a rotary blade having an exposed cutting edge, a plurality of guard plates fixed relatively to the blade and arranged alongside each other and on the same side of and close to the blade, each guard plate being provided with a plurality of edge serrations arranged in a circumferential line with the crests of the serrations substantially opposite different points on the exposed cutting edge of the rotary blade, and means for adjusting one guard plate relative to the other to vary the manner of overlap of the serrations of one of the guard plates relative to the serrations of the other guard plate.

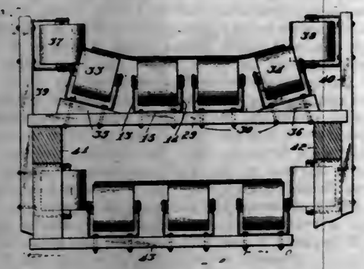
5. In a rotary skinning tool, the combination of a rotary circular knife, a plurality of circular guard plates concentrically arranged with the rotary blade with both guard plates on the same side of the blade, each guard plate being provided with peripheral indentations at regular intervals, and means whereby one of the guard plates may be adjusted relatively to the other.

[Claims 1, 4, 6, and 7 not printed in the Gazette.]

1,255,658. CARRIER FOR BELT CONVEYERS. WILEY W. STEPHENS, Aurora, Ill., assignor to Stephens-Adamson Mfg. Co., a Corporation of Illinois. Filed Dec. 4, 1911, Serial No. 663,954. Renewed Nov. 12, 1917. Serial No. 201,658. (Cl. 193—27.)

1. A conveyer comprising, in combination, a belt, a bar extending transversely beneath the belt, such bar having its middle portion horizontal and its end portions upwardly inclined, a plurality of alined rollers for engaging the belt, a plurality of like independent U-shaped brackets.

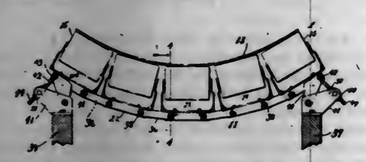
the arms of each bracket embracing and rotatably supporting one of the rollers, the cross-members of such several brackets being seated upon and secured, respectively, to the horizontal and inclined portions of the bar.



2. A conveyer comprising, in combination, a belt, a frame comprising a cross-member beneath the belt and uprights at each side of the belt, a plurality of like U-shaped brackets having their cross-members seated against and secured, respectively, to the cross member and uprights of the frame, and rollers journaled between the arms of the several brackets.

3. A support for a conveying belt, having in combination, a frame element, a plurality of alined rollers for engaging the belt, each of the rollers being journaled in a separate U-shaped bracket mounted on the frame element, the axes of the end rollers being inclined and the axes of the intermediate roller or rollers being horizontal.

1,255,659. BELT CONVEYER. WILEY W. STEPHENS, Aurora, Ill., assignor to Stephen-Adamson Mfg. Co., a Corporation of Illinois. Filed July 26, 1915, Serial No. 42,030. Renewed Nov. 12, 1917. Serial No. 201,659. (Cl. 193—27.)



1. A conveyer comprising, in combination, a belt, a pair of fixed supports, one at each side of the belt, a plurality of belt engaging rollers having their axes in a common plane which is transverse to the belt, a plurality of like separate U-shaped brackets, the arms of each bracket embracing and rotatably supporting one of the rollers, means connecting the cross member of the outer bracket at each side of the belt to the corresponding one of the said fixed supports and means, other than the last named connecting means, uniting the cross members of adjacent brackets.

4. A conveyer comprising, in combination, a belt, a pair of fixed supports, one at each side of the belt, a plurality of belt engaging rollers having their axes in a common plane which is transverse to the belt, a plurality of like separate U-shaped brackets each having a channeled base with a depending flange at each side and arms embracing and rotatably supporting one of the rollers, means connecting the base of the outer bracket at each side of the belt to the corresponding one of the said fixed supports and a plurality of separate pairs of upright plates, the plates of each pair lying against and connecting the base flanges of two adjacent brackets.

[Claims 2 and 3 not printed in the Gazette.]

1,255,660. COMBINED PUTTY-KNIFE AND NAIL-EXTRACTOR. WALTER A. STEVENS, Cambridge, Mass. Filed Jan. 16, 1917. Serial No. 142,732. (Cl. 254—25.)

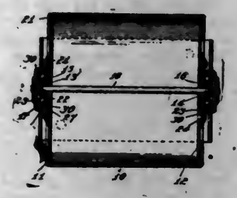
2. As a new article of manufacture, a nail or brad extracting implement, comprising a flat blade provided with an extruded portion forming an indentation upon one side of said blade and upon the other face a projection presenting a surface inclined to the plane of the blade lengthwise the latter and containing a tapered slot having its wider end at the base of said surface, so that by inserting the head of a brad in the narrower portion of said slot and tilting the blade transversely upon the surface containing said brad, the latter will be extracted, while by placing the face of the blade containing the indentation flat upon a surface containing a nail with the head of the



latter in the wider portion of said tapered slot and sliding said blade longitudinally to cause the head of the nail to enter the narrower portion of said slot, the upwardly inclined edges of the latter will act on said head to extract the nail from said surface, the face of the blade that is presented to the surface containing the nail being flat and a handle offset away from said flat face, thereby permitting the presentation of said flat face flatwise to the said surface containing the nail throughout the length of said blade.

[Claim 1 not printed in the Gazette.]

1,255,661. PULLEY. JOHN STEWART, Aurora, Ill., assignor to Stephens Adamson Mnfg. Co., a Corporation of Illinois. Filed Jan. 20, 1912, Serial No. 672,446. Renewed Nov. 12, 1917. Serial No. 201,663. (Cl. 64—36.)



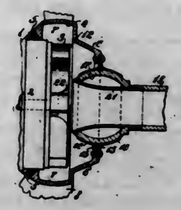
1. In combination, a pair of longitudinally slotted bracket arms, a pulley having centrally apertured end members, ball bearings surrounding the apertures of the pulley ends, a rod located on the axis of the pulley and projecting beyond the bearings, and laterally channeled heads on the rods fitting within the bracket slots.

2. In combination, a bracket hanger having longitudinally slotted parallel arms, a pulley having centrally apertured end members, ball bearings surrounding the apertures of the pulley ends, a rod located on the axis of the pulley and projecting beyond the bearings, and laterally channeled heads on the rods fitting within the bracket slots.

3. In combination, a pair of longitudinally slotted bracket arms, a pulley having centrally apertured end members, and a rod extending axially through the pulley, the ends of the rod projecting beyond the pulley ends and being provided with laterally recessed parts to fit within the slots of the bracket arms for rigidly connecting said arms.

[Claim 4 not printed in the Gazette.]

1,255,662. SUCTION-CLEANER. JOSEPH L. SULLIVAN, Cleveland, Ohio, assignor to The Frantz Premier Company, East Cleveland, Ohio, a Corporation of Ohio. Filed Apr. 12, 1916. Serial No. 90,565. (Cl. 230—11.)

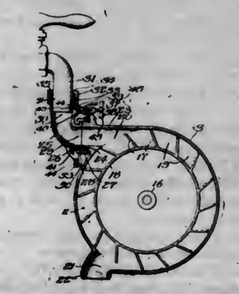


1. In a suction cleaner, the combination of a motor having a shaft, a suction fan secured to the end of said shaft, a casing surrounding said fan and spaced from the periphery thereof, a portion of said casing adjacent the free face of said fan being also spaced therefrom, and formed with a central spherical socket, and a suction tube projecting through said socket, to a point closely adjacent the free face of said fan near its center, said tube having a spherical enlargement movably filling said socket.

2. In a suction cleaner, the combination of a centrifugal suction fan, a casing surrounding said fan, the side of said casing having a boss coaxial with the fan, bearing means secured to said boss and defining a spherical socket whose center is removed from the center of the fan by a distance approximately equal to the radius of the socket, a ball fitting movably in said socket, and a suction tube projecting from one face of said ball and opening through the opposite face of the same.

3. In a suction cleaner, the combination of a centrifugal suction fan comprising a disk and having fan blades on one side of said disk, said blades radiating out from the center of the disk, a casing surrounding said fan, a portion of said casing adjacent the free face of said fan being spaced therefrom and formed with a central spherical socket, and a suction tube projecting through said socket to a point closely adjacent the free face of said fan near its center, said tube having a spherical bearing surface coöperating with said spherical socket and said fan blades being cut away at their edges near the center of the fan for the purpose described.

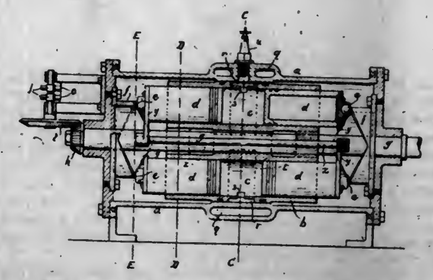
1,255,663. MOTOR. FRED SWANSON, Chicago, Ill. Filed Mar. 1, 1916. Serial No. 81,393. (Cl. 253—136.)



1. The combination with a faucet, of a water motor and an angularly adjustable connection between said faucet and motor, said connection being constructed and arranged to permit tilting of the motor in a vertical plane passing through the axis of the wheel.

[Claim 2 not printed in the Gazette.]

1,255,664. INTERNAL-COMBUSTION ENGINE. ALEXANDER P. STOER, Detroit, Mich. Filed Dec. 15, 1916. Serial No. 137,092. (Cl. 123—43.)



1. In an internal combustion engine, the combination of a battery of cylinders, cam means, each cylinder being provided with two pistons which exert force against the cam means to rotate the battery, and means for connecting up the piston of one cylinder with the piston at the other end of an adjacent cylinder.

4. In an internal combustion engine, the combination of a housing, a rotor provided with a pair of longitudinal bores rotatably held in said housing, the said housing being provided with an intake port and an exhaust port, the said rotor being provided with a pair of semi-annular grooves, each being provided with a port entering the bores, a pair of pistons in each bore, and intake and exhaust valves with properly timed operating mechanism connecting with the exhaust and inlet ports.

5. In an internal combustion engine, the combination of a housing, a rotor rotatably mounted therein and provided with a plurality of cylinder bores and a pair of semi-annular grooves each having ports connected with a bore in the rotor, a pair of pistons in each cylinder bore, the pistons of each bore being arranged to move outwardly and inwardly together, means for connecting up the pistons in pairs, one from one bore and another from the other bore at the opposite end, the said housing being provided with exhaust and intake ports which connect with the semi-annular grooves at appointed times, exhaust and inlet valves having suitable mechanism for operating them at the proper times in connection with the semi-annular grooves to afford the proper working strokes for the piston, and a stationary cam at each end of the rotor with which the ends of the pistons engage to cause the rotation of the rotor upon the reciprocation of the pistons.

[Claims 2, 3, and 6 not printed in the Gazette.]

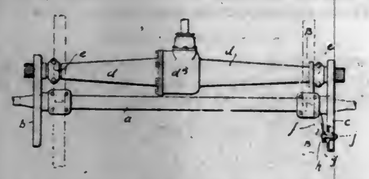
1,255,665. TRANSMISSION-GEARING FOR AUTOMOBILES. CECIL HAMELIN TAYLOR, Detroit, Mich. Filed June 8, 1916. Serial No. 102,370. (Cl. 180—73.)

1. The combination of a load-carrying axle beam, end brackets secured to said beam, a jack-shaft casing carried solely by said end brackets, and means extending from said casing to one of said brackets for sustaining the torque of said casing.

3. The combination of a load-carrying axle beam, end brackets secured to said beam, a jack-shaft casing carried solely by said end brackets, an oil proof joint uniting said casing to one of said brackets.

4. The combination of a load-carrying axle beam, end brackets secured to said beam, a jack-shaft casing carried solely by said end brackets, an oil proof joint uniting said casing to one of said brackets, said joint being

adapted to permit a limited universal movement between the parts.
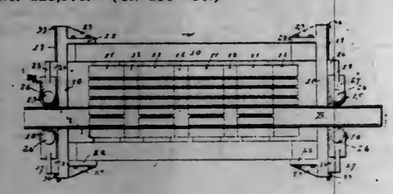


5. In an apparatus of the kind described, the combination of a load-carrying axle beam, end brackets secured upon said beam, a jack-shaft casing, a torque arm of thin material secured at one end to said casing and at the other end provided with a conical projection struck up from said material and having an aperture coaxial therewith, a bracket upon said beam being provided with a conical socket for receiving said projection, said projection fitting into said socket and a bolt having a conical surface adapted to fit into the conical surface of said projection and bind it in said socket.

6. The combination of a load-carrying axle beam, end brackets secured upon said beam, a jack-shaft casing, and means extending between said casing and one of said brackets adapted to resist the rotation of said casing about its longitudinal axis and to permit rotation of said casing about its transverse axis and a flexible connection between said jack-shaft casing and load carrying axle beam.

[Claim 2 not printed in the Gazette.]

1,255,666. CAMBER-REMOVING MACHINE. GEORGE W. THEISS, Buffalo, N. Y. Filed Oct. 16, 1916. Serial No. 125,973. (Cl. 153—56.)



1. The combination with a straightening machine, of a bed standing edgewise and extending across the end of the frame of said machine with one of its vertical sides against said end, said bed having lugs projecting laterally from said side and bolted to the sides of said frame, stocks slidably mounted on the other vertical side of said bed and having an interlocking connection therewith, means to adjust said stocks lengthwise of the bed, and camber rolls mounted upon said stocks.

2. The combination with a straightening machine through which metal shapes may be passed from end to end, of a bed plate extending across the end of the frame of said machine below the line of pass, the inner vertical side of said bed plate fitting against the end of said frame and having vertical lugs extending laterally beside and bolted to the sides of said frame, the outer vertical side of said bed plate having a guide way, stocks fitting at their sides in said guide way and having upwardly projecting yokes at opposite sides of the line of pass, camber rolls mounted in said yokes, and means to adjust the stocks lengthwise along said bed plate.

3. The combination with a straightening machine, of a bed extending across the end of the frame below the line of pass, said bed having laterally projecting lugs on its inner vertical face secured to the opposite sides of said frame and also having guides on its outer vertical face, stocks slidably mounted on said guides, beside said outer face, camber rolls mounted upon the top of said stocks, at opposite sides of the line of pass, and screws mounted on the bed, beside said outer vertical face, and engaging the stocks to adjust the same.

4. The combination with a straightening machine of a camber-removing machine of the type described comprising vertically arranged beds rigidly secured to both vertical ends of the straightening machine and having reinforced extension ends projecting beyond the side of said machine to permit the spread of the camber-rolls to the full width of the straightening rolls, camber-roll stocks carried by the outer vertical faces said beds, chamber-rolls pivoted in said stocks, reinforced supports for the pivots of said rolls to render the same rigid, and means for adjusting said rolls.

5. In a machine of the type described and in combination with a bed and adjusting means, a camber-roll stock comprising a lower body dovetail connected at its inner side to said bed, a camber-roll and pivot therefor and a braced yoke for said pivot, mounted upon said stock said bracing for said yoke holding said roll rigidly against the outward and lateral thrust of the beam or rail pressing against said roll.

1,255,667. HIGH-POTENTIAL INSULATOR. ELIHU THOMSON, Swampscott, Mass., assignor to General Electric Company, a Corporation of New York. Filed Jan. 9, 1913. Serial No. 740,979. (Cl. 173—318.)



1. An insulator comprising an integrally and hermetically closed vacuum chamber having continuous, jointless walls of vitreous material, capable of maintaining a vacuum for a substantially indefinite period, the chamber being evacuated to such a degree that an ionization discharge cannot take place across the same.

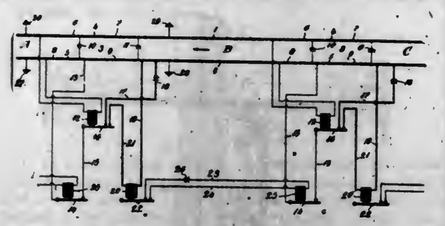
2. An insulator comprising a vitreous annular member having walls with an integrally and hermetically closed vacuum chamber formed therein, capable of maintaining a vacuum for a substantially indefinite period, the chamber being evacuated to such a degree that an ionization discharge cannot take place.

9. A high potential terminal comprising a conductor, an insulating member surrounding the same comprising a vitreous tubular member having walls with an integrally and hermetically closed vacuum chamber formed therein, capable of maintaining a high degree of vacuum for a substantially indefinite period, the chamber being evacuated to such a degree that an ionization discharge cannot take place across the same, a second insulating member surrounding said single member, and a plastic material between said members.

[Claims 3 to 8 not printed in the Gazette.]

1,255,668. INSULATION-BREAKDOWN DETECTOR. GUY P. THURBER, Pittsburgh, Pa. Filed Dec. 20, 1915. Serial No. 67,739. (Cl. 246—58.)

1. In a railway signaling system, traffic rails, an insulated joint in each of said rails, a source of current connected to one rail on opposite sides of the joint therein, an electro-responsive device connected to the same rail on opposite sides of said joint, a source of current connected across the rails on one side of said joints, and a source of current connecting the rails on the other side of said joints, said sources of current being connected to the rails with reversed polarities, whereby a break-down of the insulated joint in either rail will affect said electro-responsive device.

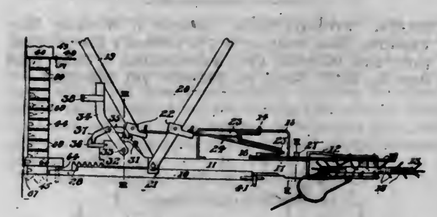


4. A railway signaling system comprising: track rails, an insulated train controlling section in one of said rails, a conductor including a source of current and connected at one end to said rail, a conductor including an electro-responsive device and connected at one end to said rail, a conducting member arranged to normally connect the free ends of said conductors to complete a circuit including said source of current and said electro-responsive device, and a connection between said conducting member and said insulated rail section whereby said source of current and said electro-responsive device are each normally connected to said rail and to said insulated section.

7. A railway signaling system comprising: track rails, oppositely disposed insulated sections in said rails dividing said track into block sections, a track circuit for each block including a source of current and an electro-responsive device, a conductor including a source of current and connected at one end to one of said rails, a conductor including an electro-responsive device and connected at one end to the same rail, a conducting member arranged to normally connect the free ends of said conductors to complete a circuit including said source of current and said last-named electro-responsive device, said first-named electro-responsive device of an adjoining block being arranged to control said conducting member, a connection between said conducting member and the insulated section in said rail, and a connection between said oppositely disposed insulated sections.

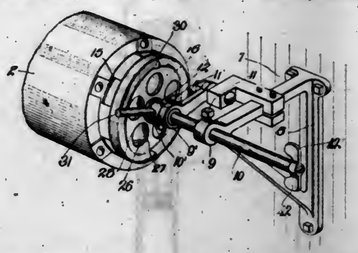
[Claims 2, 3, 5, 6, and 8 not printed in the Gazette.]

1,255,669. INTERMITTENT OPERATING MECHANISM FOR COAL-CUTTERS. JOSEF VALENCICH, Hastings, Colo. Filed Mar. 14, 1917. Serial No. 154,731. (Cl. 74—54.)



A device of the type described, including a toothed rack longitudinally carried by a base, a cutter-mounting body slidably retained upon said base, having depending flanges at opposite sides of the rack, said body having a rear housing portion, a toothed wheel journaled within said housing portion, in constant mesh with said rack, a bifurcated pedal spanning said housing-portion, and pawls carried by said pedal adapted for selective engagement with said wheel for revolving the latter in either direction.

1,255,670. SHADE-ROLLER. ANTON VAN GORPE, Kansas City, Mo., assignor of one-half to Charles J. Greene, Kansas City, Mo. Filed Oct. 7, 1915. Serial No. 54,675. (Cl. 156—34.)



1. The combination with an awning roller having means for revolving the same in a winding direction when released, of a latch mechanism comprising a rigidly mounted axle member, a drum revolubly mounted thereon and secured to said roller, a second drum revolubly mounted on said axle and having a shouldered periphery, means on said first drum for engaging the second drum to revolve the latter when the former is turned in an unwinding direction, a pin projected through said axle and adapted to engage the shouldered periphery of the second drum and yieldable means for holding said pin against said shouldered periphery.

2. The combination with an awning roller having at one end a revoluble mounting and a spring for revolving said roller in a winding direction when released, and having a socket in its opposite end, of latch mechanism comprising a rigidly mounted axle member, a drum revolubly mounted on said axle and secured to said roller, a second drum revolubly mounted on said axle and having an apertured face and shouldered periphery, yieldable members secured to said first drum and adapted for projection into the apertures of said second drum to revolve the latter with the former when going in an unwinding direction, a pin projected through said axle and adapted to engage the shouldered periphery of the second drum, and yieldable means for holding said pin against said shouldered periphery.

3. The combination with an awning roller having at one end a revoluble mounting and a spring for revolving said roller in a winding direction when released and having a socket in its opposite end, of latch mechanism comprising a rigidly mounted hollow axle member having an enlargement at its inner end, a drum revolubly mounted on said enlargement and secured to said roller and having an outturned flange at its periphery, a second drum revolubly mounted on said axle and having an outstanding shouldered rim and an inturned rim to engage the outturned rim of said first drum, a pin projected through said axle, transversely therewith and adapted for seating against said shouldered periphery, a tensioning rod projecting through said hollow axle and extending into said roller socket, a shoulder on said tension rod adapted to engage said transverse pin, a cap threaded on the inner end of said tension rod, and a spring wound about said rod to bear against the said cap and against the inner end of said axle to tension said pin against said shouldered periphery, and a thumb nut on the outer end of said rod to tension said spring.

1,255,671. CAP FOR FOUNTAIN-PENS. FRANCIS W. VAUGHN and HENRY J. UPTON, Medford, Mass., assignors to Vaughn-Upton Company, Boston, Mass., a Corporation of Massachusetts. Filed Dec. 27, 1917. Serial No. 209,059. (Cl. 120—42.)

1. As a new article of manufacture, the fountain pen cap above described, made up of a pen-engaging chamber

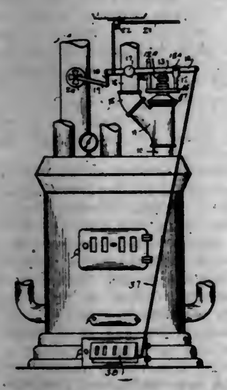
having an outside centrally disposed screw threaded boss upon its closed end, and an annular plane seat surface surrounding the boss; a magazine section having a centrally disposed screw threaded aperture in the engaging end of the magazine, the aperture opening to the interior of the magazine and an annular plane seat surface surrounding the aperture to co-act with the seat surface on the fountain end.



2. As described in claim one, the magazine having a sight aperture in one side; a cylindrical glass lining and packing material disposed at each end of the cylinder; a screw member at one end of the magazine, impinging upon the upper packing and forcing the cylinder into hermetic contact with the packing at both ends.

[Claim 3 not printed in the Gazette.]

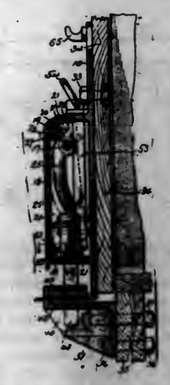
1,255,672. TEMPERATURE-REGULATOR. LEVIN D. VAUGHAN, Philadelphia, Pa. Original application filed June 24, 1916, Serial No. 105,533. Divided and this application filed May 24, 1917. Serial No. 170,582. (Cl. 161—8.)



In a device of the character described, a clock provided with an alarm winding key and means connected thereto, comprising a cord passing over a guide pulley, secured to an opening in the free end of a lever, a lever, means for engaging said lever with a trigger, the other end of said cord terminating in a catch member adapted to hook on said winding key, whereby when said winding key revolves said catch member and said lever are released from engagement with said winding key and said trigger respectively, substantially as shown and described.

1,255,673. SEAL-LOCK. WILLIAM FULTON WALKER, Chicago, Ill. Filed June 16, 1917. Serial No. 175,122. (Cl. 70—28.)

1. In a seal lock the combination of a housing having upper and lower walls apertured to receive a sliding bolt, a sliding bolt in said apertures and extending above and below the housing, means outside the housing for releasably maintaining said sliding bolt in one extended position thereof, means within the housing for maintaining said bolt in its other extended position, a movable part accessible from outside the housing associated with said last mentioned means for moving the same out of maintaining position, a keeper for the bolt and means for sealing said movable part.

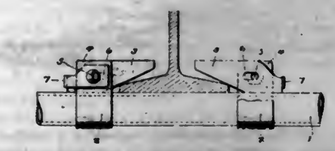


2. In a seal lock, the combination of a housing adapted to be secured to a car door, said housing having a movable part associated therewith accessible from outside the housing and having means for sealing the same in a given relative position, a reciprocating bolt partly within the housing movable independently of said movable part and extending beyond the housing, a gravity controlled detent within the housing adapted to maintain said bolt in extended position, means associated with said movable part and with said detent for moving the detent out of such holding relation whereby the bolt may be retracted when the movable part is moved, said detent being adapted to swing out of its normal holding position and then back when said movable part is in sealed position and said bolt is moved from its retracted position into its extended position.

13. In a seal lock for car doors and the like, the combination of a support, a bolt permanently carried thereby and movable into extended or locking position and into retracted or unlocking position, endless band means for sealing the device with the bolt in its retracted position, and yielding means in association with the bolt and with said sealing means for providing movability of the bolt into its extended position when the device is sealed and for then holding the bolt against retraction.

[Claims 3 to 12 not printed in the Gazette.]

1,255,674. PIPE-HANGER. ALBERT J. WAYMAN, East Palestine, Ohio, assignor to The Efficiency Electric Company, East Palestine, Ohio, a Corporation of Ohio. Filed Sept. 24, 1917. Serial No. 192,968. (Cl. 248—32.)

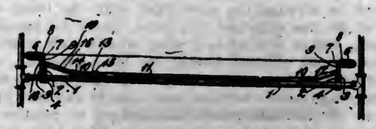


1. In a pipe-hanger, the combination with a hanger-loop having opposed web pieces, of a locking tongue having an inclined face to engage a girder or other support and adapted to operate between the web pieces.

4. In a pipe-hanger, the combination of a hanger-loop having web pieces, a wedging tongue lying between the web pieces and a guard comprising a sheet of metal adapted to be bent around the projecting head of the tongue after it is adjusted to the locking position.

[Claims 2 and 3 not printed in the Gazette.]

1,255,675. BED-BOTTOM SUPPORT. ARTHUR WHEATLEY, Philadelphia, Pa. Filed Mar. 31, 1916. Serial No. 87,889. (Cl. 5—69.)

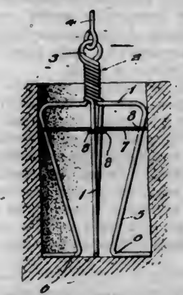


1. In a bed bottom support, an angular bar over whose horizontal limb the end portion of the bottom is fitted, and a beam adapted to be sustained on a bed frame and having a longitudinally-extending channel therein and opening upwardly, the channel of said beam being adapted to receive the vertical limb of said angular bar.

6. In a bed bottom support, an angular bar with which said bottom is connected, an adjustable supporting beam for said bar, said beam being adapted to be sustained on a bed frame, and a stretcher adapted to control said bar and consequently said beam in their adjusted positions, said stretcher having a branch formed of a bolt, a coupling intermediate of said branch and stretcher, said bolt being fitted to said coupling and having its head connected with a limb of said bar, and a sleeve on said bar intermediate of said coupling and limb, said terminal of said stretcher having thereon a head and shoulder members which engage tightly opposite sides of said vertical limb.

[Claims 2 to 5 not printed in the Gazette.]

1,255,676. UNDERGROUND ANCHOR. JOHN S. WHITEHEAD, Sullivan, Ind. Filed Aug. 16, 1917. Serial No. 186,616. (Cl. 189—92.)

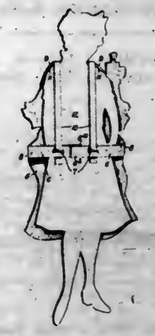


1. An underground anchor comprising a pair of arms connected at one end and free at their other ends, said arms normally converging toward their free ends and having outwardly extending anchor members on said free ends, and a rod extending normally between the widely spaced ends of said arms and having eyes slidable along the latter, said rod being adapted to be forced along said arms to spread the same and force said anchor members into the earth.

[Claims 2 and 3 not printed in the Gazette.]

1,255,677. PAPER-DOLL'S DRESS-FASTENER. ALICE GIBBS WILT, Philadelphia, Pa. Filed May 4, 1917. Serial No. 166,289. (Cl. 46—40.)

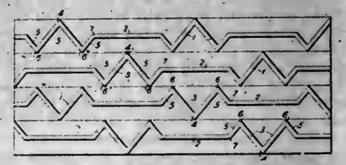
4. A doll's dress having sides and shoulders, two horizontal tabs one extending from each side of the dress and two additional tabs one extending vertically from each shoulder, there being marks on the first tabs at which cuts may be made to receive the vertical tabs when the horizontal tabs are bent rearwardly and the vertical tabs are bent downwardly, and an adhesive on one of the first



tabs by which the ends of the first tabs may be secured together.

[Claims 1 to 3 not printed in the Gazette.]

1,255,678. REINFORCING-BAR. WILLIAM P. WITHEROW, Pittsburgh, Pa. Filed Sept. 11, 1916. Serial No. 119,455. (Cl. 72—111.)



1. A metallic reinforcing bar for cementitious bodies comprising a regularly formed central body provided with a plurality of longitudinal ribs, said ribs having sinuous portions and substantially straight portions connecting adjacent sinuous portions longitudinally of the bar.

3. A metallic reinforcing bar for cementitious bodies comprising a regularly formed central body provided with a plurality of longitudinal ribs, said ribs having sinuous portions and substantially straight longitudinal portions; said sinuous portions being formed of a plurality of connected legs extending a substantial distance diagonally of the bar and shorter legs connected therewith, the straight portions being arranged to connect the shorter legs of adjacent sinuous portions longitudinally of the bar.

5. A metallic bar for cementitious bodies comprising a regularly formed central body provided with a plurality of longitudinal ribs, said ribs having sinuous portions formed of connected diagonal projections meeting in sharp corners, and substantially straight portions connecting adjacent sinuous portions longitudinally of the bar.

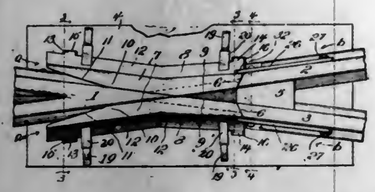
7. A metallic reinforcing bar for cementitious bodies comprising a regularly formed central body provided with a plurality of longitudinal ribs, said ribs having sinuous portions and substantially straight longitudinal portions; said sinuous portions being formed of a plurality of connected legs extending a substantial distance diagonally of the bar and meeting in sharp corners, and shorter legs connected therewith, the straight portions being arranged to connect the shorter legs of adjacent sinuous portions longitudinally of the bar.

8. A metallic reinforcing bar for cementitious bodies comprising a regularly formed central body provided with a plurality of longitudinal ribs, said ribs having sinuous portions and substantially straight longitudinal portions; said sinuous portions being formed of a plurality of connected legs extending a substantial distance diagonally of the bar and meeting in sharp corners, and shorter legs

connected therewith, the straight portions being arranged to connect the shorter legs of adjacent sinuous portions longitudinally of the bar, and adjacent ribs having their corresponding portions relatively staggered.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,255,679. SWITCH-FROG. JOHN B. YARNELL, Johnstown, Pa. Filed Apr. 20, 1917. Serial No. 163,507. (Cl. 104—5.)

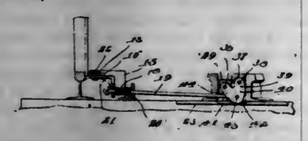


2. The combination with a frog point, and angular main rails spaced therefrom, of pivoted wing rails alining with the main rails and contacting with the frog point and having one of their edges spaced away from the frog point, spring pressed means for normally retaining the wing rails in such position, and means, comprising mechanism, coacting with said spring means whereby to lock one of the wing rails in its said position when the other wing rail is moved from frog point contacting position.

4. In combination with a frog point and rails spaced therefrom, of pivoted wing rails alining with the referred to rails and contacting with the sides of the frog point and having one of their ends spaced from such contacting engagement with the frog point, blocks upon the sides of the wing rails, hoods for such blocks, stop members received in such hoods designed to contact with the blocks to limit the outward swinging movement of the wing rails, spring means for normally retaining the wing rails in frog point contacting position, and means comprising mechanism between said wing rails whereby to hold one of said wing rails in frog point engaging position when the other wing rail is swung outwardly of the frog point.

[Claims 1, 3, and 5 not printed in the Gazette.]

1,255,680. SWITCH-FROG. JOHN B. YARNELL, Johnstown, Pa. Filed Apr. 20, 1917. Serial No. 163,508. (Cl. 104—5.)



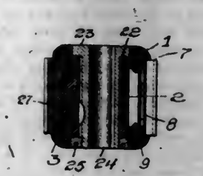
1. In combination with a frog, of pivoted wing rails disposed to the opposite sides of the frog, means for limiting the swinging movement of the wing rails in an upward direction, whereby the same cannot be elevated above the tread surface of the frog point, an element pivotally secured to each of the wing rails and arranged whereby to support one of the wing rails in its elevated position when the other wing rail is depressed.

3. In combination with the main and siding lines of a railway track, a frog between said lines and guard rails for said frog, of wing rails pivotally secured at one of their ends between the sides of the frog and guard rails and disposed below said frog and guard rail, said wing rails having their ends angular and terminating in a line with the sides of the frog and the angular main rails alining with the frog, a brace plate between the main rails, lips upon the wing rails normally underlying said brace, a heart-shaped member having its lobes pivotally secured to the respective wing rails and resting upon a support and susceptible to a rocking movement upon the said support, whereby to provide a brace between one of the wing rails and the support to retain the wing rail elevated when the other wing rail is depressed.

5. In a means for closing the gaps between line rails and a frog point and for supporting the wheels of a rolling stock traveling over said gap, including a plate disposed below the frog, wing rails pivotally secured to said plate below the frog and arranged at the opposite sides of the frog and having their ends terminating at the gaps and in a line with the sides of the frog and rails, means for limiting the outward swinging of the wing rails whereby to arrange the same flush with the tread surfaces of the line rails and frog point, means for normally retaining one or both of said wing rails in such position, a heart-shaped element having its lobes pivotally connected with the respective wing rails and resting upon the plate, and means between said element and said plate whereby to normally retain the element in position to support one of the wing rails when the other wing rail is depressed.

[Claims 2 and 4 not printed in the Gazette.]

1,255,681. COMMUTATOR. CHARLES C. ZENK, Wilkinsburg, Pa., assignor to Diehl Manufacturing Company, Elizabeth, N. J., a Corporation of New Jersey. Filed July 8, 1912. Serial No. 708,244. (Cl. 200—12.)



1. A commutator comprising metal commutator bars, and a body of heat hardened resinous condensation product holding said bars in place.

2. A commutator composed of conducting bars permanently held in place by a phenol condensation product.

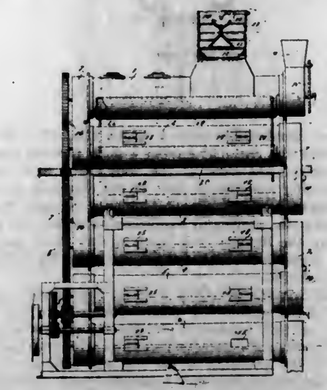
3. A commutator comprising metal commutator bars separated by insulating strips, and a body of heat hardened resinous condensation product holding said bars and said insulating strips in place.

4. A commutator comprising circumferentially arranged equally spaced segment bars having longitudinal grooves in the sides thereof, a body of resinous condensation product molded about said bars and embedding the inner edges thereof, said body of resinous condensation product having webs extending between the bars and provided with enlargements engaging in the grooves in said bars, and strips of mica arranged between said bars, and having their inner edges embedded in said enlargements of the resinous condensation product.

1,255,682. APPARATUS FOR HYDRATING LIME. ALBERT ZIMMERMAN, York, Pa., assignor to Lowell M. Palmer, Brooklyn, N. Y. Filed Feb. 12, 1915. Serial No. 7,757. (Cl. 83—73.)

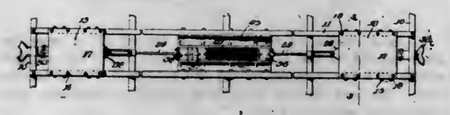
1. In an apparatus for hydrating lime, a series of drums through which the lime is carried during treatment forming an elongated closed chamber, means for feeding the lime into the drum at one end of the series, means for supplying water in excess of the amount required for slaking to said lime adjacent the point where it is fed into said drum for creating a slaking zone within said drum, means for supplying a current of air passing through said drums, in a direction opposite to the direction in which the lime is carried through said drums, and means for supplying heat and water to the lime within the drum within which the slaking operation takes place in addition to that which is created by the endothermic reaction between the lime and the water, whereby the proper slaking temperature may be maintained with an excess of water present during the slaking operation.

2. In an apparatus for hydrating lime, a series of drums through which the lime is carried during treatment forming an elongated closed chamber, means for feeding the lime into the drum at one end of the series, means for supplying water in excess of the amount required for slaking to said lime adjacent the point where it is fed into said drum for creating a slaking zone within said drum, means for supplying a current of air passing through said drums in a direction opposite to the direction in which the lime is carried through said drums,



means for supplying heat to the lime and water within the drum within which the slaking operation takes place in addition to that which is created by the endothermic reaction between the lime and water, and means for supplying additional heat to the lime in one at least of the other of said drums whereby the proper slaking temperature may be maintained with an excess of water present during the slaking operation and the lime completely dried before it is discharged from the apparatus.

1,255,683. DRAFT-RIGGING. HENRY C. AMIS, Stanfield, Oreg. Filed Aug. 15, 1916. Serial No. 115,078. (Cl. 213—41.)



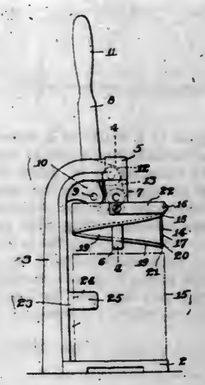
1. A draft rigging for railway cars including spaced draft members, draw bars associated therewith and arranged at opposite extremities of the car, cushioning elements for the said draw bars carried by the draft members, an equalizer, and means for adjustably tensioning the said elements and operatively connecting the draw bars with the equalizer.

4. A draft rigging including a draft member, coacting followers carried by the said member, a draft rod extending loosely between the said followers, a cushioning spring interposed between the followers, means adjustable upon one extremity of the rod to engage one of the followers for tensioning said spring, and a draw bar detachably connected to the opposite extremity of said rod and telescopically fitted thereon to engage the other of said followers.

[Claims 2, 3, and 5 to 7 not printed in the Gazette.]

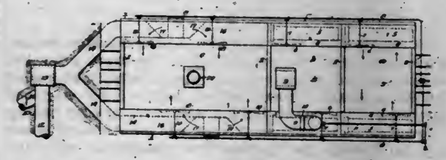
1,255,684. CUTTING DEVICE. JOHN ANDERSON and FERDINAND BERGENDORF, Philadelphia, Pa. Filed Sept. 5, 1916. Serial No. 118,410. (Cl. 30—3.)

1. In a cutting device and in combination, a supporting frame, a movable knife carrier, a knife secured to said carrier and surrounding an open space, a pair of pins projecting from said frame and into said space and to which said carrier is slidably fitted, the free ends of said pins projecting beyond the cutting edge of the knife in one position of the carrier, and means operative to move said carrier.



2. In a cutting device and in combination, a supporting frame, a movable knife carrier, a knife secured to said carrier and surrounding an open space, a pair of pins projecting from said frame and into said space and to which said carrier is slidably fitted, the free ends of said pins projecting beyond the cutting edge of the knife in one position of the carrier, a hand lever, and a link connecting said carrier and said lever, whereby when said lever is moved said carrier will be moved.

1,255,685. DRIER. ELWOOD B. AYRES, Philadelphia, Pa., assignor to The Philadelphia Textile Machinery Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed May 3, 1916. Serial No. 95,078. (Cl. 34—12.)



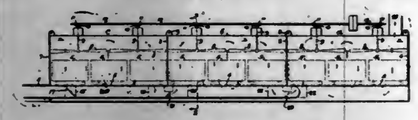
1. The combination in a drier, of a series of sections, each section having a drying chamber; means for supporting the material to be dried in the chambers of said sections; means for circulating the air in each of said sections; a flue for conducting hot air to the last section; and a flue connecting with said section through which the moist air escapes.

2. The combination in a brick drier, of a structure having a series of sections therein; means for separating the sections; circulating fans for circulating air independently in the several sections; heating coils in the first section for heating the air circulated therein; a final section; means for admitting preheated air to said final section; and means for exhausting the moist air from said section so that the bricks are thoroughly dried when they leave the drier.

1,255,686. DRIER. ELWOOD B. AYRES, Philadelphia, Pa., assignor to The Philadelphia Textile Machinery Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Mar. 16, 1917. Serial No. 155,286. (Cl. 34—46.)

1. The combination in a drier, of a series of compartments, each compartment having a drying chamber; means

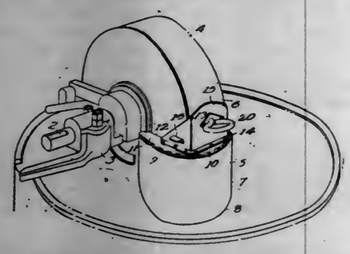
for supporting the material to be dried in said chambers; flues for conducting hot air to the several chambers; flues connecting the several chambers; and an exhaust flue communicating with one of said chambers so as to exhaust the moist air from said chamber.



2. The combination in a drier, of a series of compartments, each compartment having a drying chamber; means for supporting the material to be dried in the several chambers; movable curtains dividing the chambers so that material can be transferred from one chamber to another; a flue for hot gases communicating with the last of the series of chambers; flues connecting the several chambers; and an exhaust flue communicating with the first chamber so that the air, as it passes from one chamber to another, will collect the moisture and will be finally discharged from the chamber into which the material to be dried is first entered.
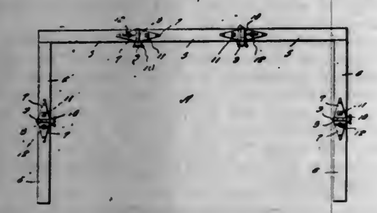
[Claims 3 to 5 not printed in the Gazette.]

1,255,687. CUTTER-GUARD. ALBERT A. BARCHI, La Grande, Oreg. Filed Mar. 8, 1917. Serial No. 153,390. (Cl. 17—19.)



In combination with a rotary cutting machine having a hood arranged over one portion of the same, a bracket having tapered wings bent at substantially right angles thereto, a guard element secured to the lower marginal portions of the bracket, the end wall of the bracket having a screw threaded opening therein, and an attaching screw passing through the opening into engagement with the adjacent portion of said hood.

1,255,688. TENT-SUPPORT. FRED BAHLER, Gilroy, Cal. Filed Oct. 4, 1916. Serial No. 123,722. (Cl. 135—4.)



In a device as described, in combination, two bars, two similarly shaped hinge leaves secured upon the respective bars so as to permit the bars to contact endwise, a pintle passing through the beads of said hinge leaves, said pintle being threaded at one end, and a thumb nut engaging the threaded end of said pintle and adapted to jam the edges of said bars and also to jam the beads of said hinge leaves together so as to frictionally prevent the collapsation of said bars.

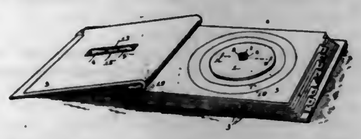
1,255,689. TIRE. LESLIE M. BANKS, Muskogee, Okla. Filed Oct. 25, 1916. Serial No. 127,622. (Cl. 152—8.)



1. The combination with a wheel rim, of a tire associated with the rim and having a body portion formed of flexible metal, the sides of the body being bent inwardly and upwardly and thence bent in the direction of the rim and further bent to provide opposed flanges extending around the rim, a circular band located within the tire and encircling the flanges, and bolts having their shanks extending through the rim, flanges and band for holding the tire on the rim.

2. The combination with a wheel rim of the channeled type, of a tire associated with the wheel rim and having its body portion formed of flexible metal and having the sides thereof bent inwardly and upwardly, and then downwardly in the direction of the rim and formed to provide flanges, said inwardly and upwardly bent portions overlying the rim laterally, fastening means operatively engaging the flanges and wheel rim for holding the tire on the rim.

1,255,690. HOLDER FOR PHONOGRAPH-RECORDS. JOHN B. BARLOW, Walker township, Mich. Filed Mar. 15, 1917. Serial No. 155,062. (Cl. 129—20.)



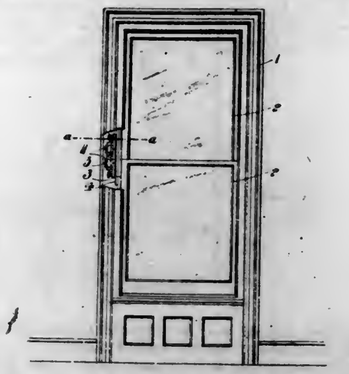
1. In a device of the character described; a base; a stud carried by the base and adapted to enter the central orifice of a phonograph record and hold said record on the base; the base having a marking arcuately disposed concentrically with the stud.

2. In a device of the character described; a base having an opening therethrough; a stud comprising oppositely disposed spring members secured to the under side of the base and having portions extending through said opening and adapted to enter the central orifice of a phonograph record on the upper side of the base and yieldingly engage said orifice's sides to hold said record on the base.

3. In a device of the character described; a plurality of leaves bound together at one edge, the leaves having slots extending at right angles to said edge; studs carried by the leaves and adapted to enter the central orifice of phonograph records to hold said records and extending beyond said record and into the slot in the adjacent leaf in the closed position of the leaves.

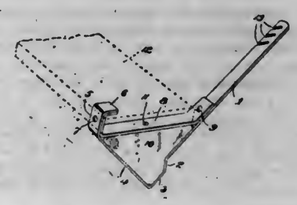
4. In a device of the character described; a plurality of leaves bound together at one edge, the leaves having slots extending at right angles to said edge; studs comprising oppositely disposed spring members secured to the under sides of the leaves and having portions extending through the leaves to which they are thus secured and adapted to enter and extend through the central orifice of records and into the slot in the adjacent leaf on the opposite side of said record in the closed position of the leaves.

1,255,691. SASH-BALANCE. CHAUNCEY A. BATES, White Plains, N. Y. Filed July 1, 1916. Serial No. 107,066. (Cl. 16—150.)



In combination with a window frame and a pair of sashes therein, rack elements each secured to one side of one of the sashes, and a sash balance comprising a frame for attachment to the corresponding side of the window frame and provided with an opening and also provided at the sides and near the ends with outwardly extending studs, bars at opposite sides of said frame mounted on said studs for movement toward and from the frame independently of each other, springs to press the bars toward the frame, a pair of shafts each having its opposite ends mounted in bearings in said bars, gears on said shafts to engage the rack elements, and a coil spring on each shaft and having one end attached to the shaft and one end attached to one of the bars, said springs coacting with the shafts and gears to counter-balance the sashes.

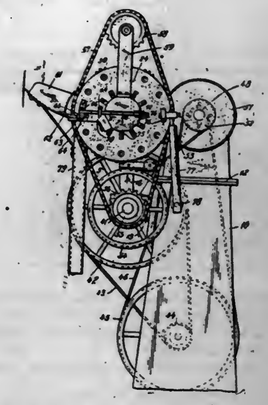
1,255,692. ROOFING-BRACKET. DANIEL B. BEARDEN, Pekin, Ill. Filed Sept. 30, 1916. Serial No. 123,120. (Cl. 20—86.)



A shingle bracket including a base made of a strip of metal, the outer portion of which provides a tongue which has angular slots entering from one of the edges thereof, said strip, below the tongue being bent to provide an offset portion forming a foot, said strip, at the outer end of the foot being bent at a right angle to the foot and terminating in a hook having a bill portion, a strip riveted to the hook and to the tongue, and a reinforcing block in the portion of the bracket below the last mentioned strip and conforming to the shape of the said portion of the bracket and secured therein.

1,255,693. MACHINE FOR POINTING CARBONS. ARTHUR M. BELL, Belleville, Ill., assignor, by mesne assignments, to National Carbon Company, Inc., Cleveland, Ohio, a Corporation of New York. Filed Oct. 18, 1917. Serial No. 197,299. (Cl. 51—10.)

1. In apparatus for pointing rods, the combination of a support, grinding means mounted upon the support, a plurality of rod holding means, means mounted on the support for carrying the rod holding means, means for moving said carrying means to bring the rods into coaction with the grinding means, and means for feeding rods into the rod holding means.



2. In apparatus for pointing rods, the combination of a support, grinding means mounted on the support, a plurality of rod holding means, means upon which said rod holding means are mounted, means for moving said last named means to bring the rods into coaction with the grinding means, and means for rotating each rod holding means when the same comes into position adjacent the grinding means.

3. In apparatus for pointing rods, the combination of a support, grinding means rotatably mounted upon the support, a plurality of tubular members through which rods may be fed, clamping means associated with said hollow members for holding rods in place therein, means upon which the hollow members are mounted and means for moving said last named means to bring the rods successively into coaction with the grinding means.

5. In apparatus for pointing rods, the combination of a pedestal, grinding means rotatably mounted on the pedestal, a plurality of rod holding means, rotatable supporting means for the rod holding means, means for rotating the supporting means to bring the rods into coaction with the grinding means, means mounted adjacent the supporting means for feeding the rods into the holding means and means actuated by the supporting means for actuating said feeding means.

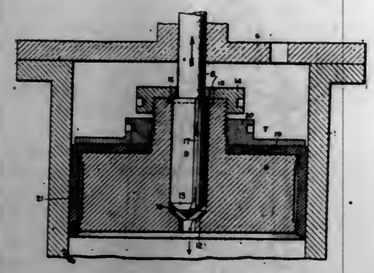
16. In apparatus for pointing rods, the combination of a support, grinding means rotatably mounted on the support, a sleeve adjustably mounted on the support, an arm on the sleeve, a pin mounted on the end of the arm, a rotary member on the pin, a shaft mounted in the sleeve, means for driving the rotary member from the shaft, a plurality of rod holding means mounted on the rotary member, means rotatably mounted on the shaft for rotating the rod holding means and means driven from said grinding means for driving said rod holding rotating means.

[Claims 4 and 6 to 15 not printed in the Gazette.]

1,255,694. AIR-COMPRESSOR. ALVIN R. BERCK and FRED TJADEN, Hastings, Nebr. Filed Mar. 29, 1915. Serial No. 17,737. (Cl. 103—66.)

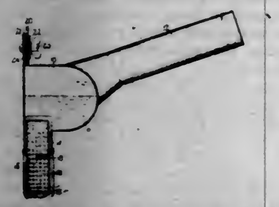
1. In an air compressor, the combination of a cylinder, a piston in the cylinder and having a central bore, the upper end of which is enlarged and the lower end reduced, to form a valve seat, a piston rod mounted in the bore and having a cone-shaped lower end forming a valve adapted to engage the seat of the bore, the portion of the piston rod in the bore having limited movement therein and provided with a longitudinal passage, and an apertured closure for the bore and through which the piston rod passes.

2. In an air compressor, the combination of a cylinder, a piston in the cylinder and having a central bore and a recess concentric with the upper end of the said bore, the lower end of the bore being reduced to form a valve seat, an apertured cover for the bore of the piston, and a piston



rod extending through the cover into the bore of the piston and provided in said bore with an enlarged portion having a cone-shaped lower end and a longitudinal passage, the enlarged portion of the piston being of less length than the length of the bore and adapted to engage the cover.

1,255,695. WALL CLEANING AND SIZING APPARATUS. ALFRED BLUMENTHAL, New York, N. Y. Filed June 9, 1917. Serial No. 173,832. (Cl. 15—49.)



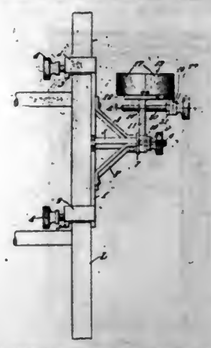
1. A wall cleaning and sizing apparatus, comprising a handled reservoir adapted to be filled with a liquid and provided with an opening extending the entire length of the reservoir, and an applying member fitting into the said opening and having an inner portion extending into the reservoir and having an outer portion projecting from the reservoir, the said applying member comprising a perforated receptacle and a fabric covering inclosing the receptacle.

2. A wall cleaning and sizing apparatus, comprising a handled reservoir adapted to be filled with a liquid and provided with an opening extending the entire length of the reservoir, and an applying member fitting into the said opening and having an inner portion extending into the reservoir and having an outer portion projecting from the reservoir, the said applying member comprising a tubular perforate receptacle of a rigid material and a covering of a fabric material inclosing the said receptacle.

[Claim 3 not printed in the Gazette.]

1,255,696. BUCKET-SUPPORTING BRACKET. FERDINAND D. BOCHARD, Rocky Ford, Colo. Filed Mar. 27, 1917. Serial No. 157,744. (Cl. 20—85.)

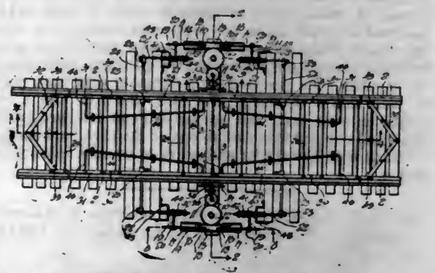
1. In a bracket of the class described, a support engaging device having a laterally extending fixed arm, a standard carried by said arm and adapted to be swung in a vertical plane, means for holding said standard in adjusted position, a plate carried by the free end of said standard, said standard having a threaded opening extending therethrough adjacent said plate, a laterally expansible article holder mounted on said plate and comprising a fixed member secured to the plate and a movable member resting thereon and having a depending apertured ear, the aperture therein being threaded, and a screw operable through said threaded ear and the aperture in said standard whereby



said movable member may be adjusted toward or away from the fixed member carried by said plate.

[Claim 2 not printed in the Gazette.]

1,255,697. MINE-DOOR. JOSEPH J. BODY and MASON L. JOHNSON, Dante, and CHARLES F. KILGORE and ALONZO BLEVINS, Coeburn, Va., assignors of one-fifth to Lee Long, Dante, Va. Filed Aug. 15, 1917. Serial No. 186,389. (Cl. 269—7.)



1. The combination of a door to extend across a roadway, a depressible member adapted to extend longitudinally of the roadway, a pair of rock shafts extending transversely beneath the ends of said member, means for operatively connecting said shafts to the door for opening the latter in one direction when said shafts are turned clockwise and for opening it in the other direction when said shafts are moved counter-clockwise, a crank arm on each shaft, and links rising from said arms to said depressible member and pivoted to both, said arms being parallel to said depressible member and inclining in different directions.

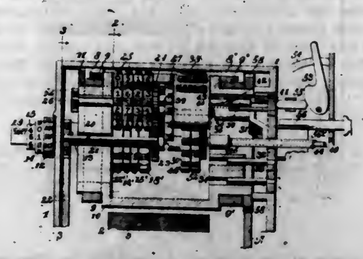
2. The combination of a swinging door adapted to extend across a roadway, a depressible member beneath said door and adapted to extend longitudinally of the roadway, a channel bar adapted to be anchored at a point spaced outwardly from the roadway, said channel bar extending parallel with said depressible member and having one of its side flanges formed with a longitudinal slot, a rack bar slidably received in said channel bar, operating connections between said rack bar and said door including a gear extending through said slot and meshing with said rack bar, and operating connections between said rack bar and said depressible member.

[Claims 3 and 4 not printed in the Gazette.]

1,255,698. RECORDING DEVICE. RICHARD C. BRADLEY, Houston, Tex., assignor of one-half to C. Frank Ireland, Houston, Tex. Filed Oct. 16, 1916. Serial No. 125,933. (Cl. 234—84.)

1. In a recording mechanism, a casing, a number wheel provided with type adapted to print a series of numbers,

a shaft for the number wheel having a cam groove therein, a sleeve provided with a pin arranged to enter the cam groove, a movable plate, means for securing the sleeve to the plate, guide members secured to said plate for guiding the plate in a movement parallel to the axis of the sleeve, and means for causing the plate to move to a predetermined distance.

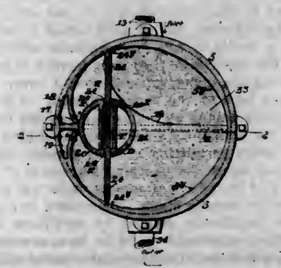


3. In a recording device, a casing, a drum revolubly disposed within the casing, an indicating wheel or drum rotatably mounted on said first named drum, the shaft of the indicating wheel being grooved, a sleeve provided with a pin arranged to enter the groove, a ring secured to said sleeve, guide means for guiding the movement of the ring in a direction parallel to the axis of the number wheel, means for moving the ring to cause a longitudinal movement of the sleeve with respect to the shaft of the number wheel, a circular plate disposed within the ring and movable in a direction parallel to the movement of the ring, a second number wheel rotated by the movement of said plate, and means for moving the plate to a predetermined distance.

7. A recording device comprising a casing, a drum revoluble within the casing and being provided with a plurality of sets of number wheels each having type thereon for printing data carried by the number wheels, a platen having a shaft, a gear secured to the platen shaft, a segmental gear carried by said drum and arranged to engage said platen gear for turning the platen, means for causing the resetting of certain of said number wheels during the revolution of the drum, said last named means comprising a gear on the shaft of the number wheels to be reset, and a segmental gear carried by the drum and arranged to engage the resetting gear subsequent to the engagement of the platen gear by the gear teeth on the drum.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,255,699. MOTOR FOR FLUID-METERS. RICHARD C. BRADLEY, Houston, Tex., assignor of one-half to C. Frank Ireland, Houston, Tex. Filed Oct. 17, 1916. Serial No. 126,100. (Cl. 138—19.)

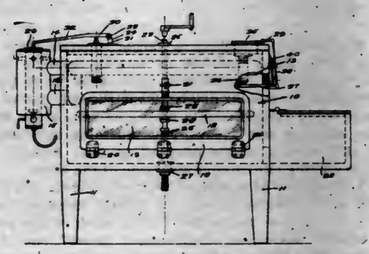


1. In a meter, a casing, a cylindrical drum rotatably disposed within the casing, said drum consisting of a pair of semi-cylindrical members each having a recess, the recesses of each part being in registration, and ends each provided with a recess arranged to register with said first named recesses to form a diametrical slot through the drum, a vane arranged to reciprocate through the slot, the ends of said vane being rounded, said drum being in engagement with the wall of the meter on one side of the drum, and the cross section of the engaging wall of the meter being substantially heart-shaped.

2. In a meter, a casing having an interior wall substantially heart-shaped in cross-section, a drum rotatably mounted within the casing, said drum comprising a pair of semi-cylindrical members secured together and being provided with registering recesses on their engaging faces, a bottom portion secured to said semi-cylindrical members and having a groove arranged to register with said recesses, a top portion secured to said semi-cylindrical members and having a groove arranged to register with said recesses, said bottom and said top being provided with sealing means on their outer surfaces, the ends of said drum being disposed in contact with stationary parts of the casing, and a reciprocating vane extending through the slot in the drum formed by the registering recesses, said vane being in constant engagement at both its ends with the wall of the casing.

3. In a meter, a cylindrical casing, a partition extending inwardly from one wall of the meter toward the center, said casing having an interior wall heart-shaped in cross section, a portion of the wall having branches curved inwardly and terminating at the end of the partition thereby providing an inlet chamber on one side of the partition and an exhaust chamber on the other side of the partition, an inlet port and an exhaust port, a cylindrical drum rotatably mounted within the casing, said drum being in constant engagement with the end of said partition and having a centrally disposed slot extending from one side of the drum to the other and a reciprocating vane extending through the slot and the drum, said vane having rounded ends and being in constant engagement with the inner wall of the casing.

1,255,700. INCUBATOR. DANIEL J. BROPHY, San Fernando, Cal. Filed Feb. 20, 1917. Serial No. 149,907. (Cl. 119—30.)



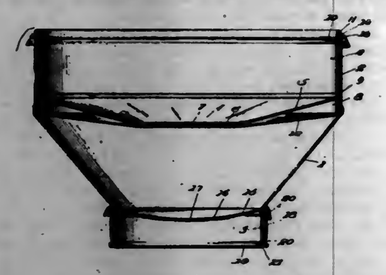
1. In an incubator, a cabinet, means for heating the cabinet, a brooder compartment extending from the cabinet and communicating therewith, a shaft vertically mounted and extending from above the cabinet to below the cabinet and through the center thereof and having a screw-threaded lower end, a nut fixed in the bottom of the cabinet through which the screw-threads operate, a circular egg tray table in the cabinet, said shaft extending through the center of the table, and collars above and below the table fixed upon the shaft.

[Claim 2 not printed in the Gazette.]

1,255,701. MILK-STRAINER. FRANK BROWN, Roaring Spring, Pa. Filed Aug. 21, 1917. Serial No. 187,423. (Cl. 210—16.)

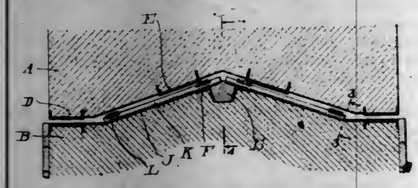
1. A strainer comprising upper and lower sections, the upper section being removably fitted into the lower section and including a bottom having a screened opening, a strainer cloth extending over the bottom and confined between the sections, the lower section having a screened opening and provided with a neck, a strainer cloth fitted over the lower end of the neck, and a band fitted exteriorly upon the neck and retaining the said cloth in place.

2. In a strainer, a lower section, an upper section telescopically fitted into the upper portion of the lower section and having a bottom provided with a screened opening, the said upper section having a depending flange, the said



bottom of the upper section being concave, and a strainer cloth stretched beneath the bottom of the upper section and over the edge of the said flange with its marginal portion confined between the said sections.

1,255,702. APPARATUS AND METHOD FOR BUILDING A CONTINUOUS WALL OF CAISSONS. LOUIS L. BROWN, New York, N. Y., assignor to The Foundation Company, a Corporation of New York. Filed Apr. 23, 1915. Serial No. 23,337. (Cl. 61—3.)



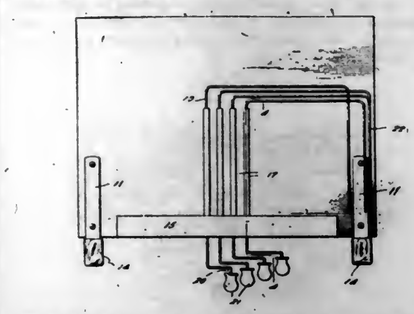
1. The method of making a wall of concrete piers sunk in the earth which consists in sinking caissons having bodies of concrete alongside of each other while permitting relative horizontal displacement thereof, one of said caissons being formed with a groove and the other with a tongue entering said groove, and providing said caissons with anti-friction plates adapted to bear against each other in sinking one caisson alongside of the other.

3. The method of making a wall of concrete piers sunk in the earth which consists in sinking caissons having bodies of concrete alongside of each other while permitting relative horizontal displacement thereof, one of said caissons being formed with a groove, and the other with a tongue entering said groove and providing anti-friction plates on said tongue and groove respectively registering in a lateral direction with each other so that in case of lateral displacement of the caissons at least one of the plates on said tongue will contact with one of the plates on said groove.

7. A wall comprising caissons having bodies of concrete sunk in the earth alongside of each other, one of said caissons having one end face of its concrete body formed with an exposed groove and with relatively narrow marginal portions extending in the normal direction and the next caisson having one end face of its concrete body formed with wider marginal portions opposite said relatively narrow marginal portions and with an exposed tongue partially entering said groove so as to leave a slight space between the two caisson bodies, the caissons being spaced apart to permit free horizontal displacement in sinking and having their adjacent faces provided with anti-friction plates to prevent interference with the descent in case such horizontal displacement brings one against the other and a filling of joint material in said space.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,255,703. MUSIC-LEAF TURNER. SARAH FRANCES BRYAN, Claxton, Ga. Filed Sept. 27, 1916. Serial No. 122,562. (Cl. 84—17.)



In a device of the character described in combination a backing, a longitudinal strip secured horizontally to the lower portion thereof, a plurality of equal-sized upright tubes secured into said strip, a series of leaf turning elements each consisting of a straight wire stem bent to form a lower crank arm, a right angular terminal formed on the crank arm, said stem having an integral relatively longer crank arm at its opposite end, and a right angular depending portion formed on the longer crank arm of each stem and having a portion bent back to form a loop member, the stems of said elements being of varying lengths, and being rotatably mounted in said tubes so that the upper longer cranks of the stems will be arranged in stepped relation in one direction and so that the lower cranks will also be arranged in stepped relation in an opposite direction, and finger engaging knobs secured to the terminals of said last named cranks, the longer crank arms being bent out of alinement but said knobs being in alinement.

1,255,704. CHECK-PROTECTOR. SAMUEL M. BRYDGES, Vancouver, British Columbia, Canada. Filed May 21, 1917. Serial No. 169,965. (Cl. 101—20.)

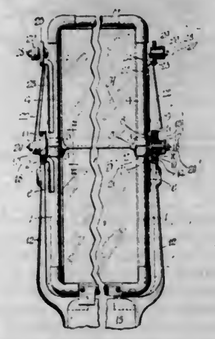


1. A check protecting stamp, comprising in combination a base having a series of type bar grooves, a lever frame hinged to the base adjacent to one end, said lever frame having a presser bar secured across it intermediate of its ends, a series of type bars endwise movable in the grooves of the base, said type bars having type in relief arranged along the upper exposed face, a cover supported over the type bars at the backward limit of their movement, said cover having an inking pad secured to its under side, means for resiliently supporting the inking pad clear of the type while permitting it to be pressed into contact therewith, and means for checking movement of each type bar with any of its type in alinement under the presser bar.

4. A check protecting stamp, comprising in combination a base plate lengthwise divided by partitions secured to and upwardly projecting from it to form a series of type bar grooves which partitions are interrupted adjacent the midlength of the frame, a lever frame hinged to the sides of the base plate adjacent one end, said lever having a presser bar secured across it at a position corresponding to the interruption of the lengthwise partitions of the plate, the face of said bar toward the frame being acutely serrated or grooved, type bars endwise movable in the grooves of the base plate, said bars having type consecutively arranged endwise on their upper side, the faces of which type are deeply serrated or grooved to register with the grooves of the presser bar, an inking pad resiliently supported over the type bars at the backward limit of their movement and susceptible of being pressed into contact therewith by the presser bar lever when the same is pressed down when the type bars are at the backward limit of their movement, and a resilient detent secured to the end of each type bar and adapted to enter any one of a series of notches in the type bar grooves to definitely locate any of the type in alinement under the presser bar.

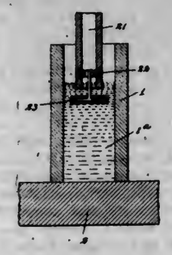
[Claims 2 and 3 not printed in the Gazette.]

1,255,705. WIND-SHIELD. JOSEPH F. BUHR, Detroit, Mich. Filed Jan. 24, 1916. Serial No. 73,824. (Cl. 21—148.)



The combination with upper and lower windshield frames, of brackets having heads, hangers on the lower frame provided with conical heads extending through the bracket head, arms having lower conical heads to receive the hanger's heads, yieldable means in the hanger heads interlocking the conical heads of said arms and the heads of said hangers and brackets, heads at the upper ends of said arms, hangers on the upper frame having heads, and yieldable means interlocking the heads of the last mentioned hangers with the heads of the upper ends of said arms.

1,255,706. PROCESS AND APPARATUS FOR CASTING COMPOUND METAL UNITS. FERDINAND BURCHARTZ, New York, N. Y. Filed Jan. 28, 1916. Serial No. 74,946. (Cl. 22—201.)

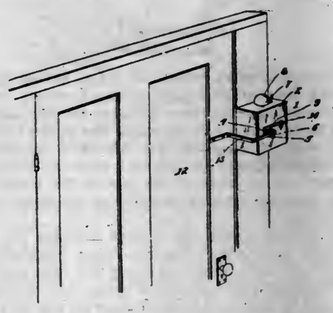


1. The process of casting compound metallic units which consists in first confining one mass of molten metal, pouring a second mass of molten metal, into contact with said first molten mass and controlling the flow of the second mass whereby the admixture of said metals is limited to a restricted zone.

12. An apparatus for casting compound metallic units comprising a mold adapted to receive an initial mass of molten metal, a tube through which a second mass of molten metal is introduced into said mold subsequent to said first mass, a sleeve carried by said tube and projecting beyond the exit end thereof, a tubular apertured neck removably held in said sleeve, and a guard plate carried by said neck and arranged to be submerged in said initial mass of metal whereby the commingling of said metals is restricted to a predetermined zone.

[Claims 2 to 11 not printed in the Gazette.]

1,255,707. BURGLAR-ALARM. RENA L. CADENHEAD, Georgetown, Ga. Filed Apr. 17, 1917. Serial No. 162,694. (Cl. 116—44.)

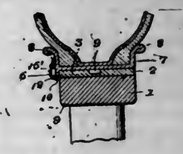


1. In a closure controlled burglar alarm, an automatic signal including a notched key rotatable when the signal is operating, and means carried by the closure to engage in said notch to hold the key against rotation when the closure is shut, said means becoming disengaged from the key when the closure is opened.

2. In a burglar alarm for closures, an automatic signal mounted adjacent said closure and including a notched key, said key being adapted when rotated in one direction to energize the signal and rotating in the other direction when the signal is operating, means for holding the key against rotation, an arm carried by the closure and adapted to be swung into said notch when the closure is shut, said arm moving from the slot when the closure is opened.

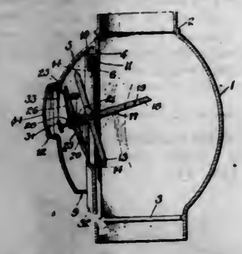
[Claim 3 not printed in the Gazette.]

1,255,708. DEMOUNTABLE RIM. ARTHUR E. CINQ-MARS, San Francisco, Cal. Filed Sept. 30, 1916. Serial No. 123,172. ((Cl. 152—21.)



In a demountable rim structure for vehicle wheels, the combination of a fixed rim having bayonet shaped ways the entrances to which are located at one of the marginal edges of said rim, a fixed locking pin projecting from said marginal edge and having a transverse notch, a demountable rim having lugs on its inner face adapted to enter said ways, a flange extending longitudinally of one of the marginal edges of said demountable rim and formed with a longitudinal slot to receive said locking pin and permit the demountable rim to be turned, a latch attached to the outer side of said flange and movable into and out of engagement with the notch of said locking pin, and a spring serving to press said latch into engagement with said notch in the pin.

1,255,709. AUTOMATIC DAMPER. WILLIAM VERNAL COATE, Celina, Ohio. Filed Mar. 9, 1917. Serial No. 153,662. (Cl. 236—2.)



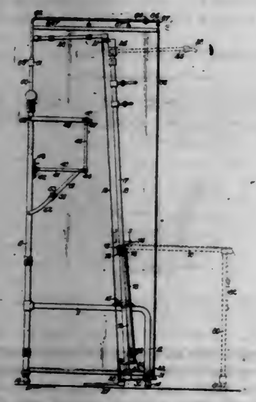
1. The combination of an open frame having outwardly diverging side walls, a hood having inwardly extending webs bearing upon the frame adjacent the side walls thereof and having outwardly diverging ribs at the inner edges of said webs to engage the said side walls, the hood being further provided with an internal transverse shoulder near its upper end to rest on the top of the frame, and a damper mounted between the sides of the frame for rocking movement.

2. A damper comprising a plate mounted for rocking movement, a governor arm projecting rearwardly from said plate, a shaft projecting forwardly from the plate, a regulating dial rotatably and slidably mounted upon the shaft, and an indicator coöperating with said dial.

5. A damper comprising a plate mounted for rocking movement, a governor arm projecting rearwardly from the plate, a shaft extending forwardly from the plate, a regulating dial rotatably and slidably mounted on the shaft, an indicator movable along the shaft with the dial but held against rotation about the shaft, and holding devices mounted on the dial to engage the indicator.

[Claims 3 and 4 not printed in the Gazette.]

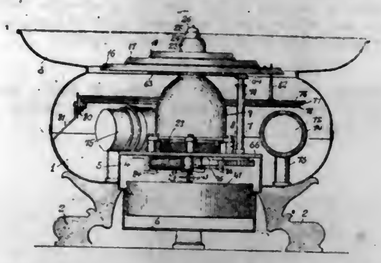
1,255,710. FOLDING BED. MICHAEL COX, New York, N. Y. Filed Oct. 20, 1916. Serial No. 126,693. (Cl. 5—37.)



1. In a folding bed, a head stand having side arms, a bed spring frame pivoted on the said side arms, a table provided at one end with retractable trunnions, and bearings held on the side rails of the said bed spring frame and adapted to be engaged by the said trunnions.

2. In a folding bed, a head stand having side arms, a bed spring frame pivoted on the said side arms, a table provided at one end with retractable trunnions, bearings held on the side rails of the said bed spring frame and adapted to be engaged by the said trunnions, foldable legs pivoted on the other end of the table and adapted to rest on the floor at the time the bed spring frame is in upright folded position and the table extends horizontally, and a catch on the bed spring frame adapted to engage the free end of the table to lock the latter in folded position.

1,255,711. ILLUMINATED FOUNTAIN. NEWTON CRANE, Boston, Mass. Filed Dec. 4, 1913. Serial No. 804,786. (Cl. 137—108.)



1. A fountain comprising a rotatably mounted discharge device, means for conducting water to said device, an electric motor gearing between said motor and said discharge device for rotating the latter continuously through a complete revolution, and means controlled by the rotation of said device for admitting the water intermittently thereto.

10. In a fountain, the combination with automatic driving mechanism and means for changing the ornamental effects of the fountain, with electromagnetic means for instantly interrupting the driving mechanism.

12. A water discharging device for a fountain comprising a tubular bearing which is also a conduit, a series of co-axial rings having perforations and a central cap having perforations mounted to rotate on said bearing, and means for furnishing water intermittently to each of said rings and said cap.

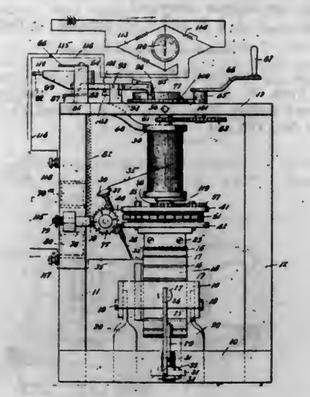
23. In a fountain, a dome like member having a tubular bearing in its upper portion, a shield arranged within said member and located to provide a space between itself and the walls of said member which communicates with the interior of said bearing, a water discharging device mounted rotatably upon said bearing and having means for receiving water from the interior thereof, and a pump located within said dome and having an approximately annular outlet arranged to discharge into the space between the dome and shield.

27. A fountain comprising in combination a tank, a motor arranged below the bottom of said tank, a shaft driven by said motor rising through said bottom, means for preventing leakage of water around said shaft through said bottom, a horizontal centrifugal pump fast to said shaft submerged in the water, having a central inlet and an upwardly directed peripheral outlet, a member surrounding said pump having rising and converging walls, a bearing rising from said member having an open interior communicating with the space within said member, whereby to receive water ejected from the pump and guided thereto by the walls of said member, a discharge device rotatably mounted on said bearing, said bearing and discharge device having communicating means for permitting flow of water, a gear fastened to said discharge device, a pinion meshing with said gear, a shaft carrying said pinion, and speed reducing gearing arranged to drive said shaft from the motor shaft.

[Claims 2 to 9, 11, 13 to 22, and 24 to 26 not printed in the Gazette.]

1,255,712. ARMATURE-WINDING MACHINE. NEWTON CRANE, Boston, Mass. Filed June 3, 1914. Serial No. 842,650. (Cl. 242—13.)

9. A machine for winding armatures comprising a holder for a supply of wire, means for supporting an armature core, a wire leader having guiding means adapted to take wire delivered from said supply, a guide for constraining the movement of said wire leader and arranged to cause such movement to take the form of a path surrounding that portion of the armature core around which the wire is wound, and means for progressively shifting said wire leader transversely to the path in which it travels.



10. A machine for winding filamentous material in coil formation comprising a guide, an endless flexible conveyer mounted upon said guide, means for driving said conveyer, a carrier connected with said conveyer and movable in an orbit, and a leader mounted on said carrier and having a channel for guiding the filamentous material, said leader terminating in a delivery portion which extends clear of the guiding means.

27. In a machine of the character described, a combined spiral cam and counter, comprising a spirally curved rib, a toothed wheel on which said rib is mounted and having numerals adjacent to its teeth, a driver for said wheel having a projection arranged to engage the teeth of the wheel upon successive revolutions, and a follower engaged with said cam.

30. In an armature winding machine, holding means adapted to support a slotted armature core, a wire leader having a delivery portion adapted to enter the slots of such core, and means for so moving said leader as to carry its delivery portion in a circuit including two of the slots of the core.

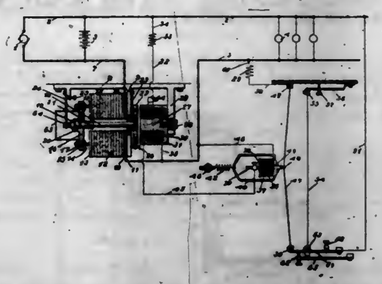
32. A winding machine comprising a work holder for holding the work piece on which a filament is to be wound, a leader for the filament being wound mounted to travel in a closed path surrounding said work piece, means for propelling said leader in such path, and mechanism for producing step by step relative displacement between the work piece and leader in a direction transverse to said path, whereby to cause successive turns of the filament to be placed beside one another.

[Claims 1 to 8, 11 to 26, 28, 29, 31, and 33 not printed in the Gazette.]

1,255,713. ELECTRIC REGULATOR. JOHN L. CREVELING, New York, N. Y., assignor to Safety Car Heating and Lighting Company, a Corporation of New Jersey. Filed Mar. 16, 1910. Serial No. 549,577. (Cl. 171—229.)

1. An electric circuit comprising translating devices, a regulator in said circuit, electro-magnetic means for operating the regulator, and means for controlling the operating means comprising a resistance medium and an operating element therefor adapted to expand and contract upon temperature changes therein, and means for resiliently supporting said element, said element being connected so as to be affected by conditions in the circuit.

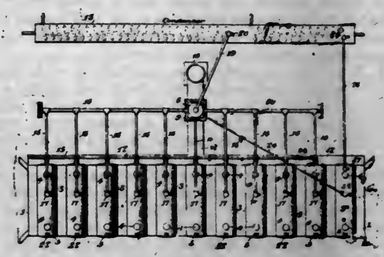
3. An electric circuit comprising translating devices, a regulator comprising resistance elements in series with said devices, electromagnetic means comprising a coil for varying the effect of said elements, said coil being connected across said circuit, electromagnetic means comprising a coil in shunt with the first coil and adapted to oppose the same, resistance elements in circuit with said second coil, and an element in shunt with said translating devices and adapted to expand and contract in response to temperature changes therein, for varying the effect of said second-named resistance elements according to conditions in said circuit.



5. An electric circuit comprising a regulator and controlling means therefor including resistance elements, a yieldingly mounted frame to exert pressure thereon, an elongated member united to said frame between its ends, and means for fixedly mounting one end of said member and resiliently mounting the other, said member being connected across the circuit and being adapted to expand and contract with temperature changes therein to govern said elements according to conditions in said circuit.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,255,714. PRESSURE-STILL. JOHN J. CURRAN, Augusta, Kans. Filed May 25, 1917. Serial No. 170,905. (Cl. 196—13.)



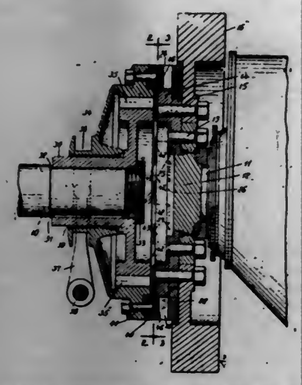
1. The combination with a battery of stills, each having means for heating it, means for feeding material to be treated to the battery of stills, and a drum communicating with all the stills of the battery for receiving distillates therefrom, of an additional still associated with the battery of stills and fed from the drum, said additional still having means for heating it, and condensing means into which the drum and the last-named still deliver.

4. Means for the production of light hydrocarbon liquid from gas oils, comprising a battery of stills and furnaces, and an additional still and furnace therefor associated with the battery of stills and furnaces, a feed pipe connected in common to all the stills of the battery of stills, a drum common to all the stills of the battery of stills and connecting with each still through a valved discharge pipe individual to the still, said drum having means within it for separating light and heavy distillates, condensing means for light hydrocarbon gases communicating with the drum, a valved pipe connecting the portion of the drum receiving the heavy distillates with the separate still, condensing means for the separate still and a valved pipe connecting the separate still and condensing means

therefor, the drum being of a height with respect to the separate still to permit gravitating of the heavy distillates from the drum to the still, and all of the stills being provided with pipes for directing steam thereinto.

[Claims 2 and 3 not printed in the Gazette.]

1,255,715. CLUTCH. GREGORY C. DAVISON, New London, Conn., assignor to Electric Boat Company, a Corporation of New Jersey. Filed Sept. 29, 1917. Serial No. 193,896. (Cl. 192—9.)



1. A clutch comprising the combination of a shaft, a clutch member fastened thereto and having a plurality of jaws, a second shaft, a member slidably mounted on said second shaft, a second clutch member attached to said slidable member and having a plurality of jaws, and an intermediate clutch member associated with said first shaft and having a set of jaws engaging the jaws of said first clutch member and having also a second set of jaws adapted to be engaged by the jaws of said second clutch member when said slidable member is moved on said second shaft; substantially as described.

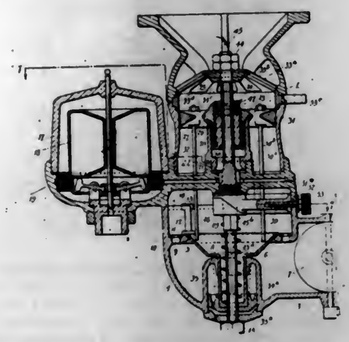
4. A clutch comprising the combination of a shaft, a clutch member fastened to said shaft and having a plurality of slotted jaws, a second shaft, a member slidably mounted on said second shaft, a second clutch member attached to said slidable member and having a plurality of slotted jaws, and an intermediate clutch member associated with said first-named shaft and having a set of upstanding lugs engaging the jaws of said first clutch member, and a second set of upstanding lugs having their jaw faces disposed at right angles to the jaw faces of said first set of lugs and adapted to be engaged by the jaws of said second clutch member when said slidable member is moved on said second shaft; substantially as described.

7. A clutch comprising the combination of a shaft, a clutch member fastened thereto and having two groups of jaws, a second shaft, a member slidably mounted thereon, a second clutch member attached to said slidable member and having two groups of jaws, and an intermediate clutch member associated with said first shaft and having two groups of jaws engaging the two groups of jaws of said first clutch member and having also two other groups of jaws adapted to be engaged by the two groups of jaws of said second clutch member when said slidable member is moved on said second shaft, said groups of jaws on each of said clutch members being so formed and proportioned that the clutch members can only be engaged with each other in a definite relationship; substantially as described.

10. A clutch comprising the combination of a shaft, a clutch member thereon having two groups of clutch jaws disposed on opposite sides of the axis of the shaft, a second shaft, a second clutch member slidable thereon and provided with two groups of clutch jaws on opposite sides of the axis of the shaft, and an intermediate clutch ring mounted on one of the shafts and provided with four groups of clutch jaws spaced apart around the ring and adapted to coact with the jaws of the two clutch members, the jaws of the several groups being so spaced as to insure engagement in a definite relation of the jaws of the two clutch members with those of the intermediate ring; substantially as described.

[Claims 2, 3, 5, 6, 8, and 9 not printed in the Gazette.]

1,255,716. CARBURETER. CHARLES DE LUKACSEVICS, New York, N. Y., assignor, by mesne assignments, to Edmund Loffler, New York, N. Y. Filed Dec. 6, 1916. Serial No. 135,444. (Cl. 261—41.)



2. In a carbureter, in combination, a casing, a fuel pipe therein, and a fuel nozzle therein comprising an upright cylindrical well secured to said fuel pipe, a cylindrical outer fuel discharge member closely fitting within said well and having a circumscribing rib at its upper end which seats upon the upper surface of said well, said member being of less depth than said well and having its outer face provided with ducts which extend vertically from its lower end and terminate at the apex of said rib, said member being of cupped form and having its base provided with a central opening and in its upper face with an annular groove and ducts extending between said opening and groove, and a cylindrical inner fuel discharge member which has a close fit within the outer member and seats upon the base thereof, said inner member having its outer surface provided with ducts which extend vertically from its lower end and terminate beyond the upper edge of the outer member.

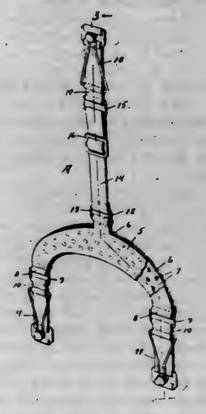
4. In a carbureter, in combination, a casing and a fuel nozzle therein comprising as companion elements an upright cylindrical well, a cylindrical outer fuel discharge member fitting closely within and supported by said well and a cylindrical inner fuel discharge member fitting closely within and supported by said outer member, certain of said companion elements being formed with vertical grooves extending between their lower and upper ends to provide an outer series of fuel discharge ducts between the well and the outer discharge member and an inner series of fuel discharge ducts between the outer and inner discharge member, the outer discharge member having its lower end formed to provide for access of the fuel in said well to the inner series of ducts, the ducts of the inner series terminating at points above the outer discharge member and the ducts of the outer series terminating at lower points above the well.

5. In a carbureter, in combination, a casing, an upright fuel nozzle arranged centrally thereof, the casing having an air inlet below the fuel nozzle and an annular valve seat through which air from said inlet may pass in adjacency to said nozzle, a valve spring urged toward said seat and operable by engine suction, a Venturi ring having a close sliding fit within said casing and surrounding said nozzle and rods connecting said ring and said valve.

6. In a carbureter, in combination, a casing, an upright fuel nozzle arranged centrally thereof, the casing having an air inlet below the fuel nozzle and an annular valve seat through which air from said inlet may pass in adjacency to said nozzle, a valve having a central axial depending recessed plunger, said valve being operable by engine suction, a head mounted on said plunger, a chamber carried by said casing within which said head operates with dash-pot effect, a central stem connecting the parts of the casing and providing a guide for said valve and a spring urging said valve toward said seat, said spring surrounding said stem and fitting within the recess of said plunger.

[Claims 1 and 3 not printed in the Gazette.]

1,255,717. HOSE-SUPPORTER. ARTHUR J. D'OSTROPH, Long Key, Fla. Filed May 15, 1917. Serial No. 168,752. (Cl. 241—1.)



1. A hose supporter having a clasp support comprising a casing of absorbent material, and a foraminous stiffening member within said casing.

2. A hose supporter comprising a substantially crescent shaped and flexible clasp support and a stiffening member therein, links at the ends of said clasp support, hose clasps carried by said links, another link secured to one edge of the clasp support between its ends, an adjustable and elastic strap connected with the last mentioned link, and a clasp on said strap.

1,255,718. UNION-UNDERGARMENT. LILLIAN F. DOTY, Chicago, Ill. Filed Sept. 22, 1916. Serial No. 121,656. (Cl. 2—144.)



1. The herein described blank for a seat piece for bifurcated garments, the same comprising a rounded end portion connected to bifurcated right and left parts having, below the end of the bifurcation and approximately midway the length of the blank, lateral triangular extensions.

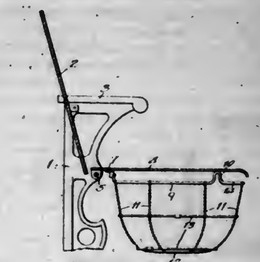
2. The combination with a bifurcated garment whose legs have inside seam lines; of a seat piece having a transverse upper part and right and left side parts depending therefrom and integral therewith, the top of the transverse part being shirred and stitched to the back of the garment above the crotch, each side part having a substantially triangular extension on its outer edge between its upper and lower ends and folded on a transverse line through the tip of said extension, and seams uniting the outer edge of the transverse part and each side part down to said tip with the rear seam line of the leg, and uniting the outer edge of said side piece from the tip to its lower extremity with the front seam line of the leg up to the crotch.

[Claim 3 not printed in the Gazette.]

1,255,719. PROCESS FOR THE MANUFACTURE OF BETAAMINOANTHRAQUINONE. PIERRE DUTOIT, Monthey, Switzerland, assignor to Society of Chemical Industry in Basle, Basel, Switzerland. Filed Apr. 26, 1917. Serial No. 164,794. (Cl. 28—24.)

The herein described process for the manufacture of betaaminoanthraquinone and the simultaneous obtainment of an aromatic amino-compound consisting in heating betaanthraquinonemonosulfonic acid with ammonia and with an aromatic nitrocompound.

1,255,720. THEATER-SEAT HAT-RACK. ERNST EKMAN, Chicago, Ill., assignor of one-half to Ernst H. Carlson, Chicago, Ill. Filed Mar. 3, 1917. Serial No. 152,208. (Cl. 155—26.)



1. The combination of a support, a seat member pivotally mounted on said support and adapted to be rotated from a horizontal to an upright position, a hat rack mounted on the under side of said seat member and comprising a collapsible basket or bowl-shaped receptacle adapted to hold a hat and pivoted at its rear end to the rear end of said seat member, yielding means for normally urging the front end of said receptacle up into close relation with the under side of said seat member, said receptacle being adapted to assume an open or extended position when said seat is in a horizontal position and to assume a folded or collapsed position when said seat member is turned to an upright position.

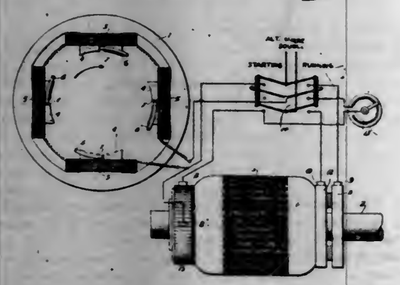
2. The combination of a support, a seat member pivotally mounted on said support and adapted to be rotated from a horizontal to an upright position, a hat rack mounted on the under side of said seat member and comprising a main frame member pivoted at its rear end to the rear end of said seat member, yielding means for normally urging the front end of said frame member up into close relation with the under side of said seat member, and a collapsible basket or bowl-shaped receptacle adapted to hold a hat, mounted on said main frame member, said receptacle being adapted to assume an open or extended position when said seat is in a horizontal position and to assume a folded or collapsed position when said seat is turned to an upright position.

3. The combination of a support, a seat member pivotally mounted on said support and adapted to be rotated from a horizontal to an upright position, a hat rack mounted on the under side of said seat member and comprising a main frame member pivoted at its rear end to the rear end of said seat member, yielding means for normally urging the front end of said frame member up into close relation with the under side of said seat mem-

ber, and a plurality of depending flexible members having their upper ends mounted on said main frame member, the lower ends of said flexible members being secured together so as to form a bowl-shaped receptacle adapted to hold a hat, said receptacle being adapted to assume an open or extended position when said seat is in a horizontal position and to assume a folded or collapsed position when said seat member is turned to an upright position.

4. The combination of a support, a seat member pivotally mounted on said support and adapted to be rotated from a horizontal to an upright position, a hat rack mounted on the under side of said seat member and comprising a main frame member pivoted at its rear end to the rear end of said seat member, yielding means for normally urging the front end of said frame member up into close relation with the under side of said seat member, and a plurality of depending flexible members having their upper ends mounted on said main frame member, a plurality of rings of varying diameters mounted on said flexible members between the upper and lower ends thereof so as to hold said members in spaced relation, the lower ends of said flexible members being secured together so as to form a bowl-shaped receptacle adapted to hold a hat, said receptacle being adapted to assume an open or extended position when said seat is in a horizontal position and to assume a folded or collapsed position when said seat member is turned to an upright position.

1,255,721. SYNCHRONOUS ELECTRIC MOTOR. JAMES KNOX ELDERKIN, Jr., Newark, N. J., assignor, by mesne assignments, to David J. Newland, Yonkers, N. Y. Filed Feb. 17, 1916. Serial No. 78,880. (Cl. 172—275.)

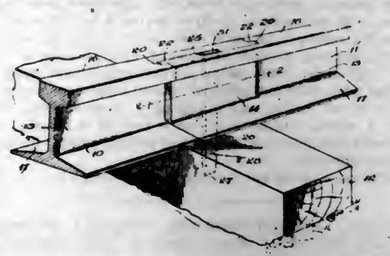


1. A synchronous alternating current motor having a plurality of unsaturated definite polar projections containing short circuited coils around their trailing face portions only, exciting coils around the upper portion of said polar projections, an armature adapted for connection to a source of alternating current, and provided with a commutator and windings connected thereto, and brushes bearing on said commutator and connected to said exciting coils to supply direct current thereto and cause them to be of definite polarity when the armature is at synchronous speed.

2. A synchronous alternating current motor having unsaturated field poles and short-circuited coils around the trailing face portions only of said poles, an armature, said coils being disposed in close proximity to said armature, a source of alternating current, and means for connecting said source with said armature.

1,255,722. BOLTLESS RAIL-JOINT. CHARLES ENGELLAND, Tampa, Fla., assignor of one-half to Edward O. Singleton, Tampa, Fla. Filed July 31, 1917. Serial No. 183,697. (Cl. 238—8.)

1. In a scarf-joint, a pair of members to be joined each formed at the end with spaced shoulders and tongues and with corresponding seats having extensions whereby when the members are assembled with their ends overlapping the shoulders and tongues of each member will lockingly engage in the seats and their extensions of the other member, the overlapping faces of the members being formed with channels which aline to provide an opening, and a key passed through the opening to secure the members against displacement.



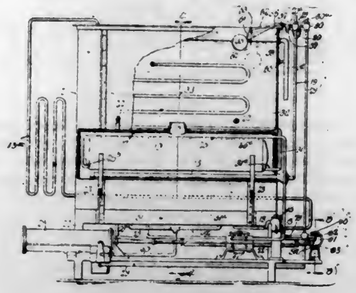
2. In a scarf-joint, a pair of members to be joined each formed at the end with spaced shoulders and tongues and with corresponding seats having extensions whereby when the members are assembled with their ends overlapping the shoulders and tongues of each member will lockingly engage in the seats and their extensions of the other member, the overlapping faces of the members being formed with channels which aline to provide an opening, and a key passed through the opening to secure the members against displacement, the shoulders, tongues and seats and their extensions of one member being counterparts of those of the other member.

3. In a scarf-joint, a pair of members to be joined each formed at the end with upper and lower shoulders and with tongues projecting beyond the ends and forming continuations of such shoulders and with seats adjacent the inner ends of the tongues, a portion of the seats being open whereby when the members are placed with their ends overlapping the shoulders and tongues of each member may be engaged in the seats of the other member and moved to bring the projecting tongues into the unopened portions of the seats whereby the tongues hold the members against swinging movement and engagement of the shoulders against the bases of the seats holds the members against independent vertical movement, the overlapping end portions of the members being formed with channels adapted to aline when the members are assembled and a key insertible in the alined channels to hold the members against movement away from each other.

4. In a rail joint, rail ends each having its web portion near its end offset and its head and flange portion cut-away to provide shoulders projecting beyond the inner faces of the offset portions of the webs at the free ends of the rail sections and to further provide tongues projecting beyond such ends and forming continuations of the shoulders, the rail sections adjacent the inner ends of the shoulders being formed with longitudinal slots in the head and base portions and having their head and flange portions further cut-away whereby the slots save at their inner ends open out through the inner faces of the rail sections to provide seats, the forming of the end portions of the rail sections being such that the shoulders of each section will engage in the seats of the other section with the tongues engaging in the unopened ends of the seats, and a spiking and keying element passed into an opening provided by channeling the overlapping faces of the rail sections adjacent the shoulders whereby the opening alines with the outer ends of the seats beyond the inner ends of the shoulders, the head of the element being counter-sunk in the head portion of the rail sections forming the joint.

5. In a rail joint, a pair of rail sections to be joined each formed at the end with spaced shoulders and tongues and with corresponding seats having extensions whereby the ends of the rail sections may be overlapped to seat the shoulders and tongues of one in the seats and extensions of the other, the engaging faces of the rail sections when so assembled being formed with channels which aline, and a spike fitting loosely in the alined channels to act as a key to secure the rail sections together, the spike being adapted to be driven into a supporting cross tie.

1,255,723. REFRIGERATING APPARATUS. MALCOLM F. EWEN, Chicago, Ill., assignor to Larsen Ice Machine Company (Inc.), Wilmington, Del., a Corporation of Delaware. Filed Jan. 4, 1915. Serial No. 393. (Cl. 62—5.)



1. In a refrigerating apparatus of the kind described, in combination with a still, an absorber, a condenser-receiver connected with said still, a conduit connecting said still to said absorber, a conduit connecting said absorber with said still, a pump interposed in said second named conduit and means for operating the same, an expansion coil connected with said condenser-receiver on one side and said absorber on the other, a positively operating valve interposed between said condenser-receiver and said expansion chamber, and means actuated by said pump for opening said valve.

3. In a refrigerating apparatus of the kind described, in combination with a still, an absorber, a condenser-receiver connected with said still, a conduit connecting said still to said absorber, a conduit connecting said absorber with said still, a pump interposed in said second named conduit and means for operating the same, an expansion coil connected with said condenser-receiver on one side and said absorber on the other, a positively operating valve interposed between said condenser-receiver and said expansion chamber, means actuated by said pump for opening said valve, and means controlled by the pressure in said absorber for disconnecting said pump mechanism from said valve mechanism when said back pressure exceeds a predetermined amount.

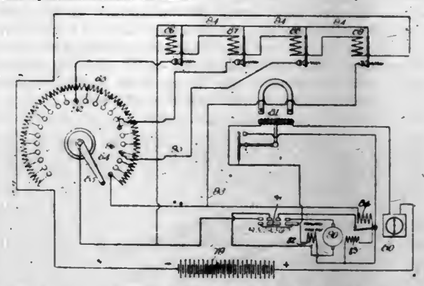
5. In a refrigerating apparatus of the kind described, including a still, an absorber, a condenser-receiver, a cooling water tank in which said absorber and receiver are located, a pump for drawing strong liquor from said absorber to said still, a water motor for operating said pump, means conducting the exhaust water from said motor to said cooling water tank, said tank being provided with an overflow, a float in said tank, a main water supply pipe for said motor, a main fuel gas supply pipe for said still, valves in said pipe for controlling the flow therethrough, and means associated with said float adapted to automatically close said valves when the level in said cooling water tank falls below a certain point.

6. In a refrigerating apparatus of the kind described, in combination with a still, an absorber, a condenser-receiver, an expansion chamber and conduits connecting said several parts, a valve interposed between said condenser-receiver and said expansion chamber, a receptacle intermediate the absorber and the still for measuring predetermined amounts of absorbent to be transferred from the absorber to the still, and means for transferring the absorbent in said receptacle to said still at predetermined intervals in timed relation with the operation of said valve.

[Claims 2, 4, 7, and 8 not printed in the Gazette.]

1,255,724. AUTOMOBILE. ROLAND S. FEND, Chicago, Ill., assignor to Woods Motor Vehicle Company, Chicago, Ill., a Corporation of Illinois. Filed May 5, 1915. Serial No. 26,141. (Cl. 171—315.)

1. A motor vehicle having a driving axle, a compound wound dynamo geared to the driving axle, a battery for supplying current to the dynamo, an internal combustion engine for assisting in driving the vehicle and dynamo, an electro-magnetic switch having its winding in the shunt field circuit and having its contacts in the series field and armature circuits, a variable resistance, and means to include said resistance in the shunt field circuit at will and to thereby control the power input or output of the dynamo at all speeds without changing the external resistance of the dynamo series circuit.



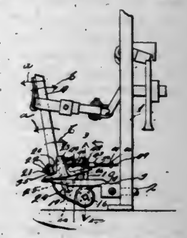
2. A motor vehicle having a driving axle, an internal combustion engine geared to the driving axle in an unchangeable ratio, an electro-magnetic clutch for disconnecting the engine therefrom, together with other power means which acts alone for driving the vehicle at low speeds, a gas throttle for said engine, a lever mechanically connected to said gas throttle and a circuit controlled by said lever for actuating said electro-magnetic clutch.

3. An automobile provided with a dynamo and with an internal combustion engine, a clutch between the dynamo and the engine, a gas throttle for the engine, a manually operable lever mechanically connected with the gas throttle for controlling the speed of the engine, and means controlled in the first movement of said lever in the direction to open the engine throttle for causing the closure of said clutch, the continued movement of said lever in the same direction serving to adjust said throttle and to maintain the closure of said clutch.

14. A motor vehicle having a driving axle, a dynamo therefor geared to the driving axle and having a shunt field circuit, a battery for supplying current to the dynamo, an internal combustion engine for assisting in driving the vehicle and dynamo, an operator's controller, a switch closed in the first movement of said controller, a relay having its winding in circuit with said battery and switch and having contacts in the armature circuit of said dynamo, the further adjustment of said operator's controller serving to vary the current in the dynamo shunt field circuit whereby the power input or output of said dynamo may be controlled at all speeds of the vehicle.

[Claims 4 to 13 and 15 not printed in the Gazette.]

1,255,725. PICKER-STICK CHECK FOR LOOMS. WALTER SIMPSON FINCH, Greenville, S. C. Filed Apr. 30, 1917. Serial No. 165,540. (Cl. 139—22.)



In a device as set forth a stand having an upstanding arm, a picker stick rockably mounted on the stand, an angle plate carried by the picker stick, a bushing swivelly connected to one arm of the angle plate, the upper end

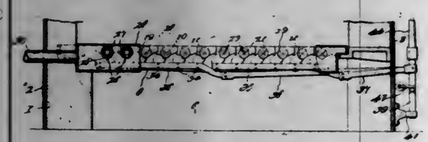
of the upstanding arm being bifurcated, a screw bolt engaging said bifurcation, a collar on said bolt between its head and the bifurcated end of the arm, means on the bolt for holding the same adjustably in place, whereby, upon loosening said means the bolt may be lifted from said bifurcation, said collar having a reduced part and an adjoining shoulder, a plate rotatably mounted on said reduced part between the head of the bolt and the shoulder, said plate having an offset bearing sleeve, a rod passing through said sleeve having an eye at one end pivoted on said bushing, a pair of set collars adjustably mounted on the rod, one on either side of the sleeve, and coil springs, one between each set collar and the sleeve, whereby the checking of the picker stick in its forward and backward movements is yieldably affected.

1,255,726. PAPER-HOLDING DEVICE. DAVID H. FISHER, Albany, N. Y. Filed Nov. 14, 1917. Serial No. 202,086. (Cl. 24—248.)



In a paper holder, a member having a side flange, a member hinged to the edge of said flange, means for latching the members together, spring guides carried by one of the members in which the spring is movable and adapted to coact with the other member.
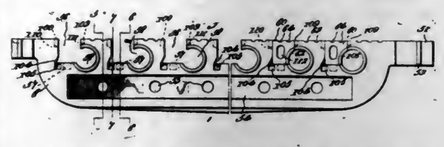
1,255,727. GRATE. WARREN FISHER, New Orleans, La. Filed Nov. 8, 1916. Serial No. 130,237. (Cl. 110—74.)



1. A one-piece cast grate-bar formed with a body having a longitudinal passage and with teeth extending in opposite directions and staggered relation, the body having a staggered series of openings connecting with said passage and extending upward in divergent relation, one opening being placed between each pair of teeth and very close to the face of one of such teeth, such body provided with a head having a channel lengthwise thereof and flanges projecting over the mouths of said openings, said flanges having inclined edges, the body of the grate-bar further having hollow journals with internally threaded ends, one of the journals being enlarged and having an opening through the side thereof to communicate with a fluid-supply source, and threaded plugs fitting in the ends of said journals, substantially as described.

2. A grate including a series of fire bars, each of said fire bars being formed of a one-piece cast body having a longitudinal passage and teeth extending in opposite directions and staggered relation, said body having a staggered series of openings connected with said passage and extending upward in divergent relation, one opening being placed between each pair of teeth and very close to the face of one of such teeth, such body being provided with a head having a channel lengthwise thereof and flanges projecting over the mouths of said openings, said flanges having inclined edges, the body of the fire bar further having hollow journals with internally threaded ends, one of the journals being enlarged and having an opening through the side thereof to communicate with a fluid supply source, and threaded plugs fitting in the ends of said journals, substantially as described.

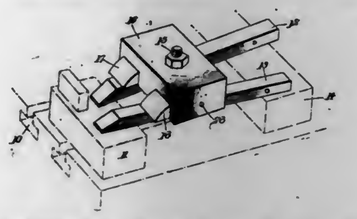
1,255,728. BEARING-BAR FOR GRATES. WARREN FISHER, New Orleans, La. Filed Jan. 27, 1917. Serial No. 144,931. (Cl. 126—176.)



1. A supporting bar having a recess, a bearing adjoining said recess at one end, and a cut-away portion leading from the bottom of said recess opposite said bearing and extending beneath the wall of the recess, said cut-away portion provided with inclined surfaces, and a bearing block fitting in said recess and extending partially into said cut-away portion, substantially as described.

2. A supporting bar having recesses, bearings, cut-away portions, inclined surfaces beneath said cut-away portions, and slots formed with beveled bottoms, and bearing blocks fitting said recesses and extending some distance into said cut-away portions, said blocks having lugs received into said slots, substantially as described.

1,255,729. MACHINE-CLAMP. WILLIAM C. FORCE, North Plainfield, N. J., assignor of one-half to William M. Kelly, Jersey City, N. J. Filed Mar. 11, 1916. Serial No. 83,679. (Cl. 90—59.)



1. In a device of the class described, the combination of a pair of clamping bars pivoted together at one end for movement independent of each other and adapted to engage the work to be clamped with their other ends, a cross member connecting said bars, and a bolt coöperating with said member and the axis of which is substantially at right angles to the axis of the pivot of said bars.

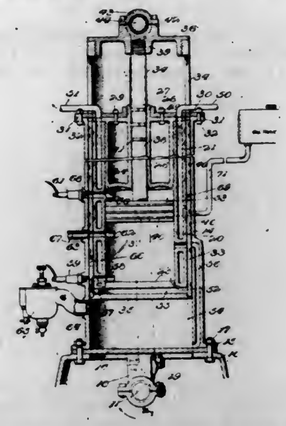
3. In a device of the class described, the combination of a plurality of clamping bars, a cross member over said bars and parts intermediate the cross member and the bars adapted to be adjusted with the bars about axes extending transversely of the bars and a clamping bolt coöperating with the said cross member.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,255,730. INTERNAL-COMBUSTION ENGINE. LEWIS L. FOSTER, Govans, Md., assignor of one-half to John H. Ruehmling, Brooklyn, N. Y. Filed Sept. 13, 1917. Serial No. 191,238. (Cl. 123—62.)

1. An internal combustion engine including an outer cylinder, a working cylinder supported therein, a piston mounted to reciprocate within the working cylinder, the working cylinder providing firing chambers at opposite sides of said piston, intake and exhaust ports for the said chambers, and a sleeve valve mounted to move with the piston between the said cylinders for opening and closing said ports.

4. An internal combustion engine including a crank shaft, an outer cylinder, a working cylinder supported therein, a piston mounted to reciprocate within the working cylinder, the working cylinder providing firing chambers at opposite sides of said piston, intake and exhaust ports for the said chambers, a sleeve valve mounted to slide between the said cylinders for opening and closing said ports, a head carried by said valve and connecting the valve with the piston, a cross pin mounted upon said head, and a connecting rod between the said cross pin and the said crank shaft.

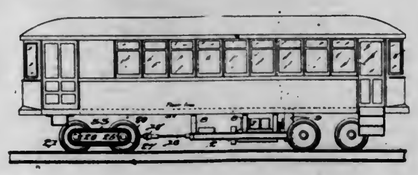


7. An internal combustion engine including an outer cylinder, a working cylinder arranged therein, a packing plug closing the working cylinder, a spider connected to said plug and having arms overhanging said cylinder for supporting the working cylinder in position, a piston mounted to reciprocate within the working cylinder and having a piston rod slidably received through said plug, the working cylinder providing firing chambers at opposite sides of said piston, intake and exhaust ports for the said chambers, and a sleeve valve connected with the piston rod and mounted to slide between the said cylinders for opening and closing said ports, the said valve being provided with slots loosely receiving the arms of said spider.

10. An internal combustion engine including an outer cylinder, a working cylinder arranged therein, a water jacket surrounding the working cylinder, a piston mounted to reciprocate within the working cylinder, the working cylinder providing firing chambers at opposite sides of said piston, intake and exhaust ports for the said chambers, a spider having arms overhanging the outer cylinder and connected with the working cylinder for supporting the working cylinder in position, a sleeve valve connected with the piston and surrounding the said water jacket to slide within the outer cylinder for opening and closing said ports, the said valve being provided with slots receiving the arms of said spider, and circulating pipes for the water jacket received through said slots.

[Claims 2, 3, 5, 6, 8, 9, and 11 to 25 not printed in the Gazette.]

1,255,731. GASOLENE MOTOR-CAR. LE VERN FOX, Hutchinson, Kans. Filed Mar. 24, 1916. Serial No. 86,403. (Cl. 105—227.)



1. A gasolene motor car comprising the following instrumentalities: a truck, a body carried upon the truck frame so as to have motion with respect thereto, and a separate and independent rigid frame suspended beneath and from the body of the car in approximately the plane of the truck axles, a self-contained and complete internal combustion engine power plant assembled, adjusted, and rigidly secured as a unit upon said suspended frame, a propeller shaft extending from said unit to an axle on the truck between the wheels thereof, intermeshing gears transmitting power from said shaft to said axle, and means forming part of the power transmitting system extending directly between the power unit and the axle, to permit relative motion thereof without derangement of the gears or loss of power.

2. A gasolene motor car comprising the following instrumentalities: a truck, a body carried upon the truck frame so as to have motion with respect thereto, and a separate and independent rigid frame suspended beneath and from the body of the car in approximately the plane of the truck axles, a self-contained and complete internal combustion engine power plant assembled, adjusted, and rigidly secured as a unit upon said suspended frame, a propeller shaft extending from said unit to an axle on the truck between the wheels thereof, intermeshing gears transmitting power from said shaft to the axle, means forming part of the power transmission members to permit relative movement of the power plant and the truck axle, and means independent of the propeller shaft directly connecting said gears and the power unit for maintaining invariable the driving relation between the gears on the truck axle and the power plant regardless of the motion of the latter or of the car body.

3. A gasolene motor car comprising the following instrumentalities: a truck, a body carried upon the truck frame so as to have motion with respect thereto, and a separate and independent rigid frame suspended beneath and from the body of the car in approximately the plane of the truck axles, a self-contained and complete internal combustion engine power plant assembled, adjusted, and rigidly secured as a unit upon said suspended frame, a propeller shaft extending from said unit to an axle on the truck between the wheels thereof, intermeshing gears transmitting power from said shaft to said axle, means in the propeller shaft for permitting universal motion between the power unit and said gears, and a tie rod containing means for adjustment and universal motion, extending independently of the propeller shaft from the gear support to the power unit, whereby power transmission without loss or interruption is secured while permitting free relative motion of the power plant with the car body and relative to the truck and its axle.

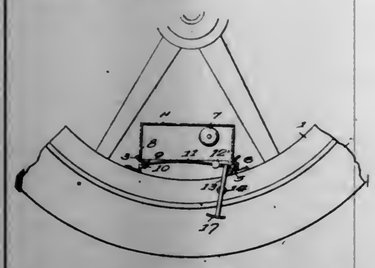
4. A gasolene motor car comprising the following instrumentalities: a car body, a wheeled truck for the same, a rigid unitary independent frame, a complete self-contained internal combustion power plant including transmission gears and controls assembled, lined up, and rigidly secured as a unit on said frame, means for suspending said frame centrally beneath the body of the car, said means adapted to resist both vertical and lateral strains, a power transmitting terminal on said frame, a propeller shaft flexibly connected to said terminal, a gear box mounted by means of alined bearings upon an axle of the truck between the wheels thereof, a toothed gear secured upon the axle within said box, an extension on the box carrying a bearing angularly displaced from the axle bearings, an extension of the propeller shaft journaled in said bearing and extending into the box, a pinion thereon intermeshing with the axle gear, and a connecting rod connecting said box directly with the power plant.

5. A gasolene motor car comprising the following instrumentalities: a car body, a wheeled truck for the same, a self-contained internal combustion power plant rigidly supported and suspended as a unit beneath and centrally of the body and approximately at the level of the truck frame and axles of the car, a propeller shaft and intermeshing gears connecting said unit to an intermediate point on one axle of the truck, a chain and sprocket connection between said axle and a companion

axle, a box for said gears carried by said axle, and a connecting rod connecting said box directly with the power plant.

[Claims 6 to 10 not printed in the Gazette.]

1,255,732. TIRE-ALARM. FRANK FRAME and LOUIS FRAME, Sawyer, Kans. Filed July 10, 1917. Serial No. 179,692. (Cl. 116—1.)



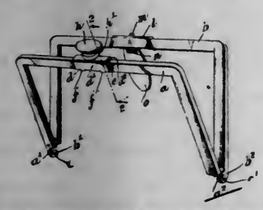
1. The combination with a vehicle wheel and felly, of a housing hingedly connected thereto, a gong mounted within said housing, a hammer arm springingly mounted within the housing, and a trip arm swivelly connected to said felly adapted to at times engage said hammer for a purpose specified.

2. The combination with a vehicle wheel and felly, of a housing hingedly connected thereto, a resonant member mounted within said housing, a hammer member springingly secured to said housing, a trip swivelly connected to said felly comprising an arm, one end of the arm being provided with a lateral extension to releasably engage said hammer, and a shoe formed on the other end of said arm for a purpose specified.

3. The combination with a felly of a vehicle wheel, of a housing comprising a rectangular casing having the bottom thereof removed, one end of said housing being hingedly secured to said felly, an enlargement formed on the opposite end of said housing, a spring trip mounted on said felly adapted to detachably engage said enlargement, a gong mounted within said housing, a hammer arm mounted within the housing, and a trip swivelly connected to said felly adapted to at times engage said hammer for a purpose specified.

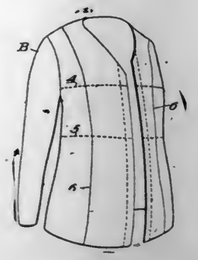
4. The combination with a felly of a vehicle wheel, of a housing hingedly secured to said felly, a gong mounted within the housing, a pair of projections extending from one end of the housing in spaced relation, a spring shield member secured between said projections, a ball member having a transversely extending opening therein to receive the spring member, said spring member extending through the ball, and means associated with the felly to releasably engage said spring member for a purpose specified.

1,255,733. BAG-FASTENER. FRANZ A. FULLER, Newark, N. J., assignor to The J. E. Mergott Company, Newark, N. J., a Corporation of New Jersey. Filed Nov. 21, 1914. Serial No. 873,258. (Cl. 70—116.)



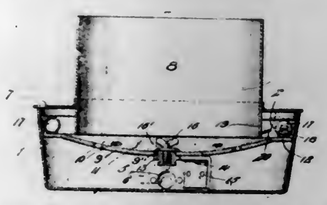
A bag fastener embodying therein a frame consisting of hinged frame members, a box-like support embracing one of said members, a lift member or knob mounted on said support, and a controlling spring for said lift member or knob mounted within said support, and provided with means whereby the positioning of said support upon its frame member will tension said spring.

1,255,734. METHOD OF MAKING SPECIAL PATTERNS FOR GARMENTS. JOSEPH GALOWITZ, New York, N. Y. Filed July 5, 1917. Serial No. 178,673. (Cl. 33—17.)



The method of making special patterns consisting in making a diagram of a standard pattern and marking guide lines on said diagram, making a standard pattern garment in accordance with the standard pattern marked on said diagram, and providing said garment with guide lines corresponding to the guide lines on the said diagram, and then outlining the special pattern by marking on the diagram any variations from the standard pattern garment desired in the special pattern.

1,255,735. POTATO-PEELING MACHINE. CHARLES B. GASSER, Reading, Pa. Filed July 25, 1917. Serial No. 182,709. (Cl. 146—14.)



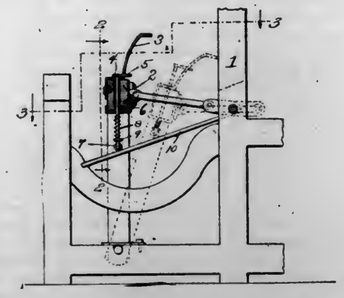
1. A potato peeling machine, consisting of an outer receptacle provided with a water inlet and discharge, a rotary abrading peeling disk mounted in said receptacle, water impact receiving means carried by said disk to revolve the same and wash the material treated, and means for receiving and delivering the potatoes to said disk.

2. A potato peeling machine, consisting of an outer receptacle provided with a water inlet and discharge, a rotary concaved abrading disk mounted in said receptacle, water impact receiving means carried by said disk to revolve the same and effect the peeling and washing of the potatoes, and means for receiving and delivering the potatoes to said disk.

3. A potato peeling machine, consisting of an outer receptacle provided with a water inlet and discharge, a supporting bracket in said receptacle having a central perforated hub, a rotary abrading disk mounted on said hub, means for retaining said disk in place, water impact-receiving means carried by said disk to revolve the same and effect the peeling and washing of the potatoes, and a potato-receiving and delivering container communicating with said disk.

4. A potato peeling machine, consisting of an outer receptacle, an inlet and discharge for said receptacle, a potato container in said receptacle, having a water inlet and a baffle, a rotary abrading disk mounted in the receptacle, and water impact cups adapted to receive the force of the water from the inlet for rotating said disk, to effect the peeling and washing of the potato.

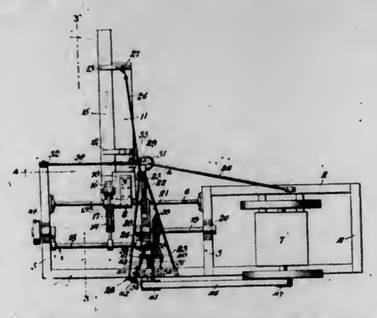
1,255,736. LOOM. JOSEPH A. GENDRON, Nashua, N. H. Filed May 9, 1916. Serial No. 96,339. (Cl. 139—54.)



1. The combination in a loom, of a frame, a lay, a substantially-vertical grid on the lay, a clearer having tangs movable in the openings of the grid and also having a stem guided by the lay, and means for reciprocating the clearer substantially from the bottom to the top of the grid; said means comprising a spring for moving the clearer downwardly, and a cam carried by the frame and constructed and arranged on movement of the lay in one direction to raise the clearer against the action of said spring.

2. The combination in a loom, of a frame, a lay, a substantially vertical grid on the lay, a clearer having tangs movable in the openings of the grid and also having a stem guided by the lay, and means for reciprocating the clearer substantially from the bottom to the top of the grid; said means comprising a spring for moving the clearer downwardly, an anti-friction roller on the stem, and an inclined cam-rail fixed to the frame and opposed to said roller and adapted on inward movement of the lay to raise the clearer.

1,255,737. DRAG-SAW. GEORGE W. GODFREY, Willow-springs, Wis. Filed Feb. 16, 1917. Serial No. 149,090. (Cl. 143—68.)



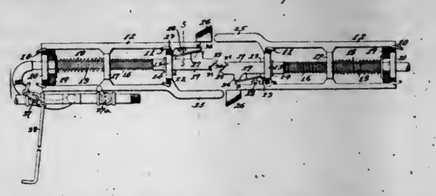
1. A drag saw comprising a skid movable from place to place over land to be cleared, a power unit mounted on the skid, an elongated guide bar on the skid, a reciprocable saw carried by the guide bar and movable therealong at right angles to the direction of reciprocation of the saw, a crank shaft on the skid elongated in the direction of the length of the guide bar, a pitman connected to the saw and movable lengthwise of the crank, and driving connections between the crank shaft and the power unit.

3. A drag saw comprising a reciprocable saw blade, a saw guide directly carrying the saw blade, an elongated guide bar on which the saw guide is mounted to slide lengthwise of the guide bar and also to swing thereon about the longitudinal axis thereof, and driving connections for the saw to drive the same as it slides and also in any position of adjustment of the saw in a vertical plane.

6. A drag saw for clearing land, comprising an elongated support, a power unit thereon, a reciprocable saw pivotally mounted on the support to move about its pivot in an upright plane, means for feeding the saw in the direction of the length of the frame, and at right angles to the reciprocable movement of the saw, and driving connection between the power unit and the saw including a crank and pitman, with the crank elongated in the direction of the feeding movement of the saw and the pitman slidable lengthwise of the crank in harmony with the feed of the saw.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,255,738. HOSE-COUPLING. MORGAN ADELBERT GREENE, Rupert, Idaho. Filed Feb. 10, 1917. Serial No. 147,772. (Cl. 188—13.)



1. In a hose coupling of the character specified, a longitudinally movable frame; a head mounted on the frame and having an independent longitudinal and lateral movement, and coacting means between the head and frame for moving the head laterally in a positive and yieldable manner.

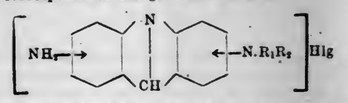
2. In a hose coupling of the character specified, a draw bar, a frame suspended from the draw bar, a bracket carried by the draw bar, a spring between the bracket and frame normally pressing the latter forward, a head mounted on the frame and having a limited longitudinal and lateral movement, a spring between the frame and head normally pressing the head forward, and coacting members between the frame to yieldably press the head laterally.

3. In a hose coupling of the character described, frames, heads carried by the frames and having interlocking engagement, and coöperating means on the frames and heads for moving said heads with respect to the frames.

[Claims 4 to 9 not printed in the Gazette.]

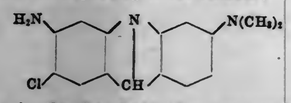
1,255,739. HALOGENATED DYES OF THE ACRIDIN SERIES. HEINRICH GRÜNHAGEN, Berlin-Karlshorst, Germany, assignor to Actien Gesellschaft für Anilin Fabrikation, Berlin, Germany. Filed July 29, 1916. Serial No. 112,196. (Cl. 8—1.)

1. As new articles of manufacture new dyes of the acridin series the underlying general graphic formula of which corresponds to the general formula:



in which formula R_1 and R_2 signify univalent substituents including H and Hlg means halogen atoms entering benzene nuclei.

4. As a new article of manufacture the new dye of the acridin series corresponding to the formula:



which dye in the dry state when pulverized forms a brown-black powder, dyeing leather clear reddish yellow tints.

9. As a new process for the manufacture of a new dye of the acridin series the process which consists in heating formyl-chlorometa-phenylenediamin

$$(NH_2 : NH.CHO : Cl — 1 : 3 : 6)$$

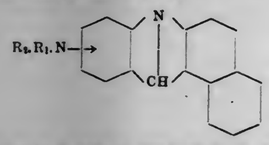
with meta-aminodimethylanilin-hydrochlorid.

[Claims 2, 3, and 5 to 8 not printed in the Gazette.]

1,255,740. DYES OF THE BENZENE-NAPHTHALENE SERIES AND PROCESS FOR THEIR MANUFACTURE. HEINRICH GRÜNHAGEN, Berlin-Karlshorst, Germany, assignor to Actien Gesellschaft für Anilin Febrikation, Berlin, Germany. Filed July 29, 1916. Serial No. 112,198. (Cl. 8—1.)

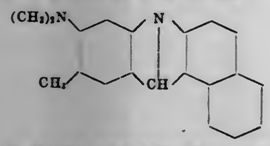
1. As a new process for the manufacture of new dyes of the acridin series the process which consists in heating a formyl derivative of a beta-naphthylamin with a salt of a meta-diamin of the benzene series.

7. As new articles of manufacture new dyes of the acridin series the underlying general graphic formula of which corresponds to the formula:



in which formula R_1 and R_2 mean univalent substituents.

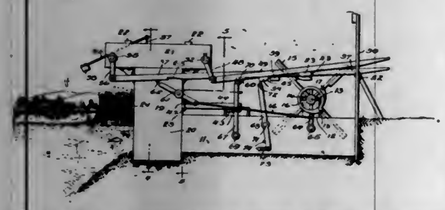
8. As a new article of manufacture the new dye of the acridin series corresponding to the formula:



which dye in the dry state and pulverized forms a red brown powder dyeing leather clear and deep orange yellow tints.

[Claims 2 to 6 not printed in the Gazette.]

1,255,741. FISH-STOP. JAMES W. HALL, Pardeeville, Wis. Filed June 29, 1917. Serial No. 177,776. (Cl. 61—5.)



1. A fish stop comprising a screen adapted to extend across an irrigating ditch and vertically movable, a second vertically movable screen parallel to the first screen but normally maintained above the ditch, power mechanism operable by the flowing current of water, a trip means operable by the pressure of debris collecting against the first-mentioned screen, and mechanism controlled by said trip means for causing the power means to temporarily change the positions of said screens.

3. A fish stop comprising a primary and a secondary vertically movable screen, said primary screen normally maintained within an irrigating ditch and the latter above the same, power means operable by the current of water flowing through the irrigating ditch, a trip device operable by the primary screen under pressure of a collected mass of floating debris, means connected to the secondary screen controlled by the trip device and operable by the power means for lowering the secondary screen into the ditch, similar means for raising the primary screen to clean it from the floating debris and operable after lowering of the secondary screen, and means also operable by the power means for causing the restoration of the screens to their normal position.

4. A fish stop comprising a flume, a pair of parallel vertically movable screens at one end of said flume, one of said screens being normally maintained within the flume and the other above the same, a water wheel at the other end of the flume operable by the current flowing therethrough, a cam disk on the shaft of said water wheel, a trip device operable by the pressure of floating debris against the screen normally maintained within the flume, slide bars connected to said screens for reversing their normal positions, and means operable by the trip device for causing said slide bars to be engaged by the cam disk for temporarily changing the positions of said screens.

5. A fish stop comprising a flume adapted to be placed in an irrigating ditch, a vertically movable primary screen normally maintained within said flume at one end, a secondary vertically movable screen adjacent the primary screen and parallel thereto, said screen being normally maintained above the flume, a water wheel mounted at the other end of the flume and operated by the current passing therethrough, a cam disk on the shaft of said water wheel, a pair of slide bars each connected to means for raising and lowering said screens, a trip device operable by the pressure against the primary screen of floating debris, means on said slide bars for causing their operation by said cam disks, means for normally maintaining said slide bars out of engagement with the cam disks and adapted to be operated by said trip device to release said slide bars and permit their operation by the cam disk for temporarily changing the normal position of said screens for the purpose of clearing the primary screen of debris, and means also operable by said cam disk for restoring the screens to normal position.

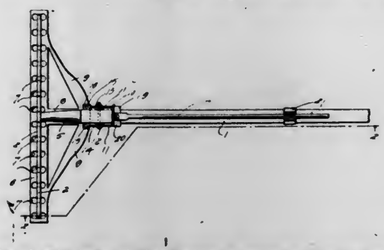
7. A fish stop comprising a flume adapted to be placed within an irrigating ditch, vertically movable screens mounted at one end of said flume, one of said screens being normally maintained within the flume and the other above the same, the first-mentioned screen having limited movement longitudinally of the flume, a water wheel mounted at the opposite end of the flume and rotated by the current passing therethrough, a cam disk operable by said water wheel, means connected to each of said screens and adapted to be operated by said cam disk for reversing the positions of said screens to permit the cleansing of debris therefrom, a trip device operable by the pressure of collected debris for throwing said means into operation, said device comprising a vertical lever adapted to hold the screen operating means out of contact with the cam disk, a horizontal lever connected to the vertical lever for swinging the same, and a spring actuated bar connected to said horizontal lever and bearing upon the screen to hold the same at its limit of movement against the flow of the current, said bar being movable in the opposite direction under pressure of debris collected against the screen for changing the position of the screens.

[Claims 2, 6, and 8 not printed in the Gazette.]

1,255,742. SELF-CLEANING RAKE. MARY J. HAMBURGER, Bayport, N. Y. Filed Sept. 7, 1917. Serial No. 190,180. (Cl. 55—146.)

In a rake cleaner, the combination with a rake handle, a head secured to the handle and teeth carried by said head,

of a substantially rectangular stripping plate having spaced parallel slots therein for receiving the teeth of a central plate extending rearwardly from said stripping plate, integral braces extending from said central plate to the stripping plate, a U-shaped member straddling said handle, a pivot pin extending through the legs of the U-shaped member and through said rake handle, the lower



ends of said legs of the U-shaped member being bent to form feet, means attaching the feet to the central plate and the braces, an operating rod extending longitudinally of the rake handle and positioned on top of the same and connected to the bight portion of the U-shaped member and means carried by the handle for engaging the operating rod.

1,255,743. CUT-OUT ROCKING TOY. HENRY A. HART, Flushing, N. Y., assignor to The Gibson Art Company, New York, N. Y., a Corporation of Ohio. Filed May 1, 1917. Serial No. 165,667. (Cl. 46—37.)



1. An article of the class described comprising a body section, a rocker base section consisting of a double folded sheet piece with the folds spaced from each other, and means for detachably connecting the sections.

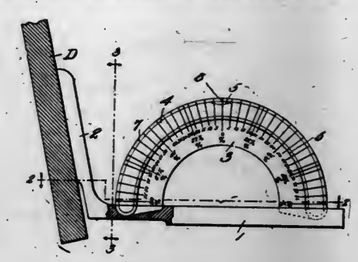
2. A cut-out rocking toy comprising a body section having depending lugs at its bottom, and a rocker base having apertures in its top for receiving the said lugs.

[Claims 3 and 4 not printed in the Gazette.]

1,255,744. GRADE-MEASURING INSTRUMENT. HENRY HENCH, Sweet, Idaho. Filed June 21, 1917. Serial No. 176,143. (Cl. 33—212.)

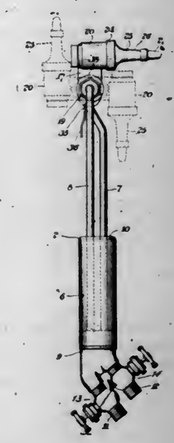
1. A device of the class described comprising a base plate having an arm extending upwardly and outwardly at an oblique angle and provided with means for attaching it to a support, a semi-circular frame carried by the upper face of said base plate with its curved portion extending outwardly, a spirit tube corresponding in shape to said frame and secured to the periphery thereof, said frame having graduations marked thereon and on said tube to indicate the grade over which the vehicle equipped with this device is traveling.

2. A device of the class described comprising a plate having attaching means, a semi-circular frame secured at its ends to said plate and rising therefrom, said frame tapering in thickness from its perimeter inward, a seat formed around the periphery of said frame, a semi-circular



spirit tube mounted in said seat, said frame having graduations formed thereon and on said tube for indicating the grade over which the vehicle equipped with this device is passing, said graduations extending in opposite directions from the center of said tube.

1,255,745. TORCH. FRED W. HENRICSON, Philadelphia, Pa. Filed Apr. 16, 1917. Serial No. 162,293. (Cl. 158—27.4.)

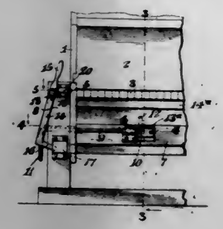


1. In a torch, a nozzle holder having a central gas passage and a lateral gas passage opening into a space which surrounds the central passage, and a nozzle screwed on to said holder and closing said space and having an integral central projection penetrating said space in spaced relation to the surrounding wall of the holder and fitted to said holder around the central opening therein, said nozzle having a central passage therein communicating with the central passage of the holder, and said nozzle having a lateral passage therein affording communication between said space and the central passage of the nozzle.

5. In a torch, a handle member, a nozzle holder pivoted to the handle member, two nuts having parts coöperating with parts of said member and parts of said holder to clamp them together, one nut having a right hand thread and the other nut having a left hand thread, said nuts effecting the clamping action when turned in the same direction, and a wrench member comprising a handle and two arms embracing said nuts and operative to simultaneously turn said nuts.

[Claims 2 to 4 not printed in the Gazette.]

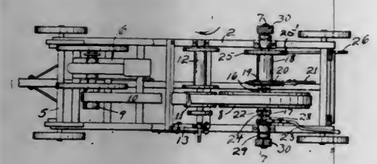
1,255,746. AUTOMATIC LOCK FOR COTTON-GINS. WILLIAM MARION HENSON, Savoy, Tex. Filed Mar. 6, 1917. Serial No. 152,858. (Cl. 74—39.)



1. In combination with a member having a bent outer end at an angle thereto, a pivoted lever separate from the member and moving in a curved path at right angles to the bent outer end of said member, said lever having an operating handle at the upper end and having its lower end inwardly bent, and a spring for moving the lower end of the lever normally into the path of the bent outer end of the member, so as to cause said bent outer end of the member to wipe along the edge of the lever and become seated below the bent lower end of said lever.

[Claim 2 not printed in the Gazette.]

1,255,747. WELL-DRILLING MACHINE. ADAM H. IERDMAN, Fort Worth, Tex., assignor to Fort Worth Well Machinery & Supply Co., Fort Worth, Tex., a Corporation of Texas. Filed Oct. 18, 1917. Serial No. 197,340. (Cl. 255—11.)



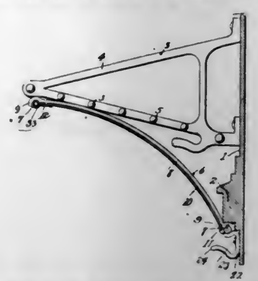
1. In a well drilling machine provided with a wheeled truck, a shaft journaled on said truck, a bull wheel loosely mounted on said shaft, a motor mounted on said truck and provided with a pulley and a belt for driving said bull wheel, and means for positioning said bull wheel for operating the sand line, or the tool line, or the spudding beam of the machine at will.

4. In a well drilling machine provided with a frame and a wheeled truck therefor, said machine being provided with the usual sand line, tool line, and spudding beams, a shaft journaled on said frame, a bull wheel mounted loosely on said shaft, means for driving said bull wheel, said bull wheel being provided with clutch members, one on each side thereof, a spool for operating the tool line loosely mounted on said shaft and provided with a clutch member adapted to be engaged by the clutch on said bull wheel, a clutch rigidly attached to said shaft on the opposite side of said wheel from said spool, and a lever fulcrumed on said frame for shifting said wheel axially on said shaft to engage said spool clutch to operate the tool line, for shifting said wheel to engage said fixed clutch to operate the spudding beams, or for shifting said wheel to neutral position for operating the sand line.

[Claims 2 and 3 not printed in the Gazette.]

1,255,748. ADVERTISING DEVICE FOR USE IN RAILWAY-CARS. DANIEL H. HOLLENBECK, Boston, Mass. Filed July 11, 1916. Serial No. 108,674. (Cl. 40—12.)

1. A device of the character described comprising a plurality of frames, each frame comprising a pair of spaced longitudinally extending rods, curved bars connected to the spaced longitudinally extending rods, plates secured to said bars, means carried by the opposite ends of the plates for holding advertising cards to the concave faces, means removably and adjustably secured to the plates for securing the same to a baggage rack and to the side of the car in which it is used.



2. A card supporting device for railway cars comprising a pair of spaced longitudinally extending rods, cross bars connecting the longitudinally extending rods together, means secured to the cross bars for supporting advertising cards, and means for holding the rods and cross bars in position in a car in which the same is used.

3. A card supporting device for railway cars comprising a pair of spaced longitudinally extending rods, said rods being formed with a plurality of sections, means detachably connecting the sections together, cross bars connecting the rods, plates carried by the cross bars, means formed on said plates for supporting car cards, and means carried by the rods and cross bars for holding the same in position in a car in which the same is to be used.

1,255,749. PURIFICATION OF ALUMINA. JOHN W. HORNSEY, Summit, N. J., assignor to Mineral Products Corporation, New York, N. Y., a Corporation of Maine. Filed Aug. 11, 1917. Serial No. 185,710. (Cl. 83—85.)

1. The method of refining or purifying impure alumina resulting from the calcining of alunite and the leaching of the calcine, which comprises mixing the impure alumina, in a finely divided condition, with water to form a pulp, and subjecting the resulting pulp to a flotation operation and thereby separating the alumina in the form of a froth from the impurities, and recovering the alumina from the froth; substantially as described.

2. The method of refining or purifying the impure alumina resulting from the calcining of alunite and the leaching of the calcine, which comprises mixing the impure alumina, in a finely divided condition, with water to form a pulp, and subjecting the resulting pulp to a flotation operation with the addition of an agent promoting the flotation of the alumina, and thereby separating the alumina in the form of a froth from the impurities, and recovering the alumina from the froth; substantially as described.

3. The method of refining or purifying the impure alumina resulting from the calcining of alunite and the leaching of the calcine, which comprises mixing the impure alumina, in a finely divided condition, with water to form a pulp, and subjecting the resulting pulp to a flotation operation with the addition of oil, and thereby separating the alumina in te form of a froth from the impurities, and recovering the alumina from the froth; substantially as described.

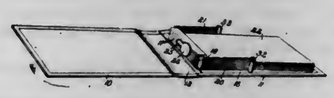
1,255,750. CONCRETE CONVEYING AND MIXING MACHINE. DUDLEY S. HUMPHREY, Cleveland, Ohio. Filed Oct. 25, 1915. Serial No. 57,642. (Cl. 83—73.)

1. A mixing machine consisting of an inclined trough with rounded bottom, and having therein a combined endless conveyer and mixer, with blades thereon, the said blades and the bottom of said trough being of different curvatures and in close proximity at their lower ends; and the sides of said trough extending considerably above the top of said blades, all substantially as described.



2. A concrete conveyer and mixer consisting of a deep trough inclined upwardly from its inlet to its discharge end having a bottom portion substantially semi-circular in cross section and substantially vertically extending side portions merging into said bottom portion and means for progressively and intermittently feeding concrete ingredients forwardly and displacing the same upwardly and laterally in opposite directions along said curved bottom portion and then downwardly and inwardly along the same, said means consisting of an endless member provided with spaced transverse blades having their lower edges engaging the bottom of said bottom portion and its sides of approximately of the curve and height of said bottom portion.

1,255,751. CARD-RETAINER FOR CARD-CASES. LEWIS W. HUNTER, Irvington, N. J. Filed Mar. 27, 1917. Serial No 157,862. (Cl. 129—35.)

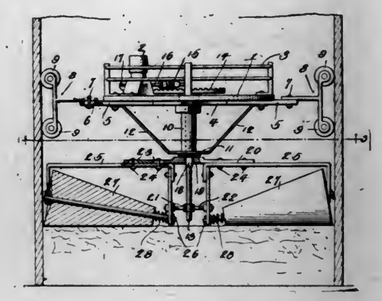


1. In combination, a card case having a front cover, a back cover and a flexible connection connecting the covers with each other, a base plate attached to the said back cover and having a rising guideway extending transversely adjacent the said flexible connection, side flanges having angular arms slidingly engaging the said guideway to allow of adjusting the said side flanges toward or from each other according to the width of the cards to be retained between the said flanges, and means fastening the said arms in the adjusted position in the guideway.

2. A card retainer for card cases, comprising a base plate adapted to be attached to the card case, a guideway rising integrally from one end of the said base plate and extending across the card case, and card retaining side flanges provided with angular arms slidingly engaging the said guideway, the latter and one of the said arms having registering slots and the other arm having a stud extending through the said slots, and a clamping nut screwing on the said stud to fasten the arms in the adjusted position in the guideway.

3. A card retainer for card cases, comprising a base plate adapted to be attached to the card case, a guideway rising integrally from one end of the said base plate and extending across the card case, card retaining side flanges provided with angular arms slidingly engaging the said guideway, the said side flanges being of angle iron shape in cross section, the bottom members being adapted to support the sides of the cards, and means adjustably securing the said arms in the said guideway.

1,255,752. ENSILAGE-PACKER. FRANK HURRELBRINK, Stonington, Ill. Filed Mar. 22, 1917. Serial No. 156,692. (Cl. 100—56.)



1. An ensilage packer comprising a platform receivable totally in a silo and having means for contact with the wall thereof to hold said platform against rotation, a motor mounted on the platform, a vertical shaft driven from said motor and depending from said platform, a frame secured on said shaft below said platform, and rollers mounted on said frame for packing the ensilage and supporting the entire machine.

2. An ensilage packer comprising a platform support receivable totally in a silo and including radially disposed horizontal bars, arms adjustably secured to the ends of said bars and having shoes for contact with the silo wall to prevent rotation of said support, a platform mounted on said support, a motor mounted on said platform, a tubular bearing depending rigidly from said platform support, a vertical shaft rotatably mounted in said bearing and extending below the same, a horizontal cross bar having its center mounted on said shaft, a pair of arched frames secured adjustably to said bar, and a pair of packing rollers rotatably mounted in said frames.

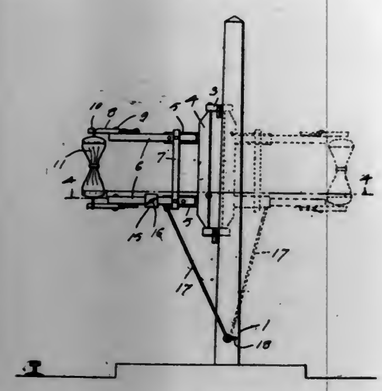
3. An ensilage packer comprising a vertical shaft having near its lower end a squared portion, means for rotating said shaft, an upper comparatively long cross bar having a rectangular opening receiving said squared portion of the shaft, said opening being located centrally between the ends of said cross bar, a lower and comparatively short cross bar having at its center an opening through which the lower end of the shaft projects, a pair of arched frames each having an opening in one of its arms, the ends of said lower cross bar extending through said openings, nuts threaded on said lower cross bar and contacting with opposite sides of said arms, the ends of the upper cross bar being disposed in contact with the crown bars of said arched frames and having longitudinal slots, and bolts passing through said slots and crown bars for securing the latter adjustably to said upper cross bar.

4. An ensilage packer comprising a plurality of packing rollers, means for propelling said rollers over the ensilage, and spring means for normally forcing said rollers outwardly in close relation with the silo wall and for permitting them to yield inwardly in case irregularities in said wall are encountered.

1,255,753. AUTOMATIC MAIL-CRANE. MARCUS DE LAFAYETTE HUSTON, Hemlock, Ind., assignor of one-half to Charles G. Steidle, Hemlock, Ind. Filed Sept. 18, 1917. Serial No. 191,998. (Cl. 258—23.)

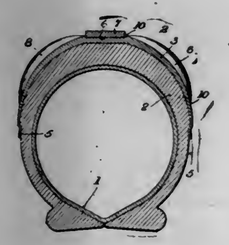
A mail crane comprising a supporting post, a member pivoted to said supporting post, arms pivotally connected

to said member, means pivotally connected to said arms, members pivoted to said arms and supporting a mail bag, springs connected to said arms and engaging upon each



side of the members to hold said members parallel with said arms and for permitting said members to move with relation to the arms when releasing a mail bag.

1,255,754. TIRE-ARMOR. AARON E. JENNINGS, Owensboro, Ky. Filed Mar. 6, 1917. Serial No. 152,713. (Cl. 152—33.)

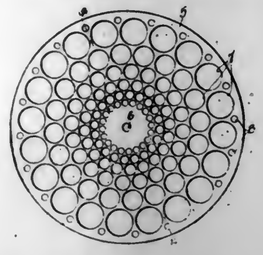


1. Tire armor comprising a single relatively rigid undivided annulus having a central circumscribing channel in its outer surface and provided at opposite sides of said channel with hollow transverse ribs to externally engage a road surface and internally receive and hold portions of the tire, and a continuous relatively rigid tread band seated in the circumscribing channel and projecting beyond the surface of the armor.

2. Tire armor comprising a relatively rigid undivided annulus having a central circumscribing channel in its outer surface and provided at opposite sides of said channel with hollow transverse ribs to externally engage a road surface and internally receive and hold portions of the tire, the ends of said ribs merging into the outer surface of the armor, and a continuous rigid tread band seated in the circumscribing channel and projecting beyond the surface of the armor.

1,255,755. LENS-SCREEN. EMIL G. JOHANSON, Chicago, Ill. Filed July 25, 1917. Serial No. 182,666. (Cl. 240—48.4.)

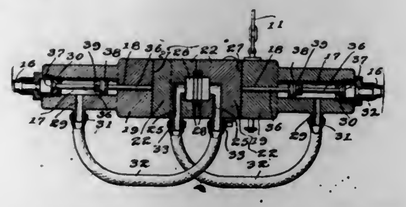
1. A lens screen comprising a disk of stiff material, provided with perforations arranged in concentric circles, the perforations increasing in size radially outward from the center of the disk, and the perforations of one circle



being staggered with respect to those of the next inner or outer circle.

[Claim 2 not printed in the Gazette.]

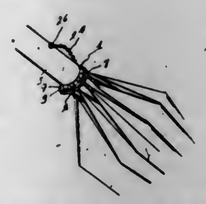
1,255,756. COUPLING. CURRAN B. JONES, Evansville, Ind. Filed Apr. 7, 1917. Serial No. 160,436. (Cl. 188—13.)



1. In a device of the class described, a coupling body having a channel extending longitudinally thereof, a knuckle hingedly connected with said coupling body at one side of and in advance of said channel, said knuckle having a recess in one side thereof communicating with a channel in said knuckle, a gasket within said recess to engage a gasket in a similar recess in a knuckle for engagement therewith, and means for establishing communication between the channel in the coupling body and the channel in the knuckle.

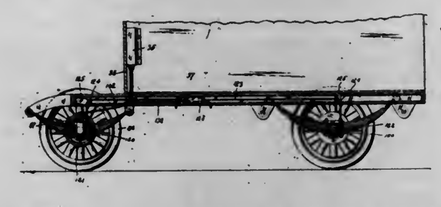
2. In a device of the class described, a coupling body having a valve chamber extending longitudinally thereof, a knuckle pivotally connected with one end of said coupling body and to engage with a similar knuckle for contact therewith, said knuckle having a channel therein opening out into a recess in one side of a knuckle and in communication with the channel in the coupling body and a knuckle operated valve in said valve chamber.

1,255,757. ATTACHMENT FOR UMBRELLAS. RUDOLPH KAUERT, San Diego, Cal. Filed Aug. 13, 1917. Serial No. 185,991. (Cl. 135—44.)



In a lock for umbrellas, a pair of members pivotally united, said members being curved whereby they may engage about the ribs of an umbrella, the inner edges of said members being provided with scallops to engage the ribs to hold them in place, the separable ends of the members diagonally intersecting each other, one of said members having its separable end enlarged and provided with a diagonally arranged opening, through which the separable end of the other member diagonally passes, whereby said members may surround different diameters of arrangement of ribs, said enlarged end of one member having a chambered out portion adjoining said diagonally arranged opening, the wall between the chambered-out portion and the diagonal opening having an opening of communication between the diagonal opening and the chambered out portion, and a spring tensioned latch dog pivoted in said chambered out portion and extending through the opening of communication, said member which passes through the diagonal opening having an extension provided with ratchet teeth to be engaged by said latch dog to lock the members, said extension and the diagonal opening being curved concentric with the pivot between the two members, whereby said members may be adjusted to fit different diameters of umbrella rib arrangements.

1,255,758. RECORDING INSTRUMENT FOR VEHICLES. WILLIAM E. KENT, New York, N. Y. Filed June 9, 1915. Serial No. 33,123. (Cl. 234—1.)



5. The combination with a vehicle body and its carrying wheels, of a record tape having load and distance graduations and time graduations common to said load and distance graduations, a clock mechanism for moving said tape, two markers, means actuated by the depression of the vehicle body under the weight of the load for operating one of said markers to make a record of the load on said tape, and means actuated by one of the carrying wheels operating the other one of said markers for causing the same to make a record on said tape of the movements of the vehicle.

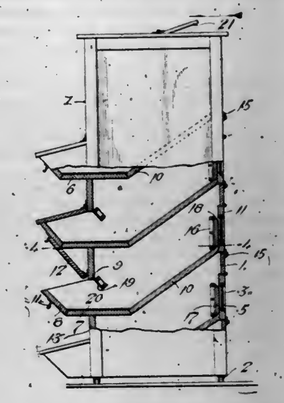
12. The combination with a vehicle body, of a record tape having time and load graduations, a clock mechanism for moving said tape, a marker, and means actuated by the depression of said vehicle body under the weight of the load for operating said marker to make a record of the load on said tape.

27. The method of obtaining a vehicle performance record, which consists in producing upon a clock mechanism driven tape side by side a record of the weight of the load on the vehicle body and of the movements of the wheels thereof.

[Claims 1 to 4, 6 t 11o, 13 to 26, 28, and 29 not printed in the Gazette.]

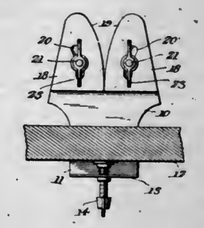
1,255,759. GROCER'S DISPLAY-CABINET. ERNEST J. KIBBY, Emporia, Kans. Filed Dec. 16, 1915. Serial No. 67,242. (Cl. 211—9.)

1. A display cabinet comprising a casing having a plurality of display openings and supply doors alternately and vertically arranged on one side, glass coverings for said display openings, a plurality of scoop troughs received through openings formed at the opposite side of the casing, a plurality of diagonally disposed partitions arranged from the one side below the display openings to connect with the floors of the scoop troughs to form sloping continuations thereof, stop boards mounted adjacent the display openings on the inner sides thereof and spaced somewhat from the glass coverings to thus allow for display of the material placed within the scoop troughs and on the sloping partitions through the supply doors, and means to limit the flow of material over the sloping partitions and into the scoop troughs.



2. A display cabinet comprising a casing having a plurality of display openings and supply doors arranged alternately at one side, glass coverings for said display openings, a plurality of scoop troughs received through openings formed at the opposite side of the casing, a plurality of diagonally disposed partitions arranged from the one side below the display openings to connect with the floor of the scoop troughs to form a sloping continuation thereof, stop boards provided with upper beveled edges mounted adjacent to the display openings and in a spaced relation with respect to the glass covering the same so that as material is fed through the supply openings a portion thereof is caught by the beveled edge and directed between the stop boards and the glass, cleats by which said stop boards are removably held in place, and means to limit the flow of material to the scoop troughs.

1,255,760. KNIFE-SHARPENER. WILLIAM B. KIRLIN, San Benito, Tex. Filed Dec. 5, 1916. Serial No. 135,207. (Cl. 76—86.)



1. A knife sharpener embodying a stock bifurcated at one end to provide spaced portions, a bit secured to each portion, said bits having convex edges disposed in confronting relation, and means for supporting said bits for sliding adjustment upon their respective portions of the stock.

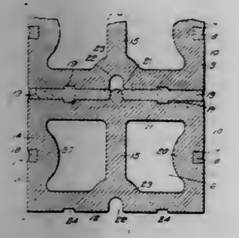
2. A knife sharpener embodying a stock bifurcated at one end to provide spaced portions, the confronting edges of said portions being convex, a bit for each portion, said bits corresponding in shape to the configuration of said portions and having their convex edges disposed substan-

tially flush with the corresponding edges of said spaced portions of the stock, and means for supporting said bits for sliding adjustment whereby the convex edges of the bits may be maintained substantially flush with the adjacent edges of said portions in adjusted position.

3. A knife sharpener embodying a stock bifurcated at one end to provide spaced portions, the confronting edges of said portions being convex, a bit arranged in face to face contact with each portion, said bits having convex edges disposed in confronting relation, a threaded element projecting from each portion, said bits having arcuate shaped slots receiving said elements, whereby said bits are capable of sliding adjustment in a manner whereby the convex edges are maintained substantially flush with the convex edges of the stock, and thumb nuts associated with said elements for holding said bits fixed in their adjusted position.

4. A knife sharpener embodying a stock bifurcated at one end to provide spaced portions, the adjacent edges of said portions being convex, a substantially U-shaped offset portion arranged at the opposite end of the stock, whereby the latter may be arranged on the edge of a support, a clamp screw carried by said U-shaped portion, a bit arranged in face to face contact with each of the portions defined by the bifurcation, said bits having convex edges disposed in confronting relation, and substantially flush with the adjacent edges of said spaced portions, said bits being mounted for sliding adjustment, in a manner whereby the convex edges of the bits maintain a position substantially flush with the corresponding edges of the stock, and means for holding said bits fixed in their adjusted position.

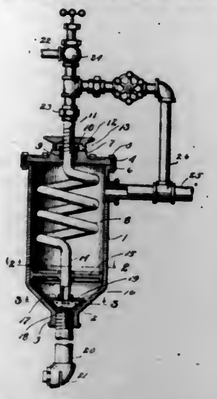
1,255,761. HOLLOW BUILDING-BLOCK. GEORGE WASHINGTON LENKERD, Indiana, Pa. Filed Aug. 21, 1915. Serial No. 46,744. (Cl. 72—41.)



A building block, comprising a hollow body provided on the exterior of its side walls with longitudinal grooves extending throughout the length thereof and adapted to receive mortar to cause it to simulate a plurality of bricks, and on the inner face of each side wall opposite the groove with a longitudinal reinforcing rib extending the entire length of the body, said rib being curved and gradually merging into the side wall, whereby provision is made for producing a building block, with comparatively thin side walls and having exterior grooves therein, which possesses the requisite strength, without materially increasing its weight.

1,255,762. HYDROCARBON-BURNER. GROVER C. LONG, Lakeland, Fla., assignor of one-third to H. E. Memminger and one-third to C. W. Deen, Lakeland, Fla. Filed Sept. 19, 1916, Serial No. 120,997. Renewed Aug. 10, 1917. Serial No. 185,630. (Cl. 158—75.)

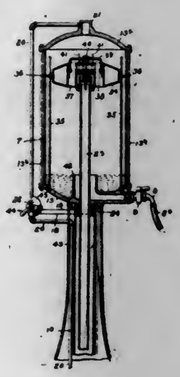
2. A hydrocarbon burner, comprising in combination, a cylindrical barrel terminating in a conical head, an oil coil mounted in said barrel, a nozzle on the forward end of said coil, said nozzle being positioned in fitted and slightly spaced relation within the conical barrel head, means for permitting the adjustment of said coil longitudinally of the barrel and a steam inlet for the barrel, said head carrying a nozzle, and the coil nozzle ejecting oil into the barrel across the direction of flow of the steam



in the restricted space between the conical head and the coil nozzle.

[Claim 1 not printed in the Gazette.]

1,255,763. LIQUID-MEASURING APPARATUS. GEORGE W. MACKENZIE, Jr., Rochester, Pa., assignor to Guarantee Liquid Measure Company, Rochester, Pa., a Corporation of Delaware. Filed Oct. 10, 1916. Serial No. 124,822. (Cl. 221—100.)

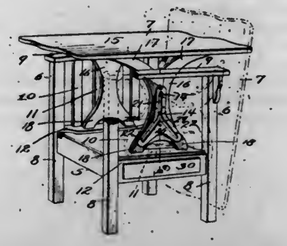


1. In combination, a main reservoir, a superimposed measuring tank, a pipe leading from the reservoir to the measuring tank, a vertically movable conduit extending from the measuring tank into the reservoir pipe and having at its upper end an apertured valve casing and a vertically movable opening and closing valve, a buoyant float adapted to coöperate with said valve to close the outlet from the conduit to the interior of the tank, means for locating said conduit at any predetermined position, means for exhausting the air from the measuring tank, and means for drawing off its contents.

2. In an apparatus of the class described, the combination with the measuring tank having an inlet, a valve on said inlet, and means for automatically closing said valve, of a suction conduit provided with a controlling valve adapted to open the interior of the tank to the atmosphere, a suction pump, a motor therefor, and means dependent upon the operation of the valve for controlling said motor.

[Claims 3 and 4 not printed in the Gazette.]

1,255,764. COMBINED CHAIR AND TABLE. ALEXANDER W. MACON, Dallas, Tex., assignor to Virgil O. Rosser, Dallas, Tex., and Harry D. Martin, Shelbyville, Ky. Filed June 12, 1917. Serial No. 174,802. (Cl. 155—6.)

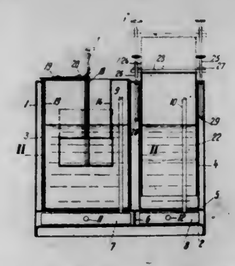


2. In a combined chair and table of the class specified, a supporting means having a seat and side members rising therefrom, a shiftable member embodying a flat component with brackets at opposite sides of the center thereof mounted to move between said side members and to bear on opposite portions of the seat to support the flat component in stable horizontal position, spaced vertically alined headed projecting devices extending outwardly from the outer sides of the brackets in pairs, and slotted devices secured against the inner sides of the side members of the seat and engaged by said pairs of headed projecting devices, the headed projecting devices fitting in the slotted devices and having a sliding connection with relation to the latter and wholly concealed between the brackets and the side members rising from the seat, the slotted devices having divergent slots to permit the shiftable member to move in opposite directions, the brackets and the portions of the seat engaged thereby having co-acting means to prevent the flat component from shifting from horizontal position until manually released.

5. In a combined chair and table of the class specified, a supporting means having a seat and side members, a shiftable member embodying a flat component with brackets terminating at one end of each in feet provided with hemispherical dowels, the opposite side portions of the seat being provided with shallow sockets to receive the said dowels, and vertically alined headed projecting devices and slotted means respectively secured to the adjacent sides of and located between the side members and brackets and having a slidable and pivotal engaging operation.

[Claims 1, 3, and 4 not printed in the Gazette.]

1,255,765. GAS-GENERATOR. DEMETRIO MAGGIORA, Paris, France. Filed July 5, 1916. Serial No. 107,596. (Cl. 48—41.)

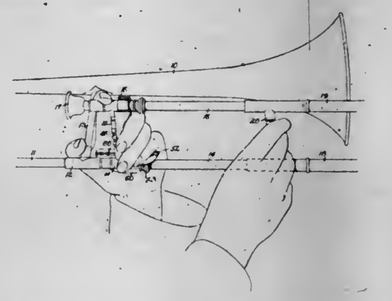


1. An acetylene or like generator including a water container, a tube extending into the same, a pocket adapted to contain carbid, a pocket adapted to contain water, said pockets being capable of being alternately brought into registration with the bottom of the tube, and the water containing pocket being adapted to seal the lower end of the tube.

2. An acetylene or like generator including a container, a tube extending into the same, a pocket adapted to contain carbid, a pocket adapted to contain water, and a rod supporting said pockets, said rod being capable of rotatable and longitudinal movements whereby the pockets may be revolved and alternately brought into registration with the bottom of the tube, and the water containing pocket may be lifted to form a seal for the lower end of the tube.

3. An acetylene or like generator including a container, a tube extending into the same, a pocket adapted to contain carbid, a pocket adapted to contain water, a rod supporting said pockets, said rod being capable of rotatable and longitudinal movements whereby the pockets may be revolved and alternately brought into registration with the bottom of the tube and the water containing pocket may be lifted to form a seal for the lower end of the tube, and means for holding said rod in its lifted positions including a plate carried by the rod and resting flat on the cover of the container during the rotation of the pockets, said plate being adapted to be turned upwardly to displace the rod vertically.

1,255,766. TROMBONE-SUPPORT. GEORGE MARTENS, New York, N. Y. Filed Mar. 30, 1917. Serial No. 158,666. (Cl. 84—8.)



1. A trombone support, comprising a handle made in sections adapted to be fastened to the cross brace of the stationary slide and having a palm-rest on its lower end adapted to be seated in the palm of the hand of the player.

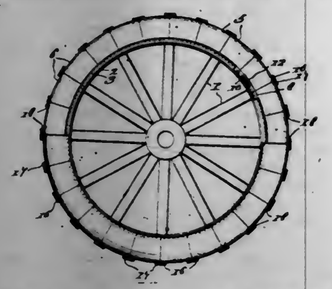
9. A trombone support, comprising a handle made with outer and inner sections connected with each other at the top by a hinge, the leaves of which inclose the top member of the stationary trombone slide, fastening means fastening the sections together, the said handle extending between the upper and lower members of the stationary trombone slide and in front of the cross brace connecting the said stationary slide members with each other, the said handle sections having padded spring clamping members adapted to grip the said upper and lower slide members and the said cross brace, the front of the handle having open finger holds for the second and third fingers of the left hand of the player, a forward extension on the lower end of the handle and adapted to be engaged by the little finger of the left hand of the player, the said extension overlying the back stop on the lower stationary slide member, a palm rest on the lower end of the inner handle member and extending below the lower stationary slide member, and a filling between the opposite faces of the handle sections.

[Claims 2 to 8 not printed in the Gazette.]

1,255,767. ANTISLIPPING STEEL TIRE. DANIEL S. MASON, Stickley, Mont. Filed Mar. 27, 1917. Serial No. 157,688. (Cl. 152—8.)

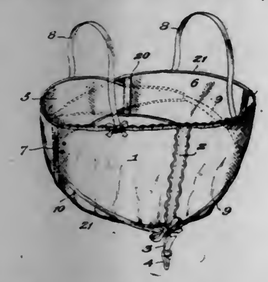
An improved vehicle tire including a series of resilient sections fitted with their ends abutting and bent into sub-

stantially cylindrical form with their central parts flattened to produce an extensive tread, tongues extending from the flattened tread parts having beveled corners, plates having slots with parallel walls arranged substan-



tially at right angles to the direction of travel and adapted to be received over adjacent tongues on proximate sections, the tongues coming in contact with the parallel walls and being bent down against the outer faces of said plates, substantially as described.

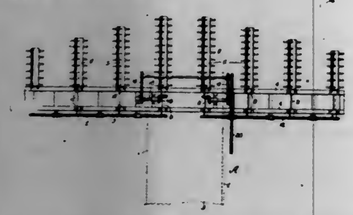
1,255,768. BRASSIÈRE. HARRY P. MEIN, Flushing, N. Y. Filed Apr. 2, 1917. Serial No. 159,282. (Cl. 2—98.)



1. A brassière, comprising a rear portion slitted vertically to provide a slot for the reception of the other rear portion, and stiffening plates fixed at each side of said slitted portion and overlying one another.

[Claims 2 and 3 not printed in the Gazette.]

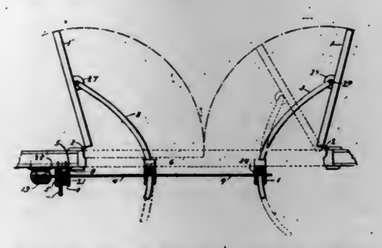
1,255,769. STRAW-DISTRIBUTING ATTACHMENT FOR HARVESTERS. GILBERT CHAMBERLAIN MICHAEL, Davenport, Wash. Filed May 9, 1917. Serial No. 167,506. (Cl. 275—3.)



1. A distributer of the class described comprising a supporting structure, a plurality of spaced independently mounted parallel toothed elements, and means for connecting the elements to turn all in the same direction, said elements being of successively diminishing length in the direction in which the material is conveyed by the elements.

2. A material distributing device comprising a supporting structure, two sets of toothed elements spaced apart on the structure and grouped at opposite sides of the center thereof, the toothed elements at one side rotating in a clockwise direction and the other in an anti-clockwise direction, whereby the material is conveyed laterally and distributed on the ground, said toothed elements decreasing successively in length from the center outwardly.

1,255,770. DEVICE FOR OPENING AND CLOSING DOORS OF BUILDINGS. CHARLES G. MILBRANDT, Duluth, Minn. Filed Mar. 12, 1917. Serial No. 154,085. (Cl. 268—9.)



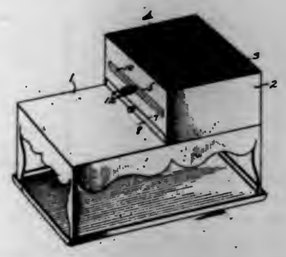
1. In a door opening and door closing device the combination of a horizontally swinging door, a horizontally curved rack bar pivotally connected to the upper portion of said door and having cogs lying in a horizontal plane parallel with the plane in which said rack bar lies, a shaft journaled in bearings fixed above the opening for said door, and a pinion fixed on said shaft to engage said rack bar.

2. In a door opening and door closing device the combination of a horizontally swinging door, a horizontally curved rack bar pivotally connected to the upper portion of said door and having cogs lying in a horizontal plane parallel with the plane in which said rack bar lies, a shaft journaled in bearings fixed above the opening for said door, a pinion fixed on said shaft to engage said rack bar and means for holding said rack bar in operative position on said pinion.

5. In a door opening and door closing device the combination of a plurality of horizontally swinging doors, a plurality of horizontally curved bars pivotally connected to the upper portions of said doors and having cogs lying in horizontal planes parallel with the planes in which said rack bars lie, a shaft journaled in bearings fixed above the opening for said doors, and pinions fixed on said shaft to engage said rack bars.

[Claims 3, 4, 6, and 7 not printed in the Gazette.]

1,255,771. ELECTRIC WAFFLE-STOVE. JOSEVA MILLER, Pasadena, Cal. Filed Nov. 8, 1915. Serial No. 60,326. (Cl. 219—19.)



In a device of the class described, the combination of a stand, a rectangular casing mounted upon one end of the stand, the front wall of said casing having an elongated slot therein, a horizontal partition in said casing adjacent the upper marginal edge thereof, angle iron guide members horizontally mounted adjacent the lower edge of the slot and extending therefrom to the rear wall forming guide members, a rectangular waffle iron slidably mounted in said guide members, the lower edge of the front wall having an elongated slot formed therein, a tray member slidable in said slot, the upper surface of the stand providing a supporting surface for said tray member when in closed position, a plurality of electric coils interposed between the walls of the said casing above and below the guide members, and a removable wire mesh mounted on the top of said casing for a purpose specified.

1,255,772. COMBINATION CLEANING OUTFIT. ROY C. MILLER, Philadelphia, Pa. Filed Dec. 18, 1915. Serial No. 67,627. (Cl. 206—47.)



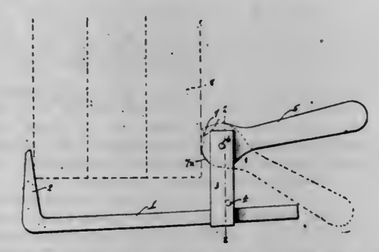
1. A device of the character described embodying a casing having a longitudinal slot, a fluid containing vessel centrally disposed within the casing and held therein by the opposed ends of the casing, said vessel having its discharge end projecting beyond the adjacent end of the casing, means for controlling the discharge of the fluid from the projected end of the vessel, and a towel-roll supported directly on said vessel for rotation thereabout and having one end projecting through said slot.

4. A device of the character described comprising a casing having one end closed, a liquid receptacle mounted in said casing, a closing cap for the other end holding the receptacle in the casing, said cap being apertured to permit the passage of the discharge end of said receptacle, and a towel holding sleeve mounted directly on the receptacle and arranged between the same and said casing.

6. In combination with a slotted cylinder having one closed end, an apertured closing cap for the opposite end of the cylinder, of a liquid receptacle held in place in the cylinder between the cap and said end and having a discharge end projecting through the cap, a towel supporting sleeve mounted for rotation on the receptacle, and a limiting collar on the receptacle coacting with the closed end to hold the roll against displacement longitudinally, said cylinder being slotted to permit the passage of the towel carried by the sleeve.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,255,773. PORTABLE PIVOTED-LEVER CLAMP. EARLE M. MORSE, East Foxboro, Mass. Filed Oct. 28, 1914. Serial No. 869,099. (Cl. 144—203.)



In a portable lever clamp, an L-shaped bar, a frame slidably mounted on the lower arm of said bar, a lever pivotally mounted on said frame, a serrated object engaging face on the pivoted end of said lever concentrically disposed with respect to the pivot point, said serrated portion terminating at one end in a biting tooth, and an additional biting tooth on said end of the lever spaced from the first mentioned tooth and projecting beyond the plane of the serrated portion whereby the biting teeth are adapted to be moved to positive engagement with the object when the lever is swung without any slack during said movement.

1,255,774. SWIVEL CONNECTION. LEMBERT H. MOULTHROP, Philadelphia, Pa., assignor to H. T. Paiste Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Dec. 8, 1915. Serial No. 65,796. (Cl. 173—362.)

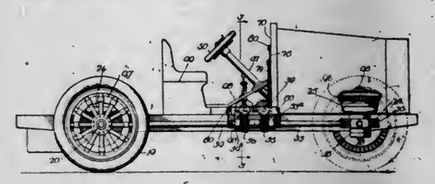


1. The combination of a base structure; a cover therefor having a flange lying substantially parallel with and adjacent a portion of the structure; and separate retaining members on opposite sides of the base structure engaging said flange so as to permit relative rotation of the cover and the base structure.

5. The combination of a base structure having screw holes therein; a cover having a flange mounted on the base; clamping plates engaging the flange; and screws extending through said holes into the clamping plates; said screws being laterally movable in their respective holes to permit the plates to move into or out of engagement with the flange of the cover.

[Claims 2 to 4, 6, and 7 not printed in the Gazette.]

1,255,775. STEERING-GEAR FOR MOTOR-VEHICLES. AUGUST E. MUELLER, Chicago, Ill., assignor of one-third to Thomas J. Hruby and one-third to John O. Hruby, Jr., Chicago, Ill. Filed July 1, 1916. Serial No. 107,014. (Cl. 21—193.)



1. A steering gear for motor driven vehicles comprising, in combination with the chassis, front and rear steering wheels; a steering post; a transverse shaft geared to said post and operatively connected to the front steering wheels; a second transverse shaft operatively connected to the rear steering wheels, and gears for connecting said transverse shafts.

3. A steering gear for motor driven vehicles, comprising, in combination with the chassis, stub shafts pivoted thereto for the vehicle wheels; front and rear, longitudinally-arranged, separately-rotatable shafts at the sides of the chassis; worm gear connections between the ends of said shafts and said stub shafts; a steering post and gearing between the steering post and said longitudinal shafts.

6. A steering gear for motor driven vehicles comprising, in combination with the chassis; stub shafts pivoted thereto for the vehicle wheels; front and rear, longitudinally-arranged, separately-rotatable shafts at the sides of the chassis; worm gear connections between the ends of said shafts and said stub shafts; front and rear transverse shafts; worm gear connections between the rear transverse shaft and the forward ends of the rear longitudinal shafts; worm gear connections between the ends of

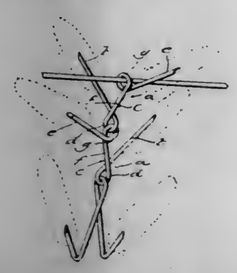
the forward transverse shaft and the rear ends of the forward longitudinal shafts; a steering post geared to the forward transverse shaft; a gear fixed on the forward transverse shaft; a sliding gear on the rear transverse shaft adapted to be shifted into mesh with the former gear; a second gear fixed to the forward transverse shaft; an idler gear meshing therewith and a second sliding gear on the rear transverse shaft adapted to be shifted into and out of mesh with said idler gear.

8. A steering gear for motor driven vehicles, comprising, in combination with a chassis consisting of longitudinal, and front and rear transverse axle, members; horizontal stub shapts pivoted to said axle members embracing inner worm gear disks; wheels rotatively mounted on said shafts; front and rear pairs of longitudinal shafts at the sides of the chassis having worms which mesh with said worm gear disks, and a steering post with worm gear mechanism operatively connected to the meeting ends of said longitudinal shafts.

10. A steering gear for motor driven vehicles comprising, in combination with the chassis; front and rear steering wheels; front and rear, longitudinally-arranged, separately-rotatable shafts at the sides of the frame; gear connections between the ends of said shafts and the steering wheel shafts; a steering post; operative connections between the steering post and said longitudinal shafts and an indicator connected to said shafts.

[Claims 2, 4, 5, 7, and 9 not printed in the Gazette.]

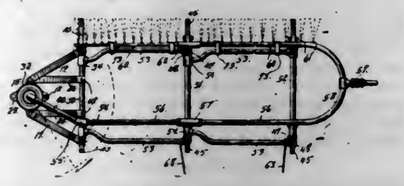
1,255,776. SEED-CORN HANGER. WILLIAM P. NEGUS, West Branch, Iowa. Filed Dec. 7, 1916. Serial No. 135,663. (Cl. 34—26.)



A device of the class described comprising a single length of wire looped at a point substantially midway of its ends to form a pair of arms united by a single coil, one of said arms being disposed in an inclined plane and sharpened to form a prong for receiving an ear of corn, the other arm being looped midway of its ends to form an upper portion and a lower portion united by a second single coil, the lower portion being disposed in a substantially vertical plane, the upper portion being disposed out of alinement with the lower portion and in an inclined plane arranged substantially at right angles to the plane of the other arm and sharpened to form a second prong for receiving a second ear of corn.

1,255,777. IRRIGATING-MACHINE. JAMES A. NORTON, Odebolt, Iowa, assignor, by direct and mesne assignments, to Golden West Pump Company, Sioux Falls, S. D., a Corporation of South Dakota. Filed July 17, 1915. Serial No. 40,419. (Cl. 137—66.)

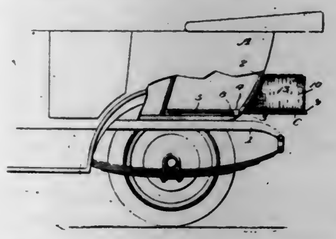
1. Irrigating apparatus comprising a wheeled frame rotatably connected with the hydrant, the frame comprising a series of transversely arranged and longitudinally disposed bars, the extremities of the longitudinal bars being hingedly connected with the adjacent transverse bars, and a conduit mounted on the said frame and rigidly connected therewith, the said conduit comprising a forwardly-located non-perforated longitudinally disposed member, extending from the hydrant to the outer extremity of the apparatus and merging into a rearwardly located water-distributing member extending toward the hydrant.



2. Irrigating apparatus comprising a wheeled frame rotatably connected with the hydrant, the frame comprising a series of transversely arranged and longitudinally disposed bars, the extremities of the longitudinal bars being hingedly connected with the adjacent transverse bars, and a conduit mounted on said frame and rigidly connected therewith, the said conduit comprising a forwardly-located non-perforated longitudinally disposed member, extending from the hydrant to the outer extremity of the apparatus, and merging into a rearwardly located water-distributing member extending toward the hydrant, and diminishing in cross sectional area from its outer extremity toward the hydrant.

3. Irrigating apparatus comprising a hydrant, a relatively long radially disposed water-distributing apparatus comprising a number of jointed frame sections and a corresponding number of jointed water-distributing conduit sections, the framework being mounted on wheels, cables connected with the different sections of the frame, drums varying in size and with which the cables are respectively connected at their extremities remote from the water-distributing apparatus, and means for rotating the drums whereby the water-distributing structure is caused to travel around the hydrant for irrigating purposes.

1,255,778. LUGGAGE-CARRIER FOR AUTOMOBILES. JOHN NIXON O'NEIL, Elizabeth, Pa. Filed July 10, 1917. Serial No. 179,704. (Cl. 21—7.)

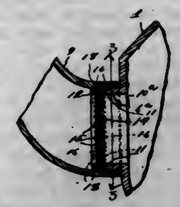


1. The combination of a vehicle body having a slot therein, guide members connected to the body, a frame adapted to slide through the slot in the body and having engagement with the guide members, and collapsible side and end members connected to the frame.

2. The combination of a vehicle body, a disappearing frame slidably connected to the body, and a collapsible body connected to the frame consisting of hinged sides and an end, said sides and end being adapted to be moved into upright position when the frame is extended for the purpose of receiving the luggage.

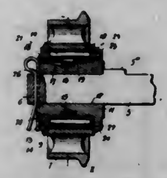
3. The combination of a vehicle body, a disappearing frame slidably connected to the body, and a collapsible body connected to the frame, consisting of hinged sides and an end, and hooks carried by the sides for engagement with the end for holding the several members together.

1,255,779. TEAPOT AND DETACHABLE SPOUT THEREFOR. NINA MAY OSSCH, Woodburn, Ind. Filed Apr. 30, 1917. Serial No. 165,565. (Cl. 53—3.)



In combination, a cooking receptacle comprising a hollow body having an outlet opening, said body having an annular flange extending from and adjacent the marginal edge of the outlet opening, the marginal edge of said flange having an annular groove V-shaped in cross section, an outlet spout threaded to the flange, the inner circumference of the spout having an annular flange provided on one face with an annular groove V-shaped in cross section opposite and concentric with the first groove, and a perforated strainer plate having on its opposite faces annular ribs V-shaped in cross section engaging said grooves respectively, whereby, upon screwing the spout home, tight joints between the strainer and the said flanges are insured.

1,255,780. MINE-CAR WHEEL. THOMAS PARKER OTTERSON, Krebs, Okla., assignor of one-half to Presley Robins Allen, McAlester, Okla. Filed Aug. 8, 1917. Serial No. 185,075. (Cl. 105—164.)



1. A mine car wheel comprising a fixed hub organization with a central box formed with a circumferential chamber having a textile lubricant absorbent therein and extending therearound and also having a bushing removably mounted thereon with an opening therethrough, a wheel having a bore with a bushing removably applied therein and rotatably mounted over the bushing of the box, and an axle angular in cross-section inserted and secured in the center of the box.

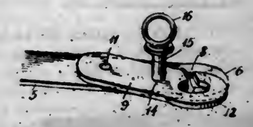
3. A mine car wheel comprising an axle, a center box mounted on the axle and held against rotation, a bushing removably mounted on the said box, a wheel structure independent of and provided with a bore having a bushing removably applied therein and rotatably mounted over the bushing of the box, the box having lubricant carrying and supply means, and an outer dust guard and thrust ring to take up wear and disposed to engage the box and car wheel and having a portion thereof exposed between the bushings and to engage the ends of the latter.

[Claims 2 to 4 not printed in the Gazette.]

1,255,781. DRAW-BAR. THOMAS PARKER OTTERSON, Krebs, Okla., assignor of one-half to Presley Robins Allen, McAlester, Okla. Filed Aug. 11, 1917. Serial No. 185,772. (Cl. 213—45.)

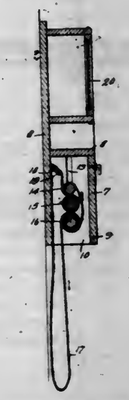
2. A device for the purpose specified, consisting of a bar having one or more hooked end heads and one or more pivoted latches thereon, with reversely arranged side opening throats each latch carrying a loose vertically movable pin to automatically engage the bar and lock the latch closed.

3. A device for the purpose specified, consisting of a bar having one or more hooked end heads and one or more pivoted latches thereon, each head and latch having reverse laterally opening inwardly inclined throats and each latch carrying a loose vertically movable pin to automatically engage the bar and lock the latch closed.



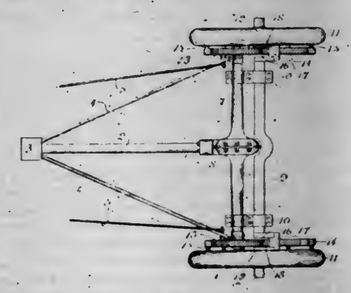
[Claims 1 and 4 not printed in the Gazette.]

1,255,782. TOWEL-SUPPLY CABINET. JOHN JOSEPH PARNELL, Miami, Fla. Filed Mar. 6, 1917. Serial No. 152,653. (Cl. 45—32.)



A towel holder comprising supports, a supply roller, a take up roller, and a tension roller slidingly journaled in the supports, a towel on the supply roller and passing around the tension roller, thence about opposed surfaces of the supply and take up rollers, the end of the towel being connected to the take up roller, whereby movement of the towel in one direction will draw the rollers into frictional contact to deliver toweling from the supply roller and to the take up roller.

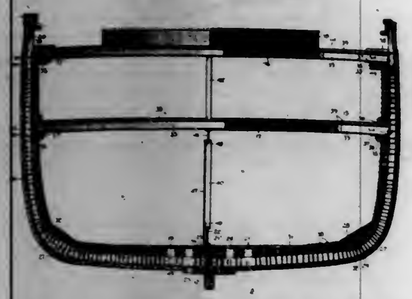
1,255,783. SIDE DRIVE FOR AUTOMOBILES. CLIFFORD S. PEETS, Great Neck Station, N. Y. Filed Mar. 8, 1916. Serial No. 82,858. (Cl. 74—7.)



A side drive for motor vehicles comprising a live axle provided with an end pinion adapted to mesh with and drive an internal gear carried by a traction wheel, and a dead axle having an end spindle to receive said wheel, said dead axle having a lateral offset adjacent to said spindle

forming a recess receiving said pinion, the outer leg of said offset being of reduced thickness and formed with side strengthening webs.

1,255,784. CONSTRUCTION OF SHIPS' HULLS. FIELDS A. PENDLETON, Brooklyn, N. Y. Filed July 25, 1917. Serial No. 182,766. (Cl. 114—82.)

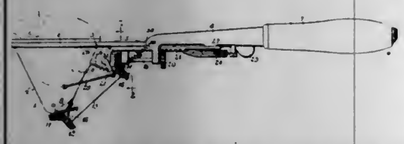


1. In a ship's hull, the combination of a keel and a plurality of strakes extending along opposite sides of the same, of a series of ribs arranged upon and transversely of said keel and strakes, a heavy central stringer extending longitudinally of the ship across the ribs, a metal I-beam keelson supported upon the central stringer, an angle bar secured to one side of the stringer and supported upon the ribs, auxiliary stringers on opposite sides of the central stringer, fastening devices passing through the stringers, ribs and keel, certain of said fasteners passing through said angle bar, other of said fasteners passing through the bottom of the keelson securing it in place, a stanchion supported upon the keelson, and metal bracing straps associated with the stanchion and secured at their lower ends to said angle bar.

2. In a ship's hull, the combination of a series of transversely arranged parallel ribs having rounded bilge portions, a series of longitudinal stringers supported upon the bottom portion of the ribs, a series of stringers arranged in a diagonal plane spanning each rounded bilge portion, filler blocks filling the space between the diagonal series of stringers and the rounded bilge portions of the ribs, and metal fasteners passing through the stringers, ribs and filler block.

[Claim 2 not printed in the Gazette.]

1,255,785. ICE-CREAM-CONE DISHER. NAPOLEON PEPIN, Woonsocket, R. I. Filed June 12, 1917. Serial No. 174,235. (Cl. 107—48.)

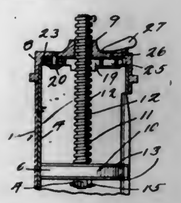


1. A device of the class described comprising a bowl composed of relatively movable sections, a supporting structure, the upper portions of the sections being pivotally mounted in the said structure on parallel axes, whereby the lower ends of the sections will swing outwardly away from each other to permit the ice cream to drop between the sections, a scraper mounted on one of the sections, a mechanism mounted on the structure and connected with the scraper for turning the same, a shaft mounted on the structure, a lost motion connection between the mechanism and shaft, whereby the shaft is idle while the scraper is operating, and connections between the shaft and the two sections of the bowl for moving the sections to open position during further movement of the said mechanism.

2. A device of the class described comprising a bowl divided into two sections, a ring surrounding the bowl and slightly smaller in diameter than the top of the bowl, and pivots connecting the upper portions of the sections to the ring at points at opposite sides of the plane of division of the bowl, whereby the sections can swing in opposite directions, a handle to which the ring is fastened, a scraper mounted on one of the sections of the bowl, a mechanism mounted on the handle and operatively connected with the scraper for turning the same, arms mounted on the handle, links connecting the arms with the sections of the bowl for moving the latter, means between the mechanism and arms for simultaneously actuating the latter after the operation of the scraper, and means for yieldingly holding the bowl sections closed.

3. A device of the class described comprising a supporting structure, a bowl divided into two sections, pivots between the sections of the bowl and the supporting structure, a scraper mounted on one of the sections of the bowl, a shaft mounted on the same section, a gearing between the shaft and scraper, and actuating mechanism mounted on the structure and having a geared connection with the said shaft, a rock shaft mounted on the said structure, arms on the rock shaft, links connecting the arms with the sections of the bowl, and a mutilated gearing between the said mechanism and rock shaft, whereby the scraper is operated before the rock shaft is actuated to open the bowl.

1,255,786. GREASE-GUN. CHARLES LEE PHILLIPS, San Francisco, Cal. Filed June 26, 1916. Serial No. 106,043. (Cl. 221—47.)



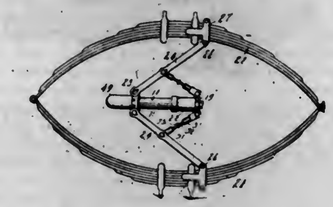
A grease gun comprising a body portion, a plunger movable longitudinally therein, a cap for said body portion, a threaded rod for operating said plunger and extending through said cap, a pair of opposed jaws pivoted to said cap on one side of said rod and adjustable into engagement with said rod whereby the plunger is moved longitudinally when said rod is rotated, a leaf spring secured to said cap and having its ends engaging said jaws for normally retaining the same in engagement with said rod, and a cam also carried by said cap and interposed between said jaws on the opposite side of said rod from the pivot of said jaws and operable to force said jaws apart and from engagement with said rod.

1,255,787. FLUID SHOCK-ABSORBER. FRANCIS V. PHILLIPS, Orlando, Fla. Filed June 23, 1916. Serial No. 105,423. (Cl. 21—105.)

1. A shock absorber including a relatively movable piston and cylinder, the piston being provided with a substantially U-shaped fluid passage therethrough, a check valve associated with the said piston and arranged in one branch of the U-shaped passage for controlling the flow of fluid therethrough in one direction, means movable longitudinally of the other branch of the U-shaped passage and adapted to restrict the flow of fluid therethrough upon movement of the piston in either direction, and means to effect relative movement of the piston and cylinder.

2. A shock absorber including a relatively movable cylinder provided with heads and a piston having a plurality of fluid passages therein, a check valve closing one of said passages against movement of fluid in one direction therethrough, means extending slidably through a head and carried by the piston to adjust the extent of opening of the check valve, and means to effect relative movement of the piston and cylinder.

3. A shock absorber including a relatively movable cylinder provided with heads and a piston having a plurality of fluid passages therein, a check valve closing one of said passages against movement of fluid in one direction therethrough, means extending slidably through a head and carried by the piston to adjust the extent of opening of the check valve, and means to effect relative movement of the piston and cylinder.

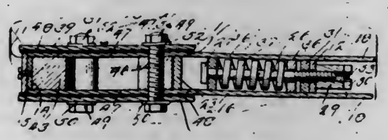


4. A shock absorber including a relatively movable cylinder provided with heads and a piston having a plurality of fluid passages therein, a check valve closing one of said passages against movement of fluid in one direction therethrough, means extending slidably through a head and carried by the piston to adjust the extent of opening of the check valve, other means extending slidably through a head and carried by the piston to variably restrict the other passage, and means to effect relative movement of the piston and cylinder.

5. A shock absorber including a relatively movable cylinder provided with heads and a piston having a plurality of fluid passages therein, a check valve closing one of said passages against movement of fluid in one direction therethrough, means extending slidably through a head and carried by the piston to adjust the extent of opening of the check valve, other and independent means extending slidably through a head and carried by the piston to variably restrict the other passage.

[Claim 6 not printed in the Gazette.]

1,255,788. FRICTIONAL SHOCK-ABSORBER. FRANCIS V. PHILLIPS, Orlando, Fla. Filed June 23, 1916. Serial No. 105,424. (Cl. 21—105.)

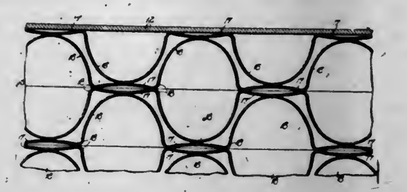


1. A shock absorber comprising two pivotally connected members, a friction element carried by one of said members and movable toward and from the pivotal center of said members, means to limit the movement of the element toward the center, means to adjust said limiting means, a friction disk carried by the other member and engageable with the element at two predetermined points in the relative movement of said members, said points being determined by the adjustment of the limiting means.

2. A shock absorber comprising two pivotally connected members, a friction element carried by one of said members and movable toward and from the pivotal center of said members, means to limit the movement of the element toward the center, means to adjust the limiting means, a friction disk carried by the other member and having a portion of its periphery forming an arc eccentric to the pivotal center, said disk being engageable by the element at two points on opposite sides of a line passing through the pivotal center and the center of the eccentric arc, said points being determined by the adjustment of the limiting means.

3. A shock absorber comprising two pivotally connected members, a friction element carried by one of said members and movable toward and from the pivotal center of said members, means to limit the movement of the element toward the center, means to adjust the limiting means, a friction disk carried by the other member and having a portion of its periphery forming an arc eccentric to the pivotal center, means to adjust the friction disk about the pivotal center, said disk being engageable by the element at two points on opposite sides of a line passing through the pivotal center and the center of the eccentric arc, said points being determined by the adjustment of the limiting means, and the adjustment of the disk about the pivotal center.

1,255,789. PACKING DEVICE. FREDERIC PRUYN, Albany, N. Y., assignor to Seamless Products Corporation, East Orange, N. J., a Corporation of New York. Filed Oct. 27, 1916. Serial No. 128,024. (Cl. 217—26.5.)



1. In a packing crate for eggs, fruit and like articles, a tier of superimposed holding units having spaced cells each for containing an article singly, the holding units having integral yielding supporting members intermediate the cells and the cells of one unit extending between the cells of an adjacent unit and being seated on the said yielding members of the adjacent unit, each holding unit consisting of two sheets of unbroken continuity.

6. In a packing crate for eggs, fruit and like articles, a plurality of superimposed holding units, each consisting of a pair of sheets having complementary half cells forming entire cells adapted to contain the articles singly, each sheet of a holding unit having the portions intermediate the cells resilient and bent in the direction of the depth of the adjacent half cells, the apexes of the cells of adjacent sheets being in contact with the corresponding resilient portions, each sheet with its half cells and its resilient portions being of unbroken continuity.

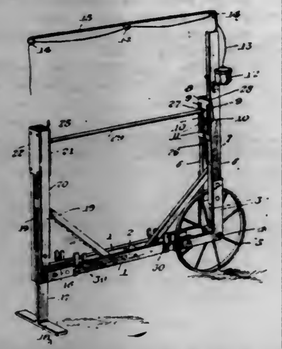
[Claims 2 to 5 not printed in Gazette.]

1,255,790. TOBACCO-HARVESTING MACHINE. DALTON R. RAPER, High Point, N. C. Filed Apr. 9, 1917. Serial No. 160,788. (Cl. 131—21.)

1. A tobacco stick holding device, including a substantially U-shaped frame, a ground wheel at one of the corners of the frame, a supporting foot at the opposite corner of the frame, the parallel end members of the frame having alining openings to receive the tobacco stick, a ring member connected to one of the end members designed to also receive the stick, and a tension device between the said ring, and the referred to end members.

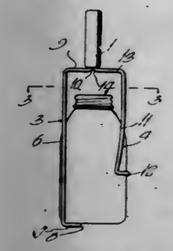
2. A tobacco stick holding device, including a substantially U-shaped frame constructed of spaced members, a ground wheel journaled upon the frame at one of the lower corners thereof, a member depending from the opposite lower corner of the frame and provided with a lateral foot, plates adjustably connected with the spaced member comprising the uprights, the inner plates having alining openings to receive a stick, cam levers pivoted to one of the

plates adjacent the openings therein designed to engage with the stick, a ring member suspended from the other



upright designed to receive the stick, and a tension spring between said ring and said upright.

1,255,791. CAN OR JAR LIFTER. WILLIAM STEPHEN RAWLINGS, Marshall, Ind. Filed Sept. 10, 1917. Serial No. 190,567. (Cl. 65—26.)



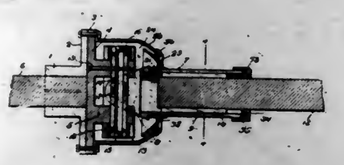
1. A jar lifter of the class described comprising a single handle, a pair of substantially parallel resilient jar engaging members rigidly attached to said handle and extending longitudinally from the same, one of said members being shorter than the other and having a jar receiving seat at its free end, and an inwardly extending step at the free end of the other or longer member, said step being adapted to engage beneath the bottom of a jar when the device is in use.

3. A device of the class described comprising a pair of substantially parallel jar engaging members, one of said members being formed from a single length of wire bent intermediate of its ends to form two parallel portions having their lower ends connected by a longitudinally curved cross bar and their upper ends bent inwardly to form arms, a handle to which the inner ends of said arms and the other member are connected, said other member being longer than the first named member and having an inwardly extending step formed at its lower end.

5. A device of the class described comprising a handle having a bore extending longitudinally therethrough, a pair of substantially parallel jar engaging members, each of which is formed from a single length of wire being bent intermediate of its ends to form a pair of parallel portions, the upper ends of said portions being bent inwardly to form arms, the latter having their inner ends struck upwardly to form shanks which are extended through the bore of said handle to attach said members to the latter, the parallel portions of one of said members being united by a longitudinally curved cross bar, the parallel portions of the other member being longer than those of the first member and having their lower ends bent inwardly and united by a longitudinally curved cross bar to form a step.

[Claims 2 and 4 not printed in Gazette.]

1,255,792. UNIVERSAL JOINT. FRANK S. RHOADS, Aurora, Ill. Filed Mar. 13, 1917. Serial No. 154,514. (Cl. 74—19.)

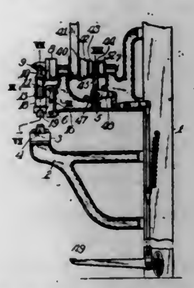


2. A universal joint including a connecting ring formed with journal openings therein, yoke members having arms extending into said ring, journals formed on the arms of one of said yoke members, the ring being provided with entrance slots to permit said journals to seat in the journal openings, bushings surrounding the journals of a greater diameter than the entrance openings, and a pin connecting the arms of the other yoke member with the ring.

4. In a universal joint, a connecting ring, bushings therein, yokes, journals carried by the yokes and extending into said bushings, and a retaining ring secured to one side of said connecting ring, the retaining ring being formed with a lateral flange and the bushings being formed with notches in one side adjacent their outer ends to accommodate said flange.

[Claims 1, 3, and 5 not printed in the Gazette.]

1,255,793. POWER-HAMMER. KARL SALO and MICHAEL SHERMAN, Indianapolis, Ind. Filed Sept. 5, 1916. Serial No. 118,496. (Cl. 78—40.)

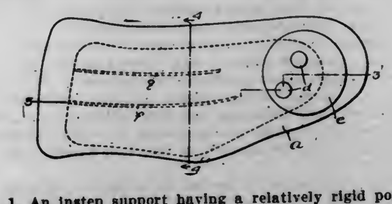


1. In a power hammer, the combination of a hammer body having an opening therein, two pivots connected to the hammer body and extending across the opening therein, two rollers on the pivots respectively within the opening, two metallic links comprising each a straight main portion and a crook on each end thereof, one crook of one of the links embracing one of the rollers, one crook of the remaining link embracing the remaining roller, a roller embraced by the remaining one of the crooks of one of the links, a roller embraced by the remaining one of the crooks of the remaining link, two pivots in the two last-described rollers respectively, and two pairs of links, one pair being connected to one of the last-described pivots, the remaining pair of links being connected to the other of the last-described pivots, with means for movably guiding the hammer, and means connected to the pairs of links for moving the hammer body.

2. In a power hammer, the combination of a hammer body having an aperture therein and also pivot bearings on opposite sides of the aperture, the body having also a pin hole extending therethrough and intersecting the pivot bearings, two pivots extending through the aperture and seated in the bearings on opposite sides of the aperture, each pivot having a pin hole therein, two rollers on the pivots respectively within the aperture, a retaining pin inserted in all the pin holes, a securing device holding the retaining pin in the pin holes, and two links connected to the rollers respectively, with means for movably guiding the hammer body, and means connected to the links for moving the hammer body.

3. In a power hammer, the combination with a frame, a hammer body movably guided by the frame, a shaft rotatably mounted on the frame, means connected with the shaft and the hammer body adapted to operate the body, a pulley rotatably mounted on the shaft and having a clutch device thereon, and a metallic clutch sleeve splined on the shaft and adapted to be engaged with the clutch device, the sleeve having a circumferential groove therein, of a shifter lever pivotally mounted on the frame and having two arms provided each with a metallic stub axle that extends into the groove, each axle having a metallic roller thereon to contact with the opposite walls of the groove, the roller having a metallic bushing therein that bears on the stub axle and differs from the character of the metals of the axle and the roller, the metal of the roller differing from that of the sleeve.

1,255,794. ARCH-SUPPORT. MICHELANGELO SANTELLA, Marlboro, Mass. Filed Mar. 1, 1917. Serial No. 151,677. (Cl. 36—71.)

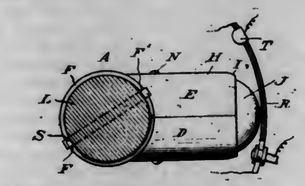


1. An instep support having a relatively rigid portion to underlie the inner side of the instep and a relatively yieldable spring metal portion separate from the first portion to underlie the outer side of the instep.

4. An instep support having its forward end divided into semi-independent tongues, that portion or tongue which is adapted to underlie the inner side of the instep being relatively stiff and that portion which underlies the outer part of the instep being relatively more flexible and yielding than the first named portion, being thereby adapted to yield when the bottom of the wearer's shoe is otherwise than perpendicular to the line of thrust of the wearer's foot, the inner portion of the support being thus caused to maintain upward thrust of the desired intensity against the downward pressure of the wearer's foot.

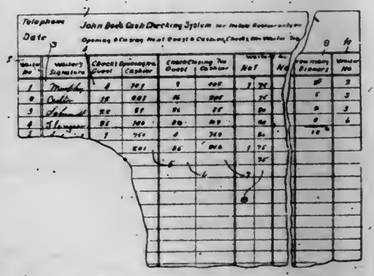
[Claims 2 and 3 not printed in the Gazette.]

1,255,795. IGNITION-TIMER. RALPH V. SAVAGE, Sedalia, Mo., assignor of one-half to K. R. Barnum, Sedalia, Mo. Filed July 5, 1917. Serial No. 178,727. (Cl. 123—167.)



An ignition timer, comprising in combination with a cam shaft, a casing made of a single blank of metal having wings at the ends terminating in shoulders, the portion between the wings adapted to be bent in cylindrical form to receive said shaft, one edge of the blank having notches therein, a pin passing through the cam shaft and engaging said notches, said wings adapted to be bent semi-cylindrical, with their ends inwardly bent, and provided with oppositely disposed apertures, a pin mounted within the latter, a ball mounted between said wings and retained therein by the inwardly bent portions of the wings, a spring bearing against said pin and ball.

1,255,796. MEANS FOR CHECKING ACCOUNTS. WILLIAM HENRY SCHAEFER, New York, N. Y. Filed Aug. 13, 1914. Serial No. 856,636. (Cl. 11—15.)



1. Means for checking accounts including a plurality of consecutively numbered guest checks having an appropriately designated space for a waiter's number, lines for the articles served and columns for the price of the articles and the amount of the order, and a checker's list containing an appropriately designated column for the numbers of the waiters, appropriately designated columns for the opening and closing numbers of the guest checks, and an appropriately designated column for the amounts of the guest checks and the numbers of the waiters.

2. Means for checking accounts including a plurality of consecutively numbered guest checks having an appropriately designated space for a waiter's number, lines for the articles served and columns for the price of the articles and the amount of the order, a checker's list containing an appropriately designated column for the numbers of the waiters, and appropriately designated column for the names of the waiters, appropriately designated columns for the opening and closing numbers of the guest checks, appropriately designated columns for the numbers of the waiters and the amount of the guest checks, and appropriately designated columns for the number of dinners and the numbers of the waiters, and a dinner card containing the price of the dinner, the number of the waiter, and lines for the separate courses to enable the latter to be checked off as served.

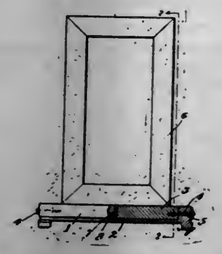
3. Means for checking accounts including a plurality of consecutively numbered guest checks having an appropriately designated space for the number of the waiter and appropriately designated spaces for the articles served and the price of the same, a plurality of consecutively numbered cashier's checks, each containing an appropriately designated space for the number of the waiter and having printed on it amounts from five cents progressively upward to any suitable sum, and a checker's list containing appropriately designated columns for the numbers of the waiters and the names thereof, appropriately designated columns for the opening and closing numbers of the guest checks and the cashier's checks, and appropriately designated columns for the amounts of the orders and the numbers of the waiters.

[Claim 4 not printed in the Gazette.]

1,255,797. PICTURE-FRAME. DITRICH SCHAFER and ALBERT KITSCHER, Sacramento, Cal. Filed Aug. 7, 1916. Serial No. 113,635. (Cl. 40—146.)

1. In combination with a picture frame, a supporting base provided in its top with a longitudinal recess having a curved bottom and terminating short of the ends of the base, a bearing member partially revoluble within said recess, pivot members extending through the ends of said base and into said bearing member, and a trunnion ex-

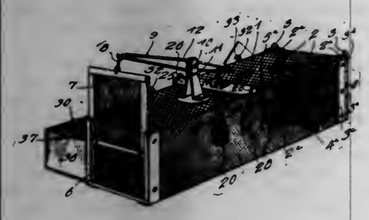
tending from the bottom edge of said frame and disposed in a socket in said bearing member whereby said frame



may be horizontally rotated, said frame and bearing member being vertically tiltable.

[Claim 2 not printed in the Gazette.]

1,255,798. ANIMAL-TRAP. JOHN P. SCHUCKMAN, Wichita, Kans. Filed May 10, 1917. Serial No. 167,778. (Cl. 43—19.)



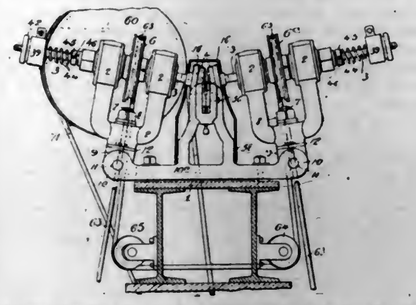
1. In a trap, the combination of a cage, a gate therefor, means for holding said gate open including a bait carrying trigger, a plate extending across the top of the cage and carrying said trigger, the ends of said plate extending beyond the sides of the cage, and a pair of arched wire spring catches passing over said projecting ends for securing the plate detachably in place, the two legs of said arched catches being bent to form coils for retaining said catches in operative position by spring tension and the portions of said legs below said coils being secured to the sides of the cage.

5. A trap comprising a main cage having means for admitting the prey, an auxiliary cage adjacent said main cage, the two having registering passages to permit a trapped animal to enter the auxiliary cage from the other and said auxiliary cage having means therein to prevent return of the animal, a plurality of metal strips extending transversely across the upper side of the auxiliary cage and having their ends bent downwardly into contact with the sides of said cage, transverse I-bolts below the top of the auxiliary cage and passing through the bent ends of said strips, the eyes of said bolts being passed through the side of the main cage, vertical rods passing through said eyes to removably retain them in place, a closure for the passage of the auxiliary cage, said closure being mounted pivotally on one of said I-bolts between the eye thereof and the adjacent bent end of one of said strips, and an additional closure for the passage of the main trap.

7. In a trap, the combination of a cage, a gate therefor, means for holding said gate open including a trigger having a pair of substantially parallel spring arms extending into said cage, the terminal of one of said arms being bent outwardly, and a bait basket supported by said arms and having means receiving said outwardly bent terminal.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,255,799. HONING OR GRINDING MACHINE. CONRAD SCHUMACHER, Lynbrook, N. Y., assignor to Auto Strop Company, a Corporation of New York. Filed Apr. 20, 1914. Serial No. 833,030. (Cl. 51—7.)



1. The combination of a shaft, means to secure a disk thereto, means to support a strip with relation to said disk, means separate from the strip to rotate said disk positively with relation to the strip, means to slidably support said shaft for axial movement, and means to cause said disk to bear resiliently against said strip.

3. The combination of a shaft, means to rotatively and slidably support the shaft, a disk carried by the shaft, means to support a strip adjacent to the disk, a stop on the shaft, a spring bearing against said stop, and means coacting with said shaft and spring for moving the shaft axially by means of the spring toward the strip and for bodily retracting the shaft in a direction axially away from said strip.

9. The combination of means for supporting a strip, opposing disks located on opposite sides of said strip at an angle to each other and to said strip, means for supporting and positively rotating said disks, and means to cause said disks to bear resiliently alternately on opposite sides of said strip and alternately withdraw the disks from the strip.

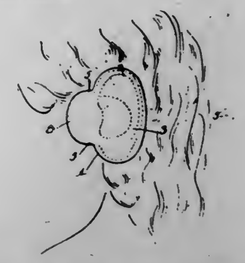
18. The combination of means for supporting a strip, disks on opposite sides of the strip, shafts carrying said disks, members on opposite sides of said strip rotatively and slidably supporting said shafts, said members having bearings, rods guided in said bearings and operatively connected together, arms connected with said rods, means to cause said arms to reciprocate said shafts in opposite directions, one of said members carrying a shaft, and means interposed between said shaft and one of said rods for reciprocating the latter.

20. The combination of means for supporting a strip, disks on opposite sides of the strip, shafts carrying said disks, members on opposite sides of said strip rotatively and slidably supporting said shafts, said members having bearings, rods guided in said bearings and operatively connected together, arms connected with said rods, means to cause said arms to reciprocate said shafts in opposite directions, one of said members carrying a shaft, a disk carried by said shaft and provided with a transverse guideway and threads, a block in said guideway and having threads opposed to the first named threads, a screw meshing with said threads, means to rotatively support said screw on said disk, a block secured to one of said arms and having a transverse guideway, a crank piece slidable in said guideway, and means for operatively connecting said crankpiece with the first named block.

[Claims 2, 4 to 8, 10 to 17, 19, and 21 to 28 not printed in the Gazette.]

1,255,800. EAR SHIELD OR PROTECTOR. FRANCES K. SCHURMEIER, St. Paul, Minn. Filed May 19, 1917. Serial No. 169,613. (Cl. 128—10.)

1. An ear shield or protector for the purposes described, comprising a sack of water proof elastic tissue to inclose and cover the ear, and having a portion to extend beyond the lobule of the ear and over upon the cheek of the wearer, said portion being adapted for attachment to the cheek of the wearer.



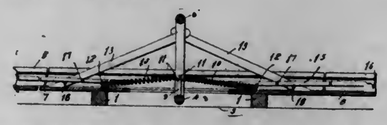
3. An ear shield or protector comprising a sack of elastic water proof material adapted to be fitted upon the ear to cover and inclose the same, and provided with means of attachment to the cheek of the wearer.

6. An ear shield or protector comprising a sack of water proof material having a mouth or opening at one side and adapted to be fitted upon the ear to inclose and cover the same, said sack having an inner wall provided with a curved margin at one side of the mouth and an outer wall provided with a lobular extension beyond said mouth, said extension being provided with means for attachment to the cheek of the wearer.

8. The herein described method of making an ear shield or protector of the character described, which consists in cutting out a blank from water proof sheet material, said blank being of approximately oval form and having inwardly extending end recesses and an arcuate slit formed at one side of the longitudinal center of the blank and having its terminals in line with said recesses, folding the blank centrally on a longitudinal line intersecting said recesses, and then uniting the marginal edges of the blank.

[Claims 2, 4, 5, and 7 not printed in the Gazette.]

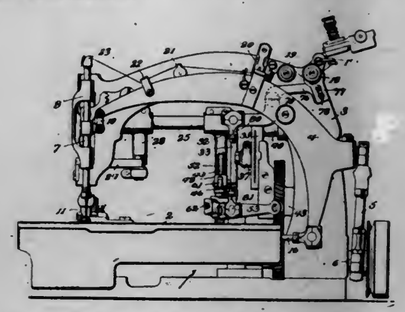
1,255,801. RAILROAD CATTLE-GATE. THOMAS A. SEAY, Cookville, Tex. Filed Aug. 22, 1917. Serial No. 187,689. (Cl. 269—9.)



A cattle guard or gate including a pair of spaced bearing blocks adapted to be arranged between a pair of ties and parallel with the tracks, a shaft journaled in the bearing blocks at right angles to the rails or tracks, gates formed integrally with and extending vertically from the shaft, slide arms arranged in pairs, one arm of each pair pivotally connected together and to the opposite side of one of the gates, the free ends of the arms extending outwardly and downwardly in opposite directions, platforms secured to the upper sides of the ties between the tracks, guide rods secured to the platforms and adjacent the tracks, and means on the inner ends of the arms and engaged under the guide rods to prevent the rods from moving upwardly beyond the treads of the rails, and springs secured to the tracks and to one of the gates for normally holding the gates in a vertical position.

1,255,802. STRAIGHTAWAY ZIGZAG SEWING MACHINE. DUDLEY S. SEYMOUR, Oak Park, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed May 24, 1913. Serial No. 769,759. (Cl. 112—4.)

1. A sewing machine comprising in combination stitch forming mechanism adapted to make either straight-away or zig zag stitching, and means under the control of the operator for controlling said stitch forming mechanism so that either straight-away or zig zag stitching is formed, said means including an arm connected with the stitch forming mechanism for vibrating the same laterally, an arm oscillated by the machine about the same axis as the first-named arm, and devices movable by the operator without stopping the stitching mechanism for locking said arms together.



3. A sewing machine comprising in combination stitch forming mechanism having a needle bar, a support for the needle bar, whereby the same may be moved laterally, a shaft connected to said support for oscillating the same, an arm loosely mounted on said shaft, means for oscillating said arm, an arm fixed to said shaft, and devices movable by the operator without stopping the stitching mechanism for locking said arms together.

4. A sewing machine comprising in combination stitch forming mechanism having a needle bar, a support for the needle bar, whereby the same may be moved laterally, a shaft connected to said support for oscillating the same, an arm loosely mounted on said shaft, means for oscillating said arm, an arm fixed to said shaft, a locking lug carried by one of said arms and adapted to engage the other arm for locking said arms together, and means under the control of the operator for moving said lug to connect said arms.

5. A sewing machine comprising in combination stitch forming mechanism having a needle bar, a support for the needle bar, whereby the same may be moved laterally, a shaft connected to said support for oscillating the same, an arm loosely mounted on said shaft, means for oscillating said arm, an arm fixed to said shaft, a locking lug carried by one of said arms and adapted to engage the other arm for locking said arms together, means under the control of the operator for moving said lug to connect said arms, and a spring for normally holding said lug out of locking engagement with its cooperating arm.

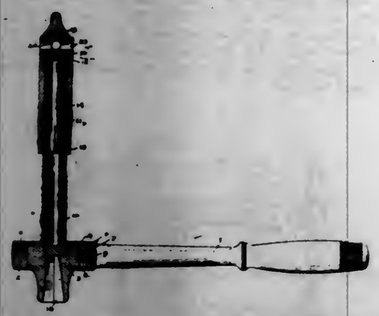
6. A sewing machine comprising in combination stitch forming mechanism having a needle bar, a support for the needle bar, whereby the same may be moved laterally, a shaft connected to said support for oscillating the same, an arm loosely mounted on said shaft, means for oscillating said arm, an arm fixed to said shaft, a locking lug carried by one of said arms and adapted to engage the other arm for locking said arms together, means under the control of the operator for moving said lug to connect said arms, a spring for normally holding said lug out of locking engagement with its coöperating arm, and devices independent of the means under the control of the operator for locking said lug in engagement with the arm.

[Claims 2 and 7 to 32 not printed in the Gazette.]

1,255,803. RATCHET-DRILL. FRANK P. SHARP, Oakland, Cal. Filed Nov. 6, 1916. Serial No. 129,867. (Cl. 77—44.)

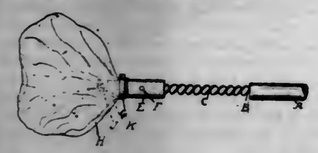
1. A device of the character described having an enlarged head, a revoluble drill holding head therein having a hollow threaded shank, a threaded sleeve on said hol-

low shank, said sleeve having a steadying rod split at one end and bearing frictionally upon the inside of the hollow threaded shank.



2. A device of the character described comprising the combination of a handle with an enlarged head, having a cylindrical seat therein, a revoluble head in contact with said seat and having a plurality of shallow separated flutes, a pivoted cam in the handle head, the face of which contacts with and is of substantially the same curve as said flutes on the fluted head, a flat arm carried by the cam and a spiral spring supported by the cam and bearing on the flat arm to hold the fluted head.

1,255,804. DISH-CLEANER AND MOP. CARROLINE SHIPHERD, Omaha, Nebr. Filed Mar. 31, 1917. Serial No. 158,936. (Cl. 15—43.)



The dish cleaner herein shown and described consisting of a handle, a spiral having one end secured to the handle, a sleeve fitting on the spiral, a pin in the sleeve engaging the spiral to rotate the sleeve, a block on the other end of the spiral, a hook carried by said block, the mop having its outer portion secured to said hook, and a ring clamp for securing the mop in place upon the sleeve.

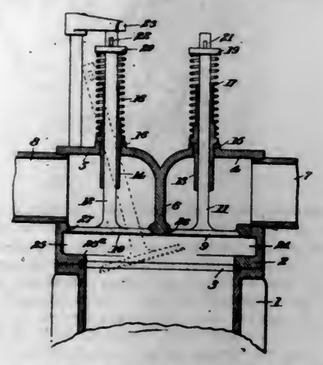
1,255,805. SPARK-PLUG. GEORGE T. SIMMONS, Janesville, Wis. Filed Oct. 7, 1916. Serial No. 124,408. (Cl. 123—169.)



1. A spark plug comprising a casing, an insulator member supported in the upper portion of said casing, said casing having an internal shoulder located above the lower end thereof and below said insulator member and its support, an inner electrode extending below said internal shoulder and spaced therefrom, and an outer wire electrode fixed at its upper end to said internal shoulder and extending downwardly and inwardly therefrom, said outer wire electrode terminating near the lower end of the casing and in sparking relation to said inner electrode.

[Claim 2 not printed in the Gazette.]

1,255,806. VALVE CONSTRUCTION. THOMAS NOAH SMITH, San Angelo, Tex. Filed Mar. 13, 1916. Serial No. 83,888. (Cl. 123—188.)



1. The combination with an engine cylinder having a head, of a valve and valve stem mounted in the head and movable axially of the cylinder, a shoulder between the valve and cylinder bore normally acting as a stop to limit the inward movement of said valve, said cylinder head having an opening smaller than the valve, and a relatively long removable guide for the valve stem secured in said opening and having a relatively short bearing therein, whereby, when said guide is removed, the valve stem may be tilted laterally in said opening, so as to cause the valve to clear said shoulder.

[Claim 2 not printed in the Gazette.]

1,255,807. TITANIUM COMPOUNDS. HOWARD SPENCE and HERBERT WRIGLEY, Manchester, England, assignors to Company of Peter Spence & Sons Limited, Manchester, England. Filed Dec. 11, 1914. Serial No. 876,666. (Cl. 23—24.)

1. A mixture composed of basic titanium sulfate, a soluble alkali sulfate and a soluble oxalate, which mixture has the property of suffering double decomposition in an aqueous solution with the formation of a titanium oxalate in which the ratio of TiO_2 to C_2O_3 is about 1 to 1 and a soluble alkali sulfate.

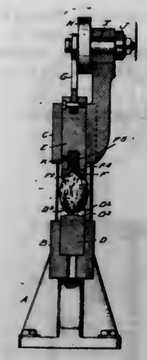
2. In the process of producing stable titanium oxalate, the step which comprises subjecting basic titanium sulfate, a soluble alkali sulfate and a soluble oxalate to double decomposition in an aqueous solution with the formation of titanium oxalate in which the ratio of TiO_2 to C_2O_3 is about 1 to 1.

3. The process of producing stable titanium oxalate in which the ratio of TiO_2 to C_2O_3 is about 1 to 1 which comprises adding to basic titanium sulfate in an aqueous solution about one molecular proportion of available oxalic acid.

4. A titanium oxalate stable in an aqueous solution in which the molecular proportion of TiO_2 to C_2O_3 is about 1 to 1.

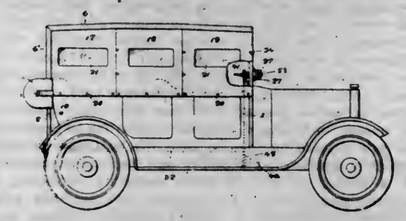
1,255,808. NUTCRACKER. JAMES H. SPENCER, New York, N. Y. Filed July 26, 1915. Serial No. 41,912. (Cl. 146—3.)

A nut cracker, comprising a frame provided with a seat, a plunger movable toward and from the said seat, and a pair of dies, of which one is the stationary die and is removably held in the said seat, and the other is the movable die and is removably held in the said plunger, each of the dies having a shallow conical recess in its face, the recesses being of a depth to receive the end only of a nut and the wall of each recess being provided with narrow annular steps throughout its entire extent, each of the dies having



cross cuts extending diametrically across the die face, the bottoms of the cross cuts of the stationary die being inclined from the center of the die in an outward and downward direction.

1,255,809. AUTOMOBILE-TOP. GUSTAF ADOLPH STENSON, Cokato, Minn. Filed Oct. 5, 1916. Serial No. 123,919. (Cl. 21—62.)

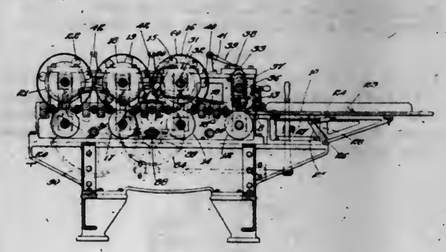


1. The combination with a motor vehicle, of a top frame comprising front and rear corner uprights, upper longitudinal frame bars connecting said uprights, front and rear cross bars connecting said longitudinal bars, a flexible cover, cleats on the under side of said cover having their end portions slidingly supported by said upper frame bars, a housing for said cover, a roller journaled in said housing upon which the cover is adapted to be wound and unwound, means for operating said cover to move the same to and from its useful position, said cleats being formed with guide ways in their front and rear faces, and side curtains having their marginal portions slidably received in said guide ways.

2. The combination with a motor vehicle, of a top frame comprising front and rear corner uprights, upper longitudinal frame bars connecting said uprights, front and rear cross bars connecting said longitudinal bars, a flexible cover, cleats on the under side of said cover having their end portions slidingly supported by said upper frame bars, a housing for said cover, a roller journaled in said housing upon which the cover is adapted to be wound and unwound, means for operating said cover to move the same to and from its useful position, said cleats being formed with guide ways in their front and rear faces, side curtains having their marginal portions slidably received in said guide ways, said side curtains being provided with eyes at their upper edges, and means on said upper frame bars with which said eyes may be placed in engagement.

3. The combination with a motor vehicle, of a top frame comprising front and rear corner uprights, upper longitudinal frame bars connecting said uprights, front and rear cross bars connecting said longitudinal bars, a flexible cover, cleats on the under side of said cover having their end portions slidingly supported by said upper frame bars, a housing for said cover, a roller journaled in said housing upon which the cover is adapted to be wound and unwound, means for operating said cover to move the same to and from its useful position, the rear uprights and upper frame bars being formed with channels in their outer faces, and flaps extending longitudinally of said cover and having runners on their inner faces movable along said channels.

1,255,810. CUTTING AND SCORING MACHINE. EUGENE H. TAYLOR, Hyde Park, Mass.; George A. Taylor administrator of said Eugene H. Taylor, deceased. Filed Dec. 10, 1915. Serial No. 66,182. (Cl. 93—58.)



1. The scoring means for lines transverse of the line of movement of stock through the machine which comprises a roll provided with circumferential slots, movable bars secured in said slots and themselves slotted longitudinally, scoring blades in said slots, a wedge shaped strip in contact with the side of each scoring blade on one side and on the other side in contact with an inclined surface formed at the side of the slot, means to clamp the same in place, and a wedge in each of said slots and under the respective blades, said wedges being movable longitudinally in their slots to adjust the blades radially of the roll.

2. In a machine of the character described, the combination of a series of rotary scoring wheels, a roll having transverse light scoring blades on the surface thereof, a roll having corner cutters on the surface thereof, a roll having deep scoring blades on the surface thereof, a bed roll coöperating with each of said instrumentalities, said instrumentalities being arranged in the order named, and positive driving means for each of said instrumentalities except said rotary scoring wheels and for said bed rolls.

4. In a machine of the character described, a series of rolls, bed rolls coöperating with each of said rolls, each of the rolls of said series having annular T-slots, bars and transverse scoring blades, secured to the T-slots of some of said rolls, and bars and corner cutters secured to the T-slots of others of said rolls.

6. In a machine of the character described, the combination of a roll having annular T-slots formed therein, longitudinal bars secured to said T-slots, blocks slidable longitudinally of said bars, T-slots in said blocks, at right angles to the T-slots in the bars, knife blocks secured to the T-slots in said blocks, and knives on said knife blocks.

[Claims 3 and 5 not printed in the Gazette.]

1,255,811. FORM-HOLDER AND WALL-TIE. HERMAN G. TENHOLDER, Beaumont, Tex., assignor of one-half to George W. Smyth Lumber Company, Beaumont, Tex., a Corporation of Texas. Filed Nov. 7, 1917. Serial No. 200,803. (Cl. 25—131.)

1. A concrete form holder and wall tie consisting of a bar having on one side, near each end, projecting shoulders having outwardly facing seats and on the same side projections having spaced, directly facing shoulders to receive a pair of inner mold-sections adapted to be secured

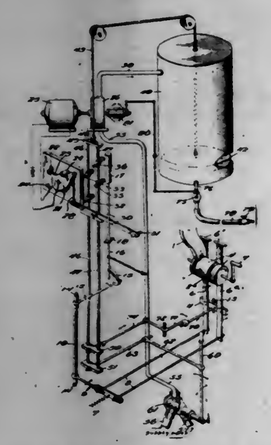
by lateral pressure upon the seats and adjustable means for securing the inner sections against their seats.



3. A concrete form holder and wall tie consisting of a bar having on one side, near each end, a pair of facing seats to receive each a mold member and on the same side a pair of spaced facing shoulders for a pair of inner mold-sections adapted to be secured by lateral pressure upon the respective seats, the ends of the bar having reverable heads with bases projecting from opposite sides of the bar and forming seats and adjustable means for securing the inner sections against their seats.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,255,812. AUTOMATIC GASOLENE AND OIL VENDER. GEORGE ARTUS, Clear Lake, S. D., assignor to Worthington Manufacturing Company, Worthington, Minn., a Corporation. Filed Nov. 29, 1915. Serial No. 64,090. (Cl. 194—90.)



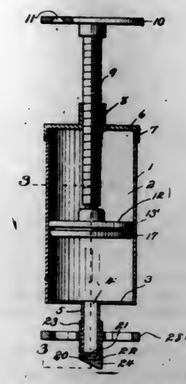
1. A vending machine, comprising a dispensing tank or receptacle, an outlet valve therefor, a pump to supply a liquid to said tank, driving mechanism for the pump, coin-controlled means governing the operation of said driving mechanism, means controlled by the elevation of the liquid in the tank for stopping said mechanism, and means controlled by the operation of said driving mechanism holding said outlet valve closed only during the filling operation.

6. A vending machine, comprising a dispensing tank or receptacle, a plurality of sources of liquid supply, a pump to supply liquid to said tank, means to connect one or another of said sources of said pump, driving mechanism for the pump, means controlling the power supplied to said mechanism, a stopping device for said mechanism, a plurality of sets of stops, under the control of the liquid in the tank adapted to actuate said stopping device, means for moving a single set of stops into operative position, and coin-controlled means for causing one or another stop of said selected set to be effective.

9. A vending machine, comprising a dispensing tank or receptacle, a plurality of sources of liquid supply, a pump to supply liquid to said tank, means to connect one or another of said sources to said pump, coin controlled starting and stopping devices for the said pump, and means controlled by the coin for predetermining the time limit of operation of said pump.

[Claims 2 to 5, 7, and 8 not printed in the Gazette.]

1,255,813. SOAP-DISPENSING DEVICE. WILLIAM H. BREW, Washington, D. C.; Annie L. Brew administrator of said William H. Brew, deceased. Filed Sept. 29, 1916. Serial No. 122,918. (Cl. 221—13.)



1. A device of the character described, including a receptacle, a follower and threaded stem therefor, a cap threaded to receive said stem to progress said follower upon relative rotation of said receptacle and said stem, a dispensing tube square in cross section provided with a dispensing aperture, a closure and cut-off square in cross section, a cutting extension on said slosure, the closure being slidable on said dispensing tube, the said cutting extension passing over said dispensing aperture, said closure including a resilient tongue for engagement with said dispensing tube to hold the cutting extension in effective position in relation to said dispensing aperture.

3. A device of the character described including a receptacle and follower, a dispensing tube provided with a dispensing aperture, a gravity actuated closure and cut-off vertically slidable on said dispensing tube to command said dispensing aperture, said gravity actuated closure and cut-off including a shearing edge arranged to pass vertically over the said aperture to shear off the contents of the receptacle dispensed through said aperture, substantially as described.

4. A device of the character described, including a receptacle and follower, a dispensing tube square in cross section provided with a dispensing aperture, a closure and cut-off square in cross section slidable on said dispensing tube over said aperture to cut off the contents of the receptacle dispensed through said aperture and to close the aperture, a hand wheel on said closure and cut-off for manual rotation and vertical movement, the square formation of the said closure and cut-off and of the said dispensing tube causing rotary movement of said hand wheel to be transmitted to said receptacle to rotate the same.

[Claims 2 and 5 not printed in the Gazette.]

1,255,814. ELECTRIC HEATER. EDMUND N. BROWN, San Francisco, Cal., assignor to Majestic Electric Development Co., a Corporation of California. Filed Dec. 26, 1917. Serial No. 208,965. (Cl. 219—34.)

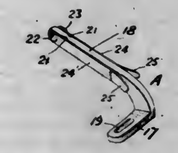
1. An electric heater comprising a parabolic reflecting surface and an electric heating unit passing through the focus thereof transversely to the axis, whereby the heat will be reflected from said surface in substantially parallel lines.

2. An electric heater, comprising a parabolic reflecting surface, and an electric heating unit comprising a resistance wire carried by an insulating support of small dimensions substantially centered about the focal point of the reflector, whereby the heat waves will be reflected from said surface in substantially parallel lines.



3. An electric heater, comprising a substantially parabolic reflector having a polished reflecting surface, an electric heating device mounted at substantially the focus of said parabolic reflecting surface and comprising a resistance wire coiled about a short axis passing substantially through the focal point of the reflector and transversely to the axis thereof, whereby the heat will be generated near the focus of the reflector and be reflected from the surface thereof in substantially parallel lines.

1,255,815. TENSION DEVICE FOR CIRCULAR-KNITTING MACHINES. JAMES BROWN, Philadelphia, Pa., assignor to Venango Knitting Mills, Incorporated, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 25, 1917. Serial No. 144,504. (Cl. 242—149.)



1. A device of the character stated comprising a transversely disposed support having a similarly disposed slot therethrough to accommodate means for effecting lateral adjustment of the device, a longitudinally extended member projected from said support and a leaf spring fixed to the free end of said member upon each side thereof and disposed in substantially abutting, parallel relation therewith throughout the major portion of its extent.

2. A device of the character stated comprising a transversely disposed support having a similarly disposed slot therethrough to accommodate means for effecting lateral adjustment of the device, a member projected from said support in an upwardly and longitudinally extended manner and a leaf spring secured to the free end of said member upon each side thereof in parallelism therewith, the free ends of said springs being flared.

3. A device of the character stated comprising a transversely disposed support having a similarly disposed slot therethrough to accommodate means for effecting lateral adjustment of the device, an upwardly and longitudinally extended member projected from said support and a leaf spring secured to the free end of said member upon each side thereof, each spring being in substantially abutting parallel relation with said member throughout the major portion of its extent, the free ends of said springs being flared.

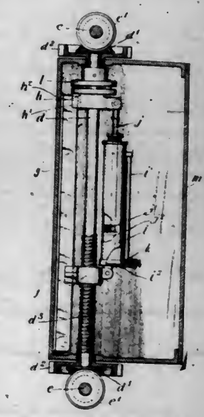
4. A device of the character stated comprising a transversely disposed support having a similarly disposed slot therethrough to accommodate means for effecting lateral adjustment of the device, an upwardly and longitudinally extended member projected from said support, the opposite sides of which member are notched adjacent the free end thereof and a leaf spring rigidly secured to said free end of said member and beyond said notches upon each side of said member, each spring being in substantially abutting, parallel relation with said member throughout the major portion of its extent, the free ends of said springs being flared.

1,255,816. COFFEE COMPOUND. JOHN D. FLETCHER, Evansville, Ind. Filed May 21, 1917. Serial No. 170,042. (Cl. 99—11.)

1. A coffee compound composed of caffeine, caramel, and fluid extract of the coffee bean, substantially in the proportions specified.

[Claims 2 to 4 not printed in the Gazette.]

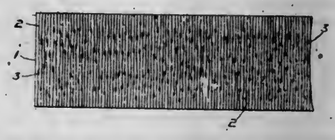
1,255,817. ROLLING FIRE-SHUTTER, PARTITION, OR THE LIKE. ARTHUR LLOYD GIBSON, WILLIAM PARKER GIBSON, and WILLIAM HENRY ROSS, Twickenham, England. Filed Nov. 14, 1912, Serial No. 731,253. Renewed June 15, 1917. Serial No. 175,042. (Cl. 189—58.)



1. In combination with a shutter and a winding means therefor, of means for retarding the descent of the shutter consisting of a threaded shaft operably connected for rotation with said shutter winding means, a rectilinearly movable dash pot and piston therefor, one of said two last named parts operated by the threaded screw and the other having a free movement in a direction parallel to the axis of the threaded screw and means for limiting said movement and therefore retarding the rotation of the threaded shaft.

[Claim 2 not printed in the Gazette.]

1,255,818. REINFORCED PAPER FABRIC. PATRICK TRACY JACKSON, Jr., Cambridge, Mass., assignor to Paper Products Machine Company, Boston, Mass., a Corporation of Massachusetts. Original application filed June 28, 1916, Serial No. 106,504. Divided and this application filed Sept. 22, 1916. Serial No. 121,668. (Cl. 154—46.)

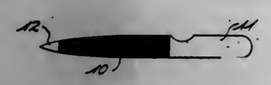


1. As an article of manufacture, a reinforced or strengthened fabric for protecting objects over or about which it is placed, comprising a paper strip or backing with a series of closely adjacent reinforcing or strengthening unspun fibers secured thereto with their longitudinal dimension extending transversely of the fabric in general

parallel relation, the ends of adjacent unspun fibers extending past each other transversely of the paper strip to prevent lines of weakness longitudinally of the fabric.

[Claims 2 to 6 not printed in the Gazette.]

1,255,819. FILE. WILLIAM L. MOFFAT, Brooklyn, N. Y., assignor to Joseph Ross & Co., Irvington, N. J., a Corporation of New Jersey. Filed Mar. 30, 1917. Serial No. 158,546. (Cl. 29—78.)



2. As an article of manufacture, a fine-toothed file having the non-cutting portions only of the walls of the teeth covered with an electrolytically deposited coating of tin.

3. As an article of manufacture, a fine-toothed file having only a portion of its surface provided with teeth, the non-cutting portions only of the walls of the teeth being covered with a coating of electrolytically deposited tin and the non-toothed portion of the file being covered with a coating of nickel.

[Claims 1 and 4 not printed in the Gazette.]

1,255,820. VENTILATED-SUSPENSORY-CROTCH GARMENT. ELI OPPENHEIM, Baltimore, Md., assignor to Oppenheim, Oberndorf & Co., Inc., Baltimore, Md., a Corporation of Maryland. Filed Oct. 5, 1915. Serial No. 54,114. (Cl. 2—144.)

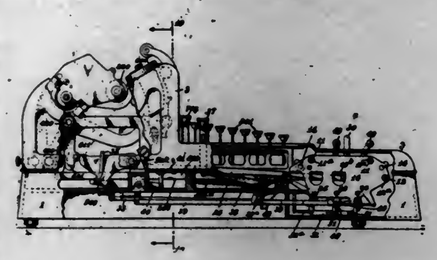


1. A union undergarment having a body portion, a drawers portion with legs which latter are joined by a straight inseam that extends from the end of one leg up to and forming a single seam across the crotch and then extends down the other leg, said garment having a front placket extending from the neck of the garment down to and secured in the single inseam at the crotch, the garment also having a posterior opening with placket flaps, and an insert having a straight front edge a narrower straight rear edge and inclined edges extending from the narrower rear edge to the wider front edge,—the wider front edge of the insert being secured in the single inseam while the narrower rear edge and the lower ends of the posterior placket-flaps are stitched together and the two inclined side edges of the insert being stitched to the seat of the drawers portion at the rear of the single inseam.

2. A bifurcated undergarment having two legs each joined by an inseam that extends uninterruptedly up one leg across the crotch and down the other leg with a front opening whose lower end terminates at said inseam, said garment also having a posterior opening with a flap which latter terminates at a point to the rear and spaced from the said inseam, a band extending from the lower end of the front opening to and connected with the lower end of the flap of the posterior opening and an insert in the crotch at the rear of the inseam and extending at opposite sides of the said crotch band.

1,255,821. CALCULATOR. HEBER C. PETERS, New York, N. Y. Filed June 3, 1915. Serial No. 31,825. (Cl. 235—60.)

6. In a calculating machine, a printing mechanism including a cancellation sign, a plurality of accumulators, means for rendering one of said accumulators active and another inactive, a cancellation member, and means whereby said cancellation member clears the active accumulator and simultaneously controls said printing mechanism to print said cancellation sign only.



24. In a calculating machine, in combination, two accumulators, means for simultaneously rendering one of said accumulators rotatable and the other non-rotatable and means controlled by the rotated position of the non-rotatable accumulator for communicating to the rotatable accumulator the complement of a number on the non-rotatable accumulator.

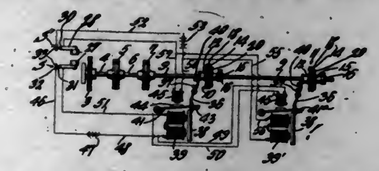
31. In a calculating machine, in combination, two accumulators, means for rendering either accumulator active or wholly inactive at will, and means coöperable with one accumulator while inactive to diminish a registration on the other active accumulator.

38. In a calculating machine, in combination, two sets of adding wheels, sets of graduated cams associated with said wheels, and means coöperable with the cams on one set of wheels and operable to diminish the registration on the other set of wheels.

46. In an adding machine, a rack and two unit wheels operating to engage said rack in combination with means operating on occasion during a subtracting operation of the machine to move the rack, under control of either units wheel disengaged from the rack, one point beyond its normal maximum movement and means to engage the other units wheel with the rack to receive a registration corresponding with this movement of the rack.

[Claims 1 to 7, 9 to 23, 25 to 30, 32 to 37, 39 to 45, and 47 to 50 not printed in the Gazette.]

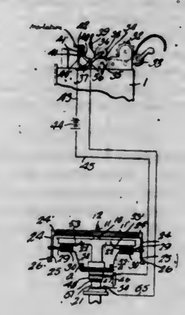
1,255,822. MECHANISM FOR CONTROLLING MOTION-PICTURE AND SOUND-REPRODUCING MECHANISMS. HARRISON W. ROGERS, Wheeling, W. Va. Filed Oct. 11, 1913. Serial No. 794,632. (Cl. 88—16.2.)



1. The combination with a motion picture projector and a plurality of sound reproducing mechanisms, a shaft being connected to and actuated by the projector mechanism, of means for alternately connecting and disconnecting the sound reproducing mechanisms to and from the shaft, the same including a plurality of clutches one to each sound reproducing mechanism, a film forming a part of the projector mechanism and having a plurality of switch actuators, switches respectively related to said clutches, a plurality of electro-magnets also related to said clutches, a source of electrical energy, a plurality of clutch throwing levers related respectively to said electro-magnets and clutches, a lock for each lever, an electro-magnet for each lock, an independent electrical circuit including the source of electrical energy, a switch, and a lever controlling and a lock releasing electro-magnet whereby the closure of one switch will actuate one clutch and release the other.

2. The combination with a motion picture projector and two sound reproducing mechanisms, of a shaft connected to and operated by the projector and extending therefrom to all of the sound reproducing mechanisms, a plurality of clutches one to each sound reproducing mechanism mounted upon said shaft, one of the clutch members being a freely rotatable member and geared to its respective sound reproducing mechanism and the other clutch member being a spring released member keyed for sliding movement upon the shaft, an armature lever operably connected to each sliding clutch member, an electro-magnet for attracting said armature to move the sliding clutch member in opposition to its spring, an armature lock for locking the armature lever in such position, an electro-magnet for releasing said lock and consequently the sliding clutch member, and two electrical circuits including the first mentioned electro-magnet of one sound reproducing machine and the second electro-magnet of the other machine, whereby the clutches are alternately thrown in and out.

1,255,823. SYNCHRONIZING MECHANISM FOR MOTION-PICTURE AND SOUND-REPRODUCING MACHINES. HARRISON W. ROGERS, Wheeling, W. Va. Filed Nov. 18, 1916. Serial No. 132,118. (Cl. 88—16.2.)



1. The combination with the projector of a motion picture machine, of a sound record carrier, a clutch member for the carrier, a rotary clutch member operably connected to the projector, means for operating the rotary clutch member to connect the projector to the record carrier, said means comprising a source of electrical energy, a switch disposed to be closed by the film, a lock for holding the switch closed after the switch has been actuated, an electromagnet operably connected to the rotary clutch member, and a circuit including the source of electrical energy, the switch and the electromagnet, whereby when the circuit is closed, the electromagnet is energized and the clutch members held engaged.

[Claim 2 not printed in the Gazette.]

1,255,824. INSULATED TESTING-PLUG TERMINAL. MILTON H. SHOENBERG, San Francisco, and FRANK TALCOTT, Burlingame, Cal., assignors to Majestic Electric Development Company, a Corporation of California. Filed Aug. 13, 1917. Serial No. 186,071. (Cl. 173—273.)

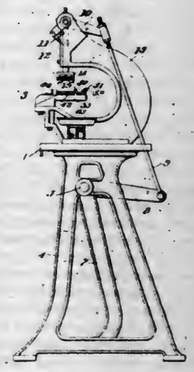
1. A plug terminal, comprising a main body portion of insulating material provided with a longitudinal bore enlarged at one end to form a recess, a contact member extending through said bore and projecting at the recess end beyond the body portion and provided at the opposite end with means for attaching a conductor thereto, and an insulating sheath or sleeve slidably mounted within said recess and surrounding said contact member.

2. A plug terminal, comprising a main body portion of insulating material provided with a longitudinal bore enlarged at one end to form a recess, a contact member extending through said bore and projecting at the recess end beyond the body portion and provided at the opposite end with means for attaching a conductor thereto, an insulating sheath or sleeve slidably mounted within said recess and surrounding said contact member, and a spring within the recess normally pressing the sheath outwardly so that its outer end projects beyond the end of the contact member.



3. A plug terminal as set forth in claim 2, in which the outer end of said contact member is provided with a shoulder, and the sheath is provided at its inner end with an inwardly extending flange adapted to bear against said shoulder when in normal extended position.

1,255,825. GANG SETTING-MACHINE. ERNEST D. SIMONS, Waterbury, Conn., assignor to Scovill Manufacturing Company, Waterbury, Conn., a Corporation of Connecticut. Filed Mar. 21, 1917. Serial No. 156,308. (Cl. 218—0.5.)



1. In a gang setting machine, a frame having a guideway angular in cross-section, a die-block provided with a plurality of dies and a transverse recess angular in cross-section, and a plunger angular in cross-section and arranged in said guideway and fitted in the recess in the die-block to hold the block against turning, thereby serving to rigidly aline the dies with their companion dies.

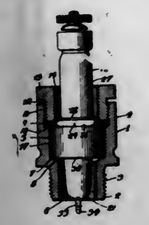
5. In a machine for simultaneously setting the male and female members of a plurality of glove fasteners, an upper die member having dies for such male and female members arranged in parallel series, and a lower die member having similarly arranged dies for washers to be engaged by said male and female members in the act of setting, a yielding tension plate surrounding the last named dies, a tension hook for engaging the glove, and a horn on which the lower die portions are mounted and around which the glove is drawn.

14. In a machine for simultaneously setting both the male and the female members of a plurality of fasteners, a reciprocating upper die member mounted upon a non-turning plunger and having dies for such male and female members, and a stationary lower die member having complementary dies for coacting with the upper dies in setting the fasteners, a horn on which said complementary dies are mounted, a combined tension plate and set edge yieldingly connected to the horn, means on the plate to aid in

properly positioning the article to be supplied with fasteners, and a spring tension device on the horn for engaging said article while it is held upon the plate by the operator.

[Claims 2 to 4 and 6 to 13 not printed in the Gazette.]

1,255,826. SPARK-PLUG. WILLIAM S. THOMAS, Lock Haven, Pa. Filed June 29, 1917. Serial No. 177,669. (Cl. 123—169.)



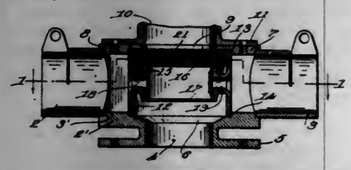
1. A spark plug including a casing having a bore terminating in a shoulder, an insulated electrode, a jacket on said electrode fitting the bore and engaging said shoulder, said casing and said jacket providing ledges at positions remote from said shoulder, a gasket resting jointly on said ledges, and means for forcibly pressing the gasket into engagement with said ledges, substantially as described.

3. A spark plug including a casing having a bore terminating in a shoulder, an insulated electrode, a jacket on said electrode fitting the bore and engaging said shoulder, said casing and said jacket providing ledges at positions remote from said shoulder, a gasket resting jointly on said ledges, said casing having a cavity intersecting its ledge, said cavity being internally screw-threaded, a nut having an opening through which the insulated electrode freely extends, a threaded sleeve projecting from said nut and designed to engage the threads of said cavity, said sleeve being designed to force said gasket in engagement with both of said ledges, substantially as described.

5. A spark plug including a casing having a bore terminating in a shoulder, an insulated electrode having an enlargement, a jacket surrounding said enlargement and compressed into securing engagement therewith, said jacket having an inturned flange designed to rest on said shoulder, said jacket having a ledge oppositely disposed to said flange, said casing having a ledge in substantial alinement with the ledge of said jacket, a gasket for joint engagement with said ledges, said casing having a screw-threaded cavity intersecting its ledge, a nut having a threaded sleeve for engagement with said screw-threads of the cavity and designed to force said gasket into engagement with both of said ledges, substantially as described.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,255,827. HOMOGENIZER. FRED WALLACE THURSTON, San Francisco, Cal., assignor, by mesne assignments, to Thurston Motor Fuel Gasifier Company of California, a Corporation of California. Filed Jan. 10, 1916. Serial No. 71,343. (Cl. 257—241.)



1. In a homogenizer, a casing for passage of the fuel to be homogenized therethrough, a hollow heating shell disposed in said casing in the path of the fuel to spread the fuel against said casing, a screen diagonally disposed between said casing and shell to be heated by said shell and casing and break up the fuel particles carried by the mixture in the passage of the fuel through said screen, and means for supplying heat to the exterior of said casing and to the interior of said shell, substantially as described.

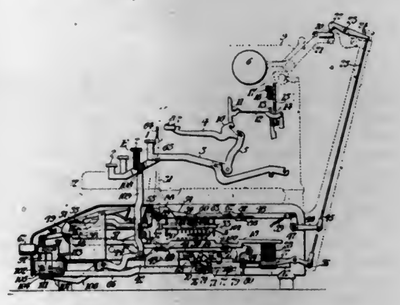
2. In a homogenizer, a casing for passage of the fuel to be heated therethrough, a hollow heating shell disposed in said casing in the path of the incoming fuel to deflect the fuel against the interior of said casing and said shell being slightly smaller than said casing, a fine screen in the path of the fuel between said shell and casing, and means for supplying heat to the exterior of said casing and to the interior of said shell to heat the casing and shell and said screen, substantially as described.

3. In a homogenizer, the combination with a casing and a shell within said casing and separated from the latter by a narrow space, a fine screen in said narrow space for passage of the fuel therefor and said screen being in close relation to said casing and shell to be heated to substantially the temperature of said casing and shell, means for supplying heat to said casing and to the interior of said shell, means for delivering fuel to be homogenized against one side area of said shell, and means for discharging the heated and mixed fuel from the opposite side of said casing with respect to the fuel entrance side, whereby all the entering fuel is spread against the hot interior of said casing and against the hot exterior of said shell and after heating and mixing is collected and delivered as hot carbureted air of homogeneous character.

8. In a homogenizer, a fuel passage chamber, a deflector in said chamber for deflecting the fuel against the walls of said chamber, means for heating said chamber, and a resilient screen structure shaped to be sprung into position between and in resilient engagement with said chamber and said deflector, substantially as described.

[Claims 4 to 7 and 9 to 13 not printed in the Gazette.]

1,255,828. COMBINED TYPE-WRITING AND COMPUTING MACHINE. FRED WALSLEBEN, New York, N. Y., assignor, by mesne assignments, to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Filed Nov. 21, 1913. Serial No. 802,203. (Cl. 235—60.)



1. In a combined typewriting and computing machine, the combination with numeral keys and other printing keys, of means normally tending to interfere with the operation of said numeral keys, a latch for holding said interfering means clear of the numeral keys, computation members on which the numerals written are temporarily set up, an error key for erasing the numerals so set up, means operated by said error key for releasing said latch, a device for restoring said latch, means for holding said latch ineffective and means controlled by one of said other printing keys for restoring said latch to effective condition.

2. In a combined typewriting and computing machine, the combination with typewriting mechanism, of computing mechanism located beneath said typewriting mechanism, numeral type keys forming part of said typewriting mechanism, pendents connected to said numeral keys and

effective on the computing mechanism, alphabet type keys, and a pendent connected to an alphabet type key for cooperation with said computing mechanism to indicate upon the work-sheet a certain event in the operation of the computing mechanism.

3. In a combined typewriting and computing machine, the combination with numeral keys and a traveling carriage, of a series of devices operated by said traveling carriage, computing mechanism comprising numbers set up by said numeral keys in a manner determined by some of said carriage-operated devices, means under the control of another of said carriage-operated devices for interfering with the utility of the computing mechanism, a general operator effective to add the numbers set up by said numeral keys and also effective to make said interfering device ineffective, and means under the control of an alphabet key of the typewriter for enabling said general operator to set said interfering device permanently in said ineffective position.

4. In a combined typewriting and computing machine, the combination with computing mechanism including a totalizer, of a shutter for said totalizer, means normally tending to make said shutter effective, a latch for holding said shutter ineffective, a device for operating said totalizer, an error key for the computing mechanism, means operated by said device for moving said shutter to ineffective position, so that said latch may hold it ineffective, means under the control of said error key for making said latch ineffective whether said device is actuated or not, and an alphabet key of the typewriter having means to make said error key controlled means ineffective.

5. In a combined typewriting and computing machine, the combination with type controlling numeral keys, of a special type controlling key, computing devices, a third key effective on said computing devices, means dependent upon the operation of the third key for interfering with the operation of said computing devices, and means for making said interfering means ineffective when said special type controlling key is operated.

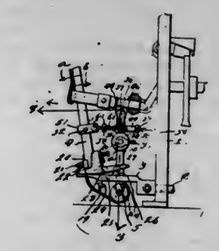
[Claims 6 to 27 not printed in the Gazette.]

1,255,829. PROCESS OF MAKING SUPERPHOSPHATE. HENRY BLUMENBERG, Jr., Los Angeles, Cal., assignor of one-third to Hugh F. Stewart, South Pasadena, Cal., one-third to Frieda Blumenberg, New York, N. Y., and one-third to George D. Robertson, Los Angeles, Cal. Filed Oct. 16, 1917. Serial No. 196,869. (Cl. 71—7.)

5. A process of making a phosphatic fertilizer, comprising mixing ground calcareous phosphate material with acid hydrocarbon sludge, heating the mixture until all the volatile matter is driven off and residual carbon is left in a finely divided state, mixing ground calcareous phosphate rock with the mass, and heating the same, whereby a fertilizer containing acid calcium phosphate, gypsum, and finely divided carbon is produced.

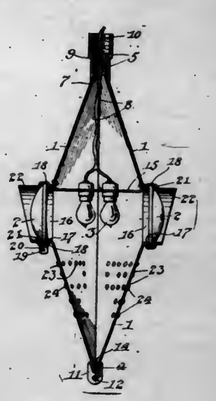
[Claims 1 to 4, 6, and 7 not printed in the Gazette.]

1,255,830. PICKER-STICK CHECK FOR LOOMS. WALTER SIMPSON FINCH, Greenville, S. C. Filed Apr. 30, 1917. Serial No. 165,539. (Cl. 139—22.)



In a device as set forth, a stand having an upstanding arm, frictional resistant means carried by the upper end of said arm and provided with a slotted lever, a sleeve bearing, means for pivotally and adjustably connecting the bearing sleeve to said slotted lever, a rod mounted in the bearing sleeve and having one end pivotally and adjustably connected to the picker-stick, a pair of set collars on the rod, with one of which said bearing sleeve is designed to contact, and a spring interposed between the other set collar and the bearing sleeve, whereby the checking of the picker-stick in its forward and rear movements is effected.

1,255,831. SIGNAL DEVICE. JOHN M. FITZ GERALD, Chicago, Ill., assignor to Automatic Flagman Company, Los Angeles, Cal., a Corporation of California. Filed Apr. 3, 1914. Serial No. 829,406. (Cl. 40—133.)



1. A signal target having opposing conical reflector walls applied upon each other and provided with light openings in their apexes and means fitting upon the peripheries of said conical walls for separably holding them together.

2. A signal target comprising opaque wall members, spread apart at the center and coming together at the edges, means for crowding and holding the said edges upon each other, the central portion of said wall members being provided with openings through which light may be distributed, lenses in said openings and lamps mounted interiorly of the target for illuminating the said lenses.

3. A signal member having opposing conical walls applied together at their edges and forming an interior space and having apex openings and means for illuminating the said openings.

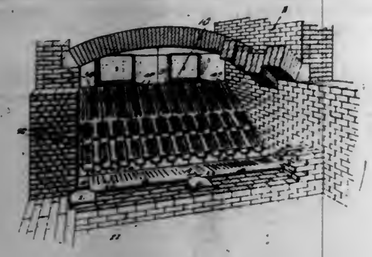
5. A signal target device comprising target walls having inner opposing concave reflector surfaces and having apex openings and auxiliary openings to one side of said apex openings and arranged to outline letters forming signal words, transparent jewels mounted in said openings and lamps mounted between the target wall reflectors for illuminating the said jewels and making the words clear at night.

[Claims 4 and 6 to 8 not printed in the Gazette.]

1,255,832. FURNACE. MAURICE A. HOFFT, Indianapolis, Ind., assignor to The M. A. Hofft Company, Indianapolis, Ind., a Corporation of Indiana. Filed May 16, 1917. Serial No. 168,934. (Cl. 110—39.)

1. In a furnace, the combination of a plurality of grate bars each formed of a comparatively deep plate at its lower end and a pair of vertical walls at its upper end connected by cross bars, said vertical walls being connected by a cross wall with the upper end of the plate

and the plate having notches in its upper edge to receive feeder finger trunnions, a plurality of feeder fingers mounted in the spaces between the deep plates of the grate bars and having trunnions pivotally supported in the notches of the grate bars, and means for swinging said feeder fingers.



2. In a furnace, the combination of a plurality of grate bars each formed of a comparatively deep plate at its lower end and a pair of vertical walls at its upper end connected by cross bars, said vertical walls being connected by a cross wall with the upper end of the plate and the plate having notches in its upper edge to receive feeder finger trunnions, and having at its lower end a transverse plate having a width exceeding the thickness of the deep plate, a plurality of feeder fingers mounted in the spaces between the deep plates of the grate bars and having trunnions pivotally supported in the notches of the grate bars, and means for swinging said feeder fingers.

3. As an article of manufacture, a grate bar comprising a comparatively deep vertical plate having a transverse notch in its upper edge, a transverse wall at the upper end of said plate and having a lateral extent exceeding the thickness of said plate, a pair of parallel walls connected to the transverse wall and spaced apart a distance such that the distance between their outer faces exceeds the thickness of the plate, and a plurality of spaced herringbone walls connecting said parallel walls.

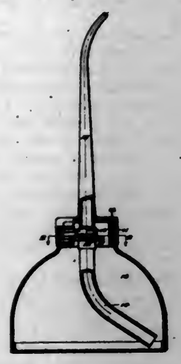
4. As an article of manufacture, a grate bar comprising a comparatively deep vertical plate having a transverse notch in its upper edge and having a plurality of laterally projecting spaced teeth, a transverse wall at the upper end of said plate and having a lateral extent exceeding the thickness of said plate and the lateral extent of the teeth, a pair of parallel walls connected to the transverse wall and spaced apart a distance such that the distance between their outer faces exceeds the thickness of the plate, and a plurality of spaced herringbone walls connecting said parallel walls.

7. As an article of manufacture, a grate bar comprising a comparatively deep vertical plate having a transverse notch in its upper edge, a transverse wall at the upper end of said plate and having a lateral extent exceeding the thickness of said plate, a pair of parallel walls connected to the transverse wall and spaced apart a distance such that the distance between their outer faces exceeds the thickness of the plate, and a plurality of spaced walls connecting said parallel walls.

[Claims 5 and 6 not printed in the Gazette.]

1,255,833. OIL-CAN. HENRY W. MUHLEISEN, Los Angeles, Cal., assignor to Albert P. Worthington, Los Angeles, Cal. Filed June 14, 1917. Serial No. 174,773. (Cl. 221—32.)

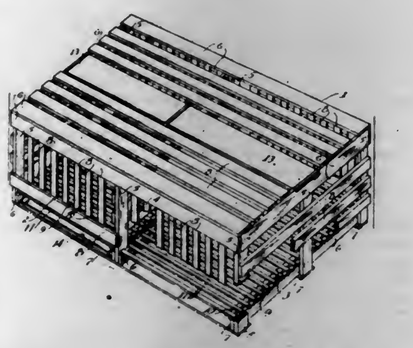
1. An oil can, comprising a reservoir having a spring bottom, a spout detachably secured to the top of said reservoir, a tubular stem in communication with said spout and extending into the reservoir, its end terminating within a corner of the reservoir formed by its side wall and the bottom, an opening through the stem at a point adjacent the juncture of the stem with the spout, and means whereby



said opening may be closed when the can is in an upright position and open when it is inverted.

[Claims 2 and 3 not printed in the Gazette.]

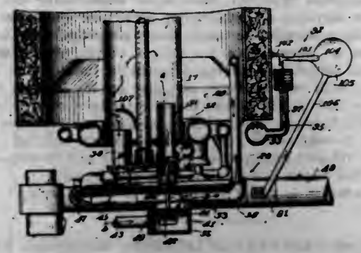
1,255,834. POULTRY-FEEDING COOP. DON L. QUINN, Oak Park, Ill., assignor to Chicago Mill and Lumber Company, a Corporation of Illinois. Filed Oct. 21, 1916. Serial No. 126,912. (Cl. 119—17.)



In a poultry coop, a frame including a pair of rails disposed in spaced parallel relation at or adjacent to the bottom, a plurality of cross-pieces secured to the underside of said rails, a removable drip-pan slidably mounted on said cross-pieces for insertion and removal crosswise thereof between said rails, and a removable roost comprising a pair of bars spaced apart with a series of slats secured crosswise thereon with their ends projecting sufficiently to rest on said rails for supporting said roost, said drip-pan and roost being suitably spaced apart by said rails and being removable by sliding forward, each independently of the other.

1,255,835. WATER-HEATER. HUGH G. SHAUG, Los Angeles, Cal. Filed Apr. 15, 1916. Serial No. 91,468. (Cl. 126—351.)

1. In a water heater, a heat generator including a primary and a secondary burner adapted to produce a variable degree of heat, a water circulating system disposed in the path of travel of said heat, means for maintaining the circulation of water in one direction when the heat is supplied by the primary burner, a valve for interrupting the circulation and a flow motor connected to the valve and to the secondary burner whereby the direction of flow of said water is reversed and the degree of heat is increased.



6. In a water heater, a water circulating system, a heat retaining wall surrounding said circulating system, a burner of small heat capacity disposed beneath said system, thermostatic control means operatively mounted within the system for maintaining a given degree of heat within the system, a water inlet pipe connected with said system, a water outlet pipe in connection with the system, a water flow operated valve mounted upon said outlet pipe and in connection with the draw-off pipe, means controlled by the pressure of the water within the draw-off pipe whereby said flow valve is operated, means connecting with said control means whereby a pair of gas regulating valves are operated, conducting means leading from one of said valves to the small capacity burner, a large capacity burner mounted within and concentric with said first-named burner, and in connection with the other gas regulating valve, a gas supply pipe connected with said gas regulating valves, means for igniting the burners from the supply pipe, and thermostatic means regulated by said ignition means whereby the supply of gas will be discontinued when the ignition means is inoperative.

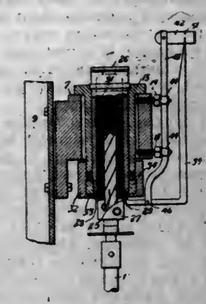
8. In a water heater, the combination with a water circulating system, of a heat generating system, valve means for controlling the supply of fuel delivered to said heat generator, water controlled means for actuating said fuel control valves, a valve shaft connecting said fuel and water control means and means for preventing the escape of gas or the leakage of water between the water control member and the gas control member, along the valve connecting medium, said means consisting of a screw-threaded bearing, screw threads upon the valve shaft fitting in the bearing, and grease cups connected to the bearing for supplying hard grease to the screw threads.

[Claims 2 to 5, 7, and 9 not printed in the Gazette.]

1,255,836. METHOD OF FORMING CAVITIES IN EXPLOSIVES. ULDRIC THOMPSON, Jr., New York, N. Y., assignor, by mesne assignments, to Bertrom, Griscom & Co., Inc., a Corporation of New York. Original application filed Nov. 20, 1916, Serial No. 132,241. Divided and this application filed Aug. 27, 1917. Serial No. 188,382. (Cl. 86—1.)

1. The method of forming a cavity in explosive contained in a shell, which consists in supporting the shell with its axis having a vertical component whereby the borings tend to drop away from the shell under the action of gravity, and having its lower end open, and removing explosive material to form the desired cavity by relatively moving a drill and the shell whereby the drill enters into the explosive from the lower end of the shell along a path having a vertical component and conveying the borings of explosive away from the vicinity of the shell and drill by suction.

7. The method of forming a cavity in explosive cast in a shell having bores of different diameters, which consists in advancing boring cutters or drills in fixed longitudinal relationship into the said explosive, the said cutters or drills being of different diameters to form holes of different diameters in the different bores respectively, the hole



of larger diameter in the larger shell bore being not greater than the lesser bore.

[Claims 2 to 6 and 8 to 10 not printed in the Gazette.]

1,255,837. TUBE FOR PNEUMATIC TIRES. ALBERT ENNIS HENDERSON, Toronto, Ontario, Canada. Filed Dec. 26, 1916. Serial No. 139,006. (Cl. 152—13.)

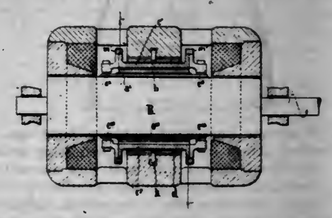


1. A tube for pneumatic tires having its rim side portion provided with an embedded protection and valve base, the same comprising a series of unconnected, longitudinally overlapping inelastic fabric strips.

2. A tube for pneumatic tires having its rim side portion protected by a series of unconnected terminally overlapping fabric strips embedded therein adjacent to the surface of the tube, a valve base overlappingly connected with the said protecting strips.

3. In combination with a tube for pneumatic tires, having its rim side portion protected by a series of unconnected fabric strips embedded therein adjacent to the surface of the tube and spaced apart by intermediate rubber a valve base adapted to receive from without the button of the valve stem, said valve base being overlappingly connected with the said protecting series.

1,255,838. DYNAMO-ELECTRIC MACHINERY. RUDOLF KNOLL, Ennet-Baden, Switzerland. Filed Mar. 20, 1916. Serial No. 85,496. (Cl. 191—212.)



1. A uni-polar dynamo electric machine including two commutators separated by a magnetic field, a plurality of armature conductors terminating in the segments of the aforesaid commutators, a brush rocker comprising a plurality of segments rotatable about said conductors and serving as return conductors whereby the armature conductors are connected in series.

2. A uni-polar dynamo electric machine including two commutators separated by a magnetic field, a plurality of armature conductors terminating in the segments of the aforesaid commutators, a brush rocker comprising a plurality of segments rotatable about said conductors and serving as return conductors whereby the armature conductors are connected in series and wherein those brushes which are connected together by one and the same conductor segment, are shifted relatively to each other one division or brush pitch distance.

3. A uni-polar dynamo electric machine including two commutators separated by a magnetic field, a plurality of armature conductors terminating in the segments of the aforesaid commutators, a brush rocker comprising a plurality of segments rotatable about said conductors and serving as return conductors, together with slip rings rotating with the brush rocker to which rings the ends of the windings are connected, whereby current may be led to and taken from the armature conductors.

4. A uni-polar dynamo electric machine including armature conductors and renewable commutator segments, together with a ring disposed around the commutator for shrinking the segments on to the conductors and recesses in the segments under the ring for preventing the flow of strong magnetic flux through the segments.

5. A uni-polar dynamo electric machine including two commutators on each side of a magnetic field, separated axially, a plurality of armature conductors arranged in at least two layers terminating in the segments of the aforesaid commutators, a brush rocker comprising a plurality of segments and brushes rotatable about the armature segments, these several segments of the brush rocker serving as return conductors whereby the armature conductors are connected in series, the brushes of different commutators on one side of the machine being staggered relatively to one another for the purpose of suppressing the E. M. F. due to self-induction which occurs on the disconnection of each armature conductor.

[Claims 5 to 7 not printed in the Gazette.]

1,255,839. THERAPEUTIC LAMP. RICHARD G. LEDIG, Philadelphia, Pa. Filed Mar. 31, 1917. Serial No. 158,786. (Cl. 240—1.)



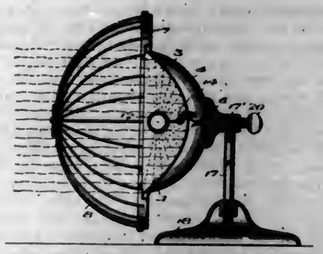
1. In an electric therapeutic lamp, a hood, the latter being provided with a socket, a boss extending from said socket, a handle connected with said boss and extending laterally therefrom, said handle and boss being tubular, and a current conductor which is passed through said tubular handle and boss into said socket and connectible with the binding devices of the switch plug of the lamp.

2. In a therapeutic lamp, the combination of a socket, a tubular, interiorly-threaded boss attached to and extending laterally from the socket, a tubular handle exteriorly threaded at its inner end and disposed laterally to the socket and in alinement with said boss, a conductor extending through the handle and boss and into the socket, and a sleeve interposed between the handle and the boss and having a reduced and exteriorly threaded portion arranged in and detachably engaged with the boss and also having a comparatively large outer and interiorly threaded portion receiving the inner end of the handle; the handle and sleeve being adapted when the latter is disconnected from the boss to be folded with the conductor therein on the adjacent portion of the lamp.

4. In a therapeutic lamp, the combination of a socket having an aperture in its side, a switch plug disposed in said socket and having a recess in its side and coincident with said aperture and also having binding posts on one end to which said recess extends, a conductor extending through said aperture and having branches disposed in said recess and connected to said binding posts, and a tubular handle disposed laterally to and connected with the socket and receiving the conductor.

[Claims 3, 5, and 6 not printed in the Gazette.]

1,255,840. ELECTRIC RADIATOR. RICHARD G. LEDIG, Philadelphia, Pa., assignor to Majestic Electric Development Co., a Corporation of California. Filed Aug. 7, 1917. Serial No. 184,922. (Cl. 219—34.)



1. An electric radiator, comprising a stand or support, a parabolic reflector, having a highly polished reflecting surface, pivotally secured thereto, an electric heating device supported in spaced relation to said surface and comprising a resistance wire coiled about a short axis passing substantially through the focal point of the parabolic reflector and transverse to the axis thereof, and means for adjusting said reflector in a vertical plane to thereby control the angular direction of the heat waves reflected from said surface.

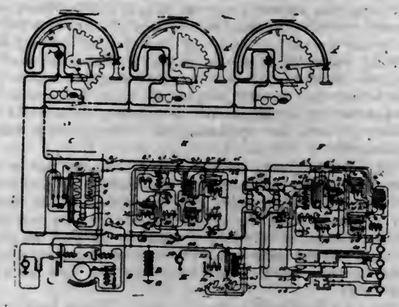
2. An electric radiator, comprising a stand or support, a concavo-convex reflector, having a highly polished reflecting surface, pivotally secured to said support, an electric heating device supported in spaced relation to said concave surface and comprising a resistance wire coiled about a short axis passing substantially through the focal point of the reflector and transverse to the axis thereof, and means for varying the inclination of said reflector in a vertical plane to thereby control the direction of the heat waves projected from said reflecting surface.

REISSUES.

14,430. PARTY-LINE TELEPHONE SYSTEM. HENRY HOVLAND, East Orange, N. J., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 6, 1917. Serial No. 184,756. Original No. 1,158,221, dated Oct. 26, 1915, Serial No. 728,811, filed Oct. 31, 1912. (Cl. 179—17.)

1. In a telephone system, a party-line, a ring-back apparatus for enabling one party to call another on the same line, means for connecting said line with said apparatus, a plurality of sources of ringing current of different characters, and means controlled by said ring-back apparatus for selecting two of said sources to operate the signals at the calling and called substations.

2. In a telephone system, a party line, a ring-back apparatus for enabling one party to call another on the same line, means for connecting said line with said apparatus, a plurality of ringing generators for supplying ringing current of different characters, means controlled by the calling subscriber for operating said apparatus to select any two of said generators, and means for then alternately transmitting the current from said two selected generators over said line.



3. In a telephone system, a party-line, a plurality of ringing generators for supplying ringing current of different characters, a step-by-step apparatus for selecting any two of said generators, and means for alternately supplying current from said selected generators to said line.

4. In a telephone system, a party-line, a plurality of ringing generators for supplying ringing current of different characters, a step-by-step ring-back apparatus, means for connecting said line with said apparatus, means controlled by the calling subscriber for operating said ring-back apparatus to select any two of said ringing generators, and means for then alternately connecting said selected ringing generators with the line.

5. In a telephone system, a party-line, a ring-back apparatus for enabling one party to call another on the same line, and means controlled by said ring-back apparatus for transmitting two kinds of ringing current back over said line to operate the calling signal at both the calling and called substations on said line.

6. In a telephone system, a party-line, a ring-back apparatus for enabling one party to call another on the same line, a plurality of ringing current generators, said ring-back apparatus comprising a pair of wipers, means to operate said wipers to connect each of said wipers with any one of said ringing current generators, and means to alternately connect said wipers with said line.

7. In a telephone system, a party-line, a ring-back apparatus for enabling one party to call another on the same line, a plurality of ringing current generators, said ring-back apparatus comprising two pairs of wipers, means for connecting one of said pairs with any one of said ringing generators, means for connecting the other pair with any of the remaining generators, and means for then alternately connecting said pairs of wipers with said line.

8. In a telephone system, a party-line, a ring-back apparatus for enabling one party to call another on the same line, a plurality of ringing generators of different characteristics, said ring-back apparatus including a plurality of pairs of wipers, means controlled by the calling subscriber to connect one of said pairs of wipers with the ringing generator of a characteristic corresponding to the signal at the calling substation and for connecting the other pair of wipers with the ringing generator of a characteristic corresponding to the called substation, and means for then alternately connecting said pairs of wipers with said line.

9. In a telephone system, a party-line, a ring-back apparatus for enabling one party to call another on the same line, means including a selector switch for extending a connection from said line to said ring-back apparatus, a plurality of sources of ringing current, means controlled by said ring-back apparatus for selecting any two of said sources, and means controlled by the replacing of the calling subscriber's receiver upon the switch-hook for alternately transmitting current from said two selected generators over said line.

10. In a telephone system, a party-line, a ring-back apparatus for enabling one party to call another on the same line, a bridge across said line, means for opening said bridge to cause said ring-back apparatus to operate to send ringing current on the line while the bridge is open and means for opening said bridge at another time to cause the release of said apparatus.

11. In a telephone system, a party-line, a ring-back apparatus for enabling one party to call another on the same line, means including a selector switch for extending a connection from said line to said ring-back apparatus, a bridge on said line controlled by the switch-hook at the calling substation, means controlled by said ring-back apparatus for transmitting ringing current over said line to signal the called subscriber, means controlled by the opening of said bridge before the called subscriber has answered for starting said ring-back apparatus in operation to send ringing current on the line while the bridge is open and means controlled by the opening of said bridge after the called subscriber has answered for controlling the release of said connection.

12. In a telephone system, a party-line, a ring-back apparatus for enabling one party to call another on the same line, a plurality of sources of ringing current, means controlled by said ring-back apparatus for selecting two of said ringing generators of a character adapted to operate the signal at the calling and called substations on said line, a bridge on said line, means controlled by the opening of said bridge before the called subscriber has responded for operating said ring-back apparatus, and means controlled by the opening of said bridge after the called subscriber has responded for releasing said connection.

13. In a telephone system, a party-line, a ring-back apparatus for enabling one party to call another on the same line, means including a selector switch for extending a connection from said line to said ring-back apparatus, a bridge on said line controlled by the switch-hook at the calling substation, means controlled by said ring-back apparatus for transmitting ringing current over said line to signal the called subscriber, means controlled by the opening of said bridge at one point before the called subscriber has answered for starting said ring-back apparatus in operation to send ringing current on the line while the bridge is open, and means controlled by the opening of said bridge at the same point after the called subscriber has answered for controlling the release of said connection.

14. In a telephone system, a line, a second line, means for connecting said first and second lines, a plurality of signals operatively associated with said first line, an automatic switch for said second line, a signaling circuit for each signal under the control of said switch, means for supplying signaling current to said circuits and an impulse sender for operating said automatic switch over said second line, to apply signaling current to said first line, for operating both said signals while the first and second lines are connected.

15. In a telephone system, a line, a second line, a pair of signals for said first line, means for connecting the lines, a signaling circuit for each signal, means for supplying signaling current to said signaling circuits and automatic means for associating said signaling circuits with the connected circuit while the two lines are connected.

16. In a telephone system, a line, a second line, a pair of signals for said first line, means for connecting the lines, a signaling circuit for each signal, means for supplying signaling current to said signaling circuits, automatic means for associating said signaling circuits with the connected circuit while the two lines are connected and an impulse sender for controlling said automatic means over the second line for the purpose set forth.

17. In a telephone system, a line, a second line, a plurality of signals for said first line, means for connecting the two lines, a signaling circuit for each signal, means

for supplying signaling current to said circuits and automatic means for selecting any two of said circuits and for associating the selected signaling circuits with the connected circuit while the said two line circuits are connected.

18. In a telephone system, a line, a second line, a plurality of signals for said first line, means for connecting the two lines, a signaling circuit for each signal, means for supplying signaling current to said circuits, automatic means for selecting any two of said circuits and for associating the selected signaling circuits with the connected circuit while the said two lines are connected, and an impulse sender for controlling said automatic means over the second line for the purpose set forth.

19. In a telephone system, a line, a second line, a pair of signals for said first line, means for connecting the lines, a signaling circuit for each signal, means for supplying signaling current to said signaling circuits, and automatic means for associating said signaling circuits with the connected circuit while the two lines are connected, said automatic means having equipment for controlling said signaling circuits for operating said signals while the first and second line are connected.

20. In a telephone system, a line, a second line, a pair of signals for said first line, means for connecting the lines, a signaling circuit for each signal, means for supplying signaling current to said signaling circuits, automatic means for associating said signaling circuits with the connected circuits while the two lines are connected, and an impulse sender for controlling said automatic means over the second line for the purpose set forth, said automatic means having equipment for controlling said signaling circuits for operating said signals while the first and second lines are connected.

21. In a telephone system, a line, a second line, a pair of signals for said first line, means for connecting the lines, a signaling circuit for each signal, means for supplying signaling current to said signaling circuits, and automatic means for associating said signaling circuits with the connected circuit while the two lines are connected, said automatic means having equipment for controlling said signaling circuits for operating said signals alternately while the first and second lines are connected.

22. In a telephone system, a line, a second line, a pair of signals for said first line, means for connecting the lines, a signaling circuit for each signal, means for supplying signaling current to said signaling circuits, automatic means for associating said signaling circuits with the connected circuit while the two lines are connected, and an impulse sender for controlling said automatic means over the second line for the purpose set forth, said automatic means having equipment for controlling said signaling circuits for operating said signals alternately while the first and second lines are connected.

23. In a telephone system, a line, a second line, a plurality of signals for said first line, means for connecting the two lines, a signaling circuit for each signal, means for supplying signaling current to said circuit, and automatic means for selecting any two of said circuits and for associating the selected signaling circuits with the connected circuit while the two said lines are connected, said automatic means having equipment for controlling the selected signaling circuits for operating the corresponding signals.

24. In a telephone system, a line, a second line, a plurality of signals for said first line, means for connecting the two lines, a signaling circuit for each signal, means for supplying signaling current to said circuits, automatic means for selecting any two of said circuits and for associating the selected signaling circuits with the connected circuit while the said two lines are connected, and an impulse sender for controlling said automatic means over the second line for the purpose set forth, said automatic means having equipment for controlling the selected signaling circuits for operating the corresponding signals.

25. In a telephone system, a line, a second line, a plurality of signals for said first line, means for connecting the two lines, a signaling circuit for each signal, means for supplying signaling current to said circuits, and automatic means for selecting any two of said circuits and for associating the selected signaling circuits with the connected circuit while the said two lines are connected, said automatic means having equipment for controlling the selected signaling circuits for operating the corresponding signals alternately.

26. In a telephone system, a line, a second line, a plurality of signals for said first line, means for connecting the two lines, a signaling circuit for each signal, means for supplying signaling current to said circuits, automatic means for selecting any two of said circuits and for associating the electric signaling circuits with the connected circuit while the said two lines are connected, and an impulse sender for controlling said automatic means over the second line for the purpose set forth, said automatic means having equipment for controlling the selected signaling circuits for operating the corresponding signals alternately.

27. In a telephone system, a line, a second line, a plurality of signals for said first line, means for connecting the two lines, a signaling circuit for each signal, means for supplying signaling current to said circuits and automatic means for selecting a plurality of said signaling circuits and for associating the selected signaling circuits with the connected circuit while the said two lines are connected.

28. In a telephone system, a line, a second line, a plurality of signals for said first line, means for connecting the two lines, a signaling circuit for each signal, means for supplying signaling current to said circuits, and automatic means for selecting a plurality of said signaling circuits and for associating the selected signaling circuits with the connected circuit while the said two lines are connected, and an impulse sender for controlling said automatic means over the second line for the purpose set forth.

29. In a telephone system, a line, a second line, a plurality of signals for said first line, means for connecting the two lines, a signaling circuit for each signal, means for supplying signaling current to said circuits, and automatic means for selecting a plurality of said signaling circuits and for associating the selected signaling circuits with the connected circuit while the said two lines are connected, said automatic means having equipment for controlling said signaling circuits for operating said signals while the first and second lines are connected.

30. In a telephone system, a line, a second line, a plurality of signals for said first line, means for connecting the two lines, a signaling circuit for each signal, means for supplying signaling current to said circuits, and automatic means for selecting a plurality of said signaling circuits and for associating the selected signaling circuits with the connected circuit while the said two lines are connected, and an impulse sender for controlling said automatic means over the second line for the purpose set forth, said automatic means having equipment for controlling the selected signaling circuits for operating the corresponding signals alternately while the first and second lines are connected.

31. In a telephone system, a line, a second line, a plurality of signals for said first line, means for connecting the two lines, a signaling circuit for each signal, means for supplying signaling current to said circuits, and automatic means for selecting a plurality of said signaling circuits and for associating the selected signaling circuits with the connected circuit while the said two lines are connected, and an impulse sender for controlling said automatic means over the second line for the purpose set forth, said automatic means having equipment for controlling the selected signaling circuits for operating the corresponding signals.

32. In a telephone system, a line, a second line, a plurality of signals for said first line, means for connecting the two lines, a signaling circuit for each signal, means for supplying signaling current to said circuits, and automatic means for selecting a plurality of said signaling circuits and for associating the selected signaling circuits with the connected circuit while the said two lines are connected, and an impulse sender for controlling said automatic means over the second line for the purpose set forth, said automatic means having equipment for controlling the selected signaling circuits for operating the corresponding signals alternately.

33. In a telephone system, a party line, a trunk line, an automatic switch for connecting the two, a selective signaling mechanism, means controlled over the two sides of said line in series for connecting said trunk line with said mechanism and for initiating the operation thereof, and means effective during the signaling operation to maintain said switch in operated position independent of said party line.

34. In a telephone system, a line, a plurality of subscribers' stations in bridge of said line, a trunk line, an automatic switch for connecting the two, a selective signaling mechanism accessible to said trunk line, means controllable from one of said stations over the two sides of said line in series for operating said mechanism to signal another one of said stations, and means effective during said signaling operation for maintaining said switch in operated position independent of said first station.

35. In a telephone system, a plurality of subscribers' stations, each station having a signal responsive to a different kind of current, a line for said station, a trunk line, an automatic switch for connecting the two lines, sources of signaling currents of different kinds, means controllable from one of said stations over the two sides of said line in series for connecting said trunk line with any of said sources, and means effective during said connection for maintaining said switch in operated position independent of said stations.

36. In a telephone system, a line, a trunk line, a selective mechanism having a plurality of operating stages, automatic switching mechanisms for connecting said line with said mechanism via said trunk line, holding circuits for said switching mechanism, a battery for supplying current, means dependent upon direct current flow in said line for maintaining said holding circuits, and means effective during one of the operating stages of said mechanism for maintaining said holding circuits independent of current flow in said line.

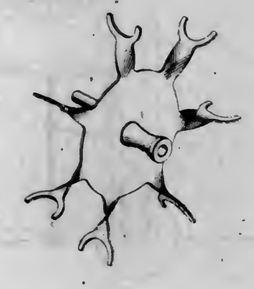
37. In a telephone system, a line, a trunk line, a selective mechanism, automatic switching mechanisms for connecting said line with said mechanism via said trunk line, holding circuits for said switching mechanisms, a battery for supplying current, means dependent upon direct current flow in said line for maintaining said holding circuits, and means made effective in response to interruption of current flow in said line for temporarily maintaining said holding circuits.

38. In a telephone system, a line, a trunk line, a selective mechanism, automatic switching mechaisms for connecting said line with said mechanism via said trunk line, holding circuits for said switching mechanisms, a battery for supplying current, means dependent upon direct current flow in said line for maintaining said holding circuits, means made effective in response to interruption of current flow in said line for temporarily maintaining said holding circuits, and means actuated in response to renewed current flow in said line whereby said second means is prevented from responding to the next interruption of said current.

39. In a telephone system, a line, a trunk line, an automatic switch for connecting the two, a second automatic switch for said trunk line, other lines accessible to said second switch, a selective mechanism having a plurality of operating stages also accessible to said second switch, a battery for supplying current, restoring means for said switches normally responsive to prolonged interruption of current flow in said first line, and means whereby after a connection has been established from said first line to said mechanism said restoring means is made irresponsive to current interruption in said first line during one of said operating stages.

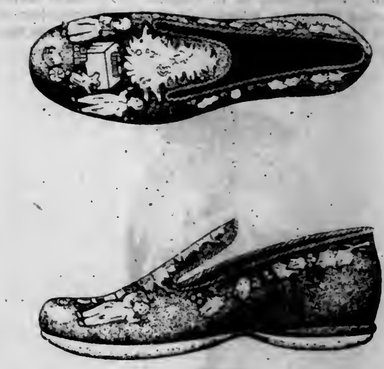
DESIGNS.

51,710. FISHING-REEL. CHARLES O. BLEE, Fort Wayne, Ind. Filed Apr. 12, 1915. Serial No. 20,971. Term of patent 3½ years.



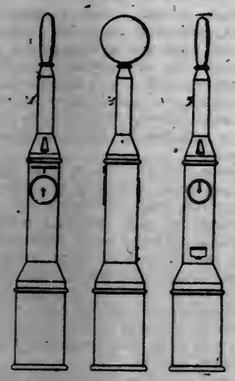
The ornamental design for a fishing reel, as shown.

51,711. SLIPPER. FRANK J. BLUM, Dansville, N. Y. Filed Dec. 3, 1917. Serial No. 205,261. Term of patent 3½ years.



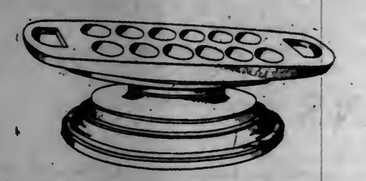
The ornamental design for a slipper, as shown.

51,712. CURB-PUMP CASING. ALLEN A. BOWSER, Fort Wayne, Ind. Filed Oct. 20, 1917. Serial No. 197,735. Term of patent 14 years.



The ornamental design for a curb pump casing, as shown.

51,713. GAME-BOARD. LLOYD BROWN, Los Angeles, Cal. Filed Dec. 4, 1916. Serial No. 135,088. Term of patent 14 years.



The ornamental design for a game board, as shown.

51,714. ORNAMENT FOR AUTOMOBILES. EDWARD BURTON, Providence, R. I., assignor to Gorham Manufacturing Company, Providence, R. I., a Corporation of Rhode Island. Filed Oct. 29, 1917. Serial No. 199,200. Term of patent 14 years.



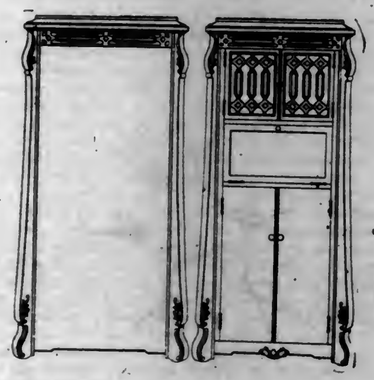
The ornamental design for an ornament for automobiles, as shown.

51,715. BADGE. AGNES B. CASCADEN, San Francisco, Cal. Filed Oct. 15, 1914. Serial No. 866,866. Term of patent 7 years.



The ornamental design for a badge as shown.

51,716. CABINET FOR SOUND-REPRODUCING APPARATUS. WALTER ERNEST COLWELL, Oakville, Ontario, Canada. Filed Oct. 12, 1917. Serial No. 196,332. Term of patent 14 years.



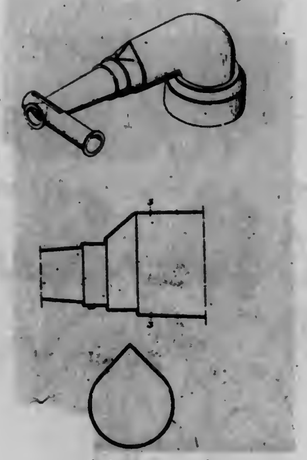
The ornamental design for a cabinet for sound reproducing apparatus as shown.

51,717. BADGE. RALPH L. CHESTER and HARVEY Y. LAKE, Ocean City, N. J. Filed Nov. 27, 1917. Serial No. 204,294. Term of patent 7 years.



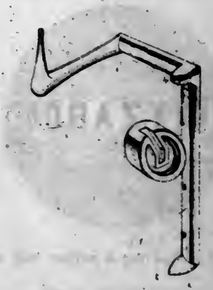
The ornamental design for a badge, as shown.

51,718. TONE-ARM FOR TALKING-MACHINES. FRANCESCO CIRELLI, Philadelphia, Pa. Filed Nov. 20, 1917. Serial No. 203,053. Term of patent 7 years.



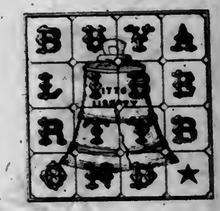
The ornamental design for a tone arm for talking machines, as shown.

51,719. BRACKET FOR A CURTAIN AND SHADE ROLLER. STANLEY CUROL, Willimantic, Conn. Filed Nov. 10, 1916. Serial No. 130,651. Term of patent 7 years.



The ornamental design for a bracket for a curtain and shade roller, as shown.

51,720. PUZZLE. HENRY DETREUX and BERNARD LOVATT, Philadelphia, Pa. Filed Nov. 22, 1917. Serial No. 203,455. Term of patent 3½ years.



The ornamental design for a puzzle, as shown.

51,721. LANTERN-GLOBE. FRED DIETZ, deceased, New York, N. Y., by John E. Dietz and William Travers Jerome, executors, New York, N. Y., assignors to R. E. Dietz Company, New York, N. Y. Filed June 12, 1915. Serial No. 33,830. Term of patent 14 years.



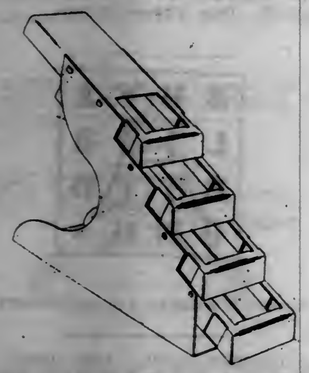
The ornamental design for a lantern globe as shown.

51,722. RUBBER BALL. ROBERT EDDY, Milwaukee, Wis. Filed Nov. 12, 1914. Serial No. 871,799. Term of patent 14 years.



The ornamental design for a rubber ball, as described and shown.

51,723. DISPLAY AND DISPENSING DEVICE. LEON P. EARL, Cincinnati, Ohio, assignor to The Aromint Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Aug. 18, 1917. Serial No. 187,026. Term of patent 3½ years.



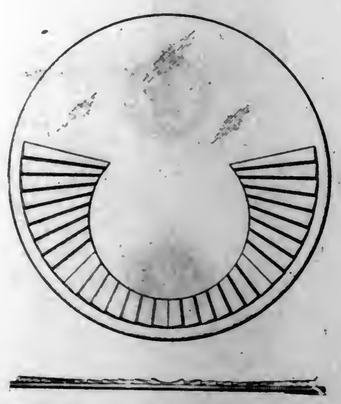
The ornamental design for a display and dispensing device, substantially as shown.

51,724. BACK FOR PLAYING-CARDS OR SIMILAR ARTICLES. REGINALD L. GOODING, Barbados Island, British West Indies. Filed Oct. 10, 1917. Serial No. 195,863. Term of patent 7 years.



The ornamental design for a back for playing cards or a similar article as shown.

51,725. LENS. ELLSWORTH A. HAWTHORNE, Bridgeport, Conn. Filed Oct. 31, 1917. Serial No. 199,587. Term of patent 14 years.



The ornamental design for a lens, as shown.

51,726. LACE. ALICE PAULINE HUBER, New York, N. Y., assignor to Felix Meyer, New York, N. Y. Filed Nov. 3, 1917. Serial No. 200,201. Term of patent 3½ years.



The design for lace as herein shown and described.

51,727. LACE. ALICE P. HUBER, New York, N. Y., assignor to Felix Meyer. Filed Nov. 28, 1917. Serial No. 204,469. Term of patent 3½ years.



The design for lace as herein shown and described.

51,728. LACE. ALICE P. HUBER, New York, N. Y., assignor to Felix Meyer. Filed Nov. 28, 1917. Serial No. 204,470. Term of patent 3½ years.



The design for lace as herein shown and described.

51,729. LEAF-SPRING-LUBRICATING TOOL. CHARLES W. MANZEL, Buffalo, N. Y. Filed May 3, 1915. Serial No. 25,622. Term of patent 14 years.



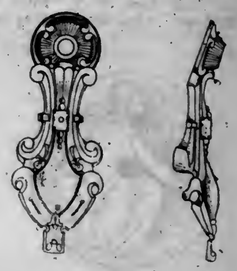
The ornamental design for a leaf spring lubricating tool, as shown.

51,730. TOY AUTOMOBILE. GEORGE MARQUA, Sr., Norwood, Ohio. Filed Jan. 8, 1917. Serial No. 141,885. Term of patent 3½ years.



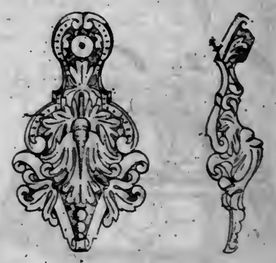
The ornamental design for a toy automobile, substantially as shown and described.

51,731. ARM FOR LIGHTING-FIXTURES. ARTHUR MENG, Cleveland, Ohio, assignor to Cleveland Chandelier Company, Cleveland, Ohio. Filed Oct. 24, 1917. Serial No. 198,314. Term of patent 3½ years.



The ornamental design for an arm for lighting fixtures, as shown.

51,732. ARM FOR LIGHTING-FIXTURES. ARTHUR MENG, Cleveland, Ohio, assignor to Cleveland Chandelier Company, Cleveland, Ohio. Filed Oct. 24, 1917. Serial No. 198,316. Term of patent 3½ years.



The ornamental design for an arm for lighting fixtures, as shown.

51,733. PILLOW-TOP. JOHN S. MILLIN, Philadelphia, Pa. Filed May 5, 1917. Serial No. 166,756. Term of patent 3½ years.



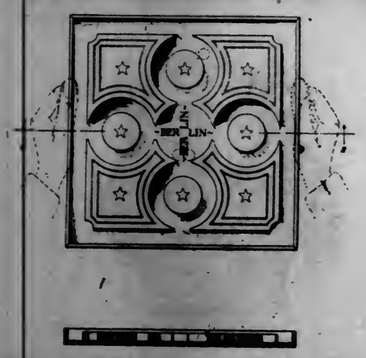
The ornamental design for an article of manufacture, substantially as shown and described.

51,734. BADGE. HAIG PATIGIAN, San Francisco, Cal., assignor to National Committee for Armenian and Syrian Relief, New York, N. Y. Filed Dec. 3, 1917. Serial No. 205,267. Term of patent 3½ years.



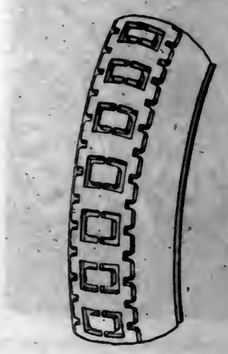
The ornamental design for a badge, as shown.

51,735. GAME-BOARD. WILLIAM H. REEVES, West Orange, N. J. Filed Nov. 21, 1917. Serial No. 203,269. Term of patent 14 years.



The ornamental design for a game board, as shown.

51,736. AUTOMOBILE-TIRE. CHARLES W. REYNOLDS, New York, N. Y., assignor to Para Tire Co. of New York, Inc., New York, N. Y., a Corporation of New York. Filed Dec. 3, 1917. Serial No. 205,275. Term of patent 14 years.



The ornamental design for an automobile tire, as shown.

51,737. DISPLAY-CARD. ARTHUR R. RULE, Westfield, N. J. Filed Nov. 16, 1917. Serial No. 202,416. Term of patent 7 years.



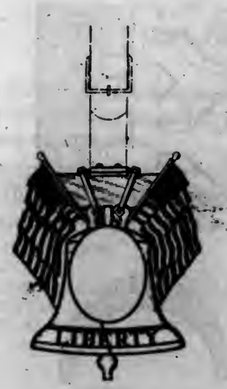
The ornamental design for a display card, substantially as shown.

51,738. GOBLET OR SIMILAR ARTICLE. FRANK SCHNEIDER, Buffalo, N. Y. Filed Aug. 20, 1917. Serial No. 187,257. Term of patent 7 years.



The ornamental design for a goblet or similar article as shown.

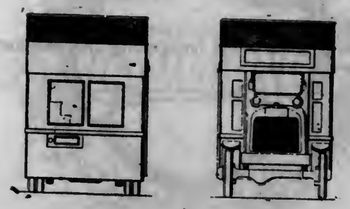
51,739. WATCH-CHARM. JOHN TRAIN, Wessington Springs, S. D. Filed Nov. 19, 1917. Serial No. 202,882. Term of patent 7 years.



The ornamental design for a watch charm, as shown.

51,740. MOTOR-BUS BODY. HAROLD BREADY WEAVER, New York, N. Y., assignor to American Motorbus Corporation, a Corporation of New York. Filed July 24, 1917. Serial No. 182,555. Term of patent 7 years.





The ornamental design for a motorbus body as shown.

51,741. BOWL FOR LIGHTING-FIXTURES. FRANK YOKEL, Pittsburgh, Pa., assignor to Pittsburgh Lamp, Brass & Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Nov. 26, 1917. Serial No. 204,118. Term of patent 3½ years.



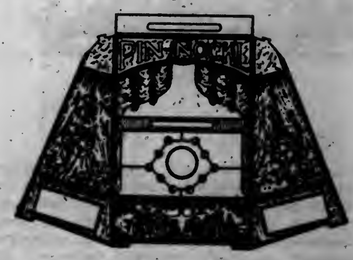
The ornamental design for a bowl for lighting fixtures, as shown.

51,742. SHADE OR REFLECTOR FOR LIGHTING-FIXTURES. FRANK YOKEL, Pittsburgh, Pa., assignor to Pittsburgh Lamp, Brass & Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Nov. 26, 1917. Serial No. 204,117. Term of patent 3½ years.



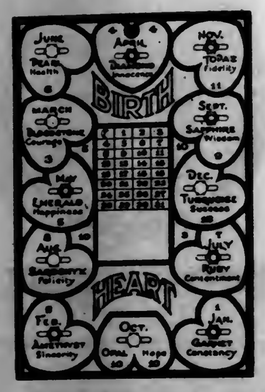
The ornamental design for a shade or reflector for lighting fixtures, as shown.

51,743. GAME-BOARD. WILLIS G. YOUNG, Chicago, Ill. Filed Sept. 19, 1917. Serial No. 192,074. Term of patent 7 years.



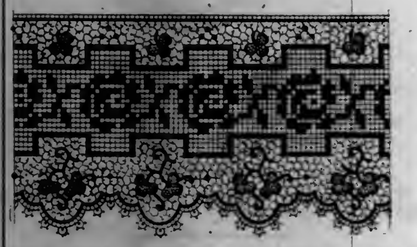
The ornamental design for a game board as shown.

51,744. GAME-BOARD. WILLIS G. YOUNG, Chicago, Ill. Filed Sept. 19, 1917. Serial No. 192,075. Term of patent 7 years.



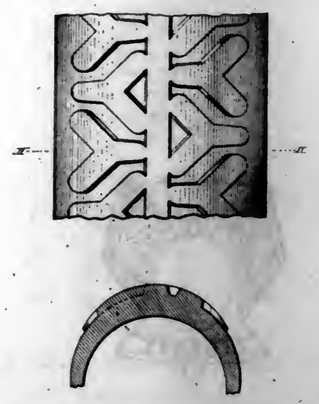
The ornamental design for a game board as shown.

51,745. LACE. EMIL ZULLIG, Weehawken, N. J. Filed Dec. 1, 1917. Serial No. 204,989. Term of patent 3½ years.



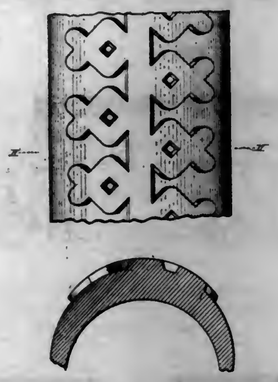
The ornamental design for lace as shown.

51,746. VEHICLE-TIRE. ARTHUR L. BREITENSTEIN, Akron, Ohio, assignor to The East Palestine Rubber Company, East Palestine, Ohio, a Corporation of Ohio. Filed Nov. 8, 1917. Serial No. 200,981. Term of patent 14 years.



The ornamental design for a vehicle tire, substantially as shown.

51,747. VEHICLE-TIRE. ARTHUR L. BREITENSTEIN, Akron, Ohio, assignor to The East Palestine Rubber Company, East Palestine, Ohio, a Corporation of Ohio. Filed Nov. 8, 1917. Serial No. 200,982. Term of patent 14 years.



The ornamental design for a vehicle tire, substantially as shown.

TRADE-MARKS

PUBLISHED FEBRUARY 5, 1918.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 81,641. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) THE MILLVILLE MANUFACTURING COMPANY, Philadelphia, Pa. Filed Oct. 3, 1914.



The mark consists of a red five-pointed star on a round disk of the same diameter as the star.

Particular description of goods.—Hemmed Diapers.

Claims use since April, 1914.

Ser. No. 84,201. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE NEW CENTURY COMPANY, OF MICHIGAN, Detroit, Mich. Filed Jan. 29, 1915.



Particular description of goods.—Wheat-Flour.

Claims use since about Sept. 15, 1906.

Ser. No. 92,110. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MINER, READ & TULLOCK, New Haven, Conn. Filed Jan. 13, 1916.

SUNRISE

Particular description of goods.—Canned Vegetables and Fruits, Coffees, and Spices.

Claims use since 1900.

Ser. No. 96,278. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE SYMNS GROCER COMPANY, Atchison, Kans. Filed July 1, 1916.

ABS

Particular description of goods.—Tea, Coffee, Spices, Peanut-Butter, Pickles, Mustard, and Canned Vegetables.

Claims use since about May, 1914, or earlier.

Ser. No. 97,672. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FRANK PYLE, Osawatomie, Kans. Filed Aug. 28, 1916.



Particular description of goods.—Fresh Apples, Peaches, Early Richmond Cherries, Raspberries, Wild Goose-Plums, Grapes, Bartlett Pears, Blackberries and Strawberries; Canned Blackberries, Burbank Plums, Peaches, Pears, Strawberries, Red Raspberries, Black Raspberries; Strawberry Preserves, Raspberry Preserves, Blackberry Preserves, Cherry Preserves, Quince Preserves, Plum Pre-

serves, Peach Preserves, Apple Preserves, Grape Marmalade, Peach-Butter, Plum-Butter, Apple-Butter, Grape Jelly, Blackberry Jelly, Raspberry Jelly, Apple Jelly, Quince and Apple Jelly, Black-Raspberry Jam, Strawberry Jam, Red-Raspberry Jam, Blackberry Jam, Sweet Pickled Peaches, Hen-Eggs, Lard, Pork Headcheese, Hardscrabble, Cottage-Cheese, Butter, Cane-Sorghum, Hominy, Cornmeal, Table Raspberry-Syrup, Pear-Syrup, Blackberry-Syrup, Peach-Syrup, Grape-Syrup, Cherry-Syrup, and Apple-Syrup, Strained Honey, Comb-Honey, Fresh Cream and Milk, Pure Pork Sausage, Country-Cured Bacon, Country-Cured Ham, Mince-Meat, Live Poultry, Dressed Poultry, Fresh Vegetables, and Cider Vinegar.
Claims use since August, 1914.

Ser. No. 98,130. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) BRUCE CHEROKEE COAL CO., Kansas City, Mo. Filed Sept. 21, 1916.

JEWEL

Particular description of goods.—Lump-Coal.
Claims use since Oct. 1, 1915.

Ser. No. 98,317. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SUFFRAGETTE LABORATORIES CO., Cleveland, Ohio. Filed Sept. 29, 1916.

SUFFRAGETTE

Particular description of goods.—Chewing-Gum.
Claims use since Apr. 1, 1916.

Ser. No. 98,632. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) FOOTE MINERAL CO., Philadelphia, Pa. Filed Oct. 13, 1916.

"FERROLO"

Particular description of goods.—Minerals, Inorganic Compounds (other than Medicinal and Pharmaceutical Compounds) Known as Mineral Products, Ores, and Mineral Samples.
Claims use since about May 15, 1916.

Ser. No. 98,917. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) BEN-HUR AUTOMOBILE COMPANY, Chicago, Ill. Filed Oct. 27, 1916.



Particular description of goods.—Automobiles and Motor-Trucks.
Claims use since on or about the month of August, 1915.

Ser. No. 99,619. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LOUIS R. CHAZAL AND SONS COMPANY, Ocala, Fla. Filed Nov. 29, 1916.

WHITE APRON

Particular description of goods.—Cornmeal.
Claims use since about Oct. 16, 1916.

Ser. No. 100,005. (CLASS 43. THREAD AND YARN.) CARSON, PIRIE, SCOTT & CO., Chicago, Ill. Filed Dec. 18, 1916.

CARNATION

Particular description of goods.—Embroidery-Cotton.
Claims use since about April, 1912.

Ser. No. 101,494. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES C. HUFFMAN, Chicago, Ill. Filed Feb. 19, 1917.

RIT

Particular description of goods.—Dyes, and Particularly a Combined Soap or Cleaner and Dye.
Claims use since Dec. 1, 1916.

Ser. No. 101,646. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) TUSTIN LEMON ASSOCIATION, Tustin, Cal. Filed Feb. 24, 1917.

LEMON HEIGHTS

Particular description of goods.—Lemons.
Claims use since Mar. 4, 1912.

Ser. No. 101,929. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) C. EDWARD KENDEL, Cleveland, Ohio. Filed Mar. 6, 1917.

SUNNILAWN

Particular description of goods.—Lawn-Seeds.
Claims use since Feb. 1, 1917.

Ser. No. 102,233. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THOMAS S. WITHERSPOON, Denver, Colo. Filed Mar. 17, 1917.



Particular description of goods.—A Carbon-Eliminator.
Claims use since the 1st day of March, 1917.

Ser. No. 103,746. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EUGENE O. REED COMPANY, Chicago, Ill. Filed May 12, 1917.

BUTTER PALS

Particular description of goods.—Candy.
Claims use since May 1, 1917.

Ser. No. 104,554. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LYNN RUBBER MANUFACTURING COMPANY, Lynn, Mass. Filed June 20, 1917.

SANSODOR

Particular description of goods.—Foot-Powder.
Claims use since Apr. 30, 1917.

Ser. No. 104,632. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SOCIETY OF CHEMICAL INDUSTRY IN BASLE, Basel, Switzerland. Filed June 22, 1917.

KRYOFINE

Particular description of goods.—A Certain Pharmaceutical Preparation to be Used as Antipyretics, Anesthetics, Analgesics.
Claims use since May 1, 1896.

Ser. No. 104,826. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) CHARLES C. BURNETT, Los Angeles, Cal. Filed July 5, 1917.

"NU-SINK"



Particular description of goods.—An Enamel Paint.
Claims use since June 1, 1914.

Ser. No. 104,923. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) COLGATE & CO., Jersey City, N. J., and New York, N. Y. Filed July 9, 1917.

ACTION

Particular description of goods.—Soaps.
Claims use since the 28th day of June, 1917.

Ser. No. 105,187. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) HENRY M. PETERS, Chicago, Ill. Filed July 23, 1917.

AMRONLITE

Particular description of goods.—Portable Electric Lamps.
Claims use since July 1, 1917.

Ser. No. 105,326. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) TACOMA GRAIN CO., Tacoma, Wash. Filed July 27, 1917.

HI-KLAS

Particular description of goods.—Wheat-Flour.
Claims use since June 2, 1917.

Ser. No. 105,487. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE CULLEN BROKERAGE CO., Omaha, Nebr. Filed Aug. 6, 1917.



Particular description of goods.—Canned Fruits, Canned Vegetables, Canned Fish, Dried Fruits, Tea, Flavoring Extracts for Foods, and Spices.
Claims use since July 26, 1917.

Ser. No. 105,493. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LEOPOLD GROSS, New York, N. Y., assignor to W. P. Tanner-Gross & Co., Inc., a Corporation. Filed Aug. 6, 1917.

PURE LIGHT

Particular description of goods.—Wheat-Flour.
Claims use since Feb. 23, 1917.

Ser. No. 105,579. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) NORTON COMPANY, Worcester, Mass. Filed Aug. 10, 1917.

NORTON

Comprising an annulus concentrically surrounding a central area bounded by a partial circle, which connects with parallel lines diametrically disposed across the face of the figure between said annulus and circular area to form arcuate spaces therebetween, said inner circle and parallel lines forming a panel which bears the word "Norton" thereon.

Particular description of goods.—Heat-Refractory Tubes, Rods, Cores, Bricks, Plates, Muffles, Crucibles, Capsules, Dishes, Combustion-Boats, and Shields.
Claims use since May, 1911.

Ser. No. 105,603. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) ALBERT N. PRENTISS, Washington, D. C. Filed Aug. 11, 1917.

DOOYURBIT

Particular description of goods.—Puzzle.
Claims use since Aug. 8, 1917.

Ser. No. 105,609. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AMERICAN CANDY MANUFACTURING CO., Selma, Ala. Filed Aug. 13, 1917.

JUMBO

Particular description of goods.—Stick-Candy.
Claims use since the 2d day of January, 1907.

Ser. No. 105,744. (CLASS 39. CLOTHING.) R. H. MACY & Co., New York, N. Y. Filed Aug. 20, 1917.

SUPREMACY

Particular description of goods.—Rubber, Canvas, and Leather Shoes.
Claims use since May 1, 1917.

Ser. No. 105,867. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) FREDERICK P. SMITH, Lynn, Mass. Filed Aug. 24, 1917.

K. & S.

Particular description of goods.—Leather-Dressing.
Claims use since Aug. 10, 1897.

Ser. No. 105,873. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MCCORMICK & Co., Baltimore, Md. Filed Aug. 25, 1917.

BEE

Particular description of goods.—Tapioca and Mayonnaise Dressing.
Claims use since about 1895.

Ser. No. 105,885. (CLASS 12. CONSTRUCTION MATERIALS.) THE BERGER MANUFACTURING COMPANY, Canton, Ohio. Filed Aug. 27, 1917.

B BERGER

Particular description of goods.—Sidewalk-Forms, Metal Lumber, Steel Ceiling, Corrugated Cores, and Metal Lath.
Claims use since June 5, 1917.

Ser. No. 105,972. (CLASS 8. SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS.) HENRY H. SCOTT, New York, N. Y. Filed Aug. 30, 1917.

THE MAKINGS

Particular description of goods.—Smokers' Pouches.
Claims use since June 5, 1917.

Ser. No. 106,106. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MADAME M. BROOKS, Des Moines, Iowa. Filed Sept. 6, 1917.



The trade-mark is the picture of (myself) Madame M. Brooks.

Particular description of goods.—A Preparation for the Hair and Scalp Known as "Madame M. Brooks' Magic Hair-Grower, Scalp-Preserver, Dandruff-Remover," a Preparation in Paste Form and Composed of Pure Petrolatum, Sulfate Quinin, Tincture Cantharides, Sulfur, Oil of Bergamot for Perfume.
Claims use since Sept. 1, 1916.

Ser. No. 106,197. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) J. W. EICHENBUSCH CO., INC., Chicago, Ill. Filed Sept. 12, 1917.

ICANWEAR BETTERMADE

Particular description of goods.—Suitcases, Grips, and Hand-Bags.
Claims use since Mar. 1, 1917.

Ser. No. 106,215. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) THE F. & M. SCHAEFER BREWING CO., New York, N. Y. Filed Sept. 12, 1917.

SANO

Particular description of goods.—Non-Intoxicating Maltless Beverages Sold as Soft Drinks.
Claims use since Sept. 11, 1917.

Ser. No. 106,225. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) INTERSTATE COTTON OIL REFINING CO., Sherman, Tex. Filed Sept. 13, 1917.

DIXIE

Particular description of goods.—Cotton-Seed-Oil Shortening.
Claims use since Aug. 30, 1917.

Ser. No. 106,260. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) INTERSTATE COTTON OIL REFINING CO., Sherman, Tex. Filed Sept. 15, 1917.

SOUTHERN QUEEN

Particular description of goods.—A Shortening Compound Made from Cotton-Seed Oil.
Claims use since July 20, 1917.

Ser. No. 106,359. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) M. J. BRANDENSTEIN & Co., San Francisco, Cal., and New York, N. Y. Filed Sept. 21, 1917. Under ten-year proviso.



Comprising the representation of a tea-tree.
Particular description of goods.—Tea.
Claims use since about Apr. 7, 1879.

Ser. No. 106,374. (CLASS 2. RECEPTACLES.) TAYLOR & HEPP, Brooklyn, N. Y. Filed Sept. 21, 1917.



Particular description of goods.—Shaped and Formed Box and Barrel Liners, Bags, and Containers Made Wholly or in Part of Paper.
Claims use since Aug. 1, 1917.

Ser. No. 106,499. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) L. C. BLANCKE CO. INC., New York, N. Y. Filed Sept. 29, 1917.

PARAMOUNT

Comprising the word "Paramount."
Particular description of goods.—Tools—viz., Twist-Drills, Reamers, Milling-Cutters, Taps, and Dies.
Claims use since Mar. 1, 1916.

Ser. No. 106,528. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) JOHN W. BAKER, Stamford, Conn. Filed Oct. 1, 1917.



Particular description of goods.—Game-Boards and Pieces Adapted to be Used Therewith.
Claims use since June 1, 1917.

Ser. No. 106,548. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAMS BROS. CHEMICAL CO., St. Louis, Mo. Filed Oct. 1, 1917.

Vagasepsol

Particular description of goods.—A Medicine Used for the Prevention and Cure of Vaginitis, Specific and Simple Cervicitis, Ulcerations of Cervix, and Leucorrhea, Oophoritis, Endometritis, Salpingitis.
Claims use since Jan. 8, 1917.

Ser. No. 106,565. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE JONES THIERBACK CO., San Francisco, Cal. Filed Oct. 2, 1917.



Particular description of goods.—Coffee, Tea, and Flavoring Extracts for Foods.
Claims use since June, 1899.

Ser. No. 106,584. (CLASS 39. CLOTHING.) SAMUEL W. PECK & Co., New York, N. Y. Filed Oct. 3, 1917.

Sampeck Qualitone

Particular description of goods.—Men's, Young Men's, Boys', Children's, and Juveniles' Outer Suits, Overcoats, Rain-Coats, and Trousers and Ladies' Rain-Coats, Outer Suits, and Outer Coats.
Claims use since Sept. 18, 1917.

Ser. No. 106,585. (CLASS 39. CLOTHING.) SAMUEL W. PECK & Co., New York, N. Y. Filed Oct. 3, 1917.

Sampeck Luxite

Particular description of goods.—Men's, Young Men's, Boys', Children's, and Juveniles' Outer Suits, Overcoats, Rain-Coats, and Trousers and Ladies' Rain-Coats, Outer Suits, and Outer Coats.
Claims use since Sept. 18, 1917.

Ser. No. 106,597. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) THE JOHN EICHLER BREWING CO., New York, N. Y. Filed Oct. 4, 1917.

MELLO

Particular description of goods.—A Non-Intoxicating Cereal Maltless Beverage.
Claims use since Sept. 1, 1917.

Ser. No. 106,631. (CLASS 38. PRINTS AND PUBLICATIONS.) EXCHANGE TRUST COMPANY, Boston, Mass. Filed Oct. 6, 1917.



Consists of the words "The Christmas Bank" inclosed by a holly-wreath.
Particular description of goods.—Coupon-Books for Issuance to and Use by Members of a Christmas Savings-Club.
Claims use since June 14, 1917.

Ser. No. 106,714. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CALIFORNIA PACKING CORPORATION, San Francisco, Cal. Filed Oct. 11, 1917.



Particular description of goods.—Raisins, Dried Fruits, and Canned Fruits.
Claims use as applied to canned fruits since about 1900 and as applied to dried fruits and raisins since about 1892.

Ser. No. 106,743. (CLASS 38. PRINTS AND PUBLICATIONS.) NATIONAL DOLLAR SHIRT SHOPS, INC., New York, N. Y. Filed Oct. 12, 1917.

Shirt Tales

Particular description of goods.—A Periodical Publication Issued Several Times a Year.
Claims use since January, 1916.

Ser. No. 106,748. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) YARDLEY & Co., LIMITED, London, England. Filed Oct. 12, 1917.



The mark consists of three female heads, the picture being fanciful.
Particular description of goods.—Toilet Soap.
Claims use since Dec. 17, 1915.

Ser. No. 106,749. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) YARDLEY & Co., LIMITED, London, England. Filed Oct. 12, 1917.



Consists of three female heads, the picture being fanciful.
Particular description of goods.—Perfumes, Face-Powders, Brilliantines, Hair-Tonics, Hair-Dressings, and Dentifrices.
Claims use since Dec. 17, 1915.

Ser. No. 106,786. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DWIGHT E. HAMLIN, Pittsburgh, Pa. Filed Oct. 16, 1917.

Hand S

Particular description of goods.—Food Compounded of Alfalfa, Grain, and Molasses, for Horses and other Live Stock.
Claims use since Jan. 22, 1908.

Ser. No. 106,828. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) E. T. BEL RICE COMPANY, New Orleans, La. Filed Oct. 18, 1917.



Particular description of goods.—Rice.
Claims use since Jan. 11, 1915.

Ser. No. 106,921. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NUT GROVE BUTTER COMPANY, Providence, R. I. Filed Oct. 24, 1917.

NUT-GROVE

Comprising the words "Nut-Grove."
Particular description of goods.—Oleomargarin.
Claims use since Sept. 1, 1917.

Ser. No. 106,924. (CLASS 39. CLOTHING.) RELIANCE MANUFACTURING COMPANY, Chicago, Ill. Filed Oct. 24, 1917.



Particular description of goods.—Work-Shirts.
Claims use since Oct. 1, 1917.

Ser. No. 106,926. (CLASS 39. CLOTHING.) RELIANCE MANUFACTURING COMPANY, Chicago, Ill. Filed Oct. 24, 1917.



Particular description of goods.—Work-Shirts.
Claims use since Oct. 1, 1917.

Ser. No. 106,975. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MAGRUDER-WOOD CHOCOLATE CO., INC., Syracuse, N. Y. Filed Oct. 26, 1917.



Particular description of goods.—Chocolate Confections.
Claims use since Oct. 1, 1917.

Ser. No. 106,976. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SAMUEL MILLER, Brooklyn, N. Y. Filed Oct. 26, 1917.

WHITE BIRD

Particular description of goods.—Mayonnaise, Jellies, Peanut-Butter, Preserved Fruits, and Marmalade.
Claims use since Oct. 18, 1917.

Ser. No. 107,013. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) STONE-ORDEAN-WELLS COMPANY, Duluth, Minn. Filed Oct. 29, 1917.

CHEER-UP

Particular description of goods.—Chocolate, Candy, and Chewing-Gum.
Claims use since Oct. 1, 1917.

Ser. No. 107,066. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) PACIFIC MILLS, Lawrence, and Boston, Mass. Filed Oct. 31, 1917.

PYRAMID



Particular description of goods.—Cotton Piece Goods.
Claims use since December, 1915.

Ser. No. 107,102. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) G. W. CARNRICK CO., New York, N. Y. Filed Nov. 2, 1917.

VIRILIGEN

Comprising the word "Viriligen."
Particular description of goods.—A Medicinal Restorative Tonic.
Claims use since Oct. 25, 1917.

Ser. No. 107,235. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) LESHER, WHITMAN & CO., INC., New York, N. Y. Filed Nov. 8, 1917.



The picture being fanciful.
Particular description of goods.—A Fabric Having a Cotton Warp and a Filling of Wool or Mohair or Alpaca Used Either Singly or Combined.
Claims use since Oct. 8, 1917.

Ser. No. 107,294. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) THE TE JURE PRODUCTS COMPANY, INC., New York, N. Y. Filed Nov. 10, 1917.

TeJure

Particular description of goods.—Disinfectant-Diffusing Apparatus.
Claims use since Sept. 1, 1917.

Ser. No. 107,323. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BERTHA LEIBBRANDT, San Francisco, Cal. Filed Nov. 12, 1917.



The portrait being that of the applicant.
Particular description of goods.—Germinated Grain Used in the Preparation of a Food Beverage.
Claims use since the 1st day of March, 1917.

Ser. No. 107,324. (CLASS 39. CLOTHING.) PACIFIC MILLS, Lawrence and Boston, Mass. Filed Nov. 12, 1917.



Particular description of goods.—Kimonos, Outer and Under Waists, Outer and Under Skirts, Wrappers, and other Dresses, Nightgowns, Sacks, Petticoats, Combinations, Drawers, Shirts, Pajamas, Running-Trunks, Chemises, Corset-Covers, Aprons, Bathing-Suits, Hats and Caps, Mittens, Athletic Suits, and Overcoats.
Claims use since June 1, 1917.

Ser. No. 107,434. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) KUTTROFF, PICKHARDT & CO. INC., New York, N. Y. Filed Nov. 17, 1917.

SOLAR

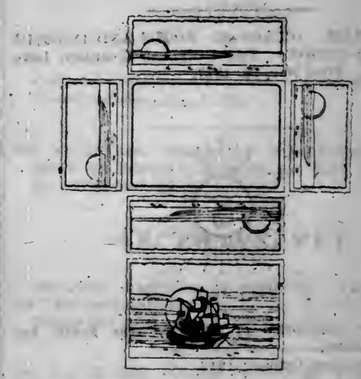
Particular description of goods.—Dyestuffs, Pigments, and Colors Used in Dyeing and Printing.
Claims use since Nov. 1, 1917.

Ser. No. 107,435. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LINDEN VALLEY CHOCOLATE CO., Trenton, N. J. Filed Nov. 17, 1917.

FLAP JACK

Particular description of goods.—Molasses and Chocolate Candy.
Claims use since Jan. 1, 1917.

Ser. No. 107,501. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) CUTTER-TOWER COMPANY, INC., New York, N. Y. Filed Nov. 21, 1917.



Particular description of goods.—Toothpicks.
Claims use since Oct. 16, 1917.

Ser. No. 107,542. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE COLORADO MILLING & ELEVATOR CO., Denver, Colo., and Burley, Idaho. Filed Nov. 23, 1917.



Particular description of goods.—Wheat-Flour.
Claims use since July 26, 1917.

Ser. No. 107,549. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FRED. ECKART PACKING CO., Fort Wayne, Ind. Filed Nov. 23, 1917.

ECKO

Particular description of goods.—Sausage—Namely, Ring, Smoked, Large, H. C., Long, G. M., Pudding, City, Straight, Links.
Claims use since May 15, 1917.

Ser. No. 107,553. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) ADOLPH HASLAUER, West Elizabeth, N. J. Filed Nov. 23, 1917.

JUNO

Particular description of goods.—Spring Dress-Fasteners.
Claims use since Nov. 12, 1917.

Ser. No. 107,555. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE LAKELAND COMPANY, Lakeland, Fla. Filed Nov. 23, 1917.



Particular description of goods.—Citrus Fruits and Fresh Vegetables.
Claims use since October, 1914.

Ser. No. 107,556. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE LAKELAND COMPANY, Lakeland, Fla. Filed Nov. 23, 1917.



Particular description of goods.—Citrus Fruits and Fresh Vegetables.
Claims use since October, 1914.

Ser. No. 107,562. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) DIAMOND T. MOTOR CAR COMPANY, Chicago, Ill. Filed Nov. 23, 1917.



Particular description of goods.—Motor Cars and Trucks.
Claims use since Sept. 1, 1906.

Ser. No. 107,565. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SAMUEL M. NEWMARK, Los Angeles, Cal. Filed Nov. 23, 1917.



Particular description of goods.—Coffee.
Claims use since Oct. 29, 1917.

Ser. No. 107,570. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) C. M. PETTIBONE CO., Seattle, Wash. Filed Nov. 23, 1917.

PETCO

Particular description of goods.—Canned Salmon.
Claims use since Sept. 25, 1917.

Ser. No. 107,574. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SCOTT BUTTER COMPANY, INC., Norfolk, Va. Filed Nov. 28, 1917.

SCOTCO

Particular description of goods.—Process Butter.
Claims use since Sept. 27, 1917.

Ser. No. 107,576. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SOCKEYE SALMON COMPANY, Seattle, Wash. Filed Nov. 23, 1917.

SOKAN

Particular description of goods.—Canned Salmon.
Claims use since July 6, 1917.

Ser. No. 107,580. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE THOMAS ADVERTISING SERVICE, Jacksonville, Fla. Filed Nov. 23, 1917.

POMORLADE

Particular description of goods.—A Spread Made from Citrus Fruits.
Claims use since June 18, 1917.

Ser. No. 107,584. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BROCKTON PUBLIC MARKET, Brockton, Mass. Filed Nov. 24, 1917.

TRUSTWORTHY

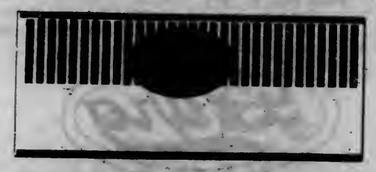
Particular description of goods.—Canned Fruits, Canned vegetables, and Canned Salmon.
Claims use since 1909.

Ser. No. 107,585. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CALIFORNIA PACKING CORPORATION, San Francisco, Cal. Filed Nov. 24, 1917.



Particular description of goods.—Canned Fruits.
Claims use since 1900.

Ser. No. 107,590. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE OATMAN CONDENSED MILK CO., Dundee, Ill. Filed Nov. 24, 1917.



The vertical lines being shaded to show red and the horizontal borders being lined to show blue and the oval panel being lined to show blue.
Particular description of goods.—Evaporated Milk.
Claims use since Oct. 15, 1917.

Ser. No. 107,618. (CLASS 39. CLOTHING.) FAUNCE & SPINNEY, INC., Lynn, Mass. Filed Nov. 26, 1917.

Camouflage

Particular description of goods.—Boots and Shoes Made of Leather or Leather and Cloth, Leggings, and Puttees.
Claims use since Nov. 15, 1917.

Ser. No. 107,622. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SAMUEL MAHON COMPANY, Ottumwa, Iowa. Filed Nov. 26, 1917.

Baron

Particular description of goods.—Coffee.
Claims use since 1911.

Ser. No. 107,634. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL INDEPENDENT FISHERIES CO., Seattle, Wash. Filed Nov. 27, 1917.

NIFCO

Particular description of goods.—Canned Salmon.
Claims use since May 1, 1917.

Ser. No. 107,649. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE HUDSON MFG. CO., Chicago, Ill. Filed Nov. 28, 1917.

ARCTIC-VELVET

Particular description of goods.—A "Vegetable Gelatin" for Ice-Cream and Ices.
Claims use since 1902.

Ser. No. 107,657. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SCHNULL AND COMPANY, Indianapolis, Ind. Filed Nov. 28, 1917.



Particular description of goods.—Canned Vegetables Including Sweet Potatoes, Sauer-Kraut, String-Beans, Beets, Golden Pumpkin, Hominy, Red Kidney-Beans, Peas, Sugar-Corn, Tomatoes; for Pork and Beans; for Canned Fruits Including Pears, Peaches, Apples, Apricots, Plums, Raspberries, Gooseberries, Pineapple; for Jams; for Canned Salmon, and Canned Oysters.
Claims use since July, 1895.

Ser. No. 107,680. (CLASS 39. CLOTHING.) HARRIS-POLK HAT CO., St. Louis, Mo. Filed Nov. 30, 1917.



Particular description of goods.—Hats.
Claims use since Sept. 1, 1917.

Ser. No. 107,736. (CLASS 38. PRINTS AND PUBLICATIONS.) HORACE E. WARE, Boston, Mass. Filed Dec. 3, 1917.

OLD FARMER'S ALMANAC

Particular description of goods.—An Almanac.
Claims use since 1848.

Ser. No. 107,745. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ALFRED CHURCHMAN, Kansas City, Mo. Filed Dec. 4, 1917.

Hi-Lo

Particular description of goods.—Coffee.
Claims use since Nov. 1, 1917.

Ser. No. 107,750. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) KLOCZEWSKI & Co., Washington, D. C. Filed Dec. 4, 1917.

PEPSICHONA

Particular description of goods.—A Liquid Preparation for Malaria, Colds, and Grippe.
Claims use since Aug. 8, 1916.

Ser. No. 107,759. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) UNITED STATES MACARONI COMPANY, Los Angeles, Cal. Filed Nov. 28, 1917.

PERFECTLESS

Particular description of goods.—Macaronic Foods.
Claims use since Oct. 20, 1917.

Ser. No. 107,784. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) B. BLOM CO. INC., New York, N. Y. Filed Dec. 6, 1917.



Particular description of goods.—Mayonnaise Dressing.
Claims use since July 1, 1917.

Ser. No. 107,795. (CLASS 2. RECEPTACLES.) SANITARY SPECIALTIES CO., Philadelphia, Pa. Filed Dec. 6, 1917.



Particular description of goods.—Soap-Dishes; Tooth-Brush Holders, and Toilet-Paper Holders.
Claims use since Nov. 17, 1909.

Ser. No. 107,800. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) WILSON CHEMICAL COMPANY, Council Bluffs, Iowa. Filed Dec. 6, 1917.

PARALAC

Particular description of goods.—Furniture-Polish and Finish-Renewer.
Claims use since Oct. 25, 1917.

Ser. No. 107,806. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BURG MILLING CO., Los Angeles, Cal. Filed Dec. 7, 1917.

Burg

Consists of my name "Burg," with the representation of a bee overprinted upon the letter "B," both in oval.
Particular description of goods.—Waffle-Flour.
Claims use since Nov. 1, 1917.

Ser. No. 107,811. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GERHARD MENNEN CHEMICAL CO., Newark, N. J. Filed Dec. 7, 1917.

MENNEN'S

The picture being the portrait of Gerhard Mennen, the founder of applicant's business.
Particular description of goods.—Toilet and Talcum Powders, Antiseptic Powder, Bath-Powder, Cold-Cream, Shampooing-Cream, Dentifrice, Remedy for Corns, Bunions, and Callousness, and Deodorant.
Claims use since July, 1889, on toilet and talcum powders; June, 1915, on antiseptic powder; January, 1914, on bath-powder; May, 1912, on shaving-cream; December, 1915, on cold-cream; April, 1914, on shampooing-cream; October, 1912, on dentifrice; October, 1917, on deodorant and on remedy for corns, bunions, and callousness, except that the word "Mennen's" has been used on deodorant since February, 1916, and on remedy for corns, bunions, and callousness since November, 1878.

Ser. No. 107,816. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NICHOLAS OTTAVIANO, Pittsburgh, Pa. Filed Dec. 7, 1917.

OVER THE TOP

Particular description of goods.—Scalp Remedy and Hair-Tonic.
Claims use since Nov. 26, 1917.

Ser. No. 107,820. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) TRENTON PORCELAIN COMPANY, Trenton, N. J. Filed Dec. 7, 1917.

JIFFY

Particular description of goods.—Porcelain Wiring-Knobs.
Claims use since Apr 5, 1916.

Ser. No. 107,830. (CLASS 12. CONSTRUCTION MATERIALS.) CARTHAGE QUARRY COMPANY, Carthage, Mo. Filed Dec. 8, 1917.



Particular description of goods.—Building Stone and Marble.
Claims use since Nov. 1, 1917.

Ser. No. 107,840. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) E. H. HAMLIN CO., Seattle, Wash. Filed Dec. 8, 1917.



Particular description of goods.—Canned Salmon.
Claims use since Mar. 10, 1916.

Ser. No. 107,841. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) E. H. HAMLIN CO., Seattle, Wash. Filed Dec. 8, 1917.

Blue Funnel

Particular description of goods.—Canned Salmon.
Claims use since Mar. 10, 1916.

Ser. No. 107,852. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PETER SCHLOSSER, Louisville, Ky. Filed Dec. 8, 1917.

OXY-ANT

Particular description of goods.—A Medicinal Preparation for the Treatment of Indigestion, Flatulence, and Disorders of the Stomach.
Claims use since 1913.

Ser. No. 107,855. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) THE F. & M. SCHAEFER BREWING CO., New York, N. Y. Filed Dec. 8, 1917.

WE ■ NO

Particular description of goods.—A Maltless Temperance Beverage Sold as a Soft Drink.
Claims use since Dec. 6, 1917.

Ser. No. 107,889. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE UNITY MILLS, INC., New York, N. Y. Filed Dec. 10, 1917.

UNIDAD

Particular description of goods.—Wheat-Flour.
Claims use since Aug. 22, 1917.

Ser. No. 107,896. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM H. KANT, Brooklyn, N. Y. Filed Dec. 11, 1917.

313

Particular description of goods.—A Preparation for the Treatment for Urinary Troubles.
Claims use since Nov. 30, 1917.

Ser. No. 107,907. (CLASS 39. CLOTHING.) CALIFORNIA GLOVE COMPANY, San Francisco, Cal. Filed Dec. 12, 1917.

Raywill

Particular description of goods.—Leather Gloves.
Claims use since about Nov. 1, 1917.

Ser. No. 107,910. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FEDERAL COCOA & CHOCOLATE CO., Baltimore, Md. Filed Dec. 12, 1917.

FEDERAL

Particular description of goods.—Candy.
Claims use since Dec. 3, 1917.

Ser. No. 107,911. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FEDERAL COCOA & CHOCOLATE CO., Baltimore, Md. Filed Dec. 12, 1917.

OVERLAND

Particular description of goods.—Candy.
Claims use since Dec. 3, 1917.

Ser. No. 107,934. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOSEPH R. BURKE, Portland, Oreg. Filed Dec. 13, 1917.

NORTH GATE

Particular description of goods.—Canned Grayfish.
Claims use since Oct. 3, 1917.

Ser. No. 107,936. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CALIFORNIA PRUNE AND APRICOT GROWERS, INC., San Jose, Cal. Filed Dec. 13, 1917.

Sunsweet

Particular description of goods.—Dried Apricots and Prunes.
Claims use since July 10, 1917.

Ser. No. 107,943. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HAAS, BARUCH & CO., Los Angeles, Cal. Filed Dec. 13, 1917.

NUPAK

Particular description of goods.—Coffee.
Claims use since Nov. 17, 1917.

Ser. No. 107,951. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SAN PEDRO PACKING CO., INC., East San Pedro, Cal. Filed Dec. 13, 1917.

SECURITY

Particular description of goods.—Canned Sardines and Canned Tuna.
Claims use since Nov. 21, 1917.

Ser. No. 107,974. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) AJAX RUBBER COMPANY, INC., Millbrook, N. Y. Filed Dec. 15, 1917.

ROAD KING

Consisting of the words "Road King."
Particular description of goods.—Inner Tubes for Tires.
Claims use since on or about Nov. 25, 1917.

Ser. No. 107,984. (CLASS 39. CLOTHING.) KATHERINE MORAN, New York, N. Y. Filed Dec. 15, 1917.

RITELINE

Comprising the word "Riteline."
Particular description of goods.—Ladies' and Misses' Suits and Coats.
Claims use since Dec. 1, 1917.

Ser. No. 107,987. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE NASH MOTORS COMPANY, Kenosha, Wis. Filed Dec. 15, 1917.

Nash

The trade-mark is the name "Nash" as written by C. W. Nash.
Particular description of goods.—Automobiles.
Claims use since on or about Apr. 2, 1917.

Ser. No. 108,037. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) CHARLES J. HEYLMANN, Chicago, Ill. Filed Dec. 18, 1917.

TACTICS

Particular description of goods.—Game-Boards.
Claims use since Nov. 23, 1917.

Ser. No. 108,054. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) CONSOLIDATED SAFETY PIN CO., Bloomfield, N. J. Filed Dec. 19, 1917.

ROYAL

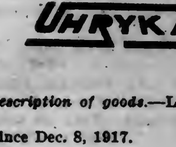
Particular description of goods.—Safety-Pins.
Claims use since on or about the 15th day of October, 1904.

Ser. No. 108,056. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) CONSOLIDATED SAFETY PIN CO., Bloomfield, N. J. Filed Dec. 19, 1917.

GOLDFINCH

Particular description of goods.—Safety-Pins.
Claims use since on or about the 20th day of November, 1918.

Ser. No. 108,059. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) ELEKTRA TOY & NOVELTY CO., New York, N. Y. Filed Dec. 19, 1917.



Particular description of goods.—Dolls.
Claims use since Mar. 1, 1917.

Ser. No. 108,079. (CLASS 39. CLOTHING.) E. M. TOWNSEND & Co., New York, N. Y. Filed Dec. 20, 1917.



Particular description of goods.—Hosiery.
Claims use since Dec. 18, 1917.

Ser. No. 108,080. (CLASS 39. CLOTHING.) EDMOND UHRY, New York, N. Y. Filed Dec. 20, 1917.

UHRYKA

Particular description of goods.—Ladies' Trimmed and Tailored Hats.
Claims use since Dec. 8, 1917.

Ser. No. 108,120. (CLASS 39. CLOTHING.) CHIPMAN KNITTING MILLS, Easton, Pa. Filed Dec. 24, 1917.

DEMOCRACY

Particular description of goods.—Hosiery.
Claims use since Sept. 26, 1917.

Ser. No. 108,131. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) PARKER BROTHERS, Portland, Me., and Salem, Mass. Filed Dec. 24, 1917.

CAMOUFLAGE

Particular description of goods.—Card Games.
Claims use since Nov. 21, 1917.

Ser. No. 108,152. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) HARRIS AND BERNTZ CO., Philadelphia, Pa. Filed Dec. 26, 1917.

TRIUMPH

Particular description of goods.—Nursing-Nipples.
Claims use since January, 1914.

Ser. No. 108,173. (CLASS 39. CLOTHING.) COHEN AND HARTENSTEIN, Boston, Mass. Filed Dec. 27, 1917.

COHART

Particular description of goods.—Boys' and Girls' Shoes Made Wholly or in Part of Leather or Cloth.
Claims use since Nov. 16, 1917.

Ser. No. 108,297. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) CHARLES CYRUS FOGG, Lowell, Mass. Filed Jan. 4, 1918. Under ten-year proviso.

MT. PLEASANT SPRING

Particular description of goods.—Spring-Water.
Claims use since July 1, 1893.

Ser. No. 108,335. (CLASS 22. FURNITURE AND UPHOLSTERY.) THE STEELWHITE COMPANY, INC., Jamestown, N. Y. Filed Jan. 5, 1918.

Cabinora

Particular description of goods.—Kitchen-Cabinets.
Claims use since Oct. 18, 1917.

TRADE-MARK REGISTRATIONS GRANTED

FEBRUARY 5, 1918.

120,309. TOILET-PAPER AND PAPER TOWELS. ALBANY PERFORATED WRAPPING PAPER COMPANY, Albany, N. Y.
Filed July 19, 1916. Serial No. 90,656. PUBLISHED NOVEMBER 27, 1917.

120,310. SELF-RISING FLOUR. ADVANCE MILL & ELEVATOR COMPANY, Carrollton, Ill.
Filed September 10, 1917. Serial No. 106,147. PUBLISHED NOVEMBER 20, 1917.

120,311. CERTAIN NAMED CUTLERY. AERIAL CUTLERY MANUFACTURING COMPANY, Marinette, Wis.
Filed May 10, 1917. Serial No. 102,661. PUBLISHED OCTOBER 2, 1917.

120,312. CANNED SALMON. ALASKA PACIFIC HERRING CO., Seattle, Wash.
Filed September 5, 1917. Serial No. 106,050. PUBLISHED NOVEMBER 27, 1917.

120,313. CERTAIN NAMED TOILET PREPARATIONS. AMERICAN DRUG & PRESS ASSOCIATION, Decorah, Iowa.
Filed December 2, 1916. Serial No. 99,670. PUBLISHED MARCH 6, 1917.

120,314. DETERGENT COMPOUND FOR CLEANING POLISHED AND UNPOLISHED SURFACES. AMERICAN MARBLE CLEANING AND BLEACHING CO., New York, N. Y.
Filed September 19, 1917. Serial No. 106,306. PUBLISHED NOVEMBER 20, 1917.

120,315. CERTAIN NAMED NITROGEN PRODUCTS. AMERICAN NITROGEN PRODUCTS COMPANY, Seattle, Wash.
Filed September 21, 1917. Serial No. 106,357. PUBLISHED DECEMBER 4, 1917.

120,316. OLEOMARGARIN. ARMOUR AND COMPANY, Chicago, Ill.
Filed September 8, 1917. Serial No. 106,129. PUBLISHED NOVEMBER 20, 1917.

120,317. INSULATED WIRE. ATLANTIC INSULATED WIRE & CABLE COMPANY, Jersey City, N. J., and New York, N. Y.
Filed September 8, 1917. Serial No. 106,126. PUBLISHED DECEMBER 4, 1917.

120,318. INSULATED WIRE. ATLANTIC INSULATED WIRE & CABLE COMPANY, Jersey City, N. J., and New York, N. Y.
Filed September 8, 1917. Serial No. 106,125. PUBLISHED DECEMBER 4, 1917.

120,319. WATCHES, BRACELET-WATCHES, SAUTOIRE-WATCHES, AND WATCH-MOVEMENTS. AMERICAN WATCH CASE CO., INC., New York, N. Y.
Filed September 11, 1917. Serial No. 106,172. PUBLISHED NOVEMBER 27, 1917.

120,320. INGOTS, CASTINGS, INCLUDING ENGINE-CASTINGS AND BABBITT METAL. THE AJAX METAL COMPANY, Philadelphia, Pa.
Filed November 28, 1916. Serial No. 99,610. PUBLISHED NOVEMBER 13, 1917.

120,321. MALTED MILK AND FOR A COMPOUND COMPRISING MALTED MILK AND HONEY USED FOR MAKING DRINKS. JOHN W. BADWELL, Waukegan, Ill.
Filed June 11, 1917. Serial No. 104,899. PUBLISHED NOVEMBER 27, 1917.

120,322. COAL-PICK HANDLES. BEALL BROTHERS, Alton, Ill.
Filed September 5, 1917. Serial No. 106,056. PUBLISHED DECEMBER 4, 1917.

120,323. SHOVELS, SCOOPS, AND SPADES. BEALL BROTHERS, Alton, Ill.
Filed September 5, 1917. Serial No. 106,060. PUBLISHED DECEMBER 4, 1917.

120,324. SHOVELS, SCOOPS, AND SPADES. BEALL BROTHERS, Alton, Ill.
Filed September 5, 1917. Serial No. 106,061. PUBLISHED DECEMBER 4, 1917.

120,325. SHOVELS, SCOOPS, AND SPADES. BEALL BROTHERS, Alton, Ill.
Filed September 5, 1917. Serial No. 106,062. PUBLISHED DECEMBER 4, 1917.

120,326. PASTE AND READY-MIXED PAINTS AND VARNISHES. THE BEAVER VARNISH COMPANY, Buffalo, N. Y.
Filed July 27, 1917. Serial No. 105,311. PUBLISHED OCTOBER 16, 1917.

120,327. CANDY. BLANKE WENNEKER CANDY COMPANY, St. Louis, Mo.
Filed August 31, 1917. Serial No. 105,979. PUBLISHED NOVEMBER 20, 1917.

120,328. CERTAIN NAMED FOODS. BLATCHFORD'S CALF MEAL FACTORY, Waukegan, Ill.
Filed June 19, 1917. Serial No. 104,515. PUBLISHED NOVEMBER 27, 1917.

120,329. CAR-MOVERS, CAR-REPLACERS. THE BONNEY FLOYD COMPANY, Columbus, Ohio.
Filed September 11, 1915. Serial No. 89,142. PUBLISHED NOVEMBER 13, 1917.

120,330. CERTAIN NAMED TOILET PREPARATIONS. A. BOURJOIS & CO., INC., New York, N. Y.
Filed September 19, 1917. Serial No. 106,308. PUBLISHED DECEMBER 4, 1917.

120,331. RICE. M. J. BRANDENSTEIN & CO., San Francisco, Cal.
Filed September 5, 1917. Serial No. 106,052. PUBLISHED NOVEMBER 20, 1917.

120,332. LAWN-MOWERS. JOHN BRAUN & SONS, Philadelphia, Pa., assignors to Pennsylvania Lawn Mower Works, Philadelphia, Pa., a Corporation of Pennsylvania.
Filed July 29, 1916. Serial No. 97,196. PUBLISHED NOVEMBER 13, 1917.

120,333. LAWN-MOWERS. JOHN BRAUN & SONS, Philadelphia, Pa., assignors to Pennsylvania Lawn Mower Works, Philadelphia, Pa., a Corporation of Pennsylvania.
Filed July 29, 1916. Serial No. 97,179. PUBLISHED NOVEMBER 13, 1917.

120,334. LAWN-MOWERS. JOHN BRAUN & SONS, Philadelphia, Pa., assignors to Pennsylvania Lawn Mower Works, Philadelphia, Pa., a Corporation of Pennsylvania.
Filed July 29, 1916. Serial No. 97,184. PUBLISHED NOVEMBER 13, 1917.

120,335. SAFETY-RAZORS AND PARTS THEREOF. AUGUSTUS H. BRYANT, New York, N. Y.
Filed September 20, 1917. Serial No. 106,334. PUBLISHED DECEMBER 4, 1917.

120,336. ELECTRIC SWITCHES AND PARTS THEREOF. THE BRYANT ELECTRIC CO., Bridgeport, Conn.
Filed August 10, 1917. Serial No. 105,567. PUBLISHED NOVEMBER 13, 1917.

120,337. METALLIC DEVICE FOR HANGING PICTURES OR THE LIKE. THE BUFFALO-DEHN COMPANY, Buffalo, N. Y.
Filed April 7, 1917. Serial No. 102,794. PUBLISHED NOVEMBER 13, 1917.

120,338. MEDICINAL TABLETS. THE BYCOL CO., Connersville, Ind.
Filed September 10, 1917. Serial No. 106,150. PUBLISHED DECEMBER 4, 1917.

120,339. ANTIFREEZING LIQUIDS. CALOIL MANUFACTURING COMPANY, Chicago, Ill.
Filed October 20, 1917. Serial No. 106,874. PUBLISHED DECEMBER 4, 1917.

120,340. NON-INTOXICATING VINOUS BEVERAGE. CALVINO WINE CO., San Francisco, Cal.
Filed October 31, 1917. Serial No. 107,042. PUBLISHED NOVEMBER 27, 1917.

120,341. RAKES. THE CASEMENT HARDWARE CO., Chicago, Ill.
Filed August 23, 1917. Serial No. 105,834. PUBLISHED DECEMBER 4, 1917.

120,342. HOSIERY, FABRIC GLOVES, MITTS, HAND AND ARM COVERINGS. WILLIAM WALL CHACE, Brooklyn, N. Y., assignor to Jennings Lace Works Corp., New York, N. Y., a Corporation of New York.
Filed July 28, 1917. Serial No. 105,335. PUBLISHED DECEMBER 4, 1917.

120,343. CERTAIN NAMED ELECTRICAL SUPPLIES. CHICAGO FUSE MFG. CO., Chicago, Ill.
Filed April 13, 1917. Serial No. 102,932. PUBLISHED NOVEMBER 6, 1917.

120,344. HOSIERY. CHAS. CHIPMAN'S SONS CO., INC., New York, N. Y.
Filed October 17, 1917. Serial No. 106,806. PUBLISHED DECEMBER 4, 1917.

120,345. BLOOD-GENERATING REMEDY IN TABLOIDS WHOSE EFFICIENT COMPONENTS ARE CHLOROPHYL, IRON, AND CALCIUM. CHLOROSAN A.-G. CHEMISCH-THERAPEUTISCHE PRÄPARATE, Zofingen, Switzerland.
Filed June 13, 1917. Serial No. 104,420. PUBLISHED DECEMBER 4, 1917.

120,346. DRYING COMPOUND FOR PRINTING AND LITHOGRAPHING INKS. ALEXANDER COCHARD, New York, N. Y.
Filed September 6, 1917. Serial No. 106,089. PUBLISHED DECEMBER 4, 1917.

120,347. DISINFECTANTS. CLIFFORD AND COBB, Greenfield, Mass.
Filed October 13, 1917. Serial No. 106,751. PUBLISHED DECEMBER 4, 1917.

120,348. LIQUID AND POWDERED PERFUMES, TOILET WATERS, TOILET CREAMS, FACE AND TOILET POWDERS, AND SACHETS. COLGATE & CO., Jersey City, N. J., and New York, N. Y.
Filed October 25, 1917. Serial No. 106,940. PUBLISHED DECEMBER 4, 1917.

120,349. WHEAT-FLOUR. COLUMBIA RIVER MILLING CO., Wilbur, Wash.
Filed September 4, 1917. Serial No. 106,021. PUBLISHED NOVEMBER 20, 1917.

120,350. CERTAIN NAMED MUSICAL INSTRUMENTS. C. G. CONN, LTD., Elkhart, Ind.
Filed February 24, 1917. Serial No. 101,638. PUBLISHED NOVEMBER 27, 1917.

120,351. DEVICES FOR IMPARTING A ROTATIVE MOVEMENT TO PUPPET-VALVES FOR GAS-ENGINES. CONTINENTAL ENGINEERING CORPORATION, Omaha, Nebr.
Filed October 9, 1917. Serial No. 106,687. PUBLISHED DECEMBER 4, 1917.

120,352. SLEEPING-BAGS. FREDERICK S. CONVERSE, Boston, Mass.
Filed October 17, 1917. Serial No. 106,804. PUBLISHED DECEMBER 4, 1917.

120,353. CERTAIN NAMED PHARMACEUTICAL PREPARATIONS. THE C. L. COTTON PERFUME & EXTRACT CO., Earlville, N. Y.
Filed March 10, 1917. Serial No. 102,024. PUBLISHED JULY 3, 1917.

120,354. ILLUMINATING, LUBRICATING, AND BURNING OILS AND GREASES. CREW LEVICK COMPANY, Philadelphia, Pa.
Filed April 10, 1917. Serial No. 102,857. PUBLISHED MAY 8, 1917.

120,355. CERTAIN NAMED MACHINERY AND TOOLS. DON A. CARPENTER, El Paso, Tex.
Filed March 21, 1917. Serial No. 102,305. PUBLISHED NOVEMBER 13, 1917.

120,356. PREPARATION FOR CLEANING ENGINE-CYLINDERS AND REMOVING CARBON DEPOSITS THEREFROM. FRANK A. DARLING, Girard, Ohio.
Filed October 15, 1917. Serial No. 106,768. PUBLISHED DECEMBER 4, 1917.

120,357. METAL TOOLS FOR CUTTING, FORMING, OR HOLDING. DARWIN & MILNER, INC., New York, N. Y.
Filed September 28, 1917. Serial No. 106,475. PUBLISHED DECEMBER 4, 1917.

120,358. APPARATUS FOR PRODUCING A CERTAIN NAMED GAS. WILLIAM P. DEPPE, New York, N. Y.
Filed August 3, 1917. Serial No. 105,450. PUBLISHED DECEMBER 4, 1917.

120,359. COUGH-TABLETS. DAVIES, ROSE & CO., LTD., Boston, Mass.
Filed September 17, 1917. Serial No. 106,277. PUBLISHED DECEMBER 4, 1917.

120,360. ANTISEPTIC POWDER. DIATOL CHEMICAL COMPANY, Baltimore, Md.
Filed October 12, 1917. Serial No. 106,738. PUBLISHED DECEMBER 4, 1917.

120,361. ALE, LAGER, AND PORTER. EAGLE BREWING CO., INC., Waterbury, Conn.
Filed November 7, 1917. Serial No. 107,217. PUBLISHED DECEMBER 4, 1917.

120,362. METALLIC PLATES FOR USE IN POLISHING SILVER. EASTERN SUPPLY CO., San Diego, Cal.
Filed May 28, 1917. Serial No. 104,117. PUBLISHED DECEMBER 4, 1917.

120,363. PHOTOGRAPHIC PAPER. EASTMAN KODAK COMPANY, Rochester, N. Y.
Filed August 11, 1917. Serial No. 105,588. PUBLISHED NOVEMBER 13, 1917.

120,364. ELECTRIC FURNACES AND PARTS THEREOF. ELECTRIC HEATING APPARATUS CO., New York, N. Y., and Newark, N. J.
Filed July 11, 1917. Serial No. 104,981. PUBLISHED DECEMBER 4, 1917.

120,365. DISINFECTANT AND GERMICIDE. ERNST ZOBEL COMPANY, INC., Brooklyn, N. Y.
Filed October 29, 1917. Serial No. 107,005. PUBLISHED DECEMBER 4, 1917.

120,366. SUSPENDERS AND SUSPENDER-ENDS, EVERLASTIK, INCORPORATED, Boston, Mass.
Filed August 18, 1917. Serial No. 105,709. PUBLISHED DECEMBER 4, 1917.

120,367. HAIR-TONICS. ALBERTA E. FIELDS, Pasadena, Cal.
Filed October 26, 1917. Serial No. 106,968. PUBLISHED DECEMBER 4, 1917.

120,368. TOOL-STEEL AND STEEL IN BAR, ROD, SHEET, PLATE, HOOP, INGOT, AND WIRE FORM. FIRTH-STERLING STEEL COMPANY, McKeesport, Pa.
Filed August 30, 1917. Serial No. 105,961. PUBLISHED NOVEMBER 13, 1917.

120,369. FRESH PRODUCE AND TRUCK, COMPRISING LETTUCE, CELERY, TOMATOES, POTATOES, EGG-PLANT, BEANS, PEAS, AND CAULIFLOWER. FISH & FISH, near Sanford, Fla.
Filed July 16, 1917. Serial No. 105,056. PUBLISHED NOVEMBER 20, 1917.

120,370. SOAPS. FISCHBECK SOAP CO., San Francisco, Cal.
Filed August 28, 1916. Serial No. 97,668. PUBLISHED NOVEMBER 20, 1917.

120,371. RYE-FLOUR. FLORY MILLING COMPANY, Bangor borough, Pa.
Filed October 21, 1916. Serial No. 98,806. PUBLISHED NOVEMBER 20, 1917.

120,372. PYORRHEA PREPARATION. FORHAN COMPANY, New York, N. Y.
Filed May 5, 1916. Serial No. 94,921. PUBLISHED DECEMBER 4, 1917.

120,373. WEB STRETCHING AND GUIDING MACHINES. THE FORSYTH DYEING CO., New Haven, Conn.
Filed July 27, 1917. Serial No. 105,814. PUBLISHED DECEMBER 4, 1917.

120,374. BLENDED COFFEE. FORT SMITH COFFEE COMPANY, Fort Smith, Ark.
Filed August 22, 1917. Serial No. 105,799. PUBLISHED NOVEMBER 20, 1917.

120,375. COFFEE. FORT SMITH COFFEE COMPANY, Fort Smith, Ark.
Filed August 22, 1917. Serial No. 105,800. PUBLISHED NOVEMBER 20, 1917.

120,376. PAINT-FILLER. THE FOY PAINT CO., Cincinnati, Ohio.
Filed August 31, 1917. Serial No. 105,985. PUBLISHED DECEMBER 4, 1917.

120,377. AXES AND SAWS. WM. FRANKFURTH HARDWARE COMPANY, Milwaukee, Wis.
Filed September 6, 1917. Serial No. 106,091. PUBLISHED DECEMBER 4, 1917.

120,378. CUT-EDGE TAPE. FREYDBERG BROS., INC., New York, N. Y.
Filed July 27, 1917. Serial No. 105,316. PUBLISHED NOVEMBER 27, 1917.

120,379. DRILLS AND REAMERS, BLADES, SAWS, CUTTERS, HOBS, MILLS, AND PUNCHES. FRY'S (LONDON) LTD., London, England.
Filed July 2, 1917. Serial No. 104,794. PUBLISHED NOVEMBER 13, 1917.

120,380. BLADES, SAWS, CUTTERS, HOBS, REAMERS, DRILLS, MILLS, AND PUNCHES. FRY'S (LONDON) LTD., London, England.
Filed June 30, 1917. Serial No. 104,772. PUBLISHED NOVEMBER 13, 1917.

120,381. BEARINGS FOR MACHINERY. GENERAL ELECTRIC COMPANY, Schenectady, N. Y.
Filed September 28, 1917. Serial No. 106,481. PUBLISHED DECEMBER 4, 1917.

120,382. CHOCOLATE LAXATIVE IN TABLET FORM. GENTALAX COMPANY, Chicago, Ill.
Filed October 5, 1917. Serial No. 106,618. PUBLISHED DECEMBER 4, 1917.

120,383. CERTAIN NAMED FOODS. H. P. COFFEE COMPANY, St. Louis, Mo.
Filed August 22, 1917. Serial No. 105,794. PUBLISHED NOVEMBER 20, 1917.

120,384. CANDIES. GEO. HAAS & SONS, San Francisco, Cal.
Filed August 21, 1917. Serial No. 105,774. PUBLISHED NOVEMBER 27, 1917.

120,385. DRY AND READY-MIXED PAINTS, PAINT-OILS, VARNISHES, AND STAINS. THE HASCALL PAINT COMPANY, Cleveland, Ohio.
Filed August 20, 1917. Serial No. 105,782. PUBLISHED DECEMBER 4, 1917.

120,386. BRACELETS, BRACELET PARTS, PENDANTS, BROOCHES, AND FINGER-RINGS. CHARLES E. HANCOCK CO., Providence, R. I.
Filed October 5, 1917. Serial No. 106,619. PUBLISHED NOVEMBER 27, 1917.

120,387. PLASTIC ROOFING MATERIAL COMMONLY KNOWN AS PLASTIC ROOFING-CEMENT. THE HASCALL PAINT COMPANY, Cleveland, Ohio.
Filed October 17, 1917. Serial No. 106,809. PUBLISHED NOVEMBER 27, 1917.

120,388. PLASTIC ROOFING MATERIALS COMMONLY KNOWN TO THE TRADE AS ROOFING-CEMENT. THE HASCALL PAINT COMPANY, Cleveland, Ohio.
Filed August 20, 1917. Serial No. 105,733. PUBLISHED NOVEMBER 13, 1917.

120,389. WOMEN'S AND MISSES' GOWNS AND DRESSES. ADOLPH HEIMLICH, New York, N. Y.
Filed September 4, 1917. Serial No. 106,025. PUBLISHED OCTOBER 30, 1917.

120,390. CASKET-HANDLES, CASKET METAL TRIMMINGS, UNDERTAKERS' HARDWARE USED IN CONNECTION WITH CASKETS. F. H. HILL CO., Chicago, Ill.
Filed October 6, 1916. Serial No. 98,465. PUBLISHED NOVEMBER 13, 1917.

120,391. STEAM-ENGINES, GOVERNORS, AND LATHES. THE HOUSTON, STANWOOD & GAMBLE COMPANY, Cincinnati, Ohio, and Covington, Ky.
Filed April 30, 1917. Serial No. 103,417. PUBLISHED DECEMBER 4, 1917.

120,392. IGNITION-COILS, ELECTRIC SWITCHES, AND ELECTRIC TRANSFORMERS. JEFFERSON ELECTRIC MFG. CO., Chicago, Ill.
Filed December 4, 1916. Serial No. 99,711. PUBLISHED NOVEMBER 13, 1917.

120,393. ELECTRIC CONTROLLERS. THE JEFFREY MANUFACTURING COMPANY, Columbus, Ohio.
Filed September 9, 1916. Serial No. 97,8... PUBLISHED NOVEMBER 13, 1917.

120,394. SERIES OF DIFFERENT MOTION-PICTURE PHOTOPLAYS. JEWEL PRODUCTIONS, INC., New York, N. Y.
Filed August 18, 1917. Serial No. 105,742. PUBLISHED NOVEMBER 13, 1917.

120,395. COOKING COMPOUND CONSISTING OF A MIXTURE OF SALT, SODA, SUGAR, AND FLOUR. WILLIAM HAWKINGS JOHNSON, Chillicothe, Tex.
Filed January 30, 1917. Serial No. 101,040. PUBLISHED NOVEMBER 27, 1917.

120,396. MAGNETIC CHUCK-FIXTURES. THE KAR ENGINEERING COMPANY, INC., New York, N. Y.
Filed September 26, 1917. Serial No. 106,449. PUBLISHED DECEMBER 4, 1917.

120,397. MAGNETIC CHUCK-FIXTURES. THE KAR ENGINEERING COMPANY, INC., New York, N. Y.
Filed September 26, 1917. Serial No. 106,450. PUBLISHED DECEMBER 4, 1917.

120,398. RAZORS, RAZOR BLADES AND STROPPING DEVICES. STANLEY M. KATTELL, Binghamton, N. Y.
Filed October 2, 1917. Serial No. 106,559. PUBLISHED DECEMBER 4, 1917.

120,399. KNIT UNDERWEAR AND HOSIERY. JULIUS KAYSER & CO., New York, N. Y.
Filed August 1, 1917. Serial No. 105,401. PUBLISHED DECEMBER 4, 1917.

120,400. DIGESTIVE POWDER. OSCAR A. KRAMPF, Holland, N. Y.
Filed January 25, 1917. Serial No. 100,928. PUBLISHED DECEMBER 4, 1917.

120,401. EVAPORATED MILK. THE LAUREL COMPANY, Seattle, Wash.
Filed September 5, 1917. Serial No. 106,074. PUBLISHED NOVEMBER 20, 1917.

120,402. SNAP-FASTENERS. THE LAVIN COMPANY, New York, N. Y.
Filed August 23, 1917. Serial No. 105,839. PUBLISHED DECEMBER 4, 1917.

120,403. ONE-PIECE WORK-SUITS. THE H. D. LEE MERCANTILE CO., Salina, Kans., and Kansas City, Mo.
Filed December 20, 1916. Serial No. 100,064. PUBLISHED DECEMBER 4, 1917.

120,404. CERTAIN NAMED PAINTS. ABRAHAM LEVIN, New York, N. Y.
Filed October 4, 1917. Serial No. 106,605. PUBLISHED DECEMBER 4, 1917.

120,405. FIXTURES FOR ELECTRIC LIGHTS. LUMINOUS UNIT COMPANY, St. Louis, Mo.
Filed September 4, 1917. Serial No. 106,029. PUBLISHED DECEMBER 4, 1917.

120,406. TERNE PLATES. LYON, CONKLIN & CO. INC., Baltimore, Md.
Filed October 3, 1916. Serial No. 98,385. PUBLISHED NOVEMBER 13, 1917.

120,407. REMEDY FOR THE LOCAL TREATMENT OF CERTAIN NAMED DISEASES. MCCOY-HOWE COMPANY, Indianapolis, Ind.
Filed October 11, 1917. Serial No. 106,721. PUBLISHED DECEMBER 4, 1917.

120,408. STEEL PENS, PENHOLDERS, LEAD AND GRAPHITE PENCILS, AND FOUNTAIN-PENS. ABRAHAM M. MALOUF, Salt Lake City, Utah.
Filed July 17, 1917. Serial No. 105,085. PUBLISHED OCTOBER 2, 1917.

120,409. MEDICINAL ALIMENTITIOUS PRODUCT CONSISTING OF COAGULATED MILK. ARTHUR P. MARTINEZ, Dallas, Tex.
Filed April 19, 1917. Serial No. 103,122. PUBLISHED NOVEMBER 20, 1917.

120,410. TONIC AND SYSTEM-CLEANSER FOR TREATMENT OF VENEREAL DISEASES AND DISORDERS OF THE BLOOD. MARTIN MAURIN, Hot Springs, N. Mex.
Filed October 3, 1917. Serial No. 106,582. PUBLISHED DECEMBER 4, 1917.

120,411. HAM, BACON, AND DRIED BEEF. THE H. H. MEYER PACKING COMPANY, Cincinnati, Ohio.
Filed February 8, 1917. Serial No. 101,233. PUBLISHED NOVEMBER 27, 1917.

120,412. PIGMENTS FOR PAINTS. MINERAL REFINING AND CHEMICAL CORPORATION, New York, N. Y.
Filed September 29, 1917. Serial No. 106,511. PUBLISHED DECEMBER 4, 1917.

120,413. BREAKFAST-BACON. JOHN MORRELL & CO., Ottumwa, Iowa.
Filed August 22, 1917. Serial No. 105,806. PUBLISHED NOVEMBER 20, 1917.

120,414. LUBRICATING-OILS. JOHN C. NOURSE, Kansas City, Mo.
Filed December 18, 1916. Serial No. 100,019. PUBLISHED NOVEMBER 13, 1917.

120,415. HEEL-PLATES. NOZAKI BROTHERS AND CO., Yokohama, Japan.
Filed January 29, 1917. Serial No. 101,016. PUBLISHED NOVEMBER 13, 1917.

120,416. PREPARATION FOR THE TREATMENT OF MALARIA. OSCAR H. OLSSON, Hawthorne, N. J.
Filed August 31, 1917. Serial No. 105,992. PUBLISHED DECEMBER 4, 1917.

120,417. CANDY. PACKAGE CONFECTIONERY CO., Boston, Mass.
Filed August 30, 1915. Serial No. 88,898. PUBLISHED NOVEMBER 27, 1917.

120,418. HIGHLY-FLAVORED SUGAR TABLETS. JACOB S. PARR, Govanstown, Md.
Filed August 1, 1917. Serial No. 105,409. PUBLISHED NOVEMBER 27, 1917.

120,419. CERTAIN NAMED PAINTS AND VARNISHES AND THE LIKE. THE PATTERSON-SARGENT COMPANY, Cleveland, Ohio.
Filed October 8, 1917. Serial No. 106,673. PUBLISHED DECEMBER 4, 1917.

120,420. PERFUMES, TOILET WATERS, TOILET CREAMS, AND TOILET POWDERS. PENINSULAR CHEMICAL CO., Detroit, Mich.
Filed January 18, 1917. Serial No. 100,723. PUBLISHED MARCH 6, 1917.

120,421. MEDICINAL PREPARATION FOR DISORDERS OF THE GENITO-URINARY ORGANS. S. PFEIFFER MFG. CO., St. Louis, Mo.
Filed August 10, 1917. Serial No. 105,580. PUBLISHED OCTOBER 2, 1917.

120,422. ENAMEL PAINT. PHELAN-FAUST PAINT MANUFACTURING COMPANY, St. Louis, Mo.
Filed August 9, 1917. Serial No. 105,561. PUBLISHED NOVEMBER 13, 1917.

120,423. SHELLED PEANUTS, SHELLED WALNUTS, SHELLED PECANS, SHELLED ALMONDS, SHELLED NUTS MIXED WITH RAISINS. HAROLD B. PINDER & CO., Chicago, Ill.
Filed August 22, 1917. Serial No. 105,814. PUBLISHED NOVEMBER 20, 1917.

120,424. SNAP-FASTENERS. PREMIER SNAP FASTENER CO. INC., New York, N. Y.
Filed October 20, 1917. Serial No. 106,885. PUBLISHED NOVEMBER 27, 1917.

120,425. MACARONI, SPAGHETTI, NOODLES, VERMICELLI, AND SIMILAR ITALIAN PASTE PRODUCTS. RANDAZZO MACARONI MANUFACTURING COMPANY, St. Louis, Mo.
Filed August 16, 1917. Serial No. 105,693. PUBLISHED NOVEMBER 20, 1917.

120,426. BREATH-TABLETS. THE REESE COMPANY, Chicago, Ill.
Filed October 26, 1916. Serial No. 98,911. PUBLISHED DECEMBER 4, 1917.

120,427. BREATH-TABLETS. THE REESE COMPANY, Chicago, Ill.
Filed October 27, 1916. Serial No. 98,933. PUBLISHED DECEMBER 4, 1917.

120,428. SUSPENDERS, GARTERS, BELTS, HOSE-SUPPORTERS AND ARMBANDS. THE RESILIA COMPANY, Boston, Mass.
Filed September 10, 1917. Serial No. 106,163. PUBLISHED DECEMBER 4, 1917.

120,429. VEGETABLE FACE-CREAM. JOHN H. RIMPLER, Goshen, Ind.
Filed October 1, 1917. Serial No. 106,546. PUBLISHED DECEMBER 4, 1917.

120,430. CERTAIN NAMED COOLING COMPOUND. WM. C. ROBINSON & SON CO., Baltimore, Md.
Filed June 23, 1917. Serial No. 104,650. PUBLISHED AUGUST 21, 1917.

120,431. DOMESTIC LIMBURGER CHEESE. ROTHLISBERGER & CO., New York, N. Y.
Filed September 1, 1917. Serial No. 106,013. PUBLISHED NOVEMBER 20, 1917.

120,432. NIGHT-SHIRTS, NIGHTGOWNS, PAJAMAS, AND SLEEPING-GARMENTS. E. ROSENFELD & COMPANY, Baltimore, Md.
Filed April 17, 1917. Serial No. 103,070. PUBLISHED DECEMBER 4, 1917.

120,433. TYPE-WRITING MACHINES AND PARTS THEREOF. ROYAL TYPEWRITER COMPANY, INC., New York, N. Y.
Filed October 8, 1917. Serial No. 106,674. PUBLISHED DECEMBER 4, 1917.

120,434. GASOLENE. SAPULPA REFINING COMPANY, Sapulpa, Okla.
Filed August 22, 1917. Serial No. 105,819. PUBLISHED NOVEMBER 13, 1917.

120,435. PAINT AND VARNISH REMOVER. SCHALK CHEMICAL COMPANY INC., Los Angeles, Cal.
Filed April 20, 1917. Serial No. 103,159. PUBLISHED NOVEMBER 13, 1917.

120,436. VERMICELLI, MACARONI, SPAGHETTI, ALIMENTARY PASTE, AND NOODLES. LEO E. SCHOENFELD, Chicago, Ill.
Filed August 31, 1917. Serial No. 105,998. PUBLISHED NOVEMBER 20, 1917.

120,437. WHEAT-FLOUR. HENRY C. SCHWALL, New York, N. Y.
Filed September 10, 1917. Serial No. 106,165. PUBLISHED NOVEMBER 20, 1917.

120,438. CERTAIN NAMED WIRELESS APPARATUS. SEARS, ROEBUCK AND CO., Chicago, Ill.
Filed July 5, 1917. Serial No. 104,878. PUBLISHED NOVEMBER 13, 1917.

120,439. CHEWING-GUM. THE SHELBY SUPPLY & MANUFACTURING COMPANY, Cleveland, Ohio.
Filed February 8, 1917. Serial No. 101,243. PUBLISHED NOVEMBER 20, 1917.

120,440. HAIR-RESTORER IN LIQUID OR PASTE FORM, ALSO USED AS A SCALP MASSAGE. ANNA M. SHEPARD, Brooklyn, N. Y.
Filed October 13, 1917. Serial No. 106,761. PUBLISHED DECEMBER 4, 1917.

120,441. TOILET PREPARATIONS—VIZ., SHAVING-BALM. WILLIAM WINFIELD SIMPSON, New Brighton, Pa.
Filed August 11, 1917. Serial No. 105,604. PUBLISHED DECEMBER 4, 1917.

120,442. FLAVORING-SYRUP FOR NON-ALCOHOLIC BEVERAGES. J. HUNGERFORD SMITH CO., Rochester, N. Y.
Filed September 21, 1915. Serial No. 89,361. PUBLISHED NOVEMBER 23, 1915.

120,443. TOMATO SAUCE. SOCIETÀ GENERALE DELLE CONSERVE ALIMENTARI CIRIO, San Giovanni a Teduccio, near Naples, Italy.
Filed April 13, 1914. Serial No. 77,454. PUBLISHED JANUARY 19, 1915.

120,444. READY-MIXED PAINTS. STANDARD OIL COMPANY OF NEW YORK, New York, N. Y.
Filed April 13, 1914. Serial No. 77,454. PUBLISHED DECEMBER 4, 1917.

120,445. COMPOSITION FOR PREVENTING INJURIOUS ACCUMULATION OF STATIC ELECTRICITY IN PRINTING-PRESSES. STATIC NEUTRALIZER CO., Chicago, Ill.
Filed June 19, 1917. Serial No. 104,533. PUBLISHED DECEMBER 4, 1917.

120,446. HEEL-FASTENER PLATE FOR BOOTS AND SHOES. STEPHAN BROTHERS, Shelbyville, Ind.
Filed August 22, 1917. Serial No. 105,821. PUBLISHED DECEMBER 4, 1917.

120,447. BOOTS AND SHOES OF LEATHER, CANVAS, AND RUBBER. THE L. D. STICKLES SHOE CO., Red Wing, Minn.
Filed October 18, 1917. Serial No. 106,846. PUBLISHED DECEMBER 4, 1917.

120,448. CERTAIN NAMED TOOLS. WALTER SPENCER & CO. LD., Sheffield, England.
Filed May 17, 1915. Serial No. 86,684. PUBLISHED DECEMBER 4, 1917.

120,449. MEN'S COATS, VESTS, AND TROUSERS. THE SUPER-VALUE COMPANY, New York, N. Y., and Savannah, Ga.
Filed October 2, 1917. Serial No. 106,563. PUBLISHED NOVEMBER 20, 1917.

120,450. NASAL SPRAY, MOUTH-WASH, GARGLE, AND DOUCHE. EUGENE SWEENEY, New York, N. Y.
Filed October 16, 1917. Serial No. 106,794. PUBLISHED DECEMBER 4, 1917.

120,451. TEA. THE TEBBETTS & GARLAND STORE, Chicago, Ill.
Filed August 22, 1917. Serial No. 105,822. PUBLISHED NOVEMBER 20, 1917.

120,452. COFFEE. THE TEBBETTS & GARLAND STORE, Chicago, Ill.
Filed August 22, 1917. Serial No. 105,823. PUBLISHED NOVEMBER 20, 1917.

120,453. CERTAIN NAMED FOODS. THE TEBBETTS AND GARLAND STORE, Chicago, Ill.
Filed April 19, 1917. Serial No. 103,132. PUBLISHED NOVEMBER 20, 1917.

120,454. PREPARATION FOR THE TREATMENT OF CERTAIN NAMED DISEASES. MORRIS TEPLOW, Jersey City, N. Y.
Filed March 15, 1917. Serial No. 102,170. PUBLISHED DECEMBER 4, 1917.

120,455. SCALP-TONIC. WILLIAM THOMAS TRAUTWEIN, New York, N. Y.
Filed October 11, 1917. Serial No. 106,727. PUBLISHED DECEMBER 4, 1917.

120,456. FERROSILICON ALLOYS. UNITED STATES ALLOYS CORPORATION, New York, N. Y.
Filed August 15, 1917. Serial No. 105,679. PUBLISHED DECEMBER 4, 1917.

120,457. VARNISHES. WADSWORTH, HOWLAND & CO., INCORPORATED, Boston, Mass.
Filed October 1, 1917. Serial No. 106,549. PUBLISHED DECEMBER 4, 1917.

120,458. FRESH APPLES AND PEARS. WENATCHEE-NORTHERN WAREHOUSE & MARKETING CO., Wenatchee, Wash.
Filed September 5, 1917. Serial No. 106,082. PUBLISHED NOVEMBER 20, 1917.

120,459. BOND-PAPER. WEST VIRGINIA PULP & PAPER COMPANY, New York, N. Y.
Filed September 11, 1917. Serial No. 106,187. PUBLISHED NOVEMBER 27, 1917.

120,460. ELECTRIC SAD-IRONS. WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY, East Pittsburgh, Pa.
Filed October 8, 1917. Serial No. 106,685. PUBLISHED DECEMBER 4, 1917.

120,461. LIQUID FOR WHITENING AND CLEANING LEATHER AND CANVAS. WHITTEMORE BROTHERS CORPORATION, Cambridge, Mass.
Filed November 3, 1916. Serial No. 99,073. PUBLISHED DECEMBER 4, 1917.

120,462. FILMS FOR MOVING-PICTURE MACHINES. WHOLESOME FILMS CORPORATION, Chicago, Ill.
Filed August 13, 1917. Serial No. 105,635. PUBLISHED DECEMBER 4, 1917.

120,463. PREPARATIONS FOR CLEANING THE TEETH. THE J. B. WILLIAMS COMPANY, Glastonbury, Conn.
Filed October 11, 1917. Serial No. 106,729. PUBLISHED DECEMBER 4, 1917.

120,464. CERTAIN NAMED TOILET PREPARATIONS. C. B. WOODWORTH SONS CORPORATION, Rochester, N. Y.
Filed September 12, 1916. Serial No. 97,961. PUBLISHED FEBRUARY 27, 1917.

120,465. PERFUMES, SACHET-POWDERS, FACE-POWDERS, TALCUM POWDERS, TOILET WATERS AND CREAMS. THE C. B. WOODWORTH SONS CORPORATION, Rochester, N. Y.
Filed March 3, 1916. Serial No. 93,288. PUBLISHED MARCH 6, 1917.

120,466. VARNISHES, ENAMELS, STAINS, AND COLORS IN OIL. WILLIAM H. WRIGHT, Schenectady, N. Y.
Filed October 10, 1917. Serial No. 106,708. PUBLISHED DECEMBER 4, 1917.

TRADE-MARK REGISTRATIONS CANCELED.

15,852. MOWERS. LLOYD & SUPPLEE HARDWARE CO., Philadelphia, Pa.
Registered September 11, 1888. Canceled November 30, 1917.

54,255. LAWN-MOWERS. SUPPLEE HARDWARE COMPANY, Philadelphia, Pa.
Registered June 26, 1906. Canceled November 30, 1917.

15,853. MOWERS. LLOYD & SUPPLEE HARDWARE CO., Philadelphia, Pa.
Registered September 11, 1888. Canceled November 30, 1917.

54,254. LAWN-MOWERS. SUPPLEE HARDWARE COMPANY, Philadelphia, Pa.
Registered June 26, 1906. Canceled November 30, 1917.

39,668. LAWN-MOWERS. SUPPLEE HARDWARE CO., Philadelphia, Pa.
Registered January 20, 1903. Canceled November 30, 1917.

51,627. LAWN-MOWERS. SUPPLEE HARDWARE COMPANY, Philadelphia, Pa.
Registered April 17, 1906. Canceled November 30, 1917.

39,797. LAWN-MOWERS. SUPPLEE HARDWARE CO., Philadelphia, Pa.
Registered February 10, 1903. Canceled November 30, 1917.

51,626. LAWN-MOWERS. SUPPLEE HARDWARE COMPANY, Philadelphia, Pa.
Registered April 17, 1906. Canceled November 30, 1917.

54,238. LAWN-MOWERS. SUPPLEE HARDWARE COMPANY, Philadelphia, Pa.
Registered June 26, 1906. Canceled November 30, 1917.

83,527. LAWN-MOWERS. SUPPLEE HARDWARE COMPANY, Philadelphia, Pa.
Registered September 19, 1911. Canceled November 30, 1917.

83,526. LAWN-MOWERS. SUPPLEE HARDWARE COMPANY, Philadelphia, Pa.
Registered September 19, 1911. Canceled October 4, 1917.

57,574. BUTTER. AMMON & PERSON, Jersey City, N. J.
Registered November 13, 1906. Canceled November 30, 1917.

80,143. CROSS-CHAINS AND HOOKS FOR ANTISKIDDING DEVICES. NEWHALL CHAIN FORGE & IRON CO., New York, N. Y.
Registered November 8, 1910. Canceled November 30, 1917.

98,290. A CLEANER PUT UP IN PASTE AND BAR FORM. JOY-O CHEMICAL COMPANY, Toledo, Ohio.
Registered July 7, 1914. Canceled November 30, 1917.

106,822. SILK PIECE GOODS AND LINING-SILKS. WM. ALSBERG & CO., New York, N. Y.
Registered November 2, 1915. Canceled August 3, 1917.

109,907. WATERPROOF CLOTHING AND HEADGEAR. BENEDICT REIS, New York, N. Y.
Registered April 25, 1916. Canceled December 17, 1917.

111,092. HOSIERY. THE GREENWALD-REICH CO., Cleveland, Ohio.
Registered June 27, 1916. Canceled August 29, 1917.

117,574. CANDY. GINEVRA MIGLIACCIO, New York, N. Y.
Registered July 17, 1917. Canceled October 3, 1917.

118,502. A SERIAL PUBLICATION. DRAPER CORPORATION, Hopedale, Mass.
Registered September 18, 1917. Canceled November 30, 1917.

LABELS

REGISTERED FEBRUARY 5, 1918.

20,500.—*Title:* "COMMUNITY." (For Baking-Powder.) COMMUNITY COFFEE AND SPICE COMPANY, Alliance, Ohio. Filed November 14, 1917.

20,501.—*Title:* "COMMUNITY." (For Peanut-Butter.) COMMUNITY COFFEE AND SPICE COMPANY, Alliance, Ohio. Filed November 14, 1917.

20,502.—*Title:* "COMMUNITY." (For Tea.) COMMUNITY COFFEE AND SPICE COMPANY, Alliance, Ohio. Filed November 14, 1917.

20,503.—*Title:* "CAMEO." (For a Soft Drink.) HAGEMEISTER BREWING COMPANY, Green Bay, Wis. Filed September 6, 1917.

20,504.—*Title:* "HOLLY-TIME." (For Canned Salmon.) PETERSBURG PACKING CO., Seattle, Wash., and Petersburg, Territory of Alaska. Filed January 21, 1918.

20,505.—*Title:* "PINK OF PERFECTION." (For Canned Salmon.) PETERSBURG PACKING CO., Seattle, Wash., and Petersburg, Territory of Alaska. Filed January 21, 1918.

20,506.—*Title:* "XTRA GOOD." (For Bread.) THE R. B. BISCUIT COMPANY, Cleveland, Ohio. Filed August 8, 1917.

20,507.—*Title:* "UNIVERSAL CIGAR CO." (For Cigars.) UNIVERSAL CIGAR CO., Key West, Fla. Filed December 6, 1917.

20,508.—*Title:* "SNOW-LIKE." (For Flour.) WASHINGTON GRAIN AND MILLING COMPANY, Reardon, Wash. Filed December 26, 1917.

PRINTS

REGISTERED FEBRUARY 5, 1918.

4,857.—*Title:* "UNIT-SAFETY-BAR." (For Locomotive and Tender Connections.) ECONOMY DEVICES CORPORATION, New York, N. Y. Filed December 12, 1917.

4,858.—*Title:* "THIS 'POUND-OF-P. A.' IN GLAD TOGS ADDS WEEKS TO CHRISTMAS JOYS!" (For Smoking-Tobacco.) R. J. REYNOLDS TOBACCO COMPANY, Winston-Salem, N. C. Filed January 18, 1918.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

EX PARTE BOWEN.

Decided January 11, 1918.

1. NAME OF APPLICANT—FULL NAME.

Where the applicant's first name as signed to the papers is known as a Christian name, an affidavit that the name as given is his full name should not be required even though it is also an abbreviation.

2. SAME—"FRED" FULL CHRISTIAN NAME—NO AFFIDAVIT NECESSARY.

As "Fred" is a Christian name, the decision in *ex parte Smith and Kimble* (97 O. G., 2533) is overruled in so far as it held that an affidavit should be required when the papers are signed "Fred."

ON PETITION.

ELECTRIC TIME-SWITCH.

Messrs. Chandlee & Chandlee for the applicant.

WHITEHEAD, *First Assistant Commissioner:*

This is a petition for the withdrawal of the requirement that applicant file an affidavit that his full first name is "Fred," as it appears in the application.

Rule 40 provides that full first names must be given. Order No. 600 directs that if the full first name does not appear applicant should be required to supply the omission or file an affidavit that his full name was as given.

The requirement should be made where the name as signed is obviously an abbreviation or is so seldom used otherwise that the presumption is that it is an abbreviation, (see *ex parte Gentry*, 44 O. G., 824;) but where the first name as it appears is known as a Christian name the requirement should not be made even though it is also an abbreviation. (See *ex parte Moehn*, 106 O. G., 995; *ex parte Faulkner*, 128 O. G., 886.)

It is well known that "Fred" is a Christian name and presumably is applicant's full name. The requirement should therefore be withdrawn.

The decision in *ex parte Smith and Kimble* (97 O. G., 2533) is overruled in so far as it held that an affidavit should be required when the papers are signed "Fred."

The petition is granted.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

BORDEN'S CONDENSED MILK COMPANY *v.* EAGLE MANUFACTURING COMPANY.

Decided December 3, 1917.

1. TRADE-MARKS—OPPOSITION.

Court refused to consider evidence of registration that was not offered in evidence and brought to the attention of the Patent Office tribunals.

2. SAME—DIFFERENT CLASS OF GOODS—ICE-CREAM CONES AND DAIRY PRODUCTS.

Held that a trade-mark for ice-cream cones does not come in competition with a similar trade-mark for dairy products.

Mr. W. D. Edmonds for the appellant.

Mr. E. T. Fenwick and *Mr. L. L. Morrill* for the appellee.

ROBB, *J.:*

This is a trade-mark opposition proceeding in which the Patent Office dismissed appellant's opposition to the registration by the appellee of the word "Eagle" as a trade-mark for ice-cream cones.

The case was heard upon an agreed statement of fact, and where such an agreement has been entered into the case must be determined in the light of it. (*District of Columbia* v. *Lee*, 35 App. D. C., 341.)

Turning to the statement in the present case we find that appellant and its predecessors for many years have used the trade-mark "Eagle" on dairy products, comprising—

> condensed milk, evaporated milk, milk, cream, evaporated cream, buttermilk, and compounds of milk and a food product as, for example, malted milk and condensed coffee.

In 1905, a date long subsequent to the adoption and use by appellant, the appellee adopted it as a trade-mark on ice-cream cones. These cones are a bakery product consisting of a dough, made wholly without milk or any dairy product, and are used as containers for ice-cream.

In the agreed statement it was stipulated that copies of all certificates of registration of trade-marks "necessary or desirable in this proceeding" might be offered and marked in evidence. Attached to appellant's brief is a copy of a registration on June 17, 1913, of the word "Eagle" as a trade-mark for ice-cream. In this registration it is alleged that the mark has been used since November 18, 1912. We cannot consider this registration. In the first place, it was not offered in evidence and brought to the attention of the Patent Office, since the Examiner of Interferences states—

> that opposer has not shown that it has ever used the mark "Eagle" on ice cream; it has not even alleged that it has made or sold ice cream.

The Assistant Commissioner in his decision said:

> The opposer not only does not deal in ice cream cones, but this record does not indicate that it deals in ice cream itself.

The stipulation to which we have referred in the agreed statement of fact was not intended to broaden the scope of the issue. Obviously, the registrations there referred to were intended to be limited to the specific issues agreed upon. Moreover, since appellee adopted its mark in 1905 and appel-

ant, according to the registration referred to, did not commence to use the word as a trade-mark for ice-cream until seven years later, it acquired no rights thereby.

The sole question to be determined, therefore, is whether the use of the mark by appellee on ice-cream cones and the use of the same mark by appellant on the dairy products heretofore mentioned will be likely to cause confusion. We agree with the Patent Office that it will not. In *Borden Ice Cream Co.* v. *Borden's Condensed Milk Co.* (201 Fed., 510) the Circuit Court of Appeals for the Seventh Circuit ruled that the former company, which made commercial ice-cream, did not come into competition with the latter company which sold dairy products, even though both used the same trade-mark. There is too much difference between dairy products and ice-cream or ice-cream cones to make applicable the rule announced in *Simplex Co.* v. *Gold Car H. & L. Co.*, (213 O. G., 1117; 43 App. D. C., 28,) *Fishbeck Soap Co.* v. *Kleeno Mfg. Co.*, (216 O. G., 663; 44 App. D. C., 6,) and *Canton Culvert & Silo Co.* v. *Consolidated Car Heating Co.*, (226 O. G., 1799; 44 App. D. C., 491,) to the effect that the owner of a trade-mark will not be unduly restricted in the legitimate and natural extension of his business by the registration of the mark to another.

The decision is affirmed.

Affirmed.

Court of Appeals of the District of Columbia.

FIELD *et al. v.* COLMAN.

Decided December 3, 1917.

1. JURISDICTION—COURT OF APPEALS OF THE DISTRICT OF COLUMBIA.

   This court is without jurisdiction to entertain an appeal in an interference case except from a judgment of priority.

2. SAME—SAME—MOTION TO DISSOLVE.

   An appeal to this court involving the sole question of whether the decision of the Patent Office tribunals on a motion to dissolve an interference should be sustained or denied will not be entertained.

Mr. *I. U. Townsend* for the appellants.

Mr. L. L. Miller, Mr. L. S. Bacon, Mr. J. H. Milans, Mr. L. B. Smith, and Mr. W. Orison Underwood for the appellee.

PER CURIAM:

This is an appeal from the Commissioner of Patents in an interference proceeding affirming the decision of the Board of Examiners-in-Chief, which, in turn, affirmed the decision of the Primary Examiner dissolving the interference. A motion to dismiss has been interposed, on the ground that we are without jurisdiction to entertain the appeal, because there was no judgment of priority entered by the Commissioner. Not only was there no judgment of priority entered by the Commissioner, but such a judgment could not have been entered, since the case was appealed through the various tribunals of the Patent Office upon the sole question of whether the motion to dissolve the interference should be sustained or denied. At no stage of the proceedings was the question of priority tried or determined.

An order sustaining a motion to dissolve an interference disposes of the interference, and leaves nothing on which to base a judgment of priority. (*Carlin* v. *Goldberg*, 45 App. D. C., 540; 236 O. G., 1222.) We have held in many cases that this court is without jurisdiction to entertain an appeal in an interference case except from a judgment of priority. (*In re Fullagar*, 32 App. D. C., 222; 138 O. G., 250; *Cosper* v. *Gold*, 34 App. D. C., 194; 151 O. G., 194; *Carlin* v. *Goldberg*, *supra*.)

The motion to dismiss the appeal is sustained.

Dismissed.

Court of Appeals of the District of Columbia.

IN RE THE PAGE COMPANY.

Decided December 3, 1917.

1. TRADE-MARKS—TITLE OF A BOOK NOT REGISTRABLE—"POLLYANNA."

   Where the word "Pollyanna" is the name of a particular book in a series consisting at present of two books, clearly the word is descriptive, and as such unregistrable.

2. SAME—PUBLICATIONS—MUST NOT BE THE NAME OF ANY ONE OF A SERIES.

   Undoubtedly a trade-mark may be registered for a series of literary publications; but it must be arbitrary and not merely the name of any one or more of the series.

3. TRADE-MARK LAW—NOT TO CONFLICT WITH COPYRIGHT LAW.

   The trade-mark law is not intended to conflict with or extend the copyright law. The owner of a copyright enjoys the exclusive right as long as the copyright continues, and when it expires the privilege expires and the use of the descriptive name becomes *publici juris*.

Mr. P. B. Turpin and *Mr. J. K. Brachvogel* for the appellant.

Mr. T. A. Hostetler for the Commissioner of Patents.

VAN ORSDEL, *J.*:

This appeal is from a decision of the Commissioner of Patents refusing registration of the word "Pollyanna" as a trade-mark for a series of books. The record discloses that the series of books consists of but two, the title of one being "Pollyanna" and the other "Pollyanna Grows Up." It may be inferred from the record that other volumes are to follow, and it is insisted that the series should be known as the "Pollyanna Series."

It will be observed that "Pollyanna" is the name of a book, not an arbitrary mark to designate a series of publications, each bearing its individual title. In this respect the word is clearly descriptive. It is the name of a particular book, and the public has no way of describing the book but by the use of the name. Undoubtedly, a trade-mark may be registered for a series of literary publications, but it must be arbitrary, and not merely the name of any one or more of the series. The rule is well illustrated in the note by Mr. Rowland Cox to *Clemens* v. *Belford*, (14 Fed., 728; Cox, Manual, 685,) quoted with approval in *Hopkins on Trade-Marks* (sec. 85), as follows:

> Thus the term "Old Sleuth Library" was distinctly arbitrary, and never the name of a particular book or literary production, and for this reason it was in an accurate sense a trade-mark, and must continue to be as long as the publication was continued. But if the publication of the periodical were discontinued for a period of years, the name would cease to be arbitrary and take its place in literature as indicating a definite collection of articles, pictures, etc., and as soon as it acquired that settled meaning, it would, in the absence of copyright, become *publici juris*.

The trade-mark law is not intended to conflict with or extend the operation of the copyright law. If a copyright is taken for a book or particular publication, the owner of the copyright enjoys the exclusive right to the use of the name as long as the copyright continues; but, when it expires, the privilege expires and the use of the descriptive name becomes *publici juris*. In the Britannica case (*Black et al.* v. *Ehrich et al.*, 44 Fed., 793) Judge Wallace stated the rule after expiration of copyright, as follows:

> Neither the author nor the proprietor of a literary work has any property in its name. It is a term of description, which serves to identify the work; but any other person can with impunity adopt it, and apply it to any other book, or to any trade commodity, provided he does not use it as a false token, to induce the public to believe that the thing to which it is applied is the identical thing which it originally designated. If literary property could be protected upon the theory that the name by which it is christened is equivalent to a trade-mark, there would be no necessity for copyright laws.

Clearly, the word "Pollyanna," being the title of the first volume of the series, is descriptive, and, as such, unregistrable.

The decision of the Commissioner of Patents is right, and, therefore, is affirmed. The clerk is directed to certify these proceedings as by law required.

Affirmed.

Court of Appeals of the District of Columbia.

BOSTON RUBBER SHOE COMPANY *v.* ABRAMOWITZ.

Decided December 3, 1917.

1. TRADE-MARKS—INTERFERENCE—"HUB."

   On review of the record *Held* that the prior registration and use of the Boston Rubber Company's mark "Hub" on particular kinds of footwear (rubber boots and shoes) would entitle it to extend its use to other kinds of goods within the same particular classification, and give it sufficient standing to contest the right of A. to registration.

2. SAME—SAME—SIMILARITY OF GOODS.

   The use of leather and rubber footwear is so general and so interrelated in use by the public that the purchaser should not be called upon to discriminate between the goods put out by one of two users of the same mark.

Mr. E. W. Vail and *Mr. Clarence O. McKay* for the appellant.

Mr. Isidor E. Schlesinger for the appellee.

VAN ORSDEL, *J.*:

This appeal is from the decision of the Commissioner of Patents in a trade-mark interference.

The Boston Rubber Shoe Company filed an application on September 17, 1915, for the registration of the word "Hub" as a trade-mark for—

> boots and shoes having canvas uppers and leather and rubber soles.

Abramowitz applied on June 25, 1915, for the registration of the words "The Hub," together with a picture of a hub, as a trade-mark for "leather shoes." The Boston Company secured registration of its mark on June 4, 1912, for use on rubber boots and shoes. Abramowitz has used his mark since 1914.

The Commissioner held that there was no interference in fact, and that the—

> Boston Company having failed to show use of its mark on shoes of the character it specifies is not entitled to register.

He further held that, in the absence of any interference—

> the filing papers of Abramowitz are sufficient to support his case.

The theory upon which this finding is based is expressed in the opinion of the Commissioner, as follows:

> There is no evidence that the Boston Company ever used the mark in either form on any leather shoes. Its mark is a mark for rubber goods. The very fact that for over thirty years the mark has been used on rubber goods would argue against its association with leather shoes, which are an entirely different class of goods, made by totally different processes. The testimony as to use of the mark in 1910 on tennis shoes is not material merely because these shoes had leather insoles. The testimony that the mark was used on lumbermen's rubber shoes with leather tops not only fails to state a date, but would not be material if it did; for such shoes are not leather shoes.

The error into which the Patent Office has fallen is in a rigid adherence to the separate classification of rubber and leather goods. The particular subject-matter of this interference is whether or not the marks of the contending parties are so similar as to create confusion in trade when used on footwear generally or on particular grades of footwear. The use of leather and rubber, and partly leather and partly rubber, footwear is so general and so interrelated in use by the public, that the purchaser should not be called upon to discriminate between the goods put out by one of two users of the same mark. The marks in question are the same, and we are disposed to hold that they are used upon goods of the same descriptive qualities within the provisions of the trade-mark law. That their use would be likely to lead to confusion in trade, we have no doubt.

The prior registration and use of the Boston Company's mark on particular kinds of footwear would entitle it to extend its use to other kinds of goods within the same particular classification, and give it sufficient standing to contest the right of Abramowitz to registration. It is unnecessary for us to consider the question of the right of the Boston Company to have its mark registered for—

> boots and shoes having canvas uppers and leather and rubber soles,

since its prior use on particular kinds of footwear is sufficient to forbid the registration of the Abramowitz mark for footwear generally or for particular grades thereof.

The field of selection of an arbitrary mark is sufficiently broad to enable Abramowitz to select a mark which will have no tendency to conflict with the mark of the Boston Company. To impose this duty is only consonant with a due regard for the restric-

tions which the law has placed upon the selection of trade-marks sought to be registered. Public security is the first consideration, and the courts should diligently seek to construe the law to that end.

We are of opinion that Abramowitz is not entitled to have his mark registered. The question of the right of the Boston Rubber Shoe Company to have its mark registered is left open for the further consideration of the Commissioner of Patents in the light of this opinion. With this qualification, the decision of the Commissioner is reversed, and the clerk is directed to certify these proceedings as by law required.

Reversed.

ADJUDICATED PATENTS.

(U. S. D. C.) The Bayley design patent, No. 49,593, for a design for an electric-lighting fixture, *Held* valid and infringed. *Bayley & Sons* v. *Braunstein Bros. Co.*, 246 Fed. Rep., 314.

(U. S. D. C.) The Bayley patent, No. 1,153,454, for an electric-lighting fixture, *Held* valid and infringed. *Bayley & Sons* v. *Braunstein Bros. Co.*, 246 Fed. Rep., 314.

(U. S. D. C.) The Fuller patents, Nos. 1,101,268 and 1,101,269, for stencils and for making stencils, *Held* valid, and, except as to claims 23 and 24 of former, to be infringed. *A. B. Dick Co.* v. *Underwood Typewriter Co.*, 246 Fed. Rep., 309.

(U. S. D. C.) The Fuller patent, No. 1,101,270, for method of preparing duplicate stencils, *Held* not to show invention and not to be infringed. *A. B. Dick Co.* v. *Underwood Typewriter Co.*, 246 Fed. Rep., 309.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., January 21, 1918.

Greene Shoe Co., its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Albert H. Weinbrenner Co., of Milwaukee, Wis., for registration of a trade-mark and trade-mark registered February 25, 1902, No. 37,846, to the Greene Shoe Co., of 605 Wyandotte street, Kansas City, Mo., and a notice of such declaration sent by registered mail to said Greene Shoe Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Greene Shoe Co., its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

F. W. H. CLAY, *Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., January 21, 1918.

The Tropico Co., its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Augustus F. Weppner, 178 York street, Buffalo, N. Y., for registration of a trade-mark and trade-mark registered August 26, 1913, No. 93,249, to The Tropico Co., 102–104 Greenwich street, New York, N. Y., and a notice of such declaration sent by registered mail to The Tropico Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the Tropico Co., its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

F. W. H. CLAY, *Assistant Commissioner.*

THE
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OF THE
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Designs	28	No. 51,748 to No. 51,775,	inclusive.
Trade-Marks	72	No. 120,467 to No. 120,538,	inclusive.
Labels	6	No. 20,509 to No. 20,514,	inclusive.
Prints	3	No. 4,859 to No. 4,861,	inclusive.
Reissues	2	No. 14,431 to No. 14,432,	inclusive.
Total	777		

Notice—Assistant Examiner Examination.

The Civil Service Commission has announced an open competitive examination for the position of Assistant Examiner in the Patent Office on February 13, 14, and 15, 1918. Qualified persons are urged to enter this examination. Entrance salary, $1,500 per annum.

Application blanks and information as to where the examination will be held may be obtained from the Civil Service Commission, Washington, D. C.

Amendment to Rules of Practice.

(ORDER NO. 2,372.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., February 6, 1918.

Acting under the provisions of section 483 of the Revised Statutes and with the approval of the Secretary of the Interior, Rule 15 of the Rules of Practice in the Patent Office is amended by adding thereto the following:

"except that authorized officers of the Army and Navy will be allowed during the war to inspect cases which in the opinion of the Commissioner disclose inventions that might be of value in the prosecution of the war, after having filed a duly-executed oath with the Commissioner that no contents of any application will be divulged except as it may become necessary in the prosecution of the war."

so that the rule will read as follows:

"15. Pending applications are preserved in secrecy. No information will be given, without authority, respecting the filing by any particular person of an application for a patent or for the reissue of a patent, the pendency of any particular case before the Office, or the subject-matter of any particular application, unless it shall be necessary to the proper conduct of business before the Office, as provided by Rules 97, 103, and 108, except that authorized officers of the Army and Navy will be allowed during the war to inspect cases which in the opinion of the Commissioner disclose inventions that might be of value in the prosecution of the war, after having filed a duly-executed oath with the Commissioner that no contents of any application will be divulged except as it may become necessary in the prosecution of the war."

J. T. NEWTON,
Commissioner.

Adverse Decisions in Interference.

PATENT NO. 1,237,540.

On January 18, 1918, a decision was rendered that Oliver Mitchell was not the first inventor of the subject-matter covered by claim 1 of his Patent No. 1,237,540, subject, "Case for cigarettes or the like," and no appeal having been taken within the time allowed such decision has become final.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., February 8, 1918.

William M. Starr, his assigns or legal representatives, take notice.

An interference having been declared by this Office between the application of Charles H. L. Orton, of 234 Second avenue, Pittsburgh, Pa., for registration of a trade-mark and trade-mark registered February 16, 1904, No. 42,068, to William M. Starr, of 709 G street northwest, Washington, D. C., and a notice of such declaration sent by registered mail to said William M. Starr at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said William M. Starr, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD,
First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., February 13, 1918.

C. E. Green & Co., their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Charles E. Lynch Shoe Mfg. Co., Inc., of 127 Duane street, New York, N. Y., for registration of a trade-mark and trade-mark registered March 22, 1904, No. 42,264, to C. E. Green & Co., 105 Bedford street, Boston, Mass., and a notice of such declaration sent by registered mail to said C. E. Green & Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said C. E. Green & Co., their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD,
First Assistant Commissioner.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business February 8, 1918.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended.	No. of applications awaiting action.
314	1. Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Railway Gates; Planting; Scattering Unloaders; Trees, Plants, and Flowers.	Dec. 27	Dec. 21	235
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	Oct. 13	Oct. 26	298
178	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Heating; Metal-Founding; Metallurgical Apparatus; Metallurgy; Plastic Metal Working.	Jan. 4	Dec. 31	67
234	4. Conveyers; Elevators; Excavating; Hoisting; Material or Article Handling; Pneumatic Despatch; Pushing and Pulling Implements; Railway Mail Delivery; Store-Service; Traversing Hoists.	Dec. 15	Jan. 16	145
167	5. Bookbinding; Harvesters; Jewelry; Music	Oct. 29	Nov. 30	268
118	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Substance Preparation.	July 21	Oct. 2	459
113	7. Educational Appliances; Games and Toys; Optics; Velocipedes	Oct. 8	Dec. 14	486
139	8. Beds; Chairs; Flexible-Sheet Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Nov. 16	Dec. 31	442
121	9. Air and Gas Pumps; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Marine Propulsion.	June 19	Jan. 12	498
135	10. Carriages and Wagons; Motor Vehicles	Aug. 7	Dec. 17	739
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Spring Devices; Whips and Whip Apparatus.	Oct. 25	Jan. 19	236
223	12. Journal-Boxes, Pulleys, and Shafting; Machine Elements	Oct. 10	Dec. 15	563
120	13. Ammunition and Explosive Charge Making; Bolt, Nail, Nut, Rivet, and Screw Making; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Oct. 29	Jan. 3	421
123	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Oct. 8	Dec. 12	250
108	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Dec. 5	Jan. 10	262
112	16. Electric Signaling-A; Radiant Energy; Telegraphy; Telephony	Aug. 2	Nov. 5	486
107	17. Ornamentation; Paper Manufactures; Printing; Type Casting; Sheet Material Associating or Folding; Sheet Feeding or Delivering; Type Setting.	Dec. 1	Jan. 15	80
129	18. Fluid-Pressure Regulators; Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Nov. 3	Oct. 15	361
126	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels	Sept. 15	Nov. 2	453
179	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Jan. 14	Jan. 11	215
112	21. Brakes and Gins; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Sept. 10	Nov. 23	236
249	22. Aeronautics; Firearms; Ordnance	Oct. 24	Dec. 26	271
219	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	Aug. 14	Nov. 27	371
144	24. Apparel; Apparel Apparatus; Sewing-Machines; Garment Supporters	Dec. 21	Jan. 5	151
115	25. Agitating; Butchering; Centrifugal Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers; Gas Separation.	Dec. 29	Dec. 21	150
105	26. Electricity, Generation; Motive Power	Aug. 11	Aug. 11	561
114	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus	Nov. 19	Dec. 17	324
125	28. Internal-Combustion Engines	Sept. 28	Nov. 27	595
147	29. Boring and Drilling; Coopering; Fire-Escapes; Ladders; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking Tools.	Oct. 1	Nov. 27	339
182	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines	Sept. 11	Jan. 5	436
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Sugar and Salt.	Nov. 12	Dec. 10	239
178	32. Gas and Liquid Contact Apparatus; Heat Exchange; Packaging Liquids; Refrigeration	July 3	Jan. 7	716
170	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving; Roofs.	Dec. 8	Dec. 10	200
104	34. Railways; Railway Rails and Joints; Railway Rolling Stock; Railway Ties and Fasteners	Jan. 4	Jan. 18	41
157	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Signals; Toilet	Sept. 21	Dec. 1	582
104	36. Driers; Geometrical Instruments; Measuring Instruments; Photography; Force Measuring	Oct. 26	Dec. 6	633
107	37. Electric Lamps; Electricity, Circuit Makers and Breakers; Electricity, Conduits; Electricity, General Applications.	July 25	Oct. 13	653
178	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells	Dec. 17	Jan. 7	114
220	39. Water Distribution; Multiple Valves	July 25	Nov. 3	448
275	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Oct. 23	Dec. 28	459
125	41. Railway Draft Appliances; Resilient Tires and Wheels	Oct. 23	Nov. 6	355
114	42. Electricity, Conductors; Railway Signaling; Electricity-Transmission to Vehicles; Electric Signaling.	Aug. 8	Oct. 3	671
132	43. Baths and Closets; Dispensing; Dispensing Beverages; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Oct. 26	Nov. 28	378
223	44. Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Ships	Oct. 30	Dec. 27	211
279	45. Clutches; Lubrication; Motors; Railway Brakes	Oct. 3	Oct. 20	419

Oldest new case, June 19; oldest amended, Aug. 11.
Total number of applications awaiting action 16,507

288	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Jan. 4	Jan. 24	522
	Designs	Jan. 11	Jan. 10	270
	Labels and Prints	Jan. 31	Jan. 16	57

PATENTS

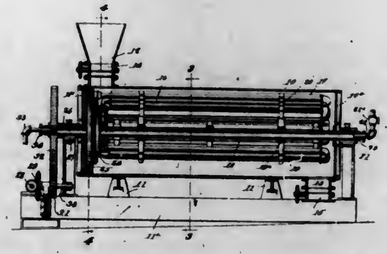
GRANTED FEBRUARY 12, 1918.

1,255,841. METALLIC TUBE. ALBERT L. ADAMS, Cedar Rapids, Iowa. Filed June 8, 1916. Serial No. 102,484. (Cl. 189—34.)



A metallic tube, including one sheet of metal bent in tubular form and having the edges thereof projected inwardly and longitudinally of the tube, and a second sheet of metal bent to provide straddling terminals for receiving the edges of the first sheet when the second sheet of metal is telescopically fitted within the first sheet, the connecting portion between the straddling portions of the second sheet being bowed to provide a relatively large surface contacting portion for engaging the inner face of the first sheet.

1,255,842. STARCH-COOLER. JOHN B. ADT, Baltimore, Md. Filed May 24, 1917. Serial No. 170,794. (Cl. 257—79.)



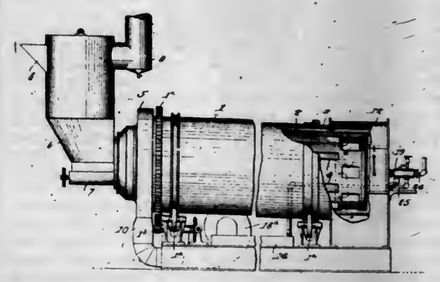
1. A material tempering apparatus comprising a stationary drum, axially alined hollow shafts entering the ends of the drum, one of said shafts passing through the drum from one end and terminating at its inner end adjacent to the other end, a header connected to the inner end of the last mentioned shaft, a header connected to the inner end of the other shaft, bearings on the outside of the drum in which the shafts are rotatably supported, one of the shafts having an inlet for a tempering medium and the other shaft having an outlet for said medium, driving means for the shafts, and coils carried by the first mentioned shaft inside the drum, each of said coils having one end connected to one of the headers and the other end to the other header.

3. A material tempering apparatus comprising a stationary drum, axially alined hollow shafts entering the ends of the drum, one of said shafts passing through the drum from one end and terminating at its inner end adjacent to the other end, a header connected to the inner end of the last mentioned shaft, a header connected to the inner end of the other shaft, bearings on the outside of the drum in which the shafts are rotatably supported, one of the shafts having an inlet for a tempering medium and the other shaft having an outlet for said medium, driving means for the shafts, spider arms fastened to the first mentioned shaft inside the drum and extending radially from the shaft, and coils supported by said arms, each of said coils having one end connected to one of the headers and the other end to the other header.

5. A material tempering apparatus comprising a stationary drum having inlet and outlet passages for the material, rotary valves in said passages, each of said valves comprising a central hub and wings radiating therefrom, the length of the wings being such that opposite ones thereof reach across the passages for shutting off the interior of the drum from the external atmosphere, and a revoluble tempering and agitating element in the drum.

[Claims 2 and 4 not printed in the Gazette.]

1,255,843. DRYING APPARATUS. JOHN B. ADT, Baltimore, Md. Filed July 17, 1917. Serial No. 180,985. (Cl. 34—6.)



1. In a drying apparatus, a rotary drum having a material inlet and an air outlet at one end and a material outlet at the opposite end, an air-expansion chamber into which the outlet end of the drum extends and into which it opens, a heating jacket surrounding the drum and opening into the air-expansion chamber, said jacket being carried by the drum and rotatable therewith, an air heater, and means for delivering air from said heater into the aforesaid jacket.

2. In a drying apparatus, a rotary drum having a material inlet and an air outlet at one end and a material outlet at the opposite end, an air-expansion chamber into which the outlet end of the drum extends and into which it opens, a heating jacket surrounding the drum and opening at one end into the air-expansion chamber, said jacket being carried by the drum and rotatable therewith, a header with which the other end of the jacket communicates, an air heater, and means for delivering air from said heater into the header.

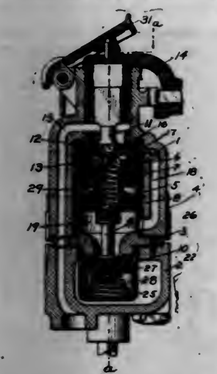
[Claims 3 to 5 not printed in the Gazette.]

1,255,844. BRAKE-VALVE DEVICE. BURTON S. AIKMAN, Milwaukee, Wis., assignor to National Brake & Electric Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Mar. 16, 1915. Serial No. 14,630. (Cl. 188—7.)

1. A brake valve comprising a casing, a piston valve for controlling the supply of fluid under pressure to the brake cylinder, a piston valve for controlling the exhaust of fluid from the brake cylinder, a handle for rotating the exhaust valve, and a screw carried by the admission valve and having screw threaded engagement with the exhaust valve, said valves being adapted to unseat upon initial movement in one direction and upon further movement to open ports controlled by the periphery of the piston valve.

2. A brake valve comprising a casing, a non-rotatable piston valve mounted therein and having a plane seat for controlling the admission of fluid under pressure to the

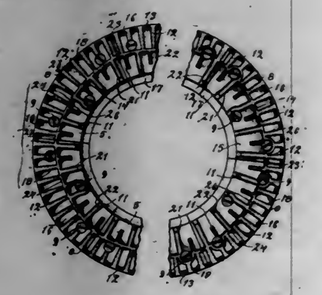
brake cylinder, a piston valve having a plane seat for controlling the exhaust of fluid from the brake cylinder, a handle for rotating the exhaust valve and a screw secured to the admission valve and having screw-threaded engagement with the exhaust valve, said piston valves controlling peripheral ports through which the admission and release of fluid to and from the brake cylinder is effected.



3. The combination with a brake valve having a removable handle and an opening for applying the handle to the brake valve, of a cap for closing the opening upon removal of the handle and adapted to engage the handle when in the operating position, to act as a shield.

[Claim 4 not printed in the Gazette.]

1,255,845. ATTRITION-MILL. EDWARD P. ALSTED, Truesdell, Wis. Filed Sept. 13, 1916. Serial No. 119,829. (Cl. 83—3.)



1. An attrition mill, comprising rotatable opposite plates provided with radial ribs, the material engaging edges of the ribs of opposite plates being undercut and converging toward the axis of said plates for a portion of their length and being parallel to each other at other portions of their length to advance the line of cutting engagement of said ribs toward the periphery of the said plates for a portion of the length of said ribs and toward the axis of said plates along other portions of said ribs.

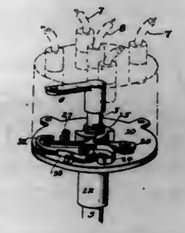
2. An attrition mill, comprising rotatable opposite plates provided with redial and eccentric transverse ribs forming pockets therebetween, the material engaging edges of the radial ribs being partly undercut and converging toward the axis of said plates for a portion of their length and being parallel to each other at other portions of their length to advance the line of cutting engagement of said ribs toward the periphery of said plates for a portion of the length of said ribs and toward the axis of said plates along other portions of said ribs, portions of said radial ribs being beveled toward the plates to reinforce their side edge portions, said transverse ribs of opposite plates during rotation partly overlapping each other to permit passage of material from pockets inclosed within the transverse rib to pockets outside of said rib.

3. A grinding plate for attrition mills, comprising a segmental plate provided with radial ribs, the material reducing edges of adjacent ribs being undercut and diverging from each other for a portion of their lengths then extending in parallel lines for a certain distance, and a beveled rib extending transversely across the radial ribs, in a line eccentric to the axis of said plate.

4. A grinding plate for attrition mills, comprising a segmental plate having radial and transverse ribs, outer portions of the radial ribs being undercut and the material engaging edges of said undercut portions converging toward each other toward the axis of the plate for a portion of their length and parallel to each other with respect to inner portions, said inner parallel portions being beveled, the outer transverse rib being concentric with relation to the axis of the plate and the inner transverse rib being eccentric with respect to said axis.

5. A grinding plate for attrition mills, comprising a segmental plate having radial and transverse ribs, the inner cutting edge portions of the radial ribs being parallel and beveled to initially engage the material and the outer cutting edge portions of said ribs for finally engaging the material being undercut and converging toward each other.

1,255,846. CIRCUIT-MAKE-AND-BREAK DEVICE. WALTER D. APPEL, Cleveland Heights Village, Ohio, assignor to Arthur A. Kent, Rosemont, Pa. Filed Feb. 11, 1916. Serial No. 77,737. (Cl. 123—166.)



1. In a device of the character described, the combination of a pair of contacts, a movable member carrying each of said contacts, one of said members being materially lighter than the other, a comparatively heavy yielding means acting on the light member, a comparatively light yielding means acting on the heavy member, an abutment against which the yielding means presses one of said members, an abutment between said members so arranged as to hold the contacts separated, and means for moving said members out of their normal position and permitting a sudden return, whereby the lighter member with its heavier yielding means may return more quickly than the heavier member with its lighter yielding means, thereby bringing the contacts together on the return movement.

2. The combination of a pair of movable members carrying contacts adapted to coact but normally out of contact, an operating device adapted to act on one of the members and thereby move them both while the contacts remain apart and then release said members, and springs of different power acting on the two members and causing one to overtake the other on the return movement, there being means for retarding such return movement of the overtaking member.

7. In a device of the character described, the combination of a pivoted lever carrying a contact point, a second pivoted lever extending onto opposite sides of the lever first mentioned, a cooperating contact point carried by said second lever, an adjustable insulated abutment stop carried by the second lever on the other side of the first mentioned lever from its contact point, springs acting on the two levers, and a means for periodically swinging the first lever.

8. In a device of the character described, the combination of a rotary wiper cam, a pivoted lever adapted to be engaged by the cam between its pivot and its free end, a comparatively heavy spring pressing said lever toward the cam, an adjustable abutment stop for the lever when pressed toward the cam, a second lever pivoted independently of the first lever and hooked around the end of the first lever, a comparatively light spring pressing said second lever toward the first lever, and an adjustably positioned insulated distance piece between said levers.

9. In a device of the character described, the combination of a rotary wiper cam, a pivoted lever adapted to be engaged by said cam between its pivot and free end, said lever being comparatively light, a comparatively heavy spring pressing said lever toward the cam, a second lever which is comparatively heavy and which extends onto opposite sides of the lever first mentioned adjacent to its free end, contact points carried by the heavy lever and the lever first mentioned on the side of the first lever adjacent to the cam, an adjustable insulated distance piece carried by the heavy lever and adapted to be abutted by the first lever on its side away from the cam, and a comparatively light spring pressing said heavy lever toward the cam.

[Claims 3 to 6 not printed in the Gazette.]

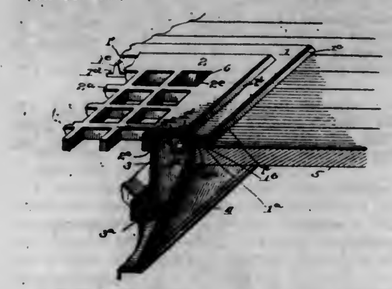
1,255,847. FASTENER. LOUIS ARKIN, Boston, Mass. Filed Apr. 25, 1917. Serial No. 164,401. (Cl. 24—218.)



3. A socket member of a fastener comprising a casing having a stud-receiving aperture, a pair of resilient stud-retaining arms within said casing, stud releasers extending outside said casing and movable between said retaining arms to spread said arms and release the stud, and a resilient member adapted to force the stud from the socket without manipulation of the stud.

[Claims 1, 2, and 4 to 11 not printed in the Gazette.]

1,255,848. FLOOR-REGISTER. GEORGE S. AUER, Cleveland, Ohio. Filed Feb. 7, 1917. Serial No. 147,078. (Cl. 98—52.)

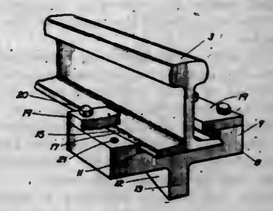


1. A floor register, comprising a beveled under-channeled border-frame, and a similarly beveled and under-channeled register-face.

2. A floor register, comprising a border-frame having a marginal channel on its under side and an inset register-face receiving extension adapted to support a register-face.

3. A floor register, comprising a beveled border-frame having a marginal channel on its underside and an inset register-face receiving extension about its inner periphery, and a register-face having a similarly beveled and channeled marginal portion seated on said extension and surrounded by said border-frame.

1,255,849. ANTICREEPING DEVICE FOR TRACK-RAILS. JOHN EDWARD BAKER, Sand Springs, Okla. Filed Jan. 12, 1917. Serial No. 141,958. (Cl. 238—4.)



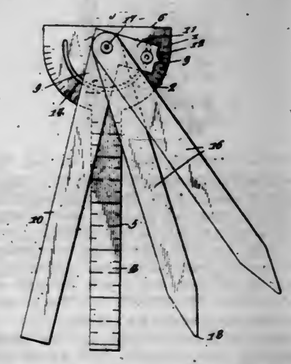
1. An anti-creeping device for track rails comprising a chair adapted for abutment against a fixed body at one end and having upstanding side flanges and an intermediate, upstanding rail seat, forming jaw seats at opposite sides of the chair and adjacent the flanges, and jaws located in the jaw seats and adapted for engaging the edge of a rail base.

2. An anti-creeping device for track rails comprising a chair adapted for abutment against a fixed body at one end and having upstanding side flanges and an intermediate, upstanding rail seat, forming jaw seats at opposite sides of the chair and adjacent the flanges, jaws located in the jaw seats and adapted for engaging the edge of a rail base, and keeper members on the upper faces of the seat flanges projecting over the jaw seats to overlie a rail base and support the said seat therefrom.

3. A device of the character described comprising a chair provided with upstanding edge flanges forming a rail seat and having convergent inner faces, jaws having outer edges tapered correspondingly to the inner faces of said flanges and having teeth at their inner edges, and keeper plates removably mounted on said flanges for confining the jaws and overlying a rail base to support the device.

4. A device of the character described comprising a chair having an abutment heel at one end and provided with upstanding edge flanges forming a rail seat and having convergent inner faces, jaws having outer faces tapered correspondingly to the inner faces of said flanges and having teeth at their opposite edges, and keeper plates removably mounted on said flanges for confining the jaws and overlying a rail base to support the device.

1,255,850. MEASURING INSTRUMENT. ALFRED F. BEAULIEU, Chicago, Ill. Filed Sept. 16, 1915, Serial No. 51,057. Renewed Dec. 20, 1917. Serial No. 208,151. (Cl. 33—75.)



1. A measuring instrument comprising a graduated protractor plate, a graduated blade extending therefrom, a square body on the plate, and means for removably holding

the arms of the square in various positions of angular adjustment with respect to the plate and blade.

2. A measuring instrument comprising a protractor plate, a blade extending therefrom, a square, a pair of divider legs, and means for removably clamping the divider legs and the long arm of the square on the plate to provide a T-square.

3. A measuring instrument including a protractor plate having a curved edge and having graduations adjacent the curved edge thereof, a blade projecting from the curved edge, a square associated therewith, one arm of said square being shorter than the other, an indicator pointer formed on the free edge of the short arm for association with the graduations, and means for adjustably maintaining the long arm in angular adjustment.

4. A measuring instrument including a semicircular protractor supporting plate having a curved edge and provided with graduations along its curved edge, said plate being also provided with a semicircular slot arranged in spaced circumferential relation with the curved edge, a blade projecting from intermediate the ends of the curved edge and arranged perpendicular to the straight edge, a square pivoted to the center of the plate and having one arm shorter than the other, the long arm of the square being of a configuration similar to the configuration of the blade, a pointer on the free edge of the short arm for association with the graduations along the curved edge of the plate, a bolt slidably arranged in the slot and projecting through the short arm for guiding the movement of the square, a nut on the bolt for removably maintaining the pointer in a predetermined position to consequently maintain the long arm at a predetermined angle, and the long arm of the square adapted to be arranged in alinement with the straight edge of the plate, at times to provide a carpenter's square.

5. A measuring instrument including a protractor supporting plate having a curved edge and a straight edge, a blade projecting from intermediate the ends of the curved edge and arranged perpendicular to the straight edge, a square pivotally associated with the plate, one arm of said square being shorter than the other, an indicator on the free edge of the short arm for association with the curved edge of the protractor plate, means for adjustably clamping the short arm in various positions to consequently maintain the long arm of a square at a desired angle, divider legs pivotally associated with the plate and square, and means for clamping the divider legs and the long arm of the square to provide a T-square.

1,255,851. CIRCULAR-KNITTING MACHINE. ROBERT S. BEAVERS, Pawtucket, R. I., assignor to Jenckes Knitting Machine Company, Pawtucket, R. I., a Corporation of Rhode Island. Filed June 18, 1915. Serial No. 34,847. (Cl. 66—12.)

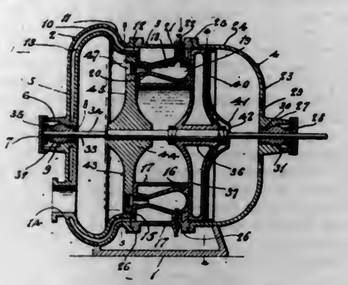


1. A circular knitting machine, having, in combination, a needle cylinder, vertically movable yarn carriers, a throat plate having a main feed throat provided with a guiding surface over which yarn leads directly to the needles, and having an auxiliary feed throat through which yarn leads from a carrier directly to the needles arranged to the rear of the main throat and a greater radial distance from the needles, and a slot through which yarn may be introduced or withdrawn from the auxiliary throat by the vertical movement of a carrier.

2. A throat plate for circular knitting machines having a main feed throat provided with a yarn guiding surface and shoulders at the end of the surface, an auxiliary feed throat radially outside the main throat, and a slot through which yarn may pass to and from the auxiliary throat.

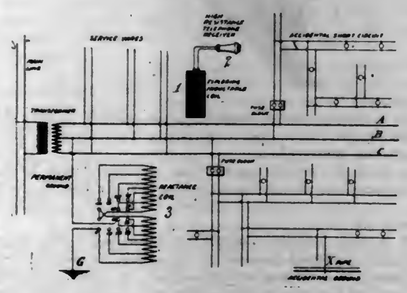
3. A throat plate for circular knitting machines provided with a main feed throat 14 having a yarn guiding surface 18 from which the yarn passes directly to the needles and end walls 20 and 22, an auxiliary feed throat 24 on the outer side of the throat plate, and a slot 26 leading to the auxiliary feed throat from above the end wall 22.

1,255,852. GAS-TURBINE. MARTIN E. BENGTSON, Springfield, Mass. Filed Sept. 8, 1916. Serial No. 119,070. (Cl. 123—9.)



In a device of the class described, a wall forming an intake chamber, said wall being provided with an annular series of openings near its center, a bearing mounted centrally of the wall, walls at the opposite end of the first mentioned wall forming a plurality of annularly disposed explosion chambers, a wall forming an exhaust chamber on the side opposite the intake chamber, a bearing centrally of the last mentioned wall, a shaft rotatable in the bearings, the last named wall having an exhaust port therein, a compression rotor mounted on the shaft within the intake chamber, a guard wall within the intake chamber mounted in close proximity to the compression rotor, means to draw in the explosive charge from the intake chamber and force the same into the explosion chambers, the said rotor having a plurality of intake openings formed between the ribs whereby the charge admitted to the explosion chamber will be compressed, an operating rotor mounted on the opposite end of the shaft and running against the opposite side of the explosion chambers, said rotor being provided with an annular series of openings, and a plurality of vanes in the openings against which the exploded gases impinge, the said openings being arranged in staggered relation to the openings in the compression rotor.

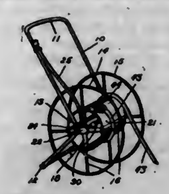
1,255,853. MEANS FOR LOCATING FAULTS ON ALTERNATING-CURRENT CIRCUITS. KARL H. BAUSMAN, Dayton, Ohio. Filed Feb. 7, 1917. Serial No. 147,073. (Cl. 175—183.)



The method of testing a conductor net-work for faults which consists in applying a source of varying current

to the net-work, connecting an inductance in said net-work so as to be included in the probable path of fault current and thereby causing a change in wave form in said fault current, and then exploring the net-work by an exploring coil and detector set.

1,255,854. HOSE-REEL. WILLIAM BOSS, St. Paul, Minn. Filed Sept. 7, 1915. Serial No. 49,210. (Cl. 137—81.)



1. A hose reel comprising a frame bent so as to form either a base or a handle for propelling the reel, a fixed pipe section, a movable pipe section and a rod extending in a line through and supported upon said frame, a pair of wheels supporting a drum carried by said rod and pipe section, the movable pipe being secured to said drum and held positioned thereby, said fixed pipe section providing a journal support for one of said wheels, and a water-tight connection between the movable pipe section and the fixed pipe section located between the two wheels.

2. A hose reel comprising a frame, a pair of wheels journaled to the frame said wheels including hubs with radial extensions, crossbars on the extensions, spokes extending through the crossbars and into the extensions, a drum mounted on the crossbars, a pipe connection extending through one of said journals and having a water-tight rotatable joint therein, a pipe connected with and extending at right angles thereto and supported at its end from one of said crossbars, and a hose coupling extension from said last-named pipe.

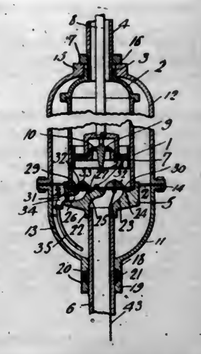
3. A hose reel comprising a frame, a pair of wheels journaled to the frame said wheels including hubs with radial extensions, crossbars on the extensions, spokes extending through the crossbars and into the extensions, a drum mounted on the crossbars, a pipe connection extending through one of said journals and having a water-tight rotatable joint therein, a pipe connected with and extending at right angles thereto and supported at its end from one of said crossbars, and a hose coupling extension from said last-named pipe, said drum being provided with an aperture formed with rounded edge for admitting the hose for connection with said coupling member.

1,255,855. AIR CHAMBER AND DRAIN STORAGE PUMP. CARL F. BRANDENBERGER and MARTIN W. REUTHER, Fort Madison, Iowa. Filed May 8, 1917. Serial No. 167,251. (Cl. 103—58.)

1. In a suction pump, a barrel, a cap attached to the lower end thereof and having two passages, a liquid pipe communicating with one of said passages, a drain storage chamber communicating with the other passage, and a check valve for restricting the flow of air from the barrel to said chamber.

2. In a suction pump, a barrel, a cap attached to the lower end thereof and having a pair of upper valve seats and passages extending from said seats, a liquid pipe communicating with one passage, a drain storage chamber communicating with the other passage, and check valves seatable on said seats, the valve of the second mentioned passage having a restricted aperture.

3. In a suction pump, a barrel, a cap attached to the lower end thereof and having a pair of upper valve seats and passages leading from said seats, a liquid pipe communicating with one passage, a drain storage chamber communicating with the other passage, and a flexible member clamped upon said cap between said valve seats and providing clack check valves seatable upon the seats, one of said parts having a restricted aperture between the barrel and drain storage chamber.

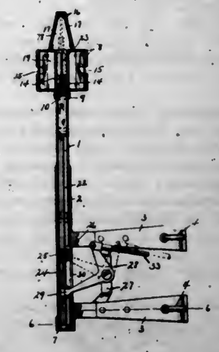


4. In a suction pump, a barrel, a drain storage chamber surrounding and inclosing said barrel, the lower portions of said barrel and chamber being in communication, and means for restricting the flow from the barrel to said chamber.

5. In a suction pump, a barrel, a drain storage chamber surrounding and inclosing said barrel, a tube communicating with the lower end of the barrel and extending to the lower portion of said chamber, and means for restricting the flow through said tube from the barrel to said chamber.

[Claims 6 to 8 not printed in the Gazette.]

1,255,856. VEHICLE-SIGNAL. JAMES JOSEPH CARR, Auburn, N. Y. Filed June 23, 1917. Serial No. 176,548. (Cl. 40—28.)



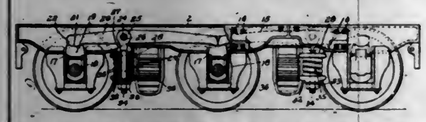
1. A signal comprising a direction-indicating means, a tube upon which said means is mounted, mechanism for rotating the tube to rotate the direction-indicating means, a shaft within the tube, a stop-indicating means carried by the shaft, and means for elevating the shaft.

[Claims 2 to 4 not printed in the Gazette.]

1,255,857. SIX-WHEEL TRUCK. ANDREW CHRISTIANSON, Butler, Pa., assignor to Standard Steel Car Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed July 25, 1916. Serial No. 111,159. (Cl. 105—244.)

1. The combination with a truck-frame and its journal-boxes, of an equalizer-bar supported at its ends on said

journal-boxes, a hanger suspended from said equalizer-bar, and a spring interposed between an abutment on said



hanger and said frame, whereby a yielding-fulcrum is formed between the truck-frame and said equalizer-bar.

[Claims 2 and 3 not printed in the Gazette.]

1,255,858. CONTAINER FOR YARN-CARRIERS. HOWARD D. COLMAN, Rockford, Ill., assignor, by mesne assignments, to Howard D. Colman, Luther L. Miller, and Harry A. Severson, Copartners as Barber-Colman Company, Rockford, Ill. Original application filed Apr. 1, 1909, Serial No. 487,347. Divided and this application filed June 7, 1916. Serial No. 102,124. (Cl. 242—132.)



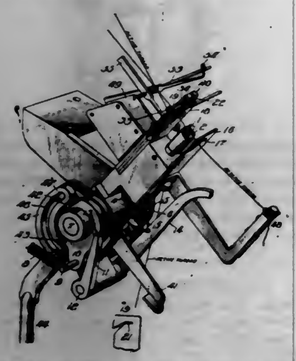
2. A bobbin-box for winders, said box being adapted to contain a single bobbin extending lengthwise of the box, said box having a bottom wall, side walls and end walls, the top of the box being open, a thread-guiding hook upon one side of and within the box, the closed end of the hook being directed toward one end of the box, and parallel thread-guiding grooves upon the exterior of said end of the box.

5. A bobbin-box for winders, said box having a bottom wall, side walls, and end walls, one of said end walls having upon its outer side a plurality of parallel thread-guiding grooves.

7. A bobbin-box for winders having a substantially flat bottom and vertical side walls having substantially straight upper edges to support the bottom of a similar box, and a thread guide on one of said side walls substantially midway of the length of the box, said box being of such length that the bobbin may reciprocate longitudinally within the box to bring the part of the bobbin which is being unwound substantially opposite said guide.

[Claims 1, 3, 4, 6, and 8 not printed in the Gazette.]

1,255,859. KNOTTER. HOWARD D. COLMAN, Rockford, Ill., assignor, by mesne assignments, to Howard D. Colman, Luther L. Miller, and Harry A. Severson, Copartners as Barber-Colman Company, Rockford, Ill. Original application filed Apr. 1, 1909, Serial No. 487,347. Divided and this application filed June 23, 1916. Serial No. 105,357. (Cl. 28—33.)



4. A knotter having, in combination, a tying bill, a thread guide, an abutment between the tying bill and the thread guide, a stripper hook arranged to engage the threads at a point between the thread guide and the abutment, and a thread clamp arranged to clamp the threads at the thread guide before the stripper hook operates.

7. A knotter having, in combination, a tying bill, a thread guide, knot-stripping means arranged to operate between the tying bill and said thread guide, a clamping member movably mounted on said thread guide, and means for actuating said member to clamp the threads at the thread guide, the stripping means being arranged to actuate the clamping member to release the threads.

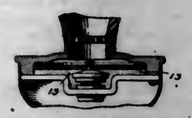
[Claims 1 to 3, 5, and 6 not printed in the Gazette.]

1,255,860. SEAM-OPENING TOOL. MARTIN COURTER, Sneads Island, Fla., assignor of one-half to Fred D. Waite, Palmetto, Fla. Filed Dec. 5, 1916. Serial No. 135,158. (Cl. 145—1.)



In combination, a seam opening tool including a flat shank having one end curved laterally and beveled on its opposite side faces to define a cutting edge, the opposite end of said shank reduced to define a handle, said shank provided on its opposite side faces adjacent the handle with laterally extending projections having their under sides curved to provide concave bearing faces, the body of the shank provided with a plurality of relatively spaced longitudinally arranged openings, a hood comprising a pair of members secured to the opposite side faces of the shank, the edges of the hood being convex to engage the concave bearing faces of the projections of the shank to permit the same to be adjusted thereon, means for pivotally securing the hood members to the shank, and means for holding the hood members in their adjusted position with relation to the shank, said hood members adapted to be varied with relation to the cutting edge of the shank to determine the depth in which the cutting edge may be inserted in the seam of a bolt or the like.

1,255,861. DAMPING MATERIAL FOR TELEPHONES. IRVING B. CRANDALL, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Aug. 14, 1916. Serial No. 114,795. (Cl. 179—180.)



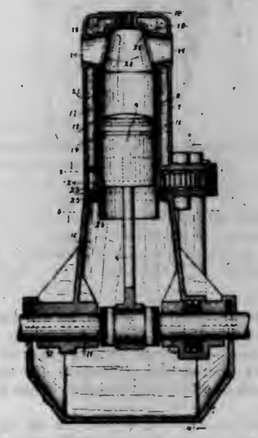
4. In apparatus comprising vibrating members, means for transmitting the vibration of said members, and independent means for damping the vibration of said members, said independent means consisting of a finely divided metal.

7. A telephone instrument comprising a vibrating diaphragm, a variable resistance device operatively associated with a portion of one surface of said diaphragm, and a damping material for said diaphragm independent of said variable resistance device, said material consisting of a finely divided metal associated with substantially all remaining vibrating portions of said surface not associated with said variable resistance device.

8. A telephone instrument comprising a vibrating diaphragm, a variable resistance device operatively associated with a portion of one surface of said diaphragm, and a damping material for said diaphragm independent of said variable resistance device, said material consisting of finely divided aluminum or magnesium associated with substantially all remaining vibrating portions of said surface not associated with said variable resistance device.

[Claims 1 to 3, 5, and 6 not printed in the Gazette.]

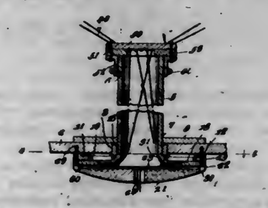
1,255,862. INTERNAL-COMBUSTION ENGINE. JOHN F. CRAWFORD, Racine, Wis. Filed Oct. 16, 1916. Serial No. 125,789. (Cl. 123—80.)



1. In an internal combustion engine, the combination of an outer cylinder having a bore therein consisting of a straight cylindrical portion and an inwardly tapered frusto-conoidal portion at its upper end, a hollow inner cylinder shaped to conform to the bore of the outer cylinder and having its upper open conoidal portion seated against the sides of said frusto-conoidal portion of the outer cylinder to form a combustion chamber, said outer cylinder being provided with inlet and exhaust ports, said inner cylinder having ports therein communicating with said combustion chamber and adapted to be brought into communication with said ports in the outer cylinder, a piston slidably mounted within the inner cylinder, a crank shaft operatively connected to said piston and means for revolving said inner cylinder to control the passage of working fuel to and from the combustion chamber.

[Claim 2 not printed in the Gazette.]

1,255,863. OUTLET BOX OR FIXTURE. LIONEL W. CROMPTON and EARLE N. OLIVER, Tampa, Fla. Filed May 1, 1915. Serial No. 25,202. (Cl. 173—327.)



1. The combination with the ceiling and rafters, of an outlet box including a conduit with means for clamping the conduit to the ceiling, guys between the conduit and the rafters for steadying the conduit, connecting lugs in the outlet box for receiving the looped ends of the line wires, and clamping means on the conduit for holding the looped ends taut.

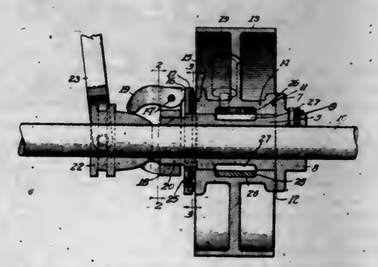
2. An outlet box including a conduit with a pair of clamp plates at one end for securing the conduit to a ceiling, connecting means for connecting the looped ends of wires in the conduit, a cap for the outlet box with openings for access to the connecting means, and combined covering means for the end of the conduit and clamping means for the wire ends, at the other end of the conduit.

3. The combination of the conduit with a clamp plate having openings, a dielectric connector plate superposed on the clamp plate over the openings and having an inwardly curved flange with an offset from the inner wall of the conduit, connector lugs recessed in the connector plate by fastening means adjacent to the clamp plate openings, and looped wire ends adapted to be secured to the connector lugs, the offset of the inwardly curved flange preventing contact of the wires with the conduit.

4. In an outlet box, the combination with the conduit, a grooved wire holder on the end of the conduit, and a disk for covering the grooves and clamping wires in place in the grooves.

[Claim 5 not printed in the Gazette.]

1,255,864. CLUTCH. JOHN W. CROWLEY, Jr., Chicago, Ill. Filed Nov. 6, 1916. Serial No. 129,692. (Cl. 192—8.)



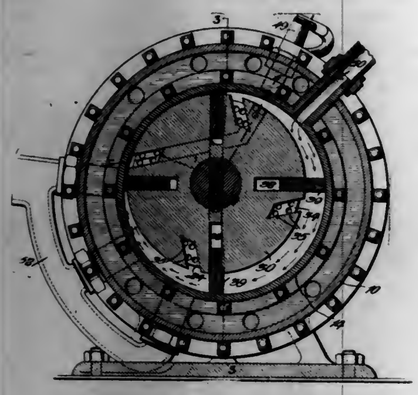
1. A clutch comprising a sleeve; a pulley, or the like, rotatable thereon, provided with a hub, one end of which is surfaced in a transverse plane less than 90 degrees from the axis of the sleeve; a radially extending flange on the sleeve having a similar confronting surface to frictionally engage the adjacent end of the pulley hub; a slidable plate on the sleeve to engage the other end of the hub and a rigid means to force the flange and plate into intimate contact with the respective ends of the pulley hub whereby to directly embrace and hold the pulley between said flange and plate.

2. A clutch comprising a sleeve having a radially extending flange, on one end thereof and having a transversely tapering inner surface; a pulley having an integral hub freely rotatable on said sleeve having its confronting end similarly tapered to be in a plane parallel with the confronting surface of said flange; a plate movable on said sleeve to engage the other end of the hub, and axially movable means to move said plate and hub until the latter is in contact with said flange and to positively hold said parts against further axial movement whereby relative rotations of said hub and sleeve will more firmly hold the parts together.

1,255,865. ROTARY INTERNAL-COMBUSTION ENGINE. NEIL B. DOANE, De Ridder, La. Filed Feb. 7, 1917. Serial No. 147,064. (Cl. 123—16.)

1. An engine of the character described, comprising a compression cylinder having intake means, an explosion

cylinder having explosion and exhaust means, said cylinders being disposed in laterally spaced relation and open at their inner side, a partition plate secured between and connecting said cylinders, compression and explosion rotors respectively within and eccentric to said cylinders, and having radially movable blades, the compression rotor having a peripheral cavity in advance of each of its blades, and openings from each cavity through its inner face, the explosion cylinder having a peripheral cavity in the rear of each of its blades, and openings from each cavity through its inner face, and the partition plate having charge transferring means for periodical communication with the said openings and cavities of the compression and explosion rotors, during rotation of the latter.



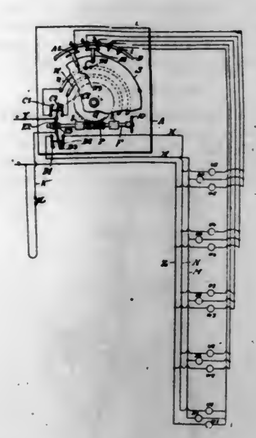
4. An engine of the character described comprising a compression cylinder having intake means, an explosion cylinder having explosion and exhaust means, said cylinders being disposed in laterally spaced relation and open at their inner sides, a partition plate secured between and connecting said cylinders, compression and explosion rotors respectively within and eccentric to said cylinders, said compression and explosion rotors respectively having charge discharging and receiving openings communicating between their inner and peripheral faces, and radial spring actuated blades carried by said compression and explosion rotors respectively in the rear, and in advance, of the discharging and receiving openings, the partition plate having a transferring channel and openings at the opposite ends of said channel leading respectively through opposite side faces thereof for registry with the discharging openings of the compression rotor and the receiving openings of the explosion rotor.

5. In an engine of the character described, a slotted rotor having inner diametrical openings connecting the inner ends of its slots, blades slidable in the said slots, and stems mounted in the said inner diametrical openings, and springs between the opposing ends of the said stems, the blades having recesses at their inner ends, and said stems having heads at their outer ends removably interfitting the recesses of the blades.

[Claims 2 and 3 not printed in the Gazette.]

1,255,866. SIGNAL SYSTEM FOR ELEVATORS. EDWARD L. DUNN, Worcester, Mass., assignor, by mesne assignments, to Standard Plunger Elevator Company, Worcester, Mass., a Corporation of Massachusetts. Filed Nov. 13, 1913. Serial No. 800,695. (Cl. 177—336.)

1. In an elevator signaling system, a car, up and down corridor lights at each floor, a transparent numbered dial inclosing said lights, a switch traveling with the car for flashing said lights in different combinations according to the direction of movement of the car, a pointer movable with the car and traveling over said transparent numbered dial, a well room light for each floor, a transparent numbered dial inclosing said light, and connections for said well room lights controlled by said traveling switch.



2. In an elevator signaling system, up and down corridor lights, circuits for said lights comprising a traveling switch, well lights, connections therefor controlled by said traveling switch, and means on the car for cutting out the corridor lights and leaving the well lights under control.

6. In an elevator signaling system, an up and a down signal at each floor, a traveling switch for successively actuating said signals in advance of the car, a gear for driving said switch, and a slidable and rotatable worm for driving said gear.

9. In an elevator signaling system, a plurality of floor signals each making a different indication, a plurality of well room floor signals, a reversible switch for setting the circuit of one or the other of said signals, a traveling switch for completing the circuit of one or the other of said floor signals and successively energizing said well room signals, and means for driving said traveling switch and operating said reversing switch comprising a longitudinally movable shaft and worm and a gear in mesh with said worm.

15. In an elevator system, the combination with a movable car, of a plate within the elevator well room at each floor bearing the number of the floor and positioned to be visible to the occupants of the car, a lamp for illuminating each plate respectively, a member traveling with the car, signals for indicating the direction of movement of the car controlled by said member, and a switch moved by said member and successively lighting each of said lamps to illuminate each of said plates successively while in view of the occupants of the car.

[Claims 3 to 5, 7, 8, 10 to 14, and 16 to 20 not printed in the Gazette.]

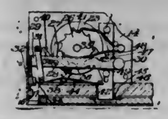
1,255,867. GASOLENE-PROOF HOSE. JAMES FENTRESS, Chicago, Ill. Filed Feb. 20, 1915, Serial No. 9,536. Renewed Dec. 26, 1917. Serial No. 208,981. (Cl. 137—90.)

A hose for carrying gasolene consisting of a flexible metallic supporting frame, a layer of protecting material unaffected by the metal of the frame and insoluble in gasolene, a layer of gelatin material over the protecting layer, entirely excluded from contact with the frame by said protecting layer, and a second protecting layer of woven water proof material applied over said gelatin



layer and without treatment subsequent to the application thereof over the gelatin layer.

1,255,868. MAGAZINE-BACK FOR CAMERAS. WILLIAM F. FOLMER, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed Dec. 18, 1913. Serial No. 807,468. (Cl. 235—132.)



1. The combination with a casing and an actuator extending through a wall thereof, of a counter wheel mounted on said wall within the casing to turn in a plane at right angles to the actuator, a plunger movable parallel with the latter and adapted to be operated thereby when the actuator is moved to one position and actuating connections between the plunger and counter wheel.

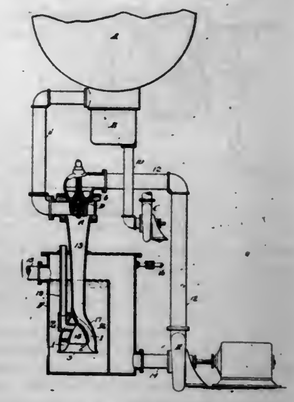
4. The combination with a casing and an actuator operating therein, of a counter, a vibrating operating means therefor operated by the movement of the actuator to one position, a ratchet on the counter, a pawl on the operating means having a normal tendency to assume an engaging position with reference to the ratchet, means for holding the pawl out of engaging position when the operating means is at rest, means for moving the pawl to inoperative position at the conclusion of a stroke of the operating means and means for resetting the counter independently of the operating means.

6. The combination with a casing and an actuator operating therein, of a counter movable in two directions, means not normally in engagement therewith for operating the counter by the movement of the actuator to one position, means for freeing the counter of its operating means at the conclusion of an operation and before the return of the actuator, a locking device for the latter actuated by the counter mechanism during a final counting movement thereof and independent means for resetting the counter and withdrawing the locking means.

12. The combination with a casing and an actuator operating therein, of a locking device for the actuator, operating mechanism for the locking device embodying a counter adapted to move the locking device to operative position after a predetermined number of impulses have been given said operating mechanism, a spring for withdrawing the locking device, connections between the operating mechanism and the actuator for giving an impulse to the operating mechanism upon each operation of the actuator, and a common means for resetting the counter and releasing the locking device through the medium of the counter in one operation.

[Claims 2, 3, 5, and 7 to 11 not printed in the Gazette.]

1,255,869. CONDENSING APPARATUS. GEORGE J. FORAN, New York, N. Y., assignor to Henry R. Worthington, a Corporation of New Jersey. Filed May 3, 1912. Serial No. 694,894. (Cl. 183—26.)

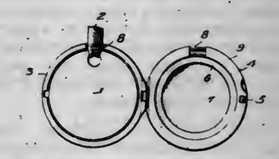


2. The combination with a steam condenser, of a hydraulic air discharge pump, a tank receiving the discharge water from the air discharge pump, an annular passage extending below the level of the water in the tank and through which the air and water are discharged from the air discharge pump, an air passage within said annular passage having an air escape to the atmosphere, and means for circulating water from the tank through the air discharge pump.

4. The combination with a condenser, of a hydraulic air discharge pump, a tank receiving the discharge water from the discharge pump, means for circulating water through the discharge pump and tank, an annular passage through which the air and water are discharged by the discharge pump into the tank below the level of water therein, an air chamber within said annular passage having an air escape to the atmosphere, and helical guides or vanes in said annular passage for throwing the water outward to separate the water from the air and permit the air to pass to the air chamber within the annular passage.

[Claims 1, 3, 5, and 6 not printed in the Gazette.]

1,255,870. IDENTIFICATION-TAG LOCKET OR HOLDER. THEODORE W. FOSTER, Providence, R. I., assignor to Theodore W. Foster & Bro. Company, Providence, R. I., a Corporation of Maine. Filed June 20, 1917. Serial No. 175,747. (Cl. 40—10.)

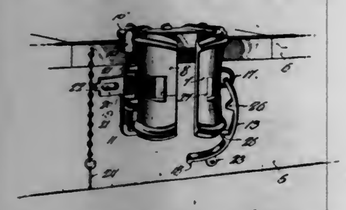


1. An identification member comprising a tag having a perforation adjacent its edge, a flexible suspending element for the tag passed through the perforation thereof, a locket attachment comprising a pair of sections hingedly connected to one another for closing about the tag, being provided with opposing edge cut-outs for receiving

the suspending element whereby the sections of the locket attachment may completely close, and means for holding the sections closed.

[Claim 2 not printed in the Gazette.]

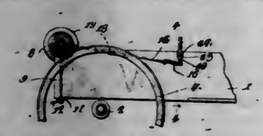
1,255,871. BOLSTER-STAKE HOLDER. CASPER FAUST, Oshkosh, Wis. Filed Sept. 19, 1917. Serial No. 192,088. (Cl. 105—173.)



1. A bolster stake holder comprising arcuate socket sections, an arcuate link having one end pivoted to one of said sections and its other end free and directed laterally, means carried by the other socket section and engaging the free end of said link, and means on the inner face of said link and engaging the socket members substantially as described.

2. A bolster stake holder comprising arcuate socket members, a link member having one end pivoted to one of said sections and its other end free and directed laterally, said link member being bent to conform to the shape of said socket sections, a pivoted cast off lever carried by one of said socket sections and having an aperture therein engaging the free end of said link, lugs formed on the inner face of said link and engaging apertures in said socket sections, and means carried by the free end of said link and engaging said cast off lever for locking the socket sections in closed position.

1,255,872. WIRE REELING AND UNREELING APPARATUS. WILLIAM H. FENTRESS, Osceola, Nebr. Filed Oct. 9, 1916. Serial No. 124,698. (Cl. 242—91.)

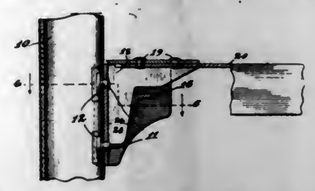


2. A wire reeling and unreeling apparatus comprising a bearing casing made of a greater length than the width of the box of a wagon on which the apparatus is to be fitted, means to mount said bearing casing on the upper edge of the box adjacent the wagon wheels, a shaft extended through said bearing casing and mounted therein to be capable of revoluble movement, bearing wheels secured on said shaft to engage with the wagon wheels and to cause turning movement to be imparted to the shaft, a reel adjustably and interchangeably fitted on said shaft to be turned therewith, an adjustable brace rod connected with said bearing casing, a spring connected between the adjustable brace rod and the wagon body to hold the friction wheels at the proper bearing against the wagon wheels, and means formed as a part of the adjustable brace rod to permit adjustment of the bearing engagement of the friction wheels.

[Claim 1 not printed in the Gazette.]

1,255,873. SEPARABLE METAL JOINT. JOHN F. GAIL, Kenosha, Wis., assignor to Simmons Manufacturing Company, Kenosha, Wis., a Corporation of Wisconsin. Filed Aug. 20, 1915. Serial No. 46,425. (Cl. 5—55.)

1. In a corner lock for takedown frames, a corner bracket having back and side members, a detachable side rail having a down turned end portion, and a cross rail, the extremity of which is fastened to one of the side members of the corner bracket and adapted to detachably hold the down turned end portion of the side rail against the back member of the corner bracket.

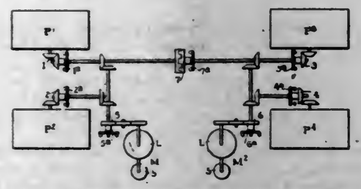


3. In corner locks for takedown frames, a pair of side rails having extensions thereon serving as wedges, corner brackets each having a back and two side pieces, corner pillars on which said brackets are secured, and cross rails extending into and secured in the sides of said brackets at an angle to the back of the bracket whereby said cross rails serve as ties for said frame and as one side of the openings for the insertion of said wedges.

7. In a metal bedstead, a corner fastening including a bracket having a rear section suitably formed to fasten to the bedpost and side sections outwardly bent to receive and hold the cross rail, a cross rail the end of which is held by both sides of the corner bracket, and a side rail having a downturned end portion adapted to be wedged between the rear section of the corner bracket and the cross rail.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,255,874. MOTOR-CONTROL SYSTEM. MAURICE M. GOLDENSTEIN, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Feb. 26, 1917. Serial No. 150,947. (Cl. 172—179.)



1. In a commutatable control system for a plurality of motors, in combination, a plurality of controllers for the motors, commutating means providing for independent and joint use of the motors and means for effecting operation of said commutating means but subject to a given condition of one or a plurality of said controllers according to the commutation to be effected.

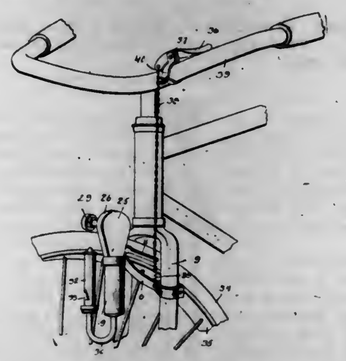
3. In a commutatable control system for a plurality of motors, in combination, a plurality of controllers for the motors, a plurality of commutating devices providing for independent or joint use of said motors and means for operating said commutating devices but subject to control by said controllers singly or jointly according to the commutation to be effected, and further subject to control of certain of said devices by other of the same.

13. In combination, a plurality of motor controllers, each having a line switch, a control station, electro-responsive commutating means to connect said controllers selectively or collectively to said control station and connections rendering response of said means dependent upon selective or collective closure of said line switches according to the commutation to be effected.

15. In combination, a plurality of driven units, a separate motor-driving unit for each of said driven units, driving connections providing for release of each of said driving units from its respective driven unit and further providing for coupling and uncoupling of a plurality of said driven units a controller for each of said driving units including a line switch and a plurality of electro-responsive switches to effect control commutations according to the commutations of said driving connections, each of a plurality of said commutating switches being dependent for energization upon closure of the line switch of a corresponding controller and other of said commutating switches being dependent upon response of the former individually or collectively according to the commutation to be effected.

[Claims 2, 4 to 12, 14, and 16 not printed in the Gazette.]

1,255,875. AIR-PUMP. ARTHUR G. R. GUERARD, Mulberry, Fla. Filed Nov. 6, 1915. Serial No. 60,086. (Cl. 230—27.)



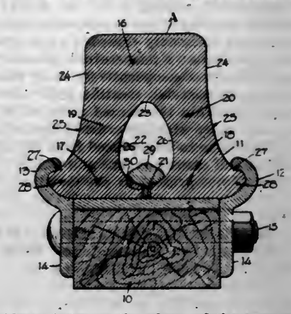
A device of the character described including a bracket arm, a pump cylinder having the upper portion cutaway and flattened to provide a supporting plate, a two-part casing detachably secured to the supporting plate, a threaded sleeve positioned in the supporting plate and projecting laterally thereof, a supporting lever pivotally secured to the outer extremity of the bracket arm, a shaft rotatably mounted in said sleeve and projecting into said casing, a wheel carried by said shaft, a nut fitted upon the sleeve engaging the inner surface of the supporting plate and retaining the wheel in spaced relation thereto, a strap having a looped medial portion receiving the exposed end of said sleeve, a bolt positioned through the adjacent ends of the supporting lever and strap and clamping the looped portion of the latter upon the sleeve, a crank pin secured to said wheel, a piston reciprocably mounted in said cylinder, a connecting rod connecting the crank pin with the piston, said wheel, crank pin and connecting rod being inclosed by the housing, and a friction wheel carried by the exposed terminal of the shaft.

1,255,876. CUSHION-TIRE FOR VEHICLE-WHEELS. JAMES ELLIS HALE, Akron, Ohio. Filed Feb. 12, 1916. Serial No. 78,033. (Cl. 152—1.)

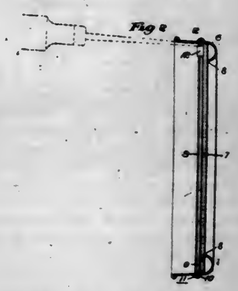
1. A cushion tire including a tread portion, spaced side walls supporting the tread portion the center planes of which walls converge toward the tread, and base members supporting the side walls, each of said side walls having its inner and outer faces oppositely curved whereby each side wall has a zone of minimum thickness at its approximate center and whereby the side walls gradually increase in thickness from the minimum at the approximate center to maximum at its junctions with the tread and base members.

3. A cushion tire including a relatively thick tread portion, spaced side walls supporting the tread portion and base members supporting the side walls, said side walls having their inner and outer faces oppositely curved whereby a zone of minimum thickness occurs at the approximate center of each side wall, said zone of minimum thickness in each side wall being also located approximately midway between the plane of the apex of the channel and the outer plane of confinement of the base thereof.

[Claim 2 not printed in the Gazette.]



1,255,877. WINDOW OR LENS RETAINER FOR LAMPS AND THE LIKE. ELLSWORTH A. HAWTHORNE, Bridgeport, Conn. Filed June 2, 1914. Serial No. 842,502. (Cl. 240—111.)



1. In combination a frame-like member having a seat, a framed element mounted against the seat, the mounting being provided with a circumferential groove adjacent said element, a sheet metal member of a contour substantially similar to that of the said groove and resiliently tending to regain said contour against deformations in the approximate plane thereof, said member having a circumferential bead fitting said groove, said member being disposed under tension with the bead engaging said groove, and also having an inwardly directed flange having inner and outer substantially parallel surfaces, one of which lies flat upon the element when the member is in place and is tensioned against the same by the transverse elasticity of the flange.

3. In combination a frame-like member having a seat, a framed element mounted therein against said seat and means to retain it against said seat comprising a split ring placed in the frame-like member under tension and by such tension held in place therein, said member having two adjacent terminal portions, one of which is provided with a lug and the other with a slot in which said lug is disposed.

[Claim 2 not printed in the Gazette.]

1,255,878. PROCESS OF MAKING BRICK AND SIMILAR ARTICLES. STEPHEN J. HAYDE, Kansas City, Mo. Filed July 3, 1917. Serial No. 178,396. (Cl. 106—24.)

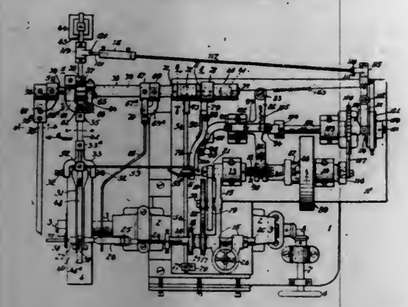
1. The process of making brick or similar articles which consists in burning a raw argillaceous material containing a lime producing substance, treating said burned material with water to slake the lime present therein, crushing the burned material, mixing cement with water and the

crushed material, and forming the article to be produced from the mixture.

18. The process of making brick or similar articles which consists in burning a raw argillaceous material containing a substance commonly regarded as detrimental in brick making processes at a temperature in excess of 1500 degrees Fahrenheit for a comparatively short time, slowly cooling said burned material, treating said burned material with water, crushing the burned material, mixing cement or lime and water with the crushed burned material, and forming the article to be produced from the mixture of crushed material and cement or lime and water.

[Claims 2 to 17 not printed in the Gazette.]

1,255,879. KNIFE-HANDLE-POLISHING MACHINE. CARL H. HEMMING, New Haven, Conn. Filed Dec. 13, 1916. Serial No. 136,638. (Cl. 51—4.)



1. In a machine of the character described, a base, a polishing wheel, a support for said wheel mounted on the base, a sleeve having a radial oscillation, a support for the sleeve, a presser arm support operatively connected to the sleeve, a presser arm pivoted to said support and overlying the polishing wheel, a bed located above the base and at one side of the polishing wheel, mechanism for automatically oscillating the sleeve, mechanism for automatically rotating a knife handle, mechanism for automatically oscillating the presser arm support at right angles to the oscillation of the sleeve mounted on the bed and adapted to be inclosed as a protection against abrading material.

4. In a machine of the character described, a polishing wheel, an oscillating sleeve, a support for the sleeve, a presser arm support operatively connected to the sleeve and adapted to oscillate therewith, means for oscillating the presser arm support at right angles to the oscillation of the sleeve, a presser arm pivoted to the presser arm support, a presser foot pivotally supported to said arm, a trip rod and a weight carried by the presser arm support, the former to release the sleeve and the latter to oscillate said sleeve and carry the presser foot away from the polishing wheel.

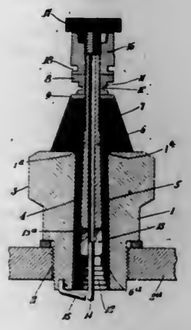
8. In a machine of the character described, a polishing wheel, a driving shaft, a radially operated frame journaled thereon, a spur gear and an elliptical gear rotatably mounted on the frame and rotatably connected together, means for driving the spur gear from the driving shaft, a knife rotating shaft journaled in the frame, an elliptical gear mounted on said shaft registering with the elliptical gear of the frame, an oscillatory sleeve, a bar pivotally connected therewith, presser arm support attached to the sleeve, a presser foot carried by the support, a trip lever pivoted to the bar, means for temporarily locking the trip lever to said sleeve, a cam on the knife rotating shaft adapted to actuate the bar and rotate the sleeve to bring an extra pressure on the knife handle when the flat or elongated side of the handle is presented to the wheel, and means for limiting the movement of said bar.

10. In a machine of the character described, an oscillating sleeve, presser arm support connected thereto, a driving shaft, a continuously running pulley mounted thereon, a cam shaft, means for imparting a step by step rotation of the cam shaft from the driving shaft, clutch mechanism located between the sleeve and driving shaft, and means actuated by the sleeve to engage the clutch mechanism with the pulley to rotate the driving shaft, and a cam on the cam shaft to disengage the clutch mechanism and bring the machine to a state of rest.

14. In a machine of the character described, an abrading wheel, a presser arm overlying the wheel, a handle lever overlying the presser arm, a presser foot carried by the arm to engage an oval knife handle, and a spring between the handle lever and presser arm to increase the pressure of the presser foot against the handle of a knife when the flat side of the handle is against the wheel.

[Claims 2, 3, 5 to 7, 9, and 11 to 13 not printed in the Gazette.]

1,255,880. SPARK-PLUG. ROBERT R. HILL, New York, N. Y. Filed Apr. 5, 1916. Serial No. 89,036. (Cl. 123—169.)



1. A spark plug comprising a base having a longitudinal bore tapering from the inner end of the base to the outer end thereof, a tapered insulating sleeve extending entirely through the bore and formed of a plurality of nested mica tubes arranged in stepped relation to form an outwardly flaring insulated chamber at the inner end of the bore, a tapered electrode within the insulating sleeve and terminating at its inner end adjacent the inner end of the tapered insulated chamber, a sparking point connected to the electrode and extending through the tapered insulated chamber, and a sparking point carried by the base.

2. A spark plug comprising a base formed with a longitudinal bore tapering from the inner end of the base to the outer end thereof, said bore being flared outwardly at the outer end of the base, an insulating sleeve extending entirely through the base and formed of a plurality of tapered nested tubes arranged in stepped relation to form an outwardly flaring insulated chamber at the inner end of the base, a tapered electrode having a rounded inner end held within said sleeve, a sparking point carried by the inner end of said electrode and extending outwardly through said flaring insulated chamber, and a sparking point carried by the inner end of the base.

3. A spark plug comprising a base formed with a longitudinal bore tapering from the inner end of the base to the outer end thereof, an insulating sleeve extending completely through said bore, said sleeve being formed of a plurality of nested independently slidable tapered tubes, a terminal electrode having a greater taper than said bore wedged in said sleeve with its inner end intermediate the ends of the bore, said electrode causing a relative sliding movement of the tubes when it is forced therethrough, so as to form a completely insulated outwardly flaring chamber at the inner end of the bore and a gas tight packing between the electrode and base, a sparking point secured to the inner end of said electrode and extending outwardly through said tapered insulated chamber, and a sparking point carried by the inner end of the base.

[Claims 4 and 5 not printed in the Gazette.]

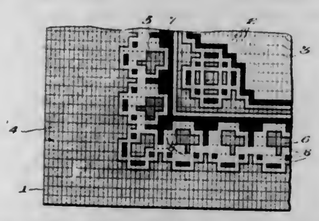
1,255,881. METHOD OF PREPARING PRINT-ROLLS FOR CLOTH-PRINTING. WILLIAM H. HOPE, Providence, R. I. Filed July 22, 1916. Serial No. 110,704. (Cl. 41—43.)



1. The method of preparing print rolls for cloth printing, consisting in surrounding the design with a border line of predetermined width and conforming to the configuration of the design, such width to be equal to the amount of the underetching of the acid, tracing a stylus along parallel lines across the design exclusive of its border line, operating a cutter on a roll according to the movements of the stylus and etching the roll.

2. The method of preparing print rolls for cloth printing, consisting in surrounding the design with a comformable border line of a predetermined width, tracing a stylus along two angularly related sets of parallel lines inwardly from the inner edge and outwardly from the outer edge of the border line, operating a cutter on one roll in accordance with the movements of the stylus within the border line, operating the cutter on a second roll according to the movements of the stylus outside the border line, and etching the cut rolls.

1,255,882. METHOD OF ENGRAVING COPPER ROLLS FOR PRINTING FABRICS. WILLIAM H. HOPE, Providence, R. I. Filed June 4, 1917. Serial No. 172,606. (Cl. 41—43.)



1. The herein described method of engraving copper rolls for printing fabrics, consisting in painting the design on a design plate in all the colors that are to appear on the printed fabric, leaving sufficient space between the several colors of the design proportionate to the undercut of the acid required in etching the particular roll, and transferring all the parts of the design of one color to one roll and all the parts of another color to another roll.

2. The herein described method of engraving print rolls for printing fabric, consisting in painting the design on a plate in all the colors that are to appear on the printed fabric, ruling the plate with two sets of lines angularly related, tracing the stylus of a pantograph along the lines of one set over as many lines of the other set as are covered by the particular color and operating the cutter in accordance with the movements of the stylus.

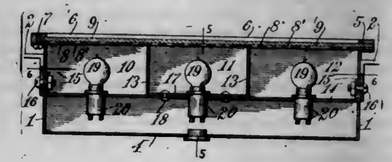
3. The herein described method of engraving rolls for printing fabric, consisting in ruling a design plate with two sets of lines, one set indicating circumferential lines, relative to the rolls, and the other set representing longitudinal lines, and painting the design on the plate in all the colors that are to appear on the printed fabric, tracing the stylus of a pantograph along the lines of one set over as many lines of the other set as are covered by the particular color, and operating the cutter in accordance with the movements of the stylus.

4. The herein described method of engraving rolls for printing fabric, consisting in painting the design on a plate in all the colors that are to appear on the printed fabric with a space surrounding each color equal to the undercut of the acid in the etching process to which the rolls are submitted, tracing the stylus of a pantograph over the colored portions only, and operating the cutter according to the movements of the stylus.

7. The herein described method of engraving rolls for printing fabric, consisting in painting the design on a plate in all the colors that are to appear on the printed fabric and with a border for each color separating it from the adjacent color, said border being of a width predetermined according to the undercut of the acid in the etching process of the rolls, tracing the stylus of a pantograph over the portions of like color, and operating a cutter according to the stylus movements.

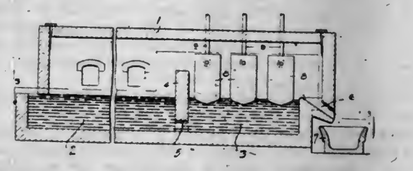
[Claims 5 and 6 not printed in the Gazette.]

1,255,883. DIRECTION-INDICATOR FOR AUTOMOBILES. FREDERICK W. HORN, Dayton, Ohio. Filed Sept. 4, 1917. Serial No. 189,430. (Cl. 40—132.)



In a direction indicator for automobiles, an oblong rectangular casing, a longitudinal division plate having its ends terminated in flanges which fit against the ends of the casing, transverse division plates secured to the longitudinal plate and dividing the space within the casing on one side of said longitudinal plate into a series of lamp compartments, a plate having perforated indicating words arranged in front of said compartments, a glass panel arranged in front of said indicating plate, and supporting brackets united to the ends of the casing by means which penetrate said brackets and the flanges on the ends of the longitudinal division plate and whereby common means are provided for supporting the casing and uniting the division walls thereto, substantially as specified.

1,255,884. METHOD OF DELIVERING GLASS FROM FURNACES. GEORGE E. HOWARD, Butler, Pa., assignor to The Pittsburgh Plate Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Nov. 15, 1913. Serial No. 801,270. (Cl. 49—77.)



1. The method of delivering molten glass from a tank furnace having a delivery chamber constantly communicating with the melting chamber, which consists in feed-

ing the glass into a displacement chamber through a relatively small opening, raising its level in delivery chamber by displacement, and thereafter discharging same through an opening of relatively large area.

2. The method of delivering molten glass from a tank furnace having a delivery chamber constantly communicating with the melting chamber, which consists in feeding glass into a displacement chamber during a comparatively long interval of time, raising the level of glass in delivery chamber by displacement, and thereby discharging glass from displacement chamber in a comparatively short time.

1,255,885. LAWN-MOWER. ALLEN JOHNSTON, Ottumwa, Iowa, assignor to Johnston Pressed Gear Company, Ottumwa, Iowa. Filed May 16, 1914. Serial No. 838,934. (Cl. 56—19.)

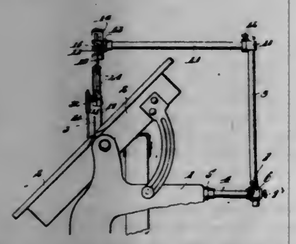


6. A lawn mower having in combination side bars, a reel, a bed knife adjustably secured to said side bars and comprising a plurality of superimposed plates rigidly secured together, one of which is flat and the other offset longitudinally, a rod disposed through the bend in said offset plate to stiffen the bed knife and to form a pivoted member for adjusting said bed knife to desired position, substantially as specified.

7. A lawn mower having in combination side bars, a reel, a bed knife and means for adjusting said bed knife, said means including a threaded socket secured to said side bars and provided with a slot, a member extending from said bed knife through said slot, and a screw member in threaded engagement with said socket and having a reduced portion in which is engaged said member whereby to permit adjustment of the bed knife through rotation of said screw, substantially as specified.

[Claims 1 to 5, 8, and 9 not printed in the Gazette.]

1,255,886. SAW-GUARD. EMERALD E. JONES, Chicago, Ill. Filed Nov. 23, 1915. Serial No. 62,993. (Cl. 143—159.)

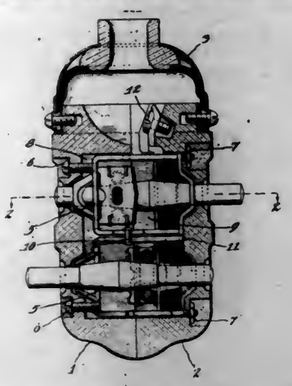


1. The combination with a saw machine comprising a bed and a saw blade projecting through and above said bed, of a guard comprising two spaced elements adapted to engage against the upper side of said bed at either side of said saw blade, one of said elements being free for vertical movement relative to the other, and said elements being adjustable toward and from each other, substantially as described.

[Claim 2 not printed in the Gazette.]

1,255,887. ELECTRIC SWITCH. CHARLES J. KLEIN, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed June 3, 1911. Serial No. 631,314. (Cl. 175—284.)

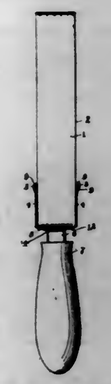
2. In an electric switch, a plurality of snap switch mechanisms, end members arranged to limit the movement of the same, side members connecting said end members to form a plurality of frames inclosing said switch mechanisms, means for connecting said frames to form a single unitary frame and a casing attached to said unitary frame.



3. In an electric switch, a plurality of snap switch mechanisms, end members arranged to limit the movement of the same, side members extending through one of said end members arranged to connect said end members to form a plurality of frames, means for connecting said frames to form a single unit and a casing inclosing said unit and attached to its opposite ends.

[Claim 1 not printed in the Gazette.]

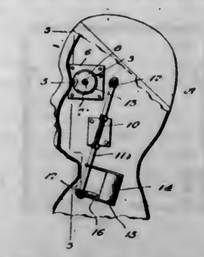
1,255,888. ABRASIVE-MATERIAL HOLDER. SAMUEL KLEIN, Philadelphia, Pa. Filed May 24, 1917. Serial No. 171,031. (Cl. 51—1.)



1. In a holder for abrasive fabrics, the combination of a long blade, having wide faces and narrow sides, the handle a tongue forming part of it of lesser width and thickness than the blade and extending downward into the handle, shoulders being formed where the blade and tongue join, trunnions at the narrow sides of the blade, spring claim having bearings on said trunnions and springing against the tongue adjacent to the said shoulders and a strip of abrasive fabric passed over both wide faces of the blade and under the said springs where they spring clamp against the tongue.

2. In an abrasive material holder, the combination with a handle, of a blade having the tongue connecting it to the handle and a pair of shoulders at the handle end of the blade and studs, a spring clamp having coils held by the said studs, jaws lying close against said shoulders and arms extending between the coils and the jaws, said arms being composed of two portions not in alinement with each other and a strip of abrasive material having its end inserted beneath the jaws of said clamp and its intermediate portion supported by said blade.

1,255,889. DOLL-HEAD. SEVER P. KILLY, Rhame, N. D. Filed Sept. 22, 1917. Serial No. 192,718. (Cl. 46—40.)



1. A doll head having eye openings therein, a shaft yieldably held against turning movement within said head, eye balls fixed to said shaft in line with said eye openings, a shaft mounted to tilt in said head and engage with the first-mentioned shaft when said head is in a reclining position, and a weight swingingly connected with the second-mentioned shaft and operable to rotate the same when said head is rocked.

[Claim 2 not printed in the Gazette.]

1,255,890. BROOCH. CLIFFORD G. KING, Providence, R. I. Original application filed Sept. 3, 1912, Serial No. 718,188. Divided and this application filed Oct. 13, 1913. Serial No. 794,802. (Cl. 24—160.)



1. In a pin, a pin-tongue, a plate, a thimble having vertical movement with respect to said plate and adapted to coöperate with said pin-tongue, said thimble being independent of said plate and located approximately midway between the ends thereof, means for limiting the upward movement of said thimble, and spring means incased within said thimble for maintaining the same in pin-tongue-engaging position.

4. In a pin, a pin-tongue of spring material bent upon itself and comprising an upper and a lower arm, a back-plate, a thimble having vertical movement with respect to said back-plate and arranged to coöperate with both of said arms, and a resilient member interposed between said thimble and said lower arm.

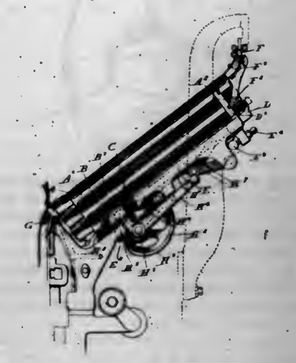
8. In a pin, a pin-tongue, a back-plate provided with a central aperture, a thimble independent of said plate and located in said aperture, said thimble being movable vertically with respect to said plate and having a flange arranged to coöperate with said back-plate for limiting its upward movement, and spring means incased within said thimble for maintaining the same in pin-tongue-engaging position.

[Claims 2, 3, and 5 to 7 not printed in the Gazette.]

1,255,891. TYPOGRAPHICAL MACHINE. GEORGE P. KINGSBURY, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Dec. 4, 1916. Serial No. 134,823. (Cl. 199—45.)

1. In a typographical machine, the combination of a plurality of magazines, and mechanism for shifting them to bring one or another into operative position, the said mechanism including means incorporated therein to maintain the magazines in a straight or rectilinear path during their movement, thus avoiding the use of supplemental guiding devices.

2. In a typographical machine, the combination of a plurality of magazines, and mechanism for shifting them to bring one or another into operative position, the said mechanism including a system of linkage incorporated therein and operative to maintain the magazines in a straight or rectilinear path during their movement.



3. In a typographical machine, the combination of a plurality of magazines, a shift frame therefor, and mechanism for moving the shift frame to bring one or another of the magazines into operative position, the said mechanism including jointed links or members arranged at opposite ends of the magazines and pivoted to the shift frame and a relatively fixed part of the machine respectively, a longitudinal rod connecting the links together, and means cooperating with the connecting rod to insure the movement of the magazines in a straight path as the jointed links are elongated or contracted.

8. In a typographical machine, the combination of a plurality of magazines, a shift frame therefor, and mechanism for moving the shift frame to bring one or another of the magazines into operative position, the said mechanism including a device for imparting movement to the magazines, jointed links or members arranged at opposite ends of the magazines and pivoted to the shift frame and a relatively fixed part of the machine respectively, a longitudinal rod connecting the links whereby they are elongated or contracted to equal extents, and means connected to the magazine shift frame and re-acting against the connecting rod to prevent the movement of the magazines in other than a straight path.

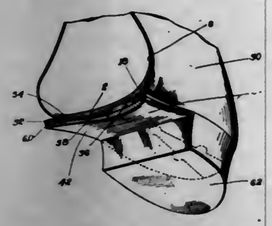
9. In a typographical machine, the combination of a plurality of magazines, a shift frame therefor, and mechanism for moving the shift frame to bring one or another of the magazines into operative position, the said mechanism including a device for imparting movement to the magazines, jointed links or members arranged at opposite ends of the magazines and pivoted to the magazine shift frame and a relatively fixed part of the machine respectively, a longitudinal rod connecting the links whereby they are elongated or contracted to equal extents, and a third jointed link facing in a direction opposite that of the others and also pivoted to the shift frame and a relatively fixed part of the machine, and provided at its joint with a bearing portion contacting with the under side of the connecting rod to prevent the movement of the magazines in other than a straight path.

[Claims 4 to 7 not printed in the Gazette.]

1,255,892. PROCESS OF MAKING SHOES. PAUL F. W. C. KRIPPENDORF, Lynn, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed June 8, 1916. Serial No. 102,447. (Cl. 12—142.)

1. That improvement in the art of shoe making which comprises buckling the shank portion of a sole upwardly to form an arch corresponding substantially to the arched conformation of the foot and locking it in arched position,

assembling the sole and an upper upon a last, and then attaching the upper to the sole.

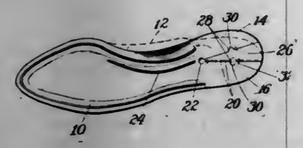


4. That improvement in the art of shoe making which comprises buckling the shank portion of an insole upwardly to form an arch corresponding substantially to the arched conformation of the foot and locking it in arched position, assembling the insole and an upper upon a last, attaching the upper to the insole, arching the outsole in the shank to the arched conformation of the insole and permanently locking it in arched position, and then attaching the outsole to the shoe.

7. That improvement in the process of making shoes which comprises separating the heel end of a sole from approximately the heel breast line to its rear edge into inside and outside members, moving the inside member laterally to cause the inside shank portion of the sole to buckle upwardly and form an arch corresponding substantially to the arched conformation of the shank portion of the foot, securing the laterally offset member relatively to the outside member to maintain the shank portion of the sole in its arched condition, assembling the sole and an upper upon a last, and then attaching the upper to the sole.

[Claims 2, 3, 5, 6, and 8 to 18 not printed in the Gazette.]

1,255,893. SHOE. PAUL F. W. C. KRIPPENDORF, Lynn, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed July 7, 1916. Serial No. 107,965. (Cl. 36—17.)



1. A shoe comprising a sole having its shank portion buckled upwardly to form an arch corresponding substantially to the arched conformation of the foot and locked in its arched position, and an upper cut away along its inside portion adjacent to the shank to compensate for the arch of the sole and being secured to said sole.

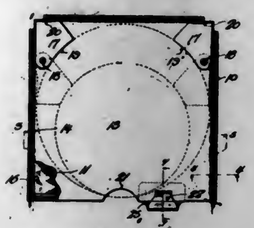
3. A shoe comprising a sole having its shank portion buckled to form an arch corresponding substantially to the longitudinal and transverse conformation of the shank portion of the foot and treated to maintain permanently the arched conformation of the sole, and an upper secured to said sole.

5. A shoe comprising an insole the shank portion of which is buckled upwardly to form an arch corresponding substantially to the arched conformation of the foot and locked in its arched position, an upper secured to said insole, and an outsole attached to the shoe, said outsole also having its shank portion buckled upwardly to form an arch corresponding substantially to the arched conformation of said insole.

16. As an article of manufacture, a sole for shoes having its shank portion buckled to correspond substantially to the longitudinal and transverse conformation of the shank portion of the foot and treated to maintain permanently the arched condition of the sole.

[Claims 2, 4, 6 to 15, and 17 to 21 not printed in the Gazette.]

1,255,894. PHONOGRAPH-RECORD STORAGE-CABINET. ADOLPH F. KRUEGER, Milwaukee, Wis. Filed July 31, 1916. Serial No. 112,281. (Cl. 211—16.)



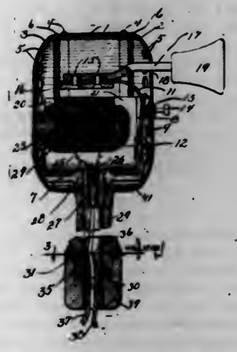
1. A storage cabinet for phonograph records including a casing, a horizontal partition in the casing having a slot adjacent one side, and a record carrying plate slidable on said partition, one portion of the plate being bent downwardly and extended into the slot to limit sliding movement of the plate.

4. A storage cabinet for phonograph records comprising a casing, a plurality of horizontal partitions in said casing, a record carrying plate slidably seated on each partition, and record holding blocks pivoted at the rear side portions of each record carrying plate and movable to engage and hold records of different sizes.

5. In a storage cabinet for records, a casing, a plurality of horizontal partitions in said casing, a record carrying plate slidably seated on each partition and provided with a slot adjacent its forward edge, a transparent plate having one end extended through said slot and laterally bent to lie under the record carrying plate, a second plate secured on the bottom of the record carrying plate adjacent the slot, and extended forwardly of said plate, the transparent plate being also extended forwardly of the record carrying plate and bent about the third plate to form a consequent recess, and a symbol strip disposed in said recess.

[Claims 2 and 3 not printed in the Gazette.]

1,255,895. ELECTRIC VIBRATOR MASSAGE-MACHINE. WILLIAM J. A. KUEHL, Chicago, Ill. Filed Mar. 2, 1917. Serial No. 152,018. (Cl. 175—338.)



1. An electric vibrator comprising a casing, a yoke therein having side and end walls, an electro-magnet secured between the side walls, a spring having one end projecting into the yoke and rigidly secured to the end wall and the other end directed between and above the side walls, an armature secured to the under side of the spring having its ends normally out of contact with the yoke and adapted to be drawn against the yoke, and a vibrator secured to the spring on the opposite side from the armature plate.

2. An electric vibrator comprising a casing, a yoke member therein having oppositely disposed arms, an electro-magnet rigidly secured between the yoke arms, a housing integral with the yoke arms, a spring bent substantially at right angles having one end projecting over the electro-magnet, an armature plate secured to the spring on one side and a vibrator arm secured to the spring opposite the armature plate and projecting through the wall of the casing.

3. An electric vibrator comprising a casing, a yoke member therein having oppositely disposed arms, an electro-magnet rigidly secured between the yoke arms, a housing integral with the yoke arms, a spring bent substantially at right angles having one end projecting over the electro-magnet, an armature plate secured to the spring on one side and a vibrator arm secured to the spring opposite the armature plate and projecting through the wall of the casing, a handle rigidly securing the yoke to the casing and a heat resisting member between the yoke and casing through which the handle projects.

[Claim 4 not printed in the Gazette.]

1,255,896. CAN-WASHING MACHINE. HARRY D. LATHROP and WALTER H. PAULSON, Chicago, Ill.; said Paulson assignor to said Lathrop. Original application filed Feb. 16, 1917, Serial No. 149,101. Divided and this application filed June 9, 1917. Serial No. 173,895. (Cl. 141—7.)



1. A machine of the class described comprising a guide for the objects to be cleaned; means for intermittently feeding the objects along said guide; means for subjecting an object to the action of a cleansing fluid when the object reaches a certain position in its travel along said guide; a valve governing the discharge of fluid toward the object; a movable element for operating said valve; means for actuating said element, said element being normally positioned out of operative relation with said actuating means; and means for moving said element to a position in operative relation with said actuating means, upon arrival of an object at the position on said guide in which the object is adapted to receive the discharge of cleansing fluid, substantially as described.

2. A machine of the class described comprising a guide for the objects to be cleaned; means for intermittently feeding the objects along said guide; means for subjecting the objects to the action of a cleansing fluid in the travel of the same along said guide; a valve governing the discharge of fluid toward the object; means for actuating said valve comprising a lever adapted, when actuated, to operate said valve; means for actuating said lever, said lever being normally positioned out of operative relation with said actuating means; and means in the path of movement of the object to be cleaned so as to be operated thereby for moving said lever to a position in operative relation with said actuating means upon travel of an object on said guide to a position to receive the discharge of said cleansing fluid, substantially as described.

3. A machine of the class described comprising a guide for the objects to be cleaned; means for intermittently feeding the objects along said guide; means for subjecting the objects to the action of a cleansing fluid in the travel of the same along said guide; a valve governing the discharge of fluid toward the object; means for actuating said valve comprising a lever mounted for vertical and horizontal oscillatory movement, said lever being adapted, when horizontally oscillated to operate said valve; actuating means for oscillating said lever, said lever being normally positioned out of operative relation with said actuating means; and means for vertically oscillating said lever to a position in operative relation with said actuating means, upon travel of an object on said guide to a position to receive the discharge of the cleansing fluid, substantially as described.

4. A machine for cleansing milk cans and covers therefor, comprising a guide for the cans; a cover guide arranged above said can guide; means for spraying a cleansing fluid onto the covers on said cover guide; and means for utilizing the cleansing fluid dripping from said covers to spray onto the exterior surfaces of the cans on the can guide, substantially as described.

5. A machine for cleansing milk cans and the covers therefor, comprising a guide for the cans; a cover guide arranged above said can guide; means for spraying a cleansing fluid onto the covers; a drip pan arranged below said cover guide adapted to collect the cleansing fluid dripping from said covers; and means for spraying the fluid collected in said drip pan onto the cans arranged on said can guide, substantially as described.

[Claim 6 not printed in the Gazette.]

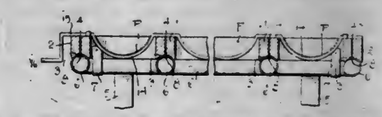
1,255,897. PRICE-INDICATOR. JOHN A. LETHERT, St. Paul, Minn. Filed May 14, 1915. Serial No. 28,078. (Cl. 40—25.)



1. A price indicating device comprising: a pair of display members having rearwardly turned edges, one of said members being fitted closely within the rearwardly turned edge of the other member to form an inconspicuous joint between said members, and cushioning means interposed between said members to yieldingly resist movement of said members toward each other.

[Claims 2 and 3 not printed in the Gazette.]

1,255,898. PERCH. JOHN F. LEWIS, Comanche, Okla. Filed June 13, 1917. Serial No. 174,587. (Cl. 119—25.)



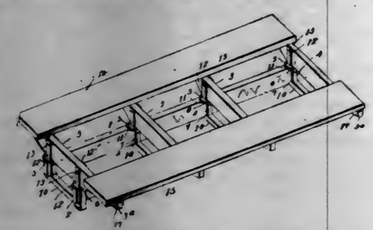
1. A device of the character described comprising a plurality of members substantially in parallelism and dropping pans interposed between adjacent members, one end portion of each of the pans being pivotally supported, and means coacting with the opposite end portions of the pans for elevating the same.

3. A device of the character described comprising a plurality of members substantially in parallelism and

dropping pans interposed between adjacent members, one end portion of the pan being pivotally supported, and a rock shaft provided with a yoke in which the opposite end portion of the pan is seated.

[Claim 2 not printed in the Gazette.]

1,255,899. HAY-RACK. JOSEPH LICHY, Avon, Minn. Filed Mar. 13, 1917. Serial No. 154,497. (Cl. 21—74.)



1. In a hay rack structure, the combination, of rails, a plurality of cross trees, pivotal brackets carried by said cross trees and including substantially horizontally positioned disks, brackets carried by said rails and including substantially horizontally positioned disks, the disks of said tree carried brackets engaging the disks of said rail carrying brackets, and pivot pins extending downwardly through said disks and through said rails for pivotally connecting said trees to said rails.

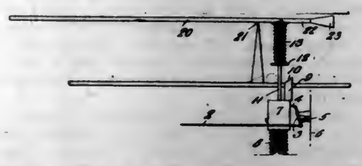
4. In a hay rack structure, side rails, a plurality of brackets carried by said side rails and comprising parallel vertical plates, horizontally positioned disks attached to the upper ends of each pair of said plates, cross trees, pivoting brackets carried by said cross trees and comprising a pair of spaced plates attached to the cross trees, horizontally positioned disks attached to the lower edges of said attaching plates, said last named disks rotatably engaging the upper surface of said first named disks, pivot pins extending downwardly through said disks and said rails for pivotally connecting said cross trees to said rails, cross braces, certain of said first named parallel plates having their lower ends bent over the ends of said cross braces, said pins extending through said cross braces and said bent ends for pivotally connecting the cross braces to the rails.

5. In a hay rack structure, side rails, a plurality of brackets carried by said side rails and comprising parallel vertical plates, horizontally positioned disks attached to the upper ends of each pair of said plates, cross trees, pivoting brackets carried by said cross trees and comprising a pair of spaced plates attached to the cross trees, horizontally positioned disks attached to the lower edges of said attaching plates, said last named disks rotatably engaging the upper surface of said first named disks, pivot pins extending downwardly through said disks and said rails for pivotally connecting said cross trees to said rails, cross braces, certain of said first named parallel plates having their lower ends bent over the ends of said cross braces, said pins extending through said cross braces and said bent ends for pivotally connecting the cross braces to the rails, side boards removably mounted upon the upper surfaces of said cross trees, and means for detachably connecting said side boards to the outermost of said cross trees.

[Claims 2 and 3 not printed in the Gazette.]

1,255,900. TRAIN-OPERATED CROSSING-GATE. HARVEY A. LUTZ, Mount Joy, Pa. Filed July 14, 1917. Serial No. 180,552. (Cl. 269—5.)

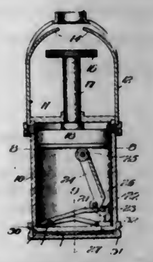
1. The combination of a gate mounted to swing over a crossing, a trip located at a point remote from the crossing for actuation by an oncoming train, a vertically movable spring projected member positioned below and operatively connected to said gate, a spring projected latch for holding said member in lowered inoperative position, a post carried by said member and adapted to project into the path of the wheels of a train when the member is in raised position and the gate is closed whereby the engine wheels will operate to depress said member into position for engagement by said latch to provide for the opening of the gate, a cable connecting said trip and latch whereby the latch is released against the tension of its spring on the depression of the trip, and means for opening the gate on the depression of said post.



3. The combination of a gate mounted to swing over a crossing, a trip located at a point remote from the crossing for actuation by an oncoming train, a vertically movable spring projected member positioned below and adjacent to the gate, a spring projected latch for holding said member in lowered inoperative position, a cable connecting said trip and latch whereby the latch is released against the tension of its spring on the depression of the trip, a coiled spring carried by said vertically movable member between it and the short arm of said gate whereby on the release of said vertically movable member the gate is forced into closed position, and a weight carried by the short arm of said gate for raising the gate when its closing spring is rendered neutral.

[Claims 2 and 4 not printed in the Gazette.]

1,255,901. SHUTTER-ACTUATING DEVICE. PAUL J. MARKS, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed Nov. 18, 1916. Serial No. 132,008. (Cl. 161—26.)



1. In a shutter tripping device, the combination with an air cylinder having a port, a piston therein having a trip and means controlling the flow of air through the port, of a spring for driving the piston, said spring being arranged to exert its pressure upon the piston with greater mechanical advantage toward the latter part of its stroke than during the initial part thereof.

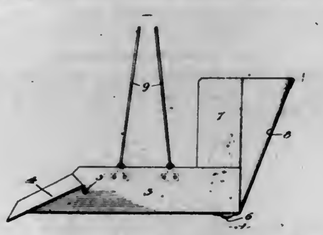
2. In a shutter tripping device, the combination with an air cylinder having a port, a piston therein having a trip and means controlling the flow of air through the port, of a spring for driving the piston and a device interposed between the spring and piston acting to increase the mechanical advantage with which the former acts upon the latter as the piston is advanced.

8. In a shutter tripping device, the combination with an air cylinder having a port, a piston therein having a trip and means for actuating the piston, of a device for regulating the passage of air through the port, comprising a resilient plate adapted to normally hold itself away from the port, and a controlling device for progressively compressing the plate into sealing relationship with the port.

9. In a shutter tripping device, the combination with an air cylinder having a port in an end face thereof, a piston in the cylinder having a trip and means for actuating the piston, of a resilient plate spanning the end face of the cylinder and adapted to normally hold itself away from the port, and a rotatable cap threaded upon the exterior of the cylinder to compress the plate variably into sealing relationship with the port.

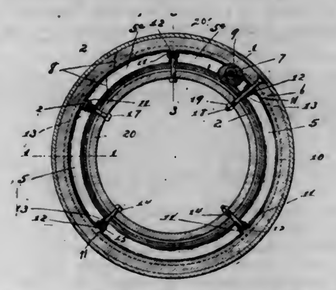
[Claims 3 to 7 not printed in the Gazette.]

1,255,902. SANITARY FLOOR-CLEANING DEVICE. CHARLES JARVIS MARRIOTT, Comfort township, Kanabec county, Minn. Filed Aug. 14, 1915. Serial No. 45,453. (Cl. 65—20.)



A scrubbing pan comprising a body portion having a bottom and side members, an entry trough extending the full width of the pan and comprising an upwardly and rearwardly inclined bottom portion and vertical side portions, the forward edge of said bottom portion extending below the bottom of the body and the upper edge terminating considerably below the upper edges of the side members of the body and a guard at the rear end of said body portion extending the full width thereof and comprising a back bent in horizontal cross section to form a discharge spout and vertical side elements having their lower ends secured to the side members of the body portion, substantially as decribed.

1,255,903. TIRE. WILLIAM C. MARTINEAU and CLARENCE R. MARTINEAU, Albany, N. Y. Filed Oct. 2, 1916. Serial No. 123,243. (Cl. 152—5.)



1. The combination with a rim; of a flexible hollow shoe mounted upon the rim; a core; a body of elastic material interposed between the outer periphery of the core and the shoe, said core and elastic material substantially filling the interior of the shoe; and connections between the rim, body of elastic material and core passing through the rim and in countersunk engagement with said body of elastic material.

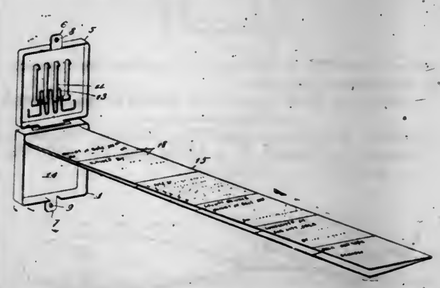
2. The combination with a rim; of a flexible hollow shoe mounted upon the rim; a core having an inwardly movable segment; a body of elastic material interposed between the outer periphery of the core and the shoe; and a plurality of connections between the rim and the core, one of said connections being between the rim and said inwardly movable segment.

3. The combination with a rim; of a flexible hollow shoe mounted upon the rim; and means substantially filling the space within said shoe and substantially wholly inclosed by the shoe, said means including a member having an inwardly movable segment; and a plurality of connections between the rim and said shoe-inclosed means, one of said connections being between the rim and said inwardly movable segment.

4. A tire comprising a flexible shoe, a circular core inclosed by the shoe and having a hinged segment adapted to swing inwardly to permit contraction of the core, and a body of elastic material interposed between the outer periphery of the core and the shoe.

5. The combination with a rim; of an elastic shoe mounted on the rim, a hollow core inclosed by the shoe and having at intervals hollow radial posts; connections between the core and the rim extending through the rim and said hollow posts; and a body of elastic material interposed between the outer periphery of the core and the shoe.

1,255,904. COTTON TAG AND RECORDER. LOUIS MASCHEK, Kansas City, Mo. Filed Dec. 7, 1916. Serial No. 135,643. (Cl. 40—2.)



1. A cotton bale attachment including a receptacle having loops struck-out from its bottom and having apertures, a plate seated on said bottom and having lugs positioned to extend through the apertures and clenched against the outer face of said bottom, and a record sheet borne by the plate, said loops being formed so as to receive therethrough the usual bale-tying-bands.

4. A cotton bale attachment including a receptacle, means to enable securement of the receptacle to the usual bale-tying-bands, a swingable lid for the receptacle, means borne by the lid for holding a sample of the cotton, and a record sheet borne by the receptacle, the sample holder being movable with the lid to extend over the free end of the record sheet upon closure of the lid.

[Claims 2 and 3 not printed in the Gazette.]

1,255,905. ELECTRIC CLOCK. EDWIN H MESSITER, Brooklyn, N. Y. Filed Dec. 5, 1914. Serial No. 875,576. (Cl. 58—26.)

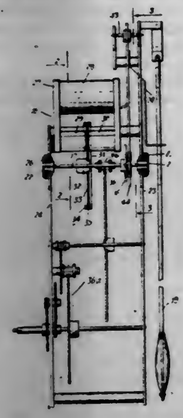
1. An electrically propelled clock comprising an isochronous vibrator, an escapement, a driving shaft therefor, and an electric driving motor connected to directly act upon said shaft.

2. A clock comprising an escapement, a driving shaft therefor and a motor having an armature directly attached to said shaft arranged to impart a succession of rotative impulses to the shaft.

3. A clock comprising a pendulum, an escapement, a driving shaft therefor and an electric motor arranged to impart a succession of rotative impulses to the shaft, and means for controlling the periodicity of the motor impulses.

9. An electrically propelled clock comprising an escapement and a rotary motor adapted to operate at substantially the speed of the escapement and connected to drive said escapement.

10. A clock comprising an escapement, a driving shaft therefor and an electric motor arranged to impart a succession of rotative impulses to the shaft, and means de-



pendent upon the escapement for controlling the periodicity of the motor impulses.

[Claims 4 to 8 and 11 to 14 not printed in the Gazette.]

1,255,906. ICE-CREAM-SERVING DEVICE. FRANK P. MILLER, Jr., Hoboken, N. J. Filed Mar. 22, 1917. Serial No. 156,814. (Cl. 107—48.)



An ice cream serving device including a bowl having double walls, relatively non-heat conducting material between the walls, a handle portion connected to said bowl and consisting in part of a compressible bulb having a guard to prevent accidental defation thereof and a pipe extending from said bulb through the double walls to the interior of the bowl.

1,255,907. DRAFT-RIGGING FOR RAILWAY-CARS. WILLIAM H. MINER, Chazy, N. Y. Original application filed Apr. 18, 1914. Serial No. 832,689. Divided and this application filed Sept. 28, 1915. Serial No. 53,111. (Cl. 213—42.)

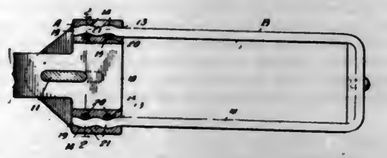


1. In a draft rigging for railway cars, stop members comprising upper and lower members, and provided with vertical slots adapted to receive a draft gear, the members forming the ends of the slots being provided with a U shaped clip forming stop shoulders for the draft gear.

[Claims 2 and 3 not printed in the Gazette.]

1,255,908. YOKE FOR DRAFT-RIGGINGS. JOHN R. MITCHELL, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed July 6, 1915. Serial No. 38,110. (Cl. 213—42.)

1. A yoke for draft riggings comprising, a hollow head having slots extending longitudinally therethrough and a strap having the ends thereof seated in said slots, said slots being so formed as to provide reversely curved pas-



sage ways and the ends of the strap being bent to conform to said reversely curved passage ways.

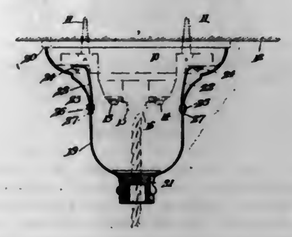
[Claim 2 not printed in the Gazette.]

1,255,909. INDICATOR. DAVID MONASCH, San Francisco, Cal. Filed Sept. 25, 1915. Serial No. 52,681. (Cl. 40—70.)



An indicator including front and rear plates, a shaft rotatably supported in the plates, the front plate having a circular recess in the rear surface thereof, an indicator disk rotatably supported in said recess and non-rotatably secured upon the shaft and having recesses in the edge thereof, a leaf spring arranged in the recess and provided with a V-shaped medial portion to engage in the recesses of the disk, both ends of the spring being engaged with the wall of the recess to present equal resistance to the rotary movement of the disk in either direction, and an operating knob secured to the rear extremity of the shaft.

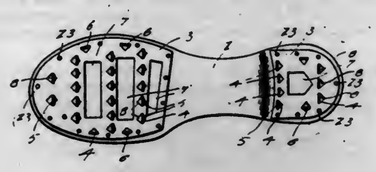
1,255,910. ELECTRIC FIXTURE. HARRY J. MORRY, Syracuse, N. Y. Filed Feb. 14, 1916. Serial No. 78,257. (Cl. 240—87.)



1. An electric fixture comprising a base, a hollow shell fitted about and projecting from the base, and a plurality of spring arms secured to the base and each having a lateral projection that extends through an aperture in the wall of the shell and by contact with the edges thereof supports the shell from the base, the outer ends of said projections, beyond the shell, terminating in rounded heads for the purpose described.

[Claim 2 not printed in the Gazette.]

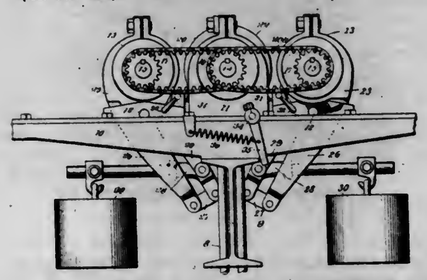
1,255,911. PLATE FOR BOOTS AND SHOES. CHARLES E. MORRIS, Metaline, Wash., assignor of one-half to Charles Basley, Metaline, Wash. Filed Apr. 19, 1917. Serial No. 163,196. (Cl. 36—59.)



1. A plate for soles and heels stamped of a sheet of metal to provide depending triangular shape teeth and the walls of the openings from which the teeth are struck being bent downwardly at right angles to the plate to reinforce the same, the side edges of the teeth curved rearwardly and their apexes curved upwardly to reinforce said teeth to provide shallow calks, and means for securing the plates to the sole and heel respectively, as and for the purpose specified.

[Claims 2 and 3 not printed in the Gazette.]

1,255,912. MACHINE FOR WEARING IN DRIVE-CHAINS. FRANK L. MORSE, Ithaca, N. Y., assignor to Morse Chain Company, Ithaca, N. Y., a Corporation of New York. Filed Apr. 8, 1914. Serial No. 830,351. (Cl. 59—29.)



1. In a machine for wearing in drive chains, the combination of a shaft having a plurality of sprocket wheels rigidly mounted thereon, another shaft having corresponding rigidly mounted sprocket wheels, chains on said sprocket wheels, one of the sprocket wheels on one of the shafts being deflected a portion of the pitch relative to the teeth of another sprocket wheel on the same shaft and imparting a working stress to the opposite strands of the chains acting against each other, and means for driving one of said shafts.

2. In a machine for wearing in drive chains, the combination of a driving shaft, a driven shaft, and a plurality of pairs of sprocket wheels rigidly mounted on said shafts, chains on said sprocket wheels, the teeth of one of said wheels having an angular variation relative to another wheel upon the same shaft to impart a working stress to the opposite strands of the chains acting against each other.

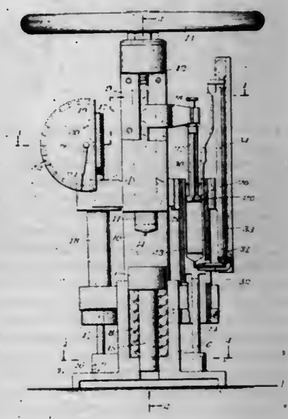
3. In a machine for wearing in drive chains, the combination of a driving shaft, a pair of sprocket wheels fixed thereon, a driven shaft, a corresponding pair of sprocket wheels fixed thereon and chains on said sprocket wheels, there being an effective angular variation between the teeth of the respective pairs of sprocket wheels such as to produce opposing working stresses in the opposite strands of the chains.

5. In a machine for wearing in drive chains, the combination of a driving shaft, a driven shaft, a plurality of pairs of sprocket wheels fixed on said shafts, one of said shafts having fixed bearings and the other movable, and a distance bar for spacing said shafts a certain distance apart.

9. In a machine for wearing in drive chains, the combination of a driving shaft, a driven shaft, a plurality of pairs of sprocket wheels fixed on said shafts, one of said shafts having fixed bearings and the other movable, a swinging frame for said movable bearing, a sliding block on which said frame is pivoted, a distance bar for said block, and an adjustable weight for said swinging frame.

[Claims 4, 6 to 8, and 10 not printed in the Gazette.]

1,255,913. HARDNESS-TESTING MACHINE. FRANK L. MORSE, Ithaca, N. Y. Filed June 26, 1914. Serial No. 847,387. (Cl. 265—12.)



1. In a machine for measuring hardness, the combination of a frame, a spring, an abutment supported on said spring, a movable plunger, an indenting projection carried by one of said parts, means operated by the movement of the abutment for indicating the total pressure applied thereto, a rod rigidly secured to the abutment, and an indicating device having a cylinder attached to said rod, a piston connected to the plunger, and a gage communicating with the cylinder for indicating the amount of indentation.

2. In a machine for measuring hardness, the combination of a frame, a yielding abutment mounted therein, a plunger movably mounted in said frame in line with said abutment, means for applying pressure to said plunger, an indenting projection carried by the plunger, a rod secured to the abutment, an indicating device operated by the movement of the abutment relative to the frame, and another indicating device having a cylinder attached to said rod and a piston attached to the plunger.

4. In a machine for measuring hardness, the combination of a yielding abutment, a movable plunger, an indenting projection carried by one of said parts, a cylinder rigidly connected to said abutment, a piston in said cylinder and rigidly connected to said plunger, a by-pass valve for the piston, and a glass gage connected to said cylinder.

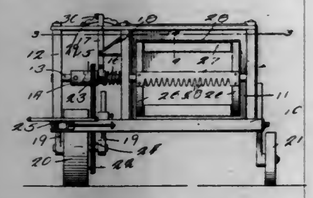
5. In a machine for measuring hardness, the combination of a yielding abutment, a movable plunger, an indenting projection carried by one of said parts, a cylinder connected to the abutment and containing a heavy liquid at the bottom and a lighter liquid at the top, a piston in the lighter liquid operated by the movement of the plunger, and a gage communicating with the liquid at the bottom of the cylinder.

7. In a machine for measuring hardness, the combination of a frame having head and base portions, a yielding plunger mounted on said base portion, a movable plunger carried by the head portion, an indenting projection, a hollow guide bolt connecting the head and base portions, a

cylinder operated by the movement of the abutment and extending within said hollow guide bolt, a piston in said cylinder therein connected to said plunger, and a gage connected to the cylinder.

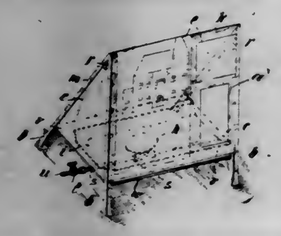
[Claims 3 and 6 not printed in the Gazette.]

1,255,914. PEA-PICKER. THEODORE S. MOUCHET, Bowersville, Ga. Filed Feb. 5, 1917. Serial No. 146,746. (Cl. 56—1.)



A pea picker including a driven shaft, a pair of spaced parallel disks secured to the shaft adjacent the ends thereof, and elongated angle bars extending between the disks and each having extensions on one part secured to the peripheral faces of the disks, the other part of each angle bar being snugly fitted between and contacting with the mutually adjacent side faces of the disks to brace the bar and hold the disks in proper spaced relation, the first-named portions of the bars having their forward edges formed with serrations.

1,255,915. DRYING APPARATUS. PAUL MUELLER, Berlin, Germany. Filed July 30, 1915. Serial No. 42,698. (Cl. 34—26.)



1. A drying apparatus for wet sheets of paper, or other material comprising one continuous flat surface formed of two oppositely inclined faces, and a heat radiating means directly underneath said faces.

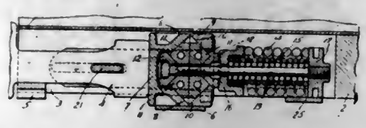
2. A drying apparatus for wet sheets of paper or other material comprising a continuous flat surface of triangular cross-section provided with a rounded upper edge and a heat radiating means underneath said surface.

[Claims 3 to 8 not printed in the Gazette.]

1,255,916. FRICTION DRAFT-GEAR. EDWARD W. NEWELL, Pittsburgh, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed June 23, 1914, Serial No. 846,747. Renewed June 23, 1917. Serial No. 176,633. (Cl. 213—64.)

1. In a friction draft gear, the combination with laterally movable friction blocks having inclined friction faces, of longitudinally movable central wedge blocks having friction faces adapted to engage the friction faces of the friction blocks, means operating under buffing and draft stresses for moving the friction blocks laterally inward to thereby spread the wedge blocks apart, a spring acting on one wedge block and a rod extending through both wedge blocks for transmitting the action of the spring to the other wedge block.

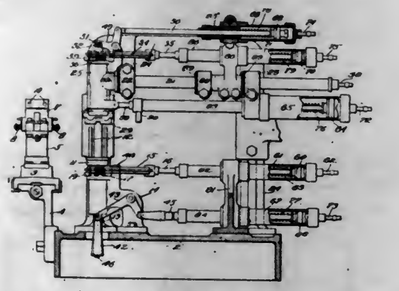
2. In a friction draft gear, the combination with front and rear followers having inclined friction faces, opposed central wedge blocks having inclined friction faces, and wedge blocks having friction faces for engaging the friction faces of the followers and the central wedge blocks, of a single set of draft springs for opposing movement of the friction members under both draft and buffing stresses.



8. In a draft gear, in combination, links, two sets of friction elements inclosed within the links, a spring exterior of the links and in line with the gear, said spring reacting on the two sets of friction elements independently of the links.

[Claims 3 to 7, 9, and 10 not printed in the Gazette.]

1,255,917. BLADE-HANDLING APPARATUS. WILLIAM E. NICKERSON, Cambridge, Mass., assignor to Gillette Safety Razor Company, Boston, Mass., a Corporation of Delaware. Filed May 20, 1916. Serial No. 98,932. (Cl. 51—7.)



1. In a blade-handling apparatus, the combination of a blade support having means for positioning supply and delivery stacks of blades thereon, and means for moving the support laterally to bring each stack in alternation into the position previously occupied by the other.

3. In a blade-handling apparatus, the combination of a blade support mounted to rotate on a vertical axis and provided with means for positioning supply and delivery stacks of blades thereon at equal distances from and on opposite sides of its axis of rotation, and means for rotating said support to interchange the positions of the stacks.

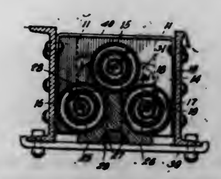
6. In a blade-handling apparatus, a blade-reversing device comprising means for engaging and retaining a blade, and means for imparting a half-rotation thereto on an axis perpendicular to the plane of the blade and passing through the center of the latter.

15. In a blade-handling apparatus, the combination of a blade support having two pairs of upwardly-extending positioning pins thereon, a blade-transferring device including a downwardly-facing suction block movable laterally above the support, means for raising and lowering said support, and means for moving it laterally to bring either pair of positioning pins beneath the suction block, the latter being provided with upwardly-extending recesses to receive said pins.

22. In a blade-handling apparatus, the combination of a blade support having means for positioning supply and delivery stacks of blades thereon, a blade holder having means for positioning single blades thereon, a blade-transferring device movable laterally above the blade support and blade holder and having means for taking a blade from either, means for bringing the transferring device into engagement with a blade beneath it, and means for presenting either the supply stack or the delivery stack beneath the blade-transferring device.

[Claims 2, 4, 5, 7 to 14, 16 to 21, and 23 to 39 not printed in the Gazette.]

1,255,918. HIGH-CAPACITY SPRING-GEAR. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Mar. 1, 1916. Serial No. 81,334. (Cl. 213—42.)

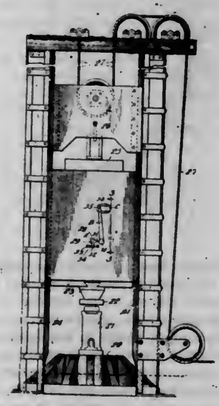


1. In a railway draft rigging, the combination with a pair of draft sills spaced apart a predetermined distance and of a predetermined height, of three coiled springs each having the same diameter arranged in triangular formation with one side of the formation extending horizontally, the length of said horizontal side corresponding substantially to said space between the sills and the height of the formation approximating the height of the sills, the diameter of said spring being such that at least one spring is in substantial tangential relation with the other two springs; followers at the ends of said spring; stops for said followers; and means for operatively connecting the followers with a draw bar.

2. In a draft rigging, the combination with a pair of followers, of three springs extending between said followers, said springs being arranged in the form of a triangle, and a yoke having a vertical flange and two horizontal flanges, said yoke extending beneath said springs.

[Claims 3 to 5 not printed in the Gazette.]

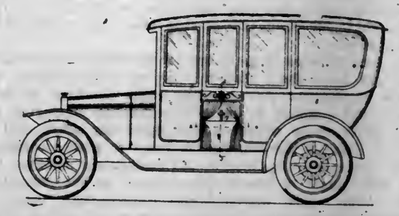
1,255,919. RECORDING MECHANISM. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed July 19, 1916. Serial No. 110,017. (Cl. 234—16.)



4. The combination with a drop hammer, of a recording attachment including, a member having one end rigidly attached to the hammer with the other end free to move relatively thereto under a sufficient degree of inertia, a record strip, a marker for said strip, and means interposed between said free end and said marker for actuating the latter in accordance with the amount of movement of said free end relatively to the hammer, and means for adjusting the zero position of the attachment.

[Claims 1 to 3 and 5 to 7 not printed in the Gazette.]

1,255,920. COMBINED MOTOR CAR AND HEARSE. HENRY A. OBERBECK, Jr., Chicago, Ill. Filed Feb. 23, 1917. Serial No. 150,545. (Cl. 21—26.)

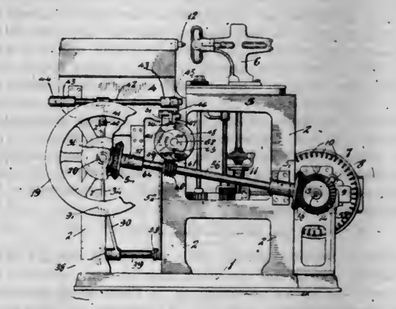


1. The combination with a vehicle having an opening extending transversely therethrough, of a compartment in said opening, said compartment being made in two tubular parts removable from opposite sides of the vehicle, substantially as described.

2. The combination with a vehicle having an opening extending transversely therethrough, of a compartment in said opening, said compartment being made in two tubular parts removable from opposite sides of the vehicle; and a panel at the outer end of each tubular part constituting a part of the corresponding vehicle side, substantially as described.

3. The combination with a vehicle having an opening extending transversely therethrough, of a compartment in said opening, said compartment being made in two tubular parts removable from opposite sides of the vehicle, there being interfitting tongues and notches at the inner ends of said parts; and a panel at the outer end of each tubular part constituting a part of the corresponding vehicle side, substantially as described.

1,255,921. AUTOMATIC STOPPING AND LOCKING DEVICE FOR BRUSH-MACHINES. HENRY ALBERT OLSSON, Cincinnati, Ohio, assignor to The Bromwell Brush and Wire Goods Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Sept. 8, 1914. Serial No. 860,610. (Cl. 74—46.)



1. A mechanism of the character described comprising a frame, a drive shaft thereon, operating mechanism on said drive shaft and adapted to be operated independently thereof, an operating shaft mounted in said frame, a sleeve on said operating shaft, a fly wheel on said sleeve, a clutch disposed between said sleeve and said fly wheel controlling the operation of said sleeve with said fly wheel, another clutch on said sleeve, controlling the op-

eration of the operating shaft with said sleeve, a beveled gear mounted on said sleeve, a counter-shaft mounted on said frame, a beveled gear at the end of said counter-shaft meshing with said beveled gear on said sleeve, said counter-shaft adapted to drive the driving mechanism on the drive shaft, a worm on said counter-shaft, timing mechanism adapted to be driven by said worm, said timing mechanism comprising dials, dogs engaging therewith, said dogs connected by a series of levers to the said clutches whereby one clutch may be operated independently of the other and thereby effect the operation of the operating shaft and the operating mechanism on the drive shaft independently of each other and at predetermined times.

2. A mechanism of the character described comprising a frame, a drive shaft thereon carrying independently operable mechanism, an operating shaft mounted in said frame and adapted to operate mechanism supported by said frame, a fly wheel on said operating shaft, and a pair of clutches thereon, the combination with a counter-shaft operatively connecting the mechanism mounted on the drive shaft to one of the clutches on the operating shaft, and means whereby said counter-shaft operates timing mechanism for the disengagement of said clutches independently of each other, substantially as described.

3. A mechanism of the character described comprising a frame, a drive shaft thereon carrying independently operable mechanism, an operating shaft mounted in said frame and adapted to operate mechanism supported by said frame, a fly wheel on said operating shaft, and a pair of clutches thereon, the combination with a counter-shaft operatively connecting the mechanism mounted on the drive shaft to one of the clutches on the operating shaft, a worm on said counter-shaft, a worm wheel mounted in said frame, dials operable with said worm wheel, a series of levers and dogs interconnecting said dials with said clutches, said dogs engaging the periphery of said dials whereby the position thereof on said dials controls the disengagement of said clutches at predetermined times.

4. A mechanism of the character described comprising a frame, a drive shaft thereon carrying independently operable mechanism, an operating shaft mounted in said frame and adapted to operate mechanism supported by said frame, a fly wheel on said operating shaft, a clutch for said fly wheel, another clutch for throwing the operating shaft into operation, a counter-shaft disposed between and operatively connected with the mechanism on the drive shaft and the latter clutch, timing mechanism adapted to be driven by said counter-shaft and interconnected with the said clutches whereby the said clutches may be caused to disengage by said timing mechanism independently of each other and at predetermined times.

5. A mechanism of the character described comprising a frame having two separate mechanisms mounted thereon, each adapted to be operated in timed relation with each other and each provided with a drive shaft, the combination with a counter-shaft operatively connecting the two mechanisms, a fly wheel and a pair of clutches supported on one of said shafts, timing mechanism mounted on said frame and operatively connected with said counter-shaft and means whereby the said clutches are thrown out of engagement independently of each other and at predetermined times by the operation of said timing mechanism.

1,255,922. STOCK FEED AND PROCESS OF MAKING SAME. JAMES BENTON PAGE, Mobile, Ala., assignor, by direct and mesne assignments, to Dixie Fruit Products Company, Mobile, Ala., a Corporation of Delaware. Filed June 27, 1917. Serial No. 177,268. (Cl. 99—11.)

1. As a new stock feed a dried material representing the structural elements of cucurbitaceous fruits but free of the soluble components thereof and also free of toxic components; such stock feed being a dried shredded material.

2. As a new stock feed a dried material representing the structural elements of watermelons but free of the soluble components and also free of toxic components; such stock feed being a dried shredded material.

3. The process of making stock feed which comprises pressing watermelons, steaming and cooking the pressed material, once more pressing, and thereafter drying.

1,255,923. CONNECTOR FOR BAND-BRACELETS. CHARLES H. PATTEN, Providence, R. I., assignor to Charles E. Hancock Company, Providence, R. I., a Corporation of Rhode Island. Filed June 22, 1917. Serial No. 176,437. (Cl. 267—11.)



1. A connector for band bracelets comprising a U shaped frame the free ends of the side bars of which are provided with means whereby they may be attached to a watch or similar article, a slidable bar having its ends engaging and guided by said side bars, and springs interposed between said slidable bar and the base of said frame and also between the side bars of the frame.

4. The combination with a flexible band, of a frame having side bars constructed and arranged to be attached to a watch, a tension bar having its ends slidably engaging and guided by said side bars, said band being looped over said tension bar, and springs interposed between said frame and said tension bar and positioned to be covered by the loop.

[Claims 2 and 3 not printed in the Gazette.]

1,255,924. GAS-TURBINE. WILLIS D. A. PEASLEE, Corvallis, Oreg. Filed Jan. 17, 1917. Serial No. 142,969. (Cl. 123—9.)



2. In a gas turbine motor, means for constantly applying a covering of cooling medium to the backs of the blades of the motor, and an outlet for the waste products.

9. In a gas turbine motor, means for constantly applying a covering of cooling liquid to the backs of the blades of the motor, an outlet for the waste products, an auxiliary turbine, means for directing the vapor generated from said liquid in its application to said gas turbine blades against the blades of said auxiliary turbine, a valve controlling the fuel supply, a valve controlling the supply of cooling liquid, and automatic means for controlling said valves relatively to the change of load.

[Claims 1, 3 to 8, and 10 to 18 not printed in the Gazette.]

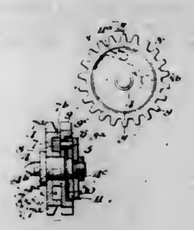
1,255,925. MOISTENER. FRANKLIN F. PETERS, Winnipeg, Manitoba, Canada. Filed July 18, 1916. Serial No. 109,999. (Cl. 91—54.4.)



1. A moistening device including a socket member of soft rubber adapted to contain a sponge, and means on said member for securing the same to the finger.

2. A moistening device including a socket member of soft rubber adapted to contain a sponge, and a band of soft rubber formed integrally with said member to embrace a finger to secure the member thereto.

1,255,926. CLUTCHING MECHANISM. LORENZO H. PIKE, Philadelphia, Pa., assignor to Electric Service Supplies Company, Philadelphia, Pa., a Corporation of Pennsylvania. Original application filed Jan. 16, 1915, Serial No. 2,523. Divided and this application filed Apr. 3, 1917. Serial No. 159,445. (Cl. 192—6.)



1. The combination with a device containing a circular way, of mechanism comprising a frictional clutching member movable in said way and coöperating cams each adapted for controlling said member.

3. The combination with a revoluble device containing a circular way, of a frictional clutching member movable in said way, said member provided with studs, a revoluble device having means for engaging one of said studs to control said member, a further revoluble device having means for engaging one of said studs to control said member and means for restraining the movement of said further revoluble device.

7. The combination of an arbor, a roller centered on said arbor, a clutching member fixed to said roller, revoluble clutching means with which said member is adapted to be engaged, a clutching segment adapted to coact with said means, a revoluble wheel, a cam carried by said wheel, and means whereby said cam effects the engagement and disengagement of said clutching means and segment upon the revolution of said wheel in opposite directions.

12. The combination with a revoluble device provided with a circular way, of a friction pawl movable in said way and provided with studs, a revoluble wheel provided with a bearing in which one of said studs is engaged and a cam slot in which the other of said studs is engaged, a revoluble disk containing a cam slot registering with said bearing and engaging the stud therein, and means for retarding the movement of said disk.

[Claims 2, 4 to 6, and 8 to 11 not printed in the Gazette.]

1,255,927. VEHICLE-WHEEL. ALDEN L. PUTNAM, Detroit, Mich., assignor to Detroit Pressed Steel Company, Detroit, Mich., a Corporation of Michigan. Filed Mar. 31, 1916. Serial No. 87,954. (Cl. 21—69.)



1. A vehicle wheel, comprising two complementary sheet-metal disk sections provided with oppositely, inwardly-extending hub sections telescopically engaging each other, and peripheral clamping means for said sections.

2. A vehicle wheel, comprising two complementary sheet-metal disk sections provided with oppositely, inwardly-extending hub sections of heavier gage, detachably engaging each other, complementary integral rim sections for engaging the tire, and means for peripherally clamping said disks to each other.

3. A vehicle wheel, comprising two complementary dished sheet-metal disk sections, each section being provided with an inwardly-extending hub portion of heavier gage, said hub portions telescopically engaging and abutting against each other, complementary rim sections integral with said disks, having outwardly-extending cheek flanges for engaging the tire, and clamping means engaging abutting peripheral portions of the disks for holding said disks together.

4. A vehicle wheel, comprising two complementary dished sheet-metal disk sections, each section being provided with an inwardly-extending hub portion and a laterally-extending rim portion, said hub portions telescopically engaging and abutting against each other, peripheral clamping means for holding said sections together, and a socket pressed in the inner disk section to receive a driving member for the wheel.

5. A vehicle wheel, comprising complementary dished sections peripherally clamped to each other and having complementary outwardly extending rim portions, said sections being provided with inwardly-extending abutting hub portions fashioned to be sleeved upon a complementary hub section.

[Claims 6 and 7 not printed in the Gazette.]

1,255,928. METALLIC VEHICLE-WHEEL. ALDEN L. PUTNAM, Detroit, Mich., assignor to Detroit Pressed Steel Company, Detroit, Mich., a Corporation of Michigan. Filed Aug. 21, 1916. Serial No. 116,055. (Cl. 21—69.)
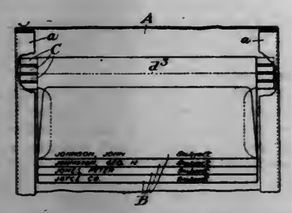


1. A wheel, comprising a hub portion, a body portion in the form of a disk secured to said hub, a rim formed integral with said body portion and comprising a seat portion for one edge of a demountable rim and a central

recess, and an annular member detachably engaging said body portion, forming a seat for said demountable rim on the opposite side of said central recess.

2. A wheel, comprising a hub portion, a body portion formed of a disk secured to said hub, a rim formed integral with said body portion, comprising a laterally-extending portion, an outwardly-extending portion and a flaring portion, the latter forming a seat for a demountable rim, and an annular member detachably engaging said body portion, providing an outwardly-extending portion and a flaring portion, the latter forming a seat for the opposite side of said demountable rim.

3. A vehicle wheel, comprising a hub portion, a body portion in the form of a disk extending outward from one end of said hub, a rim at the outer end of said body portion, comprising a laterally-extending portion, an outwardly-extending portion and a flaring portion, a detachable member secured to said body portion and having an outwardly-extending portion and a flaring portion, and a demountable rim, comprising complementary sections engageable with the tire from opposite sides thereof, being provided with inwardly-extending flanges and clamping means therefor, said flanges and clamping means engaging a space between the outwardly-extending portions of the rim and said flaring portions forming seats for said demountable rim.

1,255,929. INDEX DEVICE. JAMES H. RAND, Newton, Mass. Filed Jan. 4, 1917. Serial No. 140,636. (Cl. 40—1.)



1. An index comprising a frame having opposed guide channels and a back, a series of supporting bars having their ends removably and slidably mounted in said guide channels, and a series of index elements of sheet material supported on said bars, each having one margin folded over its supporting bar between the bar and the back of the frame, said folded margin being unattached either to the bar or to the body of the sheet index element and being held in position at the rear side of the supporting bar by the back of the frame, and at the edge of the supporting bar by the next adjacent bar.

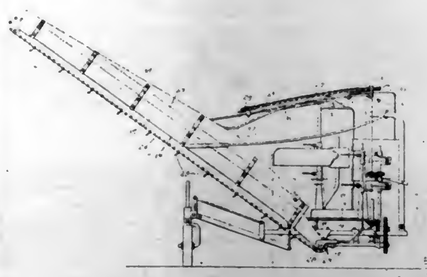
5. An index comprising a frame, a series of supporting bars separably held therein, and a series of index elements of sheet material each consisting of a pocket or envelop, the open flap of which has its free margin folded rearwardly over one of the bars, supporting the envelop on its bar without other securement, said envelop also having a forwardly folding crease between the rearwardly folded margin and the pocket opening, adapted to serve as a hinge when the envelop is in the frame and as a fold for the flap when the envelop is removed from the frame.

[Claims 2 to 4 not printed in the Gazette.]

1,255,930. HARVESTER. CLEMMA R. RANEY, Chicago, Ill., assignor to International Harvester Company of New Jersey, a Corporation of New Jersey. Filed May 3, 1915. Serial No. 25,583. (Cl. 56—119.)

1. In a harvester, binding mechanism, an elevator, and means independent of the binding mechanism of the harvester for engaging a bundle, separating it from the succeeding bundle and feeding the same to said elevator.

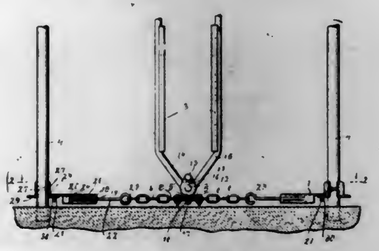
3. In a harvester, an elevator, means for engaging the head of a bundle, separating the same from the succeeding bundle and feeding the same to the elevator, and means for guiding the bundle in its movement to said elevator.



7. In a harvester binding mechanism, an elevator, and a chain for positively withdrawing bundles directly from the binding mechanism and transmitting them from the binding mechanism to the elevator.

[Claims 2, 4 to 6, and 8 to 16 not printed in the Gazette.]

1,255,931. ANIMAL-STALL. ROBERT F. RASMUSSEN, Oshkosh, Wis., assignor to C. A. Libby Company, Oshkosh, Wis., a Corporation of Wisconsin. Filed June 19, 1916. Serial No. 104,381. (Cl. 119—149.)



1. The combination, with stall standards and a stanchion, of chains secured on both sides of the lower end of the stanchion, hooked brackets, clips secured to said stall uprights and having a plurality of spaced apart apertures therein for adjustably receiving the hooked portion of said brackets, rods slidably mounted in said brackets and secured to said chains, and a yielding connection between said rods and brackets.

[Claim 2 not printed in the Gazette.]

1,255,932. PENCIL-SHARPENER CLIP. FRANCIS JOSEPH REILLY, New York, N. Y., assignor to Charles S. Palmer and Dean Palmer, Saranac Lake, N. Y. Filed Nov. 16, 1916. Serial No. 131,665. (Cl. 120—84.)

1. A clip of the character described, comprising a body formed with encircling portions and a depending resilient arm, said arm having a flat section at the end formed into a conical roll, the end of the conical roll being sharpened, said roll extending transversely of the arm, whereby the roll will act as a lead sharpener and as a guide for the clamping arm.

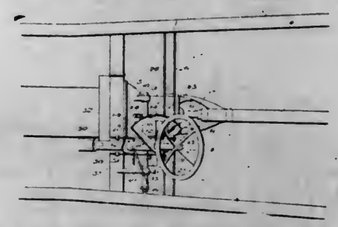
2. The improved pencil attachment which consists of a pencil engaging portion, and a pocket engaging portion, said pocket engaging portion comprising a metallic shank which is secured to the pencil engaging portion at one end and is provided with a pencil sharpener at the other end, said pencil sharpener being arranged to act as a



guide to enable the pocket engaging portion to be guided over the outer edge of a pocket.

[Claims 3 to 6 not printed in the Gazette.]

1,255,933. AUTOMATIC GEAR-SHIFTING MECHANISM. FREDERICK E. RENICK, Mammoth Springs, Ark. Filed June 24, 1916. Serial No. 105,572. (Cl. 74—58.)



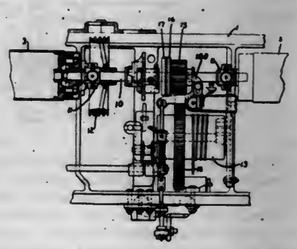
1. In an automatic gear shifting mechanism, the combination with selective gear-shift-determining means, settable to different positions, of gear shifting devices, safety stop locking means adapted to lock the gear shifting devices when they have been properly actuated and to interfere with, or block the action of, said gear shifting devices if they have been improperly actuated, and clutch operating means adapted to coöperate with said gear-shift-determining means to positively operate the gear shifting devices when said clutch operating means is operated.

3. In an automatic gear shifting mechanism, the combination with a longitudinally shiftable shaft, of a selective device carried thereby, means for moving the shaft to different positions to determine different gear combinations, gear shifting devices with which said selective device is adapted to coöperate, or to lock, according to the position thereof, rockable means carried by said shaft, and a clutch pedal adapted to coöperate with said rockable means when the shaft is in any one of its different positions.

5. In an automatic gear shifting mechanism, the combination with a longitudinally shiftable shaft, of a selective plate carried thereby, means for moving the shaft to different positions to determine different gear combinations, movable frames having operative connections for the purpose of shifting the gears, and means carried by the selective plate and the respective frames adapted for coöperation, or for relative freedom, according to the selected position of said plate, whereby one or the other of said frames may be shifted, or both of them may be blocked, a movable combined locking device and safety stop adapted to coöperate with the aforesaid frames to either lock them on proper shifting of the gears, or, to interfere with them on improper shifting, and a clutch operating device controlling the action of said combined locking device and safety stop, said clutch operating device being adapted to coöperate with the longitudinally shiftable shaft to positively shift the gears.

[Claims 2 and 4 not printed in the Gazette.]

1,255,934. MULE. WILLIAM D. RUNDLETT, North Andover, Mass., assignor to Davis and Furber Machine Co., North Andover, Mass., a Corporation of Massachusetts. Filed July 18, 1917. Serial No. 181,206. (Cl. 118—23.)



1. In a mule, the combination with a carriage, of a plurality of spindles journaled therein, a drum rotatably mounted on the carriage and from which the spindles are driven, a drum-driving mechanism on the carriage including a driving shaft, and a flexible coupling between said shaft and drum.

3. In a mule, the combination with a carriage having spindles journaled thereon, of a spindle-driving drum on the carriage, said drum having a head, a drum-driving mechanism on the carriage including a driving shaft, a head on said shaft, and a coupling member secured to the head of the drum and flexibly connected to the head on the shaft.

4. In a mule, the combination with a carriage having spindles journaled thereon, of a spindle-driving drum on the carriage, said drum having a head, a drum-driving mechanism on the carriage including a driving shaft, and a coupling member detachably secured to the drum and flexibly connected to the driving shaft.

5. In a mule, the combination with a carriage having spindles journaled therein, of a spindle-driving drum on the carriage, said drum having a head, drum-driving mechanism on the carriage including a driving shaft, a circular head on said shaft provided with apertures, a coupling member rigid with the head of the drum and having driving projections which occupy said apertures and also provided with a positioning rim which encircles the head of the shaft.

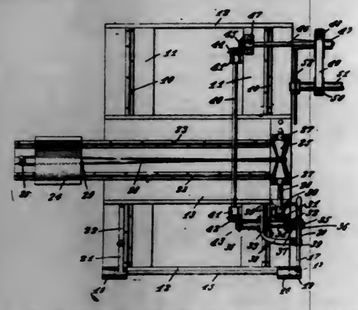
7. In a mule, the combination with a carriage having spindles journaled thereon, of a spindle-driving drum rotatably mounted on the carriage, drum-driving mechanism including a driving shaft, a disk-like head on said driving shaft having its peripheral edge convexly curved in an axial direction and provided with openings, a coupling member detachably but rigidly secured to said drum and provided with driving projections occupying the openings of the head and also provided with a positioning rim portion which encircles and contacts with the peripheral edge of said head.

[Claims 2 and 6 not printed in the Gazette.]

1,255,935. LOG-SAWING DEVICE. WARREN SABIN, Tavera, Wis. Filed Apr. 14, 1917. Serial No. 162,126. (Cl. 143—54.)

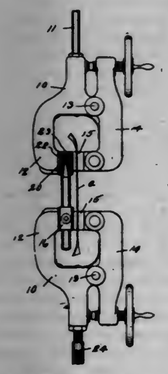
1. In a log sawing machine, a frame, a constantly rotating bar, a truck movably mounted on the frame, gearing operable means on the truck for feeding a log, stationarily mounted gearing on the frame in the path of

movement of the truck gearing, and means for moving the truck in one direction to engage the log against the saw, and for moving the truck in a reverse direction to bring the gearing of the truck into engagement with the frame gearing whereby to operate the log feeding mechanism.



2. In a log sawing machine, a frame, a truck movably mounted thereon, a saw, a carriage movably mounted on the truck, a shaft journaled on the truck, a flexible connection between the shaft and the carriage whereby to move the carriage in opposite directions, and upon a like rotation of the shaft, a gear carried by said shaft, a pair of shiftable gears mounted on the frame for constant rotation, in the path of movement of the truck gear, and means for shifting the truck in one direction to engage the log against the saw and for shifting the truck in an opposite direction to bring the truck gear into engagement with one of the reversing gears whereby to move the carriage of the truck to feed the log, said truck moving means being operable to shift the reversing gears to cause movement of the carriage in either direction.

1,255,936. CLAMP. HENRY L. SCOTT, Providence, R. I., Filed Apr. 9, 1917. Serial No. 160,643. (Cl. 265—12.)



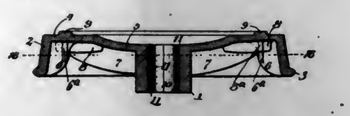
6. In a testing machine, a pair of clamps for engaging the work to be tested, a dowel pin in one clamp, a corresponding socket in the other clamp into which said dowel enters when the clamps are in position to receive the work, and means whereby said pins are automatically released from one clamp by the first tension movement of said clamps.

7. In a testing machine, a pair of clamps for engaging the work to be tested, a tapered dowel pin in one clamp, a tapered socket in the opposite clamp for receiving said dowel pin, and means in said socket for preventing said dowel pin from bottoming therein.

8. In a testing machine, a pair of clamps for engaging the work to be tested, dowel pins in said clamps for engaging and alining one with the other when positioned to receive the work, said pins being automatically released from one clamp by the first tension movement of said clamps, and means whereby said pins may be adjusted endwise to regulate their working length.

[Claims 1 to 5 not printed in the Gazette.]

1,255,937. CAR-WHEEL. CLIFTON W. SHERMAN, Buffalo, N. Y. Filed Nov. 3, 1914. Serial No. 870,057. (Cl. 105—150.)



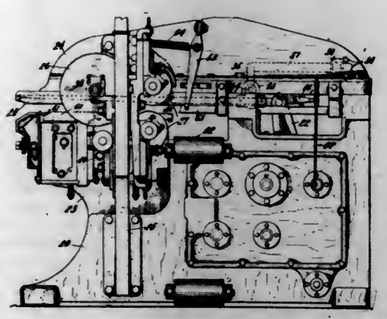
1. A car wheel comprising a metal hub, and a contractible metal lining which is arranged in said hub and on which said hub is cast.

2. A car wheel comprising a hub, and a metal lining on which said hub is cast and which is divided lengthwise into sections and the joint between the longitudinal edges of said sections being bridged.

3. A car wheel comprising a hub, and a metal lining on which said hub is cast and which is divided lengthwise into sections and the joint between the longitudinal edges of said sections being bridged by a flange arranged on one lining section overlapping an adjacent lining section.

[Claims 4 to 11 not printed in the Gazette.]

1,255,938. FEEDER FOR END-MATCHERS. WILLIS S. SHERMAN, Milwaukee, Wis. Filed June 3, 1916. Serial No. 101,508. (Cl. 144—91.)



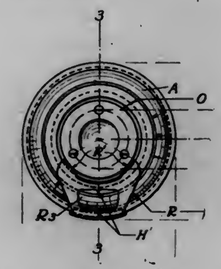
1. A work feeding means for end matchers and the like, comprising a slide, a rocking frame pivotally mounted at one end of the slide, yielding means for resisting the travel of the rocking frame, work engaging hook bars carried by the rocking frame and extending along the slide, and an oscillating lever having a link connection with the rocking frame.

3. A work feeding means for end matchers and the like, comprising a slide, a rocking frame pivotally mounted thereon, work engaging hook rods carried by the rocking frame, reciprocating means having connection with the rocking frame, a friction rod pivotally connected with the rocking frame, and a stationary friction clamp engaging the friction rod.

7. A work feeding means for end matchers and the like, comprising a slide, a rocking frame pivotally mounted thereon, work engaging members carried by the rocking frame, a reciprocating means having connection with the rocking frame, a friction rod pivotally connected with the rocking frame, a stationary clamp member having a groove through which the friction rod passes, a plate held to the clamp member with spring pressure, and friction members forming facings for the clamp member and the plate and bearing on opposite sides of the friction rod.

[Claims 2, 4 to 6, 8, and 9 not printed in the Gazette.]

1,255,939. POCKET-CALCULATOR. GILBERT SMALL, Waltham, Mass. Filed Feb. 17, 1913. Serial No. 748,805. (Cl. 235—84.)



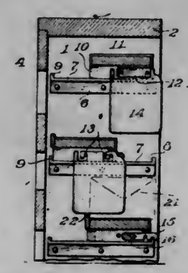
1. A calculator comprising complemental cylindrical members pivoted side by side on the same axis, each having a cylindrically arranged scale on its periphery, and a circularly arranged scale on its face, and an index member connected to said calculator in a manner permitting relative movement about the center of said calculator and having related indices adjacent to the respective scales and relatively arranged to point at the same time to corresponding values on the two scales.

2. A substantially cylindrical calculator having scales on its opposite end faces and on its cylindrical face, and an index member supported upon said calculator to embrace the end and cylindrical faces thereof with capability of traveling concentrically about the axis of the calculator and having correlated indices adjacent to the respective scales.

3. A substantially cylindrical calculator comprising two coaxial members having contiguous scales on their peripheries, and one of said members having a scale on its end, and a rider connected with said calculator and constrained thereby to move in a circular path concentric with the calculator, said rider having openings over the several scales provided with index elements and so related as to permit reading from one scale to another, one of such index elements being a transparent pane extending across one of such openings and provided with a line.

[Claims 4 and 5 not printed in the Gazette.]

1,255,940. SORTING-CASE. HENRY L. SMITH, Philadelphia, Pa. Filed Dec. 20, 1916. Serial No. 137,942. (Cl. 211—36.)



2. A sorting case, comprising a platform provided with a rear stop, a series of partitions adjustable longitudinally of the said platform and separate therefrom, means for removably supporting said partitions, said means being shiftable forwardly and rearwardly of said platform, and latch means to removably secure said first means in forward position.

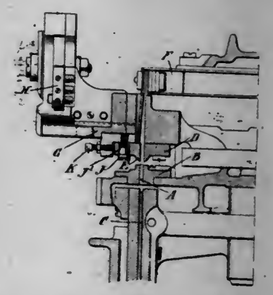
[Claims 1 and 3 not printed in the Gazette.]

1,255,941. BURIAL-COUCH. ISAAC NEWTON SMITH, Greenville, Ohio. Filed Apr. 12, 1917. Serial No. 161,586. (Cl. 27—1.)



In a collapsible burial couch, a pair of rectangular skeleton frames hingedly united at their adjacent edges, whereby the opposite ends of said frame may collapse downwardly and toward each other, a piece of wire fabric stretched over each frame, a canvas covering on the frame over the fabric, a pair of blocks, one secured in each of the outermost corners of each frame, a pair of legs, one pivoted to each of the side rails of each frame adjacent said block, whereby the leg may abut the block to reinforce the leg when in supporting position, and whereby the leg may collapse within the frame when the frame is collapsed, an arched covering for the outer end of one frame, pivoted arched braces therefor, an arched covering for the other frame extending over the first frame and overlapping and being detachably connected to the first arched covering, and pivoted arched braces for the second arched covering.

1,255,942. TYPOGRAPHICAL CASTING-MACHINE. SAMUEL SMITH, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Jan. 30, 1915. Serial No. 5,197. (Cl. 199—59.)



1. In a typographical casting machine, the combination of a slug trimming knife divided into a plurality of complementary sections, and means whereby the said sections may be set in different operative angular positions to bring their cutting edges into proper alinement.

3. In a typographical casting machine, the combination of two slug trimming knives, one normally fixed in position, a supporting slide carrying the other knife and adjustable laterally to vary the distance between it and the fixed knife, the said adjustable knife being divided into complementary sections arranged end to end, and means whereby one of the sections of the adjustable knife may be shifted laterally toward and from the fixed knife to vary the distance therebetween independently of the adjustment of the supporting slide.

4. In a typographical casting machine, the combination of two slug trimming knives, one of which is divided into complementary sections, and means whereby each of said sections may be adjusted angularly independently to different operative positions to bring its cutting edge into parallelism with that of the other knife.

7. In a typographical casting machine, the combination of two slug trimming knives, one normally fixed in position, and a supporting slide carrying the other knife and adjustable laterally to vary the distance between it and the fixed knife, the said adjustable knife being divided into a plurality of complementary sections arranged end to end and each of which is supported on the slide so as to be adjustable laterally toward and from the fixed knife to vary the distance therebetween independently of the adjustment of the supporting slide.

8. In a typographical casting machine, the combination of a slug trimming knife divided into a plurality of complementary sections, an adjustable slide carrying the knife, the said slide being provided with set screws bearing against the rear edges of the knife sections to adjust them to different angular positions, and the said sections being secured to the slide by means of fastening screws passing through enlarged openings in the sections, all for the purpose described.

[Claims 2, 5, and 6 not printed in the Gazette.]

1,255,943. ELECTRICAL CONNECTOR. PARKE T. SNYDER, Chicago, Ill., assignor of one-half to Ross J. Beatty, Chicago, Ill. Filed Aug. 14, 1916. Serial No. 114,880. (Cl. 173—357.)



1. An electrical connector for coöperation with either a single or double contact plug and comprising a metallic shell, an insulating body therein, a pair of resiliently extended contacts carried thereby, one contact over-lying the axis of the shell and projecting to one side thereof, the other contact positioned at one side of the axis, and a conductor carried by one of the contacts for engagement with the shell only when the last mentioned contact is in extended position.

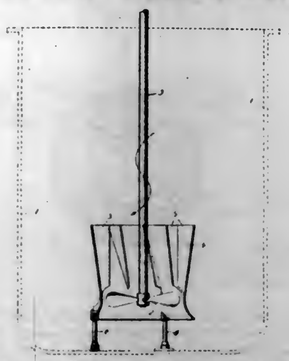
7. A socket for coöperation with either a single or a double contact plug and comprising a peripheral contact, a contact for engagement with either the single contact of a single contact plug or one of the contacts of a double contact plug, a contact for engagement with the other contact of a double contact plug, means for electrically connecting the last mentioned contact with the first mentioned contact when a single contact plug is inserted in the socket, and means for breaking said electrical connection when a double contact plug is inserted in the socket.

12. An electrical connector for coöperation with either a single or double contact plug and comprising a metallic shell, an insulating body therein, and a pair of independently resiliently extended contacts carried thereby, one contact overlying the axis of the shell and projecting to one side thereof, the other contact positioned at one side of the axis.

[Claims 2 to 6, 8 to 11, and 13 not printed in the Gazette.]

1,255,944. MIXING AND STIRRING DEVICE. ALFRED H. STEVENS, Brooklyn, N. Y. Filed Feb. 1, 1917. Serial No. 145,824. (Cl. 259—97.)

1. A mixing and stirring device comprising: a container for a mass of agitable material, a rotatable member of relatively smaller diameter than that of the container and disposed within said container causing by its rotation a stream of the material in one direction longitudinally of the axis of the rotatable member and setting up a complementary counter stream longitudinally in the opposite direction and means for counteracting the swirling effect upon the material of the rotatable member while maintaining the opposed longitudinal streams.

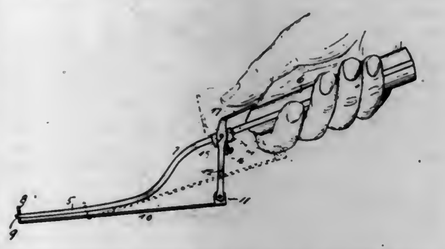


3. A mixing and stirring device comprising: a container for a mass of agitable material, a rotatable member of relatively smaller diameter than that of the container and disposed within said container causing by its rotation a stream of the material in one direction longitudinally of the axis of the rotatable member and setting up a complementary counter stream longitudinally in the opposite direction and a draft tube of substantially Venturi tube formation surrounding said rotatable member in spaced relation from the wall of the container for counteracting the swirling effect of the rotatable member upon the material while maintaining the opposed longitudinal streams.

5. A mixing and stirring device comprising: a container for a mass of agitable material, a screw propeller of relatively smaller diameter than that of the container and disposed within said container causing by its rotation a stream of the material in one direction longitudinally of the axis of the screw propeller and setting up a complementary counter stream longitudinally in the opposite direction and a draft tube surrounding said screw propeller and in spaced relation to the walls of the container and having provisions for counteracting the swirling effect of the screw propeller upon the material while maintaining the opposed longitudinal streams.

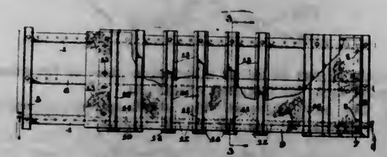
[Claims 2, 4, and 6 not printed in the Gazette.]

1,255,945. STRIPPING ATTACHMENT FOR FORKS. KARL STIMECZ, Hamilton, Ohio. Filed May 29, 1917. Serial No. 171,776. (Cl. 30—5.)



In a stripping attachment for forks, the combination of a coupling consisting of two spaced flanges adapted to receive between them the shank of a fork and integrally combined by an intermediate member, a clamping screw seated in one of these flanges and adapted to hold the coupling to the shank of the fork by clamping said shank against the other flange, a lever mounted on the intermediate member mentioned so as to extend above and below the shank of the fork, a thumb-piece formed on one end of this lever and a push-rod connected to its other end, the forward end of said push-rod being bent up at an angle and shaped to form a stripper plate which extends between the tines of the fork and is notched in its opposite upright edges to receive said tines to be supported and guided by them.

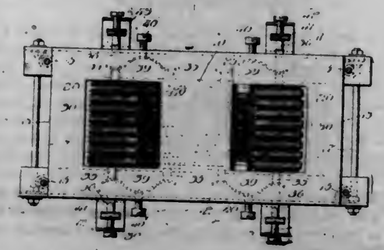
1,255,946. CONVEYER-FORM. CHARLES A. SWANSON, Chicago, Ill. Filed Oct. 13, 1916. Serial No. 125,492. (Cl. 1—15.)



1. A construction of the class described comprising a frame having perforated side members; a holding member at one end of said frame provided with upstanding belt-securing members; a holding member arranged on said frame and adjustably secured thereto by means of bolts passing through the perforations in said side members; hooks on said adjustable holding member; and transverse channel members adjustably secured on said frame intermediate said holding members, substantially as described.

2. A construction of the class described comprising an adjustable rectangular frame arranged to hold a belt in extended form, means at the ends of said frame for holding a belt, and transverse positioning members adjustably mounted on said frame and adapted to position slats with reference to said belt, substantially as described.

1,255,947. TRANSFORMER AND LIKE COILS. CHESTER H. THORDARSON, Chicago, Ill. Filed Dec. 8, 1913, Serial No. 805,252. Renewed July 23, 1917. Serial No. 182,358. (Cl. 175—356.)



1. In a transformer, a core member, a frame associated therewith, the primary and secondary winding sections arranged in inductive relation to each other and to the core member, the secondary winding being composed of a plurality of disk-like sections each made of a spirally wound flat wire with the turns insulated from each other, spacing members between said sections and yielding means interposed between the frame and the group of secondary winding sections constructed to exert a constant yielding pressure against said sections in edgewise relation to said turns and in a plane transverse to the planes of the sections.

2. In a transformer, a core member, a frame associated therewith, the primary and secondary winding sections arranged in inductive relation to each other and to the core member, the secondary winding being composed of a plurality of disk-like sections each made of a spirally wound flat wire with the turns insulated from each other, relatively narrow spacing members extending across the flat faces of the disk-like winding sections and transversely of the edges of the turns, said spacing members being arranged in groups with the members of each group in line with each other, and yielding pressure means interposed between the frame and the outermost spacing members of each group.

3. In a transformer, a core member, a frame associated therewith, the primary and secondary winding sections arranged in inductive relation to each other and to the core member, the secondary winding being composed of a plurality of disk-like sections each made of a spirally wound flat wire with the turns insulated from each other, relatively narrow spacing members extending across the flat faces of the disk-like winding sections and transversely of the edges of the turns, said spacing members being arranged in groups with the members of each group in line with each other and yielding pressure means interposed between the frame and the outermost spacing members of each group, and acting against the edges of said turns and transversely to the plane of the sections, said spacing members being spaced from each other to afford ventilating passages radially through the secondary winding.

5. In an electro-magnetic device, a winding composed of a plurality of connected disk-like or slab units, each consisting of a spirally wound flat wire, insulated between the turns thereof, yielding resetting means acting edgewise against said turns and other resetting means acting flatwise against said flat wire turns.

7. In an electro-magnetic device, a winding composed of a plurality of connected disk-like or slab units, each consisting of a spirally wound flat wire, the turns of which are disposed parallel to the axes of the units, insulated between the turns thereof, and yielding resetting means acting flatwise against said flat wire turns.

[Claims 4 and 6 not printed in the Gazette.]

1,255,948. COIL STRUCTURE FOR TRANSFORMERS AND THE LIKE. CHESTER H. THORDARSON, Chicago, Ill. Original application filed July 10, 1915, Serial No. 39,044. Divided and this application filed Apr. 23, 1917. Serial No. 163,866. (Cl. 175—362.)



1. A winding unit composed of a spirally wound, flat wire with an insulating medium between the turns thereof, the inner and outer turns of the unit being of large cross section to mechanically stiffen the unit.

2. A winding unit composed of a spirally wound, flat wire with an insulating medium between the turns thereof, the inner turn of the unit comprising a stiff wire to brace the winding and means for electrically connecting the inner turn of thin wire of the unit to the bracing turn comprising a few turns of flat wire of intermediate thickness, with the turns insulated from each other laid at one end against the stiffening turn in metal-to-metal contact and laid at the other end thereof in metal-to-metal contact against the inner end of the thinner wire of the winding.

3. A winding unit composed of a spirally wound flat wire with an insulating medium between the turns thereof, the inner turn of the unit being of large cross section to mechanically stiffen the unit, and electrically connected

to the thin wire, and an insulating and connecting device between the ends of the said inner turn.

4. A winding unit composed of a spirally wound flat wire with an insulating medium between the turns thereof, the inner turn of the unit being of large cross section to mechanically stiffen the unit, and electrically connected to the thin wire, the ends of said inner turn being provided with openings and a dowel seated in said openings to mechanically connect the said ends and provided with an insulating barrier to electrically insulate said ends from each other.

5. A winding unit composed of a spirally wound flat wire with an insulating medium between the turns thereof, the inner turn of the unit being of large cross section to mechanically stiffen the unit.

[Claim 6 not printed in the Gazette.]

1,255,949. PNEUMATIC CONVEYER. THEODORE G. THORMODSON, Hanska, Minn. Filed July 2, 1914. Serial No. 848,641. (Cl. 137—75.)



In a portable conveyer tube, the combination of a section having an elongated opening formed therein, longitudinally extending angle irons fixedly mounted upon said section upon opposite sides of said opening, the outwardly extending walls of the angle irons extending in planes substantially at right-angles to each other, brackets fixedly mounted upon the inner surfaces of one wall of one angle iron, a door of substantially the same size as the opening in said section, angle bars fixedly mounted upon the outer surface of said door, one end of each angle bar being pivotally secured to said brackets, one edge of said door being bent outwardly at substantially right angles to form a longitudinally extending flange, the remaining ends of said angle bars abutting against the flange of said door for reinforcing the same, said flange of said door binding upon one of said angle irons when the door is swung forcibly to a closed position, by being reinforced by said angle bars, the angle bars also bearing directly upon said bracket and thus imparting a bearing strain directly to the remaining angle iron for relieving the securing elements of the bracket from direct strain, securing means passing through said flange and one of said angle irons for holding the door against accidentally opening, the remaining edge of the door fitting under said brackets for resisting upward movement, whereby said angle bars will reinforce the door for holding the same against inward or outward urging action, thus forming a tight closure for the opening of said section.

1,255,950. PROCESS OF FORMING METHYL ESTER OF ACETYL SALICYLIC ACID. LAMBERT THORP, Detroit, Mich. Filed Aug. 21, 1916. Serial No. 116,180. (Cl. 23—24.)

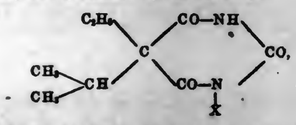
1. The process of forming the methyl ester of acetyl salicylic acid, comprising the mixing of methyl salicylate and acetic anhydrid in the presence of an alkali metal acetate as a catalyzing agent.

2. The process of forming the methyl ester of acetyl salicylic acid, comprising the mixing of methyl salicylate and acetic anhydrid in the presence of an alkali metal acetate catalyzing agent, heating the materials and precipitating the product with dilute alcohol.

3. The process of forming the methyl ester of acetyl salicylic acid, comprising the mixing of methyl salicylate and acute anhydrid in the general ratio of one equivalent of methyl salicylate to slightly more than one equivalent of acetic anhydrid, adding an alkali metal acetate as catalyzing agent, heating the materials to a temperature between 90° and 100° C. for from ten to twenty hours, adding alcohol and subsequently adding hot water until a slight permanent turbidity is attained, cooling the solution and separating the product by filtration.

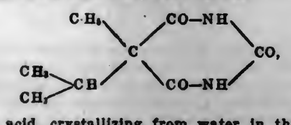
1,255,951. ETHYL-ISOPROPYL-BARBITURIC ACID. LAMBERT THORP, Detroit, Mich. Filed Jan. 20, 1917. Serial No. 148,503. (Cl. 23—24.)

1. The new hypnotic body, ethylisopropylmalonylurea, which may be represented by the formula:



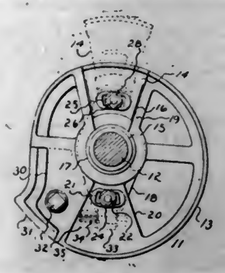
wherein X may be either a hydrogen atom or the atom of a metal such, for instance, as sodium.

2. The new hypnotic body, ethylisopropylmalonylurea, which may be represented by the formula:



being an acid, crystallizing from water in the form of snow-white needles, melting at 197–198° C., being only slightly soluble in cold water, more readily soluble in hot water, easily soluble in alcohol or ether; forming salts with the alkali metals which are readily soluble in water; being possessed of a mildly bitter taste, and displaying a hypnotic and sedative action, substantially as described.

1,255,952. CAM. GEORGE M. THORPE, Millville, N. J. Filed July 19, 1917. Serial No. 181,625. (Cl. 74—1.)



1. A picker-stick-operating cam comprising a main section, and an auxiliary section, and a sleeve on which the cam is mounted and to which the respective sections are detachably connected.

4. A picker stick operating cam and a sleeve therefor, the cam having a removable segment and the segment and the main portion of the cam being removably connected with the sleeve, the sleeve having arms, and fastenings removably connecting said arms with the segment and the main portion of the cam.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

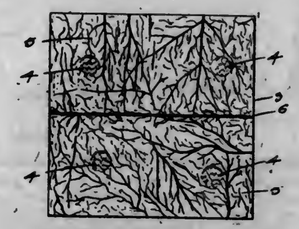
1,255,953. WINDOW-SHADE-SUPPORTING MEANS. RUDOLPH L. TUBK, Memphis, Tenn. Filed Oct. 26, 1917. Serial No. 198,665. (Cl. 156—24.)

In window shade supporting means, an approximately L-shaped bracket having its outer arm provided with spaced rectangular openings and inclined slots communicating therewith and extending to the outer edge of said outer arm, the upper and lower edge portions of said outer arm being turned outward at right angles to provide spacing flanges, and a closure clip slidably mounted on the outer arm of said bracket and provided at its upper and



lower edges with channel guide members adapted to fit snugly about the upper and lower edge portions of said arm, said clip being further provided at its outer end with an inwardly directed arm adapted to extend in front of and close the slots in the outer arm of said bracket when the clip is in operative position.

1,255,954. CADDY FOR PACKING TOBACCO. HENRY TURNER, Richmond, Va. Filed Oct. 31, 1914. Serial No. 869,686. (Cl. 131—11.)

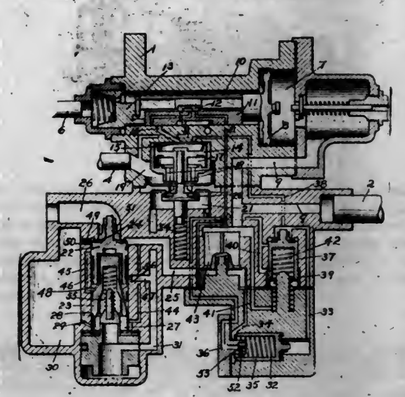


A cover or head for tobacco caddies, said cover or head consisting of a piece of hard wood having a smooth outer face and a roughened inner face formed directly in the hard wood to simulate the appearance of a plurality of plugs of tobacco, said roughened inner face forming a bearing surface for the end plugs, and tobacco leaves secured by adhesive material to the roughened face of the said cover or head for directly engaging the end plugs of tobacco whereby the outer face of the end layer will be caused to present the same appearance as the intermediate layers without being affected by contact with the wood.

1,225,955. FLUID-PRESSURE BRAKE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Mar. 8, 1915. Serial No. 12,778. (Cl. 188—15.)

1. In a fluid pressure brake, the combination with a brake pipe and brake cylinder, of a valve device, means operated upon a sudden reduction in brake pipe pressure for venting fluid from one side of said valve device to operate same and open a restricted port for venting fluid from the brake pipe to the brake cylinder, and means operated upon a sudden reduction in brake pipe pressure for connecting the vented side of said valve device to a chamber having a restricted port communicating with the brake pipe.

2. In a fluid pressure brake, the combination with a brake pipe and brake cylinder, of a valve device normally subject on one side to fluid pressure and the pressure of a spring and operated by reducing the fluid pressure on the spring side of said device upon a sudden reduction in brake pipe pressure for supplying fluid to the brake cylinder and means adapted upon a predetermined reduction in brake pipe pressure to a degree substantially higher than the equalizing pressure for closing a communication through which fluid is supplied to the brake cylinder.



3. In a fluid pressure brake, the combination with a brake pipe and brake cylinder, of a valve device operated upon a reduction in brake pipe pressure for supplying fluid to the brake cylinder and a vent valve mechanism operated upon a sudden reduction in brake pipe pressure for venting fluid from the brake pipe simultaneously to the brake cylinder and to the atmosphere and means for closing said valve mechanism at a predetermined reduction in brake pipe pressure to a degree substantially higher than the brake cylinder pressure.

4. In a fluid pressure brake, the combination with a brake pipe and brake cylinder, of a valve device operated upon a reduction in brake pipe pressure for supplying fluid to the brake cylinder and a vent valve mechanism adapted upon a sudden reduction in brake pipe pressure to first supply fluid from the brake pipe to the brake cylinder then operating to open communication for venting fluid from the brake pipe to the atmosphere and to the brake cylinder and adapted to close at a predetermined reduction in brake pipe-pressure.

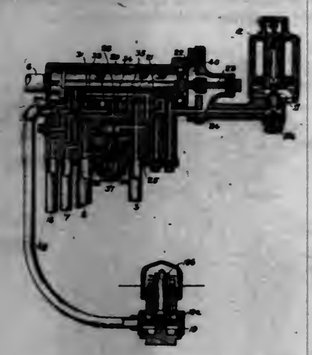
5. In a fluid pressure brake, the combination with a brake pipe and brake cylinder, of a vent valve mechanism operating upon a sudden reduction in brake pipe pressure for venting fluid from the brake pipe to the brake cylinder through large ports and adapted to close at a predetermined reduction in brake pipe pressure, and a valve device for supplying fluid from the brake pipe to the brake cylinder through a restricted port and adapted to close up on a further reduction in brake pipe pressure.

[Claims 6 to 20 not printed in the Gazette.]

1,255,956. SPEED-CONTROLLED BRAKE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Mar. 30, 1915. Serial No. 18,028. (Cl. 188—72.)

1. In a fluid pressure brake apparatus, the combination with a train pipe and an equalizing reservoir, of a train pipe discharge valve, a piston for operating said discharge valve and subject to the opposing pressures of the train pipe and said equalizing reservoir, an automatic valve device for venting air from said equalizing reservoir, and a speed controlled mechanism for governing the operation of said valve device.

2. In a fluid pressure brake apparatus, the combination of a train pipe, an equalizing reservoir, a train pipe discharge valve operated by the opposing pressures of the train pipe and said reservoir, an automatic valve device for controlling communication from the train pipe to said reservoir and the venting of said reservoir, and a speed controlled mechanism for governing the operation of said valve device.



3. In a fluid pressure brake apparatus, the combination of a main reservoir, a train pipe, an equalizing reservoir, a piston subject to the pressures of the equalizing reservoir and the train pipe, a train pipe discharge valve actuated by said piston, an automatic valve device controlling the supply from the main reservoir to the train pipe, from the train pipe to the equalizing reservoir, and a vent from the equalizing reservoir, and a speed controlled mechanism for governing the operation of said valve device.

4. In a fluid pressure brake apparatus, the combination of a train pipe, an equalizing reservoir, a train pipe discharge valve operated by the pressures of said reservoir and the train pipe, a reduction reservoir, an automatic valve device controlling communication from the train pipe to the equalizing reservoir and from the equalizing reservoir to said reduction reservoir, and a speed controlled mechanism for governing the operation of said valve device.

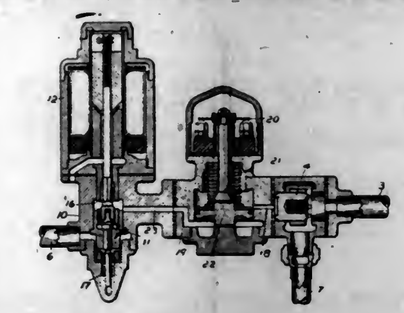
5. In a fluid pressure brake apparatus, the combination of a train pipe, an equalizing reservoir, a piston subject to the pressures of the train pipe and equalizing reservoir, a train pipe discharge valve actuated by said piston, a fluid pressure operated valve device controlling a vent from said equalizing reservoir and communication from the train pipe to said reservoir, a magnet valve for varying the pressure acting on said valve device, and a speed controlled mechanism for opening and closing the circuit to said magnet.

[Claim 6 not printed in the Gazette.]

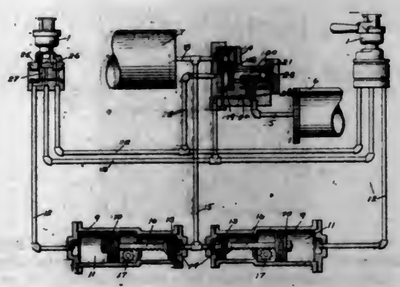
1,255,957. SPEED-CONTROLLED BRAKE DEVICE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Mar. 30, 1915. Serial No. 18,029. (Cl. 188—72.)

1. In a fluid pressure brake apparatus, the combination with an automatic train pipe and valve device operated by variations in train pipe pressure for controlling a supply of fluid to and its release from the brake cylinder, of a reservoir, a valve also controlling a supply of fluid from said reservoir to the brake cylinder, and its release from the brake cylinder, an electro-magnet for operating said valve, a speed controlled mechanism for governing the current to said magnet, and a double check valve for closing communication from one source when fluid is being supplied from the other.

2. In a fluid pressure brake apparatus, the combination with an automatic train pipe and valve device operated by variations in train pipe pressure for controlling a supply of fluid to and its release from the brake cylinder, of a reservoir, a valve also controlling a supply of fluid from said reservoir to the brake cylinder, a valve means also controlling a supply of fluid from said reservoir to the brake cylinder, a device operated by the fluid from said valve means for cutting off the supply of current to the motors, and a speed controlled mechanism for governing the operation of said valve means.



1,255,958. CAR-DOOR-OPERATING DEVICE. WALTER V. TURNER, Wilkinsburg, and WILLIAM M. CADY, Edgewood, Pa., assignors to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Apr. 15, 1916. Serial No. 91,282. (Cl. 188—1.)



1. In a car door and step controlling device, the combination with a piston device constantly subject on one side to fluid under pressure for operating the car doors and steps, a brake pipe, a reduction in pressure in which is adapted to effect an application of the brakes, and means for connecting the brake pipe to the opposite side of said piston device.

2. In a car door and step controlling device, the combination with a piston device for operating the car doors and steps and having differential piston heads, the smaller piston head being constantly subject to fluid under pressure, of an emergency brake pipe, a reduction in pressure in which is adapted to effect an application of the brakes and a brake valve device for normally supplying fluid from the emergency brake pipe to the larger piston head of said piston device.

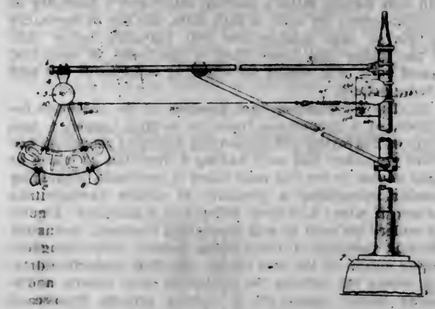
3. In a car door and step controlling device, the combination with a piston device for operating the car doors and steps and having differential piston heads, the smaller piston head being constantly subject to fluid under pressure, of an emergency brake pipe normally charged with fluid under pressure, a valve device for effecting an application of the brakes upon a reduction in brake pipe pressure, and a brake valve device normally supplying fluid from the emergency brake pipe to the larger piston head of said piston device.

4. In a car door and step controlling device, the combination with a piston device for operating the car doors and steps and having differential piston heads, the smaller piston head being constantly subject to fluid under pressure, of an emergency brake pipe normally charged with fluid under pressure, a valve device for effecting an application of the brakes upon a reduction in brake pipe pressure, and a brake valve device normally supplying fluid from the emergency brake pipe through a restricted port to the larger piston head of said piston device.

5. In a car door and step controlling device, the combination with a piston device for operating the car doors and steps and having differential piston heads, the smaller head being constantly subject to fluid under pressure, of a brake valve device for supplying fluid to the larger piston head in the handle off position.

[Claims 6 to 10 not printed in the Gazette.]

1,255,959. SIGNAL. FRANK T. VANATTA, Mill Valley, Cal., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed Mar. 15, 1916. Serial No. 84,382. (Cl. 177—339.)



1. A railway crossing signal comprising a pendulum-like warning member mounted to oscillate, electromagnetic means for causing said member to swing to and fro continuously, and electromagnetic means for holding said member in an inclined position.

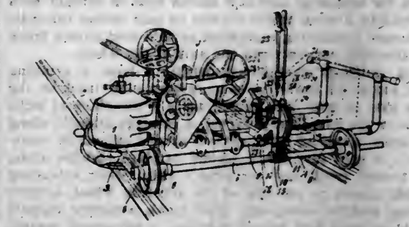
6. A railway crossing signal comprising a pendulum-like warning member mounted to oscillate, an electric motor having a member which rotates when the motor is energized, means operated by said motor member for causing said warning member to swing to and fro continuously, and electromagnetic means for holding said warning member in an inclined position.

[Claims 2 to 5, 7, and 8 not printed in the Gazette.]

1,255,960. FEEDING DEVICE. FRANK J. VENNING, Cincinnati, Ohio. Continuation of application Serial No. 770,627, filed May 29, 1913. This application filed June 22, 1917. Serial No. 176,398. (Cl. 105—196.)

1. In a feeding device, in combination with a machine to be fed along a track, and a track wheel on said machine to bear on the track and support the machine, a spur gear with which said track wheel rotates coaxially, an idler spur gear meshing with the aforementioned gear, a third spur gear meshing with the idler gear, supporting means for said gears, a lever fulcrumed concentric with said third spur gear, and a detent carried with the lever to swing with it around over the teeth of said third spur gear or to engage between said teeth of said third spur gear to intermittently rotate said gears and the track wheel in either direction.

2. In a feeding device, in combination with a machine to be fed along a track, and track wheels bearing on the respective rails of the track and supporting the machine, an axle extending across the track on which axle said track wheels are fixed, a frame bar extending across the track substantially parallel with said axle, projections on the frame bars in which projections said axle is journaled, supporting means comprising bifurcated yoke pieces each having a member inclined up from the frame



bar and over the axle, and its other member extending down to the axle, in which members of said yokes said axle is also journaled, a train of gears journaled between these other members, one of which is fixed to said axle, a lever fulcrumed on said yoke near the junction of its members, and means on said lever engaging one of said gears for intermittently rotating said axle.

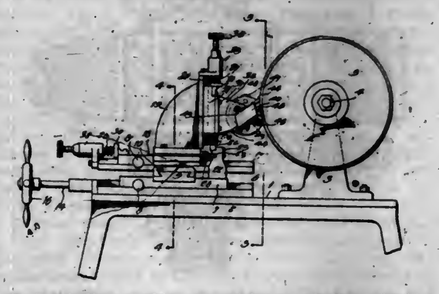
1,255,961. KEY-CARRIER. HARRISON M. VON DUYKE, East Cleveland, Ohio. Filed May 18, 1917. Serial No. 169,393. (Cl. 150—40.)



4. As a new article of manufacture, a key carrier comprising the combination of a flexible foldable member; a pocket attached to the foldable member so as to be exterior of said member when folded; receptacles attached to the foldable member so as to be interior when said member is folded over and onto itself; a binder member connected with said foldable member at the bottom of the exterior pocket and adapted to pass around the several folds and enter the exterior pocket; a key retainer attached to the end of said binder; and means for retaining said binder in said pocket.

[Claims 1 to 3 not printed in the Gazette.]

1,255,962. GRINDING-MACHINE. CARL C. WARNER and ELMER D. PAUL, Haverhill, Mass. Filed Jan. 22, 1917. Serial No. 143,736. (Cl. 51—7.)



1. A grinding machine comprising a grinding wheel, a horizontal track extending in a direction transverse of the axis of the wheel, a carriage movable along said track, a fixed matrix adjacent one end of said carriage and having

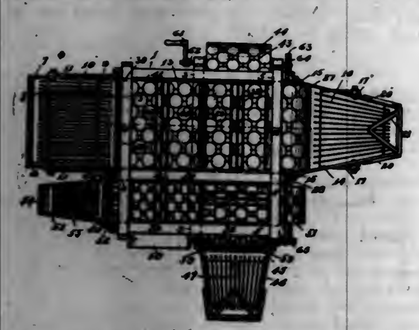
an irregularly shaped face, said carriage having a shoe engaging said face, means for forcing said carriage along the track to retain the shoe and matrix in engagement, a vertical track carried by said carriage, a second carriage slidable along said vertical track and having at one end a shoe, a second matrix engaged by said last named shoe, means for retaining said last named shoe in contact with said matrix, a work holder carried by said second carriage, and means permitting movement of said first named track in a direction parallel with the axis of the wheel.

2. A grinding machine comprising a base, a grinding wheel supported above the same, a horizontal track on the upper side of said base extending in a direction at right angles to the axis of said wheel, a carriage slidable along said track, a second track carried by and extending transversely of said carriage, a second carriage slidable along said second track and carrying a third track extending at right angles to the axis of the grinding wheel, a third carriage slidable along said third track, a matrix support carried by said first named carriage, a horizontal matrix carried by said matrix support and extending transversely of said third track, said third carriage having a shoe engaging said matrix, yielding means for normally moving said third carriage to position its shoe in contact with said matrix, a fourth and vertical track carried by said third carriage, a fourth and vertical carriage slidable along said fourth track and having at its lower end a shoe, a second matrix carried by said matrix support and receiving said second shoe thereon, yielding means for so moving said fourth carriage as to retain its shoe in engagement with said second matrix, and a work holder carried by said fourth carriage for holding the work in proper relation to the grinding wheel.

3. A grinding machine comprising a grinding wheel, a work holder support including a horizontal bearing, said support being movable across said wheel, means for automatically moving said support in respect to the wheel for grinding irregular surfaces as it is moved in the first named manner, an arbor rotatably mounted in said bearing and having a head, means for locking said arbor against rotation, and means for clamping a pair of blades to the opposite sides of said head.

4. A grinding machine for irregular surfaces comprising a grinding wheel, a carriage movable in a direction parallel with the axis of said wheel and slidable toward and away from the latter, a matrix for automatically controlling the sliding movement of said carriage, an additional carriage carried by the other and slidable vertically, an additional matrix for controlling the sliding of said additional carriage, and a work-holder carried by said additional carriage.

1,255,963. SEPARATING-MACHINE. M. ADELBERT WASHBURN, Fairport, N. Y. Filed Aug. 14, 1917. Serial No. 186,119. (Cl. 130—32.)



1. In a machine of the character described, the combination with a supporting frame of a perforated conveying and separating member, means for displacing articles protruding through the said perforations comprising an angular roller, a support for the roller, and projections on the said conveying member adapted to engage the said roller and cause the same to revolve.

4. In a machine of the character described, the combination with a frame of rollers revolubly supported on said frame, a conveying and separating member comprising a plurality of independent endless chains with links formed of wire, the links of adjacent chains being arranged in staggered relation, and means for driving the chains.

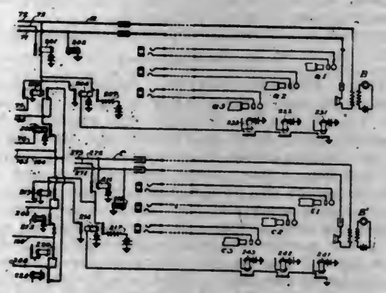
7. In a machine of the character described, the combination with a supporting frame of a driving roller having recesses in its periphery, a plurality of guiding rollers, a conveying and separating member comprising a plurality of endless chains with links formed of wire and with the links of adjacent chains arranged in staggered relation, and projections formed on said links adapted to engage in the said recesses of the driving roller for the purpose specified.

10. The combination, in a machine of the character described, of a supporting frame, two endless belts comprising conveying and separating members adapted to travel in opposite directions and supported one higher than the other on opposite sides of the machine, an endless belt comprising an intermediate conveying and separating member adapted to travel in a direction transversely of said first named belts, a driving roller and a plurality of guiding rollers for each of said belts, the top or operating portion of said intermediate belt traveling below that of the higher and above that of the lower of said first named belts, and means for effecting rotation of the said driving rollers.

13. The combination, in a machine of the character described, of a supporting frame, a feeding hopper, a plurality of conveying and separating members supported one above the other and each having a direction of travel at right angles to the one next below it, each such separating member comprising a plurality of chains having links formed of wire; a driving roller and a plurality of guiding rollers for each of said separating members, means for effecting rotation of the driving rollers, coöperating engaging means on the said chains and their respective driving rollers for driving the chains by said rollers, a discharge hopper supported to receive articles from each separating member, and a chute under each such member adapted to deliver articles falling thereon to the next lower separating member.

[Claims 2, 3, 5, 6, 8, 9, 11, and 12 not printed in the Gazette.]

1,255,964. TELEPHONE-EXCHANGE SYSTEM. HARRY G. WEBSTER, Chicago, Ill., assignor, by mesne assignments, to James R. Garfield, trustee, Cleveland, Ohio. Filed May 20, 1914. Serial No. 839,743. (Cl. 179—27.)



1. In a telephone exchange system, a plurality of instruction circuits, switching operators' telephones associated therewith, automatic means for associating said instruction circuits with any one of a plurality of answering operators' telephones, means for placing such instruction circuits in service in regular sequence, and means responsive to an abnormal delay in the operation of such connecting means for changing such sequence.

2. In a telephone exchange system, a plurality of instruction circuits leading to switching operators' telephones, a plurality of answering operators' telephones, automatic means comprising quick-acting relays associated with each of such instruction circuits for connecting such instruction circuit with any one of such answering operators' telephones, means for preselecting an idle instruction circuit, manually operable means at such answering operators' positions adapted to actuate certain of such relays individual to the preselected instruction circuit to immediately connect the corresponding answering operator's telephone with the instruction circuit.

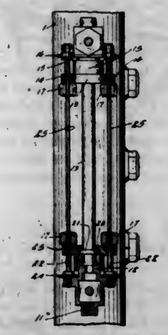
3. A telephone exchange system comprising a plurality of trunk lines, an instruction circuit associated therewith, and means responsive to the engaged condition of all of said trunk lines to exclude said instruction circuit from service.

4. A telephone exchange system comprising a plurality of operators' positions, a group of trunk lines extending therefrom, an instruction circuit for said group associated with said positions, and means effective responsive to the busy condition of all of said trunk lines to disassociate said instruction circuit from said positions.

5. A telephone exchange system comprising plural groups of trunk lines, associated instruction circuits for each of said groups, and means automatically effective responsive to the busy condition of all trunks of a group for excluding the instruction circuit of said group from association with the other of said instruction circuits.

[Claims 6 to 8 not printed in the Gazette.]

1,255,965. WATER-GAGE. WALTER G. WERBECK, Chicago, Ill. Filed Mar. 28, 1917. Serial No. 157,935. (Cl. 73—54.)

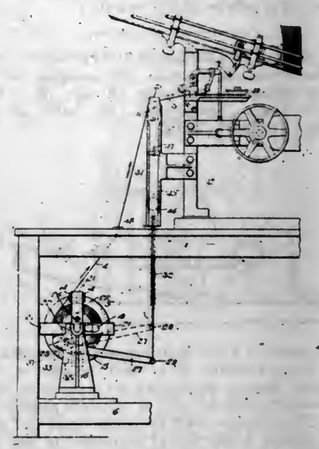


1. In a water gage comprising oppositely disposed valve casings, said valve casings being formed with inner annular shoulders; packing boxes adapted for removable close fitting engagement with said valve casings, a gage tube adapted for removable insertion in said valve casings and packing boxes, one end of said gage tube being adapted to rest upon the said annular shoulder of one valve casing, packing rings arranged in said packing boxes for engagement with the ends of said valve casings and encircling said gage tube, adjusting screws connecting said packing boxes and valve casings, and thumb nuts arranged upon said adjusting screws.

[Claim 2 not printed in the Gazette.]

1,255,966. UNREELING DEVICE. ALFRED H. WHATLEY, Providence, R. I. Filed Apr. 2, 1917. Serial No. 159,097. (Cl. 242—36.)

1. In an unreeling device, a source of power; a reel with strands of material wound thereon; a friction clutch to connect and disconnect said reel and said source of power, intermittently to positively drive the reel to unwind the strand; a lever operatively connected to said strand; a second lever one arm of which is connected to the movable member of the clutch; and a yielding bearing surface in said first lever, to be engaged by the second arm of the second lever, to prevent the vibratory movements of the first lever from breaking the strand.



2. An unreeling device comprising a reel with strands of material wound thereon; a source of power; clutch mechanism to connect and disconnect said reel and said source of power intermittently, to positively drive the reel to unwind the strand; braking means to control said reel while disconnected from said source of power; and apparatus to operate said clutch mechanism and said braking means; that portion of the strand freed from the reel being operatively connected with said apparatus to automatically operate said clutch mechanism and said braking means, when the pull is exerted on the free portion of the strand.

3. An unreeling device comprising a reel with strands of material wound thereon; a source of power; clutch mechanism to connect and disconnect said reel and said source of power intermittently, to positively drive the reel to unwind the strand; braking means to control said reel while disconnected from said source of power; a take-up device; apparatus to seasonably operate said clutch mechanism and said braking means; a connection between said apparatus and said take-up device; the portion of the strand unwound from the reel being arranged to operate said take-up device; and means whereby a pull may be imparted to the free end portion of the strand leaving the take-up device.

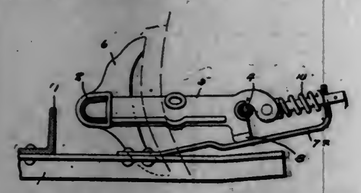
4. An unreeling device comprising a reel with strands of material wound thereon; a source of power; a clutch mechanism to connect and disconnect said reel and said source of power; braking means to control said reel while disconnected from said source of power; a take-up device having a stationary and a movable block, each containing one or more sheaves; apparatus to seasonably operate said clutch mechanism and said braking means; a connection between said apparatus and the movable block of said take-up device; the portion of the strand freed from the reel, being passed successively over the sheaves in said blocks; and gripping means whereby a pull may be imparted to the free end portion of the strand.

6. In an unreeling device, a source of power; a clutch; a shaft operatively connected to the movable member of the clutch; a reel spindle; a reel movably secured thereon; means whereby said spindle may be removably mounted in the longitudinal axis of the shaft; means whereby said reel may become removably fixed to said shaft to be turned by said shaft; means to operate said clutch and to brake the movement of the shaft and reel, upon the dis-

connection of the shaft from the source of power, a take-up device having a stationary and a movable block, each having one or more sheaves; a yielding connection between said movable block and said means operating said clutch and said brake means; the freed portion of the strand on said reel, passing successively over the sheaves in said blocks; and gripping means whereby a pull may be imparted to the free end portion of the strand.

[Claim 5 not printed in the Gazette.]

1,255,967. BRAKE-BEAM SUSPENSION. CHARLES HAINES WILLIAMS, Chicago, Ill., assignor to Chicago Railway Equipment Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 14, 1917. Serial No. 148,552. (Cl. 188—70.)



1. In a truck, a brake beam suspension including a supporting member affixed to a truck portion, a third or fourth point support for guiding the brake beam in operative movements thereof, and a yielding pressure means disposed in association with the brake beam and said supporting member in the line of movement of the third or fourth point support to derive energy from the movement of the brake beam in the application of the brakes and to react upon the brake beam to effect the release of the brakes when the operating pressure is removed.

2. In a brake beam suspension, the combination of a supporting member carried by a portion of the truck in association with the brake beam, a third or fourth point supporting arrangement for guiding the brake beam in braking movements, and a yielding pressure means carried on the supporting member and arranged for coöperation with the brake beam substantially in the line of operative movement thereof.

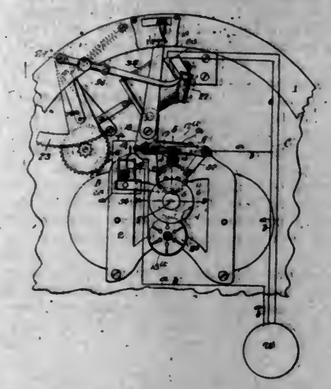
5. In a truck, the combination of a brake beam, a supporting member carried by a truck portion in association with the beam, a portion carried by said supporting member for coöperation with the beam to guide the same for tilting movement in braking operations, and yielding pressure means carried by the supporting member and associated with the beam to maintain the same in coöperation with said guiding portion and to urge the beam to release the brakes.

[Claims 3, 4, and 6 not printed in the Gazette.]

1,255,968. TIME CONTROLLING AND RECORDING MECHANISM. WALTER WILLIAMSON, Everett, Mass., assignor to Crosby Steam Gage & Valve Company, Boston, Mass., a Corporation. Filed Apr. 2, 1915. Serial No. 18,650. (Cl. 234—27.5.)

2. Time controlling and recording mechanism comprising, in combination, clock mechanism; a chart support actuated thereby; an electric circuit normally open; cams actuated by the clock mechanism for closing said circuit at predetermined times and for predetermined periods; means under the control of the operator for varying such times and periods at will; a second electric circuit normally open; a perforated disk actuated by the clock mechanism for closing said second circuit at predetermined times and for predetermined periods; means under the control of the operator for opening both circuits or for opening one circuit and closing the other as desired; and recording means.

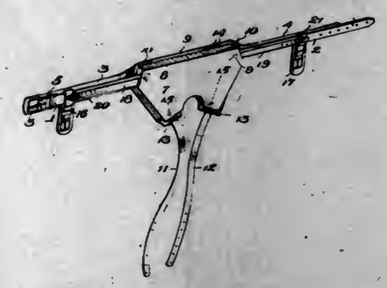
3. Time controlling and recording mechanism, comprising, in combination, clock mechanism; a chart support actuated thereby; a cam actuated by said clock mechanism; an electric circuit normally open; co-acting spring pawls controlled by said cam and adapted to close said circuit at predetermined times and for predetermined periods; means



under the control of the operator for regulating the contact of said pawls and thereby varying such times and periods; and recording means.

[Claims 1 and 4 to 8 not printed in the Gazette.]

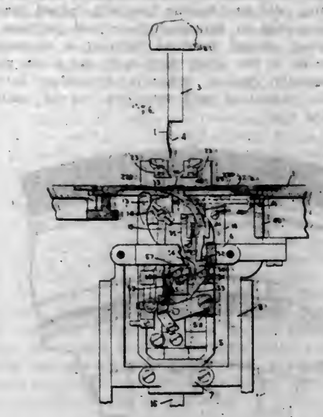
1,255,969. TRUSS. HENRY N. WITT, Morristown, Tenn. Filed Sept. 27, 1917. Serial No. 193,430. (Cl. 128—26.)



In a truss, the combination of outer strap members, an outer sheath member to which they are secured, anchoring straps, secured to the bottom portion of the outer sheath member, inner soft and flexible straps of greater width than the outer strap members to which the outer strap members are attached near their ends, a soft and flexible inner sheath member having slotted portions through which the straps are adjusted, a removable relatively large soft pad mounted between the sheath members, and adjustable buckled straps slidably mounted on the outer strap members for adjustably engaging the anchoring straps, whereby to provide a truss which can be worn with entire comfort and which will not slip out of place.

1,255,970. SEWING-MACHINE. FRANK ZALESKI, Somerville, Mass., assignor to The Reece Button Hole Machine Company, Boston, Mass., a Corporation of Maine. Filed Nov. 2, 1915. Serial No. 59,312. (Cl. 112—29.)

1. In a buttonhole sewing machine, the combination with work-holding means, of buttonhole-cutting mechanism, stitch-forming mechanism including a needle operating from above the work-holding means, and means rendered operative by the buttonhole-cutting mechanism to seize and hold the end of the needle thread which is inserted through the work at the first penetrating thrust of the needle.

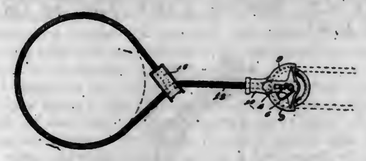


2. In a sewing machine, the combination with work-holding means, of upper thread-handling mechanism, a turret situated below said work-holding means, under thread-handling mechanism carried by said turret, a thread-clamping element movably carried by said turret, and means to actuate said element upon the commencement of the stitching operation to cause it to clamp against a fixed part of the turret the end of the needle thread which is inserted through the work by the first penetrating thrust of the needle.

3. In a sewing machine, the combination with work-holding means, of stitch-forming mechanism including a needle above the work-holding means, an under-thread-handling mechanism beneath said work-holding means, a thread-clamping device beneath the work-holding means and comprising two clamping members which are held separated as the needle makes its first penetrating thrust, and means controlled by the under-thread-handling mechanism to close said clamping members onto the end of the upper thread which is inserted through the work by said first penetrating thrust of the needle.

[Claims 4 to 12 not printed in the Gazette.]

1,255,971. FASTENING MEANS. WILLIAM C. F. ZIMMERMAN, Lone Tree, Iowa, assignor to Zimmerman Steel Co., Lone Tree, Iowa. Filed Oct. 17, 1913. Serial No. 795,713. (Cl. 85—5.)

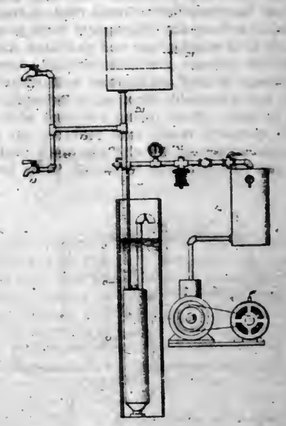


1. In a device of the class described, the combination of a plate having spaced arms, a bracket outstanding from each of the arms, each bracket having an overhanging portion, and a pin for retaining a pulley or the like having a handle portion adjacent one of its ends adapted to extend beneath the overhanging portion of either of said brackets according to the disposition of the pin.

2. In a device of the class described, the combination of a plate, a pin therefor for retaining a pulley or the like, a link pivotally engaging one end portion of the pin, and locking means carried by the plate and adapted to engage said link for retaining the pin against dislocation.

[Claim 3 not printed in the Gazette.]

1,255,972. PUMP AND PUMPING SYSTEM. BURTON S. AIKMAN, Milwaukee, Wis., assignor to National Brake & Electric Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Mar. 31, 1917. Serial No. 158,808. (Cl. 103—8.)



1. In a pump, the combination of a diaphragm, a cylinder head member having a chamber on one side of the diaphragm, said head having a passageway communicating with the chamber, a compressed air inlet port opening into said passageway, an exhaust port opening into said passageway, a valve body adapted to obstruct said ports one at a time, the exhaust port having a substantially larger area than the admission port to produce a seating pressure upon the valve and means for shifting the valve from one port to the other.

8. In a pump, a cylinder, a compressed air inlet, admission and exhaust valves, an air motor for operating said valves, said motor having a cylinder head member, said member having a central chamber, an air passageway on one side of the central chamber communicating with the air inlet, an exhaust passageway on the other side of the central chamber, said passageways terminating in ports on the interior of the chamber, said ports lying axially in line with each other, an air inlet port being of a relatively small diameter, a double faced valve member having yielding base members for covering the ports, said valve member having a stem passing axially through the exhaust port, a sleeve encircling and guiding said stem, a larger sleeve forming a seat about said exhaust port, and means controlled by the level of the water in the pump cylinder for operating said valve member, and a diaphragm connected at its center to the stem of the valve member and clamped to said cylinder head member, said stem being connected to said level controlled means.

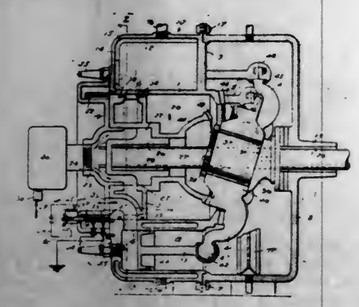
11. In a pump, a main pump cylinder, main exhaust and admission valves for said pump cylinder, a pressure chamber having a movable element for controlling said main valves, said chamber having a fluid admission passage and exhaust passage, an admission port and an exhaust port arranged substantially axially in line with each other, said ports opening into said pressure chamber, and a valve having an axial bearing concentric with the exhaust port for covering said ports alternately, a diaphragm fastened to the stem of the valve for sealing the same, and an operating arm for said stem.

[Claims 2 to 7, 9, 10, 12, and 13 not printed in the Gazette.]

1,255,973. ENGINE. JOHN O. ALMEN, Seattle, Wash., assignor to Almen-Crosby Motors Co., Inc., Seattle, Wash., a Corporation of Washington. Filed Feb. 28, 1916. Serial No. 79,877. (Cl. 123—58.)

1. In an internal combustion engine, a plurality of cylinders, a rotary valve common to all of the cylinders

and controlling the admission of an explosive mixture and the discharge of the combustion products derived therefrom, means to rotate said valve, a ring of insulating mamaterial secured to said valve and provided with a series of spaced projections at one of its ends, electric conductors provided on the periphery of said ring, a spark-plug for each cylinder, a normally incomplete high power circuit for each of said spark-plugs and provided with contacts whereby the circuits are intermittently completed through the agency of said conductors, a transformer associated with the aforesaid circuits, a primary circuit therefor, said primary circuit being provided with terminals, means to normally retain said contacts out of contact, and devices influenced by the aforesaid projections to cause the gap between said terminals to be intermittently closed.



2. In an internal combustion engine, a plurality of cylinders, a rotary valve controlling the admission of an explosive mixture and the discharge of the combustion products derived therefrom, means to rotate said valve, a ring of insulating material secured to said valve and provided with a series of spaced projections at one of its ends, electric conductors provided on the periphery of said ring, a spark-plug for each cylinder, a normally incomplete high power circuit for each of said spark plugs and provided with contacts whereby the circuits are intermittently completed through the agency of said conductors, a primary circuit, a transformer for said circuits, said primary circuit being provided with terminals, means to normally retain said contacts out of contact with each other, devices influenced by the aforesaid projections to cause the gap between said terminals to be intermittently closed, and means to regulate the positions of said devices circumferentially of the band whereby the make-and-break of the current obtaining within said primary circuit may be advanced or retarded.

6. An engine of the class described, including a shaft, a plurality of cylinders arranged in circular relation about said shaft, means including a rocker-head for driving the shaft from said cylinders, a rotary valve controlling admission and exhaust of gases to and from the cylinders, a gear rigidly connected with said valve and a gear rigidly connected with said rocker-head, the teeth of said gears being different in number to effect the rotation of the valve in the actuation of the rocker-head.

[Claims 3 to 5 not printed in the Gazette.]

1,255,974. TIRE. HENRY ANHALTZER, Pittsburgh, Pa. Filed July 3, 1915. Serial No. 37,836. (Cl. 152—8.)

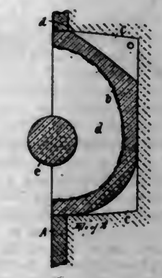
1. In a tire the combination with a hollow elastic casing, and a metal wheel rim on which said casing is removably mounted, of an expansible metal ring within the hollow casing, and means for expanding the ring to distend the casing, said means comprising a rack carried by one end of the metal ring and having its teeth exposed through a slot formed in the other end thereof and an actuating means including a toothed wheel arranged for coöperation with said rack.

2. In a tire the combination with a hollow elastic casing, and a metal wheel rim on which said casing is removably mounted, of an expansible metal ring within the hollow casing, and means for expanding the ring to distend the casing, said means comprising a rack carried by one end of the metal ring and having its teeth exposed through a slot formed in the other end thereof and a toothed wheel on said other end of the metal ring arranged for coöperation with said rack, and means including a worm meshing with said toothed wheel for actuating said expanding means and arranged to lock said expanding means in adjusted position.

5. In a tire the combination with a hollow elastic casing, and a metal wheel rim on which said casing is removably mounted, of an expansible metal ring and a contractile metal ring within the casing, and means for expanding and contracting said rings within the casing, said means comprising a rack on one end and a coacting toothed wheel on the other end of each ring, a worm meshing with each of said wheels, and means for rotating said worms, said worms being arranged to rotate the wheels in expanding and contracting said rings, and coacting with the wheels to form a lock for holding the rings in adjusted position.

[Claim 3 not printed in the Gazette.]

1,255,975. WALL ELEMENT. STEPHEN D. BAKER, New York, N. Y. Filed Dec. 2, 1916. Serial No. 134,628. (Cl. 4—2.)

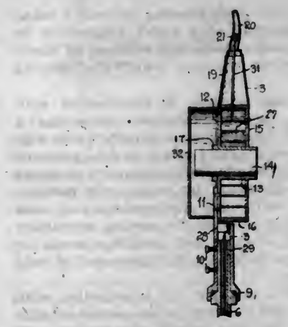


1. A built-in wall element including, with a cavitary body portion formed with planiform sides and with a wall rigidly joining said sides and forming the back and bottom of the cavity, a hand-bar rigidly joining said sides, any horizontal section of said wall presenting at its concave face a straight line from one of said sides to the other and said wall at said face thereof presenting a curve in vertical section rising gradually from the plane of the front face of said body, and the bar leaving a hand-grip space both above and below itself.

2. A built-in wall-element including, with a cavitary body portion formed with planiform sides and with a wall rigidly joining said sides and forming the back and bottom of the cavity, a hand-bar rigidly joining said sides and projecting throughout its length beyond the front of each of said sides, any horizontal section of said wall presenting at its concave face a straight line from one of said sides to the other and said wall at said face thereof presenting a curve in vertical section rising gradually from the plane of the front face of said body and the bar leaving a hand-grip space both above and below itself.

3. A built-in wall-element including, with a cavitary body portion formed with approximately rectangular planiform upright sides and with a wall rigidly joining said sides and forming the top, bottom and back of the cavity, said sides having rearward corners thereof projecting backwardly beyond said wall, a hand-bar rigidly joining said sides, and anchorage means projecting laterally from the corners of said sides.

1,255,976. SIGNALING DEVICE FOR MOTOR-VEHICLES. LOUIS A. BEAN, Denver, Colo. Filed Feb. 20, 1917. Serial No. 149,868. (Cl. 116—31.)



1. A signaling device of the character described including a fixed supporting plate, a second plate disposed in spaced parallel relation to the supporting plate, a stub shaft fixed to the latter plate and rotatably mounted in the fixed plate, said second named plate having an annular rim engaged upon the perimeter of the fixed plate, a signaling arm carried by said rim, and means housed between the fixed and movable parts for retaining the signaling arm in its normal position.

2. A signaling device of the character described including a fixed plate, a second plate disposed in spaced parallel relation to the fixed plate and having an annular rim extending upon the perimeter of the fixed plate, said fixed plate being provided with a sleeve, a stub shaft fixed to the second named plate and rotatably mounted in said sleeve, an annulus fixed upon said shaft against the outer side of the fixed plate, a signaling arm carried by the annular rim, and a coil spring fixed at one of its ends to said sleeve and at its other end to the rim to yieldingly hold the latter against rotation and retain the arm in its normal position.

1,255,977. SANITARY CONVEYER. THOMAS BEMIS, Sr., Indianapolis, Ind., assignor to The Lamson Company, Boston, Mass., a Corporation of New Jersey. Filed July 3, 1914. Serial No. 849,003. (Cl. 193—4.)

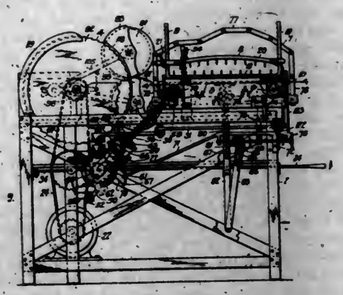
1. The combination of a porous belt for carrying articles, with two pulleys upon which said belt is mounted, means to drive one of said pulleys to thereby drive said belt and the other pulley and to also cause successive portions of the belt to flex reversely and in alternate directions as they pass around said pulleys, to loosen the dirt which may have collected in the pores of said belt, means to cause currents of air to pass into said pores upon one side of said belt and out of said pores together with the loosened dirt at the other side of said belt, after said portions have been thus reversely flexed, and means to drive the means last aforesaid from one of said pulleys at a speed proportioned to that of the belt.



2. A belt conveyer, the belt of which is subject to the collection of dust and dirt thereupon, suction means for removing said dust and dirt, said means including a suction nozzle, means to create a partial vacuum in said nozzle, and means to pivotally support said nozzle so that it may be swung away from and substantially clear of said belt to obviate unnecessary wear thereof when not in use, the pivotal axis of the nozzle extending transversely to the direction of movement of the belt, and means to prevent inadvertent rotation of said nozzle by said belt when the nozzle is in engagement with the same.

3. A belt conveyer, the belt of which is subject to the collection of dust and dirt thereupon, suction means for removing said dust and dirt, said means including a suction nozzle, means to create a partial vacuum in said nozzle and means to mount said nozzle so that it may be moved into contact with or away from and substantially clear of said belt to obviate unnecessary wear thereof when not in use, and means to prevent inadvertent movement of said nozzle by said belt when the nozzle is in engagement with the same.

1,255,978. MEAT-CUTTING MACHINE. EARL M. BENTON, Cheyenne, Wyo., assignor of one-fourth to Everett J. Lippard and one-fourth to W. H. Andrew, Cheyenne, Wyo. Filed Dec. 14, 1916. Serial No. 136,954. (Cl. 17—24.)



1. In a meat-cutting machine, a reciprocating element, a driving element, and a transmission between said elements, including a driven-shaft, change-speed gearing comprising members normally loose on said shaft, a clutch to secure the rotative continuity of either gear with the shaft, and mechanism to automatically shift the clutch to alternately engage said members at the ends of the forward and return movements of the reciprocating element.

5. In a meat-cutting machine, a cutting-appliance, a carriage to carry a joint of meat into engagement therewith, and means for advancing a joint of meat on said carriage, including a clamp to hold the meat, a belt to support the same, and means to effect a conjunctive movement of said clamp and said belt at a determinate period in the movement of the carriage.
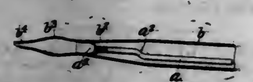
15. In a meat-cutting machine, a cutting-appliance, a carriage for carrying a joint of meat into engagement therewith, a meat support mounted to advance a joint of meat on the carriage, a clamp for securing a joint of meat on said support, coöperative mechanisms to operate the carriage and to automatically advance the support a predetermined distance at a determinate period in the movement thereof, and means for the automatic adjustment of the clamp to release the meat for movement with said support.

25. In a meat-cutting machine, a cutting-appliance, a carriage for carrying a joint of meat into engagement therewith, a meat-support mounted to advance a joint of meat on the carriage, a driving element, mechanism for transmitting the movement of said element to said carriage, means in connection with said element for the operation of the cutting-appliance, mechanism operated by connection with said element, to feed the meat-support a predetermined distance at a determinate point in the movement of the carriage, and means to automatically discontinue the operation of said mechanisms at a determinate point in the movement of the meat-support.

38. In a meat-cutting machine, a cutting-appliance comprising a pair of rotary knives whose cutting edges adjoin to sever a piece of meat passing between them, said knives being mounted to move apart in a circular path by the passage of an object between them, and said appliance being mounted to move at the same time bodily in a circular path of smaller diameter by the engagement of an object, to vary the position of the point of nearest approach of the knives with relation thereto.

[Claims 2 to 4, 6 to 14, 16 to 24, 26 to 37, 39, and 40 not printed in the Gazette.]

1,255,979. METHOD OF MAKING THERMOMETERS. FRANK J. BERBERICH, Woodhaven, N. Y. Filed June 26, 1917. Serial No. 176,953. (Cl. 49—82.)



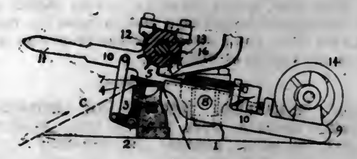
1. The process herein described of forming a thermometer which consists in providing a capillary tube, and a casing tube one end of which is tapered, forming a bulb on one end of the capillary tube, inserting said capillary tube into the casing tube so that the bulb closely fits the tapered portion thereof, heating the tapered portion of the casing tube and the bulb, blowing through the capillary tube to rupture the bulb and expand the walls thereof and form an elongated bulb member and then closing the casing tube at the end of said bulb member to form the complete thermometer bulb.

2. The process herein described in forming a thermometer which consists in providing a capillary tube and a casing tube, forming a bulb member on one end of the capillary tube, inserting said capillary tube into the casing tube, heating said casing tube and bulb member to a plastic condition, blowing into the capillary tube to expand and rupture the bulb member and to unite the side walls thereof with the walls of the casing tube and closing the bulb end of the casing tube and the bulb member to form a complete thermometer bulb.

3. The process herein described of forming a thermometer which consists in providing a capillary tube and a casing tube, forming a bulb on one end of the capillary tube, the outside diameter of which is the same as the inside of a part of said casing tube, inserting said capillary tube into the casing tube, heating said casing tube and bulb to a plastic condition, blowing into one end of the capillary tube to expand and rupture the bulb and form an open elongated bulb member within the casing tube and then closing the open end of said bulb member to form a complete thermometer bulb.

4. The process herein described of forming a thermometer which consists in providing a capillary tube and a casing tube, one end portion of the casing tube being reduced, forming a bulb on one end of the capillary tube, inserting said end of the capillary tube into the casing tube until the bulb thereon fits the reduced end portion thereof, heating said reduced end portion of the casing tube and said bulb, blowing into the capillary tube to rupture said bulb and expand the walls thereof into engagement with the walls of the casing tube and to form in said casing tube an elongated open bulb member, sealing the end of the capillary tube opposite the bulb member, pouring a predetermined amount of liquid substance into said open bulb member, marking the casing tube to determine the point of the closure thereof, and heating and closing said casing tube to form a complete thermometer bulb.

1,255,980. SEAM-PROTECTING DEVICE FOR CLOTH-SHEARING MACHINES. JOHN BROMAN, Worcester, Mass., assignor to Curtis & Marble Machine Company, Worcester, Mass., a Corporation of Massachusetts. Filed Jan. 31, 1917. Serial No. 145,796. (Cl. 26—6.)



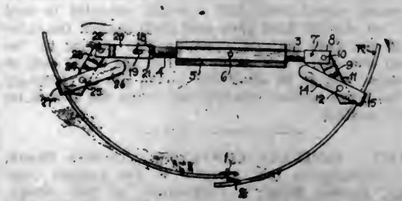
1. In combination with cloth-shearing cutters, a seam-protecting device consisting of a guard adapted to be moved into and out of its protecting position by movement of the cutting parts from and toward the shearing position.

5. In a cloth-shearing machine, in combination with a cloth-guiding rest, cutting mechanism comprising a shearing revolver and ledger-blade, a liftable cutter-supporting frame upon which said revolver and ledger-blade are mounted, and a suction air-draft appliance; of means including an interposable guard for temporarily preventing action of the air-draft upon the headings and loose fibers of the passing fabric while the cutting mechanism is raised from shearing position, and actuating means for moving said guard controlled by the movement of said cutter-supporting frame.

6. In a cloth-shearing machine, the combination with the cloth-guiding rest, the shearing cutters, an air-exhaust appliance having its air inlet mouth adjacent to said cutters, and a liftable frame supporting said parts; of a movable protecting means comprising a deflecting shield overlying a portion of the advancing fabric and movable to and from a position above the cloth-guiding rest near the front of said air-inlet, and an actuating means adapted to move said shield into and out of its protecting position simultaneously with the movement of the shearing cutters from and to the shearing position.

[Claims 2 to 4 not printed in the Gazette.]

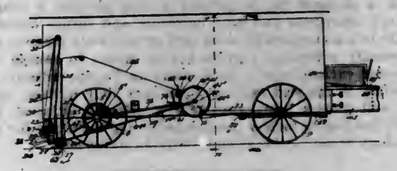
1,255,981. TIRE-TOOL. WILLIAM F. BROWN, Denham Springs, La. Filed Mar. 6, 1917. Serial No. 152,847. (Cl. 157—1.)



1. A tire tool comprising a pair of coaxially disposed elongated members, means coacting with the inner end portions of said members for imparting movement thereto in a direction toward or from each other, rim engaging means carried by the outer end portion of one of the members, a strap pivotally engaged with the outer end portion of the second member inwardly of the outer end thereof, coacting means carried by said second member and the strap for holding said strap against pivotal movement, and rim engaging means pivotally engaged with the outer end portion of the strap.

2. A tire tool comprising a pair of coaxially disposed elongated members, means coacting with the inner end portions of said members for imparting movement thereto in a direction toward or from each other, rim engaging means carried by the outer end portion of one of the members, longitudinally spaced studs extending laterally from the outer end portion of the second elongated member, a strap provided with longitudinally disposed alined slots through which the studs of said second named elongated member are directed, one of said slots having an open end so that said strap may have pivotal movement about the second stud when said strap is moved longitudinally in one direction, and rim engaging means carried by the strap.

1,255,982. HARVESTER. ANDREW N. BYERS, Gotebo, Okla. Filed Aug. 23, 1913, Serial No. 786,300. Renewed Sept. 11, 1917. Serial No. 190,796. (Cl. 56—33.)



1. A machine including a crop-curing means and a baler for continuously taking the crop from the curing means, a crop cutting means, elevating means arranged to compress the crop being elevated, said curing means and compressing means being arranged to progressively receive the crop after it is cut.

10. In combination, crop compressing harvesting means, a crop curing chamber, a series of horizontal plates in the chamber, inclined blades on the plates, means for heating the chamber, and means for reciprocating the plates alternately in opposing directions.

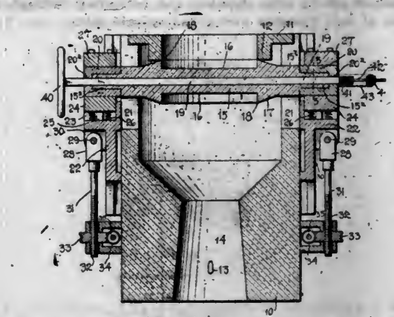
18. A combined crop harvester having a cutter, means for subjecting the crop to a continuous compressing action as it is received from the cutter, means for elevating the crop, a curer having a continuous compressing action and arranged to receive compressed crop from the harvester and continuously operating mechanism effecting coöperation between the aforesaid parts.

[Claims 2 to 9, 11 to 17, and 19 not printed in the Gazette.]

1,255,983. GLASS-DRAWING FURNACE. GEORGE L. CAYLIN and DAVID MORRISON, Port Allegany, Pa., assignors to R. W. Hilton, Smethport, Pa. Filed May 19, 1917. Serial No. 169,711. (Cl. 49—53.)

1. In a glass furnace, a topstone having a depending flange, a vertically movable pot bottom coacting therewith, the flange having an inner corner angular in cross section having its lower edge extending in a horizontal plane and the bottom having a horizontally extending flat central portion and a downwardly beveled marginal portion with which the flange engages and disposed at an angle to the lower edge of the flange.

3. In a glass furnace, a topstone having a depending flange angular in cross section, the lower edge of the flange extending in a horizontal plane, a vertically movable pot bottom coacting therewith and having its opposite faces formed with a central plane portion having a diameter approximately equal to that of the flange and having a beveled margin extending in a plane at an angle to the lower edge of the flange and engaging with the inner corner of said flange, springs urging the pot bottom against the flange, means for vertically raising or lowering the pot bottom, and means for rotating the pot bottom when it is lowered.



5. A furnace of the character described having vertically slotted side walls and an open top, a topstone on the open top of the furnace having a depending annular flange, a shaft passing through the slots of the furnace, a rotatable pot bottom mounted upon said shaft to rotate therewith, trunnion sleeves through which said shaft passes, the sleeves being mounted for rotation with the shaft, brackets mounted upon the walls of the furnace for vertical movement, bearings for said trunnion sleeves mounted within the brackets and resiliently supported upon the brackets, manually operable means for vertically shifting the brackets, and means whereby the shaft may be rotated to rotate the pot bottom.

8. A glass furnace having a topstone formed with a downwardly extending annular flange, a pot bottom rotatably mounted within the furnace and coacting with the flange, said pot bottom having laterally extending lugs, a shaft passing transversely through the pot bottom and said lugs and rotating with the pot bottom, trunnion sleeves having apertures through which the shaft passes and fitting over said lugs, and vertically sliding journal boxes operatively mounted on the walls of the furnace and rotatably supporting said trunnion sleeves.

9. A glass furnace having vertically slotted side walls and a topstone, a shaft passing through the slots of said side walls and many-sided in cross-section, a pot bottom through which the shaft passes and rotating therewith and having laterally extending many-sided lugs, trunnion sleeves fitting over the lugs and having passages for the shaft, one end of the shaft being screw-threaded, a cap fitting over said end of the shaft and having a central perforation, vertically slidable journal boxes mounted upon the side walls of the furnace coincident with said slots and supporting the trunnion sleeves, a bracket mounted upon one of said journal boxes, an adjusting screw pasing through said brackets and having a head disposed within the cap whereby the adjusting screw is swiveled to the cap, and means for holding the adjusting screw in longitudinally adjusted position relative to the bracket.

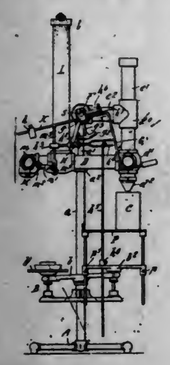
[Claims 2, 4, 6, and 7 not printed in the Gazette.]

1,255,984. APPARATUS FOR FILLING RECEPTACLES WITH LIQUIDS. FRANK B. CHAMBERS, Buffalo, N. Y. Filed July 8, 1915. Serial No. 38,643. (Cl. 226—17.)

1. In an apparatus for filling receptacles with liquid, the combination of a conduit through which the liquid is adapted to flow, a valve in said conduit, an air-tight chamber connected with said conduit and arranged above said valve and confining a quantity of air above the liquid, and actuating mechanism for said valve located in the confined air in said chamber.

2. In an apparatus for filling receptacles with liquid, the combination of a conduit through which the liquid is

adapted to flow, a valve in said conduit, an air-tight chamber connected with said conduit and arranged above said valve and confining a quantity of air above the liquid, said valve having a stem which extends into said confined air, and actuating mechanism for said valve located in the confined air in said chamber and extending through the wall of said chamber and engaging said stem.



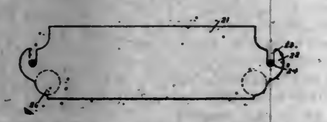
3. In an apparatus for filling receptacles with liquid, the combination of an inclosed chamber through the lower portion of which the liquid is adapted to flow and in the upper portion of which a quantity of air is confined, a valve in said chamber adapted to control the flow of liquid, and actuating mechanism for said valve arranged in the air space in said chamber and including a part extending into the air space in said chamber from the exterior thereof through a wall of said chamber, above the level of the liquid in said chamber.

4. In an apparatus for filling receptacles with liquid, the combination of an inclosed chamber through the lower portion of which the liquid is adapted to flow and in the upper portion of which a quantity of air is confined, a valve in said chamber adapted to control the flow of liquid, a stem connected with said valve and extending into the air space in said chamber, a pivoted arm in said air space engaging said stem, and means adapted to be actuated from the exterior of said chamber and extending through a wall of said chamber above the level of the liquid therein to swing said arm about its pivot.

5. In an apparatus for filling receptacles with liquid, the combination of an inclosed chamber through the lower portion of which the liquid is adapted to flow and in the upper portion of which a quantity of air is confined, a valve in said chamber adapted to control the flow of liquid, a stem connected with said valve and adapted to seat the same, a weight on said valve for seating the valve, and arranged in said air space, and means extending into said air space from the interior of said chamber above the level of the liquid therein and connected with said stem to open and close the valve.

[Claims 6 to 17 not printed in the Gazette.]

1,255,985. HEATING ELEMENT FOR BUTTERING DEVICES. GEORGE L. CHATFIELD, Indianapolis, Ind., assignor to Holcomb & Hoke Manufacturing Company, Indianapolis, Ind., a Corporation. Filed Dec. 13, 1915. Serial No. 66,586. (Cl. 219—37.)



A flat rectangular electrical heating element, terminals at the outer end corners of the heating element for conveying a heating agency therethrough, said terminals depending from the heating element, and an ear at each end of the heating element, each ear having a slot extending inwardly from the same edge thereof, the open ends of the slots being away from said terminals, whereby the heating element may be moved bodily in a horizontal plane and a straight line into or out of operative position.

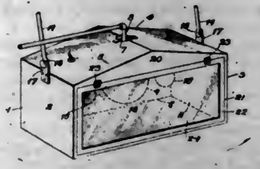
1,255,986. PACKAGE-TIE. ROBERT E. CONNER, Atlanta, Ga. Filed Nov. 1, 1916. Serial No. 128,851. (Cl. 24—18.)



1. A package tie comprising a body portion; a tongue struck from and vertically offset with respect thereto, said tongue having means to engage the knotted extremity of a cord; belaying fingers radially extending in opposed relation from said body portion, each of said fingers having a transversely extending channel in its under surface adjacent the body portion for the passage of said cord, substantially as described.

2. A package tie, comprising a body portion, a tongue struck therefrom and bent upwardly and thence horizontally to a plane parallel with that of said body portion, the upwardly extending portion having means to engage the knotted extremity of a cord, belaying fingers radially extending in opposed relation from said body portion, each of said fingers being transversely crimped adjacent the body portion to form a channel in its under surface for the passage of said cord, substantially as described.

1,255,987. ADVERTISING DEVICE. GUSTAVE J. DE GEYTER, Philadelphia, Pa. Filed Oct. 4, 1917. Serial No. 194,718. (Cl. 40—130.)

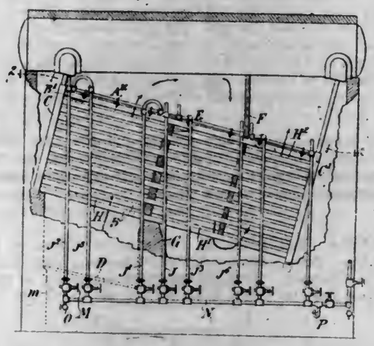


A device of the character described including an elongated casing having a lateral opening extending substantially the full length thereof, said casing also having an open bottom, a frame hinged to said casing and adapted to swing into and out of said lateral opening, said frame having an elongated plate of translucent material therein adapted to receive advertising inscription, light-producing means within said casing, and reflectors within said casing for reflecting the light through said translucent material and directly downwardly and at an angle through said open bottom of the casing, substantially as described.

1,255,988. BOILER-TUBE CLEANER. CHARLES DE VED and JOSEPH KISSICK, Jr., New York, N. Y. Filed Feb. 27, 1914. Serial No. 821,554. (Cl. 122—392.)

1. In an apparatus of the character described, the combination with a water tube boiler having a plurality of boiler tubes of a cleaning system comprising a plurality of stationary distributing pipes located next the boiler tubes and substantially parallel therewith and one or more distributing pipes carried across the boiler at an angle to the boiler tubes.

5. In an apparatus of the character described, the combination with a water tube boiler having a plurality of boiler tubes of a cleaning system comprising a plurality of stationary distributing pipes located substantially parallel to the boiler tubes, nozzles carried by the distributing pipes, and said distributing pipes having perforations, the whole so disposed that the cleaning fluid may be discharged into the entire length of the clear space between two adjacent sets of boiler tubes in one pass at an oblique angle to the outside wall of the boiler setting at one time, cleaning the entire length of adjacent sets of boiler tubes in said pass at one time, the nozzles in adjacent distributing pipes being inclined relatively to each other, and the perforations being similarly disposed whereby the discharge of cleaning fluid from one distributing pipe is along lines adapted to intersect the line of discharge of cleaning fluid from an adjacent distributing pipe, means for conveying the cleaning fluid under pressure to the distributing pipes and means outside the boiler for controlling the distribution of the cleaning fluid among the distributing pipes.



12. In an apparatus of the character described, the combination with a water tube boiler having a plurality of boiler tubes, of a cleaning system comprising a plurality of distributing pipes in each pass, said pipes extending approximately parallel with the boiler tubes, and a plurality of cross headers in a pass adapted to convey a cleaning fluid under pressure to the distributing pipes, each of said cross headers being connected to a part of the distributing pipes in a pass and means whereby the cleansing fluid may be supplied to each cross header as desired, whereby part of the tubes in each pass may be cleaned simultaneously and the free passage of the gases of combustion may be permitted between the remaining tubes.

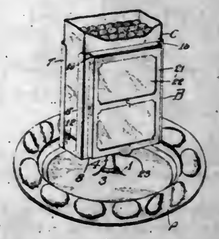
19. In a water tube boiler having a plurality of boiler tubes, a cleaning pipe located substantially parallel to the boiler tubes, having openings for the discharge of cleaning fluid comprising nozzles, different nozzles in a pipe adapted to project jets of cleaning fluid to different distances, whereby tubes at different distances from the same distributing pipe may be simultaneously cleaned.

22. In combination a boiler having water tubes arranged in rows, and means for cleaning said tubes, comprising a distributing pipe for the cleaning fluid provided with a plurality of discharge orifices, said orifices being variously shaped, said variously shaped orifices being adapted to project jets of said fluid down the interval between the rows of tubes to varying effective distances from said pipe.

[Claims 2 to 4, 6 to 11, 13 to 18, 20, 21, and 23 to 28 not printed in the Gazette.]

1,255,989. CIGARETTE-PACKAGE HOLDER AND ASH-TRAY. ALBERT DE MONTLUZIN, Cincinnati, Ohio, and ALAN G. LYNN, New York, N. Y., assignors to Liggett & Myers Tobacco Co., New York, N. Y., a Corporation of New Jersey. Filed July 27, 1916. Serial No. 111,559. (Cl. 131—59.)

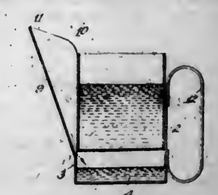
1. An article of the class described comprising a base member and a package holder supported thereon, said package holder including a sheet of metal bent to provide a pair of opposing substantially parallel spaced walls adapted to clamp a package therebetween, one of said walls being provided with sheet-retaining members, and a frame hinged to said wall and adapted when closed to overlie the sheet retaining members and to coöperate with said wall and members to support a sheet.



2. An article of the class described comprising a base member and a package holder supported above the base member, said holder including a pair of spaced, opposing side walls adapted to clamp a package therebetween, a bottom wall extending between and uniting the two side walls and provided with inturned end lips and a resilient removable foot block having end walls adapted to resiliently interlock with the lip-provided ends of the bottom wall.

[Claim 3 not printed in the Gazette.]

1,255,990. VARNISH OR COLOR CUP. REGINALD L. S. DOGGETT, East Orange, N. J. Filed July 26, 1917. Serial No. 182,841. (Cl. 91—66.)



1. A device of the class described, comprising a body portion having a wiping-receiving well at its lower end and formed with interiorly arranged shoulders adapted to support a container above said well, one wall of said body portion being formed with an opening extending from its upper edge to a point below said shoulders, and a spout held to said wall and extending upwardly from the lower edge of said opening, said spout being formed with an open side adjacent the body portion and having a brush-wiping edge at its upper end.

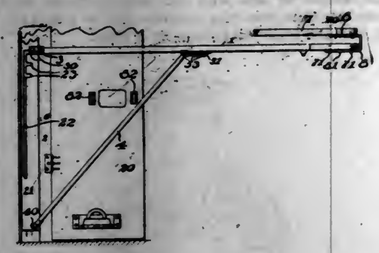
2. A device of the class described, comprising a wiping receptacle provided with means at the sides thereof for supporting the bottom of a container within the upper end of said receptacle, a container seated on said supporting means, and a chute communicating with the receptacle at a point below the bottom of the container, said chute extending upwardly above the upper end of the container and having a brush-wiping edge at its upper end.

[Claim 3 not printed in the Gazette.]

1,255,991. IRONING-BOARD. JOHN DOWNIE, Seattle, Wash. Filed Mar. 21, 1917. Serial No. 156,371. (Cl. 68—10.)

1. In an ironing board, in combination, fixed post members spaced apart and each having a vertical slot in their inner opposed faces, said slots having lateral extensions at their upper ends, an ironing board having pivot pins fitting in said slots, a member secured to the under side of the ironing board having a plurality of hooks, laterally pro-

jecting guides thereon, a brace pivoted at its lower end and having a pair of fingers adapted to engage said hooks and to embrace said guides to prevent removal of the brace.



2. In an ironing board, in combination, fixed post members spaced apart and each having a vertical slot in their inner opposed faces, said slots having lateral extensions at their upper ends, an ironing board having pivot pins fitting in said slots, a brace pivoted at its lower end and having a pair of inwardly directed fingers at its upper end, a member secured to the under side of said ironing board and lying between said inwardly directed fingers, said member having a plurality of hooks adapted to engage the upper end of said brace, and laterally projecting guides above said hooks and engaging said fingers, said guides terminating at the end nearest the pivot of the board in a hook adapted to prevent removal of the brace fingers.

1,255,992. CONTAINER FOR QUICK TIRE-PATCHES. CLARENCE O. DUFFY, Dallas, Tex. Filed May 17, 1917. Serial No. 169,221. (Cl. 152—27.)



1. In a tubular container of the character described, a usual form of twist tube paste board holder, and an abrasive material applied to its surface for the purposes described.

2. In a container device to be used in connection with the marketing of quick tire patches for automobilists, of a tubular container of suitable size and material, a coating of adhesive matter applied to the surface of the tube, and a conting of abrasive material applied to the adhesive matter for the purpose of obtaining a permanent sanding or abrasing material surface.

3. In a tubular container for holding quick tire patches for motorists, of a tubular container provided with suitable closure caps, and an abrasive surface formed thereon for the purpose of roughing or cleaning the tires to be repaired.

4. In a tubular container for holding quick tire patches for motorists, of a tubular container provided with suitable closure caps, an abrasive surface formed thereon for the purpose of roughing or cleaning the tires to be repaired, and a suitable cover cap provided to cover and protect the abrasive surface when not in use.

1,255,993. EGG-BEATER. WARREN H. DUNNING, Cambridge, Mass., assignor to Dover Stamping and Manufacturing Company, Portland, Me., a Corporation of Maine. Filed Dec. 19, 1914. Serial No. 878,038. (Cl. 259—104.)

A device of the kind described comprising a plate, frame members extending upward from, and attached to said plate, one on each side of the center thereof, whereby pressure delivered to said frame members will be distributed on both sides of the center of said plate and at a plurality of points thereon, a casting mounted on the upper end of said frame members comprising a handle by which the device may be held and a gear mechanism, floats



located one on each frame member, and means for rotating said floats connected with said gear mechanism, the diameter of said plate being greater in all directions than the combined diameter of said floats.

1,255,994. EGG-BEATER. WARREN H. DUNNING, Cambridge, Mass., assignor to Dover Stamping & Manufacturing Company, Portland, Me., a Corporation of Maine. Filed June 15, 1915. Serial No. 34,292. (Cl. (259—131.)



A device as described comprising one or more floats, means for rotating them, and means for supporting them comprising a frame having a flexible base located at its lower end and substantially at right angles thereto, said base having an area wider than the projection of the space taken by the floats when rotated.

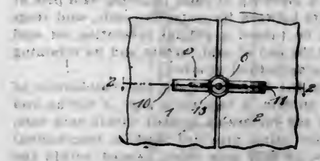
1,255,995. PROCESS OF MAKING CEMENT. EDWIN C. ECKEL, Washington, D. C., assignor, by direct and mesne assignments, of two-thirds to Arthur C. Spencer, Washington, D. C., and one-third to Archibald Cox, New York, N. Y. Filed Apr. 17, 1911, Serial No. 621,604. Renewed Jan. 3, 1918. Serial No. 210,234. (Cl. 106—25.)

1. In the manufacture of ferric cements, the process which comprises predetermining a desired ratio between the combined silica and the combined ferric oxid in a ferric cement clinker to be made, adding to a cement mixture containing iron and calcareous material and deficient in combined silica an amount of diatomaceous earth sufficient with any combined silica which may be present to establish such ratio, and burning the mixture to form clinker.

7. In the manufacture of cements high in silica, the process which comprises adding to a cement mixture low in combined silica an amount of silica in the form of diatomaceous earth sufficient to bring the total of combined silica and such added silica to an amount more than two times the amount of sesquioxid present in such mixture, and burning the admixture to form clinker.

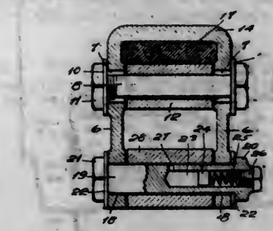
[Claims 2 to 6 not printed in the Gazette.]

1,255,996. DOOR OR WINDOW SECURER. GEORGE EHRHARDT, Sacramento, Cal., assignor of one-third to Michael J. Silva, Sacramento, Cal. Filed Apr. 12, 1917. Serial No. 161,522. (Cl. 16—8.)



In a door or window securer, the combination with a threaded bolt having a flat headed portion on one end and rightangularly bent spurs on the end of said portion; of a short metal bar bent to form a semicircular brace having flat extremities disposed in the same plane, said bar having a centrally disposed enlarged tapered portion through which extends a tapered aperture whose large end opens into the concave side of the brace, said bolt being extended through said aperture from the concave side of the brace, and a nut threaded on said bolt for holding said extremities in close contact with the portions to be locked or secured.

1,255,997. COMBINED SHACKLE AND SHOCK-ABSORBER. OTTO E. EVANS, York, Nebr. Filed May 1, 1917. Serial No. 165,689. (Cl. 267—37.)



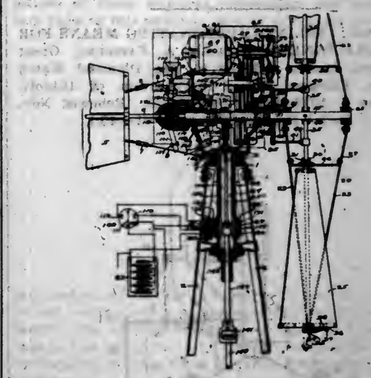
A combined shackle and shock absorber, comprising an approximately U-shaped frame having spaced sides connected by a transverse portion carrying spaced flanges for providing a pocket, said sides being provided with elongated openings extending longitudinally thereof, a bolt mounted to move vertically within the elongated openings and adapted for the reception of the eye of a spring, an elastic block arranged within the pocket to contact with one side of the eye, a bolt connected with the spaced sides and provided with a longitudinal bore having a transverse port passing to the exterior thereof, and spring pressed means for compressing a lubricant within the bore.

1,255,998. WINDMILL-GENERATOR SET. FRED J. FAHLE, Luckey, Ohio. Filed July 22, 1915. Serial No. 41,348. (Cl. 171—314.)

2. In a windmill-generator set, the combination of an electromagnetic means connected to the generator and means operated by the rotation of the windmill for placing the windmill out of operative relation with respect to the wind and controlled by the electromagnetic means.

5. In a windmill-generator set, the combination of a generator, automatic means connected to the shaft of the generator, speed gear wheels connecting the shaft of the generator and the shaft of the windmill, a circuit closer and an automatic means for operating the circuit closer when the speed of the windmill reaches a certain point, and means for controlling the speed of the windmill according to the speed of the wind.

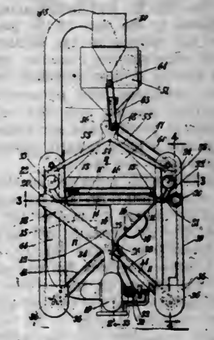
8. In a wind-mill generator set, the combination of a generator, a storage battery connected to the generator, an automatic clutch located on the shaft of the generator, a member movable a short angular distance by the operation of the clutch, blades mounted for angular rotation and rotated by the said member, speed gear wheels located intermediate the main shaft of the wind-mill and



the generator shaft for producing a potential at the generator above the counter-electro-motive force of the battery.

[Claims 1, 3, 4, 6, 7, and 9 to 11 not printed in the Gazette.]

1,255,999. SPLINT-IMPREGNATING MEANS FOR MATCH-MACHINES. WILLIAM A. FAIRBURN, Short Hills, N. J., assignor to The Diamond Match Company, Chicago, Ill., a Corporation of Illinois. Filed May 1, 1915. Serial No. 25,121. (Cl. 91—44.)



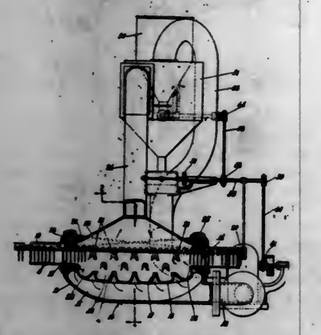
1. The combination with a carrier constructed to support depending match splints in spaced relation to each other, of a structure having a chamber arranged directly beneath and adjacent to the path of the underside of the carriage, said chamber having inlet and outlet portions for the passage of the carrier, whereby the splints on the carrier progress into and through said chamber, and pneumatic means for forcibly projecting impregnating powder toward, against and among the depending splints within said chamber.

8. The combination with a carrier constructed to support depending match splints in spaced relation to each other, of a structure having a chamber arranged directly beneath and adjacent to the path of the underside of the carrier, said chamber having inlet and outlet portions for the passage of the carrier, whereby the splints on the carrier progress into and through said chamber, a receptacle for impregnating powder, said receptacle communicating with the chamber, pneumatic means for forcing the powder from said receptacle into said chamber,

means for removing accumulating powder from the bottom of said chamber, and means for returning such accumulating powder to said receptacle.

[Claims 2 to 7 and 9 to 13 not printed in the Gazette.]

1,256,000. SPLINT-IMPREGNATING MEANS FOR MATCH-MACHINES. WILLIAM A. FAIRBURN, Great Barrington, Mass., assignor to The Diamond Match Company, Chicago, Ill., a Corporation of Illinois. Filed May 1, 1915, Serial No. 25,122. Renewed Nov. 24, 1917. Serial No. 203,865. (Cl. 91—45.)



1. The combination with a carrier constructed to support depending match splints in spaced relation to each other, of a double-wall structure providing two chambers, whereof one constitutes an impregnating chamber and the other a powder supply chamber therefor, said impregnating chamber having inlet and outlet portions for the passage of the carrier and being arranged directly beneath and adjacent to the path of the underside of the carrier, whereby the splints on the carrier progress to and through said impregnating chamber, the inner wall of the structure having orifices affording communication between the two chambers, and pneumatic means for forcing impregnating powder into the outer chamber, whereby a mixture of powder and air under pressure is projected through said orifices toward, against and among the depending splints on the carrier.

3. The combination with a carrier constructed to support depending match splints in spaced relation to each other, of a structure having a chamber for impregnating powder arranged directly beneath and adjacent to the path of the undersurface of the carrier, said chamber having inlet and outlet portions for the passage of the carrier, whereby the splints on the carrier progress into and through said chamber and are treated with the powder therein, the said chamber having at its respective ends air ducts inclined upwardly and inwardly toward the path of the carrier through the chamber so as to prevent the escape of the powder through the inlet and outlet portions of the structure.

[Claims 2 and 4 not printed in the Gazette.]

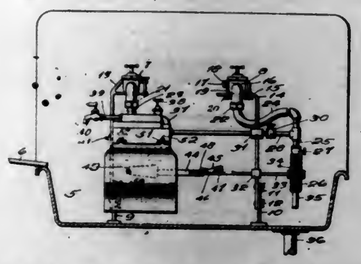
1,256,001. CURTAIN-POLE. EDWARD B. FARGO and GLEN R. CASE, Clintonville, Wis., assignors of one-third to William H. Finney, Clintonville, Wis. Filed Feb. 17, 1917. Serial No. 149,160. (Cl. 156—29.)



1. In a device of the described class, the combination of a curtain pole, a curtain, a removable core, a spring and spring supporting rod removably located within said core, said pole and core being provided with a longitudinal groove, the groove of said pole being located within the groove of said core, whereby said pole and core are adapted to revolve together, a foldable bar adapted to be clamped to one end of said curtain and located within said longitudinal groove, and a plurality of rings inclosing said pole at intermediate points between its respective ends, said rings being adapted to be turned a partial revolution on said pole so as to hold the end of said curtain and its retaining members in said longitudinal groove.

2. In a device of the described class, the combination of a curtain pole, a curtain, a removable core, a spring and spring supporting rod removably located within said core, said pole and core being provided with a longitudinal groove, the groove of said pole being located within the groove of said core, whereby said pole and core are adapted to revolve together, a foldable bar adapted to be clamped to one end of said curtain and located within said longitudinal groove, a pair of annular rings one located at each end of said pole between the outer edge of said curtain and the ends of said pole, and a plurality of rings inclosing said pole at intermediate points between its respective ends, said rings being adapted to be turned a partial revolution on said pole so as to hold the end of said curtain and its retaining members in said longitudinal groove.

1,256,002. HOUSEHOLD UTILITY DEVICE. CALVIN L. FARRAR, Lakecreek, Oreg. Filed Feb. 16, 1917. Serial No. 148,986. (Cl. 141—9.)



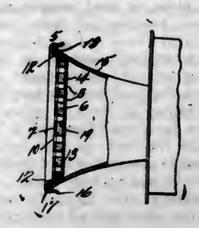
1. In a device of the character described the combination with a supporting frame adapted to rest within a kitchen sink, of means carried by said frame for attaching the frame to the hot and cold water faucets, a mixing tank carried by said frame, means for conducting water from both the hot and cold water faucets to said mixing tank, a rotative brush supported beneath the mixing tank and upon which the water from the tank is discharged and means for rotating said brush.

3. A device of the character described comprising a supporting frame, means for securing said supporting frame in operative position with relation to a kitchen sink, a mixing tank carried by said frame, a water motor supported upon said frame, a rotative brush disposed beneath the mixing tank, connections between said brush and the water motor whereby said brush is driven from the water motor, a system of piping supported by the frame and connected to the mixing tank and to the water motor, detachable connections for connecting said system of piping to both the hot and cold water faucets.

[Claim 2 not printed in the Gazette.]

1,256,003. SANITARY ATTACHMENT FOR TELEPHONE-TRANSMITTERS. MARIE S. FEDERMAN, New York, N. Y. Filed Feb. 19, 1917. Serial No. 149,476. (Cl. 179—185.)

1. The combination of a cup shaped carrier, having a perforated base, a perforated antiseptically treated pad located within the cup-portion of said carrier and contacting with said perforated base, a perforated retaining plate for said pad, means carried by the carrier to engage and retain said plate in position, and a plurality of resilient tongues carried by said carrier to engage the mouth-piece of a telephone transmitter.



2. An attachment for the mouth-piece of a telephone transmitter, consisting of a perforated carrier, an antiseptic pad supported by said carrier, a plate for holding said pad in position, and projections on the carrier for retaining the plate in position thereon, said plate being provided with cut away portions or recesses on its peripheral edge to allow insertion and withdrawal thereof past said projections.

3. An attachment for the mouth-piece of a telephone transmitter, consisting of a cup-shaped carrier, the base of which is perforated, an antiseptic pad seated in said carrier, a perforated plate for holding said pad in position, and projections on said carrier for retaining said plate in position within the cup portion of the carrier, said perforated plate being provided with cut away portions or recesses on its peripheral edge to allow insertion and withdrawal of said plate past said projections.

1,256,004. FINGER-EXERCISING DEVICE. KNUTE I. FINNEY, Chicago, Ill. Filed June 5, 1916. Serial No. 101,668. (Cl. 46—69.)



1. In a finger exercising device, the combination of a framework, and finger-holds carried by the framework for supporting the same on the fingers, said finger-holds receiving the fingers in separated relation, whereby the device is carried by the fingers to maintain them in separated relation during the flexing of the fingers.

2. In a finger exercising device, the combination of a framework, finger-holds carried by the framework for supporting the same on the fingers, said finger-holds receiving the fingers in separated relation, whereby the device is carried by the fingers to maintain them in separated relation during the flexing of the fingers, and means connecting said supports to said framework and permitting said supports to be held by said framework at different distances apart.

3. In a finger exercising device, the combination of a framework, and finger-holds carried by the framework for supporting the same on the fingers, said finger-holds receiving the fingers in separated relation, whereby the device is carried by the fingers to maintain them in separated relation during the flexing of the fingers, said supports comprising yieldable material to afford comfortable engagement with the fingers.

[Claims 4 to 9 not printed in the Gazette.]

1,256,005. HAIR-PIN. WILLIAM F. FOCHA, Richmond, Cal. Filed Sept. 13, 1917. Serial No. 191,289. (Cl. 132—22.)

A hair pin having two spaced arms, each of said arms being bent outwardly spirally about its axis so as to form a series of undulations, the arms being coiled in the same direction about their axes and the undulations of one arm corresponding with those of the other arm whereby, when the arms of the pin are twisted together, the undulations of these members interengage and coöperate to lock them in this position, each of said arms being further



provided, at its free end portion, with a relatively sharply curved portion and a straight locking portion contiguous thereto, the said curved portions being so related as to engage and bring the said straight locking portions into overlapping relation when the arms of the pin are twisted together.

1,256,006. SECONDARY OR STORAGE BATTERY. BRUCE FORD, Philadelphia, Pa. Filed Dec. 22, 1917. Serial No. 208,488. (Cl. 204—29.)

1. In a storage battery the combination of a cell cover of relatively hard rubber material, a seal-nut, a terminal post extending through the cover and provided with an annular flange having a marginal metal lip confronting the underside of the cover, and a gasket of relatively soft rubber material arranged between the flange and cover and confined by the metal lip against radial expansion when compressed by the seal-nut.

[Claim 2 not printed in the Gazette.]

1,256,007. ELECTRIC PUSH-BUTTON. MAXWELL C. FRANK, Piedmont, Cal. Filed Jan. 8, 1917. Serial No. 141,207. (Cl. 240—1.)

1. A push button comprising a casing housing a pair of electric switch terminals, a terminal base and a transparent, homogeneous, self-luminous open shell, push button center; said luminous shell provided with a basal bearing flange around said open end engaging its casing and said terminals.

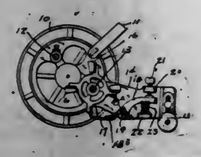
6. In a push button, an integral structure of glass comprising a hollow body portion, a lens top portion and

a flanged bottom portion, luminous material in said integral structure and an adhesive coating applied thereto forming a hermetical seal for the luminous material within said body.

7. In a push button, a cylindrical, recessed, flanged, integral structure of glass, the closed end of which is formed into a plano-convex lens to cause to subtend a larger visual angle for the luminous coating within said recess.

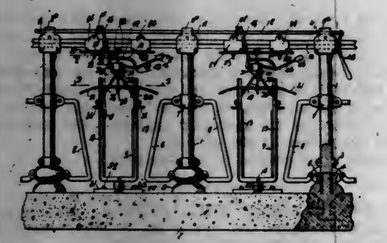
[Claims 2 to 5 not printed in the Gazette.]

1,256,008. LAWN-MOWER. OLIVER B. FRAZIER, Elwood, Ind. Filed Aug. 21, 1916. Serial No. 116,143. (Cl. 56—19.)



A lawn mower including a cutting reel, side frames, an inverted V-shaped cross frame having an integral horizontally disposed plate at one edge, means for pivoting said cross frame to the side frames, upwardly and rearwardly curved arms having one end integral with the ends of said cross frame, the under faces of said arms having sockets therein, a cutter bar attached to said arms and resting against the horizontally disposed plate of the cross frame, inwardly extending projections at the bottom of said frames between which and the upper lug the free ends of said arms project, the upper faces of said projections having sockets in alinement with the sockets of said arms, set screws adapted to screw through said lugs and engage the upper faces of said arms for forcing them downwardly and the cutter bar upwardly against the cutting reel and spiral springs between said projections and the underside of said arms for continuously forcing said arms upwardly and against said set screw, the ends of said springs entering said alining sockets.

1,256,009. STANCHION. JOSEPH S. GABRIEL, Rice Lake, Wis. Filed Oct. 4, 1917. Serial No. 194,784. (Cl. 119—148.)

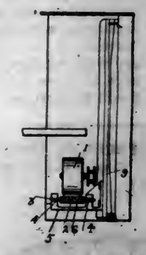


3. In cattle stanchions, a yoke comprising two neck bars hingedly secured together at their lower ends, a suspending bolt mounted above and at the center of said yoke, a locking block slidably mounted on the bolt, connections between the block and the yoke bars for moving said bars toward each other when the block is raised and away from each other when the block is lowered, said block being provided with an outwardly projecting locking finger, a lever loosely mounted intermediate its ends on said bolt for rocking movement, a locking hook carried by the lever and adapted to engage said finger so as to secure the block in raised position, and means connected to the lever and block for raising said block and moving the hook into operative engagement with said finger, said means being adapted also to move the locking hook into inoperative position so as to release the locking block.

4. In cattle stanchions, a yoke comprising two neck bars hingedly secured together at their lower ends, a suspending bolt mounted above and at the center of said yoke, a locking block slidably mounted on the bolt and having a downwardly curved locking finger, connections between the block and the yoke bars for moving said bars toward each other when the block is raised and away from each other when the block is lowered, a lever loosely mounted intermediate its ends on said bolt, a locking hook pivotally secured to one end of said lever in position for engagement with the locking finger when said block is raised, and an operating lever pivotally secured intermediate its ends to the other end of the lever carried by said suspending bolt, said operating lever being pivotally secured at its inner end to the locking block so as to raise the same when the outer end of the operating lever is depressed.

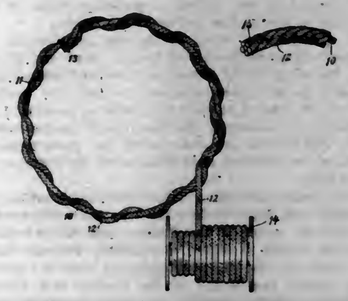
[Claims 1, 2, and 5 not printed in the Gazette.]

1,256,010. ELECTRIC-MOTOR-SUSPENSION MEANS. ROBERT A. GALLY, Cincinnati, Ohio, assignor to The Baldwin Company, Cincinnati, Ohio. Filed Sept. 10, 1917. Serial No. 190,673. (Cl. 64—52.)



An electric motor and a bearing therewith, a piano having wooden parts and a metal plate, said bearing attached to said metal plate.

1,256,011. ENDLESS BELT AND METHOD OF MAKING THE SAME. JOHN R. GAMMETER, Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a Corporation of New York. Filed Mar. 24, 1913. Serial No. 756,320. (Cl. 74—62.)



1. An endless, substantially non-stretchable belt comprising a tense strand of fibrous material wound in a continuous series of adjacent courses longitudinally of the belt, and vulcanized rubber serving to bind together said courses and hold them in their stretched condition.

2. An endless substantially non-stretchable belt comprising a tense endless spliced core-strand of fibrous material, a tense cover strand of fibrous material wound helically about said core-strand in a continuous series of belt-encircling courses, the turns of each course lying between the turns of another course, and a vulcanized rubber coating forming the wearing surface of the belt, embedding and binding together the cover-strands and serving to hold the latter and the core strand in their tense condition.

3. The method of forming a substantially non-stretchable endless belt which consists in winding a fibrous strand in a continuous series of adjacent courses longitudinally of the belt, incorporating rubber with said strand, and vulcanizing said rubber while the belt is held under tension.

4. The method of forming an endless belt which consists in winding a fibrous cord helically in a series of adjacent parallel courses, incorporating rubber therewith, stretching the belt and vulcanizing it as a whole while under tension.

6. An endless, substantially non-stretchable belt comprising a tense strand of fibrous material wound in a series of adjacent parallel courses longitudinally of the belt, and vulcanized rubber within and at the surface of the belt, serving to bind together and hold said courses in their stretched condition and to form a driving surface.

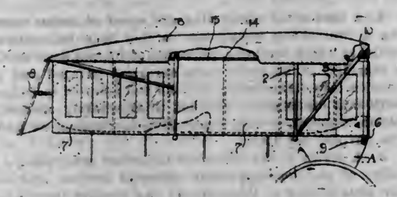
[Claim 5 not printed in the Gazette.]

1,256,012. RESPIRATOR. THOMAS GOSSACK, Belt, Mont. Filed Sept. 2, 1915. Serial No. 48,707. (Cl. 128—42.)
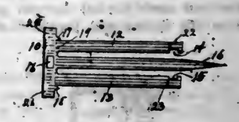


A respirator comprising an initially closed casing having a tortuous fluid conductor therein opening into the casing at one end and opening exteriorly of the casing at its opposite end and a respiratory tube connected with and opening into the casing and having exterior to the casing, means for connection with the respiratory organs of the user.

1,256,013. AUTOMOBILE-CURTAIN. JOHN W. GRIM, Abbottstown, Pa. Filed Mar. 22, 1915. Serial No. 16,270. (Cl. 21—62.)



The combination with a vehicle having a body and a top, side curtains therefor, vertically disposed spring rollers upon which the side curtains are mounted, flexible elements extending longitudinally along the top at each side margin thereof, and supporting members extending at intervals vertically across each curtain and parallel to the spring roller thereof, said supporting members at their upper end being hooked to engage over said elements.

1,256,014. ADJUSTABLE GAGE-PIN FOR TYMPANS. JACOB ROHR GROVE, Mansfield, Pa. Filed Dec. 22, 1917. Serial No. 208,501. (Cl. 101—415.)



1. A blank for gage-pins for tympans, which blank is generally rectangular in form having spaced prongs also spaced from the side margins of the blank, the central prong being of greater length than the side prongs and attenuated at its outer end, the side prongs having opposing notches, the blank also having pointed lugs adjacent to the side prongs, the blank also having an opening in the center of its widest end portion, said blank being adapted to be bent at right angles at the base of the prongs and also being adapted to be bent at right angles adjacent to the ends of its widest end portion, said blank also being adapted to be bent on lines transversely of the outermost prong adjacent to the inner ends of the opposing notches of said prongs.

2. A gage-pin for tympans, comprising a head member, spaced guide prongs at right angles to the head member, the outer ends of said guide prongs being turned into the plane of the head member and formed with opposing notches, a pin prong of greater length than the guide prongs and located between them, said head member being formed with a central opening.

[Claims 3 to 5 not printed in the Gazette.]

1,256,015. AUTOMOBILE-INNER-TUBE PROTECTOR. WALTER C. GUILD, Marionville, Mo. Filed Apr. 19, 1916. Serial No. 92,301. (Cl. 152—18.)

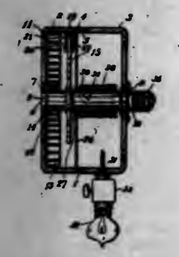


In combination with a rim, casing and inner tube, an inner tube protector comprising a ring disposed within the casing and concave in cross section, a hoop surrounding the supporting rim, and a plurality of resilient metallic sections formed on their inner ends with hooks engaged about said hoop and having their outer ends bearing against the inner surface of said ring, said sections being in overlapping relation to each other and partially encircling the inner tube.

1,256,016. SPRING-REEL. PETER HENDERSON, Burgettstown, Pa. Filed June 27, 1917. Serial No. 177,292. (Cl. 248—10.)

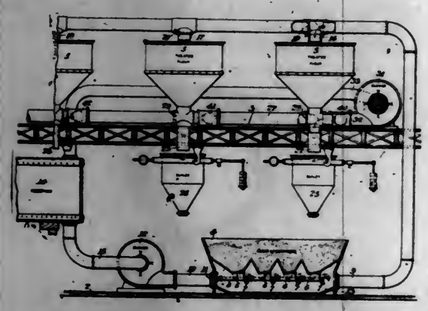
In a device of the character described, the combination, with a casing consisting of two cup-shaped members adapted to be screwed together, a shaft rotatably mounted in the casing having a drum portion and provided with shoulders for holding said shaft in said casing, a coil spring having one end thereof attached to the casing and the other end to the shaft to revolve the said shaft in one direction, a ratchet-wheel mounted on the shaft to turn therewith, a spring actuated pawl pivotally attached to the casing in the path of the ratchet-wheel, a

sleeve socket attachment secured to the casing, a contact plug rigidly mounted in one end of the shaft adapted to rotate with the said shaft in the said sleeve socket attachment, a quantity of lamp cord wound upon the drum portion of the said shaft having one end passing through an aperture in the casing and provided with lamp con-



nections and the other end passing through an aperture in the drum portion of the shaft and connected to the said sleeve socket attachment and to the rotatable contact plug, and a plate placed intermediate the two cup-shaped members, substantially as described and for the purpose set forth.

1,256,017. APPARATUS FOR TREATING FLOUR. GEORGE J. HICKS, Saginaw, Mich., assignor to Richard Werner and Otto Werner, Cannstatt, Province of Wurttemberg, Germany. Filed Apr. 6, 1914. Serial No. 829,924. (Cl. 83—42.)



1. In an apparatus for treating flour, the combination with a bottom-discharge storage bin having a plurality of separate discharge outlets provided with closers, of an air tank, means for holding open all of said closers, and a blower for forcing air from said tank through flour flowing from the discharge outlets of said bin.

5. In an apparatus for treating flour, the combination with a storage-bin having a pivoted counterweighted closer, of an air-tank a blower for forcing a current of air from said tank through flour flowing from said bin, and means operated by said air current for holding said closer open in opposition to said counterweight.

10. In an apparatus for treating flour, the combination with a bin for holding untreated flour and with a plurality of bins for receiving treated flour, of a pipe leading from said first bin to each of the other bins, valves for opening and closing communication between said pipe and the receiving bins selectively, and means for forcing a current of air through flour descending from the first bin and blowing said flour through said pipe into any one of said receiving bins.

16. In an apparatus for treating flour, the combination with a pair of bins each having a discharge-opening, of a pipe leading from the first to the second of said bins, means for subjecting flour flowing from said first bin to the action of air of predetermined temperature and humidity and blowing said flour through said pipe into said second bin, and means for subjecting flour as it flows from said second bin to the action of air of predetermined temperature and humidity.

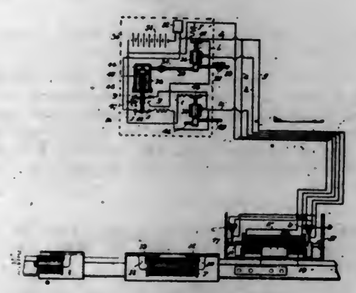
[Claims 2 to 4, 6 to 9, 11 to 15, and 17 not printed in the Gazette.]

1,256,018. SPRING-WHEEL. ERNEST G. HILL, Spokane, Wash. Filed Oct. 23, 1917. Serial No. 198,079. (Cl. 152—50.)



A spring wheel comprising a hub and a rim, resilient spokes connecting the hub and the rim, each spoke being formed from a strip of metal bent upon itself into substantially elliptical form and with the intermediate portion of the strip connected to the rim, the ends of the strip being connected to the hub, the connection at the hub comprising a strip encircling the hub and having outwardly bent portions forming radial lugs to which the ends of the strips forming the spokes are connected, the ends of the last-named strip forming one of the lugs.

1,256,019. MAGNETIC CONTROL FOR TRAINS. LAWRENCE WESLEY HORNE, Woodridge, and WARREN NOBLE CRANE, Ridgefield Park, N. J. Filed Oct. 28, 1914. Serial No. 868,983. (Cl. 246—58.)



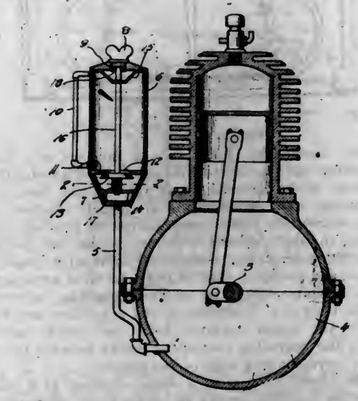
1. A device for controlling the speed of trains comprising a controlling mechanism carried by a locomotive, an ordinary track having a plurality of diamagnetic sections, a plurality of magnetic coils arranged parallel and adjacent certain diamagnetic sections and adapted to coöperate with said diamagnetic sections to alternately operate and retain inoperative said controlling mechanism as and for the purpose set forth.

3. A device of the character described comprising a plurality of electromagnetically operated devices, and means for maintaining or interrupting the circuits therethrough, said means comprising a plurality of contacts, a magnet for operating them said magnet being supported adjacent to the rails and a plurality of contacts in parallel with said first mentioned contacts and operated by a second magnet remote from said first mentioned magnet as and for the purpose set forth.

5. A device of the character described comprising magnetically operated valves one of which controls the operation of the other and means for operating said valves, said means including an electromagnet having a partially rotatable core, and a circuit breaking device for one of said valves operated by said core in combination with a magnetic member for retaining said core and a diamagnetic member in the path of said core for releasing said core as and for the purpose set forth.

[Claims 2 and 4 not printed in the Gazette.]

1,256,020. LUBRICATING MECHANISM. EDWARD HOVE, Marysville, Cal. Filed May 20, 1916. Serial No. 98,896. (Cl. 184—18.)



1. A lubricating device of the class described having a reservoir, a valve to control the supply of lubricant therefrom, a closure member for said reservoir, and said member being operable independently of and against said valve to position the valve.

2. A lubricating device of the class described having a reservoir provided with an outlet valve, a rod for said valve extending from opposite faces thereof, bearing means for the rod, a spring on one side of the valve urging it to its seat, and means on the other side of the valve movable independently of and relatively to the valve to position the valve counter to the action of the spring.

5. A lubricating device having a reservoir provided with a tapered side wall adjacent its base, a supply pipe leading from the base wall of the reservoir, said reservoir adjacent the junction of the tapering with the remainder of the side wall, having a wall provided with an opening forming a valve seat, a spider bearing extending from the tapered wall, a bearing adjacent the top of the reservoir, a stem slidably mounted in said bearing, a valve disposed intermediate the ends of said stem, a spring surrounding the stem intermediate the valve and spider bearing, a closure member adjacent the top of the reservoir, and said closure member being operable against the said stem to position the valve.

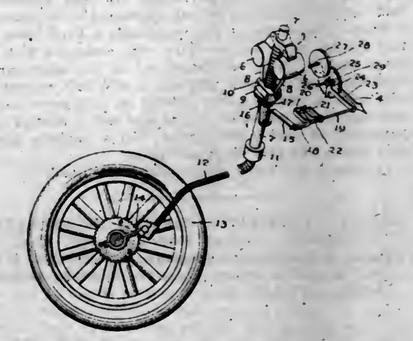
[Claims 3 and 4 not printed in the Gazette.]

1,256,021. LOCK FOR SLIDING DOORS. ALBERT W. JOHNSON, Josco, Minn. Filed June 28, 1917. Serial No. 177,559. (Cl. 70—102.)



A device of the character described comprising in combination, a casing, a substantially crescent shaped member pivotally mounted in the casing, a keeper slidable of the casing and adapted to rock the crescent shaped member upon its pivot to engage said keeper, and means pivotally connected to the crescent shaped member and slidable longitudinally thereof for rocking the crescent shaped member into and out of engagement with said keeper.

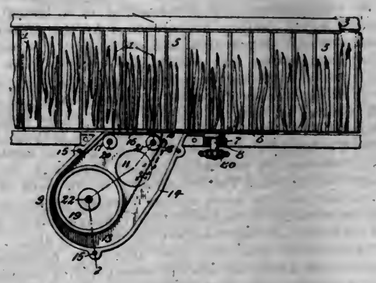
1,256,022. SPEEDOMETER. JOHN E. JOHNSON, Brooklyn, N. Y., assignor to Charles Fischer, Brooklyn, N. Y. Filed Jan. 8, 1917. Serial No. 141,158. (Cl. 264—15.)



2. In a speedometer, the combination with a governor, of a rock-shaft and an indicator operated thereby, an arm pivoted coaxially with the rock-shaft and operated by the governor, an arm fixed to the rock-shaft, said arms having reversely-extending overlapping portions, and a yielding connection spring coiled about the rock-shaft axis and having its ends embracing both said overlapping portions.

[Claim 1 not printed in the Gazette.]

1,256,023. MACHINE FOR SNIPPING BEANS AND OTHER ARTICLES. WILBUR KILLINGSWORTH, Chillicothe, Ohio, assignor to The Chillicothe Bean Snipper Company, Chillicothe, Ohio, a Corporation of Ohio. Filed July 2, 1917. Serial No. 178,064. (Cl. 146—11.)



1. A machine for cutting the ends of articles comprising a cutter, a carrier for moving the articles to be cut past said cutter, and a gage device for positioning said articles preparatory to reaching said cutter comprising a foraminous gage arranged in front of said cutter, and means for moving said articles by fluid pressure crosswise of said carrier into engagement with said gage.

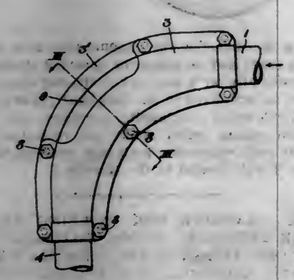
6. A machine for cutting the ends of articles comprising a cutter, a carrier for moving the articles to be cut past said cutter, and a gage device for positioning said articles preparatory to reaching said cutter comprising a foraminous gage belt having a part arranged lengthwise of said carrier on one side thereof, an air suction box inclosing said belt and having an air inlet adjacent to said

carrier and having an outlet adapted to be connected with an exhaust device, two supporting rollers arranged adjacent to the inlet of said box and supporting the inner part of said belt and a driving wheel supporting the outer part of said belt.

8. A machine for cutting the ends of articles comprising a cutter, a carrier for moving the articles to be cut past said cutter, and a gage device for positioning said articles preparatory to reaching said cutter comprising a foraminous gage belt having a part arranged lengthwise of said carrier on one side thereof, an air suction box inclosing said belt and having an air inlet adjacent to said carrier and having an outlet adapted to be connected with an exhaust device and comprising a fixed lower section and an upper section detachably connected with said lower section, guide rollers pivoted on the inner part of said upper section and supporting said belt adjacent to said inlet, a driving pulley pivoted on said upper section and supporting the outer part of said belt, a driving shaft journaled on said lower section, and a coupling detachably connecting said shaft and pulley.

[Claims 2 to 5 and 7 not printed in the Gazette.]

1,256,024. PNEUMATIC-CARRIER-DECELERATING APPARATUS. AUGUST KOENIG, Lowell, Mass., assignor to The Lamson Company, Boston, Mass., a Corporation of New Jersey. Filed Jan. 6, 1917. Serial No. 140,930. (Cl. 243—20.)

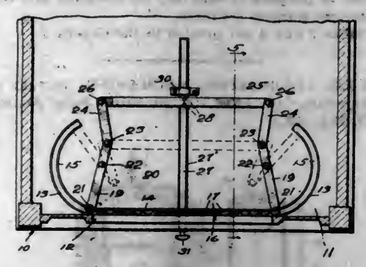


1. In carrier decelerating apparatus for pneumatic despatch tube systems, the combination of a transit tube through which carriers are propelled by the pressure of compressed air therebehind, with an abruptly curved air-outlet turn casing into which said carriers pass from said tube, said casing comprising carrier guiding means for rotating carriers in course of transit therepast about their centers of gravity and the parts of said guiding means which actually engage and guide the carriers, being reduced substantially to an edge, said guiding means being in cross-section substantially that of a blade, the turn in said casing being further directly in the path of said air current and the space therein through which the carriers pass, being in unrestricterd communication, about said blade-like guiding means, with the outer air.

2. Pneumatic despatch tube apparatus comprisng a tube through which carriers are despatched by compressed air, a carrier decelerating bend connected to said tube to receive carriers therefrom, said bend having on its outer side and in the path of the air current emerging from said tube, a single narrow arcuate carrier-guiding rib and air outlets upon both sides of the latter.

3. Pneumatic despatch tube apparatus comprising a tube through which carriers are despatched by compressed air, a carrier decelerating bend connected to said tube to receive carriers therefrom, said bend having on its outer side and in the path of the air current emerging from said tube, a narrow arcuate carrier-guiding rib and air outlets upon both sides of the latter, said bend being made of two curved trough-shaped parts and having means to fasten said parts together, the plane in which said parts join being substantially that of said rib.

1,256,025. SOUND-CONTROL MECHANISM. NICOLAS KOLBY, Chicago, Ill. Filed June 14, 1917. Serial No. 174,717. (Cl. 274—2.)



1. The combination with a sound chamber of a sound reproducing machine having an opening; of substantially horizontal tracks arranged near the top and bottom of the opening and extending longitudinally thereof and having rearwardly curved end portions; pivoted levers arranged inwardly of and near the curved end portions and having their pivot disposed concentric with respect to the track end portions; flexible panel curtains arranged to operate in contact with the tracks and having connection with the levers; a reciprocatory rod extending longitudinally of the sound chamber near the central portion thereof; and operating connecting means between the rod and the corresponding ends of the levers.

2. The combination with a sound chamber of a sound reproducing machine having an opening; of substantially horizontal tracks arranged near the top and bottom of the opening and extending longitudinally thereof and having rearwardly curved end portions; swinging levers arranged inwardly of and near the curved track end portions; pivot supports for the levers arranged between the ends thereof with the inner ends of the levers extending rearwardly beyond the same for substantial distances, said pivot supports being concentric with respect to the curved track end portions and the rear ends of the levers being arranged upon the inner sides of the pivot supports; flexible panel curtains arranged to operate within the tracks and having connection with the forward ends of the levers; a reciprocatory rod extending longitudinally of the sound chamber and near the central portion thereof; a transverse member secured to the rod; and links connected with the ends of the transverse member and with the rear ends of the levers, so that the panel curtains will be in the closed position when the reciprocatory rod is moved to the inner position.

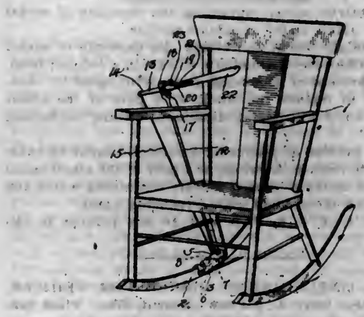
3. The combination with a sound chamber of a sound reproducing machine having an opening; of substantially horizontal tracks arranged near the top and bottom of the opening and extending longitudinally thereof and having rearwardly curved end portions; pivoted levers arranged inwardly of and near the curved end portions with their pivots disposed concentric with respect to the curved track end portions; flexible panel curtains arranged to operate in contact with the tracks and having connection with the levers, links pivotally connected with the rear ends of the lever and disposed permanently upon one side of the pivots of the levers; a transversely reciprocatory bar pivotally connected with the ends of the links; and a reciprocatory rod rigidly attached to the bar between its ends and projecting to the exterior of the sound chamber.

[Claim 4 not printed in the Gazette.]

1,256,026. FAN. WINCENTY KRAGIEL, Norwalk, Conn. Filed Aug. 4, 1916. Serial No. 113,143. (Cl. 230—7.)

1. In combination with a rocking chair, a vertical rod having a bifurcated end, a fan having a handle pivoted in said end, a horizontal oscillating shaft, a lever fixed to said shaft and a link connecting said lever and fan.

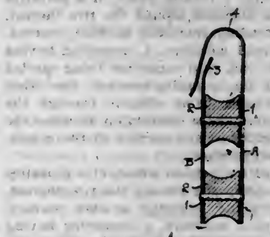
9. In combination with a rocking chair, a fan operated by the movement of the chair and means whereby the movement of the fan may be regulated, a vertical rod upon which said fan is pivotally mounted, an operating lever to which said fan is connected, means for reciprocating said last lever, said means consisting of a pivoted lever, rollers upon each end of said last lever, one of said rollers adapted to operate upon said first means to actuate the same, said last lever being centrally pivoted to said chair, said last lever being spring controlled.



14. In a device of the character described, an oscillating shaft, a pair of levers fixedly mounted on the shaft, a fan and means whereby said levers operate said fan and said shaft, said means including a spring controlled lever, said last lever having rollers on each end, one for engaging one of said pair of levers and the other for engaging a floor, said last lever being pivotally mounted centrally of said rollers, one of said pair of levers being adjustable upon said shaft.

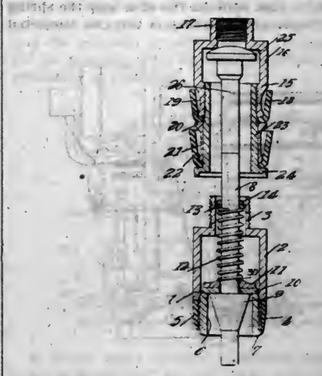
[Claims 2 to 8 and 10 to 13 not printed in the Gazette.]

1,256,027. REIN-HOLD. JOHN MARION LOVETT, Bainbridge, Ga. Filed Aug. 8, 1917. Serial No. 185,191. (Cl. 54—73.)



In combination with a harness trace chain for plows or the like, a rein-hold embodying two elongated plates substantially in parallelism and in predetermined spaced relation and separated one from the other throughout their lengths with corresponding lower ends substantially flush, rivets connecting said plates and maintaining the same in assembled relation, said rivets being spaced longitudinally of the plates, grooved rollers mounted upon the rivets between the plates and between which a rein is adapted to be loosely directed, the upper end portion of one of the plates being bent slightly inward, the adjacent end portion of the second plate being returned with its free end portion overlying the inwardly bent portion of the first named plate and co-acting therewith to afford a restricted entrance opening, said returned portion of the second named plate being loosely engaged with a link of the trace chain.

1,256,028. PUMP-VALVE. THOMAS J. LOWER, Strasburg, N. D. Filed Apr. 3, 1917. Serial No. 159,484. (Cl. 103—60.)



A valve structure, comprising a spider formed with an outwardly projecting boss at the central portion of its arch, and a reduced portion depending from the spider, an annular washer encircling the reduced portion, a sleeve threaded into the reduced portion, and formed with an outwardly projecting annular flange, said sleeve forming a valve seat, a valve seatable on the sleeve and provided with a central aperture, a stem passing centrally through the reduced portion and the boss and spaced from the wall defining the aperture of the valve, an enlargement on the stem providing a shoulder seatable upwardly against the valve, and means secured to the stem for retaining the shoulder and valve in contact, the stem being depressible to remove the shoulder from the valve.

1,256,029. CORSET-PATTERN SYSTEM. ARTHUR C. MCCLAUGHRY, Chicago, Ill. Filed Feb. 20, 1917. Serial No. 149,918. (Cl. 33—11.)



1. A method of laying out a corset pattern consisting of a duplicate set of five gores, consisting of a set of scales, one edge of each of which is curved, and tables printed on said scales to obtain corresponding inch measurements for location of points on the gores in laying out the same for different combinations of bust, waist and hip line measurements.

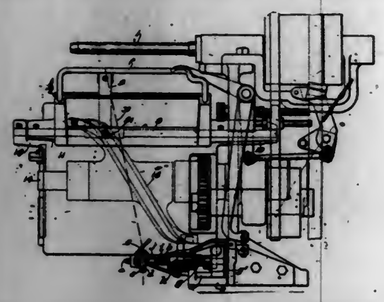
4. A method for laying out corset patterns made up for a plurality of gores, consisting in the use of tables for the determination of the dimensions of said gores, said dimensions corresponding to the different combinations of bust, waist and hip line measurements of the persons to be fitted, and scales having curved edges for joining the different dimensional points of the gores to properly shape the same to form a corset when the goods is cut out according to the outline of the gores.

[Claims 2 and 3 not printed in the Gazette.]

1,256,030. TENSION DEVICE FOR WINDING-MACHINES. JOHN O. MCKEAN, Westfield, Mass., assignor to Foster Machine Company, Westfield, Mass., a Corporation of Massachusetts. Original application filed Feb. 2, 1916, Serial No. 75,802. Divided and this application filed May 26, 1917. Serial No. 171,219. (Cl. 242—150.)

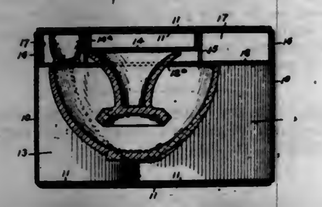
In a winding machine, an automatic tension device made up of two presser members; a spiral spring adjusted to

press one member toward the other; an adjustable abutment to adjust the tension of the spring; a straight cam bar set at a desired angle to the axis of the spring; a slide upon the cam bar; a link between the slide and the spring abutment; a carriage carrying the cam bar and connected



to the thread guide so that the movement of the thread guide due to growth of the cop will move the cam carriage and regularly and progressively relieve the tension of the spring and pressure on the presser members.

1,256,031. PACKING OR SHIPPING CASE. REUBEN MILLER, Jr., Pittsburgh, Pa. Filed Aug. 14, 1915. Serial No. 45,476. (Cl. 206—65.)



1. In packing cases, an outer case, a horizontally extending partition dividing the case into an upper and a lower compartment, said partition being apertured to form a retaining seat for an article, means within the upper compartment dividing said compartment into a plurality of individual article containing cells, supporting means in the lower compartment, said latter means cooperating with the cell forming means for maintaining the position of the partition and reinforcing the case.

4. In packing cases having an openable top, removable means for supporting individual articles therein, said means including a partition extending substantially parallel with the top and adapted to form compartments, and supporting elements within said compartments and between said partition and the top and bottom of the case for fixedly positioning the partition, the elements of the lower compartment each combining with the case wall to produce a triangular formation, said triangles having contact walls with the apices of the triangles substantially at the vertical center of the case.

10. In packing cases having an openable top, removable means for supporting articles therein individually, said means including a partition extending substantially parallel with the top and adapted to form compartments, said partition having an opening the walls of which are adapted to suspend an article projecting through the opening, and elements within the compartments for positioning the partition within the case, said elements including an angular member above said partition and spaced from the case walls, said member surrounding the partition opening, and a member insertible within the angular member and having a depth substantially equal to the distance between the suspended article and the case top, said insertible member having an open top.

[Claims 2, 3, 5 to 9, and 11 not printed in the Gazette.]

1,256,032. CATALYTIC AGENT. ALWIN MITTASCH, CHRISTIAN SCHNEIDER, and HUGO MORAWITZ, Ludwigshafen-on-the-Rhine, Germany, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed June 4, 1914. Serial No. 843,023. (Cl. 23—28.)

2. A catalytic agent containing the elements of nickel and of an alkali metal aluminate-silicate.

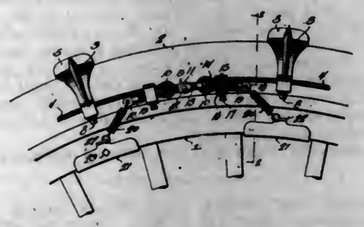
5. A catalytic agent containing the elements of nickel and of an alkali metal aluminate-silicate in a reduced form.

8. The process of producing a catalytic agent by causing nickel to replace the whole or a part of the alkali metal of an alkali metal aluminate-silicate containing water.

11. The process of producing a catalytic agent by causing nickel to replace the whole or a part of the alkali metal of an alkali metal aluminate-silicate containing water and then treating the product with a reducing agent.

[Claims 1, 3, 4, 6, 7, 9, and 10 not printed in the Gazette.]

1,256,033. ANTISKIDDING DEVICE FOR VEHICLE-WHEELS. OTTO J. NIENOW, Merrill, Wis. Filed Feb. 10, 1917. Serial No. 147,869. (Cl. 152—14.)



1. The combination with a vehicle wheel, of a plurality of tread members to be disposed around the tire thereof, a circumferentially extending retaining member connecting the ends of said tread members, a connector having an opening through one end, said connector being carried by one end portion of the retaining-member, the other end portion of said member being slidable through the opening in said connector, and a connection between the free end of the last mentioned end portion of the retaining member and the vehicle wheel.

2. The combination with a vehicle wheel, of a plurality of tread members to be disposed around the tire thereof, a circumferentially extending retaining member connecting the ends of said tread members, a connector having an opening through the end, said connector being carried by one end portion of the retaining member, the other end portion of said member being slidable through the opening in said connector, and a contractile spring connecting the last mentioned end portion of the retaining member and the vehicle wheel.

3. The combination with a vehicle wheel, of a plurality of tread members to be disposed around the tire thereof, a circumferentially extending retaining member connecting the ends of said tread members, a connector having an opening through each end, each end portion of the retaining member being slidable through one of said openings in the connector, and a connection joining the free end of each end portion of the retaining member with the wheel to prevent longitudinal shifting of the tread members and retaining member relative to the tire of said wheel.

[Claims 4 and 5 not printed in the Gazette.]

1,256,034. NEEDLE-SHARPENER. HARRY L. NOTTER, Chicago, Ill. Filed May 11, 1917. Serial No. 167,863. (Cl. 274—1.)

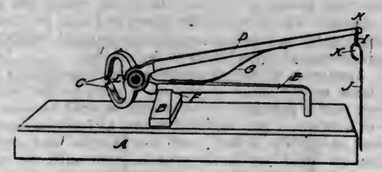


1. A needle point grinder including a hollow cone equipped with an interior tapered grinding surface, and a flexible support for said cup permitting the same to be manually gyrated about an axis eccentric to the axis of said hollow cone and coincident with that of a needle projecting into the same and maintained in contact with the interior surface of said cup as the latter is gyrated.

4. In a sound-reproducing machine equipped with a pivoted carrier and a sound box equipped with needle-engaging means mounted on said carrier, needle-point grinding means mounted on a rigid part of the instrument and including a rigid element having a recess disposed in the path of and adapted to receive a needle held in said needle-engaging means of said sound-box for accurately positioning said needle with respect to a grinding element, manually operable means for holding the needle engaged in said recess, and a grinding element associated with said recessed element adapted to be manually gyrated about the axis of said needle while maintained in surface contact therewith.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,256,035. DEVICE FOR CLIPPING FRUIT-PITS. WILLIAM F. OGLESBY, Berkeley, Cal., dedicated, by mesne assignments, to the Government of the United States and to the people of the United States. Filed Apr. 16, 1917. Serial No. 162,591. (Cl. 146—6.) (Dedicated to the public.)

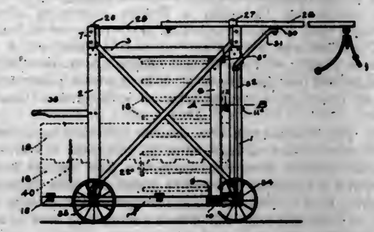


A pit clipping device comprising pivoted members having at their forward ends inturned portions forming transverse cutting blades each provided in its edge with a notch, the two notches, when said blades are engaged, forming a pit supporting opening.

1,256,036. INSECT-DESTROYER. LUTHER PATTON and HENRY B. WALLACE, Blocton, Ala.; said Wallace assignor to said Patton. Filed Apr. 13, 1917. Serial No. 161,830. (Cl. 43—1.)

2. In an insect catcher, a frame adapted to be moved with relation to plants, posts rotatably mounted in the frame, springs secured to the posts and extending approximately at right angles thereto, shaker fingers carried by the said springs, means for holding the posts with the shaker fingers in operating position, means for removing insects dislodged by the shaker fingers, said means consisting of trays, means for pivotally connecting the trays to the frame, and aprons adjustably connected to the said trays.

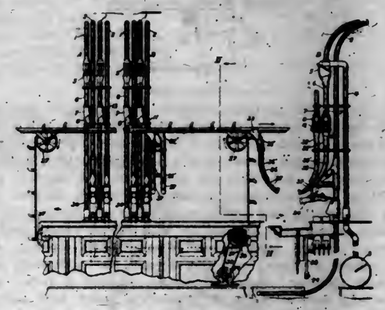
7. In an insect destroyer, a frame-work comprising on each side a rigid upright member, a second upright member adjacent to the rigid member and pivotally mounted, flat springs attached to each pivoted member, shaker fingers carried by the springs, stop means carried by each rigid upright member which are adapted to engage and stop the forward movements of the shaker fingers beyond the position at a predetermined angle to the row of plants operated on, and a spring connection between each rigid and the adjacent pivoted post to yieldingly hold the latter in position with its fingers against said stops, substantially as described.



9. In an insect catcher, a portable frame, plant engaging means carried by the frame for dislodging insects, means for catching the dislodged insects consisting of trays pivotally connected at their outer sides to the frame and disposed on each side of the plants under treatment, each tray having a hinged upwardly folding extension at its free edge, and means to limit the movement of said extensions about their hinged connections to the tray, substantially as described.

[Claims 1, 3 to 6, and 8 not printed in the Gazette.]

1,256,037. DESPATCH AND DISTRIBUTING SYSTEM. ALBERT W. PEARSALL, Lowell, Mass., assignor to The Lamson Company, Boston, Mass., a Corporation of New Jersey. Filed June 21, 1913. Serial No. 774,966. (Cl. 243—16.)



2. The combination of a pneumatic despatch tube system having a terminal, with a continuously driven mechanism for automatically removing carriers from said system after their arrival at said terminal, said mechanism having devices adapted to co-act with said carriers and coacting means to distribute the latter selectively in accordance with the classes of said carriers.

14. The combination of a plurality of pneumatic despatch tubes through which carriers of different classes are propelled indiscriminately, with a combined assorting and distributing mechanism common to said plurality of tubes and adapted to receive said carriers therefrom, said mechanism including a flexible element adapted to move said carriers away from said tubes, said mechanism including means for supporting said carriers, during their conveyance by said flexible element, for variable distances, carriers of one class being freed from the action of said flexible element before carriers of a second class.

16. The combination of a pneumatic despatch tube system having a terminal provided with a receiving part, ex-

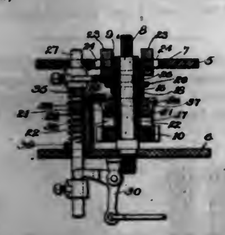
traneous power driven means for removing carriers successively from said receiving part, and means for retaining carriers in said receiving part until removed by said power driven means, said receiving part adapted to hold a carrier about to be removed therefrom at an angle to the horizontal.

23. The combination of a carrier despatch system having a terminal receiver, with a mechanism to which carriers of different classes are delivered from said receiver, said mechanism including a flexible conveying element provided with jointed supporting parts for some at least of said carriers and a revoluble member around which said element passes, said mechanism adapted to unload carriers unsupported by said parts at a determined point and to unload other carriers supported by said parts at another point.

30. The combination of a carrier despatching system, a receiver for carriers traversing said system, a conveying element movable past said receiver, a part carried by said element for engaging carriers to withdraw them from said receiver, said receiver being apertured to permit said part to pass therethrough, and means for driving said conveying element.

[Claims 1, 3 to 13, 15, 17 to 22, and 24 to 29 not printed in the Gazette.]

1,256,038. LACE-MAKING MECHANISM. ROBERT CARL RAHM, Wyomissing, Pa., assignor to Textile Machine Works, Wyomissing, Pa., a Corporation of Pennsylvania. Filed Apr. 22, 1916. Serial No. 92,810. (Cl. 28—4.)



2. In a lace making machine comprising a race-way plate having intersecting race-circle openings, and a central post for each opening; a carrier-driver provided with a clutch-engaging recess, and a drive-gear clutch member, independently rotatable on said post and formed with abutting sleeve-extensions; a movable clutch member axially slidable on said sleeve extensions and having its top portion constantly engaged in said driver recess and its bottom portion adapted to intermittently engage said drive-gear member; movable means for operating said slidable member; and fixed means adapted to retain said driver in determined rotary position when said slidable member is disengaged from the drive-gear member.

[Claim 1 not printed in the Gazette.]

1,256,039. PURIFIER FOR STEAM-BOILERS. HARRY H. RALPH, Philadelphia, Pa. Filed July 10, 1916. Serial No. 108,527. (Cl. 122—428.)



1. Apparatups of the character stated embracing a casing the inlet end of which is provided with a vertically disposed baffle plate and the blow end of which is provided with a filter cage having a closed inner end, a horizontally disposed baffle plate interposed between said vertical baffle plate and the closed end of said cage, inlet and blow-off connections for the casing, means for feeding purifier water to the boiler, and independent means for the admission of boiler water to the purifier upon opposite sides of said baffle plates and cage.

2. Apparatus of the character stated embracing a casing the inlet end of which is provided with a vertically disposed baffle plate and the blow-off end of which is provided with a filter cage having a closed innner end, a horizontally disposed baffle plate interposed between said vertical baffle plate and the closed end of said cage, a feed water connection extended around the casing provided with a boiler water intake which connection establishes communication with the casing upon one side of said baffle plate and cage, means for feeding purifier water to the boiler from the opposite side of said baffle plates and cage and similarly located means for the admission of boiler water to the purifier.

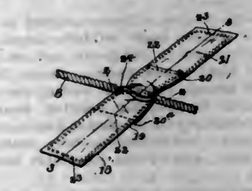
3. Apparatus of the character stated embracing a casing the inlet end of which is provided with a vertically disposed baffle plate and the blow-off end of which is provided with a filter cage having a closed inner end, a horizontally disposed baffle plate interposed between said vertical baffle plate and the closed end of said cage, a feed water connection establishing communication with the casing upon one side of the baffle plates and cage, a boiler water intake for said connection operative during a "blow-off" period, a blow-off connection, means for feeding purifier water to the boiler from the opposite side of said baffle plates and cage, mediums therefor for preventing ingress of boiler water, independent means for admission of "blow-off" period and mediums therefor for preventing escape of purifier water during normal working conditions.

4. Apparatus of the character stated, embracing a casing the inlet end of which is provided with a vertically disposed baffle plate and the blow-off end of which is provided with a filter cage, having a closed inner end, a horizontally disposed baffle plate interposed between the vertical baffle plate and said closed end of the cage, a feed water connection establishing communication with said casing upon one side of baffle plates and cage, a blow-off connection, means at the inlet end of the casing and upon the opposite side of said baffle plates and cage for feeding purifier water to a boiler, and means similarly located for the admission of boiler water to the purifier.

5. Apparatus of the character stated embracing a casing made up of a series of sections, a plate having top and bottom water passages, therethrough secured between adjacent sections, a grating fitted within at least one section beyond said plate, a filter cage seated upon said grating having its inner end in abutting relation with the unapertured portion of said plate, a baffle plate extending forwardly of the casing from said unapertured portion of the plate and inlet and blow-off connections for the casing.

[Claims 6 to 8 not printed in the Gazette.]

1,256,040. WIPER FOR SPINNING-MACHINES. GUS FRANKLIN ROBERTS, Belton, S. C., assignor to Textile Specialty Company, Belton, S. C., a Corporation of South Carolina. Filed July 13, 1917. Serial No. 180,424. (Cl. 118—19.)

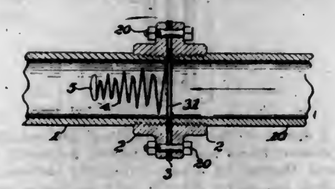


1. The combination with a cleaning cord, of a flexible cleaning wiper secured thereto and adapted to travel at all times in unison with the cord, said wiper having an S-shaped fold formed therein for reinforcing the same and maintaining the ends thereof in a predetermined projecting position from the sides of the cord.

3. The combination with a multi-strand cleaning cord, of a cleaning wiper secured between the strands of said cord and adapted to travel at all times in unison with the cord, said wiper having an extended central reinforced portion at its point of attachment to the cord for maintaining the ends thereof in predetermined projecting relation to the sides of the cord.

[Claim 2 not printed in the Gazette.]

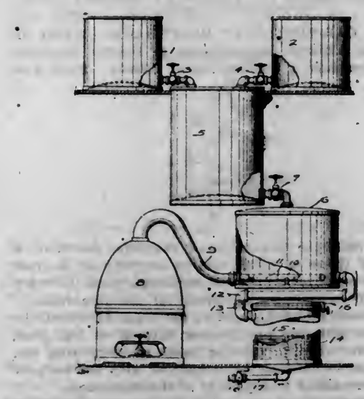
1,256,041. GAS-MIXER. JOHN M. ROSENKRANZ, Seattle, Wash. Filed Dec. 4, 1916. Serial No. 134,857. (Cl. 48—180.)



1. A mixing device for the gas line of internal combustion engines comprising a spring wire helically coiled to form a polygonal conical spring, in which the like sides of successive turns of the spring are positioned to bring the corners in one coil opposite the central parts of the sides of the adjacent coils.

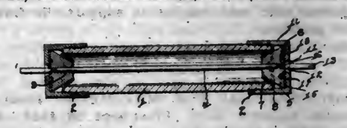
2. A mixing device for the gas line of internal combustion engines comprising a spring wire helically coiled to form a polygonal conical spring, in which the like sides of successive turns of the spring are given different angular positions, means for securing said spring by the end which is at the base of the cone within a suction passage, and a button secured to the small end of the cone.

1,256,042. PLASTIC COMPOSITION. WILLIAM B. ROSEVEAR, Jr., Toledo, Ohio. Filed Sept. 4, 1914. Serial No. 860,189. (Cl. 106—5.)



The composition for crayons, plastics, and the like, having a chemically precipitated mixture of about 66% calcium carbonate, 7% of magnesium carbonate, 10% of organic matter and a trace of sugar and about 17% of oxide of iron and aluminum and nitrogenous compounds.

1,256,043. RENEWABLE CARTRIDGE-FUSE. EMERICH SABINA and LESTER L. COPE, Sharpsburg, Pa. Filed Oct. 19, 1915. Serial No. 56,704. (Cl. 175—273.)

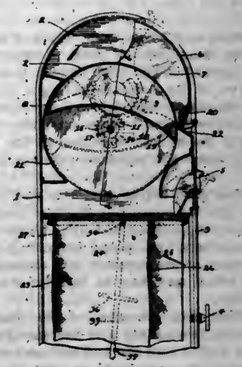


1. A cartridge-fuse holder comprising a tubular member threaded at each end and adapted to contain a fuse, a clamping member closing each end of the tubular member and consisting of complemental sections having grooves therein to form a bore, when the sections are together, in which the end of the fuse engages, the outer faces of the clamping member having depressions therein, a plate for each end of the fuse and adapted for engagement with the outer ends of the clamping members, said plate having projections engageable in the depressions in said clamping member, whereby the plate is held against rotation relative to the clamping members, a knife blade contact projecting from each of said plates, a ferrule for each end of the cartridge and adapted for engagement thereon, said ferrule having a flange thereon adapted to retain the plate and clamping members in position and to move the sections of the clamping member into clamping engagement with the fuse as the ferrule is threaded on the cartridge.

4. A cartridge fuse holder comprising a tubular member composed of fiber material, a metallic truncated conical shell insertible in each end of the tubular member to form guides and adapted to have the tapered portions thereof lie spaced from the tubular member, a tapered fuse clamp insertible in each guide and composed of plurality of complemental sections between which an end of the fuse is gripped, a cap for each end of the tubular member to be threaded thereon and to force and hold the clamp in position in the guide, a flange projecting from each guide for engagement with the edge of the tubular member to exert longitudinal pressure on the end of the latter when the clamping members are forced into clamping position in the guides.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,256,044. MAIL-BOX. JOHN N. SCHILLING, Columbus, Ohio. Filed Feb. 21, 1916. Serial No. 79,512. (Cl. 232—31.)

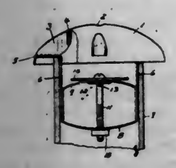


1. A mail box comprising a casing, a door structure through which the mail is inserted, a bag into which the mail may be dropped, a rectangular frame on which said bag is supported, a guideway on the inside of the casing, means whereby the rear end of said frame slidably engages said guideway, a bracket carried by the inside of

said casing beneath said guideway, and a reach rod pivotally attached at one end to said frame and provided with a series of notches adjacent its other end designed to coöperate with said bracket to support the frame in extended position.

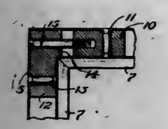
[Claim 2 not printed in the Gazette.]

1,256,045. VENT-CAP FOR SOIL-PIPES. JOSEPH M. SCHREMS, Saginaw, Mich. Filed Sept. 22, 1917. Serial No. 192,685. (Cl. 98—4.)



In a soil pipe, the combination of a pressed metal cap having diametrically opposite pockets formed therein, a pair of downwardly extending flexible arms secured at their upper ends to the bottoms of said pockets, a downwardly bowed flexible cross brace secured to the lower ends of said arms, an upwardly bowed flexible cross brace secured to said arms intermediate their length, a threaded boss carried by said lower cross brace, a threaded bolt passing loosely through the upper cross brace and threaded into said boss, an upper and a lower washer on said bolt, said upper washer of large diameter, said cap formed with a central aperture located above the head of said bolt, for the purposes set forth.

1,256,046. WINDOW-SASH. HARRY H. SCHROYER, Chicago, Ill., assignor to Dunbar Manufacturing Company, a Corporation of Illinois. Filed Dec. 17, 1913. Serial No. 807,190. (Cl. 189—76.)



1. In a window sash hollow side, top and bottom members mitered at their ends to form a tight joint, filler blocks rigidly secured in the ends of each hollow member, the blocks in two of the members having a threaded aperture and the blocks in the other two members having passages therethrough and screws extending through the passages in said blocks and engaging in the screw apertures to tightly draw the members together in assembled relation.

2. In a window sash hollow top, side and bottom members formed to provide oppositely disposed beads to retain a glass therebetween, independent filler blocks in the ends of all of the members and means extending through the filler blocks in part of the members and engaging the filler blocks in the other members to tightly draw the sash members together.

3. In a window sash structure of the class described, tubular side rails, tubular top and bottom members, filler blocks mounted within said top and bottom members, filler blocks mounted within the ends of said respective side rails projecting therefrom and adapted to interfit with said top and bottom members, and means engaged through the filler blocks of said side rails and having threaded engagement with the filler blocks in said top and bottom members to draw the same tightly to one another in rigid assembled relation.

[Claims 4 and 5 not printed in the Gazette.]

1,256,047. HINGED CURTAIN-SHIELD. HARRY H. SCHROYER, Chicago, Ill., assignor to Dunbar Manufacturing Company, a Corporation of Illinois. Filed Aug. 15, 1914. Serial No. 856,933. (Cl. 156—23.)

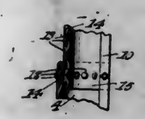


1. In a device of the class described, the combination with a window frame and a transverse horizontal member secured thereon, of a semi-cylindrical curtain shield hinged along one of its edges to said transverse member near each end thereof, a hollow bead integral with the lower edge of the shield, a locking bolt therein adapted to automatically lock and release the shield by actuating the shield, stationary member secured upon the window frame of each side thereof beneath said transverse member adapted to limit the closing movement of the shield into closed position, and a curtain roller journaled within said shield and movable therewith.

7. In a device of the class described, the combination with a window frame, of a transverse member secured thereacross, a curved curtain shield hinged along one edge thereof at the ends of said transverse member adapted to swing upwardly with respect thereto, stationary end caps secured on the window frame beneath said transverse member, curved projecting flanges on said end caps on which the ends of said curved shield is adapted to bear when in normal position, means in the interior of said curved shield for supporting a curtain roller therein, and mechanisms for positively locking the curved shield inclosed position on the window frame.

[Claims 2 to 6 not printed in the Gazette.]

1,256,048. CAR-VESTIBULE DIAPHRAGM. HARRY H. SCHROYER, Chicago, Ill., assignor to Dunbar Manufacturing Company, a Corporation of Illinois. Filed Feb. 18, 1915. Serial No. 9,009. (Cl. 105—61.)



1. In a vestibule diaphragm of the class described a plurality of strips of fabric laid in overlapping relation to form the legs and top of the diaphragm with the warp of the fabric extending transversely of the diaphragm.

2. In a vestibule diaphragm of the class described the combination with the top member thereof, of leg members connected thereto, said leg members comprising sections of fabric connected to one another with the warp of the fabric extending transversely of the diaphragm.

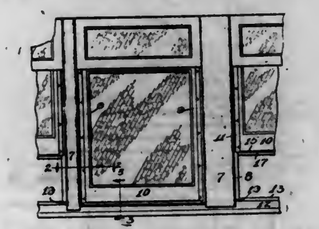
3. In a vestibule diaphragm of the class described the combination with top and leg members, of shoulder sections connecting said top and leg members to one another, the warp of the fabric of said shoulder sections disposed transversely of the vestibule diaphragm.

4. In a device of the class described a vestibule diaphragm comprising top and leg members, shoulder pieces connecting the same one to another, said leg members comprising a plurality of sections of fabric secured to one another and the warp of the fabric of said top and leg sections disposed transversely of the vestibule diaphragm.

5. In a vestibule diaphragm of the class described top and leg members, and shoulder pieces connecting the same one to another, the warp of the fabric comprising said top members and shoulder pieces disposed transversely of the vestibule diaphragm.

[Claims 6 to 8 not printed in the Gazette.]

1,256,049. WEATHER-STRIP FOR CAR-WINDOWS. HARRY H. SCHROYER, Chicago, Ill., assignor to Dunbar Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 18, 1915. Serial No. 9,010. (Cl. 20—69.)



In a device of the class described, a window frame, a window sill, a sash slidable in said frame, a resilient weather stripping secured to the underside of the sash and having an outer depending margin, outer side stop members secured to said frame and overlapping said sash and terminating slightly above the window sill to permit the projection therebeneath of the ends of said weather stripping when the sash is lowered to its closed position, and plates on said sash overlapping said stop members and adapted when said sash is lowered, to press down upon the sill the ends of said weather stripping projecting from beneath said stop members.

1,256,050. CAR-VESTIBULE DIAPHRAGM. HARRY H. SCHROYER, Chicago, Ill., assignor to Dunbar Manufacturing Company, a Corporation of Illinois. Filed Sept. 10, 1915. Serial No. 49,975. (Cl. 105—61.)



1. A vestibule diaphragm comprising a channel-bar frame member adapted for attachment on the end of a car, a Z-bar frame member of greater width and height than said channel member adapted for attachment on the face plate of the diaphragm permitting the channel bar to telescope therewithin, and a flexible connection between said channel bar and said Z-bar frame members.

2. In a vestibule diaphragm the combination with the face plate and end of the car of metallic frame members, secured to each adapted to telescope within one another and a flexible connection of U-shape having its ends rigidly secured to the frame members.

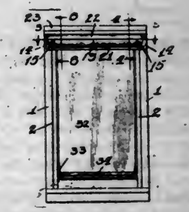
3. In a vestibule diaphragm in combination with the car and face plate, of a continuous frame member of channel section secured upon the car and a continuous frame member of the Z-section secured upon said face plate, said members extending upwardly to form the sides and top of the diaphragm and adapted to telescope one within the other, and a weatherproof flexible connection secured to said respective frame members to permit relative movement thereof and effect a sealing connection therebetween.

4. In a device of the class described interfitting metallic frame members forming the legs and top sector shaped metallic shoulder pieces connecting the same and a flexible member bent in substantially U-shape and having opposite ends rigidly attached to the metallic frame members and shoulder pieces.

5. A vestibule diaphragm of the class described comprising frame members forming the legs and top of a diaphragm, flanges formed on the adjacent ends of each thereof, and a continuous flexible connection along the legs and top of the diaphragm between said members attached to the flanges thereof.

[Claim 6 not printed in the Gazette.]

1,256,051. CURTAIN-BOX SPRING-LOCK. HARRY H. SCHROYER, Chicago, Ill., assignor to Dunbar Manufacturing Company, a Corporation of Illinois. Filed Oct. 4, 1915. Serial No. 54,088. (Cl. 156—23.)



1. The combination with a window frame, of transverse members removably secured thereacross and forming a casing, a curtain shield pivotally mounted therebeneath, and a curtain roller mounted within said shield, one of said transverse members acting also as a stop for said shield in the opening and closing movements thereof, the other of said transverse members fitting above the top of the window frame and overlapping said first-mentioned member to hold the same in place.

2. In a device of the class described, the combination with a window frame, of curtain guides secured thereto, face plates having cup-shaped portions integral therewith detachably mounted on said window frame, a curtain shield rotatively mounted at the upper end of the window frame the ends thereof adapted slidably to engage within said cup-shaped portions of said face plates, a curtain roller mounted within said shield, and a curtain thereon adapted to be extended and held in proper position by said guides.

3. In a device of the class described, the combination with a window frame having apertures therein, of a curtain roll, a revoluble shield therefor adapted to be moved into open and closed position around said curtain roll, and indents formed in the ends of said shield adapted to engage in said apertures to hold the shield in locked position.

4. In a device of the class described, a window frame, a curtain roller, a revoluble shield therefor in which said roller is supported, said frame having an aperture on one side near the upper end thereof and a slot on the other side thereof opposite said aperture, a pin on each end of said shield adapted to engage in said aperture and said slot to support said shield, a plate detachably mounted on said frame, a lug integral therewith and bent at right angles thereto, said lug adapted to fit into said slot to positively hold said shield in position, and means on said shield adapted to be sprung into locking position with the window frame when said shield is moved into closed position.

6. In a device of the class described, a window frame having an indent in each side near the upper end thereof, a curtain roller, a revoluble shield therefor in which said

roller is supported, indents in the ends of said shield adapted to be sprung into locking engagement with said frame indents when said shield is moved into closed position, and means for retaining said roller within the shield when the shield is in closed position, and permitting detachment of the roller when the shield is in an open position.

[Claim 5 not printed in the Gazette.]

1,256,052. WEATHER-STRIP. HARRY H. SCHROYER, Chicago, Ill., assignor to Dunbar Manufacturing Company, a Corporation of Illinois. Filed Oct. 16, 1915. Serial No. 56,185. (Cl. 20—69.)



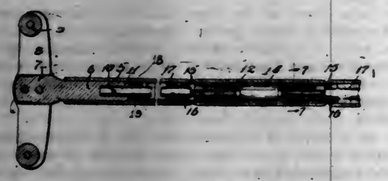
2. A device of the class described comprising a metal strip, a strip of fabric engaged therewith and a plurality of resilient leaf spring members integral with said metal strip to reinforce the projecting margin of the fabric strip.

3. In a device of the class described a metal strip, one margin thereof folded inwardly to afford a recess, a strip of fabric engaged in said recess, said metal strip and inturned margin thereof punched from the exterior surface to indent the metal into engagement with the fabric strip to retain the same engaged therein, and a plurality of angled resilient leaf spring reinforcement members integral with said strip to reinforce the projecting margin of said fabric strip.

6. The combination with a window frame and its sash, of a tongue on the window frame, weather stripping means secured upon the sash and disposed over a groove therein in which the margin of said tongue extends, a member secured to the frame bearing against the inner surface of said tongue to hold the tongue from springing inwardly, and a plurality of resilient elements forming a part of said weather stripping means acting to draw the sash firmly against the tongue.

[Claims 1, 4, 5, and 7 not printed in the Gazette.]

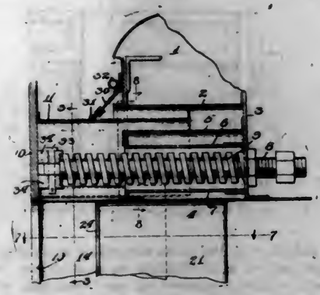
1,256,053. CURTAIN-FIXTURE. HARRY H. SCHROYER, Chicago, Ill., assignor to Dunbar Manufacturing Company, a Corporation of Illinois. Filed Mar. 13, 1916. Serial No. 83,745. (Cl. 156—26.)



1. In a curtain fixture of the class described, a tubular casing, slidable means mounted therein adapted to co-act with curtain guides in a window frame, resilient means acting to impel said means normally outwardly, said means rotatable in said casing to change the extension thereof with respect thereto, and mechanisms acting automatically to interlock with said means at predetermined points with reference to said casing to insure proper alinement and disposition thereof for proper co-action with the curtain guides after an adjustment thereof.

2. In a device of the class described, a tubular casing, rods slidable therein, means secured on the ends thereof for co-action with curtain guides on a window frame, rods rigidly secured on the inner end of each of said rods and projecting inwardly within said tubular casing, finger pieces slidably mounted within said tubular casing and having threaded engagement with said latter mentioned rods to permit adjustment thereof with respect thereto, coiled springs disposed around said latter mentioned rods acting to impel the same and said first mentioned rods and said means outwardly from the casing, and latching detent mechanism connected between said coiled springs and said first mentioned rods adapted to latch the same in a predetermined position of adjustment when the same are adjusted.

1,256,054. TELESCOPING METAL CAR-DIAPHRAGM. HARRY H. SCHROYER, Chicago, Ill., assignor to Dunbar Manufacturing Company, a Corporation of Illinois. Filed Mar. 25, 1916. Serial No. 86,617. (Cl. 105—61.)



1. A metal car diaphragm of the class described comprising compartment sections adjustably mounted upon the car body, side wall members of a movable section adapted to telescope therewith, a face plate secured on the forward end of said side wall members, a gabled top wall rigidly secured to said face plate and adjustably associated with the upper margins of said side walls, and sealing means to seal against the top and side wall members in all telescoping adjustments thereof with reference to the car.

3. In a diaphragm construction of the class described, telescoping diaphragm sections, certain thereof provided with sealing means to seal the telescoping sections, auxiliary sealing means bearing upon the exterior of certain of the other portions of one of the diaphragm sections, a face plate adjustably connected to the side walls and rigidly to the top wall of one of the diaphragm sections, and an adjustable connection between one of the diaphragm sections and the car body on which the diaphragm is mounted.

5. A car diaphragm of the class described comprising stationary and movable sections, said stationary section comprising compartment members, said movable section comprising members adapted to interfit slidably within said compartment members, insert plates for the compartment member, a sealing member secured to each plate between which the movable section extends, sealing the connection between said respective stationary and movable sections in all positions of adjustment thereof.

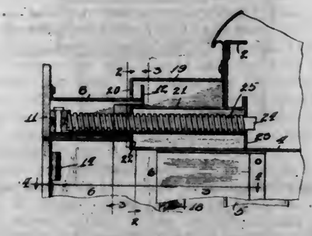
8. The combination with a car, of a vestibule car diaphragm attached thereon comprising stationary and movable sections adapted to telescope with one another, a roof member forming a part of said movable section capable of transverse relative movement with respect to the stationary section, walls forming a part of said movable section having said roof member adjustably associated therewith, and an adjustable connection between certain of the members of said stationary diaphragm section and the car on which the diaphragm is mounted.

10. A car vestibule diaphragm of the class described, a stationary section comprising a rigid roof member, compartment side walls, a movable section comprising

flexibly mounted side walls adapted to telescope within said compartment side walls of the stationary section, a top wall member adapted to move into telescoping relation beneath said roof member, and hingedly mounted spring impelled sealing means adapted to seal along the upper surface of said top wall of the movable diaphragm section to seal the same at the entrance thereof into and beneath said roof member of the stationary section.

[Claims 2, 4, 6, 7, 9, and 11 not printed in the Gazette.]

1,256,055. METAL CAR-DIAPHRAGM. HARRY H. SCHROYER, Chicago, Ill., assignor to Dunbar Manufacturing Company, a Corporation of Illinois. Filed Mar. 25, 1916. Serial No. 86,618. (Cl. 105—61.)



1. A metal vestibule diaphragm of the class described comprising a stationary section and a movable section adapted to telescope therewith, said stationary section comprising side walls, and a roof member, said roof member having an inturned downwardly directed flange, said movable section comprising adjustable side walls and a rigid roof member having an upwardly outwardly turned flange projecting beneath the roof member of said stationary section, and sealing means disposed between the telescoping side walls of the diaphragm.

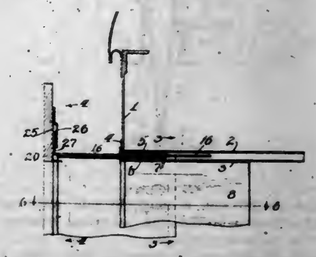
2. In a metal vestibule diaphragm of the class described, a stationary section comprising side walls, a roof member rigidly associated therewith, a movable section comprising hingedly mounted side walls adapted to be telescoped over said stationary side walls, a roof member adapted to slide beneath said stationary roof member, an upwardly outwardly turned flange on said roof member of the movable section projecting beneath the stationary roof member, a downwardly turned flange on said stationary roof member projecting over said roof member of the movable section, inturned overlapping flanges on the movable section and movable roof member and a sealing material therebetween.

3. In a metal diaphragm, stationary side sections, a stationary roof section, hinged side sections adapted to telescope the stationary sections, a movable roof section, inturned flanges at the end of the movable roof section, inturned flanges at the top of the movable side sections, and a sealing strip between said flanges.

4. In a metal diaphragm, stationary side sections, a stationary roof section, hinged side sections adapted to telescope the stationary sections, a movable roof section, inturned flanges at the end of the movable roof section, inturned flanges at the top of the hinged side sections, a sealing strip between said flanges, and overlapping upwardly and downwardly directed flanges secured to the movable roof sections and the stationary roof section.

5. In a metal vestibule diaphragm of the class described, an inner stationary section, an outer movable section adapted to telescope therewith, said inner section comprising rigid side walls and a roof member, said movable section comprising hingedly mounted side walls adapted to slide over the exterior of said stationary side walls, a roof member adjustably associated with the hingedly mounted side walls adapted to slide beneath said stationary hood member, a forwardly downwardly turned flange on said stationary roof member, and an upwardly turned flange on said movable roof member to co-act therewith affording a closure between said stationary and movable roof members.

1,256,056. METALLIC CAR-DIAPHRAGM. HARRY H. SCHROYER, Chicago, Ill., assignor to Dunbar Manufacturing Company, a Corporation of Illinois. Filed Apr. 10, 1916. Serial No. 90,134. (Cl. 105—61.)



1. In a metallic diaphragm construction of the class described, interfitting telescoping members, and a face plate associated therewith and slidably adjustable with respect thereto.

3. In a metallic diaphragm construction of the class described, top and side wall members adjustably connected to one another, compartment members secured to a car body adapted to receive said side wall members telescoping therewithin, and a face plate adjustably connected on said top and side wall members.

5. A car diaphragm of the class described comprising top and side wall members, said top member adjustably connected to said side wall members to permit relative movement therebetween, mechanism associated with the car body adapted to receive said top and side wall members telescoped therewithin, and a vestibule face plate adjustably connected to the top and side wall members.

9. In a device of the class described, stationary top and side channel members, a face plate, a top plate vertically adjustably connected to the face plate adapted to slide into the top channel member, and side plates hingedly mounted on the face plate and slidable vertically and horizontally with respect to the face plate adapted to telescope in the side channel members.

10. In a device of the class described, a face plate, top, and side members connected to the face plate to slide relatively thereof, a pocket formed at each end of the top plate, a flange on the upper end of each side member telescoping in said pocket, and top and side channel members fixed on the car into which the aforesaid top and side members slide.

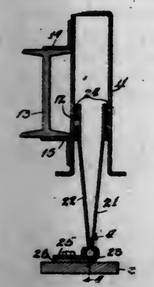
[Claims 2, 4, 6 to 8, and 11 not printed in the Gazette.]

1,256,057. METAL VESTIBULE-CAR DIAPHRAGM. HARRY H. SCHROYER, Chicago, Ill., assignor to Dunbar Manufacturing Company, a Corporation of Illinois. Filed Apr. 24, 1916. Serial No. 93,135. (Cl. 105—61.)

1. In a metal car diaphragm construction of the class described, a face plate, resilient side walls adjustably connected thereto and supported thereby, channel members forming a part of a stationary diaphragm section adapted to receive said side wall members telescoped therewithin, a roof plate member rigidly connected to the face plate, and means movably associated therewith and overlapping said side wall members and adapted to move therewith into interfitting relation with said stationary diaphragm channels during adjusting movements of the diaphragm.

9. In a diaphragm of the class described, a channel member, a face plate, a member hinged to the face plate comprising oppositely springing plates adapted to be sprung into the channel member and contact the walls of the channel member.

13. In a metallic diaphragm, a movable side wall comprising oppositely impelled spring plates.

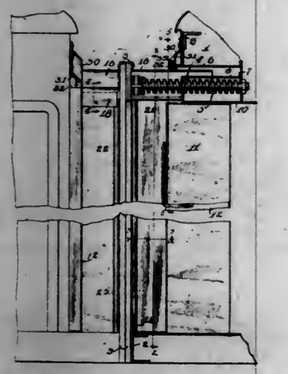


18. In a diaphragm, a movable side wall comprising oppositely impelled plates, and a sealing member secured to one edge of each plate.

22. In a diaphragm, telescoping side wall members, a movable roof member, pocket members secured to the roof member forming pockets, a plate secured in each pocket having its outer edge directed downwardly, and means secured to part of the telescoping members adapted to engage beneath said pocket members and forming a seal.

[Claims 2 to 8, 10 to 12, 14 to 17, 19 to 21, and 23 not printed in the Gazette.]

1,256,058. ROOF STRUCTURE FOR METAL VESTIBULE-CAR DIAPHRAGMS. HARRY H. SCHROYER, Chicago, Ill., assignor to Dunbar Manufacturing Company, a Corporation of Illinois. Original application filed Apr. 24, 1916, Serial No. 93,135. Divided and this application filed Feb. 1, 1917. Serial No. 145,913. (Cl. 105—61.)



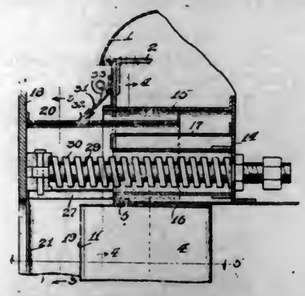
1. The combination with a telescoping metal car diaphragm of spring impelled means mounted on the car and co-acting with the diaphragm to afford a seal between the same and the car.

2. The combination with a telescoping metal car diaphragm of spring impelled means mounted on the end of the car and co-acting with the roof portion of said diaphragm to afford a seal between the diaphragm and the car.

3. The combination with a telescoping car diaphragm of spring impelled means independent of the diaphragm co-acting with a movable portion thereof to afford a seal between the diaphragm and the car to which it is attached.

[Claims 4 to 9 not printed in the Gazette.]

1,256,059. METAL ROOF STRUCTURE AND SEAL FOR CAR-DIAPHRAGMS. HARRY H. SCHROYER, Chicago, Ill., assignor to Dunbar Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Continuation of application Serial No. 86,618, filed Mar. 26, 1915. Patent No. 1,256,055, dated Feb. 12, 1918. This application filed Feb. 1, 1917. Serial No. 145,914. (Cl. 105—61.)



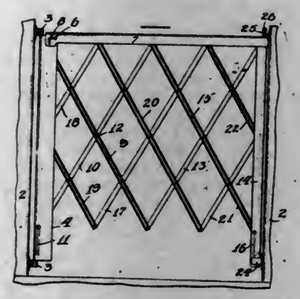
1. In a device of the class described the combination with a metal diaphragm, of a roof structure capable of relative movement as a unit with respect to the side walls of the diaphragm, and a sealing means mounted upon a car upon which the diaphragm is attached adapted to seal on the exterior of said roof member in all positions of movement and adjustment thereof.

2. In a device of the class described the combination with a vestibule diaphragm attached on a car, of sealing means adjustably mounted upon a car to seal along the exterior of the diaphragm in all positions of movement and adjustment thereof with respect to the car.

3. In a device of the class described the combination with a car and a metal diaphragm adjustably mounted thereon, of sealing means adjustably mounted upon the car and co-acting with said diaphragm to afford a seal between the same and the car in all positions of movement and adjustment of the diaphragm.

[Claims 4 to 10 not printed in the Gazette.]

1,256,060. FOLDING TAIL-GATE FOR PASSENGER-CARS. HARRY H. SCHROYER, Chicago, Ill., assignor to Dunbar Manufacturing Company, a Corporation of Illinois. Filed Feb. 20, 1917. Serial No. 149,910. (Cl. 39—86.)



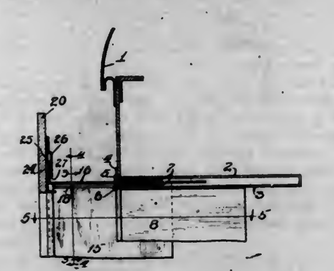
1. In a device of the class described a channel member having a longitudinal slot in the walls thereof, a pin secured to the upper end of the channel member projecting outwardly therefrom on each side thereof, a channel rail having oppositely disposed slots in its wall at one end to engage on said pin, a channel member adapted to fold over the aforesaid channel member having a longitudinal slot in the walls thereof, lazy tong members pivoted together and pivoted to the upper ends of the channel members and pins secured to the lower ends of part of said lazy tong members engaging in the longitudinal slots in the channel members.

3. In a device of the class described, the combination with channel shaped side members one adapted to be moved within the other, of extendible connected lazy tong bars having a pivotal connection with the upper ends of the channel side members and a pin and slot connection with the lower ends of the channel members adapted to be extended as said channel members are moved away from one another, and a top rail member resting upon said channel member and over the ends of said lazy tongs when the device is in extended position, and adapted to swing downwardly to close over the outermost of said channel members when said lazy tong bars in the other of said channel members are folded therewithin.

5. In a tail gate construction of the class described, telescoping side members, lazy tong bars pivotally connected therebetween, and a top rail member having a pin and slot connection with one of said members and forming a guide for said lazy tongs and the other of said side rail members when the device is extended and adapted to telescope over said telescoping side rail members to incase said lazy tongs and one of the said rail members within the other when the device is in folded position.

[Claims 2 and 4 not printed in the Gazette.]

1,256,061. CAR-DIAPHRAGM HOOD. HARRY H. SCHROYER, Chicago, Ill., assignor to Dunbar Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Continuation of application Serial No. 90,134, filed Apr. 10, 1916. This application filed Feb. 20, 1917. Serial No. 149,911. (Cl. 105—61.)



1. In a metallic diaphragm construction of the class described, telescoping roof members, and a face plate associated therewith and slidably adjustable with respect thereto.

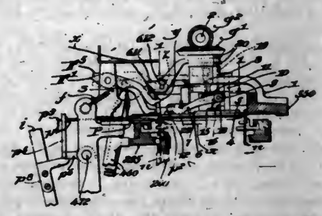
2. In a diaphragm construction of the class described, metallic interfitting and telescoping roof members, sealing means associated therewith to seal the same in all positions of adjustment, a face plate, a pocket-member secured thereto, a flange on one of said roof members extending into said pocket member and slidable relatively of the face plate and a sealing means in the pocket member.

3. In a device of the class described the combination with side wall members, of a roof member associated therewith comprising telescoping sections, a face plate, a channel member secured to the face plate, and an upturned edge on the roof member telescoping in said channel.

[Claims 4 to 12 not printed in the Gazette.]

1,256,062. YARN-FEEDING DEVICE FOR KNITTING-MACHINES. ROBERT W. SCOTT, Boston, Mass., assignor, by mesne assignments, to Scott & Williams, Incorporated, a Corporation of Massachusetts. Filed Dec. 13, 1915. Serial No. 66,425. (Cl. 66—12.)

10. A knitting machine having a dial, a series of movable yarn guides, and means for severing and clamping the yarns of any of said guides thrown to an idle position above the dial, in combination with means for actuating one of said guides at time during each passage of a segment of the needles to withdraw its yarn, for sectional splicing, and means to guide the yarn so withdrawn wholly beneath the dial.

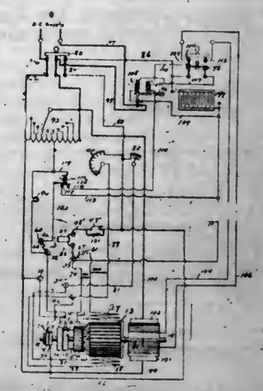


11. A knitting machine having a dial, needles and a sectional splicing device including means for severing and clamping the splicing-yarn above the dial, in combination with a movable implement adapted to lead splicing-yarn floated behind the needles beneath the dial.

12. A knitting machine having a dial, needles, and a selectional splicing device adapted to be worked at predetermined times only, comprising means for severing and holding the splicing-yarn above the dial during inactivity of said splicing device, in combination with an implement movable over the needles to lead splicing-yarn floated behind a segment of the needles beneath the dial, and means for positioning said implement during activity of said splicing devices.

[Claims 1 to 9 and 13 to 21 not printed in the Gazette.]

1,256,063. ALTERNATING-CURRENT RECTIFIER. HOWARD A. SELAH, Newark, N. J., assignor to Standard Metal Manufacturing Company, Newark, N. J., a Corporation of New Jersey. Filed Mar. 29, 1915. Serial No. 17,733. (Cl. 175—364.)



3. In an alternating current rectifier system, the combination of a synchronous motor provided with field magnets and an armature, means for exciting said field magnets with direct current and for alternately exciting said armature with direct current and with alternating current, comprising a D. C. commutator and A. C. collector rings mounted to rotate with said armature and separately connected with the coils thereof through said commutator, D. C. collector brushes bearing upon said commutator, and means actuated by current from the D. C. supply for lifting said collector brushes from said D. C. commutator whereby said motor may thereafter run as an A. C. motor.

5. In an alternating current rectifier system, the combination of a synchronous motor provided with field magnets and an armature thereof, of a pair of A. C. collector

rings and a D. C. commutator secured to the shaft of said armature to rotate therewith, a source of A. C. supply and a source of D. C. supply, collector brushes connecting said A. C. supply with said collector rings and a plurality of brushes connecting said D. C. supply with said commutator, and electro-magnetic means actuated by said direct current for lifting said D. C. brushes from their commutator.

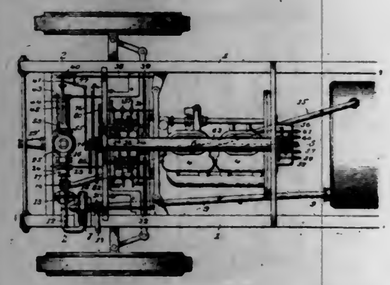
7. In an alternating current rectifier system, the combination of a synchronous motor having field magnets and an armature with a D. C. commutator and A. C. collector rings rigidly mounted upon the shaft of said armature to rotate therewith, A. C. and D. C. sources of supply, metallic connections between said collector rings respectively and said commutator whereby A. C. may be delivered to said collector rings from said armature when the motor is running as a D. C. motor, a ring mounted upon said motor to oscillate about the armature shaft, means upon said ring for lifting the direct current collector brushes from the commutator, and means for oscillating said ring, said means actuated by current from D. C. supply.

9. In an alternating current rectifier system, the combination of a motor having field magnets and an armature, with a commutator mounted upon the shaft of said armature, a plurality of collector brushes mounted to bear upon said commutator, a source of external direct current for supplying said field magnets and armature, and means actuated by direct current from said source for lifting said commutator brushes from said commutator.

10. The combination of an electric motor provided with field magnets, an armature and a commutator, commutator brushes normally bearing upon said commutator, an external source of direct current, an oscillating ring mounted concentrically to said armature, and means actuated from said source of direct current for oscillating said ring to lift said commutator brushes from said commutator.

[Claims 1, 2, 4, 6, 8 and 11 to 19 not printed in the Gazette.]

1,256,064. STREET-FLUSHING APPARATUS. PETER SHANNON, Chicago, Ill. Filed Oct. 18, 1916. Serial No. 126,262. (Cl. 137—63.)



1. In a street flushing apparatus, the combination of a truck frame, an L shaped flushing nozzle having a vertical branch revolubly connected to said frame, a fluid supply pipe associated with said vertical branch, means for imparting continued oscillation to said flushing nozzle and means for varying the degree of the oscillations imparted to said nozzle during the oscillatory movement of the same, substantially as set forth.

2. In a street flushing apparatus, the combination of a truck frame, an L shaped flushing nozzle having a vertical branch revolubly connected to said frame, a fluid supply pipe associated with said vertical branch, means for imparting continued oscillation to said flushing nozzle, means for varying the degree of the oscillations imparted to said nozzle during the oscillatory movements of the same, and means for varying the speed of the oscillations imparted to said nozzles during the oscillatory movements of the same, substantially as set forth.

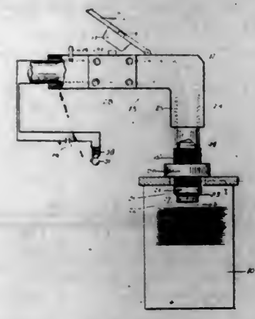
3. In a street flushing apparatus, the combination of a truck frame, a flushing nozzle comprising vertical and horizontal branches, the vertical branch being journaled on the truck frame for oscillatory movement of the horizontal branch in a horizontal plane, a fluid supply associated with said flushing nozzle, means for imparting continuous oscillation to said flushing nozzle, and manually actuated means for shifting laterally the zone of oscillation of the horizontal branch of the flushing nozzle, substantially as set forth.

5. In a street flushing apparatus, the combination of a truck frame, a hollow head journaled transversely in said frame and provided with a lateral tubular extension, a fluid supply pipe provided with coupling for engagement with said tubular extension, means for imparting a turning adjustment to said tubular extension, and an L shaped flushing nozzle having a vertical branch revolubly associated with said hollow head, substantially as set forth.

6. In a street flushing apparatus, the combination of a truck frame, a forward axle, resilient means intermediate of said frame and axle, an L shape discharge nozzle, having a vertical portion formed in two sections with the upper section connected to the truck frame and the lower section connected to the axle and means for supplying fluid to said discharge nozzle, substantially as set forth.

[Claims 1, 7, and 8 not printed in the Gazette.]

1,256,065. FILLING APPARATUS. ABRAHAM SHEINAUS, New York, N. Y. Filed Nov. 9, 1916. Serial No. 130,418. (Cl. 226—16.)



1. In a filling apparatus, the combination of a supply tube, a nozzle connected thereto, a pair of conducting rings mounted on said nozzle, said rings being suitably insulated from each other, each of said rings being electrically connected to opposite poles of a source of current, and means for controlling the flow of liquid through said supply-tube.

2. In a filling apparatus, the combination of a supply-tube, a nozzle connected thereto, a pair of conducting terminals mounted on said nozzle, said terminals being suitably insulated from each other, each of said terminals being electrically connected to opposite poles of a source of current, means for varying the level to which said terminals extend into a receptacle, and means for controlling the flow of liquid through said supply-tube.

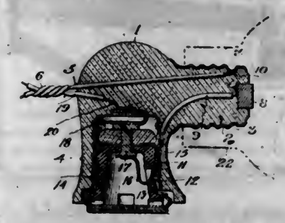
3. In an apparatus for filling receptacles with a conducting liquid, to a desired level, annunciating means, an electrical circuit for operating the same, said circuit adapted to be closed by the liquid when the latter has reached the desired level, and means for reversing the direction of the electric current through the liquid.

4. In an apparatus for filling receptacles with a conducting liquid to a desired level, annunciating means, a controlling magnet therefor, an electric circuit for operating the latter, two terminals of the latter circuit extending into the receptacle, said terminals adapted to be short-circuited by the liquid when the latter reaches the desired level, thereby closing the circuit, a pole changer for said terminals, and means for operating said pole changer when the annunciator circuit is closed.

5. In a filling apparatus, the combination of a supply-tube, a nozzle connected thereto, a pair of conducting rings mounted on said nozzle, said rings being suitably insulated from each other, and adapted to be connected to opposite poles of a source of current, means for reversing the polarity of said rings, and means for controlling the flow of liquid through said supply tube.

[Claims 6 to 15 not printed in the Gazette.]

1,256,066. FUSIBLE SERVICE-PROTECTOR. CHRISTOPHER H. SHOEBRIDGE, New York, N. Y. Filed Dec. 18, 1916. Serial No. 137,512. (Cl. 175—273.)

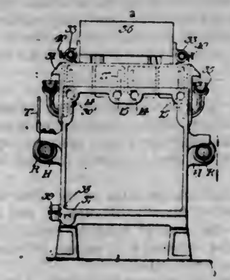


1. A service protector comprising a member having an external and an internal threaded sleeve, a terminal adjacent to the external sleeve and electrically connected with the other sleeve, a terminal for a plug complemental to the last named sleeve, extension lines operatively connected with the last named terminal and with the first named sleeve, and a fuse plug adapted for connection with said internal sleeve and its complemental terminal.

5. A service protector comprising a member having associate terminals to coöperate with complemental terminals of an outlet of a service line, extension conductors connected with said member and one of said conductors connected to one of said first named terminals, a terminal in said member connected to the other of said extension conductors, said member having a recess communicating with said last named terminal, a sleeve in said recess connected to the other of said first named terminals, and a plug adapted to screw into said sleeve to connect its fuse in series with the internal sleeve and said terminal in said member.

[Claims 2 to 4 not printed in the Gazette.]

1,256,067. ELECTROLYTIC APPARATUS. HARRY T. SHRIVER, West Orange, N. J. Filed Jan. 20, 1916. Serial No. 73,117. (Cl. 204—5.)



1. An electrolyzer comprising a plurality of flat plates held face to face, said plates being recessed to form a cell between the faces thereof, a diaphragm between each pair of said plates and separate means for supplying diluent to each of said recesses at a constant pressure.

2. An electrolytic cell comprising a plurality of flat plates held face to face, said plates being recessed to form a cell between the faces thereof, a diaphragm between each pair of said plates, each of said plates having a U-shaped duct formed in the walls thereof, one of said arms being relatively short and connected to said recess and the other relatively long and opening to the outside of the plate, and a constantly running supply of diluent to the long arm of said duct arranged to supply diluent thereto at a faster rate than that of exhaustion of the diluent in said cell, said long arm being arranged so that such excess overflows after a predetermined level therein has been reached by the diluent.

1,256,068. METHOD OF RECOVERING SULFATE CRYSTALS. WILLIAM H. SOMMER, Peoria, Ill., assignor, by mesne assignments, to The First Trust and Savings Company, Cleveland, Ohio, a Corporation of Ohio, and William E. Stone, Peoria, Ill., trustees. Filed Sept. 20, 1915. Serial No. 51,686. (Cl. 23—13.)

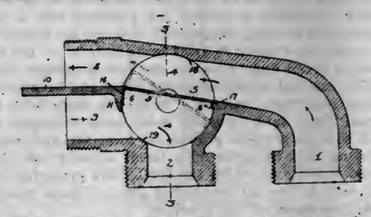
1. The method of saturating a pickling bath with iron sulfate, which consists in heating the pickling bath by means of steam introduced into the bath in such a manner as to prevent the same or condensation therefrom commingling with the bath, and keeping the bath constantly agitated, or in circulation, by the introduction of air into the bath.

2. The method of crystallizing iron sulfate, with consists in bringing the solution in the pickling bath to the crystallizing point, by the application of steam introduced into the bath in such a manner as to prevent the same or condensation therefrom commingling with the bath, and keeping the bath constantly agitated, or in circulation, by the introduction of air into the bath; removing the saturated solution from the bath to suitable crystallizing tanks for the collection of the sulfate, and controlling the cooling of the solution in the crystallizing tanks by means of air introduced therein.

3. The method of crystallizing iron sulfate, which consists in bringing the solution in the pickling bath to the crystallising point, by the application of steam introduced into the bath in such a manner as to prevent the same or condensation therefrom commingling with the bath, and keeping the bath constantly agitated, or in circulation, by the introduction of air into the bath, conducting the saturated solution to a settling tank or tanks where the same is maintained at approximately the same temperature as in the pickling tanks, but without agitation, so that the impurities may be allowed to settle out, and finally removing the saturated solution from the settling tank into suitable crystallizing tanks for the collection of the sulfate.

[Claim 4 not printed in the Gazette.]

1,256,069. RADIATOR-VALVE CONNECTION. CHARLES H. SPECKMAN, Philadelphia, Pa. Filed Mar. 14, 1917. Serial No. 154,655. (Cl. 137—26.)

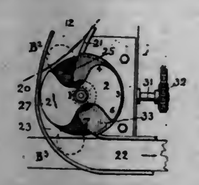


1. The combination, in a radiator valve, of a casing having supply and discharge passages and a chamber communicating therewith, a partition between said supply and discharge passages, a diaphragm interposed between the supply and discharge passages of the casing, and mounted so as to be free to swing about its axis, and an edge flange on said diaphragm coöperating with the partition to permit of adjustment of said diaphragm so as to

provide either a full or a restricted flow through the supply passage of the casing, while permitting a full flow through the discharge passage of the same.

2. The combination, in a radiator valve, of a casing having supply and discharge pasages and a chamber communicating therewith, a partition between said supply and discharge passages, a valve member in said chamber and a flange depending at substantially a right angle from said partition said flange presenting an abrupt face to and serving to retard any back-flow through the casing.

1,256,070. TURNSTILE MECHANISM FOR BOTTLES AND SIMILAR CONTAINERS. HERMAN STAKE, Worcester, Mass., assignor to Economic Machinery Company, Worcester, Mass., a Corporation of Massachusetts. Filed Nov. 20, 1916. Serial No. 132,336. (Cl. 193—1.)

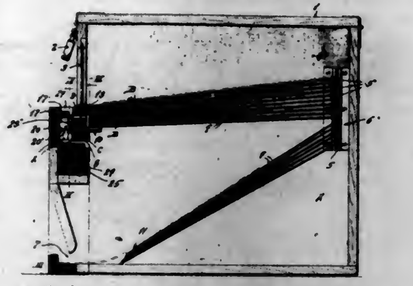


1. In a labeling machine for bottles, the combination with a rotary carrier of the character specified, and the reflexly curved exit-way having path-defining guides along which the bottles are projected from said carrier; a discharge-controlling turnstile device including a dual formed turnstile head consisting of a central hub having integral oppositely extended arms shaped on plan as shown, narrow at the hub with inwardly rounded spaces at the sides, with broad approximately circular outer ends, each arm having an outwardly rounded front edge projection merging with the peripheral line by a circular arc, and a backwardly projecting rear edge with an approximately straight portion near the peripheral line, against which the bottles impinge, an axis-shaft supporting said head partially without and partially within the exit way, and means for rotating said turnstile with the rounded projecting edges foremost, at less lineal velocity than that at which the bottles are projected from the carrier, substantially as set forth.

2. In a mechanism of the class specified, the combination as described, with a rapidly rotatable carrier table provided with means for supporting and advancing upright bottles, a slower moving discharge conveyer, a curved exit-way into which the bottles are projected from said carrier to pass to said conveyer, and path-defining fenders along the exit-way; of a turnstile device including a plain-faced circular rotating disk forming a portion of the bottom of said exit-way, an upright axis-shaft therefor located adjacent the inner-curve line of the exit-way, and a turnstile-head mounted on said axis-shaft above the disk, said head comprising a central hub provided with a pair of similar lateral arms, shaped and disposed for operating as set forth, the respective arms being narrow at the hub and having broad approximately circular peripheral ends, outwardly rounded projecting front edges and backwardly projecting rear edges forming a wedge-like angle with the peripheral line; said turnstile head being arranged for rotation with its rounded projections foremost, and means for rotating said turnstile at a lineal velocity less than the lineal velocity at which the bottles are projected into the exit-way by the carrier, but at greater lineal velocity than the movement of the conveyer.

1,256,071. VENDING-MACHINE. JOSEPH C. STEINER, St. Louis, Mo. Filed Oct. 26, 1916. Serial No. 127,804. (Cl. 194—79.)

1. In a vending machine, a coin controlled article delivering device comprising a traveler movable step by step to release the articles, a drive member provided with a coin receiving recess at a point adjacent to said traveler, operating means for reciprocating said drive member, said traveler being provided with a row of coin receiving recesses adapted to register successively with the coin receiving recess in said driver to provide for the transmission of power from said drive member, through the coin and to said traveler, and a coin ejector arranged to release the coin upon the completion of the operative stroke of said drive member, thereby allowing the drive member to return to its starting position without returning the traveler.



4. In a vending machine, a coin controlled article delivering device comprising a traveler movable step by step to release the articles, a drive member provided with a coin receiving recess at a point adjacent to said traveler, operating means for reciprocating said drive member, said traveler being provided with a row of coin receiving recesses adapted to register successively with the coin receiving recess in said drive member, a reciprocatory coin holder having a coin receiving recess which registers with the first mentioned recess, said drive member being movable independently of said traveler and the reciprocatory coin holder, and an abutment adapted to retain coins in said recesses to provide for the transmission of power from said drive member to said traveler and reciprocatory coin holder.

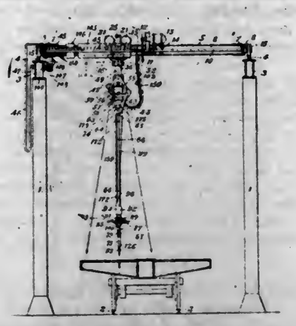
7. In a vending machine, an article holder comprising a series of pivotally supported separating members arranged to lie between the articles to be be vended, each of said separating members being movable downwardly by gravity, about the axis of its pivot, to permit the removal of one of said articles from the machine, a traveling retaining device contituting a support for all of said separating members, each of said separating members being provided with an abutment face adapted to rest upon said traveling retaining device, the different abutment faces being located in different vertical planes and also in different horizontal planes, and coin-controlled means for advancing said traveling retaining device step by step, from the plane of one of said abutment faces to the plane of the abutment face on the adjacent separating member, thereby releasing the separating members consecutively.

[Claims 2, 3, 5, 6, and 8 not printed in the Gazette.]

1,256,072. TOP REAMING-MACHINE. FREDERICK A. STEVENSON, Detroit, Mich., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Mar. 4, 1916. Serial No. 82,118. (Cl. 77—6.)

1. In combination in a machine of the class described, a motor, a tool driven thereby, a support for said motor and tool holding the axis of both in parallelism and in fixed relation to the support, and means to carry said elements to any desired location.

5. In combination in a machine of the class described, positioning means for a tool supported from parts suspended from said positioning means, said suspended parts comprising a depending member, a supporting frame slidable thereon, a motor immovably mounted in said frame and a tool holder driven from said motor, and pneumatic means for elevating said suspended parts from work, a tool in said tool holder being adapted to be fed through the latter by gravity.



10. In combination in a machine of the class described, an overhead track, a trolley ridable thereon, and a contractible oscillatory tool-actuating mechanism suspended from said trolley comprising a tool holder and rotatable driving means therefor extending therefrom to the upper portion of said mechanism.

20. In combination in a machine of the class described, a movable positioning device, a depending member universally-jointed therewith, tool-supporting-and-actuating mechanism engaging and slidable along said depending member, a fluid pressure cylinder movable with said positioning device, a piston therein, motion-transmitting means connecting said piston and tool mechanism and means controlling fluid pressure within said cylinder.

86. In combination in a machine of the class described, an overhead structure, a traveler movable therealong, a tool-operating device suspended from said traveler, electrical operating means for said device, a source of electrical energy, current-supply conductors extending with said overhead structure, current collectors movable with said traveler and contacting with said conductors and other current-conveying means completing the circuit from said source of energy through said supply-conductors and current collectors to said electrical operating means.

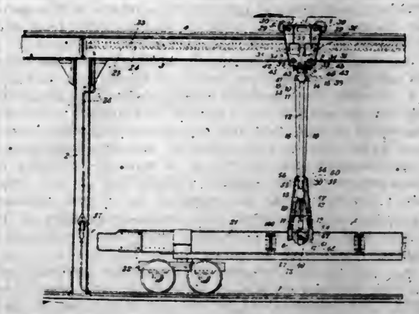
[Claims 2 to 4, 6 to 9, 11 to 19, and 21 to 85 not printed in the Gazette.]

1,256,073. SIDE REAMING-MACHINE. FREDERICK A. STEVENSON, Detroit, Mich., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Mar. 4, 1916. Serial No. 82,119. (Cl. 77—6.)

1. In combination in a machine of the class described, a transporting device having a non-rotatable body portion, a motor-support connected with said body portion, said support being adjustable as to its own length and adapted to be moved in more directions than said transporting device, a motor adapted to be moved independently of said support and a tool holding member adapted to be driven by said motor.

10. In combination in a machine of the class described, an overhead runway, a transporting device adapted to be movable along the same, a work-reaching device suspended from said transporting device, a motor-support mounted thereon, an electric motor held by said motor-support, a tool holder operable therefrom, an electrical current-supply line near the runway and an interruptable electrical circuit movably connected across said supply line and running to said motor.

15. In combination in a machine of the class described, a trolley through which an overhead support and a runway for the trolley are adapted to be threaded, anti-friction means for engagement between said trolley and portions of vertical faces of the overhead structure located away from the runway and between said trolley and runway, and tool-operating means suspended from said trolley comprising a motor-support, a motor mounted in said motor-support and adapted to be turned to direct a tool to predetermined points in work.

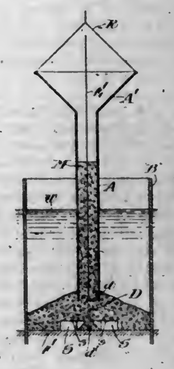


20. In combination in a machine of the class described, an overhead structure, a runway thereon, a trolley adapted to be moved along said runway and comprising spaced side frames, trolley wheels ridable along the runway and mounted in said side frames, socket-forming members secured to downwardly extending portions of said side frames and forming a socket below the overhead structure, means for carrying a tool-driving motor and provided with a head seated in said socket and means for adjusting said socket-forming members to said head.

33. In combination in a machine of the class described, a transporting device, an oscillatory motor-support comprising a tubular portion closed at its opposite ends, a motor-holding frame slidable thereon, a counterweight within said tubular portion, flexible means connecting said frame and counterweight, and a motor mounted in said frame.

[Claims 2 to 9, 11 to 14, 16 to 19, and 21 to 32 not printed in the Gazette.]

1,256,074. STOPPER FOR TREMIE-TUBES. HARRISON S. TAFT, Seattle, Wash. Filed July 27, 1915. Serial No. 42,195. (Cl. 72—77.)



1. A tremie tube having a stopper adapted for movement therein as a unitary structure, whereby to separate a charge of material in said tube from water therein, in combination with a support for said stopper adapted to

control its movements, and means permitting the disconnection and withdrawal of said support upon passage of said stopper from said tube.

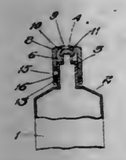
2. In combination a tremie tube, a stopper therefor comprising independent sections and supporting means therefor permitting said stopper to be moved as a unitary structure lengthwise of said tube in advance of the material therein, whereby to separate said material from and exclude water from said tube, said support being adapted to be released from engagement with said sections upon the passage of the stopper from said tube.

3. A tremie tube having a stopper comprising independent sections adapted to be moved as a unitary structure lengthwise of said tube and to separate material therein from water therein, and means for controlling movement of said stopper and the charge of material following it comprising a flexible support independent of said tube having thereon means for engaging the stopper sections when they are assembled, said means being adapted to release said sections when they have passed from the bottom of said tube.

4. A tremie tube for placing sub-aqueous concrete and the like, having a stopper, a support therefor adapted to control the movement of the stopper lengthwise of said tube in advance of a charge of material therein to separate said material from and exclude the water in said tube, said stopper being divided to permit the separation of its parts to release said support upon passage out of the tube.

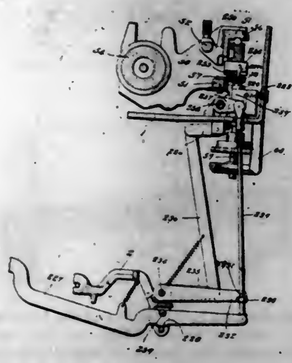
5. A tremie tube having stopping means adapted for movement therein as a unitary structure so as to separate a charge of material in said tube from water therein, in combination with supporting means for said stopping means adapted to control the movement of the stopping means through the tube, the two means having coöperative parts arranged to be held in attached relationship by the tube while in the tube and automatically to separate when moved out of the tube.

1,256,075. COLLAPSIBLE PASTE-TUBE. SIMON S. TAINTER, Weld, Me., assignor of one-half to Guy O. Gardner, Dixfield, Me. Filed Dec. 23, 1916. Serial No. 138,531. (Cl. 221—60.)



In combination with a collapsible paste tube, a nipple therefor, having a discharge aperture, a cap for said nipple slidable longitudinally and also rotatable thereon, said cap being formed with an outlet aperture therein, the outer end of the nipple normally closing the aperture in the cap, said nipple and cap being so constructed that when the cap is unseated there will be formed a passage from the discharge aperture in the nipple to the discharge aperture in the cap, said cap being formed with an elongated transverse slot in one side, the upper side of the slot throughout its length being in a plane at right angles to the axis of the cap, the lower side of the slot throughout its length being in a plane inclined to the axis of the cap, a pin secured to the nipple and projecting through said slot, the diameter of the pin being less than the wider end of the slot, and a spring within the cap which holds the cap seated in closed position and holds the pin against the upper side of the slot, both when the pin is at the wide end of the slot and at the narrow end of the slot, the spring being yieldable and the cap movable longitudinally under pressure to unseat the cap when the pin is in the wider end of the slot.

1,256,076. CARRIAGE MECHANISM FOR WRITING-MACHINES. OTTO THIEME, St. Louis, Mo., assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo., a Corporation of Missouri. Filed May 18, 1917. Serial No. 169,582. (Cl. 197—65.)

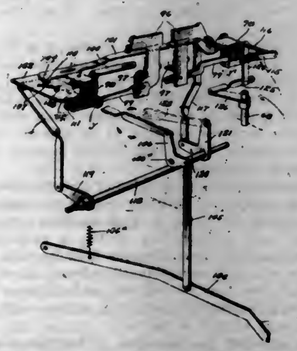


1. In a writing machine, the combination of a movable carriage, escapement mechanism coöperating therewith for controlling the letter-spacing movement thereof, a tabulating mechanism operable upon said escapement mechanism to release the carriage therefrom, carriage return mechanism arranged for coöperation with said escapement mechanism to move said carriage in an opposite direction, said carriage return mechanism including means for inhibiting the operation of the tabulating mechanism.

2. In a writing machine, the combination of a movable carriage, a carriage spring and escapement mechanism coöperating therewith, tabulating mechanism for releasing the carriage to the operation of the carriage spring, carriage return mechanism for moving the carriage against the influence of the carriage spring, and means for preventing operation of the tabulating mechanism while the carriage return mechanism is effective upon the carriage.

[Claims 3 to 10 not printed in the Gazette.]

1,256,077. RIBBON-VIBRATING MECHANISM. OTTO THIEME, St. Louis, Mo., assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo., a Corporation of Missouri. Filed May 18, 1917. Serial No. 169,583. (Cl. 197—157.)



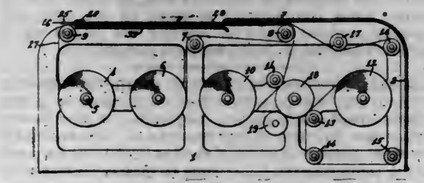
1. In a typewriter, a ribbon-vibrating mechanism including vertically movable ribbon guides, a lever operably connected with each guide, a rock shaft associated with each lever, means for operating the rock shafts to swing the levers, and key-operated means for varying the length of the power arms of the said levers for the purpose described.

3. In a typewriting machine, a ribbon-vibrating mechanism including a ribbon guide, a lever for vibrating the guide, a crank for swinging the lever, means for actuating the crank, a shiftable plate upon which the lever is fulcrumed, and means for shifting the plate to vary the operative relationship of the crank and the lever.

5. In a writing machine, the combination of type-carrying members separately operable and arranged to print respectively at different points, a ribbon arranged to serve said type-carrying members, friskets for handling said ribbon, an independently operable lever associated with each frisket, means associated with one of said type-carrying members for operating one of said levers, and means operably associated with the other of said type-carrying members for operating both of said levers.

[Claims 2, 4, and 6 to 8 not printed in the Gazette.]

1,256,078. PRINTING AND SERVING MACHINE. JOHN C. THOMAS, Detroit, Mich., assignor to Detroit Printing and Serving Machine Company, Detroit, Mich., a Corporation of South Dakota. Filed Feb. 15, 1917. Serial No. 148,796. (Cl. 101—113.)



1. In a printing and serving machine, a suitable framework, a pair of paper rolls rotatably mounted therein, a rotatable type roller or form, means for holding the strip from each paper roll in engagement with the face of the type roll upon opposite sides thereof whereby the strips are printed substantially simultaneously on adjacent sides upon withdrawal of the strips from the rolls, a raceway through which the paper strips are passed, means for reversing one of the strips prior to its introduction into the raceway whereby the printed surfaces of the strips are both positioned with printed side up in the raceway, a stationary carbon sheet positioned between the strips in the raceway, and means for severing portions of the strips from the body thereof.

2. In a printing and serving machine, a framework, a plurality of paper rolls rotatably mounted therein, means for printing the paper from two of the rolls on the adjacent sides thereof, a roll of blank paper, a raceway through which the printed and blank paper passes, carbon sheets stationarily positioned between the respective strips a takeup roller for the blank paper, and means whereby the printed sheets may be severed from the respective strips.

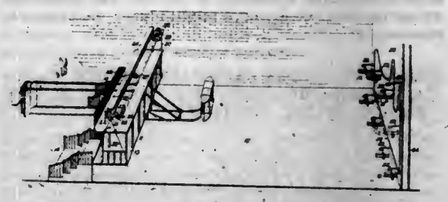
[Claims 3 to 7 not printed in the Gazette.]

1,256,079. SHOOTING-GALLERY. FREDERIC WILLIAMS THOMPSON, Atlantic City, N. J. Filed Mar. 3, 1917. Serial No. 152,216. (Cl. 124—16.)

1. A shooting gallery, comprising a shooter's stand, mechanical means holding the said shooter's stand suspended and imparting a rocking motion thereto, a distant target, and mechanical means moving the said target in a plane parallel to the plane in which the said shooter's stand is rocked.

2. A shooting gallery, comprising a shooter's stand mounted to rock sidewise, and a distant target mounted to travel in a plane parallel to the plane in which rocks the said shooter's stand.

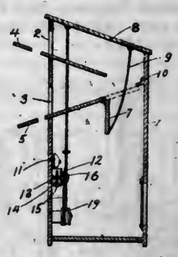
4. A shooting gallery, comprising a shooter's stand in the form of an aeroplane having one of its wings forming a floor for the shooters to stand on, mechanical means suspending the said shooter's stand in mid-air and rocking the same, fixed approaches leading to the said floor, distant targets in the form of miniature aeroplanes, and mechanical traveling and suspending means detachably supporting the said targets and carrying the same bodily along.



7. A shooting gallery, comprising a shooter's stand in the form of an aeroplane having one of its wings forming a floor for the shooters to stand on, mechanical means suspending the said shooter's stand in mid-air and rocking the same, fixed approaches leading to the said floor, a target background located a distance in front of the said shooter's stand and provided with an endless slot, a holder extending through the said slot, a target detachably held on the front end of the holder, and a carrier in the rear of the said background and connected with the rear end of the holder to move the latter along in the slot.

[Claims 3, 5, and 6 not printed in the Gazette.]

1,256,080. MAIL-BOX. CLYDE E. TRAVIS, Fairmont, W. Va. Filed Apr. 18, 1917. Serial No. 162,938. (Cl. 232—20.)



1. The combination with a wall having a pair of spaced lateral slots formed therein, of a receptacle having slots registering with the first mentioned slots, a downwardly inclined chute extended through the upper one of the slots into the top of the receptacle, an oppositely inclined chute entered through the other side into the receptacle below the first mentioned chute, and means for extending the lower chute beyond the first mentioned chute to permit the passage of mail from the box into the house.

2. The combination with a mail box, of a downwardly inclined chute entered into the upper portion of the box through its rear wall, a second chute entered into the box below the first mentioned chute and inclined in the opposite direction, the first mentioned chute extending into the box so that an extension of its plane over-laps the extremity of the second chute, and an extension for the second chute adapted to cause it to intersect said plane.

3. The combination with the mail box of a downwardly inclined chute entered into the upper portion of the box through its rear wall, a second chute entered into the box below the first mentioned chute and inclined in the opposite direction the first mentioned chute extending into the box so that an extension of its plane overlaps the extremity of the second chute, and a leaf hinged to the second chute for the purpose of extending it across the plane of the first chute.

4. The combination with a mail box of a downwardly inclined chute entered into the upper portion of the box through its rear wall, a second chute entered into the box

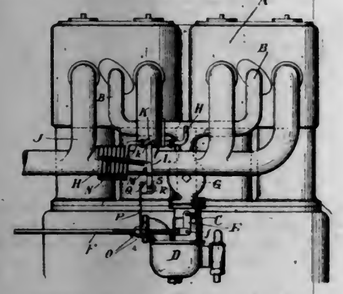
below the first mentioned chute and inclined in the opposite direction the first mentioned chute extending into the box so that an extension of its plane overlaps the extremity of the second chute, a leaf hinged to the second chute for the purpose of extending it across the plane of the first chute, a closure for the box, and means for lifting the leaf into extended relation when the closure is opened.

1,256,081. LONG-SPAN CANTALIVER-BRIDGE. CLAUDE A. P. TURNER, Minneapolis, Minn. Filed Dec. 22, 1909. Serial No. 534,534. (Cl. 14—7.)



In a cantaliver span, the combination of the main pier, the vertical post member mounted thereon, trussed in diamond shape, top and bottom chords extending outward from said post, webbing connecting said chords, including an inclined main post that extends to the top chord, upward and outward from the bottom chord, and a tie that extends from the vertical post truss at substantially mid-length thereof to substantially mid-length of said inclined main post and constitutes the tension member of sub-truss whose compression member is the bottom chord.

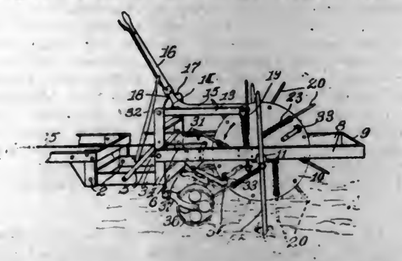
1,256,082. AUXILIARY AIR-SUPPLY DEVICE. WALTER S. WARD and ALBERT MAXIM, New York, N. Y., assignors to Ward Baking Company, New York, N. Y., a Corporation of New York. Filed Aug. 19, 1913. Serial No. 785,499. (Cl. 48—180.)



The combination of intake and exhaust conduits for an internal combustion engine, a throttle governing the supply of carbureted air to said intake conduit, a supplemental air intake conduit wrapped around said exhaust conduit and heated thereby, said supplemental intake conduit being arranged to supply heated air to said intake conduit beyond said throttle, a valve governing the supply of said supplemental air, means for opening and closing the throttle, a crank connected with said valve and a bracket adjustably connected with said throttle operating means and coming into operative engagement with said crank subsequent to a predetermined preliminary opening movement of said throttle; substantially as described.

1,256,083. CORN-PLANTER ATTACHMENT. JACOB WASEM, deceased, Tower City, N. D., by Mary Wasem, administratrix, Tower City, N. D. Filed Sept. 13, 1915. Serial No. 50,503. (Cl. 111—16.)

A rotary marker device for actuating the rock shaft of a corn planter, comprising a rectangular frame pivotally mounted at the rear of the planter frame, caster wheels for supporting said rectangular frame, an auxiliary U-shaped frame pivoted to the rectangular frame, an axle mounted in the U-shaped frame, a marking rod non-rotatably mounted at one end of said axle, a traction disk mounted at the middle of the axle and having spring pressed ground engaging prongs thereon, said prongs being spaced from and parallel to diameters of the disk, an elevating and depressing means for said U-shaped frame, a



bell-crank lever pivoted on the U-shaped frame, a rod connected to one end of said lever and extending forward for attachment to the rock shaft of a planter, rollers mounted on the disk for actuating said bell crank lever, a ratchet wheel non-rotatably mounted on the axle, and manually operated means for rotating said ratchet wheel and axle when the U-shaped frame is elevated.

1,256,084. METHOD OF PLATING FERROUS METALS. WILLIAM E. WATKINS, New York, N. Y., assignor to The Metals Plating Company, a Corporation of New Jersey. Filed Nov. 11, 1914. Serial No. 871,583. (Cl. 91—70.1.)

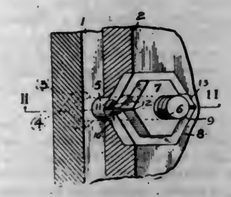
1. The method of plating ferrous metals which consists in subjecting the same, while in surface contact with a compound of tin to a temperature above the melting point of tin and sufficient to raise the ferrous metal approximately to a welding heat.

3. The method of plating ferrous metals which consists in subjecting the same, while in surface contact with a compound of tin to a temperature above the melting point of tin and sufficient to raise the ferrous metal approximately to a welding heat thereby converting the tin compound into tin in the shape of a substantially continuous plating layer molecularly deposited on the ferrous metal and forming an exterior adherent layer containing magnetic oxid of iron.

5. The method of plating ferrous metals which consists in subjecting the same while coated with an even layer of a mixture of a finely divided oxid of tin in a viscous volatile vehicle to a temperature above the melting point of tin and sufficient to raise the ferrous metal approximately to a welding heat thereby converting the tin oxid into tin in the shape of a substantially continuous plating layer molecularly deposited on the ferrous metal, forming an exterior layer containing magnetic oxid of iron and finally removing said exterior layer.

[Claims 2 and 4 not printed in the Gazette.]

1,256,085. NUT-LOCK. HARRY J. WATTS, Turtle Creek, Pa. Filed Mar. 3, 1917. Serial No. 152,215. (Cl. 151—54.)

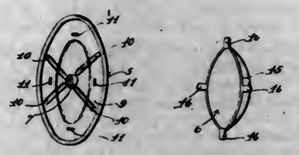


1. A nut lock comprising the combination with a bolt, and an element through which the bolt extends, said element having one face provided with a polygonal shaped pocket, of a polygonal shaped nut mounted on the bolt of said pocket, and a split polygonal shaped locking member interposed between the nut and the walls of said pocket to arrest turning movement of the nut.

4. In a nut lock a locking member comprising a body having inner and outer polygonal shaped edges, said body having one face provided with diametrically opposed beveled portions, and said body further having diametrically opposed notches, the entrance to said notches being above the lower part of said beveled portions.

[Claims 2 and 3 not printed in the Gazette.]

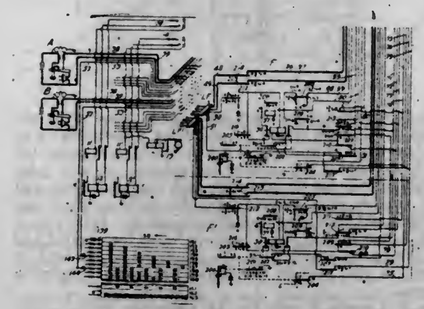
1,256,086. WHEEL FOR TOY VEHICLES. ERNEST D. WHIDDEN, Elyria, Ohio. Filed Sept. 10, 1917. Serial No. 190,606. (Cl. 46—48.)



1. A wheel of the class described comprising a pair of sections one of which is provided with a plurality of openings, said section having its periphery rolled to provide a rim portion, a reinforcing element mounted in said rim portion, the other section of the wheel having lugs engageable in the openings in the first named section and bent to engage said section whereby to secure the parts together.

2. A wheel of the class described comprising sections formed of sheet metal, the central portions of which are bowed outwardly with respect to each other and provided with inwardly extending hub portions, one of said sections having a plurality of openings therein and also having its periphery curved to provide a rim portion, the outer section of the wheel having lugs engageable in the openings in the first named section whereby to secure said sections together, and a reinforcing wire mounted in said rim portion.

1,256,087. TELEPHONE-EXCHANGE SYSTEM. SAMUEL B. WILLIAMS, Jr., Brooklyn, and EDGAR H. CLARK, New York, N. Y., assignors to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Mar. 21, 1917. Serial No. 156,278. (Cl. 179—27.)



1. In a telephone system, the combination with a plurality of lines adapted to receive differing sorts of service, of identifying means associated with each of the lines of a given sort, a plurality of operators' positions, means for extending said lines to said positions, and mechanism selectively responsive to said identifying means for extending calls from the corresponding lines to a particular operator's position.

2. The combination with a plurality of lines adapted for different kinds of service, said lines being intermingled irrespective of line groups of a plurality of connecting circuits, means for extending said lines to said circuits, and means for automatically segregating to certain of said circuits the calls originating in the lines adapted for a certain kind of service.

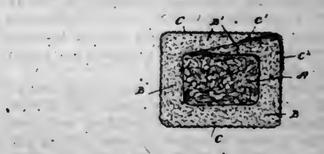
11. The combination with a plurality of operators' positions adapted to give differing kinds of service, of call-extending circuits each having access to all of said operators' positions, a plurality of lines adapted to receive differing kinds of service and served by said call-extending circuits, means for applying to each call-extending circuit characteristic trains of impulses, each train corresponding with the kind of service which a line temporarily served by a call-extending circuit is adapted to receive, mechanism selectively responsive to said various characteristic trains of impulses for controlling the selection by the call-extending circuit of an appropriate operator's position and signal mechanism at certain of said operators' positions also selectively responsive to said characteristic trains of impulses for indicating the kind of service an extended calling line is to receive.

18. The combination with a plurality of lines divided into classes with respect to the kind of service they are adapted to receive, said lines being intermingled irrespective of line groups of groups of circuits to which said lines are adapted to be extended, and means for automatically segregating calls from a particular class of said lines to a particular group of said circuits.

26. The combination with a plurality of lines divided into classes with respect to the kind of service they are adapted to receive, of a plurality of operators' positions, a plurality of call extending circuits for extending the circuits of said lines to said operators' positions, class-of-service identifying means for applying to the lines of each class a characteristic electrical condition for identifying the same, operators' selecting apparatus controlling the extension of said call extending circuits to said operators' positions, and automatic segregating mechanism responsive to the characteristic electrical condition of a calling line and controlling the operation of said operators' selecting apparatus, said automatic segregating mechanism operating to give a certain class of lines access to certain of said operators' positions and another class of lines access to all of said operators' positions.

[Claims 3 to 10, 12 to 17, 19 to 25, and 27 not printed in the Gazette.]

1,256,088. UPHOLSTERY MATERIAL. FREDERICK P. WOLL, Philadelphia, Pa. Filed Apr. 23, 1917. Serial No. 163,781. (Cl. 5—13.)



1. A new article of manufacture for use as an upholstery material, comprising a core of interlaced curled hair and a cotton bat wrapped about said core.

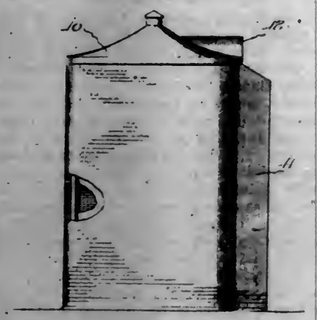
4. A new article of manufacture for use as an upholstery material comprising a core of interlaced curled hair, a cotton bat wrapped about the core and a cover sheet of starched cloth wrapped about the cotton bat and having overlapping portions steamed together.

[Claims 2 and 3 not printed in the Gazette.]

1,256,089. SILO. LOU C. YOUNG, Oswego, Ill. Filed Apr. 22, 1915. Serial No. 22,983. (Cl. 72—6.)

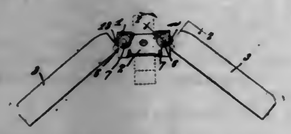
1. A silo comprising an inner wall consisting of segmental blocks of wood disposed in layers or courses ad-

jacent blocks being secured end to end and side to side, the blocks of said wooden wall being adapted to swell by the action of the moisture from the silage and seal the junctures between adjacent blocks against the passage of air, and an outer wall spaced from and unconnected with said inner wall and adapted to protect the said inner wall from changes of temperature and moisture and prevent evaporation therefrom.



2. A silo comprising an inner wall consisting of segmental blocks of wood disposed in layers or courses adjacent blocks being secured end to end and side to side, the blocks of said wooden wall being adapted to swell by the action of the moisture from the silage and seal the junctures between adjacent blocks against the passage of air, and an outer wall of masonry spaced from and unconnected with said inner wall and adapted to protect the said inner wall from changes of temperature and moisture and prevent evaporation therefrom.

1,256,090. SCRAPER ATTACHMENT FOR PLOWS. JAMES A. ADKINS, Vienna, Ga. Filed June 18, 1917. Serial No. 175,464. (Cl. 97—9.)



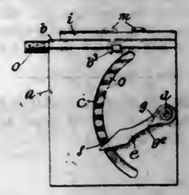
1. A scraper attachment for plows embodying an attaching member having intermediate means for attachment to a plow standard, members connected to the attaching member at opposite sides for rotary adjustment about vertical axes, and scraper blades having adjacent ends connected to the last mentioned members for rotary adjustment about longitudinal axes.

3. A scraper attachment for plows embodying an attaching member having intermediate means for attachment with a plow standard, a pair of members connected with the attaching member at opposite sides of said portion for rotatable adjustment about vertical axes, scraper blades projecting away from each other and having shanks at their adjacent ends engaged with the last mentioned members for rotatable adjustment, and means for clamping the last mentioned members to the attaching member for clamping said shanks to the last members.

[Claim 2 not printed in the Gazette.]

1,256,091. CIGARETTE-CASE. JOHN AGINLEY, Brooklyn, N. Y. Filed Oct. 6, 1917. Serial No. 195,073. (Cl. 206—27.)

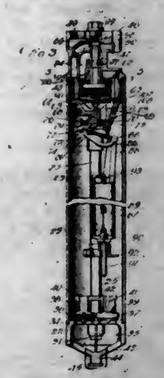
1. A cigarette case having front and back walls, and provided with a hinged cover which is open at both ends, said cover being provided in the top thereof with a longitudinally movable spring-controlled pin with which is connected a plate which closes one end of the cover, the front wall of the case being provided with an arc-shaped slot, and a spring-operated arm connected with said case and which ranges transversely of said slot and is provided with a pin which passes inwardly through said slot and on which is mounted an oblong plate which is movable longitudinally on said pin and adapted to turn thereon.



3. A cigarette case having front and back walls and provided with a hinged cover which is open at one end, said cover being provided in the top thereof with a longitudinally movable spring-controlled pin with which is connected a plate which fits in one end of said cover and by which cigarettes may be projected through the open end of said cover, and means within said case and operated by a spring-controlled arm mounted on the outside of said case for successively forcing cigarettes placed therein into said cover.

[Claims 2 and 4 not printed in the Gazette.]

1,256,092. PUMP. BURTON S. AIKMAN, Milwaukee, Wis., assignor to National Brake & Electric Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Mar. 27, 1917. Serial No. 157,807. (Cl. 103—8.)



1. In a pump of the class described a closed water cylinder, a valve and means for admitting compressed air at the upper end of said cylinder, a discharge pipe connected to the bottom of the cylinder, an exhaust valve, a valve operating cylinder for operating said admission valve and said exhaust valve in predetermined order, a valve controlling said operating cylinder, means for imparting a snap action to said last mentioned valve for opening and for closing the same and means controlled by the level of water in the cylinder governing said snap imparting means.

6. In a pump, a cylinder, an admission valve, an exhaust valve axially in line with said admission valve, said valves facing toward each other, ports for said valves, a stem for operating both of said valves, said stem having a shoulder, one of said valves being slidable on said stem, a spring for holding said valve against said shoulder, a diaphragm for operating said stem, said diaphragm having a free space upon one side thereof communicating with the space between the valves, a cylinder on the other side of the diaphragm, an admission port and an exhaust port for said cylinder, valve means governing said ports, said ports communicating with the compressed air inlet and with the exhaust outlet respectively, and means controlled by the level of water in the pump for operating last said valve means.

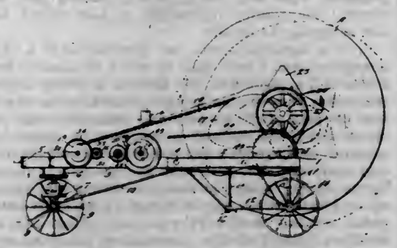
12. In a pump, the combination of a controlling valve, a float device of small cross section and relatively great length, a substantially horizontal shaft, an arm pivoted to said shaft and having its outer end connected to said float device, a spring secured to said arm and extending past the center of said shaft, said spring tending to prevent rotative movement of said arm about said shaft.

15. In combination, a main pump barrel, main valves for the same, a motor for shifting said valves, a controlling valve for said motor, a float device, said valve being controlled by said float device, a rocker shaft, a rocker arm between the shaft and the float, a spring attached to the rocker arm and also beyond the center of the rocker shaft for holding the float down against the buoyant effect of the liquid when the pump is filling and to hold the float up against gravity when the pump is being emptied.

19. In combination, a pump barrel having a head member, said member having an admission passageway, an exhaust passageway and an intermediate passageway between them, ports connecting the intermediate passageway with the exhaust passageway and the admission passageway, an admission valve having a hollow stem guided in said admission port, a stem axially in line with said admission valve stem and adapted to engage the same, an exhaust valve slidably mounted on said stem, said stem having a shoulder for engaging said valve, and a spring for holding said valve against said shoulder, and pressure operated means for moving said stem, said spring being mounted between the valve and the pressure operated means.

[Claims 2 to 5, 7 to 11, 13, 14, 16 to 18, and 20 not printed in the Gazette.]

1,256,093. CABLE REELING AND PULLING TRUCK. JAMES ALBERTS, Dallas, Tex. Filed Apr. 25, 1916. Serial No. 93,420. (Cl. 242—91.)

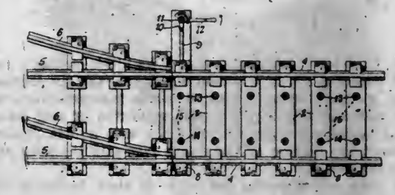


1. In a truck of the character described, the combination with a portable frame, of mechanism for elevating an electric cable reel to the frame and for revolving the same, said mechanism being mounted on the frame and including swinging clamping members between which the reel is received and clamped, reel revolving means carried by the clamping members, means mounted on the frame for elevating the clamping members, and means mounted on the frame for operating the revolving means.

3. In a truck of the character described, the combination of a portable frame, a reel elevating and revolving device mounted on the frame and comprising, a pair of quadrants hinged on the frame, flexible connection extending from the quadrants, winding means to which the connections are attached and whereby said connections are wound and unwound to swing the quadrants, a pair of spiders each having a sleeve mounted to revolve in the quadrants, a transverse shaft for supporting a cable reel between the spiders, said shaft passing through the spiders and their sleeves and having positive connection therewith for imparting revolution thereto, a gear carried by one of the quadrants for revolving the spiders and the shaft, and a gearing mounted on the frame and meshing with the gear for imparting motion thereto.

[Claim 2 not printed in the Gazette.]

1,256,094. RAILWAY-SWITCH. EDWARD C. BACHFIELD, Indianapolis, Ind. Filed Apr. 16, 1917. Serial No. 162,241. (Cl. 104—12.)

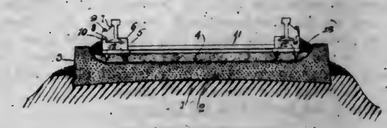


1. In a railway structure, the combination, with railway ties, each comprising a fixed base member and an upper member slidable longitudinally thereon, and connected thereto by a dovetailed joint, of rails above said upper members, and clamps mounted on said upper members and engaging said rails, and hand operated members to adjust the upper members whereby to move said rails to and from switching position.

3. In a railway structure, the combination, with railway ties, each comprising a fixed base member having a flat upper surface and an upper member, said two members being connected by a dovetailed joint permitting said upper members to slide longitudinally along said lower members, of rails above said upper members, clamps mounted in the upper members and outside of and engaging said rails, means for lubricating the sliding abutting surfaces of said upper and lower members, and hand operated means for sliding said upper members, whereby to move said rails to and from switching position.

[Claim 2 not printed in the Gazette.]

1,256,095. RAILWAY-BED. EDWARD C. BACHFIELD, Indianapolis, Ind. Filed Apr. 16, 1917. Serial No. 162,242. (Cl. 104—14.)



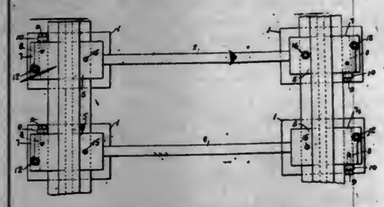
1. In a railway-bed, the combination, of a bed proper, a non-yielding base on the bed, a super-base located on the base and having the quality of being temporarily plastic and later becoming solid, and rail supports in the nature of ties set to position in the super-base and solidly supported by the solidification thereof.

6. In a railway bed, the combination, with a bed proper, and a non-yielding base on the bed, forming a solid body to bear over an extensive area of the bed and to support over an extensive area a superposed rail structure, the contour of the bottom of the base and the top of the road bed being such as to assist in preventing side shifting of the base, of a super-base located on the base and constructed of temporarily plastic material, and rail supports set to position in the super-base.

7. In a railway-bed, a base constructed to overlie the bed proper laterally and longitudinally over an extended area, and a super-base constructed of material placed upon the upper surface of the base in a plastic state and adapted to later solidify.

[Claims 2 to 5 not printed in the Gazette.]

1,256,096. RAILWAY CROSS-TIE. EDWARD C. BACHFIELD, Indianapolis, Ind. Filed Apr. 16, 1917. Serial No. 162,243. (Cl. 238—6.)



1. In a rail fastening device, a tie block having a rail seat bordered by an overhanging flange, and an inclined wall, a clamp having a depending web fitting between the rail seat and said inclined wall, a portion of said clamp being positioned over the tie block and a bolt passing through the portion of the clamp over said tie block and into the block.

2. In a rail fastening device, a tie block having a rail seat bordered by an overhanging flange and an inclined wall, said wall being also longitudinally inclined, a longitudinally inclined clamp having a depending web fitting between the rail and the inclined wall, a bolt passing through said clamp and into said tie block, a lug depending from said clamp, and a bolt passing through said lug and into said tie block.

3. In a rail fastening device, a tie block having a rail seat bordered by an inclined wall, a clamp having a longitudinally inclined edge abutting the inclined wall, and a bolt passing through a portion of said clamp and into said tie block.

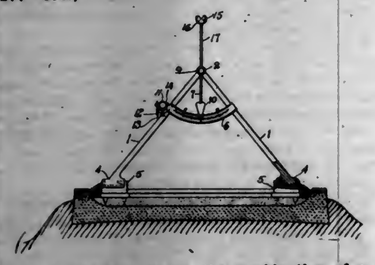
4. In a rail fastening device, a tie block having a rail seat bordered by an inclined wall, a clamp having a longitudinally inclined edge abutting said inclined wall, a bolt passing through the clamp and into the portion of the tie block having the inclined wall, and a second bolt passing through a portion of the clamp and into the tie block and serving to force the clamp to clamping position.

1,256,097. LEVELING INSTRUMENT. EDWARD C. BACHFIELD, Indianapolis, Ind. Filed Apr. 16, 1917. Serial No. 162,244. (Cl. 33—145.)

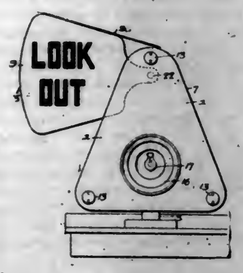
1. In a leveling instrument, a frame comprising standards spread apart at their feet, a graduated plate secured to said standards, a pendulum swung from the frame and cooperating with said plate to determine the altitude of one foot of the standards with respect to the other, a pointer pivoted on the frame and a graduated plate connected to the latter to cooperate with the pointer, the pendulum adapted to swing in a lateral plane and the pointer to swing in a fore and aft plane.

[Claim 2 not printed in the Gazette.]

1,256,098. SIGNALING DEVICE. BERTHOLD A. BAER, Philadelphia, Pa. Filed Apr. 6, 1915, Serial No. 19,501. Renewed May 2, 1917. Serial No. 166,053. (Cl. 177—339.)



1. In a signaling device, the combination of a signal arm adapted to vibrate, a suitably journaled shaft carrying said signal arm, a solenoid, a source of electrical energy in circuit with said solenoid, a rotary switch member mounted on the signal arm shaft, a direct permanent mechanical connection between said signal arm shaft and the movable member of the solenoid whereby the shaft will be rocked by said movable member upon energizing the solenoid, an operative connection between said shaft and the rotary switch member whereby the rocking movements of said shaft will be communicated to said rotary switch member to vibrate the latter, and circuit closing means.



3. In a signaling device, the combination of a casing having a plurality of chambers, a signal arm mounted in one of said chambers and movable from the same to a position externally of the casing, a shaft carried by said signal arm and journaled in said casing whereby said signal arm may be rocked or vibrated, a solenoid mounted in the other chamber, a source of electrical energy in circuit with said solenoid, a rotary switch member mounted on the signal arm shaft, direct permanent mechanical means for effecting rocking movement of the signal arm shaft upon energizing the solenoid, an operative connection between said shaft and the rotary switch member whereby the rocking movements of said shaft will be communicated to said rotary switch member to vibrate the latter, a discontinuous contact surface carried by said rotary switch member, circuit closing means, and contacts in engagement with said rotary switch forming part of said circuit; the rocking movements of said switch making and breaking the circuit.

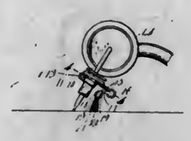
7. In a signaling device, the combination of a swinging semaphore arm, a rock shaft to which the same is secured, a solenoid, a crank and link forming a direct mechanical connection between the movable member of said solenoid and the rock shaft whereby the semaphore arm will be raised when the solenoid is energized, a rotary switch mounted on the rock shaft carrying the semaphore arm, said shaft having a projection and the hub of the rotary switch having a slot or recess receiving said projection whereby said switch may be turned by the shaft with provision for lost motion between said parts, said switch having a contact surface separated by a section of insulating material, and brushes for engagement with said rotary switch, said switch being rocked by the shaft simultaneously with the movement of the semaphore arm carried by said shaft; the insulated portion of the switch surface when brought into engagement with said brushes breaking the circuit momentarily at intervals whereby the semaphore arm may lower until the circuit is again completed; the making and breaking of the circuit by the rotary switch permitting rocking movement of said shaft and effecting vibration of the semaphore arm carried thereby.

8. In a signaling device having a signal arm element, a pivotally mounted shaft carrying the same, a solenoid, a source of electrical energy in circuit with said solenoid, a rotary switch member mounted on the signal arm carrying shaft, a mechanical connection between said rotary switch and the shaft and a mechanical connection between said shaft and the movable member of the solenoid whereby the switch will be rocked upon energizing the solenoid: oscillatory movements of said signal arm being effected by the shaft carrying the same, in combination with circuit closing means including a pair of terminals, a push button for closing the same, and a grounded lamp adjacent said push button adapted to flash in consonance with the rocking movement of the rotary switch making and breaking the circuit element and serve as an indicator of the proper working of the signal mechanism.

14. In a signaling device, the combination of a vibratile semaphore arm, a rock shaft carrying the same, a solenoid having a movable member, a crank connected to the rock shaft and a link connecting said crank with the movable member of the solenoid and forming a direct mechanical connection between the latter and the rock shaft whereby the semaphore arm will be raised when the solenoid is energized, a rotary switch loosely mounted on the rock shaft, a fixed lateral projection carried by said shaft, the hub of the rotary switch having a slot or recess receiving said projection whereby said switch may be turned by the shaft with provision for lost motion between said parts, said switch having a contact surface separated by a section of insulating material, and brushes in fixed position for engagement with said rotary switch, said switch being rocked by the shaft simultaneously with the movement of the semaphore arm carried thereby, the insulated portion of the switch surface when brought into engagement with said brushes breaking the circuit momentarily whereby the semaphore arm may lower until the circuit is again completed, the making and breaking of the circuit by the rotary switch permitting rocking movement of said shaft and effecting vibration of the semaphore arm carried thereby.

[Claims 2, 4 to 6, 9 to 13, and 15 to 18 not printed in the Gazette.]

1,256,099. PHONOGRAPH ATTACHMENT. ROBERT L. BAKER, Aurora, N. Y., assignor of one-half to Henry Morgan, Aurora, N. Y. Filed Mar. 31, 1916. Serial No. 88,157. (Cl. 274—1.)



1. The combination with the sound box of a phonograph and its needle post, of a means for cleaning a record in connection with which the sound box may be used, said cleaning means consisting of a clamp rigidly engaged with the stem of the needle post, a spring arm carried by the clamp and extending laterally therefrom and returned downwardly and inwardly upon itself toward the post, and a brush carried by the detached end of the spring arm and arranged to extend transversely of a needle engaged in the needle post and to lie in advance thereof and in engagement with a record in connection with which the sound box may be used, said spring arm being formed of flat metal disposed with its major transverse dimension transversely of the needle plane whereby lateral movement of the needle post with respect to the brush is resisted.

2. A cleaning device for phonograph record disks consisting of a clamp adapted to be engaged upon and secured to the needle post of a sound box, a spring arm carried by the clamp end extending laterally therefrom and returned inwardly upon itself, to produce portions in overlapping relation, said arm having a bowed portion at the junction of its overlapping portions and a brush carried by the detached end of the returned portion and arranged to lie transversely of a needle engaged in the needle post with which the clamp may be engaged and disposed to engage the surface of a record disk in advance of such a needle, said spring arm being formed of flat resilient metal and disposed to lie with its major transverse dimension transversely of the needle plane when the clamp is engaged with a needle post.

1,256,100. JIG-SAW PUZZLE. THEODORE BAMBERG, Brooklyn, N. Y. Filed May 21, 1917. Serial No. 170,016. (Cl. 46—41.)

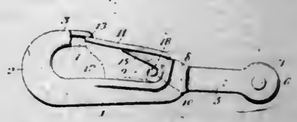


1. A puzzle comprising a flat figure cut into a plurality of sections in the forms of letters of the alphabet sufficient in number to spell one or more words when the several sections are disassembled.

2. A puzzle comprising a flat blank painted or printed on one side to represent any suitable subject, said blank being cut into a plurality of sections in the form of letters of the alphabet, said sections being sufficient in number to spell one or more words.

3. A puzzle comprising a blank cut in the outline of an animal and printed on one side to represent such animal, said blank being cut into a plurality of sections in the form of letters of the alphabet, said sections being sufficient in number to spell one or more words.

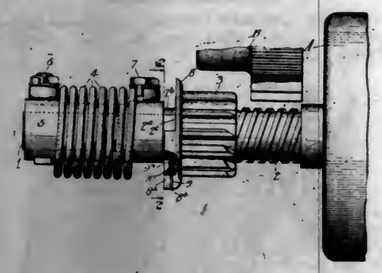
1,256,101. SNAP-HOOK. JOHN B. BAXTER, Watervliet, N. Y., assignor to Covert Manufacturing Company, Watervliet, N. Y., a Corporation of New York. Filed June 5, 1913. Serial No. 771,990. (Cl. 24—235.)



3. In a snap hook, the combination of a shank having a rear end projecting beyond the front surface thereof, and the forward end terminating in a hook part overlying the said front surface, said rear end having cutout parts on opposite sides forming a centrally disposed thin tongue, a return bend spring part positioned in each of said cutout parts, said spring parts adapted to have free bearing at the bend upon the walls of the shank embordering said cutout parts, and a substantially U-shaped tongue pivoted to the shank whereby the sides thereof overlie the sides of the shank and the free end thereof engages said hook part, the sides of the tongue being free from lateral projections, and forming with said cutout parts of the rear end of the shank receiving pockets for the spring means, and the spring means offering no obstructions beyond the sides of the shank and adapted to engage respectively the tongue and shank whereby to maintain the latter in closed position.

[Claims 1 and 2 not printed in the Gazette.]

1,256,102. ENGINE-STARTER. VINCENT BENDIX, Chicago, Ill. Filed Mar. 10, 1917. Serial No. 153,810. (Cl. 74—7.)



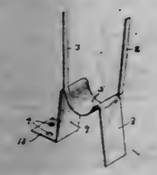
1. In an engine starter drive including a rotatable member, a driving member mounted thereon for longitudinal movement thereof and rotary movement therewith, means mounted on the driving member and adapted to contact the rotatable member and apply thereto a yielding frictional resistance to prevent creeping longitudinal movement of the driving member.

8. In an engine starter drive including a rotatable screw shaft, a pinion mounted thereon for longitudinal movement thereof and rotary movement therewith, and having at one end a projecting portion, a spring pressed plunger mounted on such pinion and adapted to contact the shaft to prevent creeping longitudinal movement of the pinion.

11. In an engine starter drive including a rotatable screw shaft, a pinion mounted thereon for longitudinal movement thereof and rotary movement therewith, a spring pressed plunger mounted on the pinion and adapted to contact the shaft, the shaft having, toward one end beyond its screw threads, a circumferential groove cooperating with the plunger when the pinion is in such normal position.

[Claims 2 to 7, 9, 10, and 12 to 16 not printed in the Gazette.]

1,256,103. REINFORCEMENT-SUPPORT FOR CONCRETE STRUCTURES. GEORGE BRADY, Jackson, Mich., assignor to Henry H. Lampert, Chicago, Ill. Filed Nov. 23, 1914. Serial No. 873,464. (Cl. 72—122.)



1. A supporting device for reinforcements for concrete structures comprising a strip of sheet metal having slits adjacent to and parallel to opposite side edges at opposite ends so as to form tongues along said opposite side edges, said strip being bent so as to constitute a pair of legs connected by a transverse portion which form a seat for the reinforcements, said tongues being bent upwardly at the lines of juncture between the legs and transverse portion.

4. A supporting device for reinforcements for concrete structures comprising a strip of sheet metal having tongues adjacent to opposite side edges at opposite ends, said strip being bent so as to constitute a pair of legs connected by a transverse portion which forms a seat for the reinforcements, said tongues being bent upwardly at the lines of juncture between the legs and transverse portion.

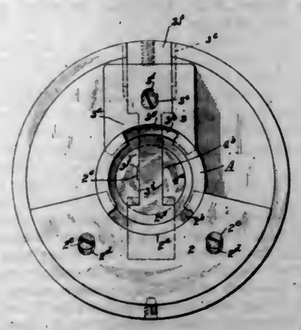
5. A supporting device for reinforcements for concrete structures comprising a strip of sheet metal having tongues adjacent to opposite side edges at opposite ends, portions of said strip being bent so as to constitute a pair of legs connected by a transverse portion which forms a seat for the reinforcements, said tongues being bent upwardly at the lines of juncture between the legs and transverse portion and being of a substantial length whereby said tongues may be bent to hold a single rod or two superposed rods arranged on said seat at an angle to each other.

6. A supporting clip for the purpose described comprising an integral strip slotted and bent to form a seat portion with depending legs at the ends thereof adapted to maintain the seat at an elevation above a suitable support, and flexible fingers formed from the metal at opposite sides of the strip contiguous to the seat and leg portions, said fingers being spaced to accommodate a bar laid on the longitudinal axis of the seat, said fingers also being spaced apart from the transverse axis of the seat to accommodate a bar laid on said axis, and adapted to being bent about a bar extending transversely of the seat to retain the clip in position relative thereto.

7. A supporting clip for the purpose described comprising a strip of metal slotted and bent to form a seat portion with supporting legs at its ends and flexible fingers at opposite sides of the seat portion, said fingers being disposed to accommodate a bar extending transversely of the seat and being also spaced apart transversely of the seat to accommodate a bar laid longitudinally of the seat, said fingers also being adapted to be bent to engage a bar at points spaced apart transversely of the seat whereby to retain the clip in definite position relative thereto.

[Claims 2 and 3 not printed in the Gazette.]

1,256,104. CHUCK. FRED E. BRIGHT, Philadelphia, Pa. Filed May 3, 1917. Serial No. 166,097. (Cl. 29—138.)



1. In a chuck, the combination of a body, a gripping jaw having a radial stem mounted in said body and movable inwardly and outwardly to correspondingly move the gripping jaw, and an axially movable operating member provided with a slot embracing the radial stem, the wall of said slot and side of the stem being so relatively formed that the stem will be moved radially in the axial movements of the plunger.

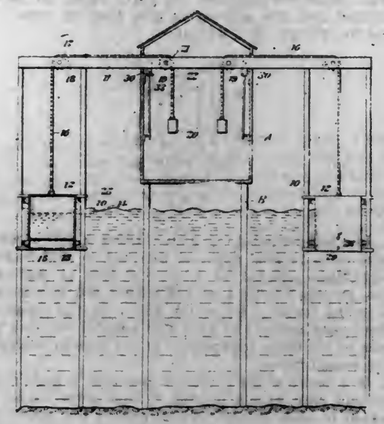
2. In a chuck, the combination of a body having a radial guiding opening therein, a work supporting jaw sustained by the body, a gripping jaw having a radial stem mounted in said guiding opening and movable inwardly and outwardly to carry the gripping jaw respectively to and from the supporting jaw, and an axially movable operating member provided with a slot embracing the radial stem, the wall of the slot and the side of the same being provided with coöperating surfaces inclined relatively to the movement of the operating member, and adapted, in the movements of the operating member, to move the jaw inwardly and outwardly respectively.

1,256,105. CHAIN ATTACHMENT. ELBERT J. BROOKS, Sparta, Wis. Filed Oct. 28, 1916. Serial No. 127,175. (Cl. 24—231.)



The combination with the end links of a chain; of a connecting member between said links, said member being attached at one end to one of the links, and having intermediate its ends an inwardly directed notch extending obliquely to the longitudinal axis of the member, in which notch the other link detachably seats, the member also having a rearward longitudinal extension at the end opposite the one to which the first mentioned link is attached, said extension being located alongside the second mentioned link when it is seated in the notch, the inner end of the notch, the point of attachment of the connector to the first mentioned link, and the rearward extension being in substantially longitudinal alinement.

1,256,106. WAVE-MOTOR. WILLIAM J. CALLAWAY, San Diego, Cal. Filed Nov. 21, 1916. Serial No. 132,638. (Cl. 253—10.)

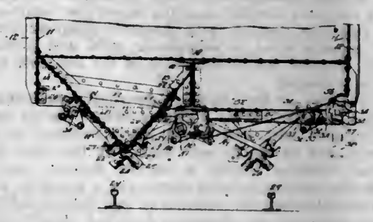


1. In a wave motor, a supporting structure embodying spaced parallel uprights, a float slidably fitted between said uprights to rise and fall with a body of water, a shaft journaled on the supporting structure, a sprocket wheel fixed thereon, a flexible element suspending the float and trained over said wheel to engage the latter and rotate the shaft with the fall of the float, a weight on the opposite end of the element for holding the latter taut with the rise of the float, a locking element adapted to be supported immediately beneath the flexible element and having a beveled edge to permit the flexible element to pass freely thereover during the rise of the float, and adapted to engage the flexible element to prevent the fall of the float from the highest point to which the waves will elevate the latter.

4. In a wave motor, a supporting structure embodying spaced parallel uprights, a float slidably fitted between said uprights to rise and fall with a body of water, a shaft journaled upon said supporting structure, a sprocket wheel fixed thereon, a chain suspending said float and trained over said sprocket to engage the latter to rotate said shaft with the fall of the float, a weight on the opposite end of the chain for holding the latter taut with the rise of the float, a pair of spaced brackets, an element normally supported upon one of the brackets in an inactive position, a rod depending from said element and normally disposed at one side of the other bracket, said rod being adapted to be positioned upon the latter mentioned bracket to elevate said element to an active position whereby it automatically engages the chain to prevent the fall of the float from the highest point to which the waves will elevate the latter, and said rod being hingedly connected with said element to permit the rod to be moved to an active or inactive position.

[Claims 2 and 3 not printed in the Gazette.]

1,256,107. DIVERTIBLE BALLAST-CAR. ARGYLE CAMPBELL, Chicago, Ill., assignor to Enterprise Railway Equipment Company, Chicago, Ill. Filed Aug. 6, 1917. Serial No. 184,613. (Cl. 105—185.)



1. In a car of the character described, the combination with a car body having a single center sill and longitudinally arranged sets of hoppers on each side of the center sill, of hinged center dump hopper doors for each set of hoppers; longitudinally extending operating shafts for said doors arranged on the outer sides of said hoppers; side dumping hopper doors for each set of hoppers; and longitudinally arranged operating shafts for the side dumping doors located between the hoppers.

2. In a car of the character described, the combination with a car body having an I-beam center sill and longitudinally arranged sets of hoppers on each side thereof, each of said hoppers including a downwardly and outwardly inclined hopper bottom sheet secured to the web of said center sill; of side dumping hopper doors for said hoppers; center dumping hopper doors for said hoppers; mechanism for operating the center dumping hopper doors of both sets of hoppers simultaneously; and mechanism for operating the sets of side dumping hopper doors independently.

3. In a car of the character described, the combination with a car body having longitudinally arranged sets of hoppers on each side of the center sill thereof; each hopper of each set having a pivoted side dumping door and a pivoted center dumping door, the side and center dumping doors of each hopper having meeting edges located in a vertical plane inside of the car rails; of mechanism for operating said doors; and longitudinally extending diverting partitions disposed beneath the meeting edges of the doors of each set of hoppers, each diverting partition comprising an angle iron with the flanges thereof inclined downwardly.

[Claims 4 to 6 not printed in the Gazette.]

1,256,108. MOUNTING FOR ROTATABLE MEMBERS. JAMES A. CAMERON and GUSTAF BIRGER BIRCH, Brooklyn, N. Y., assignors to Cameron Machine Company, Brooklyn, N. Y., a Corporation of New York. Filed Mar. 13, 1915. Serial No. 14,158. (Cl. 64—36.)

1. A device of the character described comprising: a carrying member having confining cheeks spaced apart, a pintle having its ends flush with the outer faces of the

confining cheeks, said confining cheeks being formed to prevent endwise displacement of the pintle and lateral displacement of the cheeks, and a rotatable member mounted loosely for rotation on said pintle with its opposite sides engaging said confining cheeks whereby lateral movement of the rotatable member is prevented.

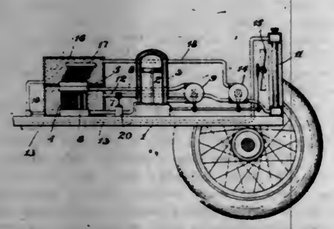


2. A device of the character described comprising: a carrying member having confining cheeks spaced apart, a pintle having its ends flush with the outer faces of the confining cheeks, said confining cheeks and said pintle being formed to prevent endwise displacement of the pintle and lateral displacement of the cheeks, a rotatable member mounted loosely for rotation on said pintle, and a rotatable member mounted loosely for rotation on said rotatable member, said rotatable members having their opposite sides in engagement with said confining cheeks, whereby lateral movement of the rotatable members is prevented.

3. A device of the character described comprising: a carrying member having confining cheeks spaced apart and provided with bearings, a pintle mounted in said bearings, and having its ends flush with the outer faces of said confining cheeks, a floating member mounted loosely for rotation on said pintle, and a rotatable member mounted loosely for rotation on said floating member.

4. A device of the character described comprising: a carrying member having confining cheeks spaced apart and provided with bearings having projecting web portions, a pintle having its ends flush with the outer faces of the confining cheeks resting in said bearings and having slots for the reception of said web portions, and a rotatable member rotatably mounted on said pintle between said cheeks and having substantial areas of its opposite faces in engagement with said cheeks, whereby any tendency of the rotatable member to tilt on its axis is overcome.

1,256,109. COOLING SYSTEM FOR INTERNAL-COMBUSTION ENGINES. LEON CAMMEN, New York, N. Y. Filed June 29, 1917. Serial No. 177,719. (Cl. 123—174.)

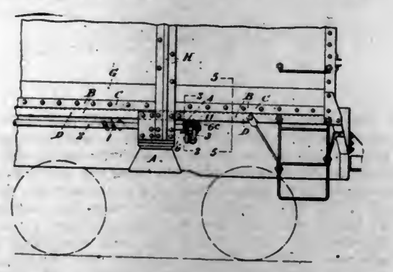


1. The method of cooling internal combustion motors which consists in circulating a fluid medium through a closed circuit including an engine jacket and radiator, and circulating a liquid medium through a second circuit including an air cooled radiator, in which second circuit a portion of the first circuit is immersed.

2. A cooling system for internal combustion motors comprising an engine jacket, a radiator, an inclosing casing therefor, means for circulating water between said radiator and jacket, an air cooled radiator, and means for circulating water through said casing, in contact with said first named radiator, and through said air cooled radiator.

[Claims 3 and 4 not printed in the Gazette.]

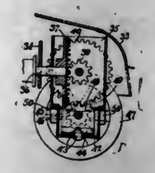
1,256,110. RATCHET-AND-PAWL ARRANGEMENT FOR DUMPING-CARS. GEORGE C. CHERBONNIER, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Jan. 8, 1916. Serial No. 71,054. (Cl. 74—54.)



1. In combination, a passive member, a movable toothed member connected therewith, and a pawl adapted to actuate the same in opposite directions, said pawl being manually reversible by endwise rotative and longitudinal sliding movement thereof.

[Claims 2 to 25 not printed in the Gazette.]

1,256,111. TOY. DAVID P. CLARK, Dayton, Ohio. Original application filed Feb. 28, 1916, Serial No. 80,777. Divided and this application filed Mar. 30, 1916. Serial No. 87,719. (Cl. 46—48.)

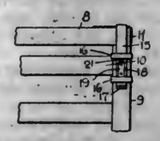


1. In a self-propelled toy, a main frame, a pair of wheels pivoted on a vertical axis and attached to said frame, a second frame pivoted on a vertical axis to said main frame, an axle having a pair of wheels and journaled on said second frame, a toy motor, and a driving connection between said motor and said axle adapted to drive said wheels at all times irrespective of the pivotal movement of the second frame.

8. In a device of the character described, a main frame, front and rear wheels pivoted to said main frame and arranged to move around vertical axes, a toy motor upon the main frame, and a driving connection between said motor and certain of said wheels, said connection comprising a gear on the main frame meshing directly with a gear on the pivotal portion of certain of said wheels, whereby the toy is propelled at all times irrespective of the pivotal movement thereof.

[Claims 2 to 7 not printed in the Gazette.]

1,256,112. FOLDING OR COLLAPSIBLE RECEPTACLE. ARCHIE CLAWSON, Rockvale, Mont. Filed May 21, 1917. Serial No. 169,979. (Cl. 217—15.)

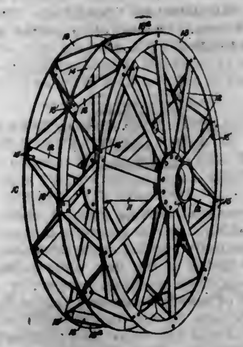


2. The combination with a folding box having a removable top, of brackets secured to one part of the box

structure, each bracket being provided with a slot, shiftable latch plates on the box top, spaced guide straps for said latch plates secured to the box top, each of said latch plates having a hook on one end for engagement in the slot of one of the brackets, each latch plate being further provided with an opening, a leaf spring fixed to the plate at one end of the opening, and a plate secured to the under side of said spring and normally disposed within said opening in the plane of the latch plate, said latter plate being provided with a lug on one end to co-act with one of said guide straps and prevent shifting movement of the latch plate from its locking position.

[Claim 1 not printed in the Gazette.]

1,256,113. TRACTOR-WHEEL. FRANK M. COE, New York, N. Y. Filed Feb. 19, 1917. Serial No. 149,469. (Cl. 21—216.)



1. In a tractor wheel, the combination of a hub, a tread portion, and connecting means between the hub and the tread portion, said tread portion comprising a plurality of annular ribs arranged in spaced parallel relation to each other, bracing means arranged in a zigzag manner between adjacent ribs all the way around the tread, transverse braces extending directly between adjacent ribs in directions parallel to the axis of the wheel, and means rigidly securing all of the bracing means to the respective ribs.

2. In a wheel, the combination of a hub, a tread portion, and a series of spokes extending between the tread portion and the hub, said spokes and tread portion being all formed of metal of uniform cross section, and said tread portion comprising a plurality of spaced annular ribs and bracing strips extending between the ribs and circumferentially around the tread, said bracing means including diagonal portions, the outer ends of the spokes being locked between adjacent diagonal portions.

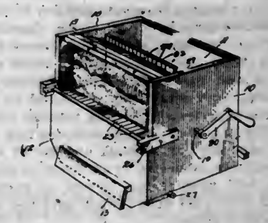
3. In a wheel of the character set forth, the combination of a hub, a tread portion, and a series of spokes extending between the hub and the tread portion, said tread portion and spokes being made of flat metal strips of uniform cross section, said tread portion comprising a plurality of spaced annular ribs, the wider dimension of the metal of which is radial with respect to the wheel, bracing means extending between adjacent ribs both diagonally and circumferentially of the tread, portions of said bracing means being fitted squarely against the opposing faces of the ribs forming flat portions substantially of the same length circumferentially as the width of the spokes fitted therein, and fastening means securing the outer ends of the spokes, the ribs, and the bracing means rigidly together.

4. In a tractor wheel, the combination of a hub, a tread portion and connecting means between the hub and the tread portion, said tread portion comprising a plurality of annular ribs arranged in spaced parallel planes, a bracing strip arranged in a zigzag manner between adjacent ribs all the way around the tread, transverse braces extending directly between adjacent ribs in directions parallel to the axis of the wheel, and means rigidly securing all of the bracing means to the respective ribs.

7. In a tractor wheel of the character set forth, a tread portion including a flat annular rib lying in a plane perpendicular to the axis of the wheel, a sectional metal band having the ends of its sections constituting lugs straddling said rib, detachable fastening means binding adjacent lugs together, and pairs of inwardly punched lugs coöperating with the rib aforesaid, to prevent lateral movement of those portions of the bands between the end lug portions.

[Claims 5 and 6 not printed in the Gazette.]

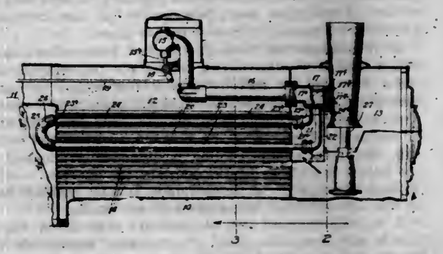
1,256,114. BREAD-CUTTING MACHINE. HARRY DASSOW, Fargo, N. D. Filed May 23, 1917. Serial No. 170,535. (Cl. 146—12.)



1. In a bread cutting machine; a casing, a shaft journaled in the side walls of the casing and extending across said casing, a plurality of series of spaced fingers fixed to said shaft, said series extending radially from the shaft with each series at right angles to the adjacent series, a series of knife blades curved around the shaft with their cutting edges facing toward said shaft, said blades being arranged in the spaces between the fingers of each series, and means to detachably connect the blades to the casing.

2. In a bread cutting machine; a casing, a shaft extending across said casing, means to rotate said shaft, a plurality of series of spaced fingers carried by said shaft, and a series of knife blades mounted in said casing and extending between said fingers comprising upper and lower bars having sockets therein receiving the ends of said blades, and removable pins passed longitudinally through said bars and transversely through the blade ends.

1,256,115. LOCOMOTIVE-SUPERHEATER. FREDERIC A. DELANO, Chicago, Ill. Filed June 5, 1913. Serial No. 771,906. (Cl. 122—462.)



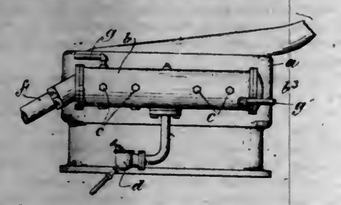
1. In a locomotive, a fire box, a boiler, a smoke box, flues in said boiler leading from said fire box to said smoke box, a manifold comprising a wet steam chamber and a superheated steam chamber, a series of elbows depending from said wet steam chamber, a second series of elbows depending from said superheated steam chamber, superheating tubes each detachably connected to an elbow of said first-named series and leading from one of said

flues to said fire box, each of said superheating flues returning from said fire box through another of said flues and being detachably connected to an elbow of said second-named series, and fire proof material for covering said superheating tubes in said fire box.

2. In a locomotive, a boiler having a plurality of flues extending therethrough, a manifold comprising a wet steam chamber and a superheated steam chamber, a series of duct members leading from said wet steam chamber adjacent one end of said boiler, a second series of duct members leading from said superheated steam chamber, and superheating tubes each detachably connected to a duct member of said first-named series and leading through one of said flues to the other end of said boiler, each of said superheating tubes returning from the other end of said boiler through another of said flues and being detachably connected to an elbow of said second-named series.

3. In a locomotive, a fire box, a boiler and smoke box, flues in said boiler leading from said fire box to said smoke box, a manifold comprising a wet steam chamber and a superheated steam chamber, a series of elbows depending from said wet steam chamber, a second series of elbows depending from said superheated steam chamber, and superheating tubes, each detachably connected to an elbow of said first named series and leading through one of said flues to said fire box, each of said superheating tubes returning from said fire box through another of said flues and being detachably connected to an elbow of said second named series, said tubes being formed to permit withdrawal thereof from said flues toward said fire box when detached from said elbows.

1,256,116. INTERNAL-COMBUSTION ENGINE. PETER P. DEMPSEY, New York, N. Y., assignor, by mesne assignments, to Dempsey Oil Engine Corporation, New York, N. Y., a Corporation of New York. Filed Apr. 28, 1916. Serial No. 94,095. (Cl. 123—122.)



1. In combination with an internal combustion engine and a carbureter therefor, a heater for the mixture disposed between the carbureter and the engine having a passage therethrough for the exhaust gases, separate inlet and outlet passages for a cooling medium to lead the medium in its flow in a direction opposite to the direction of flow of the gases and a passage for the mixture juxtaposed to the passage for the exhaust gases.

2. In combination with an internal combustion engine and a carbureter therefor, a heater for the mixture disposed between the carbureter and the engine having a passage therethrough for the exhaust gases, and separate passages for a cooling medium, the cross-sectional area of which decreases from the inlet end toward the outlet end, the inlet for the cooling medium being disposed at the hotter end of the heater whereby the effective cooling volume throughout is perportioned to the sensible heat of the exhaust gases along the exhaust passage.

3. In combination with an internal combustion engine and a carbureter therefor, a cylindrical heater for the mixture disposed between the carbureter and the engine having a central exhaust passage therethrough, water cooling channels formed around the exhaust passage, inlet and outlet ducts for the water at the ends of the water channels and so disposed with respect to the exhaust passage as to cause the flow of water in a direction opposite to the flow of the exhaust gases, and a passage for the mixture juxtaposed to the passage for the exhaust gases.

4. In combination with an internal combustion engine and a carbureter therefor, a cylindrical heater for the mixture disposed between the carbureter and the engine and having a central exhaust passage therethrough, water and gas passages formed concentric with the exhaust passage, the gas passage extending throughout only a portion of the length of the heater, inlet and outlet ducts for the water formed at the ends of the water channels and so disposed with respect to the exhaust gases as to cause a flow of water in a direction opposite to the direction of flow of the exhaust gases, the cross-sectional area of the water channels decreasing from the inlet end to the outlet end whereby the volume of water is proportioned to the sensible heat of the exhaust gases, and a common distributing gas passage formed alongside of the heater to distribute the gas to the cylinders.

1,256,117. PROCESS OF MAKING CHAIN-LINKS. HARRY L. DUNCAN, Mahwah, N. J. Filed Sept. 27, 1917. Serial No. 193,586. (Cl. 219—5.)



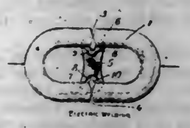
1. The process of making studded chain links which comprises making a pair of generally U-shaped link blanks having substantially parallel inner sides and ends meeting adjacent the inside of the link while considerably separated at their outer portions, supporting adjacent the meeting ends of said link blanks a link stud formed with recesses in its ends, forcing together and electrically welding the ends of said link blanks and forming inwardly protruding weld fins entering and substantially filling the recesses in said link stud and smoothing and forcing together the outer sides of the link welds beyond the stud ends.

5. The process of making studded chain links which comprises making generally U-shaped link blanks having substantially parallel inner sides, supporting adjacent the meeting ends of two of said link blanks a link stud formed with recesses in its ends, forcing together and electrically welding the ends of said link blanks and forming inwardly protruding weld projections entering the recesses in said link stud and materially increasing the cross section of the link sides at the points of weld.

9. The process of making studded chain links which comprises bending the link material into substantially closed form with cooperating ends in the side of the link, supporting adjacent the meeting ends of said link material, a link stud, electrically bringing the contacting ends of said link material to welding heat and simultaneously forcing them together to weld the ends of said link material and form an inwardly protruding weld fin engaging the irregular shaped end of the link stud and materially increasing the cross section of the link adjacent the welded portions.

[Claims 2 to 4 and 6 to 8 not printed in the Gazette.]

1,256,118. CHAIN-LINK. HARRY L. DUNCAN, Mahwah, N. J. Original application filed Sept. 27, 1917, Serial No. 193,586. Divided and this application filed Nov. 1, 1917, Serial No. 199,625. (Cl. 59—84.)



1. The studded chain link formed of round stock and having an electrically butt welded joint in both sides of the link and a link stud formed with encircling ends extending partially around the stock adjacent the sides of the link and having recesses in the stud ends adjacent the welding joints and weld enlargements extending inward into said stud recesses and interlocking with the link stud to hold it in position and effecting at least a 30% enlargement of the cross-section of the link sides at the points of weld.

5. The studded chain link having an electrically butt welded joint in one of the sides of the link and a link stud having ends partially encircling the link sides and formed with a recess adjacent the point of weld, there being a projecting weld enlargement extending into said recess and interlocking with said link stud to hold the same in position and materially increasing the cross-section of the link sides at the point of weld.

9. The studded chain link having a welded joint in one of the sides of the link and a link stud formed with an irregular end adjacent the point of weld, there being a projecting weld enlargement engaging and interlocking with the irregular end of said stud to hold the same in position and effecting at least a 30% enlargement of the cross-section of the link side at the point of weld.

[Claims 2 to 4 and 6 to 8 not printed in the Gazette.]

1,256,119. FRONT AUGER SUPPORT AND BEARING FOR BEET-HARVESTERS. JOSEPH D. FANGER, Toledo, Ohio, assignor to The Fanger Beet Harvester Co., Toledo, Ohio, a Corporation of Ohio. Filed Apr. 5, 1917. Serial No. 159,916. (Cl. 55—106.)



1. In a beet harvesting machine, the combination of a pair of beet pulling and conveying augers having sockets in their front ends, a pair of earth slitting blades located in advance of said augers, necks extending rearwardly from the lower ends of said blades and having bearing balls on their rear ends, said balls and necks being received in said sockets, and packing means in said sockets and surrounding said necks to prevent the entrance of dust and grit.

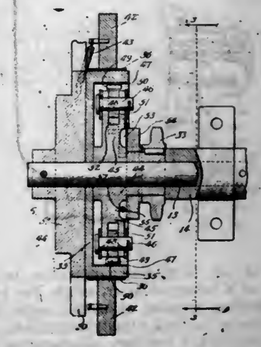
3. In a beet harvesting machine, the combination of a pair of longitudinally disposed beet pulling and conveying augers of hollow formation and having sockets in their front ends in communication with the interior of said augers by means of oil passages, a pair of earth slitting blades in advance of said augers, necks extending rearwardly from the lower ends of said blades and having bearing balls on their rear ends received in said sockets, and packing means in the open front ends of said sockets and surrounding said necks to prevent the leakage of oil and the entrance of dust and grit.

[Claim 2 not printed in the Gazette.]

1,256,120. FEEDER FOR THRESHING-MACHINES. HUGH W. FELLOWS, Los Angeles, Cal., assignor to J. I. Case Threshing Machine Company, Racine, Wis., a Corporation. Filed May 25, 1914. Serial No. 840,917. (Cl. 130—1.)

1. In a feeder for threshing machines, the combination with band-cutting knives, a conveyer, a main drive shaft and a driving pulley thereon, of a gear loosely mounted on said shaft and connected to said conveyer, an intermediate drive member on said shaft for said gear, centrifugally operated clutch devices for connecting said intermediate members to said pulley, supplemental clutch devices for connecting said intermediate drive member and said gear, and a straw governor for throwing the supplemental clutch devices out of operation, substantially as described.

2. In a feeder for threshing machines, the combination with band-cutting knives, a conveyer and a main drive shaft, of a gear and a driving member therefor both loosely mounted on said shaft, driving connection between said gear and said conveyer, centrifugally operated clutch devices for connecting said driving member to said shaft, supplemental clutch devices for connecting said member to said gear, and a straw governor controlling said supplemental clutch devices substantially as described.



3. In a feeder for threshing machines, the combination with the band-cutting knives, a main drive shaft therefor, and a pulley on said shaft, of a conveyer, a gear loose on said main drive shaft and connected to said conveyer, a clutch member on said shaft interposed between said pulley and said gear, main and supplemental clutch devices for respectively connecting said member to said pulley and said gear, a speed governor mounted on said pulley and controlling said main clutch devices, and a straw governor mounted on the main frame and controlling said supplemental clutch devices, substantially as described.

4. In a feeder for threshing machines, the combination with the band-cutting knives, a main drive shaft therefor, and a pulley on said shaft, of a conveyer, a gear loose on said main drive shaft and connected to said conveyer, a friction clutch disk mounted on said shaft between said gear and said pulley, main and supplemental clutch shoes connected respectively to said pulley and said gear and arranged to engage said disk, centrifugal members controlling said main clutch shoes, and straw governing devices for releasing said supplemental clutch shoes, substantially as described.

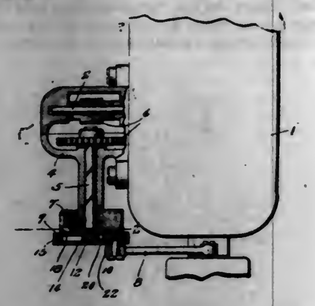
5. In a feeder for threshing machines, the combination with the band cutting knives, a main drive shaft therefor, and a pulley on said shaft, of a conveyer, a gear loose on said main drive shaft and connected to said conveyer, a clutch member having a friction rim mounted on said shaft between said pulley and said gear, centrifugally controlling clutch shoes mounted on said pulley and arranged to engage the outer face of said friction rim, supplemental, spring-pressed clutch shoes connected to said gear and arranged to engage the internal face of said rim, and a straw governing device for releasing said supplemental clutch shoes, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,256,121. ADJUSTING DEVICE FOR OSCILLATING FANS. HERBERT I. FINCH and THOMAS M. MESTON, St. Louis, Mo., assignors to The Emerson Electric Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed Sept. 10, 1917. Serial No. 190,485. (Cl. 74—14.)

1. In a fan, an oscillating mechanism including a rotary member, means for rotating the same, a block carried by the rotary member and movable across the axis of rotation thereof, a thrust link having pivotal connection with said block, a stationary pivotal connection for the other extremity of said link, and an adjusting

member supported on the rotary member and adjustable relative thereto about the axis thereof, there being operative connection between said adjusting member and said block whereby the latter may be moved toward and from the axis of the rotary member by adjustment of said adjusting member.

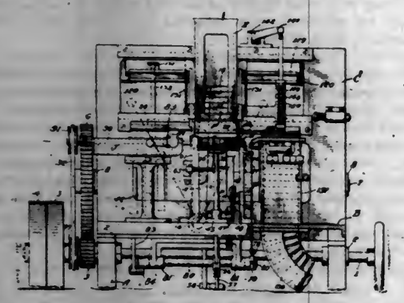


4. In a fan, an oscillating mechanism including the combination of a rotary member, means for rotating the same, an adjusting member adjustable about the axis of the rotary member, a block adjustable spacially relative to the axis of the rotary member, an operative connection between the adjusting member and the block whereby the latter may be moved by adjustment of the former, and a thrust link having pivotal connection at one extremity with the block and at the other extremity with a fixed mounting.

6. A crank disk for the purpose described comprising a main supporting member, a circumferential rotative member mounted to move therearound and coöperating therewith, and a pintle block articulated with said parts whereby it is adjustable toward and from the axis of said main rotative member.

[Claims 2, 3, 5, and 7 not printed in the Gazette.]

1,256,122. WRAPPING-MACHINE. JOHN STROTHER FREEMAN and WILLIS LEWIS WORTHAM, Jersey City, N. J., assignors to P. Lorillard Company, New York, N. Y., a Corporation of New Jersey. Filed May 21, 1917. Serial No. 169,831. (Cl. 93—2.)

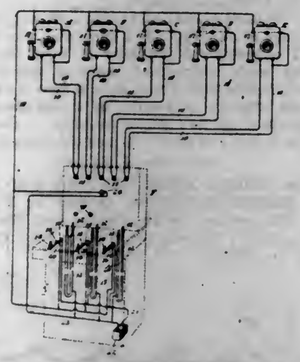


1. In a wrapping machine, a traveling carriage, a package magazine mounted on the carriage, a box support movable with the carriage, and means for automatically removing a package from the magazine and delivering said package to the box support during the travel of the carriage.

3. In a wrapping machine, a package magazine having a chamber at its lower end adapted to receive packages one at a time from the body of the magazine, a support for a stack of wrappers, a traveling package support arranged in alinement with the chamber of the magazine, means operating in the chamber for automatically removing a package therefrom and delivering the same to the package support, a support for a stack of wrappers, means moving with the package support for removing a wrapper from the stack and holding the same in position for application to the package, instrumentalities for folding the wrapper about the package, and means for transferring the wrapper and package from their respective supports to the folding instrumentalities.

[Claims 2 and 4 to 20 not printed in the Gazette.]

1,256,123. TELEPHONE APPARATUS. GEORGE I. GALITZKA, New York, N. Y. Filed Mar. 14, 1917. Serial No. 154,670. (Cl. 179—70.)



1. The method of preventing the listening-in of the operator of a local switchboard, consisting in providing a signaling apparatus connected with the listening-in key of the local switchboard and producing a visible warning signal at the subscriber's set upon the actuation of the said listening-in key.

2. An apparatus of the class described, consisting of a visible indicator at the subscriber's set, a switch adapted to be actuated when the operator's talking and listening set is connected in line, and an electric circuit including a source of energy connected to said visible indicator and said switch, said indicator adapted to produce a visible warning signal when the operator's talking and listening set is connected in line.

3. An apparatus of the class described, consisting of a visible indicator at the subscriber's set, a switch adapted to be actuated when the operator's talking and listening set is connected in line, an electric circuit including a source of energy connected to said visible indicator and said switch, said indicator adapted to produce a visible warning signal when the operator's talking and listening set is connected in line, and a visible indicator at the local switchboard connected in the aforementioned circuit and adapted to produce a visible warning signal similar to the warning signal of the indicator of the subscriber's set.

6. In a telephone apparatus the combination of a local operator's switchboard including listening-in keys for connecting the local operator's circuit with the subscriber's line circuit, of a switch mechanically connected to said listening-in key switch and operated thereby, and means electrically connected to said second-mentioned switch adapted to produce a visible warning signal at the subscriber's set when the said listening-in key is operated and the local operator's circuit connected to the subscriber's line circuit.

7. In an apparatus of the class described the combination with a local operator's switchboard including a listening-in key switch, a subscriber's line circuit and local operator's circuit, of a switch mechanically connected to and operated by said listening-in key switch, an electric lamp located at the subscriber's telephone set electrically connected to said second-mentioned switch and adapted to be energized and lighted when said listening-in key switch is operated and the local operator's circuit connected to the subscriber's line circuit.

[Claims 4 and 5 not printed in the Gazette.]

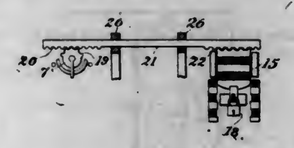
1,256,124. SPRING CONSTRUCTION. JOHN WELSBY GELLING, Mexico, Mexico. Filed Apr. 28, 1917. Serial No. 165,178. (Cl. 267—33.)



1. A spring structure comprising a plurality of resilient corrugated leaves arranged one above another, plate leaves interposed between the corrugated leaves, and a plate leaf having means whereby the spring may be attached to a supporting structure.

2. A spring structure comprising spaced resilient plate leaves and a plurality of corrugated resilient leaf springs operatively arranged between said plate leaves, with the corrugations thereof arranged transversely of the said plates.

1,256,125. MASTER CONTROL AND LOCK FOR ELECTRIC CIRCUITS IN AUTOMOBILES. LEON GOLDMERSTEIN, New York, N. Y. Filed Dec. 4, 1915. Serial No. 64,981. (Cl. 175—282.)



1. The combination, with a distributing switch movable to different positions, of a master switch having a reciprocating member, and non-electrical means to mechanically engage said distributing switch in any one of its positions with the reciprocating member of said master switch, when said switch is in the open circuit position.

3. The combination, with a distributing switch movable to different positions, of a master switch having a reciprocating member, a slidable member between said switches, means for communicating movement from said distributing switch to said slidable member, and means whereby said slidable member may engage with the reciprocating member of said master switch.

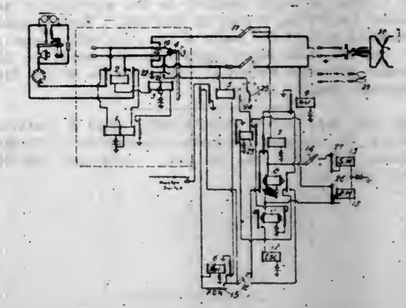
[Claims 2 and 4 not printed in the Gazette.]

1,256,126. AUTOMATIC TELEPHONE-EXCHANGE SYSTEM. CHARLES L. GOODRUM, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed May 25, 1916. Serial No. 99,756. (Cl. 179—27.)

1. In a telephone system, an incoming line, two groups of outgoing lines, operators' positions, means for normally interconnecting said incoming line with any idle outgoing line, means operating under predetermined conditions to cause the incoming line to find operators' positions before connecting it with one of said groups of idle outgoing lines, and a battery connection for said incoming line for controlling the operation of said last mentioned means.

2. In a telephone system, two groups of incoming lines, two groups of outgoing lines, operators' positions, means for normally interconnecting any incoming with any idle outgoing line, means operating under predetermined conditions during the initiation of a call to cause the incoming line to find operators' positions before connecting it with one of said groups of idle outgoing lines, and a battery connection for certain of said lines for controlling the operation of said last mentioned means.

3. In a telephone system, two groups of incoming lines, two groups of outgoing lines, operators' positions, switches for normally interconnecting any incoming with any idle outgoing line, a commutator associated with one of said switches, means including said commutator operating under predetermined conditions to cause the incoming line to find operators' positions before connecting it with one of said groups of idle outgoing lines, and a battery connection for certain of said lines for controlling the operation of said last mentioned means.

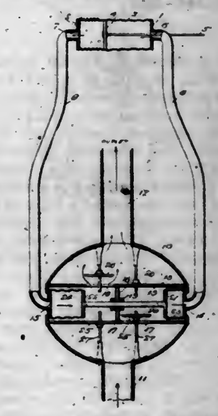


4. In a telephone system, two groups of incoming and two groups of outgoing lines, operators' positions, switches for normally interconnecting any incoming with any idle outgoing line, a commutator actuated simultaneously with one of said switches, means including a relay and said commutator coöperating under predetermined conditions to cause the incoming line to find operators' positions before connecting it with one of said groups of idle outgoing lines, and a battery connection for certain of said lines for controlling the operation of said last mentioned means.

5. In a telephone system, telephone lines, a switch having movement in two directions for interconnecting said lines, stepping means operated directively for controlling the initial movement of said switch in one direction, and call segregating means including a circuit associated with said stepping means and switch for automatically continuing the movement of the switch in the same direction as soon as the initial directed movement ceases, said circuit adapted to be closed during the initiation of a call.

[Claims 6 to 14 not printed in the Gazette.]

1,256,127. PUMP. FRED LINCOLN GOULD, Reno, Nev., assignor of one-twentieth to A. E. Kibble and one-twentieth to John Capurro, Reno, Nev. Filed Aug. 10, 1916. Serial No. 114,265. (Cl. 103—68.)



A pump comprising a flexible casing, a plunger dividing the casing into like compartments, a second casing re-

motely situated from the flexible casing and having an inlet and an outlet, a cylinder dividing the second casing into compartments in communication with the inlet and outlet thereof, respectively, said cylinder being divided by a centrally disposed transverse partition into end compartments, each having a valve controlled inlet and a valve controlled outlet in communication with the respective inlet and outlet compartments of the second casing, a stem slidingly mounted in the partition of the cylinder and having a head at each end, a flexible casing connecting each of the heads of the stem with a head of the cylinder, and pipes connecting the heads of the cylinder with the respective compartments of the first mentioned flexible casing.

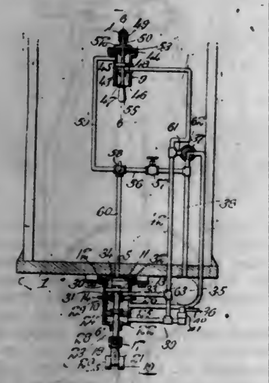
1,256,128. RADIATOR FOOT-REST. JOHN F. GRABILL, Flora, Ill., assignor of one-half to Horatio C. Chaffin, Flora, Ill. Filed May 19, 1917. Serial No. 169,706. (Cl. 155—9.)



1. As an article of manufacture, a foot rest for radiators comprising a foot rest proper, brackets mounted upon the rear face of the foot rest and having laterally extending slotted members, the outer ends of the brackets being bifurcated to fit against and receive the coils of a radiator, bolts passing through the said slots and holding the brackets to the foot rest and permitting the brackets to be longitudinally shifted along the foot rest, and means extending from the foot rest adapted to clamp against the radiator and hold the foot rest in place.

2. As an article of manufacture, a foot rest for radiators including a foot rest proper, brackets operatively connected to the rear face of the foot rest and extending therefrom and adjustable toward or from each other, the brackets each being formed with a vertically disposed notch to receive a coil of the radiator, a clamping rod extending from and detachably connected to the foot rest and adapted to be passed between the coils of a radiator, a clamp slidingly mounted upon the rod, and a nut engaging the clamp.

1,256,129. TRAIN-CONTROLLING APPARATUS. JOHN J. GROSS, Toledo, Ohio. Filed July 12, 1916. Serial No. 108,916. (Cl. 246—59.)



1. A train controlling apparatus, comprising in combination, a power interrupting device, a cylinder associated with an air system and having a partition forming a pair of chambers, a rod operative in said cylinder and adapted to be actuated by an obstruction, a valve carried by said rod and subdividing said cylinder into chambers, means for maintaining one of said chambers under air pressure, means connecting the other chamber to said power interrupting device and to release the air to an air brake line, said valve permitting air to pass to said power interrupting device when lifted by said rod and a piston carried by said rod adapted to be connected to the air pressure for returning the valve to its seat.

3. A train controlling apparatus, comprising in combination, a cylinder connected in an air system and having a partition forming a pair of chambers, a rod extending through said cylinder, a valve carried by said rod and operative between the chambers of said cylinders, an isolated chamber also formed on said cylinder and having said rod extending therein, a piston in said isolated chamber secured to said rod, means to maintain one side of said valve normally under air pressure, means to throw said valve off of its seat, and means for passing air to said isolated chamber to seat said valve.

[Claims 2 and 4 not printed in the Gazette.]

1,256,130. RECORDING INSTRUMENT. EDWIN JOSEPH HEITMAN, Philadelphia, Pa., assignor to The Brown Instrument Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 7, 1916. Serial No. 76,713. Cl. 234—1.)



2. A recording instrument comprising a record supporting table, a rotating arbor projecting therefrom, a record disk of transparent material and a disk of transfer material centrally secured to said arbor with the transfer disk between the record disk and the table and resting on the latter, a marking device movable toward and away from said arbor along a prescribed path and engaging the record disk to press it against the transfer disk and thereby cause the latter to mark the adjacent side of the record disk, and in combination therewith, a thin opaque curtain interposed between the record and transfer disks and formed with a central aperture loosely surrounding said arbor and with a slot, the side edges of which lie on opposite sides of the path of movement of the marking device, and means engaging said curtain to hold it against rotative movement.

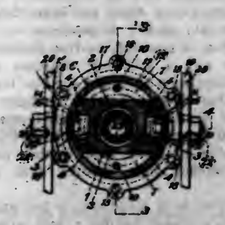
5. A thin flexible curtain disk for the purpose described formed with a central aperture, a radial slot and a peripheral positioning shoulder.

[Claims 1, 3, and 4 not printed in the Gazette.]

1,256,131. LATHE ATTACHMENT. RICHARD HERVIG, Chicago, Ill., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed July 19, 1917. Serial No. 181,550. (Cl. 29—108.)

1. In combination in a mechanism of the character described, a revoluble spindle, a chuck comprising members connected for rotation by said spindle one being displaceable accentrically thereof, a holder rotable about the spindle axis by said displaceable member, and means movable axially of the latter member to shift the same and said holder transversely of said spindle.

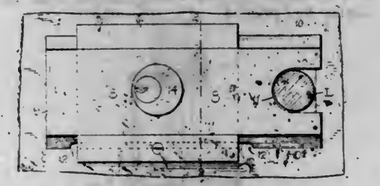
12. In combination in mechanism of the character described, a spindle, a chuck adapted to be rotated thereby comprising a member and holder rotatable about a common axis, a device movable longitudinally of the chuck to move said member and holder transversely thereof, and means with which said device is adapted to be interlocked at various locations to dispose the common axis of said member and holder concentric to the spindle axis or eccentrically at either side thereof.



18. In combination in a chuck, a rotary member provided with parallel sides inclined to its axis, an outwardly cylindrical member loosely surrounding the first member and provided with longitudinal slots, a holder rotatable thereby, an annulus about and slidable longitudinally of the circumference of said cylindrical member, and guides secured thereto passing through said slots and adapted to move along said inclined parallel sides to laterally shift said annulus and cylindrical member.

[Claims 2 to 11, 13 to 17, and 19 not printed in the Gazette.]

1,256,132. LEVER-LOCK. ELMER V. HILLSBURG, McKees Rocks, Pa. Filed May 31, 1917. Serial No. 172,005. (Cl. 70—128.)



1. In a device of the character described, a base, a rectilinearly movable member mounted upon said base, a rack fixed to the base beneath said member, and key-actuated means carried by said member to co-act with the rack and lock the member in its adjusted position on the base.

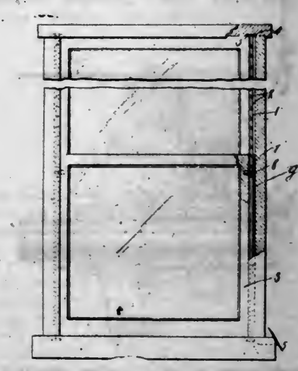
2. In a device of the character described, a base and attaching means therefor, a rectilinearly movable member mounted upon said base, key-actuated locking means carried by said member and disposed between the same and the base, said member in one position preventing access to the attaching means for the base, and means on said base with which the locking means on said member is adapted to co-act to secure said member in its adjusted position on the base.

3. In a device of the character described, a base having parallel flanges thereon and guide channels in the opposed faces of said flanges, a shiftable member engaged at its edges in said channels, a key-actuated element mounted upon one side of said member between the same and the base, and means fixed upon the base for engagement by said element to lock the shiftable member in its adjusted position.

[Claims 4 to 7 not printed in the Gazette.]

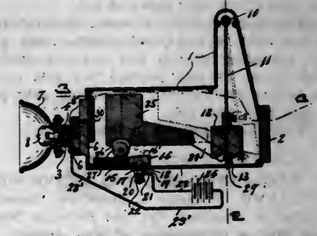
1,256,133. SASH-BALANCE. EPHRAIM S. HOPKINS, Tacoma, Wash., assignor of one-third to Emma Grinnell, Tacoma, Wash. Filed Apr. 14, 1917. Serial No. 162,085. (Cl. 16—114.)

The combination with a window frame and its sash, the latter having a longitudinally extending groove in one of the side members thereof and a socket extending in a plane at right angles to the plane of said groove, a plug mounted in said socket and having an apertured plate projecting therefrom into said groove, said plug having a threaded bore extending longitudinally therethrough and communicating with the aperture in said



plate, a screw inserted in said bore with one end projecting into said plate aperture, said end being rounded, a spirally grooved rod rotatably mounted in said frame and housed in the groove of said sash and extending through the apertured plate with the rounded end of said screw engaging with said spiral groove.

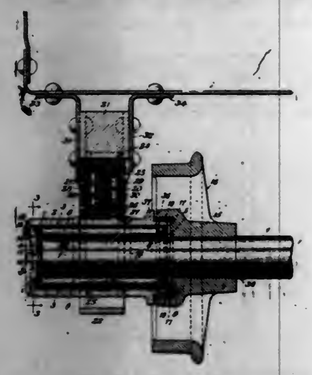
1,256,134. AUTOMATIC SIGNALING DEVICE. THOMAS D. JONCK, Asbury Park, N. J. Filed Nov. 7, 1916. Serial No. 129,916. (Cl. 200—27.)



4. In a device of the kind described a casing for attachment upon a vehicle or the like, an adjustable contact-base of insulating material supported on the bottom of said casing, a contact-plate mounted upon the forward end of the said contact-base, the upper surface of said contact-plate inclining upwardly and forwardly, a pendulum-rod pivoted to oscillate in the forward end of said casing, a pendulum-weight mounted on the lower end of said pendulum-rod, a cross-head connected with the lower extremity of said pendulum-rod having journal portions at its respective ends, a movable trailer-weight in the rear of said pendulum-rod, forwardly extending connecting-links connected with said trailer-weight having coupling devices at their free ends adapted to engage said journal portions of said cross-head to connect said trailer-weight with said pendulum rod, and a contact-roller journaled upon the lower rear end of said trailer-weight, said contact-roller normally resting on said contact-base but adapted upon the inertia induced movement of said pendulum-weight and said trailer-weight to roll forward upon said contact-plate in circuit closing engagement therewith.

[Claims 1 to 3 not printed in the Gazette.]

1,256,135. MINE-CAR-RUNNING-GEAR ASSEMBLY. WARREN V. JOHNSON, Bloomsburg, Pa., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Jan. 15, 1917. Serial No. 142,466. (Cl. 105—67.)



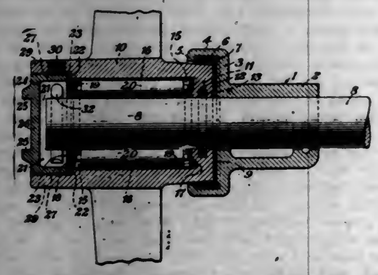
1. In combination, an axle, a wheel mounted thereon having a hub with a recessed end portion, a journal box of larger internal diameter than said axle projecting into the wheel recess and rollers interposed between said axle and journal box holding the latter away from said axle and hub.

2. In combination, a wheel with a hub having an axle bore and a recess at one of its ends larger than said bore, an axle with a shoulder outside the opposite end of said hub, said axle passing through and beyond the recessed hub end, a journal box entered by said axle and held in the removal path of said wheel from said axle, said journal box entering the hub recess, and cylindrical rollers between said axle and journal box diametrically spacing the latter from said axle and hub.

3. In combination, an axle, a wheel mounted thereon having a hub with a recess surrounding said axle, a journal box extending into the hub recess, a roller bearing in and locked to said journal box and including cylindrical rollers diametrically separating said journal box from said axle and hub.

[Claims 4 to 11 not printed in the Gazette.]

1,256,136. MINE-CAR WHEEL AND MEANS FOR ATTACHING SAME. WARREN V. JOHNSON, Bloomsburg, Pa., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed July 11, 1917. Serial No. 179,874. (Cl. 64—39.)



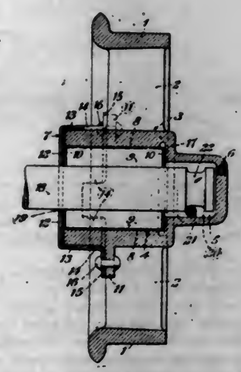
1. In combination in a mine car, a pedestal box having an enlarged open end, packing seated in said open end, a wheel having a hub portion rotatable in said open end, said wheel having an axle bore of a plurality of diameters one of which serves as a roller bearing chamber and one as a lubricant chamber, a washer in said lubricant chamber of larger diameter than the roller bearing chamber, an axle extended through said pedestal box and said roller bearing chamber and into but not through said lubricant chamber, a linch pin seated in said axle in said lubricant chamber and an adjustable cap adapted to contain lubricant and force the same into said hub and also to hold said washer in position.

3. In a car wheel, a cast hub portion including a roller bearing chamber and a lubricant chamber at the end thereof thereby forming a shoulder, a roller bearing roller supporting annulus in said bearing chamber, a washer in said lubricant chamber, and a closed cup having an inwardly disposed flange seated in said lubricant chamber and being movable to force said washer against said shoulder, said washer then holding said annulus in position.

5. In combination in a mine car, a pedestal box having an open end, a wheel having a hub with a portion rotatable in said open end, said hub having an axle bore of a plurality of diameters forming roller bearing and lubricant chambers, a washer in the lubricant chamber of greater diameter than the roller bearing chamber, an axle extended through said pedestal box and the roller bearing chamber and entering the lubricant chamber, a linch pin connected to said axle in the latter chamber and an adjustable cap adapted to contain and force lubricant into said hub and also to force said washer into position.

[Claims 2, 4, 6, and 7 not printed in the Gazette.]

1,256,137. MINE-CAR WHEEL WITH HUB-CAP. WARREN V. JOHNSON, Bloomsburg, Pa., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Sept. 22, 1917. Serial No. 192,698. (Cl. 105—67.)



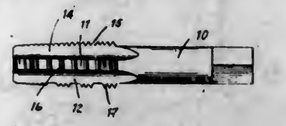
1. In combination, a car wheel having a hub with an open end and provided with wheel structure spaced away from that end and disposed to extend radially in a direction transverse to the axis of the hub, and a cap comprising a web portion opposite the open end of said hub, a flange extending therefrom circumferentially surrounding the adjacent portion of the hub and extended portions from said flange secured to said radial metal structure.

2. In combination, a car wheel having a hub with an open end, spokes, radially extending webs therebetween, and a cap comprising a web portion opposite the open hub end, a flange therefrom circumferentially surrounding that hub end and extensions from said flange secured to said radial webs.

3. In combination, a wheel hub having a roller bearing chamber, an axle extending into the same, rollers surrounding said axle, wheel members projecting radially from the hub exterior, and a cap comprising a web portion extending opposite the rollers at the open hub end, a flange circumscribing the hub exterior near its open end and extensions from said flange secured to said wheel members.

[Claims 4 to 14 not printed in the Gazette.]

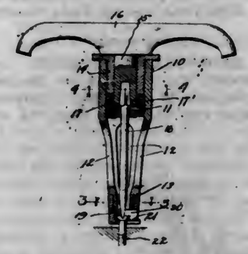
1,256,138. MACHINE AND HAND TAP. ALBERT E. KEHL, Toronto, Ontario, Canada. Filed June 16, 1914. Serial No. 845,467. (Cl. 10—141.)



3. A screw tap having a plurality of cutting lips provided with teeth arranged in a helical line, one of said lips having teeth arranged at distances equal to double the pitch, two cutting lips, the teeth formed upon which are arranged in sets of three, said teeth of each set being spaced apart by a distance equal to the pitch, and the sets being set apart with respect to one another a distance equal to twice the pitch, the upper and lower portions of each of said lips having the full number of teeth.

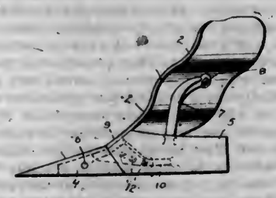
[Claims 1 and 2 not printed in the Gazette.]

1,256,139. SCREW-DRIVER. FELIX KIETLINSKI, Milwaukee, Wis. Filed Apr. 19, 1917. Serial No. 163,251. (Cl. 145—51.)



In a draw screw holder, a hollow body internally threaded at its upper end, a sleeve screwed into said upper end, a handle having a boss extending through said sleeve and rotatable therein, said boss being also movable longitudinally in the sleeve and provided at its lower end with a bit socket, a nut on the lower end of the boss limiting its longitudinal movement, a screw holder removably threaded on the lower end of the body, and a bit removably mounted in the socket and extending downward into the screw holder.

1,256,140. MOLDBOARD. LOUIS H. KNOCHE, Martin City, Mo. Filed Jan. 26, 1914. Serial No. 814,484. (Cl. 97—18.)



1. A mold board provided throughout its entire length with alternate depressions and elevations extending transversely to the direction of the movement of the furrow slice, said depressions and elevations providing a surface adapted to break up the furrow slice.

[Claim 2 not printed in the Gazette.]

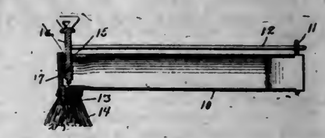
1,256,141. NUT-LOCK. CHARLES E. KRAUSE and ALBERT W. KRAUSE, Hartford, Conn. Filed Sept. 2, 1916. Serial No. 118,261. (Cl. 151—24.)



1. The combination of the threaded end of a bolt, a nut removably and adjustably mounted thereon and having passages therein, one of said passages extending radially, snd another passage connecting with and extending at right angles to the first passage, a round pin having an obliquely cut end adapted for insertion in the radial passage, the faces of which end meet and form a sharp edge adapted to engage with the threads at their roots, said pin being further provided with a groove, formed transversely, and with a tapered end adapted for insertion in the second named passage for engagement with the groove in the first pin for retaining said first pin in the radial passage and in locking engagement with the threads to prevent a movement of the nut.

2. A nut lock comprising a nut and a threaded bolt, said nut being provided with a passage that extends radially therethrough, a second passage extending at right angles to and partially intersecting said first passage, a pin for said first passage, said pin being provided with a semi-circular groove in one side and a wedge-shaped end, a round pin for the second passage to cooperate with the groove of the first pin to removably hold said latter pin in position so that its wedge end will engage with the threads of the bolt.

1,256,142. FOUNTAIN-BRUSH. CHARLES G. LAMB, St. Paul, Minn. Filed June 16, 1916. Serial No. 104,004. (Cl. 15—46.)

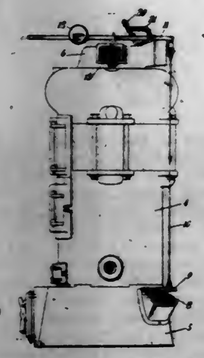


A fountain brush comprising a metallic tubular container having one end closed by a wall thickened to rigidity and having the adjacent end portions of the side wall of the container correspondingly thickened to rigidity with the remainder of the container collapsible with its opposite end portion closed and provided with a winding key, the thickened end portion of the container having a lateral internally threaded tubular radiating extension from one side and a registering perforation in its opposite side, a flexible daubing member secured about the extension, a plug disposed in said perforation and having a threaded end portion disposed to engage and close the threaded interior of the extension and a U-shaped wire disposed parallel with the axis of the container and having the extremities of its side portions directed at right angles and secured against the thickened end wall.

1,256,143. AUTOMATIC DAMPER CONTROL. ARCHER A. LANDON, Buffalo, N. Y., assignor to American Radiator Company, Chicago, Ill., a Corporation of New Jersey. Filed Nov. 29, 1915. Serial No. 64,061. (Cl. 126—286.)

1. The combination with a boiler having a smoke hood provided with an air inlet and a smoke outlet, the plane

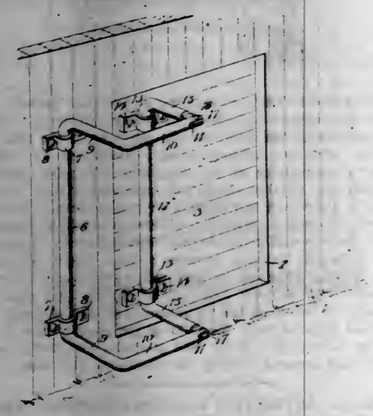
of the air inlet being at an angle with respect to the axis of the smoke outlet and diverging from said axis in the direction of said smoke outlet whereby to cause the inflowing air to enter the inlet in the direction of the flow of gases through the smoke outlet, of a damper within said smoke hood mounted to open in the direction of the inflowing air to control the flow of air through the inlet, and means for opening and closing the damper, substantially as specified.



4. The combination with a boiler having a smoke hood provided with an air inlet and a smoke outlet, the plane of the air inlet being at an angle with respect to the axis of the smoke outlet to cause the inflowing air to enter the inlet in the direction of the flow of gases through the smoke outlet, of a damper positioned within the smoke hood and movable bodily toward and away from the air inlet to close and open the same whereby to control the flow of air therethrough, said damper in its open position being substantially parallel to the direction of the flow of gases from the boiler, and means for opening and closing the damper, substantially as specified.

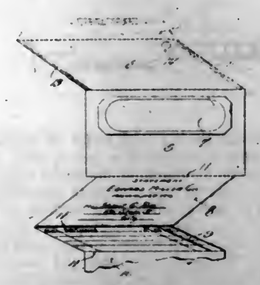
[Claims 2, 3, and 5 not printed in the Gazette.]

1,256,144. SILO-DOOR HINGE. WILLIAM H. LEWIS, Westfield, Pa. Filed July 19, 1916. Serial No. 110,135. (Cl. 16—106.)



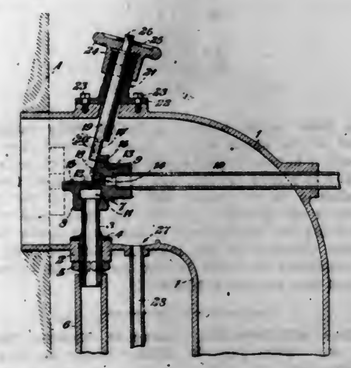
A hinge of the character described including a pair of U-shaped sections, said sections having arm portions thereon pivotally connected, said sections being pivotally mounted on a door and outer wall, one of the sections having a shaft portion, laterally extending arms formed on the free ends of said shaft portion, the said arms being bent at right angles horizontally therewith to form extensions for a purpose specified.

1,256,145. ENVELOP. OSCAR LOEWENBACH, Milwaukee, Wis., assignor to Hugo Loewenbach and B. Loewenbach & Sons Co., Inc., Milwaukee, Wis. Filed Jan. 27, 1917. Serial No. 144,912. (Cl. 229—92.3.)



As an article of manufacture, a combined sealable envelop and message sheet of less width than the envelop adapted to be folded therein, the envelop having an opening formed in one of its corners to expose the free edge of the folded message sheet for the insertion of a cutting tool through the aperture, between the message sheet and its attached wall portion, to simultaneously slit the envelop and detach the message sheet therefrom.

1,256,146. HYDROCARBON-BURNER. FREDERICK R. LONG, Berwick, Pa., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed July 27, 1917. Serial No. 183,120. (Cl. 158—76.)

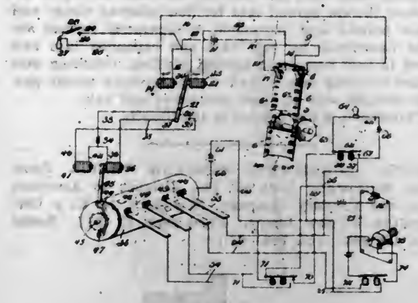


1. In combination in a hydrocarbon burner, an air supply conduit, an atomizer therein having a blast port and a fuel discharge port angularly disposed thereto, valve guiding means and a valve held thereby to have angular disposition corresponding to that of said fuel port and operable externally of said conduit to control both ports.

8. In combination in a hydrocarbon burner, an air supply conduit, an atomizer therein comprising relatively angularly disposed portions respectively provided with fuel discharge and blast ports arranged to cause liquid fuel to be atomized, a valve operable to regulate the discharge area of one only or to close both of said ports and conduits for fuel and atomizing fluids leading to said angularly disposed atomizer portions.

[Claims 2 to 7 and 9 to 17 not printed in the Gazette.]

1,256,147. MOVING-PICTURE APPARATUS. LANGDON MCCORMICK, New York, N. Y. Filed Dec. 12, 1916. Serial No. 136,479. (Cl. 46—70.)



1. In combination, a translucent screen, a moving picture film having feed wheel engaging openings in each edge, metal eyelets disposed in certain of the openings, the eyelets in one edge of the film being out of alinement with the eyelets in the opposite edge of the film, a pair of contacts disposed at each edge of the film to coöperate with the eyelets, each pair of said contacts engaging opposite surfaces of the film, two magnets with an armature between, one pair of contacts being electrically connected with one of the magnets, the other pair of contacts being electrically connected with the other magnet, a lamp, and a circuit under the control of the armature for lighting the lamp or extinguishing the same.

2. In combination, a moving picture machine including feed wheels, a moving picture film having openings in each edge and in which the feed wheels engage, metal eyelets disposed through certain of the openings in the edges of the film and out of transverse alinement, a translucent screen, a pair of contacts to coöperate with the eyelets in one edge of the film, a pair of contacts to coöperate with the eyelets in the opposite edge of the film, two magnets and an armature between, a circuit connected to one pair of contacts and one of the magnets, a second circuit connected to the other pair of contacts and the other magnet, a contact cylinder having separated contacts, means including an armature and a pawl for operating the contact cylinder, and controlled by the said magnets and armature, contact members in the path of movement of the separated contacts on the contact cylinder, a lamp behind the screen, and a lamp circuit connected with the separated contacts and the contact members.

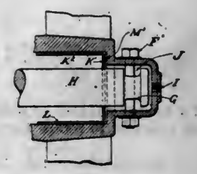
3. In combination, a moving picture machine, a film and translucent screen, metal contacts carried by the film, a lamp disposed in rear of the screen to show actual light in a picture produced on the screen, fixed metal contacts located adjacent the opposite edges of the film, circuits between the fixed metal contacts including magnets and a battery, an electric circuit between the magnets and the lamp, whereby when one of the contacts carried by the film on one edge thereof engages the fixed contacts adjacent thereto a circuit is closed and the lamp is lighted, and when one of the contacts carried by the film on the opposite edge thereof engages the adjacent fixed contacts one of the other circuits is closed and the lamp circuit is opened and the lamp is extinguished.

4. In combination, a moving picture machine, a film, and translucent screen to show actual light in a picture produced on the screen, metal contacts mounted on opposite edges of the film, a pair of magnets each adapted to be brought into circuit at different times by the metal contacts on the film, a lamp circuit controlled by one of the magnets to light the lamp or extinguish same in coöperation with the picture produced on the screen, said lamp circuit being opened to extinguish the lamp when the other magnet is brought into circuit by the contacts carried by the film.

5. In combination, a moving picture machine, a moving picture film having metal contacts on opposite edges thereof, the metal contacts on one edge being out of alinement with metal contacts on the other edge, a translucent screen, circuits controlled by the contacts including a pair of magnets, an armature between said magnets, and a battery, a lamp circuit controlled by one of the first mentioned circuits, a lamp in the lamp circuit, a movable circuit closer, circuits controlled by the armature to actuate the movable circuit closer, devices located behind the screen to coöperate with the pictures produced on said screen, and circuits controlled by the movable circuit closer for actuating the devices.

[Claims 6 to 10 not printed in the Gazette.]

1,256,148. MINE-CAR RUNNING-GEAR. JOHN LEE MCDOWELL, Berwick, Pa., assignor to American Car and Foundry Company, New York, N. Y., a Corporation of New Jersey. Filed Sept. 5, 1917. Serial No. 189,860. (Cl. 105—67.)



1. In combination, an axle, a car wheel mounted thereon, and a journal box entered by said axle and provided with an axle-opening forming a clearance below said axle permitting the wheel and axle to guidedly drop from and return to a journal box-supporting position in response to vertical displacement of said wheel in service, while the wheel is on the axle.

2. In combination, a wheel hub having an open inner end, a journal box, a cap extending radially and longitudinally of said inner hub end and positioned between the latter and said journal box, and an axle projecting through said journal box and cap to have a bearing in said hub, said journal box having axle clearance and guiding means permitting said axle and hub to drop.

3. In combination, a wheel hub having an open inner end, a cap telescoped with that hub end and having a plane radial surface, a journal box provided with a plane surface parallel to said cap plane surface, an axle in said journal box and hub, a washer loosely mounted on said axle between said plane surfaces, there being an elongated axle passage in said journal box affording clearance to permit the axle to drop below its normal position therein.

[Claims 4 to 8 not printed in the Gazette.]

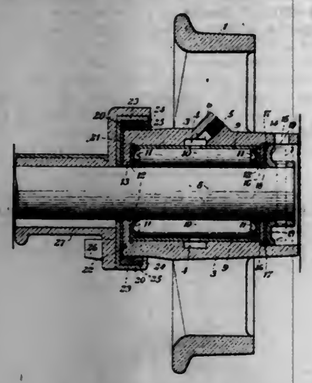
1,256,149. ROLLER-BEARING MINE-CAR WHEEL. JOHN LEE MCDOWELL, Berwick, Pa., assignor to American Car and Foundry Company, New York, N. Y., a Corporation of New Jersey. Filed Sept. 5, 1917. Serial No. 189,861. (Cl. 105—67.)

1. In a car wheel in combination, a wheel hub having an enlarged axle bore, a bushing therein, a washer and a removable ring adapted to hold said bushing in position, an axle, friction-reducing means intermediate the axle and bushing and an angular washer rigidly secured on the axle by means adapted to secure the wheel thereon.

2. In a car wheel, in combination, a wheel hub having a longitudinally extending bore of three diameters, an inner end wall, a bushing extending from near said wall outwardly, a washer of greater diameter than the internal diameter of said bushing and a split ring adapted to lock said bushing within said hub, an axle on which said wheel is mounted and a washer rigidly secured to said axle and rotatable therewith.

3. In a car wheel, in combination, a wheel hub having a longitudinally extending bore of three diameters, an

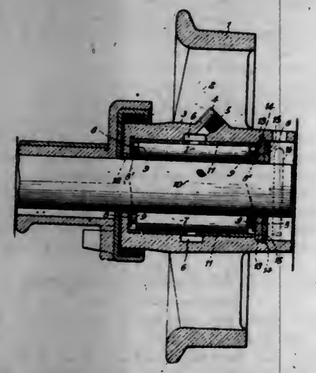
inner end wall, a bushing extending from near said wall outwardly, a washer of greater diameter than the internal diameter of said bushing and a split ring adapted to lock said bushing within said hub, an axle on which said wheel



is mounted, and a washer adapted to assist in positioning the wheel on said axle and to retard the flow of lubricant from said hub.

[Claims 4 to 8 not printed in the Gazette.]

1,256,150. CAR-WHEEL WITH PERMANENTLY-RETAINED ROLLER-BEARING. JOHN LEE MCDOWELL, Berwick, Pa., assignor to American Car and Foundry Company, New York, N. Y., a Corporation of New Jersey. Filed Sept. 5, 1917. Serial No. 189,862. (Cl. 105—67.)



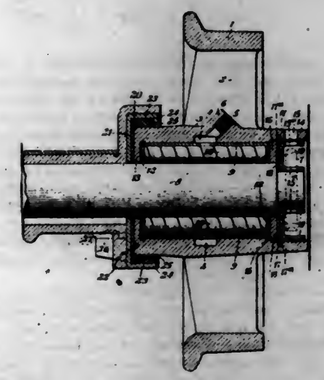
1. In combination, a car wheel with a hub having an inner end wall and provided with an enlarged bore and an open outer end, a bushing in said bore, an axle extending through said inner wall and beyond said bushing, friction-reducing means intermediate said axle and bushing and a washer penetrated by said axle and interlocking with the wall of the bore locking said bushing and friction-reducing means in position.

2. In combination, a car wheel with a hub having an inner wall and provided with an enlarged bore and an open outer end, a bushing in said bore, an axle extending toward the open hub end, friction-reducing means interposed between said axle and bushing, a separately formed annulus penetrated by said axle and expanded into and unyieldingly retained by the wall of the bore locking said bushing and friction-reducing means in position, and wheel-retaining means on said axle outside said annulus.

3. In combination, a car wheel having a hub with an enlarged bore and an open outer end, an axle extending into said bore, friction-reducing means in said bore surrounding said axle, the wall of the bore having a depression therein beyond said friction-reducing means and a hole beyond said depression, a separately formed annulus penetrated by said axle and expanded into and seated in said depression against yielding, retaining said friction-reducing means, and wheel-attaching means passable through said hole and secured to said axle.

[Claims 4 to 6 not printed in the Gazette.]

1,256,151. LUBRICATED MINE-CAR WHEEL. JOHN LEE MCDOWELL, Berwick, Pa., assignor to American Car and Foundry Company, New York, N. Y., a Corporation of New Jersey. Filed Sept. 5, 1917. Serial No. 189,863. (Cl. 105—67.)



1. In combination, a car wheel having a hub with an enlarged axle bore, lubricated friction-reducing means therein, said hub extending outwardly beyond said means to form an annular dust cap, an axle projecting through and beyond the outer end of said means, a washer and a removable ring retaining said means in position, and a lubricant-retaining washer secured on said axle and having flanges closely paralleling said dust cap and axle to retain a film of lubricant between them and itself.

2. In combination, a car wheel having a hub with an enlarged axle bore and formed with an annular dust cap at its outer end, lubricated friction-reducing means in said bore, an axle surrounded thereby, and washers, one being removably secured to said hub to retain said means and another being affixed to said axle and comprising annular flanges paralleling said axle and dust cap to retain lubricant film and a web portion in proximity to a next adjacent washer to also retain lubricant film.

3. In combination, a car wheel having a hub with an axle bore and an annular dust cap at its outer end, lubricated friction-reducing means in said bore, an axle surrounded thereby, a washer and a split ring co-acting with said hub to retain said means, a lubricant-film-retaining washer secured to said axle, a friction-reducing washer interposed between the first two mentioned washers, said film-retaining washer having flanges and a web in close parallelism with said axle, dust cap and said interposed washer.

[Claims 4 to 10 not printed in the Gazette.]

1,256,152. PITCHER. JOSEF MAIKA, Cleveland, Ohio. Filed Apr. 13, 1917. Serial No. 161,924. (Cl. 65—31.)

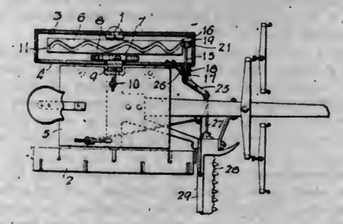
A device of the class described comprising a series of staves tapered from end to end and side flatwise about an axis, two of said staves being spaced and the joints between said staves being radial to said axis, a handle stave set edgewise in the space between the two staves

and having the portion between said staves beveled, said handled stave being provided with a hand receiving opening at its upper part, all of said staves being provided with spaced notches arranged to form continuous circum-



ferential grooves about the vessel when assembled, one of said grooves passing through the hand receiving opening of the handled staves and hoops surrounding said vessel and arranged to fit tightly in said grooves.

1,256,153. MOWING-MACHINE. OLIVER S. MOORE and WALTER N. METCALF, Evening Shade, Ark. Filed June 30, 1917. Serial No. 177,942. (Cl. 56—75.)

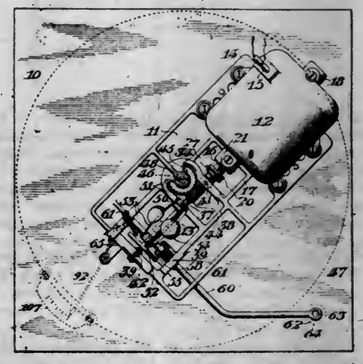


1. A mowing machine including an axle, drive wheels rigid with the axle, one of the drive wheels being hollow and open at one side, a fixed plate closing the open side of the hollow drive wheel, a cam wheel loose upon the axle within the hollow drive wheel and surrounded by a zigzag cam groove, means for locking the cam wheel with the axle, a transversely reciprocating plunger extending through the fixed plate and provided at its inner end with a roller which is received within the zigzag groove of the cam wheel, a swinging hanger carried by the fixed plate and supporting the reciprocating plunger, anti-friction means upon the end of the plunger for engagement with the inner face of the rim of a hollow drive wheel, a cutter, and an operative connection between the outer end of the reciprocating plunger and the cutter.

2. A mowing machine including an axle, drive wheels applied to the ends of the axle, one of the drive wheels being hollow and open upon one side thereof, a fixed plate closing the open side of the hollow drive wheel, a cam wheel loose upon the axle within the hollow drive wheel and surrounded by a peripherally extending zigzag groove, means for locking the cam wheel with the axle, a transversely reciprocating plunger slidable through the fixed plate, a roller at the inner end of the plunger for engagement with the zigzag groove, a pivot bolt for mounting the roller upon the plunger, an anti-friction ball mounted upon the head of the pivot bolt and arranged for engagement with the inner face of the rim of the hollow drive wheel, a swinging hanger carried by the fixed plate and supporting the reciprocating plunger, a cutter, and an operative connection between the cutter and the reciprocating plunger.

[Claims 3 and 4 not printed in the Gazette.]

1,256,154. COMBINED DRIVING, GOVERNOR, SPEED-REGULATING, AND SPEED-INDICATING MECHANISM FOR TALKING-MACHINES. HENRY H. MURRAY, Riverton, and WILLIAM D. LA RUE, Camden, N. J., assignors to Victor Talking Machine Company, a Corporation of New Jersey. Filed Nov. 11, 1912, Serial No. 730,595. Renewed July 9, 1917. Serial No. 179,573. (Cl. 264—15.)



3. In mechanism of the class described, the combination with a rotary member, of a driving-shaft operatively connected to rotate said rotary member, means movable in accordance with the speed of rotation of said driving-shaft, an oscillatory speed-indicator, a shaft for said speed-indicator, a frame providing suitable bearings for said shaft, a lever on said shaft having an elongated slot in its free end, a bell crank lever having one arm engaged with said movable member and the other arm provided with a projection extending into said slot, of less diameter than the width of said slot, an adjusting screw in said frame providing a bearing, a pintle for said bell crank lever having a trunnion supported in said frame, and a trunnion supported in the bearing in said adjusting screw.

[Claims 1, 2, and 4 to 6 not printed in the Gazette.]

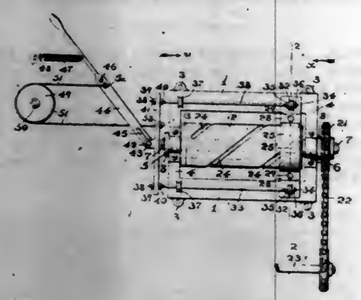
1,256,155. ARTIFICIAL MINNOW. RICHARD F. O'BRIEN, Minneapolis, Minn. Filed May 21, 1917. Serial No. 170,075. (Cl. 43—30.)



2. As an article of manufacture, an artificial body rotatably mounted on a stem, a supporting loop loosely mounted on said stem and adapted to hang below said body, a hook supported by said supporting loop and having a loop formed therein through which the shank of said hook passes, and a hook hinged at the rear end of said stem.

[Claim 1 not printed in the Gazette.]

1,256,156. STARTING DEVICE. JOSEPH ORR, Verona, N. J. Filed Mar. 6, 1917. Serial No. 152,508. (Cl. 74—41.)



1. A starting mechanism of the character set forth, comprising a frame provided with bearing-portions, a shaft mounted in said bearing-portions, means coöperating with said shaft for conveying rotary motion of said shaft to another element as an engine, a helically grooved element mounted upon said shaft, a cross-head slidably mounted upon said frame provided with means for revolving said helically grooved element, and means for actuating said cross-head, consisting of links connected with said cross-head, guiding elements upon said frame in which said links are slidably disposed, a cross-bar connecting said links, and an actuating starting lever connected with said cross-bar.

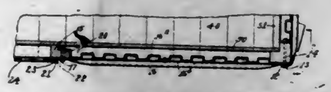
2. A starting mechanism of the character set forth, comprising a frame provided with bearing-portions, a shaft mounted in said bearing-portions, means coöperating with said shaft for conveying rotary motion of said shaft to another element as an engine, a helically grooved element mounted upon said shaft, a cross-head slidably mounted upon said frame provided with means for revolving said helically grooved element, and means for actuating said cross-head, consisting of links connected with said cross-head, guiding elements upon said frame in which said links are slidably disposed, a cross-bar connecting said links, and an actuating starting lever connected with said cross-bar, combined with a compensating device operatively connected and coöperating with said lever and said cross-bar.

3. A starting mechanism of the character set forth, comprising a frame provided with bearing-portions, a shaft mounted in said bearing-portions, means coöperating with said shaft for conveying rotary motion of said shaft to another element as an engine, a helically grooved hollow cylinder rotatably mounted upon said shaft, a clutch-device secured upon said shaft within said hollow-cylinder, said clutch-device coöperating with said hollow cylinder to convey the rotary motion of said cylinder to said shaft, a cross-head slidably mounted upon said frame provided with means for revolving said helically grooved hollow cylinder, and means for actuating said cross-head.

9. A starting mechanism of the character set forth, comprising a frame provided with bearing-portions, a shaft mounted in said bearing-portions, means coöperating with said shaft for conveying rotary motion of said shaft to another element as an engine, a helically grooved hollow cylinder rotatably mounted upon said shaft, a clutch-device secured upon said shaft within said hollow cylinder, said clutch-device coöperating with said hollow cylinder to convey the rotary motion of said cylinder to said shaft, a cross-head comprising a pair of semi-cylindrical embracing members adapted to embrace said helically grooved hollow cylinder, flange-like members extending in opposite directions and in pairs from said embracing members, said pairs of flange-like members embracing portions of said frame and being slidably mounted with relation to said portions of the frame, perforated lugs extending from said flange-like members, perforated guiding lugs extending from said frame, links slidably disposed within said guiding lugs, said links being secured with relation to said perforated lugs of the said flange-like members, a connecting bar mounted upon and secured to said links, and a starting lever operatively connected with said connecting bar.

[Claims 4 to 8 not printed in the Gazette.]

1,256,157. CAR CONSTRUCTION. ALLEN EDWARD OSTRANDER, Ridgewood, N. J., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed May 11, 1915. Serial No. 27,365. (Cl. 105—192.)



1. In a car, corner posts, bolster posts, an end sill, a bolster, a corrugated metallic end lapping said end sill, a corrugated side wall extending from said corner post to said bolster post and having a bifurcated portion receiving the latter post and means connecting said side wall with said bolster post.

2. In combination, a bolster post, a corner post, a reinforced metallic car end connected with two sides of said corner post, a metallic side wall portion lapping said end, a bolster post partially inclosed by said side wall and means connecting the side and end through said corner post.

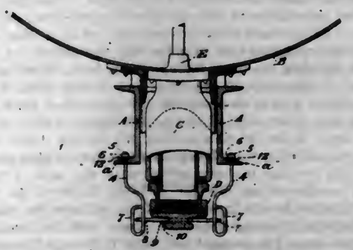
12. In a railway car, a metallic side sill, a wood nailing strip supported thereby and a composite side wall comprising a metal portion secured to said side sill and a wood portion secured to said nailing strip.

22. In a railway car, the combination of a wood side plate, a Z-shaped metallic side sill, a sheet metal side wall portion connected with one of the flanges of said sill, a wood floor-nailing-strip resting on the web of said sill, a floor resting on said nailing-strip and a wood side wall portion connected with said side plate and floor nailing strip.

26. In a railway car, a side wall formed with an intermediate outer wood sheathing portion and opposite end portions of corrugated metallic sheathing in alinement therewith, in combination with corner posts lapped by said metallic sheathing and end walls lapping said corner posts and vertical edge portions of said metallic sheathing.

[Claims 3 to 11, 13 to 21, 23 to 25, and 27 not printed in the Gazette.]

1,256,158. SAFETY ATTACHMENT FOR SHIPPING-TANKS. ALLEN E. OSTRANDER, Ridgewood, N. J., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed June 14, 1916. Serial No. 103,652. (Cl. 220—120.)

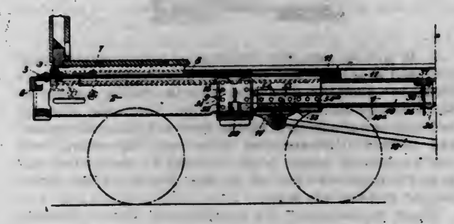


1. In combination in a device of the character described, a shipping or storage vessel, a support therefor, a discharge pipe or nozzle communicating with the interior bottom portion of said vessel, oscillatory means mounted on said vessel-support at a distance from said nozzle and having spaced lower portions, a cap-retainer connecting said spaced portions, a cap rotatable in said retainer, said means being movable into unbalanced position to locate said cap for attachment to the lower portion of said nozzle and reversely movable to remove the cap from the discharge path when it is detached.

10. A tank and a discharge nozzle depending therefrom, in combination with a cap for said nozzle, a support and a gravity operable yoke pivotally connected to said support at a distance from said nozzle and including a cap-retainer and pendent members of substantial rigidity connected therewith continuously holding said retainer in approximate horizontal position when disconnected from the nozzle, said yoke being movable toward said nozzle into unbalanced position and being adapted to positively carry the cap away from the nozzle when it is disengaged therefrom.

[Claims 2 to 9 not printed in the Gazette.]

1,256,159. CAR CONSTRUCTION. ALLEN E. OSTRANDER, Ridgewood, N. J., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Nov. 4, 1916. Serial No. 129,599. (Cl. 105—76.)



1. In combination in a railway car underframe, center sills of truss formation including spaced railway rails, struts and truss rods; draft sills connected with said rails and a bolster-center-filler casting upon which rest end portions of said rails.

4. In combination in a railway car underframe, bolsters, a buffing column comprising draft sills of plate formation and rolled railway rails lapping and being connected with said draft sills intermediate said bolsters only.

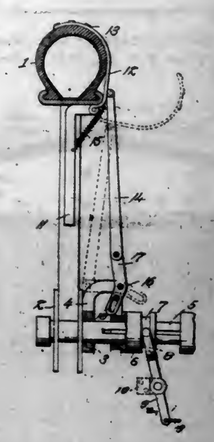
6. In combination in a railway car underframe, end sills and spaced bolsters, Z-shaped draft sills extending past said end sills and bolsters, railway rails comprising parts of center sills and an inwardly extending bolster part on which rest said rails and with which the rails and draft sills are directly connected.

14. In combination in a railway car underframe, spaced body bolsters, center sills of truss formation including spaced rolled sections, struts and truss rods of less length than the distance between said bolsters, spaced side sills in a plane higher than said center sills, draft sills lapping and being connected with said rolled sections and alined therewith, and an extension projecting from each bolster upon which rest end portions of said rolled sections.

[Claims 2, 3, 5, 7 to 13, and 15 not printed in the Gazette.]

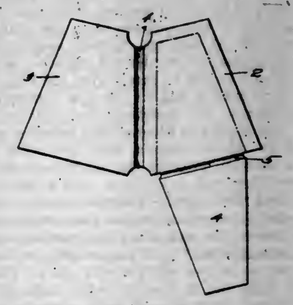
1,256,160. ANTISKIDDING DEVICE. DURFEE O. PARISH, Leroy, Colo. Filed Dec. 12, 1916. Serial No. 136,568. (Cl. 152—14.)

The combination of a vehicle wheel having a hub, plates extending longitudinally of the spokes of said wheel, shoes pivoted to the outer ends of said plates and adjustable transversely of the tire of the wheel, a collar secured to the hub of the wheel and having arms extending therefrom, bell crank levers pivoted between said arms, rods pivoted to said shoes and bell crank levers, and a sleeve member adjustable longitudinally of the axis of rotation



of the wheel and having a connection with said bell crank levers to rock the same about their pivots whereby to adjust said shoes.

1,256,161. PRESS FOR NECKTIES. JOSEPH A. PARRELLA, Washington, D. C. Filed Mar. 23, 1917. Serial No. 157,003. (Cl. 100—57.)



1. A necktie press comprising opposite foldable sections, and a third section secured to the lower end of one of the first named sections and foldable thereon.

2. A necktie press comprising two opposite, foldable, like sections, and a third section, relatively smaller than either of the first named sections, secured to the lower end of one of said first named sections and foldable thereon.

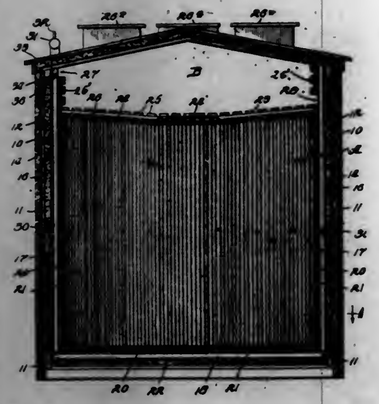
3. A necktie press comprising two opposite, foldable, tapered sections, a third tapered section, relatively smaller than either of the first named sections, secured to the wider end of one of the first named sections and foldable thereon, and a clamp removably secured to the sections when folded.

4. A necktie press comprising two opposite, foldable, tapered sections, a third tapered section secured to the wider end of one of said first named sections at the wider end of said third tapered section, and a clamp removably secured to the sections when folded.

5. A necktie press comprising two opposite, foldable, tapered sections, a third tapered section, relatively smaller than either of the first named sections, secured to the

wider end of one of said first named sections at the wider end of said third tapered section, and a clamp removably secured to the sections when folded.

1,256,162. REFRIGERATOR-CAR. FRED PATER, Denver, Colo. Filed Feb. 28, 1912. Serial No. 679,460. (Cl. 62—17.)



1. A refrigerator car comprising top, bottom, end and side walls, a partition running substantially the entire length of said car located between the top and bottom thereof and forming an ice chamber and a packing chamber at the top and bottom respectively of said car, said chambers being thermally insulated from each other and from the exterior of said car, means to circulate air from adjacent one side of said ice chamber around the walls of said packing chamber to adjacent the other side of said ice chamber, and means to extract the air from adjacent said last named side of said ice chamber after circulation.

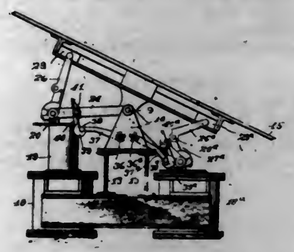
3. A refrigerator car comprising top, bottom, end and side walls, said sides and bottom being provided with communicating air spaces therein, said car being provided with an ice chamber adjacent the top thereof and a packing chamber below said ice chamber, said packing chamber being insulated from said ice chamber, means to circulate air from said ice chamber through the air spaces in said walls and bottom, the latter forming continuous passages for such circulation, said ice chamber being in communication adjacent the bottom thereof with the air passages in one of said walls and in communication adjacent the top thereof with the other of said walls, whereby a thermo-siphon circulation may be set up from said ice chamber through the passages in said walls and bottom of said car back to said ice chamber, and means to positively extract said air at or near the completion of its circulation.

5. A refrigerator car having inner and outer side walls and upper and lower floors spaced apart to provide communicating air spaces, the outer surfaces of said inner walls and the lower surface of said upper floor being provided with heat-insulating coverings, other heat-insulating coverings for the upper surface of the lower floor and the inner surfaces of said outer walls, said last-named heat-insulating coverings being provided on their upper and inner surfaces with moisture-proof coatings, a transverse partition extending between said inner side walls and dividing the space in said car into an ice chamber and a packing chamber, and means to permit air to circulate from said ice chamber through said air spaces around said packing chamber, and thence back to said ice chamber at the other side of said car.

7. A refrigerator car comprising top, bottom, end and side walls, a partition running substantially the entire length of said car between the top and bottom thereof to form an ice chamber, a packing chamber at the top and bottom, respectively, of said car, said partition being formed of sheet metal inclined downwardly from each side of the car with corrugations formed therein extending transversely of the car, other corrugations formed in the center portion thereof extending longitudinally of the car, said sheet metal partition being provided on its underside with a layer of heat insulating material, and means for circulating air from said ice chamber around said packing chamber.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,256,163. DUMP-CAR. JAY BYRON RHODES, Kalamazoo, Mich., assignor to Western Wheeled Scraper Company, Aurora, Ill., a Corporation of Illinois. Filed May 19, 1916. Serial No. 98,495. (Cl. 105—191.)



1. In a dump-car, the combination with a suitable support and a bed adapted to tilt to discharge its load, of a thrust-bar pivotally connected with the car at one side of the axis thereof and depending therefrom, and laterally movable power-operated means mounted on said support and normally disconnected from said thrust-bar, said power-operated means being adapted to operatively engage the lower end portion of said thrust-bar for tilting the car to dump the same.

21. In a dump-car, the combination with a suitable support and a bed adapted to tilt to discharge its load, of a cylindrical plunger open at its upper end, a laterally-swinging plunger-rod operating in said plunger, means operated by said plunger-rod for tilting the bed, and a transversely-sliding cover for said plunger.

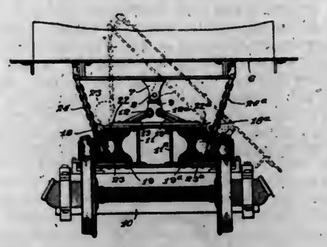
25. A dump-car, comprising a suitable support, a bed mounted upon said support and adapted to tilt to discharge its load, a locking lever fulcrumed upon said support between its ends, means constantly connecting one end portion of said lever with the car bed at one side of the fulcrum thereof, locking means adapted to engage said locking lever at the opposite side of the fulcrum thereof for locking the bed in its normal position, and power-operated means for releasing said locking lever, said locking lever being arranged to return to its locking position by gravity.

30. A dump-car, comprising a suitable support, a car bed mounted thereon and adapted to tilt in opposite directions to discharge its load, a folding thrust-bar depending from the car bed at one side of the axis thereof and adapted to move transversely of the axis of the car bed out of the way to permit the car bed to be tilted toward one side, and power-operated means coöperating with said thrust-bar to tilt the car bed toward the opposite side.

36. In a dump-car, the combination with a suitable support and a bed adapted to tilt to discharge its load at either side of said support, of a folding thrust-bar comprising members movable into or out of longitudinal alinement with each other, one of said members operatively engaging the car bed at one side of the axis thereof, a swinging plunger rod adapted to engage the other member while said members are alined to move the same endwise for tilting the car bed, and means for guiding said plunger rod.

[Claims 2 to 20, 22 to 24, 26 to 29, and 31 to 35 not printed in the Gazette.]

1,256,164. DUMP-CAR. JAY BYRON RHODES, Kalamazoo, Mich., assignor to Western Wheeled Scraper Company, Aurora, Ill., a Corporation of Illinois. Filed May 19, 1916. Serial No. 98,496. (Cl. 105—190.)



1. A dump-car, comprising a car bed, a suitable under frame on which said car bed is mounted to tilt for discharging its load, a rock-shaft extending longitudinally of the car, a shaft mounted on said under frame adjacent to one side thereof, a swinging arm carried by the latter shaft and having a counterbalance weight, means connecting the outer portion of said arm with the car bed adjacent to one side thereof, a crank carried by the latter shaft, and toggle mechanism disposed between said crank and said rock-shaft for locking said swinging arm in its normal position.

2. A dump-car, comprising a car bed, a suitable under frame on which said car bed is mounted to tilt for discharging its load, a rock-shaft extending longitudinally of the car, a shaft mounted on said under frame adjacent to one side thereof, a swinging arm carried by the latter shaft and having a counterbalance weight, means connecting the outer portion of said arm with the car bed adjacent to one side thereof, a crank carried by the latter shaft, an arm carried by said rock-shaft, and a link connected to said crank and to the latter arm and normally having a thrust bearing on the under frame.

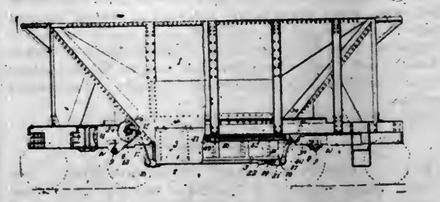
4. A dump-car, comprising a car bed, a suitable under frame on which said car bed is mounted to tilt for discharging its load, a rock-shaft extending longitudinally of the car, a shaft mounted on said under frame adjacent to one side thereof, a swinging arm carried by the latter shaft and having a counterbalance weight, means connecting the outer portion of said arm with the car bed adjacent to one side thereof, a crank carried by the latter shaft, an arm carried by said rock-shaft, and a link forming a slotted connection between said crank and the latter arm and adapted normally to aline with such arm.

6. A dump-car, comprising a car bed, a suitable under frame on which said car bed is mounted to tilt for discharging its load, a rock-shaft extending longitudinally of the car, a shaft mounted on said under frame adjacent to one side thereof, a swinging arm carried by the latter shaft and having a counterbalance weight, means connecting the outer portion of said arm with the car bed adjacent to one side thereof, a crank carried by the latter shaft, an arm carried by said rock-shaft, a link forming a slotted connection between said crank and the latter arm and adapted normally to aline with such arm, and a member carried by said link and adapted to engage said under frame when said link is in its normal position.

[Claims 3 and 5 not printed in the Gazette.]

1,256,165. HOPPER-CAR-DOOR-OPERATING MECHANISM. JOHN M. ROHLFING, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Apr. 10, 1917. Serial No. 160,952. (Cl. 105—185.)

1. In combination in a dump car, a door, and door-operating mechanism comprising a coöperatively connected crank and lever each pivoted to a rigid structure of the car, a link pivotally connected to said lever and said door and operating means for said crank, said lever being drawn into close proximity to said crank when said open door is closed.



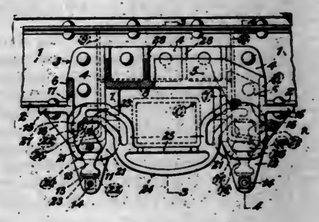
4. In combination in a dump car, a door, and operating mechanism therefor comprising a crank and a lever pivoted at different fixed places, said lever extending to and beyond the vertical plane that contains the pivotal axis of said crank, a locking link pivotally connected to said crank and lever, means responsively connecting said door to said lever and operating means for said crank, the points of pivotal connection of said link to said crank and lever being adapted to be carried beyond the dead center of said crank thereby locking said mechanism in door-closing position.

15. In combination in a dump car, a pair of doors and operating means therefor comprising a link adapted to swing connected to each door, a yoke having different portions each bifurcated angularly to the other portion, said links being pivoted at different places to the bifurcations of one portion, a lever having a fixed pivotal axis and being oscillatory in a plane angularly disposed to that in which said links swing and connected to said other bifurcated yoke portion, and lever-operating means.

20. In combination in a dump car, separated door-operating means each including an operating shaft, a sectional transmission shaft geared with said operating shafts, a coupling having flanged parts each mounted for rotation with one of the transmission shaft sections, there being a plurality of apertures in the flange of each part and in excess in the flange of one part over that of the other, permitting a finer relatively rotative adjustment between both coupling parts than the distance between the most closely spaced apertures, and means passable through the apertures of both flanges securing the coupling parts together.

[Claims 2, 3, 5 to 14, and 16 to 19 not printed in the Gazette.]

1,256,166. COUPLING-CENTERING DEVICE. JOHN M. ROHLFING, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed June 15, 1917. Serial No. 174,923. (Cl. 213—42.)



1. In combination in a coupler-centering device, a striking plate provided with seats on opposite sides of a coupler opening, upwardly directed rockers bearing on said seats, and a carry-iron suspended from said rockers adapted to impart parallel motion to said rockers.

2. In combination in a coupler-centering device, a striking plate provided with seats on opposite sides of a coupler opening, a carry-iron and rockers rockable on said seats and carry-iron, said carry-iron being supported by

said rockers and having a coupler-centering portion depending between the lower portions of said rockers.

3. In combination in a coupler-centering device, a striking plate, seats on opposite sides of a coupler opening therein, rockers bearing on said seats and a carry-iron suspended from upper portions of said rockers to depend therebetween, said carry-iron and rockers being adapted to have simultaneous displacement laterally of the coupler opening.

[Claims 4 to 14 not printed in the Gazette.]

1,256,167. WHEEL-DRESSER. WILLIAM E. ROSS, Cleveland, Ohio, assignor to The Ross Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Jan. 27, 1917. Serial No. 144,986. (Cl. 125—19.)



1. In a wheel dresser, a rotatable member of unitary structure provided with a multiplicity of relatively disconnected areas formed by continuous oblique grooves whose outermost boundaries are lines lying in the surface of a cylinder; said areas extending lengthwise and crosswise of the cylinder and being so located that every plane passing through said member and perpendicular to the axis will intersect some of such areas.

2. In a wheel dresser, a rotatable member of unitary structure, the surface of which is interrupted by grooves running parallel with planes intersecting the member's axis at angles other than one of ninety degrees (90°), said grooves being of a form and spaced from each other distances such that disconnected areas are formed extending lengthwise and crosswise of the cylinder and having cutting edges for boundary lines, said areas lying in a cylindrical surface whose axis coincides with the axis of rotation of said member.

7. In a wheel dresser, a rotatable member provided with a plurality of peripheral relatively fixed and disconnected areas lying in the surface of a cylinder having its axis coinciding with the axis of said member and so located that every plane passing through the member perpendicular to said axis will intersect such areas, each of the latter including two cutting edges of equal length and angularly related to each other.

11. In a wheel dresser, a rotatable member provided with a plurality of intersecting peripheral grooves forming diamond shaped surfaces each having two pairs of cutting edges, the members of each pair forming an angle with each other, and each member lying in a plane intersecting the rotatable member's axis.

13. In a wheel dresser for preparing grinding wheels for fine finishing the work, a rotatable member provided with a peripheral surface lying in the surface of a cylinder having its axis coinciding with the axis of said member, the possible peripheral area determined by the outer dimensions of the member being interrupted and the remaining surface being more than forty per cent. of such possible surface, said possible remaining surface consisting of detached areas, bounded by oblique intersecting grooves.

[Claims 3 to 6, 8 to 10, 12, and 14 to 16 not printed in the Gazette.]

1,256,168. PADLOCK. JOSEPH SCHECHTER, New York, N. Y. Filed July 18, 1917. Serial No. 181,203. (Cl. 70—96.)

1. The combination with an integral body member having a shackle receiving opening, a centrally located vertical bore, and a transverse opening extending inwardly from one side so as to cross said bore at its upper end and communicate with said shackle receiving opening, of a rotatable key-plug mechanism located in said bore having vertical pin-lock devices, a bolt-barrel extending through said transverse opening, said bolt-barrel having a shackle receiving opening at its outer end, a fastening means at the bottom of said shackle receiving opening of said bolt-barrel adapted to be engaged with said body member to prevent withdrawal of said bolt-barrel, said body member having an opening in its top wall communicating with said shackle receiving opening of said bolt barrel, a shackle the legs of which are respectively received in said respective shackle receiving openings, bolt mechanism carried by said bolt barrel adapted to engage each shackle leg, means operable by said key-plug for actuating said bolt mechanism, and said body member having a key-slot in its bottom wall for the entrance of a key into said key-plug.



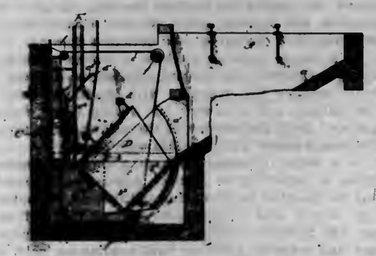
3. In a pad-lock, the combination with a shackle of a body-member having an opening to receive the heel of said shackle, a bolt-barrel extending transversely through the upper portion of said body-member and provided with an opening to receive the toe of said shackle, oppositely directed bolts slidably disposed in said bolt-barrel, a compression spring between said bolts to project the same outward in opposite directions, tumblers slidably related to the bottom of said bolt-barrel, means interconnecting said tumblers respectively with said bolts, a vertical pin-lock key-plug mechanism in said body-member, means actuated by said key-plug mechanism for operating said tumblers to retract said bolts, and each shackle leg having transverse receiving sockets for the reception of said bolts.

5. In a pad-lock, the combination with a shackle of a body member having an opening to receive the heel of said shackle, a bolt-barrel extending transversely through the upper portion of said body-member and provided with an opening to receive the toe of said shackle, oppositely directed bolts slidably disposed in said bolt-barrel, a compression spring between said bolts to project the same outward in opposite directions, a supporting plate secured to the under side of said bolt-barrel and spaced therefrom to provide a slideway, tumblers slidably disposed in said slideway, upwardly extending coupling posts connected respectively with said tumblers, the same extending upwardly through said bolts, downwardly turned lugs connected with the inner ends of said tumblers, a vertical pin-lock key-plug mechanism in said body-member, means actuated by said key-plug mechanism for engaging said lugs to operate said tumblers and retract said bolts, each shackle leg having a transverse receiving socket for the reception of one of said bolts.

10. In a pad-lock, the combination with a body-member having a central vertical bore provided with a bottom opening of reduced diameter forming a ward flange having a diametrically extending key-slot, of a rotatable key-plug in the lower end of said bore, a fixed collar above said key-plug, a stem secured to the upper end of said key-plug so as to extend axially through said collar, a cross head connected with the upper end of said stem, said key-plug having a diametrically disposed vertical key-way normally registered with said key-slot, a plurality of vertical lifting-pins disposed in concentric disposition about the axis of said key-plug, the end lifting-pins being alined with said key-way so as to be engaged by a key inserted therein, said key-plug having transverse slots crossing said key-way, the intermediate lifting-pins having horizontally extending arms adapted to cross said key-way and ride in said slots so as to be engaged by a key inserted in said key-way, a plurality of spring-pressed lock-pins mounted in said collar in respective vertical alinement with said lifting-pins, a shackle, said body member having an opening to receive the heel of said shackle, a bolt-barrel extending transversely through the upper portion of said body-member above said cross-head and provided with an opening to receive the toe of said shackle, oppositely directed bolts mounted in said bolt-barrel, a compression spring between said bolts for projecting the same outward, a supporting plate secured to the underside of said bolt-barrel and spaced therefrom to provide a slideway, tumblers slidably disposed in said slideway, upwardly extending coupling-posts joining said tumblers respectively to said bolts, downwardly turned lugs connected with the inner ends of said lugs and disposed to be engaged respectively by opposite ends of said cross-head, each shackle leg having transverse bolt-receiving sockets, and a stop-means depending from said supporting plate to limit the rotation of said cross-head to a proper direction.

[Claims 2, 4, 6 to 9, 11, and 12 not printed in the Gazette.]

1,256,169. HOISTING APPARATUS. FRANK J. SCHRADER, Jr., Wheaton, Ill. Filed Sept. 30, 1912. Serial No. 723,087. (Cl. 214—12.)



2. In apparatus of the character described, the combination of a stationary coal bin provided with a discharge opening, a hoisting bucket, and means whereby said bucket is operative to receive the load directly from said opening, said means including a moveable element for presenting the mouth of said bucket to said opening, which element has a fixed axis of motion.

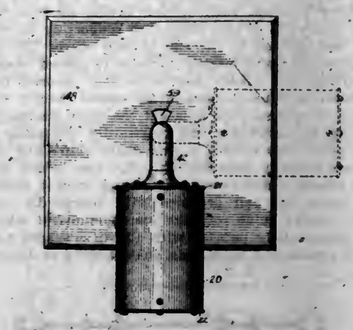
5. Apparatus of the character described, comprising a structure having a bucket runway, a bucket mounted for travel on said runway, a movable bucket holder at the base of the runway, the bucket being movable into and out of the holder and also movable therewith, a receptacle arranged to discharge into the bucket when the latter is moved with the holder into proper relation with the receptacle, and means for controlling the discharge from the receptacle into the bucket.

6. In apparatus of the character described, the combination of a stationary bin provided with a discharge opening, a hoisting bucket, and means whereby said bucket is operative to receive the load directly from said opening, said means including a moveable element for tilting said bucket at an angle to present its mouth to said opening, which element remains below when the bucket is hoisted, and said element having means operated by upward movement thereof to close said opening when the bucket is tilted back into hoisting position.

[Claims 1, 3, 4, and 7 to 11 not printed in the Gazette.]

1,256,170. ELECTRICITY-METERING. EDMUND O. SCHWEITZER, Chicago, Ill. Filed Dec. 31, 1915. Serial No. 69,688. (Cl. 171—34.)

1. In a system of electrical distribution the combination with a consumer's load circuit, an inclosed switch controlling said circuit, a meter unit having a contact key arranged to coöperate with said switch to close the load circuit through the meter, said switch having a key-way arranged to permit said contact key to be disengaged from said switch when and only when said switch is in open position.



2. In a system of electrical distribution the combination with a consumer's circuit, a switch in said circuit, a closed housing for said switch provided with a key-way, and a metering device carrying a contact key adapted to be inserted in said key-way and arranged to coöperate with said switch to render the circuit for the translating device operative and establish the proper circuit connections for the metering device, said key-way arranged to prevent withdrawal of the contact key except when said switch is in open position.

3. In a system of electrical distribution, a load circuit, a switch in said load circuit, a meter comprising as a part thereof a device arranged to coöperate with said switch to move the latter from open to closed position and vice versa and thereby to open and close the load circuit and the meter connections and means for preventing said device from being disengaged from the switch except when the latter is in open position.

8. In a system of electrical distribution the combination with a load circuit, a closed housing, a key-way formed in said housing, a switch in said housing located opposite said key-way and comprising a rotatable element carrying a pair of jaws, switch blades carried by said jaws, stationary switch elements adapted to coöperate with said switch blades, a meter having as a fixed part thereof a contact key comprising a pair of contact plates insulated from each other and each adapted to engage one of the jaws aforesaid whereby the switch may be operated to render the load circuit operative and establish the proper circuit connections for the meter, said switch and contact key insuring that the load circuit can be closed when and only when the meter is also included in circuit.

[Claims 4 to 7 not printed in the Gazette.]

1,256,171. FILTER-BODY. GEORG HEINRICH SEITZ and FRIEDRICH SCHMITTHENNER, Kreuznach A. D. Vahe, Germany, assignors to the Firm of Seitz-Werke, Theo. & Geo. Seitz, Kreuznach A. D. Vahe, Germany. Filed Mar. 10, 1917. Serial No. 154,057. (Cl. 210—9.)

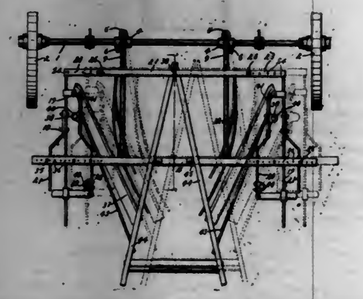
1. A process for forming a filter body for the removal of germs from liquids, consisting in mixing infusorial earth, flax and cotton in a watery solution, to which formalin has been added, so as to form a paste, felting the mass by removing the water and drying it, and finally forming it into a filter body and sterilizing the body in a germ-proof covering at a suitable temperature, substantially as described.

[Claim 2 not printed in the Gazette.]

1,256,172. BEAN-HARVESTER. EDWARD SESSIONS, Bradley, Mich. Filed Mar. 14, 1917. Serial No. 154,891. (Cl. 55—107.)

1. In a structure of the class described, the combination of an axle, carrying wheels thereon, rearwardly extending

swinging arms pivotally mounted on said axle to swing in either a horizontal or vertical plane, a transverse supporting bar pivotally secured to the rear ends of said swinging arms, a horizontal spacer bar, a pair of spaced cultivator sections, each section having its rear end secured to one end of said transverse supporting bar and its front end secured to one end of said spacer bar, a pair of cutter blades diverging forwardly, spaced standards supporting said blades and adjustably secured to said cultivator sections, a downwardly turned bracket secured to each of said sections adjacent the front standards and carrying an outwardly and rearwardly extending guard plate, guide rods secured to said guard plates and extending substantially parallel with the rear edges of said shear blades, a downwardly extending bracket secured to said spacer bar and provided with rearwardly and inwardly curved guide rods the rear portions of which extend substantially parallel with and in a spaced relation to said first named guide rods, substantially as described.



9. In a structure of the class described, the combination with a pair of wheels having supporting means carried thereby, forwardly diverging swinging shear blades, means secured to said supporting means for supporting said shear blades so that they may be moved in a substantially horizontal plane, and means for simultaneously moving said shear blades in said plane.

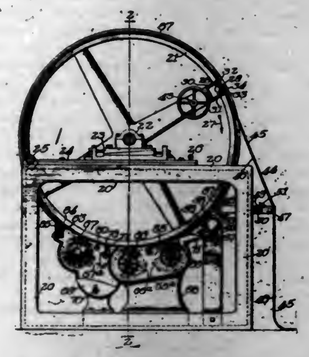
10. In a structure of the class described, the combination of an axle, carrying wheels, forwardly diverging shear blades inclined upwardly and forwardly, means secured to said axle for supporting said blades, and guide rods supported adjacent said blades and spaced inwardly therefrom to support the stalks while being severed by said blades.

[Claims 2 to 8 not printed in the Gazette.]

1,256,173. CLEANING-MACHINE. PASCAL J. SHAMPAY, Chicago, Ill., assignor to Shampay Brothers, Chicago, Ill., a Corporation of Illinois. Filed Jan. 30, 1913. Serial No. 745,134. (Cl. 15—8.)

1. In a cleaning machine for carpets and the like, the combination of a carrier for a carpet to be cleaned, a feed pipe for liquid cleaning material positioned adjacent the carrier and having a plurality of apertures, and separate valves for the apertures of the feed pipe comprising levers pivoted intermediate their extremities, a puppet upon one end of each lever for contact with the outer side of the pipe and closing the adjacent aperture thereof, the opposite end of each of said levers being spaced from the carrier a distance less than the thickness of a carpet so that levers will be moved to open the valves when the carpet to be cleaned passes said opposite ends of the levers.

2. In a cleaning machine for carpets and the like, the combination of a carrier for a carpet to be cleaned, cleaning appliances, a normally closed source of supply of liquid cleaning material for the cleaning appliances, and valves controlling the delivery of cleaning material to the appliances, said valves each having a lever with one end spaced from the carrier a distance less than the thickness of the carpet so that the valves will be opened and held open by the carpet being carried as it is moved past the valves.



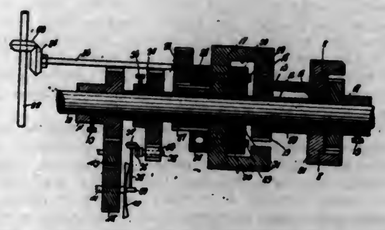
3. In a carpet cleaning machine, the combination of a carrier for a carpet to be cleaned, cleaning appliances, a normally closed, multiple valved source of supply of liquid adjacent the carrier for feeding cleaning material to the appliances, and opening means for the valves lying in the path of travel of the carpet and actuated thereby.

4. In a carpet cleaning machine, a movable member for carrying a carpet to be cleaned, appliances disposed adjacent the member for cleansing with liquid the outer side of the carpet, and a device for wiping liquid from the carpet and from the surface of the said member after the carpet and member pass the said appliances.

5. In a carpet cleaning machine, a movable member for carrying a carpet to be cleaned, appliances disposed adjacent the member for cleansing with liquid the outer side of the carpet, and a device for wiping liquid from the carpet and from the surface of the said member after the carpet and member pass the said appliances, said device comprising a flexible wiper which is of sufficient resilience to engage both the surface of the member and a carpet thereon for removing superfluous liquid therefrom.

[Claims 6 to 15 not printed in the Gazette.]

1,256,174. TRANSMISSION. WILLIAM SHAW, Pittsfield, N. H. Filed June 29, 1917. Serial No. 177,795. (Cl. 74—35.)

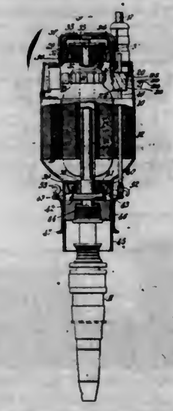


1. A transmission comprising an engine shaft, a rotatable axle, a sleeve mounted upon the engine shaft, gears secured to the engine shaft, a sleeve fitting upon the shaft between the gears, cam extensions formed upon the sleeve, a sleeve fitting upon the cams and extending longitudinally of the first mentioned sleeve, a housing at one end of the second mentioned sleeve, a gear upon the first mentioned sleeve within the housing, a gear upon the first mentioned sleeve outside the housing, a shaft extending longitudinally of the engine shaft and provided at one end with a gear meshing with the last mentioned gear, and at the opposite end with means for transmitting rotary movement to the axle, gears rotatably connected with the housing and meshing with the last mentioned gear carried by the first mentioned sleeve, an internal gear carried by the second mentioned sleeve and positioned for meshing with one of the first mentioned gears of the engine shaft, a gear having operative connection with the second gear of the engine shaft, a shaft for the last mentioned gear having a friction disk at one end, a shaft provided at one end with a friction gear engaging the friction disk, a shaft having rotary connection with the last mentioned shaft, and a gear carried by the last mentioned shaft and meshing with the gear carried by the first mentioned sleeve.

3. A transmission comprising an engine shaft, an axle, and intermediate shaft having operative connection with the axle and extending longitudinally of the engine shaft and provided at one end with a gear, a sleeve loosely mounted upon the engine shaft and provided with cam extensions, an outer sleeve fitting loose upon the inner sleeve and engaged by the cam extensions thereof, a spur gear carried by the engine shaft, an inner gear carried by the outer sleeve for engagement with the spur gear, an outer gear at the opposite end of the outer sleeve, a housing fitting upon the inner sleeve and provided at one end with an inner gear for engagement with the outer gear of the outer sleeve, a gear carried by the inner sleeve and having operative engagement with the gear of the intermediate shaft, a gear carried by the inner sleeve within the housing, gears rotatably connected with the housing for engaging the gears of the inner sleeve, a second gear carried by the engine shaft, and means for imparting rotary movement from the second gear of the engine shaft to the inner sleeve to rotate the inner sleeve and adjust the position thereof.

[Claims 2 and 4 not printed in the Gazette.]

1,256,175. TRANSMISSION MECHANISM. WILLIAM GENTRY SHELTON, New York, N. Y. Filed Dec. 16, 1914. Serial No. 877,585. (Cl. 74—26.)



1. The combination with a driving and a driven part, a pair of ball bearings constituting the sole support thereof and transmitting movement from one of the said parts to the other.

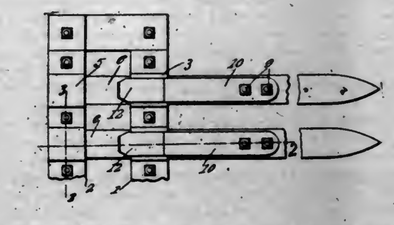
2. The combination with a driving shaft and a driven shaft, of a ball bearing constituting the sole support of one of the shafts and transmitting movement from one of the said shafts to the other.

3. A transmission mechanism comprising a driving shaft and a driven shaft, and a pair of ball bearings each provided with a cage for supporting these shafts, the said driving and driven shafts being connected through members of the said ball bearings.

9. In a device of the character specified, the combination with a hollow shaft, of two units, each comprising a ball bearing having an inner and an outer ring, a set of balls between such rings and a cage for the balls, the outer ring being held from rotation, the inner ring of one unit being connected to the hollow shaft, a plate located adjacent the cage of the other unit and connected thereto, a driven spindle connected to said plate, a spindle passing through the hollow shaft and fast with the inner ring of the said other unit, and a flange on the said spindle passing through the hollow shaft, the said flange being connected with the cage of the first mentioned unit.

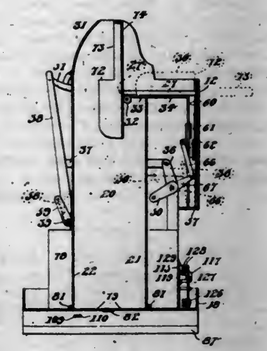
[Claims 4 to 8 and 10 not printed in the Gazette.]

1,256,176. BUCK-RAKE. JAMES J. SIMPSON, Lone Grove, Okla. Filed Jan. 2, 1917. Serial No. 140,334. (Cl. 56—69.)



In a buck rake the combination with a head having alining brackets fixed thereon, of a lip upstanding from the front edge of one of the brackets, a tooth insertible longitudinally into the brackets, a stop strip on the bottom face of the tooth and having a depending portion movable against the head to limit the driving movement of the tooth into the brackets, a spring strip secured upon the top face of the tooth and having a downwardly offset portion for engaging the lip to lock the tooth against withdrawal from the brackets, a tongue inclined upwardly and rearwardly from the offset portion, and means extending through both the stop strip and the spring strip for binding them upon the tooth.

1,256,177. SAFETY MAIL-BOX AND DISCHARGE MEANS THEREFOR. ANDY SMITH, Wadsworth, Ohio. Filed July 19, 1916. Serial No. 110,116. (Cl. 232—47.)



2. A device of the class described comprising a mail box having a mail entrance slot, an upright receptacle substantially centrally arranged within the said box, a normally vertically arranged mail receiving drawer bodily pivoted in the said receptacle at a point spaced from the front wall and being forwardly slidable through the said slot with a portion thereof projecting forwardly of the box, a horizontal platform and roller bearing over which the drawer is adapted to slide, a finger lever vertically movable adjacent the front wall of the box, and operative

connections between the said lever and drawer, whereby the vertical mail-receiving drawer is caused to assume a horizontal postion previous to the outwardly sliding projection thereof.

7. A device of the class described comprising a mail box having a mail entrance slot, a closure slide therefor, an upright receptacle substantially centrally arranged within the said box, a normally vertically arranged mail receiving drawer bodily pivoted in the said receptacle at a point spaced from the front wall and being forwardly slidable through the said slot with a portion thereof projecting forwardly of the box, a horizontal platform and roller bearing over which the dawer is adapted to slide, automatic retracting and dumping means for the said drawer adapted to cause the vertical mail-receiving drawer to assume a horizontal position previous to the outwardly sliding projection thereof, and operating means for the said closure slide operable simultaneously with the actuation of the said drawer whereby the said slide is in its open position when the drawer is arranged within the slot.

10. A device of the class described comprising a mail box having an entrance slot therein, a mail receptacle within the said box, a normally vertically arranged receiving drawer bodily pivoted within the upper open end of the said receptacle at a point spaced from the front wall, forward moving and horizontal positioning means for the said drawer, the horizontal positioning occurring previous to the forward movement thereof, the drawer extending outwardly of the said slot when in its operative projected position, and a horizontal platform and roller bearing over which the drawer is adapted to slide, a vertically movable closure slide for the said slot normally arranged in its closed position when the drawer is retracted, and operating means for the said slide simultaneously actuated during the movements of the said drawer.

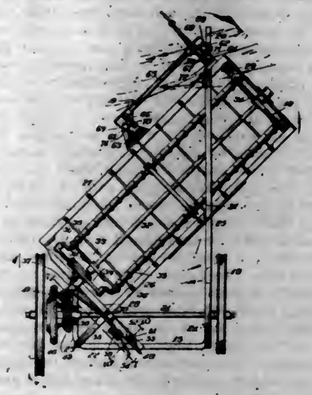
16. A device of the class described comprising a box having a mail entrance slot therein, a receptacle substantially centrally arranged within said box having a forwardly extending portion provided with opposite slots, a drawer having trunnions slidably and revolubly arranged within the said receptacle slots, the said drawer being normally vertically arranged within the said receptacle and horizontally positioned projecting outwardly of the said receiving slot when in its projected operative position, an operating shaft for the said drawer, an operating lever positioned forwardly of the said box, operative connections between the said drawer trunnions and shaft adapted for vertically moving the said drawer upon the downward movement of the said lever, return springs for the said shaft and drawer, weighted rear flanges upon the said drawer, arms upon the said trunnions, dumping springs for the said drawer operatively attached to the said arms automatically tensioned during the forward opening movement of the said drawer, a vertically movable closure slide for the said receiving slot, a vertically movable head arranged adjacent the said slide, operative link connections between the said head and slide, and operative connections between the said head and shaft.

[Claims 1, 3 to 6, 8, 9, and 11 to 15 not printed in the Gazette.]

1,256,178. SIDE-DELIVERY RAKE. ERNEST C. SMITH, Hoosick Falls, N. Y., assignor to Walter A. Wood Mowing & Reaping Machine Co., Hoosick Falls, N. Y., a Corporation of New York. Filed Sept. 20, 1916. Serial No. 121,168. (Cl. 56—3.)

1. In a combined side delivery rake and tedder, the combination with a rotating reel having an angularly adjustable rake head and a reversing gear for driving the reel in either direction, of adjusting and reversing levers operable respectively upon the rake head and the reversing gear, the adjusting lever being capable of movement independently of the reversing lever, and means for locking the levers together for movement of the adjusting lever with the reversing lever.

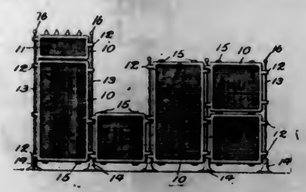
4. In a combined side delivery rake and tedder, in combination, a pair of oppositely facing driving gears, a laterally movable shaft, a pinion mounted on the shaft and engaging the two gears in alternation by lateral movement of the shaft, an eccentric loosely mounted on the shaft, a reel having rakes turning with the shaft, connection between the eccentric and the rakes of the reel, a pair of levers, adjustable connection between the levers and connection between one of the levers and the shaft and between the other lever and the eccentric.



10. In a side delivery rake, in combination, a three-cornered frame having a relatively perpendicular front end and side, carrying wheels at opposite sides of the frame adjacent its said front end, a rake shaft extending across the frame substantially parallel with its remaining side, a pair of upright caster wheels slidingly engaged with the said remaining side of the frame at different distances from its front end, a crank shaft extending along the said remaining side of the frame between the two caster wheel spindles, cranks of different lengths upon the crank shaft adjacent at its two ends and a link connecting each of the said cranks with the adjacent caster wheel spindle.

[Claims 2, 3, 5 to 9, and 11 not printed in the Gazette.]

1,256,179. GUARD OR SAFETY DEVICE FOR MACHINERY. OBERLIN SMITH, Bridgeton, N. J. Filed Mar. 28, 1916. Serial No. 87,203. (Cl. 74—56.)



1. As an improvement in guards or inclosures, an assembly of members composed each of a frame and an attached sheet of open work material, and having certain structural and dimensional characteristics in common, such common characteristics including elements for cooperating with connecting means on both sides of each ber, and means coöperating with such elements for connecting them together.

2. As an improvement in guards or inclosures, an assembly of members composed each of a frame and an attached sheet of open work material, and having certain structural and dimensional characteristics in common, such common characteristics including elements for coöperating with connecting means on both sides of each member, and means coöperating with such elements for detachably connecting them together.

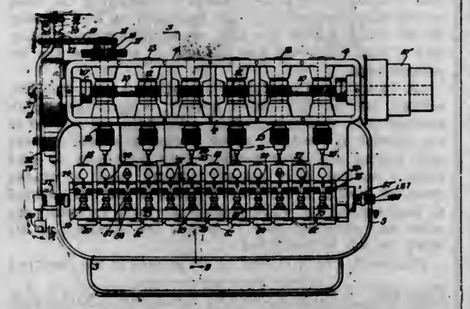
3. As an improvement in guards or inclosures, an assembly of members composed each of a frame and an attached sheet of open work material, and having certain structural and dimensional characteristics in common, such common characteristics including elements for cooperating with connecting means on both sides of each member, and means coöperating with such elements for connecting them together, the frame of each of said members being of cast metal, and the edges of the sheet being cast and embedded therein.

5. As an improvement in guards or inclosures, an assembly of members composed each of a frame and an attached sheet of open work material, and having certain structural and dimensional characteristics in common, and means for connecting them together, certain of said members being plane and certain of said members being curvilinear, said connecting means consisting of perforated lugs on the sides of the frame, and rods passing through alining lugs of adjacent frames and the distance between the holes in lugs on opposite sides of the frame being the same for all the members.

6. As an improvement in guards or inclosures, an assembly of members composed each of a frame and an attached sheet of open work material, and having certain structural and dimensional characteristics in common, and means for connecting them together, comprising rod-receiving eyes on the frames, rods and an angle arm having holes to receive said rods.

[Claim 4 not printed in the Gazette.]

1,256,180. DRILLING-MACHINE. OSCAR A. SMITH, Cleveland, Ohio, assignor, by mesne assignments, to The National-Acme Company, Cleveland, Ohio, a Corporation of Ohio. Filed Aug. 7, 1916. Serial No. 113,428. (Cl. 77—22.)



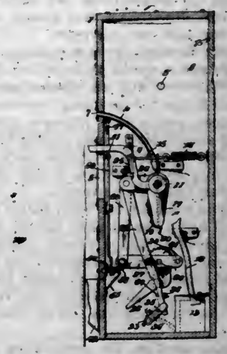
1. In a metal working machine, the combination of a series of tools, a series of work holders in excess of the number of tools, means for shifting one series thereof toward and from the other, and means for shifting one series thereof transversely relatively to the other alternately back and forth whereby some of the work holders will be in position to have their blanks operated upon while others are in position to be filled while such operation is proceeding.

7. In a machine of the class described, the combination of a series of drills, means for simultaneously rotating the drills, a series of work holders comprising twice the number of drills, means for shifting the work holders toward and from the drills, and means for reciprocating the work holders relatively to the drills so that one of each pair of work holders will be alternately brought into position opposite a drill whereby one half of the work holders will be in position to have their blanks operated upon while the other half are in position to have blanks inserted therein.

9. In a metal working machine, the combination of a series of tools, a series of work holders, and means for reciprocating one series thereof in transverse directions relatively to the other.

[Claims 2 to 6, 8, and 10 to 92 not printed in the Gazette.]

1,256,181. VENDING-MACHINE. ROBERT H. SMITH, Albemarle, N. C. Filed Oct. 23, 1916. Serial No. 127,185. (Cl. 194—85.)



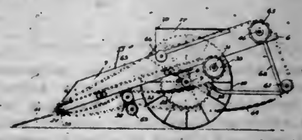
1. The combination of a shaft having a longitudinally extending coin-receiving slot, a drum loosely mounted on the shaft and depending therefrom and provided with a slot adapted to register with the slot in the shaft, a retainer carried by the drum and extending over the lower end of the slot therein to support coins in said slot in superposed relation with the uppermost coin extending into the slot in the shaft to lock the shaft to the drum, means for oscillating the shaft, and means whereby upon oscillation of the shaft the retainer will be withdrawn from over the slot in the drum to release some of the coins.

4. The combination of a shaft, means for oscillating the same, a coin tube disposed below the shaft, a drum mounted loosely upon and depending from the shaft, the shaft and the drum being provided with slots to receive checks, and a retainer on the drum extending across the slot therein to retain the checks in said slot whereby one of said checks will lock the drum to the shaft, said retainer being constructed to engage the coin tube upon oscillation of the shaft and be thereby moved from over the slot in the drum and release the checks.

8. The combination of an operating shaft, a rock shaft disposed below the same, an ejector on said rock shaft, a crank arm on said shaft, an operating arm carried loosely on the operating shaft and adapted to be locked thereto, and a lifter carried by said operating arm and constructed to ride past the crank arm on the rock shaft in one direction of its movement and engage said arm and actuate said shaft in the other direction of its movement.

[Claims 2, 3, and 5 to 7 not printed in the Gazette.]

1,256,182. POTATO-DIGGER. ERNEST W. SPLITTSTOSER, North Branch, Minn. Filed Mar. 23, 1917. Serial No. 156,899. (Cl. 55—137.)



1. In a digging machine, the combination with a wheel-supported frame and a shovel plow carried thereby, of an endless refuse conveyer and a potato conveyer mounted on said frame for traveling movement, the latter within the former, said refuse conveyer arranged to receive from the shovel plow, and means for driving said two conveyers at different speeds.

3. In a digging machine, the combination with a wheel-supported frame and a shovel plow carried thereby, of an endless refuse conveyer and an endless potato conveyer mounted on said frame for traveling movement, the latter

within the former, said refuse conveyer arranged to receive from said shovel plow, guides supporting the upper section of the refuse conveyer spaced above the potato conveyer, except at its receiving end portion where the same is supported directly on said potato conveyer, and means for driving said two conveyers.

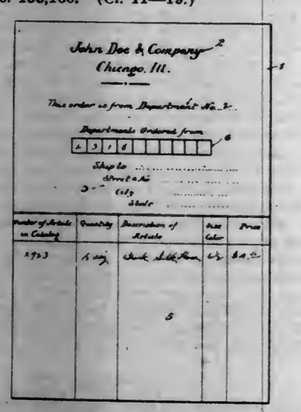
9. In a digging machine, the combination with a wheel-supported frame and a shovel plow carried thereby, of an endless refuse conveyer and an endless potato conveyer mounted on said frame for traveling movement, the latter within the former, said refuse conveyer arranged to receive from said shovel plow, each of said conveyers comprising a plurality of laterally spaced rods having their ends bent and interlocked to form a pair of chains, and means for driving said two conveyers.

11. In a digging machine, the combination with a wheel-supported frame and a shovel plow carried thereby, of an endless refuse conveyer and a potato conveyer mounted on said frame for traveling movement, the latter within the former, said refuse conveyer arranged to receive from the shovel plow, means for driving said two conveyers, and a packer for pressing the refuse onto the refuse conveyer.

12. In a digging machine, the combination with a wheel-supported frame and a shovel plow carried thereby, of an endless refuse conveyer and a potato conveyer mounted on said frame for traveling movement, the latter within the former, said refuse conveyer arranged to receive from the shovel plow, means for driving said two conveyers, and a housing having open ends through which the refuse conveyer travels, said housing being contracted toward the delivery end of the refuse conveyer.

[Claims 2, 4, 5, 7 to 10, and 13 not printed in the Gazette.]

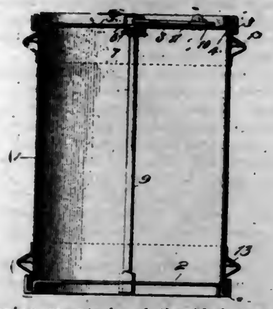
1,256,183. MEANS FOR FACILITATING THE TRANSACTION OF MAIL-ORDER BUSINESS. WILLIAM L. SUMMERSON, New York, N. Y. Filed Mar. 16, 1917. Serial No. 155,160. (Cl. 11—19.)



1. An order blank, said blank being proportioned to provide spaces appropriately designated to receive indicia pertaining to articles ordered on the blank and also ordered on additional blanks by a customer, said blank also having delineated a space or spaces to receive a list of the names of articles comprised in a single department in the store.

2. An order blank, said blank being ruled to provide columns or spaces appropriately designated to receive indicia relating to articles ordered from a single department in a store and additional delineated spaces appropriately designated to receive indicia indicating the departments from which the articles enumerated on the blank are ordered and also to indicate the departments from which goods enumerated on separate order blanks are ordered.

1,256,184. METAL KEG. CHARLES P. TOLMAN, New York, N. Y., assignor to National Lead Company, New York, N. Y., a Corporation of New Jersey. Filed May 23, 1914. Serial No. 840,430. (Cl. 220—60.)



1. A shipping receptacle of the kind described comprising a body, a cover, and threaded clamping means passing through and connected with the cover and with the body for clamping the cover in place and for unseating it.

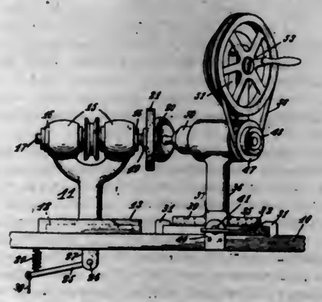
3. A shipping receptacle comprising a metallic body and cover, the one fitting a groove in the other, threaded power means having bearing upon the body and cover for clamping the cover to the body and for unseating it, and a vent in the cover opened by such unseating operation.

10. A shipping receptacle of the kind described having a body and a cover, the cover being provided with a depressed central portion and an upstanding peripheral portion forming a rim groove, means for clamping the cover to the body comprising a nut journaled on and confined to the cover within the said depressed central portion, and a handle for the nut adapted to fold into the depressed area.

13. In a metallic shipping receptacle of the kind described, the combination of a body, a cover having an opening with a concave margin, a threaded rod secured to the interior of the body, a nut journaled in said opening and having an upper bearing portion formed to seat tightly against said concave margin, and a washer mounted loosely in the lower portion of the nut adapted to bear against the under side of the cover to unseat the same and simultaneously to permit the entrance of air when the nut is unscrewed.

[Claims 2, 4 to 9, 11, and 12 not printed in the Gazette.]

1,256,185. VALVE-GRINDING MACHINE. WILLIAM F. TRIPP, Greenfield, Mass. Filed Oct. 4, 1916. Serial No. 123,768. (Cl. 51—4.)

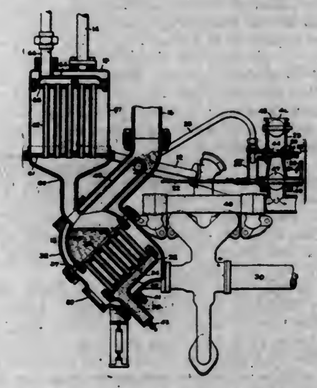


1. In a grinding machine, the combination with a grinding element, of a platform mounted to slide laterally of said grinding element and adjacent one end thereof, a post, a stem rotatably mounted in said post and threaded into said platform for moving the latter, a stock carried by said platform and capable of moving upon a vertical axis, a spindle on said stock for supporting work to be engaged by said grinding element, and means for rotating said spindle.

2. In a grinding machine, the combination with a grinding element, a platform arranged adjacent said grinding element and capable of moving laterally thereof, means for moving said platform, a standard, a base for said standard resting upon said platform, clips adjustably secured upon said platform and engaging over the edges of said base, a spindle carried by said standard, means for securing work to a spindle to be engaged by said grinding element, and means for rotating said spindle.

3. In a grinding machine, a table, a tail stock having a base, guide rails secured to said table and engaging over the edges of said base to permit of the latter moving therein, a grinding element upon said stock, the said base being provided with a notch, a bell crank pivoted upon said table and engaging at one end in said notch, means for operating said bell crank, a spring connecting said bell crank and said table for normally holding said tail stock moved in one direction, and means for holding work in engagement with said grinding element.

1,256,186. FUEL-VAPORIZER FOR INTERNAL-COMBUSTION ENGINES. WILLIAM EVERETT VER PLANCK, Erie, Pa., assignor to General Electric Company, a Corporation of New York. Filed Feb. 21, 1914. Serial No. 820,318. (Cl. 123—133.)



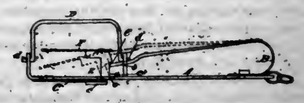
1. In combination, an internal combustion engine, an exhaust conduit therefor, a fuel vaporizer through which the exhaust passes from the conduit, a receiver that is located in the exhaust conduit and rises above the level of the liquid in the vaporizer, a conduit for conveying vapor from the receiver, and a condenser into which vapor from the vaporizer is free to flow and from which condensed fuel is free to return to the vaporizer at a point below the outlet of the receiver.

4. In combination, an internal combustion engine, an exhaust conduit therefor, a fuel vaporizer, a casing therefor which is interposed in and forms a part of the exhaust conduit, vaporizing tubes located in and supported by the casing, a receiver in which vapor is heated as it flows to the engine, said receiver being located within the casing and heated externally by the exhaust gases, a condenser that receives excess vapor from the vaporizer and returns condensed fuel to the source of supply, and means for cooling the condenser.

12. The combination with the exhaust conduit of an engine, of a fuel vaporizer for supplying fuel to the engine which is heated by exhaust gases from the engine, said fuel vaporizer comprising a casing, means connected therewith for maintaining a constant level of fuel therein, a receiver located above the casing which is also heated by the exhaust gases, a condenser connected with the casing at a point below the receiver, and cooling means for the condenser.

[Claims 2, 3, and 5 to 11 not printed in the Gazette.]

1,256,187. GIN-TRAP. FREDERICK WATSON WIGMORE, Spotswood, Victoria, Australia. Filed Sept. 4, 1917. Serial No. 189,590. (Cl. 43—23.)



A trap comprising a base, standards upstanding from said base, jaws pivoted in said standards, a spring biasing said jaws together, a trigger pivoted in said base, and having a notch for receiving the free end of said spring, a lip formed on said trigger and adapted to engage said base to limit the movement of said trigger in one direction, a bait plate secured to said trigger, and a spring secured to the underside of said base and having a relatively large T-shaped head disposed at right angles to said base and adapted to force said trigger toward said first mentioned spring when downward pressure is exerted on said base.

1,256,188. ANTISNORING DEVICE. GEORGE H. WILSON, Louisville, Ky. Filed Dec. 22, 1915. Serial No. 68,226. (Cl. 128—13.)



1. A device adapted for application to the nostrils for preventing snoring or mouth breathing formed from a single piece of soft flexible material and comprising tubular sleeves, and a reduced connection joining the lower ends of the sleeves at the adjacent sides thereof and acting with a tendency to spread apart the upper free ends of the sleeves.

[Claim 2 not printed in the Gazette.]

1,256,189. PROCESS OF TREATING CAR-SEATS. JOHN MACNAULL WILSON, Montclair, N. J., assignor to Franklin Murphy, Newark, N. J. Filed Dec. 20, 1913, Serial No. 807,920. Renewed June 15, 1916. Serial No. 103,869. (Cl. 8—8.)

1. The process of cleaning and renewing dyed materials which consists in carding the same to loosen the fibers, comprising the nap and to disengage the filaments extending therefrom, subjecting the material to the action of a solution capable of releasing the dye at the base of the nap, causing the excess dye to be absorbed by the extending end portion of the nap, and causing the reabsorbed dye to set.

2. The process of cleaning and renewing previously dyed material having a nap which consists in carding the material to loosen the fibers of the nap, causing abrasion thereof so that miscroscopic filaments will extend therefrom, subjecting the material to the action of a solution capable of releasing a portion of the excess dye at the base of the nap, subjecting the nap to movement in contrary directions to facilitate absorption by the free ends of the nap of a portion of the excess dye, and causing said released dye to set.

3. The process of cleaning and renewing previously dyed material provided with a nap which consists in carding the material to loosen the fibers of the nap, subjecting the same to the action of a cleansing solution containing an agent adapted to release a portion of the excess dye contained in the material, bending the nap so that the free ends thereof will be brought into contact with the released dye adjacent the warp of the material until the nap is of an approximately uniform color, then causing the dye to set and simultaneously removing any excess solution from the material, substantially as described.

5. The process of cleaning and renewing previously dyed material having a nap which consists in carding the nap, subjecting the same to the suction action of a

partial vacuum, treating the material with a solution containing a relatively quick acting dye releasing agent and a relatively slow acting mordant, subjecting the nap to pressure applied alternately in contrary directions to bend the free ends of a portion of the nap into contact with the base of the adjacent portion of the nap, removing any excess solution and permitting the released dye to set, substantially as described.

6. The process of cleaning and renewing previously dyed material comprising a nap which consists in carding the material, subjecting the material to the action of a solution containing sodium oleate and alcohol to cleanse the nap and release a portion of the dye contained therein, bending the nap in contrary directions to bring the free ends of each portion thereof in contact with the base of an adjacent portion of the nap, subjecting the material to the action of tri-sodium phosphate to cause the reabsorbed dye to reset, removing any excess of the solution from the material, and drying the material, substantially as described.

[Claim 4 not printed in the Gazette.]

1,256,190. SPREADING-MACHINE. ARTHUR M. WISWELL, Stafford, Kans. Filed Mar. 19, 1915. Serial No. 15,451. (Cl. 275—2.)

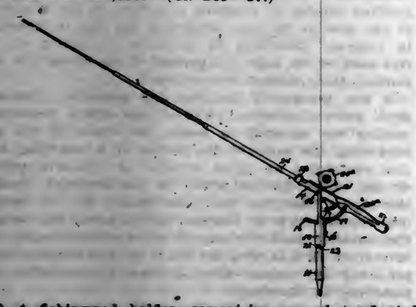


1. In a machine of the class described, a frame, a bottom comprising a multiplicity of sliding bottom panels movable thereon to lie at times in close superposed relation at the forward end of the frame, and movable to lie at other times in extended position with mutually adjacent edges overlapped for so moving the panels, a high speed endless conveyer and shredder device movable under the bottom extending throughout the length of the bottom when in initial position, and arranged to receive material displaced from the panels to discharge the same, and operative connections for the conveyer.

2. In a machine of the class described, a wheeled frame, two parallel endless conveyer devices at respective sides of the frame for discharging material at the rear of the frame and separate operative connections between respective conveyers and the adjacent wheels.

3. In a machine of the class described, a wheeled frame, two sets of devices for discharging material rearwardly therefrom one at each side and separate operative connections between each set of devices and a respective laterally adjacent wheel.

1,256,191. FISHING-ROD HOLDER. FRIEDRICH W. WITTKOWSKI, Des Moines, Iowa. Filed Dec. 2, 1916. Serial No. 134,555. (Cl. 248—37.)

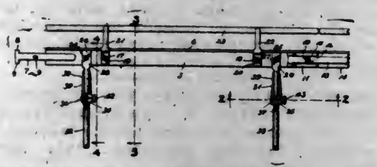


2. A fishing-rod holder, comprising a socket adapted to be detachably secured to a stake, said socket being formed with an upwardly extending fork, a trough pivoted between its ends to said fork, said trough being arranged for oscillation on an axis transversely of the fork, a rack pivoted to said trough between one end of the trough and the fork, said rack extending loosely through said fork and adapted to engage said socket, and means for locking the rack to said socket.

7. In a fishing-rod holder, a trough formed with a slotted bottom, in combination with a fishing-rod having a finger-piece adapted to extend through the slotted bottom, said trough also being formed with opposing outturned ears adapted to engage a reel on said fishing-rod in advance of said finger-piece.

[Claims 1, 3 to 6, and 8 not printed in the Gazette.]

1,256,192. SHINGLE-GAGE. JOHN A. AKSDAL, Seattle, Wash. Filed May 29, 1917. Serial No. 171,767. (Cl. 33—188.)

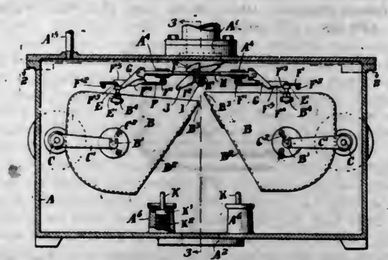


1. A shingle gage of the class described, which embodies a plurality of sections separately joined end to end, each section comprising a straight bar provided with a flange projecting from one side of one of its side edge portions; a plurality of extensible gage-rods attached to each section to project outwardly from the other one of its side edge portions in a plane parallel with and spaced from the planes of the unflanged side of said section, said gage-rods being provided with division marks of a scale representing units of distance; a gage-block slidably mounted on each of said gage-rods each of said gage-blocks being provided with an integral wedge-like prong adapted to be forcibly inserted between a wall and the lower edge portion of a shingle nailed to a house that is to be shingled; and releasable means for fastening said prong in its operative position between said wall and said shingle.

2. A shingle gage of the class described which embodies a plurality of sections separably joined end to end, each section comprising a straight bar provided with a flange projecting from one side of one of its side edge portions; a plurality of extensible gage-rods attached to each section to project outwardly from the other one of its side edge portions in a plane parallel with and spaced from the planes of the unflanged side of said section, said gage-rods being provided with division marks of a scale representing units of distance; a gage-block slidably mounted on each of said gage-rods, each of said gage-blocks being provided with an integral wedge-like prong adapted to be forcibly inserted between a wall and the lower edge portion of a shingle nailed to a house that is to be shingled; releasable means for fastening said prong in its operative position between said wall and said shingle; two removable brackets attached to each of said sections, each of said brackets being provided with an integral portion that projects over the flange of said section in a plane parallel with and spaced from the unflanged side of said section; and a bar secured to both of the outer ends of said two brackets to extend in a position parallel with and spaced from said section.

1,256,193. LIQUID-WEIGHER. PETER M. ANDERSON, Washington, D. C. Filed Mar. 23, 1916. Serial No. 86,324. (Cl. 73—169.)

1. In a liquid weigher, a balancing mechanism including a movable support, a liquid receptacle pivotally connected to said support and tending to turn into a discharge position when filled and to turn back into a receiving position when empty, said balancing mechanism normally holding the receptacle in an elevated position but yielding to permit the receptacle to be lowered when filled, a stop operative to prevent the receptacle from turning into its discharge position when the receptacle is elevated but permitting such turning when the receptacle is lowered and means controlling the supply of liquid in said receptacle comprising an operating arm struck and actuated by the receptacle during an intermediate portion of the turning movement of the latter from its receiving to its discharge positions.

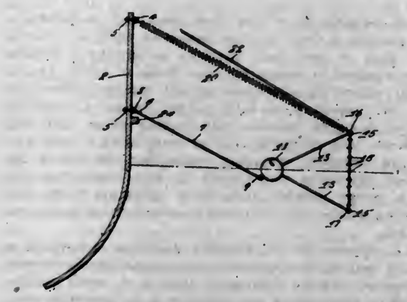


3. In a liquid weigher a pair of liquid receptacles, a separate balancing mechanism for each receptacle to which the latter is pivotally connected, each receptacle being adapted when empty to turn into an upright position and when filled to turn into a discharge position, the discharge turning movements of the two receptacles being opposite in direction, means normally effective to maintain each receptacle in its upright position but rendered ineffective by the yielding of the balancing mechanism when the weight of the filling receptacle increases to a predetermined point, and liquid control means alternately engaged and shifted in opposite directions by said receptacles during their turning discharge movements.

11. In a liquid weigher of the tilting receptacle type the combination of a rocking support turning about a horizontal axis, a tilting receptacle pivotally connected to said support at one side of said axis, balancing mechanism connected to said support, and means for holding said receptacle in its receiving position during the filling operation comprising an adjustable part secured to the receptacle and a pivoted catch supported independently of said receptacle.

[Claims 2, 4 to 10, and 12 not printed in the Gazette.]

1,256,194. TORPEDO TRAP OR GUARD. LOUIS EARL ARMSTRONG, Omaha, Nebr., assignor of one-half to Charles Mitchell, Omaha, Nebr. Filed Mar. 29, 1917. Serial No. 158,339. (Cl. 114—240.)



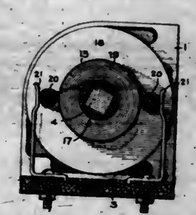
1. In a torpedo trap or guard of the class described the combination of a ship, float means connected to said ship, guard means connected to said float means and means for yieldably retaining said guard means in a substantially vertical plane.

6. In a torpedo trap or guard, the combination of a ship, links pivotally mounted upon said ship, floats connected to said links by an offcenter connection, arms extending from said floats, a sectional net connected to said arms, means for yieldably retaining said sectional net in a vertical plane whereby when an obstacle strikes said net the force thereof will cause the net to move inwardly as said links swing downwardly because of their offcenter connection to said floats after which said means will return said net to its normal position.

8. In a torpedo trap or guard the combination of a ship, links pivotally mounted upon said ship, tanks connected to said links by an offcenter connection, arms extending from said tanks, a net carried upon said arms, coiled springs carried by said ship and engaging said net for normally retaining said net in a vertical plane, stop lugs carried by said ship in line of movement of links whereby when an obstacle strikes said net and drives the same inwardly by the pivoting of the links, the movement of the said links in one direction will be stopped by said lugs after which said springs will return said net to its normal position whereby said net will at all times be spaced from the side of said ship.

[Claims 2 to 5, 7, and 9 to 27 not printed in the Gazette.]

1,256,195. ELECTRIC SWITCH. WINFIELD A. ATWOOD, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Mar. 13, 1917. Serial No. 154,454. (Cl. 200—13.)



1. In a circuit controlling device the combination with a pair of fixed contacts, a rotatable shaft, a bridging member for said contacts comprising a blow-out coil positioned on said shaft and rotatably movable between said contacts, and terminal members for said coil coöperating with said contacts to open or close a circuit in response to the rotation of said coil, of members carried by said shaft and coöperating therewith to form a magnetic circuit for said coil.

2. In a circuit controlling device the combination with a pair of fixed contacts, a rotatable shaft, a bridging member for said contacts comprising a blow-out coil removably positioned on said shaft and rotatable thereby, terminal members for said coil coöperating with said fixed contacts to open or close the circuit in response to the rotation of said coil, said coil being adjustable on said shaft to form in one position a circuit opening means and in another position a circuit closing means in response to the rotation of said shaft, and pole pieces coöperating with said shaft to form a magnetic field for said coil.

4. A circuit controlling device comprising a pair of fixed contacts, a blow-out coil rotatably positioned between said contacts, terminals for said coil coöperating with said contacts to open or close the circuit in response to the rotation of said coil, a shaft, a rotatable member carrying said coil and terminals removably positioned on said shaft to hold said coil normally in either circuit opening or circuit closing position, and pole pieces removably positioned on said shaft and coöperating therewith to form a magnetic circuit for said coil.

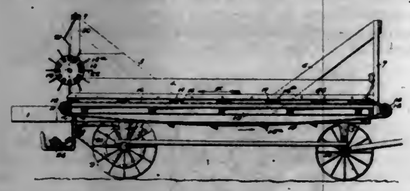
6. In a control device for a plurality of electric circuits, the combination with a rotatable shaft, a plurality of rotatable members removably positioned on said shaft to assume one of several positions, blow-out coils carried by said members, terminals for said blow-out coils forming

contact members, fixed contacts normally engaged by the terminals of said blow-out coils when their respective rotatable members are in one position and normally disengaged when their respective members are in another position, and members carried by said shaft and coöperating therewith to form independent magnetic circuits for said blow-out coils.

8. The combination with a circuit breaker, of an auxiliary switching device comprising one or more separate switches of unit construction, a common operating shaft for said switches rotatable in response to the opening and closing of said circuit breaker, each of said switches comprising fixed contacts, a blow-out coil coöperating with said contacts, a rotatable member supporting said blow-out coil and adjustable on said shaft to move said coil into either circuit closing or circuit opening relation with said fixed contact in response to opening of said circuit breaker, and means adjacent said rotatable members and coöperating with said shaft to form separate magnetic circuits for said blow-out coils.

[Claims 3, 5, and 7 not printed in the Gazette.]

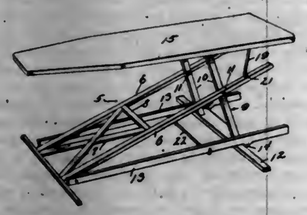
1,256,196. STRAW CONVEYER AND SPREADER. AUGUST H. BEISNER, Hebron, Nebr. Filed May 9, 1917. Serial No. 167,571. (Cl. 214—65.)



1. In a straw conveyer and spreader, the combination with the wagon box having a substantially closed bottom; means for conveying the load within the box toward the discharge end of the same, said conveying means comprising an endless chain apron having pusher elements, pusher slats loosely supported across the chain and cooperative with the pusher elements and devices for holding the slats down against the apron as they convey the load toward the discharge end of the box.

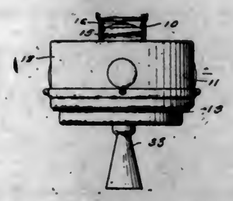
[Claim 2 not printed in the Gazette.]

1,256,197. COLLAPSIBLE IRONING-TABLE. ANTON BETTINARDI, Hoboken, N. J. Filed Apr. 16, 1917. Serial No. 162,385. (Cl. 68—10.)



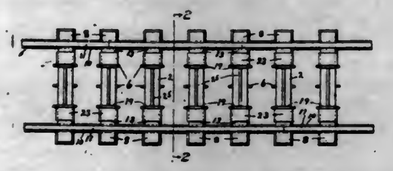
In a collapsible ironing table, a relatively long supporting member, a relatively short supporting member pivoted to the long supporting member, a board pivotally engaged with the upper end of the short supporting member, laterally projecting portions at the lower end of the short supporting member, connected locking bars pivoted at corresponding ends to the long supporting member and slidable upon said projecting portions on the short supporting member at the outer sides thereof and latches spaced from the free ends of the locking bars and having inclined edges adapted to ride over said projecting portions for the automatic engagement of said latches with the latter at their outer edges to secure the table in set up position, the free ends of said locking bars forming levers for manual manipulation to release the latches from the projecting portions for the collapsing of the table.

1,256,198. PENCIL-SHARPENER. GOTTLOB WM. BEYERLE, Skiatook, Okla. Filed Aug. 25, 1916. Serial No. 116,828. (Cl. 120—92.)



In a device of the character described, a hollow concentric cone rotatable upon its longitudinal axis having its larger end open for access of a pencil, said cone having discharge openings through the sides thereof, and having lugs upon the inner surface located at such distance outwardly upon the cone, and the cone being of such a size, that said lugs will clear a pencil inserted in the device, and a hollow cone of a resilient material having abrasive therein adapted to fit snugly in the first mentioned cone, and having portions extended beyond the area normally tending to engage an inserted pencil, said extended portions being adapted to lie between said lugs, whereby to hold the said cones against relative rotation, the last named cone having lateral openings at its intermediate part positioned to register with the said openings in the first mentioned cone, when the parts are engaged in operative relation.

1,256,199. RAILROAD-TIE. JOHN J. BRANAGAN, McKees Rocks, Pa. Filed Dec. 7, 1917. Serial No. 205,927. (Cl. 238—5.)



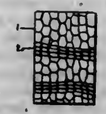
1. A metallic tie of the class described comprising a base portion, a chair portion formed on each end of said base, each of said chair portions comprising a locking flange adapted to engage the base flange of a rail, an upwardly extending abutment formed integral with said base and spaced from said locking flange, a clamping member mounted between said locking flange and said abutment, said clamping member comprising a base portion, an upwardly extending connecting rib, and a top member extending transversely of said connecting rib, and a wedge member adapted to coöperate with said clamping member and abutment to securely bind said parts together.

2. A metallic tie of the class described comprising a channel shaped base portion having means formed thereon to prevent endwise movement thereof, a chair portion formed on each end of said base, each chair portion comprising a locking flange adapted to receive one side of the base flange of a rail, an upwardly extending abutment spaced from said flange and formed integral with said base portion, a clamping member slidably mounted between said locking flange and said abutment, and adapted to engage the one side of the base flange of a rail, and a wedge member adapted to coöperate with said abutment and said clamping member to securely bind said parts in position.

3. A metallic tie of the class described comprising a channel shaped base portion and means formed thereon to prevent endwise movement thereof, a chair portion formed on each end of said base, each of said chair portions comprising a locking flange adapted to engage the base flange of a rail, an upwardly extending abutment formed integral with said base and spaced from said locking flange, a clamping member slidably mounted between said locking flange and said abutment, said clamping member comprising a base portion, an upwardly extending transversely of said connecting rib, and a top member extending transversely of said connecting rib, and a compound wedge member adapted to coöperate with said clamping member and abutment to securely bind said parts together.

4. A metallic tie of the class described comprising a channel-shaped base portion having means formed thereon to prevent endwise movement thereof, a chair portion formed on each end of said base, each of said chair portions comprising a locking flange having a beveled groove therein at its base adapted to receive the base flange of a rail, an upwardly extended abutment formed integral with said base and spaced from said locking flange and having a rectangular groove therein, a clamping member slidably mounted between said locking flange and said abutment, said clamping member comprising a base portion, an upwardly extending connecting rib, and a top portion extending transversely of said connecting rib and forming flange portions on each side of said connecting rib, and a compound wedge member adapted to be engaged between said clamping member and said abutment, and to have a portion thereof engaged within said rectangular groove of said abutment and under one of the flanges formed by the top portion of said clamping member.

1,256,200. WOOD IMPREGNATION. GEORGE G. CARVER, Toledo, Ohio, assignor to The Jennison-Wright Company, Toledo, Ohio, a Corporation of Ohio. Filed May 20, 1915. Serial No. 29,272. (Cl. 99—12.)

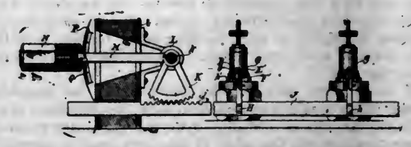


1. The process of providing sealed internal expansion space in the treating of wood comprising, first, coating the cell walls of the wood by submerging said wood in a preserving liquid, subjecting said submerged wood to pressure, lowering the pressure and removing the excess submerging liquid, and second, superficially fully impregnating the wood by re-submerging the wood in an impregnating liquid and applying pressure thereto of a less amount than in the preceding submerging to provide space in the wood interior of this second treatment for the second treatment to expand thereinto.

3. The method of providing sealed internal expansion space in treating wood comprising, first, coating the cell walls by subjecting the wood to gas pressure and without relieving the gas pressure, subjecting the same to a bath of a preserving substance under a higher pressure than the gas pressure, withdrawing the surplus substance, and immediately subjecting the wood to a partial vacuum thereby extracting a portion of the preserving substance from the wood, and, second, superficially fully impregnating the wood for effective water-proofing by submerging the wood in an impregnating liquid, subjecting said submerged wood to pressure less than the pressure employed in the first treatment whereby the exterior cells may be sealed and expansion of the sealing liquid may occur into the internal coated cells.

[Claim 2 not printed in the Gazette.]

1,256,201. ADJUSTABLE-ELECTRODE SPARK-PLUG. DANIEL M. CLARK, Jamesburg, N. J. Filed May 7, 1915, Serial No. 26,622. Renewed Nov. 10, 1917. Serial No. 201,408. (Cl. 123—169.)

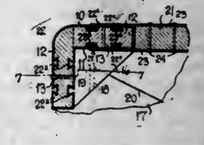


1. In adjustable electrode sparkplugs, the combination with a series of sparkplugs each having a freely movable electrode by the movement of which the sparking distance between the ends of the electrodes may be varied, of means connected with the said movable electrodes of all the sparkplugs for moving said electrodes thereby adjusting the spark gaps between the ends of the electrodes from a distance, a scale arranged at a distance from the said sparkplugs, a member connected with the said electrodes-adjusting means and arranged to sweep the said scale, and releasable means for securing the member at any point upon the scale thereby holding the said electrodes-adjusting means in a desired position.

2. In adjustable electrode sparkplugs, the combination with a series of sparkplugs each having a freely movable electrode by the movement of which the sparking distance between the electrodes may be varied, means connected with the said movable electrodes of all the sparkplugs for moving the said electrodes thereby adjusting the spark gaps between the ends of the electrodes from a distance, devices arranged at a distance from the sparkplugs for indicating the extent of movement of the said electrodes-adjusting means, and securing means arranged adjacent to the said indicating devices for releasably securing the said devices and electrodes-adjusting means in a desired position.

3. In adjustable electrode sparkplugs, the combination with a hollow metallic body portion, of an insulated stationary electrode arranged centrally within the said body, a movable electrode having a conical gas check near its lower end, the said metallic body having a passage extending lengthwise through its wall and having its lower portion formed to fit the said conical gas check, the said movable electrode occupying the said passage and being arranged to turn on its own axis therein, the said electrode having a lower end below the said gas check constructed to be moved horizontally toward or from the lower end of the stationary electrode, and means located exteriorly and connected with the top of the movable electrode for turning the electrode and for securing the same in any position.

1,256,202. BOX, CRATE, AND LIKE CONSTRUCTION. HORACE B. COLLINS, Oklahoma, Okla. Filed Mar. 6, 1917. Serial No. 152,854. (Cl. 217—69.)



1. As an article of manufacture, a corner stay for crates, boxes, and like constructions, having transversely

angular outer and inner spaced webs, the outer web at the lower end extending below the inner web, both of said webs having end webs spaced from each other to form a socket for the reception of a bottom piece, one of said inwardly extending end webs having a slot extending at right angles to one wall of the web and parallel to the other wall thereof.

5. In a crate, box or like construction, a stay and a side wall coacting with the stay, the side wall having attached to it spaced metallic webs projecting beyond the edge of the side wall and adapted to receive the margin of the stay, the stay and said wall being formed with interlocking corrugations and the stay being formed to hold the metallic webs from lateral outward movement away from the stay.

7. In a crate, box, or like construction, an angular corner stay, a side wall coacting with the stay, the side wall having spaced metallic webs attached thereto and projecting beyond the edge of the side wall to receive one margin of the corner stay between them, the corner stay and side webs being formed with vertically extending dove-tailed recesses and the other one with vertically extending dove-tailed tongues engaging in the said recesses and interlocking therewith.

[Claims 2 to 4, 6, 8, and 9 not printed in the Gazette.]

1,256,203. BUST-FORM. MARY A. E. COOK, Bridgeport, Wash. Filed May 9, 1917. Serial No. 167,535. (Cl. 2—87.)



1. A bust form including a pair of connected pieces of fabric, means for detachably connecting the form to a garment, and means carried by one of the pieces of fabric and located between said pieces for producing a bulging effect to the form.

2. A bust form including a pair of fabric pieces permanently secured together at one edge and detachable at the other edge, means for detachably connecting the form to a garment, and ruffled strips of fabric secured to one of the pieces of fabric and disposed therebetween to produce a bulging effect to the form when said pieces are arranged in closed position.

1,256,204. VEIL. AUGUSTA P. COOLBROTH, Brookline, Mass. Filed Jan. 17, 1916. Serial No. 72,390. (Cl. 2—118.)



1. A veil consisting of a blank, a covering section attached to an edge of said blank and leaving a free edge, and a gathering device secured to the ends of the covering section at their points of attachment to the blank and extending along the free edge of said section.

3. A veil consisting of a blank, a covering section attached to an edge of said blank and leaving a free edge, and a gathering device secured to the ends of the covering section at their points of attachment to the blank and extending along the free edge of said section, and a second gathering device secured to said blank near the opposite edge thereof.

[Claim 2 not printed in the Gazette.]

1,256,205. VEIL. AUGUSTA P. COOLBROTH, Portland, Me. Filed Oct. 14, 1916. Serial No. 125,720. (Cl. 2—118.)



1. A veil consisting of a blank of woven material having a sight section incorporated therein and spaced from the longitudinal edges of the blank, an elastic gathering device secured at one longitudinal edge of the blank and provided with inter-engageable elements at its free ends and adapted when said elements are engaged to produce a fullness in that portion of the blank separating said device from the adjacent edge of the sight section and which portion in the use of the veil lies over the forehead of the wearer, and an elastic gathering device secured at the opposite longitudinal edge of the blank and adapted to produce a fullness in that portion of the blank separating said device from the adjacent edge of the sight section and which portion in the use of the veil constitutes a closure disposed about the chin and neck of the wearer.

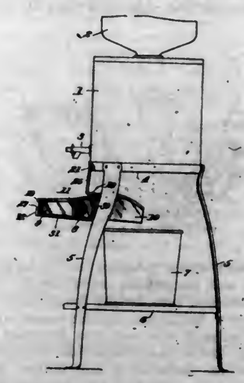
3. A veil consisting of a blank of woven material having a sight section of woven material of different mesh incorporated therein and spaced from the longitudinal edges of the blank, an elastic gathering device secured at one longitudinal edge of the blank and provided with inter-engageable elements at its free ends adapted when said elements are engaged to produce a fullness in that portion of the blank separating said device from the adjacent edge of the sight section and which portion in the use of the veil lies over the forehead of the wearer, and an elastic gathering device secured at the opposite longitudinal edge of the blank and provided with covering elements extending beyond the ends of said device and constituting tie strings adapted to be tied under the chin of the wearer and adapted when tied to produce a fullness in that portion of the blank separating said device from the adjacent edge of the sight section and which portion in the use of the veil constitutes a closure disposed about the chin and neck of the wearer.

[Claims 2 and 4 not printed in the Gazette.]

1,256,206. DRIP-CUP AND SUPPORT. HENRY G. CORDLEY, Glen Ridge, N. J. Filed Jan. 6, 1917. Serial No. 140,944. (Cl. 221—69.)

1. A drip cup for water cooler stands having a relatively broad front portion and a relatively narrow rear portion, in combination with supporting means extending downward on each side of the narrow portion and inclosing the broad portion.

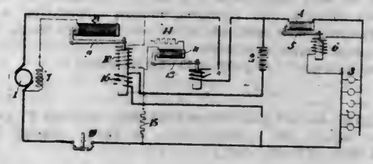
4. A drip cup for water cooler stands having a relatively broad front portion and a relatively narrow rear portion and having the sides of the narrow portion relatively higher than the sides of the broad portion in combination with supporting means consisting of a rod extending downward on each side of the narrow portion, extending forward beneath the broad portion and extending in front of the broad portion, the downwardly extending portions



of the rod being provided with shoulders fitting over the upper edges of the sides.

[Claims 2 and 3 not printed in the Gazette.]

1,256,207. ELECTRICAL SYSTEM OF DISTRIBUTION. GORHAM CROSBY, Glen Ridge, N. J., assignor to Gould Coupler Company, a Corporation of New York. Filed Feb. 25, 1916. Serial No. 80,361. (Cl. 171—313.)



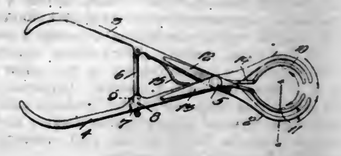
1. An electrical system of distribution having in combination a generator, a storage battery connected to be charged thereby, a regulating element for regulating the generator voltage by varying its field strength, a voltage coil normally operating said element responsive to voltage variations of the system applied to said coil, whereby the generator is regulated responsive to voltage changes of the system applied to said coil, a current coil connected between the generator and battery opposing the action of said voltage coil, a regulating element for varying the strength of said voltage coil but normally substantially ineffective on said voltage coil and a current coil connected between the generator and battery and adapted upon the current therein exceeding a predetermined value to operate said second regulating element to vary the current in said voltage coil so that the generator voltage is regulated responsive to current changes instead of voltage changes of the system.

[Claims 2 and 3 not printed in the Gazette.]

1,256,208. CLAMP. EDWARD W. CUMMINS, Harrisburg, Ill. Filed Mar. 21, 1917. Serial No. 156,397. (Cl. 128—28.)

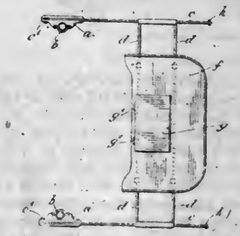
1. A clamp of the character specified, comprising pivotally arranged pairs of blades, each pair comprising an inner and outer blade, the outer blades having handles and the inner blades having shanks, the handles being pivoted together in crossed relation, and the shank of each inner blade being connected to the opposite handle to cause the shank to swing therewith, a spring normally pressing the handles apart, and adjustable means for holding the blades in clamped position.

2. A clamp of the character specified, comprising two pairs of blades, each pair comprising an inner and an outer blade shaped to fit each other and coöperate in clamping action when they are moved toward each other, the outer blades having handles pivoted together



in crossed relation and the inner blades having shanks which are connected to the opposite handles to cause the shanks to swing therewith to cause the inner blades to move toward the outer blades when the pairs of blades are moved toward each other.

1,256,209. FOLDING TABLE FOR ATTACHMENT TO BEDSTEADS. ARTHUR E. DARLASTON, Wolverhampton, England. Filed Oct. 10, 1917. Serial No. 195,804. (Cl. 45—82.)



A folding bed table for attachment to bedsteads of the type defined comprising two side arms pivotally connected to brackets attached to the uprights of the bedstead at points to the rear of the bedstead head and having slidably mounted thereon two transverse bars for the support of the table which in its turn is slidably mounted on the said transverse bars; substantially as hereinbefore described and shown.

1,256,210. ELECTRIC SWITCH. WILLIAM W. DEAN, Chicago, Ill., assignor, by mesne assignments, to Benjamin Electric Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed June 7, 1913. Serial No. 772,402. (Cl. 200—27.)



1. A tipping push switch comprising a casing member, circuit-controlling elements inclosed thereby, a top or cover for said casing member having a tilting and rectilinear movement to operate said controlling elements to close the circuit and having a periphery overhanging the periphery of the casing member, and a mounting for said cover engaging portions of said casing to form different fulcra for said cover in its different contact-operating movements and permitting the tilting of the cover when the periphery is subjected at any point to a glancing or oblique side blow or pressure.

7. An electric switch comprising a casing, coöperating switch contacts, an overhanging contact actuating cover

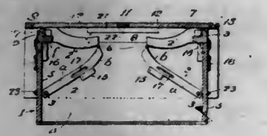
tiltable to operate the switch contacts having a shiftable fulcrum point on said casing, said fulcrum point being always diametrically opposite the point of pressure applied to said member for operating said contacts.

17. An electric switch comprising a closed casing, cooperating switch contacts within said casing, a pressure-operated member outside of said casing having a tiltable and rectilinear movement for operating said contacts.

23. An electric switch comprising a casing, a relatively large, flat operating member substantially covering the top of said casing, a switch contact in the center of said casing, a coöperating switch contact, electrical connections in said casing with said switch contacts and operating connections between said operating member and one of said switch contacts for operating said contacts in response to the tipping of said member.

[Claims 2 to 6, 8 to 16, and 18 to 22 not printed in the Gazette.]

1,256,211. CASE-TABLE. CHARLES H. DEMPSEY and THOMAS F. BARNES, Los Angeles, Cal. Filed June 26, 1915. Serial No. 36,571. (Cl. 190—12.)



1. A container; a closure for the container; and means at the ends of the container and at the ends of the closure for connecting the closure and the container, said means consisting of toggle-joints which are at their lower ends pivotally supported within the container at a short distance from the bottom thereof, and said toggle-joints being adapted to pass beyond their dead centers and when so passed to support the closure above the container, and when collapsed to allow the closure to close the container.

2. A container; a closure for the container; and legs pivotally connected within and to the container at the ends thereof and at a short distance from the bottom of the container, and to the closure at the ends of the closure, said legs being adapted to move inwardly and away from said ends in order to allow the closure to close the container.

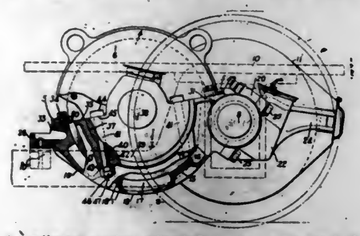
6. The combination with a container open at the top; of a closure for said container; said closure comprising a table top, and side rails for said table top; legs constructed in two parts, each of said parts having a bend therein and being provided at the top with a cross tie connecting the two legs; means pivoting the parts respectively to the rails at the ends thereof; and means pivotally connecting the legs to the container; said legs being collapsible and extensible to alternately allow the closure to close the container and to support the closure above the container.

12. A container, a closure for the container, leaves in hinged relation to the closure and foldable against the sides of the container, and means to support the leaves in horizontal position; the closure being provided with one or more slides to give access to the interior of the container while the closure is in container-closing position.

[Claims 3 to 5, 7 to 11, and 13 to 15 not printed in the Gazette.]

1,256,212. DYNAMO-ELECTRIC MACHINE. JOHN V. DOBSON, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed July 22, 1915. Serial No. 41,260. (Cl. 105—220.)

1. A railway motor adapted to be suspended from a driving axle and comprising a stationary cylindrical laminated core, a lower half-frame having a semi-cylindrical seat for supporting said core, said half-frame being provided with an integral axle bracket on one side and an integral nose projection on the opposite side for supporting the motor, means for positioning the core rigidly in said frame, and inclosing casings of sheet material associated with the core and the respective ends of said half-frame.

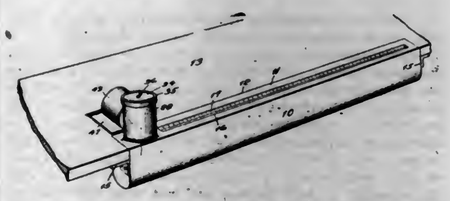


2. A railway motor adapted to be suspended from a driving axle and comprising an uncovered stationary cylindrical laminated core having longitudinal side recesses therein, a lower half-frame having a semi-cylindrical seat for supporting said core and also provided with integral axle brackets and a nose projection disposed on opposite sides thereof for suspending said motor, clamping members disposed in said recesses and resting upon the sides of said half-frame, bolts coöperating with said members for rigidly positioning said core, and inclosing casings of sheet material for covering the end spaces between the uncovered core and the ends of the supporting half-frame.

3. A railway motor adapted to be suspended upon a driving axle and comprising a lower half-frame having a semi-cylindrical seat and provided with integral axle brackets and nose projections upon opposite sides thereof for suspending said motor, a cylindrical laminated core seated in said half-frame and having longitudinal side recesses therein, and clamping means coöperating with said recessed core and the sides of said half-frame for rigidly positioning said core.

[Claims 4 to 8 not printed in the Gazette.]

1,256,213. CALCULATING-MACHINE. ALCADA F. DODSON, Milan, Mo. Filed Mar. 6, 1917. Serial No. 152,755. (Cl. 33—133.)

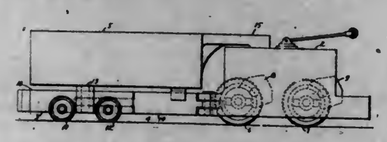


1. In a machine of the character described, the combination with a relatively long main casing adapted to be arranged upon the inner edge of a counter without projecting thereabove for a substantial distance, and constructed so that a chart arranged therein is visible from the exterior thereof, of a pair of rolls arranged within the casing and extending longitudinally thereof, a calculating chart carried by the rolls and adapted to be wound from one to the other, a housing formed upon one end of the main casing and projecting above the same, a measuring wheel arranged at approximately a right angle to the rolls and pivotally connected with the housing and disposed upon the outer side thereof, means for holding cloth or the like in contact with the measuring wheel, driving connecting means between the measuring wheel and one roll, and counting means driven by the measuring wheel.

2. In a machine of the character described, the combination with a substantially horizontal main casing adapted to be arranged near the edge of a counter without projecting above the same for a substantial distance, and constructed so that a chart arranged therein is visible from the exterior thereof, of a pair of substantially horizontal rolls arranged within the casing and extending longitudinally therein, a calculating chart carried by the rolls and adapted to be wound from one to the other, a substantially vertical housing formed upon one end of the main casing, a substantially vertical shaft journaled within the substantially vertical housing, driving connecting means between the lower end of the substantially vertical shaft and one roll, a substantially horizontal measuring wheel arranged upon one side of the housing at substantially a right angle thereto, a substantially horizontal shaft carrying the substantially horizontal measuring wheel, driving connecting means between the substantially horizontal shaft and the substantially vertical shaft, a plate arranged near and beneath the substantially horizontal measuring wheel to hold cloth or the like in proximity to or in contact with such wheel, and counting means connected with the upper end of the substantially vertical shaft to be driven thereby.

[Claims 3 and 4 not printed in the Gazette.]

1,256,214. STORAGE-BATTERY LOCOMOTIVE. GEORGE M. EATON, Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed July 28, 1917. Serial No. 183,338. (Cl. 105—267.)



1. In a locomotive, the combination with two trucks having an articulated connection therebetween, of an auxiliary section located over, and pivotally connected to, the first truck, and means associated with said section and coöperating with the pivotal connection between the section and the first truck for maintaining the auxiliary section in correct position relative to the two trucks.

2. In a locomotive, the combination with a four-wheel propelling truck having a plurality of motors associated therewith, a four-wheel idle truck of low height, and an articulated connection between said trucks, of an auxiliary section located above and pivotally connected to the truck of low height, and means for maintaining the auxiliary section alined with the two trucks.

3. In a locomotive, the combination with two trucks having an articulated connection therebetween, of an auxiliary section located over, and supported on, the first truck, and means associated with said section for maintaining the same in correct relation to the two trucks and for relieving the first truck of a portion of the weight of the auxiliary section.

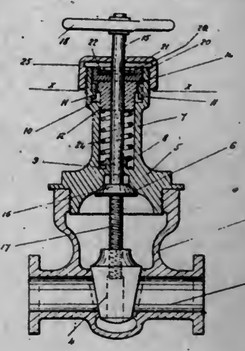
4. In a storage-battery locomotive, the combination with a propelling truck, an auxiliary truck, and an articulated connection between said trucks, of a battery section located above, and pivotally connected to, the auxiliary truck, and means associated with the pivotal connection between the battery section and the auxiliary truck for maintaining the battery section in correct relation to the two trucks.

5. In a locomotive, the combination with two trucks having an articulated connection therebetween, of an auxiliary section located over one of said trucks, and means associated with the two trucks for maintaining the auxiliary section alined with the two trucks.

[Claims 6 to 18 not printed in the Gazette.]

1,256,215. VALVE. ANNIE K. EYCLESHYMER, Greenfield Center, N. Y. Filed May 16, 1917. Serial No. 168,973. (Cl. 137—5.)

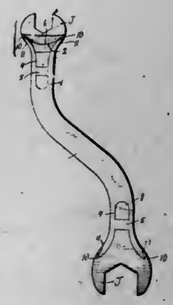
2. In a packingless valve, a valve casing provided at its upper part with a spring chamber and a thrust-block chamber of larger diameter than the spring chamber, said thrust-block chamber having guide lugs on opposite sides of it, a valve in the casing, a rotatable non-reciprocating valve stem for operating the valve, said stem being provided with a collar for preventing fluid from passing upwardly around it into the spring chamber, a thrust-block encircling the valve stem and having grooves which slide on the said guide lugs, a spring arranged in the said spring



chamber and pressing the thrust-block upwardly, a washer arranged in the thrust-block chamber and provided with a recess in its upper side having pairs of lugs at opposite sides of it, a pin in said recess secured to the said valve stem and engaging with the said pairs of lugs, and a cap secured to the valve casing and closing the upper end of the thrust-block chamber.

[Claim 1 not printed in the Gazette.]

1,256,216. WRENCH. FRANK FESSLER, Woodbridge, N. J. Filed Dec. 19, 1917. Serial No. 207,908. (Cl. 81—180.)



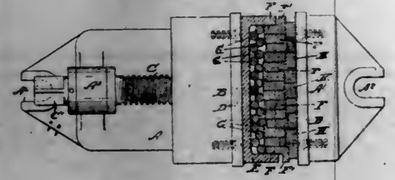
1. A wrench comprising a shank having open recesses in opposite faces thereof, a cross-piece bridging each of said recesses intermediate the length thereof, a jaw, and spaced spring arms extending from the jaw and seatable within the recesses of the shank, said arms being provided with shoulders to contact with the inner edges of the cross-piece.

2. A wrench comprising a shank having open recesses in opposite faces thereof, a cross-piece bridging each of said recesses intermediate the length thereof, a jaw, and spaced spring arms extending from the jaw and seatable within the recesses of the shank, said arms being provided with shoulders to contact with the inner edges of the cross piece, the opposed faces of the jaw and shank, when the jaw is in applied position, being provided with an interlocking rib and groove.

8. A wrench comprising a shank having open recesses in opposite faces thereof, a cross-piece bridging each of said recesses intermediate the length thereof, a jaw, and spaced spring arms extending from the jaw and seatable within the recesses of the shank, said arms being provided with shoulders to contact with the inner edges of the cross piece, said jaw at opposite sides of the arms being provided with inwardly directed shoulders overlying adjacent faces of the shank.

4. A wrench comprising a shank having open recesses in opposite faces thereof, a cross piece bridging each of said recesses intermediate the length thereof, a jaw, and spaced spring arms extending from the jaw and seatable within the recesses of the shank, said arms being provided with shoulders to contact with the inner edges of the cross piece, the opposed faces of the jaw and shank, when the jaw is in applied position, being provided with an interlocking rib and groove, said jaw at opposite sides of the arms being provided with inwardly directed shoulders overlying adjacent faces of the shank.

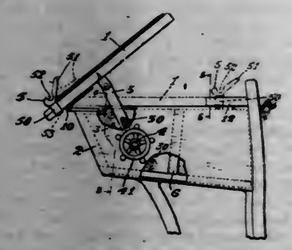
1,256,217. VISE ATTACHMENT FOR MILLING-MACHINES OR THE LIKE. FREDRICK W. FIELDHOUSE, Detroit, Mich. Filed Apr. 9, 1917. Serial No. 160,657. (Cl. 90—60.)



1. In a device of the character described, a vise and means coöperating with the relatively adjustable jaws of the vise comprising a frame, a plurality of adjustable elements supported by the frame adapted to grip one or more work pieces, and a plurality of rolls arranged in staggered relation between the wall of the frame and said adjustable elements, impinging therewith and with each other, whereby upon the adjustment of the vise jaws, the rolls may be shifted to force the adjustable elements into gripping relation with the work pieces.

2. In a device of the character described, the combination of a vise, and means coöperating with the relatively adjustable jaws of the vise comprising a frame, a plurality of adjustable plates assembled within the frame in adjacent relation to each other, means for restricting the movement of said plates, and a plurality of rolls arranged in staggered relation between the walls of the frame and the adjustable plates.

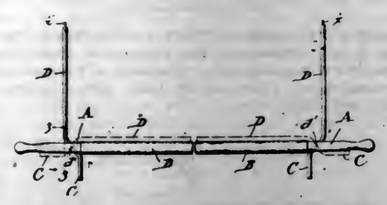
1,256,218. SCHOOL-DESK. JOHN O. FOSTER, Seattle, Wash. Filed Nov. 23, 1915. Serial No. 63,133. (Cl. 45—91.)



1. A school desk having a top composed of a short fixed section and a long tiltable section, a hinge connecting the long tiltable section to the front edge of the desk, a slotted link pivoted to the under side of the long tiltable section, friction means engaging the slotted link to hold the long section in angular position when tilted on the hinge, a bar extending across the top and provided with clips which fit over the edges of the top sections, said bar being slidable over the meeting edges of the top sections whereby when the long tiltable section is flush with the short fixed section the bar may be slid over the latter and out of the way, or may be slid forwardly over the long tiltable section and used as a book support, and means between the clips and the top sections to hold the bar in adjusted position.

[Claim 2 not printed in the Gazette.]

1,256,219. COT OR STRETCHER. ROBERT S. FREEDMAN and HANS H. GOTTSTEIN, New York, N. Y. Filed Apr. 18, 1917. Serial No. 162,852. (Cl. 5—5.)

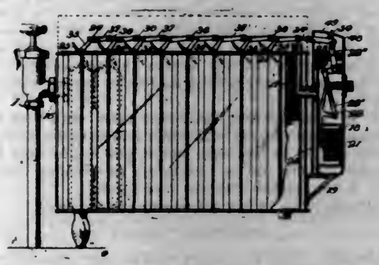


1. A cot or stretcher embodying a pair of side rails, a sheet of fabric secured along its longitudinal edges to the side rails, means for maintaining the side rails in spaced relation, a plurality of legs pivotally secured to the side rails for supporting said side rails above the ground, a canopy, stanchions pivotally secured to the side rails for supporting the canopy above the fabric, and connections between the legs and stanchions whereby the folding of the stanchions into collapsible position simultaneously causes the folding of the legs into a like position.

6. A folding cot or stretcher embodying a plurality of pivoted legs, a plurality of pivoted canopy supporting stanchions, the stanchions and legs being connected whereby the folding of either into collapsed position will cause the other to be folded into a like position.

[Claims 2 to 5 and 7 to 9 not printed in the Gazette.]

1,256,220. RADIATOR-CASING. WESTON M. FULTON, Knoxville, Tenn., assignor to The Fulton Company, Knoxville, Tenn., a Corporation of Maine. Original application filed Apr. 20, 1914, Serial No. 833,238. Divided and this application field Aug. 9, 1915. Serial No. 44,598. (Cl. 257—136.)



1. A radiator casing composed of built-up hollow sections, dampers each adapted to be mounted on a pair of oppositely disposed sections, and means for operating said dampers from the outside of said casing.

2. A radiator casing composed of built-up sections, damper-supporting plates on said sections, and dampers mounted on said plates, said plates and dampers having edges overlapping to form joints permitting longitudinal variations in the length of the casing without opening the said joints.

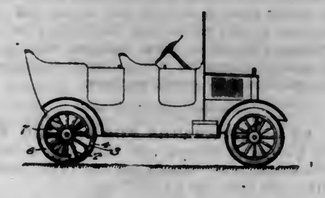
4. A radiator casing having double side walls composed of built-up hollow compressible sections, connections between said sections, and means for compressing the assembled sections to adjust the length of the radiator casing to the radiator.

9. A radiator casing built up of a plurality of connected sections and having a hood built up of a plurality of connected sections, said first-mentioned sections having double, spaced walls providing inclosed dead-air spaces.

12. A radiator casing built up of hollow sections, damper-supporting plates on said sections provided with overlapping edges to form joints permitting variation in the length of the casing without opening said joints, and dampers supported by said plates.

[Claims 3, 5 to 8, 10, and 11 not printed in the Gazette.]

1,256,221. NON-SKID DEVICE FOR AUTOMOBILES. AUGUST GERSTNER, Brooklyn, N. Y. Filed July 20, 1917. Serial No. 181,785. (Cl. 21—8.)



1. A non-skid device for automobiles, including a gravity controlled rotary element arranged, when released, to swing into repeated engagement with the ground, and manually operated means for holding the element raised.

2. A non-skid device for automobiles, including a gravity controlled rotary element located adjacent to one of the rear wheels and arranged, when released, to swing into repeated engagement with the ground, and manually operated means for holding the element raised.

3. A non-skid device for automobiles, including a gravity controlled, toothed, rotary element arranged, when released, to swing into repeated engagement with the ground, and manually operated means for holding the element raised.

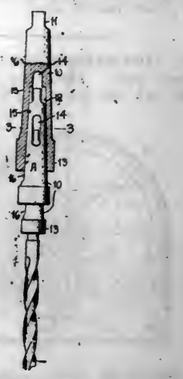
4. A non-skid device for automobiles, including a gravity controlled, toothed, rotary element located adjacent to one of the rear wheels and arranged, when released, to swing into repeated engagement with the ground, and manually operated means for holding the element raised.

5. A non-skid device for automobiles, including a gravity controlled element mounted to rotate on the rear axle housing adjacent to one of the rear wheels and arranged, when released, to swing into repeated engagement with the ground, and manually controlled means for holding the element raised.

[Claims 6 and 7 not printed in the Gazette.]

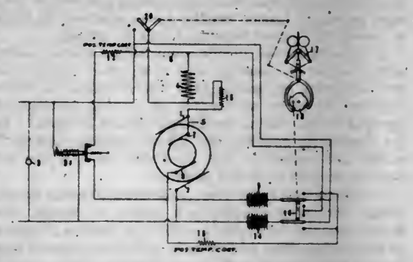
1,256,222. DRILL-SOCKET, JOHN F. GRABILL, Flora, Ill., assignor of one-third to Earl Arbuthnot and one-third to Horatio C. Chaffin, Flora, Ill. Filed Mar. 14, 1917. Serial No. 154,849. (Cl. 29—141.)

A drill socket having a tapered hollow body, the bore of the body being tapered and formed to provide a longitudinally extending flat face, the exterior face of the body having a flat portion corresponding in position to the flattened face of the bore, the side edges of the interior flattened face and the side edges of the outer flattened face being so disposed as to be intersected by common



planes extending radially from the axial center of the socket.

1,256,223. ELECTRICAL SYSTEM. HUGO GROS, Zurich, Switzerland, assignor to Safety Car Heating & Lighting Company, a Corporation of New Jersey. Filed Jan. 30, 1911. Serial No. 605,629. (Cl. 171—313.)



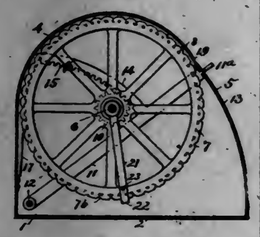
1. In an electrical system, in combination, a variable-speed generator, a device which substantially prevents the passage through itself of current at an impressed voltage of less than a predetermined value, means adapted to influence the excitation of the generator, means for delivering a substantially constant current to the terminals of said first means, terminals having a voltage substantially proportional to the total induced voltage of the generator, and a shunt around said first terminals, said shunt including said device and said second terminals.

2. In an electrical system, in combination, a variable speed generator, a device which substantially prevents the passage through itself of current at an impressed voltage of less than a predetermined value, two armature windings on said generator, means adapted to influence the excitation of said generator, a circuit including one of said windings, said means and a resistance, said resistance being adapted to maintain the current through said circuit substantially constant, and a shunt circuit around said means and including said device and the other of said windings.

3. In an electrical system, in combination, a variable speed generator, a device which substantially prevents the passage through itself of current at an impressed voltage of less than a predetermined value, means adapted to influence the excitation of the generator, circuit connections between said device and said means, said means being responsive to an increase of current forced through said device to reduce the excitation of said generator, a work circuit containing translating devices, a storage

battery adapted to be charged by said generator, and means for automatically rendering said first means inoperative when the voltage at the translating devices exceeds a predetermined limit.

1,256,224. EDUCATIONAL DEVICE. CHARLES HABART, Cleveland, Ohio. Filed Oct. 16, 1916. Serial No. 125,776. (Cl. 35—9.)



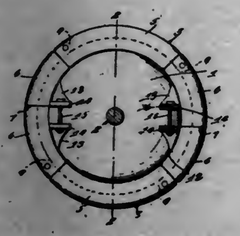
1. An educational device comprising a casing having an alined series of openings, a series of legend bearing devices within the casing, a shaft extending transversely through the casing upon which each of the said legend bearing devices is mounted, each legend bearing device comprising a member having a plurality of legends thereon which are adapted to be moved underneath the openings in the said casing, a plurality of levers pivoted within the casing, each one of said levers extending adjacent one of the legend devices, a rack and pinion connection between each lever and legend bearing device whereby as the lever is moved the legend bearing device is moved.

2. An educational device comprising a casing having an alined series of openings and a series of legend bearing devices within the casing, each legend bearing device being disposed so as to be capable of moving underneath an opening in the casing thereby to expose a legend; means for separately moving the legend bearing devices; and means for engaging and positively moving the legend bearing devices to initial position.

4. An educational device comprising a casing having an alined series of openings; a series of legend bearing devices within the casing; a shaft extending transversely of the casing upon which each of the said legend bearing devices is mounted, each legend bearing device comprising a member having a rounding surface upon which legends are carried; a pinion associated with each legend device; a rack coöperating with the pinion; and a plurality of levers pivoted within the casing and extending upon the outside thereof, each of said levers being operatively connected with a rack adjacent each legend, whereby when a lever is depressed the rack will operate upon the pinion to turn the legend device.

[Claim 3 not printed in the Gazette.]

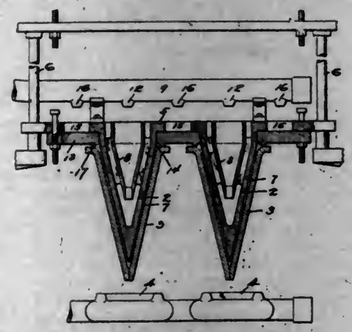
1,256,225. HARROW ATTACHMENT. FRANK HARLAND, Drake, N. D. Filed May 29, 1917. Serial No. 171,719. (Cl. 97—64.)



1. As a new article of manufacture, a detachable packing band adapted to fit over the periphery of a harrow disk, said band comprising a pair of separable sections, each section being substantially V-shaped in cross section and provided with a substantially V-shaped notch upon the periphery thereof for snugly fitting over the periphery of the harrow disk, each section also comprising an intermediate link and a pair of end links, each end link provided with interlocking means at their abutting ends, each end link also provided with an inwardly extending web upon the inner periphery thereof, each inwardly extending web provided with a laterally extending flange, and securing means passing through said flanges for holding said sections firmly upon the harrow disk.

2. As a new article of manufacture, a detachable packing band adapted to fit over the periphery of a harrow disk, said band comprising a pair of separable sections, each section being substantially V-shaped in cross section and provided with a substantially V-shaped notch upon the periphery thereof for snugly fitting over the periphery of the harrow disk, each section also comprising an intermediate link and a pair of end links, each end link provided with interlocking means at their abutting ends, each end link also provided with an inwardly extending web upon the inner periphery thereof, each inwardly extending web provided with a laterally extending flange, securing means passing through said flanges for holding said sections firmly upon the harrow disk, a clamp fitting over the interlocking ends of said sections, said clamp comprising a body having a lower end surrounding and passing under the periphery of the abutting ends of the interlocking ends of said section, said clamp provided with laterally extending ears, means passing through said means and engaging the inner edge of said packer rim, said means for connecting said flanges to said sections passing through the upper end of said clamp for preventing the accidental removal of said clamp from said sections.

1,256,226. APPARATUS FOR MAKING PASTRY SHELLS. OSCAR HAUGH and WILLIAM A. ENGLAND, San Francisco, Cal. Filed Jan. 2, 1917. Serial No. 140,068. (Cl. 107—66.)



1. In an apparatus for baking pastry shells, a hollow tap, a tube arranged within and spaced from the walls of said tap and a burner disposed to direct a flame into said tube.

3. In an apparatus for baking pastry shells, a hollow, conical tap, a conical tube arranged within and spaced from the walls of said tap and a burner disposed to direct a flame into said tube.

4. In an apparatus for baking pastry shells, a hollow tap, a stripper plate surrounding said tap and a burner arranged to internally heat said tap and to direct a flame against said stripper plate.

5. In an apparatus for baking pastry shells, a hollow tap, a stripper plate surrounding said tap, a burner mounted on said tap and provided with a nozzle for directing a flame into said tap and with a nozzle for directing a flame against said stripper plate.

[Claims 2 and 6 not printed in the Gazette.]

1,256,227. THREADLESS BOLT. WILLIAM RUFUS HENDRICK, Roanoke, Va. Filed June 8, 1917. Serial No. 173,634. (Cl. 239—11.)



1. A threadless bolt, comprising a shank provided with depressions, a head on the shank, and a fastening means for the bolt consisting of a bar having an inclined face and provided with a bore for the reception of the shank, another bar provided with a key hole slot and an inclined face adapted to the face of the first bar, means for drawing the second bar along the first bar to tighten the bolt, and an anvil extending from the second bar and adapted to be struck to separate the bars and release the bolt.

2. A threadless bolt, comprising a shank provided with depressions, a head on the shank, and a fastening means for the bolt consisting of a bar having an inclined face and provided with a bore for the reception of the shank, there being an outturned end on the bar provided with a slot, another bar provided with a key hole slot and an inclined face adapted to the face of the first bar, there being a reduced threaded end on said latter bar adapted to pass through the slot in the end of the first bar to draw the second bar along the first bar and tighten the bolt, and an anvil outstanding from the other end of the second bar.

1,256,228. APPARATUS FOR CHARGING STORAGE BATTERIES. WILLIAM T. HENSLEY, Boundbrook, N. J., assignor, by mesne assignments, to Bound Brook Engine & Mfg. Co., a Corporation of Delaware. Filed Nov. 9, 1914. Serial No. 871,004. (Cl. 171—314.)



1. Apparatus for charging a storage battery, comprising a battery, a variable speed source of power, a generator connected with said battery, and means including a centrifugal friction clutch for driving said generator at proper speed from said source of power, said clutch having carbon-to-metal wearing elements to prevent the heat of friction from increasing the speed of said generator.

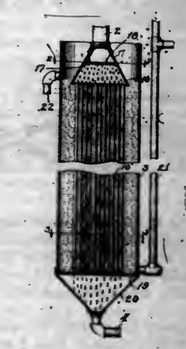
2. Apparatus for charging a storage battery, comprising a battery, a variable speed source of power, a generator connected with said battery, and means including a centrifugal friction clutch for driving said generator at proper speed from said source of power, said clutch having wearing elements composed of substances to prevent the heat of friction from increasing the speed of said generator.

[Claim 3 not printed in the Gazette.]

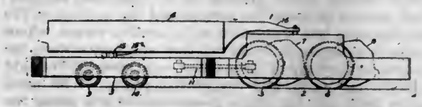
1,256,229. CONDENSER. HENRY A. HILLS, Grand Rapids, Mich. Filed July 28, 1916. Serial No. 111,908. (Cl. 257—225.)

1. A condenser comprising an outer cylinder open at its upper end, a crown plate in the lower end of the cylinder, a conical bottom member secured to the cylinder below the crown plate, a plurality of tubes connected to the crown plate, an apertured head plate secured to the tubes, a conical hood secured to the head plate, and a rectangular apertured distributing plate in said hood having spaces around the edges thereof and the hood.

2. A condenser comprising an outer cylinder, tubes therein, a plate in the bottom of the cylinder through which the tubes open, a member secured to the cylinder below the plate, a plate near the top of the condenser through which the tubes open, a hood secured to the plate, an apertured distributing plate in the hood having a channel between the edge thereof and the hood adapting the fluid to be condensed passing through the distributing plate and diffusing around the edges thereof, and an inlet and outlet pipe opening into the cylinder.



1,256,230. INDUSTRIAL LOCOMOTIVE. GEORGE H. F. HOLT, Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed June 13, 1917. Serial No. 174,440. (Cl. 105—267.)



1. In a storage-battery locomotive, the combination with a main propelling truck having a short wheel base, and a low-height idle auxiliary truck having an articulated connection to the main truck, of a battery section disposed above said auxiliary truck and having an extension therefrom for supporting a portion of the weight thereof on the main propelling truck.

2. In a storage-battery locomotive, the combination with a four-wheel propelling truck having a short wheel base, and a low-height weight-carrying auxiliary truck having an articulated connection to the main truck, of a battery section disposed above said auxiliary truck, and means for supporting a portion of the weight of the battery section upon each of said trucks.

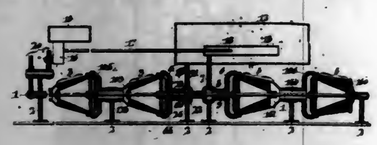
3. In a storage-battery locomotive, the combination with a main truck having two pairs of driving wheels and two propelling motors, and an auxiliary truck of low-height having an articulated connection to said main truck, of a battery section mounted on said auxiliary truck and pivotally connected to the main and to the auxiliary truck.

4. In a storage-battery locomotive, the combination with a main truck having a plurality of propelling motors mounted thereon, and an auxiliary truck of low-height having an articulated connection to said main truck, of a battery section located above said auxiliary truck, and a projection from said battery section extending over said main truck and pivotally connected thereto.

5. In a locomotive, the combination with a truck having a number of propelling motors mounted thereon, and an auxiliary idle truck having an articulated connection to said first truck, of a battery section pivotally supported on said auxiliary truck and having a portion extending over and supported on the propelling truck.

[Claims 6 to 13 not printed in the Gazette.]

1,256,231. METHOD OF IMPARTING, CONVERTING, AND UTILIZING ENERGY IN CONNECTION WITH A COMPRESSIBLE FLUID MEDIUM AND APPARATUS FOR EMPLOYING SAID METHOD. ROBERT H. HOUGH, Philadelphia, Pa. Filed Feb. 12, 1917. Serial No. 148,179. (Cl. 253—69.)



1. The method of converting kinetic energy of the mass velocity of a moving stream of an adiabatically expanding gas, and potential energy thereof into the kinetic energy of a rotatable turbo-member; which consists in permitting the progressive adiabatic expansion of the moving gas in skin frictional contact with the surface of said member; progressively conducting the moving stream in a delimited path of said contact, from a region of rotation of said member having relatively high linear velocity, to a region having lower linear velocity; and progressively increasing the cross sectional area of the stream, in its passage from the former region to the latter one, in substantial correspondence with the said progressive adiabatic expansion and said reduction of velocity.

5. In the process of converting, by a skin frictional turbo-compressor system having a predetermined peripheral rotor velocity, the kinetic energy of a rotating shaft into the potential energy of a gas compressed to a predetermined ratio of the pressure at the point of intake to the pressure at the point of exit; the hereinbefore described method which consists in dividing the skin frictional contact between the stream and the surface of the rotor elements into a plurality of successive stages, whose number is determined by the relation existing between the total potential energy of the medium, compressed to the said predetermined ratio, and the kinetic energy of its mass velocity when moving with a predetermined slip along the rotor surface; and, in the interval between said stages, converting a portion of the kinetic energy of the mass velocity of the gas stream into the potential energy of the further compressed gas by permitting adiabatic compression in a stator element.

7. In a turbine; the combination of a skin friction rotor provided with a delimited passage-way extending between regions of different radial distance from the axis of rotation, the cross-sectional area of said passage-way progressively increasing as it approaches the axis of rotation; with a stator, comprising a passage-way arranged in operative relation to the rotor passage-way at the extremity of smallest area of the latter.

10. In a gas turbine, the combination of a skin friction rotor, provided with a plurality of tapering helical delimited passage-ways, whose cross sectional area progressively increases as they approach the axis of rotation, and whose angular components occupy substantially similar intervals of axial extent; with a stator comprising a plurality of passage-ways arranged in operative relation to the rotor passage-ways at the extremities of smallest area of the latter.

12. The combination of a rotatably mounted shaft, a plurality of turbo-rotors mounted in series thereon, each comprising a number of tapering helical inclosed conduits whose cross-sectional areas progressively increase as they approach the axis; a plurality of stators arranged respectively in operative relation to said rotors; inclosed conduits communicating between each rotor and the stator of the next succeeding one; a pressure chamber; and a conduit communicating between said pressure chamber and the first stator of the series; whereby changes in velocity and pressure of a moving stream of gas may be effected in successive stages, while maintaining the velocity of the moving stream approximately equal to that of the moving surfaces of the rotor elements, with which each portion of said stream is, for the time being, in contact.

[Claims 2 to 4, 6, 8, 9, 11 and 13 not printed in the Gazette.]

1,256,232. ILLUMINATING DEVICE. CHARLES LOWELL HOWARD, Chicago, Ill. Filed June 4, 1917. Serial No. 172,664. (Cl. 240—2.)



1. A hollow pole or support having one or more openings therein, a lens closing each opening, an object capable of presenting waving surfaces under the influence of air currents and attached to the exterior of said pole or support in proximity to said lens or lenses, and illuminating means within said pole or support in the rear of said lens or lenses adapted to project rays of light upon said flexible and wavable object.

7. A hollow flag pole or support having one or more openings, a lens closing each of said openings, a removable cap for said pole, incandescent light bulbs, strung from the under part of said cap, in the rear of said lens or lenses, and a flexible object attached to the exterior of said pole or support in proximity to said lens or lenses, the arrangement being such that surfaces of said flexible object having waving movement influenced by air currents shall receive rays of light from said interior illuminating means.

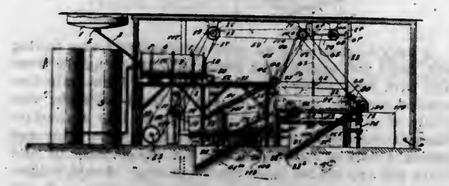
13. In a device of the character described, the combination of a rotatable hollow section forming a continuation of a relatively stationary pole or staff, said hollow section carrying incandescent light bulbs and light projecting devices associated therewith and having within it and secured to its interior a contact ring insulated from said section, a stationary spring contact finger bearing upon the inner wall of said contact ring, a wire extending from said spring contact finger through a side of said pole or staff to a binding post on the exterior thereof, a spring contact finger attached to said pole or staff and bearing on the inner surface of the rotating portion, a wire paralleling said former mentioned wire and leading to a binding post, lead wires from a source of electrical energy connected to said binding post, and wires, which supply the incandescent light bulbs, connected respectively to said insulated contact ring and said rotatable section.

[Claims 2 to 6, 8 to 12, 14, and 15 not printed in the Gazette.]

1,256,233. PROCESS FOR TREATING FULLERS' EARTH AND SIMILAR MATERIALS. CLIFFORD M. HUSTED, Jersey City, N. J., assignor to Standard Oil Company, a Corporation of New Jersey. Filed June 25, 1915. Serial No. 36,189. (Cl. 252.)

1. The method of treating earth which has been used in the treatment of hydrocarbons, which consists in applying acid thereto during agitation of the earth in a chamber, continuously removing the mixture from said chamber and separating the impurities and reaction products from the earth by washing and settling, and further washing the settled and separated earth.

4. The method of treating earth which has been used in the treatment of hydrocarbons, which consists in simultaneously and continuously admitting a body of earth and a supply of acid to a chamber, and agitating the earth by tumbling in said chamber, continuously removing the mixture of earth and acid from said chamber and separating impurities and reaction products from the earth by washing and settling, further washing the settled earth during agitation of the latter and then drying the earth while being agitated.



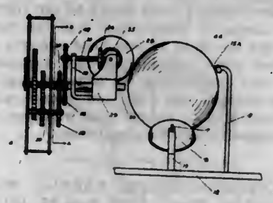
5. The method of treating earth which has been used in the treatment of hydrocarbons, which consists in mixing acid with the earth during agitation of the earth in a chamber, continuously flowing the mixture from said chamber during the mixing operation, subjecting the mixture to settling as it flows from the chamber, and separating the earth from liquids and impurities.

10. The method of treating earth which has been used in the filtration of hydrocarbons which consists in applying acid thereto during agitation, separating the impurities and reaction products from the earth by washing and settling, washing the earth during agitation, drying the earth, separating out any earth contained in the impurities and reaction products, and washing and drying the same.

12. The method of treating earth which has been used in the treatment of hydrocarbons, which consists in mixing acid with the earth during agitation of the earth in a chamber, continuously flowing the mixture from the chamber, washing the mixture, separating liquids and impurities from the earth, and drying the earth.

[Claims 2, 3, 6 to 9, and 11 not printed in the Gazette.]

1,256,234. MECHANISM FOR INTEGRATING POWER-CURRENT VALUES. FRANK R. INNES, Detroit, Mich. Filed Dec. 21, 1916. Serial No. 138,214. (Cl. 171—34.)



1. An integrating mechanism of the character described, having in combination with a pair of rotatable transmitting members provided with means for imparting the respective totals of their movements to a related member, a rotatably supported sphere adapted to frictionally be engaged by said transmitting members at diverse points thereon, one of said members being operatively connected with a cosine volt ampere hour meter and the other with a sine volt ampere hour meter, and a registering member adapted to be actuated by the sphere.

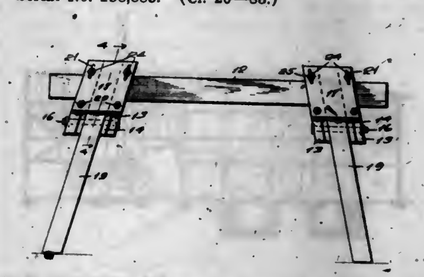
2. An integrating mechanism of the character described, having in combination a pair of rotatable members respectively deriving their actuation from the current passing through a cosine volt ampere hour meter and a sine volt ampere hour meter, a freely rotatable sphere supported by the engagement of said rotatable members against angularly diverse peripheral points thereon and adapted to be plurally actuated thereby, and a terminal member of a registering mechanism in engagement with said sphere whereby the vector sum of the movements imparted to the sphere by said rotatable members is rendered directly readable on the registering mechanism.

3. In a differential mechanism for integrating current values, in combination with a pair of rotatable driving members whose axes are perpendicular to one another, a rotatable transmitting member with which each of said rotatable members is in operative engagement, and means for transmitting the resultant movement of said last named member due to its connection with said rotatable members to a registering mechanism.

4. In a differential mechanism for integrating current values, the combination of a pair of wheel members adapted to be driven by a cosine voltampere hour meter and by a sine voltampere hour meter respectively, a rotatable transmitting member with peripherally diverse points on whose surface said wheel members are in frictional engagement, and means in operative engagement with said transmitting member for registering its rotative movement.

5. An integrating mechanism, having in combination a rotatable sphere, a pair of wheel members in frictional peripheral engagement therewith at points whose radii are substantially perpendicular to one another, one of said wheel members being adapted to be operated by a cosine voltampere hour meter and the other wheel member being adapted to be operated by a sine volt ampere hour meter, and means for registering the rotative movement of said sphere, said means thereby registering an amount proportional to the vector sum of the individual movement of said wheel members.

1,256,235. WORK-SUPPORTING HORSE. WILLIAM F. JACOBS, Ottawa Lake, Mich. Filed Mar. 31, 1917. Serial No. 158,885. (Cl. 20—83.)

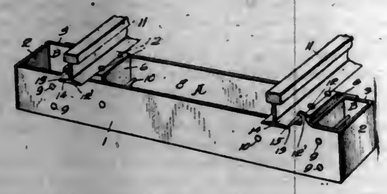


A work supporting horse, comprising a substantially horizontal beam, cross heads comprising blocks having longitudinal openings to receive the ends of the beam, pairs of spaced transverse knuckles rigidly secured to the bottoms of the blocks and projecting laterally beyond the same for substantial distances upon opposite sides thereof and having spaced transverse openings, tapered attaching members arranged upon opposite sides of the blocks and provided near their upper ends with elongated slots and at their lower ends with apertured knuckles to be arranged between the pairs of spaced knuckles of the blocks, bolts adapted to be passed through selected apertures in the transverse knuckles and through the apertures in the knuckles of the attaching members, bolts passing through the upper ends of the blocks and through the elongated slots of the attaching members, legs arranged upon the outer sides of the attaching members, and plates securing the legs to the attaching members and engaging the bolts.

1,256,236. RAILROAD-TIE. MILLARD F. JANNEY and JAMES B. HACKLEY, Purcellville, Va. Filed June 28, 1917. Serial No. 177,574. (Cl. 238—5.)

1. A metallic tie comprising a side, ends, side members, vertical walls disposed between the ends of the side

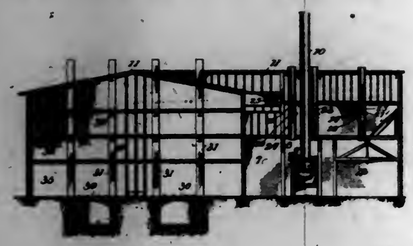
members and the side, bed plates secured to the lower edge of the said side and vertical walls, and a side plate adapted to detachably engage the said side members.



2. A metallic tie comprising a side having disposed upon the upper edge thereof a plurality of guards, end members formed integral with the said side, side members formed integral with the said end members, a side plate adapted to detachably engage the said side members, and a plurality of lugs formed integral with the said side and side plate.

3. A metallic tie comprising a side, ends, side members, vertical walls disposed between the ends of the side members and the said side, bed plates secured to the lower edges of the said side and vertical walls, and a side plate adapted to detachably engage the said side members, in combination with blocks disposed between the said side and side plate upon the said bed plates to form resilient bearings for the rails.

1,256,237. WARE DRIER AND FACTORY. ABRAHAM B. KLAY, Modesto, Cal. Filed June 10, 1916. Serial No. 103,004. (Cl. 25—2.)

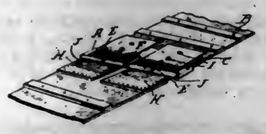


1. In a factory of the class specified, a plurality of superposed drying compartments, a kiln disposed at the base of the compartments for heating the latter, and closed stacks extending from the kiln fully upwardly through the drying compartments and providing heat radiating means common to all of the compartments and also means for structurally supporting the components of the compartments.

4. In a factory and drier of the class specified, a base kiln having a continuous burning chamber centrally divided by a partition means and around the ends of which the chamber continues, the partition means being transversely divided at intervals by closed walls to form spaces which have opposite communications with the chamber, plastic material pressing and shaping compartments and superposed drying compartments for plastic ware over the kiln and whereby the heat from the latter will be utilized in the several compartments for drying the ware, and elevators mounted to move downwardly into the said spaces of the burning chamber and also upwardly and downwardly through the several drying compartment floors for conveying the dried ware from the drying compartments downwardly into the burning chamber of the kiln and from the latter chamber upwardly for delivery in burnt condition from the factory.

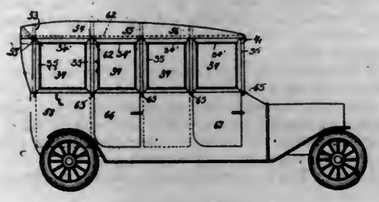
[Claims 2 and 3 not printed in the Gazette.]

1,256,238. BUCKLE. AUGUST W. KUMLIN, Wheatland township, Vernon county, Wis. Filed May 23, 1918. Serial No. 769,515. (Cl. 24—265.)



A buckle comprising an open rectangular frame having end, front and back bars, a brace rod connecting the front and back bars thereof and dividing said frame into two similar sections, tongues pivoted on said back bar centrally of said sections, and a plate bent into a substantially U shape with its bight embracing said back bar and provided with a central opening for the passage of said brace rod and spaced holes for the passage of said tongue, the side edges of said plate engaging the end bars of said frame, the arms of said plate being adapted to be secured upon opposite sides of one end of an apron and said frame sections being adapted to receive separate flaps on the other end of the apron.

1,256,239. VEHICLE. LADIS LEWKOWICZ, New York, N. Y., assignor to Convertible Automobile Body Corporation, New York, N. Y., a Corporation of New York. Filed Jan. 14, 1913. Serial No. 741,935. (Cl. 21—62.)



A convertible vehicle comprising a body portion and a collapsible hood portion adapted to form a complete closure for the same, rigid inverted U-shaped supports for said hood adapted to rigidly interlock within said body portion at their bases, a wind shield at the front of said vehicle, and means in combination with the top of said wind shield and the front of said hood whereby the same are interlocked when brought together forming an air tight union, and channels in the sides of said supports within which windows may slide, and recesses within said body portion adapted to receive said windows, said windos having collapsible interlocking frames.

1,256,240. COLLOID-TREATED FABRIC. STANLEY P. LOVELL, Brockton, Mass. Filed June 27, 1917. Serial No. 177,387. (Cl. 91—68.)

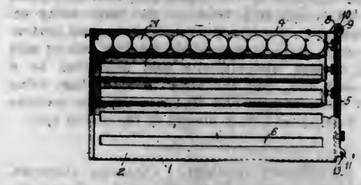
1. As a new article of manufacture, a fabric whose interstices are filled with powdered colloidal material, insoluble in water, and precipitated therein.

2. The method above described which consists in impregnating a sheet of fibrous fabric with colloidal material, insoluble in water, in diffusion or solution and passing the fabric immediately to a water bath; immersing the fabric therein until the water displaces the solvent, precipitating the colloidal material in the fibrous fabric.

1,256,241. COIN-CARRIER. FRANCIS A. MCGINNIS, Detroit, Mich. Filed Oct. 25, 1916. Serial No. 127,519. (Cl. 133—11.)

A coin carrier comprising a receptacle having side walls thereof cut and stamped to provide openings and

the material from said openings bent in to form brackets, and superposed coin supporting trays slidable on the



brackets of said receptacle and adapted to have the coins supported thereby exposed at the openings of the side walls of said receptacle.

1,256,242. OILING SYSTEM FOR ENGINES. HOWARD MARMON, Indianapolis, Ind. Filed July 13, 1914. Serial No. 850,819. (Cl. 184—6.)



2. The combination of a valve having a reciprocable stem, a reciprocable valve-operating member coöperating with said stem for operating it, means for reciprocating said valve-operating member, one of said reciprocating parts having within it a passageway communicating with the space between the meeting ends of said member and stem, and a pump for supplying fluid to said passageway.

[Claims 1 and 3 not printed in the Gazette.]

1,256,243. BURNER. HENRY C. MAUL, Detroit, Mich., assignor to The Michigan Stove Company, Detroit, Mich., a Corporation of Michigan. Filed July 28, 1917. Serial No. 183,220. (Cl. 158—116.)



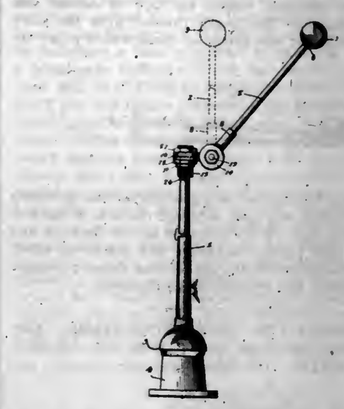
1. A burner having a gas inlet pipe and a chamber at the outer end thereof, said chamber having the walls thereof crenelated and provided with openings, some of which are of greater diameter than others, and all of the openings having the axes thereof radiating from a common point in said chamber.

5. A burner comprising communicating chambers provided with gas outlet openings, said openings being disposed at such angles and of such size as to provide flames, the tips thereof being in a common plane.

[Claims 2 to 4, 6, and 7 not printed in the Gazette.]

1,256,244. GEAR-SHIFTING LEVER. GUSTAF A. E. MELLIN, Los Angeles, Cal. Filed Sept. 6, 1917. Serial No. 189,918. (Cl. 74—39.)

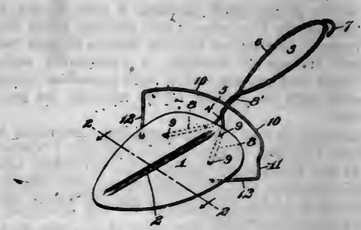
1. A gear shifting lever comprising a main arm, an extension, and means to adjustably hold the extension at different angles relative to the main arm, said means including an adjustable collar rotatively mounted on the main arm.



6. A gear shifting lever comprising a main arm, a sleeve having a shoulder and having an angular portion and connected with the main arm, a collar having a portion of its bore angular to fit the angular portion of the sleeve, means to hold the collar against the shoulder, an extension, and means adjustably connecting the extension to the collar.

[Claims 2 to 5, 7, and 8 not printed in the Gazette.]

1,256,245. LIFTER AND TURNER. WILLIAM L. MILLIORN, El Paso, Tex. Filed June 30, 1917. Serial No. 177,900. (Cl. 65—32.)



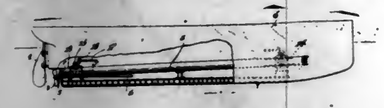
2. A lifter and turner comprising a lifting and turning plate and a handle formed of a pair of looped and twisted strands of wire, said strands being constructed to provide a looped handle proper, and a shank at the forward end of the handle proper, and one of the wires having end portions secured to the plate on diverging lines adjacent to its longitudinal center, and the other wire having its end portions formed to provide laterally extending bracing arms disposed above and projecting along the rear portion of the plate, said arms having depending portions forming stop shoulders and terminal portions projecting inwardly on converging lines and secured to the plate at points in advance and outwardly beyond the attaching ends of the first named wire.

[Claim 1 not printed in the Gazette.]

1,256,246. BOAT. HERMAN J. NAGEL, Alliance, Ohio. Filed June 6, 1917. Serial No. 173,177. (Cl. 115—39.)

1. A boat comprising a hull having a tubular chamber built therein to rise in a gradual incline from the stern to the bow end and having the ends thereof opening below the water line of the hull, and means to be set to close the ends of the chamber.

4. A boat including a hull having propulsion means of the screw type arranged to propel the boat by acting upon the water of flotation, a substantially tubular and open ended chamber mounted within the hull to extend substantially throughout the length thereof with the stern end opening adjacent the propeller from which point the



tubular chamber is extended in a gradual incline upwardly to have the forward end open adjacent the bow of the hull below the water line, valves mounted in the forward and stern ends of said tubular chamber, and means by which said valves are adjusted to the opened and closed positions.

[Claims 2 and 3 not printed in the Gazette.]

1,256,247. MEANS FOR DEVELOPING FILMS. REUBEN NEWMAN, New York, N. Y. Filed Oct. 12, 1916. Serial No. 125,131. (Cl. 95—90.)

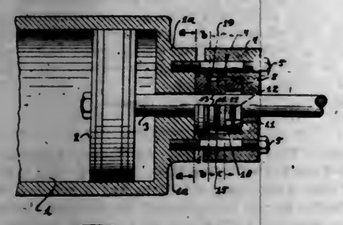


1. In a device of the class specified, a tank having a passage to receive the film tongues and through which the films are drawn, a plurality of skeleton frames to hold the exposed films in spaced relation; a corrugated slide adapted to close said passage and a light excluding spout communicating with the interior of the tank for the purpose described.

2. A developing tank of the class specified comprising a casing having a hinged closure at one end and a watertight cap at the other, a corrugated slide carried at one side, a light excluding spout communicating with the interior of the tank and a plurality of spacers within the tank for the purpose specified.

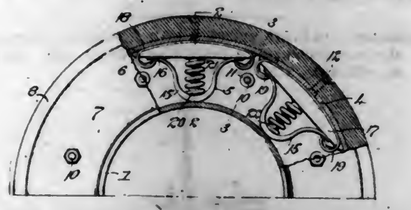
3. In a device of the class specified, a tank having a film passage at one side, a plurality of spacers in said tank, and a corrugated slide mounted to close said passage for the purpose described.

1,256,248. METALLIC PACKING. PATRICK O'MEARA, Santa Rita, N. Mex. Filed Feb. 19, 1915. Serial No. 9,467. (Cl. 137—116.)



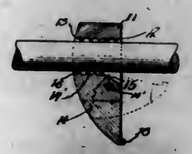
In a metallic packing for piston rods, a gland, an annular flanged disk interposed between the cylinder head and gland, said disk loosely fitting the piston rod and forming a closure for the open end of the gland, metallic packing rings inclosed by the gland and having tapered peripheries, the contacting faces of the rings being coequal in diameter to present a continuous tapered periphery of both rings converging toward said disk, one of said rings being divided diametrically and separated by a space from said disk, and the other of said rings being divided both diametrically and transversely into sections and springs holding said rings snugly to the piston rod.

1,256,249. RESILIENT WHEEL. CHARLES OAKFORD, Plant City, Fla. Filed Sept. 12, 1916. Serial No. 119,706. (Cl. 152—8.)



In a resilient wheel, the combination with an inner rim and an outer rim, spring elements carried by said inner rim and supporting the outer rim, said spring elements each consisting of a bowed spring secured to the inner rim, a block having one side conformed to the inner face of the outer rim, a metal covering for the block having its ends inturned to provide clips in which the ends of the bowed spring are slidably received and a coil spring interposed between the block and the bowed spring.

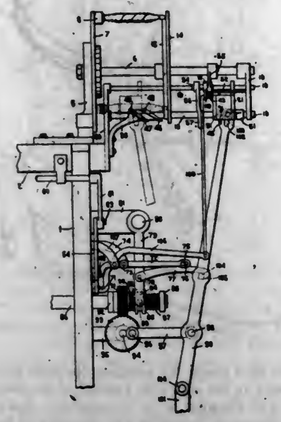
1,256,250. THREADLESS NUT. VIGGO ORMSTRUP, Glens Falls, N. Y. Filed Aug. 5, 1916. Serial No. 113,297. (Cl. 85—5.)



A nut of substantially U-shaped formation adapted to embrace a bolt, and having spurs formed upon the bolt engaging surface thereof, a pawl pivotally mounted within the terminals of the nut for oscillation in a plane parallel to the axis of the bolt for engaging the bolt, the bolt engaging surface of the pawl being curved to conform to the surface of a bolt and having a plurality of spurs, said pawl having one edge disposed adjacent the work engaging face of the nut, for engaging with the work to move the pawl whereby to enage the spurs thereof with the bolt, and spurs formed on said edge of the pawl for engaging the work to prevent rotative movement of the nut relative to the work.

1,256,251. FILLING-END FINDER. DANA OSGOOD and ALONZO E. RHOADES, Hopedale, Mass., assignors, by mesne assignments, to Draper Corporation, Hopedale, Mass., a Corporation of Maine. Filed Nov. 4, 1916. Serial No. 129,411. (Cl. 139—85.)

1. In a machine for finding and pulling off the free end of a mass of yarn wound upon a yarn carrier, a rotary hopper provided with a circular series of relatively yieldable jaws for gripping the bases of yarn carriers and holding them against rotation, a member having an end finding and gripping instrumentality, means for reciprocatin said member longitudinally across the surface of the yarn mass, and means for rotating said member relatively to said yarn carrier to cause the end finding member to pick up the free end of the yarn.



5. In combination with an automatic filling replenishing loom having a hopper adapted to receive a series of filling carriers and to place the same successively in transferring position, means automatically operable to find and grip the end of the filling on a filling carrier about to be transferred comprising a rotatable spring actuated drum having a plurality of radially disposed yieldable end finders, means for reciprocating said drum longitudinally over said filling carrier, means for rotating said drum against the action of said spring during its longitudinal reciprocation in one direction, means for releasing said drum at the end of said longitudinal movement whereby the spring will rotate said drum in the opposite direction to cause an end finder to engage and grip the free end of the filling and upon reciprocation of said drum in the opposite direction to unwind the same from the filling carrier.

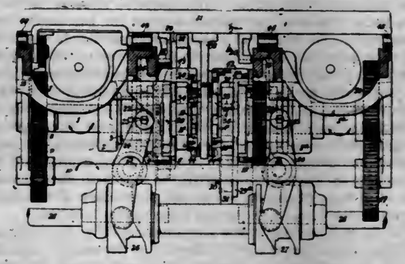
9. In combination with an automatic filling replenishing loom having a rotary hopper adapted to receive a series of filling carriers, means for rotating said hopper intermittently to place said carriers successively in transferring position, means located in advance of transferring position automatically operable in synchronism with said transferring mechanism to find, grip and unwind the free end of the filling on a filling carrier approaching transferring position, means for releasing the filling end from said finding and gripping means and means for holding the end thus released during and after transfer of said filling carrier.

15. In combination with an automatic filling replenishing loom having a hopper adapted to receive a series of filling carriers and to place the same successively in transferring position, transferring mechanism and means for controlling said transferring mechanism; filling end finding means, means operable from the cam shaft of the loom for reciprocating the same longitudinally across the surface of the filling upon a filling carrier awaiting transfer including a lever connected to said end finding means, a gear having a clutch member rotatably mounted upon said cam shaft, a coöperating clutch member slidably keyed upon said cam shaft, means intermediate of said gear and said lever for causing oscillatory movement of said lever from the rotative movement of said gear and means operable by the transfer controlling means for controlling the movement of said sliding clutch member.

18. In combination with an automatic filling replenishing loom having a hopper adapted to receive a series of filling carriers and to place the same successively in transferring position, transferring mechanism and means for controlling said transferring mechanism; filling end finding means, means operable from the cam shaft of the loom for reciprocating the same longitudinally across the surface of the filling upon the filling carrier awaiting transfer including a lever connected to said end finding means, a spiral gear having a clutch member rotatably mounted upon said cam shaft, a companion spiral gear having a crank pin and means connecting the same to said lever, a clutch member slidably keyed upon said cam shaft, resilient means normally tending to force said slidable clutch member into engagement with the clutch member of said spiral gear, a shipper for said clutch, a latch connected to said shipper adapted to engage a stud on said lever and means operable by said transfer controlling means for releasing said latch from engagement with said stud to permit engagement of the clutch members and thereby to move said lever in one direction, said latch operating means also positioning the latch in the path of said stud whereby upon movement of said lever in the opposite direction said clutch members will be released from engagement.

[Claims 2 to 4, 6 to 8, 10 to 14, 16, 17, and 19 to 37 not printed in the Gazette.]

1,256,252. BED-RECIPROCATING MECHANISM. HERBERT PEARCE and FRED SPENCE, Broadheath, England, assignors to Linotype and Machinery Limited, London, England. Filed May 6, 1916. Serial No. 95,767. (Cl. 74—98.)

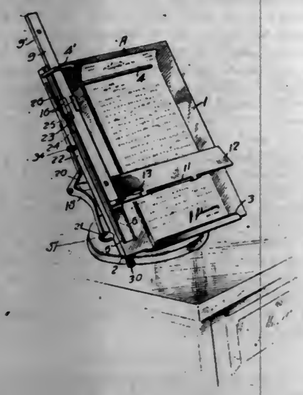


In bed reciprocating mechanism, the combination with a reciprocating bed and means adapted to rectilinearly reciprocate it at uniform velocity, of two rectilinearly guided slides, two cranks rotating in relatively opposite directions and so disposed angularly with reference to each other that they both reach the dead center on the same side of the respective axis of rotation at the same instant, two connecting rods respectively connecting the said slides and cranks whereby the slides are reciprocated at velocities varying downwardly to and upwardly from zero, a hook fast to each slide, a stud rigid with the bed and adapted, near respectively opposite ends of the bed's travel, to engage with and disengage from the hooks in alternation, a latch pivotally connected to the bed and accompanying it throughout its travel, and means adapted to automatically effect the engagement of the latch with and its disengagement from the said hooks in alternation, the respective engagements and disengagements being effected at instants at which the velocity of the respective slide is equal or approximately equal to that of the bed and within a period which is less than one half of that occupied by one rotation of the respective crank.

1,256,253. COPY-HOLDER. EUGENE L. PERRY, Warren, Pa. Filed Jan. 15, 1917. Serial No. 142,436. (Cl. 120—34.)

1. In a copy-holder, a copy-support, a longitudinal-channel slide movable on said support, and a clutch engageable with said slide to move the same step by step, and having

a longitudinal slot receiving one of the side flanges of said slide, and a transverse slot into which the body portion of said slide projects.



4. In a copy-holder, the combination of a copy support, a longitudinal guide carried thereby at one side of the copy-receiving surface, an elongated slide mounted on the guide and movable thereon beyond the end of the copy support, a line indicator extending transversely from the slide, a tiltable clutch located at one region and formed with an opening whereby it is adapted to embrace the slide at any point along its length and to cramp thereon when tilted, a key and operating connections connected to the clutch in such manner as to tilt and pull it downward toward the lower end of the copy-holder, means for regulating the extent of such movement of translation of the clutch, a spring connected with the clutch in such manner as to retract it freely along the stationary slide, and a friction device for holding the slide against shifting.

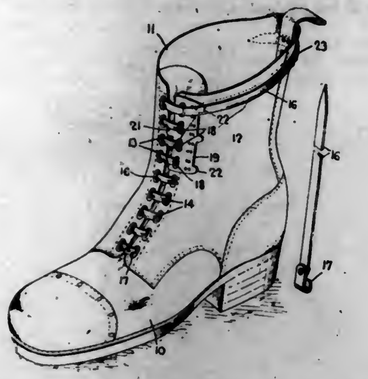
8. In a copy-holder, the combination of a copy support, a longitudinal guide carried thereby at one side of the copy-receiving surface, an elongated slide mounted on the guide and movable thereon beyond the upper end of the copy support, a line indicator extending transversely from the slide substantially at its lower end, a tiltable clutch located at one region and adapted to cramp upon the slide when tilted, means for tilting the clutch and moving it downward toward the lower end of the copy-holder, a spring connected with the clutch in such manner as to retract it freely along the stationary slide, and a friction device for holding the slide against shifting.

[Claims 2, 3, 5 to 7, and 9 to 11 not printed in the Gazette.]

1,256,254. SHOE-FASTENER. ARCHIE PETERSON, Los Angeles, Cal. Filed May 9, 1917. Serial No. 167,484. (Cl. 24—140.)

2. The combination with a shoe, and a plurality of eyelets arranged at opposite sides of the front opening therein, the uppermost eyelet at one side of the upper of the shoe being offset with respect to the intermediate eyelets upon the said side of the upper, of a fastener for the shoe including a lace looped back and forth between the sides of the upper through the said eyelets, a lacing flap provided with an eyelet having the uppermost loop of the lace passed therethrough, means carried by the flap and engageable in the offset uppermost eyelet of the said side of the upper for securing the uppermost loop of the lace to the said side of the upper with the eyelet of the flap arranged in alinement with the intermediate eyelets upon the said side of the upper, and means for securing the free end of the lace.

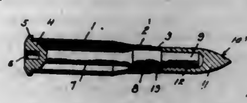
3. A fastener for shoes including a lace looped back and forth between the sides of the upper of the shoe, a lacing flap connected to the uppermost loop of the lace, means carried by said flap and arranged for engagement with one



side of the shoe upper for securing the said loop of the lace to the upper at the said side thereof, a tab projecting from said flap and adapted to be grasped for manipulating the flap, and means for securing the free end of the lace.

[Claim 1 not printed in the Gazette.]

1,256,255. TESTING-CARTRIDGE. HORATIO A. PORTER, South Hadley Falls, Mass. Filed Feb. 16, 1917. Serial No. 149,022. (Cl. 102—12.)



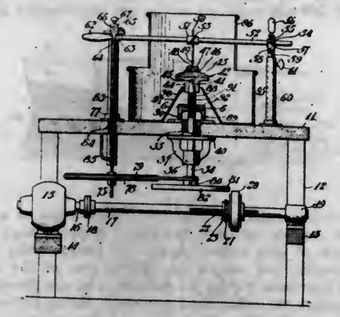
1. A dummy cartridge comprising a shell, a bullet adapted to be carried by one end of the shell, a plug fitted in the opposite end of the shell, and means carried by the plug and extending longitudinally of the shell to reinforce the bullet and prevent the same from being forced into the shell.

3. In a dummy cartridge for testing purposes, a hollow cylindrical shell, a reduced portion at one end of said shell, a collar formed on the reduced portion, a bullet having a longitudinal bore extending into the butt end thereof, a flange formed on the butt end of said bullet and adapted to fit over the flange on the shell, a plug in the enlarged end of the shell, a flange on the plug adapted to engage the butt end of the shell to limit the inward movement of the plug with relation to the shell, said flange extending beyond the periphery of the shell, a steel stem extending inwardly from the plug into the shell, a head at the inner end of the plug and fitting within a collar of the shell and a stud formed on the head of the bullet said head and flanges being adapted to be brazed together to secure the elements against relative movement.

[Claims 2 and 4 not printed in the Gazette.]

1,256,256. LENS-GRINDING MACHINE. GEORGE E. PRYOR, Los Angeles, Cal. Filed Mar. 6, 1917. Serial No. 152,884. (Cl. 51—3.)

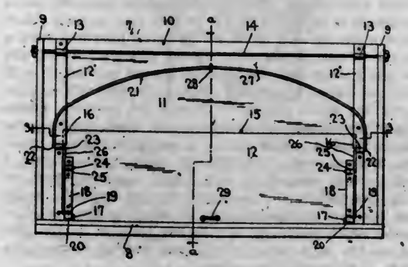
1. A lens grinding machine comprising a table, a shaft slidably and rotatably mounted in said table, a grinding member on said shaft, a collar on said shaft adapted to support said shaft on the table, means on said table adapted to elastically hold a lens against the grinding member, a friction disk on said shaft, a driving shaft, and a clutch member on said driving shaft adapted to engage said friction disk to drive said first named shaft and lift the collar thereon above the table.



2. A lens grinding machine comprising a table, a shaft vertically slidable and rotatably mounted in said table, a grinding disk on the upper end of said shaft, a collar on said shaft adapted to engage said table and limit the downward movement of said shaft, means on said table adapted to elastically hold a lens against the face of said grinding disk, a friction disk on the lower end of said shaft, a driving shaft, a conical clutch member on said driving shaft, means for moving said clutch member into engagement with the under face of said friction disk to raise said first named shaft and drive the same, and means for changing the position of said lens on the grinding member during the grinding operation.

3. A lens grinding machine comprising a table, a shaft vertically slidable and rotatably mounted in said table, a grinding disk on the upper end of said shaft, means on said table for elastically holding a lens against the grinding face of said grinding disk, a friction disk on the lower end of said shaft, a driving shaft, a clutch member on said driving shaft adapted to engage the under face of said friction disk to raise said first named shaft and drive the same, and means adjustably secured to said first named shaft adapted to engage a stationary member and support said first named shaft when said clutch member is disengaged with said friction disk.

1,256,257. END-GATE. CHARLES B. REYNOLDS, Panora, Iowa. Filed Jan. 3, 1917. Serial No. 140,423. (Cl. 21—21.)



In an end gate, a pair of plates, one plate being cut away and the other plate fitted in the said cut away portion, straps secured to the adjacent ends of the plates, an interlocking engagement between said straps, a bail having cranks thereon secured to the straps of the opposite plates whereby when said bail is swung downwardly one plate will be rocked away from the cut away portion of the other plate, and a securing rod passing through the straps of one of the plates.

1,256,258. POLARITY-INDICATOR. EMIL R. RICHTER, Chicago, Ill., assignor to Harvard Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 23, 1917. Serial No. 144,093. (Cl. 171—95.)



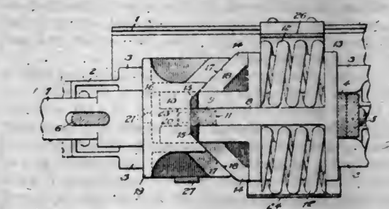
1. A polarity indicator comprising, a base plate, a dial plate having an elongated visual orifice, connecting legs imposing spaced relation of said plates, an indicating prism revolubly mounted on said legs beneath the aforesaid orifice and provided with a plurality of flat legend carrying facets, a transverse magnetic bar mounted centrally on said prism, and a coil mounted on the base plate and encircling said prism and magnetic bar, substantially as set forth.

2. A polarity indicator comprising, a base plate, a dial plate having an elongated visual orifice arranged horizontally, connecting legs formed by metal strips displaced in forming said visual orifice, an indicating prism revolubly mounted on said legs beneath the aforesaid orifice and provided with a plurality of flat legend carrying facets, a transverse magnetic bar mounted centrally on said prism, and a coil mounted on the base plates and encircling said prisms and magnetic bar, substantially as set forth.

5. A polarity indicator comprising a base plate, a dial plate having an elongated visual orifice, connecting legs imposing spaced relation on said plates, an indicating prism revolubly mounted on said legs beneath the aforesaid orifice and provided with a plurality of flat legend carrying facets, a transverse magnetic bar mounted centrally on said prism, a coil mounted on the base plate and encircling said prism and magnetic bar, a semi-circular magnetic bar, and brackets securing said magnetic bar to the underside of the dial plate and having inward extensions forming inwardly projecting pole pieces having adjacent relation to the polar ends of the magnetic bar of the indicating prism, substantially as set forth.

[Claims 3 and 4 not printed in the Gazette.]

1,256,259. DRAFT APPLIANCE FOR RAILWAY-VEHICLES. GILBERT P. RITTER, Washington, D. C. Filed Jan. 25, 1916. Serial No. 74,149. (Cl. 213—64.)



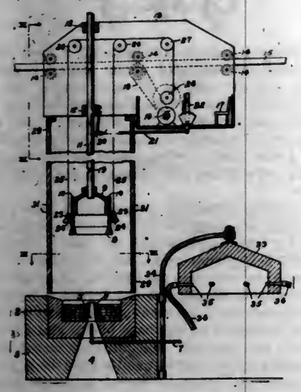
1. In a friction draft gear, the combination with an inner friction member, of friction members external thereto and contacting therewith and movable with respect thereto, and means for causing said external friction members to press inwardly against said inner friction member, said means involving a plurality of springs arranged one above another, and said inner friction member extending between and serving to limit the compression of said springs.

[Claims 2 to 7 not printed in the Gazette.]

1,256,260. APPARATUS FOR DRAWING GLASS CYLINDERS. CLYDE S. ROSS, Washington, Pa., assignor of one-half to Charles J. Kunzler, Pittsburgh, Pa. Filed Jan. 16, 1917. Serial No. 142,622. (Cl. 49—17.1.)

1. In combination, a movable carriage provided with a vertically adjustable guide rod having a bait engaging

head, a bait engaging said head, flexible means depending from the carriage for detachably engaging the bait, means mounted on the carriage for raising and lowering said means, and means for engaging and holding said guide rod in its raised position, said bait being adapted to be disengaged from said head, and adapted to be raised or lowered independent of said rod or head while so disengaged.



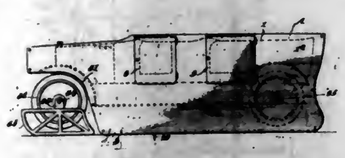
2. In combination with a vertically adjustable guide member having a flanged bait engaging head and means for temporarily arresting said guide member and said head, a bait adapted to telescopically engage said head, and raising and lowering mechanism having hooks detachably engaging the bait, said mechanism being adapted to normally move said guide member, said head and said bait and adapted to move said bait alone when said head is arrested.

3. In combination with a vertically adjustable rigid guide rod having a flanged bait engaging head and means for temporarily locking said parts in their raised position, a bait adapted to slidably telescope said head and abut said flange, means for normally raising and lowering all of said parts, said means having hooks detachably engaging said bait, and said bait and said means being adapted to operate separately from said guide rod and head to lower or raise said bait.

4. In combination, a movable carriage provided with a vertically adjustable guide rod adapted to detachably engage a bait, a source of power mounted in said carriage, means for raising and lowering said rod and said bait, said means being operatively connected with said source of power, and a protecting shield fixedly secured to and depending from said carriage and surrounding said guide rod and bait, each of the sides of said shield being provided with a series of adjustable slats, each of said series being adapted to be simultaneously moved by means of a connecting operating rod.

5. In combination, a movable carriage provided with an adjustable guide rod adapted to detachably engage a bait, a source of power mounted on said carriage, means for adjusting said rod and said bait, said means being operatively connected with said source of power, and a rectangular protecting shield fixedly secured to and depending from said carriage and surrounding said guide rod and said bait, each of the sides of said shield being provided with a series of adjustable slats pivoted at opposite terminal corner portions, all of said slats in each series being simultaneously movable by means of a connecting operating rod, and one of said sides of said shield being hingedly mounted to provide for the removal of the formed article.

1,256,261. AUTOMOBILE SLEIGH. CHESTER A. ROBERTS, Allegan, Mich. Filed Dec. 28, 1916, Serial No. 139,327. Renewed Dec. 4, 1917. Serial No. 205,434. (Cl. 180—5.)



1. In automobile sleighs, the combination of a casing, blocks slidably mounted therein, a gripping head carried by each of said blocks, means for reciprocating each of said blocks, and means for holding one of the gripping heads depressed during its movement in one direction and for holding the other head depressed during its movement in the opposite direction.

2. In automobile sleighs, the combination of a casing provided with a pair of spaced runners, a pair of oppositely movable blocks slidably mounted on the upper face of said runners, means for reciprocating said blocks, gripping heads carried by the blocks and operable between the said runners, and means for holding one of said heads depressed during its movement in one direction and for holding the other head depressed during its movement in the opposite direction.

3. In automobile sleighs, the combination of a casing provided with a pair of spaced runners, a pair of oppositely movable blocks slidably mounted on the upper face of said runners, means for reciprocating said blocks, gripping heads carried by the blocks and operable between the said runners, and means for holding one of said heads depressed during its movement in one direction and for holding the other head depressed during its movement in the opposite direction, said means being adjustable so as to reverse the directions of movement during which the said heads are held depressed.

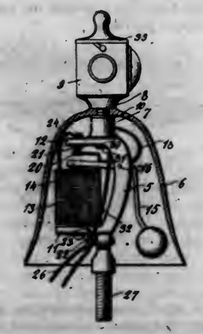
4. In automobile sleighs, the combination of a casing provided with two spaced runners, a pair of oppositely movable blocks slidably mounted on said runners, means for reciprocating said blocks, a gripping head carried by each block and provided with a downwardly extending gripping point, means for raising said head, and means for depressing said head and maintaining it depressed during its travel in one direction and for permitting said head to be raised and holding it in raised position during its travel in the other direction.

9. In automobile sleighs, the combination of a casing provided with spaced runners, guide strips mounted above the runners in spaced relation thereto and to each other, the lower one of said guide strips being provided with a plurality of spaced openings, blocks slidable between the lower guide strip and the runners, a head carried by each of said blocks and provided with a downwardly extending gripping point operable between the runners, means for exerting upward pressure on said head, toggle arms pivotally secured to said blocks, a rotatable shaft, a crank keyed thereon and connected to said toggle arms, a sprocket wheel secured on said shaft, a second shaft rotatably mounted in the casing in rear of first said shaft, means for connecting said second shaft to the wheel of an automobile so as to be rotated thereby, a sprocket keyed on the said second shaft, and driving connections between the two said sprockets.

[Claims 5 to 8 and 10 not printed in the Gazette.]

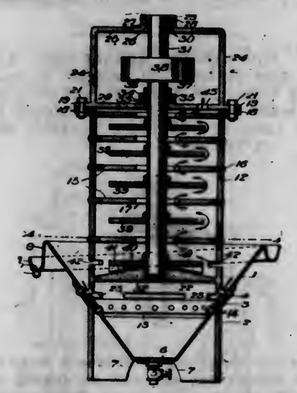
1,256,262. ELECTRIC SIGNAL DEVICE. JOHN ROBBA, Chicago, Ill., assignor to Jacob W. Larkin and Alexander O'Hare. Filed Nov. 6, 1914. Serial No. 870,622. (Cl. 177—7.)

A signal apparatus comprising a bell, a standard, a tubular threaded stem carried by the standard and projecting from the top thereof, the bell being mounted on the projecting end of the stem, a lamp casing having a threaded opening in its base into which the projecting end of the stem, above the bell, is screwed, the bell being clamped between the top of the standard and the base of



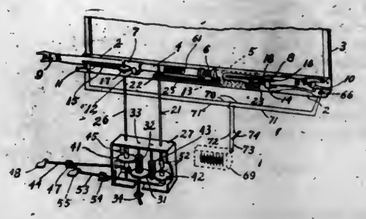
the lamp casing, an electric lamp in the casing, said casing having an integral socket in line with the stem to receive the lamp base, a conductor for the lamp circuit passing through the stem into the socket and projecting from the lower end of the stem, and a contact plate on which the projecting lower end of the conductor bears.

1,256,263. ORE-SEPARATING APPARATUS. RAY P. SAFFOLD, Douglas, Ariz. Filed July 12, 1915. Serial No. 39,527. (Cl. 83—85.)



An apparatus for separating minerals from their ores comprising a hopper, a casing disposed within and centrally of said hopper, said casing being provided with discharge openings arranged slightly above the plane of its bottom wall, spaced baffle-plates within said casing and provided with centrally aimed openings, a cover-plate for the casing, bearings carried by the cover-plate, a shaft depending from said bearings, agitator-disks carried by said shaft and operating between said baffle-plates, deflecting ribs formed on the under face of the lowermost of said agitator-disks, a feed-hopper carried by said cover and opening into said casing, a supporting flange connecting said casing and the inner wall of said hopper and provided with inlet openings communicating the lower portion of the hopper and disposed below the bottom wall of the casing, a valved-outlet arranged at the bottom of said hopper, and a launder surrounding the upper edge of the hopper and inclined with respect thereto.

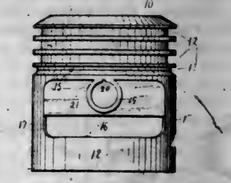
1,256,264. VEHICLE-SIGNAL. NATSUO SATO, Los Angeles, Cal. Filed Aug. 27, 1914. Serial No. 858,948. (Cl. 116—31.)



2. In a signaling device for motor vehicles, slidably mounted means provided with a signal, motor driven means for moving said slidably mounted means so as to bring said signal into signaling position, controlling means for putting said motor driven means into and out of operative connection with said slidably mounted means, and spring means for returning said signal to non-signaling position when said motor driven means is put out of operative connection with said slidably mounted means.

[Claims 1, 3, and 4 not printed in the Gazette.]

1,256,265. PISTON. VICTOR E. SCHMIEDEKNECHT, Louisville, Ky. Filed July 14, 1917. Serial No. 180,511. (Cl. 74—85.)



2. A piston comprising a head section, and a depending cylindrical apron, said head section being provided with a plurality of grooves for the reception of rings, and an oil groove having perforations leading from its floor to the interior of the piston, said apron having an opening below said oil groove, a bearing the outer end of which is suspended from the head section at upper edge of said opening, and a transverse bar attached respectively to the inner end of said bearing and to the apron.

[Claims 1 and 3 not printed in the Gazette.]

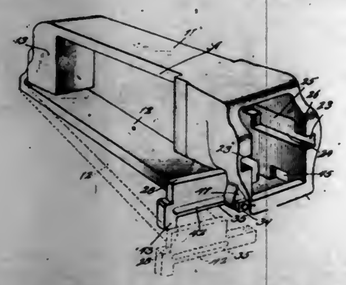
1,256,266. YOKE FOR DRAFT-GEARS. WILLIAM S. SCHROEDER, Austin, Ill., assignor to Charles A. Schroyer, Oak Park, Ill. Filed July 14, 1915. Serial No. 39,734. (Cl. 213—42.)

1. A yoke for a draft-gear provided with a pair of shoulders for engagement behind the butt of a draw-bar, one of said shoulders being shiftable across the draw-bar in parallelism with the other to permit insertion and removal of said draw-bar, and means for limiting the shifting movement of said shoulder.

2. A yoke for a draft-gear comprising a pair of connected limbs having a plurality of relative movements while connected, one of said movements permitting removal of the draw-bar while the yoke is in position in the draft-gear, and a subsequent relative movement permitting removal of the follower plates and attendant parts while said yoke is in position in the draft-gear.

3. A yoke for a draft-gear comprising a pair of connected limbs, one of said limbs being movable with respect to the other in both horizontal and vertical planes, movement in one plane serving to permit removal of a connected draw-bar and subsequent movement in the other

plane permitting removal of the follower plates and attendant parts.

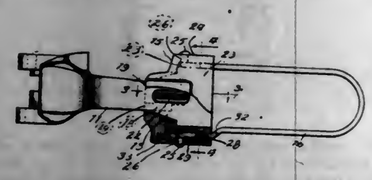


4. A yoke for a draft-gear comprising a pair of connected limbs, one of said limbs being movable relatively with respect to the other successively while connected in a plurality of directions, movement in one direction permitting release of a connected draw-bar and movement in the subsequent direction permitting removal of the follower plates and attendant parts.

5. A yoke for a draft-gear comprising a pair of limbs pivotally connected to swing relatively in a plurality of planes.

[Claims 6 to 18 not printed in the Gazette.]

1,256,267. YOKE FOR DRAFT-GEARS. WILLIAM S. SCHROEDER, Chicago, Ill., assignor to Charles A. Schroyer, Oak Park, Ill. Filed Aug. 21, 1916. Serial No. 115,950. (Cl. 213—42.)



1. A yoke for a draft gear comprising a head having a slot in one of its horizontal walls, and having a stud projecting downwardly behind said slot, and a metal strap forming the limbs and rear or tail of said yoke, and having an end bent to enter said slot, and having also an aperture adapted to receive said stud.

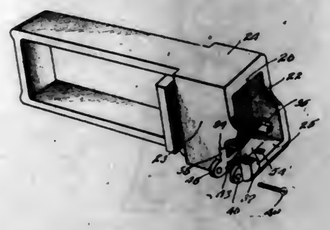
3. A yoke for a draft gear comprising a head having slots in its upper and lower walls, a metal strap having its ends bent to enter said slots from within said head, the lower limb being bent downwardly at the head, and a member slidable across the bent down portion of said limb to hold the butt of a draw bar elevated thereabove and in close proximity with the forward end of the upper limb.

[Claims 2 and 4 not printed in the Gazette.]

1,256,268. YOKE FOR DRAFT-GEARS. WILLIAM S. SCHROEDER, Chicago, Ill., assignor to Charles A. Schroyer, Oak Park, Ill. Filed July 2, 1917. Serial No. 178,035. (Cl. 213—42.)

1. A yoke for a draft gear, comprising in combination a body having a rectangular head at its forward end in which the butt of a draw-bar may be inserted from the front and provided with a shoulder at its top behind which the butt of a draw-bar may engage, a filler block also insertible from the front and beneath the butt of a draw-bar to hold the same elevated and in engagement with said shoulder, and a key insertible from the side and at an angle and liftable to horizontal position to provide a shoulder at the bottom of said head behind which said butt of the draw-bar may engage.

5. A yoke for a draft gear, comprising a head having a shoulder at its top and openings in its sides near the bottom and adapted to receive the butt of a draw-bar through the front, a key insertible through said openings from the side and first in inclined position and subsequently in horizontal position to form a shoulder for said butt at the bottom of said head, and means for holding said key in elevated horizontal position.



8. A yoke for a draft gear, comprising a head adapted to receive the butt of a draw-bar inserted from the front, and having a shoulder at its top behind which said butt may engage, a filler block positioned from the front and beneath said butt, the floor of said head having openings to permit the insertion of a tool to pry said filler block out from beneath to remove said butt.

11. A yoke for a draft gear, comprising a head into which the butt of a draw-bar may be inserted from the front and having a shoulder at its top for engagement with said butt, and a key insertible from the side and engaging appropriately located slots in said head, said key having downwardly extending projections in said slots to prevent turning under the action of the draw-bar.

[Claims 2 to 4, 6, 7, 9, and 10 not printed in the Gazette.]

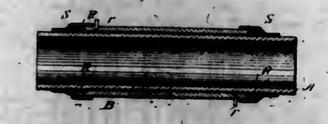
1,256,269. COMPRESSION GREASE-CUP. AUGUST C. SEEGER, East St. Louis, Ill., assignor of one-sixth to Robert E. Conway, St. Louis, Mo., and one-sixth to August F. Seeger, Jr., and one-sixth to Sylvenus B. Morse, East St. Louis, Ill. Filed Mar. 19, 1917. Serial No. 155,833. (Cl. 184—38.)



A grease cup, comprising an externally screw-threaded, stationary element provided with an annular shoulder, an internally threaded, cup-shaped device screwed onto said stationary element and having a threaded aperture in the top wall thereof, a device threaded into said aperture and having a filling opening therein, means for closing the filling opening, and a plurality of lugs formed by pairs of parallel slits in the lower edge of the side wall of said cup-shaped portion, said lugs being bent inwardly between said slits so as to project under the shoulder on the stationary element.

1,256,270. QUENCH-SPARK GAP. GEORGE SEIBT, Schöneberg, near Berlin, Germany, assignor to General Transmission Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 1, 1911, Serial No. 663,320. Renewed June 16, 1917. Serial No. 175,212. (Cl. 250—38.)

1. A quench spark gap element or unit comprising two hollow cylindrical thin-walled electrode members arranged concentrically one inside the other, the exterior surface of the inner member being separated from the interior surface of the outer member to provide a sparking space of uniform thickness therebetween, and the inner member being open at both ends.

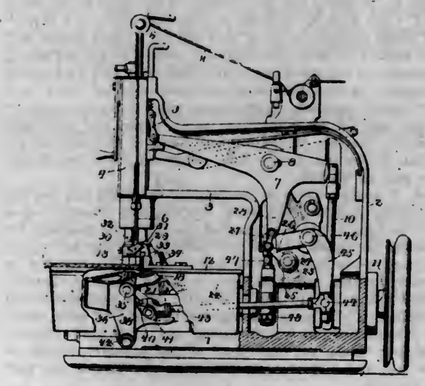


2. A quench spark gap element or unit comprising a plurality of hollow cylindrical thin-walled electrode members arranged concentrically one inside another, the facing surfaces of said members being separated to provide a sparking space of uniform thickness therebetween, and the inner member being open at both ends.

3. A quench spark gap element or unit comprising two hollow cylindrical thin-walled electrode members arranged concentrically one inside the other, the exterior surface of the inner member being separated from the interior surface of the outer member to provide a sparking space of uniform thickness therebetween, spacing means interposed between said members at both ends thereof, and air excluding means extending between the members outside of said spacing means.

4. A quench spark gap element or unit comprising longitudinally disposed hollow members arranged the one inside the other, the exterior surface of the inner member being separated from the interior surface of the outer member, to form a space therebetween, means for excluding air from said space, and a tubular connection extending through one of said members and communicating with said air tight space.

1,256,271. SPREADER MECHANISM FOR SEWING-MACHINES. DUDLEY S. SEYMOUR, Oak Park, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 27, 1915. Serial No. 68,787. (Cl. 112—24.)



1. A sewing machine including in combination a work support, a needle, means for reciprocating the needle, a thread carrying looper coöperating with said needle beneath the work support, a spreader coöperating with the looper beneath the plane of the work support and with the needle above the work support, a fixed pivotal support for the spreader, and means for oscillating the spreader, said oscillating means including toggle links positioned so as to move into alinement when the spreader is at the rear end of its stroke for giving an extended dwell to the spreader.

3. A sewing machine including in combination, a work support, a needle, means for reciprocating the needle a thread carrying looper coöperating with said needle beneath the work support, a spreader coöperating with the needle above the work support and with the looper beneath the plane of the work support, a bracket for supporting said spreader said bracket including spaced plates having bearings for the supporting shaft for the spreader, an arm attached to said supporting shaft, a second arm pivoted between said plates, a link connecting said arms and means for oscillating said last named arm for imparting movements to the spreader.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,256,272. PROCESS FOR THE SYNTHETIC PRODUCTION OF CYANIDS. PAUL A. STARKE, Berkeley, Cal. Filed Sept. 11, 1916. Serial No. 119,575. (Cl. 23—13.)

1. The process for the synthetic production of cyanids which consists in passing a mixture of hydrocarbon gases and ammonia through a heated reactive mass comprising substances capable of reacting to form cyanid therein, and then recovering said cyanid.

4. The process for the synthetic production of cyanids which consists in passing a mixture of hydrocarbon gas and ammonia through a heated reactive mass devoid of carbon as a chemical reactive agent and composed of alkaline substances and a metal of the iron group, to form cyanid therein, and then recovering said cyanid.

5. The process for the synthetic production of cyanids which consists in passing a mixture of hydrocarbon gas and ammonia through a reactive mass at a temperature of approximately 1000 degrees centrigrade, said mass comprising substances capable of reacting to form cyanid therein, and then recovering said cyanid.

8. The process for the synthetic production of cyanids which consists in passing a mixture of hydrocarbon gas and ammonia through a reactive mass devoid of carbon as a chemical reactive and composed of alkaline substances and a metal of the iron group, at a temperature of approximately 1000 degrees centigrade, to form cyanid therein, and then recovering said cyanid.

9. In the process for the synthetic production of cyanids by catalysis, that step which consists in subjecting a mixture of natural gas and ammonia, under a temperature of approximately 1000 degrees centigrade, to a reactive mass devoid of carbon as a chemical reactive agent, and comprising substances capable of reacting to form cyanid therein.

[Claims 2, 3, 6, and 7 not printed in the Gazette.]

1,256,273. PROCESS FOR THE SYNTHETIC PRODUCTION OF AMMONIA. PAUL A. STARKE, Berkeley, Cal. Filed Sept. 11, 1916. Serial No. 119,576. (Cl. 23—21.)

1. The process for the synthetic production of ammonia which consists in passing a mixture of hydrocarbon gas and nitrogen through a catalytic agent comprising substances capable of reacting to form cyanid, the passage of said mixture being at a temperature below that at which cyanid would be formed as the result of reaction and under a pressure sufficiently high to form ammonia therein, and then recovering said ammonia.

4. The process for the synthetic production of ammonia which consists in passing a mixture of hydrocarbon gas and nitrogen through a catalytic agent devoid of carbon as a chemical reactive agent and composed of alkaline substances and a metal of the iron group, at a temperature below that at which cyanid would be formed as the result of reaction and under a pressure sufficiently high to form ammonia, and then recovering said ammonia.

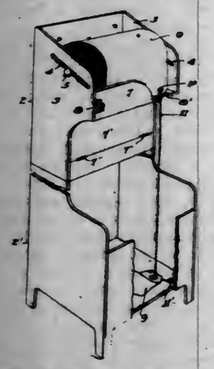
5. The process for the synthetic production of ammonia which consists in passing a mixture of hydrocarbon gas and nitrogen through a catalytic agent comprising substances capable of reacting to form cyanid, the passage of said mixture being at a temperature not greater than 800 degrees centigrade and under a pressure not less than 7 atmospheres, to form ammonia therein and then recovering said ammonia.

8. The process for the synthetic production of ammonia which consisting in passing a mixture of hydrocarbon gas and nitrogen through a catalytic agent devoid of carbon as a chemical reactive agent and composed of alkaline substances and a metal of the iron group, at a temperature not greater than 800 degrees centigrade and under a pressure not less than 7 atmospheres, to form ammonia therein and then recovering said ammonia.

9. In the process for the synthetic production of ammonia by catalysis, that step which consists in subjecting a mixture of natural gas and atmospheric air, under a temperature not greater than 800 degrees centigrade and under a pressure not less than 7 atmospheres, to a catalytic agent devoid of carbon as a chemical agent.

[Claims 2, 3, 6, and 7 not printed in the Gazette.]

1,256,274. TOWEL-HOLDER. GEORGE ADOLPH STEINER, Salt Lake City, Utah, assignor to American Linen Supply Company, Salt Lake City, Utah, a Corporation. Filed Sept. 18, 1916. Serial No. 120,652. (Cl. 45—32.)



1. A towel holder comprising a support over which the bundle of towels is folded, a casing for said support having forwardly inclined guides therein wherein said support is slidable by gravity, the rear fold of the towels hanging loosely within said casing, said casing having means for contacting with the forward fold and resisting the forward movement of the towels to allow the outer one to be withdrawn from the bundle without disturbing the remainder.

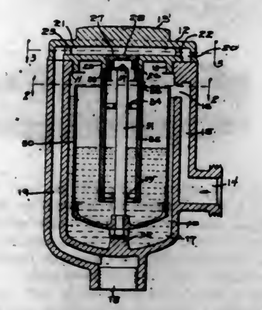
3. A towel holder comprising a casing having forwardly and downwardly inclined guides therein, a rod mounted to slide in said guides and adapted to support a bundle of towels folded thereover, one fold of the towels depending within said casing and said casing having a shelf upon which the end of the other fold of the bundle is seated, the weight of the bundle sliding the rod forwardly and keeping the towels in contact with said shelf as the towels are removed from the bundle.

5. A towel holder comprising a cabinet having a base for the reception of the soiled towels, a towel support mounted in the upper portion of said cabinet and over which a bundle of towels is hung, said support being mounted to move in guides in said cabinet, said cabinet having a surface against which the bundles of towels are held by gravity, a stringer for the towels having one end depending within said base, the towels being removable one at a time from the bundle and withdrawn from the cabinet on said stringer.

8. A towel holder comprising a support, a rod mounted for forward movement on said support and over which rod the bundle of towels is hung, said support having a stop for engaging the forward end of the bundle of towels, a stringer for the towels having one end depending beneath said support, the outer towel being removable from the bundle, the remainder being held on said rod through their engagement with said stop.

[Claims 2, 4, 6, and 7 not printed in the Gazette.]

1,256,275. STEAM-TRAP. COLE STICKLE, Indianapolis, Ind. Filed Dec. 8, 1916. Serial No. 135,771. (Cl. 137—113.)



1. A vacuum valve mechanism for radiators and the like including a vessel having a condensation chamber with the upper end open, a top adapted to screw thereon having an inlet port centrally located and an annular chamber in communication with said port, a discharge passageway in said vessel in communication with the annular chamber in said top regardless of the angular position of the top, and a float controlled valve within the device for controlling the port in the top thereof.

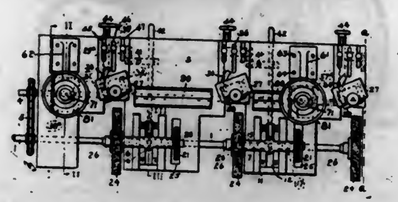
2. A vacuum valve mechanism for radiators and the like including a vessel having a condensation chamber therein with the upper end open, a top adapted to screw on the upper end of the vessel with an inlet port centrally located in it and an annular chamber in communication with said port, and a discharge passage extending down on the outside of said vessel and discharging below the vessel and with the upper end of said passage in communication with the annular chamber in the top regardless of the angular position of the top, and a float controlled valve for closing the port in the top.

3. A vacuum valve mechanism for radiators and the like including a vessel having a condensation chamber open at its upper end and internally threaded at its upper end, a top with an annular downwardly extending threaded flange adapted to screw into the top of said vessel, said top having an inlet port centrally located and a horizontal chamber in communication with said port and an annular chamber surrounding and in communication with said horizontal chamber, a discharge passage at the side of said vessel in communication at its upper end with said annular chamber in the top regardless of the angular position of the top, and a float controlled valve for closing the port in the top.

4. A vacuum valve mechanism for radiators and the like including a vessel having a condensation chamber open at the top, a flat top adapted to screw in position for closing the upper end of said vessel, said top having an inlet port centrally located and a horizontal chamber in communication with said port and an annular chamber surrounding and in communication with said horizontal chamber, a discharge passage at the side of said vessel in communication at its upper end with said annular chamber in the top regardless of the angular position of the top, and a float controlled valve for closing the port in the top.

5. A vacuum valve mechanism for radiators and the like including a vessel having a condensation chamber open at its upper end and having an integral vertical extension at one side thereof with a water inlet passage from the lower part of said extension to the upper part of said chamber, and said vessel also having a vertical extension on the side thereof, with a discharge passageway therethrough arranged to discharge below said vessel, a top adapted to screw on said vessel for closing its upper end and having an inlet port centrally located and an annular chamber in communication with said port and extending over and in communication with the upper end of the discharge passage regardless of the angular position of the top, and a float controlled valve for closing said port.

1,256,276. PIPE-POLISHING MACHINE. EDWARD GLENN STRAUB, Beaver Falls, Pa. Filed May 22, 1917. Serial No. 170,200. (Cl. 51—4.)



1. A pipe polishing machine comprising shifting polishing mechanisms, and means operated by and maintained in position by contact of the pipe during the travel thereof for shifting and holding said mechanisms in active position against the pipe.

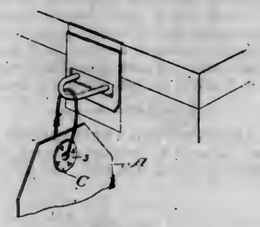
2. A pipe polishing machine comprising polishing mechanisms, and means whereby said mechanisms are successively shifted into active position against the pipe by the pipe.

3. A pipe polishing machine comprising polishing mechanisms, and means whereby said mechanisms are successively shifted into active position against the pipe by the pipe, and means for simultaneously operating said mechanisms prior to and when shifted.

4. A pipe polishing machine comprising polishing mechanisms, and means whereby said mechanisms are successively shifted into active position against the pipe by the pipe, sets of pipe feed rolls, and inclined and rotatable combined pipe holding down and feed elements associating with said feed rolls.

5. A pipe polishing machine comprising polishing mechanisms, and means whereby said mechanisms are successively shifted into active position against the pipe by the pipe, sets of pipe feed rolls, and inclined and rotatable combined pipe holding down and feed elements associating with said feed rolls, and means for angularly and vertically adjusting said elements.

1,256,277. TAG. FRANK W. SUYDAM, Brooklyn, N. Y. Filed Mar. 31, 1917. Serial No. 158,951. (Cl. 40—25.)



1. In a device of the class described formed of a plate disposed to lie flat upon the surface of a tag or the like and having a central tubular projection extending through the material of the tag, the combination therewith of a plurality of laterally extending tangs struck from the material of the plate at a point spaced from the marginal edge of the plate, said tangs being thrust through the material of the tag, the projecting portions of said tangs being bent over upon the opposite surface of the tag, and the direction of the bend being away from the openings formed through the plate by the production of said tangs.

[Claim 2 not printed in the Gazette.]

1,256,278. FISH-LINE REEL AND CASE. MASATOSHI TAKEUCHI, Seattle, Wash. Filed Apr. 10, 1917. Serial No. 160,911. (Cl. 242—96.)

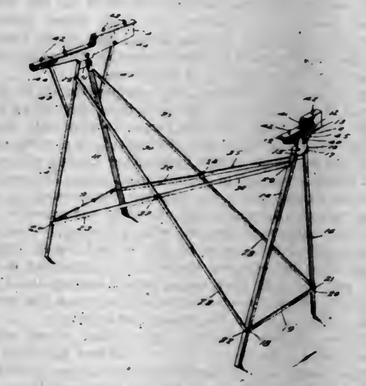


1. A fish line reel having a central storage chamber provided with a side opening and a closure therefor and having a line passing notch extending to the margin of the said opening.

2. A fish line reel comprising a box-like case having an opening in one face and a closure for said opening, the case having flanges extending about it to provide a line storing space, the edge of said opening having a notch for the passage of the line when the closure is in place.

[Claim 3 not printed in the Gazette.]

1,256,279. XYLOPHONE-STAND. CHARLES B. WANAMAKER, Indianapolis, Ind., assignor to Leedy Manufacturing Company, Indianapolis, Ind., a Corporation of Indiana. Filed Apr. 12, 1917. Serial No. 161,406. (Cl. 248—41.)



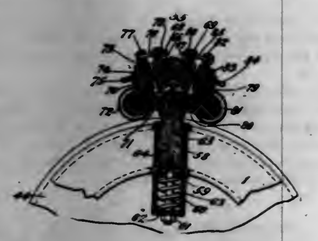
1. A collapsible xylophone stand comprising two end members, each consisting of a head plate formed to receive a cross arm, a leg rigidly attached to said plate, a leg pivotally attached to said plate, and a brace pivoted to one leg and having a detachable connection with the other leg; two pairs of longitudinal braces pivotally attached to the aforesaid legs near their lower ends and pivotally connected together in pairs; two pairs of longitudinal braces pivoted to said legs near their upper ends and pivotally connected together in pairs, interengaging portions carried by said longitudinal braces at their junctions with each other to limit spreading thereof, and a detachable connection between adjacent pairs of longitudinal braces, said detachable connection comprising a pivot pin carried by one pair of braces, a tubular pivot pin carried by the adjacent pair of braces, and a latch for locking said pivot pin within the tubular pivot.

3. A collapsible xylophone stand comprising two end members, each consisting of a head plate formed to receive a cross arm, a leg rigidly attached to said plate, a leg pivotally attached to said plate, and a brace pivoted to one leg and having a detachable connection with the other leg; two pairs of longitudinal braces pivotally at-

tached to the aforesaid legs near their lower ends and pivotally connected together in pairs; two pairs of longitudinal braces pivoted to said legs near their upper ends and pivotally connected together in pairs, and a detachable connection between adjacent pairs of longitudinal braces, said detachable connection comprising a pivot pin carried by one pair of braces, a detachable pivot pin carried by the adjacent pair of braces, and a latch for locking said pivot pin within the tubular pivot.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,256,280. IRONING-MACHINE. ISAAC F. WILLEY, Philadelphia, Pa. Filed Sept. 14, 1915. Serial No. 50,596. (Cl. 68—9.)



1. An ironing machine comprising an ironing drum, a plurality of rolls opposed to the periphery of the drum, one of said rolls being movable relative to the other, yielding means for holding said rolls under pressure against the periphery of the drum, and other yielding means for holding said relatively-movable roll under pressure against the periphery of the drum.

5. In an ironing machine, the combination of an ironing drum, a roll opposed to the periphery thereof, an ironing roll spaced from the first-named ironing roll, means for supporting the bight of a feed apron at a point adjacent to the periphery of the first-named ironing roll; said means being arranged in a horizontal plane intersecting the second-named roll, a roll opposed to the second-named ironing roll and arranged as a whole at the opposite side of the vertical center thereof, with reference to the said bight-support, means back of the second-named ironing roll and the roll opposed thereto for supporting a feed apron, and the said feed apron passed around the bight-support and the last-named means and between the second-named ironing roll and the roll opposed thereto.

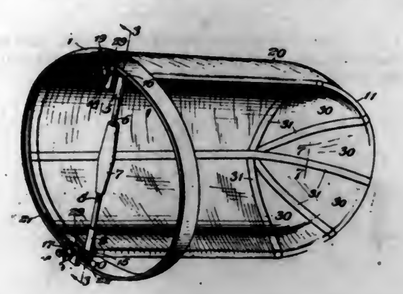
9. In an ironing machine, an ironing drum, stems, rolls carried by the stems, journal brackets pivotally carried by said stems, rolls mounted in said journal brackets, resilient means to move said rolls toward said drum, and means to actuate said ironing drum.

11. In an ironing machine, the combination of an ironing drum, radially-movable stems having recesses, a roll mounted in said stems and opposed to the periphery of the drum, means for yieldingly pressing the stems toward the center of the drum, brackets pivoted to the stems and having recesses opposite those of the stems, springs disposed in said opposed recesses, a roll mounted in said brackets, and means for limiting the movements of the brackets relative to the stems.

17. In an ironing machine, the combination of an ironing drum, means for holding work to the periphery thereof, an ironing roll arranged parallel to and spaced from the drum, a roll opposed in parallel relation to the ironing roll and arranged entirely at the opposite side of the vertical axis thereof, with reference to the drum, and a suitably supported feed apron having a stretch disposed between the ironing roll and the roll parallel thereto and also having a portion extending to the drum and terminating in a horizontal plane intersecting the said ironing roll.

[Claims 2 to 4, 6 to 8, 10, and 12 to 16 not printed in the Gazette.]

1,256,281. WIND-SCOOP AND SCREEN FOR PORT-HOLES. HARRY H. AHERN, Newport News, Va. Filed Nov. 15, 1916. Serial No. 131,397. (Cl. 98—22.)



1. In a device of the character stated, a flexible wind scoop, means for supporting the outer portion of the same, a semi-circular ring engaging the inner portion of the wind scoop for causing said inner portion to assume a concave contour, and a diametrically extending adjustable support engaging the ends of said semi-circular ring, and adapted to secure said wind scoop in a port hole frame.

2. In a device of the character stated, a U-shaped frame, a turnbuckle having its outer ends pointed and supporting the terminals of said U-shaped frame, a semi-circular ring having its ends slotted and engaged by the pointed ends of said turnbuckle, and a flexible wind scoop common to said U-shaped frame and semi-circular ring.

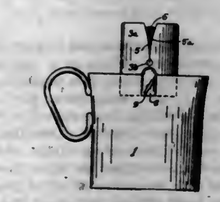
3. The combination of a U-shaped frame, a semi-circular ring located at a right angle to said frame, a collapsible wind scoop common to said frame and ring, and an adjustable support also common to said frame and ring.

8. The combination of a support constructed and arranged to be fixed in a port hole, a wind-scoop having its inner end in said support, connecting rods joining the support and the scoop and having threaded portions extending inwardly beyond the support, nuts mounted on said threaded portions of the rods, an insect barrier frame having notches receiving the inwardly-extending portions of the rods and having its notched portions opposed to the nuts, and closure-clips for the notches mounted on the rods and arranged between the nuts and the notched portions of the frame.

10. A wind scoop comprising a support constructed and arranged to be fixed in a port hole, an U-shaped frame member connected with and extending outwardly from the support, a loop-shaped frame member arranged within and detachably connected with the support and disposed at an angle to the U-shaped member, and flexible imperforate material connected with said frame members.

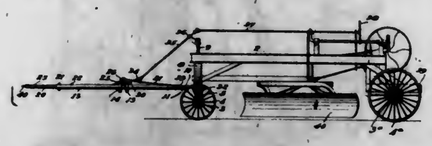
[Claims 4 to 7 and 9 not printed in the Gazette.]

1,256,282. RAZOR-WIPING ATTACHMENT FOR SHAVING-MUGS. GUSTAF H. AKERLUND, Bray, Minn. Filed Feb. 5, 1917. Serial No. 146,631. (Cl. 15—71.)



A razor cleaning device comprising a plate with an aperture in it and a V-shaped notch extending with its point into the aperture, the edges of said notch being curved so as to fit the opposite sides of a hollow-ground razor.

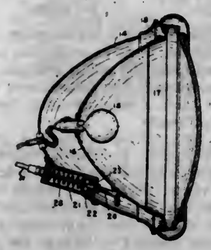
1,256,283. STEERING DEVICE. AXEL ANDERSON, St. Paul, Minn., assignor to Russell Grader Manufacturing Co., Minneapolis, Minn., a Corporation. Filed June 12, 1915. Serial No. 33,711. (Cl. 21—137.)



1. The combination, with a machine frame having forward and rear axles and carrying wheels, of a yoke mounted on the forward axle, a rocker supported by said yoke, a plate seated on said rocker, brackets mounted on said axle beneath said plate, a king-bolt passing through said rocker and yoke, a draft tongue pivotally connected with said king-bolt, flexible means connected with said plate and brackets on opposite sides of said king-bolt, means mounted on said tongue and engaging said flexible means for swinging said tongue horizontally to change the direction of draft thereof and locking it at any desired angle with respect to said axle.

2. The combination with a machine frame having forward and rear axles and carrying wheels, of a draft tongue having a pivotal connection with the forward axle, a plate supported by said axle and having its ends extending in proximity to the forward carrying wheels, means supporting the ends of said plate, flexible means connected with said plate on opposite sides of its center, and means mounted on said tongue and engaging said flexible means for swinging said tongue horizontally to change the direction of draft thereof and locking it at any desired angle with respect to said axle.

1,256,284. AUTOMOBILE-HEADLIGHT CONTROL. SAMUEL F. ARBUCKLE, Indianapolis, Ind. Filed Oct. 16, 1917. Serial No. 196,843. (Cl. 240—41.)



1. The combination with an internal combustion engine, and a movable lamp, of means controlled by the suction of the engine for moving said lamp.

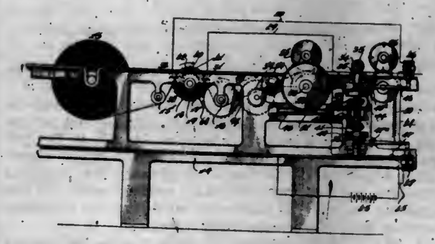
14. The combination with an internal combustion engine, and a movable lamp, of a stationary cylinder with one end in communication with said engine and the other end open to the external air, a piston in said cylinder formed of a cup shaped member, a leather disk closing the open end of said cup shaped member surrounding the periphery thereof, a piston rod connected with the movable lamp and extending from said piston and having a cylinder for engaging the outer surface of the cup shaped member of the piston, a washer on the inner end of the piston of substantially the same diameter as said cup shaped member and holding the leather disk against said member, a nut on the inner end of said rod for holding the washer in place, and a spring in the cylinder for normally holding the piston at the end of the cylinder open to the outer air, said spring being weaker than the external air pressure.

[Claims 2 to 13 and 15 to 23 not printed in the Gazette.]

1,256,285. SOLDER FOR ALUMINUM. JOHN J. AUBERTIN, Jr., St. Louis, Mo. Filed Oct. 15, 1917. Serial No. 196,594. (Cl. 75—187.)

The herein described solder composed of zinc and tin, the former being in the proportion of two to one, and a relatively small proportion of sal-ammoniac.

1,256,286. MECHANISM FOR CONTROLLING THE RUNNING OF A WEB OF PRINTED MATERIAL. TRUE M. AVERY, Glens Falls, N. Y., assignor to The Union Bag & Paper Company, a Corporation of New Jersey. Filed June 9, 1915. Serial No. 33,009. (Cl. 273.)



1. In mechanism for controlling the running of a web of printed material, the combination of means for drawing a linearly perforated web from a supply of such material, means for operating on said web, to produce for example an imprint, relatively to the imprint on said web, a timing device controlled by said web and comprising a shiftable, toothed, timing member, the teeth of which engage constantly with the perforations of said web, independent separately operable devices controlled one at a time by said timing device according to whether the latter runs faster or slower than the predetermined speed of said operating means, and means controlled by said separately operable devices one at a time for timing the speed of said drawing means and producing a registration of the imprint on said web with said operating means.

3. In mechanism for controlling the running of a web of printed material, the combination of means for drawing a web from a supply of such material, means for operating on said web relatively to the imprint thereon, electrical speed detecting means controlled by said web, and comprising independent separately operable magnets of similar function, and means controlled by the similar operation of either of said magnet for timing the speed of said drawing means and producing a registration of the imprint on said web with said operating means.

5. In mechanism for controlling the running of a web of printed material, the combination of means for drawing a web from a supply of such material, a guide roller for said web, impression means for operating on said web relatively to an imprint thereon, automatic timing means associated with said guide roller and with which said web is in constant positive engagement so as to be controlled at all times by the speed of said web, and differential gearing automatically controlled from said timing means in a plurality of rotated positions of said roller, and connected up with said drawing means for timing the speed of said drawing means in any one of said positions of said guide roller and in accordance with a predetermined speed of said web.

9. In mechanism for controlling the running of a web of printed material, the combination of means for drawing a web from a supply of such material, means for operating on said web relatively to the imprint thereon, a pair of constantly driven clutch members, a pair of companion

clutch members to coöperate therewith, means for detecting the speed at which said web is running and for automatically throwing the clutch members of one pair of clutches alternately into coöperative relation with the clutch members of the other pair, a worm-shaft intermittently operable by said clutches, and means controlled by said worm-shaft, for in turn timing the speed of said drawing means and producing a registration of the imprint on said web with said operating means.

[Claims 2, 4, 6 to 8, and 10 to 12 not printed in the Gazette.]

1,256,287. RAILWAY-TIE AND RAIL-FASTENER. OSCAR BACKES, Crookston, Minn. Filed Dec. 11, 1917. Serial No. 206,619. (Cl. 238—4.)



1. In combination, a railway tie, rails placed upon the tie, rail fastening devices each of which is composed of a primary member secured to the tie and having an angular jaw bearing against the edge and adjacent top of the rail flange, and a secondary member slidable in the primary member and having a jaw arranged to engage underneath a part of the tie below the primary jaw, a spring arranged to hold the secondary member with its jaw engaging the tie, and means for retracting the secondary member from engagement when so desired.

2. The structure specified in claim 1 with the further modification that the device is hingedly attached to the tie so it may when disengaged from the rail be swung away from it.

5. The structure specified in claim 2 together with the further improvement that the hinge joint is slightly movable to and from the rail and is provided with means for securing it to the tie at the desired place.

[Claims 3 and 4 not printed in the Gazette.]

1,256,288. BRUSH. HAROLD M. BARNES and DAVID P. PAGE, Grand Rapids, Mich., assignors to Grand Rapids Brush Company, Grand Rapids, Mich., a Corporation of Michigan. Filed June 4, 1917. Serial No. 172,614. (Cl. 15—37.)



1. A brush having a hollow cylindrical body with radial orifices therethrough, and bristles extending through the orifices; and a pin within the hollow body; a portion of the wall of the body being bent inwardly to press the bristles against the body's inner surface.

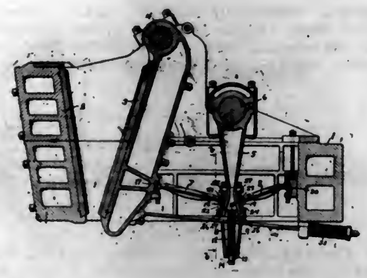
[Claim 2 not printed in the Gazette.]

1,256,289. CRUSHER. RICHARD BERNHARD, Milwaukee, Wis., assignor, by mesne assignments, to Worthington Pump and Machinery Corporation, New York, N. Y., a Corporation of Virginia. Filed Sept. 5, 1914. Serial No. 860,325. (Cl. 83—53.)

1. The combination with the pitman in a crusher of spring counterbalancing means located below the pitman to support the pitman and take the weight thereof from its bearing.

4. The combination with a crusher provided with a pitman, of a saddle located below said pitman, springs for supporting the pitman, pins and plugs, the saddle being provided with apertures for said plugs of a size large enough for the removal of the springs therethrough, substantially as described.

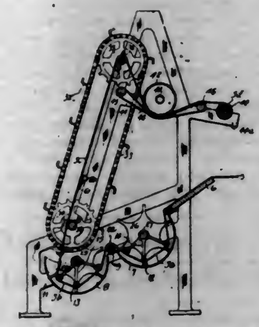
5. The combination with a crusher provided with bearings for the edges of knuckle plates, of reversible knuckle plates having their opposite edges adapted to fit said bear-



ings and provided with recesses for the knuckle of a toggle located at different distances from the adjacent edges of the knuckle plates.

[Claims 2, 3, and 6 not printed in the Gazette.]

1,256,290. PRINT-DEVELOPING MACHINE. HARRY L. BLONDES, Cleveland, Ohio. Filed May 14, 1917. Serial No. 168,329. (Cl. 95—89.)



1. In a device for treating a flexible strip, the combination of an end stiffener therefor projecting past the sides of the strip, a tank for containing treating liquid, separated rotary members engaging the stiffener to propel the strip through the tank, a winding roller, and means for carrying the strip thereto.

7. A machine for treating continuous printed strips including tanks for containing treating liquids, a stiffener for the strip, a guideway leading to the first tank, rotary members having radial projections, means carrying said rotary members so that the projections may be caused to pass the stiffener through the tanks successively, a conveyer having hooks adapted to engage the stiffener and carry the strip away from the tanks, and means for winding up the strip.

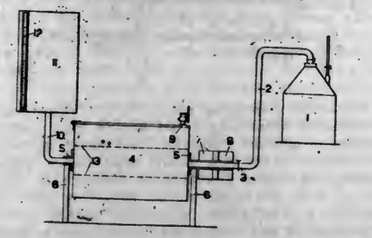
11. A machine for continuously treating a printed strip comprising a treating tank, a guide roller therein, means for feeding the strip through the tank beneath said roller, a conveyer leading the strip upwardly from the tank, and a winding mechanism for the strip.

[Claims 2 to 6, 8 to 10, and 12 to 14 not printed in the Gazette.]

1,256,291. APPARATUS FOR ABSORBING A FIXED QUANTITY OF GAS BY A LIQUID. GERRIT BRAAM, Rotterdam, Netherlands. Filed Dec. 1, 1917. Serial No. 205,006. (Cl. 23—3.)

1. An apparatus for absorbing a fixed quantity of gas by a liquid, comprising the combination of an absorption vat, provided with means for leading thereinto the gas to be

absorbed, and with means for agitating the liquid during the absorption of the gas, with a regulation vat in open communication with said absorption vat, which regulation vat is so arranged that the liquid, displaced from the absorption vat by the gas led thereinto, enters into the regulation vat and can be measured therein, while it flows back at a rate dependent upon the speed with which the gas in the absorption vat is absorbed.



3. An apparatus for absorbing a fixed quantity of gas by a liquid, comprising an absorption vat, which at that point which is on top when the vat is at rest, is provided with means for leading thereinto the gas to be absorbed and which is further provided with means for agitating the liquid during the absorption of the gas, and a regulation vat in open communication with said absorption vat, which regulation vat is so arranged that the liquid forced from the absorption vat by the gas led thereinto, enters the regulation vat and can be measured therein by a scale indicating directly the volume which the gas in the absorption vat would have at ordinary pressure, the liquid flowing back into the absorption vat at a speed equal to the rate at which the gas in the absorption vat is absorbed.

[Claim 2 not printed in the Gazette.]

1,256,292. POTATO-PLANTER. ADDISON PLATT BRUSH, Quinby, Va., assignor of one-half to Hallack A. Penrose, Philadelphia, Pa. Filed Sept. 14, 1917. Serial No. 191,352. (Cl. 193—1.)

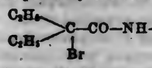


1. In a potato planter, a feed wheel composed of a templet and a top plate, each having outturned fingers on the periphery thereof, the finger of the top plate having on its side a depending flange which overhangs the side of the finger of the templet, forming seed receiving pockets, said top plate being rotatably movable on said templet whereby said pockets may be adjusted to seed of varying size, and means for retaining said top plate in the adjustment of said pockets.

[Claims 2 and 3 not printed in the Gazette.]

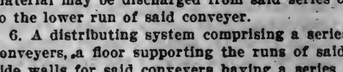
1,256,293. BROMODIETHYLACETYLURETHANES. JÜRGEN CALLSEN, Elberfeld, Germany, assignor to Synthetic Patents Co., Inc., New York, N. Y., a Corporation of New York. Filed Jan. 31, 1917. Serial No. 145,781. (Cl. 23—24.)

1. The herein described bromodiethylacetylurethanes, having most probably the following general formula:



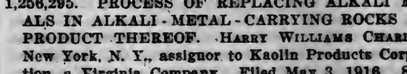
in which A represents an arylene radical, being generally whitish compounds which can be crystallized from alcohol; to splitting off hydrogen bromid when heated beyond their melting point; and being valuable nervines and sedatives, substantially as described.

2. The hereindescribed bromodiethylacetylurethanes, having most probably the following formula:



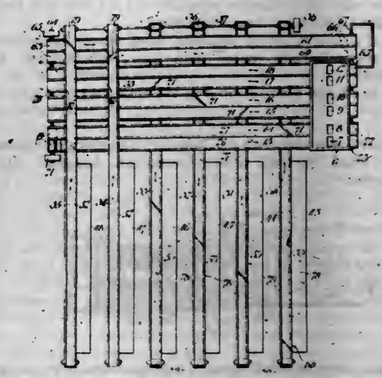
being generally whitish compounds which can be crystallized from alcohol; splitting off hydrogen bromid when heated beyond their melting point; and being valuable nervines and sedatives, substantially as described.

3. The herein described bromodiethylacetylurethane of paraacetylaminophenol having most probably the following formula:



crystallizing from alcohol in the shape of small white leaflets melting at 144° C., being almost tasteless, easily soluble in alcohol and acetone, scarcely soluble in benzene, ether and water; and being a valuable nervine and sedative, substantially as described.

1,256,294. FRUIT-DISTRIBUTING DEVICE. JOSEPH A. CAMPBELL, Ontario, and VERNON O. CAMPBELL, Fresno, Cal. Filed Feb. 20, 1917. Serial No. 149,964. (Cl. 193—4.)



1. A distributing device comprising, a series of endless conveyers arranged side by side, an endless conveyer arranged substantially at right angles to said series, the lower run of said endless conveyer extending between the upper and lower runs of said series, and means whereby material may be discharged from said series of conveyers to the lower run of said conveyer.

6. A distributing system comprising a series of endless conveyers, a floor supporting the runs of said conveyers, side walls for said conveyers having a series of openings therein, a gate for each opening, and a pivoted block for each gate, said pivoted block and gate when closed forming a continuation of the side wall and having overlapping beveled edges in engagement with each other.

[Claims 2 to 5 not printed in the Gazette.]

1,256,295. PROCESS OF REPLACING ALKALI METALS IN ALKALI-METAL-CARRYING ROCKS AND PRODUCT THEREOF. HARRY WILLIAMS CHARLTON, New York, N. Y., assignor to Kaolin Products Corporation, a Virginia Company. Filed May 3, 1916. Serial No. 95,113. (Cl. 23—22.)

1. A process of replacing alkali metals in potassium-sodium feldspars and aiding their separation from the in-

soluble residue by causing them to enter into solution in the digesting liquid, which comprises digesting the finely ground material with a mixture of alkali earth metal hydrate and carbonate at pressures above 200 pounds and at corresponding temperatures; substantially as described.

4. As a new product the insoluble residue resulting from the digestion of a potassium-sodium feldspar at pressures of 200 pounds or over and at corresponding temperatures with a mixture of calcium hydrate and carbonate, the same comprising a hydrous calcium aluminium silicate associated with a small proportion of calcium carbonate; substantially as described.

[Claims 2 and 3 not printed in the Gazette.]

1,256,296. PROCESS OF ASBESTOS TREATMENT AND PRODUCT THEREOF. HARRY WILLIAMS CHARLTON, New York, N. Y. Filed June 28, 1917. Serial No. 177,466. (Cl. 106—1.)

1. A process of producing a new material which comprises digesting a mineral fibrous material, its fibers having been previously pulled apart, and a compound exhibiting little affinity for the fibers under ordinary conditions, but uniformly adhering to the surface of the fiber when digested with it under pressure and at elevated temperatures; substantially as described.

2. A process of producing a new material which comprises digesting asbestos and milk of lime in an autoclave under pressure; substantially as described.

4. A process of producing a new material which comprises digesting a mineral fibrous material, its fibers having been previously pulled apart, with an alkali earth hydrate and water, under pressure and at elevated temperatures; substantially as described.

6. As a new product asbestos wool whose individual fibers are uniformly coated with lime; substantially as described.

[Claims 3 and 5 not printed in the Gazette.]

1,256,297. DRAFT-GEAR. JOHN F. COURSON, Pitcairn, Pa. Filed Apr. 21, 1917. Serial No. 163,599. (Cl. 213—64.)



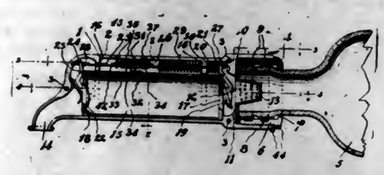
1. In a friction draft gear, a casing, friction shoes engaging the casing having inner outwardly flaring wedging portions, a central wedge bar having a wedge member at one end engaging the friction shoes, a relatively movable wedge member on the central wedge bar engaging the friction shoes, and means for actuating said parts to effect lateral movement to the friction shoes.

2. In a friction draft gear, a casing, friction shoes engaging the casing having inner outwardly flaring wedging portions, a central wedge bar having a wedge member at one end engaging the friction shoes, a relatively movable wedge member on the central wedge bar engaging the friction shoes, and means for actuating said parts to effect lateral and longitudinal movement to the friction shoes.

3. In a friction draft gear, a casing, friction shoes engaging the casing having inner outwardly flaring oppositely disposed wedging portions, a central wedge bar having a wedge member at one end engaging the friction shoes, a relatively movable wedge member on the other end of the central wedge bar engaging the friction shoes, a drawbar operatively connected with the casing, and means between the drawbar and the relatively movable wedge member for moving it and effecting movement of the wedge bar in an opposite direction.

[Claims 4 to 15 not printed in the Gazette.]

1,256,298. LIQUID-DISPENSING DEVICE. MARIO CREMONA, New York, N. Y. Filed Aug. 30, 1916. Serial No. 117,741. (Cl. 221—112.)



1. A liquid dispensing device of the class described comprising a measuring vessel having inlet and outlet openings in opposite ends, inlet and outlet valves pivotally mounted on the ends of said vessel and arranged for movement in reverse directions to uncover said openings, each of said valves having an operating arm, a rod mounted for longitudinal movement, slidably connected to the arms of said valves and having stops to limit the movement of said rod, and cause said valves to reversely operate so that one is closed when the other is open, a spring to close the inlet valve and a stronger spring to normally hold said rod in initial position with the inlet valve open and the outlet valve closed.

2. A liquid dispensing device comprising a body, means to attach the same to the mouth of a bottle, a measuring vessel in the body, inlet and outlet valves arranged respectively at the inner and outer ends of the measuring vessel, means to operate said valves, a registering mechanism actuated by the valve operating means and including a gear, and a gravity acting detent effective when the device is in an upright position to prevent the operation of the valves by engaging and preventing the rotation of said gear.

1,256,299. STEAM-TRAP. THOMAS L. DOUGLASS, Beaver Falls, Pa. Filed July 23, 1917. Serial No. 182,115. (Cl. 137—103.)



1. A steam trap comprising an elongated receptacle having a steam and water inlet and a water outlet, and an unattached elongated combined float and valve member in said receptacle, the longitudinal axis of the member extending lengthwise within the receptacle, said member having one end facing the outlet and arranged to seat over the outlet opening when the float member is in approximately a horizontal plane, and means for causing said member to fulcrum at a point adjacent to the outlet when the water rises above a predetermined level to open the outlet and permit the water to flow therethrough, substantially as described.

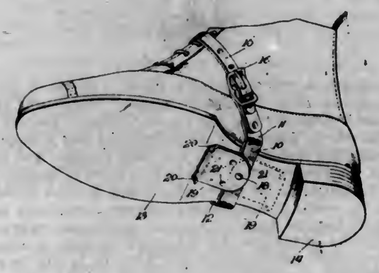
2. A steam trap comprising a receptacle having a steam and water inlet and a water outlet, an unattached elongated combined float and valve member in said receptacle, a valve seat at the inner end of the outlet opening, the end of said member facing the outlet being arranged to engage the seat at the inner end of the outlet to close said outlet when the water is at a predetermined level, and means to cause one end of said member to rise above the other end when the height of the water passes beyond a certain level to move the end of said member at an angle to the seat and permit the water to pass out through the outlet opening, substantially as described.

3. A steam trap comprising a receptacle having a relatively long horizontally extending trap chamber therein; an inlet opening, there also being a discharge opening, an unattached elongated float and valve member within said chamber, a valve seat at the inner end of the outlet opening, the valve member having one end arranged to engage said seat to close the outlet opening when said member is in a horizontal position, and means for causing said member to fulcrum at a point adjacent to the seat when the water in the chamber rises above a predetermined level to uncover the outlet opening, substantially as described.

4. A steam trap comprising a receptacle having a relatively long horizontally extending trap chamber therein with an inlet opening at one end and a discharge opening at the opposite end, an unattached cylindrical float and valve member within said chamber, said float being relatively long in comparison to its diameter, the longitudinal axis of the float normally lying in a horizontal plane, a valve seat at the inner end of the outlet opening, the float having one end shaped to engage the seat to close said opening when the float member is in a horizontal position, and means for causing said float to assume an angular position when the water within the chamber rises above a predetermined level to shift the end of said member at an angle to the seat to open the outlet, substantially as described.

5. A steam trap comprising a receptacle having a relatively long horizontally extending trap chamber therein with an inlet opening at one end and a discharge opening at the opposite end, there being an annular recess within the receptacle surrounding the outlet opening, the end of said recess being arranged to form a valve seat, a cylindrical valve and float member within the trap chamber and of greater length than the main chamber, one end of said valve member lying within the recess, while the end thereof is arranged to engage the seat when the float is in a horizontal position, said float and valve member being arranged to fulcrum about the edge of the recess to open the outlet when the float member assumes a position at an angle to the horizontal, substantially as described.

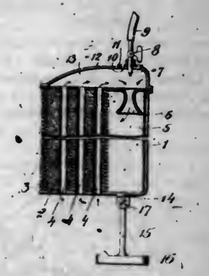
1,256,300. ICE-CREEPER. PATRICK T. DUNN, Cedar Rapids, Iowa. Filed Feb. 20, 1917. Serial No. 149,902. (Cl. 36—61.)



The improved ice creeper herein described and shown comprising a stirrup plate adapted to extend transversely beneath a shoe, and a sheet pivoted at one end to the under side of the stirrup plate, the sheet being provided at the edge remote from the stirrup plate with ground-engaging spurs and having projections on its upper face to ride across the stirrup plate on pivotal movement of the sheet and to engage against either edge of the stirrup plate and hold the sheet in a set position.

1,256,301. GAS-BURNING APPARATUS. CARLETON ELLIS, Montclair, N. J., assignor, by mesne assignments, to Surface Combustion, Inc., Wilmington, Del., a Corporation of Delaware. Filed May 8, 1912. Serial No. 695,925. Renewed June 28, 1917. Serial No. 177,596. (Cl. 158—99.)

1. In heating and lighting apparatus, a casing, a porous refractory diaphragm mounted in said casing and formed of united porous granules of substantially uniform size, the surface layer granules being coated with rare earth actinic material to promote their luminosity, cooling air pipes forming cooling passages through said diaphragm, a gas chamber formed in said casing behind said diaphragm, a throat communicating with said gas chamber and with the outside air, an injecting gas nozzle coöperating with said throat to inject a mixture of gas and induced air into the same and force the resulting explosive mixture through said diaphragm to burn within the surface layer thereof and maintain said coated granules in incandescent highly luminous condition, a regulating damper to control the amount of induced outside air drawn in by said injecting nozzle, and an air chamber communicating with said cooling passages and with said throat to allow said injecting nozzle to draw air therethrough and cool the inner portions of said diaphragm.



4. In heating apparatus, a casing, a porous refractory diaphragm supported by said casing and formed of united porous refractory granules, cooling passages through said diaphragm, a gas chamber formed in said casing and communicating with said diaphragm, injecting means comprising a throat and a gas nozzle coöperating to inject a mixture of gas and induced air into said casing and force the resulting explosive mixture through said diaphragm to burn within the surface layer thereof, and an air chamber communicating with said cooling passages and with said throat to allow said injecting nozzle to draw air therethrough and cool the inner portions of said diaphragm.

5. In a heating apparatus, a casing, a porous refractory diaphragm supported by said casing, cooling passages through said diaphragm, a gas chamber formed in said casing and communicating with said diaphragm, an air chamber communicating with said cooling passages, and means for injecting into said gas chamber an explosive mixture of gas and of air drawn from said air chamber and to force said mixture through said diaphragm to burn within the surface layer thereof.

6. In heating apparatus, a casing, a porous refractory diaphragm supported by said casing, cooling passages through said diaphragm, a gas chamber formed in said casing and communicating with said diaphragm, and means to inject a mixture of gas and induced air into the same and force the resulting explosive mixture through said diaphragm to burn within the surface layer thereof.

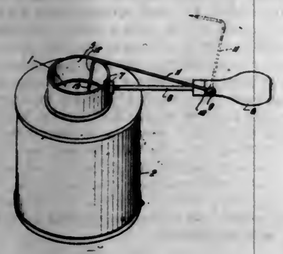
7. Heating apparatus comprising a porous and permeable bed of refractory material having cooling passages extending therethrough, and means for forcing into said bed an explosive mixture of gas and of air drawn through said cooling passages to cause said explosive mixture to burn within said bed.

[Claims 2 and 3 not printed in the Gazette.]

1,256,302. APPARATUS FOR UNSEALING AND REMOVING CAN-TOPS. STEPHEN A. ELLIS, Birmingham, Ala. Filed June 30, 1917. Serial No. 178,053. (Cl. 113—106.)

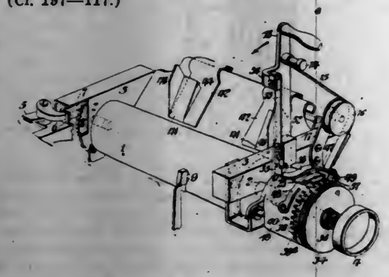
An apparatus for removing can tops comprising an annular melting iron, a radially disposed handle connected

to the side of the iron, a puncturing tool hinged to the handle and having a down-turned sharpened end adapted



to swing down through the iron and engage and puncture the can top, substantially as described.

1,256,303. TYPE-WRITING MACHINE. HERMANN V. FENGLER, West Philadelphia, Pa., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed July 9, 1915. Serial No. 38,853. (Cl. 197—117.)



1. The combination with a revoluble platen, of a crank or handle normally disconnected from the platen, releasable means to lock said crank and platen together to rotate backwardly and forwardly, a stop to arrest the return stroke of the platen and crank while they remain locked together, and a part connected with the crank to move by momentum after such arrest, and having means to effect an unlocking of the crank and platen.

2. The combination with a revoluble platen, of a crank or handle normally disconnected from the platen, releasable means to lock said crank and platen together for backward and forward rotation, a motor to return said crank to normal position together with said platen, a stop to arrest such return stroke effected by said motor, whereby said platen and crank remain locked together after their arrest, a weight connected to be driven by said motor during the return of the crank and platen and to keep moving by its momentum after such arrest of the crank and platen, and means controlled by said weight during such subsequent movement, for effecting an unlocking of the crank and platen.

22. In a typewriting machine, the combination with a rotary platen, of a driver to rotate the platen a predetermined fixed distance in one direction, a returning spring operable to rotate the platen in the reverse direction, and to return the driver, a tape connected at one end to a part rotating with the platen and wound thereon as the platen rotates, a stationary part to which the other end of the tape is connected, said tape being of such length and so arranged that as it is wound on said rotating part it limits and determines the extent of rotation of the platen by the driver, said stationary part being adjustable to vary said extent of rotation, and a scale arranged to indicate said extent of rotation.

[Claims 3 to 21 and 23 to 28 not printed in the Gazette.]

1,256,304. METHOD OF AND MEANS FOR SEALING RECEPTACLES FOR FOOD PRODUCTS. ALLEN J. FRICK, Fleischmanns, N. Y., assignor of one-fourth to John J. Carey, Albany, N. Y. Filed July 21, 1916. Serial No. 110,438. (Cl. 215—31.)



6. The method of sealing a receptacle containing a food product which consists in pouring melted wax upon the surface of the contents of said receptacle, and in providing an interlocking joint between the periphery of the layer of wax thus formed and the wall of said receptacle to thereby prevent displacement of said layer.

[Claims 1 to 5, 7, and 8 not printed in the Gazette.]

1,256,305. APPARATUS FOR DISCHARGING FLUIDS OR BODIES FROM CONTAINERS. GEORGE JAMES GAWLEY, Fleet, England. Filed Apr. 24, 1916. Serial No. 93,292. (Cl. 169—17.)



1. Apparatus for discharging liquid, gaseous or solid bodies by means of atmospheric pressure, comprising two chambers isolated from one another, means whereby a vacuum can be maintained in one chamber and a body to be discharged introduced into the other chamber and pistons in the two chambers connected to move in unison.

2. An apparatus for discharging liquid, gaseous or solid bodies by means of atmospheric pressure, comprising two chambers isolated from one another, and means connected together for simultaneously creating a vacuum in one of said chambers and introducing a body to be discharged into the other chamber, said means being acted upon by atmospheric pressure to discharge the body in the latter chamber.

3. Apparatus for discharging liquid, gaseous or solid bodies by means of atmospheric pressure, comprising two chambers isolated from one another, means whereby a vacuum can be maintained in one chamber and a body to be discharged introduced into the other chamber, pistons in the two chambers connected to move in unison and means for locking the said pistons against movement under atmospheric pressure, substantially as described.

4. An apparatus for discharging liquid, gaseous or solid bodies comprising two chambers isolated from one another, a piston mounted in each of said chambers connected to move in unison, means for operating said pistons whereby a vacuum will be created in one of said chambers while a body to be discharged is drawn into the other chamber, and means for locking said pistons against movement under atmospheric pressure.

[Claims 5 and 6 not printed in the Gazette.]

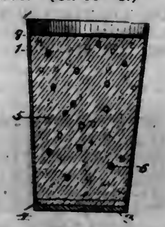
1,256,306. SECTIONAL CEDAR CHEST. JAMES A. GLANTON, Columbus, Ind. Filed Apr. 27, 1917. Serial No. 164,830. (Cl. 217—8.)



1. A cedar chest comprising a plurality of sections, a bracket attached to the inner face of the rear wall of each section, disks attached to the bottom walls of said sections, pins attached to said disks, said pins being rotatable and removably engaged with said brackets for permitting said sections to swing laterally thereon, and means for individually locking said sections in closed position.

[Claims 2 and 3 not printed in the Gazette.]

1,256,307. PROCESS AND CONTAINER FOR CANNING OR PRESERVING JELLIES AND THE LIKE. MARGARET GRANT, Akron, Ohio. Filed June 26, 1917. Serial No. 176,994. (Cl. 99—8.)

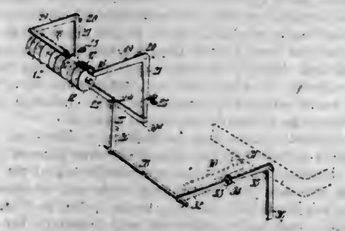


1. That method for preserving jellies and the like which consists in placing in the lower part of a container having a mass of solidified sealing material capable of being melted by a heated mixture placing in said container a heated material which causes the sealing material to melt and allowing it to rise through the contents of the container and to solidify upon the surface of the contents of the container in unison with the cooling of the contents thereof.

2. A container for preserving or canning jellies and the like in a heated condition which comprises a cup-shaped receptacle provided at its closed end with a layer of solidified sealing material capable of being melted by the heated contents of the receptacle to permit said sealing material to rise through said contents and solidify on the surface in unison with the cooling of said contents.

[Claim 3 not printed in the Gazette.]

1,256,308. COMBINED TYPE-WRITING AND COMPUTING MACHINE. FREDERICK A. HART, Jersey City, N. J., assignor, by mesne assignments, to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Filed Jan. 5, 1912. Serial No. 669,580. (Cl. 235—59.)



1. A combined writing and computing machine comprising two primary elements, one of which is a master wheel, and the other a set of computing wheels, said elements coöperating in a computing zone to register numbers, a carriage connected to one of said primary elements, said carriage movable to carry its primary element entirely out of the computing zone, a special clearance type, a key connected thereto, and means dependent upon the movement of said carriage to bring its primary element into or adjacent the computing zone to prevent said special type from being operated unless all of the computing wheels stand at zero.

15. The combination with two primary elements, comprising a computing head and actuating means for said computing head, said primary elements having a relative movement to afford an effective coöperating zone, of a special type for printing a telltale character, and controlling means moving with one of said elements for governing the effectiveness of said type to print, said controlling means having a limited effective zone slightly greater than the effective coöperating zone of said elements.

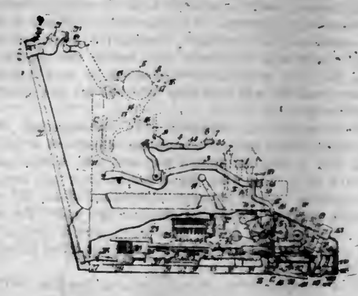
17. The combination with dial wheels forming a plurality of totalizers, of lock-controlling devices associated with each totalizer, a printing type, and a lock for said type selectively controlled by said totalizers.

20. The combination with a printing key and a traveling carriage, of a lock for said key, and means for selectively controlling said lock in different columns during the travel of said carriage.

29. The combination with a plurality of totalizers each including computing members, and a master wheel cooperative with said totalizers and relatively movable with respect thereto, of a carriage to which said totalizers are connected for step-by-step movements, a clearance type-key on the frame of the machine, means for locking said key made effective as any totalizer comes into the field of the master wheel, and means for making said locking means ineffective in said field when the members of said totalizer stand at zero.

[Claims 2 to 14, 16, 18, 19, 21 to 28, and 30 to 41 not printed in the Gazette.]

1,256,309. COMBINED TYPE-WRITING AND COMPUTING MACHINE. RICHARD F. HOYT, Philadelphia, Pa., assignor, by mesne assignments, to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Filed Sept. 27, 1913, Serial No. 792,076. Renewed Nov. 3, 1917. Serial No. 200,036. (Cl. 235—58.)



1. In a combined typewriting and computing machine, the combination with numeral keys and a special key connected with the computing mechanism, and controlling the latter, of a case-shift mechanism, a connection between said special key and said case-shift mechanism for controlling the operation thereof, and a printing type also controlled by said special key to be brought into use at the operation of said case-shift mechanism.

10. In a combined typewriting and computing machine, the combination with a case-shift mechanism, a device in which numbers are temporarily registered, numeral keys

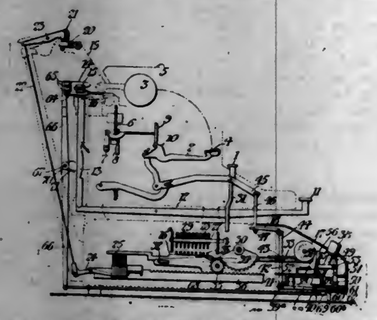
and computing wheels, of a general operator for carrying the numbers registered into the wheels, and a case-shifting and restoring mechanism including means under the control of the general operator for controlling the restoration of the case-shift mechanism.

12. In a combined typewriting and computing machine, the combination with numeral keys and computing wheels, of printing types, means causing the types to print at the actuation of the keys, an error key, indexing devices, means controlled by said error key for restoring set indexing devices to normal positions, a special type, and means under the control of the error key to cause said special type to be printed automatically opposite the number printed on the work-sheet, to indicate that such number was not run up in the computation.

23. In a combined typewriting and computing machine having computing wheels and a case-shift mechanism; the combination of a key operable only when said wheels stand at zero, an error key, and a type controlled by either of said keys to print, one of said keys also controlling the case-shift mechanism.

[Claims 2 to 9, 11, and 13 to 22 not printed in the Gazette.]

1,256,310. COMBINED TYPE-WRITING AND COMPUTING MACHINE. FREDERICK A. HART, Newark, N. J., assignor to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Filed Oct. 6, 1913. Serial No. 793,575. (Cl. 235—58.)



1. In a combined typewriting and computing machine, the combination with numeral keys, computing wheels and a traveling carriage, of a plurality of registers into which said wheels are grouped, a special non-numeral key associated with said wheels, a type under the control of said special key, and means controlled by said carriage for determining in what column said special key shall be effective on its type.

9. In a computing machine, the combination with numeral keys and a gang of computing wheels, of a special printing key, a locking device for said key, means associated with each computing wheel for holding said locking device effective, means on each computing wheel for disabling said effective device, a universal bar under the control of every effective device of a gang, and a spring for making said lock effective when each computing wheel is in disabling position.

13. In a computing machine, the combination with a special key and a key stem, of two locks therefor, one of said locks comprising a bar movable under the key, and the other of said locks comprising a bar movable under the key stem.

[Claims 2 to 8, 10 to 12, and 14 to 39 not printed in the Gazette.]

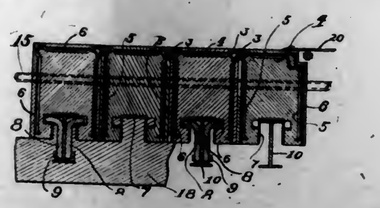
1,256,311. FASTENER. JOHN FREDRICK HARTWIG, Cortland, N. Y. Filed Apr. 27, 1917. Serial No. 164,932. (Cl. 24—107.)

A fastener comprising a member having a substantially cylindrical body portion and provided at one end with an outstanding flange and having openings located at its opposite sides, that end of the said member which is opposite the end at which the flange is located being closed, a second member having at one end a head and having a shank which is split longitudinally, the intermediate parts of the opposite side portions of the said shank being outwardly bowed with relation to each other and their free



ends being in contact, the shank of the said second mentioned member adapted to enter the body portion of the first mentioned member whereby the side portions of the shank may be spread into the openings at the side of the first mentioned member by having their ends forced against the said closed end of the first mentioned member.

1,256,312. TUNNEL CONSTRUCTION. CORNELIUS G. HASTINGS, West Hoboken, N. J. Filed July 2, 1913. Serial No. 776,898. (Cl. 61—16.)



1. A tunnel lining comprising a plurality of complemental block sections, reinforcing members embedded therein, sectional forms for arranging the sections in proper geometrical relation, clamps secured to the form sections engaging the block sections for rigidly securing the forms in place and means connecting the adjacent forms for connecting the adjacent block sections together.

2. In a tunnel lining a plurality of sectional complemental blocks, forming means for building the same in proper geometrical form, means integrally associated with each of said blocks permitting clamping engagement with said forming means to hold said blocks in position, space bars connecting adjacent forming means to reinforce and aline the same, and means permitting the removal of the forming means when the respective wall portions of the tunnel have set.

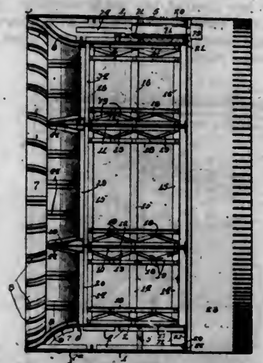
3. A tunnel lining comprising a plurality of sectional complemental concrete blocks, a plurality of apertures extending transversely therethrough, pipe sections inserted in apertures in adjacent block sections to connect and aline the same, rods inserted in said pipe sections to facilitate such operation and reinforce the connection between adjacent blocks, and collapsible forms upon which said blocks may be assembled in proper geometrical form.

4. A tunnel lining comprising a plurality of block sections having channels therein, means for securing the sections together in alinement and collapsible curved sectional forms adapted to engage in said channels and to hold the blocks in proper assembled relation.

5. A tunnel construction comprising a collapsible form, a plurality of block sections, means securing adjacent forms rigidly together to insure proper positioning of the block sections thereon, and continuous sectional members extending longitudinally of the tunnel lining and through said block sections to reinforce and maintain the same in proper relation.

[Claims 6 to 12 not printed in the Gazette.]

1,256,313. TUNNELING-SHIELD. CORNELIUS G. HASTINGS, West Hoboken, N. J. Filed Nov. 19, 1914. Serial No. 872,921. (Cl. 61—45.)



1. In a tunneling shield of the class described, a cylindrical shell, means advancing the same through the ground, and mechanism controlling the quantity of soil admitted through the shield as the same is advanced, said mechanism comprising a frame-work, door frames hingedly mounted thereon, a slotted door plate rigidly secured on each of said door frames, reinforcing ribs integrally formed on one side of said door plate between said slots, a second slotted door plate rigidly secured to the other side of said first mentioned door plate, upper and lower guide bars secured on said second door plate, slotted grid plates slidably mounted in said guide bars, and a lever pivotally mounted on each of said grid plates and to one of said upper guide bars adapted to actuate said grid plates to register the slots therein with the slots in said door plates to control the passage of material through said doors when said doors are closed.

2. In a tunnel shield of the class described, a cylindrical shell, means mounted therein for advancing the same through the ground, a frame-work secured across the interior of said shell, slotted doors hingedly mounted thereon, guide bars on said doors, slotted grid plates slidably mounted therein, and levers pivoted to said guide bars and to said grid plates adapted when actuated to slide said grid plates laterally to control the slots in said doors to admit material through the doors when the same are closed and said shield is advanced through the ground.

3. In a tunneling shield of the class described concentrically arranged cylindrical shells, a flaring mouthpiece connecting the forward edges thereof one to another, horizontal and vertical partition walls within said shield, the forward ends thereof extended, breaker members formed on the extended ends of said partition walls and extending across said device within said mouthpiece, a plurality of doors each comprising slotted double door plates connected in said shield between said partition wall adapted to be swung rearwardly into an open position, upper and lower guides on one of said door plates, slotted adjustable grid plates mounted in said guides, levers pivoted on said grid plates and on said upper guides adapted to slidably move said grid plates for controlling openings in said doors to admit material through the doors when said doors are closed, and means advancing said shield through the ground.

4. In a tunneling shield of the class described concentrically arranged elliptically shaped shells, a flaring mouth-piece connecting the forward edges thereof one to another, breaker members extending across said device within said mouth-piece, a plurality of doors connected in said shield adapted to be swung rearwardly into an open position, adjustable grid plates slidably mounted thereon controlling openings in said doors, and means pivoted on said doors and grid plates adapted to laterally actuate said grid plates to admit material through the doors when said doors are closed.

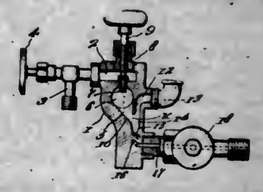
5. In a tunneling shield of the class described concentrically arranged elliptical shells, a flaring mouthpiece connecting the forward edges thereof one to another, breaker members extending across said device within said mouthpiece, a plurality of doors connected in said shield adapted to be swung rearwardly into an open position, laterally adjustable grid plates controlling openings in said doors, levers connected to said doors and grid plates adapted to actuate said grid plates to admit material through the doors when said doors are closed, means advancing said device through the ground, and means independently operatable for advancing said shield forwardly through the ground different amounts at different points therearound.

1,256,314. SIGNAL DEVICE. JOHN B. HEALEY, Salt Lake City, Utah. Filed Oct. 17, 1916. Serial No. 126,180. (Cl. 116—31.)



A signal comprising in combination a casing, a concentrically arranged inwardly extending flange provided upon said casing to form a bearing, an elbow member having one of its arms mounted for rotary movement within said elbow the other arm of said elbow bearing against the outer face of the casing to limit the inward movement of the elbow within said casing, a lever, a sleeve provided upon said lever, said sleeve being secured upon the elbow within said casing and bearing against the end of the inwardly extending flange for cooperation with the second mentioned elbow arm to retain the elbow within the bearing, a signal rod carried by the elbow, a signal mounted upon the rod, means connected to said lever and extending without the casing for operating the lever, a spring located within the casing for returning the lever to normal position and stops also located within the casing for limiting the movement of the lever in either direction.

1,256,315. LUBRICATOR. JOHN HEBEL, Houston, Tex. Filed Sept. 1, 1917. Serial No. 189,315. (Cl. 184—56.)



1. A lubricator including a lubricant receiver, a lubricant delivery chamber below said receiver, a sloping surface in said delivery chamber, a nozzle establishing communication between said receiver and chamber and adapted to drop the lubricant vertically upon said sloping surface whereby to cause the same to spread out in a

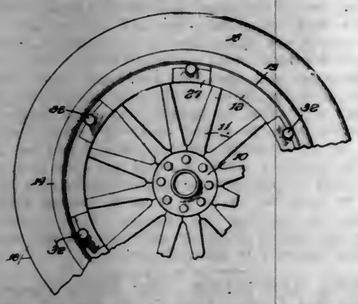
thin film, a valve for controlling issuance of the lubricant through said nozzle, an atomizing fluid inlet, a mixing chamber in communicattion with said atomizing fluid inlet and lubricant delivery chamber and being located at the lower end of said sloping surface, the incoming atomizing fluid adapted to pick up the lubricant as it is delivered in said film to the mixing chamber, and a discharge from the mixing chamber, substantially as described.

2. A lubricator including a mixing chamber, an atomizing fluid inlet in communication with said mixing chamber, a lubricant delivery chamber, a sloping surface in said delivery chamber inclining toward said mixing chamber, a lubricant receiver, valve controlled means for causing the lubricant to issue drop by drop from said receiver to the sloping surface in said delivery chamber whereby said lubricant will be spread out in a film-like sheet, a spiral passage leading from the said mixing chamber and adapted to subject the atomizing fluid and liquid to a stirring motion, and a discharge for said lubricator leading from said passage, substantially as described.

3. A lubricator composed of a solid metallic block having its upper part hollowed out to provide a lubricant receiver, a lubricant delivery chamber formed in said block below the receiver and having a sloping surface, sight glasses in said delivery chamber, a nozzle establishing communication between said receiver and delivery chamber and adapted to pass the lubricant drop by drop to said sloping surface whereby the same will be caused to spread in a thin film, an atomizing fluid inlet in said block, a partition separating said inlet from said delivery chamber and having an opening therein at the lower end of said sloping surface, a mixing chamber in said block adjoining said opening and adapted to receive the lubricant as it flows down said sloping surface, a tapering throat forming the base of said mixing chamber and adapted to bring the atomizing fluid and lubricant into close mixture, and a tortuous passage leading from said tapering throat, substantially as described.

[Claim 4 not printed in the Gazette.]

1,256,316. DEMOUNTABLE RIM. JOHN H. HEEREN and GARRY H. HEEREN, Alcester, S. D. Filed June 22, 1916. Serial No. 105,259. (Cl. 152—21.)

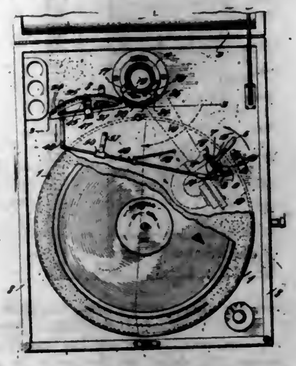


1. In wheel construction, a wheel body having a frusto-conical peripheral face, a wheel rim having an inner frusto-conical peripheral face engageable with the corresponding face of the wheel body, the inner face of the rim being formed with peripherally extending grooves parallel to its sides, and locking devices carried by the wheel body and projectable into the grooves, said locking devices having cam faces whereby during their movement out of engagement with the rim they will move the rim transversely of the wheel body to loosen it therefrom.

[Claims 2 and 3 not printed in the Gazette.]

1,256,317. AUTOMATIC STOP FOR PHONOGRAPHS. ADAM CROZEN HENDRICKS, Martinsburg, W. Va. Filed Aug. 16, 1917. Serial No. 186,550. (Cl. 74—46.)

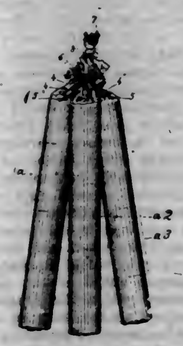
1. The combination with a disk phonograph having a friction brake and a movable tone arm, of a guide member carried by the tone arm, a spring pressed bar normally held against the guide member and adapted to clear the latter during the movement of the tone arm, connections between said brake and said bar for setting the brake when the bar has cleared the guide member, and means for adjusting the position of the bar with respect to the end of the guide member so as to vary the point at which the bar clears the guide member.



5. The combination with a disk phonograph having a friction brake and a movable tone arm, of a guide member consisting of a movable part and a fixed part, said movable part being arranged to engage said fixed part when the tone arm is moving from the outer to the inner portion of the record, a spring pressed bar having a pin arranged to slide on said guide members and to clear said guide members during the movement of the tone arm from the outer to the inner portion of the record, means for communicating the movement of the bar to the brake mechanism to set the latter, means for shifting the position of the bar and its pin toward and away from the stationary part of the guide member, said means comprising a disk, an eccentric carried by the disk, means connecting said eccentric with said bar for moving the latter, a handle connected with the eccentric and arranged to move over the face of the disk, and locking means for said handle, consisting of a series of notches disposed on the face of the disk, and spring means carried by the handle and arranged to enter the notches.

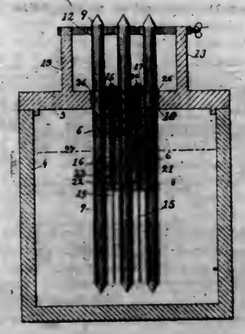
[Claims 2 to 4 not printed in the Gazette.]

1,256,318. BURGLAR-ALARM. THOMAS G. HITT, Seattle, Wash. Filed Oct. 23, 1917. Serial No. 198,016. (Cl. 102—22.)



In a burglar alarm, a number of fire crackers having fuses of different lengths protected within the covering of the respective crackers and tied together with their ends a little protruding to be lighted all at once.

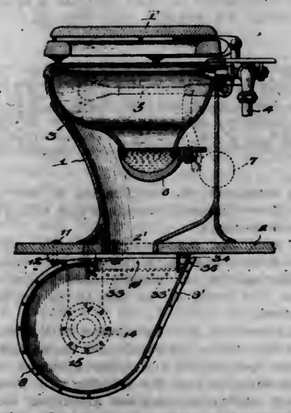
1,256,319. ELECTROLYTIC CELL. THOMAS G. HITT, Seattle, Wash. Filed Oct. 26, 1917. Serial No. 198,707. (Cl. 204—4.)



1. In an electrolytic cell, a receptacle for an electrolyte and a cover therefor; carbons depending through the cover; a box depending below the cover and having a slot vertically through it; a sheet of anode material depending below the box; wires communicating between a source of electricity and the carbons, and the anode material; the connection of the anode material and wire being within the said box and sealed against electrolytic action.

2. In an electrolytic cell, a receptacle for an electrolyte; a lid for the receptacle; boxes depending side by side through the lid and having vertical grooves registering together in their adjacent faces; grooves in the lid registering with grooves in the box faces adjacent thereto; carbons depending through the apertures formed by the said grooves; a slot vertically through each box; anode material in the slot and extending into the electrolyte receptacle; wires communicating between the carbons, a source of electricity, and the anodes; the connections with the anodes being within the said boxes, and the boxes being sealed to protect the connections from electrolytic action.

1,256,320. CLOSET ATTACHMENT. JOSEPH FLETCHER HOLMES, Baltimore, Md. Filed Nov. 11, 1916. Serial No. 130,808. (Cl. 4—17.)



1. A device adapted to be positioned beneath a closet bowl comprising a receptacle having an opening therein adapted to be placed in communication with said bowl to receive the refuse therefrom, brackets arranged on each side of the receptacle and receiving stub axles carried thereby and constituting a support for the same, a plurality of independently movable arms on one of the stub axles, resilient devices connected with a stationary part and said arms and the receptacle for normally maintaining the same in an operative position, and means for moving the receptacle to discharge the contents thereof.

2. A device adapted to be positioned beneath a closet bowl comprising a receptacle having an opening therein adapted to be placed in communication with said bowl to receive the refuse from said bowl, said receptacle being composed of metal the body part thereof having outturned flanges to which the sides are secured, stub axles carried by said sides, levers loosely mounted on one of said stub axles, brackets having bearing portions therein receiving said stub axles to support the receptacle, buffers mounted upon the upper portion of the receptacle and projecting beyond the edges thereof, a plurality of separated springs connected with one of said brackets and an adjustable block attached to the receptacle, the adjacent ends of said springs being fastened to the levers loosely mounted upon one of the stub axles, the said springs normally retaining the receptacle in a position to receive the refuse from the bowl, and means connected with said receptacle and adapted to be operated at a point remotely of the same for shifting the receptacle to discharge the contents through the opening therein.

3. A device adapted to be positioned beneath a closet bowl comprising a receptacle having an opening therein in communication with the bowl, means for supporting the receptacle, and means for maintaining the receptacle in communication with the bowl, comprising a plurality of separated resilient members, and independently movable levers interposed between the adjacent ends of said resilient members, substantially as described.

4. A device adapted to be positioned beneath a closet bowl comprising a receptacle having an opening therein in communication with the bowl, means for supporting the receptacle, and means for maintaining the receptacle in its normal position comprising a plurality of separated resilient devices, and independently movable parts arranged between said resilient devices, and to which they are attached, for the purpose described.

5. In a combination with a closet bowl adapted to be positioned upon the floor of a car having an opening therethrough in communication with the outlet of the bowl, of a container supported from the under surface of the car bottom, said container comprising a horizontally disposed substantially cylindrical member adapted to rotate about an axis arranged to one side of the opening in the car bottom, said container having a lateral extension at one side adjacent the top thereof forming a lip underlying the said opening, and said container having an opening in the top thereof at a point overlying said laterally projecting lip.

1,256,321. TOWEL-HOLDER. RICHARD E. HUDSON and WILLIAM P. BICKLEY, Farmersville, Tex. Filed Feb. 16, 1917. Serial No. 149,047. (Cl. 45—32.)

1. A towel holder, comprising, in combination, a cabinet; and a controller within the cabinet embodying a pair of co-acting gripping members engaging the towel between them, and a device having a shoulder which is normally held in direct and positive engagement with one of said gripping members so as to lock the latter against movement and thereby prevent the movement of the towel, said device being directly operable to successively release its shoulder from such engagement and positively shift the shoulder-engaging gripping member temporarily out of position for reengagement.

3. A towel holder, comprising, in combination, a cabinet; and a controller within the cabinet embodying a pair of co-acting gripping members engaging the towel between them, one having a projection, and a device with which said projection is normally in direct and positive engagement, whereby the projection-carrying member is locked against movement and prevents the movement of the towel, said device being directly operable to successively release it from such engagement and positively

move said projection-carrying member temporarily out of position for reëngagement.



7. A towel holder, comprising, in combination, a cabinet; and a controller within the cabinet embodying a gripping member which is provided at one end with a pair of laterally-projecting pins, and a slide provided with a shoulder normally engaged with one of said pins, so as to hold said member against movement and thereby prevent the movement of the towel, but releasable therefrom to permit such movement; said slide having a part arranged to engage the other pin after such release has taken place, so as to shift said pin-carrying member and thereby prevent the reëngagement of the first pin by said shoulder immediately upon the return of said slide to normal position.

10. A towel holder comprising, in combination, a cabinet having a front cover, and horizontal guides fixed to the inner faces of the side walls of the cabinet directly behind said cover; a three-part frame embodying a pair of side members slidably fitted on said guides and provided with bearing openings, and a central member to whose ends the rear ends of said side members are hinged; a roller to which the towel is connected having its ends detachably fitted in said bearing openings; said frame, with the roller therein, being removable bodily from the cabinet when said cover is raised, to permit the roller to be demounted from the frame after the side members of the latter have been swung outward; and a controller normally preventing the feed movement of the towel, but releasable to permit such movement.

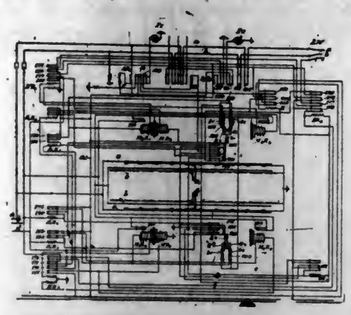
[Claims 2, 4 to 6, 8, and 9 not printed in the Gazette.]

1,256,322. SEMI-AUTOMATIC TELEPHONE-EXCHANGE. CARL AXEL WILHELM HULTMAN, Stockholm, Sweden. Filed Mar. 18, 1916. Serial No. 85,119. (Cl. 179—27.)

1. A semi-automatic telephone exchange system comprising an operator's position, a group of junctions associated therewith and divided into a number of sub-groups, call storing devices associated one with each sub-group and means for making all junctions of the group inaccessible for further calls when a call is made on one of them.

2. A semi-automatic telephone exchange system comprising an operator's position, a group of junctions associated therewith and divided into a number of sub-groups, call storing devices associated one with each sub-group, means for engaging all junctions when a call is made on one of them and means for disengaging a number of junctions as soon as the call has been attended to by the operator.

3. A semi-automatic telephone exchange system comprising an operator's position, a group of junctions associated therewith and divided into a number of sub-groups, call storing devices associated one with each sub-group, means for engaging all junctions of the group when a call is made on one of them, means for disengaging all junctions except those of the calling sub-group as soon as the call has been attended to by the operator and means for disengaging the junctions of the calling sub-group when the connection is completed.

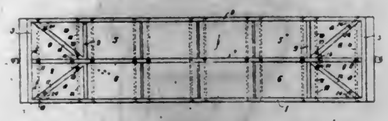


4. A semi-automatic telephone exchange system comprising an operator's position, a group of junctions associated therewith and divided into a number of sub-groups, call storing devices associated one with each sub-group, means for engaging all junctions of a sub-group when a call is made on one of them and means for engaging all junctions associated with the operator's position when a certain maximum number of unattended calls are received at the operator's position.

5. A semi-automatic telephone exchange system comprising an operator's position, a group of junctions associated therewith and divided into a number of sub-groups, call storing devices associated one with each sub-group, means for engaging all junctions of a sub-group when a call is made on one of them, means for engaging all junctions associated with the operator's position when a certain maximum number of unattended calls are received at the operator's position and means for disengaging a number of junctions as soon as one call has been attended to by the operator.

[Claims 6 and 7 not printed in the Gazette.]

1,256,323. DUMP-CAR. FRANK S. INGOLDSBY, West Bloomfield township, Oakland county, Mich., assignor to The Ingoldsby Automatic Car Company, Cleveland, Ohio, a Corporation of West Virginia. Filed Apr. 27, 1917. Serial No. 164,931. (Cl. 105—14.)



1. In a dump car, the combination of floor beams arranged to form triangular openings and triangular doors closing such openings.

3. In a dump car, the combination of longitudinal and transverse floor beams and a diagonal floor beam forming a triangular opening, a dumping door hinged to one of said beams, and means at the side of the car for holding the door closed.

6. In a dump car, the combination of longitudinal and transverse floor beams, diagonal floor beams meeting their intersections and leaving triangular openings, doors closing said openings, hinges for securing said doors to said beams, door stiffening members extending beneath the doors and outwardly to the side of the car, and means at the sides coacting therewith to hold the doors closed.

11. In a dump car, the combination of longitudinal and transverse floor beams, diagonal floor beams connecting therewith, doors closing the openings formed by the diagonal floor beams, and means for hinging said doors to floor beams at one side, said doors being arranged in pairs, a supporting member for one door of each pair beneath the other doors of the pair and adapted to hold the same closed, and means for locking said supporting member at one point to hold said pair of doors closed.

[Claims 2, 4, 5, and 7 to 10 not printed in the Gazette.]

1,256,324. WATERPROOFED MATERIAL AND METHOD OF WATERPROOFING. EDWIN R. JUMP, Newton, Mass. Filed May 2, 1917. Serial No. 165,865. (Cl. 106—34.)

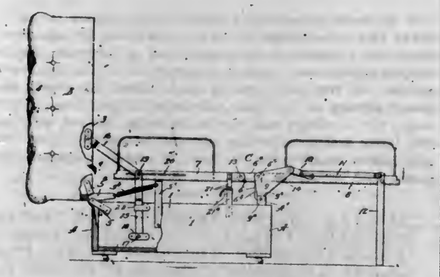
1. An artificial stone comprising gypsum and an insoluble salt precipitated directly upon the surface of the particles of gypsum.

4. The method of producing a rigid water-proof body of particles comprising mixing together a mass of particles, at least a part of which are adapted to set, precipitating an insoluble salt directly on the particles throughout the mass, and causing the mass to set.

15. The method of producing waterproof gypsum building material comprising mixing together a mass of gypsum particles and a salt solution adapted to yield an insoluble salt, adding a precipitant adapted to precipitate an insoluble salt from the solution upon the particles of gypsum, and causing the mass to set.

[Claims 2, 3, 5 to 14, 16, and 17 not printed in the Gazette.]

1,256,325. COUCH-BED OR SOFA-BED. SOLOMON KARPEN and CHARLES HULTGREN, Chicago, Ill., assignors to S. Karpen & Bros., Chicago, Ill., a Corporation of West Virginia. Filed Sept. 10, 1915. Serial No. 49,890. (Cl. 5—51.)



1. In a structure of the character set forth, the combination of a frame, a rearwardly swinging seat, pivots supported by said frame near the upper front corners thereof, levers mounted on said pivots and overhanging the front portion of the frame in the extended position of the structure, a folding-bed comprising an intermediate section pivotally mounted on intermediate portions of said levers and front and rear bed-sections pivotally connected with said intermediate sections, links connecting said levers with the front section, and link connections between the frame, rear bed-section and seat, whereby the bed will be lifted and tilted in the operation of opening the seat.

3. In a structure of the character set forth, the combination of a frame equipped near its front corners with rigidly secured short standards, levers pivotally connected with said standards, a folding-bed comprising a spacing section pivotally connected with the intermediate portions of said levers and flanking sections pivotally connected with said spacing section, links connecting said levers with the section in front of the spacing section, legs connected with the section in front of the spacing section, links connecting said first-named links to said legs, a rearwardly swinging seat, and mechanism connecting the frame, rear bed-section, and seat, whereby the bed will be lifted and tilted in the operation of opening the seat.

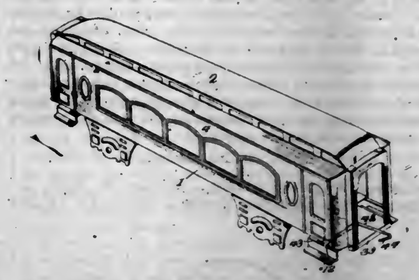
5. In a structure of the character set forth, the combination of a main frame equipped near its corners with standards, a forwardly opening folding-bed comprising foldably related bed-sections, including a spacing section movably mounted on said standards, a rearwardly swinging seat hinged to the said frame, and mechanism connecting the frame, the rear bed-section and seat and serving to elevate and tilt the folded bed in the operation of opening the seat.

7. In a structure of the character set forth, the combination of a main frame equipped near its corners with standards, a folding-bed comprising foldably related bed-sections, including a spacing section movably mounted on said standards, a rearwardly swinging seat hinged to the said frame, mechanism connecting the frame, the rear bed-section and seat and serving to elevate and tilt the folded bed in the operation of opening the seat, and a counterbalance spring tending to throw the seat to the standing position.

9. In a structure of the character set forth, the combination of a main frame equipped near its corners with standards, a folding-bed comprising foldably related bed-sections, including a spacing section movably mounted on said standards, a rearwardly swinging seat hinged to the said frame, mechanism connecting the frame, the rear bed-section and seat and serving to elevate and tilt the folded bed in the operation of opening the seat, arms rigid with said seat, counter-balance springs connecting said arms to said frame and tending to throw said seat to the open position, and co-acting rest-members on the frame and rear bed section serving to prevent collapse of the bed when it is occupied.

[Claims 2, 4, 6, and 8 not printed in the Gazette.]

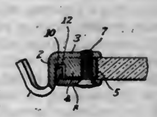
1,256,326. TOY RAILWAY PASSENGER-COACH. HARRY T. KINGSBURY, Keene, N. H. Filed May 8, 1913. Serial No. 766,335. (Cl. 46—48.)



2. A toy vehicle having an opening in one end, in combination with a coupling hook moutned in said end and adapted to be moved, without being dismounted, through said opening to a position entirely within said vehicle.

[Claim 1 not printed in the Gazette.]

1,256,327. LENS-MOUNTING. HENRY E. KIRSTEIN, Rochester, N. Y. Filed Jan. 29, 1917. Serial No. 145,106. (Cl. 88—47.)



1. In combination with a lens having a slot extending to an edge thereof, said slot having parallel walls in

proximity to said edge and a substantially circular enlarged inner end, a lens mounting comprising two straps, one of which has a substantially cylindrical portion fitting in said substantially circular enlarged inner end and being of a size to prevent its being passed through the other portion of the slot, and also has a portion fitting between the parallel walls, and the other of said straps being demountable and having a portion fitting in said last mentioned portion of the slot, and a screw passing through the portion of the strap in the substantially circular enlarged portion of the slot and holding said straps together.

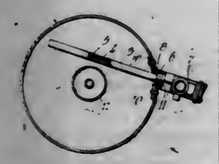
2. A lens mounting comprising a lens-bearing portion for an edge of a lens, a strap rigid with said lens-bearing portion having a screw opening, a demountable strap having a screw opening, and a lateral projection arranged to engage with the lens-bearing face of the lens-bearing portion.

3. A lens mounting comprising a supporting portion, a strap rigid with said supporting portion, a lens bearing portion on said supporting portion for engaging an edge of the lens, and a web projecting from said strap with its portion near the free end of the strap enlarged and provided with a screw opening and its smaller portion provided with a recess between the enlarged portion and the lens bearing portion, a demountable strap having a screw opening and a projection on its inner side to one side of said opening, fitting in said recess, and a screw for holding the two straps in engagement with opposite faces of the lens.

4. In combination with a lens having a slot extending from an edge and larger at its inner end, a lens mounting comprising a supporting portion, two straps, one of which is rigid with the supporting portion and is provided with a web enlarged near the free end of the strap, the narrow portion of the web having a recess permitting the bending of the strap, and a screw for drawing the two straps in contact with opposite faces of the lens.

5. In combination with a lens having a slot extending to an edge thereof, said slot having parallel walls in proximity to said edge and a substantially circular enlarged inner end, a lens mounting comprising two straps, one of which is demountable and the other of which has a portion fitting between the parallel walls of the slot, and a substantially cylindrical portion integral with the strap fitting in said substantially circular enlarged inner end of the slot and being of a size to prevent its being passed through the other portion of the slot and a screw for securing said straps together.

1,256,328. WATER-HEATER. GEORGE W. KITE, Jr., Chicago, Ill. Filed Oct. 18, 1916. Serial No. 126,337. (Cl. 236—5.)

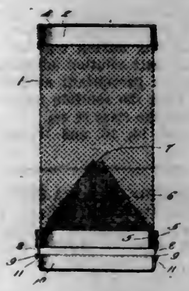


1. A water heater having a cylindrical boiler or tank and a flue located centrally within it, in combination with a thermostat having a thermal member located in a chord of an arc of the circle described by the surface of the tank and lying at one side of the central flue one element of said thermal member consisting of a tube, and a hollow spud with which said tube has threaded engagement, the axis of said spud being coincident with the axis of the tube, and the spud having a flange lying against and conforming to the surface of the tank, to which it is secured, and the tank having an opening through which the tube passes.

3. A water heater having a cylindrical boiler or tank and a flue located centrally within it in combination with a thermostat having a thermal member located in a chord of an arc of the circle described by the inner surface of the tank and lying at one side of the central flue, one element of said thermal member consisting of a tube, a valve-casing located on the outside of the tank and having an externally threaded nipple with which said tube is rigidly connected, a hollow spud having internal threads engaging the external threads of the nipple, the spud, nipple and tube having a coincident axis, the outer end of the spud being at right angles to said axis and the valve casing having a flat surface also at right angles to said axis and adapted to bear against the outer end of the spud.

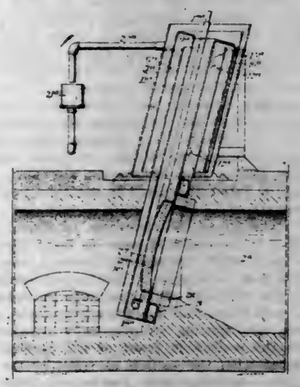
[Claim 2 not printed in the Gazette.]

1,256,329. FLY-TRAP. ELMER E. KNITTLE, Allentown, Pa. Filed June 27, 1917. Serial No. 177,330. (Cl. 43—22.)



A fly trap comprising a body of foraminous material, inner and outer strips serving to maintain the shape of the body, a closure for the upper end of the body, a cone shaped foraminous vestibule member located in the lower portion of the body, spring posts depending from the lower portion of the body, the adjacent portions of the body, the vestibule and the posts being located between the inner and outer strips whereby the strips clamp the said parts together and a tray detachable engaging the posts.

1,256,330. WATER-COOLED VALVE OR DAMPER STRUCTURE. LUTHER L. KNOX, Avalon, Pa., assignor, by mesne assignments, to Blaw-Knox Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Dec. 21, 1916. Serial No. 138,292. (Cl. 137—5.)



1. In a valve or damper structure for furnaces, the combination with a hollow water-cooled valve or damper member having a portion which in the closed position of the valve or damper extends through and above the upper wall of the flue structure, said extending portion having a depending water-sealing flange or skirt, an open-top sealing box mounted on the flue structure and into the water spaces of which the said flange or skirt extends, said flange or skirt having a vertical water passage or channel formed therein and there being a connection between the water space of the valve or damper and said channel, substantially as described.

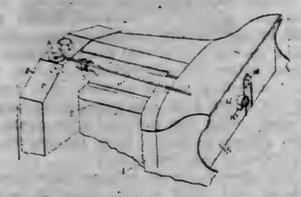
2. In a valve or damper structure for flues, the combination with a hollow water-cooled valve or damper having a portion projecting through and above the top wall of the flue structure, said projecting portion having a surrounding depending sealing flange or skirt, an open-top water box mounted on the top of the flue structure and having inner and outer walls at each side of the valve or damper with water spaces between such walls into which the said flange or skirt depends, said flange or skirt having a water passage or channel extending downwardly to the lower edge thereof and there being a connection between the water space of the valve or damper and the said channel, substantially as described.

3. In a valve or damper structure for furnaces, the combination with a hollow water-cooled valve or damper member having a portion which in the closed position of the valve or damper extends through and above the upper wall of the flue structure, said extending portion having a depending water-sealing flange or skirt, and an open-top sealing box mounted on the flue structure and into the water spaces of which the said flange or skirt extends, said flange or skirt having a vertical water passage or channel formed therein and there being a connection between the water space of the valve or damper and said channel, together with means for supplying cooling water to the interior of the valve or damper, substantially as described.

4. A flue valve or damper of hollow sheet metal form, the seating portion of said valve having an inset portion surrounded at the back and at its peripheral edges by the water space of the hollow structure, and a refractory lining or filler seated in said inset portion, the valve or damper having a flat seating metallic face around the said lining or filler; substantially as described.

5. A flue valve or damper of hollow sheet metal form, the seating portion of said valve having an inset portion surrounded at the back and at its peripheral edges by the water space of the hollow structure, and a refractory lining or filler seated in said inset portion, said lining or filler being of arched form and retained in said offset by its arched engagement therewith; substantially as described.

1,256,331. TEMPERATURE-INDICATOR. MELROSE G. KOPF, Dayton, Ohio, assignor, by mesne assignments, to The McCormick Laboratories Company, Dayton, Ohio, a Corporation. Filed Mar. 19, 1915. Serial No. 15,587. (Cl. 73—52.)

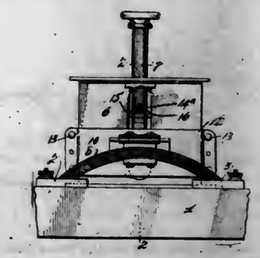


1. The combination with an engine and a water circulation system to cool the same, of a container arranged in said circulation system to contact with the water and vapor therein and containing an expansible fluid, a gage mounted at a point remote from said container, a conduit connecting said gage with said container, said gage having means controlled by the fluid in said container to indicate the temperature of the water in said circulation system and to also indicate when the water in said system falls below a predetermined level.

5. An indicating device comprising a gage, a container for a volatile fluid, means for supporting said gage and said container, a conduit connecting said container with said gage whereby the volatilization of said fluid will actuate said gage, and an absorbent material in said container to absorb said fluid when in a liquid form and distribute the same over a large surface thereby exposing a large part of the fluid to the action of the heat and facilitating the vaporization thereof.

[Claims 2 to 4 not printed in the Gazette.]

1,256,332. SWITCH MECHANISM. HUBERT F. KRANTZ, Brooklyn, N. Y., assignor to Krantz Manufacturing Company, Inc., Brooklyn, N. Y., a Corporation of New York. Filed May 5, 1914. Serial No. 836,423. (Cl. 175—284.)

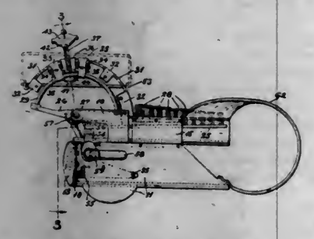


1. In a switch mechanism, comprising a quick-break means for moving the switch blade away from a contact member, said quick-break means including a spring exerting a tendency to urge the switch blade against the contact, and said spring being movable through a dead-center position for reversing its effectiveness upon the switch blade to thereby break the switch blade away from the contact, the combination therewith of a flexible switch blade which is connected between the spring and the contact to receive pressure from the spring, and an operating member operable upon the spring to increase the pressure of the spring against the switch blade and thereby to flex the switch blade between the spring and the contact, said operating member being also adapted to move the spring through its dead-center position to relieve the pressure of the spring upon the switch blade and thereby to enable the stored energy in the switch blade to cause the switch blade to move in a direction away from the contact and thus to act as an auxiliary to the breaking action of the spring.

2. In a switch mechanism, a flexible switch blade movable toward and away from a relatively stationary contact member, a quick-break means for moving the switch blade away from the contact member, said quick-break means including a double spring toggle exerting a tendency to urge the switch blade against the contact, said toggle being movable through a dead-center position for reversing its effectiveness upon the switch blade to thereby break the switch blade away from the contact, a floating carrier upon which the switch blade is carried, said carrier having an opening therethrough within which the toggle operates, a guide member for the carrier also received in said opening, the flexible switch blade being mounted upon the carrier so as to receive pressure from the springs of the toggle through the carrier, and an operating member operable upon the toggle to increase the pressure of the springs thereof upon the carrier and thereby to flex the switch blade against the contact by pressure from the carrier, said operating member being also adapted to move the toggle through its dead-center position to relieve the pressure of the springs of the toggle upon the switch blade and thereby to enable the stored energy in the switch blade to cause the switch blade to move in a direction away from the contact and thus to act as an auxiliary to the breaking action of the toggle.

3. In a switch mechanism, comprising a floating carrier, a contact member supported by the carrier to move therewith, a standard, a member slidable upon said standard, a pair of spring devices connected between said member and said carrier comprising a double spring toggle of which said member is the knee joint, the double spring toggle being movable by said member through the dead-center position for exerting pressure to urge the carrier suddenly into "on" or "off" positions, an operating lever pivotally mounted intermediate its ends, link connections between said lever and said member to slide said member for operating said toggle in response to the swinging movements of said lever, and means whereby said lever may be be swung in either direction at will.

1,256,333. STENCIL-WRITING MACHINE. PAUL E. KVISTAD, Seattle, Wash. Filed Aug. 13, 1917. Serial No. 186,079. (Cl. 197—1.)

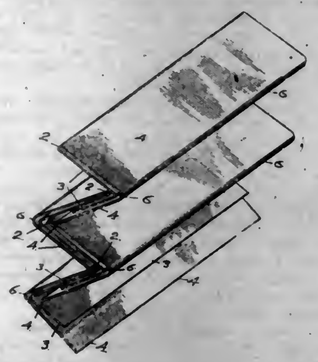


A stencil writing machine of the class described which embodies a frame having supporting members to adapt it to be slidably supported on a surface to be stenciled; a vertically disposed key-board rigidly associated with said frame and provided with key-holes extending therethrough; a lever pivotally mounted on said frame and provided at one end with an attached key-bar disposed adjacent to said key-board and parallel therewith whereby said key-bar may be actuated to swing toward and away from said key-board; a plurality of keys of different lengths rigidly fixed in said key-bar and disposed freely to project through said key-holes of said key-board; a toothed rack-bar attached to said lever and disposed in a horizontal plane to extend in a circle concentric with the pivot of said lever; a bracket attached to said frame and disposed to extend in a larger circle concentric with the circle of said rack-bar; a plurality of spaced lugs integral with said bracket and disposed to extend obliquely upward in converging lines therefrom; a plurality of guiding holders disposed each between adjacent ones of said spaced lugs and pivotally associated therewith; a slide-bar mounted on each of said guiding holders and adapted to be slidably movable thereon; a pinion-rod rotatably mounted on each of said slide-bars and adapted operatively to engage its teeth with the teeth of said rack-bar whereby it may be rotatively moved in response to movements of said key-bar, said pinion-rod being hollow throughout its length; a stencil member comprising a cup formed to have two circular rows of facets each of which facets is perforated to form a stencil, said stencil member having attached to the lower end of said pinion member, a pad of absorbent material disposed within said stencil member adjacent to said stenciled facets whereby ink from within said hollow pinion rod may be caused slowly to percolate therethrough into the perforations of said facets; a funnel and cover provided on the upper end of said pinion rod; and detent means for holding said slide-bar at a desired one of two different angular positions with respect to a vertical line.

1,256,334. INTERLEAVED PAPER-TOWEL PACKAGE. WILLIAM T. LAZAR, San Francisco, Cal. Filed Aug. 27, 1914. Serial No. 858,944. (Cl. 206—57.)

1. An interleaved paper towel package comprising double folded sheets having one free edge extended beyond the other free edge thereof.

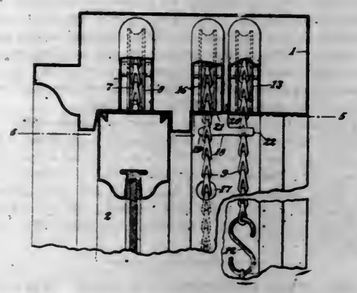
3. An interleaved paper towel package comprising sheets folded off of a median line so that the lower edge will extend beyond the upper edge of the said folded sheet, said folded sheet being also folded on a line midway be-



tween the first mentioned fold and the extended edge, with the said extended edge on the bottom, that portion of the sheet adjacent the first mentioned fold being interleaved with the next sheet above it.

[Claim 2 not printed in the Gazette.]

1,256,335. SELF-CLOSING WINDOW. ELOF R. LEONARD, Woodcliff, N. J. Filed June 5, 1917. Serial No. 172,858. (Cl. 189—72.)



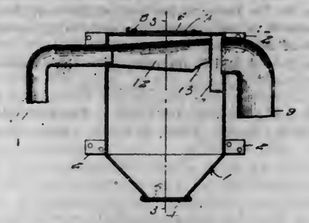
1. The combination, in an automatically closing window, of a casing, an upper sash provided with counterbalancing means, a lower sash, counterbalancing means carrying the lower sash and embodying a flexible element having a fusible link, a carrying pulley over which the flexible element travels, a releasable detent attaching said flexible element toward one end to the casing, a pulley traveling upon a loop of said flexible element between said carrying pulley and said releasable detent, normally stationary connecting means between said flexible element and the upper sash counterbalancing means, said flexible element being also provided with means adapted to free the releasable detent from the flexible element upon the parting of said fusible link.

2. The combination, in an automatically closing window, of upper and lower sashes, normally independent counterbalancing means therefor, thermally governed means connecting the lower sash to an enlarged element in one portion of its counterbalancing means, a key element normally holding another portion of such counterbalancing means in fixed position, and means brought into action by the operation of said thermally actuated means for releasing said key element through the engagement of said enlarged element therewith to cause the lower sash counterbalancing means to operate upon the upper sash.

3. The combination, in an automatically closing window, of upper and lower sashes, normally independent counterbalancing means therefor, thermally governed means connecting the lower sash to one portion of its counterbalancing means, a key element normally holding another portion of such counterbalancing means in fixed position, connectible means between the counterbalancing means, and means brought into action by the operation of said thermally actuated means for releasing said key element from the counterbalancing means to cause the lower sash counterbalancing means to operate upon the upper sash through said connectible means.

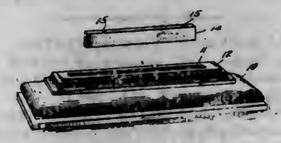
[Claims 4 and 5 not printed in the Gazette.]

1,256,336. ATTACHMENT FOR COFFEE-ROASTERS. SAMUEL LIBERTO, San Antonio, Tex. Original application filed July 28, 1916, Serial No. 111,857. Divided and this application filed Sept. 12, 1917. Serial No. 191,086. (Cl. 130—17.)



A device of the character set forth comprising a storage hopper, an inlet pipe connected to said hopper, a suction pipe connected to said hopper, a screen cage located in said hopper over the suction pipe, and a distributing pipe connected to the inlet pipe within the hoper and having a cut away portion in its free end disposed adjacent the cage for permitting coffee to fall downwardly in the hopper when abutting the cage.

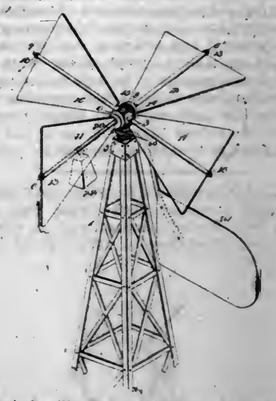
1,256,337. PICTURE-FRAME AND BASE. CARL H. LIEBER, Indianapolis, Ind., assignor to The H. Lieber Company, Indianapolis, Ind., a Corporation of Indiana. Filed May 1, 1916. Serial No. 94,573. (Cl. 40—146.)



1. As an article of manufacture, a picture frame base having a closed-end slot in its upper face slightly rearwardly inclined, and an associated strip having a thickness substantially equal to the width of the slot and a length materially less than the length of the slot, said associated member being separate from and adapted for easy attachment to the lower bar of a picture frame.

2. As an article of manufacture, a picture frame base having a closed-end slot in its upper face, and an associated strip having a thickness substantially equal to the width of the slot and a length materially less than the length of the slot, said associated member being separate from and adapted for easy attachment to the lower bar of a picture frame.

1,256,338. WINDMILL. LEANDER W. LILES, Nacogdoches, Tex. Filed Apr. 5, 1917. Serial No. 159,940. (Cl. 170—28.)

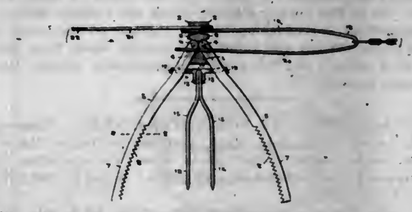


1. In a wind mill, the combination of a frame, a rotatable shaft in the frame, a plurality of spindles extending from the shaft, vanes loosely mounted on the spindles, a pinion loosely mounted on the shaft, gear wheels between the vanes and the pinion, the gears and pinions being proportioned to rotate each vane on its spindle one-half revolution upon each complete rotation of the mill head, and a tail vane secured to the pinion to change the position of the vanes to correspond to the change of direction of the wind.

5. In a wind mill, the combination of a frame, a rotatable shaft in the frame, a plurality of spindles extending from the shaft, vanes loosely mounted on the spindles, a pinion loosely mounted on the shaft, oppositely disposed pairs of gears between the vanes and the pinion, the respective pairs of gears being of different diameters and all said gears being of larger diameter than the diameter of the pinion, the gears and pinion being proportioned to rotate each vane on its spindle one half revolution upon each complete rotation of the shaft, and a tail vane arranged to change the position of the vanes to correspond to the change of direction of the wind.

[Claims 2 to 4 not printed in the Gazette.]

1,256,339. TRAP. ALBERT V. LINDQUIST, Alexandria, Minn. Filed Mar. 8, 1917. Serial No. 153,322. (Cl. 43—23.)



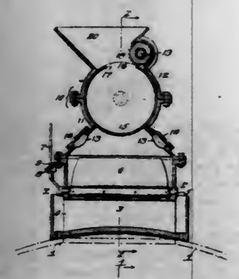
1. A trap comprising a base member, a pair of elongated jaws pivotally attached to said base member and each provided with an aperture adjacent its inner end, an oscillatory trigger bar disposed through the aperture of said jaws and formed with notches adjacent each end adapted to engage the outer edges of said apertures to hold the jaws in open position, a trigger pivotally attached to and projecting from the trigger bar so as to permit of a slight relative movement of the trigger with respect to the trigger bar in either direction before tripping the trigger, and a U-shaped expansion spring having the ends of its arms apertured and mounted on said base

member, one of said arms engaging the inner end portions of the jaws and serving to close the jaws upon the release of the trigger.

3. In a trap of the class described, the combination with a base member, and a U-shaped expansion spring having its ends apertured and arranged over the base member, of a handle rotatably mounted on the inner end of the base member and adapted to be held in any rotatory position by the expansive force of said expansion springs and coöperating with said expansion spring to support the trap within the animal runway.

[Claim 2 not printed in the Gazette.]

1,256,340. COAL-FEEDER FOR GAS-PRODUCERS. WILLIAM J. LINDSAY, Philadelphia, Pa., assignor to Camden Iron Works, Camden, N. J., a Corporation of New Jersey. Filed May 26, 1916. Serial No. 100,058. (Cl. 48—86.)



1. The combination in a feeder for gas producers, of a casing; a hollow cylindrical feeding device in the casing having a longitudinal slot therein; a hopper communicating with the feeder; a driven roller located at one side of the feeder and rotating in the same direction as the feeder and acting to displace the lumps of coal projecting from the feeder; and means for rotating the feeding device.

2. The combination of a casing; a rotating cylindrical feeding device located within the casing and having a longitudinal slot therein; a hopper above the casing; a longitudinally arranged roller having a roughened periphery; means for rotating the roller so that as the feeder rotates the projecting lumps of coal will be thrown back into the hopper by the roller.

3. The combination of a casing; a hollow cylindrical feeding device mounted in the casing and having a longitudinal slot therein; a hopper on the casing; a roller at one side of the hopper directly above the feeding device; longitudinal corrugations in the surface of the roller; means for driving the roller at a greater speed than the feeding device; and means for intermittently turning the feeding device.

1,256,341. SIDE CAR FOR MOTOR-CYCLES. THERON L. LOOSE, Springfield, Mass., assignor to Hendee Manufacturing Company, Springfield, Mass., a Corporation of Massachusetts. Filed May 23, 1916. Serial No. 99,371. (Cl. 208—45.)

1. The combination with a motorcycle, of a side car detachably connected thereto comprising a frame, an extensible axle carried by said frame, means for holding said axle in its extended position, and an adjustable link connection extending from a point near the end of said axle to the forward part of the frame for bracing the axle.

5. The combination with a motorcycle, of a side car connected thereto, comprising a frame, an extensible axle mounted in said frame, means for securing said axle in an extended position, and means for bracing the said axle so extended, including pivoted links carried by the said axle and frame of the side car respectively and adapted to be secured together.

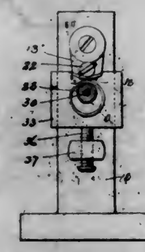
6. The combination with a motorcycle, of a wheeled side car connected thereto, comprising a frame, an extensible axle carried by said frame, a support for said axle at its outer end including a block, and a fender support provided on said block for securing the fender of the wheel of the side car thereto.



8. The combination with a motorcycle, of a wheeled side car connected thereto, comprising a frame, an extensible axle carried by said frame, a support for the outer end of said axle, means for securing said axle in said support, a brace connected at one end to said means extending to the forward portion of the said frame, and means carried by said frame for adjustably securing the other end of said brace thereto.

[Claims 2 to 4 and 7 not printed in the Gazette.]

1,256,342. MARKING DEVICE. THOMAS MCGRATH, Providence, R. I. Filed Jan. 31, 1916. Serial No. 75,252. (Cl. 101—7.)

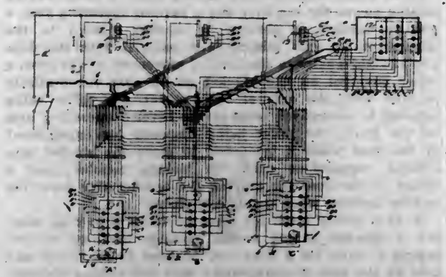


A marking device comprising a frame, a work-supporting arbor having one end free over which the work may be readily positioned and removed, a character-carrying chuck rotatably mounted in said frame above said arbor and adapted to impress its characters into the work supported on said arbor with a rolling pressure.

1,256,343. ELEVATOR SIGNAL SYSTEM. ALVIN C. MCNANN, Dallas, Tex., assignor of one-half to Charles L. Wakefield, Dallas county, Tex. Filed Oct. 23, 1915. Serial No. 57,393. (Cl. 177—336.)

1. The combination with two or more elevator cars, of an indicator located in each car constructed to indicate the floor positions of other cars, a movable contact member operated by each car, a plurality of individual floor signals disposed on said indicator, each signal having common connection with said movable contact member, and a plurality of contacts seccessively engaged by said movable contact member and each contact having separate circuit connection with an individual floor signal, whereby each floor signal is energized by closing a separate circuit connected therewith only, the other signals not energized remaining dormant whereby said eneregized signal is differentiated.

2. In an elevator monitoring system, the combination with a plurality of indicators, each of which is located in a different car, each indicator having signal devices for indicating the relative positions of the other cars, electrical circuit connections between the indicators, a monitoring indicator located at a fixed point and having signals corresponding to those of the indicators in the cars, and electrical circuit connections between the signal devices of the car indicators and the corresponding signals of the monitoring indicator whereby the relative positions of all the cars are indicated by the operation of the signals of the monitoring indicator.



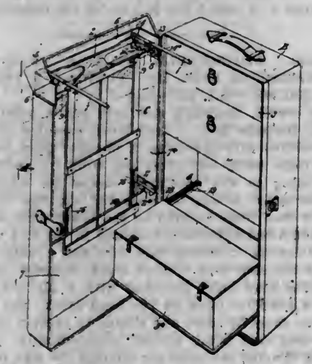
3. The combination with a bank of elevator cars, of a plurality of floor indicators, each of which has provision for indicating floor traversed and is located in a different car, said indicators being electrically connected one with the other, and a monitoring indicator located at a fixed point and having means electrically connected with indicators of the cars for indicating the respective floor positions of all the cars whose indicators are connected therewith.

4. The combination with a bank of elevator cars; of an indicator located in each car and including individual rows of signals, a row of signals corresponding to the number of floors being provided for each car except that in which the indicator is located; and means operated by each car for successively operating the signals in individual order in the other cars.

5. The combination with a bank of elevator cars, of a plurality of indicators each located in a different car, each indicator having means for indicating the relative positions of the other cars, electrical circuit connections between the indicators, and means carried in each car and electrically connected whereby a loaded signal may be given in each of the other cars.

[Claims 6 to 12 not printed in the Gazette.]

1,256,344. WARDROBE-TRUNK. EDWARD J. MAHER, St. Louis, Mo., assignor to P. C. Murphy Trunk Co., St. Louis, Mo., a Corporation of Missouri. Filed Nov. 25, 1916. Serial No. 133,328. (Cl. 190—36.)



2. A wardrobe trunk, comprising a garment compartment, a follower in said compartment consisting of a rigid frame, rails that coöperate with a means on one end of said follower to support it, a transversely-disposed bar arranged adjacent the opposite end of the follower in such a manner that it can be moved longitudinally of same, and stationary notched devices that are adapted to be engaged by the end portions of said bar.

3. A follower for wardrobe trunks provided at one end with laterally-projecting devices that coöperate with a supporting means on the trunk, a bar arranged transversely of the follower adjacent the opposite end of same, housings on said follower, guiding devices on said bar that project into said housings, and springs in said housings connected to same and to said bar for exerting pressure on said bar in one direction.

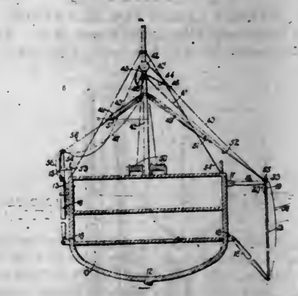
[Claims 1 and 4 not printed in the Gazette.]

1,256,345. COLLAPSIBLE TUBE. GEORGE MARCEAU, New York, N. Y. Filed Mar. 16, 1916. Serial No. 84,975. (Cl. 221—60.)



In a collapsible tube the combination consisting of the screw cap, the slit cut transversely through the body of the screw cap, the portion above the slit provided with a centrally located perforation, the latter adapted to be placed over a hook or nail, when the portion above the slit is turned upwardly and used as a hanger.

1,256,346. TORPEDO-GUARD FOR SHIPS. ERIK MATTSON, Brooklyn, N. Y. Filed July 3, 1917. Serial No. 178,339. (Cl. 114—240.)



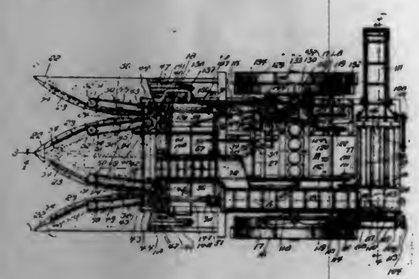
2. In a torpedo guard for ships, the combination of an upper series of booms pivoted to the upper part of the hull, a series of lower booms pivoted to the hull, the upper booms being shorter than the lower booms while the latter extend downwardly as well as outwardly, a guard member suspended between the outer ends of the two series of booms, means connected to the upper booms to control the position and elevation thereof, and a series of hoisting lines connected to the lower ends of the lower booms and having loose movable connection with the upper booms.

6. The combination with a ship, of independent guard members on opposite sides thereof and spaced laterally

therefrom, a series of upper booms pivoted adjacent to the upper edge of the hull and connected to the upper edge of the guard member on either side, a series of lower booms pivoted to the lower portion of the hull below the pivots for the upper booms, the lower booms being longer than than the upper booms and extending downwardly as well as laterally, hoisting devices carried by the ship and connected to the upper booms to hoist the same into vertical position and initiate the hoisting of the lower booms, and a series of hoisting lines connected permanently to the lower booms and movably associated with the respective upper booms, the hoisting lines being adapted to be connected to the hoisting means whereby the lower booms are swung completely into vertical position subsequent to the hoisting of the upper booms, the guard member at this time being folded and held snugly against the side of the hull by means of the lower longer booms.

[Claims 1 and 3 to 5 not printed in the Gazette.]

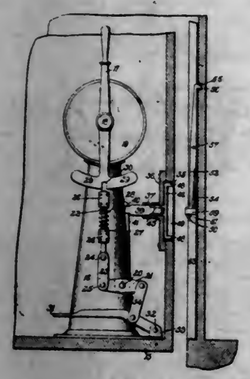
1,256,347. CORN-HARVESTER. ROBERT E. MEHARRY, Colfax, Ill. Filed Mar. 15, 1916. Serial No. 84,376. (Cl. 56—113.)



1. In a corn harvester, a device for snapping or detaching ears from corn stalks, the same including a pair of rolls between which a corn stalk is guided and whereby it is pulled downwardly, a stationary blade mounted above and adjacent to one of the rolls, a bracket supported above and adjacent to the other roll, a guide pin on said bracket, a movable blade having a slot engaging the guide pin, and a driven shaft having a crank engaging the movable blade to impart thereto a vibratory and also a longitudinal motion.

[Claim 2 not printed in the Gazette.]

1,256,348. SAFETY-LATCH FOR ELEVATOR-DOORS. THOMAS ACKERSON MELVILLE, Fargo, N. D. Filed Mar. 27, 1917. Serial No. 157,705. (Cl. 187—49.)



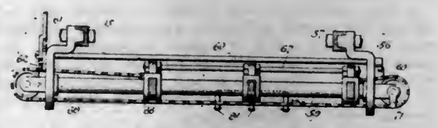
1. In a safety latch for elevator doors, an elevator control lever, a casing having a guideway, a plunger movably disposed in the guideway, a bracket pivoted to the plunger and having means for engaging a latch for a door, the bracket being disposed to be moved and held by the door in locked position against the casing at the outer side of the guideway as long as the door is open, and means for simultaneously locking the lever and actuating the plunger.

3. In combination with a sliding door, a lever having locking means for the door and a beveled operating arm, a locking member, a plunger, a bracket pivoted to the plunger on an axis substantially parallel with the door and at right angles to the path of movement of the door, a roller mounted on the bracket on an axis substantially parallel with the axis of the bracket, the roller being adapted to operatively engage the beveled operating arm on the lever, the roller being disposed for engagement by the door when it is opened to move the bracket into locking engagement with the locking member, and a flange on the door for moving the bracket free from the locking member when the door is closed.

4. In a safety latch for elevator doors, a locking member, a plunger having means movably mounted for engaging a latch for a door and adapted to be moved and held by the door in engagement with the locking member, and resilient means for holding the said means on the plunger free from the locking member.

[Claims 2 and 5 to 11 not printed in the Gazette.]

1,256,349. TRACTION GANG-PLOW. BOYD F. MERTZ, Northumberland, Pa. Filed Feb. 5, 1917. Serial No. 146,768. (Cl. 97—60.)



1. In a gang plow, the combination of a frame, a draw bar adjustable relative thereto, a plurality of plows adjustable longitudinally of said draw bar, a flexible element connecting certain of said plows, and means operatively connected to said elements for actuating the same to adjust said plows.

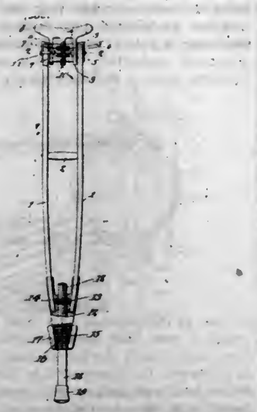
4. In a gang plow, the combination of a frame, supporting members detachably secured to the sides thereof, a draw bar mounted in said supporting members and vertically adjustable therein, a plurality of plows connected to said draw bar, cranks extending between certain of said plows, and means for independently operating each plow.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,256,350. ADJUSTABLE CRUTCH. WLADYSLAW S. MIELCAREK, St. Louis, Mo. Filed Nov. 5, 1917. Serial No. 200,390. (Cl. 135—50.)

2. A crutch, including side bars and a hand grip connecting the side bars, a head block mounted on the bars and provided with apertures, a shoulder piece on the head block, there being legs extending from the shoulder piece and sliding in the apertures, means for adjusting the shoulder piece, means for clamping the legs to the head block, a foot piece secured to the lower ends of the side bars, and a rod adjustably mounted in the foot piece.

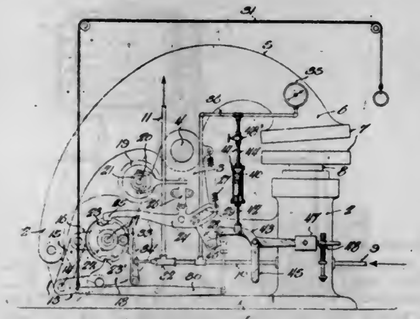
3. A crutch, including side bars and a hand grip connecting the side bars, a head block mounted on the side bars, said head block provided with a plurality of apertures, a shoulder piece on the head block, legs extending from the shoulder piece and sliding in certain of the apertures, said legs being slotted longitudinally, set screws passing through the slots for binding the legs to the head block, a screw extending from the shoulder piece and entering one of the apertures, thumb nuts threaded on the screw and engaging the head block for adjusting the shoulder piece, a foot piece secured to the lower ends of the side bars, and a rod adjustably mounted in the foot piece.



4. A crutch including side bars and a hand grip connecting the side bars, a head block mounted on the bars and provided with apertures, a shoulder piece on the block, there being legs extending from the shoulder piece and sliding in the apertures, means for adjusting the shoulder piece, and means for clamping the legs to the head block.

[Claim 1 not printed in the Gazette.]

1,256,351. LEATHER-STAMPING MACHINE. BERNARD J. MILLER, Milwaukee, Wis. Filed Mar. 19, 1917. Serial No. 155,723. (Cl. 138—10.)



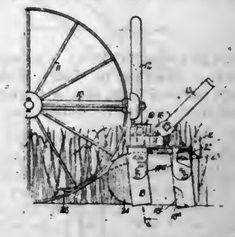
1. In a machine of the class described, a supporting base, a pair of pressing members, means for moving one of the said members toward the other, means for retracting said movable member including a bell crank, means for controlling said retracting means comprising a tripping lever engageable with said bell crank, and means for engagement with said lever to actuate the same.

2. In a machine of the class described, a pair of pressing members, means for moving one of said members, means for holding the movable member in one position, and means for controlling the last mentioned means including a tripping lever pivoted intermediate its ends, a piston cylinder, a piston movable in said cylinder and connected with said lever to one side of its pivot, and an adjustable weight disposed on the other side of the pivot of said lever.

4. In a machine of the class described, a pair of pressing members, means for moving one of said members toward the other, means for retracting said member including a bell crank, and means for controlling said retracting means comprising an intermediately pivoted tripping lever engageable with said bell crank, a piston cylinder, a piston movable in said cylinder and connected with said tripping lever to one side of its pivot, and an adjustable weight disposed on the other side of the pivot of said lever

[Claim 3 not printed in the Gazette.]

1,256,352. HOE. RINALDO N. MOORE, Mitchell, Iowa. Filed Sept. 6, 1917. Serial No. 189,989. (Cl. 97—34.)

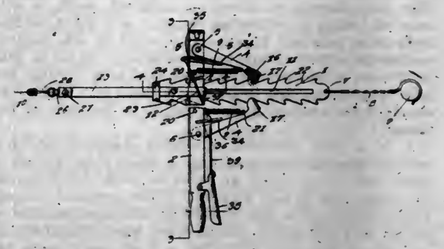


1. A hoe attachment including a plate, a transverse bracket carried by said plate at the front, a second transverse bracket carried by said plate in the rear of the first bracket, means independent of the brackets to detachably secure said plate between the ends thereof to a wheeled frame so that the brackets are attachable and detachable with the plate, depending standards on the said brackets at the ends thereof, means to adjust the rear bracket on said plate transversely relatively to the front bracket, and U-shaped knives presenting upstanding side arms secured to the said standards, and adjustable thereon to vary the angular positions of said U-shaped knives relatively to a vertical plane.

3. A hoe attachment including a transverse bracket, depending standards on said bracket, a knife presenting upstanding members at the sides, and leaf lifting devices in the form of fingers secured to said standards adjacent to the upper ends of the said upstanding members and extending forwardly and downwardly therefrom.

[Claims 2, 4, and 5 not printed in the Gazette.]

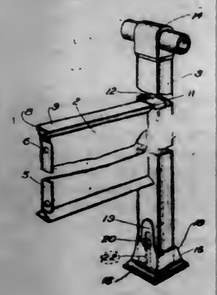
1,256,353. WIRE-STRETCHER. ALBERT D. MORROW, Cordova, Ala. Filed Feb. 9, 1916. Serial No. 77,264. (Cl. 254—72.)



A wire stretcher comprising a ratchet bar provided at opposite sides with ratchet teeth, an operating lever disposed transversely of the ratchet bar and slidably connected therewith, pawls located at opposite sides of the ratchet bar and pivoted at one end to the lever and having their other ends engaging the ratchet teeth, separate springs located at opposite sides of the ratchet bar and connected with the pawls for urging the same into engagement with the said ratchet bar, and releasing mechanism comprising a pair of releasing levers carried by the operating lever and located between and engaging the pawls at the inner sides thereof, one of the releasing levers being pivoted at one end and the other releasing lever being pivoted at a point intermediate of its ends to provide an arm, a rod connecting the arm of such releas-

ing lever with the other releasing lever and pivoted to the latter at a point intermediate of the ends of the same, and a latch lever mounted on the operating lever and connected with the said rod and adapted to move the releasing levers simultaneously in an outward direction, said pawls operating independently of the operating mechanism in the ratchet action of the wire stretcher and the said springs permitting the said pawls to swing outward independently of each other and also of the operating mechanism.

1,256,354. TOILET-PARTITION. CHARLES W. MOTTS, Atchison, Kans., assignor to Henry Weis Manufacturing Company, Kansas City, Mo., a Corporation of Missouri. Filed Apr. 11, 1917. Serial No. 161,170. (Cl. 189—34.)



1. A toilet partition comprising a side member having an anchoring flange at one end and a supporting standard at its opposite end, a floor shoe for slidably receiving the lower end of said standard and means for securing the standard within the shoe.

2. A toilet partition comprising a side member having an anchoring flange at one end and a supporting standard at its opposite end, a floor shoe for slidably receiving the lower end of said standard, means for securing the standard within the shoe and means for anchoring the shoe to the floor.

3. A toilet partition comprising in combination with a floor shoe having an upwardly extended shank, a side member having an anchoring flange at one end, a tubular supporting standard at the opposite end of side member having a vertically slotted end adjustably seated in said floor shoe, a bolt projecting from said neck through the slot in said standard and a nut on said bolt within the standard for anchoring the standard to the neck of the shoe.

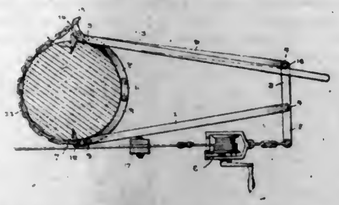
4. In a toilet partition, a tubular standard having a vertical slot at its lower end, a floor shoe, having a flared base portion and an extended neck, for receiving the slotted end of said standard, a bolt projected through a wall of said neck and slidable in said standard slot, a nut on said bolt within the standard whereby said standard may be anchored within the said shoe and means for anchoring shoe to a floor.

[Claims 5 to 7 not printed in the Gazette.]

1,256,355. WIRE-FENCE-STRETCHER SUPPORT. CHARLES MUNDT, Square Butte, Mont. Filed June 7, 1917. Serial No. 173,342. (Cl. 254—162.)

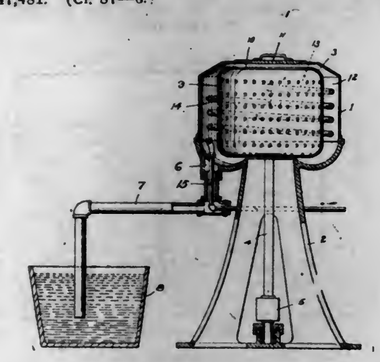
1. Means for stretching a wire fence beyond a post comprising a pair of bars extending from the post in the direction in which the fence is to be stretched, means for securing the inner ends of the bars to the post, a transverse bar pivotally connected to the outer ends of the bars, and projecting beyond one of them, means attached to the projecting end of the transverse bar for stretching the fence past the post, and means for operating the bar securing means.

2. In a wire fence construction, the combination with a fence post, of a stretcher support comprising a pair of bars, a cross bar connecting said bars at one end, a right angular projecting spur carried by the opposite end of each bar, a pair of arcuate members, each having one end pivotally connected to one of said bars adjacent its respective spur, a flexible element having one end attached



to one of said bars, a cam lever pivotally attached to the other of said bars, said cam lever adapted to engage the free end of said flexible element whereby when the lever is actuated, the spurs of said bars will be forced into the fence post and said arcuate members drawn into engagement with the circumference of the post to support the device in operative position, and means for maintaining said cam lever in actuated position.

1,256,356. METHOD OF REMOVING OILS, FATS, AND GREASES FROM CLOTHS, AND APPARATUS. GEORGE W. NAGEL, Chicago, Ill., assignor of one-third to William L. Newman, Jr., and one-third to Charles F. Bliss, Chicago, Ill. Filed Feb. 8, 1917. Serial No. 147,481. (Cl. 87—6.)

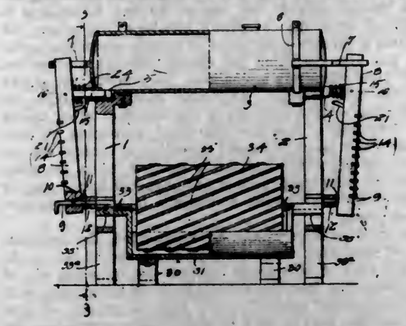


1. The method of removing oils, fats or greases from cloths which consists in subjecting the cloths to centrifugal force against a retaining element and at the same time applying jets of steam to the opposite side of said element.

2. Extracting apparatus comprising a revoluble container having perforations in its side wall, an inclosing casing for the container having a discharge outlet, a steam coil in the casing surrounding the container having perforations to direct jets of steam against the side wall of the container, and a supply connection for the steam coil extending through said discharge outlet.

1,256,357. HOG-OILER. ALBERT A. NASSER, Boyden, Iowa. Filed May 18, 1917. Serial No. 169,502. (Cl. 119—157.)

1. In a hog oiler structure, the combination, of a supporting structure, an oil retaining tank carried by said supporting structure, extensions formed upon the lower portion of said tank and having communication with the interior of the tank, a movable rubbing member carried by said supporting structure, a pin carried by said rubbing member and extending into said extension, a duct formed in said pin and having an inlet opening communicating therewith and with the uppermost portion of the pin, and an outlet opening communicating with the duct and



the lowermost portion of the pin outwardly from the inlet opening, said pin adapted to be moved inwardly within said extension upon the inward movement of the rubbing members for permitting of communication between the inlet of said duct and the interior of the tank to allow oil to flow out of the tank through the pin.

[Claims 2 to 4 not printed in the Gazette.]

1,256,358. FRONT-LACE CORSET. SAMUEL J. NEWMAN, New Haven, Conn., assignor to I. Newman & Sons, New Haven, Conn., a Copartnership. Filed Sept. 14, 1916. Serial No. 120,003. (Cl. 2—73.)



1. A corset of the character described, comprising a body open at the front, means for receiving lacings on each edge of said front for drawing said edges toward each other, and a vest structure extending substantially from the top to the bottom of said body and having the opposite edges connected to said body near the sides thereof on the inner face of said body, said vest being formed of elastic material and provided with connecting means arranged centrally of the person using the corset when the vest structure is closed.

[Claims 2 to 6 not printed in the Gazette.]

1,256,359. COMBINED TOOL AND HOLDER. GUNNARD OBERG, Jamestown, N. Y., assignor of one-half to Emil C. Feldt, Jamestown, N. Y. Filed May 25, 1917. Serial No. 171,014. (Cl. 29—100.)

1. In combination with a tool holder, a reversible tool for left or right cuts having its upper face inclined transversely to its longitudinal axis, and a set screw borne by the holder and having its end of conical form so as to have points diametrically opposite to each other to correspond to and conformably engage said inclined upper face of the tool in either right or left disposition thereof and to have the same relation to the tool in all dispositions thereof.

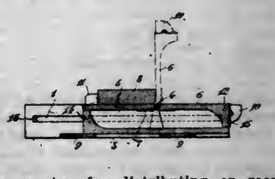
5. A cutting tool and holder comprising a shaft having one end enlarged, the under side of the shaft of said tool-holder knurled to better hold the same, said enlarged end of said shaft having a substantially triangular shaped opening therethrough at an incline, a set-screw inserted through the enlarged end of said holder from the upper



side in said triangular shaped opening, said set screw having a conical shaped end, in combination with a substantially triangular cutting tool having a shortened lower corner and an inclined upper face to press said tool into said triangular shaped opening by said set-screw to hold the same on all three sides without bottoming.

[Claims 2 to 4, 6, and 7 not printed in the Gazette.]

1,256,360. RECEIPT-DRAWER. BROR IVAR EDVARD MAURITZ OHLSON, Helsingborg, and NILS GUSTAF OSCAR LUNDBERG, Malmo, Sweden. Filed Dec. 5, 1916. Serial No. 135,282. (Cl. 232—1.)

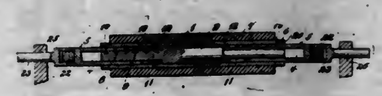


1. An apparatus for distributing or receiving documents and the like consisting in a horizontally slidable drawer provided with two lids independent of each other and hinged on a common axle placed at right angles to the direction of movement of the drawer, a rib placed above the lids and a spring acting upon the lids and tending to turn them upward.

3. An apparatus for distributing or receiving documents and the like consisting in a horizontally slidable drawer provided with two lids independent of each other, two end walls the one of which is fixed to the one of the lids and the other to the drawer, the lids being hinged on an axle placed at right angles to the direction of movement of the drawer, a rib placed above the lids and a spiral spring acting upon said lids and tending to turn them upward, this spring being placed around the axle and with each of its ends resting against the under side of one of the lids.

[Claims 2 and 4 not printed in the Gazette.]

1,256,361. EXTENSIBLE FORM OR DISTRIBUTING ROLLER FOR PRESSES. JOHN FRANCIS O'KEEFE, New York, N. Y. Filed Nov. 10, 1917. Serial No. 201,330. (Cl. 91—67.8.)



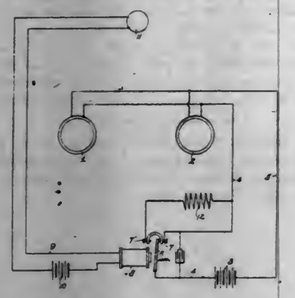
1. A press roller of the class described comprising a shaft composed of a central section and end journal-carrying sections telescopically connected with the central section, a sleeve fitted over the shaft, and a composition facing on the sleeve.

4. A roller comprising a shaft composed of a central section having reduced ends, said reduced ends being pro-

vided with a plurality of spaced, threaded apertures, end journal-carrying sections fitted over the reduced ends of the central section, a filler in the form of a sleeve on the reduced ends of the central section and between the end sections and the middle portion of the central section, set-screws passing through the end sections and fillers and engaging in the said threaded apertures to secure the sections and fillers in place, the fillers and sections having interlocking lugs and recesses, a sleeve fitted over the sections and secured thereto, a facing composition on the sleeve, and a removable journal on each end section.

[Claims 2 and 3 not printed in the Gazette.]

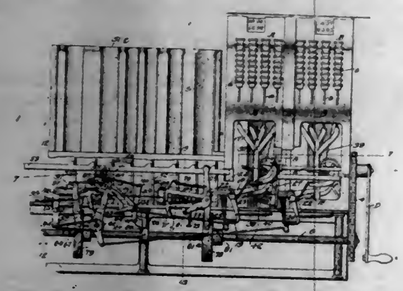
1,256,362. AUTOMATIC HEADLIGHT-DIMMER FOR AUTOMOBILES. VICTOR OLSON, Naugatuck, Conn. Filed Mar. 24, 1917. Serial No. 157,097. (Cl. 250—2.)



1. The combination of a vehicle headlight system including a headlight, a source of current, and means for introducing a resistance into the circuit of the headlights to reduce the current flow, said means including a selenium cell exposed to the rays of light from the headlights of another automobile.

2. A vehicle headlight sysem including a headlight, a circuit therefor, a source of current in the circuit, a resistance, a switch for closing the circuit through the resistance or independently thereof, and means for operating the switch, said means including a selenium cell responsive to the rays of light from the headlight of another vehicle.

1,256,363. MONEY PAYING, CHANGING, AND LISTING MACHINE. WILLIAM S. OVERLIN, Portland, Oreg., assignor, by mesne assignments, to International Money Machine Company, Terre Haute, Ind., a Corporation of Indiana. Filed July 19, 1912. Serial No. 710,512. (Cl. 133—2.)



1. In a money changing and listing machine, the combination of change delivery mechanism, different denomination computing members, a series of different denomination manipulative members corresponding with said computing members and controlling an initial adjustment of the latter, a printing mechanism controlled by said series of manipulative devices, a second series of manipulative devices of different denominations corresponding with the computing members and controlling a subsequent adjustment of the latter, a printing mechanism controlled by the last-mentioned manipulative devices, means whereby the change delivery mechanism is controlled from the computing members, and means for effecting a further adjustment of certain computing members and also operating the change delivery mechanism.

20. In a computing mechanism, the combination of two different denomination computing members, means for moving one of said members in one direction, other means for imparting a separate additional movement to said member, and means rendered operative to control the operation of the other computing member when the first-mentioned computing member has imparted thereto one of the movements aforesaid, and means to actuate the last named means.

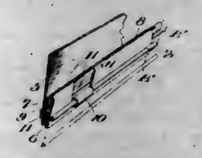
50. In a machine of the class described, the combination of computing members, keys in groups of nine each, and the keys of each group operable for actuating one of said computing members differentially in accordance with a predetermined amount, other keys in groups of nine each and the keys of each of which latter groups are operable for actuating one of said computing members differentially in accordance with another amount for finally positioning said computing member, separate printing mechanisms controlled by the first and second named groups of keys, and operating means common to said printing mechanisms and the computing members.

70. A computing device comprising units and tens oscillatory sectors having toothed portions, manipulative devices engageable with said toothed portions for controlling the adjustment of said sectors to a position representing a predetermined amount, and transfer mechanism between the sectors comprising a member engageable with the said toothed portion of one of the sectors.

90. A change making machine embodying delivering mechanism divided into denominational groups, a plurality of selectors, one for each group, separate groups of keys divided into sets indicating the value of a purchase and the sum deposited, one group for each selector, and mechanism controlled by one selector for advancing the selector of next higher order, one step independently of its controlling keys, whenever a purchase key of higher value than a deposit key is operated in the group controlling the selector of next lower order.

[Claims 2 to 19, 21 to 49, 51 to 69, and 71 to 89 not printed in the Gazette.]

1,256,364. SPRING-SEAT CONSTRUCTION. HAZEL N. PEDERSEN, Racine, Wis. Filed Feb. 10, 1917. Serial No. 147,865. (Cl. 155—25.)



1. A spring seat comprising springs having a lower frame, flexible material depending at the edges of the spring seat, a downwardly facing channel strip having its flanges disposed in a plane substantially parallel to the plane of the depending flexible material, means carried by said strip for attachment to the spring frame, the lower edge portion of said flexible material passing down at the outer side of said strip and upwardly into the channel thereof, and a locking member forced into said strip and binding said flexible material therein and thereto.

2. A device of the character substantially as described, comprising a channel strip adapted to receive the depending ends of seat upholstery, means for fastening said strip to a seat comprising tongues formed from a side of said channel strip, and a locking member applied to said channel strip to bind the depending upholstery ends thereto.

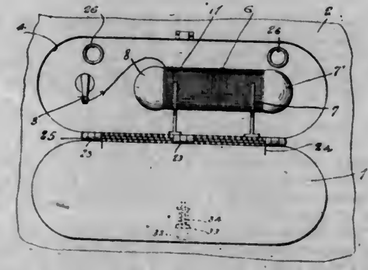
3. A device of the character substantially as described, comprising a channel strip having resilient sides and adapted to receive the ends of seat upholstery therebetween, means integral with said channel member for fastening the same to a seat, and a locking strip forced between the sides of said channel strip whereby the upholstery ends therein are bound thereto.

5. A device of the character substantially as described adapted to be fastened around the outside of the lower frame of a spring seat construction and to receive the depending ends of the upholstery on said construction, comprising, a channel strip formed of sheet material and having resilient sides and a locking member forced into said channel strip whereby the sides thereof bear against the depending upholstery ends and bind the same therein and thereto.

6. A spring seat comprising springs having a lower frame, flexible material depending at the edges of the seat, and means for securing the lower edge portion of said material, said means being secured to said frame and depending below the same to form a support for the seat, said means comprising a channel strip receiving the edge portion of said material and a locking member forced into said channel and wedging said material therein, the strip and member being so arranged that the weight of the seat tends to maintain the locking relation of the strip and member with respect to said material.

[Claims 4 and 7 not printed in the Gazette.]

1,256,365. DEVICE FOR RAISING SUNKEN VESSELS. ERNEST H. PETTIT, Niagara Falls, N. Y., assignor of one-half to John T. Williamson, Niagara Falls, N. Y. Filed June 15, 1917. Serial No. 175,019. (Cl. 114—51.)

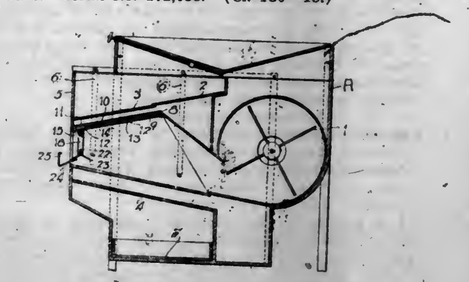


1. In a device for raising and locating sunken vessels, a compartment arranged in a vessel, a buoy arranged in said compartment, a door for said compartment, a bolt carried by said door, a keeper carried by the side of the vessel, spring means carried by said bolt to normally hold the bolt out of engagement from said keeper, means carried by said keeper for engaging said bolt for holding the same in engagement therewith, and means operated by the pressure of the water for releasing said bolt.

2. In a device for raising and locating sunken vessels, a compartment arranged in a vessel, a buoy arranged in said compartment, a door for said compartment, a keeper carried by the side of said vessel, a bolt carried by said door for engaging said keeper, a coil spring normally tending to draw said bolt from out of engagement with the keeper, a lug carried by said keeper for engaging said bolt for normally holding the same in said keeper, and spring means normally tending to hold the bolt in engagement with the lug carried by the keeper, as and for the purpose specified.

3. In a device for raising and locating sunken vessels, a compartment arranged in a vessel, a buoy arranged in said compartment, a door for said compartment, engaging means carried in said compartment adjacent said buoy, a keeper carried by the side of said vessel, a bolt carried by said door for engaging said keeper, means normally tending to draw said bolt from out of engagement with the keeper, means carried by said keeper for engaging said bolt for normally holding the same in said keeper, and spring means normally tending to open said door, said spring means being arranged to normally hold said bolt in engagement with the means carried by the keeper, as and for the purpose specified.

1,256,366. ADJUSTABLE WIND-GRADING SIEVE. ARTHUR PETERSON, Altamont, S. D. Filed May 31, 1917. Serial No. 172,058. (Cl. 130—15.)



1. A grader including an elevated frame, an adjustable plate carried by the frame and having an edge portion over which the grain is caused to drop in a stream, a fan for producing a blast of air to act upon the stream of grain, a transverse dividing partition arranged under the plate and having a parallel relation to the edge thereof, and guide means for directing the grain falling upon opposite sides thereof, the degree of separation depending upon the position of the adjustable plate with respect to the dividing partition.

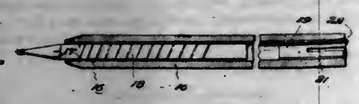
2. A grader including an elevated frame, a fixed plate extending over a portion of the frame, a slidable plate overlapping the fixed plate and extending beyond the same, the grain being caused to drop in a stream over an edge of the sliding plate, a fan for producing a blast of air to act upon the falling grain, a transverse dividing partition arranged under the sliding plate and having a parallel relation to the edge thereof, and guide means for properly directing the grain falling on opposite sides of the dividing partition, the degree of separation depending upon the position of the sliding plate with respect to the dividing partition.

5. A grader including an elevated frame, a plate carried by the frame and adapted to have grain discharged over an edge portion thereof in a continuous stream, a fan for producing a blast of air to act upon the falling grain, a transverse dividing partition arranged in a fixed position under the frame and having a parallel relation to the edge of the plate, an inclined guide flange projecting inwardly from the base of the dividing partition for deflecting the heavier grain, and a laterally inclined chute extending along the base of the dividing partition on the opposite side thereof for receiving an intermediate weight of grain, the chaff and very light weight grain being blown over the top of the chute.

6. A grader including an elevated frame, a plate carried by the frame and adapted to have the grain discharged in a continuous stream over an edge portion thereof, a fan for producing a blast of air to act upon the falling grain, hinge plates pendent from the frame, hangers hingedly connected to the said hinge plates, means for locking the hangers in an adjusted position, a transverse dividing partition carried by the hangers and arranged in a fixed position below the frame, said dividing partition having a parallel relation to the edge of the plate, and guide means carried by opposite sides of the dividing partition for properly directing the grain falling on opposite sides of the said partition.

[Claims 3 and 4 not printed in the Gazette.]

1,256,367. PENCIL-HOLDER. SOAME E. PTAHLER, Hopewell, Va. Filed Oct. 16, 1916. Serial No. 125,918. (Cl. 120—18.)



2. A pencil holder of the class described including a tubular body, pencil engaging means at one end thereof adapted to move a pencil into and out of the body, a rolled spring metal strip on the other end of said body, said strip being slit longitudinally, one portion forming an inwardly inclined gripping jaw, and a projecting tongue on the outer end of said jaw extending from the body whereby said jaw may be released.

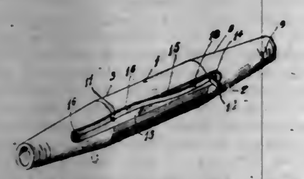
[Claim 1 not printed in the Gazette.]

1,256,368. CONCENTRATION OF TITANIUM ORES. MAURICE ROGER RAFFIN, Dunkirk, France, assignor to Société P. Raffin & Fils, Dunkirk, France, a Corporation of France. Filed July 6, 1917. Serial No. 178,969. (Cl. 23—13.)

3. A process for the treatment of ilmenites or titanic iron ores for concentrating to a high content of titanic oxid (TiO_2), said process consisting in depriving ilmenite of silica and other impurities by magnetic separation, mixing the purified ilmenite with pulverized carbon, adding an agglutinant to this mixture, heating the same, treating with a dilute acid capable of reacting on the iron, washing and then drying or calcining the titaniferous residue thus obtained.

[Claims 1, 2, and 4 to 7 not printed in the Gazette.]

1,256,369. PIPE-COUPLING. JAMES M. ROBERTS, Marion, Ky. Filed July 13, 1917. Serial No. 180,433. (Cl. 137—28.)



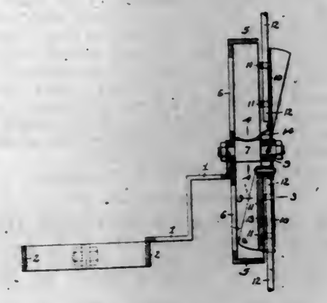
1. A pipe coupling comprising sections, links pivoted to one of the sections, lugs carried by the other section and receiving the links, and locking means pivotally secured to the links and engaging the lugs for holding the links thereon and the sections in coupled position.

6. A pipe coupling comprising male and female sections, said female section comprising a cylindrical body having one end provided with frusto-conical extensions terminating into an exteriorly screwthreaded nipple, the opposite end of the body provided with an inwardly extending tapered bore terminating at the point of juncture of the extensions with the body, forming an annular gasket seat, said male section comprising a frusto-conical body having its apex terminating into a cylindrical screwthreaded nipple, a hollow tapered extension formed integrally with the enlarged end of the frusto-conical body and adapted to be removably arranged in the tapered bore of the female section, and links pivotally secured to the male member and provided with means for engaging the female member for holding the male and female sections in coupled relation with one another.

7. A pipe coupling comprising male and female sections, the female section provided with a cylindrical body having one end provided with a frusto-conical extension terminating in a cylindrical exteriorly screwthreaded nipple, the opposite end of the body provided with an inwardly extending tapered bore, said male section comprising a frusto conical body having its apex terminating into a cylindrical screwthreaded nipple, a hollow extension formed integrally with and extending from the enlarged end of the body, and adapted to be removably arranged in the tapered bore of the female section, links pivotally secured to the frusto-conical body of the male member at diametrically opposite points, and diametrically opposed lugs formed integrally with the tapered extension of the female member, means formed in the links for receiving the lugs of the female section, levers pivotally secured to the free ends of the links, said levers provided with openings for receiving the lugs of the female section for holding the links in engagement therewith, and projections formed integrally with the exterior of the links adjacent their point of connection with the male member for receiving the levers for holding the sections in coupled position.

[Claims 2 to 5 not printed in the Gazette.]

1,256,370. FLAG-HOLDER. DAVID ROSEN, Philadelphia, Pa. Filed Sept. 7, 1917. Serial No. 190,162. (Cl. 46—14.)



1. The combination of a wind-wheel having a hub from which project inclined blades and adapted to be rotated about a fixed axle by the action of an air current upon the blades, with means for causing said wheel to come to rest in a certain position of circumferential adjustment.

2. The combination of a wind-wheel having a hub from which project inclined blades and adapted to be rotated about a fixed axle by the action of an air current upon the blades, with means for causing said wheel to come to rest in a certain position of circumferential adjustment, said means consisting of a weight attached to one of the blades of said wheel.

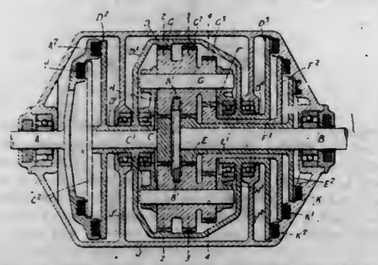
3. The combination of a wind-wheel having a hub from which project inclined blades and adapted to be rotated about a fixed axle by the action of an air current upon the blades, with means for causing said wheel to come to rest in a certain position of circumferential adjustment, and releasable means for retaining said wheel in such position.

4. The combination of a wind-wheel having a hub from which project inclined blades and adapted to be rotated about a fixed axle by the action of an air current upon the blades, with releasable means for retaining said wheel in a position of circumferential adjustment, said means consisting of a spring finger carried by the wheel and engaging a groove in a fixed stud adjacent to the hub of said wheel.

5. The combination of a wind-wheel having a hub from which project inclined blades and adapted to be rotated about a fixed axle by the action of an air current upon the blades, with releasable means for retaining said wheel in a certain position of circumferential adjustment, said means consisting of a spring finger carried by the wheel and engaging a groove in an adjacent fixed stud, said groove having beveled sides.

1,256,371. VARIABLE-SPEED GEAR. ARTHUR JOHN ROWLEDGE, London, England, assignor to D. Napier & Son Limited, London, England. Filed May 1, 1916. Serial No. 94,841. (Cl. 74—34.)

2. In an epicyclic variable speed gear of the spur wheel type, the combination of a driving shaft, a plurality of clutch members mounted on said shaft, a driven shaft coaxial with the driving shaft, a planetary member connected with the driven shaft and comprising a set of integral planet wheels, of not less than two and not more than three different sizes, a set of gears separate from but mounted coaxial with the driving and driven shafts and gearing with the planet wheels, one of said gears being an internally toothed ring, a plurality of clutch members connected with certain of said gears and coöperating with the clutch members on the driving shaft, and a plurality of brakes controlling a plurality of said gears, all of said gears being directly controlled by the clutches and brakes.



3. In an epicyclic variable speed gear of the spur wheel type, the combination of a driving shaft, a plurality of clutch members mounted on said shaft, a driven shaft coaxial with the driving shaft, a planetary member connected with the driven shaft and comprising a set of integral planet wheels, a set of gears of not less than three and not more than four different sizes separate from but mounted coaxial with the driving and driven shafts and gearing with the planet wheels, one of said gears being an internally toothed ring, a plurality of clutch members connected with certain of said gears and coöperating with the clutch members on the driving shaft, and a plurality of brakes coöperating with a plurality of said gears, all of said gears being directly controlled by the clutches and brakes.

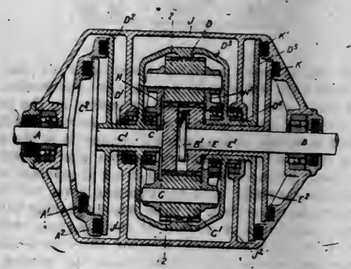
9. In an epicyclic variable speed gear of the spur wheel type, the combination of a driving shaft, a plurality of clutch members mounted on said shaft, a driven shaft coaxial with the driving shaft, a planetary member connected with the driven shaft and comprising a set of integral planet wheels, of not less than two and not more than three different sizes, a set of gears, of not less than three and not more than four different sizes and in number not less than three and not more than four, separate from but mounted coaxial with the driving and driven shafts and gearing with the planet wheels, one said gears being an internally toothed ring, a plurality of clutch members each connected with one of said gears and coöperating with the clutch members on the driving shaft, and a plurality of brakes coöperating with certain of said gears, all of said gears being directly controlled by the clutches and brakes.

13. In an epicyclic variable speed gear, of the spur wheel type, the combination of a driving shaft, a plurality of clutch members mounted on said shaft, a driven shaft coaxial with the driving shaft, a planetary member connected with the driven shaft and comprising a set of integral planet wheels, of not less than two and not more than three different sizes and in number not less than two and not more than three, a set of four gears, of not less than three and not more than four different sizes, mounted coaxial with the driving and driven shafts and gearing with the planet wheels, one of said gears being an internally toothed ring, a plurality of clutch members each connected with one of said gears and coöperating with the clutch members on the driving shaft, and a plurality of brakes controlling a plurality of said gears, all of said gears being directly controlled by the clutches and brakes.

16. In an epicyclic variable speed gear of the spur wheel type, the combination of a driving shaft, a driven shaft coaxial with the driving shaft, a planetary member composed of a set of integral planet wheels and connected to the driven shaft, a set of wheels mounted coaxial with but separate from the driving and driven shafts and disposed on either side of the connection between the end of the driven shaft and the planetary member all these wheels gearing with planet wheels, a wheel in the form of an internally toothed ring coaxial with but separate from the driving and driven shafts and gearing with one of the planet wheels, a plurality of clutches disposed at that side of the group of gear wheels which is adjacent to the end of the driving shaft these clutches being operative to separately couple certain of the gear wheels to the driving shaft, a plurality of brakes disposed at the side of the group of gear wheels which is opposite to the clutches these brakes being operative to hold certain of the gear wheels against rotation, a casing inclosing the gear wheels the clutches and the brakes, and partitions in this casing which so divide it into compartments that the clutches and brakes are separated from each other and from the gear wheels as set forth.

[Claims 1, 4 to 8, 10 to 12, 14, and 15 not printed in the Gazette.]

1,256,372. VARIABLE-SPEED GEAR. ARTHUR JOHN ROWLEDGE, London, England, assignor to D. Napier & Son, Limited, London, England. Filed May 1, 1916. Serial No. 94,842. (Cl. 74—34.)



4. In an epicyclic variable speed gear of the spur wheel type, the combination of a driving shaft, two clutch members mounted on said shaft, a driven shaft coaxial with the driving shaft, three gears separate from but mounted coaxial with the driving and driven shafts, one of said gears being an internally toothed ring, a planetary member comprising two integral wheels of different diameters, one engaging the internally toothed ring and another one of said gears, and the other engaging the other of said gears, clutch members connected with two of said gears and coöperating with the clutch members on the driving shaft, and two brakes coöperating with two of said gears, all of said gears being directly controlled by the clutches and brakes.

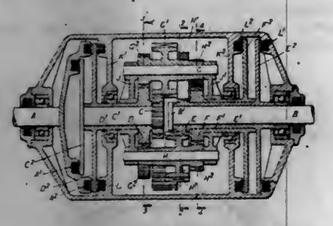
8. In an epicyclic variable speed gear of the spur wheel type, the combination of a driving shaft, a driven shaft co-axial with the driving shaft, a planetary member connected with the driven shaft and comprising two integral wheels of different diameters, two gears mounted coaxial with but separate from the driving and driven shafts, and disposed on opposite sides of the connection between the planetary member and driven shaft, said gears respectively engaging the planetary wheels, an internally toothed ring surrounding and engaging one of the planet wheels, means for clutching one of said gears to the driving shaft, means for holding the other of said gears against rotation, means for connecting the internally toothed ring to the driving shaft, and means for holding said ring against rotation.

13. In a variable speed gearing of the character referred to, the combination of a driving shaft, a coaxial driven shaft, a casing inclosing the adjacent ends of said

shafts and having its interior divided into a plurality of compartments by transverse partitions, two gears mounted in one of the compartments of the case coaxial with but separate from the driving and driven shafts, a planetary member connected with the driven shaft and engaging said gears, an internally toothed ring surrounding and engaging the planetary member, clutches in another compartment of the casing adapted to respectively connect said ring and one of said gears to the driving shaft, and brakes arranged in a third compartment of the casing for holding the other of said gears and the internally toothed ring against rotation.

[Claims 1 to 3, 5 to 7, 9 to 12, and 14 not printed in the Gazette.]

1,256,373. VARIABLE-SPEED GEAR. ARTHUR JOHN ROWLEDGE, London, England, assignor to D. Napier & Son Limited, London, England. Filed July 11, 1916. Serial No. 108,745. (Cl. 74—34.



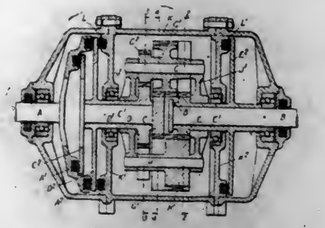
1. In an epicyclic variable speed gear of the spur wheel type with differential action, the combination of a driving shaft, two clutch members mounted on the driving shaft, a driven shaft coaxial with the driving shaft, two planetary members, having wheels, connected to the driven shaft, a wheel of one planetary member gearing with one of the wheels of the other member, a set of separate wheels all mounted coaxially with but separate from the driving and driven shafts, certain of these wheels gearing with one planetary member and certain of them gearing with the wheels of the other planetary member, two clutch members corresponding to the clutch members on the driving shaft and operative to separately couple two of the said wheels to the driving shaft, and a plurality of brakes operative to separately hold a plurality of the said wheels against rotation as set forth.

3. In an epicyclic variable speed gear of the spur wheel type with differential action, the combination of a driving shaft, two clutch members mounted on the driving shaft, a driven shaft coaxial with the driving shaft, two planetary members, having wheels, connected to the driven shaft, a wheel of one planetary member gearing with one of the wheels of the other member, a set of separate wheels of not less than two and not more than four different sizes, all mounted coaxially with but separate from the driving and driven shafts, certain of these wheels gearing with one planetary member and certain of them gearing with the wheels of the other planetary member, two clutch members corresponding to the clutch members on the driving shaft and operative to separately couple two of the said wheels to the driving shaft, and a plurality of brakes operative to separately hold a plurality of the said wheels against rotation as set forth.

5. In an epicyclic variable speed gear of the spur wheel type with differential action, the combination of a driving shaft, two clutch members mounted on the driving shaft, a driven shaft coaxial with the driving shaft, two planetary members, having wheels, connected to the driven shaft, a wheel of one planetary member gearing with one of the wheels of the other member and the number of wheels in the two members taken together being not less than three and not more than four, a set of separate wheels all mounted coaxially with but separate from the driving and driven shafts, certain of these wheels gearing with one planetary member and certain of them gearing with the wheels of the other planetary member, two clutch members corresponding to the clutch members on the driving shaft and operative to separately couple two of the said wheels to the driving shaft, and a plurality of brakes operative to separately hold a plurality of the said wheels against rotation as set forth.

[Claims 2, 4, and 6 to 31 not printed in the Gazette.]

1,256,374. VARIABLE-SPEED GEAR. ARTHUR JOHN ROWLEDGE, London, England, assignor to D. Napier & Son Limited, London, England. Filed July 11, 1916. Serial No. 108,746. (Cl. 74—34.)



1. In an epicyclic variable speed gear of the spur wheel type with differential action, the combination of a driving shaft, a driven shaft coaxial with the driving shaft, two planetary members, comprising wheels, connected to the driven shaft, a wheel of one planetary member gearing with one of the wheels of the other member, a set of three separate sun wheels all mounted coaxially with but separate from the driving and driven shafts and respectively gearing with the wheels of the planetary members, means for separately coupling certain of the sun wheels to the driving shaft, and means for separately holding certain of the sun wheels against rotation as set forth.

2. In an epicyclic variable speed gear of the spur wheel type with differential action, the combination of a driving shaft, two clutch members mounted on the driving shaft, a driven shaft coaxial with the driving shaft, two planetary members, comprising wheels, connected to the driven shaft, a wheel of one planetary member gearing with one of the wheels of the other member, a set of three separate sun wheels all mounted coaxially with but separate from the driving and driven shafts and respectively gearing with the wheels of the planetary members, two clutch members corresponding to the clutch members on the driving shaft and operative to separately couple two of the sun wheels to the driving shaft, and two brakes operative to separately hold two of the sun wheels against rotation as set forth.

3. In an epicyclic variable speed gear of the spur wheel type with differential action, the combination of a driving shaft, a driven shaft coaxial with the driving shaft, two planetary members, comprising wheels, connected to the driven shaft, a wheel of one planetary member gearing with one of the wheels of the other member, a set of three separate sun wheels all mounted coaxially with but separate from the driving and driven shafts and respectively gearing with the wheels of the planetary members, means for coupling one of the sun wheels to the driving shaft, means for holding one of the sun wheels against rotation, and means by which one of the sun wheels can be either coupled to the driving shaft or held against rotation as set forth.

[Claims 4 to 17 not printed in the Gazette.]

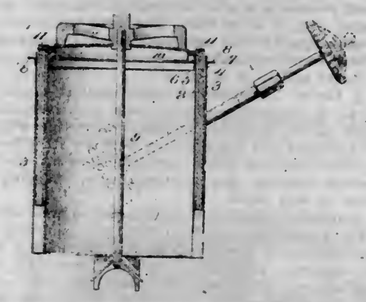
1,256,375. MAIL-BOX ATTACHMENT FOR HOLDING COIN. PERRY ULYSSES RUBY, Wauneta, Nebr. Filed June 26, 1917. Serial No. 177,022. (Cl. 133—6.)

A coin supporter comprising an attaching plate, means for securing the attaching plate to a support, a housing having side walls, a bottom wall and a front wall, extensions formed around the bottom and side walls of the housing and adapted to extend through the attaching plate and bent back upon themselves to retain the housing thereto, the front wall of the housing provided with a U-shaped opening, a cylindrical keeper secured within the housing and to the attaching plate having its open end in direct alinement with the opening in the front wall of the housing, a coin supporter having a disk, a



sleeve secured to one face of the disk and slidably arranged in the keeper, a spring located within the keeper and having one end engaging the face of the attaching plate and its opposite end engaging the inner surface of the disk for normally urging the coin supporter toward the front wall of the housing, said disk being of a diameter greater than the area of the opening in the front wall so as to bind the coin therebetween.

1,256,376. WICK OIL-BURNER. HENRY RUPPEL, Cleveland, Ohio, assignor to American Stove Company, St. Louis, Mo., a Corporation of New Jersey. Filed Nov. 28, 1913. Serial No. 803,547. (Cl. 158—88.)



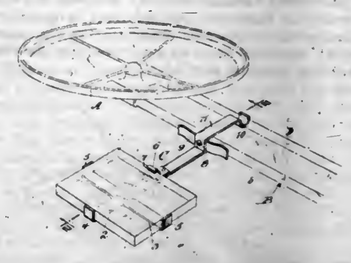
1. A burner of the character described, comprising two concentric wick tubes, vertically disposed separate rings secured to the inner and outer faces of the wick tubes below the upper ends thereof, and laterally extending flanges formed integral with the upper ends of the rings below the upper ends of the wick tubes for supporting the combustion tubes substantially as shown and described.

[Claim 2 not printed in the Gazette.]

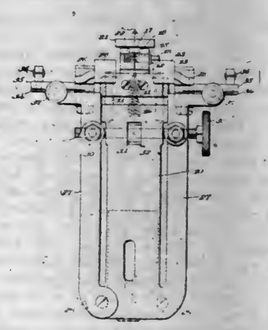
1,256,377. DENTAL-SLAB HOLDER. PAUL SALLES, La Fayette, La. Filed Feb. 26, 1917. Serial No. 151,061. (Cl. 248—20.)

1. The combination of a table bracket including a pair of spaced members, with an attachment therefor including an arm extending over one member and provided with an extremity bent into a hook opening upwardly whereby the hook engages under the other member, and a resilient bar fastened to the arm in transverse relation thereto and engaging the slide of the first-mentioned member.

2. A support having two horizontal members spaced apart laterally with a slab holder comprising a frame having a member bent upwardly at one end and also bent upwardly at an intermediate point, whereby the two portions of the member are at different levels and the other extremity being bent into a hook opening upwardly, a spring bar fastened to the intermediate bend to form a gripping element coöperating with the said hook for attaching the device to the members of the said support, and means on the portion of the said member of lower level for clamping a slab.



1,256,378. RECEIVER OF HEEL-NAILING MACHINES. WILLIAM E. SCARLETT, East Lynn, Mass., assignor to Hamel Shoe Machinery Company, Lynn, Mass., a Corporation of Massachusetts. Filed June 9, 1915. Serial No. 33,166. (Cl. 1—32.)



1. A receiver for heel nailing machines, comprising a backing gage mounted for limited yielding movement upwardly from a normal position, a mounting for said gage constituting a rest for the back of a last and fitted to yield downwardly, and last positioning means associated therewith.

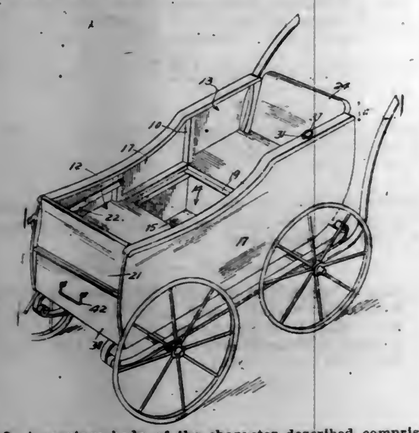
[Claims 2 to 4 not printed in the Gazette.]

1,256,379. BABY-CARRIAGE. JOSEPH B. SCHAEFER, Celina, Ohio. Filed Mar. 30, 1917. Serial No. 158,719. (Cl. 21—12.)

1. A carriage body of the character described comprising side frames, front and rear seat sections between the side frames and supported thereby in spaced relation to each other, front and rear slides movable beneath the seat sections, a front seat back swingingly supported between the side frames at the front ends thereof and coacting with the front seat section, a rear seat back adjustably supported between the side frames at the rear ends thereof and having connection with one of the slides for moving the same with said rear seat back, and a floor section supported by the side frames below the space between the seat sections.

2. A carriage body of the character described comprising side frames, front and rear seat sections between the side frames and supported thereby in spaced relation to each other, front and rear slides movable beneath the seat sections, a front seat back swingingly supported be-

tween the side frames at the front ends thereof and coacting with the front seat section, a rear seat back adjustably supported between the side frames at the rear ends thereof and having connection with one of the slides for moving the same with said rear seat back, a floor section supported by the side frames below the space between the seat sections, and means for locking the rear seat back in adjusted position.



3. A carriage body of the character described comprising side frames, front and rear seat sections between the side frames and supported thereby in spaced relation to each other, front and rear slides movable beneath the seat sections, a front seat back swingingly supported between the side frames at the front ends thereof and coacting with the front seat section, a rear seat back adjustably supported between the side frame at the rear ends thereof and having connection with one of the slides for moving the same with said rear seat back, a floor section supported by the side frames below the space between the seat sections, means for locking the rear seat back in adjusted position, and a swinging foot rest supported at the front end of the side frames below the front seat.

4. In a carriage body, a pair of seats spaced from each other to form a leg opening therebetween, a floor section below the seat sections at the point of location of the leg opening therebetween, partitions forming an inclosure for the space between the seat sections and the floor section, movable backs for the respective seats, manually and automatically movable slides located beneath the seat sections for closing the leg opening therebetween, and connections between one of the seat backs and said automatically movable slide for actuating the same.

5. In a carriage body, a pair of seats spaced from each other to form a leg opening therebetween, a floor section below the seat section at the point of location of the leg opening therebetween, partitions forming an inclosure for the space between the seat sections and the floor section, movable backs for the respective seats, manually and automatically movable slides located beneath the seat sections for closing the leg opening therebetween, connections between one of the seat backs and said automatically movable slide for actuating the same, and means for co-action with the connections to hold the seat back and automatically movable slide in adjusted position.

[Claim 6 not printed in the Gazette.]

1,256,380. MERCURY SWITCH. FREDERICK W. SCHMIDT, Chicago, Ill., assignor, by mesne assignments, to Times-Systems Company, Portland, Me., a Corporation of Maine. Filed Oct. 19, 1914, Serial No. 867,295. Renewed Apr. 13, 1917. Serial No. 161,935. (Cl. 175—282.)

1. A mercury switch comprising a cup-shaped shell of conducting material, a hollow plug of insulating material fitting into the mouth of the shell, a portion of the plug being smaller in diameter than the interior of the shell so as to leave a space between the plug and the shell, the plug having a port therethrough in a position to connect the interior thereof with said space, a body of mercury within said plug, a body of mercury within and only partially filling the aforesaid space, and a conductor extending into the plug and contacting with the mercury therein.



2. A mercury switch comprising a cup-shaped shell of conducting material, a hollow plug of insulating material fitting into the mouth of the shell, the inner end of the plug being smaller in diameter than the interior diameter of the shell, said plug having a port extending laterally through the reduced portion and connecting the space within the plug with the space surrounding the plug, a body of mercury partially filling the space within the shell around the plug, a body of mercury within the plug, and a post of conducting material extending axially into the plug from the outer end and contacting with the mercury in the plug.

5. A mercury switch comprising a cylindrical cup-shaped shell of conducting material having an integral journal projecting axially from the bottom thereof, a hollow plug of insulating material fitted into the mouth of the cup and having a reduced inner end, the plug having a transverse bore extending through one side thereof and connecting the interior thereof with the space within the shell, a post of conducting material provided with an integral journal secured axially within the outer end of the plug, a body of mercury filling the interior of the plug and engaging with said post, and a second body of mercury partially filling the space within the shell around the reduced portion of the plug.

6. A switch comprising an outer shell of conducting material, in combination with an inner shell of insulating material spaced therefrom, terminals connecting with the shells aforesaid and insulated one from the other by said inner shell, and fluid means for establishing an electrical connection between said terminals upon changing the position of said shells.

8. A switch comprising in combination an outer shell of conducting material, an inner shell of insulating material constituting a hollow plug fixed within said outer shell, terminals connected with said inner and outer shells, mercury within both the inner and outer shells, and means of communication between the interior of the inner shell and the interior of the outer shell whereby the separated bodies of mercury may mingle.

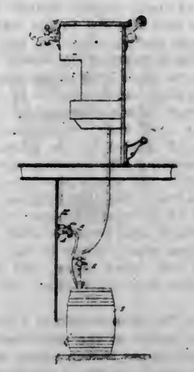
[Claims 3, 4, and 7 not printed in the Gazette.]

1,256,381. CONTROLLING DEVICE. MARTIN F. SCHMITT, New York, N. Y. Filed Sept. 13, 1915. Serial No. 50,430. (Cl. 235—91.)

1. In a beverage dispensing apparatus having a draw off faucet and a barrel tapping means, a controlling means comprising two counting devices, each for indicating the number of barrels or other vessels tapped during a given time, one of the said counting devices being controlled by the said draw off faucet and the other by the said barrel tapping means.

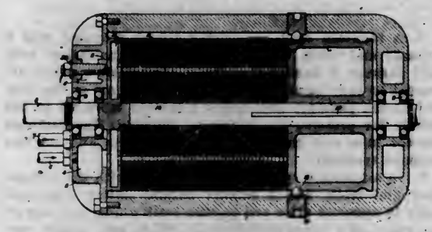
2. In a beverage dispensing apparatus having a draw off faucet and a pressure supply device having an outlet valve, a controlling means comprising two counting devices, each for indicating the number of barrels or other vessels tapped during a given time, one of the said counting devices being controlled by the said outlet valve of the pressure supply device and the other counting device being controlled by the said draw off faucet.

3. In a beverage dispensing apparatus of the class described, a controlling means comprising two counting devices of which one is located adjacent to and is actuated by the draw off faucet of the dispensing apparatus, and the other counting device is located adjacent to and is actuated by the tapping means of the dispensing apparatus, each of said counting devices indicating the number of barrels tapped.



4. In a beverage dispensing apparatus of the class described, means for indicating the number of barrels or other vessels tapped during a given time, the said means comprising a draw off faucet provided with a pin, a counting device having a movable member adapted to be engaged by the said faucet pin on giving a full turn to the faucet, a pressure supply device having an outlet faucet provided with a pin, and a second counting device having a movable member adapted to be engaged by the said pin on the outlet faucet on giving the latter a full turn.

1,256,382. INTERNAL-COMBUSTION ENGINE. JAMES F. SCOTT and ROBERT F. SCOTT, New York, N. Y. Filed Feb. 19, 1917. Serial No. 149,485. (Cl. 123—8.)



1. An internal combustion engine comprising a combustion chamber formed with collapsible sections whereby when an explosion occurs in said chamber one end of the chamber will be moved a predetermined distance from the opposite end, a power member connected to the movable end of said chamber, means acting on said power member for causing the same to rotate as it is moved by said combustion chamber, and a rotatable shaft slidingly connected with said power member whereby the shaft is rotated by the power member during its movement.

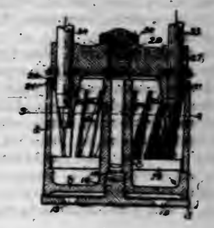
6. An internal combustion engine comprising a rotatable shaft, a cylinder formed with expanding parts rigidly connected with said shaft and arranged so that one end will move back and forth along the shaft, a power member connected to said movable end, fixed means connected with said power member for causing the same to rotate when reciprocated by said cylinder, and means for connecting the power member with said shaft for rotating the shaft.

7. An internal combustion engine, comprising a casing having an end provided with an exhaust opening and an intake opening, a shaft extending through said casing, a gas chamber rigidly connected with said shaft arranged adjacent said end and formed with a single opening adapted to pass successively the exhaust from said intake openings, a power element connected with said gas chamber, a reciprocating element connected with said power member and actuated thereby, means acting on said reciprocating element for causing the same to rotate, means connecting said reciprocating element and said shaft whereby said shaft is rotated and the gas chamber connected thereto, and a sparking mechanism with one contact carried by the gas chamber and the other by said end, said contacts being arranged to cause a spark once for each revolution of the gas chamber.

8. An internal combustion engine, comprising a casing formed with an end having an inlet and exhaust opening, a gas chamber rotatably mounted adjacent said end and formed with a single opening adapted to register successively with the openings in said end, a power chamber connected with said gas chamber and rotatable therewith, means for producing a spark in said gas chamber once for each revolution thereof, a power shaft, and means for translating movement from said power chamber to said shaft for rotating the same.

[Claims 2 to 5 and 9 to 12 not printed in the Gazette.]

1,256,383. PENCIL-SHARPENING DEVICE. RALPH C. SIMMONS, Beverly, Mass. Filed July 3, 1916. Serial No. 107,215. (Cl. 120—91.)



1. In combination, a case, a stationary conical cutter located therein, a rotatable cover for said case, a plurality of conical guides carried by said cover and having their conical end portions extended into said case and provided with faces having angles substantially equal to that of the cutter, said guides being located on said cover so that the apices of the conical portions within the case have substantially the same relation to the cutting surface of said cutter in the adjustments of the cover with relation to said cutter.

2. In combination, a stationary cutter, a plurality of guides arranged to rotate about said cutter, and means for simultaneously adjusting the relation of the guides to the cutter equally.

3. In combination, a stationary conical cutting member, a plurality of pencil guides of different diameters having conical portions of substantially the same angle as that of the cutting member and having their apices in substantially the same relation to the cutting surface of said cutting member, and rotatable means for supporting said guides adjustable axially with relation to said cutter.

7. In combination, a case, a conical cutter located therein, a cover having a plurality of conical guides integral therewith and extended into the said case and having substantially the same angle as that of the cutter, and a rotatable center pin on which said cover is adjustably mounted.

8. In combination, a conical cutter, a plurality of conical guides having substantially the same angle as the cutting surface of said cutter, and a rotatable support

for said conical guides movable axially with relation to said conical cutter to effect adjustment of said guides with relation to said cutter.

[Claims 4 to 6 not printed in the Gazette.]

1,256,384. BUILDING MATERIAL AND HOUSE CONSTRUCTION. ROBERT SIMONSON, Mariveles, Philippine Islands. Filed Apr. 4, 1917. Serial No. 159,771. (Cl. 154—45.9.)



2. As an article of manufacture, a slab for use in building materials consisting of cement, sand and rice husks, mixed together with water and molded to the form desired, with one or more layers of woven bamboo strips embedded therein and reinforcing same.

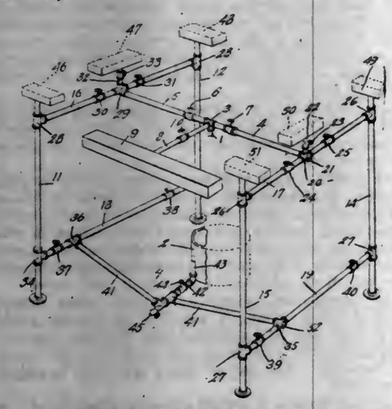
5. As an article of manufacture, a slab for use in building materials consisting of cement, sand and rice husks, mixed together with water and molded to the form desired, with one or more layers of woven bamboo strips embedded therein and reinforcing same, said slab having a smooth surface coating of sand and cement applied thereto while in the wet state.

7. As an article of manufacture, a slab for use in building materials consisting of substantially equal volumes of cement, sand and rice husks, mixed together with water and molded to the form desired, with one or more layers of woven bamboo strips embedded in the material and reinforcing same.

9. As an article of manufacture, a slab for use in building materials consisting of substantially equal volumes of cement, sand and rice husks, mixed together with water and molded to the form desired, with strips of bamboo embedded therein and reinforcing same, with a wire loop having one end engaging one or more of said bamboo strips, and having the other end projecting beyond the face of the slab and serving as a means for attaching same to the building structure, substantially as described.

[Claims 1, 3, 4, 6, and 8 not printed in the Gazette.]

1,256,385. STEAM VULCANIZING PLANT. JAY HARLEY SMITH and FLOYD VIRGIL SMITH, San Francisco, Cal. Filed May 17, 1916. Serial No. 98,111. (Cl. 18—18.)

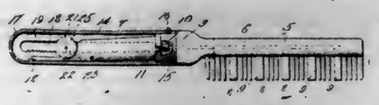


1. In a device of the class described, a frame comprising four upright tubular legs defining the corners of a rectangle; upper pipes connecting the legs in pairs; lower pipes connecting the same legs in pairs; a steam pipe connecting the upper pipes intermediate their ends; an outstanding pipe connected with the steam pipe intermediate the ends of the latter, other pipes connected at their outer ends with the lower pipes intermediate the ends of the latter; a source of steam supply located within the contour of the frame and disposed to the rear of said other pipes; a connection leading from the top of said source to the intermediate portion of the steam pipe; a return pipe leading from the inner ends of said other pipes to the bottom of said source; molds carried by the upper ends of the legs; upright pipes upstanding from the upper pipes intermediate their ends; molds carried by the upright pipes; a mold carried by the outstanding pipe; a valve in the outstanding pipe between said mold and the connection; valves in the steam pipe on opposite sides of the connection; valves in the upright pipes and controlling the molds carried by the upright pipes; valves in the upper pipes and located upon opposite sides of the upright pipes and the steam pipe; valves in the lower pipes on opposite sides of said other pipes; and a valve in the return pipe between said other pipes and the source of steam supply.

3. In a device of the class described, a frame comprising four upright legs; molds at the upper ends of the legs; upper pipes connecting the legs in pairs; lower pipes connecting the same legs in pairs; a steam pipe connecting the upper pipes; a source of steam supply communicating with the steam pipe; valves in the steam pipe on opposite sides of said source; valves in the upper pipes on opposite sides of the steam pipe; a drip conduit connecting the lower pipes and having an outlet; and valves in the lower pipes and individual to the legs.

[Claim 2 not printed in the Gazette.]

1,256,386. FOUNTAIN-COMB. ABE R. SPIELBERGER, Atlanta, Ga. Filed Aug. 31, 1917. Serial No. 189,190. (Cl. 132—14.)



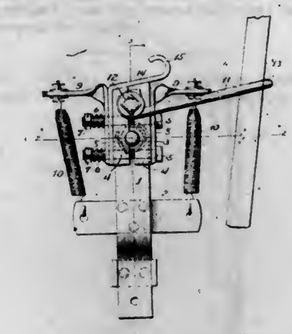
1. A fountain comb comprising a back provided with a passage and teeth having channels communicating with said passage, a handle therefor, a compressible pouch arranged in said handle and having connection at the rear end of the passage, and means rotatably mounted in the handle for pressing the pouch to distribute the contents thereof into said channels, substantially as and for the purpose specified.

7. In a fountain comb, the combination with the tubular back and teeth, and a tubular handle slotted longitudinally in opposite sides and having teeth along one edge of the slots; of a compressible pouch within said handle connected with the bore of the back, a rolling feeder also therein, a shaft fixed through the feeder and projecting out said slots, gears fast on the shaft, a sleeve slidably inclosing the handle and gears and in which the trunnions of the shaft are journaled, and a handle on one end of said shaft.

9. In a device of the character described, the combination with a delivery member having its inner end enlarged into a head and the head reduced into a round stud, this member being provided with a passage terminating in a threaded socket opening axially through said stud, a tubular handle closed at its outer end, and having its inner end shaped to engage said stud, and means for holding it detachably in such engagement; of a ponch, a rigid head at the inner end thereof adapted to slidably engage the interior of the handle, a threaded outlet nipple on said head adapted to engage said socket, and means within the handle for compressing the pouch.

[Claims 2 to 6, 8, 10, and 11 not printed in the Gazette.]

1,256,387. CHECKING-MOTION FOR LOOMS. WALTER F. STEGALL, Concord, N. C., assignor of one-half to Tola D. Maness, Concord, N. C. Filed Aug. 3, 1917. Serial No. 184,308. (Cl. 139—22.)

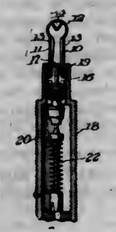


1. In a checking mechanism for looms, the combination with a bracket and a stud thereon, of spring-pressed friction blocks disposed at opposite sides of said stud and engaging the same, and a bumper for a picker stick carried by said friction blocks.

5. In a check mechanism for looms, the combination with a bracket having a cross-head, and a stud above said cross-head, of friction blocks engaging the stud, bolts passing through the friction blocks above and below the stud respectively, nuts on said bolts, springs interposed between said nuts and one of the friction blocks, a bumper secured to the friction blocks to receive a picker stick at the forward end of its throw, a looped arm secured to the friction blocks to receive the picker stick during its return throw, laterally projecting arms secured to the friction blocks, and springs secured to said arms and to the respective end portions of the cross-head of the bracket.

[Claims 2 to 4 not printed in the Gazette.]

1,256,388. PNEUMATIC-TIRE DEFLATOR. EDWARD W. STEVENS, Detroit, Mich., assignor of one-half to Charles E. Stevens, Chicago, Ill. Filed Oct. 9, 1916. Serial No. 124,537. (Cl. 152—12.)



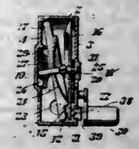
1. In a device of the class described, the combination of a pair of normally expanded arms, spring means for expanding said arms, an outwardly extending lug provided upon each of said arms and an inwardly extending tongue extending between said arms.

3. In a device of the character described, the combination of a pair of connected spring actuated normally extended arms; each of said arms having an outwardly extending lug and one of said arms being provided with an inwardly projecting tongue which extends between said arms.

5. In a device of the class described, the combination with a pair of arms, integral spring means arranged between said arms, a lug provided upon each of said arms, a member arranged between said arms and a rib extending from said lug of each arm to the above mentioned spring means.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,256,389. FISHING-REEL. CASSIUS C. STRANG, Alexandria, Minn. Filed July 1, 1916. Serial No. 107,144. (Cl. 43—36.)



1. A fishing reel including a receptacle for the line, a rotary line feeder composed of a pair of coaxially mounted relatively movable gripping members, comprising disks having juxtaposed sides forming gripping faces, one of said disks being rotatable upon a tilting axis, and means for tilting said disk upon its axis for moving the gripping face thereof into and out of gripping position with relation to the gripping face of the other disk.

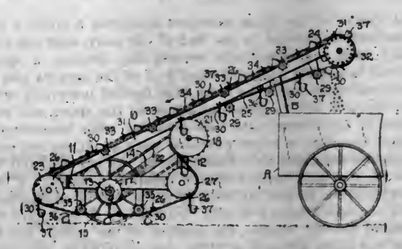
3. A fishing reel including a receptacle for the line, a rotary line feeder composed of friction gripping disks, one axially tiltable with relation to the other, means for throwing the disks out of gripping position, and means for stripping the line from the disks for passage into said receptacle.

13. A fishing reel including a rotary line feeder comprising a pair of gripping disks having lateral gripping faces, one of said gripping disks being tiltable upon its axis laterally with relation to the other disk to throw the gripping faces of the disks into and out of gripping position, a spring acting upon the tilting disk for normally holding the same in gripping position, and means for tilting said disk out of gripping position in opposition to said spring.

20. A fishing reel including a receptacle for the line, a rotary feeder composed of a pair of gripping disks, one axially tiltable with relation to the other to throw the gripping faces thereof into and out of gripping position, means for normally holding said disks in gripping position with their axes along intersecting lines, and means for throwing the disks out of gripping position to release the line.

[Claims 2, 4 to 12, and 14 to 19 not printed in the Gazette.]

1,256,390. VEGETABLE GATHERER AND LOADER. ROBERT JOHN STUART, Detroit, Mich. Filed Nov. 22, 1916. Serial No. 132,864. (Cl. 193—9.)

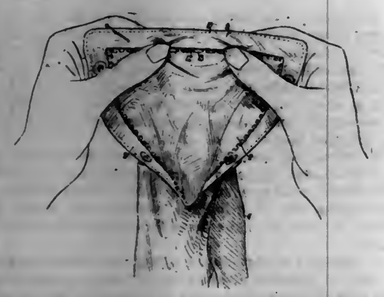


1. A machine of the character described including an endless carrier comprising laterally disposed endless elements, transverse rods mounted on the elements, and a plurality of hook-shaped gathering fingers mounted upon each rod to swing, the elements being connected to each other for common swinging movement and each series of gathering fingers having end shields, and means disposed at one point in the flight of said endless carrier engaging

successively each series of gathering fingers and rotating them to a dumping position.

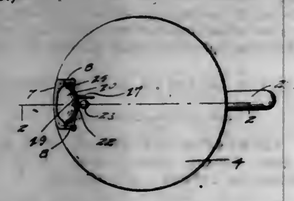
2. In a machine of the character described, a supporting frame, an endless carrier mounted upon the frame, a plurality of depending gathering members mounted on the carrier and swingingly mounted thereon and freely depending from the lower flight of the carrier, said gathering members having extensions projecting above the inner surface of the lower flight of the carrier, and means for rotating said gathering members from a depending to a discharging position comprising a drum over which the endless carrier passes having transversely extending spaced members adapted to engage with said extensions of the gathering members and rotate the gathering members rearward and upward to a discharging position.

1,256,391. GLOVE. HARRY ANDREW TAYLOR, New York, N. Y. Filed Sept. 11, 1917. Serial No. 190,735. (Cl. 2—9.)



A glove having a wrist opening, a binding strip for said glove at said wrist opening, means embodying stitching for uniting the outer edge of said strip with the body of said glove, and open-centered hemstitching for uniting the inner edge of said strip with the body of said glove.

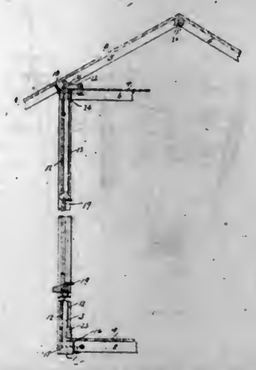
1,256,392. SUGAR-BOWL. JACOB E. TEDLOCK, McFall, Mo. Filed Dec. 29, 1916. Serial No. 139,492. (Cl. 65—59.)



A device of the class described including a body, a top removably connected to one end of the body, said top provided with a substantially rectangular opening, a spout formed integrally with the front wall of the opening and in communication with the body, lugs formed integrally with the opposite side longitudinal edges of the spout and side walls of the recess, said lugs provided with transversely alined openings, a cover provided with an extension, said extension arranged to extend through the opening and below the top, said cover pivotally secured to the lugs of the spout, spring means for holding the cover in engagement with the spout, means carried by the cover to facilitate the opening thereof against the tension of the spring means, said extension adapted to close the spout when the cover is in open position.

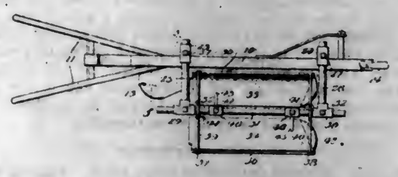
1,256,393. PORTABLE HOUSE. WILLIAM S. THOMAS, Seattle, Wash., assignor of one-half to William E. Borland, King county, Wash. Filed Dec. 6, 1915, Serial No. 65,233. Renewed Nov. 5, 1917. Serial No. 200,457. (Cl. 20—2.)

In a portable house frame, the combination of rabbeted studs secured to sills, wall plates secured to the tops of said studs, rafters resting on said wall plates, ceiling joists secured to the said wall plates and means for securing said rafters to said wall plates and joists, said



means including eyebolts pivotally secured to the rafters and passing through clips set into the joists and bolts which secures the said clips, joists and studs together.

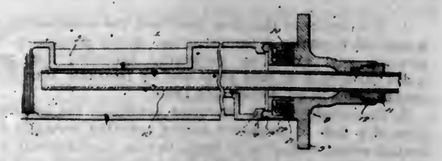
1,256,394. BOLL-WEEVIL CATCHER. JACOB T. TIMMONS, Avalon, Miss. Filed Dec. 1, 1916. Serial No. 134,329. (Cl. 43—1.)



1. A boll weevil catcher including a frame having a laterally extending portion, a shaft carried by said portion, a pair of troughs having upwardly directed deflecting walls adjustably mounted on said shaft, said troughs being in spaced relation to accommodate plants therebetween, a pair of plant agitators depending from said shaft and angularly adjustable thereon, said trough suspending members being oscillatable on said shaft to permit the troughs to accommodate themselves to the alinement of the plants passing therebetween.

[Claims 2 and 3 not printed in the Gazette.]

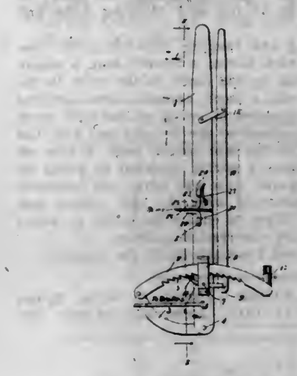
1,256,395. ROTARY VALVE. EMIL TOBELER, Detroit, Mich. Filed Jan. 24, 1917. Serial No. 144,196. (Cl. 123—177.)



In a hollow cylindrical engine valve, a supply pipe, a cap for receiving and supporting said supply pipe having a discharge opening therein and laterally projecting annular flanges formed upon one face thereof, a cap having an annular projection engaged with said annular flanges

of the first mentioned cap, springs interposed between said first and second mentioned caps for normally forcing the latter outwardly, the adjacent ends of the hollow cylindrical valve being grooved to receive the annular projection arranged upon the second mentioned cap, as and for the purpose set forth.

1,256,396. LEVER. HUGO ELMANN, Buckhart, Mo. Filed Aug. 25, 1916. Serial No. 116,885. (Cl. 21—127.)



In a device as set forth, the combination of a pivoted brake operating lever, a rein holder carried by said lever for moving the lever in a brake tightening direction upon a pull upon the reins carried by said holder, and means for preventing accidental movement of said lever in a brake loosening position.

1,256,397. MEANS FOR FASTENING RAILS TO THE TIES AND TIE-PLATES. ALWIN VIETOR, Wiesbaden, Germany, assignor to the Firm of Georgs-Marien-Bergwerks- & Hütten-Verein A.-G., Osnabrück, Germany. Filed Sept. 13, 1916. Serial No. 119,863. (Cl. 238—2.)



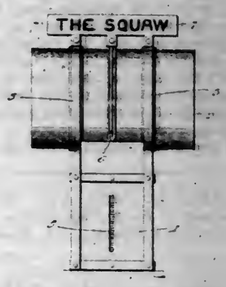
1. A railway rail securing means, comprising a tie-plate having a projection inclined to the base thereof, and a key, for insertion between the rail flange and said projection, having opposite flat and curved surfaces forming the only contacting surfaces of the key and operating to maintain the sides of the latter free from contact to permit the key to automatically accommodate itself to the inequalities of the opposed surfaces with which it contacts.

2. A railway rail securing means, comprising a tie-plate having a projection inclined to the base thereof, and a key, for insertion between the rail flange and said projection, having parallel sides and opposite flat and curved surfaces, said surfaces forming the only contacting surfaces of the key and operating to maintain the parallel sides out of contact with the tie plate to permit the key to automatically accommodate itself to the inequalities of he opposed surfaces with which it contacts.

3. The combination of a railway-rail, a tie-plate having a side support, and a key, driven between the rail-flange and the side-support of the tie-plate, having parallel sides and a flat inclined contact surface pressing against a corresponding flat inclined contact surface at the side of the rail-flange and an opposite rounded contact surface pressing against a corresponding concave contact surface of the side support of the tie plate, the top and bottom of the keys being out of contact with the side support and rail flange.

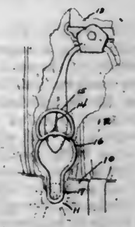
4. The combination of a railway-rail, a tie-plate having on one side a side support pressing directly on the rail flange and on the other side a side support, a key driven between the latter and the rail flange, the key having a rounded contact surface on one side, a flat inclined contact surface on the other side, a steel tie having projections pressed upward into the top plate of the tie to hold the tie-plate against longitudinal movement on the tie.

1,256,398. SUNKEN-VESSEL MARKER. WILSON VOGEL, Killisnoo, Alaska. Filed Sept. 5, 1917. Serial No. 189,852. (Cl. 9—9.)



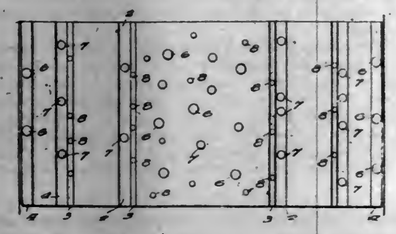
A sunken vessel marker comprising a casing, straps attached thereto, a buoy secured to the casing by the straps, a sign supported by the straps at the opposite side of the buoy from the casing, a coil of rope housed within the casing and connected at one end with the buoy and having an opposite end portion which passes through the casing and which is adapted to be connected with a vessel.

1,256,399. SUSPENDER ATTACHMENT. RICHARD D. VOORHEES, Lebanon, Ind. Filed Sept. 7, 1916. Serial No. 118,845. (Cl. 241—25.)



A suspender attachment composed of a single section of wire, said wire being bent to form parallel sections, portions of said parallel sections being bowed outwardly to form a loop, the sections of the wire above said loop being extended upwardly and then curved substantially semi-circular outwardly and downwardly, said curved portions being soldered together, the ends of the wire beyond the curved portion being formed into a second loop of substantially semi-circular formation the lower edge of which is substantially in alinement with the upper edge of the first loop, the remainder of the second loop extending above the first loop and in offset position thereto, whereby when a suspender strap is introduced over the second loop it will engage said curved portion between said loops and rest flat between the loops.

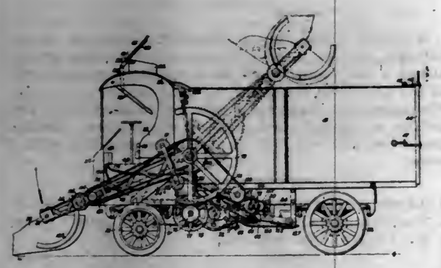
1,256,400. GAME APPARATUS. RALPH WALTER, Hempstead, N. Y. Filed Aug. 28, 1917. Serial No. 188,636. (Cl. 46—69.)



3. A game apparatus including a substantially rectangular shaped game board having spaced parallel transverse sets of grooves on opposite sides of the transverse center of one side of said board, said grooves having the side walls thereof adjacent the center offset to form a step in each groove, angular members extending upwardly from adjacent the edges of said side of the board, said board having pockets formed therein beneath the angular members, and sets of different sized game pieces movable on the board as specified.

[Claims 1 and 2 not printed in the Gazette.]

1,256,401. SELF LOADING AND DUMPING AUTO-TRUCK. JOHN A. WARD, Philadelphia, Pa. Filed Apr. 9, 1917. Serial No. 160,831. (Cl. 37—6.)



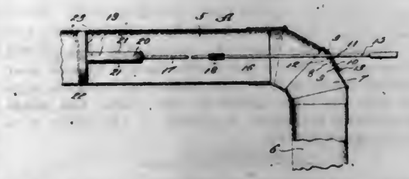
2. In a self-loading and dumping auto-truck, the combination of a power driven truck, a wagon body mounted to swing on the rear portion of the said truck from normal loading position into dumping position or vice versa, a scoop adapted to scoop up the material in front of the truck, carrying arms mounted to swing up and down on the truck in planes outside of the sides of the said wagon body, the said scoop being mounted to swing on the free ends of the carrying arms, a power driven actuating mechanism connected with the said carrying arms to impart a swinging motion to the said carrying arms to swing the same from forward scooping position upward and rearward beyond a vertical position and back to forward scooping position, and a power driven actuating mechanism mounted on the said truck and connected with the said scoop to impart a swinging motion to the latter in one direction during the upward and rearward movement of the carrying arms to maintain the scoop in an approximately horizontal position and to turn the scoop in a reverse direction into dumping position to dump its contents into the wagon body and in any position the carrying arms may be in at the time to distribute the contents of the scoop during repeated operations evenly in the wagon body.

6. In a self-loading and dumping auto-truck, the combination of a power driven truck, carrying arms mounted to swing up and down on the said truck, a scoop mounted to swing on the said carrying arms, a power driven actuating mechanism mounted on the truck and connected with the said scoop to impart a swinging motion to the latter, a power driven actuating mechanism connected with the said carrying arms to impart a swinging movement to the said carrying arms wholly independent of the swinging movement given to the said scoop, indicating means having pointers and a dial on which the pointers indicate, and connecting means connecting the said pointers with the said actuating mechanisms of the carrying arms and the scoop to actuate the said pointers, the latter indicating the positions of the said carrying arms and scoop.

8. In a self-loading and dumping auto-truck, the combination of an auto-truck having a driver's seat, a wagon body mounted to swing up and down on the truck in the rear of the driver's seat, a scoop, carrying arms carrying the said scoop and mounted to swing on the said truck to carry the scoop overhead of the driver's seat and into dumping relation with the said wagon body, a tube on top of the driver's seat, a mirror mounted to swing on the said tube to open and close the latter and manually controlled means connected with the said mirror and within reach of the driver to enable the latter to swing the mirror upward into observation position.

[Claims 1, 3 to 5, and 7 not printed in the Gazette.]

1,256,402. PIPE-CLEANER. JOSEPH G. WARE, Ryder, N. D. Filed May 11, 1917. Serial No. 167,973. (Cl. 15—41.)



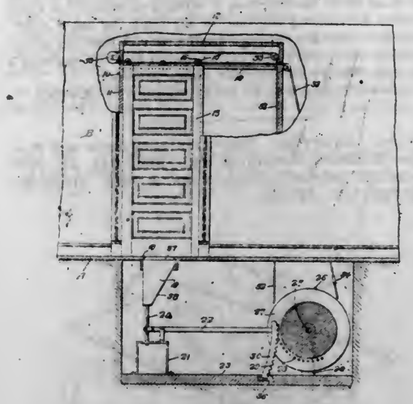
In a pipe cleaner, a handle, a yoke at one end of the handle having the arms thereof curved for a portion of their length adjacent the intersection of the handle with the yoke to coincide with the transverse curvature of the wall of a stove pipe elbow, said arms having an outer convex face coinciding with the curvature of the wall of a stove pipe section and an inner convex face coacting with the outer convex face in providing a knife edge at the sides of the arms throughout their length, offset portions in said arms adjacent their free ends, and a split band to the inner wall of which said offset portions are secured having oppositely beveled side edges.

1,256,403. SPRING-WHEEL. GEORGE WILBER WATTS, Hot Springs, Ark. Filed Apr. 4, 1916. Serial No. 88,897. (Cl. 152—32.)



In combination with a wheel having a quick demountable rim, of an auxiliary rim arranged concentric with the wheel and in spaced relation, springs between the quick demountable rim and the auxiliary rim, each spring comprising a body connected with the wheel rim and arms diverging from the body in opposite directions and connected with the auxiliary rim, each arm being approximately Z-shaped, and all the component elements of each spring between its connections being inclined with respect to radii of the wheel.

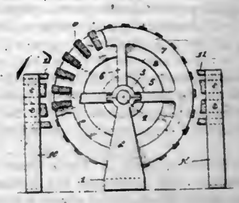
1,256,404. DOOR-OPERATING MEANS. JAY GOULD WATTS, Crichton, La. Filed May 17, 1916. Serial No. 98,153. (Cl. 268—8.)



1. A door operating means comprising in combination with a sliding door, a drum mounted for rotation, a cable connected with the door and trained over the drum for opening the door upon rotation of the drum in one direction and closing the door upon reverse rotation of said drum, a movable member normally lying flush with the surface and adapted to be depressed when weight is brought to bear thereon, a horizontally disposed rod pivoted beneath said member for vertical swinging movement, one end of said rod being connected with the member whereby the rod is adjusted upon depression of said member, an arcuate shaped toothed element carried by the opposite end of said rod and engageable with the drum to rotate the latter in a direction to open the door when said member is depressed, and a weight carried by the drum to unbalance the latter and automatically return the drum and the aforementioned parts to their normal position.

2. A door operating means comprising in combination with a sliding door, a drum mounted for rotation, a cable connected with the door and trained over the drum whereby said door is opened upon rotation of the drum in one direction and closed upon reverse rotation of said drum, a movable member operating through an opening in the floor or surface and adapted to be depressed when weight is brought to bear thereon, a horizontally disposed pivot rod arranged beneath the member and connected therewith to be moved about its pivot when said member is depressed, a plurality of spaced transverse pins forming part of said drum, an arcuate shaped rack bar carried by one end of the rod and coöperating with said pins to rotate the drum when the member is depressed in a direction to open the door, a weight carried by the drum for reversing the movement of the latter and returning the same and the aforementioned parts to normal position when pressure is removed from said movable member, and means for limiting the adjustment of said parts in this direction.

1,256,405. ROTARY-BLOWER SPARK-GAP. HARLAN S. WEBSTER, Canton, Ohio. Filed Mar. 3, 1917. Serial No. 152,381. (Cl. 250—38.)

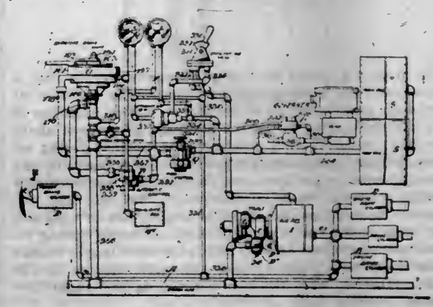


1. In electric discharge apparatus, a revoluble element comprising spaced annular members, an annular row of spaced radially disposed electrodes between said members, said electrodes adapted to produce a radial discharge of fluid; a relatively stationary element comprising a plurality of spaced electrodes, said electrodes disposed concentrically to said revoluble element, and adapted to receive an electric discharge from said revoluble element and further adapted to be cooled by fluid discharged from the revoluble element through such spaces.

2. In electric discharge apparatus, a revoluble element comprising spaced annular members, an annular row of spaced radially disposed electrodes between said members, said electrodes adapted to produce a radial discharge of fluid, a relatively stationary element comprising a plurality of spaced electrodes disposed concentrically to said revoluble element, and adapted to receive an electric discharge from said revoluble element, and further adapted to be cooled by fluid discharged from the revoluble element through such spaces; a second stationary element similarly formed to the first mentioned stationary element, and likewise adapted to be cooled by fluid discharged from the revoluble element and further adapted to transmit an electric discharge to the revoluble element.

3. In electric discharge means, a revoluble element and a plurality of electrodes on said element, said element formed with passages between said electrodes adapted to discharge of fluid; a relatively stationary element comprising a plurality of electrodes, said stationary element formed with passages between said electrodes adapted to receive and conduct fluid discharged from said revoluble element to cool said electrodes of the stationary element; the electrodes of one of said elements having a dimension in the direction of rotation greater than the corresponding dimension of the passages between the electrodes of the other element.

1,256,406. AIR-BRAKE SYSTEM. WILLIS C. WEBSTER, Dubois, Pa., assignor to Buffalo Air-Brake Company, Phoenix, Ariz., a Corporation of Arizona. Filed May 28, 1914. Serial No. 841,655. (Cl. 188—1.)



1. In an air brake system, the combination with a train pipe, a triple slide valve, a storage chamber, a brake cylinder pressure operated means for controlling the feed of train pipe air to the brake cylinder, said means being con-

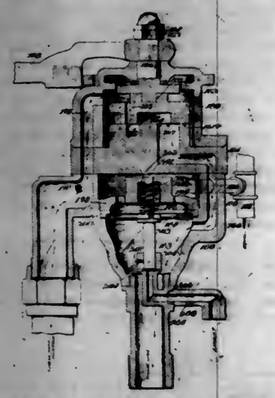
trolled by pressure in the storage chamber, of means for admitting main reservoir air behind the piston of the slide valve to throw said slide valve to quick service position, the slide valve being provided with ports adapted to establish relatively large communication between the feed controlling means and the brake cylinder upon a movement of the slide valve to quick service position, and with a port adapted to establish communication between the train pipe and the feed controlling means whereby to cause full opening of the feed controlling means thereby to permit the passage of a relatively large amount of air to the brake cylinder.

2. In an air brake system, a train line, means for building up pressure and retaining the pressure in the train line at a predetermined degree above a normal degree of pressure therein, a triple slide valve, an auxiliary reservoir, a brake cylinder and means coacting with the triple slide valve for controlling the passage of said excess pressure to the brake cylinder.

3. In combination with means controlling the pressure in the train line, adjustable means for feeding pressure from the main reservoir to the train line and keeping the pressure in the train line at a predtermined degree, means for feeding the train pipe pressure directly to the brake cylinder upon a movement of the triple slide valve to service position, means operated by a rise of pressure in the train line for opening the said feed valve until the pressure in the train line and brake cylinder are equalized, and means for cutting out or cutting in said last named means.

[Claims 4 to 13 not printed in the Gazette.]

1,256,407. ENGINEER'S VALVE AND PRESSURE-CONTROLLING MECHANISM FOR AIR-BRAKES. WILLIS C. WEBSTER, Dubois, Pa., assignor to Buffalo Air-Brake Company, Phoenix, Ariz., a Corporation of Arizona. Filed May 28, 1914. Serial No. 841,657. (Cl. 188—7.)



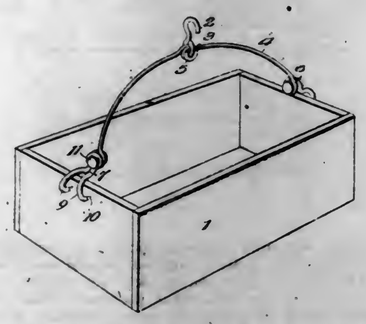
2. In an air brake, an engineer's valve, a train line, a main reservoir, a pump governor controlling the feed of air to the main reservoir at release or service positions of the engineer's valve to thereby maintain pressure of air in the main reservoir at a pre-determined degree during release position, and at another pre-determined degree during running service position, and means for automatically feeding air from the main reservoir to the train line during both running service and release positions to maintain the pressure therein at a pre-determined degree during release position and at another pre-determined degree during running service position, said automatic feeding means and engineer's valve together controlling the pump governor.

4. In an air brake system, an engineer's valve, a main reservoir, a train line, means actuated when the engineer's valve is at release position for automatically feeding air from the main reservoir to the train line upon a decrease of pressure in the train line less than a pre-determined degree and automatically cutting off air from the main reservoir to the main train line when the pressure in the train line rises above said pre-determined degree, and means for automatically feeding air from the main reservoir to the train line upon a decrease of pressure in the train line less than a pre-determined degree, said means operating when the engineer's valve is in running service position.

5. In an air brake system, an engineer's valve, a main reservoir, a pump governor operatively connected to the main reservoir to control the operation of the air pump during release and service positions of the brakes, in combination with means for automatically controlling the feed of air from the main reservoir to the train pipe during release position of the engineer's valve, and means for automatically controlling the feed of air from the main reservoir to the train line during running service position of the engineer's valve, both said latter means and the engineer's valve together controlling the pump governor.

[Claims 1, 3, and 6 to 27 not printed in the Gazette.]

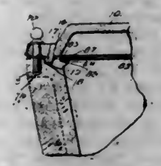
1,256,408. GRAPPLE. FREDERICK L. WEEDON and WINFRED E. LEMON, Corralitos, Cal. Filed Jan. 22, 1917, Serial No. 143,620. Renewed Jan. 3, 1918. Serial No. 210,233. (Cl. 57—9.)



1. In a device of the class described the combination of a spring arm having a terminal loop on each end disposed in a plane substantially at right angles to a vertical plane through said arm, object engaging members including loops adapted for alinement with the terminal loops of said arm, and rivet members positioned through said loops whereby the object engaging members are swingable on the longitudinal axis of the arm and are held fixedly engaged with said arm upon expansion or contraction of the same to clamp the members to the object engaged.

[Claim 2 not printed in the Gazette.]

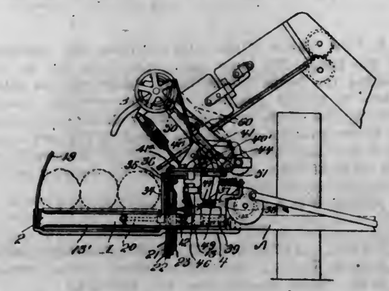
1,256,409. GLASS CASKET. ERNEST H. WEAT, Jacksonville, Ala. Filed Feb. 27, 1917. Serial No. 151,269. (Cl. 27—8.)



1. In a glass casket, the combination with the body having around its upper end a flange provided with a channel with converging side walls and longitudinal grooves in the walls, said flange also having a recess along one corner; of a cover having around it a flange provided with a depending tongue whose walls converge to fit those of the channel and have longitudinal grooves, a plastic seal within said grooves, the cover flange also having a marginal depending flange filling the recess when the tongue fits the channel, and screw devices located between said channel and recess for drawing the flanges toward each other and the tongue into the channel so that both walls of said tongue will contact with the corresponding walls of said channel and the grooves in such walls will register.

2. In a casket, the combination with a body having around its open upper end an outturned flange provided with a continuous channel whose walls converge downwardly and are formed with longitudinal grooves, a cover having around its edge an outturned flange provided with a depending tongue of a shape to make a ground joint with both walls of said channel and also provided with longitudinal grooves adapted to register with those therein, cement in the registering grooves, and clamping means wholly outside said channel and tongue for drawing the flanges toward each other and the walls of the channel and tongue into close contact with each other.

1,256,410. BUNDLE-CARRIER ATTACHMENT FOR HARVESTERS. EARL WHITLOW, Jerseyville, Ill. Filed Mar. 7, 1917. Serial No. 153,021. (Cl. 56—120.)



1. In a bundle carrier, an endless movable carrier element, means including a master gear to operate the carrier element, said master gear having a gear segment and also having ratchet teeth, a member mounted for rocking movement, a dog carried by said member and arranged to successively engage the ratchet teeth of the master gear, and means to actuate said rocking member and thereby impart step by step partial rotation to the master gear to engage the gear segment thereof with the pinion and thereby cause the master gear to be turned by the pinion and to operate the carrier element.

2. In a bundle carrier, an endless movable carrier element, means including a master gear to operate the carrier element, said master gear having a gear segment and also having ratchet teeth, a member mounted for rocking movement, a dog carried by said member and arranged to successively engage the ratchet teeth of the master gear, and means to actuate said rocking member and thereby impart step by step partial rotation to the master gear to engage the gear segment thereof with the pinion and thereby cause the master gear to be turned by the pinion and to operate the carrier element, and means to prevent casual movement of the master gear.

4. In a bundle carrier an endless movable carrier element, means including a master gear to operate the carrier element, said master gear having a gear segment and also having a series of ratchet teeth, a continuously driven pinion normally disengaged from the segment, a member mounted for rocking movement, a dog carried by said member and arranged to successively engage the ratchet teeth to impart step by step partial rotation to the master gear and thereby engage the gear segment thereof with the pinion, a lever connected to the rocking member and having a cam, an operating lever arranged to engage said cam and thereby cause the cam lever to impart partial rotation to the master gear, and a spring to impart reverse strokes to the rocking member, and a spring to impart reverse strokes to said operating lever.

[Claim 3 not printed in the Gazette.]

1,256,411. SHADE-HOLDER. ARTHUR E. WIEDENHOEFT, Chicago, Ill., assignor of one-half to Harry A. Best, Chicago, Ill. Filed Nov. 22, 1915. Serial No. 62,685. (Cl. 240—114.)

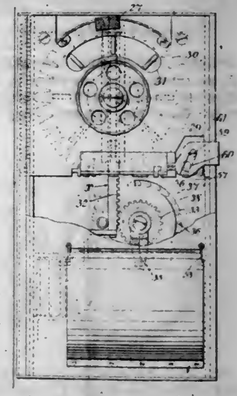


1. A channel-form body stamped out of a single sheet of metal, the outer wall or rim of which is provided with means for supporting a shade, the inner wall or rim having struck-out portions providing spring lugs and an unbroken ring which are adapted to engage, respectively, the upper and lower side of a lamp-socket bead.

10. A shade holder comprising an outer flange, and a connective portion which together form an angle, spring lugs, and a ring suspended from said connective portion, said ring adapted to engage the under side of a lamp socket or socket cover bead and said lugs adapted to rest upon said bead.

[Claims 2 to 9 not printed in the Gazette.]

1,256,412. APPARATUS FOR ISSUING TICKETS AND REGISTERING RECEIPTS. CHARLES WINTER, London, England. Filed June 20, 1914. Serial No. 846,330. (Cl. 234—3.)



1. Ticket printing and issuing apparatus comprising in combination a base, a reciprocatory frame thereon, a series of fares printing surfaces, an adjustable support therefor mounted in said frame and adapted to be adjusted to bring any member of said series into printing position, an impression plate fixed on said base, a slider movable in guideways, on said base, a plurality of strikers variably arranged on said support and corresponding with respective printing surfaces, said strikers being adapted to engage said slider when moved into the path thereof and during printing movement of said frame, and a fares totalizer operatively connected with said slider.

4. A ticket printing and issuing apparatus, comprising a reciprocatory printing device including an adjustable fares printing member, a plurality of actuating members carried by the latter, a slide arranged to be successively engaged by and movable into different positions by the actuating members during the printing movement of said device, and a totalizer connected with and variably actuated by the slide.

6. A ticket printing and issuing apparatus, comprising a printing mechanism including a fares printing element capable of selective adjustment, striking means variably disposed and movable with said element so as to participate in any selective adjustment, a slide in the path of any selected striking means and adapted to be operated thereby during the printing stroke of the printing element, and recording means connected with and operated by the movement of the slide.

9. A ticket issuing apparatus, comprising a base, a reciprocable frame thereon, a fares printing element adjustable to a selected position about a center on said frame, a plurality of locking members connected with said element and disposed to correspond with the disposition of fare values on said element, locking means on said base adapted to coöperate with said locking members when said frame is reciprocated, a slide on said base, variably disposed means in connection with said fares element adapted to operate said slide during the printing stroke of said element, and registering means connected with and operated by the movement of the slide.

14. Ticket printing and issuing apparatus comprising a reciprocable printing combination, including a rotatable fares printing element, striking devices variably arranged on said element as to their distances from the center and as to their positions relative to a given radius, a plurality of sliders adapted to be variably operated by said striking devices the arrangement of the latter constituting an automatic selective mechanism whereby one or other of said sliders is operated according to the denomination of the ticket issued, recording devices connected with respective sliders and registering mechanism operatively connected with said sliders.

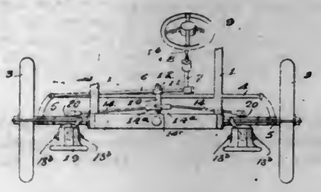
[Claims 2, 3, 5, 7, 8, 10 to 13, and 15 not printed in the Gazette.]

1,256,413. GRAIN-SAMPLER. ARTHUR M. WISWELL, Wichita, Kans., assignor of one-third to John R. Bailey and one-third to Addison Hall, Wichita, Kans. Filed May 5, 1917. Serial No. 166,678. (Cl. 137—18.)



A grain sampler comprising a valve casing having inlet and outlet ports formed therein, an inner casing mounted for rotation in said valve casing and having respective ports therein adapted to register with respective inlet and outlet ports of said valve casing when in different positions relative to said valve casing, a flange on said valve casing, having a depression therein, oppositely disposed shoulders on said flange, a cleat mounted on said inner casing and engaging said flange between said shoulders and having a hole therein adapted to register with said depression when said cleat is positioned intermediate said shoulders, a ball in said hole, and a spring engaging said ball and serving to move said ball into said depression when said hole and depression are in registry, said shoulders and said depression being so disposed as to indicate the various operative positions of said inner casing relative to the valve casing.

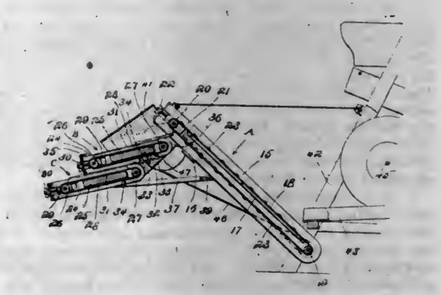
1,256,414. DIRIGIBLE HEADLIGHT. LEO J. WOGENSTAHL, San Antonio, Tex., assignor to Automatic Search Light Company, Phoenix, Ariz., a Corporation of Arizona. Filed Apr. 24, 1914. Serial No. 834,227. (Cl. 240—62.)



1. In a vehicle of the class described, the combination of the lamps, the lamp stems, the seats for the stems holding the lamps substantially rigidly against rotation when in normal position, and the vertically vibrating steering rod, of the lamp-operating rods pivotally connected to the steering rod near its vibrating end and connected to the lamp stems at points near the transverse vertical plane of their connection with the steering rod, substantially as set forth.

[Claims 2 to 4 not printed in the Gazette.]

1,256,415. ATTACHMENT FOR FANNING-MILLS. JOSEPH WOIACH, Graceville, Minn. Filed Sept. 30, 1916. Serial No. 123,126. (Cl. 130—18.)

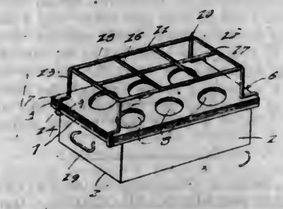


In a device of the class described, the combination with an elevator, of a conveyer swingingly connected therewith to receive material discharged over the elevator, said conveyer being inclined oppositely to the inclination of the elevator, keepers on the frame of the conveyer, and a second conveyer having arms slidably engaging the keepers, enabling said second conveyer to be variously projected with respect to the first mentioned conveyer, the first mentioned conveyer discharging upon the second conveyer.

1,256,416. JAR-STEAMER. BERTHA WOODS, Platteville, Wis. Filed Mar. 17, 1917. Serial No. 155,552. (Cl. 167—3.)

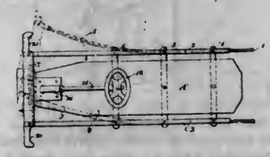
An apparatus of the class described comprising a metal container having end walls, side walls and a bottom wall,

the upper edges of the side and end walls being bent outwardly in a substantially horizontal plane forming supporting flanges, a metal tray including spaced plates having disposed between their opposing faces asbestos sheets, the asbestos sheets and plates being perforated for the



reception of jars, said tray adapted to be removably arranged on the horizontal supporting flanges of the container, and a wire rack comprising a rectangular frame, supporting legs depending from said frame, U-shaped clamping members formed on the terminals of the legs for removably securing the rack and tray to the container.

1,256,417. STEERING-GEAR FOR SLEDS. WILDMAN M. WOODS, Newton, Iowa. Filed July 2, 1915. Serial No. 37,642. (Cl. 21—94.)

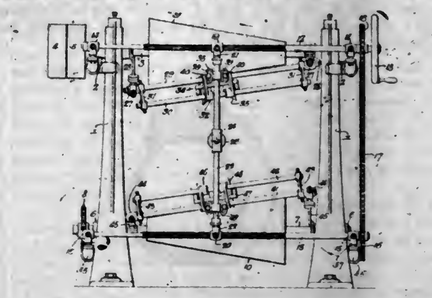


1. In a device of the class described, a sled having a top board provided with an oblique opening near its front end and side runnners, said runners being flexible to permit lateral steering movement, a transversely extending front bar pivoted to the front extremities of the side runners, a metal reinforcing plate secured to the front bar and having a middle portion bent in a hollow triangular form and with its lower rear part provided with a series of tooth receiving slots or perforations arranged in a longitudinal row, a tubular steering post or column extending obliquely through the top board with its upper portion projecting upwardly and rearwardly above the board and its lower portion fitting through the oblique opening in said top board and depending downwardly and forwardly, a steering shaft rotatably mounted in the steering post or column and having its upper portion projecting above said column, a steering wheel mounted on the upper projecting end of said shaft and a gear wheel mounted on the lower extremity of said shaft and having its teeth project into the slots or perforations in the oblique lower rear part of the extension of the metal reinforcing plate.

2. In a device of the class described, a sled construction comprising a top board, flexible side runners, a transverse front bar, a steering shaft rotatably mounted in the top board, and carrying a gear wheel, and a metal reinforcing plate secured to the front bar and having a rack coöperating with the gear wheel on the steering shaft, said plate in part projecting in front of the sled and forming a guard or bumper therefor.

1,256,418. BELT-SHIFTER FOR CHANGE-SPEED MECHANISM. JAMES YOCOM, Philadelphia, Pa. Filed Dec. 29, 1916. Serial No. 139,551. (Cl. 64—4.)

1. The combination in change speed mechanism, of two shafts; a cone pulley on each shaft; inclined guides near each cone pulley; a carriage adapted to travel on the guides; a flanged roller on each carriage; a belt passing around both cone pulleys and twisted and engaged by the flanged rollers; two feed screws; nuts on the feed screws; a rod connecting the nuts and engaging the carriage; and means for turning the feed screws in unison.



2. The combination of two shafts; a cone pulley on each shaft; two inclined guides; a screw at each guide; a nut on each screw; a rod connecting the two nuts; two belt shifters controlled by the screws; a spindle carried by the rod and having a roller; a belt passing around the two cone pulleys and twisted, said roller extending between the two runs of the belt.

4. The combination of two shafts; a cone pulley on each shaft; a belt passing around both cone pulleys; two inclined guide rods extending parallel with each other and located near each cone pulley; bearings in which the said rods are adjustably mounted; a carriage adapted to travel on each pair of guide rods; a pivoted frame secured to each carriage; a double cone roller on each frame arranged to engage the belt; a strap adjustably mounted on each carriage; two feed screws; means for connecting the screws so that they will be driven in unison; a rod connecting the two nuts; said rod extending through the straps so that when the nuts travel on the feed screws they will traverse the carriage on the guide rods and shift the belt.

6. The combination in a change speed gear, of two cone pulleys; a belt passing around the cone pulleys; a double cone roller having a body portion and two adjustable conical flanges mounted thereon; and means for securing the flanges in position.

[Claims 3 and 5 not printed in the Gazette.]

1,256,419. GROMET. WILLIAM ANDREW YOUNG, New York, N. Y. Filed June 14, 1917. Serial No. 174,709. (Cl. 28—5.)

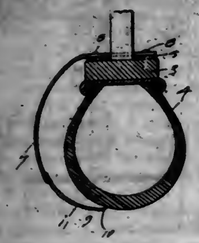


A gromet comprising an endless rope ring, said ring being constructed from a continuous loosely twisted strand, said strand being doubled upon and twisted upon itself to form a loop through which the free end of the twist is extended, and the body of said gromet being formed by winding said twist two or more times upon itself and about said loop, the wrapping being arranged to expose and incorporate said loop in the composed body of the gromet.

1,256,420. CHAINLESS NON-SKID DEVICE. EDWIN J. AITKEN, Pasco, Wash. Filed July 13, 1917. Serial No. 180,398. (Cl. 152—16.)

1. In combination with a wheel including a felly having a tire mounted thereon, of a concave tread member located

adjacent the tread surface of the tire, resilient arms secured to the tread member and extending over the inner face of the felly, and a circular means overlying the inner face of the felly for detachably securing the resilient arms to the felly.



2. In combination with a wheel including a felly having a tire mounted thereon, and spokes, of a tread member located adjacent the tread of the tire, arms secured to the tread member and overlying the inner face of the felly, and a band secured to the inner ends of the arms and having bayonet slots to receive the spokes.

3. The combination with a wheel including a felly having a tire mounted thereon and spokes, of a tread member located adjacent the tread of the tire, arcuate shaped resilient arms secured to the tread member and extending over the inner face of the felly, a band overlying the inner face of the felly and secured to the inner ends of the arms, said band having bayonet slots to receive the spokes, and clamps carried by the band and surrounding the spokes for removably securing the band to the wheel.

1,256,421. CAN-SOLDERING MACHINE. SAMUEL E. ALLERTON, Chicago, Ill. Filed Jan. 3, 1916. Serial No. 69,726. (Cl. 113—78.)



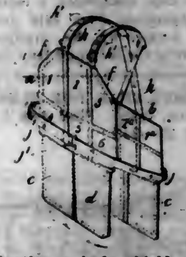
1. A can treating machine having, in combination, a supporting framework, a guideway on which the cans are supported and slidably guided to travel, means for moving the cans along said guideway, and two solder pots positioned at opposite sides of said guideway and spaced laterally away from the cans, said pots having discharge ducts through their walls communicating with the lower portions of the pots and arranged to direct continuous jets of solder in a lateral direction transverse to the path of the cans so as to strike opposite sides of the cans during their passage.

3. A machine for treating cans having, in combination, means for causing a series of cans to travel, two solder pots located at opposite sides of the path of the cans and each having a discharge duct communicating with the lower portion of the pot and leading laterally therefrom and adapted to eject a continuous jet of molten solder in a lateral direction against the cans as they pass by, two receptacles positioned in a plane beneath said pots and adapted to catch the surplus solder, and two dippers mounted on a rock shaft to oscillate between said receptacles and said pots to transfer the solder from the former to the latter.

12. A can soldering machine having a solder pot provided with an outlet through one of its upright walls, a tube passing through the opposite upright walls of the pot in alinement with said outlet, said tube having a screw thread connection with the pot, whereby rotation of the tube will move the tube longitudinally, the tube being otherwise fixed against longitudinal movement, the inner end of said tube normally being spaced from said outlet while the machine is in operation, to permit the free discharge of solder directly through the outlet, and the tube being adjustable by said screw-thread connection to cause its inner end to close said outlet, and a needle valve in said tube having a screw-thread relation with the tube and normally closing the inner end of the tube, said needle valve being withdrawable from the tube to permit the insertion of a cleaning device through the tube and into the outlet of the solder pot for cleaning the latter.

[Claims 2 to 7, 9 to 11, and 18 not printed in the Gazette.]

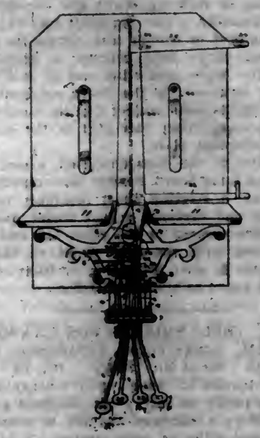
1,256,422. SHIELD OR PROTECTOR SUITABLE FOR THE USE OF SOLDIERS AND OTHERS. DAVID ANDERSON, London, England. Filed May 5, 1917. Serial No. 166,739. (Cl. 89—36.)



1. In combination a body shield comprising separate front and rear portions each composed of a number of metal plates and textile fabric separately inclosing each set of plates and whereby they are flexibly connected together, an apron like extension flexibly connected to the front portion of said shield and divided into two separate depending portions, a tail like extension flexibly connected to the rear portion of the shield, shoulder straps connecting the said front and rear portions and a strap secured to said rear portion and having its ends adapted to be fastened together over said front portion.

[Claims 2 to 4 not printed in the Gazette.]

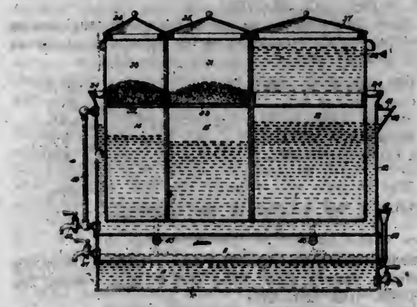
1,256,423. MUSIC-LEAF TURNER. CYRUS M. APPLEGET, North Yakima, Wash. Filed Dec. 14, 1916. Serial No. 137,025. (Cl. 84—17.)



1. A music leaf turner, comprising a base board, a frame work mounted thereon, bearing brackets extending from the base block, a plurality of shafts telescopically mounted in said bearing brackets, a grooved pulley carried by the lower end of each of said shafts, a circular head block carried by the upper end of each of said shafts, a music leaf turner arm attached to each of said circular head blocks, a lug formed on each of said grooved pulleys, spring arms attached to said frame work and engaging behind said lugs and adapted to urge said pulleys to the right to hold the music turner arms upon the music leaves, means for rotating said pulleys consecutively in one direction, and means for rotating all of said pulleys simultaneously in the opposite direction.

2. A music leaf turner comprising a base board, a frame work mounted thereon, bearing brackets extending from the base block, a plurality of shafts telescopically mounted in said bearing brackets a grooved pulley carried by the lower end of each of said shafts, a circular head block carried by the upper end of each said shafts, a music leaf turner arm carried by each circular head block, a bracket projecting laterally from said frame work, a plurality of L-shaped operating keys pivotally mounted in said bracket, and flexible elements connecting the upper ends of said L-shaped keys to said grooved pulleys whereby each of said music leaf turner arms may be consecutively and simultaneously actuated.

1,256,424. COFFEE, TEA, AND MILK URN. JUAN AUSUCUA, New York, N. Y. Filed Mar. 6, 1917. Serial No. 152,684. (Cl. 53—3.)



1. An urn, comprising a water boiler adapted to be arranged over a source of heat, a tank containing a number of vessels adapted to be charged with different beverages to be heated, the vessels being spaced at the bottom and sides from the bottom and sides of the said tank to provide a space for heating water in the tank, and a closable vapor generating chamber intermediate the top of the said water boiler and the bottom of the said tank.

3. An urn, comprising a water boiler adapted to be arranged over a source of heat, a tank containing a number of vessels adapted to be charged with different beverages to be heated, the vessels being spaced at the bottom and sides from the bottom and sides of the said tank to provide a space for heating water in the tank, the said vessels for containing the aforesaid beverages then being normally closed at the top by removable percolators having perforate bottoms and removable tops, and a closable vapor generating chamber intermediate the top of the said water boiler and the bottom of the said tank.

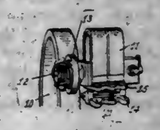
4. An urn, comprising a water boiler adapted to be arranged over a source of heat, a tank containing a number of vessels adapted to be charged with coffee and tea and milk to be heated, the vessels being spaced at the bottom and sides from the bottom and sides of the said tank to provide a space for heating water in the tank, the said vessels for containing the coffee and tea then being normally closed at the top by removable percolators having perforate bottoms and removable tops and the said vessel for containing milk being normally closed at the top by a removable auxiliary milk container, and a closable vapor generating chamber intermediate the top of the said water boiler and the bottom of the said tank.

5. An urn, comprising a water boiler adapted to be arranged over a source of heat, a tank containing a number of vessels adapted to be charged with different beverages to be heated, the vessels being spaced at the bottom and sides from the bottom and sides of the said tank to provide a space for heating water in the tank, draw-off faucets for the said vessels and extending through the front of the tank to the outside of the latter to allow of drawing off individual beverages from the vessels as required, and a closable vapor generating chamber intermediate the top of the said water boiler and the bottom of the said tank.

6. An urn, comprising a water boiler adapted to be arranged over a source of heat, a tank, a vessel in the tank and spaced from the sides and bottom of the tank to form a space for heating water in the tank, the vessel being adapted to be charged with a beverage, means for drawing off the beverage from the vessel as required, a closable vapor generating chamber intermediate the top of the said water boiler and the bottom of the said vessel, and manually controlled means for controlling the temperature of the air or vapor in the said vapor chamber, said means including upwardly opening spouts and valves controlling the same.

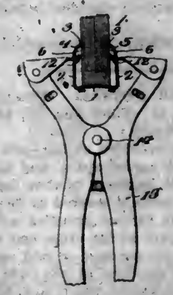
[Claim 2 not printed in the Gazette.]

1,256,425. FRICTION TRANSMISSION MECHANISM. LEVI P. AYRES and SOLOMON F. JOHNSON, Indianapolis, Ind., assignors to Hendricks Novelty Company, Indianapolis, Ind., a Corporation. Filed Apr. 27, 1914. Serial No. 834,680. (Cl. 74—26.)



The combination with a driving wheel, a shaft having one end extending across the face of the driving wheel and a driven wheel on the end of the shaft over the face of the driving wheel, of a stationary base, a rocking base pivoted to said stationary base and carrying said shaft, a spring adapted to be positioned between one or the other of the ends of the bases, whereby when the spring is between one end of the bases the shaft and driven wheel will be moved laterally in one direction and moved in the opposite direction when the spring is placed between the opposite ends of the bases and the driven wheel yieldingly held against the driving wheel, said bases having registering sockets at their ends for the reception of the ends of the spring.

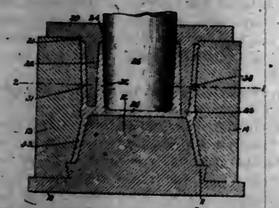
1,256,426. FILING BINDER-CLIP. LOUIS E. BALTZLEY, Weehawken, N. J. Filed May 23, 1914. Serial No. 840,458. (Cl. 24—259.)



A filing binder clip made of spring metal having a base and two converging sides, the extremities of the sides be-

ing bent to form gripping jaws and to provide free plier spaces inside the clip, each of said sides having an opening near said jaws and an inwardly projecting hook formed at the jaw side of said opening.

1,256,427. MANUFACTURE OF VACUUM VESSELS. HARRY BASTOW, Crafton, Pa. Filed Mar. 14, 1917. Serial No. 154,721. (Cl. 49—84.)



1. The method of manufacturing hollow wall vessels which consists in molding a blank having a bottom, a double wall rising integrally from the bottom and a single wall depending integrally from the said bottom, sealing the ends of the double wall together to form a closed chamber between members of the double wall, and cutting shut the said depending wall to form a closed chamber between it and the said bottom.

3. The method of manufacturing hollow wall glass vessels, consisting in molding a blank having a bottom, a double wall rising from the bottom with apertures in the bottom between the outer and inner walls of the said double wall, and a single wall depending from the bottom, uniting the upper spaced ends of the inner and outer walls of the double wall to form a vacuum chamber, and bending the single depending wall inward to unite the material of the edge of this wall to form with the said bottom a second vacuum chamber communicating with the first named chamber.

4. The method of manufacturing hollow wall glass vessels, consisting in molding a blank having a bottom, spaced inner and outer walls rising from the said bottom, and a single wall depending from the said bottom, bending the upper portion of the inner wall outward and integrally uniting it with the outer wall to form a vacuum chamber between the walls, bending the single wall inward, and uniting the material of the edge of this wall to form with the bottom a second vacuum chamber.

5. The method of manufacturing hollow wall glass vessels, consisting in molding a blank having a bottom from which rise integrally spaced inner and outer walls and integrally uniting the upper portions of the said walls to form a vacuum chamber between them.

6. The method of manufacturing hollow wall glass vessels, consisting in molding a blank having a bottom from which rise integrally spaced inner and outer walls, bending the upper portion of the inner wall outwardly and integrally merging the edge of the inner wall with the outer wall to form a vacuum chamber between the said inner and outer walls.

[Claims 2 and 7 not printed in the Gazette.]

1,256,428. HOT-WATER BOTTLE. WILLIAM J. BAUMANN, Rapid City, S. D. Filed Aug. 17, 1917. Serial No. 186,806. (Cl. 128—39.)

1. A hot water bottle provided at the ends with inner and outer wall members spaced apart, and fillers in the spaces between said wall members so that the inner surfaces of said fillers are entirely covered by the inner wall members, the bottle being further provided with an opening at one end and a socket at the other and with a plug for insertion in either said opening or said socket.

2. A hot water bottle provided at the ends with inner and outer wall members spaced apart, and fillers in the spaces between said wall members so that the inner surfaces of said fillers are entirely covered by the inner wall members, the bottle being further provided with an opening at one end and a socket at the other and with a plug for insertion in either said opening or said socket, the



inner wall member at one end of the bottle extending entirely across and closing the inner end of the opening in the filler.

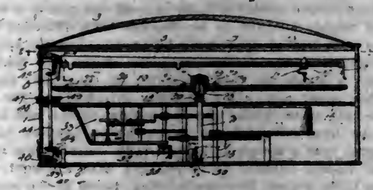
1,256,429. PROCESS OF WELDING HIGH-SPEED STEEL TO OTHER STEEL OR IRON. ALFRED F. BEAULIEU, Chicago, Ill. Filed Dec. 21, 1915. Serial No. 68,086. (Cl. 75—187.)

2. That improvement in fluxes for use in the process of welding metals containing varied percentage of carbon which consists of:

Bicarbonate of soda	40%
Carbonate of soda	40%
Sodium borate	10%
Precipitated silica	5%
Lithium carbonate	5%
	100%

[Claim 1 not printed in the Gazette.]

1,256,430. RECORDING-COMPASS. BURTIS WILLIAM BENBOW, Eureka, Cal. Filed Oct. 9, 1916. Serial No. 124,586. (Cl. 234—26.)

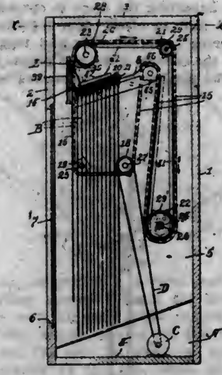


4. A recording compass comprising a magnetic compass needle, a record card carried thereby, a marking device spaced above said card, means for moving said marking device, a vertical thrust member, a spring for raising said member to shift the compass needle upwardly to bring the card in contact with the marking device, and means for returning said thrust member to its normal position after each upward thrust thereof.

7. A recording compass comprising a magnetic compass needle carrying a record card and means for alternately raising and lowering said needle and a dial; in combination with a rigid indicating arm above the card, a marking device adjacent said arm for placing a record on said card, and a plurality of fingers depending from said arm to prevent tilting of the dial while the marking device in operation.

[Claims 1 to 3, 5, 6, and 8 not printed in the Gazette.]

1,256,431. DISPLAY APPARATUS. BENJAMIN B. BIENHOFF, Minneapolis, Minn. Filed Mar. 16, 1916. Serial No. 84,747. (Cl. 40—78.)



1. In a display apparatus, comprising, an inclosing frame, declining supports in said frame, a series of rods adapted to rest on said supports, each of said rods carrying a flexible sign, means for carrying the foremost rod with its sign upward, and from the front to the back of said frame, said carrying means comprising a pair of chains having a pair of recessed links which are adapted to engage the ends of said foremost rods, and means formed on said recessed links for holding said links and chain rigid in a vertical plane while lifting and receiving said rod in said recessed links.

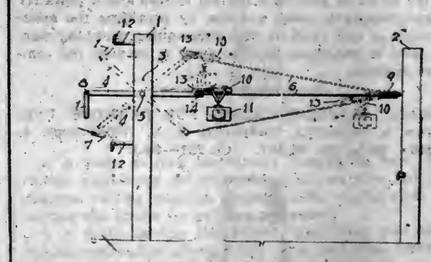
2. In a display apparatus, comprising, an inclosing frame, declining supports in said frame, a series of rods adapted to rest on said supports, each of said rods carrying a flexible sign, means for carrying the foremost rod with its sign from the front to the back of said supports, and said supports being formed with a semi-circular cam-shaped rear end which is adapted to begin to engage said rod while still in said carrying means, and to completely force said rod free of said carrying means, when said carrying means has delivered said rod to the topmost point of said support, substantially as described.

5. In a display apparatus, comprising, an inclosing frame, declining supports on either side of said frame, a series of rods adapted to rest on said supports, and each of said rods carrying a flexible sign, a pair of chains having a pair of recessed links, one side of each of said links having a forwardly projected hook thereon, an elongated portion formed near the end of said rods of a smaller diameter than the ends of said rods, and a squared portion formed on said rods which is adapted to space the rods apart, so as to form a space between said elongated portions of the adjacent rods, thereby allowing the engaging end of said hooks on the recessed links to pass between the first and second rod on the supports to engage one rod at a time, said links adapted to carry said rods to the back of said supports, and to turn said sign over, so that the same display surface will face forwardly in said frame.

[Claims 3, 4, and 6 not printed in the Gazette.]

1,256,432. MAIL-CONVEYER. JOHN BILICK, Chicago, Ill. Filed June 30, 1917. Serial No. 177,934. (Cl. 212—75.)

1. A mail conveyer including a pair of spaced standards, a track shifting lever pivotally mounted at an intermediate point in its length upon one of the standards, a wire track extending between one end of the lever and the opposite standard and arranged to be level when the lever is horizontal, a looped handle pivotally connected to the opposite end of the tranck shifting lever for swinging the lever to incline the track in either direction, means upon the standard for engagement with the looped handle to hold the track shifting lever at either limit of its movement, and a wheeled carriage mounted to travel back and forth upon the track by the action of gravity.



3. A mail conveyer including a pair of spaced standards, a track shifting lever pivotally mounted upon one of the standards, a wire track extending between the track shifting lever and the opposite standard and arranged to be level when the lever is horizontal, means for manipulating the track shifting lever to incline the track in either direction, a wheeled carriage mounted to travel back and forth upon the track by the action of gravity, a lug projecting from the shifting lever, and a pawl upon the carriage for engagement with the lug of the track shifting lever.

4. A mail conveyer including a pair of spaced standards, a track shifting lever pivotally mounted upon one of the standards, a wire track extending between the said lever and the opposite standard and arranged to be level when the lever is horizontal, means for manipulating the said lever to raise or lower the end of the track connected thereto and incline the track in either direction, a wheeled carriage mounted to travel back and forth upon the track by the action of gravity, a pawl rigid with the carriage and projecting longitudinally from the track shifting lever for engagement with the pawl to hold the carriage against the lever when the lever is horizontal, the nose of the pawl being beveled so that it will ride over the lug and drop into engagement therewith when the lever is depressed and the carriage is moving toward the lever, and the angular relation between the lever and the carriage causing the pawl to become automatically disengaged from the lug when the position of the lever is reversed.

[Claim 2 not printed in the Gazette.]

1,256,433. PROCESS OF TRANSFERRING DECALCOMANIA DESIGNS AND INSIGNIA. WILLIAM T. BLOMBERG, New York, N. Y., assignor to The Palm Brothers Company, New York, N. Y. Filed Oct. 13, 1917. Serial No. 196,455. (Cl. 41—33.)

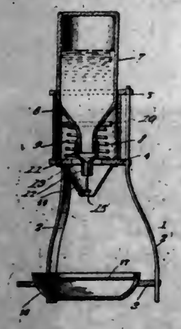


1. Process of printing and transferring large decalcomania insignia, consisting in dividing and printing an insignia in a plurality of interfitting sections, by forming the latter to provide a center section and a plurality of interchangeable outer sections, and in combining said sections

into interrelated positions when printing to produce the composite insignia.

2. The process of printing and transferring large decalcomania insignia, consisting in dividing and printing the insignia in a plurality of interfitting sections, by forming the latter to provide a central section and a plurality of interchangeable outer sections, by providing the meeting edges of said sections with overlapping matching margins, and in combining said sections to produce the composite insignia.

1,256,434. WATER-FOUNTAIN FOR BARBERS' USE. JOHN A. BOZZELLA, Monticello, N. Y. Filed Sept. 4, 1915. Serial No. 48,997. (Cl. 221—94.)



1. In a water fountain for barbers' use, a liquid receptacle yieldably supported for movement in a vertical plane, a conical liquid directing member rigidly mounted beneath said liquid receptacle, a movable valve controlling the discharge of liquid from said liquid receptacle having a stem extending within said liquid directing member, and a bar within said liquid directing member for contact with said stem when the liquid receptacle is moved in one direction.

2. In a water fountain for barbers' use, a stand, a liquid receptacle yieldably supported thereon for movement in a vertical plane, a conical fluid directing member on said stand, a cap at one end of said receptacle, an extension on said cap extending within said fluid directing member having a channel therethrough, a valve for controlling the passage of liquid through said channel having a stem extending beyond said extension, and a bar to be engaged by an end of said stem when said liquid receptacle is moved in one direction.

3. In a water fountain for barbers' use, a stand including spaced legs and a ring supported thereby, a conical fluid directing member below said ring having its base connected therewith, a yieldable support on said ring above said liquid directing member, a liquid receptacle carried by said support, a cap closing an end of said receptacle extending within the fluid directing member through the aperture in said ring, a valve for controlling the passage of liquid through said cap having a stem extending beyond the same, and a valve actuating bar within said liquid directing member below said stem.

1,256,435. COMBINED LEVEL AND PLUMB. WLADYSLAW BUCZKOWSKI, Buffalo, N. Y. Filed Feb. 24, 1917. Serial No. 150,798. (Cl. 33—210.)

1. A combined plumb and level comprising two hingedly connected sections each having a guide way protected by a cover plate, said guide ways communicating with each other, a slide fitted in said guide ways, said slide being of a length exceeding that of the guide way in one section and not exceeding that of the guide way in the other section; said slide having a recess near one end thereof, and the cover plate of the long guide way having a slot through which said recess may be reached; and a pivoted cover plate for said slot.

10. In a device of the class described, a member having a plumb bob receiving opening, steadying members within said opening having arms extending across each other, a pivot member on which said arms are mounted, and means for actuating the arms to spread the steadying members apart and to close them together, said means including a spring actuated slide and toggles connecting said slide with the crossed arms, and means for moving the slide against the tension of its actuating spring.



15. In a device of the class described, a stock comprising two members hingedly connected together, said members having openings in which casings containing spirit glasses are fitted and one of said members having a plumb bob receiving opening near its free end and a socket near said opening, a lug on the inner face of the other member adapted to engage the socket and also adapted for the attachment thereto of a string carrying a plumb bob suspended within the opening in the other member, steadying means within said opening consisting of pivotally connected members having crossed arms, a pivot member supporting said arms, a longitudinally movable slide, toggles connecting said slide with the arms, a spring actuating the slide in a proper direction to spread the steadying members apart, and means for actuating the slide, said means including a rock shaft mounted on the member having the lug on which the plumb bob carrying string is suspended, said rock shaft having arms one of which is provided with a push button, and a suitable connection between the other arm and the spring actuated slide, and adjustable means consisting of pivotally supported balls, whereby swinging movement of the plumb bob forwardly and rearwardly through the opening may be limited.

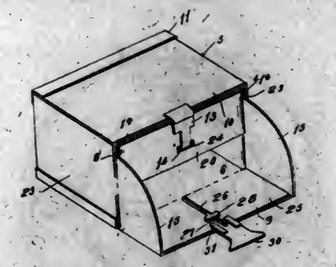
[Claims 2 to 9 and 11 to 14 not printed in the Gazette.]

1,256,436. NUT-LOCK. GEORGE F. CAPRON, El Paso, Tex. Filed Jan. 9, 1917. Serial No. 141,418. (Cl. 151—25.)



In combination with a nut having a substantially T-shaped recess formed therein, a portion of which terminates at a point adjacent the bolt receiving opening therein, a T-shaped pawl receivable in said recess and held therein against displacement by bending portions of the nut over the ends thereof, the lateral portion of said pawl being rigid and the longitudinal portion thereof being flexible and projecting into the bolt receiving opening, as and for the purpose set forth.

1,256,437. HAT-BOX. JOHN T. CARBAGA, San Jose, Cal. Filed Sept. 27, 1917. Serial No. 193,517. (Cl. 229—17.)

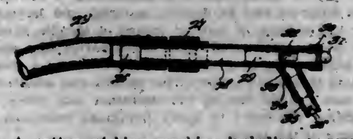


2. A hat box comprising a bottom wall, a rear wall, side walls formed integrally with the bottom and rear walls, a front wall hinged to the forward edge of the bottom wall, side wings carried by the front wall and movable between the side walls of the bottom and rear wall, means carried by the side walls of the rear wall for limiting the outward movement of the front wall, a cover, said cover hinged to the rear wall, and a tray slidably arranged on the upper side of the front wall and bottom wall, as and for the purpose specified.

5. A hat box comprising a bottom wall, a rear wall, double side walls, a cover hinged to the rear wall, means for holding the cover in closed position, a foldable front wall hingedly secured to the bottom wall, wings carried by the front wall and arranged between the double side walls, means carried by the side walls and engaging the wings for limiting the upward swinging movement of the front wall, a tray slidably arranged upon the upper side of the front and bottom walls, means for limiting the outward movement or sliding movement of the tray, and means carried by the tray, permitting it to be moved easily into and out of the box, as and for the purpose specified.

[Claims 1, 3, and 4 not printed in the Gazette.]

1,256,438. VACUUM COTTON-PICKING MACHINE. BAILEY E. CHANEY, Corpus Christi, Tex. Filed July 5, 1917. Serial No. 178,849. (Cl. 56—117.)



3. A cotton picking machine including a receiver, a suction device in connection with the upper and lower parts of said receiver, a pipe in the upper part of said receiver extending down therein and having its open end considerably below the point of the upper suction connection, and means for permitting the removal of the cotton through the lower connection, substantially as described.

4. A picking tube, a pipe fitted therein and having a port, a nozzle in communication with said port, and a valve in said pipe for controlling the port area, substantially as described.

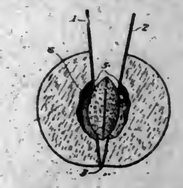
5. A nozzle for cotton pickers having bent spring guard fingers extending between one another for preventing the entrance of foreign matter, substantially as described.

[Claims 1 and 2 not printed in the Gazette.]

1,256,439. FRUIT-HALVING INSTRUMENT. MABEL A. CLARK, Rochester, N. Y. Filed Nov. 22, 1917. Serial No. 203,451. (Cl. 146—6.)

1. A fruit halving instrument comprising a pair of relatively movable blades having a common cutting edge.

2. A fruit halving instrument comprising two relatively movable blades connected together and having their connected portion forming a common cutting edge.



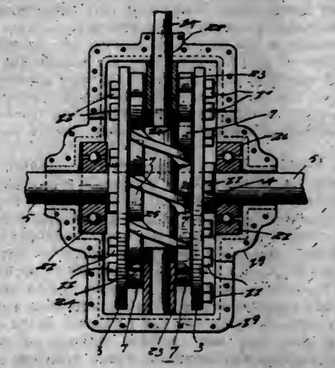
3. A fruit halving instrument comprising two blades having registering pit-receiving slots and also having a common cutting edge on opposite sides of the slots connecting the blades for relative movement.

4. A fruit halving instrument comprising two blades having registering pit-receiving slots and also having a common cutting edge on opposite sides of the slots connecting the blades for relative movement, the edges of the slots being formed with cutting edges.

5. A fruit halving instrument comprising two blades formed from a single piece of spring sheet material bent between its ends, the material being slotted on opposite sides of the bends and each of said slots registering with the other and intersecting the bend to form pit-receiving slots.

[Claim 6 not printed in the Gazette.]

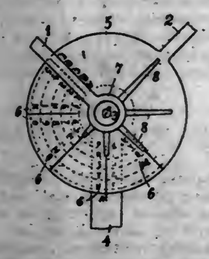
1,256,440. ROLLER-BEARING WORM DRIVE. EDWARD O. COATS, Postoak, Mo., assignor of one-half to W. L. Downing and H. K. Downing, Chilhowee, Mo. Filed Apr. 24, 1917. Serial No. 164,180. (Cl. 74—36.)



1. A roller-bearing worm drive including a shaft having a worm, a wheel provided with rollers arranged to engage with the worm, and a gear case receiving the wheel and the worm and provided with a cap and having sectional bearings at opposite ends of the same, said sectional bearings being provided with semi-tubular extensions forming inwardly projecting thrust sleeves, and roller bearings mounted on the shaft and interposed between the worm and the said sleeves.

2. A roller-bearing worm drive including a gear case composed of upper and lower sections, the upper section having a removable cap, said upper and lower sections having enlargements at opposite sides and the upper section and the cap being provided with sectional bearings, ball-bearings mounted in the said enlargements, a wheel having a shaft arranged in the ball-bearings, rollers carried by the said wheel, a worm shaft journaled in the sectional bearings of the cap and the said upper section and provided with a worm engaging the said rollers, and roller-bearings mounted on the worm shaft and interposed between the same and the gear case.

1,256,441. APPARATUS FOR TRANSMITTING OPTICAL SIGNALS. BJARNE CRANNER, Kongsberg, Norway. Filed Oct. 30, 1916. Serial No. 128,502. (Cl. 116—22.)



1. A signaling device comprising two signaling arms of different length the relative position of which indicates the signal to be transferred, a table of signals in the form of a circular rotatable disk and having on one or both sides signals arranged upon concentric circles and simultaneously in columns along radial lines said disk being connected with one signaling arm in such a way as to indicate by its angular position the column of signals corresponding to the position of said signaling arm, another indicator being arranged to point out the individual signals in the column corresponding to the position of said second signaling arm.

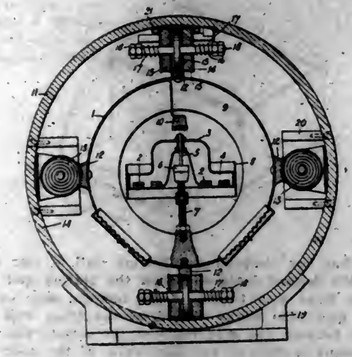
2. A signaling device comprising two signaling arms of different length the relative position of which indicates the signal to be transferred, a table of signals in the form of a circular rotatable disk and having on one or both sides signals arranged upon concentric circles and simultaneously along radial lines, said disk being connected with one signaling arm in such a way as to indicate by its angular position the column of signals, corresponding to the position of said signaling arm, a rotatable hub being arranged coaxially with the table disk and connected to the second signaling arm, said hub carrying pointers of varying length to indicate the individual signals relatively to the columns of signals on one or both sides of the table disk.

3. A signaling device comprising two signaling arms of different length the relative position of which indicates the signal to be transferred, a table of signals in the form of a circular rotatable disk and having on one or both sides signals arranged upon concentric circles and simultaneously along radial lines, said disk being connected with one signaling arm in such a way as to indicate by its angular position the column of signals, corresponding to the position of said signaling arm, a rotatable hub being arranged coaxially with the table disk and connected to the second signaling arm, said hub carrying pointers of varying length to indicate the individual signals relatively to the columns of signals on one or both sides of the table disk, a lamp for night signaling fastened to the end of each signaling arm, and a lamp fastened so as to indicate the center of the hub.

1,256,442. MAGNETIC COMPASS. FRANK O. CREAGH-OSBORNE, Woking, and ARTHUR J. HUGHES, London, England. Filed July 1, 1916. Serial No. 107,190. (Cl. 33—223.)

3. In a magnetic compass, the combination with an approximately barrel-shaped bowl of a supporting member embracing said bowl, inter-connecting brackets and lugs between said bowl and supporting member, a washer composed of yielding material disposed between each side of a bracket and lug, a spiral spring housed within said lug, a rod passing through the axis of said spring and projecting on either side of said lug, a helical spring supported upon each end of said rod, and an adjustable abutment at each end of said rod to control the pressure of said helical springs against said washers, substantially as described.

7. In a magnetic compass, the combination with an approximately barrel-shaped bowl, of a ring embracing said bowl, adjustable yielding connections between said bowl



and ring, a yoke wherein said ring is pivotally mounted and anti-friction bearings wherein said yoke is rotatably mounted, substantially as described.

[Claims 1, 2, and 4 to 6 not printed in the Gazette.]

1,256,443. HOLDER FOR CORD, THREAD, YARN, AND THE LIKE. WILLIAM C. DEMMERN, Williamsport, Pa. Filed Dec. 15, 1917. Serial No. 207,322. (Cl. 242—146.)



1. An article of manufacture comprising a container provided with an end of flexible material and having a hole for the passage of cord or thread, a spindle passing through said container for the accommodation of a spool, said spindle having a threaded end portion and a thumb nut on said threaded portion of the spindle and adapted to engage said flexible end of the container and press the same against the spool to apply frictional resistance to the turning of the latter.

2. An article of manufacture comprising a container of flexible material having a removable cover and having a hole for the passage of cord or thread, a headed spindle passing through the container and constituting a mounting for a spool, and a thumb nut on the threaded end of the spindle and adapted to press one end of the container against said spool and clamp the latter between the ends of the container.

1,256,444. SUPPORTER. NATHANIEL E. DERRITT, Hennessey, Okla. Filed May 31, 1916. Serial No. 100,820. (Cl. 241—6.)

A garment supporter comprising a triangular shaped piece of material to be attached to a sock, the said material disposed with two of its corners uppermost, a limb encircling tape secured at a point in its length to the projecting extremity of the triangular shaped piece of material across the entire width thereof, said tape having its extremities projecting beyond the opposite diverging sides of said material, one of said ends having a plurality of

longitudinally extending eyelets, and a hook-like element carried by the opposite end of said tape for engagement



with any one of said openings for securing the tape about the limb of the user.

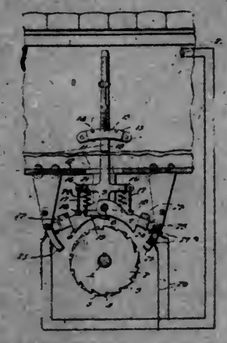
1,256,445. TAIL-LIGHT FOR AUTOMOBILES. ETHAN I. DODDS, Pittsburgh, Pa., assignor to Flannery Bolt Company, Pittsburgh, Pa. Filed Dec. 6, 1916. Serial No. 135,470. (Cl. 240—1.)



1. A tail light for vehicles consisting of a portable frame adapted for attachment to the vehicle, the said frame carrying a radio-active member, an enlarging glass covering the active surface of said member and a colored glass covering the enlarging glass.

[Claims 2 and 3 not printed in the Gazette.]

1,256,446. BRAKE FOR MOTOR-VEHICLES. JAMES DOUCETTE, Gem, Idaho. Filed Aug. 31, 1917. Serial No. 189,182. (Cl. 74—16.)

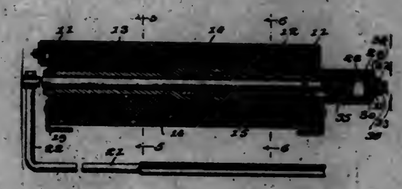


1. The combination with a rotary shaft of a motor vehicle, of a pair of ratchet wheels fast on said shaft and having their teeth facing in opposite directions, a pair of pawls arranged to coöperate with said ratchet wheels, means for setting either one of said pawls in position to coöperate with the respective ratchet wheels, each of said pawls when set being held in yielding engagement with its ratchet wheel, and flexible means for limiting the movement of each pawl toward its operative position.

2. The combination with a rotary shaft of a motor vehicle, of a pair of ratchet wheels fast on said shaft and having their teeth facing in opposite directions, a pair of pawls arranged to coöperate with said ratchet wheels, means for setting either one of said pawls in position to coöperate with the respective ratchet wheel, the pawl setting means comprising a lever common to both pawls, and means for locking said lever in one of several predetermined positions.

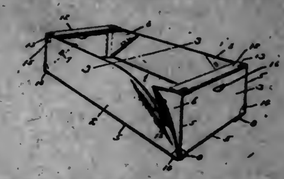
3. The combination with a rotary shaft of a motor vehicle, of a ratchet wheel fast on said shaft, a pawl movable into and out of engagement with said ratchet wheel, means for setting said pawl either in an operative or inoperative position, and a circuit closer carried by said pawl and arranged to close an alarm circuit when the pawl is set in its operative position.

1,256,447. TYPE-WRITER ATTACHMENT. DAVID E. DUNKLE, Norwich, Pa. Filed Apr. 28, 1916. Serial No. 94,214. (Cl. 175—341.)



The combination with a solenoid, a core within said solenoid, a normally open circuit having the solenoid arranged therein, a circuit closer arranged in said circuit; and air cylinder formed at one end of the solenoid and having an air port provided with a valve seat, an adjustable plug arranged in the air port and having an air intake aperture, and a spherical valve located within the port in the cylinder and working against the seat in said port and the plug.

1,256,448. BOX. EDWARD T. DYSON, Oakland, Cal. Filed May 19, 1916. Serial No. 98,683. (Cl. 229—49.)



1. A container having bottom, side and end walls formed from a single piece of material, vertical struts in the corners thereof, strips connecting the tops of the struts at the respective ends of the container, the upper edges of the end walls being bent over said strips, and means for securing said bent over edges to said strips.

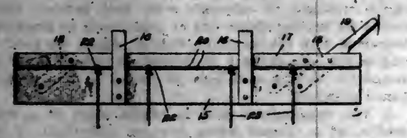
3. A container having bottom, side and end walls formed from a single piece of material, vertical struts in the corners thereof, strips connecting the tops of the struts at the respective ends of the container, the upper edges of the end walls being bent over said strips, cleats resting upon said turned over edges, metallic reinforcing strips engaging the first mentioned strips and the contiguous sides of the container, and means for securing said metallic strips to the first mentioned strips and to said struts.

[Claim 2 not printed in the Gazette.]

1,256,449. ANIMAL-RELEASER. ANDREW EBERSOLE, Dodge City, Kans. Filed Dec. 14, 1915. Serial No. 66,803. (Cl. 119—110.)

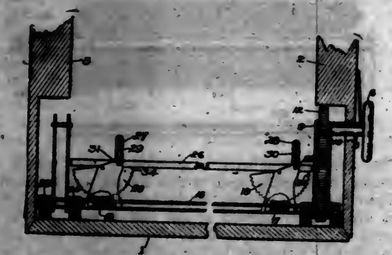
A device of the character described comprising a sill, pairs of spaced uprights secured upon opposite sides there-

of to form guides, a bar of the same width as said sill disposed thereon between said uprights, links pivotally connected with said sill and said bar, a handle on one of said links, and a plurality of pins extending from the



lower side of said bar in an inclined direction and engageable within V-shaped recesses in the upper side of said sill, the inclination of said pins preventing binding when said bar is moved.

1,256,450. LOOSE-LEAF DEVICE. KENNETH L. EDDY, Chicago, Ill.; assignor, by mesne assignments, to Automatic Utilities Co., a Corporation of Illinois. Filed Mar. 20, 1914. Serial No. 825,948. (Cl. 129—16.1.)

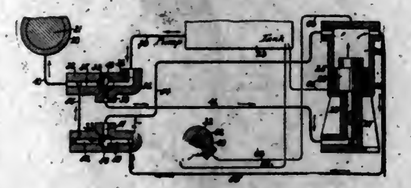


1. In a device for raising one or more binders, having metal clips depending from their lower edges, the combination with a casing adapted to hold binders, of a rising bar, adapted to engage said clips, a worm and gear mechanism adapted to elevate the rising bar, a shaft which carries the worm, and a pinion on said shaft, a train of gears one of which engages said pinion, means to rotate the said gears, said raising mechanism and gears being movable laterally across the casing.

2. A device for raising one or more binders, having a plurality of characters on their lower edge, and metal clips depending from the lower edge thereof and being adjustable longitudinally thereon, comprising the combination with a casing, of a rising bar adapted to engage a predetermined number of said clips, a worm and gear mechanism adapted to elevate the rising bar, a shaft which carries the worm, a pinion on said shaft, a train of gears one of which engages said pinion, said rising mechanism and gears being movable transversely across the casing, a plurality of characters on the front of the casing in positions corresponding to the characters on the binders, and an indicator secured to said rotating mechanism for the purpose set forth substantially as described.

3. A device for raising one or more binders, having a plurality of characters on their lower edge and metal clips depending from the lower edge thereof, comprising the combination with a casing adapted to hold the binders, of a rising bar adapted to engage a predetermined number of said clips, a worm and gear mechanism adapted to elevate the rising bar, a shaft which carries the worm, a pinion on said shaft, a train of gears, one of which engages said pinion, means to rotate the said gears, a carriage in which said train of gears is mounted, a carriage in the rear of said casing, tie rods which secure and hold said carriages in alinement, pinions carried by said rods, racks mounted on the bottom of the casing which engage the teeth of the pinions, a plurality of characters on the front of the casing in positions corresponding to the characters on the binders, and an indicator secured to said first-mentioned carriage for the purpose set forth substantially as described.

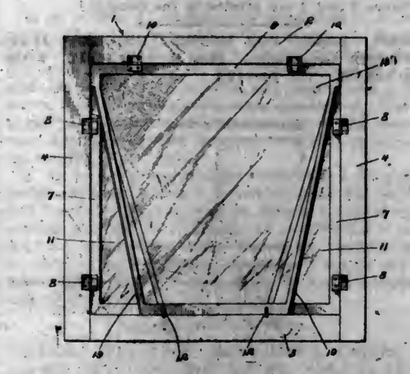
1,256,451. HYDRAULIC-PRESS ACCELERATOR. GEORGE A. ENSIGN and JOHN C. M. DEN ISLETS, Defiance, Ohio, assignors to Defiance Machine Works, Defiance, Ohio, a Corporation of Ohio. Filed June 12, 1917. Serial No. 174,227. (Cl. 138—17.)



1. In a hydraulic press, a cylinder, a piston reciprocating in the said cylinder, a pump connected with the said cylinder to force a liquid into the cylinder, and an accelerator in the connection between the pump and the said cylinder and having a two-bore cylinder and a double piston reciprocating therein, the smaller piston being adapted to be actuated by pressure from the said pump and the larger piston forcing a larger amount of liquid into the hydraulic press cylinder than is used by the said pump to actuate the smaller piston, and a single manually controlled valve connected with the said pump, the hydraulic press cylinder and the bores of the accelerator cylinder to control the flow of the liquid from the pump to the small bore of the accelerator cylinder, to subsequently control the flow of the liquid direct from the pump to the hydraulic press cylinder, and to subsequently control the return flow of the liquid from the hydraulic press cylinder to both the pump and the large bore of the accelerator cylinder.

[Claims 2 to 4 not printed in the Gazette.]

1,256,452. VENTILATING WINDOW-SASH. ALFRED L. EVANS, Baltimore, Md. Filed May 12, 1916. Serial No. 97,127. (Cl. 20—40.)



1. In a ventilating window, a pair of triangular sashes hinged at the sides of the window opening for horizontal swinging, and a third sash hinged above the triangular sashes for vertical swinging and adapted when in extended position to be supported upon the hypotenusal edges of said pair of sashes.

4. In a ventilating window, the combination with a frame; of a right-angular supplemental frame hinged in each side stile thereof and adapted to close into the bottom rail, triangular glasses in these frames, a fourth

frame hinged in the top rail with its sides adapted to overlie said glasses and its lower bar to lie against the bottom rail when this frame is closed, a glass in the fourth frame, and hook-shaped keepers on the lower bars of the said right-angular frames whose bills slidably engage the lower bar of said fourth frame, for the purpose set forth.

[Claims 2 and 3 not printed in the Gazette.]

1,256,453. SEAT-PAD. WILLIAM ELWYN EVANS, Attica, Ind. Filed Mar. 3, 1916. Serial No. 81,941. (Cl. 155—22.)



The combination with a metallic seat formed with a plurality of openings adjacent the rear end thereof, of a cushion for such seat comprising a cotton filled covering conforming in shape and size to the seat and accurately bearing on the surface thereof throughout the seat, and a wholly independent outer covering made from waterproof material of a size and shape to accurately receive and fit the cushion, and straps connected in spaced relation to the upper rear portion of the waterproof covering and adapted to be removably connected through the openings in the seat proper.

1,256,454. GALLOPING-WHEEL. MARTIN V. B. EVERSON, Jersey City, N. J. Filed June 7, 1917. Serial No. 173,245. (Cl. 206—38.)



3. In a pleasure vehicle, the combination of a body adapted to support a child, a steering fork, a frame extending from one end of the body and in which the fork is journaled, a steering device connected to the fork, rolling means to support one end of the body and a propelling wheel journaled for rotation around its center in said fork, said wheel having a periphery comprising two oppositely arranged arcs concentric with the axis of the wheel, and the end of each of these arcs being connected to the beginning of the next succeeding similar arc by means of a continuous curve composed of independent arcs of different degrees of eccentricity.

[Claims 1, 2, 4, and 5 not printed in the Gazette.]

1,256,455. COMPOSITION AND PROCESS FOR MAKING ENAMEL. PHILIPP EYER, Halberstadt, Germany, assignor to the Firm of Rudolph Koepp & Co., Oestrich-on-the-Rhine, Germany, a Society of Germany. Filed July 21, 1915. Serial No. 41,197. (Cl. 106—36.2.)

1. A composition for producing enamels for iron goods comprising glass, enamel constituents, and fluxing material in quantity insufficient to properly flux the enamel, said glass replacing fluxing material.

5. A composition for producing enamels for iron goods comprising glass rich in alkali, enamel constituents and fluxing material in quantity insufficient to properly flux the enamel, said glass replacing fluxing material.

7. A composition for producing enamels for iron goods comprising glass rich in alkali and containing boron compounds, enamel constituents and fluxing material in quantity insufficient to properly flux the enamel, said glass replacing fluxing material.

12. A composition for producing enamels for iron goods comprising glass, clay, and other enamel constituents and fluxing materials in quantity insufficient to properly flux the enamel, said glass replacing fluxing material.

[Claims 2 to 4, 6, 8 to 11, and 13 to 15 not printed in the Gazette.]

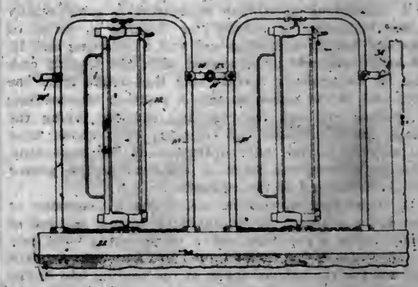
1,256,456. ENAMEL COMPOSITION AND PROCESS OF MANUFACTURING IT. PHILIPP EYER, Halberstadt, Germany, assignor to the Firm of Rudolph Koepp & Co., Oestrich-on-the-Rhine, Germany, a Society of Germany. Filed Feb. 14, 1917. Serial No. 148,696. (Cl. 106—36.2.)

1. An enamel composition comprising a natural calcium borate, glass, clay and fluorin compounds.

5. The process for the manufacture of enamels which consists in melting together natural calcium borate, clay and glass rich in alkali and subsequently melting with the fused mass thus formed sodium fluosilicate, soda and saltpeter.

[Claims 2 to 4 not printed in the Gazette.]

1,256,457. STALL-FRAME CONSTRUCTION. HOWARD J. FERRIS, Harvard, Ill., assignor to Hunt, Helm, Ferris & Company, Harvard, Ill., a Corporation of Illinois. Filed July 19, 1915. Serial No. 40,620. (Cl. 119—27.)



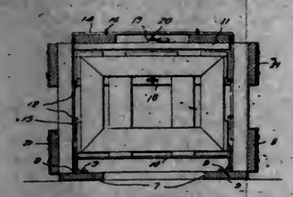
1. In combination with a stall front and a support therefor, a supporting arm between said front and support comprising a stall engaging end, a support engaging end, and an intervening spacing member securing means for said ends, and a single means carried by said ends for detachably engaging and holding said intervening spacing member in place whereby the position of the stall front with reference to its support may be adjusted by varying the length of said spacer member.

[Claims 2 and 3 not printed in the Gazette.]

1,256,458. SHIPPING-CRATE. PETER FLANSBURG, Manistee, Mich. Filed Sept. 15, 1916. Serial No. 120,315. (Cl. 217—54.)

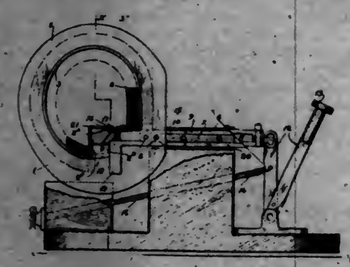
In a device of the character described in combination an outer and an inner crate, a pair of similarly shaped fastening devices each being formed from a single length of resilient wire bent into a substantial U-shape and having right angular terminals secured directly upon the bottom of the outer crate, and having upwardly inclining side portions bent back downwardly and terminating in a

U-shaped substantially horisontally and transversely disposed resilient supporting member upon which the inner



crate is mounted in spaced relation from the bottom of the outer crate.

1,256,459. REGISTERING APPARATUS. LEO EDWARD FLAVELL and CLARENCE SIDNEY PRIEST, Birmingham, England. Filed Dec. 27, 1917. Serial No. 209,174. (Cl. 235—17.)



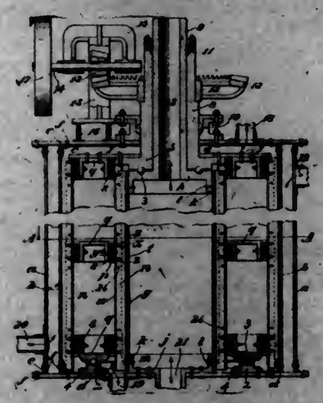
1. A registering apparatus comprising a substantially ring-like magazine or carrier for holding a series of checks and having a feeding end and a receiving end located below and out of alinement with the feeding end, means for successively transferring the checks from the feeding end of the magazine into a position intermediate said feeding end and the receiving end for taking the readings thereof, means for releasing each check from such position on the next operation of the apparatus, and means whereby the check, on being released, is passed to the receiving end of the magazine.

8. A registering apparatus comprising a magazine or carrier for a series of checks having a feeding end out of alinement with a receiving end, a transporting slide having a recess in its top face adapted to be brought beneath and to receive the bottom check at the feeding end of the magazine, means for operating the transporting slide said slide being adapted to take the said check into a position over the receiving end of the magazine where the reading can be taken, means for retaining said check while the slide is withdrawn so that the check will then pass to the said receiving end of the magazine, an elevating slide connected to the transporting slide and adapted to engage with the checks in order to pass them around the magazine, and means for preventing the return of the checks when the elevating slide is withdrawn.

[Claims 2 to 7 not printed in the Gazette.]

1,256,460. APPARATUS FOR COOLING WAX-BEARING OIL FOR PRESSING. EDWARD P. FOLGER, Brooklyn, N. Y., assignor to Standard Oil Company, Bayonne, N. J., a Corporation of New Jersey. Filed Jan. 13, 1914. Serial No. 811,823. (Cl. 257—106.)

1. Apparatus of the character set forth, having an elongated chilling chamber annular in cross section, a parallel chamber located inside said chilling chamber and separated by a heat conducting wall therefrom, a parallel chamber located outside of said chilling chamber and separated therefrom by a heat conducting wall, scrapers located within said chilling chamber and arranged to bear simultaneously on opposite sides of said chilling chamber, means whereby said scrapers are yieldingly supported and moved in said chilling chamber, and springs for forcing them respectively against the corresponding walls of said chilling chamber, said chilling chamber being provided with an inlet for the liquid to be chilled and an outlet for the resulting magma, and the inclosing chambers being provided with inlets for the cooling fluid and outlets for the warmed fluid, substantially as described.



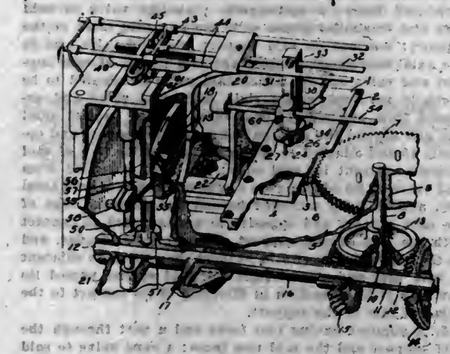
2. The combination with an elongated chamber annular in cross section, of a head, illustrated by head *h* of cylinder *g*, which is located inside the inner wall of the said chamber at one end thereof, a scraper frame located within the said chamber and composed in part of a carrier bearing on said head, in part of rings which include one that has a bearing at the end of said chamber opposite to said head and one that is fastened to said carrier, and in part of connecting strips that are fastened to said rings, and scrapers mounted on said frame and arranged to bear against opposite sides of said chamber, substantially as described.

3. The combination with an elongated chamber annular in cross section, of a head, illustrated by head *h* of cylinder *g*, which is located inside the inner wall of the said chamber at one end thereof, a scraper frame located within the said chamber and composed in part of a carrier bearing on said head and provided with a journal bearing of sufficient length to oppose substantial resistance to lateral movement of the scraper frame at its far end, in part of rings which include one that has a bearing at the end of said chamber opposite to said head and one that is fastened to said carrier, and in part of connecting strips that are fastened to said rings, and scrapers mounted on said frame and arranged to bear against opposite sides of said chamber, substantially as described.

4. The combination with an elongated chamber annular in cross section, of a head, illustrated by head *h* of cylinder *g*, which is located inside the inner wall of the said chamber at one end thereof and is provided with a projection on the side away from the center of said chamber, a scraper frame located within the said chamber and composed in part of a carrier bearing on said head and provided with a sleeve which is journaled on the projection belonging to said head, in part of rings which include one that has a bearing at the end of said chamber opposite to said head and one that is fastened to said carrier, and in part of connecting strips that are fastened to said rings, and scrapers mounted on said frame and arranged to bear against opposite sides of said chamber, substantially as described.

5. In an apparatus wherein scraping devices are employed, the combination of a pair of angle strips having one web of each secured to one web of the other in such manner that the remaining webs project outwardly from the webs so secured together, a scraper bar interposed and confined between the webs so secured together, a scraper frame, brackets secured to said frame and located on opposite sides of said angle strips, springs interposed between said frame and the outwardly projecting webs of said angle strips, and bolts which limit the movement of said angle strips and scraper bar between said brackets, substantially as described.

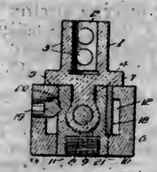
1,256,461. CAM-PATH-GENERATING MACHINE. EDWARD E. FOSTER, Beverly, Mass. Filed Oct. 24, 1913. Serial No. 797,079. (Cl. 33—27.)



1. A machine for generating cam paths, having, in combination, a leader support, a tool for scratching the leader, means for imparting rapid circulatory movements of slight amplitude to the tool, mechanism for reciprocating the tool, mechanism for reciprocating the leader support, and a single means for operating said mechanisms, substantially as described.

2. A machine for generating cam paths, having, in combination, a leader support, a rack carried thereby, a gear for driving the rack, a tool, a crank for reciprocating the tool, and means for driving the gear and crank, substantially as described.

1,256,462. BORING-TOOL HOLDER. JOHN H. FREY and MATTHEW MAYER, Erie, Pa. Filed May 22, 1917. Serial No. 170,329. (Cl. 29—108.)



1. In a boring tool holder, the combination of a head, a cross head carried thereby and having a sliding relation thereto, an annular bearing shoulder on said cross head working in contact with a face of said head, a cross head guide mounted in said head and having a concaved recess therein, an internally threaded extension of said cross head having an enlarged bearing portion working in the recess in the cross head guide, means for fastening the cross head guide in fixed relation to said head, and a micrometer screw extending through said internally threaded extension on the cross head and having its end portions journaled in opposite walls of said head.

3. In a boring tool holder, the combination of a head, a cross head carried thereby and having a sliding relation thereto, an annular bearing shoulder on said cross head working in contact with a face of said head, a cross head guide mounted in said head and having a concaved recess therein, an internally threaded extension of said cross head having an enlarged bearing portion working in the recess in the cross head guide, means for fastening the cross head guide in fixed relation to said head, a micrometer screw extending through said internally threaded extension on the cross head and having its end portions journaled in opposite walls of said head, and an adjusting screw threaded into one end of the micrometer screw and having a head working in contact with an internal shoulder of said head.

[Claim 2 not printed in the Gazette.]

1,256,463. GARMENT-FASTENER. MINNIE VON FRIELING, Athol, Kans. Filed Feb. 13, 1917. Serial No. 148,371. (Cl. 24—226.)



A garment fastener comprising a plate having at an edge portion thereof incisions, the material between which constitutes a tongue which normally lies in the same plane as that in which the body of the plate lies, the said plate being further provided with curls, a hook member having gudgeons pivotally received in the curls and provided with an edge portion adapted to bear against the said tongue and distort the same out of its normal position and out of the plane in which the body of the plate lies, said tongue being adapted to engage a side surface of an end portion of the hook member to hold the same in a closed position, and a plate having in the vicinity of one edge an opening adapted to receive the said hook member whereby both of the plates may lie substantially in the same plane when the parts are connected together.

1,256,464. SELF-PLAYING MUSICAL INSTRUMENT. ROBERT FROMSDORF, Leipzig-Eutritzsch, Germany, assignor to the Firm of Ludwig Hupfeld Aktiengesellschaft, Leipzig, Germany. Filed Apr. 29, 1908. Serial No. 429,952. (Cl. 84—233.)



1. The combination with a horizontal piano having its key levers, piano action units, wrest plank and case having a flat top; of a tracker bar, note sheet rolls, wind chest and piano action unit operating pneumatics mounted between the flat top and key levers in front of the wrest plank, and a projection on each of said pneumatics extending under the wrest plank to engage and operate the pertaining piano action unit.

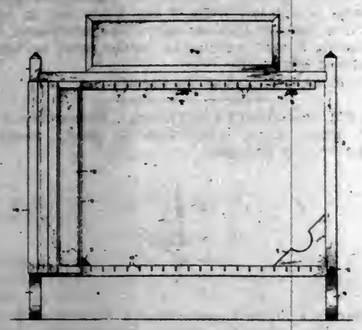
2. The combination with a horizontal piano, its key levers, piano action units, wrest plank and case having a flat top; of a tracker bar, note sheet rolls, wind chest and piano action unit operating pneumatics all mounted beneath the top of the case and in front of the wrest plank, and a projection on each pneumatic extending beneath the wrest plank in operative relation to the pertaining piano action unit.

[Claim 3 not printed in the Gazette.]

1,256,465. DISPLAY-RACK. EDWARD H. FUNKE, Jr., Blue Hill, Nebr. Filed Apr. 14, 1917. Serial No. 162,019. (Cl. 211—22.)

1. A display rack comprising a frame, a plurality of display frames swingingly mounted upon said frame, and

means for adjusting the upper ends of said frames laterally whereby when the frames have been moved to displayed position, they will, as soon as released automatically swing back to their normal position.



3. A display rack comprising a main frame, transverse supporting legs for the opposite ends of said main frame, a stop pin projecting upwardly from each supporting leg, a substantially triangular stop member having an aperture and adapted to be selectively positioned over each of said stop pins, and display frames swingingly mounted on said main frame and adapted to engage said stop member at one end of the main frame and the stop pin at the other end of the main frame to limit their swinging movements in opposite directions.

[Claim 2 not printed in the Gazette.]

1,256,466. VALVE OF COUNTERBALANCED TYPE. ROBERT A. GALLY, Cincinnati, Ohio, assignor to The Baldwin Company, Cincinnati, Ohio. Filed June 30, 1917. Serial No. 178,004. (Cl. 137—7.)



1. A support having two faces and a port through the said support and the said two faces; a vane valve to said port; a bearing on said support intermediate the width of its said port, and a revoluble bearing on said valve intermediate its width and engaging the said bearing on said support; a lip rigid with said valve and extended beyond the edge of said valve that is at one side of the said bearings, and further extended beyond the adjacent edge of the said support, and opposite to one of the said faces of the support; and a yielding lip carried by and extended from the edge of the said valve that is at the other side of the said bearings, and extended beyond the adjacent edge of the said support and opposite to the other said face of the said support.

2. A support having a port therein; a valve partially revoluble in said port; bearings on said support and valve in one axial line intermediate the width of said valve and on which said valve is adapted to partially revolve; a lip rigid with said valve, substantially parallel with said axial line, and extended from one edge of the said valve beyond the adjacent edge of the port of the said support and positioned to contact the face of said support adjacent its said edge; and a yielding lip extended from the said valve at its edge that is at the other side of the said axial line and overlapping the adjacent face of the said support on the opposite face of said support to that contacted by the rigid lip.

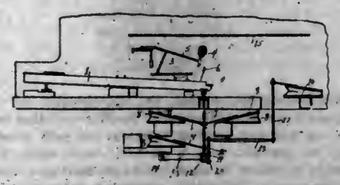
3. A support having two faces and a port through said support and both said faces; a revoluble valve to said port; bearings on said support and valve all in one axial line, and having the axis thereof in similar plane with and adjacent to one of said faces of said support and intermediate two of the edges of said valve; a lip rigid with and extended from one of the said edges of said valve beyond the adjacent edge of the support at one side of the port from the said axial line and adapted to contact that one of the said faces of the said support adjacent that edge of the said support; and a yielding lip attached to and extended from said valve at its edge that is at the other side of the said axis, and overlapping the said support on the opposite face of said support to that which is contacted by the rigid lip.

4. A plate-like support having two substantially parallel faces and a rectangular port through said support and both said faces; a rectangular plate-like valve in said port and in similar plane with the two said faces of the support; bearings on said support and said valve and in one axial line approximating the said planes of said support and valve and on which said valve is adapted to be partially revolved; a lip rigid with said valve and extended from one edge of said valve parallel to said axial line and beyond the adjacent edge of said support and opposite to and adapted to contact with the one face of said support adjacent its said edge; and a lip extended from said valve at its edge that is at the other side of said axial line, and said lip extended beyond the adjacent edge of the said support and opposite to and adapted to contact with the face of said support adjacent its said edge, and on the opposite face of said support than the face adjacent to said first named and rigid lip, said second named lip having a yielding motion in direction of its contact to the adjacent face of the support.

5. A support having two faces and a port through the said support and the said two faces; a vane valve to said port; a bearing on said support intermediate the width of its said port, and a revoluble bearing on said valve intermediate its width and engaging the said bearing on said support; a lip rigid with said valve and extended beyond the edge of said valve that is at one side of the said bearings, and further extended beyond the adjacent edge of the said support, and opposite to one of the said faces of the support; and a yielding lip carried by and extended from the edge of the said valve that is at the other side of the said bearings, and extended beyond the adjacent edge of the said support and opposite to the other said face of the said support, the revoluble bearing of said valve being nearer to the edge of the valve having the rigid lip than to that edge of the valve having the yielding lip.

[Claim 6 not printed in the Gazette.]

1,256,467. MUSIC-PLAYER-ACTION PIANISSIMO DEVICE. ROBERT A. GALLY, Cincinnati, Ohio, assignor to The Baldwin Company, Cincinnati, Ohio. Filed Aug. 14, 1917. Serial No. 186,228. (Cl. 84—160.)



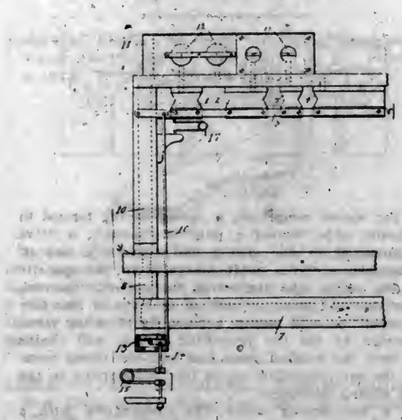
1. Hammers and movable members of a piano action, and several vertical stickers each disposed immediately beneath a vertically movable part of one said movable member; striker pneumatics and connections therefrom directly to the said stickers; and a single rail directly under the lower end of and supporting all the said single stickers, said rail adapted to be raised and lowered together with the said stickers, hammers and vertically movable parts supported thereby and raised and lowered therewith; and means to raise and lower the said rail.

2. Manual keys and action parts therewith; vertical stickers disposed immediately beneath the ends of the said keys; striker pneumatics and connections therefrom to the said stickers; and a rail directly under and supporting all the said stickers, said rail adapted to be raised and lowered together with the said stickers and keys supported thereby and raised and lowered therewith; and means to raise and lower the said rail.

5. Manual keys and action parts therewith; vertical stickers disposed immediately beneath the ends of the said keys; striker pneumatics and connections therefrom to the said stickers; and a rail directly under and supporting all the said stickers, said rail adapted to be raised and lowered together with the said stickers and keys supported thereby and raised and lowered therewith, and swing levers to which the said rail is attached and on which it is adapted to swing in a vertical direction; and means to swing said swing levers and raise and lower said rail thereby.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,256,468. AIR-CONTROL GOVERNOR. ROBERT A. GALLY, Cincinnati, Ohio, assignor to The Baldwin Company, Cincinnati, Ohio. Filed Sept. 20, 1917. Serial No. 192,397. (Cl. 84—168.)



1. An air governor bellows including a constantly moving and vertically acting element; a governor valve and connections from the said moving element to the said valve; a spring opposed to the weight of the said moving element; and a governor spring opposed to the active pull of the said moving element, said active pull being upward.

2. An air governor bellows including a constantly moving and vertically acting moving element; a governor valve and connections from the said moving element to the said valve; a spring to substantially counterbalance the weight of the said moving element; and a governor spring opposed to the active pull of the said moving element, said active pull being upward.

[Claims 3 and 4 not printed in the Gazette.]

1,256,469. PIPE. WILLIAM F. GARRISON, Alcova, Wyo. Filed Apr. 10, 1917. Serial No. 161,045. (Cl. 131—12.)



1. The combination with a pipe having a spiral groove in the bowl, of a spring metal member adapted to snugly fit the bowl and provided with means engageable with said groove, the ends of said member being spaced apart to form a slotted cylinder and a perforated top provided for said member adapted to snugly fit the top of the bowl whereby, when said member is partially rotated around the bowl in one direction the top will be spaced therefrom to provide an opening for lighting the pipe.

2. A wind guard for tobacco pipes comprising a spring metal member adapted to snugly fit the pipe bowl, means carried by said member engageable with a spiral groove formed in said bowl, a removable perforated top for the spring member, the ends of said member being spaced apart to form a slotted cylinder, whereby, when the member is partially rotated in one direction engagement with the spiral groove will cause the perforated top to be spaced from the bowl to provide an opening for lighting the pipe.

1,256,470. STICK OR SCARF PIN. ALFRED GARTNER, Washington, D. C. Filed Dec. 3, 1917. Serial No. 205,156. (Cl. 40—1.6.)



1. A stick pin comprising a cartridge shaped shell provided with an appropriate exposed question, and means normally rolled within said shell constituting an appropriate concealed answer, adapted to be unrolled to thus expose said concealed answer.

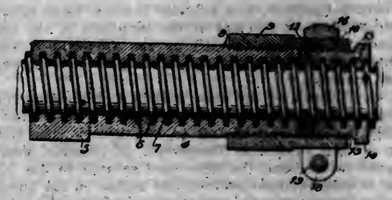
6. A stick pin comprising a cartridge shaped shell provided with an exposed question appropriate to the shape of the shell, an American flag constituting the concealed answer within said shell and adapted to be pulled out to expose it to view.

7. In a device of the type described means provided with an inscription constituting a question, said means being appropriately shaped to constitute an answer to said question.

8. In a device of the type described means provided with an inscription constituting a question, said means being appropriately designed to constitute an answer to said question, and means normally concealed adapted to be displayed to present a supplemental answer.

[Claims 2 to 5 not printed in the Gazette.]

1,256,471. WEAR-COMPENSATING FEED-SCREW FOR DRILLS. THEODORE GENEBO, Websterville, Vt. Filed Aug. 25, 1916. Serial No. 116,861. (Cl. 74—40.)



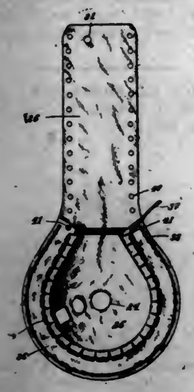
1. In a device of the character described, the combination of a stationary block, an internally threaded body anchored in said block, a nut at one end of said body, a split sleeve on said nut, a ring clamp on said sleeve, a screw operating through said body, and a second nut receivable within the sleeve and on said screw.

5. In a device of the class described, the combination of an internally threaded body and a feed screw operable therethrough, one end of said body being provided with external threads, a nut receivable on said threads and having a split sleeve extending therefrom and formed with internal threads, a wear compensating

nut engageable with the threads of said sleeve, said nut having internal working threads for engagement with said screw, and a ring clamp embracing said split sleeve to lock said wear compensating nut against movement.

[Claims 2 to 4 not printed in the Gazette.]

1,256,472. PROTECTOR FOR THE TIMERS OF EXPLOSIVE-ENGINES. ROBERT J. GIVENS, Enterprise, Idaho. Filed Mar. 17, 1917. Serial No. 155,509. (Cl. 74—56.)



1. In a device of the class described, a casing for a timing device comprising a cover having an enlarged portion adapted to inclose the timer proper and the terminals thereof, a neck portion connected with the casing, and means for securing the device in position.

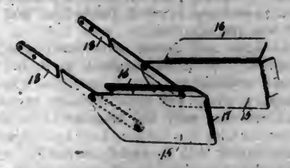
2. In a device of the class described, a covering for a timing device including a casing formed from a sheet of flexible material and having an enlarged portion, and a neck portion projecting therefrom, an annular member adapted to surround the timer and secured to the outer edges of said enlarged portion, means for producing tension at the inner edges of the annular member, and means for connecting the edges of the neck portion.

3. In a device of the class described, a protecting covering for a timer and the wires thereof comprising a sheet of flexible material having a neck portion, means for securing the neck portion around the wires, an enlarged portion connected with the neck portion and adapted to cover the outer cap of the timer and the terminals thereof, a ring-like member surrounding the cap of the timer and having connection with the outer adjacent edges of the enlarged portion, said ring-like member being adapted to be disposed on the side of the terminals of the timer opposite to the side covered by the aforesaid enlarged portion, and tension means for securing the meeting edges of the covering.

4. In a device of the class described, a covering for a timing device, including a casing formed from a sheet of flexible material and having an enlarged portion and a neck portion projecting therefrom, an annular member adapted to surround the timer and secured to the outer edges of said enlarged portion, and means on the annular member for securing the covering in position.

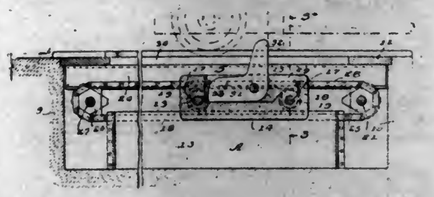
1,256,473. CULTIVATOR-FENDER. ROY L. GOODMAN, Strawberry Point, Iowa. Filed Nov. 6, 1914. Serial No. 870,659. (Cl. 97—13.)

A cultivator shield comprising a pair of vertical parallel plates each having its rear edge at a right angle to the bottom edge and having its forward edge curved upwardly from the bottom edge to the top edge, the top and bottom edges of said plate being parallel, a flange extending outwardly and upwardly from said top edge and terminating short of the front edge and flush with said rear edge, and an outwardly and rearwardly inclined flange formed on said rear edge and terminating



short of said bottom edge and flush with said top edge, said inclined top flanges directing inwardly lumps of earth falling upon them.

1,256,474. CAR-MOVER. STANLEY GRABOWSKI, Joliet, Ill. Filed Sept. 12, 1917. Serial No. 191,017. (Cl. 104—113.)



1. A car mover comprising a casing having formed in the opposite ends thereof a pair of channels, a drive shaft journaled in the casing and traversing one of said channels, a driven shaft journaled in the opposite end of the casing and traversing the opposite channel, a pair of toothed gears on each of said shafts, car propelling means in said casing, a plurality of prong members carried by the car propelling means, and chains trained over the toothed gears and over the prong members of the car propelling means for transmitting to the latter a sliding movement.

2. In a car moving device, the combination with a pit, of a casing located in said pit, a slotted platform connected to and over said pit, a slotted carriage slidably mounted within the said casing and provided with side walls, a car engaging member pivotally mounted in the carriage and protruding upwardly through the slot of the platform, shafts journaled in the side walls of said carriage and protruding therebeyond, prong members fixed to the operating extremities of said shaft, a chain drive connection trained over the prong members, and means operatively connected with the chain drive connection for operating the same from a suitable source of motor power.

1,256,475. BRACE-BIT CHUCK. ROBERT H. GREENHALGH, Salt Lake City, Utah. Filed Oct. 17, 1916. Serial No. 126,155. (Cl. 145—83.)

1. In combination with a chuck provided with a shank, the point of formation of the shank with the chuck presenting a beveled peripheral portion, a jaw associated with the chuck for receiving therein the bit tang, means for connecting the jaw with the chuck for lateral movement, a locking member for holding said jaw against movement, and means formed on the upper portion of said locking member and adapted to engage with the beveled peripheral portion of the chuck to prevent movement of said locking member during the turning action of the bit.

2. A device of the character set forth embodying, a chuck provided with a tapering socket, a jaw of a configuration conforming with the socket of the chuck and mounted therein for lateral movement, said jaw comprising spaced legs formed with toothed extremities and the spacing of the legs forming the jaw with a socket adapted to receive the bit tang therein, the tang of the bit reposing upon the toothed extremities of the legs and



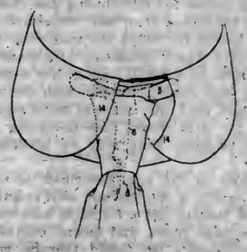
preventing any accidental displacement of the bit from said jaw when the latter is in a closed position, and means for locking the said jaw against any accidental lateral movement with respect to said socket.

1,256,476. SHOE. EMANUEL GROSSMAN, Brooklyn, and PASQUALE MALAGRINO, New York, N. Y. Filed Oct. 4, 1913. Serial No. 799,496. (Cl. 36—42.)



In a shoe, a heel provided on its seat with one member of detachable fastening means, another member of such fastening means secured to the heel seat of the shoe, and a plurality of nails permanently securing the sole of the shoe to the heel and located around the edge of the heel seat.

1,256,477. NECKTIE-HOLDER. RICHARD HAMMERLY, New York, N. Y. Filed June 26, 1917. Serial No. 176,993. (Cl. 2—84.)



In a necktie holder having wings and a depending shank with a guideway, an extension disposed in the guideway and having means to limit its inward movement relatively to the shank, an eye, and a spring connecting the extension and the eye for the purpose specified.

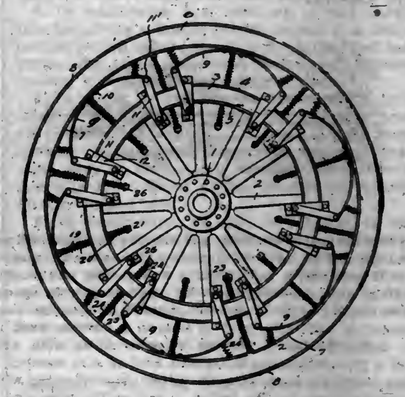
1,256,478. GUN-CLEANER. CLAUDE T. V. HANSEN, McMinnville, Oreg. Filed Mar. 3, 1917. Serial No. 152,825. (Cl. 42—91.)

A gun cleaner comprising in combination a rod having a threaded socket in one end thereof, a tip of relatively smaller diameter within said rod, one end of the tip being reduced and threaded for engagement with the threaded bore of the rod and longitudinal rows of engaging points extending at an angle from the tip, the inclination of each alternate row being oppositely disposed in a direction



parallel with the length of the rod, the said points terminating within the diameter of the rod.

1,256,479. RESILIENT WHEEL. JACOB L. HARDEN, North Platte, Nebr. Filed Jan. 24, 1917. Serial No. 144,294. (Cl. 152—32.)



1. In a resilient wheel, an inner rim, an outer rim, a plurality of arcuate leaf springs interposed between said inner and outer rims, said springs being fixedly secured intermediate their ends to the outer rim and having their opposite ends pivotally secured to the inner rim, a plurality of radially disposed rods engaged with said springs and slidably engaged with the inner rim, coiled springs arranged about portions of said rods and bearing on the inner rim, means engaged with said rod for varying the tension of the coiled springs, a plurality of plungers slidably carried upon the inner rim, cushioning means on said plungers, and means engageable with said cushioning means for varying the tension thereof.

2. In a resilient wheel, an inner rim, an outer rim, a plurality of arcuate springs interposed between said inner and outer rims, said arcuate springs being secured intermediate their ends to the outer rim and pivotally secured therein to the inner rim, radially disposed rods carried by said arcuate springs and slidably engaged with the inner rim, expansible coiled springs arranged upon portions of said rods and bearing on the inner rim, means engaged with said rods for varying the tension of said coiled springs, a plurality of radially disposed plunger rods carried by the inner rim and having certain of the ends thereof arranged in spaced apart relation from said outer rim, cushioning means arranged upon portions of said plungers and bearing upon the inner rim, and means engaged with

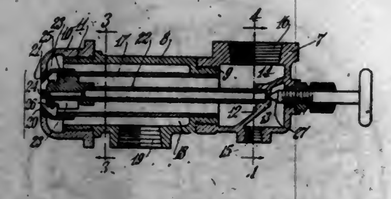
the plungers for varying the tension of the cushioning means.

7. In a resilient wheel, an inner rim, an outer rim, a plurality of arcuate springs interposed between said inner and outer rims, said arcuate springs being secured intermediate their ends to the outer rim, blocks circumferential spaced on the inner surface of the inner rim, clamping arms carried thereby, and links connecting said arms with the opposite ends of the arcuate springs.

8. In a resilient wheel, an inner rim, an outer rim, a plurality of arcuate springs interposed between said inner and outer rims, said arcuate springs being secured intermediate their ends to the outer rim, blocks circumferentially spaced on the inner surface of the inner rim, clamping arms carried thereby, links connecting said arms with the opposite ends of the arcuate springs, a plurality of radially disposed rods carried by said arcuate springs and slidably engaged with the inner rim, cushioning means arranged about portions of said rods and bearing upon the inner rim, and means engaged with said cushioning means for varying the tension thereof.

[Claims 3 to 6 not printed in the Gazette.]

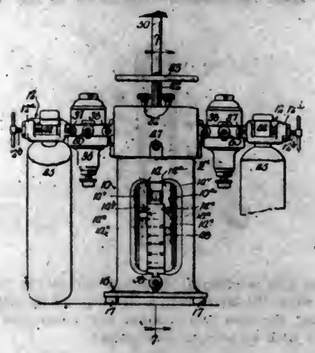
1,256,480. BURNER. WILLIAM P. BOYLE, Springfield, Mass., assignor to Gilbert & Barker Manufacturing Company, West Springfield, Mass., a Corporation of Massachusetts. Filed July 17, 1916. Serial No. 109,797. (Cl. 158—74.)



A fuel burner, comprising, a casing having axially alined openings, and an inlet rectangularly arranged with respect to said openings, a tube fixed in and closing one of said openings and extending into the other thereof in spaced concentrical relation, whereby an annular passage communicating with said inlet is formed, a member fixed to the casing having a passage communicating with said tube, a pipe within the latter and fixed to said member, a valve controlled passage in the latter communicating with said pipe, a cap on the casing, a cap on the tube, and a cap on the pipe, said caps arranged one within another in spaced concentrical relation and having conical surfaces whereby annular converging outlets are formed, said annular passage, tube, and pipe adapted to be supplied with air, a gaseous and a liquid fuel, respectively, all constructed and arranged for a thorough atomization of the liquid fuel and an intimate mixing of the gaseous and atomized liquid fuel with the air.

1,256,481. APPARATUS FOR ADMINISTERING ANESTHETICS OR ANALGESICS. MALCOLM F. EWEN, Chicago, Ill., assignor to Central Trust Company of Illinois, trustee, Chicago, Ill., a Corporation of Illinois. Filed Apr. 29, 1916. Serial No. 94,316. (Cl. 128—13.)

1. In an apparatus of the kind described, a closed vessel having a transparent wall, tubes located in said vessel back of said transparent wall, said tubes being two-part tubes and one of said tube parts being transparent, means closing the top and bottom ends of said tubes and means connecting the interior of said tubes with the interior of said vessel so that a liquid contained in the vessel will normally stand at the same level in said vessel and in said tubes, openings in said tubes below the level of said liquid, means adapted to connect each of said tubes with a source of gas or vapor supply, each of said connecting means including a valve for adjusting the pressure of gas introduced by it, and means whereby the relative level of the liquid in said tubes below the level of the liquid in said vessel may be determined.



3. In an apparatus of the kind described, in combination with a sight feed gage device including tubes having transparent parts, means inclosing said tubes and a body of liquid normally standing at the same level in said tubes and inclosing means, means connecting said tubes with a source of gas or vapor supply, said means including adjusting valves adapted to regulate the pressure of the gas or vapor admitted to the tubes and shut off valves to control the admission of gas or vapor to said tubes, and a single controlling means adapted to simultaneously operate the several shut off valves associated with said tubes.

7. In an apparatus of the kind described, a sight feed gage apparatus including a head, valves in said head and means for supporting said head, yokes adapted for the attachment of the necks of gas or vapor cylinders to said head, said yokes being substantially wider than the necks of said cylinders, and being fixed to said head in planes inclined to the vertical whereby the said cylinders may be adjusted at different angles when their necks are engaged in said yokes.

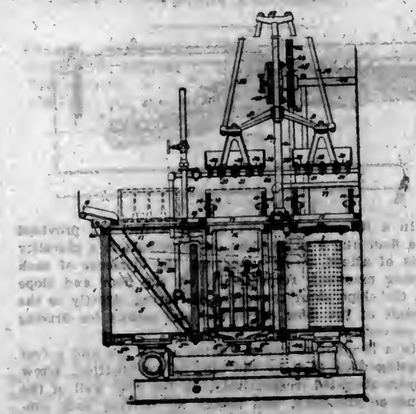
11. In a device of the kind described, in combination with a vessel having a transparent wall and sight feed gage tubes contained therein, said vessel and tubes containing a liquid, means for introducing gas under pressure into said tubes for escape from said vessel above the level of said liquid, means for fixing the maximum pressure to be attained in said vessel, consisting of a stand-pipe within said vessel open at the top, and a tube depending into said stand-pipe and communicating with the atmosphere outside said vessel, said tube and said stand-pipe providing a liquid seal for said vessel and providing a head to determine the pressure that may be attained in said vessel.

12. In a device of the kind described, in combination with a vessel having a transparent wall, sight feed gage tubes contained therein and a liquid in said vessel and in said sight feed gage tubes, and means contained within said vessel for heating the liquid therein, whereby the gas or vapor escaping from said tubes may be heated on its way to discharge from said vessel.

[Claims 2, 4 to 6, and 8 to 10 not printed in the Gazette.]

1,256,482. BOTTLE-WASHING MACHINE. AMOS L. FOREMAN, Baltimore, Md. Filed May 13, 1915. Serial No. 27,802. (Cl. 141—7.)

1. The combination, in a bottle washing, rinsing or sterilizing machine, of a liquid containing vessel, a fluid pressure nozzle projecting upwardly therein and having tangentially disposed discharge apertures, and means for moving an inverted bottle downwardly and upwardly past said apertures and into and out of the liquid in the vessel whereby jets of fluid will be directed under pressure tangentially against the inner walls of the bottle to cleanse the same and will cause said bottle to rotate in contact with the surrounding liquid so as to simultaneously clean the outside of the bottle.



2. The combination, in a bottle washing or rinsing machine, of a liquid containing chamber, a vertically yielding support for a crate of inverted bottles, a crate depressor consisting of a tank having openings in the bottom thereof, and means for raising and lowering said depressor whereby, when it is depressed, it will receive a charge of liquid from the chamber below and, as it rises, will discharge said fluid through the bottom openings onto the bottoms of the inverted bottles.

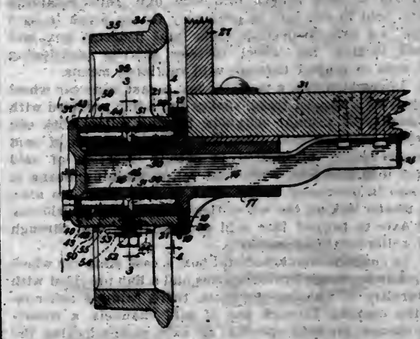
3. The combination, in a bottle washing, rinsing or sterilizing machine, of a series of chambers, means for conveying crates of inverted bottles forwardly over said chambers in succession, and means for depressing the bottle carrying crates, said means comprising a rack bar, means for raising and lowering the same, a spider mounted upon said rack bar and projecting in opposite directions therefrom, and a plurality of depressors mounted upon the oppositely projecting bottom members of said spider.

4. The combination, in a bottle washing, rinsing or sterilizing machine, of a series of chambers, means for conveying crates of inverted bottles forwardly over said chambers in succession, and means for depressing the bottle carrying crates in succession as they are brought into line with the chambers, said means comprising a rack bar, means for raising and lowering the same, a spider mounted upon said rack bar and comprising upper and lower members and braces connecting the same, and a plurality of depressors mounted upon the oppositely projecting bottom members of said spider.

5. The combination, in a bottle washing, rinsing, or sterilizing machine, of a series of chambers, means for conveying crates of inverted bottles forwardly over said chambers in succession, means for depressing the bottle carrying crates into said chambers in succession as they are brought into line therewith, said means comprising a rack bar, means for raising and lowering the same, and a cross head disposed at a higher level than said chambers and provided with a guide for said rack bar.

1,256,483. ROLLER-BEARING WHEEL AND MEANS FOR ATTACHING SAME TO AXLE. FREDERICK H. GIBBS, Brooklyn, N. Y., assignor to American Car and Foundry Company, New York, N. Y., a Corporation of New Jersey. Filed Oct. 30, 1916. Serial No. 128,486. (Cl. 105—67.)

1. In combination in a mine car, a body comprising separately formed parts in its lower portion, an axle formed in part of a rolled section and in part of cast spindles lapping said rolled section, and means penetrating and co-acting with said axle and said separately formed body parts whereby said parts and axle are maintained properly positioned by each other.



2. In combination in a mine car, a body portion having floor-forming sections, an axle formed in part of a floor stiffener of rolled section and in part of cast spindles lapping said rolled sections, and means rigidly interlocking the lapping portions of said spindle and rolled section with some of said floor sections, different means interlocking other floor sections with said rolled section, and wheels interlocked with said spindles.

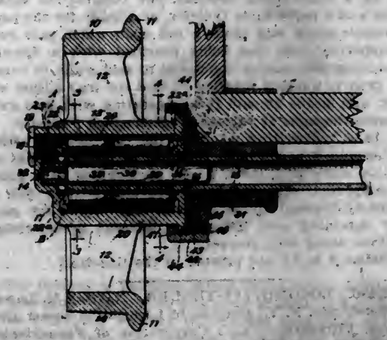
3. In combination in a mine car, a body portion, an axle comprising a middle portion formed of a rolled commercial section secured to said body portion, cast pedestals fitting said rolled commercial section and spindles cast integral with said pedestals.

4. In a car, a body, an axle terminating in wheel-spindles having wheel-receiving portions with intermediate annular ribs adapted to interlock with means internally combined with wheel-hubs, said axle being provided with an intermediate portion formed from a commercially rolled metal section adapted to be connected directly to said body.

5. In combination, an axle terminating in spindles, reinforcements extending longitudinally within such spindles, wheels adapted to house the outer ends of said spindles and rollers interlocking with the wheels and spindles to secure the wheels thereon and to hold portions of said wheels opposed to the ends of said reinforcements.

[Claims 6 to 11 not printed in the Gazette.]

1,256,484. MINE-CAR WHEEL AND AXLE. FREDERICK H. GIBBS, Brooklyn, N. Y., assignor to American Car and Foundry Company, New York, N. Y., a Corporation of New Jersey. Filed Nov. 22, 1916. Serial No. 132,827. (Cl. 105—67.)



1. In combination, a pedestal box, a cast mine car wheel comprising a flanged tread, spokes and a hub provided with a plurality of annular channels, cylindrical

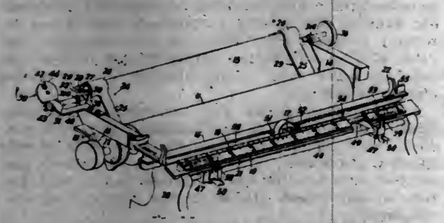
bearing rollers with end portions in said channels, the flange of one of said channels being intermitted to permit insertion of said rollers into said hub, roller-retaining means held in the hub in proximity to the break in said flange, an axle projecting from said pedestal box and means locking the wheel thereon thereby positioning said axle to project through said retaining means.

2. In combination, a pedestal box, a cast mine car wheel comprising a flanged tread, spokes and a hub provided with a plurality of annular channels, bearing rollers with end portions entering said channels, a flange of one of said channels being intermitted to permit insertion of said rollers into said hub, a resilient roller-retaining means in the hub in proximity to the break in said flange, an axle, and means locking the wheel thereon whereby positioning said axle to project into said pedestal box, and through said roller-retaining means.

3. In combination, a pedestal box, a cast mine car wheel comprising a flanged tread, spokes and a hub provided with a plurality of annular channels, there being a roller-receiving opening through one of said channels, a removable closure for said opening, an axle, means locking the wheel thereon thereby positioning said axle to extend into said pedestal box and hub, bearing rollers insertible through said opening to travel about said axle with their ends in said channels, and an auxiliary roller-retaining means held in movably interlocked position within said hub.

[Claims 4 to 13 not printed in the Gazette.]

1,256,485. TYPE-WRITING MACHINE. ALFRED G. F. KUROWSKI, Brooklyn, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Apr. 27, 1917. Serial No. 164,836. (Cl. 197—142.)



1. In a typewriting machine, the combination with a paper table, of lateral guides for engaging the side edges of a work-sheet while the sheet is supported by the table, means for simultaneously adjusting the guides along the paper table, and means individual to each guide for indicating to the operative when the said guides are located at predetermined positions.

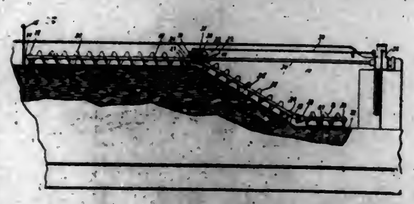
2. In a typewriting machine, the combination with a platen and a paper table therefor, of a guide for the paper adjustable along said table, a rod upon which said guide is supported, said rod being provided with a spirally-arranged groove, means connected to said guide to engage said groove, whereby rotation of said rod may adjust said guide, and means on said rod coöperating with said guide to locate the same at various predetermined positions.

3. In a typewriting machine, the combination with a planten and a paper table therefor, of lateral guides adjustable along said table, a rod upon which said guides are supported, said rod being provided with a pair of oppositely-disposed spiral grooves, and means for yieldingly detaining said guides at different predetermined positions along said grooves.

[Claims 4 to 11 not printed in the Gazette.]

1,256,486. LOCOMOTIVE-TENDER. NATHAN M. LOWER, Schenectady, N. Y., assignor to Locomotive Stoker Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Jan. 15, 1917. Serial No. 142,475. (Cl. 105—260.)

1. In a locomotive tender having a fuel bin provided with a floor and a slope sheet, in combination, a screw conveyer mounted on the floor, a screw conveyer mounted on the slope sheet and delivering directly to the rear end of the first-named conveyer, and means for driving such conveyers.



2. In a locomotive tender having a fuel bin provided with a floor and a slope sheet, in combination, a plurality of sets of alined screw conveyers, the elements of each set being mounted, respectively, on the floor and slope sheet, the slope sheet conveyers delivering directly to the rear ends of the floor conveyers, and means for driving such conveyers.

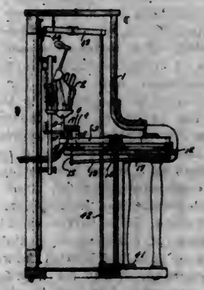
3. In a locomotive tender having a fuel bin and a fuel supporting deck back of the bin, in combination, screw conveyers mounted, respectively, on the rear wall of the bin and on the deck, and means for driving such conveyers.

16. A locomotive tender having a fuel bin provided with a slope sheet, a screw conveyer mounted on the slope sheet, and means for driving the conveyer.

17. A locomotive tender having a fuel bin provided with a floor and a slope sheet at the rear end of the floor, a screw conveyer mounted on the slope sheet, means for advancing fuel over the floor of the bin, and means for actuating such conveyer and advancing means.

[Claims 4 to 15 not printed in the Gazette.]

1,256,487. COMBINATION MUSICAL INSTRUMENT. IRA EDWIN MARSH, Newark, Ohio, assignor to The Dwyer Bros. & Co., Columbus, Ohio. Filed Mar. 2, 1916. Serial No. 81,706. (Cl. 84—55.)

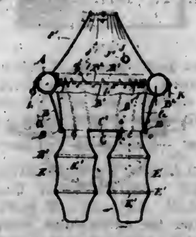


1. The combination with piano stickers and manually operable keys therefor and pneumatic organ instrumentalities, of valve means disposed adjacent to the piano stickers and operable by said stickers for controlling the organ instrumentalities, and means for shifting the valve means bodily into and out of operative relation with respect to the piano stickers.

2. The combination with a piano action, a keyboard therefor and organ instrumentalities, of detachable members separate from the keyboard and projecting from the action elements operated by the keys of said keyboard, a unitary control device for the organ instrumentalities consisting of an attachment arranged above the keyboard and contiguous to said detachable members in the path of movement thereof when playing the piano, and means for bodily moving the attachment away from the projecting members to render the organ instrumentalities inoperative with respect to those of the piano at the will of the operator.

[Claims 3 to 6 not printed in the Gazette.]

1,256,488. LIFE-BUOY. WESLEY A. SMITH, Atlantic City, N. J., assignor to himself, and Samuel R. Smith, Pleasantville, N. J. Filed June 9, 1917. Serial No. 173,715. (Cl. 9—20.)

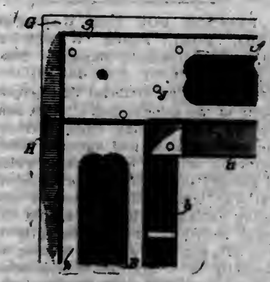


1. In a life buoy, a buoyant annulus, a flexible bag suspended therefrom to receive the body of an occupant, flaps inclosing said annulus, tubular legs depending from said bag and closed at their lower ends, a pouch extending upwardly from said annulus, and means for closing the mouth of the pouch.

2. In a life buoy, a buoyant annulus, a flexible bag suspended therefrom to receive the body of an occupant, flaps inclosing said annulus, tubular legs depending from said bag and closed at their lower ends, a pouch extending upwardly from said annulus, means for closing the mouth of the pouch, and a flexible reinforcing strip extended diametrically of the bag and serving with the bottom of the latter to form a seat for the occupant.

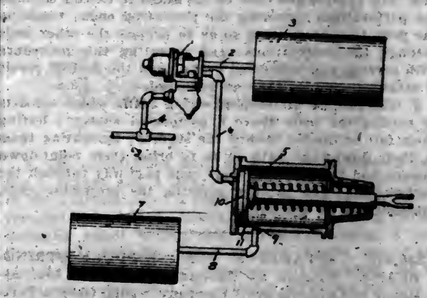
[Claims 3 to 7 not printed in the Gazette.]

1,256,489. WARM-AIR-REGISTER BORDER. WILLIAM T. TRUAX, Battle Creek, Mich., assignor to United States Register Company, Battle Creek, Mich. Filed Feb. 16, 1916. Serial No. 78,612. (Cl. 98—54.)



A warm air register border, comprising a rectangular frame consisting of duplicate end members and duplicate side members, the said members having relatively narrow flat edge portions along the inside and outside edges and ends and raised portions within the said edges and extending to them, the said raised portions of the end members having right-angled corners, the said side members having flat right-angled end portions constructed to fit into the under sides of the said right-angled corners of the raised portions of the said end members and being riveted thereto, the said flat end portions of the side members having integral pieces thereof turned downwardly and arranged at right angles with each other to engage an opening in a floor, the openings in the said end portions from which the said pieces are displaced being covered by the said right-angled corners of the said members.

1,256,490. FLUID-PRESSURE BRAKE. WALTER V. TURNER, Wilkinsburg, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Mar. 6, 1917. Serial No. 152,520. (Cl. 188—1.)



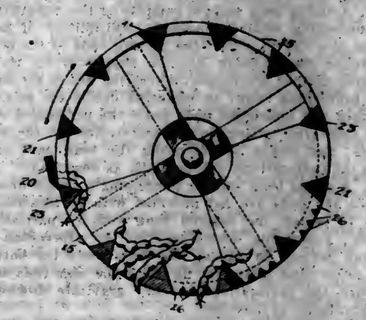
1. In a fluid pressure brake, the combination with a brake cylinder containing a brake cylinder piston, of a reservoir adapted to be connected to the pressure side of said piston upon a predetermined brake cylinder piston travel.

2. In a fluid pressure brake, the combination with a brake cylinder containing a brake cylinder piston, of a reservoir normally cut off from the pressure side of the brake cylinder piston and adapted to be connected thereto upon movement of the brake cylinder piston in applying the brakes.

3. In a fluid pressure brake, the combination with a brake cylinder containing a brake cylinder piston, of a reservoir adapted to be connected to the brake cylinder through a port controlled by the brake cylinder piston.

4. In a fluid pressure brake, the combination with a brake cylinder containing a brake cylinder piston and having the usual leakage groove around said piston, of a reservoir adapted to be connected to the pressure side of said piston upon movement thereof to close the leakage groove.

1,256,491. PROCESS FOR SNIPPING STRING-BEANS. WILLIAM E. URSCHEL, Valparaiso, Ind., assignor to Chisholm-Scott Company, Cadix, Ohio, a Partnership. Original application filed Feb. 10, 1916, Serial No. 77,455. Divided and this application filed Dec. 31, 1917. Serial No. 209,727. (Cl. 146—11.)



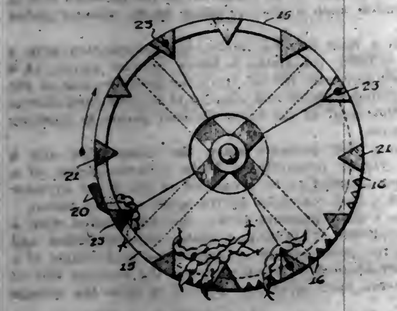
1. The process of snipping string beans which consists in promiscuously presenting a number of them to perforations in a surface, whereby the tapered bean ends automatically pass into and protrude through and are then supported by the walls of the perforations against further protrusion by an amount depending on the taper; in severing the protruding ends; and in continuing to present the ends of the cut and uncut beans to the perforations,

whereby the adequately cut bean-ends will not substantially protrude but the uncut bean-ends will protrude and be severed, substantially as described.

2. The process of snipping string beans which consists in presenting a number of them to perforations in a surface thus causing the ends of the beans to extend through the perforations; severing the projecting ends; tumbling the pods to reverse them so as to project the other ends through the perforations; and repeating this procedure with severed and unsevered beans until the desired result is attained, substantially as described.

3. The process of snipping string beans which consists in raising the pods above a perforated surface; letting them fall or tumble toward the surface; uprighting them in their downward path so as to bring them point-down toward and thus passing their ends part-way through the perforations; and in then severing the projecting ends, substantially as described.

1,256,492. APPARATUS FOR SNIPPING STRING-BEANS. WILLIAM E. URSCHEL, Valparaiso, Ind., assignor to Chisholm-Scott Company, Cadiz, Ohio, a Partnership. Original application filed Feb. 10, 1916, Serial No. 77,455. Divided and this application filed Dec. 31, 1917. Serial No. 209,728. (Cl. 146—11.)



1. A machine for snipping string beans which comprises a supporting member to which the pods are fed having a multiplicity of apertures of a size to permit the tapered ends to protrude therethrough and to be supported by the walls of the aperture against further protrusion; means for causing the bean-ends to be directed endwise toward the apertures as the pods are fed; and a severing device to remove the protruding ends, substantially as described.

2. A string bean snipper comprising the combination of a supporting member having a multiplicity of perforations of a size to permit the tapered ends of the beans to protrude therethrough and be supported by its walls against further protrusion; a severing device for snipping the protruding ends; an elevating device for raising the snipped and unsnipped pods above the perforated support and thereafter letting them gravitate toward the perforations; and means for directing the bean ends endwise into the perforations, substantially as described.

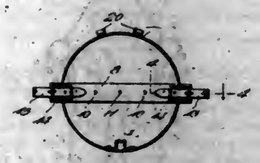
3. A string bean snipper comprising a rotary drum into which the pods are fed provided with perforations of a size to permit the tapered bean ends to partially protrude; a severing device to snip the protruding ends; lifting devices for raising the bean above the bottom of the drum; and means for directing the bean-ends endwise toward the perforations as they gravitate downwardly, substantially as described.

4. A string bean snipper comprising a rotary drum into which the pods are fed provided with apertures of a size to permit the tapered bean-ends to partially protrude; a severing device to snip the protruding ends; and open pockets near the perforations having their general dimensions less than the bean-length to direct the bean ends into the apertures, substantially as described.

5. A string bean snipper comprising a rotary drum into which the beans are fed, provided with perforations of a size to permit the tapered bean-ends to partially protrude therethrough; a severing device to snip the protruding ends; and uprighting devices to tilt the beans to direct their ends toward the perforations, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,256,493. TIRE-CARRIER. EDWARD D. WEST, East Point, Ga., assignor to John M. Sanders, Atlanta, Ga. Filed Mar. 17, 1917. Serial No. 155,510. (Cl. 224—29.)



A tire-carrier for automobiles, comprising an approximately vertically arranged band; transverse clips secured to the upper portion of the band and adapted for the reception of a tire and to hold the same against substantial forward and rearward movements; a substantially horizontal bar disposed adjacent the rear side of the band and passing through the center of the band and having its ends bent at substantially a right angle to provide intermediate extensions which are arranged inwardly of and extend across the band for its entire width in contact therewith, said intermediate extensions being provided at their forward ends with curved substantially horizontal terminal extensions to serve as stops for the tire; straps secured to the terminal extensions; buckles secured to the bar and adapted to engage with the straps; support arms arranged on edge in substantially vertical planes and having their rear ends disposed inwardly of and upon the intermediate extensions and extending for substantially the entire length of said intermediate extensions; and means to rigidly bind the overlapping band, intermediate extensions, and ends of the arms together.

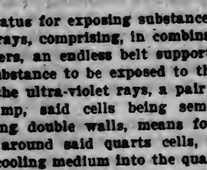
1,256,494. PROCESS FOR THE MANUFACTURE OF ARTIFICIAL FUEL FROM WASTE PRODUCTS. REGINALD BROWN, Southall, England. Filed Sept. 17, 1917. Serial No. 191,871. (Cl. 44—1.)

A process of producing artificial fuel briquets from the waste products of the general character of ash bin refuse, which comprises first forming finely divided waste material of the kind specified, and normally containing coal, etc., into blocks or briquets by pressure, while containing moisture in amount sufficient to insure temporary binding and without any considerable excess of moisture, and without adding extraneous binding agents thereto, other than the said moisture, and subsequently treating the said blocks or briquets with a liquid binding material consisting essentially of a mixture of approximately equal parts of oil tar and pitch, said liquid binding material being added in amount equivalent to about 10% of the weight of the combustible portion of the waste material.

1,256,495. MEANS FOR PRESERVING FOOD. LAWRENCE L. KAHN, San Francisco, Cal. Filed Aug. 18, 1917. Serial No. 186,831. (Cl. 99—8.)

1. A closed vessel in which to preserve food, comprising a metallic container, having a lining contacting with the inner surface thereof, and adapted to completely encompass the food in said container, said lining comprising a thin sheet of amorphous material of vegetable origin which is impervious to water and such acids and alkalis as might be found in the food or food products, and is germ proof.

3. A closed vessel in which to preserve food, comprising a metallic container, having a lining contacting with the inner surface thereof, and arranged to completely encompass the food, said lining comprising a thin sheet of celluloid adapted to completely inclose the food contents of the vessel.



9. A tin can in which to preserve food, and a celluloid lining therein adapted to prevent the contacting of food contained in the can with the inner surface thereof.

[Claims 2 and 4 to 8 not printed in the Gazette.]

1,256,496. VULCANIZATION OF INDIA-RUBBER AND OTHER SIMILAR SUBSTANCES. HENRI OLIVIER, Paris, France. Filed May 21, 1915. Serial No. 29,501. (Cl. 18—6.)

1. An apparatus for exposing liquid solutions to the action of ultra-violet rays, comprising, in combination, a lamp, an endless belt, means for applying a layer of solution to said belt, and means for advancing the belt in proximity to the lamp for exposing the solution thereon to the lamp.

2. An apparatus for exposing substances to the action of ultra-violet rays, comprising, in combination, a plurality of rotating cylinders, an endless belt supported and driven thereby, a lamp between said cylinders, and means for directing said belt around said lamp, comprising a plurality of idler cylinders and supporting elements adjacent the lamp.

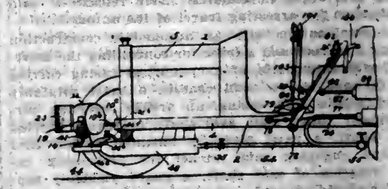
3. An apparatus for exposing substances to the action of ultra-violet rays, comprising, in combination, a pair of rotating cylinders, an endless belt supported thereby for carrying the substance to be exposed to the rays, a lamp for producing the ultra-violet rays, a pair of quartz cells around the lamp, said cells being semi-cylindrical in form and having double walls, means for directing the aforesaid belt around said quartz cells, and means for introducing a cooling medium into the quartz cells to prevent calorific radiations reaching the substance carried by the belt.

4. An apparatus for the exposure of supstances in thin layers to ultra-violet rays, comprising, in combination, a belt to carry the substance to be treated, means for applying a thin layer of the substance to said belt, a lamp emanating ultra-violet rays, means for advancing the belt, and means for guiding said belt around the lamp.

5. An apparatus for the exposure of substances in thin layers to ultra-violet rays, comprising, in combination, a belt to carry the substances to be treated, means for advancing the belt, means for applying the substance to the belt, said means having a controlling device to control the thickness of the substance on the belt, and means for directing said belt adjacent a source of ultra-violet rays.

[Claims 6 to 8 not printed in the Gazette.]

1,256,497. FENDER ATTACHMENT FOR AUTOMOBILES. CHARLES SADLO, Astoria, N. Y. Filed Apr. 9, 1915. Serial No. 20,319. (Cl. 180—83.)



1. The combination with an ordinary automobile having a chassis and a lever for controlling the movement of the automobile, of a cylindrical casing carried by the forward end of said chassis, an object receiving curtain normally rolled within said cylindrical casing, a compressed air cylinder carried by said chassis, means carried by said chassis for automatically releasing the air from said compressed air cylinder upon the striking of an object by the automobile for unwinding said article receiving curtain and forcing it forwardly of the front end of said chassis, a dog mechanism carried by said lever for holding it against accidental movement, a flexible member connected to said dog mechanism, a piston rod connected to said flexible member, a compressed air controlled piston operatively connected to said piston rod, means connected to said first named means for operating said piston for releasing said dog mechanism upon the actuation of said article receiving curtain, and compressed air controlled means connected to said lever for automatically operating the lever immediately after release of said dog mechanism for arresting travel of the automobile.

2. The combination with an automobile construction embodying a chassis, and a lever for controlling the movement of said automobile, of a cylindrical casing carried by the forward end of said chassis, a shaft rotatably journaled within said casing, an article receiving curtain normally rolled upon said shaft, a ratchet carried by said shaft, a pawl pivotally connected to said casing and engaging said ratchet to prevent unrolling rotation of said shaft, a plurality of rods slidably carried by said chassis and connected to said curtain, a guard yieldably supported forwardly of said casing, means connected to said guard and said pawl for moving the pawl out of engagement with said ratchet when said guard strikes an article for permitting of unwinding rotation of said shaft, and means carried by said chassis for automatically moving said first named rods forwardly for unrolling said article receiving curtain from said shaft and positioning it forwardly of said automobile chassis.

3. The combination with an automobile construction embodying a chassis and a lever for controlling the movement of the automobile, of a cylindrical casing carried by the forward end of said chassis, a shaft rotatably journaled in said casing, an article receiving curtain normally rolled upon said shaft, a ratchet carried by said shaft, a pawl pivotally connected to said casing and engaging said ratchet for preventing unwinding rotation of said shaft, a guard yieldably supported forwardly of said casing, means connected to said guard and said pawl for moving said pawl out of engagement with said rod upon rearward movement of said guard for permitting of an unwinding rotation of said shaft, a plurality of rods slidably carried by said casing and connected to said curtain, and means carried by said chassis for automatically moving said rods forwardly for unrolling said article receiving curtain from said shaft and positioning it forwardly of said automobile chassis, a dog mechanism carried by said lever for holding it against accidental movement, a flexible member connected to said dog mechanism, a piston rod connected to said flexible member, a compressed air controlled piston operatively connected to said piston rod, means connected to said first named means for operating said

piston for releasing said dog mechanism upon actuation of said article receiving curtain, and compressed air controlled means connected to said lever for automatically operating said lever immediately after release of said dog mechanism for arresting travel of the automobile.

4. The combination with an automobile construction embodying a chassis and a lever for controlling the movement of said automobile, of a cylindrical casing carried by the forward end of said chassis, a shaft rotatably journaled within said casing, an article receiving curtain normally rolled upon said shaft, a ratchet carried by said shaft, a pawl pivotally mounted within said casing and engaging said ratchet for preventing unwinding rotation of said shaft, a guard yieldably supported forwardly of said casing, means connecting said guard and pawl for moving said pawl out of engagement with said ratchet upon rearward movement of said guard for permitting of an unwinding rotation of said shaft, a plurality of rods slidably carried by said chassis and connected to said curtain, means carried by said chassis for automatically moving said rods forwardly for unrolling said article receiving curtain from said shaft and positioning it forwardly of said automobile chassis, and means carried by said chassis for operating said lever synchronously with the forward movement of said rods for arresting the travel of the automobile.

5. The combination with an automobile of ordinary construction embodying a chassis and a lever for controlling the movement of said automobile, of a cylindrical casing carried by the forward end of said chassis, a shaft rotatably journaled within said casing, an article receiving curtain connected to said shaft and normally wound thereupon, a ratchet mounted upon said shaft, a pawl pivotally carried by said casing and engaging said ratchet for preventing unwinding rotation of said shaft, said casing being provided with an opening to permit of the passage of said article receiving curtain therefrom, a pair of rollers supported outwardly of said opening and spaced for guiding the travel of said curtain, a guard yieldably supported forwardly of said cylindrical casing, a rod connected to said guard and pivotally connected to said pawl for moving said pawl out of engagement with said ratchet upon rearward movement of said guard under pressure, means for automatically returning said guard and said pawl to their normal positions upon the release of pressure from said guard, a plurality of rods slidably carried by said chassis and connected to said article receiving curtain, a compressed air retaining cylinder carried by said chassis and having operative connection with said slidable rods for forcing said rods forwardly for unwinding said article receiving curtain from said shaft upon release of air from said cylinder, means for normally restraining the release of air from said cylinder, and means operable by the inward movement of said guard for automatically operating said air restraining means for permitting of the escape of air for moving said rods forwardly and unrolling said article receiving curtain from said shaft.

[Claims 6 to 11 not printed in the Gazette.]

1,256,498. TRAY ATTACHMENT FOR BEDSTEADS. JAMES P. BAKER, Central City, Nebr. Filed Feb. 21, 1917. Serial No. 150,132. (Cl. 45—82.)

A device of the class described comprising a combined standard and clamping member having its upper end reduced to form a pintle with a shoulder at its base and a laterally offset boss at its lower end with a screw threaded socket extending longitudinally thereof, a finger extending longitudinally from said lower end of the standard and at one side of said socket with its inner face flattened to insure reliable engagement with a support, a substantially L-shaped coöperating clamping member having one arm horizontally disposed and provided at its free end with an upturned toe, its other arm having a longitudinal threaded bore extending therethrough to register with the socket in said first mentioned member, a threaded rod operable in said bore and socket to adjustably connected said members, an operating handle pivotally mounted on the lower end of said rod, and a

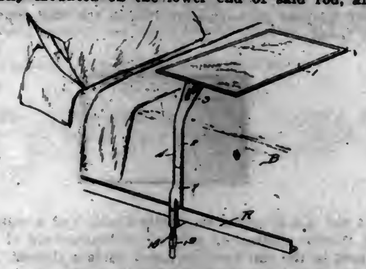
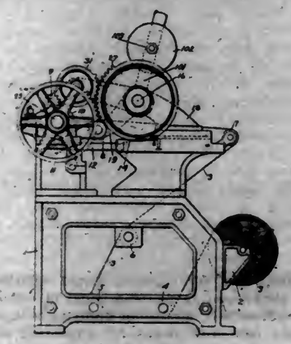


table carrying standard having a socket in its lower end to swivel on said pintle.

1,256,499. REWINDING-MACHINE. JAMES A. CAMERON and GUSTAF BIRGER BIRCH, Brooklyn, N. Y., assignors to Cameron Machine Company, Brooklyn, N. Y., a Corporation of New York. Filed Apr. 18, 1914. Serial No. 832,759. (Cl. 242—55.)



1. A rewinding machine comprising a feeding roller, a rewinding shaft, pivotally mounted supporting arms carrying said rewinding shaft, a gear having a center of rotation coincident with the support of said arms, means for driving said roller and said gear, and transmission mechanism on the arm between said gear and the rewinding shaft.

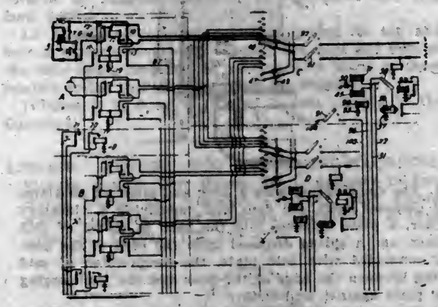
8. A rewinding machine comprising: a rewinding shaft, a feeding roller with which said rewinding shaft engages, pivotally supported arms carrying said rewinding shaft, a gear having its center of rotation coincident with the pivotal support of the arms, and transmission mechanism on the arms between the first gear and the rewinding shaft.

20. A rewinding machine comprising: a feeding roller, a rewinding shaft, arms pivotally supporting said rewinding shaft, interconnecting means for rotating said feeding roller and rewinding shaft, the former at a constant speed and the latter at a variable speed depending upon the diameter of the rewound material.

25. A rewinding machine comprising: means having a constant speed, adapted to engage with the surface of the rewound coils, a rewinding shaft, adapted to be displaced with reference to the first means, and driven at a speed depending upon the diameter of the rewound coils for supporting the latter, means for variably counterweighting said rewinding shaft and the load carried thereby to press the rewound coils against the surface rewinding means with a variable pressure, and means other than the material on the rewinding shaft for driving the latter.

[Claims 2 to 7, 9 to 19, 21 to 24, and 26 not printed in the Gazette.]

1,256,500. TELEPHONE-EXCHANGE SYSTEM. HENRY P. CLAUSEN, Mount Vernon, and CHARLES L. GOODNUM, New York, N. Y., assignors to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Apr. 27, 1916. Serial No. 93,875. (Cl. 179—18.)



1. In a telephone exchange system of the two-wire multiple type, telephone lines terminating at said exchange, automatic switching devices operated to complete connection with said telephone lines, contacts on said switches in which said lines terminate, movable brushes on said switches normally free from potential, adapted to have a rotary and vertical movement into engagement with said lines, and switching means common to a plurality of said switching devices and controlled in the operation of making a call to control the movement of said brushes into engagement with the contacts of the calling line.

3. In a telephone exchange system of the two-wire multiple type, a plurality of calling lines terminating at said exchange, automatic switches, contacts on said switches in which said lines terminate, brushes for said switches normally free from potential having a rotary and vertical movement into engagement with said contacts and a pair of switches common to a plurality of said automatic switches and controlled over the calling line for controlling the rotary and vertical movement of said brushes into engagement with the contacts of the calling line.

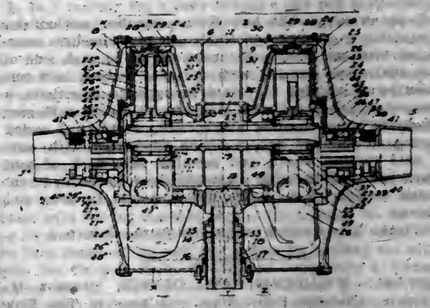
10. In a telephone exchange system, a plurality of line circuits terminating at the exchange, a line finder switch including movable brushes normally free from potential at the exchange having step-by-step rotary and vertical movements, rotary and vertical magnets for controlling the two movements of said switch, circuits for said magnets and a pair of circuit-controlling devices common to a plurality of said line finder switches, each of said circuit-controlling devices being adapted to be separately operated, one to control the impulses through the rotary magnets of the line finder switches, the other to control the impulses through the vertical magnets of the line finder switches and means controlled over the calling line for controlling the operation of said circuit-controlling devices.

[Claims 2 and 4 to 9 not printed in the Gazette.]

1,256,501. HYDRAULIC VARIABLE-SPEED TRANSMISSION. CONRAD M. CONRADSON, Madison, Wis. Filed Feb. 3, 1914. Serial No. 816,173. (Cl. 138—22.)

1. The combination, with rear axle sections and carrying wheels, of hydraulic transmission motors operatively connected with said sections respectively, a hydraulic pump having a variable stroke and supply and return pipe connections with both of said motors, a source of motive power for said pump, said motors having ducts provided with bearing faces and pressure and exhaust chambers having slotted openings with which said ducts register as the motors revolve, and valve rings having slotted openings therein contacting with the bearing faces of said ducts.

8. The combination, with a chassis having forward and rear carrying wheels and rear axle sections, and a hub concentric with said sections and provided with supply and relief chambers, motors connected with said axle sections respectively and mounted on said hub and comprising cylinders and pistons therefor, and ducts positioned to communicate with said supply and relief chambers as said cylinders are revolved, a pump mounted on the forward portion of said chassis and having pipe connections with said supply and relief chambers, and means for operating said pump.



15. The combination, with a chassis having forward and rear carrying wheels and rear axle sections, of motors mounted to revolve with said sections and comprising cylinders and pistons therefor, relatively eccentric and concentric with respect to said sections, said pistons having a fixed stroke with respect to said cylinders, a housing having fluid supply and relief chambers between said motors and said motor cylinders having fluid ducts for communication with said chambers, fluid supply and return pipes for said chambers, a pump mounted on the forward portion of said chassis and communicating with said fluid supply and return pipes, the pistons of said pump having a variable stroke, and means for shifting said pistons to increase or decrease the stroke thereof and the flow of said fluid through said pipes.

18. The combination, with a housing, of revolving motors journaled therein, axle sections having carrying wheels operatively connected with said motors, fluid supply and return pipes concentrically arranged and communicating with said motors, said pipes being spaced apart to form a circulating passage between them, and means for forcing a fluid through said pipes and motors.

19. The combination, with a housing, of revolving motors journaled therein, axle sections having carrying wheels operatively connected with said motors, fluid supply and return pipes communicating with said motors, means for forcing a fluid through said pipes and motors, said pipes having a longitudinal and a rotary movement in their bearings.

[Claims 2 to 7, 9 to 14, 16, and 17 not printed in the Gazette.]

1,256,502. MECHANISM FOR THE CONTROL OF THE PROPELLERS OF AUTOMOBILE TORPEDOES. ALBERT EDWARD JONES, Fiume, Hungary. Filed Mar. 26, 1914, Serial No. 827,352. Renewed Jan. 9, 1918. Serial No. 211,104. (Cl. 115—37.)

1. In an automobile torpedo, concentric propeller shafts, turbines on opposite sides of the shafts, and having their shafts at right angles to the said concentric shafts, and gearing between the turbine shafts and the concentric shafts.

5. In an automobile torpedo, a driving mechanism comprising a pair of concentric shafts, a propeller carried by each of said shafts, facing gear wheels one for each of said shafts, diametrically opposite pinions in mesh with the facing gear wheels, and oppositely rotatable turbine wheels on the shafts of which the said pinions are

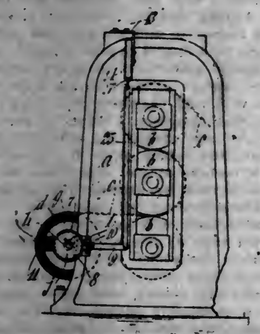
mounted, said facing gears inclosing said turbines therebetween.



7. In an automobile torpedo, a propelling mechanism, comprising a pair of concentric shafts, propellers associated with said shafts, a turbine wheel on each side of said shafts and parallel with the axes thereof, said turbines being adapted to rotate in opposite directions, a gear wheel associated with each of said shafts, said gear wheels facing each other and forming a spherical casing having an annular gap, a pinion associated with each of said turbine wheels and meshing with each of said gears, said pinions being diametrically opposite, and said casing formed by the gears inclosing said turbines and pinions.

[Claims 2 to 4 and 6 not printed in the Gazette.]

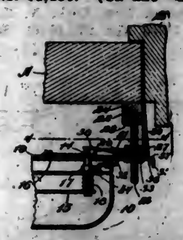
1,256,503. WEB-TENSIONING DEVICE. GEORGE H. LEWIS, Chicopee Falls, Mass., assignor to The Fisk Rubber Company, Chicopee Falls, Mass., a Corporation of Massachusetts. Filed Feb. 27, 1917. Serial No. 151,858. (Cl. 265—24.)



1. A web-tensioning device for calenders and the like, comprising in combination an arbor to support the web in roll form, a friction drum rotatable by the arbor as the web is unwound from the roll, brake band members hinged together at one end and adapted to encircle the drum, adjustable means to draw the other ends of said members together to apply pressure to the drum, an arm extending from one of the brake bands, and means connected to said arm to balance the tension in the web and indicate variations in web tension as a guide for adjusting the first-named means.

2. A web tensioning device for calenders, comprising in combination with the calender frame, a shaft rotatably mounted on the latter, an arbor having a removable driving engagement with the shaft and having a removable rotatable engagement with a part of said frame, a brake drum on said shaft, brake band members hinged together at one end and adapted to encircle the drum, adjustable means to draw the other ends of said members together to apply pressure to the drum, an arm extending from one of the brake bands, an indicating spring balance fixed to the frame and a link connecting the balance to said arm, all constructed and arranged so that the tension of the web is measured by the spring balance and so that the indications of the latter may be used as a guide to the adjustment of said means.

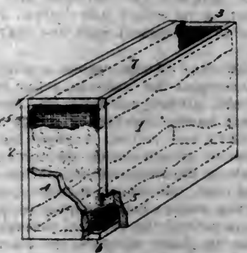
1,256,504. BURGLAR-ALARM. WILLIAM D. MOTT and LEWIS VAN BROWN, Asheville, N. C. Filed Jan. 31, 1916. Serial No. 75,456. (Cl. 116—44.)



1. The combination with a door and jamb, of an alarm bell disposed upon the door and embodying a vibratory striker, a plate movable into the path of travel of said striker, and a spring disposed upon the edge of the door and connected with said plate, the compression of said spring between the edge of the door and the jamb urging said plate against said striker.

2. The combination with a door and jamb, of an alarm bell disposed upon the door and embodying a vibratory striker, a horizontally disposed plate guided for slidable movement within said bell to engage the striker, the outer end of said plate being apertured, and a flat spring disposed upon the edge of the door and resiliently divergent therefrom and having its free end disposed within said aperture for normally retaining said plate out of the path of travel of said striker, the compression of said spring toward the edge of the door by the jamb when the door is closed urging said plate into engagement with said striker.

1,256,505. COMPRESS-BALE AND METHOD OF COMPRESSING. WILLIAM D. NESBITT, Birmingham, Ala., assignor to Standard Compress and Warehouse Corporation, New York, N. Y., a Corporation of Virginia. Filed Sept. 29, 1916. Serial No. 122,812. (Cl. 100—19.)



1. The method of compressing plantation or gin bales which consists in dimensioning successive bales to determine the dimensions of the compressed bales in two directions and then subjecting the bales to a predetermined compressing pressure per square foot of pressure surface, whereby successive bales are produced which are substantially identical in length and breadth, the third dimension varying according to the amount or weight of material in the bale.

2. The method of compressing plantation or gin bales which consists in dimensioning successive bales to determine the dimensions of the compressed bales in two directions and then subjecting the bales to a predetermined and relatively low compressing pressure per square foot of pressure surface, whereby successive bales are produced which are substantially identical in length and breadth, the third dimension varying according to the amount or weight of material in the bale, the density of the material being substantially identical in successive bales.

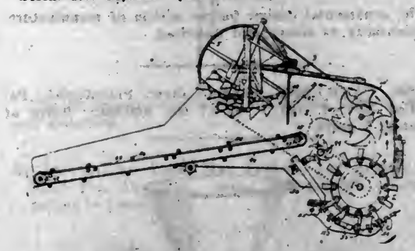
5. The method of compressing plantation or gin cotton bales which consists in subjecting the cotton on the surface of the bale not covered by the bagging to a planishing or calendering action during the compression, such action producing a surface which is free from loose tufts.

9. A bale of compressed cotton having the surface not covered by bagging planished or calendered and free from tufts.

12. A bale of compressed cotton having its top and bottom surfaces covered by bagging, the sides and ends of the bale being contained in substantially plane surfaces relative to the surfaces covered by the bagging.

[Claims 3, 4, 6 to 8, 10, and 11 not printed in the Gazette.]

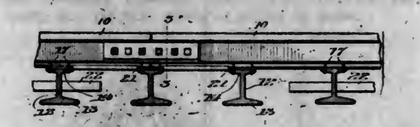
1,256,506. FEEDER FOR THRESHING-MACHINES. WALTER NORRIS, Port Huron, Mich., assignor to Port Huron Engine and Thresher Company, Port Huron, Mich., a Corporation of Michigan. Filed Mar. 9, 1916. Serial No. 83,001. (Cl. 130—1.)



In a threshing machine, the combination of a carrier, a threshing cylinder, a rotary feeder mounted above the threshing cylinder, a housing for said mechanism extending up from above the threshing cylinder and then curving forward around the axis of the feeder to form a segment of a cylinder, a flat top for said housing inclining downwardly to said curved portion which merges into it, and a yielding imperforate deflector extending down from said top above the discharge end of the carrier to deflect downwardly the current of air from the threshing cylinder and thereby prevent the passage of grain from the machine.

REISSUES.

14,431. RAILWAY-TRACK STRUCTURE. HENRY KOHLMYER, Lorain, Ohio. Filed Oct. 7, 1911. Serial No. 653,458. Original No. 998,176, dated May 23, 1911, Serial No. 597,018, filed Dec. 18, 1910. (Cl. 238—4.)



1. In a railway tie, a body having a flat rail supporting head, the head being formed in one side edge with spaced notches, one of the notches being extended toward the other notch at an acute angle to the said edge of the head, the distance between the inner end of the first mentioned notch and the corresponding end of the other notch being substantially equal to the width of the base of a rail supported upon the head, and means for holding a rail to the tie comprising a clamp having spaced portions and a connecting portion, the spaced portions being inserted in the notches and being adapted to be bent into clamping engagement with the rail.

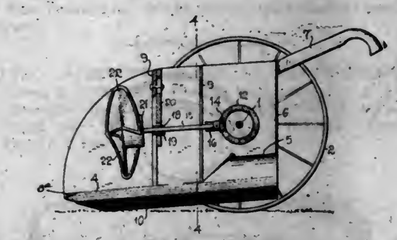
2. In a railway tie, a body having a flat rail supporting head, the head being formed in one side edge with spaced notches, one of the notches being extended toward the other notch at an acute angle to the said edge of the head, the distance between the inner ends of the first mentioned notch and the corresponding end of the other notch being substantially equal to the width of the base of a rail supported upon the head, and means for holding a rail to the tie comprising a clamp having spaced portions and a connecting portion, the spaced portions being inserted in the notches and being adapted to be bent into clamping engagement with the rail.

3. In a railway tie, a body having a flat rail supporting head, the head being formed in one side edge with spaced notches, the notches being relatively angularly positioned, the distance between the inner ends of the notches being substantially equal to the width of the base of a rail supported upon the head, and means for holding the rail to the head comprising a clamp having spaced portions and a connecting portion, the spaced portions being inserted in the notches and being adapted to be bent into clamping engagement with the rail.

4. In a railway track structure, a tie, a chair disposed upon the tie and having its sides cut away at points coincident with the tie, one side edge of the head of the tie being formed with notches coincident with the side edges of the base flange of the rail, and means for holding the rail upon the tie and chair, said means comprising a clamp having spaced portions and a connecting portion, the clamp being disposed with the spaced portions engaging in the notches near the said edge of the tie and struck down into clamping engagement with the base flange of the rail, the said spaced portions engaging in the cut away portions of the chair.

5. In a railway track structure, a supporting plate having notches in its edges arranged in pairs, the mouths of the notches of each pair being farther apart than the bottoms thereof, a rail carried upon the plate with its edges adjacent said notches, and a clamp for said rail having spaced portions and a connecting portion, the spaced portions being inserted in the notches, positioned at the bottoms thereof, and adapted to be bent into clamping engagement with the rail.

14,432. INSECT-DESTROYER. GROVER-CLEVELAND TUCKER, Tuscaloosa, Ala., assignor to Tucker Implement Company, Inc., Greensboro, Ala., a Corporation of Alabama. Filed Apr. 28, 1917. Serial No. 165,273. Original No. 1,189,508, dated July 4, 1916, Serial No. 67,235, filed Dec. 16, 1915. (Cl. 43—1.)



1. An insect destroyer comprising a portable body adapted to straddle a row of plants and provided with troughs between which the plants are adapted to pass, and a beater rotating about an axis disposed longitudinally of the troughs and occupying a vertical plane intermediate the troughs, said beater including substantially spirally arranged and diametrically opposed blades between which the foliage of the plant is adapted to travel, said blades serving to create air blasts, said blades being substantially semi-circular with the adjacent ends thereof at their peripheral portions in overlying relation.

2. A device of the character described comprising a wheel supported axle, a body mounted for rocking movement upon said axle, the forward end of said body at its

bottom portion being provided with a trough, agitating means positioned above the trough, hitching means carried by a side of the body adjacent the forward end thereof and in close proximity to the bottom thereof and at a point below the axis of the body and handles disposed rearwardly from the body at the upper portion thereof, said handles being secured directly to the body rearwardly of and above the axis of the body, the axle being positioned rearwardly of the center of gravity of the device whereby, during the working operation, the weight of the device is carried by the animal and the handles relieved therefrom.

3. An insect destroyer comprising a portable body provided with a trough and a beater rotatably supported by the body in a plane above the trough, said beater including substantially spirally arranged and diametrically opposed blades between which the foliage of a plant is adapted to travel, said blades being substantially semicircular with the adjacent ends thereof at their peripheral portions in overlying relation.

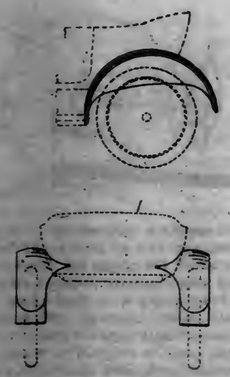
4. A device of the character described comprising a body mounted for rocking movement, the forward end of said body at its bottom portion being provided with a trough, agitating means carried by the body, and a shoe carried by the bottom of the body and adapted to penetrate the surface over which the body traverses.

5. A device of the character described including a portable body, said portable body comprising downwardly and inwardly inclined sides provided at their lower margins with troughs substantially V shape in cross section, the forward end portions of the troughs being adapted to penetrate the surface over which the frame traverses, and agitating means supported by the body and positioned above the troughs.

6. In an insect destroyer, a rotatable beater including substantially spirally arranged and diametrically opposed blades between which the foliage of a plant is adapted to travel, said blades being substantially semicircular with the adjacent ends thereof at their peripheral portions in overlying relation.

DESIGNS.

51,748. REAR AUTOMOBILE-WHEEL FENDER. ALBERT C. BARLEY, Streator, Ill. Filed Nov. 10, 1916. Serial No. 130,650. Term of patent 7 years.



The ornamental design for a rear automobile wheel fender, as shown.

51,749. PRINTED FABRIC. ALMA S. BIGELOW, Marquette, Mich., assignor to Witcombe, McGeachin and Company, New York, N. Y. Filed Nov. 20, 1917. Serial No. 203,051. Term of patent 7 years.



The ornamental design for an article of manufacture, substantially as shown and described.

51,750. CAKE-FORM. MARIE CASSEL, Philadelphia, Pa. Filed Nov. 7, 1917. Serial No. 200,830. Term of patent 7 years.



The ornamental design for cake form as shown.

51,751. FLAG-POLE. EMIL O. J. DANIELSON, Boston, Mass. Filed Mar. 7, 1917. Serial No. 153,208. Term of patent 3½ years.



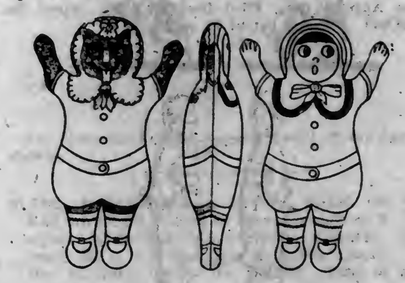
The ornamental design for a flag pole, as shown.

51,752. DIMMING-LENS. EDMUND DICKEY, Lancaster, Ohio. Filed Nov. 8, 1915. Serial No. 60,449. Term of patent 7 years.



The ornamental design for a dimming lens, as shown and described.

51,753. DOLL. LELIA MAY FELLOM, Los Angeles, Cal. Filed Feb. 15, 1917. Serial No. 148,897. Term of patent 14 years.



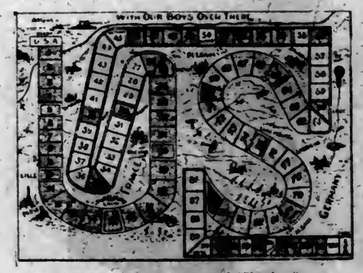
The ornamental design for a doll as shown.

51,754. ARM FOR LIGHTING-FIXTURES. ARTHUR MENO, Cleveland, Ohio, assignor to Cleveland Chandelier Company, Cleveland, Ohio. Filed Oct. 24, 1917. Serial No. 198,315. Term of patent 3½ years.



The ornamental design for an arm for lighting fixtures, as shown.

51,755. GAME-BOARD. BROR A. M. MUNSON, Brooklyn, N. Y. Filed Dec. 10, 1917. Serial No. 206,558. Term of patent 7 years.



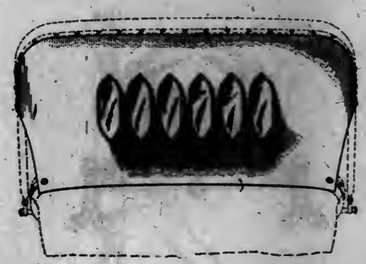
The ornamental design for a game board as shown.

51,756. LAMP-SOCKET HOOD. HENRY D'OLIER, Jr., Bridgeport, Conn. Filed Nov. 16, 1917. Serial No. 202,418. Term of patent 14 years.



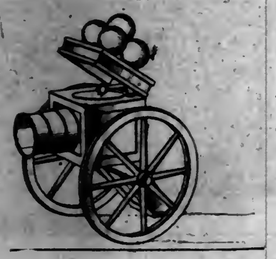
The ornamental design for a lamp socket hood, as shown.

51,757. BACK CURTAIN OF AN AUTOMOBILE-TOP. OTHO R. OVERMYER, Detroit, Mich., assignor to Dodge Brothers, Detroit, Mich., a Corporation of Michigan. Filed Nov. 25, 1916. Serial No. 133,504. Term of patent 7 years.



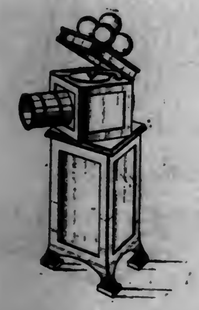
The ornamental design for a back curtain of an automobile top as shown.

51,758. TALKING-MACHINE CABINET. JOHN S. PONTONE, Chicago, Ill. Filed Oct. 10, 1917. Serial No. 195,865. Term of patent 3½ years.



The ornamental design for a talking machine cabinet, as shown.

51,759. TALKING-MACHINE CABINET. JOHN S. PONTONE, Chicago, Ill. Filed Oct. 10, 1917. Serial No. 195,866. Term of patent 3½ years.



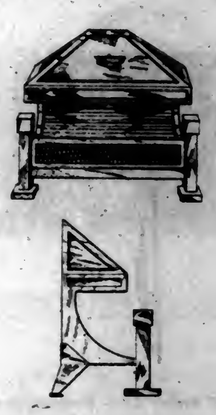
The ornamental design for a talking machine cabinet, as shown.

51,760. GAS-HEATER. GEORGE F. REZNOR, Mercer, Pa. Filed Nov. 30, 1917. Serial No. 204,766. Term of patent 14 years.



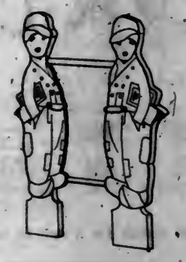
The ornamental design for a gas heater, substantially as shown.

51,761. GAS-HEATER. GEORGE F. REZNOR, Mercer, Pa. Filed Nov. 30, 1917. Serial No. 204,767. Term of patent 14 years.



The ornamental design for a gas heater, substantially as shown.

51,762. FURNITURE-PANEL. EVERETT E. REWICK, Los Angeles, Cal. Filed Dec. 12, 1917. Serial No. 206,859. Term of patent 14 years.



The ornamental design for a furniture panel, as shown.

51,763. FINGER-RING. FRANK C. A. RICHARDSON, New York, N. Y. Filed July 26, 1917. Serial No. 182,983. Term of patent 3½ years.



The ornamental design for a finger ring as shown.

51,764. PATRIOTIC BADGE OR POSTER. LESLIE ANTHELM SCHORN, Victor, Colo. Filed Nov. 16, 1917. Serial No. 202,415. Term of patent 3½ years.



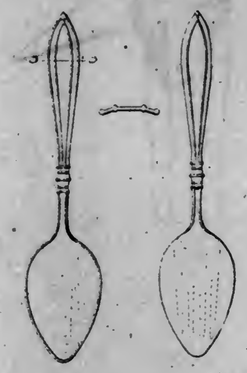
The ornamental design for a patriotic badge or poster, as shown.

51,765. STATUETTE OR TOY FIGURE. ERNEST A. F. SCOTT, Pasadena, Cal. Filed Sept. 24, 1917. Serial No. 193,051. Term of patent 3½ years.



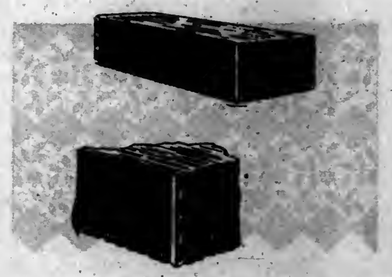
The ornamental design for a statuette or toy figure as shown.

51,766. HANDLE FOR A SPOON, FORK, OR SIMILAR ARTICLE. AXEL H. STAF, Providence, R. I., assignor to Gorham Manufacturing Company, Providence, R. I., a Corporation of Rhode Island. Filed Dec. 12, 1917. Serial No. 206,858. Term of patent 14 years.



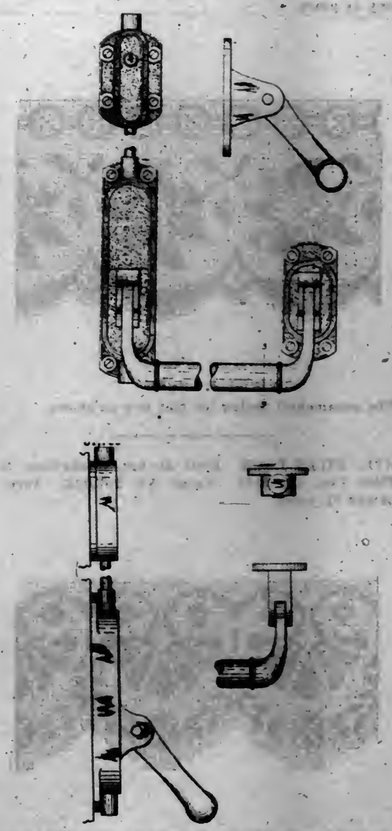
The ornamental design for a handle for spoons, forks or similar articles, as shown.

51,767. BUILDING-BRICK. JACOB STOCKE, JR., St. Louis, Mo., assignor to Progress Press Brick & Machine Company, St. Louis, Mo., a Corporation of Missouri. Filed Oct. 18, 1917. Serial No. 197,349. Term of patent 14 years.



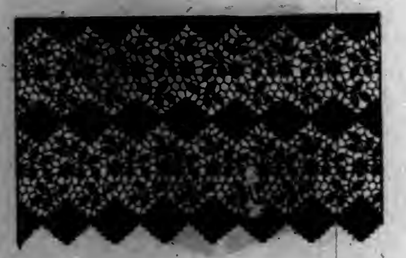
The ornamental design for a building brick as shown and described.

51,768. PANIC-BOLT. HENRY G. VOIGHT, New Britain, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Dec. 15, 1917. Serial No. 207,374. Term of patent 14 years.



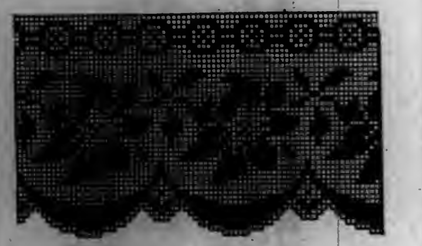
The ornamental design for a panic bolt; substantially as shown.

51,769. LACE. EMIL ZULLIG, Weehawken, N. J. Filed Dec. 10, 1917. Serial No. 206,561. Term of patent 3½ years.



The ornamental design for lace as shown.

51,770. FILET LACE. EMIL ZULLIG, Weehawken, N. J. Filed Dec. 10, 1917. Serial No. 206,562. Term of patent 3½ years.



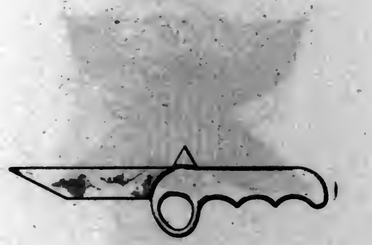
The ornamental design for filet lace as shown.

51,771. FILET LACE. EMIL ZULLIG, Weehawken, N. J. Filed Dec. 17, 1917. Serial No. 207,633. Term of patent 3½ years.



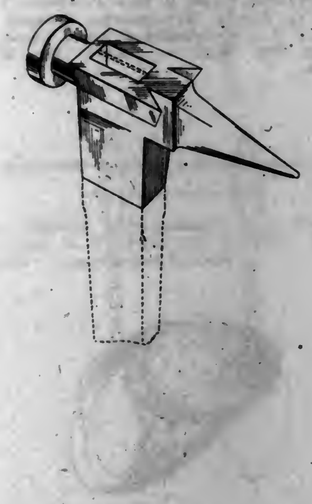
The ornamental design for filet lace as shown.

51,772. PARING-KNIFE. WILLIAM ANDERSON BERKSHIRE, Ocheyedan, Iowa. Filed Nov. 17, 1917. Serial No. 202,658. Term of patent 14 years.



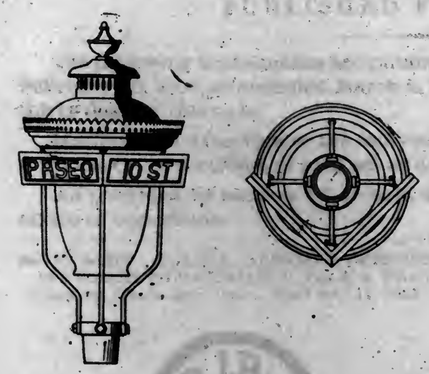
The ornamental design for a paring knife, as shown.

51,773. HEAD FOR FENCING-HAMMERS. JOHN F. BURR, Houston, Minn. Filed June 25, 1917. Serial No. 176,876. Term of patent 14 years.



The ornamental design for a head for fencing hammers, as shown.

51,774. COMBINATION LAMP AND STREET-SIGN. MARK COPPINGER, Kansas City, Mo. Filed Sept. 20, 1917. Serial No. 192,417. Term of patent 14 years.



The ornamental design for a combination lamp and street sign, as shown.

51,775. LENS-CLIP. JOEL C. WELLS, Southbridge, Mass. Filed Nov. 24, 1917. Serial No. 203,849. Term of patent 14 years.



The ornamental design for a lens clip, substantially as illustrated.

TRADE-MARKS

PUBLISHED FEBRUARY 12, 1918.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 95,213. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE J. B. WILLIAMS COMPANY, Glastonbury, Conn. Filed May 17, 1916.

J.B. CO

Particular description of goods.—Shaving-Stick, Shaving-Powder, Shaving-Cream, Shaving Liquid, and Shaving-Cake Soaps, and also Toilet Soaps.
Claims use since about the month of April, 1913.

Ser. No. 96,426. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) PEARL A. CORN, Columbus, Ohio. Filed July 8, 1916.

OLD FORGE

Particular description of goods.—Coal.
Claims use since about Jan. 1, 1916.

Ser. No. 97,931. (CLASS 33. GLASSWARE.) STANDARD GLASS SPECIALTY COMPANY, Morgantown, W. Va. Filed Sept. 11, 1916.

Prismolite

Particular description of goods.—Headlight-Lenses.
Claims use since Aug. 10, 1916.

Ser. No. 98,048. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ALFRED M. HANSON, Inkster, N. D. Filed Sept. 18, 1916.

ECONOMY

Particular description of goods.—Hay-Lifting Machines.
Claims use since about Jan. 15, 1916.

Ser. No. 98,805. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) AUGUST H. FLAIG, Minneapolis, Minn. Filed Oct. 21, 1916.

Tire-Tite

Particular description of goods.—Reinforced Laminated Patches for Tires and the Like.
Claims use since Apr. 24, 1916.

Ser. No. 99,320. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CANO COMPANY, Jacksonville, Fla. Filed Nov. 16, 1916.

Cano

Particular description of goods.—Preparations for the Treatment of Stomach, Kidney, and Liver Diseases; for Purifying the Blood and Toning the System; for Dandruff; for Tender, Bleeding, or Receding Gums, and Preserving and Whitening the Teeth.
Claims use since Sept. 15, 1916.

Ser. No. 99,874. (CLASS 39. CLOTHING.) LINDEKE, WARNER & SONS, St. Paul, Minn. Filed Dec. 12, 1916.

NORTH STAR

Particular description of goods.—Hosiery.
Claims use since on or about the 7th day of January, 1897.

Ser. No. 100,002. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) THE CHENEY TALKING MACHINE COMPANY, Chicago, Ill. Filed Dec. 18, 1916.



Particular description of goods.—Talking-Machines.
Claims use since about Aug. 24, 1916.

Ser. No. 100,290. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) H. G. FISCHER & Co., Chicago, Ill. Filed Jan. 2, 1917.



Particular description of goods.—Therapeutic Lights, Physicians' Electrotherapeutic Apparatus, Dentists' Electrotherapeutic Apparatus, Electrical Faradic, Galvanic, Ionization, Sinusoidal, Cautery, Diagnostic, D'Arsonval, and Auto Condensation Outfits.
Claims use since Mar. 19, 1914.

Ser. No. 100,347. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) TRUXAL CHEMICAL CO., Seattle, Wash. Filed Jan. 3, 1917.

CON-SUM-IT

Particular description of goods.—Soot-Destroyer.
Claims use since Nov. 1, 1916.

Ser. No. 100,546. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) RENÉ DE KNYFF, Arcueie, France. Filed Jan. 12, 1917.

HÉMOXYGÉNATEUR

Particular description of goods.—Apparatus for Delivering Oxygen or Any other Gases Under Pressure (*i. e.*, Gas-Expanding Apparatus) for Hypodermic Injections.
Claims use since Oct. 21, 1916.

Ser. No. 100,679. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) MOUNT VERNON-WOODBERRY MILLS, INCORPORATED, Baltimore, Md. Filed Jan. 17, 1917.



RAVENS

Particular description of goods.—Cotton Duck.
Claims use since 1905.

Ser. No. 100,700. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GLOBE CANNING CO., Eastport, Me. Filed Jan. 18, 1917.

ALMA

Particular description of goods.—Canned Sardines.
Claims use since Oct. 16, 1916.

Ser. No. 100,701. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GLOBE CANNING CO., Eastport, Me. Filed Jan. 18, 1917.

CHARA

Particular description of goods.—Canned Sardines.
Claims use since 18th day of December, 1916.

Ser. No. 101,239. (CLASS 15. OILS AND GREASES.) WILLARD PARKER, Philadelphia, Pa. Filed Feb. 8, 1917.

NOGUMITE

Particular description of goods.—Automatic Machine-Screw-Cutting Oil.
Claims use since Jan. 1, 1916.

Ser. No. 101,439. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BRAUN BROS. & Co., Pittsburgh, Pa. Filed Feb. 17, 1917.



Particular description of goods.—Bread.
Claims use since Feb. 5, 1917.

Ser. No. 101,980. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) C. EDWARD KENDEL, Cleveland, Ohio. Filed Mar. 6, 1917.

SHADILAWN

Particular description of goods.—Lawn-Seeds.
Claims use since Feb. 1, 1917.

Ser. No. 102,477. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) L. C. BLANCKE CO. INC., New York, N. Y. Filed Mar. 27, 1917.

BLANCKE

Comprising the word "Blancke" within a diamond.
Particular description of goods.—Drills, Tool-Bits, Reamers, Taps, Dies, and Hacksaw-Blades.
Claims use since Mar. 1, 1916.

Ser. No. 102,544. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) WHITEMORE MANUFACTURING CO., Galva, Ill. Filed Mar. 28, 1917.



Particular description of goods.—Elevator-Spouts, Sectional Elevator-Spouts, Spout-Sections, and Parts Thereof.
Claims use since about the 1st day of February, 1917.

Ser. No. 103,556. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) CHRISTIAN VICK, Cleveland, Ohio. Filed May 5, 1917.

EXCELSIOR

Particular description of goods.—Varnish, Stains, Enamel, Driers, and Japan.
Claims use since the year 1890.

Ser. No. 103,631. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) B. CAMP Y CA., S. EN C., Santiago, Cuba. Filed May 8, 1917.



Particular description of goods.—Rum.
Claims use since January, 1901.

Ser. No. 104,044. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HENDERSON JONES, Dermott, Ark. Filed May 24, 1917.



Being a portrait of myself.
Particular description of goods.—A Preparation for the Treatment of Cancers, Old Sores, Eczema, and other Skin Diseases and Syphilitic Sore Leg.
Claims use since Mar. 7, 1917.

Ser. No. 104,416. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) ROLAND V. SMITH, Oklahoma, Okla. Filed June 12, 1917.

BUCK SKIN

Particular description of goods.—Inner Tubes for Automobile-Tires.
Claims use since June 1, 1916.

Ser. No. 104,612. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) HUGH G. KENNEY. New Orleans, La. Filed June 22, 1917.

Dixie

Particular description of goods.—A Non-Saponaceous Liquid Preparation for Removing Spots and Dirt from Textiles.
Claims use since May 1, 1917.

Ser. No. 104,654. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) WISTRAND MANUFACTURING CO., Galva, Ill. Filed June 23, 1917.



Particular description of goods.—Water-Elevating Pumps and Windmills.
Claims use since July 1, 1910.

Ser. No. 104,671. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) THE FAULTLESS RUBBER COMPANY, Ashland, Ohio. Filed June 25, 1917.

Keepwell

Particular description of goods.—For the Following Rubber Articles, to wit: Baby-Comforters, Chin-Bandages, Breast-Pumps, Breast-Shields, Atomizer-Bulbs, Breast-Pump Bulbs, Complexion-Bulbs, Douche-Bulbs, Catheters, Colon-Tubes, Combination Water-Bottles and Fountain-Syringes, Finger-Cots, Examination-Cots, Invalid-Cushions, Operating-Cushions, Drainage-Gauze Covers, Eye-Pipes, Ice-Bags, Ice and Water Caps, Face-Masks, Chin-Masks, Medicine-Droppers, Medicine-Dropper Nipples, Nasal Pipes, Nipples, Nursing-Bottles, Nursing-Bottle-Fitting Nipples, Ring-Pessaries, Rectal Tubes, Stomach-Tubes, Bulb-Syringes, Douche-Syringes, Ear and Ulcer Syringes, Fountain-Syringes, Infant-Syringes, Water-Bottles.
Claims use since June 6, 1917.

Ser. No. 104,672. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) THE FAULTLESS RUBBER COMPANY, Ashland, Ohio. Filed June 25, 1917.

Goodhealth

Particular description of goods.—For the Following Rubber Articles, to wit: Baby-Comforters, Chin-Bandages, Breast-Pumps, Breast-Shields, Atomizer-Bulbs, Breast-Pump Bulbs, Complexion-Bulbs, Douche-Bulbs, Catheters, Colon-Tubes, Combination Water-Bottles and Fountain-Syringes, Finger-Cots, Examination-Cots, Invalid-Cushions, Operating-Cushions, Drainage-Gauze Covers, Eye-Pipes, Ice-Bags, Ice and Water Caps, Face-Masks, Chin-Masks, Medicine-Droppers, Medicine-Dropper Nipples, Nasal Pipes, Nipples, Nursing-Bottles, Nursing-Bottle-Fitting Nipples, Ring-Pessaries, Rectal Tubes, Stomach-Tubes, Bulb-Syringes, Douche-Syringes, Ear and Ulcer Syringes, Fountain-Syringes, Infant-Syringes, Water-Bottles.
Claims use since June 6, 1917.

Ser. No. 104,686. (CLASS 38. PRINTS AND PUBLICATIONS.) LUTHER C. PHIFER, Worcester, Mass. Filed June 25, 1917.



Particular description of goods.—Publications. The Goods are Published at No Fixed Dates, but are Published from Time to Time at the Decision of the Publisher or at Times When the Demand for the Goods Seems to Warrant Their Publication.
Claims use since October 10, 1911.

Ser. No. 104,714. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PAUL F. DEFORD, Pasadena, Cal. Filed June 27, 1917.

OVELO

Particular description of goods.—A Hair-Dye.
Claims use since September, 1916.

Ser. No. 104,734. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) HENDRYX COMPANY, INC., New York, N. Y. Filed June 28, 1917.

TIP-TOP

Particular description of goods.—Sanitary Covers for Bottles and Jars.
Claims use since December, 1914.

Ser. No. 105,495. (CLASS 5. ADHESIVES.) HENRY J. HIRSCHENFELD, Minneapolis, Minn. Filed Aug. 6, 1917.

ooZoo

Particular description of goods.—Sealing Compounds for Automobile Tires.
Claims use since July 28, 1917.

Ser. No. 105,535. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) ANDERSON MOTOR CO., Rock Hill, S. C. Filed Aug. 8, 1917.



Particular description of goods.—Motor-Cars.
Claims use since Jan. 10, 1917.

Ser. No. 105,571. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JACOB HAMBURGER, Fairmont, W. Va. Filed Aug. 10, 1917.

AGO

Particular description of goods.—A Liniment for the Treatment of Inflammatory, Sciatica, and All other Forms of Rheumatism, Neuralgia, Lumbago, Sprains, Bruises, Pains in the Back and Chest, Tonsilitis, and All Forms of Sore Throat.
Claims use since July 2, 1917.

Ser. No. 105,654. (CLASS 39. CLOTHING.) THE WILLIAM CARTER COMPANY, Needham Heights, Mass. Filed Aug. 15, 1917.

Auto Seat

Consisting of the word "Auto-Seat," no claim being made to the word "Seat" apart from the mark shown in the drawing.
Particular description of goods.—Underwear—Namely, Knitted and Woven Suits, Drawers, and Underwears.
Claims use since July 27, 1917.

Ser. No. 105,671. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RADIUM DIAL COMPANY, Pittsburgh, Pa. Filed Aug. 15, 1917.

LUMALITE

Particular description of goods.—A Chemical Luminous Material.
Claims use since Aug. 10, 1917.

Ser. No. 105,673. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RADIUM DIAL COMPANY, Pittsburgh, Pa. Filed Aug. 15, 1917.

RALUMALITE

Particular description of goods.—A Chemical Luminous Material.
Claims use since Aug. 10, 1917.

Ser. No. 105,674. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RADIUM DIAL COMPANY, Pittsburgh, Pa. Filed Aug. 15, 1917.

LUMALOID

Particular description of goods.—A Chemical Luminous Material.
Claims use since Aug. 10, 1917.

Ser. No. 105,676. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RADIUM DIAL COMPANY, Pittsburgh, Pa. Filed Aug. 15, 1917.

RALUMALOID

Particular description of goods.—A Chemical Luminous Material.
Claims use since Aug. 10, 1917.

Ser. No. 105,691. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) HENRY RICHMOND & SONS, LTD., Leeds, England. Filed Aug. 16, 1917.

KRUDS

Particular description of goods.—Malleable-Iron Boot-Protectors, Hob-Nails, and Boot-Studs.
Claims use since the 30th day of June, 1914.

Ser. No. 105,720. (CLASS 18. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) ADELAIDE E. O'BRIEN, St. Louis, Mo. Filed Aug. 18, 1917.

COIN

Particular description of goods.—Roller Antifriction Devices in the Nature of Hardware for Use in Furniture, Show-Cases, Window-Sash, and the Like.
Claims use since on or about the 1st day of June, 1917.

Ser. No. 105,817. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) ROGERS & THOMPSON, INC., New York, N. Y. Filed Aug. 22, 1917.

Llama

Particular description of goods.—Silk Piece Goods.
Claims use since the 1st day of March, 1917.

Ser. No. 105,850. (CLASS 38, PRINTS AND PUBLICATIONS.) ART METAL CONSTRUCTION CO. INC., Jamestown, N. Y. Filed Aug. 24, 1917.

THE BOOK OF BETTER BUSINESS

Particular description of goods.—A Catalogue Published Annually.
Claims use since March, 1917.

Ser. No. 105,866. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) FREDERICK P. SMITH, Lynn, Mass. Filed Aug. 24, 1917.

K. & S.

Particular description of goods.—Leather-Dressing.
Claims use since Aug. 10, 1897.

Ser. No. 106,146. (CLASS 39. CLOTHING.) VAN HART, INC., New York, N. Y. Filed Sept. 8, 1917.

VAN HART

Particular description of goods.—Shoes Made Entirely or Partly of Leather and Shoes Made Entirely or Partly of Cloth.
Claims use since the 20th day of August, 1917.

Ser. No. 106,230. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) NORTON COMPANY, Worcester, Mass. Filed Sept. 13, 1917.

NORTON

Said mark, as shown in the accompanying drawing, comprising an annulus concentrically surrounding a circular area, and a panel, bearing the word "Norton" thereon, diametrically connecting said area and annulus and forming arcuate spaces therebetween.
Particular description of goods.—Abrasive Powders, Grains, Pastes, Stones, Hones, Whetstones, Oil Stones and Bricks, Valve-Grinding Compounds, Rubbing-Up, Turning, Truing, and Dressing Stones, and Grinding, Cutting, Polishing, and Abrading Wheels.
Claims use since June 20, 1898.

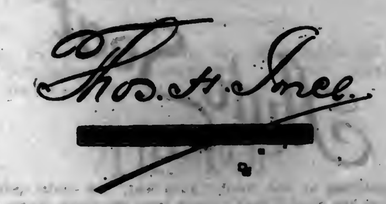
Ser. No. 106,276. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE COLUMBIA RIVER MILLING CO., Wilbur, Wash. Filed Sept. 17, 1917.

OUR "MONOGRAM"



Particular description of goods.—Wheat-Flour.
Claims use since 1895.

Ser. No. 106,281. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) THE THOS. H. INCE CORPORATION, Los Angeles, Cal. Filed Sept. 17, 1917.



Consists of the name "Thos. H. Ince" in the facsimile handwriting of Thomas H. Ince, arranged above a bar.
Particular description of goods.—Motion-Picture Films.
Claims use since Aug. 1, 1917.

Ser. No. 106,305. (CLASS 39. CLOTHING.) WESTERN CANVAS GLOVE MFG. CO., Oakland, Cal. Filed Sept. 18, 1917.

PROTEX

Particular description of goods.—Gloves.
Claims use since Apr. 15, 1917.

Ser. No. 106,372. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) RENKEN & YATES SMITH, INC., New York, N. Y. Filed Sept. 21, 1917.

DURBAR

Particular description of goods.—Dry Gin.
Claims use since Sept. 1, 1917.

Ser. No. 106,417. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOSEPH CAVE, Philadelphia, Pa. Filed Sept. 25, 1917.

HusH

Particular description of goods.—A Preparation for the Relief of the Odor of Perspiration.
Claims use since Feb. 18, 1908.

Ser. No. 106,473. (CLASS 46. FOODS AND INGREDIENTS OF FOOD.) CALIFORNIA ASSOCIATED RAISIN CO., Fresno, Cal. Filed Sept. 28, 1917.

SUN-MAID

Particular description of goods.—Dried Fruits.
Claims use since Apr. 19, 1915.

Ser. No. 106,501. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EMERSON DAVIS, Concord, N. H. Filed Sept. 29, 1917.

SWEATMEAL

Particular description of goods.—A Breakfast Wheat Food.
Claims use since Sept. 15, 1917.

Ser. No. 106,519. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DOUGLAS SPRAGUE, Mount Vernon, N. Y. Filed Sept. 29, 1917.

TALVERCIDE

Particular description of goods.—Insecticides.
Claims use since June 1, 1917.

Ser. No. 106,698. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) HENRY HEMMERDINGER, Brooklyn, N. Y. Filed Oct. 10, 1917.



Particular description of goods.—Cotton Waste, Used for Cleaning Machinery.
Claims use since Mar. 1, 1915.

Ser. No. 106,757. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ONE WHEEL TRUCK COMPANY, St. Louis, Mo. Filed Oct. 13, 1917.

Autohorse

Consisting of the word "Autohorse."
Particular description of goods.—Self-Motive Commercial or Industrial Tractors Used for Drawing Vehicles to Which Said Tractors May be Coupled.
Claims use since Sept. 1, 1917.

Ser. No. 106,823. (CLASS 39. CLOTHING.) THE UNIQUE GLOVE CO., INC., Gloversville, N. Y. Filed Oct. 17, 1917.

SAMMIE SHADE

Particular description of goods.—Ladies', Men's, and Children's Gloves, Both Leather and Fabric.
Claims use since Sept. 1, 1917.

Ser. No. 106,858. (CLASS 28. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ENDERES INCORPORATED, Albert Lea, Minn. Filed Oct. 27, 1917.

ENDERES

Particular description of goods.—Nippers, Staple-Pullers, Pliers, Cold-Chisels, Blacksmiths' Punches, Farmers' Punches, Center-Punches, Flat-Face Punches, Pin-Punches, Prick-Punches, Butcher-Knives, Kitchen-Knives, Paring-Knives, Skinning-Knives, Boning-Knives, Steak-Knives.
Claims use since May 9, 1917.

Ser. No. 107,122. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GEORGE P. PAPADOPULOS, New York, N. Y. Filed Nov. 2, 1917.

MAJESTIC

Comprising the word "Majestic."
Particular description of goods.—Olive-Oil.
Claims use since 1904.

Ser. No. 107,138. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) NATIONAL CASKET COMPANY, New York, N. Y. Filed Nov. 3, 1917.



Particular description of goods.—Casket Hardware—Namely, Handles, Plates, Escutcheons, and Screws.
Claims use since June 23, 1917.

Ser. No. 107,216. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE ESCEJAY COMPANY, Cincinnati, Ohio. Filed Nov. 7, 1917.

CARBASSEMO

Particular description of goods.—A Cleansing and Bleaching Crystal.
Claims use since Oct. 20, 1917.

Ser. No. 107,221. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HERMAN CHARLES ROECK, Horsham, Pa. Filed Nov. 7, 1917.

SAVAEGG

Particular description of goods.—An Egg Substitute.
Claims use since Aug. 27, 1917.

Ser. No. 107,303. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DEMONETS', INC., Washington, D. C. Filed Nov. 12, 1917.

"Algaras"

Particular description of goods.—Caramels and Candy.
Claims use since Oct. 21, 1917.

Ser. No. 107,305. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) E. GREENFIELD'S SONS, Brooklyn and New York, N. Y. Filed Nov. 12, 1917.

PATRIOTIC

Particular description of goods.—Chocolate Candies.
Claims use since November, 1912.

Ser. No. 107,321. (CLASS 33. GLASSWARE.) THE LANCASTER LENS COMPANY, Lancaster, Ohio. Filed Nov. 12, 1917.

STAR

Particular description of goods.—Diffusing-Lenses for Automobile Lamps.
Claims use since Oct. 25, 1915.

Ser. No. 107,329. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) H. NELSON MASTERS, Hillsdale, Mich. Filed Nov. 12, 1917.

SANOR

Particular description of goods.—A Composition for Cleaning Oriental Rugs, Carpets, Upholstery, and Hardwood Floors.
Claims use since September, 1915.

Ser. No. 107,339. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) T. A. SHAW AND CO., New York, N. Y., and Chicago, Ill. Filed Nov. 12, 1917.

REPUBLIC

Comprising the word "Republic."
Particular description of goods.—Cotton Piece Goods.
Claims use since Oct. 30, 1917.

Ser. No. 107,345. (CLASS 11. INKS AND INKING MATERIALS.) AULT PRINTING INK COMPANY, Brooklyn, N. Y., and Newark, N. J. Filed Nov. 13, 1917.



Particular description of goods.—Printing-Inks and Dry Colors.
Claims use since Oct. 1, 1912.

Ser. No. 107,378. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HENRY WILLARD ALLEN, Ridgefield, Conn. Filed Nov. 15, 1917.



The lines shown in the drawing merely representing shading.
Particular description of goods.—Tooth-Paste, Liquid Tooth-Wash, and Dental Soap.
Claims use since Sept. 22, 1917.

Ser. No. 107,387. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE CRAVENETTE CO., U. S. A., Hoboken, N. J. Filed Nov. 15, 1917.

"Cravenette"

Particular description of goods.—Woolen, Worsted, Hair, Silk, and Cotton Piece Goods and Piece Goods Containing a Mixture of the Same.
Claims use since May 25, 1886.

Ser. No. 107,389. (CLASS 38. PRINTS AND PUBLICATIONS.) CORN EXCHANGE NATIONAL BANK, Philadelphia, Pa. Filed Nov. 15, 1917.

The CORN EXCHANGE

Consisting of the words "The Corn Exchange."
Particular description of goods.—A Printed Periodical Usually Published Monthly.
Claims use since Oct. 29, 1917.

Ser. No. 107,402. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) UNITED OPTICAL COMPANY, Webster, Mass. Filed Nov. 15, 1917.

Zylrim

Particular description of goods.—Eyeglass-Frames.
Claims use since Sept. 1, 1917.

Ser. No. 107,422. (CLASS 37. PAPER AND STATIONERY.) DE LUXE MFG. CO., Chicago, Ill. Filed Nov. 17, 1917.

TAB-FIL

Particular description of goods.—Fountain-Pens.
Claims use since March, 1914.

Ser. No. 107,455. (CLASS 39. CLOTHING.) THE SCHULMAN COMPANY, INC., New York, N. Y. Filed Nov. 19, 1917.



Particular description of goods.—Overcoats, Blouses, Coats, Trousers, Leggings, Mackinaws, Rain-Coats, Breeches, Caps, Outer Shirts, Hats, and Gloves.
Claims use since September, 1917.

Ser. No. 107,488. (CLASS 39. CLOTHING.) JENNIE L. ALLEN, Long Beach, Cal. Filed Nov. 17, 1917.

MOTHERTUCH

Particular description of goods.—Children's Dresses, Rompers, and Suits and Undergarments.
Claims use since May 15, 1917.

Ser. No. 107,506. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) LANHAM COTTON CULTIVATOR COMPANY, Rome, Ga. Filed Nov. 21, 1917.

FOUR IN ONE

Particular description of goods.—Cotton-Choppers and Cotton-Cultivators.
Claims use since about June 1, 1917.

Ser. No. 107,507. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) RUBFF BROS., New York, N. Y. Filed Nov. 21, 1917.

"LA ESFERA"

Particular description of goods.—Collar-Buttons, Cuff-Links, Scarf-Pins, Fobs, Vest-Chains, Tie-Holders, Finger-Rings, Brooches, Ear-Rings, Neck-Chains, Guard-Chains.
Claims use since Nov. 26, 1916.

Ser. No. 107,547. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DUFUR ORCHARD CO-OWNERS CO., The Dalles, Oreg. Filed Nov. 23, 1917.

DEMOCRACY

Particular description of goods.—Fresh Apples.
Claims use since June 21, 1917.

Ser. No. 107,552. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOSEPH HAIGH, Kansas City, Kans. Filed Nov. 23, 1917.



Particular description of goods.—Medicinal Preparations for Treatment of the Scalp and Hair.
Claims use since Oct. 11, 1917.

Ser. No. 107,582. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) AMERICAN OPTICAL COMPANY, Southbridge, Mass. Filed Nov. 24, 1917.

LIBERTY

Particular description of goods.—Spectacle, Eyeglass, and other Ophthalmic Mountings, Lenses and Component Parts of such Mountings, Trial-Frames, Face-Measures, Goggles or other Eye-Protectors, Lens-Measures, and Lens-Testing Instruments.
Claims use since Nov. 10, 1917.

Ser. No. 107,608. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HAROLD E. BRYAN, Angola, Ind. Filed Nov. 26, 1917.



Particular description of goods.—Stock Condition-Powder and Worm-Destroyer.
Claims use since Sept. 13, 1917.

Ser. No. 107,635. (CLASS 15. OILS AND GREASES.) ORIENTAL OIL COMPANY, Dallas, Tex. Filed Nov. 27, 1917.

HURRY BACK

Particular description of goods.—Gasolene.
Claims use since Mar. 1, 1911.

Ser. No. 107,655. (CLASS 39. CLOTHING.) RICE-STIX DRY GOODS COMPANY, St. Louis, Mo. Filed Nov. 28, 1917. Under ten-year proviso.

BIGENUF

Particular description of goods.—Men's Outer Shirts.
Claims use since about Jan. 1, 1895, or prior thereto.

Ser. No. 107,705. (CLASS 42. THREAD AND YARN.) DEXTER YARN COMPANY, Pawtucket, R. I. Filed Dec. 1, 1917.

DEFENDER

Said trade-mark consists of the word "Defender."
Particular description of goods.—Yarns and Threads Made of Cottom, Silk, Jute, Flax, Linen, Wool, and Ramie.
Claims use since Nov. 1, 1917.

Ser. No. 107,737. (CLASS 38. PRINTS AND PUBLICATIONS.) HORACE E. WARE, Boston, Mass. Filed Dec. 3, 1917.



Particular description of goods.—An Almanac.
Claims use since 1856.

Ser. No. 107,788. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE J. S. YOUNG COMPANY, Baltimore, Md. Filed Dec. 3, 1917.

LOGNITE

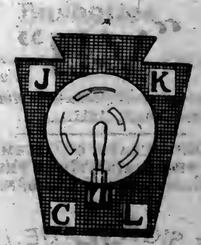
Particular description of goods.—Logwood Crystals for Dyeing Purposes.
Claims use since Nov. 1, 1917.

Ser. No. 107,796. (CLASS 38. PRINTS AND PUBLICATIONS.) ARTHUR M. TEAGUE, Sherman, Tex. Filed Dec. 6, 1917.



Consisting of a picture of the applicant.
Particular description of goods.—The A. M. Teague Numbered Alphabetical Classified Telephone-Directory and also My Wall Telephone-Directory, Business-Guide, and Calendar.
Claims use since July 1, 1915.

Ser. No. 107,825. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) WEEHAWKEN TUNGSTEN LAMP COMPANY, Weehawken township, Hudson county, N. J. Filed Dec. 7, 1917.



Particular description of goods.—Incandescent Electric Lamps and Miniature Electric Bulbs of the Carbon, Tungsten, and Nitrogen Varieties.
Claims use since Jan. 1, 1913.

Ser. No. 107,832. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) FLOOD & CONKLIN CO., Newark, N. J. Filed Dec. 8, 1917.

S.O.S.

Particular description of goods.—A Paint-Surfacer.
Claims use since Oct. 1, 1917.

Ser. No. 107,833. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) FLEISCHAKER & BAUM, New York, N. Y. Filed Dec. 8, 1917.

Effanbee

Particular description of goods.—Dolls and Doll-Dresses.
Claims use since the 1st day of November, 1914.

Ser. No. 107,854. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) S. R. SIKES COMPANY, Minneapolis, Minn. Filed Dec. 8, 1917.

HYDRO

Particular description of goods.—Leather Belting.
Claims use since on or about Nov. 1, 1917.

Ser. No. 107,874. (CLASS 39. CLOTHING.) KOPS BROS., New York, N. Y. Filed Dec. 10, 1917.

MIRACLE

Particular description of goods.—Corsets, Brassières, and Ladies' Underwaists.
Claims use since Nov. 15, 1917.

Ser. No. 107,902. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) VICTOR BALATA & TEXTILE BELTING COMPANY, Easton, Pa. Filed Dec. 11, 1917.

"V-B"

Particular description of goods.—Balata Belting.
Claims use since March, 1917.

Ser. No. 107,920. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CORONA CHEMICAL COMPANY, Wilson, N. C. Filed Nov. 24, 1917.

"THE SIGN OF THE LION"



MANTONE

Particular description of goods.—A Chocolate-Coated Brown Medicinal Tablet Designed as a General Reconstructive Tonic for Nervous and Debilitated People.
Claims use since June 1, 1917.

Ser. No. 107,927. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) BOWDEN WIRE LTD, Willesden Junction, London, England. Filed Dec. 13, 1917.

BOWDENITE

Consisting of the word "Bowdenite."
Particular description of goods.—Flexible Composition Coverings for Spiral Wire and Like Members for Power Transmission and other Purposes.
Claims use since the year 1902.

Ser. No. 107,928. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) BUTCHER POLISH COMPANY, Boston, Mass. Filed Dec. 13, 1917. Under ten-year proviso.

Butcher's Boston Polish or Hard Wax Finish
For Floors, Interior Wood Work and Furniture.



Particular description of goods.—A Finish and Polish for Floors and other Woodwork.
Claims use since May 24, 1883.

Ser. No. 107,929. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) BUTCHER POLISH COMPANY, Boston, Mass. Filed Dec. 13, 1917. Under ten-year proviso.

BUTCHER'S
No. 3 Reviver.

Particular description of goods.—A Finish and Polish for Floors and other Woodwork.
Claims use since May 24, 1883.

Ser. No. 107,930. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) BUTCHER POLISH COMPANY, Boston, Mass. Filed Dec. 13, 1917. Under ten-year proviso.

BUTCHER'S
Liquid Polish.

Particular description of goods.—A Finish and Polish for Floors and other Woodwork.
Claims use since May 24, 1883.

Ser. No. 107,948. (CLASS 39. CLOTHING.) PATHFINDER RUBBER CO., Chattanooga, Tenn. Filed Dec. 13, 1917.

PATH
FINDER

Particular description of goods.—Rubber Heels.
Claims use since Nov. 15, 1917.

Ser. No. 107,981. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE G. W. FORT COMPANY, Wilmington, Del., and Fort Washington and Philadelphia, Pa. Filed Dec. 15, 1917.

Minnets

The trade-mark consists of the word "Minnets."
Particular description of goods.—Medical and Compressed Tablets Possessing Digestive, Stomachic, Antacid, Stimulative, Neutralizing, and Absorptive Properties.
Claims use since on or about Oct. 15, 1917.

Ser. No. 108,002. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) COTTO-WAXO CO., St. Louis, Mo. Filed Dec. 17, 1917.

COTTO-WAXO

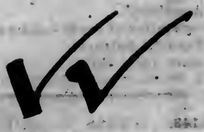
Particular description of goods.—Sweeping and Cleaning Compounds.
Claims use since June 1, 1905.

Ser. No. 108,026. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) TRIPLE ACTION SPRING COMPANY, New York, N. Y. Filed Dec. 17, 1917.



Particular description of goods.—Semi-Elliptic, Half-Elliptic, Full-Elliptic, and Cantaliver Springs, Spring-Clips, Spring-Bolts, Bushings, and Rebound-Clips for Vehicles.
Claims use since Dec. 8, 1917.

Ser. No. 108,028. (CLASS 37. PAPER AND STATIONERY.) WAHL ADDING MACHINE COMPANY, Chicago, Ill. Filed Dec. 17, 1917.



Particular description of goods.—Fountain-Pen Points for Fountain-Pens, Magazine Lead-Pencils, and the Holders and Leads Constituting Such Pencils.
Claims use since the 4th day of December, 1917.

Ser. No. No., 108,039. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) INDEPENDENT DRUG COMPANY, Chicago, Ill. Filed Dec. 18, 1917.

Dujardin

Particular description of goods.—Perfumes, Toilet Water, Creams for Skin, Face-Powder, Toilet Powder, Talcum Powder, Tooth-Powder, Tooth-Paste, Bath-Salts, Rouge, Hair-Curling Fluids, Hair-Tonics, Eyebrow-Pencils, and Brilliantine.
Claims use since 1909.

Ser. No. 108,044. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) U-VO-GAST CHEMICAL COMPANY, Ansonia, Conn. Filed Dec. 18, 1917.

U-V-G

Particular description of goods.—Stomach-Drops.
Claims use since Dec. 6, 1917.

Ser. No. 108,045. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) WALKER BROTHERS & HAVILAND, Philadelphia, Pa. Filed Dec. 18, 1917.

Bushettes

Particular description of goods.—Closures for Ends of Electrical Conduits.
Claims use since Sept. 9, 1917.

Ser. No. 108,055. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) CONSOLIDATED SAFETY PIN CO., Bloomfield, N. J. Filed Dec. 19, 1917.

HELMET

Particular description of goods.—Safety-Pins
Claims use since on or about the 1st day of November, 1897.

Ser. No. 108,073. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) HIATT & WOOD, New York, N. Y. Filed Dec. 20, 1917.

CUPRES

Particular description of goods.—Trousers-Stretchers.
Claims use since Dec. 7, 1917.

Ser. No. 108,075. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) HERBERT B. LEDERER, New York, N. Y. Filed Dec. 20, 1917.

Society

Particular description of goods.—Hair-Nets.
Claims use since the 1st day of August, 1917.

Ser. No. 108,076. (CLASS 39. CLOTHING.) H. B. LEDERER, New York, N. Y. Filed Dec. 20, 1917.



The pictures shown in the drawing are fanciful.
Particular description of goods.—Scarfs for Headwear and Neckwear for Automobiling.
Claims use since the 1st day of August, 1917.

Ser. No. 108,099. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) IROQUOIS BREWING COMPANY, Buffalo, N. Y. Filed Dec. 22, 1917.



Particular description of goods.—Cereal Beverages Containing Less Than One-Half of One Per Cent. of Alcohol.
Claims use since July 18, 1917.

Ser. No. 108,100. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) IROQUOIS BREWING COMPANY, Buffalo, N. Y. Filed Dec. 22, 1917.

IRO

Particular description of goods.—Cereal Beverages Containing Less Than One-Half of One Per Cent. of Alcohol.
Claims use since July 18, 1917.

Ser. No. 108,105. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) NEUSS, HESSLEIN & Co., New York, N. Y. Filed Dec. 22, 1917.



Particular description of goods.—Woven Cotton Piece Goods.
Claims use since April, 1917.

Ser. No. 108,109. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) TEXTILE UTILITIES CORPORATION, Wilmington, Del., and Philadelphia, Pa. Filed Dec. 22, 1917.

T. U. C.

The letters "T. U. C." appearing, respectively, in red, white, and blue.
Particular description of goods.—Piece Knit Goods.
Claims use since Oct. 16, 1917.

Ser. No. 108,117. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) BENTLEY & TWOHEY SILK Co., New York, N. Y. Filed Dec. 24, 1917.

"Over The Top"

Particular description of goods.—Silk and Silk and Wool Goods in the Piece.
Claims use since Nov. 10, 1917.

Ser. No. 108,133. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SCHMOLL, FILS & Co., New York, N. Y. Filed Dec. 24, 1917.

AMERITAN

The word "Ameritan."
Particular description of goods.—Raw and Manufactured Tannins and Tanning Extracts.
Claims use since July, 1917.

Ser. No. 108,143. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LEON E. FAEHNER, New York, N. Y. Filed Dec. 26, 1917.



Particular description of goods.—Toilet Preparations—viz., Perfumes, Cosmetics, and Hair-Restorers.
Claims use since May 6, 1896.

Ser. No. 108,160. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE MOREY MERCANTILE COMPANY, Denver, Colo. Filed Dec. 26, 1917.

MORADO

Particular description of goods.—Canned Fruits—Namely, Apricots, White Cherries, Grapes, Plums, Raspberries, Blackberries, Black Cherries, Pears, Loganberries, Strawberries—and Canned Beans; and Macaroni, Spaghetti, Vermicelli, Cheese, Dried Peaches, Evaporated Milk, Rolled Oats, Salt, and Vinegar.
Claims use since about Dec. 1, 1915.

Ser. No. 108,161. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) THE RECEIPTING REGISTER Co., Cincinnati, Ohio. Filed Dec. 26, 1917.

CERTIGRAPH

Particular description of goods.—Receipting-Registers.
Claims use since May, 1917.

Ser. No. 108,165. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) TAKAMINE LABORATORY, INC., New York, N. Y. Filed Dec. 26, 1917.

ARSAMINOL

Particular description of goods.—Salts, Bases, or Compounds of Aminoxyarsenobenzene or other Derivations of Oxyarlarsinic Acids.
Claims use since 1915.

Ser. No. 108,166. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) TAKAMINE LABORATORY, INC., New York, N. Y. Filed Dec. 26, 1917.

NEOARSAMINOL

Particular description of goods.—Salts, Bases, or Compounds of Aminoxyarsenobenzene or other Derivations of Oxyarlarsinic Acids.
Claims use since 1916.

Ser. No. 108,167. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WINKELMAN BAKING COMPANY, Memphis, Tenn. Filed Dec. 26, 1917.

SAMMIE

Consists of the word "Sammie."
Particular description of goods.—Bread.
Claims use since about the 6th day of December, 1917.

Ser. No. 108,176. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) GLOBE MERCHANDISE CO., INC., New York, N. Y. Filed Dec. 27, 1917.



Particular description of goods.—Crochet-Weave Quilts, Satin-Weave Quilts, Dimity Quilts, and Krinkle-Dimity Quilts.
Claims use since September, 1915.

Ser. No. 108,178. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) A. G. HYDE & SONS, New York, N. Y. Filed Dec. 27, 1917.

DURACYGNE

Particular description of goods.—Cotton Piece Goods.
Claims use since Nov. 15, 1917.

Ser. No. 108,179. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) IDEAL NOVELTY AND TOY CO., Brooklyn, N. Y. Filed Dec. 27, 1917.

LIBERTY BOY

Particular description of goods.—Dolls.
Claims use since Dec. 1, 1917.

Ser. No. 108,180. (CLASS 7. CORDAGE.) JONES, MUNDY & Co., San Francisco, Cal. Filed Dec. 27, 1917.



Particular description of goods.—Flax Sail-Twine.
Claims use since Dec. 1, 1917.

Ser. No. 108,186. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) NULITE POLISH COMPANY, INC., Brooklyn, N. Y. Filed Dec. 27, 1917.

NULITE

Comprising the word "Nulite."
Particular description of goods.—Buffing and Polishing Compositions.
Claims use since Oct. 18, 1917.

Ser. No. 108,193. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BOOTH CHEMICAL COMPANY, Townley, N. J. Filed Dec. 28, 1917.

Boothal

Particular description of goods.—Sodium and Aluminum Salts Suitable for Use in Clarifying Water, in the Manufacture of Paper, and for other Purposes.
Claims use since Oct. 25, 1917.

Ser. No. 108,201. (CLASS 27. HOROLOGICAL INSTRUMENTS.) BYRON L. STRASBURGER, New York, N. Y. Filed Dec. 28, 1917.

IMPERIAL

Comprising the word "Imperial."
Particular description of goods.—Watch-Movements.
Claims use since July 26, 1904.

Ser. No. 108,227. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EDGAR-MORGAN COMPANY, Memphis, Tenn. Filed Dec. 31, 1917.

OLD BECK

Particular description of goods.—Stock Feed.
Claims use since July, 1912.

Ser. No. 108,237. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) UNION DRAWN STEEL COMPANY, Beaver Falls, Pa. Filed Dec. 31, 1917.

UNION

Particular description of goods.—Bright-Finished Steel.
Claims use since 1889.

Ser. No. 108,239. (CLASS 15. OILS AND GREASES.) WEST INDIA OIL COMPANY, Bayonne, N. J. Filed Dec. 31, 1917.

BTU

Particular description of goods.—Motor Fuel-Oil.
Claims use since Nov. 14, 1917.

Ser. No. 108,254. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) LEVER BROTHERS COMPANY, Portland, Me., and Cambridge, Mass. Filed Jan. 2, 1918. Under ten-year proviso.

KLEENALINE

Particular description of goods.—Soap and Scouring Compound.
Claims use since Aug. 1, 1887.

Ser. No. 108,257. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) RAINIER PRODUCTS COMPANY, Seattle, Wash. Filed Jan. 2, 1918.



Particular description of goods.—Non-Intoxicating Cereal Beverages.
Claims use since Mar. 26, 1917.

Ser. No. 108,302. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) LANCASTER MILLS, Clinton and Boston, Mass. Filed Jan. 4, 1918. Under ten-year proviso.

NORMANDIE

Comprising the word "Normandie."
Particular description of goods.—Cotton Piece Goods.
Claims use since Aug. 1, 1883.

Ser. No. 108,305. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) MURPHY VARNISH COMPANY, Newark, N. J. Filed Jan. 4, 1918.

Overnite

Particular description of goods.—Varnishes, Enamels, and Varnish-Stains.
Claims use since Dec. 26, 1917.

Ser. No. 108,314. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MILAN FRANCIS PRATT, Rochester, N. Y. Filed Jan. 4, 1918.

KEMOLAX

Particular description of goods.—Laxative Tablets.
Claims use since Dec. 3, 1917.

Ser. No. 108,323. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ALFRED J. HANHURST, Albany, N. Y. Filed Jan. 5, 1918.

TESTIT

Particular description of goods.—A Remedy for Constipation.
Claims use since June 6, 1916.

Ser. No. 108,334. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE STANDARD ULTRAMARINE CO., Huntington, W. Va. Filed Jan. 5, 1918.

LIBERTY

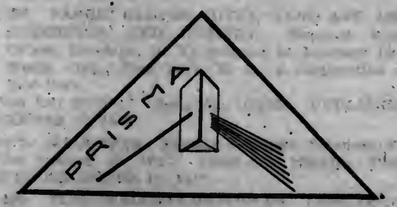
Particular description of goods.—Laundry Blues.
Claims use since Dec. 28, 1917.

Ser. No. 108,342. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) MORRIS & COMPANY, INCORPORATED, Baltimore, Md. Filed Jan. 7, 1918.



Particular description of goods.—Cotton, Linen, Silk, and Woolen Piece Goods and Admixtures of Same.
Claims use since June 14, 1915.

Ser. No. 108,354. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DOHERR, GRIMM & COMPANY, INC., New York, N. Y. Filed Jan. 8, 1918.



Particular description of goods.—Aniline Dyes.
Claims use since November, 1917.

Ser. No. 108,376. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) JOHN TIMOTHY D'ARCY HUTTON, Liverpool, England. Filed Jan. 9, 1918.

OZARA

Particular description of goods.—Tool-Holders and Parts Thereof, All Being Parts of Machinery.
Claims use since the 28th day of June, 1917.

Ser. No. 108,401. (CLASS 2. RECEPTACLES.) GENERAL CAN COMPANY, Chicago, Ill. Filed Jan. 10, 1918.



Particular description of goods.—Can Ends.
Claims use since Aug. 1, 1917.

Ser. No. 108,447. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CAHILL AND MCCRAY, Richmond, Va. Filed Jan. 14, 1918.

CURESAN

Particular description of goods.—A Liquid Preparation for the Treatment of Pyorrhea and for Use as a General Antiseptic.
Claims use since Dec. 27, 1917.

Ser. No. 108,471. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE BRASSARD COMPANY, INCORPORATED, New York, N. Y. Filed Jan. 15, 1918.



Particular description of goods.—Dyestuffs.
Claims use since Dec. 12, 1917.

Ser. No. 108,484. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) T. P. WALLS TOOL & SUPPLY CO. INC., New York, N. Y. Filed Jan. 15, 1918.

MARATHON

Comprising the word "Marathon."

Particular description of goods.—Endless Abrasive Grinding, Polishing, and Finishing Belts.

Claims use since Dec. 26, 1917.

Ser. No. 108,486. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MAX BLOCK, Buffalo, N. Y. Filed Jan. 16, 1918.

CHAPONOL

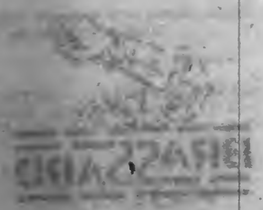
Particular description of goods.—Toilet Lotion for Relieving Chapped and Rough Skin.

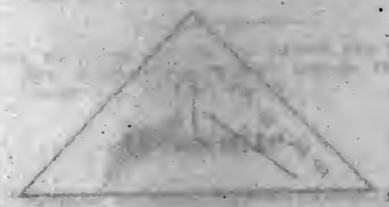
Claims use since Jan. 4, 1918.

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TRADE-MARK REGISTRATIONS GRANTED

FEBRUARY 12, 1918.

120,467. LININGS FOR TRANSMISSIONS AND BRAKES. ADVANCE AUTOMOBILE ACCESSORIES CORP., Chicago, Ill.
Filed March 29, 1917. Serial No. 102,549. PUBLISHED NOVEMBER 27, 1917.

120,468. MAGAZINE PUBLISHED MONTHLY. AIR-TRAVEL CORPORATION, New York, N. Y.
Filed August 23, 1917. Serial No. 105,829. PUBLISHED NOVEMBER 27, 1917.

120,469. TEXTILE BELTING AND TEXTILE CONVEYING-BANDS. AKTIESELSKABET ROULUNDS FABRIKER, Odense, Denmark.
Filed April 10, 1917. Serial No. 102,845. PUBLISHED NOVEMBER 27, 1917.

120,470. HORSESHOES AND HORSESHOE-CALKS. THE AMERICAN STEEL AND WIRE COMPANY OF NEW JERSEY, Hoboken, N. J.
Filed March 9, 1917. Serial No. 101,998. PUBLISHED DECEMBER 4, 1917.

120,471. WOOD, COAL, GAS, AND VAPOR STOVES AND HEATERS. AMERICAN STOVE COMPANY, St. Louis, Mo.
Filed July 17, 1917. Serial No. 105,077. PUBLISHED NOVEMBER 27, 1917.

120,472. GROUND-CORK SUBSTITUTE WHICH IS EXTRACTED FROM A TROPICAL FIBER. ANTONIO FERRÉ & CO. LIMITED, Mayagues, Porto Rico.
Filed July 3, 1917. Serial No. 104,810. PUBLISHED NOVEMBER 27, 1917.

120,473. COTTON PIECE GOODS. ARBUTHNOT-STEPHENSON CO., Pittsburgh, Pa.
Filed October 31, 1917. Serial No. 107,040. PUBLISHED DECEMBER 11, 1917.

120,474. PLASTER COMPOSITION. THE BEDFORD SILICA SAND COMPANY, Cleveland, Ohio.
Filed August 15, 1917. Serial No. 105,648. PUBLISHED DECEMBER 4, 1917.

120,475. ROUND TREATED WOVEN-TEXTILE-FABRIC BELTING. THE BELTO MANUFACTURING COMPANY, Cincinnati, Ohio.
Filed August 10, 1917. Serial No. 105,568. PUBLISHED NOVEMBER 27, 1917.

120,476. WATERPROOF COTTON-DUCK COVERS, TARPAULINS, TENTS, AND AWNINGS. FREDERICK O. BEBO, Spokane, Wash.
Filed June 18, 1917. Serial No. 104,477. PUBLISHED NOVEMBER 6, 1917.

120,477. CERTAIN NAMED PRINTS AND PUBLICATIONS. BERNHARD ULMANN CO., INC., New York, N. Y.
Filed August 30, 1917. Serial No. 105,957. PUBLISHED NOVEMBER 27, 1917.

120,478. FABRIC GLOVES, MITTS, HAND AND ARM COVERINGS, AND HOSIERY. WILLIAM WALL CHACE, Brooklyn, N. Y., assignor to Jennings Lace Works Corp., New York, N. Y., a Corporation of New York.
Filed July 28, 1917. Serial No. 105,334. PUBLISHED DECEMBER 11, 1917.

120,479. HAIR-NETS. NATHAN B. COHEN, Scranton, Pa.
Filed October 20, 1917. Serial No. 106,875. PUBLISHED DECEMBER 11, 1917.

120,480. TIRE-SEALING COMPOUNDS. CREW LEVICK COMPANY, Philadelphia, Pa.
Filed September 12, 1917. Serial No. 106,196. PUBLISHED DECEMBER 4, 1917.

120,481. DRESSES AND SHIRT, DRESS, AND UNDER WAISTS. EMIL DEUTSCH, New York, N. Y.
Filed September 7, 1917. Serial No. 106,111. PUBLISHED DECEMBER 11, 1917.

120,482. GRASS AND FIELD SEEDS. H. W. DOUGHTON, New York, N. Y.
Filed July 19, 1917. Serial No. 105,110. PUBLISHED NOVEMBER 27, 1917.

120,483. TUBE-REPAIR KITS. FRANCOIS DUCASSE, New York, N. Y.
Filed September 25, 1917. Serial No. 106,419. PUBLISHED DECEMBER 4, 1917.

120,484. COTTON GOODS IN THE PIECE. EVERETT, HEANEY & COMPANY, INC., New York, N. Y.
Filed October 18, 1917. Serial No. 106,833. PUBLISHED DECEMBER 11, 1917.

120,485. SHOE-ELASTIC. EVERLASTIK INCORPORATED, Boston, Mass.
Filed September 20, 1917. Serial No. 106,342. PUBLISHED DECEMBER 11, 1917.

120,486. FINISHED KANGAROO, PATENT-LEATHER, INDIA-GOAT, AND SHEEP SKINS. FRANK E. FLEET CO., Boston, Mass.
Filed December 2, 1916. Serial No. 99,677. PUBLISHED DECEMBER 4, 1917.

120,487. CHILDREN'S TOY VEHICLES. JOHN P. FINDLEY, Knoxville, Pa.
Filed September 14, 1917. Serial No. 106,246. PUBLISHED DECEMBER 4, 1917.

120,488. CERTAIN NAMED KNITTED, NETTED, AND TEXTILE FABRICS. JOSEPH FINGOLD, Chicago, Ill.
Filed March 6, 1917. Serial No. 101,906. PUBLISHED DECEMBER 11, 1917.

120,489. STEAM-HEATING APPARATUS, RADIATOR-VALVES, AND TRAPS FOR STEAM-HEATING APPARATUS. THE FISHER GOVERNOR CO., Marshalltown, Iowa.
Filed June 26, 1917. Serial No. 104,695. PUBLISHED NOVEMBER 27, 1917.

120,490. BIMONTHLY PUBLICATION. THE GLOBE PRINTING COMPANY, St. Louis, Mo.
Filed April 16, 1917. Serial No. 103,022 PUBLISHED NOVEMBER 27, 1917.

120,491. RADIATOR AND ENGINE COVERS. THE J. P. GORDON COMPANY, Columbus, Ohio.
Filed August 14, 1917. Serial No. 105,640. PUBLISHED NOVEMBER 27, 1917.

120,492. LADIES' HAIR-NETS. HENRY GROSSMANN, New York, N. Y., assignor to Louis E. Weinfeld, New York, N. Y.
Filed October 26, 1917. Serial No. 106,969. PUBLISHED DECEMBER 11, 1917.

120,493. IMITATION FUR. THE HIND & HARRISON PLUSH CO., New York and Clark Mills, N. Y.
Filed October 27, 1917. Serial No. 106,990. PUBLISHED DECEMBER 11, 1917.

120,494. IMITATION FUR. THE HIND & HARRISON PLUSH CO., New York and Clark Mills, N. Y.
Filed October 27, 1917. Serial No. 106,991. PUBLISHED DECEMBER 11, 1917.

120,495. REFRIGERATORS AND REFRIGERATION SYSTEMS. JOSEPH A. HOLPUCH COMPANY, Chicago, Ill.
Filed September 20, 1917. Serial No. 106,340. PUBLISHED DECEMBER 4, 1917.

120,496. WIRES MADE OF PRECIOUS AND PLATED METALS, ZINC, PHOSPHOR-BRONZE, BRASS, AND NICKEL-SILVER. W. S. HOUGH, JR. Co., Providence, R. I.
Filed June 21, 1917. Serial No. 104,579. PUBLISHED NOVEMBER 13, 1917.

120,497. BOOTS AND SHOES MADE OF LEATHER AND TEXTILES. INTERNATIONAL SHOE Co., St. Louis, Mo.
Filed October 17, 1917. Serial No. 106,811. PUBLISHED DECEMBER 11, 1917.

120,498. BIMONTHLY AND ANNUAL PUBLICATION. INTERNATIONAL TRADE DEVELOPER, Chicago, Ill.
Filed September 12, 1917. Serial No. 106,199. PUBLISHED NOVEMBER 27, 1917.

120,499. CERTAIN NAMED TOOLS AND PARTS THEREOF. THE JENNINGS & GRIFFIN MANUFACTURING Co., Tracy, Conn., and New York, N. Y.
Filed August 7, 1917. Serial No. 105,520. PUBLISHED NOVEMBER 20, 1917.

120,500. FIBER OR PULP BOARD COMPOSITION CORRUGATED SHIPPING-BOXES. THE KANSAS CITY FIBRE BOX Co., Kansas City, Kans.
Filed August 10, 1917. Serial No. 105,575. PUBLISHED DECEMBER 4, 1917.

120,501. LADIES' KNIT UNDERWEAR—VIZ., UNION-SUITS, KNICKERBOCKERS OR BLOOMERS, VESTS, CHEMISES. JULIUS KAYSER & Co., New York, N. Y.
Filed October 1, 1917. Serial No. 106,538. PUBLISHED DECEMBER 11, 1917.

120,502. HAIR-NETS. GUSTAV KLEMPERER, New York, N. Y.
Filed October 11, 1917. Serial No. 106,718. PUBLISHED DECEMBER 11, 1917.

120,503. CHAMOIS AND SPONGES. LEOUSI CLONNEY & Co., New York, N. Y.
Filed August 27, 1917. Serial No. 105,890. PUBLISHED NOVEMBER 27, 1917.

120,504. ABSORBENT COTTON, ABSORBENT GAUZE, BANDAGES, BANDAGE-ROLLS, AND SURGICAL WADDING. LEWIS MANUFACTURING COMPANY, Walpole, Mass.
Filed September 13, 1917. Serial No. 106,226. PUBLISHED DECEMBER 4, 1917.

120,505. TWINE. THE LINEN THREAD Co., New York, N. Y.
Filed August 11, 1917. Serial No. 105,598. PUBLISHED DECEMBER 4, 1917.

120,506. HANDKERCHIEFS. LONG HANDKERCHIEF Co., INC., New York, N. Y.
Filed November 2, 1917. Serial No. 107,115. PUBLISHED DECEMBER 11, 1917.

120,507. CIRCULATING SYSTEMS, STEAM AND HOT-WATER BOILERS, AND HEATERS. THE LONG-LANDRETH-SCHNEIDER COMPANY, New Brunswick, N. J.
Filed May 25, 1915. Serial No. 86,886. PUBLISHED DECEMBER 4, 1917.

120,508. RUBBER VEHICLE-TIRES. THE MARATHON TIRE & RUBBER Co., Cuyahoga Falls, Ohio.
Filed September 12, 1917. Serial No. 106,213. PUBLISHED NOVEMBER 27, 1917.

120,509. LEATHER BELTING. MEIER-ANDRES BELTING Co., Newark, N. J.
Filed Agust 22, 1917. Serial No. 105,807. PUBLISHED NOVEMBER 27, 1917.

120,510. WINDOW-WASHERS' SAFETY DEVICES. GEORGE F. MINNIS, Chicago, Ill.
Filed August 15, 1917. Serial No. 105,662. PUBLISHED NOVEMBER 13, 1917.

120,511. CERTAIN NAMED FURNITURE. MULTI-KRAFT INCORPORATED, Rochester, N. Y.
Filed August 3, 1917. Serial No. 105,457. PUBLISHED DECEMBER 4, 1917.

120,512. YARNS. THE NEW ENGLAND YARN COMPANY, Attleboro, Mass.
Filed September 19, 1917. Serial No. 106,355. PUBLISHED NOVEMBER 27, 1917.

120,513. DRESS AND NEGLIGÉE SHIRTS. NORTH BROTHERS & COMPANY, Baltimore, Md.
Filed August 14, 1917. Serial No. 105,643. PUBLISHED DECEMBER 11, 1917.

120,514. COTTON PIECE GOODS. PACIFIC MILLS, Lawrence and Boston, Mass.
Filed October 31, 1917. Serial No. 107,062. PUBLISHED DECEMBER 11, 1917.

120,515. INSTRUCTION-PAMPHLETS AND EDUCATIONAL POSTERS. THE A. N. PALMER COMPANY, Cedar Rapids, Iowa, and New York, N. Y.
Filed July 13, 1916. Serial No. 96,549. PUBLISHED NOVEMBER 6, 1917.

120,516. INSTRUCTION-PAMPHLETS AND EDUCATIONAL POSTERS. THE A. N. PALMER COMPANY, Cedar Rapids, Iowa, and New York, N. Y.
Filed July 13, 1916. Serial No. 96,550. PUBLISHED NOVEMBER 6, 1917.

120,517. VENTILATING-FANS, VENTILATING-BLOWERS. JAMES D. PARKER, Kansas City, Kans.
Filed March 10, 1916. Serial No. 98,437. PUBLISHED MAY 9, 1916.

120,518. MONTHLY PUBLICATION. J. C. PENNEY COMPANY, INC., New York, N. Y.
Filed September 14, 1917. Serial No. 106,251. PUBLISHED NOVEMBER 27, 1917.

120,519. BICYCLES AND MOTOR-CYCLES. HARRY PERLMAN, New York, N. Y.
Filed August 15, 1917. Serial No. 105,667. PUBLISHED NOVEMBER 27, 1917.

120,520. WOMEN'S AND CHILDREN'S DRESSES AND OUTER SUITS. S. PHILLIPS & SON, INC., New York, N. Y.
Filed October 16, 1917. Serial No. 106,789. PUBLISHED DECEMBER 11, 1917.

120,521. REPRODUCTIONS OF PHOTOGRAPHS AND PRINTS. PHOTOTONES INCORPORATED, Boston, Mass.
Filed August 31, 1917. Serial No. 105,995. PUBLISHED NOVEMBER 27, 1917.

120,522. CHEMICAL-HEATERS FOR USE FOR THERAPEUTIC PURPOSES. PYRENE MANUFACTURING COMPANY, New York, N. Y.
Filed September 28, 1917. Serial No. 106,488. PUBLISHED DECEMBER 4, 1917.

120,523. GOLF-BALLS. RADIUM GOLF BALL Co. LTD., New York, N. Y.
Filed September 6, 1917. Serial No. 106,103. PUBLISHED DECEMBER 4, 1917.

120,524. COTTON PIECE GOODS. RICH-STIX DRY GOODS COMPANY, St. Louis, Mo.
Filed November 1, 1917. Serial No. 107,096. PUBLISHED DECEMBER 11, 1917.

120,525. AUTOMOBILES AND PARTS AND ACCESSORIES THEREFOR. SOCIETE ANONYME DES ATELIERS PICCARD, PICTET ET CIE., Geneva, Switzerland.
Filed June 5, 1917. Serial No. 104,289. PUBLISHED DECEMBER 4, 1917.

120,526. ICE-COUPONS. SOUTHERN UTILITIES COMPANY, Jacksonville, Fla.
Filed August 13, 1917. Serial No. 105,629. PUBLISHED NOVEMBER 27, 1917.

120,527. CIGARS. TELEGRAFO CIGAR Co., INC., New York, N. Y.
Filed August 22, 1917. Serial No. 105,824. PUBLISHED NOVEMBER 27, 1917.

120,528. HAND SEWING-NEEDLES, CROCHET-HOOKS, BODKINS, AND KNITTING-NEEDLES. THOMAS HARPER & SONS LTD., Redditch and London, England.
Filed May 23, 1917. Serial No. 104,027. PUBLISHED DECEMBER 4, 1917.

120,529. SEED-CORN. W. H. TURNER & SON, Afton, Va.
Filed August 21, 1917. Serial No. 105,782. PUBLISHED DECEMBER 4, 1917.

120,530. MONTHLY PERIODICAL. UNITED DRUG COMPANY, Boston, Mass.
Filed August 29, 1917. Serial No. 105,951. PUBLISHED NOVEMBER 27, 1917.

120,531. FLY-KILLERS OR HAND DEVICES FOR KILLING FLIES AND OTHER INSECTS. UNITED STATES WIRE MAT COMPANY, Decatur, Ill.
Filed September 14, 1917. Serial No. 106,254. PUBLISHED DECEMBER 4, 1917.

120,532. FLY-KILLERS OR HAND DEVICES FOR KILLING FLIES AND OTHER INSECTS. UNITED STATES WIRE MAT COMPANY, Decatur, Ill.
Filed September 14, 1917. Serial No. 106,255. PUBLISHED DECEMBER 4, 1917.

120,533. FLY-KILLERS OR HAND DEVICES FOR KILLING FLIES AND OTHER INSECTS. UNITED STATES WIRE MAT Co., Decatur, Ill.
Filed September 14, 1917. Serial No. 106,256. PUBLISHED DECEMBER 4, 1917.

120,534. SOLE-LEATHER, HIDES, SIDES, BACKS, AND BENDS. VAN DYNE-HUNGERFORD Co., Boston, Mass.
Filed December 15, 1916. Serial No. 99,975. PUBLISHED NOVEMBER 27, 1917.

120,535. TRUNKS. JOHN WANAMAKER, New York, New York, N. Y.
Filed May 19, 1917. Serial No. 103,973. PUBLISHED DECEMBER 4, 1917.

120,536. AIR-TUBES FOR PNEUMATIC TIRES. WEAVER-EBLING AUTOMOBILE Co., New York, N. Y.
Filed April 16, 1917. Serial No. 103,052. PUBLISHED NOVEMBER 27, 1917.

120,537. MONTHLY PUBLICATION. WILMER ATKINSON COMPANY, Philadelphia, Pa.
Filed September 5, 1917. Serial No. 106,083. PUBLISHED NOVEMBER 27, 1917.

120,538. IMITATION-LEATHER BOOKBINDING MATERIAL. WILSON-JONES LOOSE LEAF COMPANY, Chicago, Ill.
Filed August 28, 1917. Serial No. 105,924. PUBLISHED DECEMBER 4, 1917.

TRADE-MARK REGISTRATIONS RENEWED.

15,137. HATS, CAPS, AND HELMETS. LINCOLN, BENNETT & Co., London, England; Melton & Co., Limited, assignee.
Registered January 31, 1888. Renewed January 31, 1918.

15,357. TYPE-WRITING MACHINES. STANDARD TYPEWRITER MANUFACTURING COMPANY, New York, N. Y.; Remington Typewriter Company, assignee.
Registered April 10, 1888. Renewed April 10, 1918.

15,375. TYPE-WRITING MACHINES. STANDARD TYPEWRITER MANUFACTURING COMPANY, New York, N. Y.; Remington Typewriter Company, assignee.
Registered April 17, 1888. Renewed April 17, 1918.

15,376. TYPE-WRITING MACHINES. STANDARD TYPEWRITER MANUFACTURING COMPANY, New York, N. Y.; Remington Typewriter Company, assignee.
Registered April 17, 1888. Renewed April 17, 1918.

LABELS

REGISTERED FEBRUARY 12, 1918.

20,509.—*Title:* "GIANT LYE." (For Lye.) A. MENDLESON'S SONS, Albany and New York, N. Y. Filed December 8, 1917.

20,510.—*Title:* "HUDSON LYE." (For Lye.) A. MENDLESON'S SONS, Albany and New York, N. Y. Filed December 8, 1917.

20,511.—*Title:* "COMMUNITY." (For Head-Rice.) COMMUNITY COFFEE AND SPICE COMPANY, Alliance, Ohio. Filed November 14, 1917.

20,512.—*Title:* "DR. JACKSON'S DIGESTIVE AND LIVER POWDERS." (For Digestive and Liver Powders.) THE JACKSON MEDICINE COMPANY, Zanesville, Ohio. Filed November 9, 1917.

20,513.—*Title:* "RACINE HIGH SPEED." (For Metal-Cutting Machine.) RACINE TOOL & MACHINE CO., Racine, Wis. Filed January 28, 1918.

20,514.—*Title:* "SPARKLING SILVERSPOON." (For Non-Intoxicating Refreshing Fruit Beverage.) SPARKLING SILVERSPOON CO., Cleveland, Ohio. Filed July 23, 1917.

PRINTS

REGISTERED FEBRUARY 12, 1918.

4,859.—*Title:* "BLACK BORDER." (For Garters.) A. STEIN & COMPANY, Chicago, Ill. Filed January 24, 1918.

4,860.—*Title:* "BIS-MAC." (For Drink.) THE BIS-MAC MANUFACTURING CO., Baltimore, Md. Filed October 19, 1917.

4,861.—*Title:* "PRINCE ALBERT THE NATIONAL JOY SMOKE." (For Smoking-Tobacco.) R. J. REYNOLDS TOBACCO COMPANY, Winston-Salem, N. C. Filed November 30, 1917.

DECISIONS
OF THE
COMMISSIONER OF PATENTS
AND OF
UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

ELISHEWITZ *v.* LEYSER, GREEN CO.

Decided December 3, 1917.

1. TRADE-MARKS—DESCRIPTIVE WORDS—"LEGHORNETTE."
The word "Leghornette" as applied to hats *Held* to be descriptive and not registrable.

2. SAME—CANCELATION—INJURY PRESUMED.
The petitioner for cancelation shows injury by the registration, though injury will be presumed to follow the improper registration of any descriptive word.

Mr. A. D. Kenyon for the appellant.

No appearance for the appellee.

ROBB, *J.*:

Appeal from a decision of the Patent Office canceling the registration of the word "Leghornette" as a trade-mark for hats on the ground that it is descriptive.

The Assistant Commissioner said:

A Leghorn hat is a very well and widely known article of commerce, fully described by the name "Leghorn," whether it is a woman's hat or a man's hat. * * * The real Leghorn hat is marked "Genuine Leghorn," and the sample hat bands filed in the application of Elishewitz are marked "Genuine Leghornette." The petitioner for cancelation shows injury by the registration, though injury will be presumed to follow the improper registration of any descriptive word.

I consider the word Leghornette to be clearly descriptive. The suffix "ette" is very commonly and widely used to indicate a small edition or else an imitation. I think nobody would hesitate in assuming that a Leghornette hat was an imitation Leghorn hat.

We agree with the Assistant Commissioner, for in our view "Leghornette" clearly would convey to the average purchaser the idea of the character or quality of the hat to which it was affixed, and therefore should not be registered.

The decision is affirmed.

Affirmed.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

JOBSKI AND GRISWOLD, SPECIAL ADMINISTRATORS OF THE ESTATE OF RICHARD S. BRYANT, DECEASED, *v.* JOHNSON.

Decided January 7, 1918.

1. INTERFERENCE—REDUCTION TO PRACTICE—TIRE-FASTENING DEVICE.
In a test for a tire-holding device merely bouncing upon the floor a wheel having the tire and device attached thereto *Held* not to be a reduction to practice, as it would not demonstrate that the device would give the desired results when on a wheel supporting a car in motion.

2. SAME—PRIORITY—UNIFORM DECISIONS OF THE PATENT OFFICE TRIBUNALS.
In order to secure a reversal of the uniform decisions of the Patent Office tribunals, *Held* that appellants must make out a very clear case of error.

3. SAME—SAME.
The record reviewed and *Held* priority was properly awarded to J. as to counts 1 and 2. No appeal had been taken as to the remaining claims.

Mr. J. B. Fay for the appellants.

Mr. E. G. Siggers for the appellee.

SMYTH, *C. J.*:

The invention involved in this appeal relates to a tire-fastening device, and the counts of the issue are five. The Examiner of Interferences, the Examiners-in-Chief and the First Assistant Commissioner agreed in awarding priority to Johnson as to counts 1 and 2, and to Bryant as to counts 3, 4 and 5. Johnson is content with the award, but the administrators of Bryant are not.

In his preliminary statement, Johnson claimed conception in 1909 and reduction to practice of the device disclosed by counts 1 and 2 in August or September, 1911; while Bryant in his preliminary statement asserted that he conceived the invention in March, 1911, and reduced it to practice in 1912. Thus Johnson, according to his allegations, was ahead of Bryant, both as to conception and reduction to practice. Bryant waited until Johnson had completed his testimony-in-chief and then moved to amend his preliminary statement so as to claim conception in September, 1910, and reduction to practice in the same month. The motion was denied by each of the three tribunals of the Patent Office, but the appellants do not assign the denial as error. On the final hearing they renewed, before each of the tribunals, a motion to amend. It was rejected by the two first, but granted, as they assert, by the last, the First Assistant Commissioner. And their argument in this court is upon that hypothesis. We think the record is against them. The Commissioner did not sustain the motion. In his decision, after relating the actions of the two lower tribunals on the renewed motion, he said:

If Bryant can not be allowed to amend his preliminary statement, priority as to counts 1 and 2 are properly awarded to Johnson.

He then reviewed the testimony offered by Bryant in support of the amended statement and concludes thus:

Even if the amended statement be admitted, and it is held that the testimony establishes that Exhibit No. 4 (the device in controversy) was made in September, 1910, Johnson was the first to conceive the invention and the first to reduce it to practice.

This does not mean that he overruled the lower tribunals, reversed himself and granted the motion, but, on the contrary, clearly indicates that he considered the matter only on the supposition that it was granted, which is quite another thing. Bryant then was confined to the dates of conception and reduction to practice set out in his original preliminary statement; that is, March 1911 and January 1912, respectively. The three Patent Office tribunals concurred in finding that Johnson conceived the invention in November, 1909, and reduced it to practice in August or September, 1911; hence that he was prior to Bryant in both respects. The question of priority thus decided was, of course, a question of fact, and where the Patent Office tribunals all agree with respect to such a question, their decision will not be disturbed by this court, except for the most persuasive reasons. Speaking to a similar question, we have said:

Where three separate and distinct tribunals, consisting of five experienced men familiar with receiving and considering evidence in proceedings of this nature, agree in their conclusions, this court has repeatedly held that an appellant, in order to secure a reversal, must make out a very clear case of error. *Bourn* v. *Hill, Jr.*, 27 App. D. C., 291; 123 O. G., 1284. See also *Flora* v. *Powrie*, 23 App. D. C., 195; 109 O. G., 2448; *Gammeter* v. *Thropp*, 42 App. D. C., 564–568; 210 O. G., 1397.)

Under the doctrine of these cases, we find nothing in the record which would warrant us in interfering with the decisions of the Patent Office.

Even if we concede, which we do not, that the Commissioner on the final hearing sustained Bryant's motion to amend and properly considered the testimony produced in support of the amendment, we would be quite content with the conclusion reached by him, that Johnson should prevail. Bryant failed utterly to show by sufficient competent evidence that he made the device described in the counts or reduced it to practice before Johnson did. The only test made by him of the device, which is a part of the means used in retaining an automobile-tire on its rim, was, according to his own testimony, the bouncing upon the floor of a wheel having the tire and the device attached thereto. When it is considered what strain a device of this character would be subjected to while the machine of which it was a part swept along at a high rate of speed, the test described by Bryant must be regarded as negligible. What constitutes a reduction to practice—

is a matter the determination of which must largely depend upon the nature or purpose of the machine or device in the particular case as well as the particular circumstances surrounding the alleged construction or use. (*Mason* v. *Hepburn*, 13 App. D. C., 86–89; 84 O. G., 147.)

In *Henderson* v. *Gilpin* (30 App. D. C., 428; 137 O. G., 231) this court said:

It is not enough, as contended by appellant, that these shop tests indicated the operation of the device would be successful. To constitute reduction to practice the test must amount to a demonstration in fact as contradistinguished from one in theory.

Barclay v. *Schuler* (41 App. D. C., 250–253; 199 O. G., 309) was a case in which the invention was a short portion of a garment-stay formed by hand and was originally about four inches long. The record showed that it was tested by bending it back and forth across the thumb and that this was the usual way of testing such devices by experts in the shop. It was never incased in a corset or subjected to the conditions of actual use. It was held that this was not enough—

to demonstrate that a stay of this design would give the desired results when placed in a corset where its movement would be restrained by contact with the surrounding fabric.

Paraphrasing this language, we may say of Bryant's test that it could not be held to demonstrate that the device would give the desired results when on a wheel supporting a car in motion. There is nothing in *Mason* v. *Hepburn*, *supra*, cited by appellants, which conflicts with the holdings of the foregoing cases. In that case it was remarked of a clip that it had been sufficiently reduced to practice because—

it was demonstrably capable of producing the result sought to be accomplished, viz: that of closing the magazine and clipping it to the barrel. As admitted by the Examiners "the clip evidently performed its expected office."

Bryant did not demonstrate in this case that his device was capable of producing the results sought to be accomplished, which was the secure holding of a rim in place on a wheel bearing an automobile in motion.

After his so-called test, Bryant says, he caused the device to be shipped from Columbus, Ohio, to Akron, same State. There it remained in a closet of his boarding-house, in the box in which it had been shipped, for upward of twelve months. In the meantime he was working on similar devices and filed at least two applications for patents, showing such devices. Why this, if he believed his first device was workable. Johnson, as we have seen, reduced his invention to practice about August, 1911, several months before Bryant removed his device from the box aforementioned. Therefore the only evidence of a reduction to practice by Bryant before Johnson is that with respect to what took place in Columbus, and that we have found to be entirely insufficient. Consequently, whether we regard the motion to amend the preliminary statement as overruled or sustained, the result must be the same.

The decision of the First Assistant Commissioner was right, and it is affirmed.

Affirmed.

Court of Appeals of the District of Columbia.

IN RE SUNDERLAND.

Decided January 7, 1918.

PATENTABILITY—COUPLING FOR STAY-WIRES.

Claims for a coupling for stay-wires *Held* unpatentable in view of the prior art.

Mr. C. J. Sawyer for the appellant.

Mr. T. A. Hostetler for the Commissioner of Patents.

ROBB, *J.*:

Appeal from a decision of the Patent Office denying the following claims:

1. An article of manufacture consisting of a flexible rope socket comprising a solid metal base and a flexible wire rope loop, the ends of the loop being permanently secured to the base.

2. A flexible coupling for wire rope consisting of a pair of linked sockets formed of flexible wire rope loops and

socket bases of solid metal, each of the loops having its ends permanently attached to its individual socket base.

3. In combination, wire ropes and a flexible insulating coupling comprising a pair of linked sockets formed of flexible wire rope loops and socket bases of solid metal to which bases the ropes are secured, each of the loops having its ends permanently attached to its individual socket base, and an insulator inserted between the flexible loops to form a mechanical connection between the sockets and to insulate them from one another.

4. In combination, wire ropes and a flexible coupling comprising a pair of linked sockets formed of flexible wire rope loops and socket bases of solid metal to which bases the ropes are secured, each of the loops having its ends permanently attached to its individual socket base, and a block having grooves at right angles for receiving the loops and inserted between the flexible loops to form a mechanical connection between the sockets.

The invention, according to appellant's specification—

relates generally to couplings for stay wires and the like, with particular reference to stays used in connection with aerial wireless towers which are generally insulated from the earth.

The specification further sets forth that one object of the invention is to produce a stay connection having flexibility with little stretch. The Examiner was of opinion that claim 1 is met by the patents to Gillette, Hill or Jobson, and that claims 2, 3 and 4 are—

squarely met by any one of the above references taken with Brown, Fletcher or Seymour.

The Examiner further said:

These claims cover merely a combination of two such loops as are shown by any one of the first three references, with an insulator such as shown by any one of Brown, Fletcher or Seymour used between the loops.

The Examiners-in-Chief sustained the view of the Examiner and pointed out that, the first claim being addressed to a single socket member reads as well upon the Hill construction as upon that of the applicant. The decision of the Examiners-in-Chief was affirmed by the Assistant Commissioner.

Appellant's device may be described as two interlocking wire-rope loops separated by an insulator, such as procelain, the ends of the ropes being permanently attached and the entire device being merely an insulated link in a stay. In other words, this insulated link in the stay, for purposes of illustration, may be likened to a swivel in a chain.

The patent to Hill (No. 929,132, dated July 27, 1909) covers an insulator designed primarily for suspending trolley-wires, electric cables, or other conductors from the under side of structures of any sort. The most approved type described by Hill differs from appellant's device in that it lacks flexibility. In Hill's Figure 4, however, the loops or short pieces of cable are passed through the insulating-body in practically the same way that appellant's loops are passed through it, and the ends of the loops are permanently attached like those of appellant. It is apparent, however, that Hill was not seeking flexibility, and his loops are too short, even in Fig. 4, to admit of it. But, as pointed out by the Patent Office, any one familiar with the art who was seeking a flexible insulator of the Hill type would have had no difficulty in constructing such a device by combining the Hill and the Fletcher or Jobson devices. The Fletcher patent (No. 1,028,104, and dated June 4, 1912) relates to a strain-insulator in a stay or guy wire, as does appellant's device, the only difference between the two devices being the manner in which the ends of the Fletcher loops are attached and the shape of those loops. That there is flexibility in the Fletcher device is certain, for the width of the groove in the insulated material is "of sufficent size to easily accommodate the wire" (of the loop). In other words, whether Fletcher appreciated the importance of this or not, his drawings and specification clearly disclose it. The Jobson patent (British, No. 15,523, of November 25, 1884) disclosed means similar to that employed by appellant for attaching the ends of the loop.

We conclude, therefore, as did the Patent Office, that appellant's efforts did not rise to the dignity of invention. Any good mechanic, by referring to the patents cited, could have produced the same result.

The decision is affirmed.

Affirmed.

ADJUDICATED PATENTS.

(U. S. D. C.) The Alexander patent, No. 954,772, for a bifocal lens, claims 1 and 3 *Held* void for anticipation. *One-Piece Bifocal Lens Co.* v. *Bisight Co.*, 246 Fed. Rep., 450.

(U. S. C. C. A.) The Arnold patent, No. 787,019, for a brick-machine, claim 2 *Held* not infringed and claim 8 *Held* void for lack of invention. *Arnold-Creager Co.* v. *Barkwill Brick Co.*, 246 Fed. Rep., 441.

(U. S. D. C.) The Connor patent, No. 925,802, for a process of making a bifocal lens, claim 1 *Held* valid and infringed and claim 2 invalid. *One-Piece Bifocal Lens Co.* v. *Bisight Co.*, 246 Fed. Rep., 450.

(U. S. D. C.) The Connor patent, No. 932,965, for a bifocal lens, *Held* valid and infringed. *One-Piece Bifocal Lens Co.* v. *Bisight Co.*, 246 Fed. Rep., 450.

(U. S. D. C.) The Connor patent, No. 936,386, for a machine for producing bifocal lenses, claim 1 *Held* invalid as too broad. *One-Piece Bifocal Lens Co.* v. *Bisight Co.*, 246 Fed. Rep., 450.

(U. S. D. C.) The Mayer patent, No. 798,435, for a single-piece bifocal lens, *Held* void. *One-Piece Bifocal Lens Co.* v. *Bisight Co.*, 246 Fed. Rep., 450.

(U. S. C. C. A.) The Skinner patent, No. 962,723, for an auxiliary tool for use in connection with spades, claims 1 and 2 *Held* invalid as too broad. *United States Drainage & Irrigation Co.* v. *Manahan*, 246 Fed. Rep., 446.

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Amendment to Rules of Practice.

(ORDER No. 2,372.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., February 6, 1918.

Acting under the provisions of section 483 of the Revised Statutes and with the approval of the Secretary of the Interior, Rule 15 of the Rules of Practice in the Patent Office is amended by adding thereto the following:

"except that authorized officers of the Army and Navy will be allowed during the war to inspect cases which in the opinion of the Commissioner disclose inventions that might be of value in the prosecution of the war, after having filed a duly-executed oath with the Commissioner that no contents of any application will be divulged except as it may become necessary in the prosecution of the war."

so that the rule will read as follows:

"15. Pending applications are preserved in secrecy. No information will be given, without authority, respecting the filing by any particular person of an application for a patent or for the reissue of a patent, the pendency of any particular case before the Office, or the subject-matter of any particular application, unless it shall be necessary to the proper conduct of business before the Office, as provided by Rules 97, 103, and 108, except that authorized officers of the Army and Navy will be allowed during the war to inspect cases which in the opinion of the Commissioner disclose inventions that might be of value in the prosecution of the war, after having filed a duly-executed oath with the Commissioner that no contents of any application will be divulged except as it may become necessary in the prosecution of the war."

J. T. NEWTON,
Commissioner.

Adverse Decisions in Interference.

PATENT NO. 1,216,686.

On January 21, 1918, a decision was rendered that Frederick Wehinger was not the first inventor of the subject-matter covered by claim 1 of his Patent No. 1,216,686, subject, "Watch-crystal," and no appeal having been taken within the time allowed such decision has become final.

PATENT NO. 1,228,743.

On January 11, 1918, a decision was rendered that Edward F. Brodeheft was not the first inventor of the subject-matter covered by claims 9 and 10 of his Patent No. 1,228,743, subject, "File-boxes," and no appeal having been taken within the time allowed such decision has become final.

ADJUDICATED PATENTS.

(U. S. C. C. A.) The Ferguson patent No. 1,066,193, for a package-sealing machine, *Held* void for lack of invention. *Package Machinery Co.* v. *Johnson Automatic Sealer Co.*, 246 Fed. Rep., 598.

(U. S. C. C. A.) The Hornby patent, No. 1,079,245, for mechanical toys, *Held* not to show invention, disclosing only mechanical skill. *Wagner* v. *Meccano, Limited*, 246 Fed. Rep., 606.

Interference Defined.

RULE 93. An interference is a proceeding instituted for the purpose of determining the question of priority of invention between two or more parties claiming substantially the same patentable invention. In order to ascertain whether any question of priority arises the Commissioner may call upon any junior applicant to state in writing the date when he conceived the invention under consideration. All statements filed in compliance with this rule will be returned to the parties filing them. In case the applicant makes no reply within the time specified, not less than ten days, the Commissioner will proceed upon the assumption that the said date is the date of the oath attached to the application. The fact that one of the parties has already obtained a patent will not prevent an interference, for, although the Commissioner has no power to cancel a patent, he may grant another patent for the same invention to a person who proves to be the prior inventor.

Changes in Classification.

(ORDER No. 2,376.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., February 13, 1918.

The transfer of the following classes is hereby directed, to take effect immediately:

Class 216, Label-Pasting and Paper-Hanging, from Division II to Division XVII, and class 99, Preserving, from Division VI to Division II.

The Examiners of the divisions involved are directed to remove their photolithographs of patents in these classes from file-boxes and prepare them for transfer.

J. T. NEWTON,
Commissioner.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business February 15, 1918.

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144	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Spring Devices; Whips and Whip Apparatus.	Nov. 14	Jan. 21	226
219	12. Journal-Boxes, Pulleys, and Shafting; Machine Elements	Oct. 16	Dec. 18	561
339	13. Ammunition and Explosive Charge Making; Bolt, Nail, Nut, Rivet, and Screw Making; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Oct. 29	Jan. 3	441
226	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Oct. 13	Dec. 24	365
206	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Dec. 22	Jan. 10	257
113	16. Electric Signaling-A; Radiant Energy; Telegraphy; Telephony	Aug. 2	Nov. 5	482
207	17. Ornamentation; Paper Manufactures; Printing; Type Casting; Sheet Material Associating or Folding; Sheet Feeding or Delivering; Type Setting.	Dec. 1	Jan. 21	108
269	18. Fluid-Pressure Regulators; Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Dec. 3	Oct. 22	368
264	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels	Sept. 15	Nov. 2	446
170	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Jan. 18	Jan. 17	209
242	21. Brakes and Gins; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Sept. 10	Nov. 20	287
246	22. Aeronautics; Firearms; Ordnance	Nov. 9	Jan. 9	276
219	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	Oct. 8	Dec. 26	365
44	24. Apparel; Apparel Apparatus: Sewing-Machines; Garment Supporters	Dec. 24	Jan. 8	149
115	25. Agitating; Butchering; Centrifugal Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers; Gas Separation.	Jan. 8	Jan. 7	132
105	26. Electricity, Generation; Motive Power	Sept. 1	Sept. 4	357
214	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus	Nov. 28	Jan. 2	220
132	28. Internal-Combustion Engines	Sept. 26	Dec. 5	585
147	29. Boring and Drilling; Coopering; Fire-Escapes; Ladders; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking Tools.	Oct. 17	Dec. 1	342
362	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines	Nov. 1	Jan. 25	414
373	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Sugar and Salt.	Nov. 12	Dec. 22	239
278	32. Gas and Liquid Contact Apparatus; Heat Exchange; Packaging Liquids; Refrigeration	July 9	Jan. 11	712
70	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving; Roofs.	Jan. 5	Dec. 24	214
104	34. Railways; Railway Rails and Joints; Railway Rolling Stock; Railway Ties and Fasteners	Jan. 17	Feb. 4	50
87	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Signals; Toilet	Sept. 24	Dec. 1	595
104	36. Driers; Geometrical Instruments; Measuring Instruments; Photography; Force Measuring	Dec. 4	Dec. 21	640
107	37. Electric Lamps; Electricity, Circuit Makers and Breakers; Electricity, Conduits; Electricity, General Applications.	July 30	Oct. 25	651
278	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells	Dec. 26	Jan. 14	107
220	39. Water Distribution; Multiple Valves	Aug. 2	Jan. 2	418
275	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Nov. 9	Dec. 28	455
126	41. Railway Draft Appliances; Resilient Tires and Wheels	Oct. 29	Nov. 6	358
114	42. Electricity, Conductors; Railway Signaling; Electricity-Transmission to Vehicles; Electric Signaling	Aug. 21	Oct. 22	671
362	43. Baths and Closets; Dispensing; Dispensing Beverages; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Oct. 27	Dec. 13	375
283	44. Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Ships	Nov. 23	Jan. 7	209
279	45. Clutches; Lubrication; Motors; Railway Brakes	Oct. 13	Nov. 3	404

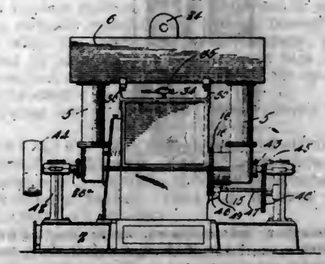
Oldest new case, July 9; oldest amended, Sept. 4.
Total number of applications awaiting action..... 16,406

148	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:	Jan. 15	Feb. 2	309
	Trade-Marks	Jan. 11	Jan. 22	203
	Designs	Feb. 7	Jan. 19	43
	Labels and Prints			

PATENTS

GRANTED FEBRUARY 19, 1918.

1,256,507. HORIZONTAL CENTRIFUGAL SCREEN. JAMES H. BAKER, Saratoga Springs, N. Y. Filed May 1, 1917. Serial No. 165,768. (Cl. 92—85.)



1. A horizontal centrifugal screen including a casing, a rotary drum mounted within the casing and provided with a foraminous or screen periphery, means operating within the drum for forcing the material against the periphery of the same, and a spiral conveyer arranged at the inner face of the periphery of the drum for feeding the refuse laterally of the same.

2. A horizontal centrifugal screen including a casing, a rotary drum mounted within the casing and provided with a foraminous or screen periphery, said drum being provided with a lateral outlet for the refuse, means operating within the drum for forcing the material against the periphery of the same, and a spiral conveyer arranged at the periphery of the drum interiorly thereof for feeding the refuse to the said outlet.

3. A horizontal centrifugal screen including a casing, a rotary drum mounted within the casing and provided with a foraminous or screen periphery, said drum being provided with a lateral outlet for the refuse, means operating within the drum for forcing the material against the periphery of the same, and a spiral flange extending across the drum at the inner face of the periphery thereof and forming a worm for feeding the refuse to the said outlet.

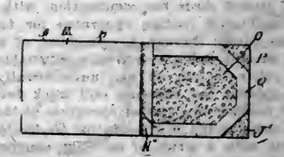
4. A horizontal centrifugal screen including a casing, a rotary drum mounted within the casing and provided with a foraminous or screen periphery, said drum being provided with an outlet for the refuse, and a rotary projectile impeller operating within the drum at a relatively greater speed and having means for forcing the stock against the periphery of the drum, said impeller being also provided with means for preventing the stock from sliding laterally on it.

5. A horizontal centrifugal screen including a casing, a rotary drum mounted within the casing and provided with a foraminous or screen periphery, said drum being provided with an outlet for the refuse, and a rotary projectile impeller operating within the drum at a relatively greater speed and having means for forcing the stock against the periphery of the drum, said impeller being provided with substantially arranged ribs adapted to prevent the stock from sliding laterally of the impeller.

[Claims 6 to 16 not printed in the Gazette.]

1,256,508. ASPHALTIC SHINGLE. MATHIAS B. BECKER, Chicago, Ill. Filed Mar. 8, 1910. Serial No. 82,822. (Cl. 108—7.)

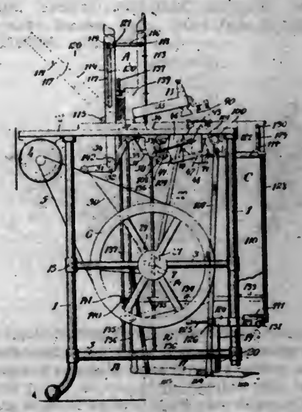
1. As a new article of manufacture, a shingle comprising a base of substantially uniform thickness, a surfacing of a granular mineral matter covering and increasing the thickness of the weather-face only of said shingle, and a coating of a weatherproof compound along an edge of the weather-face of the shingle covering and further increasing the thickness of said weather-face along said edge.



4. As a new article of manufacture, a shingle comprising a base of substantially uniform thickness impregnated with an asphaltic compound, a coating of such compound on the weather-face portion only of said shingle, a surfacing of comminuted mineral partially embedded in said coating imparting color to the same and increasing the thickness of said portion of said shingle, and a layer of asphaltic compound disposed over the comminuted mineral facing along an edge of the shingle, said compound serving to further increase the thickness of said shingle along said edge and being of a color contrasting with that of said mineral surfacing.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,256,509. ADDRESSING-MACHINE. EDWIN D. BELKNAP, East Orange, N. J. Filed Feb. 26, 191[illegible] Serial No. 151,044. (Cl. 101—51.)



1. The combination with a printing mechanism adapted to operate on a series of stencil cards, of apparatus for feeding a series of such cards through said printing mechanism, continuously operating driving mechanism for both printing and feeding apparatus and means controllable by the operator for temporarily disconnecting said printing mechanism from the driving mechanism without interrupting the action of the card feeding apparatus.

9. The combination with a series of address bearing strips, guides along which said strips may pass, a main printing mechanism comprising a reciprocating platen adapted to coöperate with any one of said strips when it reaches a given point along said guides and an apparatus

for feeding said strips along said guides to said point, of an auxiliary printing mechanism adapted to make a proper record on each strip with which the main printing mechanism coöperates, said auxiliary mechanism comprising an auxiliary platen carried by the main platen.

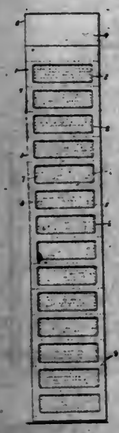
10. In a stencil printing machine the combination with guides, apparatus for feeding a series of stencil cards along the guides, an inking device below the guides, and a vertically reciprocating platen above the guides, coöperating with the inking device, of an adjustable type below the guides, an ink ribbon above the type but below the guides, and means actuated by the platen for forcing each card operated on by it against the ink ribbon and type beneath.

13. In an addressing machine adapted to operate with a series of stencil cards the combination, with a reciprocating pivoted claw feeding apparatus for forcing said cards consecutively through the machine, of a disabling cam roller on said claws, a vertically adjustable track for said cam roller to run on and automatically operated means for raising and lowering said track during a predetermined number of cycles of operation of the machine.

17. The combination with a printing mechanism adapted to coöperate with a series of card-like members bearing legends to be printed thereby, a magazine for holding a stack of such members ready for use, a receptacle for collecting such members after use, and an apparatus for feeding said members consecutively from the magazine, through the printing mechanism to the receptacle, of a movable bottom piece for such receptacle provided with connections through which it is supported by the stack in the magazine, and means for automatically lifting the weight of said bottom piece and connections off the stack whenever one of the card-like members is being fed out of the magazine.

[Claims 2 to 8, 11, 12, 14 to 16, and 18 to 28 not printed in the Gazette.]

1,256,510. STRUCTURE FOR USE IN MAKING STENCIL-CARDS. EDWIN D. BELKNAP, East Orange, N. J. Filed July 6, 1917. Serial No. 179,101. (Cl. 101—127.)



As an article of manufacture, a tape-like strip of material flexible enough to be conveniently run through a typewriting machine but stiff enough to serve as a frame for stencil card blanks, said strip having a series of rectangular cutout portions and transverse lines for division between said cutout portions and a sheet of stencilizable paper covering said cutout portions and fastened to the back of the strip, whereby a strip of stencilizable blanks is formed which may be conveniently converted into stencils in a typewriting machine, and any cards so written can be severed from the remainder of the strip for use as separate stencil cards.

1,256,511. AUTOMATIC TELEPHONE-SWITCH. JOHN G. BLESSING and BERNARD D. WILLIS, Chicago, Ill., assignors to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 16, 1912. Serial No. 684,110. (Cl. 179—27.5.)



1. In a telephone system, an automatic selecting switch provided with a shaft carrying wipers, said shaft having downward and rotary selecting motions, and circuits for operating the same.

2. In a telephone system, an automatic selecting switch having downward and rotary selecting motions, and means for controlling said switch over the two sides of a metallic talking circuit in series.

3. In a telephone system, lines divided into groups, an automatic switch having downward straight line motion to select groups and rotary motion to find a line in the selected group, and circuits for operating the same.

14. In a telephone system, an automatic switch including an operating shaft, means for controlling the operation of said shaft, and means for simultaneously operating said controlling means at one speed and said operating shaft at a second speed.

15. In a telephone system, an automatic switch, an operating shaft therefor, an escapement mechanism for controlling the operation of said shaft, means for operating said escapement mechanism at one speed, and means for operating said shaft at a second speed.

[Claims 4 to 13 and 16 to 55 not printed in the Gazette.]

1,256,512. SUBSTATION SWITCH-HOOK. JOHN G. BLESSING, Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 20, 1916. Serial No. 85,401. (Cl. 179—161.)



1. In a telephone system, a station, a line connecting said station with the exchange, a receiver, a receiver support for said station, said support comprising a plurality of U-shaped hooks arranged one within the other.

2. In a telephone system, a station, a line connecting said station with the exchange, a receiver, a support for said receiver at said station, said support comprising a plurality of hooks, one of said hooks being stationary, another of said hooks being movable in a downward direction.

3. In a telephone system, a station, a line connecting said station with the exchange, a receiver, a support for said receiver at said station, said support comprising a plurality of hooks, one of said hooks being stationary, another of said hooks being movable in a downward direction, and a spring for said stationary hook for controlling said movable hook.

32. In a telephone system, a subscriber's station, a line connecting said station with the exchange, a receiver, a hook for said receiver, a latch normally engaging said hook to prevent its operation when the receiver is lifted therefrom, and means controlled by said receiver for removing said latch from engagement with said hook to permit the operation of said hook.

33. In a telephone system, a subscriber's station, a line connecting said station with the exchange, a receiver, a hook for said receiver, circuits controlled by said hook, a latch normally engaging said hook to prevent its operation when the receiver is lifted therefrom, means controlled by said receiver for removing said latch from engagement with said hook and means for operating said hook to effect a circuit change.

[Claims 4 to 31 not printed in the Gazette.]

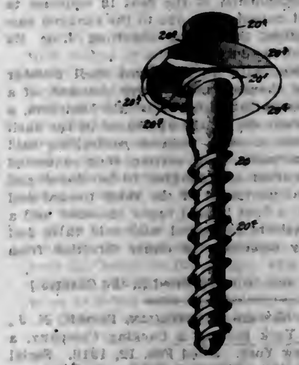
1,256,513. PROCESS OF MANUFACTURING AMMONIUM NITRATE. REIDAR BLOM, Rjukan, Norway, assignor to Norsk Hydro-Elektrisk Kvaelstofaktieselskab, Christiania, Norway. Filed July 20, 1916. Serial No. 110,348. (Cl. 23—23.)

2. The process of manufacturing ammonium nitrate from ammonia gas and nitric acid comprising the steps of saturating ammonium nitrate solutions with ammonia gas, supplying nitric acid to the ammoniacal solution, using the solution so obtained for further absorption of ammonia gas followed by neutralisation until solid ammonium nitrate precipitates and separating the solid salt from the solution.

4. The process of manufacturing ammonium nitrate from ammonia gas and nitric acid comprising the steps of saturating ammonium nitrate solution with ammonia gas, neutralizing the solution with the nitric acid liquor obtained by absorbing nitrous gases in ammonium nitrate solutions, subjecting a portion of the neutralized solution to saturation with ammonia and treating another portion of the solution with nitrous gases, neutralizing the portions mutually and repeating the operations of absorption and neutralization until the required quantity of ammonium nitrate is formed.

[Claims 1 and 3 not printed in the Gazette.]

1,256,514. SCREW-SPIKE. DANIEL I. BRAINE, New York, N. Y., assignor to Lawrence F. Braine, New York, N. Y. Original application filed Mar. 15, 1913, Serial No. 754,502. Divided and this application filed Apr. 18, 1917. Serial No. 762,974. (Cl. 85—41.)



1. In a device of the class described, a screw-spike having a screw threaded stem and a head, said head being approximately circular and partially cut away in a plane substantially parallel to the axis of the screw, the undersurface of said head being helically inclined, said plane terminating in a point at one extremity and in a shoulder at the other extremity thereof.

7. In a device of the class described, a spike having a screw threaded stem and a head carried by said stem, said head being provided with two helically inclined under surfaces, one of said surfaces being inclined in the same direction and having substantially the same pitch as said thread, and the other surface being inclined in the opposite direction.

[Claims 2 to 6 and 8 not printed in the Gazette.]

1,256,515. CONVEYER-CHUTE. THEOPHILUS BROWN, Moline, Ill., assignor to The Marseilles Company, East Moline, Ill., a Corporation of Illinois. Filed June 20, 1916. Serial No. 104,761. (Cl. 193—40.)

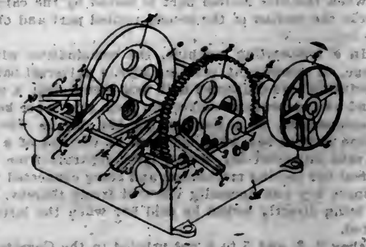


1. An open chute comprising sections adapted to be adjusted longitudingily one within the other and having longitudinal tubular edges, and a rod extended through the tubular edges of each section and forming a brace extending across one end thereof, the free ends of said rod projecting from the opposite end of said tubular edges and bent to slidably engage with the edges of the next adjacent section.

3. An open chute comprising sections adapted to be adjusted longitudinally one within the other, a brace at one end of each section and extending transversely thereof, an annular member at the opposite end of each section and to which the respective section is secured, and means on each section adjacent the annular member to slidably engage with the edges of the adjacent section.

[Claims 2 and 4 not printed in the Gazette.]

1,256,516. LIQUID-FEEDING DEVICE. WILLIAM A. BUTCHART, Denver, Colo. Filed June 25, 1917. Serial No. 176,928. (Cl. 108—48.)



1. A liquid feeding device, comprising a rotatable element of substantially disk form partially submerged in a body of liquid and arranged in a vertical position, and a device arranged to act on one of the vertical side faces of said elements so as to remove liquid that adheres to same and feed said liquid to a point where it is to be used.

2. A liquid feeding device, comprising a rotatable element of substantially disk form partially submerged in a body of liquid and arranged in a vertical position, a device arranged to act on one of the vertical side faces of said elements so as to remove liquid that adheres to same and feed said liquid to a point where it is to be used, and means for adjusting one of said parts relatively to the other so as to vary the effective scraping area of said device that is presented to the vertical side face of said rotatable element.

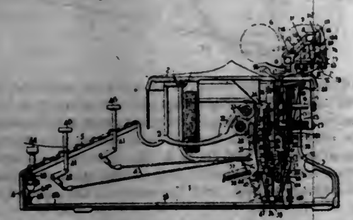
5. A liquid feeding device, comprising a vertically-exposed gear partially submerged in a body of liquid and

provided with vertical side faces to which liquid adheres when said gear is in operation, a driving pinion that meshes with said gear, and a scraping device arranged so that it will act on one of the vertical side faces of said gear and remove the liquid that adheres to same.

8. A liquid feeding device, comprising a container provided with independent compartments that hold liquid, a substantially disk-shaped, rotatable element arranged in each of said compartments in such a manner that it dips into the liquid in same, and inclined scraping devices arranged in such a manner that they will remove liquid from the vertical side faces of said rotatable elements and feed said liquid to points where the liquid is to be used.

[Claims 3, 4, 6, 7, 9, and 10 not printed in the Gazette.]

1,256,517. TYPE-WRITING MACHINE. HERBERT A. CARHART, Syracuse, N. Y., assignor to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed Nov. 21, 1916. Serial No. 132,555. (Cl. 197—108.)



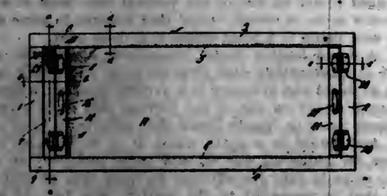
1. In a typewriting machine, the combination of a carriage, a space key, a lever adjacent said carriage and mechanically connected to and vibrated only by said space key, and a part displaced by said carriage, said part when so displaced serving to intercept said lever and thereby to lock the space key.

4. In a typewriting machine, the combination with a carriage and a space key, of a part that is moved in one direction, by the carriage at the end of a line, and a second part that is moved in the opposite direction, on the depression of said space key, said part being so related that when the first recited part is moved by the carriage it blocks the motion of the second recited part and of the space key.

9. In a typewriting machine, the combination with a carriage, an escapement, printing keys, a universal bar for said printing keys connected with said escapement, a space key and an independent connection from said space key to said escapement, of a line locking bar, means whereby said line locking bar when operated at the end of a line locks said universal bar, and a lever separate from said universal bar locking mechanism and being connected with said space key and normally vibrated freely thereby, said lever being directly locked by said bar when the latter is operated.

[Claims 2, 3, and 5 to 8 not printed in the Gazette.]

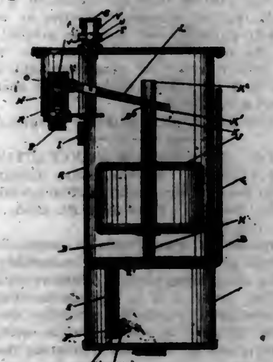
1,256,518. FRAME. HARRY P. CARLON, Wilmington, Del. Filed Dec. 9, 1916. Serial No. 135,989. (Cl. 40—156.)



1. The combination of a frame, a transparent plate secured therein within said frame, a clamping strip hinged to the frame, means for automatically moving said clamping strip toward the plate, a batten extending transversely from side to side of the frame and adjustable toward and from said clamping strip, a second clamping strip carried by said batten, and means for automatically moving said second clamping strip toward said plate, said clamping strips being operative to clamp and hold sheet material in engagement with said plate, substantially as described.

[Claims 2 to 4 not printed in the Gazette.]

1,256,519. FUEL-FEEDING APPARATUS FOR INTERNAL-COMBUSTION ENGINES. THOMAS I. COCHRAN, Detroit, Mich. Filed Dec. 21, 1916. Serial No. 138,252. (Cl. 158—36.)



1. In a fuel supply apparatus for internal combustion engines, in combination with a plurality apertured casing, a communication to a suction source, provided with a suction port, connected with one of the apertures, a valve adapted to control said communication and to close and open the suction port therein by its movement toward and away from its seat, an air valve adapted to control another of the apertures in the casing, a lever member with which each of said valves is operatively connected and by whose pull the initial closing and opening movements of said first named valve are brought about to effect the closure and opening of the suction port, and a float member with which the free end of said lever has a slip connection, whereby the initial movements thereof and consequently of its connected valve members in either direction are dependent upon the rise and fall of the float with the gasolene level, after which the lever is free to move independently of the float in response to the pull of said first named valve due to the changed suction conditions within the casing resulting from its closure or opening of the suction port.

8. The combination, with an apertured shell member containing an upper chamber and a lower chamber, of a valve-controlled communication between said chambers, a communication between one of the apertures in the shell and a suction source, a valve member controlling said communication, a normally open suction vent connected with said communication and adapted to be closed and opened by the initial movement of the valve toward and awary from its seat, a float in said upper chamber, and a lever member, operatively connected with said valve and deriving its primary movement in either direction from said float.

[Claims 2 to 7, 9, and 10 not printed in the Gazette.]

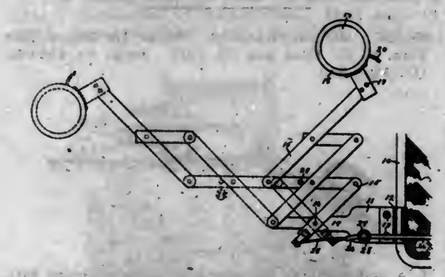
1,256,520. HOSE. EDWARD J. COUGHLIN, Passaic, N. J., assignor to New York Belting & Packing Company, a Corporation of New York. Filed Feb. 12, 1916. Serial No. 77,843. (Cl. 137—90.)

1. Hose, comprising an outer protective covering and an inner tube of water-tight elastic material, said inner tube being loosely disposed in said covering and being provided on its outer surface with two sets of diagonally disposed parallel strands completely surrounding said inner tube, the strands of each of said sets being separated from each other a substantial distance and intersecting those of the other set, whereby the circumferential and longitudinal extension of said tube is limited.



2. Hose, comprising an outer protective covering and an inner tube of water-tight elastic material, said inner tube being loosely disposed in said covering and being provided on its outer surface with two sets of diagonally disposed parallel strands, the strands of each of said sets being separated from each other a substantial distance and intersecting those of the other set, and an additional layer of plastic material superposed on said strands over a portion of the surface of the tube, said strands acting to limit the circumferential and longitudinal extension of said tube, and said plastic layer to provide frictional engagement with the inner wall of said covering.

1,256,521. SIGNAL-ARM LIGHT. CHARLES O. COWGILL and CLYDE B. KIMBLE, Des Moines, Iowa. Filed Feb. 19, 1917. Serial No. 149,584. (Cl. 116—31.)



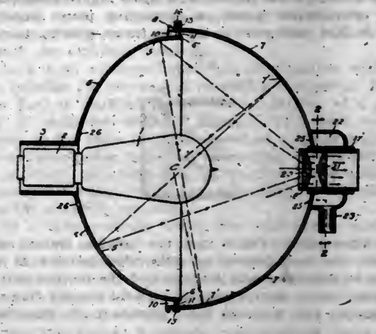
1. In a vehicle signal, a horizontal member formed with means to secure same to the vehicle, lazy-tongs pivoted to said member, one of the levers of the lazy-tongs having an extension that projects below said pivot, a perforated post secured to said member, a tube extending through the perforation of the post, a set screw carried by the post and engaging said tube to rigidly connect the latter to the post, a stiff wire extending through the tube and exteriorly of the latter and connected to said lever extension of the lazy-tongs, and means to operate the wire.

3. In a vehicle signal, lazy-tongs normally extending vertically in inoperative position, means to pivotally connect the tongs to the vehicle, and means to operate the tongs by pulling and pushing same in a horizontal plane so as to swing same downwardly and outwardly.

[Claim 2 not printed in the Gazette.]

1,256,522. REFLECTING APPARATUS. ALVIN L. CROXTON, Bremerton, Wash. Filed July 15, 1915. Serial No. 39,951. (Cl. 240—41.)

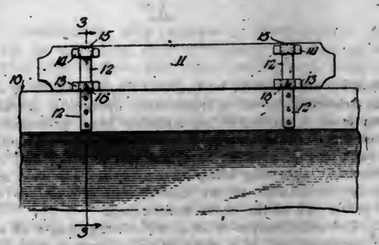
1. In a reflecting apparatus, a reflector arranged to direct all light rays incident thereon in forward direction to a single focus, and another reflector adapted to direct the light rays incident thereon rearwardly upon said first named reflector, said second named reflector arranged to overlap said first named reflector and spaced therefrom to provide an annular opening thereabout.



4. In a reflecting apparatus, a two-part reflector-casing having a lamp extending forwardly from the rearmost said part in axial direction therein, and a lens casing in the foremost said reflector part having its tubular bore arranged in axial alinement with said lamp, the parts of said reflector casing being arranged in overlapped relation with the foremost part outermost affording an annular opening therebetween, an annular chamber surrounding said lens casing having openings into said reflector-casing, and means for supplying a current of air into said chamber exhausting into said reflector-casing.

[Claims 2 and 3 not printed in the Gazette.]

1,256,523. HEAD-PLATE FOR SIGN-BOARDS. HAROLD CUSACK, Chicago, Ill., assignor to The Thomas Cusack Company, Chicago, Ill., a Corporation of New Jersey. Filed May 5, 1917. Serial No. 166,511. (Cl. 40—125.)



A head plate for sign boards of the kind described, comprising in combination with a board, upright bars attached to said board and spaced at a standard distance apart, a head plate provided with sets of straps spaced at a standard distance apart equal to the distance between the said bars, the straps of each set being arranged in vertical alinement and adapted for engagement with an associated bar, and one of said straps being provided with a stop to engage the top end of its associated bar.

1,256,524. MINING-MACHINE. CHARLES E. DAVIS, Chicago, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed May 11, 1915. Serial No. 27,347. (Cl. 125—14.)

5. A mining machine comprising a main frame, an intermediate frame rotatably mounted on the main frame, a

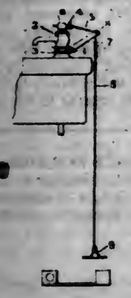
shaft carried by said intermediate frame, a pinion thereon, teeth on the main frame, with which said pinion engages, so that when the shaft is rotated the intermediate frame is rotated, a pivotally mounted toothed part, a second pinion on said shaft operatively connected with the teeth thereof and arranged so that when the shaft is rotated the toothed part is rotated at a speed higher than that of the intermediate frame, a connecting piece connecting the toothed part and the moving frame, guiding parts on



the intermediate frame and the moving frame, which permit the two frames to slide with relation to each other as the intermediate frame and the toothed part are rotated, and a cutting element on said moving frame.

[Claims 1 to 4, 6, and 7 not printed in the Gazette.]

1,256,525. FAUCET-OPERATING MECHANISM. CARLETON DEDMER, Los Angeles, Cal. Filed Sept. 22, 1915. Serial No. 52,063. (Cl. 137—4.)



1. The combination with a self-closing faucet of standard construction, of a detachable operating mechanism comprising a faucet-fitting annular band provided with hinge-like holding means, a lever-arm secured at one end to said means, a chain attached to the other end of the lever-arm, the chain being also operably attached at one end to the handle of the faucet, and a pedal to which the other end of the chain is attached.

2. The combination with a self-closing faucet of standard construction, of a detachable operating device comprising a mechanism fitted to said faucet and provided with hinge-like holding means, a lever-arm secured at one end to said means, a chain attached to the other end of the lever-arm, the chain being also operably attached at one end to the handle of the faucet, and a pedal to which the other end of the chain is attached.

1,256,526. SPRING-TIRED WHEEL. VICTOR DRIESSHOFER, Chicago, Ill. Filed May 12, 1917. Serial No. 168,081. (Cl. 152—8.)

1. A wheel, comprising in combination a felly, spokes, a band, springs disposed between the felly and said band, a casing inclosing said springs and band, and radially acting springs carried by the spokes, said last named springs acting on said casing to take up slack when said first mentioned springs are compressed, substantially as described.

3. In a wheel, the combination of a felly and spokes, springs mounted on the felly, a casing inclosing the springs, fastening devices engaging the side edges of said casing, and springs mounted on the spokes and acting on said fastening devices to maintain a constant tension thereon, substantially as described.

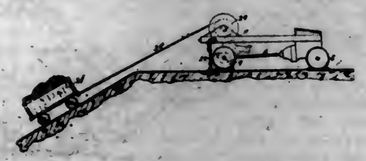


4. In combination, a wheel having a felly and spokes and a channel-shaped rim, springs seated in the channel of the rim, a leather casing, springs carried by the spokes and acting radially in opposition to said first mentioned springs, bearing members normally engaging beneath the felly and acted upon by the springs carried by the spokes, and means connecting said bearing members to the edges of said leather casing, substantially as described.

6. In a spring tired wheel, the combination of a felly and spokes, springs mounted outside of said felly, a leather casing inclosing said springs, springs carried by the spokes, housings for said last mentioned springs, each of said housings having a portion abutting the inner surface of the felly, and means connecting the housings to the edges of the leather casing, substantially as described.

[Claims 2 and 5 not printed in the Gazette.]

1,256,527. MOTOR-TRACTOR. FRANK DE MARCO, New York, N. Y. Filed Aug. 18, 1917. Serial No. 186,963. (Cl. 180—53.)



1. A motor-tractor comprising a vehicle provided with a power plant, a two-part differential driving axle therefor having traction wheels fast thereon, driving connections between said power plant and axle normally adapted to propel said vehicle in opposite directions, means for releasing the traction of one of said wheels to permit the rotation of its connected axle part while the vehicle is at rest, and a power receiving shaft in driving connection with said rotatable axle part.

3. In a motor-tractor, the combination with a two-part differential driving axle having traction wheels fast thereon, of a power receiving shaft geared to be rotated from one of the parts of said axle, and means for releasing the wheel traction of said geared axle part to permit the rotation thereof while the vehicle is at rest.

4. In a motor-tractor, the combination with a two-part differential driving axle having traction wheels fast thereon, of a jack-shaft driven from one of said axle parts, a power receiving shaft, a detachable driving connection between said jack-shaft and power receiving shaft, and means for releasing the wheel traction of said geared axle part to permit the rotation thereof while the vehicle is at rest.

6. In a motor-tractor, the combination with a two-part differential driving axle having traction wheels fast thereon, of a jack-bar operatively mounted on said tractor and adapted to exert a thrust in opposition to the ground surface to release the wheel traction of one of said axle parts to permit the rotation thereof while the vehicle is at rest, a jack-shaft driven from said rotatable axle part, and a cam detachably connected to said jack-shaft and arranged to actuate said jack-bar.

7. A motor-tractor comprising a vehicle provided with a power plant, a two-part differential driving axle therefor having traction wheels fast thereon, driving connections between said power plant and axle normally adapted to propel said vehicle in opposite directions, means for raising one of said wheels to permit the rotation of its connected axle part while the opposite wheel is at rest, and a power receiving shaft in driving connection with said rotatable axle part.

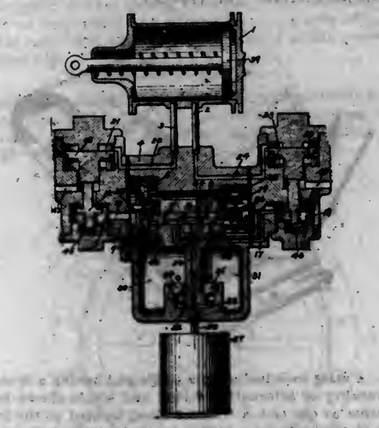
[Claims 2 and 5 not printed in the Gazette.]

1,256,528. SNAP-FASTENER. KARL G. DIETERICH, New York, N. Y. Filed Nov. 20, 1916. Serial No. 132,371. (Cl. 24—216.)



In a snap fastener, a female member comprising a plate having an oblong opening, said plate being provided all around with a flange extending at an angle to the body portion thereof, said plate having slits in the major axis of said opening, said slits merging into said opening, and said flange having apertures.

1,256,529. BRAKE-CYLINDER-PRESSURE REGULATOR. PATRICK H. DONOVAN, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Sept. 14, 1915. Serial No. 50,591. (Cl. 188—1.)



1. In a fluid pressure brake, the combination with a brake cylinder and piston and an auxiliary reservoir from which fluid is supplied to the brake cylinder, of a valve device governed according to the brake cylinder piston travel for varying the volume of the auxiliary reservoir.

2. In a fluid pressure brake, the combination with a brake cylinder and piston and an auxiliary reservoir from which fluid is supplied to the brake cylinder, of a chamber normally charged with fluid under pressure and a valve device operated upon a predetermined brake cylinder piston travel for connecting said chamber to the auxiliary reservoir.

3. In a fluid pressure brake, the combination with a brake cylinder and piston and an auxiliary reservoir from which fluid is supplied to the brake cylinder, of a chamber normally charged with fluid under pressure, a valve mechanism for controlling communication from said chamber to the auxiliary reservoir, and a puppet valve and piston operated by brake cylinder pressure upon a predetermined brake cylinder piston travel for effecting the movement of said valve mechanism to connect said chamber with the auxiliary reservoir.

4. In a fluid pressure brake, the combination with a brake cylinder and piston and an auxiliary reservoir from which fluid is supplied to the brake cylinder, of a plurality of chambers normally charged with fluid under pressure and a valve device operated at a predetermined brake cylinder piston travel for connecting one chamber to the auxiliary reservoir and at another predetermined brake cylinder piston travel for connecting another chamber to the auxiliary reservoir.

5. In a fluid pressure brake, the combination with a brake cylinder and piston and an auxiliary reservoir from which fluid is supplied to the brake cylinder, of two chambers normally charged with fluid under pressure and a valve device operated at a predetermined brake cylinder piston travel for connecting one chamber with the auxiliary reservoir and at a greater predetermined brake cylinder piston travel to connect both chambers with the auxiliary reservoir.

[Claims 6 and 7 not printed in the Gazette.]

1,256,530. SELF-ADJUSTING BEARING. JACK E. DORMAN, Township, Iowa. Filed Jan. 8, 1917. Serial No. 141,208. (Cl. 74—17.)



The combination with separable bearing-parts, one of which is removable, clips detachably mounted on the removable bearing-part, the other bearing-part being included between said clips and the removable bearing-part and spaced from said clips, and resilient adjusting-means co-engaged with and between said clips and said fixed bearing-part and adapted to yieldingly adjustably hold the bearing-parts together to take up wear, said adjusting-means comprising spaced blocks between and contacting with opposed faces of said clips and said other bearing-part, the opposed face of each block having a like reëntrant angle, wedges movably fitted in the end-parts of the reëntrant angles of the interspace of said blocks, and yieldable resilient means engaged between said wedges.

1,256,531. LAMP. HARRY A. DOUGLAS, Bronson, Mich. Filed Mar. 9, 1914, Serial No. 823,365. Renewed Dec. 21, 1916. Serial No. 138,286. (Cl. 240—41.)

1. A lamp structure including a back element; a concave reflector in front of the back element; a lamp bulb; a mounting for the lamp bulb which holds the back element and reflector together; a light transmitting cover at the forward end of the reflector; a resilient mounting for the cover that permits the cover to move in its plane; a door engaging the front face of the cover; and spring mechanism for separably coupling the door with a door supporting portion of the lamp structure and exerting pressure upon the cover that permits the cover to move in its own plane.

2. A lamp structure including a back element; a concave reflector in front of the back element; means for

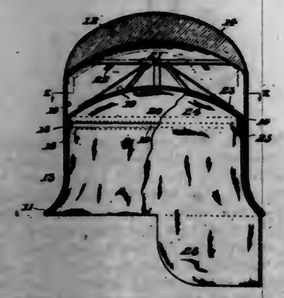
holding the reflector and lamp back together; a light transmitting cover at the forward end of the reflector; a resilient mounting for the cover that permits the cover to move in its plane; a door engaging the front face of the cover; and spring mechanism for separably coupling the door with a door supporting portion of the lamp structure and exerting pressure upon the cover that permits the cover to move in its own plane.



23. A lamp structure including a door; and spring hooks carried by the door and operating separably to secure the door and the portion of the lamp structure to the rear of the door together, the rear portion of the lamp structure being provided with slots through which the hook ends of the hooks project and lugs margining the slots for engagement with the hooks.

[Claims 3 to 22 not printed in the Gazette.]

1,256,532. SOLDIER'S HELMET. MIKOLAJ DRAG, McKees Rocks, Pa. Filed July 6, 1917. Serial No. 178,994. (Cl. 2—117.)



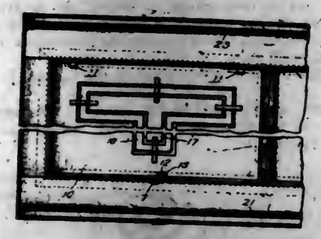
1. A helmet comprising a metal hat-shaped member having an upstanding longitudinal rib upon the top thereof, a metal dome arranged within said member adapted for seating upon the head of the wearer and V-shaped springs secured to the said member and freely engaging the top of the dome positioned therebeneath.

2. A helmet comprising a metal hat having an integral exterior rib along the top thereof, a covering for said hat terminating adjacent the base of the rib and extended inwardly of the hat, forming a lining terminating substantially midway of the height of the hat, a reinforcing band within the hat adjacent the inner end of the lining, a metal dome within the hat arranged above the said band and being of greater diameter than the band, springs carried within the hat having feet at the lower end freely contacting the top of the dome and a metal covering for the rib secured to the cap overlying the adjacent outer edges of the said covering.

3. A device of the class described comprising a metal hat having a flaring edge at its open end and arranged with a longitudinally positioned integral rib upon the top thereof, a head engaging support for the device arranged within the hat, resilient means between the hat and said support, a continuous covering and lining for the hat and a removable warmth imparting member adapted for arrangement with the hat.

4. A helmet comprising a metal hat, a metal dome resiliently mounted thereon and a lining for the hat surrounding the latter and arranged exteriorly upon the dome.

1,256,533. SIGN. DANIEL F. DUCK, Chicago, Ill., assignor of one-half to Samuel P. Hutchison, Deerfield, Ill. Filed Dec. 6, 1916. Serial No. 135,291. (Cl. 40—133.)

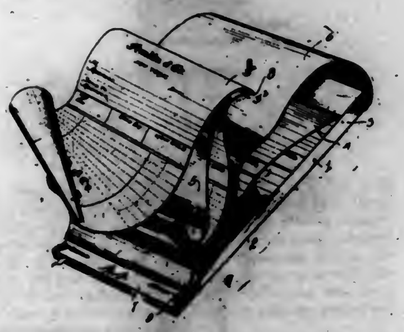


1. A sign letter comprising a plurality of symbols certain of which are of skeleton formation, said symbols being spaced apart with the outer edges of one symbol spaced inwardly of the corresponding inner edges of the adjacent symbol.

2. A sign letter comprising a solid symbol and a corresponding skeleton symbol, said symbols being spaced apart with the outer edges of one symbol spaced inwardly of the corresponding inner edges of the other symbol.

[Claims 3 and 4 not printed in the Gazette.]

1,256,534. MANIFOLDING SALES-BOOK. WILLIAM E. DUNNING, Alliance, Ohio, assignor to The McCaskey Register Company, (incorporated in 1914,) Alliance, Ohio, a Corporation of Ohio. Filed June 15, 1916. Serial No. 103,741. (Cl. 11—23.)



1. A sales book including a single pad having a back and a plurality of alternating folded and single sheets bound together at one end, a transfer sheet secured at the bound end of the pad and adapted to be inserted between the folds of the folded sheets, and a second transfer sheet secured to the back at the other end of the pad so that it may be inserted between the folded and single sheets.

[Claim 2 not printed in the Gazette.]

1,256,535. PROCESS FOR MAKING DRYING-OILS FROM MINERAL OILS. WALTER DYER, Portland, Oreg. Filed Nov. 7, 1916. Serial No. 130,088. (Cl. 134—56.)

1. A process which comprises boiling a mixture comprising non-drying mineral oil and alcohol for a sufficient length of time to convert the mineral oil into a drying oil.

2. A process which comprises boiling a mixture comprising a relatively large bulk of a heavy non-drying mineral oil from which the gasolene and kerosene fractions have been removed, and a relatively small bulk of alcohol for a sufficient length of time to convert the mineral oil into a drying oil.

3. A process which comprises boiling a mixture comprising about 10 to 20 parts of mineral oil to one part of alcohol for a sufficient length of time to convert the mineral oil into a drying oil.

1,256,536. PROCESS OF MAKING DRYING-OILS. WALTER DYER and WALTER EATON DYER, Portland, Oreg. Filed Apr. 12, 1917. Serial No. 161,525. (Cl. 134—56.)

1. The process of treating fatty oils deficient in drying properties, which comprises adding thereto a relatively smaller quantity of alcohol and boiling the mixture for a sufficient time to produce a readily drying oil.

2. A process of making a drying oil from so-called "non-drying" and "semi-drying" fatty oils, which comprises adding to a bulk of such oil, a relatively smaller amount of alcohol and boiling the mixture until an oil of good drying properties is produced.

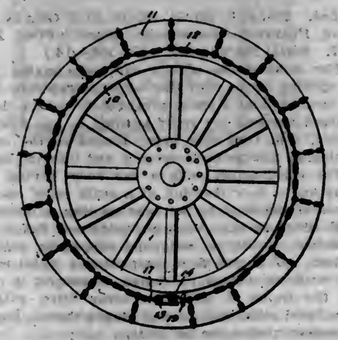
1,256,537. THINNED PAINT AND PROCESS OF MAKING PAINT-THINNER. WALTER DYER and WALTER EATON DYER, Portland, Oreg. Filed June 7, 1917. Serial No. 173,401. (Cl. 134—56.)

1. A process which comprises adding to a relatively larger bulk of a mineral oil distillate having a gravity about that of ordinary kerosene, a relatively smaller bulk of alcohol, and thereafter boiling the mixture, until drying properties are developed in the oil.

2. A process of making a paint thinner, which comprises boiling a mixture of about 9 to 19 volumes of kerosene distillate with one volume of alcohol, for a period of about half an hour.

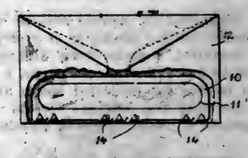
3. A paint including as a constituent thereof, a paint thinner produced from kerosene by boiling with alcohol, said paint thinner having more body than kerosene, gasolene or turpentine, and possessing drying properties, and being capable of hastening the drying of paints containing drying oils.

1,256,538. ADJUSTING AND LOCKING DEVICE FOR AUTOMOBILE-CHAINS. JOHN EICHNER, Van Meter, Iowa. Filed Nov. 11, 1916. Serial No. 130,903. (Cl. 85—36.5.)



A chain lock and adjuster for tire non-skid chains, composed of a substantially rectangular member having a screw threaded opening in each end thereof, a hook bearing shaft threaded into one of said openings, an eye bearing shaft threaded into the other opening, and a nut threaded over the eye bearing shaft and abutting the outer face of the adjacent end of said rectangular member to hold the latter against turning, said nut having wings formed to engage the side of the tire so as to be itself held against rotation thereby.

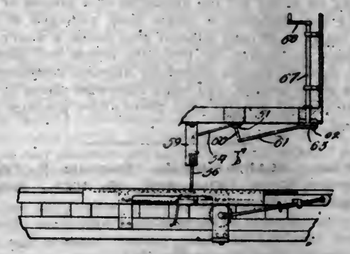
1,256,539. WINDOW-ENVELOP. CARL O. EKVALL, Brooklyn, N. Y. Filed Feb. 10, 1917. Serial No. 147,748. (Cl. 229—71.)



1. As an improved article of manufacture a window envelop having the patch arranged to overlap the fold between the front and back of the envelop, and with the upturned edge broken or irregular in contour.

2. As an improved article of manufacture, a window envelop having the patch which covers the window provided with an irregular or broken lower edge whereby when the said edge is turned up it offers a broken obstruction to an insert in the envelop.

1,256,540. SWITCH-THROWING MECHANISM. CHARLES S. EPPLEY, York, Pa. Filed Feb. 23, 1915. Serial No. 9,914. (Cl. 104—24.)

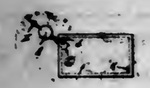


In combination with a car, brackets mounted upon the bottom of the car, push plungers mounted in said brackets, bell crank levers comprising transverse axially alined horizontal portions rockably mounted in bearings on the bottom of the car, said alined horizontal portions having rearwardly and downwardly extending arms, the extremities of the rearwardly extending arms being connected respectively to the push plungers, a rocking device to be manually manipulated by the motorman and having a cross bar at its lower end, links connecting the ends of said cross bar and the lower ends of the downwardly extending arms of the bell crank levers, whereby as the rocking device is manipulated in one direction or the other, either one of the plungers may be depressed in the path of an element of a switch operating mechanism, and means for restoring the plungers to their normal positions.

1,256,541. MEANS FOR MAKING MINERAL WOOL. WILLIAM FAY, St. Louis, Mo. Filed Mar. 3, 1917. Serial No. 152,329. (Cl. 49—1.)

1. In an apparatus for making mineral wool, a cupola having an outlet for the discharge of a stream of molten scoriaceous material, a combined blast pipe and mixing chamber arranged to discharge its contents into the stream of molten material, means for conducting steam into said combined blast pipe and mixing chamber, and means for conducting a dust-settling fluid into the steam before it reaches the discharge end of said combined blast pipe and mixing chamber, said combined blast pipe and mixing

chamber having a long angular portion wherein the steam and dust-settling fluid are commingled with each other.

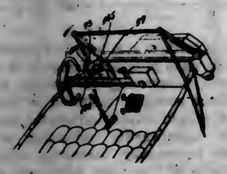


2. In an apparatus for making mineral wool, a cupola having an outlet for the discharge of a stream of molten scoriaceous material, a steam blast arranged to project said material to form mineral wool fibers, a wool chamber arranged to receive the projected steam and fibers, and means for confining the contents of said wool chamber so as to maintain a pressure created therein by the steam blast.

3. In an apparatus for making mineral wool, a cupola having an outlet for the discharge of a stream of molten scoriaceous material, a combined blast pipe and mixing chamber arranged to discharge its contents into the stream of molten material, means for conducting steam into said combined blast pipe and mixing chamber, means for conducting a dust settling substance into said combined blast pipe and mixing chamber, a wool chamber arranged to receive the projected wool fibers and the blast of steam and dust settling substance, and means for preventing the fluid contents of said wool chamber from escaping freely, thereby confining the wool fibers, steam and dust settling substance under a pressure created by the blast.

4. In an apparatus for making mineral wool, a cupola having an outlet for the discharge of a stream of molten scoriaceous material, a steam blast arranged to project said material to form mineral wool fibers, a wool chamber arranged to receive the projected steam and fibers, said wool chamber having oppositely disposed restricted vents at its upper portion, and being otherwise closed to confine the steam and mineral wool fibers under pressure created by said blast.

1,256,542. ALARM-SIGNAL. VLADIMIR P. FEDOROFF, Meriden, Conn. Filed Sept. 29, 1917. Serial No. 193,897. (Cl. 116—44.)

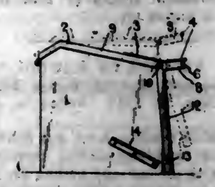


1. In an alarm signal, the combination with a casing, a bell mounted therein and means for actuation whereof, of means receptive of a cartridge in said casing, a plunger adapted to detonate said cartridge, means combined with said plunger for liberating the actuating element of said bell, means for holding said plunger in an operative position, and means for releasing said plunger upon oscillating said casing.

2. In an alarm signal, the combination with a hollow casing, of a bell therein, means for operating said bell, means receptive of a cartridge formed in said casing, a plunger adapted to detonate the cartridge, means for propelling said plunger forward, means for holding said plunger when in a retracted position, and means for releasing said plunger coincident upon manipulating said casing.

3. In an alarm signal, the combination with a casing having a side opening, a cover hingedly engaged thereover and a slidable cover over the top of said casing, of means for locking said slidable cover in position, a cartridge receiving means in said casing, a plunger adapted to detonate said cartridge, means for engaging said plunger in an operative position, a slidable rod having characters mounted in said casing, means for rotating said rod, and means combined with said rod whereby said plunger is released.

1,256,543. MAIL-BOX. GLENN D. FISH, Norwalk, Ohio. Filed Apr. 17, 1917. Serial No. 162,764. (Cl. 232—45.)



1. A mail box comprising a container having a lid hingedly mounted thereon, a pair of lips, one mounted at each end of and projecting forwardly from the said lid, a lifting bar, a pair of clip plates, one mounted on each end of the container, and locking means suspended from the said bar and pivotally carried by the lid to engage the said clip plates.

3. A mail box comprising a container having a lid hingedly mounted thereon, a pair of lips fastened to and projecting from the lid, the said lips being disposed at a slight angle, a lifting bar having arms formed at its ends, and connected to the said lid, latching means adapted to be released by movement of the said bar prior to engagement with the lips, the said means including latches suspended from the said arms, each latch having a notch formed therein; and a clip plate adapted to receive the corresponding notch.

6. A mail box comprising a container having a lid hingedly mounted thereon, a clip plate secured to each end of the container, the said lid having a depending flange at each end thereof, a latch pivotally suspended from each flange and including a notch engageable with the said clip plate, means carried by the latches for lifting the said lid and disengaging the said notches from the clip plates, the said means including arms disposed at right angles from the latches, a pair of lips projecting over the lid and disposed at a slight angle with respect to the arms, and a lifting bar connecting the ends of the said arms.

[Claims 2, 4, and 5 not printed in the Gazette.]

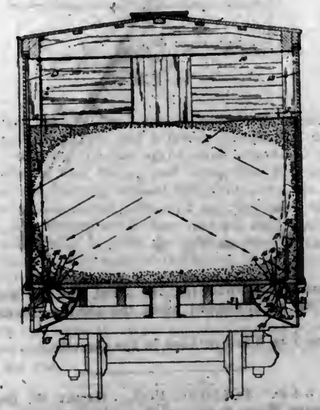
1,256,544. RELIEF TRAP-DOOR FOR GRAIN-CARS. HANS FLATTEM, Minneapolis, Minn. Filed June 6, 1917. Serial No. 173,100. (Cl. 105—14.)

1. The combination with a car body having a grain relief opening in the floor thereof, of a trap door for said relief opening, and a spout arranged to deflect the grain discharged through the relief opening to one side of the car body, said trap door being hinged to the car body for swinging movement therebelow and into the spout.

2. The combination with a car body having a door opening and a door therefor, of a grain relief opening in the floor of the body at the door opening, a metal frame in said relief opening with an outturned flange resting on the floor of the car body and supporting said frame therefrom, and a trap door comprising a metal marginal frame with an outturned flange supporting a wooden panel, the frame of said door being fitted within the frame of said relief opening and hinged thereto for swinging movement below the car body.

3. The combination with a car body having a door opening and a door therefor, of a grain relief opening in the floor of the car body at the door opening, a trap door for the relief opening hinged for swinging movement below the floor of the car body, a lock bolt for holding the trap door closed, a lever for operating said latch bolt, and means for locking said lever in a position to hold the lock bolt in an operative position.

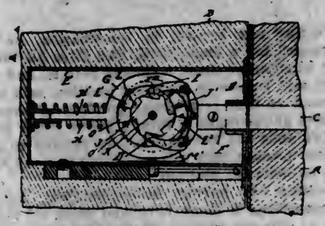
4. The combination with a car body having a door opening and a door therefor, of a grain relief opening in the floor of the car body at the door opening, a trap door for the relief opening hinged for swinging movement below the floor of the car body, a lock bolt for holding the trap door closed, an intermediately fulcrumed lever having its short end connected to the lock bolt, a link pivoted to the long end of said lever, a socket member for receiving the free end of said link to hold said lever with said lock bolt in an operative position, and a lock for holding said link in said socket member.



5. The combination with a car body having a door opening and a door therefor, of a grain relief opening in the floor of the car body at the door opening, a trap door for the relief opening hinged for swinging movement below the floor of the car body, a plurality of lock bolts for holding the trap door closed, a rock shaft having a plurality of arms connected to said lock bolt for simultaneously operating the same, a lever for oscillating the rock shaft, and a lock for said lever.

[Claim 6 not printed in the Gazette.]

1,256,545. DOOR-LOCK-CONTROLLED ELECTRIC SWITCH. JOHN R. FOLGER, Detroit, Mich. Filed Feb. 26, 1916. Serial No. 80,590. (Cl. 175—291.)



1. In an electric switch, the combination with a movable part adapted upon rotation in the same direction to alternately make and break the circuit, of a member for operating said switch, and a spring acting upon said member to displace it to a position to normally close the circuit.

3. In an electric switch, the combination with a reciprocatory controlling member, of oppositely acting pawls carried by said member, a ratchet wheel engaged by said pawls, rotating contact members actuated through said ratchet wheel, coacting stationary contact members, having inclined faces with which the rotating contact members are engageable and a spring acting axially upon the rotary contact members effecting a snap axial movement of the rotative contacts at the moment of engagement with and disengagement from the stationary contacts.

5. In an electric switch, the combination with a reciprocatory controlling member, of oppositely acting pawls pivotally carried by said member, a ratchet wheel engaged by said pawls, a spring coacting to maintain engagement of both pawls with the ratchet wheel, rotating contact members actuated through said ratchet wheel and coacting stationary contact members.

[Claims 2 and 4 not printed in the Gazette.]

1,256,546. WALL-SWITCH. CHARLES FORTH, Ottawa, Ontario, Canada. Filed Feb. 2, 1916. Serial No. 75,662. (Cl. 175—282.)



1. In a wall switch, the combination of a casing comprising a rear member having two side walls and a rear wall and open at its front and ends, said member provided with means for securing it in the wall, contact plates on the rear wall of said member adapted to be connected respectively with circuit conductors, and a front member having a front plate adapted to close over the front of the rear member and having also rearwardly extending walls to close the open ends of the rear member, means for securing the front member detachably to the rear member, and a switch sustained by the front member and adapted to coöperate with the contact plates in controlling the circuit, whereby by detaching the front plate the switch levers may be removed from the rear member, thereby exposing all the parts to view.

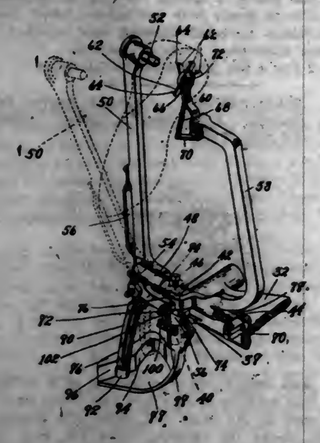
2. In a wall switch, the combination of a casing comprising a rear member open at its front and ends and adapted to be fastened in the wall, and a front member provided with a front plate having slots therein and adapted to close the front of the rear member, and having also rearwardly extending walls adapted to close the open ends of the rear member, contact plates on the rear member adapted to be connected respectively with circuit conductors, means for securing the front member detachably to the rear member, a shaft mounted in bearings in the rearwardly extending walls of the front member, a series of switch-levers mounted side by side on said shaft and extending outwardly through the slots in the front plate, and contact heads on the levers adapted in the movements of the levers to coöperate with the contact plates in controlling the circuits.

3. In a wall switch, the combination of a casing comprising a rear member provided with means for securing it in the wall and adapted to have the terminals of an electric circuit connected therewith, said member having an open front, a front member detachably connected with the rear member to cover the open front of the same, and a switch sustained by the front member and extending into the rear member and removable with the front member from the rear member, said switch adapted to coöperate with said terminals, and having a handle extended through the front member for actuation.

1,256,547. WORK-SUPPORT FOR SHOE-MACHINES. ALFRED B. FOWLER, Beverly, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed June 12, 1915. Serial No. 33,703. (Cl. 12—87.)

1. In a machine for trimming an insole attached to a last, the combination of a support for the last, a member for engaging the heel portion of the insole to position it in relation to the last, and means for relatively positioning said support and member when idle with the member in laterally offset relation to the last, said support

and member being arranged to assume relative positions with the member over the last bottom through a movement of the support.



6. In a machine for trimming to the contour of the heel end of a last the heel portion of an insole attached to the last, the combination with a cutter of a work support having means for positioning a last for rotation about an axis in its heel portion to bring different portions of the insole into position to be trimmed, said support being movable about a substantially horizontal axis to carry the work toward or from the cutter and about a substantially upright axis to vary the angular relation of the plane of the heel seat to the cutter, and means for adjustably limiting said last named movement of the support in both directions.

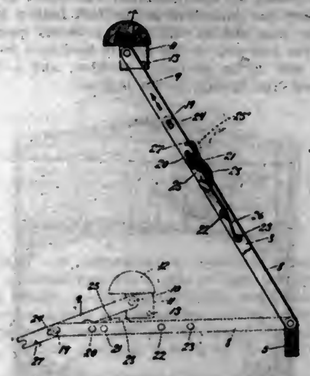
13. In a shoe machine, a last support mounted for swinging movement to carry the work into position to be operated upon by the machine, and means for automatically engaging and clamping shoe stock upon the bottom of the last during said movement of the last support, said means including a clamp member mounted to swing with the support after said member has engaged the stock.

18. In a shoe machine, a last support mounted for swinging movement to carry the work into or out of position to be operated upon by the machine, a device for engaging and clamping shoe stock upon the bottom of a last on said support, said device being mounted to swing with the support, and means for limiting the outward movement of said device relatively to the movement of the support to permit the support to carry the last to one side of said device.

[Claims 2 to 5, 7 to 12, 14 to 17, and 19 to 25 not printed in the Gazette.]

1,256,548. BABY-WALKER. JOSEPH GANNON, Walton, N. Y., assignor to Steinfeld Bros., New York, N. Y., a Firm composed of Samuel Steinfeld and Leo Steinfeld. Filed Feb. 25, 1914. Serial No. 820,891. (Cl. 155—45.)

4. In a device of the class described, in combination, a base ring, a breast rail, a plurality of members each of which is pivotally suspended from said breast rail, a plurality of struts each including a plurality of spaced bars, each of said struts being pivotally mounted at its lower end on said base ring, a slot and pin connection between each of said members and each of said struts, a plurality of alining means each of which is partially carried by one of said members and partially carried by the associated strut all so arranged that each of said members may be alined relatively to its associated struts to dispose a portion of said member between the bars of said associated strut thereby to permit said alining means to be predeterminedly set, a notch formed in the outer edge of each of said members, and a spring actuated pivoted latch lever associated with each strut and carrying a tooth adapted to engage the notch of the associated member when said alining means is set, said lever also constituting a means for throwing the strut and its associated member out of alinement when the alining means is disengaged.



[Claims 1 to 3 not printed in the Gazette.]

1,256,549. FOLDING BOX. HENRY W. GOODNOW, Worcester, Mass., assignor of one-half to John P. Ryan, Worcester, Mass. Filed Mar. 6, 1917. Serial No. 152,603. (Cl. 206—30.)



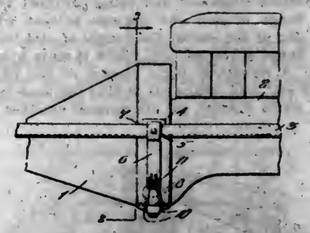
1. A folding box having, in combination, an outer member comprising a front, back, and sides all hingedly connected at adjacent edges, a folding bottom, and means to support said bottom in operative position, said bottom being formed of four rectangular portions of sheet material hinged at the edges to form a hollow inner member having open ends and having one face secured to a face of the outer member, said bottom closing one end of said box when in operative position.

2. A folding box having, in combination, an outer member comprising a front, back and sides all hingedly connected at adjacent edges, a double folding bottom, and means to support said bottom in operative position, said means comprising integral portions of one face of said box adapted to be bent toward the interior of said box when the parts are unfolded, thereby forming a support for the bottom.

5. A folding box adapted for attachment to a display-card comprising a foldable outer body member and a foldable inner bottom member, the back of said outer member being permanently secured to said display-card and having integral portions free from said card and adapted to be bent forward after the body member is unfolded, one side of said bottom member being permanently secured to the inside of the front of said body member, and said bottom member being supported by said portions when in operative position.

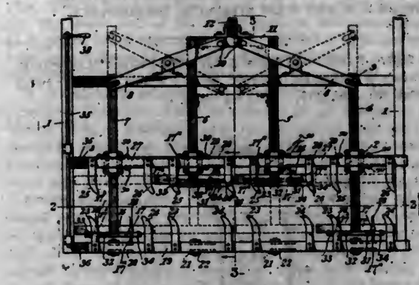
[Claims 3 and 4 not printed in the Gazette.]

1,256,550. CRANK-CASE SUPPORT. FRANK ARTHUR GOOLD and WILLIAM GRANT BAXTER, Montfort, Wis. Filed Sept. 12, 1917. Serial No. 190,989. (Cl. 74—56.)



In a motor vehicle, the combination with a crank case having supporting arms and a frame comprising channel bars, of a support for the crank case connected to the channel bars of the frame and extending beneath the crank case and having means for tightening the same, said support comprising plates at the opposite sides of the crank case, each plate having its ends bent angularly, and one end having a catch for engaging over the adjacent channel bar, said ends of the plates being secured to the channel bars and the supporting arms of the crank case, rods having their ends bent to conform approximately with the curvature of the crank case and extending beneath the same, the other angular ends of the plates having openings through which the rods extend, and nuts engaging the rods.

1,256,551. BOAT-PROPELLER. HAYWOOD WASHINGTON GRAY, Adel, Ga. Filed Oct. 10, 1916. Serial No. 124,845. (Cl. 115—33.)



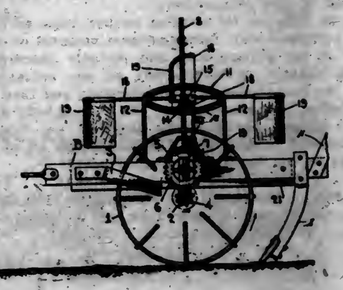
1. In a hydraulic propelling apparatus for boats comprising a frame, reciprocating beams mounted therein, a rack fixed to each beam, a rock shaft journaled in each rack, a blade upon each rock shaft, movable reversing bars, cam projections thereon, a crank pin carried by each rock shaft and adapted to contact with a cam projection, and connections between the shafts.

3. In a hydraulic propelling apparatus for boats comprising a frame, reciprocating beams mounted therein, a rack fixed to each beam, a plurality of rock shafts journaled in each rack, a blade upon each rock shaft, longitudinally movable bars, each having a groove in the face thereof, means upon the frame engaging said grooves, cam projections upon the bars, crank pins fixed one to each rock shaft, pivotal connections between the rock shafts of each rack to cause the same to rock together, and means for moving the longitudinal bars.

6. In a hydraulic propelling apparatus for boats comprising a frame, racks and longitudinal beams secured thereto, propelling blades carried by the racks, a cross-piece connecting the intermediate of said beams, levers pivoted upon the frame and at their outer ends to the outermost of the side beams and the inner ends of said levers pivotally connected to said cross-piece a pitman pivotally connected to the cross-piece, and means for feathering the blades when moving in one direction.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,256,552. INSECT-CATCHER. LUTHER D. GRIFFIN, ALBERT J. STEWART, and GRATTON W. STEWART, Blocton, Ala. Filed May 22, 1917. Serial No. 170,320. (Cl. 43—1.)

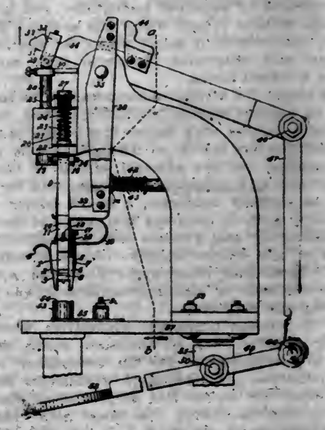


1. The combination with a plow; of a supporting structure, plant agitators carried by said structure, and controlling means for said agitators to cause them to automatically move in different vertical planes to engege both low and high plants.

5. The combination with a plow of an upstanding shaft, means for rotating said shaft, plant agitators carried by said shaft to turn in a horizontal plane and mounted to move vertically, and means disposed in the path of said agitators to automatically raise and lower them to insure their engagement with both high and low plants.

[Claims 2 to 4, 6, and 7 not printed in the Gazette.]

1,256,553. DEVICE FOR STAPLING LEATHER LOOPS. CASPER HUGO GRINGS, Waterloo, Iowa. Filed Apr. 16, 1917. Serial No. 162,506. (Cl. 1—4.)



1. In a device for stapling leather loops, in combination, a movable holder for a strip of material consisting of a die and a relatively movable spacing-block supported thereunder to hold the middle part only of a strip of material between them, and forming bodies movable against the projecting ends of the strip to form it into a loop about the said spacing-block.

5. In a device for stapling leather loops, in combination, a movable plunger-body, a spacing-block supported below and spaced from said plunger-body, and bodies

movable first past opposite ends of the interspace of said plunger-body and said spacing-block and second toward each other below said spacing-block, to form a strip of material held between said plunger-block and spacing-block into a loop about the spacing-block.

9. In a device for stapling leather loops, in combination, a plunger-body, a slide-body slidably mounted on said plunger-body, orificed guides on opposite sides of said plunger-body, and forming-fingers pivotally connected to said slide-body and slidable through said guides past the end of said plunger-body.

17. In a device for stapling leather loops, in combination, a plunger-body, forming-fingers mounted on opposite sides of the plunger-body and movable thereover, and means adapted to successively at one actuation first move the fingers along the plunger-body and then toward each other, and second, move the plunger-body and said fingers simultaneously in one direction.

[Claims 2 to 4, 6 to 8, 10 to 16, and 18 to 20 not printed in the Gazette.]

1,256,554. SYSTEM OF WIRELESS TELEPHONY. WALTON HARRISON, New York, N. Y. Filed Oct. 30, 1914. Serial No. 869,361. (Cl. 250—6.)



2. In a wireless telephone transmitting system the combination of a direct-current source of electricity, a circuit connected thereto and having its constants apportioned and arranged approximately at the critical point for the development of sustained oscillations, and a solid-contact microphone included in said circuit and having its resistance normally unstable for the purpose of starting said oscillations.

4. The combination of a direct-current source of electricity, a circuit connected thereto and having its constants apportioned and arranged at a point critical for the development of sustained oscillations, and a carbon microphone included in said circuit and having a variable resistance controllable by sound waves for starting said oscillations and impressing the same with variations analogous to sound waves.

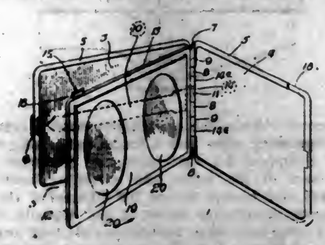
7. In a system for wireless communication the combination of an antenna having a lengthy portion disposed substantially parallel with the surface of the earth and in inductive relation thereto so that said lengthy portion of said antenna and the adjacent surface of the earth act collectively as a condenser and thus avoid the necessity for an ordinary condenser, a direct current source of electricity, a circuit including said source of electricity and connected to said antenna and to the earth, the constants of said circuit inclusive of said antenna and the earth connection being apportioned and arranged for the development of sustained oscillations, and means for starting said oscillations.

15. In a wireless telephonic transmitter system an oscillating circuit having its constants nearly but not quite in proper proportion for the development of sustained oscillations, and a telephonic transmitter included in said circuit for the two-fold purpose of starting said oscillations and impressing the same with characteristics analogous to sound waves.

[Claims 1, 3, 5, 6, 8 to 14, and 16 not printed in the Gazette.]

1,256,555. CIGARETTE-CASE. THOMAS F. HATHAWAY, Elgin, Ill., assignor to Illinois Watch Case Company, Elgin, Ill., a Corporation of Illinois. Filed Apr. 6, 1916. Serial No. 89,320. (Cl. 206—41.)

1. In a device of the class described, the combination, of a pair of leaves, each leaf having its central portion depressed and being provided with a peripheral inturned flange, coöperating lugs on the leaves, a pin extended through said lugs and serving to hinge them together, a false leaf hinged on said pin, said false leaf having its central portion depressed and being provided with a peripheral flange of size and contour to seat within the flange of one of the leaves, the flanges of said leaf alining with the flange of the leaf into which it seats when it is to be seated, a receptacle for a picture or the like on the back false leaf, and means for locking the false leaf to the leaf into which it seats, for the purpose specified.

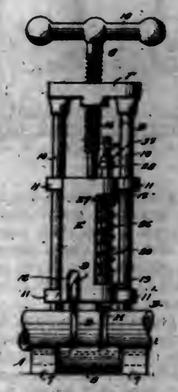


4. In a device of the class described, the combination of a pair of leaves, a pin on which said leaves are hinged, a false leaf hinged on said pin, said false leaf being of contour appropriate to seat evenly into one of the first mentioned leaves, a receptacle for a photograph or the like on the back face of said false leaf, and means for locking the false leaf to the leaf into which it seats, for the purpose specified.

6. A casing having, in combination, a front cover, a back cover, an intermediate cover with its edges closely fitting into one of said other covers, and with a space between the adjacent faces of said two last-named covers, and a pintle upon which said three covers are pivoted.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,256,556. PIPE CUTTING AND GROOVING MACHINE. ERNEST W. HEDGES, Detroit, Mich. Filed Nov. 14, 1916. Serial No. 131,257. (Cl. 81—191.)



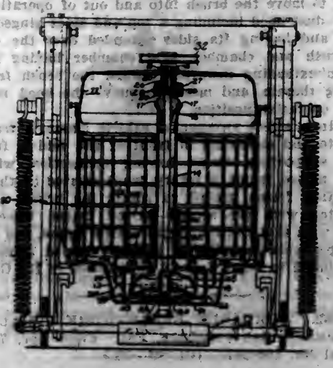
1. A pipe cutting and grooving machine comprising in combination, an abutment for the pipe, a cutting tool, a carriage for said cutting tool, a grooving tool, means for yieldably supporting said grooving tool from said carriage, and a device for moving said carriage toward said abutment.

5. In a pipe grooving machine, the combination of an abutment for the pipe, a carriage, a member provided with a socket, said member carried by said carriage and reciprocable independently thereof toward and from said abutment, a device for limiting the amplitude of movement

of said member toward said abutment, a spring for normally forcing said member toward said abutment, and a grooving tool in said socket.

[Claims 2 to 4 and 6 to 8 not printed in the Gazette.]

1,256,557. WASHING-MACHINE. THADDEUS W. HEMMAWS, Evanston, Ill. Original application filed May 16, 1917, Serial No. 168,956. Divided and this application filed June 15, 1917. Serial No. 174,856. (Cl. 141—9.)



1. A washing machine for the purpose set forth comprising a container provided at its bottom with a well and above the well with a washing compartment, a stand pipe extending from the well into said washing compartment, a water lifting device within the lower end of the stand pipe, means for operating it, an open top shell surrounding the lower end of the stand pipe, a skirt surrounding and spaced from the upper end of the shell, with its lower edge spaced from the bottom of the well and a cover surrounding said stand pipe and fitted over said skirt.

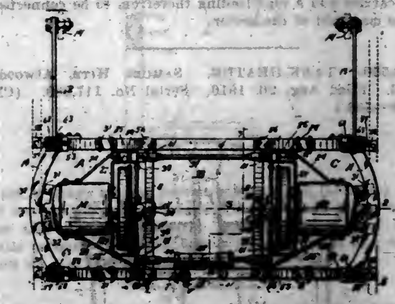
5. A washing machine for the purpose set forth comprising a container, which is reduced at its bottom to provide a well, a washing compartment above said well, an upwardly removable stand pipe open at its bottom and extending from the well upwardly into the washing compartment and provided at its upper end with a spray nozzle, a rotative water raising impeller in the lower end of said stand pipe, an open top shell surrounding the lower end of the stand pipe and of greater diameter than the lower end of the stand pipe whereby the stand pipe may be removed upwardly therethrough, a skirt surrounding and spaced from the upper end of the shell, with its lower edge spaced from the bottom of the well, a cover plate surrounding said stand pipe and removably supported on the upper edge of the skirt, and straining means supported on the upper open top of said shell and extending across the space between the stand pipe and said shell.

6. A washing machine for the purpose set forth comprising a container formed at its bottom to provide a well and above the well with a washing compartment, a stand pipe extending from said well upwardly into the washing compartment and open at its lower end, a rotative water lifting impeller mounted in the lower end of said stand pipe and provided with a shaft extending upwardly through the stand pipe, a cover removably fitted to the top of the container, a bearing member secured to the cover and extending downwardly into the upper open end of the stand pipe and formed with orifices to constitute a spray nozzle and a sleeve rotatively mounted in said member and interlocked to said shaft and provided with a drive wheel.

8. A washing machine for the purpose set forth comprising a container provided at its bottom with a well and thereabove with a washing compartment, a stand pipe extending from the well into said compartment and provided with a water raising device, vertically overlapping and radially separated walls surrounding the lower end of said stand pipe to constitute an indirect water passage between the well and the bottom of the stand pipe and a screen arranged across said passage.

[Claims 2 to 4 and 7 not printed in the Gazette.]

1,256,558. MOTOR-VEHICLE. FREDERIC W. HILD, Denver, Colo. Filed Oct. 2, 1916. Serial No. 122,297. (Cl. 105—289.)



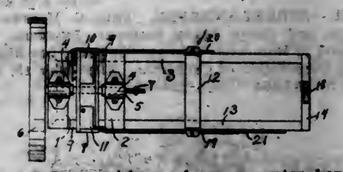
1. The combination with the transverse wheel truck of a motor car, of a pair of wheels mounted thereon so as to swing independently of each other about vertical axes, and a separate motor for each wheel adapted to swing therewith, the said motors being supported at the outer sides of the corresponding wheels.

2. The combination with the wheel truck of a motor car, of a pair of wheels mounted thereon so as to swing independently of each other about vertical axes and flexible means connecting said wheels.

3. The combination with the transverse wheel truck of a motor car, of a pair of wheels mounted thereon so as to swing independently of each other about vertical axes and a pair of parallel rods flexibly connecting said wheels.

[Claims 4 to 9 not printed in the Gazette.]

1,256,559. MOTOR-LIMBERING STAND. JAMES HOUSTON HILL, Fort Worth, Tex. Filed Mar. 12, 1917. Serial No. 154,113. (Cl. 73—51.)



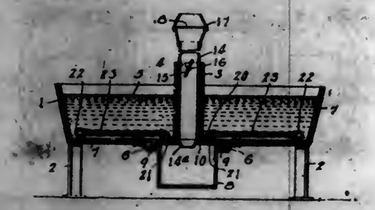
1. A stand comprising a frame, a motor hanger attached to said frame to receive a motor to be started to working, a bearing frame coöperating with said hanger, a power pulley and a shaft therefor journaled in said bearing frame to be driven by external power, a universal coupling for coupling the motor shaft to said power shaft, and means for supplying power fuel and sparking current for the motor carried by said frame until said motor has been started to working.

2. A stand comprising a frame, a motor hanger attached thereto, an upright member attached to said frame and provided with a bearing for coöperating with said hanger, bearing frame members attached to said frame and bearings carried thereby, a power pulley provided with a shaft journaled in said bearings, a carrier removably mounted on said frame, means mounted on said carrier for supplying power fuel and sparking current to the motor carried by said frame, and a universal coupling for connecting the shaft of the motor to the shaft of said power pulley.

3. A stand comprising a frame, a motor hanger attached thereto, an upright bearing member attached to said

frame and provided with a bearing cooperating with said hanger to support a motor in operative position, upright frame members attached to said frame and provided with bearings, a power pulley provided with a shaft journaled in said bearings, a carrier removably mounted on said upright frame members, an electric coil mounted on said carrier, commutator and sparking wires connected therewith and to be connected with the motor to be tested, and a gasolene carrying tank mounted on said carrier and a pipe leading therefrom to be connected to the manifold of the motor.

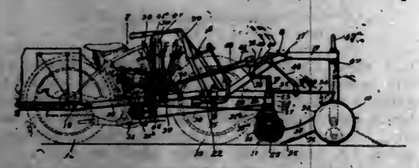
1,256,560. TANK-HEATER. SAMUEL HITE, Atwood, Ind. Filed Aug. 26, 1916. Serial No. 117,089. (Cl. 126—368.)



2. A tank water heater including a trough, a flue extending upwardly through the trough and opening through the top and bottom thereof, the upper end of the flue being provided with diametrically opposed bayonet slots, transversely disposed guide members extending across the bottom of the trough, a removable fire box provided with side flanges which are slidably engaged by the said guide members to support the fire box, said fire box having an opening in the top thereof adapted to be brought into registry with the flue, a smoke pipe extending through the flue and having the lower end thereof in engagement with the opening of the fire box to hold the fire box in position, and a damper within the smoke pipe, said damper including a spindle of which the ends are adapted to interlock with the bayonet slots of the flue to hold the smoke pipe in position.

[Claim 1 not printed in the Gazette.]

1,256,561. STREET-SWEEPER. FRED C. HOFFER, Los Angeles, and JESSE FRANK SMEDLEY, Pasadena, Cal., assignors to Motorcycle Sweeper Company, Los Angeles, Cal., a Corporation of California. Filed May 15, 1916. Serial No. 97,464. (Cl. 15—17.)



1. In a street sweeping machine, a frame adapted to be connected with a motor vehicle, a brush supported by the frame, means associated with the motor of the vehicle for rotating the brush, means for moving the brush into and out of operative position, a rubbish chamber located in front of the brush and adapted to receive rubbish swept up by the brush, and means to move said rubbish chamber into dumping position.

5. A street sweeper comprising a frame, a rotary brush carried by the frame, a cylindrical rubbish chamber rotatably mounted in front of the brush, said chamber having an opening in one side thereof through which rubbish swept up by the brush enters the receptacle, a plate carried by the chamber and extending toward the brush from one longitudinal edge of the opening therein, a dust hood mounted over the brush and chamber, and means to rotate the chamber to move the opening therein into position whereby the rubbish may be discharged therethrough.

6. A street sweeper comprising a frame, a brush rotatably mounted upon said frame, a rubbish chamber rotatably mounted in front of the frame upon the brush and having a longitudinal opening therein through which rubbish swept up by the brush passes into the chamber, means to rotate the chamber to bring the opening therein into position whereby the rubbish will be discharged, means to move the brush into and out of operative position, a dust hood including a top and sides hinged to the frame and having its sides extended over the ends of the brush and chamber, said chamber having a plate thereon extending inwardly toward the brush from the opening therein, and means to move the hood into and out of operative position.

19. In a street sweeper, a vehicle frame, a frame secured to and extending in front of the vehicle frame, a brush supporting frame having connection with the second named frame, a rotary brush carried by the brush supporting frame, means to rotate the brush, a frame connected with the second named frame, wheels connected with said frame and the vehicle frame, and rubbish receiving means carried by the last named frame.

[Claims 2 to 4 and 7 to 18 not printed in the Gazette.]

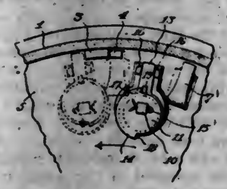
1,256,562. PORTABLE BREASTWORK. WILLIAM G. HOFFMANN, San Francisco, Cal. Filed Apr. 7, 1917. Serial No. 160,547. (Cl. 89—36.)



2. A portable breastwork comprising a main plate, and a second plate hinged to said main plate in a line spaced from the edge thereof whereby a portion of the main plate projects across the hinge opening between said plates.

[Claim 1 not printed in the Gazette.]

1,256,563. FASTENER FOR METER-BOXES. JULIUS H. HOLMGREEN, San Antonio, Tex. Filed Feb. 25, 1914. Serial No. 820,905. Renewed Dec. 26, 1917. Serial No. 208,978. (Cl. 70—8.)



In a meter-box, a cylindrical casing, a cover turnable on the casing, a stop on the inner face of the casing, a catch on the under side of the cover to engage said stop when the cover is turned in one direction, said stop by its engagement with the catch limiting the turning of the cover when so moved, a bolt journaled in said cover, a plate with an eccentric bearing fast on the bolt inside of the cover, diametrically opposite stops on said plate, a latch journaled on the eccentric bearing inside of the cover, means for rotating the bolt from the outside of the cover to turn said plate to project the latch outward to engage the stop on the inner face of

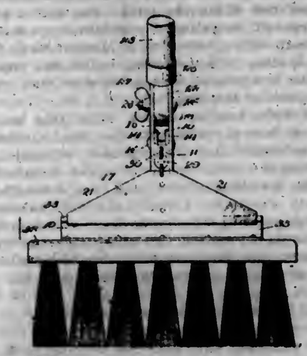
the casing to hold the cover against turning in the opposite direction to free the catch from said stop, and a pin on said latch to engage the diametrically opposite stops to limit the turning of said plate to the advanced and retracted positions of the latch.

1,256,564. HEEL-PLATE FOR ICE-SKATES. ERNEST HUNOLD, Providence, R. I. Filed Aug. 8, 1917. Serial No. 185,207. (Cl. 46—50.)



A heel plate for ice skates having a central circular recess and a concentric V-shaped groove in its top, a heel screw screwed into the heel plate and having a beveled-edged collar in the recess, a screw-threaded stud above the collar and shaped to have a reduced neck portion swelling into a head portion which tapers into a pointed end, the wall of the recess being pressed over and on to the beveled edge of the collar, for the purpose as shown and described.

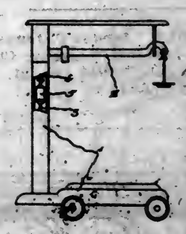
1,256,565. HOLDING IMPLEMENT. HOWARD T. INGHRAM, Chicago, Ill. Filed Mar. 29, 1917. Serial No. 158,412. (Cl. 15—54.)



In an implement of the class described, coacting head members each including a connecting web and side portions, means for swingingly uniting said side portions, coacting gripping members connected respectively to said web portions and each having an inwardly directed flange at its forward edge adapted to engage one side of the article to be held and inwardly directed flanges at its side edges adapted to bear at one end against the other side of the article to be held and bearing by their other ends against the side portions of the head members and bracing and supporting the same, a handle connected between the side portions of one of said head members, and means for forcibly moving said gripping members toward each other.

1,256,566. SPIN-SCALE. TAHEI IUCHI, Tokushima, Japan. Filed Mar. 14, 1917. Serial No. 154,758. (Cl. 265—71.)

A spin scale of the character described comprising in combination, a movable scale beam, a hollow standard and bi-partite connecting rod within said standard having its upper part rotatably suspended from the fulcrum of said scale beam and its lower part secured to the scale, a bulb between both parts of said rod, a hook for securing the upper end of said bulb to the upper part of said rod, a closing member fitting into the lower end of said



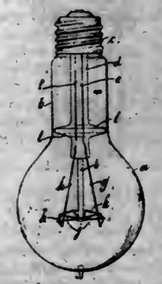
bulb, a flange secured to the upper end of the lower part of the connecting rod passing through said closer member and extending into the hollow space of said bulb, balls between the lower surface of said flange and upper face of said closing member.

1,256,567. INCANDESCENT LAMP WITH CONCENTRATED METALLIC FILAMENT. HERMAN J. JAEGER, Weehawken, N. J., assignor to H. J. Jaeger Company, Hoboken, N. J., a Corporation of New Jersey. Filed Mar. 16, 1915. Serial No. 14,682. (Cl. 176—16.)



A metallic filament lamp comprising a globe with an inner stem and two leads having their ends opposite each other, a glass rod with top rim fused to the stem, a plurality of alternately long and short filament supports in said rim, and two semi-circularly arranged concentrated tungsten filaments alternately bent down and up to connect with the short and long supports and retaining the outlines of a circle.

1,256,568. METALLIC-FILAMENT LAMP FILLED WITH NITROGEN. HERMAN J. JAEGER, Weehawken, N. J. Filed Mar. 17, 1916. Serial No. 84,795. (Cl. 176—16.)



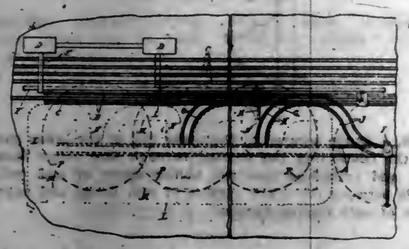
1. A metallic filament lamp filled with an inert gas comprising a globe, a hollow stem with leads and an incandescing filament in connection with the leads, said stem having means formed integrally therewith for deflecting the circulating hot inert gas during the operation of the lamp and protecting thereby its base.

8. In a metallic filament lamp filled with an inert gas, a hollow glass stem with the leads sealed therein at its inner end portion, and an incandescing filament on said

leads, the said glass stem being provided with a very thin hollow glass rim formed integrally therewith by fusing that glass section of the stem and blowing up the thin rim.

[Claims 2 to 7 not printed in the Gazette.]

1,256,569. COAL PILE. ARTHUR C. JOHNSTON, Chicago, Ill., assignor to Link-Belt Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 21, 1916. Serial No. 138,184. (Cl. 214—10.)

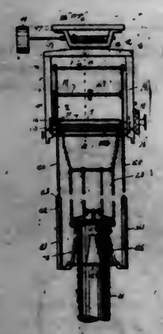


1. A pile of material having a series of recesses along a side thereof extending inwardly thereinto, the distance between adjacent recesses being approximately equal to the width of the pile.

6. A pile of material having a series of recesses along a side thereof extending inwardly thereinto substantially to the middle of the pile, the remainder of the pile except aforesaid recesses being substantially continuous, the distance between such recesses being such that a material handling apparatus in one recess may reach to the edge of the pile opposed from the recess and cover the space between it and the space reached by a similar material handling apparatus in the other recess.

[Claims 2 to 5 not printed in the Gazette.]

1,256,570. DRYING-MACHINE. JAMES S. JOHNSTON, Utica, N. Y. Filed Mar. 21, 1913. Serial No. 755,828. (Cl. 26—16.)



1. In a drying machine, an accumulating device, a stretching frame, means for detachably securing said stretching frame to a hot air pipe, a ring having clips suspended below said accumulating device, and means for vertically reciprocating said ring having clips, whereby to aid in drawing the fabric up over the said pipe.

4. In a drying machine, a hot air pipe, a ring having clips suspended about said hot air pipe and adapted to engage the surface of a fabric, cams, and rings having arms engaging said cams, whereby to vertically reciprocate said ring having clips to aid in drawing said fabric up over said pipe.

6. In a drying machine, a hot air pipe, a ring suspended about said hot air pipe, clips secured to said ring in a manner to give a certain resiliency to their free ends, hollow members for supporting said ring, arms mounted to said hollow members, rings integral with the upper ends of said arms, cams, means for holding said rings to said cams, and means for revolving said cams, whereby to vertically reciprocate said ring having clips to aid in pulling a fabric up over said pipe.

11. In a drying machine, a hot air pipe, clips to aid in drawing a fabric up over said pipe, a stretching frame, and means for folding said fabric.

[Claims 2, 3, 5, and 7 to 10 not printed in the Gazette.]

1,256,571. ELECTRIC HEATING DEVICE. WILLIAM K. KEARSLEY, Jr., Newark, N. J., assignor to General Electric Company, a Corporation of New York. Filed Aug. 17, 1916. Serial No. 115,468. (Cl. 219—32.)



1. An electric heating device comprising an insulating base, and a small heating unit projecting beyond and free of the base and formed of sheathed wire comprising a resistance core surrounded by a metal armor with an intervening layer of insulating material.

3. An electric heating device comprising an incandescent lamp base provided with the usual terminals, an insulating material filling the lamp base, and a sheathed wire heating unit comprising a resistance core inclosed in a metal sheath with an intervening layer of insulating material, the heating unit projecting beyond and free of the base, and the terminals of the heating unit being connected to the terminals of the lamp base.

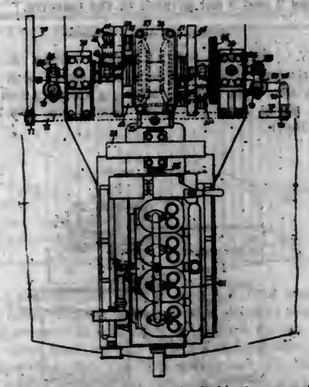
5. An electric heating device comprising an incandescent lamp base provided with the usual terminals, an insulating material filling the lamp base, terminal members extending into the insulating material and electrically connected to the terminals of the lamp base, a sheathed wire heating unit comprising a resistance core inclosed in a metal sheath with an intervening layer of insulating material projecting beyond and free of the base, the terminals of the heating unit being connected to said terminal members and surrounded by the insulating material of the base.

[Claims 2 and 4 not printed in the Gazette.]

1,256,572. CLUTCH MECHANISM. CHARLES B. KING, CHARLES S. JOHNSON, and BENJAMIN JACOBY, Marion, Ohio, assignors to The Marion Steam Shovel Company, Marion, Ohio, a Corporation of Ohio. Original application filed Sept. 25, 1915, Serial No. 52,546. Divided and this application filed Feb. 19, 1916. Serial No. 79,246. (Cl. 192—14.)

1. In a clutch mechanism, the combination, with two clutch devices, and means operated by said clutch devices in opposite directions according to which clutch is connected thereto, of two independent actuating devices, a single handle movable in opposite directions from a normal central position, connections between said handle and said clutch actuating devices, said connections having lost motion to opposite extents, and springs acting oppositely on said clutch actuating devices.

2. In a clutch mechanism, a drum, a friction band extending about the drum, a support, adjustable means on said support to which one end of the band is attached, and means for actuating said adjustable means comprising a link pivoted at one end to said adjusting means, a guide link connecting said first-mentioned link to the support, a toggle pivoted at one end to the adjacent end of the first-mentioned link and at its other end to the support, an arm attached to the last-mentioned end of said toggle and projecting beyond its pivotal connection to the support, and a plunger movable axially of the drum and support and having an opening to receive the arm.



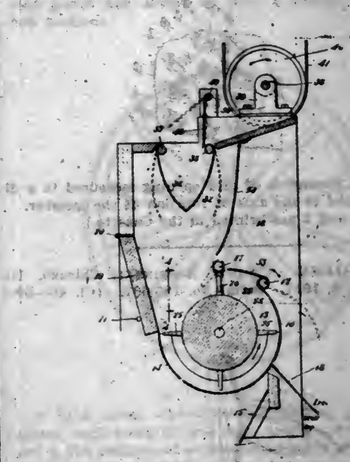
7. In a clutch mechanism, a shaft having a guideway in each end, parts loosely mounted on said shaft, each of said parts having a friction drum secured thereto and rotating therewith, a supporting member rigidly secured to said shaft adjacent to each of said friction drums, a crank shaft journaled in each of said supporting members and having its crank arranged adjacent to said drum, a friction band extending about each of said drums having one end secured to said crank and the other end secured to said support independently of said crank, a crank arm secured to each of said crank shafts, a toggle on each support connected at one end with the crank arm of the corresponding crank shaft and pivotally connected at its other end with said support, an arm rigidly secured to that part of said toggle which is mounted on said support, a plunger mounted in the adjacent guideway, having an opening to receive the arm of said toggle and extending beyond the end of said shaft, and an actuating device connected with both of said plungers, whereby when said actuating device is moved in one direction movement will be imparted to one plunger to actuate its friction band and to the other plunger to release its friction band.

10. In a clutch mechanism, a drum, a support, a crank shaft mounted on said support with its crank adjacent the drum, a friction band extending about the drum and having one end connected to said crank, an arm on the opposite end of said crank shaft, a rod pivotally connected to said arm, a spring exerting a tension on said rod to normally hold said end of the band fixed, and means for adjusting the other end of said friction band to tighten the same.

15. In a clutch mechanism, a shaft having guideways in the ends thereof, drums loosely mounted on said shaft, supporting members mounted on said shaft adjacent to the respective drums, actuating devices mounted on said supporting members, friction bands extending about the respective drums and each having one end connected with the actuating member of its support and having its other end connected with said support independently of said actuating member, plungers slidably mounted in said guideways, operative connections between said plungers and said actuating devices, operating mechanism for said plungers comprising a shaft arranged adjacent to each of said plungers, arms mounted on said shafts and operatively connected with the respective plungers, each of said arms having hub portions provided with a recess adjacent to said shaft, a key mounted in said shaft and traveling in said recess to permit said shaft to have a limited movement relatively to said arm, means for actuating said last-mentioned shafts, and springs acting on said arms to move the same in one direction relatively to their shafts.

[Claims 3 to 6, 8, 9, and 11 to 14 not printed in the Gazette.]

1,256,573. CLEANER FOR FIBROUS STOCK. WILLIAM S. KINSLEY, Reading, Mass., assignor to The Russell Company, Boston, Mass., a Corporation of Maine. Filed Mar. 14, 1917. Serial No. 154,708. (Cl. 19—9.)



1. A fiber-stock cleaner comprising outer and inner members mounted to provide a relatively narrow annular space or chamber of uniform width between them, said members having pins traversing said space, the outer member having openings for the escape of dirt, means for rotating one member at a high speed relatively to the other, means for automatically and intermittently delivering complete small charges of stock to said space, and means for automatically removing the charges from said space at periods of time alternating with said delivery.

3. A machine of the character described, comprising a cage having a grid section, a door section, and a passageway for the admission of stock, rotary beaters in said cage, a two-section hopper above said passageway, means for periodically opening said hopper, means for periodically opening said door section at times when the hopper is closed, a movable barrier above the hopper, and means for actuating the barrier to obstruct the entrance to the hopper while the latter is open.

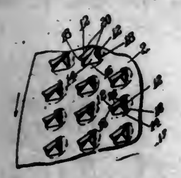
6. A fiber-stock cleaner comprising a cage having a grid section and a door section, a rotary drum having beater pins in said cage, a shaft having two cams, connections whereby one cam effects the opening of the cage door, a two-section hopper to receive stock to be cleaned, connections whereby the other cam effects the opening of the hopper to deliver its contents to the cage, and independent means for rotating said drum and said shaft whereby the drum may be rapidly operated to effect cleaning of the stock in the cage before the cams perform their functions.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,256,574. DEVICE FOR REMOVING SURPLUS MATERIAL. FRANK W. KNOWLTON, Quincy, Mass., and THOMAS SCOTT, Montreal, Canada, assignors, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed June 7, 1916. Serial No. 102,326. (Cl. 146—9.)

1. A device of the class described comprising a rotatable member having abrading elements upon its periphery, said elements being arranged in pairs with the elements of each pair converging rearwardly with reference to the direction of rotation of said member and having front cutting edges upstanding from the periphery of the member and also cutting edges that slope rearwardly toward the peripheral surface of the member, and the member being provided with an opening between the elements of each

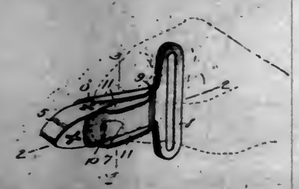
pair, the highest points of projection of the elements of each pair being separated a distance substantially equal to



the greatest dimension of said opening measured in a direction parallel to the axis of rotation of the member.

[Claims 2 and 3 not printed in the Gazette.]

1,256,575. GAME. CASIMIR KOPRINSKI, Chicago, Ill. Filed Aug. 8, 1917. Serial No. 185,067. (Cl. 46—59.)



3. A game piece comprising a block tapered into a wedge shape at its ends, in combination with a projector for said block comprising opposite jaw members shaped to receive the tapered end of the block therebetween, and movable toward each other to force the block out of the jaws.

[Claims 1 and 2 not printed in the Gazette.]

1,256,576. APPAREL-CORSET. WALDEMAR KOPS, New York, N. Y. Filed Dec. 29, 1914. Serial No. 879,488. (Cl. 2—76.)

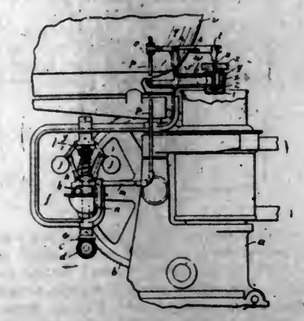


1. In an apparel corset a body member, a stay unit comprising a stay and a binder strip extending over the ends of the same, and a pocket strip, the said parts being secured by lines of stitching passing through the pocket strip, the binder strip, and the body of the garment.

4. In an apparel corset a body member, a stay unit comprising a plurality of stay members and a binder strip extending along corresponding sides of the stay members and over the ends thereof, the said stay members being secured in position in the binder strip by lines of sewing extending along the edges of the stay members, and a pocket strip, the said parts being secured together by lines of stitching which pass through the pocket strip, the binder strip, and the body member of the garment.

[Claims 2 and 3 not printed in the Gazette.]

1,256,577. CREAM-SEPARATOR. OTTO A. KRENKE, Port Huron, Mich., assignor to Anker-Holth Manufacturing Co., Port Huron, Mich., a Corporation of Michigan. Filed June 15, 1916. Serial No. 103,709. (Cl. 137—140.)



1. In a liquid-feeding governor, the combination of a centrifugal liquid separator, a feed line thereto, and means for automatically controlling the flow through the feed line so that the flow of fluid is not permitted until a predetermined speed of the liquid separator has been attained and which precludes the flow of the liquid when excessive speed of the liquid separator is attained.

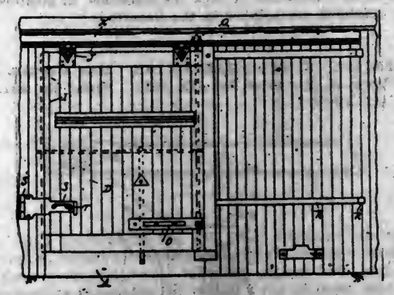
3. In a governor-controlled valve, an outflow pipe provided on its end with a terminal open at top and bottom forming a valve chamber, a turn-plug valve having a chambered center open at its lower end and communicating with the exterior through one side, said turn-plug valve being adapted to allow the discharge of fluid therethrough when the side opening in the same registers with the passage-way in the outflow pipe, a puppet valve located in the space between the lower end of the turn-plug valve and the valve chamber and governing the opening at the bottom of the turn-plug valve and the opening at the bottom of the valve chamber, and a governor for automatically operating said puppet valve when a revoluble element attains certain specified speeds.

5. In a governor-controlled valve, an outflow pipe, a valve and valve stem controlling the outflow pipe, and apparatus for controlling the operation of the valve in accordance with the speed of a revoluble element and including a walking beam supported upon an upright by a handle-provided pivot having flat sides which allows the escape of the walking beam through a recess in the portion of the walking beam which surrounds the pivot as a wall and the walking beam being provided with a bifurcated end which straddles a pivot pin on the end of the valve stem, and the said walking beam further being provided with a hooked portion whose opening faces the opening through which the pivot pin of the upright may escape and which allows the walking beam to be temporarily rested within the hooked portion of the said handle-provided pivot.

6. In a liquid-feeding governor of the character described, the combination of a centrifugal liquid separator, a feed line leading thereinto and provided with a pair of valve seats, a single puppet valve, and governor apparatus for causing the puppet valve to seat on one of the valve seats until a predetermined speed is reached and upon the attainment of excessive speed to seat upon the other valve seat, thereby to maintain a proper speed of the liquid separator.

[Claims 2 and 4 not printed in the Gazette.]

1,256,578. CAR-DOOR. AUGUST T. KUMMER, Detroit, Mich. Filed Feb. 7, 1916. Serial No. 76,658. (Cl. 20—23.)



2. The combination with a car door, of a recessed seat for said door, tongues upon opposite sides of said door for engaging grooves in said seat, the tongue on one side being shorter than that on the other and sufficient clearance being provided for the disengagement of the shorter tongue, means mounted on the door and adapted to engage either of the sides of the door opening for adjusting the same to engage and disengage said tongue, a hanger for supporting said door permitting of lateral movement thereof, and a track on which said hanger travels.

3. The combination with a car door, of a seat for said door, means for supporting said door permitting of lateral adjustment into and out from said recess, a track for carrying said supporting means provided with an inclined covering, and means adapted to engage with said inclined covering for facilitating the lateral adjustment into said recess.

5. The combination with a car door, of a recessed seat for said door, tongues upon opposite sides of said door for engaging grooves in the seat, a hanger for supporting said door permitting of lateral movement thereof out of the plane of the recess, a track on which said hanger travels along the side of the car, a lever pivoted to the inner side of the door and extending downward beneath the same, and a substantially horizontal rod secured to said lever adapted to bear against either of the opposite sides of the door opening to move said door.

7. The combination with a car door, of a seat therefor, a hanger for supporting said door permitting of movement into and out from said seat, a rod of substantially the width of said door and carried thereby, adapted to be moved in opposite directions to bear against either of the sides of the door opening to move said door in the opposite directions, and means for actuating said rod.

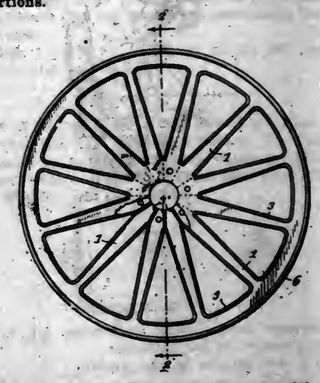
[Claims 1, 4, and 6 not printed in the Gazette.]

1,256,579. METALLIC WHEEL. MAURICE LACHMAN, New York, N. Y., assignor to Structural Pressed Steel Wheel Company Inc., New York, N. Y., a Corporation of New York. Filed Mar. 10, 1917. Serial No. 153,808. (Cl. 21—69.)

1. A wheel constructed essentially of two side plates each having a hub portion and interposed spacing plates locked thereto by edges of the spacing plates turned over edges of openings in the side plates, said spacing plates being extended inwardly into the space between the hub portions of the side plates to form a bridge between them.

2. A metal wheel constructed of two side plates each comprising a hub portion, a rim portion and a spoke portion and interposed spacing plates locked to the side plates by turned over metal edges of the spacing plates, the free ends of said spacing plates being continued radially inward between the hub portions of the side plates to act as strengthening bridges.

3. In a metal wheel, the combination with two side plates each comprising a hub portion, a spoke portion and a rim portion, of interposed spacing plates located in openings in the side plates and locked thereto by folded metal edges of the spacing plates, each said spacing plate having an end continued radially into the space between the continuous or hub portions of the side plates and acting to form a bridge between said hub portions.



4. In a metal wheel, the combination with two side plates each comprising a hub portion, a spoke portion and a rim portion, of sector-shaped spacing plates located in the openings in the side plates and secured thereto, said spacing plates each having a radial integral extension located in the space between the hub portions of said side plates to act as a strengthening means therefor.

1,256,580. COMBINED SUSPENDER-BELT TAB AND BELT-LOOP FOR TROUSERS. ALBERT LEIGHTON, St. Louis, Mo. Filed May 16, 1917. Serial No. 169,125. (Cl. 2—140.)



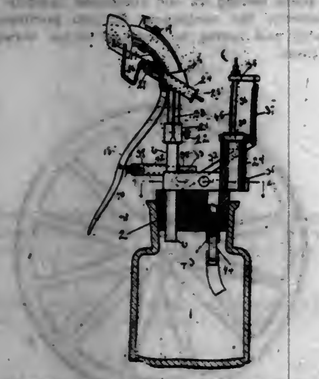
In combination with a waist band, an attachment therefor comprising a pair of flexible members each secured at one end to said waist band, complemetary fastening means on said members and waist band whereby the same may form belt loops, and a suspender strap having fastening means at its ends adapted to co-act with the fastening means on said flexible members when the strip is used as suspenders or with each other when the strap is used as a belt after being passed through the said belt loops.

1,256,581. INSTRUMENT FOR APPLYING LIQUID FINISH TO SHOES. HENRI MAROIS, Lewiston, Me. Filed Oct. 16, 1917. Serial No. 196,953. (Cl. 12—31.)

1. In a device of the character described, a liquid container, a feed pipe entering the container, a brush in said pipe, a guide adjacent said brush adapted to be moved manually in contact with some part of the work, a valve in said pipe, means for operating said valve and an air pump operable by the valve operating means for supplying air under pressure to said container.

3. In a device of the character described, a liquid container, a feed pipe entering the container, a brush in said pipe, a guide adjacent said brush adapted to be moved manually in contact with some part of the work,

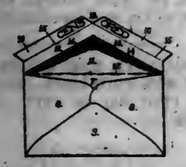
a valve in said pipe, a lever adapted to operate said valve and an air pump operable by the valve operating



means through intermediate mechanism for supplying air under pressure to the container.

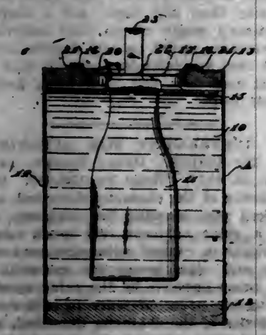
[Claim 2 not printed in the Gazette.]

1,256,582. ENVELOP. HARRY B. MAXWELL, Omaha, Nebr. Filed Sept. 10, 1917. Serial No. 190,623. (Cl. 229—35.)



An envelop of the specified class, comprising a flat pocket, a closing flap united therewith and gummed on the inside, a non-adhesive demarked strip separably united with the free margin of the flap, and a removable flange which is not wider than the strip, is distinctively marked on the inside, gummed on the outside and flexibly united with the free margin of the strip; whereby the flange is adapted to be folded under and against the strip and in that position to be stuck to the back side of the pocket and covered by the strip.

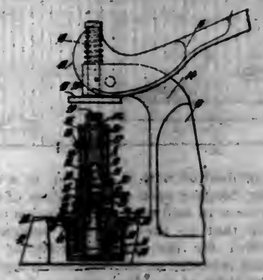
1,256,583. ICELESS MILK-COOLER. RICHARD EDWIN MEATYARD, North Battleford, Saskatchewan, Canada. Filed Aug. 21, 1916. Serial No. 116,028. (Cl. 248—30.)



1. A cooler of the class described including a lid, a plurality of resilient clips depending therefrom for detachably securing a food container to the lid, one of said clips having a curved upward extension passing through the lid, and cam means carried by the plate for acting upon said extension to lock the container in position.

[Claim 2 not printed in the Gazette.]

1,256,584. BUTTON-MAKING DIE. MAX MENKIN, New York, N. Y. Filed Jan. 12, 1917. Serial No. 141,943. (Cl. 79—5.)



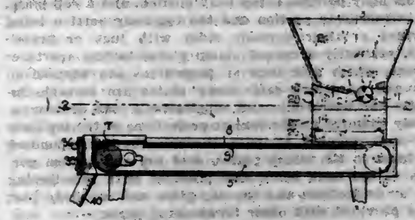
1. In a button die set for forming covered rim-backed buttons, a tuft and shell assembling portion, comprising a tuft holding portion provided with a bore terminating at one end in a flared recessed portion, a shell holder comprising a sleeve member provided with a bore of greater diameter than the bore of said tuft holding portion, terminating at one end in a flared recessed portion, said sleeve member adapted to be supported on said tuft holding member with its end opposed to said flared recessed portion in engagement with the flared recessed portion of said tuft holding portion, and a removable die member reversibly and slidably mounted in said sleeve member.

2. In a button die set for forming covered rim-backed buttons, a rim-back and tuft and shell assembling portion comprising a sleeve member, a removable die member slidably mounted in said sleeve member, a recessed portion at one end of said sleeve member, said die member adapted to support the tuft and shell, a rim-back holder adapted to be engaged with the recessed end of said sleeve member to place a rim-back on said tuft and shell, and means for increasing the length of said die member.

3. In a button die set for forming covered rim-backed buttons, the combination with a press having a stationary portion and a spring controlled depressible portion, of a rim-back and tuft and shell assembling portion comprising a sleeve member, a removable die member slidably mounted in said sleeve member, a recessed portion at one end of said sleeve member, said die member adapted to support the tuft and shell, and a rim-back holder adapted to be engaged with the recessed end of said sleeve member, the other end of said sleeve member adapted to engage the depressible portion of the press, and means adapted to lengthen said die member adapted to rest on said stationary portion of said press to place a rim-back on said tuft and shell.

4. In a button die set for forming covered rim-backed buttons, the combination with a press having a stationary portion and a depressible portion, of a rim-back and tuft and shell assembling portion comprising a sleeve member, a removable die member slidably mounted in said sleeve member, a recessed portion at one end of said sleeve member, said die member adapted to support the tuft and shell, and a rim back holder adapted to be engaged with the recessed end of said sleeve member, the other end of said sleeve member adapted to engage one of said portions of said press, and means adapted to bring said die member into operative relation with the other of said portions of said press to place a rim-back on said tuft and shell.

1,256,585. BEAN-SEPARATOR. MERTON MERRIMAN, Lincoln, Wis. Filed May 19, 1917. Serial No. 169,734. (Cl. 130—18.)



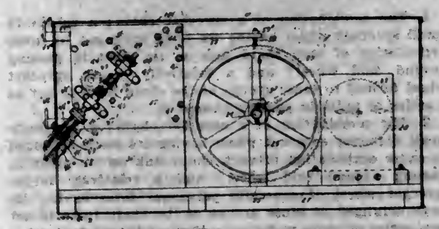
1. In a machine of the character described, an endless apron, means for feeding material to the upper stretch of the apron, said means including spaced bars, and an intermediate removable bar whereby the material may be fed to the apron in spaced, parallel lines when said bar is in position, or may be delivered at a single point centrally upon the apron when the bar is removed.

3. In a machine of the character described, a movable apron, a feed hopper mounted above said apron, and a distributer removably mounted beneath the hopper and including a removable part whereby the material is delivered upon the apron at spaced points when said part is in position or at a single point upon the apron when said part is removed.

4. In a machine of the character described, an endless traveling apron, spaced parallel bars, inclined directing plates connected to said bars at their inner edges, means for removably supporting said bars and the directing means above the upper stretch of the apron, said plates delivering the material at a central position upon the upper stretch of the apron, and means for operating the apron.

[Claims 2 and 5 not printed in the Gazette.]

1,256,586. TIME-RECORDER FOR TRUCKS. WILLIAM MURRAY and EDWARD C. BANTA, Jr., Brooklyn, N. Y. Filed May 6, 1916. Serial No. 95,773. (Cl. 234—33.)



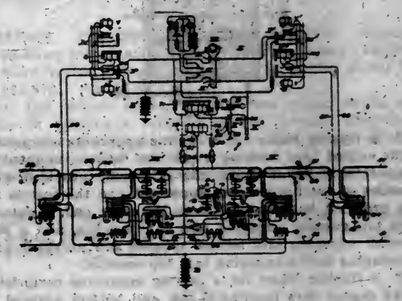
9. A recording device for carriages, comprising a clockwork or like motor for feeding a record strip, means, operatively connected with the carriage, for making a practically continuous mark on said strip while the carriage is running, a device, under the operator's control, for recording the time spent on some operation performed while the carriage is standing, and means, operated by the starting of the carriage, for throwing the last-named device out of action.

19. A recording device for carriages, comprising a clockwork or like motor for feeding a record strip, a spring-pressed lever carrying a marker for producing a record on said strip, a movable member, under the operator's control, for normally holding said lever in its inactive position, means for locking said member in the position in which it releases said lever, and means, operated by the travel of the carriage, for withdrawing said locking means and causing the marking lever to be restored to its inactive position.

24. A recording device, comprising a clockwork or like motor for feeding a record strip, a spring-pressed lever carrying a marker and provided with a beveled end, a slide abiding with said lever in one position thereof and movable into and out of contact therewith, the contacting end of said slide being beveled to correspond to the adjacent lever end, and means for controlling the position of said slide.

[Claims 1 to 8, 10 to 18, 21 to 23, 25, and 26 not printed in the Gazette.]

1,256,587. TELEPHONE SYSTEM. EARL R. NEIR, Chicago, Ill., and BERNARD C. GROH, St. Paul, Minn., assignors to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 20, 1916. Serial No. 85,435. (Cl. 179—27.)



1. In a trunking system, a pair of lines, an operator's position, fixed terminals for said lines normally disconnected therefrom, a link circuit, movable terminals at each end of said link, means operable for advancing one of said movable terminals into engagement with the fixed terminal of either of said lines, and means operable for advancing the other of said movable terminals into engagement with the fixed terminal of the other of said lines, and means controlled solely by said operator for disengaging said movable terminals from said fixed terminals.

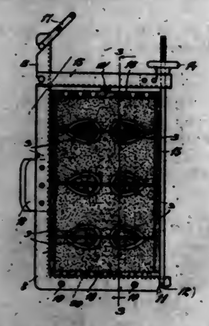
2. In a trunking system, a pair of lines, an operator's position, fixed terminals for said lines normally disconnected therefrom, a link circuit, movable terminals at each end of said link, means operable for advancing one of said movable terminals into engagement with the fixed terminal of either of said lines, means operable for advancing the other of said movable terminals into engagement with the fixed terminal of the other of said lines and a relay for each of said lines for connecting its associated fixed terminals, and means controlled solely by said operator for disengaging said movable terminals from said fixed terminals.

42. In a trunking system, a pair of lines, each of which is provided with terminals of two kinds, a cord circuit adapted for interconnecting said lines through the medium of terminals of one kind, a trunk line terminating at each end in an automatic switch, which switches have access to terminals of the other kind, and means whereby said cord circuit and said trunk line are connected in multiple.

53. In a trunking system, a plurality of lines, a cord circuit for interconnecting said lines, a pair of automatic switches connected by a trunk line for interconnecting said lines, conductors connecting the two strands of said cord circuit with said trunk line, a controlling circuit for said switches including said conductors, a relay in said controlling circuit for controlling a first one of said switches, and means included in said first switch for shifting the control of said relay to the other switch.

[Claims 2 to 41 and 43 to 52 not printed in the Gazette.]

1,256,588. APPARATUS FOR CASTING RADIATORS, SECTIONAL BOILERS, AND THE LIKE. FRANS JUSTINUS NILSSON, Husqvarna, Sweden. Original application filed May 22, 1911, Serial No. 628,687. Divided and this application filed Sept. 30, 1913. Serial No. 792,575. (Cl. 22—91.)

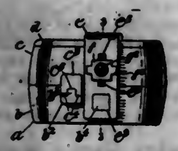


1. A tipping frame for a casting apparatus comprising right angled bars forming a side and bottom, adapted to support a series of flasks, the side being provided with a series of notches near its upper end and the bottom being provided with notches near its outer end, a detachable top member engaging said side notches, and a side member engaging said bottom notches and provided with a clamping device engaging said top member.

2. A tipping frame for a casting apparatus comprising right angled bars forming a side and bottom adapted to support a series of flasks, the side being provided with legs of different lengths adapted to support the frame at an incline and with a series of notches near its upper end and the bottom being provided with notches near its outer end, a detachable top member engaging said side notches, and a side member engaging said bottom notches and provided with a clamping device engaging said top member.

3. A casting apparatus comprising flasks having a series of molds disposed in different planes one above another and connected with a common sprue, and a tipping frame including right angled bars forming a side and bottom, adapted to support a series of flasks, the side being provided with a series of notches near its upper end and the bottom being provided with notches near its outer end, a detachable top member engaging said side notches, and a side member engaging said bottom notches and provided with a clamping device engaging said top member.

1,256,589. DENTIST'S FLASK. NATHAN OPOTOW, New York, N. Y. Filed Dec. 6, 1917. Serial No. 205,816. (Cl. 18—33.)

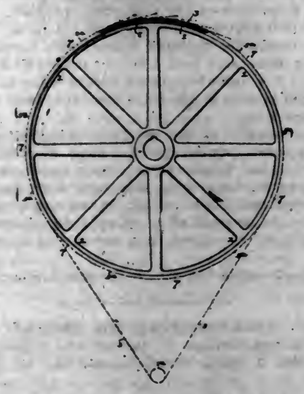


1. A dental flask of the usual form and composed of a bottom body portion, a top body portion, and a cap plate, the bottom body portion and the top body portion being provided at their opposite sides with angular lugs or projections, vertically arranged clamp plates having angular apertures through which said lugs or projections are adapted to pass and on which said clamp plates are movable inwardly and outwardly, and supplemental lock devices rotatably mounted on the angular lugs or projections of the top body part and adapted to pass through the corresponding apertures in the clamp plates.

4. A dental flask of the usual form and composed of a bottom body portion, a top body portion, and a cap plate, the bottom body portion and the top body portion being provided at their opposite sides with lugs or projections, vertically arranged clamp plates having apertures through which said lugs or projections are adapted to pass and on which said clamp plates are movable inwardly and outwardly, and supplemental lock devices rotatably mounted on the lugs or projections of the top body part and adapted to pass through the corresponding apertures in the clamp plates, said top and bottom portions of the flask being also provided with interlocking lugs or projections and the cap plate and top body part being provided with other interlocking parts.

[Claims 2 and 3 not printed in the Gazette.]

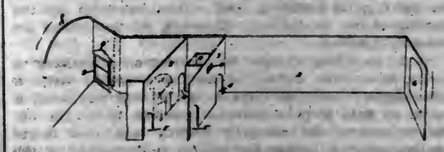
1,256,590. SPROCKET-WHEEL. HAROLD S. PIERCE, Philadelphia, Pa., assignor to Link-Belt Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 5, 1914. Serial No. 860,417. (Cl. 74—31.)



1. The combination of a sprocket chain; a relatively small sprocket wheel having its teeth arranged to cause articulation of each chain link on its pivot in passing around said wheel; and a relatively larger sprocket wheel formed to cause groups of the chain links to act as a series of units in passing around it.

2. The combination of a sprocket chain; a relatively small diameter sprocket wheel having its teeth arranged to cause articulation of each chain link on its pivot in passing around said wheel; and a relatively larger sprocket wheel of generally polygonal form having its teeth arranged to cause groups of the chain links to act as a series of units under operating conditions in passing around it.

1,256,591. MEANS FOR INDICATING THE DISPLAY OF MOTION-PICTURES. ROBERT D. PIKE, San Francisco, Cal. Filed July 17, 1916. Serial No. 109,605. (Cl. 40—53.)



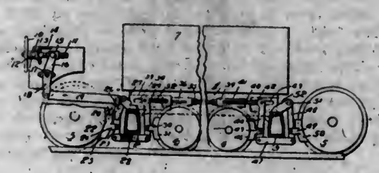
1. In combination with a theater for the display of motion pictures, a member for positioning exteriorly thereof and for containing a synopsis of the picture to be projected, and means associated with said member and adapted for operation in timed relation with the display of the picture within the theater, for presenting to view successive portions of the synopsis as the portions of said picture corresponding therewith are displayed within the theater.

4. In combination with a theater for the display of motion pictures, of a stationary member for mounting a synopsis of the picture to be displayed within the theater, a movable curtain adapted to normally conceal said synopsis from view, and means associated with said curtain and adapted for operating in timed relation with the display of the picture within the theater for moving said curtain relatively to said member for presenting to view successive portions of the synopsis as the portions of said film corresponding therewith are displayed within the theater.

7. In combination with a theater for the display of motion pictures, of a stationary member for positioning exteriorly thereof and for containing a synopsis of the picture to be projected within the theater, said synopsis adapted to be successively displayed in timed relation with the display of the picture within the theater for presenting to view successive portions of said synopsis as the portions of the picture corresponding therewith are displayed within the theater, said successive exposed portions of said synopsis remaining in view until such time as a complete exposure of the picture is made, said exposed synopsis adapted to be concealed from view after the complete exposure of the picture.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,256,592. BRAKE MECHANISM FOR STORAGE-BATTERY LOCOMOTIVES. CHARLES A. PRATT, Chicago, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Original application filed Jan. 22, 1916, Serial No. 73,568. Patent No. 1,195,723. Divided and this application filed July 10, 1916. Serial No. 108,396. (Cl. 188—24.)



1. A locomotive comprising three sections, two of said sections provided with wheels and forming wheeled sections, the third section carried by the wheeled sections, brakes for the wheels on said wheeled sections, a device on one of said sections for actuating the brakes thereon, and a compensating connection extending from one end section to the other end section for actuating the brakes on said latter end section, said compensating connection adapted to compensate for the variation in the relative position of the three sections in passing around curves, a device on one of said wheeled sections to which power is initially applied to actuate said brakes.

2. A locomotive comprising three sections, two of said sections being provided with wheels and forming wheeled sections, said wheeled sections being pivotally connected with the third section, brakes for the wheels on said wheeled sections, actuating mechanism for said brakes, a device on one of said wheeled sections to which power is initially applied to actuate said brakes, a connecting device between the brakes of the two wheeled sections comprising two separated cross-pieces having curved faces, connections between each cross-piece and the brake shoes of the section with which it is associated, a connecting piece connecting the two cross-pieces, said connecting piece engaging the curved faces of said cross-pieces.

3. A locomotive comprising three sections pivotally connected together, wheels on two of said sections, brake shoes for the wheels of one wheeled section, an actuating mechanism for said brake shoes extending to the other wheeled section, and a device on said latter wheeled section to which power is initially applied to actuate said actuating mechanism to operate said brakes, said device and said brake shoes and actuating mechanism being all supported independent of said central section.

5. A locomotive comprising three sections pivotally connected together, wheels on two of said sections, the third section being carried by the wheeled sections, a cross piece on each of said sections with which the brake shoes are connected, said cross pieces having curved faces, an actuating connection between said cross pieces, the portions of the curved faces of each cross piece nearest the ends thereof being farther away than the central portion thereof, from the axis of the pivot connecting the third section with the wheeled section with which said cross piece is associated.

[Claims 4 and 6 not printed in the Gazette.]

1,256,593. PURIFYING BARIUM SULFID. WILLIAM EDWARD PRISK and HORACE REID HARRISON, Halifax, Nova Scotia, Canada. Filed May 31, 1917. Serial No. 171,870. (Cl. 23—13.)

4. The process of purifying barium sulfid, which consists in filtering a solution thereof through granulated manganese dioxid, and thereafter refiltering the solution through granulated calcium carbonate.

[Claims 1 to 3 and 5 not printed in the Gazette.]

1,256,594. SAFETY-SUIT FOR AVIATORS. AUGUSTO RODAL, Habana, Cuba. Filed June 8, 1917. Serial No. 173,569. (Cl. 2—190.)



1. A sleeveless and trouserless sweater-like garment, comprising a trunk portion and a head portion, both of these portions being surrounded by inflatable tubing arranged in coils surrounding the trunk and head of the wearer, but free of engagement with the arms and legs of the wearer.

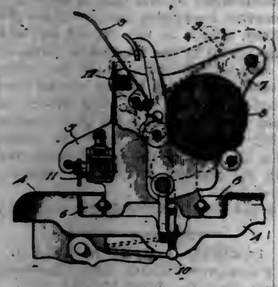
[Claim 2 not printed in the Gazette.]

1,256,595. MARGIN-STOP INDICATOR. ALVAH C. ROEBUCK, Woodstock, Ill., assignor to Woodstock Typewriter Company, Woodstock, Ill., a Corporation of Illinois. Filed May 19, 1915. Serial No. 29,062. (Cl. 197—70.)

1. In a typewriter, a platen carriage, a paper table pivoted therein, a margin stop adjustably mounted below the table, and an upwardly extending indicator secured to the margin stop normally behind the table and invisible from the front of the typewriter and visible when the table is rotated forwardly on its pivots.

2. In a typewriter, a carriage, a platen pivoted in the carriage, a bar behind the platen, a margin stop adjustable in the carriage, an indicator extending upwardly from

the margin stop, and a paper table pivoted between the bar and the platen and limited in movement in opposite directions by them, and normally covering the indicator but uncovering it when the table is rotated against the platen.



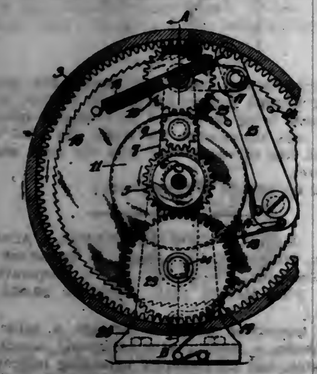
3. In a typewriter, a carriage, a platen and a paper table pivoted in the carriage, a bar behind the table graduated on top, a margin stop adjustably mounted below the said bar, and an indicator extending above and adjacent the bar normally carried by the table but visible from the front of the typewriter when the table is rotated forwardly.

4. In a typewriter, a stop bar, and a parallel graduated bar above it, a margin stop and an indicating arm extending adjacent the graduated bar, and a pivoted paper table normally covering the graduated bar and the said arm which are both within the vision of an operator at the front of the typewriter when the paper table is turned forwardly.

5. In a typewriter, a carriage, a frame shiftable therein, a stop bar in the carriage, a graduated bar in the frame, a margin stop adjustable on the stop bar, an indicator arm extending from the stop to the side of the bar to show the position of the stop, and a paper table pivoted to the frame normally covering the arm and the bar in any position of the frame but rotatable forwardly to uncover them for an operator seated at the front of the typewriter.

[Claims 6 and 7 not printed in the Gazette.]

1,256,596. DEVICE FOR TRANSMITTING POWER. JOHN R. ROGERS, Brooklyn, N. Y. Filed Mar. 18, 1915. Serial No. 15,202. (Cl. 74—34.)



13. In a device for transmitting power, a driving shaft, a driven shaft, gearing connecting them, a clamping mechanism adapted to drive the driven shaft directly at the same speed as the driving shaft and an automatic device governed by the resistance of the driven shaft, controlling the clamping mechanism.

20. In a device for transmitting power, a driving shaft, a driven shaft, means for driving the driven shaft at the speed of the driving shaft, gearing connecting said shafts to drive said driven shaft at a lower speed but with greater power than the driving shaft and a reaction device against which said gearing may react when the power is entirely transmitted by said gearing.

29. In a device for transmitting power, the combination of a driving shaft, a driving gear mounted thereon, a driven shaft, a driven gear mounted thereon, an arm loosely mounted on the driving shaft, a train of gears carried by said arm, one of said train of gears meshing with said driving gear and another of said gears meshing with the driven gear to drive the driven gear in the direction of rotation of the driving gear at a less rate of speed than the speed of the driving shaft, a reaction-plate loosely mounted on the driving shaft free to move in the direction of rotation of the driving gear but restrained from movement in the opposite direction, a clutch disk secured to the driving shaft, a clutch band, means pivotally mounted on the reaction plate for controlling the pressure of the clutch band on the clutch disk and means connecting said last named means and said arm whereby the movement of said arm actuates the clutch band controlling means to vary the pressure of the clutch band against the clutch disk in proportion to the resistance of the driven shaft, the driven shaft being driven at the same rate of speed as the driving shaft when said clutch band is locked against the clutch disk.

[Claims 1 to 12, 14 to 19, 21 to 28, 30, and 31 not printed in the Gazette.]

1,256,597. HAIR-CURLER. JOHN H. SCHENCK and LICIA E. SCHENCK, Cedar Rapids, Iowa. Filed Dec. 26, 1916. Serial No. 139,011. (Cl. 132—19.)



1. In a hair-curler, a casing composed of a pair of hollow, oblong halves dividing the casing lengthwise, clamps adapted to fasten the halves together, a centrally disposed electric heater, laterally disposed coil-tubes, and packing-strips adapted to form a water-tight joint between the halves of the casing, the strips across the hair-receiving end being adapted to close about the entering blocks of hair and prevent leakage.

2. In a hair-curler, a casing composed of a pair of hollow, oblong halves dividing the casing endwise, clamps adapted to bind the halves together, interposed packing strips to form a water-tight joint, a pair of opposed strips being provided at the hair-entering end, an insertible, centrally disposed electric heater, and laterally disposed collers to receive the coiled hair.

6. In a hair-curler, the combination of a water-holding casing and a heater therefor, substantially as described, and curling members having spiral grooves formed therein, to permit the passage of water between the hair and said curling members.

[Claims 3 to 5 not printed in the Gazette.]

1,256,598. WHEEL. MICHAEL F. SCHONNESSER, Los Angeles, Cal. Filed Jan. 25, 1916. Serial No. 74,268. (Cl. 152—29.)

1. A metal tire to fit the resilient rim of a wheel, said tire comprising circumferential folds axially arranged, the inner periphery of said folds being disposed around said rim and the outer periphery serving as a tread for said wheel, and integral studs depending from the edges of said inner periphery to secure the folds in place upon the rim.



2. A tire segment comprising a plate adapted to be applied to the rim of a wheel; a metallic band disposed on said plate in a series of radial transverse folds, the outer periphery of said folds forming a tread surface for the wheel; means to anchor said band to the plate; and means to mount the plate upon the rim of the wheel.

3. A tire segment comprising a plate adapted to be applied to the resilient rim of a wheel; a metal band disposed on said plate in a series of axial folds, the outer periphery of said folds forming a tread surface for the wheel; studs depending from the inner periphery of said folds to anchor said band to the plate; said folds being slightly spaced apart to thus permit of change of curvature of said tread surface; and means to mount the plate upon the rim of the wheel.

4. A tire segment comprising a plate adapted to be applied to the rim of a wheel; a metallic band bent back and forth on said plate in a series of axial folds, the outer periphery of said folds forming a tread surface for the wheel; studs depending from the inner periphery of said folds to anchor said band to the plate; and means to mount the plate upon the rim of the wheel.

5. A tire segment comprising a plate adapted to be applied to the rim of a wheel; a metal band bent back and forth on said plate in a series of axial folds, the outer periphery of said folds forming a tread surface for the wheel; studs depending from the inner periphery of said folds to anchor said band to the plate; said studs being spaced along the inner edge of said metal band so as to form side rows when the band is bent into formation, the studs of each row being in staggered relation one with the other; and means to mount the plate upon the rim of the wheel.

1,256,599. PROCESS AND MECHANISM FOR THE PRODUCTION OF ELECTRIC HEATERS. MAX ULRICH SCHOOP, Höngg, Switzerland. Filed July 3, 1916. Serial No. 107,411. (Cl. 21—70.2.)



1. The process of producing electric heaters by means of the process for metallically plating or coating articles, which consists in imparting to the work-piece a revolving movement, projecting a metallic jet through a jet restricting opening directly upon said work-piece and producing relative movement between said metallic jet and the work-piece, so that a metallic strip is formed on the work-piece along a helical line.

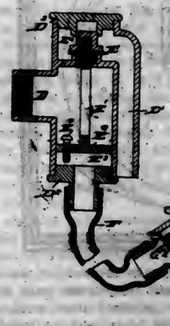
2. The process of producing electric heaters by means of the process for metallically plating or coating articles, which consists in imparting to the work-piece a revolving movement, projecting a metallic jet directly upon said work-piece, moving said jet along the work-piece parallel to the longitudinal axis of the latter, so that a metallic strip is formed on said piece along a helical line, and deflecting the lateral rays of the jet toward its central rays for the purpose of laterally delimiting the jet.

3. A mechanism for producing electric heaters by means of the process for metallically plating or coating articles, comprising means for fixing and revolving the piece of work, a carriage, means for moving said carriage parallel to the piece of work fixed in said first mentioned means, a spraying device fixed to said carriage, and means secured on said carriage opposite the spraying device and between the latter and the work-piece adapted to guide and delimit laterally the metallic jet.

7. A mechanism for producing electric heaters by means of the process for metallically plating or coating articles, comprising a lathe for fixing and revolving a tubular piece of work, a guide-spindle operatively connected to said lathe, a spraying device movably mounted on said spindle, a templet arranged in front of said spraying device and having two surfaces diverging toward the spraying device, said surfaces being hollow and provided with means for supplying and leading off cooling water.

[Claims 4 to 6 not printed in the Gazette.]

1,256,600. SHAMPOO-SPRAY. FREDERICK A. SCHOSSOW, Detroit, Mich. Filed Dec. 26, 1917. Serial No. 208,728. (Cl. 4—26.)



1. In a device of the character described, a casing adapted to receive water from a source of supply and provided with two discharge outlets for the water, a valve adapted to close one of said outlets, a disk spaced from the valve of relatively larger diameter than the valve and adapted to reciprocate therewith, a nozzle connected with the other discharge outlet, and a valve controlling the delivery of water through the latter, whereby upon opening the valve controlling the passage of water through the nozzle, the pressure of the water upon the disk will serve to force the first named valve to its seat, or, upon closing the nozzle the pressure of the water upon the first named valve will force it from its seat that the water may be discharged through the other outlet.

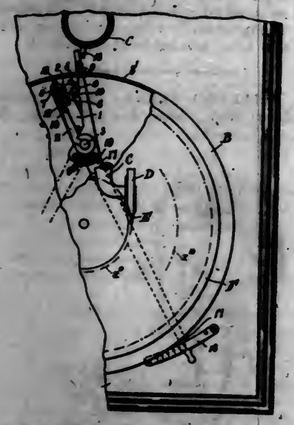
2. In a device of the character described, a casing adapted to receive water from a source of supply and provided with two discharge outlets for the water, a valve adapted to close one of said outlets, a stem secured to said valve, a perforated disk, adapted to reciprocate within the casing, secured to the stem in spaced relation to the valve and of relatively larger diameter than the latter, a spray nozzle, means connecting the spray nozzle with the other outlet of the fitting, and a valve controlling the discharge of water through the spray nozzle.

3. In a device of the character described, a casing adapted for connection with a hot and cold water supply system having two independently arranged discharge outlets for water, a valve adapted to close one of said outlets, a stem secured to said valve, a perforated disk secured to the stem in spaced relation to the valve and relatively larger diameter than the latter, removable means for closing one or more of the perforations in said disk, a

spray nozzle, a flexible connection between the spray nozzle and the other water outlet of the fitting, and a manually operated valve for controlling the discharge of the water through the spray nozzle.

4. In a device of the character described, a casing adapted for connection with a hot and cold water system, having two independently arranged discharge outlets for water, a spray nozzle connected with one of said outlets, a manually operated spring-seated valve for controlling the release of water through the spray nozzle, a valve fitted with a stem for controlling the discharge of water through the other outlet, and a perforated disk secured to the stem of relatively larger diameter adapted to reciprocate with the valve within the casing.

1,256,601. TALKING-MACHINE BRAKE. CHARLES O. SCOTT, Toronto, Ontario, Canada, assignor to Scott Manufacturing Company, Toronto, Ontario, Canada. Filed July 12, 1917. Serial No. 180,125. (Cl. 74—46.)

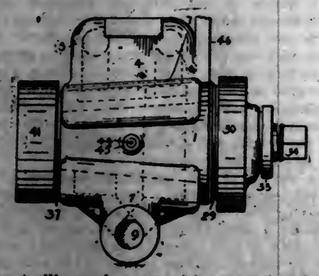


1. In a talking machine brake mechanism, an operating lever connected with the said mechanism, said lever being adapted to be temporarily released from such operative connection whereby the said lever may be independently moved to vary its normal and operative angular relation to the said mechanism, while the remaining parts of said mechanism are undisturbed, and means normally securing said lever against such independent movement.

8. In a talking machine brake mechanism having a trip arm, a lever operating said trip arm, a common pivot upon which both said arm and said lever are mounted, and adjustable locking means securing said lever to said arm.

[Claim 2 not printed in the Gazette.]

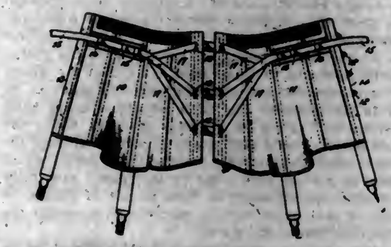
1,256,602. CONTROLLING-VALVE. FRANK W. SLAW, Steubenville, Ohio, assignor of one-half to August H. Slater, Steubenville, Ohio. Filed Aug. 3, 1916. Serial No. 112,983. (Cl. 138—16.)



1. A controlling valve comprising a casing forming a plug chamber and having a pair of combined supply and exhaust passages each leading to an element to be controlled, said casing further including a fluid inlet and a fluid outlet each common to said passages and each communicating with said chamber at two points, a valve plug operable in said casing and having a pair of spaced ports one for controlling supply to said passages and the other for controlling exhaust from said passages, a supply duct leading from said chamber to one of said passages and controlled by said plug and an exhaust duct leading from the other of said passages to said chamber and controlled by said plug.

[Claims 2 to 8 not printed in the Gazette.]

1,256,603. CORSET. THOMAS F. SOMERS, New York, N. Y. Filed Nov. 5, 1917. Serial No. 200,420. (Cl. 2—73.)

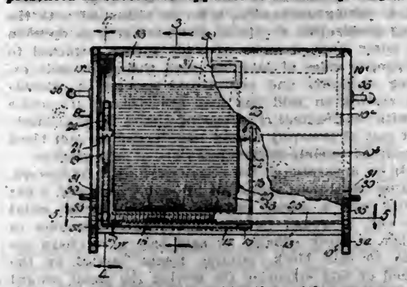


1. In a corset, the combination with two similar parts or sections, adapted to be fastened together at their opposite edges, of positive fastening devices for the front edges of the parts and adjustable means connecting the rear edges thereof so as to permit the relative adjustment of the parts to conform to different figures, said adjustable means comprising a belt strap disposed along the waist line of each part, a plurality of connecting straps each secured at one end to the back edge of one part and having its other end secured to the belt strap of the opposite part, and a guide on each of said parts for each individual connecting strap secured to the other part, said belt straps being adapted to be tightened to draw the rear edges of the parts together and to be fastened together in front of the corset, each connecting strap being directed by its corresponding guide to exert a pull on one section which tends to draw it directly toward the other section.

2. In a corset, the combination with two similar parts or sections adapted to be fastened together at their front and rear edges, each of said parts having a series of alined slots adjacent and parallel to its rear edge, of positive fastening devices for the front edges of the parts and adjustable means connecting the rear edges thereof so as to permit the relative adjustment of the parts to conform to different figures, said adjustable means comprising a plurality of connecting straps each secured at one end to one part or section adjacent its rear edge and extending through one of the slots of the other part and guided thereby, and a belt strap arranged along the waist line of each part and connected to the connecting straps secured to the other part, said belt straps being adapted to be tightened to draw the rear edges of the parts together and to be fastened together in front of the corset, each connecting strap being directed by its corresponding guide to exert a pull on one section which tends to draw it directly toward the other section.

1,256,604. MUTOSCOPE. MONCRIEFF H. SPEAR, Benton Harbor, Mich. Filed Nov. 13, 1915. Serial No. 61,205. (Cl. 88—19.)

1. In a mutoscope, in combination with a case provided with a view opening, a carriage movable in said case, a drum rotatively mounted on said carriage, a book of picture cards mounted on said drum, the pictures on successive cards being offset in such manner as to appear in successive spiral relation on said drum, and means for imparting both an endwise movement to said carriage and a rotative movement to said drum, said means including gearing providing a predetermined relation between the rate of rotation of the drum and the rate of travel of the carriage such that the pictures on the cards will be presented in succession opposite said view opening.



7. In a mutoscope, in combination with a case provided with a view opening, a carriage movable in said case, a drum rotatively mounted on said carriage, said drum being adapted to support a book of picture cards, and means for imparting both an endwise movement to said carriage and a rotative movement to said drum, said means including gearing providing a predetermined relation between the rate of rotation of the drum and the rate of travel of the carriage.

14. In a mutoscope, in combination with a case having a plurality of oppositely disposed view openings, a drum capable of an endwise back and forth traveling movement and of a rotative movement in opposite directions, a book of picture cards mounted on said drum, said cards having pictures on both sides thereof, the pictures on one side of said cards being associated with one of said view openings and the pictures on the other side of said cards being associated with the other view opening, the pictures on the one side of successive cards being offset in such manner as to appear in successive spiral relation on said drum, when the drum rotates and travels endwise in one direction, and the pictures on the other side of said cards being similarly offset so that they will appear in successive spiral relation when the drum rotates and travels endwise in the reverse direction, means for imparting a rotative movement to said drum and means for imparting an endwise movement to said drum, and means providing such a predetermined relation between the rate of rotation of said drum and the rate of endwise movement of said drum, that the pictures on the cards will be presented in succession before the associated view opening.

[Claims 2 to 6 and 8 to 13 not printed in the Gazette.]

1,256,605. TREATMENT OF ALUMINOUS COMPOUNDS. HOWARD SPENCE and WILLIAM BASIL LLEWELLYN, Manchester, England, assignors to Peter Spence & Sons, Limited, Manchester, England. Filed Nov. 3, 1917. Serial No. 200,045. (Cl. 23—13.)

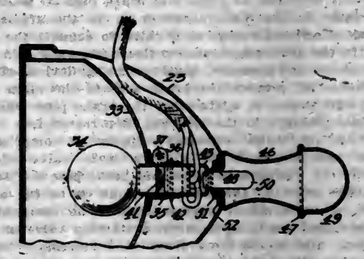
1. The process of obtaining basic alumninum sulfate which comprises heating a sulfurous acid solution containing alumina and sulfuric acid.

3. The process of treating ignited alunite which comprises treating ignited alunite with sulfurous acid solution to obtain a high proportion of the alumina alkali and sulfuric acid in solution.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,256,606. SPOT-LIGHT. JASON C. STEARNS, Worcester, Mass. Filed Jan. 18, 1917. Serial No. 143,165. (Cl. 240—41.)

1. In a spot-light, the combination of a casing and an internal reflector spaced apart, a hollow metallic cylinder concentric therewith, said reflector having a hollow split hub on its rear surface for securing said cylinder therein, said cylinder constituting a socket for receiving a lamp base, a switch for the lamp located entirely within said casing and comprising a cylindrical member inside the end of said cylinder having conducting plungers for engaging the lamp terminals when the lamp is in position in the socket, and means mounted on and extending rearwardly from the casing for turning said insulating cylinder and thus turning the lamp on and off.



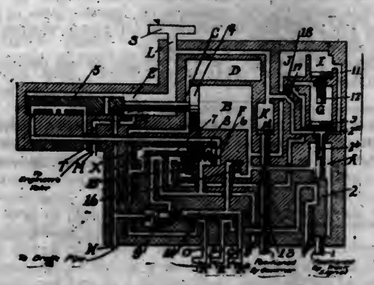
6. The combination of a lamp casing having an axial end casing concentric therewith and oscillatable on its axis, said end casing having a cylindrical portion at its inner end, means at the inner end of said end casing for turning a lamp in the casing on and off, a key member having means for turning the lamp operating means, and means on said cylindrical end for turning the key member.

10. An electric switch connection including a socket, a lamp secured in said socket, having a contact point thereon, a removable insert in said socket, a contact on said insert in position to engage the contact on said lamp, a switch member adapted to engage and operate said removable insert, a lamp casing, an external switch handle, and means connected with said handle and extending through said casing for engaging and operating said switch member so as to make and break contact when said handle is operated.

12. An electric switch connection including a socket, a lamp in said socket having double contact points, means for making and breaking contact with said points, a switch member having a bifurcated arm adapted to engage said means, and a switch handle connected with said member whereby said member will operate so as to make and break said contact when said handle is turned.

[Claims 2 to 5, 7 to 9, and 11 not printed in the Gazette.]

1,256,607. AIR-BRAKE-CONTROLLING APPARATUS. ANCEL ST. JOHN, Worcester, Mass., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Dec. 30, 1913. Serial No. 809,449. (Cl. 246—59.)



1. An air brake controlling apparatus comprising a main reservoir, a brake pipe, a main valve effective in different positions to close said brake pipe or to connect the same to the main reservoir or to the atmosphere, a piston to move said valve, a chamber on each side of the piston, a plurality of auxiliary reservoirs, and

means to successively change the connections from said reservoirs to said chambers to vary the relative pressures upon the opposite sides of said pistons and cause the pistons and valve to assume the necessary positions to apply the brakes.

5. An air brake controlling apparatus comprising a main reservoir, a brake pipe, a main valve effective in different positions to close said brake pipe or to connect the same to the main reservoir or to the atmosphere, means effective to move said valve to connect the brake pipe to the atmosphere, and to thereafter close said brake pipe at reduced pressure, speed controlled devices effective to thereafter connect the brake pipe to the main reservoir, and means to again close the brake pipe when the original pressure in the pipe has been restored.

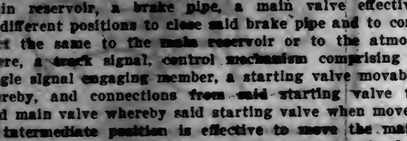
8. An air brake controlling apparatus comprising a main reservoir, a brake pipe, a main valve effective in different positions to close said brake pipe and to connect the same to the main reservoir or to the atmosphere, a quick signal control mechanism comprising a single signal engaging member, a starting valve movable thereby, and connections from said starting valve to said main valve whereby said starting valve when moved to intermediate position is effective to move the main valve and apply the brakes to reduce the speed of a train to a predetermined or control speed, and whereby said starting valve when moved to extreme position is effective to move the main valve and apply the brakes to stop the train, and a speed controlled device effective to render said control mechanism inoperative when the starting valve is moved to intermediate position if the speed of the train does not exceed a fixed limit, but leaving the control mechanism operative when the starting valve is moved to extreme position although the train is moving at less than said fixed speed.

10. An air brake controlling apparatus comprising a main reservoir, a brake pipe, a main valve effective in different positions to close said brake pipe or to connect the same to the main reservoir or to the atmosphere, automatic means including a starting valve effective under predetermined conditions to bring the train to a stand-still, and a manually operated release valve to restore said starting valve to initial position, said automatic means thereafter operating to release the brakes and restore all parts of the apparatus to normal position.

13. An air brake controlling apparatus comprising a main reservoir, a brake pipe, a main valve effective in different positions to close said brake pipe or to connect the same to the main reservoir or to the atmosphere, a piston to move said valve, a chamber on each side of said piston maintained normally at high pressure, an auxiliary reservoir maintained normally at a lower pressure and automatic means to connect one of said chambers to said auxiliary reservoir, the expansion of air from said chamber to said reservoir reducing the pressure upon one side of said piston and causing the said piston to move till the pressures on opposite sides of said piston are equalized, the travel of the piston moving the main valve to apply the brakes.

[Claims 2 to 4, 6, 7, 9, 11, 12, and 14 not printed in the Gazette.]

1,256,608. APPARATUS FOR CUTTING METAL STRIPS. FREDERICK S. STODGHTON, Worcester, Mass. Filed Aug. 16, 1916. Serial No. 115,227. (Cl. 164—48.)



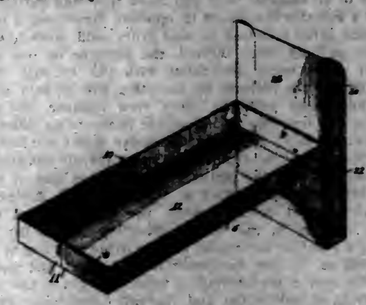
1. In an apparatus of the class described, a rigid framework, a cutting mechanism, a bar hinged to said framework and provided with a guideway for the metal to be cut in alinement with said cutting mechanism, a trough for the metal to be cut forming an extension to said bar, a block movable along said bar and provided with a rearward extension, and a lug carried by said extension projecting into said trough to engage the metal to be cut.

8. In an apparatus of the class described, a framework, a cutting mechanism, a bar in alinement with the cutting mechanism, a pair of separated grooves open on their outer sides, a series of blade springs attached to the opposite sides of said bar with their free ends extending upwardly and across said grooves, a slidable block resting on said bar and provided on its under side with longitudinal ribs forming guides for said block, and a pair of inwardly turned toes carried by said block and adapted to slide in the open sides of said grooves.

9. In an apparatus of the class described, a framework, a cutting mechanism supported by said framework, a bar provided with a groove forming a guide for the metal to be cut, a trough forming a rearward extension to said bar, a block slidable on said bar, a rearward extension to said block, pushing means carried by the rear end of said extension for moving the metal toward the cutting mechanism, and similar pushing means carried by the front end of said block, said block being recessed to allow said second pushing means to be entered in the groove of said bar.

[Claims 2 and 4 to 8 not printed in the Gazette.]

1,256,609. DISPLAY-CONTAINER. JULIEN STRANDERS, Brooklyn, N. Y., assignor to Atlantic Lithographic and Printing Company, New York, N. Y., a Corporation of New York. Filed July 13, 1917. Serial No. 180,254. (Cl. 229—44.)



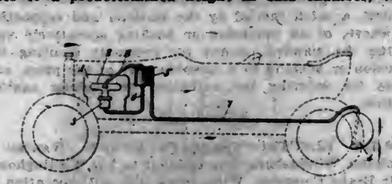
1. In a display container, the combination of a box; and a cover having a top provided with a transverse slit, said top being continued rearwardly and secured to the rear wall of the box and extending below the box to form a flap adapted to enter said slit.

10. In a display container, the combination of a box comprising an imperforate bottom and side and end walls integral with the bottom; and a cover member comprising a front end wall, side walls, and a top provided with a substantially permanently closed transverse slit extending entirely across the top and with a scoring near the rear end whereby the top is adapted to fold upon itself, said top being continued rearwardly of said scoring to form a rear extension secured to and covering the rear end wall of the box, and extending below the box a distance more than twice the depth of the box to form a flap, substantially as wide as the box, adapted to enter said slit from the side adjacent to the box, said top being free from openings except at said slit.

[Claims 2 to 9 not printed in the Gazette.]

1,256,610. VACUUM FUEL-FEEDING SYSTEM FOR GASOLENE-ENGINES. HAROLD C. SUCKERT, New York, N. Y. Filed Aug. 27, 1915. Serial No. 47,596. (Cl. 158—36.)

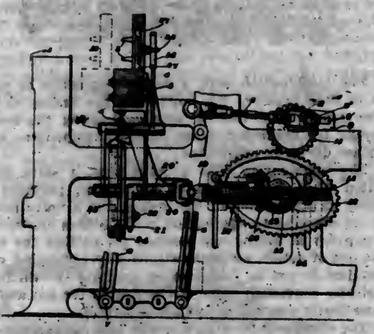
1. A fuel feeding apparatus comprising a fuel tank, a carbureter, a gasolene engine, a feeding tank above the level of the carbureter, a pumping chamber arranged to discharge into the feeding tank and provided with a gasolene inlet, means connecting the pumping chamber with the intake of the engine, means connecting the said chamber with the fuel tank, a movable pump bucket within the pumping chamber, means to charge said bucket with gasolene when the accumulated gasolene rises to a predetermined height in said chamber, valve



mechanism, means whereby the charge bucket will operate said valve mechanism to stop the gasolene inflow and open the pumping chamber to the atmosphere, means whereby upon opening said chamber to the atmosphere the accumulated gasolene therein will be discharged into the feeding tank, and means whereby the bucket will be emptied after the pumping chamber is discharged.

[Claims 2 to 4 not printed in the Gazette.]

1,256,611. SHUTTLE-MOTION. ALFRED M. SUTHER, Allentown, Pa., assignor to Schaum & Uhlinger Incorporated, Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 1, 1916. Serial No. 107,010. (Cl. 139—49.)



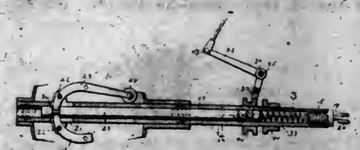
1. In combination in a loom a batten or lay having a shuttle and a reciprocating rack for moving the shuttle across and back, a main shaft, means between the main shaft for reciprocating the batten or lay forward and back, which means is constructed so that there is a dwell of the batten or lay at each extremity of its forward and rearward movement, an eccentric gear secured to the main shaft, an auxiliary elliptical gear having twice the number of teeth as the eccentric gear and in mesh therewith, which eccentric gear and elliptical gear are arranged in respect to the batten or lay so that when the latter is at the extreme of its rearward movement of travel the elliptical gear will be moving at its fastest angular velocity and so that when the batten or lay is at the extremity of its forward movement of travel the elliptical gear will be moving at its slowest angular velocity, a rack operating crank operated by and in unison with the elliptical gear, a slotted cross-head in the slotted portion of which said crank travels so as to reciprocate the cross-head, and means between the cross-head and the reciprocating rack whereby as the cross-head is reciprocated the racks will move the shuttles across and back, the rack operating crank being arranged so that when the elliptical gear is being moved at its fastest angular velocity the rack crank will be in a position to impart the greatest speed of movement to the slotted cross-head when the latter is at the extremity of forward movement and so that when the elliptical gear is being moved at its slowest angular velocity the rack operating crank will be in a position where there will be a dwell or only a slight movement imparted to the slotted cross-head by said rack operating crank.

3. In combination in a loom, a batten or lay having a shuttle thereupon, means for reciprocating the batten or lay forward and back, a cross-head, a continuously rotating crank having a pin which has a sliding engagement with said cross-head, and means between the cross-head and the shuttle whereby the shuttle will be reciprocated across and back as the cross-head is reciprocated by the crank, the crank being positioned so that when the batten or lay is at its rearmost position the crank pin will be moving the cross-head at its fastest velocity.

6. A loom having in combination with the batten or lay and shuttle mechanism carried thereon of a cross-head carried at the free ends of parallel motion links that are pivotally movably mounted on the batten or lay, a crank having a sliding engagement with said cross-head for reciprocating the latter and an arm connected to said parallel motion links for actuating the shuttle mechanism.

[Claims 2, 4, 5, and 7 not printed in the Gazette.]

1,256,612. AUTOMATIC GOVERNOR. FRANK TERRY, Detroit, Mich. Filed May 18, 1917. Serial No. 169,524. (Cl. 264—15.)



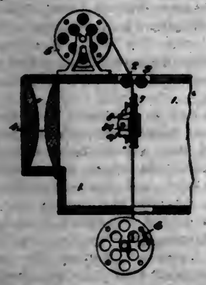
In combination with an automatic governor apparatus a casing, a hollow rotatable shaft mounted therein and having oppositely disposed longitudinal slots, a longitudinal movable governor actuated shaft within the hollow shaft, a cylindrical block within the hollow shaft and provided with an annular groove, a movable collar mounted upon said hollow shaft and having pins projecting toward each other and having swivel connection with the annular groove of said block, a plug having threaded connection with one end of the hollow shaft, a spring interposed between the end of said block and plug, the latter having an eyelet, a driving gear having a hub mounted in suitable bearings and a chain connected at one end to said hub and its other end to said eyelet.

1,256,613. MOTION-PICTURE-PROJECTING MACHINE. FRANK L. TENWILLIGER, Klamath Falls, Oreg., assignor of one-half to Thaddeus G. McHattan, Klamath Falls, Oreg. Filed Feb. 7, 1917. Serial No. 147,083. (Cl. 88—17.)

1. In an apparatus for moving pictures; means for presenting the film in a uniform convexed surface at the optical axis and in a longitudinal plane to the movement of the said film, and means for holding the film against buckling or warping at such convexed surface, said means consisting of a resilient rockable frame adapted for being held in engagement with the opposite or track edges of the film.

2. In an apparatus for moving pictures; means for presenting the film in a uniform convexed surface at the optical axis and in a longitudinal plane to the movement of the said film, and means for holding the film against buckling or warping at such convexed surface, the said means consisting of a resilient frame adapted for being held in engagement with the opposite or track edges of the film, the said resilient frame being mounted to rock in the direction of its length and fulcrumed in alinement

with the central horizontal axis of the opening in the projecting plate.



3. As a new article, a picture projecting means comprising an apertured plate having film tracks along its opposite edges, the said tracks including convexed portions in transverse alinement with the aperture in the plate and in a longitudinal plane to the line of movement of the film and a flexible tension device for holding the opposite edges of the film against the film tracks under tension.

1,256,614. SHOE-BUTTON. GRANVILLE F. THAYER, Providence, R. I., assignor to M and T Button Company, Boston, Mass., a Corporation of Massachusetts. Filed Aug. 25, 1917. Serial No. 188,197. (Cl. 24—90.)



1. An improved shoe-button comprising a head shaped with a convexly crowned top and substantially straight sloping sides tapering inwardly from the periphery of the head and terminating in a flat circular base, and a U-shaped eye formed with parallel legs inserted in the base of the head with its sides tangent to the circumferential rim thereof.

[Claims 2 to 4 not printed in the Gazette.]

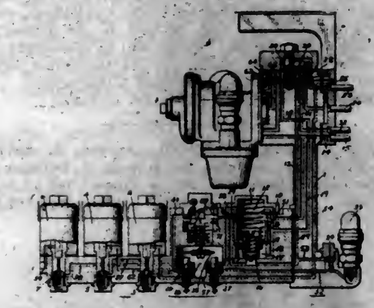
1,256,615. ADJUSTABLE DIE-HOLDER FOR PUNCH-PRESSES AND THE LIKE. DAVID H. TALNOPER, New York, N. Y. Filed Aug. 4, 1913. Serial No. 782,834. (Cl. 79—5.)



1. In a press, the combination with a frame and an anvil, a block movable in the frame, a bushing rotatable in the block, means for locking the bushing against rotation, a mandrel carried by the bushing, said mandrel cooperating with the anvil, a sleeve carried on the mandrel, a catch carried by the mandrel and supporting the sleeve, of means whereby the mandrel may be adjusted to bring the catch in proper position relative to the frame of the press.

2. In a press, the combination with an anvil and a mandrel coöperating therewith, a sleeve carried by the mandrel, a catch carried by the mandrel and supporting the sleeve, of an extension or bushing operatively supporting the mandrel, means for rotatably securing the extension or bushing to a movable part of the press, and means for securing the extension or bushing against rotation.

1,256,616. ELECTROPNEUMATIC BRAKE. WALTER V. TURNER, Wilkinsburg, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed July 27, 1915. Serial No. 42,128. (Cl. 188—4.)



1. The combination with a device responsive to variations in fluid pressure for controlling the brakes and an electro-responsive device for also controlling the brakes, of means for rendering either device unresponsive while the other device is responsive.

2. The combination with a brake pipe, a valve device operated upon a reduction in brake pipe pressure for effecting an application of the brakes, and a valve mechanism for effecting an application of the brakes electrically, of a cap device having one position for cutting the valve device out of action while the electrically controlled valve mechanism is cut in and another position in which the electrically controlled valve mechanism is cut out and the pneumatically controlled valve device cut in.

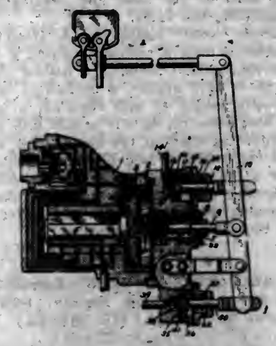
3. The combination with a brake pipe, a valve device operated upon a reduction in brake pipe pressure for effecting an application of the brakes, and a valve mechanism operated electrically for also effecting an application of the brakes, of means for cutting said valve device out of action when said valve mechanism is cut in and valve means operated upon a sudden reduction in brake pipe pressure for effecting an application of the brakes when said valve device is cut out.

[Claims 4 to 7 not printed in the Gazette.]

1,256,617. EMPTY AND LOAD BRAKE. WALTER V. TURNER, Wilkinsburg, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Apr. 18, 1916. Serial No. 91,846. (Cl. 188—11.)

3. The combination with an empty and load brake apparatus on a car, of a fluid operated piston device for adjusting said apparatus for load braking, a fluid operated piston for adjusting said apparatus for empty car braking, and means on the locomotive for varying the fluid pressure on said piston devices.

4. The combination with an empty and load brake apparatus having a manually operated lever for shifting said apparatus to empty and to load braking positions, of a piston device for shifting said lever to the load braking position and a manually operated valve on the locomotive for varying the fluid pressure on said piston device.

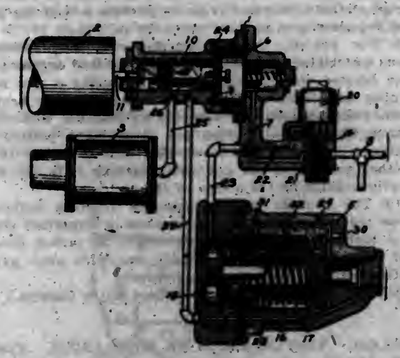


5. In a fluid pressure brake, the combination with a locomotive brake equipment having means for effecting a straight air application of the brakes, of an empty and load brake apparatus on the car having fluid operated means for adjusting said apparatus for load braking and a straight air brake pipe for varying the fluid pressure on said means.

8. In a fluid pressure brake, the combination with a pipe through which fluid is supplied for effecting a straight air application of the brakes, and a train pipe for controlling the car dumping doors, of an empty and load brake apparatus, a piston device operated by fluid under pressure in the straight air brake pipe for adjusting said apparatus for load braking, and a piston device operated upon supplying fluid to the pipe controlling the dumping doors for adjusting said apparatus for empty car braking.

[Claims 1, 2, 6, and 7 not printed in the Gazette.]

1,256,618. FLUID-PRESSURE BRAKE DEVICE. WALTER V. TURNER, Wilkinsburg, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Mar. 28, 1917. Serial No. 157,932. (Cl. 188—4.)



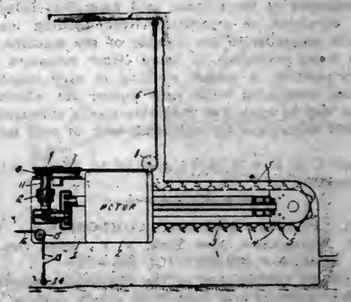
1. In an electro-pneumatic brake, the combination with a brake cylinder, of an electrically controlled valve for venting fluid to effect an application of the brakes and a valve device operated by fluid vented from said electrically controlled valve for controlling the exhaust from the brake cylinder.

2. In an electro-pneumatic brake, the combination with a brake cylinder, of an electrically controlled means for effecting an application of the brakes, a valve for controlling the brake cylinder exhaust, and a piston controlled by the operation of said electrically controlled means for operating said valve.

4. In an electro-pneumatic brake, the combination with a brake cylinder, of an electrically controlled valve for venting fluid to effect an application of the brakes, a valve for controlling the brake cylinder exhaust, and a piston operated by fluid vented from said electrically controlled valve for operating said brake cylinder exhaust valve and for venting fluid from said electrically controlled valve to the atmosphere.

[Claims 3, 5, and 6 not printed in the Gazette.]

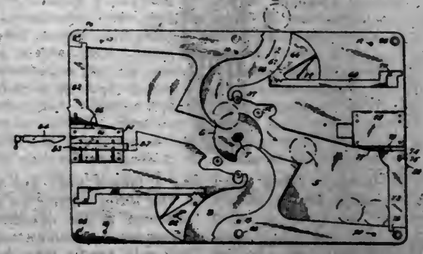
1,256,619. MINING-MACHINE. FRANK S. WASHBURN, Nashville, Tenn., assignor to Goodman Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed July 21, 1911. Serial No. 639,712. (Cl. 125—14.)



1. A mining machine comprising a frame, a cutting device projecting therefrom, a motor mounted on said frame, a feeding mechanism for feeding the cutting device toward the material to be acted upon, a non-rotating vertical post connected with said frame, a spiral groove on said vertical post, a flexible power transmitting device arranged about said vertical post to form coils which fit into said spiral groove, said coils having a sliding engagement with said post when the machine is in operation, the end of the flexible power transmitting device being free so as to be grasped by the operator, said flexible power transmitting device connected with a fixed part at a distance from the machine, the point of application of the retarding force being relatively to the rear of the point of application of the feeding force.

[Claims 2 to 5 not printed in the Gazette.]

1,256,620. COIN-CONTROLLED MACHINE. JOHN A. WEBSTER, West Hoboken, N. J., assignor, by mesne assignments, to Autosales Gum and Chocolate Company, a Corporation of New York. Filed Aug. 29, 1908. Serial No. 450,822. (Cl. 211—8.)



1. In a vending machine, the combination of a magazine; a pusher working in said magazine and provided with a pawl; an actuator for advancing said pusher step by step; a stationary rack to be engaged by the pawl of

said pusher and prevent retrograde movement thereof; and means adapted to operate said actuator.

6. In a vending machine, the combination of a magazine; a pusher working in said magazine and provided with two pawls; an actuator for advancing said pusher step by step and comprising a reciprocating rack bar to engage one of said pawls; a lock for said actuator; a stationary rack to be engaged by the other of said pawls to prevent retrograde movement of said pusher; and means adapted to unlock and operate said actuator.

7. A vending machine having a substantially rectangular casing, a central recess provided in the front wall of said casing, a magazine arranged within said casing, an open delivery-chute leading from said magazine to said recess, mechanism for delivering the articles from said magazine into said chute, and a hand-operated member arranged in said recess for actuating said mechanism.

14. A vending machine having a magazine at the top and a magazine at the bottom, said magazines being oppositely arranged, a separate delivery-opening leading from each magazine to the outside of the machine, the machine being reversible to bring either magazine into operative position, a pusher working in each magazine, mechanism associated with each pusher for advancing the same step by step, and rotatable means arranged between said magazines for operating each of said mechanisms.

[Claims 2, 3, 5, 6, 8 to 13, and 15 to 17 not printed in the Gazette.]

1,256,621. PLASTIC MOLDING COMPOSITION. LUDWIG N. WEISSMANN, New York, N. Y. Filed Oct. 31, 1917. Serial No. 199,429. (Cl. 106—34.)

1. A plastic composition of the character designated, comprising vegetable glue made from casein, tapioca, etc., comminuted paper pulp, and plaster of Paris, substantially as set forth.

4. A plastic composition of the character designated, comprising vegetable glue made from casein, tapioca, &c., comminuted paper pulp, plaster of Paris, coloring matter, and shellac, substantially as set forth.

[Claims 2 and 3 not printed in the Gazette.]

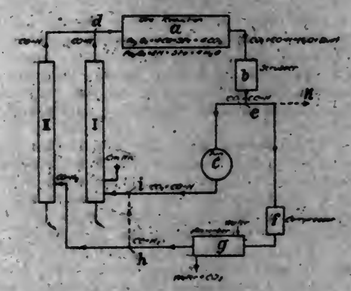
1,256,622. FOUNTAIN-BRUSH. LEONARD A. WEST, Niagara Falls, Ontario, Canada. Filed Dec. 22, 1916. Serial No. 138,416. (Cl. 15—49.)



1. A fountain brush comprising a hollow head and a hollow handle leading therefrom, the latter serving as a reservoir for liquid, a brush connected to the opposite end of said head and having openings communicating with said head, an extension from said handle into the hollow head, a fixed clam-shell shaped leaf extending below said extension and half way around the same, a similar leaf forming a movable valve pivoted to the handle extension and adapted to overlap the fixed leaf when in closed position, resilient means for maintaining the valve in closed position, a finger extending upwardly from the movable valve leaf, and a member projecting through the wall of the head and bearing upon said finger for operating the valve.

2. A fountain brush comprising a straight hollow handle adapted to form a reservoir having a closure on one end, an enlargement forming a hollow chamber on the other end of said handle, a perforated brush block closing the open mouth of said chamber, a tubular extension reaching from the handle proper into said chamber and terminating short of the brush block, a swinging valve at the outlet end of said tubular extension to control the flow of liquid from the reservoir handle, a push button projecting outwardly through the chamber for manually opening the valve, and a spring for normally maintaining the valve in closed position.

1,256,623. REDUCTION OF ORES. SIGURD WESTERBERG and EMIL EDWIN, Christiania, Norway. Filed Aug. 26, 1916. Serial No. 117,064. (Cl. 204—63.)



1. The process, which comprises subjecting a carbonaceous combustible material to the action of an electric high tension flame in an atmosphere containing oxygen in a combined state to form a reducing gas and reacting upon an oxid ore with such gas.

4. The process, which comprises subjecting a carbonaceous combustible material to the action of an electric high tension flame in an atmosphere containing carbon dioxid and water vapor to produce a reducing gas, and reacting upon an oxid ore with said gas.

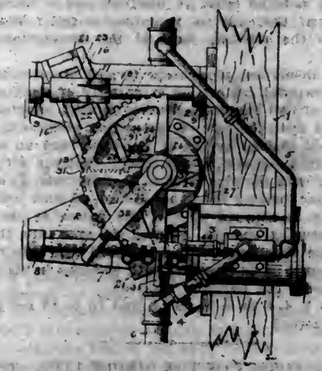
9. The process, which comprises subjecting carbonaceous material and a gas containing combined oxygen to a high tension electric arc, thereby producing a gas containing essentially carbon monoxid and hydrogen heated to reducing temperature, reducing an oxid ore with such gas, purifying the resulting gas, returning a portion of said gas to the arc and removing carbon dioxid from another portion of the gas and returning it to the arc, thereby stabilizing the action of the arc.

10. The process, which comprises treating carbonaceous reducing substance in a gaseous or vaporized state in a high tension arc in the presence of carbon dioxid and directly treating a reducible ore with such gases while heated to reduction temperature.

[Claims 2, 3, and 5 to 8 not printed in the Gazette.]

1,256,624. VARIABLE-STROKE MECHANISM. PEDER P. WESTBYE, Peterborough, Ontario, Canada. Filed Aug. 8, 1914. Serial No. 855,930. (Cl. 74—5.)

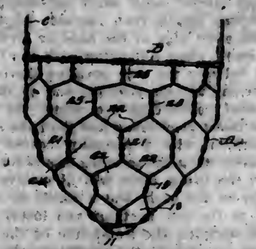
1. In a variable stroke mechanism, a main frame, parallel reciprocatory driving and driven members mounted thereon, a fixed guide upon said main frame arranged in diagonal relation with the paths of travel of the driving and driven members and alined with the opposite limits of travel of predetermined points upon the driving and driven members, a reciprocatory head movable along said guide in a straight path of travel alined with the travel terminals of predetermined points upon the driving and driven members, a pintle carried by said head, an oscillatory lever slidingly engaged with said pintle about which the lever oscillates, said lever being engaged with the driving and driven members at opposite sides of said pintle, and means to shift said head along said guide to vary the relative lengths of the opposite arms of the lever, the construction being such that the movement of said pintle in a direction coincident with that of the oscillatory lever when at the extreme limit of its movement will vary the length of the stroke of the driven member from a constant limit of travel to which the driven member is returned at each operation regardless of the length of its stroke.



2. In a variable stroke mechanism, a main frame, driving and driven members, an oscillatory control shaft, a fixed guide alined with the opposite limits of travel of predetermined points upon the driving and driven members, a reciprocatory rack member movable along said guide, a gear member carried by the control shaft and engaging the rack, a pintle having a bifurcated head carried by the reciprocatory rack, an oscillatory lever slidingly engaged in the bifurcation of the pintle head and engaged with the driving and driven members at opposite sides of the pintle said pintle being movable in a straight path toward and from the limits of travel of the engagement points of the lever with the driving and driven members by the adjustment of said control shaft to vary the stroke of the driven member from a constant limit of travel in one direction.

[Claims 3 to 5 not printed in the Gazette.]

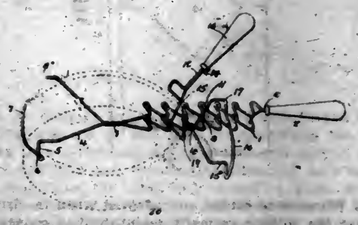
1,256,625. PROCESS OF MAKING ANIMAL-MUZZLES. ELY R. WESTFALL, U. S. Army. Filed Oct. 30, 1915, Serial No. 58,661. Renewed July 26, 1917. Serial No. 183,019. (Cl. 140—71.)



1. The herein-described process of forming an animal muzzle including the bending of a plurality of strands of wire into U-shape, placing the bight portions of substantially half the entire number of strands of wire facing each other and a common center, twisting portions of each of said strands of wire, in close proximity to the bight portions, together with the corresponding portions of two of the other wires, placing the remaining half of the entire number of wires radially about the common center, twisting portions of each of said last-named strands of wire together with the corresponding portions of two other of the last-mentioned strands so that the legs of the first-mentioned one-half of the strands of wire will cross the legs of the second-named half of the wires, twisting together the crossed portions of said legs for forming a plurality of substantially diamond-shaped portions radiating from the common center, and bending and twisting the strands of wire for forming a cup-shaped body composed of polyhedral sections.

[Claim 2 not printed in the Gazette.]

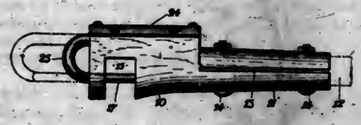
1,256,626. PAN-LIFTER. LLOYD D. WHITAKER, Farmville, Va. Filed Mar. 16, 1916. Serial No. 84,669. (Cl. 65—32.)



4. A wire plate lifter comprising a gripping portion having an immovable jaw, said immovable jaw being twisted and then diverging to form parallel side portions having substantially inclined V-shaped seats formed in alinement with each other, a movable jaw having substantially horizontal pivot portions, said pivot portions being brought together and twisted to project below said seat and from between said side portions, a gripping member formed upon said twisted portions, whereby said pivot portions may be positioned within selected seats and then the gripping member may be swung toward said gripping portions for engaging an article carried therebetween.

[Claims 1 to 3 not printed in the Gazette.]

1,256,627. TRACE-FASTENER. LOUIS A. WIENKE, Manitowoc county, Wis. Filed Apr. 18, 1917. Serial No. 163,080. (Cl. 21—79.)

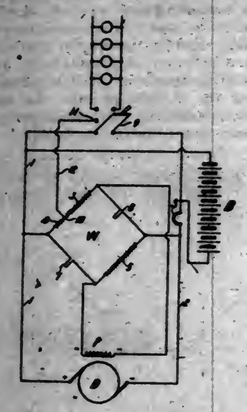


A trace fastener, comprising a split socket with clamping bolts forming a clamping ferrule for engaging the end of a swingletree, there being a recess in the bottom of the socket member and a recess in the top of the socket member, a sheet metal cover for the top recess, a coil spring contained in the top recess, a U-shaped bolt slidable longitudinally through openings in the socket member and entering both recesses with the spring engaged on one end thereof and the other end flattened horizontally and embedded in the socket member after crossing the lower recess, said flattened end of the U-shaped bolt being adapted to fit within the eye of a trace or the link of a tug chain and disengaged therefrom by pulling the bolt against the action of the spring.

1,256,628. ELECTRICAL SYSTEM OF DISTRIBUTION. JOSEPH LESTER WOODBRIDGE, Philadelphia, Pa. Filed June 9, 1914. Serial No. 844,035. (Cl. 171—313.)

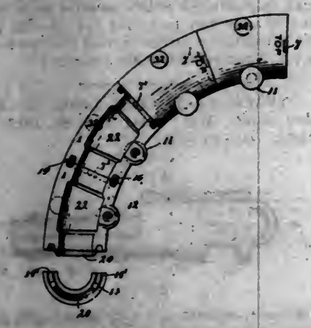
In combination, a dynamo and its field winding, a storage battery connected to the dynamo, a Wheatstone

bridge comprising resistors of different temperature coefficients connected to the dynamo and to the field winding and adapted to control the current in said winding to maintain substantially constant dynamo voltage, an auxiliary resistor connected in series with one of the resistors



of the Wheatstone bridge and adapted when in circuit to increase the voltage normally maintained, a consumption circuit, a switch for connecting the consumption circuit to the dynamo and battery, and means controlled by said switch for short-circuiting said auxiliary resistor upon the closing of the switch.

1,256,629. INSULATING PIPE-CASING. Orosco C. Woolson, Newark, N. J. Filed Oct. 27, 1916. Serial No. 128,021. (Cl. 154—45.)



1. An insulating pipe-casing formed of refractory insulating material, having a central cavity circular in cross-section having end portions of reduced diameter and secured upon and cemented to the pipe covered thereby so as to leave a plurality of inclosed unconnected air-trapping pockets surrounding such pipes; such casing being built up of a plurality of individual sections divided into two halves by a longitudinal split-joint; and having inwardly projecting centering lugs on an intermediate part of the inner face.

2. In combination, with a pipe, an insulating cover section thereon; and a collar clamped on said pipe and holding said section against displacement longitudinally of the pipe.

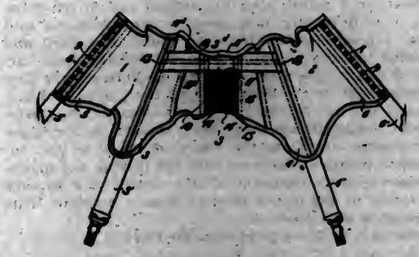
5. In combination, with a vertical pipe, an insulating covering therefor formed of a plurality of longitudinally split sections inclosing the pipe; and a split collar beneath said sections comprising halves disposed upon the collar and bolts firmly clamping said halves upon the pipe and holding the collar against longitudinal displacement on the pipe, whereby the collar is adapted to support said sections.

10. An insulating pipe-casing, formed of refractory insulating material, having a central cavity cylindrical in cross-section superposed upon the pipe so as to leave an air space between such casing and the pipe; the casing being built up of a plurality of individual sections divided into two halves by a longitudinal split-joint; each of such section halves having coacting flanges and sockets at the ends, and double toothed segmental-bodied securing-dogs located in the end sockets for securing the halves of the sections together, the dogs and flanges being embedded in cementing material when in position, and securing bolts embedded at the ends in cementing material located in sockets in the abutting faces of the longitudinal split-joints.

15. An insulating pipe-casing formed of refractory insulating material comprising a plurality of sections each composed of two halves longitudinally split, adapted to be superposed upon the pipe; a top section comprising a portion of said casing, having at the upper end an annular groove with a side-slot, and a central chamber with studs contacting with the pipe when in position; and a two part crown collar forming the upper section of such insulating pipe-casing, having on each of the halves at the lower edge a securing end-lug, adapted to pass into the side slots of the upper pipe-section so as to pass into the end groove thereof so as to secure such end-boss in place upon such section when partially rotated.

[Claims 3, 4, 6 to 9, 11 to 14, and 16 to 18 not printed in the Gazette.]

1,256,630. CORSET OF THE GIRDLE TYPE. Royal J. Wright, Springfield, Mass. Filed Oct. 11, 1917. Serial No. 196,052. (Cl. 2—73.)



1. A corset construction comprising side portions that are connected together by means of a girdle or band portion that is located with its upper edge coinciding with the upper edge of the garment at the rear side thereof and having an elastic insert piece between the side portions and of less length than the side portions and attached to the lower edge of the band or girdle, the lower edge of the insert piece coinciding with the lower edge of the garment between the side portions thereof.

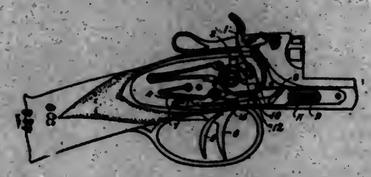
2. A corset having side portions and an insert piece of elastic material connecting the same, the longitudinal length of the insert piece being less than the side pieces to produce a garment with a centrally located narrow back portion, whereby when the securing means for the garment are in place, the insert piece will fit closely to the body of the wearer at the back, and a girdle or band portion also secured to the side portions and insert piece of the garment and engaging the waist line of the wearer.

3. A corset construction comprising side portions, a band connected to the side portions and extending only across the back of the wearer and designed to engage the waist line of the wearer, the upper edge of the band coinciding with the upper edge of the garment at the intermediate back portion of the garment, a single insert piece of elastic material located at the center portion of the back of the garment and extending downward from the lower edge of the band and forming the entire lower section of the garment at this portion thereof.

4. A corset construction comprising side and front portions, means for securing the garment in place on the wearer, comprising a band extending across the back portion only and connected to the side portions, said band consisting of strips secured to the inner and outer surface of the corset, and an insert piece of elastic material connected to the back and side portions and forming the entire lower center of the back portion of the garment, as described.

[Claims 5 and 6 not printed in the Gazette.]

1,256,631. SAFETY DEVICE FOR GUNS. Luiz Paulo Zeymer, Rio de Janeiro, Brazil. Filed Apr. 6, 1917. Serial No. 160,193. (Cl. 42—70.)



1. In a gun, in combination, a hammer adapted to operate a firing pin, a tumbler movable with said hammer, a projection on said tumbler which moves downwardly when the hammer moves toward the firing pin, a substantially horizontally movable member the upper face of which normally lies in the path of said projection so as to prevent its downward movement, said member having a free horizontal sliding movement in relation to said projection, a lever having means at one end coöperating with said horizontally movable member to move the same horizontally so as to bring its said upper face out of the path of said projection, trigger-operated means for releasing the hammer, and a trigger for actuating said lever.

[Claims 2 and 3 not printed in the Gazette.]

1,256,632. AGRICULTURAL MACHINE. Charlie T. Abbott, Woodstock, Ill. Filed Dec. 20, 1916. Serial No. 138,008. (Cl. 97—35.)

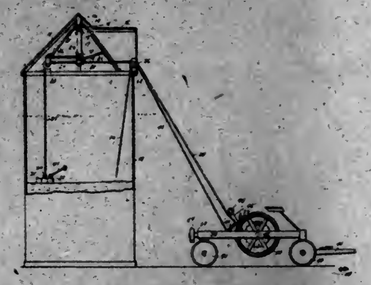


2. A cultivator comprising in combination, a wheeled frame, a steering mechanism therefor, a ground working mechanism carried by the frame, and means interposed between the steering mechanism and the ground working mechanism, whereby the latter is actuated to control or release the former upon the movement of the ground working mechanism into or out of ground working position respectively.

5. A cultivator comprising in combination, a wheeled frame, a steering mechanism therefor, a plurality of rig beams, a lock bar suspended from the frame for vertical and horizontal oscillation, and adapted to be swung into operative engagement with the steering mechanism, a rock lever pivotally connected to the lock bar, a torsion link coupling the rock lever to the yoking means, and a stop on the lock bar adapted to be engaged by the rock arm to lift the lock bar out of engagement with the steering mechanism simultaneously with the movement of the rig beams into inoperative position.

[Claims 1, 3, and 4 not printed in the Gazette.]

1,256,633. ENSILAGE-TAMPING DEVICE. Francis Adix, Boone, Iowa. Filed July 13, 1916. Serial No. 109,197. (Cl. 100—57.)



In an ensilage tamping device, an arm, means for supporting one end of said arm for permitting the arm to swing in a horizontal plane around said means, a brace connected with said means and connected with said arm for supporting the other end thereof, a guide device on the other end of said arm, guide devices on the first end of said arm adapted to swing therewith, a weight, a flexible device secured to said weight and extended around said guide devices, and means for operating said flexible device for alternately drawing said weight upwardly and then releasing said weight.

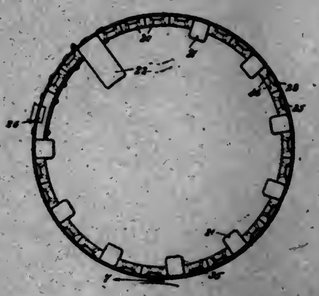
1,256,634. MALT PRODUCT. Harry G. Akers and William Perot Kaufmann, Toronto, Ontario, Canada, assignors to Malt Products Company of Canada, Limited, Toronto, Ontario, Canada. Filed Apr. 10, 1916. Serial No. 90,231. (Cl. 99—10.)

1. As a new article of manufacture, a malt product adapted for bakers' use having as its principal constituent malt and containing less than 30% of a denaturing ingredient rendering it unfit for use in the production of potable alcoholic liquors and having no unfavorable effect or re-action on the diastase of the malt.

6. As a new article of manufacture, a malt product adapted for bakers' use containing less than 30% of a denaturing ingredient rendering it unfit for use in the production of potable alcoholic liquors comprising the soluble constituents of coombings in the proportion of approximately 15% to 30%.

[Claims 2 to 5 not printed in the Gazette.]

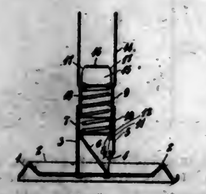
1,256,635. WASHING-MACHINE CYLINDER. George William Aldrich, Antigo, Wis. Filed Oct. 4, 1915. Serial No. 54,062. (Cl. 68—18.)



A cleaning cylinder comprising a peripheral wall formed of staves having a series of oppositely inclined perfora-

tions extending therethrough, spaced rubbing ribs and a lifting rib, close fitting joints being provided between the peripheral edges of said staves, rubbing ribs and lifting rib and said staves having their inner faces smooth and unbroken and being provided in their outer surfaces with central longitudinally extending grooves, the walls of said grooves being oppositely and inwardly inclined, said inclined perforations communicating with the said central longitudinally extending grooves, and end wall members closing the ends of the cylinder.

1,256,636. SMOKER'S DEVICE. THOMAS P. AMBROSE, Cincinnati, Ohio. Filed July 16, 1917. Serial No. 180,825. (Cl. 131—59.)



1. In combination, a base, an upright tube fixed on said base with an aperture in its side, a disk-shaped spring support fixed across said tube near the upper side of said aperture and having a segmental slot adjacent to said aperture, a cutter comprising an upper tubular part and spring-confining means fixed across the top of said tubular part, said cutter sliding inside the tube that is fixed on the base, and having a downward extension through said segmental slot in said spring support with a sharpened lower edge adapted to slide across said aperture when said holder and cutter are depressed, and a spring confined between said spring support and the means fixed across the top of said tubular part.

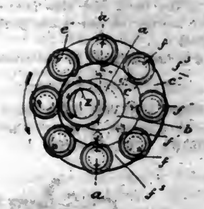
4. In combination, a base, an upright tube fixed on said base with a clipping outlet in its side down next to said base, and an aperture in said side above said clipping outlet, a chute inside said tube inclined downward thereacross to the bottom of said clipping outlet, a disk-shaped spring support fixed across said tube near the upper side of said aperture, supported by said chute, and having a segmental slot adjacent to said aperture, a cutter comprising an upper tubular part and spring-confining means fixed across the top of said tubular part, and sliding inside the tube that is fixed on the base, and having a downward extension through said segmental slot in said spring support with a sharpened lower edge adapted to slide across said aperture when said holder and cutter are depressed, a spring confined between said spring support and the means fixed across the top of said tubular part, and a lug extending laterally from said downward extension past the end of said segmental slot and below said spring support.

[Claims 2 and 3 not printed in the Gazette.]

1,256,637. THREAD-CUTTING TOOL OR MILL. HAROLD P. ARMSON, Toronto, Ontario, Canada, assignor to Arthur Peart Holden, Toronto, Canada. Filed July 3, 1916. Serial No. 107,425. (Cl. 29—105.)

1. A thread cutter comprising a collet, and a set of dies on a side face of the collet, each of said dies consisting of a cylindrical segment having a cutting edge at one extremity of its arc and a plurality of chasers of constant inclination, pitch and depth, with corresponding grooves between them extending from the cutting edge around the perimeter of the die to the opposite extremity of the arc, the cutting edges of the dies being in annular alinement and concentric with the axis thereof.

5. A thread cutter comprising a cylindrical body, a set of annularly-arranged dies projecting from the side face of said body, with a radial separation between each adjacent pair of dies, an arbor, a head for the arbor, and means for separably securing the cylindrical body to said head, each of said dies consisting of a cylindrical segment having a cutting edge at one extremity of its arc and a plurality of chasers of constant inclination, pitch and depth, with corresponding grooves between them



extending from the cutting edge around the perimeter of the die to the opposite extremity of the arc, the cutting edges of the dies being in annular alinement and concentric with the axis thereof.

[Claims 2 to 4 and 6 to 9 not printed in the Gazette.]

1,256,638. SHIP-PROTECTOR. STEPHEN BABINEC, Shelby, Mich. Filed Aug. 6, 1917. Serial No. 184,664. (Cl. 114—240.)



In combination with a hull, a plurality of cups outwardly carried thereby, caps slidably arranged upon the said cups, springs arranged between the said caps and cups and inclosed therein, rails arranged in sections and carried by the outer ends of said caps with sharpened edges outwardly arranged, the forward ends of adjacent sections of the rails being pointed and arranged substantially forwardly of the bow of the hull.

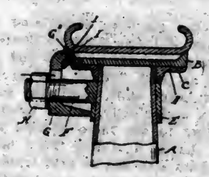
1,256,639. METALLIC VEHICLE-WHEEL. MAXIMILLIAN BACHEM, Detroit, Mich. Filed Dec. 17, 1914. Serial No. 877,730. (Cl. 152—21.)



1. In a metallic wheel, hollow, thin-walled radial spokes, a continuous fixed rim integrally joined to and with the outer ends of the spokes, alternate spokes being filled at their outer ends and provided through said fillings with transverse openings adapted to receive rim-clamping bolts and said fixed rim being provided at one side with a demountable rim abutment.

[Claims 2 to 11 not printed in the Gazette.]

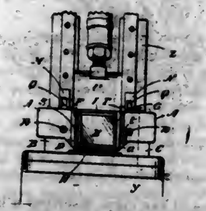
1,256,640. METALLIC WHEEL. MAXIMILLIAN BACHEM, Detroit, Mich. Filed Apr. 22, 1915. Serial No. 22,979. (Cl. 152—21.)



1. The combination with a wheel having a metallic rim and hollow metallic spokes secured thereto of socket members sleeved upon said spokes adjacent to said rim, a demountable rim on the metallic rim, and threaded studs for clamping said demountable rim secured to said sockets.

[Claims 2 to 5 not printed in the Gazette.]

1,256,641. SAFETY-GUARD FOR DIE-PRESSES. SAMUEL BAILEY, TREVOR VALENTINE LLOYD, and EVAN JONES, Melyncrythan, Neath, Wales; said Lloyd and said Jones assignors to said Bailey. Filed June 6, 1916. Serial No. 102,060. (Cl. 74—105.)



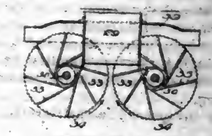
1. In a device of the class described, the combination of a pair of angled side plates having ribs projecting therefrom, with a front plate having an opening therethrough, a transparent sheet, means for securing the transparent sheet over the said opening, angle brackets adjustably attached to a stationary part of the machine and having lugs projecting forwardly of the place to be guarded, means for attaching the front plate to the said forwardly projecting lugs, and means for adjustably attaching the angled side plates to the arms of the angled brackets, substantially as described herein.

2. In a device of the class described, the combination of a pair of angled side plates having ribs projecting from their base portions, with a front plate having an opening therethrough, a hinged frame adapted to close over the said opening, a transparent sheet secured in the hinged frame, means for fastening the hinged frame when closed, angle brackets adjustably attached to a stationary part of the machine and having lugs projecting forwardly of the place to be guarded, means for attaching the front plate to the said forwardly projecting lugs, and means for adjustably attaching the angled side plates to the arms of the angle brackets, substantially as described herein.

3. In a sheet metal working press, the combination of a pair of angled side plates having ribs or flanges projecting from their base portions so as to leave an opening to the die surfaces clear, and having transverse slots in their base portions, with a front plate having a window opening therethrough disposed so as to cover the front opening of the die surfaces, a sheet of glass, means for securing the glass over the window opening in the front plate, angle brackets slotted longitudinally on one arm and having forwardly projecting lugs, and connecting screws or the like adjustably attaching the brackets to the machine, the side plates, and the front plate respectively, substantially as and for the purpose set forth.

[Claim 4 not printed in the Gazette.]

1,256,642. DIGGING-DISK FEEDER. HARRY H. BARBER, Aurora, Ill., assignor, by mesne assignments, to Barber-Greene Company, Aurora, Ill., a Corporation of Illinois. Filed July 16, 1917. Serial No. 180,734. (Cl. 37—29.)

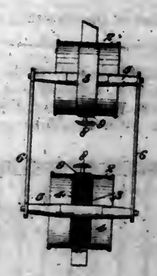


2. A feeder for bulk material comprising a pair of substantially circular feed disks mounted to rotate in opposite directions about approximately vertical and parallel axes, the peripheries of said disks being serrated and traveling toward each other at the side toward the material to be fed, whereby they are adapted to cut into the mass of said material when the disks are advanced horizontally toward it, while the upper surfaces of said disks serve to support the material dislodged from the mass and to pass it therefrom between the axes about which the disks rotate.

6. The combination of a truck, or vehicle, a conveyer mounted thereon adapted to handle bulk material and a pair of feed members mounted at one end of said vehicle for rotation in opposite directions about approximately vertical and parallel axes, the peripheries of said members arranged to travel toward each other at the side away from the vehicle, said members being arranged side by side transversely of the vehicle and their combined width being greater than the width of said vehicle whereby said members are adapted to enter the mass of material edgewise when the vehicle is advanced toward it, their upper surfaces serving to support the material dislodged from the mass and to remove it therefrom, the conveyer being arranged to pick up the material thus removed, the feed members thus cutting a path in the mass of material for the further advance of the vehicle.

[Claims 1 and 3 to 5 not printed in the Gazette.]

1,256,643. HIGH-TENSION SUSPENSION-INSULATOR. SVAND BARFORD, Oakland, Cal. Filed July 26, 1915. Serial No. 41,914. (Cl. 175—30.)



1. In a high tension suspension insulator, a metal cylinder opened at both ends, a beam extending through the cylinder and concentrically positioned within same, and an insulating member mounted within the cylinder between its ends and interposed between the beam and cylinder to support the beam.

2. In a high tension suspension insulator, a metal cylinder opened throughout its length, a disk-shaped insulator secured within the cylinder between its ends, and a beam extending through the insulator and cylinder and concentrically positioned with relation to same.

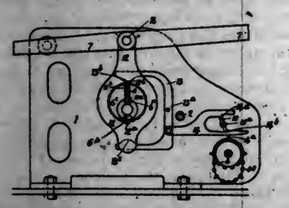
3. In a high tension suspension insulator, a metal cylinder, a disk-shaped insulator secured within the cylinder, a beam extending through the insulator and cylinder and concentrically positioned with relation to same, a clamping band exteriorly of the cylinder, and an arcing plate carried by the band.

4. The combination with a plurality of insulators, of an arcing plate arranged on each insulator in opposing relation to the plate on the adjacent insulator.

5. In a high tension suspension insulator, a metal cylinder, a disk-shaped insulator secured within the cylinder, a beam extending through the insulator and cylinder and concentrically positioned with relation to same, a link on each end of the beam, means from which said links are suspended, a clamping ring surrounding the metal cylinder, and means for suspending a transmission line from the clamping ring.

[Claims 6 to 9 not printed in the Gazette.]

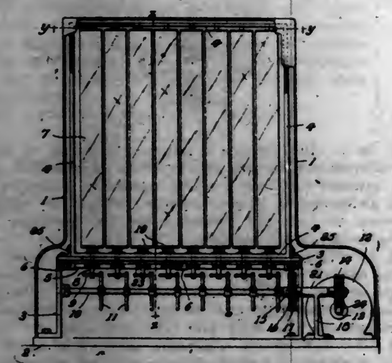
1,256,644. DOBBY USED IN LOOMS FOR WEAVING. PETER BARLOW, Prestwich, near Manchester, England. Filed Jan. 20, 1917. Serial No. 143,455. (Cl. 139—79.)



1. An improved dobby motion comprising as its essential features the following parts in combination; a first motion shaft; an oscillating second motion shaft; means for rocking the second motion shaft from the first motion shaft; a plurality of jack levers; as many eccentrics mounted on the second motion shaft as there are jack levers; a strap surrounding each eccentric and connecting it to its jack lever; each eccentric having a radial slot, and the second motion shaft having a pair of diametr'cally opposite longitudinal grooves; a key sliding in each radial slot; a spring urging each key toward the outer end of its radial slot; a lag barrel; and locking means including said keys controlled by the lag barrel to lock a particular eccentric to the second motion shaft when it is required to operate a jack lever connected to that eccentric.

[Claim 2 not printed in the Gazette.]

1,256,645. ADVERTISING-MACHINE. JOHN B. BARNETT, Fort Worth, Tex., assignor to J. I. Clingman and A. D. Hodgson, Fort Worth, Tex. Filed June 29, 1916. Serial No. 106,702. (Cl. 40—76.)

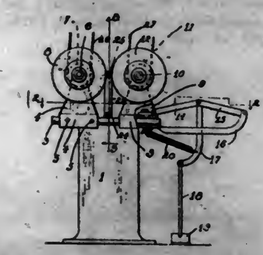


1. An advertising machine comprising a frame, a plurality of slabs journaled in said frame and each slab having a plurality of faces, check blocks rigid with the shafts of said slabs and having a corresponding number of faces, a sliding bar resting yieldingly against said blocks for holding said slabs stationary for predetermined periods of time, and multilated gearing for rotating said slabs.

4. An advertising machine comprising a supporting frame, a quadrangular frame mounted thereon, a series of slabs each having a plurality of faces and provided with shafts journaled in said frames and projecting therethrough at their lower ends, mutilated gearing for rotating said shafts periodically, blocks having numbers of faces corresponding to the faces of said slabs mounted rigidly on said shafts, a sliding block bearing against said blocks, brackets attached to said frame, and springs attached to said brackets and to said bar for holding the same yieldingly against said blocks and for restoring the slabs to starting position.

[Claims 2 and 3 not printed in the Gazette.]

1,256,646. GRINDING AND POLISHING MACHINE. CORNELIUS J. BARRY, Chicago, Ill., assignor, by direct and mesne assignments, of two-thirds to Frederick J. Setchell, Chicago, Ill. Filed Apr. 18, 1917. Serial No. 163,026. (Cl. 51—4.)



1. In a machine of the class described a base, a bearing block adjustable on said base adapted to be rigidly secured thereto, a slidable bearing block on said base, grinding wheels carried by said blocks, a slotted bar having an upturned end, means engaging through the slot in the bar adjustably attaching the bar to the base, a rod secured to the upturned end of the bar extending between the grinding wheels, a pair of arms rigidly secured to the base, toggle levers connected to said arm and to said slidable bearing block, a lever pivoted to the toggle arms, a spring connecting the lever and base and a foot pedal connected to the lever.

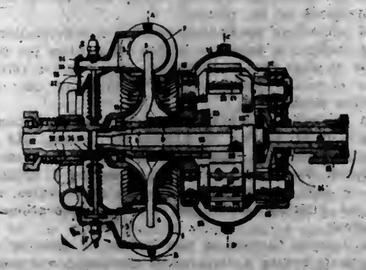
2. A grinding and polishing machine comprising a stationary polishing wheel, an adjustable polishing wheel, an adjustable bar, a rod secured thereto extending between the polishing wheels, toggle levers to shift the adjustable polishing wheel toward the stationary polishing wheel and a spring for automatically adjusting the adjustable polishing wheel from the stationary polishing wheel.

1,256,647. ROTARY EXPLOSION-MOTOR. JOSEPH BAUDOT, Tourcoing, France. Filed Nov. 24, 1913. Serial No. 802,776. (Cl. 123—43.)

1. In a rotary explosion motor, a hollow annular member mounted to rotate, pistons arranged to work within the annular chamber of said rotary member, partitions dividing the annular chamber of said member into compartments corresponding in number to the number of said pistons, a driving shaft operatively connected to said member, means for delivering explosive mixture to and removing products of combustion from each compartment of said rotary member between the corresponding said piston and the corresponding said partition ahead of said piston in the direction of rotation of said member, and means operatively connected to said driving shaft and driven by the effect of the explosions on said pistons.

6. In a rotary explosion motor a hollow annular member mounted to rotate, pistons arranged to work within

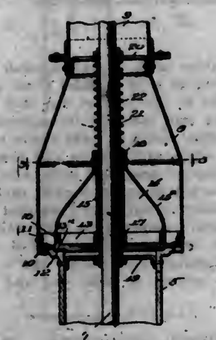
the annular chamber of said rotary member, partitions dividing the annular chamber of said member into compartments corresponding in number to the number of said pistons, a driving shaft operatively connected to said members, means for delivering explosive mixture to and removing products of combustion from each compartment of said rotary member between the corresponding said piston and the corresponding said partition ahead of said piston in the direction of rotation of said member, mechanism for moving said pistons to and fro in the compartments of said rotary member, and an oil chamber connected to said rotary member and in which said mechanism is located.



12. In an explosion motor, a driving shaft, a hollow annular body fixed to said shaft and formed with four common inlet and exhaust ports, a fixed ring formed with inlet and exhaust ports adapted to communicate with the common inlet and exhaust ports of said annular body and about which said annular body is mounted to rotate, four partitions fixed in the hollow annular body dividing its interior into four equal parts, corresponding one to each port, four pistons working in the compartments of said annular body, two levers connecting said piston together in pairs, coaxial shafts on which said levers are fixed, a casing fixed to said annular body, two cranks mounted to rotate in said casing, planet pinions on said cranks, a fixed sun wheel located within said casing and engaged by said pinions, arms on said coaxial shafts, and links connecting said arms to said cranks.

[Claims 2 to 5, 7 to 11, and 13 not printed in the Gazette.]

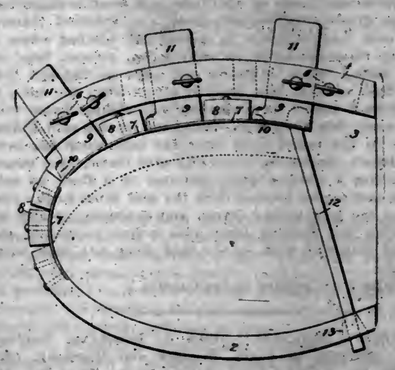
1,256,648. CHECK-VALVE. EDWARD BENSON, Miami, Ariz. Filed Dec. 12, 1916. Serial No. 136,450. (Cl. 103—66.)



1. In a pump, a check valve comprising a disk having an upstanding marginal flange and central hub, an airtight chamber carried by the back of the disk and composed of inner and outer shells, the lower end of the outer shell being fastened to the aforesaid flange and the corresponding end of the inner shell being fastened to the hub, said shells converging toward their upper ends and connected thereat, and a collar to which the last mentioned ends of the shells are fastened.

2. In a pump, a check valve comprising a disk having an upstanding marginal flange and central hub, an airtight chamber carried by the back of the disk and composed of inner and outer shells, the lower end of the outer shell being fastened to the aforesaid flange and the corresponding end of the inner shell being fastened to the hub, said shells converging toward their upper ends and connected thereat, a collar to which the last mentioned ends of the shells are fastened, and a guide for the valve passing through the hub and the collar.

1,256,649. MOLD FOR APPLYING RUBBER SOLES TO BOOTS AND SHOES. ELMER F. BERRY, Marion, Ohio. Filed June 6, 1917. Serial No. 173,111. (Cl. 18—42.)

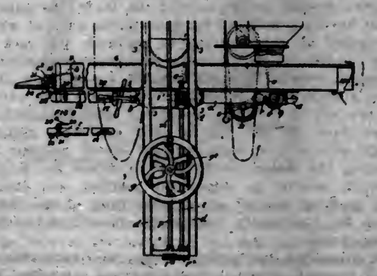


1. In a mold of the character described, the combination with a base plate having a concaved surface, of a wall surrounding said plate, a portion of the wall being rigid and the remainder thereof being adjustable, the adjustable part of the wall comprising a resilient flat member attached to the rigid part, and a series of reinforcing devices carried by said resilient member.

6. A form of the character described comprising a base having an upstanding wall, a portion of the wall being adjustable and continuous, a flange carried by the base extending parallel with the adjustable portion of the wall, said flange being of a curvature corresponding with the curvature of the adjustable portion of the wall, and cooperating parts carried by the flange and the wall for maintaining said adjustable wall in its various adjusted positions.

[Claims 2 to 5 not printed in the Gazette.]

1,256,650. APPARATUS FOR CHARGING GAS-RETORTS. HERBERT BIRD, Reading, England. Filed Aug. 26, 1916. Serial No. 117,033. (Cl. 214—29.)



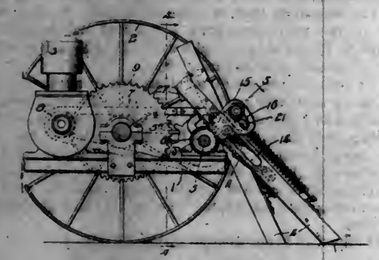
1. Apparatus for charging gas retorts comprising a cradle, a scoop mounted on said cradle, means for moving

said cradle longitudinally and transversely of the retort house, means for raising, lowering and rotating said cradle, horizontally, means for projecting and retracting said scoop relatively to said cradle, said means comprising a frame attached to the cradle, a toothed wheel mounted on a shaft on said frame, means for rotating said shaft, rollers on said frame on which the said scoop is supported, a rack disposed below said scoop and attached thereto, said rack being adapted to engage said toothed wheel.

3. Apparatus for charging gas retorts comprising a cradle, a scoop mounted on said cradle, means for moving said cradle longitudinally and transversely of the retort house, means for raising, lowering and rotating said cradle horizontally, means for projecting and retracting said scoop relatively to said cradle, said means comprising a frame attached to the cradle, a toothed wheel mounted on a shaft on said frame, means for rotating said shaft, rollers on said frame on which the said scoop is supported, a rack disposed below said scoop and attached thereto, said rack being adapted to engage said toothed wheel, a sliding frame mounted on said scoop, pivoted flaps on said sliding frame, stops on said flaps so disposed that said flaps will not turn on their pivots when the scoop is withdrawn, means for projecting said sliding frame with said scoop into the retort, means for leaving said sliding frame in the retort until after the said scoop has been withdrawn, means for retracting said frame, said means comprising a winding drum mounted on a shaft on said frame and a wire leading from the said drum to the rear end of the said sliding frame, and automatic means for throwing the winding drum into action to retract the sliding frame as soon as the said scoop has been withdrawn.

[Claim 2 not printed in the Gazette.]

1,256,651. TRACTOR. JOHN C. BOHMKER, Bradley, Ill., assignor to Sears, Roebuck and Company, Chicago, Ill., a Corporation of New York. Filed Feb. 28, 1917. Serial No. 151,438. (Cl. 180—8.)



1. A propelling mechanism having, in combination a pushing element, a rack attached to and extending longitudinally of the pushing element, a pinion meshing with the rack, a shaft on which the pinion is mounted, a bracket pivoted on the axis of the shaft, the pushing element having a longitudinal groove, the walls of which are engaged by said bracket to maintain the rack in proper relation to the pinion, a spring strained between the pushing element and said bracket, a stationary plate located alongside the bracket and having a slot curved upon the arc of a circle concentric with the shaft, a member fixed to the bracket and extending slidably through said slot, a spring-pressed clutch member for connecting the pinion to the shaft, a detent for holding the clutch member in inoperative position, and devices on the pushing element at opposite sides of the clutch member for alternately disengaging the clutch member and the detent.

2. A propelling mechanism having, in combination, a pushing element, a rack attached to and extending longitudinally of the pushing element, a pinion meshing with the rack, a shaft on which the pinion is mounted, a bracket pivoted on the axis of the shaft, the pushing element having a longitudinal groove, the walls of which are engaged by said bracket to maintain the rack in proper relation to the pinion, a stationary plate located alongside the bracket and having a slot curved upon the arc of a circle concentric with the shaft, a member fixed to the bracket and extending slidably through said slot, a spring-pressed clutch member for connecting the pinion to the shaft, a detent for holding the clutch member in inoperative position, devices on the pushing element at opposite sides of the clutch member for alternately disengaging the clutch member and the detent, and means for moving the pushing element in the direction opposite to the direction of movement produced by the pinion.

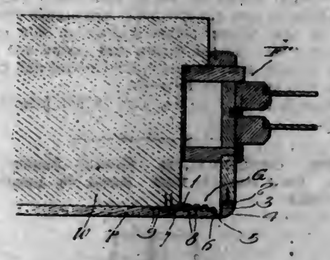
13. A propelling mechanism having, in combination, a pushing element, a rack and pinion mechanism for moving said element in one direction, a spring for returning the element, and means for controlling the rack and pinion mechanism.

14. A propelling mechanism having, in combination, a pushing element, gearing mechanism for moving said element in one direction, means for moving the element in the opposite direction, means for imparting a swinging motion to said pushing element as it reciprocates, and means for limiting the length of the reciprocations of the element.

15. A tractor having, in combination, a pushing element, a shaft having a drive wheel thereon, power means for rotating said shaft to actuate said wheel, said shaft having a gearing connection with said pushing element adapted to move said element in one direction, and means for moving said element in the opposite direction.

[Claims 3 to 12 not printed in the Gazette.]

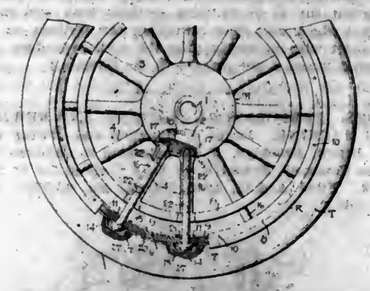
1,256,652. PLASTER-TERMINAL. GEORGE B. BOUGHTON, St. Louis, Mo. Filed Mar. 12, 1917. Serial No. 154,294. (Cl. 72—98.)



The combination with a wall member and a frame therein, of a vertical strip of sheet metal anchored along one of its edges to the edge of one stile of the frame, said strip being bent laterally throughout its length to form a longitudinal flange at right angles to the anchored portion of the strip, said portion and flange coacting to form a right angular seat, said strip, after forming said flange, being curved inwardly toward said wall member and simultaneously curved away from said flange to form a plaster terminal anchored to said wall member and having plaster chinks, plaster applied to said wall member and engaging said chinks, and a right angular finishing strip secured in said seat and abutting said flange.

1,256,653. WHEEL STRUCTURE. MARTIN BOYER, Lowry, Minn. Filed Sept. 24, 1917. Serial No. 193,002. (Cl. 152—48.)

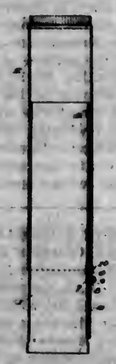
1. A wheel structure including a hub, tubular spokes radiating therefrom, a rim surrounding the hub and provided with circumferentially spaced openings, a cushion tire mounted upon the rim, sockets embedded within the inner face of the tire and in registry with the openings of the rim, plungers loosely mounted within the spokes extending through the openings in the rim and seated within the sockets of the tire, and cushioning means coacting with the inner end portions of the plungers.



4. A wheel structure including a hub, tubular spokes radiating therefrom, a rim surrounding the hub and provided with circumferentially spaced openings, circumferentially disposed and inwardly directed flanges carried by the rim, a cushion tire mounted upon the rim, sockets embedded within the inner face of the tire and in registry with the openings of the rim, plungers loosely mounted within the spokes extending between the flanges of the rim and through the openings of the rim and seated within the sockets of the tire, cushioning means co-acting with the inner end portions of the plungers, and a compression member fitted between the annular flanges of the rim and through which the plungers snugly pass, said compression member serving as a cushion to compensate for the circumferential movement of the plungers relative to the rim, the free marginal portions of the flanges of the rim being inwardly inturned for contact one with the other, said inturned portions being provided with registering recesses to afford elongated openings through which the plungers are disposed.

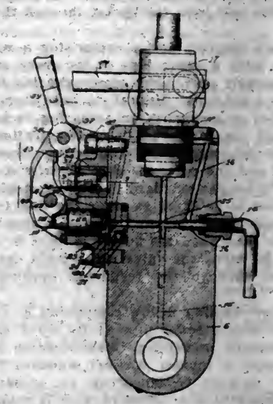
[Claims 2, 3, and 5 not printed in the Gazette.]

1,256,654. EXTENSIBLE STOVEPIPE. ALBERT BRAUER, Millington, Mich. Filed Dec. 12, 1917. Serial No. 206,805. (Cl. 126—308.)



In combination with telescopically engaged pipe sections, a longitudinally disposed slotted member secured at one end to the inner section, a plate slidable on said member and having one end of the same bent upwardly to form means for engaging the adjacent end of the outer section, and securing means passing through said plate and the slot in said member.

1,256,655. COMPRESSOR INDICATING AND RECORDING DEVICE. JOHN ROWLAND BROWN, Mansfield, Ohio, assignor to The Ohio Brass Company, Mansfield, Ohio, a Corporation of New Jersey. Filed Mar. 3, 1916. Serial No. 81,811. (Cl. 234—17.)

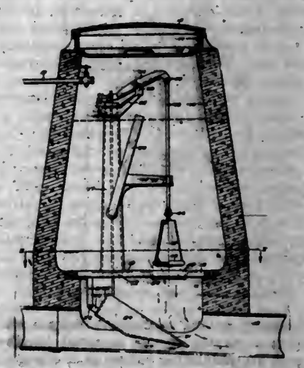


1. The combination with variable fluid pressure applying means; of means, including a punch, actuated by the same pressure, and a movable strip of perforable material opposing the pressure and directly engaged by the punch and perforated by it when sufficient pressure is applied by the punch, for recording the applications of sufficient pressure of said pressure applying means.

5. In a pressure indicating and recording device, the combination with a member actuated by fluid pressure, a punch, a strip of material engaged by the punch, a mechanical connection between the said member and the punch for permitting motion to the perforating strip, and means for engaging the perforations of the strip to hold it in place for the next perforation by the punch.

[Claims 2 to 4 and 6 to 10 not printed in the Gazette.]

1,256,656. AUTOMATIC SEWER-FLUSHER. GARRIS H. BURNS, Los Angeles, Cal. Filed Sept. 10, 1917. Serial No. 190,651. (Cl. 182—4.)



1. In a sewer flushing apparatus, a well, a sewer connected with the bottom of the well, a valve member in the passage between the bottom of the well and the sewer, a tubular vertical standard, a walking beam pivoted to the upper end of the standard, a rod connecting the outer end of the walking beam to the valve, an actuating bucket pivotally mounted below the standard, a rod connecting

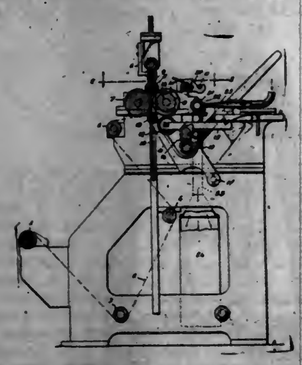
the bucket to the inner end of the walking beam; said valve overbalancing the bucket to hold it elevated; and a cover upon the bucket and having a limited outlet passage; so that when the well fills to overflowing the water will run down the standard into the bucket and overbalance and open the valve and hold the valve open until the water has drained from the bucket through the restricted opening.

2. A sewer flushing device comprising a well in communication with a sewer pipe at its lower end, a valve member normally preventing communication between the well and pipe, a tubular vertical standard from which said valve member is supported, an actuating bucket mounted beneath said standard and in communication with the opening therethrough, rigid connecting means between said bucket and the valve member whereby water flowing through said tubular standard to the bucket will cause the valve member to be lifted to allow the well to open, and a cover upon the bucket and having a restricted outlet opening; so that when the bucket is filled to overbalance and open the valve, the valve will remain open until the water flows through the restricted opening from the bucket.

3. A sewer flushing device comprising a well in communication with a sewer pipe at its lower end, a valve member normally preventing communication between the well and pipe, a tubular vertical standard from which said valve member is supported, an actuating bucket mounted beneath said standard and in communication with the opening therethrough, rigid connecting means between said bucket and the valve member whereby water flowing through said tubular standard to the bucket will cause the valve member to be lifted to allow the well to empty, and means incorporated within said bucket whereby it will be held in its lowermost position for a predetermined period of time and the valve member likewise elevated.

[Claims 4 to 7 not printed in the Gazette.]

1,256,657. PROCESS FOR MAKING SURGICAL BANDAGES. JAMES A. CAMERON and GUSTAF BIRGER BIRCH, Brooklyn, N. Y., assignors to Cameron Machine Company, Brooklyn, N. Y., a Corporation of New York. Original application filed Oct. 10, 1914, Serial No. 866,012. Divided and this application filed Mar. 3, 1916. Serial No. 81,809. (Cl. 164—65.)



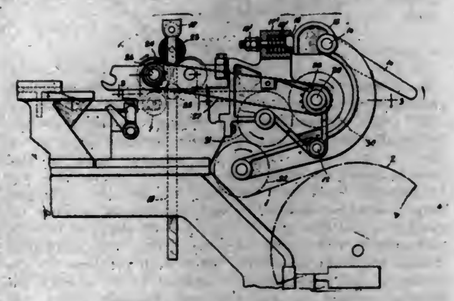
1. The process of making surgeons' bandages which consists in slitting a moving web of material lengthwise by severing it with an undulating cut so as to simultaneously destroy the continuity of warp threads adjacent to the cut and so as to leave a scalloped edge formed by weft threads of unequal length, and then removing the severed warp threads from the moving web.

2. The process of making surgeons' bandages which consists in feeding a web of material, slitting the web lengthwise with an undulating cut so as to form sections with contiguous scalloped edges, then removing the severed warp threads, and finally rewinding the sections with the contiguous scalloped edges in interlocked but not in overlapped relation.

5. The process of slitting and rewinding sheet material which consists in first slitting a web of material with an undulating cut so as to form sections with contiguous scalloped edges, and then rewinding the sections on the same shaft without overlapping the scalloped edges.

[Claims 2 and 4 not printed in the Gazette.]

1,256,658. PERFORATING, SLITTING, AND REWINDING MACHINE. JAMES A. CAMERON and GUSTAF BIRGER BIRCH, Brooklyn, N. Y., assignors to Cameron Machine Company, Brooklyn, N. Y., a Corporation of New York. Filed Aug. 3, 1915. Serial No. 43,370. (Cl. 164—65.)



1. A slitting and rewinding machine comprising: means for severing a web lengthwise into sections with a scalloped cut, and means for rewinding the sections into coil form with the scalloped edges in interlocked relation without interweaving.

2. A slitting and rewinding machine comprising: means for forming weakening lines transversely of a web, means for severing the web lengthwise into sections with a scalloped cut, and means for rewinding the sections into coil form with the scalloped edges in interlocked relation without interweaving.

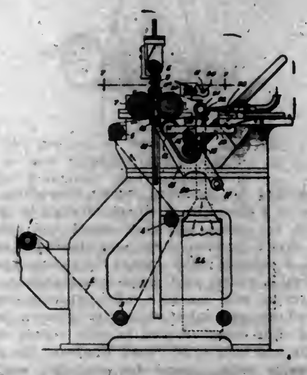
3. A slitting and rewinding machine comprising: means for severing a web lengthwise into sections with a scalloped cut, and means for rewinding the sections into coil form with the scalloped edges in interlocked relation without interweaving, said means consisting of a rewinding shaft on which the web sections are rewound and a rewinding roller engaging the surface of the rewound coils.

4. A slitting and rewinding machine comprising: cutting means including a member having a tortuous cutting edge for severing a web lengthwise into sections with a scalloped cut, means for rewinding the sections into coil form with the scalloped edges in interlocked relation without interweaving, and means for guiding the web in a straight path through the cutting means.

1,256,659. MACHINE FOR MAKING SURGEONS' BANDAGES. JAMES A. CAMERON and GUSTAF BIRGER BIRCH, Brooklyn, N. Y., assignors to Cameron Machine Company, Brooklyn, N. Y., a Corporation of New York. Filed Oct. 10, 1914. Serial No. 866,012. (Cl. 164—65.)

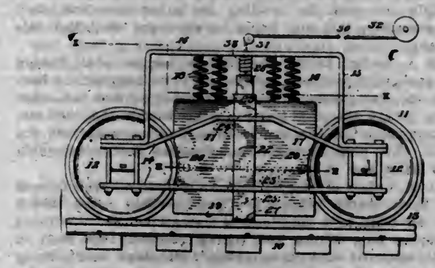
1. In a machine of the character set forth, means for slitting a web, rewinding means including a removable rewinding shaft, a bracket located in advance of the rewinding means adapted to receive a rewinding shaft containing rewound slitted sections integral with the web, and a second rewinding shaft inserted in the rewinding means to maintain the slitted sections in threaded relation to the rewinding means when the web is severed transversely between the two rewinding shafts.

2. In a machine of the character set forth, means for slitting a web, rewinding means including a removable rewinding shaft, a bracket located in advance of the rewinding means adapted to receive a rewinding shaft containing rewound slitted sections integral with the web, two spaced rows of pins extending transversely of the web and interposed between the rewinding means and the bracket aforesaid which pierce the slitted sections when the rewinding shaft is placed in the bracket aforesaid and which constitute a guide for determining the transverse severance of the web, and a second rewinding shaft inserted in the rewinding means to maintain the slitted sections in threaded relation to the rewinding means when the web is severed transversely between the two rows of pins.



3. In a machine of the character set forth, means for slitting a web, rewinding means including a removable rewinding shaft, a bracket located in advance of the rewinding means adapted to receive a rewinding shaft containing rewound slitted sections integral with the web, two spaced rows of pins extending transversely of the web and interposed between the rewinding means and the bracket aforesaid which pierce the slitted sections when the rewinding shaft is placed in the bracket aforesaid and which constitute a guide for determining the transverse severance of the web, a second rewinding shaft inserted in the rewinding means to maintain the slitted sections in threaded relation to the rewinding means when the web is severed transversely between the two rows of pins, and means for disengaging the integral sections of the web from one of said rows of pins after the web is severed transversely.

1,256,660. RAILWAY-CAR BRAKE. PETER CHESELKA, Fairbank, Pa., assignor of one-eighth to George Kupec, one-eighth to John Slosar, one-eighth to Stefan Duhovan, and one-eighth to Anton Blasinsky, New Salem, Pa. Filed Aug. 14, 1917. Serial No. 186,131. (Cl. 188—48.)

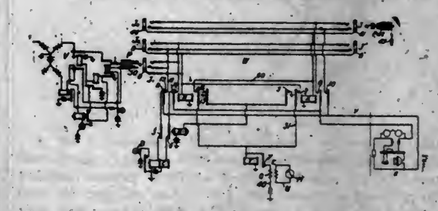


1. A brake for a railway car comprising a support, spaced blocks adapted for arrangement between the adjacent wheels of the car normally positioned out of contact with the wheels and track, a rail clamp arranged between said blocks and depressing means for blocks and closing means for the clamp operatively arranged between the clamp and said support.

4. A railway brake comprising in combination with the spaced wheels of a car frame mounted upon a track, a support carried by said frame, blocks arranged between the said wheels above the truck with arcuate side portions normally spaced from said wheels, a clamp attached to said blocks and arranged therebetween with normally opened jaws above the level of the track, the said clamp having normally closed upper ends, a weighted wedge arranged adjacent the said ends, a depressing spring normally tensioned between the said wedge and support and a cord attached to said wedge and extending above the said support adapted for elevating the wedge and comprising the said spring and elevating springs arranged between said blocks and supports.

[Claims 2 and 3 not printed in the Gazette.]

1,256,661. TELEPHONE-EXCHANGE SYSTEM. HENRY P. CLAUSEN, Mount Vernon, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Apr. 24, 1917. Serial No. 164,231. (Cl. 179—52.)



1. In a telephone system, the combination of a telephone line provided with two groups of jacks, means to place the normal busy test on one group of the line jacks when a cord circuit is connected to one of the jacks thereof, and means to place a special tone test on each jack of the other group when a cord circuit is connected to a jack of the first group.

3. In a telephone system, the combination of two groups of sets of switching terminals normally disconnected from the line, a link circuit, devices to connect each group to the line actuated automatically when the link circuit is connected to a set of either group, means to place the normal busy test on a terminal of each set of a group having the link circuit connected to one set thereof, and mechanism to place a special tone test upon a terminal of each set of the other group while the link circuit is connected to a set of the first group.

5. In a telephone system, the combination of a telephone line, a plurality of cord circuits, two groups of line jacks, each group having its terminals connected together and each group being normally disconnected from the telephone line, means for automatically connecting the telephone line to a group to which a cord circuit is connected and preventing the connection of the line to the other group during such connection, means for placing the normal busy test upon each jack of the group to which the cord circuit is connected, mechanism to place a special tone test upon each jack of the second group while the cord circuit is connected to a jack of the first group, and means to disconnect the special tone mechanism from the jacks of the second group and place the normal test thereon when another cord circuit is connected to a jack of the second group.

[Claims 2, 4, 6, and 7 not printed in the Gazette.]

1,256,662. BRUSH. OTTO LEO CLEMAN and ARMAND PORRET, Toronto, Ontario, Canada. Filed Feb. 17, 1917. Serial No. 149,288. (Cl. 15—48.)

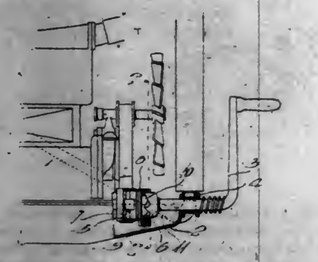
A brush, comprising a handle, a brush back formed with an orifice and bristles, and a container removably inserted

through the orifice but not extending to the bottom of the bristles, said container having a horizontal partition dividing it into two compartments, one above the other and communicating with each other by an appropriate port through the partition, the upper compartment constituting a reservoir having an inlet through which the liquid



may be introduced into it, and the lower compartment constituting a distributing chamber having in its bottom surface perforations for the flow of the liquid to the surface under treatment, a valve closing said port, and means for manipulating the valve to open and close the port to respectively permit or stop the flow of the liquid from the reservoir to the distributing chamber.

1,256,663. CRANK-LOCK FOR AUTOMOBILES. SAMUEL CUNNINGHAM, Watertown, S. D. Filed Dec. 20, 1917. Serial No. 208,133. (Cl. 70—130.)



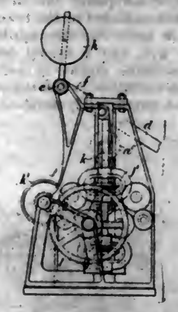
1. An automobile lock comprising a plate adapted to be interposed between the coacting clutch members of the engine shaft and the cranking shaft, and means for securing said plate in place, said means including a releasable lock.

2. A lock for automobiles comprising a plate to be interposed between the coacting clutch members on the engine shaft and the cranking shaft, a lateral flange on said plate to underlie one of said clutch members to prevent movement of the plate in one direction, and means including a lock for preventing other movement of said plate.

3. A lock for automobiles comprising a plate to be interposed between the coacting clutch members on the engine shaft and the cranking shaft, a lateral flange on said plate to underlie one of said clutch members to prevent movement of the plate in one direction, an arm extending from said plate, and a clamping member pivoted to said arm for gripping a fixed part of the motor therebetween, the ends of said arm and clamping member having openings to receive a lock.

1,256,664. MACHINERY FOR RUBBER AND THE LIKE. SAMUEL CLELAND DAVIDSON, Belfast, Ireland. Filed June 7, 1915. Serial No. 32,587. (Cl. 18—2.)

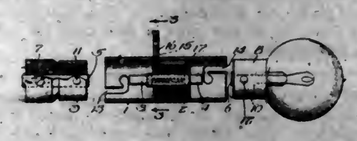
1. An apparatus for kneading rubber by rolling a mass of same over and over upon itself, and under pressure, consisting of a symmetrically arranged plurality of rollers rotating in the same direction at the same periphery speed, and so assembled relatively to one another as to provide between them a cavity into which is placed the rubber to be operated upon, at least one of said rollers being movable toward or away from the center of said cavity, the remaining rollers being in fixed stationary bearings, or vice versa, namely that the remaining rollers while symmetrically stationary in relation to one another, are movable in a block toward or from the other roller, or rollers, the capacity of said cavity being thereby diminished or enhanced to increase or reduce, as required, the kneading pressure on the rubber therein.



10. A machine for kneading rubber consisting of the combination of a plurality of rollers rotating in the same direction at the same periphery speed and assembled to form a cavity between them, end standards carrying said rollers, a movable roller, means for applying pressure to said movable roller, said means comprising a sliding member carrying said movable roller whereby the same can be moved into and out of the cavity between the other rollers, said slide being adapted to slide across the ends of the cavity and keep same closed whatever the position of the movable roller, means for operating said slide, gearing for driving the rollers which form the cavity, gearing for driving the movable roller, means whereby the gearing which drives the movable roller may slide relatively to the other gearing for the purpose of driving the movable roller in whatever position it may be with respect to the cavity, and means for heating said rollers.

[Claims 2 to 9 not printed in the Gazette.]

1,256,665. CIRCUIT-COUPLING. HARRY A. DOUGLAS, Bronson, Mich., assignor to Douglas & Rudd Mfg. Co., Bronson, Mich., a Corporation of Michigan. Filed Mar. 17, 1916. Serial No. 84,789. (Cl. 173—328.)



1. A contact carrier including a tubular shell having an opening through its tubular wall; an angular lug having one arm passing through said opening; and means within the shell for holding the other arm and shell in assembly, this arm being between the shell and this means.

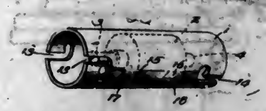
3. A contact carrier including a tubular shell having an opening through its tubular wall; an angular lug having one arm passing through said opening and the other arm within the shell; and a plug within the shell engaging the latter arm and holding it in assembly with the shell, this plug having a longitudinal groove in which the latter arm is received.

6. A contact carrier including a cylindrical shell formed of sheet metal having abutting meeting edges which are provided with interlocking formations, and a contact carrying plug within and tightly engaging the shell in the region of said interlocking formations and serving to frictionally lock said formations together whereby the plug maintains the shell in its cylindrical shape.

9. A contact carrier including a tubular shell having an opening through its tubular wall, a plug within the shell, and a connector member disposed in said opening and having a portion thereof located between the plug and a portion of the shell overlying the plug.

[Claims 2, 4, 5, 7, 8, and 10 not printed in the Gazette.]

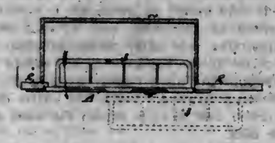
1,256,666. METHOD OF FORMING CYLINDRICAL SHELLS AND ASSEMBLING THEM WITH CORES. HARRY A. DOUGLAS, Bronson, Mich., assignor to Douglas & Rudd Mfg. Co., Bronson, Mich., a Corporation of Michigan. Filed July 7, 1916. Serial No. 107,904. (Cl. 29—148.)



1. The process of forming a shell and assembling it with a core therefor which consists in forming interlocking dovetailed joint elements in two parallel edge portions of a sheet of metal; curling the sheet of metal into a tube and bringing said parallel edge portions into abutting engagement and the dovetailed point elements into interlocking relation; and forcing the core into the bore of the shell to effect and maintain tight engaging pressure between the inclined edge portions of the dovetailed joint elements.

[Claim 2 not printed in the Gazette.]

1,256,667. WALL-BED. NAPOLEON B. DOUGLASS, Berkeley, Cal. Filed Feb. 12, 1917. Serial No. 147,992. (Cl. 5—18.)



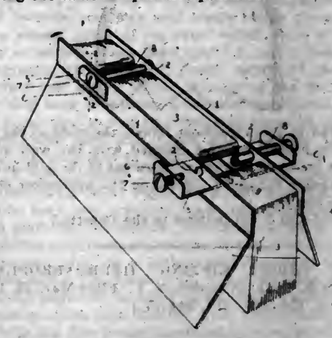
1. In a wall bed, the combination of a panel turnable in an opening in the wall, said panel being pivoted to one side of its center but substantially remote from either vertical edge, said panel when closed lying in the plane of and closing the opening, with its pivots lying outside of the plane of the panel and in a vertical line so that when the panel is swung through an arc of 180° it presents an opening to one side of the panel sufficient for passage through the opening, and an article of furniture carried on the panel of less width than the maximum width of the panel.

2. In a wall bed, the combination with a panel turnable in an opening in a wall, said panel having vertical pivots which lie outside of the plane of the panel, said pivots including an upper plate secured to the upper edge of the wall opening and having a downwardly projecting off-set pintle, a corresponding socket plate on the panel to receive said pintle and the lower pivot comprising a pintle member secured to the lower edge of the panel and off-set to the same side of the panel that the upper pintle is, and in the same vertical plane with said upper pintle, and an adjustable floor socket for the lower pintle.

1,256,668. LOOSE-LEAF BINDER. WILLIAM H. EDWARDS, Grand Rapids, Mich. Filed May 10, 1915. No. No. 26,949. (Cl. 129—13.)

1. In a loose-leaf binder adapted to contain leaves having open notches with overhangs in their edges; a leaf-holding member having a portion adapted to be inserted into the notches and to be retained therein by the overhangs and to hold the leaves in position edgewise and another portion adapted to hold the leaf portions adjacent the notches in position laternally; and adjustable means for securing said member in its operative position.

2. In a loose-leaf binder adapted to contain leaves having open notches to their edges; a coöperating pair of leaf-holding members having portions adapted to be inserted into the same notches from opposite sides respectively of the leaf-body and to hold the leaves in position edgewise and other portions adapted to hold the leaf portions adjacent the notches in position laterally; and adjustable means between the binding edge of the leaves and said inserted portions and within the dimensions edgewise of the leaves and extending between said members for securing the same in operative position.



4. In a loose-leaf binder adapted to contain leaves having open notches with overhangs in their edges; a leaf-holding member having a portion adapted to be inserted into the notches and to hold the leaves in position edgewise and another portion adapted to hold the leaf portions adjacent the notches in position laternally; and adjustable means outside the portion of said member which engages in the notches and substantially within the dimensions edgewise of the leaves, for securing said member in its operative position.

5. In a loose-leaf binder adapted to contain leaves having open notches in their edges, a coöperative pair of leaf-holding members adapted to be inserted into the same notches from opposite sides respectively of the leaf-body, and to hold the leaves in position against any movement edgewise and each having a laterally-extending flange adapted to hold the portions of the leaves adjacent the notches in position laterally; and a screw extendings between the flanges and outside the portions of said members which engage in the notches, for adjustably securing said members together.

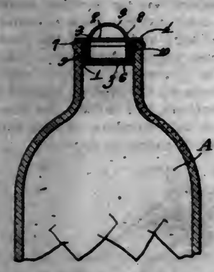
6. In a loose-leaf binder adapted to contain leaves having open notches in their edges; a pair of covers having apertures therethrough adjacent their binding edges; a coöperating pair of leaf-holding members having portions adapted to be inserted through said apertures and into the notches from opposite sides respectively of the binder and to hold the covers and leaves in position against any movement edgewise and other portions adapted to hold the leaf and cover portions adjacent their apertures and notches respectively in position laterally; and means extending between said members and outside the portions of said members which engage in the apertures and notches, for adjustably securing said members together.

[Claim 3 not printed in the Gazette.]

1,256,669. BOTTLE-CAP. MARY L. EVANS, Calgary, Alberta, Canada. Filed May 4, 1917. Serial No. 166,892. (Cl. 215—17.)

3. A bottle stopper comprising a sleeve having a central annular channel pressed inwardly from the exterior of the sleeve at a point approximately intermediate its ends, a resilient gasket received in the said channel and

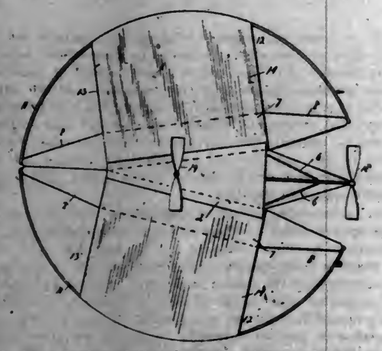
slightly thinner than the width of the channel, both ends of the said sleeve being closed, one of the said closed ends having openings formed therein, the said channel forming annular recesses in the upper and lower ends of the sleeves, a wire handle extended through the openings



and received in the uppermost recess, the ends of the said wire handle being bent and engaged with the wall of the uppermost recess to prevent withdrawal of the said handle, and an annular extension formed on the uppermost closed end of the sleeve.

[Claims 1 and 2 not printed in the Gazette.]

1,256,670. DIRECT-LIFTING HYDROAEROPLANE. WILLIAM R. FRARN, Camden, N. J. Filed Mar. 22, 1917. Serial No. 156,590. (Cl. 244—7.)

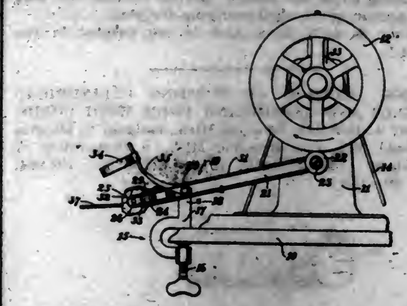


1. In a device of the character stated a body, gas contained cylinders carried by said body and diverging from their forward toward their rear ends, adjustable wings rotatable about said cylinders, a lifting propeller and a driving propeller.

2. In a device of the character stated a body, gas contained cylinders carried by said body and diverging from their forward toward their rear ends, arms carried by said cylinders and rotatable thereabout, a frame-work carried by said arms, a pair of planes projecting from the cylinders to the frame-work and converging toward their outer ends, a keel carried by the bottom of the body, a rudder hinged to said keel, a driving propeller and a lifting propeller.

1,256,671. GARMENT-SEAM-RIPPING ATTACHMENT FOR SEWING-MACHINES. WILLIAM A. FLOWERS, Bakersfield, Cal. Filed Nov. 6, 1916. Serial No. 129,756. (Cl. 112—33.)

1. In a seam ripping device, the combination with the rotary hand-wheel of a sewing machine, of a friction roller in peripheral engagement therewith, a swinging arm at one end of which said roller is mounted, a cutter disk rotatably mounted at the other end of said arm, pivotal supporting means secured to said arm intermediate its ends, and a transimmision medium whereby rotation of said roller by the hand-wheel will act to rotate said cutter disk.



4. A seam ripping device, comprising an adjustable clamping member adapted to detachably engage the table of a sewing machine, a swinging arm pivotally secured to said clamping member and thereabove, a friction roller rotatably mounted at one end of said swinging arm, a cutter disk rotatably mounted at the other end of said swinging arm, guard means for said disk, a work supporting plate secured adjacent said disk, magnifying means for enlarging the work being act upon, means whereby said magnifying member may be removably positioned above said work, resilient means for maintaining the roller in frictional engagement with the hand-wheel of a sewing machine, and means whereby rotation of said roller by said hand-wheel will be imparted to the cutter disk and produce rotation of said disk.

5. In a seam ripping device, the combination with the rotary hand-wheel of a sewing machine, of a friction roller in peripheral engagement therewith, a swinging arm at one end of which said roller is mounted, a cutter disk rotatably mounted at the other end of said arm, means pivotally supporting said arm, means whereby the rotation of said roller by the hand-wheel will rotate the cutter disk, and a supporting plate rigidly fixed to the swinging arm and extending forwardly beside the cutter disk and in front of the cutter disk so as to suport the work as it is fed to the cutter disk.

[Claims 2 and 3 not printed in the Gazette.]

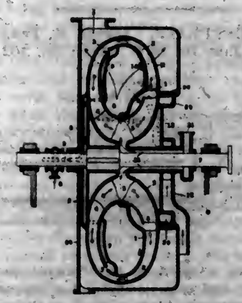
1,256,672. METHOD OF PRODUCING CLAMPING-SLEEVES. HENNING DANIEL FORSLUND, Gottenborg, Sweden, assignor to Aktiebolaget Svenska Kullagerfabriken, Gottenborg, Sweden, a Corporation of Sweden. Filed Aug. 27, 1917. Serial No. 188,475. (Cl. 29—148.)



The method of producing clamping sleeves, especially for ball and roller bearings, which consists in producing a preferably rectangular plate having a cross-section which is partly wedge-shaped and partly of equal width, pressing said plate to a sleeve having interiorly a cylindrical form and having exteriorly a partly cylindrical and partly conical form and provided with a slit which allows a yielding compression of the sleeve, and thereupon threading the outer side of the cylindrical portion of the sleeve.

1,256,673. MIXED GAS AND LIQUID TURBINE. HERMANN FÖTTINGER, Zoppot, near Danzig, Germany. Filed Nov. 13, 1914. Serial No. 871,981. (Cl. 253—60.)

1. In a turbine supplied with a gaseous compressed driving fluid, the combination with a guide-wheel, of a turbine-wheel rotary relatively thereto, a supply for the driving fluid leading directly into the turbine-wheel, and an auxiliary liquid circulating in the said guide- and turbine-wheels.



2. In a turbine for the purposes described, the combination with a guide-wheel, of a turbine-wheel rotary relatively thereto, an auxiliary liquid circulating in the said guide- and turbine-wheels, a supply for the driving fluid rotating with, and opening directly into the turbine-wheel near the place of the highest pressure of the auxiliary liquid, and an exhaust for the expanded fluid at a place of low pressure.

8. In a turbine for the purposes described, the combination with a guide-wheel, of a turbine-wheel rotary relatively thereto, the said turbine-wheel comprising an outward leading branch adapted to act as a centrifugal pump and an inward leading branch capable of receiving the driving impulse, an auxiliary liquid circulating in said guide- and turbine-wheels, a supply for the driving fluid opening directly into the turbine-wheel between the said outward and inward leading branches, and an exhaust for the expanded fluid.

14. In a gas-turbine, the combination of a rotary channeled turbine-wheel, a channeled guide member, the channels of the wheel and member, forming a continuous circuit, an auxiliary fluid traversing said circuit, and means for exhausting and admitting part of said fluid from and to said circuit for cooling purposes.

[Claims 3 to 7, 9 to 13, and 15 to 18 not printed in the Gazette.]

1,256,674. ROTARY GAS-ENGINE. HERMANN FÖTTINGER, Zoppot, near Danzig, Germany. Filed Nov. 13, 1914, Serial No. 871,980. Renewed Jan. 11, 1918. Serial No. 211,460. (Cl. 123—19.)



4. In a gas turbine, the combination with a rotary turbine wheel having a series of blades mounted thereon, of a guide member, said wheel and guide member forming a closed circuit in the shape of a hollow ring by the continuity of their channels, inclosed combustion chambers for the driving medium carried by and rotating with the turbine blades and being in open connection with said circuit, and an auxiliary fluid circulating in said circuit.

16. In a gas turbine, the combination with a turbine wheel, of an inclosed combustion chamber carried by said wheel, a guide member; said wheel and guide member being constructed to form a closed circuit, and an auxiliary fluid circulating in said circuit.

[Claims 1 to 3 and 5 to 15 not printed in the Gazette.]

1,256,675. PRODUCTION OF COLORED PICTURES. WILLIAM FRANCIS FOX, Whitestone, N. Y., assignor, by mesne assignments, to Natural Color Pictures Company, Inc., New York, N. Y., a Corporation of New York. Filed Jan. 18, 1917. Serial No. 142,245. (Cl. 95—2.)

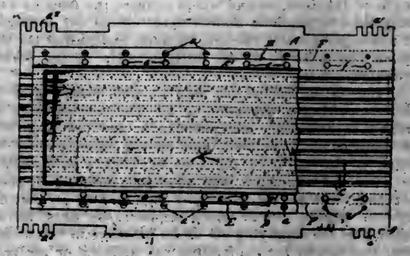
1. A photographic process comprising, imprinting a negative image of an object, from which certain color sensations have been omitted, upon light-transmissive sensitized material, coloring said image bluish green, imprinting a second image of the same object, from which other color sensations have been omitted, upon said material in registry with the first image imprinted thereon, developing said second image, immersing the material in a bleaching bath containing potassium ferricyanid, washing, and immersing in a bath containing uranium nitrate and hydrochloric acid and fixing and washing the second image, substantially as described.

3. A photographic process comprising, imprinting a negative image of an object, from which certain color sensations have been omitted, upon light-transmissive sensitized material, developing, bleaching the print in a bath consisting of potassium ferricyanid and ammonia, washing, toning the print in a bath containing ferric ammonium oxalate and hydrochloric acid, fixing, washing, imprinting a second image of the same object, from which other color sensations have been omitted, upon said material in registry with the first image imprinted thereon, developing said second image, immersing the material in a bleaching bath similar to that used for the first print, washing, immersing in a bath containing hydrochloric acid and a uranium salt adapted to form uranium chlorid with the acid, and fixing the second image, substantially as described.

5. A photographic process comprising, imprinting a negative image of an object, from which certain color sensations have been omitted, upon light-transmissive sensitized material, coloring said image bluish-green, imprinting a second image of the same object, from which other color sensations have been omitted, upon said material in registry with the first image imprinted thereon, developing said second image, immersing the meterial in a bleaching bath containing potassium ferricyanid, washing, and immersing in a bath containing uranium nitrate, hydrochloric acid and a basic dye, fixing and washing, substantially as described.

[Claims 2 and 4 not printed in the Gazette.]

1,256,676. PRESS-PLATE. ALFRED W. FRENCH, Piqua, Ohio. Filed Apr. 28, 1915. Serial No. 24,512. (Cl. 100—54.)



1. A press plate consisting of two flat plates arranged face to face, each of said plates being provided with grooves arranged so that the grooves of one plate register with the grooves of the other plate and form oil draining channels, the upper of said plates having perforations through the same communicating with said channels.

3. A press plate for oil presses having a multiplicity of narrow shallow grooves in its surface, said grooves being adapted to retain small quantities of oil meal to form a surface to which the press cloth adheres.

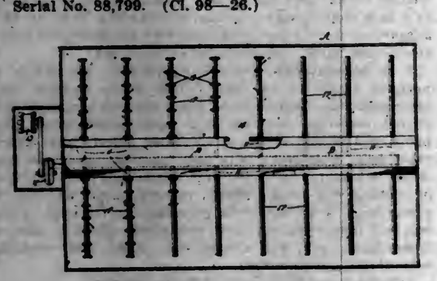
5. A press plate for oil presses having a multiplicity of narrow shallow surface grooves arranged in spaced intersecting groups and having ungrooved surface portions between said groups of grooves.

7. A press plate comprising a main plate and a mat plate secured together face to face, said plates being of substantially equal thickness and provided in their contacting faces with grooves which register to form oil drainage channels, said mat plate having perforations therethrough connecting with said channels, and said main plate extending laterally beyond said mat plate, upwardly projecting strips secured on the edge portions of said mat plate, and downwardly projecting strips secured on the edge portions of said main plate.

9. A press plate comprising a main plate and a mat plate secured together face to face, said plates being of substantially equal thickness and said mat plate having perforations therethrough, oil drainage channels being formed in the press plate between said contacting plates, said main plate extending laterally beyond said mat plate, and said press plate being provided on its upper side with portions projecting upwardly along opposite edge portions of said mat plate, and with parallel downwardly projecting portions on its underside, the upwardly and downwardly projecting portions of adjacent press plates coöperating to confine the material being pressed.

[Claims 2, 4, 6, and 8 not printed in the Gazette.]

1,256,677. VENTILATING MEANS FOR SEED-HOUSES. ALFRED W. FRENCH, Piqua, Ohio. Filed Apr. 4, 1916. Serial No. 88,799. (Cl. 98—26.)



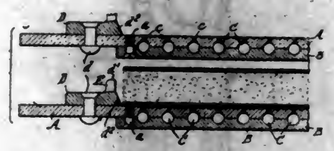
1. Ventilating means for seed in seed houses, and the like, comprising a plurality of air distributing flues extending substantially horizontally in the lower part of the house under the seed, and having provision for the escape of the air from the flues at various points along the length of the flues, means which support the flues at various points throughout their length, means for supplying air under pressure to the several flues, and means for controling the delivery of air independently to the several distributing flues.

2. Ventilating means for seed in seed houses, and the like, comprising a plurality of air distributing flues extending substantially horizontally in the lower part of the house under the seed, and having openings for the escape of the air from the flues at various points along the length of the flues, said openings being so disposed that they will not be closed by the seed at its natural angle of repose, means which support the flues, an air supply pipe for supplying air under pressure to the several flues, and means for controlling the delivery of air from said supply pipe independently to the several distributing flues, whereby the distributing of air can be controlled and the air can be concentrated at desired points.

4. Ventilating means for seed in seed houses and the like, comprising an inverted trough-like air distributer, supports located at intervals along the distributer which rest on the floor of the house and support the distributer with its edges spaced from the floor to allow the escape of air from the distributer, and air supply means arranged to deliver air to said distributer.

[Claims 3, 5, and 6 not printed in the Gazette.]

1,256,678. PRESS-PLATE. ALFRED W. FRENCH, Piqua, Ohio. Filed June 10, 1916. Serial No. 102,972. (Cl. 100—54.)

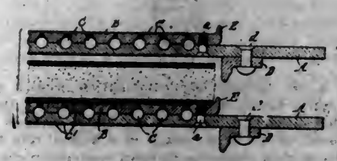


1. Press plates adapted to be arranged one over another in a press and each comprising a supporting plate and a separate narrower plate secured on the underside of said supporting plate, said plates being of approximately equal thickness and having drainage channels formed between them, and said supporting plate having perforations leading to said drainage channels, and cake retaining and guide bars projecting upwardly from the upper sides of said supporting plates, the total depth from the lower edge of said narrower plate to the upper edge of the retaining bar of one press plate being such that when the press plates are fully separated in the press an open vertical space is left between the retaining bar and narrower plate of adjacent press plates, and the narrower plate of each press plate being arranged and being of a width adapting it to enter between the retaining bars of the next press plates are moved toward each other.

4. Press plates adapted to be arranged one over another in a press and each comprising a supporting plate, and a separate narrower plate secured on the underside of said supporting plate, said plates having oil drainage channels formed between them, and said supporting plate having perforations leading to said drainage channels, and cake retaining and guide bars projecting upwardly from the upper sides of said supporting plates and being spaced apart a distance sufficient to adapt said narrow plate of one press plate to enter between the upper portions of said bars of the next press plate when the press plates are moved toward each other, said narrower plates being provided with down-curved edge portions for preventing the press cloths from being pinched between said plates and said retaining and guide bars, the total depth from the lower edge of the narrower plate to the upper edge of the retaining and guide bar of one press plate being such that when the press plates are fully separated in the press an open vertical space is left between the retaining and guide bar and narrower plate of adjacent press plates.

[Claims 2 and 3 not printed in the Gazette.]

1,256,679. PRESS-PLATE. ALFRED W. FRENCH, Piqua, Ohio. Filed June 10, 1916. Serial No. 102,973. (Cl. 100—54.)

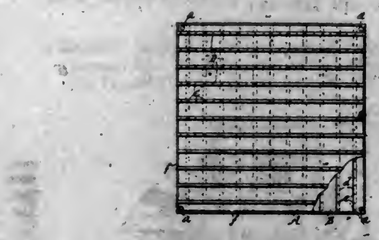


1. Press plates adapted to be arranged one over another in a press and each comprising a supporting plate, and a mat plate secured on the upper face of said supporting plate, said press plates having draining channels between said supporting and mat plates, and said mat plates having perforations leading to said draining channels, and cake retaining bars depending from the undersides of the press plates, the total depth from the upper edge of the mat plate to the lower edge of the retaining bar of one press plate being such that when the press plates are fully separated in the press an open vertical space is left between the retaining bars and mat plate of adjacent press plates, and said mat plates being narrower than the supporting plates and arranged so that one mat plate is adapted to enter between the retaining bars of the next press plate when the press plates are moved toward each other.

5. The combination of a series of press plates each comprising a main plate and a mat plate secured together face to face and having grooves in their adjacent faces forming oil draining channels between the plates, cake guide lips on said mat plate at opposite edges thereof projecting upwardly above the upper surface of said mat plate, and spaced retaining walls projecting downwardly from the underside of each press plate, the mat plate and guide lips of one press plate being adapted to telescope between the retaining walls of the next press plate above, and said parts being arranged so that said retaining walls and guide lips of adjacent plates are separated vertically by an open space when the press plates are fully separated.

[Claims 2 to 4 not printed in the Gazette.]

1,256,680. PRESS-PLATE. ALFRED W. FRENCH, Piqua, Ohio. Filed Dec. 2, 1916. Serial No. 134,597. (Cl. 100—54.)



1. A press plate composed of two plates arranged face to face, one of said component plates having hollow perforated ribs and intervening flat portions which bear against flat portions of the other plate, said hollow ribs forming free drainage channels between the plates to the edges thereof.

2. A press plate composed of two plates arranged face to face, and each having hollow perforated ribs and intervening flat portions which bear against the flat portions of the other plate, said hollow ribs forming free drainage channels between the plates to the edges thereof.

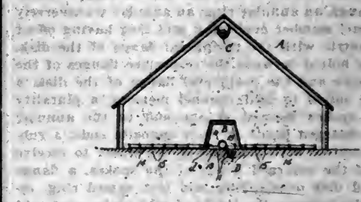
3. A press plate composed of two plates arranged face to face, each having spaced hollow perforated ribs forming free drainage channels between the plates to the edges thereof, said plates being arranged with the ribs of one plate extending at an angle to the ribs of the other plate.

[Claims 4 to 7 not printed in the Gazette.]

1,256,681. PNEUMATIC METHOD OF VENTILATING COTTON-SEED. ALFRED W. FRENCH, Piqua, Ohio. Filed Sept. 7, 1917. Serial No. 190,199. (Cl. 98—26.)

1. The herein described method of treating cotton seed, consisting in supplying a volume of air at multiple points at the base of a pile of cotton seed of substantial horizontal area to cause said air to distribute and pass laterally and upwardly through the mass of seed to prevent the seed from heating and to cool any seed which may have become heated.

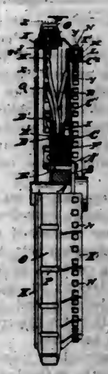
2. The herein described method of treating cotton seed, consisting in supplying air at multiple points in the base of a pile of cotton seed of substantial horizontal area, the air being discharged under pressure sufficient to cause the same to distribute and permeate through the mass of seed to prevent the seed from heating and to cool any seed which may have become heated.



5. The herein described method of treating cotton seed, consisting in discharging air under pressure at multiple points at the base of a pile of cotton seed of substantial horizontal area resting on a substantially horizontal supporting surface, to cause said air to distribute and pass laterally and upwardly through the mass of seed to prevent the seed from heating and to cool any seed which may have become heated, and regulating the supply so as to distribute the air throughout the mass of seed or to concentrate the discharge in a particular portion or portions of the mass depending upon the condition of different portions of the seed.

[Claims 3 and 4 not printed in the Gazette.]

1,256,682. VEHICLE-WHEEL. JAMES D. GARLICK, Port Huron, Mich. Filed Sept. 29, 1917. Serial No. 193,874. (Cl. 152—29.)



1. In a vehicle wheel, a metallic disk having an offset peripheral flange, an annular transversely divided resilient channel member having offset flanges, an elastic ring between the respective flanges of the disk and divided channel member, a plurality of bolts for securing the said elements together, a resilient tire bolted to said channel member, a plurality of spokes each having a cross-head respectively bolted to the abutting sections of the channel member, and a yieldable support adapted to receive and sustain the thrust of the opposite end of said spokes.

2. In a vehicle wheel, a metallic disk having an offset peripheral flange, an annular transversely divided resilient channel member having offset flanges, a rubber ring bolted between the respective flanges of the disk and channel member, a resilient tire mounted in said channel member, a plurality of spokes having enlarged heads at their inner ends and cross-heads at their outer ends bridging the respective abutting divisions of the channel member, a plurality of bolts to secure the tire, channel member, and cross-heads of the bolts together, an annular flange slotted for the passage of the spokes bolted to the metallic disk, resilient elements between the enlarged heads of the spokes

and the last named flange, and a rubber ring encircling the hub of the wheel adapted to receive the end thrust of the spokes.

5. In a vehicle wheel, a metallic disk having an offset peripheral flange, an annular ring, an annular transversely divided channel member encircling said ring having offset flanges concentric with the peripheral flange of the disk, a rubber ring bolted between the respective flanges of the channel member and the peripheral flange of the disk, a resilient tire bolted to said channel member, a plurality of yieldable spokes secured at one end to the annular ring having enlarged heads at their opposite ends, a rubber ring concentric with the hub of the wheel to receive the thrust of the enlarged heads of the spokes, a flange bolted to said disk overlapping said last named ring, resilient elements between the heads of said spokes and said last named flange, and a plurality of brace rods bolted to said last named flange and the metallic disk.

[Claims 3, 4, and 6 not printed in the Gazette.]

1,256,683. ENSILAGE-HARVESTER. CARL C. GRAY, Wapakoneta, Ohio. Filed May 31, 1917. Serial No. 172,033. (Cl. 56—110.)



1. In an ensilage harvester, a tractor, a cutter frame rigidly secured thereto, an ensilage cutter supported upon said frame, a harvester frame freely pivoted to said cutter frame to adjust itself to uneven surfaces of the ground, a conveying belt upon said harvester frame in alinement with said cutter and delivering thereto at the pivot between said frames during the pivotal movement of the harvester frame relative to said cutter, and harvesting means upon the harvester frame constructed to deliver stalks upon said belt.

7. In an ensilage harvester, a tractor, a cutter frame secured thereon, an ensilage cutter supported upon said frame, a harvester frame connected to said cutter frame and provided with a conveying belt delivering to said ensilage cutter, harvesting cutters, gathering means coöperating therewith and delivering to said belt, and a toothed wheel disposed at the delivery end of said gatherers for forcibly turning the stalk butts toward the ensilage cutter as they are delivered to said belt.

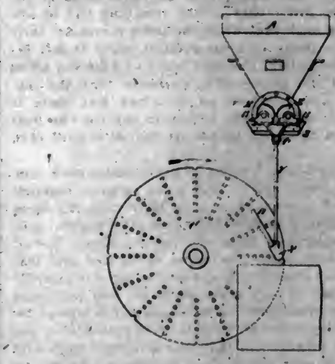
15. In an ensilage harvester, frames mounted thereon and provided with opposite gathering means, coöperating harvesting means, a divider plate pivoted intermediate its ends at the lower end of one of said frames and having a plurality of runner surfaces, and a spring for normally retaining said plate in one position.

[Claims 2 to 6, 8 to 14, and 16 to 29 not printed in the Gazette.]

1,256,684. STONE-SAW AND FEEDER. GUSTAV GRIESCHE, Berkeley, Cal. Filed Mar. 14, 1917. Serial No. 154,705. (Cl. 125—18.)

1. In a stone sawing machine, a saw, a feed hopper, a duct leading from the hopper and discharging at a side of the saw in a plane substantially parallel to the plane of the saw, and means to oscillate said duct in a plane substantially parallel to the plane of the saw.

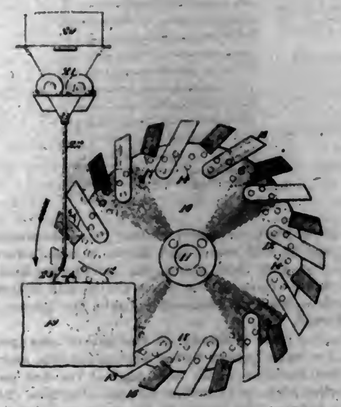
3. In a stone sawing machine, a saw, a delivery receptacle having a discharge, feed rolls arranged in said discharge, a hopper arranged to receive the abrasive material from said rolls, a pair of spaced trunnions connected to said receptacle, said hopper being mounted between said trunnions and supported by the latter for oscillating movement, a pair of ducts leading from the hopper and arranged on the opposite sides of the saw and in a plane substantially parallel to the plane of the saw, and means



to oscillate the ducts in a plane substantially parallel to the plane of the saw.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,256,685. GRANITE AND STONE SAW. GUSTAV GRIESCHE, Berkeley, Cal. Filed Oct. 8, 1917. Serial No. 195,409. (Cl. 125—18.)



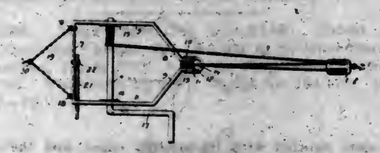
1. The combination in a stone saw, of a disk, independent teeth fixed to the periphery of the disk in lines which are tangent to a circle within the disk and having their outer ends concentric with the periphery of the disk, and grooved channels formed in the front edges of the teeth between their outer ends and the disk periphery.

3. A stone saw including a disk having countersunk, diagonally disposed depressions formed alternately upon opposite sides, parallel sided teeth having a portion fitting the depressions of the disk, a portion extending outside the disk and made thicker and having a shoulder adapted to abut against the disk edge, and direction channels formed in the teeth front betwen the disk and the end of the teeth.

4. A stone saw including a disk having diagonally disposed countersunk recesses made alternately upon opposite sides, parallel sided teeth having a portion fitting the recesses, notches in the periphery of the disk, and shoulders on the teeth fitting said notches and forming a thicker continuation of the teeth exteriorly to the disk edge.

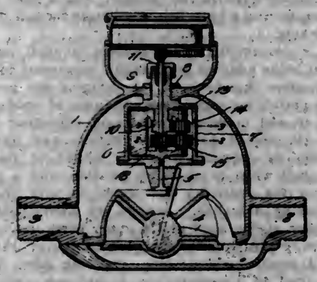
[Claim 2 not printed in the Gazette.]

1,256,686. HOISTING DEVICE AND WIRE-STRETCHER. EMIL HAAG, Hettinger, N. D. Filed June 16, 1913. Serial No. 774,018. (Cl. 254—65.)



A wire stretcher designed for stretching single wires and including an open oblong frame arranged horizontally to enable it to operate between the wires and having the forward portions of its sides converging and arranged in spaced relation, a pin connecting the front ends of the sides of the frame, a clevis connected with the pin, a pulley mounted on the pin, a rod journaled on and extending across the frame and having one end bent to form a crank handle, a pulley block, a cable reeved over the pulley and through the pulley block and connected to the rod, and a straight locking bar pivoted at one end to the back of the frame at the inner face thereof and arranged to be swung by hand outwardly and upwardly against the underside of one side of the frame and being of a length to extend into the path of rotation of the crank handle and forming a lock for the same, said locking bar extending along the back of the frame when in engagement with crank handle and adapted to swing downward out of the way by gravity.

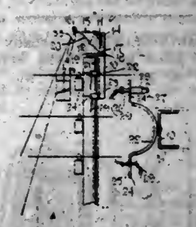
1,256,687. METER. SIDNEY GEORGE FRANK HAAS, New Orleans, La. Filed July 25, 1917. Serial No. 182,773. (Cl. 74—34.)



In a meter, the combination with the recording mechanism and the driving means operated by the flow of the water through the meter, of means connecting the operating means with the recording means for driving the same, said means comprising a sleeve, a shaft mounted in the sleeve and connecting at one end to the recording mechanism for operating the same, a yoke having arms, one of which is journaled on the sleeve and the other of which is engaged by the driving means for rotating the yoke about the shaft, gear wheels on the sleeve and on the shaft adjacent to each other, a countershaft journaled in the arms of the yoke and carrying gear wheels meshing with the first named wheels and rigid with each other.

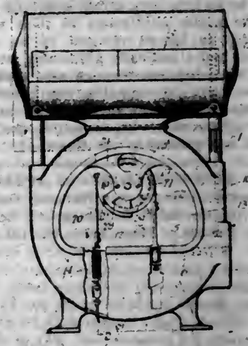
1,256,688. PORTABLE HOISTING-CRANE. ROBERT W. HALL, Greeley, Colo. Filed June 16, 1917. Serial No. 175,137. (Cl. 248—30.)

A portable crane comprising a supporting member, an arm swingingly mounted upon the supporting member, a bracket attached to the supporting member and extending therefrom, and a pair of clamps attached to the supporting member below said arm and having laterally bent slotted ends, and chains for each of said clamps, each chain having attached to one end thereof a shank adapted to be inserted through a slot of the corresponding clamp, the shank being screw-threaded, a sleeve surrounding the



shank, and a nut engaging the screw-threads thereof whereby to tighten the chain, the opposite end of the chain having detachable engagement with the opposite end of the clamp in the slot thereof.

1,256,689. SCALE. CLARENCE H. HAPGOOD, Toledo, Ohio, assignor, by mesne assignments, to Toledo Scale Company, Toledo, Ohio, a Corporation of New Jersey. Filed Mar. 28, 1912. Serial No. 686,978. (Cl. 265—69.)



1. In a weighing scale, a commodity receptacle and a load offsetting means, a lever member to the opposite arms of which said receptacle and means are respectively connected, said arms being respectively formed of materials having unequal expansion under increasing temperature whereby the relative radial distances of the points of connection of the receptacle and load offsetting means respectively are varied with variations in temperature.

4. A weighing scale having a commodity receptacle and a load offsetting means, a lever to the arms of which said receptacle and means are respectively connected, one of the arms of said lever consisting of a curved bar attached at one end to the pivotal portion of the lever and composed of strips of metal of unequal coefficients of expansion.

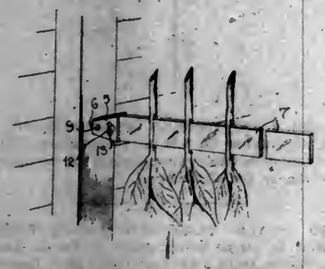
12. In a weighing scale having a commodity receptacle and a spring, a lever member to the arms of which said receptacle and spring are respectively connected, one of the arms of said lever consisting of a curved bar attached at one end to the pivotal portion of said lever, and a connection from said arms to the receiver and spring respectively, whereby an increase in temperature effects the radius of curvature of the curved arm and varies the ratio between the arms of the lever.

20. A weighing scale having a receiver and a spring, a lever intermediate the same comprising a pair of segments, a strap connection from one of said segments to the spring, the other segment consisting of a curved bar composed of two metal strips of unequal coefficients of expansion, that of the greater coefficient of expansion

being on the outside of the curve and a strap fastened to the free end of said bar passing over the periphery and secured to the receiver.

[Claims 2, 3, 5 to 11, 13 to 19, and 21 not printed in the Gazette.]

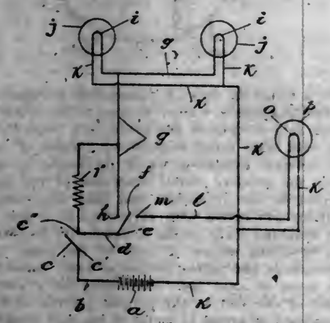
1,256,690. TOBACCO-HANGER. ALBON M. HELGESON, Viroqua, Wis. Filed May 1, 1916, Serial No. 94,777. Renewed Aug. 8, 1917. Serial No. 185,184. (Cl. 131—21.)



1. A device of the character described including spaced body plates integrally connected to each other at one of their ends by an attaching screw, a lath pivotally mounted between the plates contiguous to their connected ends and provided in spaced relation to its pivot with an arcuate slot, and a manually adjustable means connecting the plates and disposed through said slots to force the plates into frictional clamping engagement against the opposite sides of the lath and hold the same in an angularly disposed position with respect to the body plates.

[Claim 2 not printed in the Gazette.]

1,256,691. ELECTRIC-LIGHTING APPARATUS. WILLIAM HENRY HONSBERGER, Welland, Ontario, Canada, assignor of one-third to George C. Brown, Welland, Ontario, Canada. Filed July 30, 1917. Serial No. 183,606. (Cl. 171—97.)



An electric lighting apparatus for vehicles, comprising a three-contact switch, headlights, a conductor from the source of current to one contact of the switch, a conductor from another contact of the switch to the headlights, a resistance in shunt with said switch, a return conductor from the headlights to the source of current, and an auxiliary light connected with the return conductor and the third contact of the switch.

1,256,692. ELECTRIC SWITCH. WILLIAM HENRY HONSBERGER, Welland, Ontario, Canada, assignor of one-third to George C. Brown, Welland, Ontario, Canada. Filed July 30, 1917. Serial No. 183,609. (Cl. 175—282.)

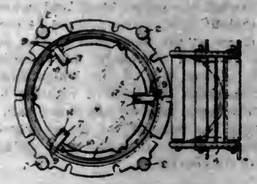
1. An electric switch to be attached to the steering post of a vehicle, comprising fixed and movable contacts, and a case therefor having an adjustable coupling consisting of two semi-cylindrical members to encircle the post, one of which is provided with a plurality of rows



of slots parallel with its meeting edges, and the other of which is provided with hook-shaping lugs along one meeting edge to engage in the slots of any of said rows.

[Claim 2 not printed in the Gazette.]

1,256,693. MOLD-ALINING DEVICE. HOMER J. HOTT, Detroit, Mich., assignor to Morgan & Wright, a Corporation of Michigan. Filed Nov. 15, 1916. Serial No. 131,890. (Cl. 18—17.)

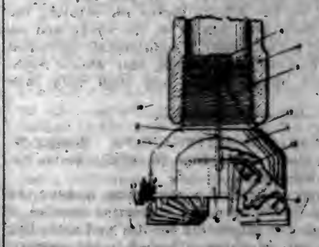


1. In an apparatus of the kind described, in combination, a chamber adapted to receive molds, a plurality of brackets spaced apart and secured to the side wall of said chamber and adapted to engage the molds to aline them when received in the chamber, and a mold supporting platen having a plurality of recesses formed to receive said brackets.

3. In a vulcanizing press a head, a shell, said head and shell being adapted for relative movement to provide an open space therebetween for charging the press with molds, a platen for supporting a column of molds, a table exterior to and inclined toward said vulcanizer for supporting the molds being fed thereto and having its lower edge at approximately the height of the month of said shell when in charging position, and a plurality of devices for centering the molds in said shell, said devices being detachably secured at fixed positions to the interior of the shell at its upper edge and below its mouth to permit uninterrupted passage of the molds into said mouth, said devices extending down the wall of said shell to approximately a distance equal to the height of a mold.

[Claim 2 not printed in the Gazette.]

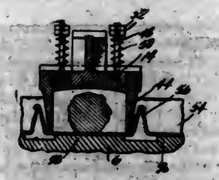
1,256,694. ROTARY BORING-DRILL. HOWARD R. HUGHES, Houston, Tex., assignor to Hughes Tool Company, Houston, Tex., a Corporation of Texas. Filed Dec. 20, 1916. Serial No. 138,819. (Cl. 255—71.)



1. A drill provided with a head, a pocket in the end of the head having the end walls thereof inclined, cutting rollers mounted in the pocket on the inclined end walls thereof, the side walls of the pocket being so extended as to house the major portion of the rollers.

[Claims 2 to 8 not printed in the Gazette.]

1,256,695. LOAF-PRESSING MACHINE. HENRY H. HUNGERFORD, Chicago, Ill., assignor to National Biscuit Company, Jersey City, N. J., a Corporation of New Jersey. Filed Mar. 12, 1917. Serial No. 154,175. (Cl. 107—15.)



1. In a loaf pressing machine, the combination with positively operating pressing means and an opposed baking tin support, of means yieldingly projected into embracing relation to the loaf in the tin in advance of the engagement of the loaf by the pressing means for laterally confining the loaf during the pressing operation, said means being arranged to clamp the baking tin upon its support.

3. In a loaf pressing machine, the combination with means for positively pressing the loaf, of spring-projected confining means carried by said pressing means and movable thereby into lateral confining relation to the loaf in advance of the engagement of the loaf by the pressing means.

7. In a loaf pressing machine, the combination with pressing means, of an opposed baking tin support, and means movable into engagement with the bottom of the baking tin and into embracing relation to the loaf in said tin in advance of the pressing means for laterally confining the loaf during the pressing operation, said confining means engaging the bottom of said tin beyond the edges of the tin supporting surface of said tin support.

12. In a loaf pressing machine, the combination with a plurality of presser members, of a baking tin support comprising coöperating projections opposed to the respective presser members, and a baking tin guide arranged to guide the baking tin freely between said presser members and said support and movable in advance of the pressing operation into tin depositing relation to said support.

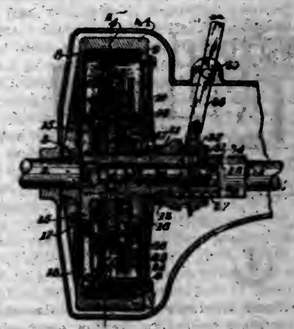
19. In a loaf pressing machine, the combination with a plurality of presser members and a baking tin support, comprising spaced supporting surfaces opposed to the respective presser members, of a baking tin spanning the spaces between said surfaces, and means carried by and yieldingly projected in advance of the presser members and opposed to said spaces for clamping said tin and laterally confining the loaves in the tin during the pressing operation.

[Claims 2, 4 to 6, 8 to 11, and 13 to 18 not printed in the Gazette.]

1,256,696. COMBINATION HYDRAULIC TRANSMISSION CLUTCH AND BRAKE. MARTIN HVEEM, Bayles, Cal. Filed Aug. 28, 1916. Serial No. 117,192. (Cl. 192—18.)

1. A hydraulic transmission comprising a hollow, liquid-containing fly wheel, a secondary wheel rotatable within the chamber of the fly wheel, a shaft for each wheel, yieldably mounted vanes carried by and extending from the periphery of the secondary wheel, spaced head members fixed radially within the fly wheel outwardly of the secondary wheel and each having oppositely extending perforated cam plates integral with the inner edge of the head over which the vanes are movable, said cam plates having their outer ends supported on the fly wheel, being unsupported between their ends, and a filling opening adjacent each head beneath a cam plate.

3. A hydraulic transmission comprising a hollow, liquid-containing fly wheel rotatably mounted, a secondary wheel rotatable within the chamber of the fly wheel and provided with radially disposed openings, means within the chamber for obstructing the annular passage about the periphery of the secondary wheel, a longitudinally slotted tubular member slidable in each wheel opening, means for sliding the member radially of the secondary wheel, and a vane for each tubular member resiliently disposed in the slot thereof to extend beyond the periphery of said secondary wheel.



5. A hydraulic transmission comprising a hollow, liquid-containing fly wheel rotatably mounted, a secondary wheel rotatable within the chamber of the fly wheel and provided with radially disposed openings, means within the chamber for obstructing the annular passage about the periphery of the secondary wheel, a longitudinally slotted tubular member slidable in each wheel opening, means for sliding the members radially of the secondary wheel, and a vane for each tubular member interlockingly and resiliently disposed in the slot thereof to extend beyond the periphery of said secondary wheel.

8. A hydraulic transmission comprising a hollow, liquid-containing fly wheel rotatably mounted, a shaft, a secondary wheel on the shaft rotatable within the chamber of the fly wheel and consisting of a pair of sections secured together, means within the chamber for obstructing the annular passage about the periphery of the secondary wheel, each wheel section having a radially disposed opening opposing that of the other section, said secondary wheel having transverse peripheral slots radially of the openings of the wheel sections, pairs of tubular members slidable in the opposing openings of the wheel sections and slotted at their outer ends in registry with the wheel slots, a pin connecting the tubular members of each pair, vanes disposed in the slots of the wheel and tubular member, and cam means engaging the connecting pins for sliding the tubular members.

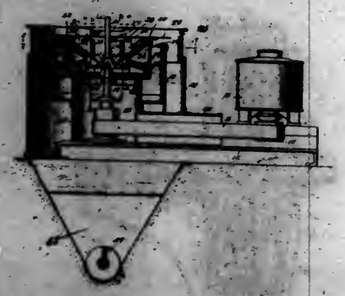
15. A hydraulic transmission comprising a hollow, liquid-containing fly wheel, a secondary wheel rotatable therein, means within the chamber for obstructing the annular passage about the periphery of the secondary wheel, a hollow shaft supporting the secondary wheel, said secondary wheel having radial openings, vanes slidable in the latter, vane carriers movably mounted in the wheel openings, and means for moving the carriers including a member rotatable about the shaft and having connection with the carriers.

[Claims 2, 4, 6, 7, and 9 to 14 not printed in the Gazette.]

1,256,697. CENTRIFUGAL SEPARATOR. FREDRICK L. JEFFERIES, Riverside, Ill., assignor to Corn Products Refining Company, a Corporation of New Jersey. Filed July 21, 1917. Serial No. 182,026. (Cl. 233—28.)

1. A centrifugal separator comprising, in combination, a revoluble container having an opening in the top through

which the lighter constituent of the mixture treated overflows, said opening being of greater area than required for any normal discharge therethrough, and means constituting a return bent discharge duct for the heavier constituent also over-sized with respect to the discharge therethrough, the inlet of which is adjacent to the side wall of the container and the outlet of which passes through said side wall, the overflow point at the return bend of said duct being more remote from the center of revolution of said container than the edge over which the lighter constituent overflows.



3. A centrifugal separator comprising, in combination, a revoluble container having an overflow opening for the lighter constituent and provided with means constituting a return bent overflow duct for the discharge of the heavier constituent extending into the container from the side wall thereof with its inlet end near said wall and its outlet passing through the same, and means providing said duct with a vent intermediate its inlet and outlet ends.

6. A centrifugal separator comprising, in combination, a revoluble container having an overflow opening for the lighter constituent and formed with a duct for discharge of the heavier constituent having an intake section directed downwardly and inwardly of the container, and an outwardly and downwardly disposed discharge section which latter extends through the wall of the container.

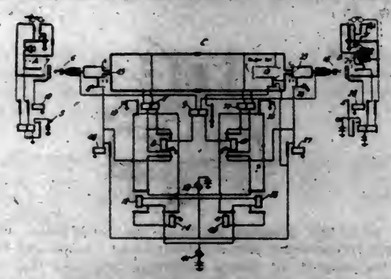
10. A centrifugal separator comprising, in combination, a revoluble container, a cover plate for the same centrally apertured for discharge of the lighter constituent of the mixture treated, a duct for discharge of the heavier constituent which has its inlet end adjacent the side wall of the container, extends inwardly thereof, then outwardly and discharges through the wall of the container, means for introducing the mixture to be separated into the middle of the container, a casing inclosing a portion of said container adapted to receive substance discharged from said duct, and means for receiving the lighter constituent overflowing said cover plate.

21. A centrifugal separator comprising a revoluble container provided with overflow openings the effective cross sectional area of which is greater than required for any normal discharge therethrough through which the lighter and heavier constituents are respectively discharged solely by displacement, in combination with means for continuously introducing the mixture to be treated into said container so as to effect said displacement.

[Claims 2, 4, 5, 7 to 9, 11 to 20, 22, and 23 not printed in the Gazette.]

1,256,698. TELEPHONE-EXCHANGE SYSTEM. LEWIS H. JOHNSON, Bloomfield, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed May 25, 1917. Serial No. 170,859. (Cl. 179—73.)

1. A telephone exchange system comprising magneto and common battery telephone lines terminating at a central office, a universal link circuit for interconnecting the telephone lines, a signaling device in the link circuit, an interrupter, a relay in the link circuit controlled over a connected line, either common battery or magneto, to include the interrupter in circuit with the signaling device to cause the signaling device to furnish a disconnect signal, a second interrupter, and relay mechanism serving when the receiver of a connected common battery line is subsequently removed from the switchhook to include the second interrupter in circuit with the signaling device to cause the intermittent operation thereof to furnish a recall signal.



2. A telephone exchange system comprising a telephone line, a link circuit connected therewith, a source of ringing current, a signaling device, a switch for connecting the source of ringing current to the line, a relay energized upon the actuation of the switch to operate the signaling device, an operator's telephone set, and a listening switch for connecting the operator's telephone set to the link circuit and when actuated causing the deënergization of the relay.

3. A telephone exchange system comprising a telephone line, a link circuit connected therewith, a source of ringing current, a switch for connecting the source of ringing current to the line, a signaling device operated upon the actuation of the switch, an operator's telephone set, and a listening key actuated to connect the operator's telephone set to the link circuit and stop the operation of the signaling device.

10. A telephone exchange system comprising magneto and common battery telephone lines terminating at a central office, a universal link circuit for interconnecting the telephone lines, a signaling device in the link circuit, a relay in the link circuit controlled over a connected line, either magneto or common battery, to establish an operating circuit for the signaling device including a contact of the relay to cause the operation of the signaling device to furnish a disconnect signal, a second relay in the link circuit, an energizing circuit therefor completed upon the energization of the first relay and including a contact thereof and the signaling device, a third relay energized upon the deënergization of the first relay while the second is energized, interrupter mechanism, and an operating circuit for the signaling device and the interrupter mechanism completed upon the subsequent energization of the first relay while the second and third are energized to furnish a recall signal from a connected common battery line.

[Claims 4 to 9 not printed in the Gazette.]

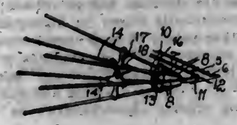
1,256,699. BRAKE. FRANCIS A. KERNS, Carroll, Iowa. Filed Apr. 4, 1917. Serial No. 159,713. (Cl. 21—8.)



1. The combination with a vehicle having a wheel supported body, a brake beam arranged transversely of said vehicle at the rear of the hind wheels thereof and normally spaced therefrom and carrying brake shoes, links loosely connected at one end with said beam and at their other ends with said body, a lever engaged with said beam intermediately of its ends and midway the length of the beam, a chain connecting the lower end of said lever with the rear axle of said vehicle, longitudinally spaced pulleys depending from the lower face of the body of said vehicle, and a cable connected at one end with the upper end of said lever and at its other end with said tongue whereby the lowering of the tongue will operate to apply the brake.

2. The combination with a wheel supported vehicle having a vertically movable tongue and including a body, eye bolts extending through said body at the rear thereof, links having eyes at their opposite ends, the eyes at one end of said links being engaged with said eye bolts, a brake beam extending transversely of said vehicle at the rear of the hind wheels thereof and provided with brake shoes positioned to engage said wheels when the beam is brought into operation, eye bolts extending through said beam and engaged with the eyes at the lower ends of said links, a brake lever, a clevis connecting said lever to said beam intermediately of the ends of said lever and midway the length of said beam, a chain connecting the lower end of said lever with the rear axle of said vehicle, and a cable connected with the upper end of said lever and at its other end with said tongue in advance of its connection with the vehicle, whereby the lowering of the tongue will operate to apply the brake.

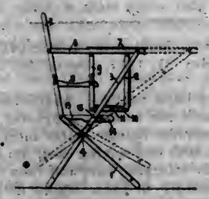
1,256,700. GRASS-GUARD FOR MOWERS. VERNESS KING, Franklinville, N. Y. Filed Jan. 25, 1917. Serial No. 144,476. (Cl. 56—30.)



1. A grass guard for mowing machines including a rotatable head, a plurality of rearwardly extending, diverging, guard rods fixed in said head, and a spider provided with radially disposed arms provided with openings through which said guard rods extend, to support said rods in predetermined, spaced, diverging relation to each other intermediate their ends, said spider constituting a rigid bracing member and preventing relative inward deflection of said rods.

2. A grass guard for mowing machines including a rotatable head, a plurality of rearwardly extending, diverging, guard rods fixed at one of their ends in said head and disconnected at their other ends, and means rigidly connecting the said rods to each other intermediate of their ends and holding the same against relative movement.

1,256,701. COLLAPSIBLE BABY AND WHEELING CHAIR AND CARRIAGE. DIRK LODEWIJK KOHLMAN, Dordrecht, Netherlands. Filed Aug. 2, 1916. Serial No. 112,717. (Cl. 155—12.)



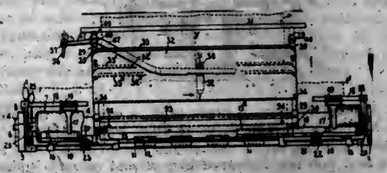
2. In a folding chair or carriage of the type referred to, the combination, with two pairs of pivoted legs and a pair of back uprights hinged to one of said pairs of legs, of a pair of arm rests pivotally connected to said uprights and to the other pair of legs, one of these connections being detachable, a pair of depending links pivoted to said arm rests, a footboard supported by said links at its rear end, and a seat supported by said links at its front end.

3. In a folding chair or carriage of the type referred to, the combination, with two pairs of legs suitably hinged together and a pair of back uprights hinged to one of said pairs of legs, of a pair of arm rests pivoted to said uprights and adapted to engage the top portion of the other pair of legs, two pairs of depending links pivoted to said arm rests, a footboard pivoted to and suspended from said pairs of links, and a seat pivoted to one of said pairs of links and to said back uprights.

4. In a folding chair or carriage of the type referred to, the combination, with two pairs of crossed legs suitably hinged together, adjustable means for locking said legs in their open position, and a pair of back uprights hinged to one of said pairs of legs, of a pair of arm rests pivoted to said uprights and adapted to engage the second pair of legs, two pairs of depending links pivoted to said arm rests, a footboard pivoted to and suspended from said pairs of links, a seat pivoted to one of said pairs of links and to said back uprights, a pair of bars pivoted to and adapted to form extensions of said arm rests, and a pair of bars pivoted to and adapted to form extensions of the second pair of legs, said first mentioned pair of bars being adapted to engage said last mentioned pair of bars.

[Claim 1 not printed in the Gazette.]

1,256,702. TYPE-WRITING MACHINE. FERNAND LAFFAY, London, England, assignor, by mesne assignments, to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed Oct. 22, 1914. Serial No. 868,104. (Cl. 197—127.)



1. In a typewriting machine, the combination of a platen, a paper feeding device separated from the platen, and means for automatically controlling said device to advance the paper step by step over the platen while the latter is stationary.

2. In a typewriting machine, the combination of a platen, a movable paper chute, means on said chute for holding the paper, and means automatically operating on said chute to advance it and the paper step by step.

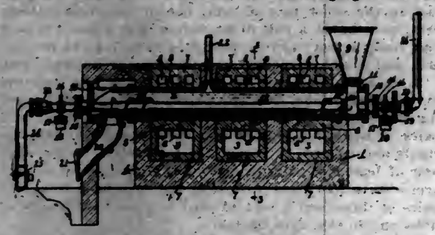
35. In a typewriting machine, the combination of a platen, a paper carrier, a normally effective latch, means for unlatching said latch, and stop devices normally ineffective, said stop devices becoming automatically operative to hold said carrier against movement between the operations of unlatching said latch and restoring it to its operating position.

[Claims 3 to 34 not printed in the Gazette.]

1,256,703. CONTINUOUS RETORT FOR TREATING QUICKSILVER ORES. WILLIAM H. LANDERS, New Almaden, Cal., assignor of one-half to Pacific Foundry Company, San Francisco, Cal., a Corporation of California. Filed Apr. 16, 1917. Serial No. 162,261. (Cl. 263—25.)

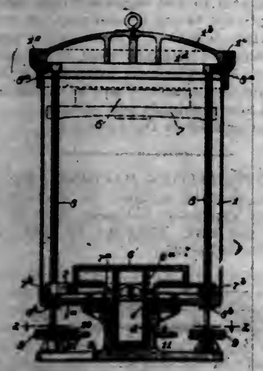
A continuous retort comprising a body shell of masonry or the like formed with a series of fire boxes and a plurality of flues leading from each fire box, the walls of said flues being of fire brick or the like; a metallic member forming a roasting chamber, said member being sur-

rounded by the flue walls; means for feeding the material to said chamber at one end and discharging it at the



other end; and a conveyer for continuously advancing the material through said chamber.

1,256,704. VULCANIZER. JOHN C. LAURITZEN, Akron, Ohio. Filed Dec. 12, 1917. Serial No. 206,883. (Cl. 18—17.)



1. In combination, a press tank, a ram cap therein, a ram having a movable element upon which said ram cap is removably mounted, and means for elevating and lowering said ram cap, independently of said movable element.

3. In combination, a press tank, a ram cap therein, a ram having a movable element upon which said ram cap is removably mounted, a carrier having a part projecting beneath the ram cap, a plurality of vertical screw rods within the press tank engaging said carrier, and means for simultaneously rotating said screw rods.

[Claim 2 not printed in the Gazette.]

1,256,705. INDUCTION-MOTOR. JUSTIN LEBOVICI, Oakley, Ohio, assignor to The Triumph Electric Company, a Corporation of Ohio. Filed June 2, 1916. Serial No. 101,211. (Cl. 172—120.)



1. In an induction motor, a secondary member having a winding of low resistance per turn, and a winding of high resistance per turn in series in a closed circuit, and a normally open switch to be closed for higher motor speeds to connect together points of such closed circuit between said windings, whereby the said windings will each be placed in an individual circuit through said switch and the current through the switch will be the differential current in the windings, said windings having additive effect during starting and running conditions and having similar characteristics as regards induction.

2. In an induction motor, a secondary member having a winding of low resistance per turn and a plurality of windings of high resistance per turn, all normally connected in a closed circuit serially, and normally open switches to be closed successively for higher motor speeds to connect said windings in individual closed circuits, said switches being adapted to be closed successively first to close the circuit for a high resistance winding, then for another high resistance winding, and finally for said low resistance winding, all the windings all the time being in closed circuits and said windings having additive effect during starting and running conditions and having similar characteristics as regards induction.

3. In an induction motor, a secondary member having a plurality of windings of which some are of high resistance per turn and some low, means connecting said windings so that high and low resistance windings are normally in circuit serially with one another making all the conductive material of all said connected windings available for absorption of heat in starting, and normally open switches to be closed for higher motor speeds to reconnect said windings in individual closed circuits, all the windings on the secondary member being at all times in closed circuits and having additive effect during starting and running conditions, and having similar characteristics as regards induction.

4. In an induction motor, a secondary member having a winding of low resistance per turn and a winding of high resistance per turn normally in series in a closed circuit when the motor is at rest and at starting thus making all the conductive material of said windings available for absorption of heat in starting, and an automatic normally open switch automatically closed for higher motor speeds to connect together points of such closed circuit between said windings whereby the said windings will each be placed in an individual closed circuit, said windings having additive effect during starting and running conditions and having similar characteristics as regards induction.

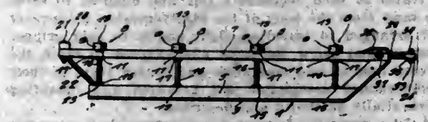
1,256,706. SECURING MEANS. THOMAS JOHN LEWIS, Argoed, England. Filed Sept. 26, 1916. Serial No. 122,246. (Cl. 85—1.)



A stud-screw, a head to same, a shank extending from the head, a slidable but not turnable plug-screw on the shank adjacent said head, and a screw-threaded free-end portion in connection with the shank, as and for the purpose stated.

1,256,707. SLED. CHARLES L. LONSINGER, Walhonding, Ohio. Filed May 21, 1917. Serial No. 170,005. (Cl. 21—48.)

1. A sled comprising runners, longitudinal sills above said runners, transverse bolsters supported at their ends on said sills, transverse bolster plates interposed between said bolsters and sills and having their inner ends folded outwardly to form attaching ears and then inclined downwardly and outwardly to form braces extending to the runners, said braces having feet resting on said runners, fasteners passing through said bolster and said ears, vertical spacing sleeves interposed between said feet and said sills for supporting the latter, and vertical bolts passing through the runners, the feet, the sleeves, the sills, and the bolsters and bolster plates.



2. A sled comprising runners, longitudinal sills above said runners, transverse bolster supported at their ends on said sills, transverse bolster plates interposed between said bolsters and sills and inset in the latter, said plates having their inner ends folded outwardly to form attaching ears and then inclined downwardly and outwardly to form braces extending to the runners, said braces having feet resting on said runners, fasteners passing through said bolsters and said ears, vertical spacing sleeves interposed between said feet and said sills for supporting the latter, and vertical bolts passing through the runners, the feet, the sleeves, the sills, and the bolsters and bolster plates.

3. A sled runner comprising a metal channel having integral outstanding tread flanges, a filling of wood in said channel, and a metal protector over the portion of said filling at the open side of the channel.

4. A sled runner comprising a metal channel bar with its channel disposed upwardly, said bar having longitudinal tread flanges extending horizontally from its lower corners and flush with its lower side, a filling of wood in said channel, and an inverted channel-shaped metal guard receiving said channel bar therein to protect said filling.

1,256,708. TRANSMITTER. EUGENE HERER LOWE, Modesto, Cal. Filed Jan. 23, 1917. Serial No. 143,911. (Cl. 179—122.)



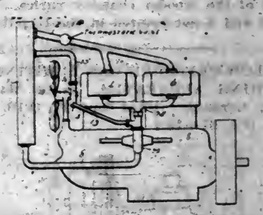
1. A transmitter comprising an exterior casing, a diaphragm carried by the casing, an interior casing secured to said diaphragm, said interior casing constituting a vacuum chamber and resistance varying elements disposed within said vacuum chamber, one of said resistance varying elements being rigidly connected with said interior casing and the other resistance varying element having a spring connection with said casing.

4. A telephone transmitter comprising an exterior casing, a diaphragm secured thereto, a pair of clamping members secured at one end to the central portion of the diaphragm, the other ends of the clamping members being secured to each other, a glass globe held solely by said clamping members, said glass globe constituting a vacuum chamber, and resistance varying elements disposed within the vacuum chamber.

5. A telephone transmitter comprising an exterior casing, a diaphragm secured thereto, a pair of clamping members secured at one end to the central portion of the diaphragm, the other ends of the clamping members being secured to each other, a glass globe held by said clamping members, said glass globe constituting a vacuum chamber, an insulating support carried by said globe on the interior thereof, a stationary contact member carried by said support, a movable contact member disposed in registration with said stationary contact member, a spring secured to said support for supporting said movable contact member, and granulated material between said movable and said stationary contact members.

[Claims 2 and 3 not printed in the Gazette]

1,256,709. METHOD OF AND MEANS FOR COOLING INTERNAL-COMBUSTION ENGINES. EDWIN H. LUDEMAN, New York, N. Y. Filed Oct. 6, 1917. Serial No. 195,036. (Cl. 123—174.)



2. The method of cooling an internal combustion engine, comprising circulating a cooling fluid about said engine, subjecting said fluid to the action of a fluent cooling agent during its circulation, producing the flow of said cooling agent by the circulation of said fluid, and controlling said flow according to the temperature of said fluid.

7. The combination with a cooling system for internal combustion engines employing a forced circulation of fluid, of an air fan for cooling said fluid, and means driven by the circulation of said fluid for operating the fan, and means governed by the temperature of said fluid to vary the speed of the fan.

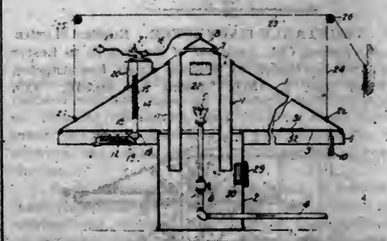
16. The combination with a cooling-fluid circulating system for an internal combustion engine, including a radiator and branch pipes leading thereto, of a fluid motor in one of said branches, an air fan disposed adjacent to the radiator for cooling the same and driven by the motor, and a controlling valve in the other branch for governing the amount of fluid acting on the motor.

[Claims 1, 3 to 6, 8 to 15, and 17 to 19 not printed in the Gazette.]

1,256,710. COMPOSITION FOR PREVENTING CONCRETE FROM ADHERING TO MOLDS. SAMUEL G. MCADAM, Aledo, Ill. Filed Oct. 13, 1917. Serial No. 196,431. (Cl. 134—15.)

A coating for preventing plastic material from adhering to molds, composed of bayberry wax and kerosene.

1,256,711. HOVER OR BROODER. JOHN F. MACKAY, Bordentown, N. J. Filed Jan. 17, 1916. Serial No. 72,442. Renewed July 19, 1917. Serial No. 181,603. (Cl. 119—32.)

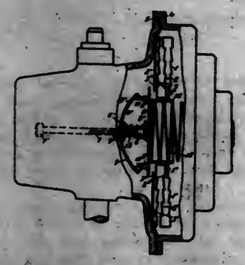


1. In a hover or brooder, the combination of an upright hollow support, heating means within the same, a horizontal platform resting removably on said upright at a substantial distance above the surface on which the upright rests, said platform being provided with an encircling flange around its periphery which forms a part

of the wall of the brooder chamber, a conical hood secured at its lower periphery to the outer edge of the platform and having an opening at the apex of the cone, said hood being provided with vertical air pipes extending downwardly from the top into the upright support alongside of the heating means, a thermostat appliance under the platform and between the upright and the outer encircling flange, and a valve at the top opening of the hood, together with connections between the thermostat and said valve whereby the thermostat actuates the valve as the temperature of the brooder chamber varies.

[Claims 2 and 3 not printed in the Gazette.]

1,256,712. LOW-PRESSURE GAS LIGHTING AND EXTINGUISHING APPARATUS. AAGE MARKS, Charlottenburg, Germany. Filed Sept. 27, 1916. Serial No. 122,440. (Cl. 67—18.)

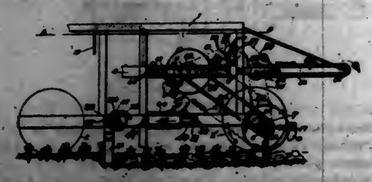


1. In a low pressure gas lighting and extinguishing apparatus, the combination of a casing, valves therein, a metallic diaphragm in the casing, and a controlling mechanism for actuating the valves, said diaphragm consisting of sheets which are divided through unelastic faces lying in the direction of the stroke of the diaphragm into a plurality of elastic annular faces which are laid in such a direction that their radial lines form acute angles with a plane vertical to the direction of the stroke of the diaphragm.

3. In a low pressure gas lighting and extinguishing apparatus, the combination with a casing containing valves and a metallic diaphragm actuating the valves through a controlling mechanism, the diaphragm consisting of sheets which are divided through unelastic faces lying in the direction of the stroke of the diaphragm into a plurality of elastic annular faces which faces are laid in such a direction that their radial lines form acute angles with a plane vertical to the direction of the stroke of the diaphragm, such sheets being arranged in a way that the distance between the inner walls of two adjoining sheets decreases toward the center, and of a thermostat being intercalated between the diaphragm and the controlling mechanism.

[Claims 2 and 4 not printed in the Gazette.]

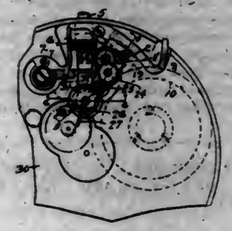
1,256,713. VEGETABLE-HARVESTER. ROBERT MATHESON, Los Angeles, Cal., assignor of one-fourth to Lester F. Allen and one-fourth to William Allen, Los Angeles, Cal. Filed Nov. 8, 1915. Serial No. 60,315. (Cl. 55—106.)



1. In a vegetable harvester, an endless chain conveyer system having grippers mounted thereon and adapted to be opened and closed at predetermined locations along their line of travel, said grippers adapted to grasp and extricate a vegetable from the soil when within their scope at the instant of closing, a pivoted knife in the line of travel of such vegetable's top, and adapted to sever the same from the body of the said vegetable, a conveyer belt arranged to travel at right angles to said gripper conveyer and below the same and adapted to catch the severed tops of said vegetables and convey them to their predetermined destination, all arranged and operating substantially as shown and described.

2. In a vegetable harvester, an endless chain conveyer system provided with a plurality of automatically operated grippers adapted to grasp and extricate vegetables from the soil, and a pivoted knife located within the path of travel of said vegetables, and arranged to sever the tops therefrom, a rotary conveyer located above the chain conveyer system, and a conveyer belt located below the said rotary conveyer, means for releasing the said vegetables within the path and scope of said rotary conveyer, said rotary conveyer being adapted to raise the said vegetables and deposit them upon the said conveyer belt upon which they are carried to their destination, all arranged and operating as described and for the purpose set forth.

1,256,714. WINDING-INDICATOR. JOSEPH MAZER, McAlester, Okla. Filed Mar. 1, 1913. Serial No. 751,470. (Cl. 58—85.)



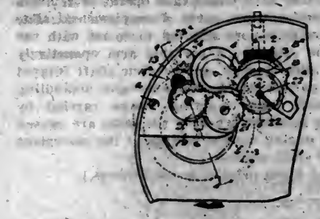
1. The combination of a main spring barrel, winding mechanism including a ratchet-wheel, a rotary-post, a gear-wheel encircling said post, a gear-wheel connected to said first named gear-wheel, said first named wheel having a recessed portion to receive said second named gear-wheel, said first named gear-wheel meshing with the main spring barrel, a dust cap forming with said recessed gear-wheel, a casing, a gear-wheel connected to said dust cap and surrounding said post and within said dust-cap, a planet-gear loosely mounted on said post with its axis at right angles to the axes of said gear-wheels and meshing with said gear-wheels contained within said casing, a gear-wheel outside of said casing and connected thereto, and connections between said last-named gear-wheel and the ratchet-wheel, a pinion on said post, an indicator hand, and connections between said pinion and said indicator hand.

6. The combination of a main spring barrel, winding mechanism including a ratchet-wheel, an inter-set wheel, a plate over said wheel engaging a seat in the watch-plate, a post on said first named plate, a gear-wheel on said plate journaled on said post, an indicator hand connected to said gear-wheel, a screw passing through said plates and up into said post, and connections between said ratchet-wheel and barrel and said gear-wheel.

[Claims 2 to 5 and 7 not printed in the Gazette.]

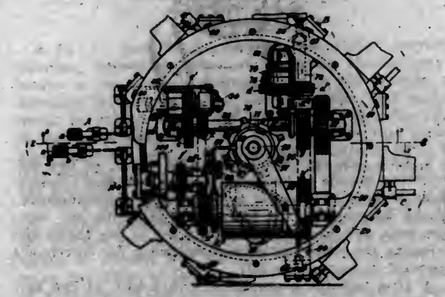
1,256,715. WINDING-INDICATOR. JOSEPH MAZER, McAlester, Okla. Filed Mar. 1, 1913. Serial No. 751,474. (Cl. 58—85.)

In indicating mechanism for watches or like devices, the combination of a main spring barrel, winding mechanism including a ratchet wheel, a winding stem, a train of gears interposed between said ratchet wheel and winding stem, a pendant set lever, said lever having a shouldered recess formed therein, a washer engaging said shouldered recess, means for securing said washer to the watch plate, a pin on said washer, an indicator hand wheel mounted



on said pin, and connections between said indicator hand wheel and said barrel in unwinding and connections between said indicator and hand wheel and said winding mechanism in winding.

1,256,716. TIRE-TREAD-BUILDING MACHINE. THOMAS MIDGLEY, Worthington, Ohio, assignor to Morgan & Wright, Detroit, Mich., a Corporation of Michigan. Filed Mar. 18, 1914. Serial No. 825,692. (Cl. 154—10.)



1. A tire building machine embodying a power driven form for supporting a tire carcass, pivoted feed rolls for delivering sheeted material to the carcass, and means for positively rocking the feed rolls in the plane of the form toward and away from the form.

2. A tire building machine embodying a rotatable form for supporting a tire carcass, pivoted feed rolls, means for moving the feed rolls in a path transverse of the form, and means for rocking the feed rolls radially toward the form for frictional driving by the form to deliver material to the carcass.
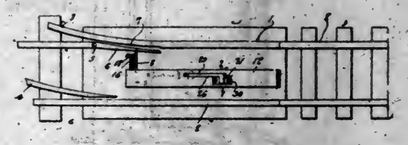
6. A tread building machine embodying a power driven form for supporting a tire carcass, a step-actuated turntable, pivoted arms mounted on the turntable for successive juxtaposition to the form by corresponding step movements of the turntable, feed rolls on the arms for delivering tread material to the carcass, and pressure means operating on the arms alternately with the step movements of the turntable to position the feed rolls for frictional driving from the form.

8. A tread building machine embodying a rotatable form for supporting a tire carcass, spaced stock and feed rolls for carrying sheeted tread material backed by fabric, a take-up roll for the fabric disposed intermediate the stock and feed rolls and rotated by friction of the sheet passing thereover from the stock to the feed rolls, a drive roll for driving the feed rolls to separate the material from the fabric and feed the material to the carcass, and means for positively moving the feed and drive rolls as a unit in the plane of the form toward and away from the form.

18. A machine of the character described, comprising a frame, a power driven annular form mounted in said frame, a pivoted frame mounted adjacent said annular form, a friction pulley mounted in said pivoted frame, a pair of co-acting rollers, between which a sheet of fabric is arranged to be passed, means interposed between said friction pulley and said rollers for rotating said rollers, means for normally holding said pivoted frame in position to hold said friction pulley out of engagement with said form, said friction pulley arranged to engage said form when the sheet fabric is attached to said form.

[Claims 3 to 5, 7, and 9 to 17 not printed in the Gazette.]

1,256,717. RAILWAY-SWITCH. LEON J. MONGEL, Johnstown, Pa. Filed Mar. 29, 1917. Serial No. 158,316. (Cl. 104—23.)



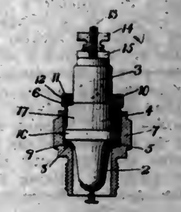
2. In a switch, a movable switch point, said switch point being normally held away from its rail, a link connected to said switch point, a lever pivoted to a railroad track between the rails, an extensible link connecting the lever with the first mentioned link and adapted to exert pull thereon to move the switch point, and car carried tripping means for operating said lever.

[Claim 1 not printed in the Gazette.]

1,256,718. PROCESS FOR TANNING HIDES. RUFUS N. MOORE, Thorp Spring, Tex. Filed Dec. 1, 1916. Serial No. 134,358. (Cl. 149—4.)

A tanning solution composed of two pounds of gum gambier, one pound of Epsom salts, one pound of pulverized alum, one pound of nitrate of sodium, and water.

1,256,719. SPARK-PLUG. ARTHUR R. MOSLER, New York, N. Y. Filed Sept. 17, 1915. Serial No. 51,199. (Cl. 123—169.)



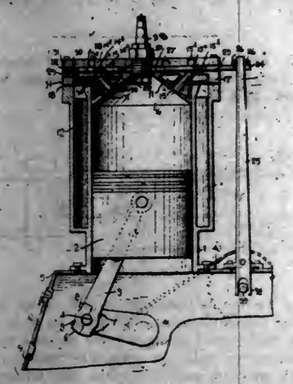
1. In a spark plug, a hollow shell, a hollow cap, an insulating block having relatively short inner and outer reduced end portions, an enlarged intermediate portion of different diameters, and packing rings between the inner end of the intermediate portion and the shell and between the outer end of the intermediate portion and the cap.

2. In a spark plug, a hollow shell, a hollow cap, an insulating block having relatively short inner and outer reduced end portions, an enlarged intermediate portion of different diameters and packing rings between that part of the intermediate portion having the greatest diameter and the shell and between that part of the intermediate portion having the smallest diameter and the cap.

3. An insulating block for long spark plugs having short reduced inner and outer end portions and an enlarged intermediate portion of different diameters, the

distance between the bearing shoulders at the inner and outer ends of the enlarged intermediate portion being greater than the length of either the inner or outer end portion.

1,256,720. INTERNAL-COMBUSTION ENGINE. FRANK M. MURRAY, Cadyville, N. Y. Filed Mar. 8, 1917. Serial No. 153,482. (Cl. 123—75.)



1. An internal combustion engine including a cylinder provided with an intake port and with an exhaust port, a piston within the cylinder, a slide member provided with ports adapted to be brought into operative relation with said intake and exhaust ports, a supplemental slide member provided with a port adapted to coact with the intake port of the cylinder, means for imparting movement to the first named slide member, coacting means carried by both of the sliding members whereby the same are caused to move in unison during certain periods of the movement of the first named slide member, and a spring member co-acting with the supplemental slide member for positively holding the same against movement during its periods of idleness.

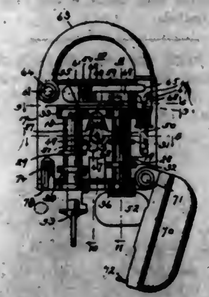
2. An internal combustion engine including a cylinder provided with an intake port and with an exhaust port, a piston within the cylinder, a slide member provided with ports adapted to be brought into operative relation with said intake and exhaust ports, a supplemental slide member provided with a port adapted to coact with the intake port of the cylinder, means for imparting movement to the first named slide member, coacting means carried by both of the sliding members whereby the same are caused to move in unison during certain periods of the movement of the first named slide member, and means co-acting with the supplemental slide member for positively holding the supplemental slide member against movement during its periods of idleness.

5. An internal combustion engine including a cylinder provided with an intake port and an exhaust port, the portion of the cylinder provided with said ports being provided with a groove in communication with the ports, a wall of said groove being provided with a recess, a piston within the cylinder, a slide member provided with ports adapted to be brought into operative relation with said intake and exhaust ports, a supplemental slide member provided with a port adapted to co-act with the intake port of the cylinder, means for imparting movement to the first named slide member, co-acting means carried by both of the sliding members whereby the same are caused to move in unison during certain periods of the movement of the first named slide member, and a spring positioned within the recess in the wall of the groove and co-acting with the supplemental slide member for holding the supplemental slide member against movement during its periods of idleness.

6. An internal combustion engine including a cylinder provided with an intake port and with an exhaust port, a piston within the cylinder, a slide member provided with ports adapted to be brought into operative relation with said intake and exhaust ports, a supplemental slide member provided with a port adapted to co-act with the intake port of the cylinder, a movable arm operatively engaged with the slide member, an eccentric shaft rotated by the piston, a portion of the movable arm straddling said eccentric shaft, and co-acting means carried by both of the sliding members whereby the same are caused to move in unison during certain periods of the movement of the first named slide member.

[Claims 3, 4, and 7 not printed in the Gazette.]

1,256,721. LOCK. WILLIAM ALFRED MURRAY, Baltimore, Md. Filed Dec. 21, 1916. Serial No. 138,173. (Cl. 70—79.)



1. In a lock the combination with a bolt, of two key-receiving barrels mounted to move in the lock; connections between the barrels to move them simultaneously; means operated by the barrels for actuating the bolt; two keys, and means for locking a key in one barrel and releasing the other key in its barrel when the barrels are operated to actuate the bolt.

2. In a lock the combination with a bolt, of two key-receiving barrels mounted to move in the lock; connections between the barrels to move them simultaneously; means operated by the barrels for actuating the bolt; two keys, and means for locking the barrels against rotation when one key is removed from its key-receiving barrel.

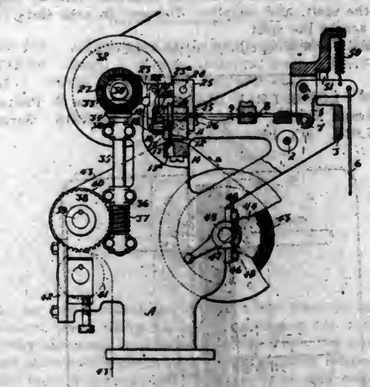
10. In a lock the combination with a lock-body, of a shackle pivoted at one end of said body; two key-receiving barrels side-by-side in the body; connections between the barrels for rotating them simultaneously; two keys; a cap pivoted at the other end of the lock-body and movable over the ends of both barrels and means between the barrels for locking one key in place when the barrels are rotated.

[Claims 3 to 9 not printed in the Gazette.]

1,256,722. MUSIC-ROLL-PERFORATING MACHINE. EDGAR W. MYERS, San Jose, Cal., assignor to Master Roll Music Duplicating Co., San Jose, Cal., a Corporation of California. Filed Feb. 2, 1917. Serial No. 146,070. (Cl. 164—112.)

1. In a perforating machine, a blanking plate having a plurality of blanking openings therein, a feeding mechanism adapted to feed a recording sheet over said plate, a cross-bar secured above the blanking plate, a plurality of punches vertically and reciprocally mounted in said cross-bar, a plate reciprocally mounted on one side of the bar, a horizontally positioned spring rod slidably connected with each punch and normally holding the latter inoperative, and means for projecting the end of one or a plurality of spring rods outwardly away from the punch into the path of the reciprocating plate.

5. In a perforating machine, a series of vertically slidable punches having transverse guide openings, horizontally reciprocable means for each punch slidable at one end through said guide openings thereof so as to have said end movable beyond the punches, and vertically reciprocable means engageable with said ends of the horizontally reciprocable means upon movement of the latter in one direction to depress same and therewith the punches.

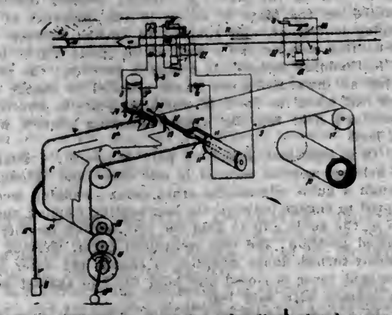


8. In a perforating machine, vertically movable punches, depressing means, reciprocating spring means, means to connect said spring means to the punches to normally hold same raised and to allow said spring means to extend beyond the punches and into the path of said depressing means, and means to move said spring means into the path of the depressing means so as to be depressed by the latter and thereby cause depressing of the punches.

9. In a perforating machine, slidable punches, depressing means, combined spring means for normally holding the punches raised for enabling depression of the latter, means to connect said spring means to the punches to cause the latter to hold the punches raised and to allow of movement of the spring means in one direction independently of the punches to engage the depressing means, and means to move the spring means into the path of the depressing means whereby upon engagement with the depressing means same will be depressed to depress the punches.

[Claims 2 to 4, 6, and 7 not printed in the Gazette.]

1,256,723. RECORDING MECHANISM FOR RAILWAY-TRAFFIC-CONTROLLING APPARATUS. FRANK H. NICHOLSON, Wilkinsburg, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed Aug. 27, 1914. Serial No. 858,957. (Cl. 234—27.5.)

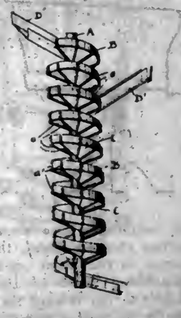


4. In combination, a section of railway track, a source of current connected with the rails of said section, a record tape, means for moving said tape, an electromagnetic device responsive to variations of current, said device receiving current from the connection between said source and the rails and a recording stylus movable transversely across said tape by said electromagnetic device.

10. In combination, a railway signal, time-controlled means located in the trackway for receiving a record, means for producing thereon a continuous record indicative of the position of the signal, and means for producing thereon a record indicative of the speed of a train approaching the signal.

[Claims 1 to 3, 5 to 9, 11, and 12 not printed in the Gazette.]

1,256,724. SPIRAL CHUTE. FRANK PARDEE, Hazleton, Pa. Filed June 10, 1915. Serial No. 33,388. (Cl. 193—42.)



1. A spiral chute, comprising a central post, helical floor-plates having upturned outer and inner flanges, said floor-plates being secured to said post and bearing at their inner edges against said post to form a runway of which the post is the inner wall, the lower portion of said runway having its inner edge spaced away from the post and having an inner downturned flange.

2. A spiral chute, comprising a central post, helical floor-plates having upturned outer and inner flanges, said floor-plates being secured to said post and bearing at their inner edges against said post to form a runway of which the post is the inner wall, the inner portion of the lower end of the runway being cut away and having its inner edge spaced away from the post.

1,256,725. GRASS-DESTROYER. WILLIAM B. PETRON, Niagara, N. D. Filed June 16, 1917. Serial No. 175,149. (Cl. 55—85.)

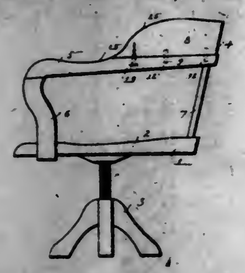


2. A machine of the character specified, comprising oppositely arranged frame bars, shafts journaled in the ends of the bars, wheels supporting the bars at the centers thereof, sprocket wheels on the ends of the shafts, endless chains supported by the sprocket wheels, toothed rollers extending between the chains, a driving connection between the chains and the wheels, plows at the front of the frame, and a deflector at the rear of the frame for deflecting the grass.

4. A machine of the character specified, comprising oppositely arranged frame bars, shafts journaled in the ends of the bars, wheels supporting the bars at the centers thereof, sprocket wheels on the ends of the shafts, endless chains supported by the sprocket wheels, toothed rollers extending between the chains, and a driving connection between the chains and the wheels for driving the lower run of the chains forward.

[Claims 1 and 3 not printed in the Gazette.]

1,256,726. CHAIR. GEORGE J. PIKE, Grand Rapids, Mich., assignor to The W. H. Gunlocke Chair Co., a Corporation of New York. Filed Apr. 2, 1917. Serial No. 159,088. (Cl. 155—3.)



4. A chair back comprising two arcuate members securely joined together at their edges, the meeting edges having been cut away so that each cut-away portion decreases from a maximum depth at the middle of the member from which it is cut toward its extremities, and the concave surface of the united members being trimmed down at and adjacent to their meeting line.

[Claims 1 to 3 not printed in the Gazette.]

1,256,727. INTERNAL-COMBUSTION ENGINE. ERNEST A. PIRSCHER, New York, N. Y., assignor to American Sleeve-Valve Motor Company, Philadelphia, Pa., a Corporation of Delaware. Filed Apr. 10, 1917. Serial No. 160,906. (Cl. 123—80.)

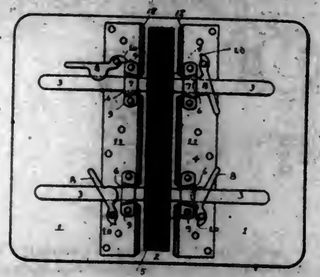


1. In an internal combustion engine, the combination, comprising a laterally ported cylinder member; a revoluble sleeve valve member arranged to cover and uncover the ports; a piston reciprocable within said sleeve valve; a compression shell disposed between said cylinder and valve members and fixed with relation to one of said members and having a surface bearing against the other to form a gas-tight packing, and interlocking ribs on said shell and the member to which said shell is fixed adapted to obstruct the passage of gases between the shell and member.

7. In an internal combustion engine, the combination, comprising a laterally ported cylinder member; a revoluble sleeve valve member arranged to cover and uncover the ports; a piston reciprocable within said sleeve valve; a split compression shell disposed between said cylinder and valve members, said shell having opposed slots at each side of the split, and members disposed in said slots extending across the split.

[Claims 2 to 6 not printed in the Gazette.]

1,256,728. LOOSE-LEAF BINDER. WILLIAM S. PROUDFIT, Grand Rapids, Mich. Filed May 10, 1915. Serial No. 27,016. (Cl. 129—41.)



1. In a loose-leaf binder; a pair of covers; a flexible leaf-holding member secured to one cover and extending through a guide clip on the other cover; a member adapted to engage between the leaf-holding member and a wall of the guide-clip to hold the leaf-holding member in adjusted position, and pivotally mounted on the last mentioned cover and adapted to swing in the direction of its wedging movement; the last mentioned cover carrying an inwardly-turned flange adapted to engage the outer leaf when said cover is closed and hold the clip against marring contact with said leaf.

2. In a loose-leaf binder; a pair of covers; a flexible leaf-holding member secured to one cover and extending through a guide-clip on the other cover; and a member adapted to engage between the leaf-holding member and a wall of the guide clip to hold the leaf-holding member in adjusted position, and pivotally mounted on the last mentioned cover and adapted to swing in the direction of its wedging movement and adapted to retain in its non-holding position the leaf-holding member in sliding engagement with the side of said last-mentioned cover; and a stop to limit the disengaging movement of the wedging member.

3. In a loose-leaf binder; a pair of covers one of which has a rigid plate secured thereto; a flexible leaf-holding member secured to the other cover and extending through a guide clip on the plate; a wedging member pivotally mounted on the plate to swing in the direction of its wedging movement, and adapted to engage between the leaf-holding member and a wall of the guide clip to hold the leaf-holding member in adjusted position; the plate having an inwardly-turned flange adapted to engage the outer leaf when the cover to which the plate is secured is closed and hold the clip against marring contact with said leaf.

4. In a loose-leaf binder; a pair of covers; a flexible leaf-holding member secured to one cover and extending through a guide clip on the other cover; wedging means adapted to engage between the leaf-holding member and a wall of the guide clip to hold the leaf-holding member in adjusted position; the last mentioned cover carrying an inwardly-turned flange adapted to engage the outer leaf when said cover is closed and hold the clip against marring contact with said leaf.

5. In a loose-leaf binder; a pair of covers; a flexible leaf-holding member secured to one cover and extending through a guide clip on the other cover; wedging means adapted to engage between the leaf-holding member and a wall of the guide clip to hold the leaf-holding member in adjusted position and pivotally mounted on the cover; the last mentioned cover carrying an inwardly-turned flange adapted to engage the outer leaf when said cover is closed and hold the clip against marring contact with said leaf.

1,256,729. ANTISKIDDING DEVICE FOR VEHICLE-TIRES. JOEL A. REESE, Atlanta, Ga. Filed July 5, 1917. Serial No. 178,757. (Cl. 152—16.)



1. An anti-skidding device for wheel tires including a series of tread shoes each having means for releasably holding the same in applied position upon the tire, each tread shoe embodying a plate having recesses formed in its inner face in spaced relation to its ends, and connecting links for said shoes provided with terminal means to seat in said recesses.

2. An anti-skidding device for wheel tires including a series of tread shoes each having means for releasably holding the same in applied position upon the tire, each tread shoe embodying a plate having recesses formed in its inner face in spaced relation to its ends, each shoe also having longitudinal slots in its ends communicating with the respective recesses, and connecting links for said shoes having arms provided with enlarged terminals, said arms being adapted for engagement in said slots and the terminals of the arms seating in said recesses.

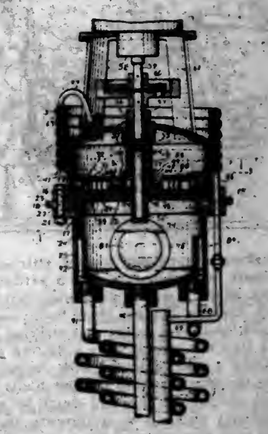
3. An anti-skidding device for wheel tires comprising a shoe having an elongated body plate, and tire engaging arms projecting from the opposite side edges of said plate, one of said arms having terminal means for engagement upon the outer lateral portion of the tire, and a movable latch element mounted in the other of said arms and also having terminal means for engagement with the tire, and means to urge said element to its effective position.

4. An anti-skidding device for wheel tires comprising a shoe having an elongated body plate and tire engaging arms projecting from the opposite side edges of said plate, one of said arms having terminal means for engagement upon the outer lateral portion of the tire, a movable latch element mounted in the other of said arms and also having terminal means for engagement with the tire, and a relatively movable member mounted in said arm to co-act with the latch element and retain the same in engagement with the tire.

5. An anti-skidding device for wheel tires comprising a shoe having an elongated body plate and tire engaging arms projecting from the opposite edges of said plate, one of said arms having terminal means engaged upon the outer lateral portion of the tire, a latch lever pivotally mounted at one of its ends in the other of said arms and having means on its other end to engage over the inner lateral face of the tire, and a cam lever mounted in said arm to co-act with the latch lever and releasably hold the same in effective position.

1,256,730. REFRIGERATING APPARATUS. WILLIAM A. RICHTER and ERNEST S. H. BAARS, Milwaukee, Wis.; said Baars assignor to said Richter. Filed Dec. 29, 1916. Serial No. 139,519. (Cl. 62—116.)

1. In a refrigerating apparatus, the combination with a support, of a gas chamber mounted above and an expansion chamber below said support, a compressor within the gas chamber and in communication with said gas and expansion chambers, a vertically disposed shaft for driving said compressor, a vertically disposed motor mounted above the gas chamber and connected to drive said compressor shaft, a condenser surrounding the gas chamber and communicating therewith, a vertically disposed conduit communicating with the condenser and said expansion chamber, and vertically disposed cooling coils connected to and communicating with the expansion chamber.



8. In a refrigerating apparatus, the combination, with a base plate, of a hood connected to the plate to form a gas chamber, a drive shaft journaled in said hood, a plurality of compressor cylinders radially disposed with respect to said shaft, an eccentric mounted on said shaft, pistons slidably mounted in said cylinders, pitmen operatively connected to said pistons and having arc-shaped ends abutting against said eccentric, and a flanged ring for maintaining said pitmen in sliding engagement with said eccentric, an inlet valve for each compressor cylinder, and an outlet valve leading from each cylinder.

6. In a refrigerating machine, the combination of a base plate and a casing joined together to form a gas chamber, a drive shaft journaled in said casing and base plate, a plurality of compressor cylinders radially disposed with respect to said shaft, said base plate having an annular oil groove therein between said cylinders and said shaft, an eccentric mounted on said shaft and having an inclined arc-shaped slot therein for elevating oil from said groove, pistons slidably mounted in said cylinders and operatively connected to said eccentric, and inlet and outlet valves for each of said compressor cylinders.

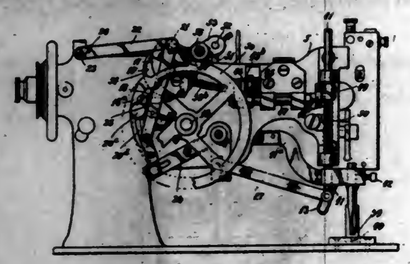
10. In a refrigerating apparatus, the combination with a support, of a gas chamber mounted above and an expansion chamber below said support, a compressor within the gas chamber and in communication with said gas and expansion chambers, a vertically disposed shaft for driving said compressor, a motor connected to drive said shaft, a condenser surrounding the gas chamber and communicating therewith, a conduit communicating with the condenser and said expansion chamber, and cooling coils disposed below and communicating with the expansion chamber.

[Claims 2, 4, 5, and 7 to 9 not printed in the Gazette.]

1,256,731. SELVAGE-SEVERING MECHANISM. WILLIAM R. ROGERS, Newark, N. J., assignor to William Raubitschek, Brooklyn, N. Y. Original application filed May 20, 1916, Serial No. 98,971. Divided and this application filed July 28, 1916. Serial No. 111,790. (Cl. 112—6.)

1. In a machine adapted to produce stitched edging in combination, a needle bar shaft, a pattern cam rotated from such shaft, a clutch mechanism receiving motion

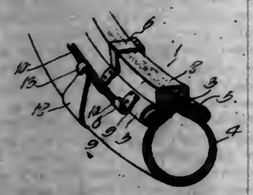
from such shaft, a plunger shaft carrying a cutting die and controlled by such clutch mechanism, the die being adapted to sever the selvage from a completed pattern section at each reciprocation and the motions of the pattern cam and plunger shaft being so timed that the latter is operatively reciprocated twice for each revolution of the pattern cam.



2. In a machine adapted to produce stitched edging, a needle bar shaft in combination with a pattern cam rotated from such shaft, a clutch mechanism receiving motion from such shaft, a plunger shaft reciprocated from such clutch, positioned by a spring and carrying a cutting die adapted to trim the selvage from a pattern section at each reciprocation, a yoke connected with the pattern cam and controlling the engagement of the clutch and a related motion between the pattern cam and clutch by which the latter is operatively engaged to reciprocate the plunger shaft twice for each revolution of the pattern cam.

3. In a machine adapted to produce stitched edging, in combination, a needle bar shaft, a pattern cam rotated from such shaft, a clutch receiving motion from such shaft and normally disengaged, a plunger shaft reciprocated from such clutch, elastically positioned and carrying a cutting die adapted to trim the selvage from a pattern section at each engagement with the material, a yoke connected with the pattern cam and adapted to engage the clutch at timed intervals and to retain it in engagement to reciprocate the plunger shaft.

1,256,732. NON-SKID DEVICE FOR TIRES. JOHN ROWE, Casey, Iowa. Filed Mar. 26, 1917. Serial No. 157,507. (Cl. 152—14.)

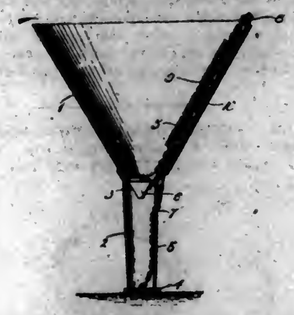


1. A device of the character described, comprising an annular member to be loosely disposed on the felly of a wheel against the inner surface of the wheel rim, means for maintaining said member on the felly and against said rim, and means on said member to retain an anti-skid device on the tire.

4. A device of the character described comprising a pair of annular members concentrically disposed with respect to the rim on opposite sides of a wheel, said members being formed so as to be disposed against the felly and upon the inner surface of the wheel rim, a substantially U-shaped clevis member having its arms hingedly and separably connected and disposed across the felly and secured to said members at its outer ends to retain said members on the wheel, one of said members being separable and means on said members to retain a non-skid device on the tire.

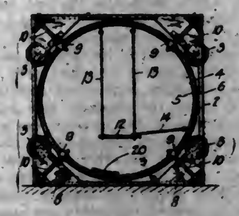
[Claims 2 and 3 not printed in the Gazette.]

1,256,733. FUNNEL. JESSE L. RUCKER, Viola, Kans. Filed Jan. 12, 1916. Serial No. 71,752. (Cl. 226—33.)



In a funnel, a funnel body, a discharge spout leading therefrom, a valve seat, a valve member, a float member normally maintaining said valve out of engagement with its seat, a section of chain or the like element connected at one end to said float and at its opposite end to said valve member, a combined guide and protector strip mounted exteriorly of the funnel body to engage with and maintain said section throughout a portion of its length parallel to said body, said strip being affixed to said body along one of its longitudinal edges, the opposite longitudinal edge of said strip being spaced therefrom, a second combined guide and protector strip fastened to said body interiorly thereof, said strip maintaining said section contiguous to said body, said last mentioned strip being affixed to said body along one of its longitudinal edges, the said longitudinal edge last referred to being opposed to the fixed longitudinal edge of the first mentioned strip, and a means mounted on said body to facilitate movement of said section for the purpose specified.

1,256,734. AMUSEMENT DEVICE. GEORGE H. RUMER, Denver, Colo. Filed Mar. 15, 1916. Serial No. 84,825. (Cl. 46—69.)



1. An amusement apparatus comprising an element mounted for rotation about a horizontal axis, a support for a performer, loosely suspended from said element and disposed below the axis of rotation of the same when the element is in a condition of rest, and mechanism adapted to impart to said element a rotary movement which, by centrifugal force, preserves the position of a performer on said support relative to said element.

2. An amusement apparatus comprising an element mounted for rotation about a horizontal axis, a support for a performer, loosely suspended from said element and disposed below the axis of rotation of the same when the element is in a condition of rest, a connection between said element and said support for compelling the latter to rotate in conjunction with said element, and mechanism adapted to impart to said element a rotary movement which, by centrifugal force, preserves the position of a performer on said support relative to said element.

3. An amusement device comprising a circular element, means exteriorly of said element for supporting it for

movement about a horizontal axis, a trapeze loosely suspended from said element and disposed below the axis of rotation of the same when the element is in a condition of rest, and mechanism adapted to impart to said element a rotary movement which, by centrifugal force, preserves the position of a performer on said trapeze relative to said element.

[Claim 4 not printed in the Gazette.]

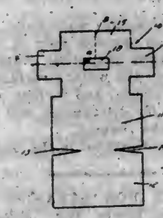
1,256,735. COMBINED SHIRT AND COLLAR FASTENING. RYUJI SATO, Brooklyn, N. Y. Filed Apr. 7, 1917. Serial No. 160,470. (Cl. 24—101.)



1. A combined shirt and collar fastening comprising a flexible element, the latter embodying a member adapted to engage against the inner side of the neck band of the shirt and projecting beyond the walls of the adjacent button hole, and an elongated member projecting at right angles from the first member, and adapted to be passed through the front button holes of the shirt and collar respectively when brought into registration, and said elongated member being subsequently bent to lie parallel with the neck band of the collar.

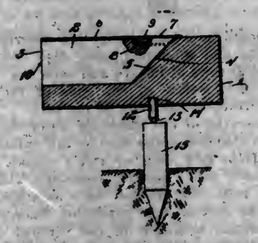
[Claim 2 not printed in the Gazette.]

1,256,736. ROMPER. JOANNA SHEEHY, Los Angeles, Cal. Filed Sept. 4, 1917. Serial No. 189,678. (Cl. 2—131.)



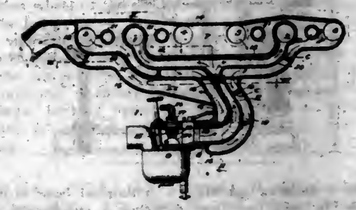
A romper cut from a single piece of material, said cut material comprising a rectangular front portion, a rectangular seat portion; there being V-shaped cut-away portions between the seat portion and front portion; a rectangular shoulder portion extending from the opposite side of the front portion from the seat portion; said shoulder portion being shorter in width than the front and seat portions; and sleeve portions extending outwardly from the sides of the shoulder portion mid-way of its length; there being a neck opening at the center of the shoulder portion and a slit extending from the neck opening to the edge of the shoulder portion at right angles to the line of the sleeve portions.

1,256,737. LEVEL. FIRMAN DELL SMALL, Attica, Ind. Filed Apr. 16, 1917. Serial No. 162,283. (Cl. 33—207.)



A spirit level including a stock having a bubble tube mounted therein between its transverse center and one end thereof, and a single supporting peg depending from the base of the stock and having its line of support disposed so that a plane thereof will intersect said tube, said peg forming a support which permits of pivoted and unlimited tilting movements when the peg is mounted upon an object.

1,256,738. MANIFOLD FOR INTERNAL-COMBUSTION ENGINES. JOHN E. SMITH, New York, N. Y., assignor to Kerosene Motor Appliance Co., New York, N. Y., a Corporation of Delaware. Filed May 2, 1917. Serial No. 165,935. (Cl. 257—241.)



1. A combined inlet and exhaust manifold, comprising an exterior shell or casing having ports for the introduction of exhaust gases thereinto and with a port for the discharge of such gases therefrom; and a fuel conduit located within said casing and mainly disconnected therefrom except at its intake and discharge ports, said conduit being flattened and presenting a cross area substantially uniform throughout, whereby said conduit will be entirely surrounded by the exhaust gases as such gases pass through the casing.

4. A combined intake and exhaust manifold, comprising a hollow casing having a laterally-elongated body portion and a depending neck, the front wall of the neck and the adjacent body portion being curved outwardly from the rear wall forming an enlarged chamber in the lower portion of the manifold; a fuel conduit extending into and through the neck, said conduit curving inwardly toward its upper portion, and branching toward and communicating with ports formed in the rear wall; and a partition extending from the upper wall of the casing downwardly about the fuel conduit and terminating in the enlarged chamber aforesaid adjacent the inlet portion of the fuel conduit.

6. A combined exhaust and intake manifold, comprising a hollow casing, said casing having ports formed in the rear wall thereof for the discharge of carbureted fuel; a fuel conduit mounted in said casing in spaced relation to the walls thereof and discharging through the ports aforesaid; and a partition located in said casing, forming passages therethrough and serving to cause the entire volume of the exhaust gases to impinge upon the fuel conduit throughout its entire length before said gases pass into an exhaust passage likewise formed by said partition.

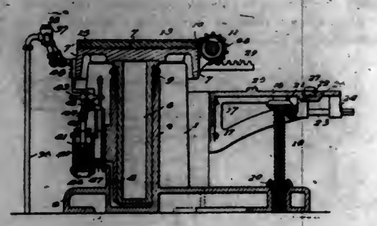
[Claims 2, 3, and 5 not printed in the Gazette.]

1,256,739. MOLDING-MACHINE. CHESTER H. STEELE, Quaker City, and FRANK H. SCATTERGOOD, Georgetown, Ohio. Filed July 10, 1917. Serial No. 179,652. (Cl. 22—33.)

1. In a molding machine, a cylindrical base, a piston movable in said base and carrying a subbase, a table hinged to the sub-base, and independently operable pneumatic control means for moving the piston and hinged table, certain of said pneumatic control means being connected to said sub-base and adapted to be intermittently actuated.

2. In a molding machine, a cylindrical base, a piston movable in said base and carrying a subbase, a table hinged to the subbase, intermittently operable pneumatic control means for causing vibratory movement of the piston and subbase, said control means being connected to the subbase and operated thereby, and other pneumatic control means for imparting movement to the hinged table.

3. In a molding machine, a cylindrical base, a piston movable in said base and carrying a subbase, a shaft mounted in bearings upon one side of said subbase, pinions mounted on the opposite extremities of said shaft, a table mounted on said shaft and movable therewith, pneumatically operated racks meshing with said pinions, means for controlling the passage of air to the pneumatically operated racks, and other pneumatic control means for causing vibratory movement of the piston.

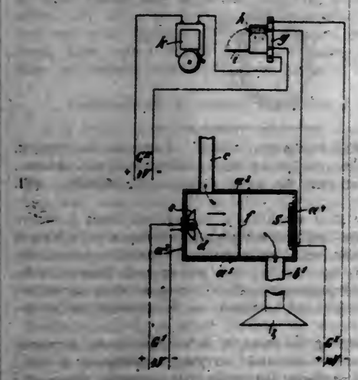


4. In a molding machine, a cylindrical base, a piston movable in said base and carrying a subbase, a shaft mounted in bearings to one side of the subbase, pinions keyed to the opposite ends of said shaft, a work table mounted on and movable with said shaft, pneumatically actuated racks meshing with said pinions, means for controlling passage of air to the pneumatically actuated racks, other pneumatic control means for causing vibratory movement of the piston and subbase, and a vertically adjustable work receiving table secured to one side of said base.

6. In a molding machine, a cylindrical base, a piston movable in said base and carrying a subbase, a shaft mounted in bearings to one side of the subbase, a table mounted on and movable with the shaft, pinions keyed to the opposite ends of the shaft, pneumatically actuated racks meshing with said pinions, pneumatic control means for regulating the passage of air to said pneumatically actuated racks, a vertically adjustable work receiving table secured to the base, and a spring balanced air controlling valve communicating with said cylinder and operable upon movement of the subbase for causing vibratory movement of the same and said piston.

[Claim 5 not printed in the Gazette.]

1,256,740. FIRE-ALARM. EUGEN STEIGER, Zurich, Switzerland. Filed Apr. 22, 1916. Serial No. 92,959. (Cl. 177—311.)



In a fire alarm, in combination, a box, a lower smoke ingress near one end and an upper smoke egress near the other end of said box, a perforated partition wall dividing the box and separating the smoke ingress from the smoke egress, a source of light within the one thus obtained compartment, and a selenium cell in the other compartment facing said source of light, a relay operable by said selenium cell, an alarm or safety device operable by said relay, and electrical circuits respectively operatively including the several said parts.

1,256,741. DEFENDING WATERWAYS. JOSEPH A. STEINMETZ, Philadelphia, Pa. Filed Mar. 16, 1917. Serial No. 155,316. (Cl. 102—3.)



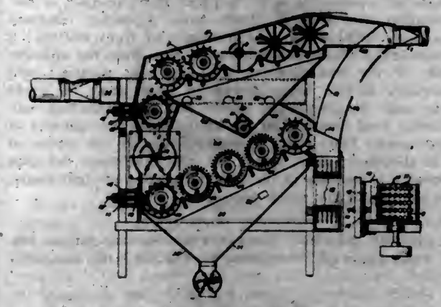
1. The method of defending waterways against hostile craft which consists in providing the waterway with numerous spaced and fixed receptacles arranged to discharge under predetermined conditions material adapted to form over the surface of the waterway an extensive gaseous cloud effective to prevent normal action of persons within it.

3. The method of defending waterways which consists in securing in the area to be protected numerous spaced receptacles containing material adapted when discharged to form above the surface of the water an extensive gaseous cloud itself adapted to prevent efficient action of persons launching from any direction an attack upon that area.

7. The method of defending waterways which consists in providing areas on opposite sides of the channel, respectively, with submerged receptacles containing material adapted to form above the water's surface, when discharged, noxious opaque clouds, and further providing at a suitable station means for discharging said material at will upon either side of the channel.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,256,742. APPARATUS FOR CLEANING COTTON. JOHN ARNOLD STREUN, Bowie, Tex. Filed June 12, 1916. Serial No. 103,118. (Cl. 19—19.)



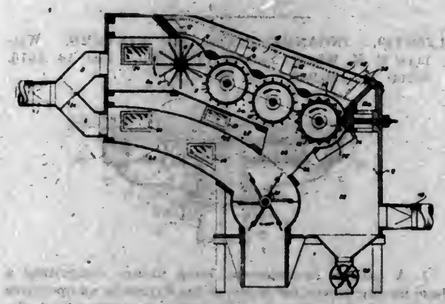
1. In an apparatus of the character described a plurality of beating and spreading rolls, each roll provided with double spiral rows of fingers and each row extending from a point intermediate of the ends of the roll and extending therefrom to the ends of the roll.

3. In an apparatus of the character described, a downwardly inclined chamber under suction, an extension leading vertically from said chamber and a second upwardly extending chamber under suction, combined with beating and spreading rolls, and picker rolls arranged in step like order in the downwardly extending chamber, a boll breaking mechanism arranged in the vertical extension, beating and spreading rolls and a picker roll mechanism arranged in step like order in the upwardly extending chamber and a series of concave screens in each chamber and each coöperating with a respective roll and mechanism.

6. In an apparatus of the character described, a boll breaker roll and breast, each provided with rows of teeth having semi-conical operative front faces and semi pyramidal rear faces, in combination with a concave screen coöperating with said roll.

[Claims 2, 4, and 5 not printed in the Gazette.]

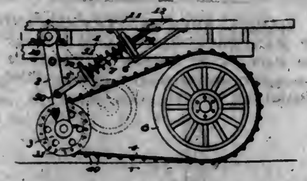
1,256,743. BOLL BREAKER AND CLEANER. JOHN ARNOLD STREUN, Bowie, Tex. Filed June 12, 1916. Serial No. 103,119. (Cl. 19—19.)



3. In an apparatus of the character described, a housing, an inlet, two ducts leading from the inlet, a valve controlling the entrance of the inlet to the respective ducts, a series of beating, spreading, picking and boll crushing instrumentalities arranged in a compartment of the housing to which one of said ducts discharges, a second compartment to which the other duct discharges, a common outlet and a vacuum feeder for both said compartments and a valve controlling the outlet to alternately confine said outlet to either of said compartments, in combination with means for creating suction outside each of said compartments.

[Claims 1 and 2 not printed in the Gazette.]

1,256,744. TRACTION-BELT FOR AUTOCARS. REINDER B. TOLSMA, Everett, Wash. Filed May 19, 1917. Serial No. 169,631. (Cl. 21—150.)



1. A traction device for an auto-driven road vehicle comprising an arm pivoted forwardly of a traction wheel and extending downwardly, a belt wheel journaled upon the lower end of said arm, a traction belt passing about said wheel and the traction wheel, and means acting upon the said arm to automatically swing it downwardly and forwardly and permitting it to be raised by engagement with an obstruction.

2. A traction device for automobiles comprising an arm pivoted to the frame by a horizontal transverse pivot located forwardly of a traction wheel and extending downwardly, an idler wheel journaled on said arm, a belt passing over said wheel and over a traction wheel of the automobile, a thrust rod pivoted to the wheel carrying arm, a guide for said rod and a spring acting through said rod to hold the arm downward.

3. A traction device for automobiles comprising an arm pivoted to the frame by a horizontal transverse pivot located forwardly of the traction wheel and extending downwardly, an idler wheel journaled on said arm, a belt passing over said wheel and over a traction wheel of the automobile, a thrust rod pivoted to the wheel carrying arm, a guide for said rod, a spring surrounding said rod and having a thrust support from the automobile frame, an adjustable thrust support for said spring carried by the rod, and an adjustable extension stop carried by the rod.

4. A traction device for automobiles, a frame pivoted upon a horizontal tranverse pivot located in front of a traction wheel of the automobile, an idler wheel journaled on the lower end of said frame, a belt passing over said idler and traction wheels, a yoke pivoted to said frame, a threaded rod secured to said yoke, a bracket carried by the automobile frame and having guiding support for said rod, a spring surrounding this rod and having a thrust bearing upon the bracket, and a thrust nut carried by the rod and engaging the other end of the spring.

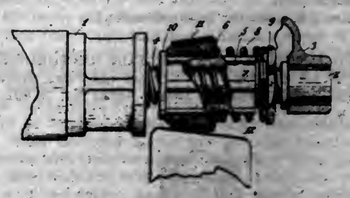
1,256,745. CUFF-LINK. GEORGE H. TREADGOLD, Port Huron, Mich. Filed May 11, 1917. Serial No. 167,858. (Cl. 24—102.)



4. A cuff link of the type described, comprising heads, a casing carried by one of said heads, a chain attached to said casing loosely connected to the other of said heads and extending into said casing, a coiled band spring in said casing adapted to draw the chain therein, and means adapted for holding the chain in a retracted position in said casing.

[Claims 1 to 3 not printed in the Gazette.]

1,256,746. TRANSMISSION MECHANISM FOR STARTERS. JOHN T. TRUMBLE, Freeport, Ill. Filed Nov. 20, 1916. Serial No. 132,361. (Cl. 74—26.)



1. A coupling mechanism comprising a positively driven member, a follower member, a member for frictional engagement with the follower member rotatably and longitudinally shiftable on the positively driven member, and means for yieldingly holding such friction member in contact with a follower member and in non-rotatable engagement with the driving member when in such contact, the connection between the positively driven member and frictional engaging member causing the latter to shift on the positively driven member until arrested from such movement by frictional engagement with a follower member.

3. The combination with a follower member, of a positively rotated driving member, means for frictionally engaging the follower member in screwthreaded engagement on the driving member, and means on the frictional means for yieldingly holding the latter in contact with the follower member, and a non-rotatable engagement with the driving member when in such contact, the inertia of the frictional engaging means preventing rotation of the

frictional member on the driving member until it contacts with the follower member.

4. The combination with a follower member, of a positively rotated driving shaft, a worm thereon, a bushing in screwthreaded engagement with the worm, a sleeve non-rotatable and axially reciprocable on the bushing, and means for yieldingly forcing the sleeve into contact with the follower member when the inertia of the bushing causes the latter to shift along the worm when the latter is operated.

7. The combination with a starter and an explosive engine, having a rotatable member adapted to turn the engine and be turned thereby, of a worm positively driven by the starter, a bushing in screwthreaded and rotatable engagement on the worm, a sleeve longitudinally reciprocable on the bushing adapted to engage frictionally on the rotatable member of the engine, a thrust nut adjustably mounted on the bushing, and a spring in compression between the thrust nut and the sleeve, the bushing being adapted to be shifted along the worm when the latter is initially rotated because of the inertia of the bushing and the spring operating to force the sleeve into rotatable engagement with the rotating member of the engine, and simultaneously therewith to lock the bushing to turn with the worm.

[Claims 2, 5, 6, and 8 not printed in the Gazette.]

1,256,747. PIVOTING DEVICE FOR ROTATING PARTS IN WEIGHING APPARATUS AND THE LIKE. GUSTAF VON POST, Stockholm, Sweden. Filed Feb. 18, 1916. Serial No. 79,031. (Cl. 74—104.)



1. In weighing and similar apparatus having rotating parts, a receptacle adapted to contain fluid to support said rotating parts, and regulating means for maintaining any one of a predetermined range of levels of the fluid.

3. In weighing and similar apparatus having rotating parts, a receptacle filled with fluid supporting said rotating parts, and an adjustable overflow outlet for said receptacle.

[Claim 2 not printed in the Gazette.]

1,256,748. GUIDING DEVICE FOR RECIPROCATING-MACHINE ELEMENTS. GUSTAF VON POST, Stockholm, Sweden. Filed Feb. 18, 1916. Serial No. 79,032. (Cl. 74—87.)



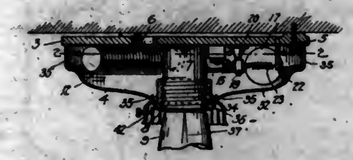
1. A guiding device for reciprocating machine elements comprising, in combination with a stationary element and a reciprocating element, a guiding rail pivotally mounted between said elements, an anti-friction member interposed between the said rail and one of the said elements, and means for yieldably pressing the guiding rail against its anti-friction member.

4. A guiding device for reciprocating machine elements comprising, in combination with a stationary element and a reciprocating element, a guiding rail pivotally mounted between said elements, an anti-friction member interposed between the said rail and one of the said elements, means for yieldably pressing the guiding rail against its anti-friction member, and a limiting screw adjustably connecting the said rail with the other one of said elements.

6. A guiding device for reciprocating machine elements comprising, in combination with a stationary element and a reciprocating element, a guiding rail mounted between the said elements and having an open slot in one end, an adjusting screw threaded in one of the said elements and having limiting shoulders and a reduced portion between shoulders for engagement within the slot of the guiding rail, the element which carries the screw being provided with a hole adjacent to the opposite end of the guiding rail, a pin projecting from the said rail and fitting loosely in the hole in the last-mentioned element, an anti-friction member interposed between the said rail and the other element, and resilient means pressing the guiding rail against the anti-friction member.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,256,749. INCANDESCENT-LAMP FIXTURE. WILLIAM C. H. WEFEL, Denver, Colo. Filed Dec. 14, 1916. Serial No. 136,969. (Cl. 240—78.)



1. A canopy incandescent lamp fixture comprising a base having means for securing the fixture in an operative position, an incandescent lamp-socket projecting from the base, a canopy forming in coöperation with the base, a chamber around the socket, a conductor in which the socket is connected, an electro-magnetic switch in said chamber, connected in said conductor in series with the socket, a shunt of said conductor controlled by the switch, and a resistance-coil in said chamber, connected in said shunt.

2. A canopy incandescent lamp fixture comprising a base having means for securing the fixture in an operative position, an incandescent lamp-socket projecting from the base, a nut on said socket, a canopy supported on said nut and forming in coöperation with the base, a chamber around the socket, a conductor in which the socket is connected, an electro-magnetic switch in said chamber, connected in said conductor in series with the socket, a shunt of said conductor controlled by the switch, and a resistance coil in said chamber, connected in said shunt.

[Claims 3 and 4 not printed in the Gazette.]

1,256,750. HARD-RUBBER BATTERY-JAR AND PROCESS OF MANUFACTURING SAME. HARRY WEIDA, Highland Park, N. J., assignor to The India Rubber Company, a Corporation of New Jersey. Filed Nov. 3, 1916. Serial No. 129,269. (Cl. 154—43.)

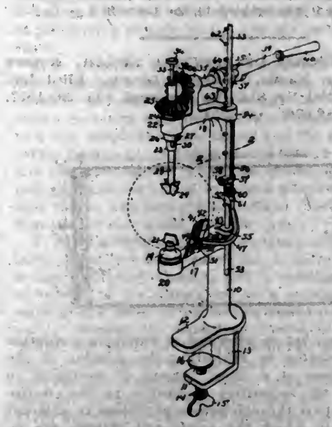


1. A container of the character described, comprising a bottom formed of superimposed sheets of vulcanized rubber, and a side wall embodying therein a sheet of vulcanized rubber having the lower edge thereof disposed between the marginal edges of adjoining sheets forming said bottom.

6. The herein described process of manufacturing hard rubber battery jars consisting in positioning a sheet of vulcanizable rubber composition upon the bottom of a core, wrapping a sheet of vulcanizable rubber composition about said core to form an inner portion of the side walls of a jar, turning the lower edge thereof inwardly upon said first-named sheet, superimposing another sheet of rubber upon said first-named sheet and the inturned edge of said other sheet, superimposing an outer sheet of vulcanizable rubber forming an outer portion of the side walls of the jar, turning the lower edge of said outer sheet inwardly and upwardly, and vulcanizing the built-up structure.

[Claims 2 to 5 not printed in the Gazette.]

1,256,751. PARING DEVICE. CARL E. WENZEL, Newark, N. J. Filed Apr. 10, 1917. Serial No. 160,932. (Cl. 146—8.)

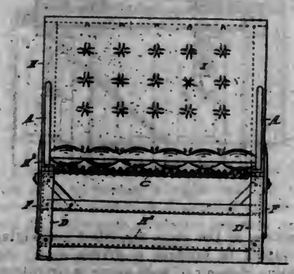


1. A paring device comprising a gripping device, a paring mechanism, means for causing parts to rotate relative to each other, means for yieldingly holding the paring mechanism against an article held in the gripping device, said paring mechanism including a tilting knife, and means for intermittently moving the paring mechanism to cause the knife to traverse an article held in the gripping device.

5. A paring device comprising a gripping device to hold an article to be pared, means for rotating the gripping device, said means comprising a main shaft, a nose on the main shaft, a longitudinally moving paring mechanism, and means on the paring mechanism adapted to be engaged by the nose on the shaft, whereby the paring mechanism is moved longitudinally of the article to be pared once in each rotation of said article.

[Claims 2 to 4 not printed in the Gazette.]

1,256,752. DUOFOLD DAVENPORT. FRANK BERNARD WERSEL, Jr., Mount Auburn, Ohio. Filed Feb. 25, 1914. Serial No. 820,930. (Cl. 5—48.)



The combination in a folding davenport comprising a fixed section with front supports, a folding front section pivoted to the front of the fixed section at the sides thereof, and a mattress extending over the fixed and folding sections, of a helical spring stretched horizontally between the upper ends of the supports below the mattress for the purpose of supporting the mattress when the sections are folded.

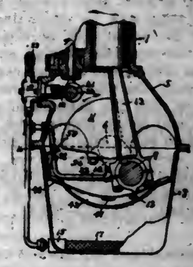
1,256,753. WIRE-ANCHOR. GEORGE DEWEY WHEAT, Whitehorse, Okla. Filed Feb. 20, 1915. Serial No. 9,639. (Cl. 189—90.)



1. A fence stay consisting of a single piece of wire bent so as to form a cross and having an end portion extending from the center of the cross and standing substantially at right angles to the plane of said cross and adapted to engage with a horizontal strand of a wire fence.

[Claims 2 and 3 not printed in the Gazette.]

1,256,754. SPLASH-OILING SYSTEM. ERNEST M. WHITE, Detroit, Mich. Filed Oct. 12, 1916, Serial No. 125,132. Renewed Sept. 4, 1917. Serial No. 189,684. (Cl. 184—13.)



2. In an internal combustion engine, the combination of a main oil reservoir and auxiliary oil receptacles into which the lower ends of connecting rods may dip to splash oil up into the cylinders, a pump and a system of pipes to convey oil from the main reservoir to the auxiliary receptacles, and means controlled by the pressure within the intake manifold of the engine to by-pass a portion of the oil back to the main reservoir from the pump.

11. In an internal combustion engine, the combination of the crank case and an oil pan mounted therein, said pan formed with transverse depressions and with openings in the side walls of said depressions which are toward one end of the engine, and means to convey lubricating oil to said receptacles.

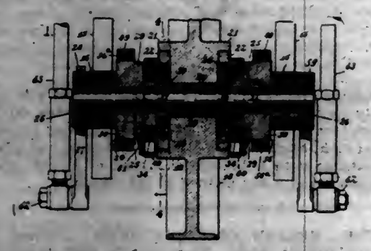
15. In an internal combustion engine, the combination of the crank case and a crank shaft therein provided with counterbalancing sectors, means to convey oil to said crank shaft whereby it will be carried around in the form of a mist, and a deflector extending from the side wall of the crank case toward said counterbalancing sectors and in close proximity thereto to control the diameter of the body of oil mist carried around by the crank shaft.

[Claims 1, 3 to 10, 12 to 14, and 16 to 20 not printed in the Gazette.]

1,256,755. CLUTCH MECHANISM FOR BUTTON-ATTACHING MACHINES. FRANKLIN R. WHITE, Waterbury, Conn., assignor to Patent Button Company, Waterbury, Conn., a Corporation of Connecticut. Filed Jan. 26, 1915. Serial No. 4,453. (Cl. 192—22.)

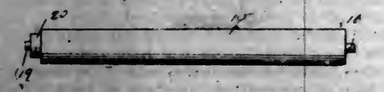
A clutch mechanism of the class described comprising a shaft, a wheel mounted for free rotation thereon held against shifting and provided with a cylindrical recess

extending within the hub thereof, an annular wearing ring with a smooth cylindrical inner surface disposed within said hub recess, a clutch member mounted for free rotation upon said shaft provided with a reduced cylindrical end projecting within said hub recess and contacting with the inner wall thereof, a wearing ring with external depressions fixedly mounted upon the reduced extremity of said clutch member, rollers contained between said wearing rings and normally located within said depressions, said clutch member provided with an intermediate reduced cylindrical portion defining a ledge



between the same and the main body of the clutch member, a roller cage rotatably mounted upon said intermediate reduced portion held against shifting by the above-mentioned ledge and by contacting with the said wearing ring of the wheel hub, portions of said roller cage projecting between the wearing rings of the said hub and the said clutch member and engaging said rollers adapted to shift the positions thereof, and resilient means adapted to shift the position of said roller cage with relation to said clutch member and to assist in the stopping of the said roller cage and clutch member.

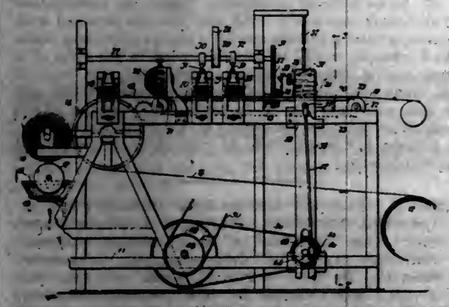
1,256,756. TAKE-UP FABRIC-ROLLER. GEORGE A. WILKINS, Amsterdam, N. Y. Filed Nov. 15, 1916. Serial No. 131,449. (Cl. 242—68.)



1. A fabric receiving roller for knitting machine take-ups consisting of a body, a reduced end on said body, said end and body having a recess extending inward from the face of said end, an elastic plug fitting in said recess and projecting therefrom, and a ferrule fitted on the end and constituting a journal.

[Claim 2 not printed in the Gazette.]

1,256,757. STIPPLING APPARATUS. ONNI WILLBERG, Brooklyn, N. Y., assignor to The Stippletone Company, a Corporation of New York. Filed Nov. 16, 1917. Serial No. 202,434. (Cl. 41—1.)



1. A machine for stippling paper comprising a stippling implement, means to guide the paper past said implement, and means to give the implement a movement to and from the paper and back and forth parallel to the paper, these two movements being superposed.

10. A machine for stippling paper comprising a stippling implement, means to guide the paper horizontally under said implement, horisontal transverse rods on which said implement is slidably mounted, vertical slides carrying the ends of said rods, means to reciprocate said vertical slides and the said implement therewith, a crank at one side and a long pitman from said crank to said implement to reciprocate the same on said rods simultaneously with its vertical reciprocation.

[Claims 2 to 9 not printed in the Gazette.]

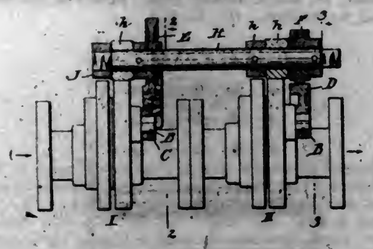
1,256,758. PROCESS OF REFINING SUGAR. ROBERT R. WILLIAMS, Manila, Philippine Islands. Filed Jan. 26, 1914, Serial No. 814,401. Renewed Aug. 29, 1917. Serial No. 188,870. (Cl. 204—24.)



1. The process herein described of purifying a solution of sugars consisting in subjecting the solution to the electrolytic action of a direct current of electricity to thereby cause the impurities susceptible to the electrolytic action to pass through porous partitions to adjacent compartments in which the anode and cathode are located, both electrodes being immersed in a stream of fresh water, causing the impurities to be carried away from the vicinity of the anode and cathode and be discharged.

2. The process herein described of purifying a solution of sugar, consisting in subjecting the solution to the electrolytic action of a direct current of electricity to thereby cause the impurities susceptible to the electrolytic action to pass through a porous partition to an adjacent compartment containing an electrode and water and continuously supplying fresh water to said electrode compartment and exhausting water therefrom to cause a stream of water to flow about said electrode and carry away the impurities therefrom.

1,256,759. VALVE CONTROL. WILIE GEMMEL WILSON, New York, N. Y., assignor to Everlasting Valve Company, a Corporation of New York. Filed Mar. 30, 1917. Serial No. 158,630. (Cl. 137—144.)



1. A structure of the class described embodying a pair of valves coupled in tandem, a driven sector associated with the sealing element of each valve, a driving sector cooperating with each driven sector, said coöperating sectors being formed to lock the sealing element of one valve in closed position until the sealing element of the other valve is in open position, and to unlock and close said first locked sealing element before the other sealing element is unlocked and closed, and means for actuating said driving sectors.

2. A structure of the class described embodying a pair of valves coupled in tandem, a driven sector associated with the sealing element of each valve, a driving sector cooperating with each driven sector, said coöperating sectors being formed to lock the sealing element of one valve in closed position until the sealing element of the other valve is in open position, and to unlock and close said first locked sealing element before the other sealing element is unlocked and closed, a common rock-shaft for operating both of the driving sectors, and means for oscillating the rock-shaft.

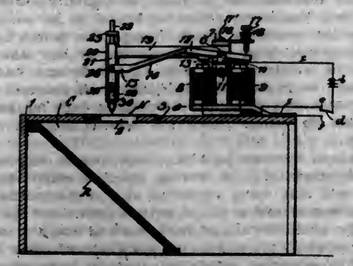
4. A structure of the class described embodying two valves having a rotary operative means, said valves interposed in one and the same conduit, in combination with means to rotate both of said valve operating means and lock and unlock the same in one and the same cycle of its rotary movement, to first open the first of said valves, and lock the same, second to open the second of said valves and lock the same, and third to unlock and close the second of said valves, and lock the same, and fourth to unlock the first of said valves and close the same.

5. In an arrangement of the character described, a complete operable valve embodying a valve casing, sealing means positioned therein, and a member for imparting movement to the sealing means, a second complete valve embodying a valve casing, sealing means positioned therein, and a member for imparting movement to the sealing means, and means for coupling said first and second valves together in tandem in a common conduit, in combination with common actuating means to operate both of said members, said actuating means operating, first, to open the first valve while the second valve is maintained close, second, to open the second valve while the first is maintained open, third, to close the second valve while the first is maintained open, and, fourth, to close the first valve while the second is maintained closed.

15. In an arrangement of the character described, two valves, each having operative means and both interposed in one and the same conduit, in combination with means between the operative means of said valves to lock the second valve closed until the first is fully open and to lock the first valve until the second is entirely closed.

[Claims 3, 6 to 14, and 16 to 19 not printed in the Gazette.]

1,256,760. MECHANICAL NEGATIVE-RETOUCHING DEVICE. ROBERT LEONARD WOODS, Melbourne, Ark. Filed Sept. 13, 1916. Serial No. 119,879. (Cl. 95—101.)
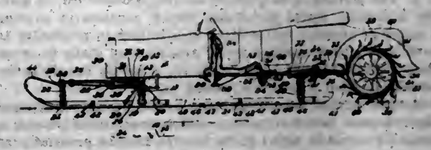


1. In a device of the character described, the combination with a base having a sight opening therein, of a frame mounted on said base, a vertical standard extending from said frame, a pair of electro-magnets on said frame, means for energizing the electro-magnets, an oscillatable armature to be alternately actuated by said electro-magnets, a movable arm extending from said armature, a stationary arm extending from said standard and having a cross-head guide on the free end thereof, a cross-head movable in said guide and pivotally connected with said movable arm, a lead holder mounted on said cross head, and adjusting means therefor, said lead holder being disposed above said sight opening.

2. A device of the class described, including a base having a sight opening therein, a frame mounted on said base, a plurality of electro-magnets carried on said frame, means for energizing the electro-magnets, a standard extending from the frame, an armature to be acted upon by said eltcro-magnets, a movable arm extending from said armature means for limiting the stroke of said armature, a stationary arm extending from said standard, a cross-head guide carried by the free end of said stationary arm and a cross-head operable in said guide, said cross-head being pivotally connected with said movable arm, and a lead holder adjustably carried by said cross-head and disposed above said sight opening to engage the surface of a negative for retouching the same.

[Claim 3 not printed in the Gazette.]

1,256,761. MOTOR-SLEIGH. GUY ANDERSON, Haynesville, Me. Filed Mar. 19, 1917. Serial No. 155,750. (Cl. 21—94.)



1. In a sled or the like, the combination with a body and a laterally flexible runner pivoted at a plurality of points longitudinally thereof, said runner being longitudinally fixed with respect to said body at one of its pivots, of means operatively connecting said runner and body and fixed against a longitudinal movement with respect to said runer for simultaneously turning said runner on its pivots and laterally flexing the same.

2. In a sled or the like, the combination with a body and a laterally flexible runner pivoted at a plurality of points longitudinally thereof, said points being substantially fixed transversely of said body, and said runner being longitudinally fixed with repect to said body at one of said points, of means operatively connecting said runner and body and fixed against longitudinal movement with respect to said runner for simultaneously turning said runner on its pivots and laterally flexing the same.

3. In a sled or the like, the combination with a body and a laterally flexible runner pivoted at a plurality of points longitudinally thereof, said points being substantially fixed transversely of said body, and said runner being longitudinally fixed with respect to said body at one of said points and longitudinally movable with respect to said body at another of said points, of means operatively connecting said runner and body and fixed against longitudinal movement with respect to said runner for simultaneously turning said runner on its pivots and laterally flexing the same.

4. In a sled or the like, the combination with a body and a laterally flexible runner pivoted at a plurality of points longitudinally thereof, said runner being longitudinally fixed with respect to said body at one of its pivots, of a steering rod pivoted to said body to swing about a center in advance of said last-named runner pivot, and means for operatively connecting the forward ends of said runner and rod and for holding the same against relative longitudinal movement.

5. In a sled or the like, in combination, a body, a pair of laterally flexible runners, a pair of knuckles for pivotally connecting said runners and body, a second pair of knuckles pivotally connected to said body and to said runners, and steering means operatively connected with said runners.

[Claims 6 to 9 not printed in the Gazette.]

1,256,762. METHOD OF MAKING HOLLOW BODIES. SIMON APOSTOLOFF, London, England, assignor of one-half to Walton Ferguson, Jr., New York, N. Y. Filed Jan. 8, 1917. Serial No. 141,176. (Cl. 22—203.)



1. The method substantially as herein described, of making a hollow metal structure, which consists in placing a series of annular metal disks face to face in proximity to each other, then casting metal around said disks to cover their exterior and interior surfaces, whereby the disks become embedded in the cast metal.

2. The method substantially as herein described, of making a hollow metal structure, which consists in placing a series of annular metal disks face to face in proximity to each other, then casting metal around said disks, and around a spiral metallic member which encircles the series of disks, whereby both the disks and said spiral member are embedded on all sides in the cast metal.

7. The method substantially as herein described, of making a hollow metal structure, which consists in placing a series of annular metal disks face to face in contact with each other, thus forming the foundation of the structure, securing the said series of metal disks tightly together, then placing a spiral metallic member around said series of disks and casting metal around said spiral member and incorporating the cast metal with the convolutions of said member, whereby the spirals are embedded on all sides in the cast metal.

[Claims 3 to 6 and 8 not printed in the Gazette.]

1,256,763. TIRE-PROTECTOR. ARNOLD AVERY, Mallorytown, Ontario, Canada. Filed Nov. 25, 1916. Serial No. 133,442. (Cl. 152—16.)

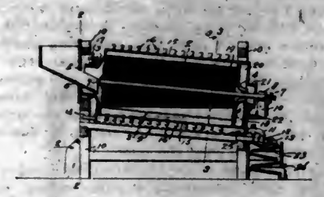


1. A tire protector of the class described comprising a plurality of shoes having intersecting longitudinally and transversely extending ribs of a height decreasing toward the point of intersection, flexible means operatively connecting the shoes and means embracing the lateral faces of a tire adapted to secure the shoes in position.

2. A new article of manufacture comprising an apertured shoe having intersecting ribs thereon of a height decreasing toward their point of intersection.

1,256,764. FINE-GOLD-SAVING MACHINE. EDWARD BAGLEY, Vancouver, British Columbia, Canada. Filed May 24, 1917. Serial No. 170,757. (Cl. 83—67.)

1. A gold washing machine, comprising in combination, an elongated tank having a reduced area adjacent the bottom and riffles across that reduced area, said tank being provided with a delivery aperture from the bottom of one end and a water delivery adjacent the other end, a cylindrical screen rotatable within the length of the tank on an axis of rotation substantially parallel to the bottom of the tank, said screen having angled blades projecting outwardly from it, a chute delivering the gravel to be washed within the screen, means for delivering the washed gravel from the opposite end of the screen, and means within the tank for amalgamating with quicksilver any fine gold that may pass through the screen, the said delivery aperture being restricted and adapted to maintain a body of pulp in the tank in contact with the screen and the blades thereon substantially as shown and described.

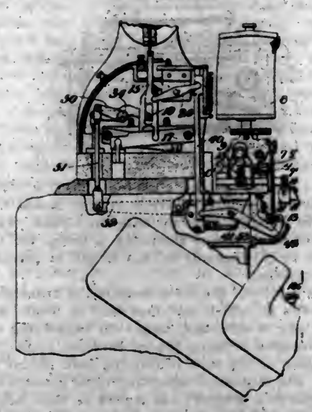


2. A gold washing machine, comprising in combination, a semi-cylindrical tank having circumferential corrugations, said tank having a discharge aperture at the bottom of one end and a water delivery adjacent the other end, a cylindrical mesh screen rotatably supported within the tank to be concentric with the bottom of it, said screen having angled blades projecting from its outer side to sweep the interior of the tank and progress the contents toward the discharge aperture, means for delivering gravel to be washed to within the rotatable screen, and means for delivering the washed gravel from the opposite end of the same, said discharge aperture being restricted and adapted to maintain a body of pulp in the tank in contact with the screen and the blades thereon.

3. A gold-washing machine, comprising in combination, a semi-cylindrical tank having circumferential corrugations, said tank being supported at a slight incline from the horizontal and provided with a discharge aperture at the bottom of the lower end and a water delivery adjacent the upper end, a cylindrical mesh screen rotatably supported with the tank to be substantially concentric with the bottom of it, said screen having angled blades projecting from it outside the screen to sweep the interior of the tank and progress the contents toward the lower end, means for delivering gravel to be washed to within the rotatable screen, means for delivering the washed gravel from the opposite end of the same, and means for amalgamating with quicksilver any fine gold that may be in the tank, said discharge aperture being restricted and adapted to maintain a body of pulp in the tank in contact with the screen and the blades thereon.

4. A gold washing machine, comprising in combination, a semi-cylindrical tank having circumferential corrugations, said tank being supported at a slight incline from the horizontal and provided with a controlled discharge aperture at the bottom of the lower end and a water delivery adjacent the upper end, a cylindrical mesh screen rotatably supported within the tank to be substantially concentric with it, said screen having angled blades projecting from its outer side to sweep the interior of the tank, means for delivering gravel to be washed to within the rotatable screen, means for delivering the washed gravel from the opposite end of the same, and means within the tank for amalgamating any fine gold with quicksilver, said discharge aperture being restricted and adapted to maintain a body of pulp in the tank in contact with the screen and the blades thereon.

1,256,765. JUSTIFICATION-INDICATING MECHANISM FOR COMPOSING-MACHINES. JOHN SELLERS BANCROFT, Philadelphia, Pa., and JOHN OLOF HOFBERG, Westville, N. J., assignors to Lanston Monotype Machine Company, Philadelphia, Pa., a Corporation of Virginia. Filed July 22, 1916. Serial No. 110,682. (Cl. 164—112.)



1. A typographic composing machine such as described, embodying the following instrumentalities, to-wit: a justification indicator, a pneumatic motor for advancing the indicator to indicate justification necessary to complete the line, line measuring mechanism, an abutment moved by the line measuring mechanism for limiting the advance movement of the indicator under the influence of its pneumatic motor and an elastic resistance device tending to maintain the abutment against movement.

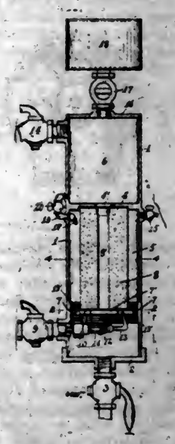
4. In a typographic composing machine such as described, comprising line measuring mechanism, a justification indicator, an abutment slide adapted to be advanced by said line measuring mechanism, an abutment slide return device acting in a direction opposite to that of the advance of said abutment slide, a follow up device, and in combination therewith means for operating said follow up device and said justification indicator, said means comprising an air pressure motor the piston of which is operatively connected with said follow up device and with said indicator.

7. In a typographic composing machine such as described, comprising line measuring mechanism, a justification indicator, an abutment slide adapted to be advanced by said line measuring mechanism, an air pressure abutment slide return motor acting in a direction opposite to that of the advance of said abutment slide, a follow up device connected with said justification indicator, and in combination therewith, means for operating said follow up device, comprising an air pressure motor, the piston of which is operatively connected with said follow up device, the cylinder of said last mentioned motor being in open communication with the cylinder of said abutment slide return motor.

10. In a typographic composing machine such as described, comprising line measuring mechanism, a justification indicator, an abutment slide movable by said line measuring mechanism, an abutment slide return device acting in a direction opposite to that of the line measuring mechanism, a follow up device provided with a rack, and, in combination therewith, means for operating said follow up device and said justification indicator, said means comprising an air pressure motor including a piston, a rack driven by said piston and gearing connected with said justification indicator, said gearing including a pinion common to said two racks.

[Claims 2, 3, 5, 6, 8, and 9 not printed in the Gazette.]

1,256,766. FILTER. JACOB W. BEHRENDT and FREDERICK A. WEISS, San Francisco, Cal. Filed Mar. 6, 1917. Serial No. 152,484. (Cl. 210—11.)



1. A filter comprising a shell divided into communicating chambers; a filter-member interposed in the communication between the chambers; a controllable inlet connection to one of the chambers on one side of the filter-member; a controllable air-inlet into said chamber; a controllable drain therefrom; a controllable outlet connection from the other chamber; and means for directing water sprays on the surface of the filter-member when the drain connection is open, consisting of a distributing box fitted to the inlet connection, and a plurality of spouts radiating from said box, the nozzles of the spouts being directed toward the surface of the filter members.

4. A filter comprising a shell divided by an apertured partition into lineally disposed communicating chambers; a tubular filter-member fitted in one of said chambers, with one end seated against the partition and registering with the aperture thereof; a spider ring adjustably fitted in said chamber, the hub of said ring bearing on the other end of the filter member to clamp it in place and to close its bore; a controllable inlet connection to the filter-member chamber outside of the filter member and below the spider ring; a controllable air inlet into said filter member chamber outside of said filter member; a controllable drain from said chamber; a controllable outlet connection from the other chamber; and means for directing water sprays on the outer surface of said filter member when the drain connection is open, consisting of a distributing box fitted to the inlet connection, and a plurality of spouts radiating from said box, the nozzles of the spouts being directed into the spaces of the spider ring and toward the outer surface of the filter member.

5. A filter comprising a shell divided into lineally disposed communicating chambers; a tubular filter-member fitted in one of said chambers, with one end of its bore closed and the other registering with the communication between the two chambers; a controllable inlet connection to the filter-member chamber outside of the filter member; a controllable air inlet into said filter member chamber outside of said filter member; a controllable drain from said chamber; and a controllable outlet connection from the other chamber, means for directing water sprays on the surface of said filter member when the drain connection is open, consisting of a spout connection fitted to the inlet connection, the nozzle of said spout connection being directed toward the outer surface of the filter member at one end, and a controllable pipe connecting the two chambers, the nozzle of said pipe being directed toward the outer surface of the filter member at the other end.

[Claims 2, 3, 6, and 7 not printed in the Gazette.]

1,256,767. SWITCH-LOCK. SIGVART C. O. BERG, Kansas City, Mo. Filed Oct. 30, 1916. Serial No. 128,460. (Cl. 70—14.)



1. In combination with a casing and a mechanism therein, a lock consisting of a case having screw receiving means in its rear portion so that it can be secured by screws to said casing, a barrel journaled in said case and adapted to control the mechanism, a ward secured to said barrel to rotate therewith and provided with integral wings to cover a number of the screw heads when the barrel is in locked position, a pivoted wing to cover one of the screw heads, means on the ward for actuating said pivoted wing, and tumblers for locking said barrel.

2. In combination with a casing and a mechanism therein, a lock consisting of a case having screw-receiving means in its rear portion so that it can be secured by screws to said casing, a barrel journaled in said case and adapted to control the mechanism, a ward secured to said barrel to rotate therewith and provided with integral wings to cover a number of the screw heads when the barrel is in locked position, a slotted pivoted wing to cover one of the screw heads, a finger projecting from the ward through the slotted portion of the pivoted wing to actuate the same, and means for locking the barrel.

1,256,768. OVERALLS AND SUSPENDERS. OSCAR A. BERMAN, Cincinnati, Ohio. Filed Oct. 1, 1917. Serial No. 194,196. (Cl. 241—21.)

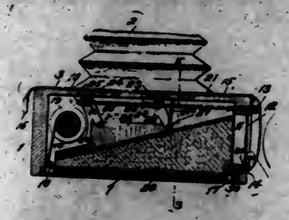


1. In a suspender in combination with shoulder straps and rear straps, an endless elastic web inserted between said straps, a buckle held to the shoulder strap, another buckle interlinked therewith and supporting the connecting web, a buckle connected with the rear strap, and another buckle interlinked with said last mentioned buckle and also in engagement with the endless connecting web.

2. In a suspender in combination with shoulder straps and rear straps, an endless connecting web, a buckle in the form of a safety pin having a shank passing through the space between adjacent portions of the shoulder strap, a sleeve loosely mounted on said shank, another buckle interlinked with said first named buckle and having also a shank, a loose sleeve on said shank passing through the interspace between two portions of the connecting web, and another pair of buckles in similar arrangement with respect to each other, to the connecting web and rear strap.

[Claim 3 not printed in the Gazette.]

1,256,769. PHOTOGRAPHIC INSCRIPTION-CAMERA. HENRY FIELD BLACKWELL, New York, N. Y., assignor of one-half to Max Ernest Jutte and one-half to Maude A. Blackwell, New York, N. Y. Filed Jan. 14, 1916. Serial No. 72,026. (Cl. 95—1.1.)



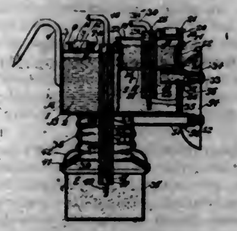
1. In a device of the class described, a translucent means carrying a darker written legend, means for carrying a light sensitive medium adjacent to said translucent means, reflecting means including a prism for transmitting light to this legend, so that it will be copied on the sensitive means.

4. In a device of the class described, a translucent tape and a device on which said tape may be wound and from which it may be unwound, means for supporting said tape while a lengend is being placed thereon, means for placing the part of the tape containing said legend adjacent to a film, and means for admitting light through said tape and to said film, whereby the legend on said tape may be reproduced on said film.

5. In a device of the class described, a casing having two parallel walls and a prism mounted between said walls, a shutter adjacent to said prism and means connecting said shutter and prism for forcing said prism toward said casing when the shutter is opened.

[Claims 2 and 3 not printed in the Gazette.]

1,256,770. ACETYLENE-LAMP. JAMES BROCKER, Collinsville, Ill. Filed July 14, 1915. Serial No. 39,881. (Cl. 48—23.)



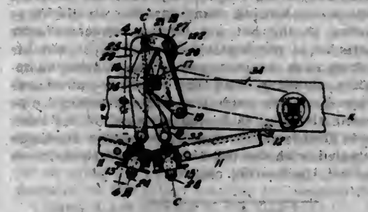
1. An acetylene lamp, comprising independent and optionally operable gas generating means, and composed of a compartment divided into two noncommunicating chambers each adapted to contain a gas forming material, a separate removable compartment adapted to contain a gas forming material to coöperate with the material in one of said chambers, a passage for admitting the material from the removable compartment to the chamber containing the coöperating material, an additional removable compartment adapted to contain a gas forming material to coöperate with the material in the other one of said chambers and adapted to be placed in communication therewith, whereby gas may be independently and optionally generated, and a jet burner serving each source of gas generation.

2. A miner's acetylene lamp including a body having upper and lower sections, the lower section forming a main generating chamber and the upper section forming a main water reservoir for the said generating chamber and a supplemental generating chamber, a water reservoir detachably carried by the upper section and adapted to furnish water to the supplemental generating chamber, a burner carried by the upper section and in communication with the main generating chamber, and an adjacent burner in communication with the supplemental generating chamber.

3. A miner's acetylene lamp including a lower body member open at its upper end, an upper body member closed at both ends and adapted for attachment to the lower body member, a partition wall dividing the upper body member into compartments, a manually operable valve arranged to provide communication between one of said compartments and the lower body member, a reservoir adapted for detachable engagement with the upper body member and forming a closure for the other compartment, a manually operable valve providing communication between said reservoir and its compartment, and burners carried by the upper body member and in communication with said latter compartment and the lower body member respectively.

4. A miner's acetylene lamp including a lower body member, an upper body member detachably secured to the lower body member and having a bottom forming a closure for the lower body member, a partition wall in the upper body member dividing the same into a water reservoir and a generating chamber, a valve controlling the flow of water from the reservoir to the lower body member, a water reservoir forming a closure for the generating chamber in the upper body member, a valve controlling the flow of water from said latter reservoir to the generating chamber of the upper body member, burners carried by the upper body member, communicating means between one of said burners and the generating chamber of the upper body member, and communicating means between the other of said burners and the generating chamber of the lower body member.

1,256,771. DOOR-OPERATING MECHANISM FOR CARS AND THE LIKE. ARGYLE CAMPBELL, Chicago, Ill., assignor to Enterprise Railway Equipment Company, Chicago, Ill. Filed Aug. 20, 1917. Serial No. 187,125. (Cl. 105—185.)



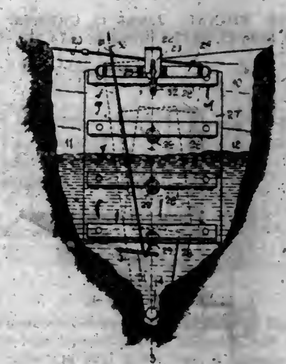
1. In door operating mechanism for a hopper car or the like having twin arranged pivoted doors, the combination with a shaft located above the doors, of a hub on said shaft, a link pivotally connected at one end to said hub and at its opposite end provided with an angular extension, a hanger link pivotally connected at one end to said angular extension and at its opposite end to one of said doors, and a second hanger link also pivotally connected at one end to said first named link and at its opposite end to the other door.

3. In door operating mechanism for a hopper car or the like having twin arranged pivoted doors, the combination with a shaft, of a hub mounted on said shaft, and three links each having a hook-shaped end, one of said links being pivotally connected at its plain end to the hub, each of the other two links being also pivotally connected at its plain end to a door and said two last named links having their hook-shaped ends pivotally connected to the hook-shaped end of the link pivotally connected to the hub.

4. In door operating mechanism for a hopper car or the like having twin arranged pivoted doors, the combination with a shaft, of a hub mounted on said shaft, and three links each having a hook-shaped end, one of said links being pivotally connected at its plain end to the hub, each of the other two links being also pivotally connected at its plain end to a door and said two last named links having their hook-shaped ends pivotally connected to the hook-shaped end of the link pivotally connected to the hub, the hook-shaped ends of all three links being supported on the top of the hub when the doors are in closed position.

[Claims 2, 5, and 6 not printed in the Gazette.]

1,256,772. DAM FOR IRRIGATION-DITCHES. CARL CHASTAIN, Twin Falls, Idaho, assignor of one-fourth to Myron Brownlee, Fort Hall, Idaho. Filed May 16, 1917. Serial 169,085. (Cl. 137—66.)



1. A dam for irrigation ditches comprising two sheet metal sections, pivoted to each other at their lower ends for lateral adjustment, means for holding the sections in adjusted positions, said sections having registering openings, and means for controlling the passage of water through said openings, said means comprising a curtain of flexible material supported upon its upper edge upon said sections and vertically adjustable, rings disposed in vertical series upon the curtain, and a fixed hook with which said rings are adapted to engage to hold the curtain supported at different elevations.

4. A dam for irrigation ditches having an opening for the passage of water, and means for controlling the passage of water through said opening comprising a flexible curtain supported at its upper edge upon the dam and normally depending across the opening, said curtain having transverse reinforcing members, and means for holding the curtain raised comprising rings disposed at intervals across the curtain, and a hook operatively supported upon the upper edge of the dam and with which the rings are adapted to engage.

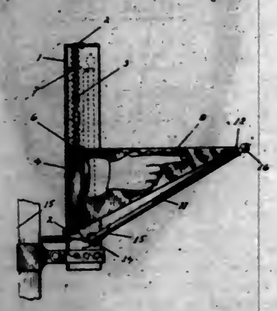
5. A dam of the character described comprising two sheet metal sections, the sections having extensions at their lower edges, the extensions being pivoted to each other and adapted to be forced into the bottom of a ditch, and means for clamping the sections in laterally adjusted relation, said means comprising a U-shaped member embracing the upper edges of the sections, a bowed clamping member having a hook, a screw having swiveled engagement with the clamping member and screw-threaded engagement with one leg of the clamping member, and a curtain having transverse reinforcing members and having its upper edge disposed beneath the clamp, the curtain normally extending down over said opening, and rings on the curtain adapted to engage with the hook to thereby hold the curtain supported at different elevations.

7. A dam of the character described formed of two sections of sheet metal, the sections being pivoted to each other at their lower ends and having sliding engagement with each other at their upper ends for lateral adjustment, said sections being formed with registering openings, one of said sections being formed on its inner edge face with a longitudinally extending flange and on its outer face with a longitudinally extending brace, the lower end of which is

tapered, a brace detachably and adjustably connected to the face of the other section and having a tapered lower end, and means for controlling the passage of water through the openings in the sections, said detachable brace having an angular bend at its upper end formed with a hook adapted to adjustably engage over the upper edge of the section with which it is associated, the face of said section being formed with a pivoted clip adapted to engage the lower end of the brace and with a keeper holding the clip in binding engagement upon the lower end of the brace.

[Claims 2, 3, 6, and 8 not printed in the Gazette.]

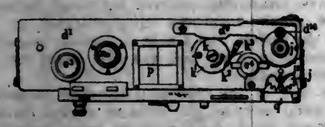
1,256,773. SIGNAL. JAMES C. CHESTER, Escalon, Cal. Filed June 12, 1917. Serial No. 174,212. (Cl. 116—31.)



3. A signal comprising a casing, a spiral bar mounted in the casing, a roller mounted for vertical and rotary motion on the bar, a flag wound on the roller, and means for moving the roller over the bar to unwind the flag thereon, such means including a pivoted rod connected with the free end of the flag and means for moving the rod on its pivotal point, and fixing it in a position to hold the flag extended.

[Claims 1 and 2 not printed in the Gazette.]

1,256,774. STEREOSCOPIC APPARATUS. LOUIS JOSEPH EMMANUEL COLARDEAU and JULES RICHARD, Paris, France. Filed Nov. 26, 1913. Serial No. 803,184. (Cl. 88—18.5.)



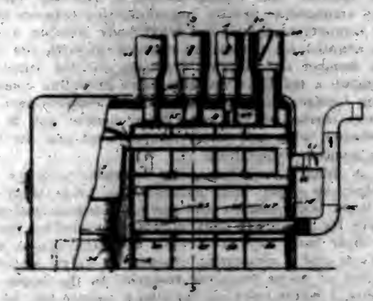
1. The combination of a guideway for a film, one of the members of the guideway being movable toward and away from the other, and film-feeding means, including means to move the movable guide member to clamp and release the film.

2. The combination of a guideway for a film, one of the members of which is movable toward and away from the other, and film-feeding means including means to hold the movable guide member away from the other guide member during the actuation of the film-feeding means and for returning the movable guide member to its normal position to clamp the film in the guideway when the film-feeding means is inactive.

6. In an apparatus for feeding and clamping films, the combination of a glass plate against which the film is to be held, a holding plate for holding the film against said glass plate, said holding plate being movable toward and away from the glass plate, a film feeding device, a notched wheel rotatably actuated by the film feeding device, the holding plate being provided with a projection disposed to be received within the notch of the wheel at every turn of the film feeding device, and means for maintaining the holding plate out of engagement with the glass plate.

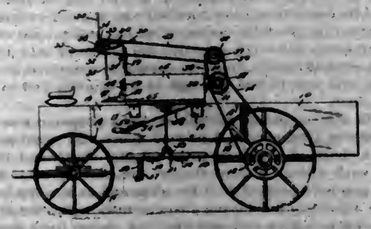
[Claims 3 to 5 not printed in the Gazette.]

1,256,775. HOT-AIR FURNACE. FRANK A. CONRAD, Milwaukee, Wis. Filed Sept. 9, 1916. Serial No. 119,169. (Cl. 126—104.)



In a hot air furnace, a structure with a heating chamber therein of less height than the height of the structure to privide an air passage over the heating chamber and within the structure, vertical partitions separating the heating chamber into separate compartments, a heating device in the structure separated from the heating chamber, a winding flue connected to the heating device and extending through all of the compartments in the heating chamber, a perforated horizontal partition in the lower part of each compartment of the heating chamber, an air inlet opening into each compartment of the heating chamber below the perforated partition, an air inlet chamber connected to the heating chamber, partitions in the air inlet chamber dividing it into separate compartments communicating respectively with the separate compartments in the heating chamber, a hot air discharge pipe connecting to the hot air furnace structure over each compartment of the heating chamber and a hot air outlet pipe from each compartment of the heating chamber of smaller diameter than the respective discharge pipe and extending into each respective discharge pipe whereby heated air from each compartment of the heating chamber is discharged through its respective discharge pipe and mingled with heated air coming directly from the passage over the heating chamber.

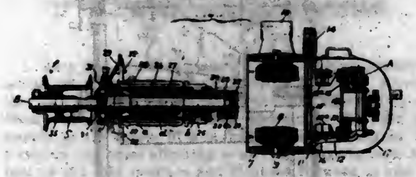
1,256,776. CORN-HEADER. JOHN HENRY COVEL, Kenefic, Okla. Filed Nov. 2, 1916. Serial No. 129,208. (Cl. 56—131.)



A corn harvesting attachment for a farm wagon including a conveyer frame constituting a body portion, means for connecting the body portion of the attachment with the farm wagon, cutting means connected with the conveyer frame, standards carried by the body portion, brackets connected with the standards for vertical adjustment thereon and having arms extending from the

sides of the body portion above the cutting means, bearings connected with the brackets for adjustment toward and away from the body portion, a beater shaft carried by said bearings, beaters extending from the beater shaft in operative relation to the cutting means, a driving shaft connected with the body portion, means for transmitting rotary movement from the driving shaft to the beater shaft, and means for transmitting movement from the driving shaft to the conveyer in the body portion.

1,256,777. BEARING FOR DYNAMO-ELECTRIC MACHINES. ALFRED HENRY DARKER, Blackheath, England, assignor to J. Stone & Company, Limited, London, England. Filed May 15, 1916. Serial No. 97,655. (Cl. 64—36.)



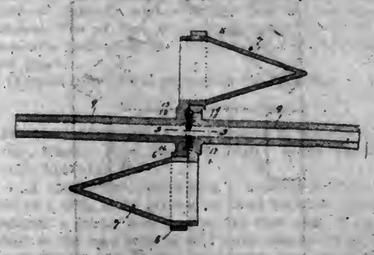
1. A device of the class described comprising a casing having an open end, a rotary member adapted to be mounted therein, a pair of bearings mounted on the rotary member and removable therewith, a bearing socket in said casing in which one of said bearings is supported for free insertion and removal, a bracket mounted on the other bearing, and means for securing the bracket to the casing.

2. A device of the class described comprising a casing, a rotary member adapted to be mounted therein for removal therefrom, a pair of bearings mounted on the rotary member for removal therewith, a bearing socket supported from one end of said casing in which one of said bearings is supported for free insertion and removal, a bracket mounted on the other bearing, and means for securing said bracket to the other end of the casing.

3. A device of the class described comprising in combination a casing having an open end, a rotary member adapted to be mounted therein, a ball bearing mounted at one end of said rotary member, a cage for said bearing having means for positioning the cage with reference to the ball bearing, a bearing socket in said casing in which said cage is supported for free insertion and removal, a bearing at the other end of said rotary member, a bracket mounted on said second bearing, and means for securing the bracket to the casing, said bearing being mounted on the rotary member for removal therewith.

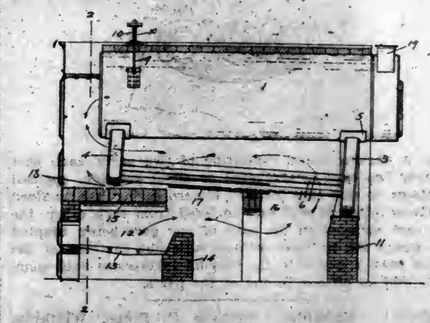
[Claim 4 not printed in the Gazette.]

1,256,778. AUTOMATIC AIR-BRAKE-HOSE COUPLING. SAMUEL M. DICK, Minneapolis, Minn. Filed Nov. 23, 1914. Serial No. 873,440. (Cl. 137—89.)



A hose coupling head provided with aligning devices and having a tube terminating at the outer face thereof, and provided with an annular air chamber spaced concentrically outward thereof and having a radial port connecting said annular chamber to the interior of said tube, in combination with a pliable joint-forming gasket having an axial passage and seated against the delivery end of said tube covering said annular chamber and clamped against said head with an air-tight joint concentric with, but outward of said annular chamber, the said gasket having a relatively thick annular portion overlapping said annular air chamber and projecting at its outer face slightly beyond the outer face of said coupler head.

1,256,779. STEAM-GENERATING APPARATUS. JOHN F. DORNFELD, Chicago, Ill. Filed May 13, 1914. Serial No. 838,249. (Cl. 122—102.)



1. A steam generator comprising a horizontal flue boiler, a pair of water legs depending from opposite ends thereof, water-tubes connecting said water legs, a furnace including a grate, an arch above the same, there being a passage for products of combustion between the upper face of the arch and the lower end of one of the water legs, a beam spanning the side walls of the furnace, and tension rods supporting one end of the boiler on said beam, the water leg at the other end of the boiler supported on the rear wall of the furnace.

2. A steam generator comprising a horizontal flue boiler, a pair of water legs depending from opposite ends thereof, water-tubes connecting said water legs, a plurality of flues in the forward water leg contiguous to the underside of the boiler, a furnace including a grate, an arch above the same, there being a passage for products of combustion between the upper face of the arch and the lower end of one of the water legs, a beam spanning the side walls of the furnace, and tension rods supporting one end of the boiler on said beam, the water leg at the other end of the boiler supported on the rear wall of the furnace.

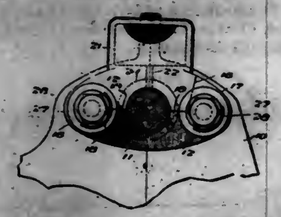
3. A steam generator comprising a horizontal flue boiler, a forward and a rear water leg depending therefrom, water-tubes connecting said water legs, a furnace including a grate beneath the forward end of the boiler, an arch above the grate and extending rearwardly beneath the forward water leg, the rear end of the boiler supported on the rear wall of the furnace, and tension means supporting the forward end of the boiler with the lower end of the forward water leg free of said arch and providing a passage therebetween for the products of combustion.

1,256,780. PACKING-GLAND. MARTIN A. ENGER, Willmar, Minn., assignor of one-half to Russell Spicer, Willmar, Minn. Filed May 18, 1916. Serial No. 98,346. (Cl. 137—117.)

1. A packing gland comprising two parts, each part having a pair of offset ears, the opposed surfaces on said ears being inclined inwardly toward each other, surfaces adjacent said ears inclined outwardly from each other, the inclined surfaces on the ears of one member being adapted to engage the inclined surfaces adjacent the ears of the other member.

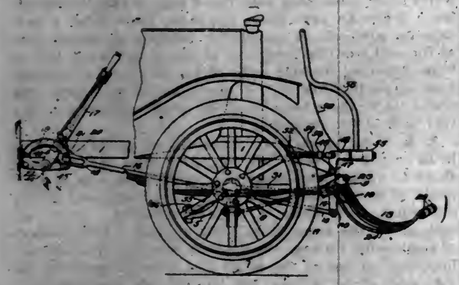
2. A packing gland composed of two parts, each part comprising a flange portion and a neck portion having a bearing surface, said flange portion being cut-away inter-

mediate its end to provide a pair of ears which are offset from each other, the opposed surfaces of said ears being inclined toward each other, and surfaces on said flange portions adjacent said ears inclined outwardly from each other, the ears on corresponding ends of the two parts when assembled being adapted to engage on opposite sides of each other with the inclined surfaces of the ears engaging the inclined surfaces adjacent the ears.



3. A packing gland consisting of two parts, each part having two ears in staggered or offset relation, opposed surfaces on said ears inclined toward each other, inclined surfaces adjacent said ears inclined from each other, the inclined surfaces on the ears of one part being adapted to engage the inclined surfaces adjacent the ears of the other part, a groove in the bearing surfaces of said members, and an oil box in one of the parts.

1,256,781. FENDER. MILLARD F. FIELD, Winthrop, Mass. Filed July 12, 1916. Serial No. 108,938. (Cl. 105—33.)



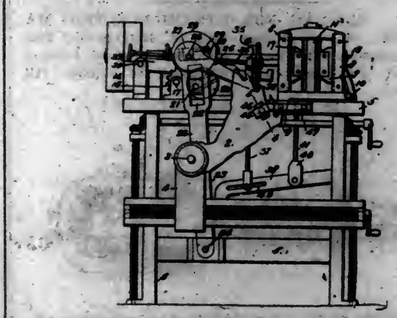
1. In a vehicle, the combination of a fender slidably supported by the front axle with provision for limited movement crosswise of the vehicle, and means connecting said fender with the steering apparatus for shifting said fender on its support when the vehicle is steered toward either side.

4. The combination of a vehicle; a fender mounted upon the front axle of said vehicle in front of the lower portion of the latter with provision for limited sidewise movement; means connecting said fender with the steering apparatus of the vehicle for shifting said fender sidewise when the vehicle is steered toward either side, and a fender mounted upon the frame of the vehicle in front of the upper portion of said vehicle comprising a transverse rail, an upright frame secured to said rail having a top cross-bar, and a transverse series of flexible bands secured at their upper ends to said top cross-bar and at their lower ends to said rail so as to form a seat.

[Claims 2 and 3 not printed in the Gazette.]

1,256,782. AUTOMATIC SAW-SHARPENER. JAMES G. FOSTER, Vancouver, British Columbia, Canada. Filed Apr. 3, 1917. Serial No. 159,403. (Cl. 76—41.)

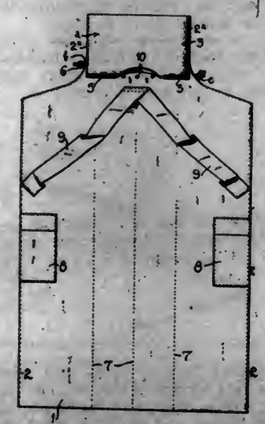
1. A saw sharpening machine, comprising the combination within a suitable frame, of means for supporting a saw blade thereon against lateral movement while permitting endwise movement in the line of the teeth, a grinding wheel rotatably mounted with its axis in the approximate plane of the saw blade the spindle of which wheel is susceptible of being raised and lowered in that plane, a first motion shaft, means for rotating the grinding wheel from the first motion shaft of the machine, a feed shaft driven at a reduced rate of speed from the first motion shaft, a second feed shaft driven at a variable speed from the first feed shaft, and means for feeding the saw tooth by tooth to the emery wheel from the variable feed shaft and for simultaneously raising and lowering the emery wheel operative from the shaft.



5. A saw sharpening machine, comprising the combination within a suitable frame, of means for supporting a saw blade thereon against lateral movement while permitting endwise movement in the line of the teeth, a grinding wheel rotatably mounted with its axis in the approximate plane of the saw blade, the spindle of which wheel is susceptible of being raised and lowered in that plane, a first motion shaft means for rotating the grinding wheel from the first motion shaft of the machine, a feed shaft at right angles to the first motion shaft and driven at a reduced rate of speed therefrom, a crank having an adjustable throw secured on the feed shaft, means for connecting the pin of the crank to a gullet of the saw teeth to feed the saw tooth by tooth under the grinding wheel, an eccentric cam secured on the feed shaft, a lever fulcrumed to the frame of the machine and horizontally disposed to bear on the upper side of the cam, a second lever fulcrumed to the machine, means adjustable on the end of the first mentioned lever for connecting it to said second lever, and means for adjustably connecting said second lever to raise and lower the grinding wheel spindle.

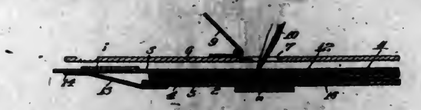
[Claims 2 to 4 not printed in the Gazette.]

1,256,783. MAT. ROBERT L. FULLER, Reno, Nev. Filed Nov. 25, 1916. Serial No. 133,510. (Cl. 5—3.)



As a new article of manufacture, an elongated mat, a strap secured at its end portions to the longitudinal margins of the mat at a point inwardly of an end thereof, the central portion of the strap being secured to the mat at a point in advance of the secured end portions of the strap to afford a pair of diverging loops through which the arms of a person are adapted to be inserted.

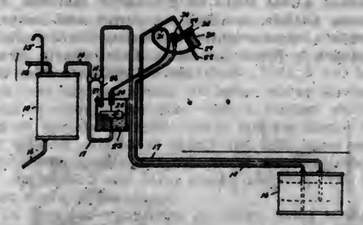
1,256,784. MARKING PHOTOGRAPHIC MATERIAL. HENRY J. GAISMAN, New York, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed July 22, 1916. Serial No. 110,761. (Cl. 95—9.)



1. As a new article of manufacture, a photographically sensitized element associated with a protective covering the latter embodying an adherent light obstructing medium thereon capable of being rendered locally light permeable by the stroke of a stylus against the backing, and a translucent layer adhering to and covering the outer surface of the said medium and disposed between it and the sensitized element, the elements of the protective covering constituting a unitary structure.

2. As a new article of manufacture, a photographically sensitized element associated with a protective covering the latter embodying a light obstructing adherent coating thereon, said coating being capable of being rendered locally light permeable by the stroke of a stylus against the covering, and a confining coating of lacquer on the outer surface of the carbon coating disposed between the latter and the sensitive element, the several elements of the protective covering constituting a unitary structure.

1,256,785. FUEL-SUPPLY SYSTEM. DON L. GALUSHA, Winchester, Mass. Filed May 17, 1917. Serial No. 169,220. (Cl. 158—36.)



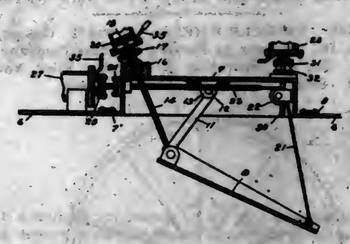
1. In a fuel supply system a source of fuel, a place of fuel delivery, two pipes extended between said source and place of delivery and arranged for the normal simultaneous flow of fuel therethrough and means for automatically indicating the cessation of fuel flow in one of said pipes.

[Claims 2 to 11 not printed in the Gazette.]

1,256,786. SHIP-BRAKE. PRESTON E. GATCHELL, Buckley, Wash. Filed Nov. 27, 1916. Serial No. 133,806. (Cl. 114—145.)

1. A ship brake, comprising a housing provided in the side of a ship, links pivoted at their forward ends to said housing, a brake door having its rear edge pivotally secured to the rear ends of said links, means for supporting the front end of said door in an open or a closed position, and means for holding the rear end of said door and permitting said rear end to be moved outwardly to facilitate the closing of said door.

3. In a ship brake the combination with a housing provided in the side of a ship, of links pivoted at their forward ends to said housing, a brake door having its rear end pivoted to the rear end of said links whereby the rear end of said door will be permitted to swing outwardly on a radius formed by said links, a cable secured to the forward end of said door to hold said door in open or closed position, means for moving said door outwardly a slight distance from the closed position, a piston rod pivotally secured to the rear end of said door and extending inwardly through the wall of said housing, a pneumatic cylinder having a piston connected with said piston rod, and a ball and socket joint for securing said pneumatic cylinder to said housing to permit said pneumatic cylinder to assume various angular positions.



5. The combination with a water tight recess formed from the outer hull of a ship, of a door adapted to fit within and close said recess, said door being flush with the outer side of the hull when closed, links pivoted to the rear edge of said door and to the wall of said recess, a pulley in the front end of said recess, a power actuated piston rod extending through the rear wall of said recess, a cable secured to said piston rod thence passing over said pulley and secured to the front edge of said door, a piston to engage with and exert an outward pressure on the front edge of said door, a piston rod pivoted to the rear edge of said door, a ball and socket joint in the wall of said recess for said piston rod to pass through, and pneumatic means for actuating said piston rod.

[Claims 2 and 4 not printed in the Gazette.]

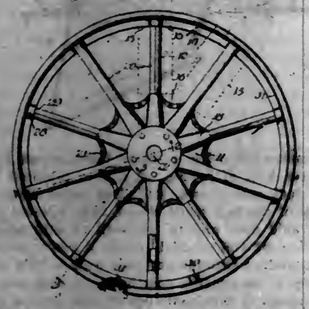
1,256,787. SAFETY-POCKET. WILLIAM P. GRANT, Salinas, Cal. Filed July 13, 1916. Serial No. 109,123. (Cl. 2—15.)



In a pocket, the combination of a safety device therefor, comprising a pair of flexible pieces, the upper edges of said pieces being looped over and stitched to said pocket adjacent the mouth thereof, said pieces being of substantially the same length as the entrance to the pocket adjacent their upper edges, said pieces having their side edges converging toward the lower edges thereof, said pieces being stitched along their side edges from points adjacent their upper edges of said pieces to points

adjacent the center thereof, whereby the lower portions of said pieces and portions adjacent the side tapered edges will be free to open, a wire frame formed of a single strand of wire and being bent to form resilient jaws, the side portions of said jaws diverging toward their upper portions, the free side edges of said pieces being looped around said jaws and stitched upon themselves for providing an even inner surface between said jaws, said jaws being of substantially the same size so as to be in direct alinement with each other when in a normal condition, thus forming a tight closure for the free portion of said pieces although allowing the wearer to insert a hand for urging the jaws apart and permitting access within said safety device when desired.

1,256,788. VEHICLE-WHEEL. LEWIS T. GREIST, Chicago, Ill., assignor to Forsyth Brothers Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 28, 1913. Serial No. 803,461. (Cl. 21—69.)



1. A pressed metal wheel composed of similar halves each including a hub portion and spoke members bent to tubular form, the alternate spokes of one-half respectively enveloping and being enveloped by the corresponding alternate spokes of the other half, substantially as described.

2. A pressed metal wheel composed of similar halves each including a hub portion and spoke members formed integral therewith and bent to tubular form, the alternate spokes of one-half respectively enveloping and being enveloped by the corresponding alternate spokes of the other half, substantially as described.

3. A pressed metal wheel composed of similar halves each including a hub portion, a peripheral web, and spokes formed integral therewith and bent to tubular form, the alternate spokes of one-half respectively enveloping and being enveloped by the corresponding alternate spokes of the other half, substantially as described.

4. A pressed metal wheel composed of similar halves each including a hub portion, a peripheral web, and spokes formed integral therewith and bent to tubular form, the alternate spokes of one-half respectively enveloping and being enveloped by the corresponding alternate spokes of the other half, the line of juncture between the edges of the inner and outer spokes being diametrically opposed, substantially as described.

5. A pressed metal wheel comprising two similar halves of sheet metal each consisting of a centrally apertured disk with radial ribs, and tubular spokes extending outwardly from the disk as continuations of the ribs, the alternate tubular spokes of one-half respectively closely fitting within and without the alternate corresponding spokes of the other half, substantially as described.

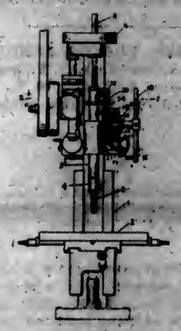
[Claims 6 to 15 not printed in the Gazette.]

1,256,789. PROCESS OF TANNING HIDES AND SKINS. LEWIS T. HALL and FRANK TUTTLE, Houston Heights, Tex.; said Tuttle assignor to said Hall. Filed Mar. 25, 1916. Serial No. 86,000. (Cl. 149—4.)

1. The process of tanning hides and the like consisting of submerging the same in an infusion of tillandsia.

2. The process of tanning hides and the like consisting of submerging the same into water infused with tillandsia.

1,256,790. DRILLING-MACHINE. GEORGE B. HALLENBECK, Toledo, Ohio, assignor to Baker Brothers, Toledo, Ohio, a Firm. Filed Sept. 12, 1914. Serial No. 861,353. (Cl. 77—38.)

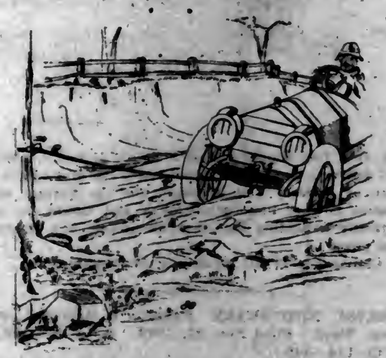


1. A machine tool, a driving member for feeding the tool, and feed determining means for the tool including a graduated member, a pointer therefor, each having adjustable means for locking to the driving member in different positions as to the driving member and each other for disclosing tool travel distance, a trip device for disconnecting the driving member from actuating the tool, and an independently adjustable means for timing the throw off of the trip device.

7. A machine tool rotary holder, a reciprocable sleeve for feeding said holder, a rotary driving member for actuating the sleeve, graduated means coacting with the driving member for predetermining the distance of travel of the sleeve, and an abutment mounted on the sleeve and adjusted as determined by the means to automatically throw out the driving member.

[Claims 2 to 6 and 8 not printed in the Gazette.]

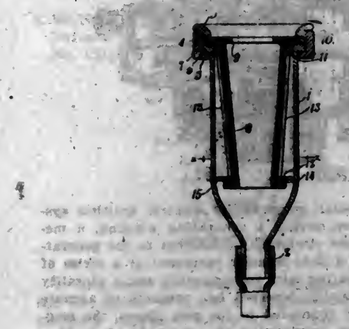
1,256,791. AUTO PULL-OUT. LOUIS HAMMER, Olds, Alberta, Canada, assignor, by direct and mesne assignments, of one-eighth to Absalom Clark Bury and one-eighth to Frank L. Landon, Olds, Alberta, Canada. Filed Oct. 3, 1917. Serial No. 194,564. (Cl. 254—166.)



1. In an automobile having a chassis frame and an engine provided with a crank shaft; a skeleton truss frame secured transversely to the chassis frame in front of the machine and having spaced front and back truss members, bearing brackets carried by said truss frame and located between the front and back truss members, a drum carrying shaft journaled in said bearing brackets transversely of the machine, said truss frame having a top bearing structure, a worm shaft journaled in bearings in said top bearing structure, a worm gear on said drum shaft meshing with the worm of said worm shaft, and means to couple said worm shaft to the engine shaft at will.

[Claim 2 not printed in the Gazette.]

1,256,792. TEAT-CUP. SAMUEL B. HARNER, near Xenia, Ohio. Filed Nov. 10, 1916. Serial No. 130,514. (31—102.)



1. In a teat cup, an outer casing having an opening to connect it with an air conduit, an inner casing of flexible material supported within said outer casing, rings encircling said inner casing near the upper and lower ends thereof, and members connected with said rings and extending lengthwise of said inner casing, said members being spaced apart to expose relatively large portions of the inner casing to the action of the air in said outer casing.

5. A teat cup comprising an outer casing having an opening to connect the same with a conduit, an inner casing of flexible material, and a device carried by said inner casing to hold the same in its extended position.

6. A teat cup comprising an outer casing having an opening to connect the same with a conduit, an inner casing of flexible material, and a device carried by said inner casing to space the same from said outer casing and to hold it in its extended position.

8. A teat cup comprising an outer casing having an opening to connect the same with a conduit, an inner casing of flexible material, and a spacing device interposed between said inner casing and said outer casing, said device having means at its lower end to engage said outer casing and said inner casing and hold the latter against lateral displacement.

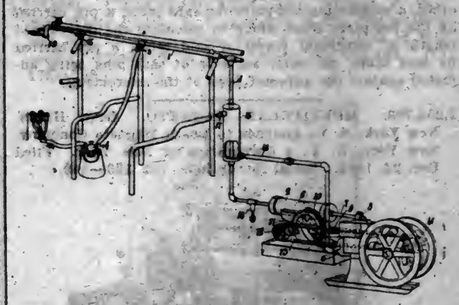
12. A teat cup comprising an outer casing having an opening at its lower end, an inner casing of flexible material having laterally extending flanges at its opposite ends, a spacing device comprising rings extending about said inner casing, and connecting members to connect said rings one to the other, the upper ring being of a width less than the width of the upper flange of said inner casing and the lower ring being of a width greater than the lower flange of said inner casing and having openings therein, said rings being arranged to engage the respective flanges whereby said device is carried by said inner casing and serves to retain the same in its proper position.

[Claims 2 to 4, 7, 9 to 11, and 13 not printed in the Gazette.]

1,256,793. MILKING APPARATUS. SAMUEL B. HARNER, near Xenia, Ohio. Filed Nov. 10, 1916. Serial No. 130,515. (Cl. 31—98.)

1. In a milking apparatus, an air pipe adapted to have milking devices connected therewith, an air pump to cause a movement of air in said pipe toward and from said milking devices, and means to maintain the air within said pipe in a dry sanitary condition.

4. In a milking apparatus, an air pipe adapted to have milking devices connected therewith, an air pump to intermittently create a suction within said pipe to operate said milking devices, and a heater connected with said pipe, to maintain the air in the pipe in a dry sanitary condition.



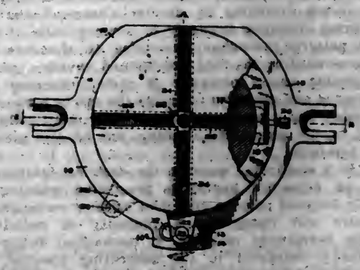
8. In a milking apparatus, an air pipe adapted to have milking devices connected therewith, an air pump to cause a movement of air from said milking devices toward said pipe, an engine to actuate said pump, a heating drum embracing said pipe, and an exhaust pipe leading from said engine to said drum.

9. In a milking apparatus, an air pipe adapted to have milking devices connected therewith, means to cause a circulation of air within said pipe including relief valves connected therewith, and means to heat the air within said pipe.

10. In a milking apparatus, an air pipe adapted to have milking devices connected therewith, an air pump connected with said pipe to operate said milking devices, means to heat said pipe, and valves to permit the ingress and egress of air to and from said pipe.

[Claims 2, 3, 5 to 7, and 11 not printed in the Gazette.]

1,256,794. DEVICE FOR POSITIONING TOOLS, &c., TO BE DRESSED. ARCHIBALD N. HANTON, Bedford, Ind. Filed Sept. 22, 1917. Serial No. 192,668. (Cl. 51—7.)



1. A device of the character described comprising a revoluble table provided in its top surface with a pair of grooves arranged at right angles with each other, a supporting bed-plate for said table, and means carried by said table for supporting the object to be acted upon.

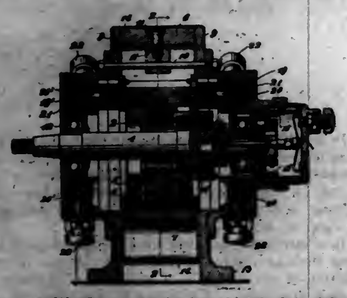
2. A device of the character described comprising a revoluble table provided in its top surface with a pair of grooves arranged at right angles with each other, a supporting bed-plate for said table, means for securing said table in determined positions, and means carried by said table for supporting the object to be acted upon.

3. A device of the character described comprising a revoluble table provided in its upper face with a pair of grooves arranged at right angles with each other, a depending pin arranged at a determined radius of the axis of said table, a supporting bed-plate for said table, and

a fixed pin arranged in said bed-plate, said fixed pin and depending pin marking the mean distance of adjustment of the table as determined by the micrometer.

4. A device of the character described comprising a revoluble table for moving the object acted upon into a determined angle, said table being provided in its surface with a pair of grooves arranged at right angles with each other, a supporting bed-plate for said table, a pin carried by the bed-plate from which to calculate the determined length of rotational travel of said table, a pin carried by said table, the outer surfaces of said pins being adjusted against the adjacent jaws of the micrometer.

1,256,795. MULTIPOLAR MAGNETO. OTTO HEINS, New York, N. Y., assignor to Bosch Magneto Company, New York, N. Y., a Corporation of New York. Filed Dec. 24, 1915. Serial No. 68,505. (Cl. 123—149.)



1. In a multipolar magneto for electrical ignition systems, a ring field member composed of a continuous series of alternately-reversed permanent magnets of U-form with their arms extending inwardly to common poles of alternating polarity throughout the series, an armature member having a generating winding and a plurality of outwardly-projecting poles constructed and arranged to bridge the spaces between the field poles, and a mechanical interrupter electrically connected to the generating winding, one of said members being rotatable.

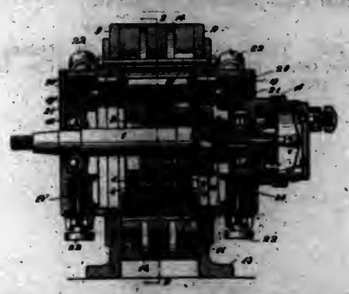
2. In a multipolar magnet for electrical ignition systems, a ring field member composed of a continuous series of alternately-reversed permanent magnets of U-form with their arches extending in circular alinement and with their arms extending inwardly to common poles of alternating polarity throughout the series, an armature member surrounded by the field member and having a generating winding and a plurality of radially-disposed poles constructed and arranged to bridge the spaces between the field poles, and a mechanical interrupter electrically connected to the generating winding, one of said members being rotatable.

13. In a multipolar magneto for electrical ignition systems, an armature having a generating winding and radially-disposed poles, a ring field member embracing the armature and comprising a plurality of radially-adjustable permanent magnets, a mechanical interrupter electrically connected to the generating winding, side plates fixed in relation to the axis of rotation of the magneto, and fastening means permitting radial adjustment of the magnets and clamping the magnets between the side plates in adjusted position.

14. In a multipolar magneto for electrical ignition systems, a rotatable armature having a generating winding and radially-disposed poles, a ring field member embracing the armature and comprising a plurality of permanent magnets of U-form, a mechanical interrupter electrically connected to the generating winding, stationary side plates, and fastening means comprising for each magnet an anchor block inside the arch of the magnet and connected thereto in radially-adjustable position by a screw, and also comprising a tie rod engaging the anchor block and clamping the side plates in radially-adjusted position against the opposite side faces of the magnets.

[Claims 3 to 12 not printed in the Gazette.]

1,256,796. MULTIPOLAR MAGNETO. OTTO HEINS, New York, N. Y., assignor to Bosch Magneto Company, New York, N. Y., a Corporation of New York. Filed Dec. 24, 1915. Serial No. 68,506. (Cl. 171—252.)



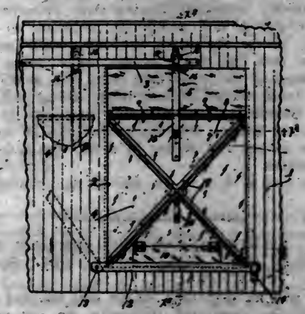
1. In a multipolar magneto for electric ignition systems, an armature having a generating winding, a mechanical interrupter electrically connected to the generating winding, and a field member composed of a series of pole pieces coöperating with the armature and a plurality of series of alternately-reversed bar magnets of arcuate form magnetically connected to the pole pieces, the magnets of one series overlapping the magnets of another series; substantially as and for the purpose described.

2. In a multipolar magneto for electric ignition systems, an armature having a generating winding, a mechanical interrupter electrically connected to the generating winding, and a field member composed of a series of pole pieces coöperating with the armature and a plurality of series of alternately-reversed bar magnets of arcuate form magnetically connected to the pole pieces, each magnet being connected to pole pieces separated from each other in the series by at least one other pole piece; substantially as and for the purpose described.

13. In a multipolar magneto for electric ignition systems, an armature, and a field member therefor having three series of alternately-reversed magnets of arcuate form wherein the magnets of each series overlap the magnets of the other two series, and six pole pieces extending across the magnets in coöperation with the armature, each of said pole pieces magnetically connecting the adjacent ends of the magnets of one series and being recessed between those ends and also being recessed opposite the magnets of the remaining series so as to be magnetically insulated therefrom.

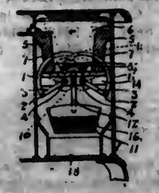
[Claims 3 to 12 not printed in the Gazette.]

1,256,797. CAR-DOOR. AMANDUS M. HEMBERG, Minneapolis, Minn. Filed Apr. 17, 1915. Serial No. 22,036. (Cl. 20—31.)



The combination with a car body having a door opening, of a car door having a rigidly and permanently connected body portion that is wider than said door opening and is seated at its side edges against the inner face of the door frame with freedom for inward lateral swinging movement, a track extended above said door opening along the outer side of the car body, a traveler movable on said track, and a flexible hanger suspending said door from said traveler with freedom for lateral and angular swinging movements in respect to said car body, so that the said door may be moved through said door opening when turned at an angle thereto.

1,256,798. STOVE OR FURNACE. HYMAN HERMAN, Toronto, Ontario, Canada. Filed Oct. 6, 1916. Serial No. 124,179. (Cl. 126—161.)

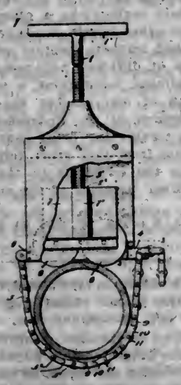


1. In a stove or furnace, the combination with the firebox and grates, of a pair of supplementary grate members pivotally supported below the firebox and having upwardly curved fingers adapted to be projected inwardly from each side of the firebox above the grates, and means for operating said supplementary grate members in unison and independent of said grates.

2. A stove or furnace having the firebox formed with perforations in the side walls, shaking grates closing the bottom of the firebox, supplementary grates pivotally supported below the firebox at each side and having upwardly curved fingers adapted to be projected through said perforations into the firebox above the grates to support the fire during the operation of the grates, means for operating said supplementary grates independent of the shaking grates to move inwardly and outwardly in unison.

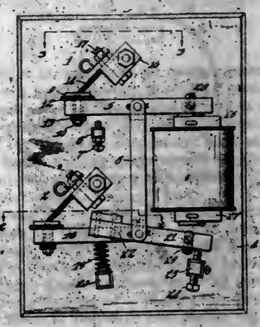
[Claims 3 and 4 not printed in the Gazette.]

1,256,799. PIPE-CUTTER. CLINT T. HIMS, Hindes, Tex. Filed Mar. 27, 1917. Serial No. 157,778. (Cl. 81—192.)



A pipe cutter comprising a frame consisting of a pair of side pieces connected at the top thereof, cutters mounted between the side pieces, blocks arranged between the side pieces, and a flexible chain provided with lateral projecting pins, said chain adapted to have one end pivotally connected to one of the blocks, the other block having a vertical slot therethrough and a recess in the upper edge of the outer wall of the block, said recess forming shoulders, and the opposite end of said chain arranged to pass through the slot and recess to facilitate the pins thereof engaging the shoulders of the recess for locking the chain around a pipe.

1,256,800. CIRCUIT-CONTROLLER. ALBERT J. HORTON, White Plains, N. Y., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Feb. 5, 1912. Serial No. 675,496. (Cl. 175—336.)



1. In a circuit controlling device, in combination, coöperating switch contacts, operating members for certain of said contacts mounted substantially in parallelism, one of said operating members being magnetic and biased to open circuit position, the other operating member being biased to closed circuit position, a magnetic member substantially parallel with said last mentioned member and having a lug for imparting a hammer blow thereto, a magnetic support substantially at right angles to said parallel members, said members being pivoted to said support and electromagnetic means for actuating said magnetic members.

2. In a circuit controlling device, in combination, an electromagnetic winding, a magnetic support mounted in parallel relation with the axis thereof, coöperating pairs of switch contacts, substantially parallel operating members for certain of said contacts pivoted upon opposite ends of said support at right angles thereto, one of said members being magnetic and biased to open circuit position, the other operating member being biased to closed circuit position, a magnetic member pivoted concentrically with said last mentioned operating member substantially parallel therewith and having a lug spaced from said operating member to impart a hammer blow thereto upon movement of the former, said pivoted magnetic members projecting upon opposite ends of said winding for selective actuation thereby under predetermined electrical conditions.

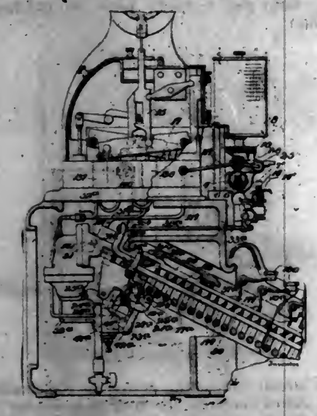
1,256,801. TYPOGRAPHIC COMPOSING-MACHINE. MAURITS C. INDAHL, Philadelphia, Pa., assignor to Lanston Monotype Machine Company, Philadelphia, Pa., a Corporation of Virginia. Filed Aug. 4, 1916. Serial No. 113,178. (Cl. 164—112.)

1. A typographic composing machine embodying a repeat mechanism, an automatic justification indicating mechanism and means for automatically rendering the justification indicating mechanism inactive while the repeat mechanism is in operation.

8. In a typographic composing machine including key controlled signal producing mechanism, a repeat mechanism, automatic justification indicating mechanism comprising an indicator and a motor for operating the same, and in combination therewith, means operated by said repeat mechanism for rendering said motor inactive.

14. In a typographic composing machine including key controlled signal producing and line measuring mecha-

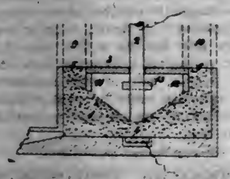
sions, automatic justification indicating mechanism comprising an abutment slide adapted to be advanced by said line measuring mechanism, an air pressure motor for returning said abutment slide, an indicator and an air pressure motor for operating said indicator to a position determined by said abutment slide, a repeat mechanism comprising an air pressure motor, a latch device for controlling the operation of said repeat motor, a repeat key and means operated by said repeat key for operat-



ing said latch device, and in combination therewith a valved conduit connecting both said abutment slide return motor and said justification indicating mechanism motor with a source of air under pressure, said valve being controlled by said latch device, whereby when said latch device is operated by the repeat key both said abutment slide return motor and said justification indicating mechanism motor are relieved of air under pressure.

[Claims 2 to 7 and 9 to 13 not printed in the Gazette.]

1,256,802. PROCESS OF EXTRACTING ZINC FROM ITS ORES. EDVIN ANDREAS JOHANSSON, Trollhättan, Sweden, assignor to Société Anonyme Metallurgique Procedes De Laval, Brussels, Belgium. Filed Mar. 22, 1912. Serial No. 685,528. (Cl. 204—63.)
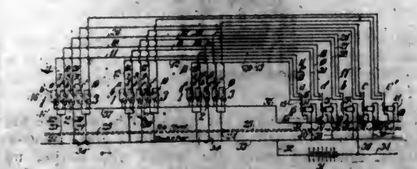


The method of extracting zinc from its ores, which consists in introducing into an electric resistance furnace a charge containing sufficient carbon to combine with the oxygen of the ore to form carbon monoxid, passing an electric current through a portion of said ore to produce various degrees of heat in different parts of said ore, causing the carbon dioxid formed in the cooler parts of the charge to successively penetrate the hotter parts of the ore whereby the remaining unaltered carbon will reduce it to carbon monoxid.

1,256,803. METHOD OF FILLING IN HOLLOW CAVITIES IN TILES. GEORGE KAUPERT, Chicago, Ill. Filed Jan. 29, 1916. Serial No. 74,979. (Cl. 25—126.)

1. The herein described process of forming end walls in the open mouths or cavities customarily found in hollow building tile which consists in placing a quantity of mortar or cement while still in the plastic condition upon a flat hard surface, then forcing the tile downwardly through said plastic substance until the edges of the walls of the tile strike said hard flat surface, whereby the plastic substance enters the open mouth of said tile and forms a wall which is flush with the edges of the tile, and, finally, supporting said tile until the plastic substance aforesaid hardens and sets, adhering to the inner surfaces of the walls of the tile.

[Claim 2 printed in the Gazette.]

1,256,804. MAGNET-GROUPING DEVICE FOR ELECTRICAL MUSICAL INSTRUMENTS. JOHN F. KELLY, Pittsfield, Mass. Continuation of application Serial No. 722,118, filed Sept. 24, 1912. This application filed June 4, 1914. Serial No. 842,989. (Cl. 84—176.)



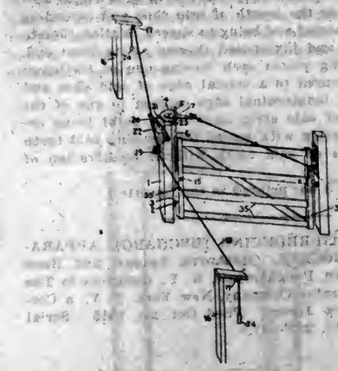
5. In an electrically operated musical intrument, the combination, of electro-magnets, armatures therefor, connecting means between the armatures and the tone producing devices for operating the tone-producing devices, a source of electrical energy, connections from the terminals of the magnets to the terminals of the source of energy, a circuit closing device in each of said connections, means for operating said closing device in each connection, and means operated by the electro-magnets for maintaining the circuit closing devices in said connections closed during the periods which correspond with the notes of different length, as described.

19. An electrically-operated musical instrument comprising in combination, a source of electrical energy, operating magnets, connections from one of the terminals of each of said magnets to a terminal of the source of electrical energy for grouping the same together which operate tone-sounding devices of the same note-name, circuit closers in said connections, a plurality of said magnets having their other terminals connected for grouping said last mentioned magnets together which operate tone-sounding devices of different note-name, circuit closers in said last mentioned connections, a tracker bar having terminals therein of less number than the number of tone-sounding devices of the instrument, some of said terminals in the tracker bar being connected to the connections extending from said other terminals, and other connections from the terminals in the tracker bar extending to the other terminal of the source of electrical energy.

[Claims 1 to 4, 6 to 18, 20, and 21 not printed in the Gazette.]

1,256,805. GATE AND GATE-FASTENING. EDRICK N. KIGER, Plummer, Idaho. Filed Aug. 7, 1916. Serial No. 113,517. (Cl. 39—56.)

A gate operating mechanism comprising, in combination, a post, a gate hinged thereto adjacent its lower end, for opening and closing movement in two directions with respect to the post, a rotatable toothed support carried by the upper end of the post, a rod carried by the gate and extending through the support eccentrically to its center of rotation, a rotatable toothed plate carried by the post and arranged with its teeth in mesh with the teeth of the support, an arm fixed to said plate and extending laterally from either side thereof, a drum carried by the post, controlling elements passing over said drum and connected to the arm, said drum being arranged in vertical alinement with and spaced from the



center of rotation of the plate, and means for supporting the controlling elements in operative positions at points remote from the gate.

1,256,806. MANUFACTURE OF PRINTERS' LEADS, RULES, &c. AMOS L. KNIGHT, Philadelphia, Pa., assignor to Lanston Monotype Machine Company, Philadelphia, Pa., a Corporation of Virginia. Filed July 27, 1916. Serial No. 111,741. (Cl. 199—1.)



1. The improvement in the art of casting printers' leads, rules, etc., in successive increments fused together at their proximate edges, which consists in initially forming each increment of greater height at one of said edges than at the other, whereby the contraction of the metal in freezing and cooling will bring the top edges of the increments into alinement with each other and produce a strip of uniform height.

2. The improvement in the art of casting printers' leads, rules, etc., in successive increments fused together at their proximate edges, which consists in initially forming each increment of greater height at its rear edge, than at its forward edge, where it joins the preceding increment, whereby the contraction of the metal in freezing and cooling will produce a strip of uniform height.

4. In an apparatus for casting printers' leads, rules, etc., in successive increments fused together at their proximate edges, the combination of the following instrumentalities, to wit, a mold having a cavity open at one side, a mold blade mounted to reciprocate in said cavity with means for holding a previously cast increment in position to close the open side and form one wall of the mold cavity and a matrix forming one wall of said mold cavity having a matrix cavity therein graduated in depth in accordance with the shrinkage of the metal in freezing.

6. A matrix for forming printers' leads, rules, etc., of successive increments fused together at their proximate edges formed with a matrix cavity therein the top wall of which is of gradually diminishing depth toward the exit end of the cavity.

7. A matrix for casting printers' leads, rules, etc., in successive increments fused together at their proximate edges having a matrix cavity therein the top wall of which is of gradually diminishing depth toward the exit end, and with a flaring discharge extension.

[Claims 3 and 5 not printed in the Gazette.]

1,256,807. MOLD FOR CASTING ELEMENTS OF PRINTING-FORMS. AMOS L. KNIGHT, Philadelphia, Pa., assignor to Lanston Monotype Machine Company, Philadelphia, Pa., a Corporation of Virginia. Original application filed Oct. 3, 1914, Serial No. 864,894. Divided and this application filed Sept. 18, 1916. Serial No. 120,821. (Cl. 199—93.)



1. A mold blade for machines for casting printers' leads and rules having its front edge shaped to form one wall of the mold cavity and having means in rear of said front edge for coöperation with a driving connection and also having means for the direct attachment of a gate pusher whereby the blade will be reciprocated by the driving connection and the gate pusher will be moved by and in unison with the blade.

2. A mold blade for machines for casting printers' leads and rules having its front edge shaped to form one wall of the mold cavity and having in rear of said edge two apertures, one a circular aperture for the journal connection of the driving mechanism and the other a rectangular aperture for the reception of a rectangular projection on a gate pusher whereby the blade and pusher will be moved in unison.

3. A thin, flat mold blade for printers' lead and rule casting machines having plane side faces for contact with the faces of the mold cavity and having its forward edge shaped to form one wall of the mold cavity the face of said edge having its upper portion extended rearwardly of the lower portion whereby a mold cavity of irregular contour will be formed to facilitate the union of successive castings.

4. A mold for printers' lead and rule casting machines, embodying the following instrumentalities, to-wit: side blocks between which the mold cavity is formed, a mold blade mounted to reciprocate between said blocks and forming one wall of the cavity, and a thin, flat filler blade of uniform thickness mounted in fixed position between the blocks above the mold blade and forming an edge wall of said cavity.

5. A mold for printers' lead and rule casting machines, embodying side blocks between which the mold cavity is formed, a reciprocatory mold blade between and of less width than the height of the blocks, and a fixed blade of substantially uniform thickness throughout, projecting between the blocks over the mold blade and forming one wall of the cavity.

[Claims 6 and 7 not printed in the Gazette.]

1,256,808. MOLD FOR CASTING PRINTERS' LEADS AND THE LIKE. AMOS L. KNIGHT, Philadelphia, Pa., assignor to Lanston Monotype Machine Company, Philadelphia, Pa., a Corporation of Virginia. Filed June 5, 1917. Serial No. 172,937. (Cl. 199—55.)



1. A mold for printers' lead and rule casting machines, embodying the following instrumentalities, to-wit: blocks forming the bottom and side walls of the mold cavity, a mold blade of less height than and working between the side blocks, an interchangeable matrix mounted between the side blocks above the level of the mold blade to form the top wall of the mold cavity and means for closing the

mold cavity between the end of the matrix and mold blade and forming with the mold blade in the casting position thereof the end wall of the mold cavity, whereby a mold blade of fixed height may be used with interchangeable matrices of different height.

2. A mold for printers' lead and rule casting machines, embodying the following instrumentalities, to-wit: side blocks between which the mold cavity is formed, a base block, a mold blade mounted to reciprocate between said side blocks, and in contact with said base block and a matrix having a cast receiving portion and a mold blade engaging portion, the latter lying between said side blocks and extending inwardly of the mold beyond said cast receiving portion.

3. A mold for printers' lead and rule casting machines, embodying the following instrumentalities, to-wit: side blocks between which the mold cavity is formed, a base block, a mold blade of less height than the element to be cast, said blade being mounted to reciprocate between said side blocks, and in contact with said base block, and an exchangeable matrix having a rearward portion extending between said side blocks into contact with said blade and a forward cast receiving portion located during the casting operation at a distance from the base block equal to the height of the element being cast.

4. A mold for printers' lead and rule casting machines, embodying the following instrumentalities, to-wit: side blocks between which the mold cavity is formed, a base block, a mold blade mounted upon said base block and between said side blocks and provided with a forward end substantially perpendicular to said base block, said blade being adapted to move intermittently forwardly to eject cast metal from the mold and rearwardly to casting position to form the mold cavity, and a matrix having stepped inner surfaces, the forward step being adapted to receive the metal to be cast, the rearward step extending between said side blocks inwardly beyond said forward step to contact with said mold blade and the surface connecting said steps constituting a continuation of the forward end of the mold blade in said casting position of the latter.

7. A filler blade for printers' lead and rule casting machines, comprising a body portion having a thickness equal to the point size of the material to be cast, one edge of said body portion being provided with stepped surfaces, one of which surfaces is adapted to slidably engage with the mold blade and the other to form a wall of the mold cavity, the body portion being provided on the side opposite said surfaces with overhanging extensions for coöperation with the filler blade support.

[Claims 5 and 6 not printed in the Gazette.]

1,256,809. DETACHABLE RAKE-TOOTH POINT. WILLIAM F. KOCH, Hillside, Colo. Filed Feb. 9, 1915. Serial No. 7,064. (Cl. 56—69.)

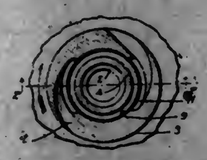


1. A rake tooth point comprising a body portion formed of sheet metal, tapered to a point at one end and said tapered portion being curved to form an arcuate ground engaging face, soil plates each having one of their longitudinal edges fixed to said body portion to extend longitudinally with respect thereto, said soil plates being concaved longitudinally, and a strip to connect the other longitudinal edges of said soil plates so as to provide a cutting edge, as and for the purpose specified.

4. In a detachable tooth point for a hay sweep having teeth of ordinary construction, a longitudinally and laterally curved shoe or runner, a flat strip of a length substantially equal to the length of said shoe and extending longitudinally thereof and being in spaced relation thereto at the rear end and juxtaposed thereto at its front end, and soil-displacing plates each having one of its longitudinal edges secured to a lateral edge of said shoe and having its other longitudinal edge secured to one of the major surfaces of said strip, said tooth point being designed for connection with means for securing said tooth point in position on said tooth without modification of the latter.

[Claims 2 and 3 not printed in the Gazette.]

1,256,810. FROTH-REDUCING DISCHARGE APPARATUS AND PROCESS. MEREDITH LEITCH and BERT ROBERT WRIGHT, Poughkeepsie, N. Y., assignors to The De Laval Separator Company, New York, N. Y., a Corporation of New Jersey. Filed Oct. 29, 1915. Serial No. 58,555. (Cl. 233—47.)



1. The process of reducing froth formation in the discharge of the liquid from high speed centrifugal apparatus having an overflow discharge, which consists in propelling the liquid in an outwardly and rearwardly extending direction from the overflow point of the apparatus, and simultaneously reshaping the usual thin flat stream to a relatively thicker stream without reducing the cross sectional area, whereby the velocity of the discharge stream and its exposed surface are both reduced.

8. The process of reducing froth formation in the discharge of liquid from high speed centrifugal apparatus which comprises propelling the liquid in the form of thin sheets to the discharge passages, thence in outwardly extending converging discharge streams and finally discharging the liquid in relatively thicker independent streams; substantially as described.

5. A liquid centrifugal apparatus provided with a plurality of relatively long discharge weirs, and, leading from each weir, an outwardly extending discharge passage converging in one direction proportioned and arranged to discharge the liquid therefrom in solid streams thicker than at the weir and without increase in nozzle velocity; substantially as described.

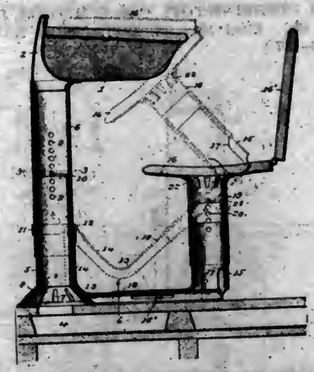
9. A liquid centrifugal apparatus, provided with a discharge-controlling weir over which the liquid passes in thin ribbon-like stream, and provided further with a rearwardly-curved discharge passage leading from said weir anad so proportioned and arranged as to gather said ribbon-like stream into a relatively thick stream of diminished periphery; substantially as described.

[Claims 2, 4, 6 to 8, and 10 not printed in the Gazette.]

1,256,811. SCHOOL DESK AND SEAT. EDWARD M. MCNAMARA, Chicago, Ill. Filed May 13, 1916. Serial No. 97,281. (Cl. 156—24.)

1. In a combined school desk and seat, the combination of a desk supporting pedestal comprising upper and lower sections connected together for turning adjustment in a horisontal plane, a desk body mounted on the horisontally adjustable section of said pedestal, and a seat connected to and turning with said horisontally adjustable pedestal section, substantially as set forth.

2. In a combined school desk and seat, the combination of a desk body, a pedestal supporting the same and comprising a pair of cylindrical shells or sections connected together for a turning adjustment in a horisontal plane, a seat provided with a cylindrical section on its underside, and a connecting frame connected to the upper section of the desk pedestal and provided with a vertical portion adapted to fit the cylindrical section of the seat, the said vertical portion of the connecting frame and the lower section of the desk pedestal having equal diameters, substantially as set forth.

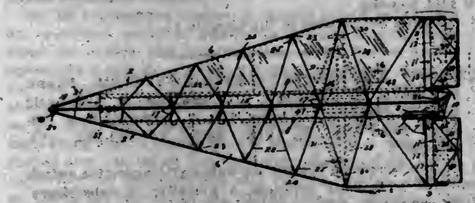


3. In a combined school desk and seat, the combination of a desk body, a pedestal supporting the same, and comprising a pair of cylindrical shells or sections connected together for adjustments in vertical and horisontal planes, means for securing the pedestal sections at their vertical adjustment, a seat provided with a cylindrical section on its underside, and a connecting frame connected to the upper section of the desk pedestal and provided with a vertical portion adapted to fit the cylindrical section of the seat, the said vertical portion of the connecting frame and the lower section of the desk pedestal having equal diameters, substantially as set forth.

4. In a combined school desk and seat, the combination of a desk body, a pedestal supporting said desk body and comprising an upper section and a lower section connected together for a turning adjustment in a horisontal plane, a seat, and a U shaped yoke pivotally connecting said seat to the upper section of said pedestal, substantially as set forth.

5. In a combined school desk and seat, the combination of a desk body, a pedestal supporting said desk body and comprising an upper and a lower section detachably connected together, a U shape yoke secured in a vertically adjustable manner to the upper section of said pedestal and formed with a vertical portion for the attachment of a seat, and a seat removably associated with said vertical yoke portion, the said vertical portion of the yoke and the lower section of the pedestal being of a similar formation, substantially as set forth.

1,256,812. AEROPLANE. JOSEPH MADER, Minneapolis, Minn., assignor of one-third to Merritt Brandon, Minneapolis, Minn. Filed Aug. 17, 1916. Serial No. 115,405. (Cl. 244—14.)



1. An aeroplane having a plane comprising a trussed backbone member and wings hinged directly thereto for vertical folding movement, means for holding the wings spread, landing wheels foldably secured to the trusswork for the backbone member, and a motor secured to said trusswork, said motor and landing wheels when folded arranged to be incased by the plane when its wings are folded.

4. An aeroplane having a backbone member and wings foldably secured thereto, upper and lower longitudinal truss rods, struts connecting the truss rods to the backbone member, and means for securing the wings spread.

14. An aeroplane having a backbone member and wings with forwardly tapered portions hinged thereto for vertical folding movement, means for holding the wings spread, a lower longitudinal truss rod having an upwardly inclined forward end portion, and struts connecting the truss rod to the backbone member, the outer longitudinal edges of the forwardly tapered portions of the wings, when folded, being in substantially the same plane with the forwardly inclined portion of the truss rod.

[Claims 2, 3, 5 to 13, and 15 not printed in the Gazette.]

1,256,813. CONNECTING MEMBER FOR ELECTRICAL CONDUCTORS. HARRY T. MARTIN, Milwaukee, Wis. Filed Oct. 27, 1916. Serial No. 128,010. (Cl. 173—263.)

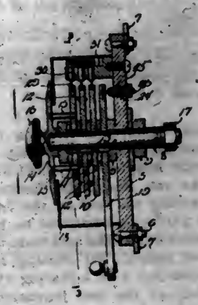


1. A connecting member for an insulated electrical conductor comprising a body of harder material than said conductor and including a tapered sleeve portion adapted to engage between the conductor and insulation, and threads on the interior of said sleeve portion adapted to cut threads in the conductor upon its insertion therein.

2. A connecting member for insulated electrical conductors comprising an elongated body of harder material than said conductor and recessed in its ends to provide sleeve portions adapted to receive the conductor, threads in said sleeve portions for cutting threads in the conductor upon its insertion therein, and an insulating block on the body adapted to abut the insulation of said conductors.

[Claim 3 not printed in the Gazette.]

1,256,814. PERMUTATION ELECTRIC SWITCH. SIGURD O. MATTISON, Eau Claire, Wis. Filed Dec. 4, 1916. Serial No. 134,898. (Cl. 175—282.)

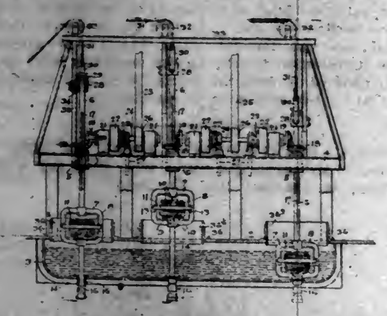


1. A permutation switch including a casing, permutation disks journaled in the casing upon a common shaft, abutting projections on certain of said disks, a handle extended from one of the disks, a contact strip in the rear face of said disk, co-acting contact members adapted for selective engagement with the said contact strip, contact strips carried by the peripheral edges of the other of said disks and adapted to be alined, and co-acting contact members engageable by said contact strips when alined whereby to complete a circuit.

2. A permutation switch including a casing having a non-conducting bed plate, a series of tumbler disks journaled in the casing upon a common shaft, a contact strip in the outer peripheral edge of each disk and adapted to be alined, a bracket arm projecting from the bed plates and formed of non-conducting material, a series of sleeves arranged in pairs and mounted in said bracket arm, one pair of sleeves being disposed over each disk transversely to the axis thereof, a spring urged plunger mounted in each sleeve and engaging the peripheries of their corresponding disk, said pairs of sleeves having each one connection with one sleeve of its adjacent pair whereby to form a continuous flow of current therethrough when the said contact strips are alined, and an independent disk journaled on said shaft and having means operable thereby to form a complete circuit together with said plungers substantially as described.

3. A permutation switch including a casing, a series of tumbler disks journaled therein, a handle continued from the disk adjacent the rear wall of the casing, a contact strip carried by the rear face of said disk and near the peripheral edge thereof, spring urged contact plungers carried by the rear wall of said casing and resiliently engaging the rear face of said disk adjacent thereto, said plunger being adapted to be selectively engaged by the contact strip of said adjacent disk, contact strips carried by the outer peripheral edge of the other of said disks, a series of connected pairs of spring urged contact plungers, said plungers each being engageable by the contact strip of its corresponding contact disk, and means for alining said contact strips whereby to complete a circuit substantially as described.

1,256,815. APPARATUS FOR PAINTING OR COATING WIRE. CHRISTOPHER J. MOGAN, Charlerol, Pa., assignor to Pittsburgh Steel Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Oct. 4, 1915. Serial No. 53,942. (Cl. 91—42.)



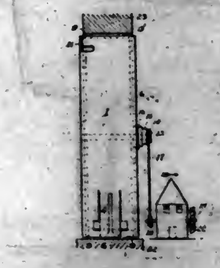
1. In a reel support for coating reels of wire or the like, the combination with a coating vat, of a rotary reel carrying frame adapted for vertical reciprocation into and out of the vat, said frame having a movable portion normally retaining the reel on the frame during rotation thereof, said portion adapted to be moved for the insertion and withdrawal of the reel from the frame.

3. In a reel support for coating reels of wire or the like, the combination with a coating vat, of a rotary frame for the support of the reel journaled in bearings above and beneath the vat, and adapted to reciprocate into and out of the vat, said frame having a pivoted guard member adapted to lie normally circumferentially of the reel to support the reel against lateral displacement on the frame, and adapted to be swung on its pivot for the insertion and withdrawal of the reel from the frame.

5. In a reel support for coating reels of wire or the like, the combination with a coating vat, of a reel support adapted to reciprocate into and out of the vat, said support comprising a vertically-disposed yoke frame mounted on bearings above and beneath the vat, and having a seat for the reception of the reel, and a horizontally-disposed guard pivoted to said frame for confining the reel to its seat, said guard adapted to be swung upwardly to permit the insertion and the withdrawal of the reel from the support.

[Claims 2 and 4 not printed in the Gazette.]

1,256,816. TURBINE TOY. CARL C. MULDNER, Jr., Maplewood, Mo. Filed May 28, 1917. Serial No. 171,415. (Cl. 46—37.)



1. A turbine toy comprising a flat metallic band rolled to form a circular housing having an open front and back, a clenchable fastening means for uniting the meeting ends of said circular housing, a pair of vertically disposed, opposed cross-braces spanning said housing, clenchable fastening means for uniting the ends of said cross-braces to said housing, a pair of laterally disposed supporting legs integral with the wall of said housing, a power shaft rotatably supported by means of said cross-braces, a drive pulley fixed to said shaft, a draft propelled power producing fan-wheel fixed to said shaft within said housing, and a belt driven by said pulley for operating auxiliary toys.

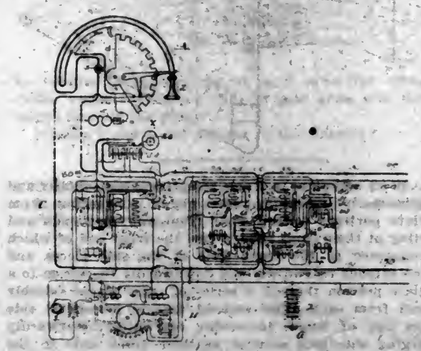
2. A turbine toy comprising a flat metallic band rolled to form a circular housing having an open front and back, clenchable fastening means for uniting the meeting ends of said circular housing, a pair of vertically disposed, opposed cross-braces spanning said housing, clenchable fastening means for uniting the ends of said cross-braces to said housing, a pair of laterally disposed supporting legs integral with the wall of said housing, a power shaft rotatably supported by means of said cross-braces, a drive pulley fixed to said shaft, a draft propelled power producing fan-wheel fixed to said shaft within said housing, a belt driven by said pulley for operating auxiliary toys, and a pair of supporting ears formed integral with said housing for hanging said housing in a suspended position in the path of a draft adapted to propel said fan-wheel.

3. A turbine toy comprising a flat metallic band rolled to form a circular housing, a pair of supporting legs stamped from the wall of said housing adapted to prevent rolling movement of said housing and support the same in an upright position, stiffening means for said housing, a power shaft rotatably supported within said housing, a cone pulley fixed to said shaft, a draft propelled power producing fan-wheel fixed to said shaft within said housing, and a pair of supporting ears stamped from the wall of said housing.

[Claim 4 not printed in the Gazette.]

1,256,817. AUTOMATIC TELEPHONE SYSTEM. FRANK NEWPORTH, Jr., Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 18, 1914. Serial No. 862,292. (Cl. 179—27.)

1. In a telephone system, an automatic connector switch provided with bank contacts, a plurality of subscribers' lines connected with certain of said contacts, a traffic trunk connected with other of said contacts, an operator's set adapted to be connected with said traffic trunk, a source of ringing current, means for automatically connecting said ringing current with said contacts when said connector establishes connection therewith, a relay in said connector, means for causing a continuous flow of current through said relay to energize the same when connection is made with a subscriber's line and said subscriber responds, means for energizing said relay only momentarily upon the response of the operator when connection is established with the traffic trunk, and means controlled by the energization of said relay for disconnecting the ringing current from said contacts.



2. In a telephone system, an automatic connector switch, a line with which said switch is adapted to make connection, a relay in said switch, a second relay bridged across said line and adapted to be connected in series with said first relay when said connector establishes connection with said line, said second relay being of high resistance to prevent energization of said first relay, a talking set adapted to be connected with said line, and means operated automatically when said talking set is connected with said line for short-circuiting said second relay to thereby cause the operation of said first relay.

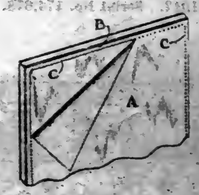
3. In a telephone system, an automatic connector switch, a line with which said switch is adapted to make connection, a relay in said switch, a second relay bridged across said line and adapted to be connected in series with said first relay when said connector establishes connection with said line, said second relay being of high resistance to prevent energization of said first relay, a talking set adapted to be connected with said line, and means operated automatically when said talking set is connected with said line for short-circuiting said second relay to thereby cause the operation of said first relay.

19. In a telephone system, a calling line, a called line, means for connecting the two, a signal for the called line, a source of ringing current controlled through the medium of said means for operating said signal, a source of current for supplying the calling line with current for talking, a relay controlled over the called line for reversing the current in the calling line and for again restoring it when the called subscriber answers to produce a signal in the receiver of the calling line, said relay also for cutting off the ringing current from the called line when the called subscriber answers.

20. In a telephone system, a calling line, a called line, an operator's position, means for extending connections from the calling line to either the called line or to the operator's position, a signal for the called line, a signal for the operator, a source of ringing current controlled through the medium of said means for operating said signals, a source of current for supplying talking current to the calling line, a signal for the calling line, a relay controlled over the called line upon the response of the called subscriber for disconnecting said ringing current, and for reversing the current in the calling line for operating the signal on the calling line in one manner, said relay also controlled by the response of the operator when a call is extended to the operator's position for disconnecting said ringing current and for reversing the current in the calling line only momentarily for operating the signal on the calling line in another manner.

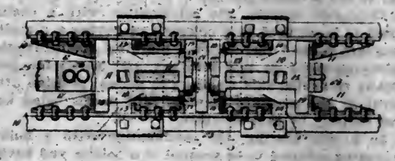
[Claims 4 to 18 not printed in the Gazette.]

1,256,818. PROTECTIVE COVERING FOR GLASS PANES. HERBERT J. NILE, Rough and Ready, Cal. Filed July 26, 1915. Serial No. 42,053. (Cl. 206—62.)



A package including a pane of glass, a sheet of paper of the dimensions of the pane of glass pasted on each face of said glass at the margins only, each of said sheets of paper being provided with perforations within the pasted margins to permit the unpasted portions of the paper sheets being readily removed after the glass has been secured in place.

1,256,819. TANDEM FRICTION-GEAR. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed July 13, 1916. Serial No. 109,007. (Cl. 213—64.)



1. In a draft rigging, the combination with two friction gears, each comprising a friction shell, friction shoes, and a wedge, said friction gears being arranged end to end with the wedges opposite each other, of a follower interposed between the wedges, said follower having recesses within which the wedges are seated to thereby maintain the friction mechanisms in proper alinement.

[Claim 2 not printed in the Gazette.]

1,256,820. DRAFT-YOKE FOR RAILWAY-CAR DRAFT-RIGGING. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed July 20, 1916. Serial No. 110,268. (Cl. 213—42.)



1. As an article of manufacture, a yoke comprising upper and lower arms integrally united at their rear ends, one of said arms being provided with a hood at its forward end, the forward end of the other arm being movably mounted within said hood and normally positioned in operative position, and means for moving the free end of the last named arm within the hood from said operating position.

3. In a draft yoke, the combination with a hollow hood within which is adapted to be received a draw bar butt,

of a pair of yoke arms associated with said hood, and screw means for separating the forward ends of said yoke arms to thereby permit the insertion of said draw bar butt.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,256,821. SIDE BEARING. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed June 14, 1917. Serial No. 174,678. (Cl. 64—65.)



1. In a side bearing, the combination with a member having bearing surfaces for a plurality of anti-friction members, of a plurality of anti-friction members movable from normal position when actuated, and means carried entirely by said anti-friction members adapted to automatically return the latter to normal position after removal of the pressure thereon.

3. In a side bearing, the combination with a casting adapted to be secured to a bolster and having a plurality of bearings formed therein, of a plurality of anti-friction members mounted on said bearings, and means for automatically returning said members to normal position after removal of the pressure thereon, said means being supported entirely by said members.

5. In a side bearing, the combination with a hollow base casting adapted to be secured to a bolster and having a pair of bearings in the bottom thereof, of a pair of rockers supported on said bearings, said rockers being centrally recessed, and a plate spring extending through said recesses, said spring being adapted to be flexed by the rockers as the latter are moved from normal position.

[Claims 2 and 4 not printed in the Gazette.]

1,256,822. BUCKLE. MICHAEL T. O'MALLEY and GEORGE MACH, New Hartford, N. Y. Filed Aug. 27, 1913. Serial No. 787,040. (Cl. 24—71.)



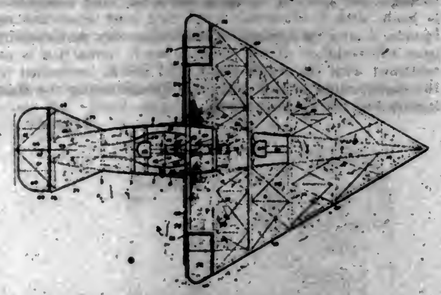
1. In a buckle, cross bars, a member swiveled to one of said cross bars, a tape having one end attached to said swiveled member, and said buckle adapted to be turned upon one of its cross bars as a fulcrum, whereby to detachably secure said tape to a roving can.

2. In a buckle having side bars and cross bars for the attachment of the ends of a tape, and said side bars being bent to conform with a cylindrical surface, whereby the turning of the buckle upon one of said cross bars as a fulcrum, will cause the overlapping of the ends of the tape and the locking of the same in given position.

4. In a buckle having cross bars, a reel mounted to one of said cross bars, a tape having one end fastened to said reel, whereby to adjust the length of said tape, and a ratchet and pawl for holding said reel from turning in one direction.

[Claim 3 not printed in the Gazette.]

1,256,823. AEROPLANE. CORNELIUS H. O'ROURKE, Hanford, Cal. Filed Sept. 19, 1917. Serial No. 192,045. (Cl. 244—14.)



1. In an aeroplane, a frame comprising horizontally and longitudinally extending side pieces converging from mediate portions toward their front and rear ends and meeting at their front ends, a keel the front end of which is connected to the front ends of the side pieces and which extends rearwardly and downwardly therefrom to a mediate portion thereof, a series of cross pieces suitably spaced from each other secured to said horizontal side pieces and of length increasing rearwardly, rearwardly diverging side bars secured at their front ends to the front ends of the side pieces and of the keel, transversely extending approximately parabolic braces secured at their lower ends to the keel and extending therefrom in a direction first upwardly and then outwardly and secured at their outer ends to said cross pieces and side bars, a casing of sheet material secured to said cross pieces, keel, side bars and parabolic braces, longitudinally extending shafts on opposite sides of the aeroplane, and having their rear ends behind the rearmost cross piece, means for rotating said shafts, and propellers on the rear ends of said shafts.

2. In an aeroplane, a frame comprising horizontally and longitudinally extending side pieces converging from mediate portions toward their front and rear ends and meeting at their front ends, a keel the front end of which is connected to the fropt ends of the side pieces and which extends rearwardly and downwardly therefrom to a mediate portion thereof and then rearwardly and upwardly, a series of cross pieces suitably spaced from each other secured to said horizontal side pieces and of length increasing rearwardly except the rearmost cross piece which is shorter than the one immediately in front thereof, short longitudinal pieces connecting the outer ends of the rearmost cross piece with the one immediately in front, rearwardly diverging side bars secured at their front ends to the front ends of the side pieces and of the keel, transversely extending approximately parabolic braces secured at their lower ends to the keel and extending therefrom in a direction first upwardly and then outwardly and secured at their outer ends to said cross pieces and side bars, a casing of sheet material secured to said cross pieces, keel, side bars and parabolic braces, ailerons having their front edges hinged to the longest cross piece and their inner edges adjacent to said short longitudinal pieces, longitudinally extending shafts having their rear ends adjacent to and behind the rearmost cross piece, means for rotating said shafts, and propellers on said shafts immediately behind the rearmost cross piece and the ailerons.

[Claim 3 not printed in the Gazette.]

1,256,824. CABLE-CLAMP. MANIS OLSON, Mount Vernon, Wash. Filed Apr. 9, 1917. Serial No. 160,794. (Cl. 24—135.)

2. A cable clamp including a block, inwardly curved arms formed on said block and a retaining key adapted to operate between said arms for clamping cables between said key and under said arms.

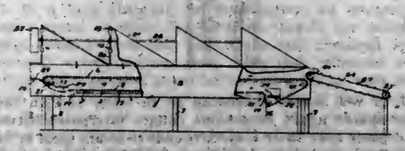
4. A cable clamp including a block, inwardly curved arms formed on said block, said arms being provided with recessed ends, a retaining key adapted to operate between said arms, said key having an enlarged head adapted, to



be received in said recess in said arms for clamping cables under the curved ends of said arms and the enlarged head of the key.

[Claims 1 and 3 not printed in the Gazette.]

1,256,825. DRYING APPARATUS. GEORGE D. PARKER, Riverside, Cal. Filed June 27, 1917. Serial No. 177,223. (Cl. 34—12.)



1. A drier comprising an open bottomed housing, means for feeding fruit to be dried thereto, and means within said housing for continuously rotating and for directing the fruit therein alternately in opposite directions from one end to the opposite end of said housing, and means for forcing air downwardly onto the fruit for drying the same as it is conveyed therethrough and maintained in agitation.

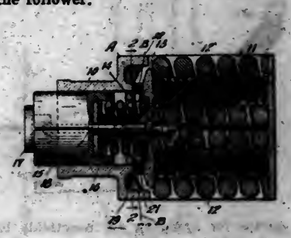
2. A drier comprising a housing, means for feeding fruit to be dried thereto, and an endless movable means comprising parallel spaced interconnected rollers within said housing for supporting and conveying and continuously rotating the fruit therein alternately in opposite directions in successively lower horizontal planes from one end to the opposite end of said housing, and means for forcing air downwardly through said housing and said endless movable means for drying the fruit as it is conveyed through said housing.

3. A drier comprising an open bottomed housing, a plurality of horizontally disposed longitudinally movable conveyer flights extending longitudinally thereof and arranged one above the other within said housing, said flight comprising interconnected parallel spaced rotatably mounted conveyer rolls, means for feeding fruit to be dried onto the upper surface of one end of the uppermost conveyer flight, means for transferring the fruit from the upper surface of the opposite end of the uppermost conveyer flight to the upper surface of the corresponding end of a succeeding conveyer flight, means for removing the fruit from the upper surface of the opposite end of said last mentioned conveyer flight, and means for forcing air downwardly through the housing and through the open bottom thereof for drying the fruit as rotated and conveyed.

[Claims 4 to 10 not printed in the Gazette.]

1,256,826. FRICTION-GEAR. CALVIN B. PATCH, Glenellyn, Ill., assignor to William H. Miner, Chazy, N. Y. Filed July 15, 1916. Serial No. 109,445. (Cl. 213—64.)

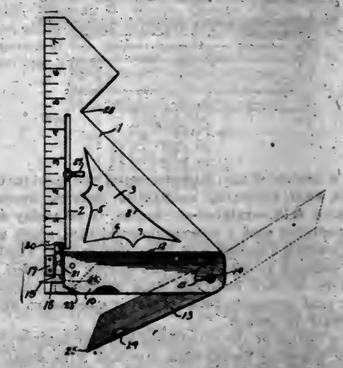
1. In a friction gear, the combination with a friction shell having an integral spring cage, the latter being open at its sides, of a follower mounted within the spring cage, springs at the rear of said follower, said follower having an annular flange slidable within the friction shell, and detachable keys associated with said follower and having portions thereof interposed between the follower and adjacent portions of the friction shell to thereby space the follower from the shell and put the springs under compression, said keys being inserted laterally from the outside of said annular flange through openings in the latter, the keys and follower having engaging shoulders preventing radial and circumferential movement of the keys relatively to the follower.



2. In a device of the character described, the combination with a spring containing member open at its side and through which a spring is adapted to be inserted, a spring, and a spring follower, said spring container having a shoulder against which the follower would normally abut, of a removable key adapted to be inserted laterally through an opening in a portion of said follower, said key being shouldered and coöperating with corresponding shoulders in the follower, whereby the key is prevented from radial and circumferential movement relatively to the follower when it is assembled.

[Claim 3 not printed in the Gazette.]

1,256,827. CARPENTER'S SQUARE. WILLIAM A. PAWSON, San Francisco, Cal. Filed June 26, 1916. Serial No. 105,854. (Cl. 33—93.)



1. A carpenter's square comprising a flat plate, a double gage thereon, one point of which projects in a plane parallel to the plane of the plate and the other point of which projects at right angles to the plane of the plate, and means to secure said gage plate in different adjustments with respect to the first plate.

[Claims 2 and 3 not printed in the Gazette.]

1,256,828. DEVICE FOR APPLYING INSECTICIDES TO ANIMALS. MURLE PERRY, Wahpeton, N. D. Filed June 5, 1917. Serial No. 173,024. (Cl. 119—157.)

1. In a device for applying an insecticide to animals, the combination of a casing having a reservoir at one end, a corrugated distributing roller having one end rotatably and slidably mounted in the other end of said casing and provided in said end with a cam groove, a pump mounted interiorly of said casing and including a piston rod, a

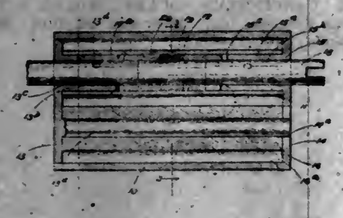
roller carried by said piston rod and engaging in said groove whereby said pump is operated when said distributing roller is actuated, a feed pipe connected to said pump and to said reservoir, and connections between said feed pipe and said distributing roller whereby the insecticide is fed from said reservoir to the outer surface of said distributing roller.



4. In a device for applying an insecticide to animals, the combination of a casing having an insecticide reservoir, a distributing member rotatably and slidably mounted in said casing, and means operated by the rotation and sliding of said distributing member for feeding an insecticide from said reservoir to said distributing member.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,256,829. PUMP FOR SPEEDOMETERS. THEODORE C. PROUTY, Aurora, Ill., assignor, by mesne assignments, to The Van Sickien Company, a Corporation of Illinois. Filed Mar. 28, 1914, Serial No. 827,911. Renewed Aug. 6, 1917. Serial No. 184,787. (Cl. 103—44.)



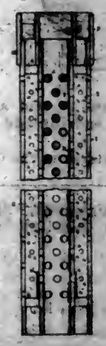
1. In a device of the class described the combination of rotatable fluid actuating mechanism, bearing mechanism upon which said rotatable mechanism is rotatably mounted and provided with a concentric axial bore, shaft mechanism extending through and journaled in said axial bore, a collar secured to said shaft and having embedded therein portions of said rotatable fluid actuating mechanism, whereby said rotatable fluid actuating mechanism and said shaft rotate in unison.

4. In a device of the class described, the combination of rotatable pumping mechanism provided with axial bores, bearings extending into each end of the axial bore of said pumping mechanism upon which said pumping mechanism is rotatably mounted and constructed to leave a centrally located axial chamber in said pumping mechanism, and a collar mounted on and secured to said shaft mechanism in the central axial chamber of said pumping mechanism and into which portions of said pumping mechanism are embedded so as to form an operative connection between said shaft and pumping mechanism.

6. In a device of the class described, a casing, end plates for said casing, said end plates being provided with inwardly extending bearing portions, said bearing portions being bored or apertured, a longitudinally bored pumping member rotatably mounted on said bearing portions, a shaft extending through the apertures in said bearing portions and journaled therein, said shaft being provided with a collar engaging said pumping member and mounted in the aperture therein, said collar being spaced from and located between said bearing portions whereby spaces are afforded for oil or grease to lubricate said pumping member and shaft.

[Claims 2, 3, 5, and 7 not printed in the Gazette.]

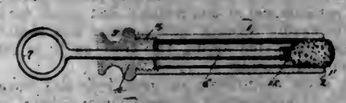
1,256,830. WELL-SCREEN. HENRY RODRIGO, Sr., Houston, Tex. Filed Nov. 2, 1916. Serial No. 129,138. (Cl. 166—5.)



1. A well screen consisting of an outer and an inner pipe spaced apart, detachable collars interposed between said pipes near their respective ends to secure them in fixed relation to each other, the ends of said pipes being threaded, couplings threaded on said ends, the ends of the inner couplings abutting against the adjacent collars to hold them securely in place, the outer pipe being provided with small perforations and the inner pipe being provided with larger perforations, a screening surface protecting the perforations of the inner pipe and coarse aggregate filling the space between said pipes and being retained therein by said collars.

[Claim 2 not printed in the Gazette.]

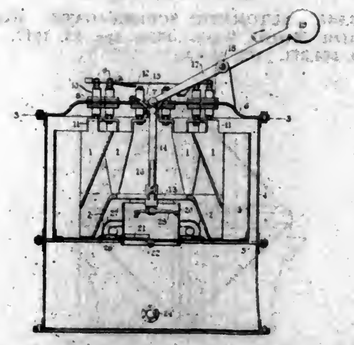
1,256,831. APPLICATOR. EUGENE ROGERS, Barberton, Ohio. Filed June 26, 1915. Serial No. 36,717. (Cl. 128—28.)



1. An applicator including a stem having a reduced end portion providing a shoulder, a body of absorbent material adapted to receive and completely house said reduced portion of said stem in one end thereof, inelastic means for binding a portion of said absorbent material around and to said reduced portion, and means longitudinally movable upon said reduced portion adapted to clamp said bound portion of said absorbent material against said shoulder and force the same into positive engagement with the inelastic binding means.

2. An applicator including a stem having a reduced end portion providing a shoulder, a body of absorbent material adapted to receive and completely house said reduced portion of said stem in one end thereof, inelastic means for binding a portion of said absorbent material around and to said reduced portion, and means longitudinally movable upon said reduced portion adapted to clamp said bound portion of said absorbent material against said shoulder, said last means being completely housed within said end of said body of absorbent material and said binding means being intermediate said shoulder and said longitudinally movable means, whereby the absorbent material between the shoulder and longitudinally movable member is forced into positive engagement with the inelastic binding means.

1,256,832. FLUID-RHEOSTAT. MICHAEL N. SCHÖNWITZ, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed June 26, 1916. Serial No. 105,825. (Cl. 219—57.)



1. In a fluid rheostat, in combination, an electrolyte tank, a series of electrodes mounted therein for uninterrupted contact with said electrolyte and arranged symmetrically about a given point with their adjacent conductive faces, parallel in all horizontal sections, said electrodes being tapered whereby upon a rise of the electrolyte thereabout the active surface of said electrodes increases more rapidly than the height of said electrolyte.

6. In a fluid rheostat, a circular electrolyte tank containing stationary and movable electrodes, means for admitting electrolyte to said tank and discharging electrolyte therefrom, said admission and discharge means being arranged concentric with said tank to insure uniform distribution of electrolyte therein.

8. In a fluid rheostat, in combination, a tank, an electrolyte to be circulated therethrough, and a plurality of stationary and movable electrodes arranged symmetrically to the path of circulation of said electrolyte.

11. In a fluid rheostat, a longitudinally tapered electrode V-shaped in transverse section.

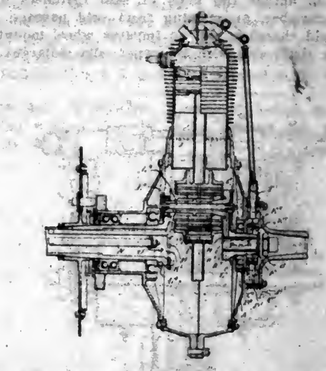
18. In a fluid rheostat, in combination, a symmetrically arranged series of fixed electrodes having their adjacent conductive faces parallel in transverse section, and a series of similarly arranged electrodes movable as a unit with respect to said fixed electrodes, the corresponding phases of said fixed and movable electrodes being at all times parallel.

[Claims 2 to 5, 7, 9, 10, and 12 to 17 not printed in the Gazette.]

1,256,833. VALVE-GEAR OF RADIAL-CYLINDER INTERNAL-COMBUSTION ENGINES. BATEMAN DAVID SCOTT, Sale, England, assignor to The Gresham Finance Corporation Limited, London, England, a Corporation of Great Britain. Filed Mar. 27, 1916. Serial No. 87,026. (Cl. 123—44.)

1. The combination with a radial cylinder internal combustion engine, of a valve gear comprising a pair of spur wheels mounted eccentrically on the crank shaft at different angles in gear with a pair of internally toothed wheels fixed concentrically to the crank case, and radial valve tappets one for each cylinder operated by extensions on the said spur wheels, the extensions on one of the said spur wheels determining the time of opening of the valves, and the extensions on the other determining the time of closing.

2. The combination with a radial cylinder internal combustion engine, of a valve gear comprising radially disposed valve tappets one for each cylinder, and operating means for said tappets including a pair of internally toothed wheels fixed with relation to the cylinders of the engine, and a pair of gear wheels mounted eccentrically on the crank shaft in gear with said fixed toothed wheels and actuating the valve tappets, one of said gear wheels controlling the time of opening of the valves, and the other of said gear wheels controlling the time of the closing of the valves.



3. The combination with a radial cylinder internal combustion engine, of a valve gear comprising radially disposed valve tappets, one for each cylinder, and operating means for the tappets including a pair of internally toothed wheels fixed with relation to the engine cylinders, and a pair of gear wheels mounted eccentrically on the engine crank shaft in gear with said fixed toothed wheels, each of said wheels being provided with projections to engage and actuate the tappets, one of said gear wheels controlling the time of opening of the valves, and the other of said gear wheels controlling the time of the closing of the valves.

[Claims 4 to 6 not printed in the Gazette.]

1,256,834. STOCKING AND MODE OF MAKING THE SAME. ROBERT W. SCOTT, Boston, Mass., assignor, by mesne assignments, to Scott & Williams, Incorporated, a Corporation of Massachusetts. Filed Aug. 1, 1916. Serial No. 112,591. (Cl. 66—4.)



1. A seamless tubular knit stocking having at the back of the leg a thickened mock seam formed by means of an additional yarn engaging wales on the inner face of the stocking.

13. The art of forming a wrapping of yarn about a narrow group of needles rotating in a circular path comprising causing the needles to take the yarn at passage by a yarn-guide outside of said path, delivering the yarn across said circle during passage away from the yarn-guide of the group of needles, and recovering the yarn during approach of said needles and the yarn-guide.

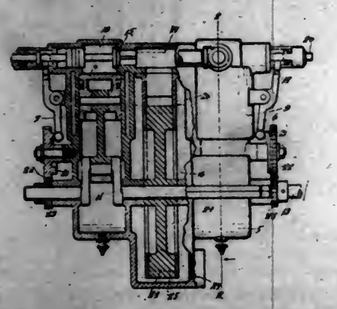
18. The art of knitting on a circle of needles fabrics having a spliced area and a mock-seam structure comprising alternately feeding to a segment of said needles and floating across said circle a splicing yarn, and feeding to and floating across said circle from certain needles of said segment of needles only an additional continuous yarn.

[Claims 2 to 12 and 14 to 17 not printed in the Gazette.]

1,256,835. ENGINE. WILBUR L. SHEPARD, West Hartford, Conn. Filed Mar. 25, 1916. Serial No. 86,698. (Cl. 123—36.)

1. In combination in an engine, a case comprising in its structure a plural number of cylinders and a central

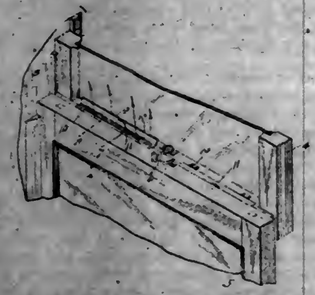
chamber, a crank shaft mounted in the case and extending through said chamber, a piston located in each cylinder and operatively connected with the crank shaft, a passage extending across the ends of said cylinders and across said chamber, an opening from said passage directly into said chamber, and an impetus wheel mounted on the crank shaft and with its upper edge adjacent to said opening.



2. In combination in an engine, a case comprising a plural number of cylinders and a chamber located between said cylinders, a passage extending across the end of the case over said cylinders and chamber, said passage being divided into combustion chambers overlying each cylinder, and an exhaust chamber overlying said central opening, valves to control the flow of fluid between the combustion and exhaust chambers, openings from the exhaust chamber into the central chamber, and an impetus wheel mounted on the crank shaft within the central chamber and having buckets on its periphery to receive fluid directly from the opening from the exhaust chamber.

3. In combination in an engine, a case comprising a plural number of cylinders and a central chamber located between said cylinders, a crank shaft mounted in the case and extending across said central chamber, a passage extending across the ends of the cylinders and said central chamber, the center of said passage comprising an exhaust chamber, a nozzle opening from said exhaust chamber into said central chamber, and an impetus wheel mounted on the crank shaft within said central chamber and with its periphery adjacent to the mouth of said exhaust nozzle.

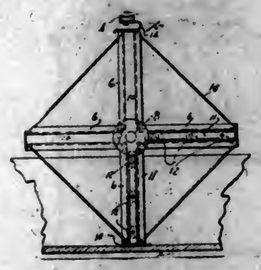
1,256,836. WINDOW-VENTILATOR. ALFRED W. SIMONSON, Minneapolis, Minn. Filed May 11, 1917. Serial No. 167,896. (Cl. 98—31.)



1. In a window ventilator, the combination with upper and lower window sashes, one of the meeting-rails of said sash having its inner face cut away to form an air passageway between the meeting-rails, of a cover plate hinged to one of the meeting-rails and arranged to close the passageway.

2. In a window ventilator, the combination with upper and lower window sashes having the inner faces of their meeting-rails cut away to form an air passageway which extends completely through both thereof, of a single cover plate hinged to one of the meeting-rails and arranged to close the passageway.

1,256,837. AUTOMATIC SCREEN-GATE. HARRY B. SMITH, Merritt, Wash. Filed Apr. 25, 1917. Serial No. 164,371. (Cl. 61—5.)



1. In a device of the class described, the combination of a wheel having armed ends which are spaced apart, parallel diametrical channels in the said wheel ends, shuttle screens movably mounted in said channels, and means for retarding the said wheel against rotary movement.

2. In an automatic screen gate for streams, the combination of a diametrically channeled wheel revolubly mounted in said stream, shuttle screens slidably mounted in said channels, means for normally retaining said wheel against rotation, whereby when the wheel is in such position that one of the screens is submerged in an approximately vertical position in the stream, it will be so retained until sufficient debris has collected against the up stream face of the said screen to cause the release of the wheel from the retaining means and allow the wheel to revolve until another shuttle screen comes into normal position.

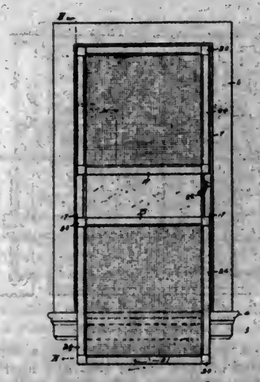
3. In an automatic revolving screen gate for streams, the combination of a pair of shuttle screens arranged normally in horizontal and vertical planes, whereby the vertical screen is positioned transversely the stream and the horizontal screen is above the water surface, revolving wheel means for supporting said screens in normal position, channels in the said wheel within which the said shuttle screens are slidably mounted, means for normally retaining the said wheel against rotation and for releasing the said wheel for a predetermined amount of rotation, whereby when a sufficient amount of debris is collected against the face of the vertical screen, it will cause the wheel to revolve, thereby removing the vertical screen from out of the stream and allowing the horizontal screen to slide into a vertical position in the stream.

1,256,838. WINDOW-SCREEN. ARTHUR C. SOULE, San Francisco, Cal., assignor to Sanitary Screen and Shade Company, San Francisco, Cal., a Corporation of California. Filed June 2, 1913. Serial No. 771,318. (Cl. 156—14.)

1. A window screen including, grooved side guides attachable to window casings, a screen frame, resilient pivots attached to the opposite upper corners of said frame and slidable in said grooved side guides.

4. In combination with a window casing having a single guide on each side thereof, a plurality of overlapping screen frames, and yieldingly supported pivots on the opposite upper corners of each of said frames vertically slidable in said guides.

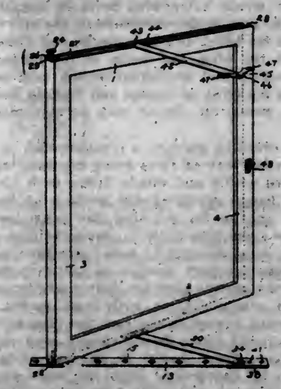
6. A window screen including grooved side guides attachable to window casings, a screen frame, a friction shoe slidable in the groove of said guide, and having a stem engaging said frame, a resilient member interposed between said shoe and frame, and a pivot on the opposite side of said frame slidable in the guide on that side of the window casing, a second screen frame overlying said first frame and having an extension spring pivot engaging the same groove that guides the first frame.



7. In a window screen a frame composed of four strips joined at the corners, a groove in the face of said frame, a sheet of netting having its edges confined in said groove, angular metal strips having a barbed flange edge forced into said groove on top of said netting, and metal corner plates attached to said frame overlying the adjacent ends of said metal strips and inclosing the edges of the frame at the corners.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,256,839. WINDOW-MOUNTING. ARTHUR C. SOULE, San Francisco, Cal. Filed Nov. 23, 1914. Serial No. 873,646. (Cl. 20—42.)



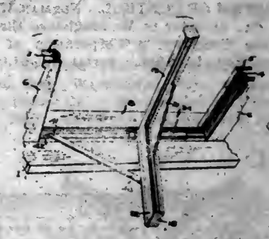
1. The combination with a window frame, of upper and lower guides attached to the lintel and sill respectively, a sash, a shoe pivotally engaging the lower edge of said sash contiguous to the corner thereof and slidably engaging the lower guide, a shoe yieldably mounted in the upper edge of the sash in alinement with the first mentioned shoe and slidably engaging the upper guide, and control arms each pivoted at one end to said sash and having its other end adjustably anchored to the frame.

3. In combination with a window frame; a window sash slidably pivoted in said frame; a control arm pivoted on said sash and having a pivotal stud; a strip fixed on said frame and having a slot engaging said stud; a stop plate clamped between said strip and the frame, and engaging said stud.

6. The combination with a window frame, of a guide strip attached to the sill thereof and provided with depending portions forming risers to space the strip from the surface of the sill, a sash, a shoe, said shoe slidably engaging said strip and having flanges extending beneath said strip into the space provided by said risers, and means for supporting the upper edge of said sash.

[Claims 2, 4, 5, 7, and 8 not printed in the Gazette.]

1,256,840. WINDOW. ARTHUR C. SOULE, San Francisco, Cal. Filed Dec. 28, 1915. Serial No. 69,051. (Cl. 20—42.)



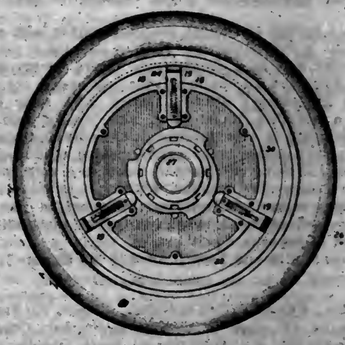
1. An improved window comprising a frame, a plate slidably supported by said frame, a sash having one edge slidably and pivotally engaging said plate, to move longitudinally thereof, and means for providing a corresponding slidable and pivotal engagement between said frame and the opposite edge of said sash.

3. A window including a frame, a guide bead on said frame, a plate slidably engaging said guide to move longitudinally thereof, a sash slidably pivoted in said frame, one of the pivots of said sash being slidable longitudinally of said sliding plate, and a controlling arm attached to said sash and pivoted to the frame at a point in line with said guide bead, the under side of said arm being flush with the top of said bead when the sash is in closed position.

6. A window including a frame; a guide on the sill of said frame; a sliding plate engaging said guide; a guide on the opposite side of said frame; a sash; pivots on said sash slidably engaging said plate and said opposite guide respectively, and a control arm pivoted to said frame and said sash.

[Claims 2, 4, and 5 not printed in the Gazette.]

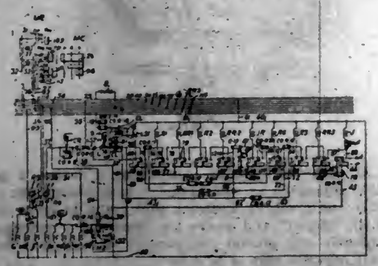
1,256,841. QUICK-ACTING CHUCK. WILLIAM C. STEVENS, Summit county, Ohio, assignor to the Firestone Tire & Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed Dec. 4, 1916. Serial No. 134,860. (Cl. 154—9.)



A chuck for holding and rotating tire cores, comprising a hub, a driving formation on one side of the hub, a chuck

body secured to the hub adjacent the driving formation, radial guideways on the chuck body, arms slidably mounted in the guideways, springs to force the arms inwardly, bearing surfaces on the inner ends of said arms, a cam body rotatably mounted on said hub, cam surfaces equal in number to the arms on the cam body, the bearing surface of each arm resting on a cam surface, a sleeve on said cam body concentric with said hub and extending in a direction opposite to said driving formation, and means on said sleeve to rotate the cam body.

1,256,842. SYSTEM OF CONTROL. NORMAN W. STORER, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Nov. 12, 1915. Serial No. 61,046. (Cl. 172—179.)



1. In a system of control, the combination with a supply circuit, and a plurality of dynamo-electric machines, of means for initially connecting the machines in parallel relation, a plurality of resistors connected in circuit with the respective machines during parallel operation thereof, a third resistor connected intermediate said machine circuits to inaugurate parallel-series transition, means for disconnecting one of said machines from one supply-circuit conductor and means for disconnecting the other machine from the other supply-circuit conductor to dispose said machines, said third resistor, and predetermined portions of the other resistors in series relation, and means for subsequently short-circuiting predetermined active portions of said resistors.

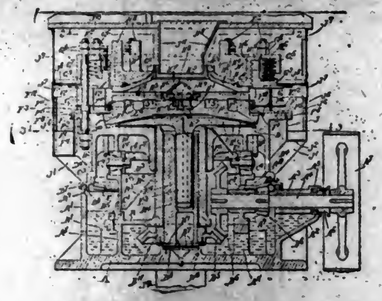
2. In a system of control, the combination with a supply-circuit, a plurality of momentum-driven dynamo-electric machines, and an auxiliary source of energy for exciting the field-magnet windings thereof, of means dependent upon the value of current traversing said auxiliary source for regeneratively connecting one of said machines to the supply circuit, and means dependent upon the value of current traversing one of the machine circuits for subsequently connecting the other machine to the supply circuit.

5. In a system of control, the combination with a supply-circuit, a dynamo-electric machine adapted to act both as a motor and as a generator to return energy to the supply circuit, of an auxiliary source of energy for exciting the field-magnet winding thereof, of a relay device having a plurality of actuating coils, one of said coils being energized in accordance with the current traversing said auxiliary source under predetermined conditions and the other coil being energized in accordance with the current traversing said machine, whereby said relay device is actuated when both coils are energized in the same direction, but remains inoperative when the coils are energized in opposite directions.

[Claims 3, 4, 6, and 7 not printed in the Gazette.]

1,256,843. CRUSHING-MACHINE. EDGAR B. SYMONS, Winnetka, Ill., assignor to Symons Brothers Company, Winnetka, Ill., a Corporation of South Dakota. Filed July 19, 1916. Serial No. 110,030. (Cl. 83—10.)

1. In a crushing machine a crushing disk, a supporting plate therefor, both of them being centrally apertured, a plug located within and snugly fitting both apertures and having a flange overlying the portion of the crushing disk, and separate means for drawing the plug longitudinally toward the supporting plate to clamp the disk against the plate.



2. In a crushing machine a crushing disk, a supporting plate therefor, both of them being centrally apertured, a plug located within and snugly fitting both apertures and having a flange overlying the portion of the crushing disk, and means for drawing the plug longitudinally toward the supporting plate to clamp the disk against the plate, said means comprising bolts in engagement with the plug, pockets in the side walls of the apertured plates containing the bolts, and nuts on the bolt ends in engagement with the plug, the heads of the bolts being held against longitudinal movement within said pockets.

3. In a crushing machine a crushing disk, a supporting plate therefor, both of them being centrally apertured, a plug located within and snugly fitting both apertures and having a flange overlying the portion of the crushing disk, and means for drawing the plug longitudinally toward the supporting plate to clamp the disk against the plate, said means comprising bolts in engagement with the plug, pockets in the side walls of the apertured plates containing the bolts, and nuts on the bolt ends in engagement with the plug, the heads of the bolts being held against longitudinal movement within said pockets, the plug being pocketed to engage and contain the nuts, and removable means for closing such pockets carried by the plug.

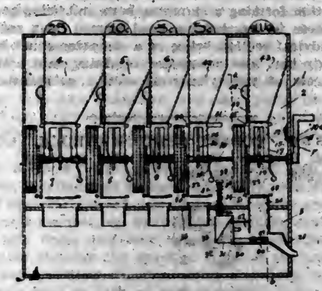
4. In a crushing machine a crushing disk, a supporting plate therefor, both of them being centrally apertured, a plug located within and snugly fitting both apertures and having a flange overlying the portion of the crushing disk, and means for drawing the plug longitudinally toward the supporting plate to clamp the disk against the plate, the supporting plate being provided with a centrally disposed pocket smaller in diameter than and in line with the central aperture, bolt engaging slots having open sides communicating with such pocket said slots being enlarged toward the bottom, the plug holding means comprising bolts whose heads engage such enlarged slot portions and whose shanks lie in such slots, the bolts being held by engagement with the slots against longitudinal movement, and being held only by their engagement with the plug against transverse movement.

5. The combination with a rotary chamber having an annular discharge opening about its periphery, of a housing inclosing such discharge opening, the bottom floor of the housing being divided into a plurality of sharply inclined panels terminating at their lower extremities in a discharge chute.

[Claims 6 to 31 not printed in the Gazette.]

1,256,844. VENDING-MACHINE. VICTOR THOMPSON, Vancouver, British Columbia, Canada. Filed July 1, 1916. Serial No. 107,087. (Cl. 194—35.)

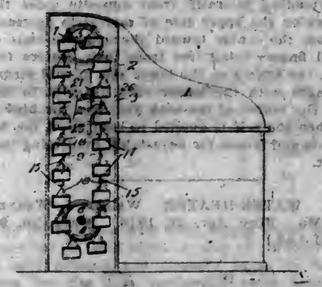
1. A vending machine comprising a slug mechanism including a slug seat and a receptacle receiving slugs from said slug seat, mechanism for ejecting slugs from said receptacle, and an invertible coin seat adapted to be carried into contact with said mechanism during inversion for operating the same.



4. A vending machine comprising a coin mechanism including a rotatable coin seat, a slug mechanism including a slug seat and a receptacle receiving slugs from said slug seat, and mechanism operated by the coin seat for ejecting slugs from said receptacle comprising complementary wedges adapted to be moved by the coin seat, and means for returning the wedge to initial position.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,256,845. LETTER-CARRIER. CHARLES ERNEST TICHENOR, Bloomfield, Ky. Filed Nov. 27, 1916. Serial No. 133,744. (Cl. 45—3.)



1. A filing appliance, including, in combination with an article of furniture, having a rear chamber arranged therein, a plurality of spaced apart supporting rollers arranged in said chamber, endless belts disposed about said rollers, buckles for connecting the adjacent ends of said belts whereby the same may be adjusted about the rollers, a plurality of transverse bars affixed to said endless belts, filing trays pivotally carried upon said transverse bars, a division board arranged within said chamber and disposed between said endless belts for preventing excessive backward swinging of said trays, and a pivotally mounted locking arm supported by said division board and engageable with said transverse bars whereby certain of the filing trays may be held in fixed position.

2. In a filing appliance, the combination of a supporting casing, supporting rollers carried by said casing, endless belts passing about said rollers, transverse bars affixed to said belts, filing trays pivotally carried by said bars, a pivotally supported locking arm carried by said casing, said locking arm having a forked end, said forked end being adapted to engage said bars, whereby said filing trays may be retained in set positions.

3. In a filing appliance, the combination of a supporting casing, spaced rollers carried by said casing, belts passing about said rollers, transverse bars secured to said belts, filing trays pivotally carried by said bars, a division board carried by said casing, brackets carried by said division board, a pivotal locking arm secured to said brackets, said locking arm having a forked outer end, said forked end being adapted to engage one of said bars, whereby said filing tray may be held in set positions.

5. In a filing appliance, the combination of a supporting casing, supporting rollers carried by said casing, endless belts passing about said rollers, transverse bars fixed to said belts, receiving means carried by said bars, a movably mounted locking arm carried by said casing, said locking arm having a forked end, said forked end being adapted to engage one of said bars, thus holding said receiving means in a set position.

[Claims 4, 6, and 7 not printed in the Gazette.]

1,256,846. SPIDER FOR CHAIR-SEATS. CHARLES J. TRAVERS, Port Washington, Wis., assignor to Gilson Manufacturing Co., a Corporation of Wisconsin. Filed Aug. 4, 1917. Serial No. 184,394. (Cl. 155—40.)



1. A chair-spider, comprising a plurality of sheet-metal arms provided with outer attaching-ends and marginal flanges, a saddle-plate on the underside and receiving and supporting the inner ends of the arms, means connecting the arms and plate, and an overlapping plate arranged upon the flanges of the arms and secured thereto.

2. A chair-spider, comprising a plurality of radiating sheet-metal arms provided with marginal flanges and outer attaching-ends elevated above the plane of said arms, a saddle-plate secured to the underside of the arms and having cavities receiving the same, and an upper disk surmounting the arms and secured to the flanges thereof, the inner ends of the arms being squared and abutting at their corners and combining to produce a space between the aligning perforations formed in the saddle-plate and disk to permit of the passage of the supporting-standard.

[Claim 3 not printed in the Gazette.]

1,256,847. STUCCO COMPOSITION. JAMES B. TURNER, Chicago, Ill. Filed Mar. 27, 1917. Serial No. 157,758. (Cl. 106—29.)

1. A stucco composition consisting of anhydrous magnesium chlorid; magnesium oxid; powdered cork; asbestos filler; sand; lithopone; and a waterproofing substance, substantially as described.

2. A stucco composition consisting of the following ingredients mixed together in substantially the following proportions by weight: anhydrous magnesium chlorid, one (1) part; magnesium oxid, one (1) part; powdered cork, one (1) part; asbestos fiber, two (2) parts; sand, five (5) parts; lithopone, one-tenth ($\frac{1}{10}$) of one (1) part; and a waterproofing substance consisting of an insoluble soap, one-tenth ($\frac{1}{10}$) of one (1) part, substantially as described.

1,256,848. AUTOMATIC STOPPAGE AND OCCUPANT-PROTECTING EQUIPMENT FOR AUTOMOBILES. WILLIAM A. UTTZ, Kansas City, Mo. Filed June 16, 1917. Serial No. 175,538. (Cl. 180—83.)

1. The combination in a motor car, of an ignition circuit breaking device, a brake operating device, a protecting curtain, a spring-actuated roller, flexible connections between the roller and the curtain, means for holding the curtain in inoperative position, a bumper, and means actuated by repression of the bumper for operating the ignition circuit breaking and brake-operating devices and releasing the curtain holding means.

2. The combination in a motor car, of an ignition circuit breaking device, a brake operating device, a protecting curtain, a spring-actuated roller, flexible connections between the roller and the curtain, means for holding the curtain in inoperative position, a bumper, thrust rods for conjoint or independent rearward movement by the bumper, and means for transmitting power from the thrust rods to operate the ignition circuit breaking and brake operating devices and release the curtain holding means.



5. The combination in a motor car, of an ignition circuit breaking device, a brake operating device, a protecting curtain, a spring-actuated roller, flexible connections between the roller and the curtain, means for holding the curtain in inoperative position, a bumper, means actuated by repression of the bumper, for operating the ignition circuit breaking and brake operating devices and releasing the curtain holding means, and manually-operable means to operate the means for operating the ignition circuit breaking and brake operating devices and releasing the curtain holding means.

12. The combination in a motor car, of an ignition circuit breaking device, a brake operating device, a wind shield protecting curtain and side window protecting curtains, rollers for holding the curtains wound to leave the wind shield and windows exposed, a spring-actuated roller for the wind shield and each window, straps connecting each curtain with the companion spring-actuated roller, means for restraining the spring-actuated rollers from operating their respective curtains, a bumper, means actuated by repression of the bumper for operating the ignition circuit breaking and brake operating devices and releasing the spring roller restraining means.

13. In a motor car, a series of longitudinally-alined rods slidingly arranged on the car, one of the rods being mounted on a door and interlocked at the free edge of the door with the adjacent end of another of the rods, as regards longitudinal or sliding movement but detachable from said other rod as regards movement induced by outward or opening movement of the door and interlocked with said other rod through closure of the door, means holding said rods yieldingly in one position of their longitudinal or sliding movement, and bumper-actuated means for overcoming the resistance of the said holding means and imparting sliding movement to said rods.

[Claims 3, 4, 6 to 11, 14, and 15 not printed in the Gazette.]

1,256,849. CLOTHES-HANGER SUPPORT. JOHN VAUDREUIL, Milwaukee, Wis. Filed Dec. 26, 1916. Serial No. 138,839. (Cl. 248—30.)



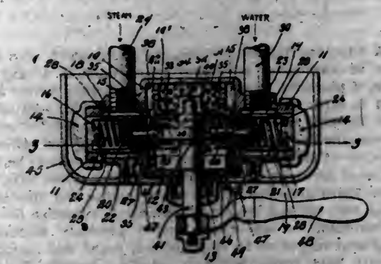
A clothes hanger support comprising a wooden body bar, provided in one end with a longitudinal bore having its mouth counter-bored, an internally threaded sleeve positioned in the counter bore, gripping teeth on the periphery of the sleeve for retaining the same in fixed relation with the body bar, an annular flange at the outer end of the sleeve and abutting the end of the body bar, said sleeve being of lesser length than the bore, a bolt threadedly engaged in the sleeve and extensible into the bore, a cylindrical section forming a clamping bore and being provided with a recess for receiving a head formed upon said bolt, said cylindrical section being of a diameter equal to that of the body bar, and means for retaining said bolt head in the recess of the cylindrical section substantially as described.

1,256,850. CORSET BELT OR GIRDLE. LUCY A. WALKER, Berkeley, Cal. Filed May 22, 1917. Serial No. 170,238. (Cl. 2—188.)



A corset belt comprising a fabric strip having stiffening fingers extending laterally from opposite sides thereof, said fingers on the upper side of said strip decreasing in length from the center toward the opposite ends of the strip, said fingers being free from their centers to their terminals, the fingers on the lower side of said strip varying in length with the longer ones disposed to be positioned at the center of the back and over the hips of the wearer when the belt is applied to hold down the flesh at these points and means for adjustably connecting the ends of the belt.

1,256,851. WATER-HEATER. WALTER J. WARNER, St. Louis, Mo. Filed Apr. 27, 1916. Serial No. 94,067. (Cl. 261—50.)



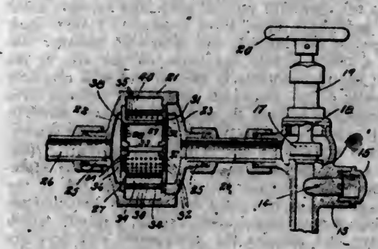
1. In a water heater, a housing provided with a mixing chamber and a pair of oppositely disposed valve chambers, there being openings from said valve chambers to the mixing chamber, tubular connections to the valve chambers, said mixing chamber being provided with an outlet, valve housings in the valve chambers, said valve housings being provided adjacent to their inner ends with openings, valves normally closing the openings into the mixing chamber and the openings in said valve housings, a plurality of perforated walls within the mixing chamber, there being apertures formed in the valve housings near their outer ends to permit fluid to enter the chambers in said valve housings behind the valves therein, a rotatably mounted shaft axially disposed within the mixing chamber, and means on said shaft for engaging parts of the valves to unset the same.

3. In a water heater, a housing provided with a chamber, means for supplying fluids to be mixed to said chamber, a cylindrical member removably positioned within the chamber, there being an annular space around said cylindrical member, a circumferential rib dividing said annular space into two chambers, there being an outlet from one of said chambers, a partition dividing the cylinder into two chambers, and said partition and the wall of the cylinder being perforated so as to divide the fluid passing through the chamber in the housing into jets.

6. In a water heater, a housing provided with a mixing chamber, a cylindrical member removably positioned within said chamber, there being an annular space around said cylindrical member, an annular rib dividing said annular space into front and rear chambers, longitudinally disposed ribs dividing the space in front of the annular rib into two oppositely disposed inlet chambers, means for supplying fluid to each of said chambers, there being an outlet leading from the rear one of the annular chambers, a perforated partition within the cylindrical member, and the wall of said cylindrical member on both sides of said partition being perforated.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,256,852. WATER-HEATER. WALTER J. WARNER, St. Louis, Mo. Filed May 15, 1916. Serial No. 97,598. (Cl. 261—50.)



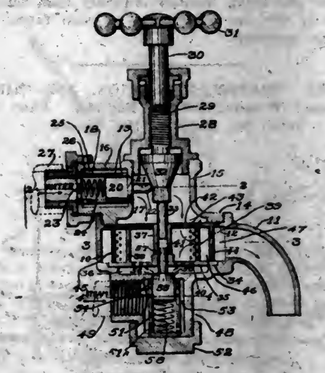
1. The combination with fluid supply pipes, of a housing connected to said pipes, a pair of perforated plates within said housing and disposed so as to form inlet chambers for the fluid, perforated rings between said plates, which rings form a central mixing chamber and a pair of annular mixing chambers, and the wall of said housing being provided with an outlet which leads from the outer one of said annular mixing chambers.

4. In a device of the class described, a housing provided with a pair of inlet openings and an outlet opening, and a series of perforated partitions within said housing and dividing the space therein into a pair of inlet chambers with which the inlet openings communicate, a centrally arranged mixing chamber, a plurality of annular mixing chambers, one of which latter has communication with the outlet from the housing, fluid supply pipes leading to the inlet openings of said housing, valves located in said supply pipes, and means for controlling the flow of fluid to said valves.

[Claims 2, 3, and 5 to 11 not printed in the Gazette.]

1,256,853. WATER-HEATER. WALTER J. WARNER, St. Louis, Mo. Filed July 19, 1916. Serial No. 110,177. (Cl. 261—50.)

1. In a water heater, a housing having a mixing chamber and a pair of valve chambers, there being openings from the valve chambers into the mixing chamber, a sleeve within each valve chamber, each sleeve being provided with perforations adjacent to the end which communicates with the opening from the corresponding valve chamber into the mixing chamber, a valve fitting snugly within each sleeve, each valve normally closing the perforations in the inclosing sleeve and the opening from the corresponding valve chamber into the mixing chamber, a longitudinally movable member, means carried thereby for engaging and unseating one of the valves, and said member being adapted to unseat the other valve by its longitudinal movement.

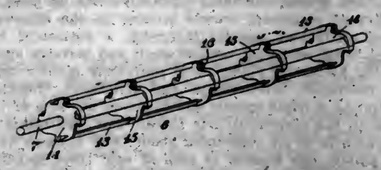


5. In a water heater, a housing provided with a mixing chamber, water and steam valve chambers on opposite sides of said mixing chamber, tubular connections to said valve chambers, valves for controlling the flow of water and steam from the valve chambers to the mixing chamber, a longitudinally movable member in the housing, a conical head carried thereby for directly engaging and unseating the water control valve, said member being adapted to engage directly against the steam control valve for unseating the same, and a series of walls within the mixing chamber, portions of which walls are perforated.

8. In a water heater, a housing provided with a mixing chamber and a valve chamber, there being an opening from the valve chamber into the mixing chamber, a cylindrical member within the valve chamber, the open end of which cylindrical member communicates directly with the opening from the valve chamber into the mixing chamber, said cylindrical member being smaller in diameter than the valve chamber so as to form an annular space around said cylindrical member, the wall of the cylindrical member being provided with annular rows of perforations, said rows being spaced apart and arranged at different distances from the end of the member which communicates with the opening to the mixing chamber, a spring-pressed valve fitting snugly within the cylindrical member and normally closing the rows of perforations therein and the opening from the valve chamber into the mixing chamber, and a member for directly engaging and unseating said valve.

[Claims 2 to 4, 6, 7, and 9 not printed in the Gazette.]

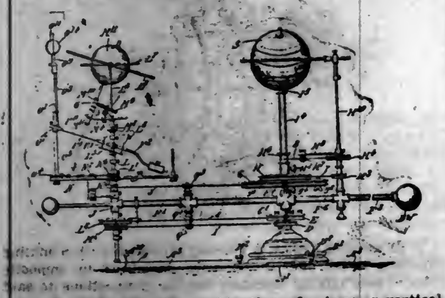
1,256,854. FERTILIZER-DISTRIBUTER. RAY WICKLIFFE, Millersport, Ohio. Filed June 9, 1916. Serial No. 102,803. (Cl. 259—35.)



In a fertilizer distributer, the combination with a hopper having discharge openings, of an agitator journaled to rotate in the hopper over said openings, said agitator having a bar located and rigidly secured in the

rim of the agitator and extending longitudinally with respect to the axis thereof, said bar having a working face inclined inwardly from the rim of the agitator and rearwardly with respect to the direction of motion of the blade from the radius of the agitator which touches the outer edge of the blade, said bar also having its outer face lying at an acute angle to and meeting the said working face and being inclined inwardly from the path of motion of the line of junction of said faces, substantially as described.

1,256,855. ORRERY, TELLURION, AND THE LIKE. WILLIAM WILSON, London, England. Filed May 15, 1917. Serial No. 168,832. (Cl. 35—3.)



1. In a tellurion, the combination of a base, a vertical shaft fixed in and extending upwardly from the base, a plurality of stationary wheels secured on the aforesaid vertical shaft and co-axial therewith, a horizontal bar pivoted to the aforesaid vertical shaft and movable about it in the horizontal plane, three concentric spindles, innermost, intermediate and outermost, together constituting a triple spindle and borne on one arm of the horizontal bar perpendicularly thereto and each rotatable independently of its companion about their common axis, three pulleys one secured to each of said three spindles, three endless bands constituting each an operative connection between a pulley on one of the said concentric spindles and a corresponding stationary wheel in the aforesaid plurality, an earth-model borne on the top of the innermost spindle, a cam fixed aslant upon the intermediate spindle, a moon-model bored axially, a spindle which at its upper end engages the moon-model and prevents relative rotation between it and the said spindle and at its lower end is operatively connected to the outermost of the three concentric spindles aforesaid to turn therewith but not relatively thereto, an operative connection between the aforesaid cam and the moon-model to raise and lower that model by moving it along the spindle of angular cross-section, a rocking lever which is pivoted to a sleeve loosely encircling the aforesaid intermediate spindle, is engaged with the aforesaid cam and is in operative connection with the moon-model to raise and lower that model by moving it along the spindle of angular cross-section and to be moved by the same spindle around the axis of the intermediate spindle.

3. In a tellurion, the combination of a base, a vertical shaft fixed in and extending upwardly from the base, a plurality of stationary wheels secured on the aforesaid vertical shaft and co-axial therewith, a horizontal bar pivoted to the aforesaid vertical shaft and movable about it in the horizontal plane, three concentric tubular spindles, innermost intermediate and outermost, together constituting a triple spindle and borne on one arm of the horizontal bar perpendicularly thereto and each rotatable independently of its companion about their common axis, three pulleys one secured to each of said three spindles, three endless bands constituting each an operative connection between a pulley on one of the said concentric spindles and a corresponding stationary wheel in the aforesaid plurality, an earth-model borne on the top of the innermost spindle, a cam fixed aslant upon the intermediate spindle, a moon-model bored axially, a spindle which at its upper end engages the moon-model and prevents relative rotation between it and the said spindle and at its lower end is operatively connected to the outermost of the three concentric tubular spindles aforesaid to turn therewith but not relatively thereto, an operative connection between the aforesaid cam and the moon-model to raise and lower that model by moving it along the spindle of angular cross-section, a rocking lever which is pivoted to a sleeve loosely encircling the aforesaid intermediate spindle, is engaged with the aforesaid cam and is in operative connection with the moon-model to raise and lower that model by moving it along the spindle of angular cross-section and to be moved by the same spindle around the axis of the intermediate spindle, an earth-model, an inclined spindle about which that model is rotatable and which is fixed to the innermost tubular spindle aforesaid and lies aslant in relation thereto, a driving wheel below the aforesaid base and driving pinion secured to the earth-model, an auxiliary duplex pulley carried on a support borne by the innermost tubular spindle, an endless band encircling the driving pinion and one member of the auxiliary duplex pulley, and an endless band both sides of which pass through the bore of the innermost tubular spindle and one end of which embraces the other member of the auxiliary duplex pulley while the other end encircles the said driving wheel.

10. In a tellurion, the combination of a base, a vertical shaft fixed in and extending upwardly from the base, a plurality of stationary wheels secured on the aforesaid vertical shaft and co-axial therewith, a horizontal bar pivoted to the aforesaid vertical shaft and movable about it in the horizontal plane, three concentric tubular spindles, innermost intermediate and outermost, together constituting a triple spindle and borne on one arm of the horizontal bar perpendicularly thereto and each rotatable independently of its companion about their common axis, three pulleys one secured to each of said three spindles, three endless bands constituting each an operative connection between a pulley on one of the said concentric spindles and a corresponding stationary wheel in the aforesaid plurality, an earth-model borne on the top of the innermost spindle, a cam fixed aslant upon the intermediate spindle, a moon-model bored axially, a spindle which at its upper end engages the moon-model and prevents relative rotation between it and the said spindle and at its lower end is operatively connected to the outermost of the three concentric tubular spindles aforesaid to turn therewith but not relatively thereto, an operative connection between the aforesaid cam and the moon-model to raise and lower that model by moving it along the spindle of angular cross-section, a rocking lever which is pivoted to a sleeve loosely encircling the aforesaid intermediate spindle, is engaged with the aforesaid cam and is in operative connection with the moon-model to raise and lower that model by moving it along the spindle of angular cross-section and to be moved by the same spindle around the axis of the intermediate spindle, an earth-model, an inclined spindle about which that model is rotatable and which is fixed to the innermost tubular spindle aforesaid and lies aslant in relation thereto, a driving wheel constituted by a series of radial arms having swan-necked ends and situated below the aforesaid base, a driving pinion secured to the earth-model, an auxiliary duplex pulley carried on a support borne by the innermost tubular spindle, an endless band encircling the driving pinion and one member of the auxiliary duplex pulley, an endless band both sides of which pass through the bore of the innermost tubular spindle and one end of which embraces the other member of the auxiliary duplex pulley while the other end encircles the said driving wheel, band-tightening devices for the endless bands aforesaid and screw expanding-devices for the circumferences of driving wheels engaged by said bands.

15. In a tellurion, the combination of a base, a vertical shaft fixed in and extending upwardly from the base, a plurality of stationary wheels secured on the aforesaid vertical shaft and co-axial therewith, a horizontal bar pivoted to the aforesaid vertical shaft and movable about it in the horizontal plane, three concentric tubular spindles, innermost intermediate and outermost, together constituting a triple spindle and borne on one arm of the horizontal bar perpendicularly thereto and each rotatable independently of its companion about their common axis, three pulleys one secured to each of said three spindles, three endless bands constituting each an operative connection between a pulley on one of the said concentric spindles and a corresponding stationary wheel in the aforesaid plurality, an earth-model borne on the top of the innermost spindle, a cam fixed aslant upon the intermediate spindle, a moon-model bored axially, a spindle which at its upper end engages the moon-model and prevents relative rotation between it and the said spindle and at its lower end is operatively connected to the outermost of the three concentric tubular spindles aforesaid to turn therewith but not relatively thereto, an operative connection between the aforesaid cam and the moon-model to raise and lower that model by moving it along the spindle of angular cross-section, a rocking lever which is pivoted to a sleeve loosely encircling the aforesaid intermediate spindle, is engaged with the aforesaid cam and is in operative connection with the moon-model to raise and lower that model by moving it along the spindle of angular cross-section and to be moved by the same spindle around the axis of the intermediate spindle, an earth-model, an inclined spindle about which that model is rotatable and which is fixed to the innermost tubular spindle aforesaid and lies aslant in relation thereto, a driving wheel below the aforesaid base, a driving pinion secured to the earth-model, an auxiliary duplex pulley carried on a support borne by the innermost tubular spindle, an endless band encircling the driving pinion and one member of the auxiliary duplex pulley, an endless band both sides of which pass through the bore of the innermost tubular spindle and one end of which embraces the other member of the auxiliary duplex pulley while the other end encircles the said driving wheel and screw-expanding-devices for the circumferences of driving-wheels engaged by said bands.

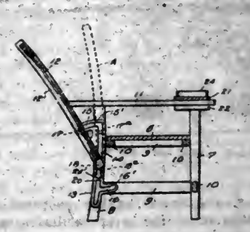
19. In a tellurion, the combination of a base, a vertical shaft fixed in and extending upwardly from the base, a plurality of stationary wheels secured on the aforesaid vertical shaft and co-axial therewith, a horizontal bar pivoted to the aforesaid vertical shaft and movable about it in the horizontal plane, concentric spindles constituting a compound spindle and borne on one arm of the horizontal bar perpendicularly thereto and each rotatable independently of its companion about their common axis, pulleys one secured to each of said spindles, endless bands constituting each an operative connection between a pulley on one of the said concentric spindles and a corresponding stationary wheel in the aforesaid plurality, an earth-model borne on the top of the innermost spindle, a moon-model bored axially, a spindle which at its upper end engages the moon-model and prevents relative rotation between it and the said spindle and at its lower end is operatively connected to one of the concentric spindles appropriated thereto to turn with the spindle but not relatively thereto, and means to raise and lower the moon on its spindle.

[Claims 2, 4 to 9, 11 to 14, 16 to 18, 20, and 21 not printed in the Gazette.]

1,256,856. CHAIR. JOHN J. WITTWER, Sr., Seattle, Wash. Filed Sept. 14, 1916. Serial No. 120,002. (Cl. 155—27.)

1. In a chair, an adjustable back having studs protruding from opposite sides thereof in combination with guides secured to the chair frame and provided with communicating substantially upright and horizontal ways for the reception of said studs whereby the back is movable into different elevations and adjustable into inclined positions at its uppermost elevation and also when in proximity to its lowest elevation.

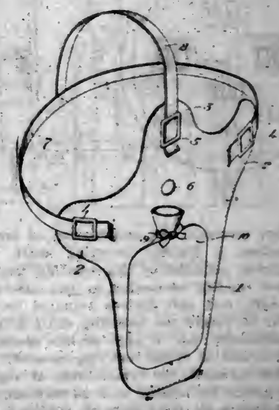
2. In a chair, the combination with the chair frame and an adjustable back therefor, of guides secured to said frame, each of said guides being provided with a substantially upright way and substantially horizontal ways respectively extending forwardly and rearwardly therefrom in proximity to the lower and upper ends of said upright way, studs protruding in spaced relations from opposite sides of the chair-back and coöperating with the ways to guide the back in regulating the positions of the same and also serving to support the back at selected elevations.



3. In a chair, the combination with the chair frame, and a back movable relatively thereof, of interengaging means provided on said frame and the back, whereby the latter is supported at predetermined heights and also enabling the upper or lower ends, selectively, of the back, to be swung rearwardly or forwardly.

[Claim 4 not printed in the Gazette.]

1,256,857. DRAINAGE-BOTTLE. WILLIAM FILLMORE WOFFORD, Stratford, Tex. Filed Feb. 9, 1916. Serial No. 77,281. (Cl. 128—28.)

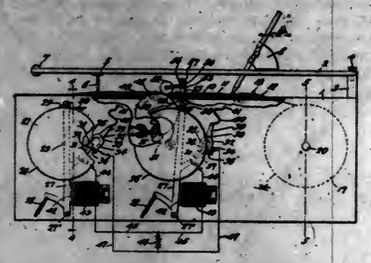


A drainage bottle including an apron provided with an opening therein, said apron having its lateral margins adjacent its upper end, extended to form laterally projecting ears, a vertically extending ear formed on the upper end of said apron, a bottle secured to said apron and positioned below said opening, buckles secured to said ears, a waist strap having its opposite ends buckled to said lateral ears, and a shoulder strap having one end secured to said waist strap and the opposite end buckled to said vertical ear.

1,256,858. GRAPHICAL RECORDER. GAY WOLLENWEBER, Winterhaven, Fla. Filed Mar. 15, 1917. Serial No. 155,050. (Cl. 234—1.)

2. A graphical recorder embodying a movable marking element to engage the paper, paper feeding means, and a clock mechanism for the feeding means embodying a ratchet wheel connected thereto, an oscillatory lever, a pawl carried by the lever and engaging the ratchet wheel, a spring connected to the lever to swing it in one direction, an electromagnet for swinging the lever in the opposite direction, and an oscillatory member for making

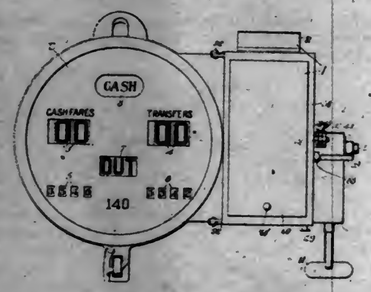
and breaking the circuit of the magnet, said member being spring pressed to move to one position or the other,



and said member and lever having coöperable means whereby the oscillation of the lever oscillates said member from one position to another.

[Claims 1 and 3 to 5 not printed in the Gazette.]

1,256,859. FARE-RECORDER. ARTHUR H. WOODWARD, Altadena, Cal., assignor to The International Register Co., Chicago, Ill., a Corporation of Illinois. Filed Sept. 10, 1910. Serial No. 581,366. (Cl. 234—4.)



12. In a fare recorder, the combination of fare registering mechanism, a register resetting shaft, register locking mechanism actuated by the resetting shaft, a resetting member capable of motion in two directions to rotate said shaft, and two devices actuated by the resetting member to rotate the resetting shaft to lock the registering mechanism, one of such devices operative for each direction of motion of the resetting member.

24. In a fare recorder, the combination of registering mechanism, a device for locking such mechanism, a member capable of motion in two directions, motion in one direction serving to move the device to its locking position and motion in the other direction serving to move the device to an inoperative position.

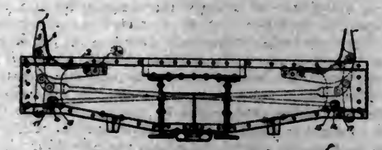
72. In a fare recorder, the combination of recording mechanism, a shaft adapted to operate the recording mechanism for motion in either direction, feeding rolls for the record strip, a pawl adapted to advance the rolls a single record for each operation of the shaft in one direction, and gearing adapted to advance the rolls to move the last record from the recorder for each operation to the shaft in the other direction.

98. In a fare recorder, the combination of registering mechanism, a key escutcheon having printing and released positions, means for retaining the escutcheon in its printing position when the registering mechanism is in its operative condition, an identification key, record receiving means, a cover for such means, and devices for retaining the cover in position over such means when the key is in printing position.

171. In combination a two-part frame, said parts being pivoted together at one end, a record roll bearing a record strip mounted on one part of said frame, a recording device mounted on one of said frame parts, actuating devices mounted on said one part, a striker mounted on the other of said parts, said record strip being adapted to be fed between said recording device and said striker, and separable connections between said actuating device and said striker.

[Claims 1 to 11, 13 to 23, 25 to 71, 73 to 95, 97 to 170, and 172 to 177 not printed in the Gazette.]

1,256,860. DROP-STAKE FOR LOGGING-CARS. HENRY H. YERK, Davenport, Iowa, assignor to The Bettendorf Company, Bettendorf, Iowa, a Corporation of Iowa. Filed Oct. 28, 1915. Serial No. 58,398. (Cl. 105—173.)

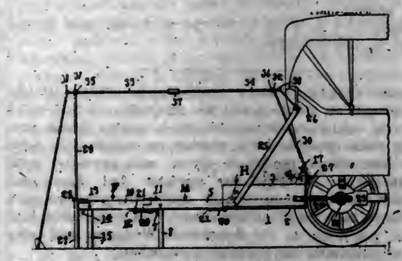


1. In a device of the class described, the combination of a bunk extending across the car, and having openings at each end in its upper face, a drop stake adapted to extend through said opening above the bunk when in operative position, and to be withdrawn into the bunk when in its inoperative position, links arranged between said drop stake, and the floor of said bunk adapted to hold said stake in its operative position when said links are in a substantially vertical position, and means extending across the car within the bunk releasably held from movement whereby the said links are locked in said substantially vertical position.

3. In a device of the class described, the combination of a bunk extending across the car, of a stake of substantially arcuate form, one end of which is pivotally connected to the inside of the bunk adjacent the upper surface thereof, with the other end free to be projected above the bunk to form the stake when in operative position, and to be withdrawn into the bunk when in its inoperative position, a toggle link pivotally supported at one end to the floor of the bunk, and pivotally secured at the other end to the stake at a point mediate its ends, said toggle adapted to be extended for elevating the stake to operative position, and to be flexed for withdrawing the stake within the bunk to inoperative position, and a bar pivotally secured to the extended end of one of the links passing therefrom across the car within the bunk, an offset or shoulder formed in the free end of said bar, a transversely arranged lug in the floor of the bunk adapted to engage the said shouldered end of said bar whereby the said stake is held in operative position, and means for raising said bar out of connection with said lug whereby said stake is released from its operative position.

[Claims 2 and 4 not printed in the Gazette.]

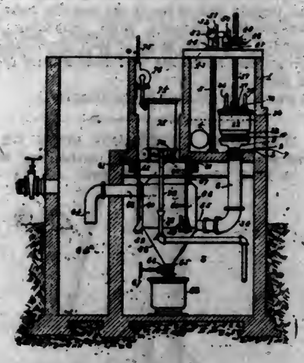
1,256,861. FOLDING-BED ATTACHMENT FOR AUTOMOBILES. ROLLIN E. ADAMS, Fort Collins, Colo. Filed Aug. 1, 1917. Serial No. 183,948. (Cl. 5—9.)



1. A folding bed attachment for automobiles, comprising a sectional frame, means for securing the frame to an automobile, a head board on the frame, apertured members rising from the head board, and means secured to the foot of the frame and adapted to enter the apertures for securing the frame in folded position.

[Claim 2 not printed in the Gazette.]

1,256,862. APPARATUS FOR TREATING LIQUIDS. HENRY A. ALLEN, Chicago, Ill. Original application filed June 8, 1916, Serial No. 102,453. Divided and this application filed July 16, 1917. Serial No. 180,849. (Cl. 210—1.)



1. A device of the class described, in which is combined a receiving channel, a receiving tank, an orifice-plate located in the receiving channel, said plate having a plurality of narrow passages therein to permit an inflow of liquid from said receiving channel said passages leading to a conduit in communication with said receiving tank, a receptacle located above said orifice-plate, a multiplicity of small conduits leading from said receptacle to the openings in said orifice-plate at a level below that of the influent in the receiving channel and means within said receptacle in operative connection with a source of supply for delivering a chemicalized fluid to the openings in said orifice-plate.

[Claims 2 to 9 not printed in the Gazette.]

1,256,863. ELECTRIC CONDUCTOR. CHARLES JAMES BEAVER, Hale, and ERNEST ALEXANDER CLAREMONT, High Leigh, England. Filed July 19, 1915. Serial No. 40,684. (Cl. 173—13.)



1. A conductor for an electric cable comprising an inner metal core, bare metal conductor wires uninsulated from each other and surrounding said core, an outer metal tube inclosing said core and conductor wires, and insulation covering said outer tube, said core and tube being in substantial linear metallic contact with each conductor wire and forming guides for the wires which will permit and control the movements of said wires in relation to each other and to said core and tube to insure a smooth surface of the conductor being presented to the insulation upon distortion of the cable.

[Claims 2 to 10 not printed in the Gazette.]

1,256,864. COMPOSITION OF MATTER. JULIUS BECKER, Chicago, Ill. Filed Nov. 27, 1916. Serial No. 133,723. (Cl. 204—29.)

1. As a new article of manufacture, a battery separator for plates in electric secondary cells, comprising a mixture of powdered volcanic ash, powdered sulfate, and sulfuric acid substantially in the respective proportions of 50, 40 and 50 by weight, in conjunction with a base of asbestos fiber substantially in the proportion of 1 by weight, the acid being of substantially 32°–38° Bé. in strength.

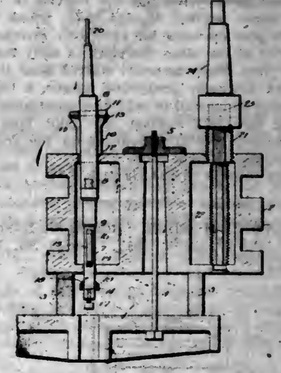
6. As a new article of manufacture, a battery separator for plates in electric secondary cells, comprising a pasty mixture of calcium sulfate, sulfuric acid, and fibrous base material, suitably proportioned to give a pasty mixture of desired consistency.

8. As a new article of manufacture, a battery separator for plates in electric secondary cells comprising a pastry mixture of calcium sulfate and sulfuric acid.

9. As a new article of manufacture, a battery separator for plates in electric secondary cells comprising a pasty mixture of volcanic ash, calcium sulfate and sulfuric acid.

[Claims 2 to 5, 7, and 10 to 12 not printed in the Gazette.]

1,256,865. COMBINED BORING-TOOL AND COUNTERSINK. BERNARD WILLIAM BERRY, Portsmouth, Ohio. Filed Apr. 7, 1917. Serial No. 160,424. (Cl. 77—56.)



1. A drill bar composed of detachably connected sections, one section having a transverse passage intermediate its ends, and being provided at its outer end with a shank for engagement by a chuck, the other section having a transverse passage intermediate its ends and a second passage near its outer end, and a cutter and reamer detachably held in the passage of the first section, a reamer detachably held in the outer passage of the second section, and a cutter detachably held in the intermediate passage of the second section the first named cutter and reamer having reaming wings at its upper end.

[Claims 2 to 4 not printed in the Gazette.]

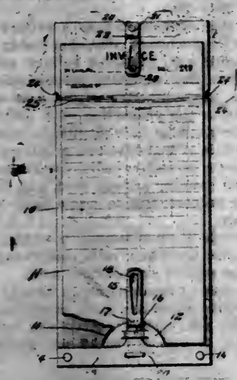
1,256,866. INVOICE-HOLDER. ROBERT C. BENDER, St. Louis, Mo. Filed July 5, 1917. Serial No. 178,675. (Cl. 129—1.)

1. In a device of the class described, a body, a resilient tongue on the lower portion of the face of said body, a keeper pivotally mounted on the upper portion of the face of said body, and a centrally arranged reinforcing strip on the rear face of said body.

2. In a device of the class described, a body, a resilient tongue on the lower portion of the front face of said body, and there being notches formed in the side edges of said body near the upper end thereof.

3. In a device of the class described, a body, a resilient tongue on the lower portion of the front face of said body, there being notches formed in the side edges of said body

near the upper end thereof, and a pivotally mounted keeper on the upper portion of the face of said body.

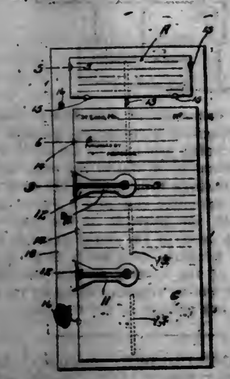


4. In a device of the class described, a body formed of thin sheet metal, there being an arcuate slot formed in the lower central portion of said body, which slot is arranged so that the material below it forms an upwardly projecting tongue, and there being notches formed in the side edges of the upper portion of said body, which notches are adapted to provide seats for an elastic member.

5. In a device of the class described, a body formed of comparatively thin sheet material slotted near its lower end to form an upwardly projecting tongue, a tongue of resilient material connected to said first mentioned tongue and extending upwardly against the front face of the body, and a keeper pivotally mounted on the front face of the upper portion of said body.

[Claim 6 not printed in the Gazette.]

1,256,867. INVOICE-HOLDER. ROBERT C. BENDER, St. Louis, Mo. Filed July 5, 1917. Serial No. 178,676. (Cl. 129—1.)



1. A device of the class described comprising a plate, a plurality of retaining fingers transversely arranged thereupon, and there being a centrally arranged longitudinally disposed row of openings formed in said plate to permit the same to be readily bent transversely.

2. A device of the class described comprising a plate, a plurality of retaining fingers transversely arranged thereupon, there being a centrally arranged longitudinally disposed row of openings formed in said plate to permit the same to be readily bent transversely, and a row of stops formed on said plate adjacent to one edge thereof.

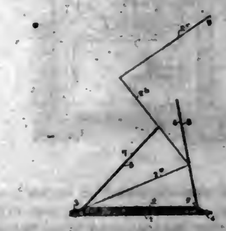
3. A device of the class described comprising a plate, a plurality of retaining fingers transversely arranged thereupon, there being a centrally arranged longitudinally disposed row of openings formed in said plate to permit the same to be readily bent transversely, and sheet retaining lips projecting upwardly and downwardly from said plate.

5. In a device of the class described, a body comprising a plate of resilient material, there being a centrally arranged longitudinally disposed row of openings formed in said plate to permit the same to be readily bent transversely, and sheet retaining means on the face of said plate.

7. In a device of the class described, a body comprising a plate of resilient material, there being a centrally arranged longitudinally disposed row of openings formed in said plate to permit the same to be readily bent transversely, transversely disposed sheet retaining fingers pressed upwardly from the body of said plate, and sheet retaining lips pressed upwardly and downwardly from the body of said plate.

[Claims 4 and 6 not printed in the Gazette.]

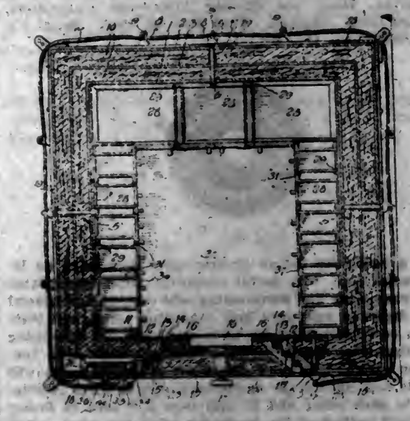
1,256,868. MANIFOLD RECORDING BOOK OR PAD. SVEN JOSEF FREDRIK BERGENDAHL, Gottenborg, Sweden. Filed Jan. 6, 1917. Serial No. 140,898. (Cl. 11—23.)



1. In manifold recording books the combination of a base member, a plurality of sheets, bound together and to the base member along one edge, a carbon leaf also secured along one edge to said base member and elastic stiffening members attached to said carbon and rigidly attached to the base member so as to positively and automatically force the carbon leaf into position, as described.

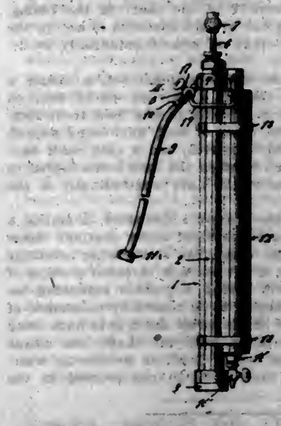
[Claims 2 to 4 not printed in the Gazette.]

1,256,869. SAFETY-VAULT. TORAY BLIXT and ERNST EMIL FROZETH, Minneapolis, Minn.; said Blixt assignor to Nils Edgar Frozeth, Chicago, Ill. Filed Apr. 24, 1917. Serial No. 164,271. (Cl. 9—10.)



A floatable safety vault having walls comprising inner, outer and intermediate metal plates, said plates being provided with a plurality of alined openings, bolts extending through said apertures said bolts having their inner ends reduced in diameter to abut said plate, said reduced ends being threaded, nuts on said threaded portions, spacing sleeves on said bolts between said outer and intermediate plates whereby when said nuts are tightened said spacing sleeves will be drawn in watertight engagement with the outer and intermediate plates, cap nuts secured to the outer end of said bolts having eyes through which cord may be passed to provide hand holds, said cap nuts being provided with an annular packing receiving groove in their inner side and suitable packing in said groove.

1,256,870. COMBINED PUMP AND FIRE-EXTINGUISHER. GEORGE D. BUCK, St. Louis, Mo. Filed July 23, 1917. Serial No. 182,208. (Cl. 169—12.)



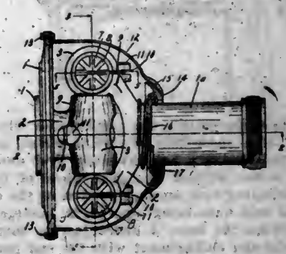
1. In a combined tire pump, and fire extinguisher, a hand-pump provided with an outlet and a main conductor for the discharge of air under pressure, a chemical cylinder secured to said pump and communicating with said outlet, means under the control of the operator whereby the air under pressure passing from the pump can be directed either to said main conductor or to said chemical cylinder, the pump operating handle being located at one end of the device, and a discharge member secured to the chemical cylinder near the opposite end of the device.

2. In a combined air pump and fire extinguisher, a pump provided with an outlet for the air under pressure, a main air conductor leading from said outlet, a secondary conductor branching from said main air conductor, selective means for controlling the flow of air from the pump to either of said conductors, a chemical chamber communicating with said secondary conductor, and a valve for controlling the escape of fluid from said chemical chamber.

3. In a combined tire pump and fire extinguisher, a pump cylinder provided with an outlet for the air under pressure, a piston in said cylinder, an operating handle connected to said piston, a flexible tube for conducting the air under pressure to a tire, a secondary air conductor leading from said pump, a chemical cylinder associated with and secured to said pump cylinder, said cylinders being approximately parallel with each other and said chemical cylinder being in communication with said secondary air conductor, selective means whereby the air passing from said pump may be directed either to said flexible tube or to said secondary air conductor, and a valve for controlling the escape of fluid from said chemical cylinder.

4. In a combined tire pump and fire extinguisher, a vertical pump cylinder provided with an outlet for the air under pressure, a piston in said pump cylinder, an operating handle arranged above said pump cylinder and secured to said piston, a three-way valve housing communicating with said outlet, a flexible discharge tube coupled to said three-way valve housing, a secondary air conductor leading from said three-way valve housing, a three-way valve arranged in said valve housing so as to direct the air either to said flexible discharge tube or to said secondary air conductor, a chemical cylinder associated with and secured to said pump cylinder, said cylinders being approximately parallel with each other, the discharge end of said secondary conductor being connected to and in communication with the upper end of said chemical cylinder, a check valve associated with the secondary conductor to prevent the flow of fluid from the chemical cylinder to said three-way valve, a discharge member at the bottom of said chemical cylinder, and a valve for controlling the flow of fluid through said discharge member.

1,256,871. UNIVERSAL JOINT. FRANK BURTT, Kalamazoo, Mich., assignor to William L. Fitzgerald and Albert Ten Busschen, Kalamazoo, Mich. Filed Apr. 16, 1917. Serial No. 162,481. (Cl. 74—19.)



1. In a universal joint, the combination of shaft members provided with cross arms terminating in cylindrical heads having central inwardly facing openings adapted to receive the arms of a cross journal member, said cylindrical heads having locking key supporting studs, a cross journal member having spherical bearing members at the ends of its arms disposed in said openings of said heads, bearing blocks threaded into said heads in opposed pairs and having concave bearing faces coacting with said spherical bearing members of said journal member, the outer ends of said bearing members being provided with radial locking key notches, and spring locking keys mounted on said studs on said cylinder heads with their arms engaged under tension in the notches of said bearing members.

3. In a universal joint, the combination of shaft members provided with openings adapted to receive the arms of a cross journal member, said shaft members having locking key supporting studs, a cross journal member having bearing members at the ends of its arms disposed in said openings of said shaft members, bearing blocks threaded into said heads in opposed pairs to coact with said bearing members of said journal member, the outer ends of said bearing members being provided with radial locking key notches, and spring locking keys mounted on said studs on said shaft members with their arms engaged in the notches of said bearing members.

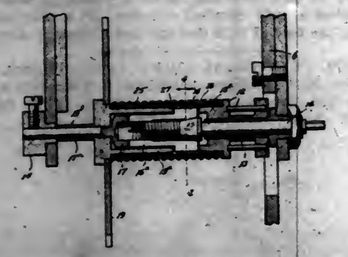
6. In a universal joint, the combination of shaft members provided with openings adapted to receive the arms of a cross journal member, a cross journal member having bearing members at the ends of its arms disposed in said openings of said shaft members, bearing blocks threaded into said shaft members in opposed pairs transversely of said journal member arms and having bearing faces coacting with said bearing members of said journal member.

[Claims 2, 4, 5, and 7 not printed in the Gazette.]

1,256,872. CLOCK. JACOB J. BUSENBENZ, Grand Rapids, Mich., assignor to Differential Clock Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 11, 1915, Serial No. 55,196. Renewed June 14, 1917. Serial No. 174,779. (Cl. 58—48.)

1. In a clock movement, the combination with a primary motor, of a clock-train, a core, a pinion geared to said

motor and having a hub extending over one portion of the core, a hub secured to a gear wheel of the clock-train and extending over another portion of the core, an enlargement on the core between the hubs, a helical spring surrounding both said hubs and enlargement with the end portions of the spring tightly wound about the hubs and the entire portion of the spring between the hubs extending over the enlargement with its coils out of contact with each other whereby the torsioning of the spring will occur only over the enlargement and between the adjacent ends of the hubs.



2. In a clock movement, the combination with a primary motor, of a clock-train, a core, a pinion geared to said motor and having a hub extending over one portion of the core, a hub secured to a gear wheel of the clock-train and extending over another portion of the core, the inner ends of said hubs being tapered, an enlargement on the core between the hubs, a helical spring surrounding both said hubs and enlargement with the end portions of the spring tightly wound about the hubs and the entire portion of the spring between the hubs extending over the enlargement with its coils out of contact with each other whereby the torsioning of the spring will occur only over the enlargement and between the adjacent ends of the hubs.

7. In a clock-movement including an escapement, the combination of a primary motor having the hour-shaft arbor geared to it to form the power-unit, a core provided with an enlargement between its ends, a pinion journaled on one end of the core and geared to said arbor, a gear-wheel journaled on the opposite end of the core and geared to the escape-wheel, said pinion and wheel having hubs tapered on their respectively opposite ends, and a helical spring having one end-section tightly wound about the pinion-hub, its intermediate section winding about said enlargement to limit the extent of tensioning, and its opposite end-section tightly wound about the hub of said wheel to form the time-measuring unit.

[Claims 3 to 6 not printed in the Gazette.]

1,256,873. STEERING-GEAR. FRANK D. CARRICO, Hamtramck, Mich., assignor of one-half to John H. Neary, Detroit, Mich. Filed Mar. 25, 1916. Serial No. 86,776. (Cl. 74—79.)



1. In a device of the character described, a casing, a screw shaft therein, adjustable means for holding the shaft from longitudinal movement therein, nuts on the screw shaft spaced one from the other, a rock shaft mounted in the casing transversely of the screw shaft and adapted to be rocked by movement of the nuts longitudinally of the screw shaft, the nuts being normally held from rotation with the shaft, a worm gear by rotation of which one of said nuts may be turned relative to the shaft, and a worm operable from the exterior of the case engaging the worm gear.

5. In a device of the character described, a casing, a screw shaft mounted for rotation therein having threads equidistantly spaced from the center of the casing on each side thereof, a nut on each of said threaded portions, a bushing for each of said nuts having ways formed longitudinally thereof to receive keys formed on the nuts, means for holding the bushings from rotation, one of said bushings having a circumferential flange and the casing being grooved to receive the flange, the other of said bushings having a similar flange engaging the end of the casing, a housing adapted to be bolted to the casing end and frictionally engage the flange on the bushing, an adjusting nut carried by the housing, an anti-friction bearing between the nut and adjacent screw threaded portion of the shaft whereby said adjusting nut may be set to prevent longitudinal movement of the shaft in the casing, and means for turning one of said bushings to set up the nut carried thereby to take up wear substantially as described.

7. In a device of the character described, a casing, a screw shaft rotatable therein, a pair of spaced nuts on the shaft, one of said nuts being fixedly held from rotation therewith, and the other of said nuts being adjustably held from rotation therewith, and a rock shaft having a portion positioned between the nuts and adapted to be rocked by movement of the nuts longitudinally of the shaft.

11. In a device of the character described, a casing, a shaft having two integrally formed screw portions thereon spaced one from the other, the shaft being rotatably mounted in the casing, a nut on each threaded portion of the shaft, a rock shaft having a portion extending between the nuts and adapted to be rocked by movement of the nuts longitudinally of the screw shaft, said nuts being normally held from rotation with the shaft, and means for rotatively adjusting one of the nuts to take up wear.

[Claims 2 to 4, 6, and 8 to 10 not printed in the Gazette.]

1,256,874. FIRE-EXTINGUISHER. WALTER T. CHARLES, Chicago, Ill. Filed June 17, 1916. Serial No. 104,189. (Cl. 169—17.)



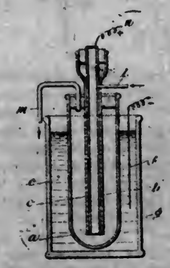
1. An apparatus of the class described, comprising a receptacle for fluid, a double-acting force pump mounted in said receptacle, a valve casing mounted on said pump, a flexible pipe having one end communicating with said valve casing and having its other end freely movable within said receptacle, an intake pipe providing communication between said valve casing and one end of said pump, said pipe being located diametrically opposite said valve casing, a discharge nozzle and a pipe providing communication between said nozzle and the other end of said pump, said pipe being disposed diametrically opposite said valve casing.

2. An apparatus of the class described, comprising a receptacle for fluid, a pump cylinder mounted on said receptacle, a valve casing on said pump cylinder, a flexible pipe having one end communicating with said valve casing, a relatively large piston rod in said cylinder, a piston slidably mounted on the inner end of said rod, shoulders on said rod for limiting the sliding of said piston, said rod having a longitudinally disposed slot therein located in that part whereon said piston slides, and extending past one of said shoulders, said piston rod, slot, and piston being constructed and arranged so as to provide communication from one side of said piston to the other side thereof when said piston rod is moved one way in said pump cylinder, and to close communication from one side of said piston to the other side thereof when said piston rod is moved the other way in said pump cylinder, said pump cylinder having an intake on said one side of said piston which communicates with said valve casing and an outlet on said other side of said piston, and a discharge nozzle communicating with the outlet of said pump cylinder, all being arranged to cause fluid to be positively forced out of said nozzle when said piston rod is moved one way, and to be forced out by the relatively large piston rod displacing the fluid when said rod is moved the other way.

5. An apparatus of the class described, comprising a receptacle for liquid, pumping mechanism for discharging the liquid from said receptacle, and an air inlet pipe having one end communicating with the atmosphere and the other end communicating with the interior of said receptacle, said air inlet pipe having communication with the atmosphere at the top of said receptacle and having a coil disposed peripherally about the interior of said receptacle at the top thereof, then extending downward and having another coil disposed peripherally about the interior of said receptacle at the bottom thereof.

[Claims 3 and 4 not printed in the Gazette.]

1,256,875. PROCESS FOR PRODUCING AMMONIA. ALEXANDER CLASSEN, Aachen, Germany. Filed Oct. 8, 1915. Serial No. 54,897. (Cl. 204—31.)



1. The process for producing ammonia which consists in subjecting a mixture of nitrogen and hydrogen to the simultaneous action of dark discharges and spark discharges in the presence of a catalytic active substance.

6. The process for producing ammonia which consists in subjecting a mixture of nitrogen and hydrogen to the simultaneous action of dark discharges and spark discharges in the presence of a catalytic active colloidal substance reduced to a state of fine distribution by aid of gelatose.

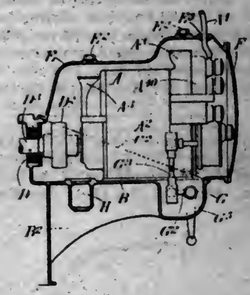
8. The process for producing ammonia which consists in subjecting nitrogen and hydrogen to the simultaneous action of dark discharges and spark discharges in the presence of a catalytic active substance disposed on a carrier of an acid nature, said carrier being greatly in excess of the catalytic active substance.

9. The process for producing ammonia which consists in subjecting nitrogen and hydrogen to the simultaneous action of dark discharges and spark discharges in the presence of a catalytic active substance disposed on a carrier containing the group SiO^4.

12. The process for producing ammonia which consists in conducting a mixture of nitrogen and hydrogen in contact with a catalytic active substance disposed on a carrier of an acid nature, through simultaneous dark discharges and spark discharges passing between a metal electrode and a dielectric.

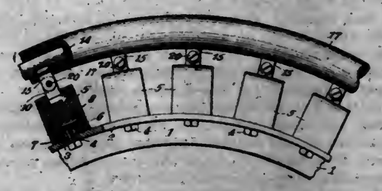
[Claims 2 to 5, 7, 10, and 11 not printed in the Gazette.]

1,256,876. MEANS FOR PROTECTING THE IGNITION APPARATUS OF INTERNAL-COMBUSTION ENGINES. LOUIS COATALEN, Wolverhampton, England. Filed Nov. 21, 1916. Serial No. 132,642. (Cl. 123—149.)



In an internal combustion engine, the combination of a bracket, an ignition device thereon, a driving shaft for said ignition device, a bearing for said shaft, walls to said bracket which project above said bearing, a cover over said ignition device and joining up said walls, a spindle upon said bracket, and projecting to one side thereof, and a connection between said spindle and said ignition device, substantially as set forth.

1,256,877. RESILIENT TIRE. GARRETT JOHN COUCHOIS, Rutherford, N. J., assignor to Couchois Tire Corporation, New York, N. Y., a Corporation of New York. Filed June 12, 1917. Serial No. 174,385. (Cl. 152—36.)



1. A resilient tire comprising a rigid rim, a continuous annular tread spaced from the rim, resilient blocks interposed between the rim and tread, and means for locking said blocks to the rim and tread and imposing a radial tensional stress on said blocks to strain the latter toward the center of the tire.

2. A resilient tire comprising a rigid rim, a continuous annular tread spaced from the rim, resilient blocks interposed between the rim and tread, means for attaching the blocks to the tread, and means for drawing the blocks toward the rim and locking said blocks thereto, whereby said blocks are subjected to a radial tensional strain.

3. A resilient tire comprising a rigid rim, a continuous annular tread spaced from the rim, resilient blocks interposed between the rim and tread, inner and outer anchoring devices embedded in the blocks, means for connecting the outer anchoring devices to the tread, and adjustable

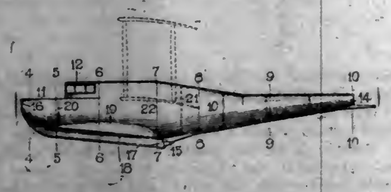
means for connecting the inner anchoring devices to the rim, whereby said blocks are subjected to radial tensional strain and normally stretched between the tread and rim.

4. A resilient tire comprising a rigid rim, a tread including a metal hoop and a resilient sheath therefor spaced from the rim, resilient blocks interposed between the rim and tread, and means for locking said blocks to the rim and tread and imposing a radial tensional stress on said blocks to strain the latter toward the geometrical center of the tire.

12. A resilient tire comprising a rigid rim, a continuous annular tread including a pair of laterally spaced metal cores and resilient sheaths therefor, resilient blocks interposed between the rim and the tread, anchoring devices embedded in the outer portions of the block and secured to the cores of the tread, compression springs interposed between said anchoring devices and tending to spread the same laterally apart, anchoring plates embedded in the lower portions of the blocks, and locking bolts passing through the rim and engaging the plates and adapted to impose a radial tensional strain on the blocks when the latter are drawn toward the rim.

[Claims 5 to 11 and 13 not printed in the Gazette.]

1,256,878. HYDROAEROPLANE-BOAT. GLENN H. CURTISS, Hammondsport, N. Y., assignor to The Curtiss Motor Company, Hammondsport, N. Y., a Corporation of New York. Filed Dec. 11, 1914. Serial No. 876,713. (Cl. 244—2.)



1. An aeroplane body comprising a main flotation body, the bottom of which is shaped to form hydroplane surfaces, and forwardly located marginal excrescent structures on the sides of said main flotation body, the bottoms of which are coextensive with and in continuation of the hydroplaning surfaces of said bottom.

5. A hydroplane boat body having an interior watertight space for occupancy by the flying crew or other useful load together with watertight compartments respectively ahead of, aft of, and at each side of said space, the side compartments being in the form of fin excrescences arranged to extend out laterally from the boat body proper to augment the hydroplaning area thereof.

10. In a hull for flying boats, a V-shaped hydroplaning bottom and auxiliary planing fins formed as lateral extensions of said bottom, said fins being enlarged rearwardly from the bow of the hull in directions providing longitudinal and trasverse stream-lines.

15. In a hydroplane hull, an overhanging bow having an elevational aspect determined by lines rounding off rearwardly and downwardly, a bottom V-shaped in cross section, the angled portions of the bottom having their inception at the bow and considerably above the water line, each portion being decreasingly concaved from the nose rearwardly and the angle between the portions rearwardly approaching a maximum obtuseness, and a step terminating said bottom.

20. A flying boat including a main flotation body having an underneath hydroplaning surface of substantially V-form in transverse section, fin excrescences arranged to augment the hydroplaning surface laterally in the vicinity of the resultant center of hydroplane lift, the bottom surfaces of the fins continuing uninterruptedly the hydroplaning bottom of the boat body proper.

[Claims 2 to 4, 6 to 9, 11 to 14, 16 to 19, and 21 to 27 not printed in the Gazette.]

1,256,879. HYDROCARBON-BURNER. CORTLAND W. DAVIS and VICTOR S. JOHNSON, Chicago, Ill., assignors to The Mantle Lamp Company of America, Chicago, Ill., a Corporation of Illinois. Filed Aug. 28, 1914. Serial No. 859,073. (Cl. 67—38.)



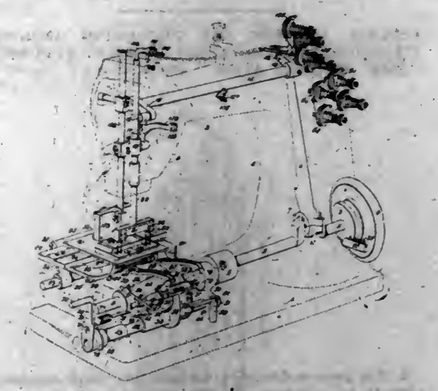
1. A burner comprising a plurality of parts including a basket base, a cone structure mounted above said basket base, and a non-heat conductor disposed between the cone structure and the basket base to restrict the transmission of heat from the cone structure to the base.

3. A burner including a foraminous base section, a cone structure supported above the base section, and a fixedly mounted ring of heat resisting material disposed between said parts.

5. In a burner, a wick tube, a flame protecting flange, heat resisting material to maintain said flange out of contact with said wick tube, and means to retain said heat resisting material in position.

[Claims 2, 4, and 6 to 20 not printed in the Gazette.]

1,256,880. SEWING-MACHINE LOOP-TAKER MECHANISM. ALBERT HARRISON DE VOE, Westfield, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Oct. 6, 1913, Serial No. 793,535. Renewed Aug. 3, 1916. Serial No. 113,022. (Cl. 112—5.)



1. In a sewing machine the combination with a work-support, an actuating shaft, and feeding mechanism, of stitch-forming mechanism comprising a reciprocating needle, a looper supported for movement transversely of the plane of the work-support with its blade arranged at an acute angle with the direction of feed and means including an eccentric element on the actuating shaft for imparting to said looper endwise and sidewise movements in a substantially elliptical path having its axis inclined to the direction of feed.

28. A sewing machine looper comprising a shank portion, a blade portion, and means for securing the blade portion adjustably lengthwise of the blade upon the shank portion.

32. A sewing machine comprising, in combination, a frame, a work-support, a reciprocating needle, an oscillating looper, actuating means for imparting reciprocatory movements to said needle and loop seizing and oscillating movements to said looper, shiftable means for locking said actuating means, and means carried by said frame and operatively connected with said shiftable means for shifting said looper to a position for convenience in threading.

[Claims 2 to 27, 29 to 31, and 33 not printed in the Gazette.]

1,256,881. METALLIC PACKING-RING. FRANZ DUVENTER, Hanover, Germany. Filed Mar. 19, 1914. Serial No. 825,918. (Cl. 187—121.)



A metallic packing ring consisting of thin, flat, soft metal threads of sufficient length to extend approximately around the ring, twisted together to form a great number of small hollow spaces in which lubricant medium is mixed, said metal threads and lubricant having been subjected to high pressure to obtain the desired shape and form.

1,256,882. DEMOUNTABLE WHEEL. JOHN WESLEY DICKINSON, Jr., Little Rock, Ark. Filed July 7, 1915. Serial No. 38,490. (Cl. 21—81.)



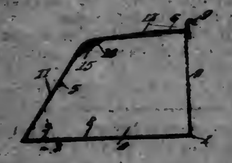
A demountable wheel comprising a hub member provided at its inner end with an upstanding annular flange and a portion of polygonal formation externally extending forwardly from said flange and a cylindrical portion in advance of the polygonal portion, the polygonal portion tapering outwardly, a cylindrical extension in advance of the above mentioned cylindrical portion, the rear end of the cylindrical extension being externally threaded a slight distance in advance of the cylindrical portion, a spoke carrying sleeve having an upstanding flange at its inner end and provided with an annular recess or socket to fit the aforesaid annular flange at the inner portion of the hub to constitute a seal band, said sleeve having a width greater than the extent of the polygonal formation, and having a mating polygonal bore to slide and fit on the polygonal portion of the hub, spokes having their inner ends held on the sleeve and against the flange thereof, an outer spoke retaining band having a circular bore of the same diameter as the outer diameter of the sleeve and adapted to be detachably held against the spokes and to the annular flange of the sleeve, and a threaded nut mounted on the threaded portion of the hub, and against the outer end of the sleeve to force it into close contact with the polygonal portion of the hub, the undercut cylindrical portion of the hub in advance of said threaded portion adapted to receive the nut when unscrewed, the greatest diameter of the active face of said nut being no greater than the outer diameter of the sleeve whereby spokes may be removed or replaced without removing the sleeve from the hub.

1,256,883. OPENING MEANS. ALEXANDER C. DRYSDALE, Bismarck, N. D. Filed Mar. 30, 1917. Serial No. 156,709. (Cl. 220—76.)



The combination with a container having an inner annular shoulder at its upper end, of a cover frictionally secured in the upper end of said container and provided with a horizontal outwardly extending annular flange disposed in parallel spaced relation to the shoulder of the container, a standard secured on the container, and a horizontally disposed key rotatably mounted in said standard, said key extending between the top of the container and the annular flange of the cover and being provided at its inner end with an angularly disposed finger, said key being also provided on its outer end with an integral gripping head disposed at right angles to said finger.

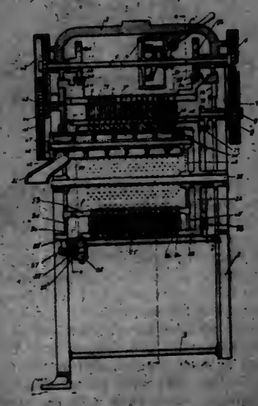
1,256,884. SOAP-BOX. GEORGE A. DUNKELBERGER, Paxinos, Pa. Filed Sept. 18, 1917. Serial No. 192,092. (Cl. 45—28.)



1. In a soap holder, a receptacle including a back, sides and a bottom; and a closure including a top, and a front disposed at an angle to the top, the front being heavier than the top, whereby the front and the top will tend to gravitate to a closed position; and means for pivoting the closure to the sides adjacent the point where the top merges into the front.

[Claims 2 to 4 not printed in the Gazette.]

1,256,885. CHERRY-PITTING MACHINE. MELVILLE E. DUNKLEY, Kalamazoo, Mich. Filed Jan. 16, 1915. Serial No. 2,552. (Cl. 146—5.)



1. In a machine of the class described, the combination of frame members; a rotatably mounted hollow drum; means for imparting intermittent rotary movement to

said drum, said drum being provided with a plurality of rows of cherry receiving cavities each having a pit discharging opening through the drum; means to deliver cherries to the surface of said hollow drum; a cross head carrying a plurality of rows of pitting plungers; means for reciprocating said cross head at predetermined intervals; a cross head inside the drum carrying a plurality of rows of ejector plungers; an arm connecting said cross heads whereby they move together; a pit receiving chamber within said hollow drum near the upper part thereof; a plurality of rows of perforations in the upper part of said chamber disposed to permit the passage therethrough of the pits forced from the cherries by the pitting plungers; a shaft within said chamber; a spiral brush on said shaft; and means for driving said shaft, all coacting substantially as described for the purpose specified.

4. In a machine of the class described, the combination of frame members; a rotatably mounted hollow drum provided with a plurality of rows of cherry receiving cavities; a chute slidably supported from said frame members and disposed to deliver cherries to the surface of said hollow drum; and means for imparting reciprocatory movement laterally to said chute.

5. In a machine of the class described, the combination of a rotatably mounted drum provided with cherry receiving cavities, each having a pit discharging opening through said drum, means for driving the drum with an intermittent movement, a plurality of pitting plungers, means for actuating said pitting plungers to force the pits within the said drum, a revolving spiral brush, means for removing the projecting pits, means for driving the same at a relatively high speed to act on the pits and tend to avoid the flow of juice from the said cherries, coacting as specified.

[Claims 2, 3, 5 to 7, and 9 not printed in the Gazette.]

1,256,886. DEVICE FOR MANUFACTURING SCREEN-PHOTOGRAPHS FOR THE HALF-TONE-ENGRAVING PROCESS. EMIL EBERHARD, Zurich, Switzerland. Filed Jan. 6, 1915. Serial No. 807. (Cl. 95—64.)



1. In a device for making screen negatives or positives for the half-tone engraving process, an iris diaphragm, mechanism for automatically varying the apertures of said diaphragm during an exposure between two definite openings of said diaphragm, an irregularly curved guide for an element of said mechanism for imparting movement to said diaphragm to automatically and continuously alter the rate of movement of the diaphragm.

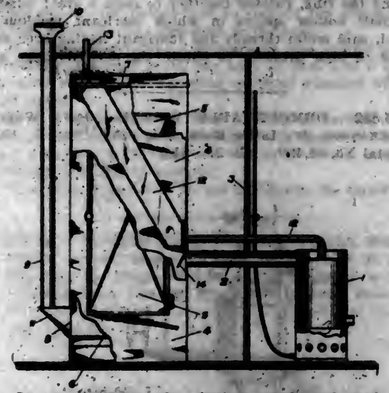
2. In a device for making screen-negatives or positives for the half-tone engraving process, an iris diaphragm, mechanism having uniform motion, and means for changing the uniform motion into such an irregular one that the duration of motion corresponds with the apertures of the diaphragm.

3. In a device for making screen negatives or positives for the half-tone engraving process, an iris diaphragm, mechanism for obtaining a uniform rotary motion, a drum uniformly rotated by said mechanism, an irregularly curved guide provided on the outer surface of the drum, a carriage guided by said guide, and means transmitting the motion of the carriage to the iris diaphragm.

7. In a device for making screen-photographs, an iris diaphragm, a driving mechanism, means to release said mechanism at will, mechanism connected to said diaphragm to actuate it during the taking of a photograph and controlled from said driving mechanism, and means actuated by said diaphragm connected mechanism at the end of its movement to stop said driving mechanism.

[Claims 2, 3, and 6 not printed in the Gazette.]

1,256,887. APPARATUS FOR DRYING GASOLENE-CLEANED GARMENTS. EDWARD E. EHRICH, Indianapolis, Ind. Filed Dec. 18, 1916. Serial No. 137,672. (Cl. 34—19.)



1. In an apparatus for drying gasolene-cleaned garments, in combination with a furnace, a closed drying room cabinet, a hot air supply pipe leading from the hot air chamber of the furnace to the lower part of the drying room to convey the heated air by natural draft alone, means leading from the lower part of the cabinet for drawing off the gasolene vapors by natural draft alone, means for supporting garments in the upper part of said cabinet, closed means for conveying gaseous products of combustion from the furnace through the cabinet, said outlet means for the gasolene vapors and the outlet means for the gaseous products of combustion being separated and leading to different points of distribution of the gases and vapors.

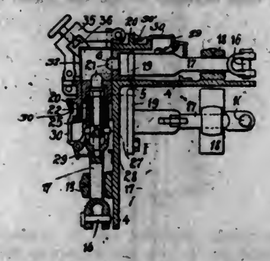
[Claims 2 to 4 not printed in the Gazette.]

1,256,888. MOLD-MAKING MACHINE. EVERT ERICSSON, Christiania, Norway. Filed May 10, 1917. Serial No. 167,776. (Cl. 22—28.)

1. A mold making machine for the casting of continuous heavy chain, comprising two reciprocating pistons adapted to press against two adjacent side surfaces of a mold section, said pressing pistons carrying axially movable patterns adapted to be withdrawn into the pistons when the same have reached their innermost position.

2. A mold making machine for the casting of continuous heavy chain, comprising two reciprocating pistons adapted to press against two adjacent side surfaces of a mold section, said pressing pistons carrying patterns slidably mounted in the pressing pistons, springs acting to pull the patterns back into the pistons, said springs being compressed during the return stroke of the pistons and released when the pistons have reached their innermost positions.

3. A mold making machine for the casting of continuous heavy chain, comprising two reciprocating pistons adapted to press against two adjacent side surfaces of a mold section, driving mechanism for said pistons, means to automatically disengage said pistons from their driving mechanism when, after having finished their pressing operation, they have returned to their outward position.

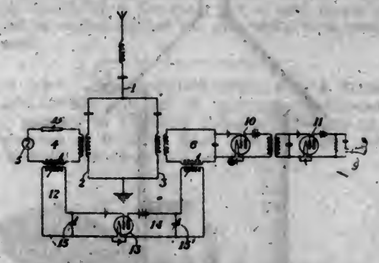


4. A mold making machine comprising two pistons arranged to engage two adjacent sides of a mold section, means to reciprocate said pistons, patterns slidably mounted in said pistons, means actuated by a backward movement of the pistons to advance the patterns in the pistons, and means operated by a forward movement of the pistons to retract the patterns in the latter.

7. A mold making machine comprising a rectangular frame, hollow pistons slidably mounted on adjacent sides of the frame, means to reciprocate the pistons in planes at right angles to each other, patterns slidably mounted in the pistons and adapted to be projected beyond the ends of the latter, springs in the pistons adapted to retract the patterns, means on the pistons and frame coöperating during the movement of the pistons to project the patterns against the action of the springs, means to automatically lock the patterns during said movement, and means on the frame to actuate the locking means to release the projected patterns.

[Claims 5 and 6 not printed in the Gazette.]

1,256,889. WIRELESS DUPLEX SIGNALING SYSTEM. LLOYD ESPENSCHIED, Hollis, N. Y., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed May 15, 1916. Serial No. 97,565. (Cl. 250—13.)



1. In a system for the simultaneous transmission and reception of signals, a circuit tuned to one frequency for transmission, a circuit tuned to another frequency for reception, a transmitting apparatus, means for associating the same with said first circuit, a receiving apparatus, means for associating the same with said second circuit, a balancing circuit and means for coupling said balancing circuit to the means for associating said transmitting and receiving apparatus with the tuned circuit so as to render said receiving apparatus free from interference by the transmitted energy.

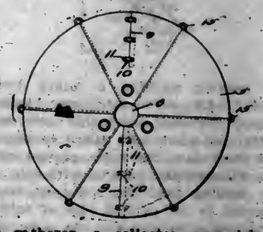
2. In a system for the simultaneous transmission and reception of signals, a circuit tuned to one frequency for transmission, a circuit tuned to another frequency for reception, a transmitting apparatus, a circuit for connecting the same with said first tuned circuit, a receiving apparatus, a circuit for connecting the same with said second tuned circuit, and means to neutralise the effect of transmitted energy upon the receiving apparatus, said means being connected to said connecting circuits and through said connecting circuits with said tuned circuits.

3. In a system for the simultaneous transmission and reception of signals, an element tuned to transmission frequency, a second element tuned to reception frequency, a transmitting apparatus, means to associate the same with the first element, a receiving apparatus, means to associate the same with the second element, and an auxiliary circuit coupling the means for associating the transmitting and receiving apparatus with said elements, said auxiliary circuit being provided with means to overcome the effect of transmitted energy upon the receiving apparatus.

4. In a system for the simultaneous transmission and reception of signals, an element tuned to transmission frequency, a second element tuned to reception frequency, a transmitting apparatus, a circuit for coupling the same to the first element, a receiving apparatus, a circuit for coupling the same to the second element, and an auxiliary circuit connecting the coupling circuits, said auxiliary circuit being provided with means including an amplifier to overcome the effect of transmitted energy upon the receiving apparatus.

[Claims 5 to 10 not printed in the Gazette.]

1,256,890. FRUIT-GATHERER. MARY E. FLINN, Medford, Oreg. Filed June 22, 1917. Serial No. 176,384. (Cl. 56—99.)



In a fruit gatherer, a collector comprising a body formed of cloth and having a central aperture, the said body having a cut from the outer edge to the edges of the cloth defining said aperture, means for securing the ends of said body together, the said body having also a cut opposite said first cut extending inwardly from its outer edge a distance substantially one half the distance from the outer to the inner edges thereof, fasteners for detachably securing the edges of said cut portion together, and means for securing said collector around a tree with the latter extending through said central aperture.

1,256,891. HOUSE-GOWN. SUSAN P. GATES, Walla Walla, Wash. Filed May 20, 1916. Serial No. 98,900. (Cl. 2—145.)



A one-piece garment consisting of a sack-like body provided in its front portion with a V-shaped opening ex-

tending downwardly from the neck of the gown, and a fastener for connecting the opposite edges of said opening in spaced relation to the lower end thereof, said body having short sleeves and V-shaped gussets inserted into the top of each shoulder portion of the garment extending over the shoulder forwardly and rearwardly of its central portion; the wider ends of the gussets constituting continuations of the neckline of the garment and the points of the gussets terminating at the outer ends of the shoulder portions thereof.

1,256,002. FLESHING-MACHINE. WILLIAM G. GIBBING, St. Louis, Mo.; Henry Gibbing executor of said William G. Gibbing, deceased. Filed Aug. 21, 1916. Serial No. 116,001. (Cl. 149—16.)



1. In a fleshing machine, a rotary fleshing knife, a guard located adjacent to said rotary knife, and a universal support for said guard, said universal support being adjustable to allow said guard to move toward and away from the axis of the knife, around said axis and in a direction substantially parallel with said axis.

3. In a fleshing machine, a rotary fleshing knife, a guard adjacent to the cutting edge of said rotary knife, an eccentric ring surrounding the axis of said rotary knife, said guard being fitted to said eccentric ring and the latter being adjustable to move the guard toward and away from the axis of the knife.

5. In a fleshing machine, a fleshing knife, a guard member adjacent to the cutting edge of said knife, a support for said guard member, yieldable material between said guard member and its support, and an adjustable fastening device securing said guard member to its support, said fastening device being adapted to compress said yieldable material so as to adjust the guard member.

[Claims 2 and 4 not printed in the Gazette.]

1,256,893. DEVELOPING APPARATUS. HARRISON GINDELE, Cincinnati, Ohio. Filed Sept. 5, 1914. Serial No. 860,481. (Cl. 95—90.)

1. A negative developing carrier comprising a frame, top and bottom members removably mounted on the frame, said top and bottom members having light excluding means which permit of the access of fluid substances to the interior of the frame, slide plates carried by the frame to cooperate therewith and top and bottom members to produce a central chamber within the frame, and a central top portion removably mounted within the frame to divide the chamber into a plurality of compartments.

5. A developing carrier comprising a frame having end sections and a slide to close the side of the frame, the upper end section being removably positioned within the frame, and means to lock said section to the frame.

11. A developing carrier comprising a light-proof frame and a removable interior member for the frame having a plurality of separable sections, said frame being provided with foraminous end sections having means whereby fluid may enter and escape from the interior of the frame.

16. A developing carrier comprising a frame and a removable interior member for the frame having a plurality of separable sections, said interior member and frame forming a light-proof receptacle, said frame and interior member being provided with means to admit fluid to the interior of the carrier, one section of the interior member comprising a body having concave plates and side walls to produce a fluid chamber within the frame for a sensitized plate.



21. A developing carrier comprising a frame provided with a plurality of sections including a fluid admission section having a removable light baffle element in the base thereof, said baffle element comprising a plate formed to provide a plurality of zig-zag members with a passage between each member.

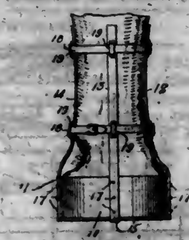
[Claims 2 to 4, 6 to 10, 12 to 14, 16 to 20, and 22 not printed in the Gazette.]

1,256,894. METHOD OF PREPARING MINIM-ALCOHOLIC BEVERAGES. EDWARD GUNDMAN, Chicago, Ill. Filed June 22, 1908. Serial No. 439,748. (Cl. 195—1.)



The method of preparing minim alcoholic beverages, which consists in subjecting the beer charge in an open vessel, at atmospheric pressure, to the action of live steam in copious and regulated quantity proper to mechanically agitate the charge and bring the same to a temperature somewhat below the boiling point, the supply of steam admitted to the charge being such that the major portion of the steam shall be forced through the charge to drive off the alcohol, while a minor portion of the steam condenses to maintain the volume of the charge practically constant, substantially as described.

1,256,895. ANIMAL ANKLE AND LEG SUPPORT. HARRY ROY HANDYSIDE, Warsaw, N. Y. Filed May 28, 1917. Serial No. 170,504. (Cl. 54—82.)



1. In a support of the character described, a hook socket adapted to receive the hoof of an animal therein, resilient braces secured to the socket and extending upwardly therefrom, and straps surrounding the braces and adapted to be drawn taut to flex the braces to cause the same to conform to and support the ankle and leg of the animal, and to hold the hoof in its natural position.

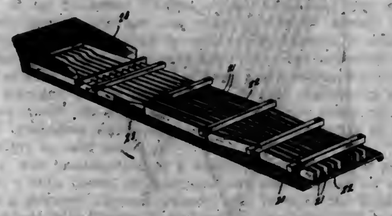
[Claims 2 to 6 not printed in the Gazette.]

1,256,896. CAR-SEAL. WILLIAM HAY, Arlington, Wash., assignor of one-half to Neil Brown, Arlington, Wash. Filed June 30, 1917. Serial No. 177,068. (Cl. 70—60.)



A car seal comprising a keeper having a closed end, a shackle member integral therewith and extending from the open end of the keeper, said shackle being provided with a slot adjacent to its outer end, a spring device within the keeper and comprising a plate bent to provide two arms, one of said arms being rigidly secured to the keeper, the other arm being formed with a tongue extending from two shoulders provided on the arm, and a link hingedly connected to the outer end of said tongue and arranged to engage against the arm which is secured to the keeper.

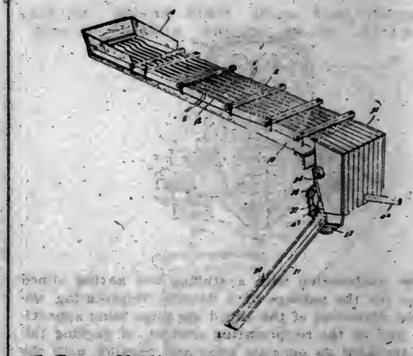
1,256,897. POSITIONING DEVICE FOR SILENT CHAIN-LINKS. HENRY E. HAYWARD, Indianapolis, Ind., assignor to Link-Belt Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 24, 1916. Serial No. 93,320. (Cl. 59—7.)



1. A positioning device for silent chain links, comprising a trough of proper width at one end to allow a silent chain link to lie longitudinally therein but to prevent it from lying crosswise therein, so that the points of the link are successively toward one side or the other of the trough, and a medial longitudinal vertical partition in said trough, said partition terminating short of the discharge end of the trough in a narrow plow point formed by having its upper end extend at an oblique angle to the bottom of the trough to the plane of the under surface of a link lying in the trough so that as a link slides along the trough said plow point projects under it along its longitudinal medial line and tilts one edge of the link upward to bring the link toward an upright position on the other side of said partition from that on which said edge originally lay.

[Claims 2 to 29 not printed in the Gazette.]

1,256,898. LINK-STACKING DEVICE. HENRY E. HAYWARD, Indianapolis, Ind., assignor to Link-Belt Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 24, 1916. Serial No. 93,321. (Cl. 59—1.)



1. In combination, means for bringing a haphazard mass of crotched chain links into a definite plane in an end-to-end arrangement with their crotches all to one side, a slide rail, and means for receiving the links in an end-to-end arrangement from said first means and placing them astride said slide rail with their crotches in alinement.

5. In combination, means for delivering crotched chain links in an end-to-end arrangement with their crotches all to one side, a conveyer adapted to support the links in a side-by-side arrangement with their crotches in alinement, and means for receiving the links from said first means in said end-to-end arrangement and placing them on said conveyer in said side-by-side arrangement.

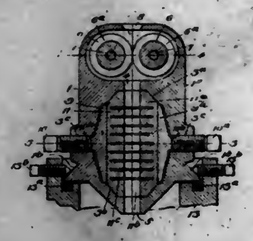
17. In combination, a slide rail adapted to receive silent chain links astride it, a vertically moving link carriage having two parts on the two sides of the slide rail respectively and moving between a position where the upper ends of said parts are as high as the top of the slide rail and a position where such upper ends are so low that the crotch of a link having its two points resting thereon touches the slide rail, said slide rail and the upper ends of said link carriage parts being inclined correspondingly longitudinally of the slide rail, a plurality of link chutes discharging links on to said link carriage transversely to said slide rail at different points therealong with the points of the links downward, the discharge ends of said link chutes being arranged at different heights corresponding to the slant of said link carriage, means for permitting discharge of said links from said chutes on to said carriage when the latter is elevated and for preventing it at other times, said chutes being curved so that at their lower ends they discharge links on to said carriage with the link points downward and at their upper ends they receive links with the link points upward, and means for feeding links into the upper end of each of said chutes with the links in an end-to-end arrangement with their points upward.

21. In combination, means for delivering crotched links in an end-to-end arrangement with their crotches all to one side, a slide rail, and means for receiving the links in the end-to-end arrangement from said first means and placing them astride said slide rail with their crotches in alinement.

27. In a device for handling crotched members, a support for said members in end-to-end relationship, a second support for the reception of said members in side-by-side relationship, said second support being arranged transversely to the line of links on said first support, and discharge mechanism receiving links from said first support and discharging them on to said second support laterally of the line of links on the first support.

[Claims 2 to 4, 6 to 16, 18 to 20, and 22 to 26 not printed in the Gazette.]

1,256,899. STUFFING-BOX. ALFRED G. HEGGEM, Tulsa, Okla. Filed Mar. 4, 1916. Serial No. 82,223. (Cl. 137—116.)



1. The combination with a stuffing box having alined openings for the passage of a flexible reciprocating element, the diameters of the alined openings being approximately that of the reciprocating element, of packing followers arranged on opposite sides and parallel with the axis of the alined openings, longitudinally separable flexible packing sections having transverse grooves, and means for independently advancing said followers toward the axis of the alined openings.

3. The combination with a longitudinally separable sectional stuffing box having alined openings for the passage of a flexible reciprocating element, of a plurality of guide rolls arranged on opposite sections and on opposite sides of the axis of the alined openings, a plurality of packing followers also arranged in opposite sections and on opposite sides of the alined openings of the stuffing box, and means for adjustably advancing said followers toward the axis of the alined openings.

7. A flexible packing for stuffing boxes comprised of a plurality of longitudinally separable packing members each provided with a plurality of flexible segmental packing elements which are separated at their contact ends by transversely extending grooves, whereby the said segmental packing elements may flex independently of each other to conform to reciprocating irregular surfaces.

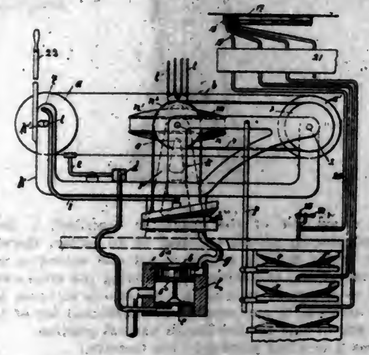
8. A flexible packing member involving a plurality of segmental packing elements connected at their bases by comparatively thin flexible walls which maintain the spaced relation of said elements while permitting independent flexible movement thereof.

10. The combination with a longitudinally separable sectional stuffing box having alined openings for the passage of a flexible reciprocating element, of cupped followers having their cupped surfaces eccentric to each other, said followers arranged on opposite sides and parallel with the axis of the alined openings, and means for advancing said followers toward the axis of the alined openings.

[Claims 2, 4 to 6, 9, 11, and 12 not printed in the Gazette.]

1,256,900. PIANO-VIOLIN BOW. GUSTAV KARL HENNIG, Böhlitz-Ehrenberg, near Leipzig, Germany, assignor to the Firm of Ludwig Hupfeld Aktiengesellschaft, Böhlitz-Ehrenberg, Germany. Filed Sept. 15, 1915. Serial No. 50,825. (Cl. 84—46.)

1. A piano violin comprising an endless band bow, and a pair of guide rollers therefor, mechanism for moving one of said rollers so that its axis shall be inclined to the axis of the other roller, and feeler mechanism adjacent the bow and actuated thereby when the latter is out of normal position to control the movement of the aforesaid mechanism.

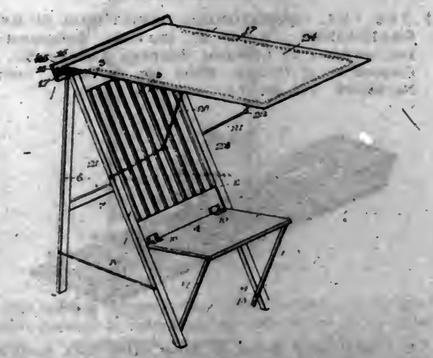


6. A piano violin comprising a frame mounted to rock a pair of spaced rollers mounted in said frame, one of which rollers has its shaft displaceable in slots in said frame, an endless band bow supported on said rollers, a lever bearing on each end of said shaft, said levers connected to opposite sides of said frame, a feeler at each side of the normal path of the bow, said feelers mounted on said frame and adapted to be actuated by the bow when the latter moves out of said path, pneumatic mechanism controlled by said feelers for actuating the levers, and note-sheet controlled mechanism to rock said frame to bodily move the bow into playing position for any one string or pair of adjacent strings, and manual means to rock said frame independently of or in addition to said pneumatic mechanism.

[Claims 2 to 5 and 7 not printed in the Gazette.]

1,256,901. [WITHDRAWN.]

1,256,902. CHAIR. EUGENE A. HOWE, Chicago, Ill. Filed June 14, 1916. Serial No. 103,598. (Cl. 135—5.)

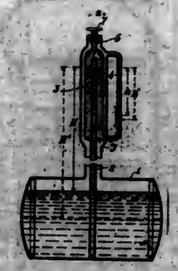


3. In a chair, a main frame, supporting legs hinged to said frame, a seat hinged to said frame, brackets secured to the front of said frame at the top, a U-shaped frame pivotally connected to said brackets, adjustable folding means for holding said U shaped frame in raised position over said seat, a spring roller mounted between said brackets and a curtain secured to said roller adapted to be drawn outwardly over said U shaped frame to serve as a shade, said legs, seat and U shaped frame being adapted to fold against the main frame in a single plane.

[Claims 1 and 2 not printed in the Gazette.]

1,256,903. [WITHDRAWN.]

1,256,904. APPARATUS FOR INDICATING THE LEVEL OF LIQUIDS UNDER PRESSURE. ERNST HURLBRINK, Berlin-Friedenau, Germany, assignor to Martini & Hüneke Maschinenbau-Aktien-Gesellschaft, Berlin, Germany, a Corporation of Germany. Filed May 8, 1915. Serial No. 26,689. (Cl. 73—54.)



1. In an apparatus of the class described, the combination with a vessel containing a liquid under pressure, of a container above the vessel having two chambers communicating with each other and containing a measuring liquid and connected with the vessel respectively above and below the surface of the liquid contained therein, means whereby the gas may be withdrawn from the chamber which communicates with the vessel below the surface of the liquid, whereby a column thereof is brought into direct contact with a surface of said measuring liquid, and means coöperating with said measuring liquid to indicate the difference of the levels of the measuring liquid.

3. In an apparatus of the class described, the combination with a vessel containing a liquid under pressure, of a container above the vessel having two chambers communicating with each other at their bottoms and containing a measuring liquid and connected with the vessel respectively above and below the surface of the liquid contained therein, a shiftable scale for indicating the difference of the levels of the measuring liquid and provided with additional scale marks corresponding to the specific gravities of the liquids to be filled within the vessel and a fixed mark carried by said container and coöperating with said scale.

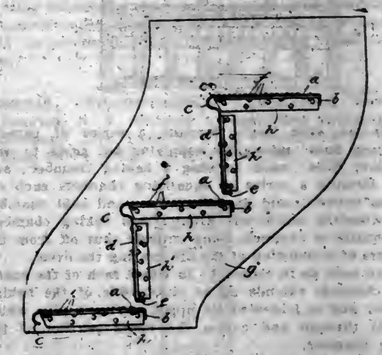
8. The combination of a vessel for a fluid, a U-shaped conduit containing an indicating fluid column and having one of its branches closed, a pipe extending into said closed branch through the indicating fluid therein and projecting into the fluid in said vessel whereby a column of the latter fluid is brought into direct contact with one end of said indicating fluid column and a connection from the free end of the other branch of said conduit to said vessel above the fluid therein whereby the other end of said indicating fluid column is directly subjected to the pressure in said vessel.

12. The combination of a vessel for a fluid under pressure, a tube closed at its lower end and adapted to contain a mercury column whereby the level of the fluid in the vessel is indicated, a connection from said tube to the vessel above the fluid therein whereby one end of said mercury column is directly subjected to the pressure within said vessel, a second tube of relatively small diameter dipping into said first tube and the mercury therein and a connection extending from said second tube into the fluid in said vessel, whereby a column of said latter fluid is brought into direct contact with the other end of said mercury column to oppose the action of the pressure within said vessel.

15. The combination of a vessel for a fluid under pressure, indicating means located above said vessel and containing a mercury column having two upright legs the surfaces of which face in the same direction and one being in a higher plane than the other, and means for connecting said indicating means with said vessel, the difference between the level of the highest end surface of said mercury column and the level of the fluid in the vessel and the difference between the levels of the two end surfaces of the said column being always inversely proportional to the specific gravities of the fluid and said mercury.

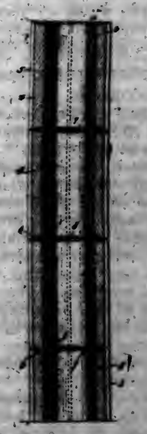
[Claims 2, 4 to 7, 9 to 11, 13, and 14 not printed in the Gazette.]

1,256,905. METAL STEP. PETER KASS, Chicago, Ill. Filed Mar. 30, 1914. Serial No. 828,309. (Cl. 189—43.)



A combined safety tread, nosing and fender for car steps and the like, formed of pressed sheet metal and comprising an embossed tread portion having a downturned integral strengthening flange at its rear edge, an integral, rounded nosing at its front edge, and an integral fender depending from said nosing and having an inturned strengthening flange at its lower edge, said nosing projecting outwardly beyond said fender, substantially as described.

1,256,906. WELL-POINT. WILLIAM KELLY, Grand Island, Nebr. Filed Apr. 25, 1917. Serial No. 164,437. (Cl. 166—5.)

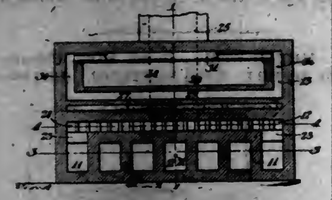


1. A well point comprising sectional castings, each having slots in its outer surface, the said slots being flared

outwardly from the said outer surface, the ends of said sections being beveled inwardly, lugs at the ends of said sections adapted to abut lugs of the contiguous sections, said sections having longitudinally disposed apertures, and sets of bolts extending through said sections, one set of bolts being in stepped relation to the other set of bolts.

[Claim 2 not printed in the Gazette.]

1,256,907. OVEN. IVAN KING, Los Angeles, Cal. Filed Apr. 28, 1917. Serial No. 165,201. (Cl. 107—55.)



1. In an oven, walls forming a series of parallel secondary flues; means for supplying hot gases to said secondary flues; walls forming a baking chamber; and walls forming a series of equalizing channels each extending between said secondary flues and said chamber and extending completely around said baking chamber, said equalizing channels being entirely shut off from the products of combustion of the fire heating the oven.

2. An oven as in claim (1) in which each of the equalizing channels extends up at either side of the baking chamber and is joined at its upper end by a pipe which extends through and across the upper portion of the baking chamber.

3. An oven as in claims (1) and (2) in which a layer of heat insulating material is placed between the secondary flues and the channels, said heat insulating medium being thicker at the rear than at the front of the oven.

6. An oven comprising walls forming a baking chamber; a floor below said baking chamber forming a portion of the walls thereof, said floor having a series of equalizing channels extending therethrough below and across said baking chamber; means for heating the under side of said floor; walls forming extensions of said equalizing channels extending upwardly at either side of said oven; and a series of pipes each of which extends across the top of the oven forming a portion of one of said equalizing channels which are thereby each made a part of a closed ring encircling the baking chamber.

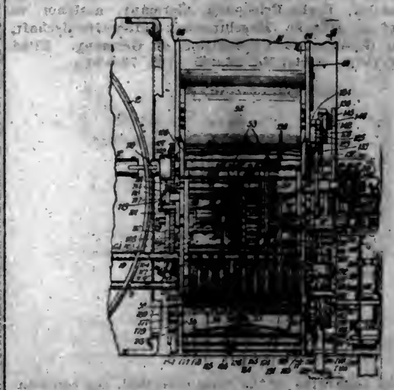
[Claims 4 and 5 not printed in the Gazette.]

1,256,908. FARE-RECORDER. WILLIAM G. KIRCHHOFF, Chicago, Ill., assignor to The International Register Company, Chicago, Ill., a Corporation of Illinois. Filed July 21, 1910. Serial No. 573,126. (Cl. 234—4.)

1. In a fare recorder, the combination of recording means having relatively stationary character wheels adapted to print a record of the fares collected and other changeable recording means in line with but in advance of said first mechanism for recording the conductor's identification, a first device for operating the fare recording mechanism and a second operating device for operating the identification recording mechanism, interlocking means to prevent one of said operating devices from being actuated while the other is being actuated and means for compelling operation of said fare recording mechanism before said conductor's identification recording mechanism can be operated.

11. In a fare recorder, the combination of trip recording mechanism, and an actuating member operable in either of two directions to make a record from such mechanism, operation of such member in one direction serving to advance such mechanism.

15. In a fare recorder, the combination of registering mechanism, locking mechanism for the registering mechanism, and a member operable different amounts in two directions to actuate the locking mechanism, a complete operation in one direction serving to leave the registering mechanism in released condition and a complete operation in the other direction serving to leave the registering mechanism in locked condition.

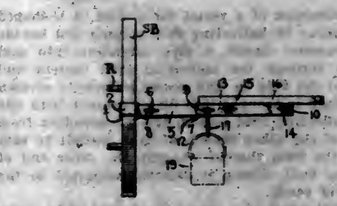


18. In a fare recorder, the combination of registering mechanism, locking mechanism for the registering mechanism, a resetting shaft rotatable in both directions to actuate the locking mechanism, a stop for limiting rotation of the shaft in one direction when it reaches its releasing position, and a second stop for limiting rotation of the shaft in the other direction while in a locking position.

36. In a fare recorder, the combination of mechanism for registering fares collected, a first recording mechanism for making a record of the said fares, a type bar carrying the recorder number, a device for receiving a conductor's identification type, a second recording mechanism for making a record from said type bar and said type mark, and a separate actuating device for each recording mechanism.

[Claims 2 to 10, 12 to 14, 16, 17, 19 to 35, and 37 to 159 not printed in the Gazette.]

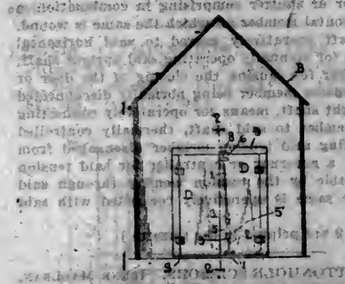
1,256,909. ADJUSTABLE BRACKET. OSCAR C. KROSHAUG, Volga, S. D. Filed Apr. 26, 1917. Serial No. 164,722. (Cl. 20—85.)



In a device of the class described, the combination of a ladder engaging member comprising a pair of clamping jaws having a shank extending therefrom, a split clamping band having arms extending from the ends thereof and engaged with said shank, and a tray having an annular flange on its lower face adapted to fit within said band and be secured thereto.

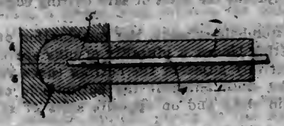
1,256,910. LOCK. OSCAR C. KROSHAUG, Volga, S. D. Filed Apr. 26, 1917. Serial No. 164,723. (Cl. 16—68.)

The combination with a door frame having rod receiving socket; of a door having rod guides arranged at its upper and lower ends on one face thereof and in longitudinal alinement with each other and with said sockets when the door is closed, a pair of locking rods mounted to slide in said guides, a substantially inverted U-shaped support having a rectilinear cross bar and the terminals of its legs bent laterally out and apertured for attachment to the door, a lever in the form of a metal bar fulcrumed intermediately of its ends on the cross bar of said support and pivotally connected at opposite sides of its fulcrum on the inner ends of said rods, said lever having



a substantially inverted U-shaped longitudinal extension at one end offset laterally from the body of the lever and rigidly secured at the end of one leg thereto, to form a handle therefor, said handle having its free leg turned inwardly and extended into a plane beyond that of the lever body and having a notch in its terminal for locking engagement with the rod on which it is superposed when the parts are in operative position and whereby the rods are held against accidental release from the socket.

1,256,911. FLEXIBLE STAY-BOLT FOR BOILERS. FREDERICK LANDGRAF, Bridgeville, Pa., assignor to Flannery Bolt Company, Bridgeville, Pa. Filed Feb. 27, 1917. Serial No. 151,251. (Cl. 10—27.)



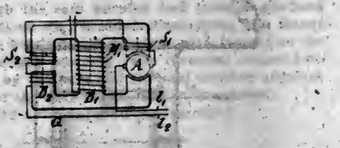
1. The herein described method of making a staybolt, consisting in inserting a mandrel partially through a tubular bar, forging a head on said tubular bar and then withdrawing the mandrel, leaving the bore continuous from the inner end of the bolt and extending into the headed end and closed at the outer end of the bolt within the forged head thereon.

2. The herein described method of making a staybolt, consisting in inserting a mandrel partially through a tubular bar, forging a head on said bar over and about the forward end of the mandrel, and then withdrawing the mandrel, leaving the bore of the bolt continuous from the inner end of the bolt to a point within the forged head at the outer end of the bolt.

3. The herein described method of making a staybolt consisting in inserting a mandrel partially through a tubular bar closed at one end, then forging a head on the closed end of said tubular bar and then withdrawing the mandrel leaving the bore continuous from the inner end of the bolt and extending into the headed end, and closed at the outer end of the bolt in the forged head thereon.

1,256,912. CONTINUOUS-CURRENT GENERATOR. FRANS GEORG LILJENROTH, Westerås, Sweden. Filed May 20, 1916. Serial No. 99,005. (Cl. 171—223.)

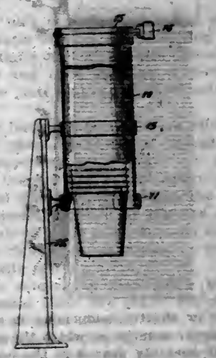
1. In an electric continuous current generator the combination with a main exciting winding and a counteracting compound winding; of a separate winding in inductive relation to said main exciting winding and traversed by the load current and counteracting the inductive action of said compound winding on the main exciting circuit.



2. In an electric continuous current generator, a main exciting winding, a counteracting compound winding and a magnetic shunt for the main magnetic field; in combination with a series winding placed on said shunt.

3. In an electric continuous current generator, a main exciting winding, a counteracting compound winding and a non-saturated magnetic shunt for the main magnetic field; in combination with a series winding placed on said shunt.

1,256,913. CUP-CONTAINER. LAWRENCE W. LUBLIN, Boonton, N. J., assignor to Individual Drinking Cup Company, New York, N. Y., a Corporation of Maine. Filed Dec. 2, 1911. Serial No. 663,589. (Cl. 211—8.)



1. A sanitary cup holder, comprising an upright tubular cup receptacle having an open lower discharge end and one or more spring pressed cup supporting shoulders adapted to wholly support a stack of nestable cups therein in such manner that the lowermost cup is held in a partially exposed position capable of being removed from its support independent of the others above it.

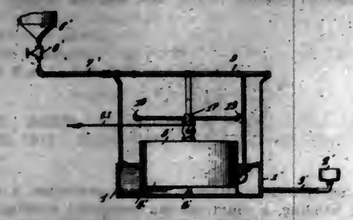
7. A cup holder comprising a receptacle having an open lower end, a plurality of yieldable abutments projecting into the interior of the receptacle and forming yielding seats for removably supporting a stack of nested cups in such manner that the lowermost cup protrudes below the receptacle in convenient position to be detached from its support and extend within the receptacle a sufficient distance to constitute a closure therefor.

[Claims 2 to 6 not printed in the Gazette.]

1,256,914. LIQUID-FUEL BURNER. GEORGE E. LYDICK, Pueblo, Colo. Filed Feb. 21, 1917. Serial No. 150,112. (Cl. 158—53.)

1. A liquid fuel burner including a circular generating pan, a priming cup connected with the pan, a vaporizing chamber disposed in the generating pan, a liquid fuel reservoir, a spiral coil disposed over the generating pan connected at one end with the fuel reservoir and at the other end with the vaporizing chamber, a valved ejector connected with the vaporizing chamber, a plurality of

radial branches connected with the ejector, connections on the branches having openings, and spreader plates supported by the spiral coil over the connections to receive and spread the ejected vaporized fuel.



[Claims 2 to 5 not printed in the Gazette.]

1,256,915. FIRE DOOR OR SHUTTER. EDWARD H. MCCLOUD, Columbus, Ohio, assignor to The Kinnear Manufacturing Company, Columbus, Ohio, a Corporation of West Virginia. Filed Nov. 26, 1913. Serial No. 803,141. (Cl. 169—58.)



1. A fire door or shutter comprising in combination, a curtain, a horizontal member on which the same is wound, an upright shaft operably geared to the horizontal member, means for manually operating said upright shaft, a tension member for causing the closing of the door or shutter, said tension member being normally disconnected from said upright shaft, means for operatively connecting said tension member to said upright shaft, and thermally controlled means for holding said tension member disconnected from said upright shaft.

2. A fire door or shutter comprising in combination, a curtain, a horizontal member on which the same is wound, an upright shaft operably geared to the horizontal member, means for manually operating said upright shaft, a tension member for causing the closing of the door or shutter, said tension member being normally disconnected from said upright shaft, means for operatively connecting said tension member to said upright shaft, thermally controlled means for holding said tensioned member disconnected from said upright shaft, and means for automatically controlling the action of said tension member on said upright shaft.

3. A fire door or shutter comprising in combination, a curtain, a horizontal member on which the same is wound, an upright shaft operably geared to said horizontal member, means for manually operating said upright shaft, a tension member for causing the closing of the door or shutter, said tension member being normally disconnected from said upright shaft, clutching devices for operatively connecting said tension member to said shaft, and thermally controlled means for holding said clutching devices disengaged.

4. A fire door or shutter comprising in combination, a curtain, a horizontal member on which the same is wound, an upright shaft operatively geared to said horizontal member, means for manually operating said upright shaft, a tension member for causing the closing of the door or shutter, said tension member being normally disconnected from said upright shaft, means for operatively connecting said tension member to said shaft, thermally controlled means for holding said tension member disengaged from said shaft, and a governor or controller for said tension member actuatable by the tensioned member when the same is operatively connected with said shaft.

5. A fire door or shutter comprising in combination, a curtain, a horizontal member on which the same is wound, an upright shaft operatively geared to said horizontal member, means for manually operating said upright shaft, a tension member for causing the closing of the door or shutter, said tension member being normally disconnected from said upright shaft, means for operatively connecting said tension member to said shaft, thermally controlled means for holding said tension member disengaged from said shaft, and a governor or controller for said tension member actuatable by the tension member through said shaft when the same is operatively connected with said shaft.

[Claims 6 to 9 not printed in the Gazette.]

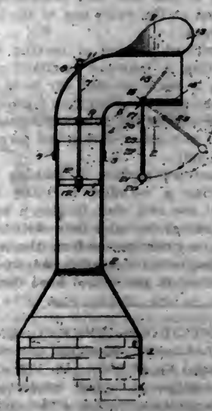
1,256,916. BUTTONHOLE-SCISSORS. IRENE MACLEAN, Van Nuys, Cal. Filed Feb. 20, 1917. Serial No. 149,739. (Cl. 33—190.)



1. In button-hole scissors, the combination with the conventional button-hole scissors of a plurality of spaced pins adjacent each cutting edge of said scissors, extending slightly past said cutting edge and adapted to penetrate the cloth adjacent the sides of said cutting edge and mark the same.

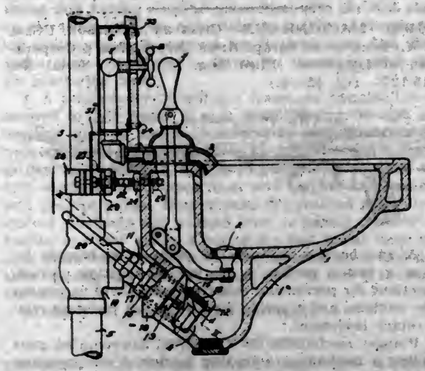
2. In button-hole scissors, the combination of a pair of beveled cutting blades, a plurality of pins spaced apart in rows respectively adjacent the cutting edges and adapted to mark the cloth adjacent the button-hole on opposite sides of said cloth and on opposite sides of said button-hole.

1,256,917. CHIMNEY-COWL. CHARLES WALTER MACWILLIAMS, Geneva, Nebr. Filed Apr. 4, 1917. Serial No. 159,666. (Cl. 98—5.)



In combination with a chimney, of a cowl journaled on the chimney to swing with the wind on a vertical axis and having a horizontal discharge portion, and means for constraining the cowl to swing with its discharge end away from the wind, a damper hinged within the horizontal discharge portion to swing into a vertical position across the outlet or into horizontal position resting on the bottom of the horizontal portion, a vane connected with the damper outside of the cowl for engagement by the wind to move the damper into closed or partially closed condition in accordance with the force of the wind, said vane being weighted to normally hold the damper open.

1,256,918. PLUMBING-BOWL FIXTURE. IRA A. MANN, Pittsburgh, Pa.; Marion P. Mann executrix of said Ira A. Mann, deceased. Filed May 29, 1914. Serial No. 841,759. (Cl. 137—94.)



1. In combination, a wall bowl having an upwardly inclined outlet passage, upright piping in the wall, an inclined coupling lying in said passage, and connected with the said piping, a gasket between the wall of the inclined outlet passage and the exterior of the coupling, stop means on the coupling, a sleeve lying between the coupling and the wall of the outlet passage and slidable longitudinally of the coupling and adapted to press the gasket against the said stop means, and screw means operable from the front of the bowl for adjusting the sleeve.

2. In combination, a wall bowl having an upwardly inclined outlet passage, upright piping in the wall, an inclined coupling lying in the said passage and connected with the said piping and having a shoulder at its lower end, a gasket engaging said shoulder, a member surrounding the coupling slidable longitudinally thereof and engaging the gasket, and screw means operable from the front of the bowl for adjusting the sleeve to compress the gasket.

3. In combination, a wall bowl having an upwardly inclined outlet passage, upright piping in the wall, an inclined coupling lying in the said passage and connected with the said piping, a yoke fitting around the piping, screw connections between the yoke and bowl, a gasket between the wall of the outlet passage and the coupling, a member fitting slidably around the coupling and engaging the gasket, and means whereby the said member is moved along the coupling by the said screw connections.

4. In combination, a wall bowl having an upwardly inclined outlet passage, upright piping in the wall, an inclined coupling lying in the said passage and connected with the said piping, a yoke fitting around the piping, a gasket between the wall of the outlet passage and the coupling, a member fitting slidably around the coupling and engaging the gasket, threaded connections extending from the yoke through the said member, and means for securing the threaded connections to the bowl and for adjusting the said member longitudinally of the coupling to compress the gasket.

5. In combination, a wall bowl having an upwardly inclined outlet passage, upright piping in the wall, an inclined coupling lying in the said passage and connected with the said piping, a yoke fitting around the piping, a gasket between the wall of the outlet passage and the coupling, a member fitting slidably around the coupling and engaging the gasket, threaded connections extending from the yoke through the said member and through portions of the bowl, nuts on the threaded connections, and means for securing the nuts against rotation with respect to the threaded connections whereby such threaded connections may be rotated by the nuts and the said member adjusted longitudinally of the coupling to tighten the gasket.

[Claims 6 to 12 not printed in the Gazette.]

1,256,919. RADIATOR. JOSEPH P. MAY, Indianapolis, Ind., assignor to The Briskin Manufacturing Company, Indianapolis, Ind., a Corporation of Indiana. Filed Apr. 10, 1916. Serial No. 90,142. (Cl. 257—130.)



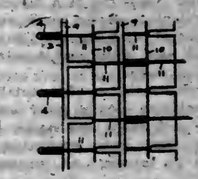
1. A radiator unit consisting of a thin plate of metal having alternate hollow fins and solid flat fins spaced apart vertically.

2. A radiator unit consisting of a thin plate of metal having hollow water channel fins projecting from one face thereof substantially at right angles thereto and spaced apart vertically and solid flat fins projecting from the other face of the plate and each located between adjacent hollow fins.

3. A radiator having a pair of circulating and radiating plates each composed of a unit having hollow water channel fins projecting substantially at a right angle from one face thereof and spaced apart vertically and having flat solid fins projecting from the opposite face thereof and disposed successively between adjoining hollow fins, said pair of units being adapted to be placed together with the flat solid fins projecting into the hollow fins of the opposite plate.

4. A radiator comprising plate units having vertical plane faces adapted when two plates are placed together to provide vertical water channel walls, the walls of adjacent plates being spaced apart at their upper ends to provide water entrances, and each plate having hollow fins projecting from one face thereof substantially at right angles thereto and having solid flat fins projecting from the other face between the hollow fins and adapted to enter the channels of the hollow fins of an adjacent plate to interrupt and deflect the water flowing through the vertical channels.

1,256,920. RADIATOR. JOSEPH P. MAY, Indianapolis, Ind., assignor to The Briskin Manufacturing Company, Indianapolis, Ind., a Corporation of Indiana. Filed Apr. 10, 1916. Serial No. 90,143. (Cl. 257—130.)



1. A radiator having a unit consisting of a metal plate having hollow channel fins only, said fins extending from one face thereof and a unit having solid closed fins adapted to enter opposing hollow fins in the first unit to provide water interrupting and diverting means.

2. A radiator construction comprising a pair of plate units adapted to be placed together face to face and hav-

ing means for spacing them apart centrally to provide vertical water spaces between them, one of said plate units being provided on one side thereof with horizontal hollow water channel fins only and the other plate unit being provided with solid closed flat water-interrupting fins in the face thereof adjacent to said first plate and adapted to enter hollow fins on the first plate, said second plate being also provided in its opposite face with hollow water channel fins.

3. A radiator having a core comprising a plate unit having hollow horizontal fins only, said fins projecting from one face thereof, another plate unit having hollow horizontal fins projecting from one face thereof alternately between the location of the hollow fins on the other unit, and said second unit having solid closed water-interrupting horizontal fins projecting from its opposite face and adapted to register with and enter opposite hollow fins in the first unit.

4. A radiator having a series of plate units provided with hollow horizontal fins, the fins of adjacent units of said construction being respectively staggered vertically, in combination with a plate-unit having oppositely projecting solid closed fins only, said fins extending from opposite sides thereof alternately, said solid fin plate units being mounted between the adjoining hollow fin plate units and spacing the latter apart.

5. A radiator comprising plate units having hollow fins only, said fins projecting from one face thereof substantially at right angles thereto, plate units adapted to be placed adjacent to said first units and having flat closed solid water-interrupting fins on one face thereof registered with and entering the hollow fins of said first units, said second units also having hollow fins projecting from its opposite face intermediate said solid closed fins, and a third set of plate units having staggered solid closed horizontal fins on each face thereof, said last named plate units being disposed in the radiator core between adjacent plates of the first two respective sets and adapted to project against the flat faces thereof.

1,256,921. HUSKING-ROLLS. WILLIAM WAYNE MORRAL, Morral, Ohio, assignor of one half to Samuel B. Morral, Morral, Ohio. Filed Sept. 18, 1913. Serial No. 790,428. (Cl. 130—5.)



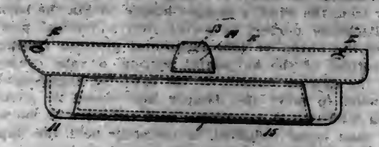
1. A husking roll consisting of a metallic core provided with a resilient envelop, and a series of non-resilient pins secured in the core and arranged in a line substantially at right angles to the direction of rotation of the core and having their ends exposed at the outer surface of the envelop.

2. A husking roll consisting of a metallic core having a completely enveloping elastic cover and non-resilient pins rigidly connected with the core having their ends projecting through said cover and terminating substantially at the surface thereof.

3. A husking roll consisting of a metallic core having a completely enveloping elastic cover and non-resilient pins spaced from each other and rigidly connected with the core having their ends projecting through said cover in position to intersect all circumferential lines around the cover.

4. A husking roll consisting of a metallic core having a completely enveloping elastic cover and non-resilient headed pins rigidly connected with the core and having the ends of their heads substantially coinciding with the surface of the elastic cover, said pins located to intersect all circumferential lines around the working surface of the cover.

1,256,922. COLLAR. FRED E. NARDELL, Burton, Tex. Filed Jan. 24, 1917. Serial No. 144,232. (Cl. 2—71.)



A collar having inner and outer folds, and a tie supporting strip formed separate from the collar and extending longitudinally upon the inner face of the outer fold, the strip having its outer longitudinal edge portion connected with the outer fold and terminating short of the outer longitudinal edge of the outer fold of the collar.

1,256,923. MACHINE-GUN. CHARLES A. NELSON, Utica, N. Y., assignor to Savage Arms Corporation, a Corporation of Delaware. Filed Aug. 16, 1916. Serial No. 115,127. (Cl. 42—3.)

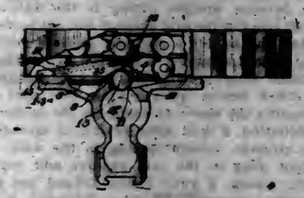


1. A gun having gas-operated plunger mechanism including a piston section, a motion-transmitting section, connections for preventing relative longitudinal movement of the sections, and a spring permitting but resisting relative rotary movement.

2. Plunger mechanism for automatic, gas-operated guns including a mechanism actuating section, a reciprocating piston section, a detachable connection for longitudinally operating one by the other, and resilient means interposed between the said sections adapted to resist relative rotary movement therebetween.

[Claims 3 to 10 not printed in the Gazette.]

1,256,924. CARTRIDGE-GUIDE FOR FIREARMS. CHARLES A. NELSON, Utica, N. Y., assignor to Savage Arms Corporation, a Corporation of Delaware. Filed Aug. 22, 1916. Serial No. 116,280. (Cl. 89—33.)



1. In a fire-arm, the combination of a reciprocating breech bolt, a receiver having an opening in the upper side through which cartridges may be fed, means for delivering cartridges transversely of the receiver to its opening, and a spring-pressed finger pivoted to swing upwardly out of the path of the cartridges as they approach said opening and serving to guide them during their movement into said opening.

12. In an automatic gun of the kind described, a magazine rotating over the entrance to the breech-bolt chamber, means for transferring cartridges laterally into said entrance, a light finger opposed to said entrance and mounted to receive the thrust from the cartridges in the direction of its own longitudinal axis, and a spring separate from said finger acting thereon transversely to said axis and adapted to depress cartridges into the said entrance.

[Claims 2 to 11 not printed in the Gazette.]

1,256,925. ROAD-GRADER. CARL M. NORDENSTAM, Jr., Bertrand, Nebr. Filed May 9, 1916. Serial No. 96,435. (Cl. 37—25.)

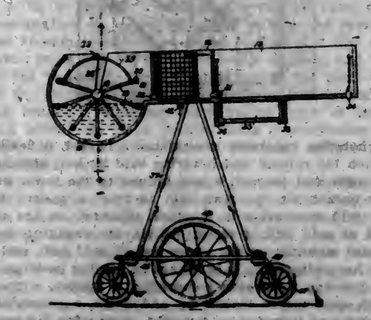


1. A road grader including a supporting frame, driving wheels carried by the frame, a stub driving shaft having a universal joint rotated from the driving wheels, a scattering disk having a spline connection with the stub shaft, an elevating lever for adjusting the height of the scattering disk, an arcuate support for the scattering disk shaft, and a plow carried by the frame for throwing earth upon the scattering disk.

3. A road grader including a frame, an angular bracket secured to said frame, a stub shaft passing through said bracket, driving wheels connected to said frame, means connecting said driving wheels to said stub shaft for rotating the stub shaft, a grooved pulley carried upon said stub shaft, a lever hinged upon said bracket and engaging said grooved pulley, thus causing the grooved pulley to be shifted vertically and as said lever is swung, thereby adjusting the stub shaft, a scattering disk keyed upon said stub shaft, and means for depositing earth upon said disk, thus causing the rotation of the disk to throw the earth therefrom.

[Claim 2 not printed in the Gazette.]

1,256,926. PORTABLE DISH-COLLECTING APPARATUS. ALCIBIADES G. PSIAKI, Ridgewood, N. J. Filed Mar. 13, 1917. Serial No. 154,591. (Cl. 141—9.)

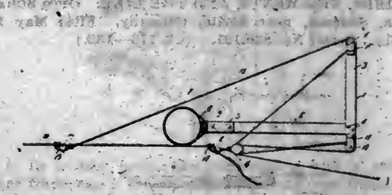


1. An apparatus as characterized comprising a portable wheel-carried supporting frame; and a dish-holding tray having a depressed end portion, said tray being pivotally mounted on said frame for tilting said tray to place said depressed end portion temporarily in a dish-washing sink permanently located.

2. An apparatus as characterized comprising a portable, wheel-carried supporting frame; a dish-holding tray having a depressed end portion, said tray being pivotally mounted on said frame for tilting said tray to place said depressed end portion temporarily in a dish-washing sink permanently located; and means on said frame for varying the operating height of said tray.

3. An apparatus as characterized comprising a portable wheel-carried supporting frame; a tray having a series of water-holding compartments, one of said compartments being a depressed end portion, said tray being pivotally mounted for tilting the same for placing said depressed end portion in a sink permanently located; means for permitting the water held in said compartments to flow therethrough to said end compartment; and means for delivering water from said end compartment to said sink.

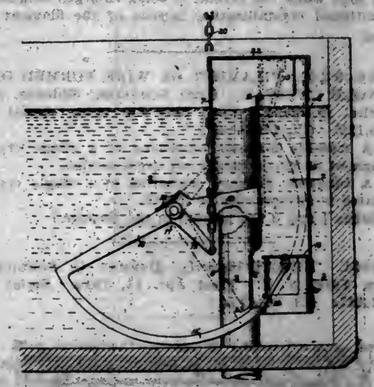
1,256,927. WIRE-STRETCHER. JOHN RIEKENS, Wellsburg, Iowa. Filed Oct. 5, 1916. Serial No. 123,960. (Cl. 254—65.)



3. A wire stretcher including a frame including a post engaging portion, a transverse supporting portion fixedly mounted upon the outer end of said post engaging portion, the ends of said transverse supporting portion projecting beyond the sides of said post engaging portion, pulleys mounted upon the ends of said transverse supporting portion, a double floating pulley, a cable having a clamp upon one end and passing around all of said pulleys, a clamp connected to said floating pulley, the projecting ends of said transverse supporting portion allowing the free movement of said cable without interference from said frame.

[Claims 1 and 2 not printed in the Gazette.]

1,256,928. TANK-SIPHON. FRANK G. RUF and WILLIAM KESSIUS, New York, N. Y. Filed Apr. 4, 1917. Serial No. 159,762. (Cl. 4—5.)



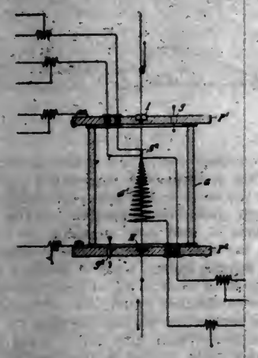
1. A tank siphon in the shape of an inverted U having a shorter leg and a longer leg, a piston in the shorter leg, a bell-crank lever having an arcuated extension from the longer arm of the bell-crank lever, a connecting rod uniting the arcuated extension to the piston, and flexible means engaging the shorter arm of said bell-crank lever for operating the same.

4. A tank siphon comprising an inverted U having a shorter leg and a longer leg restricted in cross section in the lower part thereof from a point above the end of the shorter leg, a piston for the shorter leg, said shorter leg having a by-pass in the lower end thereof to allow the entrance of a fluid into said leg when the piston is at its lowermost position in the leg, a pivotally mounted bell-crank lever having a longer and a shorter arm, an arcuated extension from the longer arm, a connecting rod uniting the arcuated extension to the piston, a flexible member engaging the shorter arm for operating the bell-crank lever, the curvature of said arcuated extension being such

as to bring the piston to the top of the inverted U without interference of said arcuated member with the shorter leg, and means for engaging the arms of the bell-crank lever for controlling its movement.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,256,929. PROCESS OF PRODUCING METALLIC WIRES, FILAMENTS, AND THE LIKE. OTTO SCHALLER, Südende, near Berlin, Germany. Filed May 16, 1914. Serial No. 839,121. (Cl. 176—132.)



The process of producing a metal filament consisting of a single crystal, which consists in passing a metal filament through a zone of a temperature capable of producing crystallization, at such a speed that a crystal is formed and that the crystal is removed from the crystallizing zone while the crystal is being enlarged lengthwise by continued crystallization thereon of the filament following.
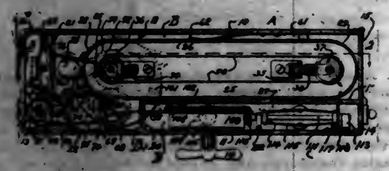
1,256,930. FILAMENT OR WIRE FORMED OF A SINGLE CRYSTAL. OTTO SCHALLER, Südende, near Berlin, Germany. Filed May 16, 1914. Serial No. 839,122. (Cl. 176—132.)

2. A metallic filament consisting of a single crystal throughout its whole length and cross section.

4. A tungsten filament consisting of a single crystal elongated to any practicable length.

[Claims 1 and 3 not printed in the Gazette.]

1,256,931. KINETOGRAPH. HERMAN C. SCHLICKER, New York, N. Y. Filed Apr. 11, 1914. Serial No. 831,147. (Cl. 88—17.)



1. A kinetograph comprising in combination an objective, mechanism for translating the same, means for supporting a film opposite said objective, a device for intermittently exposing said film before the latter, a light obscuring element protecting such film portion as should not be exposed, and a vignette interposed between the exposed part of the film and the objective and translatable with the objective.

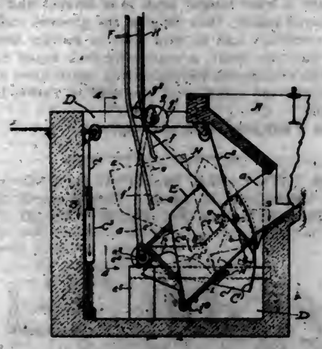
11. A kinetograph comprising a casing provided with a light-admitting aperture, a removable film-holder having an opening adapted to register with said aperture, the film being arranged for exposure through said opening and the holder therefor designed for free insertion in said casing, rigid means for guiding said film-holder into position, and resilient means serving to maintain the same against said rigid means.

26. A kinetograph comprising a casing, a driving mechanism mounted therein, a translatable objective slide, means for moving said slide geared for intermittent movement with said mechanism, a removably insertible film-holder having an elongated opening opposite the objective, the film being movable in said holder, and automatically engaging connections transmitting intermittent movement from said mechanism also to said film.

28. A kinetograph comprising a casing, a motor of attenuated axial dimension mounted therein, a removably insertible holder for an endless film arranged to follow an elongated course at right angles to the axial dimension of said motor, means for moving the film in said holder, and operative connections between the motor and said moving means disposed to one side of the last named elements and the film-holder.

[Claims 2 to 10, 12 to 25, 27, and 29 to 35 not printed in the Gazette.]

1,256,932. HOISTING APPARATUS. FRANK J. SCHRAEDER, Jr., Wheaton, Ill. Filed Feb. 14, 1914. Serial No. 818,630. (Cl. 214—12.)



1. A hoisting apparatus comprising a bucket, a flexible connection for raising and lowering said bucket, attached to the upper end thereof, a bail hinged to the lower end of said bucket, at the rear side thereof, a sheave for holding said connection in position, mounted on the upper end of said bail, a track, wheels for engaging said track, also mounted on the upper end of said bail, and a support for maintaining said bucket in loading position.

7. A hoisting apparatus comprising a bucket, a track on which said bucket travels up and down, a connection for raising and lowering said bucket, means for discharging into said bucket, a support for causing the bucket to move toward said means, a guide for said connection, and a carrier for said guide, having means for engaging said track, hinged at its lower end to said bucket, said hinge having a shaft, said support and bucket being movable about a common axis coincident with said shaft, when the bucket moves into and out of loading position, and means upon which said support is pivoted, having bearings for receiving said shaft.

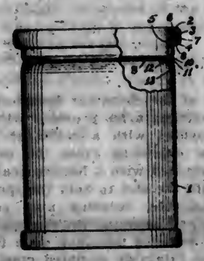
11. A hoisting apparatus comprising a bucket, a flexible connection for raising and lowering said bucket, attached to the upper end thereof, a bail hinged to the lower end of said bucket, at the rear side thereof, a sheave for holding said connection in position, mounted on the upper end of said bail, a track, wheels for engaging said track, also mounted on the upper end of said bail, and a support for maintaining said bucket in loading position, said hinge having a shaft, said support and bucket being movable about a common axis coincident with said shaft, when the bucket moves into and out of loading position, and means upon which said support is pivoted, having bearings for receiving said shaft.

15. A hoisting apparatus comprising a track, a bucket movable up and down thereon, means whereby the bucket leaves the lower end of said track to assume a loading position, a flexible connection for raising and lowering said bucket, a guide for holding said connection in position when the bucket leaves the track, connected to said bucket, movable relative thereto, and means engaging said track, connected to said guide.

22. In a bucket elevator, the combination of a bucket, a framework for tilting the bucket, a chute, and a gate for said chute adapted to be gradually opened by the bucket as it is being tilted, said bucket when tilted occupying a position so that the mouth thereof opens squarely to the chute.

[Claims 2 to 6, 8 to 10, 12 to 14, 16 to 21, and 23 not printed in the Gazette.]

1,256,933. MEANS FOR REINFORCING OPEN END OF METALLIC RECEPTACLES. CHARLES F. SCHRINER, Cleveland, Ohio. Filed Feb. 1, 1915. Serial No. 5,374. (Cl. 220—1.)

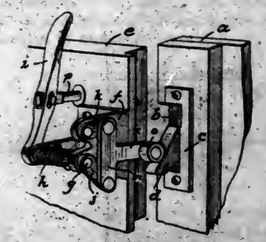


1. In a metallic receptacle having an open end, the combination of a band arranged within the open end of the receptacle, the band being formed of a flat bar, the lower outer edge of the band being rounded, and the side of the receptacle being bent inwardly the same distance as the thickness of the band to form a horizontal rounding bead for engaging the rounding edge of said band and having its inner portion form a continuous surface with the inner flat surface of the band, substantially as described.

2. In combination, a metallic receptacle having an open end, the periphery of the open end of the receptacle being bent outwardly, then downwardly, and finally inwardly and upwardly forming a flange, a band arranged within the open end of the receptacle, the band being formed of a flat bar, the band having a portion bent snugly around said flange, the lower outer edge of the band being rounded, and the side of the receptacle being bent inwardly the same distance as the thickness of the band to form a horizontal rounding bead for engaging the rounded edge of said band and having its inner surface form a continuous surface with the inner flat surface of the band, substantially as described.

1,256,934. DOOR-LATCH. CONRAD SCHÜTZ, Philadelphia, Pa., assignor to Herman Daniel Sorg, Philadelphia, Pa. Filed June 21, 1917. Serial No. 175,994. (Cl. 70—49.)

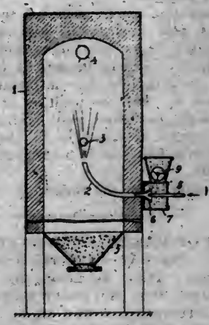
1. In a door latch, the combination with a recessed door frame and a keeper, attached to the door frame, having a front inclined face, of a door, a shaft turnable on its axis in bearings on the door, manually operable means to turn the shaft, a lever pivotally movable on the door, an arm secured to the shaft, a link connecting said arm and lever, and a latch arm carried by the link the free end of which is adapted to engage said face of the keeper and be actuated thereby to operate the link, lever, arm and shaft to turn the latter until the end of the latch arm overrides the keeper.



2. In a door latch, the combination with a recessed door frame and a keeper, attached to the door frame, having a front inclined face, of a door, a shaft turnable on its axis in bearings on the door, manually operable means to turn the shaft, an arm secured to the shaft, a lever turnable on the door on an axis directly above the axis of the shaft, said arm being longer than the lever and extending inward toward the door frame at a substantially greater angle to the horizontal, a T-link the vertically extending arm of which is pivoted to said arm and lever, and a roller carried on the end of the leg of the T link.

[Claim 3 not printed in the Gazette.]

1,256,935. PROCESS OF PRODUCING NITROGEN COMPOUNDS OF METALS. MATHIAS SEM, Christiania, Norway, assignor to Det Norske Aktieselskab for elektrokemisk Industri, Norsk Industri-Hypotekbank, Christiania, Norway. Filed Nov. 21, 1916. Serial No. 132,597. (Cl. 204—31.)



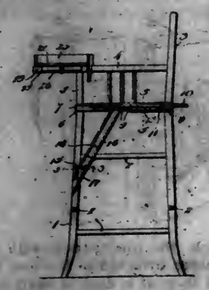
1. The process of producing nitrogen compounds of metals comprising the step of introducing a carbid in the form of dust together with nitrogen into a reaction chamber, and heating the reaction components so introduced to the reaction temperature by means of the heat evolved by the reaction between carbid and nitrogen previously introduced.

4. The process of producing nitrogen compounds comprising the step of blowing carbid together with heated nitrogen gas into a reaction zone in which a high temperature is maintained by means of the heat evolved by the reaction between carbid and nitrogen.

5. The process of producing nitrogen compounds of metals comprising the step of introducing a carbid in the form of dust together with nitrogen into a reaction chamber, and heating the reaction components so introduced to the reaction temperature by means of the heat evolved by the reaction between carbid and nitrogen previously introduced, the ignition of the reaction components being effected by means of a source of heat provided for this purpose.

[Claims 2, 3, and 6 not printed in the Gazette.]

1,256,936. CHILD'S CHAIR. PHILIP A. SHAVER, Puente, Cal. Filed Feb. 12, 1917. Serial No. 148,140. (Cl. 155—12.)



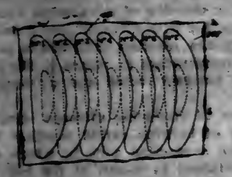
1. A chair including a seat frame composed of side bars having grooves on their inner faces extending longitudinally thereof and opening through the rear ends of said bars, a cross bar connecting said side bars below the grooves therein, a seat slidable in said grooved side bars, and interlocking cooperating means carried by said side bars and seat for securing the latter in adjusted position.

3. A chair including a seat frame composed of side bars, a cross bar connecting said side bars, a seat slidable relatively to said side bars, one of said members being grooved longitudinally throughout its length and the other having means for entering said grooves whereby the seat is guided relatively to said side bars and held against vertical movement, one of said members being provided with longitudinally spaced sockets and the other having a spring pressed locking pin carried thereby and adapted to enter the sockets of the other member for locking the seat in adjusted position.

4. A chair including a seat mounted to slide back and forth, a pair of guides extending downwardly and forwardly from points below said seat, said guides having longitudinally spaced sockets thereon, a foot rest having spring pressed locking pins for adjustable engagement with said sockets to vary the position of said rest relatively to said seat, said foot rest having plates on its opposite ends shaped to conform to the shape of the guides whereby said foot rest is held against tilting position in the guides.

[Claim 2 not printed in the Gazette.]

1,256,937. ART OF MAKING STIFFENERS FOR BOOTS AND SHOES. PERCY W. SHAW and AUGUSTINE F. LITTLEFIELD, Lynn, Mass., assignors, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed May 12, 1916. Serial No. 97,205. (Cl. 12—146.)



1. That improvement in the art of making stiffeners which consists in dipping out a stiffener from one side of a piece of stock and then dipping out from the same side a second stiffener in such manner that the distance between the two extreme edges of the cavities produced by the removal of the stiffeners is less than the sum of the heights of the stiffeners.

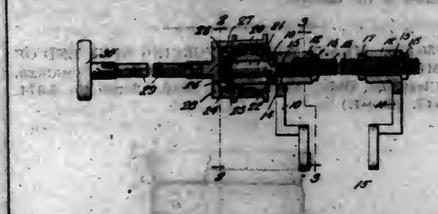
2. That improvement in the art of making stiffeners which consists in dipping out from one side of a piece of stock a series of stiffeners in such manner that as they lie in the stock the top of each stiffener overlies the bottom of the next succeeding stiffener.

3. That improvement in the art of making stiffeners which consists in dipping out from one side of a piece of stock a series of stiffeners in such manner that the distances between the opposite edges of the first and last cavities produced by the removal of the stiffeners is less than the sum of the heights of all the stiffeners.

6. A stiffener having a substantially straight bottom and a curved top, there being a bevel on one side extending around the curved top and a bevel on the other side extending along the straight bottom.

[Claims 4 and 5 not printed in the Gazette.]

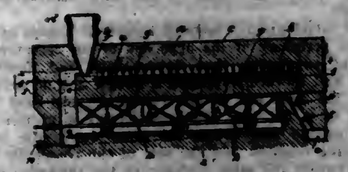
1,256,938. CAR-POLISHER. WILLIAM G. SHERLOCK, Los Angeles, Cal. Filed Dec. 1, 1916. Serial No. 134,411. (Cl. 64—66.)



1. A device of the character described comprising holding means including arms provided with bearing sleeves, a spindle provided with a collar at its inner end, a threaded stem extending from the collar through the sleeves and provided with a longitudinally extending slot, keys fitting into the slot to hold the spindle against rotation in the sleeves, securing nuts screwed upon the threaded stem and engaging the sleeves to releasably hold the sleeves in adjusted positions upon the threaded stem, a pulley wheel rotatably mounted upon the spindle, and means for holding the pulley in place upon the spindle.

[Claim 2 not printed in the Gazette.]

1,256,939. PRODUCTION OF IRON SPONGE FROM IRON ORE. ALF SIVERT-LARSEN, Vestre Aker, near Christiania, Norway. Filed Mar. 21, 1917. Serial No. 156,504. (Cl. 75—75.)



1. In the production of iron sponge from iron ore according to the dry reduction process the step which consists in causing pulverulent raw material to be acted upon by a gaseous reducing agent in the upper heated zone of a reaction chamber, causing simultaneously therewith a condensation or absorption of products of reaction, such as water, in a lower zone.

2. In the production of iron sponge from iron ore according to the dry reduction process the step which consists in causing pulverulent raw material to be acted upon by a gaseous reducing agent in the upper heated zone of a reaction chamber, causing simultaneously therewith a condensation or absorption of products of reaction, such as water, in a lower zone, and introducing a gaseous reducing agent into the reaction chamber in a direction counter to the flow of the hot reaction vapors.

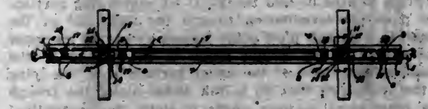
3. In the production of iron sponge from iron ore according to the dry reduction process the step which consists in causing pulverulent raw material to be acted upon by a gaseous reducing agent in the upper heated zone of a reaction chamber, causing simultaneously therewith a condensation or absorption of products of reaction, such as water, in a lower zone, and introducing a portion of perfectly dried gaseous reducing agent separately in the part of the reaction chamber when the heated materials are removed from the chamber.

5. In the production of iron sponge from iron ore according to the dry reduction process the combination with a reaction chamber having a high temperature zone at the top and a low temperature zone at the bottom, of a furnace hearth, means to impart a reciprocating motion and means to prevent the material on the hearth from adhering to the same when it moves toward the end of chamber in which the raw material is introduced.

7. In the production of iron sponge from iron ore according to the dry reduction process the combination with a reaction chamber having a high temperature zone at the top and a low temperature zone at the bottom, of a furnace hearth, means to impart a reciprocating motion to the latter and a hopper for automatically feeding raw material to one end of the hearth, and an elevated surface at the receiving end of the hearth to close the opening of the hopper during part of the movement of the hearth.

[Claims 4 and 6 not printed in the Gazette.]

1,256,940. DRAFT-BEAM AND CONTINUOUS DRAW-BAR FOR RAILWAY-CARS. DAVID D. SMITH, Overland Park, Mo., assignor of one-half to James Edgar Smith, New Orleans, La. Filed Feb. 17, 1917. Serial No. 149,372. (Cl. 213—41.)



1. An improved draft and buffing apparatus for railway cars, consisting of a continuous draw-bar having a length approximating that of the car which is to carry it, and formed of a casting having integral top and bottom members which form hollow containers for draft and buffing springs and their followers; and a cast-metal center-beam open from end to end, and upon its under side, and provided with suitable guides at intervals of its length, and arranged to inclose and guide said continuous draw-bar upon the top and opposite sides of the latter.

3. An improved draft and buffing apparatus for railway cars, consisting of a cast-metal continuous draw-bar having a length approximating that of the car which is to carry it, and having integral top and bottom members united by parallel members which are ⊔-shaped in cross-section; a continuous center-beam open throughout its length and upon its under-side, and inclosing said continuous draw-bar upon the top and opposite sides of the latter; and means which yieldingly connect said draw-bar to said beam at various points in the length of both draw-bar and center-beam.

9. As a new article of manufacture, a cast-metal draft-beam for railway cars, consisting of two parallel channels connected by cross-bars having recesses in their under edges, and all in the form of an integral casting having a clear opening throughout its length, and open upon its underside to permit the placing and removal of a continuous draw-bar which will occupy said clear opening.

[Claims 2, 4 to 8, and 10 not printed in the Gazette.]

1,256,941. FAN. WILLIAM SPARKS, Jackson, Mich., assignor to The Sparks-Withington Company, Cleveland, Ohio, a Corporation of Ohio. Filed Sept. 27, 1916. Serial No. 122,284. (Cl. 170—159.)

1. In a fan, the combination with a web having a series of radiating arms of a second web having a series of radiating-blades, means for securing the arms to the blades with the webs in substantial contact, a laterally extending flange on one web and extending through the other web, a hollow substantially cylindrical hub telescoped within said flange, an antifriction bearing within said hub, and a shaft mounted in said bearing.



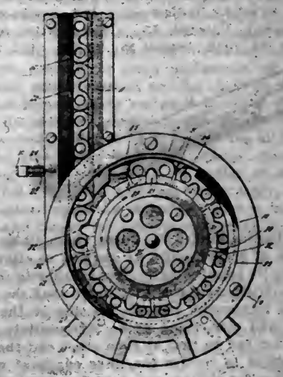
8. In a fan the combination with a web having a series of radiating arms of a second web having a series of radiating blades, means for securing the arms to the blades with the webs in substantial contact, an axially extending circular flange on one web and extending through the other web, a hollow cup-shaped hub upon which said circular flange is mounted, a radially and outwardly extending flange upon said hub and a pulley seated on and secured to said flange, a pair of spaced anti-friction bearings within the hub and a shaft mounted in said bearings.

11. In a fan the combination with a hollow hub of fan blades radiating from said hub, a radially and outwardly extending flange formed upon the hub, an annular pulley section having an intermediate flange conforming to the circumference of said radial flange upon the hub, a second annular pulley section and means for rigidly securing the pulley sections to said radial flange.

25. In a fan, the combination with a series of blades, of a web uniting the inner ends of the blades, a hollow hub secured to and within the web, a pulley in connection with said hub, a shaft, anti-friction bearings mounted on the shaft and positioned within the hub, one of said bearings located adjacent the radiations of the blades and the other anti-friction bearing located adjacent the pulley, the bearing located against the radiations of the blades being unconnected to the hub and free to move axially therein with the shaft, and means for preventing the movement of the other anti-friction bearing axially of the hub.

[Claims 2 to 7, 9, 10, and 12 to 24 not printed in the Gazette.]

1,256,942. STACKER FOR SILENT-CHAIN LINKS. OWEN H. SPENCER, Indianapolis, Ind., assignor to Link-Belt Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 24, 1916. Serial No. 93,322. (Cl. 59—1.)



1. In combination, a chute for receiving silent chain links in an end-to-end arrangement with the link points all pointing in the same direction, a circular chute into which said first chute discharges substantially tangen-

tially and having its center on that side of the first chute toward which the link points are directed, said circular chute having an opening for allowing a link to slide from said circular chute out of the plane of the latter, and a slide rail in position to receive astride it links which slide through said opening.

5. In combination, a chute for receiving crotched links in an end-to-end arrangement, a circular chute into which said first chute discharges substantially tangentially, said circular chute having an opening for allowing a link to slide from said circular chute out of the plane of the latter, a slide rail in position to receive astride it links which slide through said opening, and a wheel pivoted at the center of said circular chute and having teeth projecting into said circular chute for engaging the links in said chute, said teeth being tapered so as to act as cams to force the links through said opening.
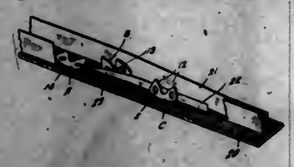
17. In combination, a chute for receiving crotched links in an end-to-end arrangement, a circular chute into which said first chute discharges substantially tangentially, said circular chute having an opening for allowing a link to slide from said circular chute out of the plane of the latter, a slide rail in position to receive astride it links which slide through said opening, a wheel pivoted at the center of said circular chute and having teeth projecting into said circular chute for engaging the links in said chute, said teeth being tapered so as to act as cams to force the links through said opening, and a stop for preventing said links from moving in said circular chute beyond said opening, said stop having a beveled working face which serves as a cam which coöperates with the beveled faces of the teeth to force the links through said opening.

21. In combination, a chute for crotched links in an end-to-end arrangement, said chute having a lateral opening for allowing links to slide from said chute out of the plane of the latter, a slide rail in position to receive astride it links which slide through said lateral opening, and a stop for preventing said links from moving in said chute beyond said opening.

27. In combination, a chute for receiving flat members in edge-to-edge relationship, and a conveyer for receiving said flat members in side-by-side relationship, said chute being provided with a lateral opening for permitting the flat members reaching it to be discharged therethrough out of the plane of the chute, and said conveyer being arranged to receive in side-by-side relationship the flat members discharged through said opening.

[Claims 2 to 4, 6 to 16, 18 to 20, 22 to 26, and 28 to 40 not printed in the Gazette.]

1,256,943. POSITIONER FOR SILENT-CHAIN LINKS. OWEN H. SPENCER, Indianapolis, Ind., assignor to Link-Belt Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 24, 1916. Serial No. 93,323. (Cl. 59—1.)



1. A positioning device for silent chain links, comprising a trough of proper width at one end to allow a silent chain link to lie longitudinally flatwise therein but to prevent it from lying crosswise therein, so that the points of the link are necessarily toward one side or the other of the trough, and converging at an intermediate point toward the other end so that at such other end the width is merely sufficient to receive the links edgewise with sufficient clearance for sliding, and a medial longitudinal vertical partition located in said trough at its converging portion, said partition terminating toward the wide end of the trough in a narrow plow point formed by having its upper edge extend at an oblique angle to the bottom of the trough to the plane of the under surface of a link lying in the trough so that as a link slides along the trough said plow point projects under it along its longitudinal medial line and tilts one edge of the link upward to bring the link toward an upright position on the other side of said partition from that on which said edge originally lay, and said medial partition being lower than the side walls of the trough.

2. A positioning device for silent chain links, comprising a trough of proper width at one end to allow a silent chain link to lie longitudinally flatwise therein but to prevent it from lying crosswise therein, so that the points of the link are necessarily toward one side or the other of the trough, and converging at an intermediate point toward the other end so that at such other end the width is merely sufficient to receive the links edgewise with sufficient clearance for sliding, a medial longitudinal vertical partition located in said trough at its converging portion, said partition terminating toward the wide end of the trough in a narrow plow point formed by having its upper edge extend at an oblique angle to the bottom of the trough to the plane of the under surface of a link lying in the trough so that as a link slides along the trough said plow point projects under it along its longitudinal medial line and tilts one edge of the link upward to bring the link toward an upright position on the other side of said partition from that on which said edge originally lay, said medial partition being lower than the side walls of the trough, and the side walls of the trough being sufficiently close together at that end of the medial partition which is toward the narrow end of the trough so that the uptilted link edge is engaged by the side wall of the trough before the link passes out of engagement with said medial partition.

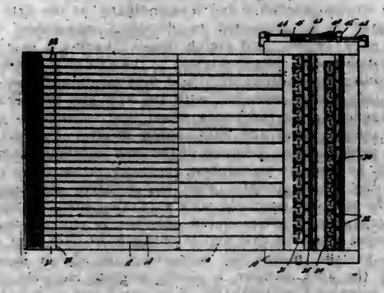
3. A positioning device for silent chain links, comprising a trough of proper width at one end to allow a silent chain link to lie longitudinally flatwise therein but to prevent it from lying crosswise therein, so that the points of the link are necessarily toward one side or the other of the trough, and converging at an intermediate point toward the other end so that at such other end the width is merely sufficient to receive the links edgewise with sufficient clearance for sliding, a medial longitudinal vertical partition located in said trough at its converging portion, said partition terminating toward the wide end of the trough in a narrow plow point formed by having its upper edge extend at an oblique angle to the bottom of the trough to the plane of the under surface of a link lying in the trough so that as a link slides along the trough said plow point projects under it along its longitudinal medial line and tilts one edge of the link upward to bring the link toward an upright position on the other side of said partition from that on which said edge originally lay, said medial partition being lower than the side walls of the trough, and the side walls of the trough being sufficiently close together at that end of the medial partition which is toward the narrow end of the trough so that the uptilted link edge is engaged by the side wall of the trough before the link passes out of engagement with said medial partition.

4. A positioning device for silent chain links, comprising a trough of proper width at one end to allow a silent chain link to lie longitudinally flatwise therein but to prevent it from lying crosswise therein, so that the points of the link are necessarily toward one side or the other of the trough, and converging at an intermediate point toward the other end so that at such other end the width is merely sufficient to receive the links edgewise with sufficient clearance for sliding, and a medial longitudinal vertical partition located in said trough at its converging portion, said partition terminating toward the wide end of the trough in a narrow plow point formed by having its upper edge extend at an oblique angle to the bottom of the trough to the plane of the under surface of a link lying in the trough so that as a link slides along the trough said plow point projects under it along its longitudinal medial line and tilts one edge of the link upward to bring the link toward an upright position on the other side of said partition from that on which said edge originally lay, the side walls of the trough at that end of the medial partition which is toward the narrow end of the trough being sufficiently close together so that they will engage the points and back of the tilted link with the link at a sufficient angle so that the continued convergence of the sides will bring the link substantially to a vertical position.

5. A positioning device for silent chain links, comprising a trough of proper width at one end to allow a silent chain link to lie longitudinally flatwise therein but to prevent it from lying crosswise therein, so that the points of the link are necessarily toward one side or the other of the trough, and converging at an intermediate point toward the other end so that at such other end the width is merely sufficient to receive the links edgewise with sufficient clearance for sliding, a medial longitudinal vertical partition located in said trough at its converging portion, said partition terminating toward the wide end of the trough in a narrow plow point formed by having its upper edge extend at an oblique angle to the bottom of the trough to the plane of the under surface of a link lying in the trough so that as a link slides along the trough said plow point projects under it along its longitudinal medial line and tilts one edge of the link upward to bring the link toward an upright position on the other side of said partition from that on which said edge originally lay, and said partition terminating toward the narrow end of the trough at an intermediate point along the converging portion so that the convergence continues beyond that end of said medial partition.

[Claims 6 to 14 not printed in the Gazette.]

1,256,944. SILENT-CHAIN-ASSEMBLING MACHINE. OWEN H. SPENCER and FRANK J. OAKES, Indianapolis, Ind., assignors to Link-Belt Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 24, 1916. Serial No. 93,324. (Cl. 59—1.)



1. An assembling device for chains composed of crotched links, comprising a series of slide rails all of which have corresponding ends in the same plane and alternate slide rails of which have their other corresponding ends in different planes, and means for selectively depositing links astride the two sets of alternate slide rails near said last-named ends, said slide rails being inclined with their last-named ends higher so that the links placed thereon will slide down toward the first-named ends.

3. An assembling device for chains composed of crotched links, comprising a series of slide rails, adjacent slide rails being arranged so that the links thereon overlap properly to produce registration of the pitch holes, and means for selectively placing links on either set of alternate slide rails of said series, said slide rails being inclined so that links placed thereon will slide toward one end thereof.

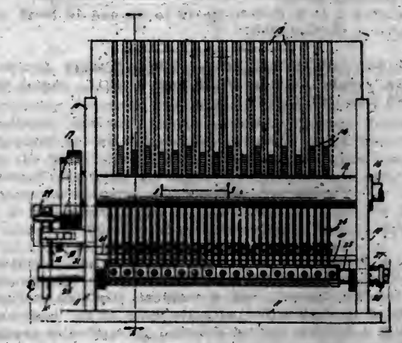
5. An assembling device for chains composed of crotched links, comprising a series of slide rails all of which have corresponding ends in the same plane and alternate slide rails of which have their other corresponding ends in different planes, means for selectively depositing links astride the two sets of alternate slide rails near said last-named ends, said slide rails being inclined with their last-named ends higher so that the links placed thereon will slide down toward the first-named ends, and a removable assembling plate having ridges which when the assembling plate is in place register with the respective slide rails so that links may slide from said slide rails on to said ridges.

9. An assembling device for chains composed of crotched links, comprising a series of slide rails all of which have corresponding ends in the same plane and alternate slide rails of which have their other corresponding ends in different planes, two groups of magazines of which each magazine holds a number of links arranged flat side against flat side with their crotches registering, and means coöperating with each group of magazines and with a corresponding set of alternate slide rails of said series for removing a link from each magazine of said group and depositing it astride a slide rail.

11. An assembling device for chains composed of crotched links, comprising a series of slide rails all of which have corresponding ends in the same plane and alternate slide rails of which have their other corresponding ends in different planes, two groups of magazines of which each magazine holds a number of links arranged flat side against flat side with their crotches registering, and a rotatable cylinder associated with each group of magazines and provided with a pocket which can be brought under the magazines of such group to receive a link from each of said magazines and can be moved to carry the links so received to and deposit them astride the slide rails of one of the sets of alternate slide rails of said series.

[Claims 2, 4, 6 to 8, 10, and 12 to 32 not printed in the Gazette.]

1,256,945. CHAIN-ASSEMBLING MACHINE. OWEN H. SPENCER and FRANK J. OAKES, Indianapolis, Ind., assignors to Link-Belt Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 24, 1916. Serial No. 93,325. (Cl. 59—1.)



1. An assembling device for chains, comprising a series of slide bars spaced apart to correspond with the pitch of the chain, a series of magazines for chain links, said magazines being spaced apart by distances corresponding to twice the pitch of the chain, and means for receiving links from said magazines and placing them on said slide bars, said last-named means and said series of slide bars being relatively shiftable longitudinally of the series so as to produce overlapping of the links on the slide bars.

5. An assembling device for chains, comprising an assembling comb consisting of a series of slide bars each supported at one end and free at the other, said slide bars being spaced apart by distances equal to the pitch of the chain, and means for selectively placing links on said assembling comb so that the slide bars of such assembling comb project through the pitch holes of the links, said slide bars being arranged so that the links slide along them by gravity toward their supported ends, said assembling comb and said placing means being relatively shiftable longitudinally of the series of slide bars to produce an overlapping of links on said slide bars.

7. An assembling device for chains, comprising an assembling comb consisting of a series of slide bars each supported at one end and free at the other, said slide bars being spaced apart by distances equal to the pitch of the chain, means for selectively placing links on said assembling comb so that the slide bars of such assembling comb project through the pitch holes of the links, said slide bars

being arranged so that the links slide along them by gravity toward their supported ends, and means operated by said placing means for producing a relative shifting between said placing means and said assembling comb longitudinally of the latter to produce overlapping of links on the assembling comb.

11. An assembling device for chains, comprising a series of slide bars spaced apart to correspond with the pitch of the chain, a series of magazines for chain links, said magazines being spaced apart by distances corresponding to twice the pitch of the chain, a rotating cylinder for receiving links from said magazines and depositing them on said slide bars, a cam operated by the rotation of said cylinder, and connections between said cam and said assembling comb for producing shifting of the assembling comb alternately in opposite directions by distances equal to the pitch of the chain.

15. An assembling device for chains, comprising an assembling comb consisting of a series of slide bars each supported at one end and free at the other, said slide bars being spaced apart by distances equal to the pitch of the chain, means for selectively placing links on said assembling comb so that the slide bars of such assembling comb project through the pitch holes of the links, said slide bars being arranged so that the links slide along them by gravity toward their supported ends, and an assembly plate for holding links in the spaced relationship in which they are placed on said assembling comb, said assembling comb and assembly plate being relatively movable to deposit the links assembled on the assembling comb on to the assembly plate.

[Claims 2 to 4, 6, 8 to 10, 12 to 14, and 16 to 29 not printed in the Gazette.]

1,256,946. SWINGLETREE-HOOK. WALTER J. SPENCER, Ivanhoe, Minn. Filed Aug. 9, 1917. Serial No. 185,840. (Cl. 21—79.)



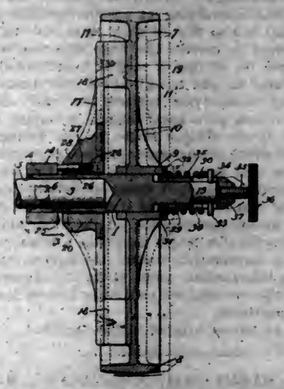
1. A swingletree hook including hook and mounting portions, said hook being provided with an enlargement on the bill thereof, and a resilient retaining member mounted in conjunction with the body of the hook and having a portion thereof extended to resiliently engage with the enlargement to close across the hook, the form and location of the enlargement being such that the resilient retaining member is braced against being casually moved from the retaining position.

2. A swingletree hook including hook and mounting portions, the bill of said hook being provided with an enlargement, and a retaining member connected at one of its ends in rigid mounting looped about the body of the hook and having the free end thereof extended to close across the hook and to engage with the enlargement.

3. A swingletree hook including a ferrule or ring having a trace hook associated therewith, said hook having an enlargement on the bill thereof notched on its inner side, and a retaining member of resilient metal coiled about the body of the hook anchored at one of its ends in rigid mounting and having the remaining end extending across the opening between the body and the bill of the hook and engaging normally in the notch of the enlargement.

1,256,947. AUTOMATIC STRESS-RELIEVING FRICTION-PULLEY OR POWER-TRANSMISSION MECHANISM. JACOB STAMPEN, Chicago, Ill. Filed May 1, 1916. Serial No. 94,635. (Cl. 64—17.)

1. In a mechanism of the class described, an axle, a wheel member mounted in rotative relation to said axle and provided with a friction surface adapted to engage a clutch member, a cam connected and rotatable with the axle, a clutch member having a friction surface in engagement with said first mentioned friction surface, and having a cam surface in sliding engagement with said first mentioned cam, and resilient means tending to press said clutch member and said first mentioned friction surface into engagement with each other.

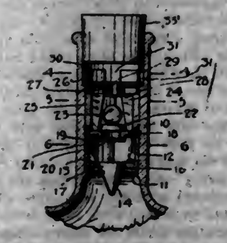


8. In a pulley mechanism, the combination of an axle, a pulley wheel mounted in rotative relation to and movable longitudinally of the axle, a cam upon and rotatable with said axle, a clutch member mounted upon and movable circumferentially and longitudinally of the axle and adapted to be connected in clutching engagement with the pulley wheel, said clutch member having a cam surface disposed in oblique relation to the axis of the axle and in sliding engagement with said first mentioned cam, and resilient means connected with the axle and in operative engagement with the pulley wheel, and adapted to press the pulley wheel and said clutch member and oblique cam surface in the direction of the first mentioned cam.

19. In a pulley mechanism, the combination of an axle, a pulley wheel mounted upon and rotative with respect to the axle and provided with a friction surface adapted to engage a friction clutch member, a clutch member mounted upon the axle and in engagement with said friction surface, means for connecting the clutch member with the axle member, a sleeve member mounted upon and movable longitudinally of the axle and in operative engagement with the pulley wheel on the opposite side of said wheel from that on which said clutch member is located, a spring connected with the axle member and in operative engagement with said sleeve member and adapted to tend to press the sleeve member toward and into operative engagement with the pulley wheel, and an adjusting screw in threaded engagement with the sleeve and having its inner end in engagement with the axle, for adjusting the sleeve to compress and release the spring.

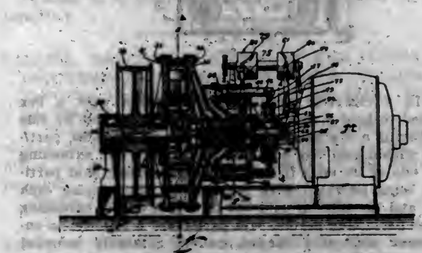
[Claims 2 to 7 and 9 to 18 not printed in the Gazette.]

1,256,948. NON-REFILLABLE BOTTLE. JOSEPH STURIALE, New York, N. Y. Filed Apr. 1, 1915. Serial No. 18,429. (Cl. 215—69.)



In a non-refillable bottle, the combination of a bottle neck having an off-set portion provided with a plurality of vertical slots, a sectional valve casing positioned within said neck, valve means carried within said casing, one section of said casing having ribs, a plate positioned within said neck, said plate having extensions upon its periphery, said extensions wedging within said grooves, whereby said plate will be held against accidental movement, a hollow neck formed on said plate and projecting inwardly therefrom, said neck having notches in its inner end, said ribs projecting into said notches, whereby said casing will be positively held against accidental movement.

1,256,949. POWER-TRANSMISSION DEVICE. AUGUST SUNDH, Hastings-upon-Hudson, N. Y., assignor to Otis Elevator Company, a Corporation of New Jersey. Filed May 2, 1913. Serial No. 764,994. (Cl. 138—22.)



1. A driving member and a driven member, a power transmission device interposed between said members, said device comprising a fluid pressure motor having a plurality of oscillating cylinders radially disposed about the driven member, pistons in the cylinders connected with the driven member, a pump operated by the driving member and means comprising a rotary valve for directing fluid from the pump to the motor cylinders.

3. A driving member and a driven member, a power transmission device interposed between said members, said device comprising a fluid pressure motor having a plurality of oscillating cylinders radially disposed about the driven member, pistons in the cylinders connected with the driven member, a pump operated by the driving member, and means comprising a balanced rotary valve operated from the driving member for directing fluid from the pump to the motor cylinders.

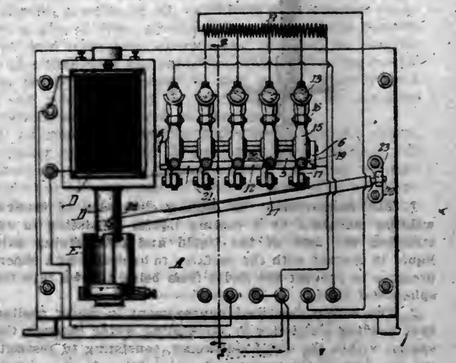
11. A driving member and a driven member, a power transmission device interposed between said members, and comprising a fluid pressure motor having a plurality of oscillating cylinders radially disposed about the driven member, pistons in the cylinders arranged to operate upon the driven member, a pump operated by the driving member and comprising a plurality of reciprocating pistons, stationary cylinders for the pistons, means for directing fluid between the pump and motor, means comprising a disk inclined with respect to the driving member and oscillated thereby to effect the reciprocation of the pump pistons, and means for varying the inclination of said disk to control the length of stroke of the pump pistons and thereby vary the output of the pump.

14. A driving member and a driven member, a power transmission device interposed between said members comprising a fluid pressure motor connected with the driven member and a pump connected with the driving member, a rotary valve driven from the pump shaft for directing fluid between the motor and pump, means for controlling said valve to effect a fluid lock in the motor to maintain the latter against movement, and means for preventing an abnormal pressure in said motor.

16. A driving member and a driven member, a power transmission device interposed between said members and comprising a fluid pressure oscillating cylinder motor connected to operate the driven member, a pump operated by the driving member, means for controlling the output of the pump independently of the driving member, a valve adapted to direct fluid between the pump and motor, and means for simultaneously controlling the said valve and pump controlling means to effect the control of the motor.

[Claims 2, 4 to 10, 12, 13, 15, and 17 to 27 not printed in the Gazette.]

1,256,950. ACCELERATOR. JOHN E. THOMPSON and CLARENCE W. JAMESON, Chicago, Ill., assignors to Thompson & Jameson, Chicago, Ill., a Corporation of Illinois. Filed Oct. 7, 1915. Serial No. 54,625. (Cl. 175—281.)



1. The combination of a supporting panel having a plurality of contacts, a plurality of pivotal switch arms cooperating therewith and movable toward and from said contacts, and a common actuator member pivotally mounted at one end and movable in a plane transverse to the plane of movement of said switch arms and arranged to successively engage and actuate said arms and means for swinging said bar about its pivot.

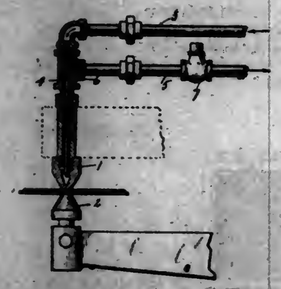
5. The combination of a plurality of relatively fixed contacts, a plurality of pivoted switches movable toward and from said contacts, a yieldable extension on each switch extending beyond the pivot of said switch, a bar pivoted at one end and movable about its pivot in a plane transverse to the planes of movement of said switches, and an electromagnet for moving said bar successively into engagement with said extensions to force the switches against their contacts.

8. The combination of a supporting panel, a plurality of fixed contacts on said panel, a plurality of switch levers freely movable toward and from the contacts, each switch lever comprising pivotally related sections, a cam bar pivoted at one end on said supporting panel and disposed at an angle to the ends of said switch levers so that when swung about its pivot it will successively engage the ends of said levers and force them into engagement with their fixed contacts, and spring mechanism between the sections of each lever, adapted to yield to the action of the cam bar when the switches are in engagement with their contacts.

9. The combination of a supporting panel, a plurality of fixed contacts thereon, a plurality of switch levers movable in parallel planes toward and from said contacts, a common bracket on said panel having a rod common to all of said switches and forming a pivot therefor, an extension arm pivoted on each switch and extending below said pivot rod, a bar pivoted on said panel and disposed at an angle to the ends of said extensions so that when moved about its pivot it will successively engage said extensions and swing the switches into engagement with their fixed contacts, a spring normally holding the extension in the path of the bar and adapted to yield to the action of the bar when the switch engages its fixed contact, and an electromagnet for actuating said bar.

[Claims 2 to 4, 6, and 7 not printed in the Gazette.]

1,256,951. COOLING SPOT-WELDING ELECTRODE. ELIHU THOMSON, Swampscott, Mass., assignor to Thomson Spot Welder Company, Boston, Mass., a Corporation of Massachusetts. Filed May 29, 1917. Serial No. 171,624. (Cl. 219—18.)



1. The improvement in cooling electrodes of electric welding machines by a cooling liquid, consisting in restricting the flow of the liquid and maintaining said liquid in contact with the surfaces to be cooled at a superpressure to prevent the liquid from being thrown into the spheroidal state.

2. The herein described improvement in water cooling spot welding electrodes by circulating water through the spaces within the electrode proper, consisting in restricting the flow of the water and maintaining it at a superpressure within the electrode so as to prevent it from being thrown into the spheroidal state.

1,256,952. RECOVERY OF SUGAR FROM MOLASSES. FRITZ TIEMANN, Berlin, Germany. Filed June 25, 1914. Serial No. 847,314. (Cl. 127—17.)

1. A process of treating cane sugar molasses which comprises effecting the separation, in solid form, of cane sugar from the molasses, by adding to said molasses, an amount of dissolved invert sugar sufficient to cause the separation of at least a material proportion of the cane sugar content thereof.

7. In the separation of cane sugar, the steps of boiling the molasses with purifying agents capable of inverting a portion of the cane sugar in said molasses, and capable of removing soluble salts from said molasses, lowering the temperature of the molasses to below 80° C., and thereafter separating out solid cane sugar from said molasses.

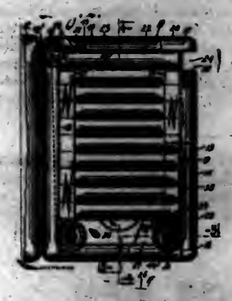
8. In the recovery of solid cane sugar from molasses, the steps of converting a portion of the cane sugar therein into invert sugar, and removing a portion of the soluble salts, concentrating the molasses at a temperature below 80° C., and separating cane sugar, in solid form, from said molasses.

9. In the treatment of molasses, the step of recovering cane sugar by inverting the sugar content of molasses, and adding the same to other molasses.

[Claims 2 to 6, 10, and 11 not printed in the Gazette.]

1,256,953. CIGARETTE-CASE. GEORGE F. TIFFANY, New York, N. Y. Filed Apr. 20, 1917. Serial No. 163,410. (Cl. 206—41.)

1. In a cigarette case, the combination with a box adapted to hold a row of cigarettes arranged side by side and having a discharge opening in one of its sides, partitions within said box adjacent to its sides and extending from one of its ends to said delivery opening, said partitions being provided with longitudinal slots facing each other and the sides of said box having inwardly extending flanges projecting beyond said partitions, a follower in engagement with said flanges, spring-pressed pulleys mounted upon said follower having peripheral flanges seated in said slots, and a cord wound upon each of said pulleys, one end of each cord being attached to a pulley and its other end to the respective partition adjacent said discharge opening, and an ejector operative to force the foremost cigarette of the row endwise through said opening.



2. In a cigarette case, the combination with a box adapted to hold a row of cigarettes arranged side by side and having a discharge opening in one of its sides, partitions within said box adjacent to its sides and extending from one of its ends to said delivery opening, said partitions being provided with longitudinal slots facing each other and the sides of said box having inwardly extending flanges projecting beyond said partitions, a follower in engagement with said flanges, pulleys rotatably mounted upon said follower having peripheral flanges seated in said slots, each pulley being provided with a recess, a spring in the recess of each pulley for putting the same under tension, a cord wound upon each of said pulleys, one end of each cord being attached to a pulley and its other end to the respective partition adjacent said discharge opening, and an ejector operative to force the foremost cigarette of the row endwise through said opening.

3. In a cigarette case, the combination with a box adapted to hold a row of cigarettes arranged side by side and having a discharge opening in one of its sides, partitions within said box adjacent to its sides and extending from one of its ends to said delivery opening, said partitions being provided with longitudinal slots facing each other and the sides of said box having inwardly extending flanges projecting beyond said partitions, a follower in engagement with said flanges, two spindles fixedly attached to said follower, a pulley rotatably mounted upon each spindle having peripheral flanges seated in one of said slots, said pulleys being each provided with a recess, a spring in each recess attached to the respective pulley and spindle, a cord wound upon each of said pulleys, one end of each cord being attached to a pulley and its other end to the respective partition adjacent said discharge opening, and an ejector operative to force the foremost cigarette of the row endwise through said opening.

1,256,954. PROCESS OF METAL-PLATING ALUMINUM. WILLIAM JOSEPH TRAVERS, Buffalo, N. Y. Filed June 8, 1915. Serial No. 32,843. (Cl. 204—3.)

1. A process for nickel-plating aluminum objects, which consists in cleaning the surface of the objects electrolytically, then electro-plating the so-treated objects in an electrolyte containing nickel ammonium sulfate acidulated with boric acid, then drying the so electro-plated objects thoroughly at a temperature of about 100 degrees centigrade, then subjecting the so-dried objects to the uniform action of heat gradually increased to a temperature of not less than 240 degrees C.

4. A process for metal plating aluminum objects which consists in cleaning the aluminum objects electrolytically, then electroplating the so-treated objects and then submitting the electroplated aluminum objects to the action of heat to a temperature sufficient to produce the adherence of the electroplated metal with aluminum.

5. A process for metal-plating aluminum, which consists in electroplating the aluminum in an electrolyte containing a metal of the iron group and then subjecting the electroplated aluminum to the action of heat sufficient to produce the adherence of the electroplated metal with the aluminum.

8. A process for metal-plating aluminum, which consists in making the aluminum a cathode in an alkaline solution, then electroplating the so-cleaned aluminum in an electrolyte containing salts of metal of the iron group, then subjecting the electroplated aluminum to the action of heat at a temperature of not less than 240° centigrade.

10. A process for nickel-plating aluminum objects, which consists in electroplating the aluminum object in an electrolyte containing salts of nickel, and then subjecting the so-electroplating aluminum to the action of heat sufficient to produce the adherence of nickel with the aluminum.

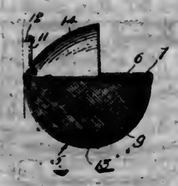
[Claims 2, 3, 6, 7, 9, 11, and 12 not printed in the Gazette.]

1,256,955. PROCESS OF RETAINING THE JUICES IN LOW-TEMPERATURE-COOKED MEATS. CHARLES B. TRESCOTT, Chicago, Ill. Filed Oct. 15, 1917. Serial No. 196,622. (Cl. 99—11.)

1. Preventing loss of juices from hot low-temperature-cooked meat, by cooling said meat while in its hot condition and prior to disturbing its position in the cooking-chamber.

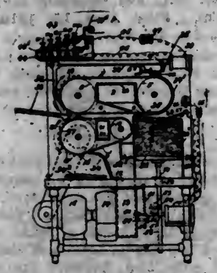
[Claims 2 and 3 not printed in the Gazette.]

1,256,956. HEN'S NEST. MABELLE E. TURNER, Deposit, N. Y. Filed June 28, 1917. Serial No. 177,598. (Cl. 119—45.)



A hen's nest including a frame consisting of a wire substantially bent circularly to provide a nest opening, a second wire bent upon itself between its ends and around the first named wire, the resultant ends of the second wire diverging in a downward curve toward and beyond the opposite side of said first named wire and being rebent and connected to the latter whereby spaced suspending loops are formed, a fabric nest bottom mounted in the frame, and a cover secured to the frame and partially overhanging the nest opening.

1,256,957. WAGE-PAYING MACHINE. ARTHUR VON BARTH, Detroit, Mich. Filed May 24, 1915. Serial No. 29,998. (Cl. 235—91.)



1. In a machine of the kind described, a fixed suction member constituting an extension of a suction chamber, and an outside member movably mounted around the fixed member; said movable member having a plurality of openings and moving in proximity to the top of a stack of bills to be removed and delivered to the operator; means combined with the stationanry and movable members to pick the uppermost bill from the stack, and deliver said bill to a place of deposit, another fixed suction member constituting also an extension of the suction chamber, and an auxiliary member movably mounted around said second fixed member; said auxiliary moving member coöperatively moving with the first bill carrying member acting to prevent the carrying by said first moving member, of more than one bill at a time to a place of deposit, a series of bill containers each adapted to receive a pile of bills, selectively operative means common to all said containers whereby the bills may be removed one at a time from any container, and a conveying mechanism imparting movement to said means whereby each bill as removed from a container will be conveyed therefrom and delivered to the operator.

6. In combination with a controller an electric circuit, a number of solenoids therein, stationary currency bill containers, a movable shutter for each container whereby a currency bill container is rendered operative, by exposing the top of the pile of bills, and means for withdrawing a currency bill from such a container at the instant the bill container is rendered operative, surrendering one bill at a time.

[Claims 2 to 5 not printed in the Gazette.]

1,256,958. ELECTRIC HEATING-FURNACE. EDWARD E. WALKER and JOHN W. COX, Erie, Pa. Filed Jan. 2, 1917, Serial No. 140,010. Renewed July 11, 1917. Serial No. 180,016. (Cl. 204—64.)



1. In a heating furnace, the combination of an inclosing wall; a supporting floor for material to be treated; a heat diffusing electrode liquid under the heat of an arc; and a second electrode for completing the arc.

3. In a heating furnace, the combination of a heat diffusing element in the form of a liquid electrode; and means for completing the arc with said electrode.

5. In a heating furnace, the combination of a heat diffusing element in the form of a liquid electrode; an inclosing wall including a space of greater area than the electrode, said wall being positioned to receive and deflect the heat from the liquid electrode; and a second electrode acting in connection with the liquid electrode.

[Claims 2 and 4 not printed in the Gazette.]

1,256,959. METHOD OF HEATING. EDWARD E. WALKER and JOHN W. COX, Erie, Pa. Filed Feb. 15, 1917. Serial No. 148,852. (Cl. 204—64.)



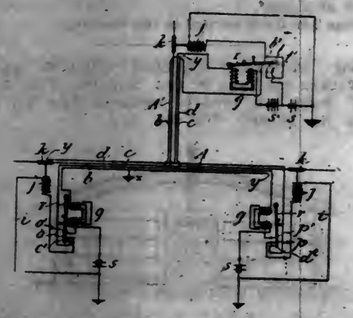
1. The method of heating which consists in forming an electric arc and taking up, diffusing and communicating the heat of the arc to matter to be heated through the medium of a liquid subjected to the arc, the matter being heated being independent of the liquid.

2. The method of heating which consists in forming an electric arc and taking up, diffusing and communicating the heat of the arc to the matter to be heated through the medium of a liquid subjected to the arc and forming one of the electrodes, the matter being heated being independent of the liquid.

3. The method of heating which consists in forming an electric arc and taking up, diffusing and communicating the heat of the arc to matter to be heated through the medium of a liquid subjected to and made molten by the arc, the matter being heated being independent of the liquid.

4. The method of heating which consists in forming an electric arc and taking up, diffusing and communicating the heat of the arc to matter to be heated through the medium of a liquid subjected to and made molten by the arc and forming one of the electrodes, the matter being heated being independent of the liquid.

1,256,960. PROTECTIVE ARRANGEMENT FOR ELECTRICAL SYSTEMS. JOHN FRANCIS WATSON, Blackheath, England, assignor to himself, Eric Gordon Waters, Sussex, England, and Callender's Cable & Construction Company Limited, London, England. Filed Nov. 24, 1915. Serial No. 63,199. (Cl. 175—294.)



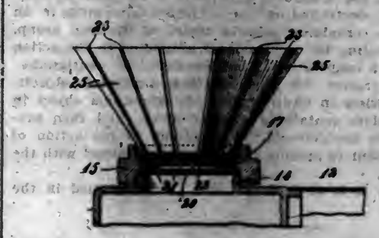
1. In an electrical system, the combination with a cable, of switches adapted to cut out the cable at distant points, protective conductors disposed along such cable between the switches and relay arrangements associated with the various switches, each such relay arrangement being connected to one end of a corresponding protective conductor and the several conductors being so separated that normally there is no complete circuit through any one thereof, current derived by one conductor from the system through leakage however virtually establishing the circuit of the companion relay which in addition to operating its switch will cause current to be conducted to the conductor of the relay controlling a distant switch.

8. In an electrical system, the combination with a T'd cable of switches associated with the several ends thereof, three T'd protective conductors one branch of each being associated with a branch of a T'd cable, a relay associated with each switch and included in one branch of one of the T'd protective conductors, a battery associated with each relay through which said conductor branches are respectively earthed, two of the batteries having opposite poles connected to earth and the third battery having one pole so connected, and an assisting battery associated with one of said relay batteries, any single relay when energized serving to complete the circuit of another T'd protective conductor through a normally insulated end thereof in the vicinity of the relay referred to.

[Claims 2 to 7 and 9 not printed in the Gazette.]

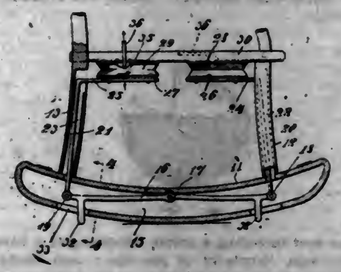
1,256,961. DISAPPEARING FUNNEL. HARRY S. WELSH, New York, N. Y. Filed Aug. 30, 1916. Serial No. 117,630. (Cl. 220—120.)

The combination with a radiator for automobiles or the like including a flange and a cap having threaded engagement therewith, of a supporting ring clamped between the flange and cap, said ring having eyes provided along the inner side thereof, flexible strips secured to said rings by means of said eyes, segmental sections arranged in corresponding pairs with their adjacent edges overlapping the



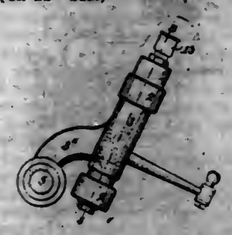
edges of the flexible strips, fastening elements passing through the overlapped edges of the segmental sections and through the edges of the flexible strips whereby the sections will be secured together in such position as to form a funnel, said sections and strips being foldable downwardly into the radiator.

1,256,962. FAN ATTACHMENT FOR ROCKING-CHAIRS. JOSEF WESCOTT, Kenosha, Wis. Filed Mar. 2, 1917. Serial No. 152,147. (Cl. 230—8.)



In a chair of the class described, the combination with a hollow rocker, and a pair of hollow legs, of a lever mounted to oscillate therein, projections extending downward from said lever through said rocker, arms extending upward from the ends of said lever through the legs of the chair, a pair of bellows having reciprocable heads, said heads being engaged with said arms, and pipes adapted to convey away the air currents therefrom.

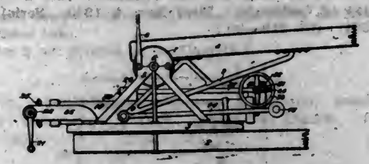
1,256,963. WHEEL-MOUNTING. EDWIN J. WESTON, Jr., Berkeley, Cal., assignor of one-tenth to Morris Zirker, San Francisco, Cal., and one-tenth to J. R. Shelton, Woodland, Cal. Filed June 10, 1916. Serial No. 102,882. (Cl. 21—141.)



1. In a wheel mounting for automobiles, an axle having terminal fork bearings, inclined backwardly from the vertical, a spindle support journaled in each bearing, an arm formed integral with and extending forwardly from each support at a downward and acute angle thereto to impose the load more directly on the support, the forward ends of the arms being curved downwardly and terminating forwardly of and in proximity to the lower fork part of the respective fork bearings, and a spindle projecting laterally from the downturned terminal of each.

2. In a wheel mounting for vehicles, an axle having inclined terminal bearings, a spindle support journaled in each bearing being also disposed at an inclination, an arm extending horizontally and at a downward acute angle from the spindle support to impose the load more directly on the latter, said arm having its outer end downturned in convergent relation to said spindle support, and a laterally extending wheel spindle on the downturned end of each arm.

1,256,964. AERIAL-LADDER TRUCK. EDGAR A. WHITAKER, Providence, R. I., assignor to Charles N. Richardson, Providence, R. I. Filed Aug. 17, 1916. Serial No. 115,492. (Cl. 228—28.)



1. In an aerial-ladder truck, the combination with the frame thereof, of a ladder pivotally mounted thereon, power-operated means for lifting the ladder on its pivot, a stationary bearing mounted on the frame centrally beneath the ladder, a rod slidable axially in said bearing and connected to be moved by the means for raising and lowering the ladder, and means to grip said rod to lock the ladder in raised or lowered position.

5. In an aerial-ladder truck, the combination with the frame thereof, of a ladder pivotally mounted thereon, power-operated means for elevating the ladder on its pivot, a manually-rotatable screw, a sliding nut engaging the screw and connected to the ladder to lower it against the action of the elevating-means, a rod connected with the nut and slidable through a fixed bearing, and means on the bearing for clamping the rod therein to lock the ladder in raised or lowered position.

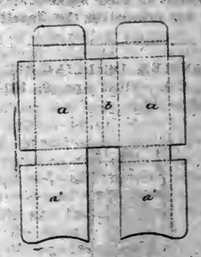
6. In an aerial-ladder truck, the combination with the frame thereof, of a turntable rotatably mounted thereon, a ladder pivotally supported at its heel on the turntable, cylinders on the turntable, compression-springs in said cylinders, pistons slidable in the cylinders under the action of the springs, a cross-rod connecting the ends of the pistons, braces depending from the sides of the ladder, links connecting the ends of the braces with the piston cross-rod, a screw mounted on the turntable between the cylinders, manually-operable means for turning the screw, a nut slidable on the screw and connected to the piston cross-rod to compress the springs to lower the ladder, a rod connected with the nut and slidable through a fixed bearing, and means to clamp the rod in its bearing to lock the ladder in raised or lowered position.

[Claims 2 to 4 not printed in the Gazette.]

1,256,965. SLIDE-BOX. GEORGE M. WILLIAMS, Elizabeth, N. J., assignor to P. Lorillard Company, New York, N. Y., a Corporation of New Jersey. Filed May 11, 1917. Serial No. 167,943. (Cl. 229—19.)

1. In slide boxes, a shell, and a slide therefor having opposing panels connected at one end and between which the contents are received, said slide including a wall structure formed as a double wall to divide the slide into compartments and having a depth substantially equal to the depth of the slide and adapted to form a support for the span faces of the shell against inward collapsing.

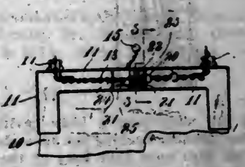
8. In slide boxes, a shell and a slide therefor having a plurality of sets of opposed panels connected at one end and between which the contents are received, a panel of one set being connected to a similar panel of another



set to produce a double wall structure therebetween having a depth substantially equal to the depth of the slide, the remaining panels of the sets being free from such connection.

[Claims 2 to 7 not printed in the Gazette.]

1,256,966. SAFETY ATTACHMENT FOR SATCHELS AND THE LIKE. MAX WINKLER, Ridgewood, N. Y. Filed Nov. 13, 1916. Serial No. 131,003. (Cl. 190—55.)

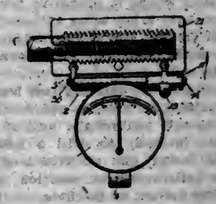


2. In a device of the class described, the combination with a pair of hingedly engaged side frames, one of said frames having a slot, of a bolt engageable with the mentioned slot, and a chain adapted to be used as a handle for actuating said bolt into or out of engagement with the slot.

3. In a device of the class described, the combination with a bag having a pair of oppositely disposed hingedly connected frames, of a flexible chain handle attached to one of said frames, a keeper slot formed in the other of said frames, a hooked bolt engageable in said slot, said handle being operatively engaged with said bolt and rings in said handle for moving said bolt longitudinally.

[Claim 1 not printed in the Gazette.]

1,256,967. TEST-INDICATOR. JOSEPH L. WOLFE, Bridgeport, Conn. Filed Sept. 16, 1910. Serial No. 582,291. (Cl. 33—199.)



1. A test indicator having means for measuring the longitudinal advance of screw threads comprising a movable pointer, a plunger carrying the same, a barrel in which the plunger moves, an adjustably fixed pointer, and a screw for adjusting the same.

10. An apparatus for finding a line on the surface of a screw-thread located in a plane passing through the axis of the screw comprising a base plate having sockets, a plurality of scaled and longitudinally adjustable pointers carried in said sockets in said plate and springs for tightening the pointers in their sockets.

[Claims 2 to 9 not printed in the Gazette.]

1,256,968. EXPANSIVE DRILLING-BIT. WALTER L. YOUNG, Harper, Cal. Filed Apr. 9, 1917. Serial No. 160,860. (Cl. 255—73.)



1. A drilling bit comprising a body having a longitudinally slanting chamber opening out upon the periphery thereof, a cutting edge upon said body at the lower end thereof, a non-resilient shifter wedge mounted in said chamber and arranged to move in an aslant direction relative to the axis of said body so that said shifter wedge projects beyond the outer periphery of the body when positioned at the top of said chamber and lies within said body when positioned at the bottom of said chamber, and means to adjustably support said shifter wedge at various heights relative to the cutting edge of the tool to maintain said cutting edge in operative position.

3. In a well casing, a vertically rotating tool body having a longitudinally slanting chamber opening out upon the periphery thereof, a cutting edge upon said body at the lower end thereof and opposite said chamber, a non-resilient shifter wedge mounted in said chamber and arranged to move in an aslant direction relative to the axis of said body so that said shifter wedge projects beyond the outer periphery of the body when positioned at the top of said chamber and lies within said body when positioned at the bottom of said chamber, a latch to support said shifter wedge in operative position at the top of said chamber, said latch being actuated by contact with the casing to release the shifter wedge and allow the same to move within the tool body as said body is withdrawn from the well.

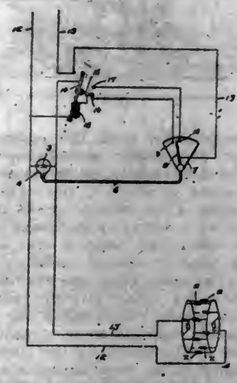
7. In a casing, a vertically rotating tool body having a cutting edge for drilling a hole, a non-resilient shifter wedge adapted to operate against the wall of the hole to force the tool body laterally to drill a hole of larger diameter than said casing, and positive means to move the shifter wedge into operative position, said means operating against the bottom of the hole.

12. A drilling tool adapted to be operated through a casing to drill a hole of larger diameter than the casing, comprising a body having a chamber opening at one side of the body, a runner in the chamber, a guide-way extending aslant upward and outward in the chamber, said runner being adapted to extend beyond the surface of the body when at the upper end of the chamber and to be retracted by the guide-way as it descends into the chamber; a latch adapted to latch the runner in its extended position, said latch pivoted to the body at the lower end of the guide-way and having smooth faces at its lower portion along which the runner may slide to hold the latch retracted when the runner is down; and means adapted to impinge upon the casing to retract the latch when the tool is withdrawn through the casing.

15. The combination with a drilling tool body and a wedge member having a serrated face and adapted to cooperate therewith, of a latch pivoted in the tool body and having a serrated face adapted to engage the serrated face of the wedge member and having a portion projecting from the tool body above the wedge member for retracting the serrated face of the latch from the wedge member to release the same.

[Claims 2, 4 to 6, 8 to 11, 13, and 14 not printed in the Gazette.]

1,256,969. TEMPERATURE-CONTROL SYSTEM. FRANK AHLBURG, San Francisco, Cal., assignor to Electric Fruit Marking Co., San Francisco, Cal., a Corporation of California. Filed Nov. 4, 1915. Serial No. 59,581. (Cl. 219—20.)



1. In a temperature control system, an electric heating element, a circuit connected to said element, a master heating element in said circuit out of thermal communication with said electric heating element, and means thrown into operation by variations in temperature of the master element for opening and closing said circuit.

4. In a temperature control system, an electric circuit, a plurality of heating elements in said circuit of such resistance that under continuous current of normal voltage a temperature in excess of a predetermined temperature is obtained and means out of thermal communication with said heating elements, for controlling the current in said circuit so that the said predetermined temperature of the heating elements is maintained substantially constant.

[Claims 2 and 3 not printed in the Gazette.]

1,256,970. FOUNTAIN SOLDERING-IRON. FRED ANDERSON, Tacoma, Wash. Filed Oct. 16, 1916. Serial No. 125,851. (Cl. 118—109.)

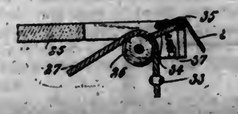
1. A soldering iron, comprising a head having an outlet passage, a plate in line with and spaced from the head, inner and outer concentric tubes, the inner tube being seated at its ends against the opposing faces of the head and plate, and the outer tube being threaded at its ends to the head and plate, and a rod passing through the plate and inner tube and entering the head a short distance and having a lateral passage to register with the outlet passage of the head, said rod having screw thread connection with the plate, whereby on turning said rod its inner end is advanced and seated against the soldering head and its passage moved away from the outlet passage



of the said head to cut off delivery of the solder contained in the inner tube.

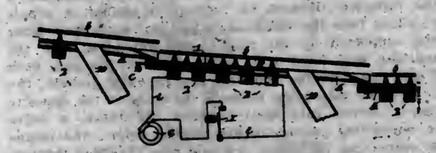
[Claim 2 not printed in the Gazette.]

1,256,971. CONVEYER. AUGUST AWISCHUS, Benson, Nebr. Filed Mar. 2, 1917. Serial No. 152,124. (Cl. 212—40.)



The combination with a suspended rope having a weight at one end and a winding means at the other, of a pulley over which said rope operates, a latch having a bifurcated opening through which said rope passes, the free end of said latch being frictionally engageable with the periphery of said pulley, a spring normally holding said latch in engagement, means for manually releasing said latch, and means combined with said rope for locking said latch under pressure of said grab when said grab is raised to its highest position.

1,256,972. SEPARATION OF MAGNETIC IRON ORE FROM ITS ASSOCIATED NON-MAGNETIC OR FEEBLY-MAGNETIC MINERALS. DANIEL M. BARRINGER, Wayne, Pa. Filed May 10, 1911, Serial No. 626,291. Renewed July 17, 1917. Serial No. 181,176. (Cl. 83—71.)



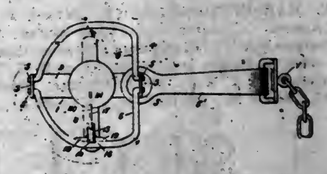
1. The process of separating magnetic materials from non-magnetic materials, which consists in subjecting the magnetic materials traveling with the non-magnetic materials by gravity on a substantially non-magnetic plate of high electrical conductivity to the influence of magnetic flux created by an electro-magnet energized by an alternating current of electricity, and thereby diverting the magnetic particles from their normal path of travel through the influence of the magnetic flux thereon.

2. The process of separating magnetic materials from non-magnetic materials, which consists in subjecting the magnetic materials traveling with the non-magnetic materials by gravity on a substantially non-magnetic plate of high electrical conductivity to the influence of magnetic flux created by an electro-magnet having a fixed position relative to said plate and energised by an alternating current of electricity, and thereby diverting the magnetic particles from their normal path of travel through the influence of the magnetic flux thereon.

3. The process of separating magnetic from non-magnetic materials which consists in conveying the mixed materials by water down an inclined trough of substantially non-magnetic material of high electrical conductivity, and subjecting said materials to the influence of a magnetic flux created by an electro-magnet energized by an alternating current of electricity, the water acting to separate the particles and reduce the friction of the same on the trough and on each other, whereby said magnetic materials are caused to be separated from the non-magnetic materials and travel toward the edges of the trough and over the same.

4. The process of separating magnetic materials from materials which are less magnetic, which consists in causing both materials to travel on a substantially non-magnetic plate of high electrical conductivity, and simultaneously subjecting them to the influence of magnetic flux, created by an electro-magnet energized by an alternating current of electricity, said electro-magnet being situated upon the opposite side of the conducting plate from the traveling materials, whereby the magnetic particles are diverted from their normal path of travel, through the influence of magnetic flux thereon.

1,256,973. ANIMAL-TRAP. LÉON BEDARD, Jr., and SIMEON BOITEAU, Jr., St. Sauveur, Quebec, Canada. Filed June 9, 1916. Serial No. 102,784. (Cl. 43—23.)



1. In a trap of the class described, in combination with a base, a pair of jaws, and a spring to close the jaws, a keeper link pivotally connected to the base, recessed in its outer side to receive and provided with a shoulder to engage on the upper side of one of the jaws, and a trigger pivotally mounted between the arms of the keeper link, so that said trigger can be moved either vertically or horizontally, said trigger being arranged to bear at its outer end against one side of said jaw, and also having a stop to engage the outer side of the keeper link and cause the latter to be turned inwardly and downwardly on its pivot to disengage its shoulder from said jaw, when the lever arm of the trigger is moved in any direction.

[Claim 2 not printed in the Gazette.]

1,256,974. PROCESS OF TANNING FISH-SKINS. KRISTIAN BENDIXEN, Copenhagen, Denmark, assignor to Kristian Bendixen and Peter Bendixen, Copartners trading under the firm-name of Skindfabriken Unicum, Kr. Bendixen, P. Bendixen and Company, Copenhagen, Denmark. Original application filed Feb. 19, 1912, Serial No. 678,473. Divided and this application filed May 7, 1917. Serial No. 167,154. (Cl. 149—5.)

1. A process for tanning fish skins and the like consisting in softening the skins, treating them for about three days in a solution of products produced by chemical action between water and arsenic and sodium sulfid, and then treating them for a further period of about three days in a solution of water and slaked lime.

3. A process for tanning fish skins and the like consisting in softening the skins, treating them in a solu-

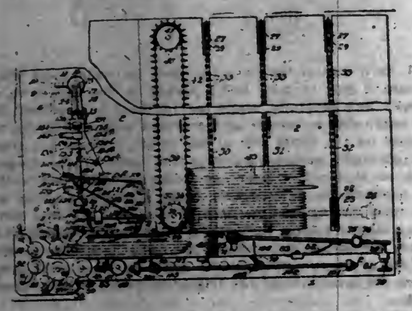
tion of products produced by chemical action between water and arsenic and sodium sulfid, then treating them for a further period in a solution of water and slaked lime, turning the hides during such treatment, agitating the hides in a solution of water and hydrochloric acid and then bating them in a mill containing water, poultry dung and a chemical bating compound.

5. A process for tanning fish skins and the like consisting in softening the skins, treating them for about three days in a solution of products produced by chemical action between water and arsenic and sodium sulfid, then treating them for a further period of about three days in a solution of water and slaked lime, turning the hides during such treatments, agitating the hides for a short while in a solution of water and hydrochloric acid, then bating them in a mill containing water, poultry dung and a chemical bating compound, and then washing them in pure lukewarm water and afterward with a solution of hydrochloric acid and water.

8. A process for tanning fish skins and the like consisting in softening the skins, treating them in a solution produced by the chemical action between sodium sulfid, water and arsenic, then treating them for a further period in a solution of water and slaked lime, turning them during such treatments, agitating the hides in a solution of water and hydrochloric acid, then bating the hides, then washing them in pure lukewarm water and afterward with a solution of hydrochloric acid and water, then milling them until the skins are fully tanned in a mill containing a suitable solution of salt to which a suitable chrome tanning material is added, then freeing the hides from acid and treating them in a solution of extract of sumach and water.

[Claims 2, 4, 6, and 7 not printed in the Gazette.]

1,256,975. MAIL-FEEDING DEVICE. MYRON J. BIGELOW, CHARLES C. CADDEN, and JAMES REHAK, Akron, Ohio, assignors to The Mechanical Efficiency Company, Akron, Ohio, a Partnership composed of B. G. Work, J. K. Mitchell, C. A. Munn, and C. Gehring. Filed Jan. 29, 1917. Serial No. 145,154. (Cl. 271—39.)



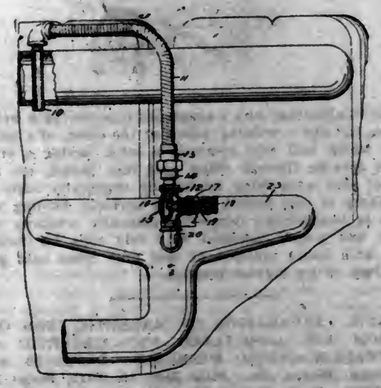
1. A device of the class described, comprising, in combination, a feed mechanism actuating means therefor, a conveyer for delivering mail-pieces thereto while supporting them upon their edges, conveyer actuating means for arresting the movement of said conveyer and controlling means located in the mail-piece path between said conveyer and feeding mechanism, in position to be actuated by the moving mail-pieces, for actuating said arresting means whenever irregularity of movement, congestion or displacement of the mail-pieces occurs in the mail-piece path.

5. A mail feeding device in which is combined feeding means in operative connection with a source of power, conveying, means for conveying mail-pieces upon their edges in stack form to said feed mechanism in a path at an angle to that at which the mail-pieces are to be delivered to said feed mechanism, a feed-roll located at the forward end of the conveyer path to engage the foremost mail-piece of the pack and advance it endwise to the main feed mechanism, arresting means interposed between the primary source of power and the conveyer driving means to cause the arrest of said driving means, controlling means for actuating said arresting means when abnormally moved by an excess of mail-pieces against said controlling means and means for causing the action of said conveyer driving means to be resumed when the controller is restored to its normal position by the disposal of said excess mail-pieces.

12. A mail-feeding device, comprising, in combination, feed mechanism, means for advancing mail-pieces thereto, said means comprising a plurality of endless chains arranged to be moved in predetermined planes, said chains being provided with upwardly extended projections spaced apart for engaging the lower edges of a stack of mail-pieces, a supplemental chain having lateral projections for engaging the ends of said mail-pieces to hold them in substantially vertical planes, means for actuating said chains in unison, means for arresting their movement and means in the mail-piece path between said conveyer and feeding-mechanism in position to be actuated by the pressure of excess mail-pieces in said path for actuating said arresting means.

[Claims 2 to 4, 6 to 11, and 13 to 34 not printed in the Gazette.]

1,256,976. ATTACHMENT FOR INTERNAL-COMBUSTION MOTORS. JOHN O. BROCK, Wilmington, N. C., assignor to Auto Inspirator Co., Wilmington, N. C., a Corporation of North Carolina. Filed Feb. 26, 1916. Serial No. 80,712. (Cl. 48—180.)

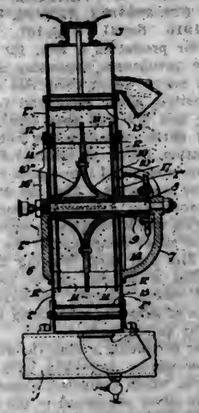


In an attachment for internal combustion motors, including an exhaust manifold and an intake manifold, a pipe threaded through the exhaust manifold, a nipple extending into the intake manifold, an outer and inner tube supported by the nipple, and extending into the manifold, said outer tube being closed at its end, each of said tubes having a helical slot provided therein, the slots of one tube lying between the slots of the opposite tube, a screen interposed between the tubes, a valve for controlling passage of air to said nipple, and means for connecting the valve and said pipe threaded through the manifold.

1,256,977. RADIATOR. TRACY V. BUCKWALTER, Altoona, Pa. Filed July 11, 1916. Serial No. 108,637. (Cl. 257—126.)

1. In a radiator, the combination with a structure comprising cooling fluid circulating means and having apertures for the passage of air for cooling said means, of a journaled fan adapted for circulating air in contact with said means and having a diaphragm adapted for preventing the direct passage of air between said apertures.

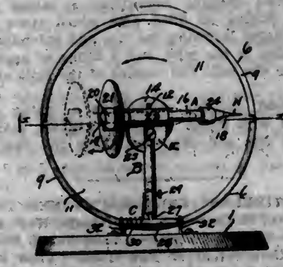
2. In a radiator, the combination with cooling fluid circulating means comprising a plurality of sets of tubes, of air circulating means comprising a journaled fan having vanes adapted for forcing air outwardly between said tubes and a diaphragm on opposite sides of which the vanes aforesaid are disposed.



3. In a radiator, the combination with cooling fluid circulating means comprising headers and sets of tubes having their ends connected by said headers, of a journaled fan between said sets of tubes and said headers, said fan having a diaphragm, and means providing air ports on opposite sides of said fan, said ports being separated and the passage of air between them being prevented by said diaphragm.

4. In a radiator, the combination with cooling fluid circulating means comprising headers and sets of tubes having their ends connected by said headers, of plates connected with said headers and having oppositely disposed apertures, a journaled wheel having a web disposed between said apertures and vanes separated by said web, and chokers for restricting the free space around said wheel and for facilitating the active circulation of air by said wheel in contact with said tubes.

1,256,978. MACHINE FOR REPOINTING PHONOGRAPH-NEEDLES. DANIEL W. CAUSEY, Norfolk, Va. Filed Sept. 25, 1917. Serial No. 193,171. (Cl. 51—10.)



1. A needle sharpening machine including a platen having an abrasive surface, a tension device located at one side of the platen and a needle holder adjustably and detachably connected therewith.

5. A needle sharpening machine including an abrasive disk and a needle support mounted at one side of the disk, said needle support being under spring tension and including a needle carrier having a wheel adapted to engage with the abrasive surface of said disk.

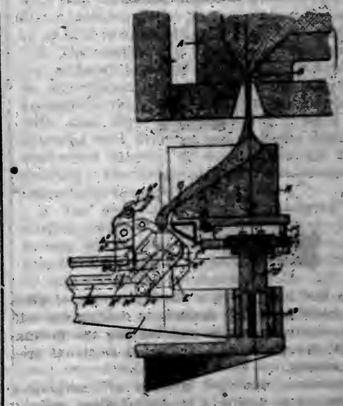
7. A needle sharpening machine including a rotary platen having an abrasive surface, a tension device located at one side thereof, a needle holder adjustably connected to the said tension device and including a needle carrier having a needle chuck at one end and an actuating wheel at the other end.

10. A needle sharpening machine including a rotary platen having an abrasive surface, a tension device located at one side thereof, a needle holder including a needle carrier and a support for the carrier having a sleeve at one end for loosely receiving the same, and means at the other end for adjustably and detachably connecting with the tension device.

18. A needle sharpening machine including a rotatable platen having an abrasive surface, and a needle holding device arranged at one side thereof, said needle holding device including a tension device, a supporting standard detachably and adjustably engaged with the tension device, a needle carrier mounted in said standard and including a hollow barrel, a rod located therein and having a needle gripping portion at one end, a spring for placing said rod under tension in one direction, and an actuating wheel fitted to the barrel and contacting with the platen.

[Claims 2 to 4, 6, 8, 9, and 11 to 17 not printed in the Gazette.]

1,256,979. APPARATUS FOR THE MANUFACTURE OF BLOWN-GLASS ARTICLES. BENJAMIN DAY CHAMBERLIN, Rochester, N. Y., assignor to Empire Machine Company, Portland, Me., a Corporation of Maine. Original application filed June 2, 1911, Serial No. 630,944. Divided and this application filed Sept. 16, 1915, Serial No. 51,031. Renewed Dec. 4, 1916. Serial No. 135,006. (Cl. 49—5.)



1. In a machine for the manufacture of blown glass articles, the combination with a receptacle for molten glass having a discharge orifice, of a constantly traveling blank mold and a constantly traveling blow-pipe, means for positioning the mold to receive the discharge from the orifice and to register with the blow-pipe, and means for causing a relative approaching movement of the mold and blow-pipe in the last-named position of the mold.

2. In an apparatus for the manufacture of blown glass articles, the combination with a receptacle for containing fluid glass, and having a discharge orifice, of a mold, means for casting in the mold from the discharge from the said orifice blanks of proper sections, and means for projecting a blow-pipe against the blank to cause it to adhere thereto, and for removing the blow-pipe with the blank thereon away from the mold.

5. The combination with a container for molten glass, means for constantly feeding a stream of glass therefrom of definite diameter, means for severing such stream of glass into portions, a mold of substantially the same diameter as the stream of glass adapted to receive the

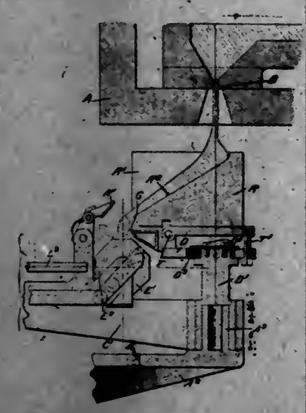
severed portions thereof, and having one end only of its mold cavity open, and a blow-pipe, and means for projecting the same within the open end of the mold, and against the glass therein.

9. The combination with a glass-furnace having a flowing orifice, of a plurality of glass-forming machines arranged around such orifice and each comprising a finishing mold and a reciprocating member adapted to be projected into position to receive the glass after its issue from the said furnace and to deliver it to the finishing mold.

10. The combination with a glass-furnace having a flowing orifice, of an inclined transfer trough arranged below the orifice and adapted to receive glass therefrom, a mechanism severing the glass flowing from the said trough into charges, and means for varying the inclination of the said trough and thereby varying the diameter of the glass at the severing point.

[Claims 3, 4, and 7 to 9 not printed in the Gazette.]

1,256,980. PROCESS OF FLOWING GLASS. BENJAMIN DAY CHAMBERLIN, Rochester, N. Y., assignor to Empire Machine Company, Portland, Me., a Corporation of Maine. Original application filed June 2, 1911, Serial No. 630,944. Divided and this application filed July 17, 1916. Serial No. 109,791. (Cl. 49—79.)



1. A step in the delivery of a flowing stream of glass to a finishing machine, which consists in flowing the said stream upon an inclined trough and varying the inclination of the said trough to vary the cross sectional area of the flowing stream.

4. The hereinbefore described process of charging a mold, which consists in flowing a stream of glass upon an inclined trough and from the trough into the mold, and varying the inclination of the trough to cause the cross sectional area of the stream flowing therefrom to be substantially equal to the cross sectional area of the mold, and severing the glass into charges between the trough and the mold.

5. The hereinbefore described process of manufacturing blown glass articles, which comprises casting a solid blank in a mold from a continuously flowing stream of glass having approximately the same cross-section as the blank, and finishing the said blank by blowing.

6. The hereinbefore described process of manufacturing blown glass articles, which comprises casting a solid blank in a mold from a continuously flowing stream of glass and having approximately the same cross-section as the blank, and securing a blow-pipe to the said blank by the adhesion of the heated glass and blowing.

7. The hereinbefore described process of manufacturing blown glass articles, which comprises the formation of a continuous stream of glass from material in a thoroughly molten condition, severing the stream into masses of the desired volume, forming such severed masses in molds into solid blanks of approximately the same cross-sectional area as the stream, and blowing such blanks.

[Claims 2 and 3 not printed in the Gazette.]

1,256,981. METHOD OF PRODUCING PHOTOGRAPHIC FILMS OF VARYING POROUSNESS. JENS HERMAN CHRISTENSEN, Sölleröd, Holte, Denmark. Filed Mar. 9, 1916. Serial No. 83,101. (Cl. 95—88.)

1. A process for producing a film, the different parts of which have a porousness depending upon the action of light on said parts, which comprises exposing a film containing a sensitive silver compound to the action of light, developing said film and then treating the reduced and non-reduced parts of said silver compound in said film with a solution which transforms the non-reduced parts of said silver compound into a pore-filling substance.

2. A process for producing a film, the different parts of which have a porousness depending upon the action of light on said parts, which comprises exposing a film containing a sensitive silver compound to the action of light, developing said film and then treating the film with a solution containing a soluble sulfur compound which readily gives off sulfur, thereby reducing the penetrability of the parts of said film containing the non-reduced silver substantially as set forth.

3. A process for producing a film, the different parts of which have a porousness depending upon the action of light on said parts, which comprises exposing a film containing a sensitive silver compound to the action of light, developing said film, and then soaking the film in a solution containing a soluble sulfur compound which readily gives off sulfur, and a solvent for said silver compound thereby reducing the penetrability of the parts of said film containing the non-reduced silver substantially as set forth.

1,256,982. RAILROAD-CROSSING CONSTRUCTION. HENRY HENDERSON COLLINS, Johnson City, Tenn., assignor of one-half to Harry David Gump, Johnson City, Tenn. Filed Dec. 27, 1917. Serial No. 209,169. (Cl. 104—14.)



1. A railroad crossing comprising a casing of pure asphalt and fluxing oil filled with mixed stone and asphalt, said casing inclosing the ties and extending above the base flanges of the rails, and a filling of asphalt and stone between the rails and outside of the rails above the said casing.

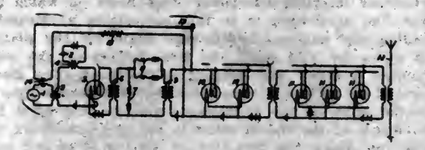
2. A railroad crossing comprising a casing of pure asphalt filled with mixed stone and asphalt, said casing inclosing the ties and extending above the base flanges of the rails.

1,256,983. WIRELESS TELEGRAPHY AND TELEPHONY. EDWIN H. COLPITTS, East Orange, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Jan. 27, 1916. Serial No. 74,576. (Cl. 250—2.)

1. The method of simultaneous telephony and telegraphy, which consists in transmitting telephone signals by means of pure modulated waves, destroying the purity of said waves in accordance with telegraph signals and detecting said waves at a receiving station.

3. A method of signaling which comprises producing a carrier wave, modulating such wave in accordance with speech, and eliminating portions of the carrier wave component of the modulated wave for the purpose of code signaling.

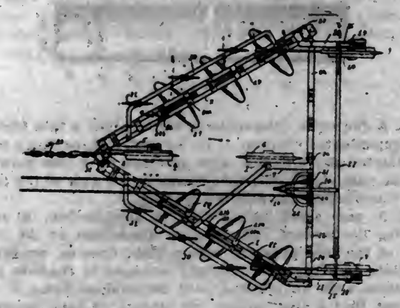
8. In a signaling system, means at the transmitting station for producing a composite wave one component of which is a pure modulated wave and another of which is a modified carrier wave, a receiver including indicating means responsive to one of said components, a second indicating means, and means preventing that one of the components which is responsive to the first indicating means from reaching the second indicating means.



11. A system of simultaneous telegraphy and telephony comprising a transmitting station including a generator of high frequency currents, means for modulating said currents in accordance with speech, means for eliminating the unmodulated part of said current whereby a pure modulated wave is produced, means for superimposing upon said pure modulated wave a wave of the said generator frequency and a receiving station including means for detecting said waves.

[Claims 2, 4 to 7, 9, and 10 not printed in the Gazette.]

1,256,984. DISK PLOW. JOHN H. DAVIS, Stockton, Cal. Filed June 28, 1916. Serial No. 106,366. (Cl. 97—40.)



1. A convertible gang plow comprising a pair of beams, plowing devices carried by each beam and a coupling element at one end and side of each beam, whereby the beams are adapted to be connected either end to end or side by side.

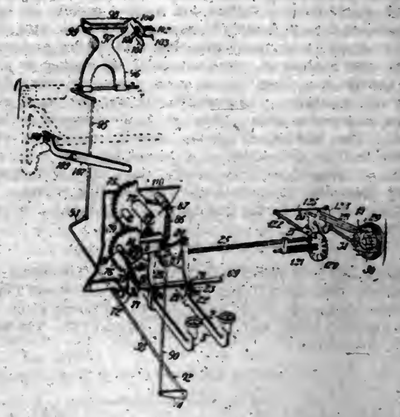
3. A convertible disk plow comprising plow beams consisting of spaced bars forming an intermediate slot, bars extending across the slot in pairs, disk supporting bars, each bar being pivotally mounted on one member of one pair of said cross bars and adjustably fixed to the other member.

4. A convertible disk plow comprising two plow beams hinged together at one end and extending in diagonally opposite directions, a projecting frame on the opposite end of each beam, such frames being hinged together, disk plows carried by the beams, and a colter attachment mounted in front of each disk.

5. A convertible disk plow comprising two connected supporting beams, a plurality of disks carried by the beams, such disks being reversible whereby when the plow is drawn in one direction the furrows will be turned toward the center of the plow and when drawn in the opposite direction the disks can be reversed to turn the furrows toward the outer edges of the plow, and a pair of furrow wheels carried centrally of the plow.

[Claims 2, 6, and 7 not printed in the Gazette.]

1,256,985. COMBINED TYPE-WRITING AND COMPUTING MACHINE. GUSTAVE O. DEGENER, New York, N. Y., assignor to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Filed Dec. 11, 1911. Serial No. 664,961. (Cl. 235—59.)



1. The combination with typewriting mechanism including numeral keys, of computing mechanism connectible to be actuated by said numeral keys, means tending to accomplish the connection of said computing mechanism with said keys, and means of greater effect opposing said first-mentioned means and preventing the connection thereby of said computing mechanism with said keys.

3. The combination with typewriting mechanism including numeral keys, of computing mechanism connectible to be actuated by said numeral keys, means tending to accomplish the connection of said computing mechanism with said keys, and means of greater effective force opposing said first-mentioned means and preventing the connection thereby of said computing mechanism with said keys, the last-mentioned means including a resilient controlling element.

5. The combination with typewriting mechanism including numeral keys and a traveling carriage, of computing mechanism connectible to be actuated by said numeral keys, means tending to accomplish the connection of said computing mechanism with said keys, means of greater effective force opposing said first-mentioned means and normally preventing the connections thereby of said computing mechanism with said keys, and means operable by said carriage for overcoming the opposition of said second-mentioned means and thereby increasing the effective force of said first-mentioned means so that the latter means then effects connection of said keys and computing mechanism.

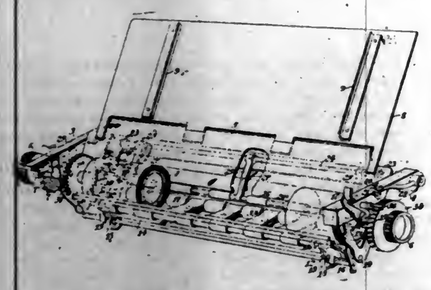
13. In a combined typewriting and computing machine, the combination of numeral keys, computing mechanism, connections between said numeral keys and said computing mechanism, a shifter bar for moving certain of said connections into and out of operative relation with the keys, a lever for moving said bar, a manual controller for determining the possibility of moving the connections into operative relation, said manual controller including intermeshing gears, means for moving said gears from one position to another, a spring connecting one of said gears with said lever to move said shifter, said spring, in certain positions of said gears, being under tension tending to move said lever and bar to move the connections into operative relation with the keys, a stop for preventing movement of said gears from said position under the tension of said spring, a second lever engaging said stop, an arm on the first-mentioned lever, means operating between said arm and said second lever, tending to prevent movement of said gears relatively to the first lever, under the tension of said spring, and

a second spring connected to the second lever to counteract the tendency of movement of the first-mentioned lever by the first-mentioned spring.

43. In a combined typewriting and computing machine, the combination of numeral keys, computing mechanism, connections between said numeral keys and said computing mechanism, a shifter for moving certain of said connections into and out of operative relation with the keys, a rocker, a spring connecting said rocker and said shifter and tending in one position of the rocker to pull said shifter in a direction to move the connections into operative relation, a compensating rocker having a projection engageable with a stop on the first-named rocker, to hold the first-named rocker against movement and thereby nullify the action of said spring, and a second spring of greater effective force than the first-named spring, connected to control the compensating rocker.

[Claims 2, 4, 6 to 12, and 14 to 42 not printed in the Gazette.]

1,256,986. TYPE-WRITING MACHINE. ADOLPHUS S. DENNIS, Lakewood, Ohio, assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Oct. 8, 1913. Serial No. 793,996. (Cl. 197—140.)



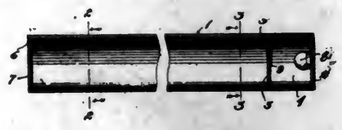
1. The combination, with a rotary platen, and feed-rolls coöperative with said platen for feeding a plurality of superposed work-pieces therearound; of a gage located at the introductory side of said platen for positioning the leading edges of the successive work-pieces; an auxiliary feeding device movable into and out of coöperating relation to said platen, so as to alternately hold a work-piece in gaged position against the same for rotation therewith, and release such work-piece to permit the next one to be gaged; and a device for indicating the extent of angular or line-space rotation of the platen and the work-piece or pieces thereon, said indicating device having line-numbers thereon running reversely with respect to the line-feeding movement of the platen, thereby to enable the platen to be initially rotated to a predetermined line-space position corresponding to that of the first line of writing on the first work-piece to be introduced; and also to enable each work-piece, as it is introduced, to be successively gaged with relation to the platen and the previously-positioned work-piece or pieces, held in gaged position against said platen, and rotated with the latter into a predetermined line-space position corresponding to that of the first line of writing on the next work-piece to be introduced; all of the work-pieces, after having been so positioned, being subsequently fed around the platen in unison in such relation, first to the printing point, and thereafter throughout the entire printing operation.

6. In a typewriting machine, the combination with a revoluble platen, of a main feed roll to run on said platen, a normally withdrawn gage-for the leading edge of the sheet, said gage arranged at the introductory side of the platen to gage the sheet preparatory to being advanced to said main feed roll, and an auxiliary feed roll movable to and from the platen independently of said main feed roll and placed at the introductory side of the platen in proximity to said gage, to hold against the platen the sheet which has been located by means of said gage, and to remain pressing the sheet against the platen while the gage is withdrawn, to feed said sheet to said main feed roll, said gage being between said rolls.

7. The combination with a revoluble platen, of means for mechanically selecting different line-numbers on consecutively inserted superposed work-sheets on which the first line of writing is to fall, comprising a releasable leading-edge gage, a leading-edge scale for the platen, an index for said scale, the line-numbers on the scale running reversely with respect to the line-feeding movement of the platen, to correspond with line-numbers placed on the faces of the work-sheets and running from top to bottom of the sheets, whereby the line-number on the sheet on which the first line of writing is to fall may be mechanically selected for each successive one of the superposed sheets by first turning the platen in each case until the index points to the number selected for that sheet, preparatory to gaging the leading edge of such sheet by said gage, sheet-feeding means between the gage and the printing point, and independently releasable sheet-feeding means at the introductory side of the gage.

[Claims 2 to 5 not printed in the Gazette.]

1,256,987. GUN-SIGHT. JAMES A. DITTEMORE, St. Joseph, Mo. Filed Dec. 5, 1916. Serial No. 135,146. (Cl. 33—47.)



1. A gun sight, comprising in combination, a tube having an illumminated chamber at its forward end, having a pair of diaphragms provided with openings on a line parallel to the axis of the tube, and means in the axis of the tube for illuminating the forward opening.

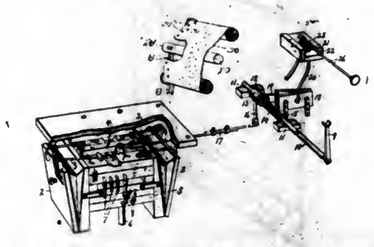
2. A gun sight, comprising in combination, a tube having its forward end closed, a diaphragm at the rear end of the tube provided with a sight opening, an intermediate diaphragm transversely arranged in the tube and provided with an opening, said diaphragms being so arranged that a line joining the centers of said openings lies parallel to the axis of the tube, and means for illuminating the second opening.

3. A gun sight, comprising in combination, a tube having its forward end closed, a diaphragm at the rear end of the tube and having an opening formed therein, an intermediate diaphragm transversely arranged to the tube and forming with the closed end thereof a light chamber, said intermediate diaphragm having an opening, said diaphragms being so arranged that a line joining the centers of said openings lies parallel to the axis of the tube, and a light source in the light chamber for illuminating the second opening.

4. A gun sight, comprising in combination, a tube having its forward end closed, a diaphragm at the rear end of the tube, an intermediate diaphragm near the front end of the tube, and forming an illuminating chamber with the closed end of the tube, said diaphragms having openings in a line parallel to the axis of the tube, and means for illuminating the opening in the intermediate diaphragm.

5. A gun sight, comprising in combination, a tube having a closed end, a diaphragm at the rear end of the tube, a forward diaphragm forming an illuminating chamber with the closed end, said diaphragms having openings on a line parallel to the axis of the tube, the opening in the forward diaphragm being illuminated from the front of the latter.

1,256,988. TONE-MODULATING APPARATUS FOR SELF-PLAYING MUSICAL INSTRUMENTS. LEWIS B. DOMAN, East Syracuse, N. Y., assignor to The Amphion Piano Player Company, Syracuse, N. Y., a Corporation of New York. Filed Feb. 14, 1916. Serial No. 78,174. (Cl. 84—168.)

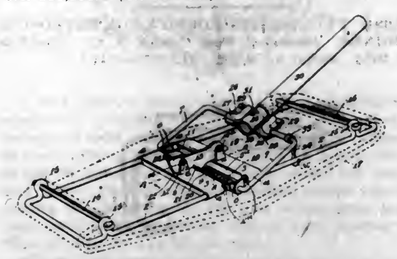


3. In a self-playing musical instrument, a tone-modulating device having a tone-controlling valve, web-controlled pneumatics for operating said valve, and manually operated means for operating the valve independently of the pneumatics and including a clutch.

4. In a self-playing musical instrument, a tone-modulating device having a tone-controlling valve, web-controlled pneumatics for operating said valve, manually operated means for operating the valve independently of the pneumatics and including a clutch, and separate pneumatic means for releasing the clutch.

[Claims 1, 2, and 5 not printed in the Gazette.]

1,256,989. MOP-FRAME. CHARLES DUNCAN, Montreal, Quebec, Canada, assignor to Alexander Wink Grant, Montreal, Quebec, Canada. Filed July 12, 1917. Serial No. 180,154. (Cl. 15—56.)



6. In a mop, a frame consisting of U-form frame members having their open ends adjacept each other, plates connecting the open ends of the frames, such plates respectively presenting end lugs arranged in the longitudinal line of the mop frame, the lugs at each end of one plate overlapping a lug at each end of the other plate, a handle bail having its ends respectively extending loosely inwardly through each pair of overlapping lugs and pivoting same together, a sleeve enveloping the inwardly extending ends of the handle bail between the pairs of over-lapping lugs, a coil spring wound over said sleeve and having each terminal engaging one of said plates, upstanding lugs carried by each of said plates, the lugs of each plate being spaced transversely of the frame, pins carried between the lugs of each plate, a latch pivotally mounted upon one of said pins, one end of the latch having a notch therein for engagement over the other pin, the other end of the latch extending upwardly above the normal line of the latch and bent flat laterally of the latch and a spring resting upon one of said lugs at one end, passed under one terminal of said coil spring and having its opposite end engaged with the latch between the notched end of the latch and the pivot pin thereof.

7. In a mop, a frame having eyes therein, a cloth and removable split pins inserted through the eyes and engaging the cloth to attach same to the frame.

9. In a mop, a frame, and a handle for the frame consisting of wire lengths, one of the ends of same being pivoted to the frame at opposite sides thereof and the opposite free ends extending inwardly over the latter toward each other, a one piece socket member having two semi-cylindrical portions with oppositely extending lateral flanges placed side by side, a web connecting the flanges at their lower edges, lugs carried by the top edge of the flanges at one side and bent over the other flanges, such flanges presenting L-shaped grooves extending outwardly from the semi-cylindrical portions and having said free ends of the wire lengths clamped therein, a pole having one end located between the semi-cindrical portions and a transversely extending split pin securing the pole in place.

12. In a mop, a frame consisting of frame members adapted to swing toward each other, a coiled spring having one terminal engaging one of said frame members and yieldingly preventing swinging of same toward each other, a latch pivotally mounted upon one of the members and adapted to engage the other member to hold the members from swinging toward each other and means for yieldingly holding the latch against upward movement consisting of a spring resting at one end upon one of said frame members passed under a portion of said coil spring and having its opposite end engaged with the latch between the ends of the latter.

[Claims 1 to 5, 8, 10, and 11 not printed in the Gazette.]

1,256,990. RAILWAY SIGNAL-TORPEDO. FRANK DUTCHER, Versailles, Pa., assignor to Central Railway Signal Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Oct. 16, 1916. Serial No. 125,891. (Cl. 246—20.)



1. A fiber railway and signal torpedo of the button-top type, comprising a paper case made up of several parts, an explosive compound therein, the peripheries of the several parts having projecting engaging annular flanges, and a ring-like metal clamp approximately U-shaped in cross-section and embracing the said projecting flanges, the parallel parts of the clamping member forcing and compressing the flanges together making a water-tight joint between them and the said clamping member.

[Claim 2 not printed in the Gazette.]

1,256,991. RAILWAY SIGNAL-TORPEDO. FRANK DUTCHER, Versailles, Pa., assignor to Central Railway Signal Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Oct. 16, 1916. Serial No. 125,892. (Cl. 246—20.)

1. A non-flying railway signal torpedo, comprising a fiber case composed of a plurality of parts, an explosive between them, and a member clamping the parts together composed of material readily destructible by flame and heat and compressible to maintain clamping position in the presence of heat.

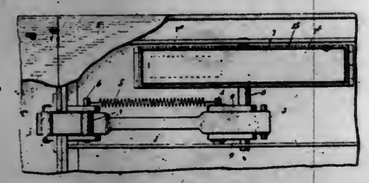
8. A non-flying railway signal torpedo, comprising a plural-part fiber case with peripheral projecting flanges, and a ring-like clamping member U-shaped in cross-section



and embracing the said flanges of the cases and composed of inflammable material compressible to maintain U-shaped clamping position in the presence of heat.

[Claims 2 to 7 not printed in the Gazette.]

1,256,992. LATCH. LINDEN E. EDGAR and WALTER W. RICHARDS, Wilmington, Del. Filed May 7, 1914. Serial No. 836,879. (Cl. 70—42.)



1. In combination, a door, and a frame therefor, a latch within said door, and means to operate said latch comprising an elongated finger piece substantially flush when in normal position with the surface of the part in which the latch is adapted to be mounted one end of which when operated moves the bolt in one direction and the other end of which when operated moves the bolt in the other direction.

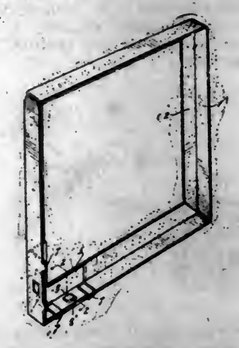
2. In combination, a door, and a frame therefor, a latch within said door, and means to operate said latch comprising an elongated operating piece substantially flush when in normal position with the surface of the part in which the latch is adapted to be mounted one end of which when operated moves the spring-pressed bolt in one direction and the other end of which when operated moves the bolt in the other direction.

3. In combination, a door, and a frame therefor, said door containing a spring-pressed bolt provided with a pin, a slotted link engaging said pin, an operating piece substantially flush with the surface of the door in which said latch is mounted, and means to connect said link and said operating piece.

[Claims 4 to 10 not printed in the Gazette.]

1,256,993. MOUNT FOR POSTERS. CHARLES L. EIDLITZ, New York, N. Y. Filed Mar. 10, 1916. Serial No. 83,245. (Cl. 40—154.)

1. In a frame, two abutting angle strips forming two of the side pieces of the frame, a corner piece at the abutting ends of said strips, ears formed on some of said parts and slots in other of said parts, some of said ears of said parts being bent over said other parts and other of said ears passing through said slots and then being bent over said other parts.



2. In a frame, two angle strips forming two of the side pieces of the frame, a corner piece comprising a right angled angle piece fitting over the ends of the side pieces, said side and corner pieces having slots and ears formed therein, said ears passing through said slots and being bent over to anchor said side pieces to said corner piece, and other ears carried by some of said pieces bent over the edges of the other of said pieces.

3. A corner piece for picture frames comprising two angle strips disposed at right angles to each other and forming the corner of the frame, said angle strips having ears cut in one leg of each of the angle strips which are adapted to be bent up in spaced relation to the other leg of the angle piece to retain a sheet of material of less size than the frame in place therein.

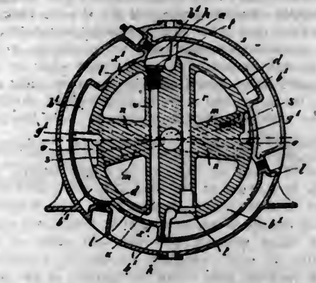
1,256,994. FUEL-HEATING DEVICE FOR EXPLOSIVE-ENGINES. DENNIS F. FOX, Candor, N. C. Filed Feb. 20, 1915. Serial No. 9,682. (Cl. 257—241.)



In an apparatus of the class described, the combination of an inlet pipe provided with a plurality of alined apertures formed in one side thereof, said inlet pipe provided at one end with an elbow and being open at its opposite end, a reduced shank-pipe inserted into one end of said elbow, an auxiliary pipe carried by said reduced shank-pipe, said auxiliary pipe provided with a vertically positioned elbow, said elbow provided with a two-section telescoping pipe, the lower section of said telescoping pipe being provided with an aperture and with an elbow, the apertured section of the telescoping pipe being slidably mounted within the upper portion of said telescoping pipe, a sleeve rotatably mounted upon the lower section of the telescoping pipe between the elbow and the upper section of said pipe, said sleeve provided with an aperture adapted to register with the aperture in the lower section of the telescoping pipe, said sleeve provided with a horizontal lug, an operating link pivotally mounted in said lug, and a reduced nozzle carried by said last-mentioned elbow.

1,256,995. ROTARY ENGINE. JOHN WILLIAM GEORGE, Stroud Green, England. Filed May 31, 1917. Serial No. 171,996. (Cl. 123—17.)

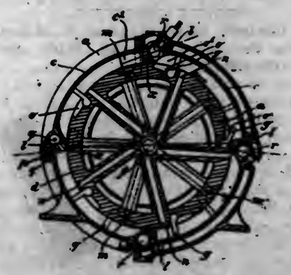
1. A rotary engine comprising an outer casing, a rotor mounted within said outer casing, compression and combustion chambers formed in the outer casing, vanes arranged to operate within said chambers, inlet passages carried by the rotor, and passages and valves in said



rotor for the purpose of transferring a compressed charge from one chamber to another.

[Claims 2 and 3 not printed in the Gazette.]

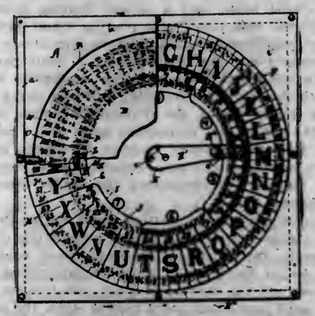
1,256,996. ROTARY ENGINE. JOHN WILLIAM GEORGE, Stroud Green, England. Filed May 31, 1917. Serial No. 171,997. (Cl. 123—17.)



1. In a rotary engine, a casing, a rotor, compression and combustion chambers arranged side by side between the casing and rotor, valved passages between the compression and combustion chambers, vanes operable in said chambers, means for operating the vanes, and means for operating said valves, the compression chambers having inlet ports leading thereinto through the axis of the rotor and the combustion chambers having exhaust ports leading therefrom through the axis of the rotor.

[Claim 2 not printed in the Gazette.]

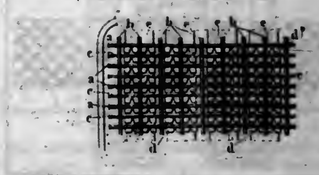
1,256,997. EDUCATIONAL DEVICE. CYRUS P. GIFFORD, Erie, Pa., assignor of two-thirds to William A. Karle, Erie, Pa. Filed June 8, 1917. Serial No. 173,552. (Cl. 35—2.)



1. In a device of the class described, a dial having a plurality of circles of numbers printed in radial sub-divisions and having an elongated opening therethrough, an indicator hand centrally pivoted in said dial adapted to point to desired numbers on said dial, a disk under said dial secured to and rotatable with said indicator hand, and having printed thereon in radial subdivisions the sums and differences of the several numbers in the corresponding sub-divisions on said dial, said sums and differences being visible through said elongated opening in said dial, substantially as described.

[Claims 2 and 3 not printed in the Gazette.]

1,256,998. COOLER ADAPTED FOR USE AS A RADIATOR OR CONDENSER. HENRI RAYMOND GUYOT, Paris, France. Filed Apr. 27, 1916. Serial No. 93,824. (Cl. 257—129.)



1. A cooling device comprising the combination of tubes for the passage of the fluid to be cooled, a set of large radiation elements on said tubes, a set of small radiation elements on said tubes, said large and small radiation elements being arranged in alternation on said tubes.

2. A cooling device comprising the combination of tubes for the passage of the fluid to be cooled, a set of large radiation gills on said tubes, a set of small radiation gills on said tubes, said large and small radiation gills being arranged in alternation on said tubes and being apertured for the passage therethrough of said tubes.

3. A cooling device comprising the combination of tubes for the passage of the fluid to be cooled, a set of large radiation gills on said tubes, a set of small radiation gills on said tubes, said large and small gills being arranged in alternation on said tubes and being apertured for the passage therethrough of said tubes, and distance pieces between the individual members of said set of large radiation gills.

4. A cooling device comprising the combination of tubes for the passage of the fluid to be cooled, a set of large radiation gills on said tubes, a set of small radiation gills on said tubes, said large and small gills being arranged in alternation on said tubes and being apertured for the passage therethrough of said tubes, distance pieces between the individual members of said set of large radiation gills, said large radiation gills being slotted and said distance pieces being constituted by notched plates engaging said large radiation gills.

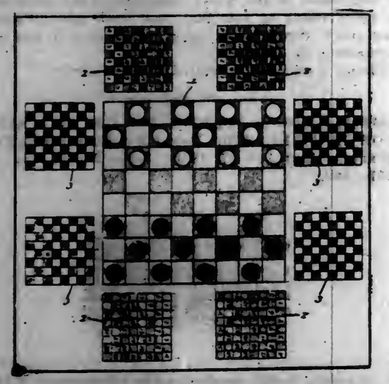
5. A cooling device comprising the combination of tubes for the passage of the fluid to be cooled, a set of large radiation gills on said tubes, a set of small radiation gills on said tubes, said large and small gills being arranged in alternation on said tubes and being apertured for the passage therethrough of said tubes, distance pieces between the individual members of said set of large radiation gills, said large and small radiation gills having collars at the edges of the apertures, said collars engaging said tubes.

[Claims 6 to 12 not printed in the Gazette.]

1,256,999. CHECKER-BOARD. CASSIUS G. HALL, Adams Center, N. Y., assignor to Ellen A. Titsworth, Adams Center, N. Y. Filed Mar. 12, 1917. Serial No. 154,387. (Cl. 46—64.)

1. A checker-board that has eight small checker-boards, the squares of which are numbered according to custom and rule, placed around a larger checker-board, two along, or at, each of the four ends, or sides, thereof, arranged so that each player, whether the game be played on the light squares or on the dark squares, will have on his right

hand, in correct position, one of the said small checker-boards and will also have on his left hand one of the said small checker-boards "turned" (reversed), but the numbers thereon upright but reading from right to left as shown in the drawing and explained in the specification.



2. In a checker-board, a main playing board and a plurality of smaller auxiliary boards each of the smaller boards being so arranged that each player will have a board reading right side up whether playing with the white men or the black men.

1,257,000. GUN-SIGHT. MURL HEWES, Grosmont, Alberta, Canada. Filed May 2, 1917. Serial No. 166,038. (Cl. 33—53.)



1. In a gun sight, the combination of a flexible blade adapted for securement at one end to a gun barrel and provided with a locking shoulder at its opposite end, a sight element hingedly mounted upon the rear end of the blade and provided with a locking shoulder, and a slide arranged beneath said blade for adjustment against the locking shoulder thereof to hold the slide from displacement when adjusted to elevate said blade, and adapted for engagement with the shoulder of said sight element to hold the same in elevated position.

3. In a gun sight, the combination of a flexible blade adapted for securement at one end to a gun barrel and provided at its opposite end with a locking shoulder, a slide adjustably mounted beneath said blade and adapted for interlocking engagement with said shoulder to hold the blade in elevated position, a fixed sight element secured to the rear end of said blade, and a second sight element hingedly mounted upon said blade and provided with a locking shoulder for engagement with said slide to hold the sight in elevated position.

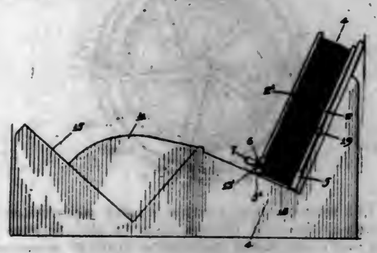
4. In a gun sight, the combination of a flexible blade adapted for securement at one end to a gun barrel and being bifurcated at its opposite end, the free ends of said blade having inwardly extending shoulders, a fixed sight element connecting the rear ends of said blade, a hinged sight element mounted on the rear end of said blade at one side of the fixed sight element and adapted to be sprung upwardly thereagainst, said pivoted sight element, and said rear end of the blade being provided with retaining shoulders, and a slide adapted to engage in the bifurcated end of said blade and having stepped shoulders for interlocking engagement with the shoulders of the blade and the pivoted sight element.

5. In a gun sight, the combination of a flexible blade adapted for securement at one end to a gun barrel, said blade being bifurcated at its opposite ends and provided thereat with inwardly extending retaining shoulders, a slide fitting between the rear ends of said blade and provided with stepped shoulders adapted for interlocking engagement one at a time with said retaining shoulders, an open sight secured across said ends of the blade, and a peep sight pivotally mounted between said ends of the blade and adapted to be raised against the fixed sight and provided upon its lower end with an interlocking shoulder for engagement with said slide to yieldingly hold the peep sight in raised position.

6. In a gun sight, the combination of a flexible blade adapted for securement at one end to a gun barrel, and provided with fork-arms at its rear end, said fork-arms being provided on their inner opposed faces with inwardly extending retaining shoulders arranged in transverse alinement, a fixed sight secured between said arms of the blade forwardly of said retaining shoulders, a pivoted sight mounted between said arms rearwardly of the fixed sight and adapted to be swung upwardly thereagainst, said pivoted sight having a shoulder upon its lower end adapted to aline transversely with said retaining shoulders, and a slide arranged between the rear ends of said blades and having stepped ratchet shoulders for interlocking engagement with said retaining shoulders and said shoulder on the pivoted sight.

[Claim 2 not printed in the Gazette.]

1,257,001. BINDER DEVICE. ROY P. HIXSON, East Lansdowne, Pa. Filed Dec. 13, 1916. Serial No. 136,653. (Cl. 129—1.)



1. The combination of a binder consisting of two independent binding members, one provided with permanent posts for engaging loose pages through notches, and a removably attached post for locking the pages through closed holes, the other binding member being adjustable upon the said posts, with a posting stand comprising means to support and maintain the binder upon its said permanent posts and a receptacle of equal width with the pages for receiving removed pages.

3. In a binder device the combination, with one binding member comprising permanent posts for engaging leaf notches and a removable post for locking the leaves through closed holes, and a second binding member adjustable to the said posts, of a posting stand having two parts, one part comprising a floor having cleats secured thereto supporting the binder beneath said permanent posts, the other part comprising a receptacle of equal width with the pages for receiving removed pages.

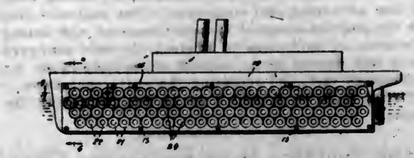
5. In a binder device, the combination, with one binding member comprising permanent posts and a removable post and the other binding member adjustable upon the said posts, of a posting stand comprising cleats secured to the floor thereof and supporting the binder beneath the said permanent posts.

6. The combination of a posting stand having two parts, one part comprising a floor having supporting cleats secured thereto, the other part a receptacle of equal width with the ledger leaves, with a binder comprising a separate bottom and top binding member, the bottom member provided with permanent posts resting upon the said supporting cleats, and a removable post, the top member adjustable upon the said posts.

7. In a loose leaf binder, the combination of a bottom binding member having permanent posts, notched pages engaging said permanent posts, a top binding member adjustable upon the said permanent posts through apertures, and a post which engages the said bottom binding member removably, the said notched pages through closed holes and the said top binding member through an aperture.

[Claims 2, 4, and 8 not printed in the Gazette.]

1,257,002. SUBMARINE FENDER. ADOLF HOFFMAN, Lackawanna, N. Y. Filed Dec. 5, 1917. Serial No. 205,481. (Cl. 114—240.)

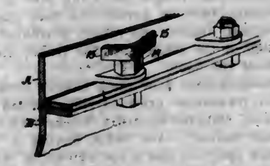


1. In a submarine fender, the combination with the hull of a ship, of a plurality of arms rigidly engaged at the side thereof, said arms extending horizontally outward and arranged in two rows respectively near the top and bottom of said hull, a plate rigidly secured at the ends of said arms, said plate containing a plurality of uniformly spaced openings, pliable plugs secured in said openings, the outer surfaces of said plug being closely adjacent one to another, and a conical opening formed in each of said plugs, the bases of said openings being outward.

5. In a submarine fender, the combination with a plurality of arms pivotally attached to the hull of a ship, and extending outward therefrom, a rigid plate secured at the ends of said arms, a plurality of openings through said plate, pliable bushings secured in said openings, said bushings being so arranged as to be intimately in contact, beveled openings formed in said bushings, the outer edges of said openings presenting sharp lines at their junction at both sides, top and bottom thereof, pivoted arms connecting between the hull of said ship, and the ends of said plate, and means for pivoting said arms to said plate at different positions therealong, so as to permit said plate to be disposed closely adjacent to the hull of the ship, or extended therefrom.

[Claims 2 to 4 not printed in the Gazette.]

1,257,003. NUT OR BOLT HOLDER. HOWARD S. HOYT, Bethel, Conn., assignor to Motor Specialties Company, Waltham, Mass., a Corporation of Massachusetts. Filed Sept. 5, 1917. Serial No. 189,721. (Cl. 81—10.)

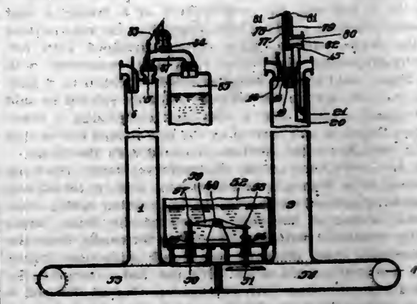


1. A nut or bolt holder formed of two sheet metal strips integral along their central parts, one of said strips having its ends secured together to form an annular collar or socket open at one end to receive a nut or bolt-head and the other strip having its ends forming projections to prevent rotation of said holder.

8. A nut or bolt holder including a collar and a pair of wings rigid therewith and substantially tangential thereto and offset in an axial direction.

[Claims 2 to 7 not printed in the Gazette.]

1,257,004. METHOD OF COMPRESSING ELASTIC FLUID. HERBERT ALFRED HUMPHREY, Westminster, England, assignor to Humphrey Gas Pump Company, a Corporation of New York. Filed July 17, 1908, Serial No. 444,061. Renewed July 14, 1917. Serial No. 180,682. (Cl. 230—16.)



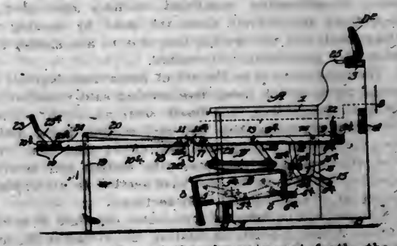
1. The method of compressing air or other elastic fluid which consists in propelling a mass of liquid outwardly from a combustion chamber by the energy of expansion of an ignited combustible charge, allowing the said outwardly propelled mass to compress elastic fluid in a compression chamber, allowing some of the energy of this compression to cause the said mass to move inwardly to compress an elastic cushion in the combustion chamber and to cause an intake of elastic fluid in the compression chamber, allowing the energy of the compression of the cushion to cause the mass to flow outwardly again to entrain a fresh combustible charge and compress the admitted elastic fluid, and allowing the energy of the compression of the said admitted fluid to cause the mass to flow toward the combustion chamber to compress the fresh charge.

7. The method which consists in reciprocating a column of liquid with a velocity sufficiently limited to preserve the coherence of the column and having sufficient bulk and path of travel to acquire useful momentum by applying the actuating force of an expansible medium to each end of the column at required intervals respectively, and utilising said momentum.

18. The method which consists in reciprocating a column of liquid of sufficient volume and path of travel to acquire useful momentum, one movement of said reciprocation due to an expansive force, utilizing said momentum to compress an elastic fluid and deliver a portion thereof, and varying the pressure of compression of said elastic fluid.

[Claims 2 to 6, 8 to 17, and 19 to 22 not printed in the Gazette.]

1,257,005. SOFA-BED AND DAVENPORT-BED. SOLOMON KARPEN, Chicago, Ill., assignor to S. Karpen & Bros., Chicago, Ill., a Corporation of West Virginia. Filed Aug. 9, 1915. Serial No. 44,599. (Cl. 5—48.)



1. In a structure of the character set forth, the combination of a frame, a seat, a pair of rear links connecting the seat and frame, a pair of front links connecting the seat and frame and provided with extensions, a folded bed disposed in the rear portion of the frame comprising

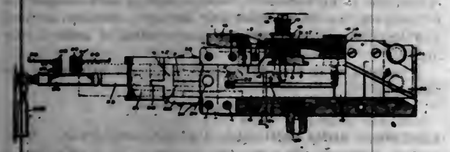
a plurality of foldably-related bed-sections, one of which is equipped with rigid arms mounted to turn on the frame, link-connections between the bed and the extensions of said front pair of links and adapted to actuate said links, and a sofa-back disposed in front of the upper portion of the folded bed.

2. In a sofa-bed, the combination of a frame, a seat mounted therein, a folded bed disposed in the rear portion of the frame and having a section equipped with forwardly-projecting rigid arms pivotally connected with the frame, said section being adapted to swing to a position over the seat, other sections foldably related to said first-named section, and a sofa-back comprising a lower section linked to and carried by the first-named bed-section and a swinging upper section connected with the frame.

3. In a structure of the character set forth, the combination of a frame, a link-supported seat, a folded bed comprising a head-section, a spacing section and a foot-section, stored in the rear portion of the frame, arms rigidly connected with and extending forwardly from the head-section and pivotally connected with the frame, links connecting said arms with the links carrying the seat, links connected with the head-section of the bed, a lower back-cushion carried by said last-named links and an upper back-section movably connected with the upper portion of the frame.

4. In a structure of the character set forth, the combination with a frame, a seat, a pair of links connecting each end of the seat with the adjacent end of the frame, the front links having extensions at their lower ends, a folded bed comprising a head-section, a spacing section and a foot section stored in the rear portion of the frame, arms carried by said head section and projecting forwardly therefrom, pivots connecting intermediate portions of said arms with the ends of said frame, links connecting the front portions of said arms with the extensions of the front seat-supporting links, a pair of links connected with each end of said head-section above the rear portion of said seat, a back cushion carried by said last named links, and stops carried by said frame and adapted to engage said arms when the structure is in the open position.

1,257,006. PRODUCTION OF ELEMENTS OF PRINTING-FORMS. AMOS L. KNIGHT, Philadelphia, Pa., assignor to Lanston Monotype Machine Company, Philadelphia, Pa., a Corporation of Virginia. Filed Feb. 3, 1917. Serial No. 146,492. (Cl. 199—1.)



1. The improvement in the art of producing elements of printing forms which comprises casting said elements in a mold in successive, non-fused sections and ejecting said sections successively from the mold by causing an ejecting motion of the section last cast to accomplish the ejection of a previously cast section.

2. The improvement in the art of producing elements of printing forms which comprises casting said elements in a mold in successive, non-fused sections, each section immediately preceding the last cast section being maintained immovable during the casting of said last cast section, then releasing said preceding section and causing an ejecting motion of the last cast section to accomplish the ejection of a previously cast section.

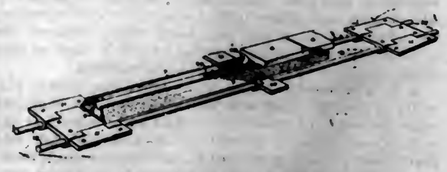
3. The method of forming type metal elements of printing forms which consists in casting the elements in successive sections in contact with each other and in maintaining each solidified section at a temperature sufficiently low to prevent fusion of its surface by contact with the molten metal of the succeeding section.

8. The method of forming a typemetal element of a printing form which comprises forcing molten typemetal into a mold cavity one wall of which is formed by previously cast typemetal and causing the molten typemetal within the mold to flow by an indirect path into contact with said wall, whereby substantially no fusion of the molten typemetal with said wall takes place.

14. The method of forming typemetal elements of printing forms which comprises forcing molten typemetal into a mold cavity one wall of which is formed by previously cast typemetal, and causing the molten metal within the mold to flow into contact with said wall by an indirect path whereby substantially no fusion of the molten typemetal with said wall takes place, causing said molten typemetal to cool to form an element of a printing form and then advancing said element until the rearward face is in the position occupied by said typemetal wall during the casting of said element whereby the said rearward face of said element forms one wall of the mold cavity for a subsequent cast, and repeating the above operations.

[Claims 3, 5, to 7, and 9 to 13 not printed in the Gazette.]

1,257,007. MOVABLE FLOOR FOR BAKERS' OVENS. JOHN LARRABURU, San Francisco, Cal., assignor to Hygienic Baking Corporation, San Francisco, Cal., a Corporation of California. Original application filed Apr. 8, 1916, Serial No. 89,910. Divided and this application filed Sept. 6, 1916. Serial No. 118,604. (Cl. 107—57.)



1. In a movable floor for bakers' ovens, the combination of transverse brick carriers, bricks carried thereby, and plates secured to the ends of said carrier on the sides thereof remote from said bricks, said plates being formed with hinges whereby successive plates may be hinged together, and rollers journaled upon the projecting ends of the hinge pins for travel upon tracks at either side of the floor.

3. An endless, flexible floor for a baker's oven comprising a series of transverse brick carriers detachably receiving bricks, hinges at the ends connecting adjacent carriers together, said hinges including pins in the form of rods extending entirely across the floor and passing through the alined hinges.

5. An endless, flexible floor for a baker's oven comprising a series of transverse brick carriers detachably receiving bricks, hinges at the ends connecting adjacent carriers together, said hinges including pins in the form of rods extending entirely across the floor and passing through the alined hinges, and rollers journaled upon the projecting ends of the hinge pins for travel upon tracks at either side of the floor.

7. An endless, flexible floor for a baker's oven made up of a series of transverse brick carriers hinged together, and a series of endwise abutting bricks detachably received in each carrier, each brick having a longitudinally extending aperture and a rod extending through the alined apertures for tying the bricks of each carrier together.

[Claims 2, 4, 6, and 8 not printed in the Gazette.]

1,257,008. FISHING-LURE. CALL J. MCCARTHY, Chicago, Ill. Filed Dec. 7, 1917. Serial No. 206,056. (Cl. 43—30.)

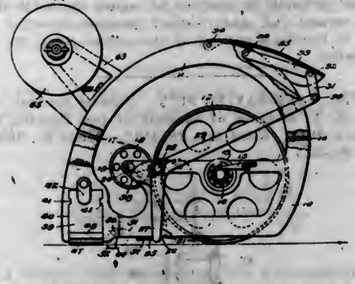
1. A fishing lure formed of a body and a hook thereon having a lateral projection between its eye-portion and the opposite end of the hook extending into said body and so constructed that in the act of applying the hook to position on said body at its side to extend lengthwise therein, said projection becomes embedded in the solid portion of said body and prevents turning and lengthwise movement of said body and hook relative to each other.



3. A fishing lure formed of a body containing a slit along one side, and a hook lying within said slit and provided with a laterally extending projection which is embedded in said body beyond its slit portion by the act of inserting the hook to place in said body through the side of the latter, and with a second projection extending in a direction opposite to that in which said first-named projection extends and lying between the walls of the slit.

[Claim 2 not printed in the Gazette.]

1,257,009. SEALING-MACHINE. JOHN MACLAURIN, Brookfield, Mass. Filed June 23, 1915, Serial No. 35,946. Renewed Feb. 23, 1917. Serial No. 150,615. (Cl. 216—21.)



1. In a sealing machine, an applying roller, a pressure roller co-acting therewith, for advancing a binding tape, a cutter for severing the advanced binding tape and means for actuating said pressure roller from advancing contact with said sealing tape.

2. In a sealing machine, a frame, an applying roller journaled therein, a movable pressure roller journaled in said frame, means for normally engaging said pressure roller with said applying roller or an interposed tape, a knife carried by said frame, a lever for actuating said knife, and means carried by said lever for disengaging said pressure roller from said applying roller or the interposed tape.

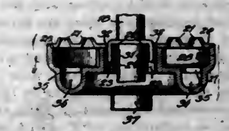
3. In a sealing machine, a frame, an applying roller journaled therein, said applying roller having restricted movement in one direction, a pressure roller movably journaled in said frame, a knife carried by said frame, a lever fulcrumed to said frame for actuating said knife and disengaging said pressure roller from said applying roller, and a moistener carried by said frame in advance of said applying roller.

4. In a sealing machine, a frame, an applying roller journaled therein, a moistener carried thereby in advance of said applying roller and means carried by said frame for automatically forming a temporary support to maintain said moistener from contact upon slightly raising the forward end of said frame.

5. In a sealing machine, a frame, an applying roller, a moistener carried by said frame in advance of said applying roller disposed to contact with the surface supporting said sealing machine, said moistener comprising a receptacle having a sealed upper portion, a foraminous bottom, a fibrous covering over said bottom and means for retaining said fibrous covering to said receptacle.

[Claims 6 to 11 not printed in the Gazette.]

1,257,010. GAS-BURNER. JAMES P. MORLEY and GEORGE W. KITE, Jr., Chicago, Ill., assignors to Bastian-Morley Co., Chicago, Ill., a Corporation. Filed Aug. 25, 1917. Serial No. 188,170. (Cl. 158—99.)



1. A burner having a hollow shell, said shell having an opening extending through it from top to bottom and adapted to receive a vertical support, said shell having also a radial notch extending from its periphery to said central opening, means carried by the burner-shell and adapted to engage one side of said support for preventing the burner from moving in one direction relatively to said support, and a bar adapted to engage the opposite side of said support for preventing the burner from moving in the opposite direction, said bar and the burner-shell having an engaging means for preventing them from relative movement from normal relative positions.

7. A burner having a bottom member provided with a substantially C-shaped inner cavity or gas space, openings extending through the bottom of said cavity and disposed diametrically opposite each other so as to equally divide the spaces of said cavity on their opposite sides, said bottom member having equal passages which communicate at their rear ends with said openings and at their forward ends with an opening with which the outlet of the mixing chamber communicates.

[Claims 2 to 6 not printed in the Gazette.]

1,257,011. VALVE. JOHN T. MORRIS, Wynne, Md., assignor to Lydia A. Morris, St. Inigoes, Md. Filed Feb. 15, 1916. Serial No. 78,449. (Cl. 103—66.)



2. The combination with a substantially cylindrical foot-casting having a valve-supporting flange on the interior thereof, such flange having slots in its inner portion whereby the flange is left continuous adjacent to the inner wall of the casting, of a valve-seat, and a movable valve element carried thereby, the valve-seat having a major and a minor external diameter, the valve-seat being adapted to pass through the foot-casting when the minor diameter of such seat is coincident with the line joining the slots in the casting, and being capable of being angularly shifted upon such flange when inserted therethrough and rested thereon, and means for holding the washer upon such flange, and against rotation thereon.

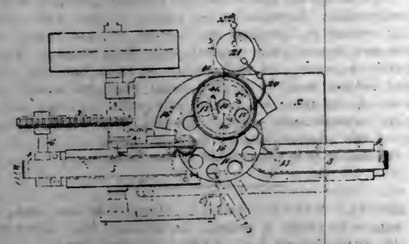
3. The combination with a substantially cylindrical foot-casting having an internal flange provided with opposite slots therein, the flange being uninterrupted adjacent to the inner wall of the casting, and the casting having a plurality of locking ears upon its inner wall above such flange, of a valve-seat and movable valve element carried thereby, the valve-seat having a minor external axis less than the distance between the bases of the slots in the flange and having a major axis greater than such distance, and having a recess registering with one of said ears upon the casting when the valve seat is in one angular position upon the flange, and means for shifting the valve-seat from such angular position to another angular position, in which last named angular position the ears over-lie the edges of the washer, and

the minor axis of the valve seat is not coincident with the line joining the said slots.

4. The combination with a substantially cylindrical foot-casting having an internal flange provided with opposite slots therein, the flange being uninterrupted adjacent to the inner wall of the casting, and the casting having a plurality of locking ears upon its inner wall above such flange, the lower faces of such ears forming cams, of a valve seat, and movable valve element carried thereby, the valve-seat having a minor external axis less than the distance between the bases of the slots in the flange, and having a major external axis greater than such distance, and having a recess registering with one of said ears upon the casting when the valve-seat is in one angular position upon the flange, and means for shifting the valve-seat from such angular position to another angular position, in which the last named angular position the ears overlie the edges of the washer and the minor axis of the valve seat is not coincident with the line joining the said slots.

[Claims 1 and 5 not printed in the Gazette.]

1,257,012. FILLING-MACHINE. WILLIAM MUNN, Alameda, Cal. Filed Apr. 11, 1917. Serial No. 161,355. (Cl. 226—9.)



1. In a can filling machine, a hopper, a charging member movable beneath and having a pocket to receive material therefrom and deliver it to a can, and suction means for exhausting the air from the pocket to permit the material to settle within said pocket at the interval prior to its delivery to the can.

2. In a can filling machine, a hopper, a charging member movable beneath and having a pocket to receive material therefrom and deliver it to a can, and means for exhausting the air from the pocket to permit the material to settle within, said means comprising a suction device adapted to register with a port opening into the interior of the pocket upon the initial movement of the pocket beneath the hopper.

3. In a can filling machine, a hopper, a charging member movable beneath and having an open-ended pocket to receive material from the hopper and deliver it to the can, a plate beneath the charging member forming a temporary closure for the bottom of the pocket, and suction means for exhausting the air from the pocket to permit the material to settle within said pocket when so closed.

4. In a can filling machine, a hopper having a bottom provided with a discharge opening, a turret movable beneath the hopper and provided with an open-ended pocket adapted to register with an opening in the bottom of the hopper and receive material therefrom for conveying it to a can, a plate forming a temporary closure for the bottom of the pocket while the same is being filled, and a suction device communicable with the pocket when the latter is beneath the hopper to exhaust the air therefrom and permit the material to settle into the pocket.

5. In a can filling machine, a hopper, a measuring receptacle therebeneath and in intermittent communication therewith, a bottom plate normally closing said receptacle and provided with a port through which communication with the can may be established and positively operating means for exhausting the air from said receptacle during the filling operation and prior to the discharge of material therefrom.

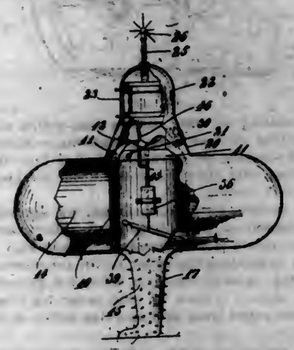
[Claim 6 not printed in the Gazette.]

1,257,013. PERMUTATION-PADLOCK. HENRY O. NIELSEN, Elko, Nev. Filed July 28, 1917. Serial No. 183,248. (Cl. 70—19.)



A permutation pad lock including a pair of shackles one end of one of which is provided with an opening, an adjacent end of the other shackle being insertible into said opening and provided with a notch, a detent adjustable in the first named end and having pins extending diagonally from the ends thereof whereby to guide said detent toward and away from said locking end when said detent is adjusted, means normally retaining the detent in its locking position, a locking pawl pivoted to said detent and normally in position to engage the notch in the second named end, and recessed tumblers mounted upon alined to receive a portion of said detent when the same is adjusted.

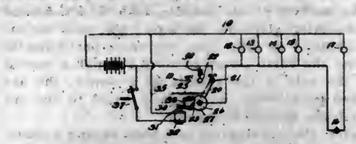
1,257,014. LIFE-SAVING SUIT. JOSEPH NIEMIEC, Newark, N. J., assignor of one-half to Jan Trendel, Hamtramck, Mich. Filed Apr. 28, 1917. Serial No. 165,109. (Cl. 9—20.)



In a device of the class described, the combination with a rigid cylinder, an inflatable, flexible jacket surrounding said cylinder, casings formed with said jacket adapted to receive the lower limbs of a person, spurs on the exterior of said casings, casque removably engaged with said cylinder, a helmet mounted thereabove, an electric light disposed above said helmet, a battery supplying current to said electric light carried in said cylinder, a pump in the interior of said cylinder for forcing air within said casque, a second pump in said cylinder adapted to inflate said envelop, a pair of air valves extending above the normal submerging line of said envelop, means in said valves for normally preventing the intrusion of water, and means for operating either of said pumps independently.

1,257,015. ELECTRIC-LIGHTING SYSTEM FOR AUTOMOBILES. BERNICE J. NOYES, Boston, Mass., assignor to Sears B. Condit, Jr., Brookline, Mass. Filed Apr. 9, 1913. Serial No. 759,849. (Cl. 171—97.)

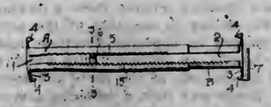
1. Controlling-means for an electric lamp-circuit of an automobile comprising a switch for said lamp-circuit, arranged near the driver's seat, the movable switch member of which is normally biased to open position and is adapted to be moved to either of two closed positions, detent-mechanism for said switch-member, adapted to control its return movement, an electro-magnet controlling said detent-mechanism, and a circuit-closer for the circuit of said electro-magnet arranged remote from the driver's seat, substantially as described.



2. Controlling-means for an electric lamp-circuit, of an automobile comprising a case, a switch for the lamp-circuit, arranged near the driver's seat, the movable switch-member of which is arranged in said case and secured to a shaft extended through the wall of the case and having a hand-lever for turning it, a spring connected with the switch-arm for normally holding it in open circuit position, a disk secured to said shaft having a toothed portion, a detent for engaging said disk and preventing backward rotation thereof when the switch-arm is moved into closed circuit position, an electro-magnet for controlling said detent, and a remotely disposed circuit-closer for the circuit of said electro-magnet, substantially as described.

[Claim 3 not printed in the Gazette.]

1,257,016. CURTAIN-BRACKET. ERICK NYLUND, Stambaugh, Mich. Filed Apr. 28, 1917. Serial No. 165,159. (Cl. 156—24.)
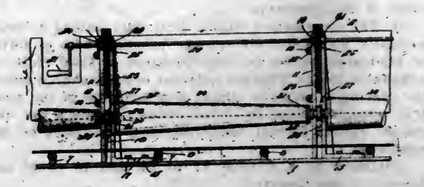


A curtain fixture comprising two telescopically engaged tubular members adapted to be disposed across a vertical member of a window frame or the like, the outer ends of said members being provided with means engageable with said vertical member for holding the tubular members in applied position, the outer faces of said telescopically engaged members being provided with slots, corresponding margins of the telescopic members defining the slots being toothed, a bracket member positioned in advance of the slotted faces of the tubular members and extending thereabove, said bracket being provided at its inner marginal portion with a substantially right-angular extension, the lower end portion of said extension being bent into a barrel extending transversely of the extension, said barrel snugly fitting and slidably engaged within the tubular members, and a spring carried by an end portion of the barrel and coacting with the teeth for holding the bracket member against movement.

1,257,017. SIZER-ADJUSTER. DONALD PARKER, Tampa, Fla. Filed Jan. 30, 1917. Serial No. 145,500. (Cl. 130—32.)

1. A fruit sizer or grader, one grading wall of which comprises a plurality of independently horizontally disposed interconnected sizing rolls arranged in alinement, and means for raising and lowering the said sizing rolls either selectively or simultaneously to vary the size of the grade opening controlled thereby.

2. A fruit grader, one grading wall of which comprises a plurality of independent sizing rolls interconnected at their ends and arranged in alinement, and means for raising and lowering all of said sizing rolls simultaneously to vary the size of the grade opening controlled thereby.

4. A fruit sizer or grader, one grading wall of which comprises a plurality of independent sizing rolls arranged in alinement, means for flexibly interconnecting the said rolls at their adjacent ends, a bearing for each of said interconnecting means, a support for each of said bearings, a guide longitudinally of which said bearing supports are adjustable, and means coöperating with all of said supports for simultaneously adjusting the same to raise and lower said sizing rolls in unison to vary the respective grade openings controlled thereby.



6. A fruit sizer or grader, one grading wall of which comprises a plurality of independent sizing rolls arranged in alinement, means for flexibly interconnecting the said rolls at their adjacent ends, a bearing for each of said roll interconnecting means, a rack to which each of said bearings is attached, a guide longitudinally of which each of said racks is movable, a pinion coöperating with each of said racks, and a shaft interconnecting said pinions and capable of rotation for simultaneously adjusting said rolls to vary the respective grade openings controlled thereby.

8. A fruit sizer, the size openings of which are formed by the intervening space between the substantially parallel sizing walls, one sizing wall of which comprises a plurality of independent sizing roll units arranged end to end in longitudinal alinement, means for simultaneously varying the size openings formed between said sizing walls by the simultaneous adjustment of one of said walls as a unit relatively to the other, and means for independently varying the size openings formed between said sizing walls by the independent adjustment of the said sizing roll units relative to the other wall member.

[Claims 3, 5, and 7 not printed in the Gazette.]

1,257,018. FRUIT-SIZING APPARATUS. GEORGE D. PARKER, Riverside, Cal. Filed May 1, 1917. Serial No. 165,656. (Cl. 130—32.)



1. The combination with a fruit sizer having a longitudinally disposed fruit runway provided with a series of discharge outlets for the fruit to be sized, of deflectable means associated with each discharge outlet for varying the flow direction of the sized fruit with respect to the sides of the apparatus.

5. A sizing apparatus for fruit, the same comprising a fruit runway provided with a series of graduated discharge outlets for the sized fruit, and deflectable means associated with said outlets for varying the lateral flow of the discharging sized fruit with respect to the sides of the apparatus.

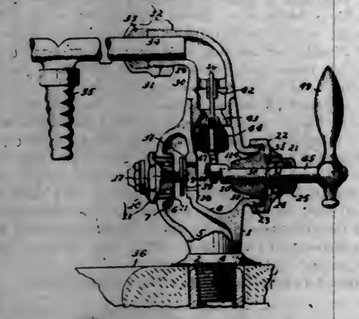
10. A fruit sizer composed of two fruit runways, each provided with a series of controllable discharge outlets arranged at intervals throughout the length thereof, and deflecting means associated with each of said discharge outlets for varying the flow direction of the streams of discharging sized fruit with respect to the fruit receiving bins situated at the side of the apparatus.

14. A fruit sizing apparatus having a fruit runway composed of two parallel members, one of said members comprising a rotary wall formed of a series of united roller sections connected for rotation in unison, a series of discharge outlets disposed at intervals throughout the length of the runway for the escape of the sized fruit, a plurality of fruit directing means associated with said discharge outlets for varying the flow direction of the streams of discharging sized fruit with respect to the sides of the apparatus.

19. The combination with a fruit sizer having a longitudinally disposed fruit runway provided with a series of graduated outlets for the discharge of sized fruit, of adjustable means situated adjacent each discharge outlet for varying at will the lateral flow direction of the sized fruit escaping from the fruit runway through the discharge outlets thereof with respect to the sides of the apparatus.

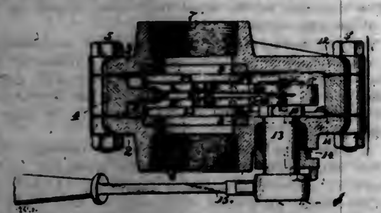
[Claims 2 to 4, 6 to 9, 11 to 13, and 15 to 18 not printed in the Gazette.]

1,257,019. COMBINED REGULATING AND SHUT-OFF FAUCET. HENRY LEE PARKER and ALTON EBENEZER COBB, Los Angeles, Cal. Filed Apr. 26, 1915. Serial No. 24,106. (Cl. 137—4.)



A faucet provided with two valve chambers; a port between and in communication with said valve chambers; said port having a flat seat at its inlet and a flat seat at its outlet; a flat-faced compression valve adapted to be adjusted to control the inlet to said port; a bib nozzle detachably connected to the outlet of the faucet; said detachable nozzle having concentrically therein guiding means for a Fuller ball valve stem and at its attached end a valve seat for said ball valve; said faucet thereby being adapted for use alternatively in connection with a flat-faced compression valve for opening and closing the outlet of said port or a Fuller ball valve adapted to open and close upon the valve seat in the nozzle, to control the flow of liquid through said faucet.

1,257,020. VALVE. FRANKLIN M. PATTERSON, Jersey City, N. J., assignor, by mesne assignments, to Everlasting Valve Company, a Corporation of New Jersey. Filed Apr. 12, 1916. Serial No. 90,718. (Cl. 137—5.)



1. In a valve, the combination of a body having a chamber formed with inlet and outlet ports arranged in alinement and having oppositely directed valve seats, combined with a rocking spindle journaled in the casing to one side of the ports, valve pieces having hubs and adapted to the oppositely directed valve seats, and a swinging arm having apertures in which the hubs of the valve pieces are received, the said swinging arm connected to and movable with the rocking spindle and providing a mechanical toggle by which the valve pieces are given a preliminary sliding motion to partly open the ports with a relatively large rocking motion of the spindle, and in which said swinging arm later gives to the valve pieces a lateral traveling movement to fully open the valve ports and in doing so cause the valve pieces to move through a curved path about the axis of the spindle as a center, the arc of said curved path being substantially equal to the arc through which the spindle is rotated.

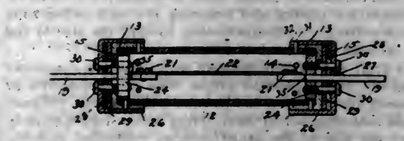
2. In a valve, the combination of a body having a chamber formed with inlet and outlet ports arranged in alinement and having oppositely directed valve seats, combined with a rocking spindle journaled in the casing to one side of the ports, valve pieces having hubs and adapted to the oppositely directed valve seats, and a swinging arm having apertures in which the hubs of the valve pieces are received, the said swinging arm being connected and movable with the rocking spindle and providing a mechanical toggle by which the valve pieces are given a preliminary sliding motion to partly open the ports with a relatively large rocking motion of the spindle, and in which said swinging arm later gives to the valve pieces a lateral movement commensurate with the rocking motion of the spindle for fully opening the valve ports, said swinging arm bifurcated in the plane of its movement and providing independent spring arms for the respective valve pieces and by which they are normally pressed in yielding contact with their seats.

7. In a valve, the combination of a valve casing having inlet and outlet ports and valve seats arranged in alinement and with a chamber between them, a rocking spindle journaled in the casing to one side of the ports, valve pieces spring-pressed in opposite directions against the respective valve seats, an abutment with which the valve pieces contact at one side of the ports and about which the said valve pieces may rock, a swinging arm connected with the inner end of the rocking spindle and jointed with the valve pieces to form a toggle whereby the valve pieces may be rocked about the abutment to impart an initial opening movement and then swing bodily with the swinging arm away from the abutment to fully open the ports.

8. In a valve, the combination of a casing consisting of an annular body having a deep groove along one face adjacent to the inner wall, two outer heads respectively having inlet and outlet ports and respectively fitting the opposite faces of the annular body, clamping bolts for holding the heads and body tightly together, a deep metallic packing of relatively small radial thickness fitting the deep groove of the annular body and clamped between it and one of the heads, and a thin metallic gasket between the opposite face of the body and the other head and having relatively great radial width as compared to the width of the packing between the body and the other head, and valve devices for controlling the ports.

[Claims 3 to 6 and 9 not printed in the Gazette.]

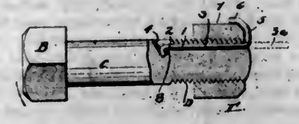
1,257,021. RELOADABLE FUSE. RALPH CLIFTON PATTON, Providence, R. I., assignor to D & W Fuse Company, Providence, R. I., a Corporation of Rhode Island. Filed June 30, 1917. Serial No. 177,885. (Cl. 175—273.)



1. An electric fuse comprising a tubular casing, a ferrule fixed to the end of the casing and having an inwardly turned flange, a removable cap covering the end of said tube, a terminal blade extending through said cap into the tube and provided with a locking member adapted to engage said flange, and means for securing said cap to said member when in position on the casing.

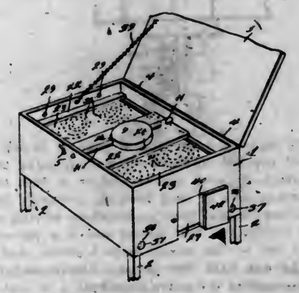
[Claims 2 and 3 not printed in the Gazette.]

1,257,022. NUT-LOCK. WILLIAM H. PITTMAN, Minatare, Nebr. Filed May 2, 1917. Serial No. 165,953. (Cl. 151—4.)



In nut locks, a bolt provided with a longitudinally extending groove in the threaded portion of its stem and a straight recess contiguous to the inner end of said groove, said recess being disposed at a forward and downward inclination to the axis of the stem of said bolt, a nut threaded on the bolt, and a locking member mounted in said groove provided at its inner end with an angularly disposed finger engaging into said recess, said locking member extending through the nut and being bent over and about the same so as to engage one of the lateral faces of the nut and prevent rotation thereof relative to said bolt.

1,257,023. BROODER. JOHN FREDERICH PLATH, Maza, N. D. Filed Nov. 28, 1917. Serial No. 204,398. (Cl. 119—32.)



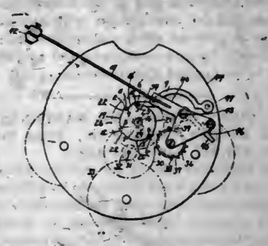
1. In a brooder, a hovering means carrying member consisting of a rectangular frame and a piece of flexible textile fabric stretched thereover, spirally arranged hovering means consisting of feathers depending downwardly from the textile fabric piece and a piece of textile fabric folded longitudinally upon itself with the quills of the feathers between the folds and stitched to the first textile fabric piece for securing the feathers thereto.

[Claim 2 not printed in the Gazette.]

1,257,024. NON-WARNING CHIME-CLOCK. WILSON E. PORTER, New Haven, Conn., assignor to New Haven Clock Co., New Haven, Conn., a Corporation. Filed Oct. 31, 1917. Serial No. 199,457. (Cl. 58—13.)

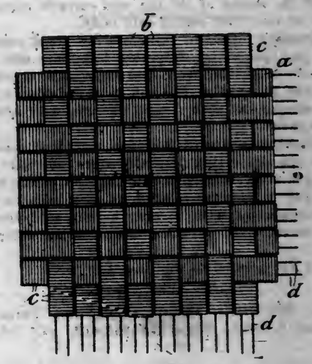
1. A non-warning chime-clock characterized by having its chime-mechanism constructed and adapted to lift the chime count-hook into position to clear the chime count-wheel in case the chime-mechanism is accidentally started, and therefore at a time when the said count-hook has not been lifted by the action of the time-train to clear the count-wheel preparatory to the starting of the chime-train.

2. In a non-warning chime-clock, the combination with a chime count-wheel having stop-notches separated by peripheral "dwells" and lifting fingers, the advancing walls and the forward edges of the said stop-notches and lifting-fingers being rearwardly inclined; of a spring-actuated chime guard-wheel located adjacent to the said chime count-wheel and formed with guard-fingers corresponding in position to the respective stop-notches of the chime count-wheel, and a count-wheel hook formed with a finger adapted to co-act with the said count and guard wheels,



and normally lifted to clear the same by the time-train concurrently with the operation thereof to release the chime-train, the said count-wheel hook being lifted by the rearwardly inclined advancing walls of the said stop-notches and lifting-fingers in case the chime-train is started otherwise than by the normal action of the time-train, whereby the jamming of the chime-train is avoided.

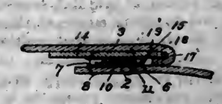
1,257,025. PROCESS FOR UTILIZING WASTE LEATHER. MARTIN REICHMANN, Beuthen, Germany. Filed July 17, 1917. Serial No. 181,184. (Cl. 139—9.)



1. A process for utilizing waste leather which consists in reducing the same to pieces of substantially equal size and shape, threading them on wires or the like to form substantially flat bands and interweaving the said bands one with the other.

2. A leather fabric composed of a series of leather disks or strips of substantially uniform size and shape, bands upon which the same are threaded to form strips, the said strips being interwoven with each other.

1,257,026. FASTENING MEANS FOR SHOES. JOHN J. RUNDUS, Munden, Kans. Filed Dec. 30, 1914. Serial No. 879,736. (Cl. 24—227.)



A shoe fastener comprising a frame having an open end, means adapted to secure the frame to one flap of the shoe upper, said flap providing a yielding closure for one

side of the frame, a strap offset from and secured to the other side of the frame, said strap being shorter than the frame and located near the open end thereof, a plate, an attaching means adapted to secure the plate to the other flap of the shoe upper, a tongue connected at one end to one end and overlying the plate, said tongue being longer than the strap and adapted to be inserted between the strap and said closure, and a rib formed on the tongue near its free end for engagement with the adjacent edge of the strap to prevent the accidental withdrawal of the tongue, and said closure being adapted to yield to permit the tongue to be applied and removed.

1,257,027. CORD TYING AND FASTENING DEVICE. FRANK A. RYTHER, Chicago, Ill. Filed Feb. 26, 1917. Serial No. 151,081. (Cl. 24—131.)



2. A fastening device of the class described comprising a section of wire to form a body bent laterally at one end thereof to form a lug projecting from said end and bent laterally again upon itself in the opposite direction to form an arm on the opposite side of said body, said arm being curved backward upon said body in angular relation with said arm and body, the said bent portions of the wire comprising the said lug being integrally connected throughout the length of the lug, and suitable cord retaining means at the other end of said body.

3. A fastening device of the class described comprising a body, a lug projecting laterally from one side of the body, an arm projecting from said lug and in the opposite direction and in angular relation to said body to form a slot for engagement with a cord therein, said arm being reversely curved.

4. A fastening device of the class described comprising a body, a lug projecting laterally from one side of the body, an arm projecting from said lug and in the opposite direction and in angular relation to said body to form a slot for engagement with a cord therein, said arm being reversely curved, cord retaining means on the other end of said body.

[Claim 1 not printed in the Gazette.]

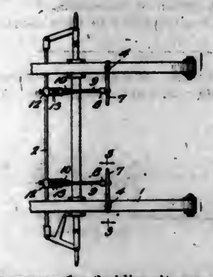
1,257,028. BUCKLE. FRANK A. RYTHER, Chicago, Ill. Filed Mar. 8, 1917. Serial No. 153,419. (Cl. 24—170.)



A device of the class described comprising a U-shaped frame having base and side arms, said arms being parallel substantially midway their length and having their remaining portion flared outwardly, the base of said frame having a rectangular opening cut therein, a rectangular link positioned between the flared portions of the side arms, the end of the strap being passed through the opening and around the lower portion of said link and out again through said opening, thereby holding the link in position, the upper portion of said link receiving the other end of the strap and clamping means at the other end of the frame to hold the strap in secured position.

1,257,029. DIRIGIBLE HEADLIGHT FOR AUTOMOBILES. JOHN B. SALISBURY, Phelps, N. Y. Filed May 3, 1916. Serial No. 95,223. (Cl. 240—62.)

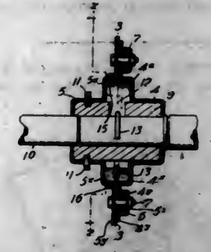
1. A mechanism for transforming reciprocatory motion of a steering knuckle reach rod to oscillatory motion of a lamp support, consisting of a rod having at one end lamp-support rigid-connecting means and at its opposite end a prong in which is rotatably mounted an elongated roller with its axis at right angles to the axis of the rod and a



clamp having means for holding it upon a reach rod and provided with elongated fingers spaced apart a distance to snugly and rollingly receive the roller between them.

[Claim 2 not printed in the Gazette.]

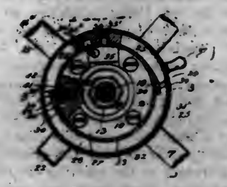
1,257,030. SHAFT-SUPPORT. AMATO N. SAMMARONE, Akron, Ohio. Original application filed Aug. 16, 1916, Serial No. 115,264. Divided and this application filed May 18, 1917. Serial No. 169,527. (Cl. 64—10.)



1. A shaft support comprising a pair of housing members made of pressed sheet metal, said housing members being oppositely disposed and the edges of said members being in contact, one of said housing members having a sleeve, the other of said housing members having a sleeve arranged to receive the first named sleeve, a cap arranged to cover the end of the second named sleeve, and a bolt extending through said first named sleeve and through said cap for securing the parts together.

2. A shaft support comprising a pair of housing members made of stamped sheet metal, said members having contacting edges, one of said housing members having openings, sleeves carried by the other housing member and arranged to enter the openings of the first named housing member, and bolts arranged to pass through the sleeve for securing the parts together.

1,257,031. AUTOMOBILE-STEERING-WHEEL LOCK. EMIL SCHUMACHER, Seattle, Wash. Filed July 12, 1917. Serial No. 180,036. (Cl. 70—129.)



1. In a vehicle, the combination with a steering post and a steering wheel mounted thereon for independent

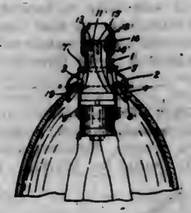
rotary movement, of a casing secured to the steering wheel, mechanism provided in the casing for securing the steering wheel to the steering post, said mechanism including a rotatable annulus having cam faces, and a pair of detents controlled thereby, means extending outside of the casing to selectively cause said mechanism to become operative or inoperative, a lock for securing said mechanism in adjusted relations, and a key for controlling the action of said lock.

2. In a vehicle, a steering wheel, a casing secured thereon, a steering post, a sleeve rigidly secured to the post and having an apertured head element within said casing, devices provided in said casing and engageable with said head element for coupling the wheel to the post, springs to yieldingly retain said devices in disengaged positions, a cam within said casing and adapted to be moved into position to effect the engagement of said devices with the head element, and means for locking said cam to the casing when the wheel is coupled with or disengaged from the post.

3. In a vehicle, a steering wheel, a casing secured thereon, a steering post, a sleeve rigidly secured to the post, and having an apertured head element within said casing, devices mounted for reciprocatory movements in said casing and engageable with the apertures of said head element for coupling the wheel to the post, springs to yieldingly retain said devices in disengaged positions, a cam within said casing and adapted to be moved into position to effect the engagement of said devices with the head element, and means for releasably securing said cam in position to render said springs operable.

[Claims 4 to 6 not printed in the Gazette.]
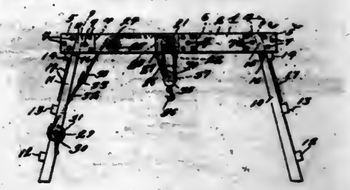
1,257,032. COMBINED LAMP AND SHADE HOLDER. THOMAS SHEPHERD, Oldham, England. Filed Dec. 4, 1916. Serial No. 135,030. (Cl. 240—115.)



In a lamp shade holder of the character described, the combination of a socket shell with a slotted inverted cup, having an annular recess underneath of its curved middle portion, a ring slidably mounted on said socket shell, curved fingers secured with their upper ends to said ring and extending down through the slots of said cup, said fingers having a square cross-section at their lower ends for supporting a shade from the inside thereof and being adapted to be moved upward with said ring for releasing said shade, substantially as described.

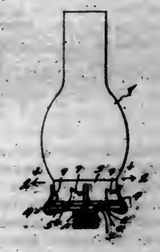
1,257,033. KNOCKDOWN AND PORTABLE FRAME AND HOIST. JESSIE ALONZO SHOOK, Bronte, Tex. Filed May 16, 1917. Serial No. 169,050. (Cl. 189—16.)

1. In a device as set forth, an elongated beam, comprising a plurality of elongated bars spaced in parallelism to each other, two pairs of spacing blocks between the bars at each end, said blocks of each pair being spaced, whereby sockets are formed, supporting legs in pairs at each end, the upper ends of the legs of each pair having reduced rectangular extensions fitting in said sockets, lateral bracing means for the legs of each pair, certain of said bracing means of the legs abutting under the beam, thereby reinforcing the legs with relation to the beam and vice versa, spacing blocks centrally of the beam and between the bars thereof, said beam having spaces between the central blocks and the innermost blocks at the ends of the beam for the reception of lifting elements, and bolts passing through the bars and the blocks to insure a rigidly constructed beam.



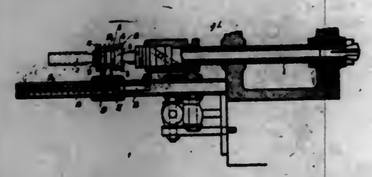
2. In a device as set forth, an elongated beam, comprising a plurality of elongated bars spaced in parallelism to each other and having their side faces adjacent each other, two pairs of spacing blocks between the bars at each end of the beam, said blocks of each pair being spaced and having their adjacent edges inclined in parallelism, whereby sockets are formed, supporting legs in pairs at each end of the beam, the upper ends of said legs of each pair having reduced rectangular extensions fitting said inclined sockets, lateral bracing means for the legs of each pair, said legs of each pair immediately adjacent the reduced extensions having shoulders which together with certain of said bracing means of the legs abut under the beam, thereby reinforcing the legs with relation to the beam and vice versa, said spaces between the central portions of the bars of the beam adapted for the reception of lifting elements, and bolts passing through the bars and the blocks to insure a rigidly constructed beam.

1,257,034. LAMP-CHIMNEY. JAMES P. SLOCUM, Barnwell, Ala. Filed June 4, 1917. Serial No. 172,767. (Cl. 240—99.)



In combination with a burner base having downwardly and outwardly curved extending spring arms, said arms having upper extensions curved inwardly, upwardly and outwardly, a lamp chimney having ribs concentric with the base of the chimney and provided with uniform spaces intervening the adjacent ends of the ribs, each of said spaces being substantially equal to each of said arms, whereby said arms may engage and pass therethrough when the chimney is lifted, each of said ribs for a portion of its length being of uniform width and the remainder of its length blending into a concave portion in forming to the curvature of the extension of said arm, one end of each concave portion terminating into an abrupt elongated shoulder flush and alined with one end of its ribs, the other end of the concave portion terminating in a short abrupt shoulder substantially midway the length of the rib, said concave portion tapering upwardly from the short shoulder and concentric with the chimney to the upper end of the elongated abrupt shoulder, whereby, as the chimney is partially rotated overcoming the locking connection of the arm extension with the concave portion, said arm extension will spring off the elongated abrupt shoulder into the intervening space.

1,257,035. FEED MECHANISM FOR BAR-STOCK. ALBERT HENRY SMITH, Birmingham, England. Filed May 7, 1917. Serial No. 166,920. (Cl. 29—61.)

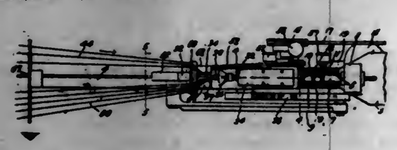


2. In a feed collet for machine tools the combination of a body member; a plurality of gripping fingers pivoted upon said body; an adjustable screw carried by each of said fingers and having a point adapted to engage with the bar-stock; and a controlling sleeve having a tapered portion adapted to engage with the fingers and cause their gripping ends to engage and feed forward the bar-stock; for the purpose specified.

6. In a feed collet for machine tools, the combination of a body member, a plurality of gripping fingers pivoted upon said body member and having split exteremities, an adjustable and pointed member carried in each of said split extremities, means for clamping said split extremities around the said adjustable and pointed members, and a controlling sleeve having a tapered portion adapted to engage with the fingers and cause the said adjustable and pointed members to engage the bar-stock for the purpose specified.

[Claims 1 and 3 to 5 not printed in the Gazette.]

1,257,036. MACHINE FOR TWISTING WIRE. GARY B. SMITH, Chicago, Ill. Filed Nov. 10, 1916. Serial No. 130,599. (Cl. 153—64.)



2. In a wire twisting machine, a frame embodying a casing comprising side plates, a rotary tubular shaft journaled between said plates, a chuck carried by said shaft, a wheel mounted for rotation within the casing and rotated by said shaft, a wire applying device movable toward and away from the chuck, and means operated by said wheel for moving said device toward the chuck and for operating the chuck.

5. In a wire twisting machine, a frame embodying a casing having side plates and a bracket projecting therefrom, a tubular shaft journaled between the side plates and having a worm, a chuck carried by said shaft, a shaft journaled within the casing, a worm wheel upon the second mentioned shaft meshing with said worm, a wheel upon the second mentioned shaft, means operated by the second mentioned wheel for operating the chuck, a carriage slidable along the bracket, a wire applying device carried by the carriage and movable therewith toward and away from the chuck, a slide movable along the bracket for moving the carriage toward the chuck, and a connecting rod connecting said slide and second mentioned wheel.

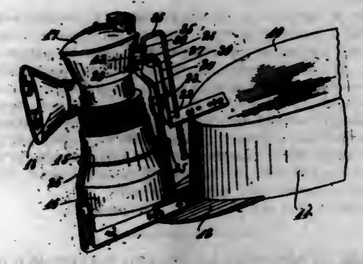
7. In a wire twisting machine, a wire applying device having a bore for a twisted wire core, and another bore for a twisted wire covering wrapped on the core, means for guiding the core wires from one side to the first mentioned bore and guiding said wires helically to form the twisted wire core, and means for guiding cover wires from one side to the second mentioned bore and guiding them helically around the core.

8. In a wire twisting machine, means for guiding wire from one side to a longitudinal line and for guiding the wire helically in said line to form a twisted wire core, and means for guiding wire from one side to said longitudinal line and helically around the twisted wire core.

9. In a wire twisting machine, a wire applying device having a bore for a twisted wire covering wrapped on a core, and a slot extending to one side from said bore for guiding cover wires to said bore, a member within said device formed to guide the cover wires helically around a core, said member having a slot extending to one side for the passage of core wires, and means within said member for guiding the core wires helically therein.

[Claims 1, 3, 4, 6, and 10 not printed in the Gazette.]

1,257,037. MINER'S-LAMP-CARRYING MEANS. LUIS SMITH, Caretta, W. Va. Filed May 24, 1917. Serial No. 170,584. (Cl. 240—60.)



1. In a device of the class described, the combination with a cap and a lamp, of a looped eye secured to the upper portion of said lamp, a bracket attached to the crown of said cap, said bracket having a part engageable with the base of said lamp, a hooked element slidable in said bracket engageable in said loop, and means for normally holding said hook in engagement therewith.

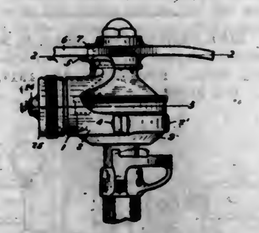
[Claim 2 not printed in the Gazette.]

1,257,038. RAIN-WATER ALARM. GEORGE STACHURA, Otthon, Saskatchewan, Canada, assignor of one-half to John Stachura, Otthon, Saskatchewan, Canada. Filed Sept. 13, 1917. Serial No. 191,170. (Cl. 116—15.)



In combination with an eaves-trough having an outlet therethrough, a pipe depending from said trough surrounding the outlet, a cord extending through said outlet and beyond the trough, a bucket within said pipe attached to the one end of the cord normally positioned adjacent said outlet, a revolving spring alarm adjacent the outer end of the cord, a rocker arm pivoted adjacent the bell with one end thereof attached to the outer end of the cord, a lever attached to the said bell, the said arm having a notch therein adapted for the retaining reception of the free end of said arm when the device is normally positioned with the bucket elevated and normally positioning the return spring attached to the said lever.

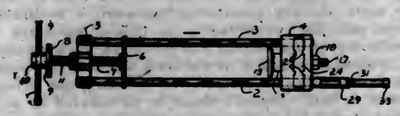
1,257,039. AUTOMOBILE-LOCK. JOHN STANLEY, Seattle, Wash., assignor of one-fourth to Pierre Barnes, Seattle, Wash. Filed Sept. 26, 1917. Serial No. 193,228. (Cl. 70—129.)



1. In an automobile, the combination with steering mechanism including a column having an aperture in its periphery, and a steering wheel, of a boss rigidly connected to said wheel and revolubly attached to said column, a locking bolt provided in said boss and engageable in said column aperture, means provided within the boss for securing said bolt in its locked position with respect to said column, a cap at the outer end of the boss and secured to the bolt for turning the latter to regulate said means, and also serving to move the bolt into operative position with respect to said column, and a spring serving to disengage the bolt from said column after said means have been regulated through the medium of the cap and bolt.

2. In an automobile, the combination of a steering column, a steering wheel rotatably mounted on the upper end thereof, a hollow boss rigidly connected to said wheel, a bolt within said boss and engageable with said column to secure the wheel against rotation, locking mechanism within the boss for releasably securing said bolt in its engaged position with respect to said column, a cap mounted on said boss for axial and rotary movements with respect to the boss, said bolt being rigidly connected to said cap whereby the latter is employed to regulate said locking mechanism and effect the engagement of the bolt with said column, and a spring interposed between the outer end of said boss and the cap and tending to yieldingly hold said bolt in disengaged position with respect to said column.

1,257,040. CLAMP. HUGO V. STEUERNAGEL, Hartford, Conn., assignor to The Hugo Manufacturing Company, Hartford, Conn., a Corporation of Connecticut. Filed Jan. 20, 1916. Serial No. 73,155. (Cl. 144—289.)



1. The combination of long and short rods, a block carried by the rods for sliding adjustment and provided with clamping means, the extended portion of the long rod being provided with a sleeve and a stud, the sleeve being longitudinally slotted and the stud engaging the solid outer end of the sleeve, the sleeve being turnable on the long rod to bring it into a position where its slot can receive the stud, and means to normally prevent accidental turning movement of the sleeve.

2. The combination of long and short rods, a block carried by the rods for sliding adjustment and provided with clamping means, clamping means coöperative with the other clamping means, the extended portion of the long rod being provided with a sleeve, and a stud, the sleeve being longitudinally slotted and the stud engaging the solid outer end of the sleeve and the latter abutting against the block when the same is on the shorter rod, the sleeve being turnable on the long rod to bring it into a position where its slot can receive said stud, whereby the sleeve can be moved rearwardly or outwardly to free the block and permit its separation from the shorter rod.

1,257,041. FOLDING COT. GEORGE R. STINE, San Francisco, Cal., assignor of one-half to Charles W. Springsteen, San Francisco, Cal. Filed Oct. 23, 1916. Serial No. 127,043. (Cl. 5—5.)



1. A cot comprising a canvas bottom, a pair of end sections to which said canvas is secured, a pair of legs hingedly secured to each end section adapted to be swung about the hinges to extend at right angles to and cooperate with the end sections to form a rectangular stretcher frame for the canvas bottom, means for securing the legs together when swung around to form a stretcher frame, auxiliary legs adapted to be secured to the stretcher frame sections, and a handle extension on each leg.

2. An auxiliary leg for a cot of the character described comprising an angle iron leg having an integral handle extension formed thereon, a projecting flange on the handle adapted to engage the lower side of the cot frame, a flange extension on the upper end of the leg adapted to engage the upper side of the cot frame, and a screw extending through the leg adapted to enter the wood of the frame.

3. A cot comprising a canvas bottom, a pair of end sections to which said canvas is secured, a pair of sectional legs hingedly secured to each end section adapted to be swung out to extend at right angles to the end sections to form a rectangular frame for a stretcher, the sections of the legs being movably connected so as to enable same to be folded parallel with the end sections to permit the canvas bottom to be used as a hammock.

4. In a folding cot, end sections, a canvas bottom connected to said sections, a pair of sectional legs, means to movably connect the legs to the end sections to allow the same to fold parallel to the end sections, means to movably connect the leg sections to each other to allow the latter to fold transversely of the cot to lie parallel to each other and to be extended to lie at right angles to the end sections, and means to secure the legs of opposing end sections together in crossed extended relation so as to hold the bottom in operative position.

5. In a folding cot, end sections, supporting means therefor, a canvas bottom connected to the end sections, a cross bar connected to said supporting means and arranged at approximately the longitudinal center of the canvas bottom, foldable uprights connected at their lower ends to the cross-bar, and foldable cross arms connected to the upper ends of the uprights and extending longitudinally of and connected to the canvas bottom.

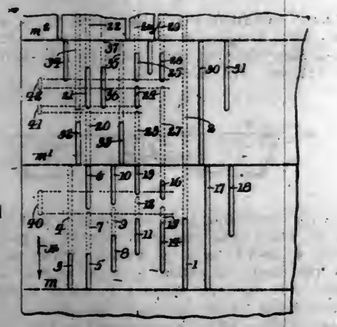
[Claims 6 and 7 not printed in the Gazette.]

1,257,042. NOTE-SHEET FOR AUTOMATIC MUSICAL INSTRUMENTS. CHARLES F. STODDARD, New York, N. Y. Filed Sept. 28, 1914. Serial No. 863,957. (Cl. 84—162.)

1. A music sheet for automatic musical instruments comprising, in combination, initial sounding and resounding perforations; and means on the sheet for holding their respective strings undamped after the initial sounding and until resounding, said means being constructed and arranged to act at substantially the time the initial sounding perforation is about to release its damper and to cease operation at substantially the time the resounding perforation would act to undamp the string.

2. A music sheet for automatic musical instruments comprising, in combination, sounding and resounding perforations; and pedal operating perforations of mini-

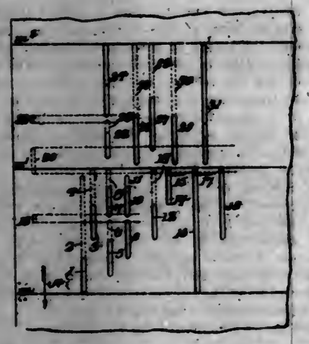
mum length to hold the strings of said sounding and resounding perforations undamped during the interval between sounding and resounding.



3. A musical sheet for automatic musical instruments comprising, in combination, initial sounding and resounding perforations, the initial sounding perforations being prolonged beyond lengths corresponding to the indications on the score or record from which the sheet is made, to locate the rear ends of such prolongations proximate the advance ends of their respective resounding perforations whereby to prolong the initially sounded tones to approximately the time of resounding; and means on the sheet to hold the sounding strings undamped until they have been resounded.

[Claims 4 to 11 not printed in the Gazette.]

1,257,043. PERFORATED NOTE-SHEET FOR AUTOMATIC MUSICAL INSTRUMENTS. CHARLES F. STODDARD, New York, N. Y. Filed Oct. 12, 1914. Serial No. 866,218. (Cl. 84—162.)

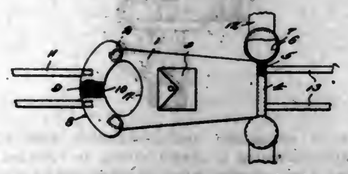


1. A note sheet for automatic musical instruments comprising a succession of groups of note-sounding perforations; certain of said perforations being prolonged beyond lengths corresponding to the indications of the score or record from which the note sheet is made, to sustain the notes of said prolonged perforations within a group; and auxiliary sustaining perforations coöperating with selected ones of said prolonged perforations to the exclusion of non-selected notes, to continue the notes of said selected perforations from their original group into another group.

2. A note sheet for automatic musical instruments comprising a succession of groups of note-sounding perforations, certain perforations in a group being prolonged beyond lengths corresponding to the indications of the score or record from which the note sheet is made, and certain of said prolongations being longer than others; and auxiliary sustaining perforations coöperating with said longer perforations to the exclusion of the others to continue the notes of said longer perforations from their original group into another group.

[Claims 3 to 8 not printed in the Gazette.]

1,257,044. LIFE-PRESERVER. EMIL E. STÖSSER, Idaho Falls, Idaho, assignor of one-half to Charles Wehnert, Lakewood, Ohio. Filed June 12, 1917. Serial No. 174,341. (Cl. 9—17.)

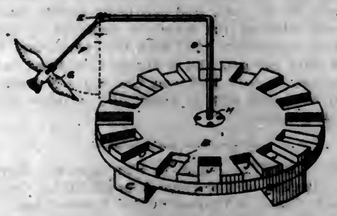


1. A life preserver comprising a strip of flexible material, a float at the upper end thereof, said float adapted to be positioned about the neck of the wearer immediately beneath the chin, a pair of floats at the opposite end of the strip adapted to be positioned slightly to the rear of the sides of the wearer at a point near the waist, a belt for holding the floats in place, and straps connected to the first-mentioned float and to the belt to prevent the person of the wearer from falling from position within the device.

[Claim 2 not printed in the Gazette.]

1,257,045. GAME. FRANK W. STOTLER, Wilkinsburg, Pa. Filed Apr. 9, 1917. Serial No. 160,864. (Cl. 46—56.)

2. A game comprising a rotatable member and removable counters, a depending arm on the rotatable member adapted to select and pick up a counter from its path upon coming to rest after revolution.



5. A game comprising a circular board, a vertical rotatable shaft centrally mounted in the board, a horizontal arm on said shaft extending to the edge of the board, a pivotally mounted depending arm carried by the horizontal arm, a permanent magnet at the lower end of said depending arm, recesses in the periphery of the board, and ferrous counters in said recesses adapted to be selected by said magnet when it is in stationary position.

7. A game comprising a rotatable member mounted centrally on a circular board, ferrous counters disposed about the periphery of the board, and a magnet depending from the rotatable member normally over the periphery of the board but adapted while the rotatable member is actuated to be extended beyond said periphery by centrifugal force and to return to said periphery to engage a counter when the rotatable member again becomes stationary.

[Claims 1, 3, 4, and 6 not printed in the Gazette.]

1,256,046. LAPPING-MACHINE. EDWARD A. SUVERKROP, Sea Cliff, N. Y. Filed Mar. 23, 1917, Serial No. 156,853. Renewed Jan. 2, 1918. Serial No. 210,072. (Cl. 51—12.)

1. A lapping machine having parallel lap plates with abrasive opposing surfaces mounted so the distance between them can be decreased, guides for insuring the parallelism of the lapping surfaces at all times, adjustable

stops for limiting the closing together of the lapping surfaces, a work plate between the lap plates, and means for imparting relative movement between the lap plates and the work plate in more than one direction, whereby the opposite surfaces of the pieces carried by the work plate will be subjected to the abrasive action of the lapping surfaces of the lap plates.



3. A lapping machine having parallel lap plates with flat abrasive opposing surfaces mounted so the distance between them can be decreased, guides for insuring the parallelism of the lapping surfaces at all times, adjustable stops for limiting the closing together of the lapping surfaces, a work plate between the lap plates, and means for moving the work plate between the lap plates in more than one direction, whereby the opposite surfaces of the pieces carried by the work plate will be subjected to the abrasive action of the lapping surfaces of the lap plates.

6. A lapping machine having parallel lap plates with flat abrasive opposing surfaces mounted so the distance between them can be decreased, guides for insuring the parallelism of the lapping surfaces at all times, adjustable stops for limiting the closing together of the lapping surfaces, a work plate between the lap plates, and means for rotating the work plate about its axis and revolving the axis of the work plate between the lap plates, whereby the opposite surfaces of the pieces carried by the work plate will be subjected to the abrasive action of the lapping surfaces of the lap plates.

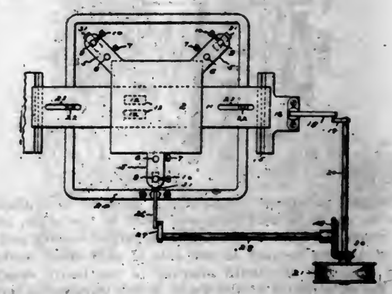
7. A lapping machine having parallel lap plates with flat abrasive opposing surfaces, one of which is movable toward the other, guides for insuring the parallelism of the lapping surfaces at all times, adjustable stops for limiting the closing of said movable lap plate toward the other lap plate, a work plate between the lap plates, and means for rotating the work plate about its axis and revolving the axis of the work plate between the lap plates, whereby the opposite surfaces of the pieces carried by the work plate will be subjected to the abrasive action of the lapping surfaces of the lap plates.

9. A lapping machine having parallel removable annular lap plates with flat abrasive opposing surfaces mounted so the distance between them can be decreased, guides for insuring the parallelism of the lapping surfaces at all times, adjustable stops for limiting the closing together of the lapping surfaces, a work plate between the lap plates, and means for rotating the work plate about its axis and revolving the axis of the work plate between the lap plates, whereby the opposite surfaces of the pieces carried by the work plate will be subjected to the abrasive action of the lapping surfaces of the lap plates.

[Claims 2, 4, 5, 8, and 10 not printed in the Gazette.]

1,257,047. APPARATUS FOR LAPPING METAL. EDWARD A. SUVERKROP, Sea Cliff, N. Y. Filed Mar. 23, 1917, Serial No. 156,854. Renewed Jan. 2, 1918. Serial No. 210,073. (Cl. 51—12.)

1. An apparatus for lapping metal having two lap plates with lapping surfaces movable toward each other, means for insuring the parallelism of the lapping surfaces in all positions, means for stopping the movement of the lapping surfaces toward each other, a work carrying plate between the lap plates, and means for reciprocating the work plate longitudinally and transversely at different rates of speed.



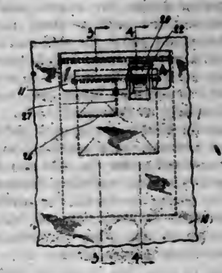
3. An apparatus for lapping metal having a stationary lap plate, a lap plate movable toward and from the stationary lap plate, means for insuring the parallelism of the lapping surfaces of the lap plates at all times, means for stopping the movement of the upper lap plate toward the lower lap plate at the desired distance therefrom, a work carrying plate between the lap plates, and means for reciprocating the work carrying plate longitudinally and moving it transversely at the same time.

4. An apparatus for lapping metal having two lap plates with lapping surfaces movable toward each other, guide posts extending from one plate through the other plate, means for stopping the movement of the lapping surfaces toward each other, a work carrying plate between the lap plates, and means for reciprocating the work carrying plate longitudinally and transversely.

5. An apparatus for lapping metal having two lap plates with lapping surfaces movable toward each other, means for insuring the parallelism of the lapping surfaces in all positions, gage posts extending through the plates toward each other, means for fixing the gage posts a desired distance apart, a work carrying plate between the lap plates, and means for reciprocating the work plate longitudinally and transversely.

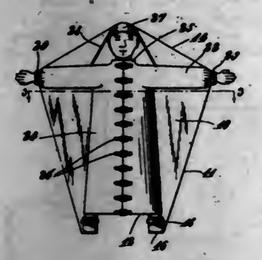
[Claim 6 not printed in the Gazette.]

1,257,048. SECURITY-POCKET. JOHN TAMAS, Cleveland, Ohio. Filed Mar. 21, 1917. Serial No. 156,237. (Cl. 2—15.)
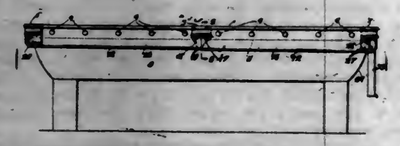


The combination with a garment having a main pocket therein, a flap for said pocket, said flap normally covering the entrance thereto, of an interior supplementary pocket secured inside said main pocket, a flap therefor, an elastic means for closing the opening to said interior pocket, and a plurality of internal compartments formed within said interior pocket.

1,257,049. WINGED PARACHUTE. PETRO TATARYN, Chester, Pa. Filed Aug. 6, 1917. Serial No. 184,585. (Cl. 244—21.)



A winged parachute comprising a sheet of thin pliable material, cut to extend from one wrist to the other, and from above the head to the ankles, a pair of sleeves and a pair of anklets secured to one side of said sheet, spring bands combined therewith adapted to resiliently engage with the extremities of the limbs, a belt engageable with the waist and a cap engageable with the head, said belt and cap being secured on the same side of said sheet as are said sleeves and anklets.

1,257,050. BALL-CONDUCTING DEVICE FOR POOL-TABLES. EDWARD M. THALHEIMER, Philadelphia, Pa. Filed Aug. 10, 1917. Serial No. 185,438. (Cl. 46—12.)



1. A ball-conducting device for a pool table including a trough having a gutter portion designed to be positioned below the pockets of the table, said trough having a flange projecting from said gutter and adapted to be secured to the table and to extend across the sides of the openings which form said pockets, substantially as described.

2. A ball-conducting device for a pool table including a trough made in sections, said sections having gutter portions adapted to extend under the side and corner pockets of said table, said sections including flanges projecting from the respective gutter portions, said flanges having bulged portions to correspond with the contour of the side pockets, substantially as described.

3. A ball-conducting device for a pool table including a trough made in sections, said sections having gutter portions adapted to extend under the side and corner pockets of said table, said sections including flanges projecting from the respective gutter portions, and corner pieces secured to certain of the sections below the corner pockets of the table, substantially as described.

4. A ball-conducting device for a pool table including a trough made in sections, said sections having gutter portions adapted to extend under the side and corner pockets of said table, said sections including flanges projecting from the respective gutter portions, the gutter portions below the corner pockets at their bottoms having beveled edges positioned adjacent each other to form corner turns in the gutter, substantially as described.

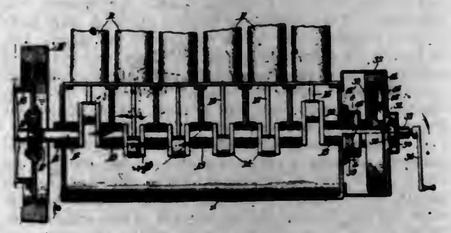
1,257,051. SCREEN OR WINDOW LOCK. JAMES J. THOMAS and LILLIAN L. VAUGHAN, Raleigh, N. C. Filed Jan. 27, 1917. Serial No. 144,851. (Cl. 16—18.)

A lock comprising a casing having one end wall open, a keeper associated with the open end of the casing, a hub journaled in the casing and having a squared opening to receive a key, a right angled enlargement formed on said hub, an arcuate shaped extension formed on said enlargement and adapted to be moved out of the open end of the casing into engagement with the keeper, and a



spring secured to said casing and normally engaging the extension when within said casing and adapted to engage the right angled enlargement when said extension is moved into engagement with the keeper to prevent the extension from becoming disengaged from the keeper.

1,257,052. HYDROCARBON-MOTOR. MILTON TIBBETTS, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed May 21, 1915. Serial No. 29,659. (Cl. 74—6.)



4. In a multi-cylinder hydrocarbon motor, the combination with the crank case and the crank shaft mounted in bearings therein, of a flywheel having a bearing on the crank case, and a driving connection between the crank shaft and the flywheel.

10. In a hydrocarbon motor, the combination with a crank case, a crank shaft mounted in bearings therein, and a flywheel rotatably supported on the crank case on a bearing spaced axially from one of the crank shaft bearings, and a driving connection between the crank shaft and the flywheel, of a gear on the crank shaft arranged between said spaced bearings.

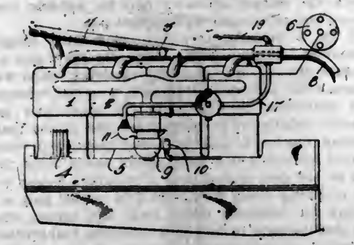
16. In a hydrocarbon motor, the combination with the crank case and the crank shaft mounted in bearings therein, of a flywheel rotatably mounted on the crank case independently of the crank shaft bearings and substantially coaxial therewith, and means connecting the crank shaft and flywheel and permitting yieldingly restricted relative movement both rotatively and radially.

19. In a motor vehicle, the combination with a crank case having bearings, and a crank shaft mounted in said bearings and extending beyond one of the end bearings, of a gear on the extended end of the crank shaft, a bracket on the crank case extending around said gear and carrying a bearing, a flywheel mounted on said latter bearing, means connecting said flywheel with the end of said crank shaft beyond said gear, a cover over said parts beyond said end bearing, and a starting crank mounted in said cover and having a part adapted to be non-rotatively connected to the crank shaft.

[Claims 1 to 3, 5 to 9, 11 to 15, 17, 18, and 20 not printed in the Gazette.]

1,257,053. OZONIZER. JOHN E. WARMAN, Sacramento, Cal., assignor of one-half to George H. P. Lichthardt, Sacramento, Cal. Filed Apr. 18, 1917. Serial No. 163,012. (Cl. 123—119.)

1. The combination with a motor vehicle having a carbureter provided with an air intake and a high tension ignition circuit, of an ozonizer connected to the air intake and to the high tension ignition circuit for increasing the efficiency of the combustible elements of the air prior to admitting the same to the carbureter.



2. The combination with a motor vehicle having a carbureter provided with an air intake and a high tension ignition circuit, of a rotary ozonizer connected to the air intake and to the high tension ignition circuit for increasing the efficiency of the combustible elements of the air prior to admitting the same to the carbureter.

3. The combination with an internal combustion engine having a carbureter provided with an air intake, an exhaust manifold and a high tension ignition circuit, of an ozonizer connected to the air intake and to the high tension ignition circuit whereby the air admitted to the carbureter will be acted upon by the current passing through the ozonizer, and means to heat the air prior to its admission to the ozonizer.

[Claims 4 to 7 not printed in the Gazette.]

1,257,054. ELECTRIC-WIRE COUPLING. COURTLAND W. WEAVER, Toronto, Ontario, Canada. Filed June 19, 1917. Serial No. 175,680. (Cl. 173—263.)



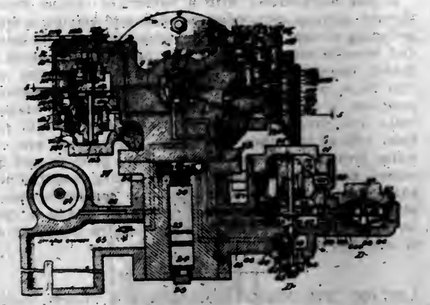
1. A coupling for electric wires having a plate provided with threaded apertures and binding screws engaging said apertures from opposite sides of the plane of the plate, the periphery of the head of each screw being disposed in proximity to the shank of the other screw to prevent displacement of the engaged wires.

2. A coupling for electric wires having a plate, and binding screws mounted in the plate and engaging the same from opposite sides of the plane thereof, the shank of each binding screw forming a stop to limit the radial movement of the extremity of a wire engaged by the head of the other screw.

1,257,055. TRIPLE VALVE FOR AIR-BRAKES. WILLIS C. WEBSTER, Dubois, Pa., assignor to Buffalo Air-Brake Company, Phoenix, Ariz., a Corporation of Arizona. Filed May 29, 1914. Serial No. 841,918. (Cl. 188—15.)

3. In an air brake, the combination with a train pipe, an auxiliary reservoir, a brake cylinder, and means for admitting auxiliary reservoir pressure to the brake cylinder upon a reduction of pressure in the train pipe, of chambers, in the service position of said means containing fluid at a pressure equal to that in a brake cylinder having a standard piston travel, and means controlled by difference of pressure in said chambers and in the brake cylinder for admitting fluid from the train pipe to the brake cylinder if the pressure in the brake cylinder is below the standard, and for venting fluid from the brake cylinder if the pressure therein is above said standard.

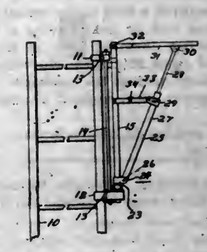
4. Means for equalizing pressure in the brake cylinders of fluid pressure brakes comprising a valve controlling passage of fluid from a brake cylinder, and a diaphragm connected thereto, the diaphragm on one side at service position of the brakes being exposed to pressure equal to that in a brake cylinder of standard piston travel and on the other side being exposed to the pressure in the brake cylinder.



5. Means for equalizing pressure in the brake cylinders of fluid pressure brakes including a regulating chamber, a diaphragm subjected to the opposing pressures of the brake cylinders and said regulating chamber, and a valve carried by said diaphragm and adapted to establish communication between the brake cylinders and atmosphere when the brake cylinder pressure is greater than that of the storage chamber and disestablish communication when the brake cylinder pressure is less.

[Claims 1, 2, and 6 to 44 not printed in the Gazette.]

1,257,056. LADDER ATTACHMENT. HAROLD V. WHEATLEY, Edenkillie, Strassburg, Saskatchewan, Canada. Filed June 4, 1917. Serial No. 172,817. (Cl. 20—85.)



1. The combination with a ladder, of clamps secured thereto, a brace connection between said clamps, a frame including an arm pivotally connected to one of said clamps and movable about an axis which lies in the plane of the ladder, means carried by said arm and coöperating with said brace connection for securing said arm in adjusted positions, and a platform carried by said frame.

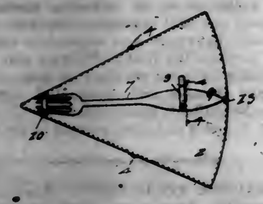
2. The combination with a ladder, of clamps secured thereto, a brace connection between said clamps, a frame including an arm pivotally connected to one of said clamps and movable about an axis which lies in the plane of the ladder, means carried by said arm and coöperating with said brace connection for securing said arm in adjusted positions, a platform carried by said frame, and a diagonal brace arm pivotally connected at one end to said platform and at its other end to the first named arm, the latter pivot being at right angles to the pivot of said first named arm.

3. The combination with a ladder, of clamps secured thereto, a brace connection between said clamps, a frame including an arm pivotally connected to one of said clamps and movable about an axis which lies in the plane of the ladder, means carried by said arm and coöperating with said brace connection for securing said arm in adjusted positions, a platform carried by said frame, a diagonal

brace arm pivotally connected at one end to said platform and at its other end to the first named arm, the latter pivot being at right angles to the pivot of said first named arm, said diagonal arm including longitudinally adjustable sections, and a sectional brace connecting one of said sections with said first named arm.

4. The combination with a ladder, of clamps secured thereto, a brace connection between said clamps, a frame including an arm pivotally connected to one of said clamps and movable about an axis which lies in the plane of the ladder, means carried by said arm and coöperating with said brace connection for securing said arm in adjusted positions, a platform carried by said frame, a diagonal brace arm pivotally connected at one end to said platform and at its other end to the first named arm, the latter pivot being at right angles to the pivot of said first named arm, said diagonal arm including longitudinally adjustable sections, a sectional brace connecting one of said sections with said first named arm, and a catch for detachably connecting said platform to the upper end of said first named arm.

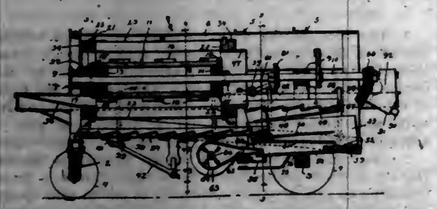
1,257,057. PIE-CONTAINER. ROBERT W. WHITE, Eastondale, Mass. Filed May 1, 1917. Serial No. 165,738. (Cl. 206—4.)



1. A pie container including a box or body, a cover, and means for securing a fork to the container, said means comprising a fixed loop or yoke having a top portion inclined in a direction longitudinally of the fork and arranged to fit the tines of a fork when the points of the said tines are placed against the container, and a resilient transversely disposed clip arranged to engage the handle of the fork.

[Claim 2 not printed in the Gazette.]

1,257,058. THRESHER. EDWARD WILLIAMS, Schuylerville, N. Y. Filed Aug. 9, 1916. Serial No. 114,038. (Cl. 130—30.)



1. In a thresher structure, perforated longitudinally disposed cylindrical beating means, a vibratory grain pan positioned beneath the beating means for receiving beans which pass through the perforations thereof, a second vibratory grain pan positioned for receiving the vines and beans discharged axially from the delivery end of the longitudinal beating means and delivering the beans to the first named pan.

2. In a thresher structure, perforated longitudinally extending beating means, a vibratory grain pan positioned beneath the beating means for receiving beans which pass through the perforations thereof, a second vibratory grain pan positioned for receiving the vines and beans discharged axially from the delivery end of the longitudinal beating means and a guiding board positioned beneath the second vibratory pan for guiding beans from the second pan to the first named pan.

3. In a thresher structure, perforated longitudinally extending beating means, a vibratory grain pan positioned beneath the beating means for receiving beans which pass through the perforations thereof, a second vibratory grain pan positioned for receiving the vines and beans discharged axially from the delivery end of the longitudinal beating means, a guiding board positioned beneath the second vibratory pan for guiding beans from the second pan to the first named pan, a vibratory screen positioned for receiving beans from said first named pan, a delivery trough for receiving beans from said screen, and means for shaking said trough in a direction transversely to the direction of movement of the pan for causing the beans to pass through the trough.

4. In a thresher structure, perforated longitudinally extending cylindrical beating means, an imperforated vibratory grain pan positioned beneath the longitudinal beating means for receiving beans which pass through the perforations of the beating means, a perforated vibratory grain pan positioned for receiving the vines and beans discharged axially from the delivery end of the beating means, and a guiding board positioned beneath the perforated vibratory pan for guiding beans therefrom to the imperforated vibratory pan.

1,257,059. COMBINATION-LOCK SWITCH. CLARK J. WINSLOW, Appleton, Minn. Filed Apr. 7, 1915. Serial No. 19,716. (Cl. 175—282.)



In a combination lock switch, a dial constructed of a plurality of segments, the alternate segments of said dial formed of conductive and non-conductive material, a stationary dial positioned above said first named dial and being graduated correspondingly to the segments of the first named dial, a rotary dial mounted upon said stationary dial, a sleeve carried by said rotary dial, a contact arm pivotally supported by said sleeve, a spring connected to said contact arm for holding a portion thereof in engagement with any one of the segments of said first named dial, a slidable pin carried by said sleeve and adapted to engage said pivoted contact arm for moving it out of engagement with any one of said segments, a bracket carried by said sleeve and extending through said first named dial, and an arm pivotally connected to the lower end of said bracket.

1,257,060. THERMOMETER-CASE. HARRY SYMNS WRIGHT, Jerome, Idaho. Filed Feb. 2, 1917. Serial No. 146,180. (Cl. 167—3.)

A case for a thermometer, comprising a tubular body closed at one end and open at the other, a tubular casing of absorbent material arranged on the interior of said body and provided with means for holding said interior casing spaced from the inner surface of the body, thereby providing a space for the reception of an antiseptic solution to be absorbed by the tubular casing, and wiping means arranged in the body to wipe the thermometer as it enters the inner casing, and to hold the inner casing in place, said wiping means comprising a rubber washer having a central opening smaller in diameter than the cross section diameter of the thermometer, an annular groove on the interior of the body to receive said rubber washer, a bushing adjustable in the body above the washer and provided with a conical depression and a central opening axially alined with the opening of the washer and said depression, to guide the thermometer through the



opening of the washer, and a closure for the open end of the body.

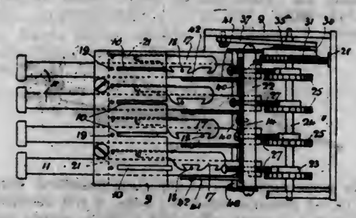
1,257,061. HOLDER FOR WIRE-STAPLE BELT-FASTENERS. JOHN YETTON and WILLIAM ERNEST BROCKETT, Stratford, London, England. Filed Oct. 12, 1917. Serial No. 196,981. (Cl. 1—56.)



1. In combination, a staple having reversely disposed prongs formed thereon, and a holder comprising means for contacting with and preventing lateral movement of said prongs with relation to the shanks on which they are formed when forcing said staple into any material.

[Claims 2 and 3 not printed in the Gazette.]

1,257,062. COIN-CONTROLLED MACHINE FOR PUBLIC TELEPHONES. GUY CROSIER ADAMS, Launceston, Tasmania, Australia. Filed May 12, 1917. Serial No. 168,324. (Cl. 194—55.)

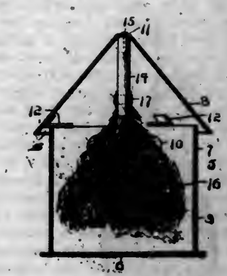


1. In machines of the kind indicated, a series of coin slots and a series of plungers for carrying coins and each associated with a slot, each plunger having a slot normally below and in line with a coin slot, a movable recessed plate near a plunger and adapted to be swung aside when the plunger carrying a coin is pressed inward, a pin on the plunger in the recess of the plate, a second pin behind the first on the plunger, means for discharging a coin after use, and means for returning the plate to its normal position.

3. In machines of the kind indicated having a series of associated slots and plungers, in combination, a spindle, ratchet wheels and rocking levers thereon, each lever being placed opposite a plunger end, a pawl on each lever for engaging a ratchet, set screws adapted to regulate the distance of each lever from each plunger, a drum loosely mounted on the spindle, a coiled spring within the drum attached to the spindle at one end and to the drum at the other, a toothed wheel upon the drum and an electric contact breaker riding on the toothed wheel.

[Claims 2 and 4 to 6 not printed in the Gazette.]

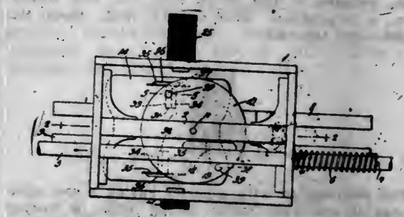
1,257,063. CHICKEN-BROODER. CHARLOTTE E. ALLSPACH, Ubee, Ind. Filed Oct. 18, 1917. Serial No. 197,285. (Cl. 119—33.)



2. A chicken brooder including a cylindrical side wall, a floor secured thereto, a frusto-conical top removably supported upon the side wall, a depending post carried by the truncated terminal of the top, and a tuft of feathers carried by the lower terminal of the post and disposed centrally within the side walls.

[Claim 1 not printed in the Gazette.]

1,257,064. AUTOMATIC GEAR-SHIFT CONTROL. JAMES SHELLENBARGER ALSPAUGH, Portsmouth, Ohio. Filed Mar. 3, 1917. Serial No. 152,377. (Cl. 74—14.)



1. A device of the character described, embodying two members each movable back and forth, and latches carried by one member and movable in opposite directions relatively to the other member, the last mentioned member having means for the engagement of said latches alternately during the successive movements of the first mentioned member in the same direction and for preventing the engagement of the latches during the movement of the first mentioned member in the other direction.

2. A device of the character described, embodying two members, one mounted for oscillation and the other for reciprocation, latches carried by one member and movable in opposite directions relatively to the other member, the last mentioned member having shoulders for the alternate engagement of the latches during the successive movements of the latch carrying member in the same direction, having beveled surfaces for disengaging the latches when moved away from the shoulders, and having means for preventing the latches engaging the shoulders during the movement of the latch carrying member in the other direction.

11. A device of the character described, embodying a pair of members movable back and forth, a third member movable back and forth, a clutch member carried by the third member to alternately engage said pair of members, means tending to move the clutch member to intermediate position out of engagement with said pair of members,

electro-magnetic means for moving the clutch member in one direction or the other in one position of the third member, and means for holding the clutch member in engagement with either of the members of said pair when they are moved with the third member.

[Claims 3 to 10, 12, and 13 not printed in the Gazette.]

1,257,065. METHOD AND MEANS FOR BRANDING. RALPH A. BAGBY, Mentor, S. D. Filed Sept. 12, 1916. Serial No. 119,722. (Cl. 40—3.)



1. A method of marking cattle consisting of injecting markers into the flesh of the live cattle.

3. An identifying marker for cattle, and other animals, comprising a non-corrosive and indissoluble inscribed body adapted to be inserted into the flesh of the animals.

[Claim 2 not printed in the Gazette.]

1,257,066. CORSET. DARWIN S. BERGER, New Haven, Conn., assignor to The Berger Bros. Co., New Haven, Conn., a Corporation. Filed Oct. 11, 1915. Serial No. 55,199. (Cl. 128—8.)



2. The combination with a corset having a slot upon each side of the lower center of the corset, a binding strap on each side of said slot, a series of strips crossing said slots and secured to the opposite edges thereof, whereby a series of openings is formed on each side of the center, and a belt provided at its ends with straps less in number than the number of openings in the sides of the corset, said straps adapted to be passed through any of said openings, and means for attaching the ends of the straps.

3. The combination with a corset having a slot on each side of the lower center, a binding strip on each side of said slot, a series of straps crossing said slots and secured to opposite edges thereof, whereby a series of openings is formed on each side of the center, a belt provided at its ends with straps adapted to pass through any of said openings, and means for attaching the ends of the said straps.

[Claim 1 not printed in the Gazette.]

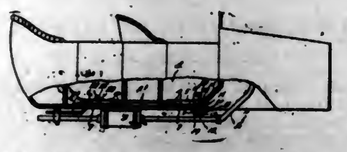
1,257,067. BOX. AARON M. BILLSTEIN, Riderwood, Md., assignor to The Lord Baltimore Press, Baltimore, Md., a Corporation of Delaware. Filed Mar. 10, 1915. Serial No. 13,886. (Cl. 46—40.)

A combined receptacle and toy comprising a box having a plurality of apertures formed in a side wall, and a closure for the box having an extension which when the box is closed is positioned entirely therein to extend across and completely close said apertures, the outer face of said closure extension being provided with a plurality of sectional pictures, the sections of different



pictures being so related that when the closure is moved to and from closed position the said pictures will be successively displayed through the apertures in the side wall of the box.

1,257,068. AUTOMOBILE-HEATING APPLIANCE. EUGENE BROWN, Earlsboro, Okla. Filed Apr. 30, 1917. Serial No. 165,585. (Cl. 237—21.)



1. In a heater for an automobile, a pair of heater casings having shallow chambers and provided with a pipe of communication, one heater casing in front of each seat of the automobile body, the exhaust pipe of the engine of the automobile having a bypass inlet pipe connection with the heater in front of the front seat, said bypass inlet pipe having means whereby the exhaust from the engine may be directed into the chamber of the forward heater casing, one of the heater casings having a pair of adjustable baffle plates mounted in its shallow chamber whereby the heating medium from the pipe of communication is baffled to the opposite ends of the chamber, and means for allowing the heating medium to pass off from the rear heater casing.

[Claim 2 not printed in the Gazette.]

1,257,069. WAR GAME. THOMAS J. BURKE, New Orleans, La. Filed Jan. 25, 1917. Serial No. 144,486. (Cl. 46—61.)



2. In game apparatus of the class described, objective game pieces mounted upon the base, a rod mounted for reciprocation beneath the said base, a spring tending to move the rod in one direction, means operable to hold the rod against movement through the influence of the spring, a cross head carried by the arm having spaced jaw portions, means for closing the said jaw portions, and flexible elements connected with the game pieces and led through the base and engaged between the said jaw portions of the cross head.

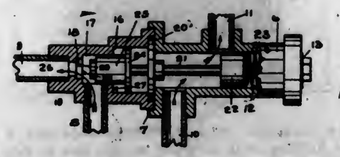
4. In a game apparatus of the class described, a base, objective game pieces mounted thereon, a rod mounted for reciprocation beneath the base, a spring tending to move the rod in one direction, flexible elements connected with the rod and with the objective game pieces and led through the base, an oscillatory target member mounted upon the base, a dog carried by the target member and located beneath the base, and a keeper upon the said rod engageable by the said dog.

6. In game apparatus of the class described, a base having spaced openings therein, an objective game piece disposed upon the base and having its supporting base portion provided with spaced openings designed to register with the openings in the base, and a flexible pull element passed through the openings in the said base and the base portion of the game piece.

8. In game apparatus of the class described, a base, objective game pieces mounted thereon, a rod mounted for reciprocation beneath the base, a spring tending to move the rod in one direction, connections between the rod and game pieces, an oscillatory target member mounted upon the base, a dog carried by the target member and located beneath the base, a keeper upon the said rod engageable by the said dog, the mounting for the oscillatory target member including an attaching base portion, and a spring embedded at its lower end in the said base portion and at its upper end bearing against the rear side of the target member, the said base portion of the mounting having a portion constituting a guide for the said rod.

[Claims 1, 3, 5, 7, and 9 not printed in the Gazette.]

1,257,070. AUTOMATIC VALVE. EDWARD WILLIAM DISCHER, Seattle, Wash. Filed Apr. 7, 1917. Serial No. 160,874. (Cl. 158—36.)



1. The combination with a conduit for liquid fuel and a conduit for air under pressure of a two part valve casing adapted to be connected with both of said conduits, valve pistons within said valve casing, and movable simultaneously, said valve pistons being adapted to be moved into an open position by the pressure of air from said air conduit to permit fuel and air to pass therethrough, and a spring to close said valve pistons when the pressure of said air drops below a predetermined minimum.

[Claims 2 to 4 not printed in the Gazette.]

1,257,071. ADJUSTABLE STOVEPIPE. SILAS F. FAIRBANK, Bison, Kans., assignor of one-half to Edward Sehnert, Bison, Kans. Filed Nov. 12, 1917. Serial No. 201,515. (Cl. 126—308.)

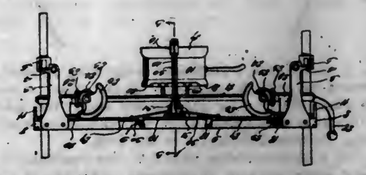


1. An adjusting section for stove pipes comprising a main portion consisting of a sheet of material bent into approximately cylindrical form with its adjacent edges inclined to the vertical line and bent inward into hook form and having a circumferential bead near one end at such distance from the end as to leave an end portion adapted for insertion into the end of a stove pipe section, and a wedge shaped piece having its edges bent outward into hook form and engaging the inwardly bent edges of the main portion and having at its narrow end an end portion extending beyond the outwardly bent edges and adapted to fit within the end of said stove pipe section, the wedge shaped piece being wholly within the lines of the main portion.

2. An adjusting section for stove pipes comprising a main portion consisting of a sheet of material bent into approximately cylindrical form with its adjacent edges inclined to the vertical line and bent inward into hook form and having a circumferential bead near one end at such distance from the end as to leave an end portion adapted for insertion into the end of a stove pipe section, and a wedge shaped piece having its edges bent outward into hook form and engaging the inwardly bent edges of the main portion and having at its narrow end an end portion extending beyond the outwardly bent edges and adapted to fit within the end of said stove pipe section, the wedge shaped piece being wholly within the lines of the main portion, said main portion having at the end opposite that adapted for insertion into the end of a stove pipe section, a circumferential bead adapted to fit over a corresponding bead on a stove pipe section.

3. An adjusting section for stove pipes comprising a main portion consisting of a sheet of material bent into approximately cylindrical form with its adjacent edges inclined to the vertical line and bent inward into hook form and having a circumferential bead near one end at such distance from the end as to leave an end portion adapted for insertion into the end of a stove pipe section, and a wedge shaped piece having its edges bent outward into book form and engaging the inwardly bent edges of the main portion, and having at its narrow end an end portion extending beyond the outwardly bent edges and adapted to fit within the end of said stove pipe section and having at its broad end a tongue bent upward and outward to form a handle.

1,257,072. HOSPITAL-BED. JOSEPH E. FAZAKERLEY, Pittsfield, Mass. Filed Feb. 8, 1917. Serial No. 147,455. (Cl. 5—12.)



1. The combination with a mattress support including an open frame between the head and foot portions of said support and a pair of separable sections slidably mounted on said frame, of a shaft extending transversely of said mattress support adjacent the frame, bevel gears secured on said shaft, a pair of shafts at right angles to the aforesaid shaft and having bevel gears meshing with the first named gears, gear segments carried by said pair of shafts, racks carried by the aforesaid separable sections and meshing with said segments whereby turning of the first named shaft will separate said sections, a receptacle carriage below the aforesaid frame, and means for automatically raising said receptacle carriage when said sections are separated.

2. The combination with a mattress support including an open frame between the head and foot portions of said support and a pair of separable sections slidably mounted on said frame, of a shaft extending transversely of said mattress support adjacent the frame, bevel gears secured on said shaft, a pair of shafts at right angles to the aforesaid shaft and having bevel gears meshing with the first named gears, gear segments carried by said pair of shafts, racks carried by the aforesaid separable sections and meshing with said segments whereby turning of the

first named shaft will separate said sections, a pair of vertical tracks depending from said frame, a receptacle carriage having bearings slidable on said tracks, and means connected with said bearings for raising said carriage automatically when the aforesaid sections are separated.

3. The combination with a mattress support including an open frame between the head and foot portions thereof and a pair of separable sections slidably mounted on said frame, of a pair of bearings depending from the rear side bar of said frame, an operating shaft rotatably mounted in said bearings and having at one end a handle, bevel gears on said shaft, additional bearings depending from said rear bar of the frame, a pair of longitudinal shafts mounted in said additional bearings and having bevel gears meshing with the aforesaid gears, gear segments secured on said pair of shafts, racks carried by the aforesaid separable sections and meshing with said segments whereby turning of the operating shaft will separate said sections, a receptacle beneath the aforesaid frame, and means for automatically raising said receptacle when said sections are separated.

4. The combination of a mattress support including a pair of separable sections between the head and foot portions thereof and movable transversely of said support, a receptacle carriage mounted for vertical movement beneath the meeting ends of said sections, means for separating said sections, a pair of cables secured at one end to the ends of said carriage and at their other ends to the aforesaid sections, and guides over which the intermediate portions of said cables are passed whereby said receptacle carriage is raised automatically when said sections are separated.

1,257,073. CANOE YOKE ATTACHMENT. JOHN HENRY FRANK, State Line, Wis. Filed July 5, 1917. Serial No. 178,644. (Cl. 9—1.)



1. A canoe yoke attachment comprising notched plates attached to opposite gunwales of the canoe, a hook for each plate shaped to engage in any one of the notches of the plate, a portage member, and means releasably engaging the portage member to the hook.

2. In a canoe yoke attachment, the combination of L-shaped plates secured to opposite gunwales of a canoe, the downwardly-turned portions of the aforesaid plates having spaced notches, hooks releasably engaging a notch in said plates and longitudinally adjustable relative to the canoe, a portage member engaged by the hooks, and manually-operable clamping members adjustably engaging threaded portions of the hooks, for the purposes set forth.

1,257,074. AUTOMATIC WINDOW-SCREEN. HENRY FREUND, Waukegan, Ill. Filed Aug. 29, 1916. Serial 117,514. (Cl. 156—39.)

1. A window screen comprising a screen strip adapted to be connected detachably at one of its ends to a sliding sash, a case constructed to be mounted on a fixed part of the window casing and having means therein to take up and let out the screen strip as the sliding sash is moved so that this screen strip will be carried over the opening left by the sash, and guide strips connected on opposite sides of the window casing to receive and guide the side edges of the screen strip and also provided with extension portions to engage with and secure the casing detachably in such a position that the screen strip travels freely within the guide strips.

2. An automatic window screen comprising with a screen strip, a binding strip mounted on one end of said screen strip, means by which the binding strip is detachably connected with a sliding window sash, a case constructed to be mounted on the window casing at that point adjacent which the edge of the sliding sash having the binding strip mounted thereon closes, a take up roller mounted within the case and having the free end of the screen strip connected therewith in a relation that as the sash is moved the roller will automatically reel up and unreel the strip, said casing having openings therein and guide means to be mounted on the window casing to receive and guide the side edges of the screen strip and provided with extensions to be received in the openings of the casing to secure the same detachably in the proper position for use.

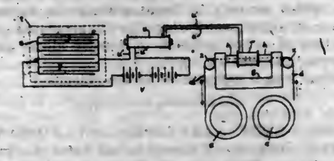


3. An automatic window screen comprising a screen strip, a binding strip mounted on one end of said screen strip, means corried by the binding strip by which attachment can be removably made to a sliding sash, a case constructed to be mounted upon the window casing at that point adjacent which the edge of the sliding sash having the binding strip secured thereto closes, a take up roller mounted within the case and having the free end of the screen strip connected therewith in a relation that as the sash is moved the roller will automatically reel up and unreel the strip, an idler roll carried in the case and over which the screen strip passes, said case having openings through the top thereof at the ends, and guide strips connected with the window casing to receive the edges of the screen strip and having extensions to fit within the openings of the casing to retain the same detachably fitted in the position for use.

4. An automatic window screen comprising a screen strip having a binding strip on one end thereof, hooks connected on said binding strips, sash lifts mounted on a sliding sash and provided with openings to receive and hold said hooks to mount the screen strips in conjunction with the sash, a case constructed to be mounted on the inside sill of the window, an idler roll mounted in the case over which the screen strip is drawn, a take up roller mounted within the case and having the free end of the screen strip connected therewith, a spring mounted in conjunction with the take up roller to normally exert turning force thereagainst to cause the rollers to turn in a direction to wind the screen strip thereonto, said binding strip shaped to provide an insect stop between the screen strip and the sash, and guide strips connected on opposite sides of the window casing to receive and guide the side edges of the screen strip while at the same time presenting portions arranged to secure the case against displacement.

1,257,075. REPRODUCTION OF SOUND CHARACTERISTICS. PERCY WHEATON FULLER, Boston, Mass. Filed Sept. 20, 1910, Serial No. 584,731. Renewed June 28, 1917. Serial No. 177,595. (Cl. 179—106.)

In a device of the class described, the combination with a reproducer comprising a plurality of sheets of tin foil and flexible dielectric material arranged alternately and superposed one on the other loosely in a horizontal position and without mechanical pressure, of a direct current circuit of two hundred and fifty to three hundred volts, one side of which is connected to the alternate sheets of



tin foil and the other side of which is connected to the other sheets of tin foil, and means to impress on the direct current circuit an undulating current having variations corresponding to the variations of sound characteristics to be reproduced.

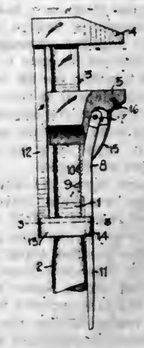
1,257,076. CHECK-VALVE FOR LOCOMOTIVE-BOILERS. JOHN B. GALLAGHER, Butte, Mont. Filed May 9, 1916. Serial No. 96,879. (Cl. 137—82.)



1. A check valve for boiler feeds, comprising a casing having a central opening, a cap for removably closing the opening, an extension projecting through the opening and having a guide pocket therein, a valve carrying a guiding stem normally in engagement with said pocket, an extension on said casing having a smooth bore entering into said casing, a rod having a forked end arranged in said casing and extending through the bore in said extension a stuffing box on said extension through which the rod passes, said rod adapted to slide in said bore to cause the forked end thereof to engage the valve to lift it from its seat, and means to rotate the rod when in engagement with the valve to grind the valve.

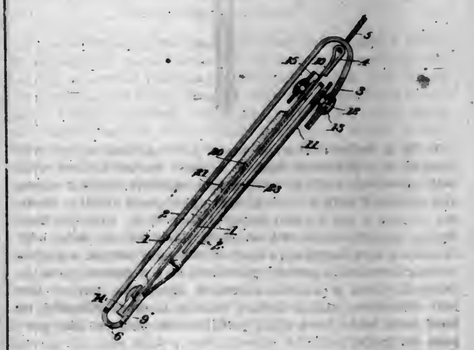
2. A check valve, comprising a spherical hollow body having a threaded opening in the top thereof, an annular shoulder within the body forming a valve seat, tubular projections, one communicating with the interior of the body on one side of the valve seat and the other on the opposite side of said valve seat, a cap for removably closing said opening, an extension projecting downwardly through the opening and having a guide pocket therein, a valve for said valve seat and having a guiding stem thereon extending upwardly into said guide pocket and having guide fins extending downwardly therefrom and engaging the wall of the annular shoulder, a rod slidably and rotatably extended through the bottom wall of the body and having a forked inner end engageable with the guide fins of the valve, a stuffing-box carried by the body about said rod, and a handle on the outer end of the rod, the forked end of the rod being adapted to be moved into and out of operative engagement with the fins of the valve by the sliding movement of the rod.

1,257,077. WRENCH. HARRY H. GARDNER, Johnstown, Pa. Filed Feb. 8, 1917. Serial No. 147,453. (Cl. 81—134.)



As a new article of manufacture, a wrench comprising a shank provided with a handle at one end and with a fixed jaw at its opposite end, said fixed jaw extending beyond opposite sides of the shank, a yoke embracing the shank and abutting the inner end of the handle, a portion of said yoke extending rearwardly from the shank, a movable jaw mounted on the shank and positioned intermediate the fixed jaw and the handle, co-acting means carried by the shank and movable jaw for locking the movable jaw to the shank at points intermediate the length of the shank, and a brace bar secured to the heel end of the fixed jaw and to the extended portion of the yoke, said brace bar being substantially parallel to the shank and in spaced relation thereto and free from the movable jaw.

1,257,078. COMBINATION RAZOR HONE AND STROP. EDWARD BACON GIBFORD, Adrian, Mich., assignor to Pike Manufacturing Co., Pike, N. H., a Corporation of New Hampshire. Filed June 29, 1917. Serial No. 177,649. (Cl. 51—16.)



1. A combinatidon razor strop and hone comprising a strip of flexible material weakened between its ends to permit the two portions thereof to fold together one on the other, one portion being on one face adapted to serve as a strop and the other portion being provided on its corresponding face with a removable hone.

2. A combination razor strop and hone comprising a strip of flexible material weakened between its ends to permit the two portions thereof to fold together one on the other, one portion being on one face adapted to serve as a strop and the other portion being provided on its

corresponding face with a removable hone, the hone carrying portion being provided with a pocket having the opening leading thereto on the face opposite to that on which the hone is carried.

3. A combination razor strop and hone comprising a strip formed of two layers of flexible material having their flat sides secured together through part of their length, and weakened between its ends to permit the two portions thereof to fold together one on the other, the one portion being on one face adapted to serve as a strop and the other portion carrying on its corresponding face a hone, the layers of the hone carrying portion being secured together at their edges only so as to form between them a pocket open at one end.

4. A combination razor strop and hone comprising a strip of flexible material weakened between its ends to permit the two portions thereof to fold together one on the other, one portion being on one face adapted to serve as a strop and the other portion being provided on its corresponding face with a removable hone, the hone carrying portion being provided with a pocket having the opening leading thereto on the face opposite to that on which the hone is carried, a tongue closing the pocket opening having a fastener member thereon and an extension on the outer end of the strop portion adapted to fold over the outer end of the hone carrying portion and having a fastener member adapted to engage the fastener member on the tongue of the hone carrying member.

5. A combination razor strop and hone comprising a strip of flexible material adapted to be bent between its ends to divide it into two portions, one portion being on one face adapted to serve as a strop and the other portion being provided on its corresponding face near its end with cross strips each carrying a fastener member and a plate of relatively stiff material carrying a hone and provided at its ends with fastener members adapted to engage the fastener members of the cross strips.

1,257,079. ADJUSTABLE SAFETY-RAZOR. HANS HARTMAN, New York, N. Y. Filed Nov. 9, 1916. Serial No. 130,331. (Cl. 30—12.)



1. In a safety razor, a razor head having a bolt extension and provided with a central recess around said bolt extension, a blade having two opposite cutting edges, and provided with a central oval aperture, a tubular member having a lug formed integral therewith, said lug having a curved outer end surface, mounted on said bolt extension and adapted to seat within said recess, a platen having a central aperture provided with a recess upon its inner surface, a handle threaded upon the end of the bolt extension, and a hollow handle member adapted to hold said blade in a rigid position, as and for the purpose set forth.

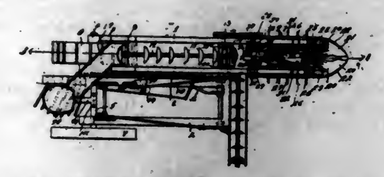
2. In a safety razor, a razor head having a bolt extension and a recess formed therein, extending around said bolt, said razor head being provided with guards on its outer edge, a blade having opposite cutting edges and provided with a central oval aperture, a platen having a central aperture provided with a recess on its inner surface, a tubular section having a lug formed integral therewith and at right angles thereto, said lug having a curved outer end surface, adapted to seat within the guideway formed by said recesses, a handle secured to said bolt, and means for holding said blade rigid, substantially as described.

1,257,080. PROCESS OF TREATING COTTON-STALKS. LEVANDER D. JONES, Dallas, Tex., assignor of three-fifteenths to Herbert D. Deacon and eight-fifteenths to Zebina E. Marvin, Dallas, Tex. Filed May 10, 1917. Serial No. 167,769. (Cl. 92—14.)

1. The herein described process of treating cotton stalks, which consists in disintegrating the stalks in the presence of steam, subjecting the disintegrated stalks to the action of a hot solution of caustic alkali and soap, and drying the treated mass.

[Claims 2 to 9 not printed in the Gazette.]

1,257,081. BEET HARVESTER AND TOPPING MACHINE. BERNARD KAUFHOLD and JOHN A. ESS, Kimball, Minn. Filed June 1, 1916. Serial No. 101,154. (Cl. 55—9.)



1. In a harvester and beet topping machine, a frame having a digger end, the sides of the digger end having opposed conveying members, digger members secured to the forward ends of the sides of the digger end, said digger members having rearwardly extending fingers arranged in series and being of different lengths, to conform to the conveying members.

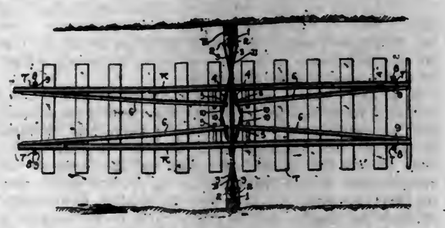
2. A structure as specified in claim 1, said fingers being yieldable, and the fingers of each series being spaced from each other.

3. A structure as specified in claim 2, the adjacent faces of the sides of the digger end having rearwardly extending yieldable arms opposing each other, the lowermost of said arms being curved farther toward each other than the uppermost arms, to insure supporting of the beets.

4. In a harvester and beet topping machine, a frame having a digger end, a pair of digger members secured to the opposite sides of the digger end and having rearwardly extending yieldable fingers of different lengths.

5. A structure as specified in claim 3, and a topping device at the rear extremity of said arms.

1,257,082. GATE. OSCAR L. KEYS, Hazard, Ky. Filed Nov. 17, 1917. Serial No. 202,510. (Cl. 269—7.)



1. In combination with the rails of a trackway, a vertically disposed shaft, a door carried by said shaft, diverging arms carried by the lower end portion of the shaft, elongated members angular in cross section disposed longitudinally of the inner faces of the rails at opposite sides of the shaft, yieldable means for directly connecting the outer end portions of the elongated members to the rails, means co-acting with the inner end portions of the elongated members for normally maintaining said inner end portions of the elongated members separated from the rail, and operative connections between the inner end portions of the elongated members and the arms of the shaft.

2. In combination with the rails of a trackway, a vertically disposed shaft, a door carried by said shaft, diverging arms carried by the lower end portion of the shaft, elongated members angular in cross section disposed longitudinally of the inner faces of the rails at opposite sides of the shaft, yieldable means for directly connecting the outer end portions of the elongated members to the rails, retractile members engaged with the inner end portions of the elongated members for normally maintaining the inner end portions of said members spaced from the rail, and operative connections between the inner end portions of the elongated members and the arms of the shaft.

1,257,083. RAIL JOINT AND FASTENER. STANISLAW KIELAR, Milwaukee, Wis. Filed Sept. 27, 1917. Serial No. 193,452. (Cl. 239—9.)



1. A rail-holding device comprising a tie having a transverse seat and a longitudinal groove at one side of the seat, an abutment block removably arranged within said groove adapted for engaging one side of the rail, a retaining block adapted for engaging the opposite side of the rail and provided with a crosspiece fitted within said seat adjacent the base flange of the rail and a locking latch swingingly carried by said retaining block adapted for connection with the tie when the device is assembled.

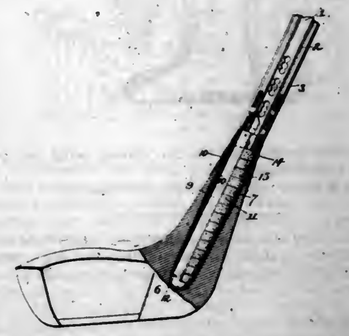
2. In combination with a railway tie having a transverse seat with one inclined end wall and a socket at its opposite end and further provided with a groove extending from the socketed end of the seat and terminating in a recess at its outer end, a rail transversely positioned upon said seat, a retaining block within said groove, retaining means carried by said block extending within the said socket and recess, and with a portion of the block arranged adjacent one side of the rail, a locking block arranged adjacent the opposite side of the rail, a crosspiece carried by said locking block mounted within said seat between the said inclined end wall thereof and the adjacent base flange of the rail and a locking latch swingingly carried by said locking block adapted for engaging the tie when the device is in its operative position.

3. In combination with a tie having a transverse seat, a bed-plate upon said seat, upstanding lugs carried by said plate, rails having side notches adapted for seating upon the said plate with said lugs arranged within the notches, spacing plates engaging the base flanges and webs of the rails arranged with depending lugs positioned within said notches in axial alinement with the lugs of said bed-plate and oppositely positioned removable retaining blocks carried by the tie adapted for engaging the said spacing plates when the device is assembled.

1,257,084. GOLF-CLUB. ALLAN E. LARD, Washington, D. C., assignor to The Metallic Shaft Company, Wilmington, Del., a Corporation of Delaware. Filed Sept. 26, 1916. Serial No. 122,260. (Cl. 46—4.)

1. In a golf club, the combination of a hollow shaft having a plurality of ribs extending longitudinally thereof, the ribs at and toward the lower end of the shaft gradually tapering in height and merging into the shaft body, said shaft likewise having openings therein to permit torsioning of the shaft under impact; a club head having a tapered socket into which the lower end of the shaft extends; and means for securing the shaft in place.

2. In a golf club, the combination of a hollow metallic shaft; a wooden head having a socket formed therein; and a thin fibrous member wound about the lower end of the shaft, and presenting a surface which may be directly and firmly glued in place in the socket.



3. In a golf club, the combination of a hollow metallic shaft, the lower end whereof is tapered; a wooden head having a tapered socket formed therein; and a fibrous material encircling the tapered end of the shaft, said material being glued to the shaft and the socket and producing an effective union between the parts.

[Claims 4 to 11 not printed in the Gazette.]

1,257,085. SANITARY MATTRESS FOR INVALIDS. ABBIE MAHONEY, Salt Lake City, Utah. Filed Apr. 27, 1917. Serial No. 165,031. (Cl. 5—13.)



1. A mattress of the class described comprising a frame in rectangular form covered with mattress material, and having a central portion thereof cut out; a wire frame surrounding the lower edge of said cutout portion; water proof flexible material lining the upper and lower edges and inner wall of said cutout portion; a block section hingedly secured to said frame; and a rocking lever having one arm fastened on said block section and the body fastened to the wire frame; and a lever arm having a loop and hook form thereon to engage the rectangular form of the mattress.

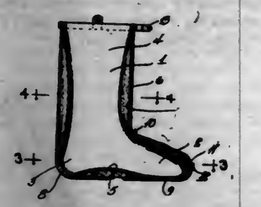
2. A mattress of the class described comprising a metallic frame covered with mattress material and having a portion thereof cut out; a wire frame surrounding the lower edge of said cut out portion; water proof flexible material lining the inner wall and edges of said cutout; a rocking lever fastened to said frame of the mattress, having an arm with a loop therein adapted to engage the frame of the mattress; a block section conforming to the shape of the opening in said mattress; and an arm on said rocking lever secured on said block section.

1,257,086. HOT-WATER BOOT. HART W. MARCELLUS, Chicago, Ill. Filed Apr. 3, 1917. Serial No. 159,481. (Cl. 128—39.)

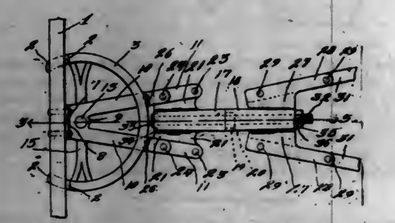
1. A hot water boot comprising a foot casing shaped to conform to the human foot and including a toe portion, heel portion and leg portion, a water casing enveloping the foot casing and having its upper marginal edge merg-

ing into the edge of the foot casing and permanently attached thereto, the heel portion and toe portion of the foot casing being permanently fixed to the said water casing, the instep portions of the two casings being also permanently joined together.

[Claims 2 and 3 not printed in the Gazette.]



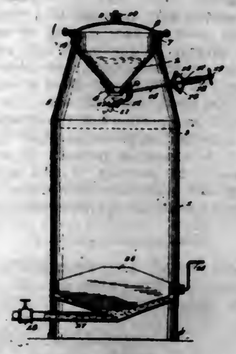
1,257,087. RUNNING-GEAR, ROUGH-ROAD-BUGGY COUPLING. JAMES F. MARDIS, Hardin, Ky. Filed Aug. 30, 1915. Serial No. 48,039. (Cl. 21—39.)



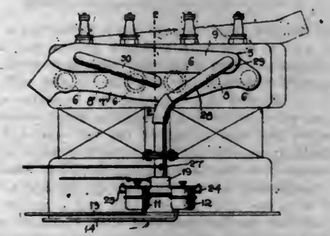
In a running gear, a combination with a fifth wheel having upper and lower fifth wheel members, the upper member having a pair of rearwardly projecting radial lugs, a bolster and an axle fixed to said members respectively, a forward hound element connected to said bolster, a king pin passing through said hound element and the lower fifth wheel member, said hound element extending downwardly through and below the fifth wheel and having extensions projecting radially rearwardly beyond the fifth wheel for securement to said lugs, a coupling element having its bore at right angles to the king pin and provided with lateral wings, means for securing said lugs, the extensions and the wings together, means for securing the extremities of said extensions to said wings, a second coupling element with its bore alined axially with the bore of the first coupling element and having lateral wings, means for swivelly connecting said coupling elements, and rear hound members connected to the wings of the second coupling element.

1,257,088. ACETYLENE-GENERATOR. ISAAC U. MARLIN, Shreveport, La., assignor, by mesne assignments, to George T. Cunningham and Louis T. Cunningham, Shreveport, La. Filed May 15, 1914. Serial No. 838,829. (Cl. 48—53.3.)

The combination with a receptacle of a hopper mounted therein and provided with an outlet opening adapted to communicate the interior of said hopper with the interior of said receptacle; a bracket secured to the hopper; a bell crank lever pivotedly connected to the bracket; a valve secured to one end of the bell crank lever and adapted to seat upon said opening exteriorly to said hopper; a diaphragm chamber secured to and communicating with the interior of the receptacle; a spring pressed diaphragm carried within said chamber; an elongated screw-thread portion mounted in the end of the diaphragm chamber, said threaded portion being adapted to regulate the spring tension of said diaphragm; a stem directly connecting the diaphragm and said bell crank lever and extending through the diaphragm and the hollow screw-threaded portion; and a nut carried by the outer end of said stem, said nut being adapted to limit the diaphragm in its movement effectuating the opening of said valves.



1,257,089. FUEL-VAPORIZING DEVICE FOR INTERNAL-COMBUSTION ENGINES. JOHN H. MASON, Heavener, Okla. Filed June 30, 1917. Serial No. 178,020. (Cl. 123—127.)

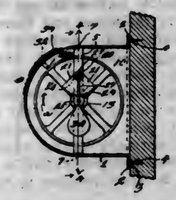


1. The combination with an internal combustion engine having an exhaust manifold and a chamber extending longitudinally along one side of said manifold, of an intake manifold below the exhaust manifold, the wall of the exhaust manifold constituting the top wall of the intake manifold, a gas supply pipe connected to one end of the chamber on the exhaust manifold, and an outlet pipe connected to the other end of said chamber and to the intake manifold centrally thereof.

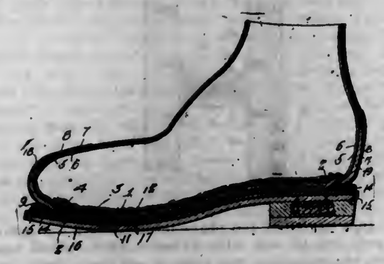
2. The combination with an internal combustion engine having an exhaust manifold, of a wall extending longitudinally along one side of said exhaust manifold and integrally connected therewith to form a heating chamber, an intake manifold disposed below the exhaust manifold, a carbureter having gasolene and kerosene chambers, a common pipe connection between said chambers and one end of the heating chamber, a manually shiftable valve to close communication between one of said chambers and said pipe and open communication with the other chamber and the pipe, and a pipe connection between the other end of the heating chamber and the intake manifold.

1,257,090. GRADOMETER. ELBERT G. MATTOON, Independence, Colo. Filed Aug. 28, 1917. Serial No. 188,666. (Cl. 33—215.)

In a gradometer, a casing adapted to be secured to the dash board of a vehicle, said casing having a central perpendicular bar, a shaft mounted in bearings respectively on one flat face of the casing and in said bar and provided with a wheel drum, the perimeter of the drum having calibrations extending on either side of a zero indication, one end of said shaft having a pinion, a second shaft mounted in bearings respectively on the opposite flat wall of the casing and in said bar and disposed above the first shaft, a segment suspended from and rockable with the second shaft and meshing with said pinion, a collar secured on the second shaft, an arm extending downwardly from said collar and having a weight at its lower end, and adapted to oscillate to one side or the other corresponding to an inclination in the road bed, whereby said drum may be rocked in one direction or the other, and a pointer on said casing to indicate the angle of the inclination on said drum.



1,257,091. SHOE. JOHN V. MATTOS, Taunton, Mass. Filed Mar. 20, 1917. Serial No. 156,036. (Cl. 36—17.)

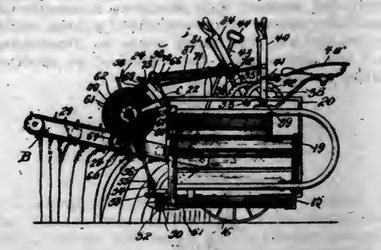


1. In a shoe, an inner sole, an insole cover secured to the inner sole, a rib at the edge of the inner sole, an upper comprising a lining, a water-proofing material covering the lining, an upper body covering the water-proofing material, and an outer cover covering the body, and a welt at the edges of the upper all being secured to the rib by stitches, a water-proofing sheet extending around the rib, an intermediate sole, a water-proof sheet on the under side of the intermediate sole engaging the water-proof sheet of the upper, a cork cushion on the upper side of the water-proof sheet on the intermediate sole, said cushion filling the space between the inner sole and the intermediate sole, a second welt at the edge of the intermediate sole, stitches securing the second named welt and the intermediate sole together and securing the intermediate sole to the rib, and an outer wear sole stitched to the second named welt of the intermediate sole.

3. A shoe comprising an inner sole having a rib formed thereon at its edge, an insole cover attached to the rib and covering the inner side of the inner sole, an upper lining secured to the rib, a piece of water-proof material covering the upper lining and extending around the rib and partially under the inner sole thereof, a fabric body attached to the rib, an upper cover covering the body, a welt secured to the rib at the edges of the upper cover, a sole secured to the welt, a water-proof sheet on the upper side of the sole, said sheet engaging the lower side of the water-proof sheet of the upper to form a water tight connection between the upper and sole, a cushion between the water-proof sheet on the sole and the inner sole, said cushion being positioned within the rib to fill the space formed thereby, and an outer sole secured to the last named sole and a rubber sheet between the outer and inner soles.

[Claim 2 not printed in the Gazette.]

1,257,092. ATTACHMENT FOR HARVESTERS. HENRY J. MENTINK, Gresham, Nebr. Filed Jan. 5, 1917. Serial No. 140,854. (Cl. 56—22.)



1. A harvester platform, a conveyer frame, a conveyer in said frame, a shaft on which the conveyer frame is pivotally supported, means for adjusting the frame for securing it at various pivotal adjustments, a pair of levers supporting the shaft on which the conveyer frame is supported, bell cranks supporting said levers, means for rocking the levers and for securing them at various adjustments, means for rocking the bell cranks and for securing them at various adjustments, means for driving the conveyer and for varying the speed thereof while the device is in operation, said means including a disk having a plurality of circumferential series of teeth, a non-circular driven shaft, a pinion slidable on the non-circular shaft and meshing with the toothed disk, and a bell crank having an arm in slidable engagement with the pinion to effect adjustment thereof relatively to the toothed disk.

[Claim 2 not printed in the Gazette.]

1,257,093. FIGURE TOY. CALVIN C. MILLER, Summithill, Pa. Filed Aug. 10, 1916. Serial No. 114,221. (Cl. 46—40.)



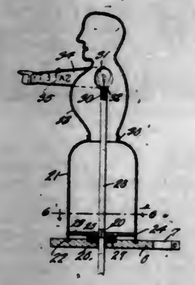
1. A toy figure including a base, a receptacle thereon, a wash board in the receptacle, a sectional figure consisting of a stationary lower portion, mounted on the base and having the upper end thereof formed with a concaved recess, said figure further consisting of an upper body portion having a convexed lower end fittedly disposed in said concaved recess, means for pivotally securing the upper portion to the lower stationary portion whereby the upper portion may oscillate in said concaved recess, arms pivoted to said body portion of the figure and adapted to rest on said wash-board, a rigid arm secured to the body portion, a crank shaft journaled in the stationary portion, a wheel mounted on said shaft, and a link connecting said crank shaft with said rigid arm.

[Claim 2 not printed in the Gazette.]

1,257,094. AUTOMOBILE ATTACHMENT. JOHN L. MILLER, Fort Collins, Colo. Filed Aug. 19, 1916. Serial No. 115,820. (Cl. 116—31.)

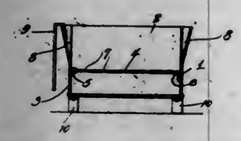
1. In a device of the class described, a platform; a hollow signal located above the platform; a base constituting a part of the signal and coöperating with the platform to support the signal for rotation; an out-

standing hollow perforated arm carried by the signal; a fixed standard projecting upwardly through the platform, the base being provided with an arcuate slot receiving the standard and permitting a rotation of the signal with respect to the standard; a lamp carried by the standard and constituting means for illuminating the arm; and means under the control of an operator for rotating the signal.



2. In a device of the class described, a platform; a fixed bracket disposed below the platform; a shaft journaled in the platform, the bracket constituting an end thrust bearing for the shaft; means for rotating the shaft from a remote point; a standard fixed to the bracket and projecting upwardly above the platform; a hollow signal mounted to rotate above the platform and housing the standard; a hollow perforated arm constituting a part of the signal; a lamp on the standard and constituting means for illuminating the arm; and means for operatively connecting the shaft with the signal.

1,257,095. SOAP-RECEPTACLE. CARL B. MOORE, Glenns Ferry, Idaho. Filed Aug. 8, 1917. Serial No. 185,129. (Cl. 45—28.)



A soap receptacle comprising a container having its side walls, each provided with a depression, a partition hingedly mounted within the receptacle and held in spaced relation to the bottom of the receptacle, the said depressions merging into the side walls of the receptacle at points slightly above the plane of the said partitions and a hook fixed to one of the side walls in the said depressions and depending parallel to the said side wall on the exterior of the receptacle.

1,257,096. THREAD-CUTTING DEVICE FOR SHUTTLES. JOSEPH P. MORISSETTE, Holyoke, Mass. Filed May 29, 1916. Serial No. 100,466. (Cl. 139—46.)

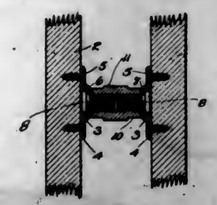


1. The combination, in a device of the class specified, of a shuttle case having an eye, and provided with a thread-guiding member back of such eye, a yielding tension member for said thread, said tension member being arranged normally to divert said thread from an approximately direct course between said first-mentioned member and said eye, and adapted to be actuated to permit said thread to take said approximately direct course when said thread is checked, and a severing implement in the aforesaid approximately direct course of the thread.

5. The combination, in a device of the class specified, with a recessed shuttle having an eye opening through one side adjacent to the outer end thereof, of a blade, yielding tension means, and a perforated guide and stop member arranged in the order named, transversely in the recess in said case, behind said eye, said blade having a cutting edge that inclines downwardly from the end of the blade that is on the side of said recess in which the eye is located, said tension means comprising a spring-pressed plate normally located adjacent to the low part of said blade, and the perforation in said guide and stop member being in offset relation to the normal position of said plate.

[Claims 2 to 4, 6, and 7 not printed in the Gazette.]

1,257,097. CONNECTING MEANS FOR FURNITURE-SECTIONS. EDMUND MORRIS, Grand Rapids, Mich., assignor to Wilmarth Show Case Company, Grand Rapids, Mich., a Corporation of Michigan. Filed July 23, 1914. Serial No. 852,575. (Cl. 45—78.)

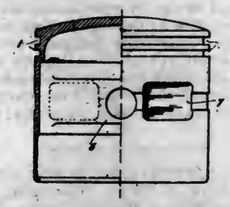


1. In a device of the character described, sections positioned end to end with adjacent ends spaced apart, means for connecting the ends of sections together comprising socket members secured in fixed relation to the adjacent ends of said sections, a connecting device spacing the ends of the sections apart, said device including a pair of threaded studs having heads detachably seated in the socket members and an interiorly threaded sleeve or nut receiving the studs at opposite ends of the sleeve, substantially as described.

2. In a device of the character described, sections positioned end to end with adjacent ends spaced apart, a socket member attached to the end of each section, said member having a central portion spaced a distance from the end of the section and slotted at the upper edge thereof for a portion of its depth, and a connecting device lying between the sections and having a head at each end seated in said members with the heads between the section ends and the central portions of the socket members, and the parts of the connecting device adjacent the heads received by the slotted central portions of the socket members substantially as described.

3. In a device of the character described, sections located end to end and with adjacent ends spaced apart, socket members, fixedly attached one to each end of the adjacent sections, said socket members including a portion spaced a distance from the end of its attached section and having a slot therein, a connecting device comprising a central nut interiorly threaded in opposite directions from opposite ends thereof and a headed stud inserted in each end of the nut, said connecting device being seated between the socket members with the heads of the studs between the section ends and the outstanding portions of the socket members and the nut located between the socket members whereby on turning the nut the socket members may be drawn toward and bound between the ends of the nut and the heads of the studs, substantially as described.

1,257,098. PISTON FOR ENGINES AND LIKE CYLINDERS. GEORGE FREDERICK MORT, Ealing Common, England. Filed July 10, 1917. Serial No. 179,615. (Cl. 74—85.)



1. A piston for engines and like cylinders comprising a hollow cylindrical structure open at one end and closed at the other, an inwardly directed sleeve extending from the cylindrical piston wall to receive a piston pin, two interior parallel webs for said sleeve located at a distance apart and extending from the piston wall and connecting the same with the upper and lower parts of said sleeve, and a web extending interiorly from the piston wall in the direction of the chord of the arc of the piston and in a plane parallel to the axis of the piston and connecting the inner end of the sleeve and the upper and lower webs aforesaid to support the sleeve and the piston wall.

3. A piston for engines and like cylinders comprising a hollow cylindrical structure open at one end and closed at the other, two inwardly directed sleeves extending from the cylindrical piston wall and located diametrically opposite to each other to receive a piston pin, two interior parallel webs for each sleeve located at a distance apart and extending from the piston wall and connecting the same with the upper and lower parts of said sleeve, a web for each sleeve extending interiorly from the piston wall in the direction of the chord of the arc of the piston and in a plane parallel to the axis of the piston connecting the inner end of said sleeve and the upper and lower webs aforesaid to support the sleeve and piston wall, said piston having external recesses one at each side of each of the sleeves constituted by discontinuing the piston wall on each side of each sleeve between said upper and lower webs and the vertical webs aforesaid, a piston pin passing diametrically across said piston and through said sleeve, and a pin passing at right angles through each sleeve and through the ends of said piston pin located therein.

[Claim 2 not printed in the Gazette.]

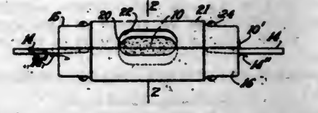
1,257,099. MITER-BOX. LEVI W. NACE and EDGAR J. FINK, Hanover, Pa. Filed Sept. 12, 1917. Serial No. 191,001. (Cl. 143—89.)



A miter box having a hollow base arranged to receive the work therein and also provided with an opening, a clamping screw mounted on the base and a clamping arm extending through said opening and into the hollow base to engage the work, said clamping arm having a head engaged by the screw.

1,257,100. ELECTRICAL FUSE. JOHN H. NAYLOR, Everett, Mass. Filed Nov. 17, 1913. Serial No. 801,398. (Cl. 175—273.)

1. A safety fuse comprising a fusible member, a cylindrical casing therefor and caps covering the ends thereof, said caps having out-turned flanges at their inner ends and another cylindrical casing mounted rotatably on the first and held in position by said cap flanges, each casing having an opening adapted to be brought into register with the opening in the other upon rotation of the said outer casing.



3. A safety fuse comprising a fusible member with casing therefor, plugs in the ends of the casing having openings through which the fusible member passes and external terminals for the fuse having inner ends comprising wedges adapted to be driven into said openings for holding and connecting the fusible member, caps inclosing the ends of the casing, through which the wedge members pass, and springs thereon adapted to bear upon said wedge members when inserted therein, making electrical connection with said caps.

4. A safety fuse comprising a fusible member and a casing therefor having terminal openings through which the fusible member extends to the exterior, said fusible member being formed at one end to slip loosely through both of said openings and at the other end to support itself by engaging an exterior part and hanging thereon; exterior terminals for electrical connection, extending into said openings; and means whereby their insertion makes fast the terminal and fusible member in electrical connection.

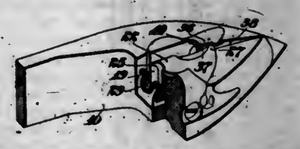
[Claim 2 not printed in the Gazette.]

1,257,101. ENDLESS SICKLE. LEROY H. NAZER and JAMES L. JENSEN, Cowley, Wyo. Filed Oct. 30, 1916. Serial No. 128,519. (Cl. 56—42.)



In combination with an inclosed integral casing with enlarged end portions, the front face of the casing having a recess extending intermediate said enlarged ends, sprocket wheels mounted within said enlarged end portions, and an endless chain passing about said sprocket wheels and having cutter knives mounted thereon, forwardly extending grain separating fingers projecting from the outer of said enlarged end portions and secured together near their ends which intersect, and a shoe secured to the under surface of the end portion having said fingers, and its forward end upwardly inclined and positioned intermediate and below the fingers.

1,257,102. SHUTTLE. JONAS NORTHROP, Hopedale, Mass., assignor to Hopedale Manufacturing Company, Milford, Mass., a Corporation of Massachusetts. Filed May 6, 1916. Serial No. 95,924. (Cl. 139—46.)



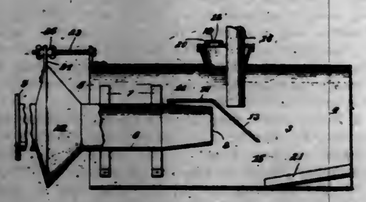
2. A thread block for self-threading shuttles having, in combination, a thread passage, an inlet to the passage, means for directing the thread from the passage to the delivery eye of the shuttle, a beak overhanging the outer end of the passage, and a shield overlapping the beak provided with a forwardly and inwardly extending guard

cooperating with the directing means to prevent dethreading of the thread block.

5. A thread block for self-threading shuttles having, in combination, a thread passage, an inlet to the passage, means for directing the thread from the passage to the delivery eye of the shuttle, a beak overhanging the outer end of the passage, and a shield overlapping the beak provided with an inwardly and forwardly curved horn for preventing dethreading by reason of the formation of loops or bights when a shuttle comes to rest at the end of a pick.

[Claims 1, 3, 4, and 6 not printed in the Gazette.]

1,257,103. PULVERIZED-COAL-BURNING FURNACE. WALTER M. OLIVER, Parsons, Kans. Filed Mar. 2, 1917. Serial No. 152,086. (Cl. 110—104.)



1. In a device of the character described, a mixing chamber comprising an elongated casing open at both ends, an air draft extending within said casing, an inclined baffle plate located within said casing and extending entirely across the open inner end of said air draft and means for projecting pulverized fuel upon said baffle plate.

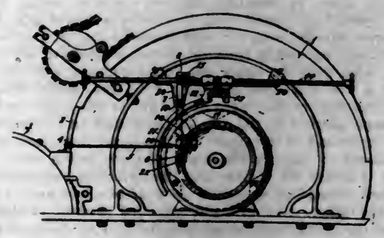
2. In a device of the character described, a mixing chamber comprising an elongated casing open at both ends, an air draft extending within said casing, an inclined baffle plate located within said casing and extending entirely across the open inner end of said air draft, means for projecting pulverized fuel upon said baffle plate and a second inclined baffle plate, said second baffle plate being inclined in a direction opposite to the first mentioned plate and beginning at a point in vertical alinement with and below said first mentioned plate and extending upward to the discharge end of the mixing chamber, whereby the opening of the discharge end of the mixing chamber is restricted.

1,257,104. INTERNAL-COMBUSTION ENGINE. OSCAR A. OLSON and WALTER OLSON, Leader, Minn. Filed May 26, 1916. Serial No. 100,065. (Cl. 123—62.)



An internal combustion engine comprising a cylinder, heads closing both ends of said cylinder, a crank shaft, a piston rod extending centrally and longitudinally of said cylinder and operatively coupled to said crank shaft, two pistons fixedly mounted on said piston rod in spaced relation to each other and each operating entirely at one side of a central exhaust port in the cylinder, an independently movable third piston interposed between said pistons and dividing the cylinder so as to form two combustion chambers and two compression chambers the outer walls of which are formed by the cylinder heads, the cylinder being also provided with by-passes affording communication between the said compression chambers and combustion chambers, and piston rods secured directly to said third piston through one of the first mentioned pistons and connected by rods directly to cranks of the crank shaft offset in relation to the crank to which the central piston rod is coupled.

1,257,105. SAFETY DEVICE FOR CARDING-MACHINES. OSCAR L. OWEN, Whitinsville, Mass., assignor to The Whitin Machine Works, Whitinsville, Mass., a Corporation of Massachusetts. Filed Feb. 25, 1916. Serial No. 80,492. (Cl. 19—3.)



1. In a carding machine, a power-controlling device comprising a manually operated rock-shaft having an abutment member, a card cylinder door provided with a blocking member coöperating with said first mentioned member to block the opening of the door while the card cylinder is in motion, in combination with an indicating member in swinging relations with said lever and acting in conjunction with one or more cam points revolving with the card cylinder.

[Claims 2 and 3 not printed in the Gazette.]

1,257,106. ELECTRIC HEATING DEVICE. LEON F. PARKHURST, Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Filed July 23, 1914. Serial No. 852,603. (Cl. 219—37.)



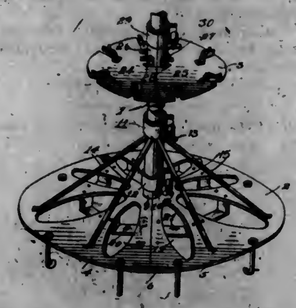
1. In an electric heater comprising a substantially flat freely exposed top plate of good heat conducting material, a supporting edge for said plate, a heating unit mounted in close thermal relation to said plate and means for reducing the flow of heat from the unit to the supporting edge comprising a corrugation between the heated surface and the edge.

3. The method of making a heating device comprising a continuous metallic plate and a sheathed resistance heating unit which consists in forming a continuous corrugation upon the plate, and brazing the heating unit to the plate within the portion embraced by the corrugation.

6. In an electric heater, an envelop comprising upper and lower spaced metallic plates having their edges brought into engagement, secured together and bent downwardly to form an extension for supporting the unit.

[Claims 2, 4, 5, and 7 to 10 not printed in the Gazette.]

1,257,107. GUN-RACK. JOSEPH A. PATTERSON, Waynesburg, Pa. Filed Apr. 15, 1916, Serial No. 91,846. Renewed Jan. 19, 1918. Serial No. 212,827. (Cl. 211—14.)

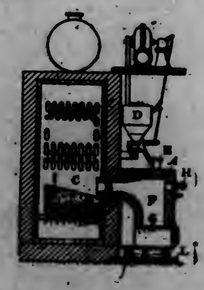


2. In a device of the character described, the combination with a vertical standard, of a supporting element formed of a pair of semi-circular plates, a clamping element, said plates having semi-cylindrical collar portions projecting upward from the inner edges thereof and adapted to engage the standard, and means for releasably clamping said collars to the standard whereby the elements are vertically adjustable thereon.

3. In a device of the class described the combination with a standard having a supporting element carried thereby, of a pair of semi-circular plates adjustably connected with the standard above the supporting element, said plates being disposed in a single plane, the plates being provided with a plurality of notches in the peripheral edge thereof, brackets on said plates adjacent the inner ends of the notches, and spring clips carried by said brackets with the jaws thereof disposed substantially parallel with the sides of the notches to clamp objects therein.

[Claim 1 not printed in the Gazette.]

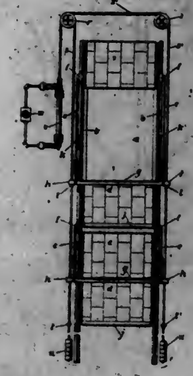
1,257,108. COMBUSTION DEVICE FOR STEAM-BOILERS AND THE LIKE. CARL EMIL PEDERSEN, Östre Aker, near Christiania, Norway. Filed Dec. 31, 1915. Serial No. 69,510. (Cl. 110—118.)



1. In a device of the character described, the combination with a boiler, of a combustion chamber adjacent thereto, an elongated mouthpiece at the top of said combustion chamber and projecting therefrom into the heating space of the boiler, and means for feeding fuel into the top of said combustion chamber transversely of the path of the flame and gases through said mouth-piece, whereby said fuel will fall the length of said combustion chamber and be subject to the action of an air current in said combustion chamber.

2. In a device of the character described, the combination with a boiler, of an elongated combustion chamber independent thereof and adjacent thereto, a mouthpiece formed integrally with the top of said combustion chamber and projecting therefrom into the heating space of the boiler, means for feeding fuel into the top of said combustion chamber transversely of the path of the flame and gases through said mouthpiece, whereby said fuel will fall the length of said combustion chamber, and means for admitting compressed air to said combustion chamber substantially in line with said mouthpiece and in position to assist in consuming the fuel to the combustion chamber.

1,257,109. CONTROLLING MEANS FOR ELEVATOR-DOORS. JOHN W. PEELLE, Brooklyn, N. Y., assignor to The Peelle Company, New York, N. Y., a Corporation of New York. Filed Apr. 8, 1916. Serial No. 89,878. (Cl. 187—52.)



1. A controlling mechanism for elevator doors which doors consist of two sections operatively connected, whereby they will have simultaneous vertical movement in opposite directions, and the upper of said sections being overbalanced by the lower, said mechanism consisting of a stop operative upon the lower door section of each door in a shaft when it is in the closed position, actuating means for each of said stops, mounted in said shaft, means carried by an elevator car coöperating with said actuating means whereby said stop can be released only when the car is at a door opening, a motor, a plurality of cables operatively connected with said motor and extending vertically in the shaft upon opposite sides of each door in said shaft, a plurality of blocks carried by each of said cables, a block upon each cable being adjacent the lower section of each door in the shaft, brackets carried by the lower section of each door, said cables passing freely through said brackets and said blocks normally engaging the under side of said brackets respectively, and means carried by the car whereby said motor may be actuated to lower said blocks to permit the opening of any door in the shaft when the stop mechanism therefor is released by the car, or to raise said blocks, to close any door which is opened.

3. A controlling mechanism for elevator doors comprising two sections operatively connected whereby they will have simultaneous movement in opposite directions, the upper of said sections being overbalanced by the lower, embodying therein a top bar upon the lower section, lateral extensions upon the said top bar, a limit stop adapted to pass under one of said extensions when the door is closed, actuating means for said limit stop, means carried by an elevator car coöperating with said actuating means, an angle bracket having an opening therethrough carried by the lower section of each door in a shaft, a motor, cables connected with said motor, pulleys at the top of the shaft about which said cables pass, said cables passing through the openings in the brackets on each of the door sections respectively, blocks secured to said cables

below said brackets whereby any door section may have downward movement with said cables and said blocks will recede from the door sections remaining in closed position, so that the several doors of the shaft may be selectively opened as determined by the position of the elevator car and controlling means for said motor.

[Claim 2 not printed in the Gazette.]

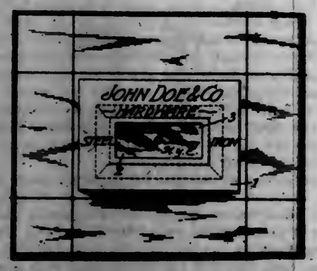
1,257,110. PERCOLATOR. VALENTINE D. PFIRMAN, Erie, Pa., assignor to The Griswold Manufacturing Company, Erie, Pa., a Corporation of Pennsylvania. Filed Apr. 3, 1916. Serial No. 88,428. (Cl. 53—8.)



1. In a percolator, the combination of a receptacle having a flash chamber in the bottom thereof; a removable cover for the chamber having perforations forming a means of communication from the receptacle to the chamber; a pin extending through the cover having a supporting head above the cover and a valve head below the cover, the vale head being adapted to seat and close the perforation through the cover and the length of the pin being such as to support the valve head out of contact with the cover.

2. In a percolator, the combination of a receptacle having a flash chamber in the bottom thereof; a removable cover for the chamber having a perforation forming means of communication from the receptacle to the chamber; a pin extending loosely through the perforation and maintaining an opening therethrough; a dished squared head on the pin above the cover adapted to support the valve but maintaining a free circulation between the head and the cover; and a valve head on the pin below the cover.

1,257,111. PASTER. ABRAHAM S. PHILLIPS, New York, N. Y. Filed Oct. 21, 1916. Serial No. 126,875. (Cl. 40—10.)

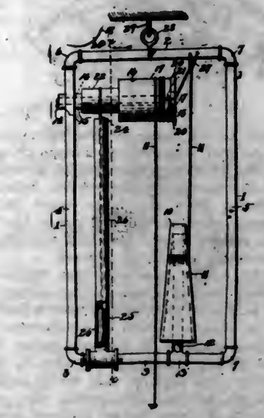


1. In a label or paster comprising a main sheet having a transparent portion lying entirely within the edge of the sheet, a pocket forming part attached to one side of said main sheet back of said transparent portion and also lying entirely within the outer edge of said main sheet so that the exposed margin of the main sheet may receive an adhesive, whereby said main sheet may be cemented to the article to which it is to be attached entirely around said pocket.

4. In a label or paster comprising a main sheet having a transparent portion, a pocket forming sheet attached to said main sheet at said transparent portion with the edge of the pocket forming sheet entirely within the edges of the main sheet, said main sheet being imperforate throughout its entire area and having its surface entirely surrounding said pocket coated with adhesive whereby when it is attached the said pocket will be completely sealed.

[Claims 2 and 3 not printed in the Gazette.]

1,257,112. TWINE-HOLDER. DAVID W. PIERATT, Gate, Okla. Filed Apr. 9, 1917. Serial No. 160,760. (Cl. 242—145.)



5. In a twine holder, a frame, a shaft secured in said frame, a reel mounted on said shaft having a recess at one end adapted for the reception of the means for securing the reel to the shaft, a twine receiving portion having a flange provided with an inclined hole or aperture, a reduced portion, flexible means attached to said reduced portion, a weight secured to said flexible means and a pivoted tube in which said weight is mounted.

[Claims 1 to 4, 6, and 7 not printed in the Gazette.]

1,257,113. SELF-SEALING OVEN-DOOR. PIERRE PLANTINGA, Cleveland, Ohio. Filed Dec. 18, 1916. Serial No. 137,692. (Cl. 202—8.)



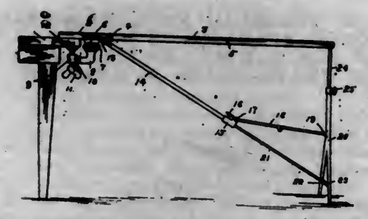
1. In self sealing oven doors, the combination of an oven wall formed with an opening; a jamb-member secured to said wall adjacent to said opening; positive means providing for the relative thermal movement of said member and wall; a door proper adapted to make a tight joint with said member; and means for loosening and tightly securing said door proper.

3. In self sealing oven doors, the combination of an oven wall formed with an opening; a door proper; a jamb-member comprising a base portion fixed adjacent to said opening and a portion disposed intermediately of the door proper and said base portion; positive means providing for the relative thermal movement of said intermediate portion and said base portion; and means for loosening and tightly securing said door proper.

7. A new and improved element in self-sealing oven doors for use intermediately the door proper and the oven wall consisting of, a base plate; and an angle frame and angular clip disposed each with one side adjacent to said base plate the connection between said base plate and clips being by means of studs and enlarged holes therefor in said clips, the other sides of said frame and clips being secured back to back.

[Claims 2 and 4 to 6 not printed in the Gazette.]

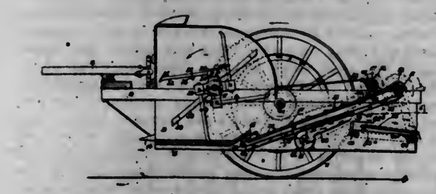
1,257,114. IRONING-BOARD. ANTON POTTER and FRANK A. LOHRLEIN, Duluth, Minn. Filed May 26, 1917. Serial No. 171,155. (Cl. 68—10.)



1. An ironing board comprising in combination a two-part board, a foldable clamping member fixed to the under side of one of the parts of the board for attaching same to a suitable support, a telescopic bifurcated leg for supporting the opposite end of the board and a foldable telescopic brace uniting the leg and the clamping member.

2. The combination with an ironing board of the character described, of a bracket fixed to the under side of the board and adjacent one end thereof, a clamping member pivotally carried by the bracket, whereby one end of the board may be attached to a suitable support, a vertically adjustable bifurcated leg adapted to support the opposite end of the board, an adjustable telescopic brace extending from adjacent the feet of the leg to the bracket and a toggle brace pivotally attached both to the first mentioned brace and to the leg substantially as and for the purpose described.

1,257,115. PEA AND BEAN SEPARATOR. JOHNNIE FRANK PRITCHARD, Elizabeth City, N. C. Filed May 21, 1917. Serial No. 169,906. (Cl. 130—15.)

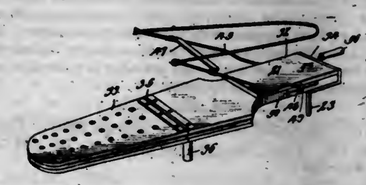


1. In a separator, a slatted elevator, a floor over which the upper working run of the elevator travels, said floor having openings for the escape of the grain and chaff, a return board down which the return run of the elevator travels, said return board having an opening at its upper end, in vertical line with the floor openings for the escape of material passing through the latter, and formed with a forwardly projecting series of teeth at the upper edge of the said opening in the return board to distribute the material, a fan having its spout arranged to deliver its fan blast rearwardly to the return board at the forward side of the opening therein, a stepped blast board below the return board rearward of the said opening, a riddle beneath the blast board, and means to vibrate said blast board and riddle in unison.

2. In a separator, a slatted conveyer, a floor over which the upper working run of the conveyer travels, said floor being open near its rear end for the escape of the grain and chaff from the conveyer, a return board beneath the said floor over which the return run of the conveyer travels, said return board having a transversely disposed opening near its rear end in vertical register with the open portion of said floor for the escape of grain and chaff passing through the said floor, a fan having its spout arranged to deliver the fan blast rearwardly beneath the return board at the forward side of the opening therein, and separating means below said return board and adapted to have the threshed material delivered thereto by the fan blast.

[Claim 3 not printed in the Gazette.]

1,257,116. COMBINED IRONING AND CLOTHES CABINET. GEORGE F. RAMM, Del Monte, Cal. Filed Apr. 4, 1917. Serial No. 159,779. (Cl. 68—10.)



1. The combination with an ironing board having a removable cover pad, of a clamping band for holding said pad in position, means including a transversely disposed rod connected to said band and movable longitudinally on the board for securing the clamping band upon the pad and means for moving said rod and holding the same in adjusted position.

2. The combination with an ironing board provided with a transversely disposed slot near one end thereof, of a bar extending through said slot, a bail pivotally secured to each end of said bar for engagement around the edges of said board and means for moving and adjusting said rod longitudinally of said member.

3. The combination with an ironing board provided with a transversely disposed slot near one end thereof, of a bar extending through said slot, a bail secured to each end of said bar for engagement around the edges of said bar, a threaded rod engaging said bar for movement longitudinally of said board and an operating handle for said rod.

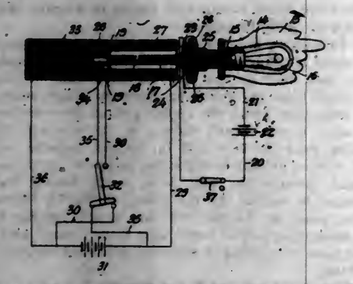
4. The combination with an ironing board comprising two sections hingedly connected together and provided with a removable cover, of a band comprising two sections hinged together and adapted to clamp around the edges of the board to hold the cover in position and a combined supporting and clamping strip connecting said band at one end of said board for holding this end of the cover in position.

[Claim 5 not printed in the Gazette.]

1,257,117. AUTOMOBILE-SIGNAL. FREDERICK RAUSCHER, Port Richmond, N. Y. Filed May 27, 1916. Serial No. 100,387. (Cl. 177—389.)

1. A signal comprising alined magnets, means for supplying electric current to one or the other of the magnets,

a core movably mounted in the magnets, a tube carried by the core, terminals carried by the tube and normally housed in one of the magnets, a bulb carried by the tube and electrically connected with the terminals, a bracket guiding the tube, terminals mounted on the bracket and located between the bracket and the end of one of the magnets and in the paths of movement of the terminals upon the tube, and an electric circuit connected with the terminals on the bracket.



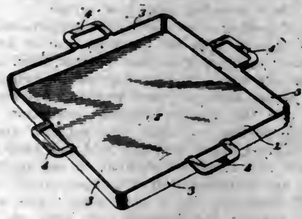
2. In a vehicle, a laterally projecting stationary bracket arm, a rear view mirror disposed at the outer end of the said arm, magnets mounted on the arm, a core movably mounted in the magnets, means for supplying electric currents, to one or the other of the magnets a guide bracket mounted on the stationary bracket, an element slidably associated with the guide and having connection with the core for operation by the latter, and a second element carried by the first element and normally concealed by the mirror, and adapted to be projected outwardly beyond the mirror when the first mentioned element is moved in one direction for the purpose specified.

1,257,118. MONKEY-WRENCH. STEFAN REVAY, Johnstown, Pa. Filed Nov. 30, 1917. Serial No. 204,620. (Cl. 81—135.)



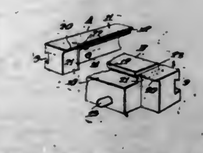
A quick action wrench comprising a shank having a jaw member at one end and further having a side opening slot provided with an inclined bottom, a collar slidably arranged upon the shank having a tooth projecting within said slot and further having a jaw positioned opposite the aforementioned jaw member, a rack arranged within said slot pivoted adjacent the free end of the shank and having a toothed portion in normal contact with the said collar tooth, a spring arranged in said slot in contact with the rack slidably engaging the bottom of the slot, the free end portion of the shank having a recess therein, and an adjusting screw threaded in the shank with portions extending into the said slot and recess with its inner end swiveled to the adjacent end of the spring and its outer end arranged with a kerf within the recess.

1,257,119. BAKING-PAN. CHARLES O. REYNOLDS, Huntington, W. Va. Filed Apr. 4, 1917. Serial No. 159,692. (Cl. 53—6.)



As a new article of manufacture, comprising a shallow baking pan formed from a single sheet of metal comprising a bottom and side walls and the point of intersection of each of the side walls presenting rounded corners, a handle formed on the upper edge of each of said side walls, each of the handles projecting outwardly from a point medially of each of the side walls and in a horizontal plane from the upper edges of the said walls.

1,257,120. PROCESS AND APPARATUS FOR MAKING TOOTH-BACKINGS. EDWIN N. RICH and WILLIAM E. Groff, Santa Fe, N. Mex.; said Rich assignor to said Groff. Filed Aug. 18, 1916. Serial No. 115,628. (Cl. 113—39.)



1. An apparatus for forming artificial tooth backings, including opposed and complemental jaw members movable toward and away from each other and having their upper faces in the same plane for engagement with the wings of a tooth backing to support the web and rib thereof between the jaw members, and means upon the opposed faces of the jaw members for cutting off one end of the rib and web and simultaneously removing an additional length of the web.

2. An apparatus for forming artificial tooth backings, including opposed and complemental jaw members movable toward and away from each other and having their upper faces arranged in the same plane for supporting the wings of a tooth backing with the web and rib thereof between the jaw members, coöperating shearing edges upon the opposed faces of the jaws, and a punch applied to the opposed faces of the jaws, the shearing edges and punch being arranged in a predetermined relation to the upper faces of the jaw members and to each other to cut off one end of the rib and web of the tooth backing and remove a greater length of the web than of the rib.

5. An apparatus for forming artificial tooth backings including opposed and complemental jaw members movable toward and away from each other and having their upper faces in the same plane for supporting the wings of an artificial tooth backing with the web and rib thereof between the jaw members, intersecting horizontal and vertical shearing edges carried by the opposed faces of the jaw members and the horizontal shearing edges being flush with the upper faces of the jaw members and extending a predetermined distance from one end thereof, while the vertical shearing edges extend downwardly from the inner ends of the horizontal shearing edges, and a transverse punch mounted upon the jaw members and arranged flush with the top thereof and at the inner end of the horizontal shearing edges, the shearing edges serving to remove

an end portion of the web and rib of the tooth backing, while the punch simultaneously removes an additional portion of the web.

[Claims 3 and 4 not printed in the Gazette.]

1,257,121. [WITHDRAWN.]

1,257,122. PROCESS OF MAKING BRAKE-SHOES. JOHN D. RISTINE and BENTON C. ROWELL, Chicago, Ill.; Norton H. Byam, administrator de bonis non of said Benton C. Rowell, deceased, and said John D. Ristine, assignors to Anchor Brake Shoe & Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 14, 1912, Serial No. 677,496. Renewed June 1, 1917. Serial No. 172,282. (Cl. 22—206.)



1. The process of making brake shoes which consists in forming a strengthening insert having a plurality of substantially parallel resiliently connected portions, bringing an attaching lug into engagement with said portions, and pouring a cast element about said insert, whereby said insert is embedded in said cast element and said lug is restrained from movement relatively thereto.

7. The process of making brake shoes which consists in providing an inwardly flanged strengthening insert having substantially parallel sides, providing wearing blocks on said insert, implacing an attaching lug between said flanged portions and casting a body about said insert, blocks and lug, whereby said insert and blocks are embedded in said body and said lug is strengthened by extensions from the cast metal of said body.

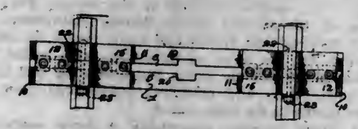
9. The process of making brake shoes which consists in forming a strengthening insert having substantially parallel flexibly connected portions, implacing an attaching lug between said sides and pouring a body about said insert, whereby said insert is embedded in said body and said lug is attached thereto.

11. The process of making brake shoes which consists in forming a strengthening insert, then casting a wearing insert in engagement therewith, and finally casting a body in engagement with said strengthening insert and around said wearing insert except for the wearing face thereof, whereby a part of the surface of said body and a part of the surface of said wearing insert are presented in alternation.

12. The process of making brake shoes which consists in forming a strengthening insert, implacing an attaching lug thereupon, then casting a wearing insert in connection with said strengthening insert and finally casting a body about said lug and strengthening and wearing inserts, whereby said lug and several inserts have cast engagement with said body and said lug is strengthened by the cast metal of said body.

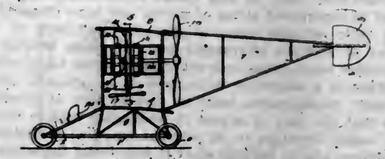
[Claims 2 to 6, 8, 10, and 13 not printed in the Gazette.]

1,257,123. RAILROAD-TIE. PAUL W. ROKOHL, New Canaan, Conn. Filed Aug. 8, 1917. Serial No. 185,135. (Cl. 238—5.)



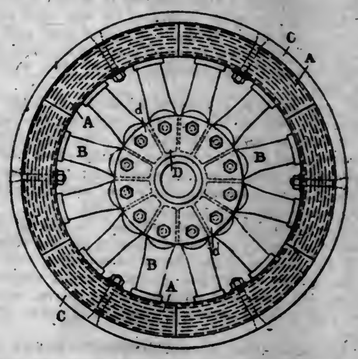
A hollow tie of substantially rectangular cross section provided in its top and bottom wall with longitudinally extending slots, said slots extending the full length of the tie, said tie having an integral depending reinforcing channel member of rectangular cross section carried by the upper wall thereof and communicating directly with the slot through said upper wall, and an upwardly extending channel member of rectangular cross section formed integral with the bottom wall of the tie and communicating directly with the slot through said bottom wall.

1,257,124. AEROPLANE. ALFREDO L. ROMERO, Oakland, Cal. Filed Feb. 9, 1916. Serial No. 77,275. (Cl. 244—15.)



An aeroplane including a supporting frame having a forwardly tapered front portion and provided with a substantially vertical portion extending upwardly in rear of the said front portion, said frame being also provided with a rearwardly tapered rear portion extending from the said upwardly extending portion at a point above the front portion of the frame, separate front and rear engines mounted in the upper portion of the said upwardly extending portion of the supporting frame, a front propeller shaft depending from the front engine and connected therewith and provided with an approximately horizontal propeller set at a slight angle or inclination to lift the aeroplane and maintain the same in an elevated position, and a horizontal propeller shaft extending rearwardly from the rear engine and having a vertical propeller located back of the upwardly extending portion of the frame.

1,257,125. FELLY CONSTRUCTION. GEORGE D. ROSE, Manchester, England. Filed Jan. 20, 1915. Serial No. 3,397. (Cl. 21—165.)



1. A felly for wheel tires, composed of layers of coir yarn bound together by a substance vulcanized under pressure into a resilient, homogeneous body in such a state of compression that it constantly tends both to return in a radial direction to its original shape when distorted therefrom, and to take up slack in the tire of the wheel by imposing an outward pressure thereagainst.

2. A felly for wheel tires, composed of superposed strips of woven coir yarn bound together by a substance vulcanized under high pressure into a resilient, homogeneous body in such a state of compression that it constantly tends both to return in a radial direction to its original shape when distorted therefrom, and to take up slack in the tire of the wheel by imposing an outward pressure thereagainst.

3. A felly for wheel tires, consisting of segmental blocks or sections arranged in endwise-abutting relation to form a closed ring; each of said blocks or sections being composed of coir yarn bound together by a substance vulcanized under pressure into a resilient, homogeneous body in such a state of compression that the felly is caused to constantly tend to return in a radial direction to its original shape when distorted therefrom, and to take up slack in the tire of the wheel by imposing an outward pressure thereagainst.

5. A felly for wheel tires, consisting of segmental blocks or sections arranged in endwise-abutting relation to form a closed ring; each of said blocks or sections being composed of superposed strips of woven coir yarn disposed so that their selvages come to the sides and ends of the blocks or sections alternately and the warp threads of successive strips cross each other; said strips being bound together by a substance vulcanized under pressure into a resilient, homogeneous body in such a state of compression that the felly is caused to constantly tend to return in a radial direction to its original shape when distorted therefrom, and to take up slack in the tire of the wheel by imposing an outward pressure thereagainst.

6. A felly for wheel tires, consisting of segmental blocks or sections arranged in endwise-abutting relation to form a closed ring; each block or section being composed of superposed layers of coir fabric bound together by a substance vulcanized under pressure into a resilient, homogeneous body, certain of the lower layers being extended and folded upwardly against the ends of the block.

[Claim 4 not printed in the Gazette.]

1,257,126. EXPLOSIVE PROJECTILE. EUGÈNE SCHNEIDER, Le Creuzot, France. Filed Dec. 24, 1917. Serial No. 208,713. (Cl. 102—26.)



1. In combination, a stem adapted to extend into a gun and a projectile or bomb supported on said stem outside of the gun, and means normally detached from said stem but supporting the same near the gun muzzle, said means becoming automatically attached to said stem when the gun is fired.

4. In combination, a bomb or projectile of larger caliber than the bore of the gun for projecting the same, a stem secured to said projectile and extending into the gun, and means provided with steadying vanes normally detached from said stem but supporting the same near the gun muzzle, said means becoming automatically attached to said stem when the gun is fired.

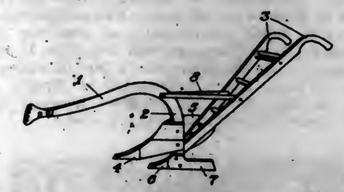
9. In combination, a stem adapted to extend into a gun and a projectile or bomb supported on said stem outside of the gun, a vaned sleeve surrounding said stem near the muzzle of the gun, a wedge-shaped member secured to said stem and adapted to be driven into said sleeve, and a shock-absorber arranged in front of said member.

14. In combination, a stem adapted to extend into a gun and a projectile or bomb supported on said stem outside of the gun, a base piece having its movement influenced by the rifling of the gun, shock-absorbing means arranged between said base piece and stem, and means whereby said shock-absorbing means automatically connects said base piece and stem when the gun is fired so that the movement of the base piece, stem and projectile is influenced by the gun rifling.

22. In combination, a stem adapted to extend into a gun and a projectile or bomb supported on said stem outside of the gun, means provided with steadying vanes normally detached from said stem, said means becoming automatically attached to said stem when the gun is fired, a shock-absorber carried by said stem and engaging said means to prevent breakage of said vanes, a base piece co-operating with said stem within the gun and being of the same caliber as the gun, and shock-absorbing means between said base piece and stem.

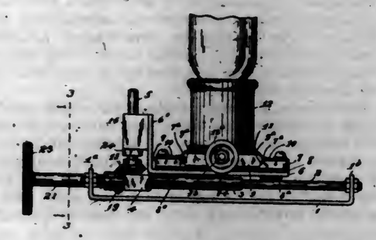
[Claims 2, 3, 5 to 8, 10 to 13, and 15 to 21 not printed in the Gazette.]

1,257,127. PLOW. ARCHIBALD W. SHAW, Drew, Miss. Filed Aug. 30, 1916. Serial No. 117,572. (Cl. 97—32.)



In a plow, the combination with a main beam curving downwardly at one end to form a substantially vertical standard and a main plow share and mold board attached thereto above the lower extremity of said standard; of subsoiling means comprising a plow connected to the lower end of the standard below the main plow share and mold board and including a point disposed substantially midway of the main plow point and rear extremity of the mold board whereby to act upon the subsoil where the upper stratum is removed therefrom, and a landside extending rearwardly of said subsoiling point and terminating substantially in alinement with the rear end of the main mold board; and plow handles connected to the standard at the point of connection of the subsoiling means therewith.

1,257,128. ADJUSTABLE LAMP-CARRIAGE. OSCAR M. SHECK, Cleveland, Ohio, assignor to The Argus Lamp and Appliance Company, Cleveland, Ohio. Filed Apr. 16, 1917. Serial No. 162,464. (Cl. 240—44.)



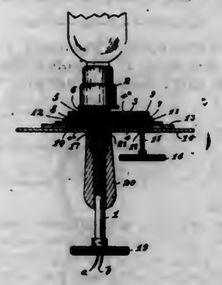
1. A lamp carriage comprising a lamp supporting bracket, inclined transverse electric contact ways attached to and insulated from said bracket, truncated-wedge shape contact blocks slidable on said ways, springs bearing on the truncated wedges for maintaining the contact between said blocks and ways, an insulated lamp socket seat attached to the slidable blocks and insulating said blocks from each other, and electrical connections from the blocks to the lamp socket.

3. A lamp carriage comprising a lamp supporting bracket, inclined electric contact ways attached to the supporting bracket transversely thereon and insulated therefrom, truncated-wedge shape contact blocks slidable on said ways, springs attached to the contact ways and bearing on the slidable blocks thereby maintaining the contact between said blocks and ways, means for sliding the blocks on the ways, an insulated lamp socket seat attached to the slidable blocks and insulating said blocks from each other, and electrical connections from the slidable blocks to the lamp socket.

5. A lamp carriage comprising a lamp supporting bracket, electric contact ways attached to the supporting bracket transversely thereon and insulated therefrom, contact blocks slidable on said ways, springs attached to the contact ways and bearing on the slidable blocks thereby maintaining the contact between the said blocks and ways, an insulated lamp socket seat attached to the slidable blocks, a screw threaded transversely in said seat member and abutting a buttress attached to the lamp bracket whereby the slidable blocks can be adjusted transversely, and electric connections from the slidable blocks to the lamp socket.

[Claims 2, 4, and 6 to 10 not printed in the Gazette.]

1,257,129. ADJUSTABLE LAMP-CARRIAGE. OSCAR M. SHECK, Cleveland, Ohio, assignor to The Argus Lamp and Appliance Company, Cleveland, Ohio. Filed Apr. 24, 1917. Serial No. 164,313. (Cl. 240—44.)

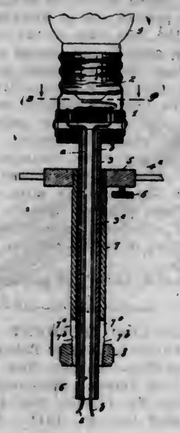


1. A lamp carriage for electric lamps, comprising a supporting block on which the lamp is mounted, gears mounted in said block, stationary racks with which said gears mesh, and means for operating said gears.

5. A lamp carriage for electric lamps, comprising a lamp supporting block, an insulating bushing in said supporting block, an internally threaded vertical sleeve in said bushing, a tubular adjusting member having a lamp socket attached thereto threaded through said sleeve whereby said sleeve can be vertically adjusted, means for horizontally adjusting said lamp supporting block in the lamp house, and means on the tubular member for retaining the block in horizontal adjustment.

[Claims 2 to 4 not printed in the Gazette.]

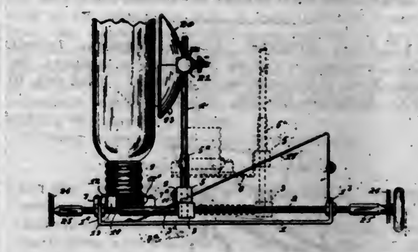
1,257,130. ADJUSTABLE LAMP-BRACKET. OSCAR M. SHECK, Cleveland, Ohio, assignor to The Argus Lamp and Appliance Company, Cleveland, Ohio. Filed July 7, 1917. Serial No. 179,275. (Cl. 240—44.)



2. In an adjustable lamp bracket the combination of a supporting block provided with channels; permanent track members extending through said channels and on which said block is slidable; means for clamping said block to the track; a sleeve attached to said block between the track members; a lamp socket base provided with a tubular stem which passes through said sleeve the free end of said sleeve being split and provided with a tapered thread; and a nut operative on the tapered thread.

[Claim 1 not printed in the Gazette.]

1,257,131. ADJUSTABLE LAMP-CARRIAGE DEVICE. OSCAR M. SHECK, Cleveland, Ohio, assignor to The Argus Lamp and Appliance Company, Cleveland, Ohio. Filed July 7, 1917. Serial No. 179,276. (Cl. 240—44.)

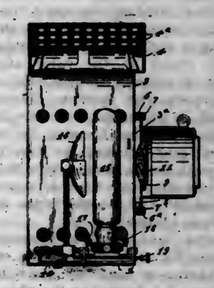


1. In a device for the purpose set forth, the combination of a supporting member slidably mounted on fixed horizontal guides; vertical guide members attached to said supporting member; a lamp carriage support slidably mounted on said vertical guides; an inclined guide member on which said carriage support is seated, the relative arrangement of the inclined guide and the vertical guides being such that horizontal movement of the first named supporting member will cause a vertical movement of the carriage support through its bearing on the inclined guide.

7. In an adjustable lamp carriage support, the combination of a main supporting bracket; guide rods attached to and extending longitudinally through said bracket; adjusting members threaded on the terminals of said rods; buttresses on which said adjusting members bear; a bracket member slidably mounted on said longitudinal guide rods; vertical guide members attached to said slidable bracket; a lamp carriage support slidably mounted on said vertical guides; an inclined guide member on which said carriage support is seated; and means for actuating the horizontally slidable bracket thereby imparting a certical movement to the lamp carriage support through its bearing on the inclined guide.

[Claims 2 to 6 not printed in the Gazette.]

1,257,132. ADAPTER FOR MOTION-PICTURE-PROJECTOR LAMPS. OSCAR M. SHECK, Cleveland, Ohio, assignor to The Argus Lamp and Appliance Company, Cleveland, Ohio. Filed Aug. 31, 1917. Serial No. 189,233. (Cl. 240—37.)



1. An adapter for motion picture projector lamps comprising a housing open in the rear and having a projec-

tion aperture in the front, a slidable member adapted to be operated in front of said aperture, a lamp carriage adjustably mounted in said housing, and means for attaching said housing to a lamp house adapted for arc-lamps.

4. A device for adapting arc-lamp motion picture apparatus to use with incandescent lamps, comprising a housing open in the rear and having a projection aperture in the front, means for attaching the rear of said housing to the arc-lamp house, a slidable combination projection lens carrier operative in front of the projection aperture, means for sliding said carrier, means for limiting the movement of said carrier, and a lamp carriage mounted in said housing.

[Claims 2 and 3 not printed in the Gazette.]

1,257,133. BURNER. ALVIN G. SHERMAN, Detroit, Mich., assignor to Detroit Vapor Stove Company, Detroit, Mich., a Corporation of Michigan. Filed Oct. 10, 1917. Serial No. 195,800. (Cl. 158—90.)



1. The combination of a burner, a valve housing having a valve seat and screw-threaded on one end, a valve located therein and seating on the valve seat of the housing, a pipe screw-threaded on one end, the ends of the pipe and valve housing screw-threaded being adjacent to each other, a T-union into which the two threaded ends of the pipe and valve housing engage, and a priming basin having a depending teat which can be dropped into the opening of the upright of the T-union.

[Claim 2 not printed in the Gazette.]

1,257,134. AUXILIARY AIR-VALVE. GEORGE C. SHIVERS, Savannah, Ga. Filed June 23, 1916. Serial No. 105,455. (Cl. 137—32.)



1. In a device of the class described, a casing, a valve mounted therein and dividing the same into a vacuum chamber at one side and an air chamber at the other side, said casing having a supply passage leading to the air chamber normally closed by the valve aforesaid, said valve also having a passage therethrough establishing communication between the vacuum chamber and the supply passage and in alinement with the latter, and a spring in the vacuum chamber pressing the valve against the end of the casing and closing the supply passage to the air chamber, said casing having an air inlet for admitting air to actuate the valve when a vacuum is created in the vacuum chamber and for thereupon supplying air to the supply passage aforesaid.

4. A device of the class described comprising a valve casing having means for connecting it to a suction chamber, said casing having a relatively restricted air inlet port, a supply passage for delivering the air admitted into the casing by said port, a valve member controlling the passage, and muffler means coöperating with the valve member for conveying the air to the inlet whereby to prevent hissing incident to the intake of the air therethrough.

7. An auxiliary air valve for internal combustion engines comprising a cup shaped cylinder, a pistonlike valve member operable therein, a fluted guide stem projecting from said valve member, a supply passage in said cylinder, an exhaust passage in the valve member alined with said supply passage, a detachable cap member for the cylinder, a spring interposed between said cap and the valve member for holding the latter seated over the supply passage, the cylinder having an inlet port, means for controlling the operative area of the inlet, and locking means for holding said controlling means at adjusted position.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,257,135. GUYING-POLE. FREDERICK G. SHULL, Concord, Mass., and ELON J. DE RIGHT, Kansas City, Mo. Filed Aug. 27, 1917. Serial No. 188,372. (Cl. 24—125.)



5. Means for guying poles, comprising a clamp having a base portion, three separated lugs positioned lengthwise of the base portion and each having a cam face adapted to force a wire passing around the lug toward the base, and detachable connections between the center lug and the base to permit the removal of the lug from the base when desired.

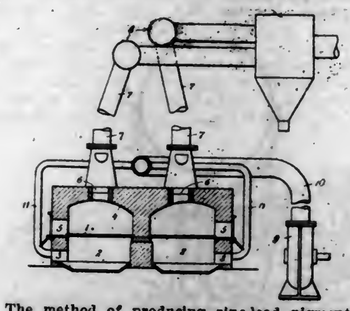
7. The combination with a guy wire for poles, of means for holding the looped end of the wire comprising a clamp having a base portion and a plurality of lugs formed thereon with the free end of the loop of wire lying against the base portion and passing about opposite sides of successive lugs and the length of the wire passing about each lug upon the side opposite the free end and bearing upon the free end between each pair of lugs to clamp the free end of the wire against the base when the length of the wire is in tension.

9. A clamp for guy wires, comprising a base portion, a plurality of separated lugs supported upon the base and adapted to have opposite sides of a bight of wire passed therearound crossing between each pair of lugs, and means for detachably connecting one of the lugs to the base portion to permit the guy wire to be released from the clamp.

[Claims 1 to 4, 6, and 8 not printed in the Gazette.]

1,257,136. ZINC-LEAD PIGMENT. JAMES A. SINGMASTER and FRANK G. BERYER, Palmerton, Pa., assignors to New Jersey Zinc Company, New York, N. Y., a Corporation of New Jersey. Continuation in part of application Serial No. 172,635, filed June 4, 1917. This application filed Oct. 26, 1917. Serial No. 198,717. (Cl. 75—75.)

1. The method of producing zinc-lead pigments from oxidized ores containing zinc and lead, which comprises volatilizing the zinc and lead from such ores at an elevated temperature and subjecting the same to a regulated sulfatizing and oxidizing atmosphere and thereby combining therewith sufficient sulfur and oxygen to sulfatize the lead to the required extent without materially sulfatizing the zinc, and without subsequent objectionable retention of the fume at elevated temperatures, to give a product of improved body or oil-absorbing capacity and of superior whiteness and hiding power.



3. The method of producing zinc-lead pigments from oxidized ores containing zinc and lead, which comprises volatilizing the zinc and lead from such ores at an elevated temperature and combining therewith under oxidizing conditions sufficient sulfur trioxid to sulfatize the lead to the required extent, without materially sulfatizing the zinc, and without subsequent objectionable retention of the fume at elevated temperature, to form a product of improved body or oil-absorbing capacity and of superior whiteness and hiding power.

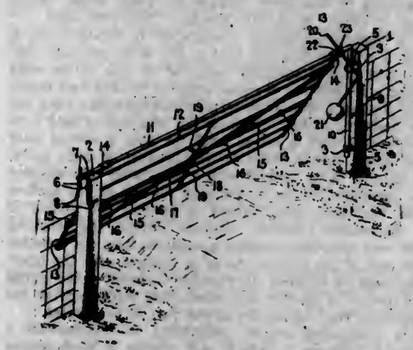
12. As a new article of manufacture, a zinc-lead pigment of improved body or oil-absorption capacity and of superior whiteness, said pigment absorbing oil without display of shortness, in a manner similar to that displayed by XX brand of American process zinc oxid.

14. As a new article of manufacture, a zinc-lead pigment of improved body or oil-absorption capacity and of superior whiteness, said pigment absorbing oil without display of shortness in a manner similar to that displayed by XX brand of American process zinc oxid, and containing about 65% to 97% of zinc oxid.

15. As a new article of manufacture, a white zinc-lead pigment responding to the hereinbefore described rubbing down test, running test, and hiding power test, and containing about 65% to 97% of zinc oxid.

[Claims 2, 4 to 11, and 13 not printed in the Gazette.]

1,257,137. GATE. ERVIN SMITH, Appleton, Wis. Filed Aug. 31, 1917. Serial No. 189,188. (Cl. 39—82.)

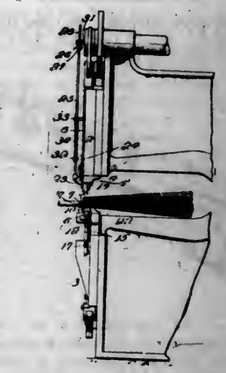


1. In a device for the purpose set forth, two spaced posts, a shaft overlying one of the posts and having an angular end journaled upon the other post, pivoted stop members upon the first mentioned post disposed to the opposite sides of the shaft, and a gate hung upon the said shafts between the posts.

4. In a farm gate, a supporting post and an abutment post, adjustable eye members upon the supporting post, centrally pivoted stop members upon the opposite faces of the abutment post and projecting above the said post, said stop members having their lower ends formed with offset handles normally contacting with the opposite sides of the abutment post, and said abutment post having a socket, a shaft normally disposed above the abutment post and arranged between the stop members thereon, said shaft having an angular end journaled in the eyes of the supporting post, a gate pivotally suspended from the shaft between the posts, means for preventing the longitudinal movement of the gate upon the shaft, a slidable latch upon the gate designed to engage in the socket of the abutment post, and a longitudinally adjustable weighted element associated with the gate, as and for the purpose set forth.

[Claims 2 and 3 not printed in the Gazette.]

1,257,138. BROOM-CLAMPING MACHINE. HARRY E. SMITH and GEORGE W. DUVALL, Davenport, Iowa, assignors to Modern Broom Machinery Company, Davenport, Iowa, a Corporation of Iowa. Filed Nov. 15, 1916. Serial No. 131,451. (Cl. 15—4.)

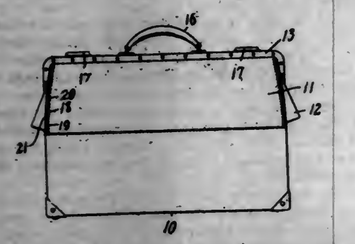


1. A broom clamping machine comprising two movable cross-heads, a clamp-form carried by one of said cross-heads, a clamp-form coöperating therewith, said clamp-forms adapted to receive clamps, fingers pivoted to and carried by the frame, bell-cranks carried by said fingers, means carried by the other cross-head in position to engage the bell-crank to cause the latter to exert lateral pressure upon the clamp ends to forec them into position to hook or interlock with each other, and means for automatically releasing the upper clamp from the upper clamp-form.

6. A broom clamping machine, comprising two movable cross heads, a clamp form carried by one of said cross heads, a clamp frame coöperating therewith, said clamp form adapted to receive clamps, said clamps having hooked ends, fingers, and cranks pivoted to and carried by the frame, said fingers and bell cranks pivoted on a common center, one astride the other to house it, means carried by the other cross head to engage the fingers and force them into a vertical position, and additional means carried by the same cross head in position to engage the bell cranks to cause the latter to exert lateral pressure upon the clamp ends to force them into position to hook or inter-lock with each other.

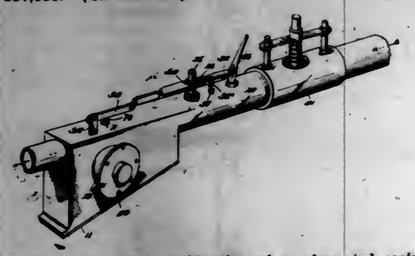
[Claims 2 to 5 not printed in the Gazette.]

1,257,139. BAG. WILLIAM H. SMITH, Newark, N. J. Filed May 24, 1917. Serial No. 170,644. (Cl. 190—49.)



A bag comprising a stiff lower part and a flexible upper part, the side portions of said upper part projecting outwardly at their ends, and the end portions of said upper part having their margins extending outwardly substantially parallel to the projecting portions of said side portions and being secured thereto to form substantially flat seam portions projecting outwardly endwise of the bag, and slender spring wires in said seam portions terminating at their lower ends at substantially the top of the stiff lower portion of the bag and secured at their upper ends to the bag frame and serving to reinforce and preserve the form of the upper part of the bag.

1,257,140. TURBINE-MOTOR. WALTER DUKE SMITHEY, Bay City, Tex. Filed Aug. 22, 1917. Serial No. 187,583. (Cl. 253—52.)

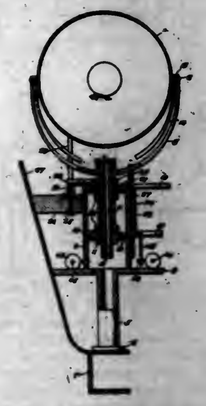


2. In a motor, the combination of an elongated casing provided at its upper rear end with an exit port and at its front upper end with an inlet port, a rotor mounted in the casing, said rotor having a plurality of peripheral pockets, an elongated flat resilient member formed at its rear end with a shield and disposed against the inner surface of the top wall of the casing and formed with a passage extending through the shield and toward the forward end to a point in the top of said member, forward end of the passage registering with the inlet port in the casing, an adjusting screw extending through the casing and engaging the top of the resilient member to adjust the position of the shield on the periphery of the rotor.

4. In a motor, the combination of an elongated casing provided with a lateral extension which is in communication with the casing, the casing and the extension containing a bath of oil, the casing having an inlet port at one end and an exit port at its upper end, alined bearings formed in the casing and the end wall of the lateral extension, a shaft mounted in the bearing, a rotor mounted on the shaft and rotatable in the casing, said rotor having a plurality of peripheral pockets, a resilient elongated member fitted to the inner surface of the top wall of the casing and formed with a passage which extends therethrough and registers at one end with the inlet port, the rear end of the passage communicating with the pockets in the rotor when the latter is rotated, means on the casing for adjusting the position of the resilient member on the periphery of the rotor, the rear end of the resilient member terminating adjacent the exit port to permit the escape of the motive fluid from the casing, a valve for controlling the inlet port, an arm connected to the stem of the valve, a lever for actuating the arm, and means between the shaft and the opposite end of the arm to automatically actuate the valve.

[Claims 1, 3, and 5 not printed in the Gazette.]

1,257,141. HEAD-LAMP CONTROLLER. WILLIAM F. SNOWDON, Brooklyn, N. Y. Filed June 26, 1917. Serial No. 177,098. (Cl. 240—61.)



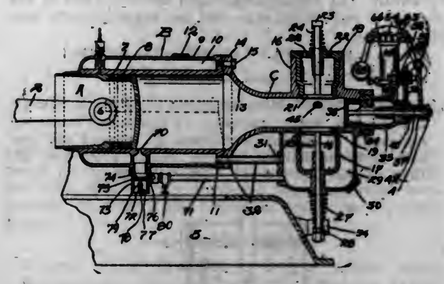
2. In headlamp controlling mechanism, the combination of a headlamp, supporting means therefor enabling said lamp to be turned on a substantially vertical axis and also on a substantially horizontal axis, a rotary shaft geared to the lamp supporting means to turn the same on such vertical axis, another rotary shaft geared to the lamp supporting means adapted to turn said lamp on a substantially horizontal axis, an electric motor, motor controller means for operating either one of said rotary shafts independently of the other, the last named means comprising a gear shifting member, gears carried thereby, a gear on the motor shaft meshing with said gears, the gears on said shifting member being movable one at a time into and out of mesh with the respective gears on said rotary shafts, and a solenoid magnet coöperatively related to said gear shifting member for oscillating the latter.

[Claims 1 and 3 not printed in the Gazette.]

1,257,142. COMBUSTION-ENGINE. WILLIAM A. SORG, Minneapolis, Minn., assignor, by mesne assignments, to Frederick B. Bradbury, trustee, St. Paul, Minn. Filed Mar. 2, 1914. Serial No. 821,911. (Cl. 123—75.)

1. A combustion engine, comprising, in combination, a piston, a cylinder in which said piston is reciprocable having a long tube detachably mounted on one of its ends forming a combustion chamber adapted to heat fuel therein and having a bore of materially less diameter than the inner diameter of said cylinder, the free end of said tube being formed with a valved inlet for fuel, a valved inlet for air and a valved outlet for the exhaust of spent gases, said cylinder being formed with a port in its side adapted to be uncovered by the piston near the end of the suction stroke, said port being valved to prevent the escape of the compressed cylinder contents during the working stroke and adapted to admit a medium into the cylinder at the end of the suction stroke in contact with the lubricating medium between the working surfaces of the piston and cylinder to protect said lubricating medium from the influence of the combustion of the fuel in the engine.

2. A combustion engine, comprising, in combination, a piston, a cylinder in which said piston is reciprocable having a long tubular extension, the bore of which is of less diameter than the inner diameter of the cylinder, the free end of said tube being formed with a valved inlet for fuel, a valved inlet for air and a valved outlet for the exhaust of spent gases adapted to successively admit first a portion of air and then a portion of fuel into said tube, so that they may form a layer of air and a layer of fuel when compressed during the compression stroke of the piston, means for positively igniting the layer of fuel near one end of said tube and means for admitting air and water into said cylinder consisting of a port in the cylinder wall adapted to be uncovered by the piston near the end of the suction stroke and a check valve adapted to close said port through the force exerted by the burning fuel in the engine during the working stroke, said air and water being adapted to form a film of medium in the cylinder in contact with the lubrication upon the cylinder wall whereby the lubricating medium is protected from the influence of the burning fuel of the engine.

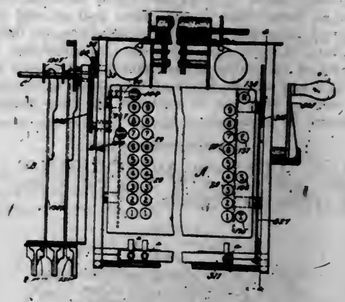


3. A combustion engine, comprising, in combination, a piston and cylinder in reciprocable connection, one of said members forming a long tubular combustion chamber valved to admit air and fuel in separate strata therein and to exhaust spent gases, ignition means placed near one end of said tube to ignite fuel, said cylinder being formed with a port in its wall adapted to be uncovered by the piston near the end of the suction stroke and means for admitting a medium through said port into said cylinder for protecting the lubricating oil used between the working surfaces of the piston and cylinder from the influence of the burning fuel and gases and the products of combustion in the engine.

4. A combustion engine, comprising, in combination, a piston, a stationary element comprising a long tube forming a combustion chamber and a bearing element in the form of a cylinder on an end of said tube in which said piston is slidably mounted, means for lubricating the adjacent surfaces between said cylinder and piston, means for admitting air into the outer end of said tube to prevent free ignition of the fuel by chilling the surface of the tube and carrying forward any incandescent particles of the products of combustion, means for admitting a charge of fuel into the outer end of said tube following the admission of said air, means for exhausting spent gases from the tube, means for igniting the fuel charge in the tube whereby a prolonged force is exerted against the piston during the working stroke, said cylinder being formed with a port in its side adapted to be uncovered by the piston near the end of the suction stroke, and means for admitting a medium through said port into said cylinder to protect the lubricating medium on the adjacent surfaces of said cylinder and piston against the deteriorating influence of the combustion of fuel in the engine.

1,257,143. REGISTERING AND MONEY-PAYING MACHINE. ALEXANDER E. SORUM and ROBERT T. BROCKMAN, Terre Haute, Ind., assignors to The International Money Machine Company, Terre Haute, Ind. Filed Aug. 3, 1914. Serial No. 854,836. (Cl. 235—60.)

1. In a machine of the class described, the combination of accumulating and listing mechanisms, the latter mechanism including a special type carrier for characterization of items listed, an indexing device for said type carrier, and means controlling the setting of said indexing device including a key, a shaft, an arm on said shaft coacting with said indexing device, means intermediate said arm and said key whereby the arm may be shifted to set the indexing device in a predetermined position, a second key, and an arm on said shaft operable by the second key for actuating the shaft to position the indexing device in a second predetermined position, and means whereby the said keys are adapted to control special operations of the accumulating mechanism.



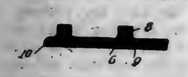
9. In a machine of the class described, the combination of a printing and listing mechanism, the latter including a special type carrier for characterization purposes, an indexing device controlling the positioning of the said special type carrier at different adjustments, the shaft 230, the arm 158 on said shaft coacting with the indexing device, the arm 157 on said shaft yieldably connected with the arm 158, the total key 135, the sub-total key 136, the members 133, 132 and 155 intermediate the total key and the shaft 230 for actuating the arms 157 and 158, the lever 159 operable by the key 136 and connected with the shaft 230, the member 133 being provided with the cam 166' operable by the key 136, money paying mechanism associated with the accumulating and listing mechanisms, controlling means for said money paying mechanism, and means between said controlling means and the indexing device for positioning the latter in accordance with the particular operation of said controlling means.

16. In a machine of the class described, the combination of accumulating and listing mechanism, a type carrier for characterizing purposes, manipulative total taking devices, a manipulative device for rendering the accumulating mechanism inactive for accumulation of items, an indexing device coacting with the type carrier for controlling differential movement of the latter, and means common to all of said manipulative members for predetermining the adjustment of the indexing member whereby to control the operation of the said type carrier, and including a shaft, an arm on said shaft having means engaging the indexing device, and a member yieldingly connected with said arm adapted to be directly actuated by the manipulative devices.

20. In an adding machine, the combination with an accumulating device and wipe pawl control means therefor, of main and auxiliary total levers, the auxiliary lever being provided with a pawl controlling element, means intermediate said levers to cause simultaneous action on operation of the main lever, and affording independent action on operation of the auxiliary lever alone, an operating key for each lever, a sub-total control lever coöperative with the wipe pawl, means to actuate the last named lever from the main total lever, and means to operate the sub-total lever independently of the said main lever.

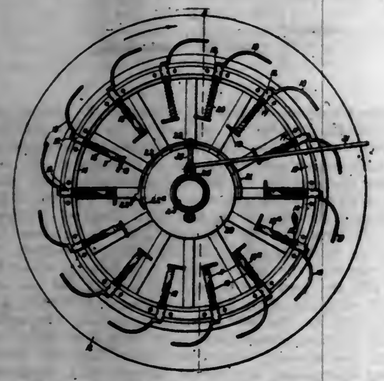
[Claims 2 to 8, 10 to 15, and 17 to 19 not printed in the Gazette.]

1,257,144. NON-SLIPPING TREAD. FRANK H. STANWOOD, Arlington, Mass., assignor to Stanwood Equipment Company, a Corporation of Maine. Filed June 14, 1916. Serial No. 103,605. (Cl. 20—79.)



A non-slipping tread comprising an internal metal plate and a covering of rubber above and beneath said plate and vulcanized thereto, the portion of the covering above said plate having upstanding isolated ribs connected at their bases by the upper part of said covering the latter adhering by said vulcanization to the top of the plate between the ribs, the vulcanization of the material of the covering beneath said ribs and between said ribs and the material of the covering between said ribs serving together to restrain the ribs against displacement in service.

1,257,145. AUTOMATIC NON-SKID DEVICE. HARRY STERN, New York, N. Y. Filed Feb. 3, 1917. Serial No. 146,380. (Cl. 152—14.)



1. The combination with a wheel and a circular series of non-skid elements for the periphery thereof, of means to withdraw the non-skid elements in succession from said periphery automatically.

3. The combination with a wheel, a series of non-skid elements for the tread of the wheel and supporting means for the non-skid means at one side of the wheel, of means acting upon the non-skid elements in succession to cause the same to be moved both into and out of active position over said tread while the wheel is in normal running operation.

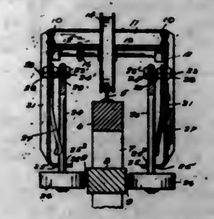
4. The combination with a wheel, non-skid elements for the tread thereof and supporting means for the non-skid elements carried by one side of the wheel and holding them in position for movement around axes radial to the axis of the wheel, of relatively stationary actuator means acting upon the non-skid elements to move the same around said axes, both into and out of active position with respect to the tread while the wheel is in running operation.

7. The combination with a vehicle wheel including a felly and a series of cylindrical knuckles carried by the felly on the side of the wheel toward the vehicle body, the axes of the knuckles being radial with respect to the axis of the wheel, of a plunger mounted in each of said knuckles and adapted for outward radial reciprocation therein, means acting upon the plunger tending to resist such outward movement, a non-skid finger fixed to the outer end of the plunger and normally at one side of the wheel, actuator means serving to force the plunger outwardly, and means carried by the knuckle and coöperating with the plunger to swing the finger around the axis of the plunger and across the tread of the wheel while the plunger is approaching its outward limit of movement.

9. The combination with a vehicle wheel and a circular series of cylindrical knuckles carried thereby with their axes radial of the axis of the wheel, of a series of independently movable non-skid elements carried by the several knuckles, each non-skid element comprising a plunger fitted for reciprocation along and partial rotation around the axis of its knuckle and a finger fixed to the outer end of the plunger, the plunger being provided with a groove having a straight portion at its outer end and a spiral portion at its inner end and the knuckle being provided with a pin projecting into said groove whereby when the plunger is moved outwardly the pin will cause rotation of the plunger and the swinging of the finger around the axis of the plunger, means to force the plunger and finger outwardly, and means acting upon the inner end of the plunger to restore the same and the finger inwardly into idle position.

[Claim 2, 5, 6, and 8 not printed in the Gazette.]

1,257,146. CAR FOR MONORAILWAYS. JOHN F. STEVENSON, Seattle, Wash., assignor, by direct and mesne assignments, of one-half to William H. Shepard and one-half to Pierre Barnes, Seattle, Wash. Filed Dec. 29, 1917. Serial No. 209,384. (Cl. 105—234.)



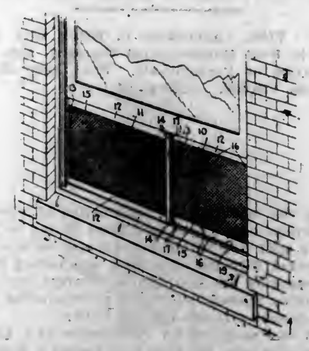
1. In a monorail car, the combination with the body frame, supporting wheels therefor, and means to drive said wheels, of hangers rigidly secured to and depending from the side members of said frame, horizontal arms extending from the lower ends of said hangers, said arms being each provided with an elongated hole, upright axle bars swingably connected to the respective hangers adjacent to the frame and extending through said arm holes, a guide wheel journaled on each of said axle bars below the respective arms, and springs interposed between the associated hangers and axle bars to cause the latter to be yieldingly held against the ends of the holes remote from the respective hangers.

2. A monorail car having a body frame, supporting wheels therefor, hangers depending from opposite sides of said body and rigidly secured thereto, apertured arms provided on said hangers, guide wheels, axles of said guide wheels, said axles extending through said arms, a spring interposed between each of said hangers and the associated axle, bolts secured to the hangers in proximity to said frame for supporting said springs and the axles and the wheels thereon, and means for securing said bolts to the hangers, said means also serving to rigidly secure an end of each of the springs to the adjacent hangers.

[Claims 3 and 4 not printed in the Gazette.]

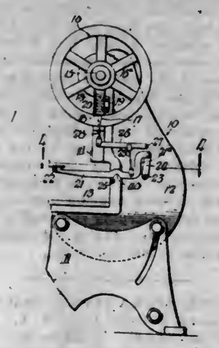
1,257,147. ADJUSTABLE WINDOW-SCREEN. CHARLES V. STEWART, Santa Cruz, Cal. Filed Aug. 14, 1917. Serial No. 186,154. (Cl. 156—38.)

The hereindescribed improvement in the construction of adjustable window screens, comprising two similar rectangular frames, nails passing through the end members of each of the frames and entering the side members of the said frames, a wire netting on one of the faces of each of the frames, metallic plates arranged over the members comprising the frames and over the netting, and bridging the joint between the members comprising the joints, brads passing through said plates and netting and entering the frame, the longitudinal plates of each of the frames projecting beyond the longitudinal members com-



prising the sides of the frames, the projecting ends of the plates on one of the frames being bent over themselves providing substantially U-shaped ways, and said ways designed to receive the projecting plates on the other frame.

1,257,148. SAFETY ATTACHMENT. THOMAS STOBS, Maywood, Ill. Filed Apr. 14, 1916. Serial No. 91,015. (Cl. 74—105.)



1. A safety appliance of the kind described, comprising in combination with a machine, a tripping member for starting said machine, a rock shaft, an arm adapted to rock said shaft, a short crank arm at the other end of said shaft and adapted to be operated thereby, a third arm pivotally connected with said crank arm, means connecting said third arm with said tripping member, a stop to prevent said third arm from operating said tripping member, said third arm being provided with a notch which in a certain position of the parts will be in line with said stop, and means for returning said parts to their initial position after each operation of the machine.

2. A safety appliance of the kind described, comprising in combination with a machine, a spring-controlled tripping member for starting said machine, a rock shaft, an arm fixed to one end of said shaft, a short crank arm fixed in an upright position to the other end of said shaft, a third arm pivotally connected to said crank arm, a stop against which said third arm is normally engaged, means operatively connecting said third arm with said tripping member, said third arm being formed to permit its movement notwithstanding said stop, after said first named arm has been operated to rock said shaft, and means for positively returning said parts to their initial position after each operation of the machine.

3. A safety appliance of the kind described, comprising in combination with the drive shaft of a machine and the pulley and clutch thereon, a tripping member for starting said machine, a rock shaft, an arm fixed to one end of said shaft, a cam on said drive shaft, means intermediate said cam and said arm for returning said arm to its initial position after it has been depressed and when the shaft has made a rotation, a short crank arm fixed in an upright position at the other end of said rock shaft, a third arm pivotally connected to said crank arm, a stop adapted to normally prevent the depression of said third arm, said third arm being provided with a notch adapted to be brought into alinement with said stop when said crank arm has been shifted by the operation of the first-named arm, and means operatively connecting said third arm with said tripping member.

[Claim 4 not printed in the Gazette.]

1,257,149. EXTENSION-TABLE. JAMES FAULKNER THOMAS, Faribault, Minn. Filed Mar. 16, 1917. Serial No. 155,314. (Cl. 45—9.)



1. In an extension table, a frame, extension slides each having inner and outer side members and intermediate members, said intermediate members having their ends connected with the frame, movable side members one of which is connected with the outer side members of the extension slides, a table top having rims at the sides and ends thereof, hinges connecting one side rim of the table top with the inner side members of the extension slides, and an extension leaf housed between the side and end rims of the table top; said extension leaf being connected with the outer side members of the extension slides by links some of which have downwardly extending lever arms, the table frame being provided with stops lying in the path of said lever arms.

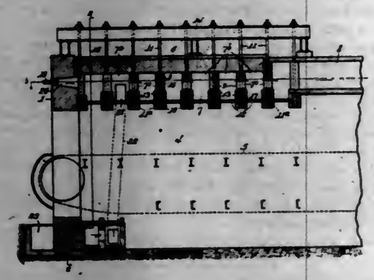
2. In an extension table, a permanent frame including a blind side rail, extension slides each having an intermediate member and inner and outer side members, the intermediate members of said extension slides being connected with the permanent frame, two movable side members one of which constitutes a drawer front, a table top having downwardly extending rims at the sides and ends thereof, said table top being hingedly connected with the inner side members of the extension slides, an extension leaf normally housed between the side and end rims of the table top, means whereby the extension leaf is movably connected with the outer side members of the extension slides, and means whereby said extension leaf is automatically projected in an upward direction when the table is extended.

1,257,150. MUFFLE-LEER. HARRY M. THOMPSON, Washington, Pa. Filed Oct. 1, 1917. Serial No. 194,132. (Cl. 49—47.)

1. A muffle leer comprising a leer chamber and a superposed muffle chamber, a substantially horizontal division wall separating said chambers, said wall consisting of a plurality of spaced parallel metal beams and plate-like tiles interposed between and supported by adjacent beams, and a plurality of baffle walls resting directly upon said beams and providing a tortuous passage through said muffle chamber for the products of combustion.

2. A muffle leer comprising a leer chamber and a superposed muffle chamber, a substantially horizontal division wall separating said chambers, said wall consisting of a

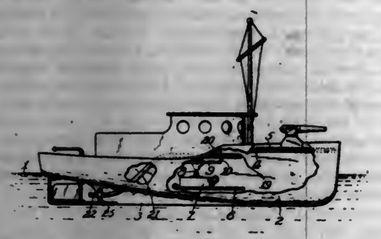
plurality of spaced parallel metal beams and plate-like tiles interposed between adjacent beams and having their lateral edges supported by said beams, means suspending said beams, and baffle walls dividing said muffle chamber into a plurality of communicating chambers, said baffle walls being mounted upon said beams.



3. A muffle leer comprising a leer chamber and a superposed muffle chamber, a substantially horizontal division wall separating said chambers, said wall consisting of a plurality of spaced parallel metal beams of inverted-T shape and plates of refractory material interposed between said beams and having their lateral edges resting upon the laterally disposed wings of adjacent beams, and baffle walls dividing said muffle chamber into a plurality of communicating compartments, said baffle walls being mounted upon said beams.

4. A muffle leer comprising a leer chamber and a superposed muffle chamber, a substantially horizontal division wall separating said chambers, said wall consisting of a plurality of spaced parallel metal beams of inverted-T shape and plates of refractory material interposed between said beams and having their lateral edges resting upon the laterally disposed wings of adjacent beams, hanger rods suspending said beams, and a plurality of baffle walls disposed within said muffle chamber and mounted upon said beams, said walls having ports therethrough disposed in staggered relation whereby is formed a tortuous path for the products of combustion.

1,257,151. TOY-PROPELLING MEANS. JAMES F. TIERNEY, Indianapolis, Ind. Filed Sept. 24, 1917. Serial No. 192,921. (Cl. 46—37.)



1. Toy-propelling means including a boiler, two conducting pipes connected with different portions of the boiler, means for heating the boiler, and a valve movable in the boiler to automatically act to close or open the two conducting pipes alternately.

2. Toy-propelling means including a pressure-retaining boiler having two conducting pipes extending from different portions of the wall thereof and to a terminal position and arranged to discharge in one direction, and a valve movable in the boiler to automatically control the discharge from the boiler through the pipes alternately.

3. Toy-propelling means including a hollow cylinder, two conducting pipes connected with the opposite ends respectively of the cylinder and extending to a terminal position to discharge in one direction, each pipe being provided within the cylinder with a valve seat, and a spherical valve in the cylinder to roll to the valve seat of each one of the pipes alternately.

[Claims 4 to 8 not printed in the Gazette.]

1,257,152. VISE. ARCHIBALD B. TOZER, Erie, Pa., assignor to Reed Manufacturing Company, Erie, Pa., a Corporation of Pennsylvania. Filed June 21, 1917. Serial No. 176,068. (Cl. 81—41.)



1. In a vise mounting the combination of a fixed base and a swiveled base one of said bases having an annular surface; a split ring within said annular surface secured to and locked with the other base and having its outer surface engaging the said annular surface, one of said surfaces being tapered; and means for expanding the ring into engagement with the annular surface.

2. In a vise mounting the combination of a fixed base and a swiveled base, the fixed base having a downwardly flaring tapered surface; a split ring within the surface secured to and locked with the swiveled base; and means for expanding the split ring into engagement with the tapered surface on the fixed base.

3. In a vise mounting the combination of a fixed base and a swiveled base, the fixed base having a downwardly flaring tapered surface; a split ring within the surface secured to and locked with the swiveled base; and a block between the ends of the ring for expanding the ring into engagement with the tapered surface.

4. In a vise mounting the combination of a fixed base and a swiveled base, the fixed base having a downwardly flaring tapered surface; a split ring within the surface locked with the swiveled base; a block wedging upwardly between the ends of the ring for expanding the ring into engagement with the tapered surface; and means connected with the swiveled base acting to lift the block.

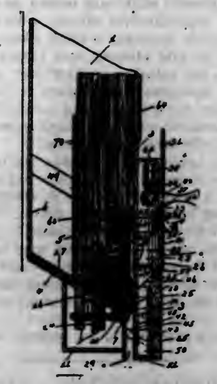
5. In a vise mounting the combination of a fixed base and a swiveled base the fixed base having a downwardly flaring tapered surface; a split ring within the surface; means for securing the ring to and locking the same with the swiveled base; a block wedging upwardly between the ends of the ring for expanding the ring into engagement with said tapered surface; and means connected with the swiveled base acting to lift the block.

1,257,153. NEWSPAPER-VENDING MACHINE. FREDERICK W. TURNEY, Ballston Lake, N. Y. Filed Jan. 27, 1916. Serial No. 74,546. (Cl. 211—8.)

2. In a machine of the class described, and in combination, a magazine provided with a downwardly extending chute, and having a wall on one side of said chute; ejecting-mechanism having a member movable toward said chute; and a roller resiliently mounted opposite said wall and said ejecting-mechanism at the mouth of said chute coöperative with said wall to normally support a magazine-contained article adjacent to said wall.

3. In a machine of the class described, and in combination, a magazine provided with a bottom outlet-slot, and an opening in the wall on one side of said slot, and having a side-wall on the opposite side of said slot, and a bottom downwardly inclined toward said slot; a roller; a movable frame whereby said roller is mounted in said opening; a spring tending to force said frame toward said slot; adjustable means for limiting the spring-induced movement of said frame; and ejecting-mechanism having members engageable with the contents of the magazine adjacent to said side-wall.

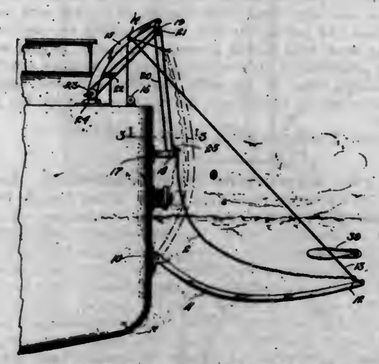
5. In a machine of the class described, and in combination, a magazine provided with a slot; ejecting-mechanism having a member reciprocatory toward and from said slot; spurs on said reciprocatory member engageable with the contents of the magazine; a movable stop extending across said slot; and wedgewise-engaging members one on said stop and the other carried by said reciprocatory member whereby said stop is automatically withdrawn from the slot near the end of the movement of said reciprocatory member toward the slot.



7. In a machine of the class described, and in combination, a magazine provided with a bottom outlet-slot, and an opening in the wall on one side of said slot, and having a side-wall on the opposite side of said slot; ejecting-mechanism; a roller yieldingly mounted in said opening in the slot-wall; and a housing overhanging substantially half of said roller remote from said side-wall, said roller coöperating with said side-wall to normally support an article in the magazine.

[Claims 1, 4, and 6 not printed in the Gazette.]

1,257,154. TORPEDO GUARD AND CATCHER. ANTONINE ULANYTZKY, Cohoes, N. Y. Filed June 21, 1917. Serial No. 176,067. (Cl. 114—240.)



5. A torpedo guard and catcher for ships including a net arranged in spaced relation to the side of a ship and having its lower edge portion extending outwardly away from the ship and its upper edge portion substantially vertical, means to hoist the outer edge of said net and carry the same toward the side of the ship and other means to hoist the inner edge of said net.

9. A torpedo guard and catcher for ships including a net arranged in spaced relation to the side of a ship and having its lower edge portion extending outwardly away from the ship and its upper edge portion substantially vertical, means to hoist the outer edge of said net and carry the same toward the side of the ship, motor means for said hoisting means arranged to operate automatically upon impact of a torpedo against said net, and a magnet projecting from the side of the ship behind said upper edge portion.

13. A torpedo guard and catcher for ships including a net arranged in spaced relation to the side of a ship and having its lower edge portion extending outwardly away from the ship and its upper edge portion substantially vertical, means to hoist the outer edge of said net and carry the same toward the side of the ship, a normally open electric circuit including a circuit closer, a motor for operating the hoisting means, means to close the circuit closer upon impact of a torpedo against said net, other means to hoist the inner edge of said net, and a magnet projecting from the side of the ship behind said upper edge portion.

[Claims 1 to 4, 6 to 8, and 10 to 12 not printed in the Gazette.]

1,257,155. IGNITION DEVICE. HARRY RANDOLPH VAN DEVENTER, Sumter, S. C., assignor to Splitdorf Electrical Company, Newark, N. J., a Corporation of New Jersey. Filed Feb. 15, 1916. Serial No. 78,485. (Cl. 123—149.)



1. The combination with a support adapted to be secured to an engine, of a spark plug mounted on said support and having fixed electrodes, a generator on said support electrically connected to said plug, and mechanism including a spring-actuated tripping device adapted to actuate said generator.

2. The combination with a support adapted to be secured to an engine, of a spark plug mounted on said support and having fixed electrodes, a generator on said support electrically connected to said plug, and mechanism including a spring-actuated tripping device adapted to actuate said generator, said mechanism including the spring-actuated tripping device being mounted wholly on said support.

3. The combination with a support adapted to be secured to an engine, of a spark plug mounted on said support and having fixed electrodes, a generator on said support electrically connected to said plug, and mechanism including a spring-actuated tripping device adapted to actuate said generator, said generator being removable from said support without affecting the operation of the tripping device.

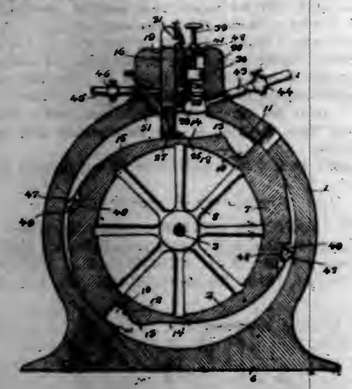
6. The combination, with a support adapted to be secured to an engine and forming an igniter flange, of a fixed spark gap carried thereby and projecting into the engine cylinder, a circuit interrupter carried on said support, and means carried by said support for actuating said interrupter.

[Claims 4 and 5 not printed in the Gazette.]

1,257,156. ROTARY ENGINE. EDWARD A. PERK VAN LITH, New York, N. Y. Filed July 20, 1917. Serial No. 181,878. (Cl. 123—14.)

1. In a rotary engine, a stationary casing, a rotor therein, and a slidable cut off operating through a guide way in the rotor casing and yieldingly held in contact with the periphery of the rotor, the rotor being formed with a channel in the periphery thereof in which the inner end of the cut off operates, the rotor being further formed with a pocket in the peripheral portion thereof bounded by an overhanging wall concentric to the center of the

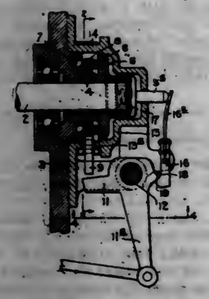
rotor, and a base wall having a rounded projection which coöperates with the cut off, said cut off being formed with an intake port, and the casing being formed with a combustion chamber, and intake ports for said combustion chamber with which the intake port of the abutment is adapted to register by coaction of said rounded projection with the cut off.



5. In a rotary engine, a stationary casing, a rotor therein, and a slidable cut off operating through a guide way in the rotor casing and yieldingly held in contact with the periphery of the rotor, the rotor being formed with a channel in the periphery thereof in which the inner end of the cut off operates, the rotor being further formed with a pocket in the peripheral portion thereof bounded by an overhanging wall concentric to the center of the rotor, and a base wall having a rounded projection which coöperates with the cut off, said cut off being formed with an intake port, the casing being formed with a combustion chamber, intake ports for said combustion chamber with which the intake port of the abutment is adapted to register by co-action of said rounded projection with the cut off, a spark plug arranged at one side of said combustion chamber, an ignition circuit contact carried by said slidable cut off and adapted to coöperate with said plug for delivering the current thereto, a movable compression head in said combustion chamber, an annular seat against which said head is adapted to be moved, and means for shifting said compression head to a position against said seat for the purpose of cutting off communication between the spark plug and the combustion chamber.

[Claims 2 to 4, 6, and 7 not printed in the Gazette.]

1,257,157. SAFETY DEVICE FOR ENGINE-STARTERS. RICHARD VARLEY, Englewood, N. J. Filed Jan. 27, 1916. Serial No. 74,689. (Cl. 74—7.)



1. In safety apparatus for starter systems, a rotating shaft, a shiftable member, driven thereby, a movable element, and friction means associated with said first member and responsive to rotation of the shaft, to limit the movement of said second element.

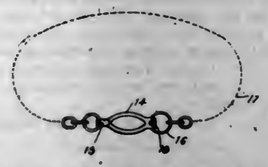
8. In safety apparatus for starter systems, a rotatable member, a manually movable element, a rotatable member for limiting the movement of said element, frictionally operatively responsive to movement of the rotatable member, and means for bringing said rotatable member into frictional engagement with said second member.

8. In safety apparatus for starter systems, a rotatable member, a movable element, a third member for limiting the movement of said element and responsive under engagement with the rotating member and having effective and ineffective positions with respect to the movable element, and means for bringing said rotatable member into operative engagement with said third member to cause it to assume said effective lock position.

10. In safety apparatus for engine starters, the combination with an internal combustion engine and starter mechanism, of a member movable to effect connection of the starter and engine, a shaft driven by the engine, a friction element driven thereby, and a second friction element movable under engagement with the driven friction element, to block movement of the said movable member, one of said friction elements being movable into engagement with the other upon movement of the said movable member.

[Claims 2, 4 to 7, 9, and 11 not printed in the Gazette.]

1,257,158. CHAIN-CONNECTOR. LOUIS J. VETTER, Providence, R. I. Filed June 30, 1917. Serial No. 177,883. (Cl. 24—237.)



2. A chain connector comprising a folded strip of sheet metal, the arms contiguous to the folded end extending inwardly toward each other and serving as an eye, the free end of one arm being hook shaped, the other arm being resilient and having its free end engaging the underside of the hook with spring pressure, each arm having separated longitudinal ribs spaced a greater distance apart in the middle than at the ends, whereby extended bearing surfaces for the thumb and finger of an operator are provided.

[Claim 1 not printed in the Gazette.]

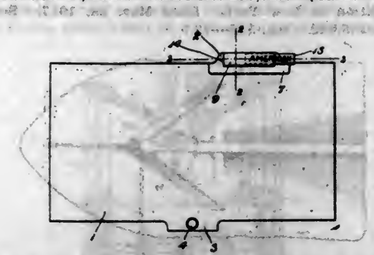
1,257,159. WATCH BOW AND ATTACHMENT. LOUIS E. F. WACHTER, New York, N. Y. Filed Dec. 6, 1916. Serial No. 135,332. (Cl. 58—56.)



1. A watch bow for engagement with the pendant of a watch, having pivots for engagement with the pendant, an extending portion of said bow adapted to project across the diameter of a watch and terminating in a foot portion to form an upright support for a watch, and at the other end having means of attachment for a chain or like article.

[Claim 2 not printed in the Gazette.]

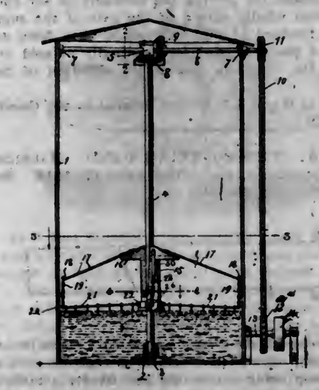
1,257,160. TAB CONSTRUCTION FOR INDEX-CARD GUIDES. ISAAC WAGEMAKER, Grand Rapids, Mich. Filed Oct. 16, 1916. Serial No. 125,012. (Cl. 40—10.)



1. In combination, a card guide having a tab projecting therefrom at its upper edge, a device formed from thin transparent material including a back and front piece connected at their upper edges covering the tab and adjacent portions of the guide and secured thereto, and an embossed portion projecting from the front piece of said device, said embossed portion terminating at each end short of the ends of said front piece, there being openings at each end of the embossed portion for the insertion of a strip having indicating characters thereon, substantially as described.

[Claims 2 and 3 not printed in the Gazette.]

1,257,161. SILO-PACKER. HOMER WALTERS and WILLIAM P. HARPER, Abilene, Kans., said Harper assignor to said Walters. Filed June 7, 1917. Serial No. 173,379. (Cl. 100—56.)

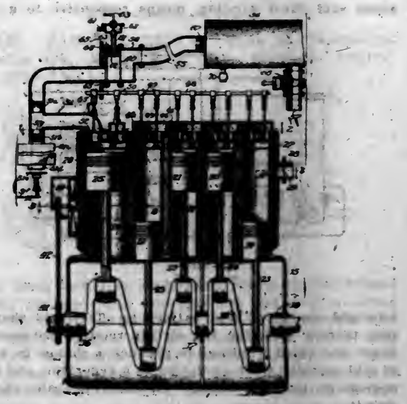


1. In combination with a silo, a vertically disposed rotatable shaft mounted therein, a movable member upon said shaft and rotating therewith, rods connected to said member and having rake teeth thereon, arms upon said member, and connections between the arms and the outer ends of said rods causing the latter to rotate with the arms, horizontally disposed rollers carried by said member.

2. In combination with a silo, a vertically disposed rotatable shaft mounted therein, a cylindrical member mounted loosely and having a beveled top, arms fastened thereto, rods pivotally connected to said member and having rake teeth thereon, chain connections between said arms and the outer ends of said rods, other rods carried by said member and rollers journaled thereon and chain connections between the roller carrying rods and said arms.

1,257,162. INTERNAL-COMBUSTION ENGINE. WILLIAM HART WASHBURNE, Chicago, Ill. Filed June 3, 1916. Serial No. 101,436. (Cl. 123—34.)

3. In an appliance of the character described, the combination of an internal-combustion engine, means to feed an explosive mixture under pressure greater than atmospheric to the engine, and means to vary said pressure, substantially as described.



15. In an appliance of the character described, the combination of an internal-combustion engine, means to cool said engine with air, means to mix fuel and at least a portion of the heated air, an homogenizing chamber, means to maintain a quantity of the fuel mixture to be consumed in the engine under pressure in said chamber, means to deliver the mixture from said chamber to the engine, and manually-controlled means to vary the pressure in said homogenizing chamber, substantially as described.

35. In an appliance of the character described, the combination of an internal-combustion engine, a rticulated evaporation member, means to feed liquid fuel thereto so that the fuel may flow over said member, means to actuate said feeding means proportionally to the speed of the engine, and means to pass air through said member, causing the vaporization of said fuel, substantially as described.

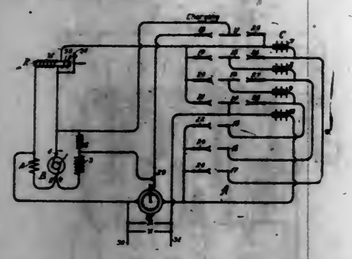
42. In an appliance of the character described, the combination of an air-jacketed internal-combustion engine, a pressure-chamber, means to deliver the contents of said chamber to said engine, an air-pump adapted to receive heated air from said jacket, means to deliver a portion of the air acted upon by said pump under pressure to said pressure-chamber as an ingredient to the explosive mixture to be consumed in the engine, means to discharge another portion of said pumped air to the atmosphere, and means operable at will to prevent the discharge of such portion to the atmosphere, thus compelling it to be delivered under pressure to the mixture in said pressure-chamber, substantially as described.

[Claims 1, 2, 4 to 14, 16 to 34, 36 to 41, and 43 to 45 not printed in the Gazette.]

1,257,163. ELECTRICAL BATTERY-CHARGING SYSTEM. HARRY G. WEBSTER, Chicago, Ill., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 18, 1912. Serial No. 691,653. (Cl. 171—315.)

1. A system of the character described comprising a dynamo having shunt and series field windings, the shunt field winding being permanently connected in its circuit, a storage battery in charging circuit therewith, a third winding in circuit relation with said shunt field winding, a manual switch included in a shunt circuit about said third winding, means responsive to a predetermined charge of said battery to effect said shunt circuit thereby affecting the circuit relation between said shunt and third windings to produce a change in voltage in said dynamo, and means responsive to such change in voltage to interrupt said charging circuit.

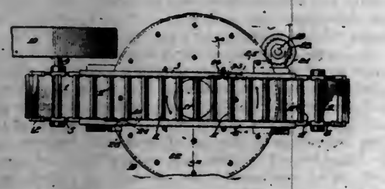
5. A system of the character described comprising a dynamo-electric machine having series and shunt field windings, a storage battery in charging circuit therewith, a third winding in circuit relation to said shunt field winding, a manual switch included in a short circuit about said third winding, means responsive to a prede-



termined charge of said battery to effect said short circuit thereby affecting the circuit relation between said shunt and third windings to produce a change in voltage of said machine when operating as a generator, and means responsive to such change to interrupt said charging circuit.

[Claims 2 to 4, 6, and 7 not printed in the Gazette.]

1,257,164. BEAN-SNIPPER. FRED WEONER, Fairport, N. Y., assignor to George W. Cobb, Montclair, N. J. Filed Feb. 9, 1916. Serial No. 77,144. (Cl. 146—7.)



1. The combination with a movable conveyer having open ended pockets, guards at opposite sides of the conveyer closing the ends of the pockets, each guard being provided with a recess, of cutters located in said recesses, and a revolving carrier for moving articles placed in said pockets alternately in opposite directions to project their extremities into said recesses and in positions to be carried into engagement with the cutters.

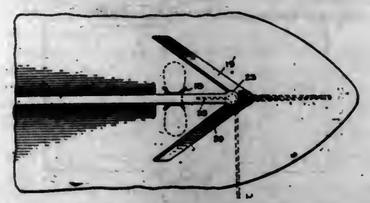
2. The combination with a horizontally movable conveyer having open ended pockets extending transversely thereof, and guards at opposite sides of the conveyer closing the ends of said pockets each having an opening, the opening in one of the guards being located in rear of the opening in the other guard relatively to the direction of movement of said conveyer, of cutters arranged in said openings and coöperating with the ends of the walls of the pockets, and a revolving carrier adapted to coöperate with articles placed in the pockets for moving them longitudinally therein to first engage one cutter and subsequently engage the other cutter during the continuous movement of the conveyer.

4. The combination with a conveyer, a revolving carrier adapted to move articles carried by the conveyer transversely thereof in opposite directions, and means at each side of the conveyer for severing the ends of the articles.

7. The combination with a recessed table top, a carrier arranged therein, means for driving the carrier, of cutters located above the carrier and means for conveying articles across the carrier in engagement therewith whereby the articles are moved in opposite directions by the carrier so that their ends are severed by the cutters.

[Claims 3, 5, 6, 8, and 9 not printed in the Gazette.]

1,257,165. MEANS FOR CONTROLLING AND REVERSING VESSELS. HENRY O. WESTENDARP, Saugus, Mass., assignor to General Electric Company, a Corporation of New York. Filed Mar. 28, 1917. Serial No. 158,082. (Cl. 115—42.)

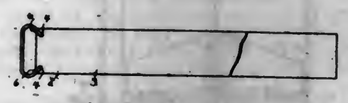


1. In a vessel, the combination of a hull, a propeller therefor, a driving shaft therefor, a rudder comprising two independently movable members and a balancing means therefor, a rudder post, said members normally occupying a position astern of said post with the balancing means forward of said post, and a means for swinging said members from said astern position to forward positions where they form acute angles with said shaft for deflecting the water from the propeller forwardly and cause the vessel to move astern.

7. In a vessel, the combination of a hull, a propeller therefor which is always driven in the same direction, a divided rudder, a support therefor, a divided balancing device, the parts of which are loosely mounted on the support and follow said members in their movements, means which cause the parts of the balancing device to initially follow the rudder members in their movements, and means for moving the members of the rudder from a position wholly astern of the axis of the support to positions forward of said axis where they form acute angles with a plane passing longitudinally of said vessel for causing the vessel to change its direction of movement.

[Claims 2 to 6 and 8 to 10 not printed in the Gazette.]

1,257,166. PIPE-COVERING BAND. MAURICE E. WHITE, Norristown, Pa. Filed June 17, 1916. Serial No. 104,337. (Cl. 24—26.)



3. In a device of the character stated a metallic strap and a wire loop of sufficient width to register with said strap, said loop being immovably and fixedly attached to one end of the strap and projecting beyond the end of said strap to which the loop is attached so as to be engaged by the opposite end of said strap for the purpose specified.

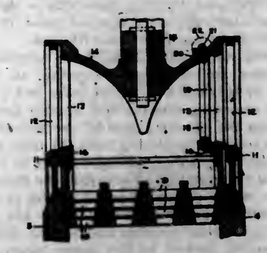
[Claims 1 and 2 not printed in the Gazette.]

1,257,167. ELASTIC-FLUID TURBINE. OSCAR ANTON WIBERG, Finspong, Sweden, assignor to Aktiebolaget Ljungströms Angturbin, Stockholm, Sweden. Filed May 16, 1917. Serial No. 169,105. (Cl. 253—83.)

1. The combination in an elastic fluid turbine having rotors with interleaving blade rings through which the elastic fluid flows, and which revolve simultaneously and in opposite directions, and also blades which interleave with fixed blades, of means for delivering unequal amounts of motive fluid to said last-named blades to cause said rotors to deliver unequal amounts of power.

2. In an elastic fluid turbine, the combination of rotors which revolve in opposite directions and have radial and axial flow blade systems, and means for causing the rotors to deliver unequal amounts of power.

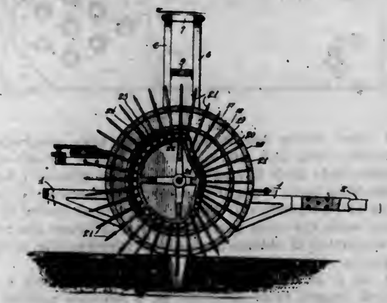
6. In an elastic fluid turbine, the combination of a pair of rotors which revolve in opposite directions and have a radial outflow blade system between them and also an axial flow blade system comprising stationary directing devices and blades which assist in driving the rotors, the exhaust



from the radial flow system flowing in parallel through the axial flow system, and means for causing a lesser amount of said exhaust to flow through one portion of the axial flow system than through the other.

[Claims 3 to 5 and 7 not printed in the Gazette.]

1,257,168. BEET-HARVESTER. LOUIE GLENN WILSON, Morning Sun, Iowa. Filed Mar. 3, 1915. Serial No. 11,793. (Cl. 55—108.)



1. In a beet harvester, a rotatable wheel having an inner and an outer rim, a non-rotatable cam device mounted interiorly of said wheel, radial teeth carried by said cam device for movement bodily about the periphery thereof during rotation of said wheel, the rim structure of said wheel being provided with alined openings to form bearings for said teeth, the said teeth being reciprocable relatively to said wheel, and means to rotate the wheel.

2. In a beet harvesting machine, a rotatable wheel, spaced lateral flanges formed upon said wheel, the flanges having alined openings formed therein, radial teeth mounted to fit the openings thus formed, and a means mounted interiorly of the wheel to engage with and reciprocate the teeth relatively to said flanges, substantially as described.

3. In a beet harvesting machine, a wheel structure provided with spaced annular lateral flanges, a cam structure stationary with respect to said wheel, radial teeth mounted on the cam structure, the several teeth being arranged to fit openings therefor formed in the flanges aforesaid, and means to rotate the wheel and the teeth therewith, said cam structure operating to reciprocate the teeth during a rotation of the wheel for the purpose specified.

4. In a beet harvester, an extracting mechanism, comprising a ground engaging wheel having a pair of concentric circumferentially spaced lateral flanges each having radially alined apertures, means mounting said wheel for rotation, a cam stationary relative to the wheel located within the inner flange, said cam having a concentric portion and an eccentric portion formed on its periphery, said portions having a peripheral groove, a plurality of radial teeth movable in the apertures of the flanges and a lateral cylindrical head on the inner end of each tooth for engagement in the groove of the cam, whereby the teeth may be automatically retracted and extended during rotation of the wheel.

1,257,169. BAGGAGE-TRUCK. JOHN H. YARBROUGH, Womble, Ark. Filed Dec. 5, 1916. Serial No. 135,194. (Cl. 254—7.)



1. A truck including a platform, wheel carrier frames pivotally mounted upon said platform and each including supporting axles, a fifth-wheel connection between the front supporting axle and the front carrier frame, said fifth-wheel connection being pivotally coupled to said front carrier frame, controlling links for maintaining said fifth-wheel connection in a horizontal position in the movements of the front wheel carrier frame, travelers slidably connected with the platform and pivotally connected with the wheel carrier frames, and means for simultaneously adjusting said carriers in opposite directions in unison.

2. A truck comprising a body, a screw shaft, stationary nuts connecting said shaft to the body, movable nuts on the shaft, front and rear axles, a set of links connecting the rear axle to a stationary and movable nut at one end of the truck, a fifth wheel connected with the front axle, a beam carried by the fifth wheel, a set of links connecting said beam with the movable and stationary nuts at the front end of the truck, and a second set of links connecting said beam with a part of the truck for maintaining said fifth wheel in a horizontal position in the movements of the parts.

1,257,170. ANTISKIDDING DEVICE FOR MOTOR-VEHICLE WHEELS. JOHN IRVIN YODER, Ashland, Pa. Filed Nov. 8, 1916. Serial No. 130,226. (Cl. 152—14.)

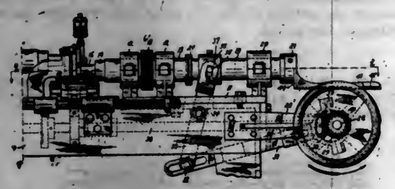


An anti-skidding device for wheel tires including metal rings adapted to be arranged upon opposite sides of a wheel felly, a series of spaced arms detachably secured upon one of the rings and held against relative shifting movement, a series of spaced arms mounted on the other ring for free circumferential movement thereon with respect to each other, all of said arms projecting outwardly beyond the tire rim, and transverse tread chains connecting the outer extremities of corresponding arms on opposite sides of the wheel.

1,257,171. SCREENING ATTACHMENT FOR CORK-DISK-CUTTING MACHINES. EMILIO ALBERTI, New York, N. Y., assignor to International Cork Company, Brooklyn, N. Y., a Corporation of New York. Filed Apr. 20, 1917. Serial No. 163,404. (Cl. 144—23.)

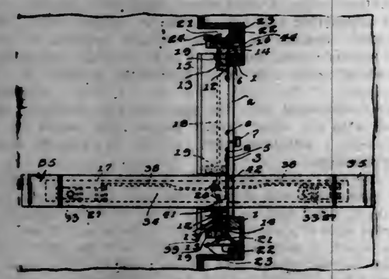
1. The combination in a cork disk cutting machine of a tubular reciprocating arbor, a tubular cutter attached to one end of said arbor, and screening means carried by the other end of said arbor adapted to receive the product issuing from said arbor.

2. The combination in a cork disk cutting machine of a tubular reciprocating arbor, a tubular cutter attached to



one end of said arbor, and a foraminated plate carried by the other end of said arbor adapted to receive the product issuing from said arbor.

1,257,172. DOOR-OPERATING MECHANISM. CHARLES ALBRECHT, Jr., Schleisingerville, Wis. Filed July 18, 1917. Serial No. 181,388. (Cl. 268—9.)



1. In a device of the character described, the combination with a door frame, of a door hingedly mounted therein, a pinion mounted on said door, latches on said door adapted to engage said door frame when the door is shut, a segment gear mounted for pivotal movement on said door frame and adapted to mesh with said pinion, the disposition of said segment being such that when the door is closed the teeth of said gear are out of engagement with said pinion, a cam on said segment gear, a lever mounted on said door and having one end thereof engaging said cam and having the other end thereof in operable relation with said latches whereby said latches are retracted upon the initial opening movement of said segment, and means for operating said segment.

4. In a device of the character described, the combination with a door, a standard, a cam member movably mounted on said standard, a lever pivoted on said standard and having a cam surface engageable with said cam, and a spring engaging said standard and said cam for normally retaining said cam in its upper position, and connections between said lever and said door whereby said door is opened when said cam is depressed.

[Claims 2, 3, and 5 to 7 not printed in the Gazette.]

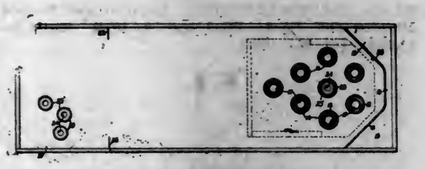
1,257,173. SPRINKLING-STOPPER. EMILE LOUIS ALLIÉ, Paris, France. Filed May 27, 1914. Serial No. 841,231. (Cl. 215—64.)



1. A sprinkling stopper of the character described, comprising a hollow conical member having a cylindrical hood for securing it to a bottle, a second conical member secured in the first member, said member being slotted and having tongues projecting from its apex over the slots thereof, a hollow cylindrical body having a reduced lower end and secured to the first named conical member below the second member and forming therewith a chamber, a ball in said chamber, and an elongated valve in the reduced end of the body and provided with ribs.

2. A sprinkling stopper of the character described, comprising an upper conical member having an internal shoulder and a cylindrical hood at its lower end, a conical slotted member extending into the first member and having a flange engaging the shoulder thereof, the slotted conical member having tongues projecting from its apex, a hollow cylindrical member having a reduced portion at its lower end and a flange at its upper end engaging the flange of the slotted member, means for securing the flanges of the said members in position, an elongated valve in the reduced portion of the cylindrical member and having ribs, and a ball in the chamber formed by the upper larger part of the cylindrical member and the slotted conical member.

1,257,174. GAME APPARATUS. GEORGE HERBERT BAILEY, New York, N. Y. Filed June 27, 1917. Serial No. 177,232. (Cl. 46—61.)



1. The herein described game apparatus comprising a relatively long and narrow table having a smooth alley surface, said table having at its head an abutment device comprising three straight portions, one of which is transverse and perpendicular to the longitudinal center of the table, while the other portions meet or intersect the transverse portion in oblique angles, and substantially at right angles to each other.

3. In a game apparatus, the combination with a flat smooth topped table structure, of a movable member for coöperation with the table top, said member comprising a disk having a peripheral member adapted to carry a charge of material to be dispensed therefrom as the member is moved over the table top to facilitate such movement.

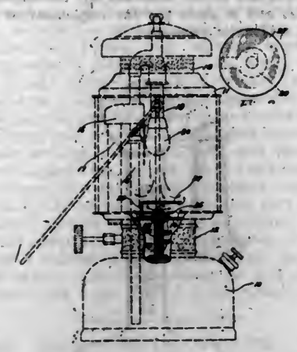
[Claims 2, 4, and 5 not printed in the Gazette.]

1,257,175. LANTERN. HENRY E. BANDLOW, Chicago, Ill., assignor to National Stamping & Electric Works, Chicago, Ill., a Corporation of Illinois. Filed Mar. 29, 1917. Serial No. 158,207. (Cl. 67—50.)

1. A light fixture having an inverted burner and a burner chamber having a perforated bottom wall, combined with a fuel reservoir below the chamber, communicating with the burner, and a cool air pipe arranged centrally of said burner and chamber and extending upwardly from said reservoir through said bottom wall to deliver cool air to said chamber.

2. A light fixture having an inverted burner and a burner chamber having a bottom wall, combined with a fuel reservoir below the burner and chamber, communicating with the burner, a cool air pipe extending through said bottom wall and arranged centrally of the burner above the reservoir to deliver air to said chamber, and a deflecting shield between the mouth of said pipe and the burner and spaced a distance from the mouth of said pipe.

3. In a gasolene lantern, a reservoir, a burner chamber thereabove, an inverted burner centrally within said chamber and communicating with the reservoir and with the atmosphere, said chamber being provided with a bottom wall, and a cool air pipe extending centrally upwardly



through the bottom wall beneath the burner and anchored to the reservoir.

[Claims 4 to 8 not printed in the Gazette.]

1,257,176. SAND-BAILER FOR WELLS. GEORGE FRANCIS BELL, Tulsa, Okla. Filed Sept. 30, 1915. Serial No. 53,385. (Cl. 166—19.)



In a sand bailer characterized by the employment of a casing having a ball at its upper end, a valve seat near its lower end, and a dart valve within the casing having a depending stem adapted to engage the casing when the valve is moved upwardly, the combination with said valve, of a relatively short axial projection rigid with the valve and provided with a series of annular downwardly and outwardly inclined undercut teeth which are arranged one above another on said projection, said teeth being adapted to be engaged by a fishing tool passed through the upper end of the casing, whereby the bailer is gripped at its lower end leaving the upper end free for the purpose described.

1,257,177. DYNAMO-ELECTRIC MACHINE. SVEN R. BERGMAN, Nahant, Mass., assignor to General Electric Company, a Corporation of New York. Filed Oct. 13, 1915. Serial No. 55,632. (Cl. 171—228.)

1. A direct current dynamo-electric machine comprising an armature winding provided with a commutator and cooperating main brushes, a field magnet structure having groups of distributed slots covering substantially one-half of its inner periphery, a series winding carried in the slots of said field magnet structure and arranged to produce a magnetization at an angle of approximately 45 electrical degrees to the magnetization produced by said armature winding, a shunt exciting winding disposed on said field magnet structure and having coils spanning the larger part of the polar arc on the inner periphery of said structure, a bucking winding having coils concentrically arranged within the coils of said exciting winding and spanning a smaller part of the polar arc on the inner periphery of said field magnet structure than the coils of said exciting winding, and an auxiliary brush located on said commutator so that the armature coils between it and a main brush are substantially outside the influence of the flux produced by said bucking winding, said bucking winding being connected between the auxiliary brush and the last mentioned main brush.



4. A direct current dynamo-electric machine having an armature winding provided with a commutator and cooperating brushes, a field magnet structure carrying a winding connected in series relation with the armature winding and arranged to produce a magnetization at an angle of approximately 45 electrical degrees to the axis of magnetization of said armature winding, a winding connected in shunt relation with the armature winding and arranged on said field magnet structure to produce a magnetization at an angle of approximately 90 electrical degrees to the axis of magnetization of said armature winding, a bucking winding arranged on said field magnet structure to produce a magnetization in line with but opposed to the magnetization produced by said last mentioned shunt winding, and means for energizing said bucking winding from a source of electromotive force derived from said commutator and varying as a direct function of the speed of the machine.

9. A direct current dynamo electric machine comprising an armature winding provided with a commutator and cooperating brushes, a main exciting winding, a bucking winding adapted to blow out a portion of the flux produced by said main exciting winding over a part only of the polar arc spanned by said main exciting winding, and means for exciting said bucking winding by an electromotive force derived from armature coils located outside the influence of the flux produced by said bucking winding.

[Claims 2, 3, 5 to 8, and 10 to 12 not printed in the Gazette.]

1,257,178. DYNAMO-ELECTRIC MACHINE. SVEN R. BERGMAN, Nahant, Mass., assignor to General Electric Company, a Corporation of New York. Filed Oct. 18, 1915. Serial No. 56,401. (Cl. 171—252.)



1. The method of assembling a winding of a dynamo-electric machine in completely inclosed slots in a magnetic yoke which consists in mounting upon a work-carrier a magnetic member having slots on its exterior periphery when mounted on the work carrier, mounting a winding in said slots, transferring said work-carrier together with the magnetic member and winding mounted thereon to the interior of a second magnetic member having an interior periphery conforming to the exterior periphery of said first magnetic member, securing said first magnetic

member to said second magnetic member, and removing the work-carrier.

3. A dynamo-electric machine comprising a field magnet structure consisting of an outside magnetic member having a circular inner peripheral surface and an inside composite magnetic member including a plurality of sector-shaped annular parts having slots extending from their outer periphery nearly to their inner periphery with just enough material left at the base of each slot to form an integral inner closure for the slot, means securing said annular parts to said outside magnetic member so that the outer ends of said slots are closed by said outside member, an armature winding rotatably mounted within said annular parts, and a field winding having a radial thickness conforming substantially to the depth of said slots and carried therein and adapted to produce an exciting flux for said machine and to substantially neutralize the reaction of said armature winding.

4. A dynamo-electric machine comprising a frame member of magnetic material, a plurality of annular magnetic members secured to said frame member and having outwardly opening slots closed by said frame member, an armature winding rotatably mounted within said annular members, and a field winding having a radial thickness conforming substantially to the depth of said slots and wholly carried in said slots and adapted to produce an exciting flux for said machine and to substantially neutralize the reaction of said armature winding.

8. A dynamo-electric machine comprising a magnetic frame member, a plurality of magnetic members symmetrically arranged within said frame member and secured thereto, each of said magnetic members having a plurality of outwardly opening slots whose open ends are adjacent to and closed by the frame member, magnetic commutating members secured to said frame member between the ends of each adjacent pair of said magnetic members and separated therefrom by relatively wide slots, an armature winding rotatably mounted within said magnetis members, and a field winding for producing an exciting flux for said machine and for substantially neutralizing the reaction of said armature winding carried in the slots of said magnetic members and in the relatively wide slots between said magnetic members and said commutating members.

[Claims 2 and 5 to 7 not printed in the Gazette.]

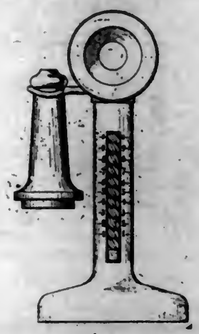
1,257,179. RAZOR-BLADE HOLDER. CHARLES BERST, Chicago, Ill. Filed Feb. 17, 1917. Serial No. 149,290. Cl. 30—25.)



In a razor blade holder, a body member having a reduced screw-threaded stem and integral normally divergent spring jaws provided with tapered portions and securing means for the blade comprising projections and opposite recesses, a nut upon said stem having a head and an inner reduced cylindrical extension, a cylindrical sleeve slidable upon said body member and cylindrical extension and engaging at one end the tapered portions of said jaws and engaged at the other end by the head of said nut, said body member having a pin and said sleeve having an open-ended slot engaging said pin.

1,257,180. IMPULSE-TRANSMITTER FOR AUTOMATIC TELEPHONE SYSTEMS. GOTTHILF ANSGARIUS BETULANDER, Södertörns Villastad, Sweden. Filed July 13, 1915. Serial No. 39,640. (Cl. 179—90.)

1. In an impulse transmitter having a rectilinear setting movement, a frame, an axially rotatable screw-threaded spindle adapted to transmit the rectilinear movement into a suitable rotary movement and to be rotated by an axial pressure applied to the threads of the spindle in a suitable manner, said spindle being mounted in said frame, a contact device actuated by the movement of the spindle, and a guide for the implement or the like exercising said axial pressure.



2. In an impulses transmitter, having a rectilinear setting movement, a frame, an axially rotatable screw threaded spindle adapted to transmit the rectilinear movement into a suitable rotary movement and to be rotated by an axial pressure applied to the threads of the spindle in a suitable manner, said spindle being mounted in said frame, means for returning the spindle to its initial position, and a contact device actuated by the movement of the spindle.

3. In an impulse transmitter having a rectilinear setting movement, a frame, an axially rotatable screw threaded spindle adapted to transmit the rectilinear movement into a suitable rotary movement and to be rotated by an axial pressure applied to the threads of the spindle in a suitable manner, said spindle being mounted in said frame, means for returning the spindle to its initial position, means for stopping the said spindle, and a contact device actuated by the movement of the spindle.

[Claims 4 to 6 not printed in the Gazette.]

1,257,181. CRUTCH. BERNARD MCAULEY BRADFORD, Hope Mills, N. C. Filed Nov. 12, 1917. Serial No. 201,608. (Cl. 135—53.)



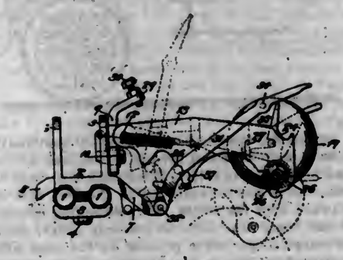
1. In a crutch, a pair of crutch side bars the adjacent faces of which having channels, the lower end of the crutch having a guide, a spur mounted therein, a block mounted and guided in the lower portions of said channels and connected to the spur, rack bars mounted in said channels and having their lower ends connected to opposite sides of the blocks, a handle having a spindle mounted in bearings of the side bars of the crutch, the spindle

of the handle having bears meshing with the racks whereby the spur may be extended or retracted, said bearings having ball bearings for the spindle, to prevent the spindle from wearing on the wood of the crutch bar.

4. In combination with a crutch having a pair of crutch side bars having their adjacent faces provided with longitudinally extending channels, plates secured on the outer side faces of said crutch bars, said plates and said bars respectively having registering openings, a spindle shaft having its opposite ends extending through said openings and provided with pinions located in the upper end portions of said channels, said plates having means to support the spindle shaft non-frictionally in said openings, rack bars in said channels meshing with said pinions, the lower ends of the rack bars being connected and provided with a spur pin adapted to be extended and retracted through the lower ends of the crutch bars, and a handle on said spindle shaft for adjusting the rack bars to extend and retract the spur pin.

[Claims 2 and 3 not printed in the Gazette.]

1,257,182. BOBBIN-WINDING MACHINE. EDWARD E. BRADLEY, Stonington, Conn., assignor to The Atwood Machine Company, Stonington, Conn., a Corporation of New Jersey. Filed July 3, 1915. Serial No. 37,930. (Cl. 242—46.)



1. A hanger for bobbins comprising two separable members, a bobbin gudgeon secured to one member, a catch on the other member for removably engaging the free end of the gudgeon and a single operating lever for controlling the movement of the members into and out of the bobbin winding position and also the releasing of the catch to permit the separation of the members for doffing the bobbin.

2. A hanger for bobbins comprising two separable members, a bobbin gudeon rotatably secured to one member, a catch on the other member for removably engaging the free end of the gudgeon, a single operating lever for controlling the movement of the members into and out of the bobbin winding position and also the releasing of the catch to permit the separation of the members for doffing the bobbin, and a spring arranged to yieldingly hold the members in the bobbin winding position and also to yieldingly hold the members in their separated position.

[Claims 3 to 5 not printed in the Gazette.]

1,257,183. SCREEN-FRAME. HERMAN C. BUJACK, Gary, Ind. Filed Apr. 16, 1917. Serial No. 162,251. (Cl. 156—38.)

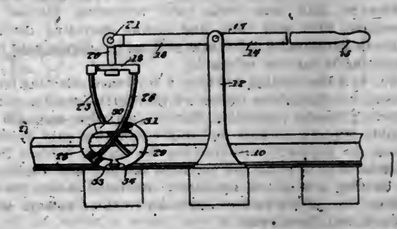
1. In a screen frame, a bar in the form of thin metal folded over upon itself to form a hollow bar or sheathing, a reinforcing bar within the same near the outer wall of the sheathing and a supporting frame located farther in the sheathing, and devices for causing said hollow bar or sheathing to contract by drawing the reinforcing bar in toward the said supporting frame.

2. In a screen frame, the combination of a strip of thin metal folded upon itself to form a hollow bar or sheathing, a supporting frame channel shape in cross section, and a reinforcing bar, the said frame and the reinforcing bar being contained within the folded thin metal strip and threaded bolts passing through the same for adjusting the width of the hollow bar or sheathing.



3. In a screen frame, the combination of a hollow bar in the form of thin metal folded upon itself, a supporting frame within the same and spaced from the thin metal which forms the outside edges of the door, and threaded bolts for changing the relative position of the thin metal that forms the outside edge of the door and the supporting frame, said bolts having heads protruding through the metal that forms the outside edges of the door so that the bolts may be turned by their heads.

1,257,184. SPIKE-PULLER. HARRY BUTLER, Waterville, Me., assignor of one-half to Ernest J. Butler, Waterville, Me. Filed Aug. 17, 1917. Serial No. 186,775. (Cl. 254—23.)



1. In a device of the class described, a plurality of jaws, a transverse member, an arm carried by one end of said member and extending downwardly therefrom and deflected toward the opposite end of the member and connected with one jaw, a plurality of arms connected with said opposite end and with the other of said jaws, a supporting member and a lever carried thereby and connected with said transverse member.

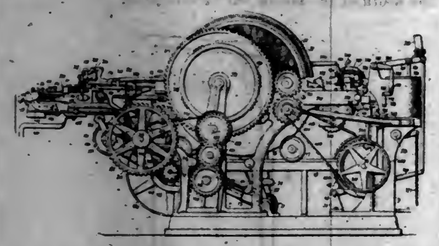
3. In a device of the class described, a plurality of jaws each having a shank portion, said jaw and its corresponding shank portion forming a member substantially U-shaped in configuration and the shank portion of one jaw being provided with an opening receiving the shank portion of the other jaw, and means for operating said jaws for gripping a spike or the like.

[Claims 2 and 4 not printed in the Gazette.]

1,257,185. LINE COMPOSING AND CASTING MACHINE. BAYLUS CADE, Shelby, N. C., assignor to Cade Manufacturing Company, Shelby, N. C., a Corporation of North Carolina. Filed June 10, 1915. Serial No. 33,382. (Cl. 199—5.)

1. In a line composing machine, keyboard mechanism comprising a set of key levers, matrix-selecting means controlled thereby, means for measuring the length of a line of matrices selected according to the varying thicknesses of the different matrices, and means controlled

by said measuring means for locking the keyboard mechanism from actuation.



2. In a line composing machine, keyboard mechanism comprising a set of key levers, matrix-selecting means controlled thereby, means, including a measuring device, controlled according to the varying thicknesses of the matrices for locking the key levers when a full line of matrices of different thicknesses has been selected.

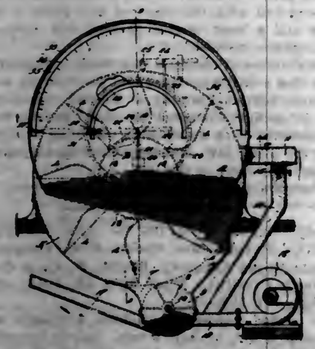
3. In a line composing machine, adapted to assemble in lines matrices of different thicknesses, keyboard mechanism comprising a set of key levers, matrix-selecting means controlled thereby, means for measuring the length of a line of selected matrices embodying matrix-gaging devices individual to the different key levers and operative to actuate the measuring means to varying degrees according to the varying thicknesses of the matrices corresponding thereto, and means controlled by said measuring means for preventing actuation of the keyboard mechanism when a full line of matrices has been selected.

19. In a machine of the class described, the combination with keyboard mechanism embodying a set of stops, of matrix-selecting means embodying a set of selecting bars to coöperate with said stops, and actuating pinions cooperative with said bars, and means operating continuously to frictionally drive said pinions to operate said bars when the latter are released.

30. In a line casting machine, a key-board selecting mechanism, actuating bars connected therewith forming matrix selecting means controlled thereby, matrices mounted on flexible holders, sockets movably containing said holders, means for partially withdrawing the matrix holders from their sockets to bring the matrices thereon into alinement for casting a slug and mediately connected means for restoring the matrix holders normally to their sockets without removal therefrom.

[Claims 4 to 18 and 20 to 29 not printed in the Gazette.]

1,257,186. ROTARY SCALE. GEORGE M. CAGLE, Tulsa, Okla. Filed May 15, 1917. Serial No. 168,860. (Cl. 253—16.)

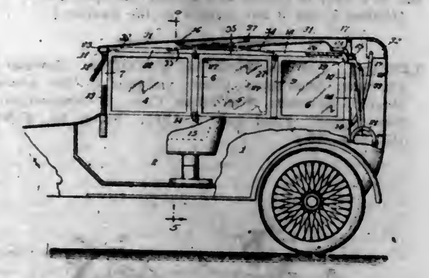


2. In a rotary scale, the combination with a drum having a plurality of radially arranged cups adapted to successively receive material to be weighed, of a pivoted beam, a cam on the beam, means carried by the drum for engaging against said cam to restrict the rotation of the drum, said cam adapted to be moved by said means on the drum to permit rotation of said drum to a degree determined by the amount of material in a cup, a downwardly extending arm attached to said beam adjacent its pivot point, and a weight on said arm.

4. In a rotary scale, a revolvible drum, a ring gear, an indicator pivoted at one end and a latch carried by said indicator for locking engagement with the teeth of the gear to cause the gear to actuate the indicator.

[Claims 1 and 3 not printed in the Gazette.]

1,257,187. CONVERTIBLE BODY FOR VEHICLES. GERTRUDE V. CARR, Brooklyn, N. Y. Filed Dec. 14, 1916. Serial No. 136,872. (Cl. 21—62.)



1. A convertible vehicle body having, in combination, a rear pillar, a rear cant rail pivoted at its rear end to the upper part of the rear pillar, a forward cant rail hinged at its rear end to the forward end of the rear cant rail to fold backward over the latter, and rail-folding connections between the front cant rail and the rear pillar, such connections comprising a lever pivoted on the rear pillar, a link connecting said lever to the rear cant rail at the rear of the pivot point of the latter, and a link connecting said lever to the forward cant rail.

2. A convertible vehicle body having, in combination, a rear pillar hinged to the vehicle at its lower end to fold backward, a rear cant rail pivoted at its rear end to the upper part of the rear pillar to fold rearward and downward therewith, rail-folding means connecting the rear cant rail to the vehicle, a forward cant rail hinged at its rear end to the forward end of the rear cant rail to fold backward over the latter, and rail-folding connections between the front cant rail and the rear pillar, such connections comprising a lever pivoted on the rear pillar, a link connecting said lever to the rear cant rail at the rear of the pivot point of the latter, and a link connecting said lever to the forward cant rail.

3. A convertible vehicle body having, in combination, a rear pillar hinged at its lower end to the vehicle to fold backward substantially through an angle of ninety degrees from a substantially vertical to a substantially horizontal position, a rear horizontal cant rail pivoted at its rear end to the upper part of the rear pillar to fold rearward and downward therewith substantially without changing its horizontal position, a rail-folding link for the rear cant rail pivoted thereto and to the vehicle, a forward horizontal cant rail hinged at its rear end to the forward end of the rear cant rail to fold backward over the latter substantially through an angle of one hundred and eighty degrees, and movement-reducing rail-folding connections from the forward cant rail to the rear pillar, such connections comprising a lever pivoted on the rear pillar above the pivot point of the rear cant rail, a short link connecting said lever to the rear cant rail at the rear of the pivot point of the latter, and a long link connecting said lever to the forward cant rail.

5. A convertible vehicle body having, in combination, a rear pillar hinged at its lower end to the vehicle to fold backward substantially through an angle of ninety degrees from a substantially vertical to a substantially horizontal position, a rear horizontal cant rail pivoted at its rear end to the upper part of the rear pillar to fold rearward and downward therewith substantially without changing its horizontal position and carrying a rigid extension which projects rearward beyond the pivot point, a rail-folding link for the rear cant rail pivoted at its upper end to said rear extension and its lower end pivoted to the vehicle at the rear of the pivot point of the rear pillar so that the two pivot points of such link and the two pivot points of the rear pillar form substantially a parallelogram, a forward horizontal cant rail hinged at its rear end to the forward end of the rear cant rail to fold backward over the latter substantially through an angle of one hundred and eighty degrees, a two-arm bent lever pivoted on the rear pillar above the pivot point of the rear cant rail and having a front arm and a rear arm, a short link connecting the rear arm of said lever to the said rear extension of the rear cant rail at the rear of the pivot point of the latter and forming a toggle with said rear lever arm, and a long link connecting the front arm of said lever to the forward cant rail forward of its pivot, said bent lever and links forming rail-folding connections for folding the forward cant rail through one hundred and eighty degrees of angular movement while the rear pillar folds through ninety degrees of angular movement.

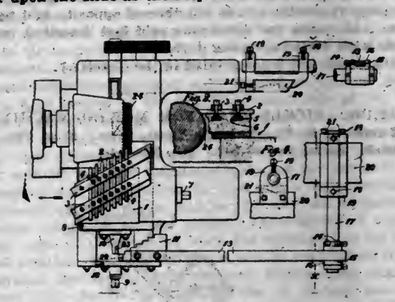
7. A convertible vehicle body having, in combination, a rear pillar hinged at its lower end to the vehicle to fold backward substantially through an angle of ninety degrees from a substantially vertical to a substantially horizontal position, a rear horizontal cant rail pivoted at its rear end to the upper part of the rear pillar to fold rearward and downward therewith substantially without changing its horizontal position and carrying a rigid extension which projects rearward beyond the pivot point, a rail-folding link for the rear cant rail pivoted at its upper end to said rear extension and its lower end pivoted to the vehicle at the rear of the pivot point of the rear pillar so that the two pivot points of such link and the two pivot points of the rear pillar form substantially a parallelogram, a forward horizontal cant rail hinged at its rear end to the forward end of the rear cant rail to fold backward over the latter substantially through an angle of one hundred and eighty degrees, a two-arm bent lever pivoted on the rear pillar above the pivot point of the rear cant rail and having a front arm and a rear arm, a short link connecting the rear arm of said lever to the said rear extension of the rear cant rail at the rear of the pivot point of the latter and forming a toggle with said rear lever arm, a long link connecting the front arm of said lever to the forward cant rail forward of its pivot, said bent lever and links forming rail-folding connections for folding the forward cant rail through one hundred and eighty degrees of angular movement while the rear pillar folds through ninety degrees of angular movement, a front pillar supporting the front end of the forward cant rail, an intermediate folding pillar hinged at its lower end to the vehicle and joined to one of the cant rails and disconnectible therefrom at its upper end, and drop windows slidable between the pillars.

[Claims 4, 6, and 8 not printed in the Gazette.]

1,257,188. LATHE, BORING-MACHINE, AND THE LIKE. JOHN DAVID CARVER, Walsall, England. Filed June 25, 1917. Serial No. 176,839. (Cl. 82—5.)

1. In a lathe boring-machine, or the like; the combination of a longitudinally movable carriage, a transversely movable slide thereon, of a plurality of laterally separated tools carried by the slide and adapted to be brought into action successively, and a series of feed-controlling stops arranged in stepped formation and successively cooperating with the slide as the respective tools are brought into use so as to allow of a deeper cut being given by each succeeding tool.

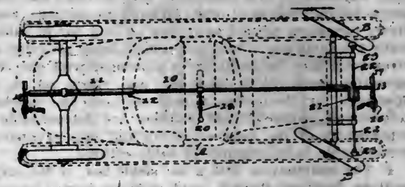
3. In a lathe, boring-machine or the like; the combination of a longitudinally movable carriage, a transversely movable slide thereon, a series of laterally separated tools carried by said slide arranged in succession one in advance of another and adapted for successive operation, a stop member carried by the slide, and a stepped feed-controlling member adapted to coöperate with the stop member upon the slide as the respective tools are brought into



use so as to allow of a deeper cut being given by each succeeding tool, the width of the steps of the feed-controlling member being equal to the distance apart of the tools.

[Claims 2 and 4 not printed in the Gazette.]

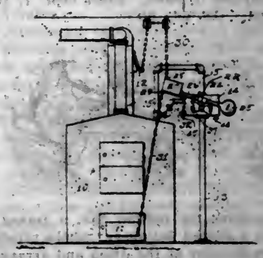
1,257,189. AUTOMOBILE-SIGNAL. WILLIAM COLLETTE, Springfield, Mass., assignor of one-half to John H. Clune, Springfield, Mass. Filed Feb. 2, 1917. Serial No. 146,166. (Cl. 116—31.)



3. The combination with a vehicle of a rotatably mounted shaft disposed longitudinally of the vehicle, a signal mounted upon said shaft and operable upon rotation of the latter, a crank arm carried by the shaft and transversely movable arms pivotally connected to the crank arm and positioned for contact with the front walls of the vehicle, whereby when the vehicle is turned the shaft will be rotated to operate the signal.

[Claims 1 and 2 not printed in the Gazette.]

1,257,190. DAMPER-REGULATOR. THOMAS CONNELL, Iowa City, Iowa. Filed Nov. 2, 1916. Serial No. 129,208. (Cl. 236—1.)

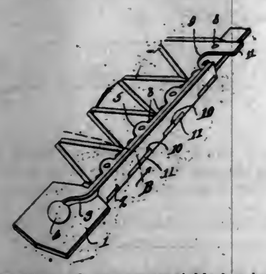


1. In a device of the class described, a support, a receptacle at one end thereof, designed to be in communication with a boiler, a tube rotatably mounted in the wall of

said receptacle near the upper end thereof, a tube extending downwardly from the inner end of said first tube, a tube mounted on and communicating with said first tube having a partition on one side of the opening in said first tube, a receptacle mounted on said third tube and communicating therewith at the end thereof opposite said partition, and means for connecting said last described receptacle with draft regulating devices.

[Claims 2 and 3 not printed in the Gazette.]

1,257,191. SICKLE-HEAD FOR MOWING-MACHINES. THEODORE D. CRANE, Little Sioux, Iowa. Filed Feb. 26, 1916. Serial No. 80,702. (Cl. 56—44.)

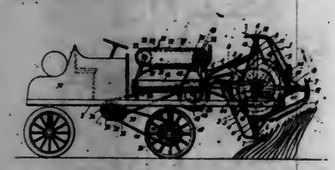


1. In combination, a long narrow sickle bar having apertures for rivets approximately in alinement, a sickle head having an extension disposed on one end of said bar, a plurality of sickle sections disposed on said bar side by side, adjacent to said extension, said sections and extensions having rearward and forward projections respectively formed to interfit and lying on said bar in substantially the same plane, said projections being provided with rivet holes each respectively in alinement with the corresponding apertures in said bar, and rivets set in said apertures for the holes in said sections and extension respectively, whereby said sections are demountable independently of the head extension and said extension is demountable independently of said sections.

4. The combination with a flat sickle bar, of flat cutting sections fastened thereon, said sections having openings formed in their back ends, a sickle head extension attached to said bar back of and freely clearing the section fastening means and having projections extending forward and into said openings, and fastening means extending through said openings for attaching the extension to the sickle bar independently of said sections and the section fastening means, whereby the sections are detachable and interchangeable independently of the head extension and its fastening means.

[Claims 2 and 3 not printed in the Gazette.]

1,257,192. MACHINE FOR PULLING FLAX. JAMES GLASGOW CRAWFORD, Belfast, and ROBERT MALCOM BENNETT, Carryduff, Ireland. Filed Sept. 7, 1916. Serial No. 118,901. (Cl. 55—66.)



1. In a machine for pulling flax, a rotary drum constructed with a slotted periphery; combs pivotally mounted within the interior of the drum and arranged to move in and out through the slots in its said periphery; means for rotating said drum; a stationary element located in juxtaposition to said drum and provided with a closed cam groove; a set of rollers, one for each comb, arranged to travel in said groove; and link connections between said combs and rollers, to cause the travel of the latter in unison during the rotation of the drum, so as to effect the in-and-out movements of the combs.

2. In a machine for pulling flax, the combination, with pulling means; of a delivery conveyer; and stripping means, comprising an endless traveling element embodying rotatably-mounted bars provided with pins adapted to engage the flax stalks, strip them from said pulling means, and deposit them upon said conveyer.

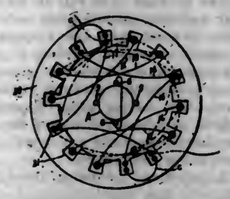
4. In a machine for pulling flax, the combination, with pulling means; of a delivery conveyer; and stripping means, comprising an endless traveling element embodying a plurality of rotatably-mounted bars provided with pins adapted to engage the flax stalks and strip them from said pulling means, a pair of tracks with which said bars are engaged at opposite ends during a portion of their travel, said tracks having parts thereof offset so as to impart a rotary movement to said bars to elevate their pins, and means cooperative with said pins at such time to disengage them from said stalks and thereby deposit the latter upon said conveyer.

5. In a machine for pulling flax, the combination, with a rotary drum having its periphery provided with a series of slots; and means for rotating said drum; of a series of pulling combs carried by said drum and arranged to be projected and retracted through said slots; and means for automatically effecting the in-and-out movements of said combs during the rotation of the drum; said drum having its periphery formed adjacent each comb with a forwardly projecting breast to assist the comb in its pulling action.

7. In a machine for pulling flax, the combination, of a rotary drum having its periphery formed by a series of symmetrically-disposed members whose end portions are extended laterally in opposite directions; means for rotating said drum; and a series of pulling combs, one for each of said members, carried by said drum, one comb being located between the forward projection of each member and the rear projection of the preceding member; each of said forward projections forming a breast to assist the adjacent comb in its pulling action.

[Claims 3 and 6 not printed in the Gazette.]

1,257,193. WINDING FOR ELECTRIC MOTORS. NEIL CURRIE, Jr., Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Filed Mar. 4, 1916. Serial No. 82,098. (Cl. 172—276.)



1. An electric motor comprising a magnetic core having slots therein, and a winding arranged in said slots, said winding being composed of coils of substantially uniform pitch, some of which have substantially twice as many turns as the others, the larger of said coils being arranged as a one-layer lap winding and the smaller as a two-layer lap winding.

3. An alternating current motor comprising an inducing winding, and a commutated armature winding short-circuited along one axis, said inducing winding being composed of coils of substantially uniform pitch, some of which have substantially twice as many turns as the others, all of the coils of each pole of said winding being wound of a continuous conductor, the larger of said coils being arranged as a one-layer lap winding and the smaller as a two layer lap winding.

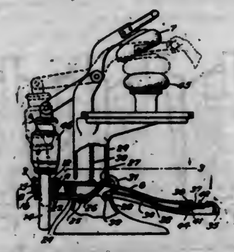
7. An alternating current motor comprising a magnetic core having slots therein, an inducing winding, a commutated armature winding short-circuited along one axis, and a compensating winding electrically connected to the armature winding along an axis displaced by substantially 90 electrical degrees from the axis of said short-circuit, said inducing and compensating windings being arranged in the slots of said core and having substantially the same axes of magnetization, said inducing winding being composed of coils of substantially uniform pitch, some of which have substantially twice as many turns as the others, the larger of said coils being arranged as a one-layer lap winding and the smaller as a two-layer lap winding and so that a plurality of slots per pole are only partly filled, the coils of said compensating winding being arranged in said partly-filled slots.

10. An electric motor comprising a magnetic core having slots therein, a main field winding arranged in said slots, said field winding being composed of coils of substantially uniform pitch and having a plurality of coils per pole with substantially one-half as many turns as the other coils, the smaller coils being arranged in different slots than the larger coils and so that a plurality of slots are only partly filled thereby, and an auxiliary field winding arranged in said partly-filled slots.

13. An alternating current motor comprising a magnetic core having uniformly distributed slots of substantially the same size, an inducing winding arranged in said slots, said inducing winding being composed of coils of uniform pitch and having a plurality of coils per pole with substantially one-half as many turns as the other coils, the larger of said coils being arranged as a one-layer winding and the smaller as a two-layer winding, the smaller coils being further arranged so that a plurality of slots per pole are only partly filled thereby, a commutated armature winding short-circuited along one axis, and a compensating winding arranged in said partly filled slots and electrically connected to said armature winding.

[Claims 2, 4 to 6, 8, 9, 11, and 12 not printed in the Gazette.]

1,257,194. GARMENT-PRESSING MACHINE. JOHN W. DALY, Cincinnati, Ohio. Filed Jan. 5, 1917. Serial No. 140,673. (Cl. 68—9.)

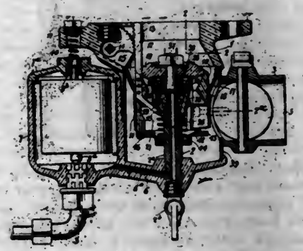


1. A pressing machine comprising a stationary presser head, a movable presser head, a treadle, a bar for connecting the movable presser head and the treadle, and means adapted automatically to disconnect the treadle from operative connection with the bar when the treadle is in its inoperative position, and to connect the treadle therewith when moved from its inoperative position.

2. A pressing machine comprising a stationary pressing head, a movable presser head, a treadle, a bar for connecting the movable presser head and the treadle, the bar having under certain conditions a sliding engagement with the treadle, the bar being confined by a portion of the treadle so that one side of the bar remains a constant distance from an inclined surface provided upon the treadle adjacent the surface of the bar, a roller means for mounting said roller between the surface of the bar and the inclined surface, the roller mounting means adapted to move the rollers into binding engagement with and between the bar surface and the inclined surface, and means for moving the roller mounting means.

3. A pressing machine comprising a stationary presser head, a movable presser head, a treadle, a bar for connecting the movable presser head and the treadle, and means adapted automatically to disconnect the treadle from operative connection with the bar when the treadle is in its inoperative position, and to connect the treadle therewith when moved from its inoperative position, said means comprising inclined walls formed on opposite sides of a hole located in the treadle on each side of the bar which passes through the hole, a plate located in the treadle on each of the remaining sides of the bar and having slots formed therein, a roller mounted in the slots on each of the first mentioned sides of the bar and between it and its adjacent incline, and a lever pivotally mounted on the treadle and having one end adapted to engage the plates and its opposite end adapted to engage the frame of the machine when the treadle is in its normal position, whereby the plates will be maintained in an elevated position to withdraw the rollers from engagement with the first mentioned sides of the bar and the inclines, and whereby the lever will be disengaged from the frame when the treadle is moved to its operative position to permit the plates to drop to bring the rollers into gripping position between the inclines and the first mentioned sides of the bar.

1,257,195. CARBURETER. CHARLES DE LUKACSEVICS, New York, N. Y., assignor, by mesne assignments, to Edmund Loffler, New York, N. Y. Filed Dec. 16, 1916. Serial No. 137,416. (Cl. 261—44.)



1. In a carbureter, in combination, a casing having an air inlet, an upright nozzle located centrally within said casing and discharging above said air inlet, a tubular regulating valve, a guide arranged in spaced concentric relation within the casing and within which the valve has a close sliding fit, said valve surrounding said nozzle, a carbureting chamber above said nozzle, and a stationary valve element between said carbureting chamber and nozzle with which the valve cooperates at its upper end, the valve having a normally closed base and having air inlet openings above said base, said guide controlling the efficient size of said openings in accordance with the position of said valve.

3. In a carbureter, in combination, a casing having a body part provided with an internal valve guide depending from its upper end and having a bakelite part superimposed on said body part and providing a carbureting chamber, said valve guide being arranged in spaced, concentric relation to said body part, an upright fuel nozzle arranged centrally within said body part, said casing having an air supply pipe, a cylindrical bakelite regulating valve having a close sliding fit within said valve guide and surrounding said nozzle, said valve having a normally closed base and air inlet openings whose efficient size is controlled by said valve guide, and a stationary bakelite valve element arranged adjacent the lower end of said carbureting chamber and with which said valve co-acts at its upper end.

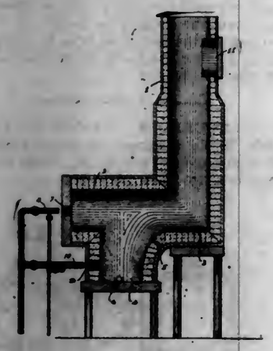
5. In a carbureter in combination, a casing provided with an air inlet and with an internal depending valve

guide, said valve guide and casing being in spaced concentric relation, an upright fuel nozzle, and a cylindrical regulating valve surrounding said nozzle and having a close sliding fit within said valve guide, said valve having a normally closed base and air inlet openings whose efficient size is controlled by said valve guide.

6. In a carbureter, in combination, a casing provided with an air inlet and with an internal depending valve guide, said valve guide and casing being in spaced concentric relation, an upright fuel nozzle, a cylindrical regulating valve surrounding said nozzle and having a close sliding fit within said valve guide, said valve having a normally closed base and air inlet openings whose efficient size is controlled by said valve guide, and a spring-held compensating air valve which forms a part of the normally closed base of the regulating valve.

[Claims 2 and 4 not printed in the Gazette.]

1,257,196. OIL-CUPOLA. FRANCIS E. DORF, Stockton, Cal. Filed Sept. 20, 1916. Serial No. 121,333. (Cl. 266—29.)



A cupola comprising a stack terminating in a shelf at its lower end, a fire chamber extending at right angles to and communicating with the stack, a pot disposed below the level of the shelf and having one side extending into juncture with the shelf, a liquid fuel burner disposed at the end of the fire chamber opposite the shelf whereby the flame from such burner will discharge across the top of the shelf and into the stack, and another burner arranged to discharge into the pot.

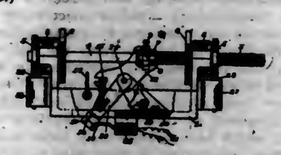
1,257,197. SELF-LUBRICATED SPRING FOR VEHICLES. JOHN C. DOWD, Merchantville, N. J. Filed Apr. 26, 1916. Serial No. 93,613. (Cl. 267—33.)



1. In a spring adapted to have its leaves lubricated, a member of said leaves having on a terminal thereof an attaching ear, a bolt in said ear for supporting the spring, said bolt having a lubricant receiving chamber therein, a lubricant supply cup on said bolt at an angle to the length of the latter and in communication with said chamber, and a freely rotatable bushing interposed between said bolt and ear, there being communicating ducts in said ear, bushing, and bolt whereby the lubricant is directed through said bolt from the chamber therein and through said bushing and ear to the said leaves.

[Claim 2 not printed in the Gazette.]

1,257,198. ELECTRIC SWITCH. JOHN DUNCAN, New Haven, Conn. Filed Dec. 28, 1916. Serial No. 139,390. (Cl. 74—46.)



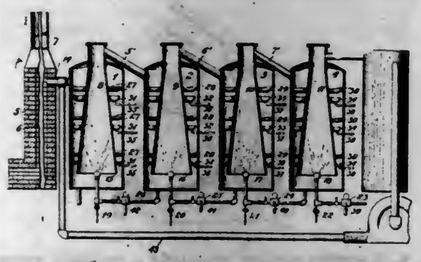
1. An electric switch comprising a circuit breaker, a longitudinally movable rod, a circuit-breaker-actuator mounted on the rod and movable with it, connections whereby movements of the rod in one direction or the other will shift the actuator and cause the circuit breaker to open or close a circuit, and means for intermittently operating said rod.

2. An electric switch comprising a circuit breaker, a longitudinally movable rod, connections whereby movements of the rod in one direction or the other will shift the circuit breaker to open or close a circuit, a pair of star wheels, one having a screw thread connection with the rod and the other being mounted to rotate with the rod while permitting the rod to slide through it, and means for preventing movement of the star wheels in the direction of their axes.

3. An electric switch comprising a circuit breaker, a longitudinally movable rod, connections whereby movements of the rod in one direction or the other will shift the circuit breaker to open or close a circuit, a pair of star wheels, one having a screw thread connection with the rod and the other being mounted to rotate with the rod while permitting the rod to slide through it, and means for preventing movement of the star wheels in the direction of their axes, means being provided for holding the star wheels stationary when not positively actuated.

[Claims 4 to 6 not printed in the Gazette.]

1,257,199. METHOD AND APPARATUS FOR TREATING PETROLEUM. ROY C. DUNDAS, Los Angeles, Cal. Filed Aug. 11, 1917. Serial No. 185,732. (Cl. 196—13.)

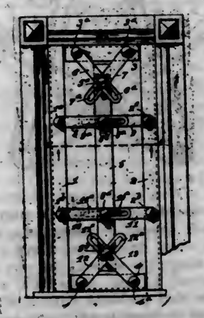


1. The method of treating petroleum which consists in spraying the oil into a vaporizing chamber and at the bottom thereof, supplying heated gases to the upper outer part of the vaporizing chamber and causing them to enter into the vaporizing chamber at the bottom thereof with the sprayed oil and pass upwardly inside said vaporizing chamber, and collecting the resultant products.

7. An apparatus for treating petroleum comprising a series of chambers each having suspended therein and free of the walls thereof a vaporizing flue, a pipe connecting each vaporizing flue with an adjoining chamber, means to supply heated gases to the first chamber and cause them to pass through said connecting pipes from one chamber to another whereby each vaporizing flue is progressively subjected to a different degree of heat, means in each chamber to collect the condensing products, a drain for said means, a condenser connected with the last vaporizing flue, and means connecting the condenser with the heated gas pipe to modify the heated gases.

[Claims 2 to 6 not printed in the Gazette.]

1,257,200. DEVICE FOR FITTING DOORS. WILLIAM H. DURKEE, Cleveland, Ohio, assignor of one-half to B. O. Hull, Burton, Ohio. Filed Mar. 2, 1917. Serial No. 151,981. (Cl. 33—194.)



2. In a pattern device for fitting objects to openings the combination of two side members; two end members; an intermediate supporting member; connecting members pivotally connected with the end members and adjustably connected with the supporting member; connecting members pivotally connected with the side members and adjustably connected with the supporting member, whereby said side and end members are relatively adjustable vertically, horizontally and angularly.

3. In a pattern device for fitting objects to openings the combination of two side members; two end members; an intermediate supporting member; connecting members pivotally connected with the end members and adjustably connected with the supporting member; connecting members pivotally connected with the side members and adjustably connected with the supporting member, whereby said side and end members are relatively adjustable vertically, horizontally and angularly; and means for making all connections rigid after adjustment.

[Claim 1 not printed in the Gazette.]

1,257,201. METHOD OF MAKING HEAT-RADIATING FINS. CHARLES A. ELIGH, Detroit, Mich., assignor to Long Manufacturing Company, Detroit, Mich., a Corporation of Michigan. Filed Aug. 13, 1915. Serial No. 45,285. (Cl. 113—116.)



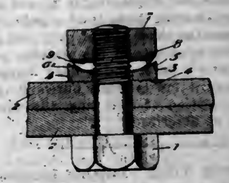
1. The herein described method of making heat radiating fins, which consists in corrugating a flat strip of metal in such a manner as to impart curvature to the strip in its own plane, then punching apertures in the strip, holding and supporting the strip while the punches travel from the top to the bottom of the corrugations, in such manner as to prevent the deformation of the corrugations.

3. The herein described method of making heat radiating fins, which consists in first strengthening two parallel edges of a strip, then cutting off the strip to the desired length, then deforming the strip with corrugations which are deep at one edge and diminish in depth as they approach the opposite edge to shorten the edge of the strip having deep corrugations and thereby curve the strip and maintain it in its own plane, and thereafter perforating the strip.

6. The herein described method of making heat radiating fins which consists in first shaping the edges of a flat strip of metal and concurrently wiring one edge thereof, thereafter corrugating the strip with corrugations which are deepest at the unwired edge and gradually diminishing in depth as they approach the wired edge, thereby shortening the unwired edge and to a gradually diminishing extent the intermediate portions of the strip, so as to produce curvature of the strip in its own plane, and thereafter perforating the strip.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,257,202. NUT-LOCK. WALTER E. EMERY, Peoria, Ill. Filed May 8, 1917. Serial No. 167,373. (Cl. 151—19.)



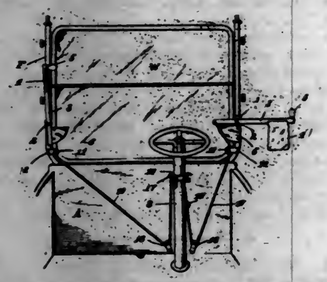
1. In combination with a bolt, of locking means therefor including a washer having an inner straight face provided with outwardly extending spurs, the outer face of the said washer being concaved and being provided with radially disposed slight substantially V-shaped ribs and the said washer adapted to be received upon the bolt, a nut designed to be screwed upon the bolt and having an inner convexed face of a slightly different angle or contour than the concaved face of the washer, the convex face of the nut having radial slits, the corners of the walls provided by the slits being beveled in opposite directions, said nut adapted to have its convex face received in the concaved face of the washer whereby to compress the portions of the nut between the slits thereof into frictional engagement with the threads of the bolt whereby to permit of the slight ribs of the washer being received in the widened outer portions of the slits of the nut to lock the washer to the nut.

2. In combination with a bolt, of locking means therefor including an inner member loosely arranged on the bolt and an outer member threaded on the bolt and designed to contact with the inner member, said inner member having its inner face provided with spurs, said members having their confronting faces provided with interengaging respective male and female surfaces, one of said surfaces being of a slightly different contour from the other confronting surface, one of said surfaces having radial slits, the corners of the walls provided by said slits being beveled in opposite directions, the other confronting surface having radially disposed slight substantially V-shaped ribs designed to be received in the widened outer portions of the slits to lock the members associated when the outer member has been screwed home on the bolt.

1,257,203. AUTOMOBILE-SIGNAL. JOHN I. EMM, Syracuse, N. Y. Filed Mar. 9, 1917. Serial No. 153,665. (Cl. 116—31.)

1. An automobile signal, the combination with the signals proper, two levers supporting them at their outer ends and respectively pivoted near their inner ends on the side bars of the wind shield, cords leading from the inner ends of said levers over guide pulleys to points inside the dash, and rings within said cords near their inner ends; of a hook plate secured beneath the steering post within reach of the operator's knee and to which plate the inner ends of said cords are attached, said plate

having laterally projecting horns with which either ring may be engaged to hold its signal raised, for the purpose set forth.



2. In an automobile signal, the combination with the signal proper, means for displaying it at one side of the wind shield, a cord leading from it to a point within the car, and a ring near the inner end of said cord; of a hook plate clipped to the rear side of the steering post within reach of the operator's knee, and a horn formed on said plate and bent upward and laterally outward and tapered to its point for reception of said ring, the whole for action substantially as described.

1,257,204. RUBBER TIRE. PHILLIP EHRENWEIN, New York, N. Y. Filed Jan. 2, 1917. Serial No. 140,310. (Cl. 152—1.)

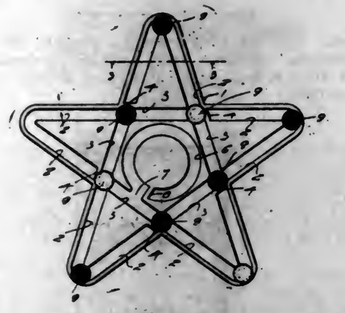


1. A dual solid rubber tire structure having in combination a rim formed of counterpart, continuous, annular members adapted to be mounted in abutting lateral juxtaposition on a common support, each member having an annular flange circumscribing its outer margin and a pair of structurally independent, continuous, annular, counterpart sections of solid rubber vulcanized on the respective members, said sections laterally abutting said flanges, having transversely straight tread faces and having their inner side faces in laterally abutting relation and in planes normal to their inner circumferential faces, said sections also having transverse relatively deep recesses arranged at regular intervals and opening to their tread and outer side faces, the bases of said recesses extending from points adjacent the margins of said flanges to points short of the center of the tire.

2. A dual solid rubber tire structure having in combination a rim formed of counterpart, continuous, annular members adapted to be mounted in abutting lateral juxtaposition on a common support, a pair of structurally independent, continuous, annular counter-part sections of solid rubber vulcanized on the respective members, said sections having transversely straight tread faces and having their inner side faces in lateral abutting relation and in planes normal to their inner circumferential faces, said sections also having transverse relatively deep recesses arranged at regular intervals and opening to the tread and outer side faces, the bases of said recesses extending from points somewhat close to said rim to points short of the center of the tire.

1,257,205. PUZZLE. ANTHONY C. FALLACE, Bridgeboro, N. J. Filed Aug. 28, 1917. Serial No. 188,553. (Cl. 46—41.)

1. A game board, comprising a star-shape member, slots around its periphery, slots connecting said peripheral slots, a circular slot, said circular slot being connected at a point with said slots connecting the peripheral slots, and movable players in the slots, as herein before described.



2. A game board, comprising a star-shape member, slots or channels around its periphery, slots connecting said peripheral slots or grooves, plugs or stops in said slots at points where the sides of the star points intersect, a circular channel having connection with the beforementioned slots, and provided with a stop or plug at a point near where it connects with said connecting slots.

[Claim 3 not printed in the Gazette.]

1,257,206. PROTECTOR FOR BABY-CARRIAGES AND THE LIKE. ANNE FERNBACH, New York, N. Y. Filed Aug. 30, 1916. Serial No. 117,654. (Cl. 5—14.)

1. A protector for baby carriages and the like, comprising a body made of a piece of fabric netting and having a shirred rear portion to form a hood, a top portion, sides and front, an inelastic tape to which the lower edge of the said shirred portion is attached, rear attaching means attached to the tape at the middle thereof for engagement with the back of the baby carriage, side attaching means attached to the ends of the tape for engagement with the sides of the baby carriage, and elastic bands attached to the ends of the said tape and extending forwardly over the side portions and the front of the fabric netting and fastening means for connecting the front ends of the said bands with each other at the front end of the carriage.

2. A protector for baby carriages and the like, comprising a body formed of a piece of fabric netting having a shirred rear portion forming a hood, and a securing tape adapted to surround the edge of the said body and consisting of an inelastic rear portion secured throughout its length to the shirred rear portion of the body, and freely extending forward elastic portions having attaching means at their forward ends and connected at their rear ends to the forward ends of said inelastic portion.

1,257,207. SAFETY-PIN. ORLANDO C. FETZER, Sterling, Ohio. Filed Oct. 23, 1914. Serial No. 868,269. (Cl. 24—155.)

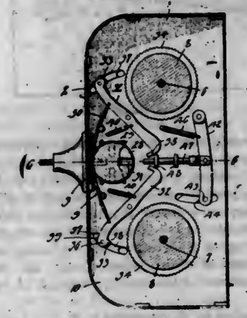


1. In a safety pin of the class described, the combination of a semi-spherical head having a flat inner face, a lug projecting from said face adjacent the periphery of said head, said head also having a pocket formed therein adjacent the opposite side thereof with respect to the side adjacent which the lug is formed, a tapering pin carried by said pocket and extending therefrom, a spring carried by said lug, a cylindrical cap having a lug extending therefrom adjacent its periphery, said last mentioned lug being secured to said spring, thus connecting said spring to said head and cap, said cap having a longitudinally disposed recess formed therein, the surface of said spring being in



alinement with said recess, thus constituting a guide for assisting in directing the point of the pin into said recess, said pin extending across the central longitudinal axis of said body to constitute an off-center bearing of the cap upon the pin, thus preventing the accidental displacement of the point of the pin, and said spring being of such length as to be entirely closed when holding said cap upon said pin, thus preventing injury to the operator's fingers in gripping the spring, when the pin is in use, owing to the even outer surface of the spring.

1,257,208. STREET-INDICATOR. MICHAEL FITZGERALD, Medina, N. Y., assignor of one-third to James H. Conley and one-third to George R. Conley, Medina, N. Y. Filed Feb. 21, 1917. Serial No. 150,124. (Cl. 40—87.)



1. In an indicator of the character described, a pair of drums, a web connected to and windable on said drums, means for driving one of said drums to wind the web thereon, a roller having teeth working through openings in the web, and a lever controlled by the roller to lock the driven drum after it has moved the web a fixed distance.

4. In an indicator of the character described, a casing having a sight opening, a pair of drums, a web connected to said drums and windable thereon, means for selectively driving the drums, a ratchet wheel on each of the drums, a ratchet lever for each drum to lockingly engage the ratchet wheel thereof, a roller being formed with radial sockets, teeth on the ratchet levers to seat in said sockets and allow the ratchet levers to lockingly engage their ratchet wheels and means for holding one of the ratchet levers inactive, the other ratchet lever operating to lock the driven drum after it has advanced the web a predetermined distance.

7. In an indicator of the character described, a web driven roller having radial sockets, and bell sounding mechanism engageable in said sockets to ring a bell.

8. In an indicator of the character described, a web driven roller having radial sockets formed therein, a bell, a spring pressed lever having an arm to sound said bell and a bolt seatable in said sockets to allow the lever to move into operative position.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,257,209. EVAPORATING-TANK. WILLIAM E. FLETCHER, Tamaqua, Pa., assignor to Atlas Powder Company, Wilmington, Del., a Corporation of Delaware. Filed Apr. 13, 1916. Serial No. 90,811. (Cl. 257—238.)

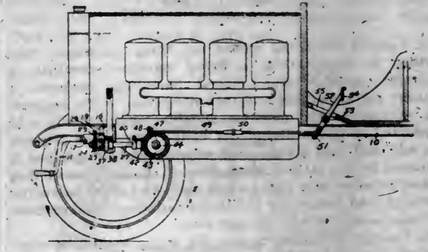


1. An evaporator comprising a pan having removable spur tubes arranged therein end to end and spaced from each other.

3. An evaporator comprising a pan, a series of flanged ports extending along opposite sides of said pan adjacent the bottom thereof, a flanged spur tube extending through each of said ports, the ends of adjacent tubes being in line with each other and slightly spaced, a steam manifold at each end of said pan provided with flanged outlets, and a flanged elbow connecting each flanged manifold outlet with one of the flanged ports, each elbow having mounted therein a bleed pipe adapted to project into the adjacent spur tube.

[Claim 2 not printed in the Gazette.]

1,257,210. ENGINE-STARTER. SAMUEL CLIFFORD FORRESTER, Atlanta, Ga. Filed Apr. 8, 1916. Serial No. 89,889. (Cl. 123—185.)



In an engine starter, the combination with an engine shaft, of a shaft adjacent thereto, a ratchet wheel loose on said second shaft and having operative connection with the engine shaft, a pawl carrying member secured to said second shaft and having a slotted opening and a pawl housing, a pawl movable in said housing to and from engagement with the ratchet wheel and having a pin projecting laterally through the slotted opening of said pawl carrying member, a spring within the said housing and engaging the pawl to normally force the same into engagement with the ratchet wheel, a bearing for the said second shaft, a cam shoe secured to said bearing and engaging the said pin at the limits of movement of the pawl carrying member to force the pawl out of engagement with the ratchet wheel, an operating lever, and connections between said lever and said second shaft for rotating the latter when the lever is moved.

1,257,211. STOCK-WATERING TANK. GEORGE B. FROST, Des Moines, Iowa. Filed May 26, 1917. Serial No. 171,308. (Cl. 119—73.)

1. In a device of the class described, the combination of an outer receptacle, having an opening in its wall, an inner tank spaced from the side walls and the bottom of said receptacle, a trough mounted to slide inwardly and outwardly through said opening below said tank, said receptacle having below said tank and trough a compartment for holding the heater, whereby the trough may be located within the area of the receptacle, means for conducting water from the bottom of said tank to said trough,

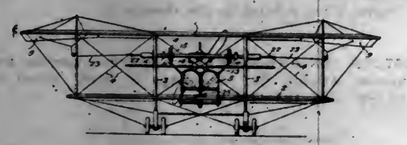
said means including a valve, and a movable controlling member therefor, forming a water conducting means, and designed to normally extend into the trough for forming a



water seal, and adapted when said trough is slid out of said receptacle to be engaged by the trough wall, and moved to position for closing said valve.

[Claim 2 not printed in the Gazette.]

1,257,212. FLYING-MACHINE. VINCENT P. GALLE, Freemansburg, Pa. Filed June 1, 1917. Serial No. 172,380. (Cl. 244—29.)



1. Lateral balancing means for flying machines, comprising in combination, a flying machine structure, a laterally movable seat, lateral balancing surfaces, a plunger rod in parallel and spaced relation to the supporting surface of the machine slidable longitudinally and supported by the medial struts, connecting means between the seat and said plunger rod whereby the plunger rod is actuated by the lateral movements of the seat, connecting means between said plunger rod and the lateral balancing surfaces, and means for yieldingly resisting the longitudinal movements of said plunger rod.

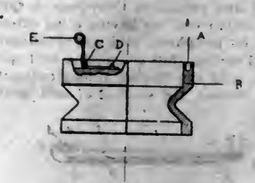
6. Lateral balancing means for flying machines, comprising in combination, a flying machine structure, a laterally movable seat, lateral balancing surfaces, a plunger rod in parallel and spaced relation to the supporting surface of the machine slidable longitudinally and supported by the medial struts, connecting means between the seat and said plunger rod whereby the plunger rod is actuated by the lateral movements of the seat, connecting means between said plunger rod and the lateral balancing surfaces, means for yieldingly resisting the longitudinal movements of said plunger rod, said plunger rod being graduated, and stop sleeves surrounding said plunger rod and adjustable along the graduated portions thereof toward and away from said struts, said stop sleeves serving to limit the longitudinal movements of the plunger rod by contact with said struts.

[Claims 2 to 5 not printed in the Gazette.]

1,257,213. YARN-GUIDE EYE. JOSEPH SHAW GAUNT and HARRY DYSON, Manchester, England. Filed June 18, 1917. Serial No. 175,260. (Cl. 118—57.)

1. A rotary cup or flier having a groove, a bridge in said groove, and a removable yarn guide including an eye, a shank and a shank base, slidable in the groove, the shank and base being formed to coöperate with said groove and bridge in retaining the guide in place on the flier, the shank being arranged to abut against said bridge to limit the sliding movement in one direction.

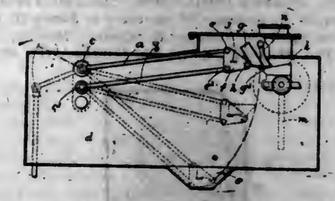
3. A rotary cup or flier having a groove, spaced apart pins bridging the groove, and a removable yarn guide including an eye, a shank and a shank base, said base being composed of longer and shorter members projecting in opposite directions from the shank and slidable in the groove, said pins being spaced apart to permit the insertion of the shorter base member between them after the longer base member has been engaged with one pin, and



to also permit a subsequent sliding movement of the base to engage the shorter member and the shank with the other pin, the shank being arranged to abut against one of said pins to limit the sliding movement in one direction.

[Claim 2 not printed in the Gazette.]

1,257,214. MEANS FOR SUPPLYING LIQUID HYDROCARBON TO CARBURETERS. JOHN THOMAS GRAHAM, Halstead, England. Filed Apr. 12, 1917. Serial No. 161,627. (Cl. 221—97.)



1. Means for supplying predetermined quantities of liquid hydrocarbon to carbureters comprising a reservoir for the liquid hydrocarbon, a well in the base of said reservoir, a distortable parallelogrammatic frame disposed in the reservoir and having a cradle pivoted to one end thereof, a cup or dipper pivotally mounted in the cradle, and means to tilt said cup in the cradle, the cup being adapted to pick up quantities of hydrocarbon from the reservoir and discharge the same to the feeding means of the carbureter.

[Claim 2 not printed in the Gazette.]

1,257,215. STAFF-HOLDER AND SPOT-MARKER. JAMES H. GREENE, Brookline, Mass. Filed May 21, 1917. Serial No. 169,990. (Cl. 248—38.)

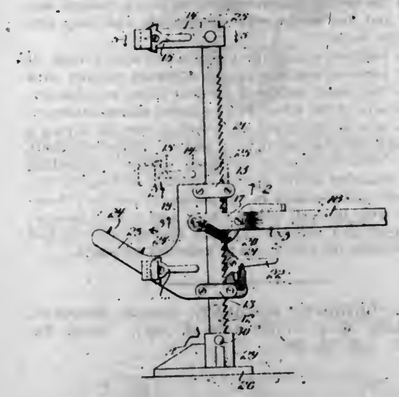


1. A device of the type described comprising a member having a longitudinally extending groove formed in its contour adapted for insertion into the ground, and a portion at one extremity of said member adapted to engage the ground surface and coöperating with the groove in the member and the ground adjacent thereto to maintain a staff in vertical position.

4. As an article of manufacture consisting of a plate member having an aperture adapted to flatly engage the ground surface, and an integral stem depending centrally therefrom, adapted for insertion into the ground, said stem being provided with a longitudinally extending groove in its contour and in alinement with the aperture for receiving a staff and co-acting with the ground in proximity thereto to support the staff in vertical position.

[Claims 2 and 3 not printed in the Gazette.]

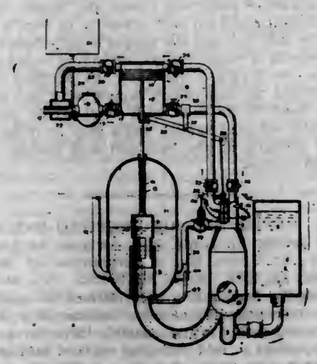
1,257,216. COMBINATION WIRE-STRETCHER AND WAGON-JACK. ROMA M. GREUTMANN, WILLIAM J. GREUTMANN, and JOHN GREUTMANN, Miller, Nebr. Filed Aug. 25, 1917. Serial No. 188,211. (Cl. 254—181.)



2. A device of the class described comprising a pair of relatively movable members, a lever pivoted on one of said members and operating upon the other member to effect an adjustment between said parts, means for holding said member in adjusted position, an arm slidably associated with one of said members and normally projecting at a right angle therefrom, means for holding said arm fixed relatively to said member adjacent the upper end of the latter, and said arm being adapted to rest upon the other member for movement therewith with respect to the first mentioned member whereby said device is converted into a lifting jack.

[Claims 1 and 3 not printed in the Gazette.]

1,257,217. INTERNAL-COMBUSTION PUMP. VICTOR GRIFFITH, San Francisco, Cal. Filed Jan. 22, 1917. Serial No. 143,552. (Cl. 160—1A.)



1. In an apparatus of the character described, the combination of an internal combustion chamber, a liquid chamber communicating therewith through a valve seat, a float valve for closing said seat and a pressure chamber communicating with said liquid and combustion chambers through separate channels.

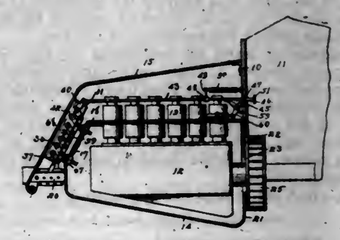
3. In an apparatus of the character described, the combination of an internal combustion chamber, an outlet valve therefrom, a pressure chamber, a valve for controlling a communication between said internal combustion chamber and the pressure chamber, and means operated by said valve for opening the outlet valve from the internal combustion chamber.

5. In an apparatus of the character described, the combination of an internal combustion chamber, a pressure chamber, a valve for controlling a communication between said internal combustion chamber and the pressure chamber and means operated by said valve for supplying the fluid fuel to and drawing the waste gases from, said internal combustion chamber.

7. In an apparatus of the character described, the combination of an internal combustion chamber, an outlet valve therefor, a pressure chamber, a valve for controlling a communication between said internal combustion chamber and the pressure chamber, a spark plug in the internal combustion chamber, an electric circuit therefor, a spring for closing said valve, means whereby the closure of said valve closes said circuit, said valve being arranged to be opened by the excess of pressure over that in the internal combustion chamber and means operated by said valve for controlling said circuit.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,257,218. HEAT-CONTROLLER FOR AIR-COOLED ENGINES. LESLIE W. GRISWOLD, Cooper, Iowa. Filed Mar. 29, 1917. Serial No. 158,460. (Cl. 123—171.)



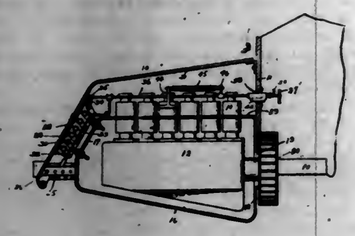
1. A heat controller for air cooled engines comprising a frame having a portion designed to fit adjacent to an opening in the front wall of an automobile hood and having another portion adapted to fit adjacent to an opening below said first opening, said portions lying in substantially different planes, shutter closure devices supported by said different portions of said frame, and means for operating said shutter closure devices.

2. A heat controller for air cooled engines comprising a frame having a portion designed to fit adjacent to an opening in the front wall of an automobile hood and having another portion adapted to fit adjacent to an opening below said first opening, said portions lying in substantially different planes, shutter closure devices supported by said different portions of said frame, means for operating said shutter closure devices, and means for operating the lower closure device including the pivoted member on the upper frame portion of said frame.

1,257,219. HEAT-CONTROLLER FOR AIR-COOLED ENGINES. LESLIE W. GRISWOLD, Cooper, Iowa. Filed Sept. 4, 1917. Serial No. 189,665. (Cl. 123—171.)

1. In a device of the class described, the combination of a frame with an engine supported thereon, said frame having a dash, a casing for receiving the lower portion of said engine having an upwardly extending forward wall, a hood for receiving the upper portion of said engine having a

downwardly extending portion spaced forwardly from the forward wall of said casing, and provided with an opening, and being so arranged as to leave an opening below the lower portion of said forward wall and said forward downwardly extending portion, adjustable closure devices for said openings, and a single controlling means operatively connected with both of said closure devices, whereby movement of said controlling means in one direction operates one of said closure devices without operating the other, and the movement of said controlling means in another direction operates the other of said closure devices without operating the one.

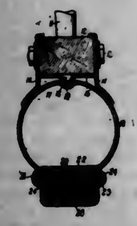


2. In a device of the class described, the combination of a frame, with an engine supported thereon, an inclosing casing for said engine having two openings, adjustable closure devices for said openings, a single operating controlling member, means for operatively connecting said controlling member with both of said closure devices, whereby the movement of said controlling member in one direction operates the one of said closure devices independently of the other, and whereby the movement of said controlling member in another direction operates the other of said closure devices independently of the one.

9. An adjustable device for controlling air flow, comprising closure devices, a single controlling member for said closure devices, means for operatively connecting said controlling member with said closure devices, whereby movement of the controlling member in one direction operates one of said closure devices, and movement of the controlling member in another direction operates the other of said closure devices.

[Claims 3 to 8 not printed in the Gazette.]

1,257,220. RESILIENT WHEEL. MARTIN GROSSMAN, New York, N. Y. Filed Aug. 27, 1917. Serial No. 188,437. (Cl. 152—8.)

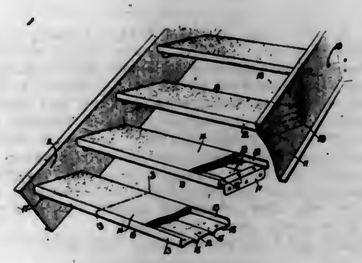


1. In a vehicle wheel, the combination with a hub, a felly and connections between the hub and felly, of a tire structure surrounding the felly, said tire structure comprising a circular series of radially disposed rounded spring elements comprising tongues formed on their free ends, each tongue terminating in a knuckle, a band surrounding the circular series of spring elements, means connecting the edges of the band to the spring element knuckles forming a channel, a tread member seated in said channel, and means to lock the tire structure to the felly.

2. In a wheel of the character set forth including a felly, a band fitted upon the periphery of the felly, a circular series of spring elements of rounded form surrounding said band, means to lock said spring elements in place upon the band from lateral movement, said spring elements including overlapping tongue members terminating in rounded knuckles, the knuckles of each element being staggered on one side with respect to those on the opposite side of the central plane of the wheel, a band surrounding the tongue portions of the spring elements and having rounded knuckles formed upon its opposite edges, the latter mentioned knuckles also being staggered on opposite edges and lying between the respective knuckles of the spring elements, a pair of hoops extending through all of said knuckles and interlocking the latter mentioned band and the spring elements together, and a cushion surrounding and located between the knuckle and hoop portions of the device.

3. In a resilient wheel, the combination with a felly, of a circular series of spring elements arranged radially with respect to the wheel and each element being bounded circumferentially of the wheel by two radial planes intersecting in the axis of the wheel, each spring element having a pair of tongues terminating in a pair of circumferentially arranged laterally spaced knuckles, means coöperating with the knuckles of the spring elements serving to lock together circumferentially in two series the portions thereof remote from the axis of the wheel, and a tread member secured upon and surrounding said spring elements and located between the two series of knuckles aforesaid.

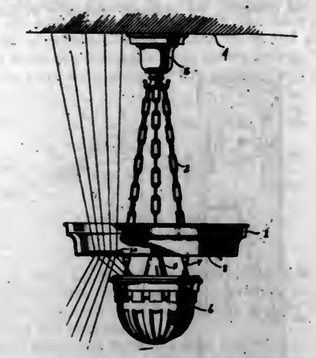
1,257,221. BUILDING ELEMENT. SAMUEL GROSSMAN, New York, N. Y. Filed June 4, 1917. Serial No. 172,698. (Cl. 72—96.)



A tread for stairs, comprising a base formed of a rectangular sheet metal plate having at each longitudinal edge an upwardly projecting flange, the flanges being of the same height and each bent inwardly to form a rounded edge, the base between the flanges being crimped downwardly forming V-shape valleys, extending longitudinally throughout the length of the base, the portions between the valleys and the valleys and flanges being flat, the base being provided at its ends with downwardly extending right angular securing flanges, and a filler or tread proper of plastic material on the base and held thereon by the flanges and valleys.

1,257,222. REFLECTOR FOR LIGHTING UNITS. EDWIN F. GUTH, St. Louis, Mo., assignor to Luminous Unit Co., St. Louis, Mo., a Corporation of Missouri. Filed May 18, 1916. Serial No. 98,292. (Cl. 240—92.)

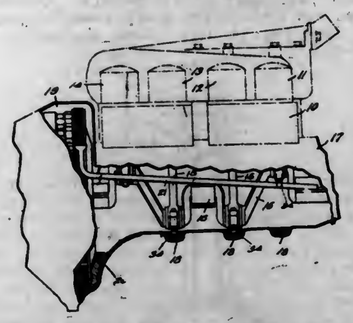
1. A reflector for lighting units formed of opaque material, the reflecting surface being substantially flat and finished in depolished white enamel, there being a plurality of openings in said reflecting surface, said openings being covered with white opal glass sufficiently dense to reflect a portion of the light rays, but which is sufficiently translucent to permit a portion of said rays to pass through so as to dissipate the shadow lines in the ceiling,



the area of said openings being of such size as will not materially decrease the efficiency of the reflector.

[Claim 2 not printed in the Gazette.]

1,257,223. OILER. JULES HALTENBERGER, Jackson, Mich. Filed Apr. 7, 1917. Serial No. 160,398. (Cl. 184—13.)



1. In combination, a multiple cylinder engine having cylinders, pistons, a crank shaft, connecting rods connecting the crank shafts and pistons, and a crank case, said crank case having oil pockets in its bottom in the planes of connecting rods, and skewed splashers on the ends of the connecting rods for dipping into said pockets and splashing oil therefrom longitudinally of the crank case.

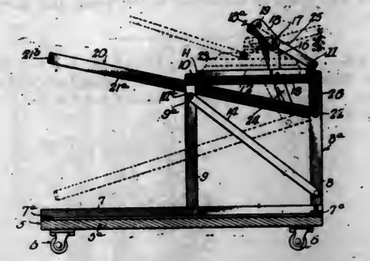
6. As an article of manufacture, an oil splasher comprising a base member arranged for attachment to a connecting rod, and a skewed splasher portion in a plane transverse to that of the base portion.

9. In combination, a multiple cylinder engine having cylinders, pistons, a crank shaft, connecting rods connecting the crank shafts and pistons, and a crank case, said crank case having oil pockets in its bottom in the planes of connecting rods, skewed splashers on the ends of the connecting rods for dipping into said pockets and splashing oil therefrom longitudinally of the crank case toward one end thereof, and means for automatically feeding said oil toward the other end of the crank case.

[Claims 2 to 5, 7, 8, and 10 not printed in the Gazette.]

1,257,224. MOP-WRINGER. THEODORE W. HANRATH, Chicago, Ill., assignor of one-half to Joseph H. Goldner, Chicago, Ill. Filed Feb. 5, 1917. Serial No. 146,647. (Cl. 15—12.)

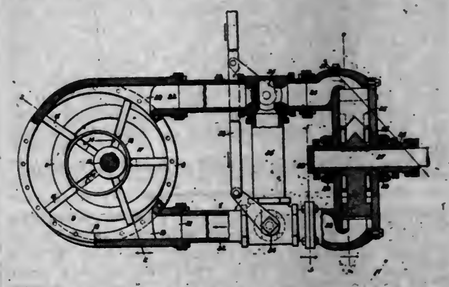
1. A mop wringer comprising a base, upright, spaced bars arranged in pairs, pivoted at their bottom ends to the lateral edges of said base, a frame pivoted to the top ends of said spaced bars, a perforated plate carried by said frame, a movable jaw capable of a vertical movement carried by said frame above said perforated plate, a treadle pivoted to one pair of said bars, means operatively connecting said treadle with said movable jaw for imparting a downward movement to said movable jaw toward said plate when said treadle is depressed, and means for returning said movable jaw and treadle to their normal position upon release of said treadle.



4. A mop wringer comprising a rectangular base having upright flanges at its lateral edges, upright, spaced standards arranged in pairs pivoted at their bottom edges to said upright flanges, a brace bar detachably connecting the upright standards pivoted on the said upright flanges, a frame pivoted to the top ends of same upright standards, a perforated plate secured in said frame, standards rising from the sides of said frame, a shaft journaled in said standards, bars pivoted on said shaft, a movable jaw fixed to the front ends of said bars, and a transverse shaft extending through said bars adjacent said movable jaw, a treadle pivoted to one pair of said bars, links operatively connecting said treadle with said last mentioned shaft for imparting a downward movement to the movable jaw toward said plate when said treadle is depressed, a lever pivoted on the first mentioned shaft journaled in said standards, said lever extending at its front end into the vicinity of and operatively engaging with said second mentioned shaft, the rear end of said lever extending into the plane of the rearmost of the upright standards, and a contractile, coiled spring operatively connecting the rear end of said lever to the fixed part of said standards.

[Claims 2 and 3 not printed in the Gazette.]

1,257,225. DIFFERENTIAL TRANSMISSION. HENRY HANSEN and JAMES A. MONTGOMERY, Ukiah, Cal. Filed Mar. 16, 1917. Serial No. 155,220. (Cl. 138—22.)



1. In a fluid transmission, a rotary pump comprising a stator, a rotor, said stator having an inlet and an outlet and elongated openings in the heads of the stator in a plane midway between the inlet and the outlet, a shaft for said rotor engaging the elongated openings, bearings for said shaft, boxes on the heads of the stator engaging the bearings, and means for moving said bearings in said

boxes whereby the position of the rotor in the stator may be altered, substantially as and for the purpose set forth.

2. In a fluid transmission, a rotary pump comprising a stator, a rotor, said stator having an inlet and an outlet and elongated openings in the heads of the stator in a plane midway between the inlet and the outlet, a shaft for said rotor engaging the elongated openings, bearings for said shaft, boxes on the heads of the stator engaging the bearings, means for moving said bearings in said boxes whereby the position of the rotor in the stator may be altered, and a motor connected to the pump and operable thereby.

1,257,226. UNDERREAMER. FRANK A. HAUGH, Eldorado, Kans., assignor to Camdon L. Bloom, Independence, Kans. Filed Mar. 31, 1917. Serial No. 158,886. (Cl. 255—76.)



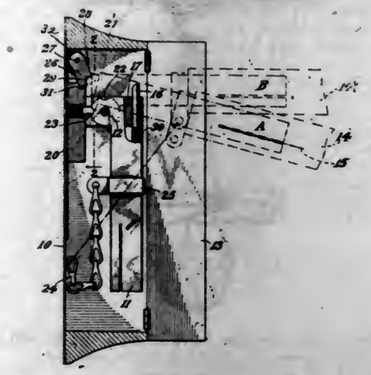
1. In an underreamer, a cylinder provided with a lower series and an upper series of circumferentially arranged longitudinally extending slots, a cutter movably mounted in each slot, a plunger having heads thereon adapted to engage the cutters to simultaneously actuate the upper and lower series thereof, and means for actuating said plunger to allow the cutters to move inwardly or to hold the same rigidly projected in their slots.

7. In an underreamer, a cylinder having a series of slots arranged circumferentially therearound, cutters movably mounted in said slots, a plunger rod provided with a head engaging said cutters to hold the same projected and rigid, said cylinder being provided with a diametrically extending slot above said cutters into which the plunger rod projects, a spring for normally moving said plunger head into engagement with said cutters, a cross bar at the upper end of said plunger rod, beel crank levers pivoted within said diametrically extending slot and having arms engaging said cross bar, trips pivotally connected at certain ends to the opposite ends of said bell crank levers and having a link connection at their opposite ends to the walls of said slot, said spring normally tending to hold said trips in projected position, the movement of the trips in the opposite direction raising the plunger rod and disengaging the head thereof from the cutters.

[Claims 2 to 6 and 8 to 11 not printed in the Gazette.]

1,257,227. ACTUATING MEANS FOR WATCHMEN'S CLOCKS. ELLIS C. HEALY, East Orange, N. J., assignor to Newman Clock Company, New York, N. Y., a Corporation of New York. Filed Nov. 20, 1914, Serial No. 873,191. Renewed Jan. 4, 1918. Serial No. 210,376. (Cl. 234—39.)

2. A receptacle in combination with a key adapted to contain impression producing means and located in said receptacle, means for pivoting the key to the receptacle so that the key is adapted to oscillate into and out of the same, and means for audibly indicating when the key has been oscillated outwardly sufficiently to actuate the impression producing means comprising a plunger connected to said impression means; and a member provided with a surface for camming the plunger inwardly with respect to



said key and provided with an offset against which said plunger is adapted to snap.

[Claims 1 and 3 to 6 not printed in the Gazette.]

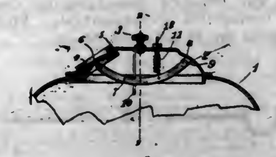
1,257,228. NON-REFILLABLE BOTTLE. CHARLES S. HERSH and CHRISTOPHER J. O'CONNOR, Philadelphia, Pa. Filed Dec. 18, 1915. Serial No. 67,621. (Cl. 215—69.)



In combination with the neck of a bottle, a cylindrical casing secured upon the end of the neck thereof in end to end relation therewith and having an apertured outer end, a washer disposed between said neck and said casing and having an opening therein, an inverted hemi-spherical valve seat upon said washer and normally closing the opening therein, radial ribs extending inwardly from said casing and extending from the bottom thereof to a point adjacent the top thereof, a baffle plate seated upon the upper ends of said ribs, a float slidable loosely within said ribs and concaved on its bottom face to engage said valve, and a weight disposed on said float and an outwardly extending flange on said valve, the inner end portions of said ribs being reduced and guidably engaging the flange on said valve, to prevent lateral displacement thereof when said valve is unseated.

1,257,229. KETTLE-LID. ROBERT E. HESTER, Westminster, Colo. Filed May 5, 1917. Serial No. 166,666. (Cl. 53—9.)

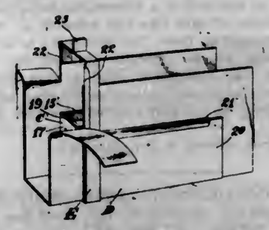
3. In a device for the purpose set forth, a kettle lid having a round opening, a flat ring member received in the opening and approximately centrally secured therein, said ring being arranged at an outward inclination with respect to the lid, a valve which is of a concavo-convex cross sectional formation having its outer rounded portion received in the ring and contacting with the inner edge of the ring, an arch-shaped stem for the valve and pivotally connected with the lid, adjustable spring means between the lid and stem for regulating the pressure of the valve



against its seat, a bail-shaped guide secured to the lid straddling the stem and designed to prevent the lateral movement of the stem and to limit the inward swinging movement of the said stem.

[Claims 1 and 2 not printed in the Gazette.]

1,257,230. BUTTER-MOLD. JOHN HIGGINBOTHAM, Van Alstyne, Tex. Filed Oct. 27, 1916. Serial No. 128,089. (Cl. 93—2.)



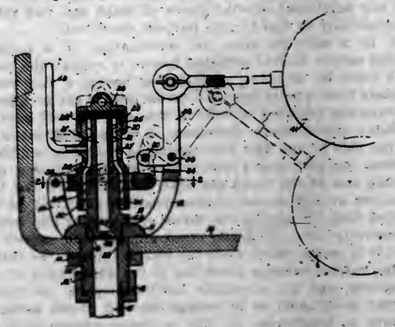
1. The herein described method of wrapping butter consisting of first placing a piece of wrapping paper about the bottom and sides of a core of the same shape and size as the finished package, then placing a cutting frame upon the ends of the core, one edge of said frame being positioned flush with the end of the core, then shearing the ends of the paper along said frame to the edge of the core to form flaps, then folding the ends of the paper against the core and placing the paper and core within a mold, then removing the core and placing the butter within the paper receptacle formed and folding the flaps inwardly upon the butter and finally folding the longitudinal edges of the paper over the package prior to removing the latter from the mold.

2. A package wrapping device embodying a core for receiving the wrapping paper thereon, a U-shaped clamp adapted to snugly fit said core over said paper and retain the latter in position, a cutting frame engageable over the end of said clamp and extending laterally therefrom, cutting edges formed on the lateral extension of said frame and stops located upon each side of the U-shaped clamp for positioning said cutting frame.

1,257,231. FLUSH-TANK VALVE. ELIJAH R. HILL, New Albany, Miss. Filed Feb. 28, 1917. Serial No. 151,436. (Cl. 137—104.)

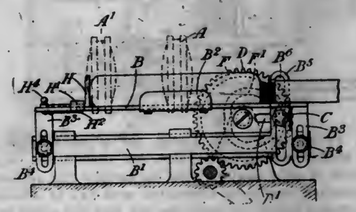
1. In valve mechanism for flush tanks, the combination of an upwardly projecting inlet nozzle whose upper end constitutes a valve seat, said nozzle comprising a plurality of coaxial tubular cylindrical guide portions of different diameters, a valve coöperating with said seat and comprising a sleeve projecting downwardly over said nozzle and having a plurality of cylindrical tubular portions spaced equally from the respective tubular portions of the nozzle and means to automatically control the position of the valve, said valve also including a cap carrying a gasket and removable from the upper end of the sleeve without disturbing any other part of the device.

2. In a flush tank valve, the combination of a rigid base having a central threaded socket and a pair of upwardly projecting standards on opposite sides thereof, a nozzle having a bose removably fitted into said socket and supported thereby rigidly upon the base, the opposite end of the nozzle constituting a valve seat, a strainer held in the socket between the base and the nozzle, a sleeve fitted in spaced relation over said nozzle and having an



open end adjacent to the base, the opposite end of the sleeve being sealed and coöperating directly with said seat, and an elliptical yoke pivoted at one end to one standard and surrounding said sleeve, said sleeve having laterally projecting studs and the yoke having slots into which the studs project, and means connecting the other end of the yoke to the other standard for controlling the position of the sleeve with respect to the nozzle.

1,257,232. KNIFE-MACHINE. JOSEPH ALBERT HILL, Sheffield, England. Filed June 19, 1917. Serial No. 175,671. (Cl. 51—7.)



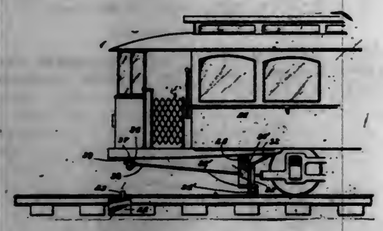
1. In a knife-machine, the combination of, a carrier having spring jaws to engage the blade of a knife by its sides, guides for the carrier to permit it to slide in the lengthwise direction of the knife, a variable-throw crank for reciprocating the carrier along the guides, means for setting the throw of the crank to suit the length of knife to be operated upon, and an adjustable limiting-stop on the knife-carriage so situated as to engage the end of the knife when pushed into the carriage, thus to situate it lengthwise on the carriage, a rotary tool mounted so that its periphery bears against the side of the blade and at the edge thereof during the whole of its reciprocating movements with the carrier, and means operatively connecting the carrier and tool so that the tool continuously rotates against the blade as the carrier reciprocates upon its guides, substantially as and for the purpose described.

2. In a knife-machine, the combination of, a carrier having spring jaws to engage the blade of a knife by its sides, guides for the carrier to permit it to slide in the lengthwise direction of the knife, a variable-throw crank for reciprocating the carrier along the guides, means for setting the throw of the crank to suit the length of knife to be operated upon, and an adjustable limiting-stop on the knife-carriage so situated as to engage the end of the knife when pushed into the carriage thus to situate it lengthwise on the carriage, a rotary tool mounted so that

its periphery bears against the side of the blade and at the edge thereof during the whole of its reciprocating movements with the carrier, and means operatively connecting the carrier and tool so that the tool continuously rotates against the blade as the carrier reciprocates upon its guides, the movable stop and the movable member for varying the throw of the crank being both provided with indicating means to show the proper setting for the stop for any particular selected throw of crank and vice versa, substantially as and for the purpose described.

2. In a knife-machine, the combination of, a reciprocating carrier having gripping means to engage the blade of a knife by its sides, a crank-disk having a slot which extends from a point near the center toward the periphery, a crank-pin mounted to slide in this slot but held against endwise displacement therefrom, a second disk mounted at the side of the first and having in that face which is toward the first disk a cam-groove which engages a projecting end of the crank-pin base, means for setting this cam-disk at any chosen angular position relatively to the slotted disk for varying the throw of the crank-pin, means operatively connecting the crank-pin and the carrier so that it is reciprocated when the disk is rotated, the throw of the carrier varying according to the adjustment of the crank-pin, and an adjustable limiting-stop on the knife-carrier so situated as to engage the end of the knife to situate it lengthwise on the carriage, substantially as and for the purpose described.

1,257,233. SWITCH-OPERATING MEANS. ZACHARIAH HOGAN, New Orleans, La. Filed Sept. 12, 1916. Serial No. 119,758. (Cl. 104—24.)



1. A switch operating device for a car, comprising spaced shafts arranged in pairs, an angle lever secured upon each of said shafts, links connecting the respective angle levers, a foot pedal associated with two of said angle levers, spring means between the car and the angle levers for normally retaining the foot pedals in one position, angularly arranged arms on two of said shafts, a vertically disposed rod secured to each of said arms, guide means for the rods, a channeled member connected with each of said rods, and a spring pressed shoe within each of the channeled member and designed, upon the actuation of the respective foot pedals to be lowered.

2. A switch operating device for a car, including front and rear shafts arranged in pairs journaled in bearings upon the under body of the car, angle levers upon each of the shafts, links connecting each pair of angle levers, foot pedals associated with the forward pair of angle levers and with the car, for normally retaining the foot pedals in one position, an angular member connected with the respective rear shafts, a rod pivotally secured to each of the angle members, depending brackets having angular ends provided with openings through which the rods pass, an angularly disposed outwardly extending channeled member secured to each of said rods and normally designed, through the tension of the referred to springs to contact with the under face of the bracket members whereby to normally retain the same above the referred to fingers of the switch actuating means, a shoe for each of the channeled members, each of said shoes having an outer beveled end and having its sides provided with ribs received in grooves in the said channeled members, spring means for normally projecting the shoes outwardly of the channeled members, and means for limiting the outward movement of the shoes all as and for the purpose set forth.

1,257,234. BROILER. JOHN C. HOLLANDS, Erie, Pa., assignor to The Griswold Manufacturing Company, Erie, Pa., a Corporation of Pennsylvania. Filed Apr. 22, 1916. Serial No. 92,850. (Cl. 53—5.)

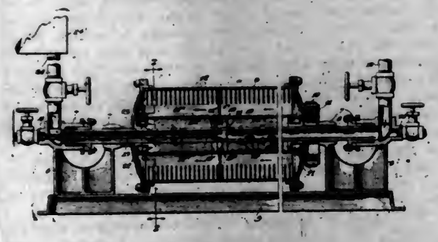


1. In a broiler, the combination of a plate having its upper surface ribbed, the channels between the ribs terminating at one end in a trough-like receptacle extending transversely of said ribs and adapted to receive and retain the drippings from the channels; and a bail for the plate arranged at the opposite side of the center of gravity from the receptacle.

2. In a broiler, the combination of a plate having its upper surface ribbed, the channels between the ribs terminating at one end in a trough-like receptacle extending transversely of said ribs and adapted to receive and retain the drippings from the channels; a bail for the plate arranged at the opposite side of the center of gravity from the receptacle; and a stop limiting the pivotal movement of the bail so as to give to the plate when suspended by the bail a tilted direction toward the receptacle.

[Claim 3 not printed in the Gazette.]

1,257,235. CENTRIFUGAL LIQUID-PURIFIER. WILLIAM G. HOWELL, Warrenton, Va. Filed Dec. 13, 1917. Serial No. 206,920. (Cl. 233—28.)



1. In a liquid purifier, the combination with a conduit for flowing liquid to be purified, of means for retarding the normal rate of flow and changing the form of the flowing mass to that of a relatively large thin hollow cylinder, means for rapidly rotating the mass about its axes while it slowly advances in its changed form, and means for collecting the sediment thrown outward by rotation.

2. In a contrifugal liquid purifier, the combination with a liquid receptacle having a partition dividing it into an axial chamber and a relatively thin annular compartment communicating with said chamber near one end and discharging near the opposite end, of means for rapidly rotating the receptacle and means for continuously introducing liquid into said chamber.

3. In a centrifugal liquid purifier, the combination with an elongated receptacle divided longitudinally into an axial chamber transversely divided and surrounded by a narrow annular separating compartment communicating near one end with said chamber and discharging near the opposite end, means for discharging liquid into said chamber at a distance from the end first mentioned, and means for rapidly rotating said receptacle.

4. The combination with an elongated closed approximately horizontal receptacle divided by a fixed wall into an axial chamber and a relatively narrow annular peripheral compartment having near its ends respectively, an inlet from said chamber and an outlet and formed with peripheral sediment-receiving pockets, means for delivering liquid in said chamber at a distance from said inlet through which alone it can escape, and means for rotating the receptacle.

5. The combination with a closed receptacle mounted upon a hollow shaft internally divided by a transverse partition and provided with lateral discharge apertures near said partition, of a closed receptacle mounted upon and concentric with said shaft, means for introducing liquid into the portion of the shaft provided with said apertures, a sleeve concentric with the shaft and dividing the closed space surrounding it into an inner annular chamber and an outer annular separating compartment communicating with said chamber near the end opposite said apertures and discharging at the opposite end, and means for rapidly rotating the receptacle.

[Claims 6 to 9 not printed in the Gazette.]

1,257,236. TRACTOR-PLOW. EMERY C. HUDSON, Bellefontaine, Ohio. Filed Aug. 25, 1917. Serial No. 188,165. (Cl. 97—30.)



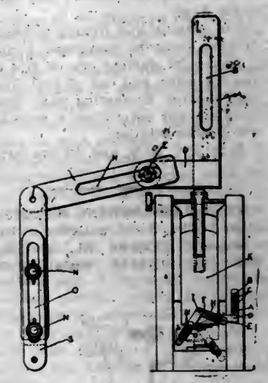
1. In a tractor plow, a main plow frame, supporting means for said frame including a tractor frame with which the forward end of the main plow frame is connected for swinging movement in a horizontal plane and a caster wheel on which the rearward end of said main plow frame is supported, an auxiliary plow carrying frame mounted beneath the main frame and having independent supporting wheels, a shaft supported for rotation on the main plow frame and deriving motion from the caster wheel by means including a clutch whereby the motion may be interrupted at will, plow carrying beams hingedly connected with the auxiliary frame, and means operable by the driven shaft for lifting the rearward ends of the plow beams.

3. In a tractor plow, a main plow frame, supporting means for the same including a caster wheel, an auxiliary plow frame, wheels on which said auxiliary frame is independently supported, plow carrying beams hingedly connected with the auxiliary frame, a shaft supported for rotation on the main plow frame and deriving motion from the caster wheel, cams on said shaft, levers fulcrumed on the main plow frame in engagement with the cams, flexible connections between said levers and the plow beams, and means for interrupting the rotation of the driven shaft.

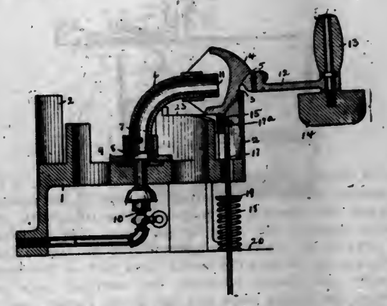
[Claims 2 and 4 not printed in the Gazette.]

1,257,237. SAFETY ATTACHMENT FOR DROP-FORGING AND STAMPING MACHINES. JOHN ROBERT HUGGINS, Canton, Ohio. Filed Oct. 23, 1916. Serial No. 127,300. (Cl. 74—105.)

In combination with a drop forging and stamping machine, comprising a frame with a reciprocating cross head, a right-angled bar having an elongated slot therein, and means for adjustably mounting the same upon said frame with one end projecting laterally beyond the inner edge of said frame and provided with a boss, a bell crank lever having an elongated slot in one arm, a pin carried by said projecting end and passing through and having a sliding movement in said slot, a stud secured to said cross head and having pivotal connection with said bell crank lever, and a slotted bar having a rearwardly extending finger adjustably secured to the other arm of said bell crank lever.



1,257,238. COLLAR SHAPING AND IRONING MACHINE. JOHN A. HUGHES, Erie, Pa., assignor to Reed Manufacturing Company, Erie, Pa., a Corporation of Pennsylvania. Filed June 8, 1915. Serial No. 32,882. Cl. 68—9.)



2. In a collar shaping and ironing machine, the combination of the ironing elements comprising a curved former and an iron; means for guiding one of said elements toward and from the other of said elements and one of the elements along the other element; mechanism for separating the elements by a movement of one of the elements in a direction along the other of said elements to clear the end of a collar; and devices for throwing said mechanism out of action to permit the ironing of the end of a collar.

6. In a collar shaping and ironing machine, the combination of the ironing elements comprising a curved former and an iron; means for guiding one of said elements toward and from the other of said elements and one of the elements along the other element; devices for exerting ironing pressure on one of said elements; mechanism operating against said ironing pressure and overcoming the same to separate the elements by a movement of one of the elements in a direction along the other of said elements to clear the end of a collar; and devices for throwing said mechanism out of action to permit the ironing of the end of a collar.

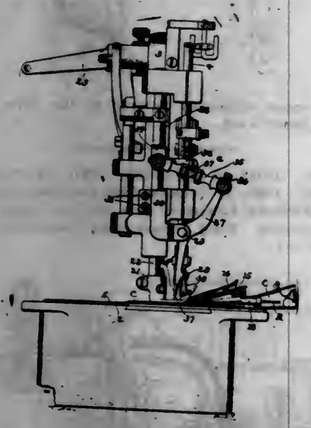
10. In a collar shaping and ironing machine, the combination of a curved former; an iron operating on the former; means for guiding the iron toward and from the

former and along the former; a cam finger in the path of the iron adapted to lift the iron by a movement of the iron in a direction along the former; and devices for depressing the cam finger.

11. In a collar shaping and ironing machine, the combination of ironing elements comprising a curved former and an iron; means for guiding one of said elements toward and from the other and one of said elements along the other; and devices preventing said elements from moving into contact but permitting a movement toward each other into ironing relation.

[Claims 1, 3 to 5, 7 to 9, and 12 not printed in the Gazette.]

1,257,239. SWEAT-BAND-SEWING-MACHINE. ROBERT R. HUGHES, Jr., Utica, N. Y., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 14, 1915. Serial No. 66,836. (Cl. 112—31.)



1. A sewing machine including in combination, a pair of needles, means for directing the edge of the material between the needles, a looper coöperating with both needles beneath the work support and moving toward the edge of the material when entering the needle loops, a retainer for holding the needle loops back on the looper, whereby the needle entering the material may pass between the needle loops and the looper thread, and devices for forming a loop in the needle thread of the needle entering the material and for positioning said loop whereby the needle passing over the edge of the material may enter the same.

5. A sewing machine comprising in combination, a work support, a presser foot, a presser bar carrying the same, two needles, a needle bar carrying said needles, means coöperating with the needles beneath the work support, a thread deflecting finger for engaging the needle thread of one of said needles and deflecting the same forward of the path of the needles, a lever carrying said deflecting finger, means for supporting said lever on said presser bar, means for actuating said lever from said needle bar, and means for engaging the deflected needle thread and forming a loop therein for the entrance of the other needle.

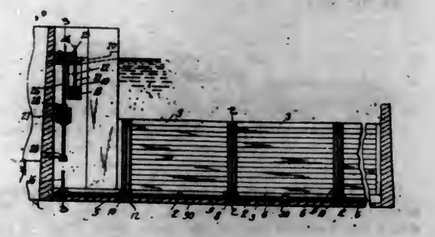
8. A sewing machine comprising in combination, a work support, two needles arranged in a line at right angles to the line of feed, means for guiding a hat sweat, a reed cover and a reed, with the reed and the edge of the hat sweat passing between the needles, a looper movable into both needle loops beneath the work support, said looper moving in a direction toward the free edge of the hat sweat when entering the needle loops, a thread deflector engaging the thread of the needle passing through the hat sweat, and a hook for engaging said needle thread and forming a loop therein for the entrance of the needle which passes beyond the edge of the hat sweat.

10. A sewing machine comprising in combination, a work support, a presser foot, a presser bar carrying the same, two needles, a needle bar carrying said needles, a thread deflecting finger for engaging the needle thread of one of the needles and deflecting the same forward of the path of the needles, a lever carrying said deflecting finger, means for supporting said lever on said presser bar, a link connecting the upper end of said lever to the needle bar, said link being so disposed that the rising and falling movements of the presser bar for varying thicknesses of material will vary the oscillating position of the thread finger relative to the needle path.

13. A sewing machine including in combination, a plurality of needles, a looper coöperating with all of said needles, a thread retainer for holding the needle thread loops back on said looper, said thread retainer being mounted to swing about a vertical axis.

[Claims 2 to 4, 6, 7, 9, 11, 12, and 14 to 17 not printed in the Gazette.]

1,257,240. COLLAPSIBLE DAM. THOMAS W. JAYCOX, Denver, Colo. Filed Sept. 21, 1916. Serial No. 121,457. (Cl. 61—25.)



1. In dam-construction, a series of dam-sections mounted for movement to a recumbent position, props connected at their upper ends with the dam-sections, a stationary support, latches pivoted on the support and adapted to lock the dam sections in an elevated position by engagement with the lower ends of their props, a series of rotary shaft-sections separately mounted on the support, cams on said shaft-sections normally holding the latches against downward movement about their pivots, crank-arms on the shaft-sections disposed in the paths of the props during movement of the respective dam-sections to a recumbent position, and means for rotating the shaft-section corresponding with the initial dam-section of the series.

2. In dam-construction, a series of dam sections mounted for movement to a recumbent position, props connected at their upper end with the dam-sections, a stationary support, latches pivoted on the support and adapted to lock the dam-sections in an elevated position by engagment with the lower ends of their prop, mecanism including means to hold the latches against downward movement about their pivots, and means to release the same in successive order, and a device for the actuation of said mechanism.

3. In dam-construction, a series of dam-sections mounted for movement to a recumbent position, props connected at their upper ends with the dam-sections, a stationary support, latches pivoted on the support and adapted to lock the dam-sections in an elevated position by engagement with the lower ends of their props, mechanism including means to hold the latches against downward movement about their pivots, and means which causes each dam-section by its movement to a recumbent position, to release the latch of the next succeeding section, and a device for the actuation of said mechanism to release the latch which locks the initial dam-section of the series.

4. In dam-construction, a dam-structure mounted for movement to a recumbent position, mechanism for the support of said structure in an elevated position, including a rotary releasing-element and a lever-arm for the operation thereof, a float, a lever connected therewith, and an element suspended from said lever above said lever-arm to forcibly engage the same by gravitation when the lever is moved about its fulcrum by upward movement of the float.

1,257,241. MACHINE-GUN BELT AND OTHER LIKE CARRIER. VICTOR H. JENNINGS, Worcester, Mass., assignor to Universal Patents Company, Woonsocket, R. I., a Corporation of Rhode Island. Filed Apr. 19, 1917. Serial No. 163,216. (Cl. 89—35.)

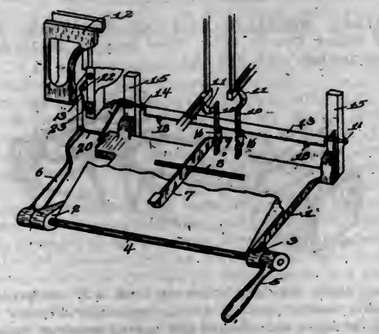


1. A machine-gun belt or the like carrier having transverse loops to receive cartridges, etc., and having a continuously divided or split margin or selvage.

2. A machine-gun belt or the like carrier having the opposite sides of its loops bound together between loops but disunited for a part of the width of the belt or carrier to form a continuously divided or split margin or selvage.

3. A machine-gun belt or the like carrier comprising a web formed, as woven, with transverse loops and having the sides of such loops joined together, in the weaving, across a portion of the width of the carrier but left disunited for a second portion of the said width to form a continuously divided margin or selvage.

1,257,242. KEYBOARD-LOCK FOR TYPOGRAPHICAL MACHINES. THOMAS W. JOHNS, Brooklyn, N. Y., assignor to Intertype Corporation, Brooklyn, N. Y., a Corporation of New York. Filed Apr. 19, 1916. Serial No. 92,208. (Cl. 199—18.)



1. In a machine of the linotype class, the combination of a keyboard, an assembling elevator, and means controlled by the position of the assembling elevator for locking the keyboard.

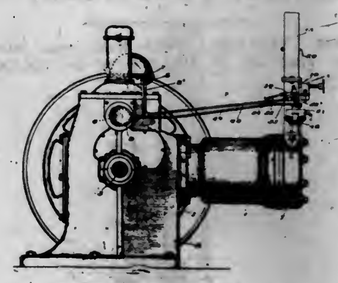
2. In a machine of the linotype class, the combination of an assembling elevator, a keyboard controlling the delivery of matrices thereto, and means controlled by the assembling elevator for locking the keyboard when said elevator occupies any position other than matrix-receiving position.

3. In a machine of the linotype class, the combination of an assembling elevator movable to and from a matrix-receiving position, a keyboard controlling the delivery of matrices to such elevator, and locking means for the keyboard having means for automatically locking it when the assembling elevator moves out of matrix-receiving position and for automatically unlocking it when the elevator returns to such position.

4. In a machine of the linotype class, the combination of an assembling elevator, a keyboard controlling the delivery of matrices thereto, means controlled by said elevator for locking the keyboard, and means for maintaining the keyboard locking means in locked condition.

5. In a machine of the linotype class, the combination of an assembling elevator movable to and from a matrix-receiving position and a keyboard controlling the delivery of matrices thereto, means for locking the keyboard from manipulation when said elevator occupies any position other than matrix-receiving position, and means operative to prevent return of the elevator to matrix-receiving position and thereby to maintain the keyboard in locked condition.

1,257,243. FUEL-FEED MECHANISM FOR INTERNAL-COMBUSTION ENGINES. EDWARD A. JOHNSTON, Chicago, Ill., assignor, by mesne assignments, to International Harvester Corporation, a Corporation of New Jersey. Filed June 6, 1912. Serial No. 701,949. (Cl. 123—108.)



1. In a carbureter for internal combustion engines, a source of fuel supply, a source of air supply, and an oscillatory member having a variable opening therethrough and being associated with both sources of supply, said member in one position being adapted to receive a charge of fuel from the fuel supply source and which in another position has the fuel removed therefrom by air from the air supply source passing through the opening in said member.

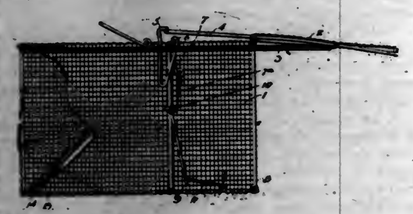
2. In a carbureter for internal combustion engines, a source of fuel supply, a source of air supply, an oscillatory member having an opening therethrough and being associated with both sources of supply, said member in one position being adapted to receive a charge of fuel from the fuel supply source and which in another position has the fuel removed therefrom by air from the air supply source passing through the opening in said member, and means associated with said member for varying the quantity of the charge of fuel taken from the source of fuel supply.

3. In a carbureter for internal combustion engines, a source of fuel supply, a source of air supply, a member having an opening therein and being associated with both sources of supply, said member in one position being adapted to receive a charge of fuel from the fuel supply source and which in another position has the fuel removed therefrom by air from the air supply source, and means

associated with said member for automatically varying the quantity of the charge of fuel taken from the source of fuel supply.

[Claims 4 to 13 not printed in the Gazette.]

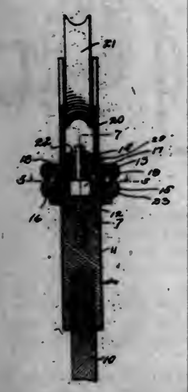
1,257,244. RAT-TRAP. MASUTARO KAIZUMI, Seattle, Wash. Filed May 23, 1917. Serial No. 170,505. (Cl. 43—24.)



3. An animal trap having an animal-actuated, self-closing gate and a door, means for closing the door, a trigger means for holding the door open comprising a threshold pivoted to swing downward, a trigger having a part to engage a complementary member on the door when the latter is open, a fulcrum, and a lever rod connected at one end to said trigger and adapted to rock about said fulcrum to engage said threshold when the latter is set, the closing means holding the trigger means in set position until released by pressure on the threshold.

[Claims 1 and 2 not printed in the Gazette.]

1,257,245. TROLLEY. FELIX KIETLINSKI, Milwaukee, Wis. Filed Apr. 19, 1917. Serial No. 163,250. (Cl. 64—70.)



2. The combination with a trolley pole; of a head screwed on the upper end of said pole, a pivot pin having a polygonal central portion and having one end threaded and screwed into the top of said head, the remaining end being smoothly cylindrical, a washer fitted on the polygonal portion of the pin and resting on top of the head, said washer having a ball race concentric to the pin in its upper face, a second washer revolubly mounted on the cylindrical portion of the pin and having a ball race on its lower surface confronting the first-mentioned ball race, balls resting in said races, a U-shaped harp fixed to the upper surface of the upper washer, and a trolley wheel carried by said harp, resilient means normally holding the upper washer against movement relative to the lower washer.

[Claim 1 not printed in the Gazette.]

1,257,246. MAGNETIC SHUNT. LLOYD M. KILLGORE, Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Filed Jan. 29, 1917. Serial No. 145,134. (Cl. 171—119.)



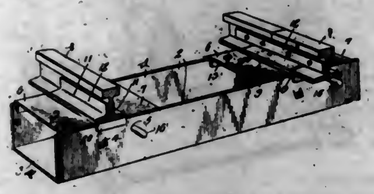
1. An induction apparatus comprising a core, a winding thereon, said winding comprising a plurality of parts separated from each other, and a magnetic shunt between said parts of the winding and comprising a plurality of pieces of magnetic material and a carrier for said pieces of magnetic material, said carrier being readily opened and closed for addition to or removal of some of the pieces of magnetic material.

4. An induction apparatus comprising a core, a winding thereon, said winding comprising a plurality of parts separated from each other, and a magnetic shunt within a window of said core and between said parts of the winding, said shunt comprising a carrier, a plurality of laminations of magnetic material carried thereby in planes substantially parallel to the planes of the laminations of the core legs adjacent said window, and a plurality of laminations of non-magnetic material also carried by said carrier in planes substantially parallel to the planes of the laminations of magnetic material, said laminations of magnetic and non-magnetic material substantially filling said carrier, and said carrier being readily opened and closed adjacent one side of said core legs after inclusion in said induction apparatus for a change in the relative number of laminations of magnetic material to the number of laminations of non-magnetic material.

5. An induction apparatus comprising a core, a winding thereon, said winding comprising a plurality of parts separated from each other, and a magnetic shunt within a window of said core and between said parts of the winding, said shunt comprising a carrier and a plurality of pieces of magnetic material carried thereby, said carrier extending at each side of an adjacent core leg to maintain the shunt in position.

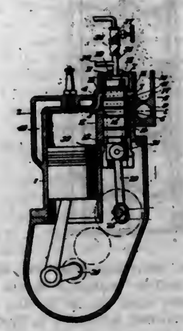
[Claims 2 and 3 not printed in the Gazette.]

1,257,247. METALLIC-RAIL-TIE FASTENER. JOHN H. KLEIN, Denver, Colo. Filed Sept. 11, 1917. Serial No. 190,846. (Cl. 238—5.)



In a device for the purpose set forth, a tie comprising a metallic channel member having oppositely disposed lugs upon the inner side thereof and having openings disposed adjacent the lugs, rail engaging elements for the tie, each including a base designed to rest upon the tie and having its ends provided with an extension to contact with the edge of a rail and to be received in the fishing spaces of the rails, depending plates upon the base portions of the said elements, hooks upon the plates of one of the said elements designed to engage the referred to lugs of the tie, the plates of the other element having openings designed to be brought to register with the referred to openings in the sides of the tie, a rail plate between said elements having its ends flanged to engage with the outer sides of the tie, and a wedge member passing through the referred to openings in the sides of the tie and in the plates of the rail engaging element for securing the said element to the tie, and means for securing the said wedge member in locking position.

1,257,248. INTERNAL-COMBUSTION ENGINE. GEORGE H. KNOWLES, Duluth, Minn. Filed Apr. 3, 1917. Serial No. 159,492. (Cl. 123—75.)



1. In an internal combustion engine, the combination of a cylinder, and a combined intake and exhaust valve unit embodying a valve casing having communication with said cylinder through an intake port and an exhaust port arranged in spaced relation to each other, said valve casing having complemental intake and exhaust ports directly opposite the first named intake and exhaust ports, an outer tubular valve member mounted to reciprocate in said casing and formed in the walls thereof with oppositely located intake ports and with oppositely located exhaust ports arranged at the same distance apart as the aforesaid intake and exhaust ports, an inner tubular valve member slidable within the first named valve member and having intake ports directly opposite in the side walls thereof and also having exhaust ports directly opposite in the side walls thereof, the intake and exhaust ports of the inner tubular member being arranged closer together than the corresponding ports of the outer tubular member, a crank shaft driven valve actuating shaft, and operating means between the last named shaft and said valve members, operating to reciprocate said valve members out of unison.

2. In an internal combustion engine, the combination of a cylinder, and a combined intake and exhaust valve unit embodying a valve casing having communication with said cylinder through an intake port and an exhaust port arranged in spaced relation to each other, said valve casing having complemental intake and exhaust ports directly opposite the first named intake and exhaust ports, an outer tubular valve member mounted to reciprocate in said casing and formed in the walls thereof with oppositely located intake ports and with oppositely located exhaust ports arranged at the same distance apart as the aforesaid intake and exhaust ports, an inner tubular valve member slidable within the first named valve member and having intake ports directly opposite in the side walls thereof and also having exhaust ports directly opposite in the side walls thereof, the intake and exhaust ports of the inner tubular member being arranged closer together than the corresponding ports of the outer tubular member, a crank shaft driven valve actuating shaft, and operating means between the last named shaft and said valve members, operating to reciprocate said valve members out of unison, said valve members having longitudinally extending diametrically opposite abutting shoulders whereby said valve members mutually guide each other and insure perfect registration of the intake and exhaust ports of both valve members.

3. In an internal combustion engine, the combination of a cylinder, and a combined intake and exhaust valve unit embodying a valve casing having a communication with said cylinder through an intake port and an exhaust port arranged in spaced relation to each other, said valve casing having complemental intake and exhaust ports directly opposite the first named intake and exhaust ports, an outer tubular valve member mounted to reciprocate in said casing and formed in the walls thereof with oppositely located intake ports and with oppositely located exhaust ports arranged at the same distance apart as the aforesaid intake and exhaust ports, an inner tubular valve member slidable within the first named valve member and having intake ports directly opposite in the side walls thereof and also having exhaust ports directly opposite in the side walls thereof, the intake and exhaust ports of the inner tubular member being arranged closer together than the corresponding ports of the outer tubular member, a crank shaft driven valve actuating shaft, and operating means between the last named shaft and said valve members, operating to reciprocate said valve members out of unison, the outer valve member being cut away at one end to leave diametrically opposite longitudinally extending guide shoulders, and the inner valve member being formed with corresponding shoulders which work in sliding contact with the shoulders of the outer valve member.

1,257,249. BILLIARD-CUE TIP. JOHN KOCH and DINCENZO GUAGLIANONE, Bristol, Pa. Filed Jan. 26, 1917. Serial No. 144,088. (Cl. 46—9.)



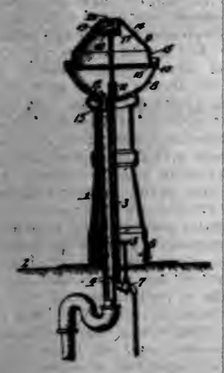
1. In combination with a cue and a tip therefor, a ferrule on the cue and provided with longitudinal and transverse passages, fastening devices for reception in the longitudinal passages, projections on the fastening devices and extending into the tip, one extending in one direction, and the other in the opposite direction in the tip, and threaded means extending into the transverse passages, and engaging the fastening devices for rigidly associating the tip with the ferrule.

2. In combination with a cue and a tip for connection therewith slotted in its under surface, of a plurality of fastening elements for securing the tip to the cue, each fastening element comprising a stem provided at its upper end with a pointed offset projection, the said projection being provided at one end with a beveled face and at its opposite end with a rounded face, the faces of the projection facilitating the insertion of the same within the slots of the tip, said projections being disposed at right angles with respect to the slots and the terminal of one projection extending in a direction opposite to the direction of the other of said projections.

1,257,250. CUSPIDOR. MAXIMILIAN N. KOCH, Buffalo, N. Y. Filed June 6, 1917. Serial No. 173,218. (Cl. 4—40.)

3. A cuspidor comprising a bowl, an upwardly tapering deflector mounted on said bowl and provided at its apex

with a pocket which opens at its upper end to the upper surface of said deflector, and means for supplying water to said pocket comprising an outlet nipple mounted on the bottom of said pocket and provided in its side with outlet openings.



4. A cuspidor comprising a bowl, an upwardly tapering deflector mounted on said bowl and provided at its apex with a pocket which opens at its upper end to the upper surface of said deflector, and means for supplying water to said pocket comprising an upright outlet nipple mounted at its lower end centrally on the bottom of said pocket and having its top closed and arranged adjacent to the top of said deflector and provided in its side with outlet openings.

[Claims 1, 2, and 5 not printed in the Gazette.]

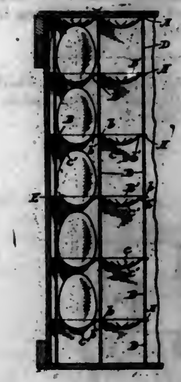
1,257,251. PNEUMATIC AUTO-TIRE. FRANKLIN W. KREMER, Rutherford, N. J. Filed Apr. 21, 1911. Serial No. 622,506. (Cl. 152—13.)



1. A tire comprising a lining, ribs extending along the edges of said lining, reinforcing strips upon said lining and passing between the lining and the ribs and extending across the tire from side to side in reversely curved parallel lines, and a body member placed upon the strips and extending over the ribs, and having its edges overlapping the edges of the lining.

2. A tire comprising a lining, a tread, a layer of non-combustible material between the tread and the lining, and reinforcing strips between the tread and said layer and extending from side to side of the tire in reversely curved parallel lines to prevent rupture of said layer.

1,257,252. EGG-CARRIER. FERDINAND KRONENBERGER, Hastings, N. Y., assignor to Frederic B. Clark, Englewood, N. J. Filed Aug. 9, 1913, Serial No. 783,862. Renewed Dec. 1, 1916. Serial No. 134,499. (Cl. 217—26.5.)

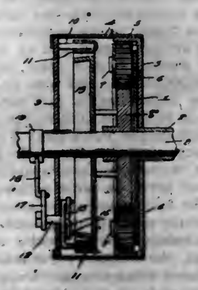


1. In a device of the class described, the combination of a plurality of article engaging sheets each provided with rows of pockets, each pocket having a permanently depressed rim, the bottom of which is slitted to produce a series of yieldable fingers, and a plurality of fillers positioned in alternate order to said sheets, each filler being in contact with sheets above and below it and adapted to receive in the cells thereof the articles to be packed, whereby each article is adapted to be seated upon the rim of the pocket below it and to contact with the yieldable fingers depressed from the pocket in the sheet above it.

2. In a device of the class described, the combination with a plurality of article carrying sheets, and a plurality of article receiving fillers positioned in alternating order with said sheets, each sheet being provided with a series of pockets adapted to receive and support the articles positioned within the fillers, the bottoms of said pockets being slitted and producing in each pocket a series of yieldable fingers, said fingers being depressible by the article within the pocket and to contact with an article in the pocket below it.

[Claims 3 to 5 not printed in the Gazette.]

1,257,253. REVERSING MECHANISM. JOHN NATHANIEL LAVERY, Titusville, Pa. Filed Sept. 15, 1916. Serial No. 120,311. (Cl. 74—59.)

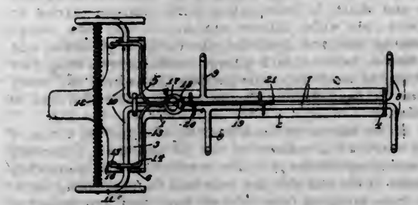


1. In a device of the class described, in combination, a stationary disk having a rearwardly extending central hollow shaft, a plate journaled upon said shaft in rear of said stationary disk and having a forwardly extending annular sleeve forming a driven member, an internal gear formed upon the said sleeve, pinions mounted upon said stationary disk and engaging said gear, a driving shaft journaled at its rear end within the hollow shaft, a disk keyed to said last named shaft at the front end of said annular sleeve, clutch bands pivoted to the last named disk and forming a clamping ring extending rearwardly from the same, a clutch member within the sleeve, means for contracting and expanding the ring to engage the clutch member of the above mentioned annular sleeve respectively, and a gear wheel secured to said clutch member and meshing with said pinions.

2. In combination, a driven member, a driving shaft, a disk keyed upon said driving shaft, clutch bands pivoted to said disks at one end and forming a clamping ring extending rearwardly therefrom, a shaft extending through the said disk adjacent the opposed ends of said clutch bands and having a substantially T-shaped head upon its rear end, a pivotal connection between each of said clutch bands and one of the opposed ends of said T-shaped head, an angularly extending rod secured to the front end of a T shaft, a sleeve slidably mounted upon the driving shaft in front of the above mentioned disk, and a bell crank lever having its ends secured to said slidable sleeve and to the above mentioned angularly extending rod respectively.

3. In a device of the class described in combination a driving shaft, an annular sleeve loosely mounted thereon, a disk secured to said shaft at the front end of the above mentioned sleeve, clutch bands pivoted to said disk and forming a clamping ring extending rearwardly from the same within the first mentioned annular sleeve, a clutch member within the first mentioned sleeve, and means for contracting or expanding the clamping ring to engage said clutch member or the first mentioned annular sleeve respectively.

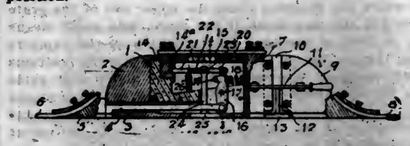
1,257,254. TRAP. CHURCHILL G. LAYTON, Albany, Oreg. Filed May 25, 1917. Serial No. 171,007. (Cl. 43—23.)



A trap comprising a base having an arm and a cross head at one end of the arm, said cross-head having flanges at its ends arranged at an angle thereto, a pair of rock shafts mounted in bearings on the arm and arranged out of line with the outer edges of said flanges, said rock shafts having jaws and also having, at their upper ends, oppositely extending arms which bear on said flanges when the jaws are open and are arranged at an angle with respect t oeach other, a coiled retractile spring connecting said arms, a detent pivotally mounted on the said flanges and arranged across and caused to bear on said arms when the trap is set, and a longitudinally movable trigger rod mounted on the base and having a cross head to bear on the detent to hold the latter in set position and prevent the trigger rod from casually turning, said rod having an arm.

1,257,255. ELECTRIC SWITCH FOR MINES. EDWARD LEACH, Rathmel, Pa. Filed Apr. 12, 1917. Serial No. 161,454. (Cl. 175—280.)

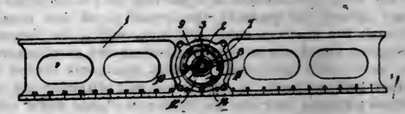
1. An automatic cut-out switch for line wires, including a switch operating lever operatively connected to the line wire, resilient means acting upon the switch operating lever to assist the normal action of the line wire thereon, a bodily movable switch plate normally establishing direct electrical connection between the source of current supply and the line wire, a swinging trip arm normally holding the switch plate in operative position, and means actuated by the switch operating lever for releasing the trip arm and causing the switch plate to move into inoperative position.



6. An automatic cut-out switch for line wires, including an insulated switch body, metal end pieces applied to opposite ends thereof, one of the end pieces being provided with a longitudinal guide, while the opposite end piece is connected to the source of current supply, a slide mounted within the longitudinal guide and connected at its outer end with the line wire, an upright switch operating lever mounted upon the insulated body and pivotally connected to the inner end of the slide, yielding means acting upon the switch operating lever to resist the normal pull of the line wire, a notched switch terminal block mounted upon the insulated body and connected through the end piece with the source of current supply, a trip lever, a swinging arm pivotally connected at one end to the trip lever and adapted to have the other end thereof in normal engagement with the notched switch terminal block, a trip pin upon the switch operating lever for engaging the trip lever to swing the latter and disengage the arm from the notched switch terminal block, a switch plate arranged to produce direct electrical connection between the before mentioned metal end pieces, and a hanger pendent from the swinging arm and carrying the switch plate so that the switch plate is moved into inoperative position when the arm is disengaged from the switch terminal block.

[Claims 2 to 5 not printed in the Gazette.]

1,257,256. COMBINATION BEAM-LEVEL AND INCLINATION-INDICATOR OR INCLINOMETER. NAPOLEON LEBLOND, Quebec, Quebec, Canada. Filed Mar. 24, 1917. Serial No. 157,252. (Cl. 33—215.)



An instrument of the character described comprising, a beam provided with a circular opening having concentric shoulders at its opposite ends, glass disks having a central opening and adapted to close said opposite ends and to rest within said shoulders, said glass disks each having graduations thereon, clamping plates adapted to rest within said shoulders outside of said disks and to be secured to said beam, inwardly projecting flanges carried by said clamping plates and projecting through the openings in said disks, a shaft journaled within said flanges, a web mounted upon said shaft, a plurality of pointers extending from said web, a pendulum weight depending from said web, a guide block projecting within said opening, said pointers adapted to project on each side of said guide block, said guide block having a groove therein through which the pendulum weight may pass, said clamping plates having semicircular openings therein through which the graduations upon the glass disks are exposed to view substantially as and for the purpose specified.

1,257,257. AUTOMATIC GRATE FOR STEAM-BOILER AND OTHER FURNACES. ARMAND LEON FREDERIC LEFEVER, St.-Denis, France. Filed Sept. 11, 1916. Serial No. 119,536. (Cl. 110—40.)

1. An automatic grate for steam-boiler or other furnaces, comprising an endless movable apron, firebars car-

ried by said apron, dampers associated with said firebars and movable in the direction of their height to regulate the quantity of air passing through the grate, guide means upon which the dampers along the upper run of the grate rest during the movement of the grate, said guide means being movable in the same said direction as the dampers resting thereon for the purpose of regulating the positions of said dampers, and means arranged under said guide means for regulating the elevation thereof, said last named means being movable in a plane at an angle to the plane of movement of the guide means and, in its movement and according to the degree and direction thereof, varying the elevation of said guide means.



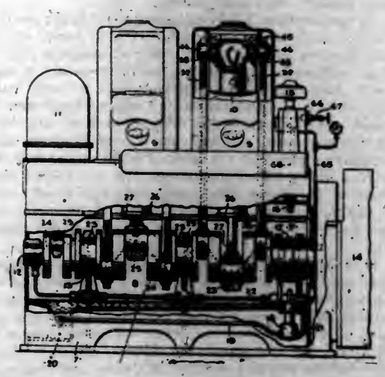
2. An automatic grate for steam-boiler or other furnaces comprising a frame, an endless apron movable in said frame, firebars carried by said apron, dampers associated with said firebars and movable in the direction of their height to regulate the quantity of air passing through the grate, a guide rail upon which the dampers along the upper run of the grate rest during the movement of the grate, said guide rail being in two parts hinged together and respectively movable in the same said direction as the dampers resting thereon, the front one of said parts being pivoted to the frame, a link pivoted to the rear part and to the frame, and a means for adjusting the elevation of the parts of the guide rail relative to the firebars, thereby to effect adjustment of the positions of the dampers resting and moving on said guide rail.

3. An automatic grate for steam-boiler and other furnaces comprising a frame, an endless apron movable in said frame, firebars carried by said apron, dampers associated with said firebars and movable in the direction of their height to regulate the quantity of air passing through the grate, a guide rail upon which the dampers along the upper run of the grate rest during movements of the grate, said guide rail being in two parts hinged together and movable in the same said direction as the dampers resting thereon, the front one of said parts being pivoted to the frame, a link pivoted to the rear part and to the frame, a projection carried by each part of said guide rail, and a rod located between the runs of the grate and movable in a plane at an angle to the plane of movement of the guide rail, said rod having cam faces formed thereon to coöperate with said projections during the movement of said rod in adjusting the elevation of the parts of the guide rail relative to the firebars and thereby adjusting the positions of the dampers resting and moving on said guide rail.

1,257,258. LUBRICATING SYSTEM FOR ENGINES. HERMANN LEMP and HENRY W. STOCK, Erie, Pa., assignors to General Electric Company, a Corporation of New York. Filed July 31, 1915. Serial No. 42,955. (Cl. 184—6.)

1. An engine having a cylinder, a piston therein, a main crank shaft, and a connecting rod and pin uniting the piston to a crank on the shaft, in combination with a conduit carried by the rod for conveying lubricant from the crank to the pin, means in the conduit which permit lubricant to flow therethrough to the pin, but prevent it from returning due to the inertia of the fluid column, and a controlling device in the conduit for regulating the amount of lubricant that flows through the conduit.

2. An engine having a cylinder, a pair of oppositely moving pistons therein, a main crank shaft, bearings therefor, a rod connecting the inner piston and the shaft, a cross-head and guides for the outer piston, a pair of side rods connecting the cross-head and the shaft, in combination with conduits carried by the side rods for conveying lubricant to the cross-head bearings, and means which permit the lubricant to flow freely from the lower ends of the side rods to the cross-head and which prevent it from flowing in the reverse direction due to inertia.



3. An engine having a cylinder, a pair of oppositely moving pistons therein, a main shaft, bearings therefor, a rod connecting the inner piston and the shaft, a cross-head and guides for the outer piston, pins on the cross-head, and a pair of side rods connecting the cross-head pins and shaft, in combination with conduits carried by the side rods which deliver lubricant to said pins, means conveying lubricant from the pins to the cross-heads, and non-return valves which permit lubricant to freely flow through the conduits to the pins and cross-head but which prevent it from flowing in the opposite direction due to inertia.

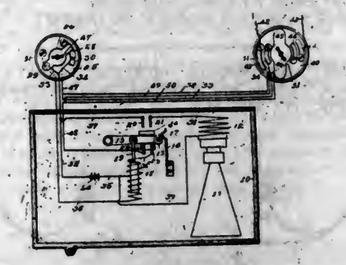
4. In an engine, the combination of a piston, a pin, a main shaft, a rod connecting the pin and shaft, a conduit for supplying lubricant under pressure to the contacting surfaces of the rod and pin, packings for preventing lubricant from escaping from said surfaces that are subjected to said pressure, and means coöperating with the packings to hold them in place.

5. In an engine, the combination of a piston, a pin, a main shaft, a rod connecting the pin and shaft, a conduit supplying lubricant under pressure to the bearing surfaces of the pin and rod, said pin and rod being formed with grooves, cup-shaped packings mounted in the grooves which are pressed outwardly by the pressure of said lubricant, and means that restrict the outward movement of said packings.

[Claims 6 to 8 not printed in the Gazette.]

1,257,259. SAFETY ALARM DEVICE FOR MOTOR-VEHICLES. FRANK LESLIE, Des Moines, Iowa, assignor of one-half to E. O. Sargent, Des Moines, Iowa. Filed Jan. 8, 1917. Serial No. 141,160. (Cl. 177—314.)

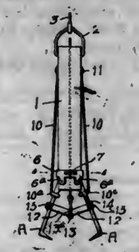
2. In a device of the class described, a switch designed to be connected with the ignition system of a car, a lock controlled double switch, a receptacle, an alarm device therein, a double solenoid arranged within said receptacle having a core, switch devices operatively placed with relation to said core, a source of electrical energy within said receptacle, wiring means for connecting the aforesaid parts whereby when said second switch is in one position of its movement, and said first switch is moved to operative position no connection is made within the alarm device, and whereby when said second switch is in another position of its movement and the first switch is moved to operative position, said solenoid is energized for moving said core for operating the switches connected therewith



for closing a circuit within the receptacle through said alarm device.

[Claims 1 and 3 not printed in the Gazette.]

1,257,260. COMBINATION WELL-CLEANER. LUTHER M. LONG, Fyffe, Ala. Filed Aug. 23, 1917. Serial No. 187,789. (Cl. 57—9.)



1. A fishing tool for wells including an elongated stock, suspending means at the upper end of the stock, a pair of opposed jaws pivotally connected to the lower end of the stock, spring strips extending longitudinally of the stock, the lower ends of the strips having a loose engagement with the jaws, and a fastening member connecting the upper ends of the strip to the stock and holding them against the sides of the stock, but permitting them to swing laterally away from the jaws when the free ends of the strips are disengaged therefrom.

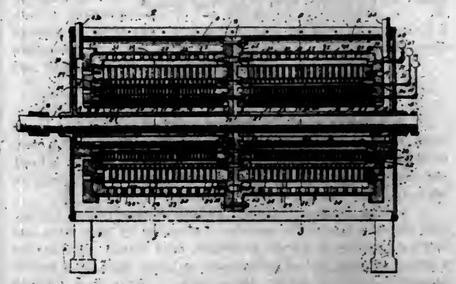
3. A fishing tool for wells including an elongated stock, suspending means at the upper end of the stock, a pair of opposed jaws pivotally connected to the lower end of the stock, springs engaging the jaws and normally tending to swing them toward each other, and hingedly connected trip levers arranged between the jaws for holding them apart.

4. A fishing tool for wells, including an elongated stock, suspending means at the upper end of the stock, a pair of opposed jaws at the lower end of the stock, removable pivot pins detachably connecting the jaws to the stock, and a retaining ring rotatably mounted upon the stock for holding the removable pivot pins in position.

[Claims 2 and 5 not printed in the Gazette.]

1,257,261. STEAM TURBINE-ENGINE. JAMES LOWIS, Brooklyn, N. Y. Filed Apr. 25, 1917. Serial No. 164,433. (Cl. 253—81.)

1. A turbine engine including a casing having a steam inlet passage, stationary and movable sections located within the casing, and a series of concentric cylindrical rotors and stationary members, the rotors being interposed between the stationary cylindrical members and secured to and carried by the movable sections and the stationary cylindrical members being secured to the stationary sections, the rotors and cylindrical members being provided with ports for the passage of steam and the rotors having continuous grooves forming pockets adapted to be engaged by the steam whereby the rotors are actuated, said rotors being also provided at intervals with ports communicating with the grooves.

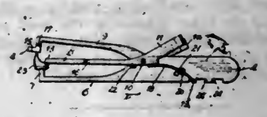


4. A turbine engine of the class described including a casing, fixed and movable sections mounted within the casing, a shaft extending through the sections and secured to the movable section, a plurality of stationary and movable cylinders connected respectively with the stationary and movable sections, the innermost cylinder being arranged in spaced relation with the shaft to provide a steam space, and a steam sealing member of cylindrical form surrounding the shaft and extending entirely across the space between the said sections to exclude steam from the shaft, one end of the steam sealing member being secured to the stationary section and the other end being extended into the movable section to form an overlapping connection.

5. A turbine engine including a casing of cylindrical form, a shaft extending through the casing, stationary and movable circular sections arranged within the casing, the stationary sections being located at the ends of the casing and the movable sections being secured together intermediate of the ends of the said casing and fitting the interior thereof for dividing the casing into separate compartments or chambers, cylindrical rotors and stationary members connected respectively with the movable and stationary sections and provided with ports or passages for permitting steam to act successively on the rotors, the said stationary sections being provided with steam inlet passages and steam feed pipes extending through the casing and communicating with the passages.

[Claims 2 and 3 not printed in the Gazette.]

1,257,262. TWEEZERS. WILLIAM LUXMORE, Chicago, Ill. Filed Aug. 10, 1916. Serial No. 114,100. (Cl. 81—5.)



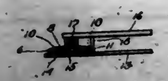
1. A pair of tweezers comprising a base member constituting one of the jaws of the tweezers, a pair of arms constituting two jaw members pivoted to the base member by means of a common pivot, said base member and arms being constructed of sheet metal and being relatively movable in parallel planes, and a spring acting between the base member and the arms tending to move the said two jaw members toward the first mentioned jaw, all of the jaw members coöperating to form a single clamping means.

[Claim 2 not printed in the Gazette.]

1,257,263. FASTENING DEVICE. ROBERT L. LYONS, Waltham, Mass., assignor to The Frederick Osann Company, New York, N. Y., a Corporation of New York. Filed July 24, 1914. Serial No. 852,783. (Cl. 24—208.)

1. A fastener of the nature described comprising a centering means, a disk having a series of needle passages and an engageable means so located with reference to said

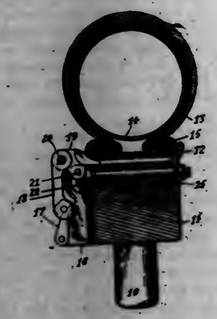
needle passage that a holding device engaged with said engageable means may extend between a pair of said needle passages to engage said centering means.



2. A fastener of the nature described comprising a circular disk having a series of needle passages, and a pair of cooperating engageable means adapted to receive a holding device said engageable means located out of registry with any one of said needle passages.

3. A disk shaped fastener having a continuous peripheral raised edge, and a member embraced by said edge and having a series of needle passages, said raised edge having a notch located out of alinement radially with said needle passages and extending diametrically through a portion of said raised edge.

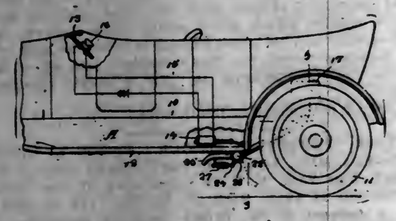
1,257,264. DEMOUNTABLE-RIM-SECURING DEVICE. CHARLES E. MCCLAY, Los Angeles, Cal. Filed Aug. 15, 1917. Serial No. 186,276. (Cl. 152—21.)



1. A demountable rim securing device comprising, a U-shaped metal casing having slots in its sides near the outer end thereof; means to secure said casing to a felly; a shorter link pivotally mounted in the inner end of said casing; a longer link pivotally secured to the outer end of the shorter link; and a head pivotally secured to said longer link and to the outer end of the casing, the pivot connecting said head and casing working in the slot in the casing, and the pivot connecting the head and casing passing to the outer face of the casing and being adapted to slide on the edges of the casing when the head is moved.

[Claim 2 not printed in the Gazette.]

1,257,265. MAGNETIC SANDING DEVICE FOR MOTOR-VEHICLES. ELDRIDGE V. MCCULLOCH, Kansas City, Mo. Filed June 27, 1917. Serial No. 177,352. (Cl. 105—60.)



1. In a device of the class described, a source of sand supply, discharge pipes leading therefrom, valves into which said pipes extend controlling the discharge of sand therefrom yieldably held against turning movement, and electrical means for turning said valves.

[Claims 2 and 3 not printed in the Gazette.]

1,257,266. AUTOMOBILE-BUMPER. ALLAN L. MCGREGOR, Chicago, Ill. Filed Aug. 10, 1916. Serial No. 114,089. (Cl. 213—39.)



1. In a bumper structure, the combination of two halves comprising front sections extending laterally toward each other and rear sections adapted to be secured at their ends to vehicle side beams, front and rear bars bridging the gap between the front sections, clamps securing together said front sections and the bars against relative longitudinal displacement, and means independent of said clamps for securing said front sections and bars together against transverse displacement.

[Claims 2 and 3 not printed in the Gazette.]

1,257,267. FILTER. FREDERICK C. MACDONELL, New York, N. Y. Filed Jan. 17, 1916. Serial No. 142,794. (Cl. 210—16.)



1. A filter comprising, in combination, a can provided with a handle and having a small outlet opening in its bottom and, detachably telescoped to the lower end of the can, a funnel containing a cone-shaped filter fitting its tapering walls and a conical strainer supported within and out of contact with the filter, the outlet opening in the bottom of the can being of a size adapted to allow the water to run through only so fast as it can pass through the filter.

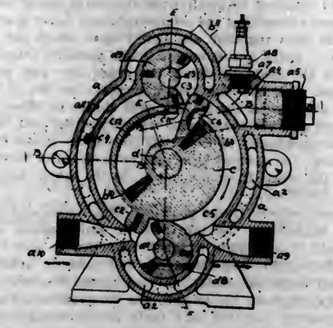
3. A filter comprising a can having a valved outlet opening in its bottom, a funnel adapted to be secured to the bottom of the can and containing nested therein a strainer and a filtering medium, and means carried by the strainer and operative when the funnel is secured in place on the can to raise the valve from the outlet opening.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,257,268. INTERNAL-COMBUSTION ENGINE. PHILIP J. MARTIN, Detroit, Mich. Filed Apr. 24, 1916. Serial No. 93,083. (Cl. 123—13.)

1. In an engine, a casing, a rotor and coacting parts in said casing adapted to compress a gaseous charge for part of its rotation and expand a gaseous charge for another part of its rotation, an inclosed chamber, means for igniting the gas in said chamber, passages and ports at the end of said rotor adapted to be connected and disconnected by the rotation of said rotor so as to connect said chamber with the space in which the gaseous charge is expanded for the working stroke, and to connect the same with the space in which the gaseous charge is compressed for the compression stroke.

7. In an engine, the combination of a casing, a rotor therein having a piston extending therefrom, a valve adapted to coact with said rotor and piston, said piston engaging walls of said casing so as to form an inclosed space with said valve, rotor and casing, a cavity in said casing normally separated by said rotor from said inclosed space, ports in said rotor adapted to register with said cavity, one of said ports being located ahead of said piston adjacent thereto and communicating immediately with said space, the other of said ports being located at a distance from the first named port and communicating with said space back of said piston and adjacent thereto, means for exhausting gas from said casing, and means for drawing a charge of gas into said casing.



8. In an engine, the combination of a casing, a rotor therein having two pistons extending therefrom, two valves adapted to coact with said rotor and piston, said pistons engaging the walls of said casing so as to form an inclosed space with said valves, rotor and casing, two cavities in said casing separated by said rotor from said inclosed space, a pair of ports in said rotor adapted to register with each of said cavities, one of the ports of each pair being located ahead of one of said pistons adjacent thereto and communicating immediately with said space, the other port of said pair being located at a distance from the first named port and communicating with said space back of said pistons and adjacent thereto.

9. In an engine, the combination of a casing, a rotor therein having two pistons extending therefrom, two valves adapted to coact with said rotor and piston, said pistons engaging the walls of said casing so as to form an inclosed space with said valves rotor and casing, two cavities in said casing separated by said rotor from said inclosed space, a pair of ports in said rotor adapted to register with each of said cavities, one of the ports of each pair being located ahead of one of said pistons adjacent thereto and communicating immediately with said space, the other port of said pair being located at a distance from the first named port and communicating with said space back of said pistons and adjacent thereto, an intake port adjacent to one of said valves on the side thereof from which the piston moves away from the valve, and an exhaust port on the side of said port toward which the piston moves for the purpose described.

[Claims 2 to 6 not printed in the Gazette.]

1,257,269. BEAN-HARVESTER. TAICHIRO MASUDA, Marysville, Cal. Filed Aug. 17, 1917. Serial No. 186,803. (Cl. 56—1.)

1. A harvester comprising a wheel mounted frame, a pan tiltably mounted behind the frame, means for tilting the pan, a trough carried by the frame, a cutting mechanism arranged between the trough and pan, means for operating the cutting mechanism and manually operable means for simultaneously connecting the pan tilting means and the cutting mechanism operating means with the frame supporting wheels.

2. A harvester comprising a wheel mounted frame, a pan tiltably mounted behind the frame, means for tilting the pan, a cutting blade fixed with relation to the frame, and a blade mounted for swinging movement and cooperating with the first mentioned blade, and means for swinging the last mentioned blade simultaneously with the tilting of the pan.

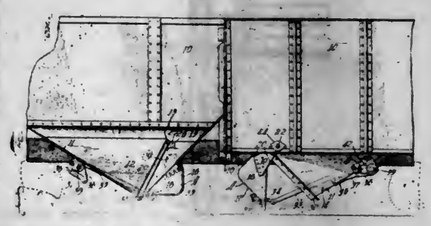


3. A harvester comprising a wheel mounted frame, a pan tiltably mounted behind the frame, means for tilting the pan, a cutting blade fixed with relation to the frame and located in advance of the pan and in the path thereof, a blade mounted for swinging movement on the frame at the receiving edge of the pan, and means for swinging the last mentioned blade simultaneously with the tilting of the pan.

4. A harvester comprising a wheel mounted frame, a pan tiltably mounted behind the frame, a trough carried by the frame, a cutter located behind the trough, fenders arranged to direct material into the trough and cutting blades located in advance of the trough and adapted to cast material back toward the same.

5. A harvester comprising a wheel mounted frame, a pan mounted behind the frame, a trough carried by the frame, a cutter located at the end of the trough, cutters journaled in advance of the trough and adapted to pass material back into the same, and vertically disposed cutters carried by the frame and located in advance of the cutters which direct the material into the trough.

1,257,270. HOPPER-CAR. ARGYLE CAMPBELL, Chicago, Ill., assignor to Enterprise Railway Equipment Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 22, 1916. Serial No. 73,571. (Cl. 105—185.)



1. A car having hoppers located on opposite sides of the center sill, each hopper having a longitudinally extending outer hopper sheet inclined with respect to the corresponding side wall of the car to thereby form a space between each of said hopper sheets and the side walls, and an inner longitudinal hopper sheet a portion of which is spaced from the center sill, said car being provided with hinged doors for each of the hoppers, each of said doors being hinged in said spaces between the hopper sheets and side walls and hopper sheets and center sill.

3. A hopper car of the W type having a transverse central ridge and pairs of hoppers on each side of the center sill, each hopper including inner and outer longitudinally extending side sheets and an inclined bottom sheet, each hopper having a door opening formed by the lower edges of the respective hopper bottom sheet, ridge and side sheets, and a door for each hopper, each door being pivoted to swing about a transverse axis located above the lower edge of the adjacent portion of the ridge

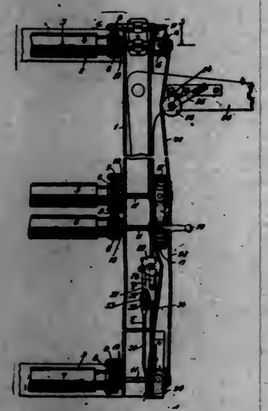
sheet, said axis extending through the side sheets of the respective hopper.

5. A hopper car of the character described having hoppers on each side of the center sill of the car, each of said hoppers including an inclined hopper bottom sheet and inner and outer side sheets extending longitudinally of the car, said inner side sheets being spaced from the center sill, hopper doors for the hoppers, and means for pivotally mounting said doors to swing about transverse axes, said means including pivotal connections located in the spaces between the center sill and said inner side hopper sheets.

6. A hopper car of the W type having pairs of hoppers on each side of the center sill of the car, each hopper including an inclined hopper bottom sheet and longitudinally extending inner and outer side hopper sheets, the inner side hopper sheets being spaced from the center sill of the car, and the outer side hopper sheets, at their upper ends, being spaced from the lower edges of the sides of the car, transversely extending hopper doors for the hoppers, and means for pivotally supporting said doors to swing about axes extending transversely of the car, said means including pivotal connections located in the spaces between the outer side hopper sheets and the side walls of the car and between said inner side hopper sheets and the center sill.

[Claims 2 and 4 not printed in the Gazette.]

1,257,271. EMBROIDERY-FRAME. RICHARD BLOCH and FRANZ SUESS, New York, N. Y., assignors to The Kursheedt Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Dec. 22, 1915. Serial No. 68,142. (Cl. 112—7.)



1. An embroidery frame provided with upper and lower rolls for supporting the fabric to be embroidered, bevel gears on the ends of said rolls, shafts at right angles to said rolls, complementary bevel gears mounted upon said shafts, and adapted to mesh with the bevel gears on the rolls, means connecting the complementary bevel gears to operate the same together, means for connecting and disconnecting either of said complementary gears and the corresponding gears on the ends of the rolls, and means for operating said complementary gears arranged in front of the frame and connected to one of the shafts upon which the complementary gears are mounted, whereby either roll can be rotated independently of the other to roll the fabric thereon or unroll the fabric therefrom or both rolls together to unroll the fabric from one roll on to the other; substantially as described.

2. An embroidery frame provided with upper and lower rolls for supporting the fabric to be embroidered, bevel gears on the ends of said rolls, shafts at right angles to said rolls, complementary bevel gears mounted upon said shafts and adapted to mesh with the bevel gears on the rolls, sprocket wheels combined with said complementary gears to rotate therewith, a chain connecting the sprocket wheels, an operating handle for operating the sprocket wheels and gears, and means for throwing either or both of the complementary gears into and out of mesh with the gears on the ends of the rolls, whereby either roll can be rotated independently of the other to roll the fabric thereon or unroll the fabric therefrom or both rolls together to unroll the fabric from one roll on to the other; substantially as described.

3. An embroidery frame provided with upper and lower rolls for supporting the fabric to be embroidered, bevel gears on the ends of said rolls, shafts at right angles to said rolls, complementary bevel gears mounted upon said shafts and adapted to mesh with the bevel gears on the rolls, means connecting the complementary bevel gears to operate the same together, the shafts upon which the complementary gears are mounted being movable longitudinally with the gears to throw the gears into and out of engagement with the corresponding gears on the ends of the rolls, and means for moving said shafts to effect such engagement and disengagement, whereby either roll can be rotated independently of the other to roll the fabric thereon or unroll the fabric therefrom or both rolls together, to unroll the fabric from one roll on to the other; substantially as described.

4. An embroidery frame provided with upper and lower rolls for supporting the fabric to be embroidered, gears on the ends of said rolls, brackets attached to said frame said brackets extending forwardly and forming a bearing at their forward ends, shafts carried by the brackets, complementary gears on the shafts, the complementary gears being connected together and their shafts being slidable in said brackets, and operating arms or handles mounted on the forward ends of said brackets and arranged to move said shafts to throw the gears into and out of engagement with the corresponding gears on the ends of the rolls, whereby one roll can be rotated independently to roll the fabric thereon or unroll the fabric therefrom or both rolls together to unroll the fabric from one roll on to the other; substantially as described.

5. An embroidery frame provided with upper and lower rolls for supporting the fabric to be embroidered, gears on the ends of said rolls, complementary gears arranged to engage therewith and connected together for simultaneous operations, means in connection with the upper complementary gear for operating said gears, and means for disengaging the lower gears from each other arranged to be operated from near the upper roll, whereby the engagement and disengagement of the lower gears and the operation of the complementary gears can be effected from near the upper roll, and whereby one roll can be rotated independently to roll the fabric thereon or unroll the fabric therefrom, or both rolls together to unroll the fabric from one roll on to the other; substantially as described.

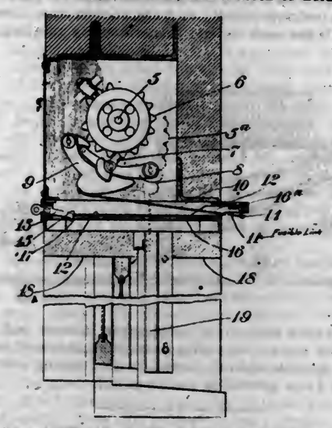
[Claim 6 not printed in the Gazette.]

1,257,272. ELECTRIC-RESISTANCE ELEMENT. GUY M. LAIRD, Chicago, Ill., assignor of one-half to Leo B. Lincoln, Chicago, Ill. Filed May 19, 1916. Serial No. 98,674. (Cl. 219—76.)

An electric resistance element formed of an alloy of nickel, cobalt and silicon and containing at least seventy-five per cent. of nickel.

1,257,273. FIRE-RESISTING SHUTTER. EDWARD H. MCCLOUD, Columbus, Ohio. Filed July 17, 1915. Serial No. 40,531. (Cl. 189—58.)

1. In combination with an automatic fire shutter, and a building wall having an opening near said shutter, a movable structure to normally rest in said opening, a thermally actuated shutter-releasing member carried by said movable structure, said movable structure adapted to be operated from the interior of the building to project the thermally actuated member through said opening from one side of the wall to the opposite side, and a latch to hold the said



movable structure with said thermally actuated member exposed at said opposite side of the wall.

[Claims 2 to 5 not printed in the Gazette.]

1,257,274. COIN-ACTUATED MECHANISM. EMANUEL RICHTER, Chicago, Ill. Filed June 14, 1912, Serial No. 703,617. Renewed July 16, 1915. Serial No. 40,327. (Cl. 235—100.)



1. A device of the character herein described, embodying therein a differentially operative mechanism, a fixed coin chute adapted to receive coins of different denominations, a main actuating mechanism provided with eccentrically supported means whereby it may be automatically set to impart variable movement to said differentially operative mechanism through engagement with any coin in said chute, and means operative with a continued movement of said setting means and at different points in the movement of said main actuating mechanism for variably actuating said differentially operative mechanism.

2. A device of the character herein described embodying therein a differentially operative mechanism, a fixed coin chute, a main actuating mechanism provided with eccentrically supported means whereby it may be automatically set to impart variable movement to said differentially operative mechanism through engagement with a coin in said chute, means in said chute for limiting the movement of a coin therein by said main actuating mechanism, and means operative at different points in the movement of said main actuating mechanism for variably actuating said differentially operative mechanism.

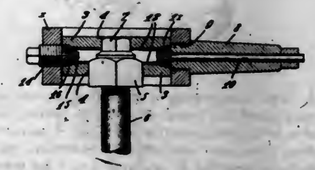
3. A device of the character herein described embodying therein a differentially operative mechanism, a fixed coin chute, a pivotally mounted main actuating mechanism provided with eccentrically supported means whereby it may be automatically set to impart variable movement to said differentially operative mechanism through engagement with a coin in said chute, means operative at different points in the movement of said main actuating mechanism for variably actuating said differentially operative mechanism, and manually operative controlling means adapted to actuate said main actuating mechanism.

4. A device of the character herein described embodying therein a differentially operative mechanism, a coin chute, a main actuating mechanism comprising a pivotally supported arm having pivotally mounted thereon and eccentrically of the pivot thereof a plate adapted to be automatically set to impart variable movement to said differentially operative mechanism through engagement with a coin in said chute, said arm and said plate being adapted to move simultaneously and in unison after said plate has been set, and selective coöperating means carried by said plate and adapted to actuate said differentially operative mechanism.

5. A device of the character herein described embodying therein a differentially operative mechanism, a coin chute, a main actuating mechanism comprising a pivotally supported arm having pivotally mounted thereon and eccentrically of the pivot thereof a plate adapted to be automatically set to impart variable movement to said differentially operative mechanism through engagement with a coin in said chute, said arm and said plate being adapted to move simultaneously and in unison after said plate has been set, a spring detent whereby said arm is held against movement until said plate has been set, and selective coöperating means carried by said plate and adapted to actuate said differentially operative mechanism.

[Claims 6 to 17 not printed in the Gazette.]

1,257,275. NUT-LOCK WRENCH. LOUIS MARTAIN SARTAIN, Altamont, Tenn., assignor of one-tenth to W. H. Woodlee, one-tenth to W. G. Woodlee, one-tenth to Garnet Burrous, one-tenth to L. J. Campbell, one-tenth to S. C. Scott, one-tenth to James Givens, one-tenth to W. H. Campbell, one-tenth to E. C. Shelton, one-tenth to George D. Boyd, and one-twentieth to W. E. Gillen, Altamont, Tenn. Filed Aug. 16, 1917. Serial No. 186,559. (Cl. 81—56.)



1. A wrench embodying a pair of heads mounted for rotation about the same axis and actuating means for simultaneously rotating them in opposite directions respectively.

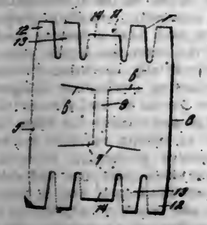
3. A wrench embodying a pair of heads for engaging two members and mounted for rotation about the same axis and actuating means having a pinion, said heads having teeth meshing with said pinion for simultaneous rotation in opposite directions respectively.

4. A wrench embodying a frame, a pair of heads for engaging two members carried by the frame and having gear teeth, said heads being mounted for rotation about the same axis, and an actuating shaft carried by the frame having a pinion meshing with said teeth and located between said heads for rotating the heads simultaneously in opposite directions respectively.

5. A wrench embodying a frame, removable heads therein having openings for engaging two members and having gear teeth at their adjacent sides, and a plurality of pinions carried by the frame meshing with said teeth between said heads, one of the pinions being removable to permit the heads to be removed.

[Claim 2 not printed in the Gazette.]

1,257,276. TILE-CLAMP. FREDERICK A. WISWELL, Oakland, Cal., assignor of two-fifths to Elizabeth E. Phelan, Oakland, Cal. Filed Sept. 7, 1916. Serial No. 118,893. (Cl. 72—108.)



A substantially concealed clamp adapted for use in connection with hollow tiles; comprising a substantially flat body portion adapted to span the adjacent ends of a pair of tiles and having substantially horizontal flat supporting tongues stamped from the ends thereof and adapted to be arranged between the upper and lower tiles; upwardly and downwardly extending tongues carried by the ends of the body portion to engage within the upper and lower portions; end engaging tongues stamped from the central portion of the body portion and extending longitudinally of the body portion in spaced relation with a bridge strip arranged between the openings formed by the end engaging tongues, said end engaging tongues having their sides adapted for engagement within the ends of the hollow tiles; and a second set of end engaging tongues stamped from the materials of the first named end engaging tongues, and adapted for engagement with the ends of the hollow tiles.

1,257,277. CIRCULATION-CONTROL BAFFLE FOR WATER-TUBE BOILERS. CHARLES L. ANDERSEN, East Chicago, Ind. Filed Feb. 5, 1917. Serial No. 146,776. (Cl. 137—112.)



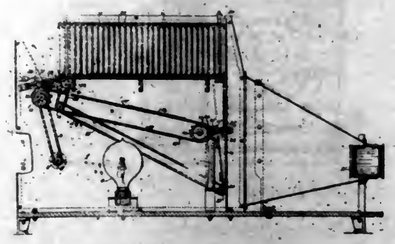
1. A baffle comprising a partition to extend across a tube, said partition being of a size to permit only the passage of a restricted quantity of liquid, a pair of rigid arms extending from one side of said partition, an outwardly projected spur carried by one arm, and a set screw threaded outwardly through the other, said spur and screw being adapted for contact with the tube to hold the partition in place.

2. A baffle comprising a partition to extend across a tube, said partition being of a size to permit only the passage of a restricted quantity of liquid, a pair of rigid arms extending from one side of said partition, a transverse bar joining the ends of said arms and serving as a handle for applying and removing the device, and means carried by said arm for contact with the tube to secure the partition in place.

3. A baffle comprising a partition to extend across a tube, said partition being of a size to permit only the passage of a restricted quantity of liquid, a rigid support extending from one side of said partition, and a spur and set screw carried by said support for engagement with the tube to secure said partition in place.

1,257,278. SLIDE-DISPLAY MACHINE. THOMAS E. BROWN, Pecos, Tex. Filed May 29, 1916. Serial No. 100,516. (Cl. 88—28.)

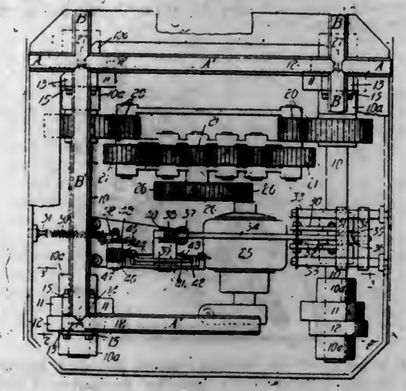
1. In a machine of the character described, a condensing lens, a series of slides, a means for moving said slides with periodic movement to bring successive slides above and in front of said lens, two rollers arranged to guide each slide to a position directly in front of said lens, a switch arranged below said rollers, a continuously rotating con-



veyer arranged adjacent to said switch, a shaft and cams arranged to elevate each slide upward against said switch to direct the slide upon the continuously rotating conveyer.

[Claim 2 not printed in the Gazette.]

1,257,279. CROSSING-OPERATING SYSTEM. EDWARD S. COBB, Whittier, Cal., assignor to Cobb Shockless Crossing Corporation, New York, N. Y., a Corporation of New York. Filed Aug. 12, 1916. Serial No. 114,563. (Cl. 104—116.)



1. In combination with two intersecting tracks and an intersection mechanism adapted to be set to make either track passable and the other simultaneously impassable for cars across the intersection, means adapted to normally automatically set said mechanism for passage across the intersection on one intersecting track, and means coöperating with said last mentioned means, and controlled by a car approaching said intersection on the other intersecting track, to set and hold said mechanism for passage across the intersection on the other intersecting track, said last mentioned means including an actuating circuit in which current normally flows and from which current is diverted by an approaching car.

2. In combination with a track intersection mechanism adapted to be set for passage of cars on either of two intersecting tracks over a track intersection, means adapted to normally automatically set said mechanism for passage across the intersection on one intersecting track, and means coöperating with said last mentioned means, and controlled by a car approaching the intersection on the other intersecting track, to set and hold said mechanism for passage across the intersection on the other intersecting track, said means including a relay controlling

two circuits and a circuit normally supplying current to said relay to cause it to normally establish one of said controlled circuits, and means controlled by a car approaching on the last mentioned intersecting track to divert current from said relay circuit and cause the relay to act to establish the other one of said controlled circuits.

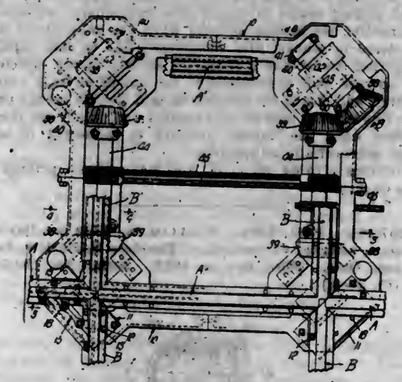
3. In combination with two intersecting tracks and an intersection mechanism adapted to be set to make either track passable and the other simultaneously impassable for cars across the intersection, means including a normally closed actuating circuit for normally automatically setting said mechanism in position for passage over the intersection on one of the intersecting tracks, and means controlled by a car approaching on the other intersecting track to divert current from said normally closed circuit.

4. In combination with two intersecting tracks and an intersection mechanism adapted to be set to make either track passable and the other simultaneously impassable for cars across the intersection, means including a normally closed actuating circuit for normally automatically setting said mechanism in position for passage over the intersection on one of the intersecting tracks in either direction, and means controlled by a car approaching in either direction on the other intersecting track to divert current from said normally closed circuit.

5. In combination with a track intersection mechanism adapted to be set for passage of cars on either one or the other of two intersecting tracks over a track intersection, electrically controlled means to normally automatically set said mechanism for passage across the intersection on one intersecting track, and electrically controlled means coöperating with said last mentioned means, and controlled by a car approaching the intersection on the other intersecting track, to set and hold said mechanism for passage across the intersection on the other intersecting track, said means including a relay controlling two circuits connected into the first mentioned electrically controlled means, a circuit normally supplying current to said relay to cause it normally to establish one of said controlled circuits, and means controlled by a car approaching on the last mentioned track to cause cessation of current in said relay circuit and cause the relay to act to establish the other one of said controlled circuits.

[Claims 6 to 8 not printed in the Gazette.]

1,257,280. RAILROAD INTERSECTION. EDWARD S. COBB, Whittier, Cal. Filed Mar. 20, 1917. Serial No. 156,024. (Cl. 104—116.)



1. A railroad intersection, comprising two intersecting pairs of parallel rails with each rail terminating at its intersection with a rail of another pair, pairs of vertically movable members adapted to be raised to form continuations of the rails of either of the intersecting tracks, and means embodying a pair of rotating cams under each individual rail intersection to raise and lower the vertically movable members.

2. A railroad intersection, comprising two intersecting pairs of parallel rails with each rail terminating at its intersection with a rail of another pair, single rail sections extending between the individual rail intersections and vertically movable to form continuations of the rails of either of the intersecting tracks, and means embodying a pair of rotating cams under each individual rail intersection to raise and lower the vertically movable rails.

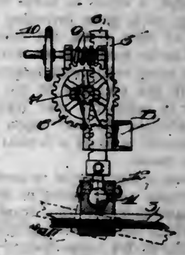
3. A railroad intersection, comprising two intersecting pairs of parallel rails, with each rail terminating at its intersection with a rail of another pair, single rail sections extending between the individual rail intersections and vertically movable to form continuations of the rails of either of the intersecting tracks, cam shafts placed diagonally, one under each individual rail intersection, and a pair of cams on each shaft engaging one with each of the vertically movable rails at that intersection.

4. A railroad intersection, comprising two intersecting pairs of parallel rails, with each rail terminating at its intersection with a rail of another pair, single rail sections extending between the individual rail intersections and vertically movable to form continuations of the rails of either of the intersecting tracks, cam shafts beneath the rails and the rail intersections, and pairs of cams carried on said shafts, one pair beneath each of the rail intersections engaging one with each of the vertically movable rails at that point.

5. A railroad intersection, comprising two intersecting pairs of parallel rails with each rail terminating at its intersection with a rail of another pair, pairs of vertically movable members adapted to be raised to form continuations of the rails of either of the intersecting tracks, cam shafts placed diagonally one under each individual rail intersection, and a pair of cams on each shaft engaging one with each of the vertically movable members at that intersection.

[Claims 6 to 15 not printed in the Gazette.]

1,257,281. DRAFT CONNECTION AND CONTROL FOR GANG DISK PLOWS. JOHN H. DAVIS and JOHN W. MORGAN, Stockton, Cal.; said Morgan assignor to said Davis. Filed Oct. 12, 1912. Serial No. 725,540. (Cl. 97—73.)

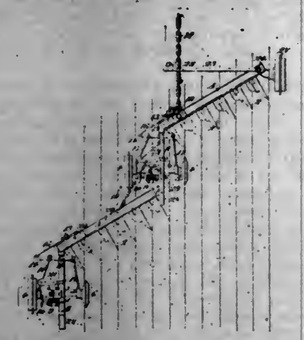


2. In combination with the frame of a gang plow and a trailing truck for supporting the rear end thereof, means connected to the frame and truck to allow the latter to oscillate vertically and be horizontally adjusted, means to raise or lower the frame relative to the truck, and means to enable selective horizontal oscillation of the truck and to positively lock the truck in any angular position horizontally relative to the frame while still permitting free vertical oscillation.

3. In a disk plow, a one-way disk gang arranged obliquely to the line of draft, a trailing truck connected to the rear end thereof, so as to be capable of horizontal oscillation, means to raise and lower the gang relative to the truck, and means for manually controlling the truck oscillations and for holding the truck in any position to which it may be oscillated.

[Claims 1, 4, and 5 not printed in the Gazette.]

1,257,282. DRAFT-CONNECTION CONTROL FOR GANG DISK PLOWS. JOHN H. DAVIS and JOHN W. MORGAN, Stockton, Cal.; said Morgan assignor to said Davis. Original application filed Oct. 12, 1912, Serial No. 725,540. Divided and this application filed May 12, 1913. Serial No. 766,990. (Cl. 97—67.)



1. In a gang plow, the combination of a plurality of connected gangs, each gang having a plow-frame carrying a series of plow disks, a truck supporting the rear end of each succeeding plow-frame, steering means in connection with each truck, thrust imparting means between the adjacent ends of adjacent plow-frames, and a draft connection between the successive plow-frames whereby each succeeding plow-frame is attached to and pulled from the rear end of the plow-frame in front so that a side thrust of a rear gang is exerted directly against the rear end of the preceding gang.

3. In a gang plow, the combination of a plurality of connected gangs, each gang having a plow-frame carrying a series of plow disks, thrust imparting means between the adjacent ends of adjacent plow-frames, and a draft connection between the successive plow-frames whereby each succeeding plow-frame is attached to and pulled from the rear end of the plow-frame in front so that a side thrust of a rear gang is exerted directly against the rear end of the preceding gang.

11. In a gang plow, a series of gangs arranged one in front of the other, each gang including a plow frame carrying a series of plow disks, the front ends of the rear frames of the gangs having noses which bear against and are adapted to move bodily with relation to and while in engagement with the rear end of the adjacent front frame, and means to connect a rear frame to an adjacent front frame whereby the draft upon the rear frame causes the nose thereof to exert a lateral thrust against the adjacent front frame.

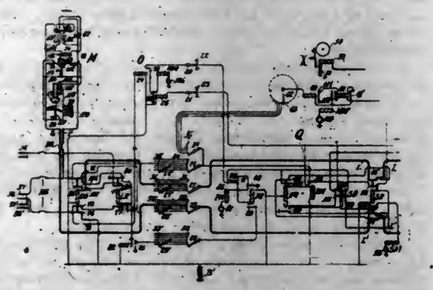
15. In a disk plow, a plurality of stepped gang sections each including a frame and a series of one-way disks, a primary draft connection for the front gang, and a pivotal connection between adjacent gang sections having an axis free to shift relative to the frame.

16. In a disk plow, a plurality of stepped gang sections, arranged obliquely to the line of draft and each including a series of one-way disks and a draft connection between the rear end of each gang and the succeeding gang, said connection forming the sole draft means for the succeeding sections.

[Claims 2, 4 to 10, and 12 to 14 not printed in the Gazette.]

1,257,283. AUTOMATIC TELEPHONE SYSTEM. ALFRED H. DYSON, Chicago, Ill., assignor, by mesne assignments, to Kellogg Switchboard & Supply Company, a Corporation of Illinois. Filed Aug. 19, 1907. Serial No. 389,180. (Cl. 179—18.)

1. A telephone exchange system comprising a telephone line; line selecting switching including contacts having primary and secondary movements; primary and secondary relays for controlling said movements respectively; primary and secondary off-normal switch contacts movable upon the first primary and secondary switch movements respectively; starting circuits one for each of said selecting switches, each of said starting circuits including a contact of said control switch, the winding of one of the primary relays and one of said primary off-normal switch contacts; and starting circuits for said control switch, one from each selector switch, each of the latter starting circuits including contacts of one of said secondary relays and one of said secondary off-normal switch contacts.



65. A telephone system including a telephone line, a plurality of substations on said line, signals at said stations responsive to ringing currents of different frequencies corresponding to the number of substations on said line, sources of ringing current of such frequencies, an electrically operated step by step switch for selectively connecting said sources to said line to operate said signals, and directively controlled switches structurally independent of said switch for interconnecting said lines.

78. In an automatic telephone exchange system, a subscriber's station having a manually operated impulse transmitter, a locking device for said impulse transmitter embodying an electromagnet, a receiving device means for automatically connecting said subscriber's line to said receiving device, and a source of electromagnetic energy adapted to be brought into the telephone line to operate said electromagnet and unlock the transmitter when the receiving device is brought into circuit.

79. In an automatic telephone exchange system, a subscriber's station, a normally locked impulse transmitter, an impulse receiving device, an electromagnet to operate said locking device to unlock said transmitter; automatic connecting mechanism adapted when the subscriber's line is closed to connect said subscriber's line to said impulse receiving device, and a source of electric energy sufficient to operate said electromagnet for unlocking said transmitter, and means for connecting said electric energy onto the line so as to operate said magnet and unlock the transmitter when the impulse receiver is connected to said line, substantially as specified.

[Claims 2 to 64, 66 to 77, and 80 to 86 not printed in the Gazette.]

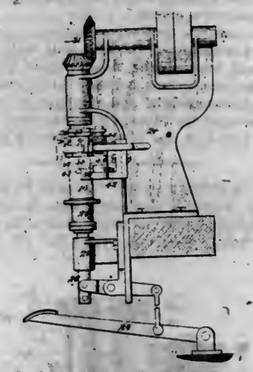
1,257,284. PEG-LEG. WILLIAM S. ELTERS, Dayton, Ohio, assignor of one-half to Theodore H. Barlow, Dayton, Ohio. Filed Oct. 4, 1917. Serial No. 194,704. (Cl. 3—2.)



1. A device of the character specified comprising a tubular peg-leg constructed of corrugated sheet metal, a knee saddle mounted thereon, arms extending from opposite sides of said saddle said arms being formed of corrugated metal and one of which extends to the waist of the wearer, and a resilient yoke connecting said arms above the saddle.

2. In a peg-leg, a saddle adapted to support the knee, a peg-leg extending from said saddle and formed of corrugated sheet metal, a waist arm and a short arm extending from said saddle and formed of corrugated sheet metal, a yoke connecting said arms above the saddle, and a resilient brace connection between the waist arm and the peg-leg.

1,257,285. METHOD OF REMOVING CAN ENDS. ROBERT M. HUDDLESTON, San Francisco, Cal. Filed Jan. 25, 1917. Serial No. 144,353. (Cl. 113—116.)



1. The method of removing a lock seam end from a can body, which consists in pressing out the seam at right angles to the axis of the can, and cutting off the interlocking portion of the can end without mutilating the resulting flange on the can body.

2. The method of removing a lock seam end from a can body, which consists in forcing the folded parts of the seam away from the body of the can, leaving a right angular flange on the can body, overlying which is the rim of the can end having a channel-shaped periphery surrounding the outer margin of the flange on the can body, and severing the channeled portion of the can end on a line with the edge of the flange of said body, whereby the end may be lifted off with the flange on the can body remaining intact to receive another end.

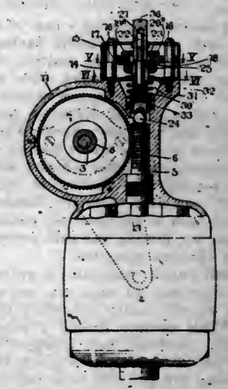
3. The method of removing a lock seam end from a can body, which consists in forcing the folded parts of the seam away from the body of the can, leaving a right angular flange on the can body, overlying which is the rim of the can end having a channel-shaped periphery surrounding the outer margin of the flange on the can body, and shredding the end of the channeled portion below the flange.

5. The method of removing lock seam can ends from can bodies, which consists in severing the seamed rim of the can end along a line coincident with the joint in the steam where the retaining flange on the can body will not be injured and where the can end and the locked portion of its rim will be free for separate removal.

[Claims 4 and 6 not printed in the Gazette.]

1,257,286. WINDING DEVICE FOR SPRING-MOTORS. JOSEPH W. JONES, New York, N. Y., assignor to Jones Motrola, Inc., New York, N. Y., a Corporation of New York. Filed June 13, 1917. Serial No. 174,512. (Cl. 185—40.)

3. A winding device for spring motors including a switch, an electric winding motor, means for connecting it to the spring motor comprising a movable element whose movement is controlled by the varying resistance of the spring motor spring to close and open the switch for starting and stopping the electric winding motor and adjustable automatically operating means to return the movable element to its original position.

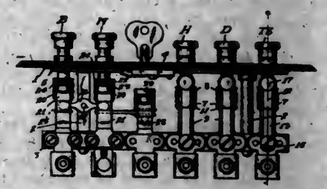


10. A winding device for spring motors including a switch, an electric winding motor, means for connecting it to the spring motor, the spring motor spring serving as a pressure means to open the switch to stop the electric winding motor and adjustable automatic means to close the switch to start the electric winding motor, the movement of the switch being accomplished by an overbalancing in pressure due to the varying tension of the spring motor spring.

19. A winding device for spring motors including a switch, an electric motor, means for connecting it to the spring motor comprising the longitudinally movable rotary armature shaft, said spring motor spring serving as a means to move the shaft in one direction for opening the switch to stop the electric motor and adjustable automatic means to move the shaft in the other direction and close the switch to start the electric motor, the movement of the shaft being accomplished by an overbalancing in pressure due to the varying tension of the spring motor spring, and manual means for closing the switch to start the motor.

[Claims 1, 2, 4 to 9, and 11 to 18 not printed in the Gazette.]

1,257,287. SWITCH DEVICE. WILLIAM KAISLING, Chicago, Ill., assignor to Kellogg Switchboard & Supply Company, Chicago, Ill., a Corporation of Illinois. Filed June 5, 1914. Serial No. 843,128. (Cl. 175—282.)



1. In a device of the character described the combination with a pair of circuit controlling plungers, means whereby said plungers interlock, a stationary circuit controlling element, and a movable circuit controlling element adapted to close circuit with said stationary circuit controlling element whenever said plungers are moved to their limiting positions.

4. An electrical switch comprising a pair of switch actuating plungers, annular grooved elements carried by said plungers, a centrally pivoted link having its opposite ends within said plunger grooves whereby any actuation of either plunger will effect a corresponding

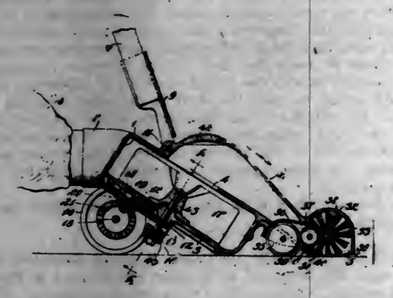
actuation of the other plunger, and a third switch operating plunger associated with said first switch operating plungers whereby any movement of either of said first actuating plungers will cause a movement of said third actuating plunger.

8. A switching device comprising a pair of switch operating members, each of said members having a normal, an operative and a non-operative position, an auxiliary switch operating member associated with and controllable by said pair of switch operating members having a normal position and a pair of operative positions, link mechanism for said first members whereby when either one of said first members is moved to its normal, operative or non-operative position, the other of said first members is moved to its normal, non-operative or operative position, respectively, and said auxiliary member is moved to its normal and then to its operative positions, respectively, and means for locking the said switch operating members against effective operation.

11. An electrical switch comprising a switch actuating member having a normal, an operative, and a non-operative position, a second switch actuating member associated with said first member having a normal position and two operative positions, said plungers being so related that when said first plunger is moved to its normal position said second plunger will be moved to its normal position, and when said first plunger is moved to its operative or its non-operative position, said second plunger will be moved to its operative positions.

[Claims 2, 3, 5 to 7, 9, and 10 not printed in the Gazette.]

1,257,288. SUCTION-CLEANER. JAMES B. KIRBY, Cleveland, Ohio. Filed Oct. 2, 1916. Serial No. 123,221. (Cl. 15—60.)



1. In a suction cleaner, a fan chamber having an inlet opening in its upper wall and a fan shaft projecting through its lower wall, a collecting nozzle overlapping said upper wall and inclosing said opening, said nozzle having a mouth whose plane lies below said lower wall, and operating mechanism disposed beneath said lower wall and connected to said shaft.

6. In a suction cleaner, an inclined fan chamber of approximately cylindrical shape having its diameter greater than its axial length, an axial shaft journaled in the lower end wall, a fan secured to said shaft inside of said wall, a gear secured to said shaft outside of said wall, brackets carried by said wall at one side of said shaft, a transverse shaft journaled in said brackets, a gear carried by said transverse shaft and operatively connected to said first gear, floor-engaging wheels carried by said transverse shaft, the end wall of said fan chamber opposite said first shaft having an inlet opening, and a collecting nozzle communicating with said opening and extending past the edge of said fan chamber upon the side removed from said transverse shaft, the plane which is tangent to said wheels and touches the inlet mouth of said nozzle being substantially horizontal and passing close to the lowest point of said fan chamber.

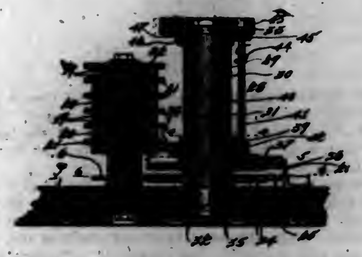
7. In a suction cleaner, a fan chamber whose axis diverges from the vertical by less than 45°, the upper wall of said chamber having an inlet opening, and a flaring nozzle overlapping said fan chamber with its narrowest portion covering said opening and its widest portion extending beyond the wall of said chamber, said nozzle having a mouth whose plane lies below the lower wall of the fan chamber.

8. In a suction cleaner, a fan chamber whose axis makes an oblique angle with the vertical, the upper wall of said chamber having an inlet opening, a flaring nozzle overlapping said fan chamber with its narrowest portion covering said opening and its widest portion extending beyond the wall of said chamber, said nozzle having a mouth whose plane lines below the lower wall of the fan chamber, a fan in said chamber, and operating means for said fan located between the lower wall of said chamber and the plane of said inlet mouth.

10. In a suction cleaner, a nozzle, a rotatable brush therein, a housing inset in the nozzle wall, a wheel journaled in said housing and substantially filling the same, and driving connections between said wheel and brush, said wheel being adapted and arranged to be rotated upon the movement of the cleaner over the floor.

[Claims 2 to 5, 9, and 11 not printed in the Gazette.]

1,257,289. METER-PANEL. HUBERT F. KRANTZ, Brooklyn, N. Y., assignor to Krantz Manufacturing Company, Inc., Brooklyn, N. Y., a Corporation of New York. Filed Dec. 18, 1912. Serial No. 737,373. (Cl. 247—13.)



2. A panel board consisting of a back plate, a plurality of meter bus-bars and a neutral bus-bar arranged in different planes above the back plate, and a switch having a plurality of switch blades adapted to contact directly with the bus-bars, one of said switch blades being shiftable to engage any selected one of the meter bus-bars.

10. A panel board comprising a back plate, superposed bus-bars carried thereby, including a neutral bus-bar, branch circuit contacts, means to close the circuit between the neutral bar and one of the branch circuit contacts, a vertically adjustable blade to close the circuit between any one of said bus-bars, not including the neutral bar, and the other of said branch circuit contacts, and an indicating device to determine the position of the vertically adjustable blade.

11. A panel board comprising a back plate, bus-bars carried thereby, including a neutral bus-bar, arranged in different planes, branch circuit contacts also arranged in different planes, means to close the circuit between the neutral bar and one of said branch circuit contacts, an adjustable device to close the circuit between the bus-bars, not including the neutral bar, and the other of said branch circuit contacts, and means to adjust said device to the plane of any one of said bus-bars.

16. In a meter board, a series of meter contacts for carrying one side of the circuit, a further contact for carrying the opposite side of the circuit, a pair of branch line contacts, and a switch interposed between the branch line contacts and said first and second mentioned contacts, the switch comprising means for closing circuit between one of the branch line contacts and any selected one of the first mentioned contacts, and the switch also comprising means for closing circuit between the remaining branch line contact and the second mentioned contact.

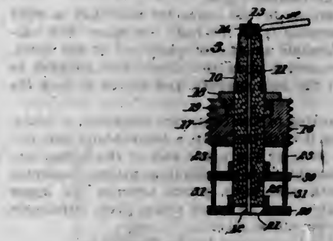
[Claims 1, 3 to 9, and 12 to 15 not printed in the Gazette.]

1,257,290. PROCESS OF PRODUCING CHEMICAL WOOD-PULP. JACOB OTTO LUNDBERG, Flateby, near Lilleströmmen, Norway. Filed Nov. 9, 1914. Serial No. 871,185. (Cl. 92—7.)

1. The process of digesting wood pulp by the sulfate or soda process, which comprises filling a digester with the wood to be treated, storing the digesting liquor in a separate container, indirectly steam-heating the liquor therein under pressure without circulation of the same by passing steam under high pressure in a conduit through the container out of contact with the liquid so as to produce a temperature sufficiently high that the amount of heat necessary for the digesting process is stored in the liquor, supplying the liquor so heated to the digester in a quantity sufficient to simultaneously effect the digesting and supply the necessary heat, and completing the digestion without circulating the liquor through the digester.

[Claims 2 and 3 not printed in the Gazette.]

1,257,291. SPARKING DEVICE. HENRY H. MORETON, Stony Point, N. Y., assignor, by mesne assignments, to Moreton Carbureter Corporation, New York, N. Y., a Corporation of New York. Filed July 13, 1914. Serial No. 850,768. (Cl. 123—169.)



1. A sparking device of the character described comprising an insulating block, a central electrode extending therethrough, a plurality of grounded electrodes arranged around said insulating block, and substantially parallel with the axis thereof, and a bridge member secured to one end of the insulating block and having a central recess to receive the contiguous end of said central electrode, said bridge member also having a flat face extending transversely of the block and positioned opposite to the sparking terminals of all of said grounded electrodes, for causing independent sparking at the terminals of all of the electrodes.

[Claims 2 and 3 not printed in the Gazette.]

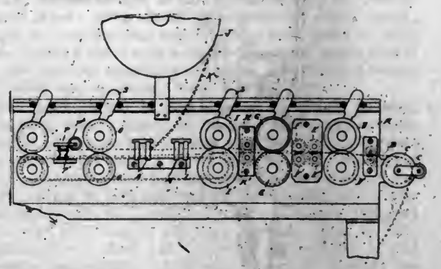
1,257,292. PROCESS OF RECLAIMING RUBBER. HAROLD R. MURDOCK, Naugatuck, Conn., assignor to Rubber Regenerating Company, a Corporation of Indiana. Filed Oct. 8, 1915. Serial No. 54,901. (Cl. 18—52.)

2. In a process involving the disintegration of fibrous cellular material, treating the same with a carbohydrate other than cellulose, whose hydrolytic products decompose the fiber of said material under the conditions of devulcanization into an easily pulverizable brittle substance.

11. In the process of reclaiming rubber waste, the step of treating such waste with carbohydrates in the form of starch, which under the condition of devulcanizing causes decomposition of fibrous material in said waste.

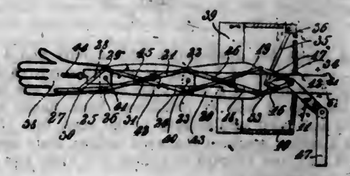
[Claims 1, 3 to 10, and 12 to 15 not printed in the Gazette.]

1,257,293. MACHINE FOR FORMING METAL TUBES. HUGO NEUMAN, Ford City, Ontario, Canada, assignor to Diamond Manufacturing Company, Detroit, Mich., a Corporation of Michigan. Filed Mar. 20, 1914. Serial No. 825,990. (Cl. 113—33.)



The combination with a frame, of a series of pairs of forming rolls mounted on said frame and adapted to progressively fashion a sheet metal strip, seaming rolls arranged in alinement with said series of rolls, stationary forming dies between said series of rolls and seaming rolls, and means for delivering a complementary fashioned strip to said intermediate dies into engagement with the strip fed from said series of rolls, whereby said seaming rolls will unite the engaged strips.

1,257,294. AUTOMOBILE TURNING-SIGNAL. HENRY PATRICK, New Brunswick, N. J. Filed Mar. 23, 1917. Serial No. 156,812. (Cl. 177—327.)



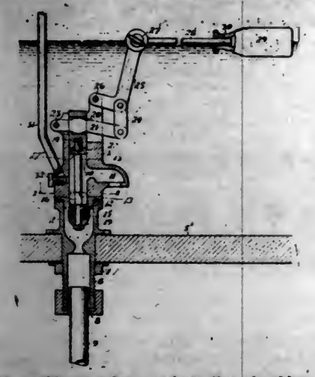
1. In a vehicle signal, the combination with a casing, and a plurality of translucent side plates engaged therewith, of lazy-tong links between said side elements, an actuating lever for said links, a translucent hand engaged at the outer end of said elements, a source of electrical energy, means for controlling said energy, a plurality of lights engaged between said plates, and means operable by said actuating lever for making a circuit between said lights and said source of electric energy.

2. In a vehicle signal, the combination with a hollow casing, and a plurality of lazy-tong elements engaged therein, of translucent plates secured to the sides of said lazy-tong elements, a translucent hand engaged at the outer end of said lazy-tongs, an operating lever for said lazy-tongs, means combined within said casing and with said operating lever whereby said lazy-tongs may be extended or retracted, a foot-pedal, connections between said foot-pedal and said operating lever, a plurality of lights carried by said lazy-tong elements, a source of electrical energy in circuit therewith and means for controlling the current from said source of electricity.

1,257,295. BALL-COCK. MICHAEL A. SLATTERY and WILLIAM F. DOCKERY, San Francisco, Cal. Filed Mar. 20, 1917. Serial No. 155,990. (Cl. 137—104.)

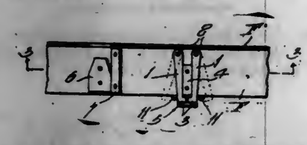
A ball cock including a casing having an inlet and an outlet, a piston in the casing, a rod depending from the piston and having a shoulder, a guide member formed independent of the rod and being apertured to receive the rod and abutting said shoulder at one end of the member, said guide member having water diffusing passages, means to operate the rod, a valve apertured to receive the rod

and abutting the other end of said guide member, and means to hold said valve on the rod and thereby remov-



ably hold the guide member against the shoulder, said valve being formed of rubber so as to resiliently hold the guide member on the rod.

1,257,296. LOCK FOR DEMOUNTABLE RIMS. RUDOLPH T. WINDT, St. Louis, Mo. Filed Nov. 27, 1916. Serial No. 133,699. (Cl. 152—21.)



1. In a wheel, the combination with a felly and a rim therefor; of a series of locking devices therefor, each of said devices comprising a stop plate secured to the inner face of the rim, a pair of transverse hook-shaped arms embracing said plate and pivoted to the outer face of the felly and a spring operated U-shaped locking plate mounted on said felly and adapted to engage said arms and lock them against movement.

2. In a wheel, the combination with a felly, and a rim therefor; of a series of locking devices therefor, each of said devices comprising a hook-shaped member, a stop to be engaged by the member, one being carried by the felly and the other by the rim, and a U-shaped locking plate adapted to receive the member between its arms to hold it in engagement with the stop.

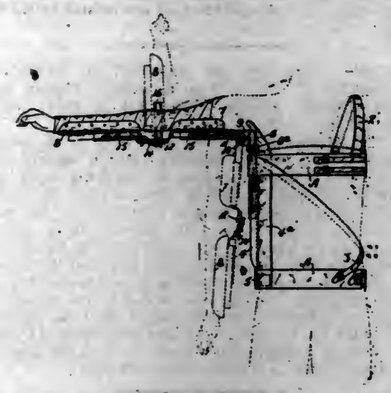
3. In a wheel, the combination with a felly, and a rim therefor; of a series of locking devices therefor, each of said devices comprising a pivoted hook-shaped member, a stop to be engaged by the member, one being carried by the felly and the other by the rim, and a pivoted U-shaped locking plate adapted to receive the member between its arms to hold it in engagement with the stop.

4. In a wheel, the combination of a felly, and a rim therefor; of a series of locking devices therefor, each of said devices comprising a pair of hook-shaped members movable toward and away from each other, a stop to be received between said members, one being carried by the felly and the other by the rim, and a U-shaped locking plate adapted to receive the members between its arms to hold them in engagement with the stop.

5. In a wheel, the combination with a felly, and a rim therefor; of a series of locking devices therefor, each of said devices comprising a hook-shaped member pivoted to said felly, a locking member comprising a plate secured to the felly, a pair of spaced ears on said plate, a U-shaped plate, a pair of spaced ears on the last mentioned plate, a shaft connecting said ears, and a spring disposed around said shaft to retain the U-shaped plate in engagement with said hook-shaped member.

[Claim 6 not printed in the Gazette.]

1,257,297. ARM AND SHOULDER BRACE. FREDERICK B. BROWN, San Francisco, Cal. Filed July 30, 1917. Serial No. 183,448. (Cl. 128—52.)



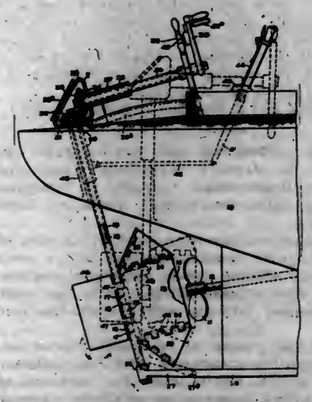
1. A shoulder and arm support and brace, comprising jointed extensions beneath the upper arm and the forearm respectively, a standard upon which the said extensions are carried, swivel supports at the end of said standard allowing the arm to be turned horizontally, and a joint at the shoulder by which the arm and its supporting plates may be set at any desired angle.

3. In an apparatus of the character described, a rigid brace, means securing it to the body, an upper arm support, a sleeve turnable about the upper end of the brace, a ratchet joint carried upon the sleeve and adapted to vertically adjust the arm support, and means to lock the parts.

5. In an apparatus of the character described, a brace, means connecting it with the body, a horizontally and vertically movable joint at the upper end of the brace, longitudinally adjustable arm supporting plates connected and movable with said joint, joints between the upper and forearm plates, and an angle elbow plate adjustable with relation to the elbow joint.

[Claims 2 and 4 not printed in the Gazette.]

1,257,298. MEANS FOR CONTROLLING AND REVERSING VESSELS. HENRY O. WESTENDARP, Saugus, Mass., assignor to General Electric Company, a Corporation of New York. Filed Apr. 25, 1917. Serial No. 164,499. (Cl. 115—35.)



1. In a vessel, the combination of a hull, a propeller therefor, a rudder comprising a plurality of plates hinged to each other and normally flat in engagement with each other, and means for moving said plates to form a receptacle closed on its top, bottom, and sides, and having an open end which faces the propeller.

2. In a vessel, the combination of a hull, a propeller therefor, a propeller shaft, a rudder comprising a pair of flat plates hinged at one vertical edge, top and bottom plates hinged to the tops and bottoms of the first named plates, said plates adapted to lie flat in engagement with each other during normal forward operation, and means for expanding said plates to form a receptacle having an open side facing the propeller.

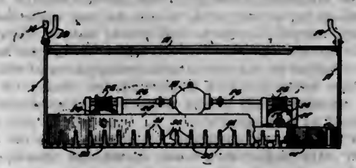
3. In a vessel, the combination of a hull, a propeller therefor, a rudder comprising a plurality of members adapted to be expanded into a receptacle, and means for moving the rudder and propeller fore and aft relative to each other when said members are expanded.

7. In a vessel, the combination of a hull, a propeller therefor, a rudder post pivoted at its lower end to move longitudinally of the vessel, said rudder post comprising two members, a rudder comprising two vertical plates one fastened to each member of the rudder post, means for turning the two members of the rudder post to move said rudder plates either in the same direction or in opposite directions, and means for moving the rudder post on its pivot to move the rudder toward the propeller.

[Claims 4 to 6 not printed in the Gazette.]

REISSUES.

14,433. BRICK-HANDLING APPARATUS. WILLIAM WALLACE DICKINSON, Jr., Little Rock, Ark. Filed Oct. 17, 1917. Serial No. 197,132. Original application filed Mar. 13, 1916, Serial No. 83,931. Patent No. 1,197,354, dated Sept. 5, 1916. Divided and application filed June 1, 1916, Serial No. 101,048. Original No. 1,197,355, dated Sept. 5, 1916. (Cl. 57—9.)



1. A brick carrier having a series of spaced, parallel, horizontal, carrying fingers supported at one end, each of said fingers consisting of a vertical web having at its lower margin a laterally projecting immovable flange, said webs being spaced apart a sufficient distance to receive a brick loosely therebetween, and adjacent flanges underlying the lateral margins of such brick in supporting relation.

2. A brick carrier having a series of spaced, parallel, horizontal, load carrying fingers, supported at one end and having their opposite ends free, each of said fingers consisting of a vertical web having at its lower edge an immovable flange projecting laterally toward the similar flange of the adjacent finger, the distance between adjacent webs being greater, and the distance between adjacent flanges being less, than the rectangular dimension of the bricks to be handled thereby.

3. In a brick carrier, in combination, a substantially horizontal platform having a groove extending to one margin of said platform and adapted for the reception of a single file of bricks, means for transporting said platform, and a pusher member movable longitudinally of said groove and adapted to eject the bricks therefrom.

4. A brick carrier having a plurality of parallel grooves, each adapted for the reception of a single file of bricks, and a pusher member located in each groove and movable longitudinally therealong to eject the bricks therefrom, all of said members being associated together for simultaneous movement whereby the bricks in the different grooves are ejected simultaneously.

5. In a brick carrier, in combination, a substantially horizontal platform formed with a groove adapted for the reception of a single file of bricks, said groove extending to one margin of said platform, and the bottom of said groove being slotted throughout its entire length, means for transporting said platform from point to point while maintaining it substantially horizontal, and a pusher member movable longitudinally along said groove whereby the bricks may be ejected from said platform.

6. A brick carrier having a series of spaced, parallel, horizontal, fingers supported at one end and having their opposite ends free, each of said fingers having a vertical web spaced from the web of the adjacent finger a distance to permit the reception of a brick therebetween and the lower margin of each web having a horizontal flange projecting toward the opposite flange a distance sufficient to receive and support the edge of such brick, in combination with a push bar extending transversely of and movable longitudinally along said fingers for ejecting the bricks therefrom.

7. A brick carrier having a series of spaced, parallel, horizontal fingers supported at one end and having their opposite ends free, each of said fingers having a vertical web spaced from the web of the adjacent finger a distance to permit the reception of a brick therebetween and the lower margin of each web having a horizontal flange projecting toward the opposite flange a distance sufficient to receive and support the edge of such brick, in combination with a push bar extending transversely of and movable longitudinally along said fingers for ejecting the bricks therefrom, and power actuated connections attached to said carrier for moving said push bar and fingers relatively to each other.

8. A brick carrier having a series of spaced, parallel, horizontal, fingers supported at one end and having their opposite ends free, each of said fingers having a vertical web spaced from the web of the adjacent finger a distance to permit the reception of a brick therebetween and the lower margin of each web having a horizontal flange projecting toward the opposite flange a distance sufficient to receive and support the edge of such brick, in combination with a push bar extending transversely of and movable longitudinally along said fingers for ejecting the bricks therefrom, said push bar being provided with a plurality of slotted openings through which the said webs extend.

9. A brick carrier having a series of spaced, parallel, horizontal fingers supported at one end and having their opposite ends free, each of said fingers having a vertical web spaced from the web of the adjacent finger a distance to permit the reception of a brick therebetween and the lower margin of each web having a horizontal flange projecting toward the opposite flange a distance sufficient to receive and support the edge of such brick, in combination with a push bar extending transversely of and movable longitudinally along said fingers for ejecting the bricks therefrom, means for moving the two ends of said push bar along said fingers at equal speed, and means for guiding said push bar in its movement.

10. In a brick carrier, in combination, a substantially horizontal receiving part adapted for the reception of a stack of bricks piled in regular courses, an ejecting part movable with respect to said receiving part adapted to push said bricks therefrom, and means for moving said parts in opposite horizontal directions whereby said bricks may be discharged from said first part, the distance between the bottom of said carrier and the bottom of the lowest course of bricks at the discharging point being less than the thickness of a brick, whereby such discharge may be effected without disarranging the piled relation of the bricks.

11. In a brick carrier, a part adapted to receive rows of brick surmounted by additional courses of brick forming a regular pile, means supporting said receiving part in substantially horizontal position, such receiving part being fashioned to permit such rows of brick to be slid

thereover and the distance between the bottom of said receiving part and the surface upon which said bricks slide being small compared with the thickness of a brick at the discharge edge of said receiving part, in combination with mechanism mounted on said carrier and operative to slide said rows of brick uniformly over said discharge edge whereby the entire pile of bricks may be removed bodily and without disarranging its piled formation.

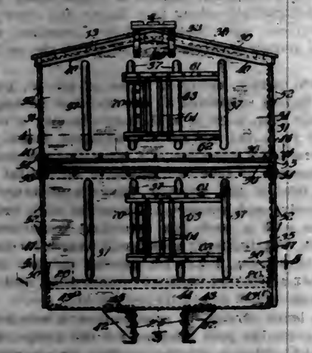
12. In a brick carrier, a receiving part adapted for the reception of regularly piled brick, power operated ejecting mechanism located on said carrier and adapted to discharge the bricks therefrom without disarranging their piled relation, and an operator's platform attached to and movable with said receiving part.

13. In a brick carrier, a series of spaced, parallel, load-carrying fingers, a push bar extending transversely of and movable along said fingers, a plurality of rigid, toothed members secured to said push bar and projecting rearwardly therefrom, actuating members engaging said toothed members, and means for operating said actuating members simultaneously whereby said push bar may be advanced or retracted.

14. In a brick handling apparatus, a brick carrier having a series of spaced parallel pick up fingers forming the supporting base thereof, supporting sides at opposite sides of the series of pick up fingers, and an operator's platform connecting the upper portions of the said sides for the purpose described.

15. In a brick handling apparatus, a brick carrier having a series of spaced parallel pick up fingers forming the supporting base thereof, a push bar extending transversely thereof and movable along said fingers, means for moving said push bar along said fingers, including screw bars rigidly connected to the said push bar, tubular adjusting members threaded on said screw bars and held against longitudinal movement, and a driven shaft gearedly connected to said adjusting members.

14,434. METAL END FOR RAILWAY-CARS. VINTON E. GIBSON, Chicago, Ill., assignor to Walter P. Murphy, Chicago, Ill. Filed Jan. 17, 1918. Serial No. 212,356. Original No. 1,244,907, dated Oct. 30, 1917, Serial No. 665,098, filed Dec. 11, 1911. (Cl. 105—192.)



1. A metal end structure for railway cars comprising metal end sheets and a reinforcing and connecting band to which the end sheets are secured, and means for anchoring the opposite ends of said band to longitudinally extending members of the car frame, said end sheets being formed with corrugations disposed transversely to the reinforcing band.

2. A metal end structure for railway cars comprising metal end sheets and a reinforcing or connecting band to which the end sheets are secured, and means for anchoring the opposite ends of said band to longitudinally extending members of the car frame; said band being formed with a rigidifying member running lengthwise thereof and the sheets with corrugations transverse thereto.

3. A metal end structure for railway cars comprising metal end sheets arranged one above the other and extending from side to side of the car, a reinforcing and connecting band to which the end sheets are secured, and means for anchoring the opposite ends of said band to the car frame, said band being formed with a horizontal corrugation and said end sheets with vertical corrugations.

4. A metal end structure for railway cars comprising metal end sheets arranged one above the other and extending from side to side of the car, a metal end girth having a longitudinal rib, the edges of the end sheets being secured to said girth on opposite sides of said rib, and means for anchoring the opposite extremities of the end girth to the side girths of the car.

5. A metal end structure for railway cars comprising metal end sheets formed with vertical corrugations, arranged one above the other and extending from side to side of the car, a metal end girth having a longitudinal rib the edges of the end sheets being secured to said girth on opposite sides of said rib and means for anchoring the opposite extremities of the end girth to the side girths of the car.

6. A metal end structure for railway cars comprising metal end sheets arranged one above the other and extending from side to side of the car, a metal end girth to which the edges of the end sheets are secured, and means for anchoring the opposite extremities of the end girth to the side girths of the car; said end sheets being formed with corrugations and the end girth with a horizontal corrugation.

7. A metal end structure for railway cars comprising metal end sheets formed with vertical corrugations, extending from side to side of the car, and provided with flanges at their vertical edges which overlap the sides of the car, a metal end girth formed with a horizontal corrugation to which the edges of the end sheets are attached, flanges at the opposite extremities of said end girth, and means for securing said flanges to the side girths of the car, the corrugation of the end girth extending around upon the flanges thereof.

8. The combination with a box car having the usual wood sheathing at the sides, of a metal end structure for the same comprising metal end sheets having angularly disposed flanges on their vertical edges, means for securing said flanges to the side sills and side plates of the car, wood filler strips disposed in the corners formed by said flanges to which said flanges are secured and which are overlapped by said sheathing.

9. In a metal end structure for railway cars, the combination with upper and lower metal end sheets, said sheets being formed with flanges secured directly to the side sills and side plates of the car, the upper sheet being formed with a flange which supports the ridge pole and purlins of the car, the lower sheet being formed with a flange which is secured directly to the longitudinal members of the end frame of the car, and means for connecting said end sheets one to another.

10. In a metal end structure for railway cars, the combination with upper and lower metal end sheets, said sheets being formed with flanges secured directly to the side sills and side plates of the car, the upper sheet being formed with a flange which supports the ridge pole and purlins of the car, the lower sheet being formed with a flange which is secured directly to the longitudinal members of the end frame of the car, and a metal end girth to which the end sheets are attached and which is secured to the side girths of the car.

11. In a metal end structure for railway cars, the combination with upper and lower metal end sheets, said sheets being formed with flanges secured directly to the side sills and side plates of the car, the upper sheet being formed with a flange which supports the ridge pole and purlins of the car, the lower sheet being formed with a flange which is secured directly to the longitudinal members of the end frame of the car, and a metal end girth to which the end sheets are attached and which is secured to the side girths of the car, the end sheets being formed with inwardly projecting vertical corrugations and the end girth with an outwardly extending horizontal corrugation.

12. A metal end structure for railway cars comprising a metal end sheet formed with an inturned flange and means for securing said flange directly to the longitudinal members of the frame of the car so that said flange performs the function of the usual end sill.

13. A metal end structure for railway cars comprising metal end sheets extending from one side of the car to the other and arranged one above the other, and a reinforcing and connecting band to which the adjacent edges of said sheets are secured, the band being formed with a rib extending lengthwise thereof and the sheets with ribs running at right angles to the rib on said band.

14. The combination with wooden structures forming the sides of a railway car, of a metal end structure consisting of end plates and an end girth, said plates and girth being formed with flanges overlapping and secured to the sides of the car, and the sides of the car being recessed to receive said flanges, substantially as and for the purpose described.

15. The combination with wooden structures forming the sides of a railway car, of a metal end structure consisting of end plates and an end girth, said plates and girth being formed with flanges overlapping and secured to the sides of the car, the sides of the car being recessed to receive said flanges, and the end girth being formed with a rigidifying member which extends around the corners formed by the flanges of said girth.

16. A metal end structure for railway cars comprising metal end sheets extending from side to side of the car and arranged one above the other, and a reinforcing and connecting band to which the adjacent edges of said sheets are secured, said sheets being formed with vertical corrugations which terminate within the margins thereof.

17. A sheet metal end structure for a railway car provided with means for attaching it to the end frame of the car, formed with upper and lower sets of vertical corrugations, and comprising a girth member extending horizontally across said end structure between said upper and lower sets of corrugations and formed with a longitudinal pressed out rib.

18. A sheet metal end structure for a railway car formed with angular flanges for attachment to the end frame of the car, and with two sets of corrugations and comprising a reinforcing band which extends across said end structure between said sets of corrugations transversely thereto and is formed with a pressed out longitudinal rib and with angular flanges for attachment to the end frame of the car.

19. A sheet metal end structure for a railway car formed with angular flanges for attachment to the end frame of the car and with upper and lower sets of vertical corrugations, and comprising a girth member extending horizontally across said end structure between said upper and lower sets of corrugations and formed with a longitudinally pressed out rib and with angular flanges for attachment to the end frame of said car.

20. As a new article of manufacture, a car end comprising a comparatively wide upper section, having a series of comparatively short stiffening ribs or corrugations, a comparatively wide lower section having a series of comparatively short stiffening ribs or corrugations, and a comparatively narrow intermediate section uniting the adjacent edges of the upper and lower sections, and which intermediate section is provided with a single long stiffening rib or corrugation, the same being arranged substantially at right angles to the ribs or corrugations of the wide section.

21. A car end comprising a lower section having a series of substantially upright stiffening ribs or corrugations, an upper section having a series of substantially upright ribs or corrugations, and an intermediate section uniting said upper and lower sections.

22. A car end comprising a lower section having a series of substantially upright stiffening ribs or corrugations, an upper section having a series of substantially upright ribs or corrugations, and an intermediate section uniting said upper and lower sections, which intermediate section is provided with a horizontally disposed stiffening rib or corrugation.

23. A car end composed of a series of sections of sheet metal, the lines of separation between said sections being horizontally disposed, each section being provided with a stiffening rib or corrugation and the intermediate section being comparatively narrow and positioned so that its reinforcing rib or corrugation is arranged substantially at right angles to the ribs or corrugations of the other sections.

24. A car end constructed of sheet metal having a centrally arranged, horizontally disposed stiffening rib or corrugation, and the sections of material above and below said centrally disposed rib having stiffening ribs or corrugations pressed therein, which last mentioned stiffening ribs or corrugations are arranged substantially at right angles to the first mentioned rib or corrugation.

25. A car end constructed of sheet metal and having a centrally arranged, horizontally disposed stiffening rib or corrugation which extends practically the entire width of the car end, and a series of comparatively short vertically disposed stiffening ribs or corrugations formed in the material of which the car end is formed above and below said horizontally disposed rib or corrugation.

26. A sheet metal end structure for a railway box car, comprising an upper sheet, a lower sheet provided with vertical stiffening and reinforcing corrugations, and a transversely extending channeled girth member secured to the upper and lower sheets at their adjacent edges.

27. A sheet metal end structure for a railway box car, comprising an upper sheet, a lower sheet provided with vertical stiffening and reinforcing corrugations which are tapered, the greatest cross sectional area being in the lower portion of the sheet, and a transversely extending channeled girth member secured to the upper and lower sheets at their adjacent edges.

28. A sheet metal end structure for a railway box car, comprising an upper sheet, a lower sheet provided with vertical stiffening and reinforcing corrugations, and a transversely extending channeled girth member secured to the upper and lower sheets at their adjacent edges, the lower sheet being provided with an inturned flange at its bottom edge which extends under the flooring of the car.

29. A sheet metal end structure for a railway box car, comprising an upper sheet, a lower sheet provided with vertical stiffening and reinforcing corrugations, and a transversely extending channeled girth member secured to the upper and lower sheets at their adjacent edges, the upper sheet being provided with an inturned flange to support the roof of the car.

30. The combination with the end framing of a railway car, of a sheet metal end for the car comprising a vertically corrugated metal sheet secured to the end framing, the corrugations of which are tapered, the greatest cross sectional area being in the lower portion of the sheet and above the floor of the car.

31. The combination with the end framing of a railway car, of a sheet metal end for the car comprising a vertically corrugated metal sheet secured to the end framing, and a transverse reinforcing member at the upper edge of said sheet with its extremities anchored to the framing of the car.

32. The combination with the end framing of a railway car, of a sheet metal end for the car comprising a vertically corrugated metal sheet secured to the end framing, and a channeled reinforcing member extending across the end of the car and attached to the upper edge of said sheet.

33. The combination with the end framing of a railway car, of a sheet metal end for the car comprising a vertically corrugated metal sheet secured to the end framing, and a channeled reinforcing member extending across the end of the car and attached to the upper edge of said sheet, the lower edge of the sheet being provided with an angular reinforcing and stiffening flange secured to the under frame of the car.

34. The combination with the end framing of a railway car, of a sheet metal end for the car comprising a vertically corrugated metal sheet secured to the end framing, the corrugations of which are tapered, the greatest cross sectional area being in the lower portion of the sheet and

above the floor of the car, and a transversely extending channeled reinforcing member secured to the upper edge of the sheet, the lower edge of the sheet being provided with an angular flange secured to the under frame of the car.

35. In a railway box car, the combination with the framing of the car and the longitudinal sustaining members of the car roof; of a sheet metal end structure formed with vertical corrugations and attached to said car framing, said structure being provided at its lower edge with a horizontal stiffening flange secured to the framing of the car and at the top with a stiffening flange which additionally provides a support for the longitudinal sustaining members of the roof.

36. A sheet metal end structure for a railway car comprising an upper sheet, a lower sheet provided with vertical corrugations, and a girth member secured to the upper and lower sheets at their adjacent edges and formed to provide a rigidifying reinforcement extending transversely of said vertical corrugations.

37. In a railway box car, the combination with the roof structure and side walls of the car, of a sheet metal end wall formed with vertical corrugations and provided at its upper edge with means forming a transverse reinforcement to rigidify said end wall at the top and support the roof structure, and means for anchoring said rigidifying reinforcement to the side walls of the car.

38. In a railway box car, the combination with the roof and side walls of the car, of a sheet metal end wall formed with vertical corrugations and provided at its upper edge with a structure narrower at the center longitudinal line of the car roof, wider at the sides of the car, and anchored to the side walls of the car so as to form bracing elements between the sheet metal end wall of the car and the side walls thereof.

39. In a railway box car, the combination with the longitudinal frame members and the roof of a car, of a sheet metal end structure comprising an end sheet formed with vertical corrugations, and means providing transverse reinforcements at the upper and lower edges of the sheet for transmitting the stresses on the corrugations to the longitudinal frame members of the car, the upper reinforcement providing also a support for the roof of the car.

40. In a railway car, the combination with the side walls and draft sills of a car, of a sheet metal end structure comprising an end sheet formed with vertical corrugations and provided with a transverse reinforcing and rigidifying element at its lower edge and means for securing said element to the side sills and draft sills so that the stresses on the corrugations are transmitted to said sills.

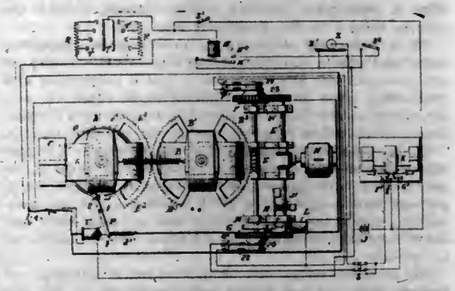
41. In a railway box car, the combination with the longitudinal frame members of the car, of a sheet metal end wall comprising a plurality of end sheets, means constituting a reinforcing element having a rigidifying rib at the meeting edges of adjacent end sheets, the terminal portions of said reinforcing element being anchored to certain of said longitudinal frame members so as to form a rigid structure therewith, and means for anchoring the upper and lower corners of the sheets to others of said frame members; said end sheets being formed with corrugations disposed so as to prevent the buckling of the sheets.

42. In a railway box car, the combination with the longitudinal frame members of the car, of a sheet metal end wall comprising a plurality of end sheets, means constituting a reinforcing element having a rigidifying rib at the meeting edges of adjacent end sheets, the terminal portions of said reinforcing element being anchored to certain of said longitudinal frame members so as to form a rigid structure therewith, and means for anchoring the upper and lower corners of the sheets to other of said frame members; said end sheets being formed with corrugations disposed so as to prevent the buckling of the sheets, and with angularly disposed flanges which provide in part the means for attaching said sheets to said frame members.

43. In a railway box car, the combination with the longitudinal frame members of the car, of a sheet metal end wall structure and means for anchoring said sheet metal structure at its corners to said longitudinal frame members, said sheets being formed with rigidifying corrugations and with angular flanges, the latter being attached to certain of said longitudinal frame members so that they serve to provide rigid connections between the frame members which they connect and also to stiffen the edges of said sheet metal structure.

44. The combination with the framing of a railway box car, of a sheet metal end structure for the car comprising upper and lower sheets formed with rigidifying corrugations and a girth member formed with a rigidifying rib extending longitudinally of the same, said girth member being anchored at opposite ends to the car frame and uniting said upper and lower sheets.

14,435. SHIP STABILIZING AND ROLLING APPARATUS. ELMER A. SPERRY, Brooklyn, N. Y., assignor to The Sperry Gyroscope Company, Brooklyn, N. Y., a Corporation of New York. Filed Oct. 29, 1917. Serial 199,202. Original No. 1,232,619, dated July 10, 1917, Serial No. 716, filed Jan. 6, 1915. (Cl. 74—78.)



1. A stabilizing device for ships and other devices subject to similar oscillations comprising a gyroscope, and means brought into action by precession of the gyroscope for exerting a stabilizing effect upon the ship.

2. A stabilizing device for ships and other devices subject to similar oscillations comprising a gyroscope and means brought into action by the precession of the gyroscope caused by a tendency of the ship to roll for exerting a force on the ship opposed to said rolling tendency.

3. A rolling device for ships comprising a gyroscope mounted on the ship, and means responsive to relative movement between the ship and gyroscope for exerting a rocking or oscillating movement to the ship.

4. A rolling device for ships comprising a gyroscope mounted on the ship, and means responsive to relative movement between the ship and gyroscope for exerting a rocking or oscillating movement to the ship at intervals corresponding to the period of roll of the ship.

5. A rolling device for ships comprising a gyroscope mounted on the ship, and means responsive to precession of the gyroscope caused by a tendency of the ship to roll for exerting a rocking or oscillating movement in the direction of said rolling tendency.

6. In a gyroscopic apparatus for ships, a gyroscope mounted on the ship so that rolling of the ship will cause precession of the gyroscope, a second gyroscope mounted on the ship, and means responsive to the precession of said first gyroscope for controlling said second gyroscope.

7. The combination with a body subject to oscillations, of a gyroscope mounted thereon so that oscillation of said body causes precession of said gyroscope, yielding means for opposing said precession, a torque applying device, and means responsive to said precession for bringing into action said device.

8. The combination with a body subject to oscillations, of a gyroscope mounted thereon so that oscillation of said body causes precession of said gyroscope, yielding means for opposing said precession, a torque applying device, means responsive to said precession for bringing into action said device, and means whereby the relation between said gyroscope and said device may be reversed.

9. The combination with a body subject to oscillations, of a gyroscope mounted thereon so that oscillation of said body causes precession of said gyroscope, yielding means for opposing said precession, a torque applying device, and means responsive to said precession for accelerating the action of said torque applying device.

10. The combination with a body subject to oscillations, of a gyroscope mounted thereon so that oscillation of said body causes precession of said gyroscope, yielding means for opposing said precession, a torque applying device, means responsive to an initial precession for accelerating the action, and to a further precession for retarding the action of said device.

11. The combination with a ship, of means for exerting periodic rolling torque thereon and means responsive to the velocity of roll for governing the action of said other means.

12. The combination with a ship, of means for exerting periodic rolling torques thereon, and means responsive to the direction and velocity of roll for governing the action of said other means.

13. The combination with a ship, of a gyroscope mounted therein for exerting torques thereon, power means for applying periodic torques on said gyroscope and means responsive to the velocity of roll for controlling said power means.

14. In a gyroscope apparatus for oscillatory bodies, a main gyroscope mounted for precessional movements, power means for governing the precessional movements, an auxiliary gyroscope, and means responsive to precessional movements of said auxiliary gyroscope for controlling said power means.

15. In a gyroscope apparatus for oscillatory bodies, a main gyroscope mounted for precessional movements, power means for governing the precessional movements, an auxiliary gyroscope, yielding centralizing means for said gyroscope, and means responsive to precessional movements of said auxiliary gyroscope for controlling said power means.

16. In a gyroscopic stabilizing or rolling apparatus, a main gyroscope mounted for precessional movements, power means for accelerating and retarding said precessional movements comprising a worm wheel mounted about the precessional axis, a worm meshing with said worm wheel, a motor for driving said worm, and means for governing the direction of the torques applied through the worm.

17. In a gyroscope stabilizing or rolling apparatus, a main gyroscope mounted for precessional movements, power means for governing said precessional movements, means responsive to rolling of the ship for controlling said power means, and additional means for automatically cutting out the power means.

18. In a gyroscope stabilizing or rolling apparatus, a main gyroscope mounted for precessional movements, power means for governing said precessional movements, means responsive to rolling of the ship for controlling said power means, and additional means responsive to the heeling of the ship for automatically cutting out the power means.

19. In a gyroscopic stabilizing or rolling apparatus, a main gyroscope mounted for precessional movments, power means for governing said precessional movements, means responsive to rolling of the ship, for controlling said power means, and additional means for automatically cutting out the power means and applying a brake about said precession axis.

20. The combination with an oscillatory mass, of a stabilizing or rolling gyroscope therefor, a precession engine for controlling the precession of the gyroscope, an auxiliary gyroscope, means controlled by the initial precession of said auxiliary gyroscope for governing said precession engine, and braking means for the stabilizing gyroscope controlled by a further precession of said auxiliary gyroscope.

21. The combination with an oscillatory mass, of a gyroscope therefor, a precession engine for governing the precession of the gyroscope, a controller therefor operated by the oscillating movement of the mass, and means for confining the operation of said controller to the periods, during which the mass is in or near its normal position.

22. The combination with an oscillatory mass, of a gyroscope therefor, a precession engine for governing the precession of the gyroscope, a controller therefor operated by the oscillating movement of the mass, and means for confining the operation of said controller to the periods of maximum angular velocity of the mass.

23. The combination with an oscillatory mass, of a gyroscope therefor, a precession engine for governing the precession of the gyroscope, and means for controlling said engine, comprising a controller operated by the oscillating movement of the mass, and means for confining the operation of said precession engine to a predetermined period in each cycle of operation.

24. The combination with an oscillatory mass, of a gyroscope therefor, a precession engine for governing the precession of the gyroscope, a controller therefor operated by the oscillating movement of the mass, means for confining the operation of said precession engine to a predtermined period in each cycle of operation, and means responsive to the amplitude of the rolling for varying the length of said period.

25. In a gyroscopic stabilizing or rolling apparatus, a main gyroscope mounted for precessional movements, power means for governing said precessional movements comprising a worm wheel mounted about the precessional axis, a worm meshing with said worm wheel, a motor for driving said worm wheel, a motor for driving said worm, and means for confining the effective operation of said motor to a predetermined period in each cycle, whereby, during the remaining period of each cycle, precession of the gyroscope is prevented.

26. The combination with an oscillatory body, of a gyroscope mounted thereon for precession relative thereto, a precession engine for controlling said precession, a normally inoperative brake adapted to brake the gyroscope about its precession axis, and automatic means for cutting out the action of said engine and applying said brake upon a predetermined event.

27. The combination with an oscillatory body, of a plurality of gyroscopes mounted thereon for precession relative thereto, an electrically controlled brake for braking the precession of a gyroscope, and a switch adapted to be actuated by precession of a gyroscope for causing said brake to be applied.

28. The combination with an oscillatory body, of a plurality of gyroscopes mounted thereon for precession relative thereto, a brake for opposing precession of a gyroscope, and means responsive to the precession of another of said gyroscopes for causing said brake to be applied.

29. The combination with an oscillatory body, of a plurality of gyroscopes mounted thereon for precession relative thereto, a precession engine and a brake for governing the precession of a portion of the gyroscopes, means responsive to the precession of another of the gyroscopes for operating said engine and means responsive to precession of a gyroscope for applying said brake.

30. The combination with an oscillatory body, of a plurality of gyroscopes mounted thereon for precession relative thereto, a precession engine and a brake for governing the precession of a portion of the gyroscopes, means responsive to the initial precession of another of the gyroscopes for operating said engine and means responsive to a further precession of said other gyroscopes for applying said brake.

31. The combination with a ship, of a stabilizing gyroscope therefor, means for braking said gyroscope about its precessional axis and means for releasing the brake a predetermined interval after a reversal of roll of the ship has taken place.

32. The combination with an oscillatory mass, of a stabilizing gyroscope therefor mounted for precession with respect thereto, and means for limiting the periods of precession of the gyroscope to the phases of maximum velocity of oscillation of the mass.

33. The combination with an oscillatory mass, of a stabilizing gyroscope therefor mounted for precession with respect thereto, and means for limiting the periods of precession of the gyroscope to predetermined portions of the oscillations of the mass.

34. The combination with a ship, of a stabilizing gyroscope therefor, means for braking said gyroscope about its precessional axis, means for releasing the brake a predetermined interval after a reversal of roll of the ship has taken place, and means for varying the length of said interval.

35. The combination with an oscillatory mass, of a stabilizing gyroscope therefor mounted for precession with respect thereto, means for limiting the periods of precession of the gyroscope to the phases of maximum velocity of oscillation of the mass, and means for varying the length of the said periods responsive to a function of the roll of said mass.

36. The combination with a ship, of a stabilizing gyroscope therefor, means for braking said gyroscope about its precessional axis and means for causing said brake to be applied before and released after a reversal in the roll of the ship takes place.

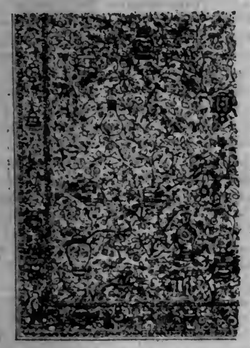
37. The combination with a ship, of a stabilizing gyroscope therefor, means for braking said gyroscope about its precessional axis, means for causing said brake to be applied before and released after a reversal in the roll of the ship takes place, and means responsive to the roll for varying the points at which the brake is applied and released.

38. The combination with an oscillatory mass, of a stabilizing gyroscope therefor mounted for precession with respect thereto, and means for altering the periods of activity of the gyroscope according to the amplitude of oscillation of the mass.

39. The combination with an oscillatory mass of a stabilizing gyroscope therefor mounted for precession with respect thereto, means for limiting the periods of precession of the gyroscope to the phases of maximum velocity of oscillation of the mass, means for normally cutting out said limiting means, and means responsive to the velocity of roll of the mass for rendering such cut out means inoperative.

DESIGNS.

51,776. RUG. JOHN L. BROWN, Lyndhurst, N. J., assignor to Bigelow Hartford Carpet Company, a Corporation of Massachusetts. Filed Jan. 7, 1918. Serial No. 210,775. Term of patent 7 years.



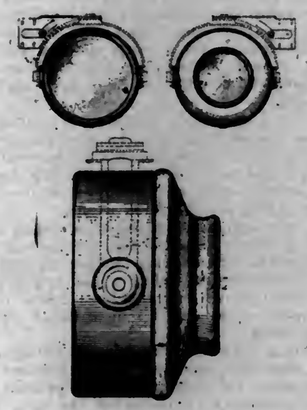
The ornamental design for a rug substantially as shown.

51,777. ORNAMENT FOR AUTOMOBILES. EDWARD BURTON, Providence, R. I., assignor to Gorham Manufacturing Company, Providence, R. I., a Corporation of Rhode Island. Filed Oct. 29, 1917. Serial No. 199,109. Term of patent 14 years.



The ornamental design for an ornament for automobiles, as shown.

51,778. VEHICLE-LAMP. THOMAS I. DUFFY, Chicago, Ill. Filed Feb. 19, 1917. Serial No. 149,690. Term of patent 7 years.



The ornamental design for a vehicle lamp, as shown.

51,779. RUG. JOSEPH ENIS, Jersey City, N. J., assignor to Bigelow Hartford Carpet Company, a Corporation of Massachusetts. Filed Dec. 20, 1917. Serial No. 208,180. Term of patent 7 years.



The ornamental design for a rug substantially as shown.

51,780. DOLL. LELIA MAY FELLOM, Los Angeles, Cal. Filed Nov. 15, 1917. Serial No. 202,248. Term of patent 14 years.



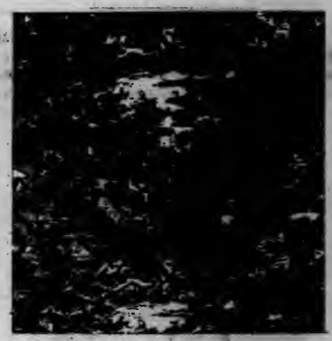
The ornamental design for a doll as shown.

51,781. LIGHTING-FIXTURE. BERNARD GOTHBERG, Westfield, N. J. Filed Dec. 3, 1917. Serial No. 205,260. Term of patent 3½ years.



The ornamental design for a lighting fixture substantially as shown.

51,782. TAPESTRY OR WALL-COVERING. MARION W. JACKSON, Philadelphia, Pa., assignor to Eugene Desfosse, Paris, France. Filed Dec. 29, 1917. Serial No. 209,591. Term of patent 7 years.



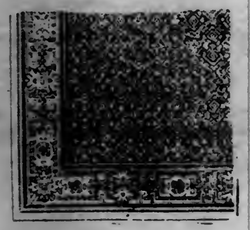
The ornamental design for tapestry or wall covering, substantially as shown.

51,783. TIRE. JOSEPH W. JONES, New York, N. Y., assignor to Gryphon Rubber and Tire Corporation, New York, N. Y., a Corporation of New York. Filed Nov. 25, 1916. Serial No. 133,501. Term of patent 7 years.



The ornamental design for a tire, as shown.

51,784. RUG. HENRY C. LACOUTURE, Arlington, N. J., assignor to Bigelow Hartford Carpet Company, a Corporation of Massachusetts. Filed Dec. 20, 1917. Serial No. 208,190. Term of patent 7 years.



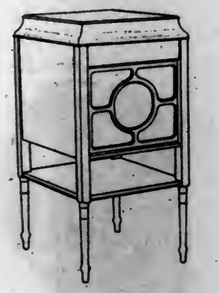
The ornamental design for a rug, substantially as shown.

51,785. HANDLE FOR A SPOON, FORK, OR SIMILAR ARTICLE. SAMUEL J. LARGE, Bristol, Conn. Filed Dec. 28, 1917. Serial No. 209,369. Term of patent 7 years.



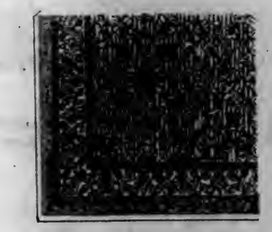
The ornamental design for a handle for a spoon, fork or similar article as shown, or any imitation thereof.

51,786. CASING FOR SOUND-PRODUCING INSTRUMENTS. LACHLAN MACLACHLAN, Grand Rapids, Mich., assignor to Berkey and Gay Furniture Company, Grand Rapids, Mich., a Corporation of Michigan. Filed Dec. 20, 1917. Serial No. 208,185. Term of patent 3½ years.



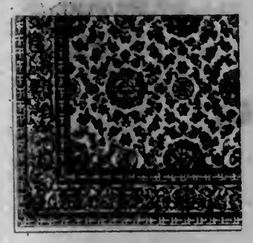
The ornamental design for a casing for sound producing instruments, substantially as shown.

51,787. RUG. WILLIAM MCCABE, New York, N. Y., assignor to Bigelow Hartford Carpet Company, a Corporation of Massachusetts. Filed Dec. 20, 1917. Serial No. 208,191. Term of patent 7 years.



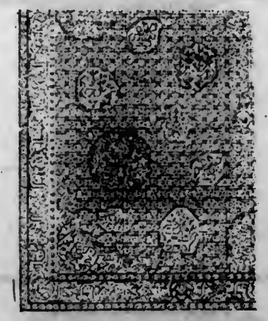
The ornamental design for a rug, substantially as shown.

51,788. RUG, LEON MINASSIAN, New York, N. Y., assignor to Bigelow Hartford Carpet Company, a Corporation of Massachusetts. Filed Dec. 20, 1917. Serial No. 208,177. Term of patent 7 years.



The ornamental design for a rug, substantially as shown.

51,789. RUG. LEON MINASSIAN, New York, N. Y., assignor to Bigelow Hartford Carpet Company, a Corporation of Massachusetts. Filed Dec. 20, 1917. Serial No. 208,178. Term of patent 7 years.



The ornamental design for a rug, substantially as shown.

51,790. RUG. LEON MINASSIAN, New York, N. Y., assignor to Bigelow Hartford Carpet Company, a Corporation of Massachusetts. Filed Dec. 20, 1917. Serial No. 208,179. Term of patent 7 years.



The ornamental design for a rug, substantially as shown.

51,791. VEILING. ZEALIA VAN RAALTE, New York, N. Y. Filed Nov. 13, 1917. Serial No. 201,849. Term of patent 3½ years.



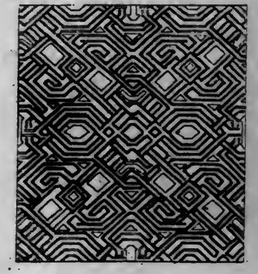
The ornamental design for veiling, as shown.

51,792. CARPET. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Hartford Carpet Company, a Corporation of Massachusetts. Filed Jan. 7, 1918. Serial No. 210,776. Term of patent 7 years.



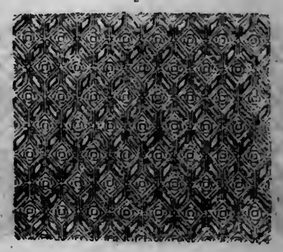
The ornamental design for a carpet, substantially as shown.

51,793. CARPET. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Hartford Carpet Company, a Corporation of Massachusetts. Filed Jan. 7, 1918. Serial No. 210,777. Term of patent 7 years.



The ornamental design for a carpet, substantially as shown.

51,794. CARPET EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Hartford Carpet Company, a Corporation of Massachusetts. Filed Jan. 7, 1918. Serial No. 210,778. Term of patent 7 years.



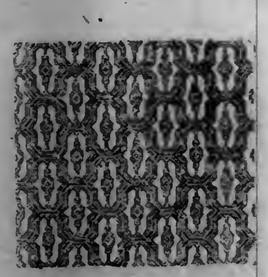
The ornamental design for a carpet, substantially as shown.

51,795. CARPET. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Hartford Carpet Company, a Corporation of Massachusetts. Filed Jan. 7, 1918. Serial No. 210,779. Term of patent 7 years.



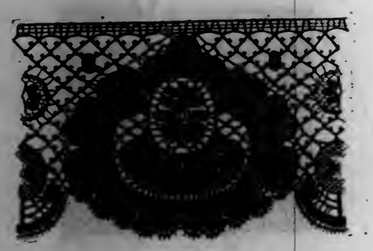
The ornamental design for a carpet, substantially as shown.

51,796. CARPET. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Hartford Carpet Company, a Corporation of Massachusetts. Filed Jan. 7, 1918. Serial No. 210,780. Term of patent 7 years.



The ornamental design for a carpet, substantially as shown.

51,797. LACE FABRIC. ERNEST A. SAYWELL, PAWTUCKET, R. I., assignor to Seekonk Lace Company, a Corporation of Rhode Island. Filed Jan. 14, 1918. Serial No. 211,895. Term of patent 3½ years.



The ornamental design for a lace fabric, as shown.

51,798. RUG. WILLIAM A. SPRING, Brooklyn, N. Y., assignor to Bigelow Hartford Carpet Company, a Corporation of Massachusetts. Filed Dec. 20, 1917. Serial No. 208,182. Term of patent 7 years.



The ornamental design for a rug, substantially as shown.

51,799. RUG. WILLIAM A. SPRING, Brooklyn, N. Y., assignor to Bigelow Hartford Carpet Company, a Corporation of Massachusetts. Filed Dec. 20, 1917. Serial No. 208,183. Term of patent 7 years.



The ornamental design for a rug, substantially as shown.

51,800. LAMP. LOUIS COMFORT TIFFANY, New York, N. Y. Filed Dec. 26, 1917. Serial No. 208,992. Term of patent 3½ years.



The ornamental design for a lamp, as shown.

51,801. PLATE FOR LIGHTING-FIXTURES. LESTER R. WELLMAN, Chicago, Ill. Filed Jan. 2, 1918. Serial No. 210,097. Term of patent 7 years.



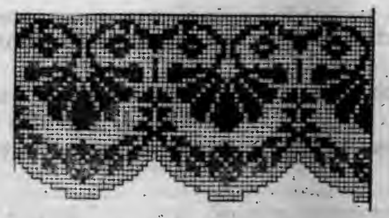
The ornamental design for a plate for lighting fixtures, as shown.

51,802. CAKE OF SOAP. PHILIP K. WILLIAMS, Glastonbury, Conn., assignor to The J. B. Williams Company, Glastonbury, Conn., a Corporation of Connecticut. Filed Dec. 29, 1917. Serial No. 209,587. Term of patent 14 years.



The ornamental design for a cake of soap as shown.

51,803. FILET LACE. EMIL ZULLIO, Weehawken, N. J. Filed Dec. 10, 1917. Serial No. 206,563. Term of patent 3½ years.



The ornamental design for filet lace as shown.

51,804. MOLDING OR WELT. ROBERT C. SCHEMMEL, Union City, Ind., assignor to The Backstay Machine & Leather Company, Union City, Ind., a Corporation of Indiana. Filed Apr. 26, 1917. Serial No. 164,809. Term of patent 14 years.



The ornamental design for a molding or welt, as shown.

TRADE-MARKS

PUBLISHED FEBRUARY 19, 1918.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

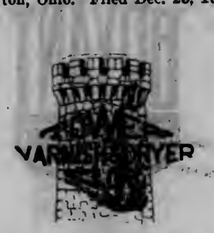
As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 85,725. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) CHARLES E. WILLARD, Chicago, Ill. Filed Apr. 5, 1915.

HETRE

Particular description of goods.—Axles for Cars, Railroad Rolling-Stock.
Claims use since Feb. 1, 1915.

Ser. No. 91,737. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE TOWER VARNISH & DRYER COMPANY, Dayton, Ohio. Filed Dec. 23, 1915.



Particular description of goods.—Varnishes, Driers, Japans; Dry, Paste, and Ready-Mixed Paints, and Enamels.
Claims use since Jan. 27, 1915.

Ser. No. 91,881. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) MACGREGOR INSTRUMENT COMPANY, Boston, Mass. Filed Jan. 3, 1916.

VIM

Particular description of goods.—Syringes, Serum-Containers, Clinical Thermometers, Hypodermic Needles, Cases for Syringes and Thermometers, Surgical Forceps, and Sterilizing-Jars.
Claims use since Feb. 19, 1915.

Ser. No. 97,250. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) LAUTZ BROS. & CO., Buffalo, N. Y. Filed Aug. 10, 1916.

Climax

Particular description of goods.—Soap.
Claims use since Oct. 21, 1874.

Ser. No. 97,869. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE CUDAHY PACKING COMPANY, Chicago, Ill., and Omaha, Nebr. Filed Sept. 9, 1916.



Particular description of goods.—Sugar-Cured Hams, Boiled Hams, Sugar-Cured Bacon, Canned Sliced Bacon. Canned Sliced Beef, Insides, Outsides, Knuckles, Lard, Smoked Beef-Tongue, and Sweet-Pickled Skinned Shoulders.
Claims use since Aug. 12, 1916.

Ser. No. 97,912. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LAKE WINOLA PRODUCTS COMPANY, Scranton, Pa. Filed Sept. 11, 1916.

WINCO

Particular description of goods.—For the Following Canned Goods—Namely, Sweet White Cherries in Syrup, Columbian Red Raspberries in Syrup, Strawberries in Syrup, Bartlett Pears in Syrup, Peaches in Syrup, Beans with Pork in Rich Tomato Sauce, Sweet Wrinkled Peas, Early June Peas, Small Sifted Early June Peas, Tiny Tom Thumb Peas, Tiny Whole Golden Wax Beans, Cut Golden Wax Beans, Cut Refugee Beans, Sweet Corn, Country Gentleman Corn, Hand-Packed Tomatoes, Long-Cut Sauer-Kraut, Vine-Ripened Cantaloups—and for Print-Butter.
Claims use since July 1, 1916.

Ser. No. 98,270. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LOUIS PFAELZER & SONS, Chicago, Ill. Filed Sept. 27, 1916.



Particular description of goods.—Hams, Bacon, Lard, and Sausage.
Claims use since the 30th day of April, 1916.

Ser. No. 100,062. (CLASS 39. CLOTHING.) GEO. E. KEITH COMPANY, Brockton, Mass. Filed Dec. 20, 1916.



The trade-mark consists of the representation of a man walking over a shoe, no claim being made to the exclusive right to the representation of the shoe apart from the mark shown in the drawing, the picture being fanciful.
Particular description of goods.—Rubber Heels.
Claims use since on or about Jan. 1, 1909.

Ser. No. 100,564. (CLASS 38. PRINTS AND PUBLICATIONS.) SAMUEL SIEGEL, Brooklyn, N. Y. Filed Jan. 12, 1917.

MUSICAL MENAGERIE

Particular description of goods.—Sheet-Music.
Claims use since June 15, 1915.

Ser. No. 100,612. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CASTLE BROTHERS, San Francisco, Cal. Filed Jan. 15, 1917.

Aloha

Particular description of goods.—Prunes, Dried Apricots, Dried Peaches, Dried Pears, Dried Nectarines, Raisins, Pitted Plums, Dried Apples, and Dried Figs.
Claims use since the year 1896.

Ser. No. 100,874. (CLASS 39. CLOTHING.) CONVERSE RUBBER SHOE CO., Malden and Boston, Mass. Filed Jan. 24, 1917.

CORUSCO

The word "Corusco."
Particular description of goods.—Rubber Boots and Shoes and Parts Thereof.
Claims use since Jan. 16, 1917.

Ser. No. 101,987. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EDWARD LASSERE, New York, N. Y. Filed Mar. 8, 1917.

ANDOLIN

Particular description of goods.—An Anodyne Cream for the Treatment of Rheumatism, Muscular Soreness, Neuralgia, Swollen Joints, Stiff Joints, Sciatica, Lumbago, Sprains, Pains in the Chest, and Chilblains.
Claims use since December, 1916.

Ser. No. 102,020. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE BRYANT ELECTRIC COMPANY, Bridgeport, Conn. Filed Mar. 10, 1917.

BRYANT

Particular description of goods.—Sockets and Receptacles for Electric Lamps and Plugs, Electric Switches of All Sorts, Electric Cut-Outs and Fuses of All Sorts, Electric Attachment-Plugs of All Sorts, Rosettes for Electrical Wiring, Electric-Switch Boxes, Outlet-Boxes for Electrical Fittings and Covers Therefor, Bases for Electric Switches, Electric-Switch Keys, Electrical Adapters, Electric Reducers, Pull-Chains for Electric Switches, Combination Electric Outlet Devices of Various Sorts, Cord Connections for Electric Wiring Devices, Electric Contacts, Electrical Terminals, Electric-Lamp Grips, Electric Socket and Switch Handles, Electric-Lamp-Shade Holders, Insulating-Links, Electric-Wire Lugs, Face-Plates for Electric Fittings, Adjusting-Frames for Electric Outlet-Boxes, Electric Lock-Switches and Keys Therefor, Lock Attachments for Electric Switches, Electric-Switch Blocks, Bridges for Electrical Receptacles, Casings for Electrical Devices, Arc-Lamp Hanger-Boards, Electric Fixture and Socket Rings, Current-Taps and Transformer Cut-Outs, and Parts of All of Said Devices.
Claims use for the trade-mark since Sept. 17, 1909, and for the word "Bryant" since October, 1888.

Ser. No. 102,021. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE BRYANT ELECTRIC COMPANY, Bridgeport, Conn. Filed Mar. 10, 1917.

PERKINS

Particular description of goods.—Sockets and Receptacles for Electric Lamps and Plugs, Electric Switches of All Sorts, Electric Cut-Outs and Fuses of All Sorts, Electric Attachment-Plugs of All Sorts, Rosettes for Electrical Wiring, Electric-Switch Boxes, Outlet-Boxes for Electrical Fittings and Covers Therefor, Bases for Electric Switches, Electric-Switch Keys, Electrical Adapters, Electric Reducers, Pull-Chains for Electric Switches, Combination Electric Outlet Devices of Various Sorts, Cord Connections for Electric Wiring Devices, Electric Contacts, Electrical Terminals, Electric-Lamp Grips, Electric Socket and Switch Handles, Electric-Lamp-Shade Holders, Insulating-Links, Electric-Wire Lugs, Face-Plates for Electric Fittings, Adjusting-Frames for Electric Outlet-Boxes, Electric Lock-Switches and Keys Therefor, Lock Attachments for Electric Switches, Electric-Switch Blocks, Bridges for Electrical Receptacles, Casings for Electrical Devices, Arc-Lamp Hanger-Boards, Electric Fixture and Socket Rings, Current-Taps and Transformer Cut-Outs, and Parts of All of Said Devices.
Claims use for the trade-mark since Sept. 17, 1909, and for the word "Perkins" since March, 1889.

Ser. No. 102,511. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE GOITRE SALVE CO., Detroit, Mich. Filed Mar. 28, 1917.



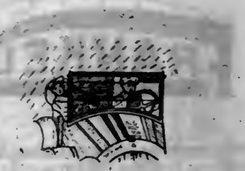
Particular description of goods.—Salve for External Application in the Treatment of Goiter.
Claims use since Dec. 15, 1915.

Ser. No. 102,528. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NOVELTY CANDY CO., Chicago, Ill. Filed Mar. 28, 1917.

KATINKA

Particular description of goods.—Candy.
Claims use since Jan. 1, 1917.

Ser. No. 102,555. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) DAVIS CHEMICAL MANUFACTURING CO., INC., Boston, Mass. Filed Mar. 29, 1917.



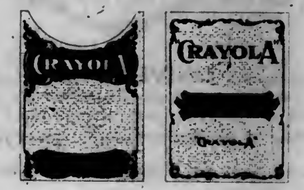
Particular description of goods.—A Specially-Prepared Textile Material for Cleaning and Polishing Automobile Windows and Wind-Shields.
Claims use since Aug. 1, 1916.

Ser. No. 103,020. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) W. S. FORBES & CO. INC., Richmond, Va. Filed Apr. 16, 1917.

WE ROOT FOR FORBES'

No claim being made to the word "Forbes" apart from the mark shown on the drawing.
Particular description of goods.—Ham, Bacon, Shoulder, Lard, and Sausage.
Claims use since Jan. 1, 1917.

Ser. No. 103,056. (CLASS 37. PAPER AND STATIONERY.) BINNEY & SMITH CO., New York, N. Y. Filed Apr. 17, 1917.



Comprising a design one face of which shows two green panels upon a yellow ground, upon the upper one of which appears the word "Crayola" in yellow, the upper and lower panels being connected by fancy scroll outlines. The other face of the design comprises the word "Crayola" in green upon a yellow ground within a fancy scroll-like border, a panel in green, and the word "Crayola" in green.
Particular description of goods.—Artists' Crayons.
Claims use since July, 1905.

Ser. No. 103,207. (CLASS 32. FURNITURE AND UPHOLSTERY.) FRANKEL DISPLAY FIXTURE COMPANY, New York, N. Y. Filed Apr. 23, 1917.

FRANKEL

Particular description of goods.—Store and Display Fixtures Comprising Fixtures for Supporting and Displaying Goods.
Claims use since March, 1912.

Ser. No. 103,537. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE WILLIAM S. MERRELL CHEMICAL COMPANY, Cincinnati, Ohio. Filed May 4, 1917.

MERCO

Particular description of goods.—Shaving-Cream in the Nature of Shaving-Soap.
Claims use since Mar. 26, 1917.

Ser. No. 103,915. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) A. BOURJOIS & CO., INC., New York, N. Y. Filed May 18, 1917.

FEMINA

Particular description of goods.—Face-Powder, Toilet Waters, Rouge, Lip-Sticks, Perfumes, Eyebrow-Pencils, and Pomades.
Claims use since Nov. 27, 1903.

Ser. No. 104,031. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ALBERT G. PRIOR, New York, N. Y. Filed May 23, 1917.

"UNIVERSAL"

Particular description of goods.—Label-Pasting Machines.
Claims use since Jan. 1, 1909.

Ser. No 104,081. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PAUL NELSON, Portage borough, Pa. Filed May 25, 1917.

"QUEEN OF CREAMS"

Particular description of goods.—Ice-Cream.
Claims use since Oct. 1, 1914.

Ser. No. 104,447. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BLOCK & KUHL COMPANY, Peoria, Ill. Filed June 15, 1917.

Lorelei

Particular description of goods.—Tissue-Cream, Peroxid Cream, Vanishing Cream, Honey and Almond Cream, Cucumber Toilet Cream, Cleansing-Cream, Extract Végétal, Liquid Shampoo, Antiseptic After-Shaving Lotion, Bay-Rum, Glycerin and Rose-Water, Liquid Face-Powder, Talcum Powder, Face-Powder, Toilet Water, and Box-Perfumes.
Claims use since Apr. 24, 1917.

Ser. No. 104,646. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GORDON, SEWALL & CO. INC., Houston, Tex. Filed June 23, 1917.

BLUE BONNET

Particular description of goods.—Baking-Powder and Starch.
Claims use since the 8th day of June, 1917.

Ser. No. 104,713. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) CONTINUOUS REACTION COMPANY LIMITED, London, England. Filed June 27, 1917.

CONREACTO

Particular description of goods.—High-Speed Tool-Steel in Ingot Form.
Claims use since Nov. 24, 1916.

Ser. No. 104,738. (CLASS 12. CONSTRUCTION MATERIALS.) THE VITRIFYX COMPANY, Chicago, Ill. Filed June 28, 1917.

Vitrifyx

Particular description of goods.—Liquid Cement Preparation for Resurfacing or Surfacing Concrete and Cement.
Claims use since on or about June, 1916.

Ser. No. 104,739. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WARNER, MOORE & CO., Richmond, Va. Filed June 28, 1917. Under ten-year proviso.

GALLEGO

Particular description of goods.—Flour Made from Wheat.
Claims use since the year 1805.

Ser. No. 104,762. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WARNER, MOORE & CO., Richmond, Va. Filed June 29, 1917. Under ten-year proviso.



Particular description of goods.—Flour Made from Wheat.
Claims use since about the year 1892.

Ser. No. 104,891. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) WILLIAM READ & SONS, INC., Boston, Mass. Filed July 6, 1917.

READ

Particular description of goods.—Golf-Balls, Golf-Clubs, Golf-Bags, Golf-Tees, Golf-Gloves, Tennis-Rackets, Racket-Covers, Fishing-Rods, Fishing-Rod Cases, Fishing-Reels, Fishing-Lines, Fishing-Leaders, Leader-Boxes, Fishing-Baits, Fishing-Spinners, Fishing-Spoons, Fishing-Flies, Fly-Boxes, Tackle-Boxes, Bait-Pails, Bait-Boxes, Dip-Nets, Playing-Cards, Poker-Chips, Dice, Dice-Shakers, Dominoes, Checkers, Checker-Boards, Cribbage-Boards, Chessmen, Base-Balls, Indoor Base-Balls, Cage-Balls, Base-Ball Bats, Base-Ball Gloves, Base-Ball Mitts, Catchers' Masks, Umpire-Indicators, Catchers' Protectors, Base-Ball Bases, Home-Plates, Pitchers'-Box Plates, Base-Ball-Score Plates, Base-Ball Sliding-Pads, Base-Ball-Bat Bags, Wrist and Thumb Supporters, Boxing-Gloves, Striking-Bags, Basket-Balls, Basket-Ball Carriers, Basket-Ball Goals, Athletic Exercisers, Vaulting-Poles, Throwing-Hammers, Throwing-Shot, Quoits, Hand-Balls, Medicine-Balls, Discus, Indian Clubs, Foot-Balls, Foot-Ball Whistles, Foot-Ball Helmets, Foot-Ball Pads, Foot-Ball Masks, Foot-Ball Bladders, Hockey-Sticks, Polo-Sticks, Hockey-Pucks, Hockey-Gloves, Fencing-Swords, Fencing-Masks, Fencing-Plastrons, Fencing-Gloves, Striking-Bag Platforms, Sleeping-Bags in the Nature of Beds, Duffle-Bags, Skees, Sleds, Skates, and Snow-Shoes.
Claims use since Feb. 1, 1916.

Ser. No. 104,951. (CLASS 15. OILS AND GREASES.) THE WESTERN REFINING CO., Wichita, Kans. Filed July 9, 1917.

WESTERN STAR

Particular description of goods.—Gasolene Refined from Crude Oil or Petroleum.
Claims use since June 21, 1917.

Ser. No. 105,012. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) HARRY F. BROWNELL, Sioux Falls, S. D., assignor to The Green Dragon Company, Sioux Falls, S. D., a Corporation of South Dakota. Filed July 13, 1917.

GREEN DRAGON

Particular description of goods.—Spark-Plugs.
Claims use since July 5, 1917.

Ser. No. 105,091. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) CHICAGO TUBE & IRON COMPANY, Chicago, Ill. Filed July 18, 1917.

CHI-TI-CO

Particular description of goods.—Wrought-Iron and Steel Pipe, Oil-Well Casing, Oil-Well Tubing, and Oil and Gas Line Pipe; Seamless Mechanical Tubing, Brass and Iron Body Valves, Cast-Iron, Malleable, and Brass Pipe Fittings.
Claims use since May 1, 1917.

Ser. No. 105,262. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) WILLIAM EDWIN KILLINGER, Oklahoma, Okla. Filed July 25, 1917.

FORGET ME NOT

Particular description of goods.—Brooms.
Claims use since Apr. 21, 1917.

Ser. No. 105,363. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SOUTHERN COLORADO LUMBER CO., Trinidad, Colo. Filed July 30, 1917.

SHAMROCK

Particular description of goods.—Alfalfa, Alfalfa-Meal, and Pinto-Beans.
Claims use since May 20, 1917.

Ser. No. 105,403. (CLASS 33. GLASSWARE.) KOJI KONISHI, Tokyo, Japan. Filed Aug. 1, 1917.



Particular description of goods.—Timepiece-Glass.
Claims use since May 26, 1910.

Ser. No. 105,476. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) CHARLES ALBERT SMITH, Windsor, Ontario, Canada. Filed Aug. 4, 1917.

TONSMORE

Particular description of goods.—Automobile-Trucks.
Claims use since June 1, 1917.

Ser. No. 105,548. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) W. SHEINKER & SON, New York, N. Y. Filed Aug. 8, 1917.

FLIVVER

Particular description of goods.—A Concentrated Syrup for a Non-Intoxicating Fruit Beverage Sold as a Soft Drink.
Claims use since June 30, 1917.

Ser. No. 105,625. (CLASS 39. CLOTHING.) SIMON & MENDELSOHN, New York, N. Y. Filed Aug. 13, 1917.

TRILBY

Comprising the word "Trilby."
Particular description of goods.—Petticoats.
Claims use since February, 1917.

Ser. No. 106,108. (CLASS 18. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE CASEMENT HARDWARE CO., Chicago, Ill. Filed Sept. 7, 1917.

"BULLDOG"

Particular description of goods.—Casement-Sash Adjusters.
Claims use since a date prior to Jan. 1, 1908.

Ser. No. 106,216. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) STEEL AND IRON MONGERS INC., Newark, N. J. Filed Sept. 12, 1917.



No registration rights being claimed for the word "Ironsteel" apart from the mark shown in the drawing.
Particular description of goods.—Bar and Sheet Metal.
Claims use since June 15, 1917.

Ser. No. 106,236. (CLASS 39. CLOTHING.) VENUS MANUFACTURING CO., Minneapolis, Minn. Filed Sept. 13, 1917.

Kozy

Particular description of goods.—Infants' Coats, Infants' Wraps, Infants' Robes, Infants' Nighties, Infants' Mitts, and Infants' Booties.
Claims use since on or about Oct. 1, 1916.

Ser. No. 106,575. (CLASS 38. PRINTS AND PUBLICATIONS.) GARDENSIDE BOOKSHOP, Boston, Mass. Filed Oct. 3, 1917.



Particular description of goods.—Prints, Printed Books, Booklets, Catalogues, Newspapers, Magazines, Printed, Engraved, and Lithographed Cards and Calendars.
Claims use since November, 1916.

Ser. No. 106,629. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CALIFORNIA ASSOCIATED RAISIN CO., Fresno, Cal. Filed Oct. 6, 1917.



SUN-MAID

Particular description of goods.—Dried Raisins and Dried Fruits.
Claims use since Apr. 19, 1915.

Ser. No. 106,864. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LIBBY, MCNEILL & LIBBY, Chicago, Ill. Filed Oct. 19, 1917.

Cottage

Particular description of goods.—Canned Beef.
Claims use since July, 1906.

Ser. No. 106,908. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BEMPER L. DIEFFENBACHER, Los Angeles, Cal. Filed Oct. 23, 1917.



The same being a portrait of my grandson, Ronald Dieffenbacher.
Particular description of goods.—Dental Cream.
Claims use since September, 1917.

Ser. No. 107,024. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) FLATHER & COMPANY, (INC.,) Nashua, N. H. Filed Oct. 30, 1917.



Particular description of goods.—Metal-Working Machines—Namely, Lathes.
Claims use since May, 1913.

Ser. No. 107,050. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) H. JEVNE CO., Los Angeles, Cal. Filed Oct. 31, 1917.

KOFETAF

Particular description of goods.—Coffee-Flavored Taffy.
Claims use since Sept. 20, 1916.

Ser. No. 107,071. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE SILVER MANUFACTURING COMPANY, Salem, Ohio. Filed Oct. 31, 1917.



Particular description of goods.—Metal-Working Drill-Presses.
Claims use since Sept. 20, 1917.

Ser. No. 107,076. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) UNION TWIST DRILL CO., Athol, Mass. Filed Oct. 31, 1917.

U. T. D.

Particular description of goods.—Gear-Tooth Gages, Fixtures for Testing Cutter-Teeth, Micrometer Measuring-Fixtures, Grinding-Gages, Gear-Testing Machines, and Drill-Gages.
Claims use since 1905.

Ser. No. 107,149. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) LOUIS S. BACH, Chicago, Ill. Filed Nov. 5, 1917.

EL-S-BE

Particular description of goods.—Hat-Linings.
Claims use since on or about the 1st day of January, 1917.

Ser. No. 107,206. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) SILVERBERG IMPORT CO., INC., New York, N. Y. Filed Nov. 6, 1917.

Bonnie-B

Particular description of goods.—Buttons for Wearing-Apparel, Snap-Fasteners, and Hair-Pins.
Claims use since Sept. 10, 1917.

Ser. No. 107,274. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) WHITE SEWING MACHINE COMPANY, Cleveland, Ohio. Filed Nov. 9, 1917.



Particular description of goods.—Sewing-Machines.
Claims use since Oct. 12, 1917.

Ser. No. 107,367. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. S. HOFFMAN COMPANY, Chicago, Ill. Filed Nov. 14, 1917.



Particular description of goods.—Cheese.
Claims use since April, 1912.

Ser. No. 107,399. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) EUGENE PEARL, New York, N. Y. Filed Nov. 15, 1917.



The trade-mark consists of the word "Tullar" displayed in a curved line in orange-colored characters upon a black scroll imprinted upon an orange-colored background.
Particular description of goods.—Rubber Goods—Namely, Douches, Spiral Douches, French Douches, Sprays, Spiral Sprays, Whirling Sprays, Vaginal Sprays, Spiral Pipes, Baby-Syringes, and Water-Bottles.
Claims use since January, 1901.

Ser. No. 107,421. (CLASS 7. CORDAGE.) FRANK W. WINNE & SON, INCORPORATED, Philadelphia, Pa. Filed Nov. 16, 1917.



Particular description of goods.—Twines, Cordage, Manila Rope, Hempen Rope, Tarred Rope, Cotton Rope, Sisal Rope, Jute Rope, Linen Rope, and Braided Rope.
Claims use since about July 15, 1895.

Ser. No. 107,429. (CLASS 5. ADHESIVES.) THE CHAMPION FIBRE COMPANY, Canton, N. C. Filed Nov. 17, 1917.

BINDEX

Particular description of goods.—An Extract in Liquid and Powdered Form to be Used as a Core-Binder in the Manufacture of Iron Castings.
Claims use since Oct. 19, 1917.

Ser. No. 107,431. (CLASS 39. CLOTHING.) THE CELLULOID COMPANY, New York, N. Y. Filed Nov. 17, 1917.

LAUNDERNO

The word "Launderno."
Particular description of goods.—Cuffs and Shirt-Bosoms.
Claims use since July 3, 1917.

Ser. No. 107,487. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) WINDSOR BROOM CO., Hamburg, Pa. Filed Nov. 19, 1917.



The trade-mark consists of the words "White Cross," together with the representation of a white cross between two horizontal parallel white lines.
Particular description of goods.—Brooms.
Claims use since September, 1914.

Ser. No. 107,603. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE AULTMAN & TAYLOR MACHINERY CO., Mansfield, Ohio. Filed Nov. 26, 1917. Under ten-year proviso.



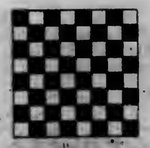
The trade-mark upon which the portraits of C. Aultman and H. Taylor, deceased, are depicted.
Particular description of goods.—Steam and Internal-Combustion Engines.
Claims use since 1890.

Ser. No. 107,707. (CLASS 38. PRINTS AND PUBLICATIONS.) HOLSTEIN-FRIESIAN WORLD, INC., Liverpool, N. Y. Filed Dec. 1, 1917.



Particular description of goods.—A Monthly Magazine.
Claims use since Jan. 1, 1916.

Ser. No. 107,713. (CLASS 42. KNITTING, NETTED, AND TEXTILE FABRICS.) TITUS BLATTER & CO., New York, N. Y. Filed Dec. 1, 1917.



Particular description of goods.—Handkerchiefs.
Claims use since Nov. 23, 1917.

Ser. No. 107,819. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) THE TAPLEY SPECIALTY CO., New York, N. Y. Filed Dec. 7, 1917.

TAPLEX

Consisting of the coined word "Taplex."
Particular description of goods.—Pocket-Stoves Using Charcoal as a Fuel.
Claims use since Nov. 1, 1917.

Ser. No. 107,901. (CLASS 32. FURNITURE AND UPHOLSTERY.) UNITED STATES CABINET BED CO., New York, N. Y. Filed Dec. 11, 1917.



Particular description of goods.—Folding Beds and Cots.
Claims use since Jan. 1, 1917.

Ser. No. 107,949. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) PENN GAS COAL CO., Philadelphia, Pa., assignor to Westmoreland Coal Company, Irwin, Pa., a Corporation of Pennsylvania. Filed Dec. 13, 1917.



The trade-mark consisting of a red Maltese cross.
Particular description of goods.—Coal.
Claims use since 1861.

Ser. No. 107,973. (CLASS 39. CLOTHING.) BENJAMIN WOOD, New York, N. Y. Filed Dec. 14, 1917.



Particular description of goods.—Men's, Youths', and Boys' Woolen, Woolen Mixed, Fibrous, Cotton, and Corduroy Cloth Suits and Overcoats.
Claims use since Nov. 30, 1917.

Ser. No. 107,994. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) TITUS BLATTER & COMPANY, New York, N. Y. Filed Dec. 15, 1917.

TUSSITE

Particular description of goods.—Artificial and Imitation Leather.
Claims use since the middle of June, 1917.

Ser. No. 108,036. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HEDGES-BUCK COMPANY, Stockton, Cal. Filed Dec. 18, 1917.

TEA PARTY

Particular description of goods.—Tea.
Claims use since July 1, 1897.

Ser. No. 108,058. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LOUIS A. CORNING, Elmira, N. Y. Filed Dec. 19, 1917.

Butter Cup

Particular description of goods.—Ice-Cream.
Claims use since Nov. 13, 1917.

Ser. No. 108,070. (CLASS 39. CLOTHING.) M. FRANK SONS & COMPANY, INC., New York, N. Y. Filed Dec. 20, 1917.

"Franco"

Particular description of goods.—Suits and Overcoats for Men and Boys.
Claims use since the 1st day of July, 1914.

Ser. No. 108,086. (CLASS 38. PRINTS AND PUBLICATIONS.) RIVERSIDE REVIEW COMPANY, INC., New York, N. Y. Filed Dec. 21, 1917.

RIVERSIDE REVIEW

Particular description of goods.—Newspapers Published Weekly.
Claims use since the 30th day of September, 1916.

Ser. No. 108,092. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE AMERICAN SUGAR REFINING COMPANY, Jersey City, N. J., and New York, N. Y. Filed Dec. 22, 1917.

Dixiano

Particular description of goods.—Syrup for Use as a Food.
Claims use since Nov. 21, 1917.

Ser. No. 108,116. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE AMERICAN SUGAR REFINING COMPANY, Jersey City, N. J., and New York, N. Y. Filed Dec. 24, 1917.

Dixiano

Particular description of goods.—Molasses.
Claims use since Nov. 21, 1917.

Ser. No. 108,122. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. T. FARGASON COMPANY, Memphis, Tenn. Filed Dec. 24, 1917.

OMEGA Ω

Particular description of goods.—Mustard, Spices, and Flavoring Extracts for Foods.
Claims use since about Aug. 10, 1917.

Ser. No. 108,145. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) E. GREENFIELD'S SONS, New York, N. Y. Filed Dec. 26, 1917.

Sincerity

Particular description of goods.—Chocolates and Candies.
Claims use since about October, 1916.

Ser. No. 108,146. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) E. GREENFIELD'S SONS. New York, N. Y. Filed Dec. 26, 1917.

MATCH MAKER

Particular description of goods.—Chocolates and Candies.
Claims use since about October, 1916.

Ser. No. 108,216. (CLASS 12. CONSTRUCTION MATERIALS.) H. H. JARRETT & Co., New York, N. Y. Filed Dec. 29, 1917.

PROTEX

Particular description of goods.—A Heat-Resisting Compound for Coating Crucibles, Fire-Brick, Ladles, and Saggars.
Claims use since about Dec. 12, 1917.

Ser. No. 108,261. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN C. SCHMIDT, York, Pa. Filed Jan. 2, 1918.

HILL CREST

Particular description of goods.—Fresh Apples.
Claims use since Dec. 6, 1917.

Ser. No. 108,280. (CLASS 39. CLOTHING.) SAMMY MANUFACTURING COMPANY, New York, N. Y. Filed Jan. 3, 1918.

SAMMY

Particular description of goods.—Boys' Suits, Coats, Blouses, Breeches, Knickerbockers, Trousers, and Caps.
Claims use since Dec. 10, 1917.

Ser. No. 108,291. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) ROLAND W. BROWN, Lincoln, Nebr. Filed Jan. 4, 1918.

Armageddon

Particular description of goods.—Card Games.
Claims use since Dec. 17, 1917.

Ser. No. 108,332. (CLASS 39. CLOTHING.) PEERLESS UNDERWEAR COMPANY, Utica, N. Y. Filed Jan. 5, 1918.

Paragon

Particular description of goods.—Knitted Underwear, Including Union-Suits, Shirts, and Drawers.
Claims use since May 1, 1916.

Ser. No. 108,397. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE CHARLES H. BUETTNER COMPANY, Cincinnati, Ohio. Filed Jan. 10, 1918.



Particular description of goods.—Spark-Plugs.
Claims use since June 1, 1917.

Ser. No. 108,416. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) THE DE VILBISS MANUFACTURING COMPANY, Toledo, Ohio. Filed Jan. 11, 1918.

ETHOMER

Particular description of goods.—Atomizers or Spraying Instruments Used for Medical and Surgical Purposes.
Claims use since Dec. 15, 1917.

Ser. No. 108,445. (CLASS 48. MALT EXTRACTS AND LIQUORS.) P. BALLANTINE & SONS, Newark, N. J. Filed Jan. 14, 1918.

Clink

Particular description of goods.—A Beverage Made from Malt, Other Cereals, and Sugar, or Either of Them, with Hops and Water Carbonated, Resembling Beer in Appearance, Having Less Than One-Half of One Per Cent. of Alcohol.
Claims use since Jan. 5, 1918.

Ser. No. 108,472. (CLASS 12. CONSTRUCTION MATERIALS.) GEORGE A. BALZ, Rahway, N. J. Filed Jan. 15, 1918.

SILCARITE

Particular description of goods.—Refractory Cement.
Claims use since Jan. 10, 1918.

TRADE-MARK REGISTRATIONS GRANTED

FEBRUARY 19, 1918.

120,539. NON-INTOXICATING MALTLESS BEVERAGES CONTAINING ALCOHOL LESS THAN FIVE-TENTHS PER CENT. BY VOLUME. AMERICAN BURTONIZING COMPANY, New York, N. Y.
Filed July 7, 1917. Serial No. 104,894. PUBLISHED DECEMBER 18, 1917.

120,540. GARMENT-PRESSING MACHINES. THE AMERICAN LAUNDRY MACHINERY COMPANY, Norwood, Ohio.
Filed May 31, 1917. Serial No. 104,161. PUBLISHED DECEMBER 11, 1917.

120,541. COFFEE. AMSTERDAM COFFEE CO., INC., New York, N. Y.
Filed February 23, 1917. Serial No. 101,586. PUBLISHED DECEMBER 4, 1917.

120,542. CERTAIN NAMED JEWELRY AND PRECIOUS-METAL WARE. BAIRD-NORTH CO., Providence, R. I.
Filed October 11, 1915. Serial No. 89,785. PUBLISHED DECEMBER 18, 1917.

120,543. PERFUME, TOILET WATER, FACE-POWDER, SACHET, LIQUID FACE-POWDER, FACE-CREAM, AND SMELLING-SALTS. THE BALDWIN PERFUMERY CO., Chicago, Ill.
Filed September 10, 1917. Serial No. 106,152. PUBLISHED DECEMBER 11, 1917.

120,544. COFFEES, TEAS, RICE, SPICES, COCOA, AND TAPIOCA. C. F. BONSOR & CO., INC., Philadelphia, Pa.
Filed October 13, 1914. Serial No. 81,842. PUBLISHED DECEMBER 22, 1914.

120,545. CANS, CANTEENS, CONTAINERS, AND TANKS. BOYLE MANUFACTURING COMPANY, Los Angeles, Cal.
Filed December 1, 1916. Serial No. 99,647. PUBLISHED DECEMBER 11, 1917.

120,546. OLEOMARGARIN. GEO. P. BRAUN COMPANY, Chicago, Ill.
Filed April 14, 1916. Serial No. 94,413. PUBLISHED APRIL 24, 1917.

120,547. MACARONI. CABLE-DRAPER BAKING COMPANY, Detroit, Mich.
Filed September 28, 1917. Serial No. 106,472. PUBLISHED DECEMBER 11, 1917.

120,548. IRONING-TABLES. CAMPBELL BRADSHAW, Detroit, Mich.
Filed November 5, 1917. Serial No. 107,147. PUBLISHED DECEMBER 11, 1917.

120,549. COMBINED ARCH-SUPPORT AND HEEL-CUSHION. JAMES L. CARLTON, Chicago, Ill.
Filed October 12, 1917. Serial No. 106,735. PUBLISHED NOVEMBER 20, 1917.

120,550. RAIN-COATS AND RUBBER GOODS—VIZ., SUITS, COATS, OVERALLS, APRONS, HATS, CAPS, SLICKERS, CAPES, PONCHOS, AND LEGGINGS. BENJAMIN A. COHEN, New York, N. Y.
Filed October 2, 1917. Serial No. 106,553. PUBLISHED NOVEMBER 27, 1917.

120,551. RAIN-COATS AND RUBBER GOODS—VIZ., SUITS, COATS, OVERALLS, APRONS, HATS, CAPS, SLICKERS, CAPES, PONCHOS, AND LEGGINGS. BENJAMIN A. COHEN, New York, N. Y.
Filed October 2, 1917. Serial No. 106,554. PUBLISHED NOVEMBER 27, 1917.

120,552. MEN'S WORSTED SUITS AND OVERCOATS. I. & B. COHEN & COMPANY, New York, N. Y.
Filed September 20, 1917. Serial No. 106,337. PUBLISHED DECEMBER 18, 1917.

120,553. ICE-CREAM CONES. CONSOLIDATED WAFER COMPANY, New York, N. Y., and Chicago, Ill.
Filed October 5, 1917. Serial No. 106,615. PUBLISHED DECEMBER 11, 1917.

120,554. STOMACH AND LIVER TABLETS. THE CO-OPERATIVE DRUG CO., Ravenswood, W. Va.
Filed July 18, 1917. Serial No. 105,013. PUBLISHED SEPTEMBER 4, 1917.

120,555. DEXTRIN. CORN PRODUCTS REFINING CO., New York, N. Y.
Filed October 3, 1917. Serial No. 106,574. PUBLISHED DECEMBER 18, 1917.

120,556. PETROLEUM-ASPHALTUM ROOF-COATING. IRVING W. CUMMINGS, Detroit, Mich.
Filed October 25, 1917. Serial No. 106,936. PUBLISHED DECEMBER 11, 1917.

120,557. TOOTHPICKS. CUTTER-TOWER COMPANY, INC., New York, N. Y.
Filed October 30, 1917. Serial No. 107,021. PUBLISHED DECEMBER 18, 1917.

120,558. STOCK-ROLLS FOR FABRICS. CYLINDER MANUFACTURING COMPANY, Paterson, N. J.
Filed September 22, 1917. Serial No. 106,380. PUBLISHED DECEMBER 18, 1917.

120,559. STOCK-ROLLS FOR FABRICS. CYLINDER MANUFACTURING COMPANY, Paterson, N. J.
Filed September 22, 1917. Serial No. 106,388. PUBLISHED DECEMBER 18, 1917.

120,560. STOCK-ROLLS FOR FABRICS. CYLINDER MANUFACTURING COMPANY, Paterson, N. J.
Filed September 22, 1917. Serial No. 106,382. PUBLISHED DECEMBER 18, 1917.

120,561. STOCK-ROLLS FOR FABRICS. CYLINDER MANUFACTURING COMPANY, Paterson, N. J.
Filed September 22, 1917. Serial No. 106,381. PUBLISHED DECEMBER 18, 1917.

120,562. CERTAIN NAMED MUSICAL INSTRUMENTS AND SUPPLIES. J. C. DEAGAN MUSICAL BELLS, Chicago, Ill.
Filed November 13, 1916. Serial No. 99,271. PUBLISHED DECEMBER 18, 1917.

120,563. WRAPPING AND TRACING PAPERS. DIAMOND STATE FIBRE COMPANY, Bridgeport, Pa.
Filed September 30, 1916. Serial No. 98,327. PUBLISHED DECEMBER 18, 1917.

120,564. SILK PIECE GOODS. SAMUEL EISEMAN & CO. INC., New York, N. Y.
Filed November 2, 1917. Serial No. 107,110. PUBLISHED DECEMBER 18, 1917.

120,565. COMPARTMENTAL CASES FOR USE IN ACCOUNTING OR COMPUTING TRANSACTIONS. FAST SYSTEMS COMPANY, Chicago, Ill.
Filed November 25, 1916. Serial No. 99,542. PUBLISHED DECEMBER 11, 1917.

120,566. LADIES' HATS AND BONNETS. FELTENSTEIN & JOFFE, New York, N. Y.
Filed July 18, 1917. Serial No. 105,094. PUBLISHED DECEMBER 18, 1917.

120,567. WRITING-PAPER. FOX RIVER PAPER CO., Appleton, Wis.
Filed August 29, 1917. Serial No. 105,938. PUBLISHED DECEMBER 18, 1917.

120,568. TOILET SOAP. E. GAL, SOCIEDAD EN COMANDITA, Madrid, Spain.
Filed February 15, 1916. Serial No. 92,859. PUBLISHED DECEMBER 18, 1917.

120,569. CORUNDUM, EMERY, AND SILICON CARBID. GENERAL ABRASIVE CO., Niagara Falls, N. Y.
Filed September 14, 1917. Serial No. 106,248. PUBLISHED DECEMBER 18, 1917.

120,570. COFFEE. FRANCIS W. GIBSON, Boston, Mass.
Filed September 14, 1917. Serial No. 106,247. PUBLISHED DECEMBER 11, 1917.

120,571. PURE CONCENTRATED SOUPS. BENJAMIN F. GOSSOM, Brookline, Mass.
Filed May 4, 1917. Serial No. 103,530. PUBLISHED DECEMBER 11, 1917.

120,572. BLANK BOOKS. IRVING A. GRAHAM, New York, N. Y.
Filed September 8, 1917. Serial No. 106,130. PUBLISHED DECEMBER 11, 1917.

120,573. CERTAIN NAMED COUPONS, BOOKS, CARDS, COVERS, ENVELOPS, AND RECEPTACLES. GUARDIAN SAVINGS CLUB CO., Dover, Del., and Chicago, Ill.
Filed June 1, 1917. Serial No. 104,185. PUBLISHED OCTOBER 30, 1917.

120,574. BROOMS. ALFRED B. HELLER, Hamburg, Pa.
Filed April 22, 1916. Serial No. 94,645. PUBLISHED MAY 22, 1917.

120,575. SMOKING-PIPES. SAMUEL HEIMBERG, Boston, Mass.
Filed November 5, 1917. Serial No. 107,159. PUBLISHED DECEMBER 18, 1917.

120,576. HAND-STAMPS. HILL-INDEPENDENT MFG. CO., Philadelphia, Pa.
Filed July 19, 1917. Serial No. 105,121. PUBLISHED DECEMBER 18, 1917.

120,577. HAND-STAMPS. HILL-INDEPENDENT MFG. CO., Philadelphia, Pa.
Filed July 19, 1917. Serial 105,122. PUBLISHED DECEMBER 18, 1917.

120,578. FOOD-FLAVORING PREPARATION. HARDENBERGH MFG. CO., Auburn, N. Y.
Filed September 25, 1917. Serial No. 106,423. PUBLISHED DECEMBER 11, 1917.

120,579. PREPARED FOOD FOR ANIMALS AND POULTRY. WILLIAM E. HENRY, Wilburtha, N. J.
Filed March 8, 1917. Serial No. 101,986. PUBLISHED SEPTEMBER 18, 1917.

120,580. CERTAIN NAMED FOODS. HOWARD & CASEY CO., Mount Vernon and Marion, Ill.
Filed September 29, 1917. Serial No. 106,507. PUBLISHED DECEMBER 11, 1917.

120,581. CERTAIN NAMED NON-ALCOHOLIC NON-INTOXICATING CARBONATED BEVERAGES. HYDRO PURE COMPANY, Dallas, Tex.
Filed November 12, 1917. Serial No. 107,308. PUBLISHED DECEMBER 18, 1917.

120,582. BICARBONATE SODA, CREAM TARTAR, AND BAKING-POWDER. THE JONES THIERBACH CO., San Francisco, Cal.
Filed October 2, 1917. Serial No. 106,566. PUBLISHED DECEMBER 11, 1917.

120,583. GAS-MOTOR-DRAWN VEHICLES—NAMELY, AUTOMOBILES AND MOTOR-TRUCKS. JORDAN MOTOR CAR COMPANY, Cleveland, Ohio.
Filed August 18, 1916. Serial No. 97,422. PUBLISHED DECEMBER 18, 1917.

120,584. PIPES, CIGAR AND CIGARETTE HOLDERS, TOBACCO-POUCHES, CIGARETTE-PAPER, AND PIPE-CASES. KAUFMANN BROS. & BONDY, New York, N. Y.
Filed October 29, 1917. Serial No. 107,006. PUBLISHED DECEMBER 18, 1917.

120,585. BOOTS AND SHOES OF KID, LEATHER, BEARSKIN, AND CANVAS. THE KAUT-REITH SHOE COMPANY, Carthage, Mo.
Filed November 12, 1917. Serial No. 107,316. PUBLISHED DECEMBER 18, 1917.

120,586. BOOTS AND SHOES OF KID, LEATHER, BEARSKIN, AND CANVAS. THE KAUT-REITH SHOE COMPANY, Carthage, Mo.
Filed November 12, 1917. Serial No. 107,315. PUBLISHED DECEMBER 18, 1917.

120,587. BOOTS AND SHOES OF KID, LEATHER, BEARSKIN, AND CANVAS. THE KAUT-REITH SHOE COMPANY, Carthage, Mo.
Filed November 12, 1917. Serial No. 107,314. PUBLISHED DECEMBER 18, 1917.

120,588. BOOTS AND SHOES OF KID, LEATHER, BEARSKIN, AND CANVAS. THE KAUT-REITH SHOE COMPANY, Carthage, Mo.
Filed November 12, 1917. Serial No. 107,313. PUBLISHED DECEMBER 18, 1917.

120,589. SYRUPS FOR SODA-FOUNTAINS. KEYSTONE FRUIT PRODUCTS COMPANY, Cincinnati, Ohio.
Filed September 5, 1916. Serial No. 97,797. PUBLISHED AUGUST 28, 1917.

120,590. LEATHER-PRESERVATIVE. WILLIAM HENRY KING, Newark, N. J.
Filed March 3, 1917. Serial No. 101,864. PUBLISHED JULY 17, 1917.

120,591. BATHING-CAPS. I. B. KLEINERT RUBBER COMPANY, New York, N. Y.
Filed August 3, 1917. Serial No. 105,454. PUBLISHED DECEMBER 11, 1917.

120,592. NON-INTOXICATING BEVERAGE OF A MALT NATURE CONTAINING LESS THAN ONE-HALF OF ONE PER CENT. OF ALCOHOL. WILLIAM J. LEMP BREWING COMPANY, St. Louis, Mo.
Filed April 23, 1917. Serial No. 103,211. PUBLISHED JULY 10, 1917.

120,593. BREAD AND CAKE. JOHN A. LAMPMAN, Port Ewen, N. Y.
Filed October 12, 1917. Serial No. 106,741. PUBLISHED DECEMBER 11, 1917.

120,594. CERTAIN NAMED ARTICLES MADE OF SHEET METAL. THE F. H. LAWSON COMPANY, Cincinnati, Ohio.
Filed March 26, 1917. Serial No. 102,451. PUBLISHED DECEMBER 11, 1917.

120,595. SEA-GRASS AND PALMETTO BASKETS. LEGERTON & CO., INC., Charleston, S. C.
Filed October 17, 1917. Serial No. 100,813. PUBLISHED DECEMBER 11, 1917.

120,596. TOOTH-BRUSHES. CONVERSE W. LLOYD, New York, N. Y., assignor to The Sani-Fold Company of California, a Corporation of California.
Filed October 11, 1917. Serial No. 106,720. PUBLISHED DECEMBER 4, 1917.

120,597. GUMMED PAPER TAPE. LIBERTY PAPER CO., New York, N. Y.
Filed December 15, 1916. Serial No. 99,962. PUBLISHED APRIL 17, 1917.

120,598. CERTAIN NAMED KNITTED, NETTED, AND TEXTILE FABRICS. LIBERTY & CO. LIMITED, London, England.
Filed March 25, 1913. Serial No. 69,825. PUBLISHED AUGUST 3, 1915.

120,599. BOOTS AND SHOES MADE OF LEATHER OR LEATHER AND CLOTH. A. E. LITTLE COMPANY, Lynn, Mass.
Filed November 3, 1917. Serial No. 107,137. PUBLISHED DECEMBER 18, 1917.

120,600. WALL-PAPER. W. H. S. LLOYD CO., New York, N. Y., and Chicago, Ill.
Filed August 31, 1917. Serial 105,989. PUBLISHED DECEMBER 18, 1917.

120,601. SNAP-FASTENERS AND PLACKET-FASTENERS. EDUARD LOKESCH & SOHN, Prague-Holeschowitz, Austria.
Filed October 28, 1916. Serial No. 98,950. PUBLISHED JUNE 26, 1917.

120,602. CERTAIN NAMED TOILET PREPARATIONS. WM. H. MCCLURE, Washington, D. C.
Filed August 20, 1917. Serial No. 105,743. PUBLISHED DECEMBER 11, 1917.

120,603. FOUNTAIN-PENS. MABIE, TODD & CO., New York, N. Y.
Filed October 6, 1917. Serial No. 106,634. PUBLISHED DECEMBER 11, 1917.

120,604. DRIED OR CURED OLIVES. MARZO BROTHERS, Los Angeles, Cal.
Filed October 1, 1917. Serial No. 106,540. PUBLISHED DECEMBER 11, 1917.

120,605. AUTOMOBILE-BRAKES, AUTOMOBILE-VENTILATORS, AND AUTOMOBILE TRUCK ATTACHMENTS. MASTER EQUIPMENT COMPANY, Los Angeles, Cal.
Filed September 4, 1917. Serial No. 106,030. PUBLISHED DECEMBER 18, 1917.

120,606. LIVE-STOCK FEED. LOUIS J. MEADER, New York, N. Y.
Filed December 11, 1916. Serial No. 99,857. PUBLISHED AUGUST 28, 1917.

120,607. NON-ALCOHOLIC MALTLESS BEVERAGE SOLD AS A SOFT DRINK. C. & J. MICHEL CO., La Crosse, Wis.
Filed September 22, 1917. Serial No. 106,890. PUBLISHED NOVEMBER 13, 1917.

120,608. NON-ALCOHOLIC MALTLESS BEVERAGE SOLD AS A SOFT DRINK. THE MIDDLE WEST PRODUCTS COMPANY, Poplin, Mo.
Filed August 24, 1917. Serial No. 105,862. PUBLISHED DECEMBER 18, 1917.

120,609. COTTON PIECE GOODS. HASLIN MILLS, New York, N. Y.
Filed October 30, 1917. Serial No. 107,026. PUBLISHED DECEMBER 18, 1917.

120,610. OUTFITS OF PAPER PICTURES AND DESIGNS. MILTON BRADLEY CO., Springfield, Mass.
Filed January 8, 1917. Serial No. 100,441. PUBLISHED DECEMBER 18, 1917.

120,611. AUTOMOBILE-WHEELS. THE MINUTE AUTO WHEEL COMPANY, Georgetown, Ky.
Filed March 23, 1917. Serial No. 102,382. PUBLISHED DECEMBER 4, 1917.

120,612. NIPPLES OR TEATS SUCH AS USED IN CONNECTION WITH MILK AND NURSING BOTTLES FOR INFANTS. ERNEST MONNIER, Boston, Mass.
Filed November 2, 1917. Serial No. 107,117. PUBLISHED DECEMBER 18, 1917.

120,613. NIPPLES OR TEATS SUCH AS USED IN CONNECTION WITH MILK AND NURSING BOTTLES FOR INFANTS. ERNEST MONNIER, Boston Mass.
Filed November 2, 1917. Serial No. 107,116. PUBLISHED DECEMBER 18, 1917.

120,614. NIPPLES OR TEATS SUCH AS USED IN CONNECTION WITH MILK AND NURSING BOTTLES FOR INFANTS. ERNEST MONNIER, Boston, Mass.
Filed November 2, 1917. Serial No. 107,119. PUBLISHED DECEMBER 18, 1917.

120,615. NIPPLES OR TEATS SUCH AS USED IN CONNECTION WITH MILK AND NURSING BOTTLES FOR INFANTS. ERNEST MONNIER, Boston, Mass.
Filed November 2, 1917. Serial No. 107,118. PUBLISHED DECEMBER 18, 1917.

120,616. BLOCKS FOR USE IN TEACHING MUSIC. THE MUSICAL BLUE BOOK CORPORATION, New York, N. Y.
Filed November 17, 1916. Serial No. 99,355. PUBLISHED JANUARY 30, 1917.

120,617. SILK HAIR-NETS. EMMA T. MITTELSTAEDT, New York, N. Y.
Filed October 4, 1917. Serial No. 106,608. PUBLISHED DECEMBER 18, 1917.

120,618. BURIAL SUITS, DRESSES, AND ROBES. NATIONAL CASKET COMPANY, New York, N. Y.
Filed November 3, 1917. Serial No. 107,130. PUBLISHED DECEMBER 18, 1917.

120,619. CERTAIN NAMED CONSTRUCTION MATERIALS. THE NEWPORT ROLLING MILL COMPANY, Newport, Ky.
Filed January 29, 1917. Serial No. 101,013. PUBLISHED NOVEMBER 20, 1917.

120,620. PREPARATIONS FOR KEEPING OFF, DRIVING AWAY, OR KILLING INSECTS. NIHON JOCHUGIKU KAISHA, LTD., Minato, Wakayama Ken, Japan.
Filed August 2, 1917. Serial No. 105,437. PUBLISHED DECEMBER 11, 1917.

120,621. NEGLIGÉE, DRESS, AND WORK SHIRTS, COLLARS, CUFFS, PAJAMAS, NECKTIES. NIRENBERG & SALZMAN, New York, N. Y.
Filed January 29, 1917. Serial No. 101,014. PUBLISHED OCTOBER 2, 1917.

120,622. CORSETS, CORSET-WAISTS, AND CORSET-COVERS. OLMSTEAD QUABOAG CORSET CO., West Brookfield, Mass.
Filed October 3, 1917. Serial No. 106,583. PUBLISHED DECEMBER 18, 1917.

120,623. FIREWORKS. HENRY J. PAIN, New York, N. Y.
Filed October 30, 1917. Serial No. 107,030. PUBLISHED DECEMBER 18, 1917.

120,624. WASHTUB-COVERS. PATENT METAL COMPANY, Newark, N. J.
Filed October 16, 1917. Serial No. 106,790. PUBLISHED DECEMBER 11, 1917.

120,625. CANNED SHRIMP, CANNED VEGETABLES, AND CANNED FRUIT. PELICAN LAKE OYSTER & PACKING CO., LTD., Houma, La.
Filed May 4, 1917. Serial No. 103,541. PUBLISHED DECEMBER 4, 1917.

120,626. OLEOMARGARIN. AMMON & PERSON, Jersey City, N. J.
Filed October 14, 1915. Serial No. 89,841. PUBLISHED JANUARY 4, 1916.

120,627. SHOES OF LEATHER, RUBBER, FIBER, FELT, OR OTHER FABRIC CONSTRUCTION. THOMAS G. PLANT COMPANY, Boston, Mass.
Filed October 3, 1917. Serial No. 106,586. PUBLISHED DECEMBER 11, 1917.

120,628. SALTED PEANUTS AND PEANUT-BARS. PLANTERS NUT & CHOCOLATE CO., Wilkes-Barre, Pa.
Filed March 12, 1917. Serial No. 102,099. PUBLISHED DECEMBER 4, 1917.

120,629. HAIR-TONIC. POCAHONTAS OWENS, Chester, Pa.
Filed October 22, 1917. Serial No. 106,897. PUBLISHED DECEMBER 11, 1917.

120,630. WHISKY. JOHN A. QUINN, St. Louis, Mo.
Filed May 6, 1916. Serial No. 94,967. PUBLISHED JUNE 26, 1917.

120,631. CARD-STENCILS. RAPID ADDRESSING MACHINE CO., New York, N. Y.
Filed October 10, 1917. Serial No. 106,705. PUBLISHED DECEMBER 18, 1917.

120,632. HOSIERY OF ALL KINDS. RICE & HUTCHINS, INC., Boston, Mass.
Filed March 16, 1916. Serial No. 93,584. PUBLISHED DECEMBER 18, 1917.

120,633. TANKS AND TANKS FOR HOT WATER, COMMONLY KNOWN AS STAND OR RANGE BOILERS. RIVERSIDE BOILER WORKS, INC., Cambridgeport, Mass.
Filed October 23, 1917. Serial No. 106,909. PUBLISHED DECEMBER 11, 1917.

120,634. BUTTONS FOR ATTACHMENT TO WEARING-APPAREL. ROCHESTER BUTTON COMPANY, Rochester, N. Y.
Filed January 3, 1917. Serial No. 100,338. PUBLISHED DECEMBER 11, 1917.

120,635. TEA, FLAVORING EXTRACTS FOR FOODS, VINEGAR, CANNED SALMON, SPICES, AND RED PEPPER. F. E. ROYSTON & COMPANY, INC., Aurora, Ill.
Filed October 4, 1917. Serial No. 106,595. PUBLISHED DECEMBER 11, 1917.

120,636. WATCHES AND CLOCKS. RUEFF BROS., New York, N. Y.
Filed October 15, 1917. Serial No. 106,779. PUBLISHED DECEMBER 11, 1917.

120,637. WATCHES AND CLOCKS. RUEFF BROS., New York, N. Y.
Filed July 7, 1917. Serial No. 104,911. PUBLISHED DECEMBER 11, 1917.

120,638. HEAT-RESISTING CABINETS AND SAFES. THE SAFE-CABINET COMPANY, Marietta, Ohio.
Filed September 15, 1917. Serial No. 106,267. PUBLISHED DECEMBER 11, 1917.

120,639. CERTAIN NAMED CLOTHING FOR WOMEN, CHILDREN, AND INFANTS. SAGER BROTHERS, Syracuse, N. Y.
Filed September 25, 1916. Serial No. 98,227. PUBLISHED DECEMBER 11, 1917.

120,640. ORANGES, LEMONS, AND GRAPE-FRUIT. SAN FERNANDO HEIGHTS LEMON CO., Los Angeles, Cal.
Filed February 27, 1917. Serial No. 101,757. PUBLISHED DECEMBER 11, 1917.

120,641. LAXATIVE TABLETS, KIDNEY-PILLS, AND COLD-TABLETS. THE SENTANEL REMEDIES COMPANY, Wilmington, Del., and Cincinnati, Ohio.
Filed March 27, 1916. Serial No. 93,921. PUBLISHED JUNE 6, 1916.

120,642. NECKTIES. MORTON SIMPSON, Birmingham, Ala.
Filed September 5, 1916. Serial No. 97,810. PUBLISHED DECEMBER 18, 1917.

120,643. PASTRY CONES FOR WATER-ICES AND ICE-CREAM, ICE-CREAM CONES, WATER-ICE CONES, WATER-ICES, ICE-CREAM, AND CANDIES. JAMES J. SNIGO, Pittsburgh, Pa.
Filed March 14, 1917. Serial No. 102,151. PUBLISHED DECEMBER 11, 1917.

120,644. WHEAT-FLOUR, RYE-FLOUR, SELF-RISING AND PREPARED FLOUR. THE SOUTHWESTERN MILLING CO. INC., New York, N. Y., and Kansas City, Mo.
Filed May 27, 1916. Serial No. 95,496. PUBLISHED MAY 8, 1917.

120,645. CHILDREN'S, MISSES', JUNIORS', AND LADIES' DRESSES. SAMUEL SPRINTZ, New York, N. Y.
Filed October 2, 1917. Serial No. 106,564. PUBLISHED DECEMBER 18, 1917.

120,646. ALPINE-HERB TEA, A LAXATIVE FOR CONSTIPATION. NATHAN STERN, Brooklyn, N. Y.
Filed October 11, 1917. Serial No. 106,725. PUBLISHED DECEMBER 11, 1917.

120,647. PREPARATIONS FOR USE IN REMOVING CUTICLE AROUND FINGER AND TOE NAILS. UNITED DRUG COMPANY, Boston, Mass.
Filed July 21, 1917. Serial No. 105,182. PUBLISHED SEPTEMBER 4, 1917.

120,648. PREPARATIONS FOR TREATING CERTAIN NAMED DISEASES AND AILMENTS, AND INSECTICIDES. VAN ANTWERP'S DRUG CORPORATION, INC., Mobile, Ala.
Filed September 28, 1916. Serial No. 98,306. PUBLISHED DECEMBER 11, 1917.

120,649. MOTOR-TRUCKS AND AUTOMOBILES. H. E. WILCOX MOTOR COMPANY, Minneapolis, Minn.
Filed April 9, 1917. Serial No. 102,842. PUBLISHED DECEMBER 18, 1917.

120,650. PLAIN WHITE, DYED, OR PRINTED COTTON PIECE GOODS. WINDSOR PRINT WORKS, North Adams, Mass., and New York, N. Y.
Filed September 28, 1917. Serial No. 106,493. PUBLISHED DECEMBER 18, 1917.

120,651. PLAIN WHITE, DYED, OR PRINTED COTTON PIECE GOODS. WINDSOR PRINT WORKS, North Adams, Mass., and New York, N. Y.
Filed September 28, 1917. Serial No. 106,492. PUBLISHED DECEMBER 18, 1917.

120,652. PLAIN WHITE, DYED, OR PRINTED COTTON PIECE GOODS OR COTTON AND SILK MIXED PIECE GOODS. WINDSOR PRINT WORKS, North Adams, Mass., and New York, N. Y.
Filed September 28, 1917. Serial No. 106,491. PUBLISHED DECEMBER 18, 1917.

120,653. WASHING COMPOUND FOR WASHING CLOTHES. CHARLES A. WINTER, New York, N. Y.
Filed July 12, 1916. Serial No. 96,537. PUBLISHED AUGUST 14, 1917.

120,654. BOXES AND PACKING-CASES. WIREBOUNDS CORPORATION, Portland, Me., and Chicago, Ill.
Filed September 12, 1917. Serial No. 106,219. PUBLISHED DECEMBER 18, 1917.

120,655. BOXES AND PACKING-CASES. WIREBOUNDS CORPORATION, Portland, Me., and Chicago, Ill.
Filed September 12, 1917. Serial No. 106,218. PUBLISHED DECEMBER 18, 1917.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

CREVELING *v.* JEPSON.

Decided March 5, 1918.

INTERFERENCE—RIGHT TO MAKE THE CLAIMS.

Record reviewed and *Held* that the Creveling application in this interference has no disclosure to support the count of the issue nor the claims proposed under Rule 109, affirming the decisions of the Law Examiner and the Examiners-in-Chief.

APPEAL from Examiners-in-Chief.

ELECTRIC REGULATION.

Mr. Charles McC. Chapman and *Messrs. Sturtevant & Mason* for Creveling.

Messrs. Kenyon & Kenyon for Jepson.

EWING, *Commissioner:*

This is an appeal from the decision of the Examiners-in-Chief denying a motion made by Creveling under Rule 109 to admit the following claims:

8. In an arrangement of the class described, a carbon pile, a two-armed lever having a short arm operating upon one end of the pile and a long arm extending toward the other end of the pile, a second two-armed lever having a short arm operating upon said second mentioned end of the pile and a long arm extending toward the first mentioned end of the pile.

9. In an arrangement of the class described, a carbon pile, a two-armed lever having a short arm operating upon one end of the pile, and a long arm extending toward the other end of the pile, a second two-armed lever having a short arm operating upon said second mentioned end of the pile and a long arm extending toward the first mentioned end of the pile and an electro-magnet mechanically connected to each of said long arms for operating the same.

10. In an arrangement of the class described, a carbon pile, a two-armed lever pivoted adjacent one end of said pile and having the shorter arm operating upon said end of the pile and its longer arm extending toward the other end of the pile, a second two-armed lever pivoted adjacent said second end of the pile and having its shorter arm operating upon said second end of the pile and its longer arm extending toward said first mentioned end of the pile substantially parallel with the long arm of said first mentioned lever.

11. In an arrangement of the class described, a carbon pile, two levers operating upon said pile mechanically independent of one another, and electro-magnets for controlling the operation of said levers.

12. In an arrangement of the class described, a carbon pile, two levers operating upon said pile mechanically independent of one another, each lever having a short arm mechanically connected to the pile and a long arm, said long arms extending substantially parallel to one another, and means for operating said lever.

An appeal is also taken from the decision of the Examiners-in-Chief granting a motion made by Jepson to dissolve the interference.

The single count is as follows:

In an arrangement of the class described, a carbon pile, a lever operating upon one end of said pile and extending toward the other end of the pile, and a second lever operating on the second mentioned end of said pile and extending toward the first mentioned end of said pile.

The claims involved in the motion to amend are numbered 8 to 12, inclusive, and are claims 6, 7, 11, 16, and 17 of the application of Jepson. The count of the interference was first presented as claim 4 of the Jepson application. These counts were all suggested to Creveling, with the proviso that he overcome a patent to Sherbondy, No. 989,305. In order to overcome this patent, Creveling filed an affidavit calling attention to two prior applications and setting forth that each of these applications disclosed the subject-matter of each of the claims. Upon this showing the Examiner declared the interference with claim 4 of Jepson as the single issue and refused to include claims 6, 7, 11, 16, and 17. Creveling then brought a motion under Rule 109 to have these claims included as counts of the issue, urging that the subject-matter thereof was disclosed in his prior applications. Jepson also brought a motion to dissolve, alleging, among other things, that the subject-matter of the count was not disclosed in the prior applications of Creveling, and it was therefore anticipated by the patent to Sherbondy. The Law Examiner denied the motion to amend and granted the motion to dissolve on the ground that the structure called for in the above claims was not disclosed in the prior applications of Creveling. The Examiners-in-Chief affirmed the decision of the Law Examiner, and from their decision this appeal was taken.

The structure in the earlier application of Creveling, upon which it is alleged that the claims under consideration read, is designated by the numerals 5 to 18, inclusive. The lever 7 is pivoted at its lower end and by reason of the spring 5 compresses the carbon pile 3. At the lower end of the lever 7 is an arm 8, placed at right angles to 7 and carrying an upright arm 11. Connected to the outer end of the arm 8 by means of the pivot 10 is a lever 9 11, which is moved to its operative position by the spring 13. The carbon pile 12 is placed between the arms 11 11 and is compressed by the spring 13. The springs 13 and 5 thus produce the maximum pressure to which the carbon piles 12 and 3 are respectively subjected. In order to reduce this pressure, the lever 9 is secured by means of the rod 15 to the core 17 of the solenoid 18. When the core 17 is drawn inward, the spring 13 is compressed until the step 16 strikes 8, at which time the pressure exerted by 11 on the carbon pile 12 is reduced to a minimum. The elements 9 and 8 then become a rigid arm, and further inward motion of 17 operates to extend the spring 5 and reduce the pressure on the carbon pile 3 without producing any further effect on the carbon pile 12.

Claim 8 calls for a two-armed lever having a short arm operating upon one end of the pile and a long arm extending toward the other end of the pile, which may be answered by the element 9 11

and operated by the spring 13. This claim further calls for a second two-armed lever having a short arm operating upon the other end of the pile and having a long arm extending toward the first-mentioned end of the pile. This second lever is not disclosed in this application, as the elements 7 8 11 do not act on the carbon pile 12 as a lever, but merely act as a stop, against which the pile is forced by the lever 9. So far as this claim is concerned 8 is a fixed member, to which 9 is pivoted and against which the spring 13 presses.

As there is only one lever disclosed which operates on the pile 12, neither the count of the issue nor the claims of the amendment can be read on this disclosure. It necessarily follows that the further limitations set forth in the claims as to the arrangement of the second lever or the means for operating it are not disclosed.

The structure in the later Creveling application, upon which it is contended that the claims read, is indicated by the numerals 12, 13, 15, 16, 23, 25, 30, and 32. When the current in the line 6 becomes too great, it operates the solenoid 25, which applies pressure to the carbon pile 23, reducing the resistance therein and permitting a greater current to flow through the solenoid 15, and thus raise the lever 12, which causes the resistance in the carbon pile 7 to increase, and thus reduce the current in the line 6. It is urged by Creveling that the elements 12, 30, and 32 are levers which act upon the carbon pile 23 in the manner defined in the claims. While the element 12 may operate as a lever on the carbon pile 7, it has no such action on the carbon pile 23, but merely serves as an abutment against which the pile may be pressed. The lever 30, pivoted at 31, does act as a lever to compress the carbon pile 23 against its abutment; but all the claims call for two levers, one operating on each end of the pile, which is not found in this disclosure. As the second lever included in all the claims is not disclosed, the further limitations as to the operation and location of the second lever are also not disclosed.

The decision of the Examiners-in-Chief is affirmed.

EX PARTE CREVELING.

Decided September 22, 1916.

1. PATENTABILITY—DISCLOSURE OF APPLICATION.

Record reviewed and *Held* that the appealed claims cannot be predicated upon the disclosure of this application without forcing upon them a meaning which robs them of their sense.

2. DIVISION—CARBON PILE.

Held that carbon piles have attained a distinct status in the art as subjects of invention independently of the systems in which they are to be used.

APPEAL from Examiners-in-Chief.

ELECTRIC-LIGHTING SYSTEM.

Mr. Charles McC. Chapman for the applicant.

EWING, *Commissioner:*

This is an appeal from the decision of the Examiners-in-Chief affirming the decision of the Primary Examiner finally rejecting the following claims:

7. In an arrangement of the class described, a carbon pile, a lever operating upon one end of said pile and extending toward the other end of the pile, and a second lever operating on the second-mentioned end of said pile and extending toward the first mentioned end of said pile.

8. In an arrangement of the class described, a carbon pile, a lever operating upon one end of said pile and extending toward and beyond the other end of the pile, and a second lever operating on the second-mentioned end of said pile and extending toward the first-mentioned end of said pile.

9. In an arrangement of the class described, a carbon pile, a two-armed lever having a short arm operating upon one end of the pile and a long arm extending toward and beyond the other end of the pile, a second two-armed lever having a short arm operating upon said second-mentioned end of the pile and a long arm extending toward the first mentioned end of the pile.

10. In an arrangement of the class described, a carbon pile, two levers operating upon said pile mechanically independent of one another, and electro-magnets for controlling the operation of said levers.

11. In an arrangement of the class described, a carbon pile, two levers operating upon said pile mechanically independent of one another, each lever having a short arm mechanically connected to the pile and a long arm, said long arms extending substantially parallel to one another, and means for operating said levers.

12. In an arrangement of the class described, a carbon pile, a lever having an arm operating upon one end of the pile and another arm extending toward the other end of the pile, and a second lever having an arm operating upon said second mentioned end of the pile and another arm extending toward the first mentioned end of the pile.

13. In an arrangement of the class described, a carbon pile, a lever having an arm operating upon one end of the pile and another arm extending toward the other end of the pile, a second lever having an arm operating upon said second-mentioned end of the pile and another arm extending toward the first-mentioned end of the pile, an electro-magnetic device, and means coöperating with the said levers and electro-magnetic device for actuating said levers.

14. In an arrangement of the class described, a carbon pile, a lever in coöperative relation to said pile and having an arm operating upon one end thereof and another arm extending toward the other end of the pile, a second lever in coöperative relation with said pile and having an arm operating upon said second end of the pile, and an arm extending toward said first-mentioned end of the pile substantially parallel with one of the arms of the first-mentioned lever.

15. In an arrangement of the class described, a carbon pile, an electro-magnetic device, a lever arranged in coöperative relation to the carbon pile and operably connected to the said device, a second lever arranged in coöperative relation to the carbon pile, and means for actuating said lever whereby the two levers are caused to operate upon the carbon pile to vary the action of the latter.

16. In an arrangement of the class described, a carbon pile, a lever arranged to operate upon one end of the pile, a second lever arranged to operate upon the opposite end of the pile, an electro-magnetic device connected to one of the levers for operating the latter, an electro-magnetic device and connections between the latter and the other lever whereby the latter may be actuated, the combination being such as to vary the action of the two levers upon the carbon pile.

With respect to claims 7 to 13, inclusive, the question of disclosure here presented was disposed of *inter partes* in interference *Creveling* v. *Jepson*, No. 36,115. In that interference the Creveling application involved was filed September 22, 1911. Against it was cited a patent to Sherbondy, No. 989,305, and in order to overcome this patent Creveling called attention to two previous applications of his, the earlier of which is the one at bar.

The Primary Examiner upon this showing declared the interference with a single count, which was identical in language with claim 7 here appealed. He refused, however, to include counts identical with claims 10 and 11 and other counts differing but slightly from claims 9, 12, and 13.

Upon motion by Jepson the interference was dissolved on the ground that the subject-matter thereof is not disclosed in the Creveling application at bar nor the other Creveling applications referred to, thus leaving Sherbondy as an anticipation thereof. The discussion of this point in my opinion of March 5, 1915, in so far as it applies to the application at bar, is here in substance restated.

The structure upon which it is alleged that the claim under consideration reads is designated in numerals 5 to 18, inclusive. The lever 7 is pivoted at its lower end and is pressed by the spring 5 against the carbon pile 3, thereby compressing it. The lever 7 is in vertical position at the lower end

thereof, and extending beyond the pivot is a horizontal arm 8, which carries an upright arm 11. Connected to the outer end of the arm 8 by a pivot 10 is a lever 9, carrying another upright arm 11. The carbon pile 12 is placed between the arms 11 11. The arm 11 mounted on 8 is substantially stationary so far as 12 is concerned. The arm 11 mounted on 9 is pressed against the carbon pile by a spring 13, attached to the arm 9 near its outer end and bearing against the under side of the arm 8. The normal pressure of the springs 5 and 3 upon the carbon piles 3 and 12, respectively, is reduced by the operation of a solenoid 18 and plunger-core 17, attached to one end of the arm 9 by a rod 15. When the core 17 is sucked in, the spring 13 is compressed until the stop 16 strikes the under side of the arm 8, at which time the pressure exerted upon the carbon pile 12 has been reduced to a minimum. The elements 9 and 8 thereafter act as a rigid arm, and with further downward motion of the core 17 they operate to extend the spring 5 and reduce the pressure on the carbon pile 3, without however, producing any further effect upon the carbon pile 12.

Each of the claims here appealed calls for two levers.

Referring now to claim 7, the carbon pile must be pile 12. The lever operating upon one end of the pile is 9 11. The second lever, operating upon the other end of the pile, is lacking for the reason that so far as pile 12 is concerned the element 7 8 11 acts merely as a stop or abutment, just as does the back of the frame in which pile 3 is mounted.

The foregoing comment disposes of the remaining claims.

As indicated above, the ground of this decision is identical with that reached in the *inter partes* proceeding.

In the structure disclosed by the Jepson application involved therein the carbon pile was, in fact, pinched between the short ends of two levers, the long ends of which lay parallel to each other beneath the piles and were attached to plungers of two solenoids located under the ends of the pile.

To predicate the claim of Jepson which constituted the count of the issue upon the disclosure of the present application seems to be impossible without forcing upon the terms of the count a meaning which robbed them of their sense, and this is true of the claims appealed, as indicated above.

As to the question of division, it is apparent from an examination of claims 1 to 6, as filed August 16, 1913, that they are for a general system. The term "carbon pile" does not appear in any of them, nor is any specific term used to indicate this element. Both of the lower tribunals have stated the fact to be that carbon piles have acquired a distinct status in the art as subjects of invention independently of the systems in which they are to be used. Under these circumstances I find no error in the requirement of division.

The decision of the Examiners-in-Chief is affirmed.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

IN RE CREVELING.

Decided June 5, 1917.

1. APPEAL TO THE COURT OF APPEALS OF THE DISTRICT OF COLUMBIA—DISSOLUTION OF INTERFERENCE.

Where an interference was dissolved on the ground that C.'s application did not disclose the invention, *Held* that the question may not be appealed from to the Court of Appeals of the District of Columbia independently of a final decision putting an end to the litigation, and the same question will not be considered in an *ex parte* case.

2. ELECTION—RHEOSTAT AND SYSTEM.

Where C. elected to claim a system of which the carbon rheostat is an element, *Held* that he is estopped from afterward claiming the rheostat *per se* in that application.

Mr. Chas. McC. Chapman and *Mr. Delos G. Haynes* for the appellant.

Mr. T. A. Hostetler for the Commissioner of Patents.

ROBB, *J.:*

This appeal is from a decision of the Commissioner of Patents rejecting claims Nos. 7 to 16, inclusive, of appellant's application for patent. We reproduce claims Nos. 7, 13, and 16, as sufficiently illustrative:

7. In an arrangement of the class described, a carbon pile, a lever operating upon one end of said pile and extending toward the other end of the pile, and a second lever operating on the second-mentioned end of said pile and extending toward the first mentioned end of said pile.

13. In an arrangement of the class described, a carbon pile, a lever having an arm operating upon one end of the pile and another arm extending toward the other end of the pile, a second lever having an arm operating upon said second-mentioned end of the pile and another arm extending toward the first-mentioned end of the pile, an electro-magnetic device, and means coöperating with the said levers and electro-magnetic device for actuating said levers.

16. In an arrangement of the class described, a carbon pile, a lever arranged to operate upon one end of the pile, a second lever arranged to operate upon the opposite end of the pile, an electro-magnetic device connected to one of the levers for operating the latter, an electro-magnetic device and connections between the latter and the other lever whereby the latter may be actuated, the combination being such as to vary the action of the two levers upon the carbon pile.

Each of the three tribunals of the Patent Office, including the Commissioner in person, rejected claims Nos. 7 to 13, inclusive, on the ground that they cover substantially the same subject-matter of invention as was involved in interference No. 36,115, and each tribunal required all the claims here involved to be erased from this case because they are limited to the details of a carbon-pile rheostat, whereas claims Nos. 1 to 6 are limited to a system of which the rheostat is an element, the Office holding that, by electing to claim a system of which the carbon rheostat is an element, appellant is estopped from now claiming the element *per se*.

The first ground of rejection clearly was correct. Interference No. 36,115 (*Creveling* v. *Jepson*) involved an application filed by Creveling September 22, 1911. Prior to the interference a patent to Sherbondy, No. 989,305, was cited against the Creveling application, and to overcome that patent Creveling directed attention to two previous applications filed by him, the earlier of which is the one here involved. Thereupon the interference, with a count identical in language with claim No. 7, here appealed, was declared. Upon motion by Jepson the interference was dissolved on the ground that the subject-matter was not disclosed in the Creveling application at bar, nor in the other Creveling application referred to. An appeal was taken to this court, which was dismissed on the authority of *in re Fullagar* (32 App. D. C., 222; 138 O. G., 259) and *Cosper* v. *Gold*, (34 App. D. C., 194; 151 O. G., 194.) In those cases it was ruled that an order dissolving an interference may not be appealed from independently of a final decision putting an end to the litigation; that, when that decision has been made, the interlocutory order may be reviewed under an appeal from that decision.

When Creveling's appeal was dismissed he abandoned it and thereafter, in the present *ex parte* case, attempted to raise the same question that had been raised and determined in the interference proceeding. That, we have held, may not be done. (*Newcomb Motor Co.* v. *Moore*, 30 App. D. C., 464; 133 O. G., 1680; *Sutton* v. *Wentworth*, 41 App. D. C.,

582; 204 O. G., 320.) In the Newcomb Motor Co. case we said:

The remedy of the defeated party is by way of appeal. He has no right whatever thereafter to prosecute the claims of the issue in an *ex parte* case.

The remedy of appellant, therefore, was to await a final decision in the interference proceeding, whatever might be the form of that decision, (*Moore* v. *Heany*, 34 App. D. C., 31; 149 O. G., 831; *in re Selden*, 36 App. D. C., 428; 164 O. G., 741,) and appeal therefrom to this court.

We have carefully read appellant's criticism of the decision of the Patent Office on the second ground of rejection, but we find no error in that decision. As originally filed appellant claimed a system, of which the rheostat is an element. We agree with the Patent Office that he now is estopped from claiming an element *per se* which has attained a distinct status in the art, as has this one.

The decision is affirmed.

Affirmed.

Applications Made to the Federal Trade Commission for Licenses Under Enemy-Controlled Patents and Trade-Marks Pursuant to the "Trading with the Enemy Act."

Patent No. 837,017, November 27, 1906, to Carl Auer von Welsbach, of Vienna, Austria-Hungary. Pyrophoric alloy. License applied for by New Process Metals Company, New York, N. Y.

Patent No. 976,760, November 22, 1910, to Carl Auer von Welsbach, of Vienna, Austria-Hungary, assignor to the firm of Treibacher Chemische Werke Gesellschaft M. B. H., of Treibach, Austria-Hungary. Pyrophoric mass. License applied for by New Process Metals Company, New York, N. Y.

Patent No. 1,123,843, January 5, 1915, to Philipp Burger, of Berlin, Germany. Depolarizer for galvanic cells. License applied for by French Battery & Carbon Co., Madison, Wis.

Patent No. 724,789, April 7, 1903, to René Bohn, of Mannheim, Germany, assignor to Badische Anilin and Soda Fabrik, of Ludwigshafen-on-the-Rhine, Germany, a corporation. Blue dye and process of making same. License applied for by National Aniline & Chemical Co., 244 Madison avenue, New York, N. Y.

Patent No. 753,659, March 1, 1904, to René Bohn, of Mannheim, Germany, assignor to Badische Anilin und Soda Fabrik, of Ludwigshafen-on-the-Rhine, Germany, a corporation of Baden. Anthracene derivative and process of making same. License applied for by National Aniline & Chemical Co., 244 Madison avenue, New York, N. Y.

Patent No. 739,145, September 15, 1903, to René Bohn, of Mannheim, Germany, assignor to Badische Anilin and Soda Fabrik, of Ludwigshafen-on-the-Rhine, Germany, a corporation of Baden. Anthracene dye. License applied for by National Aniline & Chemical Co., 244 Madison avenue, New York, N. Y.

Patent No. 1,104,943, July 28, 1914, to Rudolf Uhlenhuth, of Höchst-on-the-Main, Germany, assignor to Farbwerke vorm. Meister Lucius & Brüning, of Höchst-on-the-Main, Germany, a corporation of Germany. Process of producing amino-anthraquinones. License applied for by National Aniline & Chemical Co., 244 Madison avenue, New York, N. Y.

Patent No. 1,145,934, July 13, 1915, to Adolf Steindorff and Robert Welde, of Höchst-on-the-Main, Germany, assignors to Farbwerke vorm. Meister Lucius & Brüning, of Höchst-on-the-Main, Germany, a corporation of Germany. Finely-divided vat dyestuffs and process of making same. License applied for by National Aniline & Chemical Co., 244 Madison avenue, New York, N. Y.

Patent No. 844,914, February 19, 1907, to René Bohn, of Mannheim, Germany, assignor to Badische Anilin & Soda Fabrik, of Ludwigshafen-on-the-Rhine, Germany, a corporation. Process of making an anthracene dye. License applied for by National Aniline & Chemical Co., 244 Madison avenue, New York, N. Y.

Patent No. 682,523, September 10, 1901, to René Bohn, of Mannheim, Germany, assignor to Badische Anilin & Soda Fabrik, of Ludwigshafen, Germany. Blue dye and process of making same. License applied for by National Aniline & Chemical Co., 244 Madison avenue, New York, N. Y.

Patent No. 739,579, September 22, 1903, to René Bohn, of Mannheim, Germany, assignor to Badische Anilin and Soda Fabrik, of Ludwigshafen-on-the-Rhine, Germany, a corporation. Blue coloring-matter. License applied for by National Aniline & Chemical Co., 244 Madison avenue, New York, N. Y.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., February 19, 1918.

The Victor O. Mills Co., its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Waldes & Company of New Jersey, of 137 Fifth avenue, New York, N. Y., for registration of a trade-mark and trade-mark registered July 15, 1902, No. 38,605, to The Victor O. Mills Co., of Wilmington, Del., and Chicago, Ill., and a notice of such declaration sent by registered mail to The Victor O. Mills Co. at Chicago, Ill., having been returned by the post-office undeliverable, notice is hereby given that unless The Victor O. Mills Co., its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three successive weeks.

R. F. WHITEHEAD,
First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., February 8, 1918.

William M. Starr, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Charles H. L. Orton, of 234 Second avenue, Pittsburgh, Pa., for registration of a trade-mark and trade-mark registered February 16, 1904, No. 42,068, to William M. Starr, of 709 G street northwest, Washington, D. C., and a notice of such declaration sent by registered mail to said William M. Starr at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said William M. Starr, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD,
First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., February 13, 1918.

C. E. Green & Co., their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Charles E. Lynch Shoe Mfg. Co., Inc., of 127 Duane street, New York, N. Y., for registration of a trade-mark and trade-mark registered March 22, 1904, No. 42,264, to C. E. Green & Co., 105 Bedford street, Boston, Mass., and a notice of such declaration sent by registered mail to said C. E. Green & Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said C. E. Green & Co., their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD,
First Assistant Commissioner.

THE
OFFICIAL GAZETTE
OF THE
United States Patent Office.

Vol. 247—No. 4. TUESDAY, FEBRUARY 26, 1918. Price—$5 per year.
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Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

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Issue of February 26, 1918.

Patents	663—No. 1,257,299 to No. 1,257,961, inclusive.	
Designs	26—No. 51,805 to No. 51,830, inclusive.	
Trade-Marks	42—No. 120,656 to No. 120,697, inclusive.	
Labels	25—No. 20,515 to No. 20,539, inclusive.	
Prints	3—No. 4,862 to No. 4,864, inclusive.	
Reissues	2—No. 14,436 to No. 14,437, inclusive.	
Total	761	

Amendment to Rules of Practice.

(ORDER No. 2,372.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., February 6, 1918.

Acting under the provisions of section 483 of the Revised Statutes and with the approval of the Secretary of the Interior, Rule 15 of the Rules of Practice in the Patent Office is amended by adding thereto the following:

"except that authorized officers of the Army and Navy will be allowed during the war to inspect cases which in the opinion of the Commissioner disclose inventions that might be of value in the prosecution of the war, after having filed a duly-executed oath with the Commissioner that no contents of any application will be divulged except as it may become necessary in the prosecution of the war."

so that the rule will read as follows:

"15. Pending applications are preserved in secrecy. No information will be given, without authority, respecting the filing by any particular person of an application for a patent or for the reissue of a patent, the pendency of any particular case before the Office, or the subject-matter of any particular application, unless it shall be necessary to the proper conduct of business before the Office, as provided by Rules 97, 103, and 108, except that authorized officers of the Army and Navy will be allowed during the war to inspect cases which in the opinion of the Commissioner disclose inventions that might be of value in the prosecution of the war, after having filed a duly-executed oath with the Commissioner that no contents of any application will be divulged except as it may become necessary in the prosecution of the war."

J. T. NEWTON,
Commissioner.

Adverse Decisions in Interference.

PATENT No. 1,156,452.

On January 28, 1918, a decision was rendered that Leo H. Baekeland was not the first inventor of the subject-matter covered by claims 1 and 3 of his Patent No. 1,156,452, subject, "Insulating compound," and no appeal having been taken within the time allowed such decision has become final.

ADJUDICATED PATENTS.

(U. S. C. C. A.) The Macbeth reissue patent, No. 13,766, (original No. 1,007,600,) for a formula and process for making glass, *Held* void for abandonment. *Macbeth-Evans Glass Co.* v. *General Electric Co.*, 246 Fed. Rep., 695.

(U. S. C. C. A.) The Sly patent, No. 703,313, for a barrel-closure, *Held* not invalid for prior public use. *W. W. Sly Mfg. Co.* v. *Central Iron Works*, 246 Fed. Rep., 707.

Changes in Classification.

(ORDER No. 2,378.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., February 23, 1918.

The following change in the classification of inventions is hereby directed, to take effect immediately:

In class 214, Material or Article Handling, (Division IV,) establish the following subclass and definition:

3.1. **Glass cylinders.**

3.1. GLASS CYLINDERS. Mechanisms for handling or taking down glass cylinders either during or after the completion of the drawing process.

The patents contained in this subclass have been taken for the most part from class 49, Glass, subclass 17.1, Drawing, Cylinders, and class 212, Traversing Hoists, subclasses 11, Traveling cranes, Load-handling, and 75, Linear, Shiftable track, Tilting.

J. T. NEWTON,
Commissioner.

APPLICATIONS UNDER EXAMINATION.

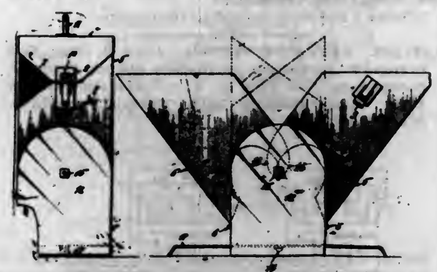
Condition at Close of Business February 22, 1918.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended.	No. of applications awaiting action.
314	1. Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Railway Gates; Planting; Scattering Unloaders; Trees, Plants, and Flowers.	Jan. 5	Jan. 7	217
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	Oct. 19	Oct. 26	293
176	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Heating; Metal-Founding; Metallurgical Apparatus; Metallurgy; Plastic Metal Working.	Jan. 25	Feb. 5	83
294	4. Conveyors; Elevators; Excavating; Hoisting; Material or Article Handling; Pneumatic Despatch; Pushing and Pulling Implements; Railway Mail Delivery; Store-Service; Traversing Hoists.	Jan. 11	Jan. 25	150
167	5. Bookbinding; Harvesters; Jewelry; Music	Nov. 2	Dec. 27	262
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Substance Preparation.	Aug. 1	Oct. 9	456
312	7. Educational Appliances; Games and Toys; Optics; Velocipedes	Oct. 18	Dec. 14	496
133	8. Beds; Chairs; Flexible-Sheet Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Dec. 7	Jan. 3	428
231	9. Air and Gas Pumps; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Marine Propulsion.	July 16	Jan. 16	496
295	10. Carriages and Wagons; Motor Vehicles	Aug. 11	Jan. 12	736
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Spring Devices; Whips and Whip Apparatus.	Nov. 14	Jan. 23	242
222	12. Journal-Boxes, Pulleys, and Shafting; Machine Elements	Oct. 16	Dec. 26	574
320	13. Ammunition and Explosive Charge Making; Bolt, Nail, Nut, Rivet, and Screw Making; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Nov. 10	Jan. 14	424
323	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Oct. 26	Dec. 26	233
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Jan. 2	Jan. 18	252
112	16. Electric Signaling-A; Radiant Energy; Telegraphy; Telephony	Sept. 1	Nov. 5	482
307	17. Ornamentation; Paper Manufactures; Printing; Type Casting; Sheet Material Associating or Folding; Sheet Feeding or Delivering; Type Setting.	Dec. 1	Jan. 26	108
220	18. Fluid-Pressure Regulators; Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Jan. 3	Nov. 13	368
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels	Sept. 28	Nov. 2	443
179	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Jan. 18	Jan. 26	214
212	21. Brakes and Gins; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Sept. 15	Nov. 30	224
249	22. Aeronautics; Firearms; Ordnance	Nov. 13	Jan. 16	282
219	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	Sept. 17	Dec. 20	370
144	24. Apparel; Apparel Apparatus; Sewing-Machines; Garment Supporters	Dec. 24	Jan. 10	161
315	25. Agitating; Butchering; Centrifugal Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers; Gas Separation.	Jan. 12	Jan. 10	134
105	26. Electricity, Generation; Motive Power	Sept. 10	Oct. 3	543
214	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus	Dec. 8	Jan. 2	322
225	28. Internal-Combustion Engines	Sept. 26	Dec. 18	569
147	29. Boring and Drilling; Coopering; Fire-Escapes; Ladders; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking Tools.	Oct. 17	Dec. 13	349
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines	Nov. 1	Jan. 31	428
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Sugar and Salt.	Nov. 13	Dec. 22	239
278	32. Gas and Liquid Contact Apparatus; Heat Exchange; Packaging Liquids; Refrigeration	Aug. 2	Jan. 9	710
70	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving; Roofs.	Jan. 7	Jan. 15	170
304	34. Railways; Railway Rails and Joints; Railway Rolling Stock; Railway Ties and Fasteners	Jan. 19	Feb. 6	48
87	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Signals; Toilet	Sept. 28	Dec. 1	586
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography; Force Measuring	Dec. 15	Dec. 12	640
107	37. Electric Lamps; Electricity, Circuit Makers and Breakers; Electricity, Conduits; Electricity, General Applications.	Aug. 8	Oct. 25	650
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells	Dec. 28	Jan. 14	132
220	39. Water Distribution; Multiple Valves	Aug. 22	Dec. 4	396
275	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Nov. 19	Jan. 7	459
126	41. Railway Draft Appliances; Resilient Tires and Wheels	Nov. 7	Nov. 6	347
114	42. Electricity, Conductors; Railway Signaling; Electricity-Transmission to Vehicles; Electric Signaling	Aug. 21	Oct. 22	630
382	43. Baths and Closets; Dispensing; Dispensing Beverages; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Nov. 2	Dec. 18	362
283	44. Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Ships	Nov. 23	Jan. 23	199
379	45. Clutches; Lubrication; Motors; Railway Brakes	Oct. 15	Nov. 19	396
	Oldest new case, July 16; oldest amended, Oct. 3.			
	Total number of applications awaiting action			16,332
163	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:	Jan. 21	Feb. 6	506
	Trade-Marks	Jan. 11	Feb. 8	244
	Designs	Feb. 7	Jan. 19	75
	Labels and Prints			

PATENTS

GRANTED FEBRUARY 26, 1918.

1,257,299. FILE-BOX. CLAUDE W. ALLISON, St. Louis, Mo. Filed Aug. 28, 1916. Serial No. 117,187. (Cl. 129—14.)



1. A file box having side and bottom walls, hinges supporting said side walls, said hinges being located near the lower edges of said side walls so as to allow said side walls to swing toward and away from each other, partitions extending upwardly from said bottom wall at points between said side walls, and means for securing the lower portions of said partitions to prevent them from sliding along said bottom wall, said partitions being otherwise free to move toward and away from each other and toward and away from said side walls.

2. A file box having side and bottom walls, hinges supporting said side walls, said hinges being located near the lower edges of said side walls so as to allow said side walls to swing toward and away from each other, partitions extending upwardly from said bottom wall at points between said side walls, said bottom wall being provided with openings and said partitions having extended tongues which project through said openings and coöperate with said bottom wall to provide hinge-like supports for the partitions, thereby allowing the partitions to swing toward and away from each other and toward and away from said side walls.

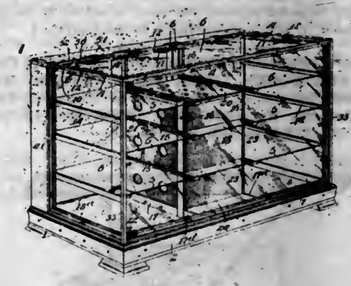
3. A file box having a base, wall members one of which is movable away from the other to expose the contents of the box, and a brace adapted to coöperate with said base in supporting the same, said brace being movably secured to the box so that it may be readily shifted to its operative position when the wall members are positioned to expose the contents of the box.

4. A file box having a base, wall members one of which is movable away from the other to expose the contents of the box, and a brace adapted to coöperate with said base in supporting the same, said brace being in the form of a leg pivoted to said base so that it may be readily turned to an inoperative position wherein it lies under the base and to an operative position wherein it extends from the base.

5. A file box having a base, wall members one of which is movable away from the other to expose the contents of the box, and a brace adapted to coöperate with said base in supporting the same, said brace being in the form of a leg pivoted to said base so that it may be readily turned to an inoperative position wherein it lies under the base and to an operative position wherein it extends from the base, and means for securing said brace in its operative and inoperative positions.

1,257,300. SHOW-CASE OR REFRIGERATOR. ADELARD AMYOT, Montreal, Quebec, Canada. Filed Sept. 17, 1915. Serial No. 51,209. (Cl. 211—25.)

1. A case for the reception and preservation by cooling of perishable commodities having spaced inner and outer wall members at the ends, front and top, doors at the back, a two-way ventilating duct leading from the rear of the interior of the case and space between the top wall members and three-way ventilating ducts respectively leading from the front and ends of the interior of the case and the spaces between the end, front and top wall members respectively, all of said ducts being permanently open to the exterior of the case.



3. In a case for the reception and preservation by cooling of perishable commodities, a base having an opening therein adapted to be brought into communication with the outside atmosphere, corner posts, a top frame upon the corner posts, end, front and top walls, doors for closing the rear of the case, pairs of front and rear uprights spaced longitudinally of the case and disposed at each side of the opening in the base, braces extending between the front and rear uprights at the bottom and having vents therethrough, supports carried by said uprights and the corner posts, shelves adapted to rest upon said supports and an ice chest removably disposed between said pairs of uprights and a perforated cover for said ice chest, said cover being adapted to rest upon the braces when the ice chest is removed.

4. In a case for the reception and preservation by cooling of perishable commodities, a base, lower frame pieces extending around the front and end sides of the base and presenting inner and outer shoulders; corner posts presenting inner and outer shoulders continuing upwardly from the shoulders of the lower frame pieces; top frame pieces supported upon the corner posts and presenting shoulders continuing from the shoulders of the corner posts, such top frame also presenting an interior ledge; inner and outer sheets of glass respectively resting upon said inner and outer shoulders and inclosing the case at the front and ends; an inner sheet of glass upon said ledge of the top frame and an outer sheet of glass upon the top frame and closing the case at the top; and sliding doors closing the case at the back, the front of said top frame having three-way ducts therein leading from the interior of the case and from the space between the top sheets and the space between the front sheets, the ends of said top frame having three-way ducts therein leading from the interior of the case and from the space between the top sheets and from the space between the end sheets and the rear of the top frame having two-way ducts therein leading from the interior of the case and from the space between the top sheets.

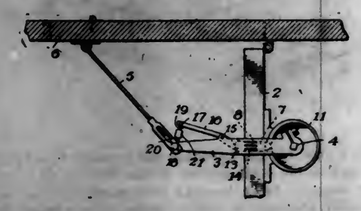
5. In a case for the reception and preservation, by cooling, of perishable commodities, a base having notches at the corners, front and rear corner posts, downwardly extending projections upon said posts and located in said notches, the opposite sides of the front corner posts being longitudinally grooved to present inner and outer shoul-

ders and front and end lower frame pieces upon the base and between and abutting against said posts, the ends of the frame pieces abutting against the front posts being vertically grooved or stepped to fit about the shoulders of said front posts.

6. In a case for the reception and preservation, by cooling, of perishable commodities, a base having notches at the corners, front and rear corner posts, downwardly extending projections upon said posts and located in said notches, the front sides of the rear corner posts being longitudinally grooved to present inner and outer shoulders and lower end frame pieces upon the base and abutting against the rear posts, the inner face of each corner post being transversely recessed and the end of each frame piece abutting against the post having inner and outer projections and straddling the post, the inner projection being located in said recess and the outer projection being disposed against the outer shoulder of the post.

[Claims 2, 7, and 8 not printed in the Gazette.]

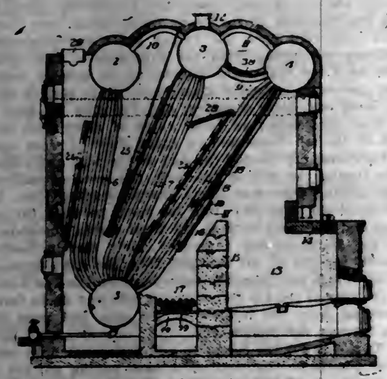
1,257,301. **MECHANISM FOR AUTOMATICALLY CLOSING FIRE-DOORS.** HARRY BALL, Worcester, Mass., assignor, by mesne assignments, to Worcester Shock Absorber Co., Worcester, Mass. Filed June 18, 1913. Serial No. 773,985. (Cl. 189—49.)



1. The combination with a movable door, of door actuating means operable to move said door to its closed position, said actuating means having a notch movable therewith, a slidable detent adapted to engage said notch, a spring normally maintaining said detent in engagement with said notch, to prevent the operation of said door actuating means, and a thermally controlled anchor for said spring.

[Claims 2 and 3 not printed in the Gazette.]

1,257,302. **BOILER-BAFFLING.** JOHN E. BELL, Brooklyn, N. Y. Continuation in part of application Serial No. 35,788, filed June 23, 1915. This application filed Nov. 6, 1915. Serial No. 59,994. (Cl. 110—98.)

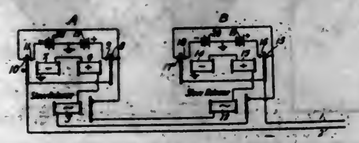


1. A boiler having a row of tubes containing fluid to be heated, and a spaced-apart baffling coacting with said tubes, said baffling being composed of tiles having projections longitudinal of the tubes and resting on some of the tubes, and bridging over other intermediate tubes, substantially as described.

4. In a water tube boiler, a bank of tubes, and a continuous baffle at the rear of the bank and spaced apart therefrom, said baffle being supported on the row of tubes in front of it and extending from one end of the row to a point short of the other end to cause the gases to flow longitudinally within the bank, said baffle resting upon part only of the tubes and bridging other tubes of the row, substantially as described.

[Claims 2 and 3 not printed in the Gazette.]

1,257,303. **REPEATER SYSTEM.** JOHN H. BELL, East Orange, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed May 16, 1916. Serial No. 97,763. (Cl. 178—73.)



1. In a telegraph repeating system, a plurality of telegraph line circuits, sources of current, a plurality of line relays for each line circuit for repeating telegraphic signals from any one of said line circuits into the other ones of said line circuits, and contacts on said relays effective in said repeating operations to translate telegraphic intervals corresponding with predetermined periods of no current.

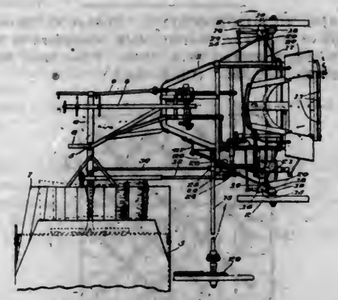
2. In a telegraph repeating system, a plurality of current sources, a plurality of telegraph line circuits, a universal current line relay and a first and second polarized line relay for each one of said line circuits, contacts operated by the universal current relay of any line circuit for disabling the line relays of the other line circuits and for joining the other line curcuits one with another, and contacts operated by the polarized relays of any line circuit for repeating telegraphic signals corresponding with predetermined periods of positive current, of negative current and cessation of current into the other ones of said line curcuits.

3. In a telegraph repeating system, a plurality of telegraph line circuits, a repeating device normally connected to each line circuit, and adapted to receive signals over the line to which it is connected, a source of current, means controlled by each repeating device for disconnecting another repeating device from its line and for intermittently connecting the source of current to the other line circuits in response to the signals received over the line circuit to which it is connected.

4. In a telegraph repeating system, a plurality of telegraph line circuits, a repeating device normally connected to each line circuit comprising a plurality of relays, adapted to receive signals over the line to which they are connected, a source of current, means controlled by each repeating device for disconnecting another repeating device from its line and for intermittently connecting the source of current to the other line circuits in response to the signals received over the circuit to which it is connected.

5. In a telegraph repeating system, a plurality of telegraph line circuits, a repeating device normally connected to each line circuit, comprising a plurality of polarized relays and a universal current relay, said relays being adapted to receive signals from the line circuit to which they are connected, a source of current, means controlled by the universal current relay for disconnecting another repeating device from its line throughout the receipt of a series of signals over the line to which it is connected, and means controlled by the polarized relays for intermittently connecting the source of current to the other line circuits in response to said signals.

1,257,304. **ADJUSTING MECHANISM FOR GRAIN-SHOCKING MACHINES.** BERT R. BENJAMIN, Oak Park, Ill., assignor to International Harvester Company of New Jersey, a Corporation of New Jersey. Filed Dec. 5, 1913. Serial No. 804,841. Renewed Aug. 27, 1917. Serial No. 188,488. (Cl. 56—121.)



1. In combination, a binder, a shocker operatively connected thereto, and means operable from the binder for adjusting the height of said entire shocker.

2. In combination, a binder, a shocker operatively connected thereto, a cradle carried on said shocker, and means operable from said binder for adjusting the height of said cradle while maintaining the same substantially parallel to the ground.

3. In combination, a binder, a shocker operatively connected thereto, and means for simultaneously adjusting said shocker longitudinally and vertically with respect to said binder.

[Claims 4 to 24 not printed in the Gazette.]

1,257,305. **TIRE-GUARD.** FRANK C. BITZENBURGER, Los Angeles, Cal. Filed June 7, 1917. Serial No. 173,424. (Cl. 152—23.)

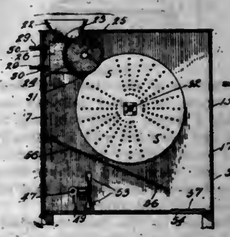


1. In a tire guard, the combination with a pneumatic tire casing mounted upon a demountable rim and disposed around the felly of a vehicle wheel, of a guard plate positioned at one side of the pneumatic tire and having a flange resting against the side of the felly and tangs resting between the felly and rim, a second guard plate positioned at the opposite side of the pnenmatic tire and having tangs resting against the side of the felly and a flange resting between the felly and rim, and bolts inserted through the flange at one side of the felly, through the felly, and through the tangs at the other side of the felly.

2. In a tire guard, the combination with a pneumatic tire casing positioned upon a demountable rim and disposed around the felly of a vehicle wheel, of a guard plate positioned at one side of said tire and spaced a distance therefrom; said plate terminating substantially along the side of the tire; a continuous inturned flange formed as a part of said plate and extending between the felly and the tire rim, tangs extending from the plate and alongside the wheel felly and provided with bolt holes, bolts extending through said holes and the felly, a second guard plate disposed along the opposite side of the tire, inturned tangs formed as a part of said second plate and extending between the tire rim and wheel felly, a continuous flange extending from the plate and alongside the adjacent face of the wheel felly, and lock slots formed through said flange at intervals and having large open ends to receive the nuts of the bolts which extend through the tangs of the opposite plate and the felly, and said slots having narrow portions over which the nuts may be slipped and along which the bolts may be moved.

3. In a tire guard, the combination with a pneumatic tire casing positioned upon a demountable rim and disposed around the felly of a vehicle wheel, of a pair of annular opposited disposed guard plates detachably secured to the felly of the wheel; said plates having body portions of arcuate section which are spaced a distance from the sides of the tire and are designed to partially inclose the tire body, and annular flanges formed around the marginal edges of said body portions and extending outwardly from the tire to provide a tread for the wheel when the tire is deflated and has been compressed into the space between the guard plates.

1,257,306. **NUT-SHELLING MACHINE.** ALFRED W. BLATT, Centerport, Pa. Filed Dec. 23, 1914. Serial No. 878,760. (Cl. 146—3.)



In a nut shelling machine, the combination with a closed casing of a crushing cylinder having a roughened surface and a concave coöperative with said cylinder and adjustable to and from the same, a pair of disks spaced apart and in parallel relation, the lower part of said cylinder lying between said disks at the upper edges thereof, a conducting plate between the bottom of the concave and the disks, pins projecting inwardly from the opposing faces of said disks and overlapping one another, means for rigidly securing one of said disks to the casing, a rotatable shaft extending through said securing means upon which shaft the other disk is mounted to rotate, driving means for said shaft, an inclined partition below the disks extending from one end of the casing nearly to the opposite end thereof, an outlet at the bottom and an outlet through one end of the casing for the escape of the crushed materials, a screen covering the former outlet, and means below the partition for forcing a blast of air over and through said outlets.

1,257,307. **PROCESS OF MANUFACTURING VEGETABLE GLUE.** VICTOR G. BLOEDE, Catonsville, Md. Filed Oct. 29, 1917. Serial No. 198,989. (Cl. 87—17.)

1. The process herein described for producing a vegetable glue or adhesive of any degree or body or viscosity desired by first treating the starch base with a caustic alkali, then partially or fully neutralizing the alkali and acting upon the composition so obtained with a ferment, enzym or bacillus capable of reducing starch, until the composition has been reduced to the desired consistency or flow, substantially as described.

2. The process herein described consisting in preparing an alkaline or neutral vegetable glue by acting upon the starch base with a caustic alkali, then neutralizing the alkali and adding to the viscous material so produced a

sufficient quantity of a thin vegetable glue produced by the action of a ferment, enzym or bacillus to reduce the viscous body to the desired degree of fluidity, substantially as described.

3. The process herein described consisting in acting upon a starch base with a caustic alkali and reducing the highly viscous alkaline material thus obtained, while in an unneutralized, or partly neutralized condition, to the desired degree of fluidity by the addition of a thin vegetable glue obtained by the action of a ferment, enzym, or bacillus, upon starch, substantially as described.

1,257,308. SWEEPER. HOMER LE ROY BOYLE, Lansing, Mich., assignor of one-third to Mark H. Smith, Lansing, Mich. Filed Aug. 6, 1917. Serial No. 184,689. (Cl. 15—20.)



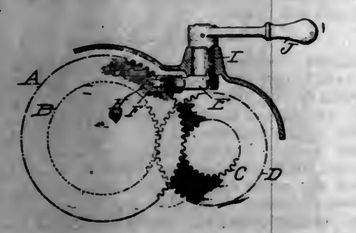
1. In a structure of the class described, the combination with a broom, of a dust collector mounted thereon and comprising a frame, a dust retaining brush supported in said frame and provided with a supporting and driving wheel, a band on said frame loosely embracing said broom, a hanger for said frame and slidably mounted upon the handle of said broom, and stops on said handle for limiting the movement of said hanger.

2. In a structure of the class described, the combination with a broom, of a dust collector mounted thereon and comprising a frame, means for slidably mounting said frame upon said broom, a dust retaining brush supported in said frame and provided with supporting and driving wheels, a hanger for said frame, and means for slidably connecting said hanger with said broom.

3. In a structure of the class described, the combination with a broom, of a dust collector mounted thereon and comprising a frame, means for slidably mounting said frame upon said broom, a dust retaining device rotatably mounted on said broom, and means for limiting the movement of said frame relative to said broom.

[Claims 4 and 5 not printed in the Gazette.]

1,257,309. SHIFTING MECHANISM FOR GEARING, &c. JUNIUS H. BRAND, Nashua, N. H., assignor to Flather & Company, (Inc.), a Corporation of New Hampshire. Filed Oct. 30, 1917. Serial No. 199,290. (Cl. 74—58.)

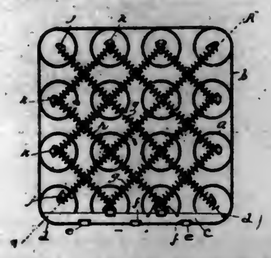


1. The combination of a pivoted shifting lever having a partial circular open mouthed end, a slotted circular engaging piece fitted therein, and a shiftable member engaged thereby.

5. The combination of a double shifting gear, a large and small gear with either of which the double gear may be shifted to engage, a pivoted shifting lever having a partial circular open mouthed end, and a slotted circular engaging piece fitted therein and engaging the double gear.

[Claims 2 to 4, 6, and 7 not printed in the Gazette.]

1,257,310. CUSHION-SPRING. GUSTAV O. BRANDT and THOMAS MAHONEY, Detroit, Mich., assignors to Leonard A. Young, Highland Park, Mich. Filed Mar. 26, 1917. Serial No. 157,354. (Cl. 5—29.)

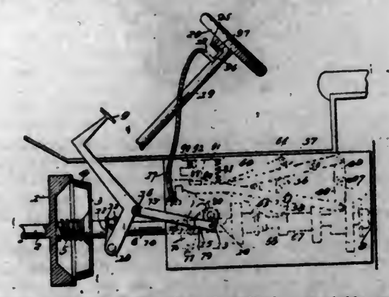


1. In a cushion spring, the combination of a plurality of supporting springs, a tie therefor, comprising a coil spring fitting over the top coils of the supporting springs, and a rod passing through the coils of the coil springs and serving in connection with the same to lock the tie to the top coils of the supporting springs and having one or more of its ends arranged to abut against the end or ends of the coil springs.

2. In a cushion spring, the combination of a plurality of supporting springs, a plurality of intersecting ties, each tie including an extensible and contractible member provided with means for transmitting stresses to the ends of the tie where they are resisted by yielding resistance to the longitudinal contraction of the tie.

3. In a cushion spring, the combination of a plurality of coil springs, a border wire, and a flat strip secured to the border wire along the front edge of the cushion spring and supported on top of the supporting springs for the purpose specified.

1,257,311. GEARING FOR MOTOR-VEHICLES. EDWARD C. BURNS, Kansas City, Mo. Filed May 12, 1913. Serial No. 767,090. (Cl. 74—58.)



5. In a device of the class described, a variable speed transmission gearing having a plurality of shiftable elements, means for shifting said elements embodying pivoted members movable with said elements, a selective finder coöperating with said pivoted members, an indicator for coöperation with said finder, said finder having a notch into which the selected member falls by gravity, and a locking means for the selected member.

12. In a device of the class described, a variable speed transmission gearing having a plurality of shiftable elements combined with a foot pedal and connections, embodying an actuating lever, a plurality of pivoted members coöperating with said lever, a movably mounted finder for coöperation with said members, means for moving the finder at right angles to said members, said finder having a notch into which a selected member falls by gravity, yielding means acting on said members tending to depress them, and a spring actuated locking pin for each member.

13. In a device of the class described, a variable speed transmission gearing having shiftable elements, pivotally mounted links coöperating with said elements, a controller and a slidably mounted selective finder coöperating with said links.

[Claims 1 to 4, 6 to 11, and 14 to 16 not printed in the Gazette.]

1,257,312. ALKALINE-BATTERY PLATE. CAMPBELL C. CARPENTER, Niagara Falls, N. Y., assignor, by mesne assignments, to U. S. Light & Heat Corporation, Niagara Falls, N. Y., a Corporation of New York. Filed Oct. 18, 1912. Serial No. 726,485. (Cl. 204—29.)



1. An active element for alkaline battery plates comprising a member composed of separate cylindrical layers of active material and of metallic wire gauze arranged alternately.

2. As an article of manufacture, a cylindrical member composed of a metallic wire and alternate layers of a compound of the same metal and gauze of the same metal.

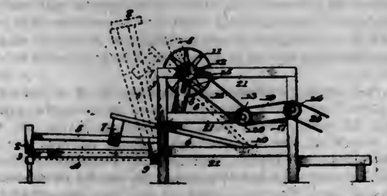
3. A battery plate comprising a retaining frame and active elements held therein, said elements consisting of rods composed of concentric layers of active material, each layer being surrounded by an envelop of wire gauze.

5. An active element for positive plates for alkaline batteries comprising a nickel wire and alternate layers of a nickel compound, and metallic nickel gauze thereon.

7. The method of forming an active element for alkaline battery plates which consists in passing a metallic wire and a metallic salt in plastic state through suitable dies, drying and annealing the same, and inclosing the same in a wire gauze.

[Claims 4 and 6 not printed in the Gazette.]

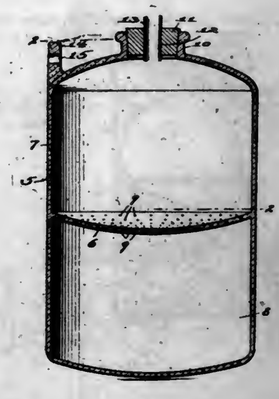
1,257,313. HEMP-BREAKING MACHINE. SAMUEL B. CARR, Harrodsburg, Ky., assignor of one-half to R. L. Black, Harrodsburg, Ky. Filed July 17, 1916. Serial No. 109,642. (Cl. 13—6.)



1. A hemp breaking machine embodying a frame, a set of swords fulcrumed thereto, a bar connected rigidly with said swords, a lever fulcrumed to the frame beyond the fulcrum of the swords and having its free end slidably engaging said bar, a crank shaft carried by the frame, and a link connecting the crank of said shaft and said lever.

[Claim 2 not printed in the Gazette.]

1,257,314. GAS-GENERATING JAR. ARTHUR STEFANO CASTELLANO, Jacksonville, Fla. Filed Mar. 20, 1917. Serial No. 156,229. (Cl. 23—3.)



1. A gas-generating apparatus, consisting, in its entirety, of a jar, having an internal horizontal partition which divides its interior into separate upper and lower compartments adapted to respectively receive solid and liquid substances, and having also, at its top, an open-ended charging neck directly communicating with the upper compartment; and a removable closure for said neck; said partition being provided with a plurality of relatively-small apertures which permit unrestricted passage of the liquid therethrough, but which prevent the passage of the solid substance from one compartment into the other.

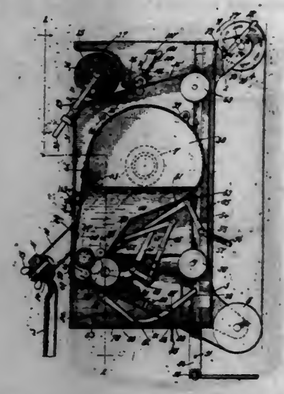
2. A gas-generating apparatus, consisting in its entirety, of a jar, having an internal horizontal partition which divides its interior into separate upper and lower compartments adapted to respectively receive solid and liquid substances, and having also, at its top, an open-ended charging neck directly communicating with the upper compartment; a stopper removably fitted in said neck and formed with a vertical opening therethrough; and a tube fitted in said vertical opening and communicating at its lower end with said upper compartment; said partition being provided with a plurality of relatively-small apertures which permit unrestricted passage of the liquid therethrough, but which prevent the passage of the solid substance from one compartment into the other.

3. A gas-generating apparatus, consisting, in its entirety, of a jar, having an internal, dished, horizontal partition which divides its interior into separate upper and lower compartments adapted to respectively receive solid and liquid substances, said partition being provided with a plurality of relatively-small apertures which permit unrestricted passage of the liquid therethrough, but which prevent the passage of the solid substance.

4. A gas-generating apparatus, consisting, in its entirety, of a jar, having an internal horizontal partition which divides its interior into separate upper and lower compartments adapted to respectively receive solid and liquid substances, and having also, at its top, an open-ended charging neck directly communicating with the upper compartment; a removable closure for said neck; said partition being provided with a plurality of relatively-small apertures which permit unrestricted passage of the liquid therethrough, but which prevent the passage of the

solid substance, said jar having a convex bottom to prevent it from standing upright thereon; and an apertured hanger formed on the upper portion of the jar for suspending the jar bodily in upright position.

1,257,315. WALL-PAPERING MACHINE. NOEL B. CHARTIER, Richland, Wash. Filed Apr. 21, 1916. Serial No. 92,715. (Cl. 216—6.)



1. A wall papering machine, including a housing, means for supporting a roll of paper upon said housing, laterally adjustable means for removing the marginal portion of said paper, paste applying means carried by said housing, means for applying the paper to the wall as it leaves said paste applying means, and means for severing said paper from the roll, and adjustable means for operating said last mentioned severing means.

4. A wall papering machine, including a housing, laterally adjustable means for supporting a roll of paper upon said housing, vertical laterally adjustable cutting means for removing the marginal portion of said paper, paste applying means carried by said housing, means for applying the paper to the wall as it leaves said paste applying means, and automatic means for cutting the paper from the roll.

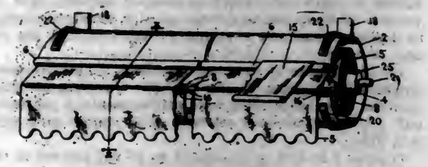
5. A wall papering machine, including a housing, laterally adjustable means for supporting a roll of paper upon said housing, vertically and laterally adjustable cutting means for removing a marginal portion of said paper, a paste tank within said housing, means for guiding the paper from said roll through said paste tank, means for applying paste to the paper passing through said tank, means for applying the paper to the wall as it leaves said paste tank, means for cutting and severing said paper from the roll, and adjustable means for operating said last mentioned severing means.

11. A wall papering machine comprising a housing, means for supporting a roll of paper upon said housing, a paste tank arranged within said housing, said paste tank having an opening, means for guiding the paper from the roll through said tank, and including a guiding roller, a plate movably mounted upon said paste tank, means for simultaneously moving said plate over said opening and said guide roller away therefrom, and means for applying paper to a wall as it leaves said paste tank.

13. A wall papering machine, including a housing, laterally adjustable means for supporting a roll of paper upon said housing, a paste tank within said housing, means for guiding the paper from said roll through said paste tank, a rotary brush for applying the paste to the paper passing through said tank, means for applying the paper to the wall as it leaves said paste tank, and means for automatically severing the paper from the roll.

[Claims 2, 3, 6 to 10, and 12 not printed in the Gazette.]

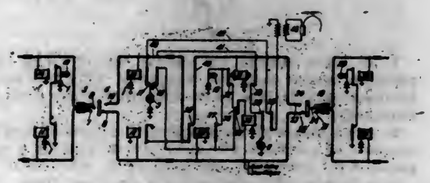
1,257,316. ROLLER-AWNING. ALFRED L. CLARK, Dubuque, Iowa. Filed Nov. 15, 1916. Serial No. 131,491. (Cl. 156—44.)



3. In apparatus of the character described; a roller; an awning attached to the roller to be wound thereon; means to support the roller; a substantially cylindrical container for the roller and awning wound thereon, said container being provided upon its forward side with a longitudinal slot, said container being provided at the upper edge of the slot with a locking device and in its lower portion with drain openings; means to support the container; means to rotate the roller; and a plate having a locking device to coact with the first named locking device to attach the plate to the container at said first named locking device, said plate projecting forwardly for a substantial distance and serving as a shield for the roller and awning wound thereon.

[Claims 1 and 2 not printed in the Gazette.]

1,257,317. TELEPHONE-EXCHANGE SYSTEM. HENRY P. CLAUSEN, Mount Vernon, N. Y., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed Oct. 12, 1915. Serial No. 55,400. (Cl. 179—43.)



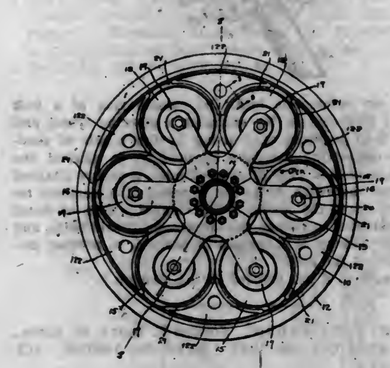
1. A telephone exchange system comprising a trunk circuit extending from a first to a second switchboard, a link circuit at each switchboard connected with the trunk circuit, a signaling device at the first switchboard, interrupter mechanism, operator controlled switching mechanism at the second switchboard, and a relay operating upon the momentary actuation of the operator controlled switching mechanism for including the interrupter mechanism and the signaling device in circuit relation thereby causing the intermittent operation of the signaling device.

4. A telephone exchange system comprising a trunk circuit extending from a first to a second switchboard, a link circuit at each switchboard connected with the trunk circuit, a signaling device for each link circuit, an operator's telephone set at the second switchboard, interrupter mechanism, switching means at the second switchboard controlling the inclusion of the interrupter mechanism in circuit relation with the signaling device at the first switchboard thereby to intermittently operate said device, a source of tone signaling current, and switching means at the first switchboard controlling the inclusion of the tone signaling current in circuit with the operator's telephone set.

7. A telephone exchange system comprising a trunk circuit extending from a first to a second switchboard, a link circuit at each switchboard, a signaling device for the link circuit of the first switchboard, an operator's telephone set at the second switchboard, a signaling device in the trunk circuit and located at the second switchboard operating upon the connection of the link circuit at the first switchboard with the trunk circuit, a switching device operating upon the connection of the second link circuit with the switchboard to disable the signaling device, interrupter mechanism, switching means operated by the momentary disconnection of the link circuit at the second switchboard from the trunk circuit to render the interrupter mechanism effective for intermittently operating the signaling device at the first switchboard, a source of tone signaling current, and switching means responsive to the disconnection of the link circuit at the first switchboard from the trunk circuit to include the source of tone signaling current in circuit with the operator's telephone set.

[Claims 2, 3, 5 and 6 not printed in the Gazette.]

1,257,318. PROCESS OF MAKING VEHICLE-WHEELS. HENRY B. COATS, Crawfordsville, Ind. Filed Apr. 14, 1917. Serial No. 162,217. (Cl. 29—84.)



1. The process of making a vehicle wheel, which includes the separate formation of a tire rim, a series of annular cushion rims, and a central member, the nesting of said cushion rims in a circular series within the tire rim and the central member within the circular series of rims, and the treatment of said members in such manner as to cause the tire rim to compress the nested rims together.

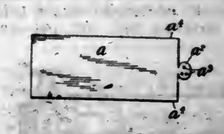
4. The process of making a vehicle wheel which process includes first the separate formation of a tire rim, a member adapted to be centrally located therein, and a series of annular cushion rims adapted to be located between and interfitted with the tire rim and central member, said parts having means with cupped surfaces for partially embracing the parts which they are adapted to engage, then nesting said parts in pyramidal form, and finally forcing said parts within the tire rim into the plane of the tire rim.

7. The process of making a vehicle wheel, which process includes first the separate formation of a tire rim, a member adapted to be centrally located therein, and a series of annular cushion rims adapted to be located between and interfitted with the tire rim and central member, then nesting said parts in pyramidal form, then forcing said parts within the tire rim into the plane of the tire rim and finally compressing the tire rim so as to put the tire rim under tension and the inclosed parts under compression.

[Claims 2, 3, 5, 6, and 8 to 12 not printed in the Gazette.]

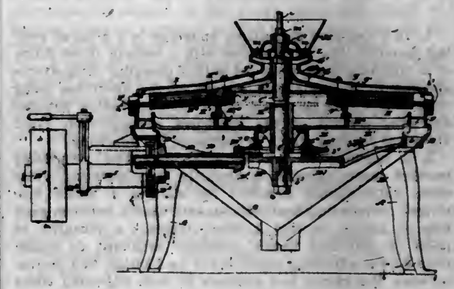
1,257,319. CIGARETTE. FRANÇOIS COURTINADE, New York, N. Y. Filed Mar. 16, 1917. Serial No. 155,148. (Cl. 131—52.)

A cigarette wrapper composed of a thin sheet of non-combustible material provided at one end with a circular projecting part which is adapted to be folded over the lighting end of a cigarette to inclose said end and which



is provided with perforations or apertures through which the tobacco is ignited.

1,257,320. MACHINE FOR SEPARATING SEEDS. GEORGE F. CRIPPEN, Ypsilanti, Mich. Filed Dec. 1, 1916. Serial No. 134,381. (Cl. 130—18.)



1. In a seed separating machine, the combination with a base, of a series of substantially horizontally disposed rotary separating rolls, said rolls being arranged at a comparatively slight inclination from the horizontal, means for driving the rolls and for moving the same in a circular path, and means for feeding seed into the space between the rolls at the upper ends thereof.

9. In a seed cleaning machine the combination with a support, of an upright on the support, a picker roll deck loosely embracing the support, means for rotating the deck, a series of inclined picker rolls mounted on the deck, gears at the ends of the picker rolls, a stationary circular gear with which said other gears mesh, and an inclined feed discharging at the upper ends of the picker rolls, and in substantial alinement therewith.

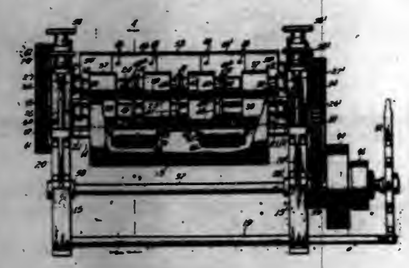
12. In a seed cleaning machine the combination with elongated vertically inclined picking rolls and means for driving the same, of a feed head comprising a deflecting conical shaped member, and separated seed throats leading directly from the inclined surface of said member and carried thereby, said throats being adapted to discharge in the general direction of the longitudinal axis of the rolls, and at a point overlapping the inner ends thereof.

20. In a seed cleaning machine the combination with picking roll instrumentalities, means for driving the same, gearing interposed between the rolls, and means associated with the gearing for intercepting the passage of oil to the rolls.

23. In a seed cleaning machine, the combination with a platform, of a centrally disposed standard, a picker deck having an elongated sleeve surrounding the standard, a pedestal adjacent the standard and provided with a gear, a bearing for the pedestal, means for rotating the gear, elongated picker rolls carried by the deck, said rolls extending at a slight vertical inclination from a horizontal plane, feeding means carried by the deck and also inclining in the same general direction and plane of the rolls, a stationary gear carried by the standard, and means engaging the stationary gear for rotating the picker rolls.

[Claims 2 to 8, 10, 11, 13 to 19, 21, 22, and 24 to 27 not printed in the Gazette.]

1,257,321. SHINGLE-STRIP-MAKING MACHINE. HARRY A. CUMFER and OWEN D. MCFARLAND, Chicago, Ill., assignors to Guyton & Cumfer Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 2, 1915. Serial No. 249. (Cl. 164—16.)



1. In a machine for cutting openings in a strip of roofing material, the combination with a smooth faced drum, of a rotatable drum provided with a plurality of apertures opening to its periphery, certain of the apertures being connected within the drum, and removable hollow punches overlying certain of the apertures leaving open other apertures through which to discharge the punching.

3. A machine of the character described comprising parallel shafts carrying a plurality of coöperating, rotatable knife-bearing members for slitting a fabric into strips; coöperating feed rolls on said shafts, between each pair of knives, to feed a fabric thereto; a plurality of pairs of rotatable punch members, arranged to punch slots across adjoining edges of the said strips, and means, between the knives and punches to hold adjoining edges of the strips together while being punched.

6. A machine of the character described comprising parallel shafts carrying a plurality of coöperating, rotatable knife bearing members for slitting a fabric into strips; coöperating feed rolls on said shafts, between each pair of knives to feed the fabric to the knives; a plurality of pairs of rotatable punch members arranged to punch slots across adjoining edges of said strips; means on each side of said rotatable punches adjustable to compensate for varying widths of sheets, to hold adjacent severed edges of the strips together, while being punched; a flat, fabric support, on each side of the rotatable punches, substantially in the same horizontal plane as said punches and feed rolls beyond the punches to draw the strips away from the punches.

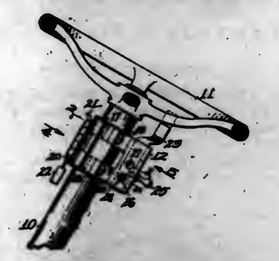
9. A machine of the character described comprising means for constantly moving a sheet of prepared roofing material; means for punching transversely elongated slots in said sheet at predetermined intervals, and slitting means to divide the sheet into a plurality of longitudinal strips, said slitting means being positioned in alinement with points midway between the slot punching means and points at the centers of the slot punching means.

[Claims 2, 4, 5, 7, and 8 not printed in the Gazette.]

1,257,322. AUTOMOBILE-LOCK. JAMES E. CUNNINGHAM, Worcester, Mass. Filed June 5, 1917. Serial No. 173,031. (Cl. 70—129.)

1. In a device of the character described, the combination of a casing, a bolt carried thereby for engaging a steering wheel and locking it in position, means for locking said bolt in position, said casing having a slot therethrough, a handle extending through said slot for operating the bolt, said casing having a pair of semi-circular supporting members adapted to fit against the steering column, a pair of semi-circular members adapted to register therewith, bolts for securing said members together to clamp the casing around the column, two members for preventing the displacement of the last named bolts, and means separate from the bolt for holding said members in position.

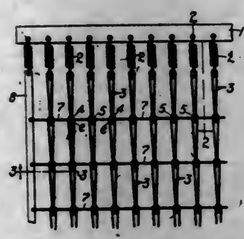
2. In a device of the character described, the combination of a casing, a bolt carried thereby for engaging a steering wheel and locking it, said casing having a pair of supporting members adapted to fit against the steering column, a pair of members adapted to register therewith, bolts for securing said members together to clamp the casing around the column, and a pair of pivotally connected casings for engaging and preventing the displacement of the last named bolts.



3. In an automobile lock, the combination of a lock casing, a bolt therein for engaging a steering wheel and locking it in position, said casing having a pair of semi-circular supporting members adapted to fit against the steering column, a pair of semi-circular members adapted to register therewith, bolts for securing said members together to clamp the casing to the column, a pair of metal casings adapted to engage the outer ends of said bolts, and means for locking said casings in position to prevent displacement of the bolts.

[Claims 4 to 6 not printed in the Gazette.]

1,257,323. LINK FABRIC. JOSEPH F. DAILY, St. Louis, Mo. Filed Oct. 29, 1917. Serial No. 199,058. (Cl. 245—5.)



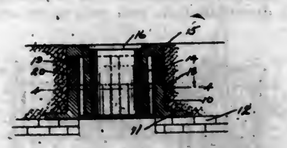
1. In a fabric of the character described, a link unit comprising two wire links in juxtaposed relation and terminating at one end in hook formations disposed in a given plane, the opposite ends of the links terminating in superposed hooks turned in opposite directions and crossing one another to form a closed eye, said eye being disposed in a plane transverse to the plane of disposition of the hooks at the opposite end of the unit.

6. In a fabric of the character described, a plurality of series of longitudinal and transverse link members jointed to one another, each joint being formed by a convergence of four independent longitudinal links disposed in pairs and two single transverse links, as set forth.

[Claims 2 to 5 not printed in the Gazette.]

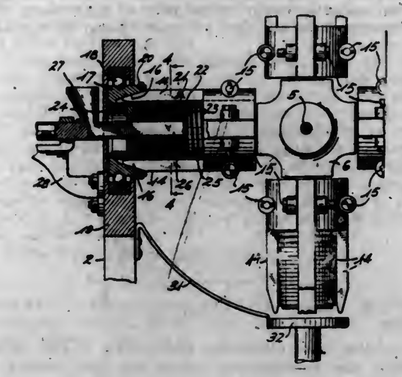
1,257,324. MANHOLE-FRAME. HARRY T. DANIELS, Providence, R. I. Filed Sept. 15, 1917. Serial No. 191,521. (Cl. 94—7.)

A manhole frame comprising a main member having longitudinally-disposed grooves formed on its inner circumference, a relatively adjustable member having a body portion with longitudinally-disposed ribs on its outer surface adapted to slide in the grooves in said main member, an annular flange about the upper edge of said adjustable member, and one or more readily removable spacing plain



rings about said ribs and interposed between said flange and main member, the outer diameter of said rings being substantially equal to that of said flange.

1,257,325. CENTRIFUGAL CASTING-MACHINE. DIMITRI SENSAUD DE LAVAUD, São Paulo, Brazil, assignor to Flockhart Ring Casting Co., Newark, N. J., a Corporation of New Jersey. Filed Mar. 9, 1917. Serial No. 153,658. (Cl. 22—65.)



1. A machine for casting by centrifugal force hollow articles having eccentric inner and outer surfaces, comprising a mold for the outer surface, and means for revolving said mold about an axis eccentric to its molding surface.

5. In a centrifugal machine for casting piston rings and like articles, molds for forming the outer surface and one end surface of a ring, and a chuck adapted to hold a series of said molds arranged so that the reverse sides of a mold serves to form the other end surface of the ring cast in the next adjacent mold.

8. In a centrifugal casting machine, the combination comprising a frame, a hub rotatably mounted thereon, a series of molds rotatably carried by said hub, means for rotating a mold, and means for operating the hub to bring the molds successively into position to be actuated by said rotating means.

9. In a centrifugal casting machine, the combination comprising a frame, a hub rotatably mounted thereon, a series of chucks rotatably carried by said hub, molds adapted to be carried and revolved by said chucks, a driven revoluble clutch, means for rotating said hub to bring said chucks successively opposite said clutch, and means for bringing said clutch and opposed chuck into operative relationship.

12. In a centrifugal casting machine, the combination comprising a frame, a hub rotatably mounted thereon, a series of chucks rotatably carried by said hub, molds adapted to be carried and revolved by said chucks, a driven revoluble clutch, means for rotating said hub to bring said chucks successively opposite said clutch, means for bringing said clutch and opposed chuck into operative relationship, and a table disposed to receive the molds and castings from one chuck as a following chuck is brought opposite the clutch.

[Claims 2 to 4, 6, 7, 10, 11, and 13 not printed in the Gazette.]

1,257,326. TOBACCO-PIPE. LEOPOLD DEMUTH, New York, N. Y. Filed July 30, 1917. Serial No. 183,498. (Cl. 131—12.)

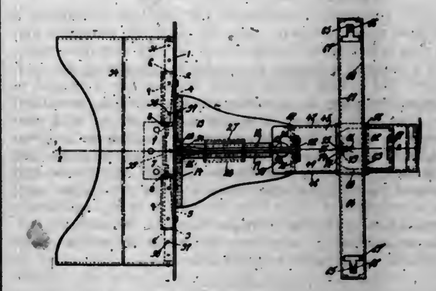


1. A tobacco pipe comprising a bowl having a stem with a partly threaded socket, a detachable mouth piece, a nipple removably carried by the mouth piece, said nipple including a partly threaded portion at its front end for insertion into the partly threaded socket in the stem.

4. A tobacco pipe comprising a bowl having a stem with a socket threaded a portion of its depth at the bottom, a detachable mouth piece provided with a finely threaded socket, a nipple having corresponding threads to engage the latter socket, said nipple having a portion of its length beginning at its front end coarsely threaded to engage the socket in the stem.

[Claims 2 and 3 not printed in the Gazette.]

1,257,327. STEREOSCOPE. JAMES LAMBERT DISNEY, Philadelphia, Pa. Filed Dec. 27, 1916. Serial No. 139,169. (Cl. 88—29.)



1. A stereoscope including a lens plate, a hood of flexible material secured to said lens plate and having free end portions, said hood being designed to be bent around the lenses in said plate, and means for detachably connecting said end portions to the plate, substantially as described.

7. A stereoscope including a lens plate, a base plate movably connected thereto so as to fold upon said lens plate, other plates designed to be folded between the base plate and the lens plate when the latter are in their folded positions, said other plates having means for holding them in position to form a brace between the lens plate and the base plate, and a pin and hole connection for said plates to act as a reinforcement to prevent accidental movement between said lens plate and base plate, substantially as described.

8. A stereoscope including a lens plate, a base plate connected thereto, a rail having a notch extending inwardly from one end, said end being adapted to lap said base plate, clamping means on said base plate and having a portion extending through the notch in the rail, said clamping means being operative to move and hold the plate and rail together, a carriage slidable on the rail, and a picture holder movable by the carriage, substantially as described.

12. A stereoscope including a movable picture holder and a septum movably mounted on said holder and operative to be moved into an inoperative position completely out of line of vision, substantially as described.

15. A stereoscope including a picture holder, a member pivotally connected to said picture holder, said holder having a recess into which said member fits when in an operative position, and a spring for holding said member within said recess, substantially as described.

[Claims 2 to 6, 9 to 11, 13, 14, and 16 not printed in the Gazette.]

1,257,328. STOPPER. WILLIAM J. DONNELLEY, San Francisco, Cal. Filed Aug. 22, 1916. Serial No. 116,386. (Cl. 215—1.)



2. A stopper for containers and the like comprising a suitable frame pivotally mounted upon the container and having inwardly extending struck up lugs and slots therein; a stopper arranged to engage the mouth of the container and having diametrically opposed lugs arranged to engage the slots in the frame and a third lug arranged to aline said stopper with the mouth of the said container; a threaded stem secured to the stopper and extending beyond the end of the frame; and a thumb nut rotatably mounted between the lugs of the frame and screwed upon the threaded stem whereby the stopper may be moved onto or away from the mouth of the container; the said frame being arranged to move the entire structure in front of or away from the mouth of the container.

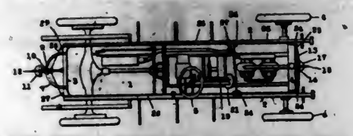
[Claim 1 not printed in the Gazette.]

1,257,329. ORE-CONCENTRATION PROCESS. BENJAMIN H. DOSENBACH, Butte, Mont. Filed Nov. 16, 1917. Serial No. 202,267. (Cl. 83—85.)

An ore concentration process comprising the operations of forming a mixture of air with a modifying agent in the form of a fog, introducing said mixture through a fine texture porous medium into an ore pulp, forming bubbles to which certain mineral particles in the ore adhere as said bubbles rise through the pulp, causing said mineral bearing bubbles to form a column of bubbles above the pulp and separating the mineral carried by the bubbles from the remainder of the ore.

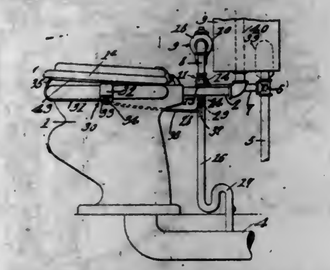
1,257,330. SIGNAL DEVICE FOR VEHICLES. GOTTFRIED DRIES, Newark, N. J. Filed Feb. 3, 1914. Serial No. 816,148. (Cl. 116—31.7.)

A signal device for vehicles, comprising in combination with the body of a vehicle, signals at the front and rear of said vehicle body adapted to be operated simultaneously in the same direction and indicates thereby an intended change of direction of movement of the vehicle, a lever adjacent the steering wheel of the vehicle extending below the floor with an arm under the floor normally lengthwise of the vehicle, said lever adapted to be manually turned to swing said arm, a positioning rod adjacent said lever longitudinally thereof whereby the lever may be positively held in certain positions to which it is turned, and pairs of flexible members attached to and extending laterally in opposite directions from said arm to the sides of the



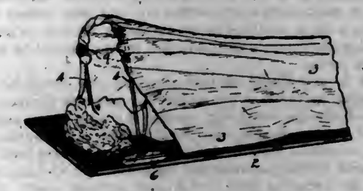
vehicle body, the members of each pair extending one forwardly and one rearwardly at the side of the vehicle body to the front and back ends thereof and connected thereat to the said signals, whereby said members will pull the signals toward the sides of the vehicle when the arm is swung by turning the lever.

1,257,331. CLOSET ATTACHMENT. EDWARD E. DUFF, Seattle, Wash., assignor of one-half to Fred T. Ingersoll, Seattle, Wash. Filed Dec. 8, 1914, Serial No. 876,113. Renewed July 16, 1917. Serial No. 180,940. (Cl. 4—18.)



A water closet attachment embodying a pair of curved spring clips to detachably engage the side portions of the rim of a bowl, said clips each extending through an arc greater than 180° so as to embrace and remain in place upon the bowl rim, and a bail-shaped arm adapted to extend around the front of the bowl and having its ends pivoted to the outer portions of said clips, the intermediate portion of said arm having an upwardly projecting member adapted to be depressed by the seat of the bowl, and one end of said arm being extended for operating a valve.

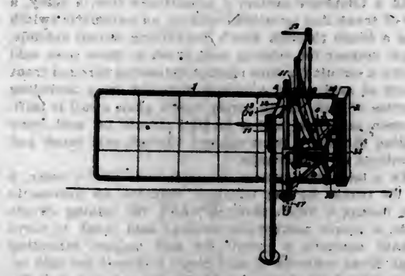
1,257,332. ANESTHETIC-FRAME. ELFRIEDA VICTORIA ERLANDSON, Galesburg, Ill. Filed Aug. 24, 1917. Serial No. 188,028. (Cl. 5—41.)



1. A device of the character described, comprising an arch, and sheet-clasping elements rotatorily connected therewith.

2. A deivce of the character described, comprising an arch, feet removably connected with the standards thereof, means whereby the feet may be locked in predetermined positions relative to said standards, and sheet-clasping means engaging the arch.

1,257,333. GATE. THOMAS LEVI FAWICK, Waterloo, Iowa. Filed Jan. 21, 1916. Serial No. 73,289. (Cl. 30—44.)

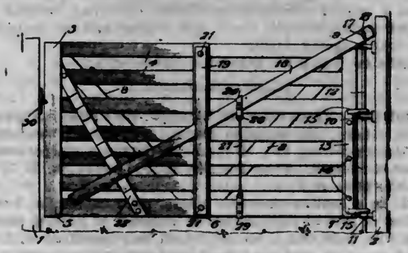


1. The combination with supporting-means, of a gate, a rock-shaft mounted in said supporting-means and having a crank, a link having one end pivoted to one end of said crank, and having its other end pivoted to the rear lower angle of the gate, the rear end of the gate being tiltably mounted on said supporting-means, and a coiled spring connected between the rear end of the gate and the lower part of said link.

3. The combination with spaced posts, of a gate located transversely between them, alined rock-shafts mounted on said posts and having cranks on each end, a pair of like links pivoted to the rear lower corner of said gate, and having their other ends pivoted on the inner cranks of said rock-shafts, a coiled spring connected between said links and the rear end of the gate, a coiled spring connected between the gate and a fixed support, stops for said links to limit movement of the gate in one direction, and a counter-balance weight mounted on the rear end of the gate.

[Claim 2 not printed in the Gazette.]

1,257,334. LIFTING AND SWINGING GATE. EDWARD FELTMAN, Ottawa, Ohio. Filed July 17, 1916. Serial No. 109,674. (39—14.)



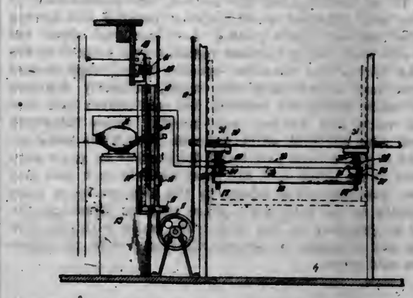
The combination with a gate post having a vertically disposed spaced bar extending parallel therewith, a gate slidably and swingably mounted on said bar, a lever extending diagonally across gate, one end of said lever being pivotally mounted on the upper end of the vertical bar, a guiding bracket for said lever mounted on the gate and rigidly secured thereto, a strap member carried by the lever intermediate its ends, the free ends of said strap being straight, a second strap carried by the lower edge of the gate, a link member, hook portions formed on the ends of said link, one hook adapted to be received between the straight ends of the first mentioned strap and the opposite hook being adapted to be retained in the second mentioned strap, and means on said gate for retaining the lever in various adjusted positions.

1,257,335. CAR-SEAT CUSHION. ALBERT H. FLINT, New York, N. Y., assignor, by mesne assignments, to The Walker Company, Wilmington, Del., a Corporation of Delaware. Filed May 13, 1915. Serial No. 27,736. (Cl. 155—25.)



In a car seat, a base plate comprising a single integral sheet of metal having lateral projections on all sides, each of said projections being shaped to provide a downwardly directed channel along said side adapted to contain a material to receive tacks, portions of the body of said plate being cut away and turned up to provide alternate reinforcing channel members and openings.

1,257,336. SAFETY DEVICE FOR ELEVATORS. ALEXANDRE GAGNON, Biddeford, Me. Filed Nov. 8, 1916. Serial No. 130,209. (Cl. 187—41.)



1. In a safety device for elevators, the combination with a cable for controlling the movement of a car, of a motor, a bar adapted to be moved by said motor when the latter is energized, a connection between said bar and cable, means for closing a circuit through said motor, and a switch in said circuit beyond and in the path of travel of said bar.

4. In a device of the class described, the combination with a motor, of a U-frame pivoted at the extremities of its arms and capable of swinging upwardly and downwardly, pins projecting through said arms, studs projecting through said pins, contact members resting upon said studs, springs for forcing said contact members in engagement with said studs, contacts carried by said arms and being adapted to engage said pin contacts when said frame is raised, and the said pin contacts and frame contacts being included in a circuit with said motor.

[Claims 2 and 3 not printed in the Gazette.]

1,257,337. INTERLOCKING TILE-SECTION. CARL GARVIN, Dayton, Iowa. Filed Feb. 21, 1917. Serial No. 150,225. (Cl. 72—51.)

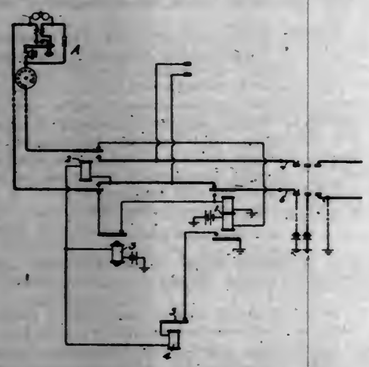
1. An interlocking tile section comprising a convexed and a concaved wall, interlocking side walls joining the marginal edges of the convexed and concaved walls, steps formed in the interlocking side walls, truss walls interposed between the convexed and concaved walls, the said truss walls being arranged in pairs having their meeting edges connected to the said side walls, the truss walls in each pair being disposed at an angle to each other, and having their meeting edges joined to the side walls in proximity to the said steps, and brace tongues formed at the point of juncture of the said truss walls with the side walls.

2. An interlocking tile section comprising a convexed and a concaved wall, interlocking side walls joining the marginal edges of the convexed and concaved walls, steps formed in the interlocking side walls, truss walls interposed between the convexed and concaved walls, the said truss walls being arranged in pairs having their meeting edges connected to the said side walls, the truss walls in each pair being disposed at an angle to each other, and having their meeting edges joined to the side walls in proximity to the said steps, brace tongues formed at the point of juncture of the said truss walls with the side walls, the said brace tongues being of wedge shaped formation in cross section and disposed in central alinement with the plane of the said steps.



3. In an interlocking tile section, the combination of convex and concaved walls disposed parallel and having interlocking side walls joining their marginal edges, the said side walls being disposed radially with respect to the curved convex and concaved parallel walls, steps formed in the said interlocking side walls, obliquely disposed truss walls interposed between the said convex and concaved walls and having their meeting edges integrally formed with the said walls, the said truss walls being arranged in pairs, each pair being disposed at an angle with respect to the other pair, the truss walls in each pair also having meeting edges joined to the side walls in close proximity to the said steps, brace tongues formed at the point of juncture of the said truss walls with the side walls, and disposed in central alinement with the plane of the said steps.

1,257,338. LINE-SWITCH. CHARLES L. GOODRUM, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Jan. 20, 1916. Serial No. 73,216. (Cl. 179—18.)



1. In a telephone system a subscriber's line, a relay, a group of trunk line terminal contacts, an automatic switch having a brush through which the talking circuit extends, a power magnet for causing said brush to move over said contacts, a circuit for said magnet extending through front contacts of said relay, means for operating said relay when a call is initiated upon said line to close the circuit for said magnet, a circuit through said brush for maintaining said relay energized while said brush is in engagement with contacts of busy trunks, and means for deënergizing said relay to open said magnet circuit when said brush engages the contact of an idle trunk.

2. In a telephone system a subscriber's line, a relay, a group of trunk line terminal contacts, an automatic switch having a brush through which the talking circuit extends, a power magnet for causing said brush to move over said contacts, a circuit for said magnet extending through front contacts of said relay, a circuit for said relay including both sides of said line in series closed when a call is initiated upon said line, and a locking circuit for said relay extending through a front contact thereof, said brush and the contacts of busy trunks.

3. In a telephone system, a subscriber's line, a relay, a group of trunks having terminal contacts, an automatic switch having a brush through which the talking circuit extends, a power magnet for causing said brush to move over said contacts, a circuit for said magnet extending through front contacts of said relay, a circuit for said relay including both sides of said line in series, means for closing said last circuit when a call in initiated upon said line to operate said relay, a locking circuit for said relay extending through a contact thereof, said brush and the terminal contacts of busy trunks and means for deënergizing said relay to open said magnet circuit when said brush engages the contact of an idle trunk.

4. In a telephone system an incoming line comprising a pair of talking conductors, a switch having a pair of brushes in which said conductors terminate, a group of trunk lines having terminal contacts, a power magnet for operating said switch to move said brushes over said contacts, a relay, a circuit for said magnet extending through contacts of said relay, means for operating said relay when a call is initiated on said incoming line to close the circuit of said magnet and means responsive to the engagement of one of said brushes with the contact of an idle trunk for causing a reverse operation of said relay to open said magnet circuit.

5. In a telephone system an incoming line including a pair of talking conductors, a switch having a pair of brushes at which said conductors terminate, a group of terminal contacts for outgoing lines, a magnet for controlling the operation of said switch to move said brushes over said contacts, a relay, a circuit for said magnet extending through front contacts of said relay, a circuit for said relay including both sides of said incoming line in series closed upon the initiation of a call upon said line and a locking circuit for said relay extending through a front contact thereof, one of said brushes and the contacts of busy outgoing circuits.

[Claims 6 to 9 not printed in the Gazette.]

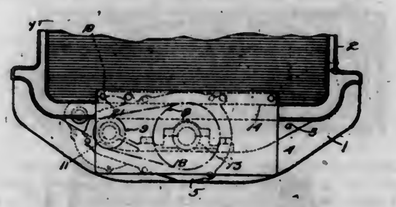
1,257,339. FLEXIBLE ELECTRIC HEATER. ALBERT E. GRAPP, Minneapolis, Minn., assignor to Despatch Manufacturing Co., Minneapolis, Minn., a Corporation of Minnesota. Filed Dec. 20, 1915. Serial No. 67,779. (Cl. 219—46.)

1. In a flexible electrical heater, the combination with a flexible tube of noncombustible material, of a coiled heating wire bent into a tortuous form and contained within said tube, an elongated head of insulating material inserted into one end of said tube, a clamping collar surrounding the same end of said tube and provided with means for clamping the same onto said head, and circuit connections applied to said head and thereby insulated from each other, the ends of said heating wire being attached, one to each of said contacts.

2. In a flexible electrical heater, the combination with a flexible tube of noncombustible material, of a coiled heating wire bent into zigzag parallel form and contained within said tube, the said tube being stitched between the parallel portions of said coiled wire to form compartments therefor, an elongated rigid head of insulating material inserted into the end of said tube, a clamping collar surrounding the same end of said tube and provided with means for clamping the same onto said head, and circuit contacts applied to the said head and thereby insulated from each other, the ends of said coiled wire being attached, one to each of said contacts, the other end of said tube being turned inward upon itself and stitched together forming a relatively cool electrically insulated portion beyond said heating coil.



1,257,340. AUTOMOBILE CONSTRUCTION. WILLIAM GRAY, Brookline, Mass., assignor to Gray & Davis Inc., Cambridge, Mass. Filed Aug. 11, 1915. Serial No. 44,998. (Cl. 180—1.)



1. In apparatus of the character described in combination, an internal combustion engine having a crank shaft, means opposite the end of said crank shaft adapted to receive a crank, and means comprising a pivotally movable number plate adapted normally to bear against and close said first means.

5. In apparatus of the character described, in combination, a transmission part casing located in a plane forward of the radiator of an automobile, and a number plate secured in position to obscure said casing.

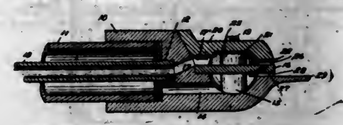
8. In apparatus of the character described, in combination, a transmission part casing adapted to be secured to the front cross-piece of an automobile frame and be disposed forwardly of said cross-piece, and means whereby a number plate may be supported forwardly of said casing in position to substantially obscure said casing.

12. In apparatus of the character described, in combination, a transmission part casing adapted to be attached to and project forwardly of a front cross-piece of an automobile frame, means comprised by said casing for receiving a hand crank, and means whereby a number plate may be attached to said casing to substantially obscure the latter.

18. In apparatus of the character described, in combination, an engine having a crank shaft, a socket member for the reception of a hand crank, and means, comprising a member in fixed relation with said engine, for supporting a number plate in position to bear against and close said socket, said means having provision for pivotal movement of said number plate thereon in a direction substantially at a right angle to the direction of introduction of said hand crank to said socket.

[Claims 2 to 4, 6, 7, 9 to 11, and 13 to 17 not printed in the Gazette.]

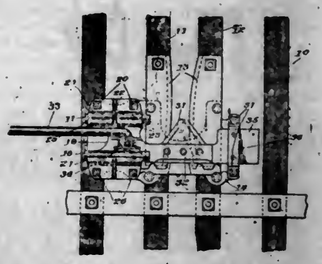
1,257,341. OIL-BURNER. JOHN GREENE, Burbank, Cal. Filed Feb. 12, 1917. Serial No. 148,172. (Cl. 158—75.)



5. An oil burner comprising a body having a main bore extending from one end and a counterbore concentric with the main bore and having a chamber communicating with the main bore, a partition wall mounted horizontally to cover the chamber and leaving a horizontal outlet slot below the partition wall; there being inclined nozzle openings leading upwardly and outwardly from the chamber; a top plate fitting the body and forming an upper chamber above the partition wall and communicating with the counterbore and leaving an upper horizontal outlet slot; said nozzles discharging into said slot; and a wear plate inserted upwardly into the chamber of the top plate and extending outwardly and forming the upper face of the upper slot.

[Claims 1 to 4 not printed in the Gazette.]

1,257,342. CUTTING MECHANISM. CLINTON A. HAGADONE, Western Springs, Ill., assignor to International Harvester Company of New Jersey, a Corporation of New Jersey. Filed July 12, 1916. Serial No. 108,941. (Cl. 56—130.)



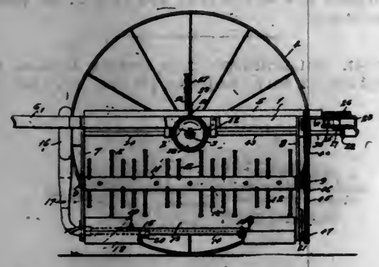
1. In a cutting mechanism, the combination of a stationary knife, a movable knife coöperating therewith, a head to which said movable knife is connected having a plurality of bearing portions, one of said bearing portions extending downwardly and inwardly with respect to the longitudinal axis of said head.

2. In a cutting mechanism, a stationary knife, a knife head, and a reciprocating knife carried by said head, said knife head having a rearwardly and downwardly inclined bearing surface on its front portion.

9. In a cutting mechanism, the combination of a stationary knife, a movable knife coöperating therewith, and a head to which said movable knife is secured, said head having inclined bearing surfaces, the angles of inclination of said surfaces being confined within the limits of a 90° angle formed by horizontal and vertical planes extending respectively forwardly and upwardly from the lines of intersection of said inclined surfaces with a horizontal plane.

[Claims 3 to 8 not printed in the Gazette.]

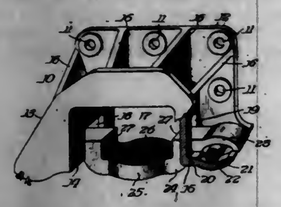
1,257,343. BOLL-WEEVIL EXTERMINATOR. WILLIAM E. HARPER, Center City, Tex. Filed Jan. 10, 1917. Serial No. 141,520. (Cl. 43—1.)



2. In a machine of the character described, a wheel supported frame, a horizontal platform on one side of the longitudinal center of the frame, an air blast pipe on the other side of said center, a revolving agitator disposed above the pipe and a revolving agitator disposed above the bottom, a guard extending down from one side of the frame to the blast pipe to intercept matter dislodged by the agitators and guide the same to the air blast from the pipe, whereby said matter is blown onto the bottom, and a pair of crushing rollers contiguous to the bottom.

[Claim 1 not printed in the Gazette.]

1,257,344. DRAW-BAR-SUPPORTING MEANS. DAVID T. HARRIS and JOHN H. TINKER, Chicago, Ill. Filed July 12, 1917. Serial No. 180,061. (Cl. 213—42.)



1. A carry iron for draft gears, comprising a bar having a body portion provided with inclined ways formed near each end thereof, said body portion adapted to support a draw bar, the draw bar engaging portion thereof lying in a plane below the inclined ways.

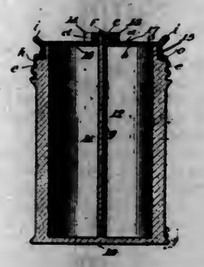
2. A draw bar centering device for railway cars, comprising a carry iron having inclined ways resting on rollers mounted on the car whereby the draw bar is centered, said carry iron having a recess in its upper side for a draw bar and being in a horizontal plane with the rollers.

3. A draw bar centering device for railway cars, comprising a carry iron having inclined ways resting on rollers mounted on the car, whereby the draw bar is centered, said carry iron having an offset portion forming a recess formed therein for a draw bar, the recess being in a horizontal plane with the rollers.

4. A draw bar centering device for railway cars, comprising a carry iron having inclined ways resting on rollers mounted on the car whereby the draw bar is centered, said carry iron having a recess formed therein to so position a draw bar relative to the rollers whereby any lateral movement of the draw bar will exert a force resolved in a horizontal plane.

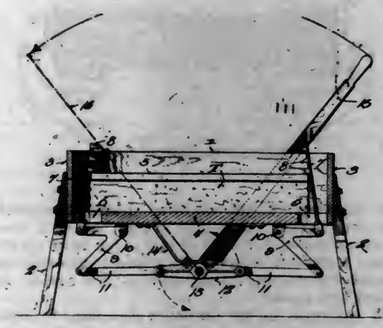
1,257,345. COMBINED SALT AND PEPPER SHAKER. EDWARD E. HARRIS, Tulsa, Okla. Filed Oct. 17, 1916. Serial No. 126,146. (Cl. 65—45.)

In combination with a holding body having a transverse central partition forming opposite compartments therein, an inner cap upon the open end of the body with an upstanding socket secured over the end of the partition and with perforations in the cap registering with each compartment of the body, an outer cap journaled upon the inner cap having a transverse rib with arcuate sides forming flaring end portions, said rib overlying said socket, adapted for permitting relative oscillatory movement of said caps, operating ears upon the outer cap, a ring for securing the inner cap to said body, a pivot pin for the



outer cap centrally secured in the outer end of the partition extending through said socket and rib, the outer cap having slots at its outer edge, the inner cap having upstanding limiting lugs extending through said slots, the open end of the body being reduced forming a shoulder upon which the inner cap is seated and the outer end of the partition projecting beyond the plane of the end of the body.

1,157,346. TOBACCO-PRESS. ALBERT HARTWIG, Deerfield, Wisconsin. Filed Aug. 7, 1917. Serial No. 184,868. (Cl. 100—57.)

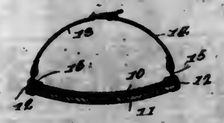


1. In a machine of the class described comprising a body, a pressing head adapted to move in said body, a bell crank carried by the body, an operating lever, a connection between one arm of the bell crank and the lever, and a member pivoted to the other arm of the bell crank adapted for detachable engagement with the pressing head.

2. In a machine of the class described comprising a body, a pressing head adapted to move in said body, a shaft pivoted below said body, a lever fixed on the shaft, a pair of bell cranks disposed one on each side of the shaft and pivoted to the body, a connection between the corresponding arms of said bell cranks and the opposite ends of said lever, a member pivoted to each of the other arms of the bell cranks, said members being adapted for detachable engagement with the pressing head, and means for rotating said shaft.

3. In a machine of the class described comprising a body having an opening in each end of its bottom, a pressing head adapted to move in said body, a shaft pivoted to the bottom of the body mid-way between said openings, a lever fixed on the shaft, a pair of bell cranks disposed one on each side of the shaft and pivoted to the bottom of the body, a linked connection joining the corresponding arms of the bell cranks and opposite ends of said lever, the other arms of the bell cranks being adjacent said openings, a pair of rods, one being pivoted to each of the last mentioned arms of the bell cranks and adapted to extend through said openings, a series of hooks formed on the free ends of said rods for adjustable detachable engagement with said pressing head, and an operating handle fixed to the shaft for rotating the same.

1,257,347. BLOTTER. HARRY HUGO, Detroit, Mich. Filed Nov. 2, 1916. Serial No. 129,182. (Cl. 120—25.)



A device of the character described comprising a body, separate side strips of resilient material extending along said body and provided with inwardly extending flanges extending beneath the lower face of the body in spaced relation thereto, tongues extending from the side strips and secured to said body to connect the side strips with the body and permit the strips to be sprung outwardly to engage a sheet of blotting material and hold the sheets against the body, and means connected with the body for connecting the body with the wrist of the user.

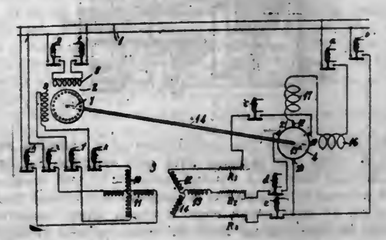
1,257,348. INTERCHANGEABLE MECHANICAL-SIGN UNIT. HERMAN S. HELLER, San Francisco, Cal. Filed Apr. 19, 1916. Serial No. 93,340. (Cl. 40—89.)



1. An interchangeable mechanical sign unit comprising a suitable housing having a display window in the front end thereof; a pair of reels rotatably mounted within the housing; a translucent tape having various characters thereon and the ends thereof wound upon the reels and arranged to pass the display window and to display only one character on the said tape at one time; a dial having characters thereon similar to and corresponding with the characters on the tape, said dial being rotatably mounted upon the rear end of the housing and operatively connected to one of the reels whereby the tape may be moved and any one of the characters thereon displayed at the display window; means adapted to indicate on the dial the character displayed; means operatively connected to the dial and adapted to normally prevent a return movement thereof; a spring controlled drum operatively connected to the other reel and adapted to normally rewind the tape thereon; means adapted to illuminate the displayed character; and means operatively connected to the illuminating means and adapted to contact with similar means secured to an adjacent sign unit on each side thereof.

2. An interchangeable mechanical sign unit comprising a suitable housing having a display window in the front end thereof; a pair of reels rotatably mounted within the housing; a translucent tape having various characters thereon and the ends thereof wound upon the reels and arranged to pass the display window to display one character only at one time; a dial having characters thereon similar to and corresponding with the characters of the tape, said dial being rotatably mounted upon the rear end of the housing and operatively connected to one of the reels to move the tape; a pawl to indicate the character displayed and to normally prevent a return movement of said tape; a spring controlled drum operatively connected to the other reel to normally rewind the tape thereon; means for illuminating the displayed character; and means operatively connected to the illuminating means and adapted to contact with similar means secured to an adjacent similar unit on each side thereof.

1,257,349. CONTROL SYSTEM. RUDOLF E. HELLMUND, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Jan. 6, 1915. Serial No. 794. (Cl. 172—238.)



1. The combination with a source of energy, a phase converter, and an induction motor connected to receive energy through said phase converter and having a phase-wound secondary winding, of an auxiliary dynamo-electric machine mechanically associated with said phase converter for starting said converter, and means for electrically connecting said machine to the phase-wound secondary of said induction motor.

2. The combination with a source of energy, a phase converter, and an induction motor connected to receive energy through said phase converter and having a phase-wound secondary winding, of a dimorphous dynamo-electric machine capable of operation either as a single-phase commutator motor or as a polyphase phase-advancer, means for connecting said machine as a motor for starting said phase converter and alternative means for electrically connecting said machine to the phase-wound secondary member of said induction motor as a phase-advancer for power-factor regulation.

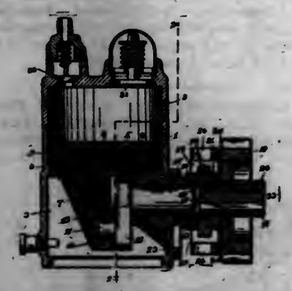
5. In a control system, the combination with a source of energy, a phase converter connected thereto, and a polyphase induction driving motor connected to receive energy from said phase converter and having a wound secondary member, of an auxiliary dynamo-electric machine mechanically associated with said phase converter and comprising an armature, a commutator and field-magnet windings, and means for connecting said machine to said source to operate as a single-phase motor for starting said phase converter and for subsequently disconnecting said machine from said source and connecting its armature only to the wound secondary member of said driving motor to supply polyphase energy thereto for regulating the power factor of said motor.

9. The combination with a source of energy, phase-converting means connected thereto, and a polyphase dynamo-electric machine receiving energy therefrom, of auxiliary means initially adapted to mechanically drive said phase-converting means and subsequently adapted to directly influence predetermined electrical characteristics of said polyphase machine.

12. The combination with a source of energy, phase-converting means connected thereto, and a polyphase dynamo-electric machine receiving energy therefrom, and from said source, of means for starting said phase-converter and for regulating the power-factor for said polyphase machine comprising an auxiliary dynamo-electric machine adapted to drive said phase-converter and to electrically regulate said polyphase machine during starting and full-speed conditions of said phase-converting means respectively.

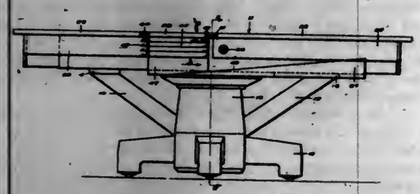
[Claims 3, 4, 6 to 8, 10, and 11 not printed in the Gazette.]

1,257,350. AIR-PUMP. CHESTER A. HERLE, Rochester, N. Y. Filed Aug. 28, 1916. Serial No. 117,284. (Cl. 230—27.)



In an air pump the combination of a cylinder, an enlarged crank case integral with said cylinder and having an opening therein, a bearing fastened to said crank case, said bearing being adapted to project eccentrically into the opening of said crank case, a crank shaft mounted to rotate in said bearing with the crank thereof rotating in said crank case, a piston mounted to reciprocate in said cylinder, said piston comprising a shallow cup having a pair of segmental bearing plates on the periphery thereof, said bearing plates forming a crosshead for said piston, a series of radial webs on the inside of said cup, said webs being adapted to support a horizontal channel on the end of said piston, said crank being adapted to engage said channel and reciprocate said piston.

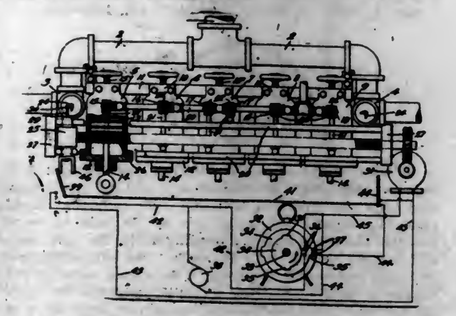
1,257,351. EXTENSION-TABLE. LAWRENCE C. HIBBARD, Los Angeles, Cal. Filed May 21, 1917. Serial No. 170,010. (Cl. 45—112.)



1. An extension table comprising a pedestal, a rectangular supporting shelf fixed to the pedestal, side rails fixed to extend upwardly from the supporting shelf and having dove-tail grooves upon their opposite sides, a table top portion having slide rails provided with dove-tails fitting in the outer dove-tail grooves, a second table top having slide rails provided with dove-tails fitting in the inner dove-tail grooves so as to slidably mount the table top portions to move to and from each other upon the pedestal, an actuating shaft mounted transversely of one table top portion, spur gears fixed upon the shaft, gear racks fixed upon the upper faces of the fixed rail members and in mesh with the spur gears, equalizing gears mounted upon vertical spindles extending upwardly from the fixed rail members, and gear racks secured to the inner faces of the sliding rail members and meshing with the equalizing gears; so that by manipulating the actuating shaft the table tops will be moved simultaneously to and from each other.

2. In an extension table, two table tops mounted to move to and from each other, a leaf mounted between the two table tops, resilient clips secured to the leaf and extending under the edge of one of the table tops, pins extending upwardly from the free ends of the clips and adapted to seat in pockets formed on the under face of the table top, a plurality of leaves mounted one upon the other below the first leaf and each provided with clips and pins extending from one edge and pockets at the other edge, inclined planes fixed to the table frame, and inclined carriage blocks movably mounted upon said inclined planes; the lower one of said extension leaves being secured to said blocks; so that as the table tops are pulled apart the leaves will successively become locked with one table top and interlocked with each other and assume their positions in the table top.

1,257,352. AUTOMATIC REVERSER. JOHN HORN, Kansas City, Mo. Filed May 25, 1917. Serial No. 170,910. (Cl. 137—145.)

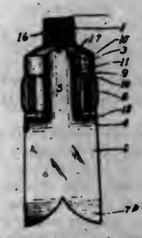


1. An automatic reverser, comprising a series of cylinders, pistons in the cylinders, a fluid pressure supply conduit communicating with the cylinders, valves in the conduit for controlling the fluid pressure supply, a traveler mounted for reciprocation before the cylinders, a tappet on the traveler for successively operating the valves, mechanism for reciprocating the traveler, and means controlled by the traveler for operating the reciprocating mechanism.

2. An automatic reverser, comprising a series of cylinders, pistons in the cylinders, a fluid pressure supply conduit communicating with the cylinders, valves in the conduit for controlling the fluid pressure supply, a traveler reciprocable before the cylinders, a tappet on the traveler for successively operating the valves, means for reciprocating the traveler, a member depending from the traveler, and means controlled by the depending member for operating the reciprocating means.

3. An automatic reverser, comprising a series of cylinders, pistons in the cylinders, a fluid pressure supply conduit communicating with the cylinders, valves in the conduit for controlling the fluid pressure supply, a screw actuated traveler reciprocable past the valves, a tappet on the traveler for successively operating the valves, and means controlled by the traveler for operating the screw.

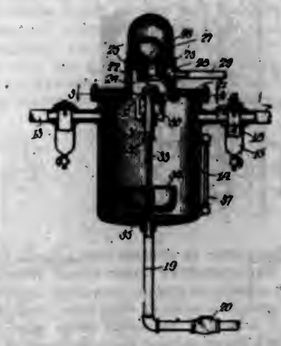
1,257,353. ROTARY BORING-DRILL. HOWARD R. HUGHES, Houston, Tex. Filed Aug. 6, 1917. Serial No. 184,606. (Cl. 255—73.)



8. In a fish-tail bit, a shank, a blade thereon, reaming rollers mounted rotatably in the opposite edges of said blade for the purposes set forth.

[Claims 1 to 7 not printed in the Gazette.]

1,257,354. VACUUM VAPOR-HEATING SYSTEM. HENRY J. HUNT, Chicago, Ill., assignor to Sol I. Shane, Chicago, Ill. Filed Apr. 18, 1917. Serial No. 163,033. (Cl. 137—103.)



A steam trap for heating systems including a sealed vessel having a discharge port for air and vapor, a valve-seat bordering said port, a check-valve coöperating with said seat to normally maintain said port closed against the admission of air or vapor, a second seat surrounding said valve-seat, an inverted transparent cup removably mounted on said second seat, there being an open space between said seats adapted to be connected with means for maintaining a partial vacuum in said cup, a second valve seat at said discharge port, a normally open valve adapted to seat thereon, a float operatively associated with said valve for automatically closing the same as water accumulates in said vessel to a predetermined level, an inlet port for air, water and vapor to said vessel below the discharge port, and an outlet for water in the lower end thereof.

1,257,355. COMPOSITION OF MATTER FOR SOFTENING LEATHER. KENNETH H. HUNTER, Great Bend, Pa. Filed June 3, 1914. Serial No. 842,763. (Cl. 149—6.)

1. As a new composition of matter for softening leather, the same comprising a liquid mixture of raw moellon oil, wool grease, and water containing soap and soda in solution therein, the several substances being heated separately and then mixed thoroughly by agitation until cooled.

2. As a new composition of matter for softening leather a mixture comprising raw or first press moellon oil 74 parts, vacuum oil 25 parts, wool grease 15 parts, and 30 parts of an aqueous solution having 7 pounds of soap and 7 pounds of soda to each 150 gallons of water.

1,257,356. ALUMINOUS COMPOSITION AND METHOD OF PREPARING THE SAME. OTIS HUTCHINS, Niagara Falls, N. Y., assignor to The Carborundum Company, Niagara Falls, N. Y., a Corporation of Pennsylvania. Filed Nov. 14, 1917. Serial No. 202,074. (Cl. 204—64.)

1. A crystalline aluminous product containing barium oxid.

3. An aluminous abrasive consisting of alumina crystals held together by a matrix containing oxids of silicon, iron, titanium and barium.

5. The method of making an aluminous abrasive which consists in fusing in an electric furnace a mixture of bauxite containing barium oxid, and carbon, the carbon being present in sufficient quantity to reduce the major portion of the iron, silicon and titanium oxids.

6. The method of making an aluminous abrasive which consists in fusing in an electric furnace a mixture consisting of an aluminous material, barium oxid or a barium compound which upon calcination yields barium oxid, and carbon, the carbon being present in sufficient quantity to reduce the major portion of the silica, iron and titanium oxid, but insufficient to reduce the barium oxid.

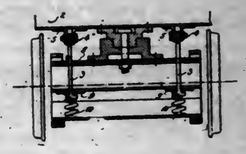
[Claims 2 and 4 not printed in the Gazette.]

1,257,357. INSULATING-FINISH FOR METAL. EARLE S. IRWIN, Grand Rapids, Mich., assignor to Steel Furniture Co., Grand Rapids, Mich. Filed Aug. 30, 1915. Serial No. 48,051. (Cl. 91—68.)

1. A metal article having a finish comprising coatings of oil size, varnish with a layer of wood fiber, glue size with a layer of wood fiber, retained by a coat of glue size, finished with coats of oil finish suitably stippled and coated with varnish and having an irregular surface of the appearance of leather.

2. A metal article having a finish comprising coatings of oil size, varnish with a layer of wood fiber, glue size with a layer of wood fiber, retained by a coat of glue size, finished with coats of oil finish and coated with varnish.

1,257,358. SIDE BEARING FOR RAILWAY-VEHICLES AND THE LIKE. LEENDERT JANSE, Apeldoorn, Netherlands. Filed May 1, 1917. Serial No. 165,687. (Cl. 105—115.)



1. In a vehicle of the type referred to, a car body pivotally supported by a bogie, and depending members articulated to said body at two or more points on opposite sides of the center bearing, the said members passing through openings in the bogie bolster extending in a direction at substantially right angles to the wheel axles of the vehicle, so as to be free to follow the downward movements of that side of the body to which it is articulated, but adapted to engage the bogie on the reverse movement of the body.

2. In a vehicle of the type referred to, a car body pivotally supported by a bogie, and depending members articulated to said body at two or more points on opposite sides of the center bearing, the lower end of the said depending members passing through slots extending in the bogie bolster in a direction at substantially right angles to the wheel axles, and being provided with lateral projections extending substantially parallel with the said wheel axles.

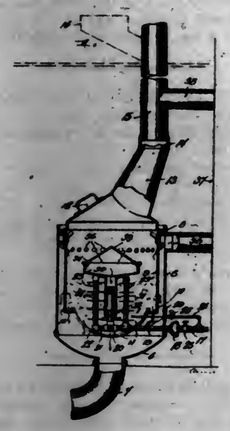
[Claims 3 and 4 not printed in the Gazette.]

1,257,359. GARBAGE-INCINERATOR. NELS C. JOHNSON, Racine, Wis. Filed Nov. 20, 1916. Serial No. 132,321. (Cl. 110—18.)

2. A barbage disposal apparatus comprising an outer casing, a drain for the outer casing, a receptacle disposed in the outer casing, a feed chute communicating with the receptacle, a burner supply pipe extending into the casing, upstanding burner members connected with said pipe, and a covered drain member resting on the upstanding burner members, the latter forming a support therefor, the cover of said drain member being adapted to initially separate the liquid and solid portions of the garbage as the latter strikes the same, the other portion of the drain member directing said liquid toward the bottom of the receptacle.

6. A garbage disposal apparatus comprising a receptacle, a burner supply pipe extending thereinto, upstanding burner members communicating with said pipe, and

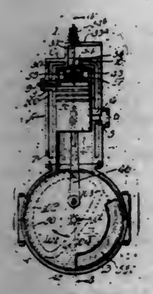
a hollow drain member seated on said burner members, said drain member being provided with a conical forami-



nous cover, said cover being adapted to initially drain the liquid from the garbage as it strikes the same.

[Claims 1 and 3 to 5 not printed in the Gazette.]

1,257,360. INTERNAL-COMBUSTION ENGINE. GEORGE WASHINGTON JONES, Chicago, Ill. Filed Mar. 12, 1915, Serial No. 13,834. Renewed Jan. 18, 1918. Serial No. 212,537. (Cl. 123—66.)

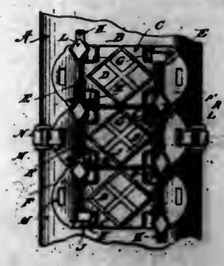


1. In an engine, a cylinder, pistons therein and a crank shaft, a connecting rod connecting one of said pistons, and said crank shaft, there being longitudinal grooves in said cylinder contiguous the bore thereof, rods located in said grooves fixed to the other of said pistons, and means in connection with said crank shaft, adapted to reciprocate said rods.

2. In an engine, a cylinder, pistons therein and a crank shaft, a connecting rod connecting one of said pistons and said crank shaft, there being undercut, longitudinal grooves in said cylinder contiguous the bore thereof, rods located in said grooves, their outer edges being flush with said bore, fixed to the other of said pistons, and means in connection with said crank shaft adapted to reciprocate said rods.

3. In an engine, a cylinder, pistons therein, and a crank shaft, possessed of disk like cheeks, and race way cams located in said cheeks, a connecting rod connecting one of said pistons and said crank shaft, there being longitudinal grooves in said cylinder contiguous the bore thereof, rods located in said grooves, fixed to the other of said pistons, and means on said rods engaging said race ways.

1,257,361. TIRE-PROTECTOR. GUSTAVE KARL, Peoria, Ill. Filed Dec. 28, 1915. Serial No. 69,126. (Cl. 152—16.)



1. In a tire protector, in combination, a series of abutting members whose abutting edges extend transversely of the tire, each member having an outwardly, downwardly and inwardly extending hook at each edge lying parallel to the plane of said tire, the hooks being spaced from one another, each being shorter than the member carrying it, and a series of links lying at each side of said series of members, each link adapted to enter endwise in one of the hooks and including a notch for permitting such engagement, all of said links abutting at their ends in line with the abutting edges of the members and filling the spaces between said hooks, and each said link having a hook at one end engaging the end of an adjacent link.

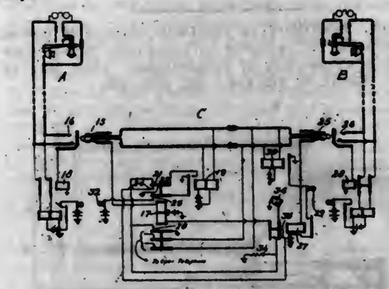
2. A protector for a pneumatic tire, comprising in combination, a series of members lying upon and extending around the tread of the tire in a single line and having abutting edges, their other opposite free edges each having a hook formed integrally therewith, and a series of links lying in a line at each side of the line of the members and engaging the hooks of the said members and adapted to hinge thereon in a line lying parallel to the plane of the tire, an integrally formed broad hook at one end of each link engaging the end of an adjacent link and adapted to have a hinging action relatively in a line extending transversely of the tire, the links having grooves extending parallel to the plane of the tire and also having grooves extending laterally with respect to the same communicating with the open portions of the links, the former to permit the members and links to be interengaged, the latter to permit adjacent links to be interengaged.

3. A protector for a tire, comprising in combination, a series of members having abutting edges, each outer edge of each member having a hook extending outwardly, downwardly and inwardly toward the tire and each hook being less in length than the edge from which it extends and disposed substantially at the middle of the length of said edge, a link at each side of the member engaging the hook of said member and itself having a hook at one end adapted to engage an adjacent link and arranged to have movement relatively thereto in line with the abutting edges of two of the members, each of said links having a laterally disposed groove for admitting the hook of an adjacent link, the links maintaining the abutting relation of the members.

1,257,362. TELEPHONE-EXCHANGE SYSTEM. CHARLES W. KECKLER, Newark, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Apr. 24, 1917. Serial No. 164,171. (Cl. 179—73.)

1. A telephone exchange system comprising telephone lines terminating at a central office, a link circuit thereat connected with one of the lines, a signaling device in the link circuit, a supervisory relay for the link circuit, an interrupter, and a differentially-wound relay in the link circuit when energized cooperating with the supervisory relay when energized to connect the interrupter in circuit with the signaling device.

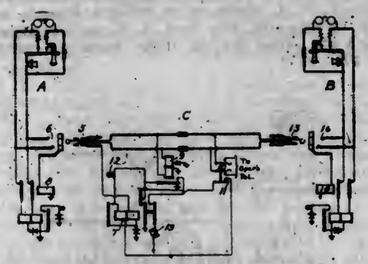
3. A telephone exchange system comprising telephone lines, a link circuit, a relay having an operating winding and a neutralizing winding, a circuit including the operating winding of the relay completed upon connection of the link circuit with one of the telephone lines, a supervisory relay for the link circuit, an operator's telephone set, a circuit including the neutralizing winding completed when the operator's telephone set is connected with the link circuit, a signaling device, interrupter mechanism, and a circuit for the signaling device and the interrupter mechanism including contacts of both relays.



8. A telephone exchange system comprising telephone lines, a link circuit, a primary relay having an operating and a neutralizing winding, a circuit including the operating winding completed upon connection of the link circuit with one of the lines, a supervisory relay for the link circuit, a listening key, a circuit including the neutralizing winding completed upon the actuation of the listening key, a signaling device and interrupter mechanism, and a circuit therefor including contacts of the primary and the supervisory relays completed upon the operation of the primary relay followed by the energization of the supervisory relay.

[Claims 2 and 4 to 7 not printed in the Gazette.]

1,257,363. TELEPHONE-EXCHANGE SYSTEM. CHARLES W. KECKLER, Newark, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Apr. 24, 1917. Serial No. 164,173. (Cl. 179—73.)



1. A telephone exchange system comprising telephone lines terminating in a central office, a link circuit thereat, a relay for the link circuit partially energized upon a connection of the link circuit with one of the lines, a supervisory relay for the link circuit, a signaling device therefor, and interrupter mechanism brought into circuit with the signaling device upon the complete energization of the first mentioned relay and upon the energization of the supervisory relay.

3. A telephone exchange system comprising telephone lines, a link circuit, a supervisory relay for the link circuit, and operator's telephone set, a switching device controlling the connection of the operator's telephone set with the link circuit, a local circuit relay partially energized upon connection of the link circuit with one of the lines and completely energized when the supervisory relay is deenergized, a locking circuit for the local circuit relay including a contact of the switching device completed upon the complete energization thereof, a signaling device, and interrupter mechanism brought into circuit with the signaling device upon the subsequent energization of the supervisory relay while the local circuit relay is completely energized.

7. A telephone exchange system comprising telephone lines, a link circuit, a supervisory relay for the link circuit, a relay partially energized upon connection of the link circuit with one of the lines, a signaling device, interrupter mechanism, and a circuit for the signaling device and the interrupter mechanism established upon the complete energization of the second mentioned relay followed by the energization of the supervisory relay.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,257,364. METHOD OF MAKING SHOES. GUSTAVE KRIEGER and EMIL KRIEGER, Brooklyn, N. Y. Filed Oct. 5, 1916. Serial No. 123,824. (Cl. 12—142.)



1. The method of making a shoe which consists in sewing a welt having a scalloped edge at the toe portion to the rim of an upper in such a manner that said scalloped edge is expanded and extends outwardly to register with the outer edge of the upper, turning said rim inwardly, thereby reversing the welt and causing its scalloped edge to be contracted and to extend inwardly, and attaching an outsole to the reversed welt.

2. The method of making a shoe which consists in securing a welt having a scalloped toe portion and flanges sidewise of said toe portion to the rim of an upper in such a manner that said scalloped toe portion is expanded and extends outwardly to register with the outer edge of the upper, turning said rim inwardly thereby reversing the welt and causing its scalloped toe portion to be contracted and to extend inwardly, and attaching an outsole to the reversed welt.

1,257,365. FOUNTAIN-PEN. BUNTARO KUMAGAI, Winslow, Wash. Filed Aug. 25, 1916. Serial No. 116,816. (Cl. 120—46.)



1. A fountain pen comprising a barrel, a nozzle at one end thereof, a pen nib disposed in said nozzle, a flexible ink-sack connected with said nozzle, a feeder extending through the nozzle from the ink-sack to the pen nib, a presser-bar pivotally mounted in said barrel and adapted to engage said ink-sack, a stem mounted for axial movement in said barrel, said stem having a conical head on one end thereof, the latter being adapted to normally engage the aforesaid presser bar to operate same, and spring means carried by said stem to retain same in a retracted position.

4. In a fountain pen, a flexible ink-sack, a pair of presser bars pivotally connected intermediate their lengths to afford long and short arms for the respective bars, the long arms being disposed at diametrically opposite sides of said ink-sack, and means engageable with said short arms whereby the ink-sack may be compressed through the agency of the long arms.

[Claims 2 and 3 not printed in the Gazette.]

1,257,366. VEHICLE-TIRE. PATRICK LAVELLE, Johnstown, Pa. Filed Sept. 25, 1917. Serial No. 193,076. (Cl. 152—8.)

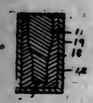
1. The combination with a sectional rim member of trough or channel form, having a plurality of projections

formed with substantially radial faces, of a tire comprising a substantially solid body formed with radial projections on its inner circumference, said projections also having substantial radial faces and fitting the spaces between the rim projections, and a spring member embedded in said body; substantially as described.



2. The combination with a sectional rim member of trough or channel form, having a plurality of projections formed with substantially radial faces, of a tire comprising a substantially solid body formed with radial projections on its inner circumference, said projections also having substantial radial faces and fitting the spaces between the rim projections, the ends of the projections on the tire seating on the rim member between its said projections, said rim projections being shorter than the projections on the tire body; substantially as described.

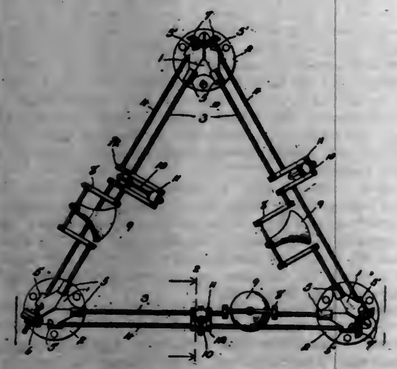
1,257,367. PROCESS OF MAKING GOLD CROWNS. GEORGE HENRY LELAND, Hartford, Conn. Filed Feb. 2, 1917. Serial No. 146,234. (Cl. 76—107.)



1. The process of shaping gold crowns from cup-shaped blanks comprising providing a metal die of elongated form having at one end a crown portion of arbitrary form, forming a mold of soft, flexible rubber around the said die, producing a metal reproduction of the said die by casting in the said mold, operating on the said reproduction by cutting away material thereof so as to produce a modified crown portion to correspond to the shape desired for the finished crown, and swaging a blank for the crown on the said modified crown portion.

[Claims 2 to 4 not printed in the Gazette.]

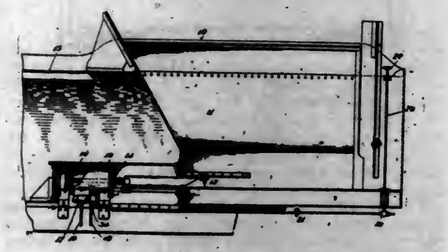
1,257,368. BELL-TOLLER. THOMAS J. LOKOMETZKI, Milwaukee, Wis. Filed July 18, 1917. Serial No. 181,209. (Cl. 116—40.)



1. In an apparatus of the class described, a trio of shafts arranged in the form of a triangle, a connection between the adjacent ends of the shafts, a sounding device carried by each of said shafts, and means for actuating the sounding devices.

2. In an apparatus of the class described, a trio of shafts arranged in the form of a triangle, a second trip of shafts also arranged as a triangle, the shafts forming the sides of the second triangle being parallel to those of the first, a connection between the adjacent ends of each pair of shafts, a sounding device on each of the first mentioned trio of shafts, a crank on each of said shafts, a pitman connecting the cranks of each pair of parallel shafts, and means for revolving the second trio of shafts to operate the sounding devices.

1,257,369. LOCOMOTIVE-TENDER. NATHAN M. LOWRY, Pittsburgh, Pa., assignor to Locomotive Stoker Company, a Corporation of Pennsylvania. Filed May 18, 1917. Serial No. 169,434. (Cl. 105—260.)

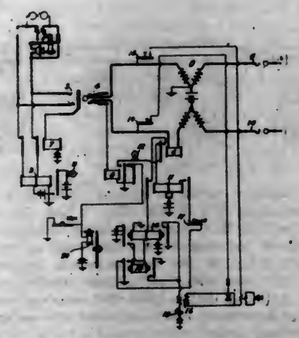


1. In a locomotive tender having a fuel bin, in combination, a reciprocating fuel pusher in the bin, a single-stroke fluid motor for actuating the pusher, a fluid-controlled distributing valve normally open to one end of the motor cylinder, and a relief valve for controlling the distributing valve.

2. In a locomotive tender having a fuel bin, in combination, a reciprocating fuel pusher in the bin, a single-stroke fluid motor for actuating the pusher, a fluid-controlled distributing valve normally open to one end of the motor cylinder, and a valve for controlling the distributing valve.

[Claims 3 to 5 not printed in the Gazette.]

1,257,370. TELEPHONE-EXCHANGE SYSTEM. ALBEN E. LUNDELL, New York, N. Y., and FRANKLIN A. STEARN, Paterson, N. J., assignors to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Oct. 26, 1916. Serial No. 127,934. (Cl. 179—73.)



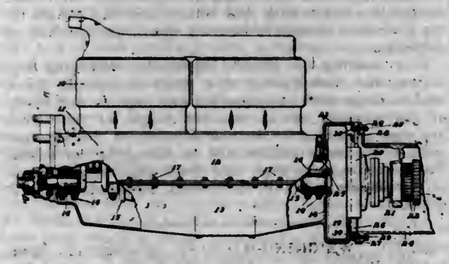
1. In a telephone exchange system, calling and called lines, an operator's circuit for interconnecting said lines, an operator's receiver, means for connecting said operator's receiver to a calling line, means to audibly inform said operator that the calling subscriber desires her attention after a connection has been established, and means for applying said informing means for a predetermined length of time.

2. In a telephone exchange system, calling and called lines, an operator's circuit for interconnecting said lines including a plurality of relays, an operator's receiver, means for audibly informing said operator that a calling subscriber desires her attention after a connection has been established, the duration of application of said informing means being dependent on the time required for the release of certain of said relays.

5. In a telephone exchange system, calling and called lines, an operator's circuit for interconnecting said lines including an answering supervisory relay, an operator's receiver, a relay arranged to be energized in certain stages of operation of said system upon the deenergization of said supervisory relay, a pair of slow-release relays, means to cause current variations in said receiver to produce a tone audible to said operator, the application of said means being controlled at a front contact of either of said slow-release relays, means for successively energizing said slow-release relays, and means controlled by the interaction of said relays for restoring all of said relays to a normal condition.

[Claims 3 and 4 not printed in the Gazette.]

1,257,371. HYDROCARBON-MOTOR. GEORGE L. McCAIN, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed May 18, 1914. Serial No. 839,308. (Cl. 123—195.)



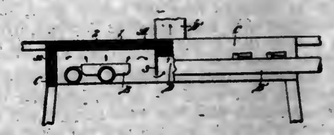
1. In a hydrocarbon motor, having a flywheel, the combination with a crank case having an enlarged portion surrounding the flywheel and an inturned flange thereon in a plane at right angles to the longitudinal axis thereof beyond the flywheel, of a casing secured to the crank case at said flange.

5. In a hydrocarbon motor in combination, a crank case comprising upper and lower parts detachably fastened together, a crank shaft having bearings supported wholly by said upper part and having a flywheel at one end, said upper and lower parts extending beyond and housing said flywheel and having a transverse wall immediately inward of said flywheel forming a partition between the crank case chamber and the flywheel housing, a casing secured to the extension of the upper part of the crank case, and means for securing said casing to the extension of the lower part of the crank case so that said lower part may be removed without disturbing the securing means of the casing to the upper part or the bearings of the crank shaft.

9. In a hydrocarbon motor having a flywheel, the combination with a crank case comprising upper and lower parts secured together and having portions extending beyond and housing said flywheel, one of said parts having a flange turned inwardly, and the other of said parts having a flange turned inwardly forming a continuation of the first mentioned flange ad provided with an external groove, of a casing adapted to fit said flanges, and means for securing the casing to the crank case and extending into said flanges and said groove.

[Claims 2 to 4, 6 to 8, and 10 and 11 not printed in the Gazette.]

1,257,372. GAS-RANGE. FRANKLIN P. MCCARTY, St. Louis, Mo. Filed May 19, 1917. Serial No. 169,806. (Cl. 126—214.)



1. A gas range provided with a closed top forming a permanent part of the stove and having a depending skirt portion, burners arranged in the combustion chamber underneath said top, and a discharge flue in said top having side walls that project downwardly into said combustion chamber, the lower edges of said side walls terminating in a higher horizontal plane than the lower edge of said skirt portion.

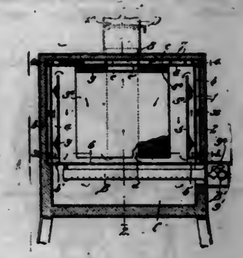
2. A gas range, comprising top burners arranged in a combustion chamber, a top portion that extends over said burners, said top portion being open at its underside and provided with a depending skirt that surrounds the burners, and a discharge flue open at its underside and provided with side walls that project downwardly into said combustion chamber and which terminate in a higher horizontal plane than the lower edge of the depending skirt of the top portion which surrounds the burners.

4. A gas range, comprising an insulated top forming a permanent part of the stove and provided with a combustion chamber that is surrounded by a skirt portion on said top, said top having openings for receiving cooking utensils or other objects, and a discharge flue in said top open on its underside and having side walls that project down into said combustion chamber and whose lower edges terminate in a higher horizontal plane than the horizontal plane in which the lower edge of said skirt portion terminates.

6. A gas range having a closed top forming a permanent part of the stove and provided with a combustion chamber that is surrounded by a depending skirt portion on said top, said top and skirt portion being insulated and the top being provided with openings for receiving cooking utensils or other objects, burners inclosed by said top, and a discharge flue under said top which communicates with an uptake pipe, said flue being formed by a top wall that is inclined upwardly toward said uptake pipe and side walls that project down into the combustion chamber and whose lower edges terminate in a higher horizontal plane than the lower edge of said skirt portion so that the heat which is generated in the combustion chamber under the top will escape into the open lower side of said flue instead of passing downwardly and laterally under the lower edge of said skirt portion.

[Claims 3 and 5 not printed in the Gazette.]

1,257,373. GAS-RANGE. FRANKLIN P. MCCARTY, St. Louis, Mo. Filed May 19, 1917. Serial No. 169,807. (Cl. 126—39.)



1. A gas range provided with a baking oven and a burner space whose outer walls are insulated so as to prevent the heat from radiating outwardly from same, and

flues combined with the top wall and vertical walls of the oven and constructed in such a manner that the products of combustion will flow in opposite directions through said vertical walls and in opposite directions through said top wall in escaping from the burner space, said oven being equipped with heat absorbing material arranged in such a manner that it will absorb heat from the escaping products of combustion.

2. A gas range equipped with a baking oven that is provided with flues which are so arranged that the products of combustion from the oven burners will flow upwardly at the sides of the oven into the upper portion of same, then downwardly through the oven, and thereafter upwardly through the side walls of the oven and horizontally through the top wall of the oven.

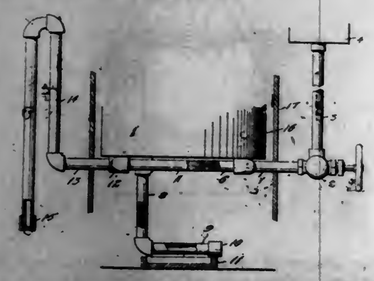
3. A gas range equipped with a baking oven that is provided with flues which are so arranged that the products of combustion from the oven burners will flow upwardly at the sides of the oven into the upper portion of same, then downwardly through the oven, and thereafter upwardly through the side walls of the oven and horizontally through the top wall of the oven, said oven being provided with heat absorbing material arranged in such a manner that it will absorb heat from the escaping products of combustion.

10. A gas range provided with a baking oven and a burner space whose outer walls are heat insulated, hollow portions on the rear wall and side walls of the oven that contain heat absorbing material and vertical flues, vertically-disposed plates that coöperate with the side walls of the oven to form uptake flues which conduct the products of combustion from the burner space into the upper portion of the oven, the vertical flues at the sides and rear wall of the oven having their lower ends communicating with the interior of the oven, a hollow portion on the top wall of the oven that contains heat absorbing material and a horizontal flue, and a flue space in the top wall of the oven that communicates with the front end of said horizontal flue and with the upper ends of the vertical flues at the sides of the oven.

12. A gas range, comprising a baking oven and a burner space whose outer walls are heat insulated, oven burners in said burner space, a gas manifold connected with said oven burners, a casing that houses the portion of the gas manifold to which the oven burners are connected, said casing being provided with a removable closure, a flue space in the top wall of the oven constructed in such a manner that the products of combustion will flow in opposite directions through said top, a smoke pipe that communicates with said flue space, a damper for closing said smoke pipe, discharge flues in the side walls and rear wall that communicate with the flue space in the top wall of the oven through which the products of combustion escape, inlet flues at the sides of the oven that communicate with the upper portion of the oven, and heat absorbing material arranged in proximity to said flues so as to absorb heat from the escaping products of combustion.

[Claims 4 to 9 and 11 not printed in the Gazette.]

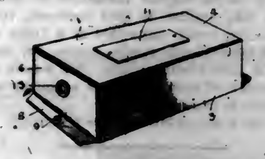
1,257,374. GAS-GENERATING APPARATUS. JAMES W. MCFARLAND, Brownwood, Tex. Filed Oct. 16, 1915. Serial No. 56,166. (Cl. 158—63.)



1. The combination in a kerosene oil burner of a generating element, a burner member under the generating element, and means for providing a dead air column having communication with the generating element in advance of the burner member outlet.

2. The combination in a kerosene oil burner of a feed pipe, a controlling valve at the outer end of the feed pipe, a generating element at the inner end of the feed pipe, a sealed dead air pipe connected with the generating element, and a burner element disposed under the generating element, said dead air pipe being disposed at a point outside of the heating zone of the burner, whereby said pipe is maintained in a relatively cool state.

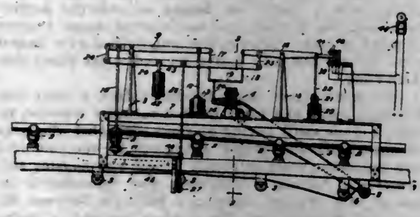
1,257,375. HOUSING FOR ELECTRIC APPARATUS. ALDAH ROBINSON MEACHAM, Oklahoma, Okla. Filed Mar. 18, 1916. Serial No. 85,050. (Cl. 247—5.)



1. A housing for electric apparatus comprising top, bottom and sides formed of a single rectangular blank bent to shape, with the edges soldered together and a pair of end members soldered to the end edges of the body portion, said ends being provided with out turned flanges in a plane with said bottom and said flanges being perforated to receive securing means, substantially as described.

2. A housing for electric apparatus comprising top, bottom and sides formed of a single rectangular blank bent to shape, with the edges soldered together and a pair of end members having inturned flanges at their sides and top extending within and soldered to the adjacent walls of the body portion and an integrally out turned flange on the lower edge, said lower edge being soldered to the adjacent ends of the bottom, substantially as described.

1,257,376. WEIGHING-MACHINE. HERBERT L. MERRICK, Passaic, N. J. Filed May 5, 1914. Serial No. 836,416. (Cl. 265—43.)



1. An integrating mechanism embodying therein an integrator, flexible and tensional traveling load carrying means, a depressible support for, and subject to a load from said load carrying means, weighing means variably operative under the changing load, and tension load of said carrying means, whereby said load will be measured, balancing means operated from said weighing means whereby errors due to variance of the tension load upon said support will be automatically corrected, said weighing means including therein connections with said support and said integrator respectively, said balancing means including therein connections between said weighing means and said integrator respectively, a support for the unloading portion of said carrying means, and connections between said last named support and said balancing means.

2. An integrating mechanism embodying therein an integrator, flexible and tensional traveling load carrying means, a plurality of depressible supports adapted respectively to sustain loaded and unloaded portions of said means, said supports respectively being subjected to a tension load from said means, a weighing mechanism including therein operative connections between one of said supports and said integrator, balancing means including therein operative connections between said weighing means and said integrator and said support whereby errors due to variance in the tension load upon said support will be automatically corrected, a support for the unloaded portion of said carrying means, and connections between said last named support and said balancing means.

6. An integrating mechanism embodying therein an integrator, flexible and tensional traveling load carrying means, a main weighing beam, a depressible support carried thereby and adapted to sustain a loaded portion of said means, connections between said beam and said integrator, an auxiliary weighing beam, a depressible support adapted to sustain an unloaded portion of said means, said supports respectively being subject to a tension load from said load carrying means, connections between said last named support and similar arms of both of said beams, and a variable counterpoise weight acting on said last named connections whereby the tension load on said supports may be balanced.

11. An integrating mechanism embodying therein an integrator, flexible and tensional traveling load carrying means, a main weighing beam, a depressible support carried by one arm of said beam and adapted to sustain a loaded portion of said means, an auxiliary weighing beam, a floating beam pivotally connected to that arm of said main beam carrying said depressible support and to a similar arm of said auxiliary beam, a depressible support adapted to sustain an unloaded portion of said load carrying means, said supports respectively being subjected to a tension load from said load carrying means, connections between said last named support and said floating beam, a variable weight acting upon said floating beam whereby the tension load on said supports may be balanced, oppositely disposed pairs of electrical contacts adjacent one arm of said auxiliary beam, a circuit closer carried by said arm, an electroreceptive device included in the circuit controlled by said contacts, and connections between said weighing beams respectively and said integrator whereby error due to variance of the tension load on said supports will be automatically corrected.

[Claims 3 to 5, 7 to 10, 12, and 13 not printed in the Gazette.]

1,257,377. BOWLING-PIN. RICHARD MILLER, Appleton, Wis. Filed Feb. 28, 1917. Serial No. 151,423. (Cl. 46—66.)

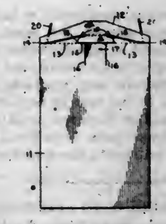


1. A bowling pin including a body portion composed of two sections glued together, in combination with neck and head portions formed in one piece with the neck portion socketed in the upper end of the body portion, the socket in the body portion extending vertically therein and terminating above the lower ends of said sections, whereby the lower ends of the sections may have flat bearing areas glued together from one side of the pin to the other.

9. The process of manufacturing bowling pins consisting; first, in selecting a plurality of body sections having substantially uniform weight in proportion to volume; second, facing said sections and gluing them together; third, forming a socket in one end of the block produced by gluing said sections together; fourth, forming a handle portion with a shank adapted to fit said socket; fifth, securing said shank in the socket at a sufficient depth to conform the pin to the required standard of weight; sixth, shaping the stock in a lathe to the desired contour.

[Claims 2 to 8 not printed in the Gazette.]

1,257,378. SHIPPING-TAG. JOHN MORGAN, New York, N. Y. Filed Oct. 19, 1916. Serial No. 126,553. (Cl. 40—2.)



1. A shipping tag comprising a body portion, a flap integral therewith and adapted to be folded down thereover, a slot in said flap, and a tab adapted to pass over an edge of said flap and hold the same in position.

5. A shipping tag comprising a body portion, a flap integral therewith and adapted to be folded down thereover, said flap being provided with a slot, and with a pair of slots extending from said first named slot, each of said second named slots being provided at its other end with an enlarged portion or opening, and a tab adapted to pass over an edge of said flap and hold said flap in position.

10. A combined shipping tag and envelop comprising an envelop having a front member and a back member, a flap on one of said members adapted to be folded down over the other of said members, said flap being provided with openings adapted to receive a cord; and a tab adapted to pass over an edge of said flap and to secure said flap in position.

[Claims 2 to 4 and 6 to 9 not printed in the Gazette.]

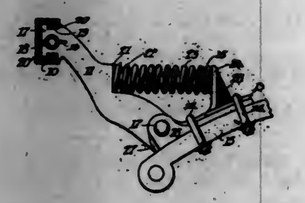
1,257,379. TREAD-SHOE FOR VEHICLE-WHEELS. EDWIN MUELLER, Athens, Wis. Filed Feb. 26, 1917. Serial No. 151,083. (Cl. 152—14.)



A tread shoe comprising a base plate longitudinally and transversely curved and provided upon its convex face with

a transversely extending web terminating at its ends in spaced relation to the longitudinal side edges of said plate, said web being provided in each end and contiguous to the convex face of the plate with an opening for the connection of retaining chains to said web.

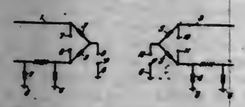
1,257,380. AUTOMOBILE-BUFFER. RICHARD T. NEWTON, Nutley, N. J. Filed Mar. 4, 1915. Serial No. 12,038. (Cl. 213—39.)



1. An automobile buffer comprising a buffer bar, a one-piece supporting arm engaging the same, a base plate adapted to lie against and be rigidly mounted on the chassis and having a boss at its forward end to which said supporting arm is directly and pivotally connected, an abutment on said base to the rear of said boss and a compression spring extending between said abutment and supporting arm, for the purpose described.

[Claims 2 to 7 not printed in the Gazette.]

1,257,381. LOW-FREQUENCY-SIGNAL REPEATER. HAROLD W. NICHOLS, Maplewood, N. J., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed Sept. 24, 1915. Serial No. 52,509. (Cl. 178—71.)



1. In combination with two duplex lines having receiving and transmitting terminals adapted for electrical signaling with low frequency currents, a device for relaying signals from one to the other of said lines, a similar device for relaying signals in the opposite direction, means for providing for non-interference between said devices, each of said devices consisting of a circuit, means for producing therein electrical oscillations capable of efficient transformation, means for varying the character of said oscillations in accordance with a signal received from one of said lines, said varying means comprising a resistance shunted across the receiving terminals of said line, an amplifier having an output circuit, and a transformer whereby the effect of said variable oscillations is communicated to said amplifier and thereby augmented, a detector connected with said output circuit, and means for impressing upon the other of said lines the detected current.

5. In telegraphy, a duplex line, a vacuum tube repeater containing a cathode and an auxiliary electrode, said line terminating in said electrodes and auxiliary apparatus associated with said line and tube for the two-way transmission of signals.

7. In telegraphy, a duplex line, two shunt paths across said line, one of said paths comprising a resistance, the other being a capacity path, a vacuum tube repeater having its input electrode shunted across said resistance, and means comprising a second vacuum tube repeater connected to the midpoint of said capacity path for impressing signaling currents upon said line without impressing them upon said first repeater.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,257,382. INDIRECT ILLUMINATION. HENRY G. O'NEILL and WARD E. PEARSON, New York, N. Y. Filed Oct. 20, 1916, Serial No. 126,662. Renewed Aug. 7, 1917. Serial No. 184,975. (Cl. 240—8.4.)



1. The combination of a casing with a self-contained source of direct light; means for turning the light on and off; a reflector hinged to the casing and positionable at an angle to the paths of light rays from such source; and a mirror positioned for observation by a person when illuminated by the reflected light rays; the reflector being provided on its inward side with projecting ends to prevent the light rays from the source of direct light escaping laterally, and one of said ends being provided with a lug adapted to arrest the reflector when raised into an angular position; and within the casing, wall surfaces which frictionally contact with said reflector ends to hold the reflector in its angular position, and an abutment surface against which said lug abuts when the reflector is in its angular position.

2. The combination of a casing having a light-ray exit; a battery, an electric lamp, and electrical connections including a switch between the battery and the lamp, all mounted within the casing; a mirror surface on an outward side of the casing; and a hinged cover for said exit, the cover coöperating with the switch to disconnect the lamp electrically from the battery and being fully openable for direct lighting, and being partially openable to permit impingement of light rays from the electric lamp on the inward surface of the cover as a reflector for indirect illumination of a person when holding the casing in position for observation of his image in the mirror.

3. The combination of a casing having a light-ray exit; a battery; an electric lamp; electrical connections comprising a spring switch between the battery and lamp; and a hinged cover for said exit, the cover comprising a member which on the closing movement of the cover engages the switch to disconnect the battery from the lamp electrically, and the spring action of the switch effecting an electric connection of the battery and lamp during an opening movement of the cover; means for holding the cover in either a closed or partially open position; and abutment members for arresting the opening movement of the cover when it is in an angular position.

4. The combination of a casing having a light-ray exit; a battery, electric lamp, and electric connections comprising switch members between said battery and lamp; a hinged hood-forming cover construction for said exit and constructed to cover the exit except at one space; a mirror on an outward wall of the casing adjacent said space; and switch-controlling means; the hood-forming cover construction coöperating with wall surfaces within the chamber of the casing for holding the cover closed or partially raised, and comprising a lug adapted to abut with an interior portion of the casing to arrest the opening movement of the cover.

5. The combination of a casing comprising a pair of supplementary hinged members each having a supplementary neck-forming extension open at its outer end; a cover hinged to a free edge of one of the extensions provided with inturned light-excluding ends and dimensioned fully to cover the light-ray exit formed by the complementary neck-forming extensions when they are closed together; a battery detachably mounted in the chamber of the casing; an electric lamp mounted in said chamber; electric connections comprising a switch for the battery and lamp; and an exterior mirror surface on a casing wall adjacent the front edge of the cover; means for holding the cover partially open whereby its inner surface acts as a light-ray reflector; and means for locking the casing members together; the cover having a portion which engages and presses the switch into electrically disconnected position when the cover is closed; and the switch being constructed to throw the switch into electric connecting position when the cover is opened.

[Claims 6 to 8 not printed in the Gazette.]

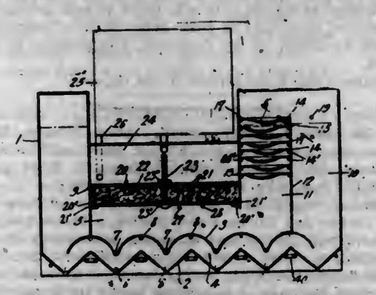
1,257,383. COMBINATION-TOOL. ANDREW P. OLSON, Chicago, Ill. Filed Nov. 1, 1917. Serial No. 199,617. (Cl. 120—1.)



1. A device of the class described consisting of a thin strip of metal bent to form at one end a curved bow or body open at its lower portion and having an opposite pair of arms curved in cross-section and extending outwardly from the body toward their free ends, the arms being normally spread apart and being provided with an opposite pair of inwardly extending overlapping wings having passages therethrough adapted to register when the arms are pressed toward each other to their inner position.

2. A device of the class described consisting of a thin strip of resilient metal bent to form at one end a curved bow or body open at its lower portion and having an opposite pair of arms curved in cross-section and extending outwardly from the body toward their free ends, the body being set to normally spread the arms, and the arms being provided with an opposite pair of inwardly extending overlapping wings having passages therethrough adapted to register when the arms are pressed toward each other to their inner position.

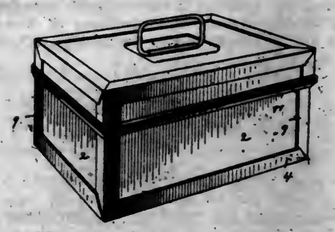
1,257,384. OIL-FILTER. JOHN H. PACKER, Liberty, Mo. Filed May 4, 1917. Serial No. 166,409. (Cl. 210—10.)



1. A filter having a zig-zagged passage and chambers extending upwardly and communicating with the ends of said passage, said passage providing pockets, and means for drawing off matter collecting in said pockets.

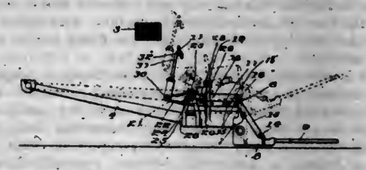
[Claims 2 to 5 not printed in the Gazette.]

1,257,385. SHEET-METAL BOX. ISIDOR PAROLY, New York, N. Y., assignor to Myer Kamenstein, Brooklyn, N. Y. Filed July 13, 1917. Serial No. 180,338. (Cl. 220—17.)



A sheet metal box comprising a bottom having flanges that extend along each of its edges, said flanges being partly doubled and flattened beneath said bottom, and extending partly upwardly from said bottom, the edges of adjoining flanges abutting at the corners on the bottom of the box, combined with side pieces against which said upwardly extending portions of the bottom flanges are flattened, said side pieces having lower flanges that are interlocked with said bottom flanges, doubled and flattened upright flanges extending along the upright edges of the box, and additional upright flanges with which said doubled upright flanges interlock, said doubled upright flanges being overlapped at their lower ends by the upturned portions of abutting bottom flanges at the corners on the bottom of the box.

1,257,386. MOWING-MACHINE. CHARLES PEARSON, Chicago, Ill., assignor to International Harvester Company of New Jersey, a Corporation of New Jersey. Filed Jan. 21, 1914. Serial No. 813,409. (Cl. 56—74.)



1. In a mowing machine, a main frame, a coupling frame pivotally mounted thereon, a finger bar pivoted on said coupling frame, an operating lever pivoted on said main frame, a gag lever adjustably pivoted on said coupling frame, and adjustable link connections between said gag lever and finger bar and between said gag lever and operating lever whereby the mechanism will operate as a plain or vertical lift device.

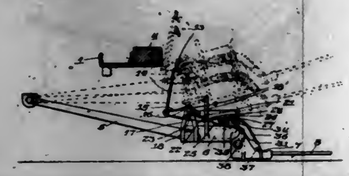
2. In a mowing machine, a main frame, a lifting lever pivoted thereon, a coupling frame pivoted to said main frame, a finger bar pivoted on said coupling frame, a bracket pivoted to said coupling frame, a gag lever adjustably pivoted at a point intermediate its ends to said bracket, and means operatively connecting said gag member with said lever and with said finger bar.

6. A mowing machine including, in combination, a wheeled frame, a rising and falling coupling frame, a finger bar pivotally connected with said coupling frame, a finger bar adjusting lever mounted upon said wheeled frame, a gag lever pivoted intermediate its ends on said coupling frame parallel with said finger bar, a second gag lever having one end pivotally connected with said finger bar, a link having one end pivotally connected with said first gag lever adjacent its axis and its opposite end with

one end of a second link having its opposite end pivotally connected with the free end of said second gag lever, said first gag lever engaging with said links successively to vary its effective leverage in a step by step manner, and operative connections between said finger bar adjusting lever and said first gag lever.

[Claims 3 to 5, 7, and 8 not printed in the Gazette.]

1,257,387. MOWING-MACHINE. CHARLES PEARSON, Chicago, Ill., assignor to International Harvester Company of New Jersey, a Corporation of New Jersey. Filed Apr. 15, 1915. Serial No. 21,538. (Cl. 56—74.)



1. In a mowing machine, a machine frame, a coupling frame pivoted thereto, a finger bar pivoted to said coupling frame, means for raising said coupling frame and finger bar, means including a plurality of links connecting said raising means, coupling frame and finger bar, and means for locking the connected ends of certain of said links whereby after the coupling frame and finger bar have been raised a predetermined amount any downward force exerted on the coupling frame is ineffective in further flexing the finger bar.

2. In a mowing machine, a machine frame, a coupling frame pivoted thereto, a finger bar pivoted to said coupling frame, means for raising said coupling frame and finger bar, means including a plurality of links connecting said raising means, coupling frame and finger bar, and means for locking the connected ends of certain of said links whereby after the coupling frame and finger bar have been raised a predetermined amount any downward force exerted on the coupling frame is ineffective in further flexing the finger bar, said connecting means permitting a further flexing movement of the finger bar if a raising force is applied directly thereto, whereupon the coupling frame is lowered to retain the finger bar in such flexed position.

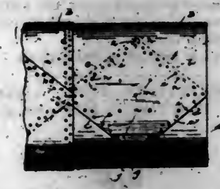
3. In a mowing machine, a machine frame, a coupling frame having one end thereof pivotally connected with said machine frame, a lifting lever carried by said machine frame, a finger bar pivotally connected with said coupling frame, a gag lever pivotally connected with said coupling frame, a connection between one end of said gag lever and said lifting lever, a link having one end thereof connected with said finger bar, a projection on said finger bar operative as a fulcrum for said link, a second link having one end thereof pivotally connected with the opposite end of said first link, means operatively connecting said gag lever and the opposite end of said second link, and means for locking the connected ends of said links against flexure.

[Claims 4 and 5 not printed in the Gazette.]

1,257,388. RIVETED SEAM. GEORGE B. PHILLIPS, Lima, Ohio. Filed Nov. 11, 1916. Serial No. 130,746. (Cl. 78—54.)

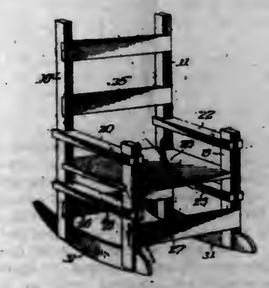
1. In a boiler section, a seam comprising plate ends extending full width of the section and having their outer corners cut away diagonally along straight lines and overlapped to form a diamond-shaped joint, and rivets passing through said ends and equally spaced along the straight diagonal edges whereby the distances between the transverse lines passing through opposite rivet holes will be equal to thereby prevent a fracture along one transverse line from including one or more rivet holes of an adjacent transverse line.

2. In a boiler section, a seam comprising overlapping plate ends extending full width of the section and having their corners cut away to leave diagonal convergent edges, and rivets applied through said ends along said diagonal



edges, there being only one rivet at each apex of the converging edges and said rivet being sufficiently displaced from the transverse line passing through the next preceding rivets that a fracture line will not include the holes of such rivets and the hole of the apex rivet.

1,257,389. TOY FURNITURE. BENJAMIN N. PLATT, Chicago, Ill., assignor to The Platt-Maschek Co., Chicago, Ill., a Corporation of Illinois. Filed Feb. 17, 1917. Serial No. 149,199. (Cl. 46—37.)



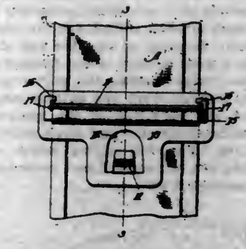
1. In toy furniture the combination of a plurality of vertical posts having side notches, a plurality of horizontal connecting members the ends of which are bifurcated and engage with the notches in said posts thereby positioning pairs of posts in parallelism, and additional horizontal members connecting said pairs and serving to maintain a plurality of posts in rectangular arrangement the parts being frictionally held in interlocking engagement.

2. In toy furniture, the combination of a pair of vertical posts in the form of an oblong rectangle in cross-section, the major transverse axes of the posts being in substantial parallelism, said posts having registering side notches, and a horizontal bar having its ends bifurcated and adapted to interfit with said posts at said notches, a plurality of said pairs of posts being suitably connected to form an article of toy furniture, substantially as described.

[Claims 3 and 4 not printed in the Gazette.]

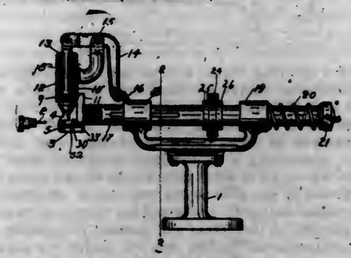
1,257,390. BACK-BAND HOOK. ALLIS PONDER, East Point, Ga., assignor to Couch Bros. Manufacturing Co., Atlanta, Ga., a Corporation of Georgia. Filed Aug. 6, 1917. Serial No. 184,682. (Cl. 24—192.)

A buckle comprising a body portion having a hook secured thereto and having a slot therein, a flange integral with said body portion and extending transversely therefrom along one edge of said slot, projections on the ends of said flange, and a bar having lateral extensions passing around the ends of said flange under the projections thereon, whereby it is held to the base portion, the bar being movable through a limited distance toward or from said body portion and through a limited distance toward or from said flange, said bar being adapted to coöperate



with said body portion and said flange to frictionally engage a strip of fabric passing through said slot and looped around said bar.

1,257,391. HOLDER FOR SHANK-BUTTONS. MATHIAS POTUZAK, New York, N. Y. Filed July 15, 1916. Serial No. 109,492. (Cl. 79—18.)



1. In a button drilling machine for shank buttons the combination with a drill, of a work holder comprising a plurality of relatively movable jaws adapted to clamp the button therebetween, at least one of said jaws engaging the shank over a button hole and means for relatively moving said drill and holder toward and away from each other.

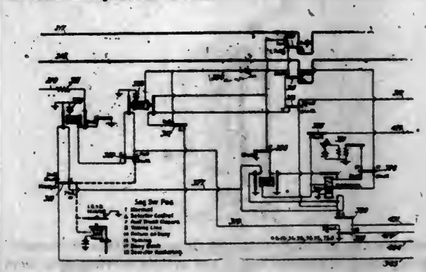
3. In a button drilling machine for shank buttons, a work holder comprising a plurality of of relatively movable jaws adapted to clamp the button therebetween at least one of said jaws engaging the shank over a button hole, yielding means for holding the jaws closed, and means responsive to withdrawal of the work holder for opening said jaws.

4. In a button drilling machine for shank buttons, a work holder comprising a plurality of relatively movable jaws adapted to clamp the button therebetween, at least one of said jaws engaging the shank over a button hole, yielding means for holding the movable jaw normally closed; a bell crank lever pivoted to said jaw adjacent one end, and a stop on a fixed portion of the holder adapted to engage said lever adjacent its other end, whereby on withdrawal of the work holder said jaw automatically opens to release the button.

[Claims 2 and 5 not printed in the Gazette.]

1,257,392. TELEPHONE-LINE-SELECTING SYSTEM. FRANK N. REEVES, Newark, N. J., and ALBEN E. LUNDELL, New York, N. Y., assignors, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed Apr. 16, 1915, Serial No. 21,896. Renewed Nov. 2, 1917. Serial No. 199,988. (Cl. 179—18.)

1. In a telephone system, a plurality of lines, a selector switch for connecting an incoming line to an outgoing line, means operable automatically under a predetermined electrical condition of an outgoing line for controlling said switch and for rendering said outgoing line inaccessible to other incoming lines, independent means also operable automatically to perform the functions of said means irrespective of said electrical conditions, and means for rendering operative either said first mentioned means or said independent means.



5. In a telephone system, a plurality of lines, a line selector and means for testing selected lines, a relay adapted when energized to render the testing means ineffective, a self-locking circuit for said relay, and automatic means controllable at will for initially energizing said relay before the line can be tested.

6. In a testing system, a plurality of lines, a line selector and means for testing selected lines, two controlling devices one adapted to render effective and the other ineffective said testing means, an incoming line for said selector, and selective means for controlling the operation of said devices only over said incoming line.

7. In a telephone system, a plurality of incoming lines, a plurality of outgoing lines, a selector switch for connecting an incoming line to an outgoing line, means operative under a predetermined electrical condition of said outgoing line for controlling the operation of said switch and for rendering the selected outgoing line inaccessible to other incoming lines, and means operable over said incoming line adapted to perform the functions of said first mentioned means irrespective of the electrical condition of the selected outgoing line.

10. In a telephone system, a plurality of lines, a plurality of operator's positions, means for extending a calling line to an operator's position, a trunk line, means for connecting said calling line to one end of said trunk, means controlled from said operator's position for extending the other end of said trunk to a called line, a relay controlling the guarding of said called line against other incoming lines and coöperating in the control of said last mentioned means under a predetermined electrical condition of the called line, and another relay controllable from said operator's position for performing all the functions of said first mentioned relay irrespective of the electrical condition of the called line.

[Claims 2 to 4, 8, and 9 not printed in the Gazette.]

1,257,393. WRAPPED PACKAGE. JAMES D. REIFSNYDER, Philadelphia, Pa., assignor to Stokes & Smith Company, Summerdale, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Dec. 16, 1915. Serial No. 67,175. (Cl. 206—46.)

1. A wrapped package comprising an article and a wrapper applied thereto and secured thereon, said wrapper being of greater dimensions than the article and folded about and completely enveloping all walls of the article except one, the article serving as a form during the folding operation, said wrapper having a portion thereof folded across and partially covering the said uncovered wall of the article.

4. A wrapped package comprising an article and a one-piece wrapper-blank completely enveloping all walls of the article except one, said wrapper having a portion thereof folded across the said uncovered wall of the article and constituting a retaining strap to prevent withdrawal of the article from its wrapper, and the blank being further folded to provide a reinforcement thereof along the edges adjacent the uncovered wall of the package.

9. As a means for inclosing an article with one article wall permanently exposed, a wrapper foldable about the article to form a container overlying the remaining walls of the article and having strap-like article-retaining means



overlying the exposed wall and integral with and connecting opposing container walls, the article serving as a form to control the interior dimensions of the container during the wrapping operation.

[Claims 2, 3, 5 to 8, and 10 not printed in the Gazette.]

1,257,394. TERMINAL BANK. JOHN N. REYNOLDS, Greenwich, Conn., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed Sept. 17, 1915. Serial No. 51,259. (Cl. 175—306.)



2. A terminal bank for switches comprising a plurality of longitudinally extending conductors, each conductor being provided between its ends with a plurality of integrally formed contact surfaces projecting therefrom, and a mounting strip in which said conductors are secured in non-inductive relation to each other with the contact surfaces thereof projecting from said strip.

3. A terminal bank for switches comprising a mounting strip, and a plurality of longitudinally extending bare conductors embedded in said strip in a non-inductive and non-conductive relation to each other, each of said conductors being provided with a plurality of contact surfaces between its ends projecting from said strip.

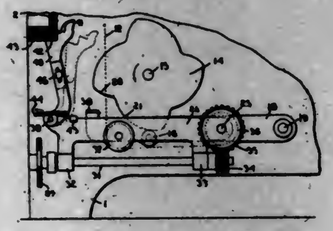
5. In a terminal bank, a pair of wires having integral projecting contact portions, said wires being transposed and embedded in an insulating compound so that the contact portions project from the face of the bank.

[Claims 1 and 4 not printed in the Gazette.]

1,257,395. BUILDER-MOTION FOR SPINNING-FRAMES. ALONZO E. RHOADES, Hopedale, Mass., assignor to Draper Corporation, Hopedale, Mass., a Corporation of Maine. Filed Dec. 15, 1916. Serial No. 137,098. (Cl. 242—43.7.)

1. In a spinning frame, a lifter rail, a pivotally mounted builder arm, means for oscillating said builder arm, a shifter arm pivotally mounted on the builder arm, means for preventing the shifter arm from moving above and permitting it to move below the builder arm, a let off motion comprising a connection extending from intermediate the ends of said shifter arm to the lifter rail, and manually operated means for positioning the shifter arm in nearly its lowermost position when the builder arm is in position just past the beginning of its upward movement whereby a restricted upward and downward traverse are imparted to the lifter rail during which substantially the entire filling for full upward and downward traverses are laid in a restricted zone.

2. In a spinning frame, a lifter rail, a pivotally mounted builder arm, means for oscillating said builder arm, a shifter arm pivotally mounted on the builder arm, means for preventing the shifter arm from moving above and permitting it to move below the builder arm, a let off motion comprising a connection extending from intermediate the ends of said shifter arm to the lifter rail, a latch pivotally mounted at the free end of the shifter arm to engage a fixed portion of the frame and manually operated means for positioning the shifter arm in nearly its lowermost position when the builder arm is in position just past the beginning of its upward movement whereby a restricted upward and downward traverse are imparted to the lifter rail during which substantially the entire filling for full upward and downward traverses are laid in a restricted zone.



3. In a spinning frame, a lifter rail, a pivotally mounted builder arm, means for oscillating said builder arm, a shifter arm pivotally mounted on the builder arm, means for preventing the shifter arm from moving above and permitting it to move below the builder arm, a let off motion comprising a connection extending from intermediate the ends of said shifter arm to the lifter rail, a latch pivotally mounted at the free end of the shifter arm acting when swung in one direction to engage beneath a fixed portion of the frame and manually operated means for positioning the shifter arm in nearly its lowermost position when the builder arm is in position just past the beginning of its upward movement whereby a restricted upward and downward traverse are imparted to the lifter rail during which substantially the entire filling for full upward and downward traverses are laid in a restricted zone, the said latch automatically returning to idle position when released at the end of the first downward traverse.

4. In a spinning frame a lifter rail, a pivotally mounted builder arm, means for oscillating said builder arm, a shifter arm pivotally mounted on the builder arm, a let-off motion comprising a connection extending from intermediate the ends of said shifter arm to the lifter rail, a latch pivotally mounted on the free end of the shifter arm and a foot-piece connected to said latch, the said latch being so positioned that when the operative presses upon the foot-piece the free end of the shifter arm will be depressed and the latch will be swung to engage beneath a fixed portion of the frame and when the free end of the shifter arm is depressed by said oscillating means the said latch will automatically swing in the opposite direction clear of the frame.

5. In a spinning frame the combination of elements constructed and operating as set forth in claim 4 wherein the said latch is provided with two shoulders at its free end whereby when the shifter arm is depressed and the latch swung by pressure on the foot-piece to engage the first shoulder with the frame the shifter arm will be in position for beginning the spinning operation and whereby when the shifter arm is depressed and the latch swung by pressure on the foot-piece to engage the second shoulder the parts will be in position for doffing.

1,257,396. PROCESS OF MAKING METALLIC CATALYZERS. WILLIAM D. RICHARDSON, Chicago, Ill. Filed Nov. 11, 1912. Serial No. 730,745. (Cl. 204—64.)

1. The process of forming a catalyzer adapted for use in the hardening of fatty oils which consist in producing an electric arc between two metallic electrodes submerged in fluent fatty mass and thereby disintegrating part of the metal and causing it to enter the fat in finely divided form.

3. The process of forming a catalyzer adapted for use in the hardening of fatty oils which consists in producing an electric arc between two metallic electrodes submerged in a liquid or semi-liquid organic body of fatty nature, and permitting the electric current to thus act on the metal until from 1 to 20 per cent. thereof has become disintegrated, and stirring the mass so as to diffuse said disintegrated metal throughout said body.

5. As a new article of manufacture, a permanent catalyst consisting of a suspension of electrically disintegrated colloidal metal in a fluent fatty substance.

8. As a new article of manufacture, a permanent catalyst consisting of a suspension of electrically disintegrated nickel in a fluent fatty substance.

[Claims 2, 4, 6, and 7 not printed in the Gazette.]

1,257,397. PROCESS OF HYDROGENATING OILS OR FATS. WILLIAM D. RICHARDSON, Chicago, Ill., assignor to Swift & Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 11, 1912. Serial No. 730,746. (Cl. 87—12.)

1. In the hardening of oily and fatty material the process which comprises treating a body of such material with hydrogen in the presence of electrically disintegrated metal.

2. In the hardening of oily and fatty material the process which comprises electrically disintegrating a metal in a fluid medium, removing such medium, adding the disintegrated metal to a body of such material and treating such body with hydrogen.

3. In the hardening of oily and fatty material the process which comprises electrically disintegrating a metal in water, removing the water from the disintegrated metal, adding the disintegrated metal to a body of such material and treating the body with hydrogen.

[Claims 4 to 6 not printed in the Gazette.]

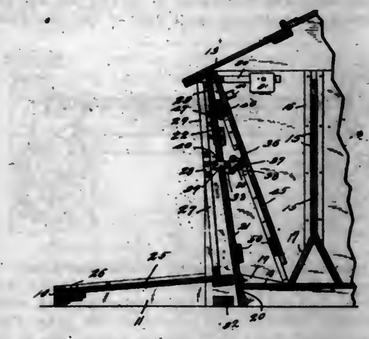
1,257,398. CHAIN CONSTRUCTION. CHRISTOPHER J. ROACH, Middletown, Conn. Filed Oct. 8, 1915. Serial No. 54,730. (Cl. 59—90.)



In chain construction for heavy duty chains, a series of similar links adapted to be assembled and disassembled without the use of tools or auxiliary devices, the said links being formed of relatively heavy bar material and comprising a body portion of loop form and end portions in opposition and having eyes that are adapted to slip over the individual eyes of a mating link, the said body portion having on the inner wall a projection-separator for providing individual seats for the eyes of the mating link, the link structure being set so that the opposed eyes are spaced suitably to provide a sliding fit for the side wall portions of the eyes of the mating link, and the eye structure being appreciably flattened so as to require a minimum of such spacing of the opposed eyes.

1,257,399. HOG-FEEDER. JOHN E. ROBBINS, Greensburg, Ind. Filed Apr. 19, 1917. Serial No. 163,118. (Cl. 119—55.)

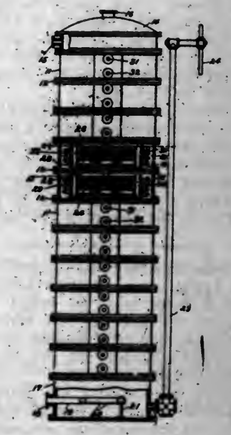
1. A feeding device, comprising a movable platform operable downward by the weight of an animal but tending to move upward, a feed bin provided with an inwardly opening door swinging on a horizontal axis, connections between said door and said platform so that the door is swung open when the platform is depressed, and a partition movably mounted behind said swinging door so that it is struck by the swinging door when it is opened and



jarred thereby so as to prevent clogging of the feed in the bin.

[Claims 2 to 9 not printed in the Gazette.]

1,257,400. REACTION-TOWER. CLARK S. ROBINSON, Cambridge, Mass., assignor to E. B. Badger and Sons Company, Boston, Mass., a Corporation of Massachusetts. Filed June 16, 1917. Serial No. 175,128. (Cl. 261—11.)



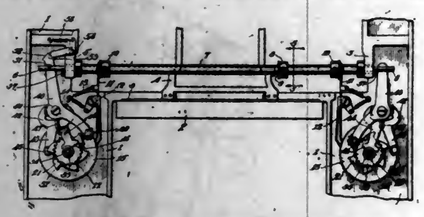
1. An apparatus for effecting reaction between a liquid and a gas, in the course of which heat is evolved and the specific gravity of the liquid is increased, comprising a series of reaction chambers one above another, means for admitting liquid to the uppermost chamber of said series, means for transferring liquid from each upper chamber of the series to the one next below, an inlet for the gas to the lowermost chamber of the series, means for conveying gas from each lower chamber of the series to the one next above, means for drawing off liquid from the lowermost of said chambers, means for cooling and means for causing local circulation of the liquid undergoing reaction in the several chambers.

[Claims 2 to 8 not printed in the Gazette.]

1,257,401. AUTOMATIC REVERSIBLE RIBBON-FEED. ALVAH C. ROEBUCK, Woodstock, Ill., assignor to Woodstock Typewriter Company, Woodstock, Ill., a Corporation of Illinois. Filed June 1, 1915. Serial No. 31,332. (Cl. 197—162.)

1. In typewriter ribbon feeding mechanism, the combination with a pair of ribbon spool shafts, of a separate

ratchet wheel for each shaft, means including a pawl and ratchet for each wheel for separately rotating both wheels at the same time, and mechanism to connect one but not both wheels to its respective spool shaft at the same time.



2. In typewriter ribbon feeding mechanism, a pair of ribbon spool shafts, a separate ratchet wheel for each shaft, means including a pawl and ratchet for each wheel for separately rotating both wheels at the same time, and selective mechanism to positively connect one of the ratchets to its spool shaft to wind ribbon from the other shaft.

3. In typewriter ribbon feeding mechanism, separate ribbon spool ratchet wheels, means for separately operating them in unison, ribbon spool shafts, and separate selective means for each shaft for connecting one but not both of the wheels to its spool shaft and depending upon the ribbon wound upon the spool shaft for operation.

4. In typewriter ribbon feeding mechanism, separate ribbon spool ratchet wheels, means for separately operating them in unison, ribbon spool shaft, and separate selective means for each shaft joined for alternate operation and adapted to connect one but not both of the wheels to its spool shaft depending upon the ribbon wound upon the spool shaft for operation.

5. In typewriter ribbon feeding mechanism, the combination with a rotatable driving gear, a ribbon spool shaft, a gear mounted thereon adjacent the other gear, a pinion engageable with both of said gears for driving them in unison, a pivoted member for moving the pinion, and means comprising a cam for moving the pivoted member.

[Claims 6 to 20 not printed in the Gazette.]

1,257,402. PROCESS FOR SOFTENING HIDES, SKINS, OR THE LIKE. OTTO RÖHM, Darmstadt, Germany. Filed Aug. 27, 1915. Serial No. 47,695. (Cl. 149—2.)

1. The process for softening raw hides, skins and the like which process consists in treating the same in a solution of water and enzyms of the pencreatic gland of animals dissolving fat and albumen.

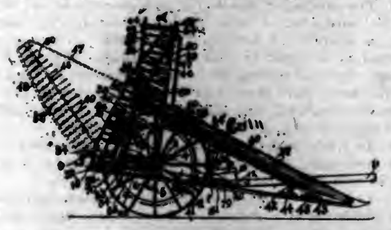
2. The process for softening raw hides, skins and the like which process consists in treating the same in a solution of water and enzyms of the pencreatic gland of animals dissolving fat and albumen and of so strongly alkaline character that no injury is done to the hairs and wool.

3. The process for softening hides, skins, and the like, which consists in treating the same in a solution of water and enzyms of the pancreatic gland of animals dissolving fat and albumen, said solution consisting of water containing 0.05% pancreatin and 1% of soda ash.

1,257,403. ENSILAGE-HARVESTER. ANDREAN G. RONNING and ADOLPH RONNING, Boyd, Minn. Filed Feb. 25, 1914. Serial No. 820,970. (Cl. 56—110.)

1. In an ensilage harvester, cutting means for severing the standing stalks, guiding and conveying means for conveying the severed stalks rearwardly from the cutting means, a substantially vertically positioned series of cutters for cutting the severed stalks into short lengths and mechanism for operating the cutting and conveying means.

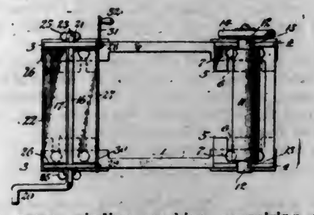
2. In an ensilage harvester, cutting means for severing the standing stalks, guiding and conveying means for conveying the severed stalks rearwardly from the cutting means, a substantially vertically positioned series of cutters for cutting the severed stalks into short lengths, mechanism for operating the cutting and conveying means and a conveyer for receiving the ensilage and transferring it to a receptacle and means for operating the conveyer.



3. In a harvester, cutters for severing the standing stalks, guiding and conveying means for conveying the severed stalks rearwardly from the cutting means, a rotatable shaft carrying a series of cutters, said shaft capable of adjustment into various positions in a substantially vertical plane, and a frame carrying a series of stationary cutters coöperating with said movable cutters to reduce the severed stalks into short lengths.

[Claim 4 not printed in the Gazette.]

1,257,404. PAPER-WINDING MACHINE. ADAM ROSS, Buffalo, N. Y. Filed Feb. 24, 1917. Serial No. 150,840. (Cl. 242—55.)



1. A paper winding machine comprising a winding shaft, standards provided with bearings in which said shaft is journaled and also provided with upright slots, a gage plate arranged between said standards and provided with threaded shanks arranged in said slots, and clamping screw nuts applied to said shanks and engaging with the outer sides of said standards.

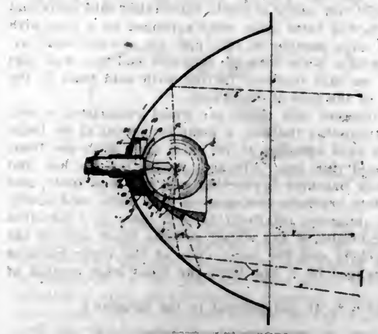
3. A paper winding machine comprising a base, rear standards arranged on the rear part of said base and adapted to support a supply roll of paper, front standards adjustable transversely on said base, a rewinding shaft journaled on said front standards, and a cutter mechanism comprising a relatively fixed blade provided at one end with an opening and at its opposite end with a slot, a movable blade adapted to coöperate with the fixed blade, a screw pivotally connecting corresponding ends of the blades and passing through the opening in said fixed blade and into one of said front standards, and a screw passing through the slot of said fixed blade and into the other front standard.

[Claim 2 not printed in the Gazette.]

1,257,405. LIGHT-PROJECTING LAMP. JOHN E. RYAN, Boston, Mass. Filed Jan. 24, 1916. Serial No. 73,836. (Cl. 240—48.6.)

7. The combination in a non-glare headlight of a source of light and a reflector with a refracting means located between the source and the reflector for redirecting before reflection certain of the light rays in such a direction that they are reflected below their normal course.

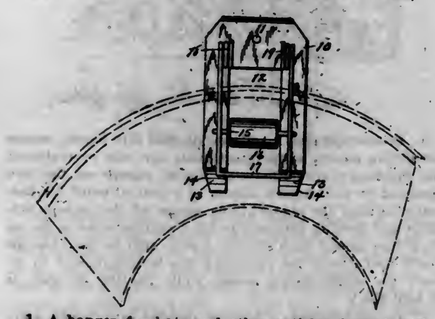
8. Projection apparatus comprising a concave reflector, a light source at the focus of the reflector, the reflector being so shaped and positioned as to project a concentrated beam of light horizontally, and refracting means for so deflecting a portion of the light emanating from the light source that it strikes the reflector at such angles as to be reflected downwardly.



9. Projection apparatus comprising a concave reflector, a light source at the focus of the reflector, the reflector being so shaped and positioned as to project a concentrated beam of light horizontally, and refracting means partially surrounding the light source for so deflecting the light emanating to substantially that portion of the reflector lying on one side of a horizontal plane containing the axis of the reflector that it is reflected downwardly.

[Claims 1 to 6 and 10 to 12 not printed in the Gazette.]

1,257,406. HANGER FOR HATS AND OTHER ARTICLES. WILLIAM E. SAUERMAN, Belmond, Iowa. Filed May 21, 1917. Serial No. 170,088. (Cl. 24—244.)

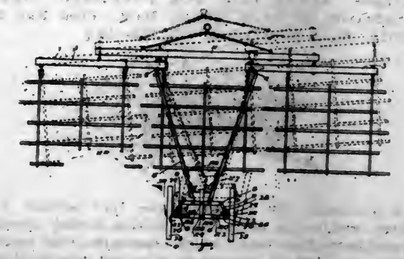


1. A hanger for hats and other articles formed with a base plate having a hole in one end and a roller-opening spaced from said hole, a yoke formed of a single length of wire and substantially U-shaped, which yoke is mounted with its closed central portion extending across said opening and having its arms extending through and clenched on the back of said plate, there being a roller pivoted on said yoke and extending within the opening in said plate, there being a spring-wire clip spaced from said plate and extending in embracing relations with said roller, said clip being formed of a single length of wire and substantially U-shaped, the closed central portion of said clip extending across said plate, there being spring coils formed in the arms of said clip and contacting with said plate, end portions of the arms of said clip being extended through and clenched on the back of said plate, there being a wedge-shaped entrance space between the closed end of the clip and the plate.

3. A hanger for hats and other articles formed with a base plate generally rectangular and relatively thin and broad, which plate is formed with a hole in one end and a notch opening to its other end and extending across the center thereof, there being a yoke mounted across said notch and having the ends of its arms extending through and clenched on the back of said plate, there being a roller pivoted on said yoke and extending within the notch of the plate, together with a spring clip separately formed and fixed to said plate in operative relation with the roller and plate.

[Claims 2 and 4 not printed in the Gazette.]

1,257,407. RIDING ATTACHMENT FOR HARROWS AND THE LIKE. CHARLES S. SHARP, Auburn, N. Y., assignor to International Harvester Company of New Jersey, a Corporation of New Jersey. Filed Aug. 27, 1913, Serial No. 786,961. Renewed Dec. 10, 1915. Serial No. 66,219. (Cl. 55—91.)



1. In a riding attachment, a draft frame, a wheeled frame pivotally connected at the rear thereof, and a seat support pivotally supported on said wheeled frame at points in the rear of the wheel axles.

3. In a riding attachment, a draft frame, rearwardly extending members pivotally attached thereto, wheels journaled thereon, a connecting rod pivotally connected to each of said wheels at a point in the rear of the axis thereof, and a seat carried on said connecting rod.

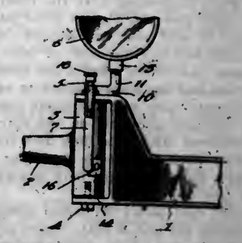
10. In combination, a draft device, a series of drag sections drawn thereby, and a separate unit including a riding cart connected to said draft device, said cart being in form to exert an upward force on said draft device when in operation on a laterally inclined plane.

12. In combination, a draft beam, a series of drag harrows drawn thereby, and a separate unit including a wheeled riding attachment connected to said draft beam and carried in the rear of said harrows, and means operated by the driver's weight for preventing the attachment from running down hill when the device is in operation on a laterally inclined plane.

17. In combination, draft beams, drag sections drawn thereby, rearwardly converging draft bars connected to said draft beams, cart wheels pivotally connected to said draft bars at the rear ends thereof, and automatic means for preventing said wheels from moving down hill when the device is in operation on a lateral incline.

[Claims 2, 4 to 9, 11, 13 to 16, and 18 to 25 not printed in the Gazette.]

1,257,408. DIRIGIBLE LIGHT. MCCLELLAN C. SHARRAR, Toledo, Ohio. Filed Apr. 2, 1917. Serial No. 159,280. (Cl. 240—62.)

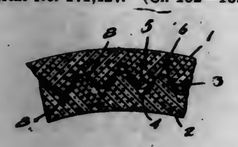


1. A dirigible light for automobiles comprising a member having a part pivoted to a rigid part of the automobile and a second part secured to the knuckle hub of the automobile, and means for connecting a lamp to said pivoted part.

5. A dirigible light for automobiles comprising a lamp, a U-shaped member, a plate carried by one leg of the U-shaped member, means for securing the said plate to the knuckle hub of an automobile, means for pivoting the other leg of the U to the upper pivot of the knuckle hub, said leg having an extension thereon, and means for securing the lamp to said extension, said means consisting of a sleeve and an upwardly extending rod screwed in said sleeve.

[Claims 2 to 4 not printed in the Gazette.]

1,257,409. INNER TUBE FOR PNEUMATIC TIRES. NATHANIEL H. SHAW, Boston, Mass. Filed May 28, 1917. Serial No. 171,427. (Cl. 152—13.)



A pneumatic tire comprising two tube sections, one seated within the other, each section having grooves formed in the face thereof which engages the other section and also having ribs thereon to enter the grooves of the other section, the bottom of the grooves being substantially V-shaped and the apex of the ribs rounded, whereby a space will exist between the apex of each rib and the bottom of the groove it occupies, thus effecting a wedging action between the ribs of the opposing tube sections.

1,257,410. ARTICLE OF FOOD. HULDA A. SHEPARD, Lakeside, Wash. Filed Apr. 30, 1917. Serial No. 165,631. (Cl. 99—5.)

1. A food product consisting of a block of hardened concentrated fruit pulp having the moisture extracted therefrom and possessing the flavoring matter and color of the fruit skins, and the gelatinous substance of the fruit seeds and cores.

[Claims 2 to 4 not printed in the Gazette.]

1,257,411. CAR-WHEEL. CLIFTON W. SHERMAN, Buffalo, N. Y. Original applications filed Sept. 8, 1914, Serial No. 860,557, and Nov. 3, 1914, Serial No. 870,057. Divided and this application filed June 1, 1916. Serial No. 101,133. (Cl. 105—150.)



1. An integral cast wheel having the front edge of its rim on one plane and the front edge of its hub on a lower plane, and a plate connecting with the front edges of the rim and hub, said plate having its outer part flush with the front edge of said rim and sloping from its outer part downwardly to the front edge of said hub.

2. An integral cast wheel having the front edge of its rim on one plane and the front edge of its hub on a lower plane, a plate connecting with the front edges of the rim and hub and brackets arranged on the rear side of said plate and connected with said hub and rim, said plate having its outer part flush with the front edge of said rim and sloping from its outer part downwardly to the front edge of said hub.

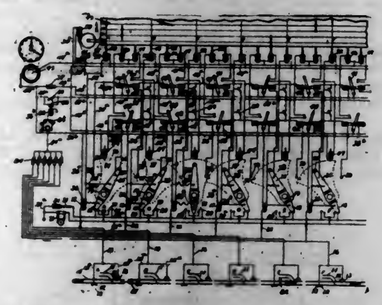
3. An integral cast metal car wheel comprising a hub, a rim surrounding the hub, a plate connected at its inner edge with said hub and at its outer edge with the front edge of said rim, inner brackets connecting said plate and hub and having their outer ends arranged on a line with the front edge portion of said rim and an annular bead arranged on said plate between said hub and rim.

4. An integral cast metal car wheel comprising a hub, a rim surrounding the hub, a plate connected at its inner edge with said hub and at its outer edge with the front edge of said rim, outer brackets connecting said plate and rim and having their inner ends arranged on a line with the front edge portion of said rim, an annular bead arranged on said plate between said hub and rim, and lugs arranged on said brackets in line with said bead in the direction of the axis of the wheel.

5. An integral cast metal car wheel comprising a hub, a rim surrounding the hub, a plate connected at its inner edge with said hub and at its outer edge with the front edge of said rim, inner brackets connecting the hub and plate, outer brackets connecting said rim and plate, and intermediate brackets arranged on said plate, said brackets being staggered relatively to each other in a direction circumferentially of the wheel, and the inner ends of the outer brackets and the outer ends of the inner brackets being arranged on a line with the front edge portion of the rim.

[Claims 6 to 10 not printed in the Gazette.]

1,257,412. TRAIN-DESPATCHING SYSTEM. PAUL J. SIMMEN, Indianapolis, Ind. Filed Nov. 18, 1911. Serial No. 661,112. (Cl. 246—21.)



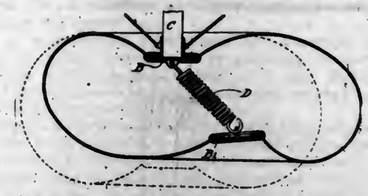
1. In combination, a railroad divided into blocks, means for giving power to operate signals for cars or trains at the dividing stations between blocks, signals on the cars operated by said means, means at a central point for normally locking the signal-giving means of the various stations and locking said means for a station when a car or train has passed such station, and is still in the adjacent block, and means for operating the locking means to release the signal-giving means while the car or train is in said block.

7. In combination, a railroad divided into blocks, automatic means dependent upon the movements of the cars or trains for recording such movements, car-carried signals, a signal and recording means controller comprising a plurality of controlling members for controlling the operation of said signals at the entrances to the various blocks, interlocks between said controlling members, means for normally preventing the movement of any of said controlling members from a predetermined signal controlling position after a car or train has received such signal and while it is still in the block covered by such signal, and means for moving said preventing means from an operative to an inoperative position while the car is still in said block.

27. A railroad divided into a plurality of blocks, electrical means for giving at each block clear signals to cars moving in opposite directions and also giving a danger signal, a central station switch mechanism for putting the said signal giving means at each block into safety condition, and mechanism for maintaining the signal giving means at a block in danger condition whenever the means for certain blocks on opposite sides thereof are in a predetermined relation at safety condition.

[Claims 2 to 6, 8 to 26, and 28 to 45 not printed in the Gazette.]

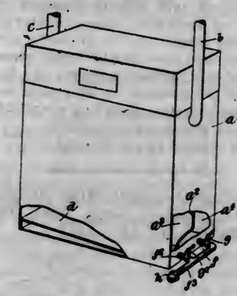
1,257,413. PNEUMATIC CUSHIONING DEVICE FOR AIRCRAFT. THOMAS SLOPER, Devizes, England. Filed Apr. 12, 1917. Serial No. 161,573. (Cl. 244—2.)



1. In a cushioning-device for aircraft, the combination of, an air-cushion of flexible material, an internal tie whereby two opposite sides of the air-cushion are drawn in relatively to the positions they would occupy under inflation if free, the air-cushion moreover being so shaped that when tied in its cross-section in any plane parallel with the tied-in sides is approximately of circular form, and means for securing one of the tied-in sides to the part to be cushioned, substantially as set forth.

[Claims 2 to 9 not printed in the Gazette.]

1,257,414. MEANS FOR DRAINING GAS-METERS. AUSTIN J. SMITH, Brooklyn, N. Y. Filed Dec. 18, 1916. Serial No. 137,704. (Cl. 73—1.)

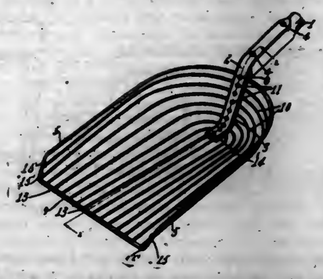


The combination with a gas meter having a vertical partition dividing the interior of the meter into front and back compartments, of supplemental bottoms arranged in said compartments and inclined downwardly from one side of the meter to the other, and a drainage device comprising a main pipe having parallel branch pipes connected with the meter at the lower ends of said bottoms and provided with valves, said main pipe being closed at one end and provided at the other end with a detachable cap.

1,257,415. SIFTING-SHOVEL. BENJAMIN H. SMITH, Niles, Mich., assignor to Michigan Wire Goods Co., Niles, Mich. Filed Dec. 3, 1917. Serial No. 205,091. (Cl. 83—60.)

1. In a sifting shovel, the combination with a handle, of a pair of downwardly projecting shank members secured to said handle and terminating in a forwardly projecting heel portion, a border frame member bent upon itself with its bight portion offset downwardly and constituting a front cross bar and having its ends lapped and welded together and having opposed offsets therein constituting an eye, said eye being disposed between the shank members and secured by a rivet, U-shaped bar members arranged within said frame member and one within another in spaced relation with their bights disposed between said shank members and having rivet engaging offsets therein, the ends of said bar members being arranged upon and welded to the said offset front bar portion of said frame member, and rivets clamping said shank members upon said bar member engaging said offsets therein.

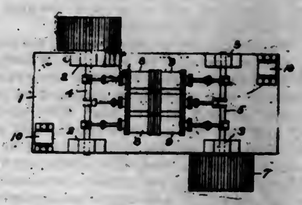
2. In a sifting shovel, the combination with a handle, of a pair of downwardly projecting shank members secured to said handle, a border frame member bent upon itself with its bight portion constituting a front cross bar and having its ends lapped and welded together and having opposed offsets therein constituting an eye, said eye being disposed between the shank members and secured by a rivet, U-shaped bar members arranged within said frame



member and one within another in spaced relation with their bights disposed between said shank members and having rivet engaging offsets therein, the ends of said bar members being arranged upon and welded to the said front bar portion of said frame member, and rivets clamping said shank members upon said bar member engaging said offsets therein.

[Claims 3 to 5 not printed in the Gazette.]

1,257,416. TRACTOR OR TRUCK. ARTHUR B. SPERRY, Pittsburgh, Pa. Filed June 11, 1917. Serial No. 174,030. (Cl. 180—29.)



1. A tractor or truck having in combination a chassis or platform, two wheels arranged respectively on opposite sides of the chassis and out of line longitudinally of the chassis, and means for driving said wheels.

2. A tractor or truck having in combination a chassis or platform, two wheels arranged respectively on opposite sides of the chassis, and out of line longitudinally of the chassis and means for driving said wheels independently of each other.

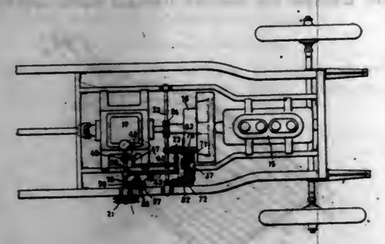
3. A tractor or truck having in combination a chassis or platform, two wheels arranged respectively on opposite sides of the chassis, and equidistant from opposite ends of the chassis and reversible means for driving said wheels independently of each other.

1,257,417. GEARING. ELMER A. SPERRY, New York, N. Y. Filed Nov. 14, 1913. Serial No. 801,020. (Cl. 74—58.)

1. The combination with change speed gear mechanism, of devices for shifting each combination of gears in said gear mechanism into operative engagement, mechanism operating the devices for each combination of gears in sequential order whereby to shift the gears of a combination by a series of dis-simultaneous steps and selectively controlled means for coupling the said actuated devices to the gear mechanism.

8. In combination, a change speed gear set, a gear shift shaft having compound forward and back and in and out

movements for effecting the different gear combinations, mechanism including devices for imparting the compound movements to the gear shift shaft necessary for the different gear combinations and selectively controlled means for coupling the shift shaft to the devices of the mechanism necessary to impart the different compound shifting movements thereto.



20. In combination with change speed gear mechanism, gear shifting means connected therewith, means for controlling selective operation of said gear shifting means, control means for setting the selective controlling means for the gear combinations desired, operating means for the gear shifting means operable in one direction to cause the gears to be carried to neutral condition and control means operative to render the selective means operative only at the end of the neutralizing movement of the said operating means.

51. The combination with change speed gear mechanism, of actuated devices for shifting the gears thereof, connections between the change speed gear mechanism and said actuated devices, and means consisting of a plurality of simultaneously operable power devices for selectively controlling said connections between actuated shifting devices and the gear mechanism.

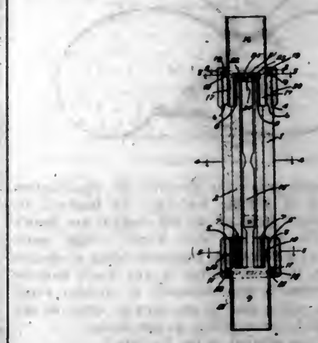
61. In combination with change speed gearing, a cam cylinder, shifters operated by said cam cylinder and arranged in pairs at opposite sides of the cam cylinder, solenoids provided with cores and arranged in pairs disposed in rear of each pair of gear shifters, shift rods connected with the change speed gearing and guided between the shifters of each pair, the cores to the solenoids being connected with the respective shift rods and means for selectively energizing the different solenoids whereby to carry the shift rods into operative engagement with either of the shifters between which said rods are guided.

[Claims 2 to 7, 9 to 19, 21 to 50, 52 to 60, 62, and 63 not printed in the Gazette.]

1,257,418. REFILLABLE FUSE. BASIL L. SPURR and FRANK A. TITTEMORE, Richmond, Cal. Filed Apr. 27, 1916. Serial No. 94,000. (Cl. 175—273.)

1. An inclosed electric fuse comprising a substantially cylindrical insulating shell having a longitudinal socket formed in its wall and extending inwardly from its end; a contact member removably associated with the end of said shell; an extension carried by said contact member and adapted to lie within said socket to prevent the rotation of said contact member; a second contact member associated with the other end of said shell; and a fusible metallic element within said shell, each end of said fusible element having electrical connection with one of said contact members.

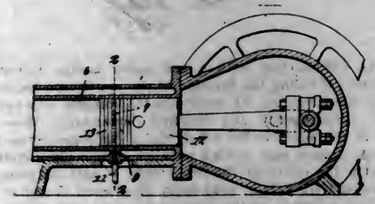
2. An inclosed electric fuse comprising a substantially cylindrical insulating shell having an exteriorly threaded portion at each end; a contact member adapted to form a closure for one end of said shell; a screw collar for holding said contact member in position; a fusible metallic element having one end attached to said contact member and projecting inwardly therefrom; a plate transversely disposed within said shell, said plate having an aperture for receiving and holding the free end of said fusible element; a second contact member forming a closure for the other end of said shell and having electrical connection with the end of said fusible element held by said plate; and a second screw collar for holding said second contact member in position.



3. An inclosed electric fuse comprising a substantially cylindrical insulating shell having an exteriorly threaded portion at each end; a pair of contact members forming closures for the ends of said shell; screw collars for holding said contact members in position; means for preventing the rotation of said contact members with respect to said shell; an apertured plate transversely disposed within said shell near one end thereof; and a fusible metallic element, one end thereof being permanently attached to one of said contact members and the other end passing through the aperture in said plate and being removably attached thereto and having electrical connection with the other of said contact members.

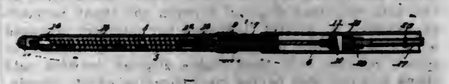
[Claim 4 not printed in the Gazette.]

1,257,419. INTERNAL-COMBUSTION MOTOR. THOMAS STIMPSON, Jr., Anamosa, Iowa. Filed July 9, 1917. Serial No. 179,505. (Cl. 121—105.)



In an explosive motor having a cylinder inclined to the vertical, a circumferential drain groove therein, said groove terminating on each side of the top of the cylinder, said top wall being uninterrupted to permit oil to pass the entire length of the cylinder, said groove lying in such relation to the piston that the groove is always closed by the piston, and a pipe directly connected to the lowest point in the groove whereby foreign matter is discharged from the cylinder.

1,257,420. BILLIARD-CUE. JOHN STRAKA, Chicago, Ill. Filed June 4, 1917. Serial No. 172,649. (Cl. 46—9.)

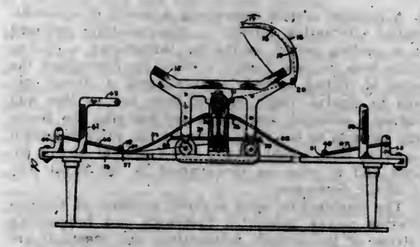


1. A cue comprising a stationary tubular body portion which is in alined forward and rear sections, a flexible tubular connection between said sections, a movable striking rod mounted in the forward section and projecting therefrom, said rod having a flexible part extending through the aforesaid flexible connection and provided at its rear end with an impact head, and an actuating plunger for the rod mounted in the rear section and adapted to engage the impact head.

2. A cue comprising a stationary part, a movable striking stem carried thereby, and an actuating plunger for the stem carried by the stationary part, said stationary part being composed of forward and rear sections which are flexibly connected.

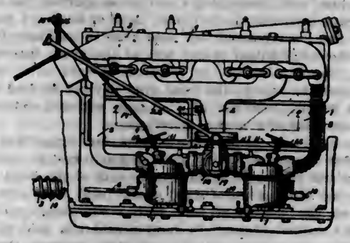
3. A cue comprising a stationary part, a movable striking stem carried thereby, and an actuating plunger for the stem carried by the stationary part, said stationary part being composed of forward and rear sections which are flexibly connected, the striking stem having a flexible part extending across the connection between said forward and rear sections.

1,257,421. FABRIC-LAYING MACHINE. CHARLES J. SUSSMAN and THOMAS A. HILL, Brooklyn, N. Y. Filed Jan. 25, 1917. Serial No. 144,468. (Cl. 270—31.)



In combination with a fabric laying machine, a support, a carriage adapted to be moved along said support, grippers upon said support, a fabric folding member beneath said carriage adapted to be rotated upon its longitudinal axis and having pinions at opposite ends, vertically movable bearings for said member, racks slidably secured within said bearings and engaging said pinions, means upon said support at each side of said carriage adapted to engage said rack when said carriage is moved a predetermined distance whereby said member is partially rotated, and means upon said support and in combination with said bearing for lifting the same a predetermined amount each time said carriage is moved a predetermined distance in one direction upon said support.

1,257,422. CARBURETING APPARATUS FOR INTERNAL-COMBUSTION ENGINES. WILLIAM E. SWEET, Dowagiac, Mich. Continuation of application Serial No. 849,758, filed July 8, 1914. This application filed Oct. 19, 1914. Serial No. 867,308. (Cl. 261—18.)



3. In an internal combustion engine, the combination of an intake manifold, a pair of standard carbureters, each of which is provided with a needle valve for controlling the fuel supply having an upwardly projecting needle valve stem, connections from said carbureters to said intake manifold, means for controlling the flow of mixture from said carbureters to said intake manifold, and means for simultaneously rotating said needle valve stems to adjust said needle valves.

4. In an internal combustion engine, the combination of an intake manifold, a throttle valve therein, a plurality of standard carbureters, each complete in itself, one for light hydrocarbon such as gasolene and the other for heavier hydrocarbon such as kerosene, the fuel supply pipe to the carbureter for the heavier fuel being disposed in proximity to the exhaust pipe to be heated thereby, means for simultaneously controlling the fuel supply to said carbureters to regulate the mixture, independent passages from the said carbureters to the intake manifold, a three-way valve for controlling the said independent passages from the carbureters to the manifold whereby the relative amount of mixture from said carbureters can be controlled to the extent of completely cutting off either one or the other, for the purpose specified.

5. In an internal combustion engine, the combination of an intake manifold, a throttle valve therein, a plurality of standard carbureters, each complete in itself, one for light hydrocarbon such as gasolene and the other for heavier hydrocarbon such as kerosene, the fuel supply pipe to the carbureter for the heavier fuel being disposed in proximity to the exhaust pipe to be heated thereby, means for simultaneously controlling the fuel supply to said carbureters to regulate the mixture, independent passages from the said carbureters to the intake manifold, a jacket surrounding a portion of the exhaust pipe of said engine, and an air intake connecting the kerosene carbureter with said jacket, a three-way valve for controlling the said independent passages from the carbureters to the manifold whereby the relative amount of mixture from said carbureters can be controlled to the extent of completely cutting off either one or the other, for the purpose specified.

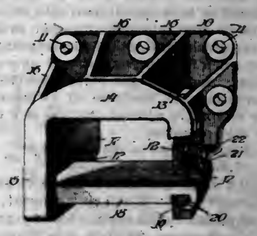
[Claims 1 and 2 not printed in the Gazette.]

1,257,423. PROCESS FOR MAKING CATTLE FOOD. FRANK THATCHER, El Paso, Tex. Filed Apr. 9, 1917. Serial No. 160,834. (Cl. 99—11.)

3. The process of obtaining a food product from vegetable matter by macerating a quantity of sotol and adding substantially twice its weight in water thereto, injecting steam thereinto to thoroughly cook the mass at a pressure of about twenty-five pounds and maintaining the pressure for a period of two and one-half hours, expressing therefrom and evaporating to the desired consistency the resulting syrup, thoroughly washing the fibrous residue of the sotol, expressing the remaining liquid therefrom to add to a succeeding quantity of vegetable matter in place of water, separating the pith from the fibrous residue, adding the pith to the evaporated liquid product and adding to the resultant product alfalfa meal.

[Claims 1 and 2 not printed in the Gazette.]

1,257,424. CARRY-IRON. JOHN H. TINKER and DAVID T. HARRIS, Chicago, Ill. Filed Apr. 2, 1917. Serial No. 159,099. (Cl. 213—42.)



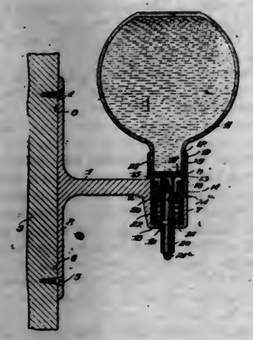
1. A buffer block and carry iron, comprising in combination, a casting having depending side walls each provided with an aperture near its lower edge, and a relatively wide plate having grooves near its ends, said plate by

means of said grooves and apertures being adapted to removably interlock with said casting, retained by gravity, and removable laterally through said apertures.

5. A drawbar carry iron, comprising in combination, a member having side walls with apertures therein, and a plate having notches adapted to engage said side walls adjacent said apertures and removable laterally through the apertures.

[Claims 2 to 4 not printed in the Gazette.]

1,257,425. DISPENSING APPARATUS. JOSEPH PURMORT TRUAX, Rochester, N. Y. Filed Apr. 24, 1917. Serial No. 164,107. (Cl. 221—94.)



1. In a dispensing apparatus, a bracket, a receptacle thereon provided with an opening, a container mounted upon the receptacle provided with a closure of relatively soft material, and means normally closing said opening and movable in the direction of the container to puncture said closure and to uncover the opening.

6. In a dispensing apparatus, a bracket, a receptacle connected therewith having an opening, a container above the receptacle, a member interposed between the receptacle and container provided with an aperture normally establishing communication between the container and receptacle and means for closing said opening, said means being movable to open the latter and close said aperture.

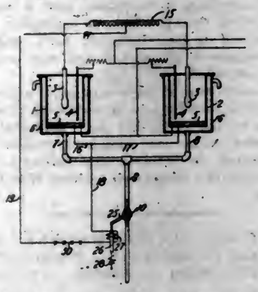
7. In a liquid dispensing apparatus, a bracket, a receptacle connected therewith having a normally closed opening, a container connected with the receptacle, a member interposed between the receptacle and container provided with an aperture normally establishing communication between the container and receptacle, a valve movable in the direction of the container to uncover said opening and to close said aperture, whereby the liquid in the receptacle is forced therefrom, and means for returning the valve to normal position.

8. In a dispensing apparatus, a bracket, a receptacle carried by the bracket having a threaded portion formed thereon, said receptacle being provided with a discharge opening and an aperture located above the latter, a sealed container arranged to be screwed upon said threaded portion and adapted to close said aperture when in fixed position upon the receptacle, and means for breaking the seal of the container when in said position and uncovering the discharge opening, said aperture being provided for the purpose of preventing the insertion of an unsealed container upon the receptacle without the loss of a portion of the contents of said container.

[Claims 2 to 5 not printed in the Gazette.]

1,257,426. VOLTAGE-REGULATING SYSTEM FOR VAPOR-RECTIFIERS. WILLIAM TSCHUDY, Wilkinsburg, and SIDNEY W. FARNSWORTH, Pittsburgh, Pa., assignors to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 19, 1914. Serial No. 819,691. (Cl. 171—312.)

1. A rectifier system comprising a source of constant-potential alternating current, a vapor rectifier having a cathode adapted to be cooled to a variable extent, a circuit connected to receive direct current from the rectifier, and means dependent upon the direct-current circuit for supplying a cooling medium to the rectifier cathode in varying amounts.



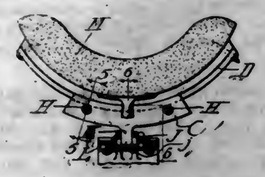
4. A rectifier system comprising a source of constant-potential alternating current, a vapor rectifier provided with a cooling jacket, means for introducing a cooling medium into the said jacket, a valve for controlling the amount of cooling medium so introduced, a circuit connected to receive direct current from the rectifier and including a solenoid, and means for applying the power of the solenoid to the valve, whereby the valve is caused to open as the current in the direct current circuit increases and to close as the current in the direct current circuit decreases.

6. The combination with a vapor rectifier, of voltage-regulating means associated therewith and functioning by virtue of the cathode temperature and resultant arc drop.

8. The method of regulating an electric circuit supplied from a vapor rectifier which comprises regulating the voltage drop in said rectifier in accordance with the current in said circuit.

[Claim 2, 3, 5, and 7 not printed in the Gazette.]

1,257,427. HEAD-REST. JOHN L. UNDERWOOD, Smithfield, Va. Filed Sept. 30, 1915. Serial No. 53,216. (Cl. 155—10.)



1. A head-rest comprising a rest for supporting the head, and means including a stationary member having a curved groove for loosely mounting said rest to oscillate freely about the longitudinal center axis of the head, thereby to permit free turning of the head about said axis, means on the rest to engage the head, and devices in said member to permit removal of the rest without detaching said head-engaging-means therefrom.

2. A head-rest comprising a rest for supporting the head, and means for loosely mounting said rest to oscillate freely about the longitudinal center axis of the head, said means including a rib curved about said axis and disposed on the bottom of said rest, a stationary support having a curved channel to receive said rib, said rib being longer than said channel to extend beyond the latter at each end and thereby afford the required range of oscillation, devices on the ends of said rib to enter said channel a distance, and stops spaced apart in said channel to engage said devices.

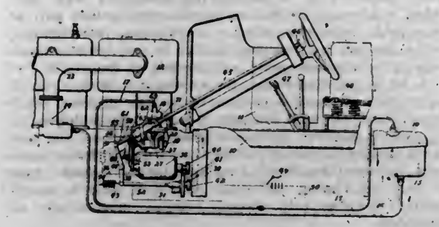
4. A head-rest comprising a rest for supporting the head, and means for loosely mounting said rest to oscillate freely about the longitudinal center axis of the head, said means including a rib curved about said axis and disposed on the bottom of said rest, a support having a curved channel to receive said rib, said rib being longer than said channel to afford the required range of oscillation, devices on the ends of said rib to enter said channel, and stops in said channel to engage said devices, said stops comprising rollers arranged parallel with said axis and which engage the bottom of said rib.

5. A head-rest comprising a rest for supporting the head, and means for loosely mounting said rest to oscillate freely about the longitudinal center axis of the head, said means including a rib curved about said axis and disposed on the bottom of said rest, a support having a curved channel to receive said rib, said rib being longer than said channel to afford the required range of oscillation, devices on the ends of said rib to enter said channel, stops in said channel to engage said devices, and a centrally located handle extending at right angles to said axis on the bottom of said rest, the lower end of said handle being below said support and tending by its weight to gravitate said rest into central position.

7. A head-rest comprising a rest for supporting the head, and means for loosely mounting said rest to oscillate freely about the longitudinal center axis of the head, said means including a rib curved about said axis and disposed on the bottom of said rest, a stationary support having a curved channel to receive said rib, said rib being longer than said channel to extend beyond the latter at each end and thereby afford the required range of oscillation, devices on the ends of said rib to enter said channel a distance, stops spaced apart in said channel to engage said devices, and a pivot for the bottom of said support to tilt the head-rest about a horizontal axis extending at right angles to said longitudinal axis.

[Claims 3 and 6 not printed in the Gazette.]

1,257,428. HYDROCARBON-MOTOR. JESSE G. VINCENT, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Oct. 10, 1913. Serial No. 794,511. (Cl. 123—179.)



1. The combination with a hydrocarbon motor, a starting motor therefor, and a mechanical driving connection from the starting motor to the hydrocarbon motor for starting the latter, of a pump, means for connecting the starting motor to the pump, and independent means for connecting the pump to be driven by the hydrocarbon motor.

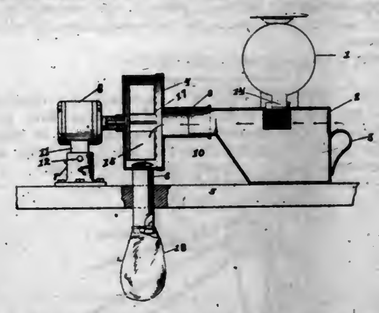
5. The combination with a hydrocarbon motor, an electric starting motor therefor, gearing between the hydrocarbon motor and the starting motor, a battery and circuits for operating said starting motor, and a pump, of a device operating successively to close one of said circuits to operate the starting motor slowly, to connect and disconnect said pump and said starting motor, to mesh said gearing to form a driving connection between said starting motor and said hydrocarbon motor, and to close another of said circuits to operate said starting motor at a higher voltage.

10. In combination with an internal combustion engine, a fuel supply tank from which fuel is adapted to be forced to the engine by air pressure, an air pump for creating pressure in the tank, and a starter for starting the engine and for actuating the pump.

11. In combination with an internal combustion engine, a fuel supply tank from which fuel is caused to pass to the engine by air pressure, a starting motor adapted to be connected to the engine for starting purposes, an air pump connected to the tank and connected to said starting motor so as to be driven thereby.

[Claims 2 to 4 and 6 to 9 not printed in the Gazette.]

1,257,429. MEANS FOR EXTRACTING CHAFF FROM GROUND COFFEE. LEVI WARSTLER, Louisville, Ohio. Filed Mar. 10, 1917. Serial No. 154,018. (Cl. 130—17.)

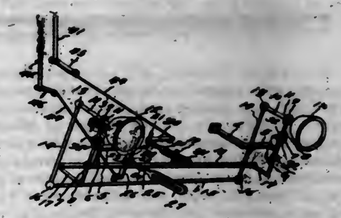


1. In a device of the character described, the combination of a suction fan, a coffee mill, said coffee mill located at one side of the suction fan, a receptacle located below said coffee mill, the chamber of said receptacle communicating with the casing of the suction fan, said receptacle provided with a spreader plate located below the delivery spout of the coffee mill and an air intake located through said receptacle and in alinement with the eye of the suction fan.

2. In a device of the character described, the combination of a suction fan, a coffee mill, said coffee mill located at one side of the suction fan, a receptacle located below said coffee mill, the chamber of said receptacle communicating with the casing of the suction fan, said receptacle provided with a spreader plate located below the delivery spout of the coffee mill, an air intake located through said receptacle and in alinement with the eye of the suction fan, and a removable sack connected to the fan chamber.

3. In a device of the character described, the combination of a coffee mill and a suction fan, a receptacle provided with an opening at its top, a perforated V-shaped spreader plate located directly below said opening and the coffee mill, said suction fan adapted to be operatively connected with the receptacle and a receiving sack located adjacent the suction fan casing and an air intake located through the receptacle, said spreader plate located between the eye of the suction fan and the receptacle air intake.

1,257,430. DIRIGIBLE-LAMP MECHANISM. JAMES S. WESTHAFER, Braman, Okla. Filed Nov. 2, 1916. Serial No. 129,136. (Cl. 240—61.)

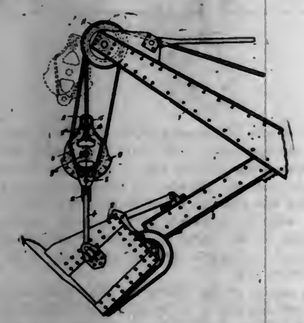


1. In combination, a pair of arms to be carried by the hood of an automobile and having brackets at their

outer lateral ends, vertical rods mounted in bearings of said brackets to rock, and provided with rearwardly extending arms at their lower ends, rods pivoted in the upper ends of said vertical rod to oscillate vertically and provided with lamps at their forward ends, links connected by universal joints to the second rods, a connecting rod connected to the lower ends of said links by universal joints, a connecting bar connected to the rearwardly extending arms of the vertical rods, and means having loose connections with said connecting rod and designed to be oscillated vertically to move the lamps vertically, and means to be oscillated and connected to said connecting bar loosely, whereby the vertical rods may be oscillated horizontally, to correspondingly move the lamps.

[Claim 2 not printed in the Gazette.]

1,257,431. PULLEY-BLOCK. CLARENCE B. WESTON, Erie, Pa., assignor to Ball Engine Company, Erie, Pa., a Corporation of Pennsylvania. Continuation of application Serial No. 3,358, filed Jan. 20, 1915. This application filed July 7, 1916. Serial No. 107,919. (Cl. 254—188.)



1. In a system of pulley blocks, the combination of a pair of grooved pulleys arranged side by side, said grooves being formed by flanges with the flanges on the adjacent sides of the pulleys in close proximity and of less diameter than the outer flanges on the pulleys; an opposed grooved pulley acting in conjunction with said pair of grooved pulleys; and a cable running over one of the pair of grooved pulleys through the opposed pulley and over the second of the pair of grooved pulleys.

2. In a system of pulley blocks, the combination of concentrically grooved pulleys arranged side by side having outer buffer flanges of greater thickness than the central flanges; a floating pulley block adapted to engage the buffer flanges and swing with the pulleys when the pulleys are chock-a-block; and a cable in said blocks.

[Claims 3 and 4 not printed in the Gazette.]

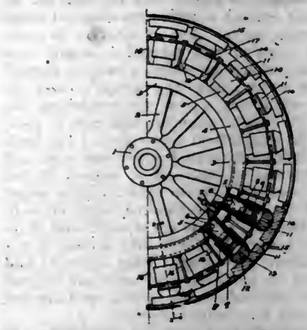
1,257,432. PUZZLE GAME. EDWARD VICTOR WETZEL and MARGARET WETZEL, New York, N. Y.; said Edward Victor Wetzel assignor to said Margaret Wetzel. Filed Oct. 18, 1917. Serial No. 197,200. (Cl. 46—41.)



1. A puzzle game consisting of a set of independent and disconnected rods capable of being rotated around separate axes and each bearing on its circumference portions or sections of differently colored designs or pictures, of which those of one color when the said rods are rotated around their axes and brought to lie in a certain position will complement one another to complete one of the designs or pictures and those of a different color when the rods are in a different position will complement one another to present another design or picture.

[Claims 2 to 5 not printed in the Gazette.]

1,257,433. RESILIENT WHEEL. CHARLES A. WHALE and JAMES H. BLACK, Portland, Oreg. Filed Apr. 26, 1917. Serial No. 164,789. (Cl. 152—81.)



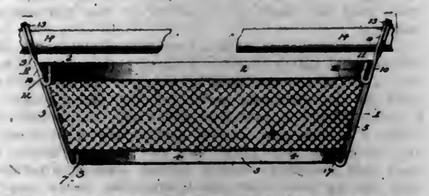
1. In a resilient wheel, in combination, a wheel member, an annular hollow tire-like body around said wheel member, a series of radially disposed telescoping cylindrical members mounted in said hollow body and communicating with the interior thereof, a series of tread members circumferentially disposed around said wheel and bearing on said outer cylindrical members, means for holding said tread members in circumferential alinement with each other, two floating pistons in said cylindrical members, and a composition therebetween, and in the outer ends of said cylindrical members, substantially as described.

4. In a resilient wheel, in combination, a wheel structure, a series of telescoping pairs of cylinder members radially disposed around said wheel structure, means for holding the same in fixed radial positions, a series of circumferentially disposed tread members seated on the outer ends of said cylinder members, means for holding said tread members in circumferential alinement with each other, a plurality of floating pistons within each pair of telescoping cylinder members, a heavy grease therebetween, and a pressure transmitting medium in said cylinder members at their opposite ends, substantially as described.

5. In a resilient wheel, in combination with a wheel structure and a series of circumferentially disposed tread members, a series of radially disposed telescoping pairs of cylinder members between said wheel structure and said tread members, floating pistons within said cylinder members, pressure transmitting medium in the opposite ends of said telescoping cylindrical members, and a grease mixture between said floating pistons, substantially as described.

[Claims 2, 3, and 6 not printed in the Gazette.]

1,257,434. SIEVE. CHARLES C. WICKWIRE, Cortland, N. Y. Filed Jan. 12, 1918. Serial No. 211,518. (Cl. 83—60.)



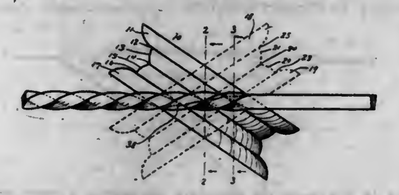
1. In a sieve, the combination of a body portion; an upper and a lower rim; and a bail secured thereto, said bail being formed of a single piece of wire bent to form and comprising an upturned looped end, two side bars or strands and an eye carried at the upper end of each strand, said loops registering with each other and each loop terminating in a finger, said fingers passing through the sieve body and engaging the upper rim while the looped lower end engages the lower rim.

3. In a sieve, the combination of a body portion; an upper and a lower rim; and a pair of bails secured thereto, each bail being formed from a single piece of wire bent to form and comprising an element adapted to engage the lower rim, upwardly-extending side bars or strands, a pair of contacting and registering eyes formed at the upper ends of the strands, and attaching elements connected to the strands, said eyes or loops at their upper portions being outwardly curved or indented to form an opening for the reception of a nail or the like.

6. As a new article of manufacture, a wire bail adapted to be secured to a sieve or the like, said bail being formed from a single piece of wire bent to form and comprising an upturned looped end, two bars or strands extending upwardly therefrom, an eye or loop formed upon the upper end of each strand, the eyes registering with each other, a downwardly-extending element formed as an extension from each eye, and a finger projecting inwardly from each of such elements, said fingers and the upturned loop forming supporting points between the bail and the article to which it is to be attached, and adapted to be bent into locking engagement therewith.

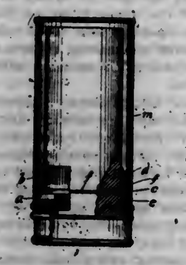
[Claims 2, 4, and 5 not printed in the Gazette.]

1,257,435. BAR-TWISTER. FRANK H. WILLIAMS, Buffalo, N. Y. Filed June 24, 1912, Serial No. 705,390. Renewed July 21, 1917. Serial No. 182,091. (Cl. 153—78.)



A bar twister comprising two superimposed rolls, each of them being oppositely set with its plane of rotation at an angle to the axis of the bar being twisted, which is substantially equal to the angle of the helix of the twisted bar and having its periphery formed with a plurality of convex surfaces, each successive convex surface from the intersection of the planes passing through the axes of the bar and rolls being of greater diameter of revolution than the next preceding convex surface, whereby said successive convex surfaces are tangent to the successively treated twisted surfaces of the bar.

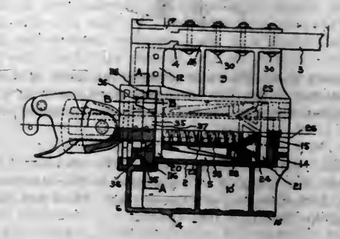
1,257,436. SOAP-STICK HOLDER. PHILIP K. WILLIAMS, Glastonbury, Conn., assignor to The J. B. Williams Company, Glastonbury, Conn., a Corporation of Connecticut. Filed Mar. 17, 1916. Serial No. 84,849. Cl. 206—56.)



1. In a device of the character described the combination with a soap stick shouldered at one end, of a sleeve provided with a tubular portion snugly fitting said stick and a shoulder engaging the shoulder of said stick, the part of said sleeve below said shoulder being threaded and shorter than the shoulder part of said stick so that the latter projects beyong said sleeve, and a cap surrounding and having threaded engagement with the lower end of said sleve the end wall of said cap engaging the end of said stick.

[Claim 2 not printed in the Gazette.]

1,257,437. DRAFT-GEAR CARRIER FOR RAILWAY-LOCOMOTIVES. WILLIAM H. WINTERROWD, Montreal, Quebec, Canada. Filed Feb. 24, 1915. Serial No. 10,371. (Cl. 213—64.)



1. The combination with a pair of spaced engine frames, of a unitary member comprising a foot-plate and draft-gear-carrying portions, means rigidly securing the said unitary member between the engine frames with the outer face of the member and outer ends of the frames in the same transverse plane relatively to the engine, for the purpose set forth.

2. The combination with a pair of spaced engine frames having outwardly facing shoulders, of a unitary member comprising a foot-plate and draft-gear-carrying portions, such means having shoulders for engagement with the shoulders on the frames, and means rigidly securing the said unitary member between the engine frames with the outer face of the member and outer ends of the frames in the same transverse plane relatively to the engine, for the purpose set forth.

3. The combination with a pair of engine frames of a foot-plate member located entirely between the frames and bolted thereto with its forward face flush with the forward ends of the said engine frame-parts, such member being constructed and arranged to present a receptacle for a draft-gear, a draft-gear mounted in said receptacle and removable in the same horizontal plane in which it is located during service; and detachable means retaining the draft-gear in place.

4. The combination with a pair of rigid parts of a locomotive frame, of a foot-plate member located entirely between the said parts and bolted thereto with its forward face flush with the forward ends of the said engine frame-parts, such member being constructed and arranged to present a receptacle for a draft-gear and the said member having a substantially flush top and forward reinforcement and openings intersecting the receptacle, a draft-gear mounted in said receptacle and removable in the horizontal plane in which it is located in service and means dropped into the openings and constructed and arranged to retain the draft-gear in place, the said means being united by a yoke serving as a handle, for the purpose set forth.

1,257,438. SASH-CORD FASTENER. HERRMANN A. WULF, Norwich, Conn. Filed Sept. 13, 1917. Serial No. 191,255. (Cl. 16—16.)

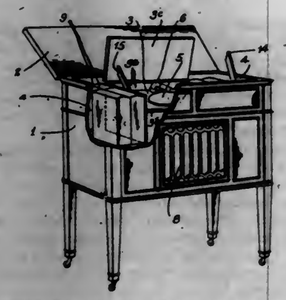
In a sash cord fastener, a pair of spaced clamping members each consisting of a piece of sheet metal bent to form a transversely-concave cord-embracing seat and backwardly bent side fins the longitudinal edges of which incline toward one end, an anchor plate having an opening to receive the clamping members, the edge of the plate opening being formed with opposing pairs of seats that converge

inwardly between the longitudinal edges of the clamping members to thereby brace the fins apart, and an anchoring



spur struck upwardly from between the seats of each pair and deflected outwardly to engage in the sash at a point intermediate the side fins of the adjacent clamping member.

1,257,439. PHONOGRAPH-CABINET. FRANCIS LINCOLN YOUNG, New York, N. Y., assignor to The Aeolian Company, a Corporation of Connecticut. Filed Jan. 6, 1916. Serial No. 70,649. (Cl. 45—52.)
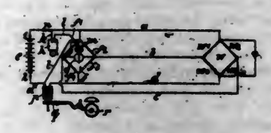


1. A phonograph cabinet, having both a record-playing and a record-storing compartment; in combination with a movable main lid or cover adapted to open both compartments simultaneously, to afford access thereto; and a separate auxiliary lid for the record-playing compartment alone, movable to open or closed position independently of the main lid, whereby said auxiliary lid may be moved into closed position during the playing of a record while the main lid remains open, and may thereafter be opened to permit the substitution of a new record from the record-storing compartment for the one just played.

3. A phonograph cabinet, having separate record-playing and record-storing compartments provided in its top; in combination with a hinged main lid or cover adapted to be raised or lowered to open or close the entire top of the cabinet, in order to afford access to all of said compartments when said lid is raised; a separate auxiliary lid connected to the record-playing compartment for movement independently of the main lid to open or close solely the said record-playing compartment; and means for releasably supporting the main lid in raised or open position, whereby the record-playing compartment may be kept closed during the playing of a record while the main lid remains open, and may thereafter be opened to permit the substitution of a new record from the record-storing compartment for the one just played.

[Claim 2 not printed in the Gazette.]

1,257,440. ELECTRICAL BURGLAR-ALARM. ALFRED ZEHDEN, Berlin, Germany. Filed Mar. 18, 1914. Serial No. 825,637. (Cl. 177—316.)

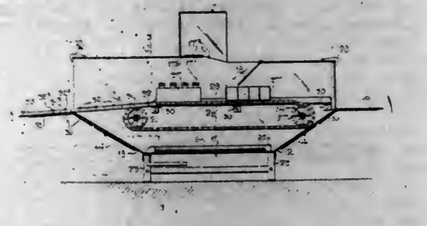
1. In an electrical burglar alarm, the combination in the alarm circuit at the point of danger of a branched resistance and connections therewith to more than two points of different potential in the source of current.



8. In a burglar alarm, a source of current, a branched resistance, connections between the branched resistance and more than two points of different potentials of the source of current which are transversed in part continuously and in part only upon disturbance by currents; a minimum relay in one of the connectors continuously transversed by current and a mechanical alarm attachment which is released by the armature of the relay upon falling below a current value.

[Claims 2 to 7 not printed in the Gazette.]

1,257,441. HOT STOVE FOR GLASSWARE. EDWARD L. ZIHLMANN, Huntington, W. Va. Filed July 9, 1917. Serial No. 179,497. (Cl. 49—47.)



1. A hot stove for glassware comprising a sheet metal casing open at opposite ends, means disposed within the casing whereby to maintain heat therein, doors normally closing opposite ends of the casing, a conveyer disposed within the casing having means exterior thereto whereby it may be operated, said casing having a receiving opening in its top intermediate its ends, and a section hinged to one wall of the opening and adjustable into different angular relations.

4. A hot stove for glassware comprising an elongated sheet metal casing open at its opposite ends, hinged doors normally closing the opposite ends of the casing, the top of the casing having an opening to permit the insertion of the ware, a hinged section forward of said opening mounted for angular adjustment, a pair of sprocket wheels disposed at the entrance end of the casing, a pair of sprocket wheels disposed in spaced relation to the exit end of the casing, sprocket chains passing over the sprocket wheels, tracks supporting the sprocket chains, bars extending from the terminus of the upper flight of the sprocket chains to the rear door opening, said doors being inclined downward and rearward and having rollers, and means on the exterior of the casing for rotating said sprocket wheels from time to time.

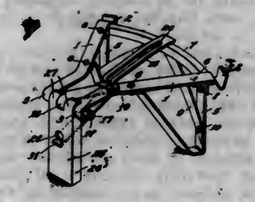
6. A hot stove for glassware comprising an elongated casing having an entrance opening and an exit opening, doors hinged at their lower edges and normally closing said openings, an endless carrier extending through the casing from the forward end thereof nearly to the rear end thereof, means on the exterior of the stove for operating said endless carrier, means for maintaining heat within the casing, means receiving articles from the endless carrier and carrying said articles by gravity to the exit end of the casing, and a hood mounted upon the casing and having an opening thereinto, the hood being provided with a shelf on a level with the top of the casing and extending partly over said opening.

8. A hot stove for glassware comprising an elongated casing having a door at one end hinged at its lower edge and opening downward to a downwardly and outwardly inclined poistion and provided with parallel tracks upon its inner surface, said casing having an opening for the insertion of the glassware disposed intermediate the ends of the casing, an endless carrier extending through the casing nearly to the rear end thereof and disposed below the last named opening, means for operating said endless carrier, means for maintaining heat within the casing, and tracks receiving articles from the endless carrier and discharging articles upon the tracks on the door, and downwardly and rearwardly inclined, whereby to cause said articles to move by gavity to the exit end of the casing.

9. A hot stove comprising an elongated casing having doors at its forward and rear ends, means for maintaining heat within the interior of the stove, an endless carrier mounted within the stove and adapted to carry articles to the exit end thereof, the top of the stove being formed with an opening for the insertion of articles, and an article receptacle adapted to rest upon the endless carrier formed of sheet metal and having sheet metal partitions defining compartments within which the articles can be placed, the partitions separating the articles from each other to thereby prevent the articles from sticking together and scratching.

[Claims 2, 3, 5, and 7 not printed in the Gazette.]

1,257,442. BARREL-STAND. JOSEPH G. ZIMLICH, Cleveland, Ohio. Filed Mar. 25, 1915. Serial No. 16,835. (Cl. 248—11.)



1. In a barrel stand, the combination of a platform comprising a pair of side members which have their rear ends provided with chime receiving recesses and their forward ends provided each with an eye, a member spacing apart and rigidly connecting the rear ends of the side members, a central member that extends from the last mentioned member forward and is provided with an eye that is in axial alinement with the eyes of the side members, the central member having, in the vicinity of its longitudinal center, a pair of opposed abutment surfaces, a leg connected to each of the side members adjacent its rear end, a leg having an eye at its upper end, a pivotal member extending through the eyes of the side members, the central member, and the leg, and a latch bar having one of its ends pivoted to the last mentioned leg and its opposite end slidable along the central member and arranged to occupy a position between the abutment surfaces thereof when the last mentioned leg is in substantially vertical position.

4. In a barrel stand, the combination of a platform comprising a pair of side members, a member spacing apart and rigidly connecting the rear ends of the side members, a leg connected to each of the side members adjacent its rear end, a leg pivotally connected to the forward ends of the side members, a guide extending from front to back of the platform, and a latch bar having one of its ends pivotally connected to the last mentioned leg and its opposite end slidable along the guide, the guide and latch bar having parts coöperating, when the last mentioned leg is in substantially vertical position, to hold the leg in such position.

[Claims 2 and 3 not printed in the Gazette.]

1,257,443. REGISTER-OPERATING MECHANISM. NICHOLAS ALBERGAMO, Charleston, S. C. Filed Sept. 29, 1916. Serial No. 122,940. (Cl. 235—99.)

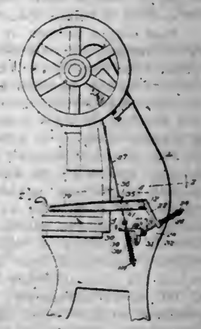


1. In an automatic circuit closer, the combination of a stationary contact, an insulating element in front of said contact, a treadle capable of conducting a circuit, oscillatable about a horizontal axis intermediate its forward and rear margins, and movable to engage said insulating element or stationary contact, yieldable means for normally positioning said treadle remote from said stationary contact and element, with its lower face above the upper face of said stationary contact, and an electric circuit including said treadle and stationary contact to complete a circuit when said treadle engages said stationary contact.

2. In an automatic circuit closer, the combination of a stationary contact, an insulating element in front of said contact, a treadle capable of conducting current, rollers carried by said treadle permitting the same to oscillate by the horizontal axis intermediate its forward and rear margins, tracks for said rollers guiding said treadle in a path of movement to engage said insulating element or stationary contact, yieldable means for normally positioning said treadle remote from said stationary contact and element, with its lower face above the upper face of said stationary contact, and circuit conductors leading from said treadle and stationary contact, to complete a circuit when said treadle engages said stationary contact.

3. In an automatic circuit closer, the combination of a stationary contact, an insulating element in front of said contact, a treadle capable of conducting current, rollers carried by said treadle permitting the same to oscillate by the horizontal axis intermediate its forward and rear margins, tracks for said rollers guiding said treadle in a path of movement to engage said insulating element or stationary contact, said tracks declining toward said element and stationary contact, yieldable means for normally positioning said treadle remote from said stationary contact and element, with its lower face above the upper face of said stationary contact, and circuit conductors connected to said treadle and stationary contact, to complete a circuit when said treadle engages said stationary contact.

1,257,444. SAFETY MANIPULATING DEVICE FOR MACHINERY. RALPH J. ALDRICH, Chicago, Ill., assignor to Benjamin Electric Mfg. Company. Filed Apr. 10, 1913. Serial No. 760,304. (Cl. 74—46.)



1. A safety manipulating device for machinery comprising, in combination, a clutch tripping member, means normally tending to actuate said member, and a pair of operable devices each of which is adapted normally to prevent the actuation of said member and said devices being

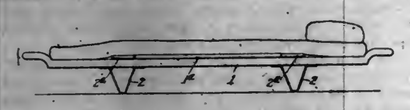
adapted to permit the actuation of said tripping member when both are operated, said devices being spaced apart, for the purposes set forth, the construction being such that when both said devices are operated said actuating means will automatically actuate the clutch-ripping member.

2. The combination with a punch press, of a clutch tripping device therefor having a normal tendency to trip the clutch, means for restraining said device in its non-stripping position comprising a pair of operable members each normally retaining said tripping device in its non-operable position, said device being permitted to move to its operable position only when both of said members are operated, the construction being such that when both of said members are operated said clutch-tripping device will automatically act to trip the clutch.

3. The combination with a punch press having a clutch-tripping device associated therewith, said clutch tripping device comprising a tripping member, a spring normally tending to actuate said tripping member, and a pair of movable hand levers, one at each side of the machine, each of said hand levers being provided with a spring of greater strength than said first-named spring, tending to prevent the actuation of said tripping member.

[Claims 4 to 6 not printed in the Gazette.]

1,257,445. DEVICE FOR HANDLING INVALIDS. BERNARD E. ARNTZEN, Chicago, Ill. Filed Mar. 23, 1912. Serial No. 685,662. (Cl. 21—80.)



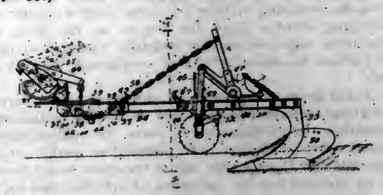
1. A device for transferring invalids to sleeping cars, comprising a main stretcher, an auxiliary stretcher shorter in length than the main stretcher so that it may be passed through the narrow passageway of the sleeping car and around the bends at the ends thereof, and supported on said main stretcher, said auxiliary stretcher located beneath the bed clothes of the main stretcher and consisting of a thin flat supporting device adapted to support the invalid while being transferred from the main stretcher to the sleeping car.

2. A device for handling invalids comprising an auxiliary stretcher consisting of a rectangular frame, said frame bent at the corners so as to form curved connecting pieces between the sides and ends thereof, a flexible cover stretched on said frame and cut away at the corners so as to expose said curved connecting pieces, the curved connecting pieces acting as handles, said frame free from projecting parts and shorter in length than the height of the average adult so that only a portion of the body of the party being carried engages the stretcher, the other portion projecting beyond the stretchen so that said stretcher may be moved through narrow passages and around sharp corners while the invalid is resting thereon.

3. A device for handling invalids comprising a double stretcher having a main stretcher of normal length, suitable supports for said stretcher, suitable handling devices connected with said stretcher, an auxiliary stretcher shorter than normal length and mounted on the main stretcher intermediate its ends, said auxiliary stretcher free from supporting devices and provided with a frame extending therearound, a portion of which is exposed to form handles whereby the invalid may be carried to the vestibule of a car on the main stretcher and may then be carried through the narrow passageway into the car on the auxiliary stretcher without being changed from one to the other.

4. The method of handling invalids, which consists in supporting the invalid on a flat, short stretcher shorter in length than the length of the invalid, so that only a portion of the invalid engages the stretcher, the other portion of the invalid projecting beyond the end of the stretcher, whereby the invalid may be easily transferred through narrow passageways and around sharp bends, without removing said patient from the stretcher.

1,257,446. GANG-PLOW. JOHN B. BARTHOLOMEW, Peoria, Ill., assignor to Avery Company, a Corporation of Illinois. Filed Jan. 18, 1912, Serial No. 671,955. Renewed July 19, 1917. Serial No. 181,664. (Cl. 97—59.)



3. In a gang plow, the combination of a main frame, an obliquely arranged series of individual plows each having a beam pivotally connected to the main frame and each having a ground wheel and a lever pivoted on the beam and connected to the ground wheel, whereby the beam is moved up or down with respect to the ground wheel when the lever is moved; a series of levers pivoted on the main frame, one lever being provided for each plow, chains for connecting the several levers on the frame with the corresponding levers on the beams, guide sheaves for the chains, each sheave being disposed at or near the pivotal connection of the corresponding beam with the main frame, and means for successively actuating the several levers on the main frame to lift the plows in succession, substantially as set forth.

8. The combination with the draft frame, of the plow units in transverse series and adapted to be successively raised and lowered, each unit having a beam hinged to the frame, a plow body vibrating vertically in fixed arcs, a body-supporting wheel movable relatively to the plow body and a power transmitter, the plow body and its supporting wheel being adapted to move around the beam pivot at a substantially fixed distance apart at all times while the transmitter is inactive, power mechanism for actuating said power transmitters, and a connector adapted to optionally connect the power mechanism and the power transmitters successively.

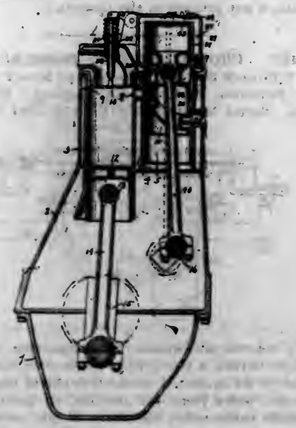
10. The combination with the draft frame, of the plow units in transverse series and adapted to be successively raised and lowered, each unit having a beam hinged to the frame, a plow body vibrating vertically in fixed arcs, a body-supporting wheel movable relatively to the body to lift it and a power transmitting chain connected to the wheel for relatively moving it and having a bearing on the beam in front of the wheel, and automatically acting means for imparting power to the said chains successively.

13. The combination with the draft frame, of the plow units in a transverse series and adapted to be successively raised and lowered, each unit having a beam hinged to the frame, a plow body vibrating vertically in fixed arcs, a ground-engaging body-supporting device and power transmitting devices connected to the supporting device and arranged so that when inactive they do not affect the relative positions of the plow body and its support, the said supporting device being adapted to move independently of the power mechanism in the plow lifting direction, and automatically acting means for causing the power transmitters of the series to successively move their body-supporting devices, respectively.

19. The combination with the draft frame, of the plow units in a transverse series adapted to be successively raised and lowered, each unit having a beam hinged to the frame, a plow body vibrating vertically in fixed arcs, a ground-engaging body support movable relatively to the beam and a power transmitting device on the beam which while inactive permits the beam and the plow body to drop toward the ground from points above it and a spring for resisting accidental movements of the power transmitter relatively to the body, and automatically acting means for causing the power transmitters of the series to successively move their supports, respectively.

[Claims 1, 2, 4 to 7, 9, 11, 12, 14 to 18, and 20 not printed in the Gazette.]

1,257,447. INTERNAL-COMBUSTION ENGINE. JAMES B. BAYNES, Cincinnati, Ohio. Filed July 9, 1917. Serial No. 179,370. (Cl. 123—75.)



1. In an internal-combustion engine, the combination of a cylinder, an exhaust valve in the head thereof, a valve chamber adjacent thereto and connecting thereto by a port, a piston valve slidable in the valve chamber and formed with an explosion chamber intermediate its ends to receive the compressed charge of fuel and hold it during its combustion, said valve chamber having a compression chamber at its upper end and a by-pass and an exhaust port so positioned that the air compressed in the upper end of the valve chamber will scavenge the explosion chamber when the valve is at the upper end of its stroke, and a valve to control the inflow of air to said compression chamber.

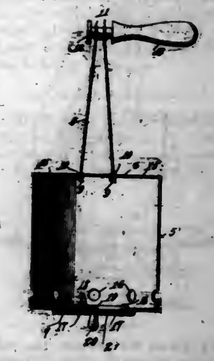
2. In an internal-combustion engine, the combination of a cylinder and an exhaust valve in the head thereof, a valve chamber adjacent thereto and connected intermediate its ends to the upper end of said cylinder by a port and also provided with intake passages for air and fuel, a piston valve slidable in said chamber and provided with a transverse passage and with an explosion chamber intermediate its ends, and means to move said valve.

5. In an internal-combustion engine, the combination of a cylinder and an exhaust valve therefor, a valve casing adjacent the cylinder and communicating therewith by means of an intake port for the cylinder, and provided with intake and exhaust ports, a valve slidable within the valve casing and formed with a chamber to receive the explosive charge of the engine and with an intake passage for the same, and means for moving the said chamber and passage alternately into communication with the intake port of the engine.

7. In an internal-combustion engine, the combination of a cylinder, an exhaust valve in the head of the cylinder of more than half the diameter of the cylinder, a valve casing adjacent the cylinder and communicating therewith by means of an intake port for the cylinder, said valve chamber being provided with intake and exhaust ports, a valve slidable in the valve chamber and provided with an explosion chamber and with a transverse passage, and means for moving the valve from the lower limit of its movement when the explosion chamber communicates with the intake port of the cylinder to its upper position when said explosion chamber communicates with the exhaust port of the valve chamber and the transverse passage communicates with the two intake ports.

[Claims 3, 4, and 6 not printed in the Gazette.]

1,257,448. SOUNDING TOY. JOHN D. BELTON, Crowley, La. Filed Apr. 19, 1917. Serial No. 163,256. (Cl. 46—46.)



1. In a device of the class described, a drum having openings therein, a diaphragm in said drum, means for vibrating said diaphragm, and means for opening or closing said openings.

2. In a device of the class described, a hollow member open at one end, a cap for closing said end, the said cap having openings therein, a valve for closing said openings, a vibratory diaphragm in the opposite end of said hollow member, and means for vibrating the said diaphragm.

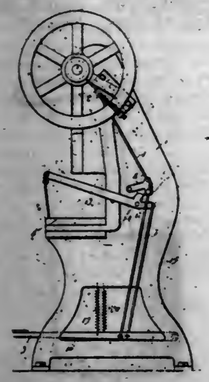
3. In a device of the class described, a hollow member open at one end, a diaphragm in the other end of said member, means for vibrating said diaphragm, a cap for closing said open end, the said cap having openings therein, a plate rotatably mounted on said cap, the said plate having openings adapted to register with those of said cap, and means for controlling the movements of said plate.

1,257,449. SAFETY DEVICE FOR PRESSES. REUBEN B. BENJAMIN, Chicago, Ill., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed July 3, 1913. Serial No. 777,373. (Cl. 74—46.)

1. In a safety device for presses, the combination with a movable member for tripping the press, of means for operating said member, a movable barrier arranged in front of the operating mechanism of the press and adapted when in closed position to prevent the operator from inserting his hand into the mechanism of the press, means whereby said barrier may be moved to closed position without tripping the press, stop means moved by the raising of said barrier into the path of the operating mechanism of said movable member to prevent the tripping of the press as long as the barrier is in a raised position and stop means controlled by the movement of said operating means for preventing movement of said barrier from said closed position.

2. In a safety device for presses, the combination with a movable member for tripping the press, of a tripping lever for said movable member, means for connecting said movable member with said lever, a pivot arm, a barrier supported on the end of said arm in a position in front of the operating mechanism of the press arranged when in a closed position to prevent the operator from inserting his hand into the operating mechanism of the press, a

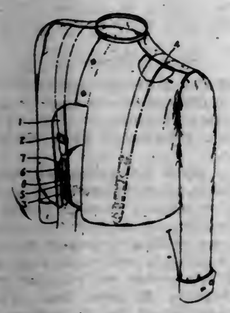
second lever means connecting said arm with said second lever whereby when the lever is depressed the barrier will be raised and a stop member on said arm arranged when the barrier is raised to be moved into a position in the path of the connecting means for preventing the operation of said movable member as long as the barrier is raised.



3. In a safety device for presses, the combination with a movable member for tripping the press, of means for controlling said member, a movable guard arranged in front of the operating mechanism of the press and adapted, when in closed position, to prevent the operator from inserting his hands into the mechanism of the press, and means for holding said guard in closed position controlled by said first controlling means, and means whereby said guard may be moved to closed position without tripping the press.

[Claims 4 to 11 not printed in the Gazette.]

1,257,450. COMBINATION SHIRT AND SUSPENDERS. GEORGE J. BIRNEY, Toronto, Ontario, Canada. Filed Feb. 19, 1917. Serial No. 149,423. (Cl. 2—96.)



1. A combination shirt and suspender, comprising a shirt having transverse slits through the body portion, suspender members having fastening ends adapted to extend through certain of said slits and to be secured to the trousers, and fastening members each having one end fixed to the fastening end and adapted to have its other end temporarily secured to said fastening end, said fastening members forming loops and extending through slits other than those through which the fastening ends of the suspenders extend and positively securing the shirt to the suspender end.

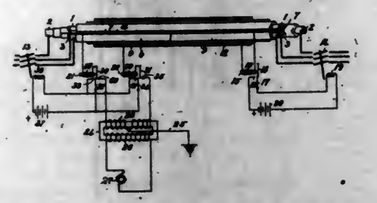
[Claim 2 not printed in the Gazette.]

1,257,451. METHOD OF PRODUCING COFFEE-LIKE OR TEA-LIKE BEVERAGES AND PRODUCTS. ALF BJERCKE, Christiania, Norway. Filed May 29, 1916. Serial No. 100,733. (Cl. 99—11.)

1. A process of producing a coffee-like or tea-like product, which consists in subjecting rinds of fruits belonging to the tree-genus "*Citrus*" first to a low heating at about 180 degrees C., withdrawing the aqueous ethereal distillate produced, and then subjecting the rinds to a higher heating at about 215 degrees C., withdrawing the aromatic oil, lower fatty acids and other organic compounds produced, and pulverizing the remaining product.

[Claim 2 not printed in the Gazette.]

1,257,452. PROTECTION OF ELECTRIC CABLES. JOHN HORACE BOWDEN, London, and HARRY F. J. THOMPSON, Battersea Park, London, England. Filed Mar. 15, 1916. Serial No. 84,387. (Cl. 175—294.)



1. In a protective system, in conjunction with an electric cable having a plurality of conductive cores, the combination of an insulated conductive shield separating said conductive cores from one another, an insulated conductive shield surrounding the whole of said cores, means for impressing equal but opposing electro-motive forces upon said shields, a relay in said connection, and switching means in connection with said cable in operative connection with said relay.

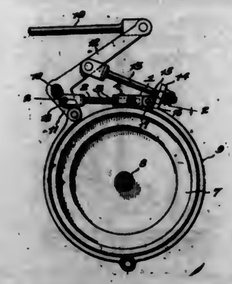
4. In a protecting system in conjunction with an electrical cable having a plurality of conductive cores, the combination of an inner shield separating said conductive cores, an outer shield surrounding the whole of said cores, a transformer having a secondary winding divided into two portions wound in opposition, an earthed connection to the junction point of the two portions of said secondary winding, connections between the terminals of said secondary winding and said inner and outer shields respectively, a source of alternating current supply in electrical connection with the primary winding of said transformer, a relay in each of said connections between the secondary winding of said transformer and the respective shields, and means operable by either of said relays for cutting off the supply to the cable.

7. A protection system in conjunction with a three-phase three-core electrical cable comprising in combination a conductive shield separating said three cores from one another, a conductive shield surrounding all of said cores, a transformer having a secondary winding comprising two portions wound in opposition, an earthed connection to the junction point of said portions, connections between the terminals of said secondary winding and the respective conductive shields, a source of alternating current supply in electrical connection with the primary winding of said transformer, relays, one in each of said connections, between the secondary winding of said transformer and said conductive shields, a source in the supply wires to said cable, a tripping coil in operative connection with said switch, and an energizing circuit for said tripping coil controlled by each of said relays.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,257,453. AUTOMOBILE-LOCK. FORREST W. BOYD, Providence, R. I. Filed June 16, 1917. Serial No. 175,103. (Cl. 70—90.)

1. In an automobile lock, a drum, an encircling two-part band having opposing terminals one of which is provided with an upstanding end wall having a forwardly extending ear, a bell-crank lever having one arm connected to the other terminal, means connecting the opposite terminal to the other arm of the lever, a tubular keeper part having rearwardly extending ears receiving the first ear and pivotally connected thereto, a locking bolt pivotally connected to the first arm of the lever and having its free end receivable by the keeper part and provided with a series of openings, and a lock carried by the keeper part and provided with a bolt projecting into the chamber of the keeper part for engaging in the series of openings of the locking bolt for holding the band in its operative position.

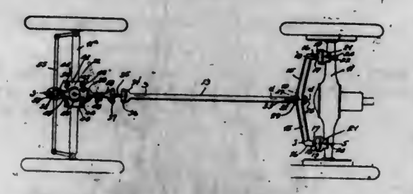


2. A lock for automobiles having a brake drum, an encircling band, and means for tightening the band about the drum, said lock comprising a keeper part carried by one end of the band, and a locking bolt connected to the opposite end of said band for engagement with the keeper part when the band is tightened for holding the latter operative.

3. A lock for vehicles having a drum, an encircling brake band therefor, and means for applying the band, said lock comprising a socketed keeper part carried by one end of the band, a locking bolt connected to the opposite end of the band for engaging in and being guided by the keeper when the band is tightened, and means carried by the keeper for holding the bolt therein to retain the brake band operative.

[Claims 4 and 5 not printed in the Gazette.]

1,257,454. AUTOMOBILE-TOWING DEVICE. BELTON BRADY, Roff, Okla. Filed July 20, 1915. Serial No. 40,974. (Cl. 21—137.)



1. A towing and steering device for coupled vehicles including an axle clamp to be secured near each end of the rear axle of the leading vehicle, an axle clamp for the following vehicle, a yoke connected at its ends to the first of said clamps by horizontal pivots, a beam having vertical and swivel connections to the yoke, plates pivoted upon the second of said clamps, horizontal pivot connections between the plates and the beam, a link pivotally connected to one of said plates, and clamps universally supported by said link and disposed to control the steering wheels of the following vehicle.

2. A towing device for coupled vehicles comprising a beam adapted to be connected to the leading vehicle, a clamp for rigid connection to the forward axle of the following vehicle, coupling plates pivoted on the upper and lower sides of said clamp to swing in horizontal planes, a bell crank lever centrally pivoted to the rear end of the beam to swing in a vertical plane, and links pivoted to said coupling plates and to the ends of the bell crank lever by horizontal pivots.

3. A towing device for coupled vehicles comprising a beam, a swiveled connection between said beam and the leading vehicle to prevent torsional stresses on said beam, a clamp for rigid connection to the forward axle of the following vehicle, and a coupling plate pivoted intermediate its ends to said clamp to swing in a horizontal plane, a link pivoted to one end of said coupling plate and to the beam by horizontal pivots, and a pivotal member on the opposite end of said plate to connect with means for steering the following vehicle.

1,257,455. HANDLE FOR LAWN-MOWERS, &c. WILLIAM P. M. BRAUN, Philadelphia, Pa., assignor to Pennsylvania Lawn Mower Works, a Corporation of Pennsylvania. Filed Nov. 24, 1916. Serial No. 133,100. (Cl. 56—19.)



1. In a handle structure, the combination of the main bar having its end portion made rectangular, with two laterally extending handle portions arranged at an incline to the bar and at a slight angle to each other, two clamping metal socket portions each having a rectangular socket for the end of the bar and laterally arranged sockets for the handle portions at a slight angle to each other and at an angle to the rectangular socket, said metallic socket portions arranged in clamping relation upon opposite sides of the bar and handle portions to hold them in fixed angular relation, and clamping bolts extending through the socket portions for clamping them in position upon the said bar and handle portions.

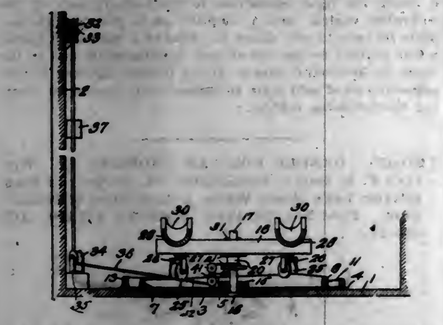
2. In a handle structure, the combination of a longitudinal bar having a rectangular end formed with transverse grooves one at the top and the other at the bottom near the end, laterally projecting handle portions from each side of the end of the bar, and two clamping plates having socket portions fitting over the bar and handle portions and each provided with projecting parts which are respectively received in one of the transverse grooves of the bar and arranged to bite into the handle portions to hold said parts against shifting relatively to each other, and clamping bolts for drawing the two clamping parts tightly upon the opposite sides of the bar and handle portions.

3. In a clamping device for handles, a casting providing a rectangular socket portion open at one end and closed at the other having a transverse rib in its bottom and two lateral semi-circular sockets arranged at an incline to the rectangular socket portion and at a slight angle to each other and projecting laterally from each side of the rectangular socket portion, and said casting also having bolt apertures at each side of the rectangular socket portion.

1,257,456. TURN-TABLE FOR AUTOMOBILES. ARTHUR B. BROTHERS, Winfield, Kans. Filed Nov. 23, 1917. Serial No. 203,695. (Cl. 104—212.)

1. In a device of the class described, the combination of a pair of substantially circular tracks having high points and low points, a carriage comprising beams having parallel tracks held thereon, casters connected to said beams and riding upon said tracks, a pivot shaft projecting through one of said beams, said carriage being pivotally mounted upon said beam and being adapted to move vertically thereof, guide blocks carried adjacent said tracks, said tracks having downwardly curved rear ends

and upwardly curved forward ends, whereby an automobile may be easily driven onto said tracks, said carriage being adapted to turn approximately one-half of a revolution when an automobile is driven thereonto by movement of said casters from the high point of said tracks to the low points thereof, at which time the upturned ends of said tracks will be adjacent the blocks for permitting the automobile to be moved forwardly from said carriage.



2. In a device of the class described, the combination of a plurality of substantially circular tracks having high points and low points, a pivot shaft held between said tracks, a carriage comprising beams having tracks thereon, said tracks having downwardly curved lower ends and upwardly curved forward ends, casters carried upon said beams and riding upon said tracks, guide blocks carried adjacent the down curved ends of said tracks, thus allowing an automobile to be driven on said tracks and then allowing the carriage to be rotated approximately one-half of a revolution, thus causing the upturned ends to be adjacent said blocks for permitting the automobile to be driven from said carriage, a drum carried by said carriage, a cable connected to said drum, means for drawing upon said cable, whereby when said carriage is rotated the cable will be reeled upon said drum so that when the automobile has been moved from said carriage, said cable will rotate said drum thus swinging said carriage and causing said casters to move from the low points of said tracks to the high points of said tracks for returning said carriage to its normal position.

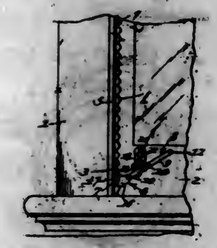
9. In a device of the class described, the combination of a carriage, means for pivotally supporting said carriage, said means being adapted to cause the carriage to be moved to a lower plane when the same is rotated, said carriage including tracks thereon, the rear ends of said tracks being adapted to be normally positioned near a support for permitting an automobile to be driven onto the tracks, means at the forward ends of the tracks to assist in limiting the forward movement of the automobile, and said last mentioned means being adapted to be positioned adjacent the support after the carriage has swung around, thus allowing the automobile to pass over the last mentioned means onto the support.

[Claims 3 to 8 not printed in the Gazette.]

1,257,457. WINDOW-SASH HOLDER AND LATCH. LOUIS JOS. BRUNE, Algiers, La. Filed Oct. 18, 1917. Serial No. 197,320. (Cl. 16—18.)

1. A window sash holder and latch including a rack bar adapted to be secured to the inner surface of one side of the window casing, a holding and latching member composed of relatively movable sections, means for pivoting one of the sections to a window sash, means for slidably connecting the other section to the window sash and for clamping the same section at times rigid with the sash, and a notched head formed on the outer end of the last mentioned section for engagement with any one of the teeth of the rack bar and designed to be held in such position when the adjacent connected ends of the sections are moved downwardly and clamped.

2. A window sash holder and latch including a rack bar adapted to be secured to the inner surface of one side of a window casing, a holding and latching member composed of an inner section and an outer section the adjacent ends of the sections being shaped to form a rule joint, a knob, a shank extending from the knob and pivotally connecting the joint at the ends of the sections, means for pivotally connecting the inner end of the inner section to a window sash, an enlarged head formed on the outer end of the outer section and designed for engagement with any one of the teeth of the rack bar, an arcuate attaching member adapted to be countersunk in the sash and formed with a passage and with a slot above the passage of a width less than the passage and further pro-



vided with an opening at one end of the slot for establishing communication with the passage, a bolt operating through the slot and formed with a head insertible through the opening and operating in the passage, the projecting end of the bolt passing through the outer section at a point substantially midway the ends thereof, the knob being designed to move the adjacent ends of the sections downwardly and slide the outer section so that the head will engage one of the teeth of the rack, and a wing nut mounted on the projecting end of the bolt for removably clamping the outer section in frictional engagement with the attaching plate to prevent accidental displacement of the head.

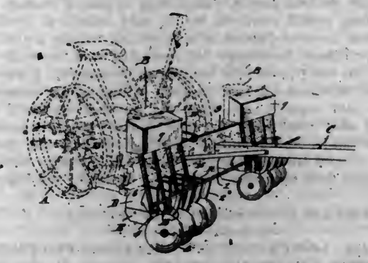
1,257,458. CORN-SHOCK SLING. GARFIELD H. CALEY, Waterford, Wis., assignor of one-third to Herman J. Hembrook, Waterford, Wis. Filed Nov. 10, 1916. Serial No. 130,530. (Cl. 57—11.)



1. A corn stack manipulating device comprising a stack securing means adapted to be positioned about the intermediate position of a stack transversely thereof, a stack engaging member to be disposed longitudinally of the stack and in engagement with the outer side thereof, said member being in a plane positioned substantially at right-angles to the longitudinal plane passing through said securing means, a connection between the stack engaging member and the securing means, and means for lifting the stack, said means being attached to said member.

2. In a device of the class described, a pair of main jaw members pivotally connected together at one end, a supplemental jaw member pivoted to each of the main jaw members, each of said supplemental jaw members being pivotally connected intermediate its ends to the free end of one of the main jaw members, a link pivoted at one end to the inner end of each supplemental jaw member, said links being crossed and pivoted at their other ends to the main jaw members adjacent the pivotal connection therebetween, each of them being attached to the main jaw member remote from that to which its supplemental jaw member is pivoted, whereby movement of the main jaw members will actuate the supplemental jaw members, and means for holding the main jaw members against outward movement.

1,257,459. FERTILIZING ATTACHMENT FOR PLANTERS. GEORGE O. CROSSLAND, Pleasant Lake, Ind. Filed Nov. 7, 1917. Serial No. 200,761. (Cl. 111—52.)

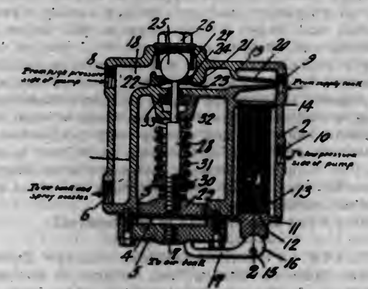


1. A fertilizer distributing attachment for planters, including a transverse beam for attachment to the draft beam of a planter, standards extending therefrom and arranged in groups, furrow opening disks connected to the standards, fertilizer containers, means for directing fertilizer from said containers into the furrows produced by the disks, fertilizer dropping mechanism within each container, and means for coupling said mechanism to the seed dropping mechanism of a planter.

3. A fertilizer distributing attachment for planters, including a transverse beam, means for connecting said beam to the frame of a planter, a group of standards extending from the beam, furrow opening disks connected to said standards, separate means for holding the respective disks yieldingly against the ground, fertilizer containers, means for directing fertilizers therefrom into the respective furrows, fertilizer dropping mechanism, and means for coupling said mechanism to the dropping mechanism of a planter.

[Claims 2 and 4 not printed in the Gazette.]

1,257,460. PRESSURE-REGULATOR. LUCIAN W. CUSHMAN, St. Joseph, Mo. Filed June 19, 1917. Serial No. 175,665. (Cl. 137—53.)



1. A pressure regulator embodying a pair of passages to communicate with the high and low pressure sides of a pump, and pressure controlled means for directing the fluid from the high pressure passage into the low pressure passage in a direction opposite to the flow of fluid in the low pressure passage.

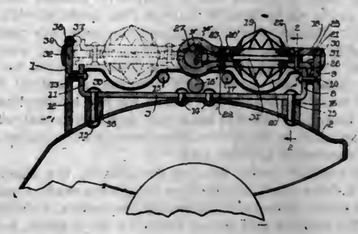
2. A pressure regulator embodying a pair of passages to communicate with the opposite side of a pump, a shunt passage between said passages having a nozzle projecting into one of them in a direction opposite to the direction of flow therein, a valve closing the shunt passage, and means for opening the valve in the vent of excessive pressure.

3. A pressure regulator having a low pressure and a high pressure passage, a shunt passage connecting said passages and having a nozzle projecting in to the low pressure passage in a direction opposite to the flow of liquid therein, and means controlling the flow of liquid through the shunt passage.

4. A pressure regulator having a low pressure passage with an inlet at one end and an outlet between its ends, a high pressure passage, a shunt passage between the low and high pressure passages having a nozzle projecting across the low pressure passage toward the inlet thereof, a strainer within the low pressure passage removable through the other end thereof, and pressure controlled means controlling the flow of liquid through the shunt passage to the nozzle.

5. A pressure regulator embodying a vertical low pressure passage provided with an inlet at its upper end and having its lower end open, a high pressure passage, a shunt passage between the high pressure passage and the upper end of the low pressure passage, the low pressure passage being provided with an outlet between its ends, a removable cap for the lower end of the low pressure passage, and a tubular strainer within the low pressure passage having its ends seating against said cap and a portion of the interior of the low pressure passage between the inlet and outlet thereof.

1,257,461. THEFT-PREVENTING SIGNAL. SIDNEY DAWSON, Chicago, Ill., assignor of one-half to William Robertson, Chicago, Ill. Filed Oct. 4, 1916. Serial No. 123,786. Cl. 40—61.)



1. In combination an open rectangular frame adapted to be mounted upon the fender of an automobile or the like, a supplemental frame plate for closing the bottom of said open frame, a longitudinal rod for bracing said open frame, a pan closing off the top of said supplemental plate, a pair of plates having holes therein, glass brilliants of different colors mounted in said plates, said brilliants facing in opposite direction, said plates being secured together to form a carrier for said brilliants, and being pivoted to said main frame, a lock mounted in the pivot of said plate, said lock having a bolt for holding the carrier in position to display one of said brilliants and spring means for holding said carrier in position to display the other of said brilliants.

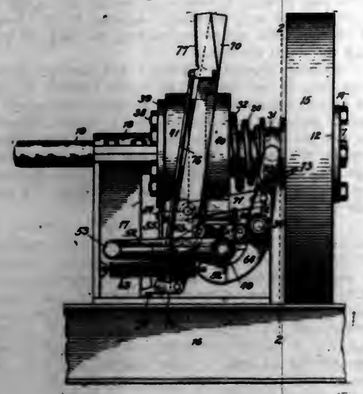
2. In combination, a retangular open frame a pair of plates in spaced relation and pivoted as a unit to said frame, said plates having a locking bolt between them for locking the plates in a predetermined position in said frame, indicators displayed on each of said plates, and a lock barrel for operating said bolt to hold said plates in position to display one of said signals.

7. In combination, a rectangular inclosing frame, a signal member pivoted therein and adapted for movement

from one extreme position to the other to exhibit opposing indications, locking means on the signal member, and means adjacent the pivot point of said signal member to retain the member in one of the indicating positions.

[Claims 3 to 6 not printed in the Gazette.]

1,257,462. VARIABLE-SPEED AND DRIVING MECHANISM. JAMES H. DEAN, Ludington, Mich., assignor to Justus S. Stearns, Ludington, Mich. Filed July 10, 1916. Serial No. 108,280. (Cl. 74—34.)



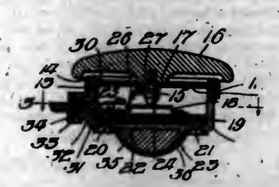
2. In variable speed driving mechanism, the combination of a drive-shaft, a pinion on said drive-shaft, a pulley on said shaft, planetary pinions on the pulley, a clutch for driving said pulley from the drive shaft, a supporting ring connected to rotate with said pulley, a pinion on said supporting ring, a driven shaft, planetary pinions on the driven shaft, an internally toothed ring meshing with the planetary pinions on the pulley and the planetary pinions on the driven shaft, means for holding said pulley against rotation, controlling means for the holding means for the pulley, means for holding the internally toothed ring against rotation, controlling means for the holding means for the internally toothed gear ring, and clutch-controlling means operable by the controlling means for the pulley and for the internally toothed ring.

3. In variable speed driving mechanism, the combination of a drive shaft, a pinion on said drive-shaft, a pulley on said shaft, planetary pinions on the pulley, a friction-clutch for driving said pulley from the drive shaft, a supporting-ring connected to rotate with said pulley, a pinion on said supporting ring, a driven shaft, planetary pinions on the driven shaft, an internally toothed ring meshing with the planetary pinions on the pulley and the planetary pinions on the driven shaft, a brake-band for the pulley, a brake-band for said internally toothed ring, a controlling lever for the brake-band for the pulley, a controlling lever for the brake-band for the internally toothed gear ring, and clutch-controlling means operable by both of said levers.

7. In variable speed driving mechanism, the combination of a drive shaft, a pinion on the drive shaft, a driven shaft, gearing between the drive pinion and the driven shaft comprising a wheel, a brake-band for holding said wheel against rotation, means for operating the brake-bank comprising a pair of bell-crank levers to which the ends of the break band are respectively connected, a cross shaft and an arm on the cross shaft to operate both of the levers, a clutch between the drive shaft and the pulley, clutch-releasing means operated by the cross shaft, and spring-means for releasing the brake-band.

[Claims 1, 4 to 6, and 8 to 12 not printed in the Gazette.]

1,257,463. SWITCH. WILLIAM W. DEAN, Chicago, Ill., assignor, by mesne assignments, to Benjamin Electric Manufacturing Company, Chicago, Ill, a Corporation of Illinois. Filed June 2, 1913. Serial No. 771,181. (Cl. 200—27.)

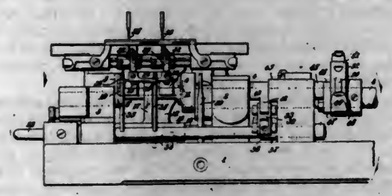


1. An electric switch comprising a sealed casing, co-operating switch contacts within said casing, a pressure operated member outside of said casing having a tiltable and rectilinear movement for operating said contacts.

11. An electric switch comprising a support, a switch contact mounted on said support, a diaphragm mounted above said support, an operating member centrally engaging said diaphragm, a switch contact on the opposite side of said diaphragm, said switch contact being operatively moved into engagement with the opposite contact by tilting said operating member or by bodily moving the same.

[Claims 2 to 10 not printed in the Gazette.]

1,257,464. LOWER-THREAD MECHANISM FOR CHAIN-STITCH SEWING-MACHINES. ALBERT H. DE VOE, Westfield, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Dec. 18, 1914. Serial No. 877,861. (Cl. 112—5.)



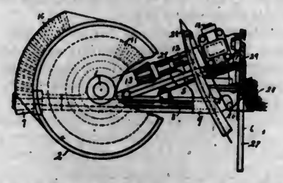
1. In a sewing machine, in combination, a looper, a carrier therefor, a support upon which said looper-carrier is mounted for sidewise and endwise movement, an actuating shaft provided with a crank having its axis inclined thereto but movable in a substantially cylindrical path concentric therewith, and a pitman connection between said crank and the looper-carrier from which the latter derives both of said movements.

3. In a sewing machine, the combination with a reciprocating needle, a work-support, a driving shaft, a thread-carrying looper and operative connections between said shaft and looper for imparting to said looper its loop-seizing and shedding movements, of a take-up comprising a rock-shaft, a crank-arm and a thread-guiding arm carried by said rock-shaft, said thread-guiding arm being disposed adjacent the looper, an intermediate shaft carrying a crank-arm, operative connections between said intermediate shaft and said driving shaft independent of the connection between said driving shaft and looper, and a link connection between said crank-arms adapted to move into and out of alinement with the crank-arm on said intermediate shaft.

[Claims 2 and 4 not printed in the Gazette.]

1,257,465. TWISTING DEVICE. ANDREW TILMON DUDLEY, Houston Heights, Tex., assignor of one-twentieth to J. H. Mitchell, Houston, Tex. Filed Sept. 12, 1914. Serial No. 861,430. (Cl. 56—83.)

1. A device of the character described, including a twister hook, a disk adjacent said hook, means for passing a wire across said hook and into engagement with said disk whereby the wire is held taut, and mechanism in operative connection with said hook and imparting a plurality of rotations thereto after the wire has been looped around the hook an increased amount by the disk.

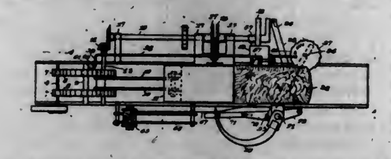


2. A twister for wire and the like, including a twister hook, a disk alongside the hook for engaging with the wire to be twisted and looping the same around the hook, a mechanism for intermittently imparting a plurality of rotations to the hook and twisting said loop and a means in operative connection with said disk which intermittently imparts partial rotation thereto, intervening the successive rotations of the hook.

5. A twister for wire and other similar cords, including a twister hook, a disk alongside the hook provided to engage with the wire to be twisted and loop the same around said hook, a mechanism for rotating said hook and twisting said loop; a stripper bar, means for projecting laterally therefrom, and a mechanism for actuating said bar whereby said means is engaged against said loop and the loop is stripped from said hook.

[Claims 3, 4, and 6 to 11 not printed in the Gazette.]

1,257,466. BALE-FORMING PRESS. ANDREW T. DUDLEY, Houston, Tex. Filed Oct. 19, 1915. Serial No. 56,681. (Cl. 100—20.)



1. A device of the character described including a compress chamber, a plurality of wire twisting devices arranged on one side thereof, a plurality of needles pivoted upon the opposite side thereof and provided to carry securing wires across said chamber, a plunger arranged to reciprocate in the chamber, a driving mechanism in operative connection with said plunger, means for operatively connecting said driving mechanism with said twisters and needles, and a mechanism for preventing excessive tension on the wires as the needles are driven through the chamber.

2. A device of the character described including a compress chamber, a plurality of wire twisting devices, a corresponding number of needles, a plunger in said chamber, a means for reciprocating the plunger, a mechanism for driving the needles back and forth through the chamber to carry securing wires into engagement with the twisters, and for also operating said twisters, means for connecting said mechanism with and disconnecting it from said plunger reciprocating means, and a mechanism for preventing excessive tension on the wires as the needles are driven through the chamber.

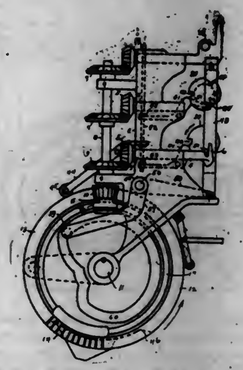
3. A device of the character described, including a compress chamber, a plurality of wire twisting devices arranged adjacent thereto, corresponding needles arranged to co-act with said twisters, a plunger in said chamber, driving means for reciprocating said plunger, a mechanism for driving the needles into coöperation with said twisters, said mechanism also being operatively connected with said twisters, means for connecting said mechanism and disconnecting it from said driving means, and mechanism for preventing excessive tension on the wire as the needles are driven through said chamber.

4. A device of the character described including a compress chamber, a plurality of wire twisting devices arranged adjacent thereto, corresponding needles arranged to coöperate with said twisters, a plunger in said chamber, driving means for reciprocating said plunger, a mechanism for driving the needles into coöperation with said twisters, said mechanism also being operatively connected with said twisters, means for connecting said mechanism with and disconnecting it from said driving means, a feeder arranged to deliver material into the chamber, and means actuated by said mechanism to temporarily suspend the operation of the feeder, while the needles are coöperating with the twisters.

5. A device of the character described including a compress chamber, a plurality of wire twisting devices arranged adjacent thereto, corresponding needles arranged to coöperate with said twisters, a plunger in said chamber, driving means for reciprocating said plunger, a mechanism for driving the needles into coöperation with said twisters, said mechanism also being operatively connected with said twisters, a clutch for engaging said mechanism with and disengaging it from said driving means, a means actuated by the bale as it moves through the chamber, and operating to disengage said clutch, a feeder driven by said driving means and arranged to deliver material into the chamber, said bale actuated means also having an operative connection with the feeder driving means and temporarily disconnecting the feeder from its driving means upon the completion of each bale.

[Claims 6 to 19 not printed in the Gazette.]

1,257,467. TWISTER. ANDREW T. DUDLEY, Houston, Tex. Filed Oct. 20, 1915. Serial No. 56,856. (Cl. 100—20.)



1. A device of the character described including a frame, a plurality of twister hooks, means for rotating said hooks for twisting a knot in baling wire, and combined cutter and stripping means adjacent the hooks for cutting the baling wire and stripping from the hooks the knots formed thereon.

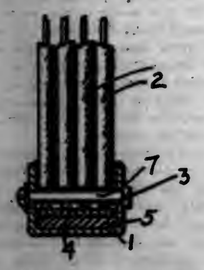
6. A device of the character described including a frame, a plurality of twister hooks, a disk in which the wire is gripped, means for rotating said hooks, and a guide for each hook against which the wire to be twisted engages and by means of which said wire is directed into engagement with said hooks.

8. A device of the character described including a frame, a plurality of twister hooks, means for rotating said hooks, a single reciprocating cutter bar arranged along the side of said hooks, and a wire guide carried by the cutter bar for each hook.

11. A wire twisting device including a plurality of twister hooks, means for actuating said hooks, and a single combined cutter and guide mechanism coöperating with all of said hooks.

[Claims 2 to 5, 7, 9, 10, and 12 not printed in the Gazette.]

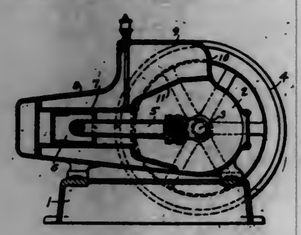
1,257,468. INTERNAL-COMBUSTION-ENGINE-TESTING DEVICE. ROY GARLAND EDGERTON, Suffolk, Va. Filed Mar. 31, 1917. Serial No. 158,988. (Cl. 175—183.)



1. A testing device for internal combustion engines comprising a plurality of conductors, provided with a stripped portion, the said conductors being secured at their stripped portion to a plate, a substantially U-shaped fibrous member adapted to receive the conductors, a second U-shaped metal member engaging the first named U-shaped member at the open ends thereof, means associated with the second named U-shaped member for securing the conductors in the first named U-shaped member, fibrous sleeves each adapted to engage one end of a conductor, a clip secured to one end of each conductor and springily held within one of said sleeves.

[Claim 2 not printed in the Gazette.]

1,257,469. GAS-ENGINE. ALBERT Y. EDWARDS, Springfield, Ohio, assignor to The Foos Gas Engine Company, Springfield, Ohio, a Corporation of Ohio. Filed Feb. 13, 1917. Serial No. 148,331. (Cl. 123—173.)



1. In an internal combustion engine, a suitable base, a crank shaft mounted in bearings supported by said base, a horizontally-arranged cylinder having its piston connected with said crank shaft, a water jacket for said cylinder, and an overhead water reservoir communicating with said water jacket and being so located with respect to the cylinder and its jacket as to bring the center of gravity toward the crank-shaft.

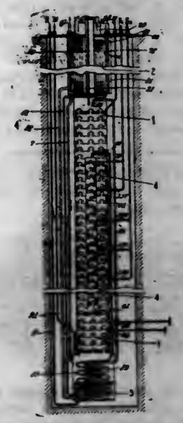
2. In an internal combustion engine, a suitable base, a crank case mounted on said base, a crank shaft mounted in bearings in said crank case, a horizontally-arranged cylinder supported on said base having its piston connected with said crank shaft, a water jacket for said cylinder, and a water reservoir communicating with said water jacket and located substantially in its entirety above and supported by the crank-case.

3. In an internal combustion engine, a suitable base, a crank case supported on said base, a crank shaft having bearings in said crank case, a horizontally-arranged cylinder supported in said base, a water jacket for said cylinder, and a water reservoir communicating with said water jacket and formed integrally with said crank case, and located adjacent and above the crank shaft and out of vertical alinement with said cylinder.

4. In an internal combustion engine, a suitable base, a crank case supported from said base, a crank shaft having bearings in said crank case, a horizontally-arranged cylinder supported in said base and crank case, a water jacket integrally formed in said crank case, and a water reservoir integrally formed in said crank case having a communication with the water jacket of said engine, said reservoir being located above said crank case and out of the vertical plane of said cylinder.

5. In an integral combustion engine, a base, a crank shaft mounted in bearings supported by said base, a horizontally-arranged cylinder supported by said base and having its piston connected with said crank shaft, a water jacket for said cylinder, and a water reservoir connected with said water jacket and located above said base at that end of the cylinder adjacent the crank shaft and substantially without the vertical plane of said cylinder.

1,257,470. APPARATUS FOR THE LIQUEFACTION AND RECTIFICATION OF AIR. HENDRIK FILIPPO and PANCRAS SCHOONENBERG, Eindhoven, Netherlands, assignors of one-third to Naamloose Vennootschap Philips Metaal-Gloei-lampentfabriek, Eindhoven, Emmasingel, Netherlands, a Limited Liability Company of the Kingdom of the Netherlands. Filed June 3, 1916. Serial No. 101,442. (Cl. 62—122.)



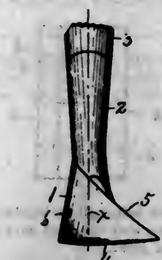
1. An apparatus for liquefying and rectifying air, comprising a main rectification column, a second rectification column within and completely surrounded by said main column, said inner column being open at its bottom to said main column, and means for drawing gas from said second column at various heights.

2. An apparatus for liquefying and rectifying air, comprising a main rectification column, a second rectification column within and completely surrounded by said main column, said inner column being open at its bottom to said main column, a heat-exchanger at the upper end of the main column, a bath containing liquid oxygen at the lower end of said column, means for admitting air into the apparatus through the heat exchanger and the oxygen bath successively, a closure for the top of the second rectification column, and means for drawing gas from said second column at the top and at various heights.

[Claim 3 not printed in the Gazette.]

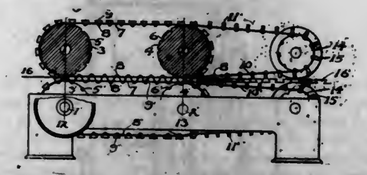
1,257,471. GOLF-CLUB. EDWARD M. FITZJOHN and ELMER A. STANTON, Oneida, N. Y. Filed Apr. 16, 1915. Serial No. 21,810. (Cl. 46—4.)

A golf club having its head substantially triangular in cross-section from end to end and its lower ground face convexed longitudinally, and convexed transversely in an arc of relatively long radius having its center approximately at the point of grip of the hands on the handle, the rear face of the head being substantially vertical and of less width than the ground face, and the driving face being straight longitudinally and transversely curved,



and inclined rearwardly and form the hypotenuse of the triangle.

1,257,472. MACHINE FOR MAKING LATH-BOARD. SILAS M. FORD, St. Paul, Minn. Filed May 11, 1917. Serial No. 168,055. (Cl. 154—30.)



1. In a machine for making lath board, the combination of endless traveling means having thereon cleats for forming material into a corrugated shape, and conveying means traveling with said traveling means through a portion of its circuit for conveying material corrugated by said corrugating means from said corrugating means.

2. A conveyer for corrugated material comprising in combination an endless belt having spacing slats thereon spaced to correspond with the corrugations of the corrugated material, two rotative means spaced apart for carrying thereon said endless belt, one of said rotative means being of smaller diameter than the other of said rotative means.

4. In a machine for making lath board, the combination of means for forming material into a dovetailed shape, a pair of gage rolls for forming said dovetailed material into a closer dovetailed shape and having conveying means from said forming means to said gage rolls for conveying the dovetailed material to said gage rolls, and means on said conveying means for maintaining said dovetailed material in substantially the shape into which it is dovetailed, said conveying means leaving said material as the latter enters between said gage rolls.

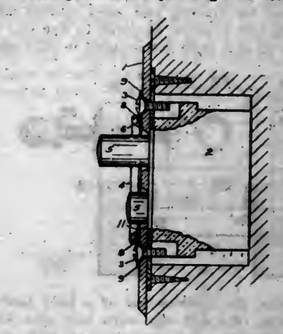
6. In a machine for making lath board the combination of an endless traveling means having cleats thereon for forming material into a corrugated shape, conveying means traveling with said traveling means through a portion of its circuit for conveying material corrugated by said corrugating means from said corrugating means, and means for bringing said conveying means out of engagement with the corrugated material at a predetermined point.

[Claims 3 and 5 not printed in the Gazette.]

1,257,473. ATTACHMENT FOR ELECTRIC SWITCHES. MAXWELL C. FRANK, Piedmont, Cal. Filed Jan. 31, 1917. Serial No. 145,782. (Cl. 240—1.)
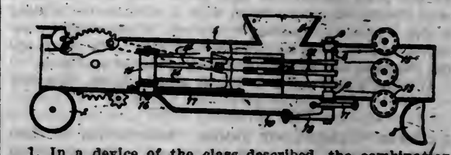
1. An attachment for an electric switch plate, comprising a transparent member covering a luminous material and a flexible framing encompassing said member; said framing adapted to be drawn to position on said plate and secured thereto.

5. An attachment of the character described, comprising a framing fitted about the edges of a transparent plate to inclose same, and adapted to be secured to an electric switch, luminous material applied to the bottom face of said plate and a yielding shim covering said luminous material, and said shim adapted to resiliently support the said plate.



[Claims 2 to 4 and 6 to 10 not printed in the Gazette.]

1,257,474. ATTACHMENT FOR BALE-FORMING PRESSES. LAWRENCE K. FREEMAN, Houston, Tex. Filed Oct. 18, 1915. Serial No. 56,464. (Cl. 100—20.)



1. In a device of the class described, the combination of a compress chamber, means for carrying a baling wire through said chamber, and means associated with the baling wire for giving slack thereto and being movable simultaneously with the wire carrying means as the latter moves back and forth through said chamber.

2. In combination a compress chamber, a needle pivoted on one side thereof, an idler roller for supporting the baling wire, one end of said wire passing around said roller, through the needle eye and being attached to a wire securing device, and mechanism operatively connected with the needle driving means for moving said idler roller toward and from the wire supply as the needle operates.

3. In a device of the character described, a compress chamber, a wire carrying needle pivoted on the side thereof, a mechanism for moving the needle back and forth through the chamber, the free end of the wire passing through the needle eye and being attached to a fixed object, an idler roller around which the wire passes, and means for moving the roller toward and from the wire supply simultaneously with the needle movement.

4. In a device of the character described a compress chamber, a wire carrying needle pivoted thereto, a mechanism for moving the needle back and forth through the chamber the free end of the wire passing through the needle eye, an idler roller around which the wire passes, and means for moving the roller toward and from the wire supply as the needle moves back and forth through the chamber.

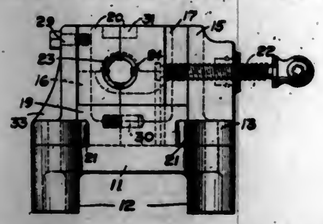
5. In a device of the class described, the combination of a compass chamber, means for carrying a baling wire through said chamber, and means associated with said baling wire and movable longitudinally with respect to the baling press for giving slack to the wire and being movable simultaneously with the wire carrying means as the latter moves back and forth through said chamber.

[Claim 6 not printed in the Gazette.]

1,257,475. COMBINED PIPE-FLANGING AND BENCH VISE. JOHN GAPP, Scranton, Pa. Filed Oct. 6, 1916. Serial No. 124,023. (Cl. 81—19.)

1. In a pipe vise, the combination of a body having a pocket open at the top and provided with a bottom for

supporting the jaws, vertically removable jaws mounted in said pocket, a rear wall for the pocket extending above the bottom thereof for bracing said jaws against lateral thrust, end walls, and a screw mounted in one end wall for adjusting one of said jaws horizontally in said pocket.

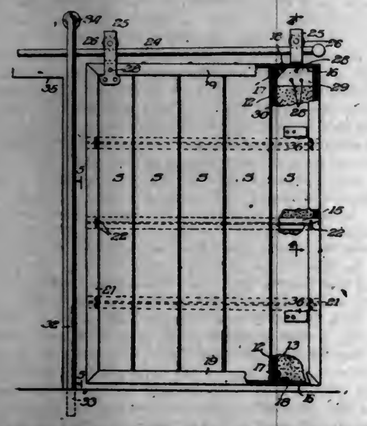


7. In a pipe vise, the combination of a body having a pocket formed with rear and end walls and open at the top, vertically removable jaws mounted in said pocket, the rear wall being located above the bottom of the pocket and below the opening in the jaws, and a removable rear retaining plate extending between the end walls and above the opening in the jaws for bracing the upper ends of said jaws.

11. In a pipe vise, the combination of a body having a pocket, jaws mounted in said pocket and each having a semi-circular opening formed with a shoulder for holding a pipe sleeve, the opening at the rear of the shoulder being of smaller diameter and provided with teeth for clamping the pipe, and means for adjusting one of said jaws.

[Claims 2 to 6 and 8 to 10 not printed in the Gazette.]

1,257,476. FIREPROOF DOOR. WAINWRIGHT B. GERVAIS, Chicago, Ill., assignor to Variety Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 21, 1917. Serial No. 150,259. (Cl. 189—46.)

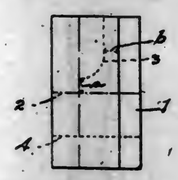


1. In combination, a plurality of independent structural units composed of opposed inner and outer trough sections, one of the side walls of each outer trough section being formed to provide a channel and the contiguous wall of the outer trough section of the adjacent units being receivable in said channel to interlock the units and prevent pulling apart of the same.

[Claims 2 to 6 not printed in the Gazette.]

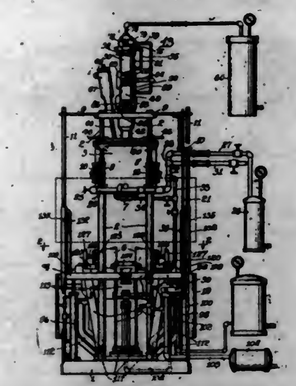
1,257,477. PLANT-PROTECTOR. HENRY ADOLPHUS GIBSON, Winnipeg, Manitoba, Canada. Filed May 7, 1917. Serial No. 166,992. (Cl. 47—22.)

A plant protector comprising a substantially rectangular sheet of paper bent to form a cylinder with its adjacent edges overlapping, the paper at the ends of the cylinder being bent back on itself inside the cylinder and part of the overlapping portions spaced from the edge



of the exterior sheet being glued together to form a joint the overlapping edges and one bent back end fitting closely to protect the glued joint.

1,257,478. DIE-CASTING MACHINE. JOHN S. GOLDBERG, Chicago, Ill., assignor to Alemite Metals Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 2, 1914. Serial No. 859,737. (Cl. 22—69.)



1. In a die casting machine, a melting pot containing hot metal, a pouring pot, a die mold automatically controlled, means to fill said pouring pot from said melting pot, manually controlled means to connect said die mold and said pouring pot, and automatically controlled means for subjecting the metal in said pouring pot to pressure only while the die mold and pouring pot are connected.

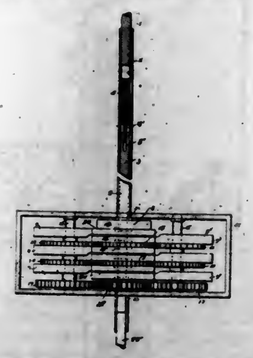
3. In a die casting machine, a melting pot, a pouring pot connected to said melting pot, an opening connecting said melting pot and said pouring pot, a valve for closing said opening, a die mold, means to connect said die mold with said pouring pot, a valve for said connection, mechanism operated by the connection of said die mold to said pouring pot for closing said first valve and opening said second valve, and means for applying pressure to said pouring pot.

7. In combination, a base, guides secured to said base, a pouring pot slidably mounted on said guides, springs to restrain movement of said pouring pot, a nozzle connected to said pot, said nozzle having a valve controlled opening therein, a die platform movable on said guides, dies on said platform, means adapted to bring said dies into engagement with said nozzle, and to move said pouring pot, and means set into action by engagement of the dies with said nozzle to subject the metal in said pouring pot to a high pressure.

23. In combination, a pair of guides, a die mold movably supported by said guides, a pouring pot movably supported on said guides, a melting pot connected to said pouring pot, said pouring pot having a discharge nozzle, means to bring said die mold into engagement with said discharge nozzle, means to apply pressure to said pouring pot and to open the valve of said nozzle for filling said die mold, automatic means operated by the engagement of said die mold with said nozzle for releasing the pressure on said pouring pot and for closing said valve.

[Claims 2, 4 to 6, 8 to 22, and 24 to 45 not printed in the Gazette.]

1,257,479. TRANSMISSION MECHANISM. ROBERT GRANT, Edmonton, Alberta, Canada. Filed Mar. 30, 1917. Serial No. 158,671. (Cl. 74—53.)



1. In a device of the class described, a shaft, a driving member freely mounted thereon, a driven disk, means carried by the shaft and coöperating means carried by the disk for throwing the latter to an eccentric position on the shaft, a countershaft, engaging means thereon, oscillating means carried by the disk for driving the countershaft through the medium of said engaging means thereon, a driven member, and means for transmitting motion thereto from the countershaft.

6. In a device of the class described, a shaft, a driving member freely mounted thereon, a driven disk provided with a slot and having a rack portion formed along the edge of the slot, means carried by the shaft for engaging the rack, and throwing the disk to eccentric position, a countershaft, engaging means thereon, cooperating oscillating means operated by the disk for driving the countershaft, a driven member, and means for transmitting motion thereto from the countershaft.

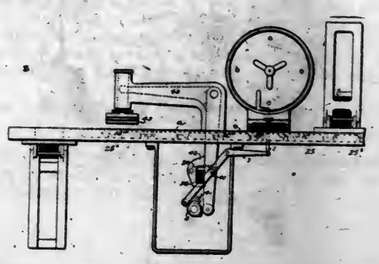
7. In a device of the class described, a shaft, a driving member freely mounted thereon, means for partly rotating the shaft independently of the driving member, a driven disk, engaging means carried by the shaft, and complementary means carried by the disk for throwing said disk to an eccentric position, a countershaft, engaging means thereon, an eccentric band operated by the disk, a yoke member extending from said band and provided with a plurality of rack portions on opposite sides of the countershaft, a cam member, means for operating the cam for throwing the rack portions alternately into engagement with the engaging means carried by the countershaft.

13. In a device of the class described, a shaft, a disk movable eccentrically with reference thereto, means for shifting the position of the disk during the rotation of the shaft, yoke members extending in opposite directions from the shaft and each formed with a band carried by the disk, a countershaft extending through each yoke member, and means for driving the countershafts from the yokes.

[Claims 2 to 5, 8 to 12, 14, and 15 not printed in the Gazette.]

1,257,480. SELECTOR PRINTING MECHANISM. ROBERT G. GRISWOLD, Chattanooga, Tenn., assignor to Montague Mailing Machinery Company, Chattanooga, Tenn., a Corporation of Tennessee. Filed Sept. 16, 1914. Serial No. 861,973. (Cl. 101—57.)

2. In a printing apparatus, impression means, printing plates having classifying means combined therewith, means for feeding the plates step by step and *seriatim* to the impression point, and a controller set by the presence of a printing plate at one station, said controller having a progressive movement conforming to the progression of the printing plate toward said printing point and controlling the operation of the impression means when the plate by which the controller is set arrives at said impression point.



8. In combination impression means, printing plates having classifying means thereon, means for feeding the printing plates step by step, a controller having a series of electrical contacts thereon, a selector coöperating with the classifying means on the plates to set the proper contact of the controller in effective position, means for giving the controller a progressive movement corresponding to the progression of the printing plate which has been selected for printing and electric means controlled by said contact for operating the impression means when the selected printing plate arrives at the impression point, said controller having a step by step rotary movement in accordance with the step by step movement of the printing plate and said electric means including a magnet, a fixed contact to engage the contact set on the controller, and circuit connections between said fixed contact and maguet, substantially as described.

22. In combination, impression means, a series of printing plates, means for feeding them step by step to the impression point *seriatim*, and a chart having indications thereon designating serially the printing plates, means for giving said chart a step by step movement in accord with the step by step movement of the plates, and means for effecting the operation of the impression means in accordance with the indications on the chart, substantially as described.

31. In combination an impression member, a plurality of printing plates, means for feeding said plates *seriatim* to the impression point, means for operating the impression member, and a member having a progressive movement in consonance with the advancing movement of the printing plates and having means thereon individual to successive plates for determining the times of operation of the impression member, substantially as described.

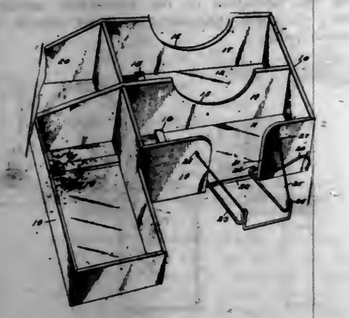
36. In combination, impression means, individual printing plates, means for feeding them to the impression point, said individual printing plates having thereon generic selector means and subclass selector means, a selector having two groups of contacts, one for generic class selection and the other for sub-class selection, means dependent upon and controlled by the conjoint action of the generic and subclass selector contacts and the generic and sub-class selector means on a plate for in turn controlling the impression means, substantially as described.

[Claims 1, 3 to 7, 9 to 21, 23 to 30, and 32 to 35 not printed in the Gazette.]

1,257,481. CHECK AND DEPOSIT-SLIP TRAY. ROSIER N. HAINS, Marshall, Mo., assignor to James A. Walker, Marshall, Mo. Filed Apr. 14, 1916. Serial No. 91,151. (Cl. 211—37.)

1. A tray for checks and deposit slips, comprising two elongated receptacles with one long side in common, a

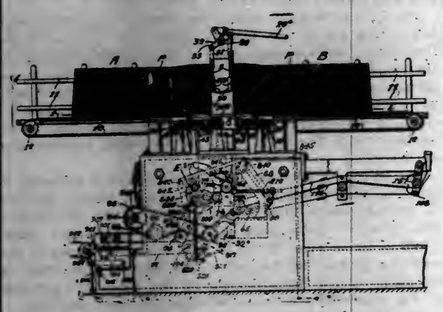
third similar receptacle at a right angle thereto, one of said first named receptacles having a portion of a side cut away substantially as wide as the breadth of the last named receptacle, and an outstanding support at the cut-away portion.



6. A tray for checks and deposit slips comprising two elongated receptacles arranged with one long side of each co-incident, means for separably connecting said sides, a third similar receptacle placed at a right angle to the first two receptacles at one end, separable connections between the third receptacle and one of the other two; one of said first named receptacles having a portion of a side cut-away, and a support outstanding from the receptacle at said cut-away portion.

[Claims 2 to 5 not printed in the Gazette.]

1,257,482. NEWSPAPER-STUFFING MACHINE. SEVERIN HALVORSEN, Seattle, Wash., assignor to The Newspaper Stuffing Machines Company, Seattle, Wash., a Corporation of Washington. Filed June 10, 1915. Serial No. 33,311. (Cl. 270—55.)



1. In a paper stuffing machine, a mechanism for opening a folded paper having two uniformly moving paper feeding members engaging opposite sides of a folded paper and operating at rates of feed which are different for the respective sides.

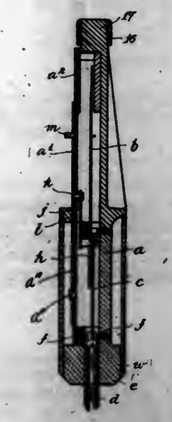
9. In a paper stuffing machine, in combination, a paper opening mechanism comprising two rolls through which the cover section is passed folded edge first, one of said rolls having a peripheral speed greater than that of the other, and means for delivering insert sections to pass in a direction to intersect with the cover section after passing the opening rolls and from the side engaged by the roll having the greater peripheral speed.

33. A paper stuffing mechanism comprising feed rolls between which a folded paper is passed with its folded edge in advance, means for rotating said rolls at unequal perepheral speeds, and a plurality of means each introducing an insert section within the opening cover section.

35. A newspaper opening roll having a series of projecting needles, means for simultaneously adjusting the projection of all the needles, and means for clamping the needles when adjusted.

[Claims 2 to 8, 10 to 32, 34, and 36 not printed in the Gazette.]

1,257,483. MEASURING INDICATOR OR GAGE. ARTHUR HART and KARL JOHAN ALMFELT, Luton, England. Filed Apr. 18, 1916. Serial No. 92,062. (Cl. 33—147.)



3. A measuring gage comprising a casing carrying a graduated scale, a measuring pin projecting therefrom, a movable pointer in said casing, a transmission lever in engagement with said measuring pin, an adjustable intermediate transmission member interposed between the transmission lever and the pointer, and a slide connected to the intermediate member for adjusting the same for varying the leverage of the transmission lever.

4. A measuring gage comprising a casing carrying a graduated scale, a measuring pin projecting therefrom, a movable pointer in said casing, a transmission lever in engagement with said measuring pin, an adjustable intermediate transmission member interposed between the transmission lever and the pointer, a slide connected to the said intermediate transmission member for adjusting the same, and means for retaining the slide in its adjusted position.

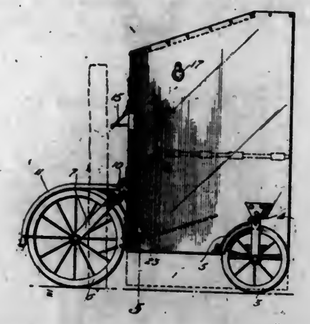
5. A measuring gage comprising a casing carrying a graduated scale, a pivoted pointer in said casing, a spring controlling said pointer, a measuring pin projecting from said casing, a transmission lever in operative contact with said pin, a spring connected to said pin for holding the same in engagement with said transmission lever, an intermediate transmission member between said transmission lever and said pointer, a slide outside of the casing and connected to said intermediate member for adjusting the same, and a spring for retaining the slide in its adjusted position.

6. A measuring gage, comprising a casing, a measuring pin projecting therefrom, a pointer pivoted in said casing, adjustable intermediate mechanism for transmitting the movement of the measuring pin to the pointer, and means for detachable connection with the casing for enlarging its measuring capacity, said means comprising a nipple secured to the casing, a sleeve adapted to be screwed onto said nipple, a pin in screw-threaded engagement with said sleeve and adjustable therein, and a clamping nut for holding the pin in its adjusted position.

[Claims 1, 2, and 7 to 9 not printed in the Gazette.]

1,257,484. ARMOR. HENRY HEIDE, Winslow, Ariz. Filed Nov. 20, 1917. Serial No. 202,972. (Cl. 89—36.)

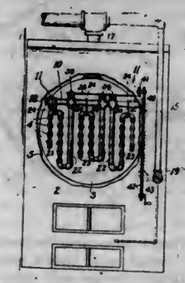
1. A device of the character specified, comprising a sheet of armor plate curved to form a concavo-convex shield, wheels at the end of the plate for supporting the same, a steering wheel at the center of the plate and having steering mechanism extending through the plate, a hood or cover for the plate, said hood or cover inclining downwardly toward the front of the plate, said plate having hand rails at each side of the steering wheel and loop holes above the hand rails and above the steering wheel,



covers for the loop holes pivoted to the plate, and a cutter arranged in vertical position at one side of the front of the plate and on the outer face and having operating mechanism on the inner face.

[Claims 2 to 5 not printed in the Gazette.]

1,257,485. FLUE-CLEANING MECHANISM. CHRISTIAN W. HERSHEY, Reading, Pa. Filed Apr. 19, 1917. Serial No. 163,127. (Cl. 122—392.)



1. In a boiler flue cleaning mechanism, a distributing pipe located within the smoke chamber adjacent the end of the boiler and communicating with the steam supply, return-bend extensions of said pipe each having a series of nozzles arranged opposite the ends of the flues to be cleaned, a series of valves in said pipe controlling the flow of steam to the respective extensions, a crank shaft arranged parallel with said pipe and adapted to operate said valves, and means outside the smoke chamber for actuating said crank shaft.

2. In a boiler flue cleaning mechanism, a distributing pipe located within the smoke chamber adjacent the end of the boiler, a steam pipe communicating with said distributing pipe and having a valve outside said smoke chamber, return-bend extensions of said distributing pipe each having a series of nozzles arranged opposite the ends of the flues to be cleaned, a series of valves in said distributing pipe controlling the flow of steam to the respective extensions, a crank shaft arranged parallel with said distributing pipe and adapted to operate said valves, and a drive belt connected to said crank shaft and extended outside said smoke chamber, and a crank handle for operating said drive belt located adjacent the valve in said steam pipe.

4. In a boiler flue cleaning mechanism a distributing pipe connected to the steam supply and comprising alined pipe sections and interposed cross fittings, a return-bend extension from a vertical outlet of each fitting having a series of nozzles arranged opposite the ends of the flues to be cleaned, a valve seat ring within said vertical outlet, a closure cap for the diametrically opposite outlet forming a valve stem bearing, a non-rotatable stemmed-valve in said fitting adapted to seat on said ring and having a cam ring on the stem extension outside said cap, a crank-shaft supported in parallel relation to said distributing pipe and having its crank portions adapted to rotate in said cam rings, and means to rotate said crank shaft.

[Claim 3 not printed in the Gazette.]

1,257,486. SUPPORT FOR TENTS AND CANOPIES. WILLIE C. HONEYCUTT, Coats, N. C. Filed Dec. 18, 1917. Serial No. 207,724. (Cl. 135—15.)



1. In a tent, the combination of a support for the top thereof including a frame secured to the sides adjacent the top, a cap plate adapted to be mounted upon a tent pole, and resilient means connecting said frame and cap plate and operable to relieve the strain upon the sides of the tent at the top thereof when the sides contract and take up the slack in said sides when the same expand.

2. In a tent, the combination of a support for the top thereof including a frame secured to the sides adjacent the top, a cap plate adapted to be mounted upon a tent pole, resilient means connecting said frame and cap plate and operable to relieve the strain upon the sides of the tent at the top thereof when the sides contract and take up the slack in said sides when the same expand, and flexible elements connecting said frame and cap plate for limiting the action of said resilient members when the sides of the tent contract.

3. In a tent, the combination of a support for the top thereof including a frame secured to the sides adjacent the top, a cap plate adapted to be mounted upon a tent pole, and coil-springs connecting said frame and cap plate and operable to relieve the strain upon the sides of the tent at the top thereof when the sides contract and take up the slack in said sides when the same expand.

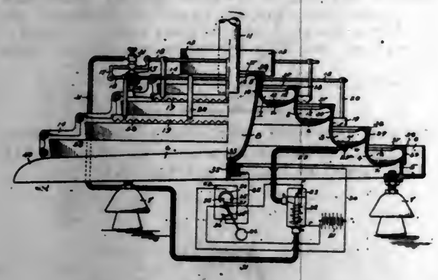
4. In a tent, the combination of a support for the top thereof including a horizontally disposed frame to which the upper edges of the tent are connected, a cap plate mounted upon the tent pole, and resilient means connecting said frame and cap plate to maintain the sides of the tent tautened and provide a support for the hood of the tent.

1,257,487. APPARATUS FOR SAVING GOLD AND OTHER PRECIOUS METALS. WILLIAM D. M. HOWARD, San Francisco, Cal., assignor to Harry De Courcy Richards, San Francisco, Cal. Filed Mar. 11, 1913, Serial No. 753,490. Renewed Jan. 23, 1918. Serial No. 213,418. (Cl. 83—67.)

1. In an apparatus of the character described, an annular cell having a curved bottom wall, and an inwardly extending annular overflow lip having a flat upper surface

inwardly inclined slightly to the horizontal and a curved under surface overhanging the cell.

2. In an apparatus of the character described, an annular cell having a curved bottom wall, an inwardly extending annular overflow lip having a flat upper surface inwardly inclined slightly to the horizontal and a curved under surface overhanging the outer edge of the cell, and means for feeding liquid to the cell downwardly along its inner edge.



3. A gold saver comprising a series of concentric cells in step formation, a substantially parabolic receiving cup having an inwardly overhanging overflow lip and adapted to overflow into the topmost cell in said series, and a splash ring spaced from said cup above said topmost cell.

4. A gold saver comprising a series of cells in step formation with graduated heights of risers, each cell having an inwardly overhanging lip with a top surface inclined upward from the body of the cell and joining the floor of the cell in a curved line, the cell floor and the riser to the next cell forming substantially a parabolic curve.

5. In an apparatus of the character disclosed, a stationary annular cell, the outer portion of the inner surface of said cell being curved upwardly, inwardly and downwardly so as to produce a whirl of the pulp liquid in a vertical plane, an annular flange extending inwardly from the outer overflow edge of the cell, the upper surface of said flange being upwardly and outwardly inclined in radial planes at an angle approaching the angle of rest of the heavier material in the liquid pulp.

[Claim 6 not printed in the Gazette.]

1,257,488. PLASTIC COMPOSITION FOR BUILDING PURPOSES. JOSEPH KEMPER, Utica, N. Y. Filed Apr. 13, 1916. Serial No. 90,969. (Cl. 106—25.)

1. A plastic composition for building purposes composed of from six to ten parts of the calcareous waste left upon the production of acetylene gas from combining calcium carbid with water, one part of Portland cement and from three to four parts of plaster of Paris, thoroughly mixed with water sufficient to obtain the necessary plasticity to mold the composition into blocks or forms.

2. A plastic composition for building purposes composed of eight parts of the calcareous waste left upon the production of acetylene gas from combining calcium carbid with water, one part of Portland cement and from three to four parts of plaster of Paris, thoroughly mixed with water sufficient to obtain the necessary plasticity to mold the composition into blocks or forms.

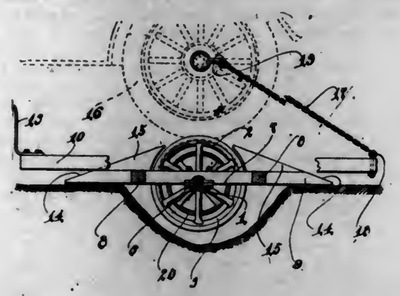
1,257,489. WHEEL. EDWARD BRICE KILLEN, London, England. Filed Jan. 30, 1914. Serial No. 815,451. (Cl. 21—31.)

In a wheel of the character described, a dished metal center having a substantially central, inwardly extending flange and two outwardly extending flanges, a series of spokes having their inner ends clamped between the outer flanges of said metal center, a renewable wood center within said metal center and comprising a pair of blocks located at opposite sides of said flange and secured together, said wood center having a central opening, and a



hub within said opening and detachably secured to said wood center.

1,257,490. POWER-TRANSMISSION DEVICE. CHARLES KINNEY, Spokane, Wash., assignor of one-third to Phillip S. Palmer, Spokane, Wash. Filed Nov. 1, 1916. Serial No. 128,942. (Cl. 74—106.)

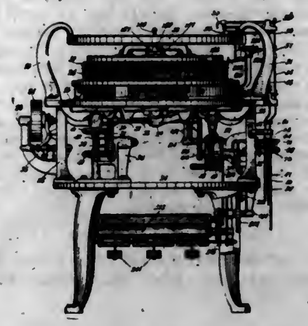


1. In combination with a superimposed motor vehicle, a combined truck trailer and power transmission device, comprising a rotatable power and axle shaft, circumferentially grooved friction driven wheels fixedly mounted on the shaft, supporting beams and journals for the shaft, a body frame mounted on the shaft, inclines mounted on the supporting beams, and retaining cables adapted to be secured to the frame and to the superimposed vehicle, to connect said vehicle and frame to maintain the drive wheels of the vehicle in frictional engagement with the driven wheels of the transmission device.

2. A device of the character described, consisting of a rotatable power shaft, circumferentially grooved wheels spaced and mounted on said shaft and adapted for use in transporting the device, pairs of horizontally extending supporting beams mounted on said shaft and closely encompassing said wheels and being adapted to freely support said wheels when the wheels are placed over a hole in the ground, inclines mounted on said pairs of supporting beams, and means for maintaining friction driving wheels upon said grooved wheels in superimposed relation.

3. A device of the character described, consisting of a rotatable power shaft, circumferentially grooved friction driven and road engaging wheels spaced apart and mounted on said shaft, horizontally extending wheel supporting beams mounted on said shaft and encompassing said wheels, a vehicle body frame disposed intermediate of and connecting said supporting frames, a hauling means carried by the body portion, and means for maintaining friction driving wheels upon said driven wheels in superimposed relation.

1,257,491. KNITTING-MACHINE. HERMANN A. KLEMM, Harrison, N. Y., assignor of one-half to James D. Leys, New York, N. Y. Filed May 15, 1914. Serial No. 838,844. (Cl. 66—22.)



1. A knitting machine of the character described, comprising means for automatically producing different kinds and styles of stitches in articles continuously connectedly produced by the machine, and means for automatically inserting a separating thread between the articles and connecting them together consisting of a cam adjacent the regular knitting cam and automatically set to act on the needles when the separating thread is being laid, a thread carrier, means for moving it in one direction, a cam ledge for disconnecting it from said moving means, and means for moving the thread carrier back in the opposite direction.

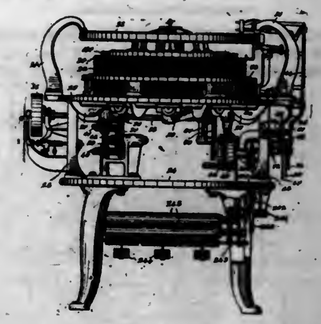
12. A knitting machine of the character described, comprising a cylindrical needle bed, a cam carrier fitted to rotate around the bed, cams on the carrier adapted to operate the needles, a disk needle bed horizontally arranged, a cam carrier therefor, cams carried thereby, means for rotating this cam carrier coincidently with but in opposite direction to the cylindrical needle bed cam carrier, a circular flat bar slidably connected to and extending about half way around the cam carrier of the disk needle bed, a cam adapted to be moved into the path of the needles and to be held away therefrom, means connecting this to one end of the circular bar, a lever connected to the other end of the circular bar, a roller on the end of the lever, a horizontal bar, and automatically operated means for moving the end of the horizontal bar into and out of the path of travel of the roller as the cam carrier rotates.

14. A knitting machine of the character described, comprising a cylindrical needle bed, a cam carrier fitted to rotate around the bed, cams on the carrier adapted to operate the needles, a disk needle bed horizontally arranged, divided into two sections fitted to circularly move coincident with cylinder needle bed, means automatically operated for moving one or both of the two sections of said bed to and fro comprising a section of internal gear teeth attached to each of the bed sections, segmental gears meshing therewith and means adjustably connected for rocking one or both of the segmental gears.

[Claims 2 to 11 and 13 not printed in the Gazette.]

1,257,492. KNITTING-MACHINE. HERMANN A. KLEMM, Harrison, N. Y. Filed Dec. 3, 1914. Serial No. 875,227. (Cl. 66—22.)

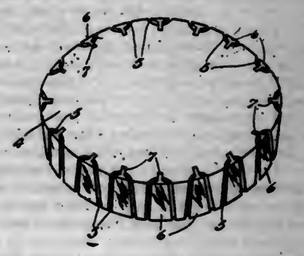
9. A knitting machine, comprising a cylinder needle bed and a superimposed horizontal needle bed, a cam carrier at the lower part of the cylinder needle bed and a cam carrier located above the horizontal needle bed, means for rotating the cam carriers in opposite directions, movable cams on each of the cam carriers, adapted to be moved into and out of action with the needles of the two needle beds, two pairs of tappets arranged in different horizontal planes fitted to rock on vertical axes carried by the cam carriers, a centrally pivoted lever for each pair of tappets, a bar fitted to slide in vertical bearings to which one end of each of the levers is pivotally connected, a separating thread carrier controller, comprising a sliding spring actuated latch, a head secured to its stem, a sliding plate provided with an inclined cam ledge



adapted to move under the head to withdraw the latch out of action, two rigidly connected tappets rocking on a vertical axis and having an arm operatively connected to the sliding plate, a lever pivotally connected at one end to said vertically sliding bar, the other of which is located to co-act with latch controlling tappets and automatic means for moving the vertical bar whereby the cams and latch are simultaneously moved into and out of active positions.

[Claims 1 to 8 not printed in the Gazette.]

1,257,493. METHOD OF CASTING FURNACE FIRE-POTS. JOHN P. KOLLA, Holland, Mich., assignor to The Holland Furnace Company, Holland, Mich., a Corporation of Michigan. Filed Mar. 13, 1917. Serial No. 154,430. (Cl. 22—213.)



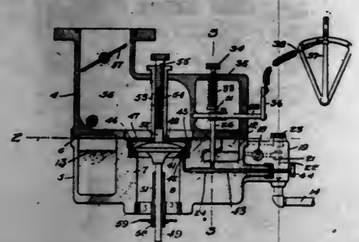
1. The method of casting a furnace fire pot which consists in forming a drag with a plurality of depressions therein, in its outer face, then providing a plurality of chills, each formed of a body and tongue, placing the tongue of a chill in each depression to locate the chill properly with respect to the drag, then placing a cope thereover spaced at its inner sides from the outer sides of the chills and the drag, and then pouring molten iron into the spaces between the drag and cope and around the bodies of the chills, substantially as described.

2. The method of casting a furnace fire pot which consists in forming a drag with a plurality of depressions on its outer face, locating chills therein, each having a body and a rearwardly extending tongue, placing a cope thereover and pouring molten iron into the spaces between the cope and drag, and chills and drag thereby forming a cast

iron ring having pairs of chilled ribs on the inner side thereof, substantially as described.

3. The method of casting a furnace fire pot which consists in forming a drag with a plurality of concave depressions on its face, each depression being formed with a lengthwise recess, locating chills in said depressions, each chill having a tongue seating in a recess and a body spaced from the sides of a depression, placing a cope thereover and pouring molten metal into the spaces between the drag and cope and between the chills and sides of said depressions, substantially as described.

1,257,494. VALVE-CONTROLLING MECHANISM FOR CARBURETERS. GUSTAVE A. KROHN, Coarsegold, Cal. Filed June 8, 1916. Serial No. 102,446. (Cl. 137—144.)



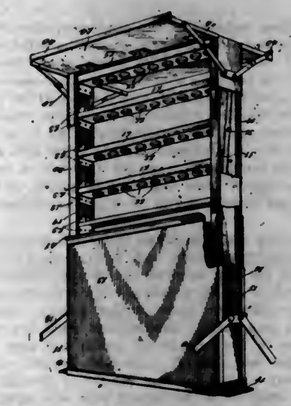
1. A carbureter having two fuel chambers disposed side by side, but separated by an intervening wall, an operating shaft disposed exteriorly to the fuel chambers, said fuel chambers each having a vertically disposed passage and an outlet opening below and alined with said passage, needle valves seating in the outlet openings and extending upward through said passages, and a lever having oppositely projecting arms mounted upon said shaft, the ends of the arms being each formed with a passage for the respective needle valves, the needle valves each having an abutment disposed above the corresponding arm on the lever and adapted to be engaged thereby to operate the respective valve, and a spring urging each needle valve downward against its seat and detachably engaged each with the corresponding needle valve.

2. In a carbureter, two fuel chambers disposed side by side and separated by an intervening partition, each of said fuel chambers being formed in its upper wall with a vertically extending passage and in its lower wall with an alining outlet port, valve stems extending upward through said passages and coacting with said ports, each stem being provided with an abutment, a member arching over said transverse wall, a shaft detachably supported in said member and extending between the two valve stems, a lever having oppositely projecting arms adjustably mounted upon said shaft and coacting with said abutments, said lever when operated acting to lift one or the other of said valves, springs urging said valves downward, and stops adjustably mounted in the said member above the valve stems and adjustably limiting the upward movement of the valve stems.

3. In a carbureter, a base section having two adjacent fuel chambers separated by a partition, the upper wall of each fuel chamber having a passage and the lower wall being formed with an outlet port alining with the passage, an upper section disposed upon the base section and detachable therefrom and having passages alining with the passages in the upper wall of the base section, said upper section including a web arching over said passages, valve stems extending through the passages of the upper and lower sections and coacting with the outlet ports, said valve stems being provided with abutments, springs urging the valve stems downward and into closed position, vertically adjustable stops extending through said arched portion of the upper section and above said section and limiting the upward movement of said stems, a shaft extending through said arched portion between the stems, and a lever mounted upon the shaft and having oppositely projecting arms adapted to engage said abutments to operate said valves, each of said arms being provided with a passage for the respective valve stem, whereby when the lever is rocked, one of said valve stems will be raised, said lever when in an intermediate position permitting both valves to remain closed.

4. In a carbureter, two fuel chambers disposed side by side but separated by an intervening wall, a member arching over the intervening wall, an operating shaft extending through said member, said fuel chambers each having a vertically disposed passage and an outlet opening disposed below and in alinement with the passage, each of said fuel chambers being provided with a passage intersecting the outlet, needle valves in the last named passages and adjustable to control the outlet of fuel through said passages, needle valves seating in the outlet openings and extending upward through the first named passages, a lever mounted upon said shaft and operatively engaging said needle valves to cause the opening of one or the other of the needle valves as the lever is rocked in one or the other direction, and springs urging the last named needle valves to a closed position.

1,257,495. MILK-BOTTLE CABINET. FRANK O. KRUEGER, Limeridge, Wis. Filed Jan. 2, 1917. Serial No. 140,180. (Cl. 45—71.)



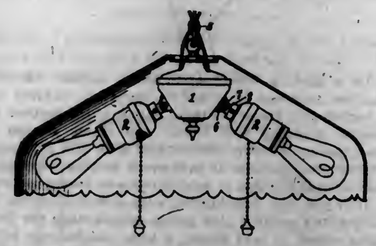
1. A cabinet for milk bottles, comprising a casing open at the bottom, a vertically slidable frame movable through said opening and telescopically engaging said casing, means for supporting a plurality of bottles in said frame, and means for supporting said casing, and a combined shelf and closure member, mounted at the lower portion of said frame to swing from a horizontal position, in which it serves as a shelf, to a vertical position with its upper edge against the lower edge of the casing to form a closure.

2. A cabinet for milk bottles, comprising a casing open at the bottom, a vertically slidable frame movable through said opening and telescopically engaging said casing, means for supporting a plurality of bottles in said frame, means for supporting said casing, said frame comprising two vertical slides one at each end of the casing and a plurality of bottle racks extending between said slides, means for retaining said frame in extreme position, comprising a pair of locking members, one pivoted to each slide, a pair of fixed latch members, secured to the casing for coöperating with said locking members, respectively, and a member pivoted intermediate its ends and engaging said pivoted locking members for actuating them.

4. A cabinet for milk-bottles comprising a casing substantially rectangular in horizontal cross-section and open at the bottom, a vertically-slidable frame movable through said opening and telescopically engaging said casing, comprising two vertical channeled slides one at each end of the casing, the flanges of said channels extending outwardly, whereby a space is provided between the channel and casing, bottle-shelves extending between said slides and secured thereto, and locking means for holding said frame in adjusted position, located in said space.

[Claims 3 and 5 not printed in the Gazette.]

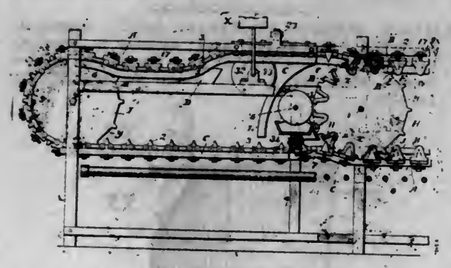
1,257,496. LAMP-CLUSTER. GEORGE L. LAMB, Nappanee, Ind., assignor to Lamb Brothers & Greene, Nappanee, Ind., a Corporation of Indiana. Filed Apr. 16, 1917. Serial No. 162,503. (Cl. 240—81.)



1. In a lamp cluster, supporting means, a hollow body member carried thereby and having a plurality of circumferentially spaced openings, each having opposed ears integral with its side walls, and a plurality of lamp sockets each having a nipple projecting from its inner end and pivotally mounted in one of said openings between the ears thereof for swinging adjustment relative to said member.

[Claim 2 not printed in the Gazette.]

1,257,497. PASTRY-MAKING APPARATUS. EDWARD H. LANIER, Cincinnati, Ohio. Filed Dec. 10, 1908. Serial No. 466,868. (Cl. 107—58.)



1. In a pastry molding apparatus the combination of a plurality of carriers each provided with a plurality of cones, means for applying batter in a liquid condition to said cones, a plurality of carriers having sockets therein, and means for directing the carriers in courses to bring the cones into and then out of the sockets.

13. The combination with two series of traveling carriers having cones and sockets as described, of means for greasing the cones and sockets, means for depositing batter on the cones, means for then directing the cones into the sockets, means for heating the carriers, and means for thereafter separating them.

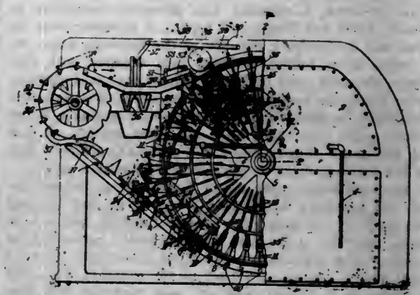
16. The combination with means for conveying a series of socketed carriers in a horizontal limited path and for then deflecting the same from said path, of guides for a series of carriers provided with cones constructed to guide said cone carriers parallel to the socketed carriers for a part of the course and to lift the cone carriers as the socketed carriers are deflected.

17. The combination in a pastry molding and baking apparatus with a series of cone carriers, of a plurality of cones for each carrier, sliding rods to which said cones are connected, and means for moving said rods vertically for the purpose set forth.

26. The combination in a pastry molding and baking apparatus with a series of traveling carriers, and cones rotatable on said carriers, of means for rotating said cones as the carriers travel.

[Claims 2 to 12, 14, 15, 18 to 25, and 27 to 31 not printed in the Gazette.]

1,257,498. PASTRY MOLDING AND BAKING APPARATUS. EDWARD H. LANIER and FRANK K. DRIESBACH, Cincinnati, Ohio. Filed June 12, 1914. Serial No. 844,717. (Cl. 107—58.)



1. In a machine for the purpose described, the combination of a series of cores, an endless carrier supporting said cores, a series of mold sockets each adapted to receive one of the cores during a portion of the travel thereof, and means for positively moving the mold sockets successively longitudinally of the cores therein, for the purpose described.

4. In a machine for the purpose described, the combination of a drum provided with a series of peripheral mold sockets, an endless carrier extending about said drum, a series of cores supported by said carrier and adapted to move into and from the mold sockets in the drum as the carrier travels, batter supplying means, and means for heating the mold sockets.

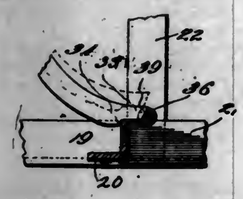
14. In a machine for baking hollow pastry forms, the combination of a rotary drum provided with a series of radially movable peripheral mold sockets, an endless carrier supported by said drum and a suitable wheel, cores on said carrier adapted to move into and from the mold sockets of the drum as the carrier travels, a batter receptacle, means actuated by the endless carrier for transferring batter from said receptacle to the cores, and means for heating the mold sockets.

16. In a machine for baking hollow pastry forms, the combination of a series of sectional mold sockets connected to travel together about a horizontal axis, an endless series of traveling cores, each adapted to be received in one of the mold sockets, means whereby each core will be caused to successively enter a mold socket, travel therewith for a time and then be separated therefrom, means for supplying batter to produce articles to be formed between the cores and mold sockets, and means for heating the mold sockets.

20. In a machine for the purpose described, the combination of a series of cores, an endless carrier supporting the cores, a series of mold sockets each adapted to receive one of the cores during a portion of the travel thereof, and means for successively effecting relative movement between each core and its mold socket, to loosen the pastry from the core, the cores and mold sockets being subsequently separated and the pastry withdrawn from the mold sockets on the cores.

[Claims 2, 3, 5 to 13, 15, 17 to 19, and 21 to 24 not printed in the Gazette.]

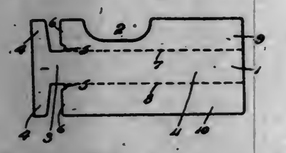
1,257,499. FOLDING BED. GEORGE E. LE CLAIR, Flint, Mich. Filed Nov. 7, 1916. Serial No. 130,094. (Cl. 5—37.)



1. In combination with a bed frame and a carriage on which the bed frame is pivotally mounted so that the bed frame may be arranged in either horizontal position or vertical position, a segment link pivotally connected to one side of the bed frame and having a shoulder near its pivotal end to engage a member of the carriage when the bed frame is in folded position, said segment link also having a shoulder near its free end to engage said carriage member when the bed frame is in horizontal position, and a rock shaft mounted in the carriage and having a notch to receive the free end of the link, the bottom of said notch forming a cam to trip and release the segment link from the carriage member when the rock shaft is turned.

2. In combination with a bed frame and a carriage on which the bedstead is pivotally mounted so that the bed frame may be arranged in either horizontal position or vertical position, a segment link pivotally connected to one side of the bed frame and having a shoulder near its pivotal end to engage a member of the carriage when the bed frame is in folded position, said segment link also having a shoulder near its free end to engage said carriage member when the bed frame is in horizontal position, a rock shaft mounted in the carriage and having a notch to receive the free end of the link, the bottom of the notch forming a cam to trip and release the segment link from the carriage member when the rock shaft is turned, and means to prevent casual turning of the rock shaft.

1,257,500. PRINTER'S GALLEY-LOCK. JAMES EDGAR LEE, Grand Haven, Mich., assignor to The Challenge Machinery Co., Grand Haven, Mich., a Corporation of Illinois. Filed Sept. 25, 1916. Serial No. 122,118. (Cl. 276—43.)

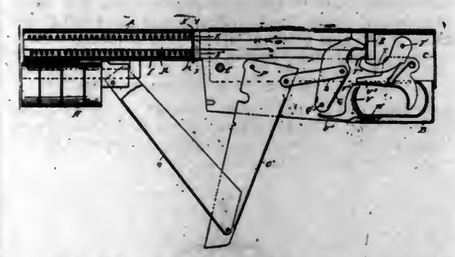


1. A lock for a printer's galley comprised of a bar adapted to engage and hold type, a curved extension projecting from one end and at the upper side of the bar, and wings extending oppositely from said curved extension for a distance beyond each side of the bar, said wings being spaced a short distance from the end of the bar and paralleling said end of the bar, substantially as described.

5. A lock for a printer's galley comprised of a channel bar, the web and flanges thereof forming the top and sides of the bar, said flanges at one end being formed with notches closely adjacent the web of the bar, an extension to the web at said end located between said notches, turned upwardly and then downwardly into substantially U-shape, and terminating a distance above the lower edges of said flanges, and integral wings on said extension projecting substantially equal distances therefrom and paralleling the adjacent ends of the flanges, substantially as described.

[Claims 2 to 4 not printed in the Gazette.]

1,257,501. GUN. CHARLES F. LEFEVER, Plymouth, Mich., assignor to Daisy Manufacturing Company, Plymouth, Mich., a Corporation of Michigan. Filed Oct. 4, 1916. Serial No. 123,645. (Cl. 124—10.)



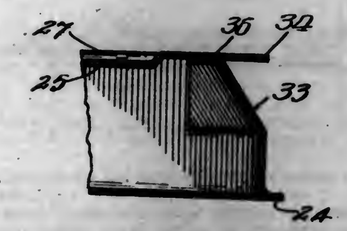
1. In a gun, a barrel and frame section, operating mechanism mounted in complete operative relation upon said barrel and frame section, and a stock section telescopically engaging said barrel and frame section and secured thereto without interference with said mechanism, the telescoping portion of said stock section surrounding the telescoping portion of said barrel and frame section.

6. In a gun, the combination with a barrel section having depending parallel side plates constituting the frame, a piston shank in said barrel, a lever for directly actuating said shank pivoted at its lower end between said side plates, a lever pivoted between said side plates at a higher point, and a link connecting said levers at points describing arcs of movement substantially in reverse directions.

11. In a gun, a barrel section and parallel side plates depending therefrom constituting a frame, a portion of said side plates being cut away to form a trigger opening and guard, a compound lever mounted between the side plates of said frame, a trigger also mounted on and between said side plates and having its actuating portion extending into registration with said openings and a stock section engageable with and disengageable from said barrel section without interference with said lever and trigger mechanism.

[Claims 2 to 5 and 7 to 10 not printed in the Gazette.]

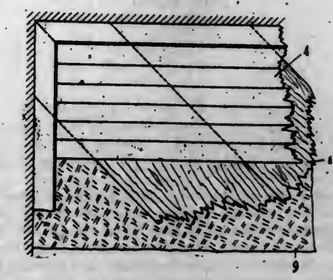
1,257,502. METHOD OF MAKING CANS. GEORGE A. LEIGHTON, South Boston, Mass., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Apr. 3, 1916. Serial No. 88,473. (Cl. 113—15.)



1. The herein described method of making cans, the same consisting in drawing a blank of sheet metal to form the bottom and side walls of the can; cutting out said bottom from the side walls; bending in the walls of the body to reduce the cut-out space and form a sealing flange, a portion of the said wall and of the said sealing flange being bent farther inward than the remainder of said bent in portion, placing the cut-out bottom upon the sealing flange with a portion of the bottom projecting beyond the portion of the wall farthest bent in, to form a tongue for ripping said bottom from the filled and closed can; and soldering the said bottom to the said sealing flange of the body.

2. The herein described method of making cans, the same consisting in drawing a blank of sheet metal to form the bottom and side walls of the can and embossing the bottom to form a panel which may be inset within the sealing flange of the body, said panel being further spaced inward from the side walls at one corner; cutting out said bottom from the side walls; bending in the walls of the body to reduce the cut-out space and form a sealing flange, one corner of the side walls and the corresponding portion of said sealing flange being bent farther inward than the remainder of said bent in portion, placing the cut-out bottom upon the sealing flange with said panel fitted within said flange and with a corner of the bottom projecting beyond the portion of the wall which is farthest bent in, to form a tongue for ripping said bottom from the filled and closed can; and soldering the said bottom to the said sealing flange of the body.

1,257,503. FLOOR-COVERING. BROR KNUT LINDBERG and ALBIN FREDRICK HÖRLIN, Stockholm, Sweden. Filed May 16, 1917. Serial No. 169,086. (Cl. 20—75.)



A floor covering comprising a series of strips of wood, a flexible fabric backing for said strips, and a sheet of veneer interposed between and secured to said strips and fabric backing, said sheet of veneer having a flexibility intermediate between that of the strips of wood and that of the fabric backing.

1,257,504. SCYTHE-BLADE FASTENER. EARL E. LIPPERT, Stroud, Okla. Filed Aug. 20, 1917. Serial No. 187,305. (Cl. 56—27.)

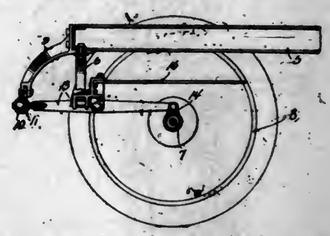


1. The combination with a scythe handle, a ferrule mounted on said handle, coöperating means carried by said handle and ferrule for holding the ferrule against turning on the handle, a seat extending longitudinally of said ferrule, threads formed on the exterior of the ferrule, a blade having a shank adapted to fit in said seat and provided with threads on its outer face adapted to register with the threads on the ferrule, and a clamping band having interior threads for engaging the threads of the ferrule and shank whereby they are locked to each other and to the handle.

2. The combination with a scythe handle having one face flattened at its lower end, a tapered ferrule having a flat inner face to fit on said handle and whereby it is held against turning relatively thereto, a seat extending longitudinally of said ferrule on its outer face, said ferrule being split from end to end with the edges of said split portion normally spaced apart, a blade having a shank adapted to fit in said seat, and a clamping band for engaging said ferrule and shank for locking them together.

[Claims 3 and 4 not printed in the Gazette.]

1,257,505. SPRING-SUPPORT FOR VEHICLES. GEORGE H. MCDONALD, Milwaukee, Wis. Filed Feb. 12, 1917. Serial No. 148,045. (Cl. 267—9.)

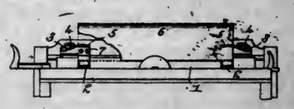


1. The combination with a vehicle body, of levers pivotally connected therewith, ground wheels carried by said levers, a supplemental frame pivotally connected with the levers at points between the body connections of the levers and the wheels and spring means connecting the supplemental frame and the body of the vehicle.

3. The combination with a vehicle body, of arms extending outwardly and downwardly therefrom, a socket formed on the outer end of each arm, levers having ball heads formed on the outer ends thereof and pivotally secured in said sockets, ground wheels carried by the inner ends of said levers, and spring means connected with the vehicle body and with the levers between their pivotal connections and the wheels.

[Claim 2 not printed in the Gazette.]

1,257,506. CONFIDENTIAL SHEET-BLIND. CHARLES E. MCGILL, Colorado Springs, Colo. Filed Sept. 21, 1916. Serial No. 121,466. (Cl. 197—127.)



1. The combination with a typewriting machine, of holding means carried thereby and a blind sheet held in the holding means in position to cover the longitudinal extension of the sheet that has passed beyond the line of writing in the machine, the blind sheet being of a material of such flexibility as to insure gravitation thereof beyond the holding means into conformity with the corresponding portion of the sheet written upon.

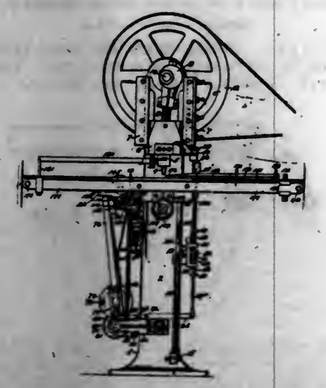
7. In a typewriting machine, the combination with a carriage including a platen, of paper guides associated with the platen, resilient fingers supported by the guides, an envelop arm, a resilient finger carried by the arm, a shield of flexible material yieldably engaged by the fingers of the paper guides and envelop arm, and held in position to cover a sheet being printed upon, as and for the purpose set forth.

[Claims 2 to 6 not printed in the Gazette.]

1,257,507. AUTOMATIC FEEDING DEVICE FOR BAND-CUTTING MACHINES. FRANCIS X. MALOCSAY, New York, N. Y., assignor to the Firm of Wm. Steiner Sons & Co., New York, N. Y. Filed Nov. 24, 1915. Serial No. 63,298. (Cl. 164—21.)

1. In a machine of the class described, means for holding strips true, a master strip, means for feeding the strips forward step by step with a varying feed, according to the master strip, with periods of dwell long enough for the cutting operations, means for stopping the forward feed, means for releasing the remainder of the strips, means for reversing the forward movement of the strip

moving mechanism, and means for placing the apparatus in condition to receive more strips.



5. In a machine of the class described, a pair of pins adapted to hold true a number of strips, a master strip, a slotted table through which said pins protrude so as to slide said strips on said table, mechanism for feeding said pins with a step by step movement, the steps being of varying length according to the master strip, and means for stopping the forward movement of the pins.

14. In a machine of the class described, a slotted table and means for supporting the same, pins protruding through the slots in the table and a rack bar supporting said pins, a master strip carried by said rack bar, means for driving said rack bar with an intermittent motion and means coöperating with said master strip for limiting the forward movements of the rack bar so that strips moved by the pins will be stopped after each movement according to the location of designs upon these strips.

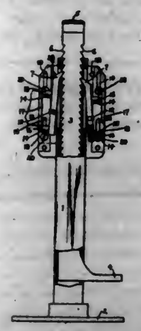
23. In a machine of the class described, a reciprocating die and means for mounting the same, means for driving the same, a carriage adjacent to said die and a table adjacent to said carriage, the latter for carrying, the former for shifting with an irregular and intermittent motion a plurality of strips, a treadle and mechanism connected therewith for starting the machine when the same is depressed at its forward end, a stop for limiting the forward movement of said carriage, a reversing mechanism for returning the carriage to its initial position, and means for stopping the carriage when so returned.

[Claims 2 to 4, 6 to 13, and 15 to 22 not printed in the Gazette.]

1,257,508. QUICK-ACTION JACK. ALEXANDER W. MARR, Canton, Ohio. Filed Aug. 10, 1917. Serial No. 185,586. (Cl. 254—110.)

1. In a jack, the combination with a tubular standard, of a lifting bar having oppositely-disposed ratchet teeth thereon, slidingly movable in said standard, a frame secured to the latter, a pair of oppositely-disposed lever elements fulcrumed to said frame, a pair of lifting pawls pivotally mounted between said lever elements, one on each side of the fulcruming means, and adapted to be given an alternate up and down movement by the lever elements, a spring on the upper portion of each pawl, and hand-controlled slidable means adapted to compress said springs to hold the nose portions of the pawls in engagement with the teeth on the lifting bar, whereby the latter may be raised when the lever elements are reciprocated.

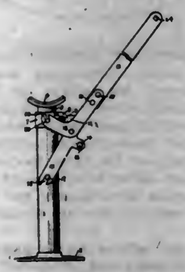
5. In a jack, the combination with a tubular standard, of a lifting bar having oppositely-disposed ratchet teeth thereon, slidingly movable in said standard, a frame secured to the upper portion of the latter, a pair of oppositely-disposed lever elements fulcrumed to said frame, a pair of lifting pawls pivotally mounted between said lever elements, one on each side of the fulcruming means, and adapted to be given an up and down movement by the lever elements, a spring-pressed plunger projecting outwardly from the top and bottom portion of each pawl, crank-controlled means slidingly secured to said standard below the frame, and a pair of oppositely-disposed cam members carried by the crank-controlled means, adapted to be moved by the latter into alternate engagement with the upper and lower plungers of the pawls, to hold their nose portions in engagement with the teeth on the lifting bar in the first instance and out of engagement therewith in the second instance.



7. In a jack, the combination with a tubular standard, of a lifting bar having opposed series of ratchet teeth thereon, slidingly mounted in said standard, a foot-lift secured to the lower portion of said bar and movable through an opening provided in said standard, two parallel supporting plates oppositely secured to the upper portion of said standard, a lever fulcrumed to each supporting plate, a shaft connected between said lever elements on each side of the fulcruming means and extending through arcuate slots provided in said plates, a pawl loosely mounted on each shaft, a spring-pressed plunger secured to the top and bottom portion of each pawl, a sliding slotted bar extending into said frame, one on each side of the standard, a right-angled cam member extending inwardly from each slotted bar, for alternate engagement with the top and bottom plungers on said pawls, and crank-controlled means slidingly secured to said standard, for raising and lowering the slotted bars, to thereby force their cam members into alternate engagement with the upper and lower spring-pressed plungers on the pawls.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,257,509. TIRE-SAVING JACK. ALEXANDER W. MARR, Canton, Ohio. Filed Aug. 10, 1917. Serial No. 185,587. (Cl. 254—116.)



2. In a jack, the combination with a tubular standard, of a lifting bar slidingly movable therein, a collar secured to the upper end thereof, a pin projecting outwardly from opposite sides of said collar, a lever, a pair of claw-shaped prong members carried by the inner end of said lever, each claw-shaped member having a notched end for removably engaging one of the collar pins, a pin projecting outwardly from opposite sides of said standard, and a pair of fulcruming arms firmly connected together at their inner ends, each of said arms being pivotally secured to the middle portion of a respective prong member, and having a notched outer end for removable engagement with one of the pins projecting outwardly from said standard.

[Claims 1, 3 and 4 not printed in the Gazette.]

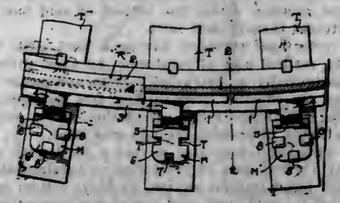
1,257,510. FEEDING DEVICE FOR HAY-BALING PRESSES. HENRY A. MASON, Lawndale, Ill. Filed Nov. 25, 1916. Serial No. 133,366. (Cl. 193—14.)



1. A conveyer-belt for baling machines, comprising endless chains passing over sprocket-wheels, strips attached to the chains transversely of the belt and spaced apart, teeth projecting outwardly from the strips, and boards operating to close the spaces between the strips on the upward movement of the belt and swing outward as the belt turns at its upper end.

2. A conveyer-belt for baling machines, comprising endless chains passing over sprocket-wheels, narrow strips attached to the chains transversely of the belt and spaced apart, teeth projecting outwardly from the strips, boards hinged to close the spaces between the strips on the upward movement of the belt, and tappet-arms at the upper end of the conveyer for raising the boards, substantially as shown and described.

1,257,511. RAIL-BRACE. GEORGE MEADE, Alliance, Nebr. Filed Nov. 17, 1917. Serial No. 202,535. (Cl. 239—15.)

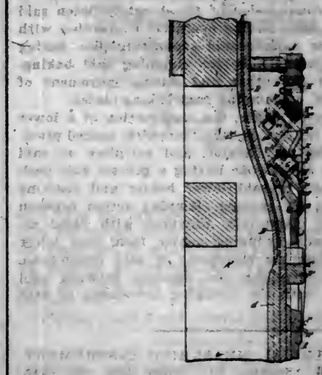


In combination with a rail and supporting ties therefor, brace members coacting with the rail and carried by the ties, each of said brace members including a plate fitting between the ball and flange of the rail and of a length to extend beyond opposite sides of the tie but terminating inwardly of adjacent ties, the extremities of the plate terminating in close proximity to the plates of adjacent brace members.

1,257,512. TUNING DEVICE FOR PIANOS. CARL CHRISTIAN MEINHOLZ, Paddington, New South Wales, Australia. Filed July 21, 1914. Serial No. 852,295. (Cl. 84—106.)

1. In pianofortes, a string plate having an aperture near the treble corner thereof, the inner edge of such aperture being inclined transversely of its length at an angle of 45 degrees and both the inner and outer edges being curved longitudinally, the curves being struck from a common center located outwardly thereof, in combination with a rolled metal wrest plate having steps bent to curves struck from the same common center.

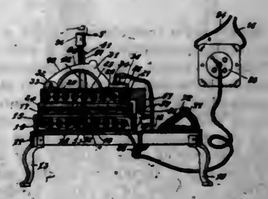
7. In upright pianofortes, stringing appliances for a tricord installation including, in combination with a wrest plate the top and bottom plates of a frame on the wrest plate, three slides, to the front ends of which the wires are hitched, comprising two side slides situated at different heights, and a central slide situated lower than both of the others, the central and lowest slide terminating at the front end in a nose under which the wires from the other



slides pass, the slides being mounted on the bottom plates of separate compartments, a short toe or pressure foot formed on the side slide which is disposed between the remaining slide, and the highest slide having a long toe or presser foot, such toes or presser feet being adapted to press down upon the top plate of the compartment with which the lowest or central slide is associated.

[Claims 2 to 6 and 8 not printed in the Gazette.]

1,257,513. ALTAR-BREAD BAKER. ANDREW MESSMER, Cincinnati, Ohio. Filed Nov. 26, 1915. Serial No. 63,530. (Cl. 107—66.)



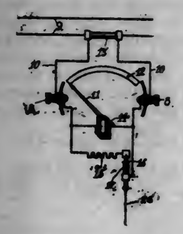
1. In an altar bread baker, the combination of a lower baking-plate, a swinging baking-plate coöperating therewith, separating means between said baking-plates constructed and arranged to separate said baking plates prior to co-clamping thereof, to prevent undue compression of the dough between said baking plates, and clamping means for clamping said baking-plates one toward the other, said separating means and clamping means being connected for combined movements for causing recession of said separating means during clamping movement of said clamping means and separating movement of said separating means during unclamping movement of said clamping means.

2. In an altar bread baker, the combination of a lower baking-plate, a swinging baking-plate coöperating therewith, said swinging baking-plate provided with a cam-face, a clamp-yoke coöperating with said cam-face, and an additional cam actuated by said clamp-yoke, said additional cam controlling the spacing between said baking-plates during said clamping movement for causing recession of said cam during clamping movement of said clamp-yoke and separating movement of said cam during unclamping movement of said clamp-yoke in related progression.

3. In an altar bread baker, the combination of a lower heater comprising a baking-plate, a swinging heater comprising a baking-plate coöperating with said first-named baking-plate, an arc-piece on said swinging heater, a clamp-yoke pivoted to said lower heater coöperating with said arc-piece, separating pins in said lower heater coacting with said swinging heater prior to clamping movement of said clamp-yoke and acting to separate said swinging baking-plate from said first-named baking-plate to prevent undue compression of the dough between said baking-plates, and cams having operative connection with said clamp-yoke for moving said separating pins during movement of said clamp-yoke for clamping said baking-plates one toward the other and during movement of said clamp-yoke for unclamping said baking-plates.

4. In an altar bread baker, the combination of a lower heater, a swinging heater coacting therewith, spaced pivot-connections between said heater, and arc-piece on said swinging heater, a clamp-yoke having a pivotal axis positioned with relation to said lower heater and coacting with said arc-piece for causing clamping action between said heaters, said clamp-yoke provided with cams arranged to space said swinging heater from said lower heater prior to clamping movement of said clamp-yoke, said clamp-yoke controlling the distance between said heaters in accord with the clamping movement of said clamp-yoke.

1,257,514. ELECTRICAL MEASURING INSTRUMENT. WILLIAM MEYER, Chicago, Ill. Filed Aug. 23, 1915. Serial No. 46,832. (Cl. 171—95.)

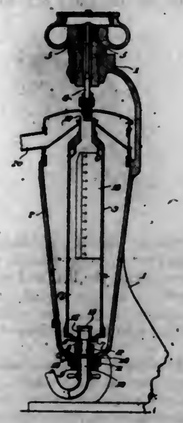


1. In a double scale instrument having a higher scale and a lower scale, a metallic casing, a pair of terminals insulated from the casing, a movable instrument coil having its terminals permanently connected to said terminals, a switch comprising a pair of insulated contacts mounted on the back of said metallic casings, said contacts being connected to the terminals of the movable coil, a spring plunger guided in one of said contacts and normally connecting said contacts, a spring for holding said plunger in closed position, a shunt of a fixed predetermined resistance, connected in series with said switch across said coil, and a string secured to said plunger for opening the shunt switch at any desired distance from the instrument.

2. In combination, a meter element, a metallic casing for said element, a switch comprising a pair of metallic contact posts secured to and insulated from said casing, a cylindrical plunger passing through one of said posts, a coiled spring about said plunger for holding the other end of said plunger in contact with said other post, a resistance connected to said switch, and being adapted to be connected in shunt of the metering element when the switch is closed to cause the meter element to be less sensitive, and a string secured to the other end of said plunger for opening the switch at any desired distance for reading the meter in more sensitive condition.

3. In combination, a meter element, a metallic casing for said element, a switch comprising a pair of metallic contact posts secured to and insulated from said casing, one above the other, a plunger passing through said lower contact and guided therein, said plunger having a conical upper end, said other post having a coöperating conical seat for the upper end of the plunger, a spring for normally forcing the plunger into contact with the seat, a resistance connected to said switch and being adapted to be connected in shunt of the metering element when the switch is closed to cause the meter element to be less sensitive and a string secured to the lower end of said plunger for opening the switch at any desired distance for reading the meter in a more sensitive condition.

1,257,515. CENTRIFUGAL SEPARATOR. MAX B. MILLER, Long Island City, N. Y., assignor to Sharples Specialty Company, West Chester, Pa., a Corporation of Pennsylvania. Filed Oct. 10, 1917. Serial No. 195,717. (Cl. 233—21.)



1. A centrifugal separator having a revoluble vertical bowl provided with means for admitting a solid stream thereto and means for effecting substantially unrestricted spreading of said stream within the bottom of said bowl.

2. A centrifugal separator having a suspended bowl with a substantially vertical axis of revolution, an axial bottom inlet, and means above said inlet for effecting substantially unrestricted spreading and permitting substantially free rotation within the bottom of said bowl of a fluid delivered through said inlet.

3. A centrifugal spreader having a bowl with a substantially vertical axis of revolution, an axial bottom inlet, a substantially unobstructed bottom, and means above said inlet for effecting substantially free spreading and permitting substantially free circulation within said bottom of a liquid introduced through said inlet.

4. A centrifugal separator having a bowl with a substantially vertical axis of revolution, a substantially unobstructed lower interior section, an axial bottom inlet, a spreader above said inlet, and means for supporting said spreader without substantially obstructing its action upon a liquid introduced through said inlet.

5. A centrifugal separator having a bowl with a substantially vertical axis of revolution, an unobstructed peripheral surface within its lower end and within its upper end means for catching and accelerating the revolution of substances delivered thereto.

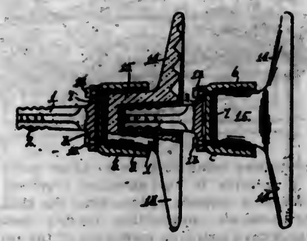
[Claim 6 not printed in the Gazette.]

1,257,516. INSULATOR ASSEMBLAGE FOR ELECTRIC CONSTRUCTION. EARLE A. MUCKEY, San Francisco, Cal., assignor of one-half to Edwin W. Beardsley, San Francisco, Cal. Filed Aug. 23, 1917. Serial No. 187,832. (Cl. 173—321.)

2. In an insulator-assemblage for electric construction, the combination of an insulator pin having a base-flange; and an insulator bell to the head of which the base flange of the pin is bolted.

7. An insulator-assemblage for electric-construction, comprising an insulator pin having a base flange; a member

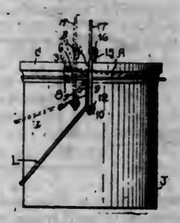
to which the base flange of the pin is bolted, the meeting surfaces of the base flange of said pin and member being provided with interfitting tongues and grooves; an insulator disk fitted on the pin, said disk having a shank; an insulator bell into which the shank of the disk is fitted, said bell having a head; and a second insulator pin having a base flange bolted to the head of the bell, the meeting surfaces of the base flange of the pin and the head of the bell being provided with interfitting tongues and grooves.



9. In an insulator-assemblage for electric-construction, the combination of an insulator pin having a base flange; and an insulator bell to the head of which the base flange of the pin is bolted; the meeting surfaces of the base flange of the pin and the bell head being provided with interfitting tongues and grooves, and said bell head being also provided with seat lugs for a terminal member.

[Claims 1, 3 to 6, and 8 not printed in the Gazette.]

1,257,517. FASTENING DEVICE. HENRY NELSON, Albert Lea, Minn. Filed May 7, 1917. Serial No. 166,964. (Cl. 215—1.)

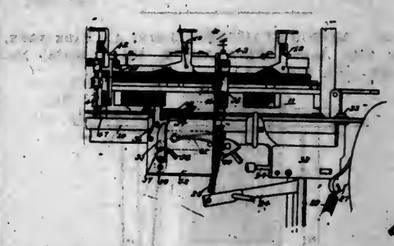


4. A fastening device of the character described comprising coacting jaws formed from a single length of material and provided with an eye at the junction of the jaws and with eyes at the outer ends of said jaws, a lever member pivotally engaged at one end with the eye at the junction of the jaws and said lever member being provided at its opposite end portion with an extension engaged with one of the last-named eyes, said extension being pivotally engaged with the eye at the outer end of the second jaw, a yoke member pivotally engaged with the lever at points inwardly of its connections with the jaws, the intermediate portion of the yoke member being provided with longitudinally spaced eyes, and a handle pivotally engaged with said eyes.

[Claims 1 to 3 and 5 not printed in the Gazette.]

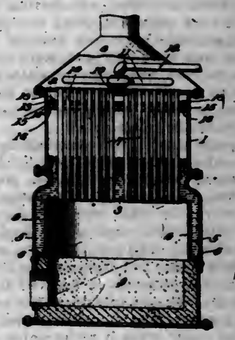
1,257,518. AUTOMATIC STOP MECHANISM FOR KNITTING-MACHINES. CHARLES RANDALL OSTROM, Sr., Portsmouth, Ohio. Filed Aug. 4, 1917. Serial No. 184,413. (Cl. 66—7.)

1. An attachment of the present character for knitting machines, comprising a vertically movable hammer pivotally supported at one end, and provided with a latch arm, a spring engaging the hammer for moving the same in operation, a latch member engaging the latch arm to normally hold the hammer in inactive position, a spring engaging the said latch member, a lever engaging the latch member at one end and fulcrumed intermediate its ends, an actuating ring around a portion of the machine, having a block engaging the opposite end of the lever and provided with a second block, an upright bracket, a rod disposed in upright position adjacent and intermediately pivoted upon the bracket, with its lower end in engagement with the second block of the ring, a rock shaft mounted in the upper end of said bracket, and having a fabric engaging member at one end, and an actuating block secured upon the said rock shaft and engaging the upper end of the said rod.



[Claims 2 and 3 not printed in the Gazette.]

1,257,519. STEAM-GENERATOR. JOHN F. OTIS, Oswego, N. Y. Filed Feb. 23, 1917. Serial No. 150,492. (Cl. 122—115.)



1. A steam generator of the multiplicity of fire tube type, having a separator plate located in the steam space remote from the water level, said plate formed with perforations closely receiving the fire tubes, said perforations being flared to produce edges surrounding the tubes to separate water from the steam passing through the plate along the tubes.

2. A steam generator of the type substantially as described, having a separator plate formed with perforations receiving the fire tubes, said perforations being flared downwardly to form separator edges around the tubes, the plate being formed to prevent passage of steam and water except past said edges and along the surfaces of the tubes.

3. A steam generator of the type substantially as described, having a separator plate formed with flaring perforations receiving the fire tubes and forming separator edges close to and around said tubes.

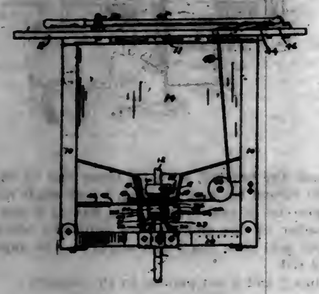
4. A steam generator of the type substantially as described, having a separator plate perforated for the passage of the fire tubes, and a ring tightly secured to the generator shell and against the inner surface thereof against passage of steam or water between the ring and the shell, and means securing said plate down on said ring.

5. A steam generator of the type substantially as described, having a separator plate perforated for the pas-

sage of the fire tubes, and an angle iron ring supporting said plate and to which the same is held, said ring being tightly secured around the inner surface of the generator shell.

[Claims 6 to 12 not printed in the Gazette.]

1,257,520. MOTOR-STARTER. JOHN A. PARKINSON, Sioux City, Iowa. Filed July 2, 1914. Serial No. 848,673. (Cl. 122—185.)



1. In a motor-starter the combination with the motor shaft of a ratchet-faced wheel mounted to turn with the shaft, a second ratchet-faced wheel mounted coaxially with said first wheel, one of said wheels being yieldably movable toward the other and having a taper-notched shouldered hub, a cam-faced collar encircling the hub and adapted to normally hold said movable wheel from the other wheel, and be turned and reciprocated by engagement with the hub, and operable when its reciprocation is retarded to coact with the hub to force the movable wheel from the other wheel, and means for retarding reciprocation of the collar.

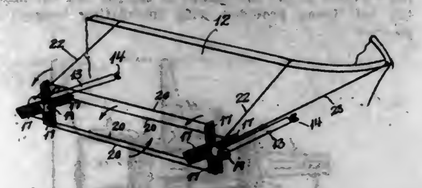
2. In a motor-starter, the combination with the motor-shaft, of a ratchet-faced wheel mounted to turn with the shaft, a second ratchet-faced wheel mounted coaxially with said first wheel, one of said wheels being yieldably movable toward the other and provided on its side opposite the other wheel with a hub having an irregular peripheral shoulder adjacent its outer end, a cam-faced collar encircling the hub intermediate the shoulder and the adjacent side of the wheel, mounted to turn and reciprocate with the hub, and operable, when retarded, to force the movable wheel from the other wheel, and means for retarding the collar when it reciprocates.

5. In an engine-starter for automobiles the combination with a fixed part of the chassis and the crank-shaft of a ratchet-faced wheel secured upon the crank-shaft, a bearing in axial alinement therewith and mounted upon the fixed part, a second ratchet-faced wheel having a forwardly-extending hub journaled in said bearing and having a peripheral shoulder on its forward end provided with tapered notches, yieldable means impelling said second wheel toward said first wheel, means controlled by the driver for actuating said second wheel, means for retracting the latter wheel, a cam-faced collar encircling the hub and mounted in said bearing against longitudinal movement, the cams being tapered to enter said notches whereby the collar is turned with said hub, means for retarding reciprocation of said collar when said second wheel starts to reciprocate, and means for normally stopping said collar.

[Claims 3, 4, and 6 not printed in the Gazette.]

1,257,521. TORPEDO-DEFLECTOR. FREDERICK W. PEUDEGAST, Cambridge, Mass. Filed May 4, 1917. Serial No. 166,329. (Cl. 114—240.)

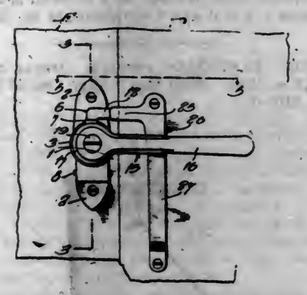
3. A torpedo deflector comprising arms hinged to the side of a ship, guy-ropes connecting the outer end portions of the arms with the ship, and operatively confining said arms against downward swinging movement, a guy-rope connecting the forward arm with the bow portion of the ship and arranged to prevent a horizontal swinging movement of said arm, screw-propellers journaled at the outer ends of the arms, and adapted to be rotated by movement through the water, said propellers being below the water line, and flexible deflecting members extending from one propeller to the other, the direction of rotation



of the propellers being such as to cause each deflecting member to revolve in the direction required to downwardly deflect a torpedo approaching the ship, the said deflecting members constituting tension members preventing backward swinging movement of the rear arm.

[Claims 1 and 2 not printed in the Gazette.]

1,257,522. REFRIGERATOR-DOOR FASTENER. FLOYD N. PERKINS, Freeport, Ill. Filed Feb. 8, 1917. Serial No. 147,399. (Cl. 70—49.)



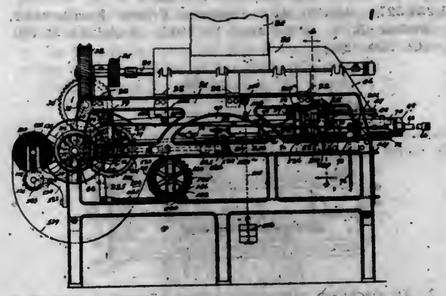
1. The combination with a door and its frame; of a latch pivotally mounted on said frame to swing into locking engagement with said door, said latch including means for moving it to locking position, a combined latch-lock and door-opener movably mounted on said frame and including means for moving it to operative position, and held in inoperative position by said latch when the latter is in locking engagement with said door, said combined latch-lock and door-opener being positioned to engage said latch and said door to simultaneously lock the latch and open the door when said latch is swung into open position.

2. The combination with a door and its frame; of a latch mounted on said frame and pivoted to swing parallel with said door into locking engagement therewith, a spring for moving said latch toward said door, and a combined spring-pressed latch lock and door opener operable simultaneously to lock the latch and open the door on the swinging of said latch into open position against the tension of its spring.

3. In a door fastener, an attaching member having a journal thereon, a latch having a laterally extending hollow hub mounted to rotate on said journal, a spring in said hub for turning said latch in one direction, said hub having an aperture therein, and a spring pressed dog held depressed by said hub when the latch is in closed position, said dog springing into said hub aperture on the opening of said latch, whereby the latch is locked in open position.

[Claims 4 and 5 not printed in the Gazette.]

1,257,523. MACHINE FOR SUBDIVIDING PLASTIC SUBSTANCES. FRANK M. PETERS and WARREN H. HUNGERFORD, Chicago, Ill.; said Hungerford assignor to said Peters. Filed Aug. 5, 1915. Serial No. 43,874. (Cl. 31—65.)



1. In a machine of the class described, the combination of a pressure chamber provided with a delivery port and an inlet port, means for alternately opening and closing the delivery port and the inlet port, and intermittently operating means synchronized with the opening and closing means for exerting pressure on a plastic substance contained within said chamber when the inlet port is closed and the delivery port is open.

2. In a machine of the class described, the combination of a pressure chamber provided with a delivery port and an inlet port, means for alternately opening and closing the delivery port and the inlet port, measuring means associated with said delivery port, and intermittently operating means synchronized with the opening and closing means for exerting pressure on a plastic substance contained within said chamber when the inlet port is closed and the delivery port is open, and coöperating with said measuring means.

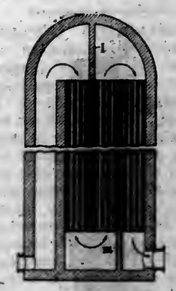
3. In a machine of the class described, the combination of a pressure chamber provided with a delivery port and an inlet port, means for alternately opening and closing the delivery port and the inlet port, measuring means associated with the delivery port, and intermittently operating means for reducing the cubical content of said chamber synchronized with the opening and closing means for exerting pressure upon a plastic substance contained within said chamber when the delivery port is open and the inlet port is closed.

4. In a machine of the class described, the combination of a pressure chamber provided with a delivery port and an inlet port, means for alternately opening and closing the delivery port and the inlet port, a ram projecting into said chamber, means for measuring material forced out of said chamber, and synchronized means for thrusting the ram into the chamber to exert pressure upon a plastic substance contained within said chamber when the delivery port is open and the inlet port is closed.

5. In a machine of the class described, the combination of a receptacle having an outlet, a plunger of substantially uniform cross section extending from outside into said receptacle and slidably mounted therein, means for positively limiting the inward and outward movement of said plunger, means for forcing a plastic substance into said receptacle and moving said plunger from its inner to its outer position to admit a predetermined quantity of plastic material into said receptacle, means for forcing said plunger back into its inner position to expel through said orifice the plastic substance in an amount equal to the amount forced into said receptacle, and a reciprocatory cutting member adapted to execute a transverse severing movement outside of said orifice after said predetermined quantity has been extruded therefrom by the movement of said plunger from its outer to its inner position.

[Claims 6 to 22 not printed in the Gazette.]

1,257,524. OPERATION OF CHECKER-BRICK HEATERS. ADOLF PROSSER, Achern, and OTTO STRACK, Saarbrücken, Germany, assignors of one-third to Gebrüder Stumm, G. M. B. H., Neunkirchen, Saar, Germany, a Firm. Filed Aug. 26, 1913. Serial No. 786,808. (Cl. 263—19.)



1. The method of transferring heat from hot gases to solid surfaces which consists in passing such gases through a confined chamber at great speed and setting up violent whirling motions in the gases during their passage through said chamber until hot particles of the inner core of the gas column are brought into frictional contact with the walls of the chamber.

2. The method of transmitting heat in checker brick heaters for hot blast furnaces which consists in mechanically introducing and passing through the heaters during the gas period, gas and air in volumes greatly in excess of corresponding volumes of the hot gases when passing directly from the furnace through the heater to the stack.

3. The method of heating checker brick which consists in greatly increasing the velocity of the combustion product within the stove by mechanically introducing into and passing through the stove during the gas period blast furnace hot gas and supplemental quantities of air in volumes greatly in excess of corresponding volumes of hot-gas when passing directly from the furnace through the heater to the stack.

4. The process of operating heaters which consists in subjecting the hot gases during their passage through the heaters to a violent agitation by means of a greatly accelerated secondary velocity imparted to the gases, causing the inner gas particles of the hot gases to come into contact with the heating surfaces of the heater and to give off heat to them.

5. The process of operating checker work heaters of the regenerative type which consists in causing an intense agitation of the gases in the heaters by greatly accelerating the speed of the hot gases through the heaters until the inner gas particles of the gases come into contact with the heating surfaces and give off heat to them.

[Claims 6 to 10 not printed in the Gazette.]

1,257,525. SHIP-PROTECTOR. WALTER PIASECKY, Cambridge, Mass. Filed Sept. 5, 1917. Serial No. 189,781. (Cl. 114—240.)

1. A ship protector embodying a plurality of juxtapositioned buffers, each including in the order named steel, leather, steel, leather, lead, and leather plates, superposed layers in the order named of cork, hemp, and cotton, a rubber covering inclosing said buffer and having the inner edges thereof lying adjacent the side wall of the ship, angle bars having one leg engaging the adjacent edge of the buffer and the other leg superposed on the rubber covering, fastening means passing through the last named leg and ship's side, a series of rows of rubber buffers carried by the inner steel plate in engagement with the outer face of the ship's side, bolts extending through the plates and layers, and a cushioned spring arranged between the inner face of the bolts and the outer face of the ship.

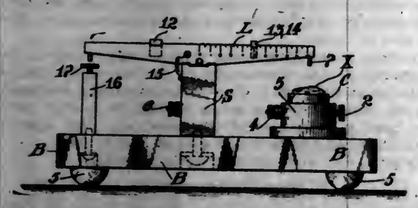
2. A ship protector embodying a plurality of juxtapositioned buffers, each including a series of alternately positioned metal and leather plates, cork, hemp and cotton layers superposed on said plates, a flexible covering for the buffer and means engaging said covering adapted for securing the same to the side of the ship.



6. A ship-protector including a plurality of buffers intimately assembled in position upon, and encompassing the ship's hull adjacent the water-line, each buffer comprising a plurality of alternating metal and leather plates, layers of cork, hemp and cotton superposed with respect to said plates, a flexible covering for the buffer, means for the attachment of said covering to the ship's hull, resilient members interposed between and spacing the metal plate and the ship's hull, and bolts securing said plates of metal and leather and layers of cotton, hemp and cork together, and positioned in alinement with certain of said resilient members.

[Claims 3 to 5 not printed in the Gazette.]

1,257,526. CONSTANT-PRESSURE SOLID RECTIFIER. GREENLEAF WHITTIER PICKARD, Amesbury, Mass., assignor to Wireless Specialty Apparatus Company, New York, N. Y., a Corporation of New York. Filed Sept. 15, 1909. Serial No. 517,771. (Cl. 250—31.)



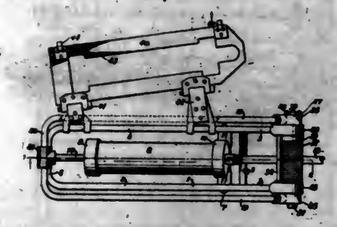
1. The combination with a solid rectifier of the class described and a contact member therefor, said members being relatively adjustable in respect of making contact with each other at various points of the contact-surface of the rectifier, of means carrying one of said members and movably mounted on a bearing which permits the mass of said means and contact-member to exercise exclusive control of the contact-pressure between the two contact-members.

2. The combination with a solid rectifier of the class described, of a contact member coöperating therewith, said members being adjustable to various points of contact on the surface of the rectifier, and means for pivotally supporting one of said contact members whereby it is free to be pressed against the other contact member exclusively by means of the weight of its support and of itself.

8. In a device of the character described, means for supporting a pair of coöperating contacts, one of said contacts having an uneven operating surface and one of said contacts controlled by a weighted beam.

[Claims 8 to 7 not printed in the Gazette.]

1,257,527. AIR-PUMP. GREGORY VICTOR PIOTROWSKY, Buffalo, N. Y. Filed June 19, 1915. Serial No. 35,130. (Cl. 230—27.)

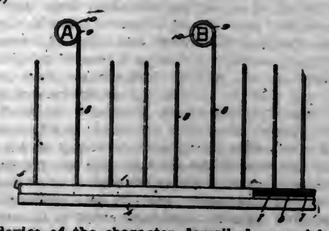


1. An air pump comprising a base adapted to rest on a support, a barrel pivoted to swing vertically at one end on said base between the front and rear ends of the latter, a plunger reciprocable in said barrel, a plunger rod connected with said plunger, a foot lever having its free end pivotally connected with said plunger rod, means for pivotally connecting said lever with the base comprising two bearings arranged at the rear end of said base, two pivot eyes arranged on said lever adjacent to the outer sides of said bearings, a pivot pin journaled in said bearings and having one of its ends extending through one of said eyes and secured thereto, a bolt passing through the other eye of said lever and secured to the opposite end of said pivot pin, and means for yieldingly holding said lever in an elevated position comprising a collar splined on said pivot pin, and a spiral spring surrounding said pivot pin and engaging its opposite ends with said collar and said base.

2. An air pump comprising a base adapted to rest on a support, a foot lever pivoted on the base, a barrel and plunger interposed between said base and lever, and a foot rest foldably connected with said base and adapted to engage either with a support or to be folded over said lever and barrel.

3. An air pump comprising a base adapted to rest on a support, a foot lever pivoted on the base, a barrel and plunger interposed between said base and lever, a foot rest adapted to engage said support on one side of said base, links connecting the foot rest at one of its longitudinal edges with the adjacent longitudinal edge of the base, said foot rest being adapted to be unfolded and lie on said support in the same plane as said base or to be folded over the top of said lever and barrel in a plane parallel with the lever, and spring catches arranged on the opposite longitudinal edge of the foot rest and adapted to engage with that side of the lever opposite to that which is adjacent to said links.

1,257,528. FILE-RACK. JOHN H. PLANK, Bloomfield, Iowa. Filed Jan. 6, 1917. Serial No. 140,961. (Cl. 45—4.)



1. A device of the character described comprising two spaced and substantially parallel strips having grooves formed in their opposing side edges, a plurality of partitions each formed from a strand of wire bent upon itself and having its free ends looped and extended laterally from the body of the partitions, each of said looped portions being adapted to be slidably received in one of said grooves, and a retaining strip disposed within the space between said first mentioned strips and spaced from the grooved edges thereof to permit a free sliding movement of the partitions, and for preventing accidental removal of the ends of said partitions from said grooves.

[Claims 2 and 3 not printed in the Gazette.]

1,257,529. BALLOON-BALLASTING WEIGHT. ANTONI PUKOS, Depew, N. Y. Filed Oct. 24, 1917. Serial No. 198,243. (Cl. 244—31.)



2. A ballasting device for balloons comprising a threaded shaft journaled through the bottom of the car of the balloon, a turn-wheel upon the upper unthreaded end of the shaft, within the car, a stop-nut upon the lower free end of the shaft beneath the car, a weight threaded for longitudinal movement upon the shaft arranged with parallel openings therethrough, and guide rods attached to the turn-shaft and freely positioned through the said openings.

[Claim 1 not printed in the Gazette.]

1,257,530. PULLEY-RIM COVERING. HENRY PUTSCH, Chicago, Ill., assignor to Power Glue Manufacturing Company, Chicago, Ill., a Corporation. Filed Sept. 13, 1915. Serial No. 50,479. (Cl. 64—45.)



1. A pulley having on its face a coating comprising a body of adhesive, plastic material applied thereto; with an open-meshed, reinforcing fabric embedded entirely within such material, whereby the adhesive material forms a coating on each side of the fabric and is bonded together between the meshes of such fabric.

3. A pulley having on its face a coating comprising a body of hardened, viscous and adhesive material applied thereto, with an open-meshed, reinforcing fabric embedded entirely within such material, whereby the viscous material forms an adhesive coating on each side of the fabric, adhering to the pulley face and bonded together between the meshes of the fabric.

[Claims 2 and 4 not printed in the Gazette.]

1,257,531. PROCESS FOR MAKING CATALYZERS. WILLIAM D. RICHARDSON, Chicago, Ill., assignor to Swift & Company, Chicago, Ill., a Corporation of Illinois. Original application filed Nov. 11, 1912, Serial No. 730,746. Divided and this application filed May 6, 1915. Serial No. 26,805. (Cl. 204—64.)

1. The process of producing catalytic material adapted for use in the hardening of fatty oils which comprises forming an arc between electrodes comprising nickel material and in the presence of a liquid medium, and in collecting the finely divided nickel-containing precipitate resulting from the eroding action of such arc.

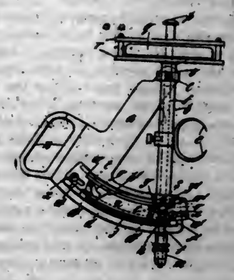
2. The process of producing catalytic material adapted for use in hardening fatty oils which comprises passing an electric current of arc-forming strength between electrodes comprising nickel material and in the presence of a liquid medium and in collecting the finely divided nickel-containing precipitate resulting from the eroding action of said electric current.

3. The process of producing catalytic material adapted for use in the hardening of fatty oils which comprises subjecting a thick mass of nickel as an electrode to the action of an electric arc and in the presence of a liquid medium; whereby nickel of a substantially-colloidal form is obtained, and in collecting the precipitate resulting from the eroding action of such arc.

4. The process of producing catalytic material which comprises forming an arc between nickel electrodes in the presence of water and in collecting the finely divided nickel containing precipitate resulting from the eroding action of such arc.

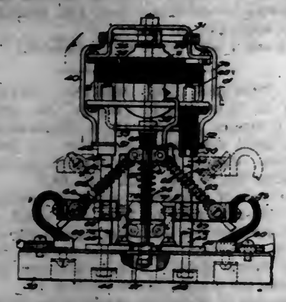
5. The process of producing catalytic material which comprises forming an arc between nickel electrodes in the presence of a liquid medium and in collecting the finely divided nickel containing material resulting from the eroding action of such arc, in expelling the liquid medium therefrom and mixing the nickel material with oil.

1,257,532. HAND-OPERATED APPARATUS FOR ROTATING DRILLS OR OTHER ROTARY TOOLS OR IMPLEMENTS. ALLAN RISK, Newcastle-upon-Tyne, England. Filed Aug. 28, 1917. Serial No. 188,586. (Cl. 74—27.)



A drill comprising two members pivoted together and adapted to be held in one hand and to be moved angularly in respect to one another, a rotary spindle disposed on one member, and having a toothed pinion, flywheel and tool holder on said spindle, a segmental rack disposed on the other member adapted to engage the said pinion, means for bringing the pinion and rack into engagement with one another prior to making the power stroke, and means for bringing the pinion and rack out of engagement after the power stroke, all constructed and operating as herein set forth.

1,257,533. ELECTRIC SWITCH. JOSEPH SACHS, Hartford, Conn. Filed Feb. 18, 1915. Serial No. 9,059. (Cl. 175—281.)



3. In an electric switch, a part movable in opposite directions, electrical means for alternately moving said part in said opposite directions, switching means operatively connected with said oppositely movable part, means for alternately effecting operative disconnection of said switching means with said oppositely movable part while at the same time maintaining said switching means in position, relatively to said oppositely movable part, to be operatively reëngaged upon the opposite movement of said part, and means automatically operative at or near the conclusion of the movement of the switching means in either direction to stop further movement of the electrical means in the direction producing said movement of the switching means and to change the electrical arrangement of the electrical movement producing means so that when again energized its movement and the consequent movement of said oppositely movable part will be in the direction opposite to that producing the last prior movement of the switching member.

14. A remote control switch comprising an electric motor, the armature shaft of which is threaded, a nut in engagement with the threaded portion of said armature shaft and movable by said shaft in opposite directions on opposite rotations of said shaft, a switch member movable to on and off positions by said nut, means cooperative with said switching member for governing the extent of each movement of the motor when the latter is energized and at the same time for conditioning said motor to reverse its movement when again energized, and a controller having separate circuit closing positions to effect successive energizations of said motor.

15. A remote control switch comprising an electric motor, the armature shaft of which is threaded and is plain at opposite ends of said threaded portion, a nut oppositely movable by the threaded portion of said shaft onto the plain portions thereof, means for holding the nut in relation to engage said threaded portion, after it has passed free thereof on opposite rotations of said shaft, a switching member movable to on and off positions by said nut, means operative with said switching member for controlling the extent of each movement of the motor when the latter is energized and at the same time for conditioning said motor to reverse its movement when again energized, and a controller having separate circuit closing positions to effect successive energizations of said motor.

[Claims 1, 2, and 4 to 13 not printed in the Gazette.]

1,257,534. SWITCH. JOSEPH SACHS, Hartford, Conn. Filed Apr. 17, 1915. Serial No. 22,074. (Cl. 175—293.)

1. An electric switch comprising a support, a yoke like switching member straddling and pivotally connected with said support, a motion transferring member carried by the support and provided with laterally extending portions, springs connected with said laterally extending portions and with the switching member, those ends of the springs which are connected with the laterally extending portions being normally at one side of a dead center line intersecting the center of motion of said motion transferring member and the center of connection between the springs and the switching member, said motion transferring member being oscillatory to move those ends of the springs which are connected with said laterally extended portions alternately across said dead center line and thereby cause on and off movements of the switching member, and independent actuating members for rocking said motion transferring member.



3. An electric switch comprising a switching member, a motion transferring gear movable about the same axis as the switching member, spring means connected with the motion transferring gear and with the switching member, the motion transferring gear connected end of the spring means being normally at one side of a dead center line intersecting the center of motion of the motion transferring gear and the switching member and the center of connection between the spring means and the switching member, said motion transferring gear being oscillatory to move that end of the spring means which is connected therewith alternately across said dead center line, and independent actuating gear members in mesh with and for rocking said motion transferring member.

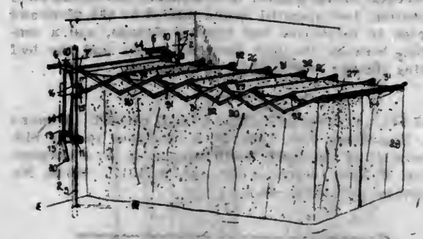
5. An electric switch comprising a support, a rocking gear inclosed by the support, actuating members having racks, diametrically placed with respect to the gear and the teeth of which mesh with the teeth of the gear to rock said gear alternately in opposite directions, the racks being inclosed and guided by the support, a switching member straddling and pivotally connected with the support, and spring means connected with the gear and with the switching member, the gear connected end of the spring means being normally at one side of a dead center line intersecting the center of motion of the gear and the center of connection between the spring means and the switching member, said racks having means for limiting their opposite movements.

6. An electric switch comprising an insulating body having a chamber, a yoke-like support fixed within said chamber, a gear member pivotally mounted between the sides of the support, a yoke-like switching member straddling the support and mounted for swinging movement, springs connected with the switching member, the gear member having lateral extensions to which the springs are connected, and racks in mesh with the gear member for alternately oppositely oscillating the same, the racks having buttons extending to points outside the insulating body.

8. An electric switch comprising an insulating body having a chamber, a yoke-like support fixed within said chamber, a gear member pivotally mounted between the sides of the support, a yoke-like switching member straddling the support and mounted for swinging movement, springs connected with the switching member, the gear member having lateral extensions to which the springs are connected, and racks in mesh with the gear member for alternately oppositely oscillating the same, the racks having buttons extending to points outside the insulating body, said support having inturned lips overlying the racks to guide the same and also having outturned lugs to arrest the motion of the switching member when in the on and the off positions thereof.

[Claims 2, 4, and 7 not printed in the Gazette.]

1,257,535. VEHICLE-COVER. WILLIAM A. SAMPSON, Windsor, Mo. Filed Jan. 31, 1917. Serial No. 145,742. (Cl. 135—9.)



1. In an apparatus of the character described, a foldable cover adapted to inclose a vehicle, spaced horizontally extensible supports disposed exteriorly of the cover, means connecting the supports and from which the cover is suspended, and manually operable means to extend the supports and position the vehicle cover around the vehicle, or to fold said cover to an inoperative position.

2. An apparatus of the character described including spaced supports, a vertically slidable member on each of said supports, spaced lazy tongs operatively connected at one end to the respective slidable members, transverse rods connecting the corresponding pivoted members of the spaced tongs, a cover detachably suspended at spaced points from said rods, said cover having side walls disposed between and extending below the lazy tongs, and manually operable means connected to the slide members to move the same and extend or fold the lazy tongs.

1,257,536. ADJUSTABLE SOCKET FOR MOUNTING ORNAMENTS, &c., UPON AUTOMOBILES. GOTTLIEB W. SCHROEDER, Andrews, Ind. Filed Dec. 9, 1916. Serial 135,956. (Cl. 248—37.)



A socket-member having a chamber in its upper portion for the reception of an accessory or ornamental device, and having a concave lower end and concave recess in its side; a round-faced seat having a central orifice adapted to be interchangeably fitted to the recessed end or side of the socket member; and means for securing the socket-member through the orifice of said seat with the body portion of an automobile.

1,257,537. SCREW-LOCK AND SLOT-FILLER. FRED SCHUMANN, Brooklyn, N. Y. Filed Nov. 24, 1914. Serial No. 873,685. (Cl. 85—41.)

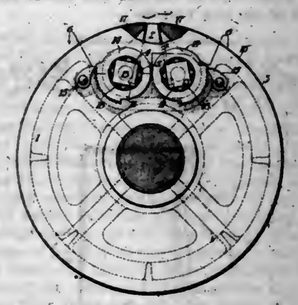
1. In combination with a screw having a screw-slot and an opening extending downwardly from the base of the screw-slot through the shank of the screw at an angle to the base of the screw-slot in the plane thereof; of a slot-filler having a disk member corresponding to the dimensions of the screw-slot to accurately fill the same; and a prong extending downwardly from said disk member at



an angle thereto to extend through the inclined opening of said screw-shank in the plane of the disk.

[Claim 2 not printed in the Gazette.]

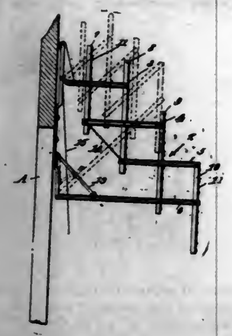
1,257,538. BLANKET-CYLINDER. DAVID JOHN SCOTT and WALTER CHARLES SCOTT, Plainfield, N. J., assignors to Isabella Scott and David J. Scott, executors of Walter Scott, Plainfield, N. J. Filed July 21, 1914. Serial No. 852,155. (Cl. 272.)



1. A sheet carrying cylinder comprising a cylindrical supporting member having a relatively large opening terminating at the cylindrical surface of said member in a relatively narrow slot so as to provide overhanging ledges over the opening, a flexible sheet extending over said cylindrical surface and having its free ends projecting through said slot into said opening, rigid reinforcing means on the free ends of said flexible sheet, and two rotatable members located within said opening under said ledges on opposite sides of the plane of the slot, said members having provisions which, when facing each other on opposite sides of the plane of the slot, are adapted to receive the rigid reinforcing means in unlocked position when the pendent free members are inclined slightly, from a line passing through the plane of the slot, in opposite directions with respect to each other, said members acting, when rotated, first to effect an interlocked connection with the reinforcing means and thereafter to tighten the flexible sheet over the cylindrical surface.

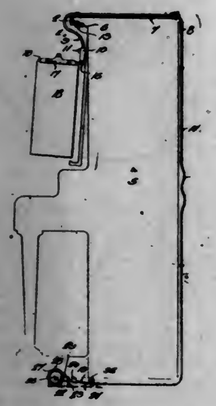
2. A printing machine cylinder comprising: a cylindrical supporting member having an opening in its surface, a flexible member stretched over the said supporting member and having its ends projecting into said opening, two reel rods located in said opening, a mutilated ratchet on each reel rod, pawls for engaging with the unmutilated portions of the ratchet, and means for adjusting said ratchets to bring the mutilated portions thereof adjacent to each other.

1,257,539. AWNING. JOHN T. SHEEHAN, Davenport, Iowa. Filed Mar. 14, 1917. Serial No. 154,785. (Cl. 156—15.)



In an awning, the combination of a vertical supporting body, a pair of lazy tongs comprising a series of parallel members extending vertically and a series of parallel members extending horizontally, certain members of which are swingingly secured to the supporting body, said vertical members being pivoted to the horizontal and extending above the pivot points, means fastened thereto to exclude the direct rays of the sun, and means for limiting the spread of the lazy tongues.

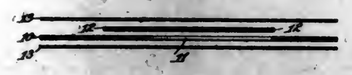
1,257,540. MUSIC-LEAF TURNER. EDWARD T. SHOBLASKE, Hartford, Wis. Filed Apr. 13, 1917. Serial No. 161,756 (Cl. 84—17.)



1. A music leaf turner, comprising, in combination, a head piece, a leaf turning element pivotally secured in said head piece, foot operated means for manipulating the leaf turning element, said means consisting of a base plate, a bevel gear journaled therein, a pinion gear meshing with said bevel gear, a flexible connection between said pinion and leaf turning element, and a rubber covering on the periphery of said bevel gear for preventing the slipping of the foot of the operator when revolving the same to operate the leaf turning element, substantially as described.

2. In a music leaf turner, the combination with a support, of a head piece detachably secured thereto, a leaf turning element rotatably carried by the head piece and engageable with leaves to be turned, means carried by the head piece and adapted for engagement with leaves not to be turned, a floor engaging plate, a turn screw jack carried by said plate and adapted to impinge against the bottom of the support to detachably retain the plate in position, foot operated means carried by the plate and adapted to rotate the leaf turning element, and a connection between the foot operated means and the leaf turning element substantially as described.

1,257,541. COMPOSITE CELLULOID SHEET. WARREN S. SILLCOCKS, New York, N. Y., assignor to The Sillcocks-Miller Company, South Orange, N. J., a Corporation of New Jersey. Filed Apr. 9, 1917. Serial No. 160,644. (Cl. 154—46.)

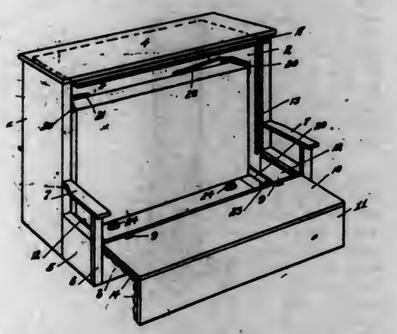


1. As a new article of manufacture, a composite sheet comprising a non-transparent body-sheet having a hole cut therein, a transparent panel or blank within and fitting said hole, and transparent sheets on opposite sides of said body-sheet and panel, the whole being of pyroxylin material and united to produce an integral sheet.

4. As a new article of manufacture, a composite sheet comprising a non-transparent body-sheet having a hole cut therein, a transparent panel or blank within and fitting said hole, and transparent sheets on opposite sides of said body-sheet and panel, the whole being of pyroxylin material and united to produce an integral sheet, with said panel of the same thickness as said body-sheet and said body-sheet and panel of greater thickness than said transparent sheets.

[Claims 2 and 3 not printed in the Gazette.]

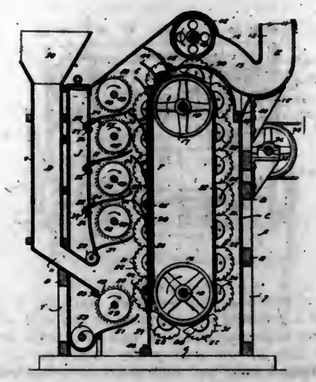
1,257,542. SOFA-BED. GEORGE W. SINGER, South Bend, Ind. Filed May 10, 1915. Serial No. 27,040. (Cl. 5—37.)



1. A sofa bed involving a case open in the front thereof, a sofa section comprising a relatively fixed back and seat portion movably connected with the case and adapted to close a portion of the opening in the front thereof, a disappearing closing section adapted to complete the closure of said opening.

2. A sofa bed involving a case open in the front, a sofa section comprising a relatively fixed back and seat portion, the back being adapted to close a portion of the opening in the front of the case, a bed section normally housed within the case and movable wholly through the opening in the front of the case, and a disappearing section adapted to close that portion of the opening in the front of the case not closed by the back of the sofa section.

1,257,543. HULL-EXTRACTOR FOR COTTON. WILLIAM S. SMITH, Tishomingo, Okla., assignor of one-eighth to C. B. Burrows and one-eighth to George W. Dudley, Tishomingo, Okla. Filed May 20, 1916. Serial No. 98,738. (Cl. 13—12.)



1. A hull extractor for cotton comprising in combination, an endless carrier, a plurality of sets of saws arranged longitudinally of said carrier, means for forcing the hulls from close proximity to the teeth of said saws, and pickers for forcing the hulls containing cotton toward said saws.

7. In a hull extractor for cotton, the combination of two pulleys arranged in spaced relation, a belt about said pulleys, a set of saws arranged longitudinally of and carried by said belt, two elongated supports, one to each side of said saws, each support including a main body portion extending longitudinally of and in close proximity to a run of said belt, and an arcuate portion about the curved portion of said belt at one of said pulleys, said arcuate portion of said support having its end portion spaced a greater distance from said belt than at its juncture with said main body portion, and means carried by said support extending laterally of said jaws to force the hulls away from the teeth thereof.

8. In a hull extractor for cotton, the combination of two pulleys arranged in spaced relation, a belt about said pulleys arranged in spaced relation, a set of saws arranged longitudinally of and carried by said belt, two elongated supports, one to each side of said saws, each support including a main body portion extending longitudinally of and in close proximity to a run of said belt, and an arcuate portion about the curved portion of said belt at one of the pulleys, said arcuate portion of said support having its end portion spaced a greater distance from said belt than at its juncture with said main body portion, and a plurality of arcuate arms in spaced relation carried by said supports and extending laterally of said saws.

11. A hull extractor for cotton comprising in combination, saws, a plurality of revoluble drums arranged one above another with their peripheries facing and in close proximity to said saws, said drums bodily movable toward and from said saws, teeth on said drums, and yieldable chutes below said drums inclined downwardly from said saws.

15. In a hull extractor for cotton, the combination of two pulleys arranged in spaced relation, a belt about said pulleys, a set of saws arranged longitudinally of and carried by said belt, two elongated supports, one at each side of said saws, each support including a main body portion extending longitudinally of and in close proximity to a run of said belt, and an arcuate portion about said curved portion of said belt at one end of said pulleys, said arcuate portion of said support having its end portion spaced a greater distance from said belt than at its juncture with said main body portion, and a brush adjacent the said arcuate portion of said supports acting upon said saws.

[Claims 2 to 6, 9, 10, and 12 to 14 not printed in the Gazette.]

1,257,544. WEED-DESTROYER. THEODORE T. SNOW, Hot Springs, S. D. Filed May 21, 1917. Serial No. 169,969. (Cl. 47—37.)



1. A weed destroyer comprising a tubular penetrator, the lower end of the penetrator being formed with a downwardly and rearwardly inclined opening, the rear wall of said opening being laterally flared and formed with downwardly divergent cutting edges and the upper end being provided with a handle, a container mounted upon the penetrator adjacent the handle, there being openings between the container and the penetrator, a rod extending the full length of the penetrator, and a valve carried upon said rod fitting the bore of the penetrator and when shifted into one position extending across the openings and cutting off flow therefrom to thereby control the passage of liquid from the container to the penetrator, said rod when the valve is closed projecting beyond the upper end of the opening of the penetrator and preventing the latter from being plugged with earth.

[Claim 2 not printed in the Gazette.]

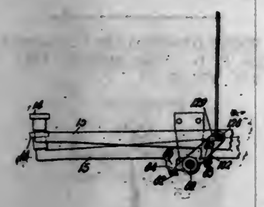
1,257,545. LIQUID SHAVING-SOAP. JOEL STARRELS, Montclair, N. J., assignor to Ellis-Foster Company, a Corporation of New Jersey. Filed Mar. 23, 1914. Serial No. 826,612. (Cl. 87—5.)

A liquid shaving soap containing alkali stearate in a supersaturated condition in an aqueous solution of a freely soluble soft soap forming a composition which remains permanently as a non-pasty fluent liquid which possesses very free lathering qualities and which forms a lather drying with extreme slowness and which does not form heavy deposits of stearin soap material.

1,257,546. TYPE-WRITING MACHINE. BURNHAM C. STICKNEY, Elizabeth, N. J., assignor to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Original application filed Dec. 13, 1910, Serial No. 597,117. Divided and this application filed Dec. 16, 1916. Serial No. 137,281. (Cl. 197—157.)

1. In a typewriting machine, comprising a carriage, and also comprising a ribbon mechanism shiftable to cause different ribbon stripes to cover the printing point, the combination with tabulating devices including keys and devices connected to the typewriter carriage, of means connected to be operated by said keys to shift said ribbon mechanism.

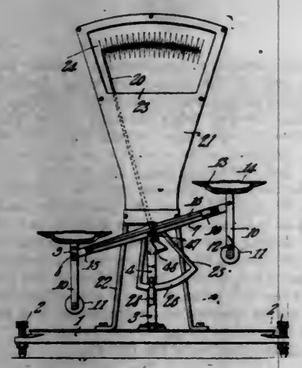
19. In a typewriting machine, the combination with a polychrome ribbon, of ribbon-shifting mechanism, carriage-positioning means, means adapted to shift said rib-



bon mechanism by positioning the carriage, and separate means for then shifting the ribbon mechanism to its first position without disturbing said positioning means.

[Claims 2 to 18 and 20 to 27 not printed in the Gazette.]

1,257,547. SCALE. WILLIAM G. TEMPLETON, Colorado Springs, Colo., assignor, by mesne assignments, to Toledo Scale Company, Toledo, Ohio, a Corporation of New Jersey. Filed Oct. 5, 1909. Serial No. 521,030. (Cl. 265—54.)

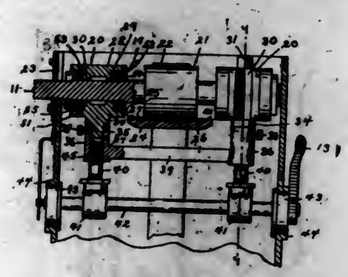


1. In a weighing scale and in combination with the pivoted beam thereof, a segment rigidly secured to the beam, a weight adapted to be supported by the segment but held from movement therewith to bring the scale to rest, means for normally holding the weight out of contact with the segment, and manually controlled means for rendering said last mentioned means inoperative.

2. In a weighing scale and in combination with the pivoted beam thereof, a segment rigidly secured to the beam, a weight 28 having a projection 29 adapted to rest upon the segment, a guide 27 for said projection, a spring normally holding the weight out of contact with the segment, and a finger piece 31 for lowering the spring and permitting the weight to come in contact with the segment.

3. In a weighing scale, a centrally pivoted beam, scale pans supported on opposite ends thereof, weights 11 for holding the scale pans in substantially horizontal position, one of said weights being heavier than the other, a pendulum connected to the beam with its center of mass in a line substantially perpendicular to the beam and through its axis, a chart symmetrically placed with reference to a vertical line through the axis of the beam, and a hand rigidly secured to the beam perpendicular thereto and registering with one end of the chart when the scale is empty.

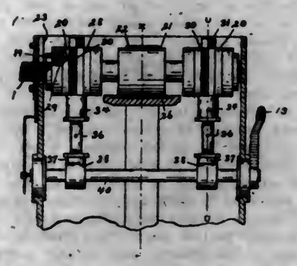
1,257,548. GRINDING AND POLISHING MACHINE. WILLIAM S. THOMSON, Plantsville, Conn., assignor to The H. D. Smith & Company, Plantsville, Conn., a Corporation. Filed Apr. 26, 1917. Serial No. 164,601. (Cl. 64—52.)



2. In a grinding and polishing machine, a casing, a shaft for a grinding wheel housed in the said casing and supporting a driving pulley, a pair of journal heads, one on each side of the said pulley, bearings in the said heads engaged with the said shaft, a bridge-brake positioned below the said pulley, a cross-member rigidly interconnecting the said journal heads and extending across between the said heads below the said bridge-brake and hand operated means for raising and lowering the said cross-member and heads.

[Claims 1, 3, and 4 not printed in the Gazette.]

1,257,549. BEARING-GUIDE FOR GRINDING-MACHINES. WILLIAM S. THOMSON, Plantsville, Conn., assignor to The H. D. Smith & Company, Plantsville, Conn., a Corporation. Filed Apr. 26, 1917. Serial No. 164,603. (Cl. 64—52.)

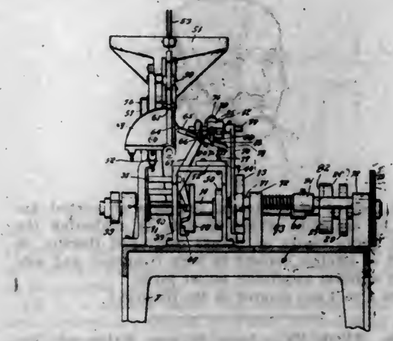


5. In a grinding machine comprising a casing, journal boxes housed therein having means for being raised and lowered, guide ways engaged with the said journal boxes, and a plurality of screws penetrating the walls of the said casing, engaged with the said guide ways, and operative to hold the said guide ways in spaced relation to the said walls of the casing.

7. A grinding machine comprising a casing, a shaft, bearings in the said casing and engaged with the said shaft, means for raising and lowering the said bearings, and means for guiding each of the said bearings comprising a track engaged therewith, and means for supporting the said track comprising a middle screw, penetrating the wall of the said casing and engaged with a screw threaded hole in the said track and a pair of thrust screws, one on each side of the said middle screw, engaged with screw threaded holes in the said casing, and having ends in abutment with the face of the said track.

[Claims 1 to 4 and 6 not printed in the Gazette.]

1,257,550. FEED MECHANISM FOR METAL-WORKING MACHINES. HARRY P. TOWNSEND, Hartford, Conn., assignor to The H. P. Townsend Manufacturing Company, Hartford, Conn., a Corporation of Connecticut. Filed June 27, 1914. Serial No. 847,771. (Cl. 10—166.)



1. A blank feeding mechanism including a runway having a straight inclined edge extending to its lower end forming a track for blanks, a carrier pivotally mounted to receive blanks delivered by natural forces thereto from said runway in a substantially upright position, said carrier conveying said blanks to a substantially horizontal position, and means for lifting said blanks from said carrier and for bodily conveying and delivering them into a blank holding device.

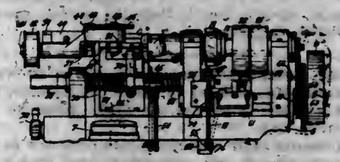
7. A blank feeding mechanism including a carrier with means for supplying blanks thereto, means for operating the carrier, feed fingers rotatably mounted and otherwise movably mounted to remove articles from the carrier for delivery to a holding device, means for so moving said fingers, a disk secured to rotate with the feed fingers, and means for engaging the disk to cause said rotation.

16. A blank feeding mechanism including feed fingers movably supported to remove blanks from one position and deliver them to a holding device, a rotatable support for said fingers, means for imparting feeding movement to said support, and a flexible member engaged with the rotatable support and arranged to remain loose during a part of the movement of said support and to be drawn tight during the feeding movement of the feed fingers.

17. A blank feeding mechanism including a movably mounted feed finger support, means for moving said support, feed fingers rotatably mounted on their longitudinal axis in said support, and a pusher rigidly secured to said support.

[Claims 2 to 6, 8 to 15, 18, and 19 not printed in the Gazette.]

1,257,551. MACHINE FOR MAKING SCREWS. HARRY P. TOWNSEND, Hartford, Conn., assignor to The H. P. Townsend Manufacturing Company, Hartford, Conn., a Corporation of Connecticut. Filed June 27, 1914. Serial No. 847,772. (Cl. 10—3.)



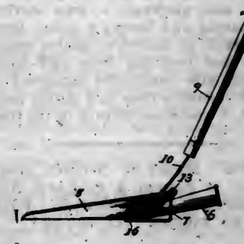
1. A machine for forming articles from metal including a cam shaft, belt actuating means for driving said shaft, a chucking spindle, means for driving said spindle independently of the cam shaft, means for operating upon an article held by a chuck on said spindle, connections between said spindle mechanism and the cam shaft to control operation of the spindle, a saw, means independent of said cam shaft for driving said saw, and connections between said saw mechanism and the cam shaft.

12. In a machine for forming articles from metal, a chuck with means for operating it, a tool bar supporting a tool to operate upon articles held by the chuck, means for rocking the tool bar, and a reversible cam having a working face arranged at such angle as will cause longitudinal movement of the bar by reason of its rocking movement, and without change of the cam, a face to cause no longitudinal movement by reason of the rocking movement of said bar.

16. In a machine for forming articles from metal, in combination with a tool bar, an arm projecting therefrom, a rock shaft with means for operating it, an arm projecting from said rock shaft, a spring located in a socket supported by said arm, a rod loosely resting upon said spring at one end and with its opposite end loosely resting in a socket in the tool bar arm, and means for normally pressing said arms toward each other.

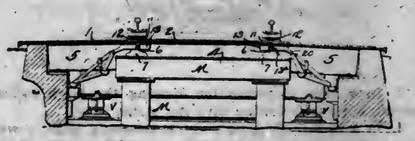
[Claims 2 to 11, 13 to 15, and 17 to 21 not printed in the Gazette.]

1,257,552. HANDLE ATTACHMENT FOR DUST-PANS. NORMAN W. TUMBLINSON, Baltimore, Md. Filed Mar. 15, 1917. Serial No. 154,960. (Cl. 65—20.)



An attachment for handled dust-pans comprising a wire having two ends which merge into a handle and the intermediate portions of said wire being bent to form two spaced apart parallel loops which are connected by an intermediate loop,—the intermediate loop extending in a direction at an angle with respect to the two loops it connects and the wire at a point between each of the two parallel loops and its ends being bent to form inclined slots to receive the rear rim edge of a dust-pan.

1,257,553. DRAINAGE SYSTEM FOR TRACK-SCALES. AXEL S. VOGT, Altoona, Pa. Filed June 15, 1917. Serial No. 174,951. (Cl. 265—71.)



1. In a drainage system for track scales, the combination with a scale deck having openings and a scale mechanism below the deck, of rail supports carried by the scale mechanism and projecting through said openings, and water trapping devices carried by the deck at the openings and coöperating with the rail supports to prevent water from entering the scale pit.

4. In a drainage system for track scales, the combination with a scale deck having openings and a scale mechanism below the deck, of rail supports carried by

the scale mechanism and projecting through said openings, said supports having an intermediate water-shed flange, means carried by the deck at each support opening for coöperating with said flange to trap water, and means for carrying water from said latter means to waste.

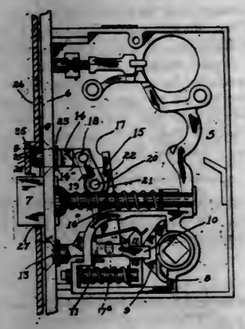
9. In a drainage system for track scales, the combination with a scale deck having openings and a scale mechanism below the deck, of rail supports carried by the scale mechanism and projecting through said openings, said rail supports having a water-shed flange, a trap carried by the deck at each opening and comprising an exterior shield member secured to the upper side of the deck and an interior channel member secured to the underside of said deck and having a delivery spout, gutter means suspended from the underside of the scale deck and arranged to receive water from said delivery spout, and a waste pipe connection for said gutter means.

9. In a drainage system for track scales, the combination with a scale deck having openings, a scale mechanism below the deck, of rail supports carried by the scale mechanism and projecting through said openings, a trap having a spout located in each opening and surrounding said supports, gutter means for receiving from said spout of the trap, brackets carried by the underside of the scale deck for supporting said gutter means, and a waste pipe connection for said gutter means.

10. In a drainage system for track scales, the combination with a pit and a scale mechanism therein, of a cover for the pit having a plurality of spaced openings, rail supports carried by the scale mechanism and projecting through said openings, a trap carried by the cover at each opening and having a spout, brackets carried by the underside of the cover, gutter means carried by the brackets and receiving from said spout of the trap, and a waste pipe connection supported by one of the pit walls and receiving from said gutter means.

[Claims 2, 3, 5, 7, and 8 not printed in the Gazette.]

1,257,554. LOCK. HENRY G. VOIGHT, New Britain, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Apr. 4, 1917. Serial No. 159,697. (Cl. 70—29.)



1. In a lock, stopwork for dogging the latch rollback having a part extending into the strike.

5. In a lock, a dogging slide, a releasing slide, a walking beam having a lost motion connection with the releasing slide, and a spring tending to protract the releasing slide.

10. In a lock, a stopwork mechanism including a walking beam having a notch therein, a releasing slide having a certain amount of free movement in said notch before it engages and shifts said walking beam, means for yieldingly protracting the releasing slide beyond the face of the lock, and a strike plate having a recess to receive the outer end of said releasing slide.

[Claims 2 to 4 and 6 to 9 not printed in the Gazette.]

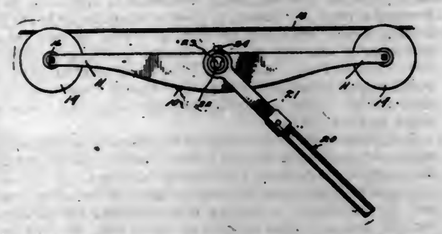
1,257,555. METHOD OF PRODUCING ANALGESIA. FREDERICK K. VREELAND, Montclair, N. J., assignor to Vreeland Apparatus Company, New York, N. Y., a Corporation of New York. Filed June 25, 1914. Serial No. 847,199. (Cl. 174—177.)



1. The method of producing complete or partial anesthesia or analgesia which consists in subjecting the nerve, or nerve center or tissues controlled thereby, to the effect of electric current of high frequency and substantially uniform amplitude, as set forth.

[Claims 2 to 4 not printed in the Gazette.]

1,257,556. TROLLEY. JOHN WANAT, Pittsburgh, Pa. Filed Apr. 30, 1917. Serial No. 165,526. (Cl. 66—70.)



1. In a trolley for cars and the like, a frame bar having a fork at each end, shafts each extending between the arms of a respective fork and having an enlarged central portion, wheels each mounted to revolve normally on the enlarged portion of a respective shaft, independent sleeves revolubly mounted on the ends of said shafts and having an exterior diameter equal to the diameter of the central shaft portions, collars on the outer ends of the sleeves, springs coiled around the sleeves and bearing against the collars and wheels to hold the wheels yieldably in central position on the forks, and means to connect the frame bar tiltably to a trolley pole.

2. In a trolley for cars and the like, a frame bar having a fork at each end, trolley wheels each journaled between the arms of a respective fork, means to hold the wheels yieldably in the centers of said forks, a trolley pole having a harp at its upper end, a shaft extending from arm to arm of said fork and fixed thereon and consisting of a section extending between said arms and arcuately trough shape in cross section and a pair of spaced sections each having a portion filling one end of the first section and a second portion concentric with the first section whereby to form completely cylindrical ends, said bar having an arcuate opening therein receiving the center of the arcuate section, said opening being of greater arcuate length than the section whereby to rock slightly thereon.

1,257,557. THEATER-CHAIR. RAYMOND D. WHEELEY, St. Louis, Mo., assignor to Herbert S. Gardner, trustee, St. Louis, Mo. Filed Apr. 19, 1915. Serial No. 22,308. (Cl. 155—13.)

3. A theater chair comprising side frames, a back fixed thereto, a pair of seat supporting arms hinged to the frames, a seat formed in two parts, one of which is fixed to the seat supporting arms and the other part being hinged to said arms, and means for locking the hinged portion of the seat to the chair back when said seat is swung to its uppermost position.

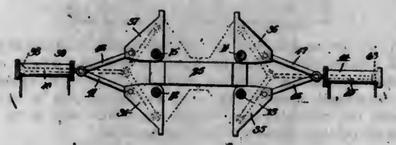


4. A theater chair having a hinged seat formed in two parts, one part being adapted to be swung upward so as to form a seat which is elevated with respect to the normal position of the seat, and means for locking said seat in its elevated position.

10. In a theater chair, the combination with hinged seat supporting members, of a seat portion fixed to said members, and a seat portion hinged to said members, which seat portions are adapted to coöperate to form a seat in one horizontal plane and the hinged seat portion being adapted to occupy a position of use in a higher horizontal plane.

[Claims 1, 2, 5 to 9, 11, and 12 not printed in the Gazette.]

1,257,558. METHOD OF RE-FORMING AND COMPRESSING BALES OF COTTON OR OTHER MATERIALS. ROBERT D. WEBB, Minden, La. Filed Oct. 28, 1915. Serial No. 58,390. (Cl. 100—19.)



1. The method substantially as hereinbefore set forth of compressing bales which have been previously formed under pressure, which consists in first pressing the bale in one direction, then compressing the bale in a direction substantially at right angles to the first pressure while the pressure in the first direction of pressing is maintained, then removing the pressure of the first pressing, and then further compressing the bale in the direction of the last compression.

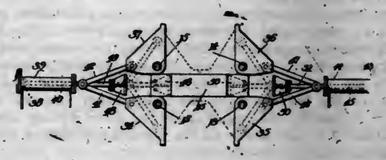
2. The method substantially as hereinbefore set forth of compressing bales which have been previously formed under pressure, which consists in first pressing the bale in on its sides, then compressing the bale in a direction substantially at right angles to the first pressing while the pressure in the direction of the first pressure is maintained, then removing the pressure of the first pressing and then further compressing the bale in the direction of the last compression.

3. The method substantially as set forth of compressing bales which have been previously formed under pressure, which consists in first pressing the bale in on its sides, then compressing the bale sufficiently in a direction substantially at right angles to the first pressing, while the pressure in the direction of the first pressing is maintained, to make it retain its reformed shape after the pressure of the first pressing is removed, then removing the pressure of the first pressing, and then further compressing the bale in the direction of the last compression.

4. The method substantially as hereinbefore set forth of compressing bales which have been previously formed under pressure, which consists of first pressing the bale in one direction progressively on its sides from the ends to the middle, then compressing the bale in a direction substantially at right angles to the first pressing while the pressure of the first pressure is maintained, then removing the pressure of the first pressing and then further compressing the bale in the direction of the last compression.

5. The method substantially as set forth of reforming bales, that have been previously formed under pressure, prior to final compression, which consists of first pressing the bale on its sides, making it narrower, then compressing the bale while confined between these side pressers sufficiently to make it hold its reformed shape after these side pressers have been removed, and then removing the side pressure plates prior to the final compression act.

1,257,559. METHOD OF RE-FORMING AND COMPRESSING BALES OF COTTON. ROBERT D. WEBB, Minden, La. Filed Jan. 31, 1916. Serial No. 75,416. (Cl. 100—19.)

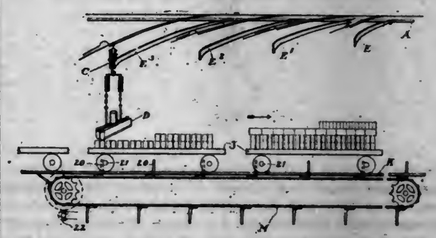


1. The method substantially as hereinbefore set forth of compressing bales which have been previously formed under pressure, which consists in first pressing the bale simultaneously on four sides thereof, then compressing the bale in a direction substantially at right angles to the first pressures while the first pressures are maintained, then removing the pressures of the first pressing, and then further compressing the bale in the direction of the last compression.

8. The method substantially as hereinbefore set forth, of reforming and compressing bales that have been previously formed under pressure, which consists in first pressing the bale on its ends and sides to make it narrowerer and shorter, then compressing the bale while confined between the side and end pressers at substantially right angles to the first pressure sufficiently to make it hold its reformed shape after the first pressers have been removed, then removing the side and end pressers, leaving the bale reformed, then applying the final compression pressure in the direction of the last compression.

[Claims 2 to 7 not printed in the Gazette.]

1,257,560. TELPHER. BERNARD F. WEBER and FRANK E. WOODFORD, Chicago, Ill. Filed Feb. 24, 1910. Serial No. 545,616. (Cl. 214—14.)



1. The combination with a track, of two electric feed conductors independent of the track and of each other, independent cars on the track provided with motors and grapples adapted to be moved into engagement with material electromagnetically, a driving circuit for each car,

exciting circuits for each motor and grapple, the latter having operative contact with its conductor during the whole of that portion of the travel of the cars over which material is to be transported, said grapples being held in engaging position by the passage of current therethrough.

2. The combination with a track, of two electric feed conductors independent of the track and of each other, a car on the track provided with a motor and a grapple adapted to be moved into engagement with material electromagnetically, exciting circuits for said motor and grapple, respectively, having operative contact with said conductors during a portion only of the travel of the car, the exciting circuit for said motor circuit being closed before the exciting circuit for said grapple is closed.

3. The combination of a circuit of track, a series of cars thereon, electrically operated motors and grapples adapted to be moved into engagement with material electromagnetically on said cars, conductors for supplying current thereto, and independent motor and exciting circuits for said grapples, each having a contact member in contact with one of said conductors during one part of the travel of the cars and out of contact therewith during another part of such travel.

4. The combination with a car having an electric motor and an electrically operated engaging device, of a track and separate conductors for feeding the motor and the engaging device, and means for automatically operating both the motor and the engaging device during that portion of the travel of the car over which material is to be transported, the engaging device alone during another portion of such travel, and the motor alone during a third portion of such travel.

5. The combination of a motor driven car having a grapple having substantially flat vertical faces adapted to be moved into engagement with a load of material electromagnetically, of independent feed conductors to the motor and grapple, the conductor for said grapple having operative connection with said grapple during the whole of that portion of the travel of the car occupied by the transference of the load carried by the car.

[Claims 6 to 17 not printed in the Gazette.]

1,257,561. CHAMBERING DEVICE FOR ROCK-DRILLS. WILHELM WEBER, Hayingen, Germany. Filed Dec. 30, 1916. Serial No. 139,757. (Cl. 255—76.)



1. In a device for the purpose described, the combination of a tubular stem closed at its upper end, a cutter head secured to and projecting below the lower end of the stem, said head having a passage extending through it and communicating with the interior of the stem, two cutting blades pivotally connected to the lower end of the cutter head, two additional cutting blades pivotally connected together and to the blades attached to the head, and means for supplying fluid to the tubular stem.

[Claim 2 not printed in the Gazette.]

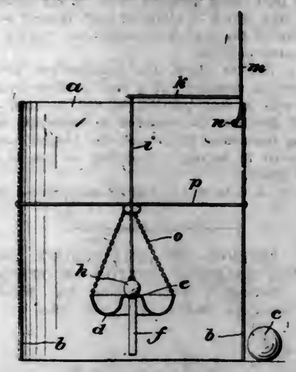
1,257,562. MANUFACTURE OF VARNISH. RUDOLF WEEBER, Bärn, Austria. Filed Feb. 19, 1914. Serial No. 819,756. (Cl. 87—12.)

1. The process for the manufacture of varnish from semi-drying oils, such as train-oil, which consists in treating the oil with a lye in a comparatively cold state to saponify the free fatty acid, separating the soap thus formed from the oil, and polymerizing the oil until varnish is produced.

3. The process for the manufacture of varnish from semi-drying oils, such as train-oil, which consists in treating the oil with a lye to saponify the free fatty acid, separating the soap thus formed from the oil, and polymerizing the oil with siccatives until varnish is produced.

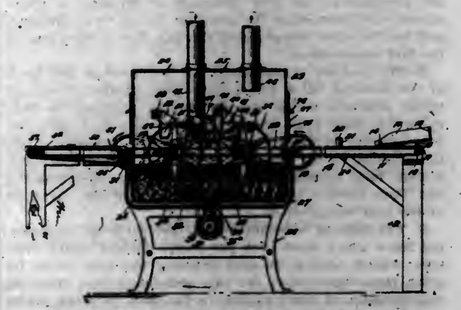
[Claim 2 not printed in the Gazette.]

1,257,563. TOY AND AMUSEMENT DEVICE. SAMUEL H. WEILMAN, New York, N. Y. Filed July 20, 1917. Serial No. 181,842. (Cl. 46—59.)



A toy or amusement device comprising a structure, a slab pivoted within said structure, a movable weight connected to said slab tending normally to hold it upright, a cup-shaped support for said weight having a raised center for retaining the weight when the slab is in its normal position, substantially as described.

1,257,564. COATING-MACHINE. WILLIAM J. WELSH, Jersey City, N. J., assignor to Hemendinger, Alexander & Company, Inc., a Corporation of New York. Filed Feb. 19, 1916. Serial No. 79,833. (Cl. 91—3.)

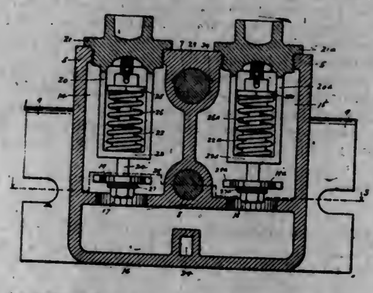


2. In a machine of the class described, the combination of a reticulated traveling apron, means for delivering a plurality of spaced rows of articles upon said apron, a hopper adapted to deliver a sheet of liquid coating material upon the rows of articles carried by the apron, a second hopper adapted to discharge separate streams of material upon the rows of coated articles traveling with said apron, means for reciprocating said second hopper transversely of the apron, means interposed between said hoppers for discharging a blast of air upon the articles to distribute the coating material deposited by the first hopper and force the surplus material through the reticulated apron, a reservoir supported beneath the apron adapted to receive the surplus material discharged from both of said hoppers and the material removed by the air blast, and independent means for supplying said hoppers with coating material from said reservoir.

4. In a machine of the class described, the combination of a reservoir for coating material, a reticulated endless traveling apron for conveying articles to be coated over said reservoir, a coating hopper supported above said apron and reservoir and having a discharge outlet extending transversely across the apron for delivering a sheet of coating material upon the articles traveling with the apron, a decorating hopper supported above the apron and reservoir and having a plurality of discharge outlets spaced apart transversely of the apron, means for reciprocating the decorating hopper transversely of the apron, a dipping wheel rotatably mounted in the reservoir at one end of the coating hopper, means carried by the coating hopper for removing coating material from said wheel and discharging it into the hopper, a dipping wheel rotatably mounted in the reservoir adjacent one end of the reciprocatory decorating hopper, means carried by the decorating hopper for removing material from said wheel and discharging it into said hopper, and means interposed between said hoppers for removing surplus coating material from the articles and forcing said surplus material through the reticulated apron into said reservoir.

[Claims 1 and 3 not printed in the Gazette.]

1,257,565. AUTOMATIC MAXIMUM-SPEED CONTROLLER. WILLIAM S. WESTON, Houston Heights, Tex. Filed Sept. 20, 1916. Serial No. 121,176. (Cl. 188—5.)



1. An automatic maximum speed controller comprising a part adapted to be driven by the mechanism to which the controller is applied, a pump connected to said part, compression and suction chambers connected together and to said pump for passage of fluid through said chambers and said pump, a valve arranged between said compression and suction chambers, and means for holding said valve open under normal flow of fluid between said chambers while permitting the valve to close under excessive flow of fluid.

2. An automatic maximum speed controller comprising a casing, a part extending outside said casing and adapted to be driven by the mechanism to which the controller is applied, a pump within said casing and connected to said driven part, compression and suction chambers within said casing, ports connecting said chambers, and a spring retained valve adapted to be actuated by the flow of fluid to partially close said port when the restriction in the flow of fluid therethrough shall have raised the pressure in the compression chamber to a predetermined amount.

3. An automatic maximum speed controller comprising a part adapted to be driven by the mechanism to which the controller is applied, a pump connected to said part, compression and suction chambers connected together and to said pump for passage of fluid through said chambers and said pump, a valve arranged between said compression and suction chambers, a spring for holding said valve open under normal flow of fluid between said chambers while permitting the valve to close under excessive flow of fluid, and means for adjusting said spring.

4. An automatic maximum speed controller comprising a part adapted to be driven by the mechanism to which the controller is applied, a pump connected to said part, compression and suction chambers connected together and to said pump for passage of fluid through said chambers and said pump, a valve arranged between said compression and suction chambers, means for holding said valve under normal flow of fluid between said chambers while permitting the valve to close under excessive flow of fluid, and means whereby the extent to which the valve shall close may be varied.

5. An automatic maximum speed controller comprising a gear pump mechanism to be connected to and driven synchronously by or with a motor vehicle or other machine, having inclosed intermeshing pump gears, compression and suction chambers closed to the exterior and connected by a port, a liquid in the interdental spaces of the gears and in the chambers having a constricted flow through said port, and a spring retained valve adapted to be actuated automatically to partially close the port when the constriction in the flow of liquid therethrough shall have raised the hydraulic pressure in the compression chamber to a predetermined amount.

[Claims 6 to 15 not printed in the Gazette.]

1,257,566. ANTICREEPER FOR RAILWAY-RAILS. WILLIAM S. WESTON, Houston Heights, Tex. Filed Oct. 20, 1916. Serial No. 126,660. (Cl. 238—4.)



1. An anti-creeper for railway rails comprising a V-form adapted to be sprung open and applied to the rail and having three seats for bearing on the rail base flanges, said seats being located respectively adjacent the apex and the free ends of the V-form, and a tie abutting portion beneath the rail arranged to coöperate with the tie to increase the grip of at least two of said bearing seats.

2. An anti-creeper for railway rails, comprising a V-form having three seats for bearing on the rail base flanges and adapted to be sprung open and applied to the rail to thereby establish the friction grip of said bearing seats upon the rail base, and a tie abutting portion beneath the rail arranged to coöperate with the tie to increase the friction grip of all of said bearing seats.

4. An anti-creeping device for railway rails comprising a contracted clamp adapted to be sprung open when brought into operative position on the rail base, having a tie abutting portion beneath the rail and a V form portion with three seats for gripping the rail base flanges, said seats being located one each adjacent the apex and the free ends of said V form, the seat adjacent the said apex providing a shoulder bearing against the under side and edge only of one base flange and adapted to be brought to operative position from an intermediate position under the rail.

12. A resilient V-shaped rail anchor adapted to be sprung into place upon the rail base and comprising a longitudinal member and an inclined transverse member, said V-shaped rail anchor having flange engaging seats at its apex and at the end of said inclined transverse member and a flange embracing jaw at the free end of said longitudinal member said seats and said jaw being arranged to be pressed vertically into engagement with the base flange of the rail by the resilient action of said longitudinal member.

14. A resilient V-shaped rail anchor comprising a longitudinal member and a transverse member, said transverse member having flange engaging seats at its opposite ends and said longitudinal member having at its free end a transversely disposed tie-abutting loop or eye terminating in a flange embracing jaw.

[Claims 3, 5 to 11, and 13 not printed in the Gazette.]

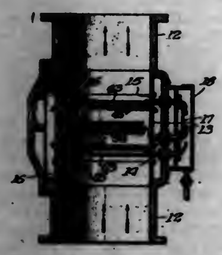
1,257,567. TINDER-BOX. KARL WIEDEN, Ohligs, Germany. Filed July 9, 1917. Serial No. 179,525. (Cl. 67—10.1.)



1. An improved tinder-box containing a fluid fuel, the same embodying a receptacle for the fuel, a burner, a wick, a chamber containing fibrous material and a reticulated medium in position to prevent the fluid from being thrown on the end of the wick of the burner if the latter is shaken.

[Claims 2 to 7 not printed in the Gazette.]

1,257,568. METER. JOHN C. WILSON, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Mar. 23, 1916. Serial No. 86,163. (Cl. 73—167.)



1. A fluid meter having a housing, means within the housing for imparting heat to the fluid flowing therethrough, thermometer elements adjacent the heating means, and means for preventing said elements from being affected directly by the radiant energy from the heating means.

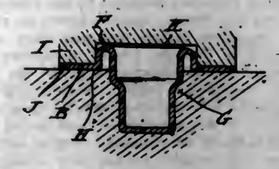
10. A thermal fluid meter having a housing, an electric heater and electric thermometer units therein, said heater and thermometer units having tubular frames adapted to form a measuring passage in said housing, said frames being spaced from said housing and adapted to be supported thereby so that each may be readily removed independently of the others, and means carried by said thermometer units for protecting them against the effects of radiant energy from the heater.

15. A resistance thermometer element having a frame, an electric resistance wire supported by and distributed over substantially the entire area inclosed by said frame, and means carried by said frame for protecting the resistance wire against radiant energy from a source of heat adjacent said element.

23. The method of preventing radiant energy from a heater in a flowing stream of fluid affecting directly temperature responsive elements in said stream which consists in absorbing and deflecting the rays and dissipating their energy to the flowing fluid before they reach the temperature responsive elements.

[Claims 2 to 9, 11 to 14, 16 to 22, 24, and 25 not printed in the Gazette.]

1,257,569. METHOD OF FORMING WHEEL-HUBS. JOHN R. WINTER, Detroit, Mich., assignor to Kelsey Wheel Company, Detroit, Mich., a Corporation of Michigan. Filed Aug. 31, 1914. Serial No. 859,570. (Cl. 113—51.)

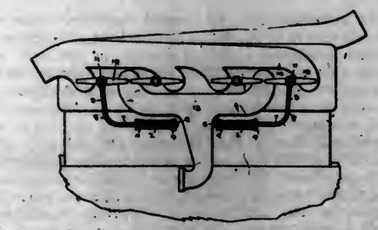


3. The method of forming flanged wheel hubs, comprising the drawing of a flat blank to form a cylindrical portion with an annular flange at one end and a flaring intermediate portion, re-fashioning said flaring intermediate portion to initiate a rounded return-bend, engaging said cylindrical portion in a fixed relation to a die or anvil with said flange spaced from said die or anvil, and subjecting said flange to a hammer blow for flattening the same against said die or anvil and for rolling over and deepening said return-bend.

4. The method of forming flanged wheel hubs, comprising the drawing of a flat blank to form a cylindrical portion with an annular flange at one end, and carrying said flange backward over said cylindrical portion and simultaneously rolling the portion of the cylinder adjoining the flange to form a return-bend.

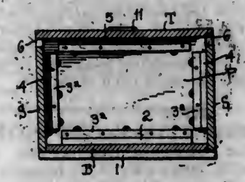
[Claims 1 and 2 not printed in the Gazette.]

1,257,570. HEAT-GENERATING MEDIUM. JAMES M. WORKMAN and THOMAS B. HUFFMAN, Ionia, Kans. Filed Dec. 30, 1916. Serial No. 139,901. (Cl. 263—9.)



A heating medium comprising a perforated or porous cylinder, caps on the ends of the cylinder having central openings, a central bar passed through the cylinder and the openings in the caps, a noncombustible sheet coiled around the bar within the cylinder, a transverse pin in and projecting laterally from the bar to limit its entrance into the cylinder, and a nut on the outer end of the bar to clamp the cylinder against the transverse pin, the bar, outside of the cylinder being bent laterally and then vertically and provided with an opening in its end for attaching purposes, as and for the purpose set forth.

1,257,571. COLLAPSIBLE BOX. CHARLES N. AMICK, Stewartsville, Ind. Filed Apr. 14, 1917. Serial No. 162,096. (Cl. 217—12.)



A device of the character described comprising a bottom panel, transversely disposed channel members carried by the upper face of the bottom panel adjacent the opposite ends thereof and at substantially its longitudinal center, end panels and a partition panel slidably engaged with the transverse channels, side panels, channels carried by the inner faces of the side panels and slidably engaged with the end portions of the end panel and partition panel, the lower marginal portion of said side panels overlying the bottom panel when in assembled position, a top panel, channels disposed transversely of the inner face of the top panel for sliding engagement with the upper marginal portions of the end panels and partition panel, the upper marginal portions of the side panels being provided with recesses alining with the end panels and partition panel for the passage of the channels carried by the top panel, said top panel being of such a width as to overlie the upper marginal portions of the side panels when in applied position, and means for holding said top panel in applied position.

1,257,572. HINGE. WILLIAM H. APPLEBY, Chicago, Ill. Filed Sept. 7, 1916. Serial No. 118,917. (Cl. 16—5.)



1. A door hinge having two plates and a connecting element pivoted to one of them, the connecting element having a neck surmounted by a head and the free plate having a slot having a wide part for receiving said head and a narrow part for retaining it, the narrow part of the slot extending in an axial direction whereby the plates are capable of a considerable amount of relative movement in an axial direction while remaining connected, the plates being face to face and practically in contact when the door is closed, one of said plates having a recess and the other a projection adapted to enter it for preventing relative movement in an axial direction when the door is closed, said projection registering with and entering said recess only when the head is forced to the limit of the narrow part of the slot.

2. A hinge for connecting two relatively movable parts, said hinge having an arm pivotally attached to one of the relatively movable parts and an angle plate attached to the other relatively movable part, the arm having a head and the angle plate having in each angle or flange a slot which is wide at one part and narrow at another part, the wide part for receiving the head and the narrow part for retaining it, the slots in the two angles or flanges being arranged symmetrically with respect to the corner of the angle plate, whereby the angle plate is reversible.

3. A hinge for automobile doors having an arm pivotally attached to the body of the machine and an angle plate applied to the inside corner of the door, said angle plate having two slots, one in each flange, the arm having a head, and each slot having a wide and a narrow part for respectively receiving and retaining the head, said slots being arranged symmetrically with reference to the corner of the plate, whereby the plate is reversible and may be applied to either a right open or a left open door.

1,257,573. SKIRT-MARKER. GRACE C. BELTZ, Seattle, Wash. Filed July 26, 1917. Serial No. 182,959. (Cl. 33—9.)



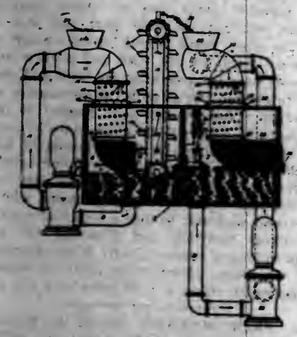
In a skirt marker, adapted for attachment to a table, a pair of strips arranged in spaced relation and provided with apertures intermediate their ends, a clamp screw provided with a hooked end embracing a portion of one of the strips and extending around one marginal edge thereof, the opposite end of the clamp screw being projected through and beyond the other strip and having a thumb nut provided on its terminal for engagement with the adjacent strip, a pair of clamp strips having their ends received between the spaced apart first mentioned strips whereby the two clamp strips may be folded between the two first mentioned strips, a pivot pin projecting through the meeting ends of the said strips and provided with a spacing disk interposed between the two clamp strips for maintaining the latter and the ends of the first mentioned strips in spaced relation, and a second clamp screw carried by the clamp strips and adapted for adjustment to clamp the outer ends of the clamp strips toward each other whereby a piece of chalk may be rigidly secured between the terminals of the said clamp strips.

1,257,574. DEVICE FOR WASHING FRUIT. ALPHONSE F. BISCEGLIA, San Jose, Cal. Filed May 26, 1917. Serial No. 171,225. (Cl. 146—14.)

1. In a device for washing fruit the combination of a tank having two compartments, a water intake pipe, opening into one of said compartments, adapted to supply water to both compartments, an overflow pipe, adapted to deliver water from one compartment to the other compartment, an overflow pipe, adapted to carry off the unclean water from one of said compartments, a pump connected with each compartment, adapted to take water from each compartment, hoppers, adapted to deliver fruit to be washed, fruit receivers, adapted to receive the fruit to the washed from the hoppers, water pipes connected to the fruit receivers, pumps, connected to the water pipes, adapted to force water through the receivers; spiral fruit washers, adapted to wash the fruit passing therethrough; metal tubular screens fastened to the lower end of the spiral fruit washers, adapted to deliver the fruit washed therefrom, as and for the purpose described.

2. In a device for washing fruit the combination of a tank having two compartments, a spiral fruit washer in each compartment, adapted to wash the fruit through a first and second washing, a fruit conveyer, adapted to convey the fruit to the second washing, means by which the water from the second washing of the fruit is utilized

for the first washing of the fruit, substantially as shown and described.

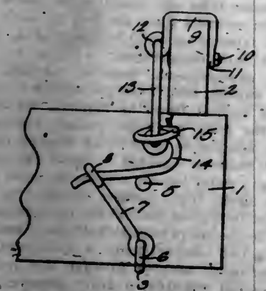


3. In a device for washing fruit the combination of a tank having two compartments, a spiral fruit washer in each compartment, water in each compartment, overflow pipe in each compartment, pumps connected to each compartment, a tubular metal screen connected with each spiral fruit washer, fruit receiver connected to each spiral fruit washer, fruit hopper connected to each fruit receiver; a fruit conveyer, means for operating the fruit conveyer, conveyer buckets, attached to the fruit conveyer, adapted to convey the fruit to a second washing; substantially as shown and described.

4. In a device for washing fruit the combination of a tank having a partition through the center of the tank, adapted to divide the tank into two compartments, a water intake pipe in one of the compartments, adapted to supply water to both compartments, an overflow pipe leading from each compartment, a pump connected to each compartment, a spiral fruit washer, connected to each compartment, a fruit receiver connected with each spiral fruit washer, fruit hoppers connected with each fruit receiver, a tubular metal screen fastened to the lower end of each spiral fruit washer, a fruit conveyer, adapted to convey the fruit to a second washing, conveyer buckets, attached to the fruit conveyer, as and for the purpose described.

5. In a fruit washer, the combination with a spiral fruit washer, a tank with two compartments located thereunder and communicating therewith, means for forcing water from the tank into the spiral fruit washer, the elevator mechanism for conveying the fruit from the first washing to the second washing, means by which the water from the second washing of the fruit is utilized for the first washing of the fruit, as and for the purpose described.

1,257,575. DETACHABLE HAY-RACK. JOHN BLUE, Orosi, Cal. Filed Apr. 14, 1917. Serial No. 162,116. (Cl. 21—74.)



The combination with a longitudinal sill and a transverse beam thereon, of an L-shaped bar adapted to straddle the lower edge of the sill, the free end of the leg of the L-shaped bar having an aperture for the reception of means for fastening the bar to the sill, a link pivotally secured to the other end of the bar, a U-shaped bar adapted to to straddle the beam and having an aperture at one end for the reception of means for fastening the bar to the beam, a link pivotally secured to the other end of the U-shaped bar, and detachable means for securing the links together to bind the beam upon the sill.

1,257,576. MANUALLY-OPERATED WINDLASS MECHANISM FOR PORTABLE ELEVATORS. WILLIAM EDWARD BOEHCK, Jersey City, N. J., assignor to New York Revolving Portable Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Apr. 19, 1913. Serial No. 762,236. (Cl. 74—13.)



1. A brake mechanism comprising a brake-disk; brake devices arranged to engage said brake-disk; a shaft which applies said brake devices; removable means for turning said shaft and a guard-plate for preventing the disengagement of said means and shaft while said brake devices are in released position.

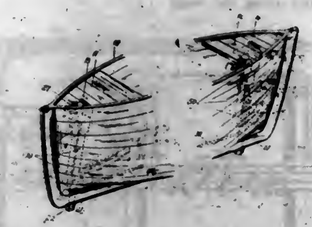
3. The combination with a manually-operated operating shaft; of a brake-disk; brake-jaws therefor which control said brake-disk and therethrough said operating shaft; a manually-operated cam-shaft arranged to control said brake-jaws; and a manually-operated detachable crank arranged to engage and turn said shafts alternately; said crank being formed with means for engaging the operating ends of said shafts and being detachable therefrom; said operating ends having shapes that differ from each other; and the means for engaging said ends being shaped differently from each other.

[Claim 2 not printed in the Gazette.]

1,257,577. BOAT-DROPPING GEAR. JAMES BOWDITCH, Islington, New South Wales, Australia. Filed Sept. 14, 1917. Serial No. 191,463. (Cl. 9—23.)

1. Boat dropping gear comprising at each end of a boat, a fixed post, a hook pivoted to the head of said post to engage boat tackle, a pawl engaging said hook to maintain its point against a fixed abutment and means for releasing said pawl and alloting said hook to open; in combination with a lever, a rod connecting the pawl releasing means at each end and actuated by said lever, and means for releasing the pawl and thereby opening the hook at one end independently of the other.

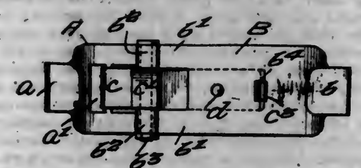
3. Boat dropping gear comprising at one end of a boat, a fixed post having a slotted head terminating in a lug or bracket, a hook to engage boat tackle pivoted in said slotted head and having a tail provided with a notch, a pawl pivoted at one end to said post and engaging the notch in said tail to maintain the hook point against said lug, a push-rod having a bifurcated head which embraces the extremity of said tail and in which the other end of said pawl is pivoted, a lever to operate the gear at one end only pivoted to said post and having one end pivotally attached to said push-rod, a bell-crank also pivoted to said post one arm of said bell-crank constituting an operating lever and terminating in a pedal overlying part of the first mentioned lever; in combination with



at the other end of the boat, a fixed post with slotted head, a hook pivoted and having a notched tail, a pawl engaging said notched tail, and a push-rod pivotally connected to said pawl and embracing said tail, all as before specified, a bell-crank pivoted to the post and to one arm of which said push-rod is pivotally attached; in further combination with a rod connecting the bell-cranks at each end to effect simultaneous operation of the tackle engaging hooks at each end on depression of the said pedal.

[Claim 2 not printed in the Gazette.]

1,257,578. ADJUSTING AND LOCKING DEVICE FOR SKID-CHAINS. JAMES S. BOYD, Weir, Tex., assignor of one-half to Cooper Sansom, Georgetown, Tex. Filed Aug. 5, 1913. Serial No. 783,079. (Cl. 24—70.)



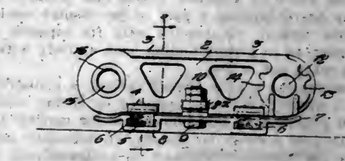
2. An adjusting and locking device of the character described, comprising a pair of longitudinally curved locking plates, one of said plates having a longitudinal series of apertures, the other plate having an intermediate opening and a transverse pivot bolt at its inner end, and a locking lever having one end bent back thereon in spaced relation and pivotally mounted on the said locking bolt and having its opposite end bent laterally and provided with a reduced extension for engagement within the intermediate opening of its plate when closed, all for the purpose described.

[Claim 1 not printed in the Gazette.]

1,257,579. LINK BELT. MYRON A. CHAMPLIN, Washington, D. C. Filed Aug. 2, 1917. Serial No. 184,138. (Cl. 21—150.)

1. A link belt comprising a plurality of links each having a body portion provided with a track portion on one edge of the link and a tread portion on the opposite edge and cushioning means between said tread portion and said body portion.

2. A link belt comprising a plurality of links each of said links having a body portion, integral side members carried by said body portions, track portions borne by said side members, a movable tread member, and means for cushioning the tread member, side means comprising one or more cushioning members disposed between said tread member and the body portion of the link.



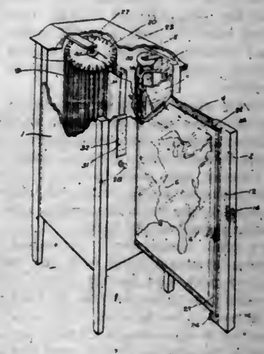
3. A link belt comprising a plurality of links each of said links having a body portion, integral side portions carried by said body portion, integral track portions carried by said side portions, a movable tread member, means for guiding the tread member in its movement and cushioning means disposed between said tread member and the body portion of the link.

4. A link belt comprising a plurality of links each of said links having a body portion, integral side portions carried by said body portion, integral track portions carried by said side portions, a tread member movable toward and away from the body portion of the link, means for guiding the tread member in said movements and an elastic cushion disposed between the tread member and the body portion of the link for taking up shocks received by said tread member.

5. A link belt for tractors of the caterpillar type comprising a plurality of links, each of said links having a body portion, integral sides carried by the body portion, integral track portions carried by the sides, sockets disposed in said body portion, a tread member movable toward and away from said body portion, said tread member having sockets, the sockets in said tread member being arranged to register with the sockets in said body portion, and cushioning means disposed in said registering sockets between said tread member and said body portion for taking up shocks received by said tread member.

[Claims 6 and 7 not printed in the Gazette.]

1,257,580. MAP-CABINET. GEORGE S. CLASON, Denver, Colo. Filed Jan. 31, 1916. Serial No. 75,400. (Cl. 40—84.)



1. In combination with a display cabinet, a cylindrical container, a number of charts mounted on spring rollers within said container, a collapsible display board and means for attaching any one of said charts to said display board, and means for operating said display board.

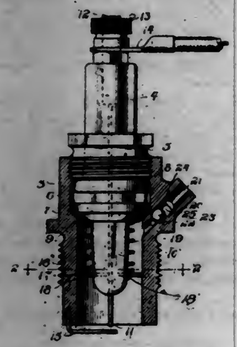
2. A map cabinet containing a disappearing display board means for engaging a map with the display board and means for operating and controlling the same substantially as set forth.

4. In combination with a display cabinet, an extension display board, supporting levers, and a swinging counter shaft carrying one side of said levers and mounted on extension arms pivotally attached within said cabinet, the said display board forming a part of the display mechanism of said cabinet, constructed with its supports in such a manner as to permit folding back entirely within the cabinet when not in use.

8. In combination with a display cabinet, a cylindrical container, a number of charts mounted on spring rollers within said container, a selecting device for moving any desired chart into position for display, an automatic stopping device for holding said chart in position, rods attached to said charts, mechanical grippers for engaging the rod attached to said chart, a draw bar for drawing said chart forth outside of said display cabinet and a collapsible display board supplying a rigid backing for said chart while being displayed, substantially as described.

[Claims 3 and 5 to 7 not printed in the Gazette.]

1,257,581. SPARK-PLUG FOR INTERNAL-COMBUSTION ENGINES. EARL WESLEY COLE, Ovid, Mich. Filed Dec. 8, 1916. Serial No. 135,754. (Cl. 123—169.)



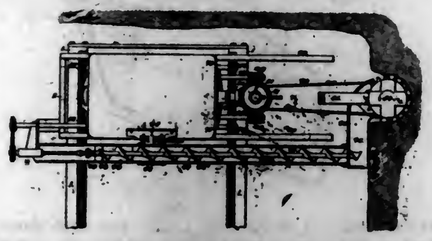
1. In a spark plug having a chambered body and a core of non-conducting material therein, having a part spaced away from the wall of the plug body, a washer surrounding said part of the core, and spanning the annular gap between the body and core, shoulders on the inner face of the plug body for limiting movement of the washer in one direction, and a coiled spring surrounding said core and yieldingly holding said washer toward said shoulders, there being a valve controlled air chamber behind said washer.

2. In a spark plug, having a chambered body and a core of nonconducting material secured therein; a spring pressed cleaning member surrounding said core and spanning the gap between the core and body and movable lengthwise thereof, said body having a valve controlled air chamber communicating with the chamber of the spark plug behind the cleaning member, and open to the outer atmosphere beyond the valve.

3. A spark plug, comprising a chambered body having an air chamber communicating with the chamber of the body through a port, and having a port opening to the outer atmosphere, a valve movable in said air chamber, and seats for said valve at both ports, a core of nonconducting material in said chambered body, a spring pressed washer movable lengthwise of said core and spanning the gap between the core and body, and one or more seats for said washer.

1,257,582. COAL-MINING MACHINE. JOHN F. CONRAD and JAMES WALKER, Nettleton, Pa. Filed Feb. 9, 1917. Serial No. 147,689. (Cl. 125—14.)

1. In a mining machine, a base, a carriage movable transversely of itself along said base, a rotary cutter, a motor, an off-take conveyer that receives the cuttings made by the cutter, said cutter, said conveyer and said motor having a relatively fixed relation, means for mounting said relatively fixedly related parts on said carriage to move in unison toward the work, power transmitting elements between the motor, the cutter and the conveyer whereby the cutter and the conveyer may be driven from the motor, power transmitting elements between the motor and the carriage whereby the motor, conveyer and cutter may be advanced into and withdrawn from the work and power transmitting elements coöperatively connecting the carriage with the base for advancing the carriage bodily along the base.



6. In a coal mining machine wherein is provided a rotary cutter, a motor for driving said cutter, and means for advancing the cutter and motor to the work; said cutter comprising a cylindrical rotating body having a central shaft portion, an off-take conveyer mounted on the motor and having its entrant end bifurcated to receive said cutter shaft and project into the cutter, the cutter having a space to receive the bifurcated end, and means for driving said conveyer from the motor.

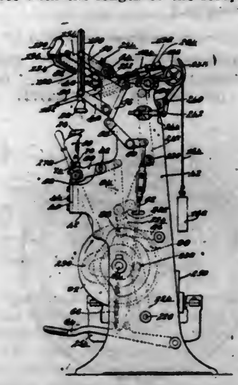
7. In a mining machine, a base adapted to lie parallel to the coal vein, a bed frame transversely mounted on the base normal to the coal vein, a motor mounted on the bed frame, a cutter, an arm carried by the motor for supporting said cutter, power transmitting connections between the motor and the cutter, which connections include a driven shaft, rack and pinion connections between said bed frame and said motor, a power transmitting connection between said driven shaft and said rack and pinion connections for advancing the motor at low speed along said bed frame to advance the cutter into the work, a second power transmitting connection between said driven shaft and said rack and pinion devices for moving the motor along said bed frame to withdraw the cutter, clutch devices for rendering either of said power transmission mechanisms effective as desired, and means driven from the motor for moving the bed frame along the base frame, said last named means comprising rack and pinion devices and high and lower speed power transmitting connections between said driven shaft and said rack and pinion devices and such elements for rendering said last named high and low speed power transmitting connections operative or inoperative, as desired.

[Claims 2 to 5 not printed in the Gazette.]

1,257,583. SHOE-TURNING MACHINE. JOHN W. COSGROVE, Medford, and EDWARD ERICKSON, Beverly, Mass., assignors, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed May 14, 1915. Serial No. 28,011. (Cl. 12—57.)

1. A shoe turning machine, having in conbination, means for holding the heel of a shoe, turning means for turning the forepart of the shoe by a bending operation progressing away from the heel, mechanism for moving one of said means away from the other, a forepart form for insertion within the shoe upper, and means for supporting the form in a position to hold the forepart bent back over the turning means during the turning operation.

9. A shoe turning machine, having in combination, means for holding the heel of a shoe, means for turning the forepart of the shoe by a bending operation progressing away from the heel, mechanism for moving one of said means from the other, and means for gaging the forepart and automatically regulating the length of said movement in accordance with the length of the forepart.



15. A shoe turning machine, having in combination, shoe turning instrumentalities for subjecting a shoe to a series of operations by which it is turned, power mechanism for actuating said instrumentalities, manually operable means for throwing the power mechanism into operation, and stop mechanism for arresting the operation automatically at a predetermined intermediate point in the cycle of operations of the machine.

35. A shoe turning machine, having in combination, a turning finger about which the sole of the shoe is bent, and a forepart form projecting within the upper of the shoe to maintain the upper distended and yielding during the turning operation in the direction in which the turning operation progresses.

[Claims 2 to 8, 10 to 14, 16 to 34, and 36 not printed in the Gazette.]

1,257,584. PROCESS FOR PICKLING OLIVES. WILLIAM V. CRUESS, Berkeley, Cal., dedicated, by mesne assignments, to the Government of the United States and to the people of the United States. Filed Nov. 3, 1917. Serial No. 200,437. (Cl. 99—1.) (Dedicated to the public.)

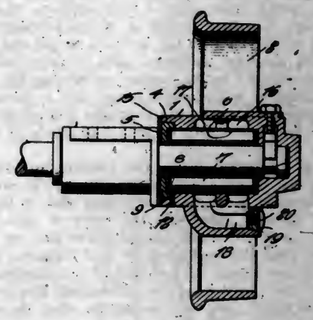
1. The process for pickling or curing olives, consisting in heating the lye solution, the water, and other liquids used in treating the olives subsequent to the lye treatment.

5. The process for pickling or curing olives which consists in subjecting the olives to a lye bath, and subsequently subjecting the olives in a tank to a heated liquid carrying minute particles of air in suspension, continuously withdrawing the liquid from the bottom of the tank, continuously adding air to said withdrawn heated liquid and intimately mixing said air and heated liquid and causing the mixture to flow back into the tank continuously.

[Claims 2 to 4 and 6 to 10 not printed in the Gazette.]

1,257,585. FASTENING FOR HUB-COVERS AND THE LIKE. MADISON THENTON DAVIS, Jr., Charleston, W. Va., assignor to Kanawha Manufacturing Company, Charleston, W. Va. Filed July 26, 1917. Serial No. 182,897. (Cl. 74—8.)

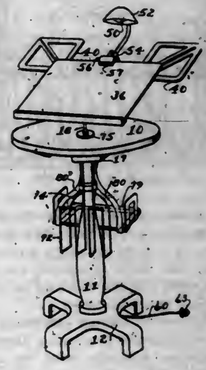
1. A fastener for hub covers comprising in combination with the hub and the cover therefor, of a fastener comprising a strip of metal having one end crimped longitudinally of the strip and bent at an approximately right angle to the body of the strip, the interior of the hub at the cover end having a radial recess for receiving the crimped end, with the body extending longitudinally of the hub, said body being of a length to extend beyond the end of the hub, the cap having on its outer face a radial notch for receiving the extended end of the strip when the said end is bent at right angles to the body.



4. A fastener for hub covers comprising a strip of metal having one end crimped longitudinally of the strip and bent at an approximate right angle to the body of the strip, the other end of the strip being adapted to be bent upon the cap.

[Claims 2 and 3 not printed in the Gazette.]

1,257,586. READING-STAND. WILLIAM L. DEMING, Salem, Ohio. Filed June 24, 1915. Serial No. 36,041. (Cl. 45—60.)



1. The combination, with a base, of a substantially flat support for reading matter, means rising from the base for carrying the support, a pair of extensible members secured near the corners of the support and having diagonal slots, means occupying said slots and loosely engaging the same allowing said members to be slid longitudinally of the slots from a position within the outline of said support to a position projecting outwardly beyond the top and ends of the same.

2. The combination with a support comprising a substantially flat member, a depending rib on the under side of said member having a longitudinal slot, a stand, a movable arm carried by the stand, a clamping member swiveled to said arm on a vertical pivot, a bolt extending through the slot of the rib and carried by the clamping member, and means for clamping the clamping member to the arm when the bolt is tightened to clamp the rib to the clamping member.

3. The combination, of a reading support comprising a substantially flat member, a depending rib on the under side of said support and having a longitudinal slot, a clamping member having a screw extending through said slot, an offset arm having an upwardly extending lug, said clamping member being hollow at its lower end and

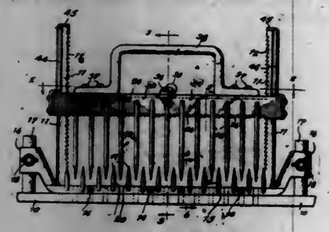
rotatably engaging said lug and being split vertically whereby said screw may act to tighten the clamping member onto both the rib and lug.

4. The combination, with a book support, of a device for carrying the same including means permitting it to be moved transversely of the carrying means and brought to various slanting positions, said carrying means including an upright swivel member permitting the support to be rotated in a horizontal plane, and a clamping device connected with the swivel member and adapted when tightened to prevent any of said movements of the support.

7. In a reading support, the combination of a substantially flat member, a depending rib on the under side of said member having a longitudinal slot, a bifurcated clamping member embracing the sides of said rib and having a screw extending through said slot, an upward projection rotatably embraced by said clamping member, means for preventing the removal of the clamping member from the projection, the clamping member being adapted to tightly grip said projection when the screw is tightened to clamp the rib.

[Claims 5 and 6 not printed in the Gazette.]

1,257,587. WORK-HOLDER FOR SLICING-MACHINES. ALFRED M. DEMUTH, Chicago, Ill., assignor to U. S. Slicing Machine Company, Laporte, Ind., a Corporation of Indiana. Filed May 2, 1917, Serial No. 165,821. Renewed Nov. 27, 1917. Serial No. 204,275. (Cl. 17—24.)



1. An article holder for slicing machines embodying a support for the article, article engaging means connected with the support, an article clamping member coöperating with the support, and teeth extending across one face of the said member, said teeth projecting in a general direction toward one end of the member.

8. An article holder for slicing machines, embodying an article support, an upright projecting thereabove, an article clamping member movable upon the upright toward and away from the support, a bracket projecting from the clamping member, said bracket being shaped to embrace the upright, and a shoulder on the bracket, said shoulder being adapted to engage the end of the upright to arrest the movement of the clamping member and to support the latter.

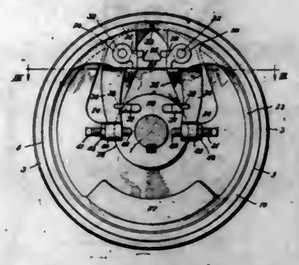
17. A work holder for slicing machines embodying an article support, uprights projecting thereabove, a clamping member movable upon the uprights, locking elements recessed into the said member, one end of each of said elements being disposed in proximity to each of the uprights, and an operating element, common to and connected with the other ends of the said element for simultaneously actuating them, said elements coöperating with the uprights to lock the clamping member in position.

35. An article holding member for slicing machines, embodying a body portion and downwardly extending pointed tines or pins projecting from said body, the outer face of the tines or pins being substantially flush with the front edge of the said body portion.

40. A work holdef for slicing machines embodying an article support, said support embodying separate sections, impalement pins connected with one of the sections, one end of the pins being seated in one of the sections, the extremities of said ends being disposed adjacent that edge of the said section which stands adjacent the other of the sections, and means for detachably securing the sections together.

[Claims 2 to 7, 9 to 16, 18 to 34, and 36 to 39 not printed in the Gazette.]

1,257,588. COUNTERSHAFT-CLUTCH. FREDERICK D. DEMUTH, Cleveland, Ohio. Filed Jan. 2, 1917. Serial No. 140,045. (Cl. 192—13.)



1. A device of the character described comprising, a pulley, an arcuate expansible structure for frictionally engaging said pulley, a shaft, and clutch actuating mechanism adapted operatively to connect said structure and pulley and including a part pivotally attached to said structure and a part keyed to said shaft, said parts being adapted for relative engagement so as to cause them to rotate together, said parts being capable of separation during the initiation of said rotary motion and being enabled constantly to exert a tendency to expand such structure during the rotation of the parts thereafter, and means adapted to control the position of said part which is pivotally attached to said structure.

3. A device of the character described comprising, a pulley, a shaft to be driven, and clutch mechanism adapted operatively to connect said members and including a split friction ring therebetween and a pair of fingers pivoted to the ends of said ring and a spider fitted between said ends.

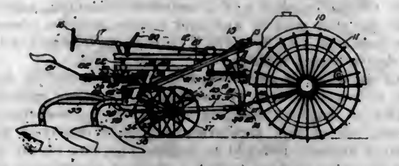
12. A device of the character described comprising, a shaft, a pulley surrounding the same, a split friction ring positioned interiorly of said pulley and provided with a pair of surfaces opposed to each other near its ends, a pair of clutch fingers pivoted adjacent said surfaces respectively, having one pair of ends adapted to abut at said pulley and another pair on substantially opposite sides of the axis of said shaft, a spring acting to draw said last mentioned pair of ends together whereby to contract said ring, a spider fixed to said shaft and fitted between said opposed ring surfaces, and axially movable means for spreading said fingers apart whereby to expand said ring about the common fulcrum at the other ends of the fingers, the arrangement being such that the rotation of said ring is communicated to said spider and by reason of the driving force therebetween a tendency automatically to expand such ring maintained.

15. A device of the character described, comprising a pulley, a split friction ring adapted to engage the same interiorly, a shaft, a spider fixed to said shaft and interposed between juxta-positioned ends of said ring, and fingers pivoted to such ends adapted to move the same away from said spider until said ring engages said pulley whereupon said spider is reëngaged and rotated by said ring.

21. A device of the character described, comprising a pulley, a shaft, a split friction ring adapted to engage the former, a spider keyed to said shaft and adapted for limited rotary movement relative to said ring, fingers articulating with and solely supported by said ring and adapted to fulcrum in direct engagement with each other on one side of the points of their articulation with said ring, a tension spring connecting said fingers on the other side of their points of articulation, and means for actuating said fingers.

[Claims 2, 4 to 11, 13, 14, and 16 to 20 not printed in the Gazette.]

1,257,589. TRACTOR CONNECTION. HARRY S. DICKINSON, Moline, Ill., assignor to Moline Plow Company, Moline, Ill., a Corporation of Illinois. Filed July 31, 1916. Serial No. 112,320. (Cl. 97—30.)



1. In an implement of the class described, the combination of an unstable power unit providing a forward point of ground contact, a beam connected at its forward end to the power unit and rearwardly extending therefrom, a trailing unit providing a rear point of ground contact, a draft connection between the trailing unit and the power unit below the level of the beam, and connections between the beam and trailing implement, consisting in part of a pivoted member adapted to permit of the vertical adjustment with respect to the ground level of those portions of the trailing unit with which said connections are attached without varying the level of the rearwardly extending beam, substantially as described.

18. In an implement of the class described, the combination of an unstable power unit provided with a pair of ground wheels, a rearwardly extending beam pivoted at its forward end to the power unit to swing on a vertical axis, a connecting element located below the beam and pivoted thereto on a horizontal axis, a trailing plow connected with the power unit by a low-down draft connection and provided with ground wheels and plow beams vertically adjustable with relation to the ground wheels and a connection between the plow and the connecting element so designed as to permit vertical adjustment of the plow beams without imparting vertical variations to the rearwardly extending beam and the power unit, substantially as described.

30. In a vehicle of the class described, the combination of an unstable power unit providing a forward point of ground contact, a trailing unit providing a rear point of ground contact, a portion of the trailing unit being vertically adjustable, and compensating connections between the two units connected at their forward end in fixed vertical relation to the power unit and connected at their rearward end to the vertically adjustable portion of the trailing unit, and adapted to provide for said vertical adjustments without disturbing the horizontal balance of the power unit, substantially as described.

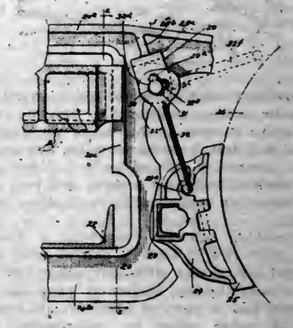
[Claims 2 to 17 and 19 to 29 not printed in the Gazette.]

1,257,590. BRAKE-BEAM HANGER. HARRY E. DOERR, St. Louis, Mo. Filed Nov. 12, 1915. Serial No. 61,119. (Cl. 188—70.)

1. In a device of the class described, a side frame, a bracket carried by said side frame, a lugged locking pin detachably and non-rotatively engaging said bracket, and a hanger journaled on said pin.

2. In a device of the class described, a relatively fixed member having an aperature therethrough, a pin non-rotatably mounted in said aperture, a relatively movable member journaled on said pin, and a lug projecting from said pin and acting normally to prevent withdrawal of said relatively movable member, said relatively movable member having a notch therein adapted to aline with said lug to permit removal of said relatively movable member when the same is moved angularly to a position other than its normal position.

3. In a device of the class described, a relatively fixed member, a pin mounted in said member and having a lug projecting therefrom, a relatively movable member provided with an aperture to receive said pin and having a notch leading from said aperture, and another lug formed on said pin and adapted to prevent removal of said relatively movable member from said pin when said relatively movable member is in normal position, said notch being adapted to aline with one of said lugs when said relatively movable member is moved from normal position to permit removal thereof from said pin.



4. In a brake hanger for railway cars, a bracket, a hanger, non-rotatively mounted means for connecting said bracket and said hanger, said means being arranged to permit detachment of said hanger when the latter is in some position other than the normal position, and means acting normally to prevent movement of said hanger to detaching position.

5. In a brake hanger for railway cars, a bracket, a hanger, and non-rotatively mounted means for connecting said bracket and said hanger, said means being arranged to permit detachment of said hanger when the latter is in some position other than the normal position, said hanger being normally prevented from moving to detaching position by parts of the car structure.

[Claims 6 to 14 not printed in the Gazette.]

1,257,591. PROCESS FOR PREPARING FERTILIZING MATERIAL. THOMAS A. DUNGAN, Chicago, Ill. Filed Apr. 3, 1917. Serial No. 159,497. (Cl. 71—6.)



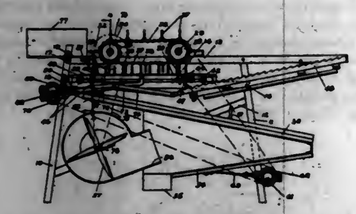
1. The herein described improvement in the art of forming fertilizer from sterilized organic material, which consists in inoculating the material with aerobic bacteria and permitting the bacteria to develop while continuously forcing air through the mass.

[Claims 2 to 4 not printed in the Gazette.]

1,257,592. THRESHING-MACHINE. NELS G. EK, Minneapolis, Minn. Filed Aug. 21, 1915. Serial No. 46,611. (Cl. 130—30.)

1. A threshing machine comprising a fixed toothed member, a pair of toothed slides, means for simultaneously reciprocating said slides in opposite directions, and a constantly-movable member having teeth coöperating with

the teeth of said fixed member and said slides, said fixed toothed member being positioned at the feeding end of said constantly-movable member.



3. A threshing machine comprising a traveling toothed belt, a feeder member positioned at one end of the belt, a fixed toothed member at the end of the member which is adjacent said belt, a guard extending downwardly from said fixed member, a pair of toothed slides coöperating with the teeth of said fixed member and belt, and means for simultaneously reciprocating said slides in opposite directions.

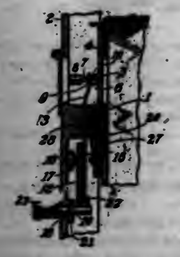
5. A threshing machine comprising a fixed member having a single row of teeth, a pair of grids having the bars thereof alternating with each other and conjointly forming a substantially horizontal plane surface positioned below and at one end adjacent said row of teeth, teeth on the grids, means for reciprocating said grids in said common plane, and means for pulling grain through the fixed row of teeth and through and past the reciprocating teeth on the grids.

6. A threshing machine comprising a fixed member having a single row of teeth, a pair of grids having the bars thereof alternating with each other and conjointly forming a substantially horizontal plane surface positioned below and at one end adjacent said row of teeth, teeth on the grids, means for reciprocating said grids in said common plane, and an endless belt provided with a plurality of sets of pins adapted to coöperate with said fixed row of teeth and the teeth of the reciprocating grids.

7. A threshing machine comprising a fixed member having a single row of teeth, a pair of grids having the bars thereof alternating with each other and conjointly forming a substantially horizontal plane surface positioned below and at one end adjacent said row of teeth, teeth on said grid, means for simultaneously reciprocating the grids in opposite directions and in said common plane, and means for drawing grain through the fixed row of teeth and through and past the sets of oppositely-reciprocating teeth of said grids.

[Claims 2, 4, and 8 not printed in the Gazette.]

1,257,593. FILM-GATE MECHANISM FOR KINETOSCOPES. ROBERT J. EMORY, Newark, N. J., assignor to Baird Motion Picture Machine Co., a Corporation of New Jersey. Filed Feb. 25, 1914. Serial No. 821,023. (Cl. 88—17.)



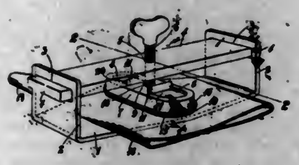
1. In a device of the character described, the combination with a plate for engaging one side of a traveling film, of a film engaging shoe mounted to have a rocking movement and independent bodily movement toward said plate and means for yieldingly holding the shoe in predetermined position.

4. In a device of the character described the combination with a carrying member, of a sliding support mounted on said member, a shoe pivoted to said support intermediate its ends and having independent rocking movement on said support, of a tension member comprising a spring engaging said support, a carrying member for said tension member and a swiveled connection between said carrying member and said tension member whereby the latter is free to have a tilting movement relative to said carrying member.

12. In a device of the class described, means for holding a traveling film in position, said means including a pair of members designed to contain the film therebetween, one of said members providing a relatively fixed bearing surface designed to engage one side of the film and the other member having a resilient engagement with the opposite side of the film to force the same against said bearing surface and said other member mounted to have a rocking movement in the line of the travel of the film whereby irregularities of thickness in the film is caused to pass the holding means without affecting the film.

[Claims 2, 3, and 5 to 11 not printed in the Gazette.]

1,257,594. VULCANIZER. ALPHEUS FAY, Louisville, Ky. Filed June 25, 1917. Serial No. 176,769. (Cl. 18—18.)



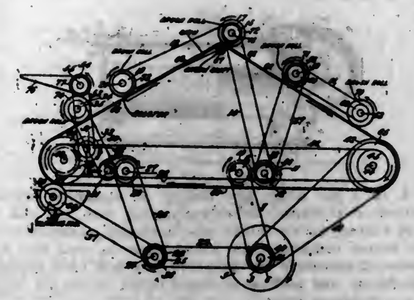
1. In a vulcanizer, in combination with a support for the article to be vulcanized, and means to be clamped against the parts to be vulcanized and heated while so clamped, means to clamp said means to be heated, and means for supporting a combustible in suspended condition whereby it is adapted to burn on its lower side immediately adjacent to said means to be heated.

12. In a vulcanizer, in combination with means to be clamped against the parts to be vulcanized and heated while so clamped, clamping means comprising a flat elongated base-plate having integral upturned standards at opposite ends, each of said standards having a transverse slot, an elongated beam of substantially rectangular cross-section with its end parts adapted to be inserted in or withdrawn from said slots, a screw threaded through the middle part of said beam, and an open-bottomed yoke swiveled on the lower end part of said screw and adapted to clamp said means against said parts under the pressure of said screw when said beam is held in said slots, and to hold a combustible whereby it is adapted to burn on its lower side immediately adjacent to said means to be heated.

[Claims 2 to 11 not printed in the Gazette.]

1,257,595. MACHINE FOR SEASONING OR FINISHING LEATHER. JAMES U. FLANAGAN, Wilmington, Del., assignor to F. F. Slocomb & Co., Incorporated, Wilmington, Del., a Corporation of Delaware. Filed Mar. 14, 1916. Serial No. 84,033. (Cl. 91—39.)

1. In a leather finishing machine, a brush roll, means to bring a skin into operative relationship with said brush roll, and means comprising a crown shaft rotating as an idler and an endless apron passing upwardly and downwardly thereover for stretching and opening the grain side of said skin when it is in proximity to said brush roll.



13. In a leather finishing machine, a plurality of drums, a freely rotatable crown shaft located above said drums, an endless apron passing over said drums and upwardly and downwardly over said crown shaft, a brush roll for initially applying a liquor to the skin to be treated, a brush roll located in proximity to said crown shaft and adapted to rotate at a higher speed than said first mentioned brush roll, and other brush rolls located above said apron.

15. In a leather finishing machine, an apron adapted to support a skin, means to actuate said apron, a plurality of skin guiding and holding devices having one extremity substantially parallel with said apron and the other extremity curved in semicircular form, and means to support said devices.

[Claims 2 to 12, 14, and 16 to 20 not printed in the Gazette.]

1,257,596. POCKET HAND-LAMP. JOSEPH C. FORD, Madison, Wis., assignor to French Battery & Carbon Co., Madison, Wis., a Corporation of Wisconsin. Filed May 17, 1917. Serial No. 169,365. (Cl. 240—8.5.)



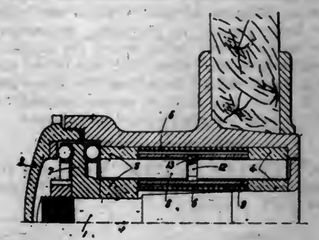
1. In a device of the class described, the combination of a suitable case containing a battery and an electric lamp, each having two terminals, means connecting one terminal of the battery with one terminal of the lamp, the other two remaining terminals being in proximity to each other, an insulating plate between the last mentioned terminals of the lamp and battery, switch members on opposite sides of said insulating plate contacting respectively the adjacent lamp and battery terminals, there being a recess formed in the insulating plate through which said switch members are movable into contact, and means operated from outside the lamp case adapted to cause said switch members to operatively contact one with the other, for the purposes set forth.

2. In a device of the class described, a relatively long casing, a battery and an electric light bulb retained within the casing in general alinement one with the other so that one terminal of the light bulb is opposite one terminal of the battery, means electrically connecting the opposite terminals of the lamp and battery, an insulating member secured inside the case between the unconnected ends of the lamp bulb and battery adapted to prevent movement of the battery toward the lamp bulb, metallic switch members on opposite sides of the insulating member so arranged as to be movable in a plane containing the longitudinal axis of the case into contact one with the other, and means operatable from outside the case for operatively connecting said switch members.

8. In a device of the class described, the combination with a battery case, a housing upon the outside of the case, separated therefrom, a switch operating member consisting of a bar movable inside the case lengthwise thereof, integrally connected to a spring member correspondingly movable inside the housing between the housing and case, means operatable from outside the housing for compressing the spring and a member on the spring entering a depression on the housing, releasable therefrom when the spring is compressed, for the purposes set forth.

[Claims 3 to 7 and 9 not printed in the Gazette.]

1,257,597. ROLLER-BEARING. HENRI GALLET, Puteaux, France, assignor to Etablissements De Dion Bouton, Société Anonyme, Puteaux, France, a Corporation of France. Filed Sept. 12, 1917. Serial No. 190,930. (Cl. 64—62.)



1. A roller bearing comprising spaced roller tracks, relatively long rollers bearing on the tracks at their ends and a cage for guiding the rollers, said cage having holes therein through which the middle portions of the rollers pass, the holes being oval and elongated in a radial direction.

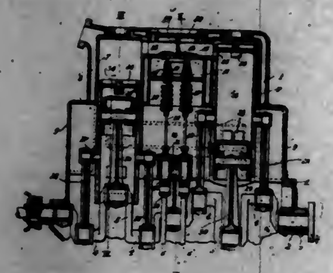
2. A roller bearing comprising spaced roller tracks, relatively long rollers bearing on the tracks at their ends, a cage for guiding the rollers, said cage having holes therein through which the middle portions of the rollers pass, the rollers having grooves therein and a ring fitted into said grooves for guiding the rollers laterally.

[Claim 3 not printed in the Gazette.]

1,257,598. INTERNAL-COMBUSTION ENGINE. ANDREW J. GOLATA and LOUIS L. ROBERTS, Detroit, Mich., assignors of one-tenth to Arthur L. Ellis, Detroit, Mich., and one-tenth to William W. Carswell, Highland Park, Mich. Filed Feb. 10, 1917. Serial No. 147,792. (Cl. 123—50.)

1. In an internal combustion engine, cylinders provided with fuel intake ports, a chamber between said cylinders adapted to communicate with the intake ports of said cylinders and provided with a fuel intake port, puppet valves controlling the communication between said chamber and said cylinders, and having rods extending downwardly between said cylinders, a crank shaft having three crank portions for each cylinder, cams on said shaft adapted to operate said valve rods to open said valves, inner and outer pistons slidable one within the other and the outer pistons slidable in said cylinders and provided

with intake and exhaust ports, two connecting rods for each outer piston, and a single connecting rod for each inner piston, all of said connecting rods articulating the pistons relative to the crank portions of said crank shaft.



2. In an internal combustion engine, a crank shaft, cylinders provided with fuel intake ports, a housing between said cylinders provided with a chamber adapted to communicate with the intake ports of said cylinder, said chamber having a fuel intake port, valves normally seated on a ported wall of said chamber controlling the admission of fuel to said cylinders, valve rods for said valves extending through said chamber and said housing in proximity to said shaft, cams on said shaft to actuate said valve rods to unseat said valves, springs on said rods in said housing holding said valves normally seated, inner and outer pistons slidable one within the other and the outer pistons slidable in said cylinders and coöperating with the inner pistons in providing combustion chambers, said outer pistons being ported for intake and exhaust purposes, means connecting the outer pistons to said crank shaft, means connecting the inner pistons to said crank shaft, and ignition means adapted for firing fuel in the combustion chambers of said pistons.

1,257,599. ELECTRIC HEATER. WILLIAM S. HADAWAY, Jr., New York, N. Y. Filed Sept. 5, 1911. Serial No. 647,690. (Cl. 219—44.)

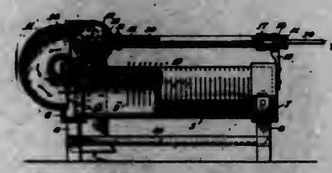


1. An electrically heated receptacle comprising a conductor wound to form a vessel frame and a handle thereon, and insulating material surrounding said frame and said handle to form the body and handle of the receptacle whereby said conductor forms the heating element for the receptacle and the frame of the vessel and is insulated by the material forming the body of the receptacle.

2. An electrically heated receptacle comprising a vessel formed of insulating material and provided with a bowl and handle, said vessel having an electric heating conductor embedded in said handle and said bowl and wound spirally within the bottom of said bowl and the sides of the same, the ends of said conductor being brought out together at the end of said handle to form terminal connections.

1,257,600. GAS MAKER AND COMBUSTION APPARATUS. BERT E. HADLEY, Los Angeles, Cal. Filed Sept. 20, 1917. Serial No. 192,348. (Cl. 158—65.)

1. In a gas maker and burner, an elongated tubular burner, an upturned U-shaped throat connecting with one end of said burner, the curvature of the throat commencing immediately at its point of intersection with the burner, an air intake tube arranged transversely of the burner communicating intermediate its ends with the throat immediately at the termination of its curvature, a vaporizer tip extending into said tube opposite the throat, and a vaporizer tube connecting with said tip and extending parallel with the burner.



4. In a gas maker and burner, an elongated tubular burner, a U-shaped throat connecting with one end of said burner, an air intake tube arranged transversely of the burner communicating intermediate its ends with the throat, a vaporizer tip extending into said tube opposite the throat, and mufflers arranged to act on the air entering said intake tube.

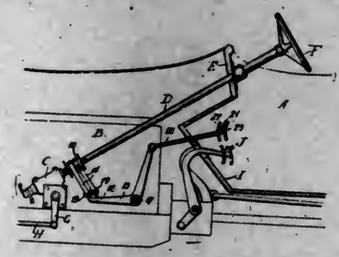
5. In a gas maker, a vaporizer tube, a plug in one end thereof having a passage therethrough, a cap on the outer end of the plug having a discharge orifice, and a tube leading interiorly of the cap from said orifice terminating adjacent to the plug out of alinement with the passage.

7. In a gas maker, a tube, granular carborundum therein, a plug in one end of the tube, screens interposed between the plug and carborundum, a passage through the plug, a cap on the plug, and a tube opening through said cap spaced from the plug out of alinement with the passage in the latter.

8. In a gas maker and burner, a vaporizer tube, a plug on the end of said tube having a plurality of passages therethrough, a cap on the outer end of said plug having a central discharge orifice, and a tube leading interiorly of the cap from said orifice terminating adjacent to the plug out of alinement with the passages in the latter.

[Claims 2, 3, and 6 not printed in the Gazette.]

1,257,601. FOOT STEERING DEVICE FOR AUTOMOBILES. SHADRON M. HALEY, Dallas, Tex. Filed Feb. 26, 1917. Serial No. 151,197. (Cl. 74—81.)



1. In a steering device, the combination of a steering gear post, right and left pedals arranged at the opposite sides of the steering post, and opposed connections between the post and the pedals for moving the latter in opposite directions.

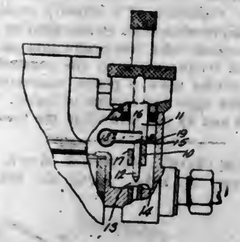
4. In a steering device, the combination of a steering gear post, a drum mounted on said post, a flexible connector wound about said drum, and a pair of foot levers connected to the free ends of said flexible connector and adapted to be operated in opposite directions for turning said steering gear post in opposite directions.

[Claims 2, 3, and 5 to 8 not printed in the Gazette.]

1,257,602. THERMOSTATIC FUEL-VALVE. EDGAR B. HANDS, Shreveport, La. Filed Sept. 22, 1916. Serial No. 121,648. (Cl. 236—5.)

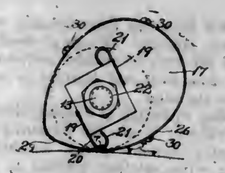
A thermostatic valve embodying a stem having a laterally opening recess extending from one side past its

axis and providing opposite shoulders at an angle to said axis, said stem having a bore extending longitudinally from one shoulder to one end thereof, a needle valve slidable through said bore and projecting beyond said end of



the stem and into said recess, that end of the needle valve within the recess having a headed stud, and a looped thermostatic element having one terminal secured to the other shoulder and having its other terminal slotted and engaging said stud.

1,257,603. TACK-PULLER. JACOB D. HATCH, Brockton, Mass., assignor of one-half to Thomas Bostock, George Bostock, and James Bostock, doing business under the firm-name and style of Thomas Bostock & Sons, Brockton, Mass. Filed Apr. 13, 1917. Serial No. 161,711. (Cl. 12—16.)



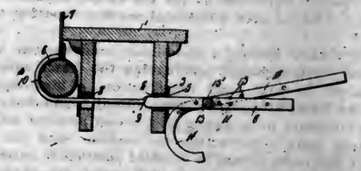
1. In a tack-puller, in combination, a shaft rotatable in a fixed bearing, a tack-engaging claw attached to said shaft and offset from the axis thereof so that the claw is revoluble in a circular path, and a fixed curved shoe rest eccentric to the path of the claw, and provided with an elongated tack-receiving opening, the major axis of which is eccentric to said path, a portion of said opening being in close proximity to the path of the claw, to permit a tack projecting from a lasted shoe held against said rest, to enter said path and be engaged by the claw, the eccentric arrangement of the rest causing the claw to recede from the rest after engaging the tack, and pull the latter endwise through said opening.

5. In a tack-puller, in combination, a revoluble tack-engaging claw, and a fixed hood surrounding the claw and having a shoe rest portion which is eccentric to the path of the claw, and is provided with a tack-receiving opening, and with a depressed portion, arranged to receive pulled tacks and provided with a tack outlet, said hood comprising a tubular body open at one end, to provide a sight opening, and a transparent head preventing the escape of tacks through said opening.

7. In a tack-puller, in combination, a supporting frame having a bearing and a fixed flange surrounding said bearing, a shaft journaled in the bearing and projecting through said flange, a hub attached to the shaft and provided with one or more tack-pulling claws, and a fixed hood detachably secured to said flange and formed to surround said head and claws, said hood having a shoe rest portion which is eccentric to the path of the claws and is provided with a tack-receiving opening, and a depressed portion arranged to receive pulled tacks and provided with a tack outlet, the perimeter of said flange being conformed to the internal surface of the hood.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,257,604. AWNING-LOCK. HAROLD C. HATCHL, Nacogdoches, Tex. Filed Nov. 3, 1916. Serial No. 129,876. (Cl. 156—15.)

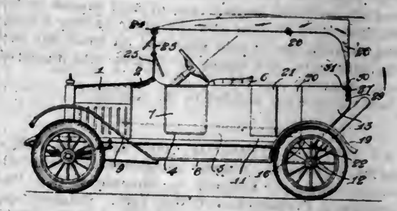


1. In an awning lock, the combination of a support, an arm projecting from said support, said arm terminating in a hooked portion, said hooked portion projecting toward said support, said hooked portion being adapted to receive the bar of an awning and means for holding said arm in an adjusted set position.

5. In an awning lock, the combination of a support having openings formed therethrough, plates fixedly mounted upon said openings and having rectangular openings formed therein, said openings extending at right angles to each other, an arm formed from a flat strip of material twisted intermediate its ends and extending through said openings, whereby said plates will steady said arm, said arm having a hooked outer end, said hooked outer end being adapted to receive an awning bar, an arm pivotally mounted upon the inner end of said first mentioned arm, said last mentioned arm having a cam formed thereon, whereby when said last mentioned arm is swung, it will draw upon said first mentioned arm for retaining said hooked portion in an adjusted set position.

[Claims 2 to 4 not printed in the Gazette.]

1,257,605. VEHICLE-BODY. FRED W. HOFFMAN, Goldroad, Ariz. Filed Jan. 14, 1916. Serial No. 72,150. (Cl. 21—62.)



1. A vehicle having a fixed body construction in the forward part thereof, an adjustable structure carried rearwardly of the fixed body portion constructed to be closed to form a portion of the body design and upon opening to be extended to enlarge the lines of the body and provide additional seating capacity, an adjustable top frame connected with the adjustable portions of the vehicle body to be capable of fitting in the proper position in either adjustment of the body, means to hold the top frame in either of the adjusted positions, a wind shield carried by the fixed body construction, and a take up roller carried by the wind shield to automatically wind up and let out the top as adjustment is made of the adjustable structure of the body.

2. A vehicle having a fixed body construction on the forward part thereof, an adjustable structure carried rearwardly of the fixed body structure constructed to be closed to form an extension of the body design and upon being opened arranged to extend the lines of the body and provide additional seating capacity, an adjustable top frame connected with the adjustable portion of the vehicle to be capable of being set in either of the adjusted positions of the movable body structure, means to secure said adjustable top frame in a substantially upright position, a flexible top structure carried from said frame, a wind shield carried on the forward part of the vehicle body, and a spring actuated roller with which the flexible top

has connection mounted on the wind shield to automatically take up the flexible top structure as the adjustable portion of the vehicle body is moved to the closed position and to permit extension of the top as the adjustable section is raised to give additional seating capacity to the vehicle.

3. A vehicle having a fixed body construction in the forward portion thereof and having the frame extending rearwardly of said body construction, a floor mounted upon the frame structure, a hood hingedly mounted on the frame structure to be swung to a closed position adjacent the fixed body construction to combine with the lines thereof and to be swung to a raised position to extend the lines of the body, a seat provided within the hood to be used as the hood is swung to the raised relation, doors hingedly connected with the said hood to be folded thereunto as the hood is to be moved to the closed position and to be expanded to form the rear doors of the body as the hood is adjusted to the raised position, a take-up roll carried on the fixed body structure, and a top mounted at one end on the adjustable hood and at the opposite end connected with the take-up roll, and means carried by the hood to hold the top in the desired operative relation in either of the adjustments thereof.

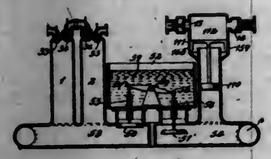
1,257,606. DEMOUNTABLE RIM FOR VEHICLE-WHEELS. HALLIE RAY HOYT, Seattle, Wash. Filed May 3, 1917. Serial No. 166,243. (Cl. 152—21.)



1. A demountable rim comprising a main section having its ends separated and two short sections hinged each to its end of the main section, one of said hinged sections having two slots therein and the other having a tongue passing through one of said slots and an offset bar entering the other slot, and means for locking said hinged sections in expanded position.

[Claims 2 to 4 not printed in the Gazette.]

1,257,607. METHOD OF COMPRESSING AIR OR GASES. HERBERT ALFRED HUMPHREY, Westminster, London, England, assignor to Humphrey Gas Pump Company, a Corporation of New York. Original application filed July 17, 1908, Serial No. 444,061. Divided and this application filed Feb. 19, 1910, Serial No. 544,882. Renewed July 18, 1917. Serial No. 181,451. (Cl. 230—16.)



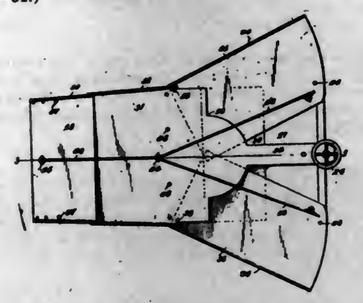
1. The method of utilizing an expansive force of a compressed combustible charge which consists in reciprocating a liquid, the first outstroke being due to said expansive force, utilizing the momentum of the outstroke to compress an elastic fluid, discharging part of said compressed elastic fluid, utilizing the expansion of the balance of said compressed elastic fluid to cause an instroke of the liquid to entrain fresh elastic fluid and to compress a fresh combustible charge.

10. The method of utilizing the force of a reciprocating column of liquid, which comprises the compression of an elastic fluid by one movement of reciprocation and the production of the opposite movement of reciprocation by the expansion of said elastic fluid acting upon a differential piston interposed between said liquid column and said elastic fluid.

12. The method of utilizing the force of a reciprocating column of liquid, one movement of said reciprocation being due to the expansion of a primary medium, which comprises the compression of an elastic fluid by said movement of reciprocation, and the production of the opposite movement of reciprocation by the expansion of said elastic medium acting upon a piston connected with another piston acting upon the column of liquid.

[Claims 2 to 9 and 11 not printed in the Gazette.]

1,257,608. SNOW-PLOW. EUGENE S. HUNT, Richmond, Ind. Filed Sept. 24, 1914. Serial No. 863,364. (Cl. 104—51.)



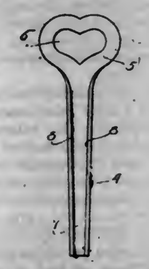
1. A snow plow including longitudinally arranged overlapping sections, laterally swinging discharge sections connected with the first mentioned sections, and removable means coacting with said sections in providing separate channels in the same.

5. A snow plow including a wheeled frame, a movable frame pivoted thereto, means for adjusting said movable frame, overlapping sections carried on said frames, laterally swinging wing sections pivoted to said movable frame so as to be separately movable, and removable means capable of subdividing said sections longitudinally in a number of different positions to coact with either one or both of said wing sections in delivering the plowed material, on either or both sides of the machine.

11. A snow-plow including an adjustable inclined frame, a swinging section pivoted to each side of said frame and adapted to be swung outwardly therefrom to deliver at either side of the plow or to be swung in line with said inclined frame to deliver rearwardly thereof, and removable means coöperating with said hinged sections for directing lateral movement of the plowed material.

[Claims 2 to 4 and 6 to 10 not printed in the Gazette.]

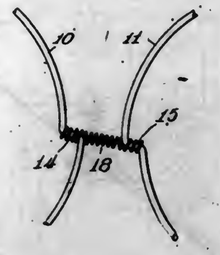
1,257,609. TUBE-ROLLING DEVICE. AXEL T. JOHNSON, Chicago, Ill. Filed Oct. 29, 1917. Serial No. 199,064. (Cl. 221—60.)



1. A tube-rolling device formed of a member tapered lengthwise thereof and containing a longitudinally-extending channel with its walls converging toward the bottom of the channel and presenting a channel of substantially V-shape in cross-section.

[Claim 2 not printed in the Gazette.]

1,257,610. BED-SPRING. CHARLES D. KARR, Holland, Mich. Filed Aug. 22, 1917. Serial No. 187,696. (Cl. 5—29.)



5. In a bed spring, in combination, a pair of horizontal wire rings being the ends of two upright coil springs, adjacent portions of the rings being formed with offsets providing oppositely facing shoulders in the sides of the two rings, and a helical spring extending between and flexibly connecting the rings, the bore of the helical spring being substantially of the same size as the wire from which the rings are formed and a substantial length of the helical spring immediately adjacent each end of the same being telescoped upon the side of the corresponding ring for a distance extending to the said shoulder.

[Claims 1 to 4 not printed in the Gazette.]

1,257,611. SUPPORTING DEVICE. WILLIAM J. KELLY, Clinton, Iowa. Filed Feb. 29, 1916. Serial No. 81,106. (Cl. 211—14.)



2. In a mattress-clamp, the combination of bars adapted to be spread apart to render the clamp open for receiving a mattress, and a hanger formed of relatively movable rigid upwardly-extending sections carried by one of the bars and adapted at one of its sections to releasably engage the opposite bar when the clamp is closed.

3. In a mattress-clamp, the combination of bars adapted to be spread apart to render the clamp open for receiving a mattress, and a hanger of yoke-shape with its arms pivotally connected together, one of its arms being connected with one of the side-bars and its other arm provided with means for engaging the opposite side-bar when the clamp is in closed position.

7. In a mattress-clamp, the combination of bars adapted to be spread apart to render the clamp open for receiving a mattress, a hanger formed of pivotally connected sections, one of which is connected with one bar, the pivot of said hanger extending transversely of said bars, and means formed of coöperating elements on the other section of said hanger and the opposite bar adapted to engage each other upon swinging said last-referred-to arm on its pivot when said clamp is closed, for holding the clamp in closed position.

8. A mattress-clamp comprising side-bars and end-bars certain of said bars being pivoted together, said bars adapting the clamp to be opened and closed, a hanger of yoke-shape with its arms pivotally connected together, the axis of the pivot, connecting said arms, extending transversely of said side-bars in a plane substantially parallel with the plane in which the side bars are movable in opening and closing the clamp, the arms of said hanger being rigid, with one of said arms connected with one of the side-bars and the other arm being movable at its pivotal connection into and out of a position in which it overlaps the opposite side-bar, and means on said last-referred-to arm and said last-referred-to side-bar for releasably connecting these bars together when the clamp is in closed position.

[Claims 1 and 4 to 6 not printed in the Gazette.]

1,257,612. PROCESS OF EXTRACTING PRECIOUS METALS FROM ORES CONTAINING ALKALINE-EARTH CARBONATES, &c. JOHN G. KIRCHEN and DONALD B. BRADNER, Tonopah, Nev. Filed Aug. 8, 1917. Serial No. 185,189. (Cl. 75—185.)

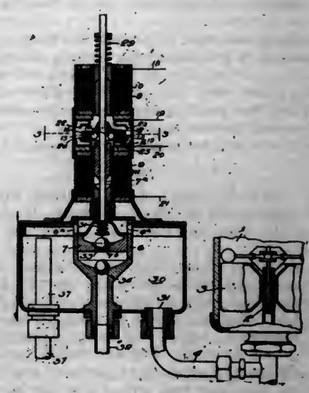
1. A step in the process of extracting precious metals from ores containing calcium carbonate, and other alkaline earth carbonates, consisting in roasting the ore at a temperature sufficient to oxidize the minerals associated with the precious metals but less than that which will liberate carbon dioxid.

2. A step in the process of extracting precious metals from ores containing calcium carbonate, and other alkaline earth carbonates consisting in roasting the ore at a temperature greater than 600° F. but less than 1200° F.

3. The process of extracting precious metals from ores containing calcium carbonate, and other alkaline earth carbonates, consisting in roasting the ore at a temperature greater than 600° F. but less than that which will liberate carbon dioxid and then submitting the calcine to a cyanid treatment.

4. A step in the process of treating ores including precious metals, earth carbonates, which consists in giving a preliminary roast to the ore at a temperature greater than 600° F. but below that wherein the carbonates will be decomposed and rendered soluble.

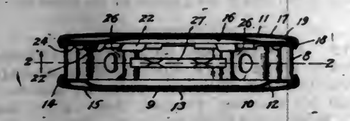
1,257,613. SOLENOID-OPERATED LIQUID-FUEL-SUPPLY-MAINTAINING DEVICE FOR INTERNAL-COMBUSTION ENGINES. HENRY KOCOUREK, Jersey City, N. J., assignor to Julia B. Stewart, executrix of John K. Stewart, deceased. Filed Jan. 25, 1917. Serial No. 144,565. (Cl. 103—67.)



A fuel supply maintaining device comprising a variable-capacity chamber; a solenoid for moving a wall thereof to vary its capacity; inlet and outlet connections for said variable-capacity chamber, and check valves in said connections respectively; an electric circuit in which the solenoid is energized; a discharge chamber into which the variable-capacity chamber discharges; an outlet connection from said discharge chamber, and means for alternately opening and closing said connection, and an overflow connection from said discharge chamber, and circuit-making and

breaking means operated by the solenoid at the limit of the strokes of its armature for enlarging and reducing the variable-capacity chamber.

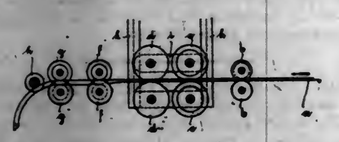
1,257,614. RECEPTACLE. JOSEPH KOMOROUS, Chicago, Ill., assignor to Parisian Novelty Company, Chicago, Ill., a Corporation of Illinois. Filed May 7, 1917. Serial No. 166,881. (Cl. 232—6.)



1. In a receptacle, the combination of a curved side-wall-forming member having an outwardly flared end and a disk member located at the flared end of said side-wall forming member, one of said members containing recesses and the other thereof provided with teeth extending into said recesses and bent into overlapping position relative to the other of said members, and a second disk covering said first-named disk and having a flange crimped into interlocking relation with the flared portion of said side-wall-forming member.

[Claims 2 and 3 not printed in the Gazette.]

1,257,615. METHOD AND MEANS FOR ELECTRICALLY WELDING THE RIMS OR FLANGES OF WHEEL OR CYCLE TIRES. RUDOLF KRONENBERG, Ohligs, Germany. Filed Sept. 20, 1917. Serial No. 192,326. (Cl. 219—5.)



1. An improved method of electrically welding the flanges of wheel tires, consisting in welding both sides of the rim separately, substantially as and for the purpose described.

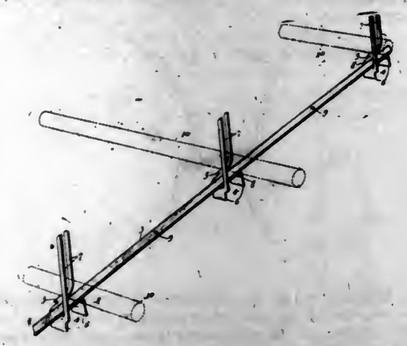
3. An improved method of welding the flanges of wheel tires, consisting in performing the welding and the profiling operations of the strip in one continuous operation, the welding being done first upon both sides of the rim separately and the profiling immediately subsequent, substantially as and for the purpose set forth.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,257,616. BAR SUPPORT AND SPACER FOR CONCRETE-REINFORCEMENTS. HENRY H. LAMPERT, Chicago, Ill. Filed July 12, 1916. Serial No. 108,913. (Cl. 72—122.)

1. As an article of manufacture, a unitary structure for use as a bar supporting device for concrete reinforcements, comprising a strip substantially straight from end to end, and bar clamping means permanently arranged at intervals therealong, each of said means comprising a depending leg and upwardly disposed fingers, said fingers being spaced apart diagonally at opposite edges of said strip so as to constitute said strip a seat portion between and adjacent to said fingers, said legs serving to support said seat portions above the falsework on which the concrete is to be poured, in position to support transverse reinforcing bars, said fingers being bendable longitudinally of said strip over said bars.

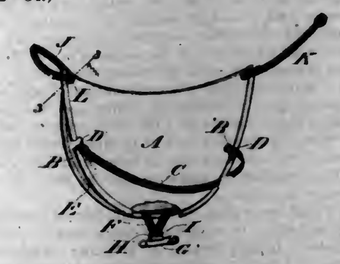
2. As an article of manufacture, a unitary structure for use as a bar supporting device for concrete reinforcements, comprising a strip substantially straight from end to end, and bar clamping means permanently arranged at intervals therealong, each of said means comprising a depending leg and upwardly disposed fingers, said fingers being spaced apart longitudinally of said strip at opposite edges thereof so as to constitute said strip a seat portion between and adjacent to said fingers, said legs serving to support said seat portions above the falsework on which the concrete is to be poured, in position to support transverse reinforcing bars, said fingers being bendable in opposite directions over said bars.



4. As an article of manufacture, a unitary structure for use as a bar supporting device for concrete reinforcements, comprising a strip substantially straight from end to end and separately formed bar clamping means attached to said strip at intervals therealong, each of said means being separately formed from a piece of sheet metal so as to provide a depending leg, a transversely disposed seat portion, and upwardly disposed fingers located at diagonally opposite sides of said seat portion, said strip resting upon the seat portions of said means between said fingers and being secured to said seat portions by spot-welding, said legs being adapted to support said strip spaced above the false work on which the concrete is to be poured, and said fingers being bendable longitudinally of said strip over bars resting thereupon between said fingers and extending transversely of said strip.

[Claims 3 and 5 not printed in the Gazette.]

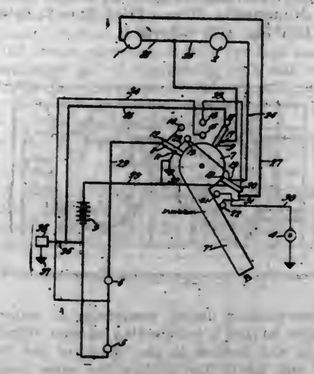
1,257,617. DRESS-SHIELD. ANN MASON LEE, Richmond, Va. Filed Oct. 23, 1916. Serial No. 127,116. (Cl. 2—34.)



1. A dress shield folded to constitute a body portion and an arm portion having, in combination, elastic suspenders at opposite sides of the shield and near the juncture of the two portions each permanently attached at one end to one portion of the shield and detachably fastened at its other end to the other portion of the shield and adapted to pass through or around any strap ordinarily worn over the shoulder; an elastic strap passing freely through eyelets in the arm portion and fitting over the arm for holding said arm portion in position; an elastic holder attached to the bottom of the body portion; and fastening means, consisting of a pin, depended from said elastic holder by means of a metal shank attached to the pin, said fastening means being adapted to hold the body portion down in position.

[Claims 2 and 3 not printed in the Gazette.]

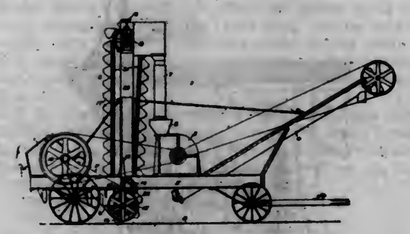
1,257,618. ELECTRIC-LIGHTING SYSTEM FOR AUTOMOBILES. DOMNICK F. LEONE, Seattle, Wash. Filed May 17, 1917. Serial No. 169,313. (Cl. 171—97.)



1. An electric lighting system for automobiles including in combination, a plurality of lamps, a battery, a magneto, a controller including a switch movable to "battery," "magneto," and "dimming" positions, and electrical connections between the controller and the lamps, magneto and battery, said connections being such that when the switch is moved to "battery" position the lamps are connected in multiple with the battery, when the switch is moved to "magneto" position, the lamps are connected in series with the magneto, and when the switch is moved to "dimming" position, the lamps are connected in series with the battery.

[Claim 2 not printed in the Gazette.]

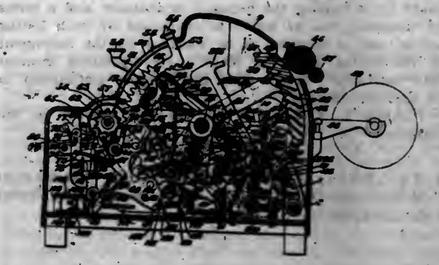
1,257,619. PORTABLE CRUSHER. CHARLES S. LINCOLN, Wauwatosa, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis., a Corporation of Delaware. Filed Nov. 21, 1914. Serial No. 873,666. (Cl. 193—6.)



1. In combination, a vehicle, material-supplying and receiving devices mounted upon and spaced apart longitudinally of said vehicle, a bucket elevator between said devices, said elevator comprising an upper sprocket, a lower sprocket mounted on a pivot arm and located when in operative position in proximity to the ground surface, and an endless carrier having substantially vertical stretches connecting said sprockets, means for moving said lower sprocket away from said material-supplying means to swing it up away from the ground for transportation, and means for driving said elevator through said lower sprocket.

2. In combination, a vehicle, material-supplying and receiving devices mounted upon said vehicle, a bucket elevator between said devices, said elevator comprising an upper sprocket, a lower sprocket located when in operative position in proximity to the ground surface, and an endless carrier having substantially vertical stretches connecting said sprockets, means for moving said lower sprocket independently of said upper sprocket and relatively to said material-supplying means and away from the ground for transportation, and means for driving said elevator through said lower sprocket.

1,257,620. COMBINED ADDING AND LISTING MACHINE. WALTER F. MCCALEB, Dallas, Tex. Filed June 3, 1915. Serial No. 31,809. (Cl. 235—60.)



1. In an adding machine, the combination with a series of pivoted, toothed sectors and means for manually turning each sector through any required degree of its total arc of movement, of a pivotally mounted accumulator, a main actuating shaft and a crank handle for turning the same, mechanism actuated by said shaft in the forward movement of the crank handle to draw said accumulator into operative engagement with the sectors, and in the return movement of the crank handle to move the accumulator out of engagement with said sectors, a pivotally-supported bar extending underneath all of said sectors, spring-controlled lever mechanism connected with the supports of said bar, and means carried by said shaft and adapted to engage said lever mechanism in the return movement of the shaft to raise said bar and thereby return the sectors to zero in advance of the disengagement of the accumulator from the sectors and then to release the same to permit the bar to be turned to normal position by said lever mechanism.

3. In an adding machine, the combination with a series of pivoted adding wheel sectors, each of which is manually movable through any required degree of its total arc of movement, of a main actuating shaft and a crank handle for turning the same, a pivotally-supported bar extending underneath all of said sectors, a toggle lever pivotally connected to the support of said bar, a contact member mounted on said toggle lever, a spring-controlled dog carried by said actuating shaft and movable in the forward movement of the crank handle to a position to engage said contact member and in the return movement of the crank handle to engage and straighten said toggle lever whereby to raise said bar and return the sectors to zero and then to release said contact member, and a spring for returning said toggle lever to its normal position.

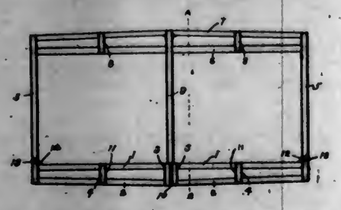
5. In an adding machine, the combination with a series of pivoted, toothed sectors and means for manually turning each sector through any required degree of its total arc of movement, of a pivotally mounted accumulator, a main actuating shaft and a crank handle for turning the same, a bar releasably engaging said accumulator, means actuated by the shaft for moving said bar to turn the accumulator into or out of operative relation with said sectors, a link pivotally connected at one end to said bar, and a depressible key lever pivotally connected to the other end of said link.

7. In an adding machine, the combination with a series of pivoted, toothed sectors and means for manually turning each sector through any required degree of its total arc of movement, of a plurality of means yieldably engaging the respective sectors for holding them in any position to which they may be moved, and means for simultaneously releasing all of said sectors.

10. In an adding machine, the combination with a series of pivoted adding wheel sectors, each of which is manually movable through any required degree of its total arc of movement, of a main actuating shaft, means for turning said shaft, a listing sector formed as a unitary part of and movable in unison with each adding wheel sector, a series of spring-controlled type bars slidably mounted in each listing sector, hammer mechanism including hammers adapted to coöperate with the various type bars of the respective listing sectors, means operated by said shaft for actuating the hammer mechanism, and a series of members, one of which is controlled by each listing sector and is adapted to be released by the movement of the listing sector to place a corresponding hammer into operative relation with the hammer mechanism to be actuated thereby.

[Claims 2, 4, 6, 8, 9, and 11 not printed in the Gazette.]

1,257,621. SHIP CONSTRUCTION. ALEXANDER MCDOUGALL, Duluth, Minn. Filed Oct. 9, 1916. Serial No. 124,525. (Cl. 114—79.)



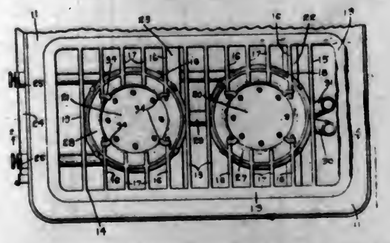
1. A ship's thwartship frame composed wholly of channel bars, the backs of which are riveted to each other, the lower horizontal portion of the frame consisting of two oppositely disposed sections, each section comprising an upper straight horizontal channel bar and a lower inclined straight channel bar spaced apart and united by short vertical channel bars, the upper horizontal portion of the frame consisting of a lower straight channel bar extending from side to side of the frame and two inclined channel bars placed end to end, spaced from and united with the lower straight channel bar and forming the upper member of said portion of the frame, and single vertical side members uniting the ends of said lower and upper portions, substantially as described.

3. The combination with a ship's hull substantially rectangular in cross-section, of thwartship frames comprising a lower truss and an upper truss each having straight horizontal inner chords and straight outer chords converging toward the inner chords from the center of the frame, single vertical members uniting the ends of the trusses and forming the sides of the hull, a single member uniting the centers of the trusses and short vertical members uniting the chords of each truss intermediate of the center and the ends thereof, substantially as described.

5. The combination with a ship's hull substantially rectangular in cross-section, the framing of which is composed chiefly of channel bars, and having hatches therein, of a plurality of fore and aft spaced channel bars intermediate of the hatches and upon which the upper deck is supported, a channel bar spaced below and parallel with one of the first mentioned channel bars and fixed thereto, channel bars spaced apart vertically and attached to each other forming the lower portion of the hull frame, a central single channel bar stanchion intermediate of each pair of hatches and attached at one end with its back against the backs of the two lower vertically spaced channel bars and at its opposite end with its back against the backs of the two upper vertically spaced channel bars and single channel bars at each side of the frame uniting the ends of the upper and lower portions thereof, substantially as described.

[Claims 2 and 4 not printed in the Gazette.]

1,257,622. WATER-HEATING DEVICE. CARLOS A. MCNEIR, Minneapolis, Minn. Filed June 2, 1916. Serial No. 101,274. (Cl. 126—53.)

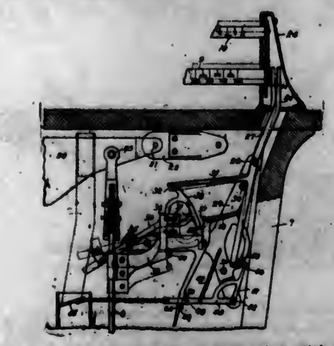


1. A water-heating device comprising a water-circulating member having a hollow ring portion elliptical in cross section and formed in the shape of the frustum of a cone, and means for holding the same positioned over the burner of a gas stove.

3. A water-heating device comprising a water-circulating member having a pair of hollow ring portions, a neck connecting said ring portions, a partition in said neck extending across both of said ring portions, a second partition extending across one of said ring portions opposite to the neck, and inlet and outlet pipes formed on said last-named ring member on opposite sides of said last-named partition, making a single circuitous passageway through the member, and means for attaching the same to the grate of a gas stove.

[Claim 2 not printed in the Gazette.]

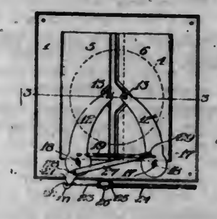
1,257,623. WEIGHING-SCALE. JOSEPH J. MANCEL, Chicago, Ill., assignor to Mills Novelty Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 7, 1917. Serial No. 206,039. (Cl. 194—47.)



1. In a weighing scale, the combination with weighing mechanism, of a member movable into and out of position for preventing the scale from weighing, a second member mounted to be movable and movable upon the imposition of a weight upon the scale, said first-named member when weight is applied to the scale extending into position for preventing the scale from weighing, a third, coin-controlled member adapted to be operated by the engagement therewith of a coin and when so operated causing said first-named member to shift to a position in which it does not interfere with the weighing operation, a fourth member adapted to engage said third member when the latter is actuated by a coin and hold said third member against return to normal position, means on said fourth member adapted to engage said second member when said fourth member is in position for holding said third member against return movement, and operating in the movement of said second member in either direction after the actuation of said third member by a coin, to release said third member from said fourth member and permit the latter to move to a position in which said first-named member interferes with the weighing operation, and means operating to hold the said means on said fourth member out of engagement with said second member during the movement of said second member when weight is applied to the scale previous to the engagement of a coin with said third member.

[Claims 2 to 8 not printed in the Gazette.]

1,257,624. PHOTOGRAPHIC SHUTTER. PAUL J. MARKS, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed July 27, 1916. Serial No. 111,621. (Cl. 95—57.)



1. In a photographic shutter, the combination with a shutter casing having an aperture and a folding flexible curtain having one end fixed to the casing at one side of the shutter aperture, of an actuator on the casing connected to the other end of the curtain to move it across the aperture.

6. In a photographic shutter, the combination with a shutter casing having an aperture and a pair of folding flexible curtains each having one end fixed at one side of the shutter aperture, and a stiffening device at the other free end, of an actuating lever for each curtain mounted on the casing, and a stud projecting from each lever and connected to the stiffening device of its respective curtain so that the general plane of the curtains and that of the levers are relatively offset, the levers being oppositely acting and one of the studs being adapted to act as a stop with which the stiffening device of the other curtain coöperates to limit the movement of the curtains toward each other as they pass across the aperture to close it.

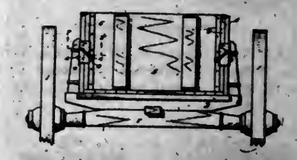
7. In a photographic shutter, the combination with a shutter casing having an aperture and a flexible curtain having a free end adapted to move back and forth across the shutter aperture, of an actuating lever on the casing connected to such free end of the curtain.

[Claims 2 to 5 not printed in the Gazette.]

1,257,625. END-GATE FASTENER. HENRY W. MAY, Henry, Ill. Filed May 31, 1917. Serial No. 171,843. (Cl. 21—21.)

1. In combination, with a wagon body having a side member and spaced cleats and an end-gate adapted to be positioned between the cleats, a fastening device therefor, including a substantially U-shaped member having one arm provided with resilient means, and another arm arranged to pass through the end-gate to hold it in locked position, said resilient means normally holding the fastening device in locked position and the arms of said U-shaped member extending substantially parallel to the side member of the wagon body.

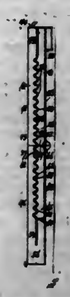
4. A device of the character described, including in combination, a housing adapted to be mounted on the rear end of the side member of a wagon body, securing bolts for said housing having their heads apertured and positioned on each side of the end-gate, a U-shaped locking element mounted in said housing having means for normally holding it in locked position in said apertures, and in an aperture in the end-gate.



7. A device of the character described including in combination, a housing adapted to be mounted on the rear end of the side member of a wagon body and to embrace the side member and rear end cleat, square-headed securing bolts for said housing passing through the end cleats and side member, said heads having apertures therethrough, a U-shaped locking element mounted in said housing having a spring on an arm to normally hold it in locking position, the other arm serving as the locking member and being adapted to pass through the apertures in the bolts and an alined aperture in the end-gate, a plate on the second cleat for one of the bolts, said housing and said plate having square apertures therethrough to receive the square heads of the bolts and hold them against rotation.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,257,626. FOLDABLE WASHBOARD. MARION T. MEAGHER, New York, N. Y. Filed July 24, 1916. Serial No. 110,891. (Cl. 68—29.)

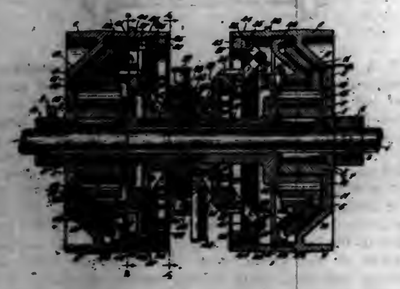


1. In a device of the class described, in combination, a pair of washboard members each having side sills, a corrugated operating surface secured to the side sills of each member, one of said corrugated surfaces being formed with a flat upper extension and the other with a lower flat extension, a flange secured rightangularly upon the upper edge of the sills of one member so as to project from both faces of the flat upper extension thereof, said flange being formed with a pair of parallel depending wings, and means for hingedly connecting the washboard members together with respect to each other so as to allow one member to swing to frictionally engage the wings and said right-angularly disposed flange so as to hold said washboard members together in folded relation.

2. In combination a pair of washboard members, each provided with a pair of parallel side sills, a corrugated operating surface connected to the side sills of each member and consisting of a plurality of folds, each fold having a slot, a rear wall secured between the side sills of

each member, a flange secured to the outer ends of the sills of one member and extending between the corrugated surface and rear wall thereof, a wall secured to the outer ends of the sills of the other member and extending between the corrugated surface and rear wall thereof, and hinges connecting said members together in foldable relation, the inner edges of each member being adapted to contact whereby a knockdown compartment is formed by the said surfaces, side sills flanges and rear walls of said respective members.

1,257,627. CLUTCH. CLYDE B. MITCHELLA, Akron, Ohio, assignor to William F. Warden, Cuyahoga Falls, Ohio. Filed Feb. 12, 1917. Serial No. 147,997. (Cl. 192—7.)



1. In a clutch, the combination with a driving and a driven element, of a pair of clutch members non-rotatable with respect to one element, a clutch member intermediate the former clutch members and non-rotatable with respect to the other element, a buttress member having screw threaded connection with one clutch member of the aforesaid pair whereby it may be moved toward and from the clutch face of said member, means for locking said buttress member in any adjusted position, the other clutch member of the aforesaid pair having an abutment portion that is opposed to the buttress member and having also a second abutment portion, a thrust member movable into engagement with the second abutment portion, and connections between said thrust member and the buttress member which connections are adapted to be moved into operative engagement with the other abutment portion by the movement of the thrust member into engagement with its respective abutment portion.

3. In mechanism of the character set forth, the combination of a shaft, an abutment thereon, a clutch member adjacent said abutment, a second clutch member slidable toward and from the first clutch member on the side thereof remote from the aforesaid abutment, means for holding said clutch members against relative rotation, a clutch member intermediate the former clutch members, a buttress member connected to the first clutch member and spaced from the side of the second clutch member remote from the first, a thrust member slidable longitudinally of the shaft toward and from the second clutch member, links pivotally connected to the buttress member, links pivotally connected to the thrust member, the free ends of the links of said members being pivotally connected together, and an antifriction device at the pivotal connection of said links which device is adapted to be moved into operative engagement with the second clutch member when the thrust member is moved in the direction thereof.

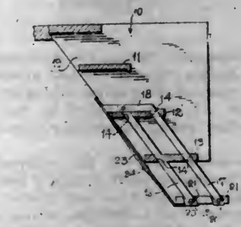
[Claims 2 and 4 not printed in the Gazette.]

1,257,628. PAPER BOTTLE. JAMES L. MURPHY, Detroit, Mich. Filed Dec. 28, 1916. Serial No. 139,329. (Cl. 229—65.)

A paper container having a bendable substantially non-elastic metal ring extending around the mouth portion thereof for holding said mouth portion normally open, said ring, when flattened, constituting means for holding opposed portion of the end of the mouth in contact, thereby to seal the container.



1,257,629. EXTENSIBLE CAR-STEPS. FRED C. NEUMAN, Michigan City, Ind. Filed Sept. 29, 1917. Serial No. 193,990. (Cl. 105—87.)

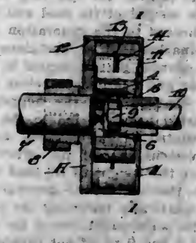


1. The combination with a car step including a plurality of permanent treads and side walls, certain of the permanent treads being upwardly and rearwardly slotted at their ends, of an extensible tread disposed below the lowermost permanent tread, upwardly and rearwardly extending pairs of bars attached at their lower ends to the extensible tread and passing upward through said grooves in the permanent treads, the outermost bar of each pair of bars being rearwardly bent and attached to the rearmost bar of each pair, and manually operable means for shifting the extensible tread upward or downward.

3. The combination with a car step including a plurality of permanent treads and side walls, certain of the permanent treads being upwardly and rearwardly slotted at their ends, of an extensible tread disposed below the lowermost permanent tread, upwardly and rearwardly extending pairs of bars attached at their lower ends to the extensible tread and passing upward through said grooves in the permanent treads, the outermost bar of each pair of bars being rearwardly bent and attached to the rearmost bar of each pair, crossed braces connected at their lower ends to the extensible tread and at their upper ends to the rearward extensions of said bars, an angular lever pivotally mounted upon the side wall of the car steps and extending up above the car platform, and a link pivoted to the lower end of the lever and extending upward and rearward and pivotally connected to one of said crossed braces.

[Claim 2 not printed in the Gazette.]

1,257,630. AUTOMATIC SPARK-ADVANCER. EDWARD C. NEWTON, Marysville, Cal. Filed Dec. 22, 1915. Serial No. 68,174. (Cl. 64—13.)



1. In combination, a pair of alined shafts, and means coupling the shafts comprising a member fixed on one shaft and extending laterally therefrom, a governor weight pivotally carried by the other shaft and having pivotal connection with said member, the latter having a seat for the weight in normal position, and means tending to return and hold the weight to its seat on said member.

2. In combination, a pair of alined shafts, and means coupling the shafts comprising a casing fixed on one shaft, a member fixed on the other shaft and extending laterally therefrom within the casing, a governor weight having a central groove and a transverse opening, a pin passing through the opening of the weight and pivotally securing the latter to the casing, said weight having pivotal connection with said laterally extending member, and a spring arranged in the groove of the weight and coiled about the pin with one terminal bearing outwardly against the casing for urging the weight to normal position.

4. In an apparatus of the character described, a power shaft and a magneto armature shaft axially in line, a star wheel fixed to the magneto shaft and having alternate segmental channels and seats formed in its peripheral edge, weights pivoted upon studs carried by the driving shaft and exterior to the star wheel, said weights normally engaging in their seats on the wheel and having lugs engaging the star wheel channels and acting centrifugally to cause the armature shaft to advance with the revolution of the driving shaft, and springs pressing upon the weights to return them to their seats and the armature shaft to normal relation with the power shaft.

[Claims 3, 5, and 6 not printed in the Gazette.]

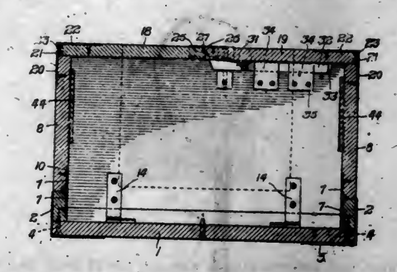
1,257,631. PAPER-CLIP. JENS P. NIELSEN and KARL K. NIELSEN, Chicago, Ill.; said Karl K. Nielsen assignor to said Jens P. Nielsen. Filed July 24, 1916. Serial No. 110,866. (Cl. 24—153.)



1. A paper fastener including a pair of ends equipped with opposed tang and aperture formations, the tang being pointed and substantially flat and adapted to enter the aperture, when the fastener is in use, the aperture presenting opposed side portions bowed toward each other and disposed for clamping portions of the papers between the tang and said bowed portions, the ends of the aperture presenting relatively wider portions into which thicker portions of the papers to which the fastener is affixed may be forced by the tang.

[Claims 2 and 3 not printed in the Gazette.]

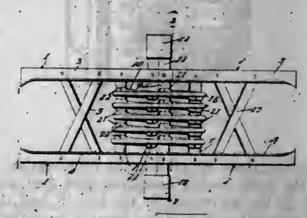
1,257,632. COLLAPSIBLE BOX. ANTON PAQUET and ADOLPH PAQUET, Chicago, Ill. Filed Aug. 21, 1913, Serial No. 785,834. Renewed Dec. 6, 1917. Serial No. 205,891. (Cl. 217—15.)



1. A folding box comprising a bottom member, narrow strips permanently secured to the side margins of the bottom and projecting upwardly therefrom, end members hinged to the ends of the bottom and adapted to be folded inwardly upon the bottom, side members hinged to the side strips and adapted to be folded inwardly upon the end members, cover members hinged to the side members and adapted to be folded outwardly upon the side members, said end members being elevated slightly above the bottom when in open position to leave intervening spaces, strips of beading secured to the bottom and located in said spaces, and reinforcing strips secured to the exterior of the end members and having their lower portions projecting below said end members and adapted to abut against the bottom when the box is open.

[Claim 2 not printed in the Gazette.]

1,257,633. AUTOMOBILE FENCE-CROSSING. LEWIS PENWELL, Helena, Mont. Filed Dec. 17, 1917. Serial No. 207,583. (Cl. 104—14.)



1. A device of the class described, comprising oppositely slanting tracks; and longitudinal cattle guards supported between the tracks on opposite sides of the apex defined by the tracks.

3. A device of the class described, comprising oppositely slanting tracks; transverse bars at the upper ends of the tracks; a connection uniting the bars; and a leg carried by the connection.

5. A device of the class described, comprising oppositely slanting tracks; transverse bars at the upper ends of the tracks; longitudinal cattle guards carried by the bars; a leg pivoted to one bar; and a connection uniting the bars, the connection engaging the leg to hold the same against pivotal movement.

[Claims 2 and 4 not printed in the Gazette.]

1,257,634. ANIMAL-SNARE. ALBERT M. PERRIN, Wilmington, Ohio. Filed Apr. 2, 1917. Serial No. 159,227. (Cl. 119—153.)

1. A device of the character described comprising a tubular extension rod having both ends open, a flexible wire having one end secured to one end of the said tubular rod and shaped to form a noose from which the said wire

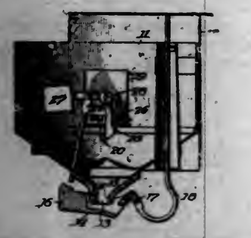
is extended longitudinally through the said tubular rod and projected beyond the opposite end thereof, a tubular handle attached to the said extended end of the wire, a coil tension spring mounted within the tubular rod and



having one end connected to the fixed end of the said flexible wire and the opposite end joined to the said wire at a point in spaced relation from the open end of the said tube and normally urging the said wire through the tube to maintain the said noose in expanded position.

[Claim 2 not printed in the Gazette.]

1,257,635. RESERVE-FEED ACETYLENE-GENERATOR. ALGERNON S. PHELPS, Chicago, and JAMES H. BIRCH, Geneva, Ill., assignors to Phelps Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 12, 1915. Serial No. 55,516. (Cl. 48—38.)



1. In an acetylene generator, the combination with the gas bell, the main carbid magazine, and feed mechanism controlled by the movement of the bell to feed the carbid from said magazine, of a carbid reserve magazine of relatively small capacity within the main magazine and having a tilting bottom, a latch normally holding the bottom in place, and means actuated by the descent of the bell beyond its normal feeding level only to release the latch.

2. In an acetylene generator, the combination with the gas bell, the main carbid magazine, and feed mechanism controlled by the movement of the bell to feed the carbid from said magazine, of a carbid reserve magazine of relatively small capacity within the main magazine and having a tilting bottom, a latch normally holding the bottom in place, and a rod connected with the latch and engaged by the feeding mechanism when the bell descends beyond its normal feeding level only to release the latch.

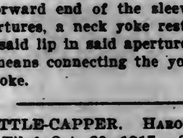
3. In an acetylene generator, the combination with the gas bell, the carbid magazine having a discharge opening, and a feed shoe arranged to swing across said opening to feed the carbid from the magazine, of a carbid reserve magazine within the main magazine and having an open bottom controlled by a valve, a latch normally holding the valve closed, and means actuated by the swinging of the feed shoe beyond the limit of its normal feeding movement to release the latch and open the valve.

7. The combination with an acetylene generator having a gas bell, of a pivoted plate mounted in the carbid hopper of the generator and adapted to retain a reserve portion of the carbid charged into the hopper after the main body of the carbid has been fed to the generation chamber, and means actuated by the gas bell under an abnormal downward movement thereof for effecting the tilting of said plate under the weight of its load and delivering the reserve charge thereon to the generation chamber.

8. The combination with an acetylene generator having a gas bell, of a pivoted plate mounted in the carbid hopper of the generator and adapted to retain a reserve portion of the carbid charged into the hopper after the main body of the carbid has been fed to the generation chamber, means actuated by the gas bell under an abnormal downward movement thereof for effecting the tilting of said plate under the weight of its load and delivering the reserve charge thereon to the generation chamber, and means for automatically restoring the plate to horizontal position upon the subsequent rise of the gas bell.

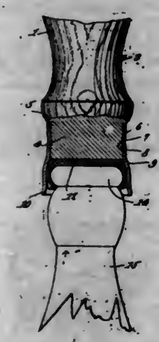
[Claims 4 to 6 and 9 to 12 not printed in the Gazette.]

1,257,636. NECK-YOKE ATTACHMENT. CHARLES L. POPE, Kimberly, Idaho. Filed July 2, 1917. Serial No. 178,299. (Cl. 21—92.)



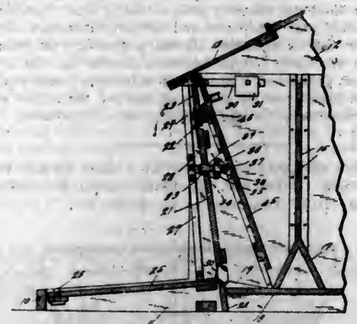
A device of the character described, embodying a sleeve to fit on the terminal of a tongue, the forward end of the sleeve having an outstanding arched lip provided with a pair of apertures in its upper portion, a web connecting said lip and forward end of the sleeve and located between said apertures, a neck yoke resting on the sleeve, links engaging said lip in said apertures and attached to the yoke, and means connecting the yoke with the sleeve in rear of the yoke.

1,257,637. BOTTLE-CAPPER. HAROLD G. RICE, Portland, Oreg. Filed Oct. 29, 1917. Serial No. 199,105. (Cl. 113—2.)



A bottle capper comprising a bar-like handle sufficiently short to be manipulated in the hand of an operator, the handle being reduced in diameter to form a stem and to form a circumscribing shoulder; and a thimble surrounding the stem and abutting at its inner end against the shoulder, the outer end of the thimble being extended beyond the outer end of the stem, the thimble being circumferentially grooved to form an internal rib engaging the stem, the thimble being laterally flared in alinement with the outer end of the stem to receive a bottle-cap, and being outwardly flared at its extreme end to for ma cap-receiving mouth.

1,257,638. HOG-FEEDER. JOHN E. ROBBINS, Greensburg, Ind. Filed Aug. 31, 1917. Serial No. 189,051. (Cl. 119—55.)



2. A feeding device, comprising a movable platform operable downward by the weight of an animal but tending to move upward, a feed bin provided with an inwardly opening door swinging on a horizontal axis, connections between said door and said platform so that the door is swung inwardly open when the platform is depressed, and a guard plate carried by said moving platform and projecting below said swinging door into the bin.

3. A feeding device, comprising a feed bin provided at the front with an upwardly projecting bottom board and with a door hingedly mounted above said bottom board on a horizontal axis and opening inward, a movable platform operable downward by the weight of an animal but tending to move upward, connections between said board and said platform so that the door is swung inwardly open and the platform is depressed, and a guard plate carried by said platform and projecting over said upwardly projecting bottom board, so that when the platform is depressed said guard plate engages said bottom board to prevent feed from falling down between the bottom board and the platform.

[Claims 1 and 4 to 6 not printed in the Gazette.]

1,257,639. CLOTHES-PIN. RUBEN E. ROSENBERGER, Dewey, Ariz. Filed Aug. 11, 1916. Serial No. 114,424. (Cl. 24—252.)

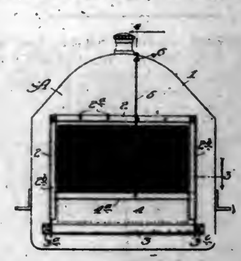


A clasp comprising coacting relatively movable jaws, each formed of a strand of wire U-shaped, a pair of plates, each having opposite edges extending around the terminals of one of the jaws to form a finger grip, apertured ears formed on said plates at a point intermediate the ends of the jaws, a pintle entering said ears to pivot the jaws for relative movement, and a flat spring extending upon itself at a point intermediate its ends and engaged around the pintle, with the terminals of said spring extending in opposite directions to engage the inner side of the plates whereby to retain the bight portion of the jaws in clamped engagement.

1,257,640. RADIATOR-PROTECTOR. JESSE A. ROTHSCHILD, Chicago, Ill. Filed Jan. 4, 1917. Serial No. 140,597. (Cl. 257—132.)

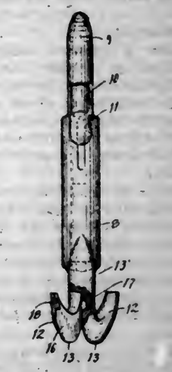
1. In a device of the character set forth, the combination of a radiator cover composed of fabric and having a flap embracing the top and lateral edges of the radiator, a frame applied to and supported by said fabric and having lateral members provided with guide-channels, a spring-actuated roller carried by said frame, a curtain attached to said roller and movable in said guides, and actuating means for said curtain extending to a point accessible to a person in the car.

2. In a device of the character set forth, the combination of a flexible radiator cover having a flap adapted to embrace the top and lateral edges of the radiator and having also a ventilator opening, a rectangular frame secured



to said cover at the margins of said opening and provided with vertical guides, a spring-actuated roller mounted on one end of said frame, a curtain attached to said roller, and operating means for said curtain extending into the body of the automobile.

1,257,641. SNAP-HOOK. FRANK E. SCHARTOW, Racine, Wis., assignor of one-half to Rupert A. Nourse, Milwaukee, Wis. Filed Dec. 19, 1913. Serial No. 807,624. (Cl. 24—231.)



A snap hook comprising in part a shank portion provided on one end with an integral half circular portion and with half circular side lapped bendable tongues, each of said tongues being approximately one half the thickness of the half circular portion and forming a continuation from opposite ends thereof, the inner faces of said tongues being flat and bearing against each other and each tongue having a projection near one end and a recess adjacent its junction with the half circular portion to engage with a similar recess and projection on the other tongue to lock said tongues together, said tongues being spaced from each other until brought together to form an eye with the integral half circular portion.

1,257,642. BUTTON. ERNEST D. SIMONS, New Haven, Conn., assignor to Scoville Manufacturing Company, Waterbury, Conn., a Corporation of Connecticut. Filed Dec. 1, 1917. Serial No. 204,879. (Cl. 24—90.)

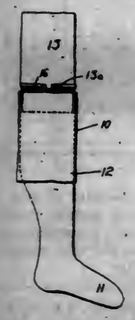


1. A button, having a back provided with separate eye-receiving holes pierced therein, and a wire eye having its

ends respectively inserted in said holes and bent down upon the back on the inside and clenched thereon by the metal of the back.

[Claims 2 to 5 not printed in the Gazette.]

1,257,643. HOSIERY. ARISSA SMITH, Los Angeles, Cal. Filed Mar. 8, 1917. Serial No. 153,316. (Cl. 2—23.)



2. In combination, a stocking body, and an interior tube within the body attached at its lower edge to the stocking body at a point below the knee portion of the body, being otherwise free from the body, the lower end of the tube being contracted.

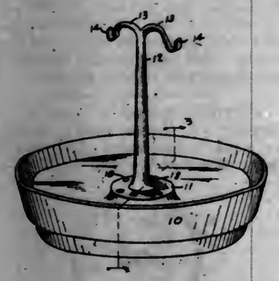
3. In combination, a stocking body of continuously knitted material, and an interior tube within the body attached at its lower end to the body at a point below the knee portion of the body, being of the same character of knitted material as the stocking body and the threads of the body and tube being non-continuous of each other, the lower end of the tube being contracted to prevent it being drawn above the knee.

5. In combination, a stocking body of continuously knitted material, and an interior tube attached at its lower end to the body at a point below the knee portion of the body, the tube being also of knitted material, of smaller circumferential size than the body, and its threads being dropped at the point of attachment to the body, the lower end of the tube being contracted to prevent it being drawn above the knee, and a contracting band encircling the lower end of the tube.

6. A stocking protector, embodying a tube of elastic material adapted to be drawn upon the leg, and non-elastic contraction means at the lower end of the tube to prevent the lower end from drawing above the knee.

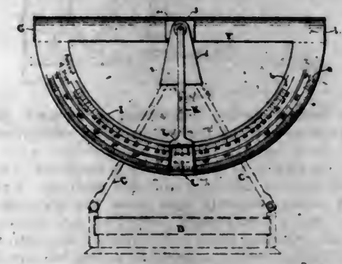
[Claims 1, 4, 7, and 8 not printed in the Gazette.]

1,257,644. NUT-BOWL. HULBERT J. SMITH, Indianapolis, Ind. Filed May 17, 1915. Serial No. 28,641. (Cl. 65—15.)



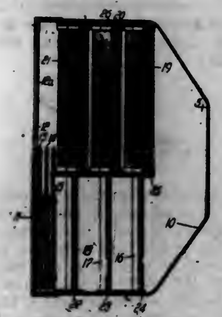
The combination of a nut bowl having an upwardly extending boss at its axial center, said boss having a central recess in its upper end and said bowl having a central recess in its lower face, a post having a shank at its lower end adapted to enter the central recess in said boss, a plate entered in the recess in the lower face of the bowl, means to hold the plate in said recess, a screw extending through said plate and bowl and threaded into said shank, the upper face of said boss having a plurality of radially arranged vertically extending holes therein for the reception of nut picks, and horizontally extending arms integral with the upper end of said post having their free ends formed into hooks for the reception of nut crackers.

1,257,645. COMPASS-ALTIMETER. KAN SMITH, Portland, Oreg. Filed Dec. 15, 1916. Serial No. 137,278. (Cl. 33—70.) (Dedicated to the public.)



A compass altimeter attachment, comprising a supporting member provided with sockets adapted to receive the sight vanes of a surveying instrument, a sighting device pivotally mounted on said member and having a graduated vertical arc extending therefrom, an indicator pivotally connected to said standard and movable over said arc, and a device for frictionally clamping said arc and indicator with respect to each other.

1,257,646. AUTOMOBILE-SIGNAL. THOMAS E. SMITH, Los Angeles, Cal. Filed Jan. 8, 1917. Serial No. 141,077. (Cl. 40—52.)

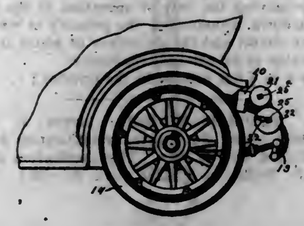


1. In a device of the class described, a case, a horizontal frame piece extending across the intermediate part of the case, electro-magnets mounted on the frame piece, armatures for the magnets extending below the frame piece, vertically movable signal members connected with the armatures and standing normally substantially below the frame piece, a lamp, a switch mounted on the frame piece and adapted to be actuated by the signal members when raised, and a circuit including the switch and lamp.

2. In a device of the class described, a case, a horizontal frame piece extending across the intermediate part of the case, solenoids mounted on and above the frame piece, cores for the solenoids normally extending down below the frame piece, frames attached to the lower ends of the cores, signal members attached to the frames, a switch mounted on the frame piece and adapted to be engaged and actuated by the frames when raised, and a lamp controlled by the switch.

3. In a device of the class described, a case, a horizontal frame piece extending across the intermediate part of the case, solenoids mounted on and above the frame piece, cores for the solenoids normally extending down below the frame piece, frames attached to the lower ends of the cores, signal members attached to the frames, a switch mounted on the horizontal frame piece comprising relatively movable and stationary members, the movable member having downward projections adapted to be engaged by the several frames at the lower ends of the cores when the cores and frames are raised, so that the raising of any one of the frames actuates the switch, and a lamp controlled by the switch.

1,257,647. TIRE-CHAIN CONTAINER. FRED C. SPAHN, Schleswig, Iowa. Filed June 18, 1917. Serial No. 175,536. (Cl. 242—107.)



1. A tire-chain container, comprising a housing adapted to be mounted on a motor car, there being a drum provided in said housing, and means for winding a tire-chain on said drum.

3. A tire-chain container, comprising a housing adapted to be mounted on a motor car, there being a drum provided in said housing, spring-actuated means for winding a tire-chain on said drum, and locking devices adapted to prevent rotation of said drum in either direction.

4. A tire-chain container, comprising a housing adapted to be mounted on a motor car, there being a drum provided in said housing, and means for winding a tire-chain on said drum, there being detachable connections between said tire-chain and drum.

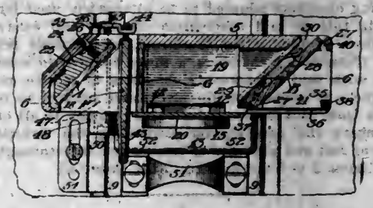
6. A tire-chain container, comprising a suitable pivotal support, housings mounted on said support parallel with each other, said housings being formed with communicating slots, drums mounted in said housings and spring-actuated in one direction respectively, a web secured to said drums and adapted to be wound on them alternately, and means for detachably connecting a tire-chain to one of said drums.

8. A tire-chain container, comprising a suitable pivotal support, housings mounted on said support parallel with each other, said housings being formed with communicating slots, drums mounted in said housings and spring-actuated in opposite directions, a web secured to said drums and adapted to be wound on them alternately, and means for detachably connecting a tire-chain to one of said drums, the spring in one of the housings being materially superior in strength to the spring in the other housing.

[Claims 2, 5, 7, and 9 to 12 not printed in the Gazette.]

1,257,648. FOCUSING-FINDER FOR PHOTOGRAPHIC CAMERAS. CHARLES F. SPEIDEL, ROBERT KROEDEL, and WILLIAM A. RIDDELL, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed Aug. 17, 1916. Serial No. 115,544. (Cl. 95—44.)

1. In a focusing finder, the combination with a camera bed and a lens carriage movable thereon, of optical elements on the carriage for producing a two-part image of an object, a pair of lenses also mounted on the carriage and arranged to bend the rays of one part of the image into register with those of the other when the lenses are moved relatively, and means for moving the lenses relatively through the relative movement of the carriage and bed.

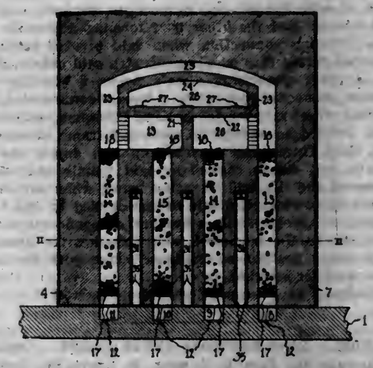


3. In a focusing finder, the combination with a camera bed and a lens carriage movable thereon and having a mirror seat at each side, a lens seat between the mirror seats and a guide adjacent to the lens seat extending longitudinally of the bed, of mirrors in the mirror seats for producing a two-part image of an object, a pair of lenses for deflecting the rays from one mirror into register with those from the other when the lenses are moved relatively, one of which lenses is arranged in the lens seat and the other of which is movable in the guide, and means for moving the lens in the guide through the relative movement of the carriage and bed.

7. In a focusing finder, the combination with a camera bed and a lens carriage movable thereon and having two separated guideways extending longitudinally of the bed, of optical elements on the carriage for producing a two-part image of an object, a fixed lens mounted on the carriage and a relatively movable lens slidable in one guideway, said lenses being arranged to bend the rays of one part of the image into register with those of the other part when the lenses are moved relatively, a guide bar on the movable lens slidable in the other guideway, a spring in the latter acting upon the guide bar to operate the movable lens in one direction relatively to the fixed lens, a stop on the bed and a device coöperating with the stop to move the movable lens relatively to the fixed lens in the other direction as the carriage travels beyond a predetermined point on the bed.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,257,649. FURNACE. FRANK W. STEERE, Detroit, Mich. Filed July 31, 1915. Serial No. 42,889. (Cl. 263—42.)
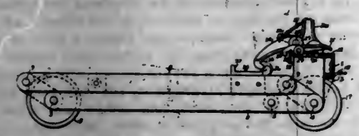


1. A muffle having a stock receiving opening at one end thereof and a discharge opening at its opposite end, a receptacle in communication with the discharge opening of said muffle adapted to receive stock therefrom, and means for heating said muffle by products of combustion and for discharging the products of combustion into said

receptacle after having given off their heat to the muffle to prevent oxidization of stock received therein from the muffle.

7. In a furnace, a muffle adapted to receive stock at one end thereof and discharge stock at the opposite end, a combustion chamber adjacent said muffle, sets of regenerating chambers adapted to be alternately used for supplying fuel to said combustion chamber and exhausting products of combustion therefrom, air passages between said regenerating chambers, a tower adapted to communicate with said regenerating chambers to receive exhaust products of combustion therefrom and adapted to receive stock from said muffle, and a valve common to all of said chambers and passages for controlling the direction of flow of fuel and products of combustion therethrough.

[Claims 2 to 6 not printed in the Gazette.]

1,257,650. LIFTING-TRUCK. WILLIAM STUEBING, JR., Cincinnati, Ohio, assignor, by mesne assignments, to The Stuebing Truck Company, a Corporation of Ohio. Filed Feb. 18, 1915. Serial No. 9,122. (Cl. 254—10.)



1. In an elevating truck, in combination, a base, an elevating platform, a front steering wheel having a swivel connection with said base, a steering handle pivoted to rock upon the free upper part of said swivel and having an unlimited range of steering movement, and means for connecting said platform to said handle to elevate said platform comprising a member carried by one of said parts and tending normally to remain in or to return to a position in which it will not interfere with the movement of said handle, the connections between said member and the other part being constituted by coöperating engaging surfaces on said member and said part so arranged with respect to the direction of elevating movement as to form a positive platform elevating connection.

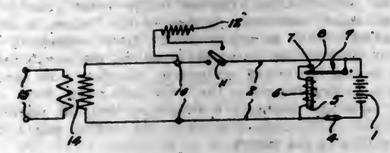
5. In a lifting truck, the combination with a base, an elevating platform and a handle lever pivotally arranged for steering movement, and means for connecting said platform and handle lever to elevate the platform comprising a pivoted member carried by one of said parts, a spring tending to normally hold said pivoted member in a position in which it will not interfere with the movement of said handle, the connections between said pivoted member and the other part forming a positive platform elevating connection when said pivoted member is manually forced into engagement with said other part.

6. A truck comprising a main frame, a steering wheel member connected therewith, a handle connected to said steering wheel member for guiding the same, said handle being pivoted to swing, an elevating frame mounted on said main frame and movable up and down relatively thereto, and means carried by said handle and adapted to engage and lift said elevating frame when said handle is moving downwardly, said means carried by the handle tending to automatically move out of connected relation when the handle is moved in a direction for disengagement, into a position of non-interference with the handle when used for steering.

[Claims 2 to 4 not printed in the Gazette.]

1,257,651. LINE-TESTING INSTRUMENT. OSCAR F. TALLMAN and FRED E. HUBERT, St. Louis, Mo., assignors to W. N. Matthews and Brother, Inc., St. Louis, Mo., a Corporation of New Mexico. Filed July 20, 1914. Serial No. 851,919. (Cl. 175—183.)

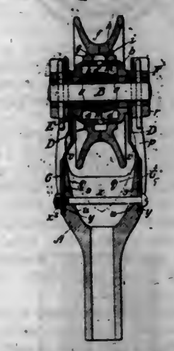
1. An inspecting instrument comprising a battery, a slowly operating vibrator for short-circuiting the same, a low resistance single wound coil for operating the vibrator, a variable resistance adapted to be cut into and out of the battery circuit within the instrument, means whereby an external conductor may be connected in the battery circuit, and a transformer, the primary of which is connected in the battery circuit and the secondary of which is arranged for connection to an external conductor.



2. In a testing instrument for line inspection, a battery, a battery circuit adapted to be energized therefrom and including means whereby an external conductor may be connected therein, a vibrator adapted to short-circuit the battery, a shunt coil for operating the same, means for selectively varying the rate of operation of the vibrator, and a step-down transformer, the primary of which is in the battery circuit and the secondary of which is adapted for connection to an external conductor.

[Claims 3 to 5 not printed in the Gazette.]

1,257,652. TROLLEY-WHEEL. LEWIS J. TETLOW, Springfield, Mass. Substitute for application Serial No. 829,502, filed Apr. 4, 1914. This application filed Nov. 21, 1917. Serial No. 203,276. (Cl. 64—26.)



3. A trolley wheel comprising a hub portion made with a lubricant chamber therein, and having an opening leading inwardly from said chamber to the central opening thereof, an annular bushing in said hub made with slots through its intermediate portion, and extending from its periphery to the bore thereof, and having peripheral grooves intersecting the slots adjacent the ends thereof, an axle fitting through the bushing, members of absorbent material in said slots of the bushing for conducting lubricant from the chambered hub to the axle, and strands encircling the bushing, sunk within the annular grooves thereof, and passed through end portions of the absorbent members.

[Claims 1, 2, and 4 not printed in the Gazette.]

1,257,653. COLLAR-BUTTON. NELSON E. THURSTON, Niagara Falls, N. Y. Filed Apr. 17, 1917. Serial No. 162,744. (Cl. 24—90.5.)



2. A button comprising a base, a standard thereon having a portion bent at right angles and tapering to a point, an arm pivoted to the base and having a portion bent at right angles, an I-bolt carried by said bent portion and a coil spring on the bolt for holding the eye of the bolt in engagement with the tapered portion of the standard.

[Claim 1 not printed in the Gazette.]

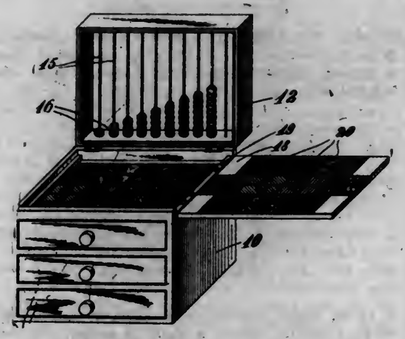
1,257,654. RAISED-STAMP TOOL. LIONEL JOHN VARGA, Dallas, Tex. Filed Dec. 1, 1916. Serial No. 134,360. (Cl. 41—1.)



1. A tool of the class described having an outwardly beveled rib provided with a roughened face adapted to form a back-ground, there being a projection within the said rib, adapted to form a design.

[Claim 2 not printed in the Gazette.]

1,257,655. EDUCATIONAL APPARATUS. EMMA WALDEN, New York, N. Y. Filed May 24, 1917. Serial No. 170,577. (Cl. 35—2.)

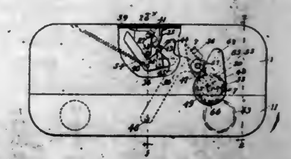


4. An educational block for teaching numerals comprising a plurality of rectangular elements having different colors upon each of their faces and bearing portions of a numeral characterized by a definite color, so that when correctly assembled the blocks will show a complete numeral upon a background of an assigned distinctive color unlike that of the other faces.

5. An educational device comprising a plurality of cubical elements having a significant character disposed upon each of its several surfaces, a receptacle adapted to contain the same, a hinged cover engaged with said receptacle a tray removably engaged therewith, and a plurality of plates engageable with said tray, each of said plates having a recess receptive of a predetermined number of said blocks and bearing the representation of an object to be spelled.

[Claims 1 to 3 and 6 not printed in the Gazette.]

1,257,656. CAMERA. WILLIAM A. WARMAN, New York, N. Y., assignor to Keller Mechanical Engraving Company, Brooklyn, N. Y., a Corporation of New York. Filed Mar. 29, 1916. Serial No. 87,416. (Cl. 95—16.)



1. In a film camera, film supporting mechanism; a winding member adapted to operate said supporting mechanism to advance the film; means for exposing the film to the action of light; a releasing member for controlling said exposing means; and a movable guard adapted to coöperate with said winding and releasing members to permit one only of said members to be operated at a time.

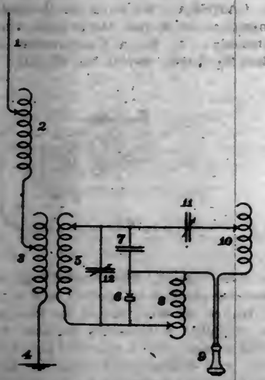
4. In a film camera, a suitable casing; a film supporting mechanism located within said casing; a winding member operable from without the casing and adapted to operate said film supporting mechanism to advance the film; means for exposing the film to the action of light; a releasing member operable from without the casing for controlling said exposing means; and a movable shield located without the casing and adapted to be moved into positions to overlie either said winding or said releasing member.

10. In a film camera, a suitable casing having an opening in its front wall; a reciprocating slide having an opening adapted to register with the opening in said casing; film supporting mechanism located within said casing; a winding member operable from without the casing and adapted to operate said film supporting mechanism to advance the film; a pivotally supported hollow swinging member having a slot adapted to move adjacent the film; a spring and connections for moving said swinging member; holding means engaging said swinging member and adapted to lock the same against motion; a releasing member operable from without the casing engaging said holding means and adapted to release said swinging member and permit said spring to act; a shield located without the casing and movable into positions to overlie either said winding member or said releasing member; mechanism intermediate said shield and said slide and through which motion is communicated to said slide as said shield is moved; and setting mechanism intermediate said swinging member and said winding member and through which said swinging member is moved against the action of said spring as said winding member is operated.

21. In a film camera, a suitable casing having an opening in its front wall; a reciprocating slide having an opening adapted to register with the opening in said casing; film supporting mechanism located within said casing; a pivotally supported hollow swinging member having a slot adapted to move adjacent the film; a pivotally supported frame; toothed members carried by said swinging member and frame and in engagement with one another whereby said member and frame move in opposite directions; means for moving said swinging member into a set position; means for releasing said swinging member; a spring for moving said swinging member to make an exposure; a latch for catching said frame and holding the parts in the position they assume at the end of an exposure; and means operated by said slide for releasing the parts preparatory to resetting them to make a second exposure.

[Claims 2, 3, 5 to 9, 11 to 20, and 22 to 24 not printed in the Gazette.]

1,257,657. RECEIVER OF ELECTRICAL OSCILLATIONS. ROY A. WEAGANT, Roselle Park, N. J., assignor to Marconi Wireless Telegraph Company of America, a Corporation of New Jersey. Filed June 18, 1914. Serial No. 845,761. (Cl. 250—20.)

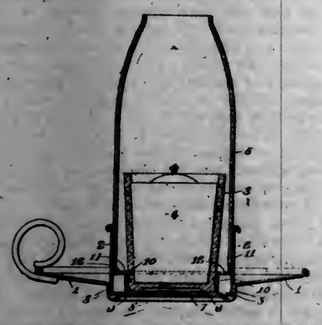


1. In a receiver of electrical oscillations, a secondary circuit including a circuit tuned to the group frequency of the received oscillations, and containing a detector and an indicating device, in combination with an inductance in shunt with the detector and in series with the indicating device.

2. In a receiver of electrical oscillations, a secondary circuit including a circuit tuned to the wave frequency of the received oscillations, and a circuit tuned to the group frequency of the received oscillations, and containing a detector and an indicating device, in combination with an inductance in shunt with the detector and in series with the indicating device.

[Claims 3 and 4 not printed in the Gazette.]

1,257,658. CANDLE-LAMP. HAROLD H. WILL, Syracuse, N. Y., assignor to The Will & Baumer Co., Syracuse, N. Y., a Corporation of New York. Filed Oct. 1, 1915. Serial No. 53,544. (Cl. 240—13.)

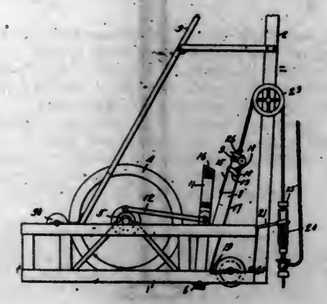


1. A candle lamp comprising a base including an upright wall inclosing a candle receiving space, an encompassing chamber located within the upright wall at the lower end thereof and forming a socket of less diameter than said wall, the chamber being formed with air inlets and outlet openings respectively on the exterior and on the interior of said wall, and a candle having its lower end located within the socket encompassed by said chamber and a chimney supported by said upright wall above said chamber, substantially as and for the purpose described.

2. A candle lamp comprising a base formed with a depression, a cup formed with a bottom, the cup having its lower portion fitted to and held in the depression, a detachable candle holder, and means projecting from the bottom of the cup and spaced apart from the circumferential wall of the cup for detachably engaging the candle holder and holding the same substantially centrally relatively to the cup and providing an air space around the holder, substantially as and for the purpose specified.

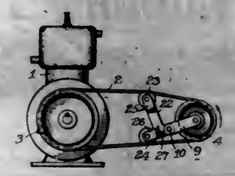
[Claims 3 to 6 not printed in the Gazette.]

1,257,659. WELL-DRILL. THOMAS A. WILLIAMS, Elkins, N. Mex. Filed Aug. 16, 1916. Serial No. 115,245. (Cl. 255—11.)



In a well drill, the combination of a frame, a rocker member pivoted to the frame and extending upwardly therefrom and including a pair of spaced bars, a locking member pivoted to said frame and adapted to swing between the bars of said rocker member and having a cam at its upper end, a keeper pivoted between said bars and adapted to engage over said cam and retain the locking member in coöperative relation with said rocker member, a spring connected to said keeper and to one of said bars for normally retaining the keeper in operative position, a fly wheel, a pitman connecting the locking member and fly wheel, and a cable extending from the upper end of the rocker member.

1,257,660. TRANSMISSION MECHANISM. GEORGE M. WILLIS, Chicago, Ill., assignor of one-half to Charles A. Brown, Hinsdale, Ill. Filed June 12, 1914. Serial No. 844,605. (Cl. 64—5.)



1. In an engine starting mechanism, an engine having a shaft, a starter having a shaft, a pulley attached to the engine shaft, a pulley attached to the starter shaft, a belt connecting said pulleys and automatic means for tightening the belt when the starter drives the engine, and for releasing the tension on the belt when the engine drives the starter.

3. In an engine starting system, a starter shaft, a pulley upon said shaft, an engine shaft and a pulley mounted thereupon, a belt connecting said pulleys, a lever automatically operated when the starter drives the engine for tightening the belt between said pulleys, said lever having operating arms of different lengths.

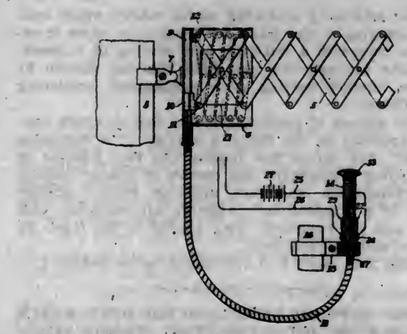
6. In an engine starting system, a starter shaft having a pulley thereupon, an engine shaft having a pulley mounted thereupon, a belt connecting said pulleys, a lever having arms of different length pivoted at one end to a fixed point and having a roller at one point adapted to bear against one span of said belt when the said span is under tension and means connected to said lever for causing the other span of said belt to be tightened when the said first span is under tension from driving and a projection on said lever adapted to engage the fixed support when said other span is under tension from driving.

7. In an engine starting system, a starter shaft, a pulley thereupon, an engine shaft, a pulley mounted thereupon, both of said pulleys bearing tapered grooves, a tapered chain belt adapted to fit said grooves connecting said pulleys, a lever having arms of different length pivoted at one end to a fixed point and having a roller at one point bearing against one span of said belt when the said span is under tension, and means connected to said lever for causing the other span of said belt to be tightened when the said first span is under tension from driving.

10. In a starting system, a starting shaft, bearing a pulley, an engine shaft bearing a pulley, a belt connecting said pulleys, a belt tightener having a roller bearing against the taut span of the belt when the starter drives the engine, an arm connected to said roller and bearing a second roller for tightening the loose span of the belt, said rollers being out of contact with both spans of said belt when the engine drives the starter.

[Claims 2, 4, 5, 8, and 9 not printed in the Gazette.]

1,257,661. SIGNAL. ALFRED E. WITTIG, Rochester, N. Y. Filed Jan. 7, 1916. Serial No. 70,770. (Cl. 116—31.)

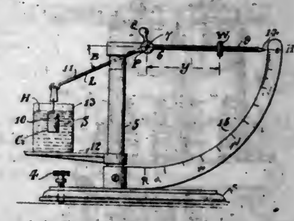


1. The combination of an extensible signaling arm, a casing adapted to contain the same in its retracted position and having apertures in opposite walls, means for extending and retracting said arm, a bracket adapted to support the casing upon the vehicle, and an electric light attached to the bracket to one side of the casing and having a reflector arranged to throw light both outwardly on the signaling arm when extended, and through the apertures in the casing.

2. The combination of an extensible signaling arm, a casing adapted to contain the same in its retracted position and having apertures in opposite walls filled with colored glass, means for extending and retracting said arm, a bracket adapted to support the casing upon the vehicle, and an electric light attached to the bracket to one side of the casing and having a reflector arranged to throw light both outwardly on the signaling arm when extended, and through the glass in the apertures in the casing.

1,257,662. GRAVITOMETER. PHILIP E. YOUNG, Fairhaven, Mass. Filed Mar. 10, 1915. Serial No. 13,491. (Cl. 265—44.)

1. An instrument for determining the specific gravities of liquids by the sinker method comprising a co-tangent balance having a beam fulcrumed at its center of gravity and adapted to have a sinker suspended from one arm thereof, a weight movable on the other arm thereof toward and from the fulcrum, a scale for indicating the angular movements of said beam under the buoyant effect of the sinker when submerged in a liquid, said scale being graduated in terms indicating the specific gravity of the liquid in which the sinker is submerged.



5. A device of the class described, including a balance beam comprising an arm adapted to have a sinker suspended therefrom, which sinker is adapted to be submerged in different liquids, and a weight arm having a counterbalancing weight mounted thereon adjustable to and from the fulcrum, an additional weight acting on the side of the balance having the weight arm tending to counteract the weight moments of the sinker on the other arm, a pointer for indicating the angular movement of said balance under the buoyant effect of the displaced liquids on the sinker, a scale for said pointer, said scale being graduated in terms to indicate the specific gravity of the liquids in which the sinker is submerged.

6. A device of the class described, including a balance beam comprising an arm adapted to have a sinker suspended therefrom, which sinker is adapted to be submerged in different liquids and a weight arm having a counter-balancing weight mounted thereon and adjustable to and from the fulcrum of the balance, said weight arm being graduated to indicate specific densities of the liquids in which the sinker is submerged, said weight constituting a pointer for said graduations and a scale having a balancing mark thereon for indicating the position of the beam when the turning moments about the fulcrum are balanced.

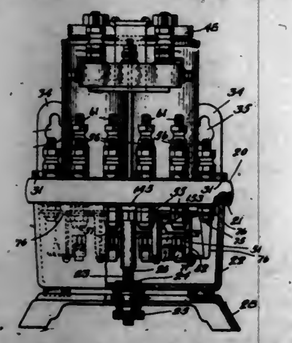
10. An instrument for determining the specific gravities of liquids by the sinker method comprising a co-tangent balance having a beam fulcrumed at its center of gravity and adapted to have a sinker suspended from one arm thereof, a weight movable in the other arm thereof toward and from the fulcrum, said arms being at an obtuse depending angle to each other, a scale for indicating the angular movements of said beam under the buoyant effect of the sinker when submerged in a liquid, said scale being graduated in terms indicating the specific gravity of the liquid in which the sinker is passing from its position with the sinker in one liquid ranged so that the angle of movement of the pointer in passing from its position with the sinker in one liquid of specific gravity H to its position when the sinker is in another liquid of specific gravity g is the angle whose tangent is $\frac{g-H}{G-g}$ times the co-tangent of the supplement of the depending angle between the arms of the balance.

[Claims 2 to 4, 7 to 9, and 11 not printed in the Gazette.]

1,257,663. RELAY. ALFRED A. ZIEGLER, Boston, Mass., assignor to United Electric Apparatus Co., Boston, Mass., a Corporation of Massachusetts. Filed Jan. 8, 1913. Serial No. 740,775. (Cl. 175—281.)

1. In a relay, a housing for the armature and relay contact-members comprising an insulating carrying-plate and a globe tightly engaging the underside of said insulating-plate, a metallic-plate secured to the underside of said insulating-plate having means for pivotally supporting the armature and movable relay contact-members, and having a forward extension overlying the center of the insulating-plate, and a center-bolt passing through the in-

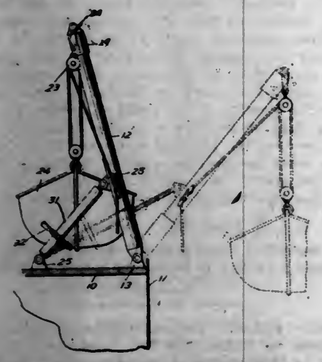
sulating-plate and metal-plate and globe, and clamping-means associated with said bolt for connecting one end thereof with the insulating-plate and metal-plate and other clamping-means associated with said bolt for connecting its other end with the globe.



2. In a relay, a housing for the contact-members consisting of a carrying-plate, a glass globe engaging the under side of said plate and a center-bolt extended through holes in said plate and globe, a sleeve extended through the hole in the globe having a flange at each end, its inner flange engaging the interior of the globe, the threaded end of said bolt extending through said sleeve, and a nut engaging said threaded end having a flanged neck to engage the outer flange on the sleeve, and washers interposed between said neck and the globe, substantially as described.

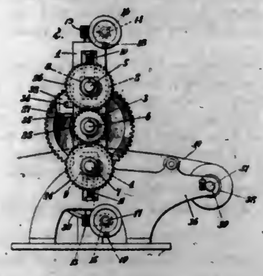
3. In a relay, a housing for the armature and relay contact-members consisting of a carrying-plate and a glass-globe engaging the under side of said plate, a center-bolt extended through said plate and globe, for securing them together, the end of said bolt projecting through the bottom of the globe, and a supporting-stand for the relay arranged on said projecting end of the bolt, said stand having seats at the corners on which the corners of the globe rest.

1,257,664. DAVIT. WILLIAM B. ASHE, Hampton, Va. Filed Mar. 23, 1917. Serial No. 157,046. (Cl. 9—22.)



A ship davit including an arm, a sleeve casting to receive the lower end thereof, a pair of spaced ears formed on said casting, a plate designed to be secured to the deck and having a pair of upstanding ears to receive the spaced ears of the casting therebetween, a bolt penetrating the ears of the plate and casting to pivotally mount the arm, a cap mounted on the opposite end of the arm, an apertured lug formed on said cap, a link offset and pivotally connected at one end to the lug of the cap, a pair of spaced ears formed on the arm, a deck plate formed of spaced ears, a pair of alined threaded rods, one being connected at a remote end to the ears of the second mentioned deck plate and the other connected at its remote end to the ears of the arm, and an internally threaded sleeve to receive the adjacent ends of the threaded rods whereby the arm may be oscillated for the purpose described.

1,257,665. PROCESS OF PRODUCING ARTIFICIAL LEATHER. CHARLES ELWOOD ARNOLD, Wilmington, Del., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed Sept. 3, 1914, Serial No. 859,963. Renewed July 9, 1917. Serial No. 179,557. (Cl. 91—68.)

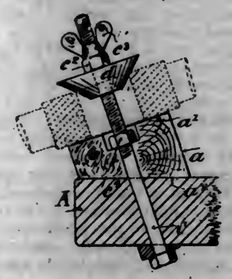


1. The process of producing coated fabrics which comprises applying to the fabric by pressure to cause incorporation therewith a relatively thin coating of a plastic containing nitrocellulose and then applying thereto by pressure another coating of a composition containing nitrocellulose.

4. The process of producing coated fabrics which comprises applying to the fabric a coating of a cementing material, then before this coating has been allowed to dry applying a relatively thin coating of plastic containing nitrocellulose, and then applying thereto another coating of a composition containing nitrocellulose, said second and third coatings being applied to the fabric by pressure with calender rolls.

[Claims 2, 3, and 5 to 8 not printed in the Gazette.]

1,257,666. SUPPORT OR HOLDER FOR DETACHABLE WHEELS OF MOTOR-VEHICLES. THOMAS PEYTON BARNES, Manchester, England. Filed Feb. 15, 1917. Serial No. 148,802. (Cl. 144—288.)



1. A wheel holder comprising a base, a wedge shaped stationary jaw arranged horizontally on said base, a rod extending through said base and jaw on an angle inclined to the vertical, means for adjusting said rod longitudinally within said base and jaw, and a movable jaw carried by said rod.

2. A wheel holder comprising a rod, a fixed jaw mounted on said rod, a movable jaw slidably mounted on said rod, said movable jaw comprising double frusto-conical portions of different diameters, and means independent of said movable jaw for locking said movable jaw against movement upon said rod in one direction.

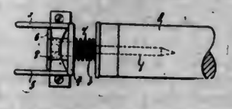
1,257,667. GOGGLES OR EYE-PROTECTORS. JOHN U. BARR, New York, N. Y. Filed Oct. 23, 1915. Serial No. 57,591. (Cl. 88—54.)



1. A goggle having glasses each of a single piece of transparent material of substantially uniform thickness, and colored or shaded throughout, and having one part more deeply colored or shaded than another part.

2. A goggle having glasses each of a single piece, of transparent material of substantially uniform thickness, and colored or shaded throughout, and having one part more deeply colored or shaded than another part, the more deeply shaded part being sharply defined from the lighter shaded part.

1,257,668. ROLLER-BLIND. ARCHIBALD BENNET, Dunedin, and THOMAS HUGH REID, South Dunedin, New Zealand. Filed Aug. 3, 1917. Serial No. 184,245. (Cl. 156—34.)



1. A blind roller having an axle part of which is screw threaded, a nut fitting the said part the said nut being prevented from rotating, and a spring adapted to be compressed between the said nut and the end of the roller when the winding up of the blind screws the said part into the nut, substantially as set forth.

2. In a blind roller as claimed in claim 1, a nut having horns engaged by a supporting bracket of the roller, substantially as set forth.

4. A longitudinally movable blind roller provided with an axle attached thereto, sharing the longitudinal and rotary movement of said roller and having a screw-threaded part, a screw-threaded element engaging said part and held against rotation, and a spring arranged to be put under strain by the endwise movement of said roller and axle as the roller winds up, thereby resisting such winding.

5. A removable axle for a blind roller adapted to be driven into the end of the same and held to turn with said roller, said axle being provided with a screw-threaded part, in combination with a relatively fixed screw-threaded element engaging said part and a spring surrounding said part between it and the end of the roller when said axle is thus driven into the latter in order that the endwise movement of said roller may compress the spring and cause it to check such winding.

[Claims 3 and 6 not printed in the Gazette.]

1,257,669. INSULATED ELECTRIC CONDUCTOR. WILLIAM L. BLISS, Niagara Falls, N. Y., assignor to U. S. Light & Heat Corporation, Niagara Falls, N. Y., a Corporation of New York. Filed May 27, 1915. Serial No. 30,726. (Cl. 173—266.)

1. In an electric lead, a flexible conductor, a plurality of independent insulating members strung on said conductor, a sleeve slidably arranged on said conductor, a terminal secured to said conductor, and resilient means interposed between said sleeve and said terminal for urging said insulating members into contact with one another.

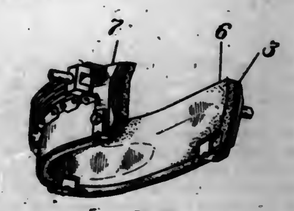
3. A flexible generator lead comprising an electric conductor, a plurality of interfitting insulating beads strung on said conductor, a sleeve strung on each end of said



conductor, a terminal connected to each end of said conductor and springs arranged between said terminals and sleeves for holding said beads in contact.

[Claim 2 not printed in the Gazette.]

1,257,670. LASTING HEEL-BAND AND METHOD OF MAKING THE SAME. MATTHIAS BROCK, Boston, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed June 3, 1915. Serial No. 31,907. (Cl. 12—14.1.)



5. That improvement in methods of making end embracing bands for shoes which consists in coating a blank of felt on one side with stiffening material, attaching a backing strip of wear-resisting sheet material to the coated surface by adhesion, shaping the blank and attached backing strip into the form of an end embracing band while the stiffening material is yet soft, and allowing the stiffening material to harden while the band is in the end embracing form and while maintaining the inner shoe-engaging face of the felt band in soft condition so that it can adapt itself to the surface of the shoe upper during use in a lasting operation.

6. That improvement in methods of making end embracing bands for shoes which consists in wetting one side of a strip of felt with shellac, subjecting the strip to such compression in the direction of the thickness of the strip as to shape the felt to the form of an end embracing band and to distribute the shellac partially but not entirely through the thickness of the felt, and hardening the portion of the felt which is at and adjacent to the outer face of the band relatively to the portion at the inner face of the band without destroying the flexibility of the band by allowing the shellac to dry or set while the band is in approximately the shape to which it has been molded.

8. A flexible end embracing band comprising a body portion of homogeneous felt having a soft inner face and having felt hardening material extending from the outer face of the band partially through its thickness.

[Claims 1 to 4, 7, and 9 to 12 not printed in the Gazette.]

1,257,671. CATTLE-GUARD. JAMES H. BULLARD, Bedias, Tex., assignor of one-fourth to Mance R. Corner, one-fourth to Garvin G. Corner, and one-fourth to Mrs. Alva Corner, Bedias, Tex. Filed Mar. 20, 1917. Serial No. 156,091. (Cl. 256—15.)

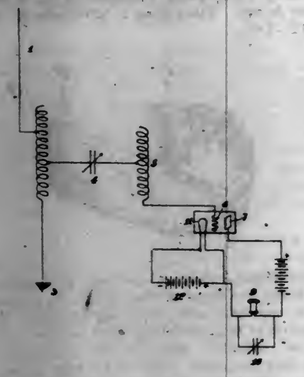
A cattle guard embodying a supporting structure, a rock shaft, a guard member secured on said shaft and extending to opposite sides thereof, and a leaf spring

secured to the supporting structure below one portion of said guard member and extending downwardly and curved under said member, the free end of the leaf spring being



curved upwardly and connected to said portion of the guard member to swing it downwardly to a horizontal position.

1,257,672. MEANS FOR DETECTING ELECTRICAL OSCILLATIONS. ELMER E. BUTCHER, Interlaken, N. J., assignor to Marconi Wireless Telegraph Company of America, a Corporation of New Jersey. Filed Mar. 24, 1914. Serial No. 826,858. (Cl. 250—20.)



1. Means for detecting electrical oscillations, comprising a circuit tuned to the period of the oscillations to be received, and a second open circuit associated therewith, containing a multiple element valve detector, an inductance, the natural period of said inductance approximating that of the received oscillations.

3. Means for detecting electrical oscillations, comprising a circuit tuned to the period of the oscillations to be received, an open circuit associated therewith and connected to an element of a multiple element valve detector and grounded at a point electrically most remote from the connected detector element.

5. Means for detecting electrical oscillations, comprising an open secondary circuit containing a multiple element valve type detector, said circuit associated with an aerial.

23. Means for detecting electrical oscillations, comprising a secondary circuit containing a multiple element valve detector, said circuit having the form of an open oscillating circuit and having a natural period approximating that of the received oscillations.

27. Means for receiving electrical impulses comprising in combination a primary circuit, and an open secondary circuit associated with said primary circuit, said secondary circuit including a high inductance as compared to the secondary capacity and a detector.

[Claims 2, 4, 6 to 22, 24 to 26, and 28 to 30 not printed in the Gazette.]

1,257,673. RESILIENT WHEEL. MINOR E. CHAMBERLAIN, Lebanon, Mo. Filed Nov. 4, 1915. Serial No. 59,510. (Cl. 152—18.)

1. In a wheel, a tire comprising an elastic outer casing; an inner tube within the casing; and a resilient annular shield within the outer casing and encircling the inner tube composed of a series of plates curving to the contour of the inner wall of the outer casing, one end of each plate overlapping the end of an adjacent plate of the series, a pair of tongues integral with the overlapped end of each plate engaging the overlapping plate and holding said plates in overlapped relation and permitting relative longitudinal movement of said plates, and abutment members on each of the overlapping plates arranged to engage against the tongues on the overlapping plates to limit the longitudinal movement of the plates relative to each other.



2. In a wheel, a tire comprising an elastic outer casing; an inflatable tube within the casing; a resilient annular shield removably located within the outer casing and encircling the inner tube composed of plates curving to the contour of the inner wall of the outer casing and having smooth inner surfaces, one end of each plate overlapping the end of an adjacent plate of the series, a pair of tongues integral with the overlapped end of each plate bent outwardly and inwardly upon the outer surface of the overlapping end of the adjacent plate and holding said plates in overlapped relation and permitting relative longitudinal movement of said plates to conform to the expansion and compression of the tire, abutment members on the outer sides of the overlapping ends of said plates between said tongues and arranged to engage against the tongues on the overlapping plates to limit longitudinal movement of the plates relative to each other; and a pliable guard between said shield and the inner tube.

6. In a wheel, a tire comprising an elastic outer casing; an inflatable tube within the casing; a resilient annular shield removably located within the outer casing and encircling the inner tube composed of a series of plates curving to the contour of the inner wall of the outer casing and having smooth inner surfaces, one end of each plate overlapping the end of an adjacent plate of the series, said plates being longitudinally movable relative to each other to conform to the expansion and contraction of the tire, tongues in connection with certain of said plates bent around and engaging the edges of others of the series and holding them in overlapped relation, means whereby said tongues will limit longitudinal movement of said plates relative to each other; and a pliable guard between said shield and the inner tube.

[Claims 3 to 5 not printed in the Gazette.]

1,257,674. GAME APPARATUS. WILLIAM T. CLINGER, Oil City, Pa. Filed Mar. 6, 1916. Serial No. 82,482. (Cl. 46—59.)

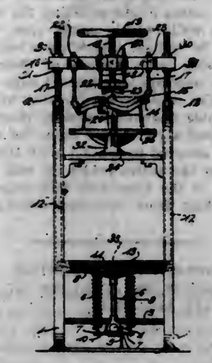


6. In a game apparatus, the combination with a frame, of a conical casing sustained thereby with its larger end

upward, a cover for the larger end of the casing having an opening through which a projectile moving longitudinally of the casing is adapted to pass, means at the lower end of the casing for supporting a projectile in position for being struck so as to be projected longitudinally of the casing, and means for sustaining the casing in an inclined position.

[Claims 1 to 5 not printed in the Gazette.]

1,257,675. MACHINE FOR PRESSING AND FORMING HATS. HERMAN COHN, New York, N. Y. Filed June 25, 1917. Serial No. 176,807. (Cl. 223—31.)



1. In a machine for forming the brims of hats, the combination of an upper annular die and a lower annular die, the said dies having superposed alined surface of substantially ring-like, frusto-conical shape, and means for bringing together and separating the said dies, the adjacent surfaces of the said dies being so dimensioned and alined, that when they are brought together they downwardly and radially stretch and press the piece of material placed between them, and only operate on that portion of said piece between the ring-like operating surfaces of the said dies.

3. In a machine for forming the brims of hats, an upper annular die, a lower annular die, an independently movable supplemental die adapted to fit into the opening of said upper annular die, means for bringing together and separating said dies, and cutting means adapted to operate in the opening of said upper die before said supplemental die enters said opening.

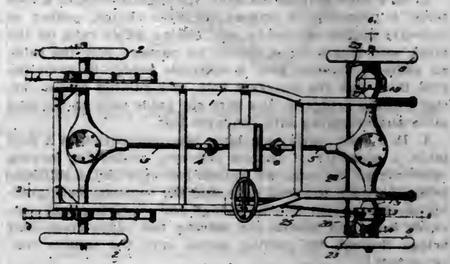
5. In a machine for forming the brims of hats, an upper annular die, a lower annular die, an independently movable supplemental die having cutting knives at its under side and adapted to fit into the opening of said upper die, and means for bringing together and separating said dies.

6. In a machine for forming the brims of hats, an upper annular die, a lower annular die, an independently movable supplemental die adapted to fit into the opening of said upper die, having four cutting knives at its under side, said knives having piercing points at their outer ends and being arranged at right angles to each other, and means for bringing together and separating said dies.

[Claims 2, 4, and 7 to 9 not printed in the Gazette.]

1,257,676. FRONT-WHEEL DRIVE FOR MOTOR-VEHICLES. BERT J. COLLINS, Lenora, Okla. Filed June 27, 1917. Serial No. 177,229. (Cl. 180—44.)

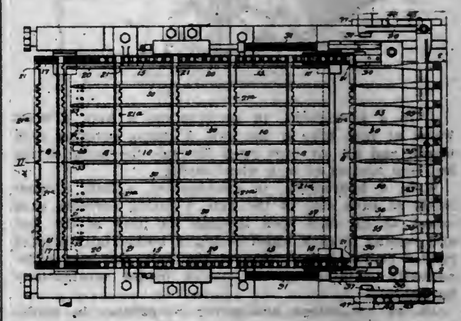
1. In a motor vehicle, the combination with the front wheels of the vehicle, of spindles to which the wheels are secured, sleeves on the spindles, said sleeves having annular external ribs, housing sections for the spindle having annular internal grooves in which the ribs engage, a sectional front axle, a differential connecting the sections, a universal joint connection between each section and the adjacent spindle, a housing for the axle sections and the differential, said housing having its ends enlarged to form the inner section of the universal joint connection, said enlargements being flattened above and below and having arc shaped ribs on the flattened portions, the housings for the spindles having enlargements at their inner ends fitting over the enlargements of the axle housing, said enlargements having internal grooves engaging the ribs and the sections being pivoted together to permit the wheels to swing.



2. In a motor vehicle, the combination with the front wheels of the vehicle, of spindles to which the wheels are secured, housing sections for the spindle, a sectional front axle, a differential connecting the sections, a universal joint connection between each section and the adjacent spindle, a housing for the axle sections and the differential, said housing having its ends enlarged to form the inner section of the universal joint connection, said enlargements being flattened above and below and having arc shaped ribs on the flattened portions, the housings for the spindles having enlargements at their inner ends fitting over the enlargements of the axle housing, said enlargements having internal grooves engaging the ribs and the sections being pivoted together to permit the wheels to swing.

3. In a motor vehicle, the combination with the front wheels, of spindles to which the wheels are secured, an axle having universal joint connection with the spindle, a housing for the axle, a housing for each spindle, the housings for the spindles fitting over the adjacent ends of the housings for the axle, and said housings having interengaging arc shaped grooves and ribs, and the housings being pivoted together, for the purpose specified.

1,257,677. CAKE-COATING MACHINE. WILLIAM COSTELLO, Jr., Philadelphia, Pa. Filed Feb. 10, 1916. Serial No. 77,507. (Cl. 91—3.)



1. In a cake coating machine, a feed table, a plurality of rails adjustably mounted on said table and forming guide-ways between which cakes may be positioned, mov-

able blades overlying said rails for engaging and moving the cakes; each of said blades being provided with a plurality of notches so as to accommodate the rails when the latter are disposed in any of their various positions, in combination with a movable platform receiving the cakes delivered by said blades from the guide-ways between the rails; said platform being pushed out of the way at intervals by the moving blades, and an endless carrying belt receiving the spaced cakes from said movable platform.

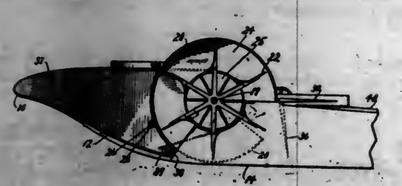
3. In a cake coating machine, the combination of a feed table, a plurality of endless conveyer chains, pusher or conveyer flights carried by said chains, guide rails on the table, said flights being slotted for passage over the rails, an endless conveyer belt, a shiftable bridge between the feed table and the conveyer belt, and guiding means carried by said bridge in line with the guide rails of the feed table and overlying said conveyer belt.

4. In a cake coating machine, the combination of a feed table, a plurality of endless conveyer chains for moving cakes across the same, an endless conveyer belt, a shiftable bridge between the feed table and the conveyer belt, guiding means carried by said bridge and overlying said conveyer belt, and means for moving the cakes from said bridge through its guiding means onto the endless conveyer belt.

5. In a cake coating machine, a feed table, a plurality of adjustably mounted rails forming guide-ways between which cakes are positioned carried by said feed table; each of said rails having positioning pins and the table having a plurality of recesses to receive said pins whereby a plurality of guideways of various widths may be provided on said table, endless chains mounted at the sides of the table, and movable blades carried by said chains for engaging and moving the cakes on said table; said blades being provided with a plurality of notches to overlie the rails in any of the various positions of the same, in combination with an endless conveyer belt disposed beyond the feed table, a movable platform receiving the cakes delivered by said blades from the spaces between the rails of the feed table, said platform being pushed forward out of the way by the blades, and means for moving the cakes from said movable platform onto the endless conveyer belt.

[Claim 2 not printed in the Gazette.]

1,257,678. HYDROPLANE. WALTER H. COTTON, Chicago, Ill. Filed Apr. 30, 1917. Serial No. 165,456. (Cl. 114—66.5.)



1. In a hydroplane, in combination, a hull, a blast wheel at each side of the hull, a casing covering each wheel, and an air duct open through the prow of the hull and leading to each wheel casing.

9. In a hydroplane, in combination, a hull, a blast wheel at each side of the hull, a casing covering each wheel, an air duct open through the prow of the hull and leading to each wheel casing, a horizontally pivoted rudder blade at each side of the hull, and means for normally maintaining the rudder blades substantially horizontal.

13. An air driven hydroplane comprising, in combination, a hull, an incased air propelling wheel discharging upon the surface of the water, and an air duct leading to the casing.

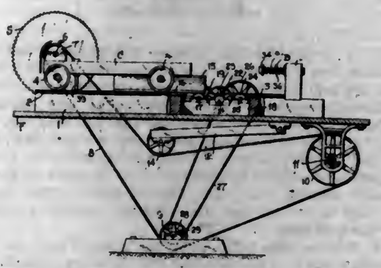
[Claims 2 to 8 and 10 to 12 not printed in the Gazette.]

1,257,679. HAIR-CLIPPER. JOHN COX, Hot Springs, Ark. Filed Sept. 9, 1915. Serial No. 49,674. (Cl. 30—12.)



In a cutter of the character described, a longitudinal cutting blade, a casing accommodating the blade comprising parallel side walls which extend upon opposite sides of the blade and in contact therewith, a longitudinal wall connecting the side walls at one of their edges, tines formed upon the opposite longitudinal edge of one of the side walls, the side walls being provided with registering openings, removable fastenings passing through the openings and blade, and a rib formed upon the side wall that carries the tines adapted to contact with the human head, the rib extending the entire length of said wall and disposed forwardly of the removable fastenings and serving to prevent the hair from becoming entangled with the latter.

1,257,680. WOOD-SAWING MACHINE. DONALD L. CRIST, Richwood, W. Va. Filed Mar. 17, 1917. Serial No. 155,548. (Cl. 143—47.)



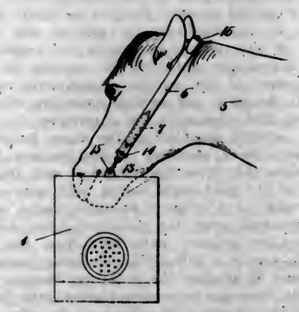
1. In combination a member mounted for reciprocatory movement, a rotatable member carried thereby, an idle pulley, a driving pulley interposed between the idle pulley and the rotatable member carried by the reciprocating member, an endless belt disposed around the idle pulley, the driving pulley and the rotatable member, a swinging arm positioned above the stretch of a belt, and a wheel carried by the free end portion of the swinging arm and contacting directly with the upper face of said stretch of the belt, said arm and wheel being of a weight to automatically move the reciprocating member in one direction and to maintain the belt at proper tension to operate said rotatable member during the movement of the reciprocating member, said arm having its free end portion extended in a direction opposite to the direction of travel of the reciprocating member under the influence of the arm and wheel.

[Claim 2 not printed in the Gazette.]

1,257,681. AUTOMATIC HORSE-FEEDING ATTACHMENT. JOHN F. CULLEN, Charlestown, Mass. Filed Nov. 17, 1917. Serial No. 202,863. (Cl. 119—66.)

1. An automatic horse feed bag attachment adapted to be riveted to a strap, comprising an oblong case provided with an opening in its lower end, a rod partly extending through the opening upward into the case having a head at its inner end, a spiral spring encircling the rod and

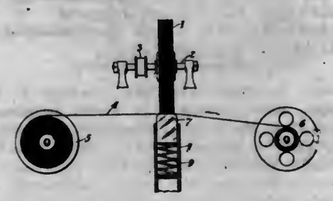
pressing upward against the head to normally keep the rod in its uppermost position, extensions carried by the rear of the case, one extending above the top of the case and the other below the bottom of the case and through which rivets may be passed to secure the attachment to a head strap, a swivel mounted in a loop formed by the lower end of the rod outside of the case, and a hook carried by and turning in the swivel to connect with the top of an animal feed bag, substantially as shown and described.



2. An automatic horse feeding attachment consisting of a strap, hooks at each end of the strap, spring actuated members riveted to each end of the strap above the hooks, and hooks carried by the spring actuated members, substantially as shown.

[Claim 3 not printed in the Gazette.]

1,257,682. METHOD OF TREATING FILMS. EDWARD DAVIS, Newark, N. J. Filed May 4, 1915. Serial No. 25,693. (Cl. 88—19.5.)



1. The method of treating moving picture film, which consists in maintaining one surface of the film in engagement with a moving abrasive member while moving the film in a direction transverse to the direction of movement of said member, substantially as described.

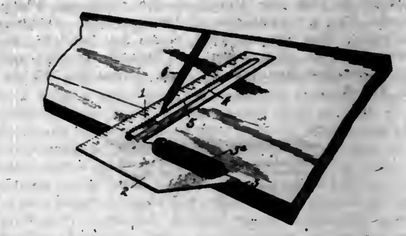
10. The method of treating film, which consists in feeding the film through a bath comprising a suitable fluid for cutting or loosening the grease, dirt or other foreign matter on the film, and scrubbing the film while so immersed, substantially as described.

17. The method of treating film, which consists in softening the emulsion surface of the film and then rubbing such surface, substantially as described.

[Claims 2 to 9, 11 to 16, and 18 to 31 not printed in the Gazette.]

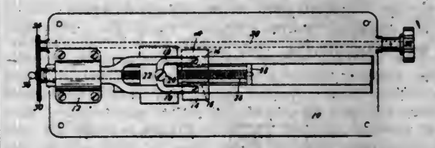
1,257,683. COMBINATION-TOOL. CHARLES C. DEFENBAUGH, Toledo, Ohio, assignor of one-half to Frank W. Caughlin, Toledo, Ohio. Filed Apr. 29, 1915. Serial No. 24,686. (Cl. 33—112.)

A square having one arm slitted adjacent to the inner edge thereof to form a tongue, the portion of the arm carrying the tongue being bent in one direction at right angles to the arm with the tongue extending in the opposite



direction at right angles to the arm to form integral edge flanges.

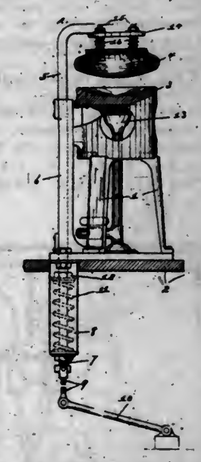
1,257,684. TUNING-FORK. AMOS F. DIXON, Newark, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Aug. 30, 1916. Serial No. 117,651. (Cl. 84—43.)



3. In combination with a tuning fork, a weight carried by each tine of the fork, adapted to be moved longitudinally thereof, a movable block, pivoted connections between said weights and said block, and means for moving said block in a direction substantially parallel to the length of the tines.

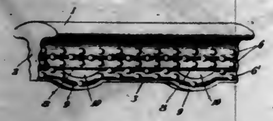
[Claims 1, 2, and 4 not printed in the Gazette.]

1,257,685. COLLAR-SHAPING MACHINE. GEORGE B. EHRMANN, Troy, N. Y. Filed Nov. 14, 1916. Serial No. 131,238. (Cl. 68—9.)



In a machine for shaping the ends of wing-collars and in combination, a pair of pressing-members adapted to receive between them an end of a wing-collar, said pressing-members having coöperative pressing surfaces, one convexed and the other concaved both in the direction of, and transversely to the length of the collar.

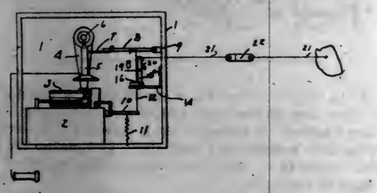
1,257,686. EDGE-PROTECTOR FOR ARTIFICIAL STONE. WILLIAM E. FICKLEN, College Point, N. Y., assignor to Clip Bar Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Original application filed Oct. 26, 1912, Serial No. 727,919. Renewed Jan. 15, 1916, Serial No. 72,369. Divided and this application filed Aug. 16, 1916. Serial No. 115,149. (Cl. 94—2.)



2. An edge protector for concrete curbs, gutters and the like, having a wearing member, and a web, the web having a series of small holes therein, and also having closely set, longitudinal cuts adjacent the edge thereof, and having portions integral at both ends with the web expanded out of the web between said cuts and the edge of the web and extending in the plane of the web.

[Claims 1 and 3 to 12 not printed in the Gazette.]

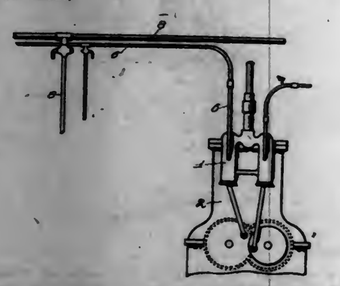
1,257,687. AUTOMATIC FIRE-ALARM SYSTEM. JOHN H. FLEMING, Seattle, Wash. Filed Nov. 23, 1916. Serial No. 132,989. (Cl. 179—5.)



1. In a device of the class described, the combination of a reproducing record, a telephone transmitter positioned adjacent the receiver to take the sound direct from the said record and means for automatically and simultaneously starting the said record to repeating and closing the telephone circuit, said starting means including a severable wire connecting the starting lever on the reproducer and the telephone switch closing lever and a shear for severing the wire.

[Claims 2 and 3 not printed in the Gazette.]

1,257,688. PULSATOR FOR MILKING-MACHINES. ROBERT BRUCE FORSYTH, Christchurch, New Zealand, assignor, by mesne assignments, to The De Laval Separator Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 25, 1914. Serial No. 820,851. (Cl. 31—101.)



1. In a milking machine of the class described, the combination with a plurality of two-chamber teat-cups, a claw connected with the suction and pulsation chambers thereof, and a milk pipe connected with the claw, of a primary pulsator, and a single secondary pulsator mounted upon the claw and adapted to receive primary pulsations from the primary pulsator and to be actuated thereby to supply secondary pulsations to the outer chambers of the several teat-cups.

2. In a milking machine, the combination with a plurality of two-chamber teat-cups, a claw connected with the suction and pulsation chambers of each cup, and a milk pipe connected with the claw, of a primary pulsator, a single secondary pulsator mounted upon the claw and being adapted to be actuated by a primary pulsation from the primary pulsator to supply secondary pulsations to the teat-cups by placing the pulsation chambers of the latter alternately in communication with the atmosphere and with the vacuum of the milk pipe connection of the claw to momentarily reduce the vacuum in the claw and suction chambers of the teat-cups during each change in the pulsations.

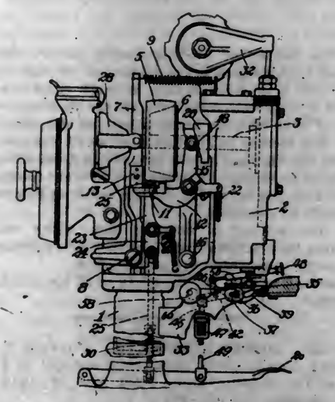
4. In a milking machine of the class described, the combination with a plurality of two-chamber teat-cups, a claw connected with the pulsation and the suction chambers of the said cups, and a milk pipe connected with the claw, of a primary pulsator, and a secondary pulsator mounted upon the claw and being adapted to be actuated by primary pulsations from the primary pulsator to supply a differential secondary pulsation to the teat-cups by placing the pulsation chambers of one pair of such teat-cups in communication with the atmosphere and the pulsation chambers of the other pair in communication with suction, and vice versa.

7. In a milking machine, the combination with two double-chambered teat cups, of a pipe line, means to produce pneumatic pulsations therein, and means controllable by said pneumatic pulsations to create pneumatic pulsations in the inflaters of the two teat cups alternately.

17. In a milking machine, the combination with two double chambered teat cups, of a vacuum pipe line, pipes connected with the inner teat cup chambers and adapted for connection with the vacuum pipe line, a second pipe line and means to produce pneumatic pulsations therein, and means controlled by said pneumatic pulsations to create pneumatic pulsations in the inflation chambers of the two teat cups alternately.

[Claims 3, 5, 6, 8 to 16, and 18 to 20 not printed in the Gazette.]

1,257,689. LASTING-MACHINE. ALFRED B. FOWLER, Beverly, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 6, 1914. Serial No. 829,891. (Cl. 12—2.)



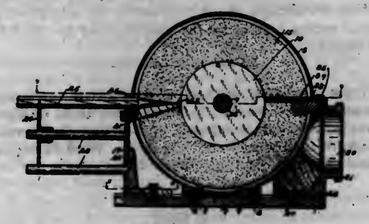
1. A machine of the class described, having in combination, a fastening inserting mechanism, a fulcrum member about which a shoe may be rocked to tension the upper about the last, a gripper comprising coöperating jaws constructed and arranged to hold the upper during the rocking of the shoe about said fulcrum and to enable the shoe to be positioned with the edge face of the shoe sole in fastening receiving relation to the fastening mechanism, and a single means for manually actuating said gripper and for causing the operation of said fastening inserting mechanism.

2. A machine of the class described, having in combination, means for gripping a shoe upper, means about which the shoe may be rocked to tension the upper about the last, a tacker arranged relatively to said two means to secure the upper under tension to the edge face of the shoe sole, and a single means for manually actuating said gripping means and for initiating the operation of said fastening inserting mechanism.

6. A machine of the class described having, in combination, a tacker, a gripper adjacent to the tacker, a fulcrum member located at the rear of the tacking point and about which the shoe may be rocked to stretch the upper and turn the shoe into position for the fastening to be inserted into the edge face of the sole and means for manually actuating said gripper and causing an automatic operation of said tacker, said machine having provision for adjustment of the gripper and the fulcrum member backwardly or forwardly to locate the sole edge in predetermined relations to the tacker.

[Claims 3 to 5 and 7 to 9 not printed in the Gazette.]

1,257,690. PENCIL-SHARPENER. WILLIAM R. FOX, Grand Rapids, Mich. Filed Oct. 31, 1913. Serial No. 798,502. (Cl. 120—96.)



1. In a device of the class described, the combination of a base, a shaft rotatably mounted thereon, means for rotating said shaft, a pair of sharpening disks secured to said shaft and rotating therewith, said disks being frustum shaped and having a V-shaped space between their peripheries, a pencil supporting member adjustably secured to said base and having an arm extending into the space between said disks and provided at its end with a stop lug, a block secured to the base and having an opening, a suitable dust receiving receptacle communicating with said opening, and a guard arm carried by the top of said block and disposed in the space between said disks, all coacting substantially as described for the purpose specified.

2. In a device of the class described, the combination of a base, a shaft rotatably mounted thereon, means for rotating said shaft, a pair of sharpening disks secured to said shaft and rotating therewith, said disks being frustum shaped and having a V-shaped space between their peripheries, means for supporting a pencil between said disks, a block secured to the base and having an opening, a suitable dust receiving receptacle communicating with said opening, and a guard arm secured to the top of said block and disposed in the space between said disks, all coacting substantially as described for the purpose specified.

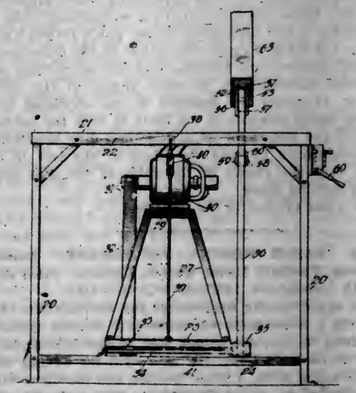
3. In a device of the class described, the combination of a base, a shaft rotatably mounted thereon, means for rotating said shaft, a pair of sharpening disks secured to said shaft and rotating therewith, said disks being frustum shaped and having a V-shaped space between their peripheries, means for supporting a pencil between said disks, means for supporting a dust receiving receptacle near the edges of said disks and a guard arm disposed in the space between said disks, all coacting substantially as described for the purpose specified.

4. In a device of the class described, the combination of a base, a shaft rotatably mounted thereon, means for rotating said shaft, a sharpening disk secured to said shaft and rotating therewith, and pencil supporting means comprising a pencil support adjustably secured to the base and extending vertically therefrom, a pencil receiving notch in the end of said support, a spring secured to said pencil support and adapted to pass over the pencil to hold it resiliently in said notch, horizontal rods extending laterally from said support, a second pencil supporting member slidably carried by said rods and having a notch in alinement with said first named notch, an arm extending laterally from said first named pencil support, and a stop lug on said arm, all coacting substantially as described for the purpose specified.

5. In a device of the class described, the combination of a base provided with a groove extending transversely thereof, a shaft rotatably mounted on said base, a pair of sharpening disks secured to said shaft and rotating therewith, a casing surrounding said sharpening disks, openings provided in the side wall of said casing on opposite sides thereof, a pencil support provided with a pencil supporting arm extending laterally between said sharpening disks, said pencil support being provided with a slotted base seated in said groove, a bolt threaded into the base of said groove and passing through the slot in the base of said pencil support, the head of said bolt engaging the base of said pencil support whereby the latter is held in adjusted position, a pin projecting into the groove of said base to limit the inward movement of the pencil support, a block seated in the groove in said base opposite the pencil support and provided with a guard arm projecting through the opening in the casing between the sharpening disks, said block being provided with a funnel shaped mouth in line with the opening in the casing, said mouth being provided with a bead to which a suitable dust receiving receptacle may be attached, all coacting substantially as described for the purpose specified.

[Claims 6 and 7 not printed in the Gazette.]

1,257,691. MACHINE FOR GRINDING DIES. LE ROY B. FRASER, New Haven, Conn., assignor to Sewell-Clapp Envelopes, Chicago, Ill., a Corporation of Illinois. Filed Mar. 7, 1917. Serial No. 153,186. (Cl. 51—7.)



1. In a die-grinding machine, the combination with a main frame having a large, stationary horizontal table thereon on which the dies are moved as they are ground,

of an endless abrasive belt running through said table and substantially at right angles thereto, guide rollers for said belt adjacent the table, supporting rollers for the belt, means for rotating one of the supporting rollers to drive the belt, a frame in which the guide rollers are supported, and means for adjusting the guide roller frame along the surface of the table to vary the angle of the belt in accordance with the angles of the sides of the dies adjacent their cutting edges and holding it in the desired position for adjustment.

2. In a die-grinding machine, the combination with a main frame having a horizontal table thereon, of an endless abrasive belt running through said table and substantially at right angles thereto, guide rollers for said belt adjacent the table, supporting rollers for the belt, means for rotating one of the supporting rollers to drive the belt, means for adjusting the guide rollers along the surface of the table to vary the angle of the belt in accordance with the angles of the sides of the dies adjacent their cutting edges, said means consisting of guideways on the table, a roller adjusting frame sliding in said ways, a screw and nut connected with the roller adjusting frame and the table, and a supporting frame for the guide rollers carried by the roller adjusting frame.

3. In a die-grinding machine, the combination with a main frame having a horizontal table thereon, of an endless abrasive belt running through said table and substantially at right angles, thereto, guide rollers for said belt adjacent the table, supporting rollers for the belt, means for rotating one of the supporting-rollers to drive the belt, means for adjusting the guide rollers along the surface of the table to vary the angle of the belt in accordance with the angles of the sides of the dies adjacent their cutting edges, and means for adjusting the guide rollers to and from each other.

5. In a die-grinding machine, the combination with a main frame having a horizontal table thereon, of a swinging belt-tightening frame pivoted below the table, a drive shaft journaled in the belt-tightening frame, means for rotating the shaft, a roller supporting frame supported in the table above the drive shaft, a supporting roller in the top of the roller supporting frame, guide rollers above and below the table, a supporting roller on the drive shaft, an endless abrasive belt running over the supporting and guide rollers substantially at right angles to the table, and means for adjusting the position of the swinging belt-tightening frame relative to the table to vary the tension of the belt.

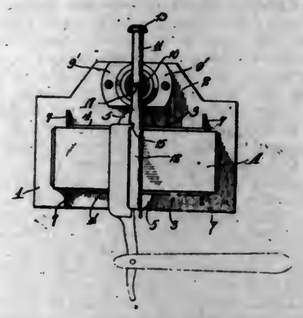
6. In a die-grinding machine, the combination with a main frame having a horizontal table thereon, of a swinging belt-tightening frame pivoted below the table, a drive shaft journaled in the belt-tightening frame, means for rotating the shaft, a roller supporting frame supported in the table above the drive shaft, a supporting roller in the top of the roller supporting frame, guide rollers above and below the table, a supporting roller on the drive shaft, an endless abrasive belt running over the supporting and guide roller substantially at right angles to the table, means for adjusting the position of the swinging belt-tightening frame relative to the table to vary the tension of the belt, and means for adjusting the roller supporting frame horizontally to vary the angle of the belt in accordance with the angles of the sides of the dies adjacent their cutting edges.

[Claim 4 not printed in the Gazette.]

1,257,692. RAZOR-HONING IMPLEMENT. ALFRED FRENETTE, Thetford Mines, Quebec, Canada. Filed Jan. 31, 1917. Serial No. 145,756. (Cl. 51—16.)

1. In a razor honing implement, the combination of a base having a hone mounted thereon, a rotable cylinder also mounted in the base at one side of and intermediate the ends of the said hone, the said cylinder having vertically extending slots, a blade holding clip provided with a shank adapted to extend through the said slots, a resilient means arranged in the cylinder and fixed thereto and connected with the said shank for exerting a pressure downwardly of the clip against the said hone.

2. A razor honing implement comprising the combination with a hone, of grippinge means for receiving the razor blade and extending across the face of the hone, the said means including a shank projecting beyond the edge of the hone, a rotatable cylinder provided with slots for receiving the said shank, and a coil spring mounted in the cylinder and including a loop encircling the said shank, whereby the pressure of the clip on the said hone may be evenly maintained during the reciprocation of the clip.



3. A razor honing implement comprising, the combination with a razor hone, of a base, a raised disk mounted upon the base and having a central opening, a rotatable cylinder extending through the opening in the raised disk and provided with an annular flange engaging the bottom of the said disk, a clip carried by the cylinder and engaged with the said razor, the said cylinder having slots, and the said clip including a shank received in the said slots, and a tension spring carried by the cylinder and fastened to the said shank.

1,257,693. LIQUID-LEVEL INDICATOR. GEORGE B. FURMAN, East Orange, N. J., assignor to L. O. Koven & Brother, a Firm composed of Ludolph O. Koven and Gustave H. Koven, New York, N. Y. Filed June 6, 1914. Serial No. 843,367. (Cl. 73—82.)



1. The combination of a receptacle for liquids, a casing extending exteriorly of said receptacle and connected therewith, said casing having a transparent end face, spaced guide rollers journaled in said casing, rods extending from said casing into said receptacle, guiding means at the inner ends of said rods, a float controlled by said liquid and movable between said rods, a tape connected with said float and movable thereby over said guide rollers and guiding means and across said transparent end face, said tape having indications successively visible through said transparent end face as said float is moved whereby the quantity of liquid in said receptacle or withdrawn therefrom is indicated.

8. The combination of a receptacle, a rigid support detachably connected with said receptacle and extending into same, guiding means located at spaced intervals on said support, a float movable on said support between said guiding means and an indicating tape passing over said guiding means and having its opposite ends connected with said float, said support, guiding means, float and tape being movable as a unit.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,257,694. TIMER. WILLIAM GADKE, Philadelphia, Pa. Filed May 1, 1915, Serial No. 25,147. Renewed June 26, 1917. Serial No. 177,150. (Cl. 123—165.)



1. A timer including two normally separated contacts; a member carrying one of said contacts; a timer shaft having projections; a member slidably guided in a plane parallel to the plane of rotation of said projections, each of the projections being placed to positively move said member into direct engagement with said contact carrying member to close the contacts.

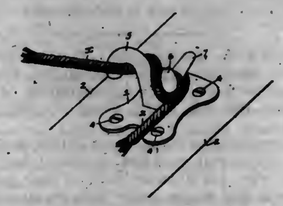
2. A timer including two normally separated contacts; a member carrying one of said contacts and provided with an abutment; a timer shaft having projections; a member slidable in a plane parallel to the plane of rotation of said projections under the action of the same; and means for guiding said member into positive engagement with said abutment while it is being moved by each projection and thereafter causing it to disengage the abutment when it is disengaged from a timer shaft projection.

5. A timer including two normally separated contacts; a timer shaft having projections; with a substantially T-shaped freely slidable member having one arm in position to be engaged by the projections and a second arm in position to actuate the contacts; with a spring operative upon the third arm.

16. A timer including two contacts; a timer shaft; with a device intermittenly actuated by said shaft for causing electrical engagement of said contacts and including a slide placed to positively move one of the contacts toward the other when so actuated, said device including means for causing longer engagement of the contacts when the shaft is rotated at low speeds than when it is turned at higher speeds.

[Claims 3, 4, and 6 to 15 not printed in the Gazette.]

1,257,695. CLEAT. WILLIAM GADKE, Philadelphia, Pa. Filed Jan. 22, 1916. Serial No. 78,684. (Cl. 24—129.)



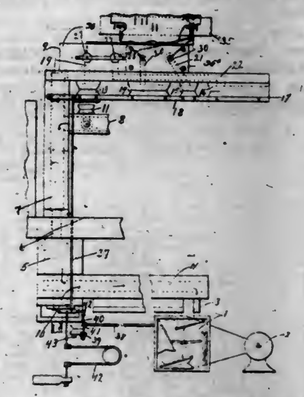
2. A cleat including a base plate; a forked member thereon having the end of one of its branches turned over to form a hook and the other branch spaced away from the main part of said forked member; with a holding member extending in a plane substantially at right angles to the plane of the forked member and making an acute angle with the base plate.

3. The combination in a cleat of a base plate; a branched member mounted thereon; and a holding member extending upwardly from said plate at an acute angle thereto from a point adjacent said first member and in a plane at right angles to that of the branched member.

4. The combination in a cleat of a base plate; two holding members in the same plane thereon of which one has an inverted U-shape; and a third member extending at an acute angle to the base and in a plane substantially at right angles to that of said other holding members.

[Claim 1 not printed in the Gazette.]

1,257,696. MUSICAL-INSTRUMENT EXPRESSION-CONTROLLER. ROBERT A. GALLY, Cincinnati, Ohio, assignor to The Baldwin Company, Cincinnati, Ohio. Filed July 9, 1917. Serial No. 179,414. (Cl. 84—168.)



1. A pneumatic music playing apparatus; an air tension inducing means connected thereto; a relief port from the outer air directly to the said air tension inducing means, and a relief valve to the said port; a plurality of collapsible chambers each having a controlling air port from its interior directly to the said air tension inducing means and receiving no outer air from the said relief port; a moving wall to each said chamber, and mechanical connecting means from all the said moving walls to the said relief valve; and a valve means to each said air port to cut any one or several of the said chambers in or out of air connection with the said air tension inducing means; the said moving walls always moving with the movements of the said relief valve.

11. In a pneumatic music player: an air service inducing means; an air service regulating valve means; a plurality of pneumatic control chambers connected to said regulating means; valve means to each of said chambers; ports from each said valve to its chamber and the air service; and pneumatic actuating means to each said valve adapted to throw its one of said valves open or closed from said air service to its certain chamber; certain of said valves being closed to the said air service when its actuating pneumatic is inactive, and certain other of said valves being open to the said air service when said actuating pneumatics are inactive, the action of any one of said actuating pneumatics reversing the open or closed position of its valve and the connection or closing of the air service to said chamber by said valve.

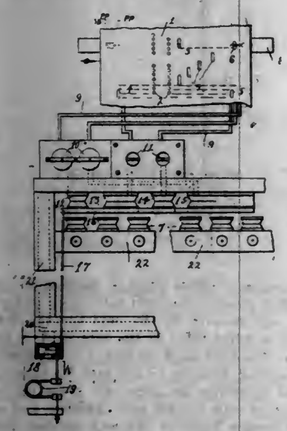
12. In a pneumatic music player: an air service inducing means; an air service regulating valve means; a plurality of pneumatic control chambers connected to said regulating means; valve means to each of said chambers; ports from each said valve to its chamber and the air

service; and pneumatic actuating means to each said valve adapted to throw its one of said valves open or closed from said air service to its certain chamber; certain of said chambers being normally closed to said air service by the corresponding valves, and certain of said chambers being normally open to said air service by their corresponding valves; and an actuating pneumatic to each of all said valves, each said pneumatic adapted to open or close its corresponding valve from the air service to the respective chamber to which said valve is related when said pneumatic is actuated.

20. A pneumatic music playing apparatus; an air service means thereto; governing and controlling means controlling said service to several degrees of greater or less service, and an additional intermittent air service control device adapted to operate only when the first named controlling means is thrown entirely out of operation for effecting the highest degree of service, the said additional controlling means being actuatively connected to said same governing means as is controlled by said first stated controlling means.

[Claims 2 to 10, 13 to 19, 21, and 22 not printed in the Gazette.]

1,257,697. MUSIC-SHEET WITH EXPRESSION-PERFORATIONS. ROBERT A. GALLY, Cincinnati, Ohio, assignor to The Baldwin Company, Cincinnati, Ohio. Filed Sept. 24, 1917. Serial No. 192,952. (Cl. 84—162.)



1. A music sheet having a series of closely grouped perforations in direction longitudinally of the said sheet, and a continuous slot perforation in the said sheet positioned parallel to the said group perforations, and having its commencement end to the rear of the commencement end of the said group perforations, the said continuous and grouped perforations arranged to be sounded together, and an additional perforation in the said sheet positioned transversely opposite said commencement ends and adapted to change the dynamic degree of operation of the said first named perforations.

2. A music sheet having a series of closely grouped perforations representing a single note and disposed in direction longitudinally of the said sheet, and a continuous slot note perforation in the said sheet positioned parallel to the said group perforations, and having its commencement end to the rear of the commencement end of the said group perforations, the said continuous and grouped perforations arranged to be sounded together, and an additional perforation in the said sheet positioned transversely opposite said commencement ends and adapted to change the dynamic degree of operation of the said first named perforations.

3. A music sheet having a series of closely grouped perforations representing a single note and disposed in direction longitudinally of the said sheet, and a continuous slot note perforation in the said sheet positioned parallel to the said group perforations, and having its commencement end to the rear of the commencement end of the said group perforations, the said continuous and grouped perforations arranged to be sounded together, and an additional perforation in the said sheet positioned transversely opposite said commencement ends and adapted to change the degree of air tension of the note actuating devices adapted to be controlled by the said note perforations.

4. A music sheet having note perforations in several longitudinal rows and additional perforations disposed in longitudinal alinement at another widthwise position of the said sheet than the said rows of note perforations, the said additional perforations adapted to vary the dynamic degree of stroke of the note striking devices controlled by the said note perforations, two of the said note perforations disposed with the commencement end of one of the said perforations in advance of the commencement end of the other one of the said two note perforations, the said advanced commencement note perforation comprising a group of perforations and bridges adapted to effect one actuation of a certain note striking device, and the other said note perforation comprising a single slot of greater length than one of the individual perforations of the said grouped note perforation, the said continuous and grouped perforations arranged to be sounded together, one of the said additional dynamic perforations positioned adjacent the transverse alinement of the commencement ends of said two note perforations to effect the actuation by the said group note perforation of a lesser degree of dynamic action of the corresponding note striking device than the degree of dynamic action effected by the actuation of another note striking device by the slotted note perforation.

1,257,698. RUBBER COMPOUND AND METHOD OF PRODUCING THE SAME. FREDERICK J. GLEASON, Walpole, Mass., assignor to Standard Woven Fabric Company, Framingham, Mass., a Corporation of Massachusetts. Filed Nov. 20, 1915. Serial No. 62,620. (Cl. 106—23.)



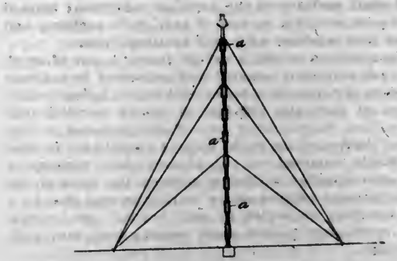
1. A composition of matter consisting of a mixture of ground vulcanized rubber and cotton.

8. The herein described process of producing a rubber compound, which consists in milling together cotton and ground vulcanized rubber in substantially the proportions described until the cotton and rubber have become thoroughly mixed and the cotton is in a hard, flaky condition, then grinding the resulting mixture until the rubber is pulverized and the cotton is intimately mixed with it and is in a finely divided and fluffy condition, mixing the composition so produced with unvulcanized rubber and materials desirable for effecting vulcanization in substantially the proportions described, shaping the resulting compound to approximately the form desired in the finished article, and finally vulcanizing the mass so shaped to produce the finished article.

[Claims 2 to 7 not printed in the Gazette.]

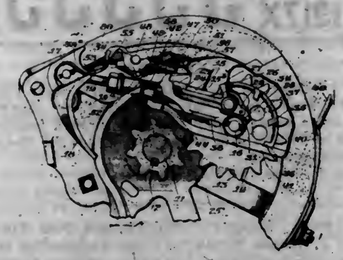
1,257,699. MAST. ANDREW GRAY, London, England, assignor to Marconi Wireless Telegraph Company of America, New York, N. Y., a Corporation of New Jersey. Filed Dec. 22, 1911. Serial No. 667,271. (Cl. 248—3.)

A mast comprising a plurality of hollow sections, each composed of two half cylinders, a pair of half disks interposed between the adjacent ends of each pair of sections and provided at the center with an opening, a pole located within said sections and openings, means adjustably supported by the pole for facilitating the erection of the mast, means including devices adapted to be detachably connected to the uppermost section for elevating



said pole and means coöperating with said half disks and independent of said elevating means for retaining the pole in elevated position.

1,257,700. REAPER-SWITCH-CONTROL MECHANISM. ALBERT GRIEVES, Springfield, Ohio, assignor to International Harvester Company of New Jersey, a Corporation of New Jersey. Filed May 1, 1916. Serial No. 94,821. (Cl. 56—94.)



1. In reaper control mechanism, the combination of a switch and a longitudinally shiftable timing gear operatively connected thereto for controlling the time of operation of said switch.

2. In reaper control mechanism, the combination of a switch, control means and a timing gear operatively connected to said switch and having a plurality of stops for engaging said control means for controlling the time of operation of said switch.

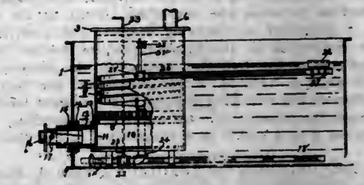
3. In reaper control mechanism, the combination of a switch, a control member, and a timing gear operatively connected to said switch and having a plurality of portions adapted to coöperate with said member for controlling the time of operation of said switch.

[Claims 4 to 28 not printed in the Gazette.]

1,257,701. WATER-HEATER. PHILIP J. HAAS, Omaha, Nebr. Filed Aug. 2, 1915, Serial No. 43,074. Renewed July 14, 1917. Serial No. 180,681. (Cl. 126—368.)

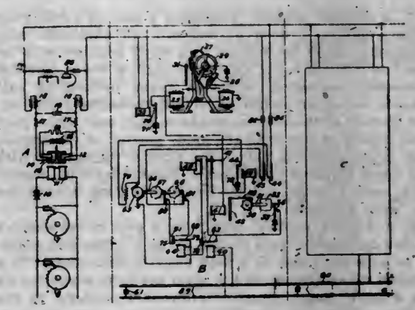
1. In a water heater, the combination with a water tank and a water heater within the tank, said heater being provided interiorly with a water coil connected with water coil inlet and outlet members arranged within the water tank, of means for draining said water coil said means comprising a valve in said outlet member, air inlet means connected with said water outlet member, a valve in said water inlet member, and a drain member connected with said inlet member valve and leading to the water tank exterior.

2. In a water heater, the combination with a water tank and a water heater within the tank, said heater being provided interiorly with a water coil connected with water coil inlet and outlet members arranged within the water tank and in communication with the water therein, of means for draining said water coil, said means comprising a valve in said coil outlet member adapted to cut off communication between the tank interior and the coil, air inlet means intermediate said valve and the coil



and connected with said outlet member, a valve in said inlet member adapted to cut off communication between the tank interior and the coil, and a drain pipe connected with said inlet member valve and adapted to be placed in communication with the coil by said valve, said drain pipe leading to the exterior of the water tank.

1,257,702. RAILWAY SIGNALING SYSTEM. JOHN B. HARLOW, Upper Montclair, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Apr. 20, 1917. Serial No. 163,396. (Cl. 246—30.)



1. A railway signaling system comprising a railroad track divided into sections, a central receiving station, a line circuit extending from said station along the track, a signal sending device associated with one track section, means controlled over the line circuit for setting the signal sending device, means controlled by the entrance of a train into the section for causing the operation of the signal sending device to send a characteristic signal to the central receiving station, and means responsive to the passage of the train out of the section for altering the signal transmitted to the central receiving station.

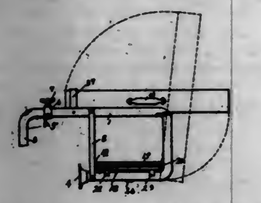
5. A railway signaling system comprising a railroad track divided into sections, a central receiving station, a line circuit extending from said station along the track, an answer back circuit at one section, control switching apparatus thereat actuated under control of the central station, a source of tone signaling current for the answer back circuit, a track relay actuated upon the entrance of a train in the section, a second relay energized upon the actuation of the track relay and locked up under control of the switching apparatus, and another relay operating upon the energization of the second relay to connect the answer back circuit with the line circuit.

9. A railway signaling system comprising a railroad track divided into sections, a central receiving station, a line circuit extending from said staton along the track, an answer back circuit at each of a plurality of sections, a source of tone signaling current for the answer back

circuit, a relay adapted when energized to connect the answer back circuit with the line circuit, a control relay adapted when operated to cause the energization of the first mentioned relay, an operating circuit for the control relay open at two points, a selectively operated device controlled over the line circuit from the central station for closing the operating circuit at one point, a track controlled device actuated upon the entrance of a train into the section to close the operating circuit at its other point, a plurality of codifying devices, and a switching device controlled by the track controlled device for including one of the codifying devices in the answer back circuit when a train is in the section and for including the other of the codifying devices in the answer back circuit upon the passage of a train out of the section.

[Claims 2 to 4 and 6 to 8 not printed in the Gazette.]

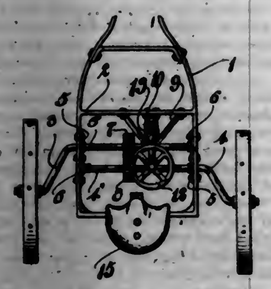
1,257,703. WINDOW-SCAFFOLD. ALFRED A. HARRIS, San Francisco, Cal. Filed Jan. 8, 1917. Serial No. 141,169. (Cl. 20—87.)



1. A window scaffold comprising a pair of rectangular frames having a hook at one end, an adjustable stop adapted to hold the frames in a fixed position with respect to a window sill and house wall, a lower platform removably connected with the lower portion of said frames, the upper platform pivotally connected to the upper portion of the frames, means to hold said upper platform rigidly in line with the upper portion of the frames, said upper platform being also adapted to contact with the lower platform when turned substantially 90 degrees with respect to its normal position to form a back for the lower platform.

2. A window scaffold comprising a pair of rectangular frames adjustable steps carried by each frame and adapted to hold the frame in a fixed position with respect to a window sill and house wall, a lower platform supported by the window frame, clips to secure said platform to the frames, and a case adapted to form an upper platform pivotally connected with the frames, said case also being adapted to contain said frames when they are dis-assembled therefrom, the lower platform forming a closure for said case.

1,257,704. VEHICLE-LEVELER. MATHIAS HAUPT, Spokane, Wash. Filed June 18, 1917. Serial No. 175,511. (Cl. 21—186.)



1. In a vehicle leveler, a vehicle frame, a pair of crank axles each revolubly mounted and supported in bearings carried by the opposite sides of said frame, integral shaft portions of the axle disposed in spaced, parallel relation, toothed intermeshing gears fixedly mounted on said integral shaft portions of the axles, an additional toothed gear fixedly mounted on one of said shaft portions, and a worm gear meshing with said additional gear.

2. In a vehicle leveler, a vehicle frame, a pair of crank axles each revolubly mounted and supported in bearings carried by the opposite sides of said frame, integral shaft portions of the axles disposed in spaced, parallel relation, toothed, intermeshing gears fixedly mounted on said integral shaft portions of the axles, an additional toothed gear fixedly mounted on one of said shaft portions, a transverse cross-bar extending between the sides of the vehicle frame, a bracket and a bearing secured thereto, a shaft revolubly supported by said bracket and bearing, and a worm gear on said shaft meshing with said additional gear.

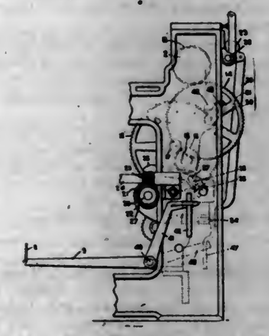
1,257,705. RENEWABLE LICENSE-TAG. FRANK ALFONSO HAZEL, Pascoag, R. I. Filed Nov. 21, 1917. Serial No. 203,158. (Cl. 40—63.)



1. In a license tag the combination of a main plate, a secondary display plate, means for removably connecting said plates, a sealing strap threaded through registering openings in both of said plates, and means for fastening the ends of said strip.

[Claim 2 not printed in the Gazette.]

1,257,706. TAKE-UP MECHANISM FOR LOOMS. HENRY J. HEDLER, Taftsville, Conn., assignor, by mesne assignments, to Draper Corporation, Hopedale, Mass., a Corporation of Maine. Filed Jan. 18, 1916. Serial No. 72,834. (Cl. 139—60.)



2. A loom comprising take-up mechanism, means for automatically effecting weft replenishment upon failure or exhaustion of weft, shed forming mechanism, means adjunctive to the shed-forming mechanism, and means controlled thereby and also by said weft replenishing means for stopping the action of the take-up mechanism, the said means acting under the control of the said adjunctive means to stop the action of the take-up for predetermined periods during predetermined sheds.

4. A loom comprising take-up mechanism, means for automatically effecting weft replenishment upon failure or exhaustion of weft, shed forming mechanism, means adjunctive to the shed-forming mechanism, means controlled by the weft replenishing mechanism and also controlled by the said means adjunctive to the shed-forming mechanism for stopping the action of the take-up mechanism, the said means acting under the control of the said adjunctive means to stop the action of the take-up mechanism for predetermined periods during predetermined sheds, let-back mechanism, and means for controlling the action of the let-back mechanism only from the weft replenishing mechanism.

6. A loom comprising a normally, positively and continuously operated take-up mechanism, shed-forming mechanism, means adjunctive to the shed-forming mechanism, means controlled by said adjunctive means, for stopping the action of the take-up mechanism for predetermined periods during predetermined sheds to produce a transverse striped effect in the fabric, and means for preventing let-back upon and during the occurrence of the said periods.

8. A loom comprising automatic weft replenishing mechanism, shed-forming mechanism, take-up mechanism, continuously and positively driven actuating means for the take-up mechanism, means adjunctive to the shed-forming mechanism, means controlled by the weft replenishing mechanism and also controlled by the said means adjunctive to the shed-forming mechanism for connecting and disconnecting the said actuating means and the said take-up mechanism, means for locking the take-up mechanism against retrograde movement when the take-up mechanism is disconnected from its actuating means under the control of the said adjunctive means, and means for permitting a predetermined degree of let-back and then locking the take-up mechanism against retrograde movement when the take-up mechanism is disconnected from its actuating means under the control of the weft replenishing mechanism.

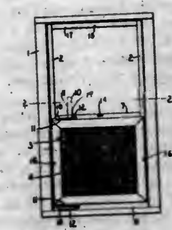
15. A loom comprising a dobby mechanism, automatic weft replenishing mechanism, take up mechanism, actuating means therefor, a clutch normally connecting said actuating means and take-up mechanism to secure the operation of the latter, a pivoted three-arm member having one arm engaging said clutch, a movable element having a pin and slot connection with the second arm of said three-arm member, means for actuating said movable element from the weft replenishing mechanism, a second movable element coöperating with and acting when moved to move the third arm of said three-arm member, a connection between said second movable element and the dobby mechanism, whereby either the first movable element or the second movable element may be independently actuated to move the said clutch into disconnection position and whereby when the second movable element is actuated from the dobby mechanism the take-up mechanism is stopped to produce a transverse striped effect in the fabric.

[Claims 1, 3, 5, 7, and 9 to 14 not printed in the Gazette.]

1,257,707. WINDOW-SCREEN. CHARLES W. HINCHCLIFFE, Lawrence, Mass. Filed Aug. 24, 1917. Serial No. 187,934. (Cl. 156—14.)

1. A window screen having a netting and a frame carrying the netting and adapted to be slidably mounted on runners in a window frame, means movable on said screen frame to form guides normally to hold the frame on the runners, a member on said screen frame to lock the guiding means in normal position whereby when unlocked the guide may be swung out of position and the screen demounted.

2. A window screen having a netting and a frame carrying the netting and adapted to be slidably mounted on runners in a window frame, the screen frame having means on one side to receive a runner and the other side of the frame having a surface adapted to slide over one face of the other runner, guides movably mounted on the screen frame at its top and bottom and adapted to be moved to engage the last mentioned runner on its face opposite the face engaged by said surfaces of the screen frame.

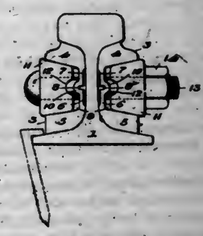


4. A window screen having a netting and a frame carrying the netting and adapted to be slidably mounted on runners in a window frame, the screen frame having a channel at one side to receive a runner, a guide pivotally mounted on both the top and bottom of the screen frame on the side opposite said channel, each of said guides being adapted to pivot in a plane parallel to that of the adjacent runner, an integral flange on each guide, and a locking member pivoted adjacent each guide and movable only in a plane at an angle to the path of the guide whereby, when the guide is in normal operative position, the locking member may be positioned over the flange of the guide and movement of the guide prevented.

5. A window frame, a transverse strip depending from the top transverse portion of the frame, a screen having a netting and a frame carrying the netting and adapted to be slidably mounted on runners in the window-frame, and means for holding the screen in uppermost position whereby the depending strip forms an insect-tight closure in conjunction with the screen frame.

[Claim 3 not printed in the Gazette.]

1,257,708. RAILWAY-RAIL JOINT. JACOB A. HYLE, St. Louis, Mo., and JACON W. HERMAN, Philadelphia, Pa., assignors of one-fourth to Theodore F. von Dorn, New York, N. Y., one-fourth to John McE. Ames, Arkansas City, Kans., one-fourth to Charles H. Nelson, St. Louis, Mo., and one-fourth to said Hyle. Filed Dec. 14, 1917. Serial No. 207,057. (Cl. 239—9.)



1. A rail joint including the rails, a splice bar having a thickened heavy upper and a lower member and an intermediate thin yielding web member with a recess formed within its inner face extending throughout its length, and means for causing the said splice bar to be flexed or forced against the tread, web and base portions of the rails.

3. A rail joint including the rails, a splice bar having an upper and a lower member and an integral intermediate yielding web member with a recess formed at its center on the inner face thereof, a recess formed in its outer face extending throughout its length, a wedge-member fitted in the last named recess, and means for flexing the said splice bar against the tread, web and base portions of the rails.

10. A railway rail joint comprising track rails, a splice bar on each side of the rails having a thickened heavy

upper and a lower member, and a thin integral yielding web member formed with a longitudinal U-shaped recess at its center in its inner face, a wedge-shaped recess formed in the outer face throughout the length of each bar, a wedge member fitted into said wedge-shaped recess its entire length, said wedge member having a U-shaped recess in its inner face, and means for flexing said splice bar tightly against the tread, web and base portions of the rails.

11. A railway rail joint comprising track rails, a splice bar secured to each side of the rails having an upper and a lower member provided with an excess of metal and a thin yielding web member formed with a U-shaped recess at the center thereof in its inner face extending the entire length of the bar and forming a rib on the outer face its entire length, a wedge-shaped recess formed in the outer face of each bar its entire length, a wedge member fitted into said wedge-shaped recess its entire length and provided with a U-shaped recess in its inner face adapted to straddle said rib, and bolts and securing nuts for forcing said wedge members inward and flexing said splice bar tightly against the tread, web and base portions of the rails.

[Claims 2 and 4 to 9 not printed in the Gazette.]

1,257,709. MECHANISM FOR APPLYING BOTTLE-CAPS. JOHN JANUCHOWSKY and HEINRICH ALBERT, St. Louis, Mo. Filed May 21, 1914. Serial No. 839,961. (Cl. 113—4.)



1. In a bottle capping machine, a holder rigidly held against vertical movement, a series of radially arranged cap pressing members pivotally mounted in said holder, and a gravity actuated plunger supported and guided by said members mounted in said holder for actuating said members, said plunger being self-adjusting relative to centralizing itself with said members.

3. In a bottle capping machine, a holder rigidly held against vertical movement, a series of radially arranged cap pressing members pivotally mounted in said holder, and a gravity actuated plunger supported by said members mounted in said holder for actuating said members, said plunger by its own weight adapted to adjust said members relative to engaging and disengaging a bottle cap.

4. In a bottle capping machine, a holder having a chamber formed therein, a plurality of circularly arranged cap pressing members swingingly mounted in said chamber, an inwardly extending portion formed on each of said members, a plunger loosely mounted axially in said members, said members providing guiding means for said plunger, said members and plunger being self adjustable relative to concentric displacement of each other.

[Claim 2 not printed in the Gazette.]

1,257,710. BOTTLE-CAP. JOHN JANUCHOWSKY, St. Louis, Mo. Filed Feb. 18, 1915, Serial No. 9,042. Renewed Nov. 19, 1917. Serial No. 202,888. (Cl. 215—9.)

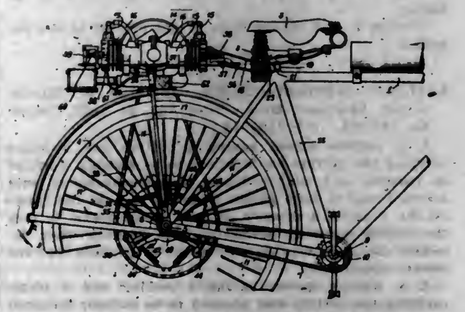


1. A sealing device, consisting of the combination of a bottle having an outer annular plain face adjacent its upper end or mouth; a cap comprising an outer cup-shaped member formed from thin malleable metal, said member having a top, a downwardly-extending and outwardly-flaring skirt, and an outwardly-extending crimped flange, the crimping extending into the lower portion of said skirt; and a paper liner closely fitting the under face of said cup-shaped member and having crimped portions conforming to the crimping of the metallic member, the skirt hugging the outer plain face of the bottle mouth and serving when the cap is forced downwardly into sealing contact with the bottle to hold the cap in place.

2. A sealing device, consisting of the combination of a bottle having an outer annular plain face adjacent its upper end or mouth; a cap comprising an outer cup-shaped member formed from thin malleable metal, said member having a top, a downwardly-extending and outwardly-flaring skirt, and an outwardly extending crimped flange, the crimping extending into the lower portion of said skirt; and a paper liner closely fitting the under face of the top and the outwardly-flaring skirt and having crimped portions conforming to the crimping of the skirt, the skirt and liner hugging the outer plain face of the bottle-mouth and serving, when the cap is forced downwardly and drawn into sealing contact with the bottle, to hold the cap in place.

3. A sealing device, consisting of the combination of a bottle having an outer annular plain face adjacent its upper end or mouth; a cap comprising an outer cup-shaped member formed from thin malleable metal, said member having a top, a downwardly-extending and outwardly-flaring skirt, and an outwardly-extending crimped flange; and a paper liner closely fitting the under face of said cup-shaped member and the skirt said skirt and liner hugging the outer plain face of the bottle-mouth and serving, when the cap is forced downwardly and drawn into sealing contact with the bottle, to hold the cap in place.

1,257,711. MOTOR-DRIVEN BICYCLE. LOUIS J. JOHNSON, Terre Haute, Ind. Filed Apr. 27, 1916. Serial No. 93,917. (Cl. 180—33.)



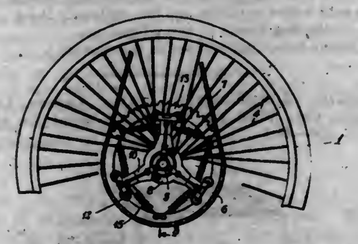
1. In a device of the character described, the combination with a bicycle having a seat-post, rear axle and wheel thereon, said axle extending beyond the bicycle frame on both sides, of a motor having a casing, detachably mounted above the said wheel, supporting rods the effective length of which is adjustable detachably secured at their upper ends to said casing and at their lower ends to the end portions of said axle, adjustable connections between said motor casing and a point on the seat-post, arranged to rigidly connect said casing to the seat-post, so that the casing is supported at a variable distance to the rear of the seat-post and at a greater or less height above the rear axle, and connections for driving the bicycle from said motor, substantially as set forth.

2. In a device of the character described, the combination with a bicycle having a seat-post, rear axle and wheel thereon, of a motor having a casing, driving connections between the motor and the rear wheel, and means for supporting the motor casing in adjusted position above the rear wheel, said means comprising supports pivoted on said axle, with means for fixedly securing the same thereon, and a bar pivoted to said seat-post, and adapted to be secured to the motor casing in adjusted position at different angles in a vertical plane, substantially as set forth.

3. In a device of the character described, the combination with a bicycle having a seat-post, rear axle and wheel thereon, of a motor having a casing, driving connections between the motor and the rear wheel, and means for supporting the motor casing in adjusted position above the rear wheel, said means comprising supports extending upwardly from the rear axle, and connections from the casing to the seat-post, comprising a jaw clamped to the seat-post, a member pivoted to the jaw to swing thereabout in a vertical plane, a pivotal connection between said member and casing, and means for securing said member fixedly to said casing in adjusted positions of said member and casing, substantially as set forth.

4. In a device of the character described, the combination of a motor casing, a bicycle having a frame, means supporting said casing from the rear axle of the bicycle, said casing having a forwardly directed flange having horizontal openings therethrough, a bar pivoted to the seat-post of the bicycle, having a central horizontal opening at its rear end and other horizontal openings about the said opening, a pivot pin extended through said central opening and one of the openings in said flange, and a bolt adapted to extend through any of the other openings of said bar and an alined opening in said flange, substantially as set forth.

1,257,712. SPROCKET. LOUIS J. JOHNSON, Terre Haute, Ind. Original application filed Apr. 27, 1916. Serial No. 93,917. Divided and this application filed Feb. 16, 1917. Serial No. 149,015. (Cl. 74—29.)

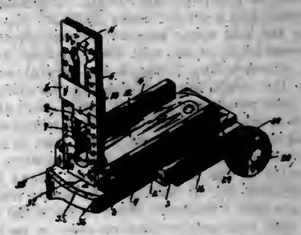


2. In a device of the character described, a sprocket-wheel adapted to be detachably secured to the hub and spoke flange of a bicycle wheel, comprising a divided hub, clamping plate and rim supported from said hub, the hub sections having means for securing them together, said hub and clamping plate having means for drawing them together on opposite sides of the spoke flange, and means for securing said hub to the bicycle wheel hub, substantially as set forth.

3. In a device of the character described, a sprocket-wheel comprising a hub with outwardly extending arms, said arms having yoke portions at their outer ends, rollers journaled in said yoke portions, a sprocket flange rotatably mounted on said rollers, and springs extending in opposite directions from each arm connecting the same with said flange, substantially as set forth.

[Claims 1 and 4 not printed in the Gazette.]

1,257,713. REAR WINDAGE-SIGHT FOR FIREARMS. THOMAS C. JOHNSON, New Haven, Conn., assignor to Winchester Repeating Arms Co., New Haven, Conn., a Corporation. Filed Jan. 8, 1917. Serial No. 141,166. (Cl. 33—55.)



1. In a rear windage-sight for shoulder arms, the combination with a lower sight-base member adapted at its forward end to be applied to the bolt-housing portion of the receiver of a shoulder arm and having a bearing-opening and a clearance-slot; of an upper sight-base member having at its forward end a depending trunnion entering the said opening and a depending worm-gear segment entering the said slot and co-acting with the ends thereof to limit the swinging movement of the said upper sight-base member, a worm located below the plane of the lower face of the said upper member and engaging with the said segment for swinging the said upper member to compensate for windage; and a sight-leaf carried by the said upper member, the rear ends of both of the said members being adapted to overhang and clear the rear end of the said bolt-housing portion of the receiver.

3. In a rear windage-sight for shoulder arms, the combination with a lower sight-base member adapted at its forward end to be applied to the bolt-housing portion of the receiver of a shoulder arm and having a bearing-opening and a clearance-slot, of an upper sight-base member having a depending trunnion entering the said opening and a depending worm-gear segment entering the said slot, a worm located in a transverse opening formed in the forward end of the said lower member at a point below the plane of the lower face of the said upper member, the said worm engaging with the said worm-gear segment for swinging the said upper member to compensate for windage, and a sight-leaf carried by the said upper member, the rear ends of both of the said members being adapted to overhang and clear the rear end of the said bolt-housing portion of the receiver.

4. In a rear windage-sight for shoulder arms, the combination with a lower sight-base member formed upon the lower face of its forward end with a transverse dovetail rib, and also formed with a bearing-opening, with a clearance-slot passing downward through the said rib, and with a transverse worm-shaft opening located in front of the said slot; of a pivotal upper sight-base member having a depending trunnion entering the said bearing-opening and with a depending worm-gear segment passing through the said slot; a worm-shaft located in the said transverse opening and engaging with the said worm-segment for swinging the upper sight-base member to compensate for windage, and a sight-base carried by the said upper member, the rear ends of both of the said members being adapted to overhang and clear the rear end of the said bolt-housing portion of the receiver.

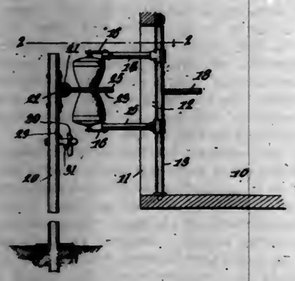
5. In a rear windage-sight for shoulder arms, the combination with a lower sight-base member adapted at its forward end to be applied to the bolt-housing portion of the receiver of a shoulder arm, of a pivotal upper sight-base member, one of the said members having a clearance-

slot and the other a worm-gear segment entering the said slot and engaging with the ends thereof to limit the swinging movement of the said pivotal upper member, a worm located in the forward end of the said lower member and engaging with the said segment for swinging the pivotal member to compensate for windage, and a sight-leaf carried by the said upper member, the rear ends of both of the said members being adapted to overhang and clear the rear ends of the said bolt-housing portion of the receiver.

6. In a rear windage-sight for shoulder arms, the combination with a two-part sight-base, comprising a fixed lower member and a pivotal upper member; of a sight-leaf carried by the said upper member, a worm-shaft mounted in the forward end of the said lower member and co-acting with corresponding teeth on the pivotal member for adjusting the same for windage, an operating button mounted upon one end of the said worm-shaft and having its inner face recessed, a bushing located in the said recess and having its inner end formed with a cone to coact with a corresponding seat in the said lower member, a helical spring located in the said bushing, and means for securing the opposite end of the shaft in place, whereby the said spring exerts a constant effort to force the said cone upon the said seat and so take up play or back-lash between the said teeth and worm-shaft.

[Claim 2 not printed in the Gazette.]

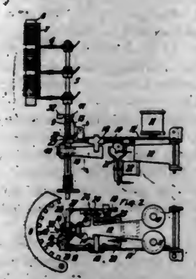
1,257,714. MAIL-BAG-DELIVERY DEVICE. FRANK H. KISER, Latrobe, Pa. Filed July 7, 1917. Serial No. 179,172. (Cl. 258—21.)



1. A mail bag collecting device comprising a support formed of two up-right posts disposed in line with a railway track at the side thereof and a bearing at the upper end of each of said posts, a horizontal bar rotatably and longitudinally mounted in said bearings, a mail bag collecting arm projecting from said bar near one end thereof and having a bag holding loop therein, spaced fingers on said bar to limit the longitudinal movement of the bar by engagement with said posts, a pin projecting from one of said posts adapted to engage one of the fingers and hold the collecting arm in horizontal position, and locking means on one of said posts for holding said arm in its downward position.

2. In a mail bag collection device, the combination with two vertical posts disposed in line with a railway track and at the side thereof, and a bearing on the upper end of each of said posts, of a horizontal bar rotatably and longitudinally movable in said bearings, an arm projecting from one end of said bar having a pocket therein to receive the mail sack and a locking tooth on its outer end, spaced fingers projecting from the bar between said posts and limiting longitudinal movement of said bar, a pin projecting from one of said posts adapted to engage the adjacent finger on said bar and hold the arm in horizontal position for collecting a mail sack, and a locking pawl on one of said posts for engaging the tooth on said arm and holding the latter in a depressed position when released from the holding action of said pin and finger.

1,257,715. SELECTOR-SWITCH. JOHN A. KROPF, Oak Park, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Oct. 11, 1916. Serial No. 124,947. (Cl. 179—27.5.)



1. In a selecting switch, passive contacts, active contacts mounted for group and line selecting movements in two planes, means for controlling the operations of said active contacts, and a single means for operating said active contacts and for restoring the active contacts and controlling means to normal position.

2. In a selecting switch, passive contacts, active contacts mounted for movement in two planes, means for controlling the operations of said active contacts, and a single means for operating said active contacts and for restoring the active contacts and controlling means to normal position.

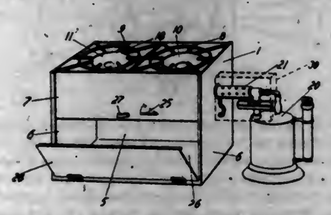
3. In a selecting switch, passive contacts, active contacts, a member carrying said active contacts, said member being mounted for vertical and rotary movement, a single actuating means for said member, and means for applying the energy of said actuating means to control the selecting and releasing movements of said member.

4. In a selecting switch, passive contacts, active contacts, a shaft to which said active contacts are secured, said shaft being mounted for vertical and rotary movement, means operating in one direction for actuating said shaft in all its movements, and means including a bell crank lever for controlling the selecting and releasing movements of said shaft.

8. In a selecting switch, passive contacts, active contacts mounted for group and line selecting movements in different planes, a controlling device for controlling the sequence of these movements, and a single means for setting said active contacts and for restoring these contacts and controlling means to normal position.

[Claims 5 to 7 not printed in the Gazette.]

1,257,716. TORCH-STOVE. FRANK LEEPER, Los Angeles, Cal. Filed July 11, 1917. Serial No. 179,969. (Cl. 126—44.)



1. A torch-stove comprising a casing and a grid mounted at the upper portion of said casing, adapted to support cooking utensils, a horizontally extending tubular member opening laterally through said casing to receive the blast from the torch, a riser extending upwardly from said tubular member and a heat distributing member at the upper end of said riser and below said grid.

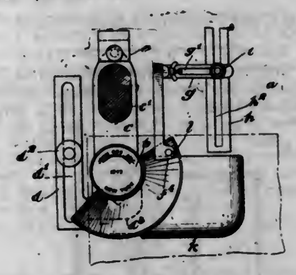
2. A torch-stove comprising a casing, a plurality of grids at the upper portion thereof, adapted to support cooking utensils, a horizontally extending tubular member opening at one end laterally through the casing to receive the blast from the torch and having a plurality of risers and heat applying means at the upper end of the respective risers and below the respective grids, said heat applying means being formed as expansions of the respective risers and being adapted to distribute the heat from the risers to all parts of said grids.

5. A torch-stove comprising a supporting frame, a grid mounted thereon, a tubular member having a lateral opening and adapted to receive the blast from a torch, said tubular member being provided with an upwardly extending portion and with a heat distributing member at the upper end of said upwardly extending portion and below said grid.

7. The combination with a torch, of a stove comprising a frame provided with heat applying means and with a horizontally extending tubular heat receiving means communicating with said heat applying means and having a lateral opening adapted to receive heat from a torch, said frame being provided with means adapted to support cooking utensils in position to be heated by said heat applying means and said torch being mounted independently of the frame of said stove.

[Claims 3, 4, and 6 not printed in the Gazette.]

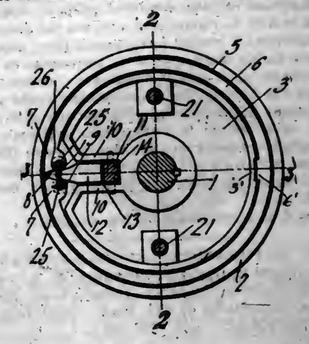
1,257,717. PAPER-GUIDE FOR SEAL-PRESSES. PAUL LEO, Elizabeth, N. J. Filed July 11, 1917. Serial No. 179,970. (Cl. 101—3.)



A paper guide for seal presses, the same comprising a pair of separated members for the reception of a sheet to be impressed, a U-shaped supporting bracket whose arms respectively support said members, an angle bar having a slotted upright member and a thumb screw to engage said bracket through said slotted upright member for vertical adjustment of said bracket, together with a horizontal member of said angle bar having a longitudinal slot, and a transversely disposed slotted member engaged therewith by a thumb screw, whereby said bracket is capable of universal adjustment in a horizontal plane.

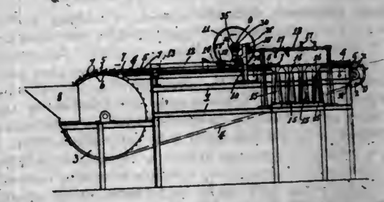
1,257,718. CLUTCH. DANIEL L. LOTT, Tiffin, Ohio, assignor to The Loomis Machine Co., Tiffin, Ohio. Filed Jan. 24, 1917, Serial No. 144,201. Renewed Jan. 16, 1918. Serial No. 212,150. (Cl. 192—13.)

A clutch including inner and outer clutch members mounted for rotation, said inner member having an annular flange at one side thereof, said inner member being formed with diametrically opposed peripheral recesses, a wedging element slidably mounted within one of the recesses, a wedge actuating lever pivotally mounted within said recess, an expansible friction ring mounted between the peripheral portions of the inner and outer clutch members and having an intermediate projection seated in one of the recesses, the ends of said ring being arranged adjacent the wedge in the other recess, pins within the ends of the friction ring, anti-friction rollers journaled thereon, said wedge being normally positioned to enter between the rollers, a spring connection between the pins, and means for actuating the lever during the rotation of



the inner clutch member to project the wedge between the rollers and exapnd the spring and clutch ring.

1,257,719. COMBINED ASPARAGUS CUTTER AND GRADER. DAVID LOW and ALBERT R. THOMPSON, San Jose, Cal.; said Thompson assignor to said Low. Filed Nov. 6, 1917. Serial No. 200,487. (Cl. 146—11.)



1. A machine for the described purpose, comprising a traveling carrier to receive and advance the shoots in uniform relation with respect to butts and tips; means operating on said shoots during their advance for giving them uniform lengths; means for discharging them from the carrier in said uniform relation; and a grading means to receive them in such relation from the discharging means and sort them as to thickness.

2. A machine for the described purpose, comprising a traveling carrier to receive and advance the shoots in uniform relation with respect to butts and tips; means acting on the tips during their advance by the carrier to shift said shoots endwise until said tips are even; means for evenly cutting off the butts of the shoots whereby said shoots are made of equal length; means for discharging the shoots from the carrier in said uniform relation; and a grading means to receive the shoots in such relation from the discharging means and sort them as to thickness.

3. A machine for the described purpose, comprising a traveling carrier to receive and advance the shoots in uniform relation with respect to butts and tips; a traveling belt beside and inclined to the path of travel of the carrier to press upon the tips of the shoots and move them over endwise on the carrier until said tips are even; an associated cutter to evenly cut off the butts of the shoots, whereby said shoots are made of equal length; means for discharging the shoots from the carrier in said uniform relation; and a grading means to receive the shoots in such relation from the discharging means and sort them as to thickness.

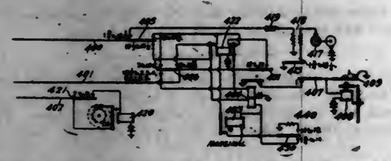
4. A machine for the described purpose comprising a traveling carrier to receive and advance the shoots in uniform relation with respect to butts and tips; means operating on said shoots during their advance for giving them uniform length; a revolving instrumentality operating over said carrier to engage uniformly reduced shoots and discharge them from the carrier in their initial relation as to

butts and tips; and a grading means to receive the shoots in such relation and sort them as to thickness.

5. A machine for the described purpose, comprising a traveling carrier to receive and advance the shoots in uniform relation with respect to butts and tips; means acting on the tips during their advance by the carrier to shift said shoots endwise until said tips are even; means for evenly cutting off the butts of the shoots whereby said shoots are made of equal length; a revolving instrumentality operating over said carrier to engage the uniformly reduced shoots and discharge them from the carrier in their initial relation as to butts and tips; and a grading means to receive the shoots in such relation and sort them as to thickness.

[Claims 6 to 9 not printed in the Gazette.]

1,257,720. AUTOMATIC TELEPHONE-EXCHANGE SYSTEM. ALBEN E. LUNDELL, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed July 2, 1917. Serial No. 178,242. (Cl. 179—27.)



1. In a telephone exchange system, a calling and a called line, a plurality of selectively operable switching devices for interconnecting said lines, a variably adjustable sender, means for operating said sender in accordance with its adjustment to control the successive setting of said switching devices, and other means for controlling the operation of said sender in accordance with its adjustment and irrespective of the setting of said switching devices.

2. In a telephone exchange system, a variably adjustable sender, a plurality of selectively operable switching devices, means for adjusting said sender to perform certain operations for controlling the setting of said switching devices, means controlled by said devices for causing said sender to complete said certain operations, and means separate from said devices for causing said sender to perform said certain operations.

3. In a telephone exchange system, a series of selectively operable switching devices, a sender, means for adjusting said sender to successively control the setting of said devices, and means operable upon the setting of the first device in the series and independent of the other devices for controlling said sender to complete its operation.

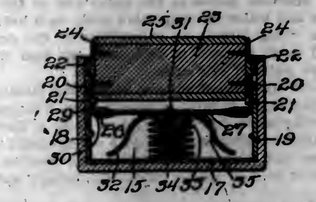
4. In a telephone exchange system, a series of selectively operable switching devices, a sender, means for adjusting said sender in accordance with the desired setting of all of said switching devices, means operative thereupon and successively controlled by said devices for restoring said sender to normal, and means operable upon the setting of the first device of said series for controlling the restoration of said sender independent of the operation of said switching devices.

5. In a telephone exchange system, two lines, means including a series of selector switches for establishing a connection between said lines, a set of counting relays, means successively controlled by each of said selectors in their selecting operation for operating said counting relays in a certain predetermined manner, and automatic means operable upon the initiation of said connection for operating said counting relays in said predetermined manner.

[Claims 6 to 14 not printed in the Gazette.]

1,257,721. SELF-LUBRICATING DEVICE. JOHN J. MCGUIRL, Midland, Pa., assignor of one-half to Ollie P. Vigie, Youngstown, Ohio. Filed Sept. 20, 1916. Serial No. 121,108. (Cl. 64—34.)

1. A self lubricating device comprising a pair of feed rolls adapted to engage and be operated by the element to be lubricated, a lubricant reservoir, a U-shaped member adapted to be arranged therein and having the shafts of the rolls extending therein, elevating plates engaging with said shafts for moving said rolls toward the element to be lubricated, a follower connected with said plates for vertically moving them, and means connected with the follower and abutting against said member for shifting the latter.

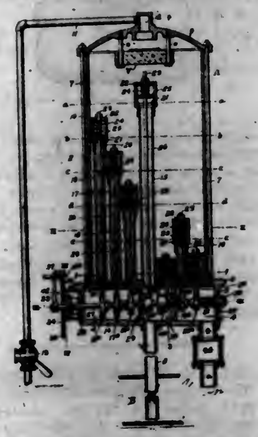


3. A self lubricating device comprising a pair of feed rolls adapted to travel in a body of lubricant and engaging and operated by the element to be lubricated, a lubricant reservoir, plates abutting against the shafts of said rolls for shifting these latter to engage said element for supplying lubricant thereto, a follower connected with said plates for vertically moving the same, and means for shifting the follower.

6. A lubricating device comprising a lubricant feeding means adapted to travel in a body of lubricant, a lubricant reservoir, elevating plates for said feeding means, a follower connected to said elevating plates for shifting the same, resilient elements connected to and depending from said follower, and a coiled spring having its upper coil interposed between said resilient members and said follower.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,257,722. LIQUID-MEASURING APPARATUS. GEORGE W. MACKENZIE, Jr., Beaver, Pa., assignor to Guarantee Liquid Measure Company, Rochester, Pa., a Corporation of Delaware. Filed Feb. 17, 1917. Serial No. 149,219. (Cl. 221—100.)

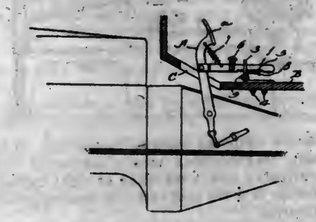


1. A measuring vessel having a valve-controlled inlet condnit, a series of valve-controlled outlet conduits terminating at successively lower levels, means for effecting a flow of liquid by the inlet conduit into said vessel, and a single controlling and actuating element having a series of engaging elements adapted to successively and separately open said conduits.

17. In combination, a measuring vessel provided with an inlet circulation chamber and an outlet circulation chamber at its base, a valve-controlled conduit leading upwardly within the vessel from the inlet chamber, a series of valve-controlled outlet conduits extending upwardly and terminating at various heights within said vessel and leading into the outlet chamber, a shaft having a series of lifting dogs thereon adapted to successively open said valved outlet conduits, and a delivery conduit leading from the outlet chamber and provided with a transparent observation section therein.

[Claims 2 to 16 not printed in the Gazette.]

1,257,723. AUTOMOBILE-PEDAL LOCK. TELESPHORE MENARD, Bozeman, Mont. Filed May 24, 1917. Serial No. 170,741. (Cl. 74—81.)



1. In an automobile, the combination with a foot pedal thereof, a rack bar pivotally connected at one end thereto, a bracket fixed to the floor of the automobile and adapted to be engaged by the teeth of said bar, and a spring connected to said pedal and said bar for normally maintaining the teeth of the latter out of engagement with said bracket.

5. In an automobile, the combination with a foot pedal thereof, a bracket fixed to the floor of the automobile and having an opening therein, a bar pivotally connected at one end to said pedal and extending through the opening in said bracket, the lower edge of said bar being provided with rack teeth adapted to engage said bracket at the lower edge of the opening thereof, a coiled spring connected at its ends to said pedal and said bar, and a strap spring fixed at one end to said bracket and bearing upon the lower side of said bar, said springs normally maintaining the teeth of the latter out of engagement with said bracket.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,257,724. DEVICE FOR APPLYING RIVET-FASTENERS. JOSEPH H. M. MICHON, Washington, D. C. Filed Mar. 11, 1914, Serial No. 823,960. Renewed July 13, 1917. Serial No. 180,485. (Cl. 1—50.)



1. In a device of the class described, an anvil member having a shank provided with an anvil portion and with an arcuate open sided head, and a hammer member having a shank provided with a head separably connected with the first mentioned head, the shank of the hammer member being provided with a hammer located for cooperation with the anvil portion, the said heads being provided, one with a circumscribing rib and the other with a circumscribing groove, the rib and the groove constituting locking means for the heads.

2. In a device of the class described, an anvil member and a hammer member for coöperation therewith, the hammer member having a magnetized hammer head, said head being provided with a collar rigidly fixed thereon and having an edge projecting beyond the working face of the head and being of non-magnetic material.

[Claims 3 and 4 not printed in the Gazette.]

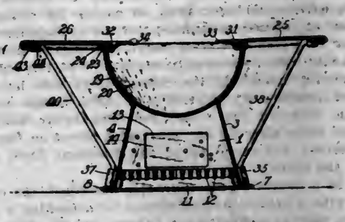
1,257,725. COMBINATION EVAPORATOR AND CANNING-MACHINE. LEWIS A. MILLER, Live Oak, Fla. Filed Oct. 25, 1917. Serial No. 198,491. (Cl. 126—346.)



1. In a device of the class described, a casing comprising a bottom; a lid on the casing; a heater connected with the bottom and located there below; a drum opening through the bottom into the heater; flues extended outwardly from the drum and upwardly along the inner surface of the casing through the lid; inlets opening through the casing adjacent the bottom and terminating at their inner ends adjacent the drum; means for opening and closing the inlets; a tray; and means for supporting the tray in the drum.

2. A device of the class described constructed as described in claim 1, and further characterized by the fact that the means for supporting the tray consist of hangers provided at their upper ends with means for engaging the upper ends of the flues detachably.

1,257,726. BUTCHER'S VAT. WILLIAM H. MILLER, Crawfordsville, Ind., assignor to Miller Vehicle Heater Company, Crawfordsville, Ind., a Corporation of Indiana. Filed Nov. 8, 1916. Serial No. 130,173. (Cl. 17—7.)



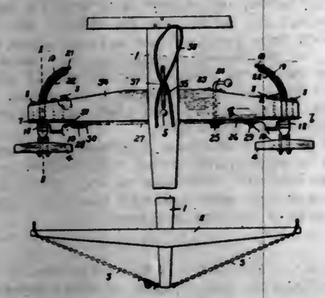
1. In a butcher's vat, the combination of a front wall and a rear wall spaced apart, each wall having a concave top, a vessel having a convex under portion seated upon and secured to the concave tops of said walls, two side walls standing at an inclination and extending upward convergently each to the other, said side walls extending to said convex portion of the vessel and secured thereto, said side walls being connected to said front wall and rear wall, a grate-support arranged at the lower inside portion of said front wall and secured thereto, a grate-support arranged at the lower inside portion of said rear wall and secured thereto, a cross-bar secured to the lower inside portions of said side walls, and a fire-grate upon said grate-supports and said cross-bar.

2. In a butcher's vat, the combination of a front wall, a rear wall, two side walls connected to the front wall and the rear wall, the lower outside portion of each side wall having a pluralitly of sockets thereon, a trough-like vessel secured to the top of each one of said walls and extending outward beyond the front and rear walls, tables hinged to the top portions respectively of the vessel, clasps secured to the under side of the tables, each clasp being open at one side, and a plurality of props having each a foot portion that is inserted rotatively in any one of said sockets, each prop having a head portion to be laterally swung into any one of the clasps through the

open side thereof on rotation of the foot portion in the socket.

3. In a butcher's vat, the combination of a fire-box structure, a fire-grate in the structure, an open-top water-holding vessel having concave bottom and side portions, the forward end portion of the bottom and sides being sloping to constitute a chute and having a curved top, the bottom portion of the vessel being secured upon the top of the fire-box structure, and two tables hinged at one side to the side portion tops respectively, the tables having forward end portions extending laterally each toward the other and partially over the curved top of the sloping end portion of the vessel, and props connected to the tables respectively.

1,257,727. HORSE-HITCHING DEVICE. CHARLES V. MONSON, Duluth, Minn. Filed Oct. 11, 1917. Serial No. 195,934. (Cl. 21—127.)



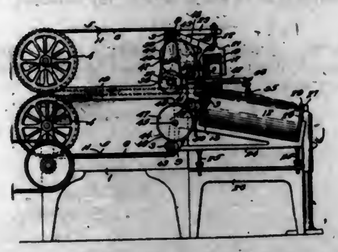
1. In a device of the character described, the combination with a vehicle having means for attachment of a team of horses thereto comprising a tongue, evener, swingle-trees and neck yoke, of means for changing the normal unyieldable attachment of the swingle-trees to the evener to a yieldable attachment, said means including an operating element manually engageable at the rear of the evener for unlocking the swingle-trees and held in its locked position by gravity and fixed means upon the tongue adjacent the evener for temporarily holding the horses' reins whereby any movement ahead on the part of the horses will cause all of the resultant draft to come upon the reins.

2. In a device of the character described, the combination with a vehicle having means for attaching a team of horses thereto comprising a tongue, evener, swingle-trees and neck yoke, of means for changing the normal unyieldable attachment of the swingle-trees to the evener to a yieldable attachment, said means including an operating element extending horizontally through the evener and engageable at the rear thereof for locking and unlocking the swingle-trees and fixed means upon the tongue adjacent the evener for temporarily holding the horses' reins whereby any movement ahead on the part of the horses will cause all of the resultant draft to come upon the reins.

4. In a device of the character described, the combination with a vehicle having means for attaching a team of horses thereto comprising a tongue, an evener, swingle-trees and neck yoke; of a contractile spring attaching each swingle-tree to the evener and passing therethrough, an inwardly curved rearwardly extending support for each spring rigidly fixed to the rear side of the evener, a socket about each spring and upon the forward side of the evener, a shank attached to each swingle-tree and normally engaged within its respective socket, a slidable member adjacent each swingle-tree connection with the evener for overlapping engagement with the shank, means for manually manipulating the slidable members and means within convenient reach of the driver for holding the horses' reins against movement by the horses.

[Claim 3 not printed in the Gazette.]

1,257,728. TOBACCO-STRIPPING MACHINE. JOHN O. MORRIS, Washington, D. C., assignor to Planters Stemming Company, Wilmington, Del., a Corporation of Delaware. Filed Oct. 7, 1914. Serial No. 865,528. (Cl. 131—57.)



1. A tobacco stripping machine comprising, in combination, a belt, leaf-stripping means associated with said belt, stem-gripping means traveling at right angles to said belt and means to drive said belt and stem-gripping means in timed relation.

7. A tobacco stripping machine comprising, in combination, means for simultaneously conveying a plurality of leaves into and holding each of them in a position to be stripped, means traveling at right angles to the direction of travel of said conveying means for gripping the stems of a plurality of leaves, and connections between said means to cause them to move in timed relation.

9. In a tobacco-stripping machine of the class described, the combination with the leaf-conveying-and-stripping belt and the stem-gripper-bar-carrying chains, traveling normally to said belt, of a gage to enable the operator to position the leaves on said belt with their stems projecting a substantially uniform distance beyond the rear edge thereof, two pairs of sprocket-wheels of small diameter for each pair of said chains in the front portion of their travel, the intermediate pairs of said wheels being located closely adjacent to said belt edge, whereby the gripper-bars, carried by said chains, are enabled to seize the ends of said projecting stems, and means to drive said belt and chains in timed relation.

15. In a tobacco-stripping machine, the combination of a belt on which the leaves are placed with their stems projecting beyond one edge thereof, a strip of card teeth secured to said belt adjacent said edge, stem-gripping means traveling at right angles to said belt to seize said projecting stems and draw them out of the leaves and a driven roller mounted vertically above said belt to separate any unstripped leaves from those that have been properly stripped.

[Claims 2 to 6, 8, 10 to 14, and 16 to 19 not printed in the Gazette.]

1,257,729. SPARK-PLUG. ARTHUR R. MOSLER, New York, N. Y., assignor to A. R. Mosler & Co., Yonkers, N. Y., a Corporation of New York. Filed Jan. 16, 1914. Serial No. 812,569. (Cl. 123—169.)



1. In a spark plug, a base provided with a tubular bore therethrough, an insulating block therein, having an electrode, an annular priming recess surrounding said bore, a passage leading from said recess to the bore and a valve for opening and closing said passage.

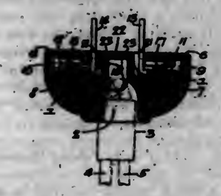
3. In a spark plug, a base provided with a tubular bore therethrough, an insulating block therein having an electrode, an annular priming recess surrounding said bore, a bushing secured in said base, a passage leading from the said recess to the bore and block, and a valve threaded in said bushing adapted to open and close said passage.

5. In a spark plug, a base provided with a tubular bore therethrough, an insulating block therein having an electrode, an outwardly extending screw threaded portion, a cap therefor for securing said block to the base, an annular priming recess surrounding said portion, a bushing secured in said base, a passage leading from said recess through the bushing to the bore and block, and a valve threaded in said bushing adapted to open and close said passage.

7. In a spark plug, a base provided with a tubular bore, an outwardly extending exteriorly screw threaded portion, an annular priming recess surrounding said portion, a bushing secured in said base having a passage in communication with the bore, a passage leading from said recess to the passage in the bushing, a valve threaded in said bushing provided with a cutaway portion adapted to coact with the passage in the bushing for opening communication from the recess to the bore, and a weighted handle for manipulating the valve, said handle tending by gravity to hold the valve open when on one side of its center and closed when on the opposite side.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,257,730. ATTACHMENT-PLUG CAP. LEMBERT H. MOULTHROP, Philadelphia, Pa., assignor to H. T. Paiste Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Nov. 23, 1916. Serial No. 133,042. (Cl. 173—343.)



1. The combination in an attachment plug of a structure of insulating material; bushings molded into said structure; contacts riveted to said bushings respectively; and binding screws threaded into the bushings.

5. The combination in an attachment plug of a pair of projecting contact strips each having an edge projection; conductors extending into said plug and attached to said contacts respectively; with a plate of insulating material fitting over said contacts against the face of the cap and held in position by the projections of said contacts.

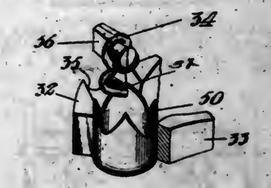
9. The combination of an insulating supporting body; a contact mounted thereon having two portions substantially at right angles; with a binding screw mounted in one of said portions of the contact, the other portion of the contact being recessed immediately adjacent the screw so as to space it away from the same.

[Claims 2 to 4, 6 to 8, 10, and 11 not printed in the Gazette.]

1,257,731. METHOD OF MAKING BUTTONS. FRANKLIN G. NEUBERTH, Ansonia, Conn., assignor to The S. O. & C. Co., Ansonia, Conn., a Corporation of Connecticut. Filed June 15, 1915. Serial No. 34,270. (Cl. 79—2.)

1. The method of making buttons which consists in forming a cylindrical blank with an upstanding rim, placing an eye within the blank, bending inwardly the upstanding rim to hold the eye in place, and simultaneously producing corrugations in the bentover rim which extend toward the center of the button.

2. The method of making buttons which consists in producing a cylindrical blank with upstanding points, bending the points downwardly and inwardly, and producing lateral pressure on the lateral edges of the points to form corrugations extending longitudinally of the points.



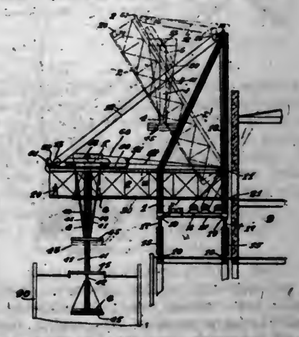
3. The method of making buttons which consists in producing a blank having upstanding tapering points, presenting an eye to said blank, bending said points inwardly and simultaneously therewith subjecting them to lateral pressure to secure said eye in position and at the same time form a corrugation in each point, thereby to give said points added strength against a force exerted upon the eye tending to remove the same from the button.

12. The method of making buttons which comprises producing a blank having a back and upstanding points, presenting an eye having its ends bent laterally to conform approximately to the inner periphery of the back, and bending certain of said points across said end portions into engagement with said back thereby simultaneously to secure the eye in position and reinforce the back.

13. The method of making buttons which comprises producing a blank having a back and a cylindrical upstanding rim, presenting an eye to said blank, bending said rim inwardly toward said back to secure said eye to the blank, and then shaping said button by pressure exerted upon the back and upon the inturned portion surrounding the eye.

[Claims 4 to 11 not printed in the Gazette.]

1,257,732. CARGO-HANDLING DEVICE. WALLACE L. NEWELL, Seattle, Wash. Filed Mar. 29, 1916. Serial No. 87,614. (Cl. 214—14.)



1. A stevedoring machine comprising a boom, means for extending the boom over the deck of a vessel, elevator guides composed of telescopic sections carried by the outer part of this boom and platform elevators running upon said guides.

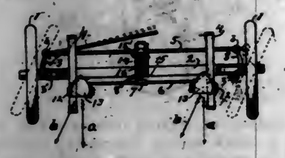
2. A stevedoring machine comprising a boom adapted to be projected over the deck of a vessel and withdrawn therefrom, a plurality of sets of telescopic elevator guides carried by and adjustable lengthwise of the outer part of said boom to bring them in line with the hatchways and platform elevators running upon said guides.

3. A stevedoring machine comprising a boom, means for extending the boom over the deck of a vessel and withdrawing it therefrom, elevator guides composed of

telescopic sections carried by the outer part of this boom in position to register with the hatchways, transverse bars carried by said guides adapted to engage the vessel to steady the guides, and platform elevators running upon said guides.

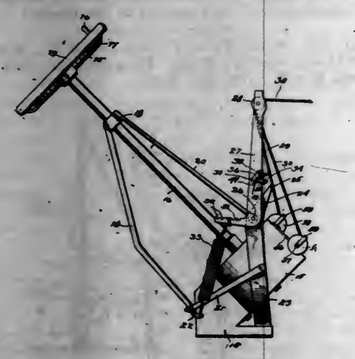
[Claims 4 to 14 not printed in the Gazette.]

1,257,733. AUTOMOBILE-SIGNAL. ALBERT E. O'NEILL, Grand Rapids, Mich. Filed Dec. 11, 1916. Serial No. 136,342. (Cl. 240—62.)



In combination with automobile lamps, and a steering rod of an automobile, sleeves securely connected with the frame of the automobile, lamp yokes revolubly mounted in said sleeves, arms extending backward at right angles with, and securely connected with the lower end of the lamp yokes, a rod pivotally connected with said arms, a central arm on said rod, a connecting rod having longitudinal sliding connections for longitudinal adjustment, one end of said adjustable connecting rod pivotally connected with the central arm, a spring for holding the parts of the adjustable connecting rod in normal positions, and a link pivotally connected at one end with the connecting rod and securely connected at the other end with the steering rod, substantially as shown and described.

1,257,734. DRIVING APPARATUS FOR HORSES AND OTHER ANIMALS. LYNN S. PACE, Cisco, Utah. Filed Apr. 25, 1917. Serial No. 164,480. (Cl. 21—127.)



1. In an apparatus of the character described, the combination with driving reins; of rotatable drums for said reins having a common axis, and a shaft for rotating said drums in opposite directions to wind the reins thereon and having its longitudinal axis parallel with that of said drums.

2. In an apparatus of the character described, the combination with driving reins; of rotatable drums for said reins having a common axis, and a shaft having its longitudinal axis parallel with that of said drums and adapted to rotate the same in the same direction to wind one of the reins on its drum and unwind the other rein from its drum.

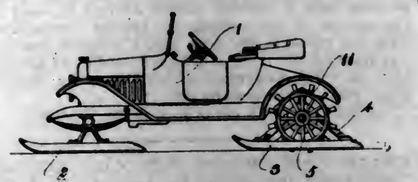
3. In an apparatus of the character described, the combination with driving reins; of a drum for each rein, means for rotating said drums in opposite directions to wind the reins thereon, and means for rotating said drums in the same direction to wind one of the reins on its drum and unwind the other rein from its drum.

4. In an apparatus of the character described, the combination with driving reins; of rotatable drums for said reins having a common axis, and a shaft having its longitudinal axis coincident with that of said drums and adapted to rotate the same in opposite directions to wind the reins thereon.

5. In an apparatus of the character described, the combination with driving reins; of a drum for each rein, a train of gearing operable to rotate the drums in opposite directions to wind the reins upon their respective drums, and other gearing associated with said train of gearing and operable to rotate said drums in the same direction to wind one of the reins on its drum and unwind the other rein from its drum.

[Claims 6 to 17 not printed in the Gazette.]

1,257,735. AUTOSLED. MARK L. PEASLEY, Fishtrap, and THOMAS A. PENCE, Cheney, Wash. Filed Mar. 6, 1917. Serial No. 152,658. (Cl. 180—6.)



1. In a motor sled, the combination with a motor body including the rear axle, of a shaft mounted on said body directly over the rear axle and supporting rear runners, said runners independently supporting the rear of said body and spike wheels mounted on the rear axle and contacting with the ground through a slot in the rear runners, said rear axle being independent of attachment to the rear of said body and capable of self-adjustment to the unevenness of the ground, and means whereby the wheels are flexibly supported centrally of the slot in the runners.

2. A sled attachment for autos consisting of a pair of slotted runners, slotted metal shoes therefor, supporting brackets secured to the runners and provided for axial connection to a shaft rigidly secured to the auto body, spring means connecting with said brackets and the driving axle to maintain the drive wheels centrally of the slots in the runners.

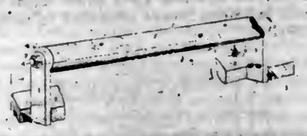
3. An automobile runner comprising a body with an upcurved forward end, a central longitudinal slot therein, having beveled walls converging toward the bottom, a drive wheel mounted to operate through said slot and contacting with the sides thereof to be directed for contact with the ground.

4. In an auto sleigh, the combination with a body having a rear axle, of rear runners axially mounted to said body independently of the rear axle, of spiked wheels mounted on the rear axle and engaging the ground through a slot in the rear runners, spring tension members secured to the axle and to the body forward of the axle and acted upon by depressing members controlled from the foot board to throw the weight of the body upon the axle.

1,257,736. SHOE-POLISHER. JAMES ALBERT PECKHAM, San Jose, Cal. Filed June 26, 1917. Serial No. 176,967. (Cl. 15—58.)

1. In a shoe polisher, the combination of a shaft, rollers on the terminal portions of the shaft spaced apart sufficiently to permit of a foot being supported in its normal position by a portion of said shaft between said roller, and means for supporting the ends of the shaft, the intermediate portions thereof being free from any supporting means.

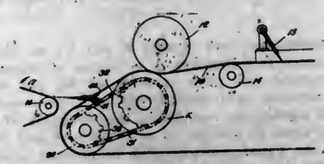
3. In a shoe polisher, a horizontal shaft, three rollers respectively around a mediate and terminal portions of the shaft, a base, and posts on said base for supporting said shaft wholly outside said rollers the terminal rollers



having smooth outer surfaces adapted to permit a polishing cloth to be reciprocated thereover in contact therewith.

[Claims 2 and 4 not printed in the Gazette.]

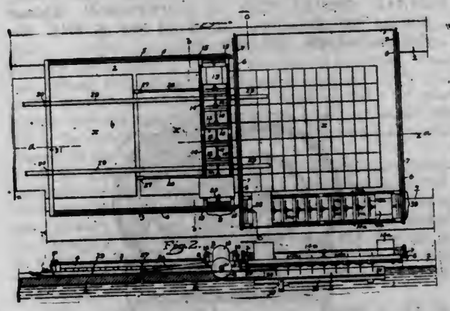
1,257,737. FOURDRINIER MACHINE. CHARLES E. POPE, Holyoke, Mass., assignor to Great Northern Paper Company, Millinocket, Me., a Corporation. Filed Apr. 27, 1915. Serial No. 24,318. (Cl. 92—44.)



1. In a Fourdrinier machine, the combination with the felt-roll, the paper-making wire, and the couch-roll, of an end-roll arranged adjacent the couch-roll and felt-roll over which the wire passes after passing over the couch-roll, a blower orifice beneath the papermaking wire, between the couch-rolls and the end-rolls, arranged to blow the paper sheet from the wire at a point after the paper sheet has left the couch-roll and before it has reached the end-roll and carry it to the press roll felts, and driving-means independent of the wire for said end-roll adapted to maintain that portion of the wire between said couch-roll and end-roll taut and at a predetermined inclination.

[Claims 2 and 3 not printed in the Gazette.]

1,257,738. MECHANISM FOR CUTTING ICE INTO BLOCKS. HOWELL D. PRATT, Philadelphia, Pa., assignor to Link-Belt Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 5, 1915. Serial No. 54,232. (Cl. 143—47.)

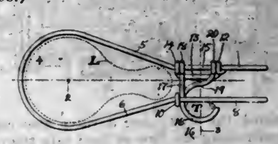


1. The combination of a channel to receive blocks of ice to be cut, longitudinal guides, a saw frame mounted on the guides and spanning the channel, a series of circular saws mounted on the frame and arranged to cut kerfs in the block of ice, means for holding the block of ice during the cutting operation, and means connected with the saw frame for engaging a succeeding block of ice and moving it into position to be cut as the saw frame returns to its first position.

5. The combination in mechanism for cutting ice into blocks, of means for cutting kerfs in the ice both longitudinally and transversely; guide rails for directing the blocks of ice into the cutting position; a pivoted brake having spikes at each end arranged to engage the block of ice and to hold it while it is being cut by the transverse saws.

[Claims 2 to 4 not printed in the Gazette.]

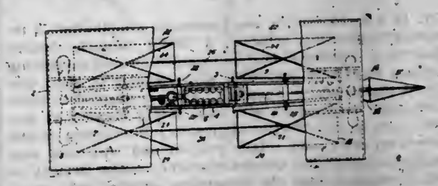
1,257,739. COW-TAIL HOLDER. SOFUS E. RASMUSSEN, Beresford, S. D., and LAUGE L. KIRKEGAARD, Blair, Nebr. Filed July 30, 1917. Serial No. 183,535. (Cl. 119—105.)



1. A cow tail holder, comprising a spring-metal curved leg clasper having opposed coupling ends normally standing spaced, a loop on one coupling end, a hook on the opposite coupling end to protrude through said loop, when the clasper is closed, to engage the brush of a cow's tail inserted in the hook and against the outside of the loop, whereby the hook is gripped against the brush of the cow's tail by the resiliency of the clasper closed around the cow's leg and the gripped brush of the tail serves as a removable key to prevent withdrawal of the hook from the loop.

[Claims 2 to 5 not printed in the Gazette.]

1,257,740. AEROPLANE. JOHN H. ROBERTSON, Pontiac, and ALBERT E. ROBERTSON, Walled Lake, Mich. Filed June 15, 1916. Serial No. 103,872. (Cl. 244—14.)



1. In a self propelled air craft, the combination with a single longitudinally extending main sustaining plane, a propeller for effecting a forward movement of said plane and beneath said plane, a pair of altitude planes at each side of the vertical plane of the longitudinal center line of said main plane, said altitude planes being tiltable about horizontal axes, and means for tilting said pairs of altitude planes independently of each other.

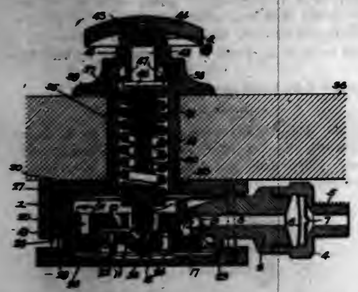
[Claims 2 to 4 not printed in the Gazette.]

1,257,741. PRESSURE-REGULATOR. PERCY RUSSELL, Philadelphia, Pa., and ADOLPH W. SCHRAMM, Rivérton, N. J., assignors to Electro Dental Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Dec. 2, 1916. Serial No. 134,615. (Cl. 50—26.)

3. A pressure regulator consisting of a casing having within it an inlet conduit terminating in an inclined face; a structure in the casing having a passage terminating in a valve seat and connecting with said inlet conduit; an arm movably connected to the structure; a valve carried by the arm in position to coact with the valve seat; and means operative on the arm for governing the passage of fluid under pressure from the inlet into the casing, said structure with the arm and valve being removable as a unit from the casing.

14. The combination in a pressure regulator of a casing; a diaphragm; a plate

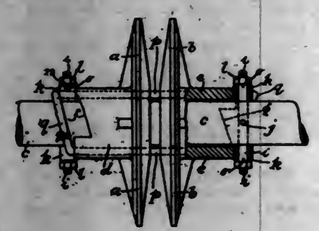
having an opening for the passage of the stud; an arm movably mounted on the plate; a screw carried by the



arm and engaging the stud; and a valve also carried by the arm for controlling the flow of fluid into the casing.

[Claims 1, 2, and 4 to 13 not printed in the Gazette.]

1,257,742. VARIABLE-SPEED FRICTION AND BELT GEARING. THOMAS J. F. RYLAND, London, England. Filed Nov. 28, 1914. Serial No. 874,532. (Cl. 74—26.)



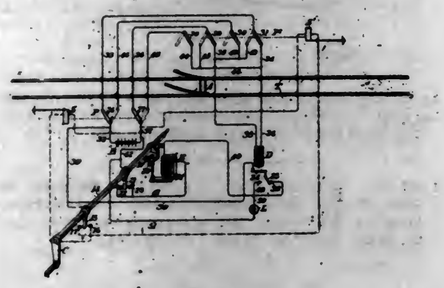
1. In a speed varying mechanism, in combination, a revolving supporting member; a rotary friction element effective at varying diameters mounted on said supporting member to revolve therewith while capable of being displaced therealong; a companion member adapted to make contacting engagement with said rotary element at any and each of its effective diameters; interacting means associated with said rotary element and with said supporting member for constraining the rotary element in said movement upon the supporting member, said interacting means being effective by relative rotary motion thereof about the axis of said supporting member and comprising a tandem series of dissimilar flat or substantially flat helical surfaces which vary in pitch to correspond to a series of different speeds and a co-acting stop formed with a flat or substantially flat surface for contacting with the helical surfaces the said stop being rotatable or adjustable with respect to the tandem series of helical surfaces to bring the said contacting surface of the stop into surface contact with any and each of the said helical surfaces.

19. Shift mechanism for a directly contacting variable speed power transmission mechanism of the kind described; said shift mechanism comprising a slide, a stepped slope associated with said slide and a stop acting conjointly with said slope to first actuate said slide and thereafter positively lock the slide in any and each of its adjusted positions.

[Claims 2 to 18 and 20 not printed in the Gazette.]

1,257,743. INDICATION APPARATUS FOR RAILWAY-TRAFFIC-CONTROLLING APPARATUS. JOHN E. SAUNDERS, Edgewood borough, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed July 12, 1917. Serial No. 180,081. (Cl. 246—53.)

1. In combination, two signals, an electro-magnetic device responsive to reversals of current, contacts and connections controlled by said signals for energizing said device in one direction when both signals indicate stop and in the reverse direction when either signal indicates proceed, and indication means controlled by said electromagnetic device.

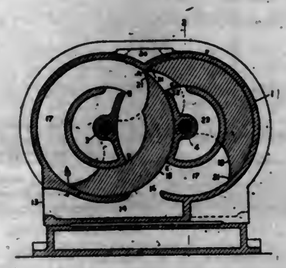


4. In combination, two signals S and S', an electromagnetic device D responsive to reversals of current, a source of current, two pairs of wires 33, 36, and 46, 48 extending between said signals, contacts controlled by one of said signals for connecting the terminals of said source with wires 33 and 36, or with wires 46 and 48 according as the signal indicates stop or proceed, contacts controlled by the other signal for reversibly connecting the electromagnetic device D with wires 33 and 36 according as the signal indicates stop or proceed and for connecting said device D with the wires 46 and 48 when the signal indicates stop, said connections being so arranged that the device D is energized in one direction when both signals indicate stop and in the other direction when either signal indicates proceed, and indication means controlled by said device D.

7. In combination, two signals, a controlling lever for said signals, an electromagnetic device responsive to reversals of current, contacts and connections controlled by said signals for energizing said device in one direction when both signals indicate stop and in the reverse direction when either signal indicates proceed, and locking means for said lever controlled by said device and rendered effective to release the lever when the device is energized in the first-mentioned direction.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,257,744. ROTARY PUMP OR COMPRESSOR. ROBERT SCHORR, San Francisco, Cal. Filed Mar. 8, 1917. Serial No. 153,290. (Cl. 230—30.)



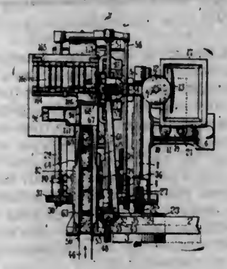
1. In combination with a housing, two hollow semi-cylindrical rotors revoluble in opposite directions in said housing, said housing having stationary outlet chambers arranged concentrically with the respective rotors.

3. In combination with a housing, two hollow semi-cylindrical rotors and revoluble in opposite directions in said housing having end surfaces arranged to insure riding contact of an end of one rotor upon an adjacent end of another rotor during the end of the discharging period, said housing having stationary outlet chambers arranged concentrically with the respective rotors.

8. In combination with a housing having inlet passages for fluid and stationary outlet chambers, two hollow semi-cylindrical rotors revoluble in opposite directions, and having end surfaces shaped to permit riding contact of the surface of one rotor upon the surface of the other rotor during the end of the discharging period, and means for moving the rotors in unison from the outside of the housing.

[Claims 2 and 4 to 7 not printed in the Gazette.]

1,257,745. CARTON-SEALING MACHINE. ERNEST A. SCHROEDER and JOHN N. TOOKER, Syracuse, N. Y., assignors to Church & Dwight Company, New York, N. Y., a Corporation of Maine. Filed Oct. 15, 1915. Serial No. 56,012. (Cl. 93—6.)



1. In a machine of the character described, a carton guide, reciprocating means intermittently gripping the cartons for advancing them along said guide, and converging guides for truing up the flaps at the open tops of the cartons as they are advanced.

2. In a machine of the character described, a carton guide, a reciprocating carriage, levers thereon having arms for frictionally engaging the cartons to intermittently advance the cartons along said guide and a cam movable on the carriage for controlling the action of said levers.

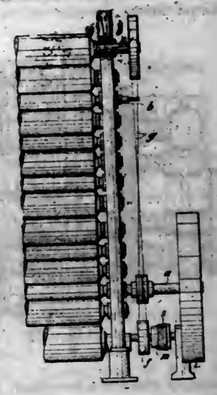
8. In a machine of the character described, a carton guide, a pusher and its reciprocating means including upper and lower slides, a locking pin and its operating lever and means for advancing successive cartons along the guide into engagement with said lever in front of said pusher whereby the movement of the lever will cause the pin to interlock the slides to bring the pusher under the control of its reciprocating means.

10. In a machine of the character described, a longitudinally reciprocating folding and sealing carriage, laterally movable means for feeding a carton thereto when the carriage is in one position, laterally movable means for expelling the carton therefrom when the carriage is in another position, and means for causing the carriage to dwell an appreciable time at its receiving and expelling positions.

[Claims 3 to 7, 9, and 11 to 26 not printed in the Gazette.]

1,257,746. ROLL-CALENDER. CARL SCHÜRMANN, Dusseldorf, Germany. Filed Mar. 25, 1916. Serial No. 86,556. (Cl. 92—73.)

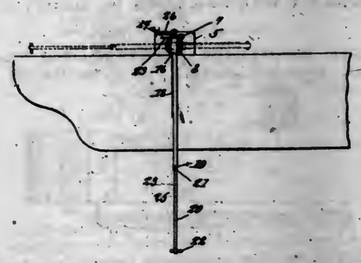
1. Roll calender for paper, woven fabrics and similar materials, comprising supporting rolls for the web to be reeled, said supporting rolls being driven from one of the calender rolls which is rotated by peripheral friction, any increase in friction between the calender driving roll and



said calender roll, causing a corresponding automatic regulation of the tension of the reeled material.

[Claims 2 and 3 not printed in the Gazette.]

1,257,747. APPARATUS FOR CARRYING SUBMARINE TORPEDOES. BENJAMIN F. SCIFORD, Eagle Butte, S. D. Filed Oct. 3, 1917. Serial No. 194,555. (Cl. 114—19.)



1. In a torpedo holder, a base, a gear wheel rotatably mounted thereon, a housing carried by the gear wheel, a rack bar slidable within the housing, a pinion, a shaft journaled in the gear wheel on which the pinion is mounted, said pinion engaging the rack bar, a pin for holding the rack bar in one position of adjustment and adapted to be sheared when force is applied to the rack bar, means for yieldingly holding the rack bar when released, and means for rotating the gear wheel.

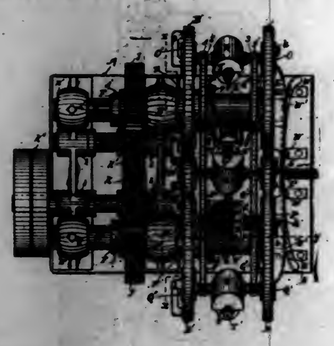
[Claims 2 and 3 not printed in the Gazette.]

1,257,748. WIRE-BENDING MACHINE. CHARLES C. SELEY, Corry, Pa., assignor to George H. Barlow and Joseph J. Desmond, Corry, Pa. Filed Aug. 11, 1916. Serial No. 114,392. (Cl. 140—91.)

1. In a machine of the character described, a front figure-eight guideway, a rear figure-eight guideway arranged in spaced relation to said front guideway, the axes of the loops of said rear guideway being in alinement with the axes of the loops of said front guideway, a spool carrier mounted in the space between said front and rear guideways, and means operating between said front and rear guideways for causing said spool carrier to traverse said guideways, substantially as set forth.

4. In a machine of the class described, a guide-plate having a figure-eight raceway therein, a shuttle in said raceway, and triangular plates secured on said guide-plate above and below the crossing of said raceway between the loops thereof so that the inclined edges thereof will be

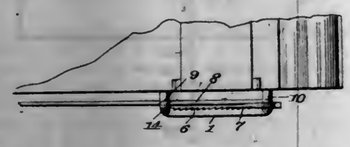
parallel with the raceways and adapted to cause said shuttle to cross from one loop of the raceway to the other, substantially as set forth.



5. In a machine of the class described, a spool-carrier mechanism, supporting studs on opposite sides thereof, a raceway plate in front of said spool-carrier, a raceway plate behind said spool-carrier mechanism, said raceway plates receiving and supporting the studs on said spool-carrier, and mechanism operating between said front and rear raceway plates to cause said studs to traverse the raceway in each of said raceway plates, substantially as described.

[Claims 2, 3, and 6 not printed in the Gazette.]

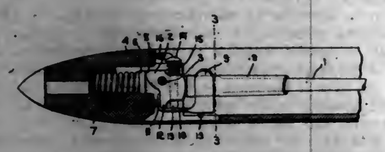
1,257,749. HAND-LEVER. IVAN F. SELSTROM, Stockett, Mont. Filed Mar. 28, 1917. Serial No. 158,003. (Cl. 74—39.)



1. The combination with a toothed rack having side portions adapted to be secured to a support, a lever movable into and out of engagement with said teeth, a housing secured upon each of said side portions, springs arranged within said housing, a rod bearing against said lever and having its opposite ends received in said housing and adapted to be engaged by said springs, said rod normally holding said lever in engagement with the rack.

[Claims 2 to 4 not printed in the Gazette.]

1,257,750. SHUTTLE. JOHN C. SHAMBOW, Woonsocket, R. I. Filed Oct. 16, 1916. Serial No. 125,765. (Cl. 139—27.)



1. In a shuttle, the combination of a spindle pivotally mounted in the shuttle body and adapted axially to receive a filling carrier, clamping means on opposed sides of the spindle yieldably to clamp a filling carrier thereon when the spindle is in operative position, and means for movably mounting said clamping means so that the carrier may be automatically released on raising of the spindle to inoperative position.

6. In a shuttle, the combination of a spindle having its head pivotally mounted in the shuttle body and adapted axially to receive a filling carrier; a rigid shank member yieldably mounted to reciprocate in said head; and a pair of plate members provided on said shank extending transversely to the spindle axis, one on each side thereof, each of said plate members having an inwardly projecting median portion affording opposed gripping surfaces of an area sufficient firmly to grip the filling carrier.

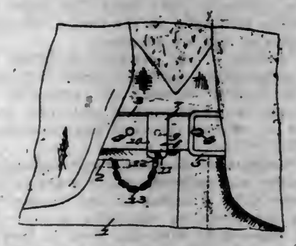
[Claims 2 to 5 not printed in the Gazette.]

1,257,751. BATH SPRAY-FIXTURE. BERNARD P. SMITH, St. Louis, Mo. Filed Apr. 9, 1917. Serial No. 160,664. (Cl. 4—26.)



A spray attachment to bath tub faucets comprising means for attachment to a faucet, a chamber of small depth compared with its width and having its bottom wall directed across the flow from the faucet, a perforated arcuate front wall having the perforations therein of different sizes, the perforations of greatest size being at the middle, thereby confining the entire spray substantially to the shape of a bath tub, a perforated rear wall for directing a washing spray over the wall of the tub adjacent the faucet, and a stationary deflector projecting beyond the chamber for confining the spray within the tub, the aforesaid combination constructed for arrangement below the faucet to which it is attached.

1,257,752. WATCH-HOLDER. JAMES E. SMITH, Madisonville, La. Filed Aug. 29, 1917. Serial No. 188,876. (Cl. 24—3.)



2. A watch holder of the character described including in combination with a belt having a plurality of openings in one portion thereof, a rectangular loop frame removably engageable with the belt and having one cheek thereof provided with a rectangular opening, a pin projecting centrally from the inner face of the other cheek of the belt and terminating in the plane of the inner surface of the open cheek and designed for engagement with any one of the openings in the belt, a projection formed on the lower end of the frame and provided with a transverse opening, and a ring loosely connected in the transverse opening and adapted for engagement with the watch chain.

[Claim 1 not printed in the Gazette.]

1,257,753. FLUID-OPERATED MOTOR. WILLIAM A. SMITH, Denver, Colo., assignor to The Denver Rock Drill Manufacturing Company, Denver, Colo., a Corporation of Delaware. Filed Dec. 27, 1916. Serial No. 139,140. (Cl. 121—21.)

1. In apparatus of the character set forth, the combination with a cylinder member comprising a body having a piston chamber and a head block, of means for supplying motive fluid to the cylinder member, comprising an inlet having branches in the head block and passageways in the cylinder body leading from the branches and having supply ports opening into the piston chamber, a piston operating in the chamber, said piston having distributing channels in constant communication with the ports and said channels alternately opening into the piston chamber on opposite sides of the piston accordingly as said piston reciprocates, means permitting the exhaust from the piston chamber on opposite sides of the piston, said exhaust



permitting means being controlled by the piston, the distributing channels of said piston overrunning or passing the transverse planes of the exhaust permitting means while maintaining communication with said supply ports but being out of line with said exhaust permitting means, and means for maintaining the piston to a fixed path to maintain the proper relation of the ports and channels and pervent improper relations between the channels and exhaust permitting means.

[Claim 2 not printed in the Gazette.]

1,257,754. PROCESS FOR PRESERVING GREEN FODDER IN THE FORM OF SWEET GREEN FODDER. JOHANN ROBERT SONDEREGGER, Nesslau, ALBERT MESSMER, Rapperswil, and FRIEDRICH ERDRICH, Zurich, Switzerland, assignors to Carl Reinhardt, Berne, Switzerland. Filed Dec. 19, 1917. Serial No. 207,918. (Cl. 99—11.)

1. The process for preserving air-dried green fodder in the form of sweet green fodder in a container, which consists in stacking the air-dried fodder in the container loosely in successive layers having their greatest thickness at the center, the bottom layer being allowed to become heated by self-fermentation to a temperature of about 60 to 65 degrees centigrade before stacking the next layer upon it, and each following layer being allowed to become heated by self-fermentation to a temperature of about 50 to 55 degrees centigrade, before stacking the next layer upon it.

9. A process of preserving air-dried green fodder in the form of sweet green fodder, which comprises stacking such air-dried fodder in successive layers in a container, allowing the bottom layer to become heated by fermentation to a temperature of about 60 to 65° C., before stacking the next layer thereupon, allowing each of the successive layers above the first to become heated to a temperature of about 50 to 55° C., before stacking the next layer thereupon, and after a number of layers have been so placed, and the top layer has reached the said temperature of about 50 to 55° C., applying pressure to the stack, said pressure being applied first at the central portions of the layers and being successively applied to points farther away from the center until it reaches the outside portions of said stack.

[Claims 2 to 8 not printed in the Gazette.]

1,257,755. VISE OR CLAMP. HAROLD SOUTHON, Putney, London, England. Filed Jan. 25, 1917. Serial No. 144,489. (Cl. 81—33.)

1. A support, a swinging frame mounted on the support, fixed and movable jaws carried by the swinging frame, an adjusting means for the movable jaw disposed in line with the axis about which the frame is free to swing.

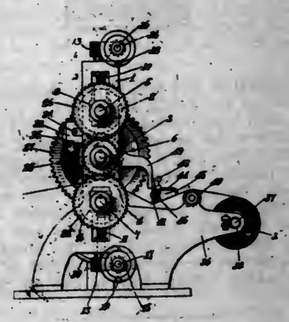
3. A support, a swinging frame journaled at opposite ends on the support, fixed and movable jaws on the frame disposed between the journals thereof, and adjusting means for the movable jaw in line with the axis of the swinging frame and passing through a journal thereof and the bearing of the support receiving such journal.



6. A support having open spaced bearings, a U-shaped frame having journals at opposite ends to swingingly mount the frame in said open bearings, said frame having a fixed jaw at one end, a movable jaw on the frame, and adjusting means for the movable jaw extending through the journal of the frame remote from the fixed jaw thereof.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,257,756. PROCESS FOR PRODUCING ARTIFICIAL LEATHER. FIN SPARRE, Wilmington, Del., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed Sept. 3, 1914, Serial No. 859,973. Renewed July 10, 1917. Serial No. 179,768. (Cl. 91—68.)

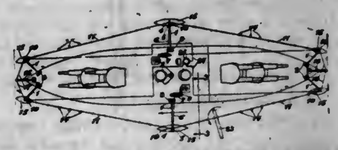


1. The process of producing a coated fabric, which comprises applying to the fabric one or more coats of a film-producing nitrocellulose composition, each coat being dried after its application, and then applying a coating of plastic material in sheet form by means of pressure.

5. The process of producing a coated fabric, which comprises applying to the fabric one or more coats of nitrocellulose composition in the form of a jelly, each coat being dried after its application, then applying a coating of cementing material, and then before the cementing material has been allowed to dry applying a coating of nitrocellulose plastic by means of calender rolls.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,257,757. TORPEDO-GUARD. PHILIP A. STEPHENS, St. Louis, Mo. Filed June 9, 1917. Serial No. 173,757. (Cl. 114—240.)

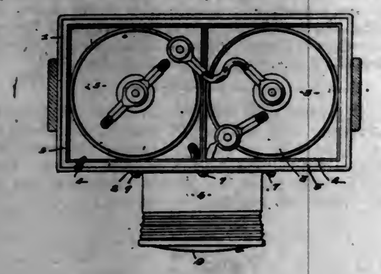


2. A torpedo guard, comprising a series of longitudinal and vertical strands of cable attached together, the space between the vertical strands being sufficient to receive the entire body of a torpedo therebetween, supporting means whereby said guard is supported at the side of the vessel, weights attached to the bottom of

said guard for holding the same in substantially a vertical position, and an arm extending from the bow of the vessel and having stay wires attached to the outer end thereof and to the bottom of said guard.

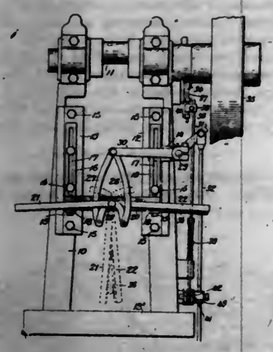
[Claims 1 and 3 to 5 not printed in the Gazette.]

1,257,758. BATTERY-BOX AND LANTERN. ROBERT J. STEPHENSON, Auburn, N. Y., assignor to The Stephenson Supply Company, Inc., Auburn, N. Y., a Corporation of New York. Filed Aug. 7, 1914. Serial No. 855,621. (Cl. 240—8.5.)



The combination of a battery box comprising two compartments, the box having an opening in one side opening into both compartments into the space present between the batteries therein, a lamp casing mounted on the outside of the box, a lamp socket supported by the casing in position to expose the terminals of the lamp in the space between the batteries, and through said opening, connections between the terminals of the batteries and the lamp socket terminals, said connections extending into the space between the batteries, and a switch on the box for controlling the flow of current to the lamp socket, substantially as and for the purpose set forth.

1,257,759. SAFETY ATTACHMENT FOR MACHINES. ABRAHAM STIER, Brooklyn, N. Y. Filed Aug. 7, 1916. Serial No. 113,417. (Cl. 74—105.)



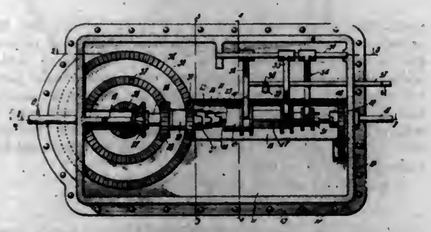
1. In a safety attachment for machines, the combination with a machine frame and a clutch, of a treadle rod adapted to operate the clutch, levers pivotally mounted upon a fixed support and adapted to pass each other, and means positively connecting said levers with said treadle rod whereby the movement of said treadle rod will be arrested by an interruption of the movement of said levers.

2. In a safety attachment for machines, the combination with a machine frame, of a shaft and clutch, a treadle rod to control the clutch, levers pivoted to the frame and adapted to pass each other, an arm connected with the rod, and a second arm on the same shaft as the first and connected with the levers.

3. In a safety attachment for a machine, the combination with a machine frame, of a driving shaft, a clutch, levers pivoted at the front of the machine and adapted to pass each other, a rod adapted to operate the clutch, a shaft at the side of the frame, an arm on the shaft and connected with the rod, a second arm on the shaft, and links connecting the latter arm with the levers.

[Claims 4 and 5 not printed in the Gazette.]

1,257,760. TRANSMISSION MECHANISM. HERMAN E. STODDARD, Springfield, Mass. Filed June 8, 1916. Serial No. 102,525. (Cl. 74—59.)



1. A transmission mechanism comprising a casing, a driving shaft extending into said casing, a driven shaft extending into said casing and rotatably engaging the inner end portion of the driving shaft, a clutch gear loosely mohnted upon said driven shaft, the inner end portion of said driving shaft being provided with a clutch head, a clutch sleeve slidably mounted upon the inner end portion of said driven shaft and held against rotation thereon and having its end portions provided with clutch teeth for engaging the clutch head and clutch gear when the clutch sleeve is longitudinally adjusted upon the driven shaft, a gear plate rotatably mounted in said casing, and having a plurality of circular rows of gear teeth, a gear carried by said driving shaft for transmitting rotary movement of the driving shaft to the gear plate, a sleeve rotatably mounted upon the inner end portion of said driving shaft and provided with a gear meshing with a row of teeth of said gear plate and having its inner end portion provided with a clutch head, a clutch sleeve slidably mounted upon the first mentioned clutch sleeve and provided with clutch teeth for engaging the clutch head of the sleeve mounted upon said driving shaft, a sleeve rotatably mounted upon the sleeve of said driving shaft and provided with a gear engaging the other row of teeth formed upon said gear plate and provided with clutch teeth, a clutch sleeve slidably mounted upon said last mentioned clutch sleeve and provided with teeth for engaging the last mentioned clutch teeth, means for moving said clutch sleeve into and out of an operative position, a shaft rotatably mounted in said casing and provided with gear wheels, one of the gear wheels engaging another row of teeth formed upon said gear plate, and a gear wheel in said casing meshing with the teeth of the second gear wheel of the last mentioned shaft and with the teeth of the clutch gear.

3. A transmission mechanism comprising a housing, a driving shaft extending into said housing, a driven shaft extending into said housing, a clutch element rotatably mounted upon said driven shaft, means for transmitting rotary movement from said driving shaft to said clutch element to rotate the clutch element in an opposite direction to the rotation of said driving shaft, means for selectively connecting said driven shaft with said clutch element and with said driving shaft for changing the direction of rotation of said driven shaft, and means associated with the first mentioned means for transmitting rotary movement from the driving shaft to the driven shaft to rotate the driven shaft at a different rate of speed from said driving shaft.

6. A transmission mechanism comprising a casing, a driving shaft extending into said casing, a driven shaft extending into said casing, a clutch element rotatably mounted upon said driving shaft, a clutch element rotatably mounted upon the first mentioned clutch element of said driving shaft, means for transmitting rotary movement from said driving shaft to said clutch element including a gear plate engaging the clutch element, a clutch element slidably mounted upon the driven shaft, a second clutch element slidably mounted upon the first mentioned clutch element of said driven shaft, and means for simultaneously moving the clutch element of said driven shaft in opposite directions to move one into operative relation to the corresponding clutch sleeve of the driving shaft when the second clutch sleeve of the driven shaft is moving to an inoperative position.

[Claims 2, 4, 5, and 7 not printed in the Gazette.]

1,257,761. MOTOR-CYCLE FRAME. ANDREW STRAND, Minneapolis, Minn. Filed June 28, 1915. Serial No. 36,663. (Cl. 208—94.)



1. A vehicle frame, comprising, pivotally connected frame sections, a cantaliver spring interposed between and spacing said frame sections apart, and means for rigidly securing said frame sections together when desired to eliminate the action of said cantaliver spring.

[Claims 2 and 3 not printed in the Gazette.]

1,257,762. SUBAQUEOUS PILE-HAMMER. THOMAS E. STUBTEVANT, Dover, N. J., assignor to McKiernan-Terry Drill Company, Dover, N. J., a Corporation of New Jersey. Filed Apr. 17, 1917. Serial No. 162,697. (Cl. 61—89.)



1. A casing constructed to form an elongated chamber, a reciprocatory hammer block therein, an actuating rod affixed to the hammer block and extending above said chamber, an upper head having a water-tight bearing for the rod, and arranged to close the upper end of the hammer block chamber, a lower head at the other end of the chamber, an anvil block slidably fitted in said lower head closing the lower end of said chamber and means for supporting the anvil block in said lower head.

2. A casing constructed to form an elongated chamber, a reciprocatory hammer block therein, a portion of the inner walls of said casing forming guides for the hammer block, an actuating rod affixed to the hammer block and extending above said chamber, an upper head, having a water-tight bearing for the rod, said head being arranged to close the upper end of the hammer block chamber, a lower head at the other end of the chamber, having a cylindrical bore, an anvil block slidably fitted therein closing the lower end of said chamber and means for supporting the anvil block in said lower head.

3. A casing constructed to form an elongated chamber, a reciprocatory hammer block therein, a portion of the inner walls of said casing forming guides for the hammer block, an actuating rod affixed to the hammer block and extending above said chamber, an upper head, having a water-tight bearing for the rod, said head being arranged to close the upper end of the hammer block chamber, a lower head at the other end of the chamber, having an annular collar and a cylindrical bore, an anvil block having a cylindrical body portion of less length than that of the bore in said lower head fitted in said bore and having end portions of smaller diameter, the upper end portion of said envil block projecting into said annular collar, and an end member surrounding the lower end portion of the anvil block adapted to fit over the end of a pile.

4. A prismatic body having a cylindrical bore forming an elongated chamber, a cylindrical recprocatory hammer block therein, the walls of said bore being cut away longitudinally to provide for free circulation of air from one end of the hammer block to the other, an actuating rod affixed to the hammer block and extending above said chamber, an upper head, having a water-tight bearing for the rod, said head being arranged to close the upper end of the hammer block chamber, a lower head at the other end of said chamber having an annular collar and a cylindrical bore, an anvil block having a cylindrical body portion of less length than that of the bore in said lower head, fitted in said bore, a packing ring in said cylindrical body portion, said anvil block also having end portions of smaller diameter, the upper end portion of the anvil block projecting into said annular collar, an end member, surrounding the lower end portion of the anvil block and adapted to fit over the end of a pile, said upper lower heads and end member having the same external shape in cross section as that of the prismatic body, and through bolts near the corners of said parts for tying the upper head, the body, the lower head and the end member together.

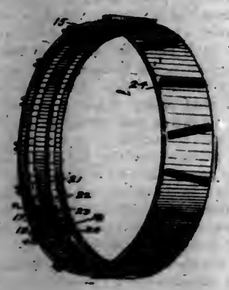
5. A casing constructed to form an elongated chamber, a reciprocatory hammer block therein, an actuating rod affixed to the hammer block and extending above said chamber, an upper head having a water-tight bearing for the rod, and arranged to close the upper end of the hammer block chamber, a lower head at the other end of the chamber, an anville block slidably supported in said lower head closing the lower end of said chamber, and means for supporting the anvil block is said lower head, and means for admitting air under pressure to the hammer block chamber.

[Claims 6 to 11 not printed in the Gazette.]

1,257,763. METAL TREAD ATTACHMENT FOR TIRES. YOSI TAMAKI, Los Angeles, Cal. Filed Jan. 20, 1917. Serial No. 143,509. (Cl. 152—16.)

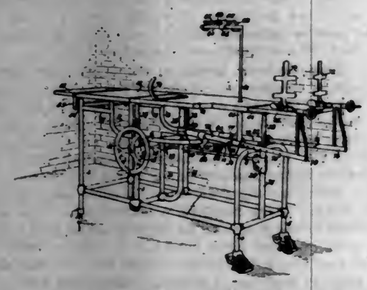
In a metal tread attachment for tires, the combination with a pneumatic tire, of an annular flat tire band circumscribing the periphery of the tire and extending outwardly at opposite sides of the tire to form a wide tread surface of greater width than the width of the tire; the ends of said band overlapping each other; and clamping bolts

secured through the outer overlapping end of the band and extending inwardly through circumferentially ar-



ranged slots formed through the inner overlapping end of the band, whereby the circumferential length of the band may be adjustably determined.

1,257,764. ORTHOPEDIC TABLE. SALVADOR TASCARELLA, Brooklyn, N. Y. Filed May 11, 1917. Serial No. 167,893. (Cl. 128—16.)



1. A table of the character described, comprising a frame, a vertically movable section, a sliding extension arranged at one end of said section, and a horizontally movable section coacting with the vertically movable section, said horizontally movable section being movable up to but not overlapping the vertically movable section, and means connected with said horizontally movable section forming an extension therefor.

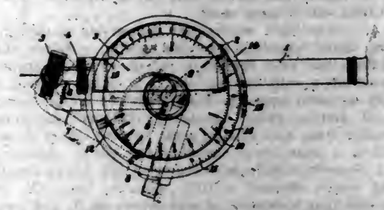
3. A table of the character described, comprising a pair of adjustable sections, a pair of tension devices arranged above said sections, a horizontally swinging structure supporting each of said devices, each of said horizontally swinging structures comprising a sleeve having an opening therein and a rod having a plurality of openings therein, a pin adapted to be thrust through the openings in said rod and said sleeve when in register for locking a rod in any adjusted position, a guide rail, and means for clamping said sleeve to said guide rail at any point.

4. A table of the character described, comprising a supporting frame, a bodily vertically movable section, a bodily horizontally movable section, and tension means arranged normally above said sections, said tension means including a sleeve, means for clamping the same in any adjusted position, a slidable and rotatable bar, and means for locking said bar in any adjusted position.

7. A table of the character described, comprising a front section, means for moving the same vertically, a horizontal slidable extension arranged at one end of said section, a horizontally movable section arranged adjacent the opposite end of said section, and a hinged extension arranged on said horizontally movable section.

[Claims 2, 5, 6, and 8 not printed in the Gazette.]

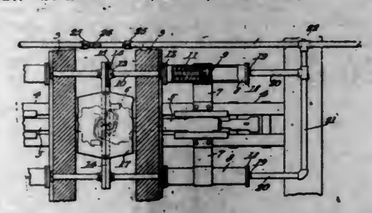
1,257,765. MARINE RANGE-FINDER. ALFRED TAYLOR and PERCY WILLIS GRAY, York, England. Filed May 23, 1914. Serial No. 840,512. (Cl. 88—2.4.)



1. A range finder including in combination, a sighting instrument having a fixed sighting element and a shiftable light-deflecting sighting element, whereby two lines of sight may be used to find the variable angle of a measuring triangle, a shiftable logarithmic slide having one part for indicating the remote bases and another part for indicating ranges, and means connecting the shiftable slide with said shiftable sighting element, whereby the logarithmic slide is moved through a distance corresponding to the logarithmic tangent of the angle subtended by the object viewed.

2. A range-finder including in combination, a sighting instrument having a fixed sighting element and a shiftable light-deflecting sighting element, whereby two lines of sight may be used to find the variable angle of a measuring triangle, a circular dial having a logarithmic range scale thereon, an annulus concentric with said dial, said annulus having a pointer coöperating with the scale on the dial and a logarithmic scale of the remote base, said range finder having a fixed pointer coöperating with said last named logarithmic scale, a cam connected to said dial and operating to move the shiftable light-deflecting sighting element, said cam being shaped so that the same is rotated through a distance corresponding to the logarithmic tangent of the variable angle of the measuring triangle.

1,257,766. TRAIN SLACK-ADJUSTER. NATHAN B. TEMPLE, Rockingham, N. C., assignor of one-half to John L. Hawley, Rockingham, N. C. Filed June 8, 1917. Serial No. 173,593. (Cl. 213—2.)

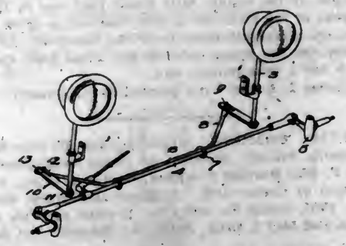


1. A train slack adjuster comprising cylinders, pistons in the cylinders, piston rods extending from the pistons, buffer bars pivoted to the piston rods, fluid pressure means for forcing the pistons to project the piston rods, and resilient means in each cylinder for retracting the pistons and separating the buffer bars upon release of the fluid pressure.

[Claim 2 not printed in the Gazette.]

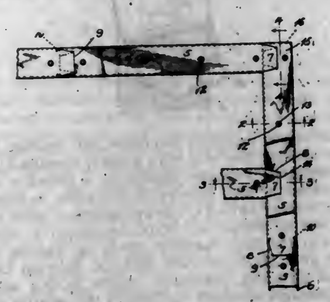
1,257,767. DIRIGIBLE HEADLIGHT FOR AUTOMOBILES. GEORGE E. THOMPSON, Manhattan, Kans. Filed Mar. 3, 1917. Serial No. 152,357. (Cl. 240—62.)

The combination with a vehicle having rotatably mounted lamp supporting brackets and a transverse steering rod, of a substantially U-shaped member having its base extending parallel with and secured to said rod and a pair of arms projecting rearwardly therefrom, pins projecting upwardly from the free extremities of said arms, straps having one of their ends rigidly connected to the supporting brackets and extending rearwardly from the same, and said straps having longi-



tudinally extending slots in their free ends adapted to receive the pins on the ends of its arms of the U-shaped member.

1,257,768. TENNIS-COURT MARKER. HARRY C. TURNER and WILLIAM A. TUFTS, Los Angeles, Cal. Filed Dec. 1, 1915. Serial No. 64,393. (Cl. 46—24.)



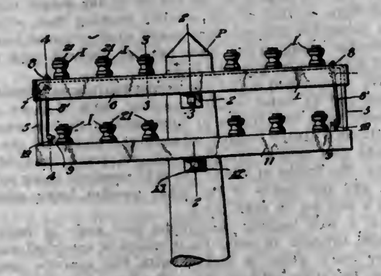
1. A metallic boundary marker comprising pieces having securing edge flanges thereon adapted to be embedded in the material to be marked, and connecting means joining said pieces whereby substantially continuous boundary lines may be marked.

2. A line marker comprising metallic channel pieces and means for connecting the same to afford a substantially continuous line marking means.

3. A line marker comprising sheet metal pieces having ground penetrating edge portions and connecting means for holding said pieces against relative movement in any direction with respect to each other.

[Claims 4 to 11 not printed in the Gazette.]

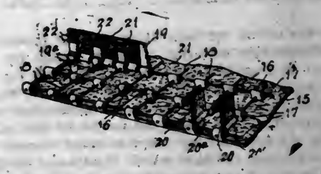
1,257,769. TELEPHONE-POLE CROSS-ARM. LAFAYETT M. VINCELL, Pedro, Ohio. Filed Feb. 27, 1917. Serial No. 151,305. (Cl. 189—38.)



1. A cross arm structure for telephone poles and the like comprising upper and lower arms of inverted U-shaped cross section and of sheet metal, the intermediate leaf of the upper arm being turned down into feet secured to the extremities of its side leaves and depending below them into contact with the lower arm, insulators carried by the intermediate leaves of both arms, perforated lugs on both the arms, an upright support, and fastening means passing through the perforations into the support; combined with eyes rising from the lower arm adjacent its ends, hooks detachably engaged therewith, and adjustable connections between the upper ends of the hooks and the upper arm, for the purpose set forth.

[Claims 2 and 3 not printed in the Gazette.]

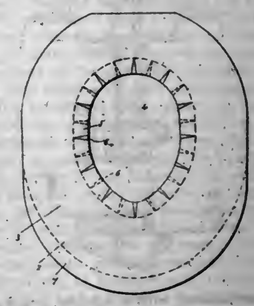
1,257,770. COLLAPSIBLE EGG-CASE. LESTER EARL VOIGTS, Streator, Ill. Filed Oct. 20, 1917. Serial No. 197,625. (Cl. 217—30.)



1. A collapsible egg packing tray including a base plate, intersecting wires extending across the base plate, one set of wires being arranged at a higher elevation than the other set of wires, continuous partitions pivotally mounted on the higher set of wires, and intersecting partition sections pivotally mounted upon the lower set of wires and arranged between the continuous partitions for coöperation therewith to provide cells, the partition sections being foldable against the base and the continuous partitions being foldable against the partition sections.

[Claims 2 to 6 not printed in the Gazette.]

1,257,771. TOILET-SEAT. ISAAC N. WELLS, Redondo Beach, Cal. Filed June 19, 1917. Serial No. 175,607. (Cl. 4—18.)



1. A protector for a toilet seat, comprising a flexible sheet provided with an under layer of absorbent material and an upper ply of waterproof material secured thereto, said sheet having a seat opening, and the upper ply having a notched flange which overhangs the absorbent under layer around the seat opening and which projects through the opening of the under layer when bent downwardly.

[Claim 2 not printed in the Gazette.]

1,257,772. SEPARATION OF VOLATILE PRODUCTS FROM SOLID CARBONACEOUS MATERIAL. WALTER WILLIAM WHITE, High Holborn, London, England. Filed Sept 1, 1916. Serial No. 118,004. (Cl. 196—21.)

1. The process for separating condensable volatile products from solid carbonaceous material distilled in a re-

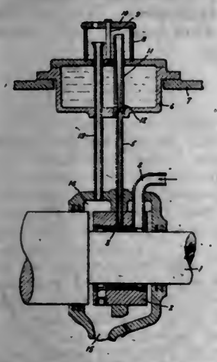
tort, which consists in heating the material to a graduated temperature, withdrawing the distilled vapors arising at different temperatures from contact with the solid material, leading the separated vapors distilled at higher temperatures through the separated vapors distilled at lower temperatures to cause condensation and removing the liquefied volatile matter from the uncondensed vapors, the condensation taking place out of contact with the said solid material.



4. In apparatus for separating volatile products from solid carbonaceous material, a retort, means for heating the retort to a graduated temperature, means for conveying the solid material through the retort, a vapor collecting and condensing chamber communicating with the said retort at stages along the length of the latter, an outlet for the uncondensed vapor situated toward the end of the said vapor chamber which is adjacent to the inlet end of the retort and an outlet for the liquefied volatile matter, the vapor chamber and outlets being adapted to prevent contact of the separated vapors and their condensates with the said solid material.

[Claims 2, 3, and 5 to 8 not printed in the Gazette.]

1,257,773. LUBRICATING SYSTEM FOR BEARINGS. OSKAR ANTON WIBERG, Finspong, Sweden, assignor, by mesne assignments, to Aktiebolaget Ljungströms Angturbin, Stockholm, Sweden, a Corporation. Filed July 19, 1917. Serial No. 181,622. (Cl. 64—24.)



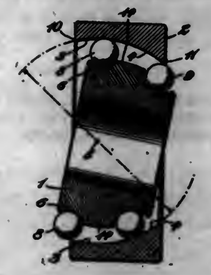
1. The combination with a bearing and means for supplying lubricant thereto under pressure, of a reservoir, and conduit means connecting the reservoir to the lubricant supplying means and to the bearing, said reservoir being normally supplied with lubricant from the lubricant supplying means, but delivering its contents to the bearing in case the supply of lubricant from said lubricant supplying means fails.

3. The combination with a bearing and means for supplying lubricant thereto under pressure, of a reservoir located above the bearing and having an opening in its bottom, a nozzle in the reservoir having its lower end fastened in said opening, and a pipe connecting the nozzle to the bearing.

6. The combination with a shaft and bearing, there being a lubricant receiving recess between the shaft and bearing, a conduit supplying lubricant under pressure to the bearing and to said recess, a stand pipe in open communication with the recess, a reservoir which receives lubricant from the stand pipe during normal operation and returns it to the stand pipe and recess when the pressure of the supply falls below that due to the gravity head of the lubricant in the reservoir, a drain for carrying off excess lubricant from the reservoir, and an inclosure for the upper ends of the stand pipe and drain which has a transparent wall.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,257,774. BEARING. SVEN GUSTAF WINGQUIST, Gottenborg, Sweden, assignor, by mesne assignments, to S. K. F. Ball Bearing Company, Hartford, Conn., a Corporation of Connecticut. Original application filed Aug. 28, 1907, Serial No. 390,416. Divided and this application filed May 7, 1912. Serial No. 695,681. (Cl. 64—36.)



1. The herein described improved ball bearing having an inner member provided with grooves forming a plurality of oppositely arranged shoulders, a plurality of ball sets arranged in said grooves of the inner member, and an outer member having a concave spherical inner surface struck from an oscillatory center positioned at the rotative axis of the inner member within the bearing and to one side of a plane centrally disposed between the ball sets, and affording concentric tracks having spherical bearing surfaces reversely inclined to the rotative axis of the inner member and opposite to the shoulders afforded by the respective grooves of the inner member, the respective ball sets being interposed between said shoulders of the inner member and the respective reversely inclined bearing surfaces of the outer member to transmit end thrust imposed upon said inner member, and said inner member being capable of universal turning movement around said oscillating center to facilitate the introduction and withdrawal of the balls within and from said outer member.

4. In a ball bearing the combination of an inner bearing member provided with a pair of circular concave running faces struck from centers on the rotative axis of said member and having unequal radii from said axis, a pair of ball sets located on said faces, and an integral, concave, outer spherical running face, with which said ball sets contact, struck from a point also located on said axis but nearer to the center of the larger running face than to that of the smaller running face, whereby the respective ball sets may resist predetermined unequal pressures along radial lines passing through said point and said circular running faces.

10. A combined radial and thrust bearing comprising an inner and an outer bearing member, each of these being formed with two tracks of equal radius from a common oscillatory center located between the planes of the said tracks and nearer the plane of one track than of the other, the tracks of one of the said members being spherical, and the tracks of the other member being grooved, and a ball set on each track.

14. A ball bearing comprising two rows of balls arranged between an outer track which is spherical and an inner track which is formed with two concave running faces, the angle between the center line of the inner track and the direction of pressure upon a ball in one of the rows being of different magnitude from the angle between said center line and the direction of pressure upon a ball in the other row.

[Claims 2, 3, 5 to 9, 11 to 13, and 15 not printed in the Gazette.]

1,257,775. SHAVING SET. ALBERT WOLF, Traverse City, Mich. Filed July 6, 1917. Serial No. 178,967. (Cl. 132—33.)



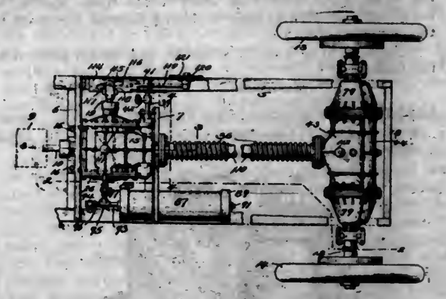
1. A toilet article comprising a brush having a hollow handle externally threaded at the base of the brush and internally threaded at its open end, a container engaging the internal threads at the inner end of the handle and having an annular rim adapted to abut said end, an open-ended protecting sleeve fitting around the brush and engaging the external threads on the handle and provided with external threads at its end remote from the handle of the brush, a ring having an internally threaded end fitting around the externally threaded end of the sleeve and constructed with an internal partition to extend across said end of the sleeve, the end of the ring beyond the partition being externally threaded, and a cap having one closed end and one open end, the open end being internally threaded to engage the externally threaded end of the ring.

3. In a device of the character described, a brush having a hollow handle, a receptacle normally closed with respect to the handle and removably fitted in the outer end thereof, the outer end of the receptacle providing a base for the brush handle whereby the brush may be rested in vertical position supported by the said base to be normally held in such position by the weight of the receptacle, and means detachably connected at one end to the brush handle for housing the brush, the said means being open at both ends and provided at its outer end with a removable closure whereby the said means may be displaced from the brush handle and cleansed through its open ends.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,257,776. DRIVING MECHANISM FOR AUTOMOBILES AND THE LIKE. WILLIAM N. ALLAN, San Antonio, Tex. Filed Aug. 26, 1913, Serial No. 786,640. Renewed Aug. 11, 1917. Serial No. 185,797. (Cl. 138—22.)

1. A driving mechanism for an automobile and the like, comprising a motor having a shaft, a secondary power generator or circulating organization embodying a shiftable pumping element connected to said shaft and having upper and lower chambers, a rear drive shaft comprising independently rotatable sections each provided with a rotor, a casing having independent chambers in which the rotors of the drive shaft are mounted and also provided with upper and lower circulating chambers in communication with the said independent chambers, single tubular conduits between the upper and lower chambers of the casing and the secondary generator, the generator, conduits and casing being filled with a fluid medium to full capacity, the reversal of movement of the several parts being effected through the same conduits, and means forming a part of the secondary power generator and disposed between the points of communication of the conduits with the upper and lower chambers of the generator for changing the circulation of the fluid medium through a portion of the generator and between the said generator and the chambers and rotors of the drive shaft sections.



2. A driving mechanism for an automobile and the like comprising a motor, a secondary power generator or circulating organization embodying a shiftable pumping element actuated by said motor, a rear drive shaft embodying independently rotatable sections individually provided with a rotor, a casing having independent chambers in which the rotors of the drive shaft are mounted and also provided with upper and lower chambers in communication with the said rotor chambers, single tubular conduits between the said upper and lower chambers of the casing and the secondary generator, the conduits, generator and chambers being filled with a liquid medium to full capacity under pressure, means for maintaining the liquid under pressure, and a neutral valve forming a part of the secondary power generator and located between the tubular conduits connected to the secondary power generator or circulating organization for establishing a free circulation of the liquid medium relatively to said rotors when the pumping element is in neutral position.

6. A driving mechanism for an automobile and the like comprising a motor having a shaft, a circulating organization embodying a shifting chambered element with a rotor therein directly connected to and actuated by the shaft of the motor, a rear drive shaft embodying independent rotatable sections, a casing having independent chambers with rotors therein fixed on the sections of the drive shaft and also provided with upper and lower chambers in communication with the rotor chambers, upper and lower single conduits between the upper and lower portions of the circulating organization and the upper and lower chambers of the casing, the said conduits alternately operable through the actuation of the rotor of the circulating organization as feed and return mediums and said conduits together with the chambers and circulating organization being filled to full capacity with a liquid under pressure, a pressure regulator connected to the upper portion of the circulating organization and automatically operative to maintain a constancy of pressure and normally partially filled by the liquid under pressure to give the necessary compression to the liquid, and a check valve between the said pressure regulator and the circulating organization and provided with means for automatically relieving excessive pressure.

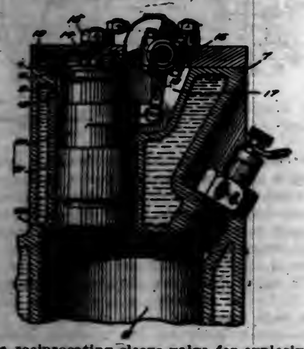
16. A driving mechanism for an automobile and the like comprising a motor, a circulating organization embodying a shiftable pumping element directly actuated by the motor and also having chambers on opposite sides of the said element, a rear drive shaft embodying independently rotatable sections individually provided with a rotor, tubular conduits between the circulating organization and the rotors of the drive shaft, and a pressure equalizer located within a portion of the circulating organization and having upper and lower ports in continual communication with the chambers of the said organization and the conduits.

22. A driving mechanism for an automobile and the like comprising a circulating organization embodying a shift-

able pumping element, a differential embodying a drive shaft composed of independently rotatable sections individually provided with a rotor, and single tubular conduits between and always fully open to and directly connecting the circulating organization and differential and comprising outer pipes with thin sheet metal tubes therein to reduce skin friction of the circulating medium relatively to the conduits.

[Claims 3 to 5, 7 to 15, 17 to 21, and 23 not printed in the Gazette.]

1,257,777. RECIPROCATING SLEEVE-VALVE. SHERMAN T. ALLEN, Los Angeles, Cal. Filed Nov. 16, 1916. Serial No. 131,762. (Cl. 123—75.)

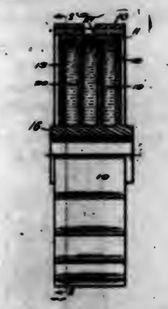


1. In a reciprocating sleeve valve for explosive engines, the combination with an engine cylinder within which a piston is adapted to reciprocate, of a valve head formed above said cylinder and through which a valve cage is formed, a tubular reciprocating valve sleeve slidably positioned within said cage and adapted to bear against the cylindrical wall thereof, a second tubular valve sleeve slidably mounted within said first sleeve, ports formed through the walls of said sleeves and upon opposite sides, said ports arranged to alternately register, a cylinder head adapted to close the upper end of the valve cage and formed with a cylindrical extension projecting into the valve sleeves and adapted to provide a guide therefor, and a cylinder head collar detachably mounted in the lower end of said head and adapted to hold the valve members within the cage and to seal the valve sleeve passage-way thereof.

2. In a reciprocating sleeve valve for engines, comprising a valve cage having a cylindrical bore therethrough, a tubular core positioned within said bore and adapted to form an annular valve channel, said core having an upper flange adapted to seal the bore of the cage at its upper end, a removable flanged collar adapted to be attached to the core and seal the bore at its lower end, a pair of telescoping valve sleeves disposed around said core and within the annular valve channel, ports formed through opposite sides of the core, ports formed through opposite sides of the valve sleeves, and an actuating mechanism whereby the ports through the opposite sides of the sleeves will alternately register with ports through opposite sides of the core.

3. In a reciprocating sleeve valve for engines, comprising a valve cage having a cylindrical bore therethrough, a tubular core positioned within said bore and adapted to form an annular valve channel, said core having an upper flange adapted to seal the bore of the cage at its upper end, a removable flanged collar adapted to be attached to the core and seal the bore at its lower end, a pair of telescoping valve sleeves disposed around said core and within the annular valve channel, ports formed through opposite sides of the core, ports formed through opposite sides of the valve sleeves, an actuating mechanism whereby the ports through the opposite sides of the sleeves will alternately register with ports through opposite sides of the core, and piston rings positioned within channels formed around the core and upon opposite sides of the ports therethrough, said rings being adapted to expand against the inner valve sleeve.

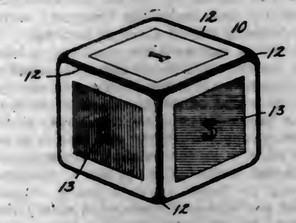
1,257,778. WATER-BALLASTED TRACTOR-WHEEL. SHERMAN T. ALLEN, Los Angeles, Cal. Filed Aug. 14, 1917. Serial No. 186,220. (Cl. 21—207.)



1. A wheel, comprising an outer rim, solid end walls spaced in relation to each other and formed integral with said rim, a concentric hub formed integral with the end walls and concentric with the rim, and a series of concentric partition walls formed upon the hub to provide individually-filled water ballast compartments.

2. A wheel comprising a hub, end walls extending from the hubs, partition walls extending from the hub between the end walls, and a rim upon the end walls and upon the partition walls and forming inclosed compartments having filling openings.

1,257,779. GAME. FRANK J. ANDERSON, Great Falls, Mont. Filed Aug. 17, 1916. Serial No. 115,438. (Cl. 46—65.)



A game article comprising a hollow cubical block, the edges and corners of which are rounded, a depressed panel on each side of said block, the panels being differently colored, and a raised numeral projecting from the center of each panel.

1,257,780. PLASTIC COMPOSITION. GEORGE F. ARMSTRONG, Newark, N. J. Filed Oct. 31, 1917. Serial No. 199,487. (Cl. 106—28.)

A plastic composition for healing punctures in pneumatic tubes, consisting of crude rubber and rubber substitute interground in proportions substantially as specified and mixed with oil of rosin in proportions substantially as specified.

1,257,781. COLLAPSIBLE RIM FOR VEHICLE-TIRES. CHARLES H. BAER, San Francisco, Cal., assignor, by direct and mesne assignments, of fifty one-hundredths to Jean T. Parker, twenty one-hundredths to Arthur L. Holmes, and ten one-hundredths to Sidney Williams, San Francisco, Cal. Filed Apr. 17, 1917. Serial No. 162,793. (Cl. 152—21.)

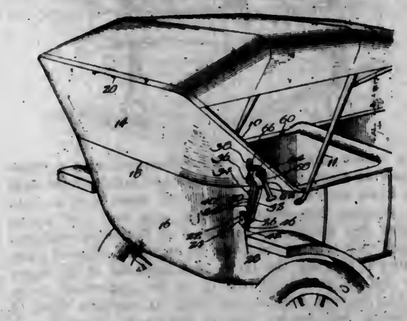
1. A collapsible rim including a section having separated ends and curved on a radius less than the radius of the complete rim, a single segment fitting between said ends and hinged at one end to the contiguous rim end, and a toggle lever hinged to the free end of said segment



and to said rim section respectively, said segment and said toggle lever being of substantially the same length.

[Claim 2 not printed in the Gazette.]

1,257,782. BOW-TOP HOLDER FOR TOPS WITH NON-DETACHABLE REAR CURTAINS. CLARENCE L. BAIR, Detroit, Mich., assignor to Auto Specialties Manufacturing Co., St. Joseph, Mich., a Corporation of California. Filed June 3, 1916. Serial No. 101,455 (Cl. 21—61.)



1. In a device of the class described, the combination with a fixed block or stock adapted to be secured to a vehicle body, a bow retaining arm mounted on said stock, so as to move toward and from the vehicle to which the stock is attached, adapted in said first position to engage vehicle top bows on the outside thereof, a second movable arm mounted at the free end of said first arm adapted to move over a bow lying adjacent to the first mentioned arm and confine it adjacent to said arm, a third arm movably connected to said stock so as to lie outside the first mentioned arm and adjacent thereto, and a locking device coöperating with the second and third arms for securing all of the parts in position to retain the bows of a vehicle within the device, for the purposes set forth.

2. In a device of the class described, the combination with a fixed block or stock adapted to be secured to a vehicle body, a bow retaining arm mounted on said stock, so as to move toward and from the vehicle to which the stock is attached, adapted in said first position to engage vehicle top bows on the outside thereof, a second movable arm mounted at the free end of said first arm adapted to move over a bow lying adjacent to the first mentioned arm and confine it adjacent to said arm, a third arm movably connected to said stock so as to lie outside the first mentioned arm and adjacent thereto, and a locking device coöperating with the second and third arms so that they must move in unison, and a locking device coöperating with the second and third arms adapted, when released, to permit movement of all three arms to a position where they clear the path of travel of the bows of the vehicle top to which the device is applied, and adapted, when locked, to rigidly secure said arms in such a position that the first arm is adjacent to the folded in bows of the top, and the second arm secures at least one bow to the second arm, for the purposes set forth.

3. In a device of the class described, the combination with a fixed block or stock adapted to be secured to a vehicle body, a bow retaining arm mounted on said stock, so as to move toward and from the vehicle to which the stock is attached, adapted in said first position to engage vehicle top bows on the outside thereof, a second movable arm mounted at the free end of said first arm adapted to move over a bow lying adjacent to the first mentioned arm and confine it adjacent to said arm, a third arm movably connected to said stock so as to lie outside the first mentioned arm and adjacent thereto, means interconnecting the first and third arms so that they must move in unison, means limiting the range of movement of said two arms, and a locking device coöperating with the second and third arm adapted, when released to permit movement of all three arms to a position where they clear the path of travel of the bows of the vehicle top to which the device is applied, and adapted, when locked, to rigidly secure said arms in such a position that the first arm is adjacent to the folded in bows of the top and the second arm secures at least one bow to the second arm, for the purposes set forth.

4. In a device of the class described, the combination with a fixed block or stock adapted to be secured to a vehicle body, a bow retaining arm pivoted to said stock, so as to move toward and from the vehicle to which the stock is attached, adapted in said first position to engage vehicle top bows on the outside thereof, a second movable arm pivoted to the free end of said first arm, adapted to swing over a bow lying adjacent to the first mentioned arm and confine it adjacent to said arm, a third arm pivoted to said stock so as to lie outside the first mentioned arm and adjacent thereto, and a locking device coöperating with the second and third arms for securing all of the parts in position to retain the bows of a vehicle within the device, for the purposes set forth.

10. In a device of the class described, in combination with a stock and two arms pivoted thereto so as to swing in a given plane, a piston slidable through an opening in the stock in a direction generally transverse to the lengths of said two arms, members loosely connecting each of said pivoted arms to said piston whereby moving either arm reciprocates the piston and consequently swings the other arm, and means for detachably securing one of said arms in a predetermined fixed position.

[Claims 5 to 9, 11, and 12 not printed in the Gazette.]

1,257,783. LIQUID COATING COMPOSITION AND PROCESS OF MAKING SAME. HENRY D. BAUMGARTEL, Chicago, Ill. Filed Dec. 24, 1915. Serial No. 68,538. (Cl. 134—13.)

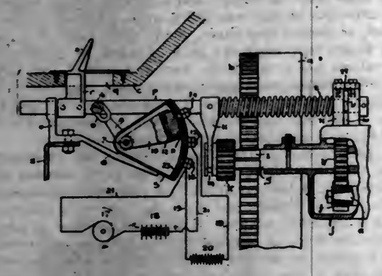
1. A liquid coating composition comprising concentrated ether, wood alcohol, gum mastic, gum sandarac and benzol substantially in the proportions described.

2. A liquid coating composition comprising concentrated ether, 60 ounces, wood alcohol 8 ounces, pulverized gum mastic 1½ ounces, gum sandarac 3½ ounces and benzol 30 ounces.

6. A method of producing a liquid coating composition composed of ether, wood alcohol, gums and benzol, which consists of first mixing said ether and alcohol, mixing this with said gums which have been previously mixed, agitating said mixture of ether, alcohol and said gums until said gums are dissolved, and then slowly adding said benzol.

[Claims 3 to 5 not printed in the Gazette.]

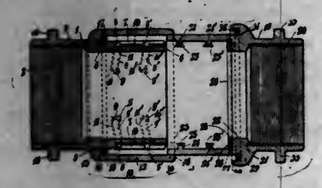
1,257,784. STARTER FOR INTERNAL-COMBUSTION ENGINES. JOHN A. BEIENS, Detroit, Mich. Filed Dec. 9, 1912. Serial No. 735,623. (Cl. 172—239.)



1. In an electric starter having a motor engine and generator, the combination of mechanism for engaging and disengaging the motor and engine, a switch for controlling the circuit through said motor, means connecting said mechanism with said switch so that said circuit shall be open when said mechanism is in its initial position and shall be closed when said mechanism is engaged, and a mechanical lock operated by the current from the generator for actuating said lock to secure said mechanism in its initial position, and an automatic means for returning said mechanism to its disengaged position.

2. The combination of a starting motor, an engine, means for engaging and disengaging said motor with the engine, a switch having three contact pieces properly spaced, a contact plate adapted to move into position to successively engage said contact pieces in pairs, a circuit containing a resistance between the first and last of said contact pieces, a circuit including the battery and motor between the second of said contact pieces and the last thereof, said contact plate being connected so as to be moved by said engaging mechanism, said second circuit being closed after full engagement of said teeth and at an interval after the breaking of the first circuit.

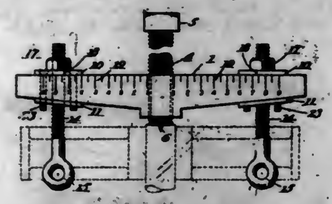
1,257,785. HOSE OR PIPE COUPLING. ALBERT BENZINGER, Cincinnati, Ohio, assignor of one-third to Walter M. Schoenle, Cincinnati, Ohio. Filed Aug. 18, 1917. Serial No. 186,975. (Cl. 137—28.)



1. In a hose or pipe coupling, a member, an interiorly located elastic gasket on said member, a mating member having an interiorly located seat to abut said gasket when the members are coupled, this member having an interiorly located groove extending helically away from said seat, and terminating in a pocket extending part of the way back toward said seat, said pocket being undercut next to its bottom to form a ledge, and the first-mentioned member having an interiorly located stud to enter said pocket along said groove, said stud having a flange to wedge under said ledge, and said gasket being compressed under the pressure of said seat as said stud travels along said groove to said pocket and then partially expanding again to hold said stud in said pocket with its flange wedged under said ledge, and thereby lock said members together.

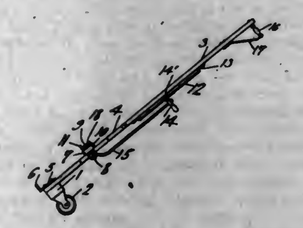
2. In a hose coupling, a female member with an inner end forming a seat, and having formed in its exterior a groove extending helically away from said seat and terminating in a pocket that extends partially back toward said seat, a thimble fixed on the exterior of said female member with an inner end part spaced away from the grooved exterior of the member, leaving an annular space entirely therearound, and this inner end part extending a considerable distance past the inner end that forms the seat on said member to form a guide toward and a guard for said seat, a male member adapted to fit inside said annular space, an inwardly extending lug on the inside of said male member interiorly thereof adapted to enter said groove and travel therealong into said pocket as said members are relatively rotated, a gasket of elastic material held inside said male member which said end of said female member compresses when said stud travels along said groove, and which partially expands again when said stud enters said pocket, whereby said parts are locked together, a second elastic gasket held axially against said thimble inside its annular space, and compressed by the entering end of said male member, an annular extension around the exterior of said male member, and a third gasket held axially against this extension and compressed by the end of said thimble, said gaskets being compressed and partially expanding in parallel with the compression and partial expansion of the first-mentioned gasket, and thereby acting in parallel in maintaining the locked condition, and being in series in hindering leakage during said condition.

1,257,786. WHEEL-PULLING JACK. LOUIS BEAK, Alstown, Wash. Filed Apr. 10, 1917. Serial No. 161,093. (Cl. 29—85.)



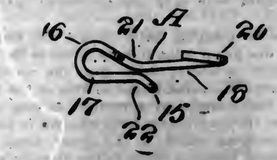
In a wheel pulling jack, the combination with a cross-head having a central threaded hole and longitudinal slots in its arms on opposite sides of the same, and a main screw passing downward through said hole; of plates overlying and underlying each arm of the cross-head and provided with central openings, an engaging element passing upward through the latter and threaded at its upper end, a nut on said ends resting on the uppermost plate, the latter having countersunk holes at opposite sides of its opening, and screws passing downward through said holes, through the slot in the arm, and engaging the lower plate, the heads of said screws standing within said countersunk holes, for the purpose set forth.

1,257,787. TRUCK. STEPHEN D. BEUM, Detroit, Mich. Filed Apr. 27, 1917. Serial No. 164,961. (Cl. 21—65.)



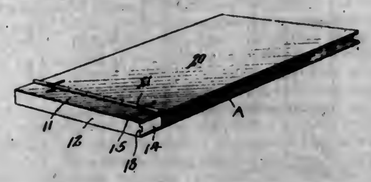
A truck including a movably supported body, outstanding load engaging devices thereon, a tongue extending from the body, a slide on the tongue, load engaging devices on the slide, and adjustable into and out of active positions, and means on the tongue for adjusting the slide toward and from the body, said means including a guide rod, a combined handle and grip slidably mounted on the rod and a connection between the slide and said handle and grip.

1,257,788. FASTENING DEVICE. CARL B. BICKEL, Buffalo, N. Y. Filed Aug. 16, 1916. Serial No. 115,285. (Cl. 24—228.)



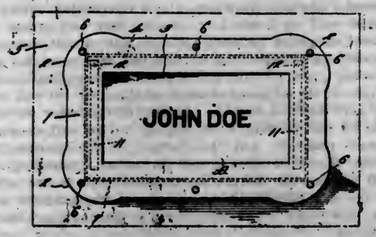
In a fastening device, a hook member consisting of a wire doubled upon itself to form a loop, the limbs of which are laterally offset and spaced apart, said limbs being terminally bent to form arms and said limbs being bent angularly intermediate their ends to form humps, the hook portion of the loop being terminally bent to form a down-turned nose and also an angular hump, the latter being disposed intermediate the spaced limbs and facing the humps of said limbs.

1,257,789. STAMP-BOOK HOLDER. SPENCER BICKERTON, Honolulu, Hawaii. Filed June 5, 1917. Serial No. 173,014. (Cl. 129—40.)



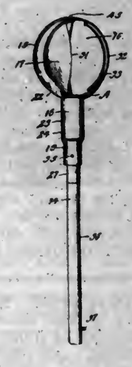
A device of the character described comprising a base, a hinged cover therefor, a pocket formed at one end of said base, one end and back of said pocket being permanently closed, an inwardly projecting pin carried by the closed end, a hinged end located opposite the closed end and a pin carried by said hinged end and coöperating with the first mentioned pin for removably securing a book within the pocket.

1,257,790. TAG-HOLDER. SPENCER BICKERTON, Honolulu, Hawaii. Filed July 18, 1917. Serial No. 181,373. Cl. 40—13.)



In combination, a wall having an opening, and a tag holder comprising a face plate bearing on the wall and having an opening coincident with but of less dimensions than the wall opening, a flange on the rear side of the face plate extending around the sides of the wall opening, and adapted to receive a tag, one side of the flange being provided with a snap catch arranged on the rear side of the wall, a back hinged to the opposite side of the flange and adapted to close therein and to engage the snap catch, and a presser spring on the front side of the back and adapted to bear against and hold the tag in place.

1,257,791. FRUIT-PICKER. HARRY N. BIOGER, Oneida, N. Y. Filed May 29, 1917. Serial No. 171,748. (Cl. 56—99.)



1. In a fruit picker, an approximately spherical head including an open annular body portion, a cup-shaped back portion connected therewith and a cup-shaped shutter member adapted to swing within the remaining head portion, said shutter and body member having coacting cutting edges, and said body member being provided with a bridge constituting a guard member.

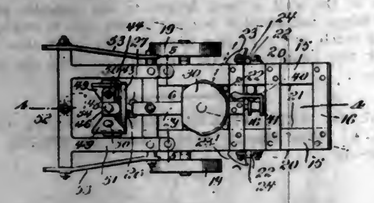
3. In a fruit picker, including an open annular body portion and a back portion, said body and back portions having downwardly extending shank portions that combine to form a tubular socket, the lower end of which is of reduced diameter, a bearing tube fitted in the reduced end of the socket and having a portion extending within the large end of the socket and provided with longitudinal slots, and a cup-shaped shutter, also forming a part of the head; said shutter having a tubular shank extending within the large portion of the socket and surrounding the slotted portion of the bearing tube, said tubular shank being provided with spirally disposed slots; in combination with an operating rod arranged for longitudinal movement within the guide tube and having a cross bar extending through the slots in said guide tube in engagement with the spirally disposed slots in the shank of the shutter, and a handle member fitted in the lower end of the bearing tube, said handle member being equipped with an operating rod detachably connected with the operating rod within the bearing tube.

[Claim 2 not printed in the Gazette.]

1,257,792. COTTON-CULTIVATOR. GEORGE BLOHM, El Centro, Cal. Filed May 11, 1917. Serial No. 167,982. (Cl. 97—46.)

2. In a machine of the class described, a wheel supported frame having a revolving axle, a bar extending longitudinally of the frame and having a lug at its front end, a guide fixed on said lug, an L-shaped bracket having a vertical limb engaging the guide and a rearwardly extending horizontal limb, means for effecting vertical adjustment of the L-shaped bracket with respect to the longitudinal frame bar, a longitudinal cutter carrying shaft having its forward end journaled in the vertical limb of the L-shaped bracket, an additional bearing for the rearward end of the

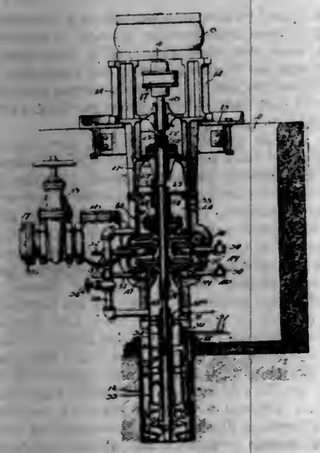
cutter carrying shaft, means for transmitting motion from the axle to the cutter carrying shaft, and means for throwing said transmission means out of gear.



3. In a machine of the class described, a wheel supported frame having a longitudinal frame bar provided with a lug at its front end, a guide fixed on said lug, an L-shaped bracket having a vertical limb engaged in said guide and a rearwardly extending horizontal limb, a seat carried by the horizontal limb, threaded members connecting the horizontal limb of the L-shaped bracket with the longitudinal frame bar, adjusting nuts on said threaded members, a cutter carrying shaft deriving motion from the supporting wheels and having its forward end journaled in the vertical limb of the L-shaped bracket, and an additional bearing for the rearward end of the cutter carrying shaft.

[Claim 1 not printed in the Gazette.]

1,257,793. CENTRIFUGAL PUMP. LARS W. BODINSON, Aurora, Ill., assignor to The American Well Works, Aurora, Ill., a Corporation of Illinois. Filed June 30, 1913. Serial No. 776,585. (Cl. 103—43.)



4. In a balanced centrifugal pump, the combination of a frame, a shaft extending down into the well, a runner mounted thereon for forcing water out of said well, means actuated by the pressure of the water pumped for supporting said shaft against the downward pull thereon, means for adjusting said pressure-actuated means longitudinally of said shaft, and other means for locking the said pressure-actuated means against adjustment.

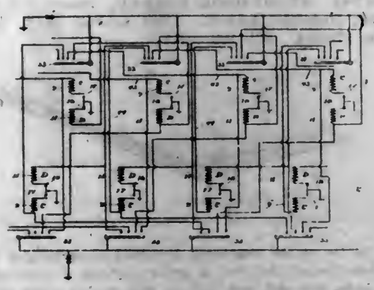
7. In a balanced centrifugal pump, the combination of a casing, a shaft rotatable therein, a runner mounted on said shaft within said casing, and means communicating with the interior of said casing actuated by the pressure of the water pumped to move said shaft in the direction in which said water is being forced, said pressure-actuated means comprising two inter-acting members, one of which is mounted on said frame and the other of which is adjustably mounted on said shaft.

11. In a balanced centrifugal pump, the combination of a casing, a shaft rotatable therein, a runner mounted on said shaft within said casing, and means communicating with the interior of said casing actuated by the pressure of the water pumped to move said shaft in the direction in which said water is being forced, said pressure-actuated means comprising a ring-member having a screw-threaded connection with said shaft and provided with two bearing-plates of different sizes faced toward each other, and a second ring-member mounted on said frame between the bearing-plates of said first-mentioned ring-member and having bearing-plates adapted to be brought alternatively into engagement with said first-mentioned bearing-plates respectively.

14. Means for pumping water from a well consisting of two pumps, one pump being located down in the well having its suction extending down into the water and its water discharge connected to the suction of the top pump, said pumps being driven by a vertical driving shaft connecting them, the lower pump being adapted to pump water up within pumping reach of the upper pump, and the uppermost pump pumping water to the distance and height required, part of the pump cylinder casing of the upper pump being capable of removal for repairs or examination, thus saving the cost of removing the whole pump.

[Claims 1 to 3, 5, 6, 8 to 10, 12, 13, and 15 not printed in the Gazette.]

1,257,794. TRAIN-CONTROLLING APPARATUS. FREDERICK A. BOLLINGER, Akron, Ohio. Filed Aug. 26, 1915. Serial No. 47,442. (Cl. 246—59.)



1. In train controlling apparatus, a set of obstacles spaced along the trackway, a controlling device for other obstacles of said set associated with each obstacle, and means governed by said controlling devices whereby upon the actuation of a particular controlling device an obstacle of said set will be moved to an operative position, and the associated controlling device will be moved to an inoperative position.

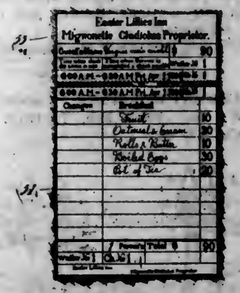
2. In train controlling apparatus, a set of track obstacles spaced along the trackway, a second set of track obstacles spaced along the trackway, and a controlling device associated with each obstacle of said first and second sets; operating means for each obstacle, and circuit connections between said controlling devices and said operating means whereby upon actuation of a particular controlling device of one set the adjacent obstacle of the other set will assume the safe position and the obstacle of the other set on one side of the particular controlling device will assume the danger position; and the obstacle of the first-mentioned set on the other side of the particular controlling device will assume the danger position and the second obstacle of the first-mentioned set on the last-mentioned side of the particular controlling device will assume the safe position.

3. In a train controlling apparatus, track obstacles arranged along the trackway and spaced apart, each comprising a horizontal shaft capable of longitudinal sliding movement, an actuator on said shaft capable of movement

to active and inactive positions under the action of the shaft, an electroresponsive device for moving said shaft in one direction to render said actuator active, an electroresponsive device for moving said shaft in the opposite direction to render said actuator inactive, and a switch associated with each obstacle and controlling the first-mentioned electroresponsive devices of certain other obstacles and the last-mentioned electroresponsive device of another obstacle.

[Claims 4 to 6 not printed in the Gazette.]

1,257,795. UNIVERSAL SERVICE PROTECTING AND RECORDING CHECK AND RECEIPT. AUGUST N. E. BOOS, New York, N. Y. Filed June 18, 1915. Serial No. 34,783. (Cl. 11—15.)



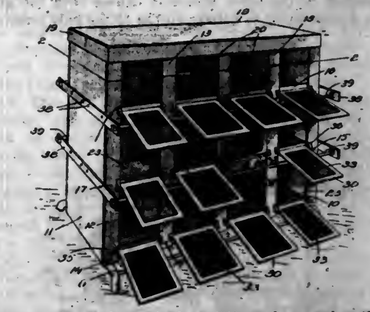
1. A service check for restaurants and the like comprising a ticket and a coupon, the coupon bearing printed matter constituting a guest's receipt portion and ticket bearing printed matter constituting a waiter's check, the adjacent portions of the ticket and coupon being appropriately designated to receive duplicate marks one above the other indicating the time of beginning and completing a certain service, the adjacent portions of said ticket and coupon permitting the simultaneous entry of said duplicate marks, a check number and a waiter's identifying number on the guest's receipt portion and on the waiter's check portion respectively, spaces appropriately designated for the entry of items on the waiter's check portion and spaces appropriately designated for the entry of the total on said guest's receipt portion and waiter's check portion respectively.

2. A service check for restaurants and the like comprising a ticket and a coupon, said ticket and coupon having an indicated line of separation therebetween, the coupon bearing printed matter constituting a guest's receipt portion and ticket bearing printed matter constituting a waiter's check, the adjacent portions of the ticket and coupon being appropriately designated to receive duplicate marks one above the other indicating the time of beginning and completing a certain service, the adjacent portions of said ticket and coupon permitting the simultaneous entry of said duplicate marks, a check number and a waiter's identifying number on the guest's receipt portion and on the waiter's check portion respectively, spaces appropriately designated for the entry of items on the waiter's check portion and spaces appropriately designed for the entry of the total on said guest's receipt portion and waiter's check portion respectively.

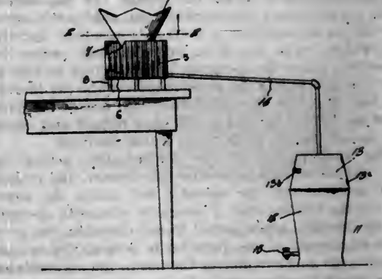
1,257,796. SANITARY NEST. JOHN F. BROOKS, Bluff Dale, Tex. Filed Dec. 18, 1916. Serial No. 136,726. (Cl. 119—45.)

1. In a nest structure of the class described, the combination with a base, skeleton front and rear, solid ends, and a solid top; of transverse and longitudinal partitions subdividing the interior, horizontal partitions forming nest bottoms in the subdivisions, doors hinged at their lower edges for closing the front of each nest, strips riveted across the ends and projecting at their extremities beyond the front and rear, and horisontal rods connecting the projecting extremities in pairs just beneath the hinge lines of the doors.

2. In a nest structure of the class described, the combination with a base, spaced upright strips constituting the front and rear, solid panels connecting the endmost strips and constituting the ends, longitudinal strips counecting the ends just inside said other strips, transverse rods arranged in pairs and connecting the front and rear strips and passing through said longitudinal strips, and a removable top; of a main central partition of screening through which said rods pass, transverse panels of screening, each divided into parts removably inserted between said transverse rods on opposite sides of said partition, and individual horizontal panels of screening each constituting the bottom of a compartment and resting removably on the transverse rods at opposite sides thereof.



1,257,797. ICE-HOLDER. ANNIE HOBBS BROWN, Homestead, Fla. Filed Mar. 3, 1916. Serial No. 81,946. (Cl. 137—111.)



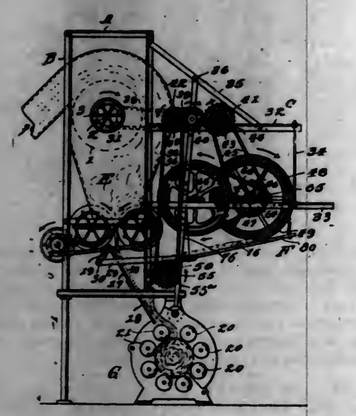
1. A crushed-ice holder for table use including a liquid container having an inwardly directed flange at the upper end thereof, supporting legs for the container, an inverted frusto-conical ice holder supported upon the flange, and a screen section secured in the lower end of said holder.

2. In combination, a water container, means for supporting said container in elevated position, a second water container, a pipe connecting the lower portion of the first-mentioned container with the upper portion of the second mentioned container, an ice holder supported in the first mentioned container and having an open lower end communicating with the latter, a screen section secured in the lower end of the ice holder and a faucet connected with the lower part of the second mentioned container to facilitate dispensation of the contents thereof.

1,257,798. COTTON PREPARING AND BALING MACHINERY. GEORGE RAYMOND BROWN, Oklahoma, Okla.; Walter Brown, Ashwood, Tex., temporary administrator of said George Raymond Brown, deceased, assignor, by direct and mesne assignments, to Clayton Gin Compress Co., Houston, Tex., a Corporation of Texas. Filed Mar. 9, 1914. Serial No. 823,432. Renewed July 12, 1917. Serial No. 180,242. (Cl. 100—1.)

1. The combination of the bat former, the bale forming mechanism, the accumulator, means for driving the accu-

mulator in a direction to take up the bat and to cause it to thereafter deliver the bat to the bale former, a bat guide adapted to deliver the bat to the bale former or, alternately, to the accumulator, a manually operated device for controlling the accumulator which, when moved in one direction, causes the delivery of the bat to the accumulator and causes the taking up action of the accumulator, and when moved in the other direction causes both the guide and the accumulator to deliver cotton to the bale former.



2. The combination of the bat former, the bale former, the bat accumulator, the movable bat guide, the power driver for the accumulator, a reversible manually operated device which, when moved in one direction, causes the accumulator, under the operation of said driver, to take up the bat and also causes the guide to deliver the bat thereto, and, when moved in the other direction, causes the accumulator to deliver the bat to the bale former and causes the return of the bat guide to its initial position.

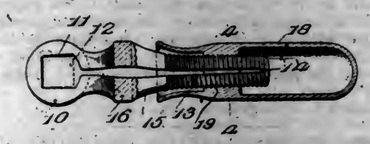
3. The combination of the continuously acting bat former, the intermittingly acting bale former, the reversible bat accumulator, the movable bat guide, the power driver for the accumulator, a reversible manually operated device for causing, when moved in one direction, the accumulator to operate in one direction to take up the bat and also moves the guide to deliver the bat to the accumulator, and for causing, when moved in the other direction, the return movement of the bat guide and also causing the operation of the accumulator in its opposite direction to deliver its bat to the bale former.

4. In an apparatus of the class described, the combination of the continuously-acting bat-former, the independent intermittingly-acting bale-former, the automatically movable bat guide, the accumulator comprising a reversible bat-supporting web, the web-winding rolls, the two intermittingly and oppositely-acting drivers respectively actuating the said rolls, the continuously-acting power transmitter for said drivers, and the reversible positively-driven tripper operating in timed relation with the accumulator for disengaging it at the ends of each of its movements.

5. In an apparatus of the class described, the combination of the continuously-acting bat-former, the intermittingly-acting bale-former, the accumulator having a reversible bat-supporting web, means for delivering the bat from the bat-former alternately to the bale-former and to the accumulator, a web-winding roll on a fixed axis near the normal path of the bat, a second fixed web-winding roll, means for winding the web alternately in opposite directions on the said rolls, and means for varying the action of the accumulator and automatically stopping it at either of several predetermined times relatively to the movements of the bat-former.

[Claims 6 to 11 not printed in the Gazette.]

1,257,799. HANDLE FOR AIR-BRAKE VALVES. WILLIAM BROWN, San Francisco, Cal. Filed Aug. 16, 1917. Serial No. 186,578. (Cl. 74—33.)



1. A brake valve handle including a split head, a sectional shank having the sections thereof extending from the extremities of the said head and yieldably connected by the head, and means adjustable upon the said shank to coact with the sections thereof for clamping the head about a valve stem.

[Claims 2 to 6 not printed in the Gazette.]

1,257,800. GARMENT-RETAINER. JOSEPH K. BURGESS, Bluefield, W. Va. Filed Feb. 7, 1913. Serial No. 746,757. (Cl. 241—7.)



1. A garment retainer having two straps crossed upon one another at their centers and adapted to be passed under the crotch, bands connecting the adjacent front and rear portions of the respective straps and adapted to be arranged about the hips, the connection between the bands and the rear portion of the straps being intermediate the ends of said straps, pads on said bands at the front ends thereof, connections between the front end of said straps and the pads at a point below the position of attachment of the retainer to a garment, and means for attaching the retainer to a garment, certain of the attaching means being carried by the pads and others by the rear ends of the straps.

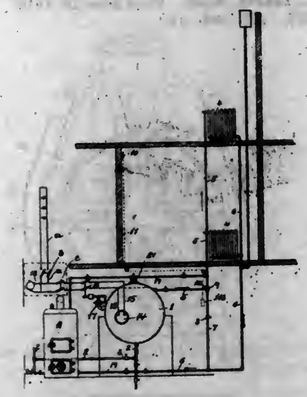
4. A garment retainer having two straps crossed upon one another at their centers and adapted to be passed under the crotch, bands connecting the adjacent front and rear portions of the respective straps and adapted to be arranged about the hips, the connection between the bands and the rear portion of the straps being intermediate the ends of said straps, detachable connections between the front ends of said straps and the free ends of the bands at a point below the position of attachment of the retainer to a garment, and means for attaching the retainer to a garment.

[Claims 2 and 3 not printed in the Gazette.]

1,257,801. MEANS FOR UTILIZING ELECTRICITY. WALTER S. BURKE, Cambridge, Mass. Filed July 1, 1912. Serial No. 706,872. (Cl. 219—38.)

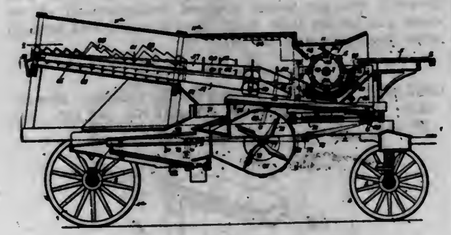
1. The combination with a tank for receiving and storing hot water, and an electric circuit including an electric heater for heating said water, of a hot water radiator system connected with said tank, means for opening and closing said circuit, a mixing valve in said system controlling the flow of water from said tank and the return water into said system, and remote-control means for operating said mixing valve.

2. The combination with a tank for receiving and storing hot water, and an electric circuit including an electric heater for heating said water, of a hot water radiator system connected with said tank, an automatic regulator connected with said tank for opening and closing said circuit, a mixing valve in said system controlling



the flow of water from said tank and the return water into said system, and a temperature regulated controller for said mixing valve.

1,257,802. THRESHING-MACHINE. WILLIAM H. BUTTERWORTH, Trenton, N. J. Filed July 7, 1916. Serial No. 107,972. (Cl. 130—27.)



2. The combination in a threshing machine of the rubbing type, of a cylinder and concaves, holders for the concaves, said holders being pivotally connected; means for independently adjusting the delivery end of the concave holders toward and from the cylinder; means for independently adjusting the opposite end of the concave holders toward and from the cylinders without altering the position of the delivery end of the concave holders so as to make the throat through which the grain passes more or less tapered; and means for allowing the discharge end of the concave holders to move circumferentially as the feed end of the concave is moved toward and from the cylinder.

7. The combination in a threshing machine, of a frame recessed at each side and having bearings; a shaft mounted in the bearings; a cylinder mounted on the shaft; side bearing plates closing the recesses in the sides of the frame, each plate having two parallel horizontal slots forward of the bearings and one radial slot at the rear of the bearings; two rods extending from one side of the machine to the other, one rod extending through one of the parallel slots and the other rod extending through the radial slots in the side plates; adjusting screws adapted to receive the ends of the said rods; lugs on the exterior of the plates through which the adjusting screws extend; pivotally connected concave holders supported by the said transverse rods, the pivots of the holders extending through the other horizontal slot in each side plate; and elastic cushions carried by the adjusting screws for yieldingly connecting the rods to the plates.

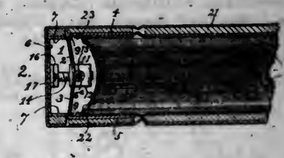
11. The combination in a cylinder for a threshing machine, of a shaft; a series of heads spaced apart and secured to the shaft; bars extending the full length of the cylinder and also spaced apart and secured to the heads; straight parallel rods alternating with the bars and connecting the two end heads to which they are rigidly attached, said rods extending through openings in the intermediate plates, said openings being tapered and threaded; tapered, threaded split plugs adapted to the threaded openings in the intermediate heads and arranged to clamp the rods rigidly to the intermediate heads; and rubbing plates carried by the bars.

12. The combination in a threshing machine, of a cylinder and concaves; a straw shaker located directly back of the cylinder; a series of abrupt abutments located above the forward end of the straw shaker and back of the cylinder so that as the straw, with the entrapped grain, is discharged from the cylinder, the grain will be projected against the abutments and will be stopped in its forward movement and will fall by gravity onto the forward end of the straw shaker.

13. The combination in a threshing machine, of a cylinder and concaves; a straw shaker located directly back of the cylinder; a crimped metal plate located directly above the forward end of the straw shaker and directly back of the cylinder, said plate having a series of short transverse abutments arranged close together, the front wall of the abutments being vertical so that the grain, as it leaves the cylinder, will be stopped in its forward movement and will fall by gravity onto the forward end of the straw shaker.

[Claims 1, 3 to 6, and 8 to 10 not printed in the Gazette.]

1,257,803. LOOSE-LEAF BINDER. JOHN BYSTROM, Chicago, Ill., assignor to Erik L. Krag, Chicago, Ill. Filed May 5, 1916. Serial No. 95,588. (Cl. 129—36.)



1. A loose-leaf binder, comprising, in combination, clamping members elbow-shaped in cross section, said members having parallel clamping flanges and back portions, the latter being hinged to each other, a back member spaced apart from said back portions with flanges arranged to bear against the rear outer portions of the latter, a screw threaded member jointedly attached to said hinge and a screw swiveled in said back member and in operative engagement with said screw threaded member for actuating said clamping members.

2. A loose-leaf binder having clamping members for holding leaves between them, said members being bent to form back portions hinged together upon a longitudinal axis, a supplemental back member having forwardly extended flanges arranged to bear against the back portions of said clamping members in planes upon opposite sides of and parallel to said hinge and a swiveled screw for connecting said supplemental back member with said hinge to move the latter toward and from said back member.

1,257,804. FOUNTAIN-PEN. WILLIAM THOMAS KENNETT CALTON, London, England. Filed Nov. 10, 1917. Serial No. 201,348. (Cl. 120—49.)

2. A fountain pen comprising a barrel constituting the ink reservoir, an external gland directly secured to the rear end of said barrel, a rotary and nonslidable helically slotted sleeve mounted and wholly contained within said gland, a straight longitudinal groove formed in the gland, an annular flange on the inner end of said sleeve abutting

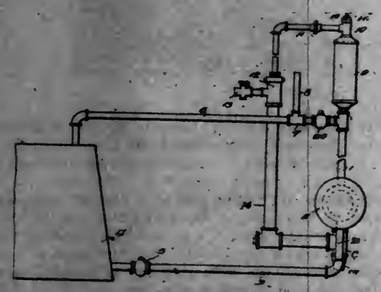
the inner end of said gland and closing said groove, a reciprocatory feed bar formed with a perforated enlargement carrying the nib and an ink feeding element and adapted to coact with the sealing shoulder in the barrel, a pin secured to said feed bar and extending through the helical slot into said straight groove, a shank on the



rear end of the sleeve, an operating ring secured to said shank and bearing against and closing the rear end of the gland, and a washer interposed within the rear end of the gland and between the latter and said ring, said ring serving to hold the flange in its abutting position.

[Claim 1 not printed in the Gazette.]

1,257,805. VACUUM FLUID-CIRCULATING SYSTEM. SEBASTIAN L. CALVERT, Augusta, Kans. Filed Oct. 19, 1917. Serial No. 197,438. (Cl. 123—175.)

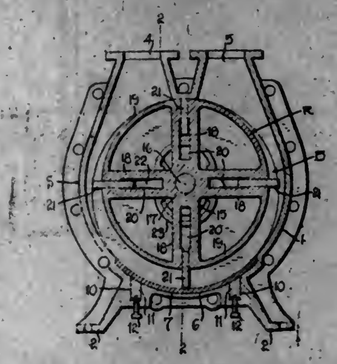


1. In a vacuum fluid circulating system, the combination with the jacketed cylinder of an engine and air valve, of a fluid supply means, means for conducting the fluid from the supply to the jacketed cylinder, a vacuum tank communicating with the conducting means, other means for establishing communication between the air intake valve and said vacuum tank, and a release valve interposed in a portion of the conducting means and opening into the atmosphere.

3. In a vacuum fluid circulating system, the combination with the jacketed cylinder of an engine and the air intake valve therefor, of a fluid supply tank, means for conducting the fluid from said tank to the jacketed cylinder, a vacuum tank communicating with said conducting means, the upper end of the vacuum tank being open, a float valve in said tank for normally closing said open upper end, air conducting means communicating with said tank and said air valve, and a release pipe interposed in a portion of said fluid conducting means.

[Claim 2 not printed in the Gazette.]

1,257,806. ROTARY PUMP. WILLIAM B. CAMPBELL, Portland, Oreg., assignor of one-fourth to G. W. Hines, North Yakima, Wash. Filed June 15, 1916. Serial No. 103,836. (Cl. 103—44.)



A rotary pump of the class described comprising a casing having inlet and outlet openings, a driven shaft disposed through the casing, a rotor fixed to the shaft, a stationary cam arranged within the casing, and diametrically opposed blades carried by the rotor and movable inwardly and outwardly relatively thereto, said blades being connected by an intermediate shank, said shank intermediate its length being provided with an elongated eye to receive said cam, said eye being provided with inwardly directed bosses disposed longitudinally of the shank and having their inner faces straight, said straight faces contacting with the cam.

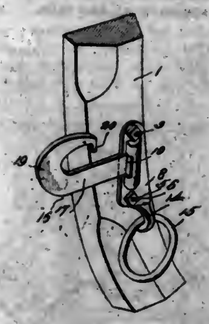
1,257,807. SHOE-NAIL. NEWTON R. CARRELL, Decatur, Ala. Filed Aug. 25, 1917. Serial No. 188,135. (Cl. 36—74.)



The herein described shoe nail comprising a shank and a head, said shank having parallel sides and a broad chisel-like entering point and said head extending laterally from the shank and being wedge-shaped in cross-section to provide an entering edge of the lower side and arranged longitudinally thereof, said entering edge of the head being arranged at right-angles to the chisel-like point of the shank.

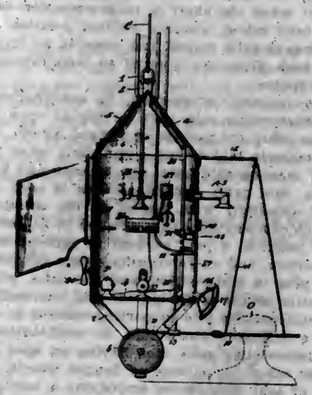
1,257,808. HAME AND TRACE CONNECTOR. GEORGE F. CASWELL, Brookville, Md. Filed Apr. 26, 1915. Serial No. 23,932. (Cl. 54—90.)

A hame and trace connector comprising a flat keeper plate adapted to be removably secured to the outer side of the hame and provided with a slot extending through its rear edge, a hollow semi-cylindrical projection formed on and extending outwardly from the outer side of the plate and having its rear side spaced from the rear edge of the plate, said projection having in its rear wall an opening registering with the slot in the plate, a head journaled in the projection, and a hook having a shank secured at its front end to the head, said shank normally occupying said slot, with its upper and lower edges in engagement with the upper and lower walls of said slot which are of sufficient height to form stops to prevent downward strain upon the hook from being placed upon the head and the connection between the head and



shank when in use, and said opening permitting the hook shank to be swung outwardly with relation to the hame.

1,257,809. DIVING-BELL. ARNALDO CRETTI, Montreal, Quebec, Canada. Filed June 26, 1917. Serial No. 177,157. (Cl. 61—7.)



1. In a diving bell, the combination with an air-tight shell having air supply and exhaust, means at the water surface for raising and lowering and moving the shell, instrumentalities exterior of the shell for causing its progress in various directions, manually controlled mechanism interior of the shell for selectively actuating said instrumentalities, glass-covered sight openings in the shell, and a light thereon; of a bracket on the shell, cords depending therefrom, a rope carried by the shell and having a slip noose at its extremity to which said cords are attached, and means for controlling the paying out of the rope.

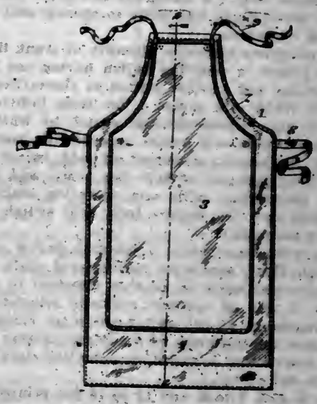
2. In a diving bell, the combination with an air-tight shell having air supply and exhaust, means at the water surface for raising and lowering and moving the shell, instrumentalities exterior of the shell for causing its progress in various directions, manually controlled mechanism interior of the shell for selectively actuating said instrumentalities, glass-covered sight openings in the shell, and a light thereon; of a reel rotatably mounted beneath the shell and carrying a cable, a guide through which said rope passes, a brake within the guide actuated from the interior of the shell, the rope having a noose at its extremity, and breakable means on the exterior of the shell for supporting said noose in the path of said light.

3. In a diving bell, the combination with an air-tight shell having air supply and exhaust, means at the water surface for raising and lowering and moving the shell, instrumentalities exterior of the shell for causing its progress in various directions, manually controlled mechanism interior of the shell for selectively actuating said instrumentalities, glass-covered sight openings in the shell, and a light thereon; of a reel rotatably mounted beneath the shell and carrying a cable, a guide through which said rope passes, a brake within the guide actuated from the interior of the shell, the rope having a noose at its extremity, a bracket projecting from the shell in line with said light, and cords hanging from said bracket and branched to and connected with said noose, for the purpose set forth.

4. In a diving bell, the combination with an air-tight casing, means for supplying air thereto and exhausting it therefrom, sight-openings in its wall, and a light carried by the shell in line with said openings; of a rope having a noose, means for supporting the noose in line with the light rays, a guide through which said rope passes, a reel on which the rope is wound beyond the guide, a brake within the guide, and a brake-handle rising therefrom to the interior of the shell, for the purpose set forth.

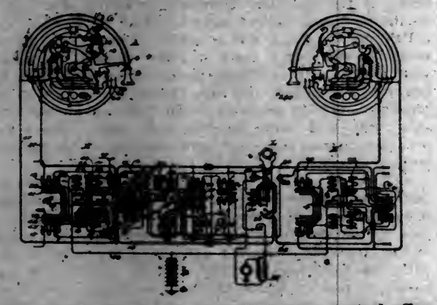
5. In a deep-water diving bell, the combination with an air-tight shell having glass-covered sight openings, a reel on the exterior of the shell, a rope wound thereon and having a noose, and means whereby the noose is carried by the shell in line with said opening; of air hose leading into the shell from the point overhead, control valves therein, and air supply and exhaust mechanism overhead, the hose containing a series of metallic knuckles of plus-shape with feet at the outer extremities of its arms and hubs where said arms cross, the hubs being loosely connected with each other, for the purpose set forth.

1,257,810. APRON. LOUIS H. CLARK, Brooklyn, N. Y. Filed Mar. 30, 1915. Serial No. 18,095. (Cl. 2—54.)



An apron comprising a substantially rectangular piece of washable material having a reduced upper edge portion, and a second piece of water-proof material arranged upon one side of the washable material, both pieces of material being of similar configuration, while the water-proof material is of lesser length and width than the washable material, strings carried by the respective pieces of material, the strings on the washable material being adapted to encircle the waist of the wearer, while the strings on the water-proof material are adapted to encircle the neck of the wearer, buttons secured to the water-proof material at spaced points adjacent its opposite longitudinal edges, and adapted to be received by button holes in the washable material to secure the respective parts together.

1,257,811. AUTOMATIC SELECTING-SWITCH. CHARLES W. CLUMMER, Dayton, Ohio, assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed June 15, 1912. Serial No. 703,786. (Cl. 179—18.)



1. In a telephone system, a telephone, a central office, a pair of line conductors connecting said telephone with the central office, an automatic switch, trunks accessible to said switch, said trunks divided into groups, said switch having means for electing a group of trunks by one motion and for thereafter finding a line in the group by a second motion, a first relay in one of said line conductors, a second relay in the other of said line conductors, said first relay for controlling said first motion, a motor magnet for moving the switch to find a line, said magnet and said second relay controlling each other's circuits.

3. In a telephone system, a plurality of trunks divided into groups, an automatic selecting switch having one motion to select groups and another motion to select an idle trunk in the predetermined group, a relay for controlling said second motion, manual means for initially energizing said relay over the line circuit to cause said switch to be operated one step, and automatic means for then energizing and deënergizing said relay to operate said switch to select an idle trunk.

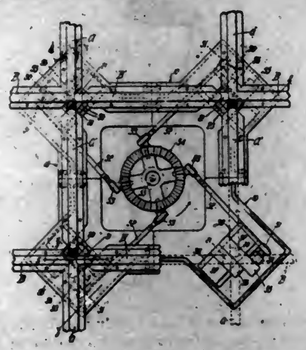
6. In a telephone system, a plurality of trunk lines divided into groups, a selecting switch having one motion to select groups and another motion to automatically select an idle trunk in a group, a line relay individual to said switch, line wipers for said switch by which said switch connects with said trunks, an operating magnet for controlling the second movement of said switch in response to the operation of said line relay, and a relay connected in multiple with said operating magnet for disconnecting said line wipers from said switch during said second movement.

10. In a telephone system, a selecting switch comprising a switch shaft, means for moving said shaft first in one direction and again in another direction to find an idle trunk, a pair of contacts normally separated, and means independent of the switch shaft for closing said contacts upon the initiation of the second motion of said shaft for controlling a guarding potential circuit associated with the switch.

[Claims 2, 4, 5, 7 to 9, and 11 to 14 not printed in the Gazette.]

1,257,812. RAILROAD INTERSECTION. EDWARD S. COSS, Whittier, Cal., assignor, by mesne assignments, to Cobb Shockless Crossing Corporation, New York, N. Y., a Corporation of New York. Filed Mar. 6, 1917. Serial No. 152,522. (Cl. 104—116.)

1. In a railroad intersection, the combination of a pair of intersecting tracks the rails of which have an open space at each of the individual rail intersections, vertically movable plugs in said open spaces, means to support and move said plugs embodying a cam beneath each plug adapted by rotation to move its plug between upper and lower positions, and means for coöperatively moving said cams so as to cause the plugs for the rails of one track to be in upper position when the plugs for the rails of the other track are in lower position, and said cams being so shaped that in one position all the plugs are lowered to open the spaces in all the rails.



2. In a railroad intersection, in combination with a pair of intersecting rails each having an open space adjacent the other for passage of flanged wheels, vertically movable plugs in said spaces, a cam shaft below the plugs, a pair of cams on the shaft one beneath and supporting each plug, the cams being so shaped and so set on the shaft that when the shaft is in one position one of the plugs is fully raised, when in another position the other of the plugs is fully raised, and when in an intermediate position both plugs are lowered to simultaneously open both rail spaces.

3. In a railroad intersection, in combination with a pair of intersecting rails each having an open space adjacent the other for passage of flanged wheels, vertically movable plugs in said spaces, a cam shaft below the plugs, a pair of cams on said shaft one beneath and supporting each plug, said cams being duplicates of each other but arranged oppositely with respect to the rotation of the shaft, each cam having a part adapted to support its plug in upper position, a part adapted to support its plug in lower position, and an intermediate part adapted to support its plug in mid-position, and the cams being set in such relation on the shaft that the said intermediate parts come simultaneously into supporting relation to the plugs.

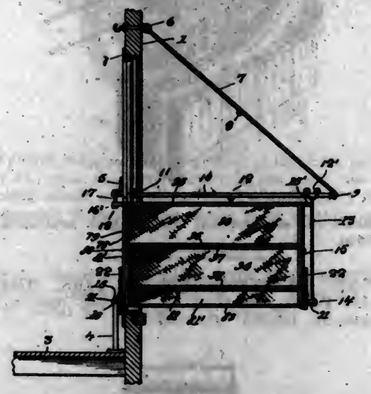
4. In a railroad intersection, in combination with a pair of intersecting rails each having an open space adjacent the other for passage of flanged wheels, means to fill each of said open spaces embodying a vertically movable plug interlocked with and between the rail at both sides of the open space.

5. In a railroad intersection, in combination with a pair of intersecting rails each having an open space adjacent the other for passage of flanged wheels, means to fill said open spaces embodying vertically movable plugs interlocked with the rails at both sides of the open space and with and between each other.

[Claim 6 not printed in the Gazette.]

1,257,813. FOLDING BED. ARTHUR B. COOK, Baton Rouge, La. Filed Aug. 17, 1916. Serial No. 115,474. (Cl. 5—9.)

4. In a foldable bedstead, end frames, each comprising a top rail, a bottom rail and corner posts connected with the rails, said bottom rails including each a block, a shaft member extending outwardly of the block at the center thereof, foldable legs connected with the shafts, outer members pivotally connected to the block adjacent the ends thereof, lugs upon the said members, said block having recesses to receive the lugs, whereby to hold the sections of the bottom rail in alinement, the corner posts comprising a plurality of sections having pivoted rule joint connections upon their inner faces at their abutting ends, a rule joint connection between the outer members of the bottom rail and the members of the corner posts adjacent thereto, said top rail also comprising a plurality of sections having rule joint connections upon their inner faces and having rule joint connections with the outer members of the corner posts, latching means for the center confronting sections of the top rails, rods connecting the outer members of the oppositely disposed bottom rails, a flexible bottom supported upon said rods, a pair of spaced rods connecting each of the sections comprising



the corner posts and the top rails, a netting secured to each pair of rods, and panel members comprising a plurality of hingedly connected sections one of which being hingedly connected to one of the sections comprising one of the corner posts at each of the ends of the frames designed to be swung against the said end frames to close the same, and securing means for said panels.

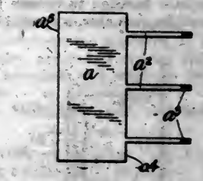
[Claims 1 to 3 not printed in the Gazette.]

1,257,814. BREAST-STRAP. GEORGE READ COPE, Hanna, Alberta, Canada. Filed Apr. 28, 1917. Serial No. 165,228. (Cl. 54—59.)



A metallic breast strap comprising a pair of sections, the opposite longitudinal edges of one section being bent inwardly to form grooves, the other section being slidably fitted in said grooves, a loop formed on the outer extremity of each section, one loop having its opposite edges bent inwardly, said inbent edges extending around the loop, a reinforcing element being fitted within the inbent edges of said loop and extending about the latter, and means for holding said sections fixed relatively to each other.

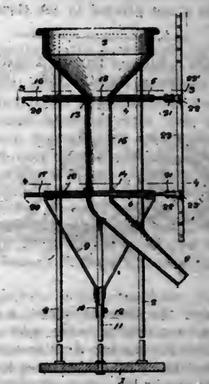
1,257,815. CIGARETTE. FRANÇOIS COURTINADE, New York, N. Y. Filed Mar. 8, 1917. Serial No. 153,228. (Cl. 131—52.)



1. A wrapper for cigarettes one side edge portion of which is provided with reinforcing, strengthening and decorating strips which are passed around the cigarette in the operation of forming the same and are sealed thereto.

2. A wrapper for cigarettes one side edge portion of which is provided with reinforcing, strengthening and decorating strips which are passed around said wrapper and sealed thereto.

1,257,816. BAG-FILLING APPARATUS. JOHN ROBERT CUNNYNGHAM, Chattanooga, Tenn. Filed Apr. 14, 1916. Serial No. 91,211. (Cl. 221—113.)

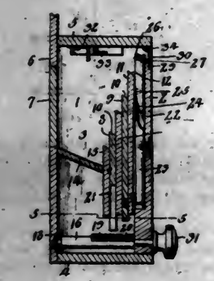


A cut-off and measuring device for filling bags and the like embodying spaced vertical standards, a hopper secured to the upper ends of said standards, a plate arranged below said hopper, a channeled guide formed with the lower end of said hopper extending across said plate and formed with an opening alining with the outlet end of said hopper and with an opening in the plate, an annular flange formed on the lower surface of the plate and concentrically of its opening, a second plate having an opening vertically alining with the opening of the first mentioned plate and channeled guide, an annular flange formed on the upper surface of the second mentioned plate and concentrically of its opening, a discharge chute leading from the opening of the second mentioned plate, a measuring tube interposed between the hopper and discharge chute with the ends thereof engaging in the annular flanges, valves slidably mounted in said guides, supporting arms depending from the last named plate, and means carried by the said arms for effecting a vertical adjustment of the last mentioned plate in a direction toward or from the first mentioned plate to accommodate measuring tubes of various sizes to be interfitted between the hopper and discharge chute.

1,257,817. MATCH-BOX. GEORGE JACOB DEINES, Russell, Kans. Filed Apr. 26, 1915, Serial No. 23,928. Renewed Jan. 8, 1918. Serial No. 210,947. (Cl. 206—23.)

2. A mono delivery match safe comprising a casing having a discharge opening and a hopper, a plurality of

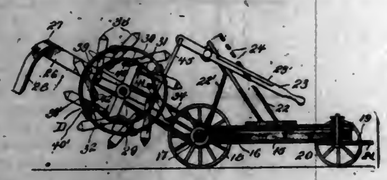
match supporting members arranged in echelon, a plurality of sliding members arranged in echelon and associated with the supporting members, a horizontal arm mounted to swing into position to receive a single match from the adjacent sliding member, a rotatable shaft having



a spiral groove and supporting said arm and a lug carried by one of the sliding members and engageable with the spiral groove formed in the rotatable shaft, whereby, a movement of the feeding means will swing the said arm.

[Claims 1 and 3 not printed in the Gazette.]

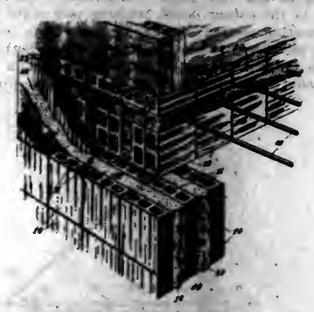
1,257,818. PLOW. ROBERT DIXON, Armells, Mont. Filed Aug. 25, 1917. Serial No. 188,136. (Cl. 97—63.)



In a machine of the class described, a drum supported for rotation and comprising inner and outer cylinders, said outer cylinder having non-circular apertures and said inner cylinder having circular apertures in staggered relation to the apertures in the outer cylinder, in combination with diggers each having a shank of non-circular cross section engaging an aperture in the outer cylinder, said shank being provided with an externally threaded extension engaging an aperture in the inner cylinder, said shank having obliquely disposed shoulders engaging the external faces of the respective cylinders, a nut and washer on the threaded extension tightened against the inner face of the inner cylinder and said diggers being arranged in approximately tangential relation to the drum.

1,257,819. BUILDING CONSTRUCTION. PETER DOBRN, New Rochelle, N. Y. Filed Dec. 7, 1916. Serial No. 135,593. (Cl. 72—1.)

In a building construction, wall members comprising blocks laid in courses, certain of said blocks having vertically-disposed openings extending therethrough, certain other of said blocks having vertically-extending channels formed therein and having lateral openings extending throughout the height of the blocks, the vertically-disposed openings of said first named blocks and the vertically-extending channels of said second named blocks being in alinement with one another to form vertical air chambers extending continuously throughout the height of said wall members, and flooring or ceiling members comprising hollow blocks having horizontally-disposed openings registering with one another to form horizontal air chambers, said horizontal air chambers registering at their ends with the lateral openings of the vertically-extending channels of said second named blocks, whereby communication is established between said horizontal air



chambers and said vertical air chambers, substantially as specified.

1,257,820. EXTENSION-GRIP FOR CARS. HARRY EDWARD DOODY, Brooklyn, N. Y. Filed Nov. 2, 1917. Serial No. 199,853. (Cl. 105—35.)



1. An extensible grip for cars, including a suspension hanger, a casing hung thereon, an elongated element telescoping in the casing, a hand-hold on said element below the casing, a spring within the casing and acting on the said element tending to maintain the same in the retracted position, a stop on the said casing at the interior, below the top, a latch pivoted on the said telescoping element adjacent to the upper end to normally lie above the stop, and a spring acting on said latch and tending to maintain the same in the path of the stop, the said telescoping element being adapted to be turned through an angle to aline the latch with the stop or to position it out of line with the stop to clear the latter, and the first mentioned spring being of a strength to overcome the pressure of the latch spring and carry the latch past the stop in the retracting movement of the telescoping element.

[Claims 2 and 3 not printed in the Gazette.]

1,257,821. STARTING ARRANGEMENT FOR INTERNAL-COMBUSTION ENGINES IN WHICH AN ELECTRIC STARTING-MOTOR IS USED. AUGUSTE DUTREUX, Issy-les-Moulineaux, France, assignor to The Societe Anonyme Pour L'Eclairage Electrique Des Vehicules, Issy-les-Moulineaux, France, a Corporation of France. Filed July 21, 1915. Serial No. 41,155. (Cl. 172—239.)

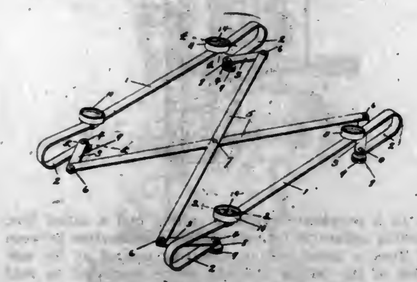
In a starting device for explosion engines, a motor, means actuated by the motor to start the engine, electromagnetic means for moving the aforementioned means to

an operative position, an open circuit including the motor, the magnet and suitable resistance in series and a source of energy, a switch for closing the circuit, a second circuit including the motor and a source only, the aforemen-



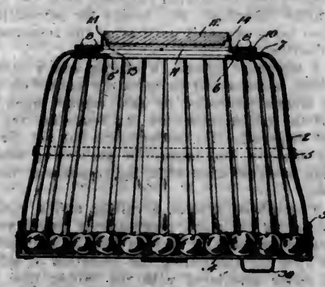
tioned switch being manually operable to break the former circuit and close the latter circuit at one point, the circuit being closed at a second point automatically upon the movement of the starting means to its operative position.

1,257,822. SHOCK-ABSORBER FOR TYPE-WRITERS. JOHN A. EARHUFF, Los Angeles, Cal. Filed May 24, 1917. Serial No. 170,753. (Cl. 248—20.)



A supporting base for typewriters including parallel resilient bars having downwardly and inwardly turned terminals constituting yieldable feet, cushions carried by and depending from said feet, means upon each bar and adjustable relative to each other upon the bar for engaging and holding the typewriter, crossed pivotally connected links between the bars, and short link connections between said crossed links and the respective feet.

1,257,823. BASKET. JOHN F. EAST, Norfolk, Va. Filed Dec. 15, 1916. Serial No. 137,207. (Cl. 217—122.)

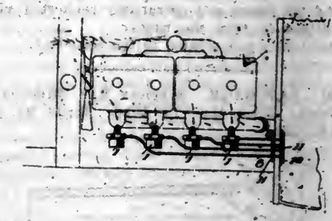


1. A splint basket comprising a shell of splints having their inner ends secured in overlapping relation to each other upon and radiating from a flat annulus the aperture of which forms a filling opening, and connected at their upper ends by a band or support.

6. A basket comprising an inner bottom annulus the aperture of which forms a filling opening, shell or wall splints curved inwardly toward and terminating on said annulus, a disk closure adapted to be fastened to said structure to close the aperture of the annulus, and an outer annulus secured over the splint ends on the first or inner annulus, and forming therewith a rabbet for said closure.

[Claims 2 to 5 not printed in the Gazette.]

1,257,824. INDICATOR FOR MULTIPLE-CYLINDER EXPLOSIVE-ENGINES. WILLIAM EBERT, Ellicottville, N. Y. Filed Sept. 13, 1915. Serial No. 50,515. (Cl. 116—31.)



1. The combination with a multiple cylinder internal combustion engine and an exhaust manifold having branches communicating with the exhaust valve chambers of the cylinders, of a plurality of testing chambers each having communication with one branch of the manifold and each formed with an atmospheric vent, an indicating device coöperating with each testing chamber, and means operable by the passage of burnt gases through the testing chambers to their vents for actuating the indicating devices, said means being capable of controlling the indicating devices at a point remote from the testing chambers so that the engine may be tested from a distance or from an inspection of the testing chambers.

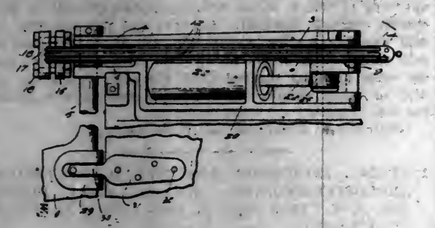
2. The combination with a multiple cylinder internal combustion engine and an exhaust manifold having branches communicating with the exhaust valve chambers of the cylinders, of a plurality of testing chambers each having communication with one branch of the manifold and each formed with an atmospheric vent, an indicating device coöperating with each testing chamber, and means operable by the passage of burnt gases through the testing chambers to their vents for actuating the indicating devices, said means being capable of controlling the indicating devices at a point remote from the testing chambers so that the engine may be tested from a distance or from an inspection of the testing chambers, and including rock shafts extending through the testing chambers, gate valves fixed to the rock shafts within the chambers and normally cutting off communication between the manifold and chambers, and operative connections between the rock shafts and the indicating means.

1,257,825. MEANS FOR STEERING BOATS. WALFRID S. EKLUND, Donner, La. Filed May 29, 1917. Serial No. 171,721. (Cl. 114—150.)

5. A means for steering a boat comprising a frame secured to the bow of the boat, a rudder carried by said frame, a drum journaled to said frame, means for connecting the drum to the rudder, cylinders carried by said frame, pistons in said cylinders and connected to the drum, pipes connected to said cylinders, a four-way valve connected to said pipes, and adapted to admit an exhaust fluid pressure to the cylinders for actuating the rudder.

6. A steering device comprising a frame secured to the bow of a boat, a drum journaled to each end of said

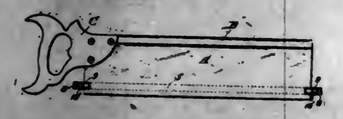
frame, a rudder connected to one of said drums, means connecting the drums together, and hydraulic means



carried by the frame and operatively connected with one of the drums to turn the rudder.

[Claims 1 to 4 not printed in the Gazette.]

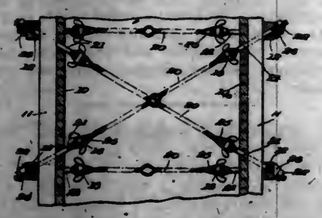
1,257,826. SAW-GAGE. STEPHEN RAY EMERSON, Creston, Iowa. Filed Mar. 28, 1916. Serial No. 87,357. (Cl. 145—35.)



1. A saw gage comprising a bar having a longitudinally extending slot adjacent each end thereof, plates adjacent the ends of the bar operable to connect the bar with a saw blade, and means for operating said plates passing through said slots and slidably connecting the plates with the bar whereby, the gage may be connected with saw blades differing in length.

2. The herein described gage for application to saw blades of different lengths, the same comprising a bar longer than the blade and having longitudinal slots near its ends, the bar adapted to lie against one side of the blade with the slots lapping the extremities thereof, plates adapted to lie against the opposite side of the blade and lap its extremities, a guide in each plate slidably mounted in one of the said slots, and a set screw threaded into each plate with its shank leading across the extremity of the blade and slidably mounted in said slot and its head standing on the remote side of the bar.

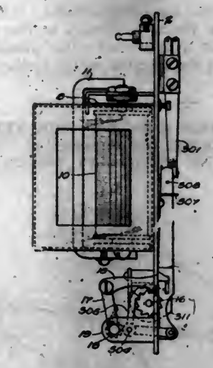
1,257,827. CLAMP FOR CONCRETE-FORMS. ORRIN J. EMMONS, Philadelphia, Pa. Filed May 25, 1917. Serial No. 170,938. (Cl. 25—131.)



1. A clamp for concrete forms including an anchoring member provided with oppositely directed lugs, a flexible element having overlapping strands thereof looped over the said lugs around the said member, a second flexible element having overlapping strands thereof looped around the said member and over the said lugs in a direction opposite to the strands of said first-mentioned element with the several strands crossing within the said lugs and thence twisted together to form a securing cable, and a clamping element adjustable through the said anchoring member.

2. A clamp for concrete forms including an anchoring member having oppositely directed lugs extending from the inner extremity thereof, flexible elements looped around the body of the said member and extending at opposite sides of said lugs to provide a securing cable, and a clamping element adjustably engaging the anchoring member and detachably connected therewith.

1,257,828. MEASURED-SERVICE TELEPHONE SYSTEM. JOHN ERICKSON, Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed May 5, 1911. Serial No. 625,179. (Cl. 179—9.)



1. In a telephone system, a calling and a called line, switching apparatus for establishing a connection between said lines, a meter and an operating magnet at the substation of the calling line, and means controlled by said magnet for rendering the calling telephone inoperative only as to its transmitter upon the response of the called subscriber.

2. In a telephone system, a calling and a called subscriber's line, a meter and an operating magnet on the calling line, and means controlled by said magnet upon the response of the called subscriber for rendering the calling telephone inoperative for transmitting but not for receiving voice currents.

3. In a telephone system, a calling and a called line, switching apparatus for establishing a connection between said lines, a meter and an operating magnet at the substation of the calling line, means controlled by said magnet for rendering only the transmitter of the calling telephone inoperative for talking purposes upon the response of the called subscriber, and means for preventing said meter from being operated until after the response of the called subscriber.

4. In a telephone system, a calling and a called subscriber's line, a meter and an operating magnet on the calling line, means controlled by said magnet upon the response of the called subscriber for rendering the calling telephone inoperative for transmitting but not for receiving voice-currents, and means for preventing said meter from being operated until after the response of the called subscriber.

5. In a telephone system, a calling and a called line, means including automatic progressively moved switching apparatus for establishing a connection between said lines, a switch hook for controlling the operation of said apparatus, a meter associated with the calling line, manual means for operating said meter to register a call, and means for preventing said meter from being operated until after the response of the called subscriber.

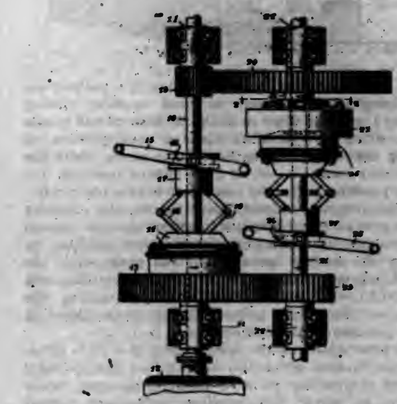
[Claims 6 to 28 not printed in the Gazette.]

1,257,829. ELIMINATING SULFUR FROM OILS. EDWARD VICTOR EVANS, London, England. Filed Oct. 25, 1915. Serial No. 57,885. (Cl. 196—26.)

1. A process for eliminating sulfur from oils, which consists in passing the vapor of the oil mixed with a proportion of hydrogen or gas containing hydrogen in excess of the amount of sulfur present over a catalytic agent or contact substance of the type described heated below the temperature at which the vapor decomposes, thereby poisoning the said agent or substance so that hydrogenation does not occur and at the same time converting sulfur into sulfureted hydrogen, and then removing the sulfureted hydrogen from the vapor or oil.

2. A process for eliminating sulfur from naphtha while it is being distilled from crude coal tar, which consists in first mixing the vapor of the naphtha with hydrogen in excess of the amount of sulfur present, then heating the mixture to a temperature of 450° C., then passing the heated mixture over a contact substance or catalyst heated to 450° C., then condensing the vapor, and finally removing sulfureted hydrogen from the condensed vapor.

1,257,830. DRIVING MECHANISM. WILLIAM EVENSEN, Chicago, Ill., assignor to The Goss Printing Press Company, Chicago, Ill., a Corporation of Illinois. Filed June 12, 1917. Serial No. 174,249. (Cl. 74—59.)



1. In a driving mechanism, the combination of a drum, means for rotating said drum in one direction, a rotary member journaled upon the axis about which said drum rotates, a friction shoe adapted to be brought into engagement with the periphery of said drum and adapted when in operative engagement to drive the rotary member in the same direction, and other means for rotating said rotary member in the same direction at a higher speed, serving to carry said friction shoe out of operative engagement with the drum.

2. In a driving mechanism, the combination of a drum, means for rotating said drum in one direction, a rotary member journaled upon the axis about which said drum rotates, a friction shoe adapted to be brought into engagement with the periphery of said drum and adapted when in operative engagement to drive the rotary member in the same direction, and other means for rotating said rotary member in the same direction at a higher speed, serving to cause said friction shoe to move outward by centrifugal force out of operative engagement with the drum.

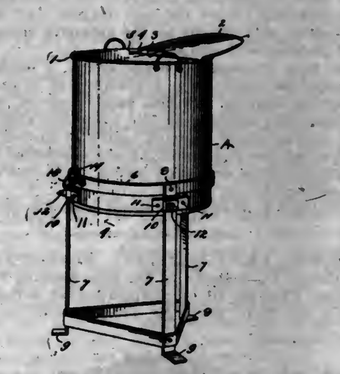
3. In a driving mechanism, the combination of a drum, means for rotating said drum in one direction, a rotary member journaled upon the axis about which said drum rotates, a friction shoe adapted to be brought into engagement with the periphery of said drum and adapted when in operative engagement to drive the rotary member in the same direction, and other means for rotating said rotary member in the same direction at a higher speed, serving to move the friction shoe outwardly from engagement with the drum.

4. In a driving mechanism, the combination of a drum, means for rotating said drum in one direction, a rotary member journaled upon the axis about which said drum rotates, a friction shoe movably mounted on said rotary member adapted to be brought into operative engagement with the periphery of the drum and adapted when in operative engagement to drive the rotary member in the same direction, and other means for rotating said rotary member with the friction shoe carried thereby in the same direction at a higher speed serving to carry said friction shoe by centrifugal force outward out of operative engagement with the drum.

5. In a driving mechanism, the combination of a drum, means for rotating said drum in one direction, a rotary member journaled upon the axis about which said drum rotates, a friction shoe movably mounted on said rotary member adapted to be brought into operative engagement with the periphery of the drum and adapted when in operative engagement to drive the rotary member in the same direction, yielding means tending to hold said friction shoe in operative engagement with said drum, and other means for rotating said rotary member with the friction shoe carried thereby in the same direction at a higher speed serving to carry said friction shoe outward by centrifugal force against the action of said yielding means out of operative engagement with the drum.

[Claims 6 to 10 not printed in the Gazette.]

1,257,831. BUCKET. EUGENE EWERS and FREDERICK LUDFORD, Eugene, Oreg. Filed Apr. 7, 1915. Serial No. 19,768. (Cl. 91—66.)

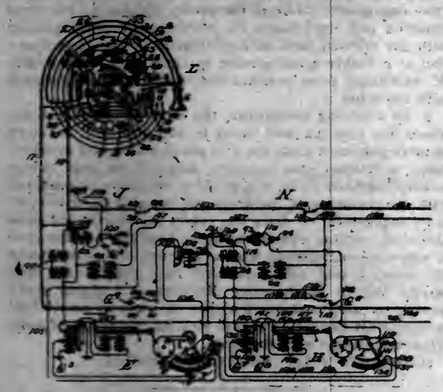


The combination with a bucket, of an angular frame upon which said bucket seats, a leg rising from each corner of the frame and lying against the side of the bucket, guide straps secured adjacent the lower edge of the bucket and slidably receiving the legs, means to secure the legs to the straps at various lengths of adjustment, and a stop hoop surrounding the bucket and secured to the upper ends of the legs.

1,257,832. TELEPHONE AUTOMATIC TRUNKING SYSTEM. EDWARD D. FALES, La Grange, Ill., assignor, by mesne assignments, to Automatic Electric Company, a Corporation of Illinois. Filed Aug. 10, 1907. Serial No. 387,948. (Cl. 179—18.)

1. In a telephone automatic trunking system, a calling telephone line, a plurality of trunk lines, a plurality of progressively movable automatic switches associated with said trunk lines for calling purposes, and means for selecting an idle trunk line ahead of the call, any one of said automatic switches being responsive to an impulse from the calling subscriber for seizing the said preselected trunk line.

2. In a telephone automatic trunking system, a calling telephone line, a plurality of trunk lines, a plurality of progressively movable automatic switches associated with said trunk lines for calling purposes, and means for selecting an idle trunk line ahead of the call, said automatic switches being responsive to an impulse from the calling subscriber for seizing opposite ends of the preselected trunk line.



24. A telephone trunking system comprising a master switch having a shaft, a plurality of trunking switches each provided with a plunger adapted to be operated by said shaft, an actuating magnet for each trunking switch, an energizing circuit for each magnet, and means for controlling said circuits by the operative engagement of said plungers with said shaft.

36. In a telephone exchange system, a calling line, a plurality of trunk lines, a plurality of automatic progressively movable switches, another switch, means for automatically selecting an idle trunk line ahead of each call, said automatic switches controlled successively from said calling line for seizing the said preselected trunk line to thereby place said other switch under the control of the calling line.

[Claims 3 to 23 and 25 to 35 not printed in the Gazette.]

1,257,833. PRINTING-PRESS. HARLAND FANKBONER, Chicago, Ill., assignor to The Goss Printing Press Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 22, 1917. Serial No. 143,730. (Cl. 101—378.)



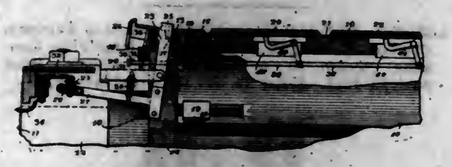
1. In a printing press, the combination of a form cylinder, a screw adjustable longitudinally of the cylinder by means of a suitable operating tool removably applied in operative position for such adjustment, a clamp adapted to be operatively engaged by said screw and removable thereby longitudinally of the cylinder into and out of position for locking a form upon the cylinder, and means effective for preventing the normal operation of the press while said operating tool is in operative position for adjusting said screw longitudinally of the cylinder.

5. In a printing press, the combination of a support, a form cylinder revolubly mounted on said support, clamps adjustably mounted on the cylinder adapted to engage a form for holding it upon the cylinder, and a guard movably mounted on said support adapted when in normal position to prevent adjustment of the clamps while the cylinder is in normal position for receiving the form.

11. In a printing press, the combination of a form cylinder, clamps adjustably mounted on the cylinder adapted to engage a form for holding it upon the cylinder, a movable guard adapted when in normal position to prevent ready adjustment of the clamps upon the portion of the cylinder in position for receiving a form thereon, and an electric switch adapted to be operated by the movement of said guard for controlling the driving of the press.

[Claims 2 to 4 and 6 to 10 not printed in the Gazette.]

1,257,834. PRINTING-PRESS. HARLAND FANKBONER, Chicago, Ill., assignor to The Goss Printing Press Company, Chicago, Ill., a Corporation of Illinois. Filed June 12, 1917. Serial No. 174,374. (Cl. 101—378.)



1. In a printing press, the combination of a plate cylinder, clamping means movably mounted on said cylinder for locking a printing plate in position thereon, and means held in position by a printing plate on said cylinder for preventing the normal operation of the press while the plate-clamping means is out of plate-locking position.

2. In a printing press, the combination of a plate cylinder, clamping means movably mounted on said cylinder for locking a printing plate in position thereon, means held in position by a printing plate on said cylinder for preventing the normal operation of the press while the plate-clamping means is out of plate-locking position, and other means coöperating therewith for preventing the normal operation of the press while a clamp-operating tool is in position on the cylinder.

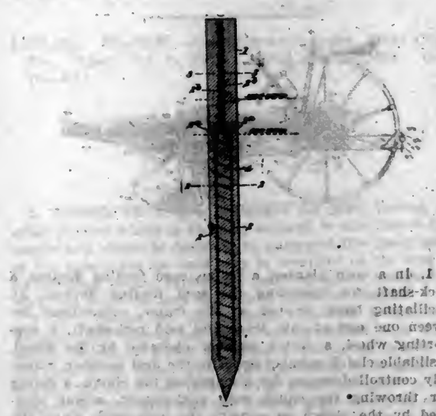
3. In a printing press, the combination of a plate cylinder, clamping means adjustably mounted on said cylinder for locking a printing plate in position thereon, means adapted to be moved into position to prevent normal driving of the press, and means held in position by a printing plate on the cylinder adapted when the plate-clamping means is out of operative plate-locking position to engage said movable means for holding it in position for preventing operation of the press.

4. In a printing press, the combination of a plate cylinder, clamping means slidably mounted on said cylinder for locking a printing plate in position thereon, means adapted to be moved into position to prevent normal driving of the press, and means adapted when no plate is in position on the cylinder to stand out of engagement with said movable means so as to permit normal operation of the press but adapted when the plate-clamping means is out of operative plate-locking position to be held by a printing plate upon the cylinder in position to engage said movable means for holding the same in effective position for preventing operation of the press.

13. In a printing press, the combination of a plate cylinder, clamping means slidably mounted on said cylinder for locking a printing plate in position thereon, electrically-operated means for driving said press, comprising a switch by the operation of which said driving means may be thrown out of operation, means held in effective position by a printing plate upon said cylinder for effecting an operation of said switch, and other means coöperating therewith for holding said switch open so long as a clamp-operating tool is kept in position on said cylinder.

[Claims 5 to 12 not printed in the Gazette.]

1,257,835. REINFORCED-CONCRETE PILE FOR MARINE WORK. LEWIS R. FERGUSON, Philadelphia, Pa. Filed Mar. 10, 1917. Serial No. 153,981. (Cl. 72—61.)



1. A concrete pile for marine work having a plurality of longitudinally disposed reinforcing metal members embedded therein, the parts of said reinforcing members in the portion of the pile above low water being protected by an external layer of concrete approximately four inches thick; and being much farther removed from the exterior surface of the pile than are the parts of the reinforcing members in the lower or submerged portion of the pile.

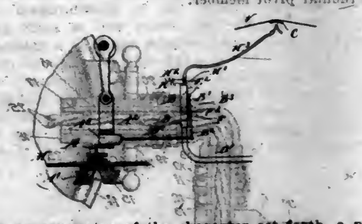
2. A reinforced concrete pile for marine structures having a plurality of longitudinally disposed metal reinforcing bars extending throughout its length, the parts of the bars within the upper part of the pile exposed to the atmosphere above low water when *in situ* being embedded in the concrete to a much greater depth than usual, and to a greater depth than are the parts of the bars in the lower or submerged portion of the pile.

3. A reinforced concrete pile for marine work having metal reinforcing embedded therein, said reinforcing being contracted at a point below the part of the pile exposed to the atmosphere when *in situ* so that the portion of the reinforcing in the portion of the pile above low water is much more deeply embedded in the concrete and is protected by a much thicker layer of concrete than is the portion of the reinforcing within the lower or submerged portion of the pile.

4. A reinforced concrete pile for marine work having a plurality of longitudinally disposed metal reinforcing members extending longitudinally thereof, said reinforcing members being inwardly bent or deflected at a point below the part of the pile exposed when *in situ* and the upper part of the pile being thickened or enlarged so that the parts of the reinforcing members above such bend and in the part of the pile above low water are more deeply embedded in the concrete and protected by a thicker layer of concrete than are the parts of the reinforcing members in the lower submerged portion of the pile.

1,257,836. MUSIC-ROLL PERFORATOR. NUNEZ CLARENCE FERRIS, Brooklyn, N. Y., assignor to Elizabeth F. Boyle, Brooklyn, N. Y. Filed Jan. 25, 1917. Serial No. 144,328. (Cl. 164—114.)

1. In an apparatus of the character set forth, a pneumatic comprising a body having two recesses therein, flexible diaphragms of unequal areas in said recesses, a lever fulcrumed on said body and connected by one arm to such larger diaphragm and by the other to such smaller diaphragm, said body having a passage leading from the recess for such larger diaphragm to a bridge-aperture and a passage leading from the recess for such smaller diaphragm to a means for producing a partial vacuum.



3. In an apparatus of the character set forth, a pneumatic comprising a body having two recesses therein, flexible diaphragms of unequal areas in said recesses, a lever fulcrumed on said body and connected by one arm to such larger diaphragm and by the other arm to such smaller diaphragm, a hollow bar supporting such body and having a passage leading from its interior to a means for producing a partial vacuum, said body having a vacuum passage leading from the recess for such smaller diaphragm to the interior of said bar, an air passage from the recess for said larger diaphragm to the exterior of said body and communicating with a bridge-aperture, and a contracted bleeder passage connecting said recesses.

5. In an apparatus of the character set forth, a hollow bar having its interior channel under partial vacuum, a series of pneumatics mounted side by side on said bar, each having a groove in its side edges, screws extending through such grooves between each pneumatic and the next and engaging said pneumatic and bar for holding the former to the latter, and passages from said channel to the interiors of said pneumatics.

9. The pneumatic described comprising a single rectangular plate of metal, having a recess of large area in its upper portion and a recess of smaller area in its lower portion, an annular rabbet formed on the margin of each recess, flexible diaphragms received in such rabbets, a ring in each rabbet for holding its diaphragm to its recess, a lever fulcrumed on said body between said recesses and having one arm connected to said larger upper diaphragm and the other arm connected to such smaller lower diaphragm, an air passage formed in said body and leading from said upper recess and adapted to be connected to a bridge-aperture, a vacuum passage formed in said body and leading from said lower recess and under partial vacuum, a bleeder passage formed in said body and connecting said recesses, and a cleaning passage formed in said body in axial alinement with said bleeder passage and said vacuum passage.

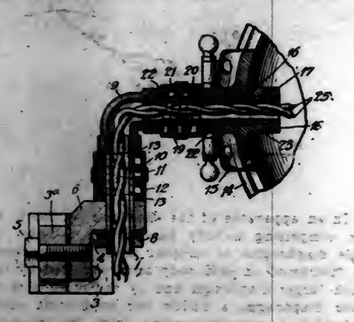
[Claims 2, 4, and 6 to 8 not printed in the Gazette.]

1,257,837. SEARCH-LIGHT LAMP. HARRY N. FOWLER, Chicago, Ill., assignor to Mabel C. Fowler, Chicago, Ill. Filed Mar. 2, 1916. Serial No. 81,596. (Cl. 240—57.)

1. In a device of the character described including a pivot bearing comprising a pivot member and a box member arranged to support a lamp casing, means for yieldingly and frictionally restraining relative rotation of the bearing members comprising abutments fixed to the pivot member of the bearing on opposite sides of the box member, a spiral compression spring surrounding the pivot member and interposed between the box member and one abutment, and a telescoping shell member inclosing said spring and forming a casing therefor.

2. In a device of the character described including a pivot bearing comprising a tubular pivot member and a box member arranged to support a lamp casing and an electric light arranged therein, means for yieldingly and frictionally restraining relative rotation of the bearing members comprising abutments fixed to the tubular pivot member of the bearing on opposite sides of the box mem-

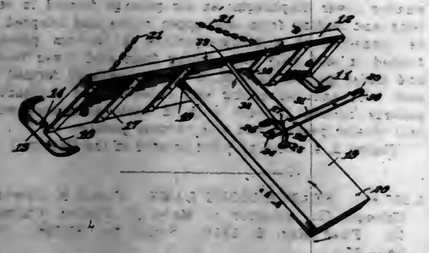
ber, a spiral compression spring surrounding said pivot member and interposed between the box member and one abutment, and conductors for said light disposed within said tubular pivot member.



3. A device of the character described comprising a vertical tubular bearing member rotatable in a fixed support and equipped with an abutment at its bottom, a quarter-turn coupling secured to the top of said vertical tubular member, a horizontal tubular bearing member secured at one end to said coupling and at its other end equipped with an abutment, a lamp casing pivotally mounted on said horizontal member, spring-tension means coöperating with the base of the vertical portion of the coupling and the abutment at the bottom of the vertical tubular member for frictionally restraining rotation of such member in its support, and spring-tension means coöperating with the base of the horizontal portion of the coupling and the abutment at said other end of the horizontal tubular member for frictionally restraining rotation of the lamp casing mounted thereon.

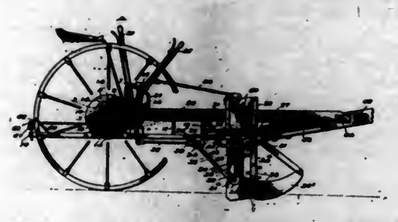
[Claims 4 and 5 not printed in the Gazette.]

1,257,838. SOIL GRADING AND LEVELING DEVICE. JAMES S. FREW and EDWARD A. LEWIS, Lancaster, Cal. Filed Apr. 3, 1916. Serial No. 88,642. (Cl. 37—5.)



In a soil scraping and leveling device, a grading cant board, a blade extending downwardly from the lower edge of said board and longitudinally thereof, a platform pivotally mounted to the opposite side of the cant board and adjacent the upper edge thereof, a lever pivotally mounted upon the platform, means whereby said lever may be locked in different positions, a connecting rod between the lever and the upper end of the cant board whereby the angle between the cant board and the platform may be varied, draw chains connected to the cant board and by which it and the platform may be pulled, runners pivotally mounted under the opposite ends of the cant board for supporting the cant board during operation, and arcuate up-turned ends formed at the front of the runners against which the cant board may be swung and by which the blade may be supported in an inoperative position.

1,257,839. CORN-PLANTER. ROBERT E. GALVIN and HERBERT C. SCHUMACHER, Rock Island, Ill. Filed July 18, 1917. Serial No. 181,308. (Cl. 111—16.)



1. In a corn planter, a frame, seed feeding devices, a rock-shaft for operating the seed feeding devices, an oscillating lever pivoted on the frame, connections between one end of said lever and said rock-shaft, a supporting wheel, a clutch member operated by the wheel, a slidable clutch member opposite the first member, manually controlled means for disengaging the clutch, a spring for throwing the clutch into engagement, means operated by the clutch to actuate the rock-shaft when the clutch is engaged, and a key adjacent the sliding clutch member adapted to position the latter relatively to the other clutch member when disengaged therefrom, so that when the clutch is reëngaged the seed will be dropped at the proper point.

7. In a corn planter, the combination of a frame, a wheeled axle supporting the frame, seed boxes on the frame, seed slides, a rocker-shaft for operating the slides, an oscillating lever pivoted on the frame, link connections between one end of this lever and said rock-shaft for rocking the latter, a clutch member connected with one wheel, a slidable clutch member on the axle opposite the first member, a foot lever and connections for disengaging the clutch, a spring for throwing the clutch into engagement, a disk connected with the slidable clutch member provided with pins adapted to successively engage the adjacent end of said oscillating lever when the clutch is engaged to cause it to operate the rock-shaft, and a key on the axle adjacent the sliding clutch member to position the latter relatively to the other clutch member when the clutch is disengaged so that when the clutch is reëngaged the seed will be dropped at the proper points.

11. In a planter a seed box, a seed slide therein, a rack bar connected with said slide, a pinion engaging said rack, a rock-shaft carrying said pinion, an oscillating lever for rocking said shaft, means for operating said lever; a furrow opener beneath the seed box having a seed channel, a dropper closing the said channel, and operative connections between said dropper and said rock-shaft.

15. In combination, a frame, seed boxes thereon, seed slides in said boxes, a rock-shaft, connections for operating said slides from said rock-shaft, an oscillating lever pivoted on the frame, and connections between one end of said lever and said rock-shaft; with an axle supporting the frame, a sleeve on said axle, a wheel connected with said sleeve, a clutch member on said sleeve, an opposed slidable clutch member, a disk on the slidable clutch member, and pins on said disk adapted to engage the oscillating lever.

20. In a corn planter, a frame, seed feeding devices, a rock-shaft, connections between the said rock-shaft and the seed feeding devices, a supporting wheel, a clutch member operated by the wheel, a slidable clutch member opposite the first member, means for engaging and disengaging the clutch members, means operated by the clutch to actuate the rock-shaft when the clutch members are engaged, and a key adjacent the sliding clutch member adapted to position the latter relatively to the other clutch member when disengaged therefrom so that when the clutch is reëngaged the seed will be dropped at the proper point.

[Claims 2 to 6, 8 to 10, 12 to 14, 16 to 19, and 21 to 23 not printed in the Gazette.]

1,257,840. STAPLE. JOHN HENRY GILBERT, Plant City, Fla. Filed Oct. 6, 1917. Serial No. 195,090. (Cl. 70—83.)

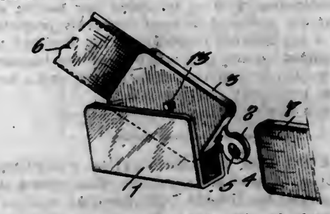


1. A staple for a hasp, a flanged cap plate having an offset portion which is hingedly secured to one side of the staple and which is designed to surround the outer edge of the hasp when the said hasp is arranged on the staple, and locking means carried by said cap plate coengaging with the staple to lock said plate upon the staple.

2. In a device for the purpose set forth, a staple, a flanged plate having one of its ends provided with a U-shaped extension which is hingedly connected to one of the ends of the staple and which extension is designed to receive the outer end of the hasp when the same is arranged on the staple and the flanged plate is swung over the staple to frictionally engage therewith, and a locking element carried by the plate and designed to coengage with the staple for locking the said plate to the staple.

3. In a device for the purpose set forth, a staple, a plate integrally formed with the staple upon one of the sides thereof, said plate having its inner edge provided with an offset flange, a flanged cap plate having one of its ends provided with a U-shaped extension and having its inner edge formed with an outturned flange, a hinged connection between the said U-shaped extension and one of the sides of the staple, said cap plate designed to be swung over the staple and to frictionally engage therewith, and a turnable element carried by the plate and designed to co-engage with the staple for locking the plate to the staple.

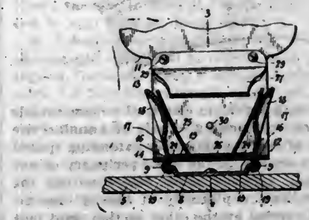
1,257,841. BELT-BUCKLE. JOHN M. GILLIGAN, Rockville, Ind. Filed Apr. 3, 1917. Serial No. 159,442. (Cl. 24—180.)



A belt buckle comprising a pair of channel shaped members, one of the members being inverted and pivotally connected to the other member at one wall thereof to swing within the channel of the same, and being of less width to leave a space between the opposite wall and the said first named member, said first named member having a pin extending laterally toward the last named wall of the second named member, said pin being adapted to engage one end of a belt, the other end being adapted for connection with the first named member.

1,257,842. LENS-FRONT FOR CAMERAS. JOSEPH GODDARD and WILLIAM S. HUTCHINGS, Rochester, N. Y., assignors to Seneca Camera Manufacturing Company, Rochester, N. Y., a Corporation of New York. Filed Aug. 15, 1916. Serial No. 115,036. (Cl. 95—46.)

1. In a photographic camera of the focusing type having a runway, the combination of a lens front, and means for clamping the lens front at different focusing positions along the runway and also positioning and holding the lens front in correct angular relation to the sensitized medium, and embodying a base rigid with the lens front and having an opening therein elongated in a direction longitudinally of the runway, one side of the opening being of less length than the opposite side of the opening, a clamping member having a finger piece insertible through said opening, a portion to fit into that side of the opening which is of less length, and a jaw to coöperate with a longitudinal side of the runway, and a part covering that side of said opening which is of greater length and coöperative with the clamping member to confine it in the side of the opening which is of less length.



2. In a photographic camera of the focusing type having a runway, the combination of a lens front having a base provided with a pair of laterally spaced openings elongated in a direction longitudinally of the runway, each opening being reduced longitudinally at a side thereof, clamping members having finger pieces capable of insertion through the respective openings, intermediate portions to fit in said reduced portions of the openings, and jaws to coöperate with the runway, means for confining the clamping members in the respective reduced portions of said openings, and a spring operative to engage the jaws of the clamping members with the runway.

3. In a photographic camera of the focusing type having a runway, the combination of a lens front, and means for clamping the lens front at different focusing positions along the runway and also positioning and holding the lens front in correct angular relation to the sensitized medium, said means embodying a base rigid with the lens front and having a pair of laterally spaced parallel openings elongated in a direction longitudinally of the runway, each opening having one side of less length than the opposite side, a pair of clamping members having finger pieces capable of being inserted through the respective openings in the base, portions to fit in these sides of the respective openings which are of reduced length, and jaws to coöperate with the runway, and a member secured to said base and covering the sides of the openings which are of greater length to confine the clamping members in those sides of the openings which are of less length.

[Claims 4 to 6 not printed in the Gazette.]

1,257,843. TRAY. LOUIS J. GONYEA, Spokane, Wash. Filed Mar. 9, 1917. Serial No. 153,716. (Cl. 65—53.)

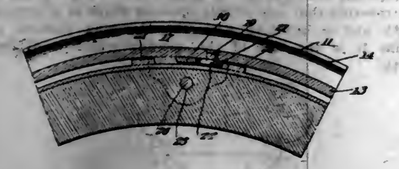


1. In a device of the character described, a main frame, a foraminated covering for said main frame, channeled guide elements secured to the opposite sides of the main frame, secondary frames slidably engaged in said channeled

members and arranged in superposed relation, foraminated covers for said secondary frames, and depending supporting arms secured to the outer ends of the secondary frames.

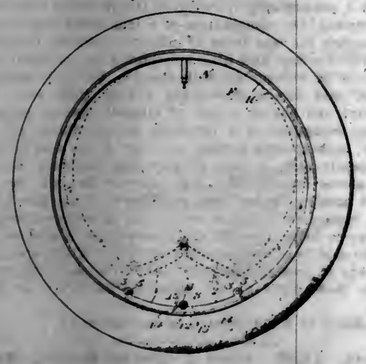
[Claim 2 not printed in the Gazette.]

1,257,844. DEMOUNTABLE RIM. JOHN O. GRADY, Birmingham, Ala. Filed Feb. 27, 1917. Serial No. 151,301. (Cl. 152—21.)



The combination with a vehicle wheel, of a demountable rim therefor, said rim comprising a pair of annular tire engaging sections, a plurality of laterally extending spaced beveled edge tongues secured to the inner periphery of one of said sections, said tongues being raised within the diameter of said sections, a plurality of spaced lugs arranged in pairs and carried by the other section, said lugs forming grooves for the reception of tongues in the first mentioned section and having their opposite edges beveled to conform to the beveled edges of said tongues and a rotatable element mounted within one lug of each pair of lugs and adapted to extend within a notch formed in each of the laterally extending tongues to prevent accidental disengagement of the tongues.

1,257,845. DEMOUNTABLE RIM. JAMES B. GREENE, Lowndesboro, Ala. Filed July 9, 1917. Serial No. 179,483. (Cl. 152—21.)

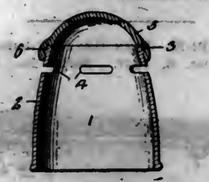


1. The herein described demountable rim comprising a body section flanged along both edges and extending around nearly a complete circle, two short sections hinged to each other and to the ends of said body section and completing said circle, flanges along the edges of said short sections cut away on both sides of the pivot between them, and spacing blocks detachably mounted on the ends of said pivot, shaped to fill out the cut-away portions of the flanges, and themselves having flanges alining with the others when the blocks are in place.

[Claim 2 not printed in the Gazette.]

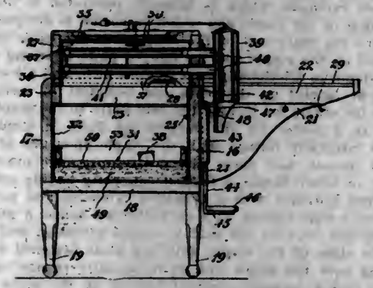
1,257,846. FINGER-SHIELD. JEAN C. GREGORY, New York, N. Y. Filed Feb. 8, 1916. Serial No. 77,070. (Cl. 2—104.)

A finger shield comprising a hollow substantially frusto-conical shell having its sides curved to conform to the curvature of a finger, the smaller end of said shell being provided with an outwardly extending annular bead and being further provided with a plurality of laterally



elongated alined openings adjacent said bead, and a removable cup-shaped tip of elastic material disposed upon said smaller end of said shell and provided with an internal groove frictionally engaged upon said bead.

1,257,847. INCUBATOR. JOHN C. GRIESEL, Pottsville, Pa., assignor of one-half to Charles F. Schlintz, Pottsville, Pa. Filed Aug. 25, 1916. Serial No. 116,879. (Cl. 119—42.)



1. In an incubator, an incubator box comprising front, rear and side members, the side members being extended to form brackets that project forwardly at the two sides of the box, in combination with a top member consisting of an inverted box supported slidably on the box member and on the brackets extending therefrom.

3. The combination with an incubator box having side members that are extended to form forwardly projecting brackets, of a top member consisting of an inverted box slidably supported on the side members of the incubator box and on the brackets extending therefrom, and a heating apparatus carried by said top member.

[Claim 2 not printed in the Gazette.]

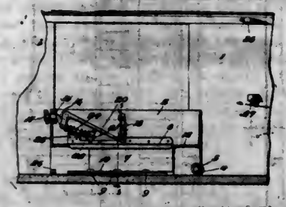
1,257,848. RING FOR DISSEMINATING PERFUMES, &c. WILLIAM H. H. GRIFFIN, Goree, Tex. Filed May 11, 1917. Serial No. 168,057. (Cl. 63—1.)



1. A finger ring for disseminating perfumes and the like, the same having a cavity, a smooth inner face to contact with the wearer, an inlet and a discharge opening connecting the cavity with the smooth inner face, said opening to be obstructed by contact with the wearer.

2. A finger ring for disseminating perfumes and the like, the same having a cavity, a smooth inner face to contact with the wearer, a discharge opening connecting the cavity with the smooth inner face, said opening to be obstructed by contact with the wearer, a hopper shaped inlet communicating with the cavity and a tightly fitting detachable ornamental closure for said inlet.

1,257,849. LATCH FOR GRAIN-CAR DOORS. EDWARD W. GROGAN, Byers, Tex., assignor of one-fourth to William R. Stone, Wichita Falls, Tex. Filed Dec. 9, 1916. Serial No. 136,047. (Cl. 70—42.)



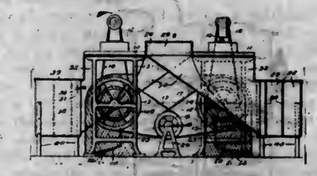
1. The combination of a latch, an angle lever pivoted at one end to the latch, means to hold the lever in either latching or unlatching position, a guide, a pin slidably mounted in the guide and pivoted to the latch, and a spring around the pin between the guide and the latch and tending to hold the latch in latching position.

2. The combination of a brace bar having notches in its ends, a latch, a lever pivoted at one end to the latch and adapted to have its free end engaged in either notch in the brace bar, and means acting on the lever and the latch tending to hold the same in latching position.

3. The combination of a lever, a latch pivoted to the lever, a guide, a pin slidably fitted in the guide and pivoted to the lever and the latch, a spring coiled around the pin between the latch and the guide, and a supporting ledge immediately below said spring.

[Claim 4 not printed in the Gazette.]

1,257,850. SEWING-MACHINE HOPPER. CHARLES GUZY, New York, N. Y. Filed Oct. 27, 1916. Serial No. 128,121. (Cl. 45—27.)



1. A hopper for attachment to a work table comprising an inclined bottom to feed work toward the lower end of the bottom, an enlarged upper end rising behind the rear edge of the work table, a reduced lower end underlying the forward edge of the work table, and said hopper receiving work from over the rear edge of the work table and feeding it to a point under the front edge for subsequent treatment.

2. A hopper for attachment to a work table comprising an enlarged upper end positioned behind the rear edge of the work table, one edge of said enlarged upper end being disposed at an acute angle with respect to the rear edge of the work table, to afford clearance for a similarly shaped portion of an adjacent hopper, an inclined bottom extending forwardly from said enlarged rear end under said work table, pitched to feed work to the lower end of said bottom, and a forward reduced lower end underlying the forward edge of said work table to receive and gather the work fed over the rear edge of the work table for convenient handling from a point in front of said work table.

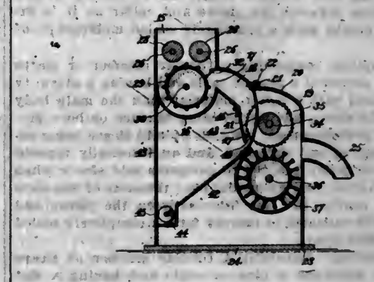
6. A structure of the class described comprising in combination work tables in spaced and parallel relationship, hoppers secured to said work tables having an enlarged irregularly shaped upper ends rising between said work tables, each of said hoppers extending along predetermined sections of the rear edges of said work tables, each of said hoppers having portions thereof extend within the limits of the adjacent one, and each of said hoppers having the rear wall obliquely disposed to allow the rear walls to abut in the adjacent hoppers.

8. A structure of the class described, comprising in combination, a work table, a hopper secured thereto, said hopper having an enlarged upper end positioned to receive work passed over the rear edge of said work table, a reduced lower end under the forward edge of said work table to collect work fed into said hopper and an inclined bottom to feed the work from the enlarged upper end to said reduced lower end.

9. A hopper for attachment to a work table comprising an enlarged upper end to receive work passed over the rear edge of the work table, a reduced lower end to gather the work fed into the enlarged upper end, under the forward edge of the work table, an inclined bottom for feeding the work from the enlarged upper end to the reduced lower end, a receptacle hingedly secured to said hopper at the lower end, a partition in said receptacle forming a closure for the lower end of said hopper, and a cover hingedly carried by said receptacle to overlie said receptacle and the lower end of said hopper when swung to serve as a cover.

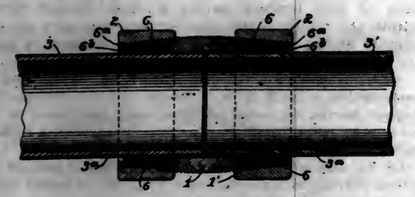
[Claims 3 to 5 and 7 not printed in the Gazette.]

1,257,851. DEVICE FOR CLEANING COTTON. ABNER A. GWALTNEY, Nodena, Ark. Filed Dec. 29, 1914. Serial No. 879,533. (Cl. 13—12.)



A device of the character described comprising a casing, a hopper communicating with the rear of the upper portion thereof and having a semi-cylindrical bottom having its forward edge terminating at a point in line with its geometrical longitudinal axis, a beater roller in the lower part of said hopper, said casing having a portion of its top wall inclined downwardly from said hopper at a point substantially in line with the top of said roller, a forwardly and downwardly inclined plate extending from the forward edge of said semi-cylindrical bottom parallel with and forming with the inclined wall of said casing a comparatively small feed duct, a downwardly and rearwardly inclined plate in said casing and having its forward edge disposed below the forward edge of said first named inclined plate, curved ribs secured to the forward end of said inclined top portion of the casing and with the forward end of said second named inclined plate, and a spring pressed plate pivoted at the forward edge of said first named inclined plate and extending forwardly and downwardly to a point above and adjacent the forward edge of said last named inclined plate and converging toward the lower ends of said ribs, whereby cotton fed into said hopper will be fed through said duct and form into a compact mass in the constricted space between said pivoted plate and said ribs, and a plurality of saws entering between said ribs and rotating downwardly toward the bottom of said pivoted plate.

1,257,852. PIPE-COUPLING. WILLIAM A. HALL, Yonkers, N. Y. Filed Oct. 5, 1916. Serial No. 123,995. (Cl. 137—28.)



1. A coupling, comprising a tubular member or sleeve adapted to surround a pipe or cable, said sleeve being provided with a slot which is closed with softer material than the main body of the sleeve, and being externally tapered and threaded, and an internally tapered and threaded collar adapted to compress said sleeve when threaded thereon, and extending over the ends of the slot to thereby confine the soft filler between the sleeve and collar as it is extruded to thereby form a completely sealed moisture-proof joint.

2. A coupling, comprising a tubular member or sleeve adapted to surround a pipe or cable and having a slot closed with a softer material than the main body thereof, said sleeve having its inner surface or bore provided with protuberances and being coated with a softer material, the ends of said sleeve being externally tapered and threaded, and an internally tapered and threaded collar adapted to compress said sleeve when threaded thereon, and extending over the ends of the slot to thereby confine the soft filler between the sleeve and collar as it is extruded to thereby form a completely sealed moisture-proof joint.

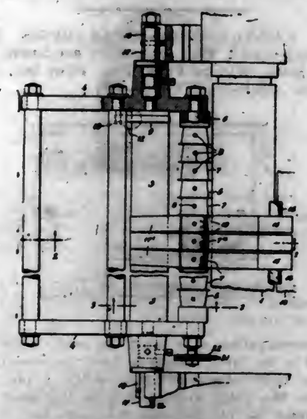
3. A coupling, comprising a tubular member or sleeve adapted to surround a pipe or cable and having a plurality of slots closed with a softer material than the main body thereof, said sleeve having its inner surface or bore provided with protuberances, the ends of said sleeve being externally tapered and threaded, and an internally tapered and threaded collar adapted to compress said sleeve when threaded thereon, and extending over the ends of the slots to thereby confine the soft filler between the sleeve and collar as it is extruded to thereby form a completely sealed moisture-proof joint.

4. A coupling, comprising a tubular member or sleeve adapted to surround a pipe or cable and having a slot closed with a softer material than the main body thereof, said sleeve having its inner surface or bore finely threaded and coated with a softer material, the ends of said sleeve being externally tapered and threaded, and an internally tapered and threaded collar adapted to compress said sleeve when threaded thereon, and extending over the ends of the slot to thereby confine the soft filler between the sleeve and collar as it is extruded to thereby form a completely sealed moisture-proof joint.

1,257,853. SLITTING AND REWINDING MACHINE. SVEND HANSEN, Brooklyn, N. Y., assignor to Cameron Machine Company, Brooklyn, N. Y., a Corporation of New York. Filed Mar. 2, 1916. Serial No. 81,607. (Cl. 164—65.)

1. A slitting and rewinding machine comprising: means for slitting a web into sections, and means for bodily deflecting the slitted sections out of the plane of the web with a progressively changing pitch and with substantially the same rate of change of pitch between sections to laterally separate the slitted sections.

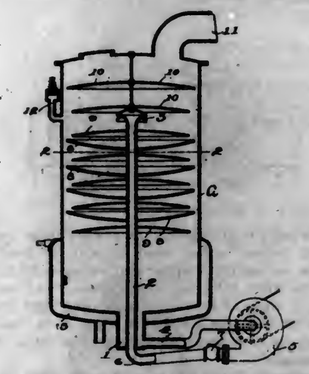
9. A spacing device for sections of flexible sheet material comprising: a straight roller rotatably mounted, another straight roller spaced therefrom, a member, intermediate the two rollers, having inclined surfaces of progressively increasing pitch arranged in two series extending in opposite directions laterally, means for guiding the sections over said rollers and member, means for exerting a pull on the sections, and means for retarding the rotation of the first roller.



16. In a slitting and rewinding machine, two straight rollers, and a spacing device intermediate the two rollers comprising: a bar, a plurality of members, having inclined surfaces, mounted on said bar, a second bar, abutment members mounted on said second bar and extending in between the members on the first bar, a swinging member supporting said bars, and means for effecting a swinging movement of said swinging members to raise and lower the bars between the two straight rollers.

[Claims 2 to 8, 10 to 15, and 17 not printed in the Gazette.]

1,257,854. EVAPORATING APPARATUS. CHARLES R. HARRIS, Los Angeles, Cal., assignor of nine-tenths to Albert P. Campbell, Los Angeles, Cal. Filed Aug. 12, 1916. Serial No. 114,618. (Cl. 122—34.)



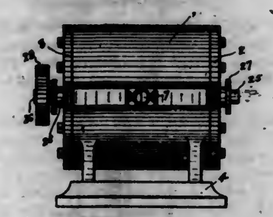
1. An evaporating apparatus comprising a vessel adapted to contain a liquid to be evaporated, and provided with an inlet tube, an outlet at the base of the vessel, a plurality of concavo-convex diaphragms vertically spaced, retarding disks arranged in the upper portion of the vessel, means supporting said retarding disks, a cap for said inlet tube supported at a point a little above the discharge end of the inlet tube, whereby the liquid is directed upon the diaphragms and an outlet at the upper part of the vessel for the escape of vapors.

2. An evaporating apparatus comprising a vessel adapted to contain a liquid to be evaporated, and provided with an inlet tube centrally arranged within the vessel, an outlet at the base of the vessel supporting said inlet tube, a plurality of concavo-convex diaphragms spaced upon the inlet tube, retarding disks arranged in the upper portion of the vessel, means supporting said retarding disks from the roof of the vessel, a cap for said inlet tube supported by said retarding disk supporting means, whereby the liquid is directed upon the diaphragms, and an outlet at the upper part of the vessel for the escape of vapors.

4. An evaporating apparatus, comprising a vessel adapted to contain a liquid to be evaporated, and provided with an inlet and outlet for the liquid, the inlet arranged centrally of the tank and the outlet adapted to surround the same, a plurality of diaphragms arranged upon the inlet between the inlet tube and outlet for agitating the liquid as it passes to the outlet, an outlet arranged at the upper end of the tank for the escape of the vapors, and a plurality of retarding disks arranged in the upper portion of the tank adjacent to the vapor outlet.

[Claim 3 not printed in the Gazette.]

1,257,855. AIR-COMPRESSOR. ARTHUR LEONARD HARRISON, Victoria, British Columbia, Canada. Filed Nov. 3, 1916. Serial No. 129,375. (Cl. 230—34.)



1. An air compressor comprising, a stationary cylinder having a spiral groove in the bore thereof and provided with diametrically located inlet and outlet passages for each end, a piston rotatably mounted in said bore and having pins slidably engaging the said groove at diametrically opposite points whereby rotation of the piston causes its reciprocation, means for rotating the piston, and means operated by the rotating piston for opening an inlet and an outlet passage at opposite ends of the cylinder simultaneously.

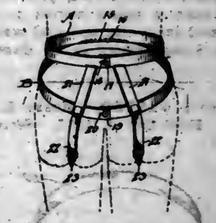
3. An air compressor comprising, a stationary cylinder having a spiral groove in the bore thereof, a rotatable sleeve fitting said bore, said sleeve being provided with diametrically opposite slots and inlet and outlet ports arranged circularly equidistant from each other adjacent each end, the said inlet ports being in staggered relation to the said outlet ports, a piston rotatably mounted in said sleeve provided with pins extending through said slots into said spiral groove whereby rotation of the piston causes its reciprocation and also rotation of the sleeve, and diametrically located inlet and outlet passages for each end of the cylinder with which the said inlet and outlet ports register respectively as the the sleeve rotates.

5. An air compressor comprising a chamber having an air inlet port at each end and an air outlet port at each opposite end, a rotatable partition movable from end to end of the chamber, a rotatable member controlling the opening and closing of the said air inlets and outlets, and ports co-acting to feed air into the end of the chamber from which the partition moves and to discharge air from the opposite end of said chamber during the movement of the partition in either direction.

[Claims 2 and 4 not printed in the Gazette.]

1,257,856. GARMENT-SUPPORTER. ANDREW J. HAUM, Branscomb, Cal. Filed July 3, 1917. Serial No. 178,439. (Cl. 241—2.)

1. A garment supporter comprising two belts overlapped and joined together intermediate their ends at the back portions thereof, the overlap being greatest at the middle portions of the belts and converging in the direction of the ends of the belts, said ends being thereby made to diverge, said belts being provided with fastening means at their respective ends, downwardly extending tabs se-



cured to the upper belt near the ends thereof and connected with the lower belt at a greater distance from the ends thereof, and grip carrying webs connected with the lower belt at the junctures thereof with the lower ends of the tabs.

[Claim 2 not printed in the Gazette.]

1,257,857. ARMORED PNEUMATIC TIRE. WILLIAM G. HAWKINS and JAMES F. DONNELLAN, Chicago, Ill. Filed Feb. 1, 1917. Serial No. 145,930. (Cl. 152—35.)



1. A tire comprising an inner rim, a pneumatic inner tube resting thereon, an outer rim, a solid tread secured thereto, a plurality of spring plates resting on said pneumatic inner tube having their ends overlapped, and a plurality of bearing blocks resting on said plates and supporting the outer rim thereon.

2. A tire comprising an inner rim, a pneumatic inner tube resting thereon, an outer rim, a solid tread element secured thereto, a plurality of spring plates resting on said pneumatic inner tube having their ends overlapped, a plurality of bearing blocks resting on said plates and supporting the outer rim thereon, and a plurality of spring impelled plungers for impelling the outer rim when the inner rim is actuated.

3. A tire comprising an inner annular rim, an inner tube therein, a plurality of resilient members resting on said inner tube, an outer rim, a plurality of members resting on said resilient members and holding the outer rim in yielding relation with the inner rim, said last named members having their ends inclined inwardly.

9. In a tire of the class described the combination with a wheel, of an inner rim secured thereon comprising an inner side plate, annular flanges integrally formed thereon at right angles thereto, one of said flanges having slots longitudinally disposed therein, said flanges affording an annular chamber, a pneumatic tube within said chamber, a canvas protecting covering therearound, overlapping plate springs within said annular chamber between said slotted flange and said canvas covering, a block rigidly secured upon each of said plate springs projecting outwardly through said slots, an outer rim, a solid tire tread secured thereto, hollow ribs integrally formed on the inner peripheral surface of said outer rim adapted to engage said blocks, an outer annular retaining plate bolted to said wheel and to said inner side plate to hold the inner rim parts and the outer rim in position, adjustable spring actuated plungers mounted within said

1,257,852. PIPE-COUPLING. WILLIAM A. HALL, Yonkers, N. Y. Filed Oct. 5, 1916. Serial No. 123,995. (Cl. 137—28.)



1. A coupling, comprising a tubular member or sleeve adapted to surround a pipe or cable, said sleeve being provided with a slot which is closed with softer material than the main body of the sleeve, and being externally tapered and threaded, and an internally tapered and threaded collar adapted to compress said sleeve when threaded thereon, and extending over the ends of the slot to thereby confine the soft filler between the sleeve and collar as it is extruded to thereby form a completely sealed moisture-proof joint.

2. A coupling, comprising a tubular member or sleeve adapted to surround a pipe or cable and having a slot closed with a softer material than the main body thereof, said sleeve having its inner surface or bore provided with protuberances and being coated with a softer material, the ends of said sleeve being externally tapered and threaded, and an internally tapered and threaded collar adapted to compress said sleeve when threaded thereon, and extending over the ends of the slot to thereby confine the soft filler between the sleeve and collar as it is extruded to thereby form a completely sealed moisture-proof joint.

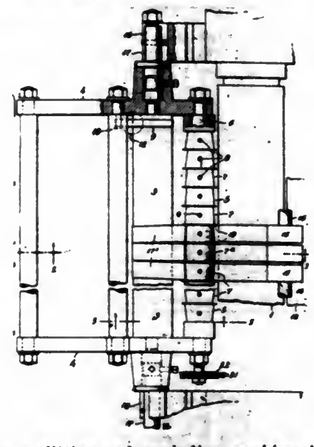
3. A coupling, comprising a tubular member or sleeve adapted to surround a pipe or cable and having a plurality of slots closed with a softer material than the main body thereof, said sleeve having its inner surface or bore provided with protuberances, the ends of said sleeve being externally tapered and threaded, and an internally tapered and threaded collar adapted to compress said sleeve when threaded thereon, and extending over the ends of the slots to thereby confine the soft filler between the sleeve and collar as it is extruded to thereby form a completely sealed moisture-proof joint.

4. A coupling, comprising a tubular member or sleeve adapted to surround a pipe or cable and having a slot closed with a softer material than the main body thereof, said sleeve having its inner surface or bore finely threaded and coated with a softer material, the ends of said sleeve being externally tapered and threaded, and an internally tapered and threaded collar adapted to compress said sleeve when threaded thereon, and extending over the ends of the slot to thereby confine the soft filler between the sleeve and collar as it is extruded to thereby form a completely sealed moisture-proof joint.

1,257,853. SLITTING AND REWINDING MACHINE. SVEND HANSEN, Brooklyn, N. Y., assignor to Cameron Machine Company, Brooklyn, N. Y., a Corporation of New York. Filed Mar. 2, 1916. Serial No. 81,607. (Cl. 164—65.)

1. A slitting and rewinding machine comprising: means for slitting a web into sections, and means for bodily deflecting the slitted sections out of the plane of the web with a progressively changing pitch and with substantially the same rate of change of pitch between sections to laterally separate the slitted sections.

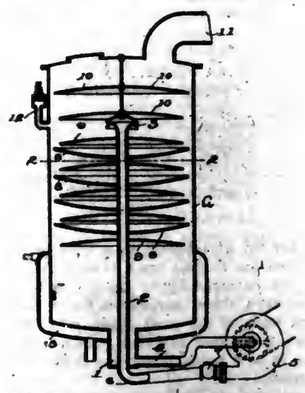
9. A spacing device for sections of flexible sheet material comprising: a straight roller rotatably mounted, another straight roller spaced therefrom, a member, intermediate the two rollers, having inclined surfaces of progressively increasing pitch arranged in two series extending in opposite directions laterally, means for guiding the sections over said rollers and member, means for exerting a pull on the sections, and means for retarding the rotation of the first roller.



16. In a slitting and rewinding machine, two straight rollers, and a spacing device intermediate the two rollers comprising: a bar, a plurality of members, having inclined surfaces, mounted on said bar, a second bar, abutment members mounted on said second bar and extending in between the members on the first bar, a swinging member supporting said bars, and means for effecting a swinging movement of said swinging members to raise and lower the bars between the two straight rollers.

[Claims 2 to 8, 10 to 15, and 17 not printed in the Gazette.]

1,257,854. EVAPORATING APPARATUS. CHARLES R. HARRIS, Los Angeles, Cal., assignor of nine-tenths to Albert P. Campbell, Los Angeles, Cal. Filed Aug. 12, 1916. Serial No. 114,618. (Cl. 122—34.)



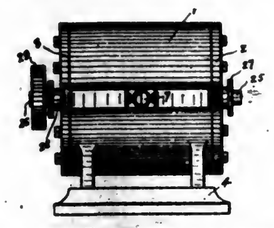
1. An evaporating apparatus comprising a vessel adapted to contain a liquid to be evaporated, and provided with an inlet tube, an outlet at the base of the vessel, a plurality of concavo-convex diaphragms vertically spaced, retarding disks arranged in the upper portion of the vessel, means supporting said retarding disks, a cap for said inlet tube supported at a point a little above the discharge end of the inlet tube, whereby the liquid is directed upon the diaphragms and an outlet at the upper part of the vessel for the escape of vapors.

2. An evaporating apparatus comprising a vessel adapted to contain a liquid to be evaporated, and provided with an inlet tube centrally arranged within the vessel, an outlet at the base of the vessel supporting said inlet tube, a plurality of concavo-convex diaphragms spaced upon the inlet tube, retarding disks arranged in the upper portion of the vessel, means supporting said retarding disks from the roof of the vessel, a cap for said inlet tube supported by said retarding disk supporting means, whereby the liquid is directed upon the diaphragms, and an outlet at the upper part of the vessel for the escape of vapors.

4. An evaporating apparatus, comprising a vessel adapted to contain a liquid to be evaporated, and provided with an inlet and outlet for the liquid, the inlet arranged centrally of the tank and the outlet adapted to surround the same, a plurality of diaphragms arranged upon the inlet between the inlet tube and outlet for agitating the liquid as it passes to the outlet, an outlet arranged at the upper end of the tank for the escape of the vapors, and a plurality of retarding disks arranged in the upper portion of the tank adjacent to the vapor outlet.

[Claim 3 not printed in the Gazette.]

1,257,855. AIR-COMPRESSOR. ARTHUR LEONARD HARRISON, Victoria, British Columbia, Canada. Filed Nov. 3, 1916. Serial No. 129,375. (Cl. 230—34.)



1. An air compressor comprising, a stationary cylinder having a spiral groove in the bore thereof and provided with diametrically located inlet and outlet passages for each end, a piston rotatably mounted in said bore and having pins slidably engaging the said groove at diametrically opposite points whereby rotation of the piston causes its reciprocation, means for rotating the piston, and means operated by the rotating piston for opening an inlet and an outlet passage at opposite ends of the cylinder simultaneously.

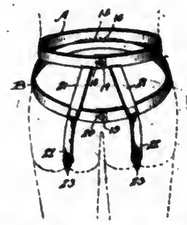
3. An air compressor comprising, a stationary cylinder having a spiral groove in the bore thereof, a rotatable sleeve fitting said bore, said sleeve being provided with diametrically opposite slots and inlet and outlet ports arranged circularly equidistant from each other adjacent each end, the said inlet ports being in staggered relation to the said outlet ports, a piston rotatably mounted in said sleeve provided with pins extending through said slots into said spiral groove whereby rotation of the piston causes its reciprocation and also rotation of the sleeve, and diametrically located inlet and outlet passages for each end of the cylinder with which the said inlet and outlet ports register respectively as the the sleeve rotates.

5. An air compressor comprising a chamber having an air inlet port at each end and an air outlet port at each opposite end, a rotatable partition movable from end to end of the chamber, a rotatable member controlling the opening and closing of the said air inlets and outlets, and ports co-acting to feed air into the end of the chamber from which the partition moves and to discharge air from the opposite end of said chamber during the movement of the partition in either direction.

[Claims 2 and 4 not printed in the Gazette.]

1,257,856. GARMENT-SUPPORTER. ANDREW J. HAUM, Branscomb, Cal. Filed July 3, 1917. Serial No. 178,439. (Cl. 241—2.)

1. A garment supporter comprising two belts overlapped and joined together intermediate their ends, at the back portions thereof, the overlap being greatest at the middle portions of the belts and converging in the direction of the ends of the belts, said ends being thereby made to diverge, said belts being provided with fastening means at their respective ends, downwardly extending tabs secured to the upper belt near the ends thereof and connected with the lower belt at a greater distance from the ends thereof, and grip carrying webs connected with the lower belt at the junctures thereof with the lower ends of the tabs.



[Claim 2 not printed in the Gazette.]

1,257,857. ARMORED PNEUMATIC TIRE. WILLIAM G. HAWKINS and JAMES F. DONNELLAN, Chicago, Ill. Filed Feb. 1, 1917. Serial No. 145,930. (Cl. 152—35.)



1. A tire comprising an inner rim, a pneumatic inner tube resting thereon, an outer rim, a solid tread secured thereto, a plurality of spring plates resting on said pneumatic inner tube having their ends overlapped, and a plurality of bearing blocks resting on said plates and supporting the outer rim thereon.

2. A tire comprising an inner rim, a pneumatic inner tube resting thereon, an outer rim, a solid tread element secured thereto, a plurality of spring plates resting on said pneumatic inner tube having their ends overlapped, a plurality of bearing blocks resting on said plates and supporting the outer rim thereon, and a plurality of spring impelled plungers for impelling the outer rim when the inner rim is actuated.

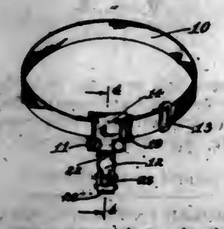
3. A tire comprising an inner annular rim, an inner tube therein, a plurality of resilient members resting on said inner tube, an outer rim, a plurality of members resting on said resilient members and holding the outer rim in yielding relation with the inner rim, said last named members having their ends inclined inwardly.

9. In a tire of the class described the combination with a wheel, of an inner rim secured thereon comprising an inner side plate, annular flanges integrally formed thereon at right angles thereto, one of said flanges having slots longitudinally disposed therein, said flanges affording an annular chamber, a pneumatic tube within said chamber, a canvas protecting covering thereabout, overlapping plate springs within said annular chamber between said slotted flange and said canvas covering, a block rigidly secured upon each of said plate springs projecting outwardly through said slots, an outer rim, a solid tire tread secured thereto, hollow ribs integrally formed on the inner peripheral surface of said outer rim adapted to engage said blocks, an outer annular retaining plate bolted to said wheel and to said inner side plate to hold the inner rim parts and the outer rim in position, adjustable spring actuated plungers mounted within said

hollow ribs and projecting from the ends thereof to form pairs of adjacently disposed plungers, and driving means secured to said inner side plate and to said retaining plate and disposed between each pair of said plungers adapted to transmit a rotary motion to said outer rim member when said inner rim and said wheel are rotated.

[Claims 4 to 8 not printed in the Gazette.]

1,257,858. MAN'S GARTER. MOSES L. HAWKS, New York, N. Y. Filed Oct. 1, 1917. Serial No. 194,124. (Cl. 241—6.)



1. A man's garter comprising a leg band of inelastic material, a pad portion adapted to bridge the ends of said leg band and a tension member having means for removably holding the latter in said pad portion.

2. A man's garter comprising a leg band of inelastic material, a pad portion adapted to bridge the ends of said leg band and a tension member having means for removably holding the latter in said pad portion, said means adapted to provide a frame work for the latter.

3. A man's garter comprising a leg band of inelastic material, a pad portion adapted to bridge the ends of said leg band, a frame member in said pad portion, and tension members integral with said frame member adapted to be in engagement with the ends of said leg band.

4. In a man's garter, in combination with a leg band, a leg pad comprising a pad portion and a frame member held therein, said pad portion comprising a covering formed from one piece of material folded in two, the front half thereof providing a pocket for said frame member, and the rear half providing padding means between said frame member and the wearer's leg.

9. In a man's garter a spring tension member formed from a single length of resilient material and comprising a substantially horizontal portion, two vertical portions integral therewith, said vertical portions being coiled at either end into a helical spring having a hooked arm extending therefrom as and for the purpose described and specified.

[Claims 5 to 8 not printed in the Gazette.]

1,257,859. DRAW-BAR BUFFER-COUPLING FOR LOCOMOTIVES. CHARLES L. HEISLER, Schenectady, N. Y. Filed Nov. 15, 1915. Serial No. 61,551. (Cl. 213—42.)



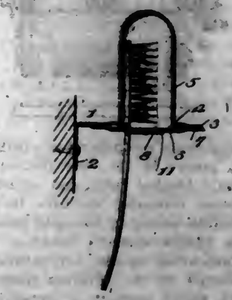
1. The combination with a locomotive main frame, of a tender frame, coupling draw pins fastened in said frame, a draw bar longitudinally disposed between the frames and pivotally coupled thereto by the draw pins, a convexed surface supported on one frame, a concaved surface supported on the other frame, and a movable buffer member interposed between the frames and said surfaces and having oppositely disposed convexed and concaved wear faces formed thereon, and adapted to abut against the respective and corresponding concaved and convexed surfaces.

7. The combination, with a locomotive main frame, of a tender frame, oppositely disposed convexed and concaved buffer surfaces formed on said frames, an interposed movable buffer member having correspondingly formed wear faces abutting against said buffer surfaces, draw bar pins fitted in the locomotive and tender frames, a service draw bar coupled to said pins, and a safety draw bar independently coupled to said pins, said safety draw bar having a predetermined degree of longitudinal freedom on the pins, whereby it is exempted from stress until the service draw bar is unduly elongated by excessive strain or wear.

11. The combination with two railway vehicles to be connected, of a draw bar pivotally connected at its ends thereto, and a supplemental safety connection also pivotally connected at its ends thereto, with the axis of its pivotal connection to each vehicle substantially coincident with the axis of the pivotal connection of the draw bar to said vehicle, the parts being so relatively arranged that the draw bar connection, so long as it is operative, forms the load transmitting connection between said vehicles.

[Claims 2 to 6, 8 to 10, and 12 to 16 not printed in the Gazette.]

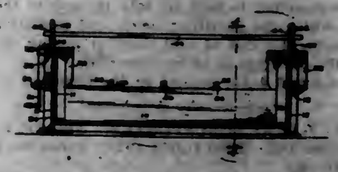
1,257,860. SANITARY TOOTH-BRUSH HOLDER. DONLEY C. HENNEN, Waynesburg, Pa., assignor of one-half to Charles L. Mong, Waynesburg, Pa. Filed Sept. 19, 1917. Serial No. 192,154. (Cl. 248—63.)



1. A tooth brush holder comprising a horizontal member formed with an opening and having part of its edge extended to form a flange, a glass container extending through the opening and having its upper end closed and formed at its lower end with a flange, a plate formed with an opening which registers with the bottom of the container, and fitted to the under side of the horizontal member to hold the flange container in position, the flange on the horizontal member being bent over and under the edge of the plate to fasten the latter to said member, and a pivoted perforated closure on the under side of the plate to cover the opening in the latter when a brush is inserted in the container.

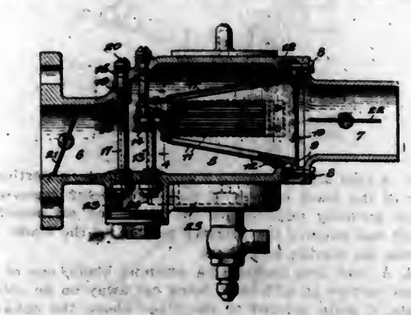
[Claim 2 not printed in the Gazette.]

1,257,861. COMBINED WATERING AND FEEDING TROUGH. JOHN HERBERT, Poland, Ind., assignor of one-half to Guy Kennedy, Poland, Ind. Filed June 8, 1916. Serial No. 102,549. (Cl. 119—61.)



The combination, with a feeding trough having resilient sides, of a plurality of removable bars across the mouth of said trough, said bars being provided in one end with transverse slots and having longitudinal slots in the other ends, T-shaped ears arranged along one side of the trough for engaging said transverse slots, and lugs arranged along the opposite side of the trough for engaging the longitudinal slots in the bars, said lugs being set so that the outer edges extend slightly beyond the outer ends of the longitudinal slots and can be sprung into said slots through the resiliency of the sides of the trough.

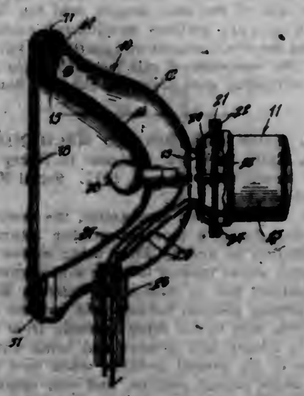
1,257,862. CARBURETER. WILLIS C. HESS, Toledo, Ohio, and MILLICENT MORDEN, Brooklyn, N. Y. Filed May 5, 1917. Serial No. 166,570. (Cl. 261—63.)



1. In a carbureter, the combination of a mixing chamber, an air nozzle affixed to the air inlet side thereof and extending inwardly, this nozzle being tapered inwardly and having a plurality of side walls each of which is provided with a longitudinal opening, a valve secured over each opening on the exterior of the nozzle and consisting of a multiplicity of elastic tines of equal length and strength lying closely together, and means for admitting fuel to the inner open end of said air nozzle.

2. In a carbureter, the combination of a mixing chamber, an air nozzle affixed to the air inlet side thereof and extending inwardly, this nozzle tapering inwardly, and means for introducing a blend or mixture of air and fuel into the inner open end of said nozzle, said means consisting of an inwardly-extending supplemental air nozzle, an inwardly-extending fuel nozzle, and a blending chamber supported on the inner ends of said latter nozzles and provided at the end nearest the mixing chamber with laterally-extending exit openings.

1,257,863. SIGNALING DEVICE FOR MOTOR-VEHICLES. FRITZ H. HESSELBEIN, New York, N. Y. Filed Mar. 14, 1916. Serial No. 84,128. (Cl. 116—1.)

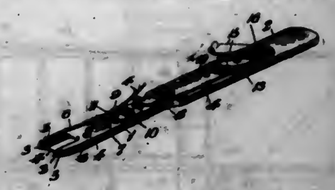


1. In a signal device, a headlight including concentrically disposed spaced shells, one forming a lamp casing and the other a reflector, a rim connecting said shells and having angularly disposed faces provided with relatively large openings disposed in staggered relation to each other, the reflector extending beyond the outer end of the casing across the inner side of said rim, a strip of foraminous material arranged between the shells and bearing against the angular faces of the rim and covering the openings therein, the outer shell being formed at its rear end with an opening and with an annular portion surrounding the opening and flaring laterally to provide a seat in a plane substantially at right angles to the longitudinal axis of the lamp casing, said flaring portion of the shell terminating in an annular flange entirely surrounding the seat, an auxiliary casing engaging said seat and a sound producing element housed within the auxiliary casing, the diameter of the opening in the outer shell being less than the diameter of the auxiliary casing whereby to produce a contracted neck arranged in front of and directly opposite the sound producing element.

3. In a signal device, a headlight including a lamp casing, a reflector spaced concentrically therein and mounted to project beyond the outer end of the casing, a hollow channel-shaped rim bridging the space between the outer end of the reflector and the outer end of the rim and formed with a perforated wall inclined radially with respect to the axis of the casing, the casing at the inner end thereof being provided with an outwardly flared sound bell communicating at its smaller end with the casing, an auxiliary casing connected to the larger end of the sound bell, and a sound producing element housed within the latter casing and operable for emitting a sound through the said sound bell and between the lamp casing and reflector to be liberated through the said rim, the outer end of the reflector extending across the open side of the rim beneath the said inclined perforated wall thereof for directing the sound toward the said wall to be diffused outwardly in all directions therethrough.

[Claim 2 not printed in the Gazette.]

1,257,864. DENTAL-FLOSS HOLDER. HARRY C. HOCHSTADTER, Philadelphia, Pa. Filed Aug. 5, 1916. Serial No. 113,225. Renewed Jan. 11, 1918. Serial No. 211,456. (Cl. 132—12.)



1. In a holder for dental floss, a stock, and arms thereon forming a bow which is adapted to carry the portion of the floss to be presented to the teeth, said stock having grooves in its sides, openings extending from the terminals of said grooves obliquely inwardly on the stock and from thence outwardly through the face of said stock, and a clamp on the stock rearward of said openings.

3. In a holder for dental floss, a stock, means thereon for holding the portion of the floss that is to be presented to the teeth, a clamp on said stock, said stock having therein openings through which the floss is adapted to be passed, and a post on said stock in advance of said clamp on which the floss may be crossed prior to being clamped.

5. In a holder for dental floss, a stock, a handle therefor, means on said stock for holding the portion of the floss to be presented to the teeth, a spool for the supply of floss, said handle having therein a recess extending therethrough to contain said spool, a movable cover on said

handle over said recess and spool, and a plate on said handle below said recess and spool, said plate being adapted to cover the underside of said recess, and being movably connected with said handle and provided with means for retaining it in closed position.

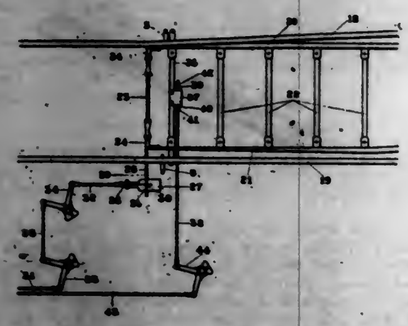
[Claims 2 and 4 not printed in the Gazette.]

1,257,865. MECHANICAL FLAG-WAVER. JOHN H. HOLMES, Cleveland, Ohio. Filed Sept. 21, 1917. Serial No. 192,519. (Cl. 46—40.)



In a device of the class described, a manikin figure having a hollow body and also having flag carrying arm member mounted for rocking movement, a wind-wheel, and mechanism driven by the wind-wheel and for imparting rocking movement to said arm, said mechanism being arranged and housed in the hollow body of the manikin figure.

1,257,866. RAILWAY SAFETY APPLIANCE. THOMAS HOLT, Beaver, Pa., assignor to Pennsylvania Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed July 9, 1917. Serial No. 179,398. (Cl. 104—12.)



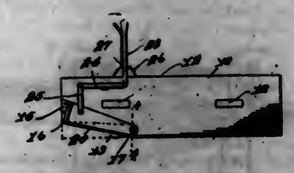
1. In combination with two rails, one of which is fixed and the other of which is laterally movable, means for moving the movable rail to open and closed positions, means for locking the movable rail in open and closed positions and means carried by one of said rails constructed to yieldingly force the movable rail out of closed position.

3. In combination with a fixed and a laterally movable rail, means for moving the movable rail to open and closed positions, means for locking the movable rail in open and closed positions and means carried by one of said rails constructed to yieldingly force the movable rail out of closed position sufficiently far to render said locking means inoperative.

6. In combination with a laterally movable rail and a fixed rail, means for moving said movable rail to open and closed positions, means for locking said movable rail in open and closed positions and means bearing against the movable rail tending to force the movable rail from closed position.

[Claims 2, 4, 5, and 7 to 9 not printed in the Gazette.]

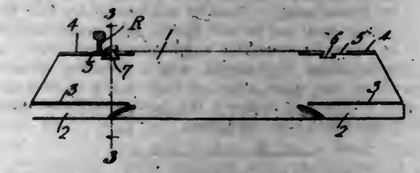
1,257,867. ROAD-DRAG. JOSEPH S. HOLUB, What Cheer, Iowa. Filed Nov. 17, 1917. Serial No. 202,613. (Cl. 37—5.)



1. A road drag including a scraping blade, a portion of one of the lower corners of said blade being removed, a plate pivotally mounted on the blade for movement to cover and uncover the cutaway portion of the blade, and means for moving said plate.

2. A road drag including a scraping blade, one of the lower corners of said blade being cut away on an oblique angle, a plate secured to the blade above the cut-away corner and having an offset inner portion, a triangular plate pivotally mounted on the blade and arranged to be moved to cover the cut-away corner and form a continuation of the lower edge of the blade, the outer end of the plate being movable between the blade and the offset portion of the triangular plate, and means for raising and lowering said pivoted plate.

1,257,868. RAILROAD-TIE. HENRY W. HUFFMAN, Hemphill, Tex. Filed Aug. 7, 1916. Serial No. 113,618. (Cl. 238—5.)

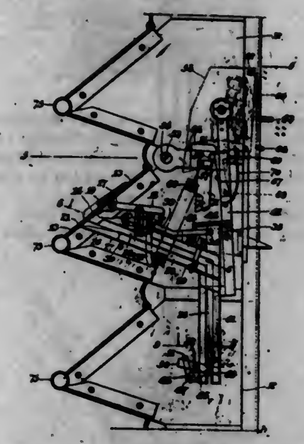


A railway tie, comprising a web, there being base flanges at the ends of the web and extending a short distance longitudinally thereof, there being top flanges overlying the inner ends of the base flanges, said top flanges provided with cut-away portions forming rail seats, and said web having notches communicating with the cut-away portions for the reception of rail locking means and longitudinally extending slots overlying the base flanges.

1,257,869. COIN-CONTROLLED MECHANISM. OTTO JAEGER, Elkins Park, Pa., assignor to Harry S. Kelsey, Boston, Mass. Filed Mar. 23, 1917. Serial No. 156,837. (Cl. 194—51.)

1. In a coin controlled mechanism, the combination of a supporting frame, a movable member returnable to a normal position by gravity after being moved therefrom and released, means tending to move said member from its normal position and to release the same, a latch device when in normal position holding said member in its normal position, said device being movable from its normal position to release said member and being automatically returnable to its normal position when said member is returned to its normal position, and coin operated means for moving said device from its normal position.

4. In a coin controlled mechanism, the combination of a supporting frame, a movable member, means to move said member from a normal position, a latch device pivoted to said member and engaging a part of said frame and holding said member in a normal position, and coin operated means including an arm pivoted to said frame for moving said device from engagement with said frame to release said member.

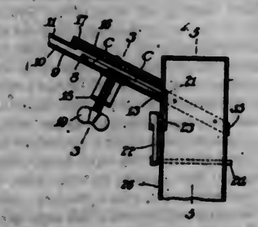


9. In a coin controlled mechanism, the combination of a supporting frame, a movable part, means tending to move said part from a normal position, releasing means holding said part in its normal position, and coin operated means to operate said releasing means to release said part, said part when moved from its normal position acting upon the coin operated means to prevent the insertion of a coin into the same.

11. In a coin controlled mechanism, the combination of a supporting frame having a coin slot therein, a coin receiver positioned to receive a coin from said slot and having a coin discharging opening therein, a door movable into and from a position closing said opening and preventing the escape of a coin therethrough, and means operated by a coin inserted into said slot to move said door to and retain it in its closing position.

[Claims 2, 3, 5 to 8, 10, and 12 to 18 not printed in the Gazette.]

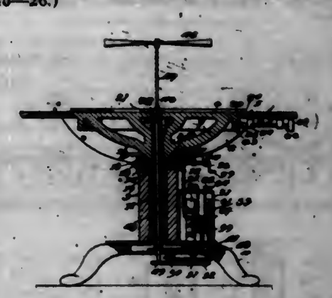
1,257,870. COIN-RECEIVING DEVICE. OTTO JAEGER, Elkins Park, Pa., assignor to Harry S. Kelsey, Boston, Mass. Filed Mar. 23, 1917. Serial No. 156,839. (Cl. 232—44.)



1. In a device of the character described, the combination of a frame structure having a coin slot therein, a downwardly inclined coin guide extending from said slot and adapted to receive coins therefrom and guide them in their downward movement by gravity, said guide preventing the removal of coins therefrom and having an opening therein through which coins may be seen, a substantially vertically-arranged receptacle extending downwardly from the lower end of said guide and adapted to receive coins therefrom, a shaft mounted to turn in a wall of said receptacle, an arm secured on the inner end of said shaft, and means on the outer end of said shaft to hold said arm normally in a position obstructing the lower end of said guide and preventing coins from passing from the open end of said guide and into said receptacle, said means being operative to move said arm from its obstructing position.

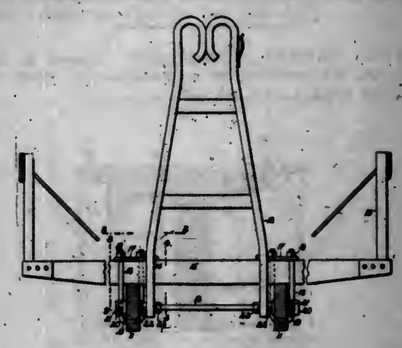
[Claim 2 not printed in the Gazette.]

1,257,871. DINING-TABLE. FRANK DU BOIS JAQUETTE, Pasadena, Cal. Filed Dec. 30, 1916. Serial No. 139,858. (Cl. 45—26.)



In a table of the class described, a fixed table top section, a rotatable table top section, a sleeve shaft fixed with relation to the rotatable section, a fan shaft arranged within the sleeve shaft and rotatable independently thereof, a motor, a power shaft operated continuously by the said motor, a second power shaft having a normal tendency toward operation by the motor, means for connecting the fan shaft with the first-mentioned power shaft to be driven therefrom, gear connection between the sleeve shaft and the second mentioned power shaft of the motor, and means for controlling the rotary motion of the rotatable section.

1,257,872. HAY-RACK. WILLIAM E. JENTZ, Platteville, Wis. Filed Jan. 15, 1917. Serial No. 142,482. (Cl. 21—74.)



The combination with a hay rack, its sills, a ladder, and a rod extending transversely through the sills and on which the ladder is mounted to swing, of clamps to secure the rack to the sills, the said clamps including U-bolts, and fasteners for the clamps, said fasteners having each an eye at one end through which a leg of a U-bolt passes, and formed at the opposite end with a hole transverse to said eye, the said rod extending through the said holes, and means on said rod to secure said fasteners.

1,257,873. VACANT-SEAT DETECTOR FOR THEATERS. JOHN E. JOHNSON, Beaver Falls, Pa., assignor of one-half to Emmet S. Burns, Beaver Falls, Pa. Filed Aug. 16, 1916. Serial No. 115,276. (Cl. 177—328.)

1. A vacant seat detector for theaters comprising in combination, a display board provided with a plurality of

handle over said recess and spool, and a plate on said handle below said recess and spool, said plate being adapted to cover the underside of said recess, and being movably connected with said handle and provided with means for retaining it in closed position.

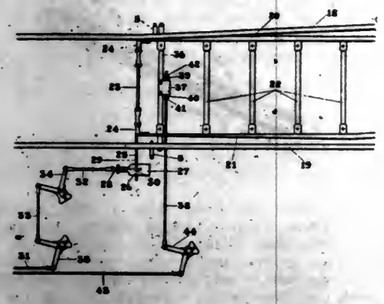
[Claims 2 and 4 not printed in the Gazette.]

1,257,865. MECHANICAL FLAG-WAVER. JOHN H. HOLMES, Cleveland, Ohio. Filed Sept. 21, 1917. Serial No. 192,519. (Cl. 46—40.)



In a device of the class described, a manikin figure having a hollow body and also having flag carrying arm member mounted for rocking movement, a wind-wheel, and mechanism driven by the wind-wheel and for imparting rocking movement to said arm, said mechanism being arranged and housed in the hollow body of the manikin figure.

1,257,866. RAILWAY SAFETY APPLIANCE. THOMAS HOLT, Beaver, Pa., assignor to Pennsylvania Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed July 9, 1917. Serial No. 179,898. (Cl. 104—12.)



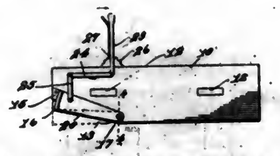
1. In combination with two rails, one of which is fixed and the other of which is laterally movable, means for moving the movable rail to open and closed positions, means for locking the movable rail in open and closed positions and means carried by one of said rails constructed to yieldingly force the movable rail out of closed position.

3. In combination with a fixed and a laterally movable rail, means for moving the movable rail to open and closed positions, means for locking the movable rail in open and closed positions and means carried by one of said rails constructed to yieldingly force the movable rail out of closed position sufficiently far to render said locking means inoperative.

6. In combination with a laterally movable rail and a fixed rail, means for moving said movable rail to open and closed positions, means for locking said movable rail in open and closed positions and means bearing against the movable rail tending to force the movable rail from closed position.

[Claims 2, 4, 5, and 7 to 9 not printed in the Gazette.]

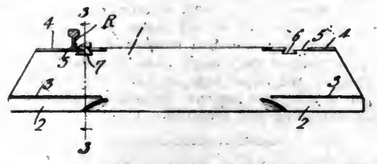
1,257,867. ROAD-DRAG. JOSEPH S. HOLUB, What Cheer, Iowa. Filed Nov. 17, 1917. Serial No. 202,618. (Cl. 37—5.)



1. A road drag including a scraping blade, a portion of one of the lower corners of said blade being removed, a plate pivotally mounted on the blade for movement to cover and uncover the cutaway portion of the blade, and means for moving said plate.

2. A road drag including a scraping blade, one of the lower corners of said blade being cut away on an oblique angle, a plate secured to the blade above the cut-away corner and having an offset inner portion, a triangular plate pivotally mounted on the blade and arranged to be moved to cover the cut-away corner and form a continuation of the lower edge of the blade, the outer end of the plate being movable between the blade and the offset portion of the triangular plate, and means for raising and lowering said pivoted plate.

1,257,868. RAILROAD-TIE. HENRY W. HUFFMAN, Hemphill, Tex. Filed Aug. 7, 1916. Serial No. 113,618. (Cl. 238—5.)

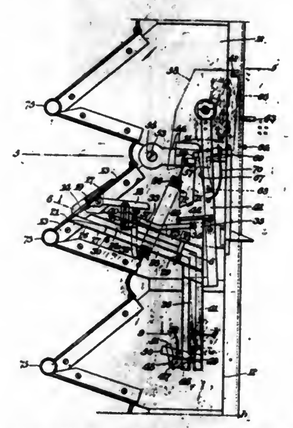


A railway tie, comprising a web, there being base flanges at the ends of the web and extending a short distance longitudinally thereof, there being top flanges overlying the inner ends of the base flanges, said top flanges provided with cut-away portions forming rail seats, and said web having notches communicating with the cut-away portions for the reception of rail locking means and longitudinally extending slots overlying the base flanges.

1,257,869. COIN-CONTROLLED MECHANISM. OTTO JAEGER, Elkins Park, Pa., assignor to Harry S. Kelsey, Boston, Mass. Filed Mar. 23, 1917. Serial No. 156,887. (Cl. 194—51.)

1. In a coin controlled mechanism, the combination of a supporting frame, a movable member returnable to a normal position by gravity after being moved therefrom and released, means tending to move said member from its normal position and to release the same, a latch device when in normal position holding said member in its normal position, said device being movable from its normal position to release said member and being automatically returnable to its normal position when said member is returned to its normal position, and coin operated means for moving said device from its normal position.

4. In a coin controlled mechanism, the combination of a supporting frame, a movable member, means to move said member from a normal position, a latch device pivoted to said member and engaging a part of said frame and holding said member in a normal position, and coin operated means including an arm pivoted to said frame for moving said device from engagement with said frame to release said member.

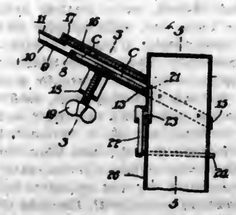


9. In a coin controlled mechanism, the combination of a supporting frame, a movable part, means tending to move said part from a normal position, releasing means holding said part in its normal position, and coin operated means to operate said releasing means to release said part, said part when moved from its normal position acting upon the coin operated means to prevent the insertion of a coin into the same.

11. In a coin controlled mechanism, the combination of a supporting frame having a coin slot therein, a coin receiver positioned to receive a coin from said slot and having a coin discharging opening therein, a door movable into and from a position closing said opening and preventing the escape of a coin therethrough, and means operated by a coin inserted into said slot to move said door to and retain it in its closing position.

[Claims 2, 3, 5 to 8, 10, and 12 to 18 not printed in the Gazette.]

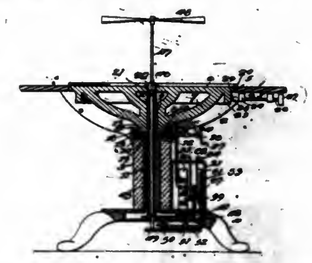
1,257,870. COIN-RECEIVING DEVICE. OTTO JAEGER, Elkins Park, Pa., assignor to Harry S. Kelsey, Boston, Mass. Filed Mar. 23, 1917. Serial No. 156,889. (Cl. 232—44.)



1. In a device of the character described, the combination of a frame structure having a coin slot therein, a downwardly inclined coin guide extending from said slot and adapted to receive coins therefrom and guide them in their downward movement by gravity, said guide preventing the removal of coins therefrom and having an opening therein through which coins may be seen, a substantially vertically-arranged receptacle extending downwardly from the lower end of said guide and adapted to receive coins therefrom, a shaft mounted to turn in a wall of said receptacle, an arm secured on the inner end of said shaft, and means on the outer end of said shaft to hold said arm normally in a position obstructing the lower end of said guide and preventing coins from passing from the open end of said guide and into said receptacle, said means being operative to move said arm from its obstructing position.

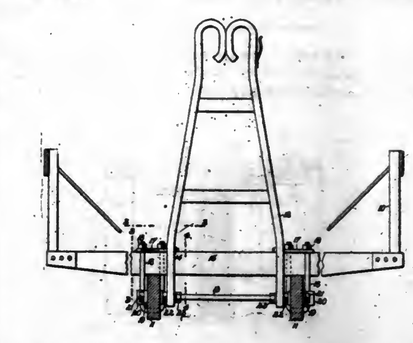
[Claim 2 not printed in the Gazette.]

1,257,871. DINING-TABLE. FRANK DU BOIS JAQUETTE, Pasadena, Cal. Filed Dec. 30, 1916. Serial No. 139,858. (Cl. 45—26.)



In a table of the class described, a fixed table top section, a rotatable table top section, a sleeve shaft fixed with relation to the rotatable section, a fan shaft arranged within the sleeve shaft and rotatable independently thereof, a motor, a power shaft operated continuously by the said motor, a second power shaft having a normal tendency toward operation by the motor, means for connecting the fan shaft with the first-mentioned power shaft to be driven therefrom, gear connection between the sleeve shaft and the second mentioned power shaft of the motor, and means for controlling the rotary motion of the rotatable section.

1,257,872. HAY-RACK. WILLIAM E. JENTZ, Platteville, Wis. Filed Jan. 15, 1917. Serial No. 142,432. (Cl. 21—74.)

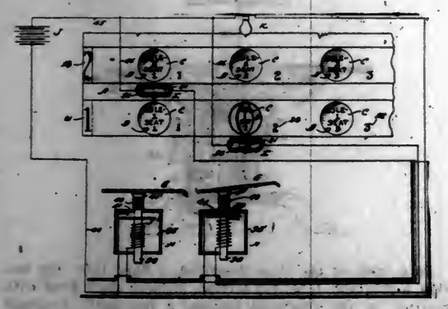


The combination with a hay rack, its sills, a ladder, and a rod extending transversely through the sills and on which the ladder is mounted to swing, of clamps to secure the rack to the sills, the said clamps including U-bolts, and fasteners for the clamps, said fasteners having each an eye at one end through which a leg of a U-bolt passes, and formed at the opposite end with a hole transverse to said eye, the said rod extending through the said holes, and means on said rod to secure said fasteners.

1,257,873. VACANT-SEAT DETECTOR FOR THEATERS. JOHN E. JOHNSON, Beaver Falls, Pa., assignor of one-half to Emmet S. Burns, Beaver Falls, Pa. Filed Aug. 16, 1916. Serial No. 115,276. (Cl. 177—326.)

1. A vacant seat detector for theaters comprising in combination, a display board provided with a plurality of

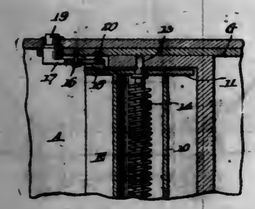
perforations arranged according to the seating plan of the theater, illuminating means to one side of said display board, shutters for each perforation, each shutter capable of swinging motion to render its respective perforation in a closed condition or an open condition, electro-magnetic means for each shutter to actuate the same rendering its respective perforation in one of the said conditions, and mechanical means for each shutter to actuate the same rendering its respective perforation in the other of said conditions.



5. In a vacant seat detector for theaters, the combination of a plurality of display devices arranged according to the seating plan of the theater, said devices capable of rotation independently one of another and in one position signifying that its respective seat is occupied, and in another position that such is vacant, an electric coil for each display device, a permanent bar magnet rigid with each display device adapted to move into and out of parallelism with said coil, mechanical means for maintaining said bar in parallelism with said coil when the latter is not energized and with its respective display device in one of the said positions, and means for energizing said coil.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,257,874. CAMERA ATTACHMENT. JOSEPH M. JORDAN, Jr., Atlantic City, N. J. Filed Oct. 17, 1916. Serial No. 126,151. (Cl. 242—71.)



1. The combination with a camera including a pair of winding and unwinding spools, one of which is capable of automatic rotation and provided with disk like ends, of a brake normally holding the automatically rotatable spool against movement, said brake comprising a lever pivoted intermediate its ends to the camera casing, one end of said lever carrying a laterally extending offset engaging member, the face of which is positioned to normally engage the flat face of one of the disk like ends of the automatically rotatable spool, a laterally extending operating button located at the opposite end of said lever and extending in an opposite direction to the spool engaging member through an opening in the camera casing and a spring interposed between the laterally pivoted engaging member and the casing.

[Claim 2 not printed in the Gazette.]

1,257,875. HYDRAULIC MOTOR. JAMES OLIVER KAPADER, Fort Bidwell, Cal. Filed Jan. 13, 1917, Serial No. 142,175. Renewed Jan. 23, 1918. Serial No. 213,417. (Cl. 138—2.)



1. In a hydraulic motor, a casing adapted for communication at its top with a source of water supply to maintain a hydrostatic column therein, a cylinder in the casing at the bottom and formed with upper and lower ports to alternately communicate with the interior of the casing, a piston in said cylinder subject to the hydrostatic column, a valve controlling said ports, means to establish a water discharge from the casing below the cylinder, said valve being in constant communication with the said means to conduct water thereto after operation of the piston, and means to actuate the valve to control the admission and discharge of the water through the cylinder ports.

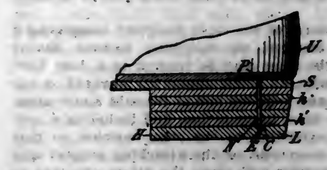
5. The combination with a well casing connecting an upper subterranean water stratum with a lower one to produce a hydrostatic head, a cylinder in the casing near the lower stratum, said cylinder having ports at the upper and lower ends, a piston in said cylinder subject to the hydrostatic head, a vertically reciprocating valve, having upper and lower ports to alternately communicate with the respective cylinder ports, said valve having a vertical eduction passage connecting the upper and lower valve ports, and means to conduct water below the cylinder from the said valve passage.

6. The combination with a casing and means to form a hydrostatic head therein, of a vertical cylinder in said casing near the lower end, said cylinder having ports at the upper and lower ends, a piston in said cylinder subject to the hydrostatic head, a vertically reciprocating valve having upper and lower ports to alternately communicate with the said cylinder ports, said valve having an eduction passage connecting the upper and lower valve ports, a plug forming the lower cylinder head, a pipe section in the casing below the said plug, coupling means expansible against the casing by the said coupling to constitute a foundation for the cylinder, said valve passage being in communication with the said pipe section.

[Claims 2 to 4 not printed in the Gazette.]

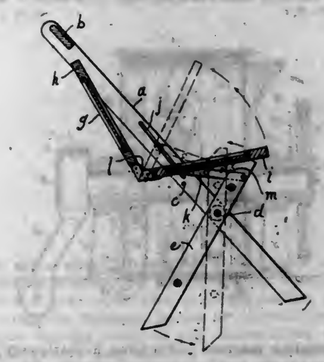
1,257,876. HEEL-NAIL. JAMES S. KENYON, Providence, R. I. Filed Dec. 17, 1915. Serial No. 67,364. (Cl. 85—14.)

An improved heel-nail having an extended body portion constructed from round wire, a driving point at its end, an annular collar flanged out from the body at its opposite end, and an extension projecting upwardly from said collar, said extension being of substantially the same diameter as the body of the nail and scored on its periphery with a plurality of annular grooves dividing it into a series of spherical beads, the end of the extension



being rounded off to provide for its easy penetration into the top lift of the heel and having its sides presenting a smooth surface without sharp edges liable to break or cut the fibers of the material through which it is driven.

1,257,877. FOLDING CHAIR. ROBERT C. KERR, Reading, Mich. Filed Nov. 4, 1915. Serial No. 59,515. (Cl. 155—8.)



1. A folding chair, having in combination, a pair of uprights, means for connecting and bracing the same, a seat back pivoted near its top to the inside of the uprights, a seat bottom hingedly connected to the seat back and movably pivoted in the inside of the uprights, said uprights being provided with a pair of obliquely-extending slots for guiding said pivots of the seat bottom and located near the longitudinal center of the uprights at the bottom and extending obliquely toward the edges of the uprights as they extend upward, a pair of legs pivoted to the inside of the uprights, and means between the seat bottom and the legs for drawing the legs in parallel with the side rails when the seat back and seat bottom are folded parallel with the uprights.

2. A folding chair, having in combination, a pair of uprights provided with slots, means for connecting and bracing the same, a seat back pivoted near its top to the inside of the uprights, a seat bottom movably pivoted in said slots of the uprights and hingedly connected at its back with the bottom edge of the seat back, a pair of legs pivoted inside of the side rails, and a link extending from the said pivots of the seat bottom and uprights and pivoted to the legs for the purpose of drawing the legs in parallel with the uprights when the seat back and seat bottom are folded up into parallel relation with respect to the uprights.

5. A folding chair, having in combination, a pair of uprights, means for connecting and bracing the same, said uprights being provided with upwardly-extending slots, a seat back pivoted near its top on the inside of the uprights, a seat bottom movably pivoted in said upwardly-extending slots by projecting pins, a pair of links connecting the meeting edges of the seat bottom and seat back and engaging in slots in each, a pair of legs pivoted inside the uprights, and a pair of links pivoted at one end on the projecting pins of the seat bottom and at the other end pivoted to the tops of the pair of legs.

6. A folding chair, having in combination, a pair of uprights, a seat back secured thereto, a seat bottom pivoted to the uprights, a pair of legs pivoted to the uprights, one or more links connecting the legs with the seat bottom and provided with one or more snap-recesses, and projecting heads on the side of the seat bottom over which the said snap-recess or recesses may engage to lock the parts in folded position.

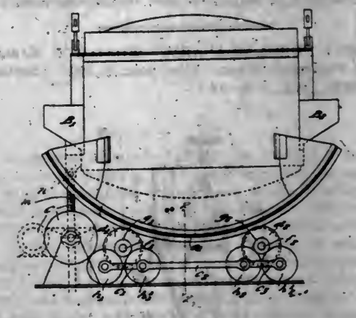
[Claims 3, 4, and 7 not printed in the Gazette.]

1,257,878. SWITCH-RAIL. ELIJAH N. KING, Hargett, Ky. Filed Apr. 14, 1917. Serial No. 162,109. (Cl. 104—112.)



In a railway switch, the combination with main track rails, of siding rails each provided with tapered ends adapted to engage the main track rails, said tapered ends each including longitudinal ribs adapted to fit within the fishing spaces of the main track rails, a tapered flange adapted to overlie the head of one of the main rails, said flange and rib defining a groove to snugly fit the head of the main track rail, a flange overlying the uppermost surface of one side of the base of the rail, said last mentioned flange and portion of the side rail extending over the head of the main rail defining a longitudinal groove, a clamp surrounding the lower portions of the main track rail and the tapered end of the side rail and inwardly extending inclined ends carried by said clamp, one of said ends engaging the last mentioned longitudinal groove and the other end engaging the fishing space upon the opposite side of the main track rail.

1,257,879. TILTING FURNACE OR THE LIKE. HAROLD JENNINGS KITCHEN, Luton, England. Filed Mar. 7, 1917. Serial No. 153,117. (Cl. 266—39.)



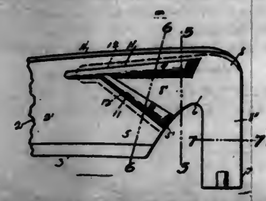
1. A receptacle from which molten material can be poured, rails on the receptacle engaging with friction wheels on an under frame, driving wheels on the under frame, the said friction wheels and driving wheels being so proportioned and connected that as the receptacle is tilted in either direction the under frame is moved horizontally, so that the pouring spout of the receptacle remains substantially in a constant vertical plane.

[Claims 2 and 3 not printed in the Gazette.]

1,257,880. METHOD OF MAKING SCYTHES. SAMUEL M. KITCHEN, Salem, N. Y., assignor to Bartlett All Steel Scythe Company, Inc., a Corporation of New York. Filed Apr. 19, 1917. Serial No. 163,136. (Cl. 76—101.)

1. The method of making scythes, which consists of preparing a sheet metal blank for the blade, then preparing a blank reinforcing member, then placing said blanks one

upon the other and "spot" welding them, then heating the two thicknesses of metal, then subjecting said heated portions to a pressure by means of dies for permanently welding said blanks together, and at the same time forming corrugations within the area of said reinforcing member.

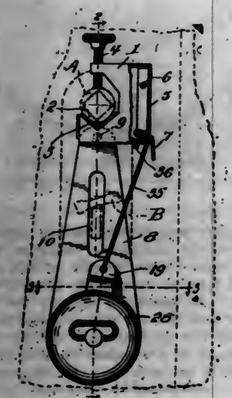


2. The herein described method, which consists of cutting a blank for a scythe blade from sheet steel and also a plate for a reinforcing member from the same material, then laying the said member upon the said blank and "spot" welding said parts, then heating the attached blanks, then inserting the said blanks between dies and permanently welding said parts together, then molding and forming a longitudinal rib and also an oblique rib within the area of said reinforcing member.

3. The method of making scythes which consists of cutting a blank for the blade, out of sheet steel, then cutting a smaller blank from the same material, then temporarily securing the smaller to the larger blank by "spot" welding, then heating the combined parts, then subjecting said heated parts to pressure between forging dies for permanently welding said parts and at the same time forming corresponding corrugations in the larger and smaller blanks, said corrugations disposed at an angle to and intersecting each other.

4. The method of reinforcing scythe blades, which consists of overlaying the heel-end and tang of the blade with a sheet metal reinforcing member, then "spot" welding said member to said blade, then heating both of said parts and subjecting them to pressure between dies for permanently welding the member and the blade into one part and at the same time forming a horizontal and also an oblique rib, one margin of each rib coinciding with the corresponding margin of said reinforcing member.

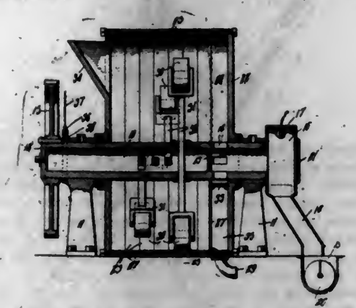
1,257,881. BURGLAR-ALARM. WILLIAM T. KJELLAND, East Stanwood, Wash. Filed Aug. 1, 1917. Serial No. 183,952. (Cl. 116—44.)



1. In an alarm mechanism of the class described, a winding shaft, a stud, a vibrating arm, a trip member pivotally mounted on the winding shaft and arranged to engage the vibrating arm, and a link having a longitudinal slot through which the winding shaft and stud extend, so that said link is slidably mounted, said link having stop devices on opposite sides to engage said trip member so that the trip member will be turned and caused to release the vibrating arm when the link is moved in either direction.

2. A burglar alarm of the class described comprising a relatively fixed member, an attaching member having means whereby the same may be secured to a door knob to be turned thereby, an alarm apparatus mounted on one of said members and tripping means for said alarm apparatus, to set the same in operation, and including a connecting member extending to the other member so that relative angular movement of the attaching member and relatively fixed member will cause the alarm appartus to be set in operation, said attaching member and relatively fixed member being pivotally connected together and foldable one upon the other.

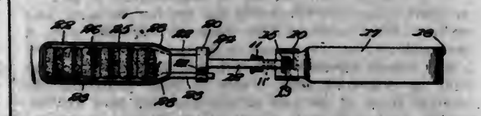
1,257,882. PULVERIZING-MACHINE. CLINTON A. KOEHLER, Easton, Pa., and CLARENCE C. CROSSON, Alpha, N. J. Filed Aug. 14, 1916. Serial No. 114,820. (Cl. 83—9.)



1. A grinding machine comprising a stationary drum, bearing standards positioned upon opposite sides of the drum, a rotatable shaft extending through said drum and rotatably supported by said standards, the shaft having one end portion hollow and provided with side openings within the drum forming inlets, a partition extending from the shaft to the lower end of the drum, a material supporting plate beneath the perforated portion of the shaft and between the partition and the end wall of the drum, a screen in said drum above the shaft and adjacent the inlet openings of the shaft, and grinding means carried by said shaft within the drum.

2. A grinding machine comprising a drum, a rotatable shaft extending through said drum and provided with a hollow end portion having inlet openings formed therein, a housing communicating with the open end of the shaft and provided with an outlet, a partition in said drum, beneath the shaft and adjacent the openings of the drum, a removable material supporting plate positioned in said drum beneath the perforated portion of the shaft and between the partition and the end of the drum, operating means carried by said shaft for grinding the material placed in the drum, and means for rotating said shaft.

1,257,883. ROTARY TOOTH-BRUSH. HENRY H. KONE, Summerfield, Kans. Filed Sept. 6, 1917. Serial No. 190,037. (Cl. 15—37.)

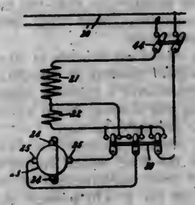


1. An implement of the class described including a shaft mounted for oscillation and having a laterally directed head at one end, said head having an open socket, a holding member including a rigid side connected to said head and a movable side yieldably engaging said socket, portions of said sides being distended to form stop shoulders intermediate their ends, and a brush including a head member channeled to receive the sides of said holding member and bearing at one end against said shoulders.

3. An implement of the class described including a shaft mounted for oscillation and having a laterally directed head at one end, said head having an open socket, a holding member including a rigid side connected to said head and a movable side yieldably engaging said socket, said sides being directed inwardly or toward each other near the head, and a brush including a head held from movement in one direction by the inwardly directed portions of the holding member.

[Claim 2 not printed in the Gazette.]

1,257,884. ALTERNATING-CURRENT MOTOR. WILLEM C. KORTHALS-ALTES, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Dec. 28, 1915. Serial No. 69,001. (Cl. 172—276.)



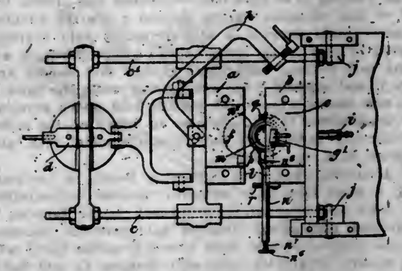
1. A single phase alternating current motor comprising an inducing winding and a compensating winding having substantially the same axes of magnetization, a commutated armature winding, means for short-circuiting said armature winding along an axis substantially coinciding with the axis of said inducing winding, means for electrically connecting said inducing winding in series relation with said armature winding so that the inducing winding current which flows in the armature winding produces a magnetic field whose magnetizing axis is displaced substantially 90 electrical degrees from the magnetizing axis of the inducing winding, and means for electrically connecting said compensating winding in shunt relation with said armature winding along an axis displaced substantially 90 electrical degrees from the axis of the inducing winding, said compensating winding having relatively high reactance whereby a sufficient part of the inducing winding current is diverted to the exciting circuit of the armature winding at standstill to produce a high starting torque.

2. A single phase alternating current motor comprising an inducing winding, a compensating winding having a relatively narrow coil-pitch whereby the winding has relatively high reactance, said inducing and compensating windings having substantially the same axes of magnetization, a commutated armature winding short-circuited along an axis substantially coinciding with the axis of said inducing winding, means for electrically connecting said inducing winding in series relation with said armature winding so that the inducing winding current which flows in the armature winding produces a magnetic field whose magnetizing axis is displaced substantially 90 electrical degrees from the magnetizing axis of the inducing winding, and means for electrically connecting said compensating winding in shunt relation with said armature winding along an axis displaced substantially 90 electrical degrees from the axis of the inducing winding.

3. A single phase alternating current motor comprising an inducing winding and a compensating winding having substantially the same axis of magnetization, a commutated armature winding short-circuited along an axis substantially coinciding with the axis of said inducing winding, means for electrically connecting said inducing winding to said armature winding so that a current is caused to flow in the armature winding which sets up a torque-producing series field for the motor, and means for electrically connecting said compensating winding to said armature winding so that a current is caused to flow in the armature winding which sets up a torque-producing shunt field for the motor, said compensating winding having relatively high reactance whereby a sufficient part of the inducing winding current is diverted to the exciting circuit of the armature winding at standstill to produce a high starting torque.

4. A single phase alternating current motor comprising an inducing winding, a compensating winding of relatively narrow coil pitch whereby the winding has relatively high reactance, said inducing and compensating winding having substantially the same axes of magnetization, a commutated armature winding, a plurality of commutator brushes, means coöperating with certain of said commutator brushes for short-circuiting the armature winding along an axis substantially coinciding with the axis of said inducing winding, means coöperating with certain of said commutator brushes for electrically connecting said inducing winding to said armature winding so that the inducing winding current which flows in the armature winding sets up a torque-producing series field, and means coöperating with certain of said commutator brushes for electrically connecting said compensating winding to said armature winding so that the electromotive force of the compensating winding causes a current to flow in the armature winding which sets up a torque-producing shunt field.

1,257,885. CASTING APPARATUS. JOHN KRALUND, Brooklyn, N. Y., assignor to Doehler Die Casting Company, a Corporation of New York. Filed Sept. 10, 1915. Serial No. 49,857. (Cl. 22—69.)



1. A casting apparatus embodying therein a sectional mold, a head forming a pressure chamber surmounting said mold and adapted to be opened, means forming a constricted passageway between said pressure chamber and the interior of said mold whereby the molten metal will tend to flow by gravity from said chamber to said mold, a melting pot or crucible, a support therefor comprising an operating handle, jaws mounted thereon adapted to encircle and to detachably engage said melting pot or crucible and means whereby said jaws may be opened and closed, the wall of said chamber having therein a bearing adapted to receive said support, and means whereby an elastic fluid under pressure may be admitted to said chamber to follow up the metal through said passageway and force the metal into, and compress it in, the mold.

3. A casting apparatus embodying therein a sectional mold, a head forming a pressure chamber surmounting said mold and adapted to be opened, means forming a constricted passageway between said pressure chamber and the interior of said mold whereby the molten metal will tend to flow by gravity from said chamber to said mold, a melting pot or crucible, a support therefor comprising an operating handle, jaws pivotally mounted thereon adapted to encircle and to detachably engage said melting pot or crucible, a rod slidably mounted in said handle, and operative connections between said rod and said jaws respectively and a spring acting between said rod

and said handle whereby said jaws are automatically closed, the wall of said chamber having therein a bearing adapted to receive said support, and means whereby an elastic fluid under pressure may be admitted to said chamber to follow up the metal through said passageway and force the metal into, and compress it in, the mold.

4. A casting apparatus embodying therein a sectional mold, a head forming a pressure chamber surmounting said mold and adapted to be opened, means forming a constricted passageway between said pressure chamber and the interior of said mold whereby the molten metal will tend to flow by gravity from said chamber to said mold, a melting pot or crucible, a support therefor comprising an operating handle, jaws pivotally mounted thereon adapted to encircle and to detachably engage said melting pot or crucible, each of said jaws being provided with a short arm or heel, a rod slidably mounted in said handle and pivotally connected with each of said arms or heels, lost motion being provided to permit the oscillation of said arms or heels, and a spring acting between said handle and said rod whereby said jaws will be automatically closed, the wall of said chamber having therein a bearing adapted to receive said support, and means whereby an elastic fluid under pressure may be admitted to said chamber to follow up the metal through said passageway and force the metal into, and compress it in, the mold.

6. A casting apparatus embodying therein a sectional mold, a head forming a pressure chamber surmounting said mold and adapted to be opened, means forming a constricted passageway between said pressure chamber and the interior of said mold whereby the molten metal will tend to flow by gravity from said chamber to said mold, a melting pot or crucible, a support therefor comprising an operating handle, jaws mounted thereon adapted to encircle and to detachably engage said melting pot or crucible, a trunnion carried by the end of said jaws and means whereby said jaws may be opened and closed, the wall of said chamber having thereon a bearing adapted to receive said support, a stirrup within said chamber adapted to receive said trunnion and a second stirrup adjacent said bearing adapted to receive said handle and guide it and support it in said bearing while the mold is open and means whereby an elastic fluid under pressure may be admitted to said chamber to follow up the metal through said passageway and force the metal into, and compress it in, the mold.

8. A casting apparatus embodying therein a sectional mold, a head forming a pressure chamber surmounting said mold and adapted to be opened, means forming a constricted passageway between said pressure chamber and the interior of said mold whereby molten metal will tend to flow by gravity from said chamber to said mold, a melting pot or crucible having oppositely disposed shoulders and spaced apart, a support therefor comprising an operating handle, jaws mounted thereon adapted to encircle and detachably engage said melting pot or crucible between said shoulders, and means whereby said jaws may be opened and closed, the wall of said chamber having therein a bearing adapted to receive said support, and means whereby an elastic fluid under pressure may be admitted to said chamber to follow up the metal through said passageway and force the metal into, and compress it in, the mold.

[Claims 2, 5, and 7 not printed in the Gazette.]

1,257,886. PROCESS OF DYEING ELONGATED BODIES OF YARN OR THE LIKE. HERMANN KRANTZ, Aachen, Prussia, Germany. Filed Apr. 8, 1914. Serial No. 830,382. (Cl. 8—15.)

1. The herein described process of dyeing elongated bodies of yarn or the like, which consists in hanging said bodies substantially by their intermediate portions, over a supporting member, so that their opposite ends hang loose on the opposite sides of the supporting member, and then causing the dyeing liquid to flow in a vertical direction through said yarn.

2. The herein described process of dyeing elongated bodies of yarn or the like, which consists in hanging said bodies, substantially by their intermediate portions, over a supporting member, so that their opposite ends hang loose on the opposite sides of the supporting member, and then causing the dyeing liquid to flow alternately upwardly and downwardly through said yarn.



3. The herein described process of dyeing endless hanks of yarn or the like, which consists in doubling the hank over a supporting member, so that the two looped ends of the hank lie contiguous, and then passing the dyeing liquid through said yarn.

4. The herein described process of dyeing an elongated body of yarn, which consists in hanging the yarn by its intermediate portion over a suitable support within a vat, and then passing the dyeing liquid alternately upwardly and downwardly through the vat.

5. The herein described process of dyeing an elongated body of yarn or the like, which consists in folding said body upon itself into substantially U-shape so that the ends of the legs of the U will present the yarn in a relatively non-folded condition as compared with the connecting portion of the U, and then causing the dyeing liquid to flow through said yarn in a direction longitudinally of the legs of the U.

1,257,887. WINDOW-GUARD. CASPER KUHN, Carlstadt, N. J. Filed Jan. 13, 1916. Serial No. 71,905. (Cl. 20—71.)

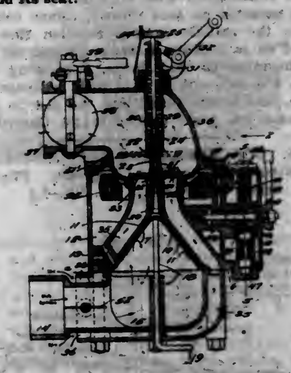


In a window guard, a pair of uprights adapted to fit within the casing of a window, one of said uprights having rods extending laterally therefrom, the other of said uprights having tubes extending laterally therefrom and over the free ends of said rods, a recess in one of said rods, a ring seated therein, and the shackle of a padlock within and filling the free portion of said ring to prevent the escape of same from said recess, whereby said guard may be retained within said window casing.

1,257,888. CARBURETER. ELDEN P. LAMB, Camden, Me., assignor of eleven-twentieths to John Bird, Camden, Me. Filed Dec. 17, 1914, Serial No. 877,753. Renewed Aug. 10, 1917. Serial No. 185,631. (Cl. 261—18.)

1. In a carbureter, a valve housing embodying a valve seat; a valve positioned to engage with the seat and having radial passages extending therethrough, said radial passages communicating also with air passages formed in the valve adjacent its periphery.

3. In a carbureter, a valve housing embodying a valve seat; a disk valve proportioned to engage with the seat and provided with radial passages extending from the center to the periphery and also provided upon its periphery with grooves transecting the extremities of some of said radial passages and forming openings at all times between the valve and its seat.



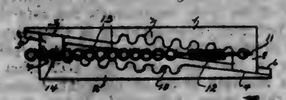
9. In a carbureter, a valve housing provided with a plurality of fuel ducts; a valve mounted to rotate in said housing and provided with a circumferential groove extending part way around said valve and with a longitudinal groove communicating with said peripheral groove, said grooves being arranged so that when the valve is in one position one of the fuel inlets is in communication with one outlet, when in a different position the same fuel inlet is in communication with a different outlet and when in a third position the second fuel inlet is in communication with the last mentioned outlet.

10. In a carbureter, a valve seat; a disk valve cooperating with the seat and having an upwardly extending axial sleeve; a telescoping tube embracing the sleeve; a spring embraced by the telescoping tube and bearing upon the sleeve; and a manual lever adapted to control one of the telescoping sections.

11. In a carbureter, a fuel supply pipe having an internal passage embodying a valve seat; a needle valve inserted within the passage and manually controlled relative to the seat; a sleeve sliding upon the tube and provided with an annular chamber in communication with passages extending through the supply pipe above the valve; and radial passages formed in the valve communicating with the annular chamber.

[Claims 2 and 4 to 8 not printed in the Gazette.]

1,257,889. PRINTER'S QUOIN. ALBERT LANOS and ADAM METZGER, New York, N. Y. Filed June 15, 1917. Serial No. 174,852. (Cl. 254—42.)

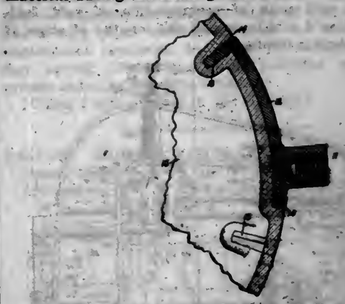


4. A printer's quoin in two parts, an enlarged portion at one end of each part, a spring having an eye and a plurality of loops formed integral therewith, a pin arranged in each of said enlarged portions and adapted to engage said eye and one of said loops to retain said spring under tension longitudinally of said quoin, all combined for joint operation as and for the purpose set forth.

[Claims 1 to 3 not printed in the Gazette.]

1,257,890. GLASS FLOAT. JOHN A. LARSON, Brooklyn, N. Y. Filed Apr. 21, 1917. Serial No. 168,539. (Cl. 137—104.)

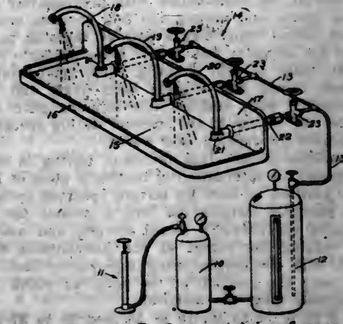
1. As an article of manufacture, a hollow spherical float provided with a metallic arcuate attaching member fitting the surface of the float and having integral retaining studs extending inwardly and embedded in the float material during the making of the float.



2. As an article of manufacture, a hollow float of vitreous material and provided with a metallic attaching member having a hub and a plate integral with the hub and terminating in angular studs embedded in the vitreous material during the making of the float.

3. As an article of manufacture, a hollow float of vitreous material and provided with a metallic attaching member having a hub, and an arcuate plate integral with the hub and extending in a recess in the surface of the float, the plate having integral studs and extending inwardly in converging relation to each other and embedded in the vitreous material.

1,257,891. BURNER. GEORGE M. LATIMER, Watsonville, Cal. Filed Oct. 11, 1917. Serial No. 195,952. (Cl. 158—91.)

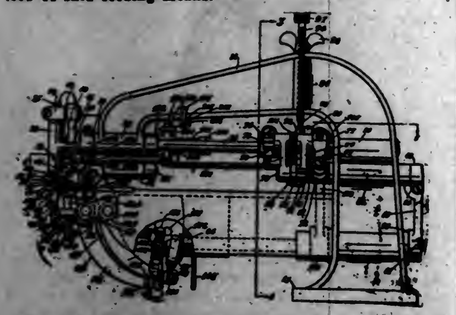


In a burner, a baffle floor, retaining flanges extending upwardly from three edges of the floor, a baffle wall extending upwardly from the fourth edge of the floor, bosses extending upwardly from the floor in front of the baffle wall, supply pipes tapped into the bosses from the back side of the baffle wall, and burner nozzles tapped downwardly into the bosses in front of the baffle wall; each nozzle comprising a piece of pipe extending straight up from its boss and curved forwardly and downwardly and having a nozzle opening discharging downwardly and backwardly so that the fuel will strike the baffle floor and rebound toward the pipes.

1,257,892. FOLDING-MACHINE. WILLIAM F. LAUTENSCHLAGER, Cincinnati, Ohio, assignor to Lorenz Muther, Newton, Mass. Filed Nov. 16, 1914. Serial No. 872,391. (Cl. 12—54.)

1. In a folding machine for folding the margin of flexible material, the combination of step-by-step feeding means, a folder, a reciprocating fold-layer reciprocating in a path toward and from said margin being folded and comprising a fold-laying face adjustable for extending in different directions crosswise of the fold of said margin when in fold-contacting relation for changing its

path of reciprocating movement with relation to said folder, and a part having operative connection with said fold-layer and with an element of said feeding means for changing said path of reciprocation of said fold-laying face of said fold-layer and the lengths of steps of feed of said feeding means.



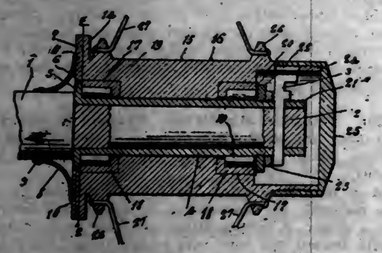
10. In a folding machine for folding the margin of flexible material, the combination of step-by-step feeding means, and folding and fold pressing means, the former comprising a controlling part for controlling the lengths of steps of feed and the latter comprising a reciprocating fold-layer having a fold-contacting face, said fold-layer pivoted for presenting its fold-contacting face in various directions crosswise of the fold when in fold-contacting relation, and means under the manual control of the operator during the operation of the machine for simultaneously swinging said fold-layer on its pivot and adjusting said controlling part.

18. In a folding machine for folding the margin of flexible material, the combination with progressively acting feeding means and folding and fold pressing means, of snipping means comprising a pair of snipping parts, and means for adjusting one of said snipping parts relative to the other of said snipping parts comprising a worm whose thread has a great helix angle and has worm connection with said movable snipping part, and means under the control of the operator during operation of the machine for turning said worm.

34. A machine of the class described, having in combination, means for intermittently feeding a piece of material into position to have its margin operated upon, a folder for partially forming the fold, a presser for descending upon the partially folded margin, and mechanism for varying the extent of the intermittent feed movements, said mechanism being constructed and arranged to vary the location of the point at which the presser descends upon the material.

[Claims 2 to 9, 11 to 17, 19 to 33, and 35 to 37 not printed in the Gazette.]

1,257,893. ROLLER-BEARING DEMOUNTABLE AUTOMOBILE-HUB. WILLIAM FITZHUGH LEE, Syracuse, N. Y. Filed Aug. 4, 1917. Serial No. 184,515. (Cl. 64—39.)

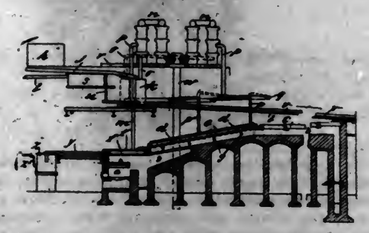


1. The combination with an axle including a spindle having a slot, of a sleeve mounted on said spindle and having oppositely disposed slots, an F-shaped key extending through the slots of the sleeve and spindle, a hub journaled on said sleeve, said sleeve having its outer end screwthreaded, a nut threaded on said sleeve, and a jam nut threaded on said sleeve in engagement with said nut.

8. The combination with an axle having a spindle, of a sleeve mounted on said spindle, means connecting the sleeve to the spindle against rotation thereon, a hub journaled on said sleeve, a flange formed on said sleeve, a disk mounted on said flange, a securing member secured to the axle and to said disk, a flange formed on said hub, and means connecting the disk to said flange.

[Claims 2 and 4 not printed in the Gazette.]

1,257,894. CONCENTRATING SULFURIC ACID. JOHN W. LEITCH, Huddersfield, England. Filed Dec. 14, 1915. Serial No. 66,784. (Cl. 23—1.)



4. Apparatus for continuously concentrating sulfuric acid to a strength of 96–98 per cent., comprising open pans adapted to receive the dilute acid and preliminarily concentrate it to about 75–80 per cent. strength; open silica basins arranged in a closed chamber and adapted to receive the preliminarily-concentrated acid and to concentrate it to about 85–90 per cent. strength; covered iron pans adapted to receive the concentrated acid and further concentrate it to 96–98 per cent. strength; a tower for preheating the dilute acid by the intermixture of the hot gases, arranged at a level above the concentrating apparatus and at a point approximately directly above the final concentration pan; a duct adapted to lead the hot vapors from said final concentration pan to said tower; and a duct leading the preheated acid to the first pan of the concentration cascade.

[Claims 1 to 3 and 5 to 7 not printed in the Gazette.]

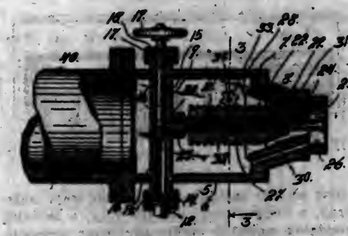
1,257,895. METHOD OF CONCENTRATING SULFURIC ACID. JOHN WALKER LEITCH, Huddersfield, England. Original application filed Dec. 14, 1915, Serial No. 66,784. Divided and this application filed Oct. 11, 1917. Serial No. 196,011. (Cl. 23—1.)

5. A continuous process, for concentrating dilute sulfuric acid in a three-stage cascade cycle to a strength of 96–98 per cent., which consists in concentrating in the first stage of the cycle continuously fed acid to a strength of 75–80 per cent., concentrating in the second stage the acid thus produced to a strength of 85–90 per cent., concentrating in the third stage the acid from the second stage to a strength of 96–98 per cent., collecting vapors from the third stage of the cycle and leading the vapors into direct contact with dilute acid passing to the first concentrating stage, the flow of the vapor being effected in a direction counter to that of the dilute acid, thereby substantially condensing the acid in the vapors while incidentally preheating the dilute acid in its passage to the said first stage, and finally air cooling the concentrated acid produced during the third stage.

[Claims 1 to 4 not printed in the Gazette.]

1,257,896. OIL-BURNER. GEORGE W. LINDSAY, Denver, Colo. Filed May 28, 1915. Serial No. 30,937. (Cl. 158—76.)

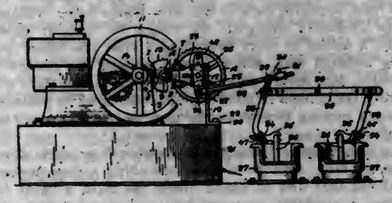
1. A burner comprising a casing having an oil passage extending therethrough, means for supplying the oil with air under presure including a hollow frusto-conical member whose axis is coincident with the axis of the oil passage, the burner having a frusto-conical nozzle surrounding the first named frusto-conical member, the latter



being adjustable to regulate the passage between it and the nozzle, and spring actuated locking means for retaining the frusto-conical member in any adjusted position against accidental displacement.

[Claim 2 not printed in the Gazette.]

1,257,897. MECHANISM FOR TRANSMITTING POWER. CECIL E. LLOYD, Pensacola, Fla. Filed Sept. 29, 1917. Serial No. 193,993. (Cl. 74—5.)

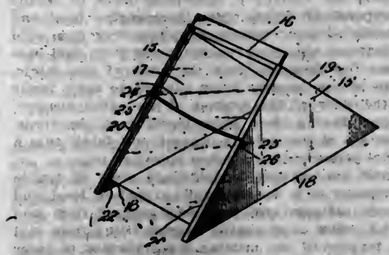


1. Mechanism for transmitting power, comprising a frame, a driving shaft journaled in said frame, a crank pin member fast on said shaft, a lever forming an element of the mechanism to which motion is to be transmitted, an oscillatory cross head pivotally connected to said lever and extending at a right angle thereto, and a connecting rod having one end attached to said crank pin member and the opposite end thereof attached to said oscillatory cross head.

6. In mechanism for transmitting power, the combination with the brake sockets of a pair of pumps, of brake levers having a detachable connection with said brake sockets, a yoke having a pivotal connection with said brake levers, and a prime mover actuating one of said levers.

[Claims 2 to 5 and 7 to 9 not printed in the Gazette.]

1,257,898. DEVICE FOR PROTECTING AND FORCING PLANTS. FRANK C. LORENCE, Larson, N. D. Filed June 5, 1917. Serial No. 172,984. (Cl. 47—22.)



1. A plant protecting and forcing device comprising triangular side members each having a dove-tailed groove adjacent to its back edge and a groove adjacent to its front edge, in combination with a back member having dove-tailed tongues engaging the dove-tailed grooves, and a transparent front member adjustably supported in the grooves adjacent to the front edges of the side members, and a wire clamp extending across the front member in engagement therewith to retain it in adjusted position and having downturned arms provided with terminal prongs engaging the side members.

[Claim 2 not printed in the Gazette.]

1,257,899. HORSE-TWITCH. HUGH W. MCCALL, Scotia, Nebr. Filed Dec. 29, 1917. Serial No. 209,435. (Cl. 119—96.)



1. A horse twitch including a tubular body, a slide bar freely movable longitudinally in the body, the bar and body being oblong in cross section to constrain the bar to slide without turning when given movement in the body, said slide bar having a mutilated thread thereon for the major portion of its length and being of a length to be projected at both ends beyond the body, a handled nut threaded on the slide bar rearward of the body and adapted to bear against the rear end of the body, a loop on the slide at the front end, said loop consisting of a rope of unbroken continuity, said slide having a reduced front end and there being an oblong slot in the said reduced end extending transversely through the same, through which slot the loop passes and has a free running movement and in addition a movement longitudinally of the bar.

2. A horse twitch including a tubular body, a bar freely slidable in said body and constrained against turning movement relatively to the body, said bar having a mutilated thread thereon for a major portion of its length and having a length to project beyond both ends of the body, a handled nut threaded on the slide bar rearward of the body and adapted to bear against the rear end of the latter, the bar being movable in the body under the action of the nut to bring the front end of the bar within the body, and a continuous loop of flexible material carried by said bar at the front end, the front end of the body having a size to accommodate the rear end of the loop in twisted form when the bar is drawn into the body.

1,257,900. FEEDING MECHANISM. ALFRED F. MCCOLLUM, Bloomsburg, Pa., assignor of three-fifths to James Magee, 2d, Bloomsburg, Pa. Filed Oct. 16, 1914. Serial No. 866,976. (Cl. 112—24.)

1. The combination in a sewing machine of a stitch-changing device; driving mechanism; with a single member connected to said device and to the driving mechanism and operative to start the machine and change the length of the stitches.

5. The combination in sewing mechanism, including a sewing machine, of a supporting structure; work support-

ing rollers mounted thereon; a brake placed to act on certain of the rollers; a controlling member; means for automatically applying the brake to the rollers; and brake releasing means connected to said controlling member.

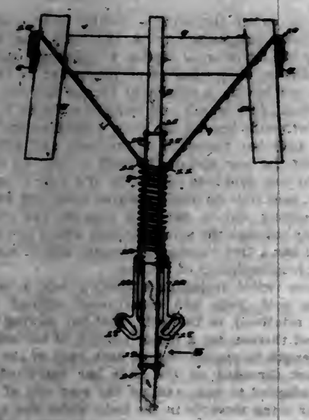


7. The combination in sewing mechanism of a sewing machine having an inclined work table; a supporting structure; a series of work supporting rollers inclined at substantially the angle of said table and mounted to guide a roll of material past the same; with means for adjusting the supporting structure to change the angle of the series of rollers relatively to that of the sewing machine table.

12. The combination in sewing mechanism of a supporting structure; supporting rollers thereon; a sewing machine including stitch-changing mechanism; driving means for said sewing-machine; a treadle; a brake for the rollers; and means connecting said treadle with the brake, the stitch-changing devices and driving means so that a movement of the treadle in one direction releases the brake, throws the actuating means into operation and gradually changes the character of the stitch produced.

[Claims 2 to 4, 6, 8 to 11, and 13 to 18 not printed in the Gazette.]

1,257,901. DEVICE FOR BALANCING PUMP-RODS. GEORGE W. MCCONNELL, Oklahoma, Okla., assignor of one-half to W. B. McIlwain, Oklahoma, Okla. Filed May 14, 1917. Serial No. 168,580. (Cl. 103—62.)



1. In a device of the class described, a helical spring adapted to embrace a pump-rod, means for suspending the spring, a hanger depending from the lower end of the spring, said hanger being provided with a spur adapted to engage a pump-rod.

2. In a device of the class described, a helical spring adapted to embrace a pump-rod, means for suspending the spring, a hanger depending from the lower end of the spring, said hanger having a spur, a plate adapted to be secured to the pump-rod and having holes to be engaged by said spur.

5. In combination with a pump-rod, a helical spring embracing the pump-rod, means for suspending the upper end of the spring, a hanger depending from the lower end of the spring, and means for attaching said hanger to the pump-rod.

[Claims 3, 4, and 6 not printed in the Gazette.]

1,257,902. DEVICE FOR WASHING GLASSES AND CUPS. MORGAN MCCULLOUGH, Los Angeles, Cal. Filed Oct. 3, 1917. Serial No. 194,484. (Cl. 141—9.)



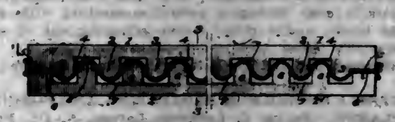
3. A dish washer including a skeleton tray, cells fitted in the tray, a flanged cover for the tray, a movable wire frame yieldably mounted within the cover, opposite sides of the wire frame being formed with crimped portions, a series of slats extending across the frame and having the ends thereof notched for engaging the crimped portions of the frame, and spring arms projecting from the slats and engaging the crimped portions of the frame to hold the slats yieldably in position, said slats serving to engage the tops of the dishes within the cells.

4. A dish washer including a skeleton tray, cells fitted in the tray, a flanged cover for the tray, vertical guide rods at the sides of the cover, a wire frame arranged within the tray and formed with eyes slidably engaging the guide rods, opposite ends of the wire frame being crimped, springs yieldably engaging the frame to force it downwardly, a series of slats extending across the frame and having notched ends which loosely engage the crimps of the frame, and spring arms projecting from the slats and engaging the crimps to hold the slats yieldably in position, said slats serving to engage the tops of the dishes within the cells.

5. A dish washer including a skeleton tray, cells fitted within the tray, a series of slats extending across the bottom of the tray and arranged under the cells, a cover for the tray, a yieldably mounted frame arranged within the cover, and a series of slats corresponding to the slats of the bottom of the tray, the second mentioned slats being yieldably mounted upon the movable frame and serving to engage the tops of the dishes within the cells.

[Claims 1 and 2 not printed in the Gazette.]

1,257,903. MOLD FOR SHAPING LEGGINGS. LAWRENCE MCKENNA, Philadelphia, Pa., assignor to Carlton Mills Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Oct. 29, 1917. Serial No. 198,997. (Cl. 154—30.)

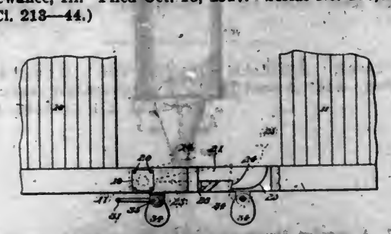


1. A mold for curving a right-lined piece of textile fabric composed of a longitudinally-extending head and base, a series of separated tongues depending from said head, a series of separated tongues rising from said base and means for firmly holding the ends of the fabric, the tongues of one member being adapted to enter freely between the sides of the tongues of the other member, said tongues having their faces tapering in the transverse direction of the mold to convert said fabric into a longitudinal permanently curved or spiral shape.

3. A mold for curving a right-lined piece of textile fabric composed of a longitudinally-extending head and base, a series of separated tongues depending from said head, and a series of separated tongues rising from said base, the tongues of one member being adapted to enter freely between the sides of the tongues of the other member, said tongues having their faces tapering in the transverse direction of the mold to convert said fabric into a longitudinal permanently curved or spiral shape, and means on said members for holding tightly the terminal portions of the piece of the fabric.

[Claim 2 not printed in the Gazette.]

1,257,904. CAR-COUPLING. ADAM MACHOROSKI, Kewanee, Ill. Filed Oct. 15, 1917. Serial No. 196,681. (Cl. 213—44.)



The combination with two opposed car platforms, the first of said car platforms having pivoted thereto for vertical movement, a coupler having its free end provided with a hook, the second of said car platforms having means to engage said hook, a shaft extending transversely of the second platform beneath the said hook, an ovate cam fixed at its smaller end on said shaft beneath said hook, and constituting a weight to normally hold the shaft in a fixed position and present an enlarged continuously curved cam face, and a handle on said shaft of less weight than the cam whereby the cam normally rests in depending position, said cam being arranged when the handle is manually rotated to engage the hook and disengage the latter from the hook retaining means.

1,257,905. CIGARETTE-HOLDER. MERVYN S. MACK, New York, N. Y. Filed Sept. 8, 1916. Serial No. 118,997. (Cl. 131—10.)



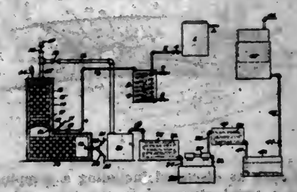
2. A cigarette holder comprising a tubular housing having one end thereof flared for receiving a cigarette, a mouthpiece at the other end of the housing, a tubular plunger having collars at the ends thereof fitting snugly into the housing, a coil spring within the housing for moving the plunger toward the flared end, a flat spring mounted between the collars on the plunger, said housing having a recess adapted to be engaged by the flat spring to render the coil spring inoperative, and a button on the housing in register with the recess for disengaging the flat spring from the recess, substantially as and for the purpose set forth.

[Claim 1 not printed in the Gazette.]

1,257,906. PROCESS FOR THE PRODUCTION OF AROMATIC BODIES FROM PETROLEUM-OILS. FREDERICK WILLIAM MANN, Berkeley, and MARVIN LEE CHAPPELL, El Segundo, Cal., assignors to Standard Oil Company, Richmond, Cal., a Corporation of California. Filed Nov. 12, 1917. Serial No. 201,477. (Cl. 196—26.)

1. The process of producing aromatic bodies which consists in the dehydrogenation of petroleum oils containing oils of the carbocyclic series, under a pressure below atmospheric, at temperatures ranging between 600 and 750 degrees centigrade, in the presence of air which is mixed with the products of combustion required to maintain the necessary reaction temperature, and also in the presence of a contact mass.

6. The process of producing aromatic bodies which consists in the dehydrogenation of petroleum oils containing oils of the carbocyclic series, under a pressure of from 1 to 4 inches of mercury below atmospheric pressure, at temperatures ranging between 600 and 750 degrees centigrade, in the presence of a volume of air ranging from 500 to 800 cubic feet for each 15 or 20 gallons of oil subjected to treatment, said air being mixed with the products of combustion required to maintain said temperatures, and also in the presence of the lower oxid of nickel.



[Claims 2 to 5 and 7 not printed in the Gazette.]

1,257,907. FISHING-TACKLE. CHARLES W. MARTIN, Brooklyn, N. Y. Filed Nov. 6, 1917. Serial No. 200,608. (Cl. 43—7.)



2. A device of the class described, comprising a head block having a plurality of fish hooks suspended therefrom, a hanger connected with the top of said block and with which a line is adapted to be connected, a cross head member connected with the top portion of said hanger and provided with apertures, and snells adapted to be connected with said line and to be passed downwardly and loosely through said cross head member and provided with hooks.

[Claim 1 not printed in the Gazette.]

1,257,908. REPAIR-TOOL FOR PNEUMATIC TIRES. WILLIAM D. MARTIN, San Francisco, Cal. Filed Mar. 20, 1917. Serial No. 158,185. (Cl. 152—27.)

1. A tool such as disclosed including a tongs constructed and arranged to grip a tread strip cut in the tire, and engaging means connecting with the tongs for engaging the tire to enable said tongs to hold said strip away from the cut portion of the tire.

7. A tool such as described, including a plurality of oppositely disposed tongs having cross pivoted jaws; a plurality of pairs of toggles pivoted to said jaws respectively; and a link pivoted to the knees of said toggles.

8. A tool such as described including a tongs having cross pivoted jaws; a pair of toggle links pivoted to said

jaws; a second tongs opening at an angle to said first tongs, and having laterally curved jaws adapted to engage the sides of a tire casing; a pair of toggle links pivoted to the jaws of said second tongs; and a link joining the knees of said toggles.



9. A tool such as disclosed including a gripping means for gripping a tread strip cut in the tire, and engaging means connecting with said gripping means for engaging the tire to enable said gripping means to hold said strip away from the cut portion of the tire.

[Claims 2 to 6 not printed in the Gazette.]

1,257,909. VENDING-MACHINE. ARTHUR U. MERSHON, Excelsior Springs, Mo., assignor of one-fifth to Otis Holmes, one-fifth to A. M. Howard, one-fifth to A. G. Arnold, one-fifth to A. D. Bloch, and one-fifth to O. L. Mershon, Excelsior Springs, Mo. Filed Aug. 8, 1916, Serial No. 113,794. Renewed July 20, 1917. Serial No. 181,861. (Cl. 194—85.)



1. In a check controlled package vending machine having a hopper through which the packages gravitate and a check chute arranged at the rear of the hopper, of spring holder members in the rear wall of the hopper, a delivery member hingedly secured in the casing to the rear of the chute and hopper, cam members upon the delivery member disposed to contact with the holder members to force the same inward of the hopper when the delivery member is swung to delivery position, said delivery member including a shelf disposed below the chute and below the hopper and said shelf having a notched portion registering with the inner side walls of the chute, a pivoted actuating member, spring means for normally swinging the actuating member to one position to retain an element thereof below the shelf of the delivery member, said element of the actuating member having a notch disposed to aline with the notch in the delivery member and whereby to engage with a check when the same is passed through the chute to engage with the notch of the delivery member to lock the delivery end of the actuating members, and means for ejecting the coin when the actuating member and the delivery member are swung to uncover the mouth of the chute and the mouth of the hopper.

[Claims 2 and 3 not printed in the Gazette.]

1,257,910. DISPENSING DEVICE. HUGO MEYER, Chicago, Ill. Filed Nov. 13, 1916. Serial No. 130,975. (Cl. 221—62.)



1. A powder dispensing device comprising a supporting member having a flanged perforated seat to removably support a perforated powder container, and a manually operated freely reciprocatory tapping device wholly beneath and depending from said support to intermittently strike the perforated bottom of the container supported on said seat for the discharging of its contents through the perforation therein.

5. A powder dispensing device comprising a combined support and discharge conduit for an inverted perforated powder container and having a seat to receive and removably support the container, a plunger below said seat reciprocating through and guided in said conduit and adapted to strike the bottom of perforated container, and a valve carried by said plunger to close said conduit.

9. A powder dispensing device, comprising a perforated support constituting a seat for a powder container with a discharge end next to said seat, a delivery shell depending from said support and having a valve seat below the latter, a plunger externally operated and loosely supported for free rapid reciprocatory movement in the shell, and having a head for passage through the perforated support to strike or tap the container for precipitation of its contents into the shell on manually operating the plunger, and a valve on the plunger to engage the valve seat for closing the shell when the plunger is in normal lowered position.

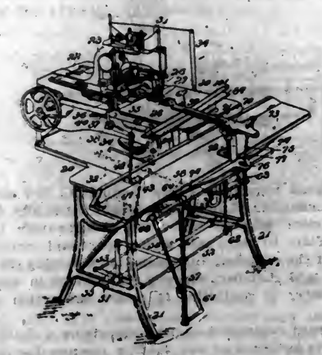
[Claims 2 to 4, 6 to 8, 10, and 11 not printed in the Gazette.]

1,257,911. CAR-AXLE AND CAR-WHEEL. HARVEY B. MILLER, Steubenville, Ohio. Filed Nov. 3, 1916. Serial No. 129,831. (Cl. 64—26.)



In a device as set forth, of a car wheel having a lubricant receiving chamber formed therein and opening into one face of the wheel, a head removably mounted in said chamber and having a filling opening formed therein, a disk mounted in the outer end of said opening and provided with a filling opening adapted for alinement with the filling opening formed in the head, said head provided with a recess, a lug formed upon the inner surface of said disk and seated in said recess when said filling openings aline, a pin connected to and extending centrally through said disk, said pin extending slidably through said head, a spring carried by said pin for yieldably holding said disk for facial abutment with said head, said lug adapted to be seated in the filling opening in said head after said chamber has been filled, said wheel provided with a diagonal inwardly extending duct extending toward the center of the wheel from said chamber.

1,257,912. BUTTONHOLE-MACHINE. HENRY C. MILLER, Waterford, N. Y. Filed June 5, 1914. Serial No. 843,301. (Cl. 112—4.)



1. In a button hole sewing machine in combination, a work support, a collar gage comprising a pivoted support and a slidable collar engaging element so mounted therein, and a trip actuated when gaging the collar to permit the support to rock on its pivot, and means for limiting the movement of the gage.

2. In a buttonhole sewing machine in combination, a frame, a stitching mechanism operatively associated therewith, a gage having a pivoted and sliding movement, an auxiliary gage at one side of the first mentioned gage, the collar being folded around the first mentioned gage and its ends being gaged by the auxiliary gage, means for securing the collar to the first mentioned gage after being folded, and means for starting the stitching mechanism and releasing the gage from the gaged collar.

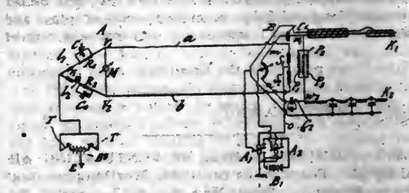
3. In a buttonhole sewing machine in combination, a work support, a stitching mechanism operatively associated therewith, a pivoted gage positioned above the said work support and slidably toward and from the stitching mechanism, an auxiliary gage at one side of the first mentioned gage, the collar being folded around the first mentioned gage and its ends being engaged by the auxiliary gage, means for securing the collar to the first mentioned gage after being folded, and means for limiting the relative sliding movement of the first mentioned gage.

22. In a button hole sewing machine in combination, a work table, stitching mechanism positioned thereabove, start and stop mechanism for the stitching mechanism, a trimmer operatively associated therewith, a work gage adapted to swing in a substantially vertical plane, an actuating lever, and intervening mechanisms between the trimmer and the work gage and said lever.

40. In combination, a frame, a buttonhole machine mounted on the frame, a movable gaging device at the forward end of the frame, to gage a collar previous to introducing same to the buttonhole machine, and a collar receptacle at the forward end of the frame below and spaced from the gaging device, said receptacle extending each side the gaging device.

[Claims 4 to 21 and 23 to 39 not printed in the Gazette.]

1,257,913. ELECTRIC TELEGRAPHY. OSKAR MOLL and PAUL KUSCHEWITZ, Blackheath, England. Filed Apr. 25, 1914. Serial No. 834,478. (Cl. 178—63.)



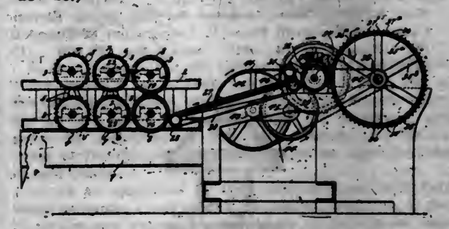
1. Means for protecting duplex submarine cable systems, comprising a Wheatstone bridge having a receiving instrument in the diagonal thereof, variable resistances and variable capacities in parallel thereto in the adjacent arms of the bridge, and other arms of the bridge constituting a double line connecting the receiving instrument with the distantly located shore end of the working cable and the artificial cable.

3. Means for protecting duplex submarine cable systems, comprising a Wheatstone bridge having a receiving instrument in the diagonal thereof, variable resistances and variable capacities in parallel thereto included in the adjacent arms of the bridge, other arms of the bridge constituting a double line connecting the receiving instrument with the shore end of the working cable and the artificial cable, relays operative by sending currents transmitted in parallel over the said double line, and a transformer having said relays connected to the junction of its secondary windings and having its primary windings connected to the working and artificial cables.

6. Means for protecting duplex submarine cable systems, comprising a Wheatstone bridge having a receiving instrument in the diagonal thereof, variable resistances and variable capacities in parallel thereto included in the adjacent arms of the bridge, two arms of the bridge constituting a double line connecting the receiving instrument with the shore end of the working cable and the artificial cable, a transformer having its secondary windings bridging the said double line at the cable end thereof, the primary windings of the transformer normally bridging the working and artificial cables and capable of being short-circuited when the said working and artificial cables are bridged by a sensitive relay.

[Claims 2, 4, 5, and 7 to 9 not printed in the Gazette.]

1,257,914. DEFIBERATING-MACHINE. ALPHEUS W. MONTGOMERY, Flushing, N. Y.; Grace Greenwood Montgomery executrix of said Alpheus W. Montgomery, deceased. Filed Apr. 19, 1916. Serial No. 92,168. (Cl. 13—18.)



1. A machine for the recovery of fiber from the trunk or stalk of the banana tree comprising crushing rolls, expressing rolls, and a picking and teasing roll provided with alternate sets of longitudinally extending pins and scraping blades, and a holdback feed roll delivering the material from the crushing rolls to the said picker roll.

2. A machine for the recovery of fiber from the trunk or stalk of the banana tree comprising pairs of corrugated crushing rolls arranged in succession, the rolls of succeeding pairs being closer together than preceding rolls and having finer corrugations than said preceding rolls,

expressing rolls having smooth surfaces to receive the material from the crushing rolls, a holdback feed roll receiving the material from the expressing rolls and a picker roll coöperating with the said feed roll, said picker roll having longitudinally extending sets of pins and scraper blades arranged alternately between said sets of pins.

[Claim 3 not printed in the Gazette.]

1,257,915. [WITHDRAWN.]

1,257,916. CHIMNEY, COWL, OR VENTILATING APPLIANCE. FRANCIS EVAN MOSS, Worthington, near Wigan, England. Filed May 21, 1917. Serial No. 170,630. (Cl. 98—4.)



1. A ventilator comprising an outer casing, an inner casing spaced from the outer casing, the bottoms of the two casings flaring outwardly, ribs extending throughout the space between and connecting the inner and outer casings to form vertical flues open at the top and bottom, the inner casing being provided with a plurality of superposed openings which form communication between the respective flues and the interior of the inner casing, each opening being surrounded by side walls and an upwardly inclined inner wall to direct the draft upwardly toward the center of the inner casing.

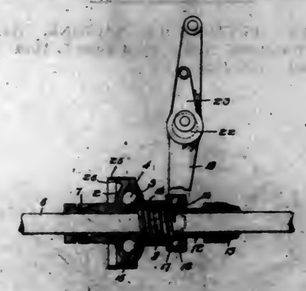
2. A ventilator comprising an inner casing and a spaced outer casing integral with the inner casing, the bottoms of the two casings flaring outwardly, integral ribs connecting the inner and outer casing and extending throughout the length thereof to form flues open at the top and bottom, the inner casing having formed therewith a plurality of superposed inwardly extended pockets open at the top and communicating with the flues, the inner surfaces of the pockets being upwardly inclined to direct the draft upwardly toward the center of the inner casing.

1,257,917. ELECTRICAL CONTACT. ARVID H. NERO, New Britain, Conn., assignor to The Arrow Electric Company, Hartford, Conn., a Corporation of Connecticut. Filed July 24, 1917. Serial No. 182,422. (Cl. 173—342.)



A contact for electrical devices comprising a strap of spring metal bent back upon itself at one end to form a contact brush together with a spacing bump formed in said strap adjacent the return bend thereof, and extending into the space between the adjacent faces of the strap adjacent the bend to prevent excessive deformation of the contact at said return bend by pressure on the brush.

1,257,918. SPEED-RESPONSIVE DEVICE. WALTER G. NOACK, Stockton, Cal., assignor to Tractor Motors Company, Benicia, Cal., a Corporation of California. Filed Mar. 20, 1917. Serial No. 155,992. (Cl. 264—17.)

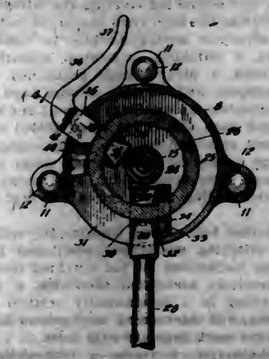


1. A speed responsive device, comprising two plates inclosing a chamber of decreasing height outwardly, balls in said chamber adapted to be moved outwardly by centrifugal force to move said plates apart and increase the volume of the chamber, and means for retarding the inflow of air to said chamber, whereby the increase in volume of said chamber is controlled to retard the action of said device.

6. A speed responsive device, comprising a shaft, a circular plate mounted on said shaft, a compression coupling engaging said plate and shaft, a second plate operatively associated with said first plate, the plates being constructed to inclose a chamber of decreasing height outwardly, a plurality of balls in said chamber adapted to be moved outwardly by centrifugal force to move said second plate axially of said shaft, a spring surrounding the shaft and engaging said second plate and an abutment secured to the shaft and bearing against the other end of the spring.

[Claims 2 to 5 not printed in the Gazette.]

1,257,919. OPERATING MECHANISM FOR HAND-BRAKES. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Mar. 1, 1916. Serial No. 81,335. (Cl. 74—54.)



1. In a brake, the combination with a wheel rotatable about a horizontal axis and having a collar, of means for actuating said wheel including a hand lever recessed at its upper end to loosely fit over said collar, said lever being supported by and normally depending from said collar in a direction radial of the wheel, and a fixed stop to engage said hand lever and position it in said normal depending direction.

8. In a brake, the combination with a casing adapted to be secured to a wall, of a chain winding wheel rotatably mounted within said casing, said wheel having a rim flange, an operating hand lever recessed to fit over said rim flange and normally depending vertically therefrom, said hand lever extending through a recess in the casing, a locking pawl also recessed to fit over said rim flange and extending through another recess in the casing, and fixed abutments on said casing to position said hand lever and locking pawl.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,257,920. VERTICALLY-ADJUSTABLE SIDE BEARING. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed June 9, 1917. Serial No. 173,849. (Cl. 64—65.)



1. In an anti-friction bearing, the combination with a retaining member, of an anti-friction element carried thereby and having a bearing thereon, a cap plate coöperable with said anti-friction element and also having bearing on said element, means for locking said cap plate and member together to prevent accidental separation but at the same time permitting relatively longitudinal movement, and a bearing plate adjustably mounted on said cap plate.

4. In an anti-friction bearing, the combination with a retaining member, of a plurality of rockers mounted on said retaining member, a cap plate supported on said rockers, means for locking said cap plate to the retaining member to prevent accidental separation but permitting relatively longitudinal movement, and a bearing plate adjustably mounted on said cap plate.

8. In an anti-friction bearing, the combination with a retaining member and a parallel cap plate, of a plurality of rockers interposed between said cap plate and retaining member, said cap plate being provided with recesses in communication with the bearings on the rockers, said recesses being adapted to hold waste and oil.

[Claims 2, 3, 5 to 7, 9, and 10 not printed in the Gazette.]

1,257,921. SIDE BEARING FOR RAILWAY-CARS. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed June 14, 1917. Serial No. 174,677. (Cl. 64—64.)



2. In a side bearing for railway cars, a base member, a spherical roller mounted therein, a bearing plate adapted to engage said roller, said bearing plate having both longitudinal and lateral movement upon said roller.

5. In a side bearing for railway cars, a base member adapted to be secured to a bolster, a bearing plate associated with said base member and adapted to be engaged by an opposed bolster, a plurality of rollers mounted in the base member, spring means associated with the bearing plate to resist the longitudinal movement thereof, the bearing plate having both a longitudinal and a lateral movement upon said roller.

6. In a side bearing for railway cars, in combination: a base member, a bolster to which the base member is secured, an opposed bolster, a bearing plate associated with the base member adapted to engage the opposed bolster, the base member being provided with brackets forming spring seats, springs for said seats, the bearing plate having a member engaging said springs, the base member being further provided with rollers, the rollers having a spherical face, the bearing plate having an arcuate surface engaging the rollers whereby the said plate may move longitudinally and laterally upon said rollers.

[Claims 1, 3, 4, and 7 not printed in the Gazette.]

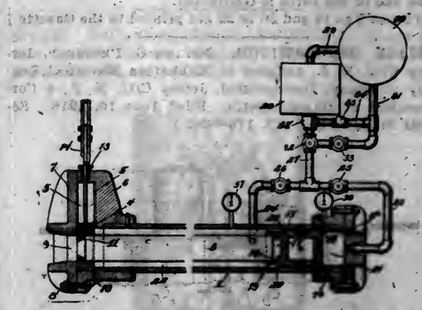
1,257,922. HEAT-INSULATING COMPOSITION. HANS M. OLSON, Lompoc, Cal., assignor of one-fourth to Herman W. Becker, one-fourth to Maurice A. Balaam, and one-fourth to Arthur G. Balaam, Santa Barbara, Cal. Filed Aug. 23, 1917. Serial No. 187,851. (Cl. 106—18.)

1. A refractory composition consisting of infusorial earth in a finely divided state, sodium sulfate, aluminum sulfate and lime.

8. A refractory composition consisting of 88% pulverized infusorial earth, 1% sodium sulfate, 1% aluminum sulfate, and 10% lime.

[Claims 2 to 7 not printed in the Gazette.]

1,257,923. APPARATUS FOR IMPREGNATING WOOD. JOHN H. PARSONS, Wilmington, Del., assignor of one-half to William H. Savery, Wilmington, Del. Filed Nov. 11, 1916. Serial No. 130,725. (Cl. 99—12.)



1. In an apparatus for impregnating wood with fluid under pressure, a cylinder, an abutment at one end of the cylinder, a piston slidably mounted within the cylinder for movement toward and from the abutment, and means for supplying the fluid under pressure to the interior of the cylinder for direct action on opposite sides of said piston.

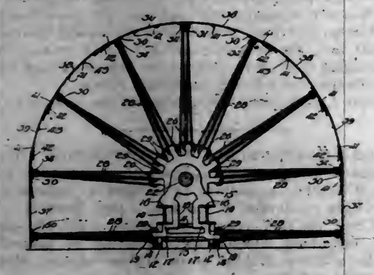
10. In an apparatus for impregnating wood with fluid under pressure, a cylinder, an abutment having a socket to receive one end of the log or tie to be treated, said socket being in communication at its outer side with the atmosphere, a piston having a socket to receive the opposite end of the tie or log to be treated and having a cavity communicating with said socket and with the interior of the cylinder, and means for moving said piston toward and from the fixed abutment.

14. In an apparatus for impregnating wood with fluid under pressure, a cylinder, an abutment within the cylinder, a piston coöperating with said abutment for clamping the article to be treated between them, said piston being movable toward and from the abutment and provided

with a socket to receive the end of the article engaged thereby, a cavity communicating with said socket, and ports connecting said cavity with the interior of the cylinder, and means for supplying fluid pressure to the cylinder.

[Claims 2 to 9, 11 to 13, 15, and 16 not printed in the Gazette.]

1,257,924. COLLAPSIBLE CORE FOR CONSTRUCTING CULVERTS. FRANK D. PEARNE, Chicago, Ill., and CHESTER V. JOSEPH, Terre Haute, Ind., assignors to Highway Iron Products Company, Indianapolis, Ind., a Corporation of Indiana. Filed Oct. 13, 1917. Serial No. 196,865. (Cl. 25—131.6.)

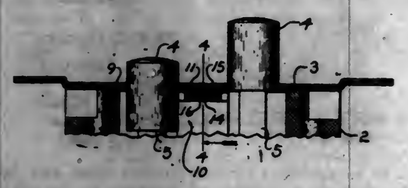


1. A core for the purpose set forth comprising an expansible and contractible core frame having shell supporting members and a shell supported thereon comprising a plurality of sidewise overlapping shell sections with means to detachably connect them in different overlapping adjustments relatively to each other.

19. The combination with two expansible and contractible cores adapted to be arranged end to end, of locking means for locking the cores in end to end relation, embracing means to automatically release the locking means when one of the cores is contracted.

[Claims 2 to 18 and 20 to 22 not printed in the Gazette.]

1,257,925. PUSH-SWITCH. JOHANN G. PETERSON, Jersey City, N. J., assignor to Manhattan Electrical Supply Company, Incorporated, Jersey City, N. J., a Corporation of Massachusetts. Filed June 16, 1916. Serial No. 104,112. (Cl. 175—282.)



1. A switch comprising a chambered body open on one side, a metallic frame in the body, a cross bar extending across the open side of the body, and an insulating block connected with the frame for insulating the frame from the cross bar and for also supporting the cross bar between the ends thereof.

5. A switch comprising a chambered body, a metallic frame in the body, a cross bar extending across the open side of the body, and an insulating block supported by the frame for insulating the frame from the cross bar, the block supporting the cross bar and the two being interlocked.

[Claims 2 to 4 not printed in the Gazette.]

1,257,926. ADDING AND SUBTRACTING MACHINE. JESSE L. POOLE, Richmond, Va. Filed Aug. 25, 1916. Serial No. 116,821. (Cl. 235—71.)

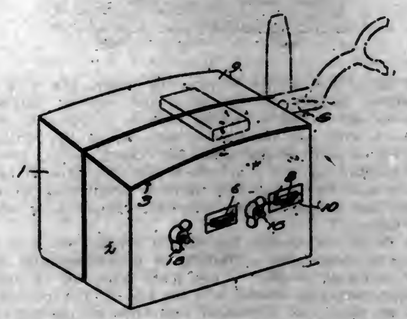
1. In a calculating machine, the combination of suitably supported sprocket wheels having spaced recesses in their peripheries, a belt surrounding said sprocket wheels and having spaced apertures, and T-members having stems extending outwardly through said apertures of the belt to form finger pieces, and also having transverse heads fastened to the inner side of the belt and adapted to seat



in the recesses of the sprocket wheels; the extension of the stems through the apertures of the belt serving to assist in the connection of the T-members to the belt and to take strain off the fastening means between the transverse heads and the belt.

[Claim 2 not printed in the Gazette.]

1,257,927. SCISSORS AND SHEARS SHARPENING DEVICE. WILLIAM M. REAGAN, Tacoma, Wash. Filed Oct. 31, 1917. Serial No. 199,496. (Cl. 51—7.)



1. In a device of the character described, blocks having the upper portions thereof beveled, the inner wall of one of said blocks being provided with a longitudinally extending recess, and means passing through said blocks for clamping the same upon a blade to be sharpened.

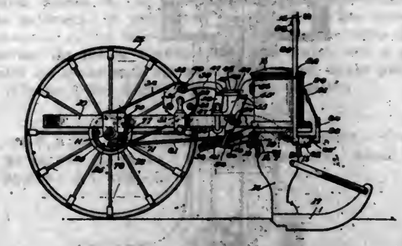
2. In a device of the character described, oppositely disposed blocks having the upper portions thereof beveled, the inner wall of one of said blocks being provided with a recess, blade supporting means adjustable vertically of the blocks and arranged in the recess portion, and means passing through said blocks for clamping the same upon a blade to be sharpened.

3. In a device of the character described, blocks having the upper portions thereof beveled and ways formed therein, adjustable supporting means arranged in said ways and having portions of the same projecting therebeyond, and means for clamping the blocks upon a blade to be sharpened.

4. In a device of the character described, blocks having the upper portions thereof beveled and ways formed in the same, the inner wall of one of said blocks being recessed to receive a blade, L-shaped bolts slidably arranged in said ways, thumb nuts engaged with the screw threaded portions of said bolts, the lateral portions of the bolts projecting into the recess portion, and adjustable means for clamping the blocks upon a blade to be sharpened.

1,257,928. ATTACHMENT FOR CORN-PLANTERS. LUDWIG H. REMUS, Adrian, Mich. Filed May 2, 1917. Serial No. 165,952. (Cl. 111—16.)

1. An attachment for a seeding machine comprising a clutch device adapted to be associated with the axle thereof, and including a rotative member, manually actuated means adapted to be mounted upon the frame of the seeding machine, connecting means between said manually operated means and the clutch device, operating means adapted to be associated with the dropping device of the seeding machine, a rotative member, means for transmitting the motion of said clutch device to said rotative member, means for intermittently transmitting the motion of said rotative member to said seed dropper operating means, and manually actuated means for coupling the intermittent motion transmitting means with the seed operating means.



2. An attachment for a seeding machine comprising a clutch device adapted to be associated with the axle thereof, manually actuated means adapted to be mounted upon the frame of the seeding machine, a marker device adapted to be swingingly coupled to the seeding machine, connecting means between said manually operated means and the clutch device, connecting means between the manually operated means and the marker device, operating means adapted to be associated with the dropping devices of the seeding machine, and means adapted to be operated by said clutch device for intermittently actuating said dropper operating means.

3. An attachment for seeding machines comprising a member adapted to be mounted for rotation upon the frame thereof and having a plurality of laterally directed pins, means for transmitting the motion of the axle of the seeding machine to the rotative member, an arm operative intermittently by said pins, a lever device mounted to swing, a locking device extending into the path of the said lever device, a latch device engaging said locking device, a trip member swinging upon said latch device and extending when in one position into the path of said pin operating arm, and means associated with said lever device adapted to operate the seed dropping device of said seeding machines.

4. An atachment for seeding machines comprising a motion imparting means adapted to be associated with the axle thereof, manually actuated means adapted to be mounted upon the frame of a seeding machine, connecting means between said manually operated means and the motion imparting means, operating means adapted to be associated with the seed dropping devices of the seeding machine, means operative by said motion imparting means for intermittently actuating said dropper operating means, marker devices adapted to be movably connected to said seeding machine, connecting means between said marker devices and said manually actuated means, a trip device holding said manually operated means, means operative by said intermittently actuated means for causing the operation of said trip device to release the manually operated means and cause the marker devices to simultaneously move into operative position and disconnect the motion imparting means.

5. An attachment for seeding machines comprising a motion imparting means, manually actuated means, connecting means between said manually operated means and the motion imparting means, operating means adapted to be associated with the seed dropping devices of the seeding machine, means operative by said motion imparting means for intermittently actuating said dropper operating means, marker devices, connecting means between said marker devices and said manually actuated means, a trip device holding said manually operated means, means operative by said intermittently actuated means for causing the operation of said trip device to release the manually operated means and cause the marker devices to simultaneously move into operative position and disconnect the motion imparting means.

1,257,929. GASOLENE-GAGE. OLIVER C. RITZ-WOLLER, Chicago, Ill. Filed May 31, 1916. Serial No. 100,993. (Cl. 73—82.)

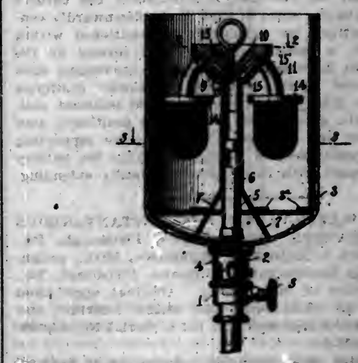


1. In a gasolene gage, in combination with a portion of a gasolene tank, a circular dial resting directly on said portion, a yoke comprising a longitudinal reinforced rib and two end walls, one of said end walls being riveted to said dial, a rotary shaft supported between the end walls of the yoke and projecting beyond the dial, a gear rigidly secured to the outer end of the shaft projecting through one end wall, a toothed segment pivotally mounted on the outer surface of the yoke and in engagement with the gear, and a float detachably secured to said toothed segment in such manner that the distance of the lower end of the float from the pivot of the segment may be varied.

5. In a gasolene gage, in combination with a portion of a tank, a circular dial, a lip punched from the plane of the dial and projecting downwardly, said circular portion of the tank being provided with a flange which has a recess adapted to receive said lip, a yoke riveted to said dial, an indicator shaft supported by the yoke, a gear on said indicator shaft, and a float controlled sector pivotally mounted on the yoke in engagement with said gear.

[Claims 2 to 4 not printed in the Gazette.]

1,257,930. INCANDESCENT GAS-FITTING. JACOB IGNOT ROBIN, Harrow, England. Filed Aug. 1, 1914. Serial No. 854,446. (Cl. 67—94.)



1. In an incandescent gas fitting, a mixing chamber having air inlets, a tubular extension projecting upwardly from said chamber, a globe located above said air inlets and having a small opening at the bottom closely embracing the bottom of said tubular extension, inverted mantles, a sleeved member surrounding and engaging said tubular extension and having at its upper end portion carrying said mantles and at its lower end engaging the upwardly facing inner surface of said globe.

3. In an incandescent gas fitting, the combination of a mixing chamber, a distributing chamber, a tubular connection between the two, a conical distributer depending

from the upper portion of said distributing chamber, and a plurality of burner tubes depending from the lower wall of said conical distributer, said chamber having a plurality of channels leading directly from the upper end of said tubular connection to said several tubes.

[Claim 2 not printed in the Gazette.]

1,257,931. STORAGE BATTERY AND BOX RETAINER. WALDEN C. ROWELL, Santa Ana, Cal. Filed Aug. 20, 1917. Serial No. 187,184. (Cl. 204—29.)



1. A battery comprising a container rectangular in plan, a series of battery jars fitting in the container side by side; each of said battery jars being rectangular in plan and having flat side walls and having flat end walls; the lower ends of the end walls converging at equal angles toward the center and there being a tubular drain opening at the points of convergence; and means in the box for engaging the converging ends of the end walls and supporting the jars.

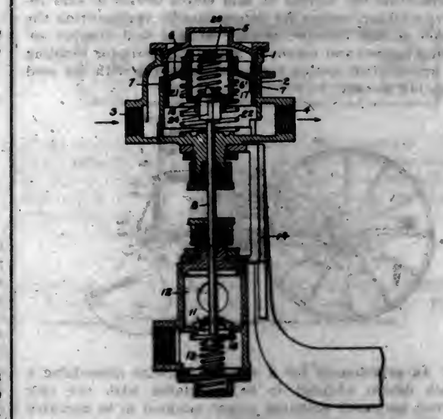
2. A storage battery jar, comprising a rectangular container, bars of triangular section formed across the lower end of said container for the support of battery plates upon one of their edges, a sediment receptacle formed as a part of the container and disposed beneath the bars, said receptacle having downwardly converging end walls, and means whereby said receptacle may be thoroughly drained, when desired.

3. A battery, comprising a container, triangular blocks secured within the container and adjacent the corners thereof, the angular sides of said blocks downwardly converging, a battery jar adapted to be positioned within the container, a sediment compartment formed at the bottom of said jar and having inwardly converging ends adapted to rest upon the blocks, a tubular drainpipe formed at the point of convergence of said sediment compartment walls, a removable closure cap positioned over said drainpipe, and a series of parallel plate supporting bars of triangular section positioned within the battery box and disposed with their apexes upwardly extending.

1,257,932. WATER-VALVE FOR INSTANTANEOUS WATER-HEATERS. EDWIN RUUD, Pittsburgh, Pa., and HERBERT S. HUMPHREY, Kalamazoo, Mich., assignors to Ruud Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey. Original application filed June 15, 1915, Serial No. 34,250. Divided and this application filed Sept. 28, 1915. Serial No. 53,069. (Cl. 126—351.)

1. In a water valve for instantaneous water heaters, the combination of a casing having a water inlet and an outlet, a ported piston movable in the casing, a check valve for the piston port, means made effective by the movement of the piston for opening the check valve, a spring for opposing opening movement of the check valve, and a gas-valve actuating stem movable through the outlet portion of the casing in line with said check valve and adapted to be engaged and actuated by the latter.

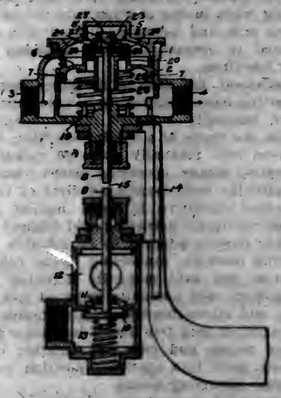
3. In a water valve for instantaneous water heaters, the combination of a casing having a water inlet and an outlet, a ported piston movable in the casing between its inlet and outlet, a check valve for the piston port adapted to open toward the casing inlet, the valve having a tail-piece extending through the piston port and toward the outlet end of the casing, a spring carried by the piston for opposing opening movement of the check valve, an abutment in the outlet portion of the casing adapted to



be engaged by the tail-piece of the check valve upon movement of the piston toward the casing outlet, and a gas-valve actuating stem movable through said abutment and extending into the outlet portion of the casing and engaging the check valve tail-piece.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,257,933. WATER-VALVE FOR INSTANTANEOUS WATER-HEATERS. EDWIN RUUD, Pittsburgh, Pa., and HERBERT S. HUMPHREY, Kalamazoo, Mich., assignors to Ruud Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey. Original application filed June 15, 1915, Serial No. 34,250. Divided and this application filed Sept. 28, 1915. Serial No. 53,070. (Cl. 126—351.)

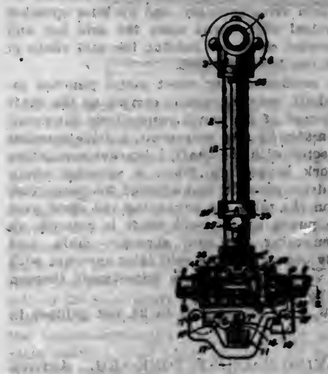


1. In a water valve for instantaneous water heaters, the combination of a casing having a water inlet and an outlet, a piston movable in the casing and having a valve seat at its inlet side with ports extending through the seat to the outlet side of the piston, a check valve fitting the seat and forming a cover for said ports adapted to open toward the casing inlet, a depending tail-piece carried by the check valve and extending toward the casing outlet, an abutment in the casing outlet adapted to be engaged by the tail-piece for lifting the valve from its seat, and a gas valve actuating stem operatively connected to the piston.

2. In a water valve for instantaneous water heaters, the combination of a casing having a water inlet and an outlet, a piston movable in the casing, the piston ported for the passage of water and provided with a port-surrounding valve seat facing the inlet portion of the casing, the piston provided with guideways paralleling its direction of movement, a valve adapted to coöperate with said seat for closing the ported piston to the passage of water, guides on the valve having limited movement in the guideways of the piston for controlling the opening movement of the valve, means for opening the valve upon moving the piston toward the casing outlet, and a gas-valve actuating stem operatively connected to the piston.

[Claims 3 and 4 not printed in the Gazette.]

1,257,934. FLUID-MIXING APPARATUS. EDWIN RUUD, Pittsburgh, Pa. Filed Apr. 24, 1916. Serial No. 93,046. (Cl. 236—5.)



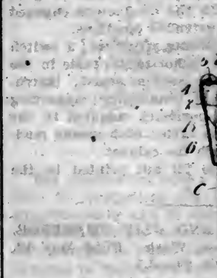
1. In fluid mixing apparatus, the combination of an abutment, a thermostatic tube adapted to expand and contract relatively to the abutment and from which mixed fluid passes, hot and cold fluid inlets for said tube, valves for said inlets, means independent of thermostatic movement for varying the distance between the tube and abutment, and means actuated by the thermostatic movement of the tube relatively to the abutment for operating the valves.

7. In fluid mixing apparatus, the combination of a thermostatic tube through which mixed fluid flows, a fitting for the tube, an adjustable abutment support outside of said tube and secured to the fitting, an abutment sustained by the support and spaced from the tube, the tube provided with hot and cold fluid inlets, valves for said inlets, and means actuated by the thermostatic movement of the tube relatively to the abutment for operating the valves.

12. In fluid mixing apparatus, the combination of a thermostatic tube through which mixed fluid flows, a fitting to which the tube is secured, a valve casing secured to the end of the tube distant from said fitting and having hot and cold fluid inlets, valves for the inlets, an abutment spaced from the valve casing, abutment supporting rods located outside of said tube and secured at one end to said fitting and paralleling the tube, means for varying the effective length of one of the rods for varying the position of the abutment relative to the valve casing, and valve operating means interposed between the valve casing and the abutment and actuated by the movement of the tube and casing relatively to the abutment.

[Claims 2 to 6 and 8 to 11 not printed in the Gazette.]

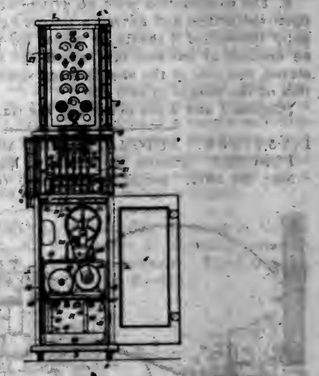
1,257,965. BUCKLE. FRIEND A. RUSS, Greenwich, Conn., assignor to The Robert N. Bassett Company, Shelton, Conn., a Corporation of Connecticut. Filed June 11, 1912. Serial No. 702,982. (Cl. 24—191.)



1. A buckle comprising a sheet metal back provided with a pair of transversely disposed lips which are adapted to be swaged on the end of a running webbing, and a web-holding lever hinged to said back, the said lips having their edges equally distant from the bottom of the back, whereby the same length of webbing may be used in folding the latter either forwardly or rearwardly over the edge of one of said lips.

2. A buckle comprising a pivoted lever and a sheet metal back, the said back being formed of a blank folded midway of its length to present a pair of transversely disposed edges along the top side of the back between which is gripped the extremity of a running webbing.

1,257,936. DENTAL CABINET. PERCY RUSSELL, Philadelphia, Pa., assignor to Electro Dental Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Nov. 2, 1916. Serial No. 129,248. (Cl. 32—5.)



1. The combination of a supporting structure; a switch board carried thereby; a looped electrical conductor having one end connected to said switch board; a weight in the form of a grooved roller mounted in the loop of said conductor; and means for guiding said roller to compel it to move in a substantially vertical plane.

3. The combination of a supporting structure; a switch board mounted thereon; a series of supporting clips; a series of instruments removably carried by said clips; conductors connecting said instruments with the switch board; vertically movable, plane sided weights respectively engaging the conductors to maintain them in looped form under tension; and guides engaging the plane sides of said weights.

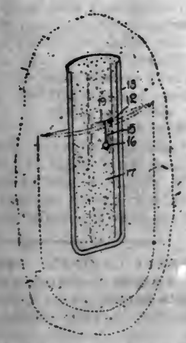
7. The combination of a supporting structure having a series of vertically elongated compartments; a switch

board carried by said structure; looped conductors connected to the switch board and extending respectively into said compartments; rollers engaging the loops of said conductors and operative in said compartments; with a bar held by the supporting structure in position to pass through all of said rollers when the conductors engaged by the latter are in their most extended positions.

8. The combination of a containing structure; a switch board in the upper part thereof; a horizontal table in the containing structure below said switch board; instruments having flexible extensible conductors connecting them to the switch board and normally mounted in the space between the latter and the table; with means tending to draw said instruments into the cabinet.

[Claims 2, 4 to 6, and 9 to 22 not printed in the Gazette.]

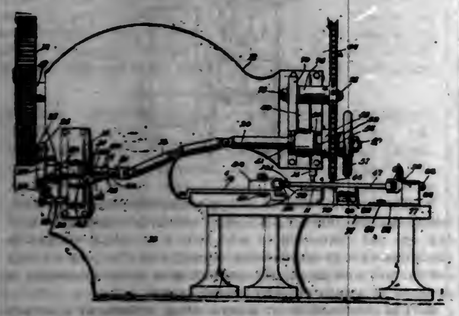
1,257,937. COMB-HOLDER AND CLIP THEREFOR. WILLIAM C. RUST, Goldendale, Wash. Filed May 16, 1917. Serial No. 169,003. (Cl. 24—3.)



3. The combination with an article and a clip mounted upon the article and having a tongue extending longitudinally thereof, of a sheath or holder for the article having an opening at one end into which the article may be inserted, one side of the sheath being slotted for the projection of the tongue of said clip.

[Claims 1 and 2 not printed in the Gazette.]

1,257,938. AUTOMATIC FEED MECHANISM FOR PUNCHES. JULIUS R. SCHADOW, Vallejo, Cal. Filed Mar. 20, 1917. Serial No. 156,124. (Cl. 164—87.)



1. A feeding mechanism for sheet metal punches including a drive shaft, pawl and ratchet mechanism carried by the said shaft, a detent carried by a driving element of the punch and adapted for operative engagement with said mechanism for rotating the shaft by a step by step movement, manually operable means for shifting the said pawl and ratchet mechanism for engagement with said detent, a work supporting table, and means operatively connected to said shaft and adapted for engagement with a sheet upon the table for advancing the sheet over the anvil of the punch as the said shaft is rotated.

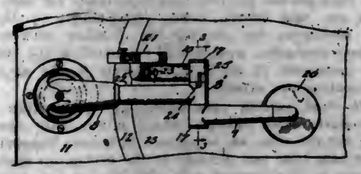
6. A feeding mechanism for sheet metal punches including a drive shaft, a ratchet drum rotatably mounted thereon, a ratchet carried by the shaft, a pawl carried by the drum and arranged to coöperate with the ratchet, means carried by a driving element of the punch and rotatable in a path to engage the drum for rocking the drum upon the shaft and rotating the said shaft by a step by step movement, means for normally holding the drum projected into the path of said first mentioned means, a work supporting table, and means operatively connected to said shaft and adapted for engagement with a sheet upon the table for advancing the sheet over the anvil of the punch as the said shaft is rotated.

12. A feeding mechanism for sheet metal punches including a drive shaft, coacting means carried by the shaft and a driving element of the punch respectively for rotating the shaft by a step by step movement, a drive sprocket operatively connected with the shaft, a work supporting table, a sprocket chain trained over said drive sprocket and adapted for connection to a sheet upon the said table for advancing the sheet over the anvil of the punch as the said shaft is rotated, a bar mounted for lateral adjustment with respect to said drive sprocket, and an idler sprocket mounted for vertical adjustment upon the said bar and engaging the sprocket chain for holding the said chain in engagement with the drive sprocket.

22. A feeding mechanism for sheet metal punches including a drive shaft, coacting means carried by the shaft and a driving element of the punch respectively for rotating the shaft by a step by step movement, a drive sprocket operatively connected with the shaft, a bracket supporting the shaft, a work supporting table, a sprocket chain trained over the drive sprocket and adapted for connection with a sheet upon the table for advancing the sheet over the anvil of the punch as the said shaft is rotated, an idler sprocket engaging the said sprocket chain, and means operatively connecting the said idler sprocket with the bracket for vertical and lateral adjustment thereon with respect to the drive sprocket.

[Claims 2 to 5, 7 to 11, and 13 to 21 not printed in the Gazette.]

1,257,939. TALKING-MACHINE TONE-ARM. ARTHUR R. SCHWARZKOPF, Muskegon, Mich., assignor to The Brunswick-Balke-Collender Company, Chicago, Ill., a Corporation of Delaware. Filed Sept. 9, 1916. Serial No. 119,298. (Cl. 274—24.)

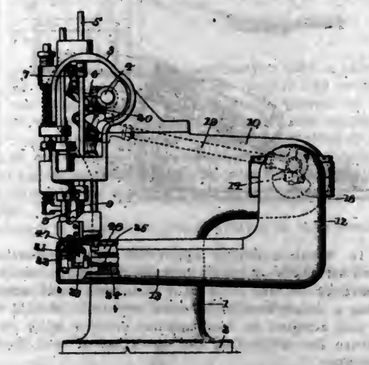


2. A talking machine tone arm comprising a main section, two branch sections, and a transverse sleeve rigidly mounted on the end of the main section upon which said branch sections are pivotally mounted and having an opening communicating therewith and also having openings communicating with said branch sections when in operative position, said communicating openings being automatically closed when the corresponding branch sections are disposed in inoperative position.

[Claims 1 and 3 not printed in the Gazette.]

1,257,940. LOOPER MECHANISM FOR SEWING-MACHINES. DUDLEY S. SEYMOUR, Oak Park, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 10, 1916. Serial No. 83,297. (Cl. 112—5.)

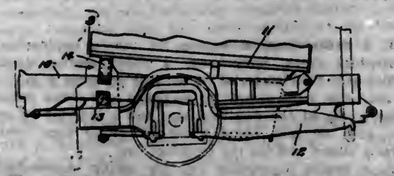
1. A sewing machine including in combination, a standard, an overhanging arm, a needle bar mounted in said overhanging arm, a needle carried thereby, a horizontal arm parallel with the overhanging arm and carried by said standard, a main shaft located in said horizontal arm, devices actuated by said main shaft for reciprocating the needle bar, a work-supporting arm carried by said horizontal arm, a looper located in said work-supporting arm and coöperating with said needle, and devices operated by said main shaft for imparting back and forth movements to said looper and lateral movements to said looper.



5. A sewing machine including in combination, a standard, an overhanging arm, a needle bar mounted in said overhanging arm, a needle carried thereby, a horizontal arm carried by said standard, a main shaft located in said horizontal arm, devices actuated by said main shaft for reciprocating the needle bar, a work-supporting arm carried by said horizontal arm, a looper located in said work-supporting arm and coöperating with said needle, a looper-supporting shaft extending lengthwise of said work-supporting arm, a sleeve freely mounted on said looper-supporting shaft and held from endwise movement thereon, an eccentric on the main shaft, devices operated thereby for moving said sleeve endwise for giving an endwise movement to the looper-supporting shaft, a second eccentric on said main shaft, a cross shaft oscillated by said second eccentric, and means operated by said cross shaft for oscillating said looper-supporting shaft.

[Claims 2 to 4 and 6 to 9 not printed in the Gazette.]

1,257,941. LOCOMOTIVE CRADLE AND TRAILER-TRUCK. PERSIFOR F. SMITH, Jr., Pittsburgh, Pa. Filed June 20, 1917. Serial No. 175,878. (Cl. 105—226.)



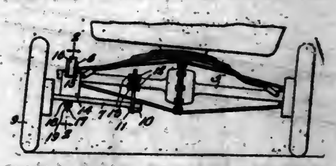
1. The combination with a locomotive frame and trailer truck frame, of stop members carried by and interposed between the rear portion of the trailer truck frame and parts of the locomotive frame for limiting the upward swinging movement of said truck frame.

2. The combination with a locomotive frame and trailer truck frame, of coöperating stop members arranged on the rear portion of the trailer truck frame and upon parts of the locomotive frame, which stop members limit the upward swinging movement of the rear portion of the trailer truck frame.

3. The combination with a trailer truck frame, of stop members projecting upwardly from the rear portion of said frame and adapted to engage parts carried by the locomotive frame to limit the upward swinging movement of the rear portion of said trailer truck frame.

[Claims 4 and 5 not printed in the Gazette.]

1,257,942. REPAIR-AXLE. ALONZO J. COTTLE, Hartsville, Ind. Filed May 1, 1916. Serial No. 94,793. (Cl. 21—120.)



The combination with a vehicle axle, of a supplementary axle for supporting the vehicle axle, a housing on the supplementary axle to receive the brake hub of the vehicle axle, said housing including side-walls recessed to seat the axle portion in either side of the hub, a strap across the housing to secure the hub therein against vertical movement, a U-shaped clevis pivotally clamped on the inner end of the supplementary axle to swing longitudinally of the latter, and an adjustable clamp on the free ends of the arms of said clevis to be secured around the vehicle axle, said clevis providing a lateral relative play of the supplementary axle.

1,257,943. TREATMENT OF COPPER FOR VARIOUS PURPOSES. WILLIAM THOMPSON HOWARD, Baltimore, Md., assignor to Lucy Virginia Howard, Baltimore, Md. Filed June 25, 1915. Serial No. 36,168. (Cl. 75—18.)

1. As a new article, a porous, open textured material consisting of fine grained copper particles in mechanically interlocking union, such material being highly porous, soft and cutting readily with a tool, being highly conductive for heat and electricity, being less in specific gravity than cast or rolled copper, and marking paper.

2. The process of producing open textured soft material which comprises producing a fine grained mass of copper particles and compressing such mass into blocks under a pressure sufficient to give a mechanical interlocking union between the particles but insufficient to give the material the same specific gravity as compact copper.

3. The process of producing open textured soft copper material which comprises precipitating copper in a finely divided state from the solution of a copper salt with fine grained iron, washing the copper precipitate, and compressing it into open textured aggregates having the particles in interlocking mechanical union, and of a specific gravity less than that of compact copper.

1,257,944. ABDOMINAL BANDAGE. EDWARD A. KNIERIEM, New York, N. Y.; George P. Hotaling executor of said Edward A. Knieriem, deceased. Filed Oct. 11, 1915. Serial No. 55,290. (Cl. 2—189.)



1. In an abdominal bandage, a plurality of individual webs, forming front and rear sections, the webbing of said front sections being of elastic material to yieldably bind and support the abdomen of a wearer, and the webbing of said rear section being non-elastic to overlie the lower portion of the back of a wearer, said webs being held in spaced relation, and the lengths of the webs in said rear section being adjustable independently of each other.

[Claim 2 not printed in the Gazette.]

1,257,945. TRACK CONSTRUCTION. HUGH LEE, Caesar, Miss. Filed Dec. 14, 1917. Serial No. 207,049. (Cl. 239—9.)



1. The combination with a pair of rails of channel formation, of a bridge plate of such length as to overlap the abutting ends of the rails, lugs carried by said bridge plate, said rails being provided with openings for the reception of said lugs and means mounted for longitudinal sliding movement upon said rails and outwardly of the bridge plate and movable to and from a position in front of said bridge plate.

2. A structure as recited in claim 1 embodying means for preventing said longitudinally sliding member from moving endwise with respect to the rails.

3. A device of the character described, comprising a pair of rails of channel formation having open sides and having their vertical portions adjacent their ends recessed to provide pockets, a bridge plate adapted to have a seating in the pockets of adjacent rails when said rails are brought together, interengaging means between the bridge plates and the rails for preventing longitudinal separation of the rails, longitudinal key-ways formed in the upper and lower portions of the rails and key-plates movable in said key-ways.

4. In a track construction, a pair of rails of channel formation comprising vertical webs and horizontal outwardly projecting tread and base flanges, longitudinal key-ways formed in the confronting faces of said flanges, a key-plate movable in said key-ways, a bridge plate of such length as to overlap said rails, said rails being recessed for the reception of said bridge plate and interengaging members between the rails and the bridge plate for preventing endwise separation of the rails, said key plate being movable to and from a position in front of the bridge plate.

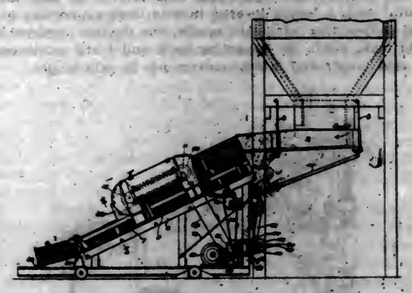
5. The combination with a pair of rails of channel formation of a bridge plate of such length as to overlap the abutting ends of the rails, interengaging means between the bridge plate and the rails for preventing longitudinal separation of the rails and means mounted for longitudinal sliding movement upon said rails and outwardly of the bridge plate and movable to and from a position in front of said bridge plate.

1,257,946. BOBBIN-HANDLING APPARATUS. BURT A. PETERSON, Rockford, Ill., assignor to Howard D. Colman, Luther L. Miller, and Harry A. Severson, Rockford, Ill., Copartners doing business as Barber-Colman Company. Filed May 10, 1915. Serial No. 27,087. (Cl. 100—59.)

1. The combination of a plurality of spaced rails providing bobbin-receiving slots, a vibratory support for shaking bobbins onto said rails, means for vibrating said support, means including a plurality of fingers movable through said rails into position to bear against bobbins lying on said rails for controlling the operation of said vibrating means, and means for withdrawing said fingers from contact with the bobbins.

2. The combination of a plurality of spaced rails providing bobbin-receiving slots, means to discharge bobbins upon said rails, means including a plurality of fingers movable through said rails into position to bear against bobbins lying on said rails for controlling the operation of said discharging means, and means for withdrawing said fingers from contact with the bobbins.

3. The combination of an inclined structure having longitudinal slots to receive rows of bobbins, means for supporting a bobbin magazine with its open end adjacent to the lower end of said structure, and a slidable gate to prevent the escape of bobbins from the lower end of said structure.

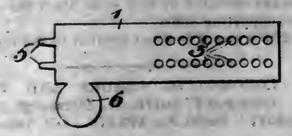


4. In bobbin-handling apparatus, in combination, a slotted structure on which bobbins may move, means for discharging bobbins onto said structure, and means including a finger located between two slots of said structure and adapted to bear against bobbins lying on said structure for controlling the operation of said discharging means.

5. The combination of a plurality of spaced rails providing bobbin-receiving slots, a vibratory support for shaking bobbins onto said rails, means for vibrating said support, and means including a plurality of fingers movable through said rails into position to bear against bobbins lying on said rails for controlling the operation of said vibrating means.

[Claims 6 to 18 not printed in the Gazette.]

1,257,947. IMPRESSION CUP AND MATRIX. GEORGE STERNBERG, New Brighton, N. Y., assignor to Samuel G. Supplee & Co., New York, N. Y., a Corporation of New York. Filed Oct. 6, 1917. Serial No. 195,190. (Cl. 32—17.)



1. A dental impression cup for taking impressions of individual teeth comprising, a sheet metal blank of sufficiently thin material to be bent to form a side wall of said cup, with means for securing said blank rolled to form a cup of the required size and a lateral off-set at one edge of said blank arranged to be bent over to form a closed end for the complete cup.

2. A dental impression cup for taking impressions of individual teeth comprising, a sheet metal blank of sufficiently thin material to be bent to form the side wall of said cup, with means for securing said blank rolled to form cups of various sizes and a lateral offset at one edge of said blank arranged to be bent to form the closed end of said complete cup.

1,257,948. LINEMAN'S TOOL. SOLOMON EDWARD AARON, Boston, Mass. Filed Sept. 9, 1916. Serial No. 119,238. (Cl. 81—9.5.)

1. An implement comprising pincers of plier type whose jaws are recessed between their meeting faces and the pivot, cutter blades carried by one side of the jaws in line with said recess, and transversely adjustable arms mounted respectively on the jaws and carrying duplicate opposing blades standing beyond that side of the jaws opposite to the cutters and coacting on a line between the pivot and recess.



8. In a lineman's tool, the combination with a pair of pliers; of arms secured to the jaws thereof and projecting to one side, a pair of splitter blades carried by the arms and coacting on a line parallel with the length of the tool, and a pair of stripper blades also carried by the arms and co-acting on a line transverse to the length of the tool and more remote from the jaws than said splitter blades, each line of coaction being out of alinement with the other.

[Claims 2 to 7 and 9 to 11 not printed in the Gazette.]

1,257,949. FORMER FOR PAPER RECEPTACLES. SAMUEL L. ADELSON, New York, N. Y. Filed Aug. 3, 1917. Serial No. 184,204. (Cl. 93—59.)



1. A device for forming receptacles, comprising a former to receive a hollow paper-shell, said former consisting of a plurality of collapsible sections, in combination with a former having a plurality of peripheral recesses to receive the edges of said collapsible sections.

5. A device for forming receptacles with a bottom having a plurality of annular recesses to form annular ribs, consisting of a conical former to receive a preformed conical shell, said former comprising a plurality of collapsible sections, compressible springs to keep said sections extended, a former to collapse said sections and arranged to receive the edges thereof during the collapsing operation, and an adjustably mounted former positioned to coöperate with the former-section at the base of the conical-former to produce a flange around the mouth of the receptacle.

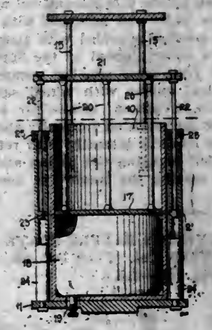
[Claims 2 to 4 not printed in the Gazette.]

1,257,950. SHOCK-ABSORBER FOR AUTOMOBILES. IRVIN J. ALBRIGHT, Joplin, Mo. Filed Sept. 15, 1917. Serial No. 191,615. (Cl. 267—50.)

1. The combination with two elements movable toward or away from each other, of a shock absorber comprising a cylinder and a plunger acting against an air cushion in the cylinder on one side of the plunger, and means for causing a relative movement of the plunger and cylinder to compress the air cushion upon a movement of the elements either toward each other or away from each other.

3. The combination with two elements relatively movable toward or from each other, of a shock absorber disposed between said elements and comprising two compressing members operating against an air cushion, means for causing a relative movement of the compressing members to compress the cushion upon a relative movement of the elements toward each other, and means for causing a relative movement of the compressing members to compress the air cushion upon a relative movement of the elements away from each other.

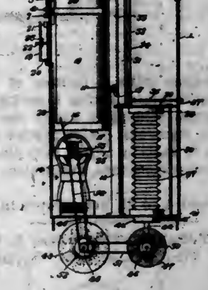
5. The combination with a vehicle including a body and an axle, of a shock absorber comprising a cylinder, a piston operating against an air cushion in said cylinder, and means connecting the piston to the axle and the cylinder



to the body to cause a relative movement of the piston and cylinder to compress the air cushion upon a relative movement of the body and axle either toward or away from each other.

[Claims 2, 4, 6, and 7 not printed in the Gazette.]

1,257,951. POLISHING-MACHINE. LO KA CHEUNG, Canton, China. Filed July 11, 1916. Serial No. 108,642. (Cl. 15—61.)



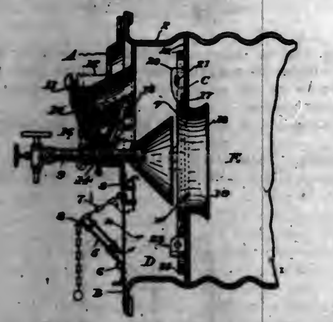
1. In a device of the class described, a polishing roll, a brush for applying polish, means for driving said brush and roll, a polish container formed with flexible and collapsible walls, the lower end of said container including a cap provided with apertures, a valve member also provided with apertures and arranged to inclose the cap, vertical guide members for the collapsible receptacle, a transversely extending device carried by the upper portion of the receptacle and coöperating with the guide members, a rack member extending from said transverse member, and means engaging the rack member, said means having motion imparted thereto by the aforesaid driving means.

2. In a device of the class described, a polishing roll, a brush for applying polish, means for driving said brush and roll, a vertically arranged polish receptacle located above the polish applying brush and including flexible and collapsible walls, the lower portion of said receptacle including an apertured cap, a valve member provided with apertures and adapted to inclose said cap, a transverse member extending across the upper end of the receptacle, guiding means at the sides of said receptacle, said transverse member coöperating with the guiding means, additional guiding means located above the receptacle, a device coöperating therewith, said device carrying a series of teeth, a pinion meshing with said teeth,

and means for actuating the pinion from the aforesaid driving means.

3. In a device of the class described, a brush, means for driving said brush, a polish receptacle mounted above the brush and including flexible and collapsible walls forming a bellows-like construction, a cap connected with the lower end of the flexible walls and provided with apertures, a rotatable flanged member provided with apertures and inclosing said cap, a collar carried by the upper portion of the receptacle, a transverse member secured thereto, a plurality of vertical guides with which said transverse member coöperates, a pinion, means for actuating the pinion, and a rack bar mounted vertically above the transverse member and movable laterally with reference thereto into position for engaging the pinion and being actuated thereby for moving the transverse member and receptacle.

1,257,952. COMBUSTION BAFFLE-PLATE. GARNET W. COBN, San Francisco, Cal. Filed Dec. 26, 1916. Serial No. 138,806. (Cl. 158—1.5.)



3. The combination with a furnace of the character described, of a baffle plate having a central throat piece and means to secure said plate within the furnace, said means comprising segmental plates carried by said throat piece, and means to radially adjust said plates about said throat piece to bring them into engagement with the wall of the furnace.

[Claims 1, 2, and 4 to 11 not printed in the Gazette.]

1,257,953. BEET-HARVESTER. JOEL S. COOPER, Santa Barbara, Cal. Filed Oct. 9, 1916. Serial No. 124,611. (Cl. 146—7.)



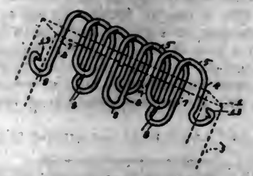
3. In a beet harvester, a fixed cutting blade, a pair of horizontally moving endless belts on opposite sides of the blade, cup-shaped beet holders connected to said belts and arranged to move over the blade and formed to receive the beets in inverted position so that the beet tops extend below the holders, a vertical shaft, a series of radial arms borne by the shaft, means to drive the arms, and spring pressed pivoted members borne by the arms and arranged to engage the beets to move the latter against the holders and with the latter to carry the beets over the cutting blade.

5. In a beet harvester, cutting means, beet holders movable relative to the cutting means, and means to engage the beets to hold same in the holders and for simultaneously moving the holders past the cutting means.

9. In a beet harvester, cutting means, beet holders horizontally movable past said cutting means, and horizontally movable means to engage the beets and successively move the holders.

[Claims 1, 2, 4, 6 to 8, and 10 to 15 not printed in the Gazette.]

1,257,954. DEVICE FOR JOINING THE ENDS OF BELTS. JAMES K. DIAMOND, Grand Rapids, Mich., assignor to Clipper Belt Lacer Company, Grand Rapids, Mich., a Corporation of Michigan. Filed May 14, 1917. Serial No. 168,365. (Cl. 24—39.)



2. In a device of the character described for joining the ends of a belt; a connecting member comprising arms and an intermediate loop portion, the ends of the arms having bights; and fasteners driven into the belt over the bights.

4. In a device of the character described for joining the ends of a belt; a connecting member comprising arms and an intermediate loop portion, the ends of the arms having bights; and double-pronged fasteners driven into the belt over the bights.

6. In a device of the character described for joining the ends of a belt; a connecting member comprising arms and an intermediate loop portion, the ends of the arms having bights; and double-pronged fasteners having opposite sides converging toward their points and driven into the belt over the bights, said sides being parallel to the side edges of the belt in such driven position of the fasteners, and the points being clenchingly turned oppositely.

[Claims 1, 3, and 5 not printed in the Gazette.]

1,257,955. OUTLET-BOX. ALGER E. GIBBONS, Boston, Mass. Filed Dec. 29, 1916. Serial No. 139,486. (Cl. 247—1.)



A device of the type described, including a wall-box having a concentric flange with an outer circumferential rim, a disk adapted to be received within the annular enlargement, the resultant of said concentric flange and circumferential rim, and fastenings effecting the attachment of said disk to said flange, and whereby said disk may be spaced from the latter, said flange having orifices for the passage therethrough of armored wires and said disk having orifices for the passage therethrough of the wires, the space between said disk and flange receiving the exposed ends of the armored wrappings and whereby said ends may be clamped in place between said disk and flange by manipulating said fastenings.

1,257,956. FILTER-FUNNEL. FRANK S. HAWKEN, St. Louis, Mo. Filed Apr. 30, 1917. Serial No. 165,572. (Cl. 210—16.)

An improved filter-funnel, comprising the main body, in the upper interior wall of which is a smooth section to which the plain smooth filter paper may adhere, an annular shoulder in said main body just below said smooth section, and an irregular wall having grooves and projections



located just below the plane of said annular shoulder, but above the plane of the contraction forming the neck of the funnel.

1,257,957. PHYSICAL-CULTURE APPARATUS. ALWIN KOST, Seattle, Wash. Filed July 11, 1916. Serial No. 109,804. (Cl. 128—16.)

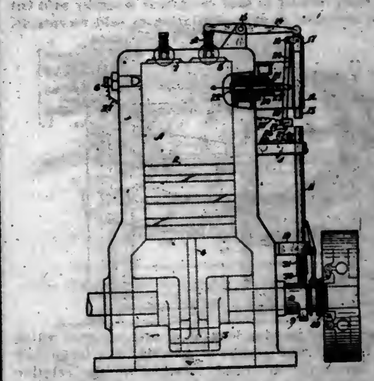


Apparatus of the class described comprising a support having hand holds associated with the top portion thereof, a vertically adjustable bracket disposed below said hand holds said bracket having a recess formed therein, a tube adjustable longitudinally of said recess, a compression spring in said tube, a plunger movable in said tube and working against said spring, a message cradle pivoted on said plunger and tiltable in one plane only, tension springs connected with the top and bottom portions of said cradle, spindles extending crosswise of said cradle, balls on said spindles, means for electrifying said balls and spring pressed arms for sustaining a body against lateral displacement on said cradle.

1,257,958. INTERNAL-COMBUSTION ENGINE. HENRY C. MELVIN, Coarsegold, Cal. Filed Apr. 11, 1917. Serial No. 161,301. (Cl. 123—92.)

1. In an internal combustion engine, a rotatable cam, spaced lifter rods slidably mounted and operable by the cam, an arm pivoted at one end to one lifter rod and extending alongside the latter, a spacing block carried by the opposite end of the arm for swinging from and to a position between the opposing ends of the lifter rods, and pressure controlled means for swinging the arm.

3. The combination with the exhaust valve on an internal combustion engine, the crank shaft and piston, of a cam rotatable by the shaft, means operable by the cam to control the exhaust valve and including spaced lifter elements and a spacing block insertible between the lifter elements to operatively connect the same, pressure controlled means communicating with the compression chamber of the engine for inserting the block between the lifter elements, a pair of contacts included in the ignition system of the engine, one contact carried by one element and the other contact carried by the block for opening and closing the circuit.



5. The combination with the exhaust valve on an internal combustion engine, the crank shaft and piston, of a cam rotatable by the shaft, means operable by the cam to control the exhaust valve and including spaced lifter rods slidably mounted, a spacing block pivotally carried by one rod for swinging between the rods to operatively connect the same, pressure controlled means for swinging the block communicating with the compression chamber of the engine, one lifter rod having a notch, and a governor for the engine having a part engageable in the rod notch to hold the rod positioned to prevent the block being inserted.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,257,959. HYDROCARBON COKE. RAY POTTER PERRY, Montclair, N. J., assignor to The Barrett Company, New York, N. Y., a Corporation of West Virginia. Original application filed May 19, 1915, Serial No. 29,219. Divided and this application filed Sept. 1, 1915. Serial No. 48,884. (Cl. 204—65.)



1. The herein described product consisting essentially of irregular scales of coke.

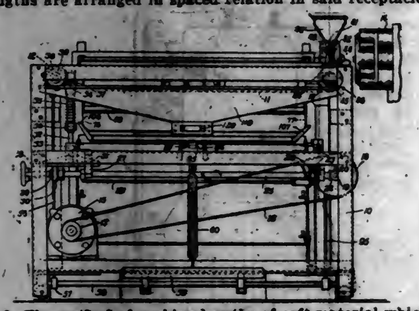
5. The herein described product consisting essentially of irregular scales of coke containing very little volatile matter.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,257,960. MACHINE FOR CUTTING AND SPACING SOFT-RUBBER RODS AND THE LIKE. JOHN CARL REICH, Chicago, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Aug. 24, 1916. Serial No. 116,726. (Cl. 18—2.)

1. In a device of the class described, means for extruding soft rubber rods from a container, means for cutting

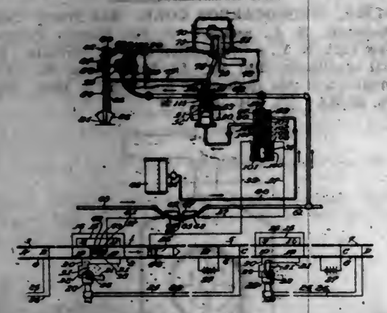
said rods into uniform lengths, means for directing said lengths from the cutting means to a suitable receptacle, and means for causing a relative movement of said directing means with respect to said receptacle whereby said cut lengths are arranged in spaced relation in said receptacle.



6. The method of packing lengths of soft material which consists in feeding said lengths of material to a temporary supporting structure in timed relation to the relative movement of the latter with respect to the feeding means, whereby uniform spacing of said lengths is obtained, discharging said lengths from said supporting structure into a receptacle, whereby said uniform spacing is maintained, covering said lengths with a filler and depositing similarly spaced lengths of said soft material on said filler and out of contact with said first named lengths.

[Claims 2 to 5 and 7 to 10 not printed in the Gazette.]

1,257,961. BLOCK-SIGNALING AND STOPPING SYSTEM. FRANK C. WILLIAMS, Philadelphia, Pa., assignor to The Safety Block Signal Company, a Corporation of Delaware. Filed July 31, 1915, Serial No. 42,860. Renewed Jan. 21, 1918. Serial No. 213,101. (Cl. 246—58.)



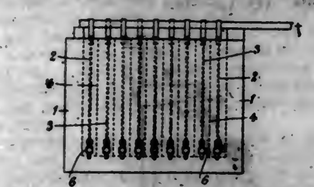
1. In an automatic train stopping system, the combination with a block controlled primary track circuit including a plurality of main block sections, a train stopping section in each block formed by insulating a portion of each of the rails of the track from the main block sections, said main block sections being electrically connected together consecutively, a train having a truck insulated from the rest of the train, a normally closed electric circuit carried by the train having one of its terminals connected to the wheels of the insulated truck and the other terminal connected to another set of wheels on the train, a train braking mechanism carried by the train normally held inoperative by said closed circuit, a single partial electric circuit for each train stopping section having one terminal connected to one of the rails of said main block sections and the other terminal connected to the corresponding rail of the train stopping section on the same side of the track, and a switch in said single partial circuit adapted to be opened or closed by the primary circuit of the next preceding block.

3. In a train stopping mechanism, the combination of a train pipe detachably connected at adjacent units of the train pipe, an air brake valve and automatic means for controlling the operation of said valve comprising an electromagnet and a circuit therefor carried by the train, one terminal of which is connected to one unit of the train and the other to an adjacent unit thereof which is insulated therefrom, one branch of said circuit being connected through said detachable train pipe connections whereby when the units of the train are connected and disconnected the electrical connections for the circuit are automatically made and broken.

[Claim 2 not printed in the Gazette.]

REISSUES.

14,436. PROCESS FOR THE ELECTROLYSIS AND TREATMENT OF SULFATE LIQUORS. EDWIN JAMES HUNT, Oldbury, and WILLIAM THOMAS GIDDEN, Warley, England, assignors to Chance & Hunt, Limited, Oldbury, England. Filed Sept. 21, 1917. Serial No. 192,622. Original No. 1,107,360, dated Aug. 18, 1914, Serial No. 806,196, filed Mar. 21, 1914. (Cl. 204—1.)



1. In a process for the electrolysis of a zinc sulfate solution containing free sulfuric acid by the aid of a lead anode so conducting the process that free particles of undissolved lead compounds derived from the anode can not pass to the cathode while the electrolyte at both anode and cathode remains the same.

2. In a process for the electrolysis of a zinc sulfate solution containing free sulfuric acid the combination with a vertical lead anode of means adapted to prevent solid free particles of undissolved lead compounds derived from the anode from passing to the cathode while allowing the free passage of the electrolyte.

3. In a process for the electrolysis of a zinc sulfate solution containing free sulfuric acid by the aid of a lead anode so conducting the process that free particles of undissolved lead compounds derived from the anode can not pass to the cathode while the electrolyte at both anode and cathode remains the same and utilizing the peroxid of lead so obtained to fit zinc sulfate liquors for electrolysis.

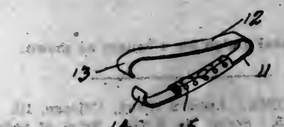
4. In a process for the electrolysis of a zinc sulfate solution containing free sulfuric acid the combination with a vertical lead anode of means adapted to prevent solid free particles of undissolved lead compounds derived from the anode from passing to the cathode while allowing the free passage of the electrolyte and utilizing the peroxid of lead so obtained to fit zinc sulfate liquors for electrolysis.

5. In the electrolysis of acid solutions of metal sulfate, the herein described improvement which comprises passing a current of electricity from a lead anode through an electrolyte comprising an acid solution of a metal sulfate to a cathode, and preventing contamination of the liquor surrounding the cathode with lead compounds, by separating the anode compartment from the cathode compartment by a medium through which the solution can readily pass, but which is capable of preventing the passage of insoluble lead compounds.

6. In the electrolysis of acid solutions of zinc sulfate, the herein described improvement which comprises passing a current of electricity from a lead anode through an electrolyte comprising an acid solution of zinc sulfate to a cathode, and preventing contamination of the liquor surrounding the cathode with lead compounds, by separating the anode compartment from the cathode compartment by a medium through which the solution can readily pass, but which is capable of preventing the passage of insoluble lead compounds.

7. In the electrometallurgy of metals, the herein described improvement which comprises electrolyzing a solution of a metal sulfate in a cell having separate anode and cathode compartments, while employing a lead anode; treating crude acid-soluble metalliferous material with the spent electrolyte, to produce a substantially non-acid solution containing metal sulfate in solution; treating the resulting solution with lead oxid derived from the anode compartment of the electrolytic cells, to precipitate iron and similar metals, and thereafter repeating the cycle of operations.

14,437. CLASP. THOMAS R. KILKENNY, North Providence, R. I., assignor, by mesne assignments, to the Firm of H. N. Pervear Co., Providence, R. I., a Corpartnership comprising Thomas R. Kilkenny, North Providence, R. I., and Hillary W. Kilkenny, Schenectady, N. Y. Filed Nov. 8, 1917. Serial No. 200,876. Original No. 1,214,794, dated Feb. 6, 1917, Serial No. 120,805, filed Sept. 18, 1916. (Cl. 24—259.)



1. A clasp device of the character described comprising an arm formed of sheet metal having integral portions folded to form a receptacle, said receptacle having perforations therein, and means for attaching said arm to a garment.

2. A clasp device of the character described comprising an arm formed of sheet metal having its longitudinal edges provided with integral flanges bent toward each other to form a receptacle, said flanges being perforated, and means for attaching said arm to a garment.

3. A clasp device of the character described comprising a narrow sheet metal arm, one face of which is provided with a receptacle having perforations, and means for attaching said arm to a garment.

DESIGNS.

51,805. BOWL, GLOBE, OR PLATE STAND. KRAFT BOOTH, Philadelphia, Pa., assignor to Gillinder & Sons, Inc., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Dec. 19, 1917. Serial No. 207,986. Term of patent 7 years.



The ornamental design for a bowl, globe, or plate stand, as shown.

51,806. CHILD'S ROCKER. JOHN W. DWYER, Philadelphia, Pa. Filed Dec. 21, 1917. Serial No. 208,229. Term of patent 3½ years.



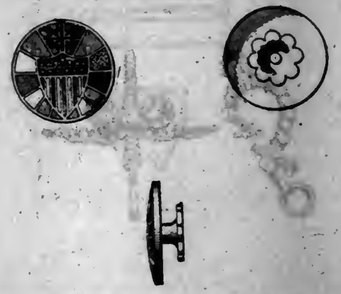
The ornamental design for a child's rocker as shown.

51,807. SPRINKLER-HEAD LINK ELEMENT. FRANCIS J. FEE, New York, N. Y. Filed Aug. 17, 1917. Serial No. 186,809. Term of patent 14 years.



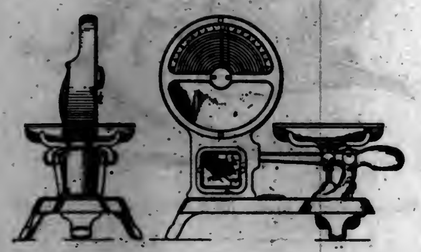
The ornamental design for a sprinkler head link element, as shown.

51,808. BADGE, BUTTON, OR SIMILAR ARTICLE. WILLIAM H. GARDINER, New York, N. Y. Filed Sept. 4, 1917. Serial No. 189,707. Term of patent 7 years.



The ornamental design for a badge, button or similar article as shown.

51,809. SCALE-CASING. HALVOR O. HEM, Toledo, Ohio, assignor to Toledo Scale Company, Toledo, Ohio, a Corporation of New Jersey. Filed Apr. 2, 1917. Serial No. 159,351. Term of patent 14 years.



The ornamental design for a scale casing as shown.

51,810. CHANDELIER-CHAIN TERMINAL. CHARLES ERNEST JONES, Chicago, Ill. Filed Jan. 17, 1918. Serial No. 212,365. Term of patent 3½ years.



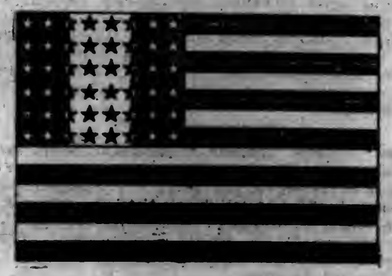
The ornamental design for a chandelier chain terminal, as shown.

51,811. CLAMP FOR LIGHT-REFLECTING BOWLS. CHARLES ERNEST JONES, Chicago, Ill. Filed Jan. 17, 1918. Serial No. 212,366. Term of patent 3½ years.



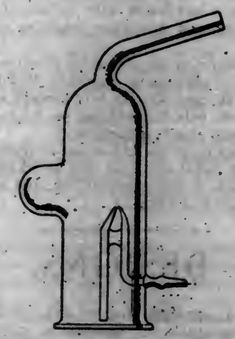
The ornamental design for a clamp for light reflecting bowls, as shown.

51,812. BANNER. KIERAN A. KELLY, New York, N. Y. Filed Nov. 15, 1917. Serial No. 202,246. Term of patent 7 years.



The ornamental design for a banner as shown.

51,813. INHALER. LEON S. LEON, Chicago, Ill. Filed Feb. 16, 1915. Serial No. 8,633. Term of patent 14 years.



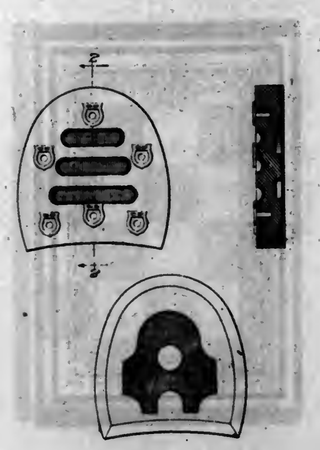
The ornamental design for an inhaler, as shown.

51,814. FINGER-RING OR SIMILAR ARTICLE. WILLIAM LOEB, Providence, R. I. Filed Dec. 24, 1917. Serial No. 208,720. Term of patent 3½ years.



The ornamental design for a finger ring or similar article, as shown.

51,815. RUBBER HEEL. LEROY E. MEYER, Cuyahoga Falls, Ohio, assignor to The Firestone Tire and Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed Oct. 31, 1917. Serial No. 199,593. Term of patent 14 years.



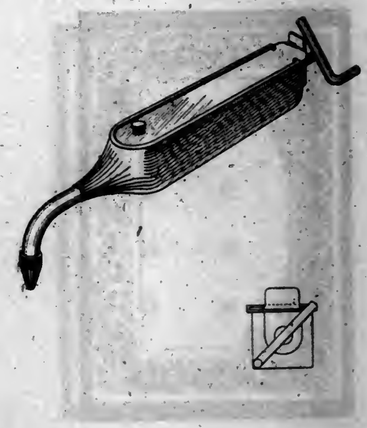
The ornamental design for a rubber heel as shown.

51,816. STATUE. WILLARD D. PADDOCK, Kent, Conn. Filed Nov. 8, 1917. Serial No. 200,986. Term of patent 14 years.



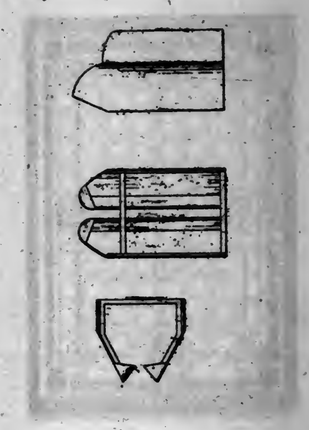
The ornamental design for a statue, as shown.

51,817. GREASE-GUN. HERMAN H. PRENTEL, Stillwater, Minn. Filed Apr. 2, 1917. Serial No. 159,343. Term of patent 14 years.



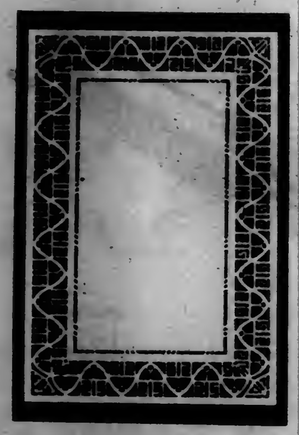
The ornamental design for a grease gun as shown.

51,818. BODY FOR AN INSECT-DESTROYER. GROVER CLEVELAND TUCKER, Tuscaloosa, Ala. Filed Apr. 28, 1917. Serial No. 165,285. Term of patent 14 years.



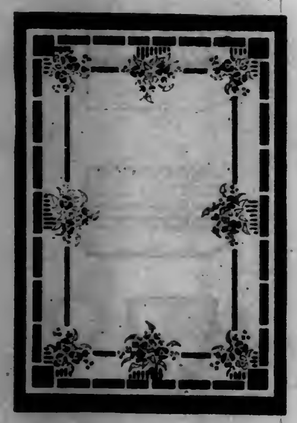
The ornamental design for a body for an insect destroyer, as shown.

51,819. GRASS RUG. OSSIAN T. WAITE, Oshkosh, Wis. Filed Jan. 4, 1918. Serial No. 210,363. Term of patent 3½ years.



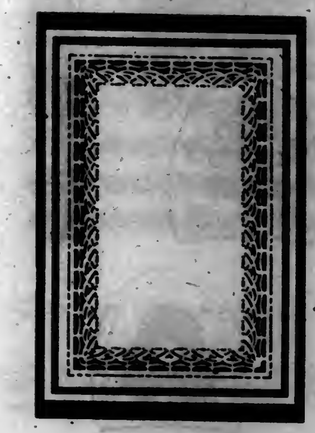
The ornamental design for a grass rug, substantially as shown.

51,820. GRASS RUG. OSSIAN T. WAITE, Oshkosh, Wis. Filed Jan. 4, 1918. Serial No. 210,364. Term of patent 3½ years.



The ornamental design for a grass rug, substantially as described.

51,821. GRASS RUG. OSSIAN T. WAITE, Oshkosh, Wis. Filed Jan. 4, 1918. Serial No. 210,365. Term of patent 3½ years.



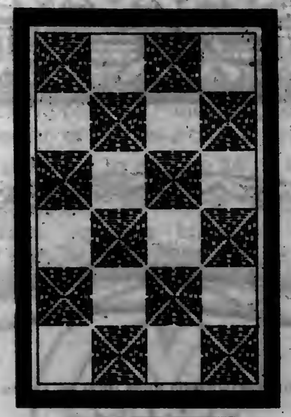
The ornamental design for a grass rug, substantially as described.

51,822. GRASS RUG. OSSIAN T. WAITE, Oshkosh, Wis. Filed Jan. 4, 1918. Serial No. 210,366. Term of patent 3½ years.



The ornamental design for a grass rug, substantially as described.

51,823. GRASS RUG. OSSIAN T. WAITE, Oshkosh, Wis. Filed Jan. 4, 1918. Serial No. 210,367. Term of patent 3½ years.



The ornamental design for a grass rug, substantially as described.

51,824. GRASS RUG. OSSIAN T. WAITE, Oshkosh, Wis. Filed Jan. 4, 1918. Serial No. 210,368. Term of patent 3½ years.



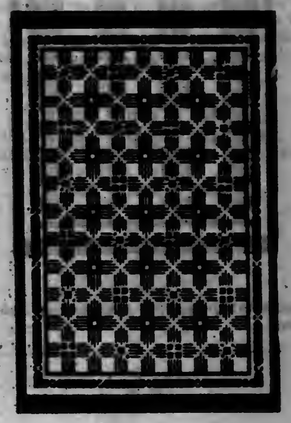
The ornamental design for a grass rug, substantially as described.

51,825. GRASS RUG. OSSIAN T. WAITE, Oshkosh, Wis. Filed Jan. 4, 1918. Serial No. 210,369. Term of patent 3½ years.



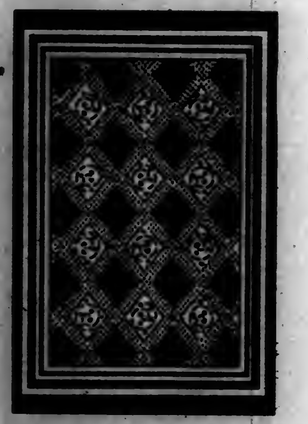
The ornamental design for a grass rug, substantially as described.

51,826. GRASS RUG. OSSIAN T. WAITE, Oshkosh, Wis. Filed Jan. 4, 1918. Serial No. 210,370. Term of patent 3½ years.



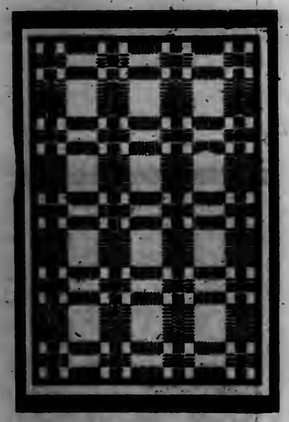
The ornamental design for a grass rug, substantially as described.

51,827. GRASS RUG. OSSIAN T. WAITE, Oshkosh, Wis. Filed Jan. 4, 1918. Serial No. 210,371. Term of patent 3½ years.



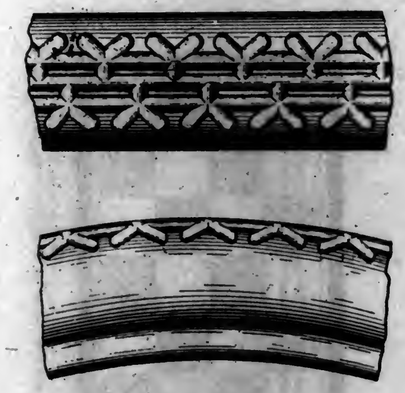
The ornamental design for a grass rug, substantially as described.

51,828. GRASS RUG. OSSIAN T. WAITE, Oshkosh, Wis. Filed Jan. 4, 1918. Serial No. 210,372. Term of patent 3½ years.



The ornamental design for a grass rug, substantially as described.

51,829. TIRE. THOMAS J. WHALEN, New Castle, Pa. Filed Jan. 2, 1917. Serial No. 140,815. Term of patent 14 years.



The ornamental design for a tire, as shown.

51,830. GAME-BOARD. WILLIS G. YOUNG, Chicago, Ill. Filed Dec. 26, 1917. Serial No. 209,011. Term of patent 7 years.



The ornamental design for a game board, as shown.

TRADE-MARKS

PUBLISHED FEBRUARY 26, 1918.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 92,283. (CLASS 39. CLOTHING.) CONVERSE RUBBER SHOE CO., Malden, Mass. Filed Jan. 21, 1916.



Particular description of goods.—Boots and Shoes Made of or Containing Rubber.
Claims use since Nov. 18, 1915.

Ser. No. 95,342. (CLASS 38. PRINTS AND PUBLICATIONS.) MUELLER BROTHERS ART AND MANUFACTURING COMPANY, Chicago, Ill. Filed May 22, 1916.



Particular description of goods.—Framed Pictures, Art-Calendars, Novelty-Calendars, and Pictures.
Claims use since Dec. 15, 1915.

Ser. No. 98,038. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) AUTOPOWER COMPANY, Detroit, Mich. Filed Sept. 18, 1916.

AUTOPOW

Particular description of goods.—Power-Transmission Attachments for Motor-Vehicles Adapted to Enable a Motor-Vehicle to Actuate Extraneous Machinery.
Claims use since Aug. 17, 1916.

Ser. No. 100,408. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ARTHUR VAN SICLEN, New York, N. Y. Filed Jan. 6, 1917.

VANSCO

Particular description of goods.—Dried Fruits.
Claims use since Nov. 3, 1916.

Ser. No. 100,409. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ARTHUR VAN SICLEN, New York, N. Y. Filed Jan. 6, 1917.



The trade-mark consists of the monogram as shown, in which the lower end of the "V" is contained within the "C" and the "o" is formed continuously with the "C."
Particular description of goods.—Dried Fruits.
Claims use since Nov. 3, 1916.

Ser. No. 101,598. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) JAMES A. DUNHAM, Brooklyn, N. Y. Filed Feb. 28, 1917.



Which consists of the representation of a woman holding a veil before her face.
Particular description of goods.—Veils for Women.
Claims use since Nov. 1, 1916.

Ser. No. 102,092. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE PORTLAND CHEESE COMPANY, Portland, Oreg. Filed Mar. 12, 1917.

BEAVER



Particular description of goods.—Cheese.
Claims use since May, 1914.

Ser. No. 102,280. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CASCADE PACKING COMPANY, Anacortes, Wash. Filed Mar. 20, 1917.

PROPELLER



Particular description of goods.—Canned Salmon.
Claims use since July 19, 1916.

Ser. No. 102,356. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) JULIUS SCHMID, INCORPORATED, New York, N. Y. Filed Mar. 22, 1917.

Harvautopsy

Particular description of goods.—Surgeons' Rubber Gloves.
Claims use since January, 1916.

Ser. No. 102,777. (CLASS 32. FURNITURE AND UPHOLSTERY.) KNOXVILLE EXCELSIOR & MATTRESS CO., Knoxville, Tenn. Filed Apr. 6, 1917.

"Sleep Easy"

Particular description of goods.—Mattresses.
Claims use since October, 1909.

Ser. No. 102,963. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) JULIUS SCHMID, INCORPORATED, New York, N. Y. Filed Apr. 13, 1917.

SANTRO

Particular description of goods.—Pacifiers.
Claims use since Apr. 1, 1916.

Ser. No. 103,169. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE FAIRMONT CREAMERY CO., Omaha, Nebr. Filed Apr. 21, 1917.



Particular description of goods.—Butter.
Claims use since sometime in 1910.

Ser. No. 104,698. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) THE KNY-SCHEERER CORPORATION, New York, N. Y. Filed June 26, 1917.

KNYSCO

Particular description of goods.—Electromedical Apparatus—Namely, Current-Controllers, Galvanic Faradic Plates, Eye and Ear Operating-Lamps, Transilluminators, Eye-Magnets, Fluoroscopic Apparatus, X-Ray Machines, Electromedical Batteries, Electrically-Operated Centrifuges, Electric Bandage-Winders, and Electric Cautery.
Claims use since May 1, 1917.

Ser. No. 104,706. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) NEW YORK GAS & ELECTRIC APPLIANCE CO., New York, N. Y. Filed June 26, 1917.

LIGHTOLIER

Comprising the word "Lightolier."
Particular description of goods.—Electric and Combination Gas and Electric Lighting Fixtures for Chandeliers, Ceiling, Pendant, Drop, and Wall-Bracket Lights and Parts Thereof, Not Including Bowls, Domes, and Shades.
Claims use since June 9, 1917.

Ser. No. 104,992. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) RIDENOUR-BAKER GROCERY CO., Kansas City, Mo. Filed July 11, 1917.

THREE MEALS

Particular description of goods.—Canned Corn-Syrup with Cane Flavor, Canned Apple-Butter, Canned Peaches, Canned Apricots, Canned Blackberries, and Candy.
Claims use since May 1, 1897.

Ser. No. 105,043. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) THE LEYLAND & BIRMINGHAM RUBBER CO. LTD., Leyland, England. Filed July 14, 1917.

LABRUCO

Particular description of goods.—India-Rubber Enemas, Syringes, Teats, India-Rubber Air-Cushions and Air-Pillows for Surgical and Invalids' Use, India-Rubber Teething-Pads, India-Rubber Gloves for Surgical Use, and India-Rubber Wedges for Surgical and Dental Use.
Claims use since about March, 1917.

Ser. No. 105,132. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE NATIONAL PAINT & VARNISH COMPANY, Cleveland, Ohio. Filed July 19, 1917.

COAT-O-LITE

Particular description of goods.—Interior Paints.
Claims use since about March, 1916.

Ser. No. 105,153. (CLASS 37. PAPER AND STATIONERY.) MOORE PUSH PIN COMPANY, Philadelphia, Pa. Filed July 20, 1917.



Particular description of goods.—Push-Pins and Thumb-Tacks.
Claims use since June 11, 1917.

Ser. No. 105,259. (CLASS 2. RECEPTACLES.) INTERNATIONAL MAILING TUBE AND WRAPPER CO., Brooklyn, N. Y. Filed July 25, 1917.

REX

Particular description of goods.—Mailing-Tubes, Mailing-Bags, Mailing-Boxes, Collapsible Mailing-Boxes, Mailing-Folders, and Mailing-Wrappers.
Claims use since May 1, 1915.

Ser. No. 105,297. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES J. JEROME, Chicago, Ill. Filed July 26, 1917.

MANOR

Particular description of goods.—A Preparation for Alleviation of Affections of the Throat and Bronchial Tubes.
Claims use since June 25, 1917.

Ser. No. 105,344. (CLASS 39. CLOTHING.) JULIUS KAYSER & CO., New York, N. Y. Filed July 28, 1917.

Opera Top

Particular description of goods.—Knitted Union-Suits, Vests, Chemises, and Camisoles.
Claims use since May 15, 1917.

Ser. No. 105,504. (CLASS 39. CLOTHING.) ROTARY SHIRT CO., INC., New York, N. Y. Filed Aug. 6, 1917.

ROTARY

Particular description of goods.—Dress and Negligée Shirts.
Claims use since the 1st day of July, 1917.

Ser. No. 105,550. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) C. E. VAN LANDINGHAM CO., Los Angeles, Cal. Filed Aug. 8, 1917.

RECORD

Particular description of goods.—Canned Tuna-Fish.
Claims use since June 11, 1917.

Ser. No. 105,872. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) MAJESTIC MOTION PICTURE COMPANY, New York, N. Y. Filed Aug. 25, 1917.



Particular description of goods.—Motion-Picture Films.
Claims use since Nov. 1, 1915.

Ser. No. 105,905. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) JOSEPH A. RAINVILLE, Lewiston, Me. Filed Aug. 27, 1917.

LERCO

Particular description of goods.—Fountain-Syringes; Combinations, (Syringes and Hot-Water Bottles;) Ear and Ulcer Syringes, Atomizers, Atomizer Sets, Hot-Water Bottles, and Spray-Syringes.
Claims use since Dec. 1, 1916.

Ser. No. 105,914. (CLASS 2. RECEPTACLES.) ELBERTA CRATE COMPANY, Bainbridge, Ga. Filed Aug. 28, 1917.



No claim being made to the crate apart from the mark shown in the drawing.

Particular description of goods.—Fruit and Vegetable Crates.

Claims use since August, 1915.

Ser. No. 106,033. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) CHARLES N. PUCKETT, Los Angeles, Cal. Filed Sept. 4, 1917.



Particular description of goods.—Mechanical Starters for Automobiles.

Claims use since the 1st day of November, 1916.

Ser. No. 106,169. (CLASS 21. ELECTRICAL APPARATUS, MACHINES AND SUPPLIES.) WILLARD STORAGE BATTERY COMPANY, Cleveland, Ohio. Filed Sept. 10, 1917.

Willard

Particular description of goods.—Storage Batteries.

Claims use since about the middle of July, 1917.

Ser. No. 106,529. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) JOHN W. BAKER, Stamford, Conn. Filed Oct. 1, 1917.

AERO-GAMMON

Particular description of goods.—Game-Boards and Pieces Adapted to be Used Therewith.

Claims use since June 1, 1917.

Ser. No. 106,604. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) LANDERS, FRARY & CLARK, New Britain, Conn. Filed Oct. 4, 1917.

RESISTAIN

Particular description of goods.—A Base-Metal Composition Composed of Steel, Chromium, Sulfur, Phosphorus, and Silicon.

Claims use since May, 1916.

Ser. No. 106,660. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) COBB AND DOFFLEMYER, Exeter, Cal. Filed Oct. 8, 1917.

Marguerite

Particular description of goods.—Oranges, Lemons, and Grape-Fruit.

Claims use since Oct. 14, 1914.

Ser. No. 106,683. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WESTERN GROCER COMPANY, Oskaloosa, Iowa. Filed Oct. 8, 1917.

FIRST LADY

Particular description of goods.—Canned Tomatoes, Pineapples, Plums, Cherries, Peaches, Grapes, Apricots, Pears, Pork and Beans, Sauer-Kraut, Pumpkins, Hominy, Sweet Potatoes, Salmon, Corn, Succotash, Gooseberries, Beets, Blackberries, Strawberries, Red Raspberries, Black Raspberries, Blueberries, Loganberries, Red Cherries, Peas, Lima Beans, Red Kidney-Beans, White Wax-Beans, Green Refugee-Beans, Spinach, Pork and Beans with Tomato Sauce, Oysters, Clam-Chowder, Tuna-Fish, Clams, Dry Shrimps, Wet Shrimps, Asparagus-Tips, and Lobster; Catsup, Strawberry Jam, Jelly, and Fruit Preserves; Grape Jelly, Jam, and Preserves; Pineapple Jelly and Preserves, Currant Jelly; Red-Raspberry Jelly, Preserves, and Jam; Black-Raspberry Preserves, Jam, and Jelly; Plum Jam, Jelly, and Preserves; Peach Jam, Jelly, and Preserves; Sweet Pickles and Sour Pickles.

Claims use since October, 1913.

Ser. No. 106,753. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) WALTER F. HALL, Philadelphia, Pa. Filed Oct. 13, 1917.

HANDSEE

Particular description of goods.—Galvanized and Black Sheets, Tin-Plate, and Corrugated-Metal Sheets.

Claims use since Aug. 8, 1917.

Ser. No. 106,821. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE C. F. SAUER CO., Richmond, Va. Filed Oct. 17, 1917. Under ten-year proviso.

SAUER'S

Particular description of goods.—Food-Flavoring Extracts.

Claims use for twenty-eight years last past.

Ser. No. 106,845. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE REICHERT CHEMICAL & MFG. CO., Granton, Wis. Filed Oct. 18, 1917.

EVERITE

Particular description of goods.—A Polish for Pianos, Woodwork, Furniture, Automobiles, and other Vehicles.

Claims use since about the 15th of August, 1917.

Ser. No. 107,191. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) THE BAER AND WILDE CO., Attleboro, Mass. Filed Nov. 6, 1917.



The representation of the button shown in this mark is hereby disclaimed.

Particular description of goods.—Cuff-Buttons.

Claims use since January, 1914.

Ser. No. 107,264. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) HELEN JEDELL, Newark, N. J. Filed Nov. 9, 1917.

AUTO THERM

Particular description of goods.—Automobile-Radiator-Cap Heat or Temperature Indicating Devices.

Claims use since the 1st day of October, 1917.

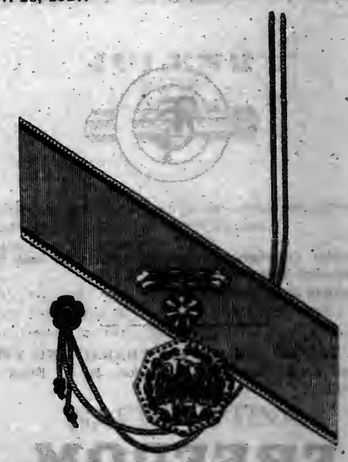
Ser. No. 107,288. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) PENNSYLVANIA LINSEED PRODUCTS COMPANY, Pittsburgh, Pa. Filed Nov. 10, 1917.

LINOTOL

Particular description of goods.—A Linseed-Oil Substitute.

Claims use since Oct. 15, 1917.

Ser. No. 107,352. (CLASS 37. PAPER AND STATIONERY.) J. C. BLAIR COMPANY, Huntingdon, Pa. Filed Nov. 13, 1917.

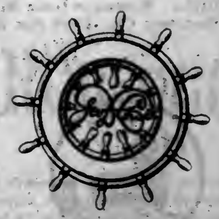


The ribbon being printed in red.

Particular description of goods.—Paper for Writing and Printing Purposes, Drawing-Paper, Pencil-Paper, Envelops, Writing-Tablets, Pencil-Tablets, Drawing-Tablets, Spelling-Tablets, and Blank Books.

Claims use since Aug. 20, 1917.

Ser. No. 107,463. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) EDSON MANUFACTURING CO., Boston, Mass. Filed Nov. 19, 1917.



Consisting of a facsimile signature of the treasurer of the company, within a steering-wheel.

Particular description of goods.—Rubber Suction-Hose and Rubber Diaphragms.

Claims use since 1914.

Ser. No. 107,550. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FORT WAYNE DRUG COMPANY, Fort Wayne, Ind. Filed Nov. 23, 1917.



LINCOLN

Which consists in the word "Lincoln" and the portrait of Abraham Lincoln, deceased.

Particular description of goods.—A Preparation for the Treatment of Diseases of the Blood, Liver, Kidneys, Bowels, Dyspepsia, Headaches, Biliousness, and Neuralgia.

Claims use since March, 1891.

Ser. No. 107,595. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) TENNESSEE COAL, IRON & RAILROAD CO., Birmingham, Ala. Filed Nov. 24, 1917.



Particular description of goods.—Annealed and Unannealed Special Tool-Steel.
Claims use since Oct. 30, 1917.

Ser. No. 107,616. (CLASS 43. THREAD AND YARN.) DEXTER YARN COMPANY, Pawtucket, R. I. Filed Nov. 26, 1917.

FREEDOM

Said trade-mark consists of the word "Freedom."
Particular description of goods.—Yarns and Threads Made of Cotton, Silk, Jute, Flax, Linen, Wool, and Ramie.
Claims use since Nov. 1, 1917.

Ser. No. 107,641. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WIDEMANN GOAT MILK CO., King City and San Francisco, Cal. Filed Nov. 27, 1917.



The picture being fanciful.
Particular description of goods.—Canned Evaporated Goat-Milk.
Claims use since Aug. 1, 1916.

Ser. No. 107,642. (CLASS 39. CLOTHING.) PHILIP WALCOFF, New York, N. Y. Filed Nov. 27, 1917.

DUBBELBILT

Particular description of goods.—Boys' Outer Clothing, as Follows: Mackinaws, Jackets, Trousers, Overcoats, Coats, Suits, and Boys' Breeches.
Claims use since about July 1, 1917.

Ser. No. 107,653. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NEW ORLEANS COFFEE CO. LTD., New Orleans, La. Filed Nov. 28, 1917.



Particular description of goods.—Molasses, Sorghums, Cane and Maple Syrups, and Compounds Thereof.
Claims use since December, 1899.

Ser. No. 107,834. (CLASS 39. CLOTHING.) FORDOM TEXTILE COMPANY, INC., New York, N. Y. Filed Dec. 8, 1917.



Particular description of goods.—Underwear—Namely, Shirts and Drawers Made of Knitted Material.
Claims use since Oct. 2, 1917.

Ser. No. 107,836. (CLASS 39. CLOTHING.) FORDOM TEXTILE COMPANY, INC., New York, N. Y. Filed Dec. 8, 1917.

SAGE CITY

Consisting of the words "Sage City."
Particular description of goods.—Underwear—Namely, Shirts and Drawers Made of Knitted Material.
Claims use since Oct. 2, 1917.

Ser. No. 107,842. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) E. H. HAMLIN CO., Seattle, Wash. Filed Dec. 8, 1917.



Particular description of goods.—Canned Salmon.
Claims use since Mar. 10, 1916.

Ser. No. 107,863. (CLASS 37. PAPER AND STATIONERY.) EASTERN TABLET COMPANY, Albany, N. Y. Filed Dec. 10, 1917.



Particular description of goods.—Writing-Tablets and Printing and Writing Paper.
Claims use since Oct. 2, 1914.

Ser. No. 107,942. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MABEL BCONE GOSNELL, Minneapolis, Minn. Filed Dec. 13, 1917.

SIS LIZA'S CABIN HOME



Particular description of goods.—Fruit Preserves, Jams, Vegetable Pickle Relishes, and Pickles.
Claims use since the 2d day of October, 1917.

Ser. No. 107,957. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) EASTMAN KODAK COMPANY, Rochester, N. Y. Filed Dec. 14, 1917.

PLATINOID

Particular description of goods.—Photographic Paper.
Claims use since Aug. 25, 1894.

Ser. No. 108,004. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THOMAS A. EDISON, INCORPORATED, West Orange, N. J. Filed Dec. 17, 1917.

Ediphone

Particular description of goods.—Dictating-Machines.
Claims use since Nov. 21, 1917.

Ser. No. 108,046. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ADRIEN JULES AYLIES, Boston, Mass. Filed Dec. 19, 1917.

JULENE

Particular description of goods.—Pharmaceutical Preparation for Shampoo and Hair-Cleanser.
Claims use since July 27, 1910.

Ser. No. 108,087. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ORIENTAL DRUG CO. INC., New York, N. Y. Filed Dec. 21, 1917.

NAFTOPEPTINA

The trade-mark consists of the arbitrary word "Naftopeptina."
Particular description of goods.—Tonic Digestive Tablets.
Claims use since Feb. 15, 1917.

Ser. No. 108,107. (CLASS 15. OILS AND GREASES.) WM. C. ROBINSON & SON CO., Baltimore, Md. Filed Dec. 22, 1917.

ROBSOCO

Particular description of goods.—Transmission-Oil, Lubricating-Greases, Motor-Oil, and Gasolene.
Claims use as applied to transmission-oil, lubricating-grease, and motor-oil since July 1, 1914, and as applied to gasolene since Apr. 1, 1916.

Ser. No. 108,200. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) NATIONAL CARBON COMPANY, INC., Cleveland, Ohio. Filed Dec. 28, 1917.



Particular description of goods.—Electric Batteries.
Claims use since June 27, 1917.

Ser. No. 108,215. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) IRON CAT CO., Sioux City, Iowa. Filed Dec. 29, 1917.

IRON CAT

Particular description of goods.—Mouse and Rat Traps.
Claims use since Nov. 15, 1917.

Ser. No. 108,250. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FRED H. HARTMAN, Ottumwa, Iowa. Filed Jan. 2, 1918.

GRAIN O HEARTS

Particular description of goods.—Wheat-Flour.
Claims use since the year 1914.

Ser. No. 108,259. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) SCHROEDER & TREMAYNE, St. Louis, Mo. Filed Jan. 2, 1918.

SEAWOOL

No claim is made to the word "Wool" apart from the mark shown in the drawing.
Particular description of goods.—Cuban-Sheepswool Sponges.
Claims use since about Aug. 1, 1917.

Ser. No. 108,320. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) BARR BROTHERS, New York, N. Y. Filed Jan. 5, 1918.

MORGOLD

Particular description of goods.—Gold Paints and Gold Bronzes.
Claims use since Dec. 1, 1917.

Ser. No. 108,345. (CLASS 43. THREAD AND YARN.) SUMMIT THREAD COMPANY, East Hampton, Conn. Filed Jan. 7, 1918.

SUMMIT

Particular description of goods.—Cotton Thread.
Claims use since on or about Apr. 6, 1899.

Ser. No. 108,358. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FRED JOHNSON, De Ridder, La. Filed Jan. 8, 1918.

SOUTHERN HOME

Particular description of goods.—Bread and Cake.
Claims use since on or about the 1st day of July, 1907.

Ser. No. 108,373. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CALYPTO COMPANY, Springfield, Mass. Filed Jan. 9, 1918.

CA-LYP-TO

Particular description of goods.—Medicated Dental Cream.
Claims use since on or about Mar. 1, 1916.

Ser. No. 108,381. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. S. HOFFMAN COMPANY, Chicago, Ill. Filed Jan. 9, 1918.

ST. STEFANO

Particular description of goods.—Cheese.
Claims use since Jan. 2, 1918.

Ser. No. 108,428. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) HIRTH-KRAUSE COMPANY, Rockford, Mich. Filed Jan. 12, 1918.

TRENCHIDE

Particular description of goods.—Leather.
Claims use since Oct. 20, 1917.

Ser. No. 108,455. (CLASS 39. CLOTHING.) CECILIA LEVY, New York, N. Y. Filed Jan. 14, 1918.

Pat-Le-Boy

Particular description of goods.—Women's Hats.
Claims use since Dec. 1, 1917.

Ser. No. 108,488. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) FRENCH & WARD, New York, N. Y. Filed Jan. 16, 1918.

K—O—S—W

Particular description of goods.—Knitted and Woven Woolen Piece Goods.
Claims use since Nov. 22, 1917.

Ser. No. 108,494. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) GEORGE ALBERT STAFFORD, New York, N. Y. Filed Jan. 16, 1918.



Particular description of goods.—Woven Cotton Fabrics in the Piece.
Claims use since June 1, 1917.

Ser. No. 108,508. (CLASS 39. CLOTHING.) EDWIN T. THOMAS, Chicago, Ill. Filed Jan. 17, 1918.

Le Charme

Particular description of goods.—Motor-Caps and Baby-Caps.
Claims use since Jan. 1, 1916.

Ser. No. 108,514. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WARD BAKING COMPANY, New York, N. Y. Filed Jan. 17, 1918.

DEFENDER

Particular description of goods.—Bread.
Claims use since Dec. 17, 1917.

Ser. No. 108,515. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WARD BAKING COMPANY, New York, N. Y. Filed Jan. 17, 1918.

CAPITOL

Particular description of goods.—Bread.
Claims use since Dec. 17, 1917.

Ser. No. 108,552. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) SAVANNAH SOAP CO., Savannah, Ga. Filed Jan. 19, 1918.



The picture being that of a minor son of A. P. Solomon, a member of the applicant firm.
Particular description of goods.—Soap.
Claims use since Dec. 17, 1917.

Ser. No. 108,634. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) RUSSELL T. JOY, Brooklyn, N. Y. Filed Jan. 25, 1918.

NIPISAN

Particular description of goods.—Medicinal Spring-Water.
Claims use since Sept. 13, 1917.

Ser. No. 108,651. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) JOHNSON, COWDIN & CO., New York, N. Y. Filed Jan. 26, 1918.

LADY FAIR

Comprising the words "Lady Fair."
Particular description of goods.—Satin Ribbon.
Claims use since Mar. 1, 1917.

Ser. No. 108,661. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) AMOSKEAG MANUFACTURING COMPANY, Manchester, N. H. Filed Jan. 28, 1918.

ALADDIN

Particular description of goods.—Ginghams.
Claims use since Oct. 23, 1917.

Ser. No. 106,684. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) HOLDEN-LEONARD CO., New York, N. Y. Filed Jan. 29, 1918.

DUOTONE

Particular description of goods.—A Fabric Woven of Woolen Yarn, Worsted Yarn, and Silk.
Claims use since Jan. 1, 1918.

Ser. No. 106,701. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) L. & E. STERN, New York, N. Y. Filed Jan. 30, 1918.

PANNETINE

Particular description of goods.—Cotton Piece Goods.
Claims use since the 23d day of June, 1903.

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TRADE-MARK REGISTRATIONS GRANTED

FEBRUARY 26, 1918.

120,656. CANDY. CHESTER A. ASHER, Philadelphia, Pa.
Filed June 18, 1917. Serial No. 104,474. PUBLISHED DECEMBER 18, 1917.

120,657. HAIR-NETS. BERNHARD FRANKENFELDER, New York, N. Y.
Filed October 22, 1917. Serial No. 106,895. PUBLISHED DECEMBER 18, 1917.

120,658. ORNAMENTAL BRIC-A-BRAC OR KNICK-KNACKS. GEORGE BORGFELDT & CO., New York, N. Y.
Filed April 4, 1917. Serial No. 102,710. PUBLISHED DECEMBER 11, 1917.

120,659. TINNED FISH. EDWIN ARTHUR BOWKER, Manchester, England.
Filed September 4, 1915. Serial No. 89,020. PUBLISHED DECEMBER 18, 1917.

120,660. PRESERVED FISH, PRESERVED MEATS, PRESERVED FRUITS, AND PRESERVED VEGETABLES. THE BOWKER COMPANY LIMITED, Liverpool, England.
Filed September 27, 1917. Serial No. 106,460. PUBLISHED DECEMBER 11, 1917.

120,661. PRINTED BOOKS, PERIODICALS, PAMPHLETS, AND CIRCULARS. BRICKLAYERS, MASONS AND PLASTERERS' INTERNATIONAL UNION OF AMERICA, Indianapolis, Ind.
Filed May 8, 1917. Serial No. 103,629. PUBLISHED DECEMBER 18, 1917.

120,662. PRINTED BOOKS, PERIODICALS, PAMPHLETS, AND CIRCULARS. BROTHERHOOD RAILWAY CARMEN OF AMERICA, Kansas City, Mo.
Filed October 6, 1916. Serial No. 98,458. PUBLISHED DECEMBER 18, 1917.

120,663. PORTABLE BUILDINGS. J. H. BURTON & CO. INC., New York, N. Y.
Filed July 26, 1917. Serial No. 105,285. PUBLISHED DECEMBER 18, 1917.

120,664. CANNED VEGETABLES AND CANNED OLIVES. CALIFORNIA PACKING CORPORATION, San Francisco, Cal.
Filed August 31, 1917. Serial No. 105,983. PUBLISHED DECEMBER 18, 1917.

120,665. CANNED MACKEREL-ROE. RALPH CASPARI, Newark, N. J.
Filed August 27, 1917. Serial No. 105,889. PUBLISHED DECEMBER 18, 1917.

120,666. LEATHER BELTING. DETROIT OAK BELTING CO., Detroit, Mich.
Filed October 4, 1917. Serial No. 106,592. PUBLISHED DECEMBER 11, 1917.

120,667. COMPOSITION FOR COVERING PRINTERS ROLLERS. "THE DURABLE" PRINTERS' ROLLER COMPANY, LIMITED, London, England.
Filed October 10, 1917. Serial No. 106,695. PUBLISHED DECEMBER 18, 1917.

120,668. FABRIC AND RUBBER BELTING, HOSE, AND PACKING. THE FISHER GOVERNOR CO., Marshalltown, Iowa.
Filed June 26, 1917. Serial No. 104,694. PUBLISHED DECEMBER 11, 1917.

120,669. PERIODICALS PUBLISHED WEEKLY. CHARLES W. FLODIN, Reno, Nev.
Filed October 10, 1917. Serial No. 106,697. PUBLISHED DECEMBER 18, 1917.

120,670. BRAKE AND CLUTCH LININGS AND FACINGS. GENERAL ASBESTOS & RUBBER COMPANY, Charleston, S. C.
Filed April 4, 1917. Serial No. 102,715. PUBLISHED DECEMBER 18, 1917.

120,671. COTTON YARNS. GROVES MILLS, INCORPORATED, Gastonia, N. C.
Filed October 4, 1917. Serial No. 106,600. PUBLISHED DECEMBER 11, 1917.

120,672. BELTING AND HOSE OF RUBBER AND FABRIC. THE GUTTA PERCHA & RUBBER MANUFACTURING COMPANY, New York, N. Y.
Filed July 20, 1917. Serial No. 105,149. PUBLISHED DECEMBER 11, 1917.

120,673. CANDY, BONBONS, CHOCOLATES, AND ICE-CREAM. RUFUS H. HOBBS, Newburgh, N. Y.
Filed September 10, 1917. Serial No. 106,161. PUBLISHED DECEMBER 18, 1917.

120,674. YARN, WOOLEN YARN, AND YARN FOR HAND-KNITTING. HORNER BROS., Eaton Rapids, Mich., assignors to Eaton Rapids Woolen Mills, Eaton Rapids, Mich., a Corporation of Michigan.
Filed October 12, 1917. Serial No. 106,740. PUBLISHED DECEMBER 18, 1917.

120,675. PRINTED BOOKS, PAMPHLETS, PERIODICALS, AND CIRCULARS. INTERNATIONAL ALLIANCE OF THEATRICAL STAGE EMPLOYES & MOVING PICTURE MACHINE OPERATORS OF THE UNITED STATES AND CANADA, New York, N. Y.
Filed November 12, 1917. Serial No. 107,810. PUBLISHED DECEMBER 18, 1917.

120,676. PRINTED BOOKS, PERIODICALS, PAMPHLETS, AND CIRCULARS. INTERNATIONAL UNION OF JOURNEYMEN HORSESHOERS OF THE UNITED STATES AND CANADA, Cincinnati, Ohio.
Filed May 8, 1917. Serial No. 103,647. PUBLISHED DECEMBER 18, 1917.

120,677. PRINTED BOOKS, PERIODICALS, PAMPHLETS, AND CIRCULARS. INTERNATIONAL UNION OF JOURNEYMEN HORSESHOERS OF THE UNITED STATES AND CANADA, Cincinnati, Ohio.
Filed May 8, 1917. Serial No. 103,646. PUBLISHED DECEMBER 18, 1917.

120,678. WATCH-GLASSES. THEODORE JEQUIER & CIE., Fleurier, Switzerland.
Filed April 14, 1917. Serial No. 103,075. PUBLISHED DECEMBER 11, 1917.

120,679. WHEAT-FLOUR. ROWE EDWARD KIDDER, Rosedale, Kans.
Filed May 15, 1917. Serial No. 103,830. PUBLISHED JULY 3, 1917.

120,680. CIGARS. KRAUS & CO., INC., Baltimore, Md.
Filed November 3, 1917. Serial No. 107,133. PUBLISHED DECEMBER 11, 1917.

120,681. CIGARS, CIGARETTES, AND SMOKING AND CHEWING TOBACCO. WALDO M. WATTLES, Litchfield, Mich.
Filed October 31, 1917. Serial No. 107,082. PUBLISHED DECEMBER 11, 1917.

120,682. BOTTLE-CAPS. EMANUEL MAYNZ, New York, N. Y.
Filed June 6, 1917. Serial No. 104,305. PUBLISHED JULY 24, 1917.

120,683. STOCK FEED. LOUIS J. MEADER, New York, N. Y.
Filed December 11, 1916. Serial No. 99,856. PUBLISHED NOVEMBER 20, 1917.

120,684. PARTICULAR BRAND OF PURE PORK SAUSAGE. MILLER BROTHERS, Logan township, Huntingdon county, and Petersburg, Pa.
Filed May 9, 1917. Serial No. 103,676. PUBLISHED DECEMBER 18, 1917.

120,685. LENSES FOR AUTOMOBILE-LAMPS. NO-GLARE AUTO LENS CO., Portland, Oreg.
Filed August 31, 1917. Serial No. 105,991. PUBLISHED DECEMBER 18, 1917.

120,686. PERIODICAL OR MAGAZINE PUBLISHED MONTHLY. NORTHWESTERN ELECTRIC EQUIPMENT COMPANY, St. Paul, Minn.
Filed August 24, 1917. Serial No. 105,863. PUBLISHED DECEMBER 18, 1917.

120,687. CANNED CRABS. NOZAKI BROTHERS AND CO., Yokohama, Japan.
Filed January 29, 1917. Serial No. 101,015. PUBLISHED DECEMBER 18, 1917.

120,688. PRINTED BOOKS, PAMPHLETS, PERIODICALS, AND CIRCULARS. OPERATIVE PLASTERERS AND CEMENT FINISHERS INTERNATIONAL ASSOCIATION OF THE UNITED STATES AND CANADA, Middletown, Ohio.
Filed September 20, 1916. Serial No. 98,120. PUBLISHED DECEMBER 18, 1917.

120,689. CERTAIN NAMED FOODS. O. B. PIEPER, Milwaukee, Wis.
Filed July 19, 1915. Serial No. 88,026. PUBLISHED DECEMBER 18, 1917.

120,690. MONTHLY PUBLICATION. PERIODICAL PUBLISHING CO., Grand Rapids, Mich.
Filed October 24, 1917. Serial No. 106,922. PUBLISHED DECEMBER 18, 1917.

120,691. MONTHLY PUBLICATION. PERIODICAL PUBLISHING CO., Grand Rapids, Mich.
Filed October 24, 1917. Serial No. 106,923. PUBLISHED DECEMBER 18, 1917.

120,692. CHEESE. OTTO ROTH, New York, N. Y.
Filed August 31, 1917. Serial No. 105,996. PUBLISHED DECEMBER 18, 1917.

120,693. KNITTED UNDERWEAR, HOSIERY, AND SWEATERS. SHAPIRO BROS., New York, N. Y.
Filed July 7, 1917. Serial No. 104,914. PUBLISHED OCTOBER 2, 1917.

120,694. PRINTED AND PAINTED SIGNS FOR ADVERTISING. HARRY P. SIMPSON, Cleveland, Ohio.
Filed December 5, 1916. Serial No. 99,735. PUBLISHED DECEMBER 11, 1917.

120,695. CIGARS. M. H. SMALTZ & SON, Stouchesburg, Pa.
Filed October 25, 1917. Serial No. 106,962. PUBLISHED DECEMBER 11, 1917.

120,696. COFFEE. STILES, PELLENS COFFEE COMPANY, Cincinnati, Ohio.
Filed March 21, 1917. Serial No. 102,322. PUBLISHED DECEMBER 18, 1917.

120,697. CHEWING AND SMOKING TOBACCO, CIGARS, AND CIGARETTES. STONE ORDEAN WELLS COMPANY, Duluth, Minn.
Filed October 23, 1917. Serial No. 106,911. PUBLISHED DECEMBER 18, 1917.

LABELS

REGISTERED FEBRUARY 26, 1918.

20,515.—*Title:* "MELTONIA '(CLOTH) MADE EXPRESSLY FOR' VOGUE CLOTHES." (For Clothes.) L. BLACK COMPANY, Rochester, N. Y. Filed January 15, 1918.

20,516.—*Title:* "EL PRODUCTO." (For Cigars.) G. H. P. CIGAR CO., Philadelphia, Pa. Filed December 6, 1917.

20,517.—*Title:* "SOUTHLAND." (For Candy.) ELMER CANDY CO., INC., New Orleans, La. Filed January 31, 1918.

20,518.—*Title:* "AUNT TILLY'S." (For Cake Specialties.) T. A. FAULDS COMPANY, INC., Boston Mass. Filed March 29, 1917.

20,519.—*Title:* "GALVO." (For Non-Intoxicating Cereal Beverages.) GALVESTON BREWING ASSOCIATION, Galveston, Tex. Filed October 19, 1917.

20,520.—*Title:* "POTLATCH." (For Fresh Apples.) GROWERS SERVICE COMPANY, Yakima, Wash. Filed February 4, 1918.

20,521.—*Title:* "PATRICK COUNTY, VA. FAIRY OR LUCK STONE CO." (For Virginia Fairy or Lucky Stones.) E. E. HALEY, Richmond, Va. Filed November 22, 1917.

20,522.—*Title:* "ARMY ROLL." (For a Confection.) ANNIE L. HAMBLIN, Mount Vernon, N. Y. Filed December 1, 1917.

20,523.—*Title:* "KEYSER'S 'PINK' LIVER PILLS.) (For Liver-Pills.) KEYSER CHEMICAL COMPANY, INCORPORATED, Roanoke, Va. Filed January 17, 1918.

20,524.—*Title:* "KEYSER'S 'PINK' HEADACHE POWDERS." (For Headache-Powders.) KEYSER CHEMICAL COMPANY, INCORPORATED, Roanoke, Va. Filed January 17, 1918.

20,525.—*Title:* "KEYSER'S 'PINK' CORN AND BUNION PLASTERS." (For Corn and Bunion Plasters.) KEYSER CHEMICAL COMPANY, INCORPORATED, Roanoke, Va. Filed January 17, 1918.

20,526.—*Title:* "K-K-K KEYSER'S 'PINK' KOLD KAPSULES." (For Capsules for the Treatment of Colds.) KEYSER CHEMICAL COMPANY, INCORPORATED, Roanoke, Va. Filed January 17, 1918.

20,527.—*Title:* "FILTER-CEL FOR BETTER FILTRATION." (For Filter-Cel.) ARTHUR H. KRUGER, New York, N. Y. Filed September 17, 1917.

20,528.—*Title:* "DEL REY BRAND." (For Sardines.) F. B. MCCROSKY, Wilmington, Cal. Filed March 20, 1917.

20,529.—*Title:* "ORANGE BLOSSOM." (For Suppositories.) J. A. MCGILL, Chicago, Ill. Filed September 24, 1917.

20,530.—*Title:* "NUGLO." (For Automobile-Polish.) THE NUGLO COMPANY, INC., Buffalo, N. Y. Filed January 14, 1918.

20,531.—*Title:* "PEERLESS POLISH." (For Polishing Compound.) PEERLESS POLISH CO., Altoona, Pa. Filed March 22, 1917.

20,532.—*Title:* "U-NO." (For a Non-Intoxicating Beverage.) THE SUGAR LOAF BEVERAGE CO., Winona, Minn. Filed September 19, 1917.

20,533.—*Title:* "CRESTA." (For Canned Anchovies.) WHITE STAR CANNING CO., East San Pedro, Cal. Filed February 4, 1918.

20,534.—*Title:* "RED STAR." (For Canned Tuna Flakes.) WHITE STAR CANNING CO., East San Pedro, Cal. Filed February 4, 1918.

20,535.—*Title:* "WHITE STAR." (For Canned Mackerel.) WHITE STAR CANNING CO., East San Pedro, Cal. Filed February 4, 1918.

20,536.—*Title:* "WHITE STAR." (For Canned Sardines in Olive-Oil.) WHITE STAR CANNING CO., East San Pedro, Cal. Filed February 4, 1918.

20,537.—*Title:* "WHITE STAR." (For Canned Pilchards Sardines.) WHITE STAR CANNING CO., East San Pedro, Cal. Filed February 4, 1918.

20,538.—"WHITE STAR." (For Canned Deviled Tuna.) WHITE STAR CANNING CO., East San Pedro, Cal. Filed February 4, 1918.

20,539.—*Title:* "WHITE STAR." (For Canned Barracuda.) WHITE STAR CANNING CO., East San Pedro, Cal. Filed February 4, 1918.

PRINTS

REGISTERED FEBRUARY 26, 1918.

4,862.—*Title:* "AN IDEAL BEVERAGE." (For a Non-Intoxicating Beverage.) BEADLESTON & WOERZ, New York, N. Y. Filed November 17, 1917.

4,863.—*Title:* "CLARX PRODUCTS 100% PURE." (For Flour.) CLARX MILLING COMPANY, Minneapolis, Minn. Filed August 21, 1917.

4,864.—*Title:* "REZNOR GAS HEATERS." (For Gas-Heaters.) REZNOR MANUFACTURING COMPANY, Mercer, Pa. Filed January 10, 1918.

DECISIONS
OF THE
COMMISSIONER OF PATENTS
AND OF
UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

LAMBERT PHARMACAL COMPANY *v.* MENTHO-LISTINE CHEMICAL COMPANY.

Decided December 3, 1917.

1. TRADE-MARKS—SIMILARITY—"LISTERINE" AND "MENTHO-LISTINE."
The word "Mentho-Listine" refused registration as a trade-mark in view of the prior registration of the word "Listerine" for the same class of goods.

2. SAME—SAME—PREFIX "MENTHO" NOT A DISTINCTION.
The prefix "Mentho" does not render the marks dissimilar. Moreover, it might be printed to give especial prominence to the word "Listine."

Mr. George Ramsey and *Mr. Geo. P. Burleigh* for the appellant.

Mr. Percy H. Moore for the appellee.

VAN ORSDEL, *J.*:

The Mentho-Listine Chemical Company, of Houston, Tex., applied for the registration of the word "Mentho-Listine" as a trade-mark for mouth-wash and tooth-powder. Opposition to the registration was interposed by the Lambert Pharmacal Company, a Missouri corporation, on the ground that it is the owner of a registered trade-mark consisting of the word "Listerine," which it has used as a trade-mark for tooth-powder since 1881, and—

that there is such a similarity between the words "Listerine" and "Mentho-Listine" that it is calculated to confuse the ordinary purchaser.

From an order of the Commissioner of Patents dismissing the opposition and adjudging applicant's mark entitled to registration, this appeal was taken.

It is agreed that the goods on which the marks are used are the same, and that the only question before the court is whether the marks are so similar as to be liable to create confusion in trade. Passing over the possible non-registrability of the mark because it is the name of the applicant company, we will dispose of the case on the single question of the deceptive similarity of the marks. The case is ruled by *in re Barrett Mfg. Co.*, (167 O. G., 513; 37 App. D. C., 111,) where the word "Creo-Carbolin" was held to be deceptively similar to the word "Carbolineum." It was there held that the prefix "Creo" did not render the marks dissimilar, and the same is here true of the prefix "Mentho." Besides, there would be nothing to control the manner in which the prefix might be printed so as to give especial prominence to the word "Listine." Where there is doubt it should be resolved in favor of the protection of the public. As was said in the case of *Lambert Pharmacal Co. v. Bolton Chemical Corp.*, (219 Fed., 325,) where the court was considering whether the trade-mark "Listogen" was deceptively similar to "Listerine:"

Of course, the burden of proof always rests upon the moving party, but having shown the adoption of a similar trade name, arbitrary in character, I can not see why speculation as to the chance that it will cause confusion should be at the expense of the man first in the field. He has a right to insist that others in making up their arbitrary names should so certainly keep away from his customers as to raise no question.

The decision of the Commissioner of Patents is reversed, and the clerk is directed to certify these proceedings as by law required.

Reversed.

Court of Appeals of the District of Columbia.

IN RE HITCHCOCK.

Decided January 7, 1918.

(Memorandum opinion.)

1. COURT OF APPEALS OF THE DISTRICT OF COLUMBIA—RULES ARE NECESSARY.
Rules are necessary to the orderly and expeditious despatch of business. Practitioners are conclusively presumed to know the rules, and if they fail to observe them then they and their clients must bear what follows, except where they are excused by cogent reasons.

2. SAME—RULE XXI, SECTION 2, NOT WAIVED.
The assembly of affidavits that could not be considered by the court in reviewing a decision of the Commissioner rendered before they were filed *Held* insufficient to excuse the delay in not taking the appeal within forty days allowed by Rule XXI.

Mr. F. W. Winter for the appellant.

SMYTH, *C. J.*:

This is an application to reinstate an appeal which was dismissed because not taken within the forty days allowed by Rule XXI governing appeals from decisions of the Commissioner of Patents. The applicant earnestly urges in his brief that the case should be restored to the docket, and for reasons assigns: (*a*) that he intended to take an appeal and notified the Commissioner of this intention; (*b*) that he was endeavoring to procure certain affidavits to be filed in the Patent Office after the Commissioner's decision; and (*c*) that he had inadvertently overlooked the requirement of the rule.

An intention to appeal does not constitute an appeal, or even a step in that direction. If the applicant had done something, though imperfectly, in the way of perfecting his appeal, he might have come within the decision in *Alaska Gold Mining Co.* v. *Keating*, (116 Fed., 561,) strongly relied upon by him, but he did not. The affidavits which he was assembling could not, of course, be considered by us in reviewing a decision of the Commissioner rendered before they were filed; they were immaterial. If the fact that he overlooked the rule formed a sufficient ground for excusing his delinquency, we might as well abolish the rules, and this we are unwilling to do. They are necessary to the orderly and expeditious despatch of business. We find they serve that purpose, and they must be enforced. Nearly every week, one or more applications are made to us to relieve parties from the consequence of their failure to observe them. The most trivial excuses are offered, at times. We are compelled to deny most of the applications. This is not a pleasant duty, and we would like to be relieved from it, which can easily be done by attorneys giving heed to the rules. Practitioners at this bar are conclusively presumed to know the rules, and if they fail to observe them, they and their clients must bear what follows, except where they are excused by cogent reasons. The application is denied.

Court of Appeals of the District of Columbia.

RICE-STIX DRY GOODS COMPANY *v.* THE SCHWARZENBACH, HUBER COMPANY.

Decided January 7, 1918.

1. TRADE-MARK INTERFERENCE—TITLE—ABANDONMENT OF MARK.

The appellant claims its title by assignment in 1914 from one D., who is supposed to have succeeded to it upon the dissolution of a partnership between him and one S., which partnership had used the mark in 1904; but since D. did not continue the business of the firm or the use of the mark after 1905 he had abandoned it, and in 1914 his assignment of it was a nullity.

2. TRADE-MARKS—USE OF MARK—METHOD OF MARKING.

It is immaterial that in the appellee's use of its mark it merely wrote the mark in pencil on the paper wrapper of the goods, "so long as the mark conveyed to the purchaser knowledge of the origin or source of manufacture of the goods to which it is applied."

Mr. James A. Carr for the appellant.

Mr. E. T. Fenwick and *Mr. L. L. Morrill* for the appellee.

VAN ORSDEL, *J.*:

This is a trade-mark interference, in which the contending parties are each claiming the prior right to the use of the word "Society" as a trade-mark for silk piece goods.

Appellant, a Missouri corporation, was granted registration of the mark in January, 1915. Appellee, a New Jersey corporation, is seeking registration of the mark, and, from the decision of the Commissioner granting its request, this appeal was taken.

Both the mark and the use are the same. The sole question is, which one used it first in such a manner as to constitute, under the law, a trade-mark use? Appellant's registration of the mark establishes *prima facie* ownership, and places the burden upon appellee as the junior party.

The use by appellant, prior to July 1, 1914, is dependent upon a purchase of the mark from one Duncan. Witnesses were produced to show use of the mark by the firm of Duncan & Stenz in 1904 and 1905. Duncan and Stenz dissolved partnership in the latter part of 1905, and ceased to use the mark thereafter. Disposing of the business of the firm, the mark was turned over to Duncan, but Duncan in no way continued the business of the firm. In 1914 Duncan assigned the mark to appellant corporation. The property right of Duncan & Stenz in the mark was dependent upon the continuous use of the mark in their business. When they ceased to continue the business, the mark was abandoned, and was subject to appropriation by any one. It follows that the assignment of the mark in 1914 was a mere nullity, so far as establishing an earlier use by appellant. Duncan & Stenz had no property right in the mark separate and apart from their business. A transfer of the business could have carried the mark with it, and the purchaser would succeed to all the rights of the vender in the mark. But when they abandoned their business, the mark became abandoned. (*Eiseman* v. *Schiffer*, 157 Fed., 473.) It is clear, therefore, that July 1, 1914, is the earliest date available for appellant.

We think appellee has established a trade-mark use of the word "Society" on silk goods since 1912. Appellant, however, contends that appellee's use amounted to nothing more than a grade-mark, since the mark was written on the wrapper with a pencil, instead of being printed on the label, and was applied only to a particular style or weave of silk goods. Whether the mark be printed or written on the goods, or on the container in which the goods are sold, is immaterial, so long as the mark conveys to the purchaser knowledge of the origin or source of manufacture of the goods to which it is applied. (Hopk. on T. M., p. 65.) The evidence conclusively shows, not only such a use of the mark by appellee company, but that it was regarded as a trade-mark use by the trade generally.

The decision of the Commissioner of Patents is affirmed, and the clerk is directed to certify these proceedings as by law required.

Affirmed.

Court of Appeals of the District of Columbia.

CHAS. A. SCHIEREN COMPANY *v.* WHITTEMORE BROS. CORPORATION AND SULLIVAN.

Decided January 7, 1918.

1. TRADE-MARKS—USE OF MARK—APPLYING TO DIFFERENT GOODS.

The appellee, who prevailed in the interference, used the term "Duxbak" as a mark for a liquid dressing for shoes. It dealt in dressing *per se*. The appellant did not use the term "Duxbak" as a trade-mark for leather-dressing by marking it on leather belts treated with the dressing. It used the mark for belts and not to distinguish the dressing, and by this use it cannot extend the mark to the dressing.

2. SAME—SAME—SHIPPING TO A BRANCH HOUSE.

No statutory use of a mark is effected by shipping a barrel per year of a liquid dressing to a branch house abroad, where the dressing was to be applied to belts.

Mr. F. B. Brock for the appellant.

Mr. F. F. Crampton for the appellee.

VAN ORSDEL, *J.*:

This appeal is from the Commissioner of Patents in a trade-mark interference, in which appellant Chas. A. Schieren Company, a New York corporation, appellee Whittemore Bros. Corporation, a Massachusetts corporation, and one Sullivan were claiming the word "Duxbak" as a trade-mark for leather-dressing.

Sullivan took no part in the case, and has dropped out, this appeal being between the Schieren Company and Whittemore Bros. Corporation. The Commissioner awarded registration to Whittemore Bros. Corporation, from which this appeal was taken.

It appears that appellees have used the mark continuously since February, 1915, and through its predecessor, the Raven Gloss Manufacturing Company, since March, 1908, as a trade-mark for paste or liquid dressing for shoes. About the same date (1908) the Schieren Company alleges that it adopted the word "Duxbak" as a trade-mark for dressing for fabrics, including leather belts. While the mark is the same, the controlling feature of the case resides in the distinct character of the goods of the contending parties. As was said by the Assistant Commissioner:

The Schieren Company does not deal in leather dressing *per se*, whereas Whittemore Bros. Corp. deals in nothing else.

Appellant puts its mark on leather belts treated with its dressing, but the mark is used on the belt, and not to distinguish the dressing. Appellee puts the mark on a dressing for shoes and leather goods, and the mark is used to distinguish the dressing, not the goods on which the dressing is used.

No interstate use of its dressing was shown by appellant, its trade being confined to the goods upon which the dressing was used. It does appear that it shipped about one barrel of the dressing per year, the mark being stenciled on the barrel-heads, to a branch house in Germany, for use there in finishing and repairing belts. This, however, does not establish such a use of the mark as the law requires to secure registration. This shipment to Germany amounted only to a transfer of the dressing from one hand to the other. The dressing was not made to be put on the market as such, but to be used as an element in the manufacture of the belts on which the mark was used. The use of the mark as a trade-mark for belts is not in conflict with the use made by Whittemore Bros. Corporation, but appellant cannot extend the use to a mere element of its manufacture to the damage of appellee or to the confusion of the public.

The decision of the Commissioner of Patents is affirmed, and the clerk is directed to certify these proceedings as by law required.

Affirmed.

Establishment of the International Bureau at Habana, Cuba, in Pursuance of Articles XI and XVI of the Convention of 1910 for the Protection of Trade-Marks. Adopted by the Fourth International Congress of American States. (See 163 O. G., 979.)

DEPARTMENT OF STATE,
Washington, D. C., February 7, 1918.

The honorable the Secretary of the Interior.

SIR: I have the honor to inclose herewith for the information of the Commissioner of Patents the Spanish text, and a translation thereof, of a decree of the Cuban Government concerning the organization of the International Bureau to be established in Habana, in pursuance of Articles XI and XVI of the Convention for the Protection of Trade-Marks, signed at the Fourth International Conference of American States at Buenos Aires in 1910, and appointing Dr. Mario Diaz Irizar to the office of Director of the Bureau.

I have the honor to be, sir, your obedient servant,
For the Secretary of State:

FRANK L. POLK,
Counselor.

[Copy.—Translation.]

Decree No. 1,982.

Whereas under Art. XVI of the Convention approved at the Fourth International American Conference held at Buenos Aires on August 20, 1910, the Government of the Republic of Cuba agreed to organize the Office of the International Union which is to be established in Habana and take charge of the registers of trade-marks coming from the United States of America, Mexico, Cuba, Haiti, Dominican Republic, San Salvador, Honduras, Nicaragua, Costa Rica, Guatemala, and Panama, as soon as the said Convention should be ratified by at least two-thirds of the nations belonging to each group;

Whereas of the eleven nations which form the group mentioned and which concerns this Government, eight have declared their acquiescence in the stipulations of the Fourth International American Conference, and therefore it becomes necessary to create in Habana the Office of the International Union;

Whereas for the establishment of the Office and everything connected therewith it is necessary first of all to create a directorate to organize its operation, proposing everything it may deem necessary and being under the control of the Government in accord with the other signing nations, and this directorate, owing to its importance, ought to be granted an annual appropriation of 4,500 dollars;

Whereas the appointment of a Director of the Office of the International Union at Habana should fall upon a person of recognized competency on the subject and possessing sufficient merit to warrant his being recommended to the signing nations;

Whereas Dr. Mario Dias Irizar, besides being a lawyer and a doctor of public law, has proven his competency in the matter of industrial legislation, having won the first premium and the "gold medal" at the contest of 1911 to 1912 of the Habana Bar Association, in an essay on trade-marks, besides which he received the congratulations of another jury which the said association designated in the contest of 1914 to 1915, on the occasion of a new work which he presented, embodying a thorough examination of the laws on trade-marks and patents, this work having been honored by being published at the expense of the Government of this Republic, pursuant to decree 439 of April 5, 1916; he likewise received, as a special honor, a gold medal from the Ayuntamiento of Habana, as a prize for his continued labor; and therefore it is obvious that he combines the necessary qualifications for discharging the duties of Director of the Office of the International American Union in Habana;

Therefore I resolve:

To establish in Habana the Office of the International American Union, creating the office of Director thereof at an annual salary of $4,500, to be paid by the Government of the Republic of Cuba under the immigration appropriation of the Department of Agriculture, Commerce, and Labor, until the said Office is able to cover its own expenses; and to appoint to said office Dr. Mario Dias Irisar, of all of which account shall be given to the signatory nations for their approval.

Given at the Presidential Palace, at Habana, on December 6, 1917.

(Sgd.) M. G. MENOCAL,
President.

(Sgd.) E. SANCHEZ AGRAMONTE,
Secretary of Agriculture, Commerce, and Labor.

I certify that the foregoing is a true copy of its original.

(SEAL.) CARLOS A———,
Assistant Secretary.

Applications Made to the Federal Trade Commission for Licenses Under Enemy-Controlled Patents and Trade-Marks Pursuant to the "Trading with the Enemy Act."

Patent No. 1,075,171, October 7, 1913, to Albrecht Thiele and George Wichmann, of Berlin, Germany, assignors to Chemische Fabrik auf Actien (vorm. E. Schering), of Berlin, Germany. Process for the manufacture of 2-phenylquinolin-4-carboxylic acid. License applied for by The Abbott Laboratories, Inc., Chicago, Ill.

Trade-Mark No. 84,596, December 26, 1911, to Chemische Fabrik auf Actien (vorm. E. Schering), of Berlin, Germany. For remedies for treatment of gout and rheumatism. License applied for by The Abbott Laboratories, Inc., Chicago, Ill.

Patent No. 1,101,111, June 23, 1914, to Arthur Zitscher. License applied for by E. I. du Pont de Nemours & Co., Wilmington, Del.

Patent No. 1,034,853, August 6, 1912, to Adolf Winther, August Leopold Laska, and Arthur Zitscher. License applied for by E. I. du Pont de Nemours & Co., Wilmington, Del.

Patent No. 1,042,856, October 22, 1912, to August Leopold Laska, Arthur Zitscher, and Felix Kunert. License applied for by E. I. du Pont de Nemours & Co., Wilmington, Del.

Patent No. 1,206,232, November 28, 1916, to August Leopold Laska. License applied for by E. I. du Pont de Nemours & Co., Wilmington, Del.

Patent No. 1,150,868, August 24, 1915, to Richard Just and Fritz Eckard. License applied for by E. I. du Pont de Nemours & Co., Wilmington, Del.

Patent No. 1,198,566, August 8, 1916, to Felix Kunert, of Offenbach-on-the-Main, Germany, assignor to the corporation of Chemische Fabrik Griesheim-Elektron, of Frankfort-on-the-Main, Germany. Compounds for use in the production of dyestuffs. License applied for by E. I. du Pont de Nemours & Co., Wilmington, Del.

Patent No. 1,127,027, February 2, 1915, to Felix Kunert and Edwin Acker, of Offenbach-on-the-Main, Germany, assignors to corporation of Chemische Fabrik Griesheim-Elektron, of Frankfort-on-the-Main, Germany. Process of producing dyestuffs on the fiber by means of the one-bath method. License applied for by E. I. du Pont de Nemours & Co., Wilmington, Del.

Patent No. 976,760, November 22, 1910, to Carl Auer von Welsbach, of Vienna, Austria-Hungary, assignor to the Firm of Treibacher Chemische Werke Gesellschaft M. B. H., of Treibach, Austria-Hungary. Pyrophoric mass. License applied for by Welsbach Company, Gloucester City, N. J.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., February 12, 1918.

C. E. Green & Co., their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Charles R. Lynch Shoe Mfg. Co., Inc., of 127 Duane street, New York, N. Y., for registration of a trade-mark and trade-mark registered March 22, 1904, No. 42,264, to C. E. Green & Co., 105 Bedford street, Boston, Mass., and a notice of such declaration sent by registered mail to said C. E. Green & Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said C. E. Green & Co., their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD,
First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., February 6, 1918.

William M. Starr, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Charles H. L. Orton, of 234 Second avenue, Pittsburgh, Pa., for registration of a trade-mark and trade-mark registered February 16, 1904, No. 42,068, to William M. Starr, of 709 G street northwest, Washington, D. C., and a notice of such declaration sent by registered mail to said William M. Starr at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said William M. Starr, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD,
First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., February 19, 1918.

The Victor O. Mills Co., its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Waldes & Company of New Jersey, of 137 Fifth avenue, New York, N. Y., for registration of a trade-mark and trade-mark registered July 15, 1902, No. 28,606, to The Victor O. Mills Co. of Wilmington, Del., and Chicago, Ill., and a notice of such declaration sent by registered mail to The Victor O. Mills Co. at Chicago, Ill., having been returned by the post-office undeliverable, notice is hereby given that unless The Victor O. Mills Co., its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three successive weeks.

R. F. WHITEHEAD,
First Assistant Commissioner.

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TO THE

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DIGEST

OF THE

DECISIONS OF THE COMMISSIONER OF PATENTS AND OF THE UNITED STATES COURTS.

FEBRUARY, 1918.

[Decisions of the Court of Appeals of the District of Columbia are indicated by a star (*).]

ABANDONMENT OF TRADE-MARK.

TRADE-MARK INTERFERENCE—TITLE.

The appellant claims its title by assignment in 1914 from one D., who is supposed to have succeeded to it upon the dissolution of a partnership between him and one S., which partnership had used the mark in 1904; but since D. did not continue the business of the firm or the use of the mark after 1905 he had abandoned it, and in 1914 his assignment of it was a nullity.

[*Rice-Stix Dry Goods Company *v.* The Schwarzenbach, Huber Company, 749.

ABBREVIATION.

See Name of Applicant.

AFFIDAVIT.

See Court of Appeals of the District of Columbia, 2; Name of Applicant.

APPEAL TO THE COURT OF APPEALS OF THE DISTRICT OF COLUMBIA.

See Jurisdiction of the Court of Appeals of the District of Columbia.

DISSOLUTION OF INTERFERENCE.

Where an interference was dissolved on the ground that C.'s application did not disclose the invention, *Held* that the question may not be appealed from to the Court of Appeals of the District of Columbia independently of a final decision putting an end to the litigation, and the same question will not be considered in an *ex parte* case. [*In re* Creveling, 747.

ASSIGNMENT OF TRADE-MARKS.

See Abandonment of Trade-Marks.

CANCELATION OF TRADE-MARKS.

See Registration of Trade-Marks, 4.

CLAIMS.

1. PATENTABILITY—DISCLOSURE OF APPLICATION.

Record reviewed and *Held* that the appealed claims cannot be predicated upon the disclosure of this application without forcing upon them a meaning which robs them of their sense. [*Ex parte* Creveling, 746.

2. DIVISION—CARBON PILE.

Held that carbon piles have attained a distinct status in the art as subjects of invention independently of the systems in which they are to be used. [Id.

3. ELECTION—RHEOSTAT AND SYSTEM.

Where C. elected to claim a system of which the carbon rheostat is an element, *Held* that he is estopped from afterward claiming the rheostat *per se* in that application. [*In re* Creveling, 747.

CONSTRUCTION OF CLAIMS.

PATENTABILITY—COUPLING FOR STAY-WIRES.

Claims for a coupling for stay-wires *Held* unpatentable in view of the prior art. [*In re* Sunderland, 480.

CONSTRUCTION OF TRADE-MARK STATUTES.

See Copyright.

COPYRIGHT.

TRADE-MARK LAW—NOT TO CONFLICT WITH COPYRIGHT LAW.

The trade-mark law is not intended to conflict with or extend the copyright law. The owner of a copyright enjoys the exclusive right as long as the copyright continues, and when it expires the privilege expires and the use of the descriptive name becomes *publici juris*. [* *In re* The Page Company, 246.

COURT OF APPEALS OF THE DISTRICT OF COLUMBIA.

1. RULES ARE NECESSARY.

Rules are necessary to the orderly and expeditious despatch of business. Practitioners are conclusively presumed to know the rules, and if they fail to observe them then they and their clients must bear what follows, except where they are excused by cogent reasons. [* *In re* Hitchcock, 965.

2. RULE XXI, SECTION 2, NOT WAIVED.

The assembly of affidavits that could not be considered by the court in reviewing a decision of the Commissioner rendered before they were filed *Held* insufficient to excuse the delay in not taking the appeal within forty days allowed by rule XXI. [*Id.

DECISIONS OF THE COMMISSIONER OF PATENTS.

See Court of Appeals of the District of Columbia, 1.

DECISIONS OF THE PATENT OFFICE TRIBUNALS.

See Jurisdiction of the Court of Appeals of the District of Columbia, 2.

PRIORITY—UNIFORM DECISIONS.

In order to secure a reversal of the uniform decisions of the Patent Office tribunals, *Held* that appellants must make out a very clear case of error.

[*Jobski and Griswold, special administrators of the estate of Richard S. Bryant, deceased, *v.* Johnson, 479.

DELAY IN FILING APPEAL.

See Court of Appeals of the District of Columbia, 2.

DESCRIPTIVE TRADE-MARKS.

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FORMER DECISIONS AFFIRMED.

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GOODS OF THE SAME DESCRIPTIVE PROPERTIES.

See Interference, 1; Use of Trade-Marks, 2.

1. DIFFERENT CLASS OF GOODS—ICE-CREAM CONES AND DAIRY PRODUCTS.
Held that a trade-mark for ice-cream cones does not come in competition with a similar trade-mark for dairy products.
[*Borden's Condensed Milk Company *v.* Eagle Manufacturing Company, 245.

2. SIMILARITY OF GOODS.
The use of leather and rubber footwear is so general and so interrelated in use by the public that the purchaser should not be called upon to discriminate between the goods put out by one or two users of the same mark.
[*Boston Rubber Shoe Company *v.* Abramowitz, 247.

INJURY.

See Registration of Trade-Marks, 4.

INTERFERENCE.

See Abandonment of Trade-Marks; Goods of Same Descriptive Properties; Jurisdiction of the Court of Appeals of the District of Columbia; Reduction to Practice; Use of Trade-Marks, 2, 3.

1. TRADE-MARKS—"HUB."
On review of the record *Held* that the prior registration and use of the Boston Rubber Company's mark "Hub" on particular kinds of footwear (rubber boots and shoes) would entitle it to extend its use to other kinds of goods within the same particular classification, and give it sufficient standing to contest the right of A. to registration.
[*Boston Rubber Shoe Company *v.* Abramowitz, 247.

2. RIGHT TO MAKE THE CLAIMS.
Record reviewed and *Held* that the Creveling application in this interference has no disclosure to support the count of the issue nor the claims proposed under Rule 109, affirming the decisions of the Law Examiner and the Examiners-in-Chief.
[Creveling *v.* Jepson, 745.

INVENTION.

See Appeal to the Court of Appeals of the District of Columbia; Claims, 2.

JUDGMENT OF PRIORITY.

See Jurisdiction of the Court of Appeals of the District of Columbia, 1.

JURISDICTION OF THE COURT OF APPEALS OF THE DISTRICT OF COLUMBIA.

1. INTERFERENCE.
This court is without jurisdiction to entertain an appeal in an interference case except from a judgment of priority.
[*Field *et al. v.* Colman, 246.

2. MOTION TO DISSOLVE.
An appeal to this court involving the sole question of whether the decision of the Patent Office tribunals on a motion to dissolve an interference should be sustained or denied will not be entertained.
[*Id.

LIMIT OF TIME.

See Court of Appeals of the District of Columbia, 2.

METHOD OF APPLYING TRADE-MARKS.

See Use of Trade-Marks, 1.

MOTION TO DISSOLVE INTERFERENCE.

See Jurisdiction of the Court of Appeals of the District of Columbia, 2.

NAME OF APPLICANT.

1. FULL NAME.
Where the applicant's first name as signed to the papers is known as a Christian name, an affidavit that the name as given is his full name should not be required even though it is also an abbreviation.
[*Ex parte* Bowen, 245.

2. "FRED" FULL CHRISTIAN NAME—NO AFFIDAVIT NECESSARY.
As "Fred" is a Christian name, the decision in *ex parte Smith and Kimble* (97 O. G., 2533) is overruled in so far as it held that an affidavit should be required when the papers are signed "Fred."
[Id.

OPPOSITION TO REGISTRATION OF TRADE-MARKS.

See Interference, 1.

TRADE-MARKS—PATENT OFFICE TRIBUNALS.
Court refused to consider evidence of registration that was not offered in evidence and brought to the attention of the Patent Office tribunals.
[*Borden's Condensed Milk Company *v.* Eagle Manufacturing Company, 245.

PARTNERSHIP.

See Abandonment of Trade-Marks.

PATENTABILITY.

See Claims, 1; Construction of Claims.

PRACTICE BEFORE THE COURTS.

See Court of Appeals of the District of Columbia.

PRIORITY OF INVENTION.

See Jurisdiction of the Court of Appeals of the District of Columbia, 1.

AWARD—EVIDENCE.
The record reviewed and *Held* priority was properly awarded to J. as to counts 1 and 2. No appeal had been taken as to the remaining claims.
[*Jobski and Griswold, special administrators of the estate of Richard S. Bryant, deceased, *v.* Johnson, 479.

REDUCTION TO PRACTICE.

INTERFERENCE—TIRE-FASTENING DEVICE.
In a test for a tire-holding device merely bouncing upon the floor a wheel having the tire and device attached thereto *Held* not to be a reduction to practice, as it would not demonstrate that the device would give the desired results when on a wheel supporting a car in motion.
[*Jobski and Griswold, special administrators of the estate of Richard S. Bryant, deceased, *v.* Johnson, 479.

REGISTRATION OF TRADE-MARKS.

See Interference, 1; Opposition to Registration of Trade-Marks; Similarity of Marks.

1. TITLE OF A BOOK NOT REGISTRABLE—"POLLYANNA."
Where the word "Pollyanna" is the name of a particular book in a series consisting at present of two books, clearly the word is descriptive and as such unregistrable.
[*In re* The Page Company, 246.

2. PUBLICATIONS—MUST NOT BE THE NAME OF ANY ONE OF A SERIES.
Undoubtedly a trade-mark may be registered for a series of literary publications; but it must be arbitrary and not merely the name of any one or more of the series.
[*Id.

3. DESCRIPTIVE WORDS—"LEGHORNETTE."
The word "Leghornette" as applied to hats *Held* to be descriptive and not registrable.
[*Elishewitz *v.* Leyser, Green Co., 479.

4. CANCELATION—INJURY PRESUMED.
The petitioner for cancelation shows injury by the registration, though injury will be presumed to follow the improper registration of any descriptive word.
[*Id.

RIGHT TO MAKE CLAIM.

See Interference, 2.

SIMILARITY OF TRADE-MARKS.

1. "LISTERINE" AND "MENTHO-LISTINE."
The word "Mentho-Listine" refused registration as a trade-mark in view of the prior registration of the word "Listerine" for the same class of goods.
[*Lambert Pharmacal Company *v.* Mentho-Listine Chemical Company, 965.

2. SAME—PREFIX "MENTHO" NOT A DISTINCTION.
The prefix "Mentho" does not render the marks dissimilar. Moreover, it might be printed to give especial prominence to the word "Listine."
[*Id.

STATE OF THE ART.

See Claims, 2; Construction of Claims.

TEST.

See Reduction to Practice.

TITLE TO TRADE-MARK.

See Abandonment of Trade-Marks.

TRADE-MARKS.

See Abandonment of Trade-Mark; Copyright; Goods of Same Descriptive Properties; Interference, 1; Opposition to Registration of Trade Marks; Registration of Trade-Marks; Use of Trade-Marks.

TRIBUNALS OF THE PATENT OFFICE.

See Opposition to Registration of Trade-Marks.

USE OF TRADE-MARK

1. METHOD OF MARKING.
It is immaterial that in the appellee's use of its mark it merely wrote the mark in pencil on the paper wrapper of the goods, "so long as the mark conveyed to the purchaser knowledge of the origin or source of manufacture of the goods to which it is applied."
[*Rice-Stix Dry Goods Company *v.* The Schwarzenbach, Huber Company, 966.

2. APPLYING TO DIFFERENT GOODS.
The appellee, who prevailed in the interference, used the term "Duxbak" as a mark for a liquid dressing for shoes. It dealt in dressing *per se*. The appellant did not use the term "Duxbak" as a trade-mark for leather-dressing by marking it on leather belts treated with the dressing. It used the mark for belts and not to distinguish the dressing, and by this use it cannot extend the mark to the dressing.
[*Chas. A. Schieren Company *v.* Whittemore Bros. and Sullivan, 966.

3. SHIPPING TO A BRANCH HOUSE.
No statutory use of a mark is effected by shipping a barrel per year of a liquid dressing to a branch house abroad, where the dressing was to be applied to belts.
*Chas. A. Schieren Company *v.* Whittemore Bros. Corporation and Sullivan, 966.

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ALPHABETICAL LIST OF PATENTEES

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PATENTS WERE ISSUED DURING THE MONTH OF FEBRUARY, 1918.

[Abbreviations: "Gaz."—Official Gazette.]

A. Mecky Company. (See Gerson, Nikolaus, assignor.)
A. C. Gilbert Company, The. (See Bailey and Nanfeldt, assignors.)
A. M. Byers Company. (See Aston, James, assignor.)
A. R. Mosler & Co. (See Mosler, Arthur R., assignor.)
A. W. Wheaton Brass Works. (See Wheaton, Abram W., assignor.)
Aaron, Solomon E., Boston, Mass. Lineman's tool. No. 1,257,948; Feb. 26; v. 247; p. 940.
Abbott, Charlie T., Woodstock, Ill. Agricultural machine. No. 1,256,632; Feb. 19; v. 247; p. 521.
Abernathy, John P., St. Louis, Mo. Means for operating railway-switches. No. 1,255,569; Feb. 5; v. 247; p. 132.
Abler, John E., Guelph, Ontario, Canada. Making hollow rubber toys. No. 1,255,496; Feb. 5; v. 247; p. 110.
Actien Gesellschaft für Anilin Fabrikation. (See Grünhagen, Heinrich, assignor.)
Adams, Albert L., Cedar Rapids, Iowa. Metallic tube. No. 1,255,841; Feb. 12; v. 247; p. 251.
Adams, Guy C., Launceston, Tasmania, Australia. Coin-controlled machine. No. 1,257,062; Feb. 19; v. 247; p. 647.
Adams, Rollin E., Fort Collins, Colo. Folding-bed attachment for automobiles. No. 1,256,861; Feb. 19; v. 247; p. 588.
Adelson, Samuel L., New York, N. Y. Former for paper-receptacles. No. 1,257,949; Feb. 26; v. 247; p. 941.
Adix, Francis, Boone, Iowa. Ensilage-tamping device. No. 1,256,633; Feb. 19; v. 247; p. 521.
Adkins, James A., Vienna, Ga. Scraper attachment for plows. No. 1,256,000; Feb. 12; v. 247; p. 324.
Adt, John B., Baltimore, Md. Starch-cooler. No. 1,255,842; Feb. 12; v. 247; p. 251.
Adt, John B., Baltimore, Md. Drying apparatus. No. 1,255,843; Feb. 12; v. 247; p. 251.
Aeolian Company, The. (See Young, Francis L., assignor.)
Aginley, John, Brooklyn, N. Y. Cigarette-case. No. 1,256,091; Feb. 12; v. 247; p. 324.
Ahern, Harry H., Newport News, Va. Wind scoop and screen for port-holes. No. 1,256,281; Feb. 12; v. 247; p. 382.
Ahlburg, Frank, assignor to Electric Fruit Marking Co., San Francisco, Cal. Temperature-control system. No. 1,256,969; Feb. 19; v. 247; p. 620.
Aichele, Albert, assignor to Aktiengesellschaft Brown Boveri & Cie., Baden, Switzerland. Pivotal joint between an alternating-current electromagnet and its armature. No. 1,255,121; Feb. 5; v. 247; p. 8.
Aikman, Burton S., assignor to National Brake & Electric Company, Milwaukee, Wis. Brake-valve device. No. 1,255,844; Feb. 12; v. 247; p. 251.
Aikman, Burton S., assignor to National Brake & Electric Company, Milwaukee, Wis. Pump and pumping system. No. 1,256,972; Feb. 12; v. 247; p. 289.
Aikman, Burton S., assignor to National Brake & Electric Company, Milwaukee, Wis. Pump. No. 1,256,002; Feb. 12; v. 247; p. 324.
Aitken, Edwin J., Pasco, Wash. Chainless non-skid device. No. 1,256,420; Feb. 12; v. 247; p. 423.
Ajax Manufacturing Company, The. (See Blakeslee, John R., assignor.)
Akerlund, Gustaf H., Bray, Minn. Razor-wiping attachment for shaving-mugs. No. 1,256,282; Feb. 12; v. 247; p. 382.
Akers, Harry G., and W. P. Kaufmann, assignors to Malt Products Company of Canada, Limited, Toronto, Ontario, Canada. Malt product. No. 1,256,634; Feb. 19; v. 247; p. 521.
Akdal, John A., Seattle, Wash. Shingle-gage. No. 1,256,192; Feb. 12; v. 247; p. 356.
Aktiebolaget Ljungströms Angturbin. (See Wiberg, Oskar A., assignor.)
Aktiebolaget Svenska Kullagerfabriken. (See Forslund, Henning D., assignor.)
Aktiengesellschaft Brown Boveri & Cie. (See Aichele, Albert, assignor.)
Albergano, Nicholas, Charleston, S. C. Register-operating mechanism. No. 1,257,443; Feb. 26; v. 247; p. 791.
Albert, Heinrich. (See Januchowsky and Albert.)

Alberti, Emilio, New York, assignor to International Cork Company, Brooklyn, N. Y. Feeding attachment for crown-cork-making machines. No. 1,255,122; Feb. 5; v. 247; p. 8.
Alberti, Emilio, New York, assignor to International Cork Company, Brooklyn, N. Y. Screening attachment for cork-disk-cutting machines. No. 1,257,171; Feb. 19; v. 247; p. 677.
Alberts, James, Dallas, Tex. Cable reeling and pulling truck. No. 1,256,093; Feb. 12; v. 247; p. 325.
Albrecht, Charles, Jr., Schleisingerville, Wis. Door-operating mechanism. No. 1,257,172; Feb. 19; v. 247; p. 678.
Albright, Irvin J., Joplin, Mo. Shock-absorber for automobiles. No. 1,257,950; Feb. 26; v. 247; p. 941.
Aldrich, George W., Antigo, Wis. Washing-machine cylinder. No. 1,256,635; Feb. 19; v. 247; p. 521.
Aldrich, Ralph J., Chicago, Ill., assignor to Benjamin Electric Mfg. Company. Safety manipulating device for machinery. No. 1,257,444; Feb. 26; v. 247; p. 791.
Alemite-Metals Company. (See Goldberg, John S., assignor.)
Allan, William N., San Antonio, Tex. Driving mechanism for automobiles and the like. No. 1,257,776; Feb. 26; v. 247; p. 891.
Allatt, Thomas, New Brighton, assignor to Herrmann, Aukam & Co., New York, N. Y. Tearing-machine. No. 1,255,123; Feb. 5; v. 247; p. 8.
Allatt, Thomas, New Brighton, assignor to Herrmann, Aukam & Co., New York, N. Y. Tearing-machine. No. 1,255,270; Feb. 5; v. 247; p. 44.
Allen, Henry A., Chicago, Ill. Apparatus for treating liquids. No. 1,256,862; Feb. 19; v. 247; p. 589.
Allen, Lester F., *et al.* (See Matheson, Robert, assignor.)
Allen, Presley R. (See Otterson, Thomas P., assignor.)
Allen, Sherman T., Los Angeles, Cal. Reciprocating sleeve-valve. No. 1,257,777; Feb. 26; v. 247; p. 892.
Allen, Sherman T., Los Angeles, Cal. Water-ballasted tractor-wheel. No. 1,257,778; Feb. 26; v. 247; p. 892.
Allen, William, *et al.* (See Matheson, Robert, assignor.)
Allerton, Samuel E., Chicago, Ill. Can-soldering machine. No. 1,256,421; Feb. 12; v. 247; p. 424.
Alles, William J. (See Dodge and Alles.)
Allié, Emile L., Paris, France. Sprinkling-stopper. No. 1,257,173; Feb. 19; v. 247; p. 678.
Allis-Chalmers Manufacturing Company. (See De Wein, George F., assignor.)
Allis-Chalmers Manufacturing Company. (See Lincoln, Charles S., assignor.)
Allison, Claude W., St. Louis, Mo. File-box. No. 1,257,299; Feb. 26; v. 247; p. 751.
Allspach, Charlotte E., Ubee, Ind. Chicken-brooder. No. 1,257,063; Feb. 19; v. 247; p. 647.
Almen-Crosby Motors Co. (See Almen, John O., assignor.)
Almen, John O., assignor to Almen-Crosby Motors Co., Inc., Seattle, Wash. Engine. No. 1,255,978; Feb. 12; v. 247; p. 289.
Almfelt, Karl J. (See Hart and Almfelt.)
Alspaugh, James S., Portsmouth, Ohio. Automatic gear-shift control. No. 1,257,064; Feb. 19; v. 247; p. 647.
Alsted, Edward P., Truesdell, Wis. Attrition-mill. No. 1,255,845; Feb. 12; v. 247; p. 252.
Altenberg, Alfons, Piqua, Ohio. Rear-axle driving mechanism for automobiles. No. 1,255,271; Feb. 5; v. 247; p. 45.
Ambrose, Thomas P., Cincinnati, Ohio. Smoker's device. No. 1,256,636; Feb. 19; v. 247; p. 522.
American Can Company. (See Leighton, George A., assignor.)
American Car and Foundry Company. (See Cherbonnier, George C., assignor.)
American Car and Foundry Company. (See Gibbs, Frederick H., assignor.)
American Car and Foundry Company. (See Hervig, Richard, assignor.)
American Car and Foundry Company. (See Johnson, Warren V., assignor.)
American Car and Foundry Company. (See Long, Frederick R., assignor.)

American Car and Foundry Company. (See McDowell, John L., assignor.)
American Car and Foundry Company. (See Ostrander, Allen E., assignor.)
American Car and Foundry Company. (See Rohling, John M., assignor.)
American Car and Foundry Company. (See Stevenson, Frederick A., assignor.)
American Linen Supply Company. (See Steiner, George A., assignor.)
American Piano Company. (See Sandlas, Henry J., assignor.)
American Pulley Company, The. (See Bowen, Russell H., assignor.)
American Radiator Company. (See Landon, Archer A., assignor.)
American Sleeve-Valve Motor Company. (See Pirscher, Ernest A., assignor.)
American Steel Foundries. (See Hedgcock, William C., assignor.)
American Store Company. (See Ruppel, Henry, assignor.)
American Telephone and Telegraph Company. (See Espenschied, Lloyd, assignor.)
American Warp Drawing Machine Company. (See Matthews, James F., assignor.)
American Well Works, The. (See Bodinson, Lars W., assignor.)
Ames, John M., *et al.* (See Hyle and Herman, assignors.)
Amick, Charles N., Stewartsville, Ind. Collapsible box. No. 1,257,571; Feb. 26; v. 247; p. 831.
Amis, Henry C., Stanfield, Oreg. Draft-rigging. No. 1,255,683; Feb. 5; v. 247; p. 165.
Amphion Piano Player Company, The. (See Doman, Lewis B., assignor.)
Amyot, Adelard, Montreal, Quebec, Canada. Show-case or refrigerator. No. 1,257,300; Feb. 26; v. 247; p. 751.
Anaconda Copper Mining Company. (See Laist and Elton, assignors.)
Anaconda Copper Mining Company. (See Laist, Frederick, assignor.)
Anchor Brake Shoe & Manufacturing Company. (See Ristine and Rowell, assignors.)
Andersen, Charles L., East Chicago, Ind. Circulation-control baffle for water-tube boilers. No. 1,257,277; Feb. 19; v. 247; p. 710.
Anderson, Axel, St. Paul, assignor to Russell Grader Manufacturing Co., Minneapolis, Minn. Steering device. No. 1,256,283; Feb. 12; v. 247; p. 383.
Anderson, David, London, England. Shield or protector suitable for the use of soldiers and others. No. 1,256,422; Feb. 12; v. 247; p. 424.
Anderson, Frank J., Great Falls, Mont. Button-hook. No. 1,255,272; Feb. 5; v. 247; p. 45.
Anderson, Frank J., Great Falls, Mont. Package-tie and handle. No. 1,255,273; Feb. 5; v. 247; p. 45.
Anderson, Frank J., Great Falls, Mont. Game. No. 1,257,779; Feb. 26; v. 247; p. 892.
Anderson, Fred, Cedar Rapids, Iowa. Mixing-machine. No. 1,255,376; Feb. 5; v. 247; p. 76.
Anderson, Fred, Tacoma, Wash. Fountain soldering-iron. No. 1,256,970; Feb. 19; v. 247; p. 620.
Anderson, Guy, Haynesville, Me. Motor-sleigh. No. 1,256,761; Feb. 19; v. 247; p. 557.
Anderson, John, and F. Bergendorf, Philadelphia, Pa. Cutting device. No. 1,255,684; Feb. 5; v. 247; p. 165.
Anderson, Nils H., assignor to The Noiseless Typewriter Company, Middletown, Conn. Type-writing machine. No. 1,255,570; Feb. 5; v. 247; p. 153.
Anderson, Nils H., assignor to The Noiseless Typewriter Company, Middletown, Conn. Type-writing machine. No. 1,255,571; Feb. 5; v. 247; p. 153.
Anderson, Peter M., Washington, D. C. Liquid-weigher. No. 1,256,193; Feb. 12; v. 247; p. 350.
Andreasen, Hans C. M. (See Christensen and Andreasen.)
Andrew, W. H., *et al.* (See Benton, Earl M., assignor.)
Anhaitzer, Henry, Pittsburgh, Pa. Tire. No. 1,255,974; Feb. 12; v. 247; p. 290.
Ankele, Louis C., Des Moines, Iowa, assignor to F. Brody & Sons. Watch-pocket. No. 1,255,497; Feb. 5; v. 247; p. 110.
Anker-Holth Manufacturing Co. (See Krenke, Otto A., assignor.)
Apostoloff, Serge, London, England, assignor of one-half to W. Ferguson, Jr., New York, N. Y. Making hollow bodies. No. 1,256,762; Feb. 19; v. 247; p. 558.
Appel, Walter D., Cleveland Heights village, Ohio, assignor to A. A. Kent, Rosemont, Pa. Circuit make-and-brake device. No. 1,255,846; Feb. 12; v. 247; p. 252.
Appleby, William H., Chicago, Ill. Hinge. No. 1,257,572; Feb. 26; v. 247; p. 831.
Appleget, Cyrus M., North Yakima, Wash. Music-leaf turner. No. 1,256,423; Feb. 12; v. 247; p. 424.
Arbetter Felling Machine Company. (See Hayes, Thomas J., assignor.)
Arbetter Felling Machine Company. (See Moulton, Harley C., assignor.)
Arbuckle, Samuel F., Indianapolis, Ind. Automobile-headlight control. No. 1,256,284; Feb. 12; v. 247; p. 383.
Arbuthnot, Earl, *et al.* (See Grabill, John F., assignor.)
Argus Lamp and Appliance Company, The. (See Sheck, Oscar M., assignor.)
Arkin, Louis, Boston, Mass. Fastener. No. 1,255,847; Feb. 12; v. 247; p. 253.
Armeson, Harold P., assignor to A. P. Holden, Toronto, Ontario, Canada. Thread-cutting tool or mill. No. 1,256,637; Feb. 19; v. 247; p. 522.
Armstrong, George F., Newark, N. J. Plastic composition. No. 1,257,780; Feb. 26; v. 247; p. 892.
Armstrong, Louis E., assignor of one-half to C. Mitchell, Omaha, Nebr. Torpedo trap or guard. No. 1,256,194; Feb. 12; v. 247; p. 357.
Arnold, A. G., *et al.* (See Mershon, Arthur U., assignor.)
Arnold, Charles E., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Producing artificial leather. No. 1,257,665; Feb. 26; v. 247; p. 868.
Arntzen, Bernard E., Chicago, Ill. Device for handling invalids. No. 1,257,445; Feb. 26; v. 247; p. 792.
Arrioja, Miguel de Maria, New York, N. Y. Non-refillable receptacle. No. 1,255,572; Feb. 5; v. 247; p. 133.
Arrow Electric Company, The. (See Gates, Frederic P., assignor.)
Arrow Electric Company, The. (See Nero, Arvid H., assignor.)
Art Metal Construction Company. (See Jones, James R., assignor.)
Artus, George, Clear Lake, S. D., assignor to Worthington Manufacturing Company, Worthington, Minn. Automatic gasolene and oil vender. No. 1,255,812; Feb. 5; v. 247; p. 202.
Ashe, William B., Hampton, Va. Davit. No. 1,257,664; Feb. 26; v. 247; p. 858.
Ashworth, Fred, Beverly, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Shoe-sewing machine. No. 1,255,498; Feb. 5; v. 247; p. 111.
Aston, James, assignor to A. M. Byers Company, Pittsburgh, Pa. Manufacture of wrought-iron. No. 1,255,499; Feb. 5; v. 247; p. 111.
Atlantic Lithographic and Printing Company. (See Stranders, Julien, assignor.)
Atlas Powder Company. (See Fletcher, William E., assignor.)
Atterbury, Grosvenor, New York, N. Y., assignor to Standardized Housing Corporation. Building-block. No. 1,255,573; Feb. 5; v. 247; p. 134.
Atwood Machine Company, The. (See Bradley, Edward B., assignor.)
Atwood, Winfield A., Schenectady, N. Y., assignor to General Electric Company. Electric switch. No. 1,256,195; Feb. 12; v. 247; p. 357.
Aubertin, John J., Jr., St. Louis, Mo. Solder for aluminum. No. 1,256,285; Feb. 12; v. 247; p. 383.
Auer, George S., Cleveland, Ohio. Floor-register. No. 1,255,848; Feb. 12; v. 247; p. 253.
August Goertz & Co. (See Von Eigen, Benno, assignor.)
Ausucua, Juan, New York, N. Y. Coffee, tea, and milk urn. No. 1,256,424; Feb. 12; v. 247; p. 425.
Auto Inspirator Co. (See Brock, John O., assignor.)
Auto Pneumatic Action Company. (See Danquard, Thomas, assignor.)
Auto Specialties Manufacturing Co. (See Bair, Clarence L., assignor.)
Auto Strop Company. (See Schumacher, Conrad, assignor.)
Automatic Electric Company. (See Blessing, John G., assignor.)
Automatic Electric Company. (See Blessing and Willis, assignors.)
Automatic Electric Company. (See Clemmer, Charles W., assignor.)
Automatic Electric Company. (See Erickson, John, assignor.)
Automatic Electric Company. (See Fales, Edward D., assignor.)
Automatic Electric Company. (See Hovland, Henry, assignor. (Reissue.)
Automatic Electric Company. (See Neir and Groh, assignors.)
Automatic Electric Company. (See Newforth, Frank, Jr., assignor.)
Automatic Flagman Company. (See Fitz Gerald, John M., assignor.)
Automatic Search Light Company. (See Wogenstahl, Leo J., assignor.)
Automatic Utilities Co. (See Eddy, Kenneth L., assignor.)
Autosales Gum and Chocolate Company. (See Webster, John A., assignor.)
Avery, Arnold, Mallorytown, Leeds, Ontario, Canada. Tire-protector. No. 1,256,763; Feb. 19; v. 247; p. 558.
Avery Company. (See Bartholomew, John R., assignor.)
Avery, True M., Glens Falls, N. Y., assignor to The Union Bag & Paper Company. Mechanism for controlling the running of a web of printed material. No. 1,256,286; Feb. 12; v. 247; p. 383.
Awischus, August, Benson, Nebr. Conveyer. No. 1,256,971; Feb. 19; v. 247; p. 621.
Ayars, Charles H., assignor to Ayars Machine Co., Salem, N. J. Can-filling machine. No. 1,255,377; Feb. 5; v. 247; p. 76.
Ayars Machine Co. (See Ayars, Charles H., assignor.)
Aylesworth, Jonas W., East Orange, assignor to New Jersey Patent Company, West Orange, N. J. Sound-record. No. 1,255,500; Feb. 5; v. 247; p. 111.
Ayres, Elwood B., assignor to The Philadelphia Textile Machinery Company, Philadelphia, Pa. Drier. No. 1,255,685; Feb. 5; v. 247; p. 165.
Ayres, Elwood B., assignor to The Philadelphia Textile Machinery Company, Philadelphia, Pa. Drier. No. 1,255,686; Feb. 5; v. 247; p. 165.
Ayres, Levi P., and S. F. Johnson, assignors to Hendricks Novelty Company, Indianapolis, Ind. Friction transmission mechanism. No. 1,256,425; Feb. 12; v. 247; p. 425.

B. F. Goodrich Company, The. (See Gammeter, John R., assignor.)
Baars, Ernest S. H. (See Richter and Baars.)
Babcock & Wilcox Company, The. (See Heaton, Herman C., assignor.)
Babcock & Wilcox Company, The. (See Jacobus, David S., assignor.)
Babinec, Stephen, Shelby, Mich. Ship-protector. No. 1,256,638; Feb. 19; v. 247; p. 522.
Babitzky, Joseph, assignor of one-half to J. L. Goldman, Cleveland, Ohio. Picture hook or hanger. No. 1,255,274; Feb. 5; v. 247; p. 45.
Bachem, Maximillian, Detroit, Mich. Metallic vehicle-wheel. No. 1,256,639; Feb. 19; v. 247; p. 522.
Bachem, Maximillian, Detroit, Mich. Metallic wheel. No. 1,256,640; Feb. 19; v. 247; p. 523.
Bacher, Rollin L., assignor to The United States Air Compressor Company, Cleveland, Ohio. Pressure-release. No. 1,255,574; Feb. 5; v. 247; p. 134.
Bachfield, Edward C., Indianapolis, Ind. Railway-switch. No. 1,256,094; Feb. 12; v. 247; p. 325.
Bachfield, Edward C., Indianapolis, Ind. Railway-bed. No. 1,256,095; Feb. 12; v. 247; p. 325.
Bachfield, Edward C., Indianapolis, Ind. Railway cross-tie. No. 1,256,096; Feb. 12; v. 247; p. 326.
Bachfield, Edward C., Indianapolis, Ind. Leveling instrument. No. 1,256,097; Feb. 12; v. 247; p. 326.
Backes, Oscar, Crookston, Minn. Railway-tie and rail-fastener. No. 1,256,287; Feb. 12; v. 247; p. 384.
Badische Anilin & Soda Fabrik. (See Mittasch, Schneider, and Morawitz, assignors.)
Baechi, Albert A., La Grande, Oreg. Cutter-guard. No. 1,255,687; Feb. 5; v. 247; p. 166.
Baer, Berthold A., Philadelphia, Pa. Signaling device. No. 1,256,098; Feb. 12; v. 247; p. 326.
Baer, Charles H., assignor of fifty one-hundredths to J. T. Parker, twenty one-hundredths to A. L. Holmes, and ten one-hundredths to S. Williams, San Francisco, Cal. Collapsible rim for vehicle-tires. No. 1,257,781; Feb. 26; v. 247; p. 892.
Bagby, Ralph A., Mentor, S. D. Method and means for branding. No. 1,257,065; Feb. 19; v. 247; p. 648.
Bagley, Edward, Vancouver, British Columbia, Canada. Fine-gold-saving machine. No. 1,256,764; Feb. 19; v. 247; p. 558.
Bahler, Fred, Gilroy, Cal. Tent-support. No. 1,255,688; Feb. 5; v. 247; p. 166.
Bailey, Clifford E., and F. W. Nanfeldt, assignors to The A. C. Gilbert Company, New Haven, Conn. Wheeled toy. No. 1,255,575; Feb. 5; v. 247; p. 134.
Bailey, George H., New York, N. Y. Game apparatus. No. 1,257,174; Feb. 19; v. 247; p. 678.
Bailey, John R., *et al.* (See Wiswell, Arthur M., assignor.)
Bailey, Samuel, T. V. Lloyd, and E. Jones, Melyncrythan, Neath, Wales; said Lloyd and said Jones assignors to said Bailey. Safety-guard for die-presses. No. 1,256,641; Feb. 19; v. 247; p. 523.
Bain, Robert T. C., Pittsburgh, and G. W. MacKenzie, Jr., assignors to Guarantee Liquid Measure Company, Rochester, Pa. Liquid-measuring apparatus. No. 1,255,576; Feb. 5; v. 247; p. 134.
Bair, Clarence L., Detroit, assignor to Auto Specialties Manufacturing Co., St. Joseph, Mich. Bow-top holder for tops with non-detachable rear curtains. No. 1,257,782; Feb. 26; v. 247; p. 893.
Baird Motion Picture Machine Co. (See Emory, Robert J., assignor.)
Baker Brothers. (See Hallenbeck, George E., assignor.)
Baker, James H., Saratoga Springs, N. Y. Horizontal centrifugal screen. No. 1,256,507; Feb. 19; v. 247; p. 485.
Baker, James P., Central City, Nebr. Tray attachment for bedsteads. No. 1,256,493; Feb. 12; v. 247; p. 446.
Baker, John E., Sand Springs, Okla. Anti-creeping device for track-rails. No. 1,255,849; Feb. 12; v. 247; p. 253.
Baker, Robert L., assignor of one-half to H. Morgan, Aurora, N. Y. Phonograph attachment. No. 1,256,099; Feb. 12; v. 247; p. 327.
Baker, Stephen D., New York, N. Y. Wall element. No. 1,255,975; Feb. 12; v. 247; p. 290.
Balaam, Arthur G., *et al.* (See Olson, Hans M., assignor.)
Balaam, Maurice A., *et al.* (See Olson, Hans M., assignor.)
Baldwin Company, The. (See Gally, Robert A., assignor.)
Ball Engine Company. (See Weston, Clarence B., assignor.)
Ball, Harry, assignor, by mesne assignments, to Worcester Shock Absorber Co., Worcester, Mass. Mechanism for automatically closing fire-doors. No. 1,257,301; Feb. 26; v. 247; p. 752.
Ballard, George L., Norristown, Pa., assignor to Wildman Mfg. Co. Striping mechanism for knitting-machines. No. 1,255,124; Feb. 5; v. 247; p. 4.
Ballard, George L., assignor to Wildman Mfg. Co., Norristown, Pa. Yarn-changing mechanism for circular-knitting machines. No. 1,255,125; Feb. 5; v. 247; p. 4.
Baltzley, Louis R., Weehawken, N. J. Filing-binder clip. No. 1,256,426; Feb. 12; v. 247; p. 425.
Bamberg, Theodore, Brooklyn, N. Y. Jig-saw puzzle. No. 1,256,100; Feb. 12; v. 247; p. 327.
Bancroft, John S., Philadelphia, Pa., and J. O. Hofberg, Westville, N. J., assignors to Lanston Monotype Machine Company, Philadelphia, Pa. Justification indicating mechanism for composing-machines. No. 1,256,765; Feb. 19; v. 247; p. 559.
Bandlow, Henry E., assignor to National Stamping & Electric Works, Chicago, Ill. Lantern. No. 1,257,175; Feb. 19; v. 247; p. 678.
Banks, Leslie M., Muskogee, Okla. Tire. No. 1,255,689; Feb. 5; v. 247; p. 166.
Banta, Edward C., Jr. (See Murray and Banta.)
Barber-Colman Company. (See Colman, Howard D., assignor.)
Barber-Colman Company. (See Peterson, Burt A., assignor.)
Barber-Greene Company. (See Barber, Harry H., assignor.)
Barber, Harry H., assignor, by mesne assignments, to Barber-Greene Company, Aurora, Ill. Digging-disk feeder. No. 1,256,642; Feb. 19; v. 247; p. 523.
Barfoed, Svend, Oakland, Cal. High-tension suspension-insulator. No. 1,256,643; Feb. 19; v. 247; p. 523.
Barkey, Arnold A. (See Hueber, Henry, assignor.)
Barlow, George H., *et al.* (See Seley, Charles C., assignor.)
Barlow, John B., Walker township, Kent county, Mich. Holder for phonograph-records. No. 1,255,690; Feb. 5; v. 247; p. 166.
Barlow, Peter, Prestwich, near Manchester, England. Dobby used in looms for weaving. No. 1,256,644; Feb. 19; v. 247; p. 524.
Barlow, Theodore H. (See Elters, William S., assignor.)
Barnes, Harold M., and D. P. Page, assignors to Grand Rapids Brush Company, Grand Rapids, Mich. Brush. No. 1,256,288; Feb. 12; v. 247; p. 384.
Barnes, Pierre. (See Stanley, John, assignor.)
Barnes, Pierre, *et al.* (See Stevenson, John F., assignor.)
Barnes, Thomas F. (See Dempsey and Barnes.)
Barnes, Thomas P., Manchester, England. Support or holder for detachable wheels of motor-vehicles. No. 1,257,666; Feb. 26; v. 247; p. 858.
Barnett, John B., assignor to J. I. Clingman and A. D. Hodgson, Fort Worth, Tex. Advertising-machine. No. 1,256,645; Feb. 19; v. 247; p. 524.
Barnett, Walter, and J. Florendine, Rugby, England. Conveyer adapted to road-sweeping machines. No. 1,255,275; Feb. 5; v. 247; p. 45.
Barnett, Walter, and J. Florendine, Rugby, England. Screw conveyer. No. 1,255,276; Feb. 5; v. 247; p. 46.
Barnum, K. R. (See Savage, Ralph V., assignor.)
Barr, John D., New York, N. Y. Goggles or eye-protectors. No. 1,257,667; Feb. 26; v. 247; p. 859.
Barrett Company, The. (See Perry, Ray P., assignor.)
Barringer, Daniel M., Wayne, Pa. Separation of magnetic iron ore from its associated non-magnetic or feebly-magnetic minerals. No. 1,256,972; Feb. 10; v. 247; p. 621.
Barron, William L., New York, N. Y., assignor to The Singer Manufacturing Company. Tape-cutting mechanism for sewing-machines. No. 1,255,501; Feb. 5; v. 247; p. 111.
Barry, Cornelius J., assignor of two-thirds to F. J. Setchell, Chicago, Ill. Grinding and polishing machine. No. 1,256,646; Feb. 19; v. 247; p. 524.
Bartholomew, John B., Peoria, Ill., assignor to Avery Company. Gang-plow. No. 1,257,446; Feb. 26; v. 247; p. 792.
Bartlett All Steel Scythe Company. (See Kitchen, Samuel M., assignor.)
Basley, Charley. (See Morris, Charles E., assignor.)
Bastian-Morley Co. (See Morley and Kite.)
Bastow, Harry, Crafton, Pa. Manufacture of vacuum vessels. No. 1,256,427; Feb. 12; v. 247; p. 426.
Bates, Chauncey A., White Plains, N. Y. Sash-balance. No. 1,255,691; Feb. 5; v. 247; p. 167.
Bates, Clarence A., assignor to The Bryant Electric Company, Bridgeport, Conn. Electric switch. No. 1,255,126; Feb. 5; v. 247; p. 4.
Bates, Lewis E., and V. V. Hanks, Houston, Tex. Electric fire and burglar alarm. No. 1,255,277; Feb. 5; v. 247; p. 46.
Battin, Robert G., Kansas City, Mo. Air compressor or motor. No. 1,255,278; Feb. 5; v. 247; p. 46.
Baudot, Joseph, Tourcoing, France. Rotary explosion-motor. No. 1,256,647; Feb. 19; v. 247; p. 524.
Bauzat, John G., Toronto, Ontario, Canada. Contour-indicating device. No. 1,255,127; Feb. 5; v. 247; p. 5.
Baumann, William J., Rapid City, S. D. Hot-water bottle. No. 1,256,428; Feb. 12; v. 247; p. 426.
Baumgartel, Henry D., Chicago, Ill. Liquid coating composition and making same. No. 1,257,783; Feb. 26; v. 247; p. 893.
Bausman, Karl H., Dayton, Ohio. Means for locating faults on alternating-current circuits. No. 1,255,853; Feb. 12; v. 247; p. 254.
Baxter, John B., assignor to Covert Manufacturing Company, Watervliet, N. Y. Snap-hook. No. 1,256,101; Feb. 12; v. 247; p. 327.
Baxter, William G. (See Goold and Baxter.)
Bayley, Richard W., Riverside, Ill. Wheelbarrow. No. 1,255,128; Feb. 5; v. 247; p. 5.
Baynes, James B., Cincinnati, Ohio. Internal-combustion engine. No. 1,257,447; Feb. 26; v. 247; p. 793.
Beach, Chester H., assignor to Wisconsin Electric Company, Racine, Wis. Antifriction-bearing. No. 1,255,578; Feb. 5; v. 247; p. 77.
Bean, Louis A., Denver, Colo. Signaling device for motor-vehicles. No. 1,255,976; Feb. 12; v. 247; p. 291.
Bearden, Daniel B., Pekin, Ill. Roofing-bracket. No. 1,255,692; Feb. 5; v. 247; p. 167.

Beardsley, Edwin W. (See Muckey, Earle A., assignor.)
Beatty, Rose J. (See Snyder, Parke T., assignor.)
Beaulieu, Alfred F., Chicago, Ill. Measuring instrument. No. 1,256,850; Feb. 12; v. 247; p. 253.
Beaulieu, Alfred F., Chicago, Ill. Welding high-speed steel to other steel or iron. No. 1,256,429; Feb. 12; v. 247; p. 426.
Beaver, Charles J., Hale, and E. A. Claremont, High Leigh, England. Electric conductor. No. 1,256,863; Feb. 19; v. 247; p. 589.
Beaver, William A. (See Bingen and Beaver.)
Beavers, Robert S., assignor to Jenckes Knitting Machine Company, Pawtucket, R. I. Circular-knitting machine. No. 1,255,851; Feb. 12; v. 247; p. 254.
Bechman, Henry F., assignor to Duplex Printing Press Company, Battle Creek, Mich. Stereotype-plate-finishing apparatus. No. 1,255,279; Feb. 5; v. 247; p. 47.
Beck, William P., assignor of one-half to A. C. Burns, Birmingham, Ala. Roofing-tile. No. 1,255,280; Feb. 5; v. 247; p. 47.
Becker, Herman W., *et al.* (See Olson, Hans M., assignor.)
Becker, Julius, Chicago, Ill. Composition of matter. No. 1,256,864; Feb. 19; v. 247; p. 589.
Becker, Mathias B., Chicago, Ill. Asphaltic shingle. No. 1,256,508; Feb. 19; v. 247; p. 485.
Beckman, Frank E., Haverhill, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Sole-edge-molding machine. No. 1,255,281; Feb. 5; v. 247; p. 47.
Beckwith, Henry C., assignor to The John F. Byers Machine Company, Ravenna, Ohio. Portable power-shovel. No. 1,255,282; Feb. 5; v. 247; p. 48.
Bedard, Leon, Jr., and S. Boiteau, Jr., St. Sauveur, Quebec, Canada. Animal-trap. No. 1,256,973; Feb. 19; v. 247; p. 621.
Beery, Bernard W., Portsmouth, Ohio. Combined boring-tool and countersink. No. 1,256,865; Feb. 19; v. 247; p. 589.
Behrendt, Jacob W., and F. A. Weise, San Francisco, Cal. Filter. No. 1,256,766; Feb. 19; v. 247; p. 559.
Beirns, John A., Detroit, Mich. Starter for internal-combustion engines. No. 1,257,784; Feb. 26; v. 247; p. 894.
Beisner, August H., Hebron, Nebr. Straw conveyer and spreader. No. 1,256,196; Feb. 12; v. 247; p. 358.
Belknap, Edwin D., East Orange, N. J. Addressing-machine. No. 1,256,509; Feb. 19; v. 247; p. 485.
Belknap, Edwin D., East Orange, N. J. Structure for use in making stencil-cards. No. 1,256,510; Feb. 19; v. 247; p. 486.
Bell, Arthur M., Belleville, Ill., assignor, by mesne assignments, to National Carbon Company, Inc., Cleveland, Ohio. Machine for pointing carbons. No. 1,255,693; Feb. 5; v. 247; p. 167.
Bell, George F., Tulsa, Okla. Sand-baler for wells. No. 1,257,276; Feb. 19; v. 247; p. 679.
Bell, John E., Brooklyn, N. Y. Boiler-baffling. No. 1,257,302; Feb. 26; v. 247; p. 752.
Bell, John H., East Orange, N. J., assignor to Western Electric Company, New York, N. Y. Repeater system. No. 1,257,303; Feb. 26; v. 247; p. 752.
Belton, John D., Crowley, La. Sounding toy. No. 1,257,448; Feb. 26; v. 247; p. 793.
Beltz, Grace C., Seattle, Wash. Skirt-marker. No. 1,257,573; Feb. 26; v. 247; p. 831.
Bemis, Thomas, Sr., Indianapolis, Ind., assignor to The Lamson Company, Boston, Mass. Sanitary conveyer. No. 1,255,977; Feb. 12; v. 247; p. 291.
Ben Day Inc. (See Cowan, Fletcher, assignor.)
Bembow, Burtis W., Eureka, Cal. Recording-compass. No. 1,256,430; Feb. 12; v. 247; p. 426.
Bender, Robert C., St. Louis, Mo. Invoice-holder. No. 1,256,866; Feb. 19; v. 247; p. 589.
Bender, Robert C., St. Louis, Mo. Invoice-holder. No. 1,256,867; Feb. 19; v. 247; p. 590.
Bendix, Vincent, Chicago, Ill. Engine-starter. No. 1,256,102; Feb. 12; v. 247; p. 328.
Bendixen, Kristian, assignor to Skindfabriken Unicum Kr. Bendixen, P. Bendixen and Company, Copenhagen, Denmark. Tanning fish-skins. No. 1,256,974; Feb. 19; v. 247; p. 621.
Bengtson, Martin E., Springfield, Mass. Gas-turbine. No. 1,255,852; Feb. 12; v. 247; p. 254.
Benjamin, Bert R., Oak Park, Ill., assignor to International Harvester Company of New Jersey. Adjusting mechanism for grain-shocking machines. No. 1,257,304; Feb. 26; v. 247; p. 753.
Benjamin Electric Mfg. Company. (See Aldrich, Ralph J., assignor.)
Benjamin Electric Manufacturing Company. (See Benjamin, Reuben B., assignor.)
Benjamin Electric Manufacturing Company. (See Dean, William W., assignor.)
Benjamin, George H., New York, N. Y. Evaporator. No. 1,255,502; Feb. 5; v. 247; p. 112.
Benjamin, Reuben B., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill. Safety device for presses. No. 1,257,449; Feb. 26; v. 247; p. 793.
Benner, Raymond C., and H. F. French, Fremont, Ohio, assignors to National Carbon Company. Electric battery. No. 1,255,283; Feb. 5; v. 247; p. 48.
Bennet, Archibald, Dunedin, and T. H. Reid, South Dunedin, New Zealand. Roller-blind. No. 1,257,668; Feb. 26; v. 247; p. 859.
Bennett, Robert M. (See Crawford and Bennett.)
Benson, Edward, Miami, Ariz. Check-valve. No. 1,256,648; Feb. 19; v. 247; p. 525.
Benton, Earl M., assignor of one-fourth to E. J. Lippard and one-fourth to W. H. Andrew, Cheyenne, Wyo. Meat-cutting machine. No. 1,255,978; Feb. 12; v. 247; p. 291.
Benninger, Albert, assignor of one-half to W. M. Schoenle, Cincinnati, Ohio. Hose or pipe coupling. No. 1,257,785; Feb. 26; v. 247; p. 894.
Berberich, Frank J., Woodhaven, N. Y. Making thermometers. No. 1,255,979; Feb. 12; v. 247; p. 292.
Berck, Alvin R., and F. Tjaden, Hastings, Nebr. Air-compressor. No. 1,255,694; Feb. 5; v. 247; p. 167.
Berg, Bigvart C. O., Kansas City, Mo. Switch-lock. No. 1,256,767; Feb. 19; v. 247; p. 560.
Bergendahl, Sven J. F., Gottenborg, Sweden. Manifold recording book or pad. No. 1,256,868; Feb. 19; v. 247; p. 590.
Bergendorf, Ferdinand. (See Anderson and Bergendorf.)
Berger Bros. Co., The. (See Berger, Darwin S., assignor.)
Berger, Darwin S., assignor to The Berger Bros. Co., New Haven, Conn. Corset. No. 1,257,066; Feb. 19; v. 247; p. 648.
Bergman, Sven R., Nahant, Mass., assignor to General Electric Company. Dynamo-electric machine. No. 1,257,177; Feb. 19; v. 247; p. 679.
Bergman, Sven R., Nahant, Mass., assignor to General Electric Company. Dynamo-electric machine. No. 1,257,178; Feb. 19; v. 247; p. 679.
Bergmann, John. (See Bredel and Bergmann.)
Berk, Louis, Alstown, Wash. Wheel-pulling jack. No. 1,257,786; Feb. 26; v. 247; p. 894.
Berman, Oscar A., Cincinnati, Ohio. Overall and suspenders. No. 1,256,768; Feb. 19; v. 247; p. 560.
Bernhard, Richard, Milwaukee, Wis., assignor, by mesne assignments, to Worthington Pump and Machinery Corporation, New York, N. Y. Crusher. No. 1,256,289; Feb. 12; v. 247; p. 384.
Berry, Edward F., New Orleans, La. Flexible pipe-coupling or flexible pipe. No. 1,255,577; Feb. 5; v. 247; p. 135.
Berry, Elmer F., Marion, Ohio. Mold for applying rubber soles to boots and shoes. No. 1,256,649; Feb. 19; v. 247; p. 525.
Berst, Charles, Chicago, Ill. Razor-blade holder. No. 1,257,179; Feb. 19; v. 247; p. 680.
Bertin, Isaac, New York, N. Y. Vegetable-grater. No. 1,255,379; Feb. 5; v. 247; p. 77.
Bertrom, Griscom & Co. (See Thompson, Uldric, Jr., assignor.)
Best, Harry A. (See Wiedenhoeft, Arthur E., assignor.)
Bettendorf Company, The. (See Yerk, Henry H., assignor.)
Bettinardi, Anton, Hoboken, N. J. Collapsible ironing-table. No. 1,256,197; Feb. 12; v. 247; p. 358.
Betulander, Gotthilf A., Södertörns Villastad, Sweden. Impulse-transmitter for automatic telephone systems. No. 1,257,180; Feb. 19; v. 247; p. 680.
Beum, Stephen D., Detroit, Mich. Truck. No. 1,257,787; Feb. 26; v. 247; p. 894.
Beyerle, Gottlob W., Skiatook, Okla. Pencil-sharpener. No. 1,256,198; Feb. 12; v. 247; p. 358.
Bickel, Carl B., Buffalo, N. Y. Fastening device. No. 1,257,788; Feb. 26; v. 247; p. 895.
Bickerton, Spencer, Honolulu, Hawaii. Stamp-book holder. No. 1,257,789; Feb. 26; v. 247; p. 895.
Bickerton, Spencer, Honolulu, Hawaii. Tag-holder. No. 1,257,790; Feb. 26; v. 247; p. 895.
Bickley, William P. (See Hudson and Bickley.)
Bienhoff, Benjamin B., Minneapolis, Minn. Display apparatus. No. 1,256,431; Feb. 12; v. 247; p. 427.
Bigelow, Myron J., C. C. Cadden, and J. Renak, assignors to The Mechanical Efficiency Company, Akron, Ohio. Mail-feeding device. No. 1,256,975; Feb. 19; v. 247; p. 622.
Bigger, Harry N., Oneida, N. Y. Fruit-picker. No. 1,257,791; Feb. 26; v. 247; p. 895.
Biggs, William O., Detroit, Mich. Heater. No. 1,255,503; Feb. 5; v. 247; p. 112.
Bilick, John, Chicago, Ill. Mail-conveyer. No. 1,256,432; Feb. 12; v. 247; p. 427.
Billstein, Aaron M., Riderwood, assignor to The Lord Baltimore Press, Baltimore, Md. Box. No. 1,257,067; Feb. 19; v. 247; p. 648.
Bingen, John, and W. A. Beaver, Marshfield, Wis. Cowtail holder. No. 1,256,284; Feb. 5; v. 247; p. 48.
Birch, Gustaf B. (See Cameron and Birch.)
Birch, James H. (See Phelps and Birch.)
Bird, Herbert, Reading, England. Apparatus for charging gas-retorts. No. 1,256,650; Feb. 19; v. 247; p. 525.
Bird, John. (See Lamb, Elden P., assignor.)
Birney, George J., Toronto, Ontario, Canada. Combination shirt and suspenders. No. 1,257,450; Feb. 26; v. 247; p. 794.
Bisceglia, Alphonse F., San Jose, Cal. Device for washing fruit. No. 1,257,574; Feb. 26; v. 247; p. 831.
Bitzenburger, Frank C., Los Angeles, Cal. Tire-guard. No. 1,257,305; Feb. 26; v. 247; p. 753.
Bjercke, Alf, Christiania, Norway. Producing coffee-like or tea-like beverages and products. No. 1,257,451; Feb. 26; v. 247; p. 794.
Bjornsson, Carl A., assignor to McEwen Bros., Wellsville, N. Y. Atomizer for oil-engines. No. 1,255,280; Feb. 5; v. 247; p. 77.
Black, James H. (See Whale and Black.)
Black, R. L. (See Carr, Samuel B., assignor.)

Blackwell, Henry F., assignor of one-half to M. E. Jutte and one-half to M. A. Blackwell, New York, N. Y. Photographic inscription-camera. No. 1,256,769; Feb. 19; v. 247; p. 560.
Blackwell, Maude A., *et al.* (See Blackwell, Henry F., assignor.)
Blakeslee, John R., assignor to The Ajax Manufacturing Company, Cleveland, Ohio. Manufacture of bolts and the like. No. 1,255,504; Feb. 5; v. 247; p. 112.
Blasinsky, Anton, *et al.* (See Cheselka, Peter, assignor.)
Blatt, Alfred W., Centerport, Pa. Nut-shelling machine. No. 1,257,306; Feb. 26; v. 247; p. 753.
Blau-Knox Company. (See Knox, Luther L., assignor.)
Blessing, Johnson, and B. D. Willis, assignors to Automatic Electric Company, Chicago, Ill. Automatic telephone-switch. No. 1,256,511; Feb. 19; v. 247; p. 486.
Blessing, John G., assignor to Automatic Electric Company, Chicago, Ill. Substation switch-hook. No. 1,256,512; Feb. 19; v. 247; p. 486.
Blevins, Alonzo. (See Body, Johnson, Kilgore, and Blevins.)
Bliss, Charles F., *et al.* (See Nagel, George W., assignor.)
Bliss, William L., assignor to U. S. Light & Heat Corporation, Niagara Falls, N. Y. Insulated electric conductor. No. 1,257,669; Feb. 26; v. 247; p. 859.
Blixt, Terry, and E. E. Froseth, Minneapolis, Minn.; said Blixt assignor to N. E. Froseth, Chicago, Ill. Safety-vault. No. 1,256,869; Feb. 19; v. 247; p. 590.
Bloch, A. D., *et al.* (See Mershon, Arthur U., assignor.)
Bloch, Richard, and F. Suess, assignors to The Kursheedt Manufacturing Company, New York, N. Y. Embroidery-frame. No. 1,257,271; Feb. 19; v. 247; p. 708.
Bloede, Victor G., Catonsville, Md. Manufacturing vegetable glue. No. 1,257,307; Feb. 26; v. 247; p. 753.
Blohm, George, El Centro, Cal. Cotton-cultivator. No. 1,257,792; Feb. 26; v. 247; p. 895.
Blom, Reidar, Bjukan, assignor to Norsk Hydro-Elektrisk Kvaelstofaktieselskab, Christiania, Norway. Manufacturing ammonium nitrate. No. 1,256,513; Feb. 19; v. 247; p. 487.
Blomberg, William T., assignor to The Palm Brothers Company, New York, N. Y. Process of transferring decalcomania designs and insignia. No. 1,256,433; Feb. 12; v. 247; p. 427.
Blondes, Harry L., Cleveland, Ohio. Print-developing machine. No. 1,256,290; Feb. 12; v. 247; p. 384.
Bloom, Camdon L. (See Hough, Frank A., assignor.)
Blue, John, Orosi, Cal. Detachable hay-rack. No. 1,257,575; Feb. 26; v. 247; p. 832.
Blumberg, Paul. (See Melli and Blumberg.)
Blumenberg, Frieda, *et al.* (See Blumenberg, Henry, Jr., assignor.)
Blumenberg, Henry, Jr., Los Angeles, assignor of one-third to H. F. Stewart, South Pasadena, Cal., one-third to F. Blumenberg, New York, N. Y., and one-third to G. D. Robertson, Los Angeles, Cal. Making superphosphate. No. 1,255,329; Feb. 5; v. 247; p. 207.
Blumenthal, Alfred, New York, N. Y. Wall cleaning and dusing apparatus. No. 1,255,695; Feb. 5; v. 247; p. 167.
Bochard, Ferdinand D., Rocky Ford, Colo. Bucket-supporting bracket. No. 1,255,696; Feb. 5; v. 247; p. 168.
Bodinson, Lars W., assignor to The American Well Works, Aurora, Ill. Centrifugal pump. No. 1,257,793; Feb. 26; v. 247; p. 896.
Body, Joseph J., M. L. Johnson, Dante, C. F. Kilgore, and A. Blevins, Coeburn, assignors of one-fifth to L. Long, Dante, Va. Mine-door. No. 1,255,697; Feb. 5; v. 247; p. 168.
Boeheck, William E., assignor to New York Revolving Portable Elevator Company, Jersey City, N. J. Manually-operated windlass mechanism for portable elevators. No. 1,257,576; Feb. 26; v. 247; p. 832.
Bohmker, John C., Bradley, assignor to Sears, Roebuck and Company, Chicago, Ill. Tractor. No. 1,256,651; Feb. 19; v. 247; p. 526.
Boiteau, Simeon, Jr. (See Bedard and Boiteau.)
Bollinger, Frederick A., Akron, Ohio. Train-controlling apparatus. No. 1,257,794; Feb. 26; v. 247; p. 896.
Bolton, Ida E., *et al.*, executors. (See Bolton, George.)
Bolton, William, *et al.*, executors. (See Bolton, George.)
Bonney, Rick E., Omaha, assignor of forty one-hundredths to V. F. Hofman and fifteen one-hundredths to C. O. Johnson, Havelock, Nebr. Road-grading machine. No. 1,255,285; Feb. 5; v. 247; p. 48.
Boos, August N. E., New York, N. Y. Universal service protecting and recording check and receipt. No. 1,257,795; Feb. 26; v. 247; p. 897.
Borland, William E. (See Thomas, William S., assignor.)
Bornhauser, Otto E., assignor of one-third to J. E. Herman and one-third to C. L. Wagner, Sandusky, Ohio. Refrigerating apparatus. No. 1,255,286; Feb. 5; v. 247; p. 49.
Bornhauser, Otto E., and J. E. Herman, assignors to The Wagner Refrigeration Company, Sandusky, Ohio. Refrigerating apparatus. No. 1,255,505; Feb. 5; v. 247; p. 113.
Bosch Magneto Company. (See Heins, Otto, assignor.)
Boss, William, St. Paul, Minn. Hose-reel. No. 1,255,854; Feb. 12; v. 247; p. 255.
Bostock & Sons, Thomas. (See Hatch, Jacob D., assignor.)
Boston Wire Stitcher Company. (See Maynard, Arthur H., assignor.)
Boughton, George B., St. Louis, Mo. Plaster terminal. No. 1,256,652; Feb. 19; v. 247; p. 526.
Bound Brook Oil-Less Bearing Company. (See Gardner, Perry G., assignor.)
Bowden, John H., London, and H. F. J. Thompson, Battersea Park, London, England. Protection of electric cables. No. 1,257,452; Feb. 26; v. 247; p. 794.
Bowditch, James, Islington, New South Wales, Australia. Boat-dropping gear. No. 1,257,577; Feb. 26; v. 247; p. 832.
Bowen, George W. (See Zerk, Oscar, assignor.)
Bowen, George W., Auburn, N. Y. Grease-cup. No. 1,255,287; Feb. 5; v. 247; p. 49.
Bowen, Russell H., assignor to The American Pulley Company, Philadelphia, Pa. Pressed-metal pulley. No. 1,255,506; Feb. 5; v. 247; p. 113.
Boxley, George, deceased, Troy, N. Y.; W. and I. E. Bolton, executors. Nasal appliance. No. 1,255,578; Feb. 5; v. 247; p. 135.
Boyd, Forest W., Providence, R. I. Automobile-lock. No. 1,257,453; Feb. 26; v. 247; p. 794.
Boyd, George D., *et al.* (See Sartain, Louis M., assignor.)
Boyd, James S., Weir, assignor of one-half to C. Sansom, Georgetown, Tex. Adjusting and locking device for skid-chains. No. 1,257,578; Feb. 26; v. 247; p. 833.
Boyer, Martin Lowry, Minn. Wheel structure. No. 1,256,653; Feb. 19; v. 247; p. 526.
Boyle, Elizabeth F. (See Ferris, Nunes C., assignor.)
Boyle, Homer L., assignor of one-third to M. H. Smith, Lansing, Mich. Sweeper. No. 1,257,308; Feb. 26; v. 247; p. 754.
Boyle, William P., Springfield, assignor to Gilbert & Barker Manufacturing Company, West Springfield, Mass. Burner. No. 1,256,480; Feb. 12; v. 247; p. 440.
Bozzella, John A., Monticello, N. Y. Water-fountain for barbers' use. No. 1,256,434; Feb. 12; v. 247; p. 428.
Braam, Geert, Rotterdam, Netherlands. Apparatus for absorbing a fixed quantity of gas by a liquid. No. 1,256,291; Feb. 12; v. 247; p. 384.
Bradbury, Frederick B., trustee. (See Sorg, William A., assignor.)
Bradford, Bernard M., Hope Mills, N. C. Crutch. No. 1,257,181; Feb. 19; v. 247; p. 680.
Bradley, Edward E., assignor to The Atwood Machine Company, Stonington, Conn. Bobbin-winding machine. No. 1,257,182; Feb. 19; v. 247; p. 681.
Bradley, Richard C., assignor of one-half to C. F. Ireland, Houston, Tex. Recording device. No. 1,255,698; Feb. 5; v. 247; p. 168.
Bradley, Richard C., assignor of one-half to C. F. Ireland, Houston, Tex. Motor for fluid-meters. No. 1,255,699; Feb. 5; v. 247; p. 169.
Bradner, Donald B. (See Kirchen and Bradner.)
Brady, Belton, Roff, Okla. Automobile-towing device. No. 1,257,454; Feb. 26; v. 247; p. 795.
Brady, George, Jackson, Mich., assignor to H. H. Lampert, Chicago, Ill. Reinforcement-support for concrete structures. No. 1,256,103; Feb. 12; v. 247; p. 328.
Braine, Daniel L., assignor to L. F. Braine, New York, N. Y. Screw-spike. No. 1,256,514; Feb. 19; v. 247; p. 487.
Braine, Lawrence F. (See Braine, Daniel L., assignor.)
Brannan, John J., McKees Rocks, Pa. Railway-tie. No. 1,256,199; Feb. 12; v. 247; p. 358.
Brand, Junius H., Nashua, N. H., assignor to Flather & Company, Inc. Shifting mechanism for gearing, &c. No. 1,257,309; Feb. 26; v. 247; p. 754.
Brandenberger, Carl F., and M. W. Reuther, Fort Madison, Iowa. Air chamber and drain storage pump. No. 1,255,855; Feb. 12; v. 247; p. 255.
Brandon, Merritt. (See Mader, Joseph, assignor.)
Brandt, Carl A. W. (See True and Brandt.)
Brandt, Gustav O., and T. Maboney, Detroit, assignors to L. A. Young, Highland Park, Mich. Cushion-spring. No. 1,257,310; Feb. 26; v. 247; p. 754.
Brauer, Albert, Millington, Mich. Extensible stovepipe. No. 1,256,654; Feb. 19; v. 247; p. 527.
Braun, William P. M., Philadelphia, Pa., assignor to Pennsylvania Lawn Mower Works. Handle for lawn-mowers, &c. No. 1,257,455; Feb. 26; v. 247; p. 795.
Bredel, Frederick A., and J. Bergmann, St. Louis, Mo.; said Bergmann assignor to said Bredel. Coke-oven. No. 1,255,579; Feb. 5; v. 247; p. 135.
Breit & Co., N. C. (See Faarborg, Jens L. H., assignor.)
Brennan, Francis H., Albany, N. Y. Centering device. No. 1,255,507; Feb. 5; v. 247; p. 113.
Brew, Annie L., administratrix. (See Brew, William H.)
Brew, William H., deceased, Washington, D. C.; A. L. Brew administratrix. Soap-dispensing device. No. 1,255,813; Feb. 5; v. 247; p. 202.
Brewster, Theodore J., Chester, Pa. Developing composition. No. 1,255,508; Feb. 5; v. 247; p. 114.
Breyer, Frank G. (See Singmaster and Breyer.)
Bridenstine, Jay G., Audubon, Iowa. One-wheel harrow-cart. No. 1,255,509; Feb. 5; v. 247; p. 114.
Bright Cigar Machine Company. (See Froehlick, Harry T., assignor.)
Bright, Fred E., Philadelphia, Pa. Chuck. No. 1,256,104; Feb. 12; v. 247; p. 328.
Briskin Manufacturing Company, The. (See May, Joseph P., assignor.)
Brixey, Austin D. (See Rearick, Charles B., assignor.)

Brixey, Austin D., New York, N. Y. Moving-picture film. No. 1,255,288; Feb. 5; v. 247; p. 49.
Brock, John O., assignor to Auto Inspirator Co., Wilmington, N. C. Attachment for internal-combustion motors. No. 1,256,976; Feb. 19; v. 247; p. 622.
Brock, Matthias, Boston, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Lasting heel-band and making the same. No. 1,257,670; Feb. 26; v. 247; p. 859.
Brocker, James, Collinsville, Ill. Acetylene-lamp. No. 1,256,770; Feb. 19; v. 247; p. 560.
Brockett, William E. (See Yetton and Brockett.)
Brockman, Robert T. (See Sorum and Brockman.)
Brody & Sons, F. (See Ankele, Louis C., assignor.)
Broman, John, assignor to Curtis & Marble Machine Company, Worcester, Mass. Seam-protecting device for cloth-shearing machines. No. 1,255,980; Feb. 12; v. 247; p. 292.
Bromwell Brush and Wire Goods Company, The. (See Olsson, Henry A., assignor.)
Brooks, Elbert J., Sparta, Wis. Chain attachment. No. 1,256,105; Feb. 12; v. 247; p. 329.
Brooks, John F., Bluff Dale, Tex. Sanitary nest. No. 1,257,796; Feb. 26; v. 247; p. 897.
Brophy, Daniel J., San Fernando, Cal. Incubator. No. 1,256,700; Feb. 5; v. 247; p. 169.
Brothers, Arthur B., Winfield, Kans. Turn-table for automobiles. No. 1,257,456; Feb. 26; v. 247; p. 795.
Brown, Annie H., Homestead, Fla. Ice-holder. No. 1,257,797; Feb. 26; v. 247; p. 897.
Brown, Charles A. (See Willis, George M., assignor.)
Brown, Cornelius M., Newark, N. J. Means for retaining flags and the like extended. No. 1,255,580; Feb. 5; v. 247; p. 135.
Brown, David W., New York, N. Y. Utilising high-frequency electric oscillations. No. 1,256,289; Feb. 5; v. 247; p. 49.
Brown, Edmund N., San Francisco, Cal., assignor to Majestic Electric Development Co. Electric heater. No. 1,255,814; Feb. 5; v. 247; p. 202.
Brown, Eugene, Earlsboro, Okla. Automobile-heating appliance. No. 1,257,068; Feb. 19; v. 247; p. 648.
Brown, Frank, Roaring Spring, Pa. Milk-strainer. No. 1,255,701; Feb. 5; v. 247; p. 169.
Brown, Frederick B., San Francisco, Cal. Arm and shoulder brace. No. 1,257,297; Feb. 19; v. 247; p. 716.
Brown, George C. (See Honsberger, William H., assignor.)
Brown, George R., deceased; W. Brown, Ashwood, Tex., temporary administrator, assignor to Clayton Gin Compress Co., Houston, Tex. Cotton preparing and baling machinery. No. 1,257,796; Feb. 26; v. 247; p. 897.
Brown Instrument Company, The. (See Heitman, Edwin J., assignor.)
Brown, James, assignor to Venango Knitting Mills, Philadelphia, Pa. Tension device for circular-knitting machines. No. 1,255,815; Feb. 5; v. 247; p. 203.
Brown, John R., assignor to The Ohio Brass Company, Mansfield, Ohio. Compressor indicating and recording device. No. 1,256,655; Feb. 19; v. 247; p. 527.
Brown, Louis L., New York, N. Y., assignor to The Foundation Company. Apparatus and method for building a continuous wall of caissons. No. 1,255,702; Feb. 5; v. 247; p. 170.
Brown, Neil. (See Hay, William, assignor.)
Brown, Reginald, Southall, England. Manufacture of artificial fuel from waste products. No. 1,256,494; Feb. 12; v. 247; p. 444.
Brown, Theophilus, Moline, assignor to The Marseilles Company, East Moline, Ill. Conveyer-chute. No. 1,256,515; Feb. 19; v. 247; p. 437.
Brown, Thomas E., Pecos, Tex. Slide-display machine. No. 1,257,278; Feb. 19; v. 247; p. 710.
Brown, Walter, administrator. (See Brown, George R.)
Brown, William, San Francisco, Cal. Handle for air-brake valves. No. 1,257,799; Feb. 26; v. 247; p. 898.
Brown, William F., Denham Springs, La. Tire-tool. No. 1,255,981; Feb. 12; v. 247; p. 292.
Brownlee, Myron. (See Chastain, Carl, assignor.)
Brune, Louis J., Algiers, La. Window-sash holder and latch. No. 1,257,457; Feb. 26; v. 247; p. 796.
Brunswick-Balke-Collender Company, The. (See Schwarzkopf, Arthur E., assignor.)
Brush, Addison P., Quinby, Va., assignor of one-half to H. A. Pearose, Philadelphia, Pa. Potato-planter. No. 1,256,292; Feb. 12; v. 247; p. 385.
Bryan, Sarah P., Claxton, Ga. Music-leaf turner. No. 1,255,703; Feb. 5; v. 247; p. 170.
Bryant Electric Company, The. (See Bates, Clarence A., assignor.)
Bryant Electric Company, The. (See Goodridge, Gilbert W., assignor.)
Bryant, William H., Oakland City, Ind. Sectional wagon-bed. No. 1,255,290; Feb. 5; v. 247; p. 50.
Brydges, Samuel M., Vancouver, British Columbia, Canada. Check-protector. No. 1,255,704; Feb. 5; v. 247; p. 170.
Buck, George D., St. Louis, Mo. Combined pump and fire-extinguisher. No. 1,256,870; Feb. 19; v. 247; p. 591.
Buckles, William R., Rifle, Colo. Self-filling fountain-pen. No. 1,255,129; Feb. 5; v. 247; p. 5.
Buckwalter, Tracy V., Altoona, Pa. Radiator. No. 1,256,977; Feb. 19; v. 247; p. 622.
Buczkowski, Wladyslaw, Buffalo, N. Y. Combined level and plumb. No. 1,256,435; Feb. 12; v. 247; p. 428.
Buda Company, The. (See Miller and Fisher, assignors.)
Buffalo Air-Brake Company. (See Webster, Willis C., assignor.)
Buhr, Joseph F., Detroit, Mich. Wind-shield. No. 1,255,705; Feb. 5; v. 247; p. 171.
Bujack, Herman C., Gary, Ind. Screen-frame. No. 1,257,183; Feb. 19; v. 247; p. 681.
Bullard, James H., assignor of one-fourth to M. R. Corner, one-fourth to G. G. Corner, and one-fourth to A. Corner, Bedias, Tex. Cattle-guard. No. 1,257,671; Feb. 26; v. 247; p. 859.
Bundy, Benjamin, Pasadena, Cal. Wrench. No. 1,255,381; Feb. 5; v. 247; p. 78.
Bunting, Wm. M. (See Newton, George F., assignor.)
Burcharts, Ferdinand, New York, N. Y. Process and apparatus for casting compound metal units. No. 1,255,706; Feb. 5; v. 247; p. 171.
Burgess, Joseph K., Bluefield, W. Va. Garment-retainer. No. 1,257,800; Feb. 26; v. 247; p. 898.
Burgin, Robert J., Marion, N. C. Hydrostatic overshot water-wheel. No. 1,255,510; Feb. 5; v. 247; p. 114.
Burke, Thomas J., New Orleans, La. War game. No. 1,257,069; Feb. 19; v. 247; p. 648.
Burke, Walter S., Cambridge, Mass. Means for utilising electricity. No. 1,257,801; Feb. 26; v. 247; p. 898.
Burkhart, James R., Davenport, Iowa. Permutation-valve. No. 1,255,581; Feb. 5; v. 247; p. 136.
Burnett, Richard W., Montreal, Quebec, Canada. Grain-car door. No. 1,255,382; Feb. 5; v. 247; p. 78.
Burns, A. C. (See Beck, William P., assignor.)
Burns, Edward C., Kansas City, Mo. Gearing for motor-vehicles. No. 1,257,311; Feb. 26; v. 247; p. 754.
Burns, Emmet S. (See Johnson, John E., assignor.)
Burns, Garrie H., Los Angeles, Cal. Automatic sewer-flusher. No. 1,256,656; Feb. 19; v. 247; p. 527.
Burrell, Delavan V., Rocky Ford, Colo. Siphonic system. No. 1,255,130; Feb. 5; v. 247; p. 5.
Burris, Melvin, Mendon, Ohio. Dump-wagon. No. 1,255,383; Feb. 5; v. 247; p. 78.
Burrows, C. B., *et al.* (See Smith, William S., assignor.)
Burrows, Garnet, *et al.* (See Sartain, Louis M., assignor.)
Burtt, Frank, assignor to W. L. Fitzgerald and A. Ten Busschen, Kalamazoo, Mich. Universal joint. No. 1,256,871; Feb. 19; v. 247; p. 591.
Bury, Absalom C., *et al.* (See Hammer, Louis, assignor.)
Busenbenz, Jacob J., Grand Rapids, Mich., assignor to Differential Clock Company, Chicago, Ill. Clock. No. 1,256,872; Feb. 19; v. 247; p. 591.
Butchart, William A., Denver, Colo. Liquid-feeding device. No. 1,256,516; Feb. 19; v. 247; p. 487.
Butcher, Elmer E., Interlaken, N. J., assignor to Marconi Wireless Telegraph Company of America. Means for detecting electrical oscillations. No. 1,257,672; Feb. 26; v. 247; p. 860.
Butler, Ernest J. (See Butler, Harry, assignor.)
Butler, Harry, assignor of one-half to E. J. Butler, Waterville, Me. Spike-puller. No. 1,257,184; Feb. 19; v. 247; p. 681.
Butterworth, William H., Trenton, N. J. Threshing-machine. No. 1,257,802; Feb. 26; v. 247; p. 899.
Byam, Norton H., administrator. (See Ristine and Rowell.)
Byers, Andrew N., Gotebo, Okla. Harvester. No. 1,255,982; Feb. 12; v. 247; p. 293.
Bystrom, John, assignor to E. L. Krag, Chicago, Ill. Loose-leaf binder. No. 1,257,803; Feb. 26; v. 247; p. 899.
C. A. Libby Company. (See Rasmussen, Robert F., assignor.)
Cadden, Charles C. (See Bigelow, Cadden, and Rehak.)
Cade, Baylus, assignor to Cade Manufacturing Company, Shelby, N. C. Line composing and casting machine. No. 1,257,185; Feb. 19; v. 247; p. 681.
Cade Manufacturing Company. (See Cade, Baylus, assignor.)
Cadenhead, Rena L., Georgetown, Ga. Burglar-alarm. No. 1,255,707; Feb. 5; v. 247; p. 171.
Cadman, Addi B., Beloit, assignor, by mesne assignments, to Warner Manufacturing Company, South Beloit, Ill. Means for transporting poles or the like. No. 1,255,384; Feb. 5; v. 247; p. 79.
Cady, William M. (See Turner and Cady.)
Cagle, George M., Tulsa, Okla. Rotary scale. No. 1,257,186; Feb. 19; v. 247; p. 682.
Caley, Garfield H., assignor of one-third to H. J. Hembrook, Waterford, Wis. Corn-shock sling. No. 1,257,458; Feb. 26; v. 247; p. 796.
Callaway, William J., San Diego, Cal. Wave-motor. No. 1,256,106; Feb. 12; v. 247; p. 329.
Callenders Cable & Construction Company Limited *et al.* (See Watson, John F., assignor.)
Callsen, Jurgen, Elberfeld, Germany, assignor to Synthetic Patents Co., Inc., New York, N. Y. Bromodiethylacetylurethanes. No. 1,256,293; Feb. 12; v. 247; p. 385.
Calton, William T. K., London, England. Fountain-pen. No. 1,257,804; Feb. 26; v. 247; p. 899.
Calvert, Sebastian L., Augusta, Kans. Vacuum fluid-circulating system. No. 1,257,805; Feb. 26; v. 247; p. 900.
Camden Iron Works. (See Lindsay, William J., assignor.)
Cameron, George W., Hondo, Tex. Insect-destroyer. No. 1,255,131; Feb. 5; v. 247; p. 6.

Cameron, James A., and G. B. Birch, assignors to Cameron Machine Company, Brooklyn, N. Y. Mounting for rotatable members. No. 1,256,108; Feb. 12; v. 247; p. 329.
Cameron, James A., and G. B. Birch, assignors to Cameron Machine Company, Brooklyn, N. Y. Rewinding-machine. No. 1,256,499; Feb. 12; v. 247; p. 446.
Cameron, James A., and G. B. Birch, assignors to Cameron Machine Company, Brooklyn, N. Y. Making surgical bandages. No. 1,256,657; Feb. 19; v. 247; p. 528.
Cameron, James A., and G. B. Birch, assignors to Cameron Machine Company, Brooklyn, N. Y. Perforating, splitting, and rewinding machine. No. 1,256,658; Feb. 19; v. 247; p. 528.
Cameron, James A., and G. B. Birch, assignors to Cameron Machine Company, Brooklyn, N. Y. Machine for making surgeons' bandages. No. 1,256,659; Feb. 19; v. 247; p. 528.
Cameron Machine Company. (See Cameron and Birch, assignors.)
Cameron Machine Company. (See Hansen, Svend, assignor.)
Cammen, Leon, New York, N. Y. Cooling system for internal-combustion engines. No. 1,256,109; Feb. 12; v. 247; p. 330.
Campbell, Albert P. (See Harris, Charles R., assignor.)
Campbell, Argyle, Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Spring friction-gear. No. 1,255,132; Feb. 5; v. 247; p. 6.
Campbell, Argyle, assignor to Enterprise Railway Equipment Company, Chicago, Ill. Door-operating mechanism. No. 1,255,885; Feb. 5; v. 247; p. 79.
Campbell, Argyle, assignor to Enterprise Railway Equipment Company, Chicago, Ill. Divertible ballast-car. No. 1,256,107; Feb. 12; v. 247; p. 329.
Campbell, Argyle, assignor to Enterprise Railway Equipment Company, Chicago, Ill. Door-operating mechanism for cars and the like. No. 1,256,771; Feb. 19; v. 247; p. 561.
Campbell, Argyle, assignor to Enterprise Railway Equipment Company, Chicago, Ill. Hopper-car. No. 1,257,270; Feb. 19; v. 247; p. 707.
Campbell, Joseph A., Ontario, and V. O. Campbell, Fresno, Cal. Fruit-distributing device. No. 1,256,294; Feb. 12; v. 247; p. 385.
Campbell, L. J., *et al.* (See Sartain, Louis M., assignor.)
Campbell, Vernon O. (See Campbell, Joseph A. and V. O.)
Campbell, W. H., *et al.* (See Sartain, Louis M., assignor.)
Campbell, William B., Portland, Oreg., assignor of one-fourth to G. W. Hines, North Yakima, Wash. Rotary pump. No. 1,257,806; Feb. 26; v. 247; p. 900.
Capron, George F., El Paso, Tex. Nut-lock. No. 1,256,436; Feb. 12; v. 247; p. 428.
Capurro, John, *et al.* (See Gould, Fred L., assignor.)
Carborundum Company, The. (See Hutchins, Otis, assignor.)
Careaga, John T., San Jose, Cal. Hat-box. No. 1,256,437; Feb. 12; v. 247; p. 429.
Carey, John J. (See Frick, Allen J., assignor.)
Carhart, Herbert A., Syracuse, assignor to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,256,517; Feb. 19; v. 247; p. 488.
Carlon, Harry P., Wilmington, Del. Frame. No. 1,256,518; Feb. 19; v. 247; p. 488.
Carlson, Ernst H. (See Ekman, Ernst, assignor.)
Carlton Mills Co. (See McKenna, Lawrence, assignor.)
Carpenter, Campbell C., assignor, by mesne assignments, to U. S. Light & Heat Corporation, Niagara Falls, N. Y. Alkaline-battery plate. No. 1,257,312; Feb. 26; v. 247; p. 755.
Carr, Gertrude V., Brooklyn, N. Y. Convertible body for vehicles. No. 1,257,187; Feb. 19; v. 247; p. 682.
Carr, James J., Auburn, N. Y. Vehicle-signal. No. 1,255,856; Feb. 12; v. 247; p. 255.
Carr, Paul H., Washington, D. C. Collapsible drinking-cup. No. 1,255,133; Feb. 5; v. 247; p. 6.
Carr, Samuel B., assignor of one-half to R. L. Black, Harrodsburg, Ky. Hemp-breaking machine. No. 1,257,313; Feb. 26; v. 247; p. 755.
Carrell, Newton R., Decatur, Ala. Shoe-nail. No. 1,257,807; Feb. 26; v. 247; p. 900.
Carrico, Frank D., Hamtramck, assignor of one-half to J. H. Neary, Detroit, Mich. Steering-gear. No. 1,256,873; Feb. 19; v. 247; p. 592.
Carrigan, Thomas J., J. B. Eastman, Los Angeles, and M. E. Magill, Pasadena, Cal.; said Eastman and said Mcgill assignors to said Carrigan. Sinew-cutting machine. No. 1,255,886; Feb. 5; v. 247; p. 79.
Carswell, William W., *et al.* (See Golata and Roberts, assignors.)
Carver, George G., assignor to The Jennison-Wright Company, Toledo, Ohio. Wood impregnation. No. 1,256,200; Feb. 12; v. 247; p. 359.
Carver, John D., Walsall, England. Lathe, boring-machine, and the like. No. 1,257,188; Feb. 19; v. 247; p. 683.
Case, Glen R. (See Fargo and Case.)
Casey, Frank, assignor to The Stone Straw Company, Washington, D. C. Mandrel. No. 1,255,134; Feb. 5; v. 247; p. 7.
Cashell, George F., Brookville, Md. Hame and trace connector. No. 1,257,808; Feb. 26; v. 247; p. 900.
Castellano, Arthur S., Jacksonville, Fla. Gas-generating jar. No. 1,257,314; Feb. 26; v. 247; p. 755.
Catlin, George L., and D. Morrison, Port Allegany, assignors to R. W. Hilton, Smethport, Pa. Glass-drawing furnace. No. 1,255,983; Feb. 12; v. 247; p. 293.
Caughlin, Frank W. (See Defenbaugh, Charles C., assignor.)
Causey, Daniel W., Norfolk, Va. Machine for repointing phonograph-needles. No. 1,256,978; Feb. 19; v. 247; p. 623.
Central Railway Signal Company. (See Dutcher, Frank, assignor.)
Central Trust Company of Illinois, trustee. (See Ewen, Malcolm F., assignor.)
Ceretti, Arnaldo, Montreal, Quebec, Canada. Diving-bell. No. 1,257,809; Feb. 26; v. 247; p. 901.
Chadwick, Lee S., East Cleveland, assignor to The Cleveland Metal Products Company, Cleveland, Ohio. Oil-burner. No. 1,255,582; Feb. 5; v. 247; p. 136.
Chaffin, Horatio C., *et al.* (See Grabill, John F., assignor.)
Chalfant, Allen S., Somerset, Ohio. Adjustable hinge. No. 1,255,291; Feb. 5; v. 247; p. 50.
Challenge Machinery Co., The. (See Lee, James E., assignor.)
Chamberlain, Minor E., Lebanon, Mo. Resilient wheel. No. 1,257,673; Feb. 26; v. 247; p. 860.
Chamberlin, Benjamin D., Rochester, N. Y., assignor to Empire Machine Company, Portland, Me. Apparatus for the manufacture of blown-glass articles. No. 1,256,979; Feb. 19; v. 247; p. 623.
Chamberlin, Benjamin D., Rochester, N. Y., assignor to Empire Machine Company, Portland, Me. Process of blowing glass. No. 1,256,980; Feb. 19; v. 247; p. 624.
Chambers, Frank B., Buffalo, N. Y. Apparatus for filling receptacles with liquids. No. 1,255,984; Feb. 12; v. 247; p. 293.
Champlin, Myron A., Washington, D. C. Link belt. No. 1,257,579; Feb. 26; v. 247; p. 833.
Chance & Hunt. (See Hunt and Glidden, assignors.) (Reissue.)
Chaney, Bailey E., Corpus Christi, Tex. Vacuum cotton-picking machine. No. 1,256,438; Feb. 12; v. 247; p. 429.
Chappell, Marvin L. (See Mann and Chappell.)
Charles E. Hancock Company. (See l'atten, Charles H., assignor.)
Charles, Walter T., Chicago, Ill. Fire-extinguisher. No. 1,256,874; Feb. 19; v. 247; p. 592.
Charlton, Harry W., New York, N. Y. Asbestos treatment and product thereof. No. 1,256,296; Feb. 12; v. 247; p. 386.
Charlton, Harry W., New York, N. Y., assignor to Kaolin Products Corporation. Replacing alkali metal in alkali-metal-carrying rocks and products thereof. No. 1,256,295; Feb. 12; v. 247; p. 385.
Chartier, Noel B., Richland, Wash. Wall-papering machine. No. 1,257,315; Feb. 26; v. 247; p. 756.
Chastain, Carl, Twin Falls, assignor of one-fourth to M. Brownlee, Fort Hall, Idaho. Dam for irrigation-ditches. No. 1,256,772; Feb. 19; v. 247; p. 561.
Chatfield, George L., assignor to Holcomb & Hoke Manufacturing Company, Indianapolis, Ind. Heating element for buttering devices. No. 1,255,985; Feb. 12; v. 247; p. 294.
Cherbonnier, George C., assignor to American Car and Foundry Company, St. Louis, Mo. Ratchet-and-pawl arrangement for dumping-cars. No. 1,256,110; Feb. 12; v. 247; p. 330.
Cheselka, Peter, Fairbank, assignor of one-eighth to G. Kupec, one-eighth to J. Slosar, one-eighth to S. Dunovan, and one-eighth to A. Blasinsky, New Salem, Pa. Railway-car brake. No. 1,256,660; Feb. 19; v. 247; p. 529.
Chester, James C., Escalon, Cal. Signal. No. 1,256,773; Feb. 19; v. 247; p. 562.
Cheung, Lo Ka, Canton, China. Polishing-machine. No. 1,257,951; Feb. 26; v. 247; p. 941.
Chicago-Cleveland Car Roofing Company. (See Russell, Thomas N., assignor.)
Chicago Mill and Lumber Company. (See Quinn, Don L., assignor.)
Chicago Railway Equipment Company. (See Williams, Charles H., assignor.)
Chidlow, David, Ridgefield, Conn., assignor to J. F. and W. S. Strachan, Montreal, Quebec, Canada. Making bread. No. 1,255,292; Feb. 5; v. 247; p. 50.
Chidlow, David, Ridgefield, Conn., assignor to J. F. and W. S. Strachan, Montreal, Quebec, Canada. Process and machine for making bread. No. 1,255,293; Feb. 5; v. 247; p. 51.
Chillicothe Bean Snipper Company, The. (See Killingsworth, Wilbur, assignor.)
Chisholm-Scott Company. (See Urschel, William E., assignor.)
Christensen, Hans A., and H. C. M. Andreasen, Cliffside, N. J. Lock. No. 1,255,583; Feb. 5; v. 247; p. 136.
Christensen, Jens H., Sölleröd, Holte, Denmark. Producing photographic films of varying porousness. No. 1,256,981; Feb. 19; v. 247; p. 624.
Christianson, Andrew, Butler, assignor to Standard Steel Car Company, Pittsburgh, Pa. Six-wheel truck. No. 1,255,857; Feb. 12; v. 247; p. 255.
Christmas, Adolph F., Easton, Pa., assignor to Ingersoll-Rand Company, Jersey City, N. J. Governor. No. 1,255,294; Feb. 5; v. 247; p. 51.

Chubb, Lewis W., Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company. Protective system for electrical apparatus. No. 1,255,387; Feb. 5; v. 247; p. 79.

Church & Dwight Company. (See Schroeder and Tooker, assignors.)

Cinq-Mars, Arthur E., San Francisco, Cal. Demountable rim. No. 1,255,708; Feb. 5; v. 247; p. 171.

Claeson, Erick. (See Gronager, Holger J. J., assignor.)

Claremont, Ernest A. (See Beaver and Claremont.)

Clark, Alfred L., Dubuque, Iowa. Roller-awning. No. 1,257,316; Feb. 26; v. 247; p. 756.

Clark, Daniel M., Jamesburg, N. J. Adjustable-electrode spark-plug. No. 1,256,201; Feb. 12; v. 247; p. 359.

Clark, David P., Dayton, Ohio. Toy. No. 1,256,111; Feb. 12; v. 247; p. 330.

Clark, Edgar H. (See Williams and Clark.)

Clark, Frederic B. (See Kronenberger, Ferdinand, assignor.)

Clark, James T., assignor of one-half to G. S. Gritman, Detroit, Mich. Garment-display fixture. No. 1,255,584; Feb. 5; v. 247; p. 137.

Clark, Louis H., Brooklyn, N. Y. Apron. No. 1,257,310; Feb. 26; v. 247; p. 901.

Clark, Mabel A., Rochester, N. Y. Fruit-halving instrument. No. 1,256,439; Feb. 12; v. 247; p. 429.

Clarkson, William S., New Haven, Conn. Valve-motion for fluid-pressure engines. No. 1,255,511; Feb. 5; v. 247; p. 114.

Clason, George S., Denver, Colo. Map-cabinet. No. 1,257,580; Feb. 26; v. 247; p. 833.

Classen, Alexander, Aachen, Germany. Producing ammonia. No. 1,256,875; Feb. 19; v. 247; p. 503.

Clausen, Henry P., Mount Vernon, assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,256,661; Feb. 19; v. 247; p. 529.

Clausen, Henry P., Mount Vernon, N. Y., assignor, by mesne assignments, to Western Electric Company, Incorporated. Telephone-exchange system. No. 1,257,317; Feb. 26; v. 247; p. 756.

Clausen, Henry P., Mount Vernon, and C. L. Goodrum, assignors to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,256,500; Feb. 12; v. 247; p. 447.

Clawson, Archie, Rockvale, Mont. Folding or collapsible receptacle. No. 1,256,112; Feb. 12; v. 247; p. 330.

Clayton Gin Compress Co. (See Brown, George R., assignor.)

Cleman, Otto L., and A. Porret, Toronto, Ontario, Canada. Brush. No. 1,256,602; Feb. 19; v. 247; p. 529.

Clements, Jesse, Kent, England. Means for raising sunken objects. No. 1,255,512; Feb. 5; v. 247; p. 115.

Clemmer, Charles W., Dayton, Ohio, assignor to Automatic Electric Company, Chicago, Ill. Automatic selecting-switch. No. 1,257,511; Feb. 26; v. 247; p. 902.

Cleveland Metal Products Company, The. (See Chadwick, Lee S., assignor.)

Clifton Manufacturing Co. (See Raymond, Nelson H., assignor.)

Clinger, William T., Oil City, Pa. Game apparatus. No. 1,257,674; Feb. 26; v. 247; p. 860.

Clingman, J. I., *et al.* (See Barnett, John B., assignor.)

Clinton, Thomas J. (See Cooper, Lyman M., assignor.)

Clip Bar Manufacturing Company. (See Ficklen, William E., assignor.)

Clipper Belt Lacer Company. (See Diamond, James K., assignor.)

Clune, John H. (See Collette, William, assignor.)

Coatalen, Louis, Wolverhampton, England. Means for protecting the ignition apparatus of internal-combustion engines. No. 1,256,876; Feb. 19; v. 247; p. 503.

Coate, William V., Celina, Ohio. Automatic damper. No. 1,255,709; Feb. 5; v. 247; p. 172.

Coats, Edward O., Postoak, assignor of one-half to W. L. and H. K. Downing, Chilhowee, Mo. Roller-bearing worm-drive. No. 1,256,440; Feb. 12; v. 247; p. 429.

Coats, Henry B., Crawfordsville, Ind. Making vehicle-wheels. No. 1,257,318; Feb. 26; v. 247; p. 757.

Cobb, Alton E. (See Parker and Cobb.)

Cobb, Edward S., Whittier, Cal. Railway intersection. No. 1,257,280; Feb. 19; v. 247; p. 711.

Cobb, Edward S., Whittier, Cal., assignor to Cobb Shockless Crossing Corporation, New York, N. Y. Crossing-operating system. No. 1,257,279; Feb. 19; v. 247; p. 710.

Cobb, Edward S., Whittier, Cal., assignor, by mesne assignments, to Cobb Shockless Crossing Corporation, New York, N. Y. Railway intersection. No. 1,257,612; Feb. 26; v. 247; p. 902.

Cobb, George W. (See Wegner, Fred, assignor.)

Cobb, Henry Z., Winchester, Mass., assignor to Revere Rubber Company. Golf-ball. No. 1,255,886; Feb. 5; v. 247; p. 80.

Cobb Shockless Crossing Corporation. (See Cobb, Edward S., assignor.)

Cochran, Thomas I., Detroit, Mich. Fuel-feeding apparatus for internal-combustion engines. No. 1,256,519; Feb. 19; v. 247; p. 488.

Coe, Frank M., New York, N. Y. Tractor-wheel. No. 1,256,118; Feb. 12; v. 247; p. 331.

Coen, Garnet W., San Francisco, Cal. Combustion baffle-plate. No. 1,257,952; Feb. 26; v. 247; p. 942.

Cohn, Herman, New York, N. Y. Machine for pressing and forming hats. No. 1,257,675; Feb. 26; v. 247; p. 861.

Colardeau, Louis J. E., and J. Richard, Paris, France. Stereoscopic apparatus. No. 1,256,774; Feb. 19; v. 247; p. 562.

Cole, Earl W., Ovid, Mich. Spark-plug for internal-combustion engines. No. 1,257,581; Feb. 26; v. 247; p. 834.

Coleman, James M., Montreal, Quebec, Canada. Center-bearing pin. No. 1,255,185; Feb. 5; v. 247; p. 7.

Collette, William, assignor of one-half to J. H. Clune, Springfield, Mass. Automobile-signal. No. 1,257,189; Feb. 19; v. 247; p. 683.

Collins, Bert J., Lenora, Okla. Front-wheel drive for motor-vehicles. No. 1,257,676; Feb. 26; v. 247; p. 861.

Collins, Henry H., assignor of one-half to H. D. Gump, Johnson City, Tenn. Railway-crossing construction. No. 1,256,982; Feb. 19; v. 247; p. 624.

Collins, Horace B., Oklahoma, Okla. Box, crate, and like construction. No. 1,256,202; Feb. 12; v. 247; p. 359.

Colman, Howard D., assignor, by mesne assignments, to Barber-Colman Company, Rockford, Ill. Container for yarn-carriers. No. 1,255,858; Feb. 12; v. 247; p. 256.

Colman, Howard D., assignor, by mesne assignments, to Barber-Colman Company, Rockford, Ill. Knotter. No. 1,255,859; Feb. 12; v. 247; p. 256.

Colpitts, Edwin H., East Orange, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y. Wireless telegraphy and telephony. No. 1,256,983; Feb. 19; v. 247; p. 624.

Company of Peter Spence & Sons Limited. (See Spence and Wrigley, assignors.)

Compo-Tile Fireproofing Company. (See Schweimler and Poulalion, assignors.)

Condit, Sears B., Jr. (See Noyes, Bernice J., assignor.)

Conkling, Samuel G., Brooklyn, N. Y. Shock-absorber. No. 1,255,513; Feb. 5; v. 247; p. 115.

Conley, George R., *et al.* (See Fitzgerald, Michael, assignor.)

Conley, James H., *et al.* (See Fitzgerald, Michael, assignor.)

Connell, Thomas, Iowa City, Iowa. Damper-regulator. No. 1,257,190; Feb. 19; v. 247; p. 682.

Conner, Robert E., Atlanta, Ga. Package-tie. No. 1,256,966; Feb. 12; v. 247; p. 294.

Conrad, Frank A., Milwaukee, Wis. Hot-air furnace. No. 1,256,776; Feb. 19; v. 247; p. 562.

Conrad, John F. and J. Walker, Nettleton, Pa. Coal-mining machine. No. 1,257,582; Feb. 26; v. 247; p. 834.

Conradson, Conrad M., Madison, Wis. Hydraulic variable-speed transmission. No. 1,256,501; Feb. 12; v. 247; p. 447.

Consolidated Press Company. (See Patrick, Isaac, assignor.)

Convertible Automobile Body Corporation. (See Lewkowicz, Ladis, assignor.)

Conway, Robert E., *et al.* (See Seeger, August C., assignor.)

Cook, Arthur B., Baton Rouge, La. Folding bed. No. 1,257,813; Feb. 26; v. 247; p. 902.

Cook, Charles F., assignor of one-half to J. E. Walton, Houston, Tex. Stove. No. 1,255,295; Feb. 5; v. 247; p. 51.

Cook, Mary A. E., Bridgeport, Wash. Bust-form. No. 1,256,203; Feb. 12; v. 247; p. 360.

Coolbroth, Augusta P., Brookline, Mass. Veil. No. 1,256,204; Feb. 12; v. 247; p. 360.

Coolbroth, Augusta P., Portland, Me. Veil. No. 1,256,205; Feb. 12; v. 247; p. 360.

Cooper, Joel S., Santa Barbara, Cal. Beet-harvester. No. 1,257,953; Feb. 26; v. 247; p. 942.

Cooper, Lyman M., assignor of one-half to T. J. Clinton, Detroit, Mich. Steering-wheel. No. 1,255,186; Feb. 5; v. 247; p. 7.

Cope, George R., Hanna, Alberta, Canada. Breast-strap. No. 1,257,814; Feb. 26; v. 247; p. 903.

Cope, Lester I. (See Sabina and Cope.)

Cordley, Henry G., Glen Ridge, N. J. Drip-cup and support. No. 1,256,206; Feb. 12; v. 247; p. 360.

Corn Products Refining Company. (See Jefferies, Fredrick, assignor.)

Cornelius, Louis A., Grand Rapids, Mich. Bath or basin waste. No. 1,255,389; Feb. 5; v. 247; p. 80.

Corner, Alva, *et al.* (See Bullard, James H., assignor.)

Corner, Garvin G., *et al.* (See Bullard, James H., assignor.)

Corner, Mance R., *et al.* (See Bullard, James H., assignor.)

Corti, Arnold, Dübendorf, near Zurich, Switzerland. Process to separate gintaminic acid from other amino acids. No. 1,255,890; Feb. 5; v. 247; p. 80.

Cosgrove, John W., Medford, and E. Erickson, Beverly, Mass., assignors, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Shoe-turning machine. No. 1,257,583; Feb. 26; v. 247; p. 834.

Costello, William, Jr., Philadelphia, Pa. Cake-coating machine. No. 1,257,677; Feb. 26; v. 247; p. 861.

Cottle, Alonzo J., Hartsville, Ind. Repair-axle. No. 1,257,942; Feb. 26; v. 247; p. 939.

Cotton, Walter H., Chicago, Ill. Hydroplane. No. 1,257,678; Feb. 26; v. 247; p. 862.

Couch Bros. Manufacturing Co. (See Ponder, Allie, assignor.)

Couchois, Garrett J., Rutherford, N. J., assignor to Couchois Tire Corporation, New York, N. Y. Resilient tire. No. 1,256,877; Feb. 19; v. 247; p. 503.

Couchois Tire Corporation. (See Couchois, Garrett J., assignor.)

Coughlin, Edward J., Passaic, N. J., assignor to New York Belting & Packing Company. Hose. No. 1,256,520; Feb. 19; v. 247; p. 488.

Coulson, John, Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Company. Electrolyte. No. 1,255,891; Feb. 5; v. 247; p. 81.

Courson, John F., Pitcairn, Pa. Draft-gear. No. 1,256,297; Feb. 12; v. 247; p. 386

Courter, Martin, Sneads Island, assignor of one-half to F. D. Waite, Palmetto, Fla. Seam-opening tool. No. 1,255,860; Feb. 12; v. 247; p. 256.

Courtinade, François, New York, N. Y. Cigarette. No. 1,257,815; Feb. 26; v. 247; p. 903.

Courtinade, François, New York, N. Y. Cigarette. No. 1,257,819; Feb. 26; v. 247; p. 757.

Covel, John H., Kenefic, Okla. Corn-header. No. 1,256,776; Feb. 19; v. 247; p. 562.

Covert Manufacturing Company. (See Baxter, John B., assignor.)

Cowan, Fletcher, assignor to Ben Day Inc., Summit, N. J. Holdfast for shading-films. No. 1,255,514; Feb. 5; v. 247; p. 115.

Cowgill, Charles O., and C. B. Kimble, Des Moines, Iowa. Signal-arm light. No. 1,256,521; Feb. 19; v. 247; p. 489.

Cox, Archibald, *et al.* (See Eckel, Edwin C., assignor.)

Cox, John, Hot Springs, Ark. Hair-clipper. No. 1,257,679; Feb. 26; v. 247; p. 862.

Cox, John C., *et al.* (See Steedman, James B., assignor.)

Cox, John W. (See Walker and Cox.)

Cox, Michael, New York, N. Y. Folding bed. No. 1,255,710; Feb. 5; v. 247; p. 172.

Cox, William P., Danville, Va. Cotton-lap-dyeing machine. No. 1,256,137; Feb. 5; v. 247; p. 7.

Crandall, Irving B., assignor to Western Electric Company, New York, N. Y. Damping material for telephones. No. 1,255,861; Feb. 12; v. 247; p. 256.

Crane Company. (See Olson, Charles A., assignor.)

Crane, Newton, Boston, Mass. Illuminated fountain. No. 1,255,711; Feb. 5; v. 247; p. 172.

Crane, Newton, Boston, Mass. Armature-winding machine. No. 1,255,712; Feb. 5; v. 247; p. 172.

Crane, Theodore D., Little Sioux, Iowa. Sickle-head for mowing-machines. No. 1,257,191; Feb. 19; v. 247; p. 684.

Crane, Warren N. (See Horne and Crane.)

Cranner, Bjarne, Kongsberg, Norway. Apparatus for transmitting optical signals. No. 1,256,441; Feb. 12; v. 247; p. 430.

Crawford, James G., Belfast, and R. M. Bennett, Carryduff, Ireland. Machine for pulling flax. No. 1,257,192; Feb. 19; v. 247; p. 684.

Crawford, John F., Racine, Wis. Internal-combustion engine. No. 1,255,862; Feb. 12; v. 247; p. 257.

Creagh-Osborne, Frank O., Woking, and J. Hughes, London, England. Magnetic compass. No. 1,256,442; Feb. 12; v. 247; p. 430.

Cremona, Mario, New York, N. Y. Liquid-dispensing device. No. 1,256,298; Feb. 12; v. 247; p. 386.

Creveling, John L., New York, N. Y., assignor to Safety Car Heating and Lighting Company. Electric regulator. No. 1,255,713; Feb. 5; v. 247; p. 173.

Crew, Joseph A., Betterton, Md. Hair-drying apparatus. No. 1,256,585; Feb. 5; v. 247; p. 137.

Crippen, George F., Ypsilanti, Mich. Machine for separating seeds. No. 1,257,320; Feb. 26; v. 247; p. 757.

Crist, Donald L., Richwood, W. Va. Wood-sawing machine. No. 1,257,680; Feb. 26; v. 247; p. 862.

Crompton, Lionel W., and E. N. Oliver, Tampa, Fla. Outlet box or fixture. No. 1,255,863; Feb. 12; v. 247; p. 257.

Crosby, Gorham, Glen Ridge, N. J., assignor to Gould Coupler Company. Electrical system of distribution. No. 1,256,207; Feb. 12; v. 247; p. 361.

Crosby Steam Gage & Valve Company. (See Williamson, Walter, assignor.)

Cross, Roy, Kansas City, Mo. Method in the treatment and refining of petroleum. No. 1,255,138; Feb. 5; v. 247; p. 7.

Crossland, George O., Pleasant Lake, Ind. Fertilizing attachment for planters. No. 1,257,459; Feb. 26; v. 247; p. 797.

Crosson, Clarence C. (See Koebler, Clinton A., assignor.)

Crowe, William L., Bethel, assignor of one-half to C. E. Griffing and one-half to A. N. Griffing, Danbury, Conn. Barrel. No. 1,255,392; Feb. 5; v. 247; p. 81.

Crowley, John W., Jr., Chicago, Ill. Clutch. No. 1,255,864; Feb. 12; v. 247; p. 257.

Croxton, Alvyn L., Bremerton, Wash. Reflecting apparatus. No. 1,256,522; Feb. 19; v. 247; p. 489.

Cruess, William V., Berkeley, Cal., dedicated by mesne assignments, to the Government of the United States. Pickling olives. No. 1,257,584; Feb. 26; v. 247; p. 835.

Cullen, John F., Charlestown, Mass. Automatic horse-feeding attachment. No. 1,257,681; Feb. 26; v. 247; p. 862.

Cumfer, Harry A., and O. D. McFarland, assignors to Guyton & Cumfer Manufacturing Company, Chicago, Ill. Shingle-strip-making machine. No. 1,257,321; Feb. 26; v. 247; p. 758.

Cummins, Edward W., Harrisburg, Ill. Clamp. No. 1,256,208; Feb. 12; v. 247; p. 361.

Cunningham, George T., *et al.* (See Marlin, Isaac U., assignor.)

Cunningham, James E., Worcester, Mass. Automobile-lock. No. 1,257,322; Feb. 26; v. 247; p. 758.

Cunningham, Louis T., *et al.* (See Marlin, Isaac U., assignor.)

Cunningham, Samuel, Watertown, S. D. Crank-lock for automobiles. No. 1,256,663; Feb. 19; v. 247; p. 530.

Cunnyngham, John R., Chattanooga, Tenn. Bag-filling apparatus. No. 1,257,816; Feb. 26; v. 247; p. 903.

Curran, John J., Augusta, Kans. Pressure-still. No. 1,255,714; Feb. 5; v. 247; p. 173.

Currie, Neil, Jr., Pittsfield, Mass., assignor to General Electric Company. Winding for electric motors. No. 1,257,193; Feb. 19; v. 247; p. 684.

Curtis, Arthur R., Cleveland, Ohio. Glove-cleaning machine. No. 1,255,515; Feb. 5; v. 247; p. 116.

Curtis & Marble Machine Company. (See Broman, John, assignor.)

Curtiss, Glenn H., assignor to The Curtiss Motor Company, Hammondsport, N. Y. Hydroaeroplane-boat. No. 1,256,878; Feb. 19; v. 247; p. 594.

Curtiss Motor Company, The. (See Curtiss, Glenn H., assignor.)

Cusack, Harold, assignor to The Thomas Cusack Company, Chicago, Ill. Head-plate for sign-boards. No. 1,256,523; Feb. 19; v. 247; p. 489.

Cushing, William T., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electrical insulation. No. 1,255,139; Feb. 5; v. 247; p. 8.

Cushman, Lucian W., St. Joseph, Mo. Pressure-regulator. No. 1,257,460; Feb. 26; v. 247; p. 797.

Cutler-Hammer Mfg. Co., The. (See Cushing, William T., assignor.)

Cutler-Hammer Mfg. Co., The. (See Goldenstein, Maurice M., assignor.)

Cutler-Hammer Mfg. Co., The. (See Horton, Albert J., assignor.)

Cutler-Hammer Mfg. Co., The. (See Klein, Charles J., assignor.)

Cutler-Hammer Mfg. Co., The. (See Radley, Guy R., assignor.)

Cutler-Hammer Mfg. Co., The. (See Schönwitz, Michael N., assignor.)

Cutler-Hammer Mfg. Co., The. (See Wilson, John C., assignor.)

D. Napier & Son Limited. (See Rowledge, Arthur J., assignor.)

D & W Fuse Company. (See Patton, Ralph C., assignor.)

D'Ostroph, Arthur J., Long Key, Fla. Hose-supporter. No. 1,255,717; Feb. 5; v. 247; p. 175.

Daily, Joseph F., St. Louis, Mo. Link fabric. No. 1,257,323; Feb. 26; v. 247; p. 758.

Daisy Manufacturing Company. (See Lefever, Charles F., assignor.)

Daller, Burt C., Detroit, Mich. Fish-hook guard. No. 1,255,516; Feb. 5; v. 247; p. 116.

Daly, John W., Cincinnati, Ohio. Garment-pressing machine. No. 1,257,194; Feb. 19; v. 247; p. 685.

Daniels, Harry T., Providence, R. I. Manhole-frame. No. 1,257,324; Feb. 26; v. 247; p. 758.

Danquard, Thomas, New York, N. Y., assignor to Auto Pneumatic Action Company. Note-sheet-tracking device. No. 1,255,296; Feb. 5; v. 247; p. 52.

Darker, Alfred H., Blackheath, assignor to J. Stone & Company, Limited, London, England. Bearing for dynamo-electric machines. No. 1,256,777; Feb. 19; v. 247; p. 563.

Darlaston, Arthur E., Wolverhampton, England. Folding table for attachment to bedsteads. No. 1,256,209; Feb. 12; v. 247; p. 361.

Dassow, Harry, Fargo, N. D. Bread-cutting machine. No. 1,256,114; Feb. 12; v. 247; p. 331.

David, Howard L., Philadelphia, Pa. Adjustable golf-ball-tee device. No. 1,255,140; Feb. 5; v. 247; p. 8.

Davidson, Samuel C., Belfast, Ireland. Machinery for rubber and the like. No. 1,256,664; Feb. 19; v. 247; p. 530.

Davis, Charles E., assignor to Goodman Manufacturing Company, Chicago, Ill. Mining-machine. No. 1,256,524; Feb. 19; v. 247; p. 489.

Davis, Cortland W., and V. S. Johnson, assignors to The Mantle Lamp Company of America, Chicago, Ill. Hydrocarbon-burner. No. 1,256,879; Feb. 19; v. 247; p. 594.

Davis, Edward, Newark, N. J. Treating films. No. 1,257,682; Feb. 26; v. 247; p. 863.

Davis and Furber Machine Co. (See Rundlett, William B., assignor.)

Davis, John H., Stockton, Cal. Disk plow. No. 1,256,984; Feb. 19; v. 247; p. 625.

Davis, John H., and J. W. Morgan, Stockton, Cal.; said Morgan assignor to said Davis. Draft connection and control for gang disk plows. No. 1,257,281; Feb. 19; v. 247; p. 711.

Davis, John H., and J. W. Morgan, Stockton, Cal.; said Morgan assignor to said Davis. Draft connection and control for gang disk plows. No. 1,257,282; Feb. 19; v. 247; p. 712.

Davis, Madison T., Jr., assignor to Kanawha Manufacturing Company, Charleston, W. Va. Fastening for hub-covers and the like. No. 1,257,585; Feb. 26; v. 247; p. 835.

Davison, Gregory C., New London, Conn., assignor to Electric Boat Company. Clutch. No. 1,255,715; Feb. 5; v. 247; p. 174.

Dawson, Sidney, assignor of one-half to W. Robertson, Chicago, Ill. Theft-preventing signal. No. 1,257,461; Feb. 26; v. 247; p. 797.

Daysh, Norman J., Poughkeepsie, N. Y., assignor to The De Laval Separator Company. Milking machinery. No. 1,255,141; Feb. 5; v. 247; p. 8.

Dayton Engineering Laboratories Company, The. (See Kettering, Charles F., assignor.)

De Geyter, Gustave J., Philadelphia, Pa. Advertising device. No. 1,255,987; Feb. 12; v. 247; p. 294.

De Laval Separator Company, The. (See Daysh, Norman J., assignor.)

De Laval Separator Company, The. (See Forsyth, Robert B., assignor.)

De Laval Separator Company, The. (See Leitch, Meredith, assignor.)

De Laval Separator Company, The. (See Leitch and Wright, assignors.)

De Lavaud, Dimitri S., São Paulo, Brazil, assignor to Flockhart Ring Casting Co., Newark, N. J. Centrifugal casting-machine. No. 1,257,325; Feb. 26; v. 247; p. 759.

De Lukacsevics, Charles, assignor, by mesne assignments, to E. Loffler, New York, N. Y. Carbureter. No. 1,255,716; Feb. 5; v. 247; p. 174.

De Lukacsevics, Charles, assignor, by mesne assignments, to E. Loffler, New York, N. Y. Carbureter. No. 1,257,195; Feb. 19; v. 247; p. 685.

De Marco, Frank, New York, N. Y. Motor-tractor. No. 1,256,527; Feb. 19; v. 247; p. 490.

De Montluzin, Albert, Cincinnati, Ohio, and A. G. Lynn, assignors to Liggett & Meyers Tobacco Co., New York, N. Y. Cigarette-package holder and ash-tray. No. 1,255,989; Feb. 12; v. 247; p. 295.

De Right, Elon J. (See Shull and De Right.)

De Tamble, Percy F., assignor of one-half to F. Sampson and one-half to L. H. Stone, Chicago, Ill. Flushing-valve. No. 1,255,587; Feb. 5; v. 247; p. 138.

De Ved, Charles, and J. Kissick, Jr., New York, N. Y. Boiler-tube cleaner. No. 1,255,988; Feb. 12; v. 247; p. 294.

De Voe, Albert H., Westfield, N. J., assignor to The Singer Manufacturing Company. Sewing-machine loop-taker mechanism. No. 1,256,880; Feb. 19; v. 247; p. 594.

De Voe, Albert H., Westfield, N. J., assignor to The Singer Manufacturing Company. Lower-thread mechanism for chain-stitch sewing-machines. No. 1,257,464; Feb. 26; v. 247; p. 798.

De Wein, George F., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis. Log-dogging apparatus. No. 1,255,393; Feb. 5; v. 247; p. 81.

Deacon, Herbert D., *et al.* (See Jones, Levander D., assignor.)

Dean, James H., assignor to J. S. Stearns, Ludington, Mich. Variable-speed and driving mechanism. No. 1,257,462; Feb. 26; v. 247; p. 798.

Dean, William W., assignor, by mesne assignments, to Benjamin Electric Manufacturing Company, Chicago, Ill. Electric switch. No. 1,256,210; Feb. 12; v. 247; p. 361.

Dean, William W., assignor, by mesne assignments, to Benjamin Electric Manufacturing Company, Chicago, Ill. Switch. No. 1,257,463; Feb. 26; v. 247; p. 798.

Dederer, Carleton, Los Angeles, Cal. Faucet-operating mechanism. No. 1,256,525; Feb. 19; v. 247; p. 490.

Deen, C. W., *et al.* (See Long, Grover C., assignor.)

Defenbaugh, Charles C., assignor of one-half to F. W. Canghlin, Toledo, Ohio. Combination-tool. No. 1,257,683; Feb. 26; v. 247; p. 863.

Defiance Machine Works. (See Ensign and Des Islets, assignors.)

Degener, Gustave O., assignor to Underwood Computing Machine Company, New York, N. Y. Combined type-writing and computing machine. No. 1,256,985; Feb. 19; v. 247; p. 625.

Deines, George J., Russell, Kans. Match-box. No. 1,257,817. Feb. 26; v. 247; p. 903.

Deisenhofer, Victor, Chicago, Ill. Spring-tired wheel. No. 1,256,526; Feb. 19; v. 247; p. 490.

Delano, Frederic A., Chicago, Ill. Locomotive-superheater. No. 1,256,115; Feb. 12; v. 247; p. 331.

Deming, William L., Salem, Ohio. Reading-stand. No. 1,257,586; Feb. 26; v. 247; p. 835.

Demmien, William C., Williamsport, Pa. Holder for cord, thread, yarn, and the like. No. 1,256,443; Feb. 12; v. 247; p. 430.

Dempsey, Charles H., and T. F. Barnes, Los Angeles, Cal. Case-table. No. 1,256,211; Feb. 12; v. 247; p. 362.

Dempsey Oil Engine Corporation. (See Dempsey, Peter P., assignor.)

Dempsey, Peter P., assignor, by mesne assignments, to Dempsey Oil Engine Corporation, New York, N. Y. Internal-combustion engine. No. 1,256,116; Feb. 12; v. 247; p. 332.

Demuth, Alfred M., Chicago, Ill., assignor to U. S. Slicing Machine Company, Laporte, Ind. Work-holder for slicing-machines. No. 1,257,587; Feb. 26; v. 247; p. 836.

Demuth, Frederick D., Cleveland, Ohio. Countershaft-clutch. No. 1,257,588; Feb. 26; v. 247; p. 836.

Demuth, Leopold, New York, N. Y. Tobacco-pipe. No. 1,257,320; Feb. 26; v. 247; p. 759.

Denney, William A., Quincy, Ill. Molding-machine. No. 1,255,580; Feb. 5; v. 247; p. 137.

Dennis, Adolphus S., Lakewood, Ohio, assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,256,986; Feb. 19; v. 247; p. 626.

Denver Rock Drill Manufacturing Company, The. (See Smith, William A., assignor.)

Derritt, Nathaniel E., Hennessey, Okla. Supporter. No. 1,256,444; Feb. 12; v. 247; p. 430.

Des Islets, John C. M. (See Ensign and Des Islets.)

Desmond, Joseph J., *et al.* (See Seley, Charles C., assignor.)

Despatch Manufacturing Co. (See Grapp, Albert E., assignor.)

Det Norske Aktieselskab for elektrokemisk Industri, Norsk Industri-Hypotekbank. (See Sem, Mathias, assignor.)

Detroit Pressed Steel Company. (See Putman, Alden L., assignor.)

Detroit Printing and Serving Machine Company. (See Thomas, John C., assignor.)

Detroit Vapor Stove Company. (See Sherman, Alvin G., assignor.)

Deventer, Franz, Hanover, Germany. Metal packing-ring. No. 1,256,881; Feb. 19; v. 247; p. 595.

Dew, William H., Mercer, Tenn. Gate-latch. No. 1,255,297; Feb. 5; v. 247; p. 52.

Diamond, James K., assignor to Clipper Belt Lacer Company, Grand Rapids, Mich. Device for joining the ends of belts. No. 1,257,954; Feb. 26; v. 247; p. 942.

Diamond Manufacturing Company. (See Neuman, Hugo, assignor.)

Diamond Match Company, The. (See Fairburn, William A., assignor.)

Dick, Samuel M., Minneapolis, Minn. Automatic air-brake-hose coupling. No. 1,256,778; Feb. 19; v. 247; p. 563.

Dickerson, Fred G., assignor, by mesne assignments, to Mojonnier Bros. Co., Chicago, Ill. Storage-tank. No. 1,255,298; Feb. 5; v. 247; p. 52.

Dickinson, Harry S., assignor to Moline Plow Company, Moline, Ill. Tractor connection. No. 1,257,589; Feb. 26; v. 247; p. 837.

Dickinson, John W., Jr., Little Rock, Ark. Demountable wheel. No. 1,256,882; Feb. 19; v. 247; p. 595.

Dickinson, William W., Jr., Little Rock, Ark. Brick-handling apparatus. (Reissue.) No. 14,433; Feb. 19; v. 247; p. 717.

Diehl Manufacturing Company. (See Zenk, Charles C., assignor.)

Dieterich, Karl G., New York, N. Y. Snap-fastener. No. 1,256,528; Feb. 19; v. 247; p. 491.

Differential Clock Company. (See Busenbens, Jacob J., assignor.)

Dillingham, Frederick A., assignor to The Troy Carriage Sun Shade Company, Troy, Ohio. Wind-shield. No. 1,255,394; Feb. 5; v. 247; p. 81.

Discher, Edward W., Seattle, Wash. Automatic valve. No. 1,257,070; Feb. 19; v. 247; p. 649.

Disney, James L., Philadelphia, Pa. Stereoscope. No. 1,257,327; Feb. 26; v. 247; p. 759.

Ditmars, Theodore, Kansas City, Mo. Driving mechanism. No. 1,255,209; Feb. 5; v. 247; p. 53.

Dittemore, James A., St. Joseph, Mo. Gun-sight. No. 1,256,987; Feb. 19; v. 247; p. 626.

Dixie Fruit Products Company. (See Page, James B., assignor.)

Dixon, Amos F., Newark, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y. Tuning-fork. No. 1,257,664; Feb. 26; v. 247; p. 863.

Dixon, Robert, Armells, Mont. Plow. No. 1,257,818; Feb. 26; v. 247; p. 904.

Doane, Neil B., De Ridder, La. Rotary internal-combustion engine. No. 1,255,865; Feb. 12; v. 247; p. 257.

Dobson, John V., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Dynamo-electric machine. No. 1,256,212; Feb. 12; v. 247; p. 362.

Dockery, William F. (See Slattery and Dockery.)

Dodds, Ethan I., assignor to Flannery Bolt Company, Pittsburgh, Pa. Tail-light for automobiles. No. 1,256,445; Feb. 12; v. 247; p. 431.

Dodge Brothers. (See Dodge and Alles, assignors.)

Dodge, John F., and W. J. Alles, assignors to Dodge Brothers, Detroit, Mich. Manufacturing piston-rings. No. 1,255,142; Feb. 5; v. 247; p. 9.

Dodson, Alcada F., Milan, Mo. Calculating-machine. No. 1,256,213; Feb. 12; v. 247; p. 362.

Doehler Die Casting Company. (See Kralund, John, assignor.)

Doern, Peter, New Rochelle, N. Y. Building construction. No. 1,257,319; Feb. 26; v. 247; p. 904.

Doerr, Harry E., St. Louis, Mo. Brake-beam hanger. No. 1,257,590; Feb. 26; v. 247; p. 837.

Doggett, Reginald L. S., East Orange, N. J. Varnish or color cup. No. 1,255,990; Feb. 12; v. 247; p. 295.

Doman, Lewis B., East Syracuse, assignor to The Amphion Piano Player Company, Syracuse, N. Y. Tone-modulating apparatus for self-playing musical instruments. No. 1,256,988; Feb. 19; v. 247; p. 627.

Donnellan, James F. (See Hawkins and Donnellan.)

Donnelley, William J., San Francisco, Cal. Stopper. No. 1,257,328; Feb. 26; v. 247; p. 760.

Donovan, Patrick H., Edgewood, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Brake-cylinder-pressure regulator. No. 1,256,629; Feb. 19; v. 247; p. 491.

Doody, Harry E., Brooklyn, N. Y. Extension-grip for cars. No. 1,257,820; Feb. 26; v. 247; p. 904.

Dorf, Francis E., Stockton, Cal. Oil-cupola. No. 1,257,196; Feb. 19; v. 247; p. 686.

Dorman, Jack E., Township, Iowa. Self-adjusting bearing. No. 1,256,530; Feb. 19; v. 247; p. 491.

Dornfeld, John F., Chicago, Ill. Steam-generating apparatus. No. 1,256,779; Feb. 19; v. 247; p. 563.

Dosenbach, Benjamin H., Butte, Mont. Ore concentration. No. 1,257,329; Feb. 26; v. 247; p. 760.

Doty, Lillian F., Chicago, Ill. Union-undergarment. No. 1,255,718; Feb. 5; v. 247; p. 175.

Doucette, James, Gem, Idaho. Brake for motor-vehicles. No. 1,256,446; Feb. 12; v. 247; p. 431.

Douglas, Harry A., Bronson, Mich. Lamp. No. 1,256,531; Feb. 19; v. 247; p. 491.

Douglas, Harry A., assignor to Douglas & Rudd Mfg. Co., Bronson, Mich. Circuit-coupling. No. 1,256,665; Feb. 19; v. 247; p. 530.

Douglas, Harry A., assignor to Douglas & Rudd Mfg. Co., Bronson, Mich. Forming cylindrical shells and assembling them with cores. No. 1,256,666; Feb. 19; v. 247; p. 531.

Douglas & Rudd Mfg. Co. (See Douglas, Harry A., assignor.)

Douglass, Napoleon B., Berkeley, Cal. Wall-bed. No. 1,256,667; Feb. 19; v. 247; p. 531.

Douglass, Thomas L., Beaver Falls, Pa. Steam-trap. No. 1,256,299; Feb. 12; v. 247; p. 386.

Dover Stamping and Manufacturing Company. (See Dunning, Warren H., assignor.)

Dowd, John C., Merchantville, N. J. Self-lubricated spring for vehicles. No. 1,257,197; Feb. 19; v. 247; p. 686.

Downie, John, Seattle, Wash. Ironing-board. No. 1,255,991; Feb. 12; v. 247; p. 295.

Downing, H. K., *et al.* (See Coats, Edward O., assignor.)

Downing, W. L., *et al.* (See Coats, Edward O., assignor.)

Drag, Mikola, McKees Rocks, Pa. Soldier's helmet. No. 1,256,532; Feb. 19; v. 247; p. 492.

Drake, Charles B., Norfolk, Va. Vulcanizer. No. 1,255,588; Feb. 5; v. 247; p. 138.

Draper Corporation. (See Rhoades, Alonzo E., assignor.)

Draper Corporation. (See Hedler, Henry J., assignor.)

Draper Corporation. (See Osgood and Rhoades, assignors.)

Draper Corporation. (See Prosser, Isaac T., assignor.)

Dries, Gottfried, Newark, N. J. Signal device for vehicles. No. 1,257,330; Feb. 26; v. 247; p. 760.

Driesbach, Frank K. (See Lanier and Driesbach.)

Drysdale, Alexander C., Bismarck, N. D. Opening means. No. 1,256,883; Feb. 19; v. 247; p. 595.

Duck, Daniel F., Chicago, assignor of one-half to S. P. Hutchison, Deerfield, Ill. Sign. No. 1,256,533; Feb. 19; v. 247; p. 492.

Dudley, Andrew T., Houston, Tex. Bale-forming press. No. 1,257,466; Feb. 26; v. 247; p. 799.

Dudley, Andrew T., Houston, Tex. Twister. No. 1,257,467; Feb. 26; v. 247; p. 799.

Dudley, Andrew T., Houston Heights, assignor of one-half to J. H. Mitchell, Houston, Tex. Twisting device. No. 1,257,465; Feb. 26; v. 247; p. 798.

Dudley, George W., *et al.* (See Smith, William S., assignor.)

Duff, Edward E., assignor of one-half to F. T. Ingersoll, Seattle, Wash. Closet attachment. No. 1,257,331; Feb. 26; v. 247; p. 760.

Duffy, Clarence O., Dallas, Tex. Container for quick tire-patches. No. 1,255,992; Feb. 12; v. 247; p. 296.

Duhovan, Stefan, *et al.* (See Cheselka, Peter, assignor.)

Dunbar Manufacturing Company. (See Schroyer, Harry H., assignor.)

Duncan, Charles, assignor to A. W. Grant, Montreal, Quebec, Canada. Mop-frame. No. 1,256,980; Feb. 19; v. 247; p. 627.

Duncan, Harry L., Mahwah, N. J. Making chain-links. No. 1,256,117; Feb. 12; v. 247; p. 332.

Duncan, Harry L., Mahwah, N. J. Chain-link. No. 1,256,118; Feb. 12; v. 247; p. 332.

Duncan, John, New Haven, Conn. Electric switch. No. 1,257,198; Feb. 19; v. 247; p. 686.

Dundas, Roy C., Los Angeles, Cal. Method and apparatus for treating petroleum. No. 1,257,199; Feb. 19; v. 247; p. 686.

Dungan, Thomas A., Chicago, Ill. Preparing fertilizer material. No. 1,257,591; Feb. 26; v. 247; p. 837.

Dunkelberger, George A., Paxinos, Pa. Soap-box. No. 1,256,884; Feb. 19; v. 247; p. 595.

Dunkle, David E., Norwich, Pa. Type-writer attachment. No. 1,256,447; Feb. 12; v. 247; p. 431.

Dunkley, Melville E., Kalamazoo, Mich. Cherry-pitting machine. No. 1,256,885; Feb. 19; v. 247; p. 595.

Dunn, Edward L., assignor, by mesne assignments, to Standard Plunger Elevator Company, Worcester, Mass. Signal system for elevators. No. 1,255,866; Feb. 12; v. 247; p. 258.

Dunn, Patrick T., Cedar Rapids, Iowa. Ice-creeper. No. 1,256,300; Feb. 12; v. 247; p. 387.

Dunning, Warren H., Cambridge, Mass., assignor to Dover Stamping & Manufacturing Company, Portland, Me. Egg-beater. No. 1,255,993; Feb. 12; v. 247; p. 296.

Dunning, Warren H., Cambridge, Mass., assignor to Dover Stamping & Manufacturing Company, Portland, Me. Egg-beater. No. 1,255,994; Feb. 12; v. 247; p. 296.

Dunning, William E., assignor to The McCaskey Register Company, Alliance, Ohio. Manifolding sales-book. No. 1,256,534; Feb. 19; v. 247; p. 492.

Duplex Printing Press Company. (See Bechman, Henry F., assignor.)

Duram, Arthur E., Chicago, Ill. Liquid-separator and the like. No. 1,255,395; Feb. 5; v. 247; p. 82.

Durkee, William H., Cleveland, assignor of one-half to B. O. Hull, Burton, Ohio. Device for fitting doors. No. 1,257,200; Feb. 19; v. 247; p. 687.

Dutcher, Frank, Versailles, assignor to Central Railway Signal Company, Pittsburgh, Pa. Railway signal-torpedo. No. 1,256,990; Feb. 19; v. 247; p. 627.

Dutcher, Frank, Versailles, assignor to Central Railway Signal Company, Pittsburgh, Pa. Railway signal-torpedo. No. 1,256,991; Feb. 19; v. 247; p. 627.

Dutoit, Pierre, Monthey, assignor to Society of Chemical Industry in Basle, Basel, Switzerland. Process for the manufacture of betaaminoanthraquinone. No. 1,255,719; Feb. 5; v. 247; p. 175.

Dutreux, Auguste, assignor to The Societe Anonyme Pour L'Eclairage Electrique Des Vehicules, Issy-les-Moulineaux, France. Starting arrangement for internal-combustion engines in which an electric starting-motor is used. No. 1,257,821; Feb. 26; v. 247; p. 904.

Duvall, George W. (See Smith and Duvall.)

Dwyer Bros. & Co. (See Marsh, Ira E., assignor.)

Dybile, Julius A., Joliet, Ill. Wind-shield protector. No. 1,255,300; Feb. 5; v. 247; p. 53.

Dyer, Walter, Portland, Oreg. Making drying-oils from mineral oils. No. 1,256,535; Feb. 19; v. 247; p. 492.

Dyer, Walter and W. E., Portland, Oreg. Making drying-oils. No. 1,256,536; Feb. 19; v. 247; p. 493.

Dyer, Walter and W. E., Portland, Oreg. Thinned paint and making paint-thinner. No. 1,256,537; Feb. 19; v. 247; p. 493.

Dyer, Walter E. (See Dyer, Walter and W. E.)

Dysart, Arthur S., U. S. Navy. Turbine-driven electric generator. No. 1,255,589; Feb. 5; v. 247; p. 138.

Dyson, Alfred H., Chicago, Ill., assignor, by mesne assignments, to Kellogg Switchboard & Supply Company. Automatic telephone system. No. 1,257,283; Feb. 19; v. 247; p. 712.

Dyson, Edward T., Oakland, Cal. Box. No. 1,256,448; Feb. 12; v. 247; p. 431.

Dyson, Harry. (See Gaunt and Dyson.)

E. B. Badger and Sons Company. (See Robinson, Clark S., assignor.)

E. I. du Pont de Nemours Powder Company. (See Arnold, Charles E., assignor.)

E. I. du Pont de Nemours Powder Company. (See Sparre, Fin, assignor.)

E. R. Durkee and Company. (See Helson, Gilbert F., assignor.)

Earhuff, John A., Los Angeles, Cal. Shock-absorber for type-writers. No. 1,257,822; Feb. 26; v. 247; p. 905.

East, John F., Norfolk, Va. Basket. No. 1,257,823; Feb. 26; v. 247; p. 905.

Eastman, John B. (See Carrigan, Eastman, and Magill.)

Eastman Kodak Company. (See Folmer, William F., assignor.)

Eastman Kodak Company. (See Galsman, Henry J., assignor.)

Eastman Kodak Company. (See Marks, Paul J., assignor.)

Eastman Kodak Company. (See Speidel, Kroedel, and Riddell, assignors.)

Eaton, George M., Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company. Storage-battery locomotive. No. 1,256,214; Feb. 12; v. 247; p. 363.

Eaton, John A., Chicago, Ill. Curtained spray and shower bath. No. 1,255,396; Feb. 5; v. 247; p. 82.

Ebeling, Charles W., New York, N. Y. Control means for sound-reproducing machines. No. 1,255,143; Feb. 5; v. 247; p. 9.

Eberhard, Emil, Zurich, Switzerland. Device for manufacturing screen-photographs for the half-tone-engraving process. No. 1,256,886; Feb. 19; v. 247; p. 596.

Ebersole, Andrew, Dodge City, Kans. Animal-releaser. No. 1,256,449; Feb. 12; v. 247; p. 431.

Ebert, William, Ellicottville, N. Y. Indicator for multiple-cylinder explosive-engines. No. 1,257,824; Feb. 26; v. 247; p. 905.

Eckel, Edwin C., assignor of two-thirds to A. C. Spencer, Washington, D. C., and one-third to A. Cox, New York, N. Y. Making cement. No. 1,255,995; Feb. 12; v. 247; p. 296.

Eclipse Interchangeable Counterbore Co. (See Gairing, Emil, assignor.)

Eclipse Machine Company. (See Van Ness, Henry E., assignor.)

Economic Machinery Company. (See Stake, Herman, assignor.)

Eddy, Kenneth L., Chicago, Ill., assignor, by mesne assignments, to Automatic Utilities Co. Loose-leaf device. No. 1,256,450; Feb. 12; v. 247; p. 432.

Edgar, Linden E., and W. W. Richards, Wilmington, Del. Latch. No. 1,256,992; Feb. 19; v. 247; p. 628.

Edgerton, Roy G., Suffolk, Va. Internal-combustion-engine-testing device. No. 1,257,468; Feb. 26; v. 247; p. 900.

Edison Storage Battery Company. (See Kammerhoff, Henrich, H. M., assignor.)

Edison, Thomas A., West Orange, N. J. Starting and current-supplying system for automobiles. No. 1,255,517; Feb. 5; v. 247; p. 116.

Edward G. Budd Manufacturing Company. (See Ledwinka, Joseph, assignor.)

Edwards, Albert Y., assignor to The Foos Gas Engine Company, Springfield, Ohio. Gas-engine. No. 1,257,469; Feb. 26; v. 247; p. 900.

Edwards, William H., Grand Rapids, Mich. Loose-leaf binder. No. 1,256,688; Feb. 19; v. 247; p. 531.

Edwin, Emil. (See Westberg and Edwin.)

Efficiency Electric Company, The. (See Wayman, Albert J., assignor.)

Ehrhardt, George, assignor of one-third to M. J. Silva, Sacramento, Cal. Door or window securer. No. 1,256,906; Feb. 12; v. 247; p. 297.

Ehrhart, Raymond N., Edgewood, Pa., assignor to Westinghouse Electric & Manufacturing Company. Barometric condenser. No. 1,255,518; Feb. 5; v. 247; p. 117.

Ehrich, Edward E., Indianapolis, Ind. Apparatus for drying gasolene-cleaned garments. No. 1,256,887; Feb. 19; v. 247; p. 596.

Ehrmann, George B., Troy, N. Y. Collar-shaping machine. No. 1,257,686; Feb. 26; v. 247; p. 863.

Eichner, John, Van Meter, Iowa. Adjusting and locking device for automobile-chains. No. 1,256,538; Feb. 19; v. 247; p. 493.

Eidlitz, Charles L., New York, N. Y. Mount for posters. No. 1,256,993; Feb. 19; v. 247; p. 628.

Ek, Nels G., Minneapolis, Minn. Threshing-machine. No. 1,257,592; Feb. 26; v. 247; p. 837.

Ekblom, Ewald, assignor of one-half to A. C. Valogne, London, England. Boat raising and lowering gear. No. 1,255,301; Feb. 5; v. 247; p. 53.

Ekeley, John B., and W. B. Stoddard, Boulder, Colo. Obtaining tungstates. No. 1,255,144; Feb. 5; v. 247; p. 9.

Eklund, Walfrid S., Donner, La. Means for steering boats. No. 1,257,825; Feb. 26; v. 247; p. 905.

Ekman, Ernst, assignor of one-half to E. H. Carlson, Chicago, Ill. Theater-seat hat-rack. No. 1,255,720; Feb. 5; v. 247; p. 178.

Ekvall, Carl O., Brooklyn, N. Y. Window-envelop. No. 1,256,539; Feb. 19; v. 247; p. 493.

Elderkin, James K., Jr., Newark, N. J., assignor, by mesne assignments, to D. J. Newland, Yonkers, N. Y. Synchronous electric motor. No. 1,255,721; Feb. 5; v. 247; p. 176.

Electric Boat Company. (See Davison, Gregory C., assignor.)

Electric Fruit Marking Co. (See Ahlburg, Frank, assignor.)

Electric Service Supplies Company. (See Pike, Lorenzo H., assignor.)

Electric Water Sterilizer Company. (See Hartman, Harry E., assignor.)

Electric Weighing Company. (See Messiter, Edwin H., assignor.)

Electro Dental Manufacturing Company. (See Russell, Percy, assignor.)

Electro Dental Manufacturing Company. (See Russell and Schramm, assignors.)

Elgh, Charles A., assignor to Long Manufacturing Company, Detroit, Mich. Making heat-radiating fins. No. 1,257,201; Feb. 19; v. 247; p. 687.

Elliott, George C., assignor to The Elliott Typewriter Company, Brooklyn, N. Y. Book type-writer. No. 1,256,397; Feb. 5; v. 247; p. 82.

Elliott Typewriter Company, The. (See Elliott, George C., assignor.)

Ellis, Archibald F., Boston, Mass. Street-sweeper. No. 1,255,519; Feb. 5; v. 247; p. 117.

Ellis, Arthur L., et al. (See Golata and Roberts, assignors.)

Ellis, Carleton, Montclair, N. J. Catalyzer and making same. No. 1,255,590; Feb. 5; v. 247; p. 138.

Ellis, Carleton, Montclair, N. J., assignor, by mesne assignments, to Surface Combustion, Inc., Wilmington, Del. Gas-burning apparatus. No. 1,256,301; Feb. 12; v. 247; p. 337.

Ellis, Charles G., Jr., Plainville, Ind. Motor-vehicle. No. 1,255,145; Feb. 5; v. 247; p. 9.

Ellis-Foster Company. (See Starrels, Joel, assignor.)

Ellis, Stephen A., Birmingham, Ala. Apparatus for unsealing and removing can-tops. No. 1,256,302; Feb. 12; v. 247; p. 337.

Elters, William S., assignor of one-half to T. H. Barlow, Dayton, Ohio. Peg-leg. No. 1,257,284; Feb. 19; v. 247; p. 712.

Elton, James O. (See Laist and Elton.)

Emerson Electric Manufacturing Company, The. (See Finch and Meston, assignors.)

Emerson, Stephen R., Creston, Iowa. Saw-gage. No. 1,257,826; Feb. 26; v. 247; p. 905.

Emery, Walter E., Peoria, Ill. Nut-lock. No. 1,257,202; Feb. 19; v. 247; p. 687.

Emm, John L., Syracuse, N. Y. Automobile-signal. No. 1,257,203; Feb. 19; v. 247; p. 687.

Emmons, Orrie J., Philadelphia, Pa. Clamp for concrete-forms. No. 1,257,827; Feb. 26; v. 247; p. 906.

Emory, Robert J., Newark, N. J., assignor to Baird Motion Picture Machine Co. Film-gate mechanism for kinetoscopes. No. 1,257,598; Feb. 26; v. 247; p. 838.

Empire Machine Company. (See Chamberlin, Benjamin D., assignor.)

Engelland, Charles, assignor of one-half to E. O. Singleton, Tampa, Fla. Boltless rail-joint. No. 1,255,722; Feb. 5; v. 247; p. 176.

Enger, Martin A., assignor of one-half to R. Spicer, Willmar, Minn. Packing-gland. No. 1,256,780; Feb. 19; v. 247; p. 563.

England, William A. (See Hauge and England.)

Ensign, Emory S., assignor to R. Ensign, East Orange, N. J. Window-lock. No. 1,255,396; Feb. 5; v. 247; p. 82.

Ensign, George A., and J. C. M. Des Islets, assignors to Defiance Machine Works, Defiance, Ohio. Hydraulic-press accelerator. No. 1,256,451; Feb. 12; v. 247; p. 432.

Ensign, Rose. (See Ensign, Emory S., assignor.)

Enterprise Railway Equipment Company. (See Campbell, Argyle, assignor.)

Epperson, James A., La Veta, Colo. Hay-rake. No. 1,255,520; Feb. 5; v. 247; p. 117.

Eppley, Charles S., York, Pa. Switch-throwing mechanism. No. 1,256,540; Feb. 19; v. 247; p. 493.

Erdrich, Friedrich. (See Sonderegger, Messmer, and Erdrich.)

Erickson, Edward. (See Cosgrove and Erickson.)

Erickson, John, assignor to Automatic Electric Company, Chicago, Ill. Measured-service telephone system. No. 1,257,823; Feb. 26; v. 247; p. 906.

Ericsson, Evert, Christiania, Norway. Mold-making machine. No. 1,256,888; Feb. 19; v. 247; p. 596.

Erlandson, Elfrieda V., Galesburg, Ill. Anesthetic-frame. No. 1,257,332; Feb. 26; v. 247; p. 760.

Erneqwein, Phillip, New York, N. Y. Rubber tire. No. 1,257,204; Feb. 19; v. 247; p. 688.

Espenschied, Lloyd, Hollis, N. Y., assignor to American Telephone and Telegraph Company. Wireless duplex signaling system. No. 1,256,889; Feb. 19; v. 247; p. 597.

Ess, John A. (See Kaufhold and Ess.)

Etablissements De Dion Bouton Société Anonyme. (See Gallet, Henri, assignor.)

Evans, Alfred L., Baltimore, Md. Ventilating window-sash. No. 1,256,452; Feb. 12; v. 247; p. 432.

Evans, Edward V., London, England. Eliminating sulfur from oils. No. 1,257,829; Feb. 26; v. 247; p. 907.

Evans, Mary L., Calgary, Alberta, Canada. Bottle-cap. No. 1,256,669; Feb. 19; v. 247; p. 531.

Evans, Otto E., York, Nebr. Combined shackle and shock-absorber. No. 1,255,997; Feb. 12; v. 247; p. 297.

Evans, William E., Attica, Ind. Seat-pad. No. 1,256,453; Feb. 12; v. 247; p. 433.

Evensen, William, assignor to The Goss Printing Press Company, Chicago, Ill. Driving mechanism. No. 1,257,330; Feb. 26; v. 247; p. 907.

Everlasting Valve Company. (See Patterson, Franklin M., assignor.)

Everlasting Valve Company. (See Wilson, Wylie G., assignor.)

Evesson, Martin V. B., Jersey City, N. J. Galloping-wheel. No. 1,256,454; Feb. 12; v. 247; p. 433.

Ewen, Malcolm F., Chicago, Ill., assignor to Larsen Ice Machine Company (Inc.), Wilmington, Del. Refrigerating apparatus. No. 1,255,723; Feb. 5; v. 247; p. 177.

Ewen, Malcolm F., assignor to Central Trust Company of Illinois, trustee, Chicago, Ill. Apparatus for administering anesthetics or analgesics. No. 1,256,481; Feb. 12; v. 247; p. 440.

Ewers, Eugene, and F. Ludford, Eugene, Oreg. Bucket. No. 1,257,831; Feb. 26; v. 247; p. 907.

Eyclesbymer, Annie K., Greenfield Center, N. Y. Valve. No. 1,256,215; Feb. 12; v. 247; p. 363.

Eyer, Philipp, Halberstadt, assignor to Rudolph Koepp & Co., Oestrich-on-the-Rhine, Germany. Composition and process for making enamel. No. 1,256,455; Feb. 12; v. 247; p. 433.

Eyer, Philipp, Halberstadt, assignor to Rudolph Koepp & Co., Oestrich-on-the-Rhine, Germany. Enamel composition and process of manufacturing it. No. 1,256,456; Feb. 12; v. 247; p. 433.

F. F. Slocomb & Co. (See Flanagan, James U., assignor.)

F. L. Schmidt Company. (See Novick, Abraham, assignor.)

Faarborg, Jens L. H., Tranebjerg, Samsö, assignor to N. C. Breit & Co., Copenhagen, Denmark. Potato-digging machine. No. 1,256,302; Feb. 5; v. 247; p. 53.

Fageol, Frank R., Oakland, Cal. Name-plate construction for motor-vehicles. No. 1,255,521; Feb. 5; v. 247; p. 118.

Fahle, Fred J., Luckey, Ohio. Windmill generator set. No. 1,255,998; Feb. 12; v. 247; p. 297.

Fairbank, Silas F., assignor of one-half to B. Schnert, Bison, Kans. Adjustable stovepipe. No. 1,257,071; Feb. 19; v. 247; p. 649.

Fairburn, William A., Short Hills, N. J., assignor to The Diamond Match Company, Chicago, Ill. Splint-impregnating means for match-machines. No. 1,256,999; Feb. 12; v. 247; p. 297.

Fairburn, William A., Great Barrington, Mass., assignor to The Diamond Match Company, Chicago, Ill. Splint-impregnating means for match-machines. No. 1,256,000; Feb. 12; v. 247; p. 298.

Fales, Edward D., La Grange, Ill., assignor, by mesne assignments, to Automatic Electric Company. Telephone automatic trunking system. No. 1,257,832; Feb. 26; v. 247; p. 907.

Fallace, Anthony C., Bridgeboro, N. J. Puzzle. No. 1,257,205; Feb. 19; v. 247; p. 688.

Fanger Beet Harvester Co., The. (See Fanger, Joseph D., assignor.)

Fanger, Joseph D., assignor to The Fanger Beet Harvester Co., Toledo, Ohio. Front auger support and bearing for beet-harvesters. No. 1,256,119; Feb. 12; v. 247; p. 338.

Fankboner, Harland, assignor to The Goss Printing Company, Chicago, Ill. Printing-press. No. 1,257,833; Feb. 26; v. 247; p. 908.

Fankboner, Harland, assignor to The Goss Printing Press Company, Chicago, Ill. Printing-press. No. 1,257,834; Feb. 26; v. 247; p. 908.

Fargo, Edward B., and G. R. Case, assignors of one-third to W. H. Finney, Clintonville, Wis. Curtain-pole. No. 1,256,001; Feb. 12; v. 247; p. 298.

Farnsworth, Sidney W. (See Tschudy and Farnsworth.)

Farrar, Calvin L., Lakecreek, Oreg. Household utility device. No. 1,256,002; Feb. 12; v. 247; p. 298.

Faust, Casper, Oshkosh, Wis. Bolster-stake holder. No. 1,255,871; Feb. 12; v. 247; p. 260.

Fawick, Thomas L., Waterloo, Iowa. Gate. No. 1,257,333; Feb. 26; v. 247; p. 761.

Fay, Alpheus, Louisville, Ky. Vulcanizer. No. 1,257,594; Feb. 26; v. 247; p. 838.

Fay, William, St. Louis, Mo. Means for making mineral wool. No. 1,256,541; Feb. 19; v. 247; p. 493.

Fazakerley, Joseph E., Pittsfield, Mass. Hospital-bed. No. 1,257,072; Feb. 19; v. 247; p. 649.

Fearn, William R., Camden, N. J. Direct-lifting hydro-aeroplane. No. 1,256,670; Feb. 19; v. 247; p. 532.

Federman, Marie S., New York, N. Y. Sanitary attachment for telephone-transmitters. No. 1,256,003; Feb. 12; v. 247; p. 298.

Fedoroff, Vladimir P., Meriden, Conn. Alarm-signal. No. 1,256,542; Feb. 19; v. 247; p. 494.

Fefell, Henry H., and J. F. Ohmer, assignors to Ohmer Fare Register Company, Dayton, Ohio. Fare collecting and accounting machine. No. 1,255,522; Feb. 5; v. 247; p. 118.

Feldt, Emil C. (See Oberg, Gunnard, assignor.)

Fellows, Hugh W., Los Angeles, Cal., assignor to J. I. Case Threshing Machine Company, Racine, Wis. Feeder for threshing-machines. No. 1,256,120; Feb. 12; v. 247; p. 338.

Feltman, Edward, Ottawa, Ohio. Lifting and swinging gate. No. 1,257,334; Feb. 26; v. 247; p. 761.

Fend, Roland S., assignor to Woods Motor Vehicle Company, Chicago, Ill. Automobile. No. 1,255,724; Feb. 5; v. 247; p. 177.

Fengler, Herman V., West Philadelphia, Pa., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,256,303; Feb. 12; v. 247; p. 888.

Fentress, James, Chicago, Ill. Gasolene-proof hose. No. 1,255,867; Feb. 12; v. 247; p. 258.

Fentress, William H., Osceola, Nebr. Wire reeling and unreeling apparatus. No. 1,255,872; Feb. 5; v. 247; p. 260.

Ferguson, Harry G., Belfast, Ireland. Carbureter for internal-combustion engines. No. 1,255,591; Feb. 5; v. 247; p. 139.

Ferguson, Lewis R., Philadelphia, Pa. Reinforced-concrete pile for marine work. No. 1,257,835; Feb. 26; v. 247; p. 909.

Ferguson, Walton, Jr. (See Apostoloff, Serge, assignor.)

Fernbach, Anne, New York, N. Y. Protector for baby-carriages and the like. No. 1,257,206; Feb. 19; v. 247; p. 688.

Ferren, John R., Boyd, W. Va. Ironing-table. No. 1,255,399; Feb. 5; v. 247; p. 82.

Ferris, Howard J., assignor to Hunt, Helm, Ferris & Company, Harvard, Ill. Stall-frame construction. No. 1,256,457; Feb. 12; v. 247; p. 433.

Ferris, Nunez C., assignor to E. F. Boyle, Brooklyn, N. Y. Music-roll perforator. No. 1,257,836; Feb. 26; v. 247; p. 909.

Ferris, Ralph E., Swissvale, Pa., assignor to Westinghouse Electric and Manufacturing Company. Dynamo-electric machine. No. 1,255,400; Feb. 5; v. 247; p. 83.

Fessler, Milton A., San Francisco, Cal. Centrifugal oil-burner. No. 1,255,592; Feb. 5; v. 247; p. 139.

Fessler, Frank, Woodbridge, N. J. Wrench. No. 1,256,216; Feb. 12; v. 247; p. 363.

Fetzer, Orlando C., Sterling, Ohio. Safety-pin. No. 1,257,207; Feb. 19; v. 247; p. 688.

Fichtenbaum, Oscar, Brooklyn, N. Y. Convertible sofa. No. 1,255,146; Feb. 5; v. 247; p. 10.

Ficklen, William E., College Point, N. Y., assignor to Clip Bar Manufacturing Company, Philadelphia, Pa. Edge-protector for artificial stone. No. 1,257,686; Feb. 26; v. 247; p. 864.

Field, Millard F., Winthrop, Mass. Fender. No. 1,256,781; Feb. 19; v. 247; p. 564.

Fieldhouse, Frederick W., Detroit, Mich. Vise attachment for milling-machines or the like. No. 1,256,217; Feb. 12; v. 247; p. 364.

Fijalkowski, Anthony S. (See Lewandowski, Leon, assignor.)

Filippo, Hendrik and P. Schoonenberg, assignors of one-third to Naamlooze Vennootschap Philips Metaal-Gloeilampentfabriek, Eindhoven, Emmasingel, Netherlands. Apparatus for the liquefaction and rectification of air. No. 1,257,470; Feb. 26; v. 247; p. 900.

Finch, Herbert I., and T. M. Meston, assignors to The Emerson Electric Manufacturing Company, St. Louis, Mo. Adjusting device for oscillating fans. No. 1,256,121; Feb. 12; v. 247; p. 338.

Finch, Walter S., Greenville, S. C. Picker-stick check for looms. No. 1,255,725; Feb. 5; v. 247; p. 177.

Finch, Walter S., Greenville, S. C. Picker-stick check for looms. No. 1,255,880; Feb. 5; v. 247; p. 207.

Fink, Edgar J. (See Nace and Fink.)

Finney, Knute I., Chicago, Ill. Finger-exercising device. No. 1,256,004; Feb. 12; v. 247; p. 299.

Finney, William H. (See Fargo and Case, assignors.)

Firestone Tire & Rubber Company, The. (See Greenwald, Lemon, assignor.)

Firestone Tire & Rubber Company, The. (See Stevens, William C., assignor.)

First Trust and Savings Company, The, et al., trustees. (See Sommer, William H., assignor.)

Fischer, Charles. (See Johnson, John E., assignor.)

Fish, Glenn D., Norwalk, Ohio. Mail-box. No. 1,256,543; Feb. 19; v. 247; p. 494.

Fisher, David H., Albany, N. Y. Paper-holding device. No. 1,255,726; Feb. 5; v. 247; p. 178.

Fisher, Ernest F., Pittsburgh, Pa., assignor to General Electric Company. Fluid-flow-indicating meter. No. 1,255,523; Feb. 5; v. 247; p. 118.

Fisher, Raymond B. (See Miller and Fisher.)

Fisher, Warren, New Orleans, La. Grate. No. 1,255,727; Feb. 5; v. 247; p. 178.

Fisher, Warren, New Orleans, La. Bearing-bar for grates. No. 1,255,728; Feb. 5; v. 247; p. 178.

Fisk Rubber Company, The. (See Lewis, George H., assignor.)

Fitz Gerald, John M., Chicago, Ill., assignor to Automatic Flagman Company, Los Angeles, Cal. Signal device. No. 1,255,831; Feb. 5; v. 247; p. 207.

Fitzgerald, Michael, assignor of one-third to J. H. Conley and one-third to G. R. Conley, Medina, N. Y. Street-indicator. No. 1,257,208; Feb. 19; v. 247; p. 689.

Fitzgerald, William L., et al. (See Burtt, Frank, assignor.)

Fitzjohn, Edward M., and E. A. Stanton, Oneida, N. Y. Golf-club. No. 1,257,471; Feb. 26; v. 247; p. 900.

Flanagan, James U., assignor to F. F. Slocomb & Co., Incorporated, Wilmington, Del. Machine for seasoning or finishing leather. No. 1,257,595; Feb. 26; v. 247; p. 838.

Flannery Bolt Company. (See Dodds, Ethan I., assignor.)

Flannery Bolt Company. (See Landgraf, Frederick, assignor.)

Flansburg, Peter, Manistee, Mich. Shipping-crate. No. 1,256,458; Feb. 12; v. 247; p. 433.

Flather & Company. (See Brand, Junius H., assignor.)

Flattem, Hans, Minneapolis, Minn. Relief trap-door for grain-cars. No. 1,256,544; Feb. 19; v. 247; p. 494.

Flavell, Leo E., and C. S. Priest, Birmingham, England. Registering apparatus. No. 1,256,459; Feb. 12; v. 247; p. 434.

Fleming, John H., Seattle, Wash. Automatic fire-alarm system. No. 1,257,687; Feb. 26; v. 247; p. 864.

Fletcher, Edson W. (See Scarborough and Fletcher.)

Fletcher, John D., Evansville, Ind. Coffee compound. No. 1,255,816; Feb. 5; v. 247; p. 203.

Fletcher, Roy L., Cameron, W. Va. Casing-head. No. 1,255,147; Feb. 5; v. 247; p. 10.

Fletcher, William E., Tamaqua, Pa., assignor to Atlas Powder Company, Wilmington, Del. Evaporating-tank. No. 1,257,209; Feb. 19; v. 247; p. 689.

Flinn, Mary E., Medford, Oreg. Fruit-gatherer. No. 1,256,690; Feb. 19; v. 247; p. 597.

Flint, Albert H., New York, N. Y., assignor, by mesne assignments, to The Walker Company, Wilmington, Del. Car-seat cushion. No. 1,257,335; Feb. 26; v. 247; p. 761.

Flockhart Ring Casting Co. (See De Lavand, Dimitri S., assignor.)

Florendine, James. (See Barnett and Florendine.)

Flower, William A., Bakersfield, Cal. Garment-seam-ripping attachment for sewing-machines. No. 1,256,671; Feb. 19; v. 247; p. 532.

Focha, William F., Richmond, Cal. Hair-pin. No. 1,256,005; Feb. 12; v. 247; p. 299.

Fogh, Hans P., Seattle, Wash. Fly-swatter. No. 1,255,308; Feb. 5; v. 247; p. 53.

Föhrenbach, Willy. (See Hüssy and Föhrenbach.)

Folger, Edward P., Brooklyn, N. Y., assignor to Standard Oil Company, Bayonne, N. J. Apparatus for cooling wax-bearing oil for pressing. No. 1,256,460; Feb. 12; v. 247; p. 434.

Folger, John R., Detroit, Mich. Door-lock-controlled electric switch. No. 1,256,545; Feb. 19; v. 247; p. 495.

Folmer, William F., assignor to Eastman Kodak Company, Rochester, N. Y. Magazine-back for cameras. No. 1,255,868; Feb. 12; v. 247; p. 259.

Foos Gas Engine Company, The. (See Edwards, Albert Y., assignor.)
Foran, George J., New York, N. Y., assignor to Henry R. Worthington, Inc. Condensing apparatus. No. 1,255,869; Feb. 12; v. 247; p. 259.
Force, William C., North Plainfield, assignor of one-half to W. M. Kelly, Jersey City, N. J. Machine-clamp. No. 1,255,729; Feb. 5; v. 247; p. 178.
Ford, Bruce, Philadelphia, Pa. Secondary or storage battery. No. 1,256,006; Feb. 12; v. 247; p. 299.
Ford, Joseph C., assignor to French Battery & Carbon Co., Madison, Wis. Pocket hand-lamp. No. 1,257,596; Feb. 26; v. 247; p. 839.
Ford, Silas M., St. Paul, Minn. Machine for making lath-board. No. 1,257,472; Feb. 26; v. 247; p. 801.
Foreman, Amos L., Baltimore, Md. Bottle-washing machine. No. 1,256,482; Feb. 12; v. 247; p. 440.
Forrest, James E., Brooklyn, N. Y. Bale and package tie. No. 1,255,148; Feb. 5; v. 247; p. 10.
Forrester, Samuel C., Atlanta, Ga. Engine-starter. No. 1,257,210; Feb. 19; v. 247; p. 689.
Forslund, Henning D., assignor to Aktiebolaget Svenska Kullagerfabriken, Gottenborg, Sweden. Producing clamping-sleeves. No. 1,256,672; Feb. 19; v. 247; p. 532.
Forsyth Brothers Company. (See Griest, Lewis T., assignor.)
Forsyth, Robert B., Christchurch, New Zealand, assignor, by mesne assignments, to The De Laval Separator Company, New York, N. Y. Pulsator for milking-machines. No. 1,257,688; Feb. 26; v. 247; p. 864.
Fort Worth Well Machinery & Supply Co. (See Herdman, Adam H., assignor.)
Forth, Charles, Ottawa, Ontario, Canada. Wall-switch. No. 1,256,546; Feb. 19; v. 247; p. 495.
Forward, Chauncey B., Urbana, Ohio. Apparatus for vaporizing hydrocarbon oils. No. 1,255,149; Feb 5; v. 247; p. 10.
Foster, Edward E., Beverly, Mass. Cam-path-generating machine. No. 1,256,461; Feb. 12; v. 247; p. 435.
Foster, James G., Vancouver, British Columbia, Canada. Automatic saw-sharpener. No. 1,256,782; Feb. 19; v. 247; p. 564.
Foster, John O., Seattle, Wash. School-desk. No. 1,256,218; Feb. 12; v. 247; p. 364.
Foster, Lewis L., Govans, Md., assignor of one-half to J. H. Ruehmling, Brooklyn, N. Y. Internal-combustiqp engine. No. 1,255,730; Feb. 5; v. 247; p. 178.
Foster Machine Company. (See McKean, John O., assignor.)
Foster, Theodore W., assignor to Theodore W. Foster & Bro. Co., Providence, R. I. Identification-tag locket or holder. No. 1,255,870; Feb. 12; v. 247; p. 259.
Föttinger, Hermann, Zoppot, near Danzig, Germany. Mixed gas and liquid turbine. No. 1,256,673; Feb. 19; v. 247; p. 532.
Föttinger, Hermann, Zoppot, near Danzig, Germany. Rotary gas-engine. No. 1,256,674; Feb. 19; v. 247; p. 533.
Foundation Company, The. (See Brown, Louis L., assignor.)
Fowler, Alfred B., Beverly, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Work-support for shoe-machines. No. 1,256,547; Feb. 19; v. 247; p. 495.
Fowler, Alfred B., Beverly, Mass, assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Lasting-machine. No. 1,257,689; Feb. 26; v. 247; p. 864.
Fowler, Harry N., assignor to M. C. Fowler, Chicago, Ill. Search-light lamp. No. 1,257,837; Feb. 26; v. 247; p. 909.
Fowler, Mabel C. (See Fowler, Harry N., assignor.)
Fox, Dennis F., Candor, N. C. Fuel-heating device for explosive-engines. No. 1,256,994; Feb. 19; v. 247; p. 628.
Fox, Le Vern, Hutchinson, Kans. Gasolene motor-car. No. 1,255,731; Feb. 5; v. 247; p. 179.
Fox, William F., Whitestone, assignor, by mesne assignments, to Natural Color Pictures Company, Inc., New York, N. Y. Production of colored pictures. No. 1,256,675; Feb. 19; v. 247; p. 533.
Fox, William R., Grand Rapids, Mich. Pencil-sharpener. No. 1,257,690; Feb. 26; v. 247; p. 865.
Foxwell, Charles, Baltimore, Md. Distilling combustible materials. No. 1,255,593; Feb. 5; v. 247; p. 139.
Frame, Frank and L., Sawyer, Kans. Tire-alarm. No. 1,255,732; Feb. 5; v. 247; p. 180.
Frame, Louis. (See Frame, Frank and L.)
Frank, Burdette M. (See Knight and Frank.)
Frank, John H., State Line, Wis. Canoe yoke attachment. No. 1,257,073; Feb. 19; v. 247; p. 650.
Frank, Maxwell C., Piedmont, Cal. Electric push-button. No. 1,256,007; Feb. 12; v. 247; p. 299.
Frank, Maxwell C., Piedmont, Cal. Attachment for electric switches. No. 1,257,473; Feb. 26; v. 247; p. 801.
Franklin, Hubert F., Brooklyn, N. Y. Internal-combustion engine. No. 1,255,150; Feb. 5; p. v. 247; p. 11.
Frantz Premier Company, The. (See Sullivan, Joseph L., assignor.)
Franz, Gustav A., Jackson, Mich. Spring structure. No. 1,255,151; Feb. 5; v. 247; p. 11.
Fraser, Le Roy B., New Haven, Conn., assignor to Sewell-Clapp Envelopes, Chicago, Ill. Machine for grinding dies. No. 1,257,691; Feb. 26; v. 247; p. 865.
Frazier, Oliver B., Elwood, Ind. Lawn-mower. No. 1,256,008; Feb. 12; v. 247; p. 300.
Frederick Osann Company, The. (See Lyons, Robert L., assignor.)
Freedman, Robert S., and H. H. Gottstein, New York, N. Y. Cot or stretcher. No. 1,256,219; Feb. 12; v. 247; p. 364.
Freeman, John S., and W. L. Wortham, Jersey City, N. J., assignor to P. Lorillard Company, New York, N. Y. Wrapping-machine. No. 1,256,122; Feb. 12; v. 247; p. 334.
Freeman, Lawrence K., Houston, Tex. Attachment for bale-forming presses. No. 1,257,474; Feb. 26; v. 247; p. 801.
Freer, Phelps M., Detroit, Mich. Muffler. No. 1,255,401; Feb. 5; v. 247; p. 83.
French, Alfred W., Piqua, Ohio. Press-plate. No. 1,256,676; Feb. 19; v. 247; p. 533.
French, Alfred W., Piqua, Ohio. Ventilating means for seed-houses. No. 1,256,677; Feb. 19; v. 247; p. 534.
French, Alfred W., Piqua, Ohio. Press-plate. No. 1,256,678; Feb. 19; v. 247; p. 534.
French, Alfred W., Piqua, Ohio. Press-plate. No. 1,256,679; Feb. 19; v. 247; p. 534.
French, Alfred W., Piqua, Ohio. Press-plate. No. 1,256,680; Feb. 19; v. 247; p. 535.
French, Alfred W., Piqua, Ohio. Pneumatic method of ventilating cotton-seed. No. 1,256,681; Feb. 19; v. 247; p. 535.
French Battery & Carbon Co. (See Ford, Joseph C., assignor.)
French, Harry F. (See Benner and French.)
Frenette, Alfred, Thetford Mines, Quebec, Canada. Razor-honing implement. No. 1,257,692; Feb. 26; v. 247; p. 866.
Freund, Henry, Waukegan, Ill. Automatic window-screen. No. 1,257,074; Feb. 19; v. 247; p. 650.
Frew, James S., and E. A. Lewis, Lancaster, Cal. Soil grading and leveling device. No. 1,257,838; Feb. 26; v. 247; p. 910.
Frey, John H., and M. Mayer, Erie, Pa. Boring-tool holder. No. 1,256,462; Feb. 12; v. 247; p. 435.
Frick, Allen J., Fleischmanns, assignor of one-fourth to J. J. Carey, Albany, N. Y. Method of and means for sealing receptacles for food products. No. 1,256,304; Feb. 12; v. 247; p. 388.
Froehlick, Harry T., Philadelphia, Pa., assignor to Bright Cigar Machine Company. Bunching material. No. 1,255,402; Feb. 5; v. 247; p. 83.
Frömsdorf, Robert, Leipzig-Eutritzsch, assignor to Ludwig Hupfeld Aktiengesellschaft, Leipzig, Germany. Self-playing musical instrument. No. 1,256,464; Feb. 12; v. 247; p. 435.
Frost, George B., Des Moines, Ia. Stock-watering tank. No. 1,257,211; Feb. 19; v. 247; p. 689.
Frozeth, Ernst E. (See Blixt and Frozeth.)
Frozeth, Nils E. (See Blixt and Frozeth, assignors.)
Fuller, Franz A., assignor to The J. E. Mergott Company, Newark, N. J. Bag-fastener. No. 1,255,733; Feb. 5; v. 247; p. 180.
Fuller, Percy W., Boston, Mass. Reproduction of sound characteristics. No. 1,257,075; Feb. 19; v. 247; p. 650.
Fuller, Robert L., Reno, Nev. Mat. No. 1,256,783; Feb. 19; v. 247; p. 564.
Fulton Company, The. (See Fulton, Weston M., assignor.)
Fulton, Weston M., assignor to The Fulton Company, Knoxville, Tenn. Radiator-casing. No. 1,256,220; Feb. 12; v. 247; p. 364.
Funke, Edward H., Jr., Blue Hill, Nebr. Display-rack. No. 1,256,465; Feb. 12; v. 247; p. 435.
Furman, George B., East Orange, N. J., assignor to L. O. Koven & Brother, New York, N. Y. Liquid-level indicator. No. 1,257,693; Feb. 26; v. 247; p. 866.
Gabriel, Joseph S., Rice Lake, Wis. Stanchion. No. 1,256,009; Feb. 12; v. 247; p. 300.
Gadke, William, Philadelphia, Pa. Timer. No. 1,257,694; Feb. 26; v. 247; p. 867.
Gadke, William, Philadelphia, Pa. Cleat. No. 1,257,695; Feb. 26; v. 247; p. 867.
Gagnon, Alexandre, Biddeford, Me. Safety device for elevators. No. 1,257,336; Feb. 26; v. 247; p. 761.
Gall, John F., assignor to Simmons Manufacturing Company, Kenosha, Wis. Separable metal joint. No. 1,255,873; Feb. 12; v. 247; p. 260.
Gairing, Emil, assignor to Eclipse Interchangeable Counterbore Co., Detroit, Mich. Hollow milling-tool. No. 1,255,304; Feb. 5; v. 247; p. 54.
Galsman, Henry J., New York, assignor to Eastman Kodak Company, Rochester, N. Y. Marking photographic material. No. 1,256,784; Feb. 19; v. 247; p. 565.
Galdi, Alfred C. and A., Somerville, Mass. Hat-fastening. No. 1,255,524; Feb. 5; v. 247; p. 118.
Galdi, Armand. (See Galdi, Alfred C. and A.)
Galitzka, George I., New York, N. Y. Telephone apparatus. No. 1,256,123; Feb. 12; v. 247; p. 334.
Gallagher, John B., Butte, Mont. Check-valve for locomotive-boilers. No. 1,257,076; Feb. 19; v. 247; p. 651.
Galle, Vincent P., Freemansburg, Pa. Flying-machine. No. 1,257,212; Feb. 19; v. 247; p. 690.

Gallet, Henri, assignor to Etablissements De Dion Bouton Société Anonyme, Puteaux, France. Roller-bearing. No. 1,257,597; Feb. 26; v. 247; p. 839.
Gally, Robert A., assignor to The Baldwin Company, Cincinnati, Ohio. Music-roll gearing. No. 1,255,305; Feb. 5; v. 247; p. 54.
Gally, Robert A., assignor to The Baldwin Company, Cincinnati, Ohio. Electric-motor-suspension means. No. 1,256,010; Feb. 12; v. 247; p. 300.
Gally, Robert A., assignor to The Baldwin Company, Cincinnati, Ohio. Valve of counterbalanced type. No. 1,256,466; Feb. 12; v. 247; p. 436.
Gally, Robert A., assignor to The Baldwin Company, Cincinnati, Ohio. Music-player-action pianissimo device. No. 1,256,467; Feb. 12; v. 247; p. 436.
Gally, Robert A., assignor to The Baldwin Company, Cincinnati, Ohio. Air-control governor. No. 1,256,468; Feb. 12; v. 247; p. 437.
Gally, Robert A., assignor to The Baldwin Company, Cincinnati, Ohio. Musical-instrument expression-controller. No. 1,257,696; Feb. 26; v. 247; p. 867.
Gally, Robert A., assignor to The Baldwin Company, Cincinnati, Ohio. Music-sheet with expression-perforations. No. 1,257,697; Feb. 26; v. 247; p. 868.
Galowitz, Joseph, New York, N. Y. Making special patterns for garments. No. 1,255,734; Feb. 5; v. 247; p. 180.
Galusha, Don L., Winchester, Mass. Fuel-supply system. No. 1,256,785; Feb. 19; v. 247; p. 565.
Galvin, Robert E., and H. C. Schumacher, Rock Island, Ill. Corn-planter. No. 1,257,839; Feb. 26; v. 247; p. 910.
Gammeter, John R., Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y. Endless belt and making the same. No. 1,256,011; Feb. 12; v. 247; p. 300.
Gannon, Joseph, Walton, assignor to Steinfeld Bros., New York, N. Y. Baby-walker. No. 1,256,548; Feb. 19; v. 247; p. 496.
Gapp, John, Scranton, Pa. Combined pipe-flanging and bench vise. No. 1,257,475; Feb. 26; v. 247; p. 801.
Gardner, Albert R., and P. Washburn, Seattle, Wash. Rotary internal-combustion engine. No. 1,255,403; Feb. 5; v. 247; p. 83.
Gardner, Guy O. (See Tainter, Simon S., assignor.)
Gardner, Harry H., Johnstown, Pa. Wrench. No. 1,257,077; Feb. 19; v. 247; p. 651.
Gardner, Herbert S., trustee. (See Weakley, Raymond D., assignor.)
Gardner, Perry G., Rutherford, assignor of one-half to Bound Brook Oil-Less Bearing Company, Boundbrook, N. J. Antislip-belt. No. 1,255,525; Feb. 5; v. 247; p. 119.
Garfield, James R., trustee. (See Webster, Harry G., assignor.)
Garlick, James D., Port Huron, Mich. Vehicle-wheel. No. 1,256,682; Feb. 19; v. 247; p. 535.
Garrison, William F., Alcova, Wyo. Pipe. No. 1,256,469; Feb. 12; v. 247; p. 437.
Gartner, Alfred, Washington, D. C. Stick or scarf pin. No. 1,256,470; Feb. 12; v. 247; p. 437.
Garvin, Carl, Dayton, Iowa. Interlocking tile-section. No. 1,257,337; Feb. 26; v. 247; p. 761.
Gasser, Charles B., Reading, Pa. Potato-peeling machine. No. 1,255,735; Feb. 5; v. 247; p. 180.
Gatchell, Preston E., Buckley, Wash. Ship-brake. No. 1,256,786; Feb. 19; v. 247; p. 565.
Gates, Frederic P., assignor to The Arrow Electric Company, Hartford, Conn. Electric socket. No. 1,255,152; Feb. 5; v. 247; p. 11.
Gates, Susan P., Walla Walla, Wash. House-gown. No. 1,256,891; Feb. 19; v. 247; p. 597.
Gaunt, Joseph S., and H. Dyson, Manchester, England. Yarn-guide eye. No. 1,257,213; Feb. 19; v. 247; p. 690.
Gawley, George J., Fleet, England. Apparatus for discharging fluids or bodies from containers. No. 1,256,305; Feb. 12; v. 247; p. 388.
Gebrüder Stumm, G. m. b. H. (See Pfoser and Strack, assignors.)
Geiger, William A., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Railway draft-rigging. No. 1,255,153; Feb. 5; v. 247; p. 12.
Geisel, Otto E., Philadelphia, Pa. Power-transmission belt. No. 1,255,594; Feb. 5; v. 247; p. 139.
Gelling, John W., Mexico, Mexico. Spring construction. No. 1,256,124; Feb. 12; v. 247; p. 335.
Gendron, Joseph A., Nashua, N. H. Loom. No. 1,255,736; Feb. 5; v. 247; p. 181.
General Electric Company. (See Atwood, Winfield A., assignor.)
General Electric Company. (See Bergman, Sven R., assignor.)
General Electric Company. (See Currier, Nell, Jr., assignor.)
General Electric Company. (See Fisher, Ernest F., assignor.)
General Electric Company. (See Kearsley, William K., Jr., assignor.)
General Electric Company. (See Keene, Alvin D., assignor.)
General Electric Company. (See Kilgore, Lloyd M., assignor.)
General Electric Company. (See Korthals-Altes, William C., assignor.)
General Electric Company. (See Lemp and Stock, assignors.)
General Electric Company. (See McFarland, Edward H., assignor.)
General Electric Company. (See Moore, Daniel M., assignor.)
General Electric Company. (See Nordgren, Werner M., assignor.)
General Electric Company. (See Parkhurst, Leon F., assignor.)
General Electric Company. (See Samuelson, Frederick, assignor.)
General Electric Company. (See Thomson, Elihu, assignor.)
General Electric Company. (See Ver Planck, William E., assignor.)
General Electric Company. (See Westendarp, Henry, O., assignor.)
General Transmission Company. (See Selbt, George, assignor.)
Genero, Theodore, Websterville, Vt. Wear-compensating feed-screw for drills. No. 1,256,471; Feb. 12; v. 247; p. 437.
George, John W., Stroud Green, England. Rotary engine. No. 1,256,995; Feb. 19; v. 247; p. 628.
George, John W., Stroud Green, England. Rotary engine. No. 1,256,996; Feb. 19; v. 247; p. 629.
George W. Smyth Lumber Company. (See Tenholder, Herman G., assignor.)
Georgs-Marien-Bergwerks & Hütten-Verein A.-G. (See Victor, Alwin, assignor.)
Gerdeman, Frank H., assignor to Star Tractor Company, Findlay, Ohio. Tractor. No. 1,255,404; Feb. 5; v. 247; p. 84.
Geritz, Claus P. (See Morrow and Geritz.)
Gerson, Nikolaus, assignor to A. Mecky Company, Philadelphia, Pa. Child's vehicle. No. 1,255,595; Feb. 5; v. 247; p. 140.
Gerstner, August, Brooklyn, N. Y. Non-skid device for automobiles. No. 1,256,221; Feb. 12; v. 247; p. 365.
Gervais, Wainwright B., assignor to Variety Manufacturing Company, Chicago, Ill. Fireproof door. No. 1,257,476; Feb. 26; v. 247; p. 802.
Gholson, John M. (See Harrison, Hall, and Gholson.)
Gibbins, Henry, executor. (See Gibbins, William G.)
Gibbins, William G., deceased, St. Louis, Mo., H. Gibbins executor. Fleshing-machine. No. 1,256,892; Feb. 19; v. 247; p. 598.
Gibbons, Alger E., Boston, Mass. Outlet-box. No. 1,257,955; Feb. 26; v. 247; p. 942.
Gibbs, Frederick H., Brooklyn, assignor to American Car and Foundry Company, New York, N. Y. Roller-bearing wheel and means for attaching same to axle. No. 1,256,483; Feb. 12; v. 247; p. 441.
Gibbs, Frederick H., Brooklyn, assignor to American Car and Foundry Company, New York, N. Y. Mine-car wheel and axle. No. 1,256,484; Feb. 12; v. 247; p. 441.
Gibford, Edward B., Adrian, Mich., assignor to Pike Manufacturing Co., Pike, N. H. Combination razor hone and strop. No. 1,257,078; Feb. 19; v. 247; p. 651.
Gibson Art Company, The. (See Hart, Henry A., assignor.)
Gibson, Arthur L. and W. P., and W. H. Ross, Twickenham, England. Rolling fire-shutter, partition, or the like. No. 1,255,817; Feb. 5; v. 247; p. 203.
Gibson, Henry A., Winnipeg, Manitoba, Canada. Plant-protector. No. 1,257,477; Feb. 26; v. 247; p. 802.
Gibson, William P. (See Gibson and Ross.)
Gidden, William T. (See Hunt and Gidden.) (Reissue.)
Gielow, Herman, Palatine, Ill. Fruit-picker. No. 1,255,596; Feb. 5; v. 247; p. 140.
Gifford, Bert L., assignor to Gifford Manufacturing Company, Barker, N. Y. Sprinkling or spraying device. No. 1,255,405; Feb. 5; v. 247; p. 84.
Gifford, Cyrus P., assignor of two-thirds to W. A. Karle, Erie, Pa. Educational device. No. 1,256,997; Feb. 19; v. 247; p. 629.
Gifford Manufacturing Company. (See Gifford, Bert L., assignor.)
Gilbert, Alton E., Tulsa, Okla. Well-rod coupling. No. 1,255,406; Feb. 5; v. 247; p. 85.
Gilbert & Barker Manufacturing Company. (See Boyle, William P., assignor.)
Gilbert, John H., Plant City, Fla. Staple. No. 1,257,840; Feb. 26; v. 247; p. 911.
Giles, Georges, Fribourg, Switzerland. Industrial electrical capacity-battery. No. 1,255,597; Feb. 5; v. 247; p. 140.
Gillen, W. E., *et al.* (See Sartain, Louis M., assignor.)
Gilles, Pierre P., Springfield, Mass. Fuel-feeding device for carbureters. No. 1,255,306; Feb. 5; v. 247; p. 54.
Gillette Safety Razor Company. (See Nickerson, William E., assignor.)
Gilligan, John M., Rockville, Ind. Belt-buckle. No. 1,257,841; Feb. 26; v. 247; p. 911.
Gilroy, Frank J., Buffalo, N. Y. Car-door. No. 1,255,154; Feb. 5; v. 247; p. 12.
Gilson Manufacturing Co. (See Travers, Charles J., assignor.)
Gladele, Harrison, Cincinnati, Ohio. Developing apparatus. No. 1,256,893; Feb. 19; v. 247; p. 598.
Givens, James, *et al.* (See Sartain, Louis M., assignor.)
Givens, Robert J., Enterprise, Idaho. Protector for the timers of explosive-engines. No. 1,256,472; Feb. 12; v. 247; p. 438.

Glanton, James A., Columbus, Ind. Sectional cedar chest. No. 1,256,806; Feb. 12; v. 247; p. 389.
Glatz, Frank, Kansas City, Mo. Fifth-wheel drive for automobiles. No. 1,255,155; Feb. 5; v. 247; p. 12.
Gleason, Frederick J., Walpole, assignor to Standard Woven Fabric Company, Framingham, Mass. Rubber compound and producing the same. No. 1,257,698; Feb. 26; v. 247; p. 868.
Globus, Gummi- & Asbestwerke G. m. b. H. (See Hartmann, Heinrich, assignor.)
Goddard, Joseph, and W. S. Hutchings, assignors to Seneca Camera Manufacturing Company, Rochester, N. Y. Lens-front for cameras. No. 1,257,842; Feb. 26; v. 247; p. 911.
Godfrey, George W., Willowsprings, Wis. Drag-saw. No. 1,255,737; Feb. 5; v. 247; p. 181.
Goetz, Joseph F., Dayton, Ohio. Collapsible display-case. No. 1,255,407; Feb. 5; v. 247; p. 85.
Goff, Jesse, assignor of one-fourth to O. P. Mahoney and one-fourth to W. D. Goff, Joplin, Mo. Device for cleaning and blowing off boilers. No. 1,255,156; Feb. 5; v. 247; p. 12.
Goff, William D., *et al.* (See Goff, Jesse, assignor.)
Golata, Andrew J., and L. L. Roberts, assignors of one-tenth to A. L. Ellis, Detroit, and one-tenth to W. W. Carswell, Highland Park, Mich. Internal-combustion engine. No. 1,257,598; Feb. 26; v. 247; p. 839.
Goldberg, John S., assignor to Alemite Metals Company, Chicago, Ill. Die-casting machine. No. 1,257,478; Feb. 26; v. 247; p. 802.
Golden West Pump Company. (See Norton, James A., assignor.)
Goldenstein, Maurice M., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Motor-control system. No. 1,255,874; Feb. 12; v. 247; p. 260.
Golding, John F., Washington, D. C. Door-holder. No. 1,255,408; Feb. 5; v. 247; p. 85.
Goldman, Jacob L. (See Babitzky, Joseph, assignor.)
Goldmerstein, Leon, New York, N. Y. Master control and lock for electric circuits in automobiles. No. 1,256,125; Feb. 12; v. 247; p. 335.
Goldner, Joseph H. (See Hanrath, Theodore W., assignor.)
Gonyea, Louis J., Spokane, Wash. Tray. No. 1,257,843; Feb. 26; v. 247; p. 911.
Goodman Manufacturing Company. (See Davis, Charles E., assignor.)
Goodman Manufacturing Company. (See Pratt, Charles A., assignor.)
Goodman Manufacturing Company. (See Washburn, Frank S., assignor.)
Goodman, Roy L., Strawberry Point, Iowa. Cultivator-fender. No. 1,256,473; Feb. 12; v. 247; p. 438.
Goodnow, Henry W., assignor of one-half to J. P. Ryan, Worcester, Mass. Folding box. No. 1,256,549; Feb. 19; v. 247; p. 496.
Goodrich, Frank W. (See White, Charles H., assignor.)
Goodridge, Gilbert W., assignor to The Bryant Electric Company, Bridgeport, Conn. Electric switch. No. 1,255,157; Feb. 5; v. 247; p. 13.
Goodrum, Charles L. (See Clausen and Goodrum.)
Goodrum, Charles L., assignor to Western Electric Company, Incorporated, New York, N. Y. Automatic telephone-exchange system. No. 1,256,126; Feb. 12; v. 247; p. 335.
Goodrum, Charles L., assignor to Western Electric Company, Incorporated, New York, N. Y. Line-switch. No. 1,257,338; Feb. 26; v. 247; p. 762.
Goold, Frank A., and W. G. Baxter, Montfort, Wis. Crank-case support. No. 1,256,550; Feb. 19; v. 247; p. 497.
Gordon, George C., assignor to The Park Drop Forge Company, Cleveland, Ohio. Counterbalanced crank-shaft. No. 1,255,409; Feb. 5; v. 247; p. 86.
Goss Printing Press Company, The. (See Evensen, William, assignor.)
Goss Printing Press Company, The. (See Fankboner, Harland, assignor.)
Gossack, Thomas, Belt, Mont. Respirator. No. 1,256,012; Feb. 12; v. 247; p. 301.
Gottstein, Hans H. (See Freedman and Gottstein.)
Gould Coupler Company. (See Crosby, Gorham, assignor.)
Gould Coupler Company. (See Jepson, John W., assignor.)
Gould, Fred L., assignor of one-twentieth to A. E. Kibble and one-twentieth to J. Capurro, Reno, Nev. Pump. No. 1,256,127; Feb. 12; v. 247; p. 335.
Government of the United States. (See Cruess, William V., assignor.)
Government of the United States. (See Oglesby, William F., assignor.)
Grabill, John F., assignor of one-half to H. C. Chaffin, Flora, Ill. Radiator foot-rest. No. 1,256,128; Feb. 12; v. 247; p. 336.
Grabill, John F., assignor of one-third to E. Arbuthnot and one-third to H. C. Chaffin, Flora, Ill. Drill-socket. No. 1,256,222; Feb. 12; v. 247; p. 365.
Grabowski, Anton F., Chicago, Ill. Hair-curling machine. No. 1,255,410; Feb. 5; v. 247; p. 86.
Grabowski, Stanley, Joliet, Ill. Car-mover. No. 1,256,474; Feb. 12; v. 247; p. 438.
Grady, John O. Birmingham, Ala. Demountable rim. No. 1,257,844; Feb. 26; v. 247; p. 912.
Graham, John T., Halstead, England. Means for supplying liquid hydrocarbon to carbureters. No. 1,257,214; Feb. 19; v. 247; p. 690.
Grand Rapids Brush Company. (See Barnes and Page, assignors.)
Grant, Alexander W. (See Duncan, Charles, assignor.)
Grant, Margaret, Akron, Ohio. Process and container for canning or preserving jellies and the like. No. 1,256,307; Feb. 12; v. 247; p. 289.
Grant, Robert, Edmonton, Alberta, Canada. Transmission mechanism. No. 1,257,479; Feb. 26; v. 247; p. 803.
Grant, William P., Salinas, Cal. Safety-pocket. No. 1,256,787; Feb. 19; v. 247; p. 565.
Grapp, Albert E., assignor to Despatch Manufacturing Co., Minneapolis, Minn. Flexible electric heater. No. 1,257,339; Feb. 26; v. 247; p. 762.
Gray, Andrew, London, England, assignor to Marconi Wireless Telegraph Company of America, New York, N. Y. Mast. No. 1,257,699; Feb. 26; v. 247; p. 868.
Gray, Carl C., Wapakoneta, Ohio. Ensilage-harvester. No. 1,256,683; Feb. 19; v. 247; p. 536.
Gray & Davis Inc. (See Gray, William, assignor.)
Gray, Gardner B., Pittsburgh, Pa. Switch-machine. No. 1,255,598; Feb. 5; v. 247; p. 140.
Gray, Haywood W., Adel, Ga. Boat-propeller. No. 1,256,551; Feb. 19; v. 247; p. 497.
Gray, Percy W. (See Taylor and Gray.)
Gray, William, Brookline, assignor to Gray & Davis Inc., Cambridge, Mass. Automobile construction. No. 1,257,340; Feb. 26; v. 247; p. 763.
Great Northern Paper Company. (See Pope, Charles E., assignor.)
Greene, Charles J. (See Van Gofre, Anton, assignor.)
Greene, James B., Lowndesboro, Ala. Demountable rim. No. 1,257,845; Feb. 26; v. 247; p. 912.
Greene, James H., Brookline, Mass. Staff-holder and spot-marker. No. 1,257,215; Feb. 19; v. 247; p. 690.
Greene, John, Burbank, Cal. Oil-burner. No. 1,257,341; Feb. 26; v. 247; p. 763.
Greene, Morgan A., Rupert, Idaho. Hose-coupling. No. 1,255,738; Feb. 5; v. 247; p. 181.
Greenhalgh, Robert H., Salt Lake City, Utah. Brace-bit chuck. No. 1,256,475; Feb. 12; v. 247; p. 438.
Greenwald, Lemon, assignor to The Firestone Tire & Rubber Company, Akron, Ohio. Air-valve for pneumatic tires. No. 1,255,411; Feb. 5; v. 247; p. 86.
Gregory, Jean C., New York, N. Y. Finger-shield. No. 1,257,846; Feb. 26; v. 247; p. 912.
Greist, Lewis T., assignor to Forsyth Brothers Company, Chicago, Ill. Vehicle-wheel. No. 1,256,788; Feb. 19; v. 247; p. 566.
Gresham Finance Corporation Limited, The. (See Scott, Bateman D., assignor.)
Greutmann, Roma M., W. J., and J., Miller, Nebr. Combination wire-stretcher and wagon-jack. No. 1,257,216; Feb. 19; v. 247; p. 691.
Greutmann, William J. (See Greutmann, Roma M., W. J., and J.)
Grieb, Alfred, Elizabeth, N. J., assignor to The Singer Manufacturing Company. Smocking device for sewing-machines. No. 1,255,520; Feb. 5; v. 247; p. 119.
Griesche, Gustav, Berkeley, Cal. Stone saw and feeder. No. 1,256,684; Feb. 19; v. 247; p. 536.
Griesche, Gustav, Berkeley, Cal. Granite and stone saw. No. 1,256,685; Feb. 19; v. 247; p. 536.
Griesel, John C., assignor of one-half to C. F. Schlintz, Pottsville, Pa. Incubator. No. 1,257,847; Feb. 26; v. 247; p. 912.
Grieves, Albert, Springfield, Ohio, assignor to International Harvester Company of New Jersey. Reaper-switch-control mechanism. No. 1,257,700; Feb. 26; v. 247; p. 869.
Griffin, Luther D., A. J., and G. W. Stewart, Blocton, Ala. Insect-catcher. No. 1,256,552; Feb. 19; v. 247; p. 497.
Griffin, William H. H., Goree, Tex. Ring for disseminating perfumes, &c. No. 1,257,848; Feb. 26; v. 247; p. 912.
Griffing, Andrew N., *et al.* (See Crowe, William L., assignor.)
Griffing, Charles E., *et al.* (See Crowe, William L., assignor.)
Griffith, Victor, San Francisco, Cal. Internal-combustion pump. No. 1,257,217; Feb. 19; v. 247; p. 691.
Grim, John W., Abbottstown, Pa. Automobile-curtain. No. 1,256,013; Feb. 12; v. 247; p. 301.
Gringe, Casper H., Waterloo, Iowa. Device for stapling leather loops. No. 1,256,553; Feb. 19; v. 247; p. 497.
Grinnell, Emma. (See Hopkins, Ephraim S., assignor.)
Griswold, Leslie W., Cooper, Iowa. Heat-controller for air-cooled engines. No. 1,257,218; Feb. 19; v. 247; p. 691.
Griswold, Leslie W., Cooper, Iowa. Heat-controller for air-cooled engines. No. 1,257,219; Feb. 19; v. 247; p. 691.
Griswold Manufacturing Company, The. (See Hollands, John C., assignor.)
Griswold Manufacturing Company, The. (See Pfirman, Valentine D., assignor.)
Griswold, Robert G., assignor to Montague Mailing Machinery Company, Chattanooga, Tenn. Selector printing mechanism. No. 1,257,480; Feb. 26; v. 247; p. 803.
Gritman, George S. (See Clark, James T., assignor.)
Grob, Hugo, Zurich, Switzerland, assignor to Safety Car Heating & Lighting Company. Electrical system. No. 1,256,223; Feb. 12; v. 247; p. 365.
Groff, William E. (See Rich and Groff.)

Grogan, Edward W., Byers, assignor of one-fourth to W. R. Stone, Wichita Falls, Tex. Latch for grain-car doors. No. 1,257,849; Feb. 26; v. 247; p. 913.
Groh, Bernard C. (See Neir and Groh.)
Gronager, Holger J. J., assignor of one-half to E. Claeson, Bridgeport, Conn. Combination square and bevel. No. 1,255,158; Feb. 5; v. 247; p. 13.
Gross, John E., Walla Walla, Wash. Leveling means for wheeled apparatus. No. 1,255,599; Feb. 5; v. 247; p. 140.
Gross, John J., Toledo, Ohio. Train-controlling apparatus. No. 1,256,129; Feb. 12; v. 247; p. 336.
Grossman, Emanuel, Brooklyn, and P. Malagrino, New York, N. Y. Shoe. No. 1,256,476; Feb. 12; v. 247; p. 439.
Grossman, Martin, New York, N. Y. Resilient wheel. No. 1,257,220; Feb. 19; v. 247; p. 692.
Grossman, Samuel, New York, N. Y. Building element. No. 1,257,221; Feb. 19; v. 247; p. 692.
Grove, Jacob R., Mansfield, Pa. Adjustable gage-pin for tympans. No. 1,256,014; Feb. 12; v. 247; p. 301.
Groverman, William H., Minneapolis, Minn. Automobile-bed. No. 1,255,207; Feb. 5; v. 247; p. 54.
Grünhagen, Heinrich, Berlin-Karlshorst, assignor to Actien Gesellschaft für Anilin Fabrikation, Berlin, Germany. Halogenated dyes of the acridin series. No. 1,255,739; Feb. 5; v. 247; p. 181.
Grünhagen, Heinrich, Berlin-Karlshorst, assignor to Actien Gesellschaft für Anilin Fabrikation, Berlin, Germany. Dyes of the benzene-naphthalene series and process for their manufacture. No. 1,255,740; Feb. 5; v. 247; p. 182.
Guaglianone, Dinceaso. (See Koch and Guaglianone.)
Guarantee Liquid Measure Company. (See Bain and MacKenzie, assignors.)
Guarantee Liquid Measure Company. (See MacKenzie, George W., Jr., assignor.)
Gudeman, Edward, Chicago, Ill. Preparing minim-alcoholic beverages. No. 1,256,894; Feb. 19; v. 247; p. 598.
Guerard, Arthur G. R., Mulberry, Fla. Air-pump. No. 1,255,875; Feb. 12; v. 247; p. 261.
Guild, Walter C., Marionville, Mo. Automobile-inner-tube protector. No. 1,256,015; Feb. 12; v. 247; p. 301.
Gump, Harry D. (See Collins, Henry H., assignor.)
Gustafson, Jacob, Boise, Idaho. Tide-water-storage system. No. 1,255,159; Feb. 5; v. 247; p. 13.
Guth, Edwin F., assignor to Luminous Unit Co., St. Louis, Mo. Reflector for lighting units. No. 1,257,222; Feb. 19; v. 247; p. 692.
Guyot, Henri R., Paris, France. Cooler adapted for use as a radiator or condenser. No. 1,256,998; Feb. 19; v. 247; p. 629.
Guyton & Cumfer Manufacturing Company. (See Cumfer and McFarland, assignors.)
Guzy, Charles, New York, N. Y. Sewing-machine hopper. No. 1,257,850; Feb. 26; v. 247; p. 913.
Gwaltney, Abner A., Nodena, Ark. Device for cleaning cotton. No. 1,257,851; Feb. 26; v. 247; p. 913.
H. Lieber Company, The. (See Lieber, Carl H., assignor.)
H. D. Smith & Company, The. (See Thomson, William S., assignor.)
H. J. Jaeger Company. (See Jaeger, Herman J., assignor.)
H. P. Patents and Processes Company. (See Hochstetter and Pryce, assignors.)
H. P. Townsend Manufacturing Company, The. (See Townsend, Harry P., assignor.)
H. T. Paiste Company. (See Moulthrop, Lembert H., assignor.)
Haag, Emil, Hettinger, N. D. Hoisting device and wire-stretcher. No. 1,256,686; Feb. 19; v. 247; p. 537.
Haas, Philip J., Omaha, Nebr. Water-heater. No. 1,257,701; Feb. 26; v. 247; p. 869.
Haas, Sidney G. E., New Orleans, La. Meter. No. 1,256,687; Feb. 19; v. 247; p. 537.
Habart, Charles, Cleveland, Ohio. Educational device. No. 1,256,224; Feb. 12; v. 247; p. 366.
Hackley, James B. (See Janney and Hackley.)
Hadaway, William S., Jr., New York, N. Y. Electric heater. No. 1,257,599; Feb. 26; v. 247; p. 840.
Hadley, Bert E., Los Angeles, Cal. Gas maker and combustion apparatus. No. 1,257,600; Feb. 26; v. 247; p. 840.
Hagadone, Clinton A., Western Springs, Ill., assignor to International Harvester Company of New Jersey. Cutting mechanism. No. 1,257,342; Feb. 26; v. 247; p. 763.
Hagelstein, Christian H. T., assignor to The Reece Button Hole Machine Company, Boston, Mass. Button-sewing machine. No. 1,255,517; Feb. 5; v. 247; p. 119.
Hagelstein, Christian H. T., assignor to The Reece Button Hole Machine Company, Boston, Mass. Button-sewing machine. No. 1,255,518; Feb. 5; v. 247; p. 120.
Hagelstein, Christian H. T., assignor to The Reece Button Hole Machine Company, Boston, Mass. Button-sewing machine. No. 1,255,519; Feb. 5; v. 247; p. 120.
Hager, Richard C., Philadelphia, Pa. Globe-holder. No. 1,255,163; Feb. 5; v. 247; p. 14.
Haine, Rosier N., assignor to J. A. Walker, Marshall, Mo. Check and deposit-slip tray. No. 1,257,481; Feb. 26; v. 247; p. 803.
Hale, James E., Akron, Ohio. Cushion-tire for vehicle-wheels. No. 1,255,876; Feb. 12; v. 247; p. 261.
Haley, Seabron M., Dallas, Tex. Foot steering device for automobiles. No. 1,257,601; Feb. 26; v. 247; p. 840.
Hall, Addison, *et al.* (See Wiswell, Arthur M., assignor.)
Hall, Cassius G., assignor to E. A. Titsworth, Adams Center, N. Y. Checker-board. No. 1,256,999; Feb. 19; v. 247; p. 629.
Hall, Grant M., Keene, N. H. Heel-grooving machine. No. 1,255,412; Feb. 5; v. 247; p. 87.
Hall, James W., Pardeeville, Wis. Fish-stop. No. 1,255,741; Feb. 5; v. 247; p. 182.
Hall, Lewis T., and F. Tuttle, Houston Heights, Tex.; said Tuttle assignor to said Hall. Tanning hides and skins. No. 1,256,789; Feb. 19; v. 247; p. 566.
Hall, Robert W., Greeley, Colo. Portable hoisting-crane. No. 1,256,688; Feb. 19; v. 247; p. 537.
Hall, Samuel E. (See Harrison, Hall, and Gholson.)
Hall-Welter Company. (See Welter, Herman C., assignor.)
Hall, William A., Yonkers, N. Y. Pipe-coupling. No. 1,257,852; Feb. 26; v. 247; p. 914.
Hallenbeck, Angeline D., Brooklyn, N. Y. Protector for corset steels and bones. No. 1,255,413; Feb. 5; v. 247; p. 87.
Hallenbeck, George E., assignor to Baker Brothers, Toledo, Ohio. Drilling-machine. No. 1,256,790; Feb. 19; v. 247; p. 566.
Haltenberger, Jules, Jackson, Mich. Oiler. No. 1,257,223; Feb. 19; v. 247; p. 692.
Halvorsen, Severin, assignor to The Newspaper Stuffing Machines Company, Seattle, Wash. Newspaper-stuffing machine. No. 1,257,482; Feb. 26; v. 247; p. 804.
Hamburger, Mary J., Bayport, N. Y. Self-cleaning rake. No. 1,256,742; Feb. 5; v. 247; p. 182.
Hamel Shoe Machinery Company. (See Scarlett, William E., assignor.)
Hamner, Louis, assignor of one-eighth to A. C. Bury and one-eighth to F. L. Landon, Olds, Alberta, Canada. Auto pull-out. No. 1,256,791; Feb. 19; v. 247; p. 566.
Hammerly, Richard, New York, N. Y. Necktie-holder. No. 1,256,477; Feb. 12; v. 247; p. 439.
Hande, Edgar R., Shreveport, La. Thermostatic fuel-valve. No. 1,257,602; Feb. 26; v. 247; p. 840.
Handyside, Henry R., Warsaw, N. Y. Animal ankle and leg support. No. 1,256,895; Feb. 19; v. 247; p. 599.
Haney, Thomas G., New London, Conn. Cotton-baling apparatus. No. 1,255,160; Feb. 5; v. 247; p. 13.
Haney, Thomas G., New London, Conn. Cotton-bleaching apparatus. No. 1,255,161; Feb. 5; v. 247; p. 14.
Haney, Thomas G., New London, Conn. Drier. No. 1,255,162; Feb. 5; v. 247; p. 14.
Hanks, Vollie V. (See Bates and Hanks.)
Hanrath, Theodore W., assignor of one-half to J. H. Goldner, Chicago, Ill. Mop-wringer. No. 1,257,224; Feb. 19; v. 247; p. 693.
Hansen, Claude T. V., McMinnville, Oreg. Gun-cleaner. No. 1,256,478; Feb. 12; v. 247; p. 439.
Hansen, Henry, and J. A. Montgomery, Ukiah, Cal. Differential transmission. No. 1,257,228; Feb. 19; v. 247; p. 693.
Hansen, Svend, assignor to Cameron Machine Company, Brooklyn, N. Y. Slitting and rewinding machine. No. 1,257,853; Feb. 26; v. 247; p. 914.
Hanson, Bengt M. W., assignor to Pratt & Whitney Company, Hartford, Conn. Feeding mechanism. No. 1,256,000; Feb. 5; v. 247; p. 141.
Hanton, Archibald N., Bedford, Ind. Device for positioning tools, &c., to be dressed. No. 1,256,794; Feb. 19; v. 247; p. 567.
Hapgood, Clarence H., assignor, by mesne assignments, to Toledo Scale Company, Toledo, Ohio. Scale. No. 1,256,689; Feb. 19; v. 247; p. 537.
Harden, Jacob L., North Platte, Nebr. Resilient wheel. No. 1,256,479; Feb. 12; v. 247; p. 439.
Hare, John R., New Windsor, Md. Comb. No. 1,255,661; Feb. 5; v. 247; p. 141.
Harland, Frank, Drake, N. D. Harrow attachment. No. 1,256,225; Feb. 12; v. 247; p. 366.
Harlow, John B., Upper Montclair, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y. Railway signaling system. No. 1,257,702; Feb. 26; v. 247; p. 869.
Harner, Samuel B., near Xenia, Ohio. Teat-cup. No. 1,256,792; Feb. 19; v. 247; p. 567.
Harner, Samuel B., near Xenia, Ohio. Milking apparatus. No. 1,256,793; Feb. 19; v. 247; p. 567.
Harper, William E., Center City, Tex. Boll-weevil exterminator. No. 1,257,343; Feb. 26; v. 247; p. 764.
Harper, William P. (See Walters and Harper.)
Harrah, Hillis A., Pomona, assignor of one-half to L. T. Leimbach, Rosedale, Kans. Tractor. No. 1,255,530; Feb. 5; v. 247; p. 121.
Harris, Alfred A., San Francisco, Cal. Window-scaffold. No. 1,257,703; Feb. 26; v. 247; p. 870.
Harris, Charles R., assignor of nine-tenths to A. P. Campbell, Los Angeles, Cal. Evaporating apparatus. No. 1,257,854; Feb. 26; v. 247; p. 914.
Harris, David T. (See Tinker and Harris.)
Harris, David T. and J. H. Tinker, Chicago, Ill. Drawbar-supporting means. No. 1,257,344; Feb. 26; v. 247; p. 764.
Harris, Edward E., Tulsa, Okla. Combined salt and pepper shaker. No. 1,257,345; Feb. 26; v. 247; p. 764.
Harris, John, Cleveland, Ohio. Safety appliance for acetylene-generators. No. 1,255,308; Feb. 5; v. 247; p. 55.
Harrison, Arthur L., Victoria, British Columbia, Canada. Air-compressor. No. 1,257,855; Feb. 26; v. 247; p. 915.

Harrison, Elmer, Chicago, Ill. Steam-generator. No. 1,255,602; Feb. 5; v. 247; p. 141.
Harrison, Horace R. (See Prisk and Harrison.)
Harrison, James H., Ranger, S. E. Hall, Stephens county, and J. M. Gholson, Ranger, Tex. Boll-weevil exterminator. No. 1,255,414; Feb. 5; v. 247; p. 87.
Harrison, Walton, New York, N. Y. System of wireless telephony. No. 1,256,554; Feb. 19; v. 247; p. 498.
Hart, Arthur, and K. J. Almfelt, Luton, England. Measuring indicator or gage. No. 1,257,483; Feb. 26; v. 247; p. 804.
Hart, Frederick A., Jersey City, N. J., assignor, by mesne assignments, to Underwood Computing Machine Company, New York, N. Y. Combined type-writing and computing machine. No. 1,256,808; Feb. 12; v. 247; p. 389.
Hart, Frederick A., Newark, N. J., assignor to Underwood Computing Machine Company, New York, N. Y. Combined type-writing and computing machine. No. 1,256,310; Feb. 12; v. 246; p. 890.
Hart, Henry A., Flushing, assignor to The Gibson Art Company, New York, N. Y. Cut-out rocking toy. No. 1,255,743; Feb. 5; v. 247; p. 183.
Hartman, Hans, New York, N. Y. Adjustable safety-razor. No. 1,257,079; Feb. 19; v. 247; p. 652.
Hartman, Harry B., assignor to Electric Water Steriliser Company, Scottdale, Pa. Electrical snap-switch for water-purifying apparatus. No. 1,255,631; Feb. 5; v. 247; p. 121.
Hartmann, Heinrich, assignor to Globus, Gummi- & Asbestwerke G. m. b. H., Ahrensbock, Germany. Printing-cloth for presses. No. 1,255,603; Feb. 5; v. 247; p. 142.
Hartwig, Albert, Deerfield, Wis. Tobacco-press. No. 1,257,346; Feb. 26; v. 247; p. 764.
Hartwig, John F., Cortland, N. Y. Fastener. No. 1,256,311; Feb. 12; v. 247; p. 390.
Harvard Electric Company. (See Richter, Emil R., assignor.)
Hastings, Cornelius G., West Hoboken, N. J. Tunnel construction. No. 1,256,312; Feb. 12; v. 247; p. 390.
Hastings, Cornelius G., West Hoboken, N. J. Tunneling-shield. No. 1,256,313; Feb. 12; v. 247; p. 391.
Hatch, Jacob D., assignor of one-half to T. Bostock & Sons, Brockton, Mass. Tack-puller. No. 1,257,603; Feb. 26; v. 247; p. 841.
Hatch, Harold C., Nacogdoches, Tex. Awning-lock. No. 1,257,604; Feb. 26; v. 247; p. 841.
Hathaway, Thomas F., assignor to Illinois Watch Case Company, Elgin, Ill. Cigarette-case. No. 1,256,555; Feb. 19; v. 247; p. 498.
Hauge, Oscar, and W. A. England, San Francisco, Cal. Apparatus for making pastry-shells. No. 1,256,226; Feb. 12; v. 247; p. 366.
Haugh, Frank A., Eldorado, assignor to C. L. Bloom, Independence, Kans. Underreamer. No. 1,257,226; Feb. 19; v. 247; p. 694.
Haun, Andrew J., Branscomb, Cal. Garment-supporter. No. 1,257,856; Feb. 26; v. 247; p. 915.
Haupt, Mathias, Spokane, Wash. Vehicle-leveler. No. 1,257,704; Feb. 26; v. 247; p. 870.
Hawken, Frank S., St. Louis, Mo. Filter-funnel. No. 1,257,956; Feb. 26; v. 247; p. 942.
Hawkins, William G., and J. F. Donnellan, Chicago, Ill. Armored pneumatic tire. No. 1,257,557; Feb. 27; v. 247; p. 915.
Hawks, Moses L., New York, N. Y. Man's garter. No. 1,257,858; Feb. 26; v. 247; p. 916.
Hawksworth, David W., Detroit, Mich., and F. M. Whyte, Tarrytown, N. Y., assignors to Hutchins Car Roofing Company, Detroit, Mich. Car-roof. No. 1,255,809; Feb. 5; v. 247; p. 55.
Hawley, John L. (See Temple, Nathan B., assignor.)
Hawthorne, Ellsworth A., Bridgeport, Conn. Window or lens retainer for lamps and the like. No. 1,255,877; Feb. 12; v. 247; p. 261.
Hay, William, assignor of one-half to N. Brown, Arlington, Wash. Car-seal. No. 1,256,896; Feb. 19; v. 247; p. 599.
Hayde, Stephen J., Kansas City, Mo. Making brick and similar articles. No. 1,255,878; Feb. 12; v. 247; p. 261.
Hayes Pump & Planter Company. (See Hayes, Ralph W. E., assignor.)
Hayes, Ralph W. E., assignor of one-half to Hayes Pump & Planter Company, Galva, Ill. Marker for corn-planters. No. 1,255,532; Feb. 5; v. 247; p. 121.
Hayes, Thomas J. Rosslindale, assignor to Arbetter Felling Machine Company, Boston, Mass. Blindstitching-machine for felling. No. 1,255,415; Feb. 5; v. 247; p. 87.
Hayward, Henry E., Indianapolis, Ind., assignor to Link-Belt Company, Chicago, Ill. Positioning device for silent chain-links. No. 1,256,897; Feb. 19; v. 247; p. 599.
Hayward, Henry E., Indianapolis, Ind., assignor to Link-Belt Company, Chicago, Ill. Link-stacking device. No. 1,256,898; Feb. 19; v. 247; p. 599.
Hazel, Frank A., Pascoag, R. I. Renewable license-tag. No. 1,257,705; Feb. 26; v. 247; p. 870.
Healey, Ellis C., East Orange, N. J., assignor to Newman Clock Company, New York, N. Y. Actuating means for watchmen's clocks. No. 1,257,227; Feb. 19; v. 247; p. 694.
Healey, John B., Salt Lake City, Utah. Signal device. No. 1,256,814; Feb. 12; v. 247; p. 391.
Heath, Mathew E., Freewater, Oreg. Spring-wheel. No. 1,255,416; Feb. 5; v. 247; p. 88.
Heaton, Herman C., Chicago, Ill., assignor to The Babcock & Wilcox Company, Bayonne, N. J. Method of and apparatus for treating boiler feed-water. No. 1,255,164; Feb. 5; v. 247; p. 14.
Hebel, John, Houston, Tex. Lubricator. No. 1,256,315; Feb. 12; v. 247; p. 391.
Hedgcock, William C., assignor to American Steel Foundries, Chicago, Ill. Brake-beam. No. 1,255,604; Feb. 5; v. 247; p. 142.
Hedges, Ernest W., Detroit, Mich. Threadless-pipe system for conductors and for conveying the voice. No. 1,255,417; Feb. 5; v. 247; p. 88.
Hedges, Ernest W., Detroit, Mich. Pipe cutting and grooving machine. No. 1,256,556; Feb. 19; v. 247; p. 498.
Hedler, Henry J., Taftsville, Conn., assignor, by mesne assignments, to Draper Corporation, Hopedale, Mass. Take-up mechanism for looms. No. 1,257,706; Feb. 26; v. 247; p. 870.
Hedrick, William B., Roanoke, Va. Threadless bolt. No. 1,256,227; Feb. 12; v. 247; p. 367.
Heeren, Garry H. (See Heeren, John H. and G. H.)
Heeren, John H. and G. H., Alcester, S. D. Demountable rim. No. 1,256,316; Feb. 12; v. 247; p. 392.
Heermans, Thaddeus W., Evanston, Ill. Washing-machine. No. 1,256,557; Feb. 19; v. 247; p. 499.
Heftler, Victor R., Detroit, Mich., assignor to Societe du Carbureteur Zenith, Lyon, France. Carbureter. No. 1,255,165; Feb. 5; v. 247; p. 15.
Hegg, Harry, Detroit, Mich. Blotter. No. 1,257,347; Feb. 26; v. 247; p. 765.
Heggem, Alfred G., Tulsa, Okla. Stuffing-box. No. 1,256,899; Feb. 19; v. 247; p. 600.
Heide, Henry, Winslow, Ariz. Armor. No. 1,257,484; Feb. 26; v. 247; p. 804.
Heinrich, Stephen J., Newton Highlands, Mass. Air modifier. No. 1,255,533; Feb. 5; v. 247; p. 122.
Heins, Otto, assignor to Bosch Magneto Company, New York, N. Y. Multipolar magneto. No. 1,256,795; Feb. 19; v. 247; p. 568.
Heins, Otto, assignor to Bosch Magneto Company, New York, N. Y. Multipolar magneto. No. 1,256,796; Feb. 19; v. 247; p. 568.
Heisler, Charles L., Schenectady, N. Y. Draw-bar buffer-coupling for locomotives. No. 1,257,859; Feb. 26; v. 247; p. 916.
Heitman, Edwin J., assignor to The Brown Instrument Company, Philadelphia, Pa. Recording instrument. No. 1,256,130; Feb. 12; v. 247; p. 336.
Helgeson, Albon M., Viroqua, Wis. Tobacco-hanger. No. 1,256,690; Feb. 19; v. 247; p. 538.
Heller, Herman S., San Francisco, Cal. Interchangeable mechanical sign unit. No. 1,257,348; Feb. 26; v. 247; p. 765.
Hellmund, Rudolf E., Pittsburgh, and C. C. Whittaker, Wilkinsburg, Pa., assignors to Western Electric and Manufacturing Company. System of control. No. 1,255,418; Feb. 5; v. 247; p. 88.
Hellmund, Rudolf E., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Control system for dynamo-electric machines. No. 1,255,419; Feb. 5; v. 247; p. 89.
Hellmund, Rudolf E., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Control system. No. 1,257,349; Feb. 26; v. 247; p. 765.
Helson, Gilbert F., assignor to E. R. Durkee and Company, New York, N. Y. Wrapping-machine. No. 1,255,605; Feb. 5; v. 247; p. 142.
Hemberg, Amandus M., Minneapolis, Minn. Car-door. No. 1,256,797; Feb. 19; v. 247; p. 568.
Hembrook, Herman J. (See Caley, Garfield H., assignor.)
Hemendinger, Alexander & Company. (See Welsh, William J., assignor.)
Hemenway, John F. (See Wright, Rea P., assignor.)
Hemming, Carl H., New Haven, Conn. Knife-handle-polishing machine. No. 1,255,879; Feb. 12; v. 247; p. 262.
Hench, Henry Sweet, Idaho. Grade-measuring instrument. No. 1,255,744; Feb. 5; v. 247; p. 183.
Hendee Manufacturing Company. (See Loose, Theron L., assignor.)
Henderson, Albert E., Toronto, Ontario, Canada. Tube for pneumatic tires. No. 1,255,837; Feb. 5; v. 247; p. 209.
Henderson, Albert F., Middleton, Mass. Wire-engaging battery-terminal. No. 1,255,310; Feb. 5; v. 247; p. 56.
Henderson, Peter, Burgettstown, Pa. Spring-reel. No. 1,256,016; Feb. 12; v. 247; p. 301.
Hendricks, Adam C., Martinsburg, W. Va. Automatic stop for phonographs. No. 1,256,317; Feb. 12; v. 247; p. 392.
Hendricks Novelty Company. (See Ayres and Johnson, assignors.)
Hennen, Donley C., assignor of one-half to C. L. Mong, Waynesburg, Pa. Sanitary tooth-brush holder. No. 1,257,860; Feb. 26; v. 247; p. 916.
Hennig, Gustav K., assignor to Ludwig Hupfeld Aktiengesellschaft, Böhlitz-Ehrenberg, near Leipzig, Germany. Piano-violin bow. No. 1,256,900; Feb. 19; v. 247; p. 600.
Henricson, Fred W., Philadelphia, Pa. Torch. No. 1,255,746; Feb. 5; v. 247; p. 183.
Henry R. Worthington, Inc. (See Foran, George J., assignor.)

Henry Weis Manufacturing Company. (See Motts, Charles W., assignor.)
Hensley, William T., Connersville, Ind., assignor, by mesne assignments, to Bound Brook Engine & Mfg. Co. Dynamo-electric machine. No. 1,255,606; Feb. 5; v. 247; p. 142.
Hensley, William T., Connersville, Ind., assignor, by mesne assignments, to Bound Brook Engine & Mfg. Co. Dynamo-electric machine. No. 1,255,607; Feb. 5; v. 247; p. 143.
Hensley, William T., Boundbrook, N. J., assignor, by mesne assignments, to Bound Brook Engine & Mfg. Co. Apparatus for charging storage batteries. No. 1,256,228; Feb. 12; v. 247; p. 367.
Henson, William M., Savoy, Tex. Automatic lock for cotton-gins. No. 1,255,746; Feb. 5; v. 247; p. 184.
Herbert, John, assignor of one-half to G. Kennedy, Poland, Ind. Combined watering and feeding trough. No. 1,257,861; Feb. 26; v. 247; p. 916.
Herdman, Adam H., assignor to Fort Worth Well Machinery & Supply Co., Fort Worth, Tex. Well-drilling machine. No. 1,255,747; Feb. 5; v. 247; p. 184.
Herle, Chester A., Rochester, N. Y. Air-pump. No. 1,257,850; Feb. 26; v. 247; p. 766.
Herman, Ernest K. (See Wade and Herman.)
Herman, Hyman, Toronto, Ontario, Canada. Stove or furnace. No. 1,256,798; Feb. 19; v. 247; p. 569.
Herman, Jacob W. (See Hyle and Herman.)
Herman, John E. (See Bornhauser and Herman.)
Herman, John E., *et al.* (See Bornhauser, Otto E., assignor.)
Herman, John E., Cincinnati, Ohio. Nut-lock. No. 1,255,311; Feb. 5; v. 247; p. 56.
Herrmann, Aukam & Co. (See Allatt, Thomas, assignor.)
Herrmann, Aukam & Co. (See Leathem, James, assignor.)
Hersh, Charles S., and C. J. O'Connor, Philadelphia, Pa. Non-refillable bottle. No. 1,257,228; Feb. 19; v. 247; p. 694.
Hershey, Christian W., Reading, Pa. Flue-cleaning mechanism. No. 1,257,485; Feb. 26; v. 247; p. 805.
Hervig, Richard, Chicago, Ill., assignor to American Car and Foundry Company, St. Louis, Mo. Lathe attachment. No. 1,256,141; Feb. 12; v. 247; p. 336.
Hess, Willis C., Toledo, Ohio, and M. Morden, Brooklyn, N. Y. Carbureter. No. 1,257,862; Feb. 26; v. 247; p. 917.
Hesselbein, Fritz H., Minneapolis, Minn. Signaling device for motor-vehicles. No. 1,257,863; Feb. 26; v. 247; p. 917.
Hester, Robert E., Westminster, Colo. Kettle-lid. No. 1,257,229; Feb. 19; v. 247; p. 694.
Hewes, Murl, Grosmont, Alberta, Canada. Gun-sight. No. 1,257,000; Feb. 19; v. 247; p. 630.
Hibbard, Lawrence C., Los Angeles, Cal. Extension-table. No. 1,257,351; Feb. 26; v. 247; p. 766.
Hicks, George J., Saginaw, Mich., assignor to R. and O. Werner, Cannstatt, Wurttemberg, Germany. Apparatus for treating flour. No. 1,256,017; Feb. 12; v. 247; p. 302.
Higginbotham, John, Van Alstyne, Tex. Butter-mold. No. 1,257,230; Feb. 19; v. 247; p. 695.
Highway Iron Products Company. (See Pearne and Joseph, assignors.)
Hild, Frederic W., Denver, Colo. Motor-vehicle. No. 1,256,658; Feb. 19; v. 247; p. 499.
Hill, Elijah R., New Albany, Miss. Flush-tank valve. No. 1,257,231; Feb. 19; v. 247; p. 695.
Hill, Ernest G., Spokane, Wash. Spring-wheel. No. 1,256,018; Feb. 12; v. 247; p. 302.
Hill, James H., Fort Worth, Tex. Motor-limbering stand. No. 1,256,559; Feb. 19; v. 247; p. 499.
Hill, Joseph A., Sheffield, England. Knife-machine. No. 1,257,232; Feb. 19; v. 247; p. 695.
Hill, Robert E., New York, N. Y. Spark-plug. No. 1,255,880; Feb. 12; v. 247; p. 262.
Hill, Thomas A. (See Sussman and Hill.)
Hillburg, Elmer V., McKees Rocks, Pa. Lever-lock. No. 1,256,132; Feb. 12; v. 247; p. 337.
Hills, Henry A., Grand Rapids, Mich. Condenser. No. 1,256,229; Feb. 12; v. 247; p. 367.
Hilton, R. W. (See Catlin and Morrison, assignors.)
Hime, Clint T., Hindes, Tex. Pipe-Cutter. No. 1,256,799; Feb. 19; v. 247; p. 569.
Hinchcliffe, Charles W., Lawrence, Mass. Window-screen. No. 1,257,707; Feb. 26; v. 247; p. 871.
Hines, G. W. (See Campbell, William B., assignor.)
Hironimus, Fred W., Mount Vernon, Ind., assignor of one-third to R. Topper and one-third to G. Mauer. Combined tractor, roller, and harrow. No. 1,255,420; Feb. 5; v. 247; p. 89.
Hite, Samuel, Atwood, Ind. Tank-heater. No. 1,256,560; Feb. 19; v. 247; p. 500.
Hitt, Thomas G., Seattle, Wash. Burglar-alarm. No. 1,256,318; Feb. 12; v. 247; p. 392.
Hitt, Thomas G., Seattle, Wash. Electrolytic cell. No. 1,256,319; Feb. 12; v. 247; p. 393.
Hixson, Roy P., East Lansdowne, Pa. Binder device. No. 1,257,001; Feb. 19; v. 247; p. 630.
Hochstadter, Harry C., Philadelphia, Pa. Dental-floss holder. No. 1,257,864; Feb. 26; v. 247; p. 917.
Hochstetter, Frederick W., and E. H. Pryce, New York, N. Y., assignors to H. P. Patents and Processes Company, Inc. Cinematographic device. No. 1,255,421; Feb. 5; v. 247; p. 89.
Hodgson, A. D., *et al.* (See Barnett, John B., assignor.)
Hoehl, Eberhard. (See Sis, Sebastian, assignor.)
Hofberg, John O. (See Bantcroft and Hofberg.)
Hoffer, Fred C., Los Angeles, and J. F. Smedley, Pasadena, assignors to Motorcycle Sweeper Company, Los Angeles, Cal. Street-sweeper. No. 1,256,561; Feb. 19; v. 247; p. 500.
Hoffman, Adolf, Lackawanna, N. Y. Submarine-fender. No. 1,257,002; Feb. 19; v. 247; p. 631.
Hoffman, Fred W., Goldroad, Ariz. Vehicle-body. No. 1,257,605; Feb. 26; v. 247; p. 841.
Hoffmann, William G., San Francisco, Cal. Portable breastwork. No. 1,256,562; Feb. 19; v. 247; p. 500.
Hoff, Maurice A., assignor to The M. A. Hoff Company, Indianapolis, Ind. Furnace. No. 1,255,832; Feb. 5; v. 247; p. 207.
Hofman, V. F., *et al.* (See Bonney, Bick R., assignor.)
Hogan, Zachariah, New Orleans, La. Switch-operating means. No. 1,257,233; Feb. 19; v. 247; p. 696.
Holbrook, Frank, deceased; S. A. Holbrook, administratrix, Lynn, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Heel-building machine. No. 1,255,608; Feb. 5; v. 247; p. 143.
Holbrook, Sarah A., administratrix. (See Holbrook, Frank.)
Holcomb & Hoke Manufacturing Company. (See Chatfield, George L., assignor.)
Holden, Arthur P. (See Armson, Harold P., assignor.)
Holland Furnace Company, The. (See Kolla, John P., assignor.)
Holland, Julian, New York, N. Y. Ventilator. No. 1,255,312; Feb. 5; v. 247; p. 56.
Hollands, John C., assignor to The Griswold Manufacturing Company, Erie, Pa. Broiler. No. 1,257,234; Feb. 19; v. 247; p. 696.
Hollenbeck, Daniel H., Boston, Mass. Advertising device for use in railway-cars. No. 1,255,748; Feb. 5; v. 247; p. 184.
Hollings, Ernest, Cleveland, Ohio. Nut-machine. No. 1,255,166; Feb. 5; v. 247; p. 15.
Holmes, Arthur L., *et al.* (See Baer, Charles H., assignor.)
Holmes, John H., Cleveland, Ohio. Mechanical flag-waver. No. 1,257,865; Feb. 26; v. 247; p. 918.
Holmes, Joseph P., Baltimore, Md. Closet attachment. No. 1,256,320; Feb. 12; v. 247; p. 393.
Holmes, Otis, *et al.* (See Mershon, Arthur U., assignor.)
Holmgreen, Julius H., San Antonio, Tex. Fastener for meter-boxes. No. 1,256,563; Feb. 19; v. 247; p. 500.
Holt, Thomas, Beaver, assignor to Pennsylvania Company, Pittsburgh, Pa. Railway safety appliance. No. 1,257,866; Feb. 26; v. 247; p. 918.
Holub, Joseph S., What Cheer, Iowa. Road-drag. No. 1,257,867; Feb. 26; v. 247; p. 918.
Holy, George H. F., Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company. Industrial locomotive. No. 1,256,230; Feb. 12; v. 247; p. 367.
Honeycutt, Willie C., Coats, N. C. Support for tents and canopies. No. 1,257,486; Feb. 26; v. 247; p. 805.
Hons, Alfred, Berwick, Pa. Emergency mud or non-skid device. No. 1,255,534; Feb. 5; v. 247; p. 122.
Honsberger, William H., assignor of one-third to G. C. Brown, Welland, Ontario, Canada. Electric-lighting apparatus. No. 1,256,691; Feb. 19; v. 247; p. 538.
Honsberger, William H., assignor of one-third to G. C. Brown, Welland, Ontario, Canada. Electric switch. No. 1,256,692; Feb. 19; v. 247; p. 538.
Hope, William H., Providence, R. I. Preparing print-rolls for cloth-printing. No. 1,255,881; Feb. 12; v. 247; p. 263.
Hope, William H., Providence, R. I. Engraving copper rolls for printing fabrics. No. 1,255,882; Feb. 12; v. 247; p. 263.
Hopedale Manufacturing Company. (See Northrop, Jonas, assignor.)
Hopkins, Ephraim S., assignor of one-third to E. Grinnell, Tacoma, Wash. Sash-balance. No. 1,256,133; Feb. 12; v. 247; p. 337.
Hörlin, Albin F. (See Lindberg and Hörlin.)
Horn, Frederick W., Dayton, Ohio. Direction-indicator for automobiles. No. 1,255,883; Feb. 12; v. 247; p. 263.
Horn, John, Kansas City, Mo. Automatic reverser. No. 1,257,352; Feb. 26; v. 247; p. 766.
Horne, Lawrence W., Woodridge, and W. N. Crane, Ridgefield Park, N. J. Magnetic control for trains. No. 1,256,019; Feb. 12; v. 247; p. 302.
Hornsey, John W., Summit, N. J., assignor to Mineral Products Corporation, New York, N. Y. Purification of alumina. No. 1,255,749; Feb. 5; v. 247; p. 184.
Horton, Albert J., White Plains, N. Y., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Circuit-controller. No. 1,256,500; Feb. 19; v. 247; p. 569.
Hotaling, George F., executor. (See Knierlem, Edward A.)
Hough, Robert H., Philadelphia, Pa. Method of imparting, converting, and utilizing energy in connection with a compressible fluid medium and apparatus for employing said method. No. 1,256,231; Feb. 12; v. 247; p. 368.

Howe, Edward, Marysville, Cal. Lubricating mechanism. No. 1,256,620; Feb. 12; v. 247; p. 363.

Hovland, Henry, East Orange, N. J., assignor to Automatic Electric Company, Chicago, Ill. Party-line telephone system. (Reissue.) No. 14,430; Feb. 5; v. 247; p. 210.

Howard, A. M., *et al.* (See Mershon, Arthur U., assignor.)

Howard, Charles L., Chicago, Ill. Illuminating device. No. 1,256,232; Feb. 12; v. 247; p. 368.

Howard, Frank W., New York, N. Y. Umbrella-runner. No. 1,255,609; Feb. 5; v. 247; p. 144.

Howard, George E., Butler, assignor to The Pittsburgh Plate Glass Company, Pittsburgh, Pa. Delivering glass from furnaces. No. 1,256,884; Feb. 12; v. 247; p. 263.

Howard, Lucy V. (See Howard, William T., assignor.)

Howard, William T., assignor to L. V. Howard, Baltimore, Md. Treatment of copper for various purposes. No. 1,257,943; Feb. 26; v. 247; p. 939.

Howard, William D. M., assignor to H. D. Richards, San Francisco, Cal. Apparatus for saving gold and other precious metals. No. 1,257,487; Feb. 26; v. 247; p. 805.

Howarth, John F. H., Marrickville, near Sydney, New South Wales, Australia. Carburetor for internal-combustion engines. No. 1,255,610; Feb. 5; v. 247; p. 144.

Howe, Eugene A., Chicago, Ill. Chair. No. 1,256,902; Feb. 19; v. 247; p. 600.

Howell, William G., Warrenton, Va. Centrifugal liquid-purifier. No. 1,257,235; Feb. 19; v. 247; p. 696.

Howle, John P., Columbia, S. C. Exposure-meter for cameras. No. 1,255,167; Feb. 5; v. 247; p. 16.

Hoyt, Hallie R., Seattle, Wash. Demountable rim for vehicle-wheels. No. 1,257,606; Feb. 26; v. 247; p. 842.

Hoyt, Homer J., Detroit, Mich., assignor to Morgan & Wright. Mold-altering device. No. 1,256,693; Feb. 19; v. 247; p. 538.

Hoyt, Howard S., Bethel, Coun., assignor to Motor Specialties Company, Waltham, Mass. Nut or bolt holder. No. 1,257,003; Feb. 19; v. 247; p. 631.

Hoyt, Richard F., Philadelphia, Pa., assignor, by mesne assignments, to Underwood Computing Machine Company, New York, N. Y. Combined type-writing and computing machine. No. 1,256,309; Feb. 12; v. 247; p. 889.

Hruby, John O., Jr., *et al.* (See Mueller, August E., assignor.)

Hruby, Thomas J., *et al.* (See Mueller, August E., assignor.)

Hubert, Fred H. (See Tallman and Hubert.)

Huddleston, Robert M., San Francisco, Cal. Removing can ends. No. 1,257,255; Feb. 19; v. 247; p. 713.

Hudson, Emery C., Bellefontaine, Ohio. Tractor-plow. No. 1,257,236; Feb. 19; v. 247; p. 697.

Hudson, Richard E., and W. P. Bickley, Farmersville, Tex. Towel-holder. No. 1,256,321; Feb. 12; v. 247; p. 393.

Hueber, Henry, assignor to A. A. Barney, Seattle, Wash. Cooling system for automobiles. No. 1,255,168; Feb. 5; v. 247; p. 16.

Huffman, Henry W., Hemphill, Tex. Railway-tie. No. 1,257,868; Feb. 26; v. 247; p. 918.

Huffman, Thomas D. (See Workman and Huffman.)

Hufschmid, Samuel, Paterson, N. J. Rotary engine. No. 1,255,160; Feb. 5; v. 247; p. 16.

Huggins, John R., Canton, Ohio. Safety attachment for drop-forging and stamping machines. No. 1,257,237; Feb. 19; v. 247; p. 697.

Hughes, Arthur J. (See Creagh-Osborne and Hughes.)

Hughes, Howard R., Houston, Tex. Rotary boring-drill. No. 1,255,422; Feb. 5; v. 247; p. 90.

Hughes, Howard R., Houston, Tex. Rotary boring-drill. No. 1,257,858; Feb. 26; v. 247; p. 766.

Hughes, Howard R., assignor to Hughes Tool Company, Houston, Tex. Rotary boring-drill. No. 1,256,694; Feb. 19; v. 247; p. 538.

Hughes, John A., assignor to Reed Manufacturing Company, Erie, Pa. Collar shaping and ironing machine. No. 1,257,238; Feb. 19; v. 247; p. 697.

Hughes, Robert R., Jr., Utica, N. Y., assignor to Union Special Machine Company, Chicago, Ill. Sweat-band-sewing machine. No. 1,257,239; Feb. 19; v. 247; p. 698.

Hughes Tool Company. (See Hughes, Howard R., assignor.)

Hugo Loewenbach and B. Loewenbach & Sons Co. (See Loewenbach, Oscar, assignor.)

Hupp Manufacturing Company, The. (See Steuernagel, Hugo V., assignor.)

Hull, R. O. (See Durkee, William H., assignor.)

Hulsberg & Cie., m. b. H. (See Rüping, Max, assignor.)

Hultgren, Charles. (See Karpen and Hultgren.)

Hultman, Carl A. W., Stockholm, Sweden. Semi-automatic telephone-exchange. No. 1,256,322; Feb. 12; v. 247; p. 394.

Humphrey, Dudley S., Cleveland, Ohio. Concrete conveying and mixing machine. No. 1,255,750; Feb. 5; v. 247; p. 184.

Humphrey Gas Pump Company. (See Humphrey, Herbert A., assignor.)

Humphrey, Herbert A., Westminster, England, assignor to Humphrey Gas Pump Company. Compressing elastic fluid. No. 1,257,604; Feb. 19; v. 247; p. 681.

Humphrey, Herbert A., Westminster, London, England, assignor to Humphrey Gas Pump Company. Compressing air or gases. No. 1,257,607; Feb. 26; v. 247; p. 842.

Humphrey, Herbert S. (See Ruud and Humphrey.)

Hungerford, Henry H., Chicago, Ill., assignor to National Biscuit Company, Jersey City, N. J. Leaf-pressing machine. No. 1,256,695; Feb. 19; v. 247; p. 569.

Hungerford, Warren H. (See Peters and Hungerford.)

Hunold, Ernest, Providence, R. I. Heel-plate for ice-skates. No. 1,256,564; Feb. 19; v. 247; p. 501.

Hunt, Edwin J., Oldbury, and W. T. Glidden, Warley, assignors to Chance & Hunt, Limited, Oldbury, England. Process for the electrolysis and treatment of sulfate liquors. (Reissue.) No. 14,436; Feb. 26; v. 247; p. 944.

Hunt, Eugene S., Richmond, Ind. Snow-plow. No. 1,257,603; Feb. 26; v. 247; p. 842.

Hunt, Helm, Ferris & Company. (See Ferris, Howard J., assignor.)

Hunt, Henry J., assignor to S. I. Shane, Chicago, Ill. Vacuum vapor-heating system. No. 1,257,354; Feb. 26; v. 247; p. 767.

Hunter, Kenneth H., Great Bend, Pa. Composition of matter for softening leather. No. 1,257,355; Feb. 26; v. 247; p. 767.

Hunter, Lewis W., Irvington, N. J. Card-retainer for card-cases. No. 1,255,751; Feb. 5; v. 247; p. 198.

Hurlbrink, Ernst, Berlin-Friedenau, assignor to Martini & Hüneke Maschinenbau-Aktien-Gesellschaft, Berlin, Germany. Apparatus for indicating the level of liquids under pressure. No. 1,256,904; Feb. 19; v. 247; p. 601.

Hurrelbrink, Frank, Stonington, Ill. Ensilage-packer. No. 1,255,752; Feb. 5; v. 247; p. 185.

Hurst, Willis T., Pittsburgh, and C. L. Keaney, Dermont, assignors to Pittsburgh Coal Washer Company, Pittsburgh, Pa. Ladle-tilting apparatus. No. 1,255,813; Feb. 5; v. 247; p. 56.

Hüssy, Paul, and W. Führenbach, assignors to Society of Chemical Industry in Basle, Basel, Switzerland. Compounds derived from diallylbarbituric acid and alkaloids of the morphin series and a process of making same. No. 1,255,423; Feb. 5; v. 247; p. 90.

Husted, Clifford M., Jersey City, N. J., assignor to Standard Oil Company. Process for treating fullers' earth and similar materials. No. 1,256,228; Feb. 12; v. 247; p. 368.

Hustou, Marcus D., assignor of one-half to C. G. Steelle, Hemlock, Ind. Automatic mail-crane. No. 1,255,753; Feb. 5; v. 247; p. 185.

Hutchings, William S. (See Goddard and Hutchings.)

Hutchins Car Roofing Company. (See Hawksworth and Whyte, assignors.)

Hutchins, Otis, assignor to The Carborundum Company, Niagara Falls, N. Y. Aluminous composition and preparing the same. No. 1,257,356; Feb. 26; v. 247; p. 767.

Hutchison, Samuel P. (See Duck, Daniel F., assignor.)

Hveem, Martin, Bayles, Cal. Combination hydraulic transmission clutch and brake. No. 1,256,696; Feb. 19; v. 247; p. 539.

Hygienic Baking Corporation. (See Larraburu, John, assignor.)

Hyle, Jacob A., St. Louis, Mo., and J. W. Herman, Philadelphia, Pa., assignors of one-fourth to T. F. von Dorn, New York, N. Y., one-fourth to J. M. Ames, Arkansas City, Kans., one-fourth to C. H. Nelson, St. Louis, Mo., and one-fourth to said Hyle. Railway-joint. No. 1,257,708; Feb. 26; v. 247; p. 871.

Illinois Watch Case Company. (See Hatheway, Thomas F., assignor.)

Indahl, Mauritz C., assignor to Lanston Monotype Machine Company, Philadelphia, Pa. Typographic composing-machine. No. 1,256,801; Feb. 19; v. 247; p. 569.

India Rubber Company, The. (See Weida, Harry, assignor.)

Individual Drinking Cup Company. (See Luellen, Lawrence W., assignor.)

Ingersoll, Fred T. (See Duff, Edward E., assignor.)

Ingersoll-Rand Company. (See Christmas, Adolph F., assignor.)

Ingersoll-Rand Company. (See Jimerson, Francis A., assignor.)

Ingersoll-Rand Company. (See Wilhelm, Russell H., assignor.)

Ingham, Howard T., Chicago, Ill. Holding implement. No. 1,256,565; Feb. 19; v. 247; p. 501.

Ingoldsby Automatic Car Company, The. (See Ingoldsby, Frank S., assignor.)

Ingoldsby, Frank S., West Bloomfield township, Oakland county, Mich., assignor to The Ingoldsby Automatic Car Company, Cleveland, Ohio. Dump-car. No. 1,256,323; Feb. 12; v. 247; p. 394.

Innes, Frank R., Detroit, Mich. Mechanism for integrating power-current values. No. 1,256,284; Feb. 12; v. 247; p. 369.

Innes, Harry C., Cincinnati, assignor to The Philip Carey Manufacturing Company, Lockland, Ohio. Joint-stripping device and method. No. 1,256,611; Feb. 5; v. 247; p. 144.

International Cork Company. (See Alberti, Emilio, assignor.)

International Harvester Company of New Jersey. (See Benjamin, Bert R., assignor.)

International Harvester Company of New Jersey. (See Grieven, Albert, assignor.)

International Harvester Company of New Jersey. (See Hagadone, Clinton A., assignor.)

International Harvester Company of New Jersey. (See Pearson, Charles, assignor.)

International Harvester Company of New Jersey. (See Raney, Clemma R., assignor.)

International Harvester Company of New Jersey. (See Sharp, Charles S., assignor.)

International Harvester Corporation. (See Johnston, Edward A., assignor.)

International Money Machine Company. (See Mann, Miles H., assignor.)

International Money Machine Company. (See Overlin, William S., assignor.)

International Money Machine Company. (See Sorum and Brockman, assignors.)

International Register Company, The. (See Kirchhoff, William G., assignor.)

International Register Co., The. (See Woodward, Arthur H., assignor.)

Intertype Corporation. (See Johns, Thomas W., assignor.)

Ireland, C. Frank. (See Bradley, Richard C., assignor.)

Irvine, John J., Pittsburgh, Pa. Manhole-bridge. No. 1,256,424; Feb. 5; v. 247; p. 90.

Irwin, Earle S., assignor to Steel Furniture Co., Grand Rapids, Mich. Insulating-finish for metal. No. 1,257,357; Feb. 26; v. 247; p. 767.

Iuchi, Tahei, Tokushima, Japan. Spin-scale. No. 1,256,566; Feb. 19; v. 247; p. 501.

J. Stone & Company. (See Darker, Alfred H., assignor.)

J. B. Williams Company, The. (See Williams, Philip K., assignor.)

J. E. Mergott Company, The. (See Fuller, Frans A., assignor.)

J. I. Case Threshing Machine Company. (See Fellows, Hugh W., assignor.)

Jackson, Clarence W., assignor of fifty-five one-hundredths to D. F. Maina and twenty-two and one-half one-hundredths to A. D. Rieder, Valier, Mont. Driving-gearing for tractors. No. 1,255,814; Feb. 5; v. 247; p. 57.

Jackson, Patrick T., Jr., Cambridge, assignor to Paper Products Machine Company, Boston, Mass. Reinforced paper fabric. No. 1,255,818; Feb. 5; v. 247; p. 203.

Jacobs, William F., Ottawa Lake, Mich. Work-supporting horse. No. 1,256,235; Feb. 12; v. 247; p. 309.

Jacobus, David S., Jersey City, assignor to The Babcock & Wilcox Company, Bayonne, N. J. Steam-boiler economizer and method of operating the same. No. 1,255,170; Feb. 5; v. 247; p. 16.

Jacoby, Benjamin. (See King, Johnson, and Jacoby.)

Jaeger, Herman J., Weehawken, assignor to H. J. Jaeger Company, Hoboken, N. J. Incandescent lamp with concentrated metallic filament. No. 1,256,567; Feb. 19; v. 247; p. 501.

Jaeger, Herman J., Weehawken, N. J. Metallic-filament lamp filled with nitrogen. No. 1,256,568; Feb. 19; v. 247; p. 501.

Jaeger, Otto, Elkins Park, Pa., assignor to H. S. Kelsey, Boston, Mass. Coin-controlled mechanism. No. 1,257,869; Feb. 26; v. 247; p. 918.

Jaeger, Otto, Elkins Park, Pa., assignor to H. S. Kelsey, Boston, Mass. Coin-receiving device. No. 1,257,870; Feb. 26; v. 247; p. 919.

Jameson, Clarence W. (See Thompson and Jameson.)

Janney, Mifflard E., and J. B. Hackley, Purcellville, Va. Railway-tie. No. 1,256,236; Feb. 12; v. 247; p. 369.

Janse, Leendert, Apeldoorn, Netherlands. Side bearing for railway-vehicles. No. 1,257,358; Feb. 26; v. 247; p. 767.

Januchowsky, John, and H. Albert, St. Louis, Mo. Mechanism for applying bottle-caps. No. 1,257,709; Feb. 26; v. 247; p. 872.

Januchowsky, John, St. Louis, Mo. Bottle-cap. No. 1,257,710; Feb. 26; v. 247; p. 872.

Jaquette, Frank D., Pasadena, Cal. Dining-table. No. 1,257,871; Feb. 26; v. 247; p. 919.

Jaycox, Thomas W., Denver, Colo. Collapsible dam. No. 1,257,240; Feb. 19; v. 247; p. 698.

Jefferies, Fredrick L., Riverside, Ill., assignor to Corn Products Refining Company. Centrifugal separator. No. 1,256,697; Feb. 19; v. 247; p. 539.

Jellum, Martin, Clay Center, Kans. Music-leaf turner. No. 1,255,612; Feb. 5; v. 247; p. 145.

Jenckes Knitting Machine Company. (See Beavers, Robert S., assignor.)

Jennings, Aaron E., Owensboro, Ky. Tire-armor. No. 1,255,754; Feb. 5; v. 247; p. 186.

Jennings, Victor H., Worcester, Mass., assignor to Universal Patents Company, Woonsocket, R. I. Machine-gun belt and other like carrier. No. 1,257,241; Feb. 19; v. 247; p. 699.

Jennison-Wright Company, The. (See Carver, George G., assignor.)

Jensen, James L. (See Nazer and Jensen.)

Jeats, William E., Platteville, Wis. Hay-rack. No. 1,257,872; Feb. 26; v. 247; p. 919.

Jepson, John W., Depew, N. Y., assignor to Gould Coupler Company. Electrical system of distribution. No. 1,255,535; Feb. 5; v. 247; p. 123.

Jimerson, Francis A., Athens, Pa., assignor to Ingersoll-Rand Company, Jersey City, N. J. Ratchet operating mechanism for drills. No. 1,255,815; Feb. 5; v. 247; p. 57.

Jimerson, Francis A., Athens, Pa., assignor to Ingersoll-Rand Company, Jersey City, N. J. Close-corner drill. No. 1,255,816; Feb. 5; v. 247; p. 57.

Joeck, Thomas D., Asbury Park, N. J. Automatic signaling device. No. 1,256,134; Feb. 12; v. 247; p. 337.

Johansson, Emil G., Chicago, Ill. Lens-screen. No. 1,255,755; Feb. 5; v. 247; p. 186.

Johansson, Edvin A., Trollhättan, Sweden, assignor to Société Anonyme Metallurgique Procedes De Laval, Brussels, Belgium. Extracting zinc from its ores. No. 1,256,802; Feb. 19; v. 247; p. 570.

John F. Byers Machine Company, The. (See Beckwith, Henry C., assignor.)

Johns, Thomas W., assignor to Intertype Corporation, Brooklyn, N. Y. Keyboard-lock for typographical machines. No. 1,257,242; Feb. 19; v. 247; p. 699.

Johnson, Albert W., Josco, Minn. Lock for sliding doors. No. 1,256,021; Feb. 12; v. 247; p. 308.

Johnson, Axel T., Chicago, Ill. Tube-rolling device. No. 1,257,609; Feb. 26; v. 247; p. 842.

Johnson, C. O., *et al.* (See Bonney, Bick R., assignor.)

Johnson, Charles S. (See King, Johnson, and Jacoby.)

Johnson, George A., Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Friction-gear. No. 1,255,171; Feb. 5; v. 247; p. 17.

Johnson, George A., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Railway-car friction-gear. No. 1,244,172; Feb. 5; v. 247; p. 17.

Johnson, H. T., *et al.* (See Paulsen, Thomas R., assignor.)

Johnson, Hans P., Racine, Wis. Harrow. No. 1,255,426; Feb. 5; v. 247; p. 90.

Johnson, John E., assignor to C. Fischer, Brooklyn, N. Y. Speedometer. No. 1,256,022; Feb. 12; v. 247; p. 308.

Johnson, John E., assignor of one-half to R. S. Burns, Beaver Falls, Pa. Warrant-seat detecter for theaters. No. 1,257,873; Feb. 26; v. 247; p. 919.

Johnson, Lewis H., Bloomfield, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,256,698; Feb. 19; v. 247; p. 540.

Johnson, Louis J., Terre Haute, Ind. Motor-driven bicycle. No. 1,257,711; Feb. 26; v. 247; p. 872.

Johnson, Louis J., Terre Haute, Ind. Sprocket. No. 1,257,712; Feb. 26; v. 247; p. 873.

Johnson, Mason L. (See Body, Johnson, Kilgore, and Blevins.)

Johnson, Nels C., Racine, Wis. Garbage-incinerator. No. 1,257,359; Feb. 26; v. 247; p. 707.

Johnson, Solomon F. (See Ayres and Johnson.)

Johnson, Thomas C., assignor to Winchester Repeating Arms Co., New Haven, Conn. Rear windage-sight for firearms. No. 1,257,713; Feb. 26; v. 247; p. 873.

Johnson, Victor S. (See Davis and Johnson.)

Johnson, Warren V., Bloomsburg, Pa., assignor to American Car and Foundry Company, St. Louis, Mo. Mine-car-running-gear assembly. No. 1,256,135; Feb. 12; v. 247; p. 338.

Johnson, Warren V., Bloomsburg, Pa., assignor to American Car and Foundry Company, St. Louis, Mo. Mine-car wheel and means for attaching same. No. 1,256,136; Feb. 12; v. 247; p. 338.

Johnson, Warren V., Bloomsburg, Pa., assignor to American Car and Foundry Company, St. Louis, Mo. Mine-car wheel with hub-cap. No. 1,256,137; Feb. 12; v. 247; p. 338.

Johnston, Allen, assignor to Johnston Pressed Gear Company, Ottumwa, Iowa. Lawn-mower. No. 1,255,885; Feb. 12; v. 247; p. 264.

Johnston, Arthur C., assignor to Link-Belt Company, Chicago, Ill. Coal pile. No. 1,256,569; Feb. 19; v. 247; p. 502.

Johnston, Edward A., Chicago, Ill., assignor, by mesne assignments, to International Harvester Corporation. Fuel-feed mechanism for internal-combustion engines. No. 1,257,248; Feb. 19; v. 247; p. 699.

Johnston, James S., Utica, N. Y. Drying-machine. No. 1,256,570; Feb. 19; v. 247; p. 502.

Johnston, Mary J., Chicago, Ill. Skirt-gage. No. 1,255,426; Feb. 5; v. 247; p. 91.

Johnston Pressed Gear Company. (See Johnston, Allen, assignor.)

Jones, Albert E., Flume, Hungary. Mechanism for the control of the propellers of automobile torpedoes. No. 1,256,502; Feb. 12; v. 247; p. 447.

Jones, Clayton M., Jamestown, N. Y. Radiator. No. 1,255,173; Feb. 5; v. 247; p. 17.

Jones, Curran B., Evansville, Ind. Coupling. No. 1,255,756; Feb. 5; v. 247; p. 186.

Jones, Emerald E., Chicago, Ill. Saw-guard. No. 1,255,886; Feb. 12; v. 247; p. 264.

Jones, Evan. (See Bailey, Lloyd, and Jones.)

Jones, George W., Chicago, Ill. Internal-combustion engine. No. 1,257,360; Feb. 26; v. 247; p. 768.

Jones, James R., assignor to Art Metal Construction Company, Inc., Jamestown, N. Y. Leveling-base for furniture. No. 1,255,427; Feb. 5; v. 247; p. 91.

Jones, Joseph W., assignor to Jones Motorola, Inc., New York, N. Y. Winding device for spring-motors. No. 1,257,286; Feb. 19; v. 247; p. 713.

Jones, Levander D., assignor of three-fifteenths to H. D. Deacon and eight-fifteenths to Z. E. Marvin, Dallas, Tex. Treating cotton-stalks. No. 1,257,060; Feb. 19; v. 247; p. 652.

Jones Motorola, Inc. (See Jones, Joseph W., assignor.)

Jordan, Joseph M., Jr., Atlantic City, N. J. Camera attachment. No. 1,257,874; Feb. 26; v. 247; p. 920.

Joseph, Chester V. (See Pearne and Joseph.)

Joseph Boss & Co. (See Moffat, William L., assignor.)

Jump, Edwin R., Newton, Mass. Waterproofed material and method of waterproofing. No. 1,256,824; Feb. 12; v. 247; p. 395.

Jutte, Max E., et al. (See Blackwell, Henry F., assignor.)

Kadel, Byers W., Roanoke county, Va. Railway-car. No. 1,255,174; Feb. 5; v. 247; p. 17.

Kadow, August, assignor to The Westlake Machine Company, Toledo, Ohio. Air-controlling mechanism for glass-blowing machines. No. 1,255,817; Feb. 5; vol. 247; p. 57.

Kafader, James O., Fort Bidwell, Cal. Hydraulic motor. No. 1,257,875; Feb. 26; v. 247; p. 920.

Kahn, Lawrence L., San Francisco, Cal. Means for preserving food. No. 1,256,495; Feb. 12; v. 247; p. 444.

Kaisling, William, assignor to Kellogg Switchboard & Supply Company, Chicago, Ill. Switch device. No. 1,257,287; Feb. 19; v. 247; p. 713.

Kaizumi, Masutaro, Seattle, Wash. Rat-trap. No. 1,257,244; Feb. 19; v. 247; p. 700.

Kamenstein, Myer. (See Paroly, Isidor, assignor.)

Kammerhoff, Heinrich H. M., Orange, assignor to Edison Storage Battery Company, West Orange, N. J. Galvanic battery. No. 1,255,536; Feb. 5; v. 247; p. 123.

Kanawha Manufacturing Company. (See Davis, Madison T., Jr., assignor.)

Kaolin Products Corporation. (See Charlton, Harry W., assignor.)

Karl, Gustave, Peoria, Ill. Tire-protector. No. 1,257,361; Feb. 26; v. 247; p. 768.

Karle, William A. (See Gifford, Cyrus P., assignor.)

Karpen, Solomon, and C. Hultgren, assignors to S. Karpen & Bros., Chicago, Ill. Couch-bed or sofa-bed. No. 1,256,325; Feb. 12; v. 247; p. 395.

Karpen, Solomon, assignor to S. Karpen & Bros., Chicago, Ill. Sofa-bed and davenport-bed. No. 1,257,005; Feb. 19; v. 247; p. 681.

Karr, Charles D., Holland, Mich. Bed-spring. No. 1,257,010; Feb. 26; v. 247; p. 843.

Kass, Peter, Chicago, Ill. Metal step. No. 1,256,905; Feb. 19; v. 247; p. 601.

Kauert, Rudolph, San Diego, Cal. Attachment for umbrellas. No. 1,255,757; Feb. 5; v. 247; p. 186.

Kaufhold, Bernard, and J. A. Ess, Kimball, Minn. Beet harvester and topping machine. No. 1,257,081; Feb. 19; v. 247; p. 652.

Kaufmann, William P. (See Akers and Kaufmann.)

Kaupert, George, Chicago, Ill. Method of filling in hollow cavities in tiles. No. 1,256,803; Feb. 19; v. 247; p. 570.

Kearsley, William K., Jr., Newark, N. J., assignor to General Electric Company. Electric heating device. No. 1,256,571; Feb. 19; v. 247; p. 502.

Keckler, Charles W., Newark, N. J., assignor to Western Electric Company, New York, N. Y. Telephone system. No. 1,255,180; Feb. 5; v. 247; p. 19.

Keckler, Charles W., Newark, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,257,362; Feb. 26; v. 247; p. 768.

Keckler, Charles W., Newark, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,257,363; Feb. 26; v. 247; p. 769.

Keene, Alvin D., Schenectady, N. Y., assignor to General Electric Company. Electric-furnace-control apparatus. No. 1,255,613; Feb. 5; v. 247; p. 145.

Kehl, Albert E., Toronto, Ontario, Canada. Machine and hand-tap. No. 1,256,138; Feb. 12; v. 247; p. 339.

Keller Mechanical Engraving Company. (See Warman, William A., assignor.)

Kellogg, John B., Orange, N. J. Vacuum-cleaner. No. 1,255,175; Feb. 5; v. 247; p. 18.

Kellogg, John B., Orange, N. J. Wall-receptacle for vacuum cleaning apparatus. No. 1,255,176; Feb. 5; v. 247; p. 18.

Kellogg Switchboard & Supply Company. (See Dyson, Alfred H., assignor.)

Kellogg Switchboard & Supply Company. (See Kaisling, William, assignor.)

Kellogg Switchboard and Supply Company. (See Webster, Harry G., assignor.)

Kellogg Switchboard & Supply Company. (See Winston, Charles S., assignor.)

Kelly, John F., Pittsfield, Mass. Magnet-grouping device for electrical musical instruments. No. 1,256,804; Feb. 19; v. 247; p. 570.

Kelly, Patrick J., assignor to P. Becker & Company, Chicago, Ill. Trunk. No. 1,255,318; Feb. 5; v. 247; p. 58.

Kelly, William, Grand Island, Nebr. Well-point. No. 1,256,906; Feb. 19; v. 247; p. 601.

Kelly, William J., Clinton, Iowa. Supporting device. No. 1,257,611; Feb. 26; v. 247; p. 843.

Kelly, William M. (See Force, William C., assignor.)

Kelsey, Harry S. (See Jaeger, Otto, assignor.)

Kelsey Wheel Company. (See Winter, John E., assignor.)

Kemp, William E., New York, N. Y. Recording instrument for vehicles. No. 1,255,758; Feb. 5; v. 247; p. 187.

Kemper, Joseph, Utica, N. Y. Plastic composition for building purposes. No. 1,257,486; Feb. 26; v. 247; p. 806.

Kennedy, Guy. (See Herbert, John, assignor.)

Kennedy, Richard W., Los Angeles, Cal. Agriculture implement. No. 1,255,428; Feb. 5; v. 247; p. 91.

Kenney, Carl L. (See Hurst and Kenney.)

Kent, Arthur A. (See Appel, Walter D., assignor.)

Kent, Horace L., Brooklyn, N. Y. Rotary crusher. No. 1,255,319; Feb. 5; v. 247; p. 58.

Kenyon, James S., Providence, R. I. Heel-nail. No. 1,257,876; Feb. 26; v. 247; p. 920.

Keon, George E., Verplanck, N. Y. Toilet-case. No. 1,255,537; Feb. 5; v. 247; p. 123.

Kerns, Francis A., Carroll, Iowa. Brake. No. 1,256,600; Feb. 19; v. 247; p. 540.

Kerosene Motor Appliance Co. (See Smith, John R., assignor.)

Kerr, Robert C., Reading, Mich. Folding chair. No. 1,257,877; Feb. 26; v. 247; p. 921.

Kettering, Charles F., Dayton, Ohio, assignor to The Dayton Engineering Laboratories Company. Ignition system for combustion-engines. No. 1,256,177; Feb. 5; v. 247; p. 19.

Keys, Oscar L., Hazard, Ky. Gate. No. 1,257,082; Feb. 19; v. 247; p. 652.

Keyzer, Joseph N. M., Lynchburg, Va. Street-cleaning machine. No. 1,255,178; Feb. 5; v. 247; p. 19.

Kibble, A. E., et al. (See Gould, Fred L., assignor.)

Kibby, Ernest J., Emporia, Kans. Grocer's display-cabinet. No. 1,255,759; Feb. 5; v. 247; p. 187.

Kielar, Stanislaw, Milwaukee, Wis. Rail joint and fastener. No. 1,257,068; Feb. 19; v. 247; p. 653.

Kietlinski, Felix, Milwaukee, Wis. Screw-driver. No. 1,256,139; Feb. 12; v. 247; p. 339.

Kietlinski, Felix, Milwaukee, Wis. Trolley. No. 1,257,245; Feb. 19; v. 247; p. 706.

Kiger, Edrick N., Plummer, Idaho. Gate and gate-fastening. No. 1,256,805; Feb. 19; v. 247; p. 570.

Kilgore, Charles F. (See Body, Johnson, Kilgore, and Blevins.)

Kilgore, Lloyd M., Pittsfield, Mass., assignor to General Electric Company. Magnetic shunt. No. 1,257,246; Feb. 19; v. 247; p. 700.

Kilkenny, Thomas E., North Providence, assignor, by mesne assignments, to H. N. Pervear Co., Providence, R. I. Clasp. (Reissue.) No. 14,437; Feb. 26; v. 247; p. 945.

Killen, Edward B., London, England. Wheel. No. 1,257,489; Feb. 26; v. 247; p. 806.

Killingsworth, Wilbur, assignor to The Chillicothe Bean Snipper Company, Chillicothe, Ohio. Machine for snipping beans and other articles. No. 1,256,023; Feb. 12; v. 247; p. 303.

Killion, Oral L., Fairfield, Iowa. Combination square and protractor. No. 1,255,429; Feb. 5; v. 247; p. 91.

Killy, Sever P., Rhame, N. D. Doll-head. No. 1,255,889; Feb. 12; v. 247; p. 265.

Kimble, Clyde B. (See Cowgill and Kimble.)

King, Charles B., C. S. Johnson, and B. Jacoby, assignors to The Marion Steam Shovel Company, Marion, Ohio. Clutch mechanism. No. 1,256,572; Feb. 19; v. 247; p. 502.

King, Clifford G., Providence, R. I. Brooch. No. 1,255,890; Feb. 12; v. 247; p. 265.

King, Elijah N., Hargett, Ky. Switch-rail. No. 1,257,878; Feb. 26; v. 247; p. 921.

King, Ivan, Los Angeles, Cal. Oven. No. 1,256,907; Feb. 19; v. 247; p. 602.

King, Samuel R., Glenbrook, Conn. Light-dimming eye-protector. No. 1,255,430; Feb. 5; v. 247; p. 92.

King, Verness, Franklinville, N. Y. Grass-guard for mowers. No. 1,256,700; Feb. 19; v. 247; p. 541.

Kingsbury, George P., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,255,891; Feb. 12; v. 247; p. 265.

Kingsbury, Harry T., Keene, N. H. Toy railway passenger-coach. No. 1,256,326; Feb. 12; v. 247; p. 395.

Kinnear Manufacturing Company, The. (See McCloud, Edward H., assignor.)

Kinney, Charles, assignor of one-third to P. S. Palmer, Spokane, Wash. Power-transmission device. No. 1,257,490; Feb. 26; v. 247; p. 806.

Kinsley, William S., Reading, assignor to The Russell Company, Boston, Mass. Cleaner for fibrous stock. No. 1,256,573; Feb. 19; v. 247; p. 503.

Kirby, James B., Cleveland, Ohio. Suction-cleaner. No. 1,257,288; Feb. 19; v. 247; p. 714.

Kirchen, John G., and D. B. Bradner, Tonopah, Nev. Extracting precious metals from ores containing alkaline-earth carbonates, &c. No. 1,257,612; Feb. 26; v. 247; p. 843.

Kirchhoff, William G., assignor to The International Register Company, Chicago, Ill. Fare-recorder. No. 1,256,908; Feb. 19; v. 247; p. 602.

Kirkegaard, Lange L. (See Rasmussen and Kirkegaard.)

Kirlin, William B., San Benito, Tex. Knife-sharpener. No. 1,255,760; Feb. 5; v. 247; p. 187.

Kirstein, Henry B., Rochester, N. Y. Lens-mounting. No. 1,256,327; Feb. 12; v. 247; p. 395.

Kiser, Frank H., Latrobe, Pa. Mail-bag-delivery device. No. 1,257,714; Feb. 26; v. 247; p. 874.

Kissick, Joseph, Jr. (See De Ved and Kissick.)

Kitchen, Harold J., Luton, England. Tilting furnace or the like. No. 1,257,879; Feb. 26; v. 247; p. 921.

Kitchen, Samuel M., Salem, N. Y., assignor to Bartlett All Steel Scythe Company, Inc. Making scythes. No. 1,257,880; Feb. 26; v. 247; p. 921.

Kite, George W., Jr. (See Morley and Kite.)

Kite, George W., Jr., Chicago, Ill. Water-heater. No. 1,256,328; Feb. 12; v. 247; p. 396.

Kitscher, Albert. (See Schafer and Kitscher.)

Kitton, John C., Chicago, Ill. Automatic pressure-regulating valve. No. 1,255,538; Feb. 5; v. 247; p. 124.

Kjelland, William T., East Stanwood, Wash. Burglar-alarm. No. 1,257,851; Feb. 26; v. 247; p. 922.

Klamer, John, assignor of one-third to A. N. Sprafka, Stevens Point, Wis. Combination-tool. No. 1,255,179; Feb. 5; v. 247; p. 19.

Klay, Abraham B., Modesto, Cal. Ware drier and factory. No. 1,256,237; Feb. 12; v. 247; p. 370.

Klein, Charles J., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Flush-receptacle. No. 1,255,181; Feb. 5; v. 247; p. 20.

Klein, Charles J., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electric switch. No. 1,255,887; Feb. 12; v. 247; p. 264.

Klein, John H., Denver, Colo. Metallic-rail-tie fastener. No. 1,257,247; Feb. 19; v. 247; p. 700.

Klein, Samuel, Philadelphia, Pa. Abrasive-material holder. No. 1,255,888; Feb. 12; v. 247; p. 264.

Klemm, Hermann A., Harrison, N. Y. Knitting-machine. No. 1,257,492; Feb. 26; v. 247; p. 807.

Klemm, Hermann A., Harrison, assignor of one-half to J. D. Leys, New York, N. Y. Knitting-machine. No. 1,257,491; Feb. 26; v. 247; p. 807.

Klesius, William. (See Ruf and Klesius.)

Knapp, Edward J., Syracuse, N. Y. Sanctuary-lamp. No. 1,255,614; Feb. 5; v. 247; p. 145.

Knieriem, Edward A., deceased, New York, N. Y.; G. P. Hotaling executor. Abdominal bandage. No. 1,257,944; Feb. 26; v. 247; p. 939.

Knight, Amos L., assignor to Lanston Monotype Machine Company, Philadelphia, Pa. Manufacture of printers' leads, rules, &c. No. 1,256,806; Feb. 19; v. 247; p. 571.

Knight, Amos L., assignor to Lanston Monotype Machine Company, Philadelphia, Pa. Mold for casting elements of printing-forms. No. 1,256,807; Feb. 19; v. 247; p. 571.

Knight, Amos L., assignor to Lanston Monotype Machine Company, Philadelphia, Pa. Mold for casting printers' leads and the like. No. 1,256,808; Feb. 19; v. 247; p. 571.

Knight, Amos L., assignor to Lanston Monotype Machine Company, Philadelphia, Pa. Production of elements of printing-forms. No. 1,257,006; Feb. 19; v. 247; p. 632.

Knight, George F., and B. M. Frank, Canton, Ohio; said Frank assignor to said Knight. Machine for forming outer casings of pneumatic tires. No. 1,255,320; Feb. 5; v. 247; p. 59.

Knittle, Elmer E., Allentown, Pa. Fly-trap. No. 1,256,329; Feb. 12; v. 247; p. 396.

Knoche, Louis H., Martin City, Mo. Moldboard. No. 1,256,140; Feb. 12; v. 247; p. 339.

Knoll, Rudolf, Ennet-Baden, Switzerland. Dynamo-electric machinery. No. 1,255,838; Feb. 5; v. 247; p. 209.

Knowles, George H., Duluth, Minn. Internal-combustion engine. No. 1,257,248; Feb. 19; v. 247; p. 701.

Knowlton, Frank W., Quincy, Mass., and T. Scott, Montreal, Canada, assignors, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Device for removing surplus material. No. 1,256,574; Feb. 19; v. 247; p. 503.

Knox, Luther L., Avalon, assignor, by mesne assignments, to Blau-Knox Company, Pittsburgh, Pa. Water-cooled valve or damper structure. No. 1,256,330; Feb. 12; v. 247; p. 396.

Knox, Ralph, New Bloomfield, Mo. Automobile-chain. No. 1,255,615; Feb. 5; v. 247; p. 145.

Koch, John, and D. Guaglianone, Bristol, Pa. Billiard-cue tip. No. 1,257,249; Feb. 19; v. 247; p. 701.

Koch, Maximilian N., Buffalo, N. Y. Cuspidor. No. 1,257,250; Feb. 19; v. 247; p. 701.

Koch, William F., Hillside, Colo. Detachable rake-tooth point. No. 1,256,809; Feb. 19; v. 247; p. 572.

Kocourek, Henry, Jersey City, N. J., assignor to J. B. Stewart, executrix. Winding-mount for power-springs. No. 1,255,431; Feb. 5; v. 247; p. 92.

Kocourek, Henry, Jersey City, N. J., assignor to J. B. Stewart, executrix. Strap-brake. No. 1,255,432; Feb. 5; v. 247; p. 92.

Kocourek, Henry, Jersey City, N. J., assignor to J. B. Stewart, executrix. Solenoid-operated liquid-fuel-supply-maintaining device for internal-combustion engines. No. 1,257,613; Feb. 26; v. 147; p. 843.

Koehler, Clinton A., Easton, Pa., and C. C. Crosson, Alpha, N. J. Pulverizing-machine. No. 1,257,882; Feb. 26; v. 247; p. 922.

Koenig, August, Lowell, assignor to The Lamson Company, Boston, Mass. Pneumatic-carrier-decelerating apparatus. No. 1,256,024; Feb. 12; v. 247; p. 304.

Koepp & Co., Rudolph. (See Eyer, Philipp, assignor.)

Kohlman, Dirk L., Dordrecht, Netherlands. Collapsible baby and wheeling chair and carriage. No. 1,256,701; Feb. 19; v. 247; p. 541.

Kohlmyer, Henry, Lorain, Ohio. Railway-track structure. (Reissue.) No. 14,431; Feb. 12; v. 247; p. 449.

Kolby, Nicolas, Chicago, Ill. Sound-control mechanism. No. 1,256,025; Feb. 12; v. 247; p. 304.

Kolla, John P., assignor to The Holland Furnace Company, Holland, Mich. Casting furnace fire-pots. No. 1,257,493; Feb. 26; v. 247; p. 807.

Komorous, Joseph, assignor to Parisian Novelty Company, Chicago, Ill. Receptacle. No. 1,257,614; Feb. 26; v. 247; p. 844.

Kone, Henry H., Summerfield, Kans. Rotary tooth-brush. No. 1,257,883; Feb. 26; v. 247; p. 922.

Kopf, Melrose G., assignor, by mesne assignments, to The McCormick Laboratories Company, Dayton, Ohio. Temperature-indicator. No. 1,256,331; Feb. 12; v. 247; p. 397.

Koppe, Joseph, Canton, Ohio. Adjustable pad for shoe-tongues. No. 1,255,616; Feb. 5; v. 247; p. 146.

Koprinski, Casimir, Chicago, Ill. Game. No. 1,256,575; Feb. 19; v. 247; p. 504.

Kops, Waldemar, New York, N. Y. Apparel-corset. No. 1,256,576; Feb. 19; v. 247; p. 504.

Korthals-Altes, Willem C., Schenectady, N. Y., assignor to General Electric Company. Alternating-current motor. No. 1,257,884; Feb. 26; v. 247; p. 928.

Kost, Alwin, Seattle, Wash. Physical-culture apparatus. No. 1,257,957; Feb. 26; v. 247; p. 943.

Koven & Brother, L. O. (See Furman, George B., assignor.)

Krag, Erik L. (See Bystrom, John, assignor.)

Kragiel, Wincenty, Norwalk, Conn. Fan. No. 1,256,026; Feb. 12; v. 247; p. 304.

Kralund, John, Brooklyn, N. Y., assignor to Doebler Die Casting Company. Casting apparatus. No. 1,257,885; Feb. 26; v. 247; p. 923.

Krantz, Hermann, Aachen, Germany. Dyeing elongated bodies of yarn or the like. No. 1,257,886; Feb. 26; v. 247; p. 924.

Krantz, Hubert F., assignor to Krantz Manufacturing Company, Inc., Brooklyn, N. Y. Switch mechanism. No. 1,256,332; Feb. 12; v. 247; p. 397.

Krantz, Hubert F., assignor to Krantz Manufacturing Company, Inc., Brooklyn, N. Y. Meter-panel. No. 1,257,289; Feb. 19; v. 247; p. 714.

Krantz Manufacturing Company. (See Krantz, Hubert F., assignor.)

Krause, Albert W. (See Krause, Charles E. and A. W.)

Krause, Charles E. and A. W., Hartford, Conn. Nut-lock. No. 1,256,141; Feb. 12; v. 247; p. 339.

Kremer, Franklin W., Rutherford, N. J. Pneumatic auto-tire. No. 1,257,251; Feb. 19; v. 247; p. 702.

Krenke, Otto A., assignor to Anker-Holth Manufacturing Co., Port Huron, Mich. Cream-separator. No. 1,256,577; Feb. 19; v. 247; p. 504.

Krieger, Emil. (See Krieger, Gustave and E.)

Krieger, Gustave and E., Brooklyn, N. Y. Making shoes. No. 1,257,364; Feb. 26; v. 247; p. 769.

Krippendorf, Paul F. W. C., Lynn, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Making shoes. No. 1,255,892; Feb. 12; v. 247; p. 265.

Krippendorf, Paul F. W. C., Lynn, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Shoe. No. 1,255,893; Feb. 12; v. 247; p. 266.

Kroedel, Robert. (See Spiedel, Kroedel, and Riddell.)

Krohn, Gustave A., Coarsegold, Cal. Valve-controlling mechanism for carbureters. No. 1,257,404; Feb. 26; v. 247; p. 808.

Kronenberg, Rudolf, Ohligs, Germany. Method and means for electrically welding the rims or flanges of wheel or cycle tires. No. 1,257,615; Feb. 26; v. 247; p. 844.

Kronenberger, Ferdinand, Hastings, N. Y., assignor to F. B. Clark, Englewood, N. J. Egg-carrier. No. 1,257,252; Feb. 19; v. 247; p. 702.

Kropp, John A., Oak Park, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y. Selector-switch. No. 1,257,715; Feb. 26; v. 247; p. 874.

Kroshaug, Oscar C., Volga, S. D. Adjustable bracket. No. 1,256,909; Feb. 19; v. 247; p. 602.

Kroshaug, Oscar C., Volga, S. D. Lock. No. 1,256,910; Feb. 19; v. 247; p. 602.

Krueger, Adolph F., Milwaukee, Wis. Phonograph-record storage-cabinet. No. 1,255,894; Feb. 12; v. 247; p. 266.

Krueger, Frank O., Limeridge, Wis. Milk-bottle cabinet. No. 1,257,495; Feb. 26; v. 247; p. 808.

Krupski, John, Springfield, Ill. Folding umbrella. No. 1,256,182; Feb. 5; v. 247; p. 20.

Kuderer, Charles, Pittsburgh, Pa. Motor-cycle back-rest. No. 1,255,539; Feb. 5; v. 247; p. 124.

Kuehl, William J. A., Chicago, Ill. Electric vibrator massage-machine. No. 1,255,895; Feb. 12; v. 247; p. 266.

Kuhn, Casper, Carlstadt, N. J. Window-guard. No. 1,257,887; Feb. 26; v. 247; p. 924.

Kumagai, Buntaro, Winslow, Wash. Fountain-pen. No. 1,257,365; Feb. 26; v. 247; p. 769.

Kumlin, August W., Wheatland township, Vernon county, Wis. Buckle. No. 1,256,238; Feb. 12; v. 247; p. 370.

Kummer, August T., Detroit, Mich. Car-door. No. 1,256,578; Feb. 19; v. 247; p. 505.

Kunzler, Charles J. (See Robb, Clyde S., assignor.)

Kupec, George, et al. (See Cheselka, Peter, assignor.)

Kurowski, Alfred G. F., Brooklyn, assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,256,485; Feb. 12; v. 247; p. 442.

Kursheedt Manufacturing Company, The. (See Bloch and Suess, assignors.)

Kuschewitz, Paul. (See Moll and Kuschewitz.)

Kvistad, Paul E., Seattle, Wash. Stencil-writing machine. No. 1,256,333; Feb. 12; v. 247; p. 398.

La Rue, William D. (See Murray and La Rue.)

Lachman, Maurice, assignor to Structural Pressed Steel Wheel Company Inc., New York, N. Y. Metallic wheel. No. 1,256,579; Feb. 19; v. 247; p. 505.

Laffay, Fernand, London, England, assignor, by mesne assignments, to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,256,702; Feb. 19; v. 247; p. 542.

Laird, Guy M., assignor of one-half to L. B. Lincoln, Chicago, Ill. Electric-resistance element. No. 1,257,272; Feb. 19; v. 247; p. 708.

Laist, Frederick, assignor to Anaconda Copper Mining Company, Anaconda, Mont. Treating zinc ores. No. 1,255,438; Feb. 5; v. 247; p. 93.

Laist, Frederick, assignor to Anaconda Copper Mining Company, Anaconda, Mont. Treating complex ores or concentrates therefrom. No. 1,255,440; Feb. 5; v. 247; p. 94.

Laist, Frederick, and J. O. Elton, assignors to Anaconda Copper Mining Company, Anaconda, Mont. Recovering zinc from its solutions. No. 1,255,438; Feb. 5; v. 247; p. 92.

Laist, Frederick, and J. O. Elton, assignors to Anaconda Copper Mining Company, Anaconda, Mont. Purifying zinc-bearing solutions. No. 1,255,434; Feb. 5; v. 247; p. 93.

Laist, Frederick, and J. O. Elton, assignors to Anaconda Copper Mining Company, Anaconda, Mont. Purifying zinc-bearing solutions. No. 1,255,435; Feb. 5; v. 247; p. 93.

Laist, Frederick, and J. O. Elton, assignors to Anaconda Copper Mining Company, Anaconda, Mont. Process of recovering zinc from ores. No. 1,255,436; Feb. 5; v. 247; p. 93.

Laist, Frederick, and J. O. Elton, assignors to Anaconda Copper Mining Company, Anaconda, Mont. Electrodeposition of metals. No. 1,255,437; Feb. 5; v. 247; p. 93.

Laist, Frederick, and J. O. Elton, assignors to Anaconda Copper Mining Company, Anaconda, Mont. Recovering zinc from ores. No. 1,255,439; Feb. 5; v. 247; p. 94.

Lamb Brothers & Greene. (See Lamb, George L., assignor.)

Lamb, Charles G., St. Paul, Minn. Fountain-brush. No. 1,256,142; Feb. 12; v. 247; p. 839.

Lamb, Elden P., assignor of eleven-twentieths to J. Bird, Camden, Me. Carbureter. No. 1,257,888; Feb. 26; v. 247; p. 924.

Lamb, George L., assignor to Lamb Brothers & Greene, Nappanee, Ind. Lamp-cluster. No. 1,257,496; Feb. 26; v. 247; p. 809.

Lampert, Henry H. (See Brady, George, assignor.)

Lampert, Henry H., Chicago, Ill. Bar support and spacer for concrete-reinforcements. No. 1,257,616; Feb. 26; v. 247; p. 844.

Lamson Company, The. (See Bemis, Thomas, Sr., assignor.)

Lamson Company, The. (See Koenig, August, assignor.)

Lamson Company, The. (See Pearsall, Albert W., assignor.)

Landers, William H., New Almaden, assignor of one-half to Pacific Foundry Company, San Francisco, Cal. Continuous retort for treating quicksilver ores. No. 1,256,703; Feb. 19; v. 247; p. 541.

Landgraf, Frederick, assignor to Flannery Bolt Company, Bridgeville, Pa. Flexible stay-bolt for boilers. No. 1,256,911; Feb. 19; v. 247; p. 603.

Landon, Archer A., Buffalo, N. Y., assignor to American Radiator Company, Chicago, Ill. Automatic damper control. No. 1,256,143; Feb. 12; v. 247; p. 339.

Lanston, Frank L., et al. (See Hammer, Louis, assignor.)

Lange, Albert, and A. Metzger, New York, N. Y. Printer's quoin. No. 1,257,869; Feb. 26; v. 247; p. 925.

Lanier, Edward H., Cincinnati, Ohio. Pastry-making apparatus. No. 1,257,497; Feb. 26; v. 247; p. 809.

Lanier, Edward H., and F. K. Driesbach, Cincinnati, Ohio. Pastry molding and baking apparatus. No. 1,257,498; Feb. 26; v. 247; p. 809.

Lanston Monotype Machine Company. (See Bancroft and Hoefberg, assignors.

Lanston Monotype Machine Company. (See Indahl, Maurits C., assignor.)

Lanston Monotype Machine Company. (See Knight, Amos L., assignor.)

Larata, Giuseppe C., New York, N. Y. Barber or dental chair. No. 1,255,321; Feb. 5; v. 247; p. 59.

Larata, Giuseppe C., New York, N. Y. Hydraulic mechanism for raising and lowering the seats of chairs and the like. No. 1,255,322; Feb. 5; v. 247; p. 60.

Lard, Allan E., Washington, D. C., assignor to The Metallic Shaft Company, Wilmington, Del. Golf-club. No. 1,257,084; Feb. 19; v. 247; p. 653.

Larkin, Jacob W., et al. (See Reeder, John, assignor.)

Larrabaza, John, assignor to Hygienic Baking Corporation, San Francisco, Cal. Movable floor for bakers' ovens. No. 1,257,007; Feb. 19; v. 247; p. 632.

Larsen Ice Machine Company. (See Ewen, Malcolm F., assignor.)

Larson, David C., Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Alternating-current electromagnet. No. 1,255,441; Feb. 5; v. 247; p. 94.

Larson, John A., Brooklyn, N. Y. Glass float. No. 1,257,890; Feb. 26; v. 247; p. 925.

Lathrop, Harry D., and W. H. Paulson, Chicago, Ill.; said Paulson assignor to said Lathrop. Can-washing machine. No. 1,256,896; Feb. 12; v. 247; p. 267.

Latimer, George M., Watsonville, Cal. Burner. No. 1,257,891; Feb. 26; v. 247; p. 925.

Latz, Sylvan, et al. (See Paulsen, Thomas R., assignor.)

Lauritzen, John C., Akron, Ohio. Vulcanizer. No. 1,256,704; Feb. 19; v. 247; p. 542.

Lautenschlager, William F., Cincinnati, Ohio, assignor to Lorenz Muther, Newton, Mass. Folding-machine. No. 1,255,540; Feb. 5; v. 247; p. 124.

Lautenschlager, William F., Cincinnati, Ohio, assignor to L. Muther, Newton, Mass. Folding-machine. No. 1,257,892; Feb. 26; v. 247; p. 923.

Lauter, Sigmund M., Brooklyn, N. Y. Casting-machine for dental work. No. 1,255,541; Feb. 5; v. 247; p. 124.

Lavelle, Patrick, Johnstown, Pa. Vehicle-tire. No. 1,257,366; Feb. 26; v. 247; p. 769.

Lavery, John N., Titusville, Pa. Reversing mechanism. No. 1,257,253; Feb. 19; v. 247; p. 702.

Lawford, Thomas C., Croydon, Victoria, Australia. Detachable share for the teeth of cultivator and scarifier implements. No. 1,255,442; Feb. 5; v. 247; p. 94.

Layton, Churchill G., Albany, Oreg. Trap. No. 1,257,254; Feb. 19; v. 247; p. 703.

Lazar, William T., San Francisco, Cal. Interleaved paper-towel package. No. 1,256,334; Feb. 12; v. 247; p. 308.

Le Clair, George E., Flint, Mich. Folding bed. No. 1,257,499; Feb. 26; v. 247; p. 810.

Le Cour, John E., Wiuthrop, Mass. Adjustable pool rail and pocket. No. 1,255,542; Feb. 5; v. 247; p. 125.

Lea, Charles, Dorchester, Mass. Bearing-support for tube-frame spools. No. 1,255,443; Feb. 5; v. 247; p. 94.

Leach, Edward, Rathmel, Pa. Electric switch for mines. No. 1,257,255; Feb. 19; v. 247; p. 703.

Leathem, James, Lebanon, Pa., assignor to Herrmann Aukam & Co., New York, N. Y. Tension device for sewing-machine bobbins. No. 1,255,183; Feb. 5; v. 247; p. 20.

Leathem, James, Lebanon, Pa., assignor to Herrmann Aukam & Co., New York, N. Y. Bobbin case and hook for sewing-machines. No. 1,255,184; Feb. 5; v. 247; p. 21.

Lebloud, Napoleon, Quebec, Quebec, Canada. Combination beam-level and inclination-indicator or inclinometer. No. 1,257,256; Feb. 19; v. 247; p. 703.

Lebovici, Justin, Oakley, Ohio, assignor to The Triumph Electric Company. Induction-motor. No. 1,256,705; Feb. 19; v. 247; p. 542.

Ledig, Richard G., Philadelphia, Pa. Therapeutic lamp. No. 1,255,839; Feb. 5; v. 247; p. 210.

Ledig, Richard G., Philadelphia, Pa., assignor to Majestic Electric Development Co. Electric radiator. No. 1,255,840; Feb. 5; v. 247; p. 210.

Ledwinka, Joseph, assignor to Edward G. Budd Manufacturing Company, Philadelphia, Pa. Removable upholstery for vehicles. No. 1,255,323; Feb. 5; v. 247; p. 60.

Lee, Ann M., Richmond, Va. Dress-shield. No. 1,257,617; Feb. 26; v. 247; p. 844.

Lee, Hugh, Caesar, Miss. Track construction. No. 1,257,945; Feb. 26; v. 247; p. 940.

Lee, James E., assignor to The Challenge Machinery Co., Grand Haven, Mich. Printer's galley-lock. No. 1,257,500; Feb. 26; v. 247; p. 810.

Lee, William F., Syracuse, N. Y. Roller-bearing demountable automobile-hub. No. 1,257,893; Feb. 26; v. 247; p. 926.

Leedy Manufacturing Company. (See Wanamaker, Charles B., assignor.)

Leeper, Frank, Los Angeles, Cal. Torch-stove. No. 1,257,716; Feb. 26; v. 247; p. 874.

Lefever, Charles F., assignor to Daisy Manufacturing Company, Plymouth, Mich. Gun. No. 1,257,501; Feb. 26; v. 247; p. 810.

Lefevre, Armand L. F., St.-Denis, France. Automatic grate for steam-boiler and other furnaces. No. 1,257,257; Feb. 19; v. 247; p. 703.

Lehmkuhl, William B., Cambridge, Mass. Adjustable supporting apparatus. No. 1,255,185; Feb. 5; v. 247; p. 21.

Leighton, Albert, St. Louis, Mo. Combined suspender-belt tab and belt-loop for trousers. No. 1,256,580; Feb. 19; v. 247; p. 505.

Leighton, George A., South Boston, Mass., assignor to American Can Company, New York, N. Y. Making cans. No. 1,257,502; Feb. 26; v. 247; p. 810.

Leimbach, Lizzie T. (See Harrah, Hillis A., assignor.)

Leitch, John W., Huddersfield, England. Concentrating sulfuric acid. No. 1,257,894; Feb. 26; v. 247; p. 926.

Leitch, John W., Huddersfield, England. Concentrating sulfuric acid. No. 1,257,895; Feb. 26; v. 247; p. 926.

Leitch, Meredith, Poughkeepsie, N. Y., assignor to The De Laval Separator Company. Milking-machine cluster. No. 1,255,186; Feb. 5; v. 247; p. 21.

Leitch, Meredith, and B. R. Wright, Poughkeepsie, assignors to The De Laval Separator Company, New York, N. Y. Froth-reducing discharge apparatus and process. No. 1,256,810; Feb. 19; v. 247; p. 572.

Leland, George H., Hartford, Conn. Making gold crowns. No. 1,257,367; Feb. 26; v. 247; p. 770.

Lemon, Winfred E. (See Weedon and Lemon.)

Lemp, Hermann, and H. W. Stock, Erie, Pa., assignors to General Electric Company. Lubricating system for engines. No. 1,257,258; Feb. 19; v. 247; p. 704.

Lender, William, Los Angeles, Cal. Automatic railway-crossing. No. 1,255,617; Feb. 5; v. 247; p. 146.

Lenherd, George W., Indiana, Pa. Hollow building-block. No. 1,255,761; Feb. 5; v. 247; p. 188.

Leo, Paul, Elizabeth, N. J. Paper-guide for seal-presses. No. 1,257,717; Feb. 26; v. 247; p. 875.

Leon, Morris, and A. B. Vance, Fort Smith, Ark.; said Vance assignor to said Leon. Display-stand. No. 1,255,444; Feb. 5; v. 247; p. 95.

Leonard, Elof R., Woodcliff, N. J. Self-closing window. No. 1,256,835; Feb. 12; v. 247; p. 398.

Leone, Domnick F., Seattle, Wash. Electric-lighting system for automobiles. No. 1,257,618; Feb. 26; v. 247; p. 845.

Lépine, Georges, Neuchatel, Switzerland. Unindammable liquid adapted for use in insulating and other similar purposes. No. 1,255,618; Feb. 5; v. 247; p. 146.

Leslie, Frank, assignor of one-half to H. O. Sargent, Des Moines, Iowa. Safety alarm device for motor-vehicles. No. 1,257,259; Feb. 19; v. 247; p. 704.

Lethert, John A., St. Paul, Minn. Price-indicator. No. 1,255,697; Feb. 12; v. 247; p. 267.

Letts, Walter W., Cortland, N. Y. Reflector for headlights. No. 1,255,543; Feb. 5; v. 247; p. 125.

Lewandowski, Leon, assignor of one-half to A. S. Fijalkowski, Detroit, Mich. Floor-scrubbing machine. No. 1,255,324; Feb. 5; v. 247; p. 61.

Lewis, Edward A. (See Frew and Lewis.)

Lewis, George H., assignor to The Fiat Rubber Company, Chicopee Falls, Mass. Web-tensioning device. No. 1,256,503; Feb. 12; v. 247; p. 448.

Lewis, Goodrich G., Wheaton, Ill., assignor to W. H. Miner, Chazy, N. Y. Railway draft-gear. No. 1,255,167; Feb. 5; v. 247; p. 22.

Lewis, John F., Comanche, Okla. Perch. No. 1,255,898; Feb. 12; v. 247; p. 267.

Lewis, Thomas J., Argoed, England. Securing means. No. 1,256,706; Feb. 19; v. 247; p. 542.

Lewis, William H., Westfield, Pa. Silo-door hinge. No. 1,256,144; Feb. 12; v. 247; p. 340.

Lewkowicz, Ladis, assignor to Convertible Automobile Body Corporation, New York, N. Y. Vehicle. No. 1,256,239; Feb. 12; v. 247; p. 370.

Leys, James D. (See Klemm, Hermann A., assignor.)

Liberto, Samuel, San Antonio, Tex. Attachment for coffee-roasters. No. 1,256,336; Feb. 12; v. 247; p. 399.

Lichtbardt, George H. P. (See Warman, John E., assignor.)

Lichy, Joseph, Avon, Minn. Hay-rack. No. 1,255,899; Feb. 12; v. 247; p. 268.

Lieber, Carl H., assignor to The H. Lieber Company, Indianapolis, Ind. Picture-frame and base. No. 1,256,337; Feb. 12; v. 247; p. 399.

Liggett & Meyers Tobacco Co. (See De Montlusin and Lynn, assignors.)

Liles, Leander W., Nacogdoches, Tex. Windmill. No. 1,256,338; Feb. 12; v. 247; p. 399.

Liljenroth, Frans G. Westerås, Sweden. Continuous-current generator. No. 1,256,912; Feb. 19; v. 247; p. 603.

Lincoln, Charles S., Wauwatosa, assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis. Portable crusher. No. 1,257,619; Feb. 26; v. 247; p. 845.

Lincoln, Leo B. (See Laird, Guy M., assignor.)

Lindberg, Bror K. and A. F. Hörlin, Stockholm, Sweden. Floor-covering. No. 1,257,503; Feb. 26; v. 247; p. 811.

Lindquist, Albert V., Alexandria, Minn. Trap. No. 1,256,339; Feb. 12; v. 247; p. 399.

Lindsay, George W., Denver, Colo. Oil-burner. No. 1,257,896; Feb. 26; v. 247; p. 926.

Lindsay, William J., Philadelphia, Pa., assignor to Camden Iron Works, Camden, N. J. Coal-feeder for gas-producers. No. 1,256,340; Feb. 12; v. 247; p. 400.

Link-Belt Company. (See Hayward, Henry H., assignor.)

Link-Belt Company. (See Johnston, Arthur C., assignor.)

Link-Belt Company. (See Pierce, Harold B., assignor.)

Link-Belt Company. (See Pratt, Howell D., assignor.)

Link-Belt Company. (See Spencer and Oakes, assignors.)

Link-Belt Company. (See Spencer, Owen H., assignor.)

Linotype and Machinery Limited. (See Pearce and Spence, assignors.)

Lippard, Everett J., et al. (See Benton, Earl M., assignor.)

Lippert, Earl E., Stroud, Okla. Scythe-blade fastener. No. 1,257,504; Feb. 26; v. 247; p. 811.

Little, Elmer, Owensboro, Ky. Ditching and grading machine. No. 1,255,188; Feb. 5; v. 247; p. 22.

Little, George M., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Regulating mechanism for arc-lamps. No. 1,255,445; Feb. 5; v. 247; p. 95.

Littlefield, Augustine F. (See Shaw and Littlefield.)

Llewellyn, William B. (See Spence and Llewellyn.)

Lloyd, Cecil E., Pensacola, Fla. Mechanism for transmitting power. No. 1,257,897; Feb. 26; v. 247; p. 927.

Lloyd, Trevor V. (See Bailey, Lloyd and Jones.)

Locomotive Stoker Company. (See Lower, Nathan M., assignor.)

Locomotive Superheater Company. (See True and Brandt, assignors.)

Loewenbach, Oscar, assignor to Hugo Loewenbach and B. Loewenbach & Sons Co., Inc., Milwaukee, Wis. Envelop. No. 1,256,145; Feb. 12; v. 247; p. 340.

Loffler, Edmund. (See De Lukacsevics, Charles, assignor.)

Löfgren, Ulrika, Lowell, Mass. Doll. No. 1,255,446; Feb. 5; v. 247; p. 95.

Lohrlein, Frank A. (See Potter and Lohrlein.)

Lokometzki, Thomas J., Milwaukee, Wis. Bell-setter. No. 1,257,308; Feb. 26; v. 247; p. 770.

Long, Frederick R., Berwick, Pa., assignor to American Car and Foundry Company, St. Louis, Mo. Hydrocarbon-burner. No. 1,256,146; Feb. 12; v. 247; p. 340.

Long, Grover C., assignor of one-third to H. E. Memminger and one-third to C. W. Deen, Lakeland, Fla. Hydrocarbon-burner. No. 1,255,762; Feb. 5; v. 247; p. 188.

Long, Lee. (See Body, Johnson, Kilgore, and Blevins, assignors.)

Long, Luther M., Fyffe, Ala. Combination well-cleaner. No. 1,257,260; Feb. 19; v. 247; p. 705.

Long Manufacturing Company. (See Bligh, Charles A., assignor.)

Lonsinger, Charles L., Walhonding, Ohio. Sled. No. 1,256,707; Feb. 19; v. 247; p. 542.

Loomis Machine Co., The. (See Lott, Daniel L., assignor.)

Loose, Theron L., assignor to Hendee Manufacturing Company, Springfield, Mass. Side car for motor-cycles. No. 1,256,341; Feb. 12; v. 247; p. 400.

Lord Baltimore Press, The. (See Billstein, Aaron M., assignor.)

Lord, Myrtle A., Erie, Pa. Yarn-winder. No. 1,255,619; Feb. 5; v. 247; p. 146.

Lorenc, Jan, Philadelphia, Pa. Vehicle-fender. No. 1,255,169; Feb. 5; v. 247; p. 22.

Lorence, Frank C., Larson, N. D. Device for protecting and forcing plants. No. 1,257,898; Feb. 26; v. 247; p. 927.

Lott, Daniel L., assignor to The Loomis Machine Co., Tiffin, Ohio. Clutch. No. 1,257,718; Feb. 26; v. 247; p. 875.

Lovejoy, Fred P., Springfield, Vt. Metal-working tool. No. 1,255,620; Feb. 5; v. 247; p. 146.

Lovell, Stanley P., Brockton, Mass. Colloid-treated fabric. No. 1,256,240; Feb. 12; v. 247; p. 370.

Lovett, John M., Bainbridge, Ga. Rein-hold. No. 1,256,027; Feb. 12; v. 247; p. 305.

Low, David and A. R. Thompson, San Jose, Cal.; said Thompson assignor to said Low. Combined asparagus cutter and grader. No. 1,257,719; Feb. 26; v. 247; p. 875.

Lowe, Eugene H., Modesto, Cal. Transmitter. No. 1,256,708; Feb. 19; v. 247; p. 543.

Lower, Nathan M., Schenectady, N. Y., assignor to Locomotive Stoker Company, Pittsburgh, Pa. Locomotive-tender. No. 1,256,486; Feb. 12; v. 247; p. 442.

Lower, Nathan M., Pittsburgh, Pa., assignor to Locomotive Stoker Company. Locomotive-tender. No. 1,257,369; Feb. 26; v. 247; p. 770.

Lower, Thomas J., Strasburg, N. D. Pump-valve. No. 1,256,028; Feb. 12; v. 247; p. 305.

Lowis, James, Brooklyn, N. Y. Steam turbine-engine. No. 1,257,261; Feb. 19; v. 247; p. 705.

Ludeman, Edwin H., New York, N. Y. Method of and means for cooling internal-combustion engines. No. 1,256,709; Feb. 19; v. 247; p. 543.

Ludford, Frederick. (See Ewers and Ludford.)

Ludwig Hupfeld Aktiengesellschaft. (See Frömsdorf, Robert, assignor.)

Ludwig Hupfeld Aktiengesellschaft. (See Hennig, Gustav K., assignor.)

Luellen, Lawrence W., Boonton, N. J., assignor to Individual Drinking Cup Company, New York, N. Y. Cup-container. No. 1,256,913; Feb. 19; v. 247; p. 603.

Lum, Walter O., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Motor-control system. No. 1,255,447; Feb. 5; v. 247; p. 96.

Luminous Unit Co. (See Guth, Edwin F., assignor.)

Lundberg, Jacob O., Flateby, near Lilleströmmen, Norway. Process of producing chemical wood-pulp. No. 1,257,290; Feb. 19; v. 247; p. 715.

Lundberg, Nils G. O. (See Ohlson and Lundberg.)

Lundell, Alben E. (See Reeves and Lundell.)

Lundell, Alben E., assignor to Western Electric Company, Incorporated, New York, N. Y. Automatic telephone-exchange system. No. 1,257,720; Feb. 26; v. 247; p. 876.

Lundell, Alben E., New York, N. Y., and F. A. Stearn, Paterson, N. J., assignors to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,257,370; Feb. 26; v. 247; p. 770.

Lungstras Dyeing & Cleaning Company. (See Lungstras, Paul, assignor.)

Lungstras, Paul, assignor to Lungstras Dyeing & Cleaning Company, St. Louis, Mo. Coat stretching or tensioning device. No. 1,255,448; Feb. 5; v. 247; p. 96.

Lutz, Harvey A., Mount Joy, Pa. Train-operated crossing-gate. No. 1,255,900; Feb. 12; v. 247; p. 268.

Luxmore, William, Chicago, Ill. Tweezers. No. 1,257,262; Feb. 19; v. 247; p. 705.

Lydick, George E., Pueblo, Colo. Liquid-fuel burner. No. 1,256,914; Feb. 19; v. 247; p. 603.

Lyle, Alexander B., assignor to Stickney & Montague, Chattanooga, Tenn. Addressing-machine. No. 1,255,544; Feb. 5; v. 247; p. 125.

Lynn, Alan G. (See De Montlusin and Lynn.)

Lyons, Robert L., Waltham, Mass., assignor to The Frederick Osann Company, New York, N. Y. Fastening device. No. 1,257,263; Feb. 19; v. 247; p. 705.

M. A. Hoff Company, The. (See Hoff, Maurice A., assignor.)

M and T Button Company. (See Thayer, Granville F., assignor.)

MacDonell, Frederick C., New York, N. Y. Filter. No. 1,257,267; Feb. 19; v. 247; p. 706.

MacKay, John F., Bordentown, N. J. Hover or brooder. No. 1,256,711; Feb. 19; v. 247; p. 543.
MacKenzie, George W., Jr. (See Bain and MacKenzie.)
MacKenzie, George W., Jr., assignor to Guarantee Liquid Measure Company, Rochester, Pa. Liquid-measuring apparatus. No. 1,255,763; Feb. 5; v. 247; p. 186.
MacKenzie, George W., Beaver, assignor to Guarantee Liquid Measure Company, Rochester, Pa. Liquid-measuring apparatus. No. 1,257,722; Feb. 26; v. 247; p. 876.
MacLaurin, John, Brookfield, Mass. Sealing-machine. No. 1,257,009; Feb. 19; v. 247; p. 633.
MacLean, Irene, Van Nuys, Cal. Buttonhole-scissors. No. 1,256,916; Feb. 19; v. 247; p. 604.
MacWilliams, Charles W., Geneva, Nebr. Chimney-cowl. No. 1,256,917; Feb. 19; v. 247; p. 604.
Mace, George. (See O'Malley and Mace.)
Machine Appliance Corporation. (See Myers, Louis, assignor.)
Machoroski, Adam, Kewanee, Ill. Car-coupling. No. 1,257,904; Feb. 26; v. 247; p. 929.
Mack, Mervyn S., New York, N. Y. Cigarette-holder. No. 1,257,905; Feb. 26; v. 247; p. 929.
Macnicol, Arnold N., Melbourne, Victoria, Australia. Electrical heating unit. No. 1,255,826; Feb. 5; v. 247; p. 61.
Macon, Alexander W., assignor to V. O. Bosser, Dallas, Tex., and H. D. Martin, Shelbyville, Ky. Combined chair and table. No. 1,255,764; Feb. 5; v. 247; p. 189.
Madden, Patrick H., Sparta, and F. L. Pierce, La Crosse, Wis. Rail-layer. No. 1,255,193; Feb. 5; v. 247; p. 23.
Mader, Joseph, assignor of one-third to M. Brandon, Minneapolis, Minn. Aeroplane. No. 1,256,812; Feb. 19; v. 247; p. 573.
Maegly, George B., Kansas City, Mo. Air-cushion. No. 1,255,327; Feb. 5; v. 247; p. 61.
Magee, James, 2d. (See McCollum, Alfred F., assignor.)
Maggiora, Demetrio, Paris, France. Gas-generator. No. 1,255,765; Feb. 5; v. 247; p. 189.
Magill, Matthew E. (See Carrigan, Eastman, and Magill.)
Maher, Edward J., assignor to P. C. Murphy Trunk Co., St. Louis, Mo. Wardrobe-trunk. No. 1,256,344; Feb. 12; v. 247; p. 401.
Mahoney, Abbie, Salt Lake City, Utah. Sanitary mattress for invalids. No. 1,257,085; Feb. 19; v. 247; p. 653.
Mahoney, Orville P., *et al.* (See Goff, Jesse, assignor.)
Mahoney, Thomas. (See Brandt and Mahoney.)
Maika, Josef, Cleveland, Ohio. Pitcher. No. 1,256,152; Feb. 12; v. 247; p. 342.
Mains, David F., *et al.* (See Jackson, Clarence W., assignor.)
Maise, Herman C., assignor to Springfield Body Corporation of New York, Springfield, Mass. Automobile-body. No. 1,255,194; Feb. 5; v. 247; p. 23.
Majestic Electric Development Co. (See Brown, Edmund N., assignor.)
Majestic Electric Development Co. (See Ledig, Richard G., assignor.)
Majestic Electric Development Company. (See Shoenberg, M. H. and Talcott, assignors.)
Malagrino, Pasquale. (See Grossman and Malagrino.)
Malby, Seth G., New York, N. Y. Wheel and its manufacture. No. 1,255,195; Feb. 5; v. 247; p. 24.
Malm, John L., assignor to The Midwest Metals Company, Denver, Colo. Barrel. No. 1,255,196; Feb. 5; v. 247; p. 24.
Malm, John L., assignor to The Midwest Metals Company, Denver, Colo. Cell. No. 1,255,197; Feb. 5; v. 247; p. 24.
Maloccay, Francis X., assignor to W. Steiner Sons & Co., New York, N. Y. Automatic feeding device for band-cutting machines. No. 1,257,507; Feb. 26; v. 247; p. 811.
Malt Products Company of Canada. (See Akers and Kaufmann, assignors.)
Mancel, Joseph J., assignor to Mills Novelty Company, Chicago, Ill. Weighing-scale. No. 1,257,623; Feb. 26; v. 247; p. 846.
Mandeville, Christopher E., Rahway, N. J. Machine for measuring liquids. No. 1,255,452; Feb. 5; v. 247; p. 97.
Maness, Tola D. (See Stegall, Walter F., assignor.)
Manhattan Electrical Supply Company. (See Peterson, Johann G., assignor.)
Mann, Frederick W., Berkeley, and M. L. Chappell, El Segundo, assignors to Standard Oil Company, Richmond, Cal. Production of aromatic bodies from petroleum-oils. No. 1,257,906; Feb. 26; v. 247; p. 929.
Mann, Ira P., deceased, Pittsburgh, Pa.; Marion P. Mann, executrix. Plumbing-bowl fixture. No. 1,256,918; Feb. 19; v. 247; p. 605.
Mann, Marion P., executrix. (See Mann, Ira A.)
Mann, Miles H., assignor to International Money Machine Company, Terre Haute, Ind. Listing-machine. No. 1,255,198; Feb. 5; v. 247; p. 24.
Mantle Lamp Company of America, The. (See Davis and Johnson, assignors.)
Mantle Lamp Company of America, The. (See Smith, Charles H., assignor.)
Manzoni, George, New York, N. Y. Collapsible tube. No. 1,256,345; Feb. 12; v. 247; p. 401.
Marcellus, Hart W., Chicago, Ill. Hot-water boot. No. 1,257,086; Feb. 19; v. 247; p. 653.
Marconi Wireless Telegraph Company of America. (See Butcher, Elmer E., assignor.)
Marconi Wireless Telegraph Company of America. (See Gray, Andrew, assignor.)
Marconi Wireless Telegraph Company of America. (See Weagant, Roy A., assignor.)
Mardis, James F., Hardin, Ky. Running-gear, rough-road-buggy coupling. No. 1,257,087; Feb. 19; v. 247; p. 654.
Marion Steam Shovel Company, The. (See King, Johnson, and Jacoby, assignors.)
Marke, Aage, Charlottenburg, Germany. Low-pressure gas lighting and extinguishing apparatus. No. 1,256,712; Feb. 19; v. 247; p. 544.
Markham, James W., Armstrong, Ind. Steering-wheel. No. 1,255,199; Feb. 5; v. 247; p. 25.
Marks, Paul J., assignor to Eastman Kodak Company, Rochester, N. Y. Shutter-actuating device. No. 1,255,901; Feb. 12; v. 247; p. 268.
Marks, Paul J., assignor to Eastman Kodak Company, Rochester, N. Y. Photographic shutter. No. 1,257,624; Feb. 26; v. 247; p. 847.
Marlin, Isaac U., assignor, by mesne assignments to G. T. and L. T. Cunningham, Shreveport, La. Acetylene-generator. No. 1,257,088; Feb. 19; v. 247; p. 654.
Marmon, Howard, Indianapolis, Ind. Oiling system for engines. No. 1,256,242; Feb. 12; v. 247; p. 371.
Marois, Henri, Lewiston, Me. Instrument for applying liquid finish to shoes. No. 1,256,581; Feb. 19; v. 247; p. 505.
Marr, Alexander W., Canton, Ohio. Quick-action jack. No. 1,257,508; Feb. 26; v. 247; p. 812.
Marr, Alexander W., Canton, Ohio. Tire-saving jack. No. 1,257,509; Feb. 26; v. 247; p. 812.
Marriott, Charles J., Comfort township, Kanabec county, Minn. Sanitary floor-cleaning device. No. 1,255,902; Feb. 12; v. 247; p. 269.
Marseilles Company, The. (See Brown, Theophilus, assignor.)
Marsh, Ira E., Newark, assignor to The Dwyer Bros. & Co., Columbus, Ohio. Combination musical instrument. 1,256,487; Feb. 12; v. 247; p. 442.
Marshall Field & Company. (See Stone, Vincent, assignor.)
Marten, Thomas H., Toronto, Ontario, Canada. Governor for lowering devices. No. 1,255,453; Feb. 5; v. 247; p. 97.
Martens, George, New York, N. Y. Trombone-support. No. 1,255,766; Feb. 5; v. 247; p. 189.
Martens, John, Chicago, Ill. Hot-water heater. No. 1,255,454; Feb. 5; v. 247; p. 98.
Martin, Charles W., Brooklyn, N. Y. Fishing-tackle. No. 1,257,907; Feb. 26; v. 247; p. 929.
Martin, Harry D., *et al.* (See Macon, Alexander W., assignor.)
Martin, Harry T., Milwaukee, Wis. Connecting member for electrical conductors. No. 1,256,813; Feb. 19; v. 247; p. 573.
Martin, Philip J., Detroit, Mich. Internal-combustion engine. No. 1,257,268; Feb. 19; v. 247; p. 706.
Martin, William D., San Francisco, Cal. Repair-tool for pneumatic tires. No. 1,257,908; Feb. 26; v. 247; p. 929.
Martineau, Clarence R. (See Martineau, William C. and C. R.)
Martineau, William C. and C. R., Albany, N. Y. Tire. No. 1,255,903; Feb. 12; v. 247; p. 269.
Martini & Hüneke Maschinenbau-Aktien-Gesellschaft. (See Hurlbrink, Ernst, assignor.)
Marts, David D., Perkins, Okla. Gate-latch. No. 1,255,545; Feb. 5; v. 247; p. 125.
Marvin, Zebina E., *et al.* (See Jones, Levander D., assignor.)
Maschek, Louis, Kansas City, Mo. Cotton tag and recorder. No. 1,255,904; Feb. 12; v. 247; p. 269.
Mason, Daniel S., Stickley, Mont. Antislipping steel tire. No. 1,255,767; Feb. 5; v. 247; p. 189.
Mason, Henry A., Lawndale, Ill. Feeding device for hay-baling presses. No. 1,257,510; Feb. 26; v. 247; p. 813.
Mason, John H., Heavener, Okla. Fuel-vaporizing device for internal-combustion engines. No. 1,257,089; Feb. 19; v. 247; p. 654.
Master Roll Music Duplicating Co. (See Myers, Edgar W., assignor.)
Masuda, Taichiro, Marysville, Cal. Bean-harvester. No. 1,257,269; Feb. 19; v. 247; p. 707.
Matheson, Robert, assignor of one-fourth to L. F. Allen and one-fourth to W. Allen, Los Angeles, Cal. Vegetable-harvester. No. 1,256,713; Feb. 19; v. 247; p. 544.
Matthews, James F., Fall River, assignor to American Warp Drawing Machine Company, Boston, Mass. Loom-harness. No. 1,255,200; Feb. 5; v. 247; p. 25.
Mattison, Sigurd O., Eau Claire, Wis. Permutation electric switch. No. 1,256,814; Feb. 19; v. 247; p. 573.
Mattoon, Elbert G., Independence, Colo. Gradometer. No. 1,257,090; Feb. 19; v. 247; p. 654.
Mattos, John V., Taunton, Mass. Shoe. No. 1,257,091; Feb. 19; v. 247; p. 655.
Mattson, Erik, Brooklyn, N. Y. Torpedo-guard for ships. No. 1,256,346; Feb. 12; v. 247; p. 401.
Mauer, George, *et al.* (See Hironimus, Fred W., assignor.)

Maul, Henry C., assignor to The Michigan Stove Company, Detroit, Mich. Burner. No. 1,256,243; Feb. 12; v. 247; p. 371.
Maxim, Albert. (See Ward and Maxim.)
Maxson, John C., and W. O. Walker, Corning, Kans. Tool. No. 1,255,546; Feb. 5; v. 247; p. 126.
Maxwell, Harry B., Omaha, Nebr. Envelop. No. 1,256,682; Feb. 19; v. 247; p. 506.
May, Henry W., Henry, Ill. End-gate fastener. No. 1,257,625; Feb. 26; v. 247; p. 847.
May, Joseph P., assignor to The Briskin Manufacturing Company, Indianapolis, Ind. Radiator. No. 1,256,919; Feb. 19; v. 247; p. 605.
May, Joseph P., assignor to The Briskin Manufacturing Company, Indianapolis, Ind. Radiator. No. 1,256,920; Feb. 19; v. 247; p. 605.
Mayer, Matthew. (See Frey and Mayer.)
Mayland, Richard C. (See Morgan and Mayland.)
Maynard, Arthur H., Warwick, R. I., assignor to Boston Wire Stitcher Company, Augusta, Me. Differential motion for wire-stitchers or like machines. No. 1,255,201; Feb. 5; v. 247; p. 26.
Maynard, Arthur H., Warwick, R. I., assignor to Boston Wire Stitcher Company, Portland, Me. Friction-clutch. No. 1,255,547; Feb. 5; v. 247; p. 126.
Maser, Joseph, McAlester, Okla. Winding-indicator. No. 1,256,714; Feb. 19; v. 247; p. 544.
Maser, Joseph, McAlester, Okla. Winding-indicator. No. 1,256,715; Feb. 19; v. 247; p. 544.
McAchran, Flora J., Bloomfield, Iowa. Hatchway-guard. No. 1,255,621; Feb. 5; v. 247; p. 146.
McAdam, Samuel G., Aledo, Ill. Composition for preventing concrete from adhering to molds. No. 1,256,710; Feb. 19; v. 247; p. 543.
McBride, Wylie, Spokane, Wash. Frieze-board marker. No. 1,255,190; Feb. 5; v. 247; p. 22.
McCaig, Duncan C., Vancouver, British Columbia, Canada. Crude-oil atomiser and air-mixer. No. 1,255,449; Feb. 5; v. 247; p. 96.
McCain, George L., assignor to Packard Motor Car Company, Detroit, Mich. Hydrocarbon-motor. No. 1,257,871. Feb. 26; v. 247; p. 771.
McCaleb, Walter F., Dallas, Tex. Combined adding and listing machine. No. 1,257,620; Feb. 26; v. 247; p. 846.
McCall, Hugh W., Scotia, Nebr. Horse-twitch. No. 1,257,899; Feb. 26; v. 247; p. 927.
McCarthy, Call J., Chicago, Ill. Fishing-lure. No. 1,257,008; Feb. 19; v. 247; p. 632.
McCarty, Franklin P., St. Louis, Mo. Gas-range. No. 1,257,372; Feb. 26; v. 247; p. 771.
McCarty, Franklin P., St. Louis, Mo. Gas-range. No. 1,257,373; Feb. 26; v. 247; p. 771.
McCaskey Register Company, The. (See Dunning, William E., assignor.)
McClaughry, Arthur C., Chicago, Ill. Corset-pattern system. No. 1,256,029; Feb. 12; v. 247; p. 305.
McClay, Charles E., Los Angeles, Cal. Demountable-rim-securing device. No. 1,257,264; Feb. 19; v. 247; p. 706.
McCloud, Edward H., Columbus, Ohio. Fire-resisting shutter. No. 1,257,273; Feb. 19; v. 247; p. 708.
McCloud, Edward H., assignor to The Kinnear Manufacturing Company, Columbus, Ohio. Fire door or shutter. No. 1,256,915; Feb. 19; v. 247; p. 604.
McCollum, Alfred F., assignor of three-fifths to J. Magee, 2d, Bloomsburg, Pa. Feeding mechanism. No. 1,257,900; Feb. 26; v. 247; p. 927.
McComb, Henry G., New York, N. Y. Headlight. No. 1,255,825; Feb. 5; v. 247; p. 61.
McConnell, George W., assignor of one-half to W. B. McIlwain, Oklahoma, Okla. Device for balancing pump-rods. No. 1,257,901; Feb. 26; v. 247; p. 928.
McCormick Laboratories Company, The. (See Kopf, Melrose G., assignor.)
McCormick, Langdon, New York, N. Y. Moving-picture apparatus. No. 1,256,147; Feb. 12; v. 247; p. 341.
McCoy, Thomas J., Kane, Pa. Glass manufacture. No. 1,255,450; Feb. 5; v. 247; p. 96.
McCulloch, Eldrige V., Kansas City, Mo. Magnetic sanding device for motor-vehicles. No. 1,257,265; Feb. 19; v. 247; p. 706.
McCullough, Morgan, Los Angeles, Cal. Device for washing glasses and cups. No. 1,257,902; Feb. 26; v. 247; p. 928.
McDonald, George H., Milwaukee, Wis. Spring-support for vehicles. No. 1,257,505; Feb. 26; v. 247; p. 811.
McDonald, Samuel, Alhambra, Cal. Producing iron and steel. No. 1,255,191; Feb. 5; v. 247; p. 22.
McDoncall, Alexander, Duluth, Minn. Ship construction. No. 1,257,621; Feb. 26; v. 247; p. 846.
McDowell, John L., Berwick, Pa., assignor to American Car and Foundry Company, New York, N. Y. Mine-car running-gear. No. 1,256,148; Feb. 12; v. 247; p. 341.
McDowell, John L., Berwick, Pa., assignor to American Car and Foundry Company, New York, N. Y. Roller-bearing mine-car wheel. No. 1,256,149; Feb. 12; v. 247; p. 341.
McDowell, John L., Berwick, Pa., assignor to American Car and Foundry Company, New York, N. Y. Car-wheel with permanently-retained roller-bearing. No. 1,256,150; Feb. 12; v. 247; p. 342.
McDowell, John L., Berwick, Pa., assignor to American Car and Foundry Company, New York, N. Y. Lubricated mine-car wheel. No. 1,256,151; Feb. 12; v. 247; p. 342.
McErlane, Daniel, Mankato, Minn. Ventilating boots and shoes. No. 1,255,451; Feb. 5; v. 247; p. 97.
McEwen Bros. (See Bjornsson, Carl A., assignor.)
McFarland, Edward H., Boston, Mass., assignor to General Electric Company. Nozzle-plug. No. 1,255,623; Feb. 5; v. 247; p. 147.
McFarland, James W., Brownwood, Tex. Gas-generating apparatus. No. 1,257,374; Feb. 26; v. 247; p. 772.
McFarland, Owen D. (See Cumfer and McFarland.)
McGlehan, Isaac S., New York, N. Y. Machine for impregnating fabrics with rubber. No. 1,255,192; Feb. 5; v. 247; p. 23.
McGill, Charles E., Colorado Springs, Colo. Confidential sheet-blind. No. 1,257,506; Feb. 26; v. 247; p. 811.
McGinnis, Francis A., Detroit, Mich. Coin-carrier. No. 1,256,241; Feb. 12; v. 247; p. 370.
McGrath, Thomas, Providence, R. I. Marking device. No. 1,256,342; Feb. 12; v. 247; p. 400.
McGregor, Allan L., Chicago, Ill. Automobile-bumper. No. 1,257,266; Feb. 19; v. 247; p. 706.
McGuirl, John J., Midland, Pa., assignor of one-half to O. P. Vigle, Youngstown, Ohio. Self-lubricating device. No. 1,257,721; Feb. 26; v. 247; p. 876.
McHattan, Thaddeus G. (See Terwilliger, Frank L., assignor.)
McIlwain, W. B. (See McConnell, George W., assignor.)
McKean, John O., assignor to Foster Machine Company, Westfield, Mass. Tension device for winding-machines. No. 1,256,080; Feb. 12; v. 247; p. 305.
McKenna, Lawrence, assignor to Carlton Mills Co., Philadelphia, Pa. Mold for shaping leggings. No. 1,257,903; Feb. 26; v. 247; p. 928.
McKiernan-Terry Drill Company. (See Sturtevant, Thomas E., assignor.)
McNabb, Alvin C., Dallas, assignor of one-half to C. L. Wakefield, Dallas county, Tex. Elevator signal system. No. 1,256,343; Feb. 12; v. 247; p. 400.
McNamara, Edward M., Chicago, Ill. School desk and seat. No. 1,256,811; Feb. 19; v. 247; p. 572.
McNeir, Carlos A., Minneapolis, Minn. Water-heating device. No. 1,257,622; Feb. 26; v. 247; p. 846.
Meacham, Aldah R., Oklahoma, Okla. Housing for electric apparatus. No. 1,257,875; Feb. 26; v. 247; p. 772.
Meade, George, Alliance, Nebr. Rail-brace. No. 1,257,511; Feb. 26; v. 247; p. 813.
Meagher, Marion T., New York, N. Y. Foldable washboard. No. 1,257,626; Feb. 26; v. 247; p. 847.
Meatyard, Richard E., North Battleford, Saskatchewan, Canada. Iceless milk-cooler. No. 1,256,583; Feb. 19; v. 247; p. 506.
Mechanical Efficiency Company, The. (See Bigelow, Cadden, and Rehak, assignors.)
Meharry, Robert E., Colfax, Ill. Corn-harvester. No. 1,256,847; Feb. 12; v. 247; p. 402.
Meill, Otto, and P. Blumberg, New Holstein, Wis. Feed-cutter. No. 1,255,622; Feb. 5; v. 247; p. 147.
Mein, Harry P., Flushing, N. Y. Brassière. No. 1,255,768; Feb. 5; v. 247; p. 190.
Meinzolt, Carl C., Paddington, New South Wales, Australia. Tuning device for pianos. No. 1,257,512; Feb. 26; v. 247; p. 813.
Mellin, Gustaf A. E., Los Angeles, Cal. Gear-shifting lever. No. 1,256,244; Feb. 12; v. 247; p. 371.
Melville, Thomas A., Fargo, N. D. Safety-latch for elevator-doors. No. 1,256,348; Feb. 12; v. 247; p. 402.
Melvin, Henry C., Coarsegold, Cal. Internal-combustion engine. No. 1,257,958; Feb. 26; v. 247; p. 948.
Memminger, H. E., *et al.* (See Long, Grover C., assignor.)
Menard, Telesphore, Bozeman, Mont. Automobile-pedal lock. No. 1,257,723; Feb. 26; v. 247; p. 877.
Menkin, Max, New York, N. Y. Button-making die. No. 1,256,584; Feb. 19; v. 247; p. 506.
Mentink, Henry J., Gresham, Nebr. Attachment for harvesters. No. 1,257,092; Feb. 19; v. 247; p. 655.
Mergenthaler Linotype Company. (See Kingsbury, George F., assignor.)
Mergenthaler Linotype Company. (See Smith, Samuel, assignor.)
Merrick, Herbert L., Passaic, N. J. Weighing-machine. No. 1,257,376; Feb. 26; v. 247; p. 772.
Merriman, Merton, Lincoln, Wis. Bean-separator. No. 1,256,585; Feb. 19; v. 247; p. 507.
Merryman, William E. (See Whalen, James W., assignor.)
Mershon, Arthur U., assignor of one-fifth to O. Holmes, one-fifth to A. M. Howard, one-fifth to A. G. Arnold, one-fifth to A. D. Bloch, and one-fifth to O. L. Mershon, Excelsior Springs, Mo. Vending-machine. No. 1,257,909; Feb. 26; v. 247; p. 930.
Mershon, O. L., *et al.* (See Mershon, Arthur U., assignor.)
Mertz, Boyd F., Northumberland, Pa. Traction gang-plow. No. 1,256,349; Feb. 12; v. 247; p. 402.
Messiter, Edwin H., Brooklyn, N. Y. Electric clock. No. 1,255,905; Feb. 12; v. 247; p. 269.
Messiter, Edwin H., Brooklyn, assignor to Electric Weighing Company, New York, N. Y. Recording instrument. No. 1,255,202; Feb. 5; v. 247; p. 26.
Messler, Matie C. (See Stanton, Warren F., assignor.)

Messmer, Albert. (See Sonderegger, Messmer, and Erdrich.)

Messmer, Andrew, Cincinnati, Ohio. Altar-bread baker. No. 1,257,513; Feb. 26; v. 247; p. 813.

Meston, Thomas M. (See Finch and Meston.)

Metallic Shaft Company, The. (See Lord, Allan E., assignor.)

Metals Plating Company, The. (See Watkins, William E., assignor.)

Metcalf, Walter N. (See Moore and Metcalf.)

Metzger, Adam. (See Lange and Metzger.)

Meves, Hugo, Chicago, Ill. Dispensing device. No. 1,257,910; Feb. 26; v. 247; p. 930.

Meyer, William, Chicago, Ill. Electrical measuring instrument. No. 1,257,514; Feb. 26; v. 247; p. 814.

Michael, Gilbert C., Davenport, Wash. Straw-distributing attachment for harvesters. No. 1,255,769; Feb. 5; v. 247; p. 190.

Michigan Stove Company, The. (See Maul, Henry C., assignor.)

Michigan Wire Goods Co. (See Smith, Benjamin H., assignor.)

Michon, Joseph H. M., Washington, D. C. Device for applying rivet-fasteners. No. 1,257,724; Feb. 26; v. 247; p. 877.

Middlekoch, Lyman, New York, N. Y. Sheet-feeding machine. No. 1,255,208; Feb. 5; v. 247; p. 26.

Midgley, Thomas, Worthington, Ohio, assignor to Morgan & Wright, Detroit, Mich. Tire-tread-building machine. No. 1,256,716; Feb. 19; v. 247; p. 545.

Midwest Metals Company, The. (See Maim, John L., assignor.)

Mielcarek, Wladyslaw S., St. Louis, Mo. Adjustable crutch. No. 1,256,350; Feb. 12; v. 247; p. 402.

Milbrandt, Charles G., Duluth, Minn. Device for opening and closing doors of buildings. No. 1,255,770; Feb. 5; v. 247; p. 190.

Miller, Bernard J., Milwaukee, Wis. Leather-stamping machine. No. 1,256,351; Feb. 12; v. 247; p. 403.

Miller, Calvin C., Summithill, Pa. Figure toy. No. 1,257,093; Feb. 19; v. 247; p. 655.

Miller, Frank P., Jr., Hoboken, N. J. Ice-cream-serving device. No. 1,255,966; Feb. 12; v. 247; p. 270.

Miller, Harry L., and E. B. Fisher, assignors to The Buda Company, Chicago, Ill. Railway-switch structure. No. 1,255,455; Feb. 5; v. 247; p. 98.

Miller, Harvey R., Steubenville, Ohio. Car-axle and car-wheel. No. 1,257,911; Feb. 26; v. 247; p. 930.

Miller, Henry C., Waterford, N. Y. Buttonhole-machine. No. 1,257,012; Feb. 26; v. 247; p. 931.

Miller, John L., Fort Collins, Colo. Automobile attachment. No. 1,257,094; Feb. 19; v. 247; p. 655.

Miller, Joseva, Pasadena, Cal. Electric waffle-stove. No. 1,255,771; Feb. 5; v. 247; p. 190.

Miller, Lewis A., Live Oak, Fla. Combination evaporator and canning-machine. No. 1,257,725; Feb. 26; v. 247; p. 877.

Miller, Max B., Long Island City, N. Y., assignor to Sharples Specialty Company, West Chester, Pa. Centrifugal separator. No. 1,257,516; Feb. 26; v. 247; p. 814.

Miller, Reuben, Pittsburgh, Pa. Packing or shipping case. No. 1,256,031; Feb. 12; v. 247; p. 306.

Miller, Richard, Appleton, Wis. Bowling-pin. No. 1,257,377; Feb. 26; v. 247; p. 773.

Miller, Roy C., Philadelphia, Pa. Combination cleaning outfit. No. 1,255,772; Feb. 5; v. 247; p. 191.

Miller Vehicle Heater Company. (See Miller, William H., assignor.)

Miller, William H., assignor to Miller Vehicle Heater Company, Crawfordsville, Ind. Butcher's vat. No. 1,257,726; Feb. 26; v. 247; p. 877.

Milliken, William L., El Paso, Tex. Lifter and turner. No. 1,256,246; Feb. 12; v. 247; p. 371.

Mills Novelty Company. (See Mancel, Joseph J., assignor.)

Miner, William H. (See Campbell, Argyle, assignor.)

Miner, William H. (See Geiger, William A., assignor.)

Miner, William H. (See Johnson, George A., assignor.)

Miner, William H. (See Lewis, Goodrich Q., assignor.)

Miner, William H. (See Mitchell, John R., assignor.)

Miner, William H. (See O'Connor, John F., assignor.)

Miner, William H. (See Patch, Calvin B., assignor.)

Miner, William H., Chazy, N. Y. Draft-rigging for railway-cars. No. 1,255,907; Feb. 12; v. 247; p. 270.

Mineral Products Corporation. (See Hornsey, John W., assignor.)

Minacky, Barney J., Little Ferry, N. J., assignor to National Biscuit Company, New York, N. Y. Cake-coating machine. No. 1,255,624; Feb. 5; v. 247; p. 147.

Mitchell, Charles. (See Armstrong, Louis E., assignor.)

Mitchell, Charles W., Philadelphia, Pa. Clutch-brake. No. 1,255,264; Feb. 5; v. 247; p. 27.

Mitchell, Frederic P., Burlington, Vt. Sewing-cabinet. No. 1,255,328; Feb. 5; v. 247; p. 61.

Mitchell, Harrison J., assignor to P. B. Yates Machine Company, Beloit, Wis. Feed-roll adjustment. No. 1,255,625; Feb. 5; v. 247; p. 148.

Mitchell, J. H. (See Dudley, Andrew T., assignor.)

Mitchell, John R., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Yoke for draft-riggings. No. 1,255,906; Feb. 12; v. 247; p. 270.

Mitchell, Clyde B., Akron, assignor to W. F. Warden, Cuyahoga Falls, Ohio. Clutch. No. 1,257,627; Feb. 26; v. 247; p. 848.

Mittasch, Alwin, C. Schneider, and H. Morawitz, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Catalytic agent. No. 1,256,032; Feb. 12; v. 247; p. 306.

Modern Broom Machinery Company. (See Smith and Duvall, assignors.)

Moffat, William L., Brooklyn, N. Y., assignor to Joseph Ross & Co., Irvington, N. J. File. No. 1,255,819; Feb. 5; v. 247; p. 204.

Mogan, Christopher J., Charleroi, assignor to Pittsburgh Steel Company, Pittsburgh, Pa. Apparatus for painting or coating wire. No. 1,256,816; Feb. 19; v. 247; p. 574.

Mojonnier Bros. Co. (See Dickerson, Fred G., assignor.)

Mojonnier Bros. Co. (See Mojonnier, Julius J., assignor.)

Mojonnier, Julius J., Chicago, Ill., assignor to Mojonnier Bros. Co., Portland, Me. Apparatus for testing milk and milk products. No. 1,255,329; Feb. 5; v. 247; p. 62.

Moline Plow Company. (See Dickinson, Harry S., assignor.)

Moll, Oskar, and P. Kuschewitz, Blackheath, England. Electric telegraphy. No. 1,257,913; Feb. 26; v. 247; p. 931.

Monasch, David, San Francisco, Cal. Indicator. No. 1,255,909; Feb. 12; v. 247; p. 270.

Mong, Charles L. (See Hemmen, Donley C., assignor.)

Mongel, Leon J., Johnstown, Pa. Railway-switch. No. 1,256,717; Feb. 19; v. 247; p. 545.

Monson, Charles V., Duluth, Minn. Window-sash fastener. No. 1,255,548; Feb. 5; v. 247; p. 126.

Monson, Charles V., Duluth, Minn. Horse-hitching device. No. 1,257,727; Feb. 26; v. 247; p. 878.

Montague Mailing Machinery Company. (See Griswold, Robert G., assignor.)

Montgomery, Alpheus W., deceased, Flushing, N. Y.; G. G. Montgomery, executrix. Deliberating machine. No. 1,257,914; Feb. 26; v. 247; p. 931.

Montgomery, Grace G., executrix. (See Montgomery, Alpheus W.)

Montgomery, James A. (See Hansen and Montgomery.)

Monto, Charles P., Cleveland, Ohio, assignor, by mesne assignments, to National Carbon Company. Brush-connection for dynamo-electric machines. No. 1,255,265; Feb. 5; v. 247; p. 27.

Moomy, Joseph G., Erie, Pa. Rubber-working apparatus. No. 1,255,456; Feb. 5; v. 247; p. 98.

Moon-Hopkins Billing Machine Company. (See Thieme, Otto, assignor.)

Moore, Andrew J., Tuscaloosa, Ala. Wrench. No. 1,255,206; Feb. 5; v. 247; p. 27.

Moore, Carl B., Glenns Ferry, Idaho. Soap-receptacle. No. 1,257,095; Feb. 19; v. 247; p. 656.

Moore, Charles C., assignor to Valron Manufacturing Company, Middle River, Cal. Stirring device for starch-washing vats. No. 1,255,626; Feb. 5; v. 247; p. 148.

Moore, Daniel M., East Orange, N. J., assignor to General Electric Company. Vapor electric device. No. 1,255,549; Feb. 5; v. 247; p. 127.

Moore, Oliver S., and W. N. Metcalf, Evening Shade, Ark. Mowing-machine. No. 1,256,153; Feb. 12; v. 247; p. 343.

Moore, Rinaldo N., Mitchell, Iowa. Hoe. No. 1,256,852; Feb. 12; v. 247; p. 403.

Moore, Rufus N., Thorp Spring, Tex. Tanning hides. No. 1,256,718; Feb. 19; v. 247; p. 545.

Morawitz, Hugo. (See Mittasch, Schneider, and Morawitz.)

Morden, Millicent. (See Hess, Willis C., assignor.)

Moreton Carbureter Corporation. (See Moreton, Henry H., assignor.)

Moreton, Henry H., Stony Point, assignor, by mesne assignments, to Moreton Carbureter Corporation, New York, N. Y. Sparking device. No. 1,257,251; Feb. 19; v. 247; p. 715.

Morey, Harry J., Syracuse, N. Y. Electric fixture. No. 1,255,910; Feb. 12; v. 247; p. 270.

Morgan, David, and E. C. Mayland, Bloomington, Ill. Machine for making reinforced-concrete blocks. No. 1,255,330; Feb. 5; v. 247; p. 62.

Morgan, Henry. (See Baker, Robert L., assignor.)

Morgan, John, New York, N. Y. Shipping-tag. No. 1,257,378; Feb. 26; v. 247; p. 778.

Morgan, John W. (See Davis and Morgan.)

Morgan, John W., Milwaukee, Wis. Means for forming circular tunneling. No. 1,255,207; Feb. 5; v. 247; p. 27.

Morgan & Wright. (See Hoyt, Homer J., assignor.)

Morgan & Wright. (See Midgley, Thomas, assignor.)

Morissette, Joseph P., Holyoke, Mass. Thread-cutting device for shuttles. No. 1,257,096; Feb. 19; v. 247; p. 656.

Morley, James P., and G. Kite, Jr., assignors to Bastian-Morley Co., Chicago, Ill. Gas-burner. No. 1,257,010; Feb. 19; v. 247; p. 633.

Morral, Samuel E. (See Morral, William W., assignor.)

Morral, William W., assignor of one-half to S. E. Morral, Morral, Ohio. Husking-rolls. No. 1,256,221; Feb. 19; v. 247; p. 600.

Morris, Charles E., assignor of one-half to C. Bagley, Metaline, Wash. Plate for boots and shoes. No. 1,255,911; Feb. 12; v. 247; p. 271.

Morris, Edmund, assignor to Wilmarth Show Case Company, Grand Rapids, Mich. Connecting means for furniture-sections. No. 1,257,007; Feb. 19; v. 247; p. 656.

Morris, John O., Washington, D. C., assignor to Planters Stemming Company, Wilmington, Del. Tobacco-stripping machine. No. 1,257,728; Feb. 26; v. 247; p. 878.

Morris, John T., Wynne, assignor to L. A. Morris, St. Inigoes, Md. Valve. No. 1,257,011; Feb. 19; v. 247; p. 638.

Morrison, David. (See Catlin and Morrison.)

Morrow, Albert D., Cordova, Ala. Wire-stretcher. No. 1,256,353; Feb. 12; v. 247; p. 403.

Morrow, John B., and C. P. Geritz, Brooklyn, N. Y. Umbrella. No. 1,255,627; Feb. 5; v. 247; p. 148.

Morse Chain Company. (See Morse, Frank L., assignor.)

Morse, Earle M., East Foxboro, Mass. Portable pivoted-lever clamp. No. 1,255,773; Feb. 5; v. 247; p. 191.

Morse, Frank L., assignor to Morse Chain Company, Ithaca, N. Y. Machine for wearing in drive-chains. No. 1,255,912; Feb. 12; v. 247; p. 271.

Morse, Frank L., Ithaca, N. Y. Hardness-testing machine. No. 1,255,913; Feb. 12; v. 247; p. 271.

Morse, Sylvenus B., *et al.* (See Seeger, August C., assignor.)

Mort, George F., Ealing Common, England. Piston for engines and like cylinders. No. 1,257,098; Feb. 19; v. 247; p. 657.

Mosler, Arthur R., New York, N. Y. Spark-plug. No. 1,256,719; Feb. 19; v. 247; p. 545.

Mosler, Arthur R., New York, assignor to A. R. Mosler & Co., Yonkers, N. Y. Spark-plug. No. 1,257,720; Feb. 26; v. 247; p. 878.

Moss, Francis E., Worthington, near Wigan, England. Chimney, cowl, or ventilating appliance. No. 1,257,910; Feb. 26; v. 247; p. 982.

Motor Specialties Company. (See Hoyt, Howard S., assignor.)

Motorcycle Sweeper Company. (See Hofer and Smedley, assignors.)

Mott, William D., and L. Van Brown, Asheville, N. C. Burglar-alarm. No. 1,256,504; Feb. 12; v. 247; p. 448.

Motts, Charles W., Atchison, Kans., assignor to Henry Weis Manufacturing Company, Kansas City, Mo. Toilet-partition. No. 1,256,354; Feb. 12; v. 247; p. 404.

Mouchet, Theodore S., Bowersville, Ga. Pea-picker. No. 1,256,014; Feb. 12; v. 247; p. 272.

Moulthrop, Lembert H., assignor to H. T. Paiste Company, Philadelphia, Pa. Swivel connection. No. 1,255,774; Feb. 5; v. 247; p. 191.

Moulthrop, Lembert H., assignor to H. T. Paiste Company, Philadelphia, Pa. Attachment-plug cap. No. 1,257,730; Feb. 26; v. 247; p. 878.

Moulton, Harley C., Dorchester, assignor to Arbetter Pulling Machine Company, Boston, Mass. Blindstitch sewing-machine. No. 1,255,628; Feb. 5; v. 247; p. 148.

Muckey, Earle A., assignor of one-half to E. W. Beardsley, San Francisco, Cal. Insulator assemblage for electric construction. No. 1,257,516; Feb. 26; v. 247; p. 814.

Mueller, August E., assignor of one-third to T. J. Hruby and one-third to J. O. Hruby, Jr., Chicago, Ill. Steering-gear for motor-vehicles. No. 1,255,775; Feb. 5; v. 247; p. 191.

Mueller, Edwin, Athens, Wis. Tread-shoe for vehicle-wheels. No. 1,257,379; Feb. 26; v. 247; p. 773.

Mueller, Paul, Berlin, Germany. Drying apparatus. No. 1,255,915; Feb. 12; v. 247; p. 272.

Mueller, Rudolph J. J., assignor to Universal Oxygen Company, Sheboygan, Wis. Cheese-hoop. No. 1,255,639; Feb. 5; v. 247; p. 149.

Muhleisen, Henry W., assignor to A. P. Worthington, Los Angeles, Cal. Oil-can. No. 1,255,833; Feb. 5; v. 247; p. 208.

Muldner, Carl C., Jr., Maplewood, Mo. Turbine toy. No. 1,256,816; Feb. 19; v. 247; p. 574.

Müller, Heinrich J., Schaffhausen, Switzerland. Couch having a divided resting-surface. No. 1,255,208; Feb. 5; v. 247; p. 27.

Mundt, Charles, Square Butte, Mont. Wire-fence-stretcher support. No. 1,256,355; Feb. 12; v. 247; p. 404.

Munn, William, Alameda, Cal. Filling-machine. No. 1,257,012; Feb. 19; v. 247; p. 634.

Murchey Machine and Tool Company. (See Prance, Albert J., assignor.)

Murdock, Harold R., Naugatuck, Conn., assignor to Rubber Regenerating Company, Reclaiming rubber. No. 1,257,292; Feb. 19; v. 247; p. 715.

Murphy, Franklin. (See Wilson, John M., assignor.)

Murphy, James L., Detroit, Mich. Paper bottle. No. 1,257,028; Feb. 26; v. 247; p. 848.

Murphy, Ollie W., Phillipsburg, Ky. Cheese-cutter cabinet. No. 1,255,550; Feb. 5; v. 247; p. 127.

Murphy, Walter P. (See Sisson, Vinton E., assignor.) (Reissue.)

Murray, Frank M., Cadyville, N. Y. Internal-combustion engine. No. 1,256,720; Feb. 19; v. 247; p. 546.

Murray, George H., Jr., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Dynamo-electric machine. No. 1,255,467; Feb. 5; v. 247; p. 99.

Murray, Henry H., Riverton, and W. D. La Rue, Camden, N. J., assignors to Victor Talking Machine Company. Combined driving, governor, speed-regulating, and speed-indicating mechanism for talking-machines. No. 1,256,154; Feb. 12; v. 247; p. 348.

Murray, William, and H. C. Banta, Jr., Brooklyn, N. Y. Time-recorder for trucks. No. 1,256,586; Feb. 19; v. 247; p. 507.

Murray, William A., Baltimore, Md. Lock. No. 1,256,721; Feb. 19; v. 247; p. 546.

Muther, Lorenz. (See Lautenschlager, William F., assignor.)

Myers, Edgar W., assignor to Master Roll Music Duplicating Co., San Jose, Cal. Music-roll-perforating machine. No. 1,256,722; Feb. 19; v. 247; p. 546.

Myers, Louis, Detroit, Mich., assignor to Machine Appliance Corporation, Brooklyn, N. Y. Fastener-feeding mechanism. No. 1,255,551; Feb. 5; v. 247; p. 127.

Naamlooze, Vennootschap Philips Metaal-Gloei-Lampenfabriek. (See Filippo and Schoonenberg, assignors.)

Nace, Levi W., and E. J. Fink, Hanover, Pa. Miter-box. No. 1,257,099; Feb. 19; v. 247; p. 657.

Nachod, Carl P., Louisville, Ky., assignor to Nachod Signal Company, Inc. Switching mechanism. No. 1,255,552; Feb. 5; v. 247; p. 128.

Nachod Signal Company. (See Nachod, Carl P., assignor.)

Naegeli, Fred E., Burton, Tex. Cellar. No. 1,256,922; Feb. 19; v. 247; p. 606.

Nagel, George W., assignor of one-third to W. L. Newman, Jr., and one-third to C. F. Bliss, Chicago, Ill. Removing oils, fats, and grease from cloths, and apparatus. No. 1,256,356; Feb. 12; v. 247; p. 404.

Nagel, Herman J., Alliance, Ohio. Boat. No. 1,256,248; Feb. 12; v. 247; p. 371.

Nanfeldt, Fred W. (See Bailey and Nanfeldt.)

Nasser, Albert A., Boyden, Iowa. Hog-oiler. No. 1,256,257; Feb. 12; v. 247; p. 404.

Nathan, Max, Ridgefield Park, N. J. Display device. No. 1,255,553; Feb. 5; v. 247; p. 128.

National-Acme Company, The. (See Smith, Oscar A., assignor.)

National Biscuit Company. (See Hungerford, Henry H., assignor.)

National Biscuit Company. (See Minacky, Barney J., assignor.)

National Brake & Electric Company. (See Aikman, Burton R., assignor.)

National Carbon Company. (See Bell, Arthur M., assignor.)

National Carbon Company. (See Benner and French, assignors.)

National Carbon Company. (See Monto, Charles P., assignor.)

National Lead Company. (See Tolman, Charles P., assignor.)

National Stamping & Electric Works. (See Bandlow, Henry E., assignor.)

Natural Color Pictures Company. (See Fox, William F., assignor.)

Naylor, John H., Everett, Mass. Electrical fuse. No. 1,257,100; Feb. 19; v. 247; p. 657.

Nazer, Leroy H., and J. L. Jensen, Cowley, Wyo. Endless sickle. No. 1,257,101; Feb. 19; v. 247; p. 657.

Neary, John H. (See Carrico, Frank D., assignor.)

Negus, William P., West Branch, Iowa. Seed-corn hanger. No. 1,255,776; Feb. 5; v. 247; p. 192.

Neir, Earl R., Chicago, Ill., and E. C. Grob, St. Paul, Minn., assignors to Automatic Electric Company, Chicago, Ill. Telephone system. No. 1,256,687; Feb. 19; v. 247; p. 597.

Nelson, Charles A., Utica, N. Y., assignor to Savage Arms Corporation. Machine-gun. No. 1,256,923; Feb. 19; v. 247; p. 606.

Nelson, Charles A., Utica, N. Y., assignor to Savage Arms Corporation. Cartridge-guide for firearms. No. 1,256,924; Feb. 19; v. 247; p. 606.

Nelson, Charles H., *et al.* (See Hyle and Herman, assignors.)

Nelson, Henry, Albert Lea, Minn. Fastening device. No. 1,257,517; Feb. 26; v. 247; p. 815.

Nelson, Mark N., *et al.* (See Waibel, Henry, assignor.)

Nelson, Noah C., Imperial, Cal. Combined harvester. No. 1,255,260; Feb. 5; v. 247; p. 28.

Nero, Arvid H., New Britain, assignor to The Arrow Electric Company, Hartford, Conn. Electrical contact. No. 1,257,917; Feb. 26; v. 247; p. 982.

Nesbitt, William D., Birmingham, Ala., assignor to Sand- and Compress and Warehouse Corporation, New York, N. Y. Compress-bale and method of compressing. No. 1,256,505; Feb. 12; v. 247; p. 448.

Neuberth, Franklin C., assignor to The S. O. & C. Co., Ansonia, Conn. Making buttons. No. 1,257,731; Feb. 26; v. 247; p. 879.

Neuman, Fred C., Michigan City, Ind. Extensible car-step. No. 1,257,629; Feb. 26; v. 247; p. 848.

Neumann, Hugo, Ford City, Ontario, Canada, assignor to Diamond Manufacturing Company, Detroit, Mich. Machine for forming metal tubes. No. 1,257,293; Feb. 19; v. 247; p. 715.

Neuteboom, Boudewijn B., Detroit, Mich. Wheel. No. 1,255,554; Feb. 5; v. 247; p. 128.

Nevsky, Jacob, Chicago, Ill. Garment-holder. No. 1,255,555; Feb. 5; v. 247; p. 129.

New Haven Clock Co. (See Porter, Wilson E., assignor.)

New Jersey Patent Company. (See Aylsworth, Jonas W., assignor.)

New Jersey Zinc Company. (See Singmaster and Breyer, assignors.)

New York Belting & Packing Company. (See Coughlin, Edward J., assignor.)

New York Revolving Portable Elevator Company. (See Boehck, William E., assignor.)
Newell, Edward W., Pittsburgh, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Friction draft-gear. No. 1,255,916; Feb. 12; v. 247; p. 272.
Newell, Wallace L., Seattle, Wash. Cargo-handling device. No. 1,257,732; Feb. 26; v. 247; p. 879.
Newforth, Frank, Jr., assignor to Automatic Electric Company, Chicago, Ill. Automatic telephone system. No. 1,256,817; Feb. 19; v. 247; p. 574.
Newland, David J. (See Elderkin, James K., Jr., assignor.)
Newman Clock Company. (See Healy, Ellis C., assignor.)
Newman, Reuben, New York, N. Y. Means for developing films. No. 1,256,247; Feb. 12; v. 247; p. 972.
Newman, Samuel J., assignor to I. Newman & Sons, New Haven, Conn. Front-lace corset. No. 1,256,858; Feb. 12; v. 247; p. 406.
Newman & Sons, I. (See Newman, Samuel J., assignor.)
Newman, William L., Jr., *et al.* (See Nagel, George W., assignor.)
Newspaper Stuffing Machines Company, The. (See Halvorsen, Severin, assignor.)
Newton, Edward C., Marysville, Cal. Automatic spark-advancer. No. 1,257,630; Feb. 26; v. 247; p. 849.
Newton, George F., Independence, assignor to W. M. Bunting, Kansas City, Mo. Tightener for form-clamps. No. 1,255,210; Feb. 5; v. 247; p. 28.
Newton, Richard T., Nutley, N. J. Automobile-buffer. No. 1,257,380; Feb. 26; v. 247; p. 774.
Nicholas Power Company. (See Power, Nicholas, assignor.)
Nichols, Harold W., Maplewood, N. J., assignor, by mesne assignments, to Western Electric Company. Low-frequency-signal repeater. No. 1,257,381; Feb. 26; v. 247; p. 774.
Nicholson, Frank H., Wilkinsburg, assignor to The Union Switch & Signal Company, Swissvale, Pa. Recording mechanism for railway-traffic-controlling apparatus. No. 1,256,728; Feb. 19; v. 247; p. 547.
Nickerson, William E., Cambridge, assignor to Gillette Safety Razor Company, Boston, Mass. Blade-handling apparatus. No. 1,255,917; Feb. 12; v. 247; p. 272.
Nicolson, Alexander M., New York, N. Y., assignor, by mesne assignments, to Western Electric Company. System for the successive amplification of energies. No. 1,255,211; Feb. 5; v. 247; p. 28.
Nielsen, Henry O., Elko, Nev. Permutation-padlock. No. 1,257,013; Feb. 19; v. 247; p. 634.
Nielsen, Jens P. and K. K., Chicago, Ill.; said K. K. Nielsen assignor to said Jens P. Nielsen. Paper-clip. No. 1,257,631; Feb. 26; v. 247; p. 849.
Nielsen, Karl K. (See Nielsen, Jens P. and K. K.)
Niemiec, Joseph, Newark, N. J., assignor of one-half to J. Trendel, Hamtramck, Mich. Life-saving suit. No. 1,257,014; Feb. 19; v. 247; p. 634.
Nienow, Otto J., Merrill, Wis. Antiskidding device for vehicle-wheels. No. 1,256,033; Feb. 12; v. 247; p. 306.
Nile, Herbert J., Rough and Ready, Cal. Protective covering for glass panes. No. 1,256,818; Feb. 19; v. 247; p. 575.
Nilsson, Frans J., Hasqvarna, Sweden. Apparatus for casting radiators, sectional boilers and the like. No. 1,256,583; Feb. 19; v. 247; p. 508.
Noack, Walter G., Stockton, assignor to Tractor Motors Company, Benicia, Cal. Speed-responsive device. No. 1,257,918; Feb. 26; v. 247; p. 932.
Noiseless Typewriter Company, The. (See Anderson, Nils H., assignor.)
Nordenstam, Carl M., Jr., Bertrand, Nebr. Road-grader. No. 1,256,925; Feb. 19; v. 247; p. 607.
Nordgren, Werner M., Charlottenburg, Germany, assignor to General Electric Company. Muffler. No. 1,255,556; Feb. 5; v. 247; p. 129.
Norman, Ludwig, assignor, by mesne assignments, of one-half to L. G. and M. Ziccardi. Christmas-tree holder. No. 1,256,557; Feb. 5; v. 247; p. 129.
Norris, Walter, assignor to Port Huron Engine and Thresher Company, Port Huron, Mich. Feeder for threshing-machines. No. 1,256,606; Feb. 12; v. 247; p. 449.
Norsk Hydro-Elektrisk Kvaelstofaktieselskab. (See Blom, Reidar, assignor.)
Northrop, Jonas, Hopedale, assignor to Hopedale Manufacturing Company, Milford, Mass. Shuttle. No. 1,257,102; Feb. 19; v. 247; p. 657.
Norton, James A., Odebolt, Iowa, assignor to Golden West Pump Company, Sioux Falls, S. D. Irrigating-machine. No. 1,255,777; Feb. 5; v. 247; p. 192.
Notter, Harry L., Chicago, Ill. Needle-sharpener. No. 1,256,034; Feb. 12; v. 247; p. 307.
Nourse, Rupert A. (See Schartow, Frank R., assignor.)
Novick, Abraham, assignor to F. L. Schmidt Company, New York, N. Y. Washer and string attaching machine. No. 1,255,558; Feb. 5; v. 247; p. 129.
Noyes, Bernice J., Boston, assignor to S. B. Condit, Jr., Brookline, Mass. Electric-lighting system for automobiles. No. 1,257,015; Feb. 19; v. 247; p. 634.
Nylund, Erick, Stambaugh, Mich. Curtain-bracket. No. 1,257,016; Feb. 19; v. 247; p. 635.
O'Brien, Richard F., Minneapolis, Minn. Artificial minnow. No. 1,256,155; Feb. 12; v. 247; p. 343.
O'Connor, Christopher J. (See Herah and O'Connor.)
O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chasy, N. Y. Auxiliary shock-absorbing means for draft-riggings. No. 1,255,212; Feb. 5; v. 247; p. 29.
O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chasy, N. Y. Friction-gear for railway-car draft-riggings. No. 1,255,218; Feb. 5; v. 247; p. 29.
O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chasy, N. Y. Spring-dampener. No. 1,255,214; Feb. 5; v. 247; p. 29.
O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chasy, N. Y. High-capacity spring-gear. No. 1,255,915; Feb. 12; v. 247; p. 272.
O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chasy, N. Y. Recording mechanism. No. 1,255,919; Feb. 12; v. 247; p. 273.
O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chasy, N. Y. Tandem friction-gear. No. 1,256,810; Feb. 19; v. 247; p. 575.
O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chasy, N. Y. Draft-yoke for railway-car draft-rigging. No. 1,256,820; Feb. 19; v. 247; p. 575.
O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chasy, N. Y. Side bearing. No. 1,256,821; Feb. 19; v. 247; p. 576.
O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chasy, N. Y. Operating mechanism for hand-brakes. No. 1,257,919; Feb. 26; v. 247; p. 932.
O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chasy, N. Y. Vertically-adjustable side bearing. No. 1,257,920; Feb. 26; v. 247; p. 933.
O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chasy, N. Y. Side bearing for railway-cars. No. 1,257,921; Feb. 26; v. 247; p. 933.
O'Hare, Alexander, *et al.* (See Roeder, John, assignor.)
O'Keefe, John F., New York, N. Y. Extensible form or distributing roller for presses. No. 1,256,361; Feb. 12; v. 247; p. 405.
O'Malley, Michael T., and G. Mace, New Hartford, N. Y. Buckle. No. 1,256,822; Feb. 19; v. 247; p. 576.
O'Meara, Patrick, Santa Rita, N. Mex. Metallic packing. No. 1,256,248; Feb. 12; v. 247; p. 372.
O'Neil, John N., Elizabeth, Pa. Luggage-carrier for automobiles. No. 1,255,773; Feb. 5; v. 247; p. 192.
O'Neill, Albert E., Grand Rapids, Mich. Automobile-signal. No. 1,257,733; Feb. 26; v. 247; p. 880.
O'Neill, Henry G., and W. E. Pearson, New York, N. Y. Indirect illumination. No. 1,257,882; Feb. 26; v. 247; p. 774.
O'Rourke, Cornelius H., Hanford, Cal. Aeroplane. No. 1,256,823; Feb. 19; v. 247; p. 576.
O'Shea, Dennis C., Chicago, Ill. Garment. No. 1,255,559; Feb. 5; v. 247; p. 130.
O'Shea, Dennis C., Chicago, Ill. Garment. No. 1,255,560; Feb. 5; v. 247; p. 130.
Oakes, Frank J. (See Spencer and Oakes.)
Oakford, Charles, Plant City, Fla. Resilient wheel. No. 1,256,249; Feb. 12; v. 247; p. 372.
Oberbeck, Henry A., Jr., Chicago, Ill. Combined motor car and hearse. No. 1,255,920; Feb. 12; v. 247; p. 273.
Oberg, Gunnard, assignor of one-half to E. C. Feldt, Jamestown, N. Y. Combined tool and holder. No. 1,256,359; Feb. 12; v. 247; p. 405.
Oesch, Nina M., Woodburn, Ind. Teapot and detachable spout therefor. No. 1,255,779; Feb. 5; v. 247; p. 193.
Oglesby, William F., Berkeley, Cal., assignor, by mesne assignments, to the Government of the United States. Device for clipping fruit-pits. No. 1,256,035; Feb. 12; v. 247; p. 307.
Ohio Brass Company, The. (See Brown, John R., assignor.)
Ohlson, Bror I. E. M., Helsingborg, and N. G. O. Lundberg, Malmo, Sweden. Receipt-drawer. No. 1,256,360; Feb. 12; v. 247; p. 405.
Ohmer Fare Register Company. (See Fefell and Ohmer, assignors.)
Ohmer Fare Register Company. (See Ohmer, John F., Jr., assignor.)
Ohmer, John F. (See Fefell and Ohmer.)
Ohmer, John F., Jr., assignor to Ohmer Fare Register Company, Dayton, Ohio. Fare registering and recording machine. No. 1,255,561; Feb. 5; v. 247; p. 130.
Oliver, Earle N. (See Crompton and Oliver.)
Oliver, Walter M., Parsons, Kans. Pulverized-coal-burning furnace. No. 1,257,108; Feb. 19; v. 247; p. 658.
Olivier, Henri, Paris, France. Vulcanization of india-rubber and other similar substances. No. 1,256,496; Feb. 12; v. 247; p. 445.
Olson, Andrew P., Chicago, Ill. Combination-tool. No. 1,257,383; Feb. 26; v. 247; p. 775.
Olson, Charles A., assignor to Crane Company, Chicago, Ill. Pipe-fitting. No. 1,255,562; Feb. 5; v. 247; p. 130.
Olson, Hans M., Lompoc, assignor of one-fourth to H. W. Becker, one-fourth to M. A. Balaam, and one-fourth to A. G. Balaam, Santa Barbara, Cal. Heat-insulating composition. No. 1,257,922; Feb. 26; v. 247; p. 933.
Olson, Manle, Mount Vernon, Wash. Cable-clamp. No. 1,256,824; Feb. 19; v. 247; p. 576.
Olson, Oscar A. and W., Leader, Minn. Internal-combustion engine. No. 1,257,104; Feb. 19; v. 247; p. 658.
Olson, Victor, Naugatuck, Conn. Automatic headlight-dimmer for automobiles. No. 1,256,362; Feb. 12; v. 247; p. 406.
Olson, Walter. (See Olson, Oscar A. and W.)
Olsson, Henry A., assignor to The Bromwell Brush and Wire Goods Company, Cincinnati, Ohio. Automatic stopping and locking device for brush-machines. No. 1,255,921; Feb. 12; v. 247; p. 273.

Opotow, Nathan, New York, N. Y. Dentist's flask. No. 1,256,589; Feb. 19; v. 247; p. 508.
Oppenheim, Ell, assignor to Oppenheim, Oberndorf & Co., Inc., Baltimore, Md. Ventilated-suspensory-crotch garment. No. 1,255,820; Feb. 5; v. 247; p. 204.
Oppenheim, Oberndorf & Co. (See Oppenheim, Ell, assignor.)
Ormstrup, Viggo, Glens Falls, N. Y. Threadless nut. No. 1,256,250; Feb. 12; v. 247; p. 372.
Orr, John S., Augusta, Ky. Shoe-sole. No. 1,255,458; Feb. 5; v. 247; p. 99.
Orr, Joseph, Verona, N. J. Starting device. No. 1,256,156; Feb. 12; v. 247; p. 344.
Osgood, Dana, and A. E. Rhoades, assignors, by mesne assignments, to Draper Corporation, Hopedale, Mass. Filling-end finder. No. 1,256,251; Feb. 12; v. 247; p. 372.
Ostenberg, John A., Campbell, Cal. Earth-tilling machine. No. 1,255,881; Feb. 5; v. 247; p. 62.
Ostendorf, Otto L., Rochester, N. Y. Locking mechanism for reclining-chairs. No. 1,255,563; Feb. 5; v. 247; p. 131.
Ostrander, Allen E., Ridgewood, N. J., assignor to American Car and Foundry Company, St. Louis, Mo. Car construction. No. 1,256,157; Feb. 12; v. 247; p. 344.
Ostrander, Allen E. Ridgewood, N. J., assignor to American Car and Foundry Company, St. Louis, Mo. Safety attachment for shipping-tanks. No. 1,256,158; Feb. 12; v. 247; p. 344.
Ostrander, Allen E., Ridgewood, N. J., assignor to American Car and Foundry Company, St. Louis, Mo. Car construction. No. 1,256,159; Feb. 12; v. 247; p. 345.
Ostrom, Charles E., Sr., Portsmouth, Ohio. Automatic stop mechanism for knitting-machines. No. 1,257,518; Feb. 26; v. 247; p. 815.
Otis Elevator Company. (See Larson, David C., assignor.)
Otis Elevator Company. (See Reno, Jesse W., assignor.)
Otis Elevator Company. (See Sundh, August, assignor.)
Otis, John F., Oswego, N. Y. Steam-generator. No. 1,257,519; Feb. 26; v. 247; p. 815.
Otterson, Thomas P., Krebs, assignor of one-half to P. R. Allen, McAlester, Okla. Mine-car wheel. No. 1,255,780; Feb. 5; v. 247; p. 193.
Otterson, Thomas P., Krebs, assignor of one-half to P. R. Allen, McAlester, Okla. Draw-bar. No. 1,255,781; Feb. 5; v. 247; p. 193.
Overlin, William S., Portland, Oreg., assignor, by mesne assignments, to International Money Machine Company. Terre Haute, Ind. Money paying, changing, and listing machine. No. 1,256,363; Feb. 12; v. 247; p. 406.
Overly, Charles, Cleveland, Ohio. Strainer. No. 1,255,215; Feb. 5; v. 247; p. 29.
Owen, Oscar L., assignor to The Whitin Machine Works, Whitinsville, Mass. Safety device for carding-machines. No. 1,257,105; Feb. 19; v. 247; p. 658.
P. Becker & Company. (See Kelly, Patrick J., assignor.)
P. Lorillard Company. (See Freeman and Wortham, assignors.)
P. Lorillard Company. (See Williams, George M., assignor.)
P. B. Yates Machine Company. (See Mitchell, Harrison J., assignor.)
P. C. Murphy Trunk Co. (See Maher, Edward J., assignor.)
Pace, Lynn S., Cisco, Utah. Driving apparatus for horses and other animals. No. 1,257,734; Feb. 26; v. 247; p. 880.
Pacific Foundry Company. (See Landers, William H., assignor.)
Packard Motor Car Company. (See McCain, George I., assignor.)
Packard Motor Car Company. (See Tibbetts, Milton, assignor.)
Packard Motor Car Company. (See Vincent, Jesse G., assignor.)
Packer, John H., Liberty, Mo. Oil-filter. No. 1,257,384; Feb. 26; v. 247; p. 775.
Paddock, Ormond H., Toledo, Ohio. Automatic stop-adjuster. No. 1,255,564; Feb. 5; v. 247; p. 131.
Padgett, Charles E., Buffalo, N. Y. Elevated-railway system. No. 1,255,459; Feb. 5; v. 247; p. 99.
Page, David P. (See Barnes and Page.)
Page, James B., assignor to Dixie Fruit Products Company, Mobile, Ala. Stock feed and making same. No. 1,255,922; Feb. 12; v. 247; p. 274.
Palm Brothers Company, The. (See Blomberg, William T., assignor.)
Palmer, Charles S., *et al.* (See Reilly, Francis J., assignor.)
Palmer, Dean, *et al.* (See Reilly, Francis J., assignor.)
Palmer, Lowell M., Estate of. (See Zimmerman, Albert, assignor.)
Palmer, Phillip S. (See Kinney, Charles, assignor.)
Palsgrove, James E. (See Thompson, Duffield B., assignor.)
Paper Products Machine Company. (See Jackson, Patrick T., Jr., assignor.)
Paquet, Adolph. (See Paquet, Anton and A.)
Paquet, Anton and A., Chicago, Ill. Collapsible box. No. 1,257,632; Feb. 26; v. 247; p. 849.
Pardee, Frank, Hazleton, Pa. Spiral chute. No. 1,256,724; Feb. 19; v. 247; p. 547.
Paris, Pablo, New York, N. Y. Type. No. 1,255,216; Feb. 5; v. 247; p. 29.
Parish, Durfee O., Leroy, Colo. Antiskidding device. No. 1,256,160; Feb. 12; v. 247; p. 345.
Parisian Novelty Company. (See Komorous, Joseph, assignor.)
Park Drop Forge Company, The. (See Gordon, George C., assignor.)
Parker, Donald, Tampa, Fla. Sizer-adjuster. No. 1,257,017; Feb. 19; v. 247; p. 635.
Parker, George D., Riverside, Cal. Drying apparatus. No. 1,256,825; Feb. 19; v. 247; p. 577.
Parker, George D., Riverside, Cal. Fruit-sizing apparatus. No. 1,257,018; Feb. 19; v. 247; p. 635.
Parker, Henry L., and A. E. Cobb, Los Angeles, Cal. Combined regulating and shut-off faucet. No. 1,257,019; Feb. 19; v. 247; p. 636.
Parker, Jean T., *et al.* (See Baer, Charles H., assignor.)
Parkhurst, Leon F., Pittsfield, Mass., assignor to General Electric Company. Electric heating device. No. 1,257,106; Feb. 19; v. 247; p. 658.
Parkinson, John A., Sioux City, Iowa. Motor-starter. No. 1,257,520; Feb. 26; v. 247; p. 816.
Parnell, John J., Miami, Fla. Towel-supply cabinet. No. 1,256,782; Feb. 5; v. 247; p. 193.
Paroly, Isidor, New York, assignor to M. Kamenstein, Brooklyn, N. Y. Sheet-metal box. No. 1,257,885; Feb. 26; v. 247; p. 775.
Parrella, Joseph A., Washington, D. C. Press for neckties. No. 1,256,161; Feb. 12; v. 247; p. 345.
Parsons, John H., assignor of one-half to W. H. Savery, Wilmington, Del. Apparatus for impregnating wood. No. 1,257,923; Feb. 26; v. 247; p. 933.
Pascal, Israel, Montreal, Quebec, Canada. Tire. No. 1,255,565; Feb. 5; v. 247; p. 131.
Patch, Calvin B., Glenellyn, Ill., assignor to W. H. Miner, Chasy, N. Y. Two-part yoke. No. 1,255,217; Feb. 5; v. 247; p. 29.
Patch, Calvin B. Glenellyn, Ill., assignor to W. H. Miner, Chasy, N. Y. Friction-gear. No. 1,256,826; Feb. 19; v. 247; p. 577.
Patee, Fred, Denver, Colo. Refrigerator-car. No. 1,256,162; Feb. 12; v. 247; p. 346.
Patent Button Company. (See White, Franklin R., assignor.)
Patrick, Henry, New Brunswick, N. J. Automobile turning-signal. No. 1,257,294; Feb. 19; v. 247; p. 715.
Patrick, Isaac, assignor to Consolidated Press Company, Hastings, Mich. Toggle drawing-press. No. 1,255,332; Feb. 5; v. 247; p. 63.
Patten, Charles H., assignor to Charles E. Hancock Company, Providence, R. I. Connector for band-bracelets. No. 1,255,923; Feb. 12; v. 247; p. 274.
Patterson, Franklin M., Jersey City, N. J., assignor, by mesne assignments, to Everlasting Valve Company. Valve. No. 1,257,020; Feb. 19; v. 247; p. 636.
Patterson, Joseph A., Waynesburg, Pa. Gun-rack. No. 1,257,107; Feb. 19; v. 247; p. 659.
Patton, Luther, and H. E. Wallace, Blocton, Ala.; said Wallace assignor to said Patton. Insect-destroyer. No. 1,256,036; Feb. 12; v. 247; p. 307.
Patton, Ralph C., assignor to D & W Fuse Company, Providence, R. I. Reloadable fuse. No. 1,257,021; Feb. 19; v. 247; p. 636.
Paul, Elmer D. (See Warner and Paul.)
Paulsen, Thomas E., Modesto, Cal., assignor of one-fifth to H. T. Johnson and one-fifth to S. Lats. Platform-track wheel. No. 1,255,218; Feb. 5; v. 247; p. 30.
Paulson, Walter H. (See Lathrop and Paulson.)
Pawson, William A., San Francisco, Cal. Carpenter's square. No. 1,256,827; Feb. 19; v. 247; p. 577.
Pearce, Herbert, and F. Spence, Broadheath, England, assignors to Linotype and Machinery Limited, London, England. Bed-reciprocating mechanism. No. 1,256,252; Feb. 12; v. 247; p. 373.
Pearne, Frank D., Chicago, Ill., and C. V. Joseph, Terre Haute, assignors to Highway Iron Products Company, Indianapolis, Ind. Collapsible core for constructing culverts. No. 1,257,924; Feb. 26; v. 247; p. 934.
Pearsall, Albert W., Lowell, assignor to The Lamson Company, Boston, Mass. Despatch and distributing system. No. 1,256,037; Feb. 12; v. 247; p. 307.
Pearson, Charles, Chicago, Ill., assignor to International Harvester Company of New Jersey. Mowing-machine. No. 1,257,386; Feb. 26; v. 247; p. 775.
Pearson, Charles, Chicago, Ill., assignor to International Harvester Company of New Jersey. Mowing-machine. No. 1,257,387; Feb. 26; v. 247; p. 776.
Pearson, Christopher, Philadelphia, Pa. Shock-absorbing device. No. 1,255,566; Feb. 5; v. 247; p. 131.
Pearson, Ward E. (See O'Neill and Pearson.)
Pease, George W., Pittsfield, Mass. Garment. No. 1,255,333; Feb. 5; v. 247; p. 63.
Pease, George W., Pittsfield, Mass. Garment. No. 1,255,334; Feb. 5; v. 247; p. 63.
Peaslee, Willis D. A., Corvallis, Oreg. Gas-turbine. No. 1,255,924; Feb. 12; v. 247; p. 274.
Peasley, Mark L., Fishtrap, and T. A. Pence, Cheney, Wash. Autosled. No. 1,257,735; Feb. 26; v. 247; p. 880.
Peckham, James A., San Jose, Cal. Shoe-polisher. No. 1,257,736; Feb. 26; v. 247; p. 880.
Pedersen, Carl A., Wilson, Ark. Stovepipe-hanger. No. 1,255,219; Feb. 5; v. 247; p. 30.
Pedersen, Carl E., Østre Aker, near Christiania, Norway. Combustion device for steam-boilers and the like. No. 1,257,108; Feb. 19; v. 247; p. 659.

Pedersen, Hasel N., Racine, Wis. Spring-seat construction. No. 1,256,304; Feb. 12; v. 247; p. 406.
Peelle Company, The. (See Peelle, John W., assignor.)
Peelle, John W., Brooklyn, assignor to The Peelle Company, New York, N. Y. Controlling means for elevator-doors. No. 1,257,109; Feb. 19; v. 247; p. 659.
Peets, Clifford S., Great Neck Station, N. Y. Side drive for automobiles. No. 1,255,783; Feb. 5; v. 247; p. 193.
Pegram, George B., New York, N. Y. Method and means for applying iodin and iodin compounds. No. 1,255,335; Feb. 5; v. 247; p. 66.
Pence, Thomas A. (See Peasley and Pence.)
Pendergast, Frederick W., Cambridge, Mass. Torpedo-deflector. No. 1,257,521; Feb. 26; v. 247; p. 816.
Pendleton, Fields S., Brooklyn, N. Y. Construction of ships' hulls. No. 1,255,784; Feb. 5; v. 247; p. 194.
Pennsylvania Lawn Mower Works. (See Braun, William P. M., assignor.)
Pennsylvania Company. (See Holt, Thomas, assignor.)
Penrose, Hallack A. (See Brush, Addison P., assignor.)
Penwell, Lewis, Helena, Mont. Automobile fence-crossing. No. 1,257,633; Feb. 26; v. 247; p. 849.
Pepin, Napoleon, Woonsocket, R. I. Ice-cream-cone dipher. No. 1,255,735; Feb. 5; v. 247; p. 197.
Perk von Lith, Edward A., New York, N. Y. Rotary engine. No. 1,257,156; Feb. 19; v. 247; p. 673.
Perkins, Floyd N., Freeport, Ill. Refrigerator-door fastener. No. 1,257,522; Feb. 26; v. 247; p. 816.
Perrin, Albert M., Wilmington, Ohio. Animal-snare. No. 1,257,834; Feb. 26; v. 247; p. 849.
Perry, Eugene L., Warren, Pa. Copy-holder. No. 1,256,263; Feb. 12; v. 247; p. 372.
Perry, Murle, Wahpeton, N. D. Device for applying insecticides to animals. No. 1,256,528; Feb. 19; v. 247; p. 577.
Perry, Ray P., Montclair, N. J., assignor to The Barrett Company, New York, N. Y. Hydrocarbon coke. No. 1,257,059; Feb. 26; v. 247; p. 843.
Perveer Co., H. N. (See Kilkenny, Thomas R., assignor.) (Reissue.)
Peter Spence & Sons. (See Spence and Llewellyn, assignors.)
Peters, Frank M., and W. H. Hungerford, Chicago, Ill.; said Hungerford assignor to said Peters. Machine for subdividing plastic substances. No. 1,257,523; Feb. 26; v. 247; p. 817.
Peters, Franklin F., Winnipeg, Manitoba, Canada. Moistener. No. 1,255,925; Feb. 12; v. 247; p. 275.
Peters, Heber C., New York, N. Y. Calculating-machine. No. 1,255,567; Feb. 5; v. 247; p. 132.
Peters, Heber C., New York, N. Y. Calculator. No. 1,255,568; Feb. 5; v. 247; p. 132.
Peters, Heber C., New York, N. Y. Calculator. No. 1,255,821; Feb. 5; v. 247; p. 204.
Peterson, Archie, Los Angeles, Cal. Shoe-fastener. No. 1,256,254; Feb. 12; v. 247; p. 374.
Peterson, Arthur, Altamont, S. D. Adjustable wind-grading sieve. No. 1,256,366; Feb. 12; v. 247; p. 407.
Peterson, Burt A., assignor to Barber-Coleman Company, Rockford, Ill. Bobbin-handling apparatus. No. 1,257,946; Feb. 26; v. 244; p. 940.
Peterson, George, Britannia Beach, British Columbia, Canada. Locking device for aerial-tramway buckets. No. 1,256,460; Feb. 5; v. 247; p. 100.
Peterson, Johana G., assignor to Manhattan Electrical Supply Company, Incorporated, Jersey City, N. J. Push-switch. No. 1,257,925; Feb. 26; v. 247; p. 934.
Petrella, Manfred, Buffalo, N. Y. Hair-cutting machine. No. 1,255,461; Feb. 5; v. 247; p. 100.
Petron, William B., Niagara, N. D. Grass-destroyer. No. 1,256,725; Feb. 19; v. 247; p. 547.
Petrullo, Anna M., Brooklyn, N. Y. Garter. No. 1,255,630; Feb. 5; v. 247; p. 149.
Petry, Nicholas A., Philadelphia, Pa. Pedal. No. 1,255,220; Feb. 5; v. 247; p. 30.
Pettit, Ernest H., assignor of one-half to J. T. Williamson, Niagara Falls, N. Y. Device for raising sunken vessels. No. 1,256,365; Feb. 12; v. 247; p. 407.
Pfabler, Rosine E., Hopewell, Va. Pencil-holder. No. 1,256,367; Feb. 12; v. 247; p. 408.
Pfirman, Valentine D., assignor to The Grismold Manufacturing Company, Erie, Pa. Percolator. No. 1,257,110; Feb. 19; v. 247; p. 660.
Pfoser, Adolf, Achern, and O. Strack, Saarbrücken, assignors of one-third to Gebrüder Stumm, G. m. b. H., Neunkirchen Saar, Germany. Operation of checker-brick heaters. No. 1,257,524; Feb. 26; v. 247; p. 817.
Phelan, Elizabeth K. (See Wiswell, Frederick A., assignee.)
Phelps, Algernon S., Chicago, and J. H. Birch, Geneva, assignors to Phelps Manufacturing Company, Chicago, Ill. Reserve-feed acetylene-generator. No. 1,257,635; Feb. 26; v. 247; p. 850.
Phelps Manufacturing Company. (See Phelps and Birch, assignors.)
Philadelphia Textile Machinery Company, The. (See Ayres, Elwood B., assignor.)
Philip Carey Manufacturing Company, The. (See Innes, Harry C., assignor.)
Phillips, Abraham S., New York, N. Y. Paster. No. 1,257,111; Feb. 19; v. 247; p. 660.
Phillips, Charles L., San Francisco, Cal. Grease-gun. No. 1,255,786; Feb. 5; v. 247; p. 194.
Phillips, Francis V., Orlando, Fla. Fluid shock-absorber. No. 1,255,787; Feb. 5; v. 247; p. 194.
Phillips, Francis V., Orlando, Fla. Frictional shock-absorber. No. 1,255,788; Feb. 5; v. 247; p. 195.
Phillips, George B., Lima, Ohio. Riveted seam. No. 1,257,368; Feb. 26; v. 247; p. 776.
Piasecky, Walter, Cambridge, Mass. Ship-protector. No. 1,257,525; Feb. 26; v. 247; p. 817.
Pickard, Greenleaf W., Amesbury, Mass., assignor to Wireless Specialty Apparatus Company, New York, N. Y. Constant-pressure solid rectifier. No. 1,257,526; Feb. 26; v. 247; p. 818.
Pickering, John H., Aylmer, Ontario, Canada. Truss. No. 1,255,221; Feb. 5; v. 247; p. 30.
Pieratt, David W., Gate, Okla. Twine-holder. No. 1,257,112; Feb. 19; v. 247; p. 660.
Pierce, Frank L. (See Madden and Pierce.)
Pierce, Harold S., Philadelphia, Pa., assignor to Link-Belt Company, Chicago, Ill. Sprocket-wheel. No. 1,256,590; Feb. 19; v. 247; p. 508.
Piesott, Reginald J. S., Bridgeport, Conn. Expansion-joint. No. 1,255,631; Feb. 5; v. 247; p. 149.
Pike, George J., Grand Rapids, Mich., assignor to The W. H. Gunlocke Chair Co. Chair. No. 1,256,726; Feb. 19; v. 247; p. 548.
Pike, Lorenzo H., assignor to Electric Service Supplies Company, Philadelphia, Pa. Clutching mechanism. No. 1,255,996; Feb. 12; v. 247; p. 276.
Pike Manufacturing Co. (See Gibford, Edward B., assignor.)
Pike, Robert D., San Francisco, Cal. Means for indicating the display of motion-pictures. No. 1,256,691; Feb. 19; v. 247; p. 508.
Pietrowsky, Gregory V., Buffalo, N. Y. Air-pump. No. 1,257,527; Feb. 26; v. 247; p. 818.
Pirscher, Ernest A., New York, N. Y., assignor to American Sleeve-Valve Motor Company, Philadelphia, Pa. Internal-combustion engine. No. 1,256,727; Feb. 19; v. 247; p. 548.
Pittman, William H., Minatare, Nebr. Nut-lock. No. 1,257,022; Feb. 19; v. 247; p. 657.
Pittsburgh Coal Washer Company. (See Hurst and Kenney, assignors.)
Pittsburgh Plate Glass Company, The. (See Howard, George E., assignor.)
Pittsburgh Steel Company. (See Mogan, Christopher J., assignor.)
Plank, John H., Bloomfield, Iowa. File-rack. No. 1,257,528; Feb. 26; v. 247; p. 818.
Planters Steaming Company. (See Morris, John O., assignor.)
Plantinga, Pierre, Cleveland, Ohio. Self-sealing oven-door. No. 1,257,110; Feb. 19; v. 247; p. 660.
Plath, John F., Mesa, N. D. Brooder. No. 1,257,023; Feb. 19; v. 247; p. 657.
Platt, Benjamin N., assignor to The Platt-Maschek Co., Chicago, Ill. Toy furniture. No. 1,257,389; Feb. 26; v. 247; p. 776.
Platt-Maschek Co., The. (See Platt, Benjamin N., assignor.)
Poccia, Lorete, Mamaroneck, N. Y. Automobile air-compressor. No. 1,255,632; Feb. 5; v. 247; p. 150.
Ponder, Allie, East Point, assignor to Couch Bros. Manufacturing Co., Atlanta, Ga. Back-band hook. No. 1,257,390; Feb. 26; v. 247; p. 776.
Poss, Angel, Buffalo, N. Y. Fiber-cleaning machine. No. 1,255,633; Feb. 5; v. 247; p. 150.
Poole, Jesse L., Richmond, Va. Adding and subtracting machine. No. 1,257,926; Feb. 26; v. 247; p. 934.
Pope, Charles L., Kimberly, Idaho. Neck-yoke attachment. No. 1,257,636; Feb. 26; v. 247; p. 850.
Pope, Charles E., Holyoke, Mass., assignor to Great Northern Paper Company, Millinocket, Me. Fourdrinier machine. No. 1,257,737; Feb. 26; v. 247; p. 881.
Pope, William, Rockvale, Tenn. Gate. No. 1,255,634; Feb. 5; v. 247; p. 150.
Porret, Armand. (See Clemen and Porret.)
Port Huron Engine and Thresher Company. (See Norris, Walter, assignor.)
Porter, Horatio A., South Hadley Falls, Mass. Testing-cartridge. No. 1,256,256; Feb. 12; v. 247; p. 374.
Porter, Wilson E., assignor to New Haven Clock Co., New Haven, Conn. Non-warning chime-clock. No. 1,257,024; Feb. 19; v. 247; p. 657.
Post, Gustaf von, Stockholm, Sweden. Pivoting device for rotating parts in weighing apparatus and the like. No. 1,256,747; Feb. 19; v. 247; p. 554.
Post, Gustaf von, Stockholm, Sweden. Guiding device for reciprocating machine elements. No. 1,256,748; Feb. 19; v. 247; p. 554.
Potter, Anton, and F. A. Lohrlein, Duluth, Minn. Ironing-board. No. 1,257,114; Feb. 19; v. 247; p. 661.
Potts, Oscar C., Unionville, Mo. Trailer-truck. No. 1,255,222; Feb. 5; v. 247; p. 30.
Potumak, Mathias, New York, N. Y. Holder for shank-buttons. No. 1,257,391; Feb. 26; v. 247; p. 777.
Poulallion, Paul A. (See Schweimber and Poulallion.)
Power Glue Manufacturing Company. (See Putsch, Henry, assignor.)
Power, Nicholas, Brooklyn, assignor to Nicholas Power Company, New York, N. Y. Motion-picture-projecting machine. No. 1,255,336; Feb. 5; v. 247; p. 64.

Prance, Albert J., assignor to Murchey Machine and Tool Company, Detroit, Mich. Screw-cutting die. No. 1,255,223; Feb. 5; v. 247; p. 31.
Pratt, Charles A., assignor to Goodman Manufacturing Company, Chicago, Ill. Brake mechanism for storage-battery locomotives. No. 1,256,582; Feb. 19; v. 247; p. 509.
Pratt, Howell D., Philadelphia, Pa., assignor to Link-Belt Company, Chicago, Ill. Mechanism for cutting ice into blocks. No. 1,257,736; Feb. 26; v. 247; p. 881.
Pratt & Whitney Company. (See Hanson, Bengt M. W., assignor.)
Priest, Clarence S. (See Flavell and Priest.)
Prisk, William E., and H. S. Harrison, Halifax, Nova Scotia, Canada. Purifying barium sulfid. No. 1,256,593; Feb. 19; v. 247; p. 509.
Pritchard, Johnnie F., Elizabeth City, N. C. Pea and bean separator. No. 1,257,115; Feb. 19; v. 247; p. 661.
Prosser, Isaac T., Chicopee Falls, assignor, by mesne assignments, to Draper Corporation, Hopedale, Mass. Loom-check. No. 1,255,635; Feb. 5; v. 247; p. 151.
Preudat, William S., Grand Rapids, Mich. Loose-leaf binder. No. 1,256,728; Feb. 19; v. 247; p. 548.
Prouty, Theodore C., Aurora, Ill., assignor, by mesne assignments, to The Van Sicklen Company, Pump for speedometers. No. 1,256,829; Feb. 19; v. 247; p. 578.
Pruyn, Frederic, Albany, N. Y., assignor to Seamless Products Corporation, East Orange, N. J. Packing device. No. 1,255,780; Feb. 5; v. 247; p. 195.
Pryce, Edmund H. (See Hochstetter and Pryce.)
Pryer, George E., Los Angeles, Cal. Lens-grinding machine. No. 1,256,258; Feb. 12; v. 247; p. 376.
Pulaki, Alcibiades, G., Ridgewood, N. J. Portable dish-collecting apparatus. No. 1,256,926; Feb. 19; v. 247; p. 607.
Pukos, Antoni, Depew, N. Y. Balloon-ballasting weight. No. 1,257,529; Feb. 26; v. 247; p. 819.
Purcell, Isaac S., Oak Park, assignor to Tentobed Company, Chicago, Ill. Tent for cots and the like. No. 1,255,224; Feb. 5; v. 247; p. 31.
Putnam, Alden L., assignor to Detroit Pressed Steel Company, Detroit, Mich. Vehicle-wheel. No. 1,255,927; Feb. 12; v. 247; p. 275.
Putnam, Alden L., assignor to Detroit Pressed Steel Company, Detroit, Mich. Metallic vehicle-wheel. No. 1,255,928; Feb. 12; v. 247; p. 275.
Putsch, Henry, assignor to Power Glue Manufacturing Company, Chicago, Ill. Pulley-rim covering. No. 1,257,530; Feb. 26; v. 247; p. 819.
Quade, Alfred C. (See Quade, Herman A. and A. C.)
Quade, Herman A. and A. C., Milwaukee, Wis. Rake. No. 1,255,637; Feb. 5; v. 247; p. 64.
Quinn, Don L., Oak Park, Ill., assignor to Chicago Mill and Lumber Company, Poultry-feeding coop. No. 1,255,834; Feb. 5; v. 247; p. 206.
Radley, Guy E., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electric switch. No. 1,255,225; Feb. 5; v. 247; p. 31.
Radovanovic, Andreas, Zurich, Switzerland. Two-stroke-cycle combustion-engine. No. 1,255,462; Feb. 5; v. 247; p. 100.
Raffin, Maurice R., assignor to Société P. Raffin & Fils, Dunkirk, France. Concentration of titanium ores. No. 1,256,368; Feb. 12; v. 247; p. 408.
Rahm, Robert C., assignor to Textile Machine Works, Wyomissing, Pa. Lace-making mechanism. No. 1,256,088; Feb. 12; v. 247; p. 308.
Ralph, Harry H., Philadelphia, Pa. Purifier for steam-boilers. No. 1,256,039; Feb. 12; v. 247; p. 308.
Ralston, Richard M. (See Teeter, Manual H., assignor.)
Ramm, George F., Del Monte, Cal. Combined ironing and clothes cabinet. No. 1,257,116; Feb. 19; v. 247; p. 661.
Rand, James H., Newton, Mass. Index member. No. 1,255,226; Feb. 5; v. 247; p. 31.
Rand, James H., Newton, Mass. Index device. No. 1,255,929; Feb. 12; v. 247; p. 276.
Rasey, Clemme R., Chicago, Ill., assignor to International Harvester Company of New Jersey. Harvester. No. 1,256,930; Feb. 12; v. 247; p. 276.
Raper, Dalton R., High Point, N. C. Tobacco-harvesting machine. No. 1,255,790; Feb. 5; v. 247; p. 195.
Rasch, Paul, St. Louis, Mo. Hospital-bed attachment. No. 1,255,636; Feb. 5; v. 247; p. 151.
Rasmussen, Robert F., assignor to C. A. Libby Company, Oshkosh, Wis. Animal-stall. No. 1,255,931; Feb. 12; v. 247; p. 276.
Rasmussen, Sofus E., Beresford, S. D., and L. L. Kirkegaard, Blair, Nebr. Cow-tail holder. No. 1,257,789; Feb. 26; v. 247; p. 881.
Raubitschek, William. (See Rogers, William R., assignor.)
Rauscher, Frederick, Port Richmond, N. Y. Automobile-assist. No. 1,257,117; Feb. 19; v. 247; p. 661.
Rawlings, William S., Marshall, Ind. Can or jar lifter. No. 1,255,791; Feb. 5; v. 247; p. 196.
Raymond, Nelson H., Buffalo, N. Y., assignor to Clifton Manufacturing Co., Jamaica Plain, Mass. Thread-protector for pipes. No. 1,255,463; Feb. 5; v. 247; p. 100.
Reade, Albert E., Petersburg, Va. Adjustable spark-gap. No. 1,255,637; Feb. 5; v. 247; p. 152.
Reagan, William M., Tacoma, Wash. Scissors and shears sharpening device. No. 1,257,927; Feb. 26; v. 247; p. 934.
Rearick, Charles B., assignor to A. D. Brixey, New York, N. Y. Moving-picture film. No. 1,255,338; Feb. 5; v. 247; p. 64.
Reece Button Hole Machine Company, The. (See Hagelstein, Christian H. T., assignor.)
Reece Button Hole Machine Company, The. (See Zaleski, Frank, assignor.)
Reed Manufacturing Company. (See Hughes, John A., assignor.)
Reed Manufacturing Company. (See Tozer, Archibald B., assignor.)
Reed, William W., Buffalo, N. Y. Food composition. No. 1,255,638; Feb. 5; v. 247; p. 152.
Reese, Joel A., Atlanta, Ga. Antiskidding device for vehicle-tires. No. 1,256,729; Feb. 19; v. 247; p. 549.
Reeves, Frank N., Newark, N. J., and A. E. Lundell, New York, N. Y., assignors, by mesne assignments, to Western Electric Company, Incorporated. Telephone-line-selecting system. No. 1,257,392; Feb. 26; v. 247; p. 777.
Reeves, Samuel V., Haddonfield, N. J. Stove. No. 1,255,227; Feb. 5; v. 247; p. 32.
Rehak, James. (See Bigelow, Cadden, and Rehak.)
Reich, John C., Chicago, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y. Machine for cutting and spacing soft-rubber rods and the like. No. 1,257,960; Feb. 26; v. 247; p. 948.
Reichmann, Martin, Beuthen, Germany. Utilizing waste leather. No. 1,257,925; Feb. 19; v. 247; p. 657.
Reid, Thomas H. (See Bennet and Reid.)
Reifsnyder, James D., Philadelphia, assignor to Stokes & Smith Company, Summerdale, Philadelphia, Pa. Wrapped package. No. 1,257,398; Feb. 26; v. 247; p. 777.
Reilly, Francis J., New York, assignor to C. S. and D. Palmer, Saranac Lake, N. Y. Pencil-sharpener clip. No. 1,255,932; Feb. 12; v. 247; p. 276.
Reinhardt, Carl. (See Sonderegger, Messmer, and Erdrich, assignors.)
Reiser, Alfred W., assignor to The Western Gas Fixture Co., Toledo, Ohio. Chandelier cluster-hook. No. 1,255,639; Feb. 5; v. 247; p. 152.
Remington Typewriter Company. (See Carhart, Herbert A., assignor.)
Remington Typewriter Company. (See Laflay, Fernand, assignor.)
Remus, Ludwig H., Adrian, Mich. Attachment for corn-planters. No. 1,257,928; Feb. 26; v. 247; p. 934.
Renick, Frederick E., Mammoth Springs, Ark. Automatic gear-shifting mechanism. No. 1,255,933; Feb. 12; v. 247; p. 277.
Reno, Jesse W., New York, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Endless conveyer. No. 1,256,330; Feb. 5; v. 247; p. 65.
Reuther, Martin W. (See Brandenberger and Reuther.)
Revay, Stefan, Johnstown, Pa. Monkey-wrench. No. 1,257,118; Feb. 19; v. 247; p. 662.
Revere Rubber Company. (See Cobb, Henry Z., assignor.)
Reynolds, Charles B., Panora, Iowa. End-gate. No. 1,256,257; Feb. 12; v. 247; p. 375.
Reynolds, Charles O., Huntington, W. Va. Baking-pan. No. 1,257,119; Feb. 19; v. 247; p. 662.
Reynolds, John N., Greenwich, Conn., assignor, by mesne assignments, to Western Electric Company, Incorporated. Terminal bank. No. 1,257,394; Feb. 26; v. 247; p. 778.
Rhoades, Alonzo E. (See Osgood and Rhoades.)
Rhoades, Alonzo E., assignor to Draper Corporation, Hopedale, Mass. Builder-motion for spinning-frames. No. 1,257,395; Feb. 26; v. 247; p. 778.
Rhoads, Frank S., Aurora, Ill. Universal joint. No. 1,255,792; Feb. 5; v. 247; p. 196.
Rhodes, Jay B., Kalamazoo, Mich., assignor to Western Wheeled Scraper Company, Aurora, Ill. Dump-car. No. 1,256,163; Feb. 12; v. 247; p. 346.
Rhodes, Jay B., Kalamazoo, Mich., assignor to Western Wheeled Scraper Company, Aurora, Ill. Dump-car. No. 1,256,164; Feb. 12; v. 247; p. 347.
Rice, Harold G., Portland, Oreg. Bottle-capper. No. 1,257,637; Feb. 26; v. 247; p. 850.
Rich, Edwin N., and W. E. Groff, Santa Fe, N. Mex.; said Rich assignor to said Groff. Process and apparatus for making tooth-backings. No. 1,257,120; Feb. 19; v. 247; p. 662.
Richard, Jules. (See Colardeau and Richard.)
Richards, Harry D. (See Howard, William D. M., assignor.)
Richards, Walter W. (See Edgar and Richards.)
Richardson, Charles N. (See Whitaker, Edgar A., assignor.)
Richardson, John E., Elmira Heights, N. Y. Motor-vehicle-controlling mechanism. No. 1,255,228; Feb. 5; v. 247; p. 32.
Richardson, William, Jr., Ensley, Ala. Valve-drive device. No. 1,255,229; Feb. 5; v. 247; p. 32.
Richardson, William D., Chicago, Ill. Making metallic catalyzers. No. 1,257,396; Feb. 26; v. 247; p. 778.
Richardson, William D., assignor to Swift & Company, Chicago, Ill. Hydrogenating oils or fats. No. 1,257,397; Feb. 26; v. 247; p. 779.
Richardson, William D., assignor to Swift & Company, Chicago, Ill. Making catalyzers. No. 1,257,531; Feb. 26; v. 247; p. 819.
Richter, Emanuel, Chicago, Ill. Coin-actuated mechanism. No. 1,257,274; Feb. 19; v. 247; p. 709.
Richter, Emil R., assignor to Harvard Electric Company, Chicago, Ill. Polarity-indicator. No. 1,256,266; Feb. 12; v. 247; p. 375.

Richter, William A., and E. S. H. Baars, Milwaukee, Wis.; said Baars assignor to said Richter. Refrigerating apparatus. No. 1,256,730; Feb. 19; v. 247; p. 549.

Riddell, William A. (See Speidel, Kroedel, and Riddell.)

Rieder, Alvin D., *et al.* (See Jackson, Clarence W., assignor.)

Riekens, John, Wellsburg, Iowa. Wire-stretcher. No. 1,256,927; Feb. 19; v. 247; p. 607.

Risk, Allan, Newcastle-upon-Tyne, England. Hand-operated apparatus for rotating drills or other rotary tools or implements. No. 1,257,532; Feb. 26; v. 247; p. 819.

Ristine, John D., and B. C. Rowell, deceased, N. H. Byam, administrator, assignors to Anchor Brake Shoe & Manufacturing Company, Chicago, Ill. Making brake-shoes. No. 1,257,122; Feb. 19; v. 247; p. 663.

Ritscher, William J. S., assignor of one-half to W. W. Woodruff, Pittsburgh, Pa. Paper-pinning machine. No. 1,255,640; Feb. 5; v. 247; p. 152.

Ritter, Gilbert P., Washington, D. C. Draft appliance for railway-vehicles. No. 1,256,259; Feb. 12; v. 247; p. 375.

Ritz-Woller, Oliver C., Chicago, Ill. Gasolene-gage. No. 1,257,929; Feb. 26; v. 247; p. 935.

Rizzolo, Donato R., Newark, N. J. Pivoted reversible window. No. 1,255,464; Feb. 5; v. 247; p. 100.

Roach, Christopher J., Middletown, Conn. Chain construction. No. 1,257,998; Feb. 26; v. 247; p. 779.

Robb, Clyde S., Washington, assignor of one-half to C. J. Kunzler, Pittsburgh, Pa. Apparatus for drawing glass cylinders. No. 1,256,260; Feb. 12; v. 247; p. 376.

Robbins, John E., Greensburg, Ind. Hog-feeder. No. 1,257,399; Feb. 26; v. 247; p. 779.

Robbins, John E., Greensburg, Ind. Hog-feeder. No. 1,257,638; Feb. 26; v. 247; p. 851.

Robert N. Bassett Company, The. (See Russ, Friend A., assignor.)

Roberts, Chester A., Allegan, Mich. Automobile sleigh. No. 1,256,261; Feb. 12; v. 247; p. 376.

Roberts, Gus F., assignor to Textile Specialty Company, Belton, S. C. Wiper for spinning-machines. No. 1,256,040; Feb. 12; v. 247; p. 308.

Roberts, James M., Marion, Ky. Pipe-coupling. No. 1,256,369; Feb. 12; v. 247; p. 408.

Roberts, Louis L. (See Gaata and Roberts.)

Roberts, William T. B., Leicester, England, assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Machine for use in the manufacture of boots and shoes. No. 1,255,641; Feb. 5; v. 247; p. 152.

Robertson, Albert E. (See Robertson, John H., and A. E.)

Robertson, George D., *et al.* (See Blumenberg, Henry, Jr., assignor.)

Robertson, John H., Pontiac, and A. E., Walled Lake, Mich. Aeroplane. No. 1,257,740; Feb. 26; v. 247; p. 881.

Robertson, William. (See Dawson, Sidney, assignor.)

Robin, Jacob I., Harrow, England. Incandescent gas-fitting. No. 1,257,930; Feb. 26; v. 247; p. 935.

Robinson, Clark S., Cambridge, assignor to E. B. Badger and Sons Company, Boston, Mass. Reaction-tower. No. 1,257,400; Feb. 26; v. 247; p. 779.

Rochelle, Carl, Washington, N. C. Rail-locking device. No. 1,255,465; Feb. 5; v. 247; p. 101.

Rodal, Augusto, Habana, Cuba. Safety-suit for aviators. No. 1,256,594; Feb. 19; v. 247; p. 509.

Rodrigo, Henry, Sr., Houston, Tex. Well-screen. No. 1,256,830; Feb. 19; v. 247; p. 578.

Roebuck, Alvah C., assignor to Woodstock Typewriter Company, Woodstock, Ill. Margin-stop indicator. No. 1,256,595; Feb. 19; v. 247; p. 509.

Roebuck, Alvah C., assignor to Woodstock Typewriter Company, Woodstock, Ill. Automatic reversible ribbon-feed. No. 1,257,401; Feb. 26; v. 247; p. 779.

Roeder, John, Chicago, Ill., assignor to J. W. Larkin and A. O'Hare. Electric signal device. No. 1,256,262; Feb. 12; v. 247; p. 376.

Roese, Fred, Penn Yan, N. Y. Dust-receiver for grinding and polishing machines. No. 1,255,230; Feb. 5; v. 247; p. 32.

Rogers, Eugene, Barberton, Ohio. Applicator. No. 1,256,831; Feb. 19; v. 247; p. 578.

Rogers, Harrison W., Wheeling, W. Va. Mechanism for controlling motion-picture and sound-reproducing mechanisms. No. 1,255,822; Feb. 5; v. 247; p. 204.

Rogers, Harrison W., Wheeling, W. Va. Synchronizing mechanism for motion-picture and sound-reproducing machines. No. 1,255,823; Feb. 5; v. 247; p. 205.

Rogers, John R., Brooklyn, N. Y. Device for transmitting power. No. 1,256,590; Feb. 19; v. 247; p. 510.

Rogers, William R., Newark, N. J., assignor to William Raubitschek, Brooklyn, N. Y. Selvage-severing mechanism. No. 1,256,731; Feb. 19; v. 247; p. 549.

Rohling, John M., assignor to American Car and Foundry Company, St. Louis, Mo. Hopper-car-door-operating mechanism. No. 1,256,165; Feb. 12; v. 247; p. 347.

Rohling, John M., assignor to American Car and Foundry Company, St. Louis, Mo. Coupling-centering device. No. 1,256,166; Feb. 12; v. 247; p. 347.

Röhm, Otto, Darmstadt, Germany. Softening hides, skins, or the like. No. 1,257,402; Feb. 26; v. 247; p. 780.

Rokoal, Paul W., New Canaan, Conn. Railway-tie. No. 1,257,123; Feb. 19; v. 247; p. 663.

Romero, Alfredo L., Oakland, Cal. Aeroplane. No. 1,257,124; Feb. 19; v. 247; p. 663.

Ronning, Adolph. (See Ronning, Andrean G. and A.)

Ronning, Andrean G. and A., Boyd, Minn. Ensilage-harvester. No. 1,257,403; Feb. 26; v. 247; p. 780.

Root, John R., Terre Haute, Ind. Brick. No. 1,255,642; Feb. 5; v. 247; p. 153.

Rose, George D., Manchester, England. Felly construction. No. 1,257,125; Feb. 19; v. 247; p. 663.

Rose, Reed P., Pittsburgh, Pa. Production of a nitrogenous fertilizer from leather waste. No. 1,255,643; Feb. 5; v. 247; p. 153.

Rosen, David, Philadelphia, Pa. Flag-holder. No. 1,256,370; Feb. 12; v. 247; p. 408.

Rosenberger, Ruben E., Dewey, Ariz. Clothes-pin. No. 1,257,639; Feb. 26; v. 247; p. 851.

Rosenkrans, John M., Seattle, Wash. Gas-mixer. No. 1,256,041; Feb. 12; v. 247; p. 309.

Rosevear, William B., Jr., Toledo, Ohio. Plastic composition. No. 1,256,042; Feb. 12; v. 247; p. 309.

Ross, Adam, Buffalo, N. Y. Paper-winding machine. No. 1,257,404; Feb. 26; v. 247; p. 780.

Ross Manufacturing Company, The. (See Ross, William E., assignor.)

Ross, William E., assignor to The Ross Manufacturing Company, Cleveland, Ohio. Wheel-dresser. No. 1,256,167; Feb. 12; v. 247; p. 348.

Ross, William H. (See Gibson and Ross.)

Rosser, Virgil O., *et al.* (See Macon, Alexander W., assignor.)

Roth, Dennis D., Atlantic City, N. J. Protractor-level for drills and other tools. No. 1,255,644; Feb. 5; v. 247; p. 153.

Rothschild, Jesse A., Chicago, Ill. Radiator-protector. No. 1,257,640; Feb. 26; v. 247; p. 851.

Roush, Franklin E., Dayton, Ohio. Commode. No. 1,255,645; Feb. 5; v. 247; p. 154.

Rowe, John, Casey, Iowa. Non-skid device for tires. No. 1,256,732; Feb. 19; v. 247; p. 550.

Rowell, Benton C. (See Ristine and Rowell.)

Rowell, Walter C., Santa Ana, Cal. Storage battery and box retainer. No. 1,257,931; Feb. 26; v. 247; p. 936.

Rowledge, Arthur J., assignor to D. Napier & Son Limited, London, England. Variable-speed gear. No. 1,256,371; Feb. 12; v. 247; p. 408.

Rowledge, Arthur J., assignor to D. Napier & Son Limited, London, England. Variable-speed gear. No. 1,256,372; Feb. 12; v. 247; p. 409.

Rowledge, Arthur J., assignor to D. Napier & Son Limited, London, England. Variable-speed gear. No. 1,256,373; Feb. 12; v. 247; p. 410.

Rowledge, Arthur J., assignor to D. Napier & Son Limited, London, England. Variable-speed gear. No. 1,256,374; Feb. 12; v. 247; p. 410.

Rubber Regenerating Company. (See Murdock, Harold R., assignor.)

Ruby, Perry U., Wauneta, Nebr. Mail-box attachment for holding coin. No. 1,256,375; Feb. 12; v. 247; p. 410.

Rucker, Jesse L., Viola, Kans. Funnel. No. 1,256,733; Feb. 19; v. 247; p. 550.

Ruddy, Patrick J., Centralia, Pa. Magnetic aerial apparatus. No. 1,255,646; Feb. 5; v. 247; p. 154.

Ruehmling, John H. (See Foster, Lewis L., assignor.)

Ruf, Frank G., and W. Klesius, New York, N. Y. Tank-siphon. No. 1,256,928; Feb. 19; v. 247; p. 607.

Rumke, George H., Denver, Colo. Amusement device. No. 1,256,734; Feb. 19; v. 247; p. 550.

Rundlett, William D., assignor to Davis and Furber Machine Co., North Andover, Mass. Mule. No. 1,255,934; Feb. 12; v. 247; p. 277.

Rundus, John J., Munden, Kans. Fastening means for shoes. No. 1,257,026; Feb. 19; v. 247; p. 637.

Rüping, Max, Berlin, assignor to Huisberg & Cie., m. b. H., Charlottenburg, Germany. Impregnation of wood, &c. No. 1,255,340; Feb. 5; v. 247; p. 66.

Ruppel, Henry, Cleveland, Ohio, assignor to American Stove Company, St. Louis, Mo. Wick oil-burner. No. 1,256,376; Feb. 12; v. 247; p. 411.

Russ, Friend A., Greenwich, assignor to The Robert N. Bassett Company, Shelton, Conn. Buckle. No. 1,257,935; Feb. 26; v. 247; p. 937.

Russell Company, The. (See Kinsley, William S., assignor.)

Russell Grader Manufacturing Co. (See Anderson, Axel, assignor.)

Russell, Justin E., Chicago, Ill. Pneumatic pump. No. 1,255,841; Feb. 5; v. 247; p. 65.

Russell, Percy, assignor to Electro Dental Manufacturing Company, Philadelphia, Pa. Dental cabinet. No. 1,257,936; Feb. 26; v. 247; p. 937.

Russell, Percy, Philadelphia, Pa., and A. W. Schramm, Riverton, N. J., assignors to Electro Dental Manufacturing Company, Philadelphia, Pa. Pressure-regulator. No. 1,257,741; Feb. 26; v. 247; p. 881.

Russell, Thomas N., assignor to Chicago-Cleveland Car Roofing Company, Chicago, Ill. Car-roof. No. 1,255,231; Feb. 5; v. 247; p. 33.

Russell, Thomas N., assignor to Chicago-Cleveland Car Roofing Company, Chicago, Ill. Car-roof. No. 1,255,232; Feb. 5; v. 247; p. 33.

Rust, William C., Goldendale, Wash. Comb-holder and clip therefor. No. 1,257,937; Feb. 26; v. 247; p. 938.

Ruud, Edwin, Pittsburgh, Pa. Fluid-mixing apparatus. No. 1,257,934; Feb. 26; v. 247; p. 937.

Ruud, Edwin, Pittsburgh, Pa., and H. S. Humphrey, Kalamazoo, Mich., assignors to Ruud Manufacturing Company, Pittsburgh, Pa. Water-valve for instantaneous water-heaters. No. 1,257,932; Feb. 26; v. 247; p. 936.

Ruud, Edwin, Pittsburgh, Pa., and H. S. Humphrey, Kalamazoo, Mich., assignors to Ruud Manufacturing Company, Pittsburgh, Pa. Water-valve for instantaneous water-heaters. No. 1,257,933; Feb. 26; v. 247; p. 936.

Ruud Manufacturing Company. (See Ruud and Humphrey, assignors.)

Ryan, Daniel J., Cleveland, Ohio. Molding-machine. No. 1,255,466; Feb. 5; v. 247; p. 101.

Ryan, Daniel J., Cleveland, Ohio. Apparatus for making cores. No. 1,255,467; Feb. 5; v. 247; p. 102.

Ryan, Daniel J., Cleveland, Ohio. Preparing sand molds for and casting cup-shaped articles. No. 1,255,468; Feb. 5; v. 247; p. 102.

Ryan, John E., Boston, Mass. Light-projecting lamp. No. 1,257,405; Feb. 26; v. 247; p. 780.

Ryan, John P. (See Goodnow, Henry W., assignor.)

Ryland, Thomas J. F., London, England. Variable-speed friction and belt gearing. No. 1,257,742; Feb. 26; v. 247; p. 882.

Ryther, Frank A., Chicago, Ill. Cord tying and fastening device. No. 1,257,027; Feb. 19; v. 247; p. 638.

Ryther, Frank A., Chicago, Ill. Buckle. No. 1,257,028; Feb. 19; v. 247; p. 638.

S. Karpen & Bros. (See Karpen, Solomon, assignor.)

S. Karpen & Bros. (See Karpen and Hultgren, assignors.)

S. K. F. Ball Bearing Company. (See Wingquist, Sven G., assignor.)

S. O. & C. Co., The. (See Neuberth, Franklin G., assignor.)

Sabin, Warren, Tavera, Wis. Log-sawing device. No. 1,255,935; Feb. 12; v. 247; p. 277.

Sabina, Emerich, and L. I. Cope, Sharpsburg, Pa. Renewable cartridge-fuse. No. 1,256,043; Feb. 12; v. 247; p. 309.

Sachs, Joseph, Hartford, Conn. Electric switch. No. 1,257,533; Feb. 26; v. 247; p. 820.

Sachs, Joseph, Hartford, Conn. Switch. No. 1,257,534; Feb. 26; v. 247; p. 820.

Sacks, Herman, Chicago, Ill. Garter. No. 1,255,647; Feb. 5; v. 247; p. 154.

Sadlo, Charles, Astoria, N. Y. Fender attachment for automobiles. No. 1,256,497; Feb. 12; v. 247; p. 445.

Safety Block Signal Company, The. (See Williams, Frank C., assignor.)

Safety Car Heating and Lighting Company. (See Creveling, John L., assignor.)

Safety Car Heating & Lighting Company. (See Grob, Hugo, assignor.)

Safford, Ray P., Douglas, Ariz. Ore-separating apparatus. No. 1,256,263; Feb. 12; v. 247; p. 377.

Sagan, Joseph, Pittsburgh, Pa. Flushing-conduit. No. 1,255,648; Feb. 5; v. 247; p. 155.

Salisbury, John B., Phelps, N. Y. Dirigible headlight for automobiles. No. 1,257,029; Feb. 19; v. 247; p. 638.

Salles, Paul, La Fayette, La. Dental-slab holder. No. 1,256,877; Feb. 12; v. 247; p. 411.

Salo, Karl, and M. Sherman, Indianapolis, Ind. Power-hammer. No. 1,255,793; Feb. 5; v. 247; p. 196.

Salvati, Dominick, Brooklyn, N. Y. Sanitary cart. No. 1,255,649; Feb. 5; v. 247; p. 155.

Sammarone, Amato N., Akron, Ohio. Shaft-support. No. 1,257,030; Feb. 19; v. 247; p. 638.

Sampson, Frank, *et al.* (See De Tamble, Percy F., assignor.)

Sampson, William A., Windsor, Mo. Vehicle-cover. No. 1,257,535; Feb. 26; v. 247; p. 821.

Samuel G. Supplee & Co. (See Sternberg, George, assignor.)

Samuelson, Frederick, Rugby, England, assignor to General Electric Company, Elastic-fluid turbine. No. 1,255,650; Feb. 5; v. 247; p. 155.

Sanders, John M. (See West, Edward D., assignor.)

Sandlas, Henry J., West Forest Park, Md., assignor to American Piano Company, New York, N. Y. Grand-piano action. No. 1,255,842; Feb. 5; v. 247; p. 66.

Sanitary Screen and Shade Company. (See Soule, Arthur C., assignor.)

Sansom, Cooper. (See Boyd, James S., assignor.)

Santella, Michelangelo, Marlboro, Mass. Arch-support. No. 1,255,794; Feb. 5; v. 247; p. 197.

Santirocco, Berardi. (See Tavani and Santirocco.)

Sargent & Company. (See Shaw, John H., assignor.)

Sargent & Company. (See Voight, Henry G., assignor.)

Sargent, E. O. (See Leslie, Frank, assignor.)

Sartain, Louis M., assignor of one-tenth to W. H. Woodlee, one-tenth to W. G. Woodlee, one-tenth to G. Burrows, one-tenth to L. J. Campbell, one-tenth to S. C. Scott, one-tenth to J. Givens, one-tenth to W. H. Campbell, one-tenth to E. C. Shelton, one-tenth to G. D. Boyd, and one-twentieth to W. E. Gillen, Altamont, Tenn. Nut-lock wrench. No. 1,257,275; Feb. 19; v. 247; p. 709.

Sato, Natsuo, Los Angeles, Cal. Vehicle-signal. No. 1,256,264; Feb. 12; v. 247; p. 377.

Sato, Ryuji, Brooklyn, N. Y. Combined shirt and collar fastening. No. 1,256,735; Feb. 19; v. 247; p. 551.

Sauerman, William E., Belmond, Iowa. Hanger for hats and other articles. No. 1,257,406; Feb. 26; v. 247; p. 781.

Saunders, John R., Edgewood borough, assignor to The Union Switch & Signal Company, Swissvale, Pa. Indication apparatus for railway-traffic-controlling apparatus. No. 1,257,743; Feb. 26; v. 247; p. 882.

Savage Arms Corporation. (See Nelson, Charles A., assignor.)

Savage, Ralph V., assignor of one-half to K. R. Baraum, Sedalia, Mo. Ignition-timer. No. 1,255,795; Feb. 5; v. 247; p. 197.

Savery, William H. (See Parsons, John H., assignor.)

Scarborough, Ellis W., and E. W. Fletcher, Searsport, Me. Wire-connecting device. No. 1,255,238; Feb. 5; v. 247; p. 32.

Scarlett, William E., East Lynn, assignor to Hamel Shoe Machinery Company, Lynn, Mass. Receiver of heel-nailing machines. No. 1,256,876; Feb. 12; v. 247; p. 411.

Scattergood, Frank H. (See Steele and Scattergood.)

Schadow, Julius R., Vallejo, Cal. Automatic feed mechanism for punches. No. 1,257,938; Feb. 26; v. 247; p. 938.

Schaefer, Joseph B., Celina, Ohio. Baby-carriage. No. 1,256,879; Feb. 12; v. 247; p. 411.

Schaefer, William H., New York, N. Y. Means for checking accounts. No. 1,255,796; Feb. 5; v. 247; p. 197.

Schafer, Ditrich, and A. Kitscher, Sacramento, Cal. Picture-frame. No. 1,255,797; Feb. 5; v. 247; p. 197.

Schaller, Otto, Südende, near Berlin, Germany. Producing metallic wires, filaments, and the like. No. 1,256,929; Feb. 19; v. 247; p. 608.

Schaller, Otto, Südende, near Berlin, Germany. Filament or wire formed of a single crystal. No. 1,256,930; Feb. 19; v. 247; p. 608.

Schartow, Frank E., Racine, assignor of one-half to R. A. Nourse, Milwaukee, Wis. Snap-hook. No. 1,257,641; Feb. 26; v. 247; p. 851.

Schaum & Uhlinger Incorporated. (See Suther, Alfred M., assignor.)

Schechter, Joseph, New York, N. Y. Padlock. No. 1,256,168; Feb. 12; v. 247; p. 348.

Schenck, John H. and L. E., Cedar Rapids, Iowa. Hair-curler. No. 1,256,597; Feb. 19; v. 247; p. 510.

Schenck, Licia E. (See Schenck, John H. and L. E.)

Schilling, John N., Columbus, Ohio. Mail-box. No. 1,256,044; Feb. 12; v. 247; p. 309.

Schiehr, Joseph A., Chicago, Ill. Washing-machine. No. 1,255,843; Feb. 5; v. 247; p. 66.

Schlicker, Herman C., New York, N. Y. Kinetograph. No. 1,256,931; Feb. 19; v. 247; p. 608.

Schlieder, Augustus E., assignor to Schlieder Manufacturing Company, Detroit, Mich. Making valves. No. 1,255,469; Feb. 5; v. 247; p. 103.

Schlieder Manufacturing Company. (See Schlieder, Augustus E., assignor.)

Schlintz, Charles F. (See Griesel, John C., assignor.)

Schmidt, Frederick W., Chicago, Ill., assignor, by mesne assignments, to Times-Systems Company, Portland, Me. Mercury switch. No. 1,256,580; Feb. 12; v. 247; p. 412.

Schmiedeknecht, Victor E., Louisville, Ky. Piston. No. 1,256,265; Feb. 12; v. 247; p. 377.

Schmitt, Martin F., New York, N. Y. Controlling device. No. 1,256,381; Feb. 12; v. 247; p. 412.

Schmitthenner, Friedrich. (See Seitz and Schmitthenner.)

Schneider, Christian. (See Mittasch, Schneider, and Morawitz.)

Schneider, Eugène, Le Creuzot, France. Explosive projectile. No. 1,257,126; Feb. 19; v. 247; p. 664.

Schneider, Hermann D., Milverton, Ontario, Canada. Shock-gatherer. No. 1,255,470; Feb. 5; v. 247; p. 103.

Schoenberger, Michael F., Los Angeles, Cal. Wheel. No. 1,256,598; Feb. 19; v. 247; p. 510.

Schoenen, Frederick W., Great Falls, Mont. Submarine construction for diving purposes. No. 1,255,284; Feb. 5; v. 247; p. 34.

Schoenle, Walter M. (See Benzinger, Albert, assignor.)

Schönwitz, Michael N., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Fluid rheostat. No. 1,256,832; Feb. 19; v. 247; p. 579.

Schoonenberg, Pancras. (See Filippo and Schoonenberg.)

Schoop, Max U., Hönge, Switzerland. Process and mechanism for the production of electric heaters. No. 1,256,599; Feb. 19; v. 247; p. 511.

Schoor, Robert, San Francisco, Cal. Rotary pump or compressor. No. 1,257,744; Feb. 26; v. 247; p. 882.

Schossow, Frederick A., Detroit, Mich. Shampoo-spray. No. 1,256,600; Feb. 19; v. 247; p. 511.

Schraeder, Frank J., Jr., Wheaton, Ill. Hoisting apparatus. No. 1,256,169; Feb. 12; v. 247; p. 349.

Schraeder, Frank J., Jr., Wheaton, Ill. Hoisting apparatus. No. 1,256,932; Feb. 19; v. 247; p. 608.

Schramm, Adolph W. (See Russell and Schramm.)

Schreme, Joseph M., Saginaw, Mich. Vent-cap for soil-pipes. No. 1,256,045; Feb. 12; v. 247; p. 310.

Schriner, Charles F., Cleveland, Ohio. Means for reinforcing open end of metallic receptacles. No. 1,256,933; Feb. 19; v. 247; p. 609.

Schroeder, Ernest A., and J. N. Tooker, Syracuse, assignors to Church & Dwight Company, New York, N. Y. Carton-sealing machine. No. 1,257,745; Feb. 26; v. 247; p. 883.

Schroeder, Gottlieb W., Andrews, Ind. Adjustable socket for mounting ornaments, &c., upon automobiles. No. 1,257,536; Feb. 26; v. 247; p. 821.

Schroeder, William S., Austin, assignor to C. A. Schroyer, Oak Park, Ill. Yoke for draft-gears. No. 1,256,266; Feb. 12; v. 247; p. 377.

Schroeder, William S., Chicago, assignor to C. A. Schroyer, Oak Park, Ill. Yoke for draft-gears. No. 1,256,267; Feb. 12; v. 247; p. 378.

Schroeder, William S., Chicago, assignor to C. A. Schroyer, Oak Park, Ill. Yoke for draft-gears. No. 1,256,268; Feb. 12; v. 247; p. 378.

Schroyer, Charles A. (See Schroeder, William S., assignor.)

Schroyer, Harry H., Chicago, Ill., assignor to Dunbar Manufacturing Company. Window-sash. No. 1,256,046; Feb. 12; v. 247; p. 310.

Schroyer, Harry H., Chicago, Ill., assignor to Dunbar Manufacturing Company. Hinged curtain-shield. No. 1,256,047; Feb. 12; v. 247; p. 310.

Schroyer, Harry H., Chicago, Ill., assignor to Dunbar Manufacturing Company. Car-vestibule diaphragm. No. 1,256,048; Feb. 12; v. 247; p. 310.

Schroyer, Harry H., assignor to Dunbar Manufacturing Company, Chicago, Ill. Weather-strip for car-windows. No. 1,256,049; Feb. 12; v. 247; p. 311.

Schroyer, Harry H., Chicago, Ill., assignor to Dunbar Manufacturing Company. Car-vestibule diaphragm. No. 1,256,050; Feb. 12; v. 247; p. 311.

Schroyer, Harry H., Chicago, Ill., assignor to Dunbar Manufacturing Company. Curtain-box spring-lock. No. 1,256,051; Feb. 12; v. 247; p. 311.

Schroyer, Harry H., Chicago, Ill., assignor to Dunbar Manufacturing Company. Weather-strip. No. 1,256,052; Feb. 12; v. 247; p. 312.

Schroyer, Harry H., Chicago, Ill., assignor to Dunbar Manufacturing Company. Curtain-fixture. No. 1,256,053; Feb. 12; v. 247; p. 312.

Schroyer, Harry H., Chicago, Ill., assignor to Dunbar Manufacturing Company. Telescoping metal car-diaphragm. No. 1,256,054; Feb. 12; v. 247; p. 312.

Schroyer, Harry H., Chicago, Ill., assignor to Dunbar Manufacturing Company. Metal car-diaphragm. No. 1,256,055; Feb. 12; v. 247; p. 313.

Schroyer, Harry H., Chicago, Ill., assignor to Dunbar Manufacturing Company. Metallic car-diaphragm. No. 1,256,056; Feb. 12; v. 247; p. 313.

Schroyer, Harry H., Chicago, Ill., assignor to Dunbar Manufacturing Company. Metal vestibule-car diaphragm. No. 1,256,057; Feb. 12; v. 247; p. 313.

Schroyer, Harry H., Chicago, Ill., assignor to Dunbar Manufacturing Company. Roof structure for metal vestibule-car diaphragms. No. 1,256,058; Feb. 12; v. 247; p. 314.

Schroyer, Harry H., Chicago, Ill., assignor to Dunbar Manufacturing Company. Metal roof structure and seal for car-diaphragms. No. 1,256,059; Feb. 12; v. 247; p. 314.

Schroyer, Harry H., Chicago, Ill., assignor to Dunbar Manufacturing Company. Folding tail-gate for passenger-cars. No. 1,256,060; Feb. 12; v. 247; p. 314.

Schroyer, Harry H., assignor to Dunbar Manufacturing Company, Chicago, Ill. Car-diaphragm hood. No. 1,256,061; Feb. 12; v. 247; p. 315.

Schuckman, John P., Wichita, Kans. Animal-trap. No. 1,255,798; Feb. 5; v. 247; p. 198.

Schumacher, Conrad, Lynnbrook, N. Y., assignor to Auto Strop Company. Honing or grinding machine. No. 1,255,799; Feb. 5; v. 247; p. 198.

Schumacher, Emil, Seattle, Wash. Automobile-steering-wheel lock. No. 1,257,031; Feb. 19; v. 247; p. 638.

Schumacher, Herbert C. (See Galvin and Schumacher.)

Schumann, Fred, Brooklyn, N. Y. Screw-lock and slot-filler. No. 1,257,537; Feb. 26; v. 247; p. 321.

Schürmann, Carl, Duesseldorf, Germany. Roll-calender. No. 1,257,746; Feb. 26; v. 247; p. 883.

Schuemeier, Frances K., St. Paul, Minn. Ear shield or protector. No. 1,255,800; Feb. 5; v. 247; p. 198.

Schütz, Conrad, assignor to H. D. Sorg, Philadelphia, Pa. Door-latch. No. 1,256,934; Feb. 19; v. 247; p. 609.

Schwarzkopf, Arthur R., Muskegon, Mich., assignor to The Brunswick-Balke-Collender Company, Chicago, Ill. Talking-machine tone-arm. No. 1,257,939; Feb. 26; v. 247; p. 938.

Schweimler, Robert W., and P. A. Poulallion, assignors to Compo-Tile Fireproofing Company, Wheeling, W. Va. Building construction. No. 1,255,235; Feb. 5; v. 247; p. 34.

Schweimler, Robert W., and P. A. Poulallion, assignors to Compo-Tile Fireproofing Company, Wheeling, W. Va. Tile or block. No. 1,255,236; Feb. 5; v. 247; p. 34.

Schweitzer, Edmund O., Chicago, Ill. Electricity-metering. No. 1,256,170; Feb. 12; v. 247; p. 349.

Scifard, Benjamin F., Eagle Butte, S. D. Apparatus for carrying submarine torpedoes. No. 1,257,747; Feb. 26; v. 247; p. 883.

Scott, Bateman D., Sale, assignor to The Gresham Finance Corporation Limited, London, England. Valve-gear of radial-cylinder internal-combustion engines. No. 1,256,633; Feb. 19; v. 247; p. 579.

Scott, Charles O., assignor to Scott Manufacturing Company, Toronto, Ontario, Canada. Talking-machine brake. No. 1,256,601; Feb. 19; v. 247; p. 512.

Scott, David J., et al., executors. (See Scott, David J. and W. C., assignors.)

Scott, David J. and W. C., Plainfield, N. J., assignors to I. and D. J. Scott, executors. Blanket-cylinder. No. 1,257,538; Feb. 26; v. 247; p. 321.

Scott, Henry L., Providence, R. I. Clamp. No. 1,255,936; Feb. 12; v. 247; p. 278.

Scott, Isabella, et al., executors. (See Scott, David J. and W. C., assignors.)

Scott, James F. and R. F., New York, N. Y. Internal-combustion engine. No. 1,256,382; Feb. 12; v. 247; p. 413.

Scott Manufacturing Company. (See Scott, Charles O., assignor.)

Scott, Robert F. (See Scott, James F. and R. F.)

Scott, Robert W., Boston, Mass., assignor, by mesne assignments, to Scott & Williams, Incorporated. Yarn-feeding device for knitting-machines. No. 1,256,062; Feb. 12; v. 247; p. 315.

Scott, Robert W., Boston, Mass., assignor, by mesne assignments, to Scott & Williams, Incorporated. Stocking and making the same. No. 1,256,834; Feb. 19; v. 247; p. 579.

Scott, S. C., et al. (See Sartain, Louis M., assignor.)

Scott, Thomas. (See Knowlton and Scott.)

Scott, Walter C. (See Scott, David J. and W. C.)

Scott, Walter E., North Battleford, Saskatchewan, Canada. Train-stop. No. 1,255,471; Feb. 5; v. 247; p. 103.

Scott & Williams. (See Scott, Robert W., assignor.)

Scovill Manufacturing Company. (See Simons, Ernst D., assignor.)

Scribner, Thomas B., Orland, Cal. Window-curtain holder. No. 1,255,472; Feb. 5; v. 247; p. 104.

Seamless Products Corporation. (See Pryyn, Frederic, assignor.)

Sears, Roebuck and Company. (See Bohmker, John C., assignor.)

Seay, Thomas A., Cookville, Tex. Railway cattle-gate. No. 1,255,801; Feb. 5; v. 247; p. 199.

Seeger, August C., East St. Louis, Ill., assignor of one-sixth to R. E. Conway, St. Louis, Mo., one-sixth to A. F. Seeger, Jr., and one-sixth to S. B. Morse, East St. Louis, Ill. Compression grease-cup. No. 1,256,269; Feb. 12; v. 247; p. 378.

Seeger, August F., Jr., et al. (See Seeger, August C., assignor.)

Segel, Michael, New York, N. Y. Lighting apparatus for motion-picture machines. No. 1,255,344; Feb. 5; v. 247; p. 66.

Sehnert, Edward. (See Fairbank, Silas F., assignor.)

Seibt, George, Schöneberg, near Berlin, Germany, assignor to General Transmission Company, New York, N. Y. Quench-spark gap. No. 1,256,270; Feb. 12; v. 247; p. 378.

Seitz, Georg H., and F. Schmitthenner, assignors to Seitz-Werke Theo. & Geo. Seitz, Kreusnach a. d. Vahe, Germany. Filter-body. No. 1,256,171; Feb. 12; v. 246; p. 349.

Seitz-Werke Theo. & Geo. Seitz. (See Seitz and Schmitthenner, assignors.)

Selah, Howard A., assignor to Standard Metal Manufacturing Company, Newark, N. J. Alternating-current rectifier. No. 1,256,603; Feb. 12; v. 247; p. 315.

Seley, Charles C., assignor to G. H. Barlow and J. J. Desmond, Corry, Pa. Wire-bending machine. No. 1,257,748; Feb. 26; v. 247; p. 883.

Selstrom, Ivan F., Steckett, Mont. Hand-lever. No. 1,257,749; Feb. 26; v. 247; p. 884.

Sem, Mathias, assignor to Det Norske Aktieselskab for elektrokemisk Industri, Norsk Industri-Hypotekbank, Christiania, Norway. Producing nitrogen compounds of metals. No. 1,256,935; Feb. 19; v. 247; p. 609.

Seneca Camera Manufacturing Company. (See Goddard and Hutchings, assignors.)

Sessions, Edward, Bradley, Mich. Bean-harvester. No. 1,256,172; Feb. 12; v. 247; p. 349.

Setchell, Frederick J. (See Barry, Cornelius J., assignor.)

Severy, Melvin L., Arlington Heights, Mass., and G. B. Sinclair, Georgetown, Me. Coupler for musical instruments. No. 1,256,651; Feb. 5; v. 247; p. 156.

Sévigné, Henri A., Winthrop, Mass. Reshaped sheet-metal utensil and making the same. No. 1,255,227; Feb. 5; v. 247; p. 35.

Sewell-Clapp Envelopes. (See Fraser, Le Roy B., assignor.)

Seymour, Dudley S., Oak Park, assignor to Union Special Machine Company, Chicago, Ill. Straightaway sewing sewing machine. No. 1,255,802; Feb. 5; v. 247; p. 199.

Seymour, Dudley S., Oak Park, assignor to Union Special Machine Company, Chicago, Ill. Spreader mechanism for sewing-machines. No. 1,256,271; Feb. 12; v. 247; p. 379.

Seymour, Dudley S., Oak Park, assignor to Union Special Machine Company, Chicago, Ill. Looper mechanism for sewing-machines. No. 1,257,940; Feb. 26; v. 247; p. 935.

Shambow, John C., Woonsocket, R. I. Shuttle. No. 1,257,750; Feb. 26; v. 247; p. 884.

Shampay Brothers. (See Shampay, Pascal J., assignor.)

Shampay, Pascal J., assignor to Shampay Brothers, Chicago, Ill. Cleaning-machine. No. 1,256,173; Feb. 12; v. 247; p. 350.

Shane, Sol I. (See Hunt, Henry J., assignor.)

Shannon, Peter, Chicago, Ill. Street-flushing apparatus. No. 1,256,064; Feb. 12; v. 247; p. 316.

Sharp, Charles S., Auburn, N. Y., assignor to International Harvester Company of New Jersey. Riding attachment for harrows and the like. No. 1,257,407; Feb. 26; v. 247; p. 781.

Sharp, Frank P., Oakland, Cal. Ratchet-drill. No. 1,255,868; Feb. 5; v. 247; p. 199.

Sharpies Specialty Company. (See Miller, Max B., assignor.)

Sharrar, McClellan C., Toledo, Ohio. Dirigible light. No. 1,257,408; Feb. 26; v. 247; p. 781.

Shaug, Hugh G., Los Angeles, Cal. Water-heater. No. 1,255,825; Feb. 5; v. 247; p. 200.

Shaver, Phillip A. Puente, Cal. Child's chair. No. 1,256,936; Feb. 19; v. 247; p. 610.

Shaw, Archibald W., Drew, Miss. Plow. No. 1,257,127; Feb. 19; v. 247; p. 664.

Shaw, Arthur L., Chicago, Ill. Conveyer. No. 1,256,345; Feb. 5; v. 247; p. 66.

Shaw, John H., assignor to Sargent & Company, New Haven, Conn. Lock. No. 1,255,473; Feb. 5; v. 247; p. 104.

Shaw, Nathaniel H., Boston, Mass. Inner tube for pneumatic tires. No. 1,257,409; Feb. 26; v. 247; p. 782.

Shaw, Percy W., and A. F. Littlefield, Lynn, Mass., assignors, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J. Making stiffeners for boots and shoes. No. 1,256,937; Feb. 19; v. 247; p. 610.

Shaw, William, Pittsfield, N. H. Transmission. No. 1,256,174; Feb. 12; v. 247; p. 350.

Sheck, Oscar M., assignor to The Argus Lamp and Appliance Company, Cleveland, Ohio. Adjustable lamp-carriage. No. 1,257,128; Feb. 19; v. 247; p. 664.

Sheck, Oscar M., assignor to The Argus Lamp and Appliance Company, Cleveland, Ohio. Adjustable lamp-carriage. No. 1,257,129; Feb. 19; v. 247; p. 665.

Sheck, Oscar M., assignor to The Argus Lamp and Appliance Company, Cleveland, Ohio. Adjustable lamp-bracket. No. 1,257,130; Feb. 19; v. 247; p. 665.

Sheck, Oscar M., assignor to The Argus Lamp and Appliance Company, Cleveland, Ohio. Adjustable lamp-carriage device. No. 1,257,131; Feb. 19; v. 247; p. 665.

Sheck, Oscar M., assignor to The Argus Lamp and Appliance Company, Cleveland, Ohio. Adapter for motion-picture-projector lamps. No. 1,257,132; Feb. 19; v. 247; p. 665.

Sheehan, John T., Davenport, Iowa. Awning. No. 1,257,539; Feb. 26; v. 247; p. 822.

Sheehy, Joanna, Los Angeles, Cal. Romper. No. 1,256,736; Feb. 19; v. 247; p. 551.

Sheinaus, Abraham, New York, N. Y. Filling apparatus. No. 1,256,065; Feb. 12; v. 247; p. 316.

Shelton, E. C., et al. (See Sartain, Louis M., assignor.)

Shelton, J. R., et al. (See Weston, Edwin J., Jr., assignor.)

Shelton, William G., New York, N. Y. Transmission mechanism. No. 1,256,175; Feb. 12; v. 247; p. 351.

Shepard, Hulde A., Lakeside, Wash. Article of food. No. 1,257,410; Feb. 26; v. 247; p. 782.

Shepard, Wilbur L., West Hartford, Conn. Engine. No. 1,256,885; Feb. 19; v. 247; p. 579.

Shepard, William H., et al. (See Stevenson, John F., assignor.)

Shepherd, Thomas, Oldham, England. Combined lamp and shade holder. No. 1,257,052; Feb. 19; v. 247; p. 639.

Sherlock, William G., Los Angeles, Cal. Car-polisher. No. 1,256,936; Feb. 19; v. 247; p. 610.

Sherman, Alvin G., assignor to Detroit Vapor Stove Company, Detroit, Mich. Burner. No. 1,257,133; Feb. 19; v. 247; p. 666.

Sherman, Clifton W., Buffalo, N. Y. Friction draft-gear. No. 1,255,238; Feb. 5; v. 247; p. 35.

Sherman, Clifton W., Buffalo, N. Y. Car-wheel. No. 1,255,937; Feb. 12; v. 247; p. 278.

Sherman, Clifton W., Buffalo, N. Y. Car-wheel. No. 1,257,411; Feb. 26; v. 247; p. 782.

Sherman, Michael. (See Salo and Sherman.)

Sherman, Willis S., Milwaukee, Wis. Feeder for end-matchers. No. 1,255,938; Feb. 12; v. 247; p. 278.

Sherwood, Laurence T., Connellsville, Pa. Recovering from niter cake products useful in the arts. No. 1,255,474; Feb. 5; v. 247; p. 104.

Shipherd, Carroline, Omaha, Nebr. Dish-cleaner and mop. No. 1,255,804; Feb. 5; v. 247; p. 200.

Shivers, George C., Savannah, Ga. Auxiliary air-valve. No. 1,257,154; Feb. 19; v. 247; p. 666.

Shobinske, Edward T., Hartford, Wis. Music-leaf turner. No. 1,257,540; Feb. 26; v. 247; p. 822.

Shochey, Arthur C., Shawnee, Okla. Bracket. No. 1,256,652; Feb. 5; v. 247; p. 156.

Shoebridge, Christopher H., New York, N. Y. Fusible service-protector. No. 1,256,066; Feb. 12; v. 247; p. 317.

Shoenberg, Milton H., San Francisco, and F. Talcott, Burlingame, Cal., assignors to Majestic Electric Development Company. Insulated testing-plug terminal. No. 1,255,824; Feb. 5; v. 247; p. 200.

Shook, Jessie A., Bronte, Tex. Knockdown and portable frame and hoist. No. 1,257,033; Feb. 19; v. 247; p. 639.

Shriver, Harry T., West Orange, N. J. Electrolytic apparatus. No. 1,256,067; Feb. 12; v. 247; p. 317.

Shull, Frederick G., Concord, Mass., and E. J. Du Right, Kansas City, Mo. Guying-pole. No. 1,257,135; Feb. 19; v. 247; p. 666.

Sillcocks-Miller Company, The. (See Sillcocks, Warren S., assignor.)

Sillcocks, Warren S., New York, N. Y., assignor to The Sillcocks-Miller Company, South Orange, N. J. Composite celluloid sheet. No. 1,257,541; Feb. 26; v. 247; p. 822.

Silva, Michael J. (See Eberhardt, George, assignor.)

Simmen, Paul J., Indianapolis, Ind. Train-despatching system. No. 1,257,412; Feb. 26; v. 247; p. 782.

Simmon, Karl A., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, Control system. No. 1,255,475; Feb. 5; v. 247; p. 104.

Simmons, George T., Janesville, Wis. Spark-plug. No. 1,255,805; Feb. 5; v. 247; p. 200.

Simmons Manufacturing Company. (See Geil, John F., assignor.)

Simmons, Ralph C., Beverly, Mass. Pencil-sharpening device. No. 1,256,383; Feb. 12; v. 247; p. 413.

Simons, Ernest D., assignor to Scovill Manufacturing Company, Waterbury, Conn. Gang setting-machine. No. 1,255,825; Feb. 5; v. 247; p. 200.

Simons, Ernest D., New Haven, assignor to Scoville Manufacturing Company, Waterbury, Conn. Button. No. 1,257,642; Feb. 26; v. 247; p. 351.

Simonson, Alfred W., Minneapolis, Minn. Window-ventilator. No. 1,256,826; Feb. 19; v. 247; p. 580.

Simonson, Robert, Mariveles, Philippine Islands. Building material and house construction. No. 1,256,384; Feb. 12; v. 247; p. 414.

Simpson, James J., Lone Grove, Okla. Buck-rake. No. 1,256,176; Feb. 12; v. 247; p. 351.

Sinclair, George B. (See Severy and Sinclair.)

Sinding-Larsen, Alf, Vestre Aker, near Christiania, Norway. Production of iron sponge from iron ore. No. 1,256,939; Feb. 19; v. 247; p. 610.

Singer, George W., South Bend, Ind. Sofa-bed. No. 1,257,542; Feb. 26; v. 247; p. 822.

Singer Manufacturing Company, The. (See Barron, William L., assignor.)

Singer Manufacturing Company, The. (See De Voe, Albert H., assignor.)

Singer Manufacturing Company, The. (See Grieb, Alfred, assignor.)

Singleton, Edward O. (See Engelland, Charles, assignor.)

Singmaster, James A., and F. G. Breyer, Palmerton, Pa., assignors to New Jersey Zinc Company, New York, N. Y. Zinc-lead pigment. No. 1,257,136; Feb. 19; v. 247; p. 666.

Sisi, Sebastian, St. Paul, assignor of one-half to E. Hoehl, St. Cloud, Minn. Milking-machine. No. 1,255,239; Feb. 5; v. 247; p. 35.

Sisson, Vinton E., assignor to W. P. Murphy, Chicago, Ill. Metal end for railway-cars. (Reissue.) No. 14,434; Feb. 19; v. 247; p. 718.

Skindfabriken Unicum Kr. Bendixen, P. Bendixen and Company. (See Bendixen, Kristian, assignor.)

Skinner, Le Grand, Erie, Pa. Valve-gear. No. 1,255,476; Feb. 5; v. 247; p. 105.

Slater, August H. (See Slaw, Frank W., assignor.)

Slattery, Michael A., and W. F. Dockery, San Francisco, Cal. Ball-cock. No. 1,257,295; Feb. 19; v. 247; p. 715.

Slaw, Frank W., assignor of one-half to A. H. Slater, Steubenville, Ohio. Controlling-valve. No. 1,256,602; Feb. 19; v. 247; p. 512.

Slocum, James P., Barnwell, Ala. Lamp-chimney. No. 1,257,034; Feb. 19; v. 247; p. 639.

Sloper, Thomas, Devizes, England. Pneumatic cushioning device for aircraft. No. 1,257,413; Feb. 26; v. 247; p. 783.

Slosar, John, et al. (See Cheselka, Peter, assignor.)

Small, Firman D., Attica, Ind. Level. No. 1,256,737; Feb. 19; v. 247; p. 551.

Small, Gilbert, Waltham, Mass. Pocket-calculator. No. 1,255,939; Feb. 12; v. 247; p. 279.

Smart, Gertrude A., Madison, Nebr. Poultry appliance. No. 1,255,477; Feb. 5; v. 247; p. 105.

Smedley, Jesse F. (See Hoffer and Smedley.)

Smith, Albert H., Birmingham, England. Feed mechanism for bar-stock. No. 1,257,035; Feb. 19; v. 247; p. 640.

Smith, Alexander W., Agassiz, British Columbia, Canada. Cattle-guard. No. 1,255,478; Feb. 5; v. 247; p. 105.

Smith, Andy, Wadsworth, Ohio. Safety mail-box and discharge means therefor. No. 1,256,177; Feb. 12; v. 247; p. 351.

Smith, Arlasa, Los Angeles, Cal. Hosiery. No. 1,257,643; Feb. 26; v. 247; p. 852.

Smith, Austin J., Brooklyn, N. Y. Means for draining gas-meters. No. 1,257,414; Feb. 26; v. 247; p. 783.

Smith, Benjamin H., assignor to Michigan Wire Goods Co., Niles, Mich. Sifting-shovel. No. 1,257,415; Feb. 26; v. 247; p. 783.

Smith, Bernard P., St. Louis, Mo. Bath spray-fixture. No. 1,257,751; Feb. 26; v. 247; p. 884.

Smith, Charles H., assignor to The Mantle Lamp Company of America, Chicago, Ill. Mantle-cap and burner-cone. No. 1,255,658; Feb. 5; v. 247; p. 156.

Smith, David D., Overland Park, Mo., assignor of one-half to J. R. Smith, New Orleans, La. Draft-beam and continuous draw-bar for railway-cars. No. 1,256,940; Feb. 19; v. 247; p. 611.

Smith, Ernest C., assignor to Walter A. Wood Mowing & Reaping Machine Co., Hoosick Falls, N. Y. Side-delivery rake. No. 1,256,178; Feb. 12; v. 247; p. 352.

Smith, Erwin, Appleton, Wis. Gate. No. 1,257,137; Feb. 19; v. 247; p. 667.

Smith, Floyd V. (See Smith, Jay H. and F. V.)

Smith, Gary B., Chicago, Ill. Machine for twisting wire. No. 1,257,036; Feb. 19; v. 247; p. 640.

Smith, Harry E., Merritt, Wash. Automatic screen-gate. No. 1,256,837; Feb. 19; v. 247; p. 580.

Smith, Harry E., and G. W. Duvall, assignors to Modern Broom Machinery Company, Davenport, Iowa. Broom-clamping machine. No. 1,257,138; Feb. 19; v. 247; p. 667.

Smith, Henry L., Philadelphia, Pa. Sorting-case. No. 1,255,940; Feb. 12; v. 247; p. 279.
Smith, Hulbert J., Indianapolis, Ind. Nut-bowl. No. 1,257,644; Feb. 26; v. 247; p. 852.
Smith Isaac N., Greenville, Ohio. Burial-couch. No. 1,255,941; Feb. 12; v. 247; p. 279.
Smith, James E. (See Smith, David D., assignor.)
Smith, James E., Madisonville, La. Watch-holder. No. 1,257,752; Feb. 26; v. 247; p. 884.
Smith, Jay H. and P. V., San Francisco, Cal. Steam vulcanising plant. No. 1,256,835; Feb. 12; v. 247; p. 414.
Smith, John E., assignor to Kerosene Motor Appliance Co., New York, N. Y. Manifold for internal-combustion engines. No. 1,256,733; Feb. 19; v. 247; p. 551.
Smith, Kan, Portland, Oreg. Compass-altimeter. No. 1,257,645; Feb. 26; v. 247; p. 852.
Smith, Louis, Caretta, W. Va. Miner's-lamp-carrying means. No. 1,257,037; Feb. 19; v. 247; p. 640.
Smith, Mark H. (See Boyle, Homer L., assignor.)
Smith, Oberlin, Bridgeton, N. J. Guard or safety device for machinery. No. 1,256,179; Feb. 12; v. 247; p. 352.
Smith, Oscar A., assignor, by mesne assignments, to The National-Acme Company, Cleveland, Ohio. Drilling-machine. No. 1,256,180; Feb. 12; v. 247; p. 353.
Smith, Persifor F., Jr., Pittsburgh, Pa. Locomotive cradle and trailer-truck. No. 1,257,941; Feb. 26; v. 247; p. 939.
Smith, Robert H., Albemarle, N. C. Vending-machine. No. 1,256,181; Feb. 12; v. 247; p. 353.
Smith, Samuel, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical casting-machine. No. 1,255,942; Feb. 12; v. 247; p. 279.
Smith, Samuel E. (See Smith, Wesley A., assignor.)
Smith, Stanley I., Dudley township, Hardin county, Ohio. Tire. No. 1,255,654; Feb. 5; v. 247; p. 156.
Smith, Thomas E., Los Angeles, Cal. Automobile-signal. No. 1,257,646; Feb. 26; v. 247; p. 852.
Smith, Thomas N., San Angelo, Tex. Valve construction. No. 1,255,806; Feb. 5; v. 247; p. 200.
Smith, Wesley A., Atlantic City, assignor to himself, and S. E. Smith, Pleasantville, N. J. Life-buoy. No. 1,256,483; Feb. 12; v. 247; p. 443.
Smith, William A., assignor to The Denver Rock Drill Manufacturing Company, Denver, Colo. Fluid-operated motor. No. 1,257,753; Feb. 26; v. 247; p. 884.
Smith, William H., Newark, N. J. Bag. No. 1,257,139; Feb. 19; v. 247; p. 668.
Smith, William S., assignor of one-eighth to C. B. Burrows and one-eighth to G. W. Dudley, Tishomingo, Okla. Hull-extractor for cotton. No. 1,257,543; Feb. 26; v. 247; p. 823.
Smithey, Walter D., Bay City, Tex. Turbine-motor. No. 1,257,140; Feb. 19; v. 247; p. 668.
Smyth Manufacturing Company, The. (See Taylor, Frederick D., assignor.)
Snow, Theodore T., Hot Springs, S. D. Weed-destroyer. No. 1,257,544; Feb. 26; v. 247; p. 823.
Snowdon, William F., Brooklyn, N. Y. Head-lamp controller. No. 1,257,141; Feb. 19; v. 247; p. 668.
Snyder, Parke T., assignor of one-half to E. J. Beatty, Chicago, Ill. Electrical connector. No. 1,255,948; Feb. 12; v. 247; p. 280.
Societe Anonyme Pour L'Eclairage Electrique Des Vehicules. (See Dutreux, Auguste, assignor.)
Société Anonyme Metallurgique Procedes De Laval. (See Johansson, Edvin A., assignor.)
Societe du Carbureteur Zenith. (See Heftler, Victor R., assignor.)
Société P. Raffin & Fils. (See Raffin, Maurice R., assignor.)
Society of Chemical Industry in Basle. (See Dutoit, Pierre, assignor.)
Society of Chemical Industry in Basle. (See Hüssy and Föhrenbach, assignors.)
Somers, Thomas F., New York, N. Y. Corset. No. 1,256,603; Feb. 19; v. 247; p. 612.
Sommer, William H., Peoria, Ill., assignor, by mesne assignments, to The First Trust and Savings Company, Cleveland, Ohio, and W. E. Stone, Peoria, Ill., trustees. Recovering sulfate crystals. No. 1,256,068; Feb. 12; v. 247; p. 317.
Sonderegger, Johann R., Nesslau, A. Messmer, Rapperswil, and F. Erdrich, Zurich, assignors to C. Reinhardt, Berne, Switzerland. Preserving green fodder in the form of sweet green fodder. No. 1,257,754; Feb. 26; v. 247; p. 885.
Sorg, Herman D. (See Schütz, Conrad, assignor.)
Sorg, William A., Minneapolis, assignor, by mesne assignments, to F. B. Bradbury, trustee, St. Paul, Minn. Combustion-engine. No. 1,257,142; Feb. 19; v. 247; p. 668.
Sorum, Alexander E., and R. T. Brockman, assignors to International Money Machine Company, Terre Haute, Ind. Registering and money-paying machine. No. 1,257,143; Feb. 19; v. 247; p. 669.
Soule, Arthur C., San Francisco, Cal. Window-mounting. No. 1,256,839; Feb. 19; v. 247; p. 581.
Soule, Arthur C., San Francisco, Cal. Window. No. 1,256,840; Feb. 19; v. 247; p. 581.
Soule, Arthur C., assignor to Sanitary Screen and Shade Company, San Francisco, Cal. Window-screen. No. 1,256,838; Feb. 19; v. 247; p. 580.
Southon, Harold, Putney, London, England. Vise or clamp. No. 1,257,755; Feb. 26; v. 247; p. 885.
Spahn, Fred C., Schleswig, Iowa. Tire-chain container. No. 1,257,647; Feb. 26; v. 247; p. 853.
Sparks, William, Jackson, Mich., assignor to The Sparks-Withington Company, Cleveland, Ohio. Fan. No. 1,255,846; Feb. 5; v. 247; p. 66.
Sparks, William, Jackson, Mich., assignor to The Sparks-Withington Company, Cleveland, Ohio. Liquid-feeding device. No. 1,255,847; Feb. 5; v. 247; p. 67.
Sparks, William, Jackson, Mich., assignor to The Sparks-Withington Company, Cleveland, Ohio. Fan. No. 1,256,941; Feb. 19; v. 247; p. 611.
Sparks-Withington Company, The. (See Sparks, William, assignor.)
Sparre, Fin, assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Producing artificial leather. No. 1,257,756; Feb. 26; v. 247; p. 885.
Spear, Moncreiff H., Benton Harbor, Mich. Mutoscope. No. 1,256,604; Feb. 19; v. 247; p. 512.
Speckman, Charles H., Philadelphia, Pa. Radiator-valve connection. No. 1,256,069; Feb. 12; v. 247; p. 317.
Speidel, Charles F., R. Kroedel, and W. A. Riddell, assignors to Eastman Kodak Company, Rochester, N. Y. Focusing finder for photographic cameras. No. 1,257,648; Feb. 26; v. 247; p. 853.
Spence, Fred. (See Pearce and Spence.)
Spence, Howard, and H. Wrigley, assignors to Company of Peter Spence & Sons Limited Manchester, England. Titanium compounds. No. 1,255,807; Feb. 5; v. 247; p. 200.
Spence, Howard, and W. B. Llewellyn, assignors to Peter Spence & Sons, Limited, Manchester, England. Treatment of aluminous compounds. No. 1,256,605; Feb. 19; v. 247; p. 513.
Spencer, Arthur C., *et al.* (See Eckel, Edwin C., assignor.)
Spencer, Arthur E., Lake City, Fla. Foot-accelerator. No. 1,255,479; Feb. 5; v. 247; p. 105.
Spencer, James H., New York, N. Y. Nutcracker. No. 1,255,808; Feb. 5; v. 247; p. 200.
Spencer, Owen H., Indianapolis, Ind., assignor to Link-Belt Company, Chicago, Ill. Stacker for silent-chain links. No. 1,256,942; Feb. 19; v. 247; p. 611.
Spencer, Owen H., Indianapolis, Ind., assignor to Link-Belt Company, Chicago, Ill. Positioner for silent-chain links. No. 1,256,943; Feb. 19; v. 247; p. 612.
Spencer, Owen H., and F. J. Oakes, Indianapolis, Ind., assignors to Link-Belt Company, Chicago, Ill. Silent-chain-assembling machine. No. 1,256,944; Feb. 19; v. 247; p. 613.
Spencer, Owen H., and F. J. Oakes, Indianapolis, Ind., assignors to Link-Belt Company, Chicago, Ill. Chain-assembling machine. No. 1,256,945; Feb. 19; v. 247; p. 613.
Spencer, Walter J., Ivanhoe, Minn. Swingletree-hook. No. 1,256,946; Feb. 19; v. 247; p. 614.
Sperry, Arthur B., Pittsburgh, Pa. Tractor or truck. No. 1,257,416; Feb. 26; v. 247; p. 783.
Sperry, Elmer A., New York, N. Y. Gearing. No. 1,257,417; Feb. 26; v. 247; p. 783.
Sperry, Elmer A., assignor to The Sperry Gyroscope Company, Brooklyn, N. Y. Gyroscopic navigation apparatus. No. 1,255,480; Feb. 5; v. 247; p. 106.
Sperry, Elmer A., assignor to The Sperry Gyroscope Company, Brooklyn, N. Y. Ship stabilising and rolling apparatus. (Reissue.) No. 14,435; Feb. 19; v. 247; p. 720.
Sperry Gyroscope Company, The. (See Sperry, Elmer A., assignor.)
Sperry Gyroscope Company, The. (See Sperry, Elmer A., assignor.) (Reissue.)
Spicer, Russell. (See Enger, Martin A., assignor.)
Spielberger, Abe R., Atlanta, Ga. Fountain-comb. No. 1,256,386; Feb. 12; v. 247; p. 414.
Splitdorf Electrical Company. (See Van Deventer, Harry, assignor.)
Splittstoser, Ernest W., North Branch, Minn. Potato-digger. No. 1,256,182; Feb. 12; v. 247; p. 353.
Sprafka, A. N. (See Klamer, John, assignor.)
Spranger, Ernest, New York, N. Y. Detachable pocket. No. 1,255,481; Feb. 5; v. 247; p. 106.
Springfield Body Corporation of New York. (See Maise, Herman C., assignor.)
Springsteen, Charles W. (See Stine, George R., assignor.)
Spurr, Basil L., and F. A. Tittemore, Richmond, Cal. Reliable fuse. No. 1,257,418; Feb. 26; v. 247; p. 784.
Squires, Madison B., Walton, N. Y. Hen-roost. No. 1,255,655; Feb. 5; v. 247; p. 157.
St. John, Ancel, Worcester, Mass., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Air-brake-controlling apparatus. No. 1,256,607; Feb. 19; v. 247; p. 513.
Stachura, George, assignor of one-half to J. Stachura, Otthon, Saskatchewan, Canada. Rain-water alarm. No. 1,257,068; Feb. 19; v. 247; p. 640.
Stachura, John. (See Stachura, George, assignor.)
Stake, Herman, assignor to Economic Machinery Company, Worcester, Mass. Turnstile mechanism for bottles and similar containers. No. 1,256,070; Feb. 12; v. 247; p. 318
Stamm, August, New York, N. Y. Fastening device. No. 1,255,240; Feb. 5; v. 247; p. 36.
Stampen, Jacob, Chicago, Ill. Automatic stress-relieving friction-pulley or power-transmission mechanism. No. 1,256,947; Feb. 19; v. 247; p. 614.
Standard Compress and Warehouse Corporation. (See Nesbitt, William D., assignor.)

Standard Metal Manufacturing Company. (See Selah, Howard A., assignor.)
Standard Oil Company. (See Folger, Edward P., assignor.)
Standard Oil Company. (See Husted, Clifford M., assignor.)
Standard Oil Company. (See Mann and Chappell, assignors.)
Standard Plunger Elevator Company. (See Dunn, Edward L., assignor.)
Standard Steel Car Company. (See Christianson, Andrew, assignor.)
Standard Woven Fabric Company. (See Gleason, Frederick J., assignor.)
Standardized Housing Corporation. (See Atterbury, Grosvenor, assignor.)
Stanley, John, assignor of one-fourth to P. Barnes, Seattle, Wash. Automobile-lock. No. 1,257,039; Feb. 19; v. 247; p. 641.
Stanton, Elmer A. (See Fitzjohn and Stanton.)
Stanton, Warren F., assignor to M. C. Messler, Pawtucket, R. I. Compression-operated ignition device. No. 1,255,241; Feb. 5; v. 247; p. 36.
Stanton, Warren F., assignor to M. C. Messler, Pawtucket, R. I. Compression-operated ignition device. No. 1,255,242; Feb. 5; v. 247; p. 36.
Stanwood Equipment Company. (See Stanwood, Frank H., assignor.)
Stanwood, Frank H., Arlington, Mass., assignor to Stanwood Equipment Company. Non-slipping tread. No. 1,257,144; Feb. 19; v. 247; p. 670.
Star Tractor Company. (See Gerdeman, Frank H., assignor.)
Starke, Paul A., Berkeley, Cal. Synthetic production of cyanids. No. 1,256,272; Feb. 12; v. 247; p. 379.
Starke, Paul A., Berkeley, Cal. Synthetic production of ammonia. No. 1,256,273; Feb. 12; v. 247; p. 379.
Starker, Charles W., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Axle-collar. No. 1,255,482; Feb. 5; v. 247; p. 106.
Starrels, Joel, Montclair, N. J., assignor to Ellis-Foster Company. Liquid shaving-soap. No. 1,257,545; Feb. 26; v. 247; p. 823.
Startzenbach, Herman J., Atlantic City, N. J. Canning milk. No. 1,255,483; Feb. 5; v. 247; p. 106.
Stearn, Franklin A. (See Lundell and Stearn.)
Stearns, Jason C., Worcester, Mass. Spot-light. No. 1,256,606; Feb. 19; v. 247; p. 513.
Stearns, Justus S. (See Dean, James H., assignor.)
Steedman, James B., assignor of one-third to J. C. Cox and one-third to L. Summers, Louisville, Ky. Razor-sharpener. No. 1,255,656; Feb. 5; v. 247; p. 157.
Steel Furniture Co. (See Irwin, Earle S., assignor.)
Steele, Chester H., Quaker City, and F. H. Scattergood, Georgetown, Ohio. Molding-machine. No. 1,256,739; Feb. 19; v. 247; p. 551.
Steere, Frank W., Detroit, Mich. Furnace. No. 1,257,649; Feb. 26; v. 247; p. 853.
Stegall, Walter F., assignor of one-half to T. D. Maness, Concord, N. C. Checking-motion for looms. No. 1,256,387; Feb. 12; v. 247; p. 415.
Steidle, Charles G. (See Hunton, Marcus D., assignor.)
Steiger, Eugen, Zurich, Switzerland. Fire-alarm. No. 1,256,740; Feb. 19; v. 247; p. 552.
Steiner, George A., assignor to American Linen Supply Company, Salt Lake City, Utah. Towel-holder. No. 1,256,274; Feb. 12; v. 247; p. 380.
Steiner, Joseph C., St. Louis, Mo. Vending-machine. No. 1,256,071; Feb. 12; v. 247; p. 318.
Steiner Sons & Co., Wm. (See Maloczay, Francis X., assignor.)
Steinfeld Bros. (See Gannon, Joseph, assignor.)
Steinheimer, Sigmund, New York, N. Y. Skinning-machine. No. 1,255,657; Feb. 5; v. 247; p. 157.
Steinmetz, Joseph A., Philadelphia, Pa. Defending waterways. No. 1,256,741; Feb. 19; v. 247; p. 552.
Stengel, Joseph L., Cincinnati, Ohio, assignor to Union Special Machine Company, Chicago, Ill. Tape-guide for sewing-machines. No. 1,255,243; Feb. 5; v. 247; p. 37.
Stenson, Gustaf A., Cokato, Minn. Automobile-top. No. 1,255,809; Feb. 5; v. 247; p. 201.
Stephens-Adamson Mfg. Co. (See Stephens, Wiley W., assignor.)
Stephens-Adamson Mfg. Co. (See Stewart, John, assignor.)
Stephens, John S., Paterson, N. J. Truck. No. 1,255,484; Feb. 5; v. 247; p. 106.
Stephens, Philip A., St. Louis, Mo. Torpedo-guard. No. 1,257,757; Feb. 26; v. 247; p. 885.
Stephens, Wiley W., Aurora, Ill., assignor to Stephens-Adamson Mfg. Co. Carrier for belt conveyers. No. 1,255,658; Feb. 5; v. 247; p. 157.
Stephens, Wiley W., Aurora, Ill., assignor to Stephens-Adamson Mfg. Co. Belt conveyer. No. 1,255,659; Feb. 5; v. 247; p. 158.
Stephenson, Robert J., assignor to The Stephenson Supply Company, Inc., Auburn, N. Y. Battery-box and lantern. No. 1,257,758; Feb. 26; v. 247; p. 886.
Stephenson Supply Company, The. (See Stephenson, Robert J., assignor.)
Stern, Harry, New York, N. Y. Automatic non-skid device. No. 1,257,145; Feb. 19; v. 247; p. 670.
Sternberg, George, New Brighton, assignor to Samuel G. Supplee & Co., New York, N. Y. Impression cup and matrix. No. 1,257,947; Feb. 26; v. 247; p. 940.
Steuernagel, Hugo V., assignor to The Hugo Manufacturing Company, Hartford, Conn. Clamp. No. 1,257,040; Feb. 19; v. 247; p. 641.
Stevens, Alfred H. Brooklyn, N. Y. Mixing and stirring device. No. 1,255,944; Feb. 12; v. 247; p. 280.
Stevens Charles E. (See Stevens, Edward W., assignor.)
Stevens, Edward W., Detroit, Mich. assignor of one-half to C. E. Stevens Chicago, Ill. Pneumatic-tire deflator. No. 1,256,388; Feb. 12; v. 247; p. 415.
Stevens, Walter A., Cambridge, Mass. Combined putty-knife and nail-extractor. No. 1,255,660; Feb. 5; v. 247; p. 158.
Stevens, William C., Summit county, assignor to The Firestone Tire & Rubber Company, Akron, Ohio. Quick-acting chuck. No. 1,256,841; Feb. 19; v. 247; p. 581.
Stevenson, Frederick A., Detroit, Mich., assignor to American Car and Foundry Company, St. Louis, Mo. Top-reaming machine. No. 1,256,072; Feb. 12; v. 247; p. 318.
Stevenson, Frederick A., Detroit, Mich., assignor to American Car and Foundry Company, St. Louis Mo. Side-reaming machine. No. 1,256,073; Feb. 12; v. 247; p. 319.
Stevenson, John F., assignor of one-half to W. H. Shepard and one-half to P. Barnes, Seattle, Wash. Car for monorailway. No. 1,257,146; Feb. 19; v. 247; p. 670.
Stewart, Albert J. (See Griffin and Stewart.)
Stewart, Charles V., Santa Cruz, Cal. Adjustable window-screen. No. 1,257,147; Feb. 19; v. 247; p. 670.
Stewart, Gratton W. (See Griffin and Stewart.)
Stewart, Hugh B., *et al.* (See Blumenberg, Henry, Jr., assignor.)
Stewart, John, Aurora, Ill., assignor to Stephens-Adamson Mfg. Co. Pulley. No. 1,255,661; Feb. 5; v. 247; p. 158.
Stewart, Julia B., executrix. (See Kocourek, Henry, assignor.)
Stickle, Cole, Indianapolis, Ind. Steam-trap. No. 1,256,275; Feb. 12; v. 247; p. 380.
Stickney, Burnham C., Elisabeth, N. J., assignor to Underwood Computing Machine Company, New York, N. Y. Type-writing machine. No. 1,257,546; Feb. 26; v. 247; p. 823.
Stickney & Montague. (See Lyle, Alexander B., assignor.)
Stier, Abraham, Brooklyn, N. Y. Safety attachment for machines. No. 1,257,759; Feb. 26; v. 247; p. 886.
Stimers, Karl, Hamilton, Ohio. Stripping attachment for forks. No. 1,255,945; Feb. 12; v. 247; p. 280.
Stimpson, Thomas, Jr., Anamosa, Iowa. Internal-combustion motor. No. 1,257,419; Feb. 26; v. 247; p. 784.
Stine, George R., assignor of one-half to C. W. Springsteen, San Francisco, Cal. Folding cot. No. 1,257,041; Feb. 19; v. 247; p. 641.
Stippletone Company, The. (See Willberg, Onni, assignor.)
Stobs, Thomas, Maywood, Ill. Safety attachment. No. 1,257,148; Feb. 19; v. 247; p. 671.
Stock, Henry W. (See Lemp and Stock.)
Stoddard, Charles F., New York, N. Y. Note-sheet for automatic musical instruments. No. 1,257,042; Feb. 19; v. 247; p. 641.
Stoddard, Charles F., New York, N. Y. Perforated note-sheet for automatic musical instruments. No. 1,257,043; Feb. 19; v. 247; p. 642.
Stoddard, Herman E., Springfield, Mass. Transmission mechanism. No. 1,257,760; Feb. 26; v. 247; p. 886.
Stoddard, William B. (See Ekeley and Stoddard.)
Stoffel, Martin, Ingleside, Ill. Insect-trap. No. 1,255,485; Feb. 5; v. 247; p. 107.
Stokes & Smith Company. (See Reifsnyder, James D., assignor.)
Stone, Isidore H., *et al.* (See De Tamble, Percy F., assignor.)
Stone Straw Company, The. (See Casey, Frank, assignor.)
Stone, Vincent, Chicago, Ill., assignor to Marshall Field & Company. Fastening device for ribbon-bows or the like. No. 1,255,848; Feb. 5; v. 247; p. 67.
Stone, William E., *et al.*, trustees. (See Sommer, William H., assignor.)
Stone, William R. (See Grogan, Edward W., assignor.)
Storer, Norman W., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Dynamo-electric machine. No. 1,255,486; Feb. 5; v. 247; p. 107.
Storer, Norman W., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Dynamo-electric machine. No. 1,255,487; Feb. 5; v. 247; p. 107.
Storer, Norman W., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. System of control. No. 1,256,842; Feb. 19; v. 247; p. 582.
Story, Nelson, Jr., Bozeman, Mont. Road-grader. No. 1,255,488; Feb. 5; v. 247; p. 108.
Stoxen, Emil E., Idaho Falls, Idaho, assignor of one-half to C. Wehnert, Lakewood, Ohio. Life-preserver. No. 1,257,044; Feb. 19; v. 247; p. 642.
Stotler, Frank W., Wilkinsburg, Pa. Game. No. 1,257,045; Feb. 19; v. 247; p. 642.
Stoughton, Frederick S., Worcester, Mass. Apparatus for cutting metal strips. No. 1,256,608; Feb. 19; v. 247; p. 514.
Strachan, James F., *et al.* (See Chidlow, David, assignor.)
Strachan, William S., *et al.* (See Chidlow, David, assignor.)

Strack, Otto. (See Ploser and Strack.)
Straka, John, Chicago, Ill. Billiard-cue. No. 1,257,420; Feb. 26; v. 247; p. 784.
Strand, Andrew, Minneapolis, Minn. Motor-cycle frame. No. 1,257,761; Feb. 26; v. 247; p. 887.
Straenders, Julien, Brooklyn, assignor to Atlantic Lithographic and Printing Company, New York, N. Y. Display-container. No. 1,256,609; Feb. 19; v. 247; p. 514.
Strang, Cassius C., Alexandria, Minn. Fishing-reel. No. 1,256,380; Feb. 12; v. 247; p. 415.
Straub, Edward G., Beaver Falls, Pa. Pipe-polishing machine. No. 1,256,276; Feb. 12; v. 247; p. 391.
Straun, John A., Bowie, Tex. Apparatus for cleaning cotton. No. 1,256,742; Feb. 19; v. 247; p. 552.
Straun, John A., Bowie, Tex. Boll breaker and cleaner. No. 1,256,743; Feb. 19; v. 247; p. 553.
Structural Pressed Steel Wheel Company. (See Lachman, Maurice, assignor.)
Stuart, Robert J., Detroit, Mich. Vegetable gatherer and loader. No. 1,256,390; Feb. 12; v. 247; p. 415.
Stueben Truck Company, The. (See Stueben, William, Jr., assignor.)
Stueben, William, Jr., Cincinnati, Ohio, assignor, by mesne assignments, to The Stueben Truck Company. Lifting-truck. No. 1,257,650; Feb. 26; v. 247; p. 854.
Stuhler, Joseph, New York, N. Y. Non-refillable bottle. No. 1,256,949; Feb. 19; v. 247; p. 614.
Sturtevant, Thomas E., assignor to McKiernan-Terry Drill Company, Dover, N. J. Submarginous pile-hammer. No. 1,257,762; Feb. 26; v. 247; p. 887.
Stuttart, Harold C., New York, N. Y. Vacuum fuel-feeding system for gasolene-engines. No. 1,256,610; Feb. 19; v. 247; p. 514.
Suess, Franz. (See Bloch and Suess.)
Sullivan, Joseph L., Cleveland, assignor to The Franz Premier Company, East Cleveland, Ohio. Suction-cleaner. No. 1,256,662; Feb. 5; v. 247; p. 159.
Summers, Louis, et al. (See Steedman, James B., assignor.)
Summerson, William L., New York, N. Y. Means for facilitating the transaction of mail-order business. No. 1,256,188; Feb. 12; v. 247; p. 354.
Sundh, August, Hastings-upon-Hudson, N. Y., assignor to Otis Elevator Company. Power-transmission device. No. 1,256,949; Feb. 19; v. 247; p. 615.
Surface combustion. (See Ellis, Carleton, assignor.)
Sussman, Charles J., and T. A. Hill, Brooklyn, N. Y. Fabric-laying machine. No. 1,257,421; Feb. 26; v. 247; p. 785.
Sutter, Alfred M., Allentown, assignor to Schaum & Uhlinger Incorporated, Philadelphia, Pa. Shuttle-motion. No. 1,256,611; Feb. 19; v. 247; p. 515.
Suverkrop, Edward A., Sea Cliff, N. Y. Lapping-machine. No. 1,257,046; Feb. 19; v. 247; p. 642.
Suverkrop, Edward A., Sea Cliff, N. Y. Apparatus for lapping metal. No. 1,257,047; Feb. 19; v. 247; p. 643.
Swydam, Frank W., Brooklyn, N. Y. Tag. No. 1,256,277; Feb. 12; v. 247; p. 391.
Swanson, Charles A., Chicago, Ill. Conveyer-form. No. 1,255,946; Feb. 12; v. 247; p. 281.
Swanson, Fred, Chicago, Ill. Motor. No. 1,255,663; Feb. 5; v. 247; p. 159.
Sweeney, Zachary T., Columbus, Ind. Switch for concrete railways. No. 1,256,349; Feb. 5; v. 247; p. 67.
Sweet, William E., Dowagiac, Mich. Carbureting apparatus for internal-combustion engines. No. 1,257,422; Feb. 26; v. 247; p. 785.
Swift & Company. (See Richardson, William D., assignor.)
Sycer, Alexander P., Detroit, Mich. Internal-combustion engine. No. 1,255,664; Feb. 5; v. 247; p. 159.
Symons Brothers Company. (See Symons, Edgar B., assignor.)
Symons, Edgar B., assignor to Symons Brothers Company, Winnetka, Ill. Crushing-machine. No. 1,256,843; Feb. 19; v. 247; p. 582.
Synthetic Patents Co. (See Callsen, Jurgen, assignor.)
Taft, Harrison P., Seattle, Wash. Stopper for tremie-timber. No. 1,256,074; Feb. 12; v. 247; p. 319.
Talmer, Simon S., Weld, assignor of one-half to G. O. Gardner, Dixfield, Me. Collapsible paste-tube. No. 1,255,675; Feb. 12; v. 247; p. 520.
Tamaoki, Masayoshi, Seattle, Wash. Fish-line reel and case. No. 1,256,278; Feb. 12; v. 247; p. 391.
Talcott, Frank. (See Skeenberg and Talcott.)
Talman, Oscar F., and F. E. Hubert, assignors to W. N. Matthews and Brother, Inc., St. Louis, Mo. Line-testing instrument. No. 1,257,651; Feb. 26; v. 247; p. 854.
Tallmayer, David H., New York, N. Y. Adjustable die-holder for punch-presses and the like. No. 1,256,615; Feb. 19; v. 247; p. 516.
Tanaki, Yosi, Los Angeles, Cal. Metal tread attachment for tires. No. 1,257,763; Feb. 26; v. 247; p. 887.
Tapp, John, Cleveland, Ohio. Security-pocket. No. 1,257,049; Feb. 19; v. 247; p. 643.
Tappen, Alexander R., Ossining, N. Y. Reinforcement for concrete coverings. No. 1,256,244; Feb. 5; v. 247; p. 37.
Tarsarella, Salvador, Brooklyn, N. Y. Orthopedic table. No. 1,257,764; Feb. 26; v. 247; p. 888.
Tatarya, Petro, Chester, Pa. Winged parachute. No. 1,257,049; Feb. 19; v. 247; p. 644.
Tavani, Luigi, and B. Santirocco, West Chester, Pa. Mechanism for drying macaroni. No. 1,256,850; Feb. 19; v. 247; p. 68.
Taylor, Alfred, and P. W. Gray, York, England. Marine range-finder. No. 1,257,765; Feb. 26; v. 247; p. 888.
Taylor, Cecil H., Detroit, Mich. Transmission-gearing for automobiles. No. 1,255,665; Feb. 5; v. 247; p. 159.
Taylor, Eugene H., deceased, Hyde Park, Mass.; G. A. Taylor administrator. Cutting and scoring machine. No. 1,255,810; Feb. 5; v. 247; p. 201.
Taylor, Frederick D., assignor to The Smyth Manufacturing Company, Hartford, Conn. Gumming-machine. No. 1,255,245; Feb. 5; v. 247; p. 37.
Taylor, George A., administrator. (See Taylor, Eugene H.)
Taylor, Harry A., New York, N. Y. Glove. No. 1,256,391; Feb. 12; v. 247; p. 416.
Tedlock, Jacob E., McFall, Mo. Sugar-bowl. No. 1,256,392; Feb. 12; v. 247; p. 416.
Teetzel, Manuel H., assignee of one-half to R. M. Babtson, McWillie, Okla. Animal-poke. No. 1,256,246; Feb. 5; v. 247; p. 38.
Temple, Nathan B., assignor of one-half to J. L. Hawley, Rockingham, N. C. Train slack-adjuster. No. 1,257,766; Feb. 26; v. 247; p. 888.
Templeton, William G., Colorado Springs, Colo., assignor, by mesne assignments, to Toledo Scale Company, Toledo, Ohio. Scale. No. 1,256,551; Feb. 5; v. 247; p. 68.
Templeton, William G., Colorado Springs, Colo., assignor, by mesne assignments, to Toledo Scale Company, Toledo, Ohio. Scale. No. 1,257,547; Feb. 26; v. 247; p. 824.
Ten Busschen, Albert, et al. (See Burtt, Frank, assignee.)
Tenholder, Hermann G., assignor of one-half to George W. Smyth Lumber Company, Beaumont, Tex. Form-holder and wall-tie. No. 1,256,611; Feb. 5; v. 247; p. 201.
Tentobed Company. (See Purcell, Isaac S., assignor.)
Terry, Frank, Detroit, Mich. Automatic governor. No. 1,256,612; Feb. 19; v. 247; p. 515.
Terwilliger, Frank L., assignor of one-half to T. G. McMillan, Klamath Falls, Oreg. Motion-picture-projecting machine. No. 1,256,613; Feb. 19; v. 247; p. 515.
Tetlow, Lewis J., Springfield, Mass. Trolley-wheel. No. 1,257,052; Feb. 26; v. 247; p. 854.
Textile Machine Works. (See Rahm, Robert C., assignor.)
Textile Specialty Company. (See Roberts, Gus F., assignor.)
Thalheimer, Edward M., Philadelphia, Pa. Ball-conducting device for pool-tables. No. 1,257,050; Feb. 19; v. 247; p. 644.
Thatcher, Frank, El Paso, Tex. Making cattle food. No. 1,257,423; Feb. 26; v. 247; p. 785.
Thayer, Granville F., Providence, R. I., assignor to M and T Button Company, Boston, Mass. Shoe-button. No. 1,256,614; Feb. 19; v. 247; p. 516.
Thels, Leroy W., et al. (See Walbel, Henry, assignor.)
Theiss, George W., Buffalo, N. Y. Camber-removing machine. No. 1,255,666; Feb. 5; v. 247; p. 160.
Theodore W. Foster & Bro. Company. (See Foster, Theodore W., assignor.)
Thieme, Otto, assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo. Carriage mechanism for writing-machines. No. 1,256,076; Feb. 12; v. 247; p. 320.
Thieme, Otto, assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo. Ribbon-vibrating mechanism. No. 1,256,077; Feb. 12; v. 247; p. 320.
Thomas Cusack Company, The. (See Cusack, Harold, assignor.)
Thomas, James F., Faribault, Minn. Extension-table. No. 1,257,149; Feb. 19; v. 247; p. 671.
Thomas, James J., and L. L. Vaughan, Raleigh, N. C. Screen or window lock. No. 1,257,051; Feb. 19; v. 247; p. 644.
Thomas, John C., assignor to Detroit Printing and Serving Machine Company, Detroit, Mich. Printing and serving machine. No. 1,256,678; Feb. 12; v. 247; p. 321.
Thomas, William S., Lock Haven, Pa. Spark-plug. No. 1,255,826; Feb. 5; v. 247; p. 206.
Thomas, William S., Seattle, assignor of one-half to W. E. Borland, King county, Wash. Portable house. No. 1,256,393; Feb. 12; v. 247; p. 416.
Thompson, Albert R. (See Low and Thompson.)
Thompson, Duffield B., assignor to J. E. Palsgrove, Richmond, Ind. Metal crate. No. 1,255,352; Feb. 5; v. 247; p. 68.
Thompson, Frederic W., Atlantic City, N. J. Shooting-gallery. No. 1,256,079; Feb. 12; v. 247; p. 321.
Thompson, George E., Manhattan, Kans. Dirigible headlight for automobiles. No. 1,257,767; Feb. 26; v. 247; p. 888.
Thompson, Harry F. J. (See Bowden and Thompson.)
Thompson, Harry M., Washington, Pa. Muffle-leer. No. 1,257,150; Feb. 19; v. 247; p. 671.
Thompson & Jameson. (See Thompson and Jameson, assignors.)
Thompson, John E., and C. W. Jameson, assignors to Thompson & Jameson, Chicago, Ill. Accelerator. No. 1,256,950; Feb. 19; v. 247; p. 615.
Thompson, Uldric, Jr., New York, N. Y., assignor, by mesne assignments, to Bertrom, Griscom & Co., Inc. Forming cavities in explosives. No. 1,255,826; Feb. 5; v. 247; p. 200.
Thompson, Victor, Vancouver, British Columbia, Canada. Vending-machine. No. 1,256,944; Feb. 19; v. 247; p. 582.
Thomson, Elihu, Swampscott, Mass., assignor to General Electric Company. High-potential insulator. No. 1,255,667; Feb. 5; v. 247; p. 160.
Thomson, Elihu, Swampscott, assignor to Thomson Spot Welder Company, Boston, Mass. Cooling spot-welding electrode. No. 1,256,951; Feb. 19; v. 247; p. 616.
Thomson Spot Welder Company. (See Thomson, Elihu, assignor.)
Thomson, William S., assignor to The H. D. Smith & Company, Plantsville, Conn. Grinding and polishing machine. No. 1,257,548; Feb. 26; v. 247; p. 824.
Thomson, William S., assignor to The H. D. Smith & Company, Plantsville, Conn. Bearing-guide for grinding-machines. No. 1,257,549; Feb. 26; v. 247; p. 824.
Thordarson, Chester H., Chicago, Ill. Transformer and like coil. No. 1,255,947; Feb. 12; v. 247; p. 281.
Thordarson, Chester H., Chicago, Ill. Coil structure for transformers and the like. No. 1,255,948; Feb. 12; v. 247; p. 281.
Thormodson, Theodore G., Hanska, Minn. Pneumatic conveyer. No. 1,255,949; Feb. 12; v. 247; p. 282.
Thorp, Lambert, Detroit, Mich. Forming methyl ester of acetyl salicylic acid. No. 1,255,950; Feb. 12; v. 247; p. 282.
Thorp, Lambert, Detroit, Mich. Ethyl-isopropyl-barbituric acid. No. 1,255,951; Feb. 12; v. 247; p. 282.
Thorpe, George M., Millville, N. J. Cam. No. 1,255,952; Feb. 12; v. 247; p. 282.
Thurber, Guy P., Pittsburgh, Pa. Insulation-breakdown detector. No. 1,255,668; Feb. 5; v. 247; p. 160.
Thurston, Fred W., San Francisco, Cal., assignor, by mesne assignments, to Thurston Motor Fuel Gasifier Company of California. Homogenizer. No. 1,255,827; Feb. 5; v. 247; p. 206.
Thurston Motor Fuel Gasifier Company of California. (See Thurston, Fred W., assignor.)
Thurston, Nelson E., Niagara Falls, N. Y. Collar-button. No. 1,257,053; Feb. 26; v. 247; p. 854.
Tibbetts, Milton, assignor to Packard Motor Car Company, Detroit, Mich. Hydrocarbon-motor. No. 1,257,052; Feb. 19; v. 247; p. 644.
Tichenor, Charles E., Bloomfield, Ky. Letter-carrier. No. 1,256,845; Feb 19; v. 247; p. 583.
Tiemann, Fritz, Berlin, Germany. Recovery of sugar from molasses. No. 1,256,952; Feb. 19; v. 247; p. 616.
Tierney, James F., Indianapolis, Ind. Toy-propelling means. No. 1,257,151; Feb. 19; v. 247; p. 672.
Tiffany, George F., New York, N. Y. Cigarette-case. No. 1,256,953; Feb. 19; v. 247; p. 616.
Times-Systems Company. (See Schmidt, Frederick W., assignor.)
Timmons, Jacob T., Avalon, Miss. Boll-weevil catcher. No. 1,256,394; Feb. 12; v. 247; p. 416.
Tinker, John H. (See Harris and Tinker.)
Tinker, John H., and D. T. Harris, Chicago, Ill. Carry-iron. No. 1,257,424; Feb. 26; v. 247; p. 785.
Tinnerman, George A., Cleveland, Ohio. Combined gas and solid-fuel range. No. 1,255,853; Feb. 5; v. 247; p. 60.
Tischer, Josef J., Westbury, N. Y. Life-preserving garment. No. 1,255,354; Feb. 5; v. 247; p. 60.
Titsworth, Ellen A. (See Hall, Cassius G., assignor.)
Tittemore, Frank A. (See Spurr and Tittemore.)
Tjaden, Fred. (See Berck and Tjaden.)
Tobeler, Emil, Detroit, Mich. Rotary valve. No. 1,256,395; Feb 12; v. 247; p. 416.
Todd, Libanus M., assignor, by mesne assignments, to Todd Protectograph Company, Rochester, N. Y. Check-writer. No. 1,255,247; Feb. 5; v. 247; p. 38.
Todd Protectograph Company. (See Todd, Libanus M., assignor.)
Toledo Scale Company. (See Hapgood, Clarence H., assignor.)
Toledo Scale Company. (See Templeton, William G., assignor.)
Toll, Alfred, Kansas City, Mo. Swivel for telephone-boxes. No. 1,255,248; Feb. 5; v. 247; p. 38.
Tolman, Charles P., assignor to National Lead Company, New York, N. Y. Metal keg. No. 1,256,184; Feb. 12; v. 247; p. 354.
Tolsma, Reinder R., Everett, Wash. Traction-belt for autocars. No. 1,256,744; Feb. 19; v. 247; p. 553.
Tooker, John N. (See Schroeder and Tooker.)
Topper, Richard, et al. (See Hironimus, Fred W., assignor.)
Townsend, Harry P., assignor to The H. P. Townsend Manufacturing Company, Hartford, Conn. Feed mechanism for metal-working machines. No. 1,257,550; Feb. 26; v. 247; p. 825.
Townsend, Harry P., assignor to The H. P. Townsend Manufacturing Company, Hartford, Conn. Machine for making screws. No. 1,257,551; Feb. 26; v. 247; p. 825.
Tozer, Archibald B., assignor to Reed Manufacturing Company, Erie, Pa. Vise. No. 1,257,152; Feb. 19; v. 247; p. 672.
Tractor Motors Company. (See Noack, Walter G., assignor.)
Travers, Charles J., Port Washington, Wis., assignor to Gilson Manufacturing Co. Spider for chair-seats. No. 1,256,846; Feb. 19; v. 247; p. 582.
Travers, William J., Buffalo, N. Y. Process of metal-plating aluminum. No. 1,256,954; Feb. 19; v. 247; p. 616.
Travis, Clyde E., Fairmont, W. Va. Mail-box. No. 1,256,060; Feb. 12; v. 247; p. 321.
Treadgold, George H., Port Huron, Mich. Cuff-link. No. 1,256,745; Feb. 19; v. 247; p. 553.
Trendel, Jan. (See Niemiec, Joseph, assignor.)
Trescott, Charles B., Chicago, Ill. Retaining the juices in low-temperature-cooked meats. No. 1,256,955; Feb. 19; v. 247; p. 617.
Triem, Jakob, Frankfort-on-the-Main, Germany, assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Thread-cutting mechanism. No. 1,255,489; Feb. 5; v. 247; p. 106.
Tripp, William F., Greenfield, Mass. Valve-grinding machine. No. 1,256,185; Feb. 12; v. 247; p. 354.
Triumph Electric Company, The. (See Lebovitt, Justin, assignor.)
Trop Carriage Sun Shade Company, The. (See Dillingham, Frederick A., assignor.)
Truax, Joseph F., Rochester, N. Y. Dispensing apparatus. No. 1,257,425; Feb. 26; v. 247; p. 786.
Truax, William T., assignor to United States Register Company, Battle Creek, Mich. Warm-air-register border. No. 1,256,489; Feb. 12; v. 247; p. 443.
True, Charles H., Hammond, Ind., and C. A. W. Brandt, Bayside, assignors to Locomotive Superheater Company, New York, N. Y. Making return-bends. No. 1,255,855; Feb. 5; v. 247; p. 69.
Trumble, John T., Freeport, Ill. Transmission mechanism for starters. No. 1,256,746; Feb. 19; v. 247; p. 553.
Trust, Henry. (See Trust, Josephine and H.)
Trust, Josephine and H., Brooklyn, N. Y. Tool-holding means of lood-machines. No. 1,255,856; Feb. 5; v. 247; p. 69.
Tschudy, William, Wilkinsburg, and S. W. Farnsworth, Pittsburgh, Pa., assignors to Westinghouse Electric and Manufacturing Company. Voltage-regulating system for vapor-rectifiers. No. 1,257,426; Feb. 26; v. 247; p. 786.
Tucker, Grover C., Tuscaloosa, assignor to Tucker Implement Company, Inc., Greensboro, Ala. Insect-destroyer. (Reissue.) No. 14,432; Feb. 12; v. 247; p. 449.
Tucker Implement Company. (See Tucker, Grover C., assignor.) (Reissue.)
Tufts, William A. (See Turner and Tufts.)
Tumblinson, Norman W., Baltimore, Md. Handle attachment for dust-pans. No. 1,257,552; Feb. 26; v. 247; p. 825.
Turk, Rudolph L., Memphis, Tenn. Window-shade-supporting means. No. 1,255,953; Feb. 12; v. 247; p. 282.
Turner, Claude A. P., Minneapolis, Minn. Long-span cantaliver-bridge. No. 1,256,081; Feb. 12; v. 247; p. 322.
Turner, Harry C., and W. A. Tufts, Los Angeles, Cal. Tennis-court marker. No. 1,257,768; Feb. 26; v. 247; p. 889.
Turner, Henry, Richmond, Va. Caddy for packing tobacco. No. 1,255,954; Feb. 12; v. 247; p. 283.
Turner, James B., Chicago, Ill. Stucco composition. No. 1,256,847; Feb 19; v. 247; p. 583.
Turner, Mabelle E., Deposit, N. Y. Hen's nest. No. 1,256,956; Feb. 19; v. 247; p. 617.
Turner, Walter V., Edgewood borough, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Speed-controlled brake apparatus. No. 1,255,857; Feb. 5; v. 247; p. 70.
Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Fluid-pressure brake. No. 1,255,955; Feb. 12; v. 247; p. 283.
Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Speed-controlled brake. No. 1,255,956; Feb. 12; v. 247; p. 283.
Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Speed-controlled brake device. No. 1,255,957; Feb. 12; v. 247; p. 284.
Turner, Walter V., Wilkinsburg, assignor to Westinghouse Air Brake Company, Wilmerding, Pa. Fluid-pressure brake. No. 1,256,490; Feb. 12; v. 247; p. 443.
Turner, Walter V., Wilkinsburg, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Electro-pneumatic brake. No. 1,256,616; Feb. 19; v. 247; p. 516.
Turner, Walter V., Wilkinsburg, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Empty and load brake. No. 1,256,617; Feb. 19; v. 247; p. 516.
Turner, Walter V., Wilkinsburg, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Fluid-pressure brake device. No. 1,256,618; Feb. 19; v. 247; p. 517.
Turner, Walter V., Wilkinsburg, and W. M. Cady, Edgewood, assignors to The Westinghouse Air Brake Company, Wilmerding, Pa. Car-door-operating device. No. 1,255,958; Feb. 12; v. 247; p. 284.
Turner, Frederick W., Ballston Lake, N. Y. Newspaper-vending machine. No. 1,257,153; Feb. 19; v. 247; p. 672.
Tuttle, Frank. (See Hall and Tuttle.)
U. S. Light & Heat Corporation. (See Bliss, William L., assignor.)
U. S. Light & Heat Corporation. (See Carpenter, Campbell C., assignor.)
U. S. Slicing Machine Company. (See Demuth, Alfred M., assignor.)
Uecke, George H., Minneapolis, Minn. Softening water. No. 1,255,358; Feb. 5; v. 247; p. 70.

Vecke, George H., Minneapolis, Minn. Water-softening apparatus. No. 1,255,956; Feb. 5; v. 247; p. 70.
Uhlmann, Hugo, Buckhart, Mo. Lever. No. 1,256,396; Feb. 12; v. 247; p. 417.
Ulanytsky, Antonine, Cohoes, N. Y. Torpedo guard and catcher. No. 1,257,154; Feb. 19; v. 247; p. 673.
Underwood Computing Machine Company. (See Degener, Gustave O., assignor.)
Underwood Computing Machine Company. (See Hart, Frederick A., assignor.)
Underwood Computing Machine Company. (See Hoyt, Richard F., assignor.)
Underwood Computing Machine Company. (See Stickney, Burnham C., assignor.)
Underwood Computing Machine Company. (See Walsleben, Fred, assignor.)
Underwood, John L., Smithfield, Va. Head-rest. No. 1,257,427; Feb. 26; v. 247; p. 786.
Underwood Typewriter Company. (See Dennis, Adolphus S., assignor.)
Underwood Typewriter Company. (See Fengler, Herman V., assignor.)
Underwood Typewriter Company. (See Kurowski, Alfred G. F., assignor.)
Underwood, William A., Worcester, and J. Zimmerman, Auburn, Mass. Calender-roll grinder. No. 1,255,860; Feb. 5; v. 247; p. 71.
Union Bag & Paper Company, The. (See Avery, True M., assignor.)
Union Special Machine Company. (See Hughes, Robert R., Jr., assignor.)
Union Special Machine Company. (See Seymour, Dudley S., assignor.)
Union Special Machine Company. (See Stengel, Joseph L., assignor.)
Union Switch & Signal Company, The. (See Nicholson, Frank H., assignor.)
Union Switch & Signal Company, The. (See Saunders, John E., assignor.)
Union Switch & Signal Company, The. (See Vanatta, Frank T., asignor.)
United Electric Apparatus Co. (See Ziegler, Alfred A., assignor.)
United Shoe Machinery Corporation. (See Ashworth, Fred, assignor.)
United Shoe Machinery Corporation. (See Beckman, Frank E., assignor.)
United Shoe Machinery Corporation. (See Brock, Matthias, assignor.)
United Shoe Machinery Corporation. (See Cosgrove and Erickson, assignors.)
United Shoe Machinery Corporation. (See Fowler, Alfred R., assignor.)
United Shoe Machinery Corporation. (See Holbrook, Frank, assignor.)
United Shoe Machinery Corporation. (See Knowlton and Scott, assignor.)
United Shoe Machinery Corporation. (See Krippendorf, Paul F. W. C., assignor.)
United Shoe Machinery Corporation. (See Roberts, William T. B., assignor.)
United Shoe Machinery Corporation. (See Shaw and Littlefield, assignors.)
United Shoe Machinery Corporation. (See Triem, Jakob, assignor.)
United States Air Compressor Company, The. (See Bacher, Rollin L., assignor.)
United States Register Company. (See Truax, William T., assignor.)
Universal Oxygen Company. (See Mueller, Rudolph J. J., assignor.)
Universal Patents Company. (See Jennings, Victor H., assignor.)
Upton, Henry J. (See Vaughn and Upton.)
Urschel, William E., Valparaiso, Ind., assignor to Chisholm-Scott Company, Cadiz, Ohio. Process for snipping string-beans. No. 1,256,491; Feb. 12; v. 247; p. 443.
Urschel, William E., Valparaiso, Ind., assignor to Chisholm-Scott Company, Cadiz, Ohio. Apparatus for snipping string-beans. No. 1,256,492; Feb. 12; v. 247; p. 444.
Utts, William A., Kansas City, Mo. Automatic stoppage and occupant-protecting equipment for automobiles. No. 1,256,848; Feb. 19; v. 247; p. 585.
Valencich, Josef, Hastings, Colo. Intermittent operating mechanism for coal-cutters. No. 1,255,669; Feb. 5; v. 247; p. 161.
Valogne, Alfred C. (See Ekblom, Exel, assignor.)
Valtron Manufacturing Company. (See Moore, Charles C., assignor.)
Van Brown, Lewis. (See Mott and Van Brown.)
Van Deventer, Harry R., Sumter, S. C., assignor to Splitdorf Electrical Company, Newark, N. J. Ignition device. No. 1,257,155; Feb. 19; v. 247; p. 673.
Van Dorn, Herbert E., Chicago, Ill. Draft-rigging. No. 1,255,361; Feb. 5; v. 247; p. 71.
Van Gofre, Anton, assignor of one-half to C. J. Greene, Kansas City, Mo. Shade-roller. No. 1,255,670; Feb. 5; v. 247; p. 161.
Van Ness, Henry E., assignor to Eclipse Machine Company, Elmira, N. Y. Engine starter. No. 1,255,362; Feb. 5; v. 247; p. 71.
Van Sickles Company, The. (See Prouty, Theodore C., assignor.)
Vanatta, Frank T., Mill Valley, Cal., assignor to The Union Switch & Signal Company, Swissvale, Pa. Signal. No. 1,256,959; Feb. 12; v. 247; p. 285.
Vance, Alpha B. (See Leon and Vance.)
Varga, Lionel J., Dallas, Tex. Raised-stamp tool. No. 1,257,654; Feb. 26; v. 247; p. 855.
Variety Manufacturing Company. (See Gervais, Wainwright B., assignor.)
Varley, Richard, Englewood, N. J. Safety device for engine-starters. No. 1,257,157; Feb. 19; v. 247; p. 674.
Vaudreuil, John, Milwaukee, Wis. Clothes-hanger support. No. 1,256,849; Feb. 19; v. 247; p. 594.
Vaughan, Levin D., Philadelphia, Pa. Temperature-regulator. No. 1,255,673; Feb. 5; v. 247; p. 162.
Vaughan, Lillian L. (See Thomas and Vaughan.)
Vaughn, Francis W., and H. J. Upton, Medford, assignors to Vaughn-Upton Company, Boston, Mass. Cap for fountain-pens. No. 1,255,671; Feb. 5; v. 247; p. 161.
Vaughn-Upton Company. (See Vaughn and Upton, assignors.)
Vehstedt, Harry B., Chicago, Ill. Reinforcing attachment for the rear axles of motor-vehicles. No. 1,255,490; Feb. 5; v. 247; p. 109.
Venango Knitting Mills. (See Brown, James, assignor.)
Venning, Frank J., Cincinnati, Ohio. Feeding device. No. 1,255,960; Feb. 12; v. 247; p. 285.
Ver Planck, William E. Erie, Pa., assignor to General Electric Company. Fuel-vaporizer for internal-combustion engines. No. 1,256,186; Feb. 12; v. 247; p. 355.
Verde, Mary T., Boston, Mass. Child's garment. No. 1,255,491; Feb. 5; v. 247; p. 109.
Vetter, Louis J., Providence, R. I. Chain-connector. No. 1,257,158; Feb. 19; v. 247; p. 674.
Victor Talking Machine Company. (See Murray and La Rue, assignors.)
Viëtor, Alwin, Wiesbaden, assignor to Georgs-Marien-Bergwerks- & Hütten-Verein A.-G., Osnabrück, Germany. Means for fastening rails to the ties and tie-plates. No. 1,256,397; Feb. 12; v. 247; p. 417.
Vigie, Ollie P. (See McGuire, John J., assignor.)
Vincell, Lafayett M. Pedro, Ohio. Telephone-pole cross-arm. No. 1,257,769; Feb. 26; v. 247; p. 889.
Vincent, Jesse G., assignor to Packard Motor Car Company, Detroit, Mich. Hydrocarbon-motor. No. 1,257,428; Feb. 26; v. 247; p. 787.
Vogel, Wilson, Killisnoo, Alaska. Sunken-vessel marker. No. 1,256,398; Feb. 12; v. 247; p. 417.
Vogt, Axel S., Altoona, Pa. Drainage system for track-scales. No. 1,257,553; Feb. 26; v. 247; p. 826.
Voight, Henry G., New Britain, assignor to Sargent & Company, New Haven, Conn. Lock. No. 1,257,554; Feb. 26; v. 247; p. 826.
Voigts, Lester E., Streator, Ill. Collapsible egg-case. No. 1,257,770; Feb. 26; v. 247; p. 889.
Von Barth, Arthur, Detroit, Mich. Wage-paying machine. No. 1,256,957; Feb. 19; v. 247; p. 617.
Von Dorn, Theodore F., *et al.* (See Hyle and Herman, assignors.)
Von Duyke, Harrison M., East Cleveland, Ohio. Key-carrier. No. 1,255,961; Feb. 12; v. 247; p. 285.
Von Eigen, Benno, Newark, N. J., assignor to August Goertz & Co. Locking or holding catch. No. 1,255,363; Feb. 5; v. 247; p. 72.
Von Frieling, Minnie, Athol, Kans. Garment-fastener. No. 1,256,463; Feb. 12; v. 247; p. 435.
Voorhees, Richard D., Lebanon, Ind. Suspender attachment. No. 1,256,399; Feb. 12; v. 247; p. 417.
Vorba, Joseph, Gladbrook, Iowa. Chicken-waterer. No. 1,255,492; Feb. 5; v. 247; p. 109.
Vreeland Apparatus Company. (See Vreeland, Frederick K., assignor.)
Vreeland, Frederick K., Montclair, N. J., assignor to Vreeland Apparatus Company, New York, N. Y. Producing analgesia. No. 1,257,555; Feb. 26; v. 247; p. 826.
W. H. Gunlocke Chair Co., The. (See Pike, George J., assignor.)
W. N. Matthews and Brother. (See Tallman and Hubert, assignors.)
Wachter, Louis E. F., New York, N. Y. Watch bow and attachment. No. 1,257,159; Feb. 19; v. 247; p. 674.
Wade, Charles B., and E. K. Herman, Roanoke, Va. Electric-welding shield. No. 1,255,240; Feb. 5; v. 247; p. 39.
Wagemaker, Isaac, Grand Rapids, Mich. Tab construction for index-card guides. No. 1,257,160; Feb. 19; v. 247; p. 675.
Wagner, Charles L., *et al.* (See Bornhauser, Otto E., assignor.)
Wagner Refrigeration Company, The. (See Bornhauser and Herman, assignors.)
Waibel, Henry, Cleveland, assignor of one-third to L. W. Theis, Lakewood, and one-third to M. N. Nelson, Cleveland, Ohio. Means for positively opening a valve by pulling. No. 1,255,364; Feb. 5; v. 247; p. 72.
Waite, Fred D. (See Courter, Martin, assignor.)
Wakefield, Charles L. (See McNabb, Alvin C., assignor.)
Walden, Emma, New York, N. Y. Educational apparatus. No. 1,257,655; Feb. 26; v. 247; p. 855.
Walker Company, The. (See Flint, Albert H., assignor.)
Walker, Edward E., and J. W. Cox, Erie, Pa. Electric heating-furnace. No. 1,256,958; Feb. 19; v. 247; p. 617.
Walker, Edward E., and J. W. Cox, Erie, Pa. Method of heating. No. 1,256,959; Feb. 19; v. 247; p. 617.

Walker, James. (See Conrad and Walker.)
Walker, James A. (See Hains, Rozier N., assignor.)
Walker, Lucy A., Berkeley, Cal. Corset belt or girdle. No. 1,256,850; Feb. 19; v. 247; p. 584.
Walker, William F., Chicago, Ill. Seal-lock. No. 1,255,673; Feb. 5; v. 247; p. 162.
Walker, William O. (See Maxson and Walker.)
Wallace, Henry B. (See Patton and Wallace.)
Walsleben, Fred, assignor, by mesne assignments, to Underwood Computing Machine Company, New York, N. Y. Combined type-writing and computing machine. No. 1,255,828; Feb. 5; v. 247; p. 206.
Walter A. Wood Mowing & Reaping Machine Co. (See Smith, Ernest C., assignor.)
Walter, Ralph, Hempstead, N. Y. Game apparatus. No. 1,256,400; Feb. 12; v. 247; p. 418.
Walters, Homer, and W. P. Harper, Abilene, Kans.; said Harper assignor to said Walters. Silo-packer. No. 1,257,161; Feb. 19; v. 247; p. 675.
Walton, J. E. (See Cook, Charles F., assignor.)
Wanamaker, Charles B., assignor to Leedy Manufacturing Company, Indianapolis, Ind. Xylophone-stand. No. 1,256,279; Feb. 12; v. 247; p. 381.
Wanat, John, Pittsburgh, Pa. Trolley. No. 1,257,556; Feb. 26; v. 247; p. 826.
Ward Baking Company. (See Ward and Maxim, assignors.)
Ward, John A., Philadelphia, Pa. Self loading and dumping auto-truck. No. 1,256,401; Feb. 12; v. 247; p. 418.
Ward, Walter S., and A. Maxim, assignors to Ward Baking Company, New York, N. Y. Auxiliary air-supply device. No. 1,256,082; Feb. 12; v. 247; p. 322.
Warden, William F. (See Mitchella, Clyde B., assignor.)
Ware, Joseph G., Ryder, N. D. Pipe-cleaner. No. 1,256,402; Feb. 12; v. 247; p. 418.
Warman, John E., assignor of one-half to G. H. P. Lichthardt, Sacramento, Cal. Ozoniser. No. 1,257,053; Feb. 19; v. 247; p. 644.
Warman, William A., New York, N. Y., assignor to Keller Mechanical Engraving Company, Brooklyn, N. Y. Camera. No. 1,257,656; Feb. 26; v. 247; p. 855.
Warner, Carl C., and E. D. Paul, Haverhill, Mass. Grinding-machine. No. 1,255,962; Feb. 12; v. 247; p. 285.
Warner Manufacturing Company. (See Cadman, Addi B., assignor.)
Warner, Walter J., St. Louis, Mo. Water-heater. No. 1,256,851; Feb. 19; v. 247; p. 584.
Warner, Walter J., St. Louis, Mo. Water-heater. No. 1,256,852; Feb. 19; v. 247; p. 585.
Warner, Walter J., St. Louis, Mo. Water-heater. No. 1,256,853; Feb. 19; v. 247; p. 585.
Warren, James C., Emporia, Va. Recording mechanism. No. 1,255,250; Feb. 5; v. 247; p. 30.
Warstler, Levi, Louisville, Ohio. Means for extracting chaff from ground coffee. No. 1,257,429; Feb. 26; v. 247; p. 787.
Wasem, Jacob, deceased; M. Wasem, administratrix, Tower City, N. D. Corn-planter attachment. No. 1,256,083; Feb. 12; v. 247; p. 322.
Wasem, Mary, administratrix. (See Wasem, Jacob.)
Washburn, Frank S., Nashville, Tenn., assignor to Goodman Manufacturing Company, Chicago, Ill. Mining-machine. No. 1,256,619; Feb. 19; v. 247; p. 517.
Washburn, M. Adelbert, Fairport, N. Y. Separating-machine. No. 1,255,963; Feb. 12; v. 247; p. 286.
Washburn, Paul. (See Gardner and Washburn.)
Washburne, William H., Chicago, Ill. Internal-combustion engine. No. 1,257,162; Feb. 19; v. 247; p. 675.
Waters, Eric G., *et al.* (See Watson, John F., assignor.)
Waters, Henry C., Boston, Mass. Ruler. No. 1,256,251; Feb. 5; v. 247; p. 39.
Watkins, William E., New York, N. Y., assignor to The Metals Plating Company. Plating ferrous metals. No. 1,256,084; Feb. 12; v. 247; p. 322.
Watson, Hugh W., Grand Island, Nebr. Hay-sweep. No. 1,255,365; Feb. 5; v. 247; p. 72.
Watson, John F., Blackheath, assignor to himself, E. G. Waters, Sussex, and Callender's Cable & Construction Company Limited, London, England. Protective arrangement for electrical systems. No. 1,256,960; Feb. 19; v. 247; p. 618.
Watts, George W., Hot Springs, Ark. Spring-wheel. No. 1,256,403; Feb. 12; v. 247; p. 418.
Watts, Harry J., Turtle Creek, Pa. Nut-lock. No. 1,256,085; Feb. 12; v. 247; p. 322.
Watts, James M., Los Angeles, Cal. Spark-plug. No. 1,255,252; Feb. 5; v. 247; p. 39.
Watts, Jay G., Crichton, La. Door-operating means. No. 1,256,404; Feb. 12; v. 247; p. 419.
Wayman, Albert J., assignor to The Efficiency Electric Company, East Palestine, Ohio. Pipe-hanger. No. 1,255,674; Feb. 5; v. 247; p. 162.
Weagant, Roy A., Roselle Park, N. J., assignor to Marconi Wireless Telegraph Company of America. Receiver of electrical oscillations. No. 1,257,657; Feb. 26; v. 247; p. 856.
Weakley, Raymond D., assignor to H. S. Gardner, trustee, St. Louis, Mo. Theater-chair. No. 1,257,557; Feb. 26; v. 247; p. 826.
Weaver, Courtland W., Toronto, Ontario, Canada. Electric-wire coupling. No. 1,257,064; Feb. 19; v. 247; p. 645.
Webb, Robert D., Minden, La. Re-forming and compressing bales of cotton or other materials. No. 1,257,558; Feb. 26; v. 247; p. 827.
Webb, Robert D., Minden, La. Re-forming and compressing bales of cotton. No. 1,257,559; Feb. 26; v. 247; p. 827.
Weber, Bernard F., and F. E. Woodford, Chicago, Ill. Telpher. No. 1,257,560; Feb. 26; v. 247; p. 827.
Weber, Wilhelm, Hayingen, Germany. Chambering device for rock-drills. No. 1,257,561; Feb. 26; v. 247; p. 828.
Webster, Harlan S., Canton, Ohio. Rotary-blower spark-gap. No. 1,256,405; Feb. 12; v. 247; p. 419.
Webster, Harry G., Chicago, Ill., assignor, by mesne assignments, to J. R. Garfield, trustee, Cleveland, Ohio. Telephone-exchange system. No. 1,255,964; Feb 12; v. 247; p. 286.
Webster, Harry G., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill. Electrical battery-charging system. No. 1,257,163; Feb. 19; v. 247; p. 675.
Webster, John A., West Hoboken, N. J., assignor, by mesne assignments, to Autosales Gum and Chocolate Company. Coin-controlled machine. No. 1,256,620; Feb. 19; v. 247; p. 517.
Webster, Willis C., Dubois, Pa., assignor to Buffalo Air-Brake Company, Phoenix, Ariz. Double-heading valve. No. 1,255,253; Feb. 5; v. 247; p. 39.
Webster, Willis C., Dubois, Pa., assignor to Buffalo Air-Brake Company, Phoenix, Ariz. Air-brake system. No. 1,256,406; Feb. 12; v. 247; p. 419.
Webster, Willis C., Dubois, Pa., assignor to Buffalo Air-Brake Company, Pheonix, Ariz. Engineer's valve and pressure-controlling mechanism for air-brakes. No. 1,256,407; Feb. 12; v. 247; p. 420.
Webster, Willis C., Dubois, Pa., assignor to Buffalo Air-Brake Company, Phoenix, Ariz. Triple valve for air-brakes. No. 1,257,055; Feb. 19; v. 247; p. 645.
Weeber, Rudolf, Bärn, Austria. Manufacture of varnish. No. 1,257,562; Feb. 26; v. 247; p. 828.
Weedon, Frederick L., and W. E. Lemon, Carrallitos, Cal. Grapple. No. 1,256,408; Feb. 12; v. 247; p. 420.
Wefel, William C. H., Denver, Colo. Incandescent-lamp fixture. No. 1,256,749; Feb. 19; v. 247; p. 564.
Wegner, Fred, Fairport, N. Y., assignor to G. W. Cobb, Montclair, N. J. Bean-snipper. No. 1,257,164; Feb. 19; v. 247; p. 676.
Webnert, Charles. (See Stösser, Emil E., assignor.)
Welde, Harry, Highland Park, N. J., assignor to The India Rubber Company. Hard-rubber battery-jar and manufacturing same. No. 1,256,750; Feb. 19; v. 247; p. 554.
Weilman, Samuel H., New York, N. Y. Toy and amusement device. No. 1,257,563; Feb. 26; v. 247; p. 828.
Weiner, John N., Indianapolis, Ind. Machine for bending leather edgewise. No. 1,255,366; Feb. 5; v. 247; p. 73.
Weise, Frederick A. (See Behrendt and Weise.)
Weissmann, Ludwig N., New York, N. Y. Plastic molding composition. No. 1,256,621; Feb. 19; v. 247; p. 518.
Wells, Isaac N., Redondo Beach, Cal. Toilet-seat. No. 1,257,771; Feb. 26; v. 247; p. 889.
Welsh, Harry S., New York, N. Y. Disappearing funnel. No. 1,256,961; Feb. 19; v. 247; p. 618.
Welsh, William J., Jersey City, N. J., assignor to Hemendinger, Alexander & Company, Inc. Coating-machine. No. 1,257,564; Feb. 26; v. 247; p. 828.
Welter, Herman C., assignor to Hall-Welter Company, Inc., Rochester, N. Y. Check-writing machine. No. 1,255,367; Feb. 5; v. 247; p. 73.
Welter, Herman C., assignor to Hall-Welter Company, Inc., Rochester, N. Y. Printing-die. No. 1,255,368; Feb. 5; v. 247; p. 73.
Wensel, Carl E., Newark, N. J. Paring device. No. 1,256,751; Feb. 19; v. 247; p. 555.
Werbeck, Walter G., Chicago, Ill. Water-gage. No. 1,255,965; Feb. 12; v. 247; p. 287.
Werner, Frederick W., Denver, Colo. Collar-button. No. 1,255,254; Feb. 5; v. 247; p. 40.
Werner, Otto, *et al.* (See Hicks, George J., assignor.)
Werner, Richard, *et al.* (See Hicks, George J., assignor.)
Wersel, Frank B., Jr., Mount Auburn, Ohio. Duofold davenport. No. 1,256,752; Feb. 19; v. 247; p. 555.
Wesoty, Josef, Kenosha, Wis. Fan attachment for rocking-chairs. No. 1,256,962; Feb. 19; v. 247; p. 618.
West, Edward D., East Point, assignor to J. M. Sanders, Atlanta, Ga. Tire-carrier. No. 1,256,493; Feb. 12; v. 247; p. 444.
West, Ernest H., Jacksonville, Ala. Glass casket. No. 1,256,409; Feb. 12; v. 247; p. 420.
West, Leonard A., Niagara Falls, Ontario, Canada. Fountain-brush. No. 1,256,622; Feb. 19; v. 247; p. 518.
Westberg, Sigurd, and E. Edwin, Christiania, Norway. Reduction of ores. No. 1,256,623; Feb. 19; v. 247; p. 518.
Westbye, Peder P., Peterborough, Ontario, Canada. Variable-stroke mechanism. No. 1,256,624; Feb. 19; v. 247; p. 518.
Westendarp, Henry O., Saugus, Mass., assignor to General Electric Company. Means for controlling and reversing vessels. No. 1,257,165; Feb. 19; v. 247; p. 676.
Westendarp, Henry O., Saugus, Mass., assignor to General Electric Company. Means for controlling and reversing vessels. No. 1,257,298; Feb. 19; v. 247; p. 716.
Western Electric Company. (See Bell, John H., assignor.)
Western Electric Company. (See Clausen, Henry P., assignor.)

Western Electric Company. (See Clausen and Goodrum, assignors.)
Western Electric Company. (See Colpitts, Edwin H., assignor.)
Western Electric Company. (See Crandall, Irving B., assignor.)
Western Electric Company. (See Dixon, Amos F., assignor.)
Western Electric Company. (See Goodrum, Charles L., assignor.)
Western Electric Company. (See Harlow, John B., assignor.)
Western Electric Company (See Johnson, Lewis H., assignor.)
Western Electric Company. (See Keckler, Charles W., assignor.)
Western Electric Company. (See Kropp, John A., assignor.)
Western Electric Company. (See Lundell, Alben E., assignor.)
Western Electric Company. (See Lundell and Stearn, assignors.)
Western Electric Company. (See Nichols, Harold W., assignor.)
Western Electric Company. (See Nicolson, Alexander M., assignor.)
Western Electric Company. (See Reeves and Lundell, assignors.)
Western Electric Company. (See Reich, John C., assignor.)
Western Electric Company. (See Reynolds, John N., assignor.)
Western Electric Company. (See Williams and Clark, assignors.)
Western Gas Fixture Co., The. (See Reiser, Alfred W., assignor.)
Western Wheeled Scraper Company. (See Rhodes, Jay B., assignor.)
Westfall, Ely R., U. S. Army. Making animal-mummies. No. 1,256,625; Feb. 19; v. 247; p. 519.
Westhafer, James S., Braman, Okla. Dirigible-lamp mechanism. No. 1,257,430; Feb. 26; v. 247; p. 787.
Westinghouse Air Brake Company, The. (See Donovan, Patrick H., assignor.)
Westinghouse Air Brake Company, The. (See Newell, Edward W., assignor.)
Westinghouse Air Brake Company, The. (See St. John, Ancel, assignor.)
Westinghouse Air Brake Company, The. (See Turner and Cady, assignors.)
Westinghouse Air Brake Company, The. (See Turner, Walter V., assignee.)
Westinghouse Electric and Manufacturing Company. (See Chubb, Lewis W., assignor.)
Westinghouse Electric & Manufacturing Company. (See Coulson, John, assignor.)
Westinghouse Electric and Manufacturing Company. (See Dobson, John V., assignor.)
Westinghouse Electric & Manufacturing Company. (See Eaton, George M., assignor.)
Westinghouse Electric & Manufacturing Company. (See Earhart, Raymond N., assignor.)
Westinghouse Electric and Manufacturing Company. (See Ferris, Ralph E., assignor.)
Westinghouse Electric and Manufacturing Company. (See Hellmund, Rudolf E., assignor.)
Western Electric and Manufacturing Company. (See Hellmund and Whittaker, assignors.)
Westinghouse Electric & Manufacturing Company. (See Holy, George H. F., assignor.)
Westinghouse Electric and Manufacturing Company. (See Little, George M., assignor.)
Westinghouse Electric and Manufacturing Company. (See Lum, Walter O., assignor.)
Westinghouse Electric and Manufacturing Company. (See Murray, George H., Jr., assignor.)
Westinghouse Electric and Manufacturing Company. (See Simmon, Karl A., assignor.)
Westinghouse Electric and Manufacturing Company. (See Stanley, Charles W., assignor.)
Westinghouse Electric and Manufacturing Company. (See Storer, Norman W., assignor.)
Westinghouse Electric and Manufacturing Company. (See Tschudy and Farnsworth, assignors.)
Westlake Machine Company, The. (See Kadow, August, assignor.)
Weston, Clarence B., assignor to Ball Engine Company, Erie, Pa. Pulley-block. No. 1,257,431; Feb. 26; v. 247; p. 789.
Weston, Edwin J., Jr., Berkeley, assignor of one-tenth to M. Ecker, San Francisco, and one-tenth to J. R. Shelton, Woodland, Cal. Wheel-mounting. No. 1,256,963; Feb. 19; v. 247; p. 618.
Weston, William E., Houston Heights, Tex. Automatic maximum-speed controller. No. 1,257,565; Feb. 26; v. 247; p. 829.
Weston, William S., Houston Heights, Tex. Anticreeper for railway-rails. No. 1,257,566; Feb. 26; v. 247; p. 829.
Wetsel, Edward V. and M., New York, N. Y.; said E. V. Wetsel assignor to said M. Wetsel. Puzzle game. No. 1,257,432; Feb. 26; v. 247; p. 788.
Wetsel, Margaret. (See Wetsel, Edward V. and M.)
Weydell, Jean M., Indianapolis, Ind. Starter-generator connection. No. 1,255,369; Feb. 5; v. 247; p. 74.
Whale, Charles A., and J. H. Black, Portland, Oreg. Resilient wheel. No. 1,257,433; Feb. 26; v. 247; p. 788.
Whalen, James W., assignor of one-half to W. E. Merryman, Richmond, Ind. Fishing-tackle. No. 1,255,256; Feb. 5; v. 247; p. 40.
Whatley, Alfred H., Providence, R. I. Unreeling device. No. 1,255,966; Feb. 12; v. 247; p. 287.
Wheat, George D., Whitehorse, Okla. Wire anchor. No. 1,256,752; Feb. 19; v. 247; p. 555.
Wheatley, Arthur, Philadelphia, Pa. Bed-bottom support. No. 1,255,675; Feb. 5; v. 247; p. 163.
Wheatley, Harold V., Edenkillie, Strassburg, Saskatchewan, Canada. Ladder attachment. No. 1,257,056; Feb. 19; v. 247; p. 645.
Wheaton, Abram W., Newark, N. J., assignor to A. W. Wheaton Brass Works. Self-closing faucet and wrench or handle therefor. No. 1,255,370; Feb. 5; v. 247; p. 74.
Whidden, Ernest D., Elyria, Ohio. Wheel for toy vehicles. No. 1,256,686; Feb. 12; v. 247; p. 328.
Whitaker, Edgar A., assignor to C. N. Richardson, Providence, R. I. Aerial ladder-truck. No. 1,256,984; Feb. 19; v. 247; p. 619.
Whitaker, Lloyd D., Farmville, Va. Pan-lifter. No. 1,256,626; Feb. 19; v. 247; p. 519.
White, Charles H., assignor of one-third to F. W. Goodrich, Glenwood Springs, Colo. Mail catching and delivering means. No. 1,255,373; Feb. 5; v. 247; p. 75.
White, Ernest M., Detroit, Mich. Splash-oiling system. No. 1,256,754; Feb. 19; v. 247; p. 555.
White, Franklin R., assignor to Patent Button Company, Waterbury, Conn. Clutch mechanism for button-attaching machines. No. 1,256,755; Feb. 19; v. 247; p. 555.
White, Maurice E., Norristown, Pa. Pipe-covering band. No. 1,257,166; Feb. 19; v. 247; p. 676.
White, Robert W., Eastondale, Mass. Pie-container. No. 1,257,057; Feb. 19; v. 247; p. 646.
White, Walter W., High Holborn, London, England. Separation of volatile products from solid carbonaceous material. No. 1,257,772; Feb. 26; v. 247; p. 889.
Whitehead, John S., Sullivan, Ind. Underground anchor. No. 1,255,670; Feb. 5; v. 247; p. 163.
Whitehead, John W., Chicago, Ill. Theatrical runway. No. 1,255,256; Feb. 5; v. 247; p. 41.
Whitin Machine Works, The. (See Owen, Oscar L., assignor.)
Whitlow, Earl, Jeffersonville, Ill. Bundle-carrier attachment for harvesters. No. 1,256,410; Feb. 12; v. 247; p. 421.
Whitmore, Edson G., Toledo, Ohio. Splicing means for films. No. 1,255,257; Feb. 5; v. 247; p. 41.
Whittaker, Charles C. (See Hellmund and Whittaker.)
Whyte, Frederick M. (See Hawksworth and Whyte.)
Wiberg, Oscar A., Finspong, assignor to Aktiebolaget Ljungströms Angturbin, Stockholm, Sweden. Elastic-fluid turbine. No. 1,257,167; Feb. 19; v. 247; p. 676.
Wiberg, Oskar A., Finspong, assignor, by mesne assignments, to Aktiebolaget Ljungströms Angturbin, Stockholm, Sweden. Lubricating system for bearings. No. 1,257,773; Feb. 26; v. 247; p. 890.
Wichliffe, Ray, Millersport, Ohio. Fertilizer-distributer. No. 1,256,854; Feb. 19; v. 247; p. 585.
Wickwire, Charles C., Cortland, N. Y. Sieve. No. 1,257,434; Feb. 26; v. 247; p. 788.
Wieden, Karl, Ohligs, Germany. Tinder-box. No. 1,257,567; Feb. 26; v. 247; p. 830.
Wiedenhoeft, Arthur E. assignor of one-half to H. A. Bert, Chicago, Ill. Shade-holder. No. 1,256,411; Feb. 12; v. 247; p. 421.
Wienke, Louis A., Manitowoc county, Wis. Trace-fastener. No. 1,256,627; Feb. 19; v. 247; p. 519.
Wigmore, Frederick W., Spotswood, Victoria, Australia. Gin-trap. No. 1,256,187; Feb. 12; v. 247; p. 355.
Wilcomb, Frank, assignor to Wildman Mfg. Co., Norristown, Pa. Interlocking sinker and web-holder. No. 1,255,258; Feb. 5; v. 247; p. 41.
Wilcomb, Frank, assignor to Wildman M'f'g Co., Norristown, Pa. Detachable presser for spring-beard needles. No. 1,255,259; Feb. 5; v. 247; p. 41.
Wilcomb, Frank, assignor to Wildman Mfg. Co., Norristown, Pa. Needle-carrier for knitting-machines. No. 1,255,260; Feb. 5; v. 247; p. 41.
Wildman Mfg. Co. (See Ballard, George L., assignor.)
Wildman Mfg. Co. (See Wilcomb, Frank, assignor.)
Wilhelm, Russell H., Easton, Pa., assignor to Ingersoll-Rand Company, Jersey City, N. J. Extension-handle construction for pneumatic tools. No. 1,255,261; Feb. 5; v. 247; p. 42.
Wilkins, George A., Amsterdam, N. Y. Take-up fabric-roller. No. 1,256,756; Feb. 19; v. 247; p. 556.
Will & Baumer Co., The. (See Will, Harold H., assignor.)
Will, Harold H., assignor to The Will & Baumer Co., Syracuse, N. Y. Candle-lamp. No. 1,257,658; Feb. 26; v. 247; p. 856.
Willberg, Oani, Brooklyn, N. Y., assignor to The Stippletone Company. Stippling apparatus. No. 1,256,757; Feb. 19; v. 247; p. 556.
Willey, Isaac F., Philadelphia, Pa. Ironing-machine. No. 1,256,280; Feb. 12; v. 247; p. 382.
Williams, Charles H., assignor to Chicago Railway Equipment Company, Chicago, Ill. Clasp-brake mechanism. No. 1,255,372; Feb. 5; v. 247; p. 75.
Williams, Charles H., assignor to Chicago Railway Equipment Company, Chicago, Ill. Brake-beam suspension. No. 1,255,967; Feb. 12; v. 247; p. 288.

Williams, Edward, Schuylerville, N. Y. Thresher. No. 1,257,058; Feb. 19; v. 247; p. 646.
Williams, Frank C., Philadelphia, Pa., assignor to The Safety Block Signal Company. Block-signaling and stopping system. No. 1,257,661; Feb. 26; v. 247; p. 944.
Williams, Frank H., Buffalo, N. Y. Bar-twister. No. 1,257,435; Feb. 26; v. 247; p. 789.
Williams, George M., Elizabeth, N. J., assignor to P. Lorillard Company, New York, N. Y. Slide-box. No. 1,256,965; Feb. 19; v. 247; p. 619.
Williams, Joseph H., Los Angeles, Cal. Fireplace structure. No. 1,255,493; Feb. 5; v. 247; p. 109.
Williams, Philip K., assignor to The J. K. Williams Company, Glastonbury, Conn. Soap-stick holder. No. 1,257,436; Feb. 26; v. 247; p. 789.
Williams, Robert R., Manila, Philippine Islands. Refining sugar. No. 1,256,758; Feb. 19; v. 247; p. 556.
Williams, Samuel B., Jr., Brooklyn, and E. H. Clark, assignors to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,256,067; Feb. 12; v. 247; p. 323.
Williams, Sidney, *et al.* (See Baer, Charles H., assignor.)
Williams, Thomas A., Elkins, N. Mex. Well-drill. No. 1,257,659; Feb. 26; v. 247; p. 850.
Williamson, John T. (See Pettit, Ernest H., assignor.)
Williamson, Walter, Everett, assignor to Crosby Steam Gage & Valve Company, Boston, Mass. Time controlling and recording mechanism. No. 1,255,968; Feb. 12; v. 247; p. 288.
Willis, Bernard D. (See Blessing and Willis.)
Willis, George M., Chicago, assignor of one-half to C. A. Brown, Hinsdale, Ill. Transmission mechanism. No. 1,257,660; Feb. 26; v. 247; p. 850.
Willson, Freeman R., Worthington, Ohio. Vehicle-wheel. No. 1,256,262; Feb. 5; v. 247; p. 42.
Wilmarth Show Case Company. (See Morris, Edmund, assignor.)
Wilson, George H., Louisville, Ky. Antimoring device. No. 1,256,188; Feb. 12; v. 247; p. 355.
Wilson, John C., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Meter. No. 1,257,568; Feb. 26; v. 247; p. 830.
Wilson, John M., Montclair, assignor to F. Murphy, Newark, N. J. Treating car-seats. No. 1,256,189; Feb. 12; v. 247; p. 355.
Wilson, Louie G., Morning Sun, Iowa. Beet-harvester. No. 1,257,168; Feb. 19; v. 247; p. 677.
Wilson, William, London, England. Orrery, tellurion, and the like. No. 1,256,855; Feb. 19; v. 247; p. 586.
Wilson, Wylie G., New York, N. Y., assignor to Everlasting Valve Company. Valve control. No. 1,256,759; Feb. 19; v. 247; p. 556.
Wilt, Alice G., Philadelphia, Pa. Paper-doll's-dress fastener. No. 1,255,677; Feb. 5; v. 247; p. 163.
Winchester Repeating Arms Co. (See Johnson, Thomas C., assignor.)
Windt, Rudolph T., St. Louis, Mo. Lock for demountable rims. No. 1,257,296; Feb. 19; v. 247; p. 706.
Wingquist, Sven G., Gottenborg, Sweden, assignor, by mesne assignments, to S. K. F. Ball Bearing Company, Hartford, Conn. Bearing. No. 1,257,774; Feb. 26; v. 247; p. 890.
Winkler, Max, Ridgewood, N. Y. Safety attachment for satchels and the like. No. 1,256,985; Feb. 19; v. 247; p. 619.
Winkler, Samuel M., New York, N. Y. Floor-covering. No. 1,255,373; Feb. 5; v. 247; p. 75.
Winslow, Clark J., Appleton, Minn. Combination lock-switch. No. 1,257,669; Feb. 19; v. 247; p. 646.
Winston, Charles S., assignor to Kellogg Switchboard & Supply Company, Chicago, Ill. Telephone system with universal cord-circuit. No. 1,255,374; Feb. 5; v. 247; p. 75.
Winter, Charles, London, England. Apparatus for issuing tickets and registering receipts. No. 1,256,412; Feb. 12; v. 247; p. 421.
Winter, John R., assignor to Kelsey Wheel Company, Detroit, Mich. Forming wheel-hubs. No. 1,257,569; Feb. 26; v. 247; p. 830.
Winterrowd, William H., Montreal, Quebec, Canada. Draft-gear carrier for railway-locomotives. No. 1,257,437; Feb. 26; v. 247; p. 789.
Winton, Alexander, Lakewood, assignor to The Winton Gas Engine & Manufacturing Company, Cleveland, Ohio. Valve structure for internal-combustion motors. No. 1,255,375; Feb. 5; v. 247; p. 76.
Winton Gas Engine & Manufacturing Company, The. (See Winton, Alexander, assignor.)
Wireless Specialty Apparatus Company. (See Pickard, Greenleaf W., assignor.)
Wisconsin Electric Company. (See Beach, Chester H., assignor.)
Wiswell, Arthur M., Stafford, Kans. Spreading-machine. No. 1,256,190; Feb. 12; v. 247; p. 356.
Wiswell, Arthur M., assignor of one-third to J. R. Bailey and one-third to A. Hall, Wichita, Kans. Grain-sampler. No. 1,256,413; Feb. 12; v. 247; p. 422.
Wiswell, Frederick A., assignor of two-fifths to E. E. Pbelen, Oakland, Cal. Tile-clamp. No. 1,257,276; Feb. 19; v. 247; p. 710.
Witham, George R., Jr., assignor of one-half to G. S. Witham, Sr., Hudson Falls, N. Y. Bur for treating grindstones. No. 1,255,494; Feb. 5; v. 247; p. 110.
Witherow, William P., Pittsburgh, Pa. Reinforcing-bar. No. 1,255,678; Feb. 5; v. 247; p. 163.
Witt, Henry N., Morristown, Tenn. Truss. No. 1,256,969; Feb. 12; v. 247; p. 288.
Wittig, Alfred E., Rochester, N. Y. Signal. No. 1,257,661; Feb. 26; v. 247; p. 857.
Wittkowski, Friedrich W., Des Moines, Iowa. Fishing-rod holder. No. 1,256,191; Feb. 12; v. 247; p. 356.
Wittwer, John J., Sr., Seattle, Wash. Chair. No. 1,256,856; Feb. 19; v. 247; p. 587.
Wofford, William F., Stratford, Tex. Drainage-bottle. No. 1,256,857; Feb. 19; v. 247; p. 587.
Wogenstahl, Leo J., San Antonio, Tex., assignor to Automatic Search Light Company, Phoenix, Ariz. Dirigible headlight. No. 1,256,414; Feb. 12; v. 247; p. 422.
Wolach, Joseph, Graceville, Minn. Attachment for tanning-mills. No. 1,256,415; Feb. 12; v. 247; p. 422.
Wolf, Albert, Traverse City, Mich. Shaving pot. No. 1,257,776; Feb. 26; v. 247; p. 891.
Wolfe, Joseph L., Bridgeport, Conn. Test-indicator. No. 1,256,967; Feb. 19; v. 247; p. 619.
Woll, Frederick P., Philadelphia, Pa. Upholstery material. No. 1,256,088; Feb. 12; v. 247; p. 323.
Wollerweber, Guy, Winterhaven, Fla. Graphical recorder. No. 1,256,858; Feb. 19; v. 247; p. 587.
Woodbridge, Joseph L., Philadelphia, Pa. Electrical system of distribution. No. 1,256,628; Feb. 19; v. 247; p. 519.
Woodbury, John E., Worcester, Mass. Counter for intaglio presses. No. 1,255,263; Feb. 5; v. 247; p. 42.
Woodford, Frank E. (See Weber and Woodford.)
Woodlee, W. G., *et al.* (See Sartain, Louis M., assignor.)
Woodlee, W. H., *et al.* (See Sartain, Louis M., assignor.)
Woodruff, William W. (See Ritscher, William J. S., assignor.)
Woods, Bertha, Platteville, Wis. Jar-steamer. No. 1,256,416; Feb. 12; v. 247; p. 422.
Woods Motor Vehicle Company. (See Fend, Roland S., assignor.)
Woods, Robert L., Melbourne, Ark. Mechanical negative-retouching device. No. 1,256,760; Feb. 19; v. 247; p. 557.
Woods, Wildman M., Newton, Iowa. Steering-gear for sleds. No. 1,256,417; Feb. 12; v. 247; p. 423.
Woodstock Typewriter Company. (See Roebuck, Alvah C., assignor.)
Woodward, Arthur H., Altadena, Cal., assignor to The International Register Co., Chicago, Ill. Fare-recorder. No. 1,256,859; Feb. 19; v. 247; p. 588.
Woolson, Orosco C., Newark, N. J. Insulating pipe-casing. No. 1,256,629; Feb. 19; v. 247; p. 520.
Worcester Shock Absorber Co. (See Ball, Harry, assignor.)
Workman, James M., and T. B. Huffman, Ionia, Kans. Heat-generating medium. No. 1,257,570; Feb. 26; v. 247; p. 830.
Wortham, Willis L. (See Freeman and Wortham.)
Worthington, Albert P. (See Muhleisen, Henry W., assignor.)
Worthington Manufacturing Company. (See Artus, George, assignor.)
Worthington Pump and Machinery Corporation. (See Bernhard, Richard, assignor.)
Wright, Bert R. (See Leitch and Wright.)
Wright, Charles W., Topeka, Kans. Terminal coupling for electrical conductors. No. 1,255,264; Feb. 5; v. 247; p. 43.
Wright, Harry S., Jerome, Idaho. Thermometer-case. No. 1,257,060; Feb. 19; v. 247; p. 646.
Wright, Rea P., Washington, D. C., assignor to J. F. Hemeway, New York, N. Y. Automatic pressure-roll release for clothes-wringers. No. 1,255,495; Feb. 5; v. 247; p. 110.
Wright, Royal J., Springfield, Mass. Corset of the girdle type. No. 1,256,630; Feb. 19; v. 247; p. 520.
Wrigley, Herbert. (See Spence and Wrigley.)
Wulf, Herrmann A., Norwich, Conn. Sash-cord fastener. No. 1,257,438; Feb. 26; v. 247; p. 789.
Yarbrough, John H., Womble, Ark. Baggage-truck. No. 1,257,169; Feb. 19; v. 247; p. 677.
Yarnell, John B., Johnstown, Pa. Switch-frog. No. 1,255,679; Feb. 5; v. 247; p. 164.
Yarnell, John B., Johnstown, Pa. Switch-frog. No. 1,255,680; Feb. 5; v. 247; p. 164.
York, Henry H., Davenport, assignor to The Bettendorf Company, Bettendorf, Iowa. Drop-stake for logging-cars. No. 1,256,860; Feb. 19; v. 247; p. 588.
Yetton, John, and W. E. Brockett, Stratford, London, England. Holder for wire-staple belt-fasteners. No. 1,257,061; Feb. 19; v. 247; p. 647.
Yocom, James, Philadelphia, Pa. Belt-shifter for change-speed mechanism. No. 1,256,418; Feb. 12; v. 247; p. 423.
Yoder, John I., Ashland, Pa. Antiskidding device for motor-vehicle wheels. No. 1,257,170; Feb. 19; v. 247; p. 677.
Young, Francis L., New York, N. Y., assignor to The Aeolian Company. Phonograph-cabinet. No. 1,257,439; Feb. 26; v. 247; p. 790.
Young, Leonard A. (See Frandt and Mahoney, assignors.)
Young, Lou C., Oswego, Ill. Silo. No. 1,256,680; Feb. 12; v. 247; p. 322.
Young, Philip E., Fairhaven, Mass. Gravitometer. No. 1,257,662; Feb. 26; v. 247; p. 857.

Young, Walter L., Harper, Cal. Expansive drilling-bit. No. 1,256,968; Feb. 19; v. 247; p. 620.
Young, William A., New York, N. Y. Gromet. No. 1,256,419; Feb. 12; v. 247; p. 423.
Zachary, Ladislaus, Sandpoint, Idaho. Electric spectacle lamp and frame. No. 1,255,265; Feb. 5; v. 247; p. 43.
Zaleski, Frank, Somerville, assignor to The Reece Button Hole Machine Company, Boston, Mass. Sewing-machine. No. 1,255,970; Feb. 12; v. 247; p. 288.
Zawadsky, Herman W., Waterbury, Conn. Metallic supporting-shelf and method of manufacture. No. 1,255,266; Feb. 5; v. 247; p. 43.
Zehden, Alfred, Berlin, Germany. Electrical burglar-alarm. No. 1,257,440; Feb. 26; v. 247; p. 790.
Zenk, Charles C., Wilkinsburg, Pa., assignor to Diehl Manufacturing Company, Elizabeth, N. J. Commutator. No. 1,255,681; Feb. 5; v. 247; p. 164.
Zerk, Oscar, Cleveland, Ohio, assignor, by mesne assignments, to G. W. Bowen, Auburn, N. Y. Self-lubricating spring-bolt. No. 1,255,267; Feb. 5; v. 247; p. 43.
Zeymer, Luis P., Rio de Janeiro, Brazil. Safety device for guns. No. 1,256,631; Feb. 19; v. 247; p. 521.
Ziccardi, Lucia G., *et al.* (See Norman, Ludwig, assignor.)
Ziccardi, Maria, *et al.* (See Norman, Ludwig, assignor.)
Ziegler, Alfred A., assignor to United Electric Apparatus Co., Boston, Mass. Relay. No. 1,257,663; Feb. 26; v. 247; p. 857.
Zihlmann, Edward L., Huntington, W. Va. Hot stove for glassware. No. 1,257,441; Feb. 26; v. 247; p. 790.
Zimlich, Joseph G., Cleveland, Ohio. Barrel-stand. No. 1,257,442; Feb. 26; v. 247; p. 791.
Zimmerman, Albert, assignor to the estate of L. M. Palmer, deceased, Brooklyn, N. Y. Slaking lime. No. 1,255,268; Feb. 5; v. 247; p. 44.
Zimmerman, Albert, York, Pa., assignor to L. M. Palmer, Brooklyn, N. Y. Apparatus for hydrating lime. No. 1,255,682; Feb. 5; v. 247; p. 164.
Zimmerman, John. (See Underwood and Zimmerman.)
Zimmerman Steel Co. (See Zimmerman, William C. F., assignor.)
Zimmerman, William C. F., assignor to Zimmerman Steel Co., Lone Tree, Iowa. Fastening means. No. 1,255,971; Feb. 12; v. 247; p. 289.
Zinkiewicz, Frank W., Worcester, Mass. Fishing-rod. No. 1,255,269; Feb. 5; v. 247; p. 44.
Zirker, Morris, *et al.* (See Weston, Edwin J., Jr., assignor.)

ALPHABETICAL LIST OF PATENTEES OF DESIGNS.

American Motorbus Corporation. (See Weaver, Harold B., assignor.)
Aromint Company, The. (See Earl, Leon P., assignor.)
Backstay Machine & Leather Company, The. (See Schemmel, Robert C., assignor.)
Barley, Albert C., Streator, Ill. Rear automobile-wheel fender. No. 51,748; Feb. 12; v. 247; p. 450.
Berkey and Gay Furniture Company. (See MacLachlan, Lachlan, assignor.)
Berkshire, William A., Ocheyedan, Iowa. Paring-knife. No. 51,772; Feb. 12; v. 247; p. 454.
Bigelow, Alma S., Marquette, Mich., assignor to Witcombe, McGeachin and Company, New York, N. Y. Printed fabric. No. 51,749; Feb. 12; v. 247; p. 450.
Bigelow Hartford Carpet Company. (See Brown, John L., assignor.)
Bigelow Hartford Carpet Company. (See Enis, Joseph, assignor.)
Bigelow Hartford Carpet Company. (See Lacouture, Henry C., assignor.)
Bigelow Hartford Carpet Company. (See McCabe, William, assignor.)
Bigelow Hartford Carpet Company. (See Minassian, Leon, assignor.)
Bigelow Hartford Carpet Company. (See Sauer, Emil G., assignor.)
Bigelow Hartford Carpet Company. (See Spring, William A., assignor.)
Bise, Charles O., Fort Wayne, Ind. Fishing-reel. No. 51,710; Feb. 5; v. 247; p. 213.
Blum, Frank J., Dansville, N. Y. Slipper. No. 51,711; Feb. 5; v. 247; p. 213.
Booth, Kraft, assignor to Gillinder & Sons, Inc., Philadelphia, Pa. Bowl, globe, or plate stand. No. 51,805; Feb. 26; v. 247; p. 945.
Bowser, Allen A., Fort Wayne, Ind. Curb-pump casing. No. 51,712; Feb. 5; v. 247; p. 214.
Breitenstein, Arthur L., Akron, assignor to The East Palestine Rubber Company, East Palestine, Ohio. Vehicle-tire. Nos. 51,746–7; Feb. 5; v. 247; p. 220.
Brown, John L., Lyndhurst, N. J., assignor to Bigelow Hartford Carpet Company. Rug. No. 51,776; Feb. 19; v. 247; p. 722.
Brown, Lloyd, Los Angeles, Cal. Game-board. No. 51,713; Feb. 5; v. 247; p. 214.
Burr, John F., Houston, Minn. Head for fencing-hammers. No. 51,773; Feb. 12; v. 247; p. 454.
Burton, Edward, assignor to Gorham Manufacturing Company, Providence, R. I. Ornament for automobiles. No. 51,714; Feb. 5; y. 247; p. 214.
Burton, Edward, assignor to Gorham Manufacturing Company, Providence, R. I. Ornament for automobiles. No. 51,777; Feb. 19; v. 247; p. 722.
Chesebro, Agnes B., San Francisco, Cal. Badge. No. 51,715; Feb. 5; v. 247; p. 214.
Cossa, Marie, Philadelphia, Pa. Cake-form. No. 51,750; Feb. 12; v. 247; p. 450.
Chester, Ralph L., and H. Y. Lake, Ocean City, N. J. Badge. No. 51,717; Feb. 5; v. 247; p. 215.
Cirelli, Francesco, Philadelphia, Pa. Tone-arm for talking-machines. No. 51,718; Feb. 5; v. 247; p. 215.
Cleveland Chandelier Company. (See Meng, Arthur, assignor.)
Colwell, Walter E., Oakville, Ontario, Canada. Cabinet for sound-producing apparatus. No. 51,716; Feb. 5; v. 247; p. 214.
Cooninger, Mark, Kansas City, Mo. Combination lamp and street-sign. No. 51,774; Feb. 12; v. 247; p. 455.
Corol, Stanley, Willimantic, Conn. Bracket for a curtain and shade roller. No. 51,719; Feb. 5; v. 247; p. 215.
D'Olier, Henry, Jr., Bridgeport, Conn. Lamp-socket hood. No. 51,756; Feb. 12; v. 247; p. 451.
Danielson, Emil O. J., Boston, Mass. Flag-pole. No. 51,751; Feb. 12; v. 247; p. 450.
Desfosse, Eugene. (See Jackson, Marion W., assignor.)
Detreux, Henry, and B. Lovatt, Philadelphia, Pa. Puzzle. No. 51,720; Feb. 5; v. 247; p. 215.
Dickey, Edmund, Lancaster, Ohio. Dimming-lens. No. 51,752; Feb. 12; v. 247; p. 451.
Dietz, Fred, deceased; J. M. Dietz and W. T. Jerome, executors, assignors to R. E. Dietz Company, New York, N. Y. Lantern-globe. No. 51,721; Feb. 5; v. 247; p. 215.
Dietz, John R., *et al.*, executors. (See Dietz, Fred.)
Dodge Brothers. (See Overmyer, Otho R., assignor.)
Duffy, Thomas I., Chicago, Ill. Vehicle-lamp. No. 51,778; Feb. 19; v. 247; p. 722.
Dwyer, John W., Philadelphia, Pa. Child's rocker. No. 51,806; Feb. 26; v. 247; p. 945.
Earl, Leon P., assignor to The Aromint Company, Cincinnati, Ohio. Display and dispensing device. No. 51,723; Feb. 5; v. 247; p. 216.
East Palestine Rubber Company, The. (See Breitenstein, Arthur L., assignor.)
Eddy, Robert, Milwaukee, Wis. Rubber ball. No. 51,722; Feb. 5; v. 247; p. 216.
Enis, Joseph, Jersey City, N. J., assignor to Bigelow Hartford Carpet Company. Rug. No. 51,779; Feb. 19; v. 247; p. 723.
Fee, Francis J., New York, N. Y. Sprinkler-head link element. No. 51,807; Feb. 26; v. 247; p. 945.
Fellom, Lelia M., Los Angeles, Cal. Doll. No. 51,753; Feb. 12; v. 247; p. 451.
Fellom, Lelia M., Los Angeles, Cal. Doll. No. 51,780; Feb. 19; v. 247; p. 723.
Firestone Tire and Rubber Company, The. (See Meyer, Leroy E., assignor.)
Friedley-Voshardt Co. (See Wellman, Lester R., assignor.)
Gardiner, William H., New York, N. Y. Badge, button, or similar article. No. 51,808; Feb. 26; v. 247; p. 945.
Gillinder & Sons. (See Booth, Kraft, assignor.)
Gooding, Reginald L., Barbados Island, British West Indies. Back for playing-cards or similar articles. No. 51,724; Feb. 5; v. 247; p. 216.
Gorham Manufacturing Company. (See Burton, Edward, assignor.)
Gorham Manufacturing Company. (See Staf, Axel H., assignor.)
Gothberg, Bernard, Westfield, N. J. Lighting-fixture. No. 51,781; Feb. 19; v. 247; p. 723.
Gryphon Rubber and Tire Corporation. (See Jones, Joseph W., assignor.)
Hawthorne, Ellsworth A., Bridgeport, Conn. Lens. No. 51,725; Feb. 5; v. 247; p. 216.
Hem, Halvor O., assignor to Toledo Scale Company, Toledo, Ohio. Scale-casing. No. 51,809; Feb. 26; v. 247; p. 446.
Huber, Alice P., assignor to F. Meyer, New York, N. Y. Lace. Nos. 51,726–8; Feb. 5; v. 247; pp. 216–17.
J. B. Williams Company, The. (See Williams, Philip K., assignor.)
Jackson, Marion W., Philadelphia, Pa., assignor to E. Desfosse, Paris, France. Tapestry or wall-covering. No. 51,782; Feb. 19; v. 247; p. 723.
Jerome, William T., *et al.*, executors. (See Dietz, Fred.)
Jones, Charles E., Chicago, Ill. Chandelier-chain terminal. No. 51,810; Feb. 26; v. 247; p. 946.
Jones, Charles E., Chicago, Ill. Clamps for light-reflecting bowls. No. 51,811; Feb. 26; v. 247; p. 946.

Jones, Joseph W., assignor to Gryphon Rubber and Tire Corporation, New York, N. Y. Tire. No. 51,783; Feb. 19; v. 247; p. 724.
Kelly, Kieran A., New York, N. Y. Banner. No. 51,812; Feb. 26; v. 247; p. 946.
Lacouture, Henry C., Arlington, N. J., assignor to Bigelow Hartford Carpet Company. Rug. No. 51,784; Feb. 19; v. 247; p. 724.
Lake, Harvey Y. (See Chester and Lake.)
Large, Samuel J., Bristol, Conn. Handle for a spoon, fork, or similar article. No. 51,785; Feb. 19; v. 247; p. 724.
Leon, Leon S., Chicago, Ill. Inhaler. No. 51,813; Feb. 26; v. 247; p. 946.
Levatt, Bernard. (See Detreux and Levatt.)
Loeb, William, Providence, R. I. Finger-ring or similar article. No. 51,814; Feb. 26; v. 247; p. 946.
MacLachlan, Lachlan, assignor to Berkey and Gay Furniture Company, Grand Rapids, Mich. Casing for sound-producing instruments. No. 51,786; Feb. 19; v. 247; p. 724.
Manzel, Charles W., Buffalo, N. Y. Leaf-spring-lubricating tool. No. 51,720; Feb. 5; v. 247; p. 217.
Marqus, George, Sr., Norwood, Ohio. Toy automobile. No. 51,730; Feb. 5; v. 247; p. 217.
McCabe, William, New York, N. Y., assignor to Bigelow Hartford Carpet Company. Rug. No. 51,787; Feb. 19; v. 247; p. 724.
Meng, Arthur, assignor to Cleveland Chandelier Company, Cleveland, Ohio. Arm for lighting-fixtures. Nos. 51,731–2; Feb. 5; v. 247; p. 217.
Meng, Arthur, assignor to Cleveland Chandelier Company, Cleveland, Ohio. Arm for lighting-fixtures. No. 51,754; Feb. 12; v. 247; p. 451.
Meyer, Felix. (See Huber, Alice P., assignor.)
Meyer, Leroy E., Cuyahoga Falls, assignor to The Firestone Tire and Rubber Company, Akron, Ohio. Rubber heel. No. 51,815; Feb. 26; v. 247; p. 947.
Millin, John S., Philadelphia, Pa. Pillow-top. No. 51,733; Feb. 5; v. 247; p. 218.
Minassian, Leon, New York, N. Y., assignor to Bigelow Hartford Carpet Company. Rug. Nos. 51,788–90; Feb. 19; v. 247; pp. 724–5.
Munson, Bror A. M., Brooklyn, N. Y. Game-board. No. 51,755; Feb. 12; v. 247; p. 451.
National Committee for Armenian and Syrian Relief. (See Patigian, Haig, assignor.)
Overmyer, Otho R., assignor to Dodge Brothers, Detroit, Mich. Back curtain of an automobile-top. No. 51,757; Feb. 12; v. 247; p. 451.
Paddock, Willard D., Kent, Conn. Statue. No. 51,816; Feb. 26; v. 247; p. 947.
Para Tire Co. of New York. (See Reynolds, Charles W., assignor.)
Patigian, Haig, San Francisco, Cal., assignor to National Committee for Armenian and Syrian Relief, New York, N. Y. Badge. No. 51,734; Feb. 5; v. 247; p. 218.
Pittsburgh Lamp, Brass & Glass Company. (See Yokel, Frank, assignor.)
Pontone, John S., Chicago, Ill. Talking-machine cabinet. Nos. 51,758–9; Feb. 12; v. 247; p. 452.
Pretzel, Herman H., Stillwater, Minn. Grease-gun. No. 51,817; Feb. 26; v. 247; p. 947.
Progress Press Brick & Machine Company. (See Stocke, Jacob, Jr., assignor.)
R. E. Dietz Company. (See Dietz, Fred, assignor.)
Reeves, William H., West Orange, N. J. Game-board. No. 51,735; Feb. 5; v. 247; p. 218.
Rewick, Everett E., Los Angeles, Cal. Furniture-panel. No. 51,762; Feb. 12; v. 247; p. 452.
Reynolds, Charles W., assignor to Para Tire Co. of New York, Inc., New York, N. Y. Automobile-tire. No. 51,736; Feb. 5; v. 247; p. 218.
Resnor, George F., Mercer, Pa. Gas-heater. Nos. 51,760–1; Feb. 12; v. 247; p. 452.
Richardson, Frank C. A., New York, N. Y. Finger-ring. No. 51,763; Feb. 12; v. 247; p. 452.
Rule, Arthur R., Westfield, N. J. Display-card. No. 51,787; Feb. 5; v. 247; p. 218.
Sargent & Company. (See Voight, Henry G., assignor.)
Sauer, Emil G., Richmond Hill, N. Y., assignor to Bigelow Hartford Carpet Company. Carpet. Nos. 51,792–6; Feb. 19; v. 247; pp. 725–6.
Saywell, Ernest A., Pawtucket, R. I., assignor to Seekonk Lace Company. Lace fabric. No. 51,797; Feb. 19; v. 247; p. 726.
Schemmel, Robert C., assignor to The Backstay Machine & Leather Company, Union City, Ind. Molding or welt. No. 51,804; Feb. 19; v. 247; p. 727.
Schneider, Frank, Buffalo, N. Y. Goblet or similar article. No. 51,738; Feb. 5; v. 247; p. 218.
Schoen, Leslie A., Victor, Colo. Patriotic badge or poster. No. 51,764; Feb. 12; v. 247; p. 453.
Scott, Ernest A. F., Pasadena, Cal. Statuette or toy figure. No. 51,765; Feb. 12; v. 247; p. 453.
Seekonk Lace Company. (See Saywell, Ernest A., assignor.)
Spring, William A., Brooklyn, N. Y., assignor to Bigelow Hartford Carpet Company. Rug. Nos. 51,798–9; Feb. 19; v. 247; p. 726.
Staf, Axel H., assignor to Gorham Manufacturing Company, Providence, R. I. Handle for spoon, fork, or similar article. No. 51,766; Feb. 12; v. 247; p. 453.
Stocke, Jacob, Jr., assignor to Progress Press Brick & Machine Company, St. Louis, Mo. Building-brick. No. 51,767; Feb. 12; v. 247; p. 453.
Tiffany, Louis C., New York, N. Y. Lamp. No. 51,800; Feb. 19; v. 247; p. 726.
Toledo Scale Company. (See Hem, Halvor O., assignor.)
Train, John, Wessington Springs, S. D. Watch-charm. No. 51,739; Feb. 5; v. 247; p. 219.
Tucker, Grover C., Tuscaloosa, Ala. Body for an insect-destroyer. No. 51,818; Feb. 26; v. 247; p. 947.
Van Raalte, Zealie, New York, N. Y. Veiling. No. 51,791; Feb. 19; v. 247; p. 725.
Voight, Henry G., New Britain, assignor to Sargent & Company, New Haven, Conn. Panic-bolt. No. 51,768; Feb. 12; v. 247; p. 453.
Waite, Ossian T., Oshkosh, Wis. Grass rug. Nos. 51,819–28; Feb. 26; v. 247; pp. 948–50.
Weaver, Harold B., New York, N. Y., assignor to American Motorbus Corporation. Motor-bus body. No. 51,740; Feb. 5; v. 247; p. 219.
Wellman, Lester R., assignor to Friedley-Voshardt Co., Chicago, Ill. Plate for lighting-fixtures. No. 51,801; Feb. 19; v. 247; p. 727.
Wells, Joel C., Southbridge, Mass. Lens-clip. No. 51,775; Feb. 12; v. 247; p. 455.
Whalen, Thomas J., New Castle, Pa. Tire. No. 51,829; Feb. 26; v. 247; p. 950.
Williams, Philip K., assignor to The J. B. Williams Company, Glastonbury, Conn. Cake of soap. No. 51,802; Feb. 19; v. 247; p. 727.
Witcombe, McGeachin and Company. (See Bigelow, Alma S., assignor.)
Yokel, Frank, assignor to Pittsburgh Lamp, Brass & Glass Company, Pittsburgh, Pa. Bowl for lighting-fixtures. No. 51,741; Feb. 5; v. 247; p. 219.
Yokel, Frank, assignor to Pittsburgh Lamp, Brass & Glass Company, Pittsburgh, Pa. Shade or reflector for lighting-fixtures. No. 51,742; Feb. 5; v. 247; p. 219.
Young, Willis G., Chicago, Ill. Game-board. Nos. 51,743–4; Feb. 5; v. 247; pp. 219–20.
Young, Willis G., Chicago, Ill. Game-board. No. 51,830; Feb. 26; v. 247; p. 950.
Zullig, Emil, Weehawken, N. J. Lace. No. 51,745; Feb. 5; v. 247; p. 220.
Zullig, Emil, Weehawken, N. J. Lace. No. 51,769; Feb. 12; v. 247; p. 454.
Zullig, Emil, Weehawken, N. J. Filet lace. Nos. 51,770–1; Feb. 12; v. 247; p. 454.
Zullig, Emil, Weehawken, N. J. Filet lace. No. 51,803; Feb. 19; v. 247; p. 727.

ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

A. Bourjois & Co., Inc., New York, N. Y. Certain named toilet preparations. No. 120,330; Feb. 5; v. 247; p. 237.
A. E. Little Company, Lynn, Mass. Boots and shoes made of leather or leather and cloth. No. 120,599; Feb. 19; v. 247; p. 743.
A. N. Palmer Company, The, Cedar Rapids, Iowa, and New York, N. Y. Instruction-pamphlets and educational posters. Nos. 120,515–16; Feb. 12; v. 247; p. 476.
Advance Automobile Accessories Corp., Chicago, Ill. Linings for transmissions and brakes. No. 120,467; Feb. 12; v. 247; p. 475.
Advance Mill & Elevator Company, Carrollton, Ill. Self-rising flour. No. 120,310; Feb. 5; v. 247; p. 237.
Aerial Cutlery Manufacturing Company, Marinette, Wis. Certain named cutlery. No. 120,311; Feb. 5; v. 247; p. 237.
Airtravel Corporation, New York, N. Y. Magazine published monthly. No. 120,468; Feb. 12; v. 247; p. 475.
Ajax Metal Company, The, Philadelphia, Pa. Ingots, castings, including engine-castings, and Babbitt metal. No. 120,320; Feb. 5; v. 247; p. 237.
Aktieselskabet Boulunds Fabrikker, Odense, Denmark. Textile belting and conveying-bands. No. 120,469; Feb. 12; v. 247; p. 475.
Alaska Pacific Herring Co., Seattle, Wash. Canned salmon. No. 120,312; Feb. 5; v. 247; p. 237.
Albany Perforated Wrapping Paper Company, Albany, N. Y. Toilet-paper and paper towels. No. 120,309; Feb. 5; v. 247; p. 237.
American Burtonizing Company, New York, N. Y. Non-intoxicating maltless beverages. No. 120,539; Feb. 19; v. 247; p. 741.
American Drug & Press Association, Decorah, Iowa. Certain named toilet preparations. No. 120,313; Feb. 5; v. 247; p. 237.

American Laundry Machinery Company, The, Norwood, Ohio. Garment-pressing machines. No. 120,540; Feb. 19; v. 247; p. 741.
American Marble Cleaning and Bleaching Co., New York, N. Y. Detergent compound for cleaning polished and unpolished surfaces. No. 120,814; Feb. 5; v. 247; p. 287.
American Nitrogen Products Company, Seattle, Wash. Certain named nitrogen products. No. 120,315; Feb. 5; v. 247; p. 237.
American Steel and Wire Company of New Jersey, The, Hoboken, N. J. Horseshoes and horseshoe calks. No. 120,470; Feb. 12; v. 247; p. 475.
American Stove Company, St. Louis, Mo. Wood, coal, gas, and vapor stoves and heaters. No. 120,471; Feb. 12; v. 247; p. 473.
American Watch Case Co., Inc., New York, N. Y. Watches, bracelet and mantoire watches, watch-movements. No. 120,319; Feb. 5; v. 247; p. 237.
Ammon & Person, Jersey City, N. J. Oleomargarin. No. 120,626; Feb. 19; v. 247; p. 743.
Amsterdam Coffee Co., Inc., New York, N. Y. Coffee. No. 120,541; Feb. 19; v. 247; p. 741.
Arbuthnot-Stein Co., Co., Pittsburgh, Pa. Cotton piece goods. No. 120,473; Feb. 12; v. 247; p. 475.
Armour and Company, Chicago, Ill. Oleomargarin. No. 120,316; Feb. 5; v. 247; p. 237.
Asher, Chester A., Philadelphia, Pa. Candy. No. 120,656; Feb. 26; v. 247; p. 961.
Atlantic Insulated Wire & Cable Company, Jersey City, N. J., and New York, N. Y. Insulated wire. Nos. 120,317–18; Feb. 5; v. 247; p. 237.
Baird-North Co., Providence, R. I. Certain named jewelry and precious-metal ware. No. 120,542; Feb. 19; v. 247; p. 741.
Baldwin Perfumery Co., The, Chicago, Ill. Perfume, toilet water, face-powder, sachet, &c. No. 120,543; Feb. 19; v. 247; p. 741.
Barwell, John W., Waukegan, Ill. Malted milk and a compound comprising malted milk and honey for making drinks. No. 120,321; Feb. 5; v. 247; p. 237.
Beall Brothers, Alton, Ill. Coal-pick handles. No. 120,322; Feb. 5; v. 247; p. 237.
Beall Brothers, Akron, Ill. Shovels, scoops, and spades. Nos. 120,323–5; Feb. 5; v. 247; p. 237.
Beaver Varnish Company, The, Buffalo, N. Y. Paste and ready-mixed paints and varnishes. No. 120,326; Feb. 5; v. 247; p. 237.
Bedford Silica Sand Company, The, Cleveland, Ohio. Plaster compositions. No. 120,474; Feb. 12; v. 247; p. 475.
Belto Manufacturing Company, The, Cincinnati, Ohio. Round treated woven textile-fabric belting. No. 120,475; Feb. 12; v. 247; p. 475.
Berg, Frederick O., Spokane, Wash. Manufactured cotton-duck goods. No. 120,476; Feb. 12; v. 247; p. 475.
Bernhard Ulmann Co., Inc., New York, N. Y. Certain named prints and publications. No. 120,477; Feb. 12; v. 247; p. 475.
Blanke Weaneker Candy Company, St. Louis, Mo. Candy. No. 120,327; Feb. 5; v. 247; p. 237.
Blatchford's Calf Meal Factory, Waukegan, Ill. Certain named foods. No. 120,328; Feb. 5; v. 247; p. 237.
Bonney Floyd Company, The, Columbus, Ohio. Car-movers, car-replacers. No. 120,329; Feb. 5; v. 247; p. 237.
Bowker Company Limited, The, Liverpool, England. Preserved fish, meats, fruits, and vegetables. No. 120,640; Feb. 26; v. 247; p. 961.
Bowker, Edwin A., Manchester, England. Tinned fish. No. 120,659; Feb. 26; v. 247; p. 961.
Boyle Manufacturing Company, Los Angeles, Cal. Cans, canteens, containers, and tanks. No. 120,545; Feb. 19; v. 247; p. 741.
Bradshaw, Campbell, Detroit, Mich. Ironing-tables. No. 120,548; Feb. 19; v. 247; p. 741.
Brandenstein & Co., M. J., San Francisco, Cal. Rice. No. 120,331; Feb. 5; v. 247; p. 237.
Braun & Sons, John, assignors to Pennsylvania Lawn Mower Works, Philadelphia, Pa. Lawn-mowers. Nos. 120,332–4; Feb. 5; v. 247; p. 237.
Bricklayers, Masons and Plasterers' International Union of America, Indianapolis, Ind. Printed books, periodicals, pamphlets, and circulars. No. 120,661; Feb. 26; v. 247; p. 961.
Brotherhood Railway Carmen of America, Kansas City, Mo. Printed books, periodicals, pamphlets, and circulars. No. 120,662; Feb. 26; v. 247; p. 961.
Bryant, Augustus H., New York, N. Y. Safety-razors and parts thereof. No. 120,335; Feb. 5; v. 247; p. 237.
Bryant Electric Co., The, Bridgeport, Conn. Electric switches and parts thereof. No. 120,336; Feb. 5; v. 247; p. 238.
Buffalo-Dehn Company, The, Buffalo, N. Y. Metallic device for hanging pictures or the like. No. 120,337; Feb. 5; v. 247; p. 238.
Bycol Co., The, Connersville, Ind. Medicinal tablets. No. 120,338; Feb. 5; v. 247; p. 238.
C. B. Wentworth Sons Corporation, Rochester, N. Y. Certain named toilet preparations. No. 120,464; Feb 5; v. 247; p. 241.
C. B. Wentworth Sons Corporation, The, Rochester, N. Y. Perfumes, sachet, face, and talcum powders, toilet waters and creams. No. 120,465; Feb. 5; v. 247; p. 241.
C. F. Benner & Co., Inc., Philadelphia, Pa. Coffees, teas, rice, spices, cocoa, and tapioca. No. 120,544; Feb. 19; v. 247; p. 741.
C. G. Conn, Ltd., Elkhart, Ind. Certain named musical instruments. No. 120,350; Feb. 5; v. 247; p. 238.
C. L. Cotton Perfume & Extract Co., Emlville, N. Y. Certain named pharmaceutical preparations. No. 120,353; Feb. 4; v. 247; p. 238.
Cable-Draper Baking Company, Detroit, Mich. Macaroni. No. 120,547; Feb. 19; v. 247; p. 741.
California Packing Corporation, San Francisco, Cal. Canned vegetables and olives. No. 120,664; Feb. 26; v. 247; p. 961.
Caloil Manufacturing Company, Chicago, Ill. Antifreezing liquids. No. 120,139; Feb. 5; v. 247; p. 238.
Calzino Wine Co., San Francisco, Cal. Non-intoxicating vinous beverage. No. 120,340; Feb. 5; v. 247; p. 238.
Carlton, James L., Chicago, Ill. Combined arch-support and heel-cushion. No. 120,549; Feb. 19; v. 247; p. 741.
Carpenter, Don A., El Paso, Tex. Certain named machinery and tools. No. 120,355; Feb. 5; v. 247; p. 238.
Casement Hardware Co., The, Chicago, Ill. Rakes. No. 120,341; Feb. 5; v. 247; p. 238.
Caspari, Ralph, Newark, N. J. Canned mackerel-roe. No. 120,665; Feb. 26; v. 247; p. 961.
Chace, William W., Brooklyn, assignor to Jennings Lace Works Corp., New York, N. Y. Hosiery, fabric gloves, mitts, hand and arm coverings. No. 120,342; Feb. 5; v. 247; p. 238.
Chace, William W., Brooklyn, assignor to Jennings Lace Works Corp., New York, N. Y. Fabric gloves, mitts, hand and arm coverings, hosiery. No. 120,475; Feb. 12; v. 247; p. 475.
Charles E. Hancock Co., Providence, R. I. Bracelets, bracelet parts, pendants, brooches, and finger-rings. No. 120,666; Feb. 5; v. 247; p. 239.
Chas. Chipman's Sons Co. Inc., New York, N. Y.. Hosiery. No. 120,344; Feb. 5; v. 247; p. 238.
Chicago Fuse Mfg. Co., Chicago, Ill. Certain named electrical supplies. No. 120,343; Feb. 5; v. 247; p. 238.
Chlorosan A.-G. Chemisch-Therapeutische Präparate, Zollingen, Switzerland. Blood-generating remedy in tabloids whose efficient components are chlorophyl, iron, and calcium. No. 120,345; Feb. 5; v. 247; p. 238.
Clifford and Cobb, Greenfield, Mass. Disinfectants. No. 120,347; Feb. 5; v. 247; p. 238.
Cochard, Alexander, Brooklyn, N. Y. Drying compound for printing and lithographing inks. No. 120,346; Feb. 5; v. 247; p. 238.
Cohen, Benjamin A., New York, N. Y. Rain-coats and rubber goods. Nos. 120,550–1; Feb. 19; v. 247; p. 741.
Cohen & Company, I. & B., New York, N. Y. Men's worsted suits and overcoats. No. 120,552; Feb. 19; v. 247; p. 741.
Cohen, Nathan B., Scranton, Pa. Hair-nets. No. 120,479; Feb. 12; v. 247; p. 475.
Colgate & Co., Jersey City, N. J., and New York, N. Y. Perfumes, toilet waters and creams, face and toilet powders, sachets. No. 120,348; Feb. 5; v. 247; p. 238.
Columbia River Milling Co., Wilbur, Wash. Wheat-flour. No. 120,349; Feb. 5; v. 247; p. 238.
Consolidated Wafer Company, New York, N. Y., and Chicago, Ill. Ice-cream cones. No. 120,553; Feb. 19; v. 247; p. 741.
Continental Engineering Corporation, Omaha, Nebr. Devices for imparting a rotative movement to puppet-valves for gas-engines. No. 120,351; Feb. 5; v. 247; p. 238.
Converse, Frederick S., Boston, Mass. Sleeping-bags. No. 120,352; Feb. 5; v. 247; p. 238.
Cooperative Drug Co., The, Ravenswood, W. Va. Stomach and liver tablets. No. 120,554; Feb. 19; v. 247; p. 741.
Corn Products Refining Co., New York, N. Y. Dextrin. No. 120,555; Feb. 19; v. 247; p. 741.
Crew Levick Company, Philadelphia, Pa. Illuminating, lubricating, and burning oils and greases. No. 120,354; Feb. 5; v. 247; p. 238.
Crew Levick Company, Philadelphia, Pa. Tire-sealing compounds. No. 120,480; Feb. 12; v. 247; p. 475.
Cummings, Irving W., Detroit, Mich. Petroleum-asphaltum roof-coating. No. 120,556; Feb. 19; v. 247; p. 741.
Cutter-Tower Company, Inc., New York, N. Y. Toothpicks. No. 120,557; Feb. 19; v. 247; p. 741.
Cylinder Manufacturing Company, Paterson, N. J. Stockrolls for fabrics. Nos. 120,558–61; Feb. 19; v. 247; p. 741.
Darling, Frank A., Girard, Ohio. Preparation for cleaning engine-cylinders and removing carbon deposits therefrom. No. 120,356; Feb. 5; v. 247; p. 238.
Darwin & Milner, Inc., New York, N. Y. Metal tools for cutting, forming, or holding. No. 120,357; Feb. 5; v. 247; p. 238.
Davies, Rose & Co. Ltd., Boston, Mass. Cough-tablets. No. 120,359; Feb. 5; v. 247; p. 238.
Deppé, William P., New York, N. Y. Apparatus for producing a certain named gas. No. 120,358; Feb. 5; v. 247; p. 238.
Detroit Oak Belting Co., Detroit, Mich. Leather belting. No. 120,666; Feb. 26; v. 247; p. 961.
Deutsch, Emil, New York, N. Y. Dresses and shirt-fronts, and under waists. No. 120,481; Feb. 12; v. 247; p. 475.

Diamond State Fiber Company, Bridgeport, Pa. Wrapping and tracing papers. No. 120,563; Feb. 19; v. 247; p. 741.
Diatel Chemical Company, Baltimore, Md. Antiseptic powder. No. 120,360; Feb. 5; v. 247; p. 238.
Doughten, H. W., Brooklyn, N. Y. Grass and field seeds. No. 120,482; Feb. 12; v. 247; p. 475.
Ducasse, François, New York, N. Y. Tube-repair kits. No. 120,483; Feb. 12; v. 247; p. 475.
E. Gal, Sociedad en Comandita, Madrid, Spain. Toilet soap. No. 120,568; Feb. 19; v. 247; p. 742.
Eagle Brewing Co. Inc., Waterbury, Conn. Ale, lager, and porter. No. 120,361; Feb. 5; v. 247; p. 238.
Eastern Supply Co., San Diego, Cal. Metallic plates for use in polishing silver. No. 120,362; Feb. 5; v. 247; p. 238.
Eastman Kodak Company, Rochester, N. Y. Photographic paper. No. 120,363; Feb. 5; v. 247; p. 238.
Eaton Rapids Woolen Mills. (See Horner Bros., assignors.)
Electric Heating Apparatus Co., New York, N. Y., and Newark, N. J. Electric furnaces and parts thereof. No. 120,364; Feb. 5; v. 247; p. 238.
Ernst Zobel Company, Inc., Brooklyn, N. Y. Disinfectant and germicide. No. 120,365; Feb. 5; v. 247; p. 238.
Everett, Heaney & Company, Inc., New York, N. Y. Cotton goods in the piece. No. 120,484; Feb. 12; v. 247; p. 475.
Everlastik, Incorporated, Boston, Mass. Suspenders and suspender-ends. No. 120,366; Feb. 5; v. 247; p. 238.
Everlastik, Incorporated, Boston, Mass. Shoestrings. No. 120,485; Feb. 12; v. 247; p. 475.
F. E. Boynton & Company, Inc., Aurora, Ill. Tea, flavoring extracts, vinegar, canned salmon, &c. No. 120,685; Feb. 19; v. 247; p. 744.
F. H. Hill Co., Chicago, Ill. Casket-handles and metal trimmings, undertakers' hardware used in connection with caskets. No. 120,200; Feb. 5; v. 247; p. 239.
F. H. Lawson Company, The, Cincinnati, Ohio. Certain named articles made of sheet metal. No. 120,594; Feb. 19; v. 247; p. 742.
Fast Systems Company, Chicago, Ill. Compartmental cases for use in accounting or computing transactions. No. 120,565; Feb. 19; v. 247; p. 741.
Feitenstein & Joffe, New York, N. Y. Ladies' hats and bonnets. No. 120,566; Feb. 19; v. 247; p. 741.
Ferré & Co., Limited, Antonio, Mayaguez, Porto Rico. Ground-cork substitute which is extracted from a tropical fiber. No. 120,742; Feb. 12; v. 247; p. 475.
Fields, Alberta E., Pasadena, Cal. Hair-tonics. No. 120,367; Feb. 5; v. 247; p. 238.
Findley, John P., Knoxville, Pa. Children's toy vehicles. No. 120,487; Feb. 12; v. 247; p. 475.
Fingold, Joseph, Chicago, Ill. Certain named knitted, netted, and textile fabrics. No. 120,488; Feb. 12; v. 247; p. 475.
Firth-Sterling Steel Company, McKeesport, Pa. Tool-steel and steel in bar, rod, sheet, plate, hoop, ingot, and wire form. No. 120,368; Feb. 5; v. 247; p. 238.
Fischbeck Soap Co., San Francisco, Cal. Soaps. No. 120,370; Feb. 5; v. 247; p. 239.
Fish & Fish, near Sanford, Fla. Fresh produce and truck comprising lettuce, celery, tomatoes, &c. No. 120,369; Feb. 5; v. 247; p. 239.
Fisher Governor Co., The, Marshalltown, Iowa. Fabric and rubber belting, hose, and packing. No. 120,489; Feb. 12; v. 247; p. 475.
Fisher Governor Co., The, Marshalltown, Iowa. Fabric and rubber belting, hose and packing. No. 120,668; Feb. 26; v. 247; p. 961.
Flodin, Charles W., Reno, Nev. Periodicals published weekly. No. 120,669; Feb. 26; v. 247; p. 961.
Flory Milling Company, Bangor borough, Pa. Rye-flour. No. 120,571; Feb. 5; v. 247; p. 239.
Fonbon Company, New York, N. Y. Pyorrhea preparation. No. 120,372; Feb. 5; v. 247; p. 239.
Forsyth Dyeing Co., The, New Haven, Conn. Web stretching and guiding machines. No. 120,373; Feb. 5; v. 247; p. 239.
Fort Smith Coffee Company, Fort Smith, Ark. Blended coffee. No. 120,374; Feb. 5; v. 247; p. 239.
Fort Smith Coffee Company, Fort Smith, Ark. Coffee. No. 120,375; Feb. 5; v. 247; p. 239.
Fox River Paper Co., Appleton, Wis. Writing-paper. No. 120,597; Feb. 19; v. 247; p. 742.
Foy Palms Co., The, Cincinnati, Ohio. Paint-filler. No. 120,376; Feb. 5; v. 247; p. 239.
Frank R. Fleet Co., Boston, Mass. Finished kangaroo, patent-leather, India-goat, and sheep skins. No. 120,488; Feb. 12; v. 247; p. 475.
Frankenfelder, Bernhard, New York, N. Y. Hair-nets. No. 120,667; Feb. 26; v. 247; p. 961.
Freydberg Bros., Inc., New York, N. Y. Cut-edge tape. No. 120,378; Feb. 5; v. 247; p. 239.
Fry's (London) Ltd., London, England. Drills and reamers, bigots, saws, cutters, hobs, mills, and punches. No. 120,379; Feb. 5; v. 247; p. 239.
Fry's (London) Ltd., London, England. Blades, saws, cutters, hobs, reamers, drills, mills, and punches. No. 120,580; Feb. 5; v. 247; p. 239.
General Abrasive Co., Niagara Falls, N. Y. Corundum, emery, and silicon carbid. No. 120,569; Feb. 19; v. 247; p. 742.
General Asbestos & Rubber Company, Charleston, S. C. Brake and clutch linings and facings. No. 120,670; Feb. 26; v. 247; p. 961.
General Electric Company, Schenectady, N. Y. Bearings for machinery. No. 120,381; Feb. 5; v. 247; p. 239.
Gentalax Company, Chicago, Ill. Chocolate laxative in tablet form. No. 120,382; Feb. 5; v. 247; p. 239.
Geo. Haas & Sons, San Francisco, Cal. Candies. No. 120,584; Feb. 5; v. 247; p. 239.
Geo. J. Braun Company, Chicago, Ill. Oleomargarin. No. 120,540; Feb. 19; v. 247; p. 741.
George Borgfeldt & Co., New York, N. Y. Ornamental bric-à-brac or knick-knacks. No. 120,658; Feb. 26; v. 247; p. 961.
Gibson, Francis W., Boston, Mass. Coffee. No. 120,570; Feb. 19; v. 247; p. 742.
Globe Printing Company, The, St. Louis, Mo. Bimonthly publication. No. 120,490; Feb. 12; v. 247; p. 475.
Gossom, Benjamin F., Brookline, Mass. Pure concentrated soups. No. 120,571; Feb. 19; v. 247; p. 742.
Graham, Irving A., New York, N. Y. Blank books. No. 120,572; Feb. 19; v. 247; p. 742.
Grossmann, Henry, New York, N. Y. Ladies' hair-nets, &c. No. 120,492; Feb. 12; v. 247; p. 475.
Groves Mills, Incorporated, Gastonia, N. C. Cotton yarns. No. 120,671; Feb. 26; v. 247; p. 961.
Guardian Savings Club Co., Dover, Del., and Chicago, Ill. Certain named coupons, books, cards, covers, envelopes, and receptacles. No. 120,573; Feb. 19; v. 247; p. 742.
Gutta Percha & Rubber Manufacturing Company, The, New York, N. Y. Belting of rubber and fabric. No. 120,672; Feb. 26; v. 247; p. 961.
H. D. Lee Mercantile Co., The, Salina, Kans., and Kansas City, Mo. One-piece work-suits. No. 120,403; Feb. 5; v. 247; p. 240.
H. E. Wilcox Motor Company, Minneapolis, Minn. Motor-trucks and automobiles. No. 120,049; Feb. 19; v. 247; p. 744.
H. H. Meyer Packing Company, The, Cincinnati, Ohio. Ham, bacon, and dried beef. No. 120,411; Feb. 5; v. 247; p. 240.
H. P. Coffee Company, St. Louis, Mo. Certain named foods. No. 120,383; Feb. 5; v. 247; p. 239.
Hardenbergh Mfg. Co., Auburn, N. Y. Food-flavoring preparation. No. 120,578; Feb. 19; v. 247; p. 742.
Harold B. Finder & Co., Chicago, Ill. Shelled peanuts, walnuts, pecans, almonds, and nuts mixed with raisins. No. 120,423; Feb. 5; v. 247; p. 240.
Hascall Paint Company, The, Cleveland, Ohio. Paints, paint-oils, varnishes, and stains. No. 120,385; Feb. 5; v. 247; p. 239.
Hascall Paint Company, The, Cleveland, Ohio. Plastic roofing material known as plastic roofing-cement. Nos. 120,387–8; Feb. 5; v. 247; p. 239.
Haslin Mills, New York, N. Y. Cotton piece goods. No. 120,669; Feb. 19; v. 247; p. 742.
Heimberg, Samuel, Boston, Mass. Smoking-pipes. No. 120,575; Feb. 19; v. 247; p. 742.
Heinrich, Adolph, New York, N. Y. Women's and misses' gowns and dresses. No. 120,389; Feb. 5; v. 247; p. 239.
Heller, Alfred B., Hamburg, Pa. Brooms. No. 120,574; Feb. 19; v. 247; p. 742.
Henry, William E., Wilburtha, N. J. Prepared food for animals and poultry. No. 120,579; Feb. 19; v. 247; p. 742.
Hill-Independent Mfg. Co., Philadelphia, Pa. Handstamps. Nos. 120,576–7; Feb. 19; v. 247; p. 742.
Hind & Harrison Plush Co., The, New York and Clark Mills, N. Y. Imitation fur. Nos. 120,493–4; Feb. 12; v. 247; p. 476.
Hobbs, Rufus H., Newburgh, N. Y. Candy, bonbons, chocolates and ice-cream. No. 120,673; Feb. 26; v. 247; p. 961.
Horner Bros., assignors to Eaton Rapids Woolen Mills, Eaton Rapids, Mich. Yarn, woolen yarn, and yarn for hand-knitting. No. 120,674; Feb. 26; v. 247; p. 961.
Houston, Stanwood & Gamble Company, The, Cincinnati, Ohio, and Covington, Ky. Steam-engines, governors, and lathes. No. 120,391; Feb. 5; v. 247; p. 239.
Howard & Casey Co., Mount Vernon and Marion, Ill. Certain named foods. No. 120,580; Feb. 19; v. 247; p. 742.
Hydro Pure Company, Dallas, Tex. Certain named non-alcoholic non-intoxicating carbonated beverages. No. 120,581; Feb. 19; v. 247; p. 742.
I. B. Kleinert Rubber Company, New York, N. Y. Bathing-caps. No. 120,591; Feb. 19; v. 247; p. 742.
International Alliance of Theatrical Stage Employes & Moving Picture Machine Operators of the United States and Canada, New York, N. Y. Printed books, pamphlets, periodicals, and circulars. No. 120,675; Feb. 26; v. 247; p. 961.
International Shoe Co., St. Louis, Mo. Boots and shoes made of leather and textiles. No. 120,497; Feb. 12; v. 247; p. 476.
International Trade Developer, Chicago, Ill. Bimonthly and annual publication. No. 120,498; Feb. 12; v. 247; p. 476.
International Union of Journeymen Horseshoers of the United States and Canada, Cincinnati, Ohio. Printed books, periodicals, pamphlets and circulars. Nos. 120,676–7; Feb. 26; v. 247; p. 961.

J. Hungerford Smith Co., Rochester, N. Y. Flavoring-syrup for non-alcoholic beverages. No. 120,442; Feb. 5; v. 247; p. 241.

J. R. Williams Co., The, Glastonbury, Conn. Preparations for cleaning the teeth. No. 120,465; Feb. 5; v. 247; p. 241.

J. C. Deagan Musical Bells, Chicago, Ill. Certain named musical instruments and supplies. No. 120,502; Feb. 19; v. 247; p. 741.

J. C. Penney Company, Inc., New York, N. Y. Monthly publication. No. 120,513; Feb. 12; v. 247; p. 476.

J. H. Burton & Co. Inc., New York, N. Y. Portable buildings. No. 120,663; Feb. 26; v. 247; p. 961.

J. P. Gordon Company, The, Columbus, Ohio. Radiator and engine covers. No. 120,491; Feb. 12; v. 247; p. 475.

Jefferson Electric Mfg. Co., Chicago, Ill. Ignition-coils, electric switches, and transformers. No. 120,392; Feb. 5; v. 247; p. 239.

Jeffrey Manufacturing Company, The, Columbus, Ohio. Electric controllers. No. 120,393; Feb. 5; v. 247; p. 239.

Jennings & Griffin Manufacturing Co., The, Tracy, Conn. Certain named tools and parts thereof. No. 120,499; Feb. 12; v. 247; p. 476.

Jennings Lace Works Corp. (See Chace, William W., assignor.)

Jéquier & Cie., Théodore, Fleurier, Switzerland. Watch-glasses. No. 120,678; Feb. 26; v. 247; p. 961.

Jewel Productions, Inc., New York, N. Y. Series of different motion-picture photoplays. No. 120,394; Feb. 5; v. 247; p. 239.

John Morrell & Co., Ottumwa, Iowa. Breakfast-bacon. No. 120,413; Feb. 5; v. 247; p. 240.

John Wanamaker, New York, New York, N. Y. Trunks. No. 120,535; Feb. 12; v. 247; p. 477.

Johnson, William H., Chillicothe, Tex. Cooking compound consisting of a mixture of salt, soda, sugar, and flour. No. 120,395; Feb. 5; v. 247; p. 239.

Jones Thierbach Co., The, San Francisco, Cal. Bicarbonate soda, cream-tartar and baking-powder. No. 120,582; Feb. 19; v. 247; p. 742.

Jordan Motor Car Company, Cleveland, Ohio. Gas-motor-drawn vehicles—namely, automobiles and motor-trucks. No. 120,583; Feb. 19; v. 247; p. 742.

Joseph A. Holpuch Company, Chicago, Ill. Refrigerators and refrigeration systems. No. 120,495; Feb. 12; v. 247; p. 475.

Julius Kayser & Co., New York, N. Y. Knit underwear and hosiery. No. 120,899; Feb. 5; v. 247; p. 239.

Julius Kayser & Co., New York, N. Y. Ladies' knit underwear. No. 120,501; Feb. 12; v. 247; p. 476.

Kansas City Fibre Box Co., The, Kansas City, Kans. Fiber or pulp board composition corrugated shipping-boxes. No. 120,500; Feb. 12; v. 247; p. 476.

Kar Engineering Company, Inc., The, New York, N. Y. Magnetic chuck-fixtures. Nos. 120,396–7; Feb. 5; v. 247; p. 239.

Kattall, Stanley M., Binghamton, N. Y. Razors, razor blades and stropping devices. No. 120,398; Feb. 5; v. 247; p. 239.

Kaufmann Bros. & Bondy, New York, N. Y. Pipes, cigar and cigarette holders, tobacco-pouches, cigarette-paper, pipe-cases. No. 120,584; Feb. 19; v. 247; p. 742.

Kaut-Reith Shoe Company, The, Carthage, Mo. Boots and shoes of kid, leather, bearskin, and canvas. Nos. 120,585–8; Feb. 19; v. 247; p. 742.

Keystone Fruit Products Company, Cincinnati, Ohio. Syrups for soda-fountains. No. 120,589; Feb. 19; v. 247; p. 742.

Kidder Rowe E., Rosedale, Kans. Wheat-flour. No. 120,679; Feb. 26; v. 247; p. 961.

King, William H., Newark, N. J. Leather-preservative. No. 120,590; Feb. 19; v. 247; p. 742.

Klemperer, Gustav, New York, N. Y. Hair-nets. No. 120,503; Feb. 12; v. 247; p. 476.

Krampf, Oscar A., Holland, N. Y. Digestive powder. No. 120,400; Feb. 5; v. 247; p. 239.

Kraus & Co., Inc., Baltimore, Md. Cigars. No. 120,680; Feb. 26; v. 247; p. 961.

L. D. Stickles Shoe Co., The, Red Wing, Minn. Boots and shoes of leather, canvas, and rubber. No. 120,447; Feb. 5; v. 247; p. 241.

Lampman, John A., Port Ewen, N. Y. Bread and cake. No. 120,593; Feb. 19; v. 247; p. 742.

Laurel Company, The, Seattle, Wash. Evaporated milk. No. 120,401; Feb. 5; v. 247; p. 239.

Lavin Company, The, New York, N. Y. Snap-fasteners. No. 120,402; Feb. 5; v. 247; p. 240.

Legerton & Co., Inc., Charleston, S. C. Sea-grass and palmetto baskets. No. 120,595; Feb. 19; v. 247; p. 742.

Lemuel Clooney & Co., New York, N. Y. Chamois and sponges. No. 120,503; Feb. 12; v. 247; p. 476.

Levin, Abraham, New York, N. Y. Certain named paints. No. 120,404; Feb. 5; v. 247; p. 240.

Lewis Manufacturing Company, Walpole, Mass. Absorbent cotton and gauze bandages, bandage-rolls, surgical wadding. No. 120,504; Feb. 12; v. 247; p. 476.

Liberty & Co. Limited, London, England. Certain named knitted, netted, and textile fabrics. No. 120,598; Feb. 19; v. 247; p. 742.

Liberty Paper Co., New York, N. Y. Gummed paper tape. No. 120,597; Feb. 19; v. 247; p. 742.

Linen Thread Co., The, New York, N. Y. Twine. No. 120,505; Feb. 12; v. 247; p. 476.

Lloyd, Converse W., New York, N. Y., assignor to The Sani-Fold Company. Tooth-brushes. No. 120,506; Feb. 19; v. 247; p. 742.

Lokesch & Sohn, Eduard, Prague-Holeschowitz, Austria. Snap and placket fasteners. No. 120,601; Feb. 19; v. 247; p. 743.

Long Handkerchief Co. Inc., New York, N. Y. Handkerchiefs. No. 120,506; Feb. 12; v. 247; p. 476.

Long-Landreth-Schneider Company, The, New Brunswick, N. J. Circulating systems, steam and hot-water boilers, water-heaters. No. 120,507; Feb. 12; v. 247; p. 476.

Luminous Unit Company, St. Louis, Mo. Fixtures for electric lights. No. 120,405; Feb. 5; v. 247; p. 240.

Lyon, Conklin & Co. Inc., Baltimore, Md. Terne plates. No. 120,406; Feb. 5; v. 247; p. 240.

Mable, Todd & Co., New York, N. Y. Fountain-pens. No. 120,603; Feb. 19; v. 247; p. 743.

Malouf, Abraham M., Salt Lake City, Utah. Steel pens, penholders, lead and graphite pencils, and fountain-pens. No. 120,408; Feb. 5; v. 247; p. 240.

Marathon Tire & Rubber Co., The, Cuyahoga Falls, Ohio. Rubber vehicle-tires. No. 120,508; Feb. 12; v. 247; p. 476.

Martinez, Arthur P., Dallas, Tex. Medicinal alimentitious product consisting of coagulated milk. No. 120,409; Feb. 5; v. 247; p. 240.

Marso Brothers, Los Angeles, Cal. Dried and cured olives. No. 120,604; Feb. 19; v. 247; p. 743.

Master Equipment Company, Los Angeles, Cal. Automobile brakes, ventilators, and truck attachments. No. 120,605; Feb. 19; v. 247; p. 743.

Maurin, Martin, Hot Spring, N. Mex. Tonic and system-cleanser for treatment of venereal diseases and disorders of the blood. No. 120,410; Feb. 5; v. 247; p. 240.

Maynz, Emanuel, New York, N. Y. Bottle-caps. No. 120,682; Feb. 26; v. 247; p. 961.

McClure, Wm. H., Washington, D. C. Certain named toilet preparations. No. 120,602; Feb. 19; v. 247; p. 743.

McCoy-Howe Company, Indianapolis, Ind. Remedy for the local treatment of certain named diseases. No. 120,407; Feb. 5; v. 247; p. 240.

Meader, Louis J., New York, N. Y. Stock feed. No. 120,606; Feb. 19; v. 247; p. 743.

Meader, Louis J., New York, N. Y. Stock feed. No. 120,683; Feb. 26; v. 247; p. 962.

Meier-Andres Belting Co., Newark, N. J. Leather belting. No. 120,509; Feb. 12; v. 247; p. 476.

Michel Co., C. & J., La Crosse, Wis. Non-alcoholic malt-less beverage sold as a soft drink. No. 120,607; Feb. 19; v. 247; p. 743.

Middle West Products Company, The, Joplin, Mo. Non-alcoholic maltless beverage sold as a soft drink. No. 120,608; Feb. 19; v. 247; p. 743.

Miller Brothers, Logan township, Huntingdon county, and Petersburg, Pa. Particular brand of pure pork sausage. No. 120,684; Feb. 26; v. 247; p. 962.

Milton Bradley Company, Springfield, Mass. Outfits of paper pictures and designs. No. 120,610; Feb. 19; v. 247; p. 743.

Mineral Refining and Chemical Corporation, New York, N. Y. Pigments for paints. No. 120,412; Feb. 5; v. 247; p. 240.

Minnis, George F., Chicago, Ill. Window-washers' safety devices. No. 120,510; Feb. 12; v. 247; p. 476.

Minute Auto Wheel Company, The, Georgetown, Ky. Automobile-wheels. No. 120,611; Feb. 19; v. 247; p. 743.

Mittelstaedt, Emma T., New York, N. Y. Silk hair-nets. No. 120,617; Feb. 19; v. 247; p. 743.

Monnier, Ernest, Boston, Mass. Nipples or teats for use with milk and nursing bottles for infants. Nos. 120,612–16; Feb. 19; v. 247; p. 743.

Multikraft Incorporated, Rochester, N. Y., Certain named furniture. No. 120,511; Feb. 12; v. 247; p. 476.

Musical Blue Book Corporation, The, New York, N. Y. Blocks for use in teaching music. No. 120,618; Feb. 19; v. 248; p. 743.

National Casket Company, New York, N. Y. Burial suits, dresses and robes. No. 120,618; Feb. 19; v. 247; p. 743.

New England Yarn Company, The, Attleboro, Mass. Yarns. No. 120,512; Feb. 12; v. 247; p. 476.

Newport Rolling Mill Company, The, Newport, Ky. Certain named construction materials. No. 120,619; Feb. 19; v. 247; p. 743.

Nihon Jochugiku Kaisha, Ltd., Minato, Wakayama Ken, Japan. Preparations for keeping off, driving away, or killing insects. No. 120,620; Feb. 19; v. 247; p. 743.

Nirenberg & Salsman, New York, N. Y. Negligee, dress, and work shirts, collars, &c. No. 120,621; Feb. 19; v. 247; p. 743.

Noglare Auto Lens Co., Portland, Oreg. Lenses for automobile-lamps. No. 120,685; Feb. 26; v. 247; p. 962.

North Brothers & Company, Baltimore, Md. Dress and negligée shirts. No. 120,513; Feb. 12; v. 247; p. 476.

Northwestern Electric Equipment Company, St. Paul, Minn. Periodical or magazine published monthly. No. 120,686; Feb. 26; v. 247; p. 962.

Nourse, John C., Kansas City, Mo. Lubricating-oils. No. 120,414; Feb. 5; v. 247; p. 240.

Nozaki Brothers and Co., Yokohama, Japan. Heel-plates. No. 120,415; Feb. 5; v. 247; p. 240.

Nozaki Brothers and Co., Yokahoma, Japan. Canned crabs. No. 120,687; Feb. 26; v. 247; p. 962.

Olmstead Quaboag Corset Co., West Brookfield, Mass. Corsets, corset waists and covers. No. 120,622; Feb. 19; v. 247; p. 743.

Olsson, Oscar H., Hawthorne, N. J. Preparation for the treatment of malaria. No. 120,416; Feb. 5; v. 247; p. 240.

Operative Plasterers and Cement Finishers International Association of the United States and Canada, Middletown, Ohio. Printed books, pamphlets, periodicals, and circulars. No. 120,688; Feb. 26; v. 247; p. 962.

Owens, Pocahontas, Chester, Pa. Hair-tonic. No. 120,629; Feb. 19; v. 247; p. 743.

Pacific Mills, Lawrence and Boston, Mass. Cotton piece goods. No. 120,514; Feb. 12; v. 247; p. 476.

Package Confectionery Co., Boston, Mass. Candy. No. 120,417; Feb. 5; v. 247; p. 240.

Pain, Henry J., New York, N. Y. Fireworks. No. 120,623; Feb. 19; v. 247; p. 743.

Parker, James D., Kansas City, Kans. Ventilating-fans and ventilating-blowers. No. 120,517; Feb. 12; v. 247; p. 476.

Parr, Jacob S., Govanstown, Md. Highly-flavored sugar tablets. No. 120,418; Feb. 5; v. 247; p. 240.

Patent Metal Company, Newark, N. J. Washtub-covers. No. 120,624; Feb. 19; v. 247; p. 743.

Patterson-Sargent Company, The, Cleveland, Ohio. Certain named paints and varnishes and the like. No. 120,419; Feb. 5; v. 247; p. 240.

Pelican Lake Oyster & Packing Co., Ltd., Houma, La. Canned shrimp, vegetables, and fruit. No. 120,625; Feb. 19; v. 247; p. 743.

Peninsular Chemical Co., Detroit, Mich. Perfumes, toilet waters, creams, and powders. No. 120,420; Feb. 5; v. 247; p. 240.

Pennsylvania Lawn Mower Works. (See Braun & Sons, John, assignors.)

Periodical Publishing Co., Grand Rapids, Mich. Monthly publication. Nos. 120,690–1; Feb. 26; v. 247; p. 962.

Perlman, Harry, New York, N. Y. Bicycles and motor-cycles. No. 120,519; Feb. 12; v. 247; p. 476.

Phelan-Faust Paint Manufacturing Company, St. Louis, Mo. Enamel paint. No. 120,422; Feb. 5; v. 247; p. 240.

Phototones Incorporated, Boston, Mass. Reproductions of photographs and prints. No. 120,521; Feb. 12; v. 247; p. 476.

Pieper, O. E., Milwaukee, Wis. Certain named foods. No. 120,698; Feb. 26; v. 247; p. 962.

Planters Nut & Chocolate Co., Wilkes-Barre, Pa. Salted peanuts and peanut-bars. No. 120,628; Feb. 19; v. 247; p. 743.

Premier Snap Fastener Co. Inc., New York, N. Y. Snap-fasteners. No. 120,424; Feb. 5; v. 247; p. 240.

Pyrene Manufacturing Company, New York, N. Y. Chemical heaters for use for therapeutic purposes. No. 120,522; Feb. 12; v. 247; p. 476.

Quinn, John A., St. Louis, Mo. Whisky. No. 120,630; Feb. 19; v. 247; p. 743.

Radium Golf Ball Co. Ltd., New York, N. Y. Golf-balls. No. 120,523; Feb. 12; v. 247; p. 476.

Randazzo Macaroni Manufacturing Co., St. Louis, Mo. Macaroni, spaghetti, noodles, vermicelli, and similar Italian paste products. No. 120,425; Feb. 5; v. 247; p. 240.

Rapid Addressing Machine Co., New York, N. Y. Card-stencils. No. 120,631; Feb. 19; v. 247; p. 743.

Reese Company, The, Chicago, Ill. Breath-tablets. Nos. 120,426–7; Feb. 5; v. 247; p. 240.

Regilla Company, The, Boston, Mass. Suspenders, garters, belts, hose-supporters, and armbands. No. 120,428; Feb. 5; v. 247; p. 240.

Rice & Hutchins, Inc., Boston, Mass. Hosiery of all kinds. No. 120,632; Feb. 19; v. 247; p. 744.

Rice-Stix Dry Goods Company, St. Louis, Mo. Cotton piece goods. No. 120,524; Feb. 12; v. 247; p. 476.

Rimpler, John H., Goshen, Ind. Vegetable face-cream. No. 120,429; Feb. 5; v. 247; p. 240.

Riverside Boiler Works, Inc., Cambridgeport, Mass. Tanks and tanks for hot water, known as stand or range boilers. No. 120,633; Feb. 19; v. 247; p. 744.

Rochester Button Company, Rochester, N. Y. Buttons for wearing-apparel. No. 120,634; Feb. 19; v. 247; p. 744.

Roethlisberger & Co., New York, N. Y. Domestic Limburger cheese. No. 120,431; Feb. 5; v. 247; p. 240.

Rosenfeld & Company, E., Baltimore, Md. Night-shirts, nightgowns, pajamas, sleeping-garments. No. 120,432; Feb. 5; v. 247; p. 240.

Roth, Otto, New York, N. Y. Cheese. No. 120,692; Feb. 26; v. 247; p. 962.

Royal Typewriter Company, Inc., New York, N. Y. Typewriting machines and parts thereof. No. 120,433; Feb. 5; v. 247; p. 240.

Ruof Bros., New York, N. Y. Watches and clocks. Nos. 120,636–7; Feb. 19; v. 247; p. 744.

S. Pfeiffer Mfg. Co., St. Louis, Mo. A medicinal preparation for disorders of the genito-urinary organs. No. 120,421; Feb. 5; v. 247; p. 240.

S. Phillips & Son, Inc., New York, N. Y. Women's and children's dresses and outer suits. No. 120,520; Feb. 12; v. 247; p. 476.

Safe-Cabinet Company, The, Marietta, Ohio. Heat-resisting cabinets and safes. No. 120,638; Feb. 19; v. 247; p. 744.

Sager Brothers, Syracuse, N. Y. Certain named clothing for women, children, and infants. No. 120,639; Feb. 19; v. 247; p. 744.

Samuel Eiseman & Co. Inc., New York, N. Y. Silk piece goods. No. 120,564; Feb. 19; v. 247; p. 741.

San Fernando Heights Lemon Co., Los Angeles, Cal. Oranges, lemons, and grape-fruit. No. 120,640; Feb. 19; v. 247; p. 744.

Sani-Fold Company, The. (See Lloyd, Converse W., assignor.)

Sapulpa Refining Company, Sapulpa, Okla. Gasolene. No. 120,434; Feb. 5; v. 240; p. 240.

Schaik Chemical Company, Inc., Los Angeles, Cal. Paint and varnish remover. No. 120,435; Feb. 5; v. 247; p. 241.

Schoenfeld, Leo E., Chicago, Ill. Vermicelli, macaroni, spaghetti, alimentary paste, and noodles. No. 120,436; Feb. 5; v. 247; p. 241.

Schwall, Henry C., New York, N. Y. Wheat-flour. No. 120,437; Feb. 5; v. 247; p. 241.

Sears, Roebuck and Co., Chicago, Ill. Certain named wireless apparatus. No. 120,438; Feb. 5; v. 247; p. 241.

Sentanel Remedies Company, The, Wilmington, Del., and Cincinnati, Ohio. Laxative tablets, kidney-pills, and cold-tablets. No. 120,641; Feb. 19; v. 247; p. 744.

Shapiro Bros., New York, N. Y. Knitted underwear, hosiery and sweaters. No. 120,693; Feb. 26; v. 247; p. 962.

Shelby Supply & Manufacturing Company, The, Cleveland, Ohio. Chewing-gum. No. 120,439; Feb. 5; v. 247; p. 241.

Shepard, Anna M., Brooklyn, N. Y. Hair-restorer in liquid or paste form, also used as a scalp-massage. No. 120,440; Feb. 5; v. 247; p. 241.

Simpson, Harry P., Cleveland, Ohio. Printed and painted signs for advertising. No. 120,694; Feb. 26; v. 247; p. 962.

Simpson, Morton, Birmingham, Ala. Neckties. No. 120,642; Feb. 19; v. 247; p. 744.

Simpson, William W., New Brighton, Pa. Shaving-balm. No. 120,441; Feb. 5; v. 247; p. 241.

Smaltz & Son, M. H., Stouchsburg, Pa. Cigars. No. 120,695; Feb. 26; v. 247; p. 962.

Snigo, James J., Pittsburgh, Pa. Pastry cones for water-ices and ice-cream, ice-cream and water-ice cones, candies, &c. No. 120,643; Feb. 19; v. 247; p. 744.

Società Generale delle Conserve Alimentari Cirio, San Giovanni a Teduccio, near Naples, Italy. Tomato sauce. No. 120,443; Feb. 5; v. 247; p. 241.

Société Anonyme des Ateliers Piccard, Pictet et Cie., Geneva, Switzerland. Automobiles, automobile parts and accessories. No. 120,525; Feb. 12; v. 247; p. 476.

Southern Utilities Company, Jacksonville, Fla. Ice-coupons. No. 120,526; Feb. 12; v. 247; p. 476.

Southwestern Milling Co., The, Inc., New York, N. Y., and Kansas City, Mo. Wheat, rye, self-rising, and prepared flour. No. 120,644; Feb. 19; v. 247; p. 744.

Sprints, Samuel, New York, N. Y. Children's, misses', juniors', and ladies' dresses. No. 120,645; Feb. 19; v. 247; p. 744.

Standard Oil Company of New York, New York, N. Y. Ready-mixed paints. No. 120,444; Feb. 5; v. 247; p. 241.

Static Neutraliser Co., Chicago, Ill. Composition for preventing injurious accumulation of static electricity in printing-presses. No. 120,445; Feb. 5; v. 247; p. 241.

Stephan Brothers, Shelbyville, Ind. Heel-fastener plate for boots and shoes. No. 120,446; Feb. 5; v. 247; p. 241.

Stern, Nathan, Brooklyn, N. Y. Alpine-herb tea, a laxative for constipation. No. 120,646; Feb. 19; v. 247; p. 744.

Stiles, Pellens Coffee Company, Cincinnati, Ohio. Coffee. No. 120,696; Feb. 26; v. 247; p. 962.

Stone Ordean Wells Co., Duluth, Minn. Chewing and smoking tobacco, cigars, and cigarettes. No. 120,697; Feb. 26; v. 247; p. 962.

Super-Value Company, The, New York, N. Y., and Savannah, Ga. Men's coats, vests, and trousers. No. 120,449; Feb. 5; v. 247; p. 241.

Sweeney, Eugene, New York, N. Y. Nasal spray, mouth-wash, gargle, and douche. No. 120,450; Feb. 5; v. 247; p. 241.

Tebbetts & Garland Store, The, Chicago, Ill. Tea. No. 120,451; Feb. 5; v. 247; p. 241.

Tebbetts & Garland Store, The, Chicago, Ill. Coffee. No. 120,452; Feb. 5; v. 247; p. 241.

Tebbetts and Garland Store, The, Chicago, Ill. Certain named foods. No. 120,453; Feb. 5; v. 247; p. 241.

Telegrafo Cigar Co. Inc., New York, N. Y. Cigars. No. 120,527; Feb. 12; v. 247; p. 476.

Teplow, Morris, Jersey City, N. J. Preparation for the treatment of certain named diseases. No. 120,454; Feb. 5; v. 247; p. 241.

"The Durable" Printers' Company, Limited, London, England. Composition for covering printers' rollers. No. 120,667; Feb. 26; v. 247; p. 961.

Thomas G. Plant Company, Boston, Mass. Shoes of leather, rubber, fiber, felt, or other fabric construction. No. 120,627; Feb. 19; v. 247; p. 743.

Thomas Harper & Sons Ltd., Redditch and London, England. Hand sewing-needles, crochet-hooks, bodkins, and knitting-needles. No. 120,528; Feb. 12; v. 247; p. 476.

Trautwein, William T., New York, N. Y. Scalp-tonic. No. 120,455; Feb. 5; v. 247; p. 241.

Turner & Son, W. H., Afton, Va. Seed-corn. No. 120,529; Feb. 12; v. 247; p. 477.
United Drug Company, Boston, Mass. Monthly periodical. No. 120,530; Feb. 19; v. 247; p. 477.
United Drug Company, Boston, Mass. Preparations for removing cuticle around finger and toe nails. No. 120,647; Feb. 19; v. 247; p. 744.
United States Alloys Corporation, New York, N. Y. Ferro-silicon alloys. No. 120,456; Feb. 5; v. 247; p. 241.
United States Wire Mat Company, Decatur, Ill. Fly-killers. Nos. 120,581-3; Feb. 12; v. 247; p. 477.
Van Antwerp's Drug Corporation, Inc., Mobile, Ala. Preparations for treating certain named diseases and ailments, and insecticides. No. 120,648; Feb. 19; v. 247; p. 744.
Van Dyne-Hungerford Co., Boston, Mass. Sole-leather, hides, sides, backs, and bends. No. 120,584; Feb. 12; v. 247; p. 477.
W. H. S. Lloyd Co., New York, N. Y., and Chicago, Ill. Wall-paper. No. 120,600; Feb. 19; v. 247; p. 745.
W. S. Hough, Jr., Co., Providence, R. I. Wires made of precious and plated metals, zinc, phosphor-bronze, &c. No. 120,492; Feb. 12; v. 247; p. 476.
Wadsworth, Howland & Co., Incorporated, Boston, Mass. Varnishes. No. 120,457; Feb. 5; v. 247; p. 241.
Walker Spencer & Co. Ld., Sheffield, England. Certain named tools. No. 120,448; Feb. 5; v. 247; p. 241.
Wattles, Waldo M., Litchfield, Mich. Cigars, cigarettes, smoking and chewing tobacco. No. 120,661; Feb. 26; v. 247; p. 961.
Weaver-Ebling Automobile Co., New York, N. Y. Air-tubes for pneumatic tires. No. 120,536; Feb. 12; v. 247; p. 477.
Wenatchee-Northern Warehouse & Marketing Co., Wenatchee, Wash. Fresh apples and pears. No. 120,448; Feb. 5; v. 247; p. 241.
West Virginia Pulp & Paper Company, New York, N. Y. Bond-paper. No. 120,450; Feb. 5; v. 247; p. 241.
Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa. Electric sad-irons. No. 120,460; Feb. 5; v. 247; p. 241.
Whittemore Brothers Corporation, Cambridge, Mass. Liquid for whitening and cleaning leather and canvas. No. 120,461; Feb. 5; v. 247; p. 241.
Wholesome Films Corporation, Chicago, Ill. Films for moving-picture machines. No. 120,462; Feb. 5; v. 247; p. 241.
William J. Lemp Brewing Company, St. Louis, Mo. Non-intoxicating beverage of a malt nature. No. 120,592; Feb. 19; v. 247; p. 742.
Wilmer Atkinson Company, Philadelphia, Pa. Monthly publication. No. 120,537; Feb. 12; v. 247; p. 477.
Wilson-Jones Loose Leaf Company, Chicago, Ill. Imitation-leather bookbinding material. No. 120,538; Feb. 12; v. 247; p. 477.
Windsor Print Works, North Adams, Mass., and New York, N. Y. Plain white, dyed, or printed cotton piece goods. Nos. 120,650-1; Feb. 19; v. 247; p. 744.
Windsor Print Works, North Adams, Mass., and New York, N. Y. Plain white, dyed, or printed cotton piece goods or cotton and silk mixed piece goods. No. 120,652; Feb. 19; v. 247; p. 744.
Winter, Charles A., New York, N. Y. Washing compound for washing clothes. No. 120,653; Feb. 19; v. 247; p. 744.
Wireboards Corporation, Portland, Me., and Chicago, Ill. Boxes and packing-cases. Nos. 120,654-5; Feb. 19; v. 247; p. 744.
Wm. C. Robinson & Son Co., Baltimore, Md. Certain named cooling compound. No. 120,430; Feb. 5; v. 247; p. 240.
Wm. Frankforth Hardware Company, Milwaukee, Wis. Axes and saws. No. 120,277; Feb. 5; v. 247; p. 239.
Wright, William H., Schenectady, N. Y. Varnishes, enamels, stains, and colors in oil. No. 120,466; Feb. 5; v. 247; p. 241.

ALPHABETICAL LIST OF REGISTRANTS OF LABELS.

Community Coffee and Spice Company, Alliance, Ohio. "Community." (For Baking-Powder.) No. 20,509; Feb. 5; v. 247; p. 221.
Community Coffee and Spice Company, Alliance, Ohio. "Community." (For Peanut-Butter.) No. 20,501; Feb. 5; v. 247; p. 221.
Community Coffee and Spice Company, Alliance, Ohio. "Community." (For Tea.) No. 20,502; Feb. 5; v. 247; p. 221.
Community Coffee and Spice Company, Alliance, Ohio. "Community." (For Head-Rice.) No. 20,511; Feb. 12; v. 247; p. 478.
Elmer Candy Co., Inc., New Orleans, La. "Southland." (For Candy.) No. 20,517; Feb. 26; v. 247; p. 963.
G. H. P. Cigar Co., Philadelphia, Pa. "El Producto." (For Cigars.) No. 20,516; Feb. 26; v. 247; p. 962.
Galveston Brewing Association, Galveston, Tex. "Galvo." (For Non-Intoxicating Cereal Beverages.) No. 20,519; Feb. 26; v. 247; p. 963.
Growers Service Company, Yakima, Wash. "Potlatch." (For Fresh Apples.) No. 20,520; Feb. 26; v. 247; p. 963.
Hagemeister Brewing Company, Green Bay, Wis. "Cameo." (For a Soft Drink.) No. 20,503; Feb. 5; v. 247; p. 221.
Haley, E. E., Richmond, Va. "Patrick County Va. Fairy or Luck Stone Co." (For Virginia Fairy or Lucky Stone.) No. 20,521; Feb. 26; v. 247; p. 963.
Hamblin, Annie L., Mount Vernon, N. Y. "Army Roll." (For a Confection.) No. 20,522; Feb. 26; v. 247; p. 963.
Jackson Medicine Company, The, Zanesville, Ohio. "Dr. Jackson's Digestive and Liver Powders." (For Digestive and Liver Powders.) No. 20,512; Feb. 12; v. 247; p. 478.
Kepner Chemical Company, Incorporated, Roanoke, Va. "Kepner's 'Pink' Liver Pills." (For Liver-Pills.) No. 20,523; Feb. 26; v. 247; p. 963.
Kepner Chemical Company, Incorporated, Roanoke, Va. "Kepner's 'Pink' Headache Powders." (For Headache-Powders.) No. 20,524; Feb. 26; v. 247; p. 963.
Kepner Chemical Company, Incorporated, Roanoke, Va. "Kepner's 'Pink' Corn and Bunion Plasters." (For Corn and Bunion Plasters.) No. 20,525; Feb. 26; v. 247; p. 963.
Kepner Chemical Company, Incorporated, Roanoke, Va. "K-K-K Kepner's 'Pink' Kold Kapsules." (For Capsules for the Treatment of Colds.) No. 20,526; Feb. 26; v. 247; p. 963.
Kieser, Arthur H., New York, N. Y. "Filter-Cel for Better Filtration." (For Filter-Cel.) No. 20,527; Feb. 26; v. 247; p. 963.
L. Black Company, Rochester, N. Y. "'Meltonia' (Cloth) Made Expressly For 'Vogue Clothes.'" (For Clothes.) No. 20,650; Feb. 26; v. 247; p. 963.
McCormick, J., Wilmington, Del. "Del Rey Brand." (For Tobacco.) No. 20,528; Feb. 26; v. 247; p. 963.
McGill, Jas. A., Chicago, Ill. "Orange Blossom." (For Suppositories.) No. 20,529; Feb. 26; v. 247; p. 963.
Mendleson's Sons, A., Albany and New York, N. Y. "Giant Lye." (For a Lye.) No. 20,509; Feb. 12; v. 247; p. 478.
Mendleson's Sons, A., Albany and New York, N. Y. "Hudson Lye." (For a Lye.) No. 20,510; Feb. 12; v. 247; p. 478.
Nugio Company, Inc., The, Buffalo, N. Y. "Nugio." (For Automobile Polish.) No. 20,530; Feb. 26; v. 247; p. 963.
Peerless Polish Co., Altoona, Cal. "Peerless Polish." (For Polishing Compound.) No. 20,531; Feb. 26; v. 247; p. 963.
Petersburg Packing Co., Seattle, Wash., and Petersburg, Alaska. "Holly-Time." (For Canned Salmon.) No. 20,504; Feb. 5; v. 247; p. 221.
Petersburg Packing Co., Seattle, Wash., and Petersburg, Alaska. "Pink of Perfection." (For Canned Salmon.) No. 20,505; Feb. 5; v. 247; p. 221.
R. B. Biscuit Company, The, Cleveland, Ohio. "Xtra Good." (For Bread.) No. 20,506; Feb. 5; v. 247; p. 221.
Racine Tool & Machine Co., Racine, Wis. "Racine High Speed." (For Metal-Cutting Machines.) No. 20,513; Feb. 12; v. 247; p. 478.
Sparkling Silverspoon Co., Cleveland, Ohio. "Sparkling Silverspoon." (For a Non-Intoxicating Refreshing Fruit Beverage.) No. 20,514; Feb. 12; v. 247; p. 478.
Sugar Loaf Beverage Co., The, Winona, Minn. "U-No." (For a Non-Intoxicating Beverage.) No. 20,532; Feb. 26; v. 247; p. 963.
T. A. Faulds Company, Inc., Boston, Mass. "Aunt Tilly's." (For Cake Specialties.) No. 20,516; Feb. 26; v. 247; p. 963.
Universal Cigar Co., Key West, Fla. "Universal Cigar Co." (For Cigars.) No. 20,507; Feb. 5; v. 247; p. 221.
Washington Grain and Milling Company, Reardan, Wash. "Snow-Like." (For Flour.) No. 20,508; Feb. 5; v. 247; p. 221.
White Star Canning Co., East San Pedro, Cal. "Crusta." (For Canned Anchovies.) No. 20,533; Feb. 26; v. 247; p. 963.)
White Star Canning Co., East San Pedro, Cal. "Red Star." (For Canned Tuna Fishes.) No. 20,534; Feb. 26; v. 247; p. 963.
White Star Canning Co., East San Pedro, Cal. "White Star." (For Canned Mackerel.) No. 20,535; Feb. 26; v. 247; p. 963.
White Star Canning Co., East San Pedro, Cal. "White Star." (For Canned Sardines in Olive-Oil.) No. 20,536; Feb. 26; v. 247; p. 963.
White Star Canning Co., East San Pedro, Cal. "White Star." (For Canned Pilchard Sardines.) No. 20,537; Feb. 26; v. 247; p. 963.
White Star Canning Co., East San Pedro, Cal. "White Star." (For Canned Deviled Tuna.) No. 20,538; Feb. 26; v. 247; p. 963.
White Star Canning Co., East San Pedro, Cal. "White Star." (For Canned Barracuda.) No. 20,539; Feb. 26; v. 247; p. 963.

ALPHABETICAL LIST OF INVENTIONS

FOR WHICH

PATENTS WERE ISSUED DURING THE MONTH OF FEBRUARY, 1918.

ALPHABETICAL LIST OF REGISTRANTS OF LABELS.

A. Stein & Company, Chicago, Ill. "Black Border." (For Garters.) No. 4,859; Feb. 12; v. 247; p. 478.
Beadleston & Woers, New York, N. Y. "An Ideal Beverage." (For A Non-Intoxicating Beverage.) No. 4,862; Feb. 26; v. 247; p. 963.
Bis-Mac Manufacturing Co., The, Baltimore, Md. "Bis-Mac." (For a Drink.) No. 4,860; Feb. 12; v. 247; p. 478.
Clarx Milling Company, Minneapolis, Minn. "Clarx Products 100% Pure." (For Flour.) No. 4,863; Feb. 26; v. 247; p. 963.
Economy Devices Corporation, New York, N. Y. "Unit-Safety-Bar." (For Locomotive and Tender Connections.) No. 4,857; Feb. 5; v. 247; p. 221.
R. J. Reynolds Tobacco Company, Winston-Salem, N. C. "This 'pound-of-P. A.' in glad togs adds weeks to Christmas joys!" (For Smoking-Tobacco.) No. 4,858; Feb. 5; v. 247; p. 221.
R. J. Reynolds Tobacco Company, Winston-Salem, N. C. "Prince Albert the national joy smoke." (For Smoking-Tobacco.) No. 4,861; Feb. 12; v. 247; p. 478.
Reznor Manufacturing Company, Mercer, Pa. "Reznor Gas Heaters." (For Gas-Heaters.) No. 4,864; Feb. 26; v. 247; p. 963.

ALPHABETICAL LIST OF INVENTIONS

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[Abbreviations: "Gaz."—Official Gazette.]

Abdominal bandage. E. A. Knierlem. No. 1,257,944; Feb. 26; v. 247; p. 989.
Abrasive-material holder. S. Klein. No. 1,255,888; Feb. 12; v. 247; p. 264.
Accelerator. J. E. Thompson and C. W. Jameson. No. 1,256,950; Feb. 19; v. 247; p. 615.
Accounts, Means for checking. W. H. Schaefer. No. 1,255,796; Feb. 5; v. 247; p. 197.
Acetylene-generator. I. U. Marlin. No. 1,257,088; Feb. 19; v. 247; p. 654.
Acetylene-generator, Reserve-feed. A. S. Phelps and J. H. Birch. No. 1,257,635; Feb. 26; v. 247; p. 850.
Acetylene-generators, Safety appliance for. J. Harris. No. 1,255,308; Feb. 5; v. 247; p. 55.
Adding and listing machine, Combined. W. F. McCaleb. No. 1,257,020; Feb. 26; v. 247; p. 845.
Adding and subtracting machine. J. L. Poole. No. 1,257,926; Feb. 26; v. 247; p. 984.
Addressing-machine. E. D. Belknap. No. 1,256,509; Feb. 19; v. 247; p. 485.
Addressing-machine. A. B. Lyle. No. 1,255,544; Feb. 5; v. 247; p. 125.
Adjustable bracket. O. C. Kroshang. No. 1,256,909; Feb. 19; v. 247; p. 602.
Advertising device. G. J. De Geyter. No. 1,255,987; Feb. 12; v. 247; p. 204.
Advertising device for use in railway-cars. D. H. Hallenbeck. No. 1,255,748; Feb. 5; v. 247; p. 184.
Advertising-machine. J. B. Barnett. No. 1,256,645; Feb. 19; v. 247; p. 524.
Aerial apparatus, Magnetic. P. J. Ruddy. No. 1,255,646; Feb. 5; v. 247; p. 154.
Aerial tramway-buckets, Locking device for. G. Peterson. No. 1,255,460; Feb. 5; v. 247; p. 100.
Aeroplane. J. Mader. No. 1,256,812; Feb. 19; v. 247; p. 578.
Aeroplane. J. H. and A. E. Robertson. No. 1,257,740; Feb. 26; v. 247; p. 881.
Aeroplane. C. H. O'Rourke. No. 1,256,823; Feb. 19; v. 247; p. 576.
Aeroplane. A. L. Romero. No. 1,257,124; Feb. 19; v. 247; p. 663.
Agricultural implement. R. W. Kennedy. No. 1,255,426; Feb. 5; v. 247; p. 91.
Agricultural machine. C. T. Abbott. No. 1,256,632; Feb. 19; v. 247; p. 521.
Air, Apparatus for the liquefaction and rectification of. H. Filippo and P. Schoenenberg. No. 1,257,470; Feb. 26; v. 247; p. 900.
Air-brake-controlling apparatus. A. St. John. No. 1,256,607; Feb. 19; v. 247; p. 513.
Air-brake system. W. C. Webster. No. 1,256,406; Feb. 12; v. 247; p. 419.
Air-brake-valve handle. W. Brown. No. 1,257,799; Feb. 26; v. 247; p. 898.
Air-brakes, Triple valve for. W. C. Webster. No. 1,257,055; Feb. 19; v. 247; p. 645.
Air-compressor. A. R. Berck and F. Tjaden. No. 1,255,694; Feb. 5; v. 247; p. 167.
Air-compressor. A. L. Harrison. No. 1,257,855; Feb. 26; v. 247; p. 915.
Air compressor or motor. R. G. Battin. No. 1,255,276; Feb. 5; v. 247; p. 46.
Air-control governor. R. A. Gally. No. 1,256,468; Feb. 12; v. 247; p. 437.
Air-cushion. G. B. Maegly. No. 1,255,827; Feb. 5; v. 247; p. 61.
Air-modifier. S. J. Heinrich. No. 1,255,533; Feb. 5; v. 247; p. 122.
Air or gases, Compressing. H. A. Humphrey. No. 1,257,607; Feb. 26; v. 247; p. 842.
Air-supply device, Auxiliary. W. S. Ward and A. Maxim. No. 1,256,082; Feb. 12; v. 247; p. 322.
Aircraft, Pneumatic cushioning device for. T. Sloper. No. 1,257,413; Feb. 26; v. 247; p. 788.
Alarm; see—
Burglar-alarm.
Fire-alarm.
Fire and burglar alarm.
Rain-water alarm.
Tire-alarm.
Alarm-signal. V. P. Fedoroff. No. 1,256,542; Feb. 19; v. 247; p. 494.
Alkali metals in alkali-metal-carrying rocks and products thereof, Replacing. H. W. Charlton. No. 1,256,295; Feb. 12; v. 247; p. 385.
Alumina, Purification of. J. W. Hornsey. No. 1,255,749; Feb. 5; v. 247; p. 184.
Aluminous composition and preparing the same. O. Hutchins. No. 1,257,356; Feb. 26; v. 247; p. 767.
Aluminous compounds, Treatment of. H. Spence and W. B. Llewellyn. No. 1,256,605; Feb. 19; v. 247; p. 513.
Aluminum, Metal-plating. W. J. Travers. No. 1,256,954; Feb. 19; v. 247; p. 616.
Ammonia, Producing. A. Classen. No. 1,256,875; Feb. 19; v. 247; p. 593.
Ammonia, Synthetic production of. P. A. Starke. No. 1,256,278; Feb. 12; v. 247; p. 379.
Ammonium nitrate, Manufacturing. R. Blom. No. 1,256,518; Feb. 19; v. 247; p. 487.
Amusement device. G. H. Rumke. No. 1,256,784; Feb. 19; v. 247; p. 550.
Analgesia, Producing. F. K. Vreeland. No. 1,257,555; Feb. 26; v. 247; p. 826.
Anchor, Underground. J. S. Whitehead. No. 1,255,676; Feb. 5; v. 247; p. 163.
Anchor, Wire. G. D. Wheat. No. 1,256,753; Feb. 19; v. 247; p. 555.
Anesthetic-frame. E. V. Erlandson. No. 1,257,832; Feb. 26; v. 247; p. 760.
Anesthetics or analgesics, Apparatus for administering. M. F. Ewen. No. 1,256,481; Feb. 12; v. 247; p. 440.
Animal-releaser. A. Ebersole. No. 1,256,449; Feb. 12; v. 247; p. 431.
Animal-snare. A. M. Perrin. No. 1,257,634; Feb. 26; v. 247; p. 849.
Animal-trap. L. Bedard, Jr., and S. Bolteau, Jr. No. 1,256,978; Feb. 19; v. 247; p. 621.
Animal-trap. J. P. Schuckman. No. 1,255,798; Feb. 5; v. 247; p. 198.
Ankle and leg support, Animal. H. R. Handyside. No. 1,256,595; Feb. 19; v. 247; p. 590.
Anticreeper for railway-rails. W. S. Weston. No. 1,257,566; Feb. 26; v. 247; p. 829.
Antiskidding device. D. O. Parish. No. 1,256,160; Feb. 12; v. 247; p. 345.
Antiskidding device for motor-vehicle wheels. J. I. Yoder. No. 1,257,170; Feb. 19; v. 247; p. 677.
Antiskidding device for vehicle-tires. J. A. Reese. No. 1,256,729; Feb. 19; v. 247; p. 549.
Antiskidding device for vehicle-wheels. O. J. Nienow. No. 1,256,033; Feb. 12; v. 247; p. 306.
Antisnoring device. G. H. Wilson. No. 1,256,188; Feb. 12; v. 247; p. 355.
Applicator. E. Rogers. No. 1,256,831; Feb. 19; v. 247; p. 578.
Apron. L. H. Clark. No. 1,257,810; Feb. 26; v. 247; p. 901.
Arch-support. M. Santella. No. 1,255,794; Feb. 5; v. 247; p. 197.
Arm and shoulder brace. F. B. Brown. No. 1,257,297; Feb. 19; v. 247; p. 716.
Armature-winding machine. N. Crane. No. 1,255,712; Feb. 5; v. 247; p. 172.
Armor. H. Heide. No. 1,257,484; Feb. 26; v. 247; p. 804.
Asbestos treatment and product thereof. H. W. Charlton. No. 1,256,296; Feb. 12; v. 247; p. 386.
Asparagus cutter and grader, Combined. D. Low and A. R. Thompson. No. 1,257,719; Feb. 26; v. 247; p. 875.
Atomizer and air-mixer, Crude-oil. D. C. McCaig. No. 1,255,449; Feb. 5; v. 247; p. 90.
Atomizer for oil-engines. C. A. Bjornsson. No. 1,255,380; Feb. 5; v. 247; p. 77.
Attrition-mill. E. P. Alsted. No. 1,255,845; Feb. 12; v. 247; p. 252.
Auto pull-out. L. Hammer. No. 1,256,791; Feb. 19; v. 247; p. 506.
Auto-truck, Self loading and dumping. J. A. Ward. No. 1,256,401; Feb. 12; v. 247; p. 418.

Autocars, Traction-belt for. B. B. Tolsma. No. 1,256,744; Feb. 19; v. 247; p. 553.
Automobile. R. S. Fend. No. 1,255,724; Feb. 5; v. 247; p. 177.
Automobile air-compressor. L. Poccia. No. 1,255,632; Feb. 5; v. 247; p. 150.
Automobile attachment. J. L. Miller. No. 1,257,094; Feb. 19; v. 247; p. 655.
Automobile-bed. W. H. Groverman. No. 1,255,307; Feb. 5; v. 247; p. 54.
Automobile-body. H. C. Meise. No. 1,255,194; Feb. 5; v. 247; p. 23.
Automobile-buffer. R. T. Newton. No. 1,257,380; Feb. 26; v. 247; p. 774.
Automobile-bumper. A. L. McGregor. No. 1,257,266; Feb. 19; v. 247; p. 706.
Automobile-chain. R. Knox. No. 1,255,615; Feb. 5; v. 247; p. 145.
Automobile-chains, Adjusting and locking device for. J. Eichner. No. 1,256,538; Feb. 19; v. 247; p. 493.
Automobile construction. W. Gray. No. 1,257,340; Feb. 26; v. 247; p. 763.
Automobile-cooling system. H. Heuber. No. 1,255,166; Feb. 5; v. 247; p. 16.
Automobile crank-lock. S. Cunningham. No. 1,256,663; Feb. 19; v. 247; p. 530.
Automobile-curtain. J. W. Grim. No. 1,256,013; Feb. 12; v. 247; p. 301.
Automobile direction-indicator. F. W. Horn. No. 1,255,883; Feb. 12; v. 247; p. 268.
Automobile fence-crossing. L. Penwell. No. 1,257,633; Feb. 26; v. 247; p. 849.
Automobile fender attachment. C. Sedlo. No. 1,256,497; Feb. 12; v. 247; p. 445.
Automobile foot steering device. S. M. Haley. No. 1,257,601; Feb. 26; v. 247; p. 840.
Automobile-heating appliance. E. Brown. No. 1,257,068; Feb. 19; v. 247; p. 648.
Automobile-hub Roller-bearing demountable. W. F. Lee. No. 1,257,893; Feb. 26; v. 247; p. 926.
Automobile-inner-tube protector. W. C. Guild. No. 1,256,015; Feb. 12; v. 247; p. 301.
Automobile-lock. F. W. Boyd. No. 1,257,453; Feb. 26; v. 247; p. 794.
Automobile-lock. J. E. Cunningham. No. 1,257,922; Feb. 26; v. 247; p. 758.
Automobile-lock. J. Stanley. No. 1,257,039; Feb. 19; v. 247; p. 641.
Automobile luggage-carrier. J. N. O'Neil. No. 1,255,778; Feb. 5; v. 247; p. 192.
Automobile-pedal lock. T. Menard. No. 1,257,723; Feb. 26; v. 247; p. 877.
Automobile side drive. C. S. Peets. No. 1,255,733; Feb. 5; v. 247; p. 193.
Automobile-signal. W. Collette. No. 1,257,189; Feb. 19; v. 247; p. 683.
Automobile-signal. J. I. Enns. No. 1,257,308; Feb. 19; v. 247; p. 687.
Automobile-signal. A. E. O'Neill. No. 1,257,733; Feb. 26; v. 247; p. 880.
Automobile-signal. F. Rauscher. No. 1,257,117; Feb. 19; v. 247; p. 661.
Automobile-signal. T. E. Smith. No. 1,257,646; Feb. 26; v. 247; p. 852.
Automobile sleigh. C. A. Roberts. No. 1,256,261; Feb. 12; v. 247; p. 376.
Automobile-steering-wheel lock. E. Schumacher. No. 1,257,031; Feb. 19; v. 247; p. 638.
Automobile tail-light. E. I. Dedds. No. 1,256,445; Feb. 12; v. 247; p. 431.
Automobile-top. G. A. Steenson. No. 1,255,809; Feb. 5; v. 247; p. 201.
Automobile-towing device. B. Brady. No. 1,257,454; Feb. 26; v. 247; p. 795.
Automobile turn-table. A. R. Brothers. No. 1,257,456; Feb. 26; v. 247; p. 795.
Automobile turning-signal. H. Patrick. No. 1,257,294; Feb. 19; v. 247; p. 715.
Automobiles, Adjustable socket for mounting ornaments, &c., upon. G. W. Schroeder. No. 1,257,536; Feb. 26; v. 247; p. 821.
Automobiles and the like, Driving mechanism for. W. N. Allan. No. 1,257,776; Feb. 26; v. 247; p. 891.
Automobiles, Automatic stoppage and occupant-protecting equipment for. W. A. Utta. No. 1,256,845; Feb. 19; v. 247; p. 583.
Automobiles, Electric lighting system for. D. F. Leone. No. 1,257,618; Feb. 26; v. 247; p. 845.
Automobiles, Electric-lighting system for. B. J. Noyes. No. 1,257,013; Feb. 19; v. 247; p. 634.
Automobiles, Fifth-wheel drive for. F. Glatz. No. 1,256,155; Feb. 5; v. 247; p. 12.
Automobiles, Folding-bed attachment for. R. E. Adams. No. 1,256,842; Feb. 19; v. 247; p. 588.
Automobiles, Master control and lock for electric circuits in. L. Goldmerstein. No. 1,256,124; Feb. 12; v. 247; p. 335.
Automobiles, Non-skid device for. A. Gerstner. No. 1,256,221; Feb. 12; v. 247; p. 365.
Automobiles, Steam-motor driving mechanism for. A. Altenberg. No. 1,255,271; Feb. 5; v. 247; p. 46.
Automobiles, Starting and current-supplying system for. T. A. Edison. No. 1,255,517; Feb. 5; v. 247; p. 116.
Automobiles, Transmission-gearing for. C. H. Taylor. No. 1,255,665; Feb. 5; v. 247; p. 159.
Autosled. M. L. Peasley and T. A. Pence. No. 1,257,735; Feb. 26; v. 247; p. 880.
Aviator's safety-suit. A. Rodal. No. 1,256,594; Feb. 19; v. 247; p. 509.
Awning. J. T. Sheehan. No. 1,257,539; Feb. 26; v. 247; p. 822.
Awning-lock. H. C. Hatchl. No. 1,257,604; Feb. 26; v. 247; p. 841.
Awning, Roller-. A. L. Clark. No. 1,257,316; Feb. 26; v. 247; p. 756.
Axle and car-wheel, Car-. H. B. Miller. No. 1,257,911; Feb. 26; v. 247; p. 900.
Axle-collar. C. W. Starker. No. 1,255,462; Feb. 5; v. 247; p. 106.
Axle, Repair-. A. J. Cottle. No. 1,257,942; Feb. 26; v. 247; p. 939.
Axles of motor-vehicles, Reinforcing attachment for the rear. H. B. Vehstedt. No. 1,255,490; Feb. 5; v. 247; p. 109.
Baby and wheeling chair and carriage, Collapsible. D. L. Kohlman. No. 1,256,701; Feb. 19; v. 247; p. 541.
Baby-walker. J. Gannon. No. 1,256,548; Feb. 19; v. 247; p. 496.
Backband-hook. A. Ponder. No. 1,257,390; Feb. 26; v. 247; p. 776.
Bag. W. H. Smith. No. 1,257,139; Feb. 19; v. 247; p. 668.
Bag-fastener. F. A. Fuller. No. 1,255,733; Feb. 5; v. 247; p. 180.
Bag-filling apparatus. J. R. Cunningham. No. 1,257,316; Feb. 26; v. 247; p. 903.
Baker, Akar-bread. A. Mesmer. No. 1,257,513; Feb. 26; v. 247; p. 813.
Baking-pan. C. O. Reynolds. No. 1,257,119; Feb. 19; v. 247; p. 662.
Bale and method of compressing, Compress-. W. D. Nesbit. No. 1,256,566; Feb. 12; v. 247; p. 448.
Bale and package tie. J. E. Forrest. No. 1,255,148; Feb. 5; v. 247; p. 10.
Bale-forming press. A. T. Dudley. No. 1,257,466; Feb. 26; v. 247; p. 799.
Bale-forming-press attachment. L. K. Freeman. No. 1,257,474; Feb. 26; v. 247; p. 801.
Bales of cotton or other materials, Re-forming and compressing. R. D. Webb. No. 1,257,563; Feb. 26; v. 247; p. 827.
Bales of cotton, Re-forming and compressing. R. D. Webb. No. 1,257,558; Feb. 26; v. 247; p. 827.
Baling apparatus, Cotton-. T. G. Haney. No. 1,255,160; Feb. 5; v. 247; p. 13.
Baling presses, Feeding device for hay-. H. A. Mason. No. 1,257,510; Feb. 26; v. 247; p. 813.
Ball: *See*—
Golf-ball.
Balloon-ballasting weight. A. Pukos. No. 1,257,529; Feb. 26; v. 247; p. 819.
Band-cutting machines, Automatic feeding device for. F. X. Maloney. No. 1,257,507; Feb. 26; v. 247; p. 811.
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Camera. W. A. Warman. No. 1,257,656; Feb. 26; v. 247; p. 855.
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Coin-carrier. Letter-carrier.
Egg-carrier. Tire-carrier.
Carrier-decelerating apparatus, Pneumatic-. A. Koenig. No. 1,256,024; Feb. 12; v. 247; p. 304.
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Display-case. Sorting-case.
Egg-case. Thermometer-case.
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Case-table. C. H. Dempsey and T. F. Barnes. No. 1,256,211; Feb. 12; v. 247; p. 362.
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Collar. P. E. Naegell. No. 1,256,922; Feb. 19; v. 247; p. 606.
Collar shaping and ironing machine. J. A. Hughes. No. 1,257,333; Feb. 19; v. 247; p. 697.
Collar-shaping machine. G. B. Ehrsman. No. 1,257,685; February 26; v. 247; p. 862.
Colloid-treated fabric. B. P. Lovell. No. 1,256,240; Feb. 12; v. 247; p. 370.
Comb: *See*—
Fountain-comb.
Comb. J. R. Hare. No. 1,255,601; Feb. 5; v. 247; p. 141.
Comb-holder and clip therefor. W. C. Rust. No. 1,257,267; Feb. 26; v. 247; p. 938.
Combustible balls, etc. G. W. Coen. No. 1,257,955; Feb. 26; v. 247; p. 942.
Combustion-engine. W. A. Burg. No. 1,257,142; Feb. 19; v. 247; p. 668.
Combustion-engine, Two-stroke-cycle. A. Radovanovic. No. 1,255,462; Feb. 5; v. 247; p. 100.
Commode. F. H. Reuch. No. 1,256,045; Feb. 5; v. 247; p. 154.
Commutator. C. C. Zenk. No. 1,255,681; Feb. 5; v. 247; p. 164.
Compass-altimeter. K. Smith. No. 1,257,645; Feb. 26; v. 247; p. 852.
Compass, Magnetic. F. O. Creagh-Osborne and A. J. Mathes. No. 1,256,442; Feb. 12; v. 247; p. 430.
Compass, Recording-. B. W. Benbow. No. 1,255,830; Feb. 12; v. 247; p. 426.
Composing and casting machine, Line. B. Cade. No. 1,257,185; Feb. 29; v. 247; p. 681.
Composing-machines, Justification-indicating mechanism for. J. S. Bancroft and J. O. Hedberg. No. 1,256,705; Feb. 19; v. 247; p. 559.
Composition of matter. J. Becker. No. 1,256,864; Feb. 19; v. 247; p. 589.
Compressor-indicating and recording device. J. R. Brown. No. 1,256,655; Feb. 19; v. 247; p. 527.
Concrete blocks, Machine for making reinforced-. D. Morgan and R. C. Mayland. No. 1,256,389; Feb. 5; v. 247; p. 62.
Concrete conveying and mixing machine. D. S. Humphrey. No. 1,256,750; Feb. 5; v. 247; p. 204.
Concrete coverings, Reinforcement for. A. B. Tuppen. No. 1,256,244; Feb. 5; v. 247; p. 37.
Concrete-form clamp. C. J. Emmons. No. 1,257,827; Feb. 26; v. 247; p. 906.
Concrete from adhering to molds, Composition for preventing. S. G. McAdam. No. 1,256,716; Feb. 19; v. 247; p. 554.
Concrete pile for marine work, Reinforced-. L. R. Ferguson. No. 1,257,832; Feb. 26; v. 247; p. 909.
Concrete-railway switch. E. T. Sweeney. No. 1,255,949; Feb. 5; v. 247; p. 97.
Concrete-reinforcements, Bar support and spacer for. H. H. Lampert. No. 1,257,816; Feb. 26; v. 247; p. 844.
Concrete structures, Reinforcement-support for. G. Moody. No. 1,256,206; Feb. 12; v. 247; p. 328.
Condenser. H. A. Hills. No. 1,256,220; Feb. 12; v. 247; p. 367.
Condenser, Barometric. R. N. Ehrhart. No. 1,255,516; Feb. 5; v. 247; p. 117.
Condensing apparatus. G. J. Foran. No. 1,255,899; Feb. 12; v. 247; p. 259.
Confidential sheet-blind. C. E. McGill. No. 1,257,906; Feb. 26; v. 247; p. 811.
Contour-indicating device. J. G. Benkat. No. 1,255,127; Feb. 5; v. 247; p. 5.
Control system. R. E. Hellmund. No. 1,257,349; Feb. 26; v. 247; p. 765.
Control system. R. E. Hellmund and C. C. Whittaker. No. 1,255,418; Feb. 5; v. 247; p. 88.
Control system. K. A. Simmen. No. 1,255,475; Feb. 5; v. 247; p. 104.
Control system. N. W. Storer. No. 1,256,842; Feb. 19; v. 247; p. 582.
Controlling device. M. F. Schmitt. No. 1,256,881; Feb. 12; v. 247; p. 412.
Conveyer. A. Awischus. No. 1,256,971; Feb. 19; v. 247; p. 621.
Conveyer. A. L. Shaw. No. 1,255,845; Feb. 5; v. 247; p. 66.
Conveyer, Belt. W. W. Stephens. No. 1,255,659; Feb. 5; v. 247; p. 158.
Conveyer, Endless. J. W. Reno. No. 1,255,239; Feb. 5; v. 247; p. 65.
Conveyer-form. C. A. Swanson. No. 1,255,946; Feb. 12; v. 247; p. 281.
Conveyer, Pneumatic. T. G. Thermodson. No. 1,256,249; Feb. 12; v. 247; p. 282.
Conveyer, Sanitary. T. Bemis, Sr. No. 1,255,977; Feb. 12; v. 247; p. 291.
Conveyer, Screw. W. Barnett and J. Florendine. No. 1,255,276; Feb. 5; v. 247; p. 46.
Conveyers, Carrier for belt. W. W. Stephens. No. 1,255,658; Feb. 5; v. 247; p. 157.
Cooler: *See*—
Milk-cooler. Starch-cooler.
Cooler adapted for use as a radiator or condenser. H. R. Guyot. No. 1,256,998; Feb. 19; v. 247; p. 629.
Coop, Poultry-feeding. D. L. Quinn. No. 1,255,624; Feb. 5; v. 247; p. 208.
Copper for various purposes, Treatment of. W. T. Howard. No. 1,257,943; Feb. 26; v. 247; p. 969.
Copy-holder. E. L. Perry. No. 1,256,253; Feb. 12; v. 247; p. 372.
Cord, thread, yarn and the like, Holder for. W. C. Dennicke. No. 1,256,443; Feb. 12; v. 247; p. 430.
Cord tying and fastening device. F. A. Rymer. No. 1,257,027; Feb. 19; v. 247; p. 638.
Core-making apparatus. D. J. Ryan. No. 1,255,467; Feb. 5; v. 247; p. 102.
Cork-disk-cutting machines, Screening attachment for. E. Alberti. No. 1,257,171; Feb. 19; v. 247; p. 677.
Cork-making machines, Feeding attachment for crown-. E. Alberti. No. 1,255,122; Feb. 5; v. 247; p. 3.
Corn hanger, Seed-. W. P. Negus. No. 1,255,776; Feb. 5; v. 247; p. 192.
Corn-header. J. H. Covel. No. 1,256,776; Feb. 19; v. 247; p. 562.
Corn-shock sling. G. H. Caley. No. 1,257,458; Feb. 26; v. 247; p. 795.
Cornar drill, Close-. F. A. Jimerson. No. 1,255,316; Feb. 5; v. 247; p. 57.
Corset. D. S. Berger. No. 1,257,066; Feb. 19; v. 247; p. 648.
Corset. T. F. Somers. No. 1,256,603; Feb. 19; v. 247; p. 512.
Corset, Apparel-. W. Kops. No. 1,256,576; Feb. 19; v. 247; p. 504.
Corset belt or girdle. L. A. Walker. No. 1,256,550; Feb. 19; v. 247; p. 584.
Corset, Front-lace. S. J. Newman. No. 1,256,358; Feb. 12; v. 247; p. 405.
Corset of the girdle type. R. J. Wright. No. 1,256,530; Feb. 19; v. 247; p. 520.
Corset-pattern system. A. C. McClaughry. No. 1,256,029; Feb. 12; v. 247; p. 305.
Corset steels and bones, Protector for. A. D. Hallenbeck. No. 1,255,413; Feb. 5; v. 247; p. 87.
Cot, Folding. G. R. Stine. No. 1,257,041; Feb. 19; v. 247; p. 641.
Cot or stretcher. R. S. Freedman and H. H. Gottstein. No. 1,256,210; Feb. 12; v. 247; p. 364.
Cotton-cleaning apparatus. J. A. Streun. No. 1,256,742; Feb. 19; v. 247; p. 552.
Cotton-cleaning device. A. A. Gwaltney. No. 1,257,851; Feb. 26; v. 247; p. 913.
Cotton-gins, Automatic lock for. W. M. Henson. No. 1,256,746; Feb. 5; v. 247; p. 184.
Cotton-hull extractor. W. S. Smith. No. 1,257,543; Feb. 26; v. 247; p. 823.
Cotton-picking machine, Vacuum. B. B. Chaney. No. 1,256,426; Feb. 12; v. 247; p. 428.
Cotton preparing and baling machinery. G. R. Brown. No. 1,257,796; Feb. 26; v. 247; p. 887.
Cotton-seed, Pneumatic method of ventilating. A. W. French. No. 1,256,681; Feb. 19; v. 247; p. 535.
Cotton-stalks, Treating. L. D. Jones. No. 1,257,260; Feb. 19; v. 247; p. 652.
Couch, Burial-. I. N. Smith. No. 1,256,941; Feb. 12; v. 247; p. 279.

Clutch having a divided resting-surface. H. J. Müller. No. 1,256,508; Feb. 5; v. 247; p. 27.

Coupling: *See*—
Car-coupling.
Hose or pipe coupling.
Journal-coupling.
Locomotive draw-bar buffer-coupling.
Electric-wire coupling.
Pipe-coupling.
Hose-coupling.
Well-rod coupling.

Coupling. C. S. Jones. No. 1,256,756; Feb. 5; v. 247; p. 194.

Coupling-fastening device. J. M. Rohlfing. No. 1,256,166; Feb. 12; v. 247; p. 247.

Cow-tail holder. J. Bingen and W. A. Beaver. No. 1,256,284; Feb. 5; v. 247; p. 48.

Cow-tail holder. S. E. Rasmussen. No. 1,257,739; Feb. 26; v. 247; p. 881.

Crane, Portable hoisting-. R. W. Hall. No. 1,256,688; Feb. 19; v. 247; p. 537.

Crank-case support. F. A. Goold and W. G. Baxter. No. 1,256,550; Feb. 19; v. 247; p. 497.

Crank-shaft, Counterbalanced. G. C. Gordon. No. 1,255,409; Feb. 5; v. 247; p. 16.

Crate, Metal. D. B. Thompson. No. 1,255,352; Feb. 5; v. 247; p. 68.

Crate, Shipping. P. Flansburg. No. 1,256,458; Feb. 12; v. 247; p. 433.

Cream-separator. O. A. Krenke. No. 1,256,577; Feb. 19; v. 247; p. 504.

Crossing-gate, Train-operated. H. A. Lutz. No. 1,255,900; Feb. 5; v. 247; p. 268.

Crossing-operating system. E. S. Cobb. No. 1,257,279; Feb. 19 v. 247; p. 710.

Crusher: *See*—
Portable crusher.
Rotary crusher.

Crusher. R. Bernhard. No. 1,256,289; Feb. 12; v. 247; p. 254.

Crushing-machine. E. B. Symons. No. 1,256,843; Feb. 19; v. 247; p. 582.

Crutch. B. M. Bradford. No. 1,257,181; Feb. 19; v. 247; p. 680.

Crutch, Adjustable. W. S. Mielcarek. No. 1,256,350; Feb. 12; v. 247; p. 402.

Cuff-link. G. H. Treadgold. No. 1,256,745; Feb. 19; v. 247; p. 583.

Cultivator and scarifier implements, Detachable share for the teeth of. T. C. Lanford. No. 1,255,442; Feb. 5; v. 247; p. 24.

Cultivator, Cotton-. G. Blohm. No. 1,257,792; Feb. 26; v. 247; p. 895.

Cultivator-feeder. B. L. Goodman. No. 1,256,473; Feb. 12; v. 247; p. 428.

Curtain, Collapsible core for constructing. F. D. Pearne and C. V. Joseph. No. 1,257,924; Feb. 26; v. 247; p. 924.

Cup: *See*—
Impression-cup.
Twist-cup.
Varnish or color cup.

Cup-container. L. W. Luellen. No. 1,256,913; Feb. 19; v. 247; p. 606.

Current generator, Continuous-. F. G. Liljenroth. No. 1,256,912; Feb. 19; v. 247; p. 603.

Current motor, Alternating-. W. C. Korthals-Altes. No. 1,257,894; Feb. 26; v. 247; p. 923.

Current rectifier, Alternating-. H. A. Selah. No. 1,256,063; Feb. 12; v. 247; p. 215.

Current values, Mechanism for integrating power-. F. R. Innes. No. 1,256,224; Feb. 12; v. 247; p. 369.

Curtain-bracket. E. Nylund. No. 1,257,016; Feb. 19; v. 247; p. 635.

Curtain-fixture. H. H. Schroyer. No. 1,256,053; Feb. 12; v. 247; p. 212.

Curtain holder, Window-. T. B. Scribner. No. 1,255,472; Feb. 5; v. 247; p. 104.

Curtain-pole. E. B. Fargo and G. R. Case. No. 1,256,001; Feb. 12; v. 247; p. 298.

Curtain-shield, Hinged. H. H. Schroyer. No. 1,256,047; Feb. 12 v. 247; p. 210.

Cushion: *See*—
Air-cushion.
Car-seat cushion.

Cushion-spring. G. O. Brandt and T. Mahoney. No. 1,257,210; Feb. 26; v. 247; p. 754.

Cuspidor. M. N. Koch. No. 1,257,250; Feb. 19; v. 247; p. 701.

Cutter: *See*—
Asparagus-cutter.
Pipe-cutter.
Post-cutter.

Cutter-guard. A. A. Bacchi. No. 1,255,687; Feb. 5; v. 247; p. 166.

Cutting and scoring machine. E. H. Taylor. No. 1,256,810; Feb. 5; v. 247; p. 201.

Cutting device. J. Anderson and F. Bergendorf. No. 1,256,654; Feb. 5; v. 247; p. 165.

Cutting mechanism. C. A. Hagadone. No. 1,257,342; Feb. 26; v. 247; p. 763.

Cyanogen, Synthetic production of. P. A. Starke. No. 1,256,172; Feb. 12; v. 247; p. 279.

Dam, Collapsible. T. W. Jaycox. No. 1,257,240; Feb. 19; v. 247; p. 696.

Dam for irrigation-ditches. C. Chastain. No. 1,256,772; Feb. 19; v. 247; p. 561.

Damper, Automatic. W. V. Coate. No. 1,255,709; Feb. 5; v. 247; p. 172.

Damper-control, Automatic. A. A. Landon. No. 1,256,142; Feb. 12; v. 247; p. 339.

Damper-regulator. T. Connell. No. 1,257,190; Feb. 19; v. 247; p. 682.

Davenport, Duofold. F. B. Wersel, Jr. No. 1,256,752; Feb. 19; v. 247; p. 555.

Davit. W. B. Ashe. No. 1,257,864; Feb. 26; v. 247; p. 858.

Decalcomania design and insignia, Transferring. W. T. Blomberg. No. 1,256,423; Feb. 12; v. 247; p. 427.

Defibrating-machine. A. W. Montgomery. No. 1,257,914; Feb. 26; v. 247; p. 931.

Demountable wheel. J. W. Dickinson, Jr. No. 1,256,882; Feb. 19; v. 247; p. 595.

Dental cabinet. P. Russell. No. 1,257,936; Feb. 26; v. 247; p. 937.

Dental-floss holder. H. C. Hochstadter. No. 1,257,864; Feb. 26 v. 247; p. 917.

Dental slab-holder. P. Salles. No. 1,256,877; Feb. 12; v. 247; p. 411.

Dental-work-casting machine. S. M. Lauter. No. 1,255,541; Feb. 5; v. 247; p. 124.

Dentist's flask. N. Opatow. No. 1,256,589; Feb. 19; v. 247; p. 508.

Desk and seat, School. E. M. McNamara. No. 1,256,511; Feb. 19; v. 247; p. 572.

Desk, School-. J. O. Foster. No. 1,256,218; Feb. 12; v. 247; p. 364.

Despatch and distributing system. A. W. Pearsall. No. 1,256,037; Feb. 12; v. 247; p. 307.

Developing apparatus. H. Gindele. No. 1,256,893; Feb. 19; v. 247; p. 598.

Developing composition. T. J. Brewster. No. 1,255,508; Feb. 5; v. 247; p. 114.

Diallylbarbituric acid and alkaloids of the morphin series and making same, Compounds derived from. P. Hilmy and W. Föhrenbach. No. 1,255,423; Feb. 5; v. 247; p. 90.

Die: *See*—
Button-making die.
Screw-cutting die.
Printing-die.

Die-casting machine. J. S. Goldberg. No. 1,257,478; Feb. 26; v. 247; p. 802.

Die-grinding machine. L. B. Fraser. No. 1,257,691; Feb. 26; v. 247; p. 865.

Die-holder for punch-presses and the like, Adjustable. D. H. Talmoper. No. 1,256,615; Feb. 19; v. 247; p. 516.

Die-presses, Safety-guard for. S. Bailey, T. V. Lloyd, and E. Jones. No. 1,256,641; Feb. 19; v. 247; p. 523.

Digger: *See*—
Potato-digger.

Digging-disk feeder. H. H. Barber. No. 1,256,642; Feb. 19; v. 247; p. 523.

Dining-table. T. D. Jaquette. No. 1,257,871; Feb. 26; v. 247; p. 919.

Dirigible light. M. C. Sharrar. No. 1,257,408; Feb. 26; v. 247; p. 781.

Dish-cleaner and mop. C. Shipherd. No. 1,255,804; Feb. 5; v. 247; p. 200.

Dish-collecting apparatus, Portable. A. G. Psiaki. No. 1,256,926; Feb. 19; v. 247; p. 607.

Dispensing apparatus. J. P. Truax. No. 1,257,425; Feb. 26; v. 247; p. 786.

Dispensing device. H. Meves. No. 1,257,910; Feb. 26; v. 247; p. 930.

Display apparatus. B. B. Bienhoff. No. 1,256,431; Feb. 12; v. 247; p. 427.

Display-cabinet, Grocer's. E. J. Kibby. No. 1,255,769; Feb. 5; v. 247; p. 187.

Display-case, Collapsible. J. F. Goetz. No. 1,255,407; Feb. 5; v. 247; p. 85.

Display-container. J. Stranders. No. 1,256,609; Feb. 19; v. 247; p. 514.

Display device. M. Nathan. No. 1,255,553; Feb. 5; v. 247; p. 128.

Display fixture, Garment-. J. T. Clark. No. 1,255,584; Feb. 5; v. 247; p. 137.

Display machine, Slide-. T. E. Brown. No. 1,257,278; Feb. 19; v. 247; p. 710.

Display-rack. E. H. Funke, Jr. No. 1,256,465; Feb. 12; v. 247; p. 435.

Display-stand. M. Leon and A. B. Vance. No. 1,255,444; Feb. 5; v. 247; p. 95.

Distilling combustible materials. C. Foxwell. No. 1,255,093; Feb. 5; v. 247; p. 139.

Ditching and grading machine. E. Little. No. 1,255,188; Feb. 5; v. 247; p. 22.

Doll. U. Löfgren. No. 1,255,446; Feb. 5; v. 247; p. 95.

Doll-head. S. P. Killy. No. 1,256,889; Feb. 12; v. 247; p. 265.

Door-fitting device. W. H. Durkee. No. 1,257,200; Feb. 19; v. 247; p. 687.

Door-holder. J. F. Golding. No. 1,255,408; Feb. 5; v. 247; p. 85.

Door lock, Sliding-. A. W. Johnson. No. 1,256,021; Feb. 12; v. 247; p. 303.

Door-operating means. J. G. Watts. No. 1,256,404; Feb. 12; v. 247; p. 419.

Door-operating mechanism. C. Albrecht, Jr. No. 1,257,172; Feb. 19; v. 247; p. 678.

Door-operating mechanism. A. Campbell. No. 1,255,885; Feb. 5; v. 247; p. 79.

Door or window securer. G. Barhardt. No. 1,255,996; Feb. 12; v. 247; p. 297.

Doors of buildings, Device for opening and closing. C. G. Milbrandt. No. 1,255,770; Feb. 5; v. 247; p. 190.

Draft appliance for railway-vehicles. G. P. Ritter. No. 1,256,259; Feb. 12; v. 247; p. 375.

Draft-gear. J. F. Courson. No. 1,256,297; Feb. 12; v. 247; p. 386.

Draft-gear, Friction. E. W. Newell. No. 1,255,916; Feb. 12; v. 247; p. 272.

Draft-gear, Friction. C. W. Sherman. No. 1,255,238; Feb. 5; v. 247; p. 35.

Draft-gear, Railway. G. Q. Lewis. No. 1,255,187; Feb. 5; v. 247; p. 22.

Draft-rigging. H. C. Amis. No. 1,255,683; Feb. 5; v. 247; p. 165.

Draft-rigging. H. E. Van Dorn. No. 1,255,361; Feb. 5; v. 247; p. 71.

Draft-rigging for railway-cars. W. H. Miner. No. 1,255,907; Feb. 12; v. 247; p. 270.

Draft-rigging, Friction-guard for railway-car. J. F. O'Connor. No. 1,255,213; Feb. 5; v. 247; p. 29.

Draft-rigging, Railway. W. A. Gelger. No. 1,255,153; Feb. 5; v. 247; p. 12.

Drag, Road-. J. S. Holub. No. 1,257,867; Feb. 26; v. 247; p. 918.

Draw-bar. T. P. Otterson. No. 1,255,781; Feb. 5; v. 247; p. 198.

Draw-bar-supporting means. D. T. Harris and J. H. Tinker. No. 1,257,844; Feb. 26; v. 247; p. 764.

Drawer, Receipt-. B. I. M. M. Ohlson and N. G. O. Lundberg. No. 1,256,360; Feb. 12; v. 247; p. 405.

Dress-shield. A. M. Lee. No. 1,257,617; Feb. 26; v. 247; p. 844.

Drier: *See*—
Ware-drier.

Drier. E. B. Ayres. No. 1,255,685; Feb. 5; v. 247; p. 165.

Drier. E. B. Ayres. No. 1,255,686; Feb. 5; v. 247; p. 165.

Drier. T. G. Huney. No. 1,255,162; Feb. 5; v. 247; p. 14.

Drying apparatus. J. B. Adt. No. 1,255,843; Feb. 12; v. 247; p. 251.

Drying apparatus. P. Mueller. No. 1,255,915; Feb. 12; v. 247; p. 272.

Drying apparatus. G. D. Parker. No. 1,256,825; Feb. 19; v. 247; p. 577.

Drying-machine. J. S. Johnston. No. 1,256,570; Feb. 19; v. 247; p. 502.

Drill: *See*—
Boring-drill.
Ratchet-drill.
Corner-drill.
Well-drill.

Drill-socket. J. F. Grabill. No. 1,256,222; Feb. 12; v. 247; p. 365.

Drills, Chambering device for rock-. W. Weber. No. 1,257,561; Feb. 26; v. 247; p. 828.

Drills or other rotary tools or implements, Hand-operated apparatus for rotating. A. Risk. No. 1,257,582; Feb. 26; v. 247; p. 819.

Drills, Ratchet-operating mechanism for. F. A. Jimerson. No. 1,255,315; Feb. 5; v. 247; p. 57.

Drills, Wear-compensating feed-screw for. T. Genero. No. 1,256,471; Feb. 12; v. 247; p. 437.

Drilling-bit, Expansive. W. L. Young. No. 1,256,968; Feb. 19; v. 247; p. 620.

Drilling-machine. G. E. Hallenbeck. No. 1,256,790; Feb. 19; v. 247; p. 566.

Drilling-machine. O. A. Smith. No. 1,256,180; Feb. 12; v. 247; p. 353.

Drinking-cup, Collapsible. P. H. Carr. No. 1,255,133; Feb. 5; v. 247; p. 6.

Drip-cup and support. H. G. Cordley. No. 1,256,206; Feb. 12; v. 247; p. 360.

Drive-chains, Machine for wearing in. F. L. Morse. No. 1,255,912; Feb. 12; v. 247; p. 271.

Drive, Roller-bearing worm. E. O. Coats. No. 1,256,440; Feb. 12; v. 247; p. 429.

Driving apparatus for horses and other animals. L. S. Pace. No. 1,257,734; Feb. 26; v. 247; p. 880.

Driving mechanism. T. Ditmars. No. 1,255,299; Feb. 5; v. 247; p. 53.

Driving mechanism. W. Evensen. No. 1,257,830; Feb. 26; v. 247; p. 907.

Dust-pans, Handle attachment for. N. W. Tumblinson. No. 1,257,552; Feb. 26; v. 247; p. 825.

Dye of the benzene-naphthalene series and manufacture of same. H. Grünhagen. No. 1,255,740; Feb. 5; v. 247; p. 182.

Dyes of the acridine series, Halogenated. H. Grünhagen. No. 1,255,739; Feb. 5; v. 247; p. 181.

Dyeing elongated bodies of yarn or the like. H. Krantz. No. 1,257,686; Feb. 26; v. 247; p. 924.

Dyeing machine, Cotton-lap-. W. F. Cox. No. 1,255,137; Feb. 5; v. 247; p. 7.

Ear shield or protector. F. K. Schurmeier. No. 1,255,800; Feb. 5; v. 247; p. 198.

Educational apparatus. E. Walden. No. 1,257,655; Feb. 26; v. 247; p. 855.

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Egg-beater. W. H. Dunning. No. 1,255,994; Feb. 12; v. 247; p. 296.

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Electric machine, Dynamo-. S. R. Bergman. No. 1,257,178; Feb. 19; v. 247; p. 679.

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Electric machine, Dynamo-. W. T. Hensley. No. 1,255,607; Feb. 5; v. 247; p. 143.

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Electric machine, Dynamo-. N. W. Storer. No. 1,255,487; Feb. 5; v. 247; p. 107.

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Engines, Heat-controller for air-cooled. L. W. Griswold. No. 1,257,219; Feb. 19; v. 247; p. 691.
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Flask: *See*—
Dentist's flask.
Flax-pulling machine. J. G. Crawford and R. M. Bennett. No. 1,257,192; Feb. 19; v. 247; p. 684.
Fleshing-machine. W. G. Gibbins. No. 1,256,892; Feb. 19; v. 247; p. 598.
Flexible pipe-coupling or flexible pipe. E. F. Berry. No. 1,255,577; Feb. 5; v. 247; p. 135.
Floor-cleaning device, Sanitary. C. J. Marriott. No. 1,255,902; Feb. 12; v. 247; p. 269.
Floor-covering. D. K. Lindberg and A. F. Hörlin. No. 1,257,503; Feb. 26; v. 247; p. 811.
Floor-covering. S. M. Winkler. No. 1,255,378; Feb. 5; v. 247; p. 75.
Floor-register. G. S. Auer. No. 1,255,848; Feb. 12; v. 247; p. 258.
Floor-scrubbing machine. L. Lewandowski. No. 1,255,324; Feb. 5; v. 247; p. 61.
Flour-treating apparatus. G. J. Hicks. No. 1,256,017; Feb. 12; v. 247; p. 302.
Flow-indicating meter, Fluid. E. F. Fisher. No. 1,255,523; Feb. 5; v. 247; p. 118.
Flue-cleaning mechanism. C. W. Hershey. No. 1,257,485; Feb. 26; v. 247; p. 805.
Fluid-circulating system, Vacuum. S. L. Calvert. No. 1,257,865; Feb. 26; v. 247; p. 900.
Fluid, Compressing elastic. H. A. Humphrey. No. 1,257,004; Feb. 19; v. 247; p. 631.
Fluid-meter motor. R. C. Bradley. No. 1,255,699; Feb. 5; v. 247; p. 169.
Fluid-mixing apparatus. E. Ruud. No. 1,257,934; Feb. 26; v. 247; p. 937.
Fluid-operated motor. W. A. Smith. No. 1,257,753; Feb. 26; v. 247; p. 884.
Fluid-pressure brake. W. V. Turner. No. 1,255,955; Feb. 12; v. 247; p. 283.
Fluid-pressure brake. W. V. Turner. No. 1,256,490; Feb. 12; v. 247; p. 443.
Fluids or bodies from containers, Apparatus for discharging. G. J. Gawley. No. 1,256,805; Feb. 12; v. 247; p. 386.
Flush-receptacle. C. J. Klein. No. 1,255,181; Feb. 5; v. 247; p. 20.
Flusher, Automatic sewer. G. H. Burns. No. 1,256,636; Feb. 19; v. 247; p. 527.
Flushing apparatus, Street. P. Shannon. No. 1,256,664; Feb. 12; v. 247; p. 816.
Flushing-conduit. J. Sagen. No. 1,255,648; Feb. 5; v. 247; p. 155.
Fly-swatter. H. P. Fogh. No. 1,255,303; Feb. 5; v. 247; p. 53.
Fly-trap. E. E. Knittle. No. 1,256,329; Feb. 12; v. 247; p. 396.
Flying-machine. V. P. Galle. No. 1,257,212; Feb. 19; v. 247; p. 690.
Fodder in the form of sweet green fodder, Preserving green. J. R. Sonderegger, A. Messmer, Jr., and F. Erdrich. No. 1,257,764; Feb. 26; v. 247; p. 885.
Folding box. H. W. Goodnow. No. 1,256,549; Feb. 19; v. 247; v. 496.
Folding chair. R. C. Kerr. No. 1,257,877; Feb 26; v. 247; p. 920.
Folding-machine. W. F. Lautenschlager. No. 1,255,540; Feb. 5; v. 247; p. 124.
Folding-machine. W. F. Lautenschlager. No. 1,257,883; Feb. 26; v. 247; p. 925.
Folding table for attachment to bedsteads. A. E. Darlaston. No. 1,256,209; Feb. 12; v. 247; p. 361.
Food, Article of. H. A. Shepard. No. 1,257,430; Feb. 26; v. 247; p. 782.
Food composition. W. W. Reed. No. 1,255,038; Feb. 5; v. 247; p. 152.
Food-machines, Tool-holding means of. J. and H. Trust. No. 1,255,356; Feb. 5; v. 247; p. 69.
Food, Making cattle. F. Thatcher. No. 1,257,423; Feb. 26; v. 247; p. 785.
Foot-accelerator. A. E. Spencer. No. 1,255,479; Feb. 5; v. 247; p. 105.

Forging and stamping machines, Safety attachment for drop. J. R. Huggins. No. 1,257,237; Feb. 19; v. 247; v. 697.

Fork: *See*—
Tuning-fork.

Forks, Stripping attachment for. K. Stimecz. No. 1,255,945; Feb. 12; v. 247; p. 280.

Form-clamps, Tightener for. G. F. Newton. No. 1,255,210; Feb. 5; v. 247; p. 28.

Form-holder and wall-tie. H. G. Tenholder. No. 1,255,811; Feb. 5; v. 247; p. 201.

Fountain: *See*—
Illuminated fountain.
Water-fountain.

Fountain-comb. A. R. Spielberger. No. 1,256,886; Feb. 12; v. 247; p. 414.

Fourdrinier machine. C. E. Pope. No. 1,257,737; Feb. 26; v. 247; p. 881.

Frame: *See*—
Anesthetic-frame.
Embroidery-frame.
Knockdown and portable frame.
Manhole-frame.
Mop-frame.
Motor-cycle frame.
Picture-frame.
Screen-frame.

Frame. H. P. Carlon. No. 1,256,518. Feb. 19; v. 247; p. 488.

Frieze-board marker. W. McBride. No. 1,255,190; Feb. 5; v. 247; p. 22.

Froth-reducing discharge apparatus and process. M. Leitch and B. R. Wright. No. 1,256,810; Feb. 19; v. 247; p. 572.

Fruit-distributing device. J. A. and V. O. Campbell. No. 1,256,294; Feb. 12; v. 247; p. 285.

Fruit-gatherer. M. E. Flinn. No. 1,256,890; Feb. 19; v. 247; p. 597.

Fruit-halving instrument. M. A. Clark. No. 1,256,439; Feb. 12; v. 247; p. 429.

Fruit-picker. H. N. Bigger. No. 1,257,791; Feb. 26; v. 247; p. 895.

Fruit-picker. H. Gielow. No. 1,255,596; Feb. 5; v. 247; p. 140.

Fruit-pit-clipping device. W. F. Oglesby. No. 1,256,035; Feb. 12; v. 247; p. 307.

Fruit-sizing apparatus. G. D. Parker. No. 1,257,013; Feb. 19; v. 247; p. 635.

Fruit-washing machine. A. F. Bisceglia. No. 1,257,574; Feb. 26; v. 247; p. 831.

Fuel from waste products, Manufacture of artificial. R. Brown. No. 1,256,494; Feb. 12; v. 247; p. 444.

Fuel-supply system. D. L. Galusha. No. 1,256,785; Feb. 19; v. 247; p. 565.

Fullers' earth and similar materials, Treating. C. M. Husted. No. 1,256,233; Feb. 12; v. 247; p. 368.

Funnel. J. L. Rucker. No. 1,256,733; Feb. 19; v. 247; p. 550.

Funnel, Disappearing. H. S. Welsh. No. 1,256,901; Feb. 19; v. 247; p. 618.

Furnace: *See*—
Coal-burning furnace.
Glass-drawing furnace.
Heating-furnace.
Hot-air furnace.
Tilting furnace.

Furnace. M. A. Hofft. No. 1,255,832; Feb. 5; v. 247; p. 207.

Furnace. F. W. Steere. No. 1,257,649; Feb. 26; v. 247; p. 853.

Furnace-control apparatus, Electric. A. D. Keene. No. 1,255,612; Feb. 5; v. 247; p. 145.

Furnace fire-pots, Casting. J. P. Kolla. No. 1,257,493; Feb. 26; v. 247; p. 807.

Furnaces, Automatic grate for steam-boiler or other. A. L. F. Lefevre. No. 1,257,257; Feb. 19; v. 247; p. 703.

Furniture-leveling base. J. R. Jones. No. 1,255,427; Feb. 5; v. 247; p. 91.

Furniture-sections, Connecting means for. E. Morris. No. 1,257,097; Feb. 19; v. 247; p. 656.

Fuse, Electrical. J. H. Naylor. No. 1,257,100; Feb. 19; v. 247; p. 657.

Fuse, Refillable. B. L. Spurr and F. A. Tittemore. No. 1,257,418; Feb. 26; v. 247; p. 784.

Fuse, Reloadable. R. C. Patton. No. 1,257,021; Feb. 19; v. 247; p. 636.

Fuse, Renewable cartridge. E. Sabina and L. I. Cope. No. 1,256,049; Feb. 12; v. 247; p. 309.

Fusible service-protector. C. H. Shoebridge. No. 1,256,006; Feb. 12; v. 247; p. 317.

Gage: *See*—
Gasolene-gage.
Saw-gage.
Shingle-gage.
Skirt-gage.
Water-gage.

Galloping-wheel. M. V. B. Evenson. No. 1,256,454; Feb. 12; v. 247; p. 433.

Galvanic battery. H. H. M. Kammerhoff. No. 1,255,536; Feb. 5; v. 247; p. 123.

Game. F. J. Anderson. No. 1,257,779; Feb. 26; v. 247; p. 892.

Game. C. Koprinski. No. 1,256,575; Feb. 19; v. 247; p. 504.

Game. F. W. Stotler. No. 1,257,045; Feb. 19; v. 247; p. 642.

Game apparatus. G. H. Bailey. No. 1,257,174; Feb. 19; v. 247; p. 678.

Game apparatus. W. T. Clinger. No. 1,257,674; Feb. 26; v. 247; p. 860.

Game apparatus. R. Walter. No. 1,256,400; Feb. 12; v. 247; p. 418.

Game, Puzzle. E. V. and M. Wetzel. No. 1,257,432; Feb. 26; v. 247; p. 786.

Game, War. T. J. Burke. No. 1,257,069; Feb. 19; v. 247; p. 648.

Gang setting-machine. E. D. Simons. No. 1,255,825; Feb. 5; v. 247; p. 205.

Garbage-incinerator. N. C. Johnson. No. 1,257,359; Feb. 26; v. 247; p. 767.

Garment. D. C. O'Shea. No. 1,255,559; Feb. 5; v. 247; p. 130.

Garment. D. C. O'Shea. No. 1,255,560; Feb. 5; v. 247; p. 130.

Garment. G. W. Pease. No. 1,255,833; Feb. 5; v. 247; p. 63.

Garment. G. W. Pease. No. 1,255,834; Feb. 5; v. 247; p. 63.

Garment, Child's. M. T. Verde. No. 1,255,491; Feb. 5; v. 247; p. 109.

Garment-fastener. M. Von Frieling. No. 1,256,463; Feb. 12; v. 247; p. 435.

Garment-holder. J. Nevsky. No. 1,255,555; Feb. 5; v. 247; p. 129.

Garment, Life-preserving. J. J. Tischer. No. 1,255,354; Feb. 5; v. 247; p. 69.

Garment-retainer. J. K. Burgess. No. 1,257,800; Feb. 26; v. 247; p. 898.

Garment-supporter. A. J. Haun. No. 1,257,856; Feb. 26; v. 247; p. 915.

Garment, Ventilated-suspensory-crotch. E. Oppenheim. No. 1,255,820; Feb. 5; v. 247; p. 204.

Garter. A. M. Petrullo. No. 1,255,630; Feb. 5; v. 247; p. 149.

Garter. H. Sacks. No. 1,255,647; Feb. 5; v. 247; p. 154.

Garter, Man's. M. L. Hawks. No. 1,257,856; Feb. 26; v. 247; p. 916.

Gas-burner. J. P. Morley and G. W. Kite, Jr. No. 1,257,010; Feb. 19; v. 247; p. 633.

Gas-burning apparatus. C. Ellis. No. 1,256,801; Feb. 12; v. 247; p. 387.

Gas by a liquid apparatus for absorbing a fixed quantity of, G. Braam. No. 1,256,291; Feb. 12; v. 247; p. 334.

Gas-engine. A. Y. Edwards. No. 1,257,469; Feb. 26; v. 247; p. 800.

Gas-engine, Rotary. H. Föttinger. No. 1,256,674; Feb. 19; v. 247; p. 533.

Gas-fitting, Incandescent. J. I. Robin. No. 1,257,930; Feb. 26; v. 247; p. 935.

Gas-generating apparatus. J. W. McFarland. No. 1,257,574; Feb. 26; v. 247; p. 772.

Gas-generating jar. A. S. Castellano. No. 1,257,314; Feb. 26; v. 247; p. 755.

Gas-generator. D. Maggiora. No. 1,255,765; Feb. 5; v. 247; p. 189.

Gas lighting and extinguishing apparatus, Low-pressure. A. Marke. No. 1,256,712; Feb. 19; v. 247; p. 544.

Gas maker and combustion apparatus. B. E. Hadley. No. 1,257,600; Feb. 26; v. 247; p. 840.

Gas-meters, Means for draining. A. J. Smith. No. 1,257,414; Feb. 26; v. 247; p. 783.

Gas-mixer. J. M. Rosenkrans. No. 1,256,041; Feb. 12; v. 247; p. 309.

Gas-producers, Coal-feeder for. W. J. Lindsay. No. 1,256,340; Feb. 12; v. 247; p. 400.

Gas-retorts, Apparatus for charging. H. Bird. No. 1,256,650; Feb. 19; v. 247; p. 535.

Gasolene-cleaned garments, Apparatus for drying. E. E. Ebrich. No. 1,256,887; Feb. 19; v. 247; p. 590.

Gasolene-gage. O. C. Ritz-Woller. No. 1,257,929; Feb. 26; v. 247; p. 935.

Gate: *See*—
Crossing-gate.
End-gate.
Lifting and swinging gate.
Railway cattle-gate.
Screen-gate.

Gate. T. L. Fawick. No. 1,257,333; Feb. 26; v. 247; p. 761.

Gate. O. L. Keys. No. 1,257,082; Feb. 19; v. 247; p. 652.

Gate. W. Pope. No. 1,255,634; Feb. 5; v. 247; p. 150.

Gate. E. Smith. No. 1,257,137; Feb. 19; v. 247; p. 667.

Gate and gate-fastening. E. N. Kiger. No. 1,256,805; Feb. 19; v. 247; p. 570.

Gear, Friction. G. A. Johnson. No. 1,255,171; Feb. 5; v. 247; p. 17.

Gear, Friction. C. B. Patch. No. 1,256,826; Feb. 19; v. 247; p. 577.

Gear, High-capacity spring. J. F. O'Connor. No. 1,255,918; Feb. 12; v. 247; p. 273.

Gear, Railway-car friction. G. A. Johnson. No. 1,255,172; Feb. 5; v. 247; p. 17.

Gear-shift control, Automatic. J. S. Alspaugh. No. 1,257,004; Feb. 19; v. 247; p. 647.

Gear-shifting mechanism, Automatic. F. E. Renick. No. 1,255,933; Feb. 12; v. 247; p. 277.

Gear, Spring friction. A. Campbell. No. 1,255,132; Feb. 5; v. 247; p. 6.

Gear, Steering. F. D. Carrico. No. 1,256,878; Feb. 19; v. 247; p. 592.

Gear, Tandem friction. J. F. O'Connor. No. 1,256,819; Feb. 19; v. 247; p. 575.

Gear, Variable-speed. A. J. Rowledge. No. 1,256,871; Feb. 12; v. 247; p. 408.

Gear, Variable-speed. A. J. Rowledge. No. 1,256,872; Feb. 12; v. 247; p. 409.

Gear, Variable-speed. A. J. Rowledge. No. 1,256,873; Feb. 12; v. 247; p. 410.

Gear, Variable-speed. A. J. Rowledge. No. 1,256,874; Feb. 12; v. 247; p. 410.

Gearing. E. A. Sperry. No. 1,257,417; Feb. 26; v. 247; p. 783.

Gearing, &c., Shifting mechanism for. J. H. Brand. No. 1,257,809; Feb. 26; v. 247; p. 754.

Gearing, Variable-speed friction and belt. T. J. F. Ryland. No. 1,257,742; Feb. 26; v. 247; p. 882.

Generator: *See*—
Acetylene-generator.
Current-generator.
Electric generator.
Gas-generator.
Steam-generator.

Gin-trap. F. W. Wigmore. No. 1,256,187; Feb. 12; v. 247; p. 355.

Glass articles, Apparatus for the manufacture of blown-. B. D. Chamberlin. No. 1,256,979; Feb. 19; v. 247; p. 623.

Glass-blowing machines, Air-controlling mechanism for. A. Kadow. No. 1,255,817; Feb. 5; v. 247; p. 57.

Glass cylinders, Apparatus for drawing. C. S. Bobb. No. 1,256,260; Feb. 12; v. 247; p. 375.

Glass-drawing furnace. G. L. Catlin and D. Morrison. No. 1,255,983; Feb. 12; v. 247; p. 293.

Glass float. J. A. Larson. No. 1,257,890; Feb. 26; v. 247; p. 925.

Glass from furnaces, Delivering. G. E. Howard. No. 1,255,884; Feb. 12; v. 247; p. 263.

Glass manufacture. T. J. McCoy. No. 1,256,450; Feb. 5; v. 247; p. 90.

Glass panes, Protective covering for. H. J. Nile. No. 1,256,616; Feb. 19; v. 247; p. 575.

Glass, Process of flowing. B. D. Chamberlin. No. 1,256,950; Feb. 19; v. 247; p. 624.

Glasses and cups, Device for washing. M. McCullough. No. 1,257,902; Feb. 26; v. 247; p. 928.

Globe-holder. H. C. Hager. No. 1,255,163; Feb. 5; v. 247; p. 14.

Glove. H. A. Taylor. No. 1,256,391; Feb. 12; v. 247; p. 416.

Glove-cleaning machine. A. R. Curtis. No. 1,255,515; Feb. 5; v. 247; p. 116.

Glue, Manufacturing vegetable. V. G. Bloede. No. 1,257,307; Feb. 26; v. 247; p. 753.

Glutaminic acid from other amino acids, Process to separate. A. Corte. No. 1,255,890; Feb. 5; v. 247; p. 90.

Goggles or eye-protectors. J. U. Barr. No. 1,257,667; Feb. 26; v. 247; p. 859.

Gold and other precious metals, Apparatus for saving. W. D. M. Howard. No. 1,257,487; Feb. 26; v. 247; p. 805.

Gold crowns, Making. G. H. Leland. No. 1,257,367; Feb. 26; v. 247; p. 770.

Gold-saving machine, Fine-. E. Bagley. No. 1,256,764; Feb. 19; v. 247; p. 558.

Golf-ball. H. Z. Cobb. No. 1,255,388; Feb. 5; v. 247; p. 80.

Golf-ball-tee device, Adjustable. H. L. David. No. 1,255,140; Feb. 5; v. 247; p. 8.

Golf-club. E. M. Fitzjohn and E. A. Stanton. No. 1,257,471; Feb. 26; v. 247; p. 800.

Golf-club. A. E. Lard. No. 1,257,064; Feb. 19; v. 247; p. 653.

Governor. A. F. Christmas. No. 1,255,294; Feb. 5; v. 247; p. 51.

Governor, Automatic. F. Terry. No. 1,256,612; Feb. 19; v. 247; p. 515.

Governor for lowering devices. T. H. Marten. No. 1,255,453; Feb. 5; v. 247; p. 97.

Gown, House-. S. P. Gates. No. 1,256,691; Feb. 19; v. 247; p. 597.

Grader, Road-. C. M. Nordenstam, Jr. No. 1,256,925; Feb. 19; v. 247; p. 607.

Grader, Road-. N. Story, Jr. No. 1,255,488; Feb. 5; v. 247; p. 108.

Grading and leveling device, Soil. J. S. Frew and E. A. Lewis. No. 1,257,836; Feb. 26; v. 247; p. 910.

Grading machine, Road-. B. R. Bonney. No. 1,255,285; Feb. 5; v. 247; p. 46.

Gradometer. E. G. Mattoon. No. 1,257,090; Feb. 19; v. 247; p. 654.

Grain-sampler. A. M. Wiswell. No. 1,256,413; Feb. 12; v. 247; p. 422.

Grain-shocking machines, Adjusting mechanism for. B. R. Benjamin. No. 1,257,304; Feb. 26; v. 247; p. 753.

Graphical recorder. G. Wollenweber. No. 1,256,858; Feb. 19; v. 247; p. 587.

Grapple. F. L. Weedon and W. E. Lemon. No. 1,256,408; Feb. 12; v. 247; p. 420.

Grass-destroyer. W. B. Petron. No. 1,256,725; Feb. 19; v. 247; p. 547.

Grate. W. Fisher. No. 1,255,727; Feb. 5; v. 247; p. 178.

Grates, Bearing-bar for. W. Fisher. No. 1,255,728; Feb. 5; v. 247; p. 178.

Grater, Vegetable-. I. Bertin. No. 1,255,879; Feb. 5; v. 247; p. 77.

Gravitometer. P. E. Young. No. 1,257,662; Feb. 26; v. 247; p. 857.

Grease-cup. G. W. Bowen. No. 1,255,287; Feb. 5; v. 247; p. 49.

Grease-cup, Compression. A. C. Seeger. No. 1,256,269; Feb. 12; v. 247; p. 378.

Grease-gun. C. L. Phillips. No. 1,255,786; Feb. 5; v. 247; p. 194.

Grinding and polishing machine. C. J. Barry. No. 1,256,646; Feb. 19; v. 247; p. 524.

Grinding and polishing machine. W. S. Thomson. No. 1,257,548; Feb. 26; v. 247; p. 824.

Grinding and polishing machines, Dust-receiver for. F. Roese. No. 1,255,230; Feb. 5; v. 247; p. 82.

Grinding-machine. C. C. Warner and E. D. Paul. No. 1,255,962; Feb. 12; v. 247; p. 285.

Grinding-machines, Bearing-guide for. W. S. Thomson. No. 1,257,549; Feb. 26; v. 247; p. 824.

Grindstones, Bur for treating. G. S. Witham, Jr. No. 1,255,494; Feb. 5; v. 247; p. 110.

Gromet. W. A. Young. No. 1,256,419; Feb. 12; v. 247; p. 423.

Gumming-machine. F. D. Taylor. No. 1,255,245; Feb. 5; vol. 247; p. 37.

Gun. C. F. Lefever. No. 1,257,501; Feb. 26; v. 247; p. 810.

Gun-cleaner. C. T. V. Hansen. No. 1,256,478; Feb. 12; v. 247; p. 439.

Gun, Machine-. C. A. Nelson. No. 1,256,923; Feb. 19; v. 247; p. 606.

Gun-rack. J. A. Patterson. No. 1,257,107; Feb. 19; v. 247; p. 659.

Gun-sight. J. A. Dittemore. No. 1,256,987; Feb. 19; v. 247; p. 626.

Gun-sight. M. Hewes. No. 1,257,000; Feb. 19; v. 247; p. 630.

Guns, Safety device for. L. P. Zeymer. No. 1,256,631; Feb. 19; v. 247; p. 521.

Gyroscopic navigation apparatus. E. A. Sperry. No. 1,255,480; Feb. 5; v. 247; p. 106.

Hair-clipper. J. Cox. No. 1,257,679; Feb. 26; v. 247; p. 862.

Hair-curler. J. H. and L. E. Schenck. No. 1,256,597; Feb. 19; v. 247; p. 510.

Hair-curling machine. A. F. Grabowski. No. 1,255,410; Feb. 5; v. 247; p. 36.

Hair-cutting machine. M. Petrella. No. 1,255,461; Feb. 5; v. 247; p. 100.

Hair-drying apparatus. J. A. Crew. No. 1,255,585; Feb. 5; v. 247; p. 137.

Hair-pin. W. F. Focha. No. 1,256,005; Feb. 12; v. 247; p. 299.

Hame and trace connector. G. F. Cashell. No. 1,257,808; Feb. 26; v. 247; p. 900.

Hammer, Power-. K. Salo and M. Sherman. No. 1,255,798; Feb. 5; v. 247; p. 196.

Hammer, Subaqueous pile-. T. E. Sturtevant. No. 1,257,762; Feb. 26; v. 247; p. 887.

Handle: *See*—
Air-brake-valve handle.

Hanger: *See*—
Brake-beam hanger.
Corn-hanger.
Pipe-hanger.
Stovepipe-hanger.
Tobacco-hanger.

Hardness-testing machine. F. L. Morse. No. 1,255,913; Feb. 12; v. 247; p. 271.

Harrow. H. P. Johnson. No. 1,255,425; Feb. 5; v. 247; p. 90.

Harrow attachment. F. Harland. No. 1,256,225; Feb. 12; v. 247; p. 366.

Harrows and the like, Riding attachment for. C. S. Sharp. No. 1,257,407; Feb. 26; v. 247; p. 781.

Harvester. A. N. Byers. No. 1,255,982; Feb. 12; v. 247; p. 293.

Harvester. C. R. Raney. No. 1,255,930; Feb. 12; v. 247; p. 276.

Harvester and topping machine, Beet. B. Kaufhold and J. A. Ess. No. 1,257,081; Feb. 19; v. 247; p. 652.

Harvester attachment. H. J. Mentink. No. 1,257,002; Feb. 19; v. 247; p. 655.

Harvester, Bean-. T. Masuda. No. 1,257,269; Feb. 19; v. 247; p. 707.

Harvester, Bean-. E. Sessions. No. 1,256,172; Feb. 12; v. 247; p. 349.

Harvester, Beet-. J. S. Cooper. No. 1,257,953; Feb. 26; v. 247; p. 942.

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Lens-mounting. H. R. Kirstein. No. 1,256,327; Feb. 12; v. 247; p. 595.
Lens-screen. E. G. Johanson. No. 1,255,755; Feb. 5; v. 247; p. 180.
Letter-carrier. C. R. Tichenor. No. 1,256,845; Feb. 19; 247; p. 883.
Level. F. D. Small. No. 1,256,787; Feb. 19; v. 247; p. 551.
Level and plumb, Combined. W. Buczkowski. No. 1,256,455; Feb. 12; v. 247; p. 423.
Leveling instrument. H. C. Bachfield. No. 1,256,097; Feb. 12; v. 247; p. 326.
Leveling means for wheeled apparatus. J. E. Gross. No. 1,255,899; Feb. 5; v. 247; p. 140.
Lever. H. Uhlmann. No. 1,256,496; Feb. 12; v. 247; p. 417.
Lever-clamp, Portable pivoted. H. M. Morse. No. 1,255,773; Feb. 5; v. 247; p. 191.
Lever, Gear-shifting. G. A. E. Mellin. No. 1,256,244; Feb. 12; v. 247; p. 371.
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Life-preserver. E. E. Stösser. No. 1,257,044; Feb. 19; v. 247; p. 642.
Life-saving suit. J. Niemiec. No. 1,257,014; Feb. 19; v. 247; p. 634.
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Can or jar lifter. Pan-lifter.
Lifter and turner. W. L. Milliorn. No. 1,256,245; Feb. 12; v. 247; p. 371.
Lifting and swinging gate. E. Feltman. No. 1,257,334; Feb. 26; v. 247; p. 761.
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Dirigible light. Spot-light.
Lime-hydrating apparatus. A. Zimmerman. No. 1,255,682; Feb. 5; v. 247; p. 164.
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Line-testing instrument. O. F. Tallman and F. H. Hubert. No. 1,257,651; Feb. 26; v. 247; p. 854.
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Link fabric. J. F. Daily. No. 1,257,823; Feb. 26; v. 247; p. 788.
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Liquids, Apparatus for filling receptacles with. F. B. Chambers. No. 1,256,964; Feb. 12; v. 247; p. 292.
Liquids under pressure, Apparatus for indicating the level of. E. Hurlbrink. No. 1,256,904; Feb. 19; v. 247; p. 591.
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Loaf-pressing machine. H. H. Hungerford. No. 1,256,695; Feb. 19; v. 247; p. 539.
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Automobile-lock. Printer's galley-lock.
Automobile-pedal lock. Rim-lock.
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Awning-lock. Seal-lock.
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Magneto, Multipolar. O. Heins. No. 1,256,796; Feb. 19; v. 247; p. 568.
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Printing mechanism, Selector. R. G. Griswold. No. 1,257,480; Feb. 26; v. 247; p. 803.
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Printing-press. H. Fankboner. No. 1,257,884; Feb. 26; v. 247; p. 908.
Projectile, Explosive. E. Schneider. No. 1,257,126; Feb. 19; v. 247; p. 664.
Propeller, Boat-. H. W. Gray. No. 1,256,551; Feb. 19; v. 247; p. 497.
Protractor-level for drills and other tools. D. D. Roth. No. 1,255,644; Feb. 5; v. 247; p. 158.
Puller: *See*—
Spike-puller. Tack-puller.
Pulley. J. Stewart. No. 1,255,661; Feb. 5; v. 247; p. 158.
Pulley-block. C. B. Weston. No. 1,257,431; Feb. 26; v. 247; p. 788.
Pulley or power-transmission mechanism, Automatic stress-relieving friction-. J. Stampen. No. 1,256,947; Feb. 19; v. 247; p. 614.
Pulley, Pressed-steel. E. H. Bowen. No. 1,255,506; Feb. 5; v. 247; p. 113.
Pulley-rim covering. H. Putsch. No. 1,257,580; Feb. 26; v. 247; p. 819.
Pulverizing-machine. C. A. Koehler and C. C. Crosson. No. 1,257,882; Feb. 26; v. 247; p. 922.
Pump. B. S. Aikman. No. 1,256,092; Feb. 12; v. 247; p. 324.
Pump. F. L. Gould. No. 1,256,127; Feb. 12; v. 247; p. 335.
Pump, Air-. A. G. R. Guerard. No. 1,255,875; Feb. 12; v. 247; p. 261.
Pump, Air-. C. A. Herle. No. 1,257,350; Feb. 26; v. 247; p. 766.
Pump, Air-. G. V. Piotrowsky. No. 1,257,527; Feb. 26; v. 247; p. 818.
Pump, Air chamber and drain storage. C. F. Brandenberger and M. W. Reuther. No. 1,255,855; Feb. 12; v. 247; p. 255.
Pump and fire-extinguisher, Combined. G. D. Buck. No. 1,256,870; Feb. 19; v. 247; p. 591.
Pump and pumping system. B. S. Aikman. No. 1,255,972; Feb. 12; v. 247; p. 289.
Pump, Centrifugal. L. W. Bodinson. No. 1,257,798; Feb. 26; v. 247; p. 896.
Pump for speedometers. T. C. Prouty. No. 1,256,829; Feb. 19; v. 247; p. 578.
Pump, Internal-combustion. V. Griffith. No. 1,257,217; Feb. 19; v. 247; p. 691.
Pump or compressor, Rotary. R. Schorr. No. 1,257,744; Feb. 26; v. 247; p. 882.
Pump, Pneumatic. J. E. Russell. No. 1,255,841; Feb. 5; v. 247; p. 65.
Pump-rod-balancing device. G. W. McConnell. No. 1,257,901; Feb. 26; v. 247; p. 928.
Pump, Rotary. W. B. Campbell. No. 1,257,806; Feb. 26; v. 247; p. 900.
Pump-valve. T. J. Lower. No. 1,256,028; Feb. 12; v. 247; p. 305.
Punches, Automatic feed mechanism for. J. R. Schadow. No. 1,257,938; Feb. 26; v. 247; p. 936.
Push-switch. J. G. Peterson. No. 1,257,925; Feb. 26; v. 247; p. 934.
Putty-knife and nail-extractor, Combined. W. A. Stevens. No. 1,255,660; Feb. 5; v. 247; p. 158.
Puzzle. A. C. Fallace. No. 1,257,205; Feb. 19; v. 247; p. 688.
Puzzle, Jig-saw. T. Bamberg. No. 1,256,100; Feb. 12; v. 247; p. 327.
Quick-action jack. A. W. Marr. No. 1,257,508; Feb. 26; v. 247; p. 812.
Rack: *See*—
Display-rack. Hay-rack.
File-rack. Theater-seat hat-rack.
Gun-rack.
Radiator. T. V. Buckwalter. No. 1,256,977; Feb. 19; v. 247; p. 622.
Radiator. C. M. Jones. No. 1,255,173; Feb. 5; v. 247; p. 17.
Radiator. J. P. May. No. 1,256,919; Feb. 19; v. 247; p. 605.
Radiator. J. P. May. No. 1,256,920; Feb. 19; v. 247; p. 605.
Radiator-casing. W. M. Fulton. No. 1,256,220; Feb. 12; v. 247; p. 354.
Radiator, Electric. R. G. Ledig. No. 1,255,840; Feb. 5; v. 247; p. 210.
Radiator foot-rest. J. F. Grabill. No. 1,256,128; Feb. 12; v. 247; p. 336.
Radiator-protector. J. A. Rothschild. No. 1,257,640; Feb. 26; v. 247; p. 851.
Rail and pocket, Adjustable pool. J. R. Le Cour. No. 1,255,542; Feb. 5; v. 247; p. 125.
Rail-brace. G. Meade. No. 1,257,511; Feb. 26; v. 247; p. 813.
Rail joint and fastener. S. Kielar. No. 1,257,068; Feb. 19; v. 247; p. 653.
Rail-joint, Boltless. C. Engelland. No. 1,255,723; Feb. 5; v. 247; p. 176.
Rail-layer. P. H. Madden and F. L. Pierce. No. 1,255,198; Feb. 5; v. 247; p. 23.

Rail-locking device. C. Rochelle. No. 1,255,465; Feb. 5; v. 247; p. 101.
Rails, Anticreeping device for track-. J. E. Baker. No. 1,255,849; Feb. 12; v. 247; p. 253.
Rails to the ties and tie-plates, Means for fastening. A. Viator. No. 1,256,297; Feb. 12; v. 247; p. 417.
Railway-bed. E. C. Bachfield. No. 1,256,095; Feb. 12; v. 247; p. 325.
Railway cattle-gate. T. A. Seay. No. 1,255,801; Feb. 5; v. 247; p. 199.
Railway cross-tie. E. C. Bachfield. No. 1,256,096; Feb. 12; v. 247; p. 326.
Railway-crossing, Automatic. W. Lender. No. 1,255,617; Feb. 5; v. 247; p. 146.
Railway-crossing construction. H. H. Collins. No. 1,256,982; Feb. 19; v. 247; p. 624.
Railway intersection. E. S. Cobb. No. 1,257,280; Feb. 19; v. 247; p. 711.
Railway intersection. E. S. Cobb. No. 1,257,812; Feb. 26; v. 247; p. 902.
Railway-rail joint. J. A. Hyle and J. W. Herman. No. 1,257,708; Feb. 26; v. 247; p. 871.
Railway safety-appliance. T. Holt. No. 1,257,866; Feb. 26; v. 247; p. 918.
Railway signaling system. J. B. Harlow. No. 1,257,702; Feb. 26; v. 247; p. 869.
Railway-switch. E. C. Bachfield. No. 1,256,094; Feb. 12; v. 247; p. 325.
Railway-switch. L. J. Mongel. No. 1,256,717; Feb. 19; v. 247; p. 545.
Railway-switch structure. H. L. Miller and R. B. Fisher. No. 1,255,455; Feb. 5; v. 247; p. 98.
Railway-switches, Means for operating. J. P. Abernathy. No. 1,255,569; Feb. 5; v. 247; p. 132.
Railway system, Elevated-. C. E. Padgett. No. 1,255,459; Feb. 5; v. 247; p. 99.
Railway-tie. J. J. Branagan. No. 1,256,199; Feb. 12; v. 247; p. 358.
Railway-tie. H. W. Huffman. No. 1,257,868; Feb. 26; v. 247; p. 918.
Railway-tie. M. F. Janney and J. B. Hackley. No. 1,256,236; Feb. 12; v. 247; p. 369.
Railway-tie. P. W. Rokohl. No. 1,257,123; Feb. 19; v. 247; p. 663.
Railway-tie and rail-fastener. O. Backes. No. 1,256,287; Feb. 12; v. 247; p. 384.
Railway-track structure. H. Kohlmyer. (Reissue.) No. 14,431; Feb. 12; v. 247; p. 449.
Railway-traffic-controlling apparatus, Recording mechanism for. F. H. Nicholson. No. 1,256,723; Feb. 19; v. 247; p. 547.
Rain-water alarm. G. Stachura. No. 1,257,038; Feb. 19; v. 247; p. 640.
Raising sunken objects, Means for. J. Clements. No. 1,255,513; Feb. 5; v. 247; p. 115.
Rake: *See*—
Buck-rake. Side-delivery rake.
Hay-rake.
Rake. H. A. and A. C. Quade. No. 1,255,887; Feb. 5; v. 247; p. 64.
Rake-tooth point, Detachable. W. F. Koch. No. 1,256,809; Feb. 19; v. 247; p. 572.
Range, Combined gas and solid-fuel. G. A. Tinnerman. No. 1,255,853; Feb. 5; v. 247; p. 69.
Range-finder, Marine. A. Taylor and P. W. Gray. No. 1,257,765; Feb. 26; v. 247; p. 888.
Range, Gas-. F. P. McCarty. No. 1,257,872; Feb. 26; v. 247; p. 771.
Range, Gas-. F. P. McCarty. No. 1,257,873; Feb. 26; v. 247; p. 771.
Rat-trap. M. Kaisumi. No. 1,257,244; Feb. 19; v. 247; p. 700.
Ratchet-drill. F. P. Sharp. No. 1,255,803; Feb. 5; v. 247; p. 199.
Razor, Adjustable safety-. H. Hartman. No. 1,257,079; Feb. 19; v. 247; p. 652.
Razor-blade holder. C. Berat. No. 1,257,179; Feb. 19; v. 247; p. 680.
Razor hone and strop, Combination. E. B. Gibford. No. 1,257,078; Feb. 19; v. 247; p. 651.
Razor-honing implement. A. Frenette. No. 1,257,692; Feb. 26; v. 247; p. 866.
Razor-wiping attachment for shaving-mugs. G. H. Akerlund. No. 1,256,282; Feb. 12; v. 247; p. 382.
Reading-stand. W. L. Deming. No. 1,257,586; Feb. 26; v. 247; p. 835.
Reaming-machine, Side. F. A. Stevenson. No. 1,256,073; Feb. 12; v. 247; p. 319.
Reaming-machine, Top. F. A. Stevenson. No. 1,256,072; Feb. 12; v. 247; p. 318.
Reaper-switch-control mechanism. A. Grieves. No. 1,257,700; Feb. 26; v. 247; p. 869.
Receptacle. J. Komoroua. No. 1,257,614; Feb. 26; v. 247; p. 844.
Receptacle, Folding or collapsible. A. Clawson. No. 1,256,112; Feb. 12; v. 247; p. 330.
Receptacle, Non-refillable. M. de M. Arrioja. No. 1,255,572; Feb. 5; v. 247; p. 133.
Receptacles, Means for reinforcing open end of metallic. C. F. Schriner. No. 1,256,933; Feb. 19; v. 247; p. 609.
Reciprocating machine elements, Guiding device for. G. von Post. No. 1,256,748; Feb. 19; v. 247; p. 554.
Recorder: *See*—
Fare-recorder. Time-recorder.
Graphical recorder.
Recording device. R. C. Bradley. No. 1,255,698; Feb. 5; v. 247; p. 168.
Recording instrument. E. J. Heitman. No. 1,256,130; Feb. 12; v. 247; p. 336.
Recording instrument. E. H. Messiter. No. 1,255,202; Feb. 5; v. 247; p. 26.
Recording mechanism. J. F. O'Connor. No. 1,256,919; Feb. 12; v. 247; p. 278.
Recording mechanism. J. C. Warren. No. 1,255,250; Feb. 5; v. 247; p. 39.
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Fishing-reel. Spring-reel.
Reflecting apparatus. A. L. Croxton. No. 1,256,522; Feb. 19; v. 247; p. 489.
Reflector for lighting units. E. F. Guth. No. 1,257,222; Feb. 19; v. 247; p. 692.
Refrigerating apparatus. O. E. Bornhauser. No. 1,255,286; Feb. 5; v. 247; p. 49.
Refrigerating apparatus. O. E. Bornhauser and J. E. Herman. No. 1,255,505; Feb. 5; v. 247; p. 113.
Refrigerating apparatus. M. F. Ewen. No. 1,255,723; Feb. 5; v. 247; p. 177.
Refrigerating apparatus. W. A. Richter and E. S. H. Baars. No. 1,256,780; Feb. 19; v. 247; p. 549.
Refrigerator-door fastener. F. N. Perkins. No. 1,257,522; Feb. 26; v. 247; p. 816.
Register: *See*—
Floor-register.
Register border, Warm-air-. W. T. Truax. No. 1,256,489; Feb. 12; v. 247; p. 443.
Register-operating mechanism. N. Albergamo. No. 1,257,443; Feb. 26; v. 247; p. 791.
Registering and money-paying machine. A. E. Sorum and R. T. Brockman. No. 1,257,143; Feb. 19; v. 247; p. 669.
Registering apparatus. L. E. Flavell and C. S. Priest. No. 1,256,459; Feb. 12; v. 247; p. 434.
Regulator: *See*—
Damper-regulator. Pressure-regulator.
Electric regulator. Temperature-regulator.
Rein-hold. J. M. Lovett. No. 1,256,027; Feb. 12; v. 247; p. 305.
Reinforcing-bar. W. P. Witherow. No. 1,255,678; Feb. 5; v. 247; p. 163.
Relay. A. A. Ziegler. No. 1,257,663; Feb. 26; v. 247; p. 857.
Repeater system. J. H. Bell. No. 1,257,803; Feb. 26; v. 247; p. 752.
Resilient wheel. M. E. Chamberlain. No. 1,257,678; Feb. 26; v. 247; p. 860.
Resilient wheel. M. Grossman. No. 1,257,220; Feb. 19; v. 247; p. 692.
Resilient wheel. J. L. Harden. No. 1,256,479; Feb. 12; v. 247; p. 439.
Resilient wheel. C. Oakford. No. 1,256,249; Feb. 12; v. 247; p. 372.
Resilient wheel. C. A. Whale and J. H. Black. No. 1,257,433; Feb. 26; v. 247; p. 788.
Respirator. T. Gossack. No. 1,256,012; Feb. 12; v. 247; p. 301.
Retort for treating quicksilver ores, Continuous. W. H. Landers. No. 1,256,703; Feb. 19; v. 247; p. 541.
Return-bends, Making. C. H. True and C. A. W. Brandt. No. 1,255,355; Feb. 5; v. 247; p. 69.
Reverser, Automatic. J. Horn. No. 1,257,852; Feb. 26; v. 247; p. 706.
Reversing mechanism. J. N. Lavery. No. 1,257,258; Feb. 19; v. 247; p. 702.
Rewinding-machine. J. A. Cameron and G. B. Birch. No. 1,256,490; Feb. 12; v. 247; p. 446.
Rheostat, Fluid-. M. N. Schonwitz. No. 1,256,832; Feb. 19; v. 247; p. 579.
Ribbon-bows or the like, Fastening device for. V. Stone. 1,255,248; Feb. 5; v. 247; p. 67.
Ribbon-feed, Automatic reversible. A. C. Roebuck. No. 1,257,401; Feb. 26; v. 247; p. 779.
Rim, Demountable. A. E. Cinq-Mars. No. 1,255,706; Feb. 5; v. 247; p. 171.
Rim, Demountable. J. O. Grady. No. 1,257,844; Feb. 26; v. 247; p. 912.
Rim, Demountable. J. B. Greene. No. 1,257,845; Feb. 26; v. 247; p. 912.
Rim, Demountable. J. H. and G. H. Heeran. No. 1,256,516; Feb. 12; v. 247; p. 392.
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Rim-securing device, Demountable-. C. E. McClay. No. 1,257,264; Feb. 19; v. 247; p. 706.
Ring: *See*—
Packing-ring.
Ring for disseminating perfumes, &c. W. H. H. Griffin. No. 1,257,848; Feb. 26; v. 247; p. 912.
Rivet-fasteners, Device for applying. J. H. M. Michon. No. 1,257,724; Feb. 26; v. 247; p. 877.
Road-sweeping machines, Conveyer adapted to. W. Barnett and J. Florendine. No. 1,255,275; Feb. 5; v. 247; p. 45.
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Fishing-rod.
Roller: *See*—
Fabric-roller. Tractor-roller.
Shade-roller.

Roller-bearing wheel and means for attaching same to axle. F. H. Gibbs. No. 1,256,483; Feb. 12; v. 247; p. 461.

Romper. J. Sheehy. No. 1,256,736; Feb. 19; v. 247; p. 601.

Roofing-bracket. D. B. Bearden. No. 1,255,692; Feb. 5; v. 247; p. 167.

Roost, Hen-. M. B. Squires. No. 1,255,635; Feb. 5; v. 247; p. 157.

Rotary crusher. H. L. Kent. No. 1,255,319; Feb. 5; v. 247; p. 58.

Rotary engine. J. W. George. No. 1,256,995; Feb. 19; v. 247; p. 628.

Rotary engine. J. W. George. No. 1,256,996; Feb. 19; v. 247; p. 629.

Rotary engine. S. Hufschmid. No. 1,255,169; Feb. 5; v. 247; p. 16.

Rotary engine. E. A. Perk van Lith. No. 1,257,156; Feb. 19; v. 247; p. 673.

Rotary internal-combustion engine. N. B. Deane. No. 1,255,985; Feb. 12; v. 247; p. 257.

Rotary internal-combustion engine. A. R. Gardner and P. Washburn. No. 1,255,403; Feb. 5; v. 247; p. 83.

Rotatable members, Mounting for. J. A. Cameron and G. B. Birch. No. 1,256,109; Feb. 12; v. 247; p. 329.

Rubber and the like, Machinery for. S. C. Davidson. No. 1,256,664; Feb. 19; v. 247; p. 530.

Rubber battery-jar and manufacturing same, Hard-. H. Weida. No. 1,256,750; Feb. 19; v. 247; p. 554.

Rubber compound and producing the same. F. J. Gleason. No. 1,257,698; Feb. 26; v. 247; p. 868.

Rubber, Machine for impregnating fabrics with. I. S. McGlehan. No. 1,255,152; Feb. 5; v. 247; p. 23.

Rubber, Reclaiming. H. R. Murdock. No. 1,257,282; Feb. 19; v. 247; p. 715.

Rubber rods and the like, Machine for cutting and spacing. J. C. Reich. No. 1,257,960; Feb. 26; v. 247; p. 943.

Rubber soles to boots and shoes, Mold for applying. E. F. Berry. No. 1,256,649; Feb. 19; v. 247; p. 525.

Rubber-working apparatus. J. G. Moomy. No. 1,255,456; Feb. 5; v. 247; p. 96.

Rudder. H. C. Walters. No. 1,255,251; Feb. 5; v. 247; p. 39.

Running-gear, Rough-road-buggy coupling. J. F. Mardis. No. 1,257,067; Feb. 19; v. 247; p. 684.

Safety attachment. T. Stobs. No. 1,257,148; Feb. 19; v. 247; p. 671.

Safety attachment for machines. A. Stier. No. 1,257,759; Feb. 26; v. 247; p. 886.

Safety-pin. O. C. Decker. No. 1,257,207; Feb. 19; v. 247; p. 688.

Sand, Power shaker, Combined. E. E. Harris. No. 1,257,845; Feb. 26; v. 247; p. 764.

Sand molds for and casting cup-shaped articles, Preparing. D. J. Ryan. No. 1,255,468; Feb. 5; v. 247; p. 102.

Sash-balance. C. A. Bates. No. 1,256,691; Feb. 5; v. 247; p. 167.

Sash-balance. E. S. Hopkins. No. 1,256,133; Feb. 12; v. 247; p. 337.

Sash-cord fastener. H. A. Wulf. No. 1,257,438; Feb. 26; v. 247; p. 789.

Sash fastener, Window-. C. V. Monson. No. 1,255,548; Feb. 5; v. 247; p. 126.

Sash holder and latch, Window-. L. J. Brune. No. 1,257,457; Feb. 26; v. 247; p. 796.

Sash, Ventilating window-. A. L. Evans. No. 1,256,452; Feb. 12; v. 247; p. 432.

Sash, Window-. H. M. Schreyer. No. 1,256,046; Feb. 12; v. 247; p. 310.

Satchels and the like, Safety attachment. M. Winkler. No. 1,256,906; Feb. 19; v. 247; p. 619.

Saw and sander, Stone-. G. Griesche. No. 1,256,684; Feb. 19; v. 247; p. 536.

Saw, Brag-. G. W. Godfrey. No. 1,255,737; Feb. 5; v. 247; p. 181.

Saw-gage. S. R. Emerson. No. 1,257,826; Feb. 26; v. 247; p. 906.

Saw, Gasolite and steam. G. Griesche. No. 1,256,685; Feb. 19; v. 247; p. 536.

Saw-guard. E. E. Jones. No. 1,255,886; Feb. 12; v. 247; p. 264.

Sawing device, Log-. W. Sabin. No. 1,255,635; Feb. 12; v. 247; p. 277.

Sawing machine, Wood-. D. L. Crist. No. 1,257,690; Feb. 26; v. 247; p. 862.

Sawing, Window-. A. A. Harris. No. 1,257,763; Feb. 26; v. 247; p. 870.

Scale. C. H. Hapgood. No. 1,256,689; Feb. 19; v. 247; p. 537.

Scale. W. G. Templeton. No. 1,255,351; Feb. 5; v. 247; p. 68.

Scale. W. G. Templeton. No. 1,257,547; Feb. 26; v. 247; p. 824.

Scale, Rotary. G. M. Cagle. No. 1,257,180; Feb. 19; v. 247; p. 643.

Scale, Spin-. T. Rudd. No. 1,256,566; Feb. 19; v. 247; p. 501.

Scale, Weighing-. J. J. Mancel. No. 1,257,623; Feb. 26; v. 247; p. 846.

Scales, Drainage system for track-. A. S. Vogt. No. 1,257,553; Feb. 26; v. 247; p. 825.

Scissors, Buttonhole-. I. MacLean. No. 1,256,916; Feb. 19; v. 247; p. 604.

Screen: *See*—
Centrifugal screen. Well-screen.
Lens-screen. Window-screen.

Screen-frame. H. C. Bujack. No. 1,257,183; Feb. 19; v. 247; p. 681.

Screen-gage, Automatic. H. B. Smith. No. 1,256,837; Feb. 19; v. 247; p. 580.

Screen or window lock. J. J. Thomas and L. L. Vaughan. No. 1,257,051; Feb. 19; v. 247; p. 644.

Screw-cutting die. A. J. France. No. 1,255,223; Feb. 5; v. 247; p. 31.

Screw-driver. F. Kietlinski. No. 1,256,130; Feb. 12; v. 247; p. 339.

Screw-lock and slot-filler. F. Schumann. No. 1,257,537; Feb. 26; v. 247; p. 821.

Screw-making machine. H. P. Townsend. No. 1,257,551; Feb. 26; v. 247; p. 825.

Screw-spike. D. L. Braine. No. 1,256,514; Feb. 19; v. 247; p. 487.

Scythe-blade fastener. E. E. Lippert. No. 1,257,506; Feb. 26; v. 247; p. 811.

Scythes, Making. M. M. Kitchen. No. 1,257,880; Feb. 26; v. 247; p. 921.

Seal, Car-. W. Huy. No. 1,256,866; Feb. 19; v. 247; p. 599.

Seal-lock. W. F. Walker. No. 1,255,073; Feb. 5; v. 247; p. 162.

Seal-presses, Paper-guide for. P. Lee. No. 1,257,717; Feb. 26; v. 247; p. 875.

Sealing-machine. J. Mackaurin. No. 1,257,609; Feb. 19; v. 247; p. 633.

Sealing machine, Carton-. E. A. Schroeder and J. M. Tooker. No. 1,257,745; Feb. 26; v. 247; p. 883.

Sealing receptacles for food products, Method of and means for. A. J. Frick. No. 1,256,304; Feb. 12; v. 247; p. 388.

Seam-opening tool. M. Courter. No. 1,256,860; Feb. 12; v. 247; p. 256.

Seam, Riveted. G. B. Phillips. No. 1,257,868; Feb. 26; v. 247; p. 776.

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Toilet-seat. Vehicle-seat.

Seat construction, Spring-. H. N. Pedersen. No. 1,256,294; Feb. 12; v. 247; p. 406.

Seat-pad. W. E. Evans. No. 1,256,453; Feb. 12; v. 247; p. 433.

Seats of chairs and the like, Hydraulic mechanism for raising and lowering the. G. C. Larala. No. 1,255,822; Feb. 5; v. 247; p. 60.

Secondary or storage battery. B. Ford. No. 1,256,006; Feb. 12; v. 247; p. 299.

Securing means. T. J. Lewis. No. 1,256,706; Feb. 19; v. 247; p. 542.

Seed-houses, Ventilating means for. A. W. French. No. 1,256,677; Feb. 19; v. 247; p. 534.

Seed-separating machine. G. F. Crippen. No. 1,257,289; Feb. 26; v. 247; p. 757.

Selecting-switch, Automatic. C. W. Clemmer. No. 1,257,811; Feb. 26; v. 247; p. 902.

Selector-switch. J. A. Kropp. No. 1,257,715; Feb. 26; v. 247; p. 874.

Self-cleaning rake. M. J. Hamburger. No. 1,255,742; Feb. 5; v. 247; p. 152.

Self-lubricating device. J. J. McGuirl. No. 1,257,721; Feb. 26; v. 247; p. 876.

Selvage-severing mechanism. W. H. Rogers. No. 1,256,722; Feb. 19; v. 247; p. 549.

Separating-machine. M. A. Washburn. No. 1,255,969; Feb. 12; v. 247; p. 286.

Separator: *See*—
Bean-separator. Liquid-separator.
Centrifugal separator. Pea and bean separator.
Cream-separator.

Sewing-machine. F. Zaleski. No. 1,256,970; Feb. 12; v. 247; p. 288.

Sewing-machine, Blindstitch. H. C. Moulton. No. 1,255,628; Feb. 5; v. 247; p. 118.

Sewing-machine bobbin-case and hook. J. Leathem. No. 1,256,184; Feb. 5; v. 247; p. 21.

Sewing-machine bobbin, Tension device for. J. Leathem. No. 1,255,183; Feb. 5; v. 247; p. 20.

Sewing machine, Button-. C. H. T. Hagelstein. No. 1,255,527; Feb. 5; v. 247; p. 119.

Sewing machine, Button-. C. H. T. Hagelstein. No. 1,255,528; Feb. 5; v. 247; p. 120.

Sewing machine, Button-. C. H. T. Hagelstein. No. 1,255,529; Feb. 5; v. 247; p. 120.

Sewing-machine hopper. C. Gusy. No. 1,257,950; Feb. 26; v. 247; p. 913.

Sewing-machine loop-taker mechanism. A. H. De Voe. No. 1,256,880; Feb. 19; v. 247; p. 594.

Sewing machine looper mechanism. D. S. Seymour. No. 1,257,940; Feb. 26; v. 247; p. 938.

Sewing machine, Shoe-. R. Ashworth. No. 1,255,668; Feb. 5; v. 247; p. 111.

Sewing-machine smoothing device. A. Grieb. No. 1,255,889; Feb. 5; v. 247; p. 119.

Sewing-machine, Straightaway signal for. D. S. Seymour. No. 1,255,942; Feb. 5; v. 247; p. 260.

Sewing machine, Sweat-band-. R. R. Hughes, Jr. No. 1,257,239; Feb. 19; v. 247; p. 693.

Sewing-machine tape-cutting mechanism. W. L. Barron. No. 1,255,501; Feb. 5; v. 247; p. 111.

Sewing-machine tape-guide. J. L. Stengel. No. 1,255,248; Feb. 5; v. 247; p. 87.

Sewing-machines, Garment-seam-ripping attachment for. W. A. Flower. No. 1,256,671; Feb. 19; v. 247; p. 532.

Sewing-machines, Lower-thread mechanism for chain-stitch. A. H. De Voe. No. 1,257,464; Feb. 26; v. 247; p. 798.

Sewing-machines, Spreader mechanism for. D. S. Seymour. No. 1,256,271; Feb. 12; v. 247; p. 379.

Shackle and shock-absorber, Combined. O. L. Evans. No. 1,255,997; Feb. 12; v. 247; p. 297.

Shade-holder. A. E. Wiedenhoeft. No. 1,256,411; Feb. 12; v. 247; p. 421.

Shade-roller. A. Van Gofre. No. 1,255,630; Feb. 5; v. 247; p. 161.

Shade-supporting means, Window-. R. L. Turk. No. 1,255,993; Feb. 12; v. 247; p. 282.

Shaft-support. A. N. Sammarone. No. 1,257,020; Feb. 19; v. 247; p. 638.

Sharpener, Automatic saw-. J. C. Foster. No. 1,256,782; Feb. 19; v. 247; p. 564.

Sharpener, Knife-. W. B. Kirlin. No. 1,255,769; Feb. 5; v. 247; p. 187.

Sharpener, Needle-. H. L. Notter. No. 1,256,834; Feb. 12; v. 247; p. 307.

Sharpener, Razor-. J. B. Steedman. No. 1,255,656; Feb. 5; v. 247; p. 137.

Sharpening device, Scissors and shears. W. M. Reagan. No. 1,257,927; Feb. 26; v. 247; p. 924.

Shaving set. A. Wolf. No. 1,257,775; Feb. 26; v. 247; p. 891.

Sheet-feeding machine. L. Middleditch. No. 1,255,203; Feb. 5; v. 247; p. 26.

Sheet-metal box. I. Paroly. No. 1,257,385; Feb. 26; v. 247; p. 775.

Sheet-metal utensil and making the same, Reshaped. H. A. Sévigné. No. 1,255,237; Feb. 5; v. 247; p. 35.

Shelf and manufacture, Metallic supporting-. H. W. Zawadsky. No. 1,255,986; Feb. 5; v. 247; p. 43.

Shells and assembling them with cores, Forming cylindrical. M. A. Douglas. No. 1,256,666; Feb. 19; v. 247; p. 531.

Shield or protector suitable for the use of soldiers and others. D. Anderson. No. 1,256,422; Feb. 12; v. 247; p. 424.

Shingle, Asphaltic. M. S. Becker. No. 1,256,508; Feb. 19; v. 247; p. 605.

Shingle-gage. J. A. Aksdal. No. 1,256,192; Feb. 12; v. 247; p. 356.

Shingle-strip-making machine. H. A. Cumfer and O. D. McFarland. No. 1,257,321; Feb. 26; v. 247; p. 758.

Ship-brake. P. E. Gatchell. No. 1,256,786; Feb. 19; v. 247; p. 565.

Ship construction. A. McDougall. No. 1,257,621; Feb. 26; v. 247; p. 846.

Ship-protector. S. Babinec. No. 1,256,638; Feb. 19; v. 247; p. 522.

Ship-protector. W. Piasecky. No. 1,257,525; Feb. 26; v. 247; p. 817.

Ship stabilizing and rolling apparatus. E. A. Sperry. (Reissue.) No. 14,435; Feb. 19; v. 247; p. 720.

Ships' hulls, Construction of. F. S. Pendleton. No. 1,255,794; Feb. 5; v. 247; p. 194.

Shipping-tanks, Safety attachment for. A. E. Ostrander. No. 1,256,310; Feb. 12; v. 247; p. 344.

Shirt and collar fastener, Combined. R. Sato. No. 1,256,735; Feb. 19; v. 247; p. 561.

Shirt and suspenders, Combination. G. J. Birney. No. 1,257,450; Feb. 26; v. 247; p. 794.

Shock-absorber. S. G. Conkling. No. 1,255,513; Feb. 5; v. 247; p. 115.

Shock-absorber, Fluid. F. V. Phillips. No. 1,255,787; Feb. 5; v. 247; p. 194.

Shock-absorber for automobiles. I. J. Albright. No. 1,257,930; Feb. 26; v. 247; p. 941.

Shock-absorber for type-writers. J. A. Earhuff. No. 1,257,822; Feb. 26; v. 247; p. 905.

Shock-absorber, Frictional. F. V. Phillips. No. 1,255,788; Feb. 5; v. 247; p. 195.

Shock-absorbing device. C. Pearson. No. 1,255,566; Feb. 5; v. 247; p. 131.

Shock-absorbing means for draft-riggings, Auxiliary. J. F. O'Connor. No. 1,255,212; Feb. 5; v. 247; p. 29.

Shock-gatherer. H. D. Schneider. No. 1,255,470; Feb. 5; v. 247; p. 106.

Shoe. E. Grossman and P. Malagrino. No. 1,256,476; Feb. 12; v. 247; p. 429.

Shoe. F. F. W. C. Knippendorf. No. 1,256,806; Feb. 12; v. 247; p. 266.

Shoe. J. V. Mattos. No. 1,257,092; Feb. 19; v. 247; p. 655.

Shoe-fastener. A. Peterson. No. 1,256,254; Feb. 12; v. 247; p. 374.

Shoe-fastening means. J. J. Rundus. No. 1,257,626; Feb. 19; v. 247; p. 637.

Shoe-machines, Work-support for. A. B. Fowler. No. 1,256,647; Feb. 19; v. 247; p. 495.

Shoe-nail. N. R. Carnell. No. 1,257,907; Feb. 26; v. 247; p. 900.

Shoe-polisher. J. A. Peckham. No. 1,257,736; Feb. 26; v. 247; p. 880.

Shoe-tongues, Adjustable pad for. J. Koppe. No. 1,255,616; Feb. 5; v. 247; p. 146.

Shoe-turning machine. J. W. Cosgrove and E. Erickson. No. 1,257,583; Feb. 26; v. 247; p. 834.

Shoes, Instrument for applying liquid finish to. H. Marois. No. 1,256,581; Feb. 19; v. 247; p. 505.

Shoes, Making. G. and E. Grieger. No. 1,257,944; Feb. 26; v. 247; p. 769.

Shoes, Making. F. F. W. C. Knippendorf. No. 1,255,892; Feb. 12; v. 247; p. 265.

Shooting-gallery. F. W. Thompson. No. 1,256,079; Feb. 12; v. 247; p. 321.

Shovel: *See*—
Portable shovel. Sifting-shovel.

Show-case or refrigerator. A. Amyot. No. 1,257,800; Feb. 26; v. 247; p. 751.

Shutter-actuating device. P. J. Marks. No. 1,255,901; Feb. 12; v. 247; p. 268.

Shuttle. J. Northrop. No. 1,257,102; Feb. 19; v. 247; p. 657.

Shuttle. J. C. Shambow. No. 1,257,750; Feb. 26; v. 247; p. 884.

Shuttle-motion. A. M. Suther. No. 1,256,611; Feb. 19; v. 247; p. 515.

Shuttles, Thread-cutting device for. J. P. Morissette. No. 1,257,006; Feb. 19; v. 247; p. 656.

Sickle, Endless. L. H. Naser and J. L. Jensen. No. 1,257,101; Feb. 19; v. 247; p. 657.

Side-delivery rake. E. C. Smith. No. 1,256,175; Feb. 12; v. 247; p. 352.

Sieve. C. C. Wickwire. No. 1,257,434; Feb. 26; v. 247; p. 788.

Sieve, Adjustable wind-grading. A. Peterson. No. 1,256,366; Feb. 12; v. 247; p. 407.

Sifting-shovel. B. H. Smith. No. 1,257,415; Feb. 26; v. 247; p. 783.

Sign. D. F. Duck. No. 1,256,533; Feb. 19; v. 247; p. 492.

Sign-boards, Head-plate for. H. Cusack. No. 1,256,523; Feb. 19; v. 247; p. 489.

Sign, unit. Interchangeable mechanical-. H. S. Heller. No. 1,257,348; Feb. 26; v. 247; p. 766.

Signal: *See*—
Alarm-signal. Theft-preventing signal.
Automobile-signal. Vehicle-signal.
Automobile turning-signal.

Signal. J. C. Chester. No. 1,256,773; Feb. 19; v. 247; p. 562.

Signal. F. T. Vanatta. No. 1,255,959; Feb. 12; v. 247; p. 285.

Signal. A. E. Wittig. No. 1,257,661; Feb. 26; v. 247; p. 857.

Signal-arm light. C. O. Cowgill and C. B. Kimble. No. 1,256,521; Feb. 19; v. 247; p. 489.

Signal device. J. M. Fitz Gerald. No. 1,255,831; Feb. 5; v. 247; p. 207.

Signal device. J. B. Healey. No. 1,256,314; Feb. 12; v. 247; p. 391.

Signal device, Electric. J. Boeder. No. 1,256,242; Feb. 12; v. 247; p. 376.

Signal repeater, Low-frequency-. H. W. Nichols. No. 1,257,331; Feb. 26; v. 247; p. 774.

Signaling device. B. A. Baer. No. 1,256,098; Feb. 12; v. 247; p. 326.

Signaling device, Automatic. T. D. Jocck. No. 1,256,134; Feb. 12; v. 247; p. 337.

Signaling system, Wireless duplex. L. Espenschied. No. 1,256,689; Feb. 19; v. 247; p. 597.

Silo. L. C. Young. No. 1,256,099; Feb. 12; v. 247; p. 323.

Silo-packing. H. Walters and W. P. Harper. No. 1,257,101; Feb. 19; v. 247; p. 675.

Sinew-cutting machine. T. J. Carrigan, J. B. Eastman, and M. E. Magill. No. 1,255,350; Feb. 5; v. 247; p. 73.

Sinker and web holder, Interlocking. F. Wilcomb. No. 1,255,258; Feb. 5; v. 247; p. 41.

Siphon, Tank-. F. G. Ruf and W. Klesius. No. 1,256,923; Feb. 19; v. 247; p. 607.

Siphonic system. D. V. Burrell. No. 1,255,130; Feb. 5; v. 247; p. 5.

Sizer-adjuster. D. Parker. No. 1,257,017; Feb. 19; v. 247; p. 635.

Skates, Heel-plate for Ice-. E. Hunold. No. 1,256,564; Feb. 19; v. 247; p. 501.

Skinning-machine. S. Steinheimer. No. 1,255,657; Feb. 5; v. 247; p. 137.

Skirt-gage. M. J. Johnston. No. 1,255,426; Feb. 5; v. 247; p. 91.

Skirt-marker. G. C. Beltz. No. 1,257,573; Feb. 26; v. 247; p. 831.

Sled. C. L. Lonsinger. No. 1,256,707; Feb. 19; v. 247; p. 542.

Sleds, Steering-gear for. W. M. Woods. No. 1,256,417; Feb. 12; v. 247; p. 422.

Sleigh, Motor-. G. Anderson. No. 1,256,765; Feb. 19; v. 247; p. 557.

Slicing-machine work-holder. A. M. Demuth. No. 1,257,587; Feb. 26; v. 247; p. 836.

Slide-bar. (J. M. Williams. No. 1,256,935; Feb. 19; v. 247; p. 619.

Slitting and rewinding machine. S. Hansen. No. 1,257,353; Feb. 26; v. 247; p. 914.

Smoker's device. T. P. Ambrose. No. 1,256,695; Feb. 19; v. 247; p. 522.

Snap-fastener. K. G. Dieterich. No. 1,256,523; Feb. 19; v. 247; p. 491.

Soap-hook. J. B. Baxter. No. 1,256,101; Feb. 12; v. 247; p. 327.
Soap-hook. F. H. Schartow. No. 1,257,641; Feb. 26; v. 247; p. 851.
Snow-plow. E. C. Hunt. No. 1,257,608; Feb. 26; v. 247; p. 842.
Soap-box. G. A. Dunkelberger. No. 1,256,884; Feb. 19; v. 247; p. 595.
Soap-dispensing device. W. H. Brew. No. 1,255,813; Feb. 5; v. 247; p. 202.
Soap, Liquid shaving. J. Starrels. No. 1,257,545; Feb. 26; v. 247; p. 825.
Soap-receptacle. C. B. Moore. No. 1,257,095; Feb. 19; v. 247; p. 656.
Soap-stick holder. P. K. Williams. No. 1,257,436; Feb. 26; v. 247; p. 789.
Sofa, Convertible. O. Fichtenbaum. No. 1,255,146; Feb. 5; v. 247; p. 10.
Solder for aluminum. J. J. Aubertin, Jr. No. 1,256,285; Feb. 12; v. 247; p. 333.
Soldering-iron, Fountain. F. Anderson. No. 1,256,970; Feb. 19; v. 247; p. 620.
Sewing machine, Can-. S. E. Allerton. No. 1,256,421; Feb. 12; v. 247; p. 424.
Sole-shedding machine. F. E. Beckman. No. 1,255,241; Feb. 5; v. 247; p. 47.
Sole, Shoe. J. S. Orr. No. 1,255,458; Feb. 5; v. 247; p. 99.
Solid rectifier, Constant-pressure. G. W. Pickard. No. 1,257,526; Feb. 26; v. 247; p. 818.
Sorting-case. H. L. Smith. No. 1,255,940; Feb. 12; v. 247; p. 279.
Sound characteristics, Reproduction of. P. W. Fuller. No. 1,257,075; Feb. 19; v. 247; p. 650.
Sound-control mechanism. N. Kolby. No. 1,256,025; Feb. 12; v. 247; p. 304.
Sound-record. J. W. Aylsworth. No. 1,255,500; Feb. 5; v. 247; p. 111.
Sound-reproducing machines, Control means for. C. W. Ebeling. No. 1,255,143; Feb. 5; v. 247; p. 9.
Spark-advancer, Automatic. E. C. Newton. No. 1,257,630; Feb. 26; v. 247; p. 849.
Spark-gap, Adjustable. A. E. Reade. No. 1,255,637; Feb. 5; v. 247; p. 152.
Spark gap, Quench-. G. Seibt. No. 1,256,270; Feb. 12; v. 247; p. 378.
Spark-gap, Rotary-blower. H. S. Webster. No. 1,256,405; Feb. 12; v. 247; p. 419.
Spark-plug. R. R. Hill. No. 1,255,880; Feb. 12; v. 247; p. 262.
Spark-plug. A. R. Mosler. No. 1,256,719; Feb. 19; v. 247; p. 545.
Spark-plug. A. R. Mosler. No. 1,257,729; Feb. 26; v. 247; p. 878.
Spark-plug. G. T. Simmons. No. 1,255,805; Feb. 5; v. 247; p. 200.
Spark-plug. W. S. Thomas. No. 1,255,826; Feb. 5; v. 247; p. 206.
Spark-plug. J. M. Watts. No. 1,255,252; Feb. 5; v. 247; p. 39.
Spark-plug, Adjustable-electrode. D. M. Clark. No. 1,256,371; Feb. 12; v. 247; p. 359.
Spark-plug for internal-combustion engines. E. W. Cole. No. 1,257,581; Feb. 26; v. 247; p. 834.
Starting device. H. H. Moreton. No. 1,257,291; Feb. 19; v. 247; p. 715.
Speed and driving mechanism, Variable-. J. H. Dean. No. 1,257,462; Feb. 26; v. 247; p. 798.
Speed-controlled brake. W. V. Turner. No. 1,255,956; Feb. 12; v. 247; p. 283.
Speed-controlled brake device. W. V. Turner. No. 1,255,957; Feb. 12; v. 247; p. 284.
Speed controller, Automatic maximum-. W. S. Weston. No. 1,257,565; Feb. 26; v. 247; p. 829.
Speed-responsive device. W. G. Noack. No. 1,257,918; Feb. 26; v. 247; p. 932.
Speedometer. J. M. Johnson. No. 1,256,022; Feb. 12; v. 247; p. 303.
Spike-puller. H. Butler. No. 1,257,184; Feb. 19; v. 247; p. 681.
Spinning-frame builder-motion. A. E. Rhoades. No. 1,257,305; Feb. 26; v. 247; p. 778.
Spinning-machine wiper. G. F. Roberts. No. 1,256,040; Feb. 12; v. 247; p. 306.
Spot-light. J. C. Stearns. No. 1,256,606; Feb. 19; v. 247; p. 513.
Spray and shower bath, Curtained. J. A. Eaton. No. 1,255,496; Feb. 5; v. 247; p. 82.
Spray fixture, Bath-. B. P. Smith. No. 1,257,751; Feb. 26; v. 247; p. 884.
Spray, Shampoo. F. A. Schoessow. No. 1,256,600; Feb. 19; v. 247; p. 511.
Spreading-machine. A. M. Wispwell. No. 1,256,190; Feb. 12; v. 247; p. 366.
Spring: *See*—
Bed-spring. Vehicle-spring.
Cushion-spring.
Spring-bolt, Self-lubricating. O. Zerk. No. 1,255,267; Feb. 5; v. 247; p. 43.
Spring construction. J. W. Gelling. No. 1,256,124; Feb. 12; v. 247; p. 335.
Spring-damper. J. F. O'Connor. No. 1,255,214; Feb. 5; v. 247; p. 29.
Spring-lock, Curtain-box. H. H. Schroyer. No. 1,256,061; Feb. 12; v. 247; p. 311.
Spring-reel. P. Henderson. No. 1,256,016; Feb. 12; v. 247; p. 301.
Spring structure. G. A. Frans. No. 1,255,151; Feb. 5; v. 247; p. 11.
Spring-tired wheel. V. Deisenhofer. No. 1,256,526; Feb. 19; v. 247; p. 490.
Spring-wheel. M. E. Heath. No. 1,255,416; Feb. 5; v. 247; p. 88.
Spring-wheel. E. G. Hill. No. 1,256,018; Feb. 12; v. 247; p. 302.
Spring-wheel. G. W. Watts. No. 1,256,403; Feb. 12; v. 247; p. 418.
Sprinkling or spraying device. B. L. Gifford. No. 1,255,405; Feb. 5; v. 247; p. 84.
Sprinkling-stopper. E. L. Allié. No. 1,257,173; Feb. 19; v. 247; p. 678.
Sprocket. L. J. Johnson. No. 1,257,712; Feb. 26; v. 247; p. 873.
Sprocket-wheel. H. S. Pierce. No. 1,256,590; Feb. 19; v. 247; p. 508.
Square and protractor, Combination. O. L. Killion. No. 1,255,429; Feb. 5; v. 247; p. 91.
Square and bevel, Combination. H. J. J. Gronager. No. 1,255,158; Feb. 5; v. 247; p. 18.
Square, Carpenter's. W. A. Pawson. No. 1,256,627; Feb. 19; v. 247; p. 577.
Staff-holder and spot-marker. J. H. Greene. No. 1,257,215; Feb. 19; v. 247; p. 690.
Stall, Animal-. R. F. Rasmussen. No. 1,255,931; Feb. 12; v. 247; p. 276.
Stall-frame construction. H. J. Ferris. No. 1,256,457; Feb. 12; v. 247; p. 433.
Stamp tool, Raised-. L. J. Varga. No. 1,257,654; Feb. 26; v. 247; p. 855.
Stanchion. J. S. Gabriel. No. 1,256,008; Feb. 12; v. 247; p. 300.
Stand: *See*—
Barrel-stand. Reading-stand.
Display-stand. Xylophone-stand.
Motor-limbering stand.
Staple. J. H. Gilbert. No. 1,257,840; Feb. 26; v. 247; p. 911.
Starch-cooler. J. B. Adt. No. 1,255,842; Feb. 12; v. 247; p. 251.
Starch-washing vats, Stirring device for. C. C. Moore. No. 1,255,626; Feb. 5; v. 247; p. 148.
Starter-generator connection. J. M. Weydell. No. 1,255,369; Feb. 5; v. 247; p. 74.
Starting device. J. Orr. No. 1,256,156; Feb. 12; v. 247; p. 344.
Steam-generating apparatus. J. F. Dornfeld. No. 1,256,779; Feb. 19; v. 247; p. 563.
Steam-generator. E. Harrison. No. 1,255,602; Feb. 5; v. 247; p. 141.
Steam-generator. J. F. Otis. No. 1,257,519; Feb. 26; v. 247; p. 815.
Steam-trap. T. L. Douglass. No. 1,256,299; Feb. 12; v. 247; p. 386.
Steam-trap. C. Stickle. No. 1,256,275; Feb. 12; v. 247; p. 380.
Steering boats, Means for. W. S. Eklund. No. 1,257,825; Feb. 26; v. 247; p. 905.
Steering device. A. Anderson. No. 1,256,283; Feb. 12; v. 247; p. 383.
Steering-wheel. L. M. Cooper. No. 1,255,186; Feb. 5; v. 247; p. 7.
Steering-wheel. J. W. Markham. No. 1,255,199; Feb. 5; v. 247; p. 25.
Stencil-cards, Structure for use in making. E. D. Belknap. No. 1,256,510; Feb. 19; v. 247; p. 486.
Steps, Metal. P. Kass. No. 1,256,905; Feb. 19; v. 247; p. 601.
Stereoscope. J. L. Disney. No. 1,257,327; Feb. 26; v. 247; p. 759.
Stereoscopic apparatus. L. J. E. Colardeau and J. Richard. No. 1,256,774; Feb. 19; v. 247; p. 562.
Stereotype-plate-finishing apparatus. H. F. Beckman. No. 1,255,279; Feb. 5; v. 247; p. 47.
Stick or scarf pin. A. Gartner. No. 1,256,470; Feb. 12; v. 247; p. 437.
Still, Pressure-. J. J. Curran. No. 1,255,714; Feb. 5; v. 247; p. 173.
Stippling apparatus. O. Willberg. No. 1,256,757; Feb. 19; v. 247; p. 556.
Stock cleaner, Fibrous-. W. S. Kinsley. No. 1,256,573; Feb. 19; v. 247; p. 503.
Stocking and making the same. R. W. Scott. No. 1,256,834; Feb. 19; v. 247; p. 579.
Stone, Edge-protector for artificial. W. E. Ficklen. No. 1,257,686; Feb. 26; v. 247; p. 864.
Stop-adjuster, Automatic. O. H. Paddock. No. 1,255,564; Feb. 5; v. 247; p. 131.
Stopper: *See*—
Sprinkling-stopper. Tremie-tube stopper.
Stopper. W. J. Donnelley. No. 1,257,328; Feb. 26; v. 247; p. 760.
Storage-tank. F. G. Dickerson. No. 1,255,296; Feb. 5; v. 247; p. 52.
Stove. C. F. Cook. No. 1,255,295; Feb. 5; v. 247; p. 51.
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Sulfuric acid, Concentrating. J. W. Leitch. No. 1,257,895; Feb. 26; v. 247; p. 926.
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Surgical bandages, Making. J. A. Cameron and G. B. Birch. No. 1,256,657; Feb. 19; v. 247; p. 528.
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Electric switch. Selecting-switch.
Line-switch. Selector-switch.
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Tag-holder. S. Bickerton. No. 1,257,790; Feb. 26; v. 247; p. 895.
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Telephone-exchange system. C. W. Keckler. No. 1,257,863; Feb. 26; v. 247; p. 768.
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Water-heating device. C. A. McNeir. No. 1,257,622; Feb. 26; v. 247; p. 846.
Water-purifying apparatus, Electrical snap-switch for. H. B. Hartman. No. 1,255,581; Feb. 5; v. 247; p. 121.
Water, Softening. G. H. Uecke. No. 1,255,358; Feb. 5; v. 247; p. 70.
Water-softening apparatus. G. H. Uecke. No. 1,255,359; Feb. 5; v. 247; p. 70.
Water-wheel, Hydrostatic overshot. R. J. Burgin. No. 1,255,510; Feb. 5; v. 247; p. 114.
Waterer, Chicken-. J. Vorba. No. 1,255,492; Feb. 5; v. 247; p. 109.
Watering and feeding trough, Combined. J. Herbert. No. 1,257,861; Feb. 26; v. 247; p. 916.
Watering tank, Stock-. G. B. Frost. No. 1,257,211; Feb. 19; v. 247; p. 689.
Waterproofed material and method of waterproofing. E. H. Jump. No. 1,256,324; Feb. 12; v. 247; p. 395.
Waterways, Defending. J. A. Steinmetz. No. 1,256,741; Feb. 19; v. 247; p. 552.
Wave-motor. W. J. Gallaway. No. 1,256,106; Feb. 12; v. 247; p. 329.
Weather-strip. H. H. Schroyer. No. 1,256,052; Feb. 12; v. 247; p. 312.
Weather-strip for car-windows. H. H. Schroyer. No. 1,256,049; Feb. 12; v. 247; p. 311.
Web-tensioning device. G. H. Lewis. No. 1,256,503; Feb. 12; v. 247; p. 448.
Weed-destroyer. T. T. Snow. No. 1,257,544; Feb. 26; v. 247; p. 823.
Weigher, Liquid-. P. M. Anderson. No. 1,256,193; Feb. 12; v. 247; p. 356.
Weighing apparatus and the like, Pivoting device for rotating parts in. G. von Post. No. 1,256,747; Feb. 19; v. 247; p. 554.
Weighing-machine. H. L. Merrick. No. 1,257,876; Feb. 26; v. 247; p. 772.
Welding high-speed steel to other steel or iron. A. F. Beaulieu. No. 1,256,429; Feb. 12; v. 247; p. 426.
Welding shield, Electric-. C. B. Wade and E. K. Herman. No. 1,255,240; Feb. 5; v. 247; p. 30.
Welding the rims or flanges of wheel or cycle tires, Method and means for electrically. R. Kronenberg. No. 1,257,615; Feb. 26. v. 247; p. 844.
Well-cleaner, Combination. L. M. Long. No. 1,257,260; Feb. 19; v. 247; p. 705.
Well-drill. T. A. Williams. No. 1,257,659; Feb. 26; v. 247; p. 856.
Well-drilling machine. A. H. Herdman. No. 1,255,747; Feb. 5; v. 247; p. 184.
Well-point. W. Kelly. No. 1,256,906; Feb. 19; v. 247; p. 601.
Well-rod coupling. A. E. Gilbert. No. 1,255,406; Feb. 5; v. 247; p. 85.
Well-screen. H. Rodrigo, Sr. No. 1,256,880; Feb. 19; v. 247; p. 578.
Wells, Sand-bailer for. G. F. Bell. No. 1,257,176; Feb. 19; v. 247; p. 679.
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Car-wheel.	Sprocket-wheel.
Demountable wheel.	Spring-wheel.
Galloping-wheel.	Steering-wheel.
Metallic wheel.	Toy-vehicle wheel.
Platform-truck wheel.	Tractor-wheel.
Resilient wheel.	Trolley-wheel.
Roller-bearing wheel.	Vehicle-wheel.
Spring-tired wheel.	Water-wheel.

Wheel. E. B. Killen. No. 1,257,489; Feb. 26; v. 247; p. 806.
Wheel. B. B. Neuteboom. No. 1,255,554; Feb. 5; v. 247; p. 128.
Wheel. M. F. Schoenberger. No. 1,256,598; Feb. 19; v. 247; p. 510.
Wheel and its manufacture. S. G. Malby. No. 1,255,195; Feb. 5; v. 247; p. 24.
Wheel-dresser. W. E. Ross. No. 1,256,167; Feb. 12; v. 247; p. 348.
Wheel, Metallic. M. Bauhem. No. 1,256,640; Feb. 19; v. 247; p. 523.
Wheel-mounting. E. J. Weston, Jr. No. 1,256,963; Feb. 19; v. 247; p. 618.
Wheel-pulling jack. L. Berk. No. 1,257,786; Feb. 26; v. 247; p. 894.
Wheel structure. M. Boyer. No. 1,256,653; Feb. 19; v. 247; p. 526.
Wheel tread-shoe, Vehicle-. E. Mueller. No. 1,257,879; Feb. 26; v. 247; p. 773.
Wheels, Demountable rim for vehicle-. H. R. Hoyt. No. 1,257,606; Feb. 26; v. 247; p. 842.
Wheels, Making vehicle-. H. B. Coats. No. 1,257,318; Feb. 26; v. 247; p. 757.
Wheels of motor-vehicles, Support or holder for detachable. T. P. Barnes. No. 1,257,666; Feb. 26; v. 247; p. 858.
Wheelbarrow. R. W. Bayley. No. 1,255,128; Feb. 5; v. 247; p. 5.
Wind-shield. J. F. Buhr. No. 1,255,705; Feb. 5; v. 247; p. 171.
Wind-shield. F. A. Dillingham. No. 1,255,394; Feb. 5; v. 247; p. 81.
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Winder, Yarn-. M. A. Lord. No. 1,255,619; Feb. 5; v. 247; p. 146.
Winding-indicator. J. Mazer. No. 1,256,714; Feb. 19; v. 247; p. 544.
Winding-indicator. J. Mazer. No. 1,256,715; Feb. 19; v. 247; p. 544.
Winding-machine tension device. J. O. McKean. No. 1,256,030; Feb. 12; v. 247; p. 305.
Windmill. L. W. Liles. No. 1,256,338; Feb. 12; v. 247; p. 399.
Windmill-generator set. F. J. Fahle. No. 1,255,998; Feb. 12; v. 247; p. 297.
Window. A. C. Soule. No. 1,256,840; Feb. 19; v. 247; p. 581.
Window-guard. C. Kuhn. No. 1,257,887; Feb. 26; v. 247; p. 924.
Window-lock. E. S. Ensign. No. 1,255,398; Feb. 5; v. 247; p. 82.
Window-mounting. A. C Soule. No. 1,256,839; Feb. 19; v. 247; p. 581.

Window, Pivoted reversible. D. R. Rizzolo. No. 1,255,464; Feb. 5; v. 247; p. 100.
Window-screen. C. W. Hinchcliffe. No. 1,257,707; Feb. 26; v. 247; p. 871.
Window-screen. A. C. Soule. No. 1,256,838; Feb. 19; v. 247; p. 580.
Window-screen, Adjustable. C. V. Stewart. No. 1,257,147; Feb. 19; v. 247; p. 670.
Window-screen, Automatic. H. Freund. No. 1,257,074; Feb. 19; v. 247; p. 650.
Window, Self-closing. E. R. Leonard. No. 1,256,335; Feb. 12; v. 247; p. 398.
Window-ventilator. A. W. Simonson. No. 1,256,836; Feb. 19; v. 247; p. 580.
Wire-bending machine. C. C. Seley. No. 1,257,748; Feb. 26; v. 247; p. 883.
Wire-connecting device. E. W. Scarborough and E. W. Fletcher. No. 1,255,233; Feb. 5; v. 247; p. 83.
Wire reeling and unreeling apparatus. W. H. Fentress. No. 1,255,872; Feb. 12; v. 247; p. 260.
Wire-stitchers or like machines, Differential motion for. A. H. Maynard. No. 1,255,201; Feb. 5; v. 247; p. 26.
Wire-stretcher. A. D. Morrow. No. 1,256,353; Feb. 12; v. 247; p. 403.
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Wire-stretcher and wagon-jack, Combination. R. M., W. J., and J. Greutmann. No. 1,257,216; Feb. 19; v. 247; p. 691.
Wire-twisting machine. G. B. Smith. No. 1,257,036; Feb. 19; v. 247; p. 640.
Wires, filaments, and the like, Producing metallic. O. Schaller. No. 1,256,929; Feb. 19; v. 247; p. 608.
Wood-impregnating apparatus. J. H. Parsons. No. 1,257,923; Feb. 26; v. 247; p. 933.
Wood impregnation. G. G. Carver. No. 1,256,200; Feb. 12; v. 247; p. 359.
Wood, &c., Impregnation of. M. Rüping. No. 1,255,340; Feb. 5; v. 247; p. 65.
Wood-pulp, Producing chemical. J. O. Lundberg. No. 1,257,290; Feb. 19; v. 247; p. 715.
Work-supporting horse. W. F. Jacobs. No. 1,256,235; Feb. 12; v. 247; p. 369.
Wrapping-machine. J. S. Freeman and W. L. Wortham. No. 1,256,122; Feb. 12; v. 247; p. 334.
Wrapping-machine. G. F. Nelson. No. 1,255,605; Feb. 5; v. 247; p. 142.
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Wrench. B. Bundy. No. 1,255,381; Feb. 5; v. 247; p. 78.
Wrench. F. Feasler. No. 1,256,210; Feb. 12; v. 247; p. 363.
Wrench. H. H. Gardner. No. 1,257,077; Feb. 19; v. 247; p. 651.
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Wringers, Automatic pressure-roll release for clothes-. R. P. Wright. No. 1,255,495; Feb. 5; v. 247; p. 110.
Writer, Check-. L. M. Todd. No. 1,255,247; Feb. 5; v. 247; p. 38.
Writing machine, Check-. H. C. Welter. No. 1,255,367; Feb. 5; v. 247; p. 73.
Writing machine, Stencil-. P. E. Kvistad. No. 1,256,333; Feb. 12; v. 247; p. 398.
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Xylophone-stand. C. B. Wanamaker. No. 1,256,279; Feb. 12; v. 247; p. 381.
Yarn-carrier container. H. D. Colman. No. 1,255,858; Feb. 12; v. 247; p. 250.
Yarn-guide eye. J. S. Gaunt and H. Dyson. No. 1,257,213; Feb. 19; v. 247; p. 690.
Yoke attachment, Canoe-. J. H. Frank. No. 1,257,073; Feb. 19; v. 247; p. 650.
Yoke attachment, Neck-. C. L. Pope. No. 1,257,636; Feb. 26; v. 247; p. 850.
Yoke for draft-gears. W. S. Schroeder. No. 1,256,266; Feb. 12; v. 247; p. 377.
Yoke for draft-gears. W. S. Schroeder. No. 1,256,267; Feb. 12; v. 247; p. 378.
Yoke for draft-gears. W. S. Schroeder. No. 1,256,268; Feb. 12; v. 247; p. 378.
Yoke for draft-riggings. J. R. Mitchell. No. 1,255,908; Feb. 12; v. 247; p. 270.
Yoke for railway-car draft-rigging, Draft-. J. F. O'Connor. No. 1,256,820; Feb. 19; v. 247; p. 575.
Yoke, Two-part. C. B. Patch. No. 1,255,217; Feb. 5; v. 247; p. 29.
Zinc-bearing solutions, Purifying. F. Laist and J. O. Elton. No. 1,255,434; Feb. 5; v. 247; p. 93.
Zinc-bearing solutions, Purifying. F. Laist and J. O. Elton. No. 1,255,435; Feb. 5; v. 247; p. 93.
Zinc from its ores, Extracting. E. A. Johansson. No. 1,256,802; Feb. 19; v. 247; p. 570.
Zinc from its solutions, Recovering. F. Laist and J. O. Elton. No. 1,255,433; Feb. 5; v. 247; p. 92.
Zinc from ores, Recovering. F. Laist and J. O. Elton. No. 1,255,436; Feb. 5; v. 247; p. 93.
Zinc from ores, Recovering. F. Laist and J. O. Elton. No. 1,255,439; Feb. 5; v. 247; p. 94.
Zinc-lead pigment. J. A. Singmaster and F. G. Breyer. No. 1,257,136; Feb. 19; v. 247; p. 666.
Zinc ores, Treating. F. Laist. No. 1,255,438; Feb. 5; v. 247; p. 93.

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Automobile-ornament. E. Burton. No. 51,777; Feb. 19; v. 247; p. 722.
Automobile-top, Back curtain of an. O. R. Overmyer. No. 51,757; Feb. 12; v. 247; p. 451.
Automobile-wheel fender, Rear. A. C. Barley. No. 51,748; Feb. 12; v. 247; p. 450.
Badge. A. B. Cascaden. No. 51,715; Feb. 5; v. 247; p. 214.
Badge. R. L. Chester and H. Y. Lake. No. 51,717; Feb. 5; v. 247; p. 215.
Badge. H. Pattigian. No. 51,734; Feb. 5; v. 247; p. 218.
Badge, button, or similar article. W. H. Gardiner. No. 51,808; Feb. 26; v. 247; p. 945.
Badge or poster, Patriotic. L. A. Schoen. No. 51,764; Feb. 12; v. 247; p. 453.
Ball, Rubber. R. Eddy. No. 51,722; Feb. 5; v. 247; p. 216.
Banner. K. A. Kelly. No. 51,812; Feb. 26; v. 247; p. 946.
Brick, Building-. J. Stocke, Jr. No. 51,767; Feb. 12; v. 247; p. 453.
Cabinet for sound-reproducing apparatus. W. E. Colwell. No. 51,716; Feb. 5; v. 247; p. 214.
Cake-form. M. Cassel. No. 51,750; Feb. 12; v. 247; p. 450.
Cards or similar articles, Rack for playing-. R. L. Gooding. No. 51,724; Feb. 5; v. 247; p. 216.
Carpet. E. G. Sauer. Nos. 51,792–6; Feb. 19; v. 247; pp. 725–6.
Chandelier-chain terminal. C. E. Jones. No. 51,810; Feb. 26; v. 247; p. 946.
Curtain and shade roller bracket. S. Curol. No. 51,719; Feb. 5; v. 247; p. 215.
Display and dispensing device. L. P. Earl. No. 51,723; Feb. 5; v. 247; p. 216.
Display-card. A. Rule. No. 51,737; Feb. 5; v. 247; p. 218.
Doll. L. M. Fellom. No. 51,753; Feb. 12; v. 247; p. 451.
Doll. L. M. Fellom. No. 51,780; Feb. 19; v. 247; p. 723.
Fabric, Printed. A. S. Bigelow. No. 51,749; Feb. 12; v. 247; p. 450.
Fishing-reel. C. O. Blee. No. 51,710; Feb. 5; v. 247; p. 213.
Flag-pole. E. O. J. Danielson. No. 51,751; Feb 12; v. 247; p. 450.
Furniture-panel. E. E. Rewick. No. 51,762; Feb. 12; v. 247; p. 452.
Game-board. L. Brown. No. 51,718; Feb. 5; v. 247; p. 214.
Game-board. B. A. M. Munson. No. 51,755; Feb. 12; v. 247; p. 451.
Game-board. W. H. Reeves. No. 51,785; Feb. 5; v. 247; p. 218.
Game-board. W. G. Young. Nos. 51,743–4; Feb. 5; v. 247; pp. 219–20.
Game-board. W. G. Young. No. 51,830; Feb. 26; v. 247; p. 950.
Gas-heater. G. F. Reznor. Nos. 51,760–61; Feb. 12; v. 247; p. 452.
Goblet or similar article. F. Schneider. No. 51,738; Feb. 5; v. 247; p. 218.
Gun, Grease-. H. H. Pretzel. No. 51,817; Feb. 26; v. 247; p. 947.
Hammers, Head for fencing-. J. F. Burr. No. 51,773; Feb. 12; v. 247; p. 454.
Inhaler. L. S. Leon. No. 51,813; Feb. 26; v. 247; p. 946.
Insect-destroyer body. G. C. Tucker. No 51,818; Feb. 26; v. 247; p. 947.
Knife, Paring-. W. A. Berkshire. No. 51,772; Feb. 12; v. 247; p. 454.
Lace. A. P. Huber. Nos. 51,726–8; Feb. 5; v. 247; pp. 216–17.
Lace. E. Zullig. No. 51,745; Feb. 5; v. 247; p. 220.
Lace. E. Zullig. No. 51,769; Feb. 12; v. 247; p. 454.
Lace fabric. E. A. Saywell. No. 51,797; Feb. 19; v. 247; p. 726.
Lace, Filet. E. Zullig. Nos. 51,770–71; Feb. 12; v. 247; p. 454.
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Lamp. L. C. Tiffany. No. 51,800; Feb. 19; v. 247; p. 726.
Lamp and street sign, Combination. M. Coppinger. No. 51,774; Feb. 12; v. 247; p. 455.

Lamp-socket hood. H. D'Ollier, Jr. No. 51,756; Feb. 12; v. 247; p. 451.
Lamp, Vehicle-. T. I. Duffy. No. 51,778; Feb. 19; v. 247; p. 722.
Lantern-globe. F. Dietz. No. 51,721; Feb. 5; v. 247; p. 215.
Leaf-spring-lubricating tool. C. W. Manzel. No. 51,729; Feb. 5; v. 247; p. 217.
Lens. E. A. Hawthorne. No. 51,725; Feb. 5; v. 247; p. 216.
Lens-clip. J. C. Wells. No. 51,775; Feb. 12; v. 247; p. 455.
Lens, Dimming-. E. Dickey. No. 51,752; Feb. 12; v. 247; p. 451.
Light-reflecting bowls, Clamp for. C. E. Jones. No. 51,811; Feb. 26; v. 247; p. 946.
Lighting-fixture. B. Gothberg. No. 51,781; Feb. 19; v. 247; p. 723.
Lighting-fixture arm. A. Meng. Nos. 51,731–2; Feb. 5; v. 247; p. 217.
Lighting-fixture arm. A. Meng. No. 51,754; Feb. 12; v. 247; p. 451.
Lighting-fixture bowl. F. Yokel. No. 51,741; Feb. 5; v. 247; p. 219.
Lighting-fixture shade or reflector. F. Yokel. No. 51,742; Feb. 5; v. 247; p. 219.
Lighting-fixtures, Plate for. L. R. Wellman. No. 51,801; Feb. 19; v. 247; p. 727.
Molding or welt. R. C. Schemmel. No. 51,804; Feb. 19; v. 247; p. 727.
Motor-bus body. H. B. Weaver. No. 51,740; Feb. 5; v. 247; p. 219.
Panic-bolt. H. G. Voight. No. 51,768; Feb. 12; v. 247; p. 453.
Pillow-top. J. S. Millin. No. 51,733; Feb. 5; v. 247; p. 218.
Pump casing, Curb-. A. A. Bowser. No. 51,712; Feb. 5; v. 247; p. 214.
Puzzle. H. Detreux and B. Lovatt. No. 51,720; Feb. 5; v. 247; p. 215.
Ring, Finger-. F. C. A. Richardson. No. 51,763; Feb. 12; v. 247; p. 452.
Ring or similar article, Finger-. W. Loeb. No. 51,814; Feb. 26; v. 247; p. 946.
Rocker, Child's. J. W. Dwyer. No. 51,806; Feb. 26; v. 247; p. 945.
Rubber heel. L. R. Meyer. No. 51,815; Feb. 26; v. 247; p. 947.
Rug. J. L. Brown. No. 51,776; Feb. 19; v. 247; p. 722.
Rug. J. Enis. No. 51,779; Feb. 19; v. 247; p. 723.
Rug. H. C. Lacouture. No. 51,784; Feb. 19; v. 247; p. 724.
Rug. W. McCabe. No. 51,787; Feb. 19; v. 247; p. 724.
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Rug. W. A. Spring. Nos. 51,798–9; Feb. 19; v. 247; p. 726.
Rug, Grass. O. T. Waite. Nos. 51,819–28; Feb. 26; v. 247; pp. 948–50.
Scale-casing. H. O. Hem. No. 51,809; Feb. 26; v. 247; p. 946.
Slipper. F. J. Blum. No. 51,711; Feb. 5; v. 247; p. 213.
Soap, Cake of. P. K. Williams. No. 51,802; Feb. 19; v. 247; p. 727.
Sound-producing instruments, Casing for. L. MacLachlan. No. 51,786; Feb. 19; v. 247; p. 724.
Spoon, fork, or similar article, Handle for. S. J. Large. No. 51,785; Feb. 19; v. 247; p. 724.
Spoon, fork, or similar article, Handle for. A. H. Staf. No. 51,766; Feb. 12; v. 247; p. 453.
Sprinkler-head link element. F. J. Fee. No. 51,807; Feb. 26; v. 247; p. 945.
Stand, Bowl, globe, or plate. K. Booth. No. 51,805; Feb. 26; v. 247; p. 945.
Statue. W. D. Paddock. No. 51,816; Feb. 26; v. 247; p. 947.
Statuette or toy figure. E. A. F. Scott. No. 51,765; Feb. 12; v. 247; p. 453.
Talking-machine cabinet. J. S. Pontone. Nos. 51,758–9; Feb. 12; v. 247; p. 452.
Talking-machine tone-arm. F. Cirelli. No. 51,718; Feb. 5; v. 247; p. 215.
Tapestry or wall-covering. M. W. Jackson. No. 51,782; Feb. 19; v. 247; p. 723.
Tire. J. W. Jones. No. 51,783; Feb. 19; v. 247; p. 724.
Tire. T. J. Whalen. No. 51,829; Feb. 26; v. 247; p. 950.
Tire, Automobile-. C. W. Reynolds. No. 51,736; Feb. 5; v. 247; p. 218.
Tire, Vehicle-. A. L. Breitenstein. Nos. 51,746–7; Feb. 5; v. 247; p. 220.
Toy automobile. G. Marqua, Sr. No. 51,730; Feb. 5; v. 247; p. 217.
Veiling. Z. Van Raalte. No. 51,701; Feb. 19; v. 247; p. 725.
Watch-charm. J. Train. No. 51,739; Feb. 5; v. 247; p. 219.

ALPHABETICAL LIST OF TRADE-MARKS.

Accounting or computing transactions, Compartmental cases for use in. Fast Systems Company. No. 120,565; Feb. 19; v. 247; p. 741.
Ale, lager, and porter. Eagle Brewing Co. No. 120,361; Feb. 5; v. 247; p. 238.
Alloys, Ferrosilicon. United States Alloys Corporation. No. 120,456; Feb. 5; v. 247; p. 241.
Antifreezing liquids. Caloil Manufacturing Company. No. 120,339; Feb. 5; v. 247; p. 238.
Antiseptic powder. Diatol Chemical Company. No. 120,360; Feb. 5; v. 247; p. 238.
Apples and pears, Fresh. Wenatchee-Northern Warehouse & Marketing Co. No. 120,458; Feb. 5; v. 247; p. 241.
Arch-supports and heel-cushion, Combined. J. L. Carlton. No. 120,549; Feb. 19; v. 247; p. 741.
Automobiles and parts and accessories therefor. Société Anonyme des Ateliers Piecard Pictet et Cie. No. 120,525; Feb. 12; v. 247; p. 476.
Automobile brakes, ventilators, and truck attachments. Master Equipment Company. No. 120,605; Feb. 19; v. 247; p. 743.
Automobile-wheels. The Minute Auto Wheel Company. No. 120,611; Feb. 19; v. 247; p. 743.
Automobiles and motor-trucks, Gas-motor-drawn. Jordan Motor Car Company. No. 120,583; Feb. 19; v. 247; p. 742.
Axes and saws. Wm. Frankfurth Hardware Company. No. 120,377; Feb. 5; v. 247; p. 239.
Bacon, Breakfast-. John Morrell & Co. No. 120,418; Feb. 5; v. 247; p. 240.
Bags, Sleeping-. F. S. Converse. No. 120,352; Feb. 5; v. 247; p. 238.
Balm, Shaving-. W. W. Simpson. No. 120,441; Feb. 5; v. 247; p. 241.
Baskets, Sea-grass and palmetto. Legerton & Co. No. 120,595; Feb. 19; v. 247; p. 742.
Bathing-caps. I. B. Kleinert Rubber Company. No. 120,501; Feb. 19; v. 247; p. 742.
Bearings for machinery. General Electric Company. No. 120,381; Feb. 5; v. 247; p. 239.
Belting and conveying-bands, Textile. Aktieselskabet Roulunds Fabrikker. No. 120,469; Feb. 12; v. 247; p. 475.
Belting, hose, and packing, Fabric and rubber. The Fisher Governor Co. No. 120,668; Feb. 26; v. 247; p. 961.
Belting, Leather. Detroit Oak Belting Co. No. 120,666; Feb. 26; v. 247; p. 961.
Belting, Leather. Meier-Andres Belting Co. No. 120,509; Feb. 12; v. 247; p. 476.
Belting, Textile fabric. The Belto Manufacturing Company. No. 120,475; Feb. 12; v. 247; p. 475.
Beverage, Non-alcoholic maltless. The Middle West Products Company. No. 120,608; Feb. 19; v. 247; p. 743.
Beverage, Non-intoxicating. William J. Kemp Brewing Company. No. 120,592; Feb. 19; v. 247; p. 742.
Beverage, Non-intoxicating vinous. Calvino Wine Co. No. 120,340; Feb. 5; v. 247; p. 238.
Beverage sold as a soft drink, Non-alcoholic maltless. C. & J. Michel Co. No. 120,607; Feb. 19; v. 247; p. 743.
Beverages, Flavoring-syrup for non-alcoholic. J. Hungerford Smith Co. No. 120,442; Feb. 5; v. 247; p. 241.
Beverages, Non-alcoholic carbonated. Hydro Pure Company. No. 120,581; Feb. 19; v. 247; p. 742.
Beverages, Non-intoxicating maltless. American Burton-izing Company. No. 120,539; Feb. 19; v. 247; p. 741.
Bicycles and motor-cycles. H. Perlman. No. 120,519; Feb. 12; v. 247; p. 476.
Bits, drawing-knives, augers, &c., Expansion-. The Jennings & Griffin Manufacturing Co. No. 120,499; Feb. 12; v. 247; p. 476.
Blades, saws, cutters, hobs, &c. Fry's (London). No. 120,380; Feb. 5; v. 247; p. 239.
Bookbinding material, Imitation-leather. Wilson-Jones Loose Leaf Company. No. 120,538; Feb. 12; v. 247; p. 477.
Books, Blank. I. A. Graham. No. 120,572; Feb. 19; v. 247; p. 742.
Books, Initial and monogram, &c. Bernhard Ulmann Co. No. 120,477; Feb. 12; v. 247; p. 476.
Books, pamphlets, periodicals, and circulars, Printed. International Alliance of Theatrical Stage Employes & Moving Picture Machine Operators of the United States and Canada. No. 120,675; Feb. 26; v. 247; p. 961.
Books, pamphlets, periodicals, circulars, Printed. Operative Plasterers and Cement Finishers International Association of the United States and Canada. No. 120,688; Feb. 26; v. 247; p. 962.
Books, periodicals, pamphlets, and circulars, Printed. International Union of Journeymen Horseshoers of the United States and Canada. No. 120,676; Feb. 26; v. 247; p. 961.

Books, periodicals, pamphlets, and circulars, Printed. Bricklayers, Masons and Plasterers' International Union of America. No. 120,661; Feb. 26; v. 247; p. 961.

Books, periodicals, pamphlets, circulars, Printed. Brotherhood Railway Carmen of America. No. 120,662; Feb. 26; v. 247; p. 961.

Books, periodicals, pamphlets, and circulars, Printed. International Union of Journeymen Horseshoers of the United States and Canada. No. 120,677; Feb. 26; v. 247; p. 961.

Boots and shoes. The Kaut-Reith Shoe Company. Nos. 120,585–8; Feb. 19; v. 247; p. 742.

Boots and shoes. A. E. Little Company. No. 120,509; Feb. 19; v. 247; p. 743.

Boots and shoes. The L. D. Stickles Shoe Co. No. 120,447; Feb. 5; v. 247; p. 241.

Boots and shoes, Leather and textile. International Shoe Co. No. 120,497; Feb. 12; v. 247; p. 476.

Bottle-caps. E. Mayns. No. 120,682; Feb. 26; v. 247; p. 961.

Boxes and packing-cases. Wirebounds Corporation. Nos. 120,654–5; Feb. 19; v. 247; p. 744.

Boxes, Shipping-. The Kansas City Fibre Box Co. No. 120,500; Feb. 12; v. 247; p. 476.

Bracelets, bracelet parts, pendants, brooches, and finger-rings. Charles E. Hancock Co. No. 120,386; Feb. 5; v. 247; p. 239.

Brake and clutch linings and facings. General Asbestos & Rubber Company. No. 120,670; Feb. 26; v. 247; p. 961.

Bread and cake. J. A. Lampman. No. 120,593; Feb. 19; v. 247; p. 742.

Bric-à-brac or knicknacks. George Borgfeldt & Co. No. 120,658; Feb. 26; v. 247; p. 961.

Brooms. A. B. Heller. No. 120,574; Feb. 19; v. 247; p. 742.

Brushes, Tooth-. C. W. Lloyd. No. 120,596; Feb. 19; v. 247; p. 742.

Buildings, Portable. J. H. Burton & Co. No. 120,663; Feb. 26; v. 247; p. 961.

Burial suits, dresses, and robes. National Casket Company. No. 120,618; Feb. 19; v. 247; p. 743.

Buttons for wearing-apparel. Rochester Button Company. No. 120,634; Feb. 19; v. 247; p. 744.

Cabinets and safes, Heat-resisting. The Safe-Cabinet Company. No. 120,638; Feb. 19; v. 247; p. 744.

Candles. Geo. Haas & Sons. No. 120,384; Feb. 5; v. 247; p. 239.

Candy. C. A. Asher. No. 120,656; Feb. 26; v. 247; p. 961.

Candy. Blanke Wenneker Candy Company. No. 120,327; Feb. 5; v. 247; p. 237.

Candy. Package Confectionery Co. No. 120,417; Feb. 5; v. 247; p. 240.

Candy, bonbons, chocolates, ice-cream. R. H. Hobbs. No. 120,675; Feb. 26; v. 247; p. 961.

Canned crabs. Nozaki Brothers and Co. No. 120,687; Feb. 26; v. 247; p. 962.

Canned mackerel-roe. R. Caspari. No. 120,665; Feb. 26; v. 247; p. 961.

Canned salmon. Alaska Pacific Herring Co. No. 120,312; Feb. 5; v. 247; p. 237.

Canned shrimp, vegetables, and fruit. Pelican Lake Oyster & Packing Co. No. 120,025; Feb. 19; v. 247; p. 743.

Canned vegetables and olives. California Packing Corporation. No. 120,664; Feb. 26; v. 247; p. 961.

Cans, canteens, containers, and tanks. Hoyle Manufacturing Company. No. 120,545; Feb. 19; v. 247; p. 741.

Car movers and replacers. The Bonney Floyd Company. No. 120,329; Feb. 5; v. 247; p. 237.

Casket handles and metal trimmings, &c. F. H. Hill Co. No. 120,390; Feb. 5; v. 247; p. 239.

Chamois and sponges. Leousi Clonney & Co. No. 120,503; Feb. 12; v. 247; p. 476.

Cheese. O. Roth. No. 120,692; Feb. 26; v. 247; p. 962.

Cheese, Domestic Limburger. Roethlisberger & Co. No. 120,481; Feb. 5; v. 247; p. 240.

Check-fixtures, Magnetic. The Kar Engineering Company. Nos. 120,396–7; Feb. 5; v. 247; p. 239.

Cigars. Kraus & Co. No. 120,680; Feb. 26; v. 247; p. 961.

Cigars. M. H. Smaltz & Son. No. 120,695; Feb. 26; v. 247; p. 962.

Cigars. Telegrafo Cigar Co. No. 120,527; Feb. 12; v. 247; p. 476.

Cigars, cigarettes, smoking and chewing tobacco. W. M. Wattles. No. 120,681; Feb. 26; v. 247; p. 961.

Circulating systems, steam and hot-water boilers, water-heaters. The Long-Landreth-Schneider Company. No. 120,507; Feb. 12; v. 247; p. 476.

Cleaning and carbon-removing preparation for engine-cylinders. F. A. Darling. No. 120,356; Feb. 5; v. 247; p. 238.

Clothing, Certain named. Sager Brothers. No. 120,639; Feb. 19; v. 247; p. 744.

Coats, vests, and trousers, Men's. The Super-Value Company. No. 120,449; Feb. 5; v. 247; p. 241.

Coffee. Amsterdam Coffee Co. No. 120,541; Feb. 19; v. 247; p. 741.

Coffee. Fort Smith Coffee Company. No. 120,375; Feb. 5; v. 247; p. 239.

Coffee. F. W. Gibson. No. 120,570; Feb. 19; v. 247; p. 742.

Coffee. Stiles, Pellens Coffee Company. No. 120,666; Feb. 26; v. 247; p. 962.

Coffee. The Tebbetts & Garland Store. No. 120,452; Feb. 5; v. 247; p. 241.

Coffee, Blended. Fort Smith Coffee Company. No. 120,374; Feb. 5; v. 247; p. 239.

Coffees, teas, rice, spices, &c. C. F. Bonsor & Co. No. 120,544; Feb. 19; v. 247; p. 741.

Construction materials, Certain named. The Newport Rolling Mill Company. No. 120,619; Feb. 19; v. 247; p. 743.

Cooking compound. W. H. Johnson. No. 120,395; Feb. 5; v. 247; p. 239.

Cooling compound, Certain named. Wm. C. Robinson & Son Co. No. 120,430; Feb. 5; v. 247; p. 240.

Cork substitute, Ground-. A. Ferré & Co. No. 120,472; Feb. 12; v. 247; p. 475.

Corn, Seed-. W. H. Turner & Son. No. 120,529; Feb. 12; v. 247; p. 477.

Corsets, corset waists and covers. Olmstead Quaboag Corset Co. No. 120,622; Feb. 19; v. 247; p. 743.

Corundum, emery, and silicon carbid. General Abrasive Co. No. 120,560; Feb. 19; v. 247; p. 742.

Cotton and gauze, bandages, bandage-rolls, surgical wadding, Absorbent. Lewis Manufacturing Company. No. 120,504; Feb. 12; v. 247; p. 476.

Cotton-duck goods, Manufactured. F. O. Berg. No. 120,476; Feb. 12; v. 247; p. 475.

Cotton goods in the piece. Everett, Heaney & Company. No. 120,484; Feb. 12; v. 247; p. 475.

Cotton piece goods. Arbuthnot-Stephenson Co. No. 120,473; Feb. 12; v. 247; p. 475.

Cotton piece goods. Haslin Mills. No. 120,609; Feb. 19; v. 247; p. 743.

Cotton piece goods. Pacific Mills. No. 120,514; Feb. 12; v. 247; p. 476.

Cotton piece goods. Rice-Stix Dry Goods Company. No. 120,524; Feb. 12; v. 247; p. 476.

Cotton piece goods or cotton and silk mixed piece goods. Plain white, dyed, or printed. Windsor Print Works. No. 120,652; Feb. 19; v. 247; p. 744.

Cotton piece goods, Plain white, dyed, or printed. Windsor Print Works. Nos. 120,650–1; Feb. 19; v. 247; p. 744.

Coupons, books, cards, covers, envelops, and receptacles, Certain named. Guardian Savings Club Co. No. 120,573; Feb. 19; v. 247; p. 742.

Coupons, Ice-. Southern Utilities Company. No. 120,526; Feb. 12; v. 247; p. 476.

Cream, Vegetable face-. J. H. Rimpler. No. 120,429; Feb. 5; v. 247; p. 240.

Cutlery, Certain named. Aerial Cutlery Manufacturing Company. No. 120,311; Feb. 5; v. 247; p. 237.

Detergent compound for cleaning polished and unpolished surfaces. American Marble Cleaning and Bleaching Co. No. 120,314; Feb. 5; v. 247; p. 237.

Dextrin. Corn Products Refining Co. No. 120,555; Feb. 19; v. 247; p. 741.

Digestive powder. O. A. Krampf. No. 120,400; Feb. 5; v. 247; p. 239.

Disinfectant and germicide. Ernst Zobel Company. No. 120,305; Feb. 5; v. 247; p. 238.

Disinfectants. Clifford and Cobb. No. 120,347; Feb. 5; v. 247; p. 238.

Dresses. S. Sprints. No. 120,645; Feb. 19; v. 247; p. 744.

Dresses and outer suits, Women's and children's. S. Phillips & Son. No. 120,520; Feb. 12; v. 247; p. 476.

Dresses and shirt, dress, and under waists. E. Deutsch. No. 120,481; Feb. 12; v. 247; p. 475.

Drills and reamers, milling-cutters, &c., Twist-. Fry's (London). No. 120,379; Feb. 5; v. 247; p. 239.

Electric controllers. The Jeffrey Manufacturing Company. No. 120,393; Feb. 5; v. 247; p. 239.

Electric-light fixtures. Luminous Unit Company. No. 120,405; Feb. 5; v. 247; p. 240.

Electric switches and parts thereof. The Bryant Electric Co. No. 120,336; Feb. 5; v. 247; p. 238.

Electrical supplies, Certain named. Chicago Fuse Mfg. Co. No. 120,343; Feb. 5; v. 247; p. 238.

Electricity in printing-presses, Composition for preventing injurious accumulation of static. Static Neutralizer Co. No. 120,445; Feb. 5; v. 247; p. 241.

Fabrics, Stock-rolls for. Cylinder Manufacturing Company. Nos. 120,558–61; Feb. 19; v. 247; p. 741.

Fans and blowers, Ventilating. J. D. Parker. No. 120,517; Feb. 12; v. 247; p. 476.

Feed, Stock. L. J. Meader. No. 120,606; Feb. 19; v. 247; p. 743.

Feed, Stock. L. J. Meader. No. 120,683; Feb. 26; v. 247; p. 962.

Fireworks. H. J. Pain. No. 120,623; Feb. 19; v. 247; p. 743.

Fish, meats, fruits, and vegetables, Preserved. The Bowker Company. No. 120,660; Feb. 26; v. 247; p. 961.

Fish, Tinned. H. A. Bowker. No. 120,659; Feb. 26; v. 247; p. 961

Flavoring preparation, Food-. Harlenbergh Mfg. Co. No. 120,578; Feb. 19; v. 247; p. 742.

Flour, Rye-. Flory Milling Company. No. 120,871; Feb. 5; v. 247; p. 239.

Flour, Self-rising. Advance Mill & Elevator Company. No. 120,310; Feb. 5; v. 247; p. 237.

Flour, Wheat-. Columbia River Milling Co. No. 120,349; Feb. 5; v. 247; p. 238.

Flour, Wheat-. R. E. Kidder. No. 120,679; Feb. 26; v. 247; p. 961.

Flour, Wheat-. H. C. Schwall. No. 120,437; Feb. 5; v. 247; p. 241.

Flours, Wheat, rye, self-rising, and prepared. The South-western Milling Co. No. 120,644; Feb. 19; v. 247; p. 744.

Fly-killers. United States Wire-Mat Company. Nos. 120,531–3; Feb. 12; v. 247; p. 477.

Food for animals and poultry, Prepared. W. E. Henry. No. 120,579; Feb. 17; v. 247; p. 742.

Foods, Certain named. Blatchford's Calf Meal Factory. No. 120,328; Feb. 5; v. 247; p. 237.

Foods, Certain named. H. F. Coffee Company. No. 120,383; Feb. 5; v. 247; p. 239.

Foods, Certain named. Howard & Casey Co. No. 120,580; Feb. 19; v. 247; p. 742.

Foods, Certain named. O. R. Pieper. No. 120,689; Feb. 26; v. 247; p. 962.

Foods, Certain named. The Tebbetts and Garland Store. No. 120,453; Feb. 5; v. 247; p. 241.

Fur, Imitation. The Hind & Harrison Plush Co. Nos. 120,403–4; Feb. 12; v. 247; p. 475.

Furnaces and parts thereof, Electric. Electric Heating Apparatus Co. No. 120,364; Feb. 5; v. 247; p. 238.

Furniture, Certain named. Multikraft Incorporated. No. 120,511; Feb. 12; v. 247; p. 476.

Garment-pressing machines. The American Laundry Machinery Company. No. 120,540; Feb. 19; v. 247; p. 741.

Gas, Apparatus for producing a certain named. W. D. Deppe. No. 120,358; Feb. 5; v. 247; p. 238.

Gasolene. Sapulpa Refining Company. No. 120,434; Feb. 5; v. 247; p. 240.

Gloves, mitts, hand and arm coverings, hosiery, Fabric. W. W. Chace. No. 120,478; Feb. 12; v. 247; p. 475.

Golf-balls. Radium Golf Ball Co. No. 120,523; Feb. 12; v. 247; p. 476.

Gowns and dresses, Women's and misses'. A. Helmlich. No. 120,389; Feb. 5; v. 247; p. 239.

Gum, Chewing. Shelby Supply & Manufacturing Company. No. 120,439; Feb. 5; v. 247; p. 241.

Hair-nets. N. B. Cohen. No. 120,479; Feb. 12; v. 247; p. 475.

Hair-nets. B. Frankenfelder. No. 120,657; Feb. 26; v. 247; p. 961.

Hair-nets. G. Klemperer. No. 120,502; Feb. 12; v. 247; p. 476.

Hair-nets, Ladies'. H. Grossmann. No. 120,492; Feb. 12; v. 247; p. 475.

Hair-nets, Silk. E. T. Mittelstaedt. No. 120,617; Feb. 19; v. 247; p. 743.

Hair-restorer, also used as a scalp-massage. A. M. Shepard. No. 120,440; Feb. 5; v. 247; p. 241.

Hair-tonic. P. Owens. No. 120,629; Feb. 19; v. 247; p. 743.

Hair-tonics. A. E. Fields. No. 120,367; Feb. 5; v. 247; p. 238.

Ham, bacon, and dried beef. The H. H. Meyer Packing Company. No. 120,411; Feb. 5; v. 247; p. 240.

Handkerchiefs. Loug Handkerchief Co. No. 120,506; Feb. 12; v. 247; p. 476.

Hats and bonnets, Ladies'. Feltenstein & Joffe. No. 120,560; Feb. 19; v. 247; p. 741.

Heaters for use for therapeutic purposes, Chemical. Pyrene Manufacturing Company. No. 120,522; Feb. 12; v. 247; p. 476.

Heel-fastener plate, Boot and shoe. Stephan Brothers. No. 120,446; Feb. 5; v. 247; p. 241.

Heel-plates. Nozaki Brothers and Co. No. 120,415; Feb. 5; v. 247; p. 240.

Herb tea, a laxative, Alpine-. N. Stern. No. 120,640; Feb. 19; v. 247; p. 744.

Horseshoes and horseshoe-calks. The American Steel and Wire Company of New Jersey. No. 120,470; Feb. 12; v. 247; p. 475.

Hosiery. Chas. Chipman's Sons Co. No. 120,344; Feb. 5; v. 247; p. 238.

Hosiery. Rice & Hutchins. No. 120,632; Feb. 19; v. 247; p. 744.

Hosiery, fabric gloves, mitts, hand and arm coverings. W. W. Chace. No. 120,342; Feb. 5; v. 247; p. 238.

Ice-cream cones. Consolidated Wafer Company. No. 120,553; Feb. 19; v. 247; p. 741.

Ignition-coils, electric switches and transformers. Jefferson Electric Mfg. Co. No. 120,392; Feb. 5; v. 247; p. 239.

Ingots, castings, and Babbitt metal. The Ajax Metal Company. No. 120,320; Feb. 5; v. 247; p. 237.

Inks, Drying compound for printing and lithographing. A. Cochard. No. 120,240; Feb. 5; v. 247; p. 238.

Insulated wire. Atlantic Insulated Wire & Cable Company. Nos. 120,317–18; Feb. 5; v. 247; p. 237.

Irons, Electric sad-. Westinghouse Electric & Manufacturing Company. No. 120,460; Feb. 5; v. 247; p. 241.

Jewelry and precious-metal ware, Certain named. Baird-North Co. No. 120,542; Feb. 19; v. 247; p. 741.

Kangaroo, patent-leather, India-goat, and sheep skins, Finished. F. E. Fleet Co. No. 120,486; Feb. 12; v. 247; p. 475.

Knit underwear and hosiery. Julius Kayser & Co. No. 120,899; Feb. 5; v. 247; p. 239.

Knit underwear, Ladies'. Julius Kayser & Co. No. 120,501; Feb. 12; v. 247; p. 476.

Knitted, netted, and textile fabrics, Certain named. J. Fingold. No. 120,488; Feb. 12; v. 247; p. 475.

Knitted, netted, and textile fabrics, Certain named. Liberty & Co. No. 120,598; Feb. 19; v. 247; p. 742.

Knitted underwear, hosiery, and sweaters. Shapiro Bros. No. 120,693; Feb. 26; v. 247; p. 962.

Lamp lenses, Automobile-. Noglare Auto Lens Co. No. 120,685; Feb. 26; v. 247; p. 962.

Laxative, Chocolate. Gentalax Company. No. 120,382; Feb. 5; v. 247; p. 239.

Leather, hides, sides, backs, and bends, Sole-. Van Dyne-Hungerford Co. No. 120,534; Feb. 12; v. 247; p. 477.

Leather-preservative. W. H. King. No. 120,590; Feb. 19; v. 247; p. 742.

Macaroni. Cable-Draper Baking Company. No. 120,547; Feb. 19; v. 247; p. 741.

Macaroni, spaghetti, noodles, vermicelli, and similar Italian paste products. Bandazzo Macaroni Manufacturing Company. No. 120,425; Feb. 5; v. 247; p. 240.

Machinery and tools, Certain named. D. A. Carpenter. No. 120,355; Feb. 5; v. 247; p. 238.

Magazine published monthly. Airtravel Corporation. No. 120,468; Feb. 12; v. 247; p. 475.

Medicinal preparation for disorders of the genito-urinary organs. S. Pfeiffer Mfg. Co. No. 120,421; Feb. 5; v. 247; p. 240.

Milk and a compound comprising malted milk and honey to be used for making drinks, Malted. J. W. Barwell. No. 120,321; Feb. 5; v. 247; p. 237.

Milk, Coagulated. A. P. Martinez. No. 120,409; Feb. 5; v. 247; p. 240.

Milk, Evaporated. The Laurel Company. No. 120,401; Feb. 5; v. 247; p. 239.

Mowers, Lawn-. J. Braun & Sons. Nos. 120,332–4; Feb. 5; v. 247; p. 237.

Music, Blocks for use in teaching. The Musical Blue Book Corporation. No. 120,616; Feb. 19; v. 247; p. 743.

Musical instruments and supplies, Certain named. J. C. Deagan Musical Bells. No. 120,562; Feb. 19; v. 247; p. 741.

Musical instruments, Certain named. C. G. Conn, Ltd. No. 120,350; Feb. 5; v. 247; p. 238.

Nasal spray, mouth-wash, gargle, and douche. E. Sweeney. No. 120,450; Feb. 5; v. 247; p. 241.

Neckties. M. Simpson. No. 120,642; Feb. 19; v. 246; p. 744.

Needles, crochet-hooks, bodkins, Hand sewing and knitting. Thomas Harper & Sons. No. 120,528; Feb. 12; v. 247; p. 476.

Nipples or teats used with milk and nursing bottles for infants. E. Monnier. Nos. 120,612–15; Feb. 19; v. 247; p. 743.

Nitrogen products. American Nitrogen Products Company. No. 120,315; Feb. 5; v. 247; p. 237.

Oils and greases. Crew Levick Company. No. 120,354; Feb. 5; v. 247; p. 238.

Oils, Lubricating-. J. C. Nourse. No. 120,414; Feb. 5; v. 247; p. 240.

Oleomargarin. Ammon & Person. No. 120,626; Feb. 19; v. 247; p. 743.

Oleomargarin. Armour and Company. No. 120,316; Feb. 5; v. 247; p. 237.

Oleomargarin. Geo. P. Braun Company. No. 120,546; Feb. 19; v. 247; p. 741.

Olives, Dried and cured. Marzo Brothers. No. 120,604; Feb. 19; v. 247; p. 743.

Oranges, lemons, grape-fruit. San Fernando Heights Lemon Co. No. 120,640; Feb. 19; v. 247; p. 744.

Paint and varnish remover. Schaik Chemical Company. No. 120,485; Feb. 5; v. 247; p. 241.

Paint, Enamel. Phelan-Faust Paint Manufacturing Company. No. 120,422; Feb. 5; v. 247; p. 240.

Paint-filler. The Foy Paint Co. No. 120,370; Feb. 5; v. 247; p. 239.

Paint-pigments, Mineral Refining and Chemical Corporation. No. 120,412; Feb. 5; v. 247; p. 240.

Paints. A. Levin. No. 120,404; Feb. 5; v. 247; p. 240.

Paints. The Patterson-Sargent Company. No. 120,419; Feb. 5; v. 247; p. 240.

Paints and varnishes. The Beaver Varnish Company. No. 120,326; Feb. 5; v. 247; p. 237.

Paints, paint-oils, varnishes, and stains. The Hascall Paint Company. No. 120,386; Feb. 5; v. 247; p. 239.

Paints, Ready-mixed. Standard Oil Company of New York. No. 120,444; Feb. 5; v. 247; p. 241.

Pamphlets and posters, Instruction-. The A. N. Palmer Company. Nos. 120,515–10; Feb. 12; v. 247; p. 476.

Paper and paper towels, Toilet-. Albany Perforated Wrapping Paper Company. No. 120,309; Feb. 5; v. 247; p. 237.

Paper, Bond-. West Virginia Pulp & Paper Company. No. 120,450; Feb. 5; v. 247; p. 241.

Paper pictures and designs, Outfits of. Milton Bradley Co. No. 120,610; Feb. 19; v. 247; p. 743.

Paper tape, Gummed. Liberty Paper Co. No. 120,597; Feb. 19; v. 247; p. 742.

Paper, Wall-. W. H. S. Lloyd Co. No. 120,600; Feb. 19; v. 247; p. 743.

Paper, Writing-. Fox River Paper Co. No. 120,507; Feb. 19; v. 247; p. 742.

Papers, Wrapping and tracing. Diamond State Fibre Company. No. 120,563; Feb. 19; v. 247; p. 741.

Pastry cones for water-ices and ice-cream, ice-cream cones, &c. J. J. Snigo. No. 120,643; Feb. 19; v. 247; p. 744.
Peanuts and peanut-bars, Salted. Planters Nut & Chocolate Co. No. 120,628; Feb. 19; v. 247; p. 743.
Peanuts, walnuts, pecans, &c., Shelled. Harold B. Pinder & Co. No. 120,425; Feb. 5; v. 247; p. 240.
Pens, Fountain-. Mable, Todd & Co. No. 120,603; Feb. 19; v. 247; p. 743.
Pens, penholders, lead and graphite pencils, &c., Steel. A. M. Malouf. No. 120,408; Feb. 5; v. 247; p. 240.
Perfume, toilet water, face powder and cream, &c. The Baldwin Perfumery Co. No. 120,543; Feb. 19; v. 247; p. 741.
Perfumes, sachet, face, and talcum powders, &c. The C. B. Woodworth Sons Corporation. No. 120,465; Feb. 5; v. 247; p. 241.
Perfumes, toilet waters and creams, powders, sachets. Peninsular Chemical Co. No. 120,420; Feb. 5; v. 247; p. 240.
Perfumes, toilet waters, toilet creams, &c., Liquid and powdered. Colgate & Co. No. 120,348; Feb. 5; v. 247; p. 238.
Periodical, Monthly. United Drug Company. No. 120,530; Feb. 12; v. 247, p. 477.
Periodical or magazine published monthly. Northwestern Electric Equipment Company. No. 120,686; Feb. 26; v. 247; p. 962.
Periodicals, Weekly. C. W. Flodin. No. 120,669; Feb. 26; v. 247; p. 961.
Pharmaceutical preparations, Certain named. The C. L. Cotton Perfume & Extract Co. No. 120,353; Feb. 5; v. 247; p. 238.
Photographic paper. Eastman Kodak Company. No. 120,363; Feb. 5; v. 247; p. 238.
Photographs and prints, Reproductions of. Phototones Incorporated. No. 120,521; Feb. 12; v. 247; p. 476.
Pick handles, Coal-. Beall Brothers. No. 120,322; Feb. 5; v. 247; p. 237.
Picture-hanging device. The Buffalo-Dehn Company. No. 120,337; Feb. 5; v. 247; p. 238.
Picture-machine films, Moving-. Wholesome Films Corporation. No. 120,402; Feb. 5; v. 247; p. 241.
Picture photoplays, Series of motion-. Jewel Productions. No. 120,394; Feb. 5; v. 247; p. 239.
Pipes, cigar, and cigarette holders, tobacco-pouches, &c. Kaufmann Bros. & Bondy. No. 120,584; Feb. 19; v. 247; p. 742.
Pipes, Smoking-. S. Heimberg. No. 120,575; Feb. 19; v. 247; p. 742.
Plaster composition. The Bedford Silica Sand Company. No. 120,474; Feb. 12; v. 247; p. 475.
Preparation for removing cuticle around finger and toe nails. United Drug Company. No. 120,647; Feb. 19; v. 247; p. 744.
Preparation for the treatment of certain named diseases. M. Teplow. No. 120,454; Feb. 5; v. 247; p. 241.
Preparation for the treatment of malaria. O. H. Olsson. No. 120,416; Feb. 5; v. 247; p. 240.
Preparation for treating certain named diseases and ailments, and insecticides. Van Antwerp's Drug Corporation. No. 120,648; Feb. 19; v. 247; p. 744.
Preparation, Pyorrhea. Forhan Company. No. 120,372; Feb. 5; v. 247; p. 239.
Preparations for keeping off, driving away, or killing insects. Nihon Jochugiku Kaisha. No. 120,620; Feb. 19; v. 247; p. 743.
Printers' rollers, Composition for covering. "The Durable" Printers' Roller Company. No. 120,667; Feb. 26; v. 247; p. 961.
Produce and truck, Fresh. Fish & Fish. No. 120,369; Feb. 5; v. 247; p. 239.
Publication, Bimonthly. The Globe Printing Company. No. 120,490; Feb. 12; v. 247; p. 475.
Publication, Bimonthly and annual. International Trade Developer. No. 120,498; Feb. 12; v. 247; p. 476.
Publication, Monthly. J. C. Penney Company. No. 120,518; Feb. 12; v. 247; p. 476.
Publication, Monthly. Periodical Publishing Co. Nos. 120,690–1; Feb. 26; v. 247; p. 962.
Publication, Monthly. Wilmer Atkinson Company. No. 120,537; Feb. 12; v. 247; p. 477.
Radiator and engine covers. The J. P. Gordon Company. No. 120,491; Feb. 12; v. 247; p. 475.
Rain-coats and rubber goods. B. A. Cohen. Nos. 120,550–51; Feb. 19; v. 247; p. 741.
Rakes. The Casement Hardware Co. No. 120,341; Feb. 5; v. 247; p. 238.
Razors and parts thereof, Safety-. A. H. Bryant. No. 120,335; Feb. 5; v. 247; p. 237.
Razors, razor-blades, stropping devices. S. M. Kattell. No. 120,398; Feb. 5; v. 247; p. 239.
Refrigerators and refrigeration systems. Joseph A. Holpuch Company. No. 120,495; Feb. 12; v. 247; p. 475.
Remedy, Blood-generating. Chlorosan A.-G. Chemisch-Therapeutische Präparate. No. 120,345; Feb. 5; v. 247; p 238.
Remedy for the local treatment of certain named diseases. McCoy-Howe Company. No. 120,407; Feb. 5; v. 247; p. 240.
Rice. M. J. Brandenstein & Co. No. 120,331; Feb. 5; v. 247; p. 237.
Roof-coating, Petroleum-asphaltum. I. W. Cummings. No. 120,556; Feb. 19; v. 247; p. 741.
Roofing-cement, Plastic. The Hascall Paint Company. No. 120,388; Feb. 5; v. 247; p. 239.
Roofing materials, Plastic. The Hascall Paint Company. No. 120,387; Feb. 5; v. 247; p. 239.
Rubber and fabric belting and hose. The Gutta Percha & Rubber Manufacturing Company. No. 120,672; Feb. 26; v. 247; p. 961.
Sausage, Pure pork. Miller Brothers. No. 120,684; Feb. 26; v. 247; p. 962.
Scalp-tonic. W. T. Trautwein. No. 120,455; Feb. 5; v. 247; p. 241.
Seeds, Grass and field. H. W. Doughten. No. 120,482; Feb. 12; v. 247; p. 475.
Sheet-metal articles, Certain named. F. H. Lawson Company. No. 120,594; Feb. 19; v. 247; p. 742.
Shirts, Collars, cuffs, athletic underwear, &c., Negligée, dress, and work. Nirenberg & Salsman. No. 120,621; Feb. 19; v. 247; p. 743.
Shirts, Dress and negligée. North Brothers & Company. No. 120,513; Feb. 12; v. 247; p. 476.
Shirts, nightgowns, pajamas, and sleeping-garments, Night-. E. Rosenfeld & Company. No. 120,433; Feb. 5; v. 247; p. 240.
Shoe-elastic. Everlastik, Incorporated. No. 120,485; Feb. 12; v. 247; p. 475.
Shoes, Leather, rubber, &c. Thomas G. Plant Company. No. 120,627; Feb. 19; v. 247; p. 743.
Shovels, scoops, and spades. Beall Brothers. Nos. 120,323–5; Feb. 5; v. 247; p. 237.
Signs for advertising or other purposes. H. P. Simpson. No. 120,094; Feb. 26; v. 247; p. 962.
Silk piece goods. Samuel Elseman & Co. No. 120,564; Feb. 19; v. 247; p. 741.
Silver, Metallic plates for use in polishing. Eastern Supply Co. No. 120,362; Feb. 5; v. 247; p. 238.
Snap and placket fasteners. E. Lokesch & Sohn. No. 120,601; Feb. 19; v. 247; p. 743.
Snap-fasteners. The Lavin Company. No. 120,402; Feb. 5; v. 247; p. 240.
Snap-fasteners. Premier Snap Fastener Co. No. 120,424; Feb. 5; v. 247; p. 240.
Soap, Toilet. E. Gal, Sociedad en Comandita. No. 120,568; Feb. 19; v. 247; p. 742.
Soaps. Fischbeck Soap Co. No. 120,370; Feb. 5; v. 247; p. 239.
Soda, cream tartar, and baking-powder, Bicarbonate. The Jones Thierbach Co. No. 120,582; Feb. 19; v. 247; p. 742.
Soups, Pure concentrated. B. F. Gossom. No. 120,571; Feb. 19; v. 247; p. 742.
Stamps, Hand-. Hill-Independent Mfg. Co. Nos. 120,576–7; Feb. 19; v. 247; p. 742.
Steam-engines, governors, and lathes. The Houston, Stanwood & Gamble Company. No. 120,391; Feb. 5; v. 247; p. 239.
Steam-heating apparatus, radiator-valves, and traps for same. The Fisher Governor Co. No. 120,489; Feb. 12; v. 247; p. 475.
Steel, Tool &c. Firth-Sterling Steel Company. No. 120,368; Feb. 5; v. 247; p. 238.
Stencils, Card-. Rapid Addressing Machine Co. No. 120,631; Feb. 19; v. 247; p. 743.
Stoves and heaters, Wood, coal, gas, and vapor. American Stove Company. No. 120,471; Feb. 12; v. 247; p. 475.
Sugar tablets, Highly-flavored. J. S. Parr. No. 120,418; Feb. 5; v. 247; p. 240.
Suits and overcoats, Men's worsted. I. & B. Cohen & Company. No. 120,552; Feb. 19; v. 247; p. 741.
Suits, One-piece work-. The H. D. Lee Mercantile Co. No. 120,403; Feb. 5; v. 247; p. 240.
Suspenders and suspender-ends. Everlastik, Incorporated. No. 120,366; Feb. 5; v. 247; p. 238.
Suspenders, garters, belts, hose-supporters, &c. The Besilla Company. No. 120,428; Feb. 5; v. 247; p. 240.
Syrup, Soda-fountain. Keystone Fruit Products Company. No. 120,589; Feb. 19; v. 247; p. 742.
Tables, Ironing-. C. Bradshaw. No. 120,548; Feb. 19; v. 247; p. 741.
Tablets, Breath-. The Reese Company. Nos. 120,426–7; Feb. 5; v. 247; p. 240.
Tablets, Cough-. Davies, Rose & Co. No. 120,359; Feb. 5; v. 247; p. 238.
Tablets, Kidney-pills, and cold-tablets, Laxative. The Sentanel Remedies Company. No. 120,641; Feb. 19; v. 247; p. 744.
Tablets, Medicinal. The Bycol Co. No. 120,338; Feb. 5; v. 247; p. 238.
Tablets, Stomach and liver. The Cooperative Drug Co. No. 120,554; Feb. 19; v. 247; p. 741.
Tanks and stand or range boilers. Riverside Boiler Works. No. 120,633; Feb. 19; v. 247; p. 744.
Tape, Cut-edge-. Freydberg Bros. No. 120,378; Feb. 5; v. 247; p. 239.
Tea. The Tebbetts & Garland Store. No. 120,451; Feb. 5; v. 247; p. 241.
Tea, flavoring extracts, vinegar, canned salmon, &c. F. E. Royston & Company. No. 120,635; Feb. 19; v. 247; p. 744.
Teeth-cleaning preparations. The J. B. Williams Company. No. 120,483; Feb. 5; v. 247; p. 241.
Terne plates. Lyon, Conklin & Co. No. 120,406; Feb. 5; v. 247; p. 240.
Tire air-tubes, Pneumatic-. Weaver-Ebling Automobile Co. No. 120,536; Feb. 12; v. 247; p. 477.

Tire-sealing compounds. Crew Levick Company. No. 120,480; Feb. 12; v. 247; p. 475.
Tires, Rubber vehicle-. The Marathon Tire & Rubber Co. No. 120,508; Feb. 12; v. 247; p. 476.
Tobacco, cigars, and cigarettes. Stone Ordean Wells Co. No. 120,697; Feb. 26; v. 247; p. 962.
Toilet preparations, Certain named. American Drug & Press Association. No. 120,313; Feb. 5; v. 247; p. 237.
Toilet preparations, Certain named. A. Bourjois & Co. No. 120,330; Feb. 5; v. 247; p. 237.
Toilet preparations, Certain named. Wm. H. McClure. No. 120,602; Feb. 19; v. 247; p. 743.
Toilet preparations, Certain named. C. B. Woodworth Sons Corporation. No. 120,464; Feb. 5; v. 247; p. 241.
Tomato sauce. Societa Generale delle Conserve Alimintari Cirio. No. 120,448; Feb. 5; v. 247; p. 241.
Tonic and system-cleanser for treatment of venereal diseases and blood disorders. M. Maurin. No. 120,410; Feb. 5; v. 247; p. 240.
Tools, Certain named. Walter Spencer & Co. No. 120,448; Feb. 5; v. 247; p. 241.
Tools for cutting, forming, or holding, Metal. Darwin & Milner. No. 120,357; Feb. 5; v. 247; p. 238.
Toothpicks. Cutter-Tower Company. No. 120,557; Feb. 19; v. 247; p. 741.
Toy vehicles, Children's. J. P. Findley. No. 120,487; Feb. 12; v. 247; p. 475.
Transmission and brake linings. Advance Automobile Accessories Corp. No. 120,467; Feb. 12; v. 247; p. 475.
Trucks and automobiles, Motor-. H. E. Wilcox Motor Company. No. 120,649; Feb. 19; v. 247; p. 744.
Trunks. John Wanamaker, New York. No. 120,535; Feb. 12; v. 247; p. 477.
Tube-repair kits. F. Ducasse. No. 120,483; Feb. 12; v. 247; p. 475.
Twine. The Linen Thread Co. No. 120,505; Feb. 12; v. 247; p. 476.
Type-writing machines and parts thereof. Royal Typewriter Company. No. 120,433; Feb. 5; v. 247; p. 240.
Valves for gas-engines, Devices for imparting a rotative movement to puppet-. Continental Engineering Corporation. No. 120,351; Feb. 5; v. 247; p. 238.
Varnishes. Wadsworth, Howland & Co. No. 120,457; Feb. 5; v. 247; p. 241.
Varnishes, enamels, stains, and colors in oil. W. H. Wright. No. 120,466; Feb. 5; v. 247; p. 241.
Vermicelli, macaroni, spaghetti, &c. L. E. Schoenfeld. No. 120,436; Feb. 5; v. 247; p. 241.
Washing compound. C. A. Winter. No. 120,653; Feb. 19; v. 247; p. 744.
Washtub-covers. Patent Metal Company. No. 120,624; Feb. 19; v. 247; p. 743.
Watch-glasses. T. Jéquier & Cie. No. 120,678; Feb. 26; v. 247; p. 961.
Watches and clocks. Rueff Bros. Nos. 120,636–7; Feb. 19; v. 247; p. 744.
Watches, bracelet and sautoire watches, watch-movements. American Watch Case Co. No. 120,319; Feb. 5; v. 247; p. 237.
Web stretching and guiding machines. The Forsyth Dyeing Co. No. 120,378; Feb. 5; v. 247; p. 239.
Whisky. J. A. Quinn. No. 120,630; Feb. 19; v. 247; p. 743.
Whitening and cleaning liquid for leather and canvas. Whittemore Brothers Corporation. No. 120,461; Feb. 5; v. 247; p. 241.
Window-washers' safety devices. G. F. Minnis. No. 120,510; Feb. 12; v. 247; p. 476.
Wireless apparatus, Certain named. Sears, Roebuck and Co. No. 120,438; Feb. 5; v. 247; p. 241.
Wires made of precious-and plated metals, zinc, &c. W. S. Hough, Jr. Co. No. 120,496; Feb. 12; v. 247; p. 476.
Yarn, woolen yarn, and yarn for hand-knitting. Horner Bros. No. 120,674; Feb. 26; v. 247; p. 961.
Yarns. The New England Yarn Company. No. 120,512; Feb. 12; v. 247; p. 476.
Yarns, Cotton. Groves Mills. No. 120,671; Feb. 26; v. 247; p. 961.

ALPHABETICAL LIST OF LABELS.

"Army Roll." (For a Confection.) A. L. Hamblin. No. 20,522; Feb. 26; v. 247; p. 963.
"Aunt Tilly's." (For Cake Specialties.) T. A. Faulds Company. No. 20,518; Feb. 26; v. 247; p. 963.
"Cameo." (For a Soft Drink.) Hagemeister Brewing Company. No. 20,503; Feb. 5; v. 247; p. 221.
"Community." (For Baking-Powder.) Community Coffee and Spice Company. No. 20,500; Feb. 5; v. 247; p. 221.
"Community." (For Head-Rice.) Community Coffee and Spice Company. No. 20,511; Feb. 12; v. 247; p. 478.
"Community." (For Peanut-Butter.) Community Coffee and Spice Company. No. 20,501; Feb. 5; v. 247; p. 221.
"Community." (For Tea.) Community Coffee and Spice Company. No. 20,502; Feb. 5; v. 247; p. 221.
"Cresta." (For Canned Anchovies.) White Star Canning Co. No. 20,533; Feb. 26; v. 247; p. 963.
"Del Rey Brand." (For Sardines.) F. B. McCrosky. No. 20,528; Feb. 26; v. 247; p. 963.
"Dr. Jackson's Digestive and Liver Powders." (For Digestive and Liver Powders.) The Jackson Medicine Company. No. 20,512; Feb. 12; v. 247; p. 478.
"El Producto." (For Cigars.) G. H. P. Cigar Co. No. 20,516; Feb. 26; v. 247; p. 963.
"Filter-Cel for Better Filtration." (For Filter-Cel.) A. H. Krieger. No. 20,527; Feb. 26; v. 247; p. 963.
"Galvo." (For Non-Intoxicating Cereal Beverages.) Galveston Brewing Association. No. 20,519; Feb. 26; v. 247; p. 963.
"Giant Lye." (For a Lye.) A. Mendleson's Sons. No. 20,509; Feb. 12; v. 247; p. 478.
"Holly-Time." (For Canned Salmon.) Petersburg Packing Co. No. 20,504; Feb. 5; v. 247; p. 221.
"Hudson Lye." (For a Lye.) A. Mendleson's Sons. No. 20,510; Feb. 12; v. 247; p. 478.
"K-K-K, Keyser's 'Pink' Kold Kapsules." (For Capsules for the Treatment of Colds.) Keyser Chemical Company. No. 20,526; Feb. 26; v. 247; p. 963.
"Keyser's 'Pink' Corn and Bunion Plasters." (For Corn and Bunion Plasters.) Keyser Chemical Company. No. 20,525; Feb. 26; v. 247; p. 963.
"Keyser's 'Pink' Headache Powders." (For Headache-Powders.) Keyser Chemical Company. No. 20,524; Feb. 26; v. 247; p. 963.
"Keyser's 'Pink' Liver Pills." (For Liver-Pills.) Keyser Chemical Company. No. 20,523; Feb. 26; v. 247; p. 963.
"Meltonia" (Cloth) Made Expressly For 'Vogue Clothes.'" (For Clothes.) L. Black Company. No. 20,515; Feb. 26; v. 247; p. 963.
"Nugio." (For Automobile-Polish.) The Nugio Company. No. 20,530; Feb. 26; v. 247; p. 963.
"Orange Blossom." (For Suppositories.) Dr. J. A. McGill. No. 20,529; Feb. 26; v. 247; p. 963.
"Patrick County, Va. Fairy or Luck Stone Co." (For Virginia Fairy or Lucky Stones.) E. E. Haley. No. 20,521; Feb. 26; v. 247; p. 963.
"Peerless Polish." (For Polishing Compounds.) Peerless Polish Co. No. 20,531; Feb. 26; v. 247; p. 963.
"Pink of Perfection." (For Canned Salmon.) Petersburg Packing Co. No. 20,505; Feb. 5; v. 247; p. 221.
"Potlatch." (For Fresh Apples.) Growers Service Company. No. 20,520; Feb. 26; v. 247; p. 963.
"Racine High Speed." (For Metal-Cutting Machines.) Racine Tool & Machine Co. No. 20,518; Feb. 12; v. 247; p. 478.
"Red Star." (For Canned Tuna Flakes.) White Star Canning Co. No. 20,534; Feb. 26; v. 247; p. 963.
"Snow-Like." (For Flour.) Washington Grain and Milling Company. No. 20,508; Feb. 5; v. 247; p. 221.
"Southland." (For Candy.) Elmer Candy Co. No. 20,517; Feb. 26; v. 247; p. 963.
"Sparkling Silverspoon." (For a Non-Intoxicating Refreshing Fruit Beverage.) Sparkling Silverspoon Co. No. 20,514; Feb. 12; v. 247; p. 478.
"U-No." (For a Non-Intoxicating Beverage.) The Sugar Loaf Beverage Co. No. 20,532; Feb. 26; v. 247; p. 963.
"Universal Cigar Co." (For Cigars.) Universal Cigar Co. No. 20,507; Feb. 5; v. 247; p. 221.
"White Star." (For Canned Barracuda.) White Star Canning Co. No. 20,539; Feb. 26; v. 247; p. 963.
"White Star." (For Canned Deviled Tuna.) White Star Canning Co. No. 20,538; Feb. 26; v. 247; p. 963.
"White Star." (For Canned Mackerel.) White Star Canning Co. No. 20,535; Feb. 26; v. 247; p. 963.
"White Star." (For Canned Pilchard Sardines.) White Star Canning Co. No. 20,537; Feb. 26; v. 247; p. 963.
"White Star." (For Canned Sardines in Olive-Oil.) White Star Canning Co. No. 20,536; Feb. 26; v. 247; p. 963.
"Xtra Good." (For Bread.) The R. B. Biscuit Company. No. 20,506; Feb. 5; v. 247; p. 221.

PRINTS.

"An Ideal Beverage." (For a Non-Intoxicating Beverage.) Beadleston & Woerz. No. 4,862; Feb. 26; v. 247; p. 963.

"Bis-Mac." (For a Drink.) The Bis-Mac Manufacturing Co. No. 4,860; Feb. 12; v. 247; p. 478.

"Black Border." (For Garters.) A. Stein & Company. No. 4,859; Feb. 12; v. 247; p. 478.

"Clarx Products 100% Pure." (For Flour.) Clarx Milling Company. No. 4,863; Feb. 26; v. 247; p. 963.

"Prince Albert the national joy smoke." (For Smoking Tobacco.) R. J. Reynolds Tobacco Company. No. 4,861; Feb. 12; v. 247; p. 478.

"Resnor Gas Heaters." (For Gas-Heaters.) Resnor Manufacturing Company. No. 4,864; Feb. 26; v. 247; p. 963.

"This 'pound-of-P. A.' in glad togs adds weeks to Christmas joys!" (For Smoking-Tobacco.) R. J. Reynolds Tobacco Company. No. 4,858; Feb. 5; v. 247; p. 221.

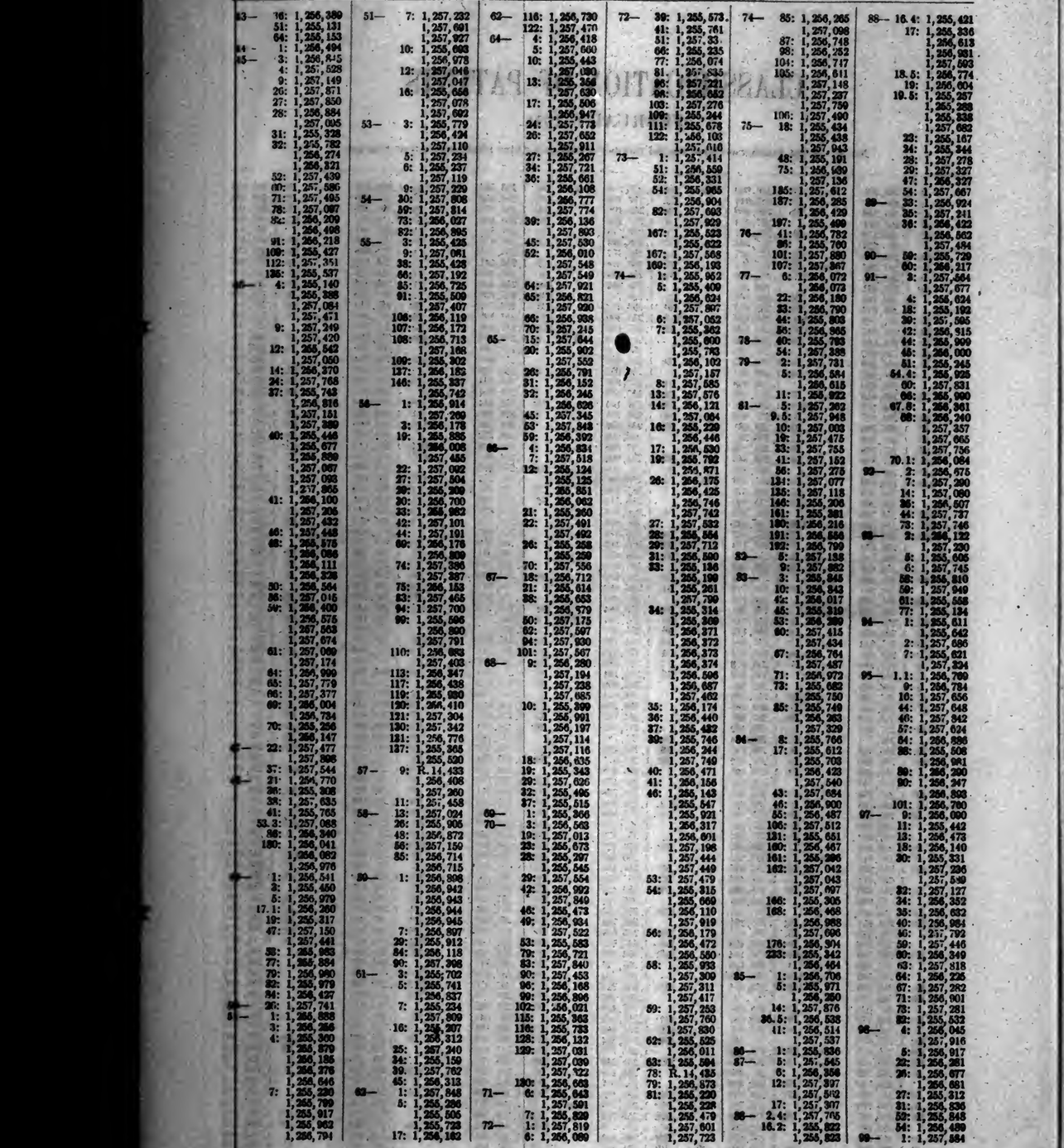
"Unit-Safety-Bar." (For Locomotive and Tender Connections.) Economy Devices Corporation. No. 4,857; Feb. 5; v. 247; p. 221.

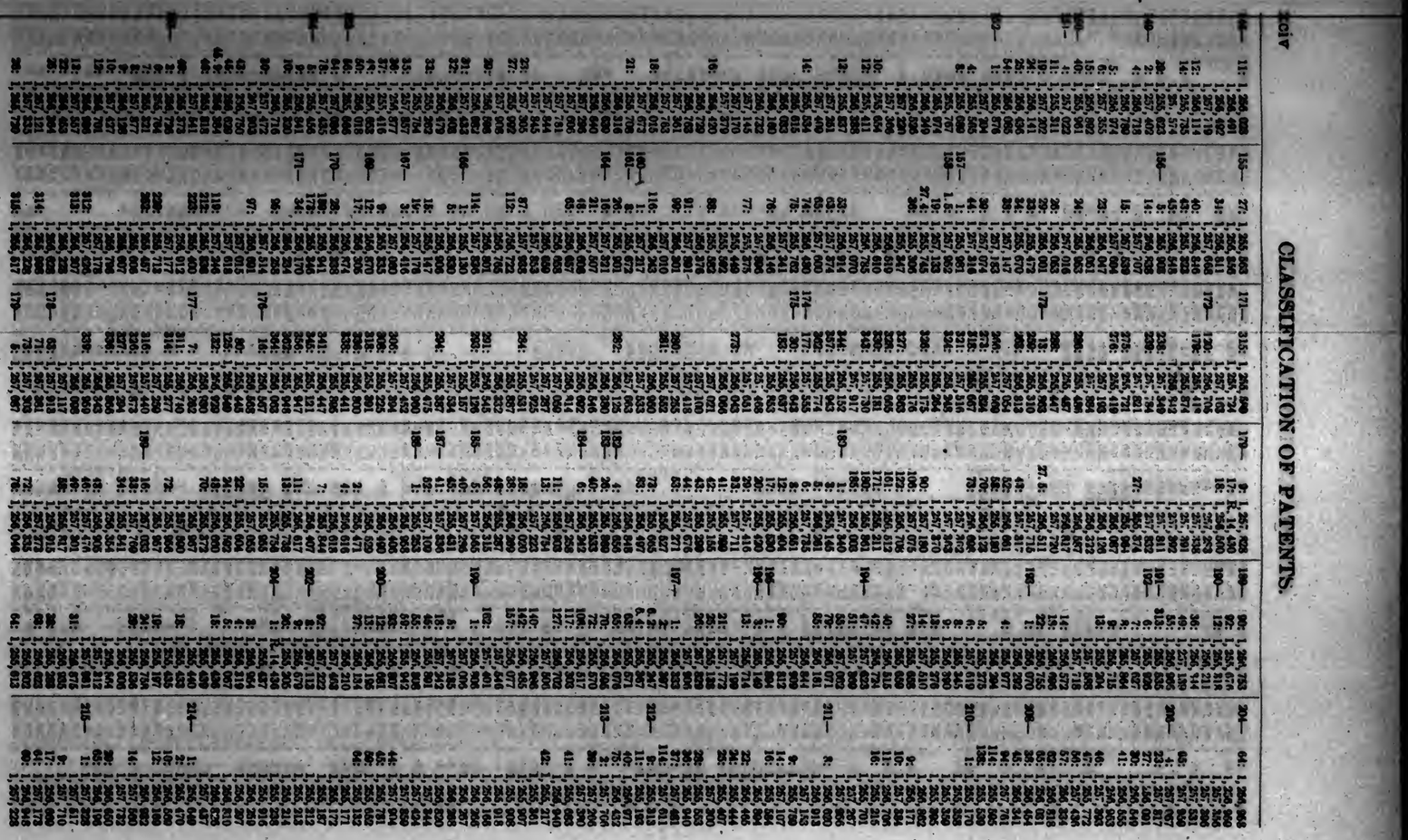
CLASSIFICATION OF PATENTS

FEBRUARY, 1918.

NOTE.—First number—class, second number—subclass, third number—patent number.

1— 2: 1,255,201
1: 1,255,358
15: 1,255,946
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